EAU

PROJECT ID: 1021-03-74

WITH:

COUNTY: EAU CLAIRE

FEBRUARY 2018

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 = 352



32

N

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 (300'EEP)
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- OVERHEAD UTILITY (OH)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

EAU CLAIRE - OSSEO

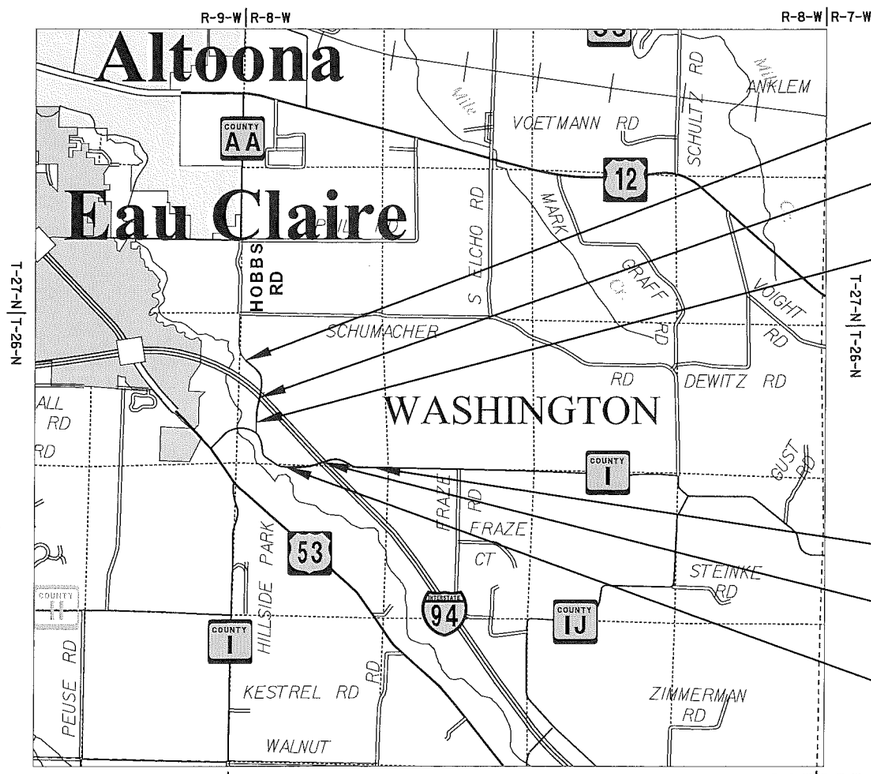
2 BR/HOBBS RD B18-210/CTH I B18-232

IH 94

EAU CLAIRE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1021-03-74	WISC 2018129	1

STATE PROJECT NUMBER
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

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 OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION
Designer	LUCAS BUDDEN
Project Manager	MATTHEW THORNSEN
Regional Examiner	JENNIFER OLDENBURG
Regional Supervisor	TARA WEISS

APPROVED FOR THE DEPARTMENT
DATE: 7-20-17 (Signature)

E

UTILITIES

COMMUNICATIONS LINE

AT&T LEGACY
BRAD KEMPH (LOCATOR)
715-254-5238
COPY ALL CORRESPONDENCE TO:
BILL KOENIG (ENGINEER)
JMC ENGINEERS & ASSOCIATES
128 W SUNSET AVENUE
APPLETON, WI 54911
608-628-0575 (MOBILE)
wekoenig@att.net

Windstream
Dennis Ruess
8531 CTH FF
Wisconsin Rapids, WI 54494
812-456-1249 (Office)
608-512-5587 (Mobile)
Dennis.Ruess@windstream.com

ELECTRICITY - DISTRIBUTION

Eau Claire Energy Cooperative
Brian Jenquine
8214 USH 12
PO Box 368
Fall Creek, WI 54742-0368
715-836-6486 (Office)
920-266-3031 (Mobile)
bjenquine@ecec.com

DNR

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

DIGGERS HOTLINE
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.

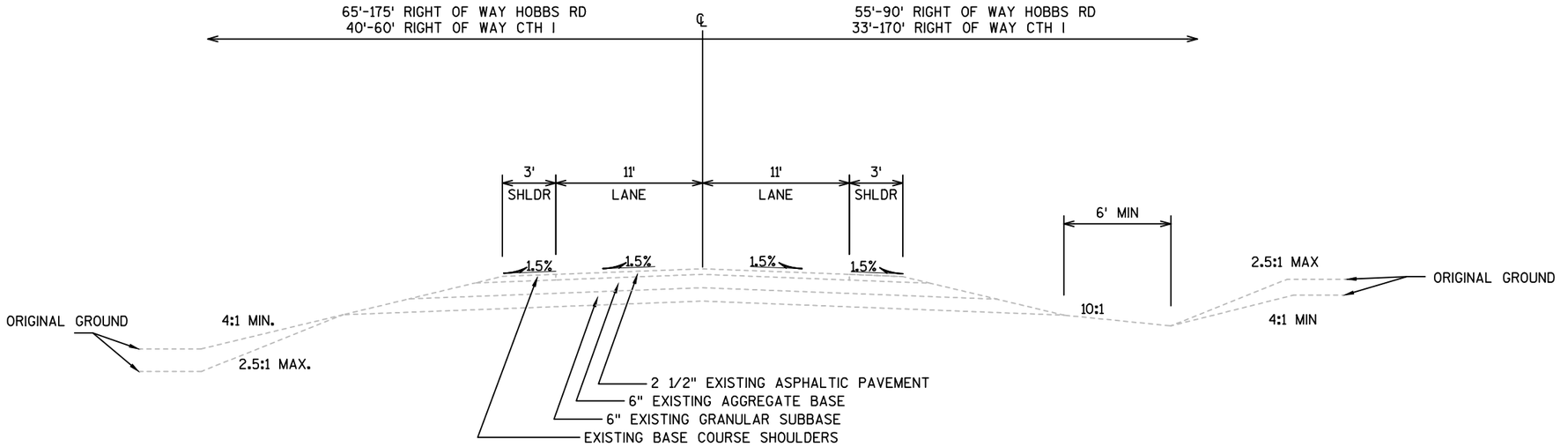
DETAILS OF INSTALLATION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS PLAN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, STANDARD DETAILS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

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

2



TYPICAL EXISTING SECTION

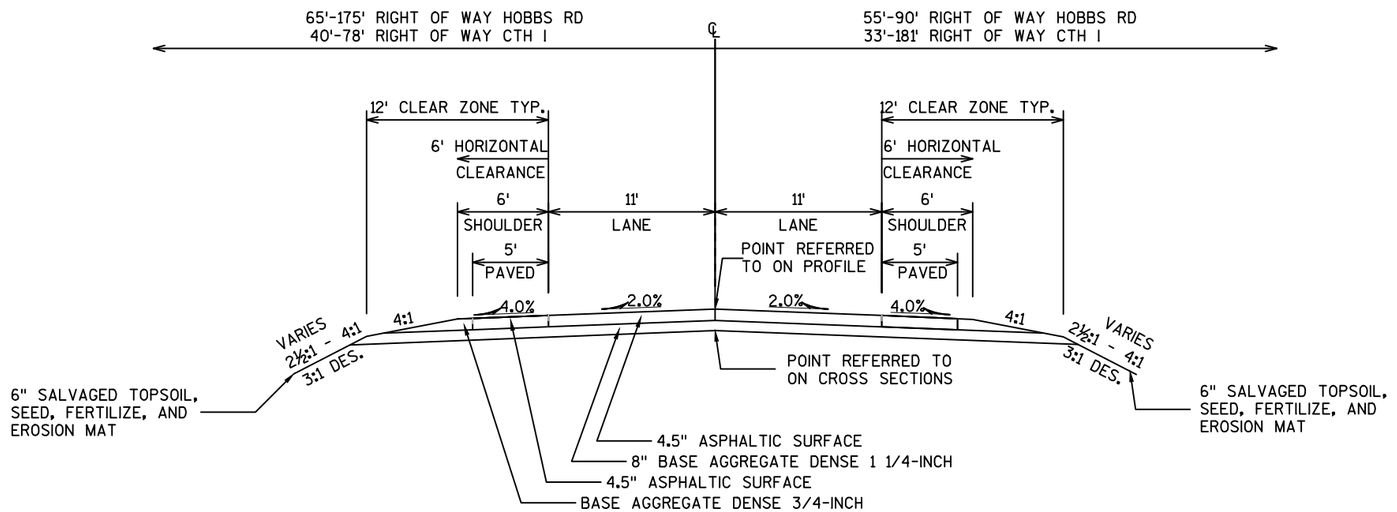
HOBBS ROAD STA 11'H'+00 - STA 14'H'+28.02

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

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 3	E



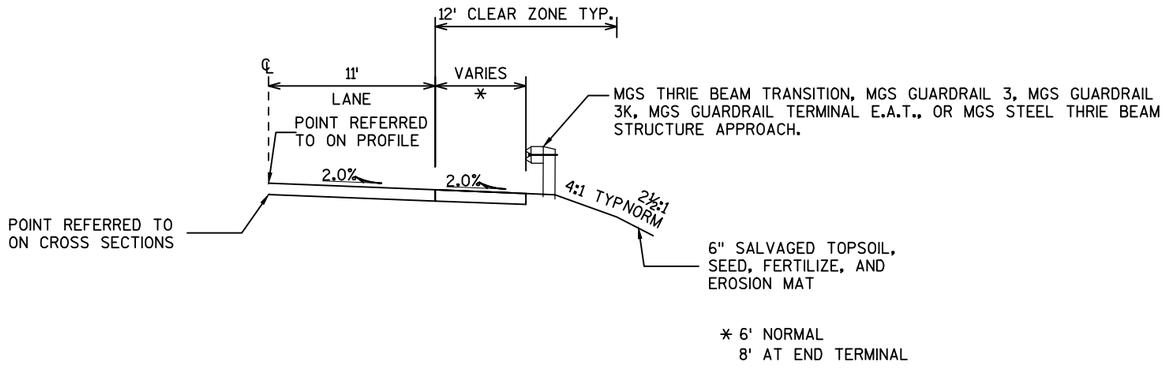
TYPICAL FINISHED SECTION

HOBBS ROAD STA 11'H'+00 - STA 13'H'+99.83

HOBBS ROAD STA 16'H'+73.79 - STA 23'H'+75.00

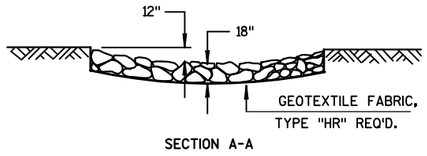
CTH I STA 13'I'+66.17 - STA 18'I'+96.35

CTH I STA 21'I'+47.65 - STA 35'I'+05.14

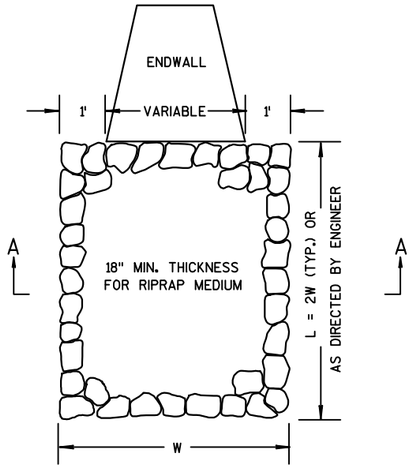


TYPICAL FINISHED HALF SECTION WITH BEAM GUARD

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TYPICAL SECTIONS HOBBS ROAD & CTH I	SHEET 4	E



SECTION A-A



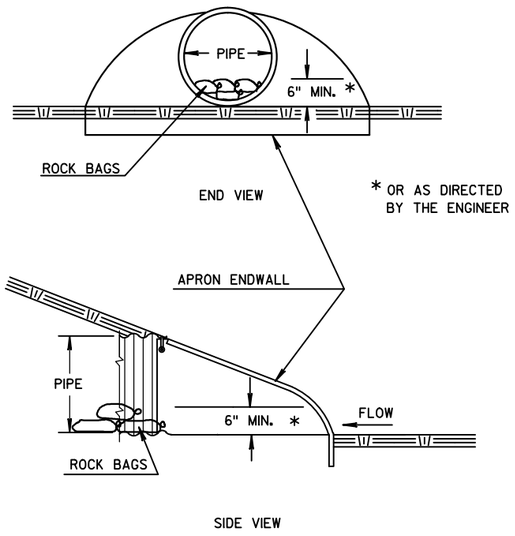
RIPRAP MEDIUM TREATMENT AT CULVERTS

RUNOFF COEFFICIENT TABLE

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

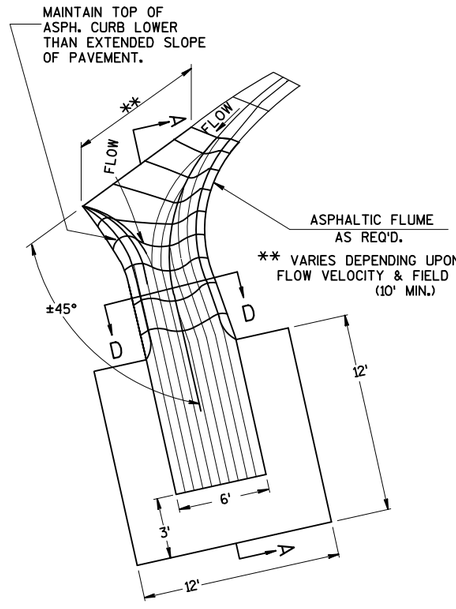
TOTAL PROJECT AREA = 6.89 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 6.89 ACRES

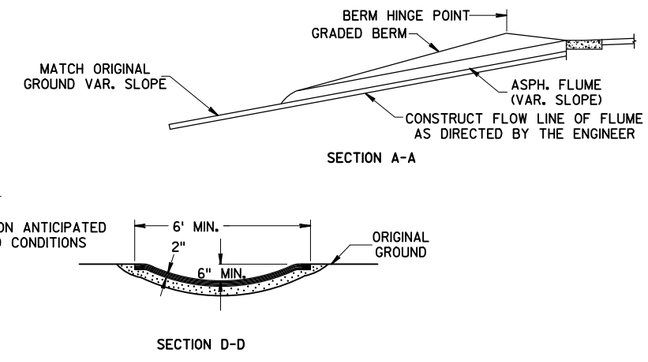
FILL CONDITION



ESTIMATED BAG SIZE = 18" x 12" x 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" x 23"	3
24"	3
27"	4
30"	5
19" x 30"	5
36"	7
24" x 48"	8
42"	8
29" x 45"	10
48"	10
34" x 53"	10
38" x 60"	13
60"	13
66"	15
53" x 83"	19

CULVERT PIPE CHECK





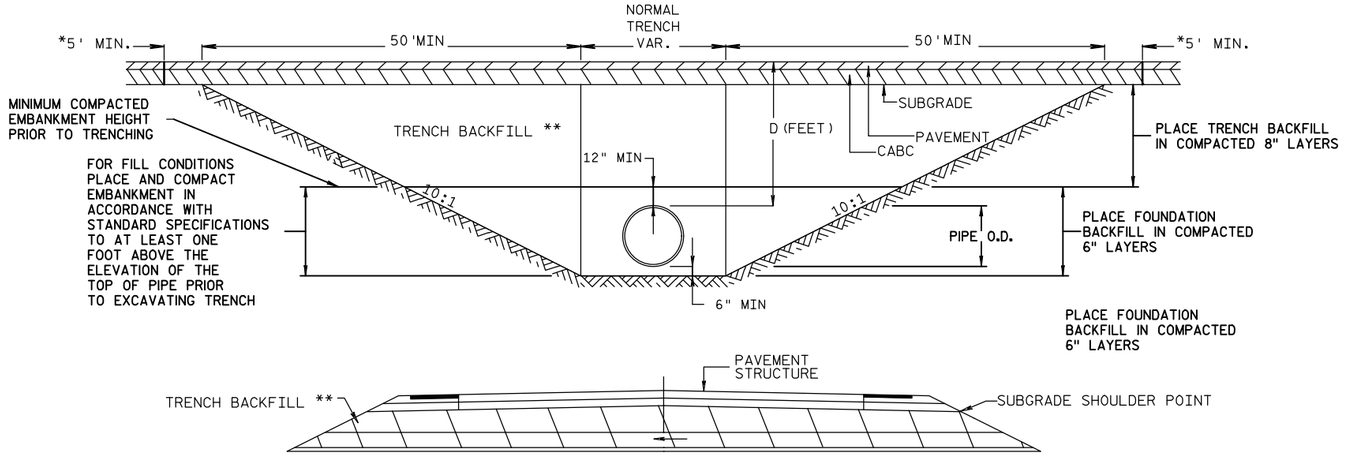
SECTION A-A

SECTION D-D

ASPHALTIC FLUME DETAIL

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CONSTRUCTION DETAILS	SHEET 5	E

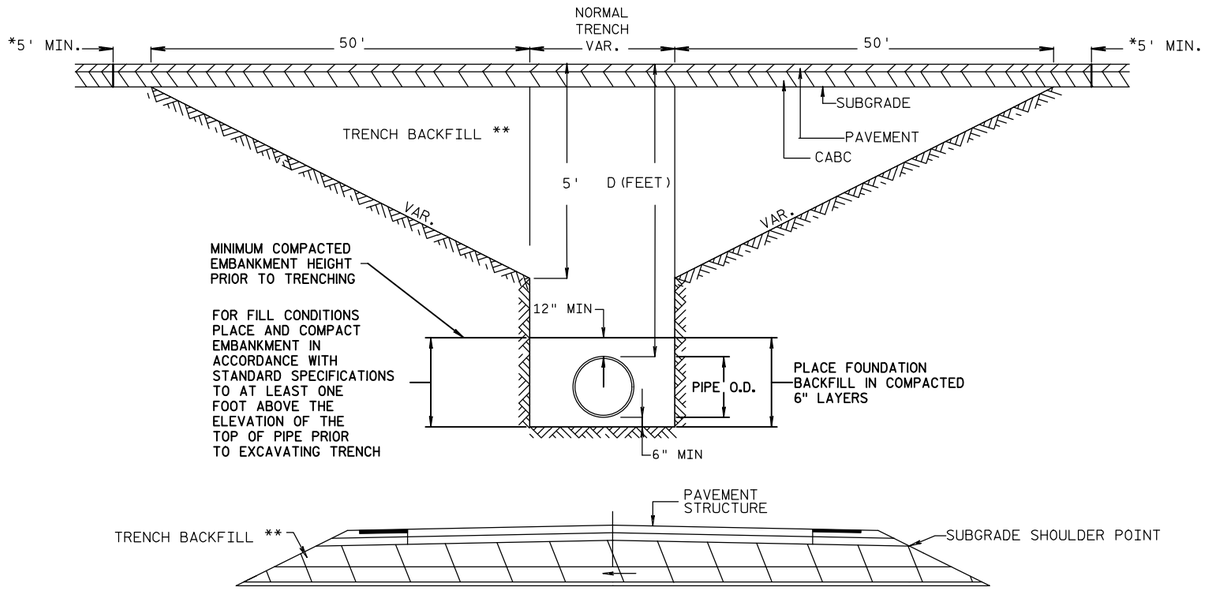
2



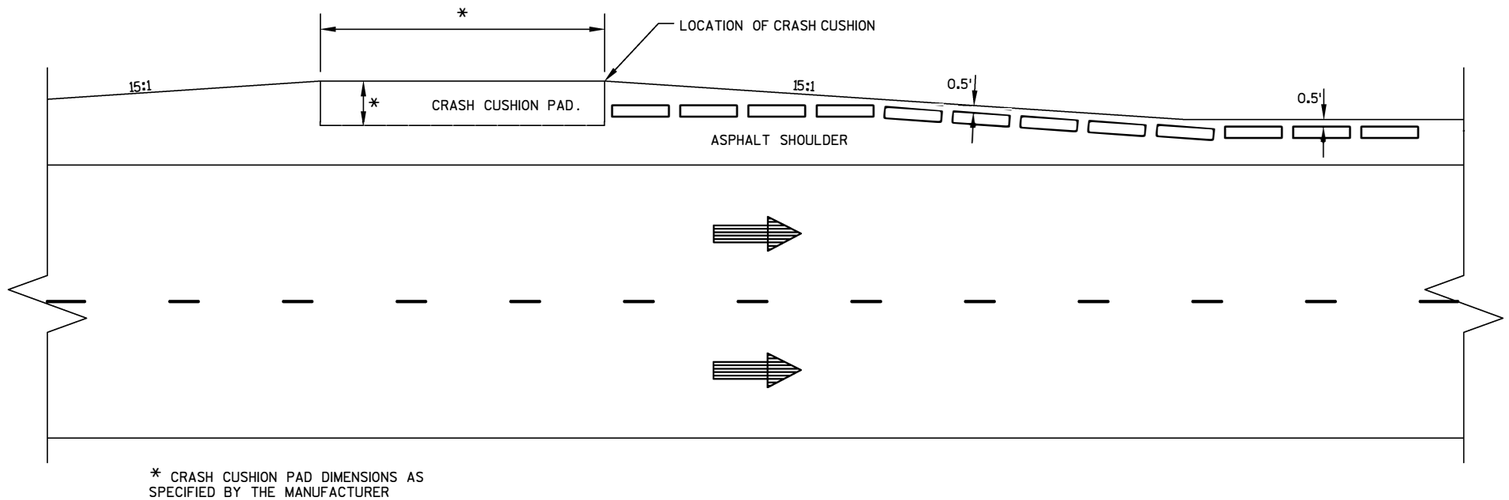
CROSS DRAIN INSTALLATION DETAIL
FOR D ≤ 5'

* PAVEMENT REMOVAL LIMITS (TYPICAL)

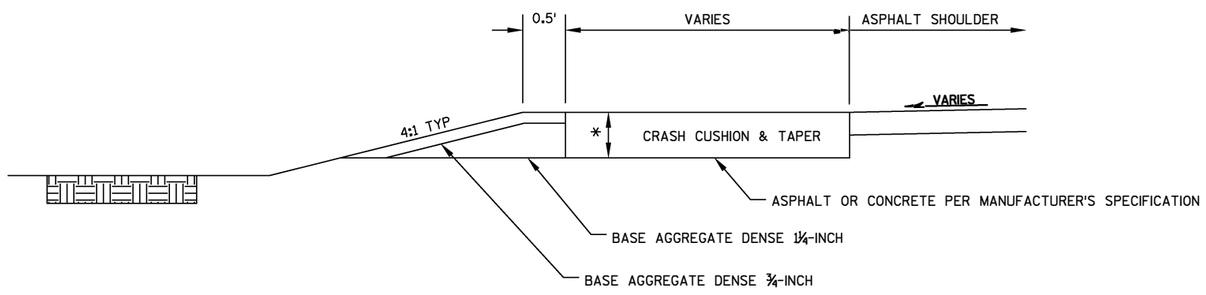
** PERFORM TRENCHING, SHORING, AND EXCAVATING ACCORDING TO 29 CFR PART 1926, OSHA SUBPART P. ALL TRENCH BACKFILL IS TO BE MATERIAL USED FOR THE ROADWAY EMBANKMENT AND IT IS TO BE FREE OF LARGE LUMPS, CLODS, ROCKS AND OTHER PERISHABLE AND DELETERIOUS MATTER. (ALL TRENCH BACKFILL AND EXCAVATION IS INCIDENTAL TO CULVERT PIPE BID ITEMS.)



CROSS DRAIN INSTALLATION DETAIL
FOR D ≥ 5'



TEMPORARY CRASH CUSHION LAYOUT



TEMPORARY CRASH CUSHION PAD DETAIL

2

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMENENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK AREA

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR SHIFTING RIGHT LANE – REVERSE FOR SHIFTING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS SO THE DRIVER HAS A CLEAR VIEW OF THE LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

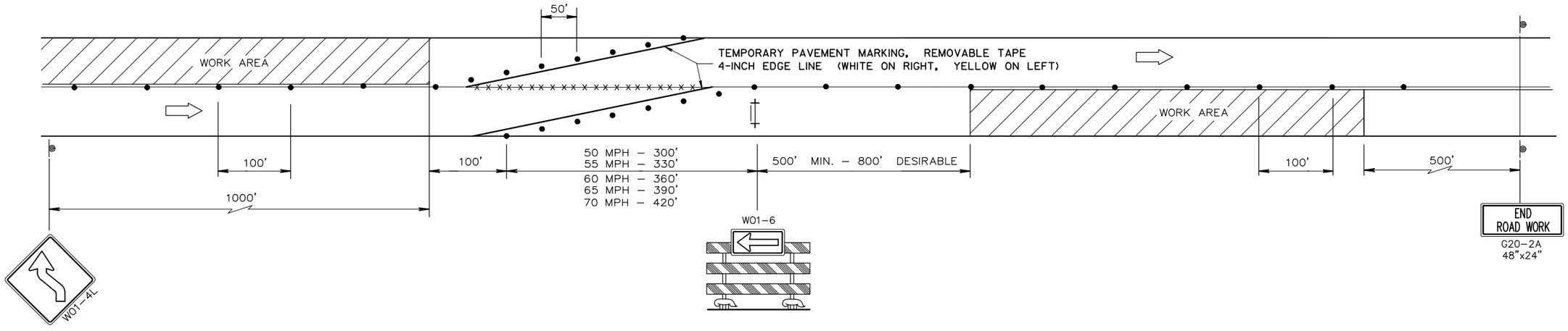
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



LANE SHIFT MULTI–LANE DIVIDED OR ONE WAY ROAD

2

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CONSTRUCTION DETAILS	SHEET 8	E

2

Superelevation Region	Station	Description	Left Outside Shoulder	Left Outside Lane	Right Outside Shoulder	Right Outside Lane
	4'H'+00.00'	Begin Alignment	-4.00%	-2.00%	-4.00%	-2.00%
1	5'H'+94.37'	End Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
1	5'H'+94.37'	End Normal Crown	-4.00%	-2.00%	-4.00%	-2.00%
1	6'H'+38.68'	Level Crown	0.00%	0.00%	-4.00%	-2.00%
1	6'H'+83.00'	Reverse Crown	2.00%	2.00%	-4.00%	-2.00%
1	7'H'+27.31'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
1	7'H'+51.68'	Begin Full Super	5.10%	5.10%	-5.10%	-5.10%
1	9'H'+28.86'	End Full Super	5.10%	5.10%	-5.10%	-5.10%
1	9'H'+53.23'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
1	9'H'+97.54'	Reverse Crown	2.00%	2.00%	-4.00%	-2.00%
1	10'H'+41.86'	Level Crown	0.00%	0.00%	-4.00%	-2.00%
1	10'H'+86.17'	Begin Normal Crown	-4.00%	-2.00%	-4.00%	-2.00%
1	10'H'+86.17'	Begin Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
2	16'H'+47.61'	End Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
2	16'H'+47.61'	End Normal Crown	-4.00%	-2.00%	-4.00%	-2.00%
2	16'H'+92.10'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
2	17'H'+36.58'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
2	17'H'+81.06'	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
2	18'H'+21.10'	Begin Full Super	-5.80%	-5.80%	5.80%	5.80%
2	26'H'+35.10'	End Full Super	-5.80%	-5.80%	5.80%	5.80%
2	26'H'+75.14'	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
2	27'H'+19.62'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
2	27'H'+64.10'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
2	28'H'+08.59'	Begin Normal Crown	-4.00%	-2.00%	-4.00%	-2.00%
2	28'H'+08.59'	Begin Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
	28'H'+34.25'	End Alignment	-4.00%	-2.00%	-4.00%	-2.00%

Superelevation Region	Station	Description	Left Outside Shoulder	Left Outside Lane	Right Outside Shoulder	Right Outside Lane
	13'I'+00.00'	Begin Alignment	-4.00%	-2.00%	-4.00%	-2.00%
1	12'I'+44.42'	End Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
1	12'I'+44.42'	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
1	12'I'+89.04'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
1	13'I'+33.65'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
1	13'I'+78.27'	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
1	14'I'+05.04'	Begin Full Super	-5.20%	-5.20%	5.20%	5.20%
1	16'I'+83.50'	End Full Super	-5.20%	-5.20%	5.20%	5.20%
1	17'I'+10.27'	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
1	17'I'+54.88'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
1	17'I'+99.50'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
1	18'I'+44.11'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
1	18'I'+44.11'	Begin Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
2	21'I'+12.35'	End Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
2	21'I'+12.35'	End Normal Crown	-2.00%	-2.00%	-4.00%	-2.00%
2	21'I'+56.69'	Level Crown	0.00%	0.00%	-4.00%	-2.00%
2	22'I'+01.02'	Reverse Crown	2.00%	2.00%	-4.00%	-2.00%
2	22'I'+45.35'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
2	22'I'+89.69'	Begin Full Super	6.00%	6.00%	-6.00%	-6.00%
2	28'I'+04.14'	End Full Super	6.00%	6.00%	-6.00%	-6.00%
3	31'I'+00.18'	Begin Full Super	-5.80%	-5.80%	5.80%	5.80%
3	34'I'+00.50'	End Full Super	-5.80%	-5.80%	5.80%	5.80%
3	34'I'+40.54'	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
3	34'I'+85.02'	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
3	35'I'+29.50'	Level Crown	-4.00%	-2.00%	0.00%	0.00%
3	35'I'+73.98'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
3	35'I'+73.98'	Begin Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
	35'I'+05.14'	End Alignment	-4.00%	-2.00%	-4.00%	-2.00%

2

PROJECT: 1021-03-74	HWY: IH-94	COUNTY: EAU CLAIRE	CONSTRUCTION DETAIL	SHEET:	E

PLOT DATE: 7/11/2017 2:03:41 PM PLOT NAME: PLOT SCALE: NONE

2

2

N

12'H'+00
13'H'+00
14'H'+00
15'H'+00
16'H'+00
17'H'+00
18'H'+00
614EB+00
614WB+00
615EB+00
615WB+00
616EB+00
616WB+00
617WB+00
618EB+00
618WB+00
619EB+00
619WB+00
PC C.H. 178.10

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 10	E

2

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N

23'H'+00

22'H'+00

21'H'+00

20'H'+00

19'H'+00

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 11	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\022001-ECNEW.DWG
LAYOUT NAME - 022002-EC

PLOT DATE : 11/24/2017 11:45 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

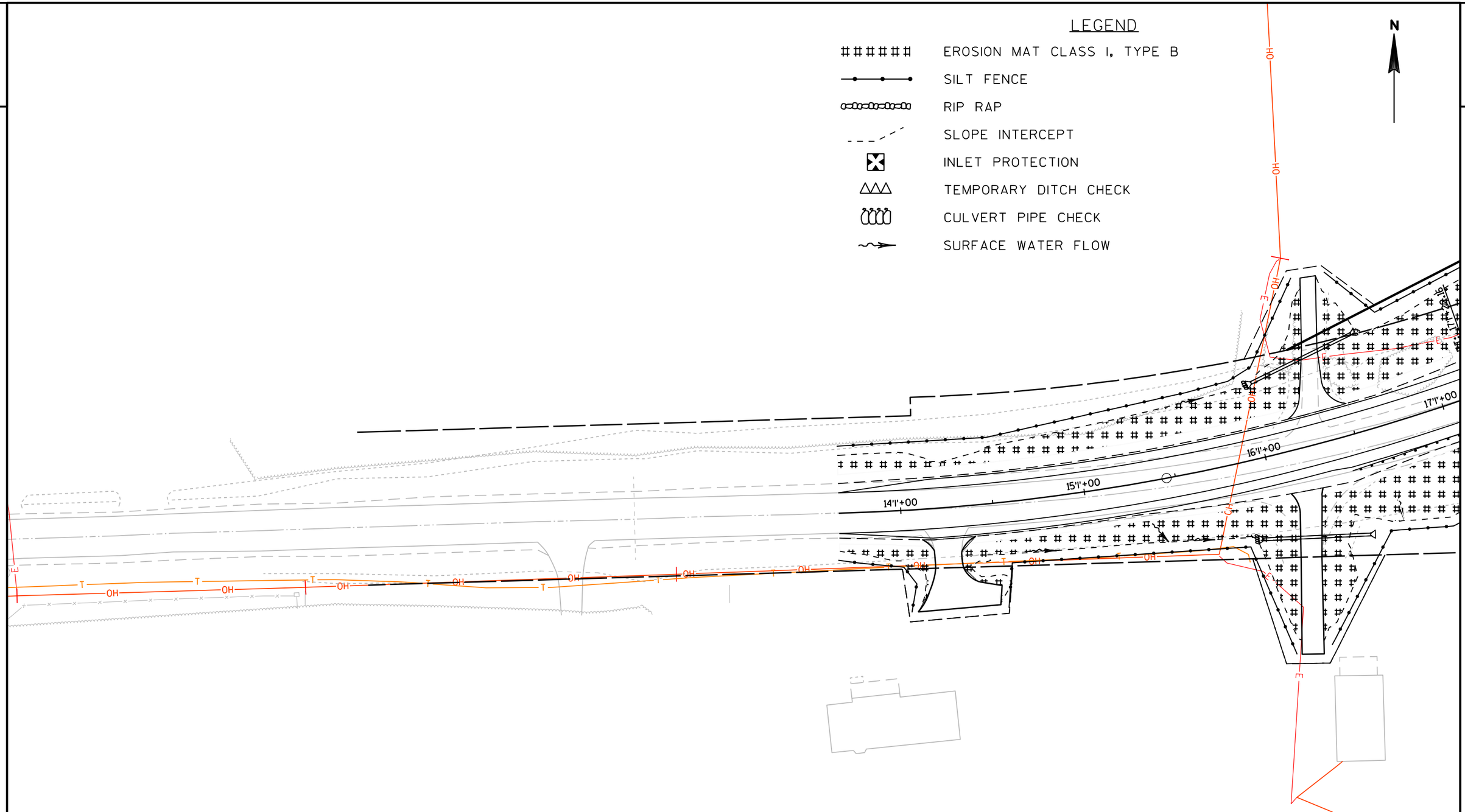
2

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 12	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\022001-ECNEW.DWG
LAYOUT NAME - 022003-EC

PLOT DATE : 11/24/2017 11:46 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

646'WB'+00
646'EB'+00
647'WB'+00
647'EB'+00
648'WB'+00
PC: 648'WB'+26.89
648'EB'+00
649'WB'+00
649'EB'+00
650'WB'+00
650'EB'+00
651'WB'+00
651'EB'+00
652'WB'+00
652'EB'+00
18'I'+00
19'I'+00
21'I'+00
22'I'+00
23'I'+00
24'I'+00
25'I'+00
HO
FO
E
R=1145.92'
Δ=12°30'00"

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY:EAU CLAIRE	EROSION CONTROL	SHEET 13	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\022001-ECNEW.DWG
LAYOUT NAME - 022004-EC

PLOT DATE : 11/24/2017 11:46 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

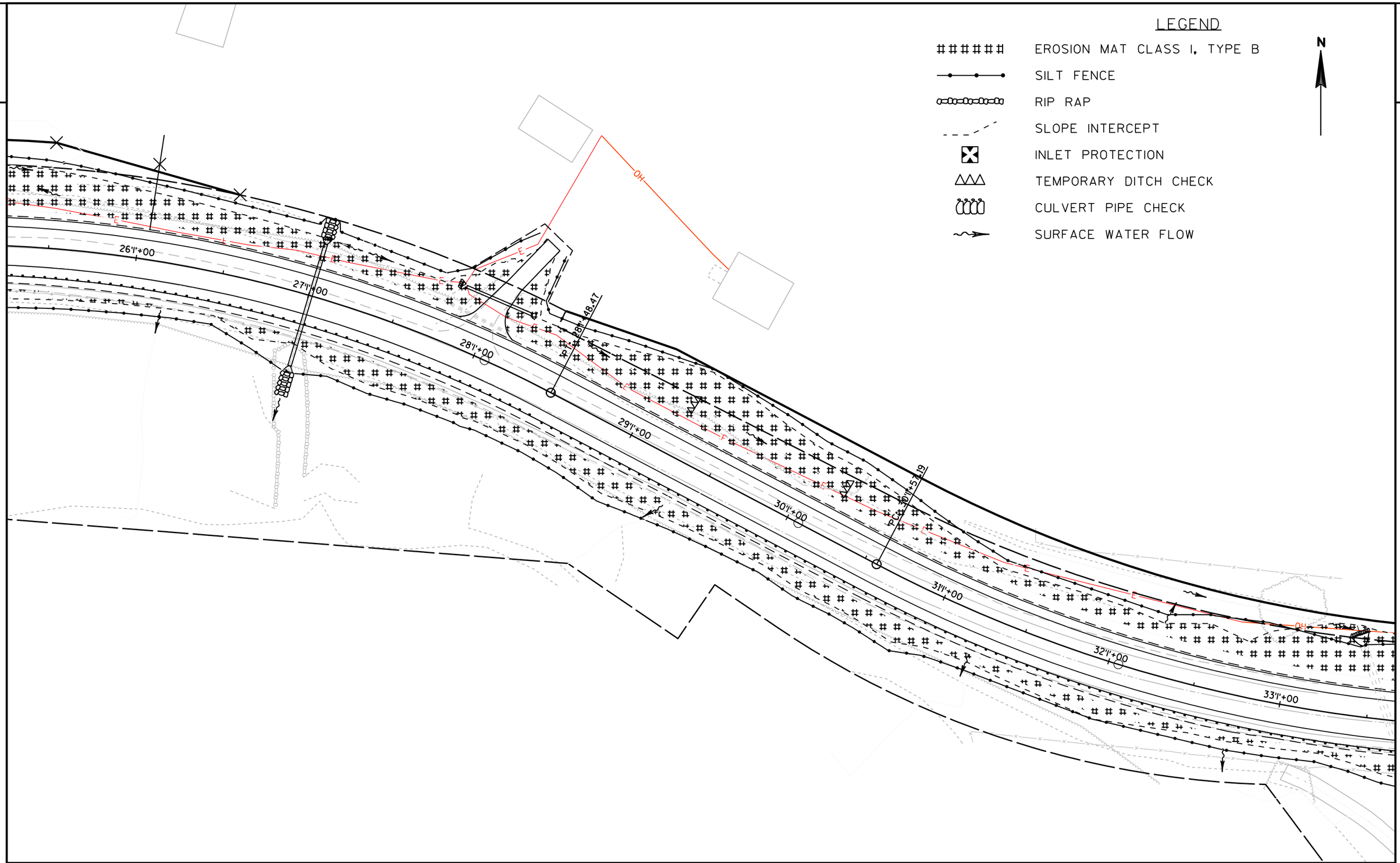
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N



PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 14	E

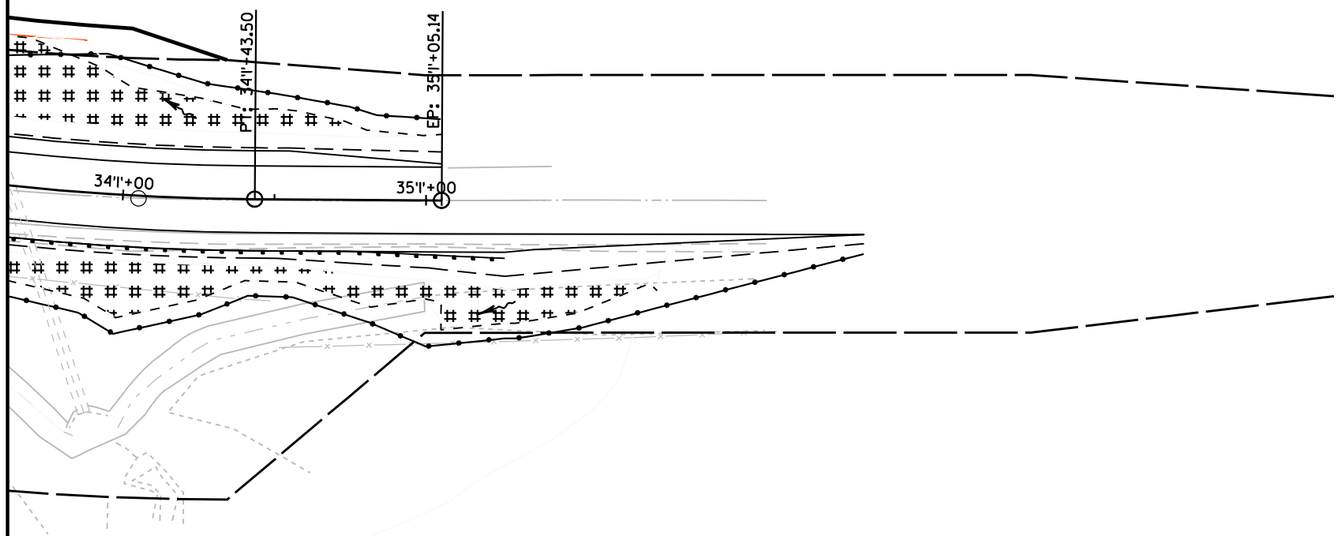
2

2

LEGEND

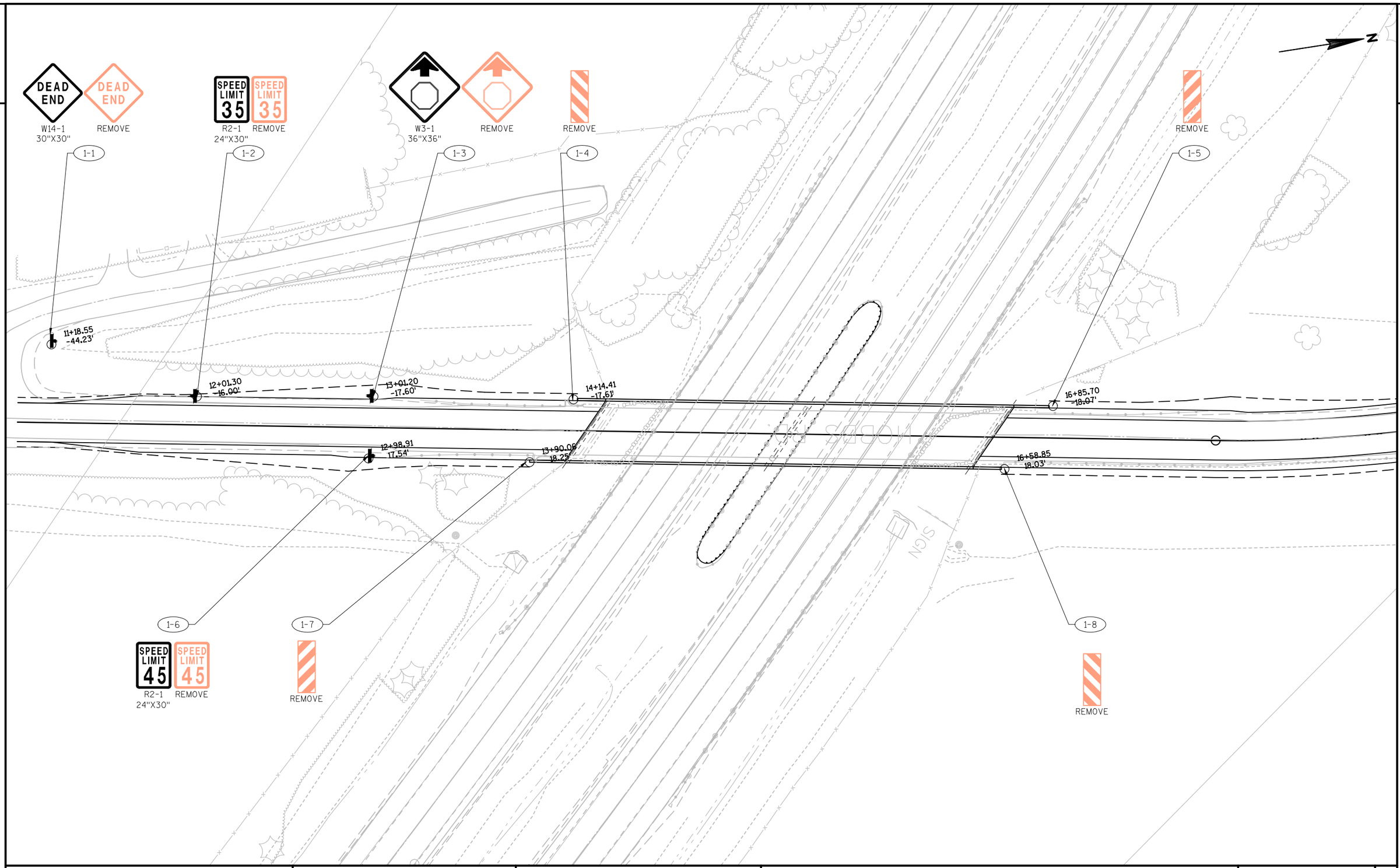
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N



PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 15	E

2

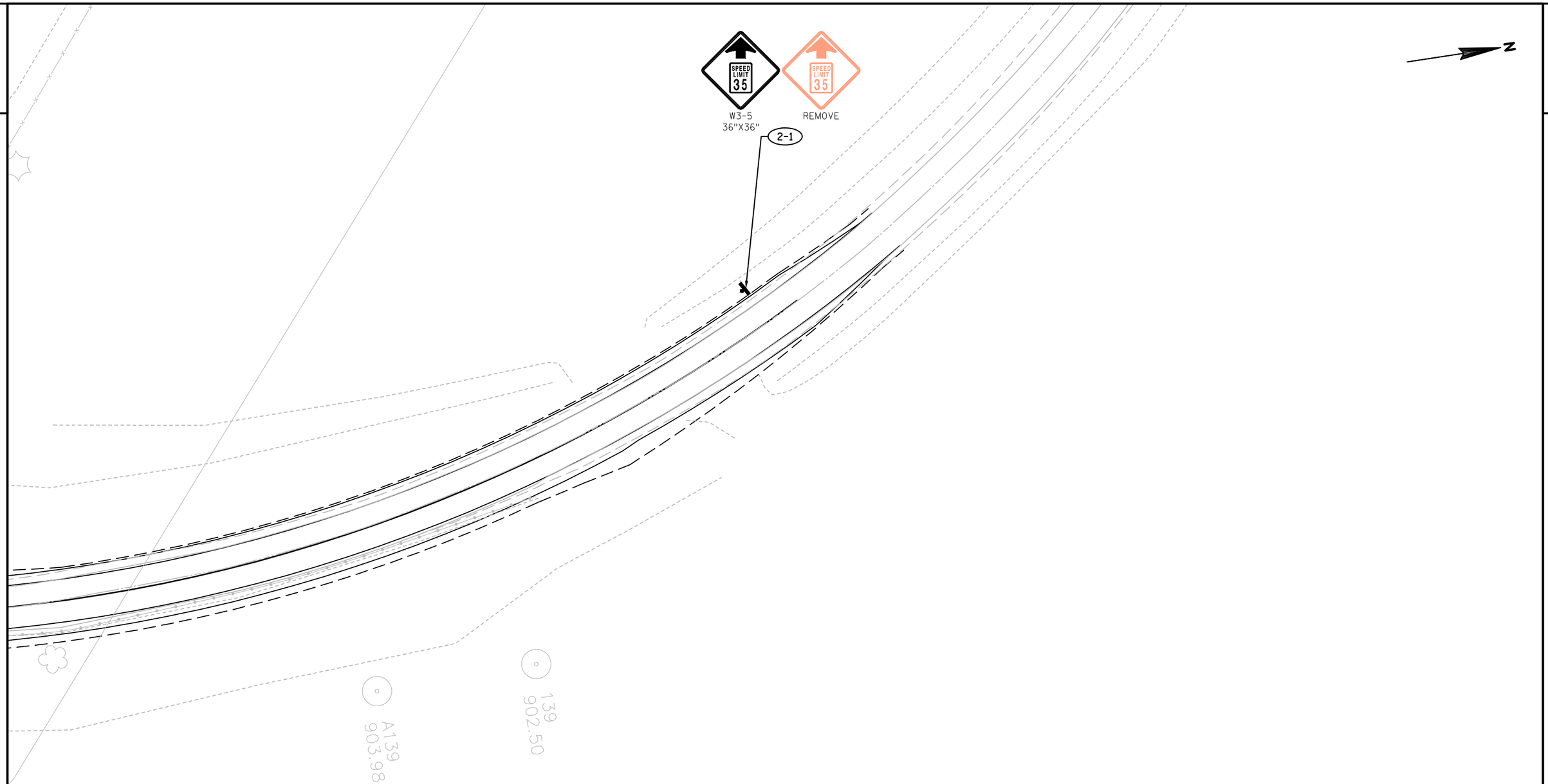


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 16	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\023201-PS.DWG
LAYOUT NAME - 023201-PS

PLOT DATE : 5/15/2017 11:51 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42



2

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 17	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\023201-PS.DWG
LAYOUT NAME - 023202-PS
PLOT DATE : 5/15/2017 11:51 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

V511
909.45

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 18	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\023201-PS.DWG
LAYOUT NAME - 023203-PS

PLOT DATE : 5/15/2017 11:51 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

SLOWER TRAFFIC KEEP RIGHT
REMOVE
3-6
SLOWER TRAFFIC KEEP RIGHT
R4-3
48"X60"

REMOVE
3-2

W1-6
48"X24"
3-3
REMOVE

24+35.60
-21.35'

21+44.58
-4.86'

21+59.54
27.31'

649+83.48
38.23'

Hwy I
REMOVE
3-7
Hwy I
M1-94
54"X21"

REMOVE
3-5

E1-5
108"_X_30"
EXIT 70
53
Eau Claire
Superior
1 MILE
E1-1A
192"_X_162"

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

REMOVE
3-1

648+63.11
38.30'

18+95.19
3.40'

19+02.75
27.38'

3-8
Hwy I
M1-94
54"X21"
Hwy I
REMOVE

3-4
REMOVE

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 19	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\023201-PS.DWG
LAYOUT NAME - 023204-PS

PLOT DATE : 5/15/2017 11:51 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

W1-6
48"X24"

REMOVE

4-1

27+11.57
21.82'

W1-6
48"X24"

REMOVE

4-2

32+10.47
25.03'

32+36.51
25.02'

4-3

W1-6
48"X24"

REMOVE

V516
916.2

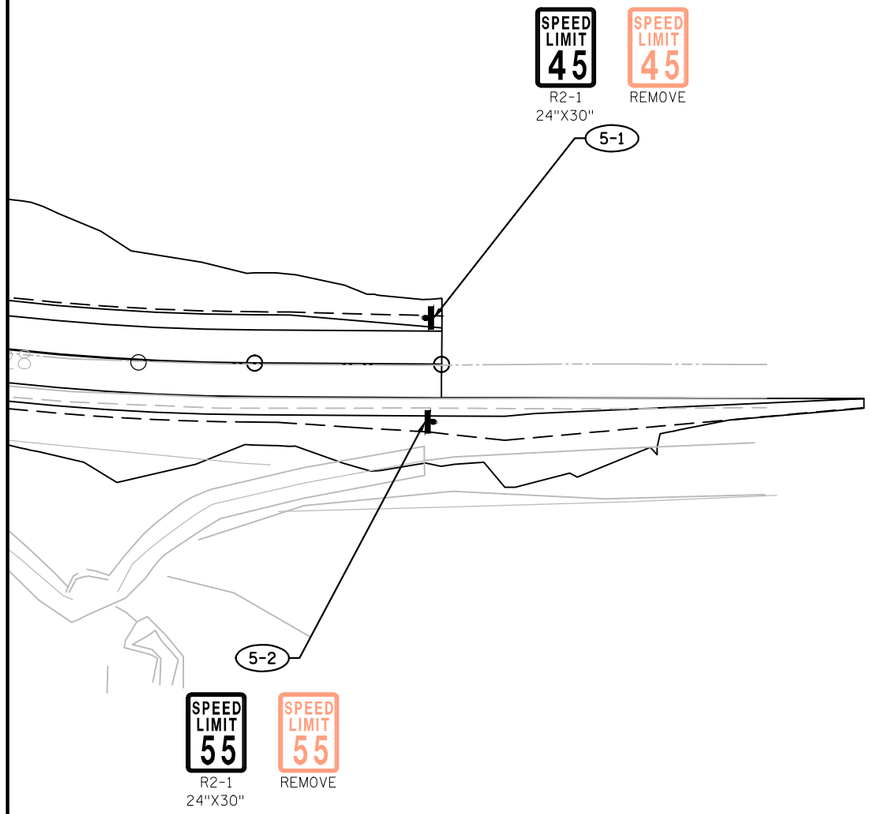
PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 20	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\023201-PS.DWG
LAYOUT NAME - 023205-PS

PLOT DATE : 5/15/2017 11:51 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N



A117
919.89

117
914.65

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 21	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\023201-PS.DWG
LAYOUT NAME - 023206-PS

PLOT DATE : 5/15/2017 11:51 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT

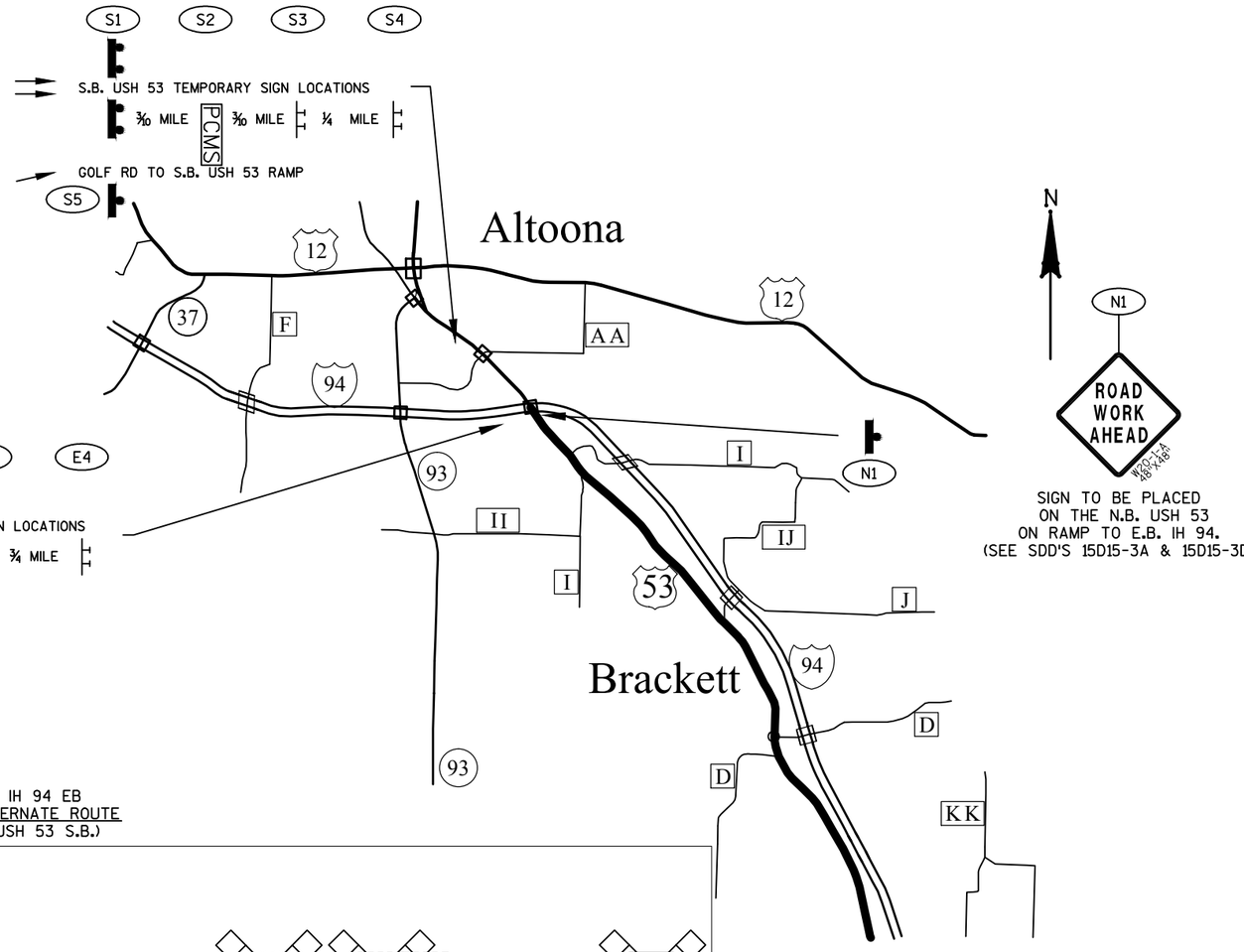
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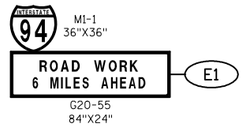
LEGEND

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

* PCMS TO BE PROGRAMMED BY WI STATE PATROL AS NEEDED



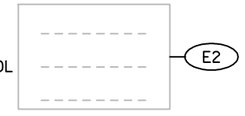


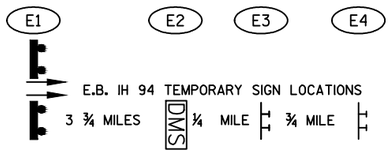


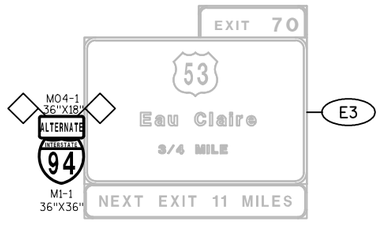


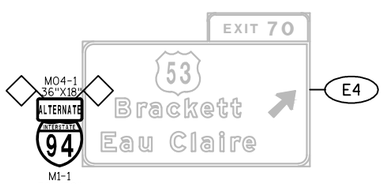
SIGN TO BE PLACED ON THE RIGHT SIDE OF THE GOLF ROAD ON RAMP TO S.B. USH 53.

* DMS TO BE PROGRAMMED BY WI STATE PATROL AS NEEDED



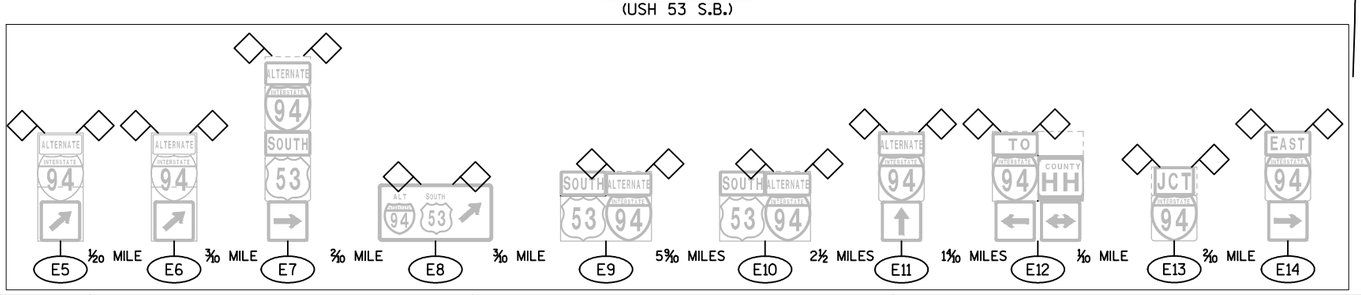






1/10 MILE

IH 94 EB
ALTERNATE ROUTE
(USH 53 S.B.)



SIGN TO BE PLACED ON THE N.B. USH 53 ON RAMP TO E.B. IH 94. (SEE SDD'S 15D15-3A & 15D15-3D)

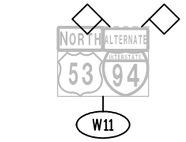
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - ADVANCE WARNING / ALTERNATE ROUTE	SHEET 22	E

2

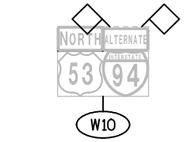
N

LEGEND

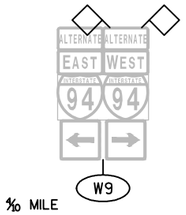
DMS	(EXIST) DYNAMIC MESSAGE SIGN	◇ ◇	FLAGS. 16" x 16" MIN., ORANGE (INCIDENTAL TO TRAFFIC CONTROL)
PCMS	T.C. SIGNS PORTABLE CHANGEABLE MESSAGE	ALTERNATE 94	PROPOSED TRAFFIC CONTROL SIGNS
	SIGN ON MULTIPLE POSTS **	ALTERNATE 94 53	EXISTING SIGNS TO REMAIN
	SIGN ON SINGLE POST		ALTERNATE ROUTE
	(EXIST) TYPE I SIGN	X#	SIGN GROUP NUMBER



4½ MILES

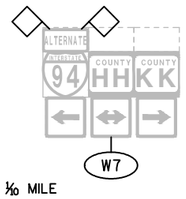


⅗ MILE



⅕ MILE

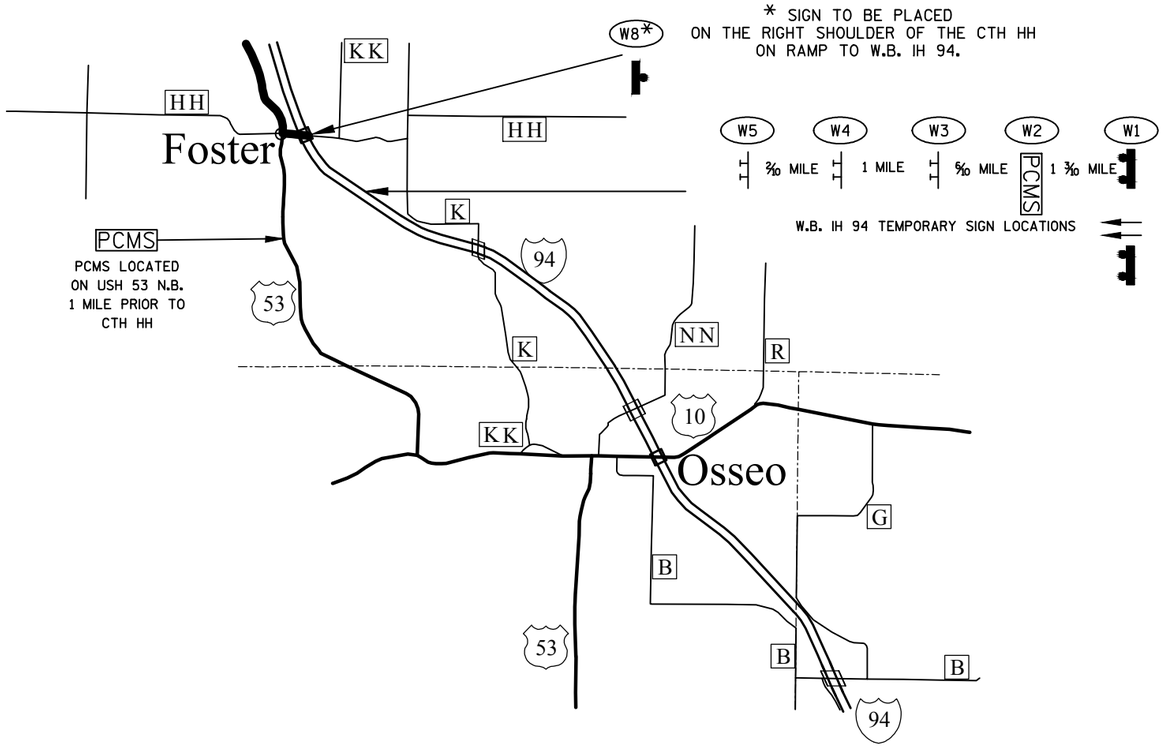




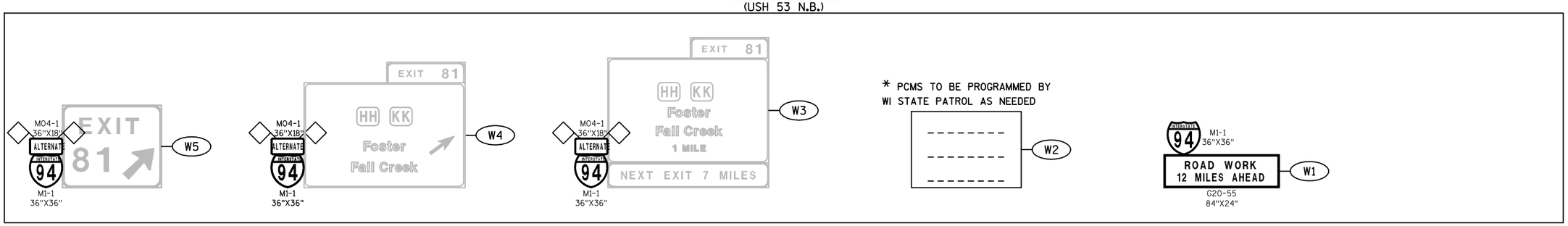
⅒ MILE



1/20 MILE

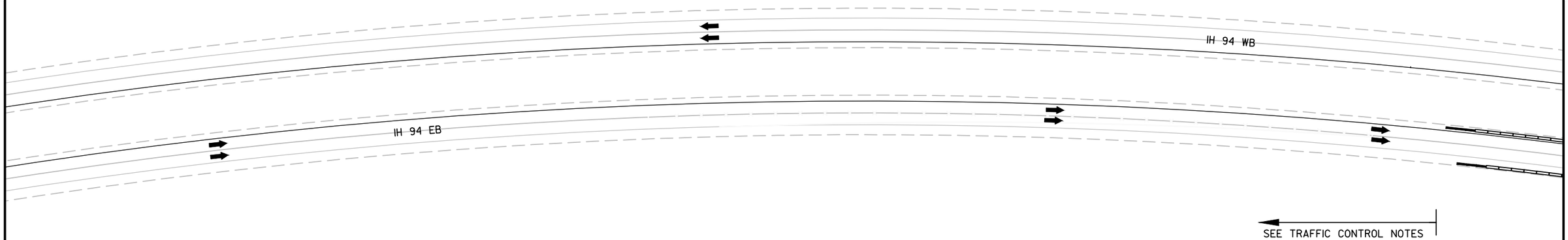


IH 94 WB
ALTERNATE ROUTE
(USH 53 N.B.)



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - ADVANCE WARNING / ALTERNATE ROUTE	SHEET 23	E

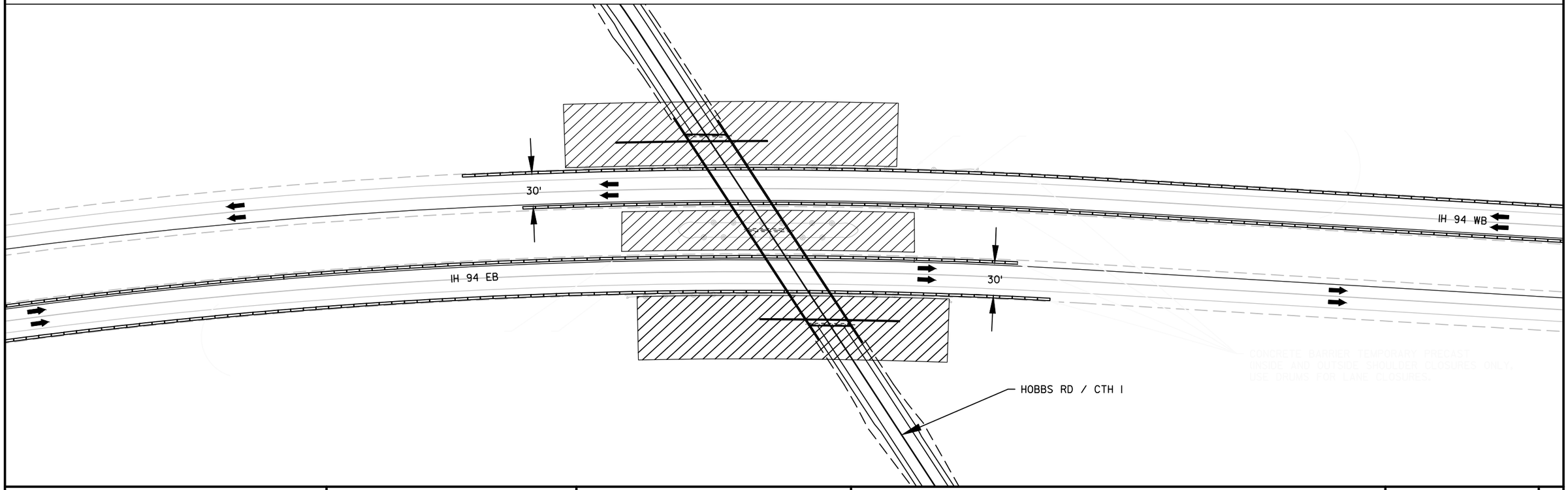
2



LEGEND

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

TRAFFIC CONTROL NOTES:
SEE TRAFFIC CONTROL S.D.D.'s:
15D15-03A: PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE (FOR EB RIGHT LANE CLOSURES FOR HOBBS RD STRUCTURE WORK)
15D15-03D: TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE (FOR EB LEFT LANE CLOSURES FOR HOBBS RD STRUCTURE WORK)
15D12-06B: LANE CLOSURE, SPEED REDUCTION (FOR ALL LANE CLOSURES)
15D27-03: SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H. (WHEN BARRIER IN PLACE WITHOUT A LANE CLOSURE)



PROJECT NO:1021-03-74	HWY: IH 94	COUNTY:EAU CLAIRE	TRAFFIC CONTROL IH 94 AT HOBBS RD / CTH I	SHEET 24	E

2

TRAFFIC CONTROL NOTES:
SEE TRAFFIC CONTROL S.D.D.'s:
15D15-03A: PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE (FOR EB RIGHT LANE CLOSURES FOR HOBBS RD STRUCTURE WORK)
15D15-03D: TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE (FOR EB LEFT LANE CLOSURES FOR HOBBS RD STRUCTURE WORK)
15D12-06B: LANE CLOSURE, SPEED REDUCTION (FOR ALL LANE CLOSURES)
15D27-03: 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

SEE TRAFFIC CONTROL NOTES

IH 94 WB

IH 94 WB

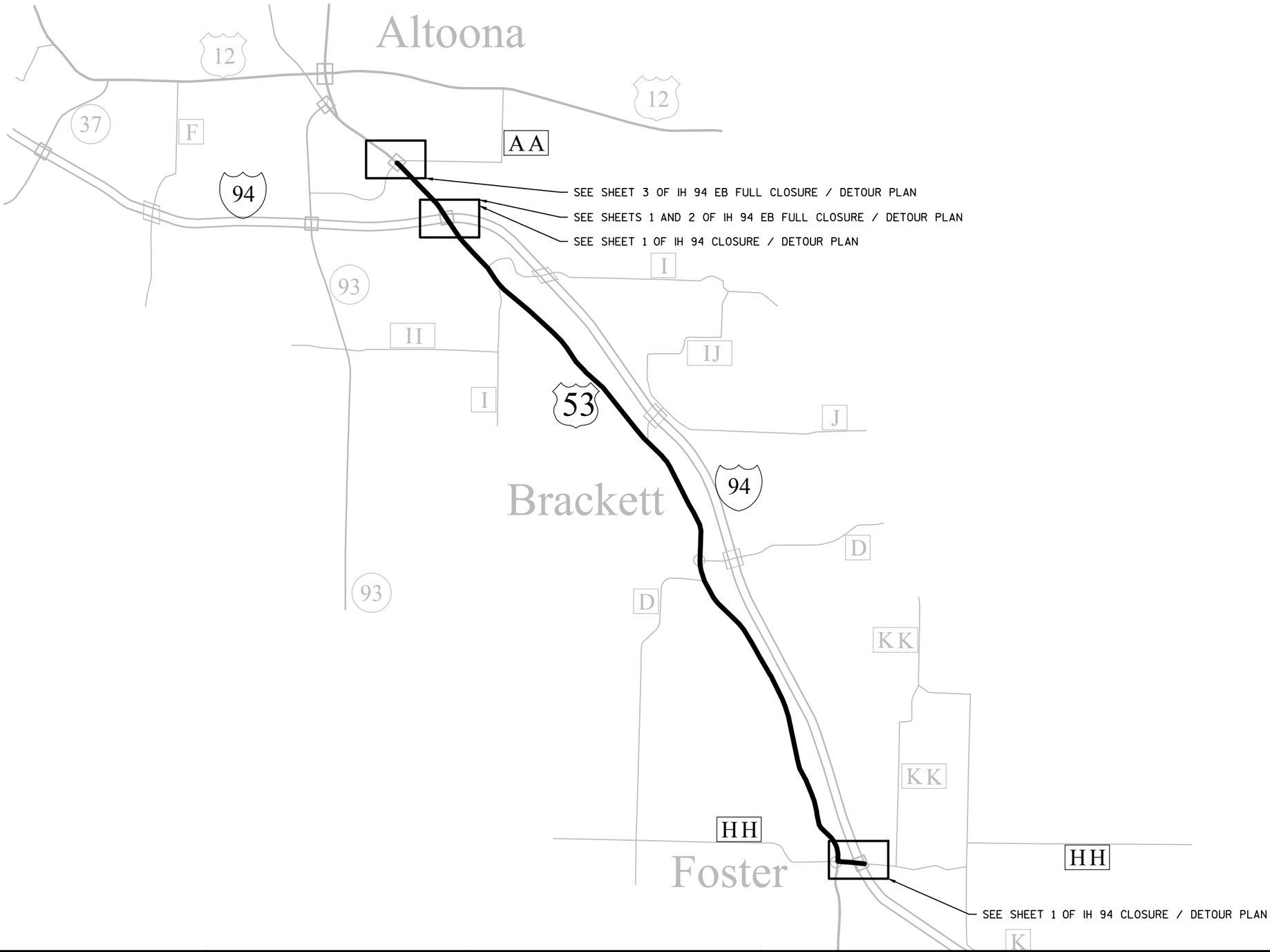
IH 94 EB

RECAST
LOSURES ONLY.

2

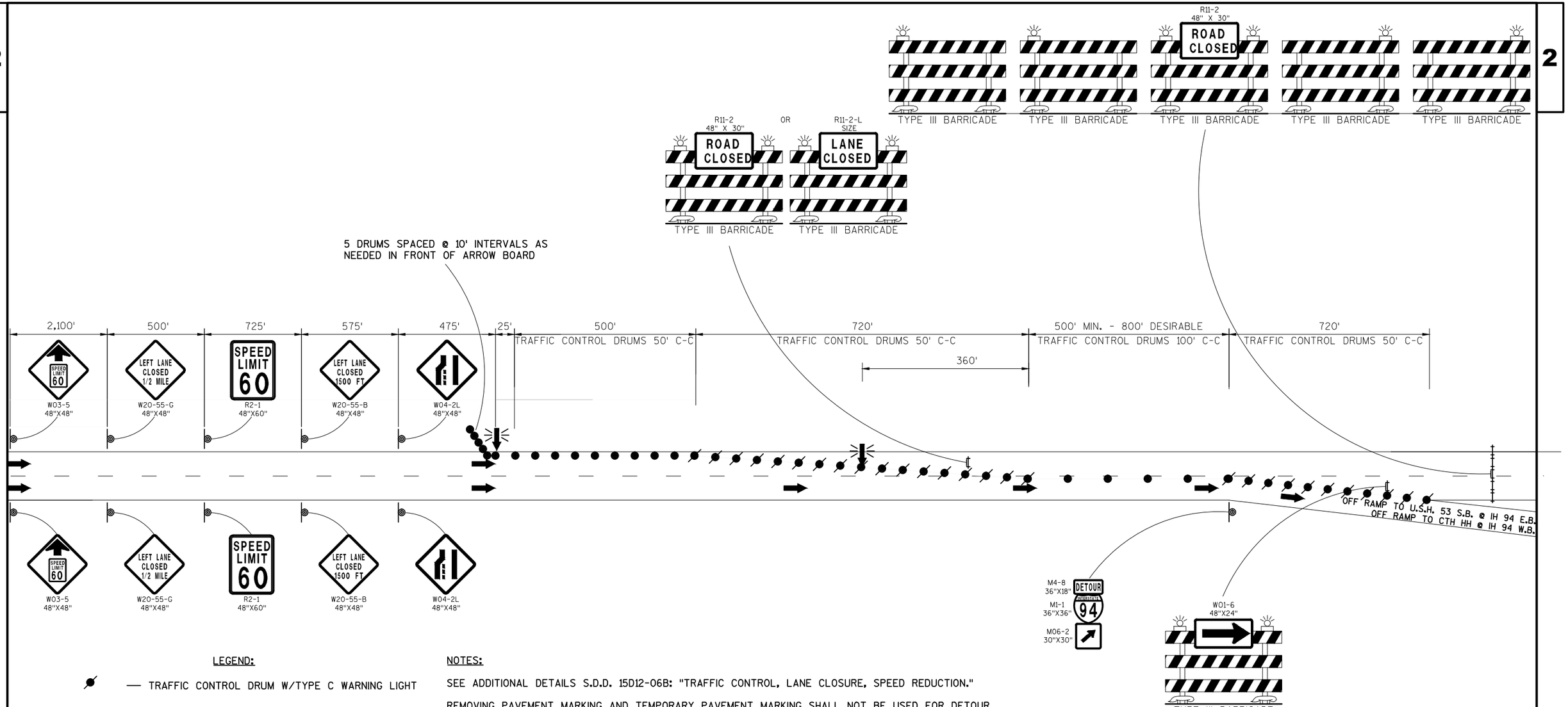
PROJECT NO:1021-03-74	HWY: IH 94	COUNTY:EAU CLAIRE	TRAFFIC CONTROL IH 94 AT HOBBS RD / CTH I	SHEET 25	E

2



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - DETOUR OVERVIEW	SHEET 26	E

2



LEGEND:

- — TRAFFIC CONTROL DRUM W/TYPE C WARNING LIGHT
- — TRAFFIC CONTROL DRUM
- — TYPE III BARACADE WITH SIGN
- — FLASHING ARROW BOARD
- — DIRECTION OF TRAFFIC
- — POST MOUNTED SIGN OR TEMPORARY SIGN SUPPORT

NOTES:

SEE ADDITIONAL DETAILS S.D.D. 15D12-06B: "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION."

REMOVING PAVEMENT MARKING AND TEMPORARY PAVEMENT MARKING SHALL NOT BE USED FOR DETOUR DUE TO THE SHORT DURATION OF THE CLOSURE.

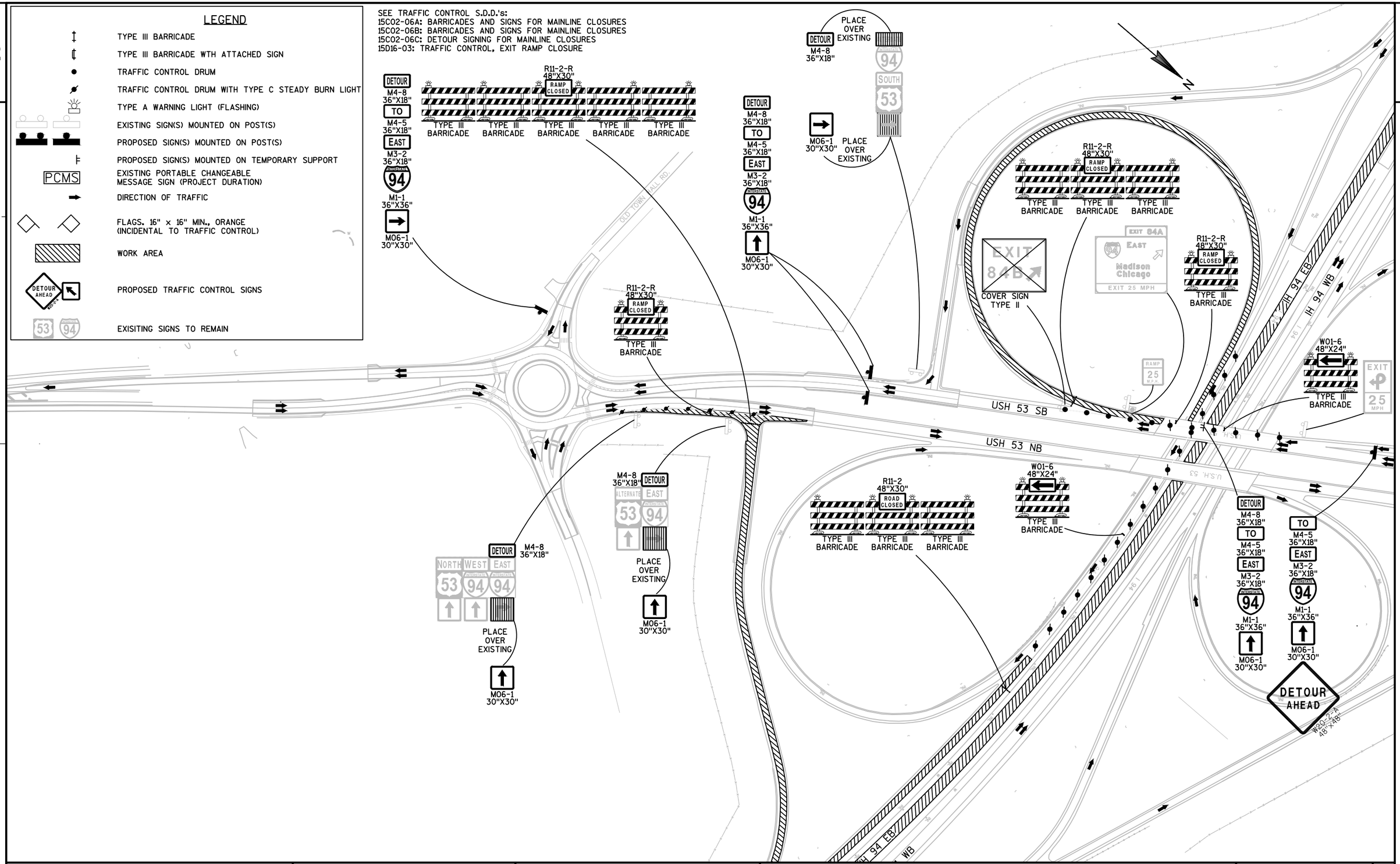
DETAILS SHOWN ON THIS SHEET ARE TO BE USED FOR REMOVING EXISTING GIRDERS AND SETTING PROPOSED GIRDERS ON HOBBS RD AND CTH I BRIDGES.

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: ST. CROIX	TRAFFIC CONTROL - IH 94 CLOSURE / DETOUR PLAN	SHEET 27	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH 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)
- 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
- PROPOSED TRAFFIC CONTROL SIGNS
- EXISITING SIGNS TO REMAIN

SEE TRAFFIC CONTROL S.D.D.'s:
15C02-06A: BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B: BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C: DETOUR SIGNING FOR MAINLINE CLOSURES
15D16-03: TRAFFIC CONTROL, EXIT RAMP CLOSURE



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - IH 94 EB FULL CLOSURE / DETOUR PLAN	SHEET 28	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH 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)
- 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
- PROPOSED TRAFFIC CONTROL SIGNS
- EXISITING SIGNS TO REMAIN

EXISTING U.S.H. 53 S.B. ADVANCE OVERHEAD SIGNS

EXIT 84A — 94 EAST — Madison Chicago — 1 MILE

EXIT 84B — 94 WEST — St Paul — ¼ MI

53 SOUTH — Brackett

EXIT 84A — 94 EAST — Madison Chicago — ½ MI

EXIT 84B — 94 WEST — St Paul — EXIT ONLY

53 SOUTH — Brackett — AHEAD

EXIT 84A — 94 EAST — Madison Chicago — ¼ MI — EXIT 35 MPH

EXIT 84B — 94 WEST — St Paul — EXIT ONLY

EXIT 84A — 94 EAST — Madison Chicago — EXIT 35 MPH

EXIT 84B — 94 WEST — St Paul

USH 53

USH 53 SB

USH 53 NB

PCMS

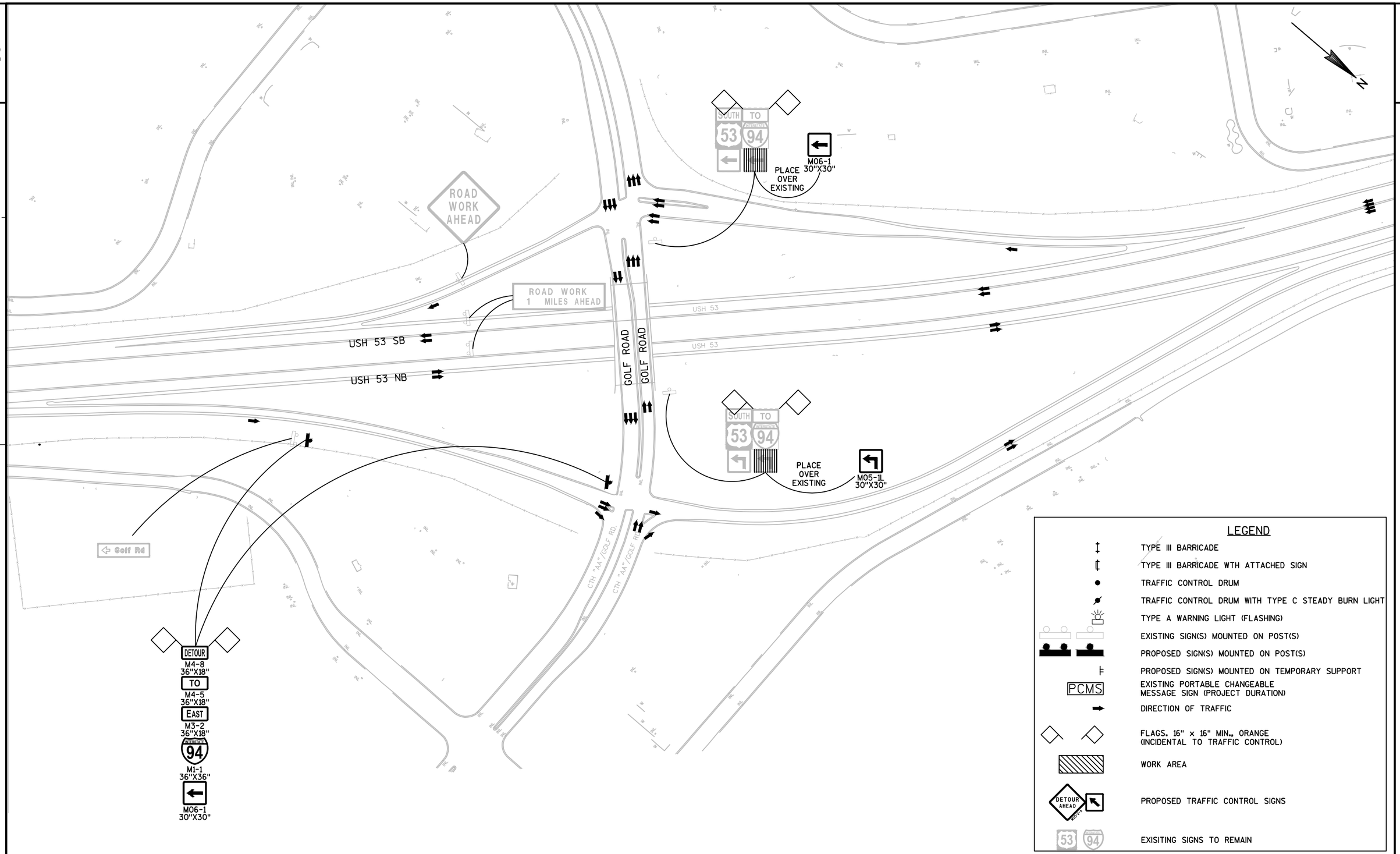
EXIT 85 — AA — Golf Rd

DETOUR M4-8 36"X18"
TO M4-5 36"X18"
EAST M3-2 36"X18"
94 M1-1 36"X36"
M06-2 30"X30"

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - IH 94 EB FULL CLOSURE / DETOUR PLAN	SHEET 29	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\027002-DT.DWG PLOT DATE : 7/19/2017 2:02 PM PLOT BY : BUDDEN, LUCAS PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH 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)
- PROPOSED SIGN(S) MOUNTED ON TEMPORARY SUPPORT
- PCMS — EXISTING PORTABLE CHANGEABLE MESSAGE SIGN (PROJECT DURATION)
- DIRECTION OF TRAFFIC
- FLAGS. 16" × 16" MIN., ORANGE (INCIDENTAL TO TRAFFIC CONTROL)
- WORK AREA
- PROPOSED TRAFFIC CONTROL SIGNS
- EXISITING SIGNS TO REMAIN

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - IH 94 EB FULL CLOSURE / DETOUR PLAN	SHEET 30	E

1021-03-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	38.000	38.000
0004	201.0205	Grubbing	STA	38.000	38.000
0006	203.0100	Removing Small Pipe Culverts	EACH	10.000	10.000
0008	203.0200	Removing Old Structure (station) 01. 15'H'+37	LS	1.000	1.000
0010	203.0200	Removing Old Structure (station) 02. 21'I+24	LS	1.000	1.000
0012	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-18-50	LS	1.000	1.000
0014	203.0210.S	Abatement of Asbestos Containing Material (structure) 02. B-18-62	LS	1.000	1.000
0016	204.0165	Removing Guardrail	LF	2,789.000	2,789.000
0018	204.0170	Removing Fence	LF	1,218.000	1,218.000
0020	204.0180	Removing Delineators and Markers	EACH	25.000	25.000
0022	204.0190	Removing Surface Drains	EACH	4.000	4.000
0024	204.9060.S	Removing (item description) 01. Masonry Rubble Endwalls	EACH	1.000	1.000
0026	205.0100	Excavation Common	CY	3,240.000	3,240.000
0028	206.1000	Excavation for Structures Bridges (structure) 01. B-18-210	LS	1.000	1.000
0030	206.1000	Excavation for Structures Bridges (structure) 02. B-18-232	LS	1.000	1.000
0032	208.0100	Borrow	CY	23,670.000	23,670.000
0034	210.1500	Backfill Structure Type A	TON	814.000	814.000
0036	213.0100	Finishing Roadway (project) 01. 1021-03-74	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	650.000	650.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	7,274.000	7,274.000
0042	415.0060	Concrete Pavement 6-Inch	SY	68.000	68.000
0044	415.0410	Concrete Pavement Approach Slab	SY	211.000	211.000
0046	416.1010	Concrete Surface Drains	CY	19.000	19.000
0048	440.4410	Incentive IRI Ride	DOL	2,550.000	2,550.000
0050	455.0605	Tack Coat	GAL	519.000	519.000
0052	465.0105	Asphaltic Surface	TON	2,603.000	2,603.000
0054	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	20.000	20.000
0056	465.0315	Asphaltic Flumes	SY	48.000	48.000
0058	502.0100	Concrete Masonry Bridges	CY	1,018.000	1,018.000
0060	502.3200	Protective Surface Treatment	SY	1,683.000	1,683.000
0062	502.3210	Pigmented Surface Sealer	SY	418.000	418.000
0064	503.0146	Prestressed Girder Type I 45W-Inch	LF	2,427.000	2,427.000
0066	505.0400	Bar Steel Reinforcement HS Structures	LB	14,250.000	14,250.000
0068	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	177,630.000	177,630.000
0070	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	44.000	44.000
0072	506.4000	Steel Diaphragms (structure) 01. B-18-210	EACH	20.000	20.000

1021-03-74

Line	Item	Item Description	Unit	Total	Qty
0074	506.4000	Steel Diaphragms (structure) 02. B-18-232	EACH	16.000	16.000
0076	516.0500	Rubberized Membrane Waterproofing	SY	42.000	42.000
0078	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	4.000	4.000
0080	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0082	520.3418	Culvert Pipe Class III-A Non-metal 18-Inch	LF	118.000	118.000
0084	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	132.000	132.000
0086	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	4.000	4.000
0088	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0090	521.1048	Apron Endwalls for Culvert Pipe Steel 48-Inch	EACH	1.000	1.000
0092	521.6118	Culvert Pipe Corrugated Steel Aluminum Coated 18-Inch	LF	40.000	40.000
0094	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	44.000	44.000
0096	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	16.000	16.000
0098	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0100	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0102	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	5,350.000	5,350.000
0104	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	5,630.000	5,630.000
0106	603.8000	Concrete Barrier Temporary Precast Delivered	LF	9,064.000	9,064.000
0108	603.8125	Concrete Barrier Temporary Precast Installed	LF	9,064.000	9,064.000
0110	604.0600	Slope Paving Select Crushed Material	SY	273.000	273.000
0112	606.0200	Riprap Medium	CY	24.000	24.000
0114	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	160.000	160.000
0116	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	957.000	957.000
0118	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	8.000	8.000
0120	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	4.000	4.000
0122	614.0230	Steel Thrie Beam	LF	300.000	300.000
0124	614.0905	Crash Cushions Temporary	EACH	8.000	8.000
0126	614.2300	MGS Guardrail 3	LF	1,769.000	1,769.000
0128	614.2330	MGS Guardrail 3 K	LF	201.000	201.000
0130	614.2500	MGS Thrie Beam Transition	LF	315.200	315.200
0132	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
0134	616.0100	Fence Woven Wire (height) 01. 4-Ft	LF	550.000	550.000
0136	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1021-03-74	EACH	1.000	1.000
0138	619.1000	Mobilization	EACH	1.000	1.000
0140	624.0100	Water	MGAL	320.000	320.000
0142	625.0500	Salvaged Topsoil	SY	22,990.000	22,990.000
0144	627.0200	Mulching	SY	8,880.000	8,880.000
0146	628.1504	Silt Fence	LF	6,591.000	6,591.000

1021-03-74

Line	Item	Item Description	Unit	Total	Qty
0148	628.1520	Silt Fence Maintenance	LF	3,296.000	3,296.000
0150	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0152	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0154	628.2004	Erosion Mat Class I Type B	SY	22,990.000	22,990.000
0156	628.7005	Inlet Protection Type A	EACH	3.000	3.000
0158	628.7504	Temporary Ditch Checks	LF	180.000	180.000
0160	628.7555	Culvert Pipe Checks	EACH	47.000	47.000
0162	629.0210	Fertilizer Type B	CWT	24.000	24.000
0164	630.0130	Seeding Mixture No. 30	LB	522.000	522.000
0166	630.0200	Seeding Temporary	LB	1,022.000	1,022.000
0168	630.0300	Seeding Borrow Pit	LB	120.000	120.000
0170	633.0500	Delineator Reflectors	EACH	12.000	12.000
0172	633.5200	Markers Culvert End	EACH	20.000	20.000
0174	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	21.000	21.000
0176	635.0200	Sign Supports Structural Steel HS	LB	902.000	902.000
0178	636.0100	Sign Supports Concrete Masonry	CY	1.600	1.600
0180	636.0500	Sign Supports Steel Reinforcement	LB	98.000	98.000
0182	637.2210	Signs Type II Reflective H	SF	55.750	55.750
0184	637.2230	Signs Type II Reflective F	SF	56.250	56.250
0186	638.2101	Moving Signs Type I	EACH	1.000	1.000
0188	638.2602	Removing Signs Type II	EACH	22.000	22.000
0190	638.3000	Removing Small Sign Supports	EACH	23.000	23.000
0192	638.3100	Removing Structural Steel Sign Supports	EACH	1.000	1.000
0194	642.5201	Field Office Type C	EACH	1.000	1.000
0196	643.0300	Traffic Control Drums	DAY	4,664.000	4,664.000
0198	643.0420	Traffic Control Barricades Type III	DAY	3,776.000	3,776.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	7,392.000	7,392.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	1,784.000	1,784.000
0204	643.0800	Traffic Control Arrow Boards	DAY	160.000	160.000
0206	643.0900	Traffic Control Signs	DAY	15,553.000	15,553.000
0208	643.0920	Traffic Control Covering Signs Type II	EACH	16.000	16.000
0210	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	669.000	669.000
0212	643.5000	Traffic Control	EACH	1.000	1.000
0214	645.0120	Geotextile Type HR	SY	78.000	78.000
0216	646.1020	Marking Line Epoxy 4-Inch	LF	14,192.000	14,192.000
0218	690.0150	Sawing Asphalt	LF	102.000	102.000
0220	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0222	715.0502	Incentive Strength Concrete Structures	DOL	2,930.000	2,930.000
0224	715.0502	Incentive Strength Concrete Structures	DOL	3,190.000	3,190.000

1021-03-74

Line	Item	Item Description	Unit	Total	Qty
0226	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0228	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	990.000	990.000
0230	SPV.0090	Special 01. Fence Chain Link Polymer-Coated 6-Ft	LF	1,029.000	1,029.000
0232	SPV.0090	Special 02. Salvage and Reinstall Beam Guard	LF	1,278.000	1,278.000
0234	SPV.0105	Special 01. Survey Project 1021-03-74	LS	1.000	1.000
0236	SPV.0165	Special 01. Wall Concrete Panel Mechanically Stabilized Earth R-18-47 **P**	SF	1,125.000	1,125.000
0238	SPV.0165	Special 02. Wall Concrete Panel Mechanically Stabilized Earth R-18-48 **P**	SF	1,655.000	1,655.000
0240	SPV.0165	Special 03. Wall Concrete Panel Mechanically Stabilized Earth R-18-49 **P**	SF	1,100.000	1,100.000
0242	SPV.0165	Special 04. Wall Concrete Panel Mechanically Stabilized Earth R-18-50 **P**	SF	1,470.000	1,470.000

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA	REMARKS
0010	11'H'+00	-	15'H'+00	LT	4	4	
0010	11'H'+00	-	14'H'+00	RT	3	3	
0010	16'H'+00	-	19'H'+00	LT	3	3	
0010	22'H'+00	-	23'H'+00	LT	1	1	
0010	18'H'+00	-	23'H'+00	RT	5	5	
0010	14'I'+00	-	19'I'+00	LT	5	5	
0010	15'I'+00	-	16'I'+00	RT	1	1	
0010	21'I'+00	-	31'I'+00	LT	10	10	
0010	32'I'+00	-	33'I'+00	LT	1	1	
0010	26'I'+00	-	28'I'+00	RT	2	2	
0010	30'I'+00	-	33'I'+00	RT	3	3	
				TOTAL 0010	38	38	

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 LF	REMARKS
0010	13'H'+28	-	14'H'+20	LT	92	
0010	13'H'+09	-	14'H'+02	RT	93	
0010	16'H'+77	-	17'H'+73	LT	97	
0010	16'H'+58	-	21'H'+52	RT	493	
0010	615'EB'+42	-	617'EB'+22	MEDIAN	376	
0010	18'I'+07	-	19'I'+04	LT	97	
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	
				TOTAL 0010	2789	

REMOVING SURFACE DRAINS

CATEGORY	STATION	LOCATION	204.0190 EACH	REMARKS
0010	14'H'+10	LT	1	
0010	13'H'+93	RT	1	
0010	18'I'+96	LT	1	
0010	19'I'+08	RT	1	
		TOTAL 0010	4	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
0010	14'H'+10	LT	1	EXISTING SURFACE DRAIN, 12" X 32' CPCS
0010	13'H'+93	RT	1	EXISTING SURFACE DRAIN, 12" X 56' CPCS
0010	14'I'+24	RT	1	PE1, 18" X 30' CPCPP
0010	16'I'+14	RT	1	PE2, 18" X 42' CPCS
0010	16'I'+38	LT	1	PE3, 18" X 38' CPCS
0010	18'I'+96	LT	1	EXISTING SURFACE DRAIN, 12" X 54' CPCS
0010	19'I'+08	RT	1	EXISTING SURFACE DRAIN, 12" X 40' CPCS
0010	24'I'+68	LT	1	PE5, 18" X 44' CPCS
0010	27'I'+01	-	1	CROSSING, 24" X 62' CPCS
0010	27'I'+97	LT	1	PE6, 18" X 38' CPCS
		TOTAL 0010	10	

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	204.0170 LF	REMARKS
0010	14'H'+12	-	14'H'+35	LT	67	
0010	13'H'+39	-	14'H'+12	RT	96	
0010	16'H'+70	-	17'H'+86	LT	138	
0010	16'H'+24	-	16'H'+45	RT	59	
0010	18'I'+44	-	19'I'+18	LT	98	
0010	21'I'+39	-	21'I'+51	LT	42	
0010	25'I'+00	-	27'I'+74	LT	302	
0010	18'I'+86		19'I'+29	RT	62	
0010	21'I'+41	-	21'I'+74	RT	39	
0010	31'I'+51	-	34'I'+49	RT	315	
				TOTAL 0010	1218	

REMOVING DELINEATORS AND MARKERS

CATEGORY	LOCATION	204.0180 EACH	REMARKS
0010	IH 94 CULVERTS	16	
0010	CTH I	4	
0010	EB, RT AT HOBBS RD	1	
0010	WB, LT AT HOBBS RD	1	
0010	EB, RT AT CTH I	1	
0010	WB, LT AT CTH I	2	
	TOTAL 0010	25	

REMOVING (01. MASONRY RUBBLE ENDWALLS)

CATEGORY	STATION	LOCATION	204.9060.S.01 EACH	REMARKS
0010	33'I'+44	LT	1	
		TOTAL 0010	1	

3

EARTHWORK SUMMARY TABLE

FILL FACTOR = 1.25

STATION	TO	STATION	205.0100 EXCAVATION COMMON CY	(1) ASPHALTIC PAVEMENT CY	(2) USEABLE MATERIAL CY	EXPANDED FILL CY	208.0100 BORROW CY	(3) SUITABLE WASTE CY
11'H'+00.00	-	14'H'+16.56	176	96	80	1,574	1,494	0
616'EB'+06.70	-	617'EB'+75.14	206	0	206	5	0	201
DIVISION 1 SUBTOTAL			382	96	286	1,579	1,494	201
16'H'+57.06	-	23'H'+16.67	427	220	207	8,461	8,254	0
23'H'+25.00	-	23'H'+75.00	6	0	6	1	0	5
614'WB'+74.92	-	616'WB'+32.59	194	0	194	25	0	169
DIVISION 2 SUBTOTAL			627	220	407	8,487	8,254	174
613'EB'+34.706	-	619'EB'+50.472	264	0	264	16	0	248
DIVISION 3 SUBTOTAL			264	0	264	16	0	248
13'I'+66.37	-	19'I'+07.38	89	135	-46	5,579	5,625	0
0'PE1'+16.99	-	0'PE1'+55.09	0	10	-10	30	40	0
0'PE2'+23.12	-	1'PE2'+11.83	1	0	1	250	249	0
0'PE3'+04.49	-	0'PE3'+82.06	0	0	0	243	243	0
648'EB'+01.46	-	649'EB'+60.14	178	0	178	28	0	150
DIVISION 4 SUBTOTAL			268	145	123	6,130	6,157	150
21'I'+36.63	-	35'I'+05.14	1,375	282	1,093	6,676	5,583	0
35'I'+05.14	-	36'I'+44.47	32	0	32	18	0	14
0'PE4'+04.79	-	1'PE4'+34.95	1	0	1	1,009	1,008	0
0'PE5'+04.91	-	1'PE5'+06.90	0	0	0	754	754	0
0'PE6'+05.00	-	0'PE6'+67.28	1	0	1	123	122	0
648'WB'+50.00	-	650'WB'+50.30	174	0	174	74	0	100
DIVISION 5 SUBTOTAL			1,583	282	1,301	8,654	7,467	114
645'WB'+64.120	-	653'WB'+66.107	108	0	108	397	289	0
DIVISION 6 SUBTOTAL			108	0	108	397	289	0
GRAND TOTAL			3,232	743	2,489	25,263	23,661	887

CAT 0010 TOTAL EXCAVATION COMMON 3,240 CY TOTAL BORROW 23,670 CY

(1) ASPHALTIC PAVEMENT IS INCLUDED IN THE QUANTITY OF EXCAVATION COMMON. ASPHALTIC PAVEMENT IS CONSIDERED SALVAGEABLE FOR PAVEMENT MATERIAL AND IS NOT INCLUDED IN THE QUANTITY OF USEABLE MATERIAL.

(2) USEABLE MATERIAL = EXCAVATION COMMON - ASPHALTIC PAVEMENT

(3) SUITABLE WASTE IS SURPLUS MATERIAL SUITABLE FOR USE AS FILL THAT IS BEYOND THE VOLUME NEEDED FOR THE PROJECT.

3

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

3

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0110 TON	REMARKS
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	13'I'+66 -	18'I'+96	LT SHOULDER	56	
0010	13'I'+66 -	18'I'+96	RT SHOULDER	66	
0010	21'I'+48 -	35'I'+05	LT SHOULDER	104	
0010	21'I'+48 -	36'I'+45	RT SHOULDER	196	
			TOTAL 0010	650	

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0120 TON	REMARKS
0010	11'H'+00 -	14'H'+29	MAINLINE	394	
0010	16'H'+44 -	23'H'+17	MAINLINE	813	
0010	11'H'+19 -	14'H'+33	LT SHOULDER	166	
0010	11'H'+19 -	14'H'+15	RT SHOULDER	166	
0010	16'H'+59 -	23'H'+68	LT SHOULDER	444	
0010	16'H'+40 -	23'H'+69	RT SHOULDER	444	
0010	13'I'+66 -	19'I'+21	MAINLINE	673	
0010	21'I'+23 -	35'I'+05	MAINLINE	1684	
0010	13'I'+66 -	19'I'+11	LT SHOULDER	307	
0010	13'I'+66 -	19'I'+24	RT SHOULDER	307	
0010	21'I'+20 -	35'I'+05	LT SHOULDER	811	
0010	21'I'+33 -	36'I'+39	RT SHOULDER	811	
0010	- -	-	CTH I Driveways	254	
			TOTAL 0010	7274	

CONCRETE PAVEMENT 6-INCH

CATEGORY	STATION TO	STATION	LOCATION	415.0060 SY	REMARKS
0010	16'H'+59 -	16'H'+84	LT	16	SEE S.D.D. 13B2-8a
0010	16'H'+40 -	16'H'+74	RT	21	SEE S.D.D. 13B2-8a
0010	21'I'+20 -	21'I'+48	LT	18	SEE S.D.D. 13B2-8a
0010	21'I'+33 -	21'I'+53	RT	13	SEE S.D.D. 13B2-8a
			TOTAL 0010	68	

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	STATION TO	STATION	LOCATION	415.0410 SY	REMARKS
0010	14'H'+00 -	14'H'+29	LT	55	SEE S.D.D. 13B2-8A
0010	16'H'+44 -	16'H'+74	LT	55	SEE S.D.D. 13B2-8A
0010	18'I'+95 -	19'I'+21	RT	52	SEE S.D.D. 13B2-8A
0010	21'I'+23 -	21'I'+48	RT	49	SEE S.D.D. 13B2-8A
			TOTAL 0010	211	

CONCRETE SURFACE DRAINS

CATEGORY	LOCATION	CONCRETE SURFACE DRAINS 416.1010 CY	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH 521.1012 EACH	PIPE UNDERDRAIN UNPEFORATED 12-INCH 612.0212 LF	REMARKS
0010	B-18-210 WING 1	5	1	40	SEE S.D.D. 8D2-6, TYPE A
0010	B-18-210 WING 2	5	1	40	SEE S.D.D. 8D2-6, TYPE A
0010	B-18-232 WING 1	4	1	40	SEE S.D.D. 8D2-6, TYPE A
0010	B-18-232 WING 2	5	1	40	SEE S.D.D. 8D2-6, TYPE A
	TOTAL 0010	19	4	160	

ASPHALT PAVING

STATION TO	STATION	LOCATION	TACK COAT 455.0605 GAL	ASPHALTIC SURFACE 465.0105 TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 465.0120 TON	ASPHALTIC FLUMES 465.0315 SY	REMARKS
11'H'+00 -	14'H'+00	MAINLINE	37	185	-	-	
16'H'+74 -	23'H'+17	MAINLINE	79	396	-	-	
11'H'+19 -	14'H'+00	LT SHOULDER	8	39	-	-	
11'H'+19 -	13'H'+78	RT SHOULDER	7	36	-	-	
16'H'+84 -	23'H'+68	LT SHOULDER	19	94	-	-	
16'H'+74 -	23'H'+69	RT SHOULDER	22	110	-	-	
13'I'+66 -	18'I'+95	MAINLINE	65	326	-	-	
21'I'+48 -	35'I'+05	MAINLINE	166	837	-	-	
13'I'+66 -	18'I'+80	LT SHOULDER	14	71	-	-	
13'I'+66 -	18'I'+95	RT SHOULDER	16	78	-	-	
21'I'+48 -	35'I'+05	LT SHOULDER	38	191	-	-	
21'I'+53 -	36'I'+39	RT SHOULDER	48	240	-	-	
-	-	PE1	-	-	20	-	
-	- 16'H'+57	RT	-	-	-	12	
-	- 16'H'+84	LT	-	-	-	12	
-	- 21'I'+37	LT	-	-	-	12	
-	- 21'I'+56	RT	-	-	-	12	
		TOTAL 0010	519	2603	20	48	

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CULVERT PIPE ITEMS

CATEGORY	STATION	LOCATION	APRON ENDWALLS FOR CULVERT PIPE 18-INCH 520.1018 EACH	APRON ENDWALLS FOR CULVERT PIPE 24-INCH 520.1024 EACH	CULVERT PIPE CLASS III-A NON-METAL 18-INCH 520.3418 LF	CULVERT PIPE CLASS III-A NON-METAL 24-INCH 520.3424 LF	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH 521.1018 EACH	APRON ENDWALLS FOR CULVERT PIPE STEEL 48-INCH 521.1048 EACH	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED 18-INCH 521.6118 LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH 522.0124 LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH 522.0136 LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH 522.1024 EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH 522.1036 EACH	(INFO ONLY) JOINT TIES FOR CONCRETE PIPE EACH	REMARKS
0010	614'WB'+83	49.5' LT	-	-	-	-	-	-	-	-	8	-	1	4	
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	-	-	-	-	-	MIN. THICKNESS = 0.060"
0010	33'I'+44	LT	-	-	-	-	-	1	-	-	-	-	-	-	
		TOTAL 0010	4	4	118	132	2	1	40	44	16	2	2	24	

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CONCRETE BARRIER TEMPORARY

CATEGORY	STATION	TO	STATION	LOCATION	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED 603.8000 LF	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED 603.8125 LF	REMARKS
0010	607'EB'+84	-	618'EB'+84	LT	1100	1100	
0010	607'EB'+99	-	619'EB'+19	RT	1113	1113	
0010	613'WB'+21	-	624'WB'+69	LT	1150	1150	
0010	613'WB'+81	-	624'WB'+81	RT	1100	1100	
0010	640'EB'+73	-	651'EB'+99	LT	1125	1125	
0010	639'EB'+25	-	651'EB'+28	RT	1200	1200	
0010	647'WB'+25	-	658'WB'+92	LT	1163	1163	
0010	646'WB'+73	-	657'WB'+86	RT	1113	1113	
				TOTAL 0010	9064	9064	

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	MISCELLANEOUS QUANTITIES	SHEET:	E

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3

RIPRAP AND GEOTEXTILE

CATEGORY	STATION	LOCATION	RIPRAP MEDIUM 606.0200 CY	GEOTEXTILE FABRIC TYPE HR 645.0120 SY	REMARKS
0010	14'H'+05	LT	1	3	SURFACE DRAIN
0010	13'H'+79	RT	1	3	SURFACE DRAIN
0010	17'H'+06	LT	2	9	ASPHALTIC FLUME
0010	16'I'+80	RT	2	9	ASPHALTIC FLUME
0010	18'I'+81	LT	1	3	SURFACE DRAIN
0010	18'I'+96	RT	1	3	SURFACE DRAIN
0010	21'I'+59	LT	2	9	ASPHALTIC FLUME
0010	21'I'+75	RT	2	9	ASPHALTIC FLUME
0010	27'I'+01	LT & RT	12	30	ENDWALLS
		TOTAL 0010	24	78	

STEEL THRIE BEAM

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	150	SEE S.D.D. 12B26
0010	648'EB'+69	- 650'EB'+40	MEDIAN	2	150	SEE S.D.D. 12B26
			TOTAL 0010	4	300	

CRASH CUSHIONS TEMPORARY

CATEGORY	LOCATION	614.0905 EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	607'EB'+54, 3' LT	1	2	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R	HOBBS RD MEDIAN PIER
0010	607'EB'+69, 32' RT	1	2	OM-3R (WO5-58R)	TL-3	UNIDIRECTIONAL	L	HOBBS RD ABUTMENT
0010	624'WB'+99, 32' LT	1	2	OM-3R (WO5-58R)	TL-3	UNIDIRECTIONAL	L	HOBBS RD ABUTMENT
0010	625'WB'+11, 3' RT	1	2	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R	HOBBS RD MEDIAN PIER
0010	638'EB'+95, 32' RT	1	2	OM-3R (WO5-58R)	TL-3	UNIDIRECTIONAL	L	CTH I ABUTMENT
0010	641'EB'+43, 3' LT	1	2	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R	CTH I MEDIAN PIER
0010	658'WB'+16, 3' RT	1	2	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R	CTH I MEDIAN PIER
0010	659'WB'+23, 32' LT	1	2	OM-3R (WO5-58R)	TL-3	UNIDIRECTIONAL	L	CTH I ABUTMENT
	TOTAL 0010	8						

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	616.0100 LF	REMARKS
0010	14'H'+12	- 14'H'+16	LT	60	
0010	13'H'+39	- 13'H'+89	RT	80	
0010	16'H'+84	- 17'H'+86	LT	130	
0010	16'H'+24	- 16'H'+58	RT	60	
0010	18'I'+44	- 18'I'+91	LT	70	
0010	18'I'+86	- 19'I'+07	RT	60	
0010	21'I'+37	- 21'I'+51	LT	50	
0010	21'I'+53	- 21'I'+74	RT	40	
			TOTAL 0010	550	

WATER

CATEGORY	LOCATION	624.0100 MGAL	REMARKS
0010	PROJECT	160	BASE AGGREGATE
0010	PROJECT	160	DUST CONTROL
	TOTAL 0010	320	

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

CATEGORY	STATION	TO	STATION	LOCATION	SALVAGED TOPSOIL 625.0500 SY	MULCHING 627.0200 SY	EROSION MAT CLASS I TYPE B 628.2004 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB	SEEDING TEMPORARY 630.0200 LB	SEEDING BORROW PIT 630.0300 LB	REMARKS
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	2,470	-	2,470	1.6	45	67	-	
0010	16'H'+57	-	23'H'+17	RT	2,770	-	2,770	1.7	50	75	-	
0010	614'EB'+84	-	617'EB'+79	MEDIAN	1,990	-	1,990	1.3	36	54	-	
0010	616'EB'+24	-	617'EB'+76	RT	410	-	410	0.3	8	11	-	
0010	614'WB'+76	-	616'WB'+28	LT	450	-	450	0.3	8	13	-	
0010	13'I'+66	-	18'I'+88	LT	1,610	-	1,610	1.0	29	44	-	
0010	13'I'+66	-	19'I'+07	RT	1,140	-	1,140	0.7	21	31	-	
0010	21'I'+37	-	35'I'+05	LT	4,320	-	4,320	2.7	78	117	-	
0010	21'I'+56	-	36'I'+44	RT	1,440	-	1,440	0.9	26	39	-	
0010	645'WB'+64	-	653'WB'+66	MEDIAN	3,860	-	3,860	2.5	70	105	-	
0010	648'EB'+09	-	649'EB'+44	RT	400	-	400	0.3	7	11	-	
0010	648'WB'+82	-	650'WB'+39	LT	470	-	470	0.3	9	13	-	
0010	-		-	BORROW PIT	-	7,100	-	4.5	-	192	96	
0010	-		-	UNDISTRIBUTED	-	1,780	-	4.8	104	204	24	
				TOTAL 0010	22,990	8,880	22,990	24.0	522	1,022	120	

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SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF	REMARKS
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	781	
				TOTAL 0010	6591	3296	

INLET PROTECTION TYPE A

CATEGORY	STATION	LOCATION	628.7005 EACH	REMARKS
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	

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	MISCELLANEOUS QUANTITIES	SHEET:	E

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3

TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504 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

CATEGORY	STATION	LOCATION	628.7555 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	

DELINEATOR REFLECTORS

CATEGORY	LOCATION	633.0500 EACH	REMARKS
0010	EB, RT AT HOBBS RD	3	FOR GUARDRAIL, SEE S.D.D. 15A4-3D
0010	WB, LT AT HOBBS RD	3	FOR GUARDRAIL, SEE S.D.D. 15A4-3D
0010	EB, RT AT CTH I	3	FOR GUARDRAIL, SEE S.D.D. 15A4-3D
0010	WB, LT AT CTH I	3	FOR GUARDRAIL, SEE S.D.D. 15A4-3D
	TOTAL 0010	12	

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MARKERS CULVERT END

CATEGORY	STATION	LOCATION	633.5200 EACH	REMARKS
0010	615'EB'+00	MEDIAN	1	
0010	616'EB'+07	RT	1	
0010	617'EB'+77	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	

SIGNS TYPE I

CATEGORY	STATION	LOCATION	SIGN SUPPORTS STRUCTURAL STEEL HS 635.0200 LB	SIGN SUPPORTS CONCRETE MASONRY 636.0100 CY	SIGN SUPPORTS STEEL REINFORCEMENT 636.0500 LB	MOVING SIGNS TYPE I 638.2101 EACH	REMOVING STRUCTURAL STEEL SIGN SUPPORTS 638.3100 EACH	REMARKS
0010	650'WB'+44	LT	-	-	-	1	1	OLD LOCATION
0010	652'WB'+00	LT	902	1.6	98	-	-	APPROXIMATE NEW LOCATION
		TOTAL 0010	902	1.6	98	1	1	

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PERMANENT SIGNING

APPROX. STATION LOCATION	SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIGN SIZE W x H (INCHES)	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0616 POSTS WOOD 4x6-INCH x 16-FT EACH	REMARKS
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 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
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	

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

3

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	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 SIGNS 643.0900 DAY	TRAFFIC CONTROL COVERING SIGNS TYPE II 643.0920 EACH	TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS 643.1051 DAY	TRAFFIC CONTROL 643.5000 EACH	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, COVER 1 SIGN FOR 8 CYCLES
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	-	1680	3360	-	-	1680	-	-	0.5	BRIDGE CLOSURE
0010	CTH I	-	1680	3360	-	-	1680	-	-	0.5	BRIDGE CLOSURE
0010	IH 94 EB, U.S.H. 53 S.B., & U.S.H. 53 N.B.	-	-	-	-	-	3568	-	446	-	ALTERNATE ROUTE
0010	IH 94 WB	-	-	-	-	-	2453	-	223	-	ALTERNATE ROUTE
0010	IH 94 EB, U.S.H. 53 S.B., & U.S.H. 53 N.B.	664	176	256	456	16	624	8	-	-	FULL CLOSURE, COVER 1 SIGN FOR 8 CYCLES
0010	IH 94 WB	384	96	128	216	16	136	-	-	-	FULL CLOSURE
0010	IH 94 SHOULDERS	-	-	-	-	-	892	-	-	-	PROJECT DURATION (SPEED LIMIT 70)
0010	IH 94 SHOULDERS	-	-	-	-	-	892	-	-	-	PROJECT DURATION (END ROAD WORK)
0010	IH 94 SHOULDERS	-	-	-	-	-	892	-	-	-	PROJECT DURATION (ROAD WORK 1 MILE)
0010	IH 94 SHOULDERS	-	-	-	-	-	1656	-	-	-	SHOULDER CLOSURES
	TOTAL 0010	4664	3776	7392	1784	160	15553	16	669	1	

MARKING LINE EPOXY 4-INCH

CATEGORY	STATION TO STATION	646.1020 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	

TRANSPORTATION PROJECT PLAT NO: 1021-03-24 - 4.01

LOCATED IN PART OF LOT 1 OF CSM NO. 761, VOL. 4, PAGE 79 & 80, LOCATED IN AND INCLUDING THE SW 1/4 - SE 1/4, AND LOCATED IN PART OF THE SE 1/4 - SE 1/4 AND PART OF THE SE 1/4 - SW 1/4; ALL LOCATED IN SECTION 6, AND PART THE NW 1/4 OF THE NE 1/4 AND PART OF LOT 1 OF CSM NO. 1051, VOL. 5, PAGE 305, LOCATED IN AND INCLUDING THE NE 1/4 - NW 1/4 OF SECTION 7; ALL LOCATED IN TOWNSHIP 26 NORTH, RANGE 8 WEST, TOWN OF WASHINGTON, EAU CLAIRE COUNTY, WISCONSIN

RELOCATION ORDER IH 94 EAU CLAIRE - OSSEO (HOBBS RD B-18-0210/CTH I B-18-0232) EAU CLAIRE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

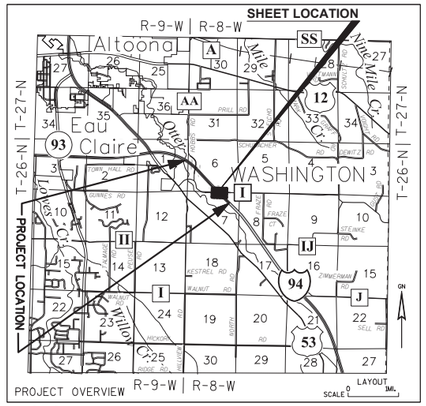
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

1144064
KATHRYN A. CHRISTENSON
EAU CLAIRE COUNTY, WI
REGISTER OF DEEDS

RECORDED ON
04/06/2017 4:19 PM

REC FEE: 25.00
TRANSFER FEE:
EXEMPT #
PAGES: 2

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1021-03-24 - 4.01
SHEET 1 OF 2
AMENDMENT NO:---


SHEET LOCATION
R-9-W | R-8-W
T-26-N | T-27-N
Altoona
Eau Claire
WASHINGTON
Town of Union
Town of Seymour
Chippewa Co.
Eau Claire Co.
Mill Creek
Otter Creek
Little Otter Creek
Little Niagara Creek
Niagara Creek
Little Eau Claire River
Eau Claire River
Lake Eau Claire
Half Moon Lake
Putnam Heights
Forest Hill Cemetery
Oakwood Cemetery
Mt. Calvary Cemetery
Fairfax Park
Carson Park
Phoenix Park
Owen Park
Hobbs Municipal Golf Course
Chippewa River Trail
Fall Creek Trail
Old Abe Trail
Mill Creek Trail
Eau Claire River Trail
Hobbs Trail
Mill Creek Trail
Niagara Creek Trail
Otter Creek Trail
Little Otter Creek Trail
Little Niagara Creek Trail
Eau Claire River Trail



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
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
RIGHT OF WAY GUARD POST

SECTION CORNER
NOTATION FOR COMBUSTIBLE FLUIDS — CAUTION
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES — CAUTION
BRIDGE

R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON MON.
VALVE (GAS, WATER, ETC.) — ⊘ (TYPE)
SIGN — SIGN
OFF-PREMISE SIGN — I-25 — SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	●	○
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	◆	◇

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)

PARCEL NUMBER — 25
UTILITY NUMBER — 40
EXISTING MONUMENT NUMBER — ****
R/W BOUNDARY POINT NUMBER — ***

CONVENTIONAL ABBREVIATIONS

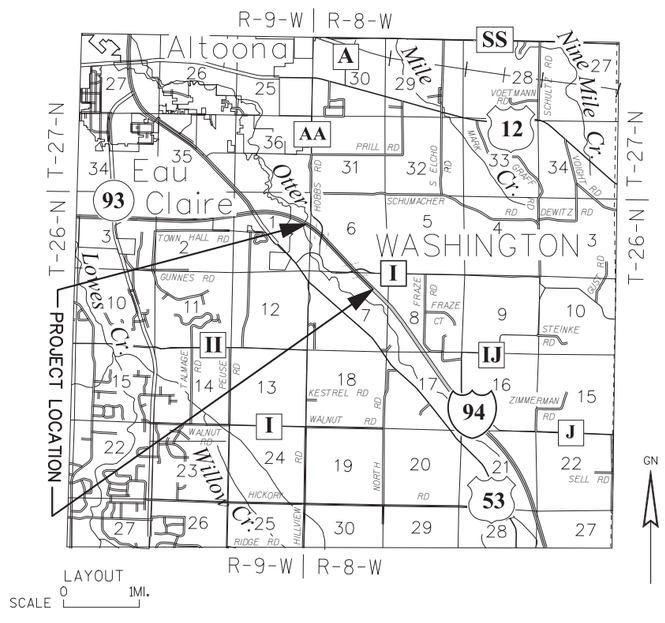
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC 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 EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
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 TRANSMISSION LINES — OH
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:

FILE NAME : S:\SURVEY\LAND SURVEYS\2015 PROJECTS\WO#12_1021-03-04_MC-0697-20-75_IH-94-BRIDGES-TPP_(NW REGION)\TPP\C3D\10210304_IH9_TPP.DWG
APPRAISAL PLAT DATE : --------
PLOT DATE : March 27, 2017
PLOT BY : KOLBY SCHERTZ
PLOT NAME : IH-94/C.TH. I
1021-03-24

LAYOUT NAME - ****

PI STA = 606'EB'+04.99
DELTA = 27°29'16"
D = 1°00'00"
T = 1401.39'
L = 2748.81'
R = 5729.65'
PC STA = 592'EB'+03.60
PT STA = 619'EB'+52.41
S.E. = 0.034 '/'

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM944	14'H'+02.97	DISC IN PARAPET WALL SE QUAD. OF BRIDGE, 14.41' RT	917.60

N

EXISTING R/W

EAU CLAIRE ENERGY COOP

BEGIN PROJECT
STA 11'H'+00
(SAW CUT REQUIRED)
Y = 260605.72
X = 364009.08

STA 14'H'+10, LT
1 EA REMOVE CP 12" CPCS
1 EA REMOVE SURFACE DRAIN

MGS GUARDRAIL

SLOPE INTERCEPT

STRUCTURE
B-18-210

N9° 43' 04"E
811.58'

15'H'+00

STA 14'H'+93, RT
1 EA REMOVE CP 12" CPCS
1 EA REMOVE SURFACE DRAIN

EXISTING 30"x168' CLASS III RCCP TO REMAIN

AT&T-TRANSMISSION

EXISTING STRUCTURE
B-18-50 TO BE
REMOVED

B127
903.41

VCL = 650.00
K = 102.75

VCL = 225.75
K = 87.78

FINISHED PROFILE ON ℄

3.86%

VPC STA 10'H'+42.13
VPC EL 908.22

VPI STA 11'H'+55.00
VPI EL 909.67

VPT STA 12'H'+67.87
VPT EL 914.03

VPC STA 13'H'+25.00
VPC EL 916.24

VPI STA 16'H'+50.00
VPI EL 928.78

EXISTING GROUND

EXISTING 30"x168' CPRC CL III TO REMAIN

930
920
910
900
894

4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00

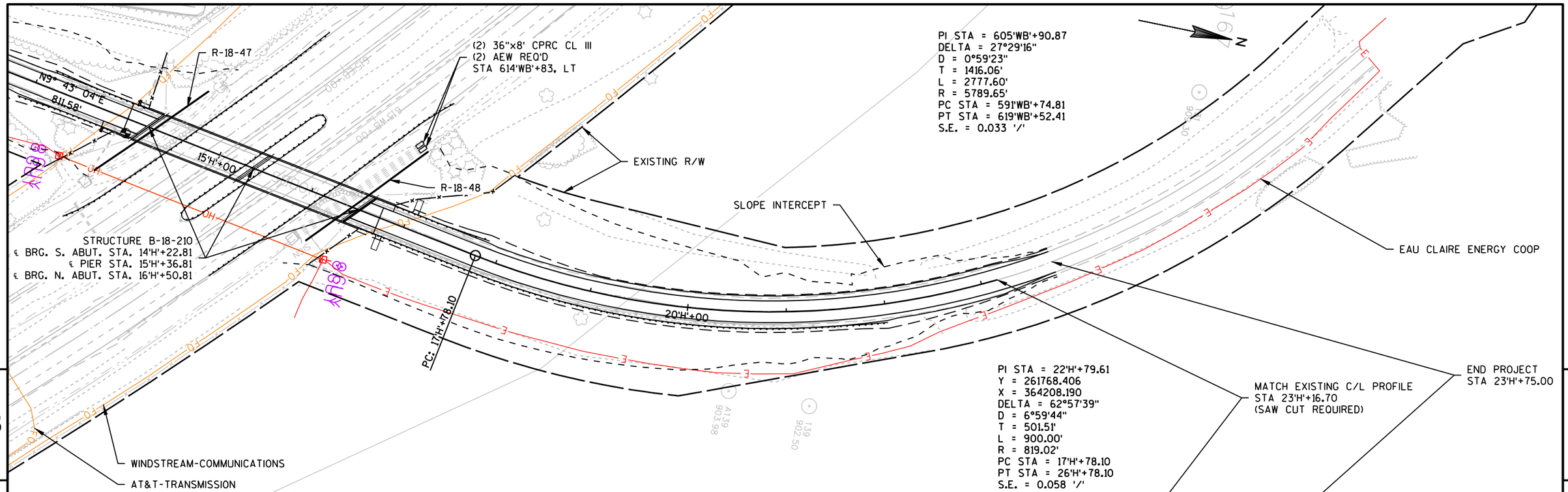
906.22	905.70	905.33	905.26	905.29	905.43	905.48	905.57	905.83	906.24	906.66	907.14	907.58	908.28	908.32	EXISTING	909.16	PROPOSED	910.23	910.27	911.47	911.67	912.80	913.36	914.28	915.27	915.69	917.17	916.88	918.86	900.84	920.30	898.93	921.50	898.79	922.46	900.31	923.17	920.99	923.64

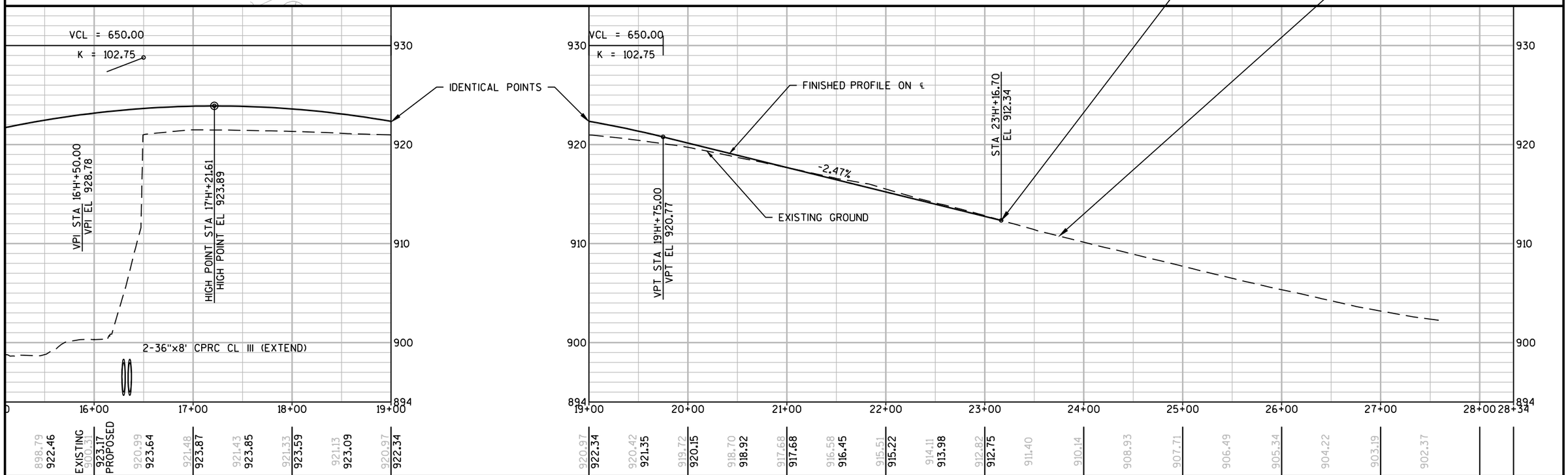
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: HOBBS RD	SHEET 46 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\050101_PP12.13.2016.DWG
LAYOUT NAME - 0501011

PLOT DATE : 11/24/2017 9:14 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: HOBBS RD	SHEET 47	E

BENCH MARKS ⊕			
NO.	STATION	DESCRIPTION	ELEV.
BM949	19'I'+18.14	DISC IN PARAPET WALL SE QUAD. OF BRIDGE, 25.67' RT	922.51

STA 648'EB'+23, RT
1 -24" x 16' CPRC CL III REQ'D.
1 - APRON ENDWALL REQ'D.

STA 649'WB'+09, LT
1 -24" x 28' CPRC CL III REQ'D.
1 - APRON ENDWALL REQ'D.

EAU CLAIRE ENERGY COOP

R-18-49

PROPOSED R/W

STA 18'I'+96, LT
1 EA REMOVE CP 12" CPCS
1 EA REMOVE SURFACE DRAIN

CONSTRUCT GRAVEL 'PE3'
STA 16'I'+34, LT
1 - 18" x 60' CP CLASS III-A NON-METAL REQ'D.
2 - APRON ENDWALLS REQ'D.
REMOVE CP 18" CPCS

PROPOSED TLE

EXISTING R/W

SLOPE INTERCEPT

AT&T_DISTRIBUTION

CTH I

15'I'+00

N70° 25' 12"E
523.20'

PC: 22'I'+45.36

R-18-50

SLOPE INTERCEPT

PT: 17'I'+22.16

EXISTING STRUCTURE
B-18-62 TO BE
REMOVED

S43° 46' 56"E
6670.20'

EAU CLAIRE ENERGY COOP

BEGIN PROJECT
STA 13'I'+66.37
(SAW CUT REQUIRED)
Y = 258503.23
X = 365733.81

CONSTRUCT ASPHALT 'PE1'
STA 14'I'+25, RT
REMOVE CP 18" CPCPP

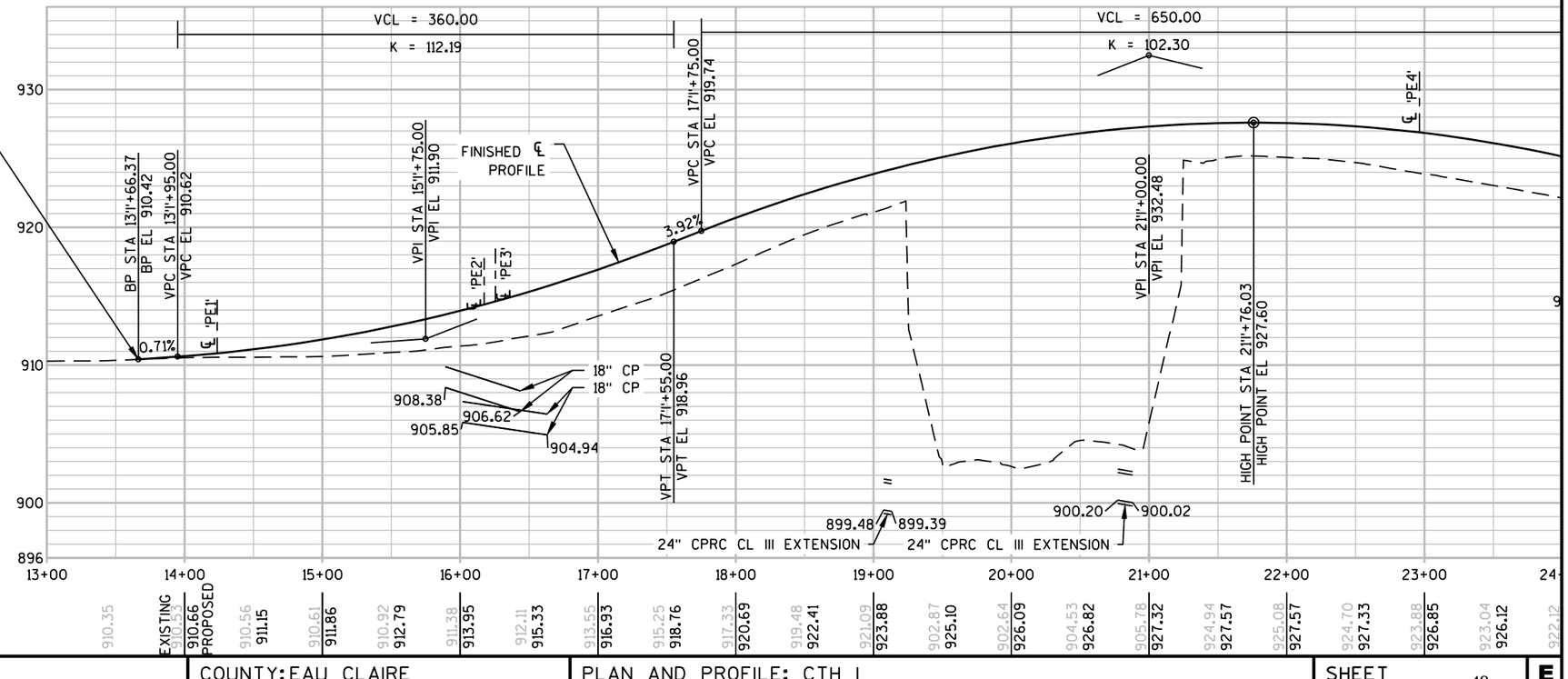
PROPOSED TLE
EAU CLAIRE
ENERGY COOP

PI: 15'I'+45.74

STA 19'I'+08, RT
1 EA REMOVE CP 12" CPCS
1 EA REMOVE SURFACE DRAIN

CONSTRUCT GRAVEL 'PE2'
STA 16'I'+18, RT
1 - 18" x 58' CP CLASS III-A NON-METAL REQ'D.
2 - APRON ENDWALLS REQ'D.
REMOVE CP 18" CPCS

STRUCTURE B-18-232
℄ BRG. W. ABUT. STA. 19'I'+17.00
℄ PIER STA. 20'I'+22.00
℄ BRG. E. ABUT. STA. 21'I'+27.00



PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: CTH I	SHEET 48	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\050201_PP12.16.2016 WITH NO PIPE NETWORKS.DWG
LAYOUT NAME - 022501

PLOT DATE : 11/24/2017 9:07 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 41

PI STA = 25'I'+65.33
Y = 258850.847
X = 366876.530
DELTA = 47°20'43"
D = 7°51'00"
T = 319.97'
L = 603.11'
R = 729.87'
PC STA = 22'I'+45.36
PT STA = 28'I'+48.47
S.E. = 0.060 '/'

CONSTRUCT 'PE5'
STA 24'I'+69, LT
1 - 24" x 60' CP CLASS III-A NON-METAL REQ'D.
2 - APRON ENDWALLS REQ'D.
REMOVE CP 18" CPCS

PROPOSED TLE

PI: 25'I'+65.33

SLOPE INTERCEPT

PROPOSED TLE

CONSTRUCT 'PE6'
STA 28'I'+01, LT
1 - 18" x 40' CPCSAC REQ'D.
2 - APRON ENDWALLS REQ'D.
REMOVE CP 18" CPCS

PROPOSED TLE

EAU CLAIRE ENERGY COOP

CONSTRUCT 'PE4'
STA 23'I'+00, LT

EAU CLAIRE ENERGY COOP

PT: 28'I'+48.47

EXISTING R/W

PC: 30'I'+57.19

EXISTING
48" x 124' CP CLASS III
SKEW 25° RHF TO REMAIN
STA 33'I'+44
1 - APRON ENDWALL REQ'D.
REMOVE MRM ENDWALL LT

PI STA = 32'I'+54.11
Y = 258512.818
X = 367518.603
DELTA = 27°24'48"
D = 7°05'46"
T = 196.93'
L = 386.31'
R = 807.41'
PC STA = 30'I'+57.19
PT STA = 34'I'+43.50
S.E. = 0.058 '/'

END PROJECT STA 36'I'+39.33

PI: 34'I'+43.50

S89° 38' 53"E
61.64'

35'I'+00 CTH I

PROPOSED TLE

MGS GUARDRAIL

PROPOSED R/W

25'I'+00

S62° 14' 05"E
208.72'
30'I'+00

SLOPE INTERCEPT

STA 27'I'+01
1 - 24" x 72' CP CLASS III-A NON-METAL REQ'D.
2 - APRON ENDWALLS REQ'D.
REMOVE CP 24" CPCS

EXISTING R/W

PI STA = 653'WB'+95.69
DELTA = 5°41'00"
D = 0°30'00"
T = 568.80'
L = 1136.67'
R = 11459.19'
PC STA = 648'WB'+26.89
PT STA = 659'WB'+63.56
S.E. = R.C. (2.0%)

PC: 22'I'+45.36

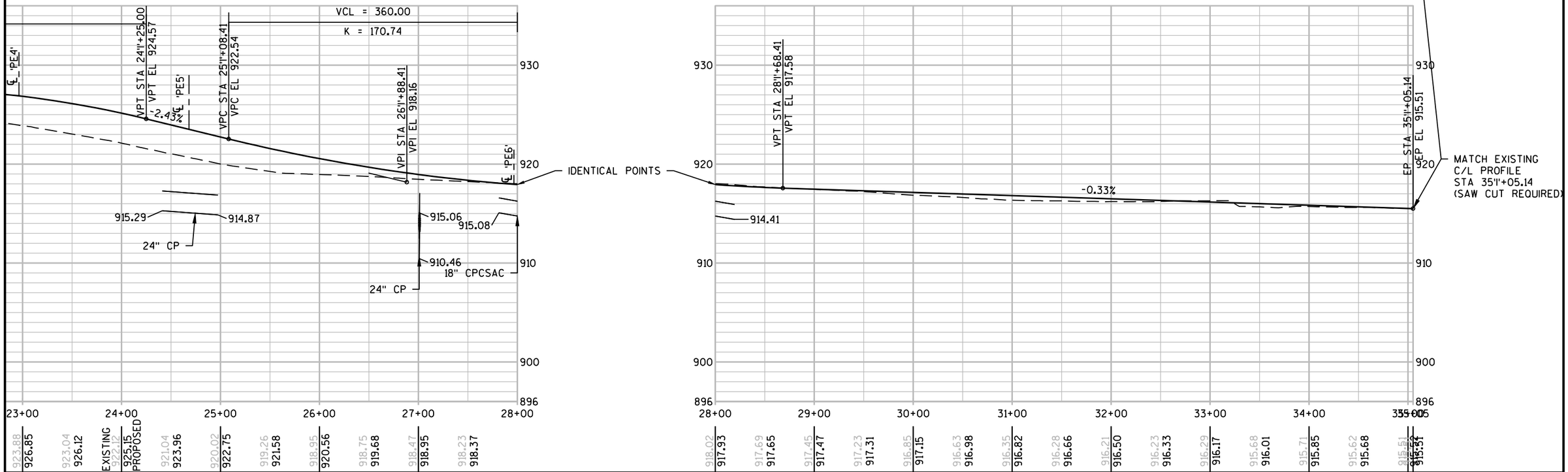
PI: 32+54.11

MGS GUARDRAIL 3 K
STA 32'I'+75 - STA 34'I'+76

MGS GUARDRAIL

WINDSTREAM-COMMUNICATIONS

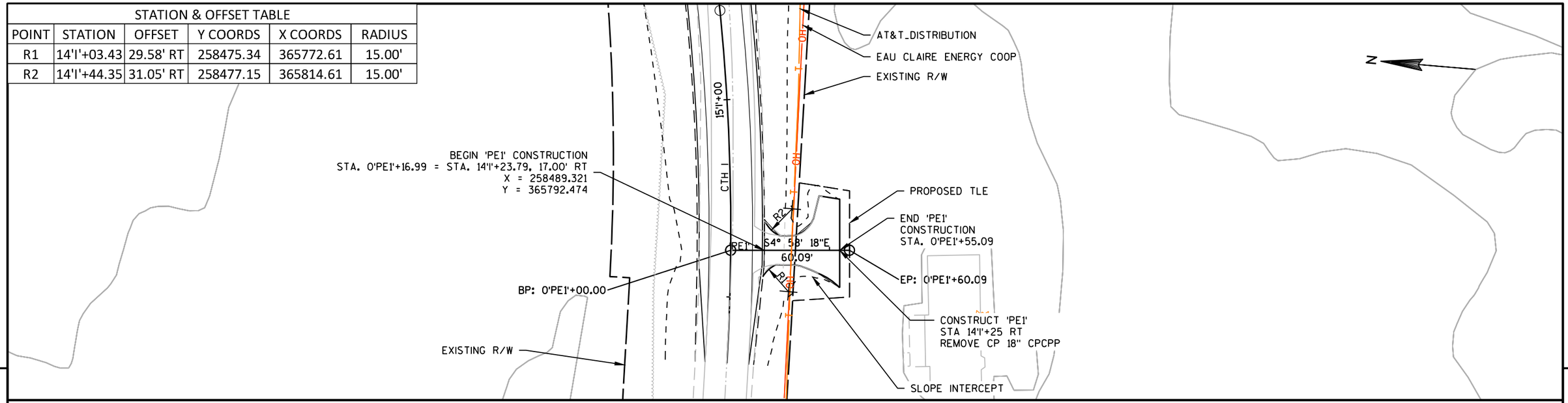
AT&T-TRANSMISSION

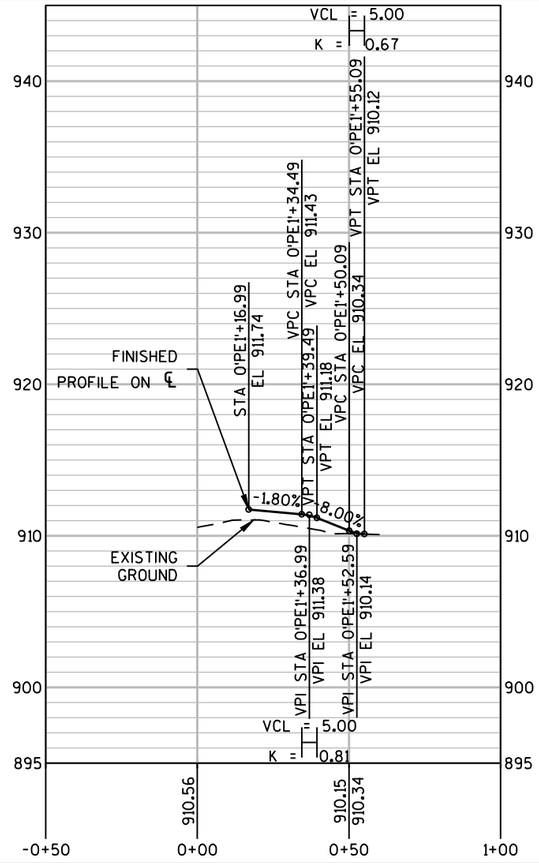


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: CTH I	SHEET 49	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\050201_PP12.16.2016 WITH NO PIPE NETWORKS.DWG
LAYOUT NAME - 022502
PLOT DATE : 11/24/2017 9:08 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

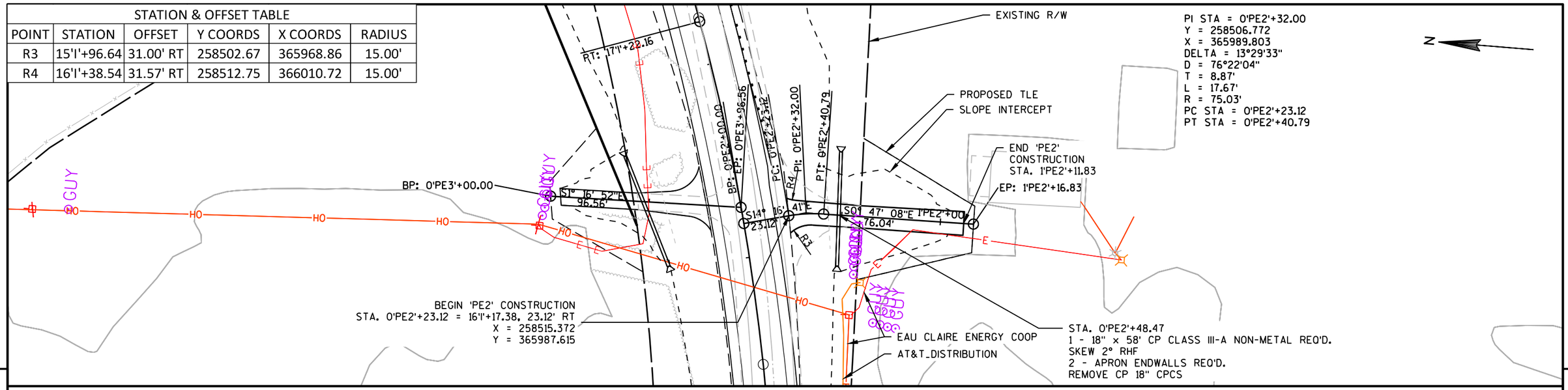
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R1	14'I'+03.43	29.58' RT	258475.34	365772.61	15.00'
R2	14'I'+44.35	31.05' RT	258477.15	365814.61	15.00'

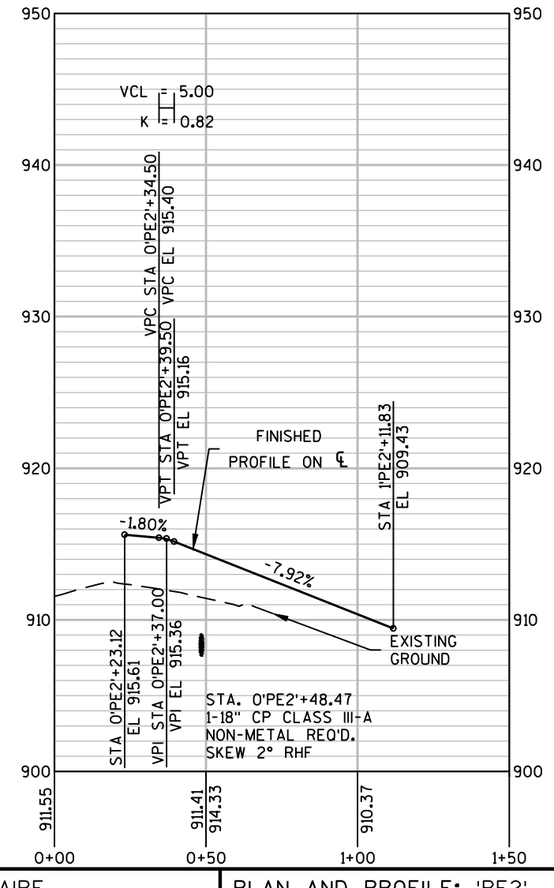




PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: 'PE1'	SHEET 50	E

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





PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: 'PE2'	SHEET 51	E

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'

PROPOSED R/W

PT: 17'I'+22.16

STA. 0'PE3'+46.96
1 - 18" x 60' CP CLASS III-A NON-METAL REQ'D.
SKEW 25° RHF
2 - APRON ENDWALLS REQ'D.
REMOVE CP 18" CPCS

BEGIN 'PE3' CONSTRUCTION
STA. 0'PE3'+05.04 = 16'I'+48.67, 88.81' LT
X = 258631.346
Y = 365987.857

BP: 0'PE3'+00.00

EAU CLAIRE ENERGY COOP

PROPOSED TLE

EXISTING R/W

BP: 0'PE2'+00.00

BP: EP: 0'PE3'+96.56

PC: 0'PE2'+23.12

PI: 0'PE2'+32.00

PT: 0'PE2'+40.79

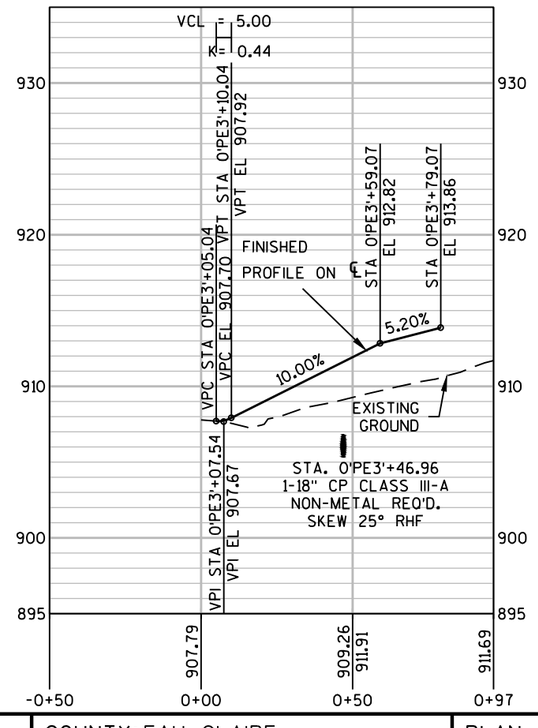
EP: 1'PE2'+16.83

PI STA = 0'PE2'+32.00
Y = 258506.772
X = 365989.803
DELTA = 13°29'33"
D = 76°22'04"
T = 8.87'
L = 17.67'
R = 75.03'
PC STA = 0'PE2'+23.12
PT STA = 0'PE2'+40.79

EAU CLAIRE ENERGY COOP

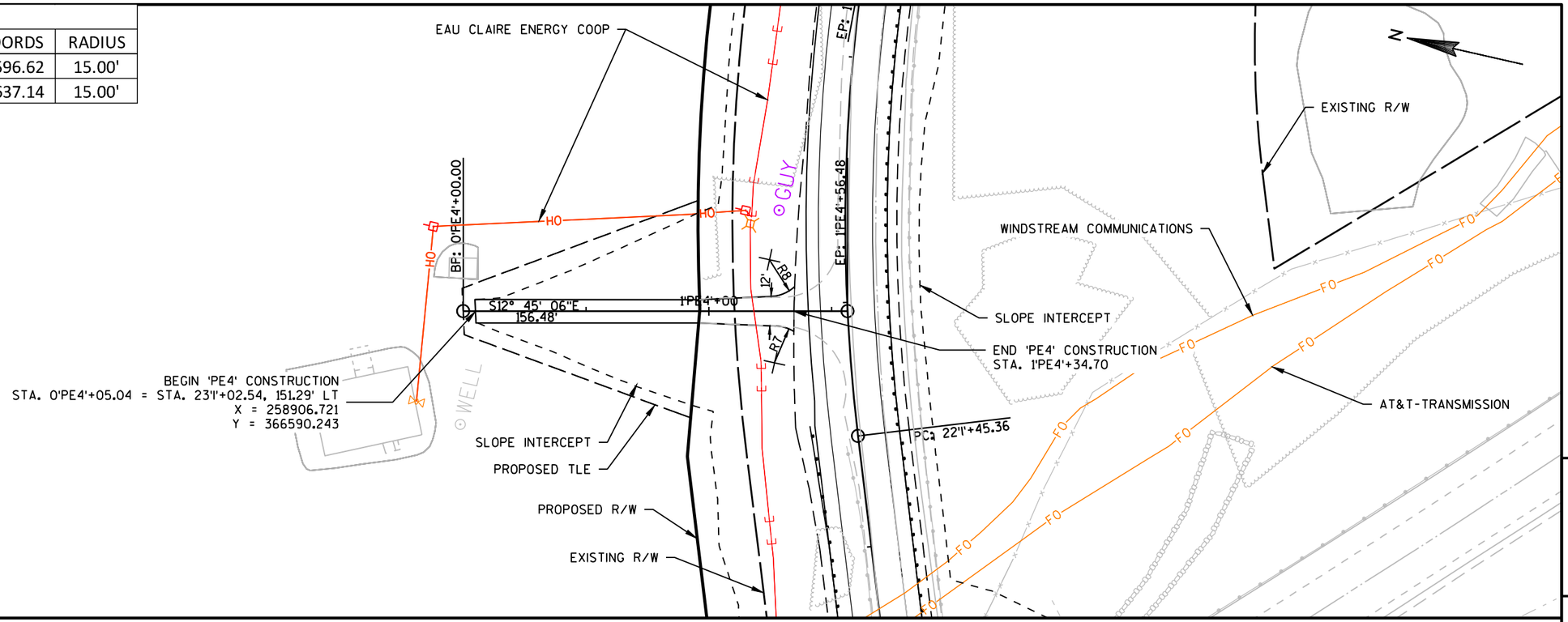
AT&T DISTRIBUTION

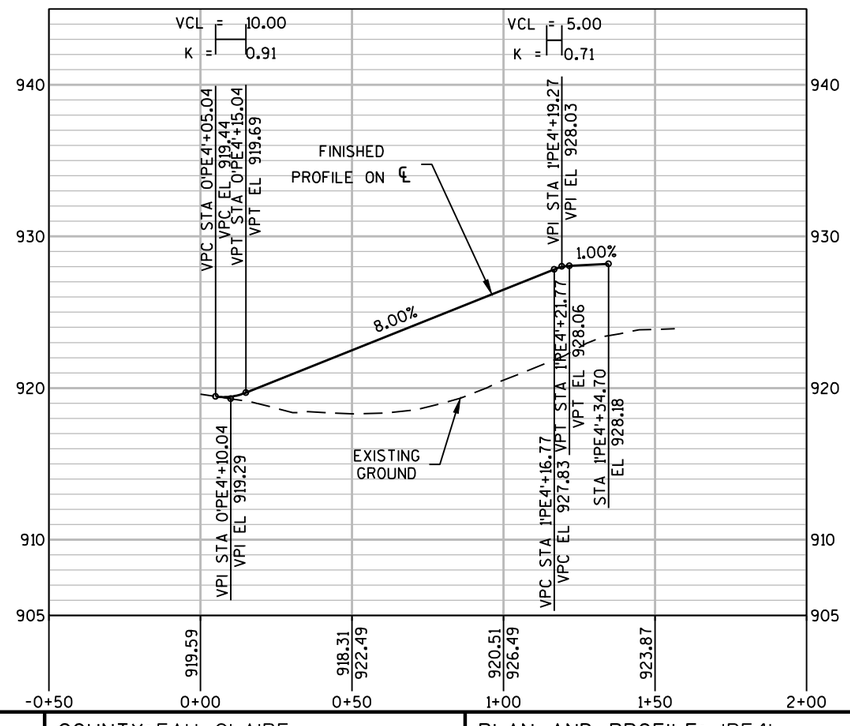
END 'PE3'
CONSTRUCTION
STA. 0'PE3'+97.07



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: 'PE3'	SHEET 52	E

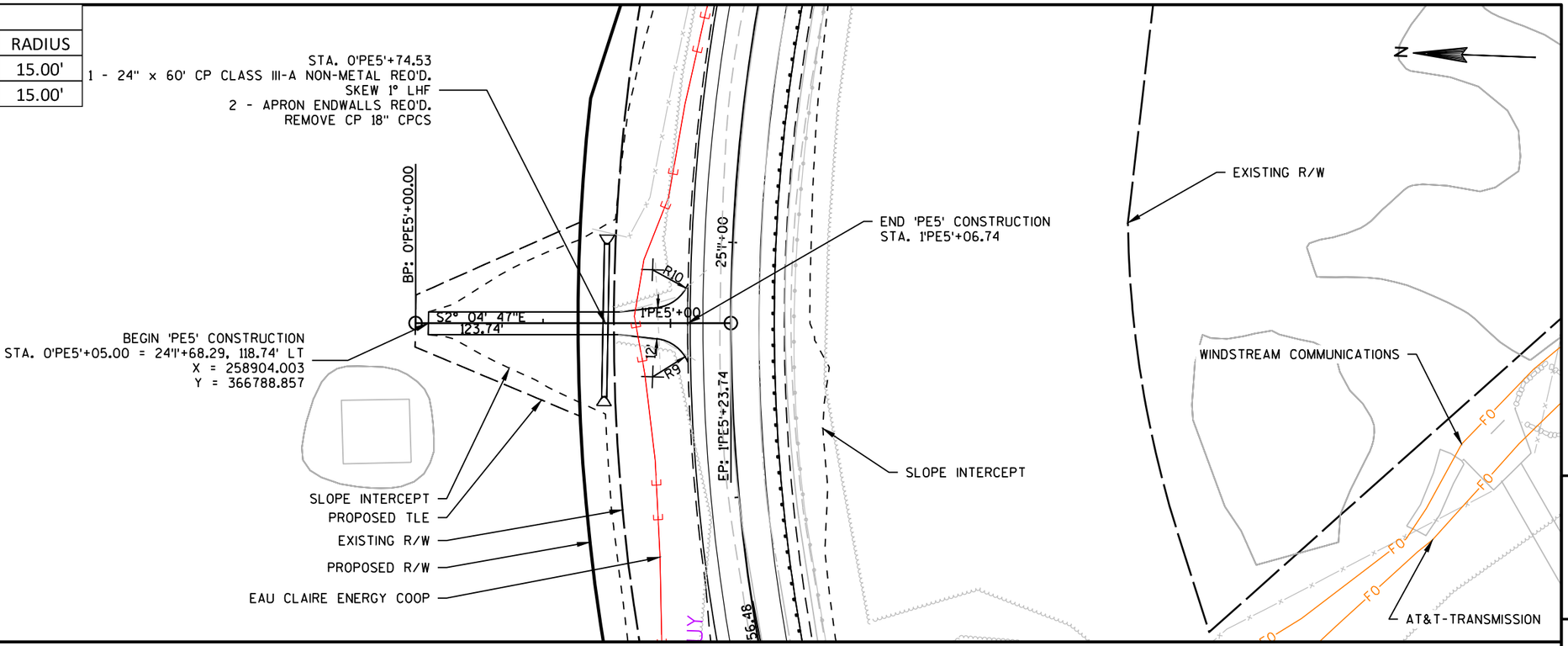
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R7	22'1'+77.64	31.00' LT	258783.40	366596.62	15.00'
R8	23'1'+17.98	31.02' LT	258794.63	366637.14	15.00'

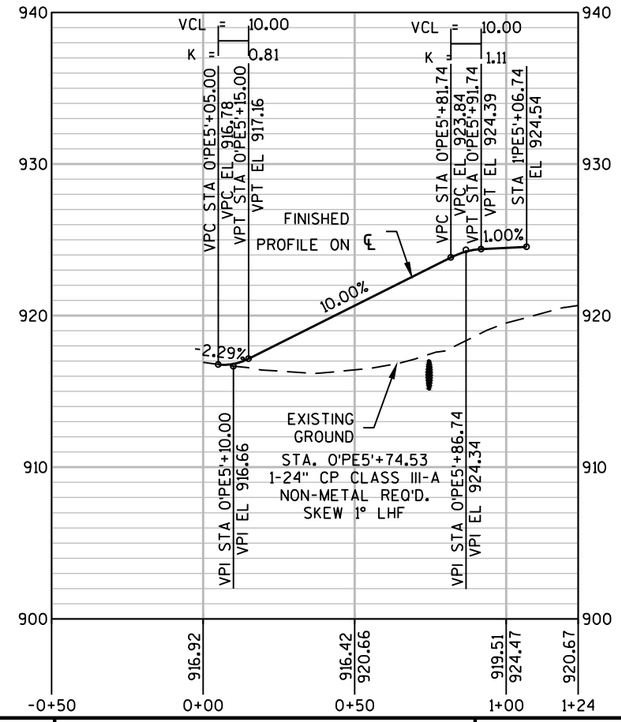




PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: 'PE4'	SHEET 53	E

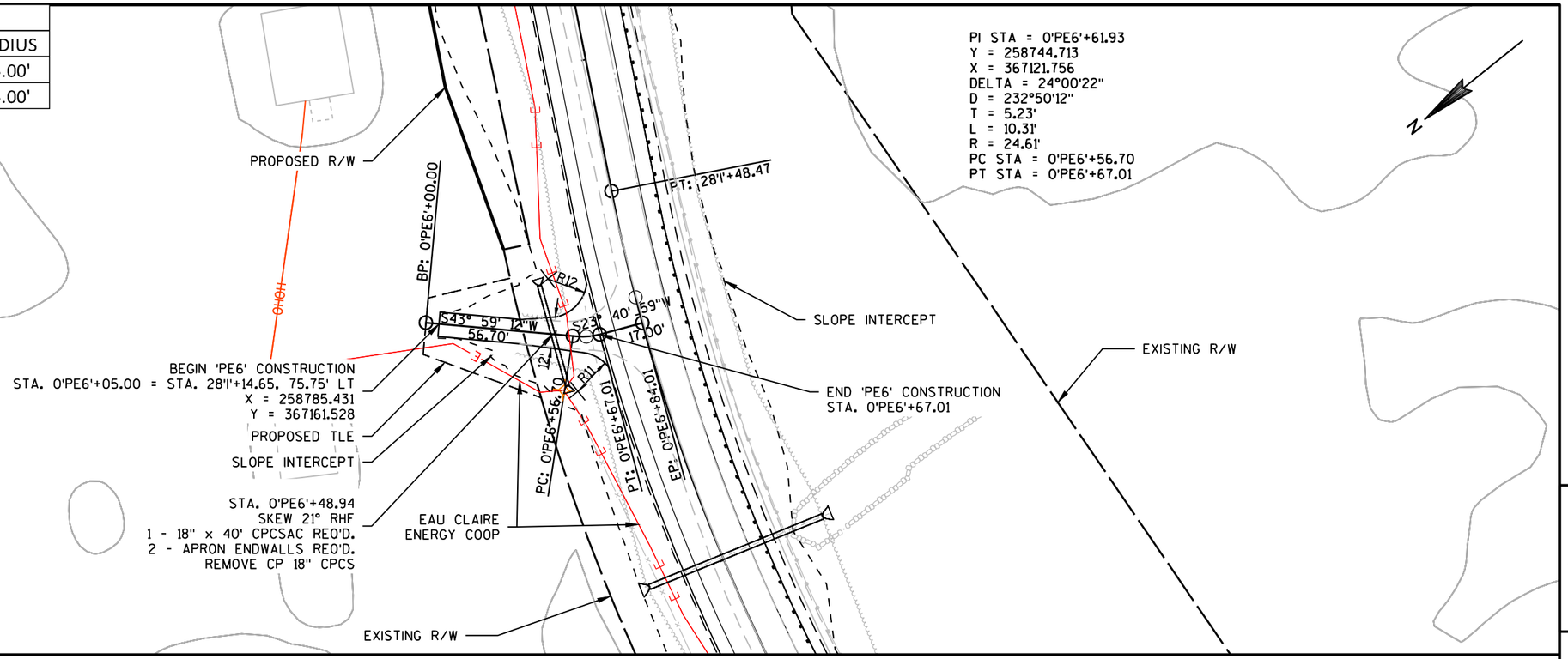
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R9	24'I'+48.14	31.00' LT	258815.27	366771.07	15.00'
R10	24'I'+88.43	31.02' LT	258816.82	366813.04	15.00'

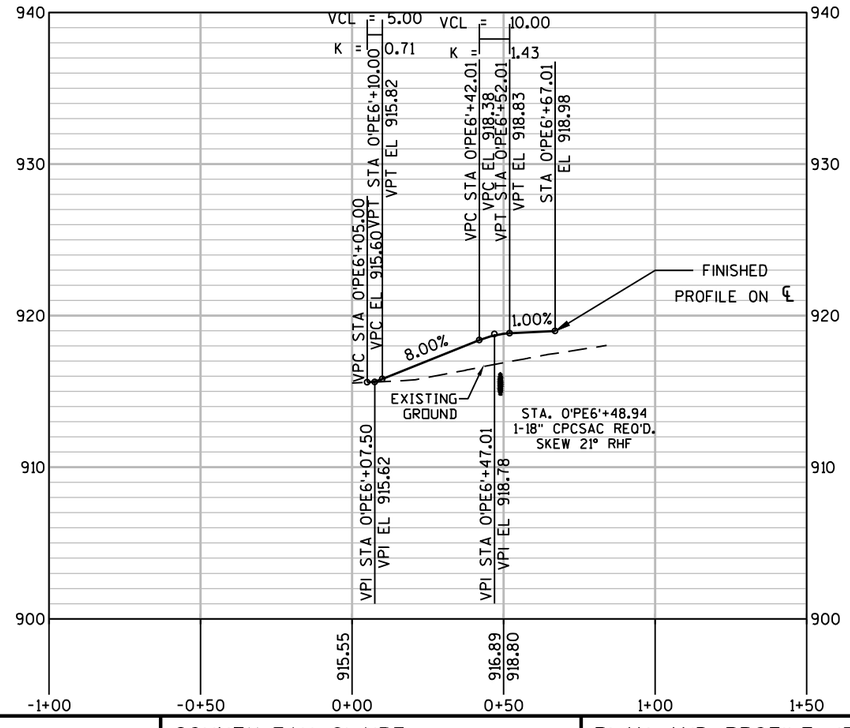




PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: 'PE5'	SHEET 54	E

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'





PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN AND PROFILE: 'PE6'	SHEET 55	E

STA 13'H'+28 TO STA 14'H'+20, LT
92 LF REMOVING GUARDRAIL

STA 13'H'+14 TO 14'H'+17, LT
39.4 LF MGS THRIE BEAM TRANSITION
12.5 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 614'EB'+89 TO STA 618'EB'+19, RT
331 LF SALVAGE AND REINSTALL BEAM GUARD

STA 615'EB'+42 TO STA 617'EB'+22, LT
376 LF REMOVING GUARDRAIL

STA 615'EB'+45 TO STA 617'EB'+21, LT
2 EA STEEL THRIE BEAM BULLNOSE TERMINAL
150 LF STEEL THRIE BEAM

STA 14'H'+10, LT & STA 13'H'+93, RT
2 EA REMOVING SMALL PIPE CULVERTS
2 EA REMOVING SURFACE DRAINS

STA 14'H'+12 TO STA 14'H'+35, LT
67 LF REMOVING FENCE

STA 14'H'+12 TO STA 14'H'+16, LT
60 LF FENCE WOVEN WIRE 4-FT

EXISTING R/W

STA 15'H'+00.92 ℄ HOBBS RD =
STA 616'EB'+51.65 ℞ IH 94 EB

SLOPE INTERCEPT

CONCRETE SURFACE DRAIN
SEE S.D.D. 8D2-06

CONCRETE PAVEMENT APPROACH
SEE S.D.D. 13B02-08A

CONCRETE PAVEMENT 6-INCH
SEE S.D.D. 13B02-08A

ASPHALTIC FLUME

EXISTING R/W

SLOPE INTERCEPT

12'H'+00 13'H'+00 14'H'+00 15'H'+00 16'H'+00 17'H'+00 18'H'+00

614'EB'+00 615'EB'+00 615'WB'+00 614'WB'+00 616'EB'+00 617'EB'+00 617'WB'+00 616'WB'+00 00+633.619 00+643.619 00+648.819 618'WB'+00

CONCRETE PAVEMENT APPROACH
SEE S.D.D. 13B02-08A

ASPHALTIC FLUME

CONCRETE PAVEMENT 6-INCH
SEE S.D.D. 13B02-08A

SLOPE INTERCEPT

EXISTING R/W

EAU CLAIRE ENERGY COOP

SLOPE INTERCEPT

CONCRETE SURFACE DRAIN
SEE S.D.D. 8D2-06

STA 15'H'+72.70 ℄ HOBBS RD =
STA 616'WB'+08.88 ℞ IH 94 EB

STA 13'H'+09 TO STA 14'H'+02, RT
93 LF REMOVING GUARDRAIL

STA 12'H'+88 TO 13'H'+90, RT
39.4 LF MGS THRIE BEAM TRANSITION
12.5 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 13'H'+39 TO STA 14'H'+12, RT
96 LF REMOVING FENCE

STA 13'H'+39 TO STA 13'H'+89, RT
80 LF FENCE WOVEN WIRE 4-FT

STA 14'H'+10, LT & STA 13'H'+93, RT
2 EA REMOVING SMALL CULVERT PIPES
2 EA REMOVING SURFACE DRAINS

STA 16'H'+77 TO STA 17'H'+73, LT
97 LF REMOVING GUARDRAIL

STA 16'H'+84 TO 17'H'+86, LT
39.4 LF MGS THRIE BEAM TRANSITION
12.5 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 16'H'+70 TO STA 17'H'+86, LT
138 LF REMOVING FENCE

STA 16'H'+84 TO STA 17'H'+86, LT
130 LF FENCE WOVEN WIRE 4-FT

STA 16'H'+58 TO STA 21'H'+52, RT
493 LF REMOVING GUARDRAIL

STA 16'H'+57 TO 22'H'+01, RT
39.4 LF MGS THRIE BEAM TRANSITION
450 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 16'H'+24 TO STA 16'H'+45, RT
59 LF REMOVING FENCE

STA 16'H'+24 TO STA 16'H'+58, RT
60 LF FENCE WOVEN WIRE 4-FT

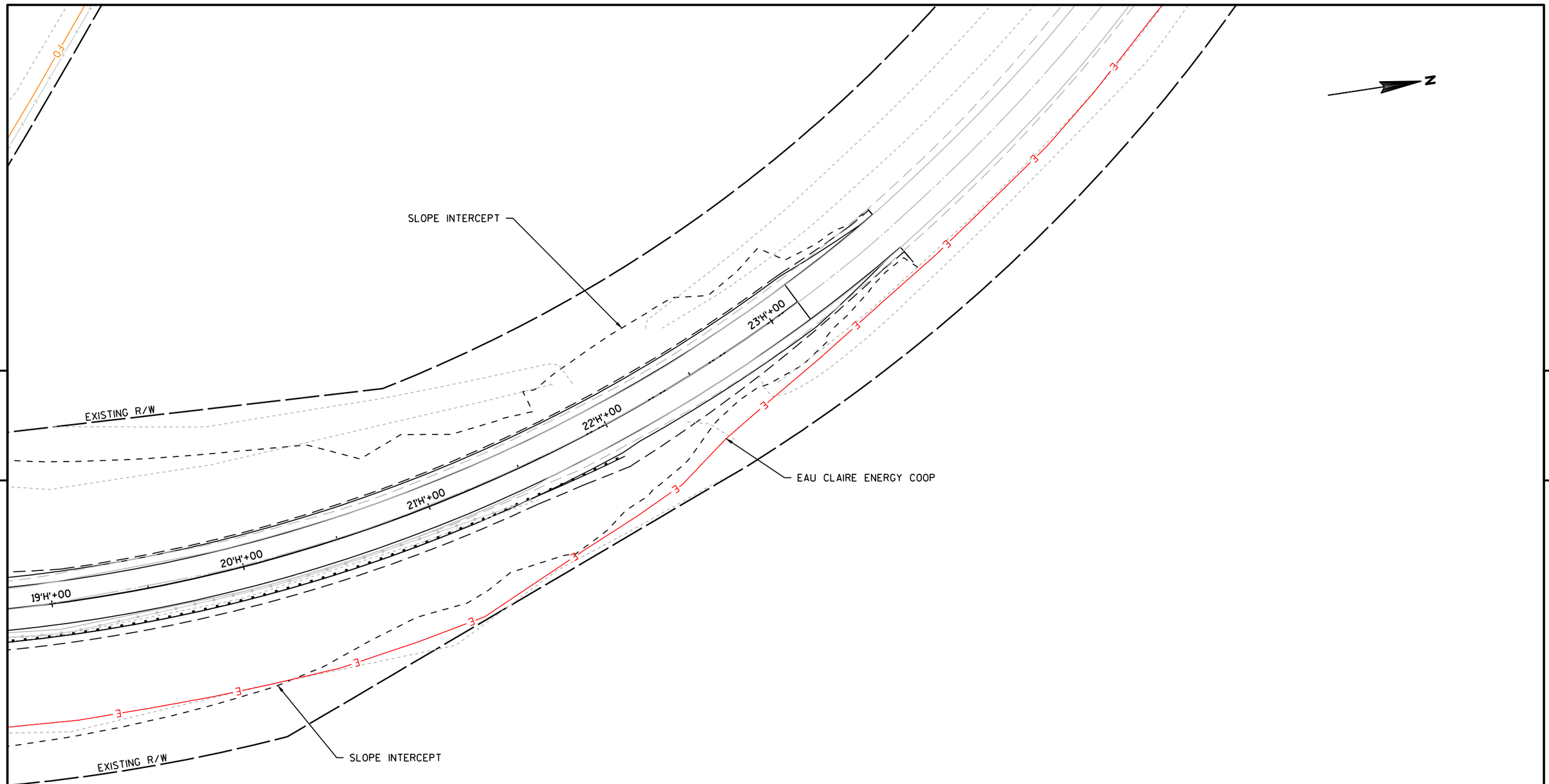
STA 614'WB'+25 TO STA 617'WB'+28, LT
302 LF SALVAGE AND REINSTALL BEAM GUARD

EXISTING R/W

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN	SHEET 56	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\024501-PM.DWG
LAYOUT NAME - 024501-PM

PLOT DATE : 11/24/2017 10:40 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:50 FT



STA 16'H'+58 TO STA 21'H'+52, RT
493 LF REMOVING GUARDRAIL

STA 16'H'+57 TO 22'H'+01, RT
39.4 LF MGS THRIE BEAM TRANSITION
450 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

PROJECT NO:1021-03-74	HWY:IH 94	COUNTY:EAU CLAIRE	PLAN	SHEET 57	E

STA 18'I'+07 TO STA 19'I'+04, LT
97 LF REMOVING GUARDRAIL

STA 17'I'+14 TO 18'I'+88, LT
39.4 LF MGS THRIE BEAM TRANSITION
12.5 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 18'I'+44 TO STA 19'I'+18, LT
98 LF REMOVING FENCE

STA 18'I'+44 TO STA 18'I'+91, LT
70 LF FENCE WOVEN WIRE 4-FT

STA 18'I'+96, LT & STA 19'I'+08, RT
2 EA REMOVING SMALL PIPE CULVERTS
2 EA REMOVING SURFACE DRAINS

EAU CLAIRE
ENERGY COOP

STA 16'I'+38, LT (PE3)
1 EA REMOVING SMALL PIPE CULVERTS

SLOPE INTERCEPT

EXISTING R/W

PROPOSED R/W

CONCRETE SURFACE DRAIN
SEE S.D.D. 8D2-06

14'I'+00
15'I'+00
16'I'+00
17'I'+00
18'I'+00
19'I'+00
20'I'+00
21'I'+00

TLE

SLOPE INTERCEPT

AT&T_DISTRIBUTION
EAU CLAIRE ENERGY COOP

STA 14'I'+24, RT (PE1) & STA 16'I'+14, RT (PE2)
2 EA REMOVING SMALL PIPE CULVERTS

CONCRETE PAVEMENT APPROACH
SEE S.D.D. 13B02-08A

CONCRETE SURFACE DRAIN
SEE S.D.D. 8D2-06

STA 19'I'+88.84 ℄ CTH I =
STA 649'EB'+04.94 ℞ IH 94 EB

EXISTING R/W

STA 18'I'+86 TO STA 19'I'+29, RT
62 LF REMOVING FENCE

STA 18'I'+86 TO STA 19'I'+07, RT
60 LF FENCE WOVEN WIRE 4-FT

STA 647'EB'+09 TO STA 650'EB'+44, RT
335 LF SALVAGE AND REINSTALL BEAM GUARD

STA 17'I'+27 TO STA 19'I'+17, RT
190 LF REMOVING GUARDRAIL

STA 16'I'+44 TO 19'I'+07, RT
39.4 LF MGS THRIE BEAM TRANSITION
175 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 648'EB'+41 TO STA 650'EB'+23, LT
376 LF REMOVING GUARDRAIL

STA 648'EB'+69 TO STA 650'EB'+40, LT
OR STA 648'EB'+32.60 TO 650'EB'+04.41
2 EA STEEL THRIE BEAM BULLNOSE TERMINAL
150 LF STEEL THRIE BEAM

STA 20'I'+55.15 ℄ CTH I =
STA 649'WB'+32.12 ℞ IH 94 WB

647'EB'+00
647'WB'+00
648'EB'+00
648'WB'+00
649'EB'+00
649'WB'+00
650'EB'+00
650'WB'+00
651'EB'+00

MH

N

5

5

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN	SHEET 58	E

STA 21'I'+42 TO STA 22'I'+42, LT
100 LF REMOVING GUARDRAIL

STA 21'I'+37 TO 22'I'+51, LT
39.4 LF MGS THRIE BEAM TRANSITION
25 LF MGS GUARDRAIL 3
1 EA MGS GUARDRAIL TERMINAL EAT

STA 21'I'+39 TO STA 21'I'+51, LT
42 LF REMOVING FENCE

STA 21'I'+37 TO STA 21'I'+51, LT
50 LF FENCE WOVEN WIRE 4-FT

STA 24'I'+68, LT (PE5)
1 EA REMOVING SMALL PIPE CULVERTS

STA 25'I'+00 TO STA 27'I'+74, LT
302 LF REMOVING FENCE

STA 27'I'+97, LT (PE6)
1 EA REMOVING SMALL PIPE CULVERTS

STA 27'I'+01
1 EA REMOVING SMALL PIPE CULVERTS

STA 21'I'+41 TO STA 21'H'+74, RT
39 LF REMOVING FENCE

STA 21'I'+53 TO STA 21'I'+74, RT
40 LF FENCE WOVEN WIRE 4-FT

STA 21'I'+55 TO STA 30'I'+30, RT
875 LF REMOVING GUARDRAIL

STA 21'I'+56 TO 32'I'+75, RT
39.4 LF MGS THRIE BEAM TRANSITION
1072 LF MGS GUARDRAIL 3

STA 32'I'+75 TO STA 34'I'+76, RT
201 LF MGS GUARDRAIL 3K

STA 34'I'+76 TO STA 35'I'+21, RT
1 EA MGS GUARDRAIL TERMINAL EAT

N

WELL
GUY
MH

HO
TLE
FO
E

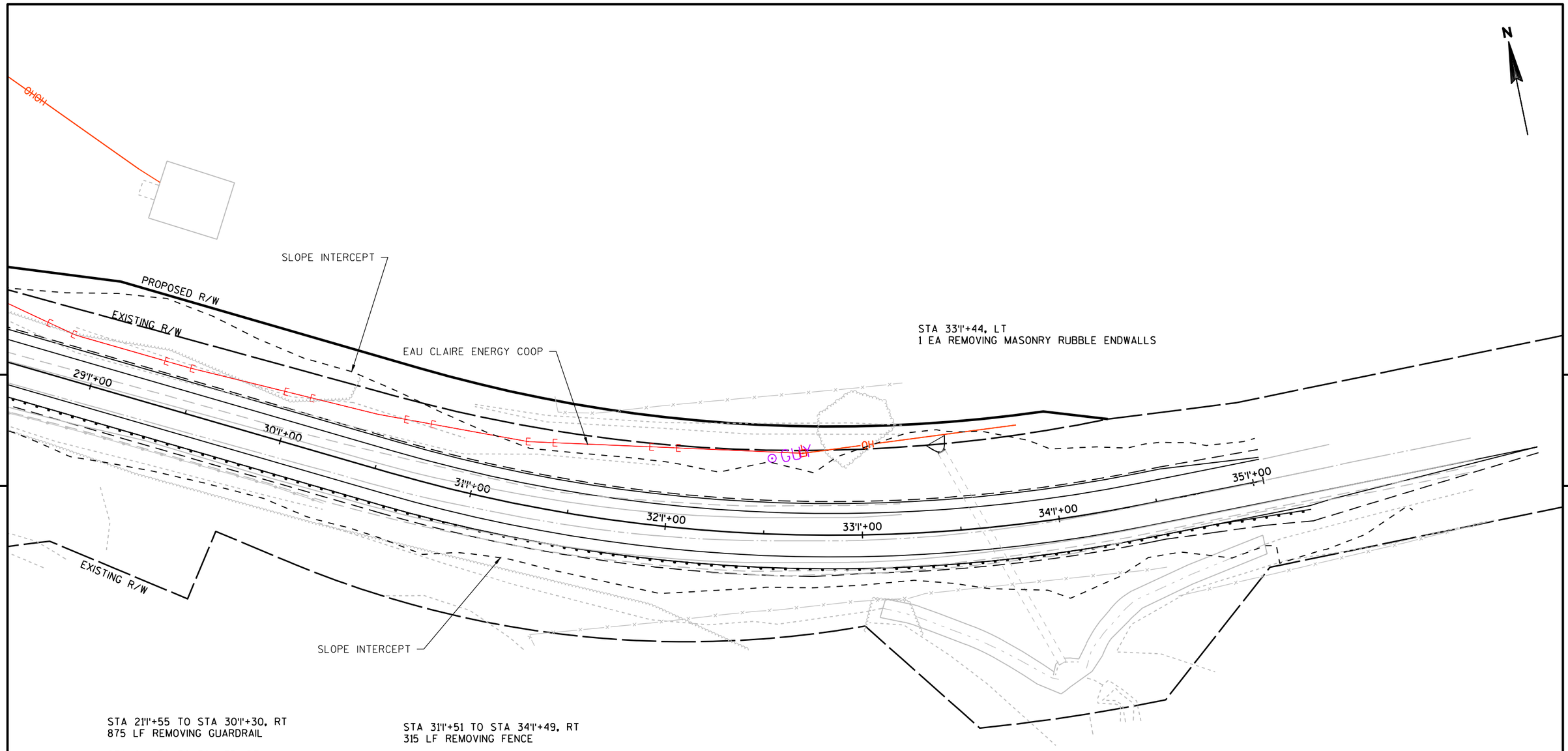
EAU CLAIRE ENERGY COOP
CONCRETE PAVEMENT 6-INCH
SEE S.D.D. 13B02-08A
ASPHALTIC FLUME
PROPOSED R/W
SLOPE INTERCEPT
EXISTING R/W
CONCRETE PAVEMENT APPROACH
SEE S.D.D. 13B02-08A
WINDSTREAM-COMMUNICATIONS
AT&T-TRANSMISSION

21'I'+00
22'I'+00
23'I'+00
24'I'+00
25'I'+00
26'I'+00
27'I'+00
28'I'+00
650'WB'+00
651'WB'+00
651'EB'+00
652'W

5

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN	SHEET 59	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\VIEWFRAMEGROUPS\024501-PM.DWG
LAYOUT NAME - 02452-PD
PLOT DATE : 11/24/2017 10:40 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42



5

5

STA 21'1'+55 TO STA 30'1'+30, RT
875 LF REMOVING GUARDRAIL

STA 21'1'+56 TO 32'1'+75, RT
39.4 LF MGS THRIE BEAM TRANSITION
1072 LF MGS GUARDRAIL 3

STA 32'1'+75 TO STA 34'1'+76, RT
201 LF MGS GUARDRAIL 3K

STA 34'1'+76 TO STA 35'1'+21, RT
1 EA MGS GUARDRAIL TERMINAL EAT

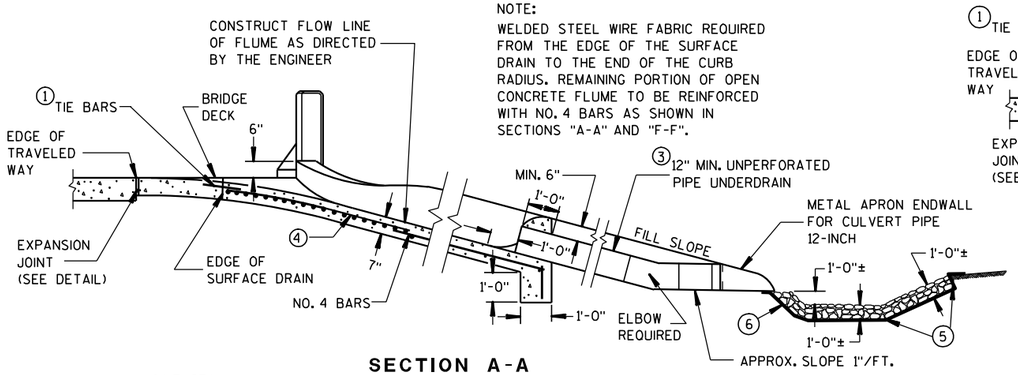
STA 31'1'+51 TO STA 34'1'+49, RT
315 LF REMOVING FENCE

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	PLAN	SHEET 60	E

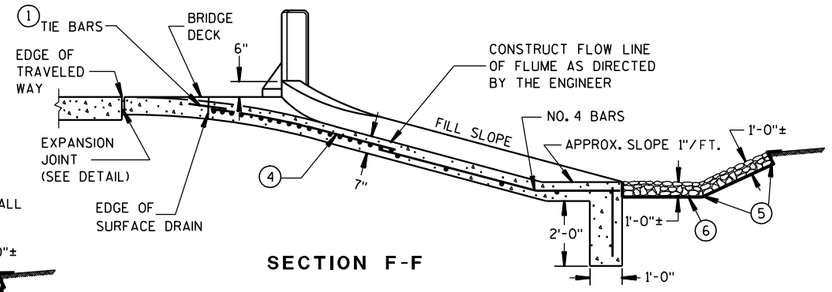
Standard Detail Drawing List

08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13A03-06	CONCRETE PAVEMENT SHOULDERS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A02-09	DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-03D	DELINEATOR WITH REFLECTIVE SHEETING
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-03A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-03D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

6



SECTION A-A



SECTION F-F

GENERAL NOTES

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

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

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

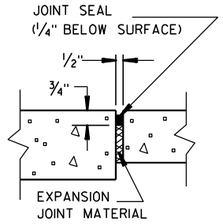
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

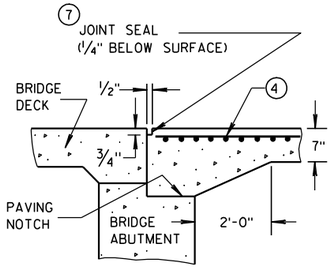
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

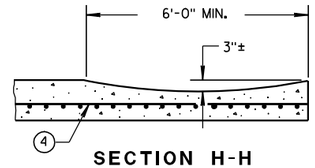
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



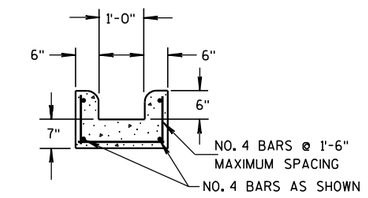
EXPANSION JOINT DETAIL



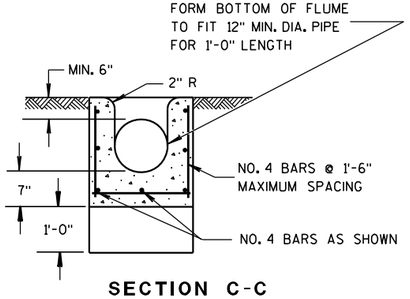
SECTION D-D



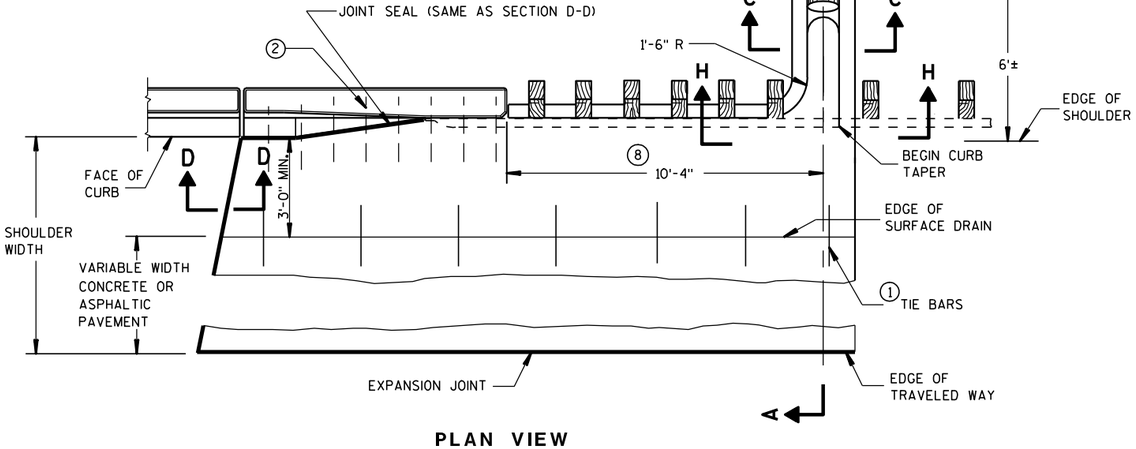
SECTION H-H



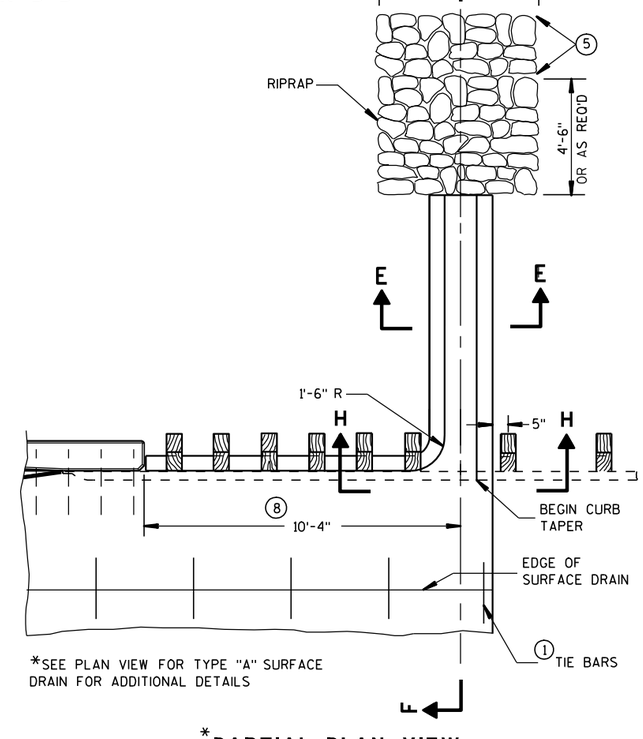
SECTION E-E



SECTION C-C

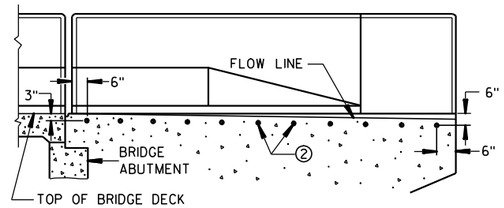


PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"



LOCATION OF
TIE BARS IN WINGWALL

CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

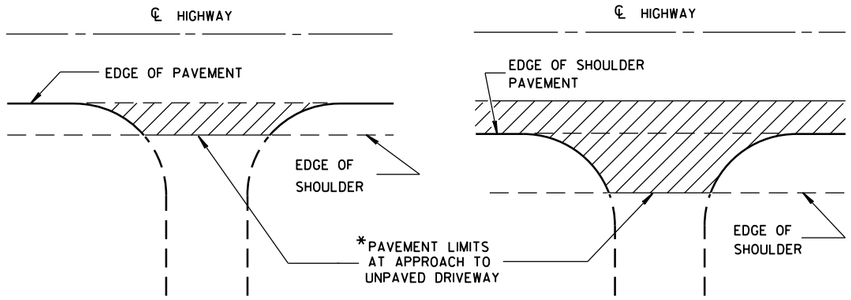
APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 D 2-6

6

S.D.D. 8 D 2-6

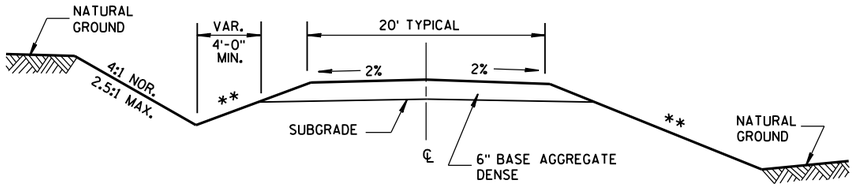


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB & GUTTER OR SIDEWALK)

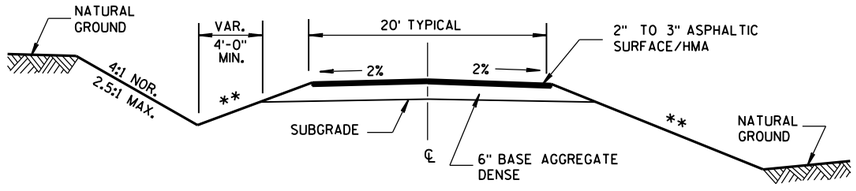


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

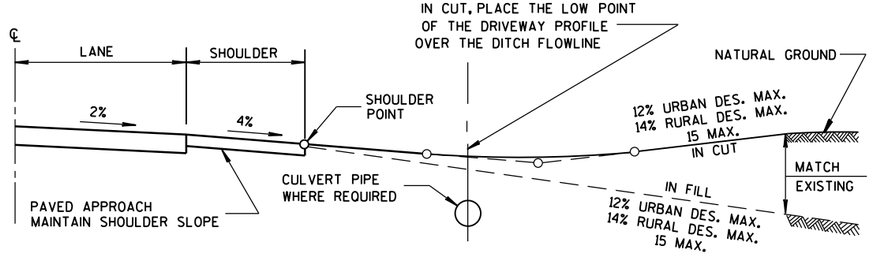
** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE



TYPICAL DRIVEWAY PROFILES

DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

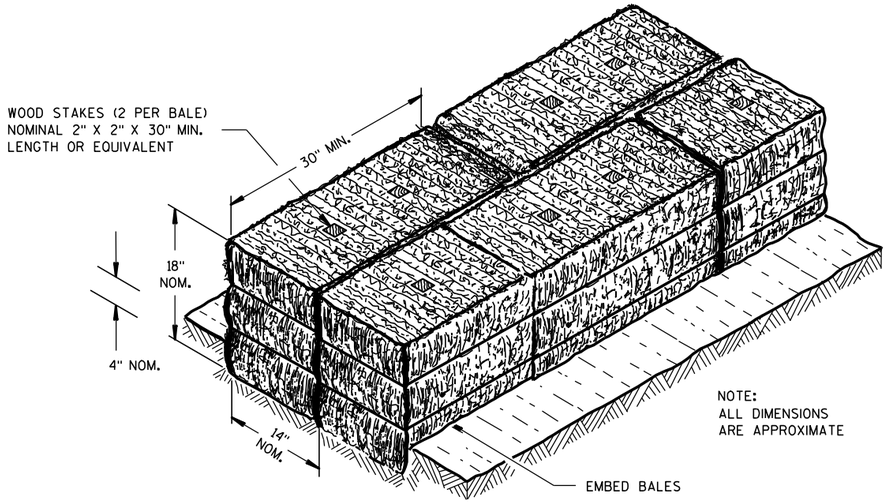
APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

6

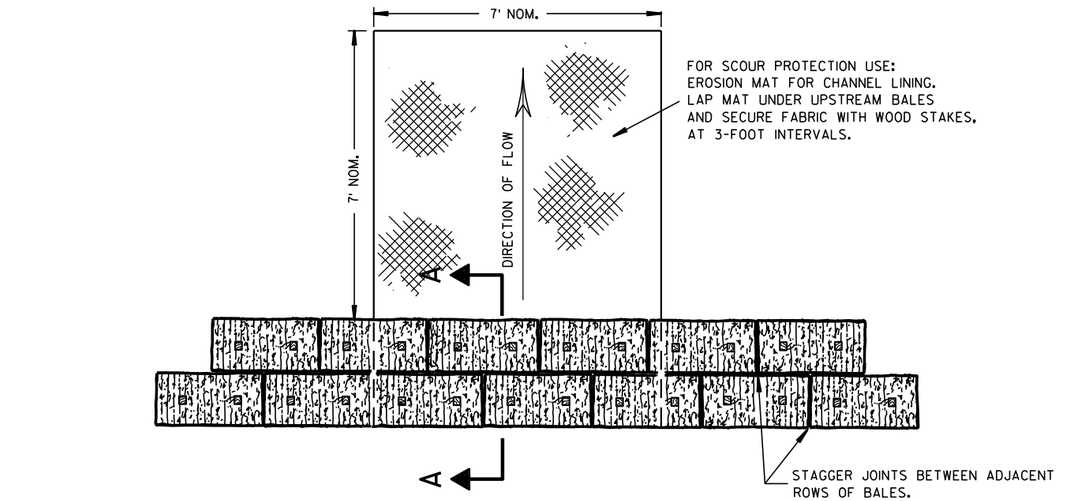
S.D.D. 8 D 21-1

6

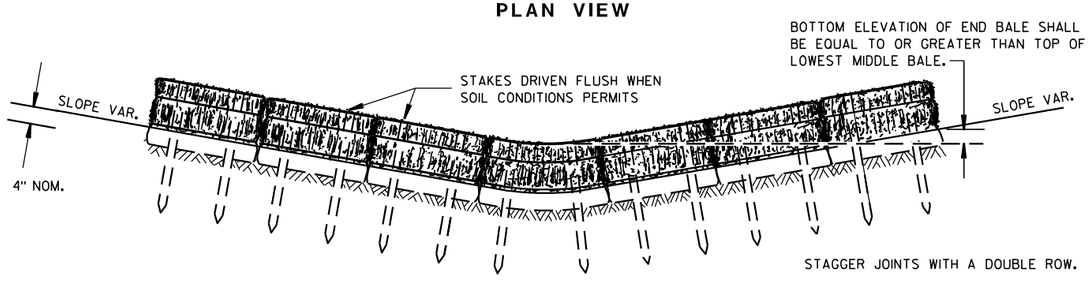
S.D.D. 8 D 21-1



SECTION A-A



PLAN VIEW



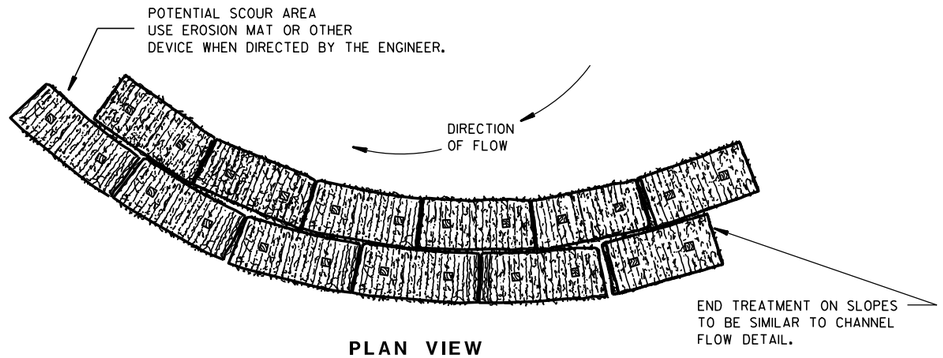
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

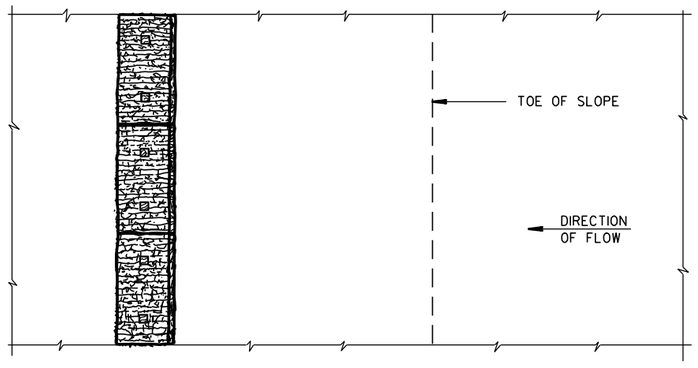
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

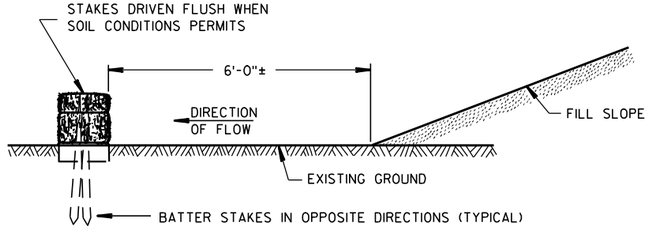


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

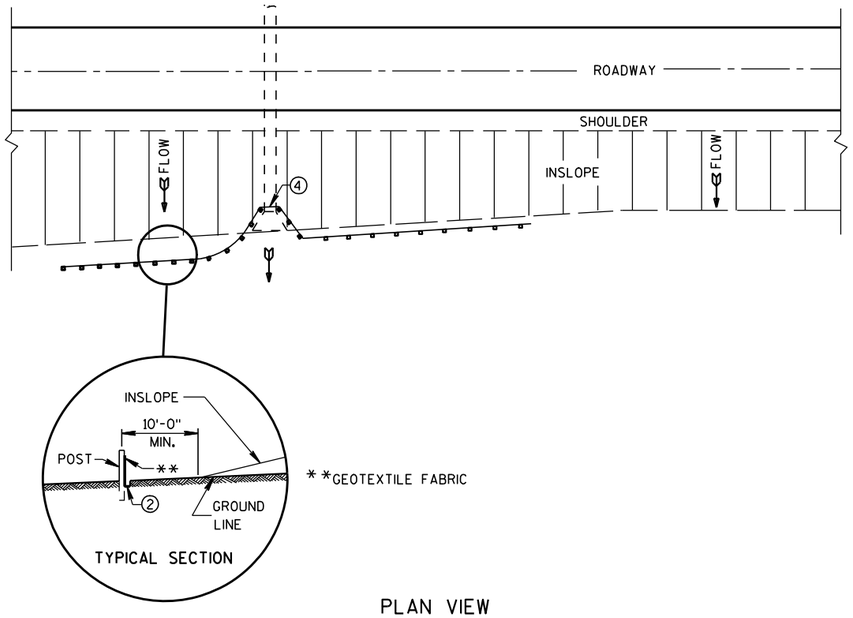
FHWA

6

S.D.D. 8 E 8-3

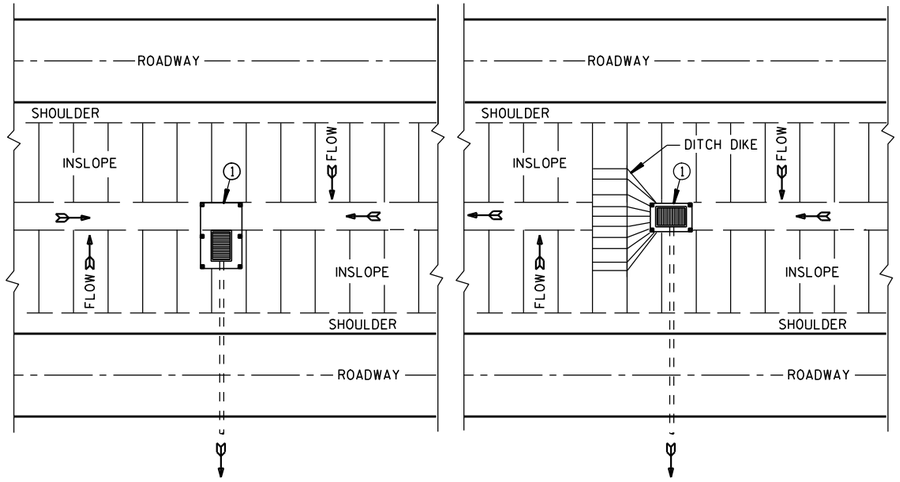
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

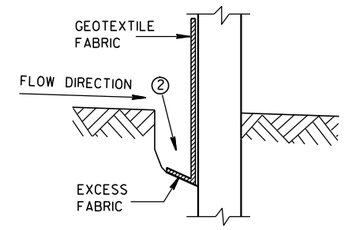
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

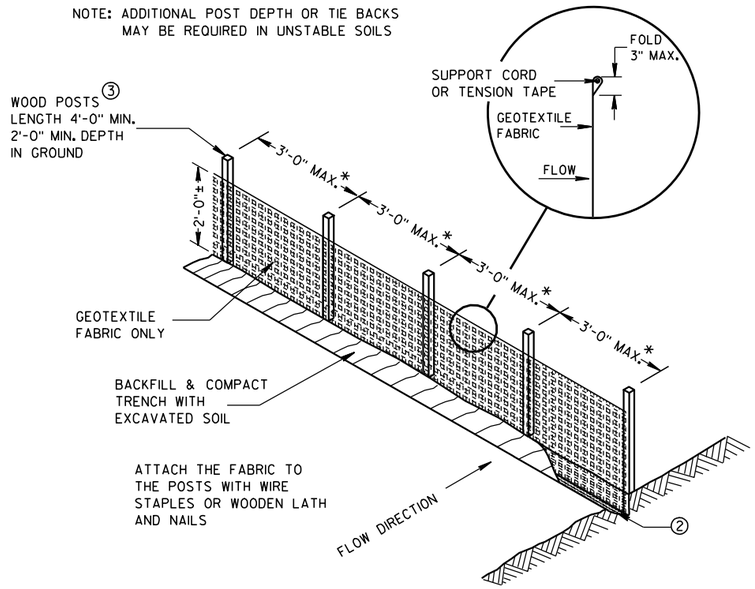
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

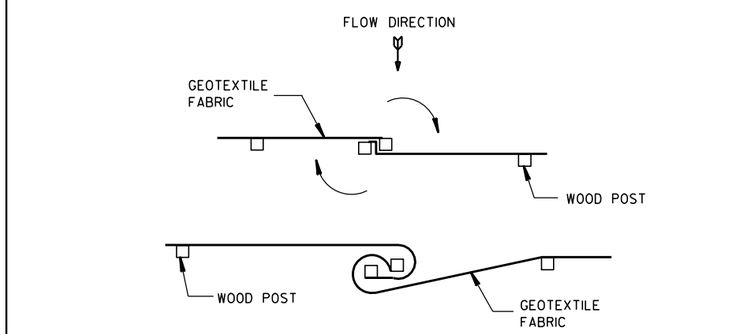
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



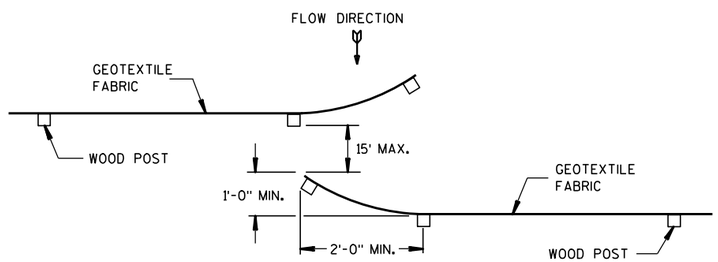
TRENCH DETAIL



SILT FENCE

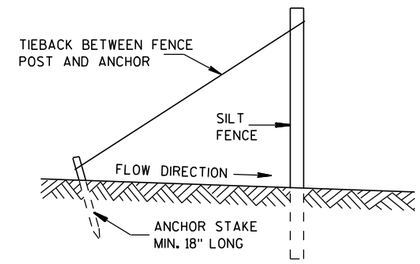


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

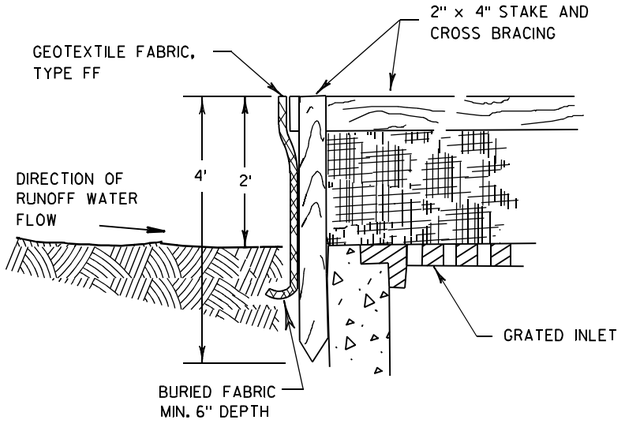
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

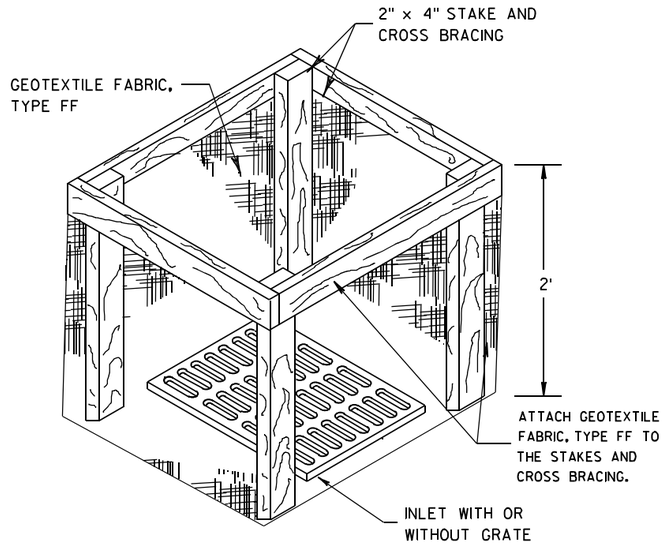
6

S.D.D. 8 E 9-6

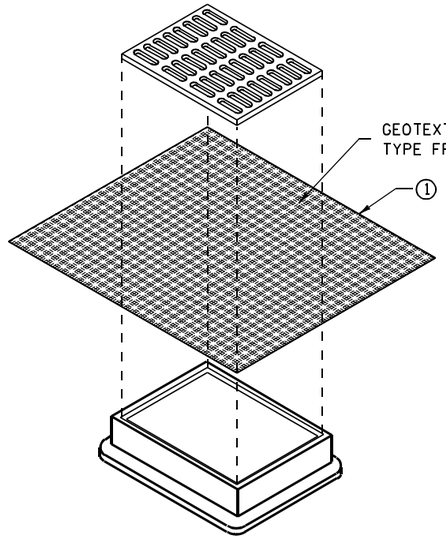
6

S.D.D. 8 E 9-6



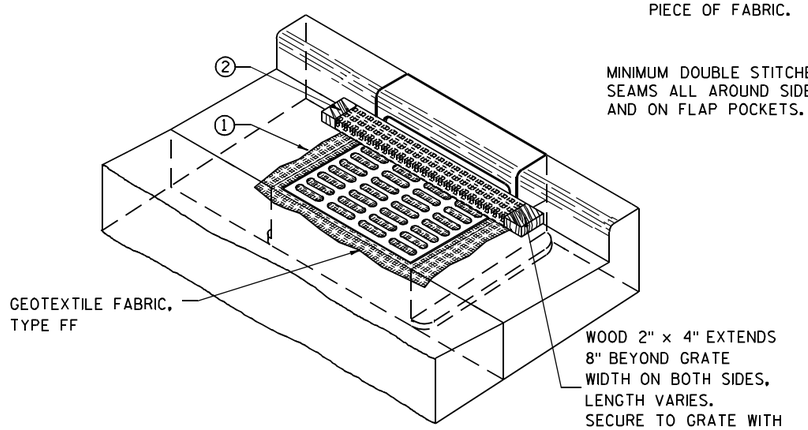


INLET PROTECTION, TYPE A

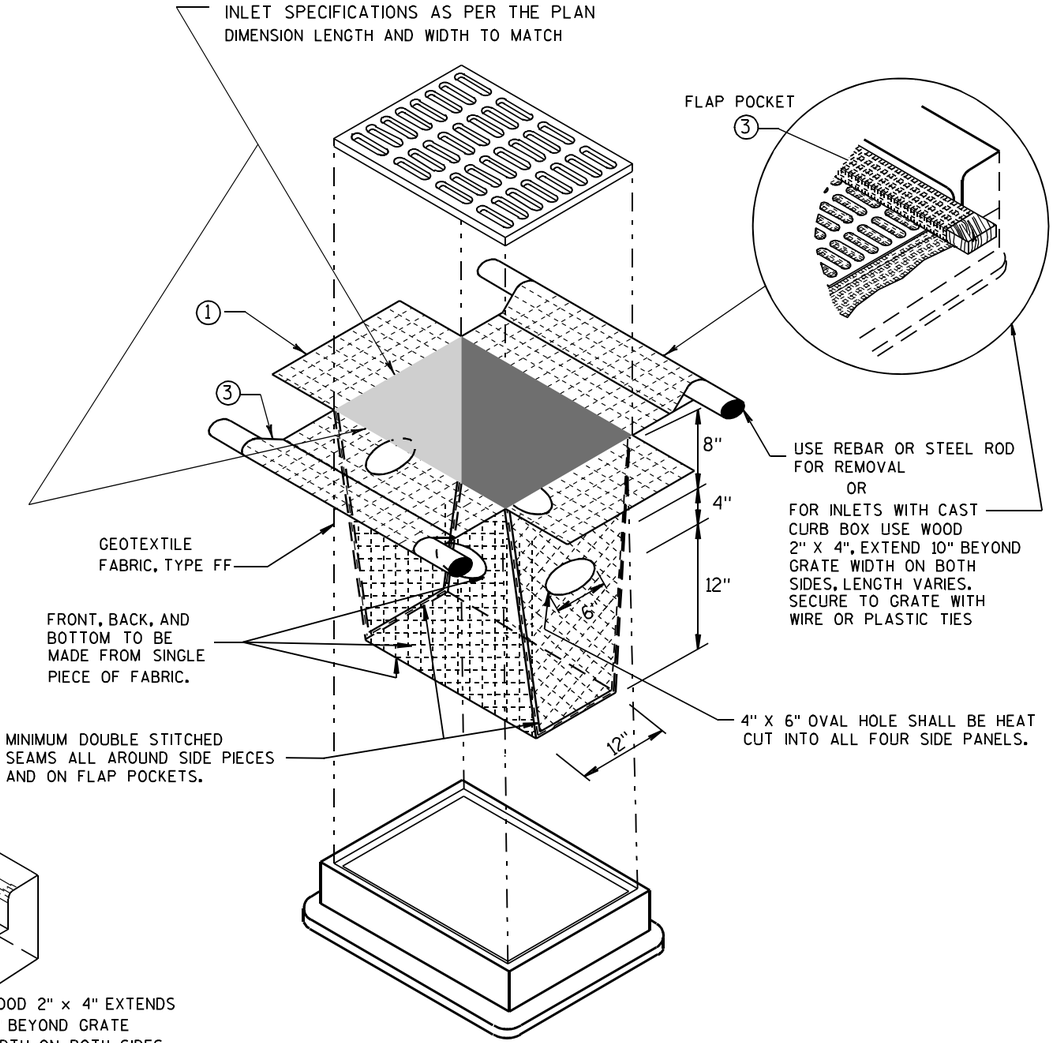


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

METAL APRON ENDWALLS

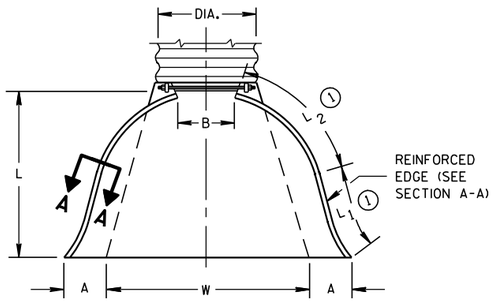
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

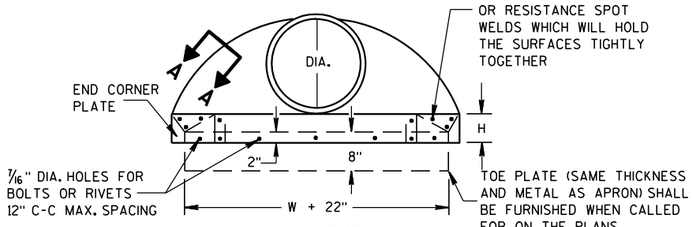
REINFORCED CONCRETE APRON ENDWALLS

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

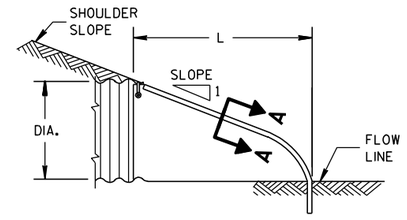
*MINIMUM
**MAXIMUM



PLAN VIEW

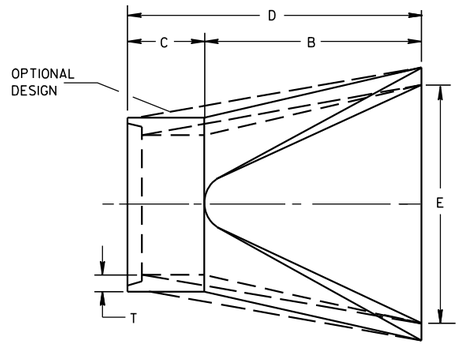


END VIEW

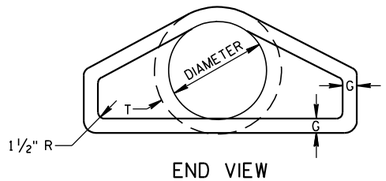


SIDE ELEVATION

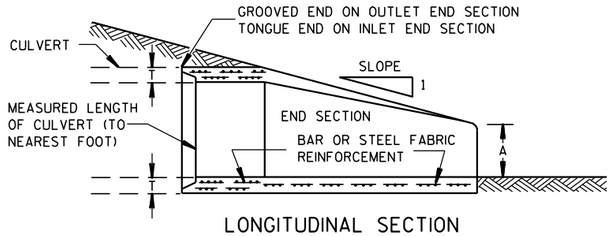
METAL ENDWALLS



PLAN

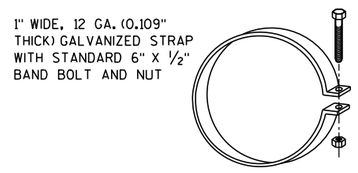


END VIEW



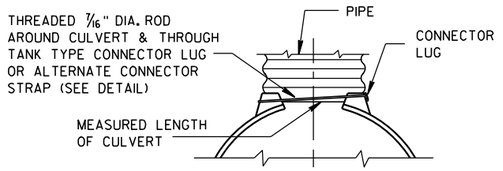
LONGITUDINAL SECTION

CONCRETE ENDWALLS

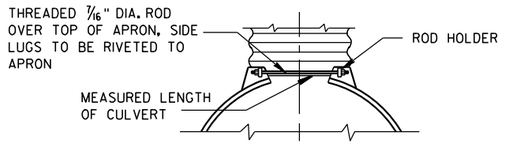


ALTERNATE FOR TYPE 1 CONNECTION

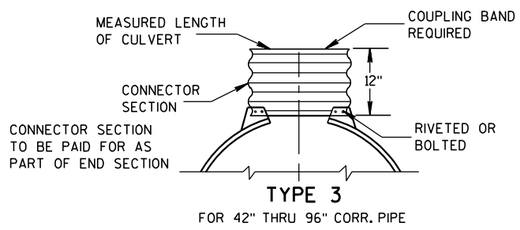
END SECTION CONNECTOR STRAP



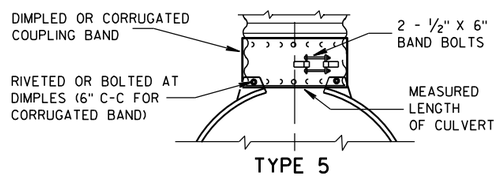
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

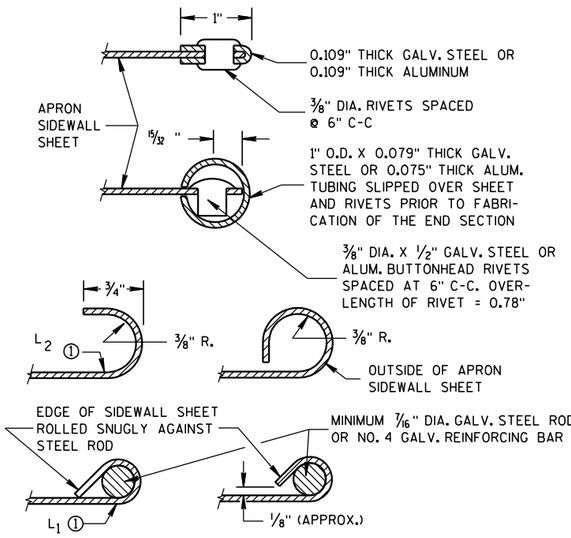
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

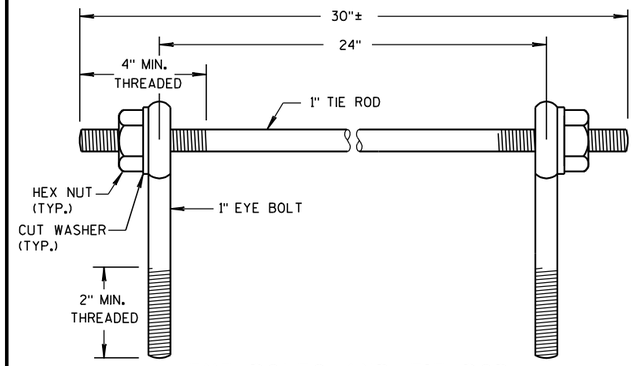
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

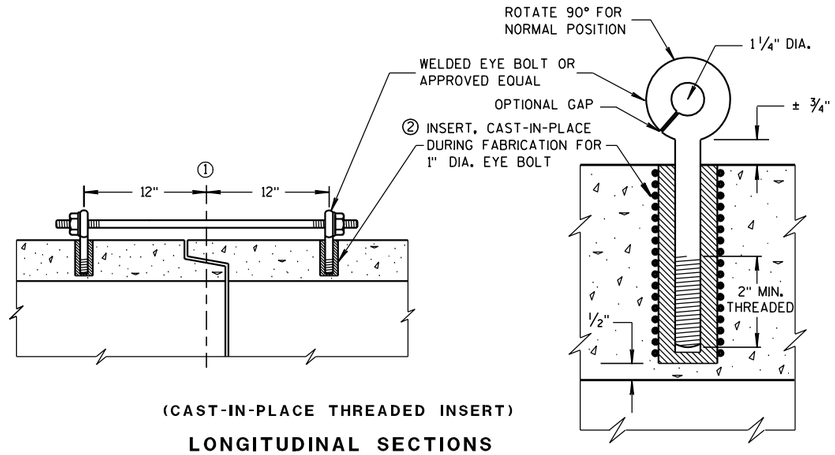
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP 67 NEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

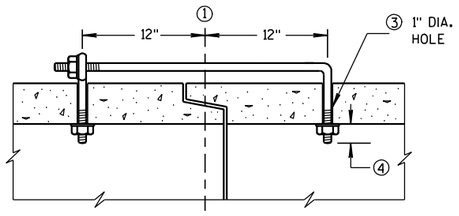
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

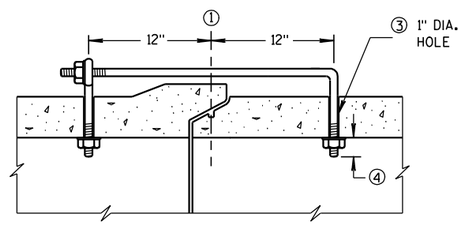
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

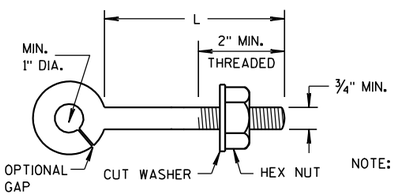


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

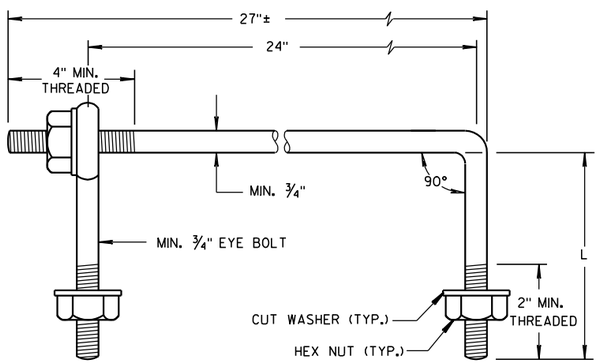
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

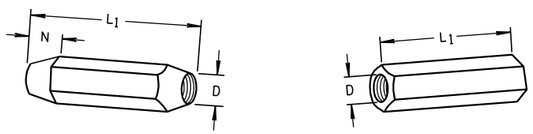
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

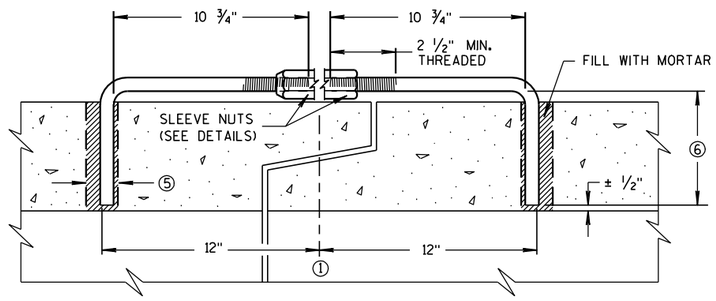
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

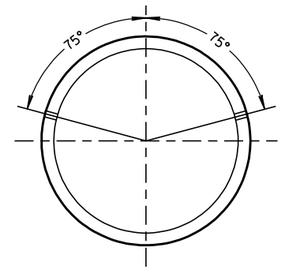
SLEEVE NUTS



LONGITUDINAL SECTION

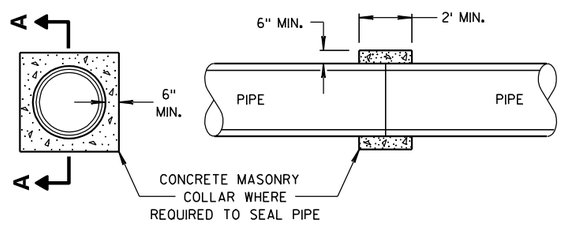
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

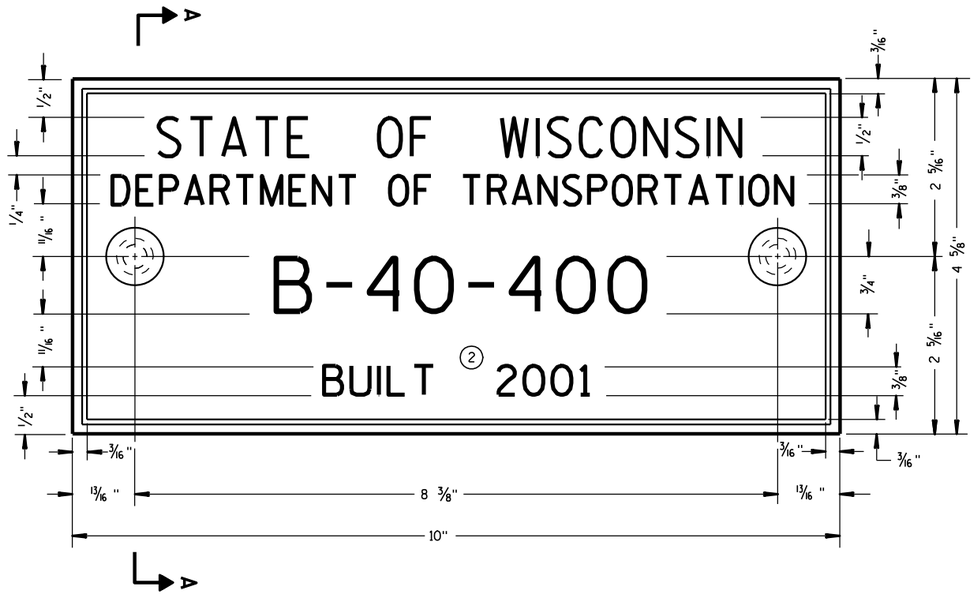
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
68
FHWA

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S.D.D. 8 F 4-7



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

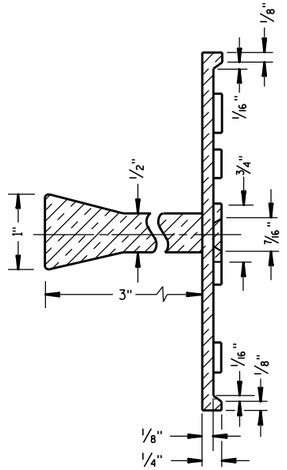
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

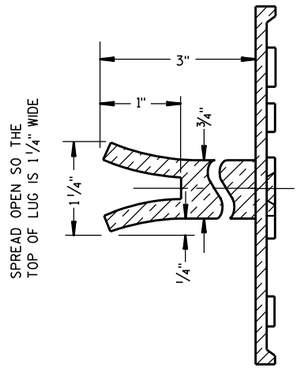
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

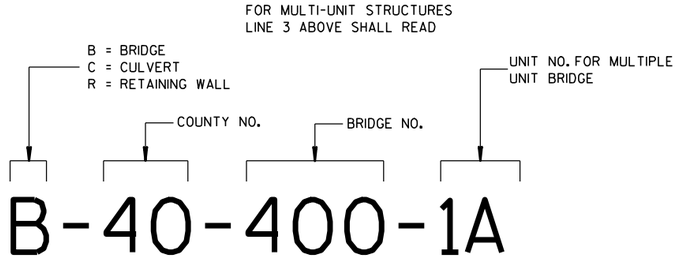
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



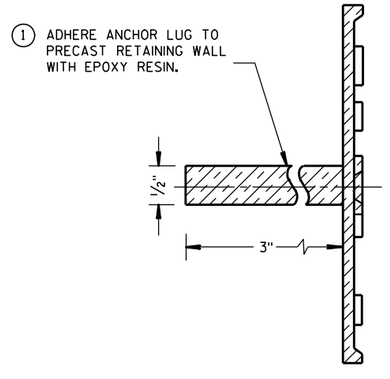
SECTION A-A



ALTERNATE LUG



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

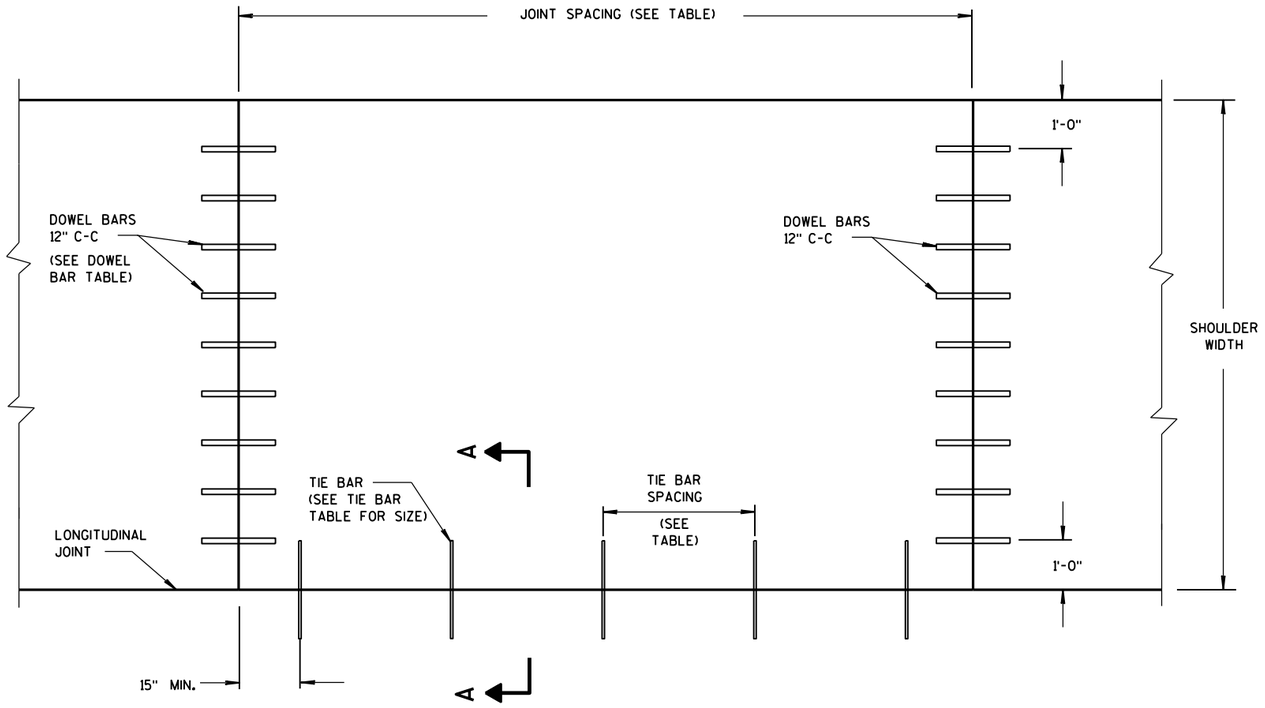
FHWA

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

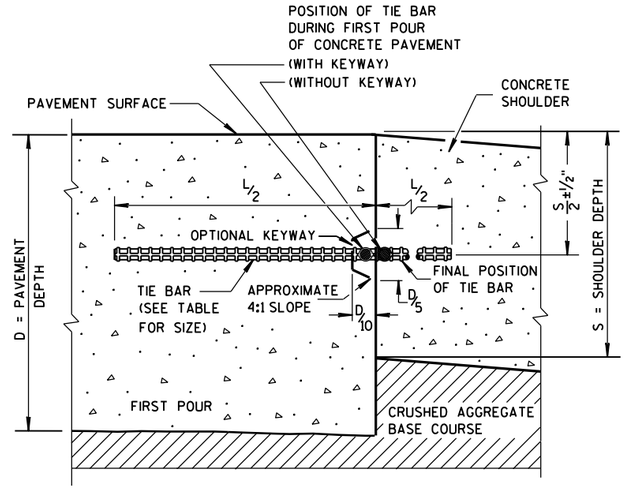
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

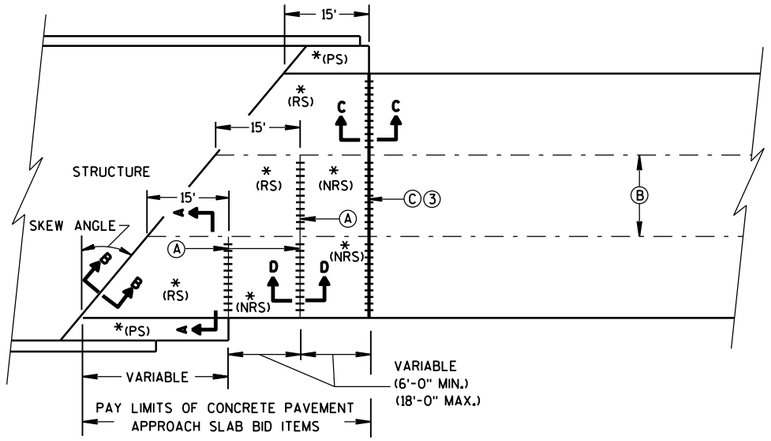
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERINTENDENT
FHWA

6

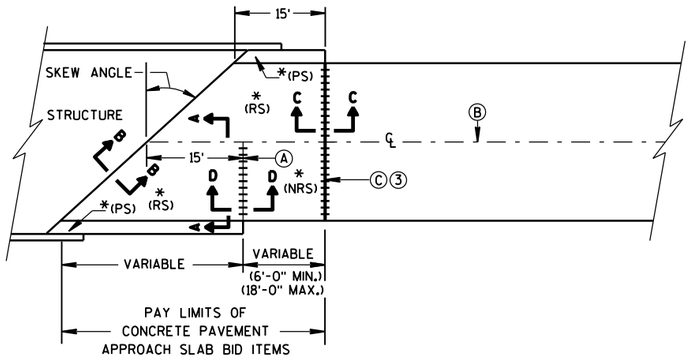
S.D.D. 13 A 3-6

6

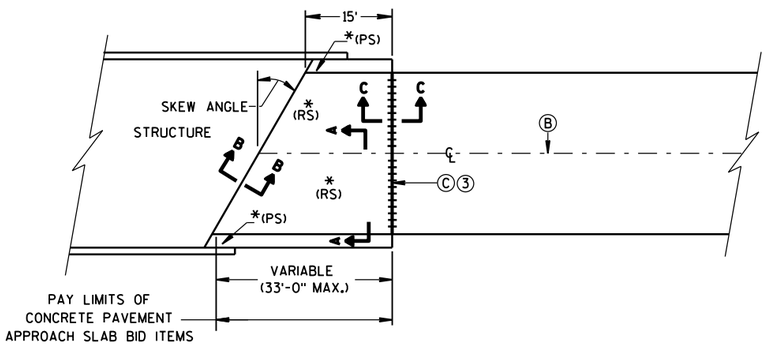
S.D.D. 13 A 3-6



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



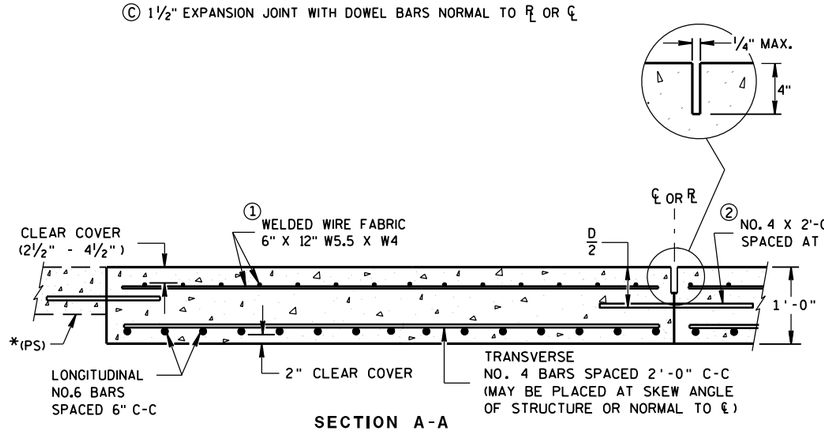
SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

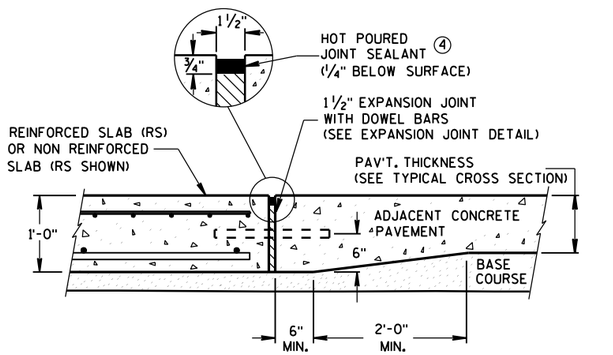
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

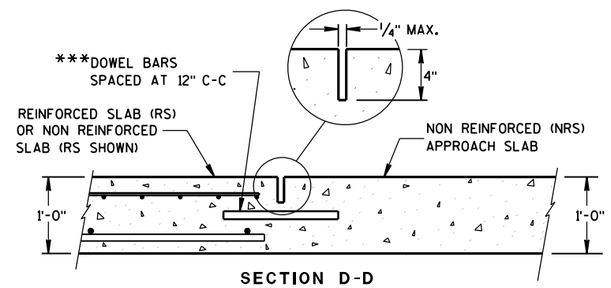
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

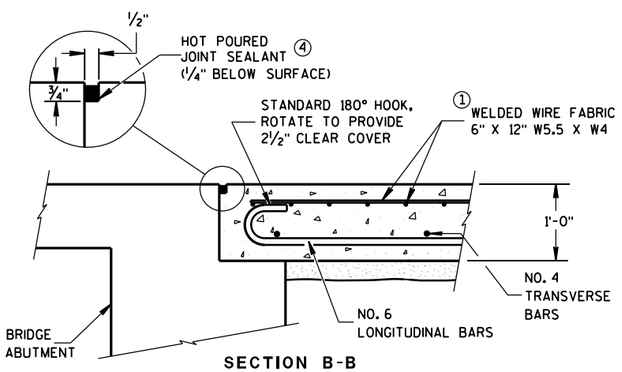
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

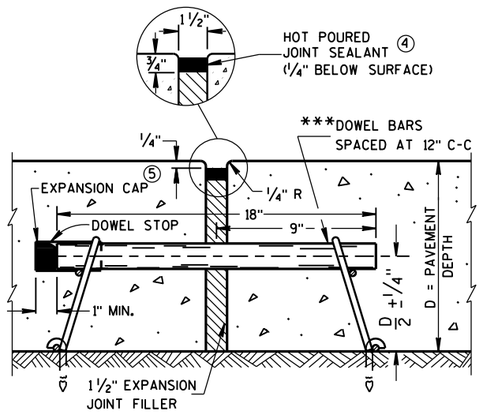
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



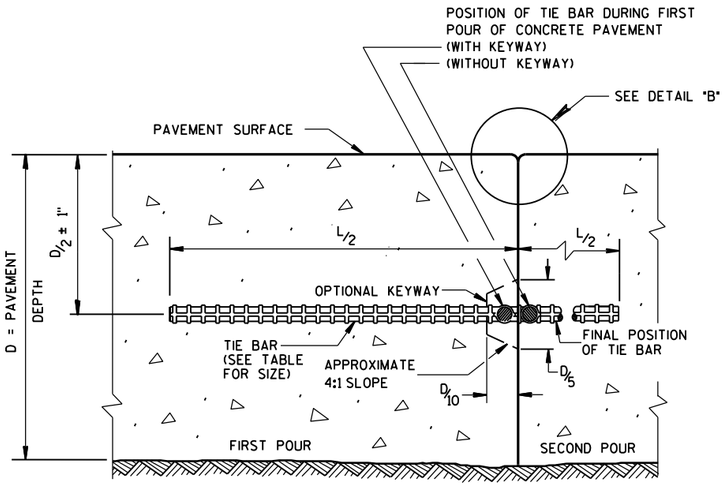
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

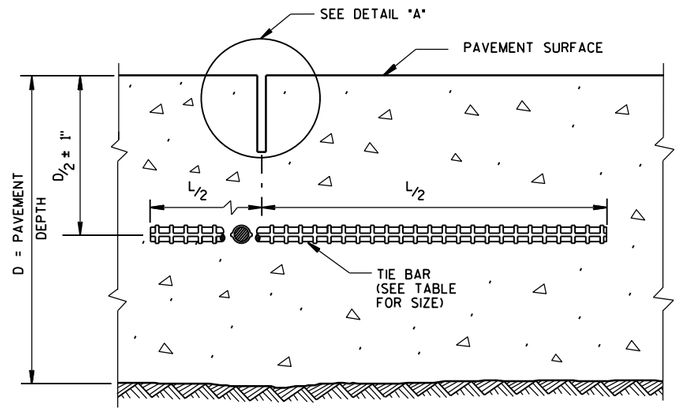
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6
S.D.D. 13 B 2-8a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

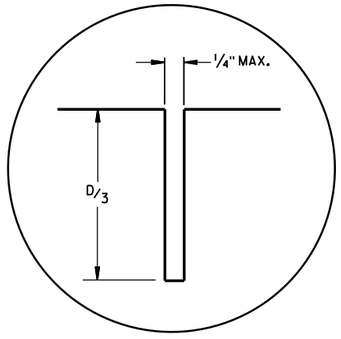
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

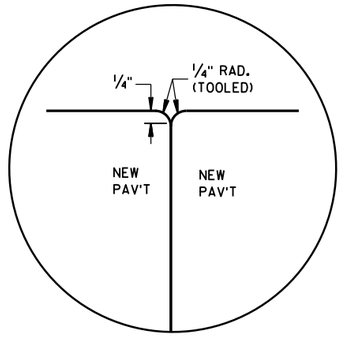
PLAN VIEW

SECTION A-A

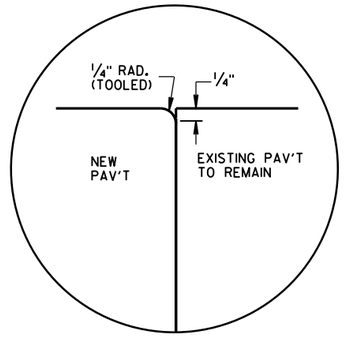
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



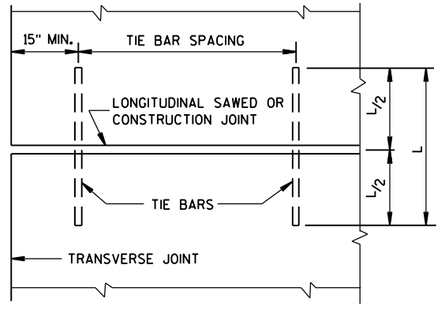
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

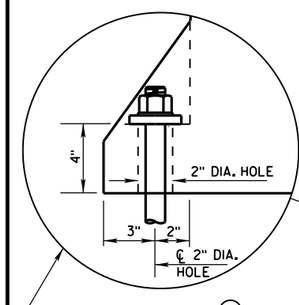
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

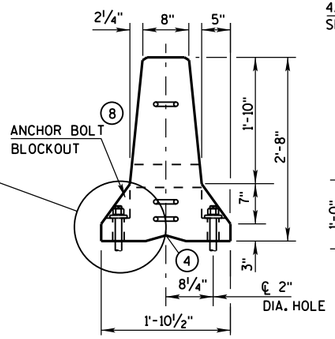
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

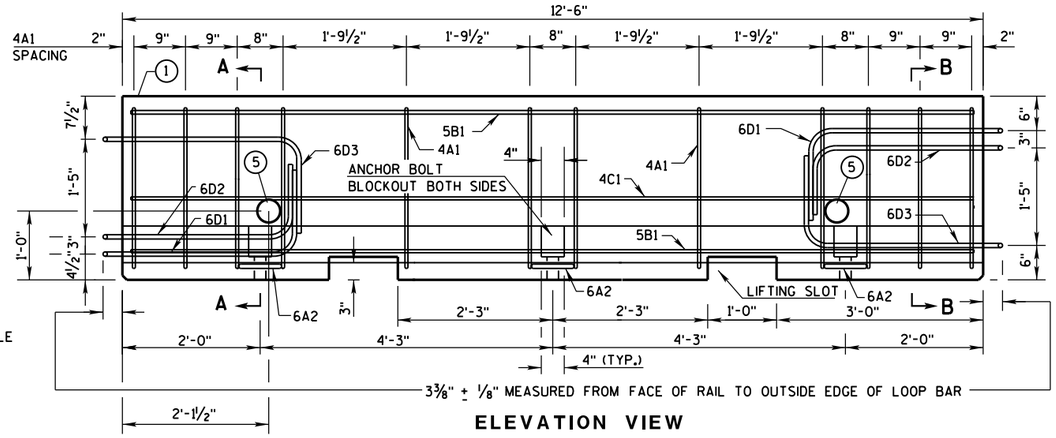
6

S.D.D. 13 C 1-18

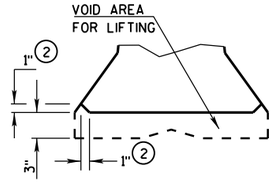




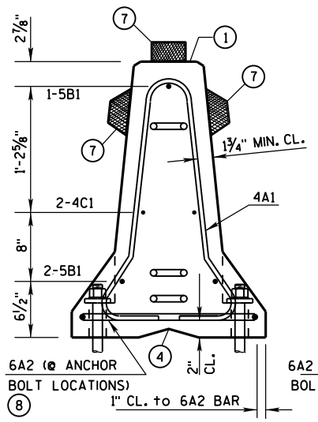
END VIEW



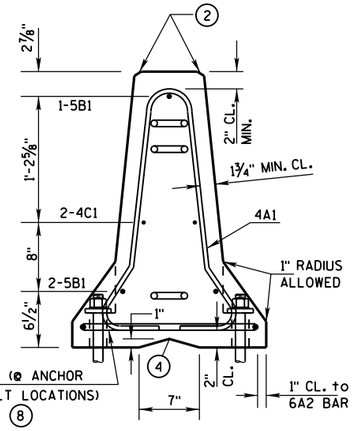
ELEVATION VIEW



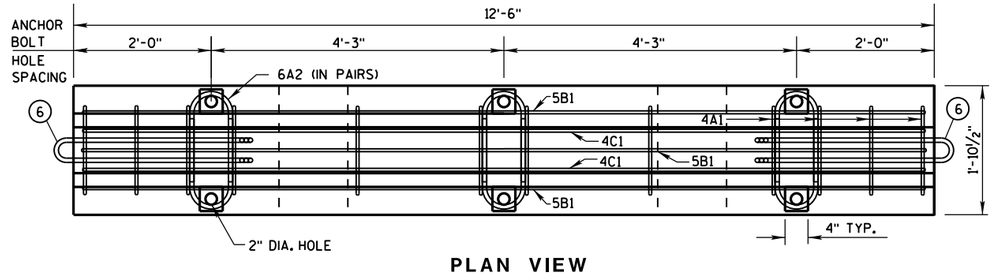
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

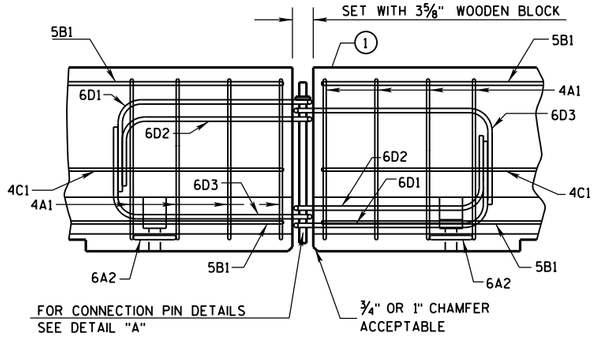


SECTION B-B
(STIRRUP PLACEMENT)

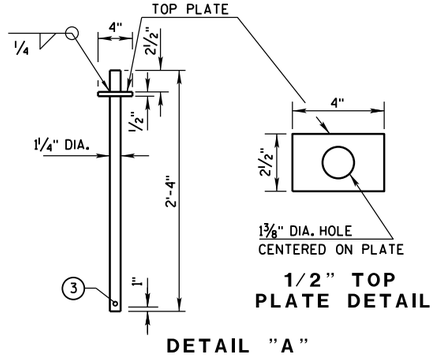


PLAN VIEW

DETAILS OF BARRIER SECTION

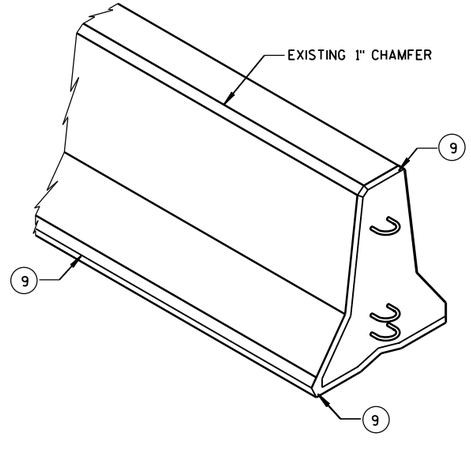


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

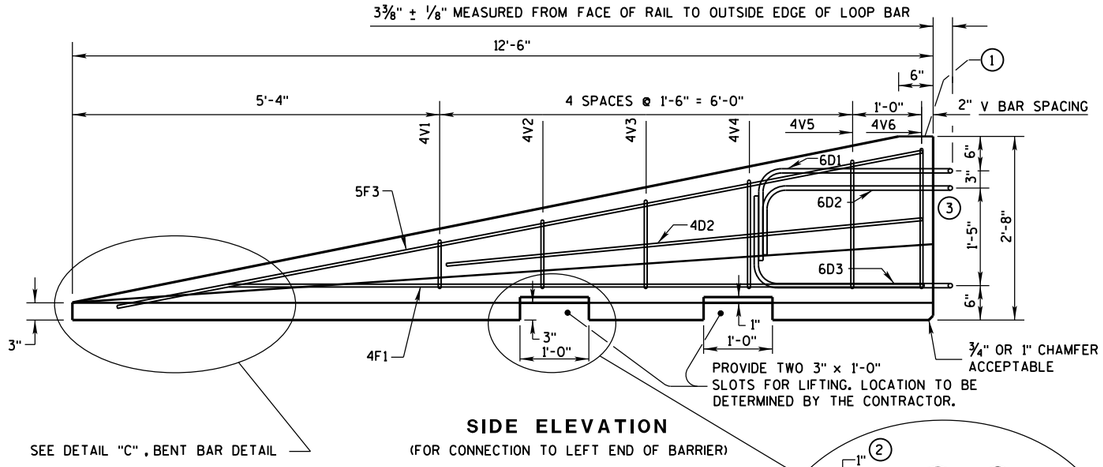
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

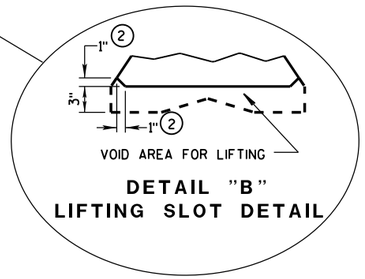
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

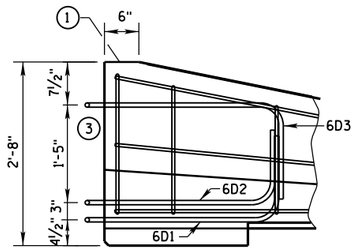
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



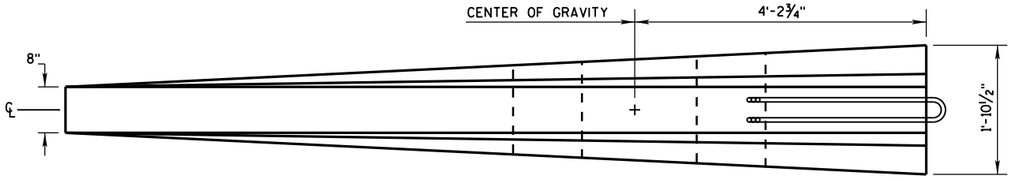
DETAIL "B"
LIFTING SLOT DETAIL



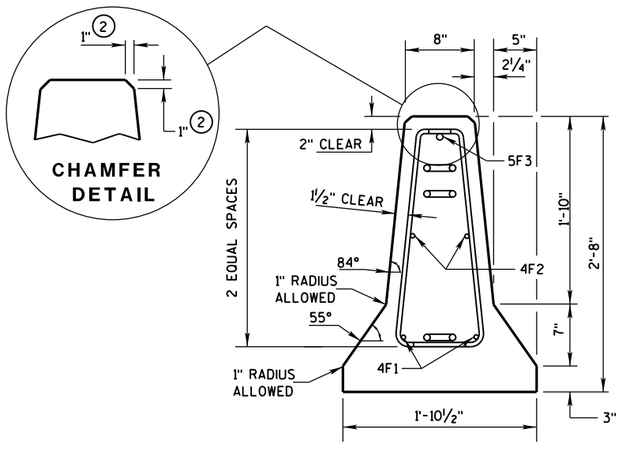
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

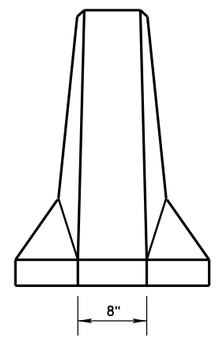
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



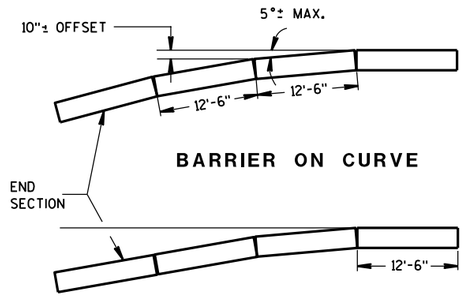
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

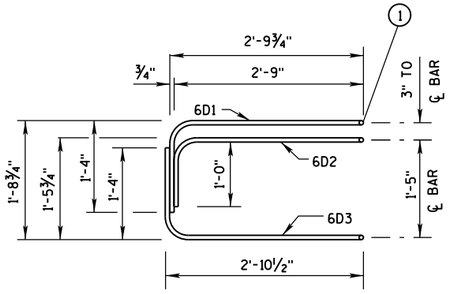
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S.D.D. 14 B 7-14b

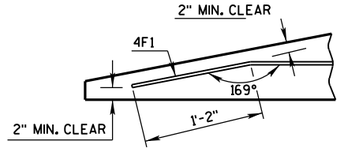
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

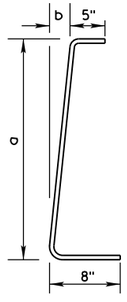
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

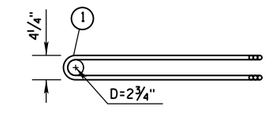
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

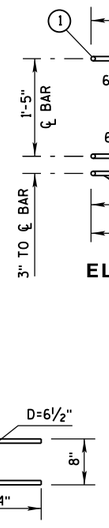
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

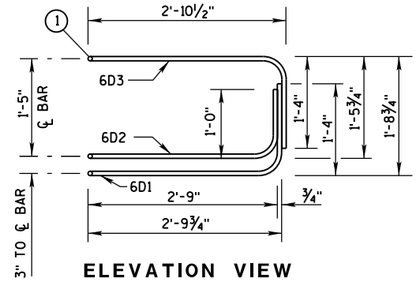
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



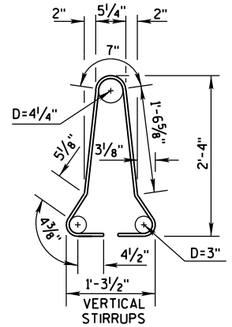
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



4A1

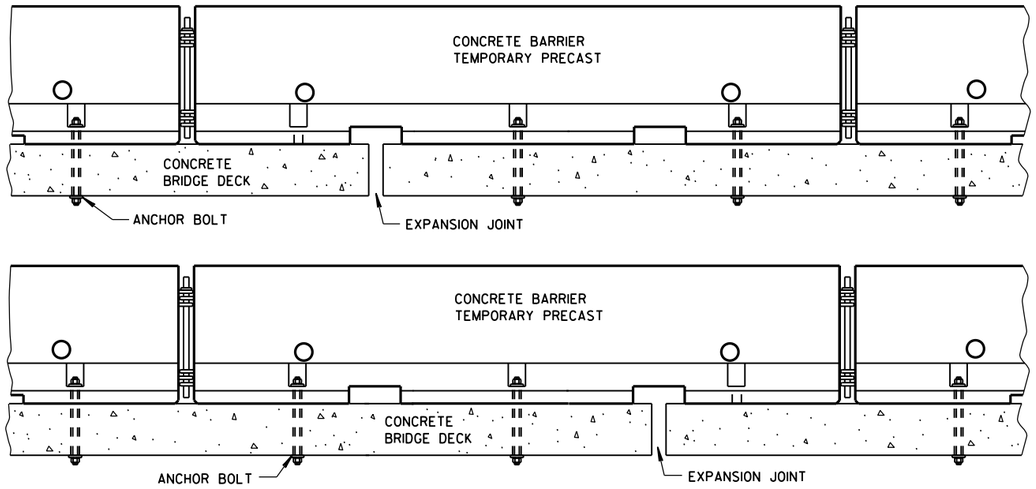
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

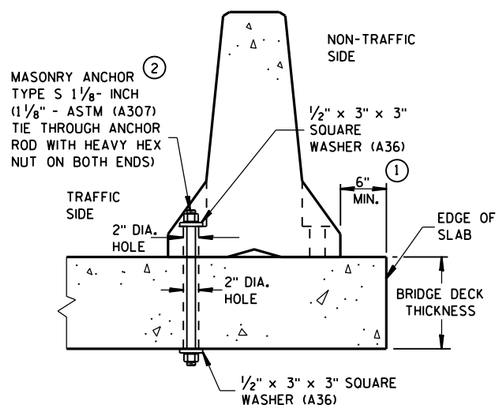
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S.D.D. 14 B 7-14c



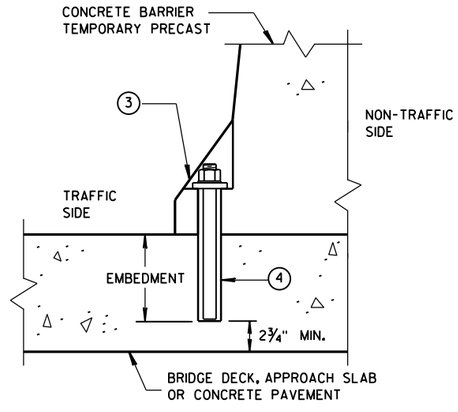
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT ②

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

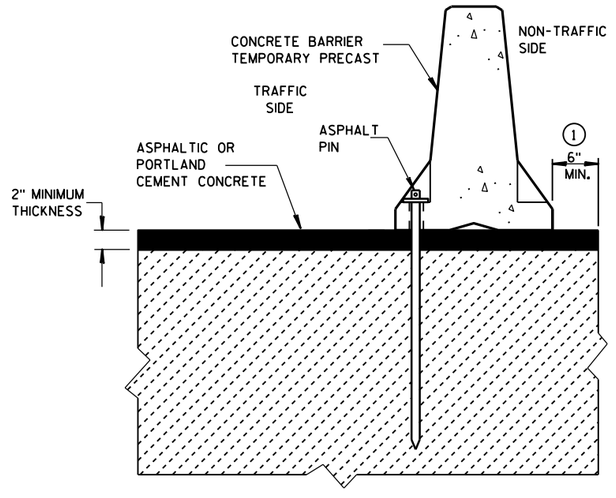
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

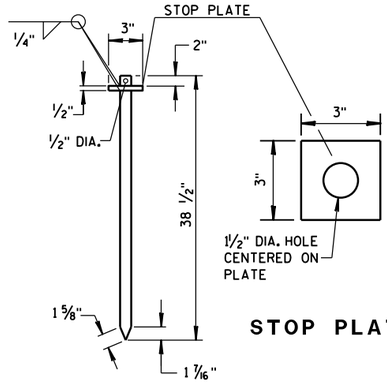
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)

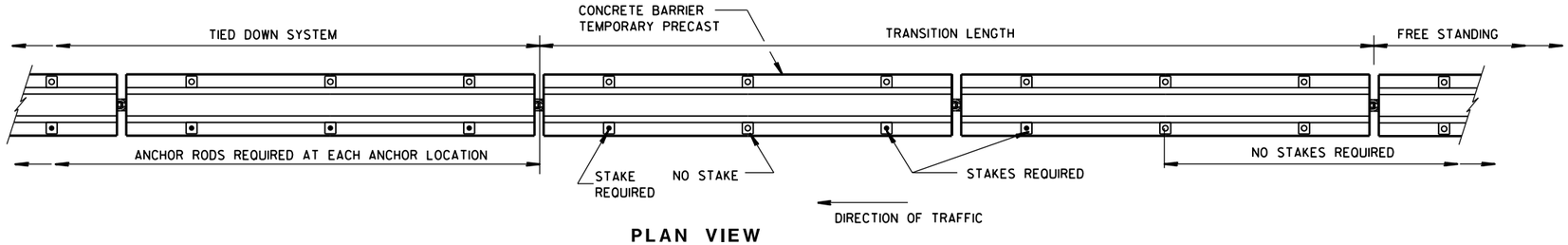


STOP PLATE



ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

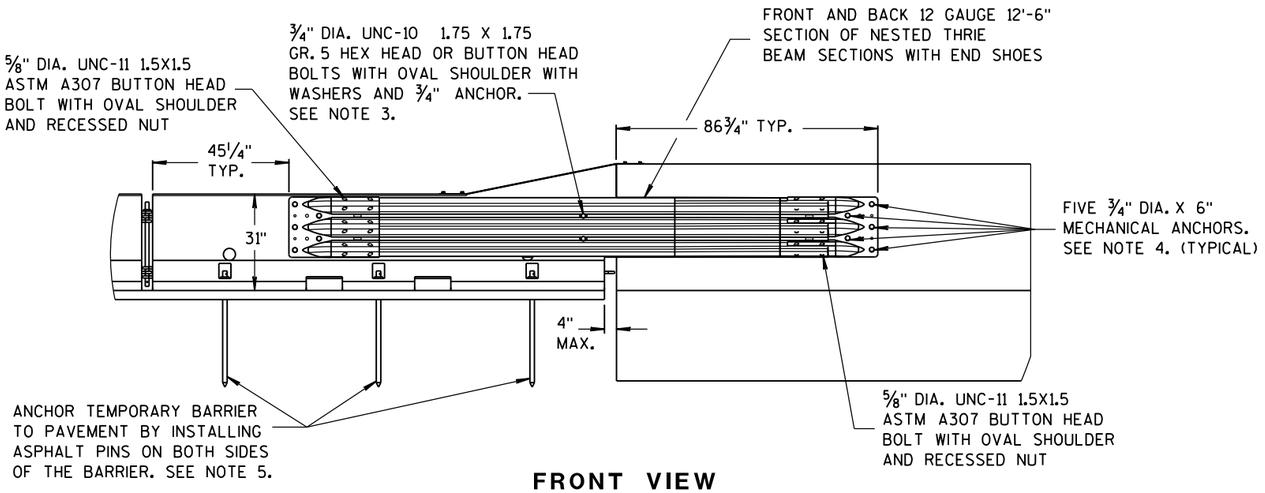
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

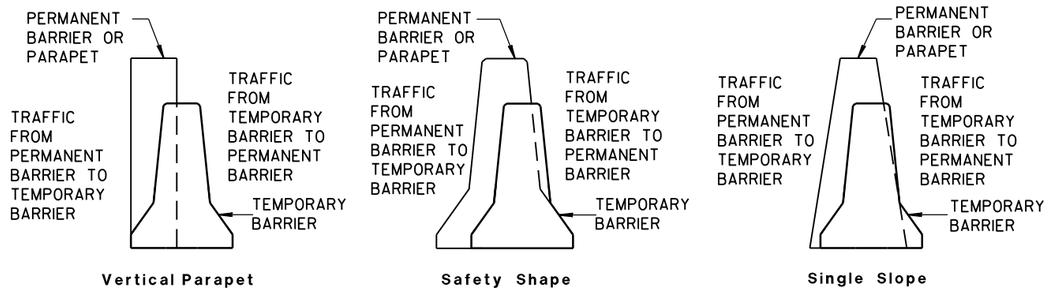
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14d



FRONT VIEW

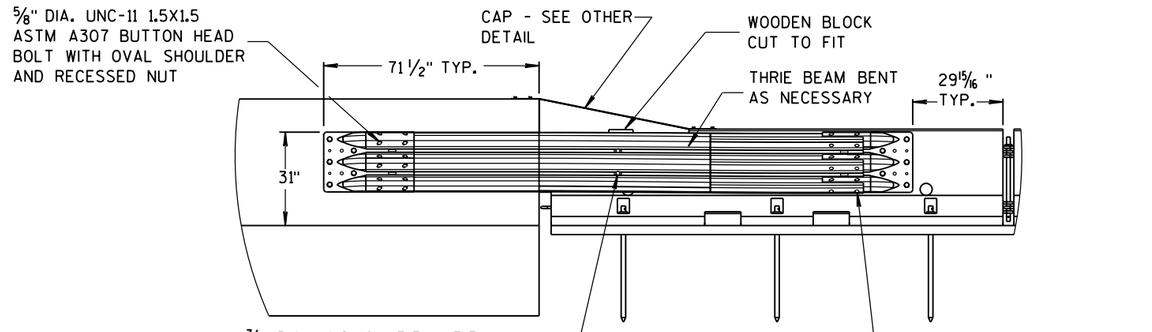


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

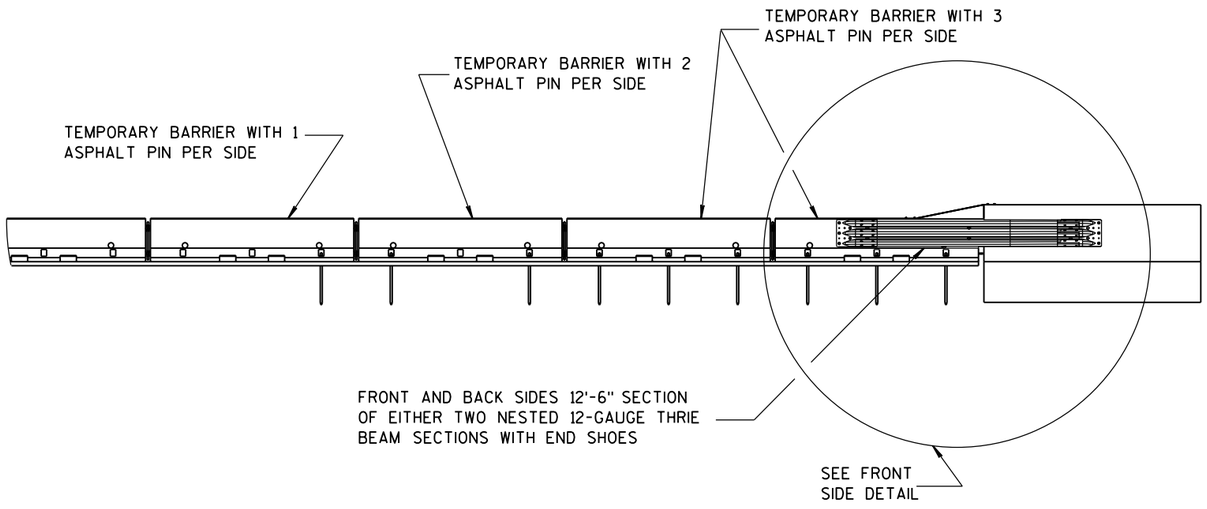
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

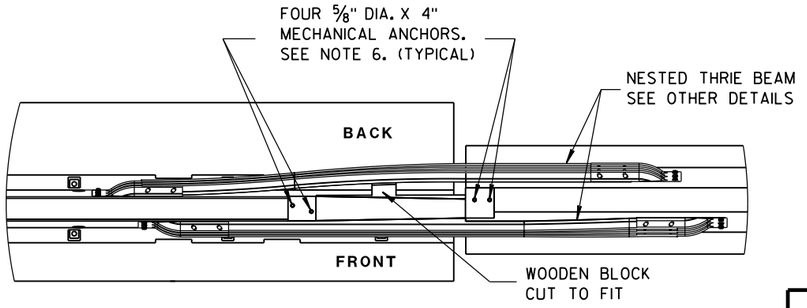
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

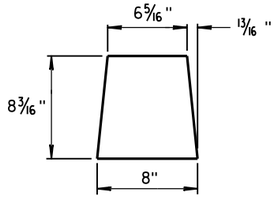
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 77

6

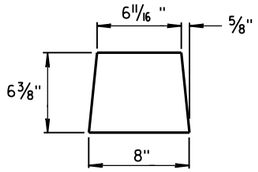
S.D.D. 14 B 7-14e

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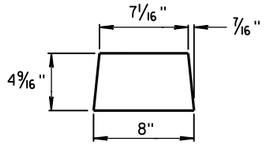
S.D.D. 14 B 7-14e



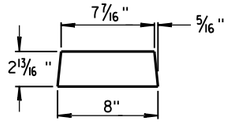
GUSSET 1



GUSSET 2

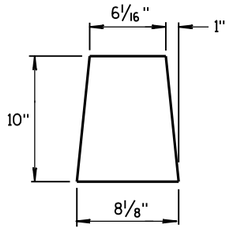


GUSSET 3

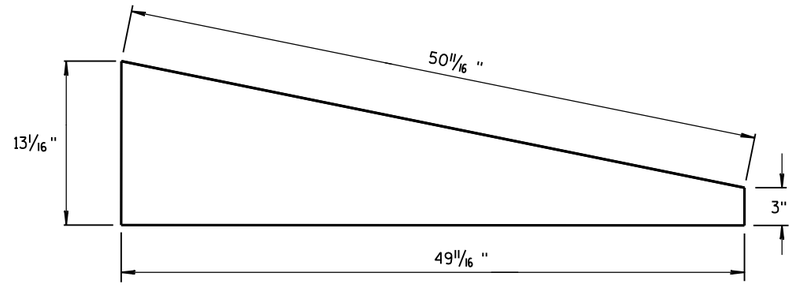


GUSSET 4

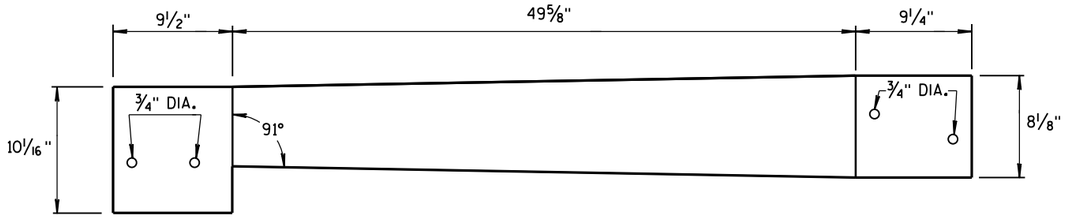
GUSSETS

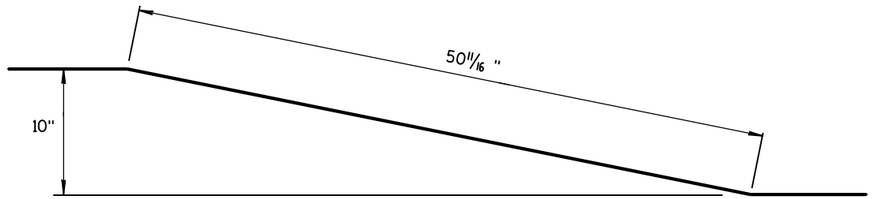


END PLATE



SIDE PLATE

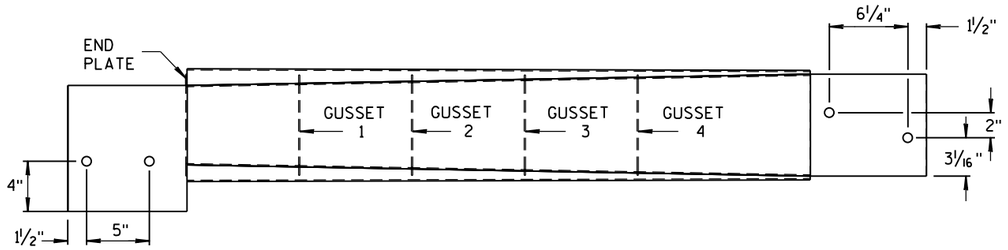


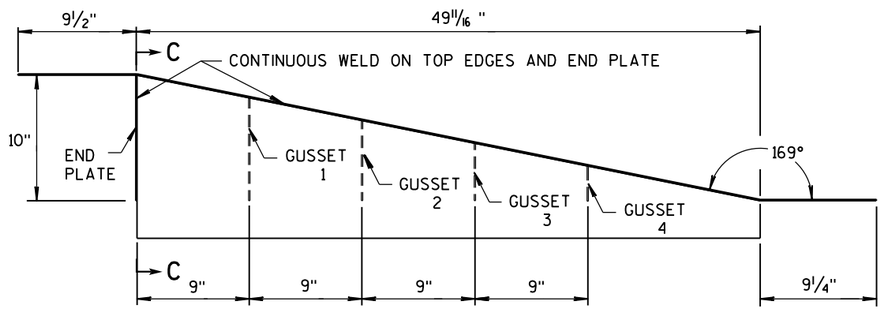


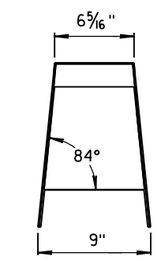
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

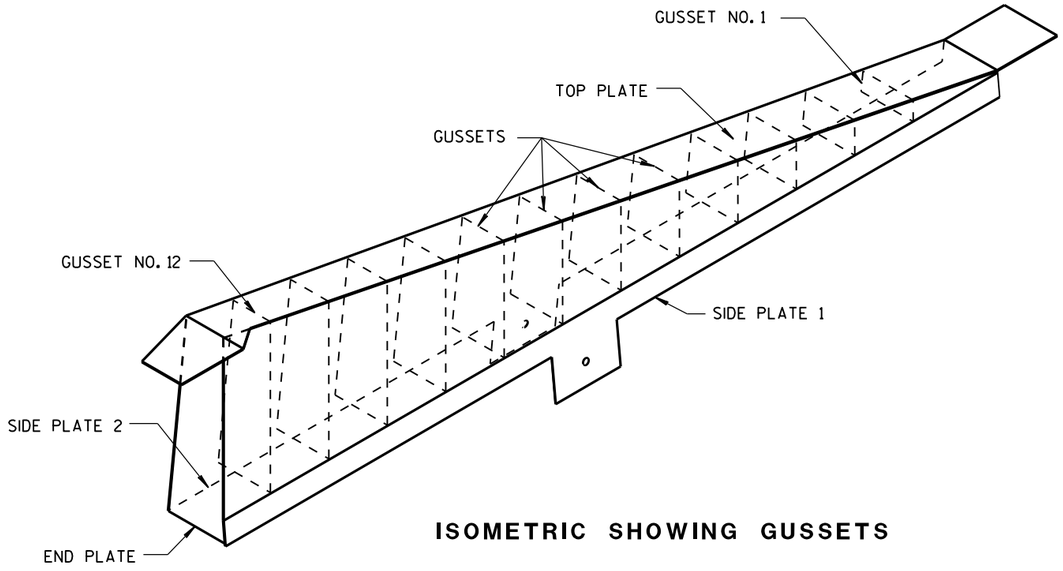
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

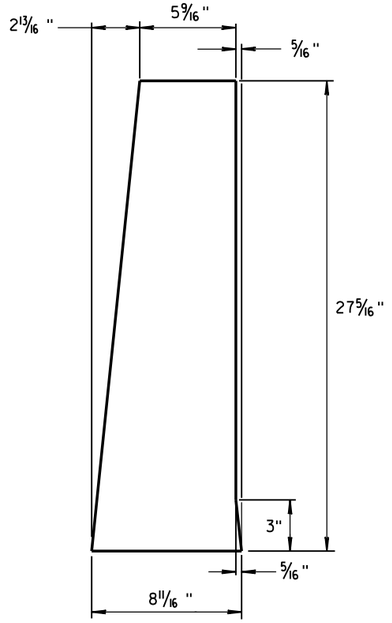
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14f

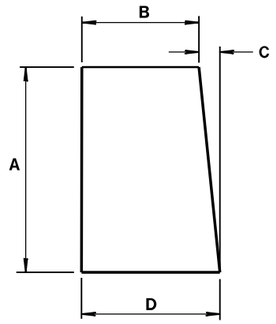


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



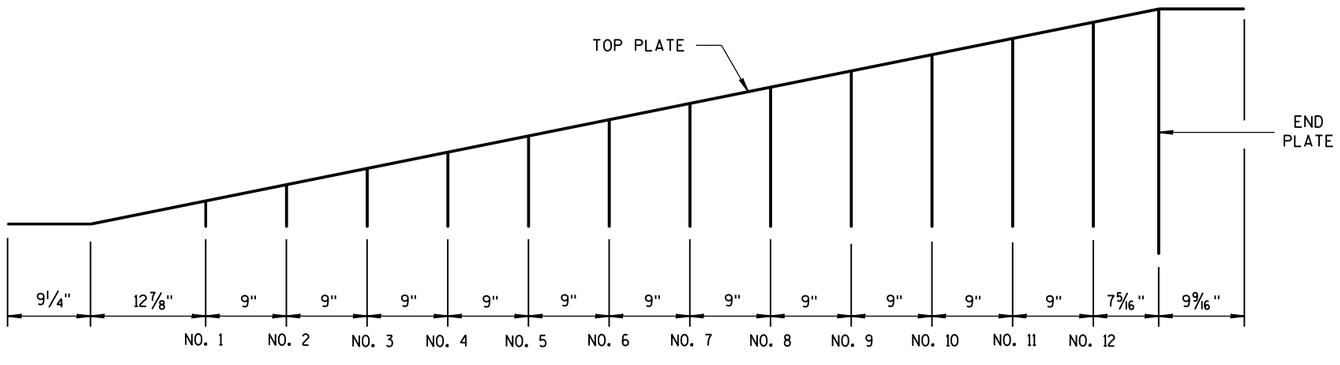
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

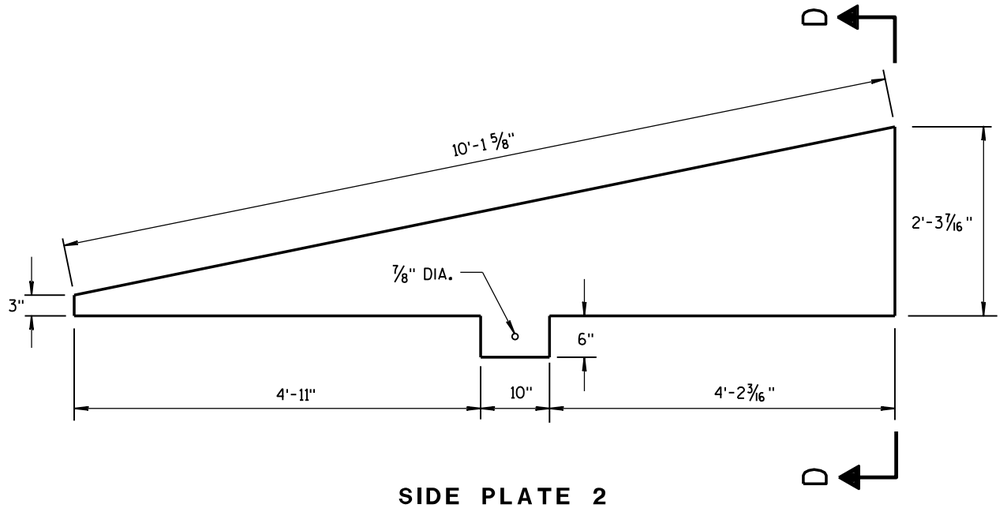
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

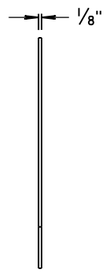
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

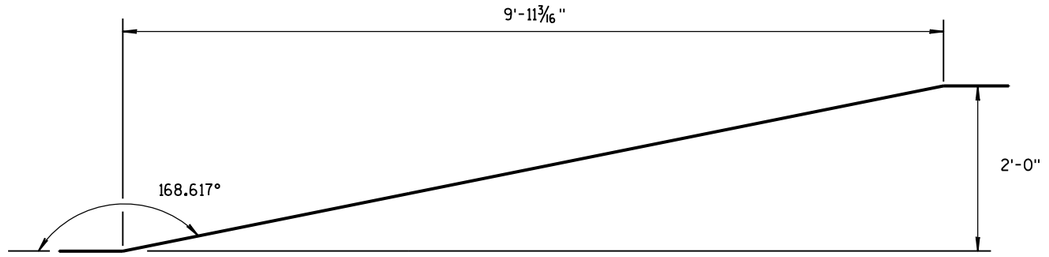
S.D.D. 14 B 7-14g



SIDE PLATE 2

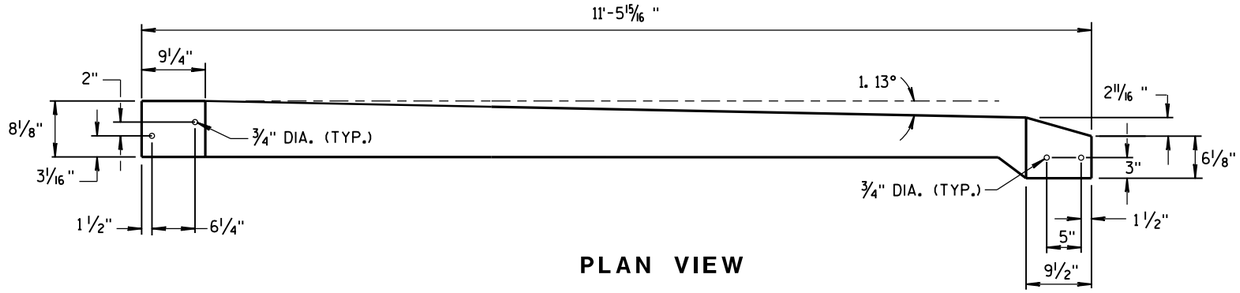


END VIEW



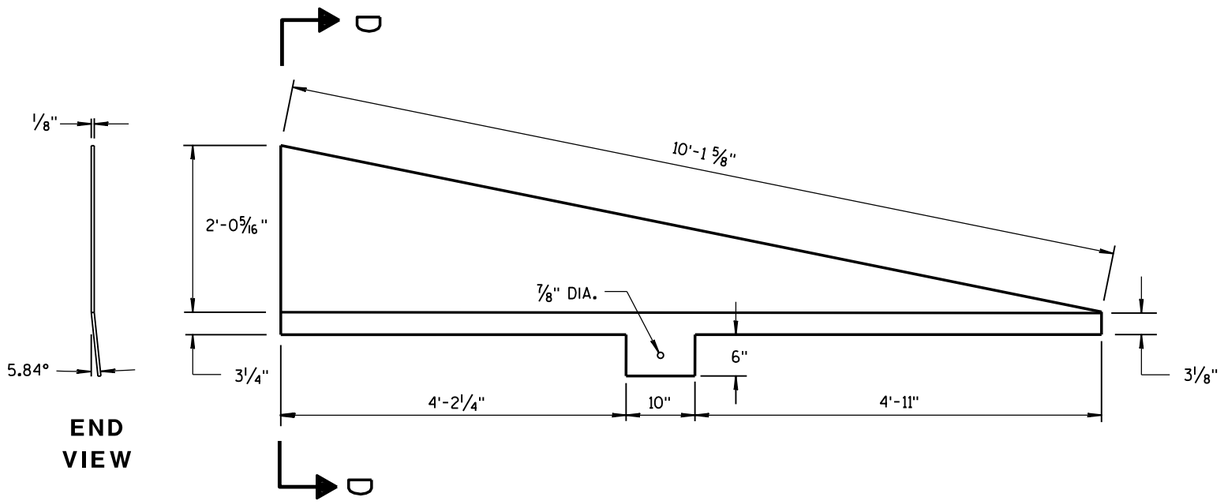
SIDE VIEW

TOP PLATE



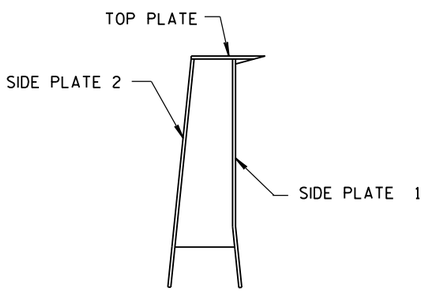
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

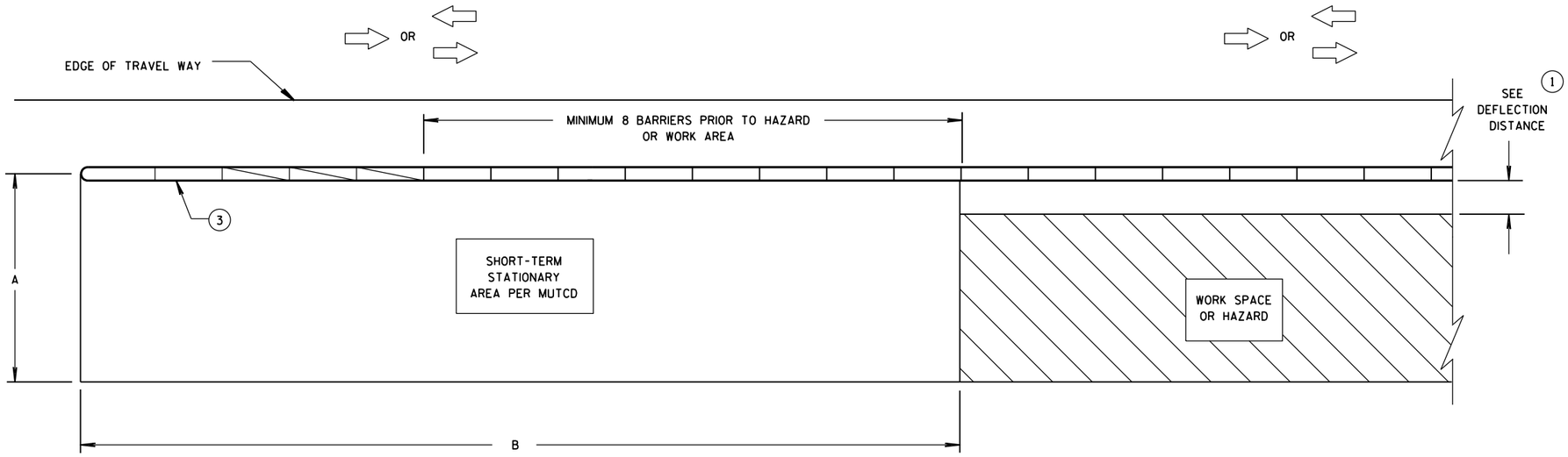
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

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S.D.D. 14 B 7-14h



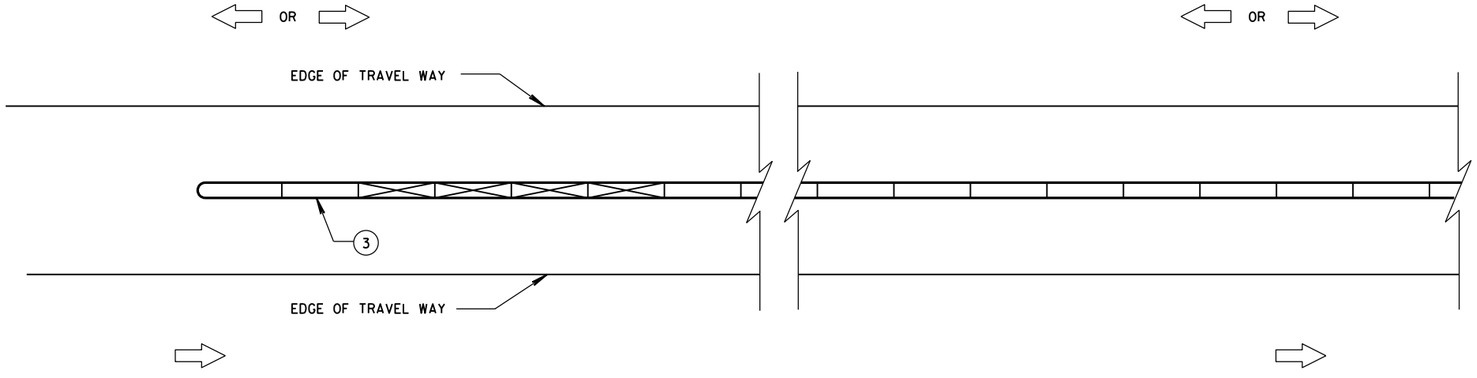
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

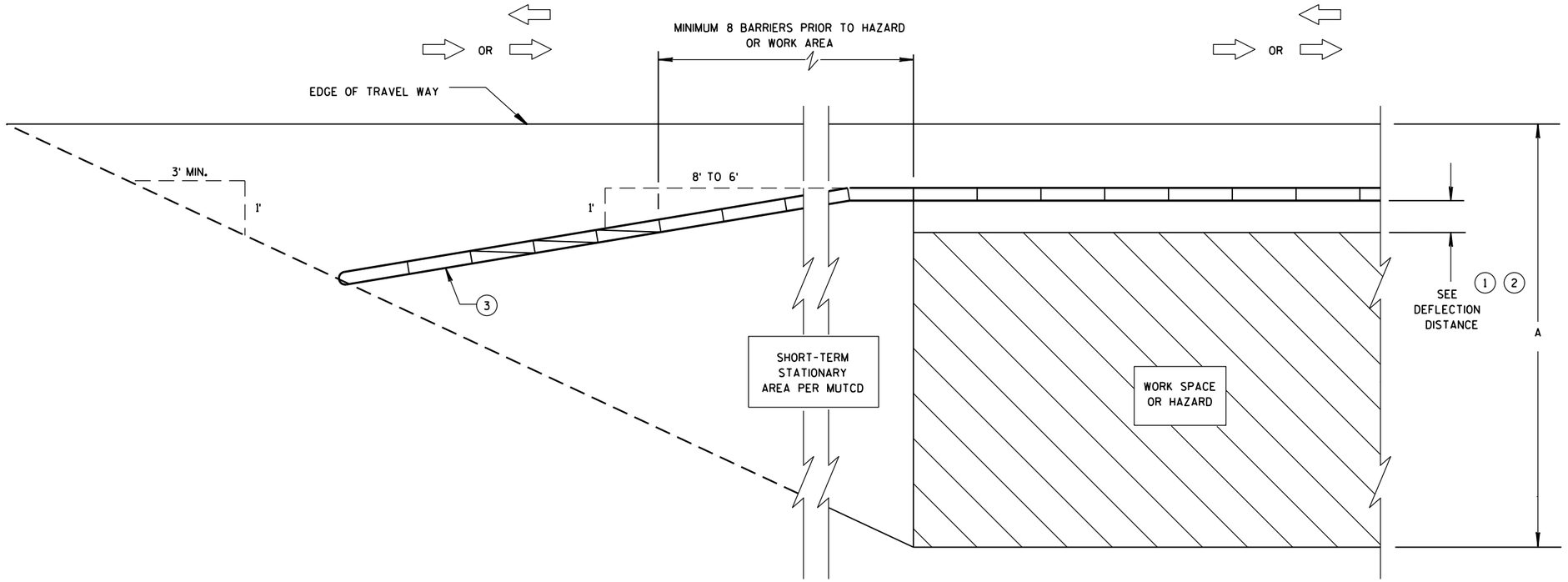
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

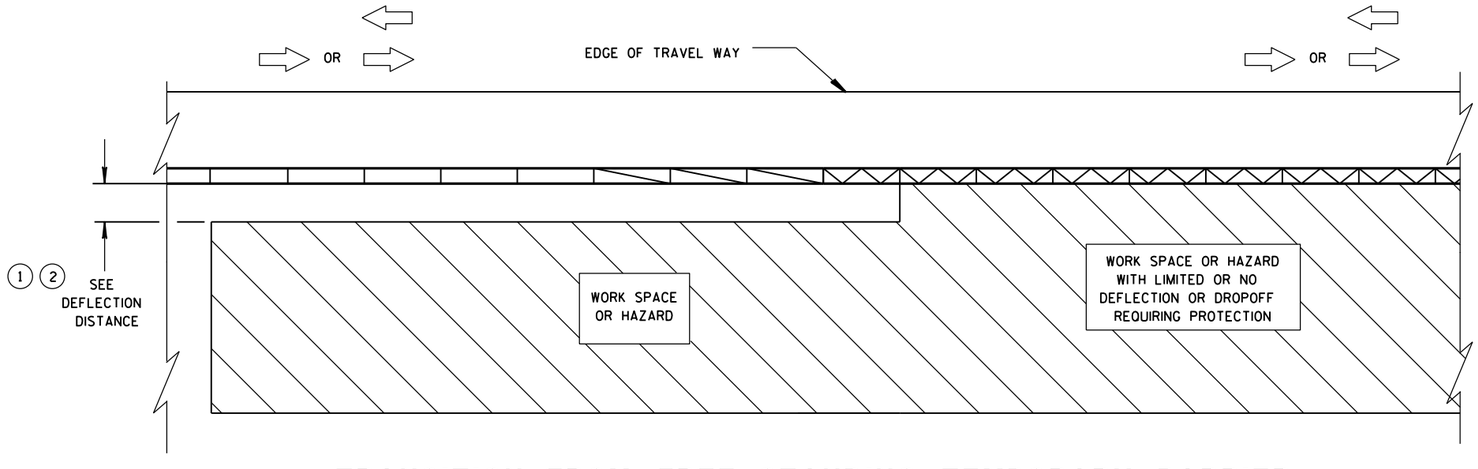
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

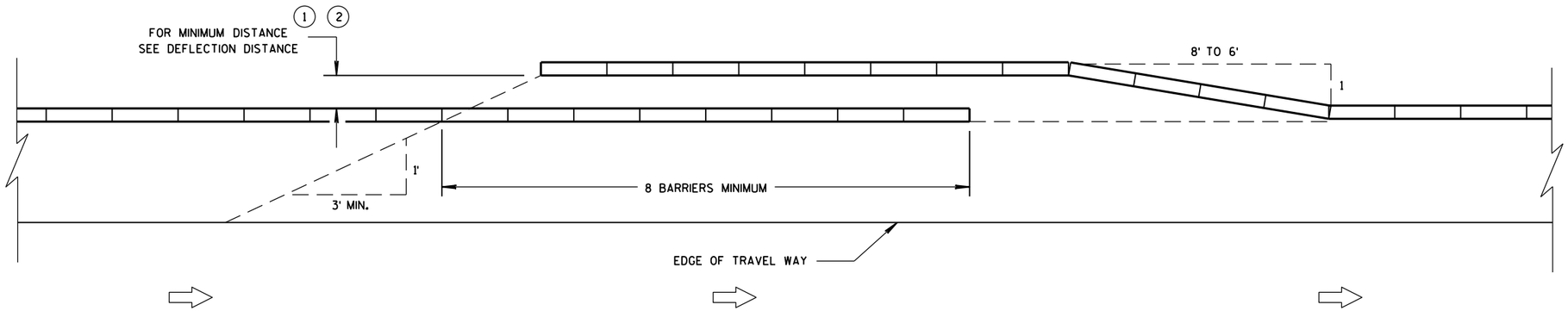
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

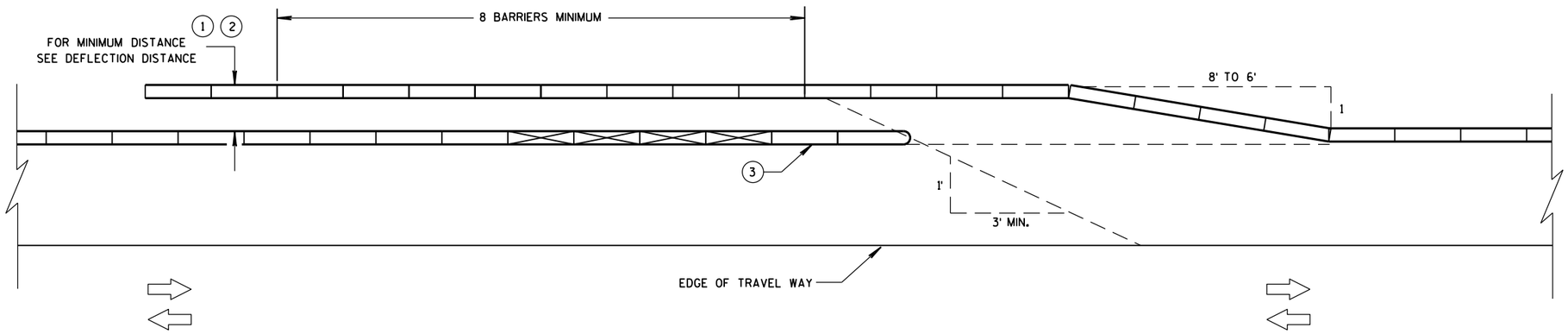
S.D.D. 14 B 8-2b

6

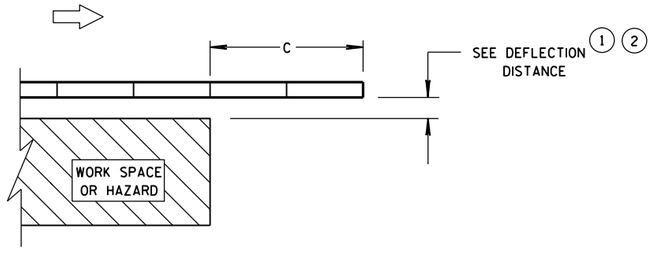
S.D.D. 14 B 8-2b



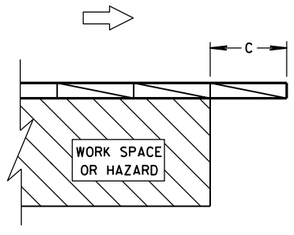
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

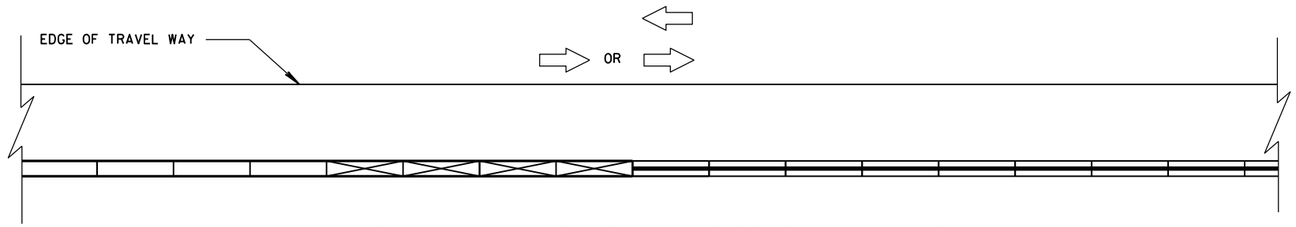
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

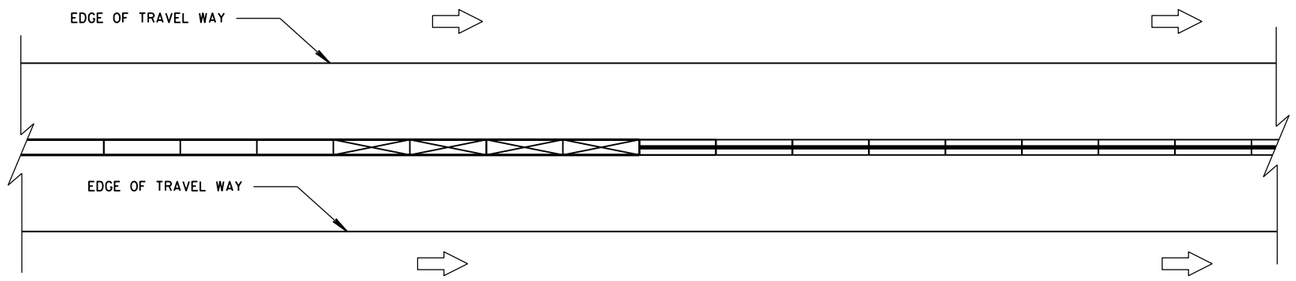
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

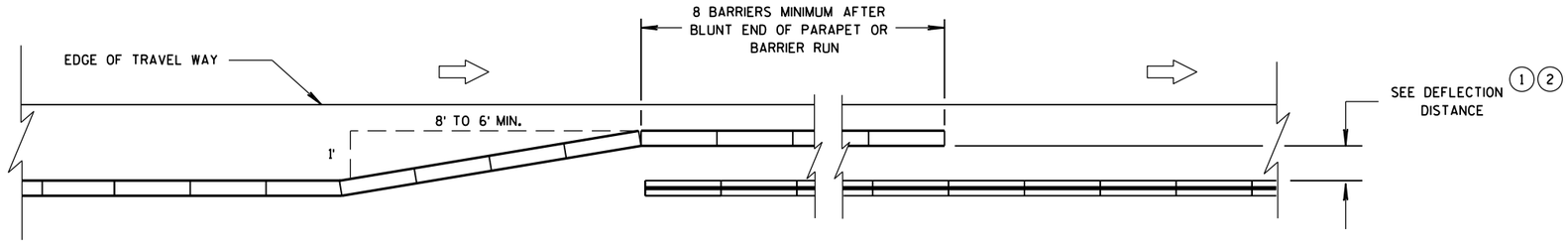
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

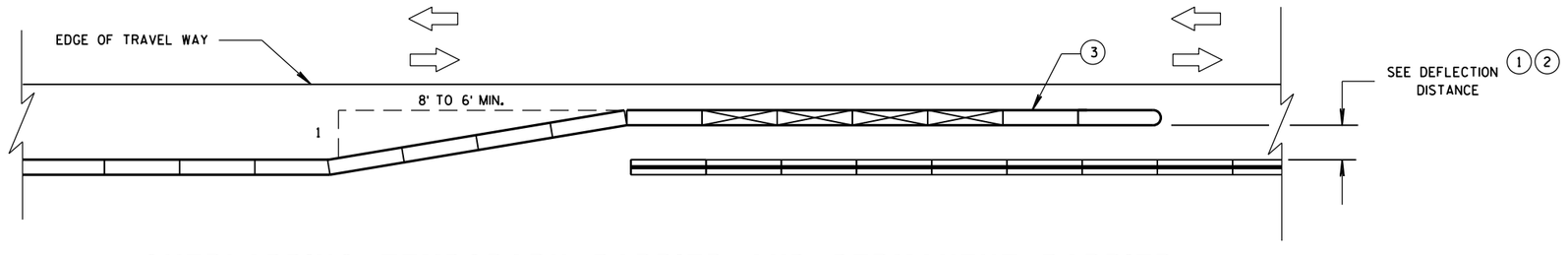
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

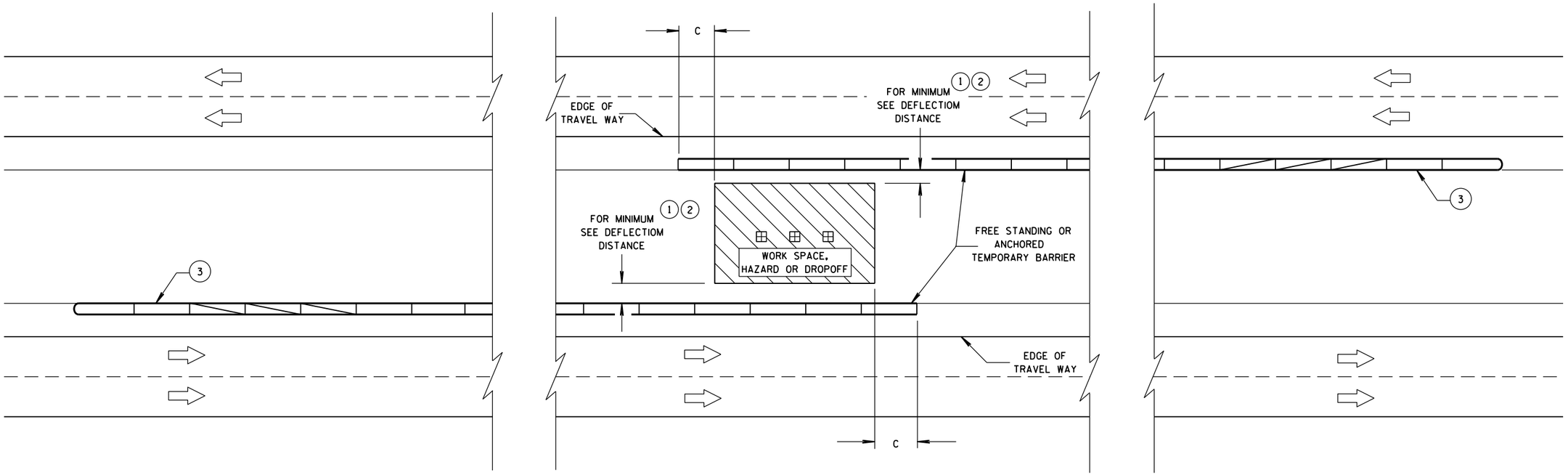
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



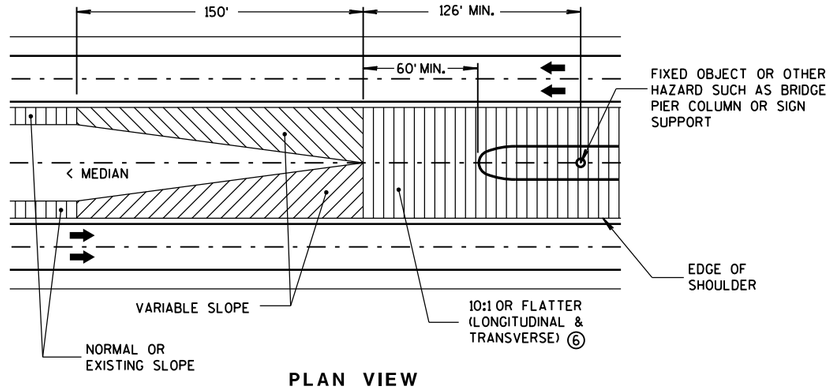
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

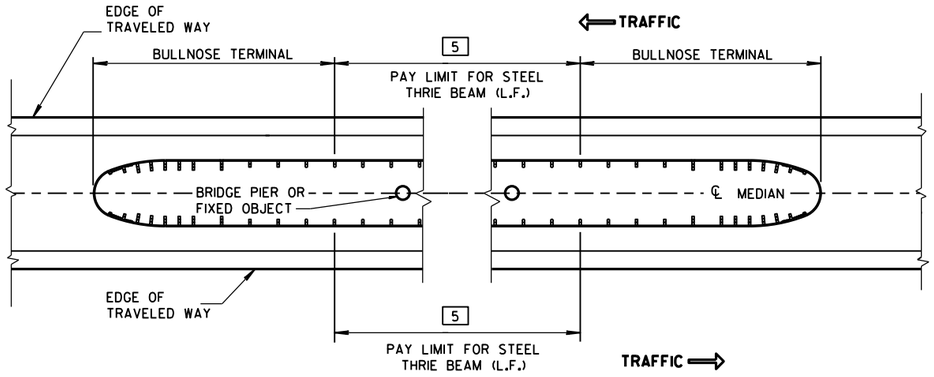
6

S.D.D. 14 B 8-2e

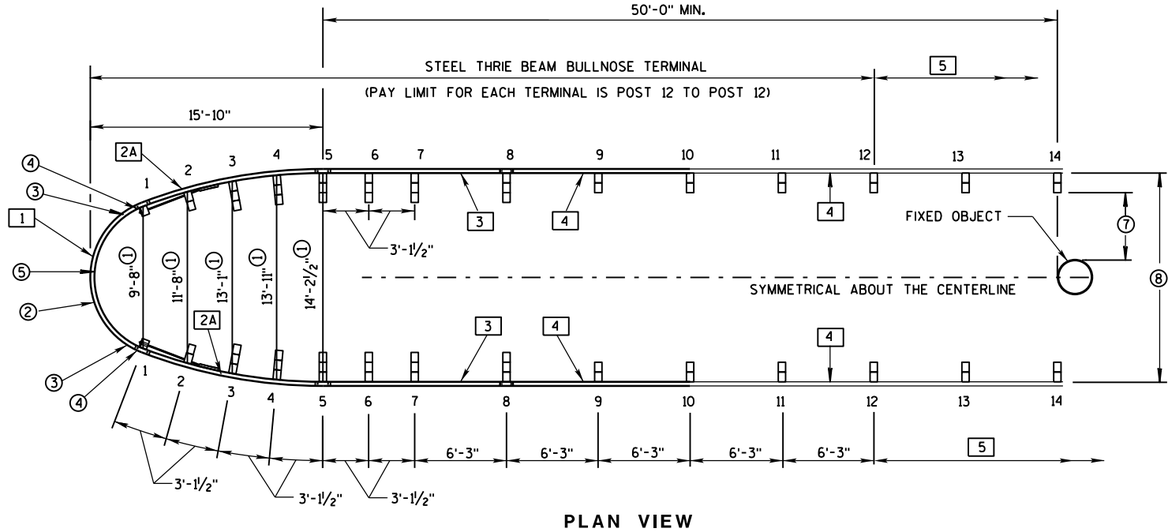


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

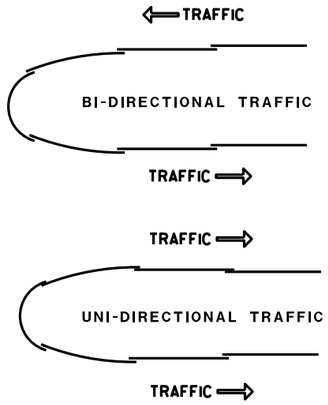


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

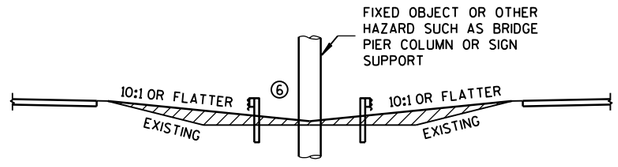
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

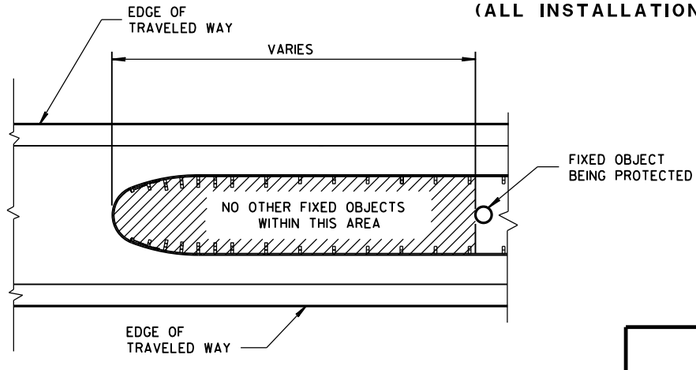
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

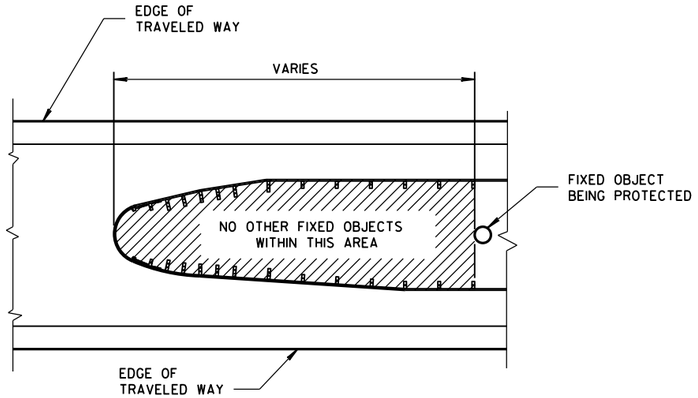


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

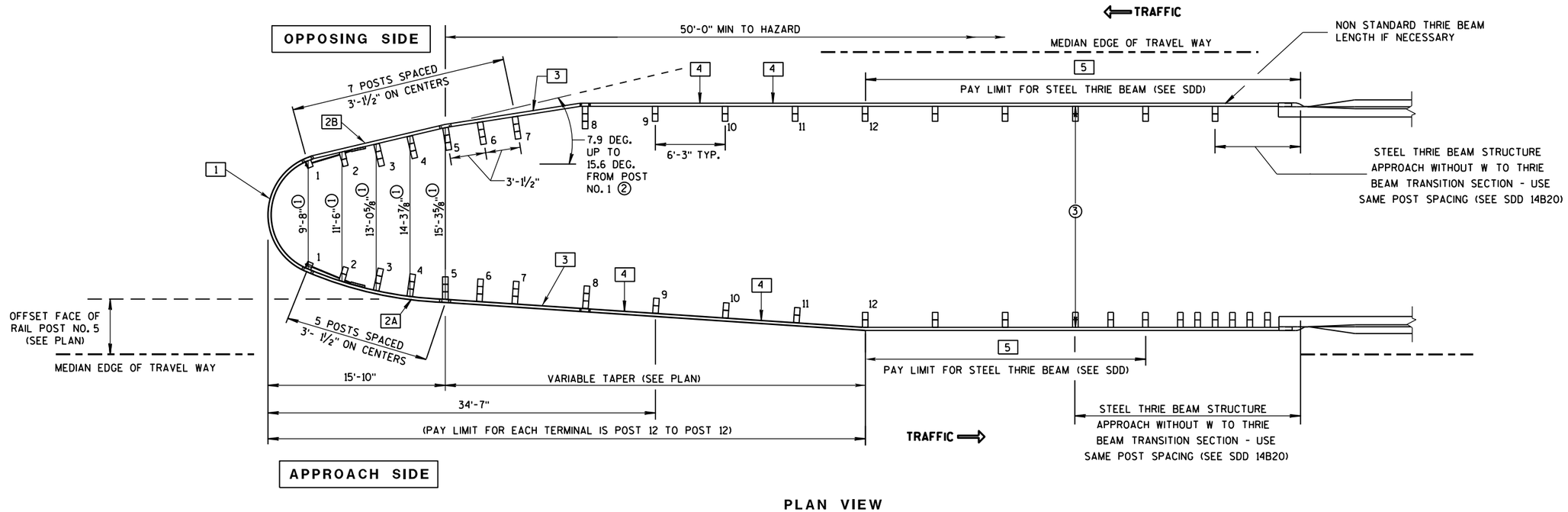
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

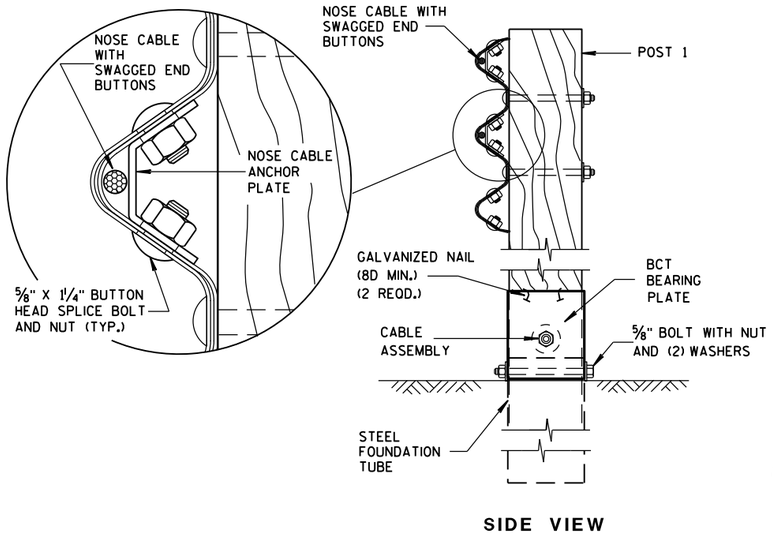
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

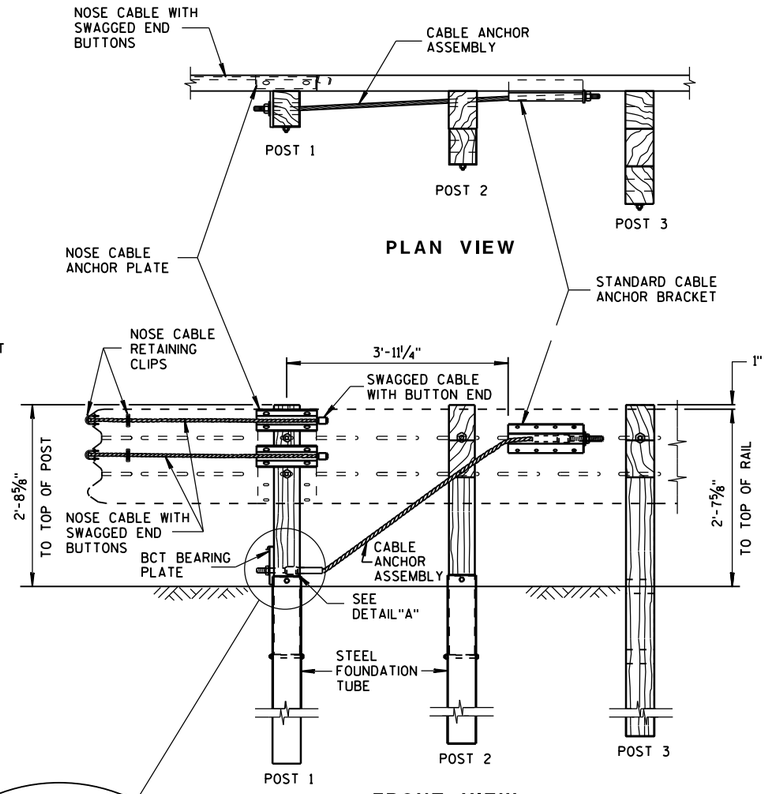
6

S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



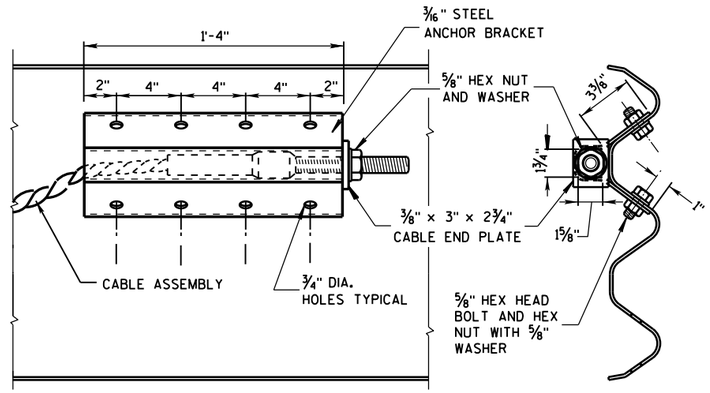
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

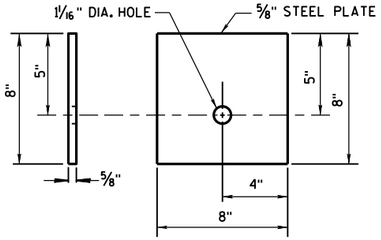
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

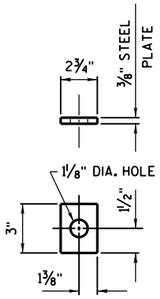


FRONT VIEW END VIEW

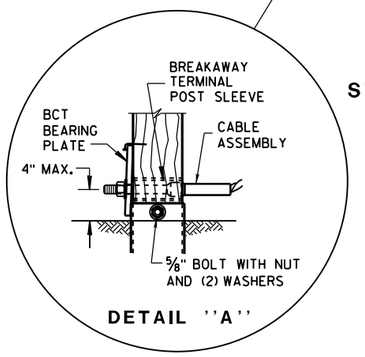
DETAILS OF CABLE ANCHOR BRACKET



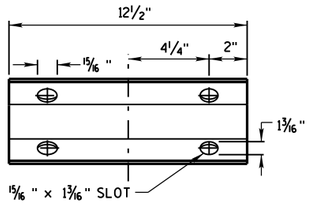
BCT BEARING PLATE



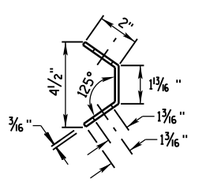
CABLE END PLATE



DETAIL ''A''



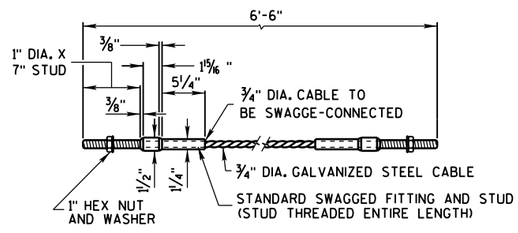
ELEVATION VIEW



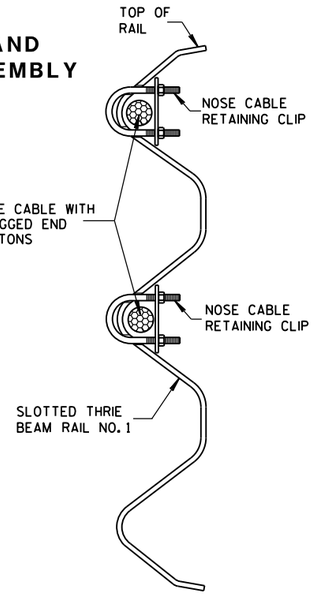
END VIEW

NOSE CABLE ANCHOR PLATE

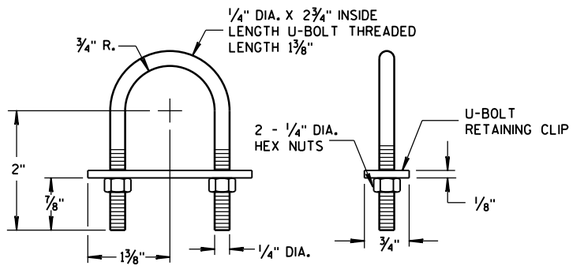
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



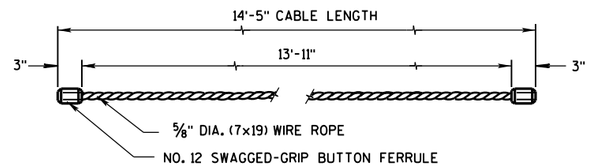
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



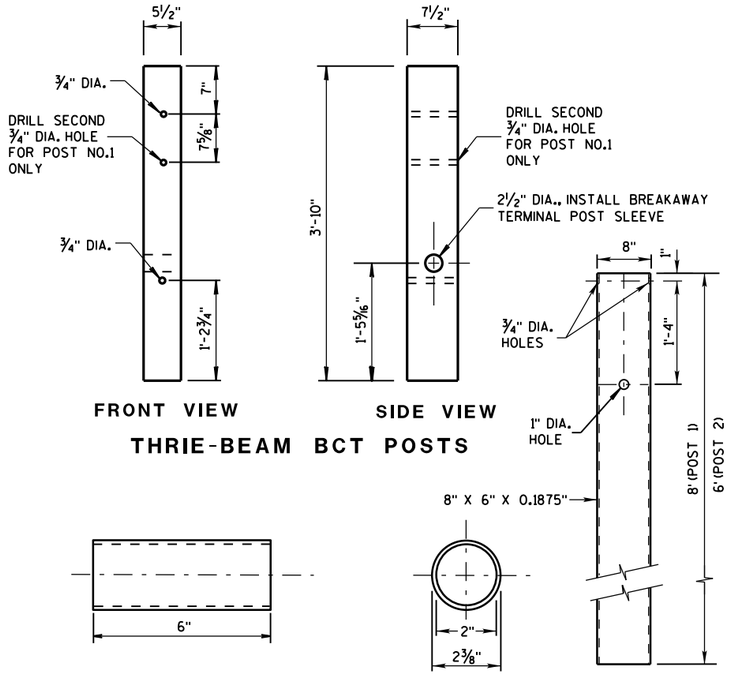
NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 88

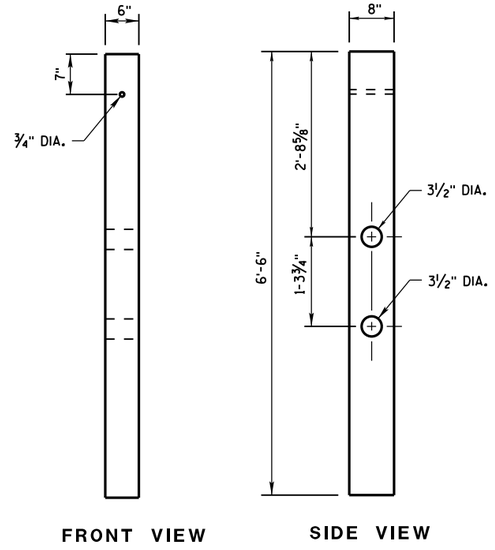
6
S.D.D. 14 B 26-3c



THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

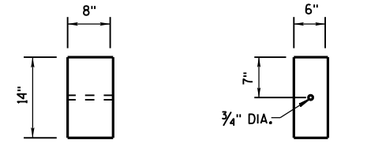
STEEL FOUNDATION TUBE



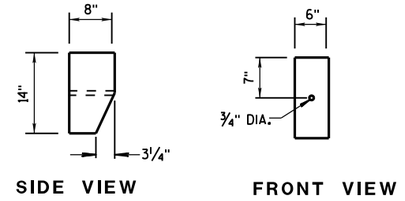
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

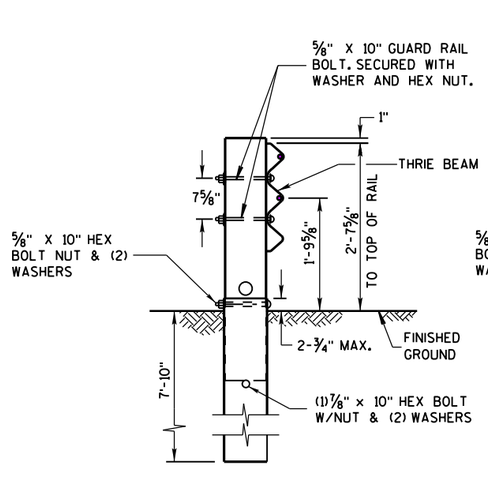
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

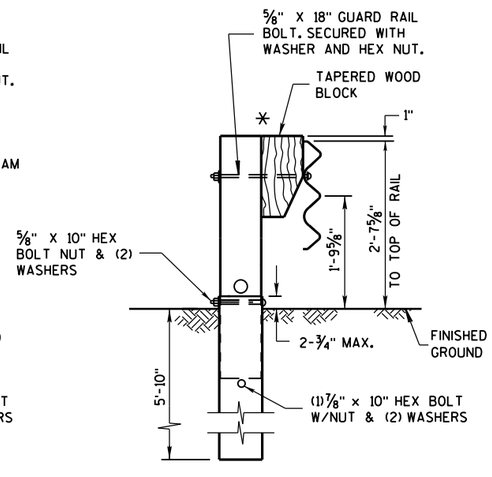


TAPERED WOOD BLOCK



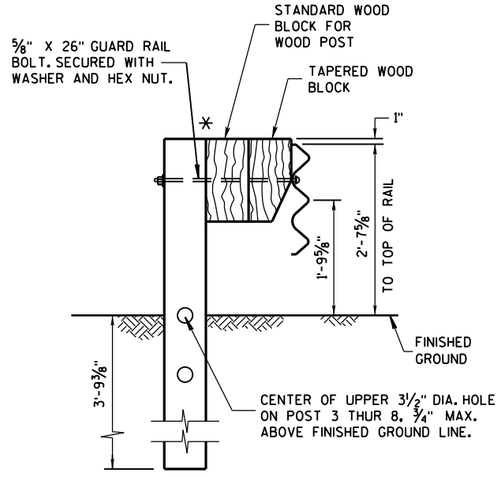
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



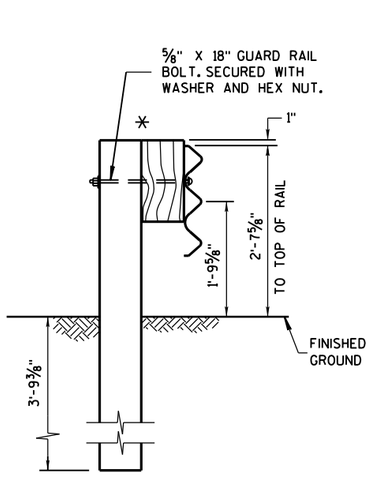
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

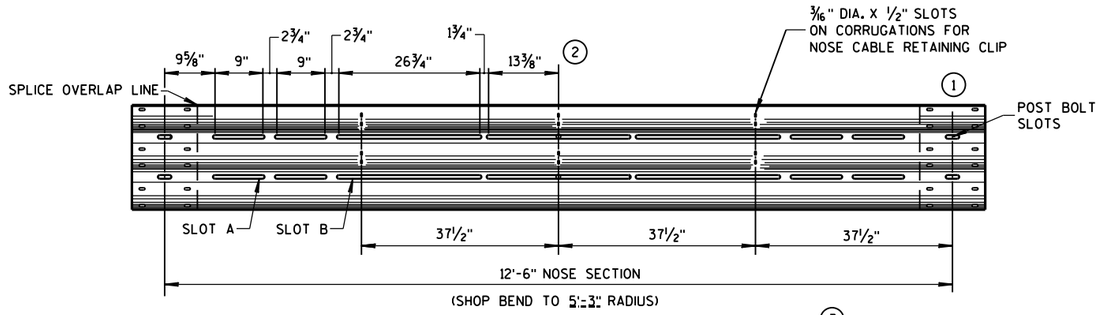
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

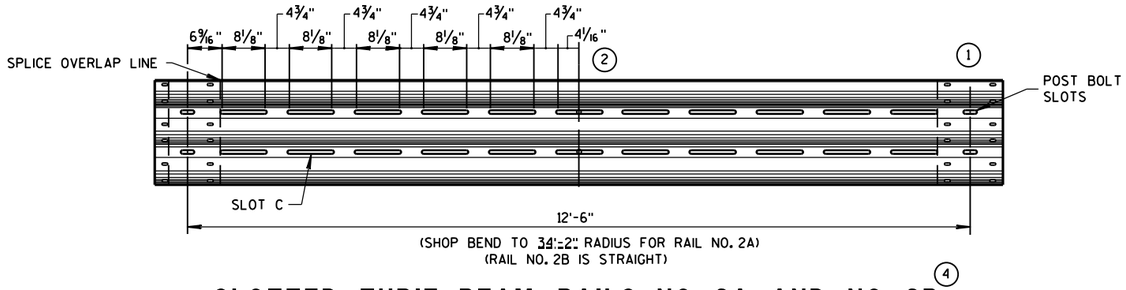
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

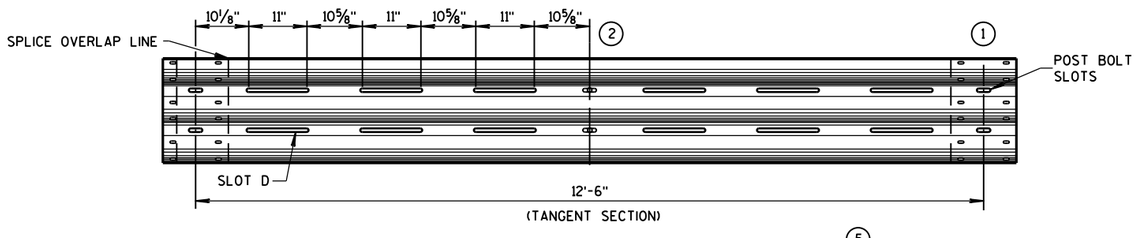
6
S.D.D. 14 B 26-3d



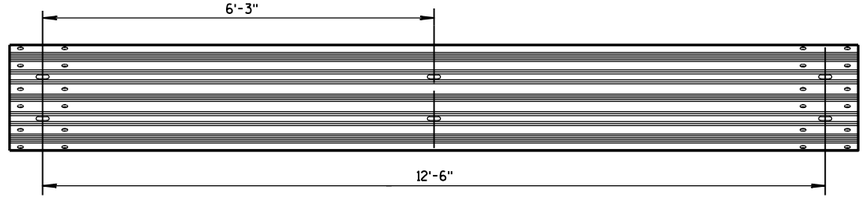
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

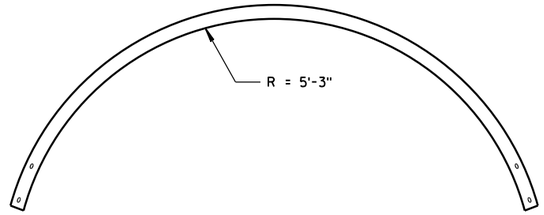
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

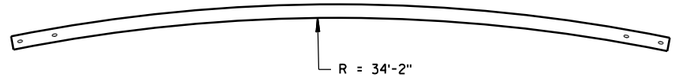
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



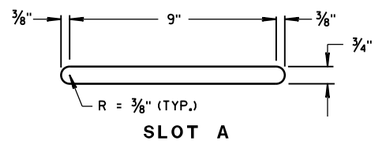
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

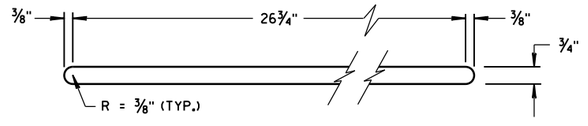


PLAN VIEW

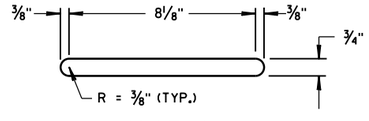
SLOTTED THRIE BEAM RAIL NO. 2A



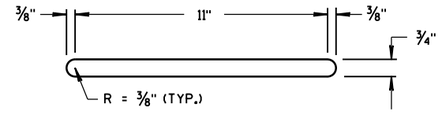
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
NT
FHWA

6

S.D.D. 14 B 26-3e

6

S.D.D. 14 B 26-3e

① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

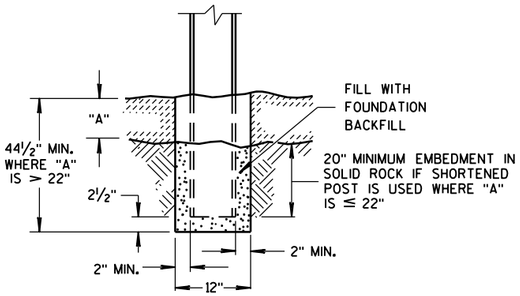
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

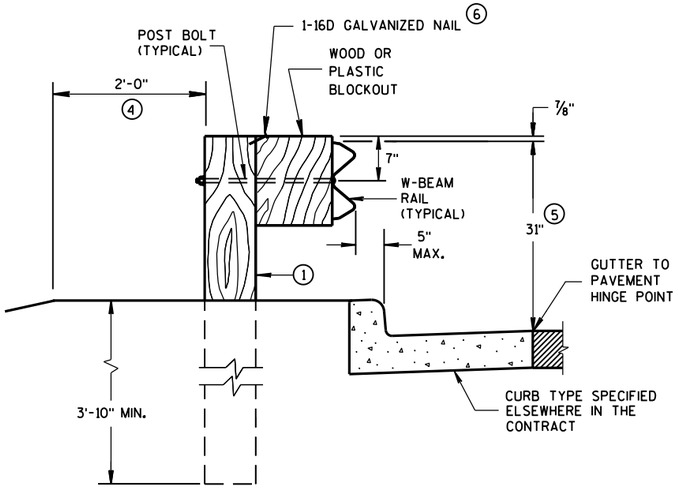
④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

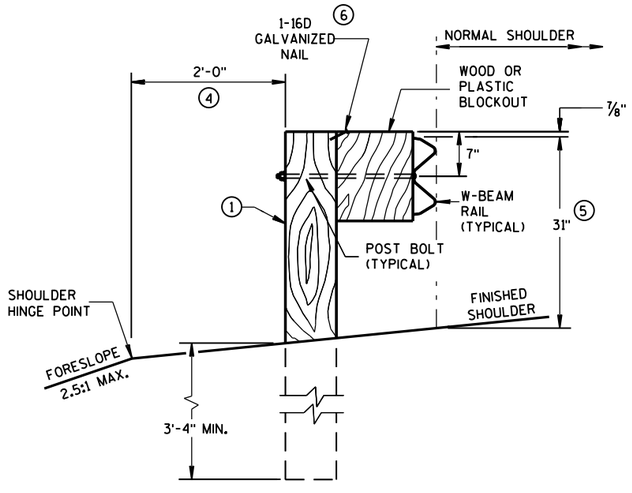
⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



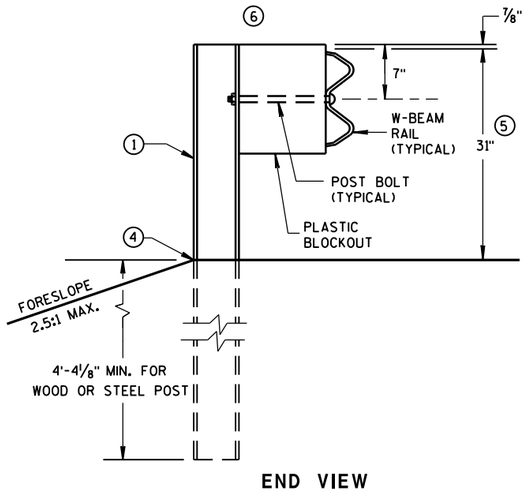
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



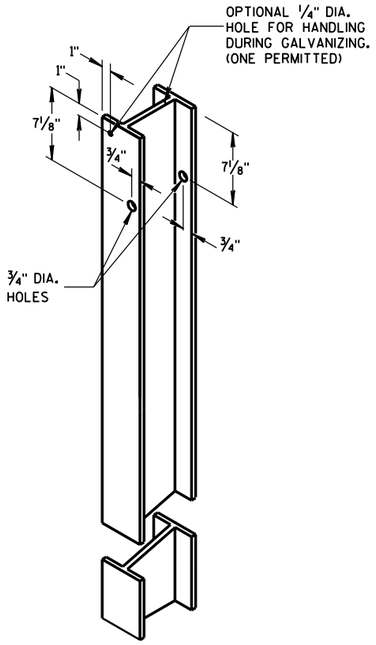
END VIEW
LOCATED ALONG A CURBED ROADWAY



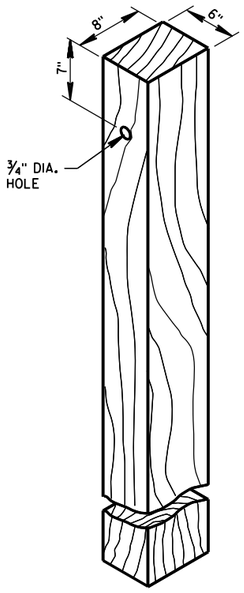
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



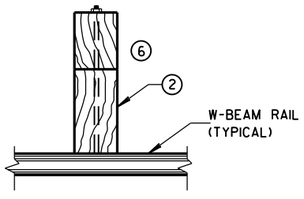
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



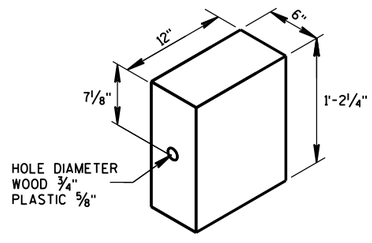
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



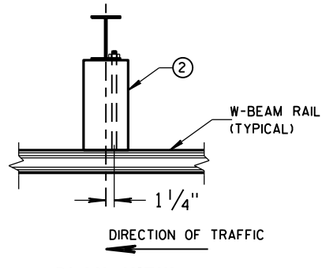
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



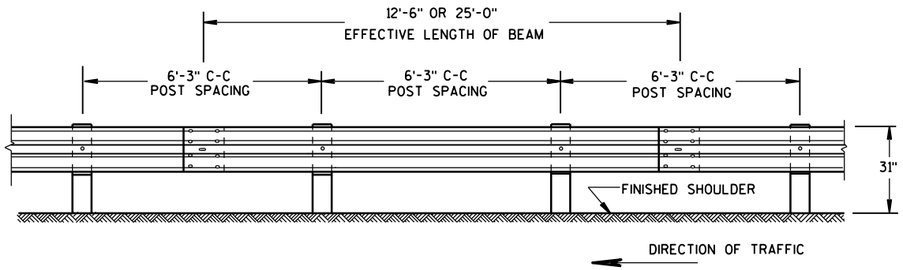
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

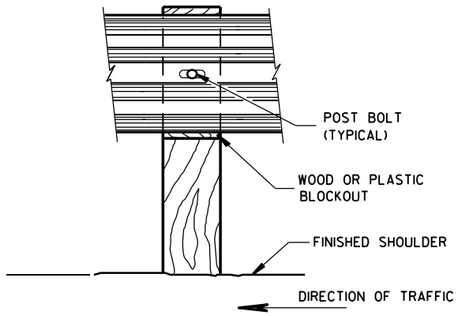
6

S.D.D. 14 B 42-4a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

7. PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

8. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

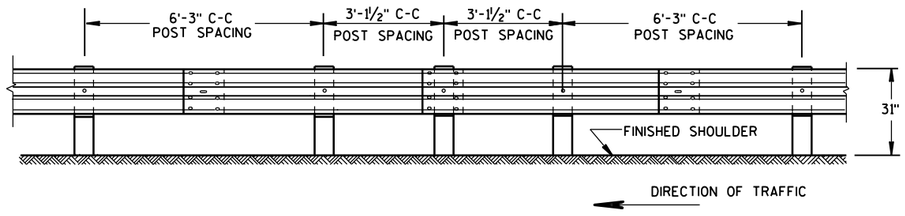
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

10. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

11. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

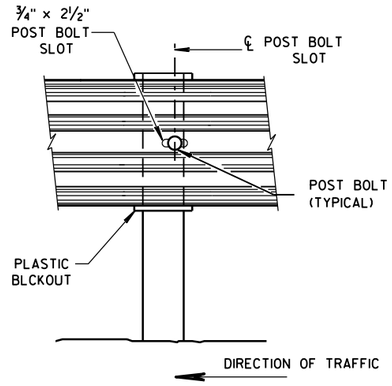
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

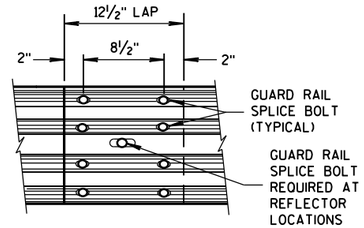


FRONT VIEW

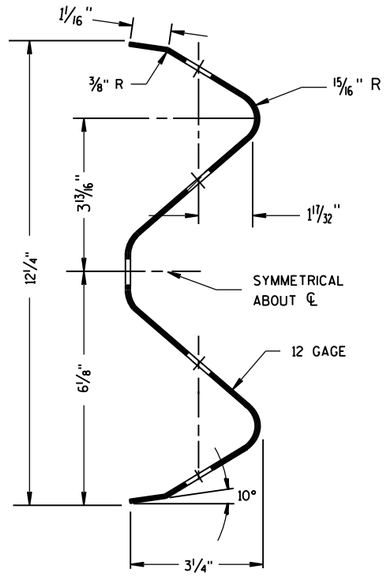
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



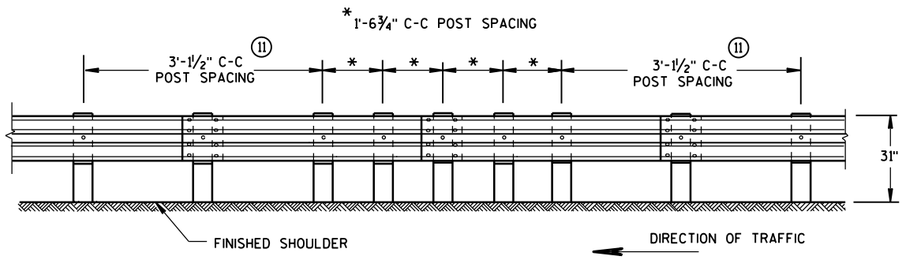
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

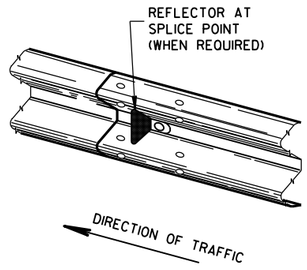


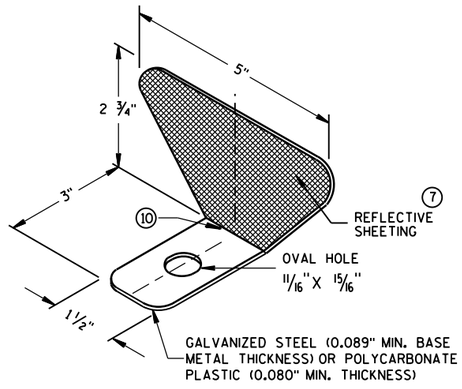
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

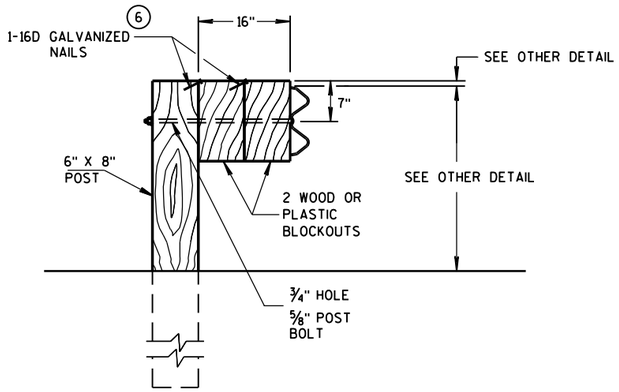
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 42-4b

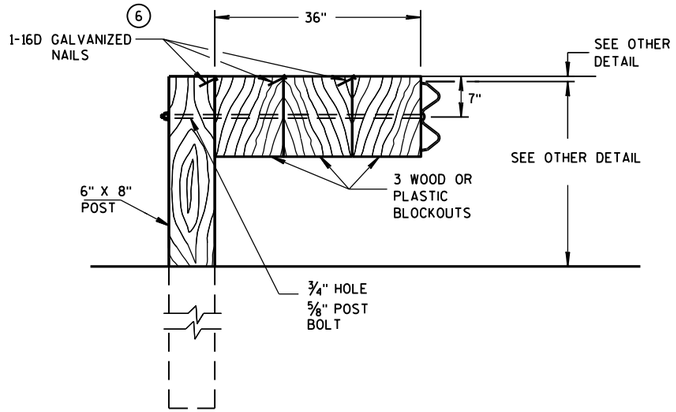
6

S.D.D. 14 B 42-4b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

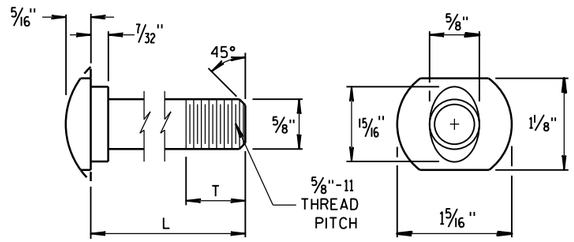


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

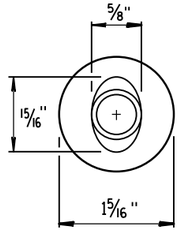
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

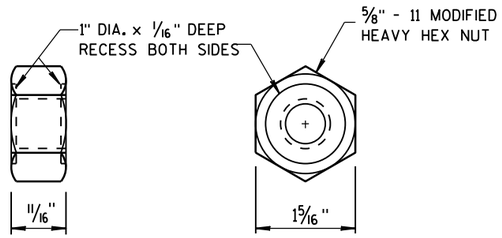


POST BOLT TABLE

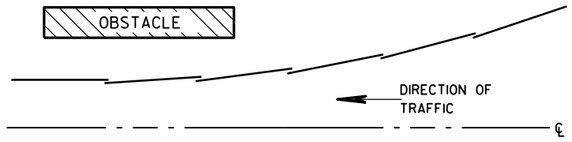
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

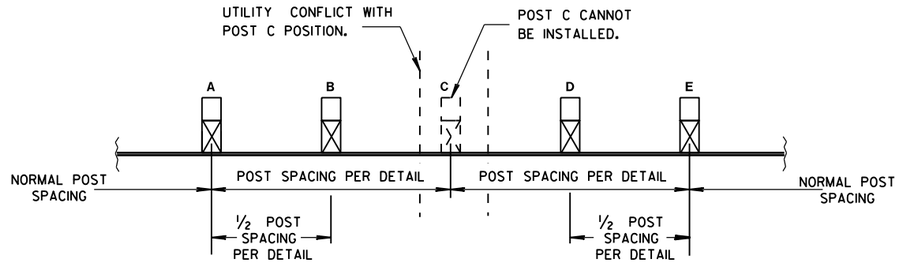


POST BOLT, SPLICE BOLT AND RECESS NUT

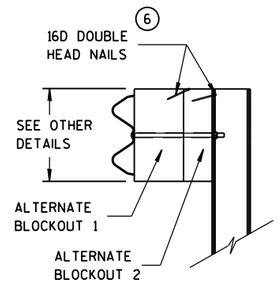


PLAN VIEW

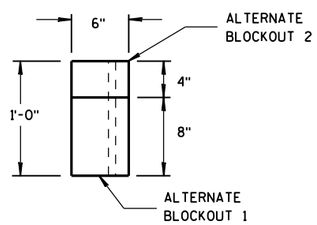
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

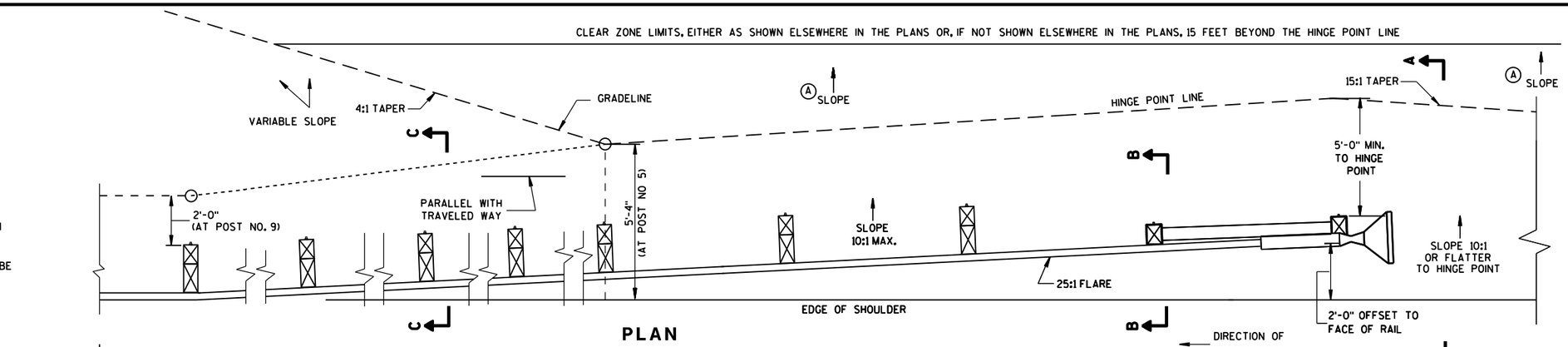
SEE SDD 14B42 FOR MORE INFORMATION.

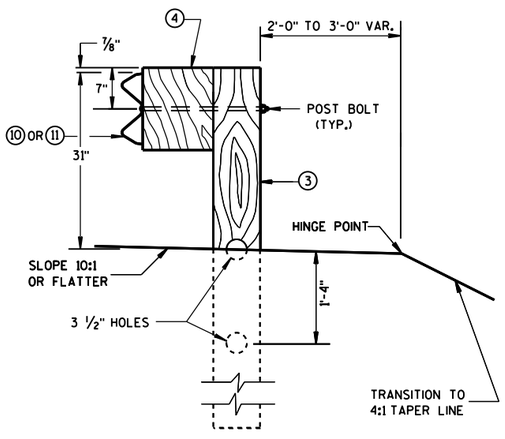
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

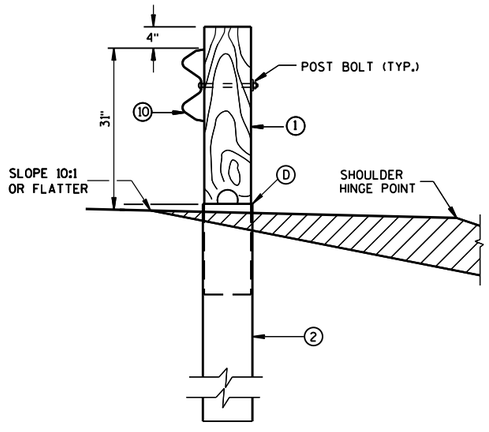
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

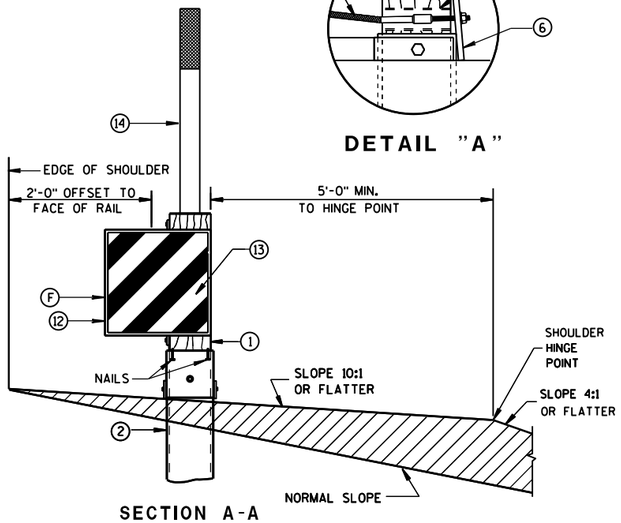




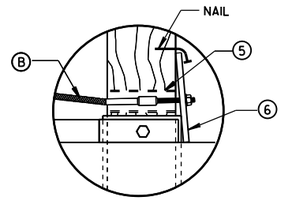
SECTION C-C
TYPICAL AT POST NOS. 3-9



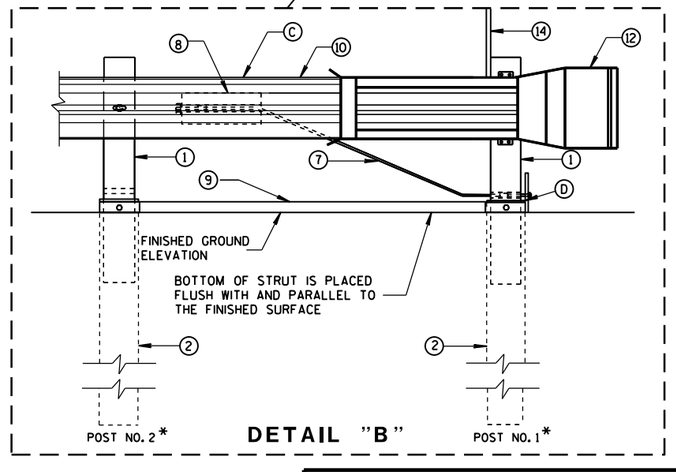
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



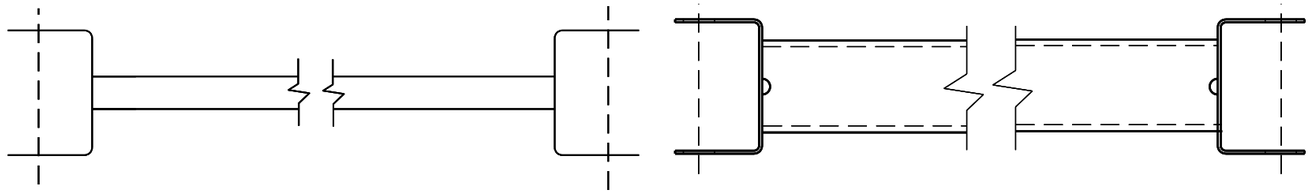
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

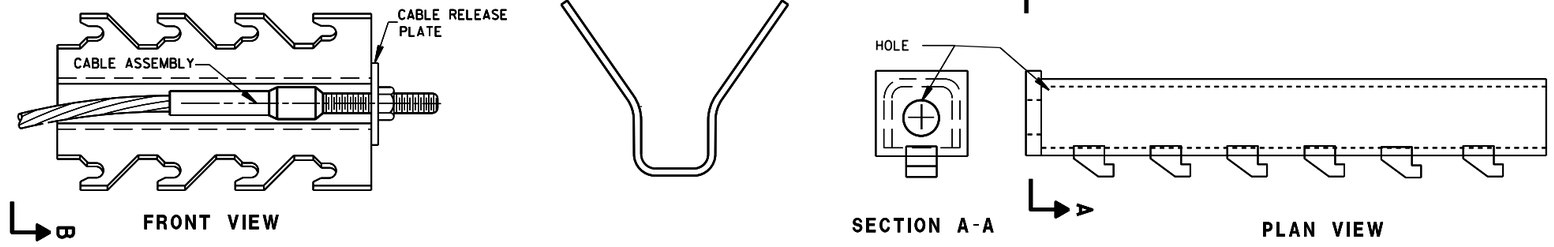


⑨ Ⓗ

GENERIC GROUND STRUT

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



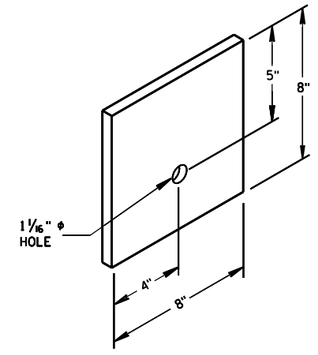
FRONT VIEW

SECTION B-B

SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX ⑧ Ⓗ

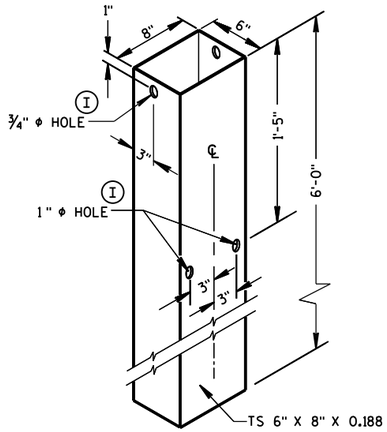


BEARING PLATE ⑥

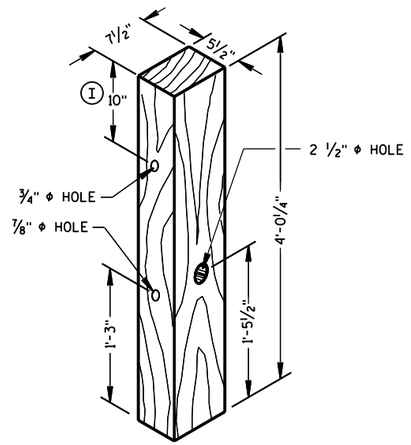
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 44-2b

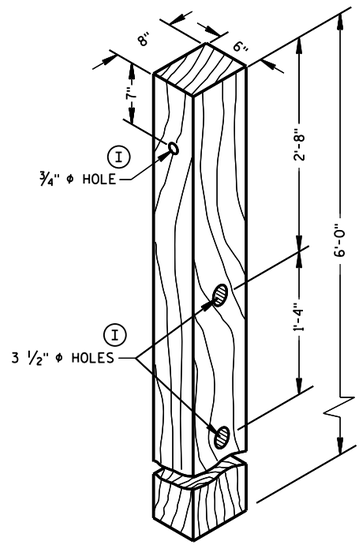


FOUNDATION TUBE (2)



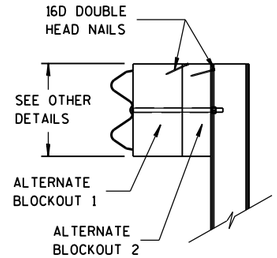
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

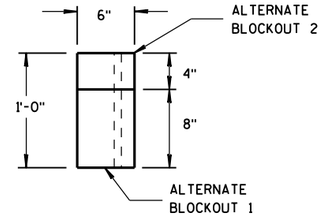


POSTS NUMBER 3-9

WOOD CRT POST (3)

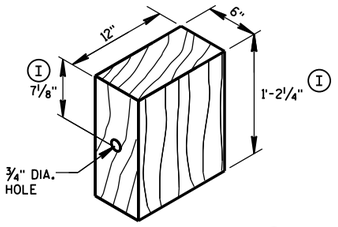


SIDE VIEW



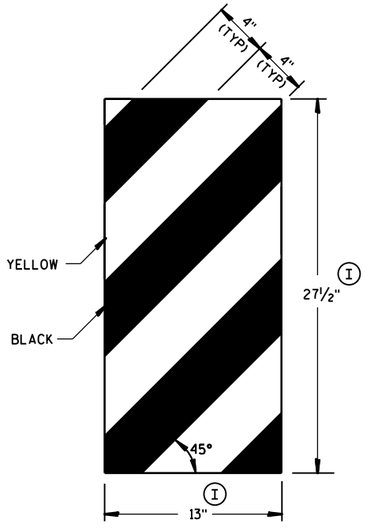
TOP VIEW

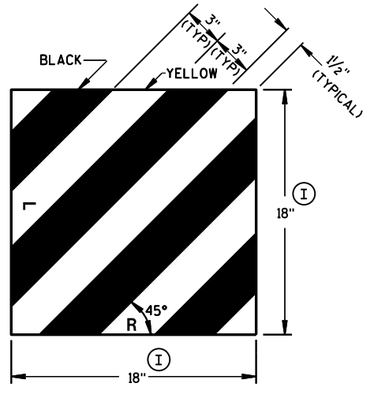
ALTERNATE WOOD BLOCKOUT DETAIL



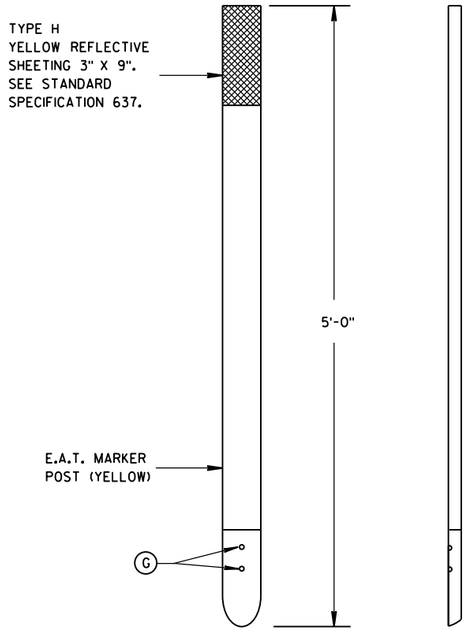
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





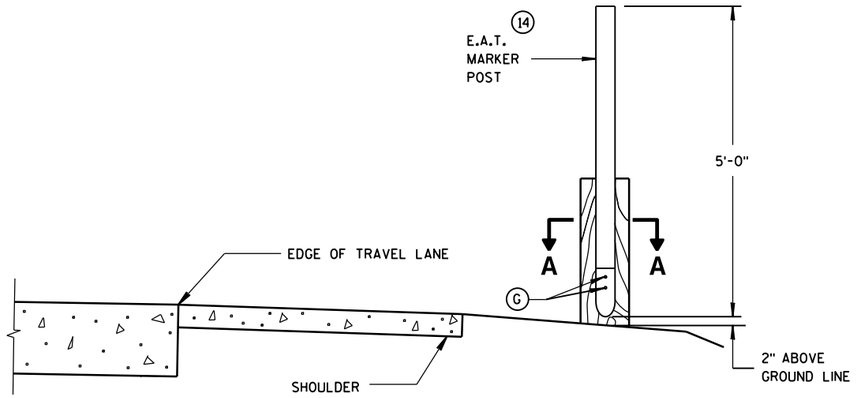
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

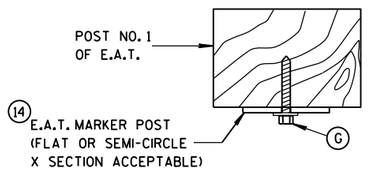
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)

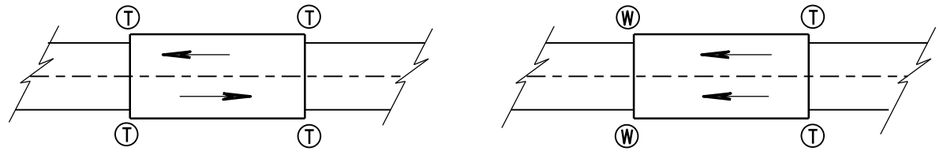


SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

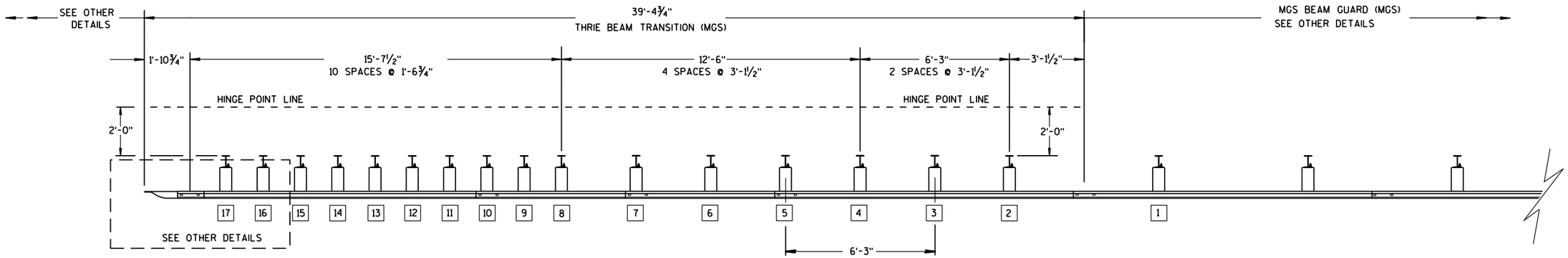
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

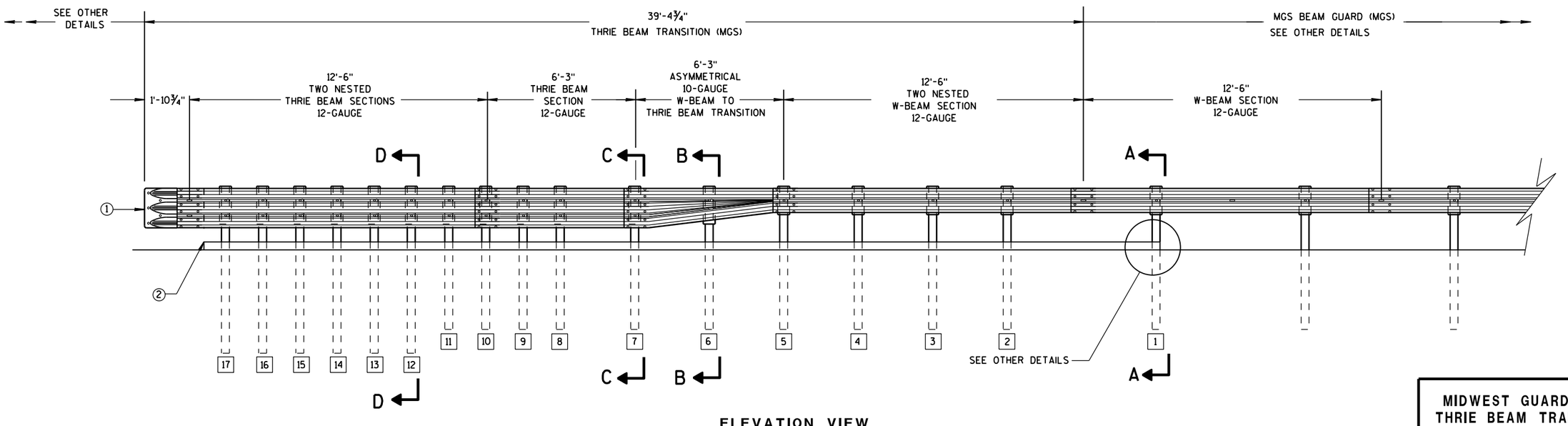
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4a

6

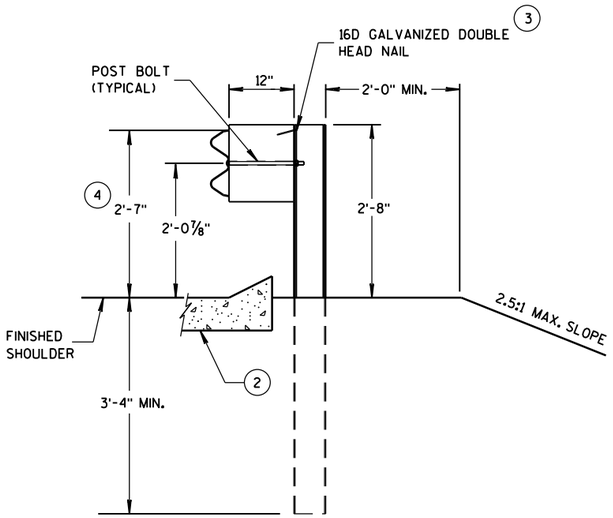
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

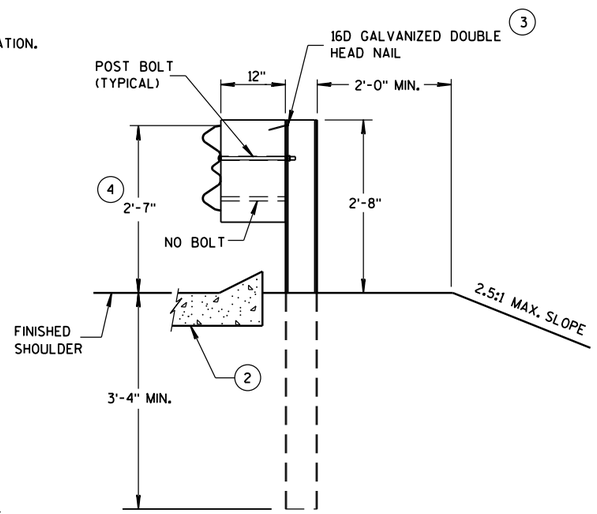
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



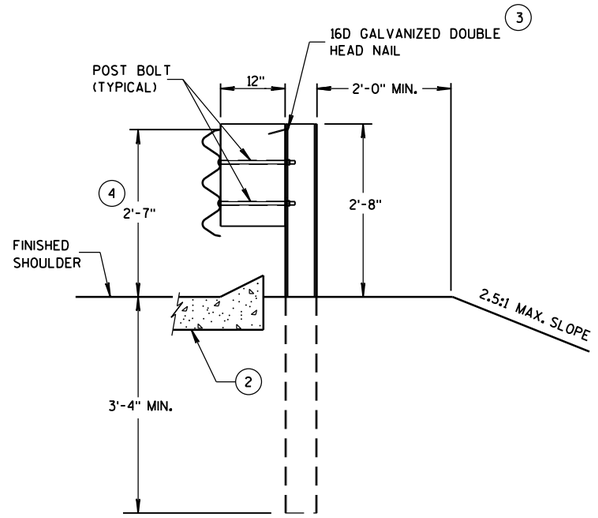
SECTION A-A

POSTS 1-5



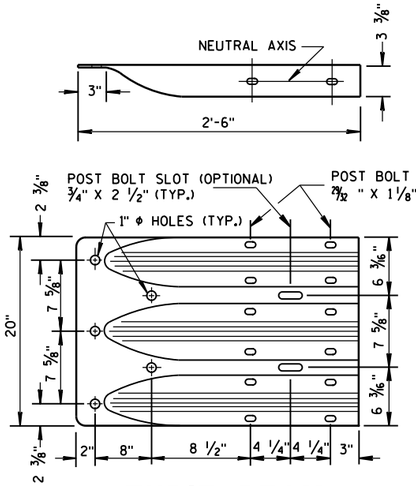
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

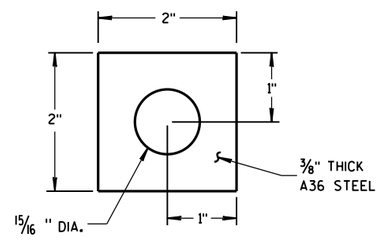
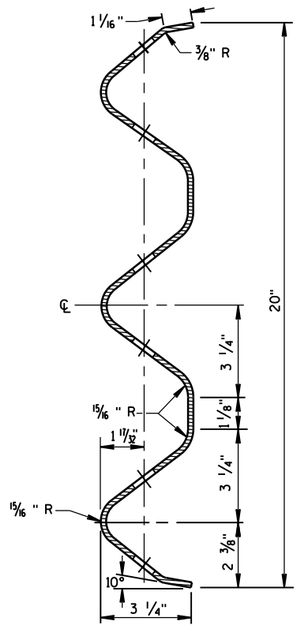
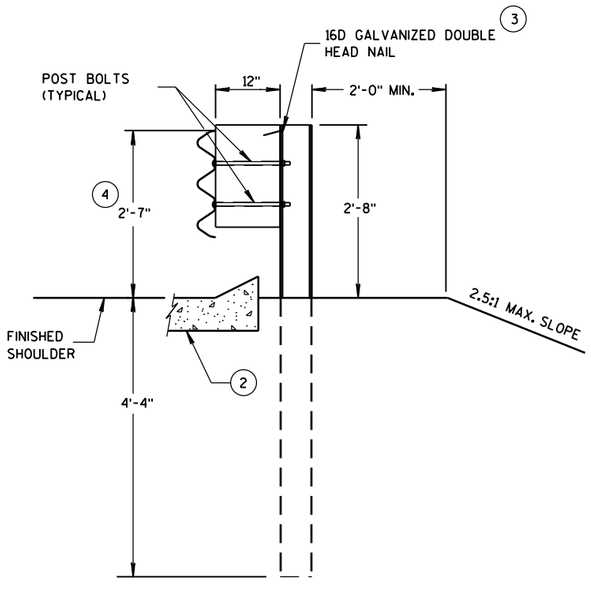


PLATE WASHER DETAIL

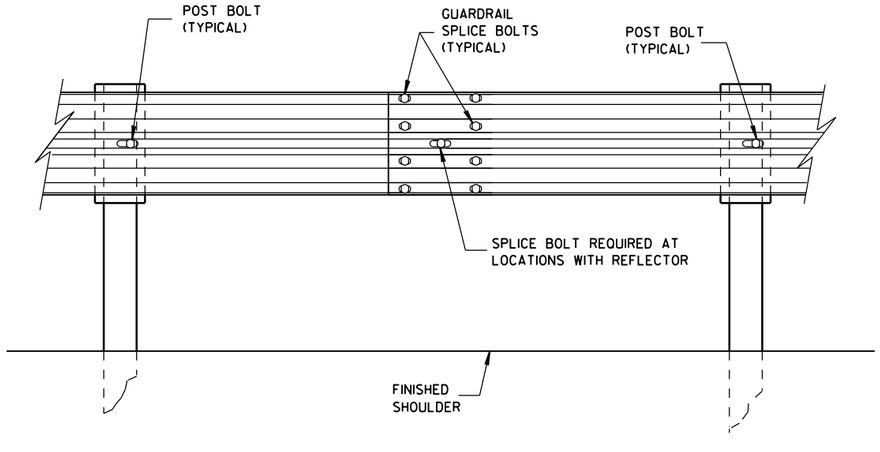


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



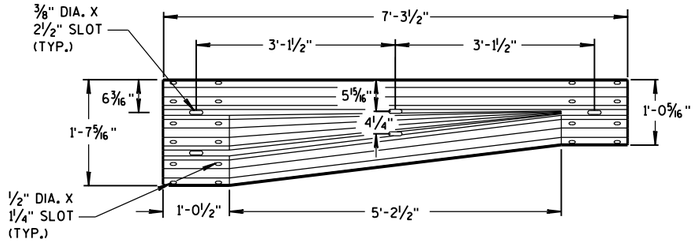
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

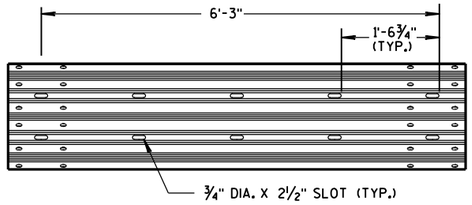
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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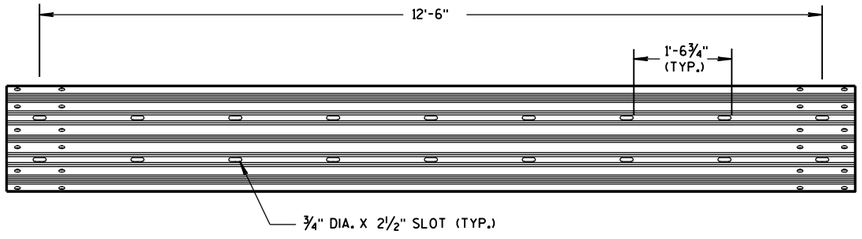
S.D.D. 14 B 45-4b



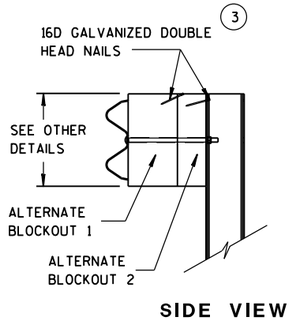
W-BEAM TO THRIE BEAM TRANSITION SECTION



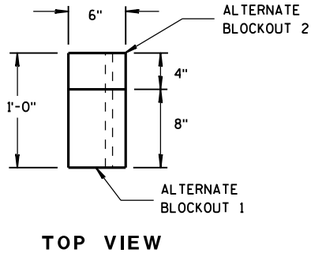
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

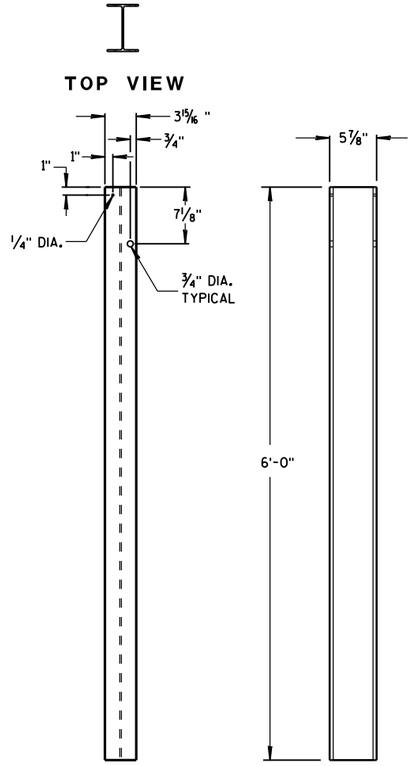


SIDE VIEW



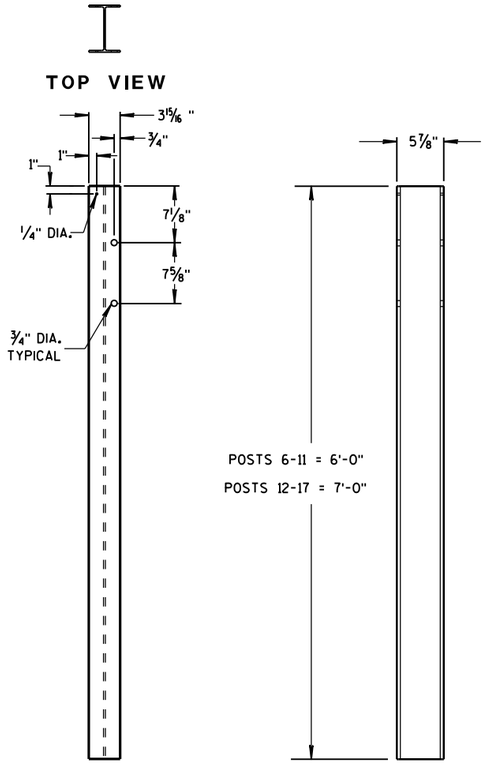
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



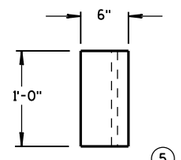
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

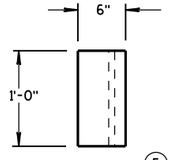


FRONT VIEW SIDE VIEW

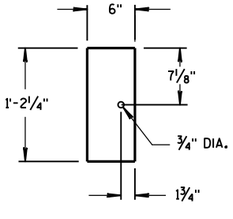
STEEL POSTS 6-17



TOP VIEW (5)

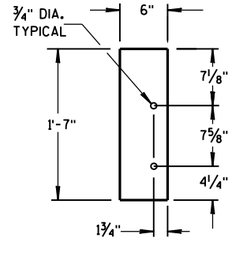


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

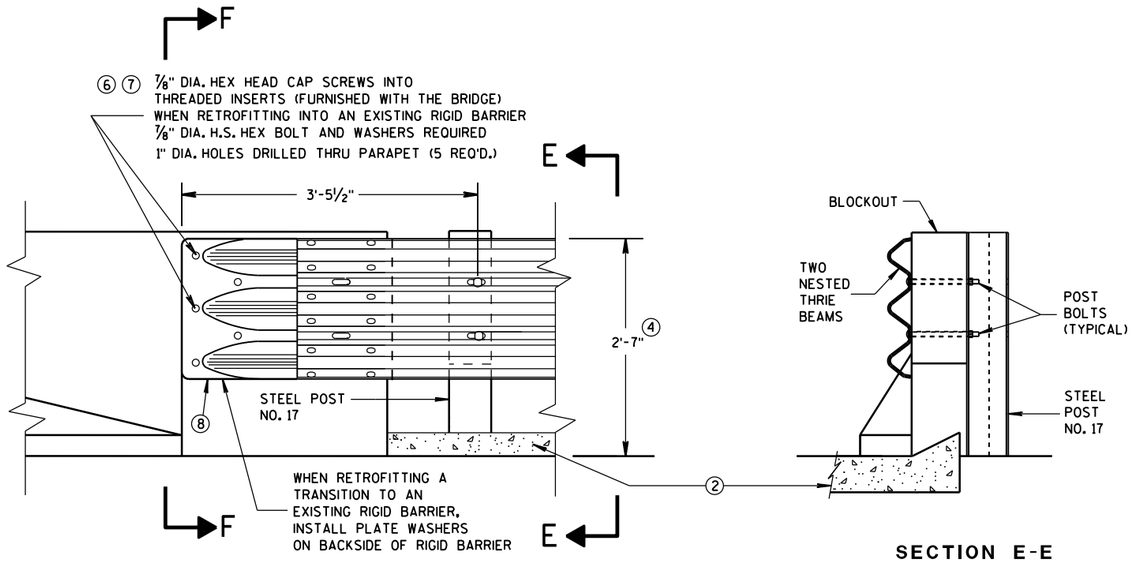
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

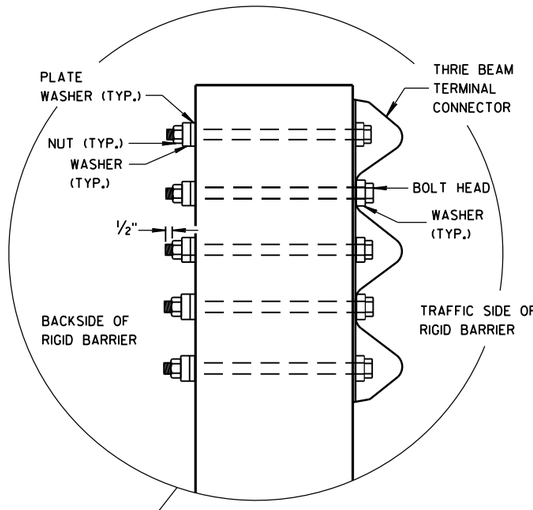
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

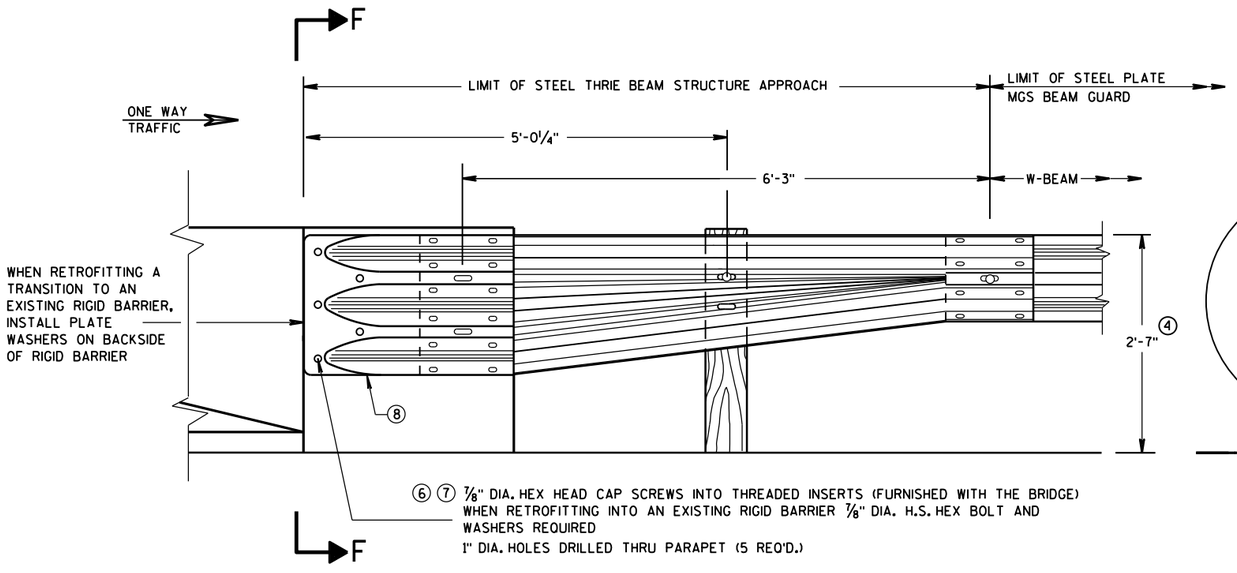
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

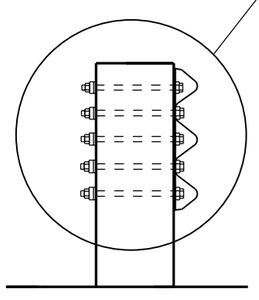
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⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

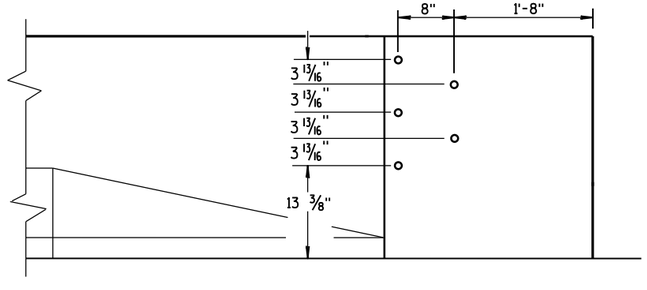




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4d

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S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

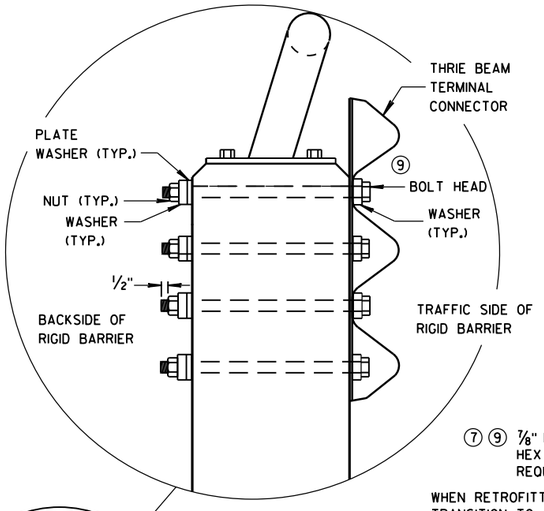
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

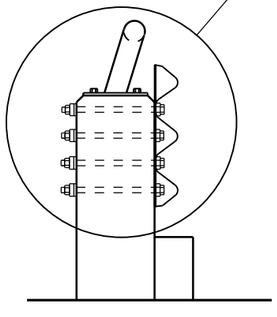
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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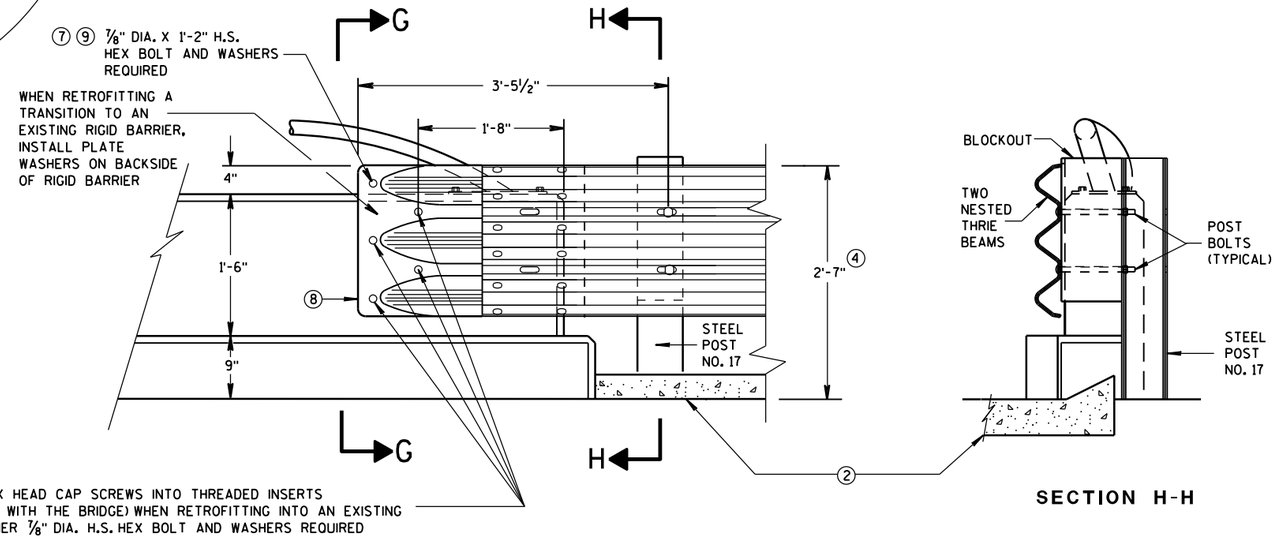
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(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





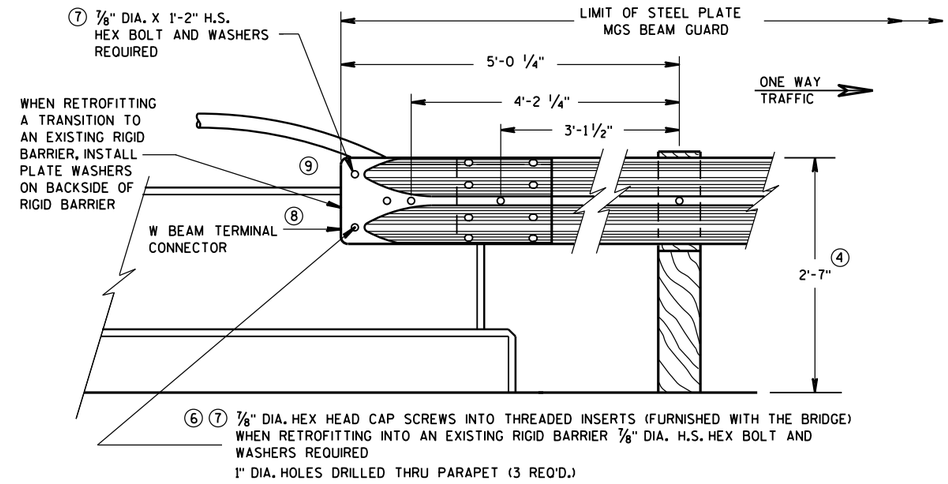
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

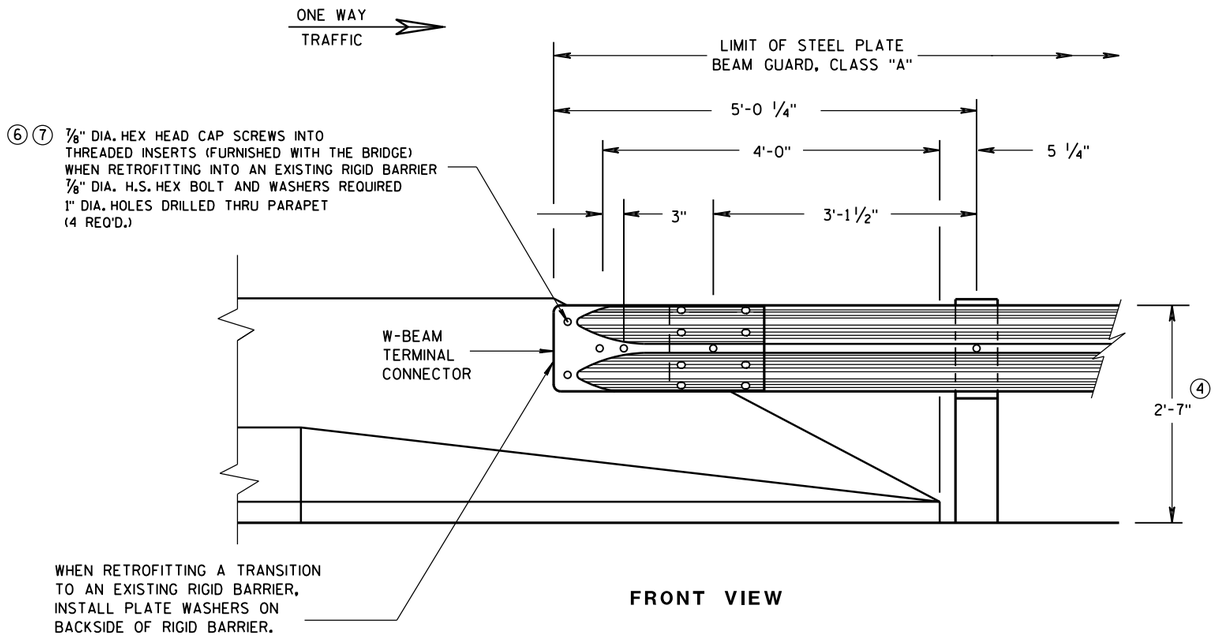
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S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

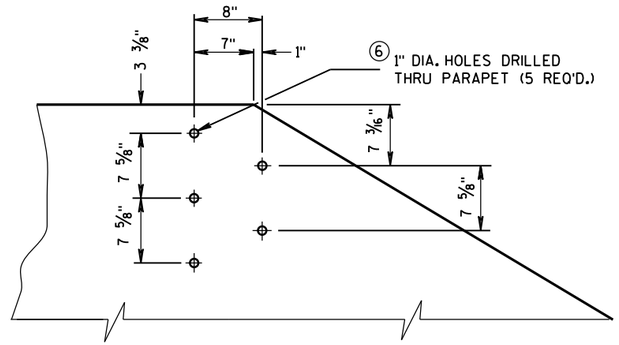
GENERAL NOTES

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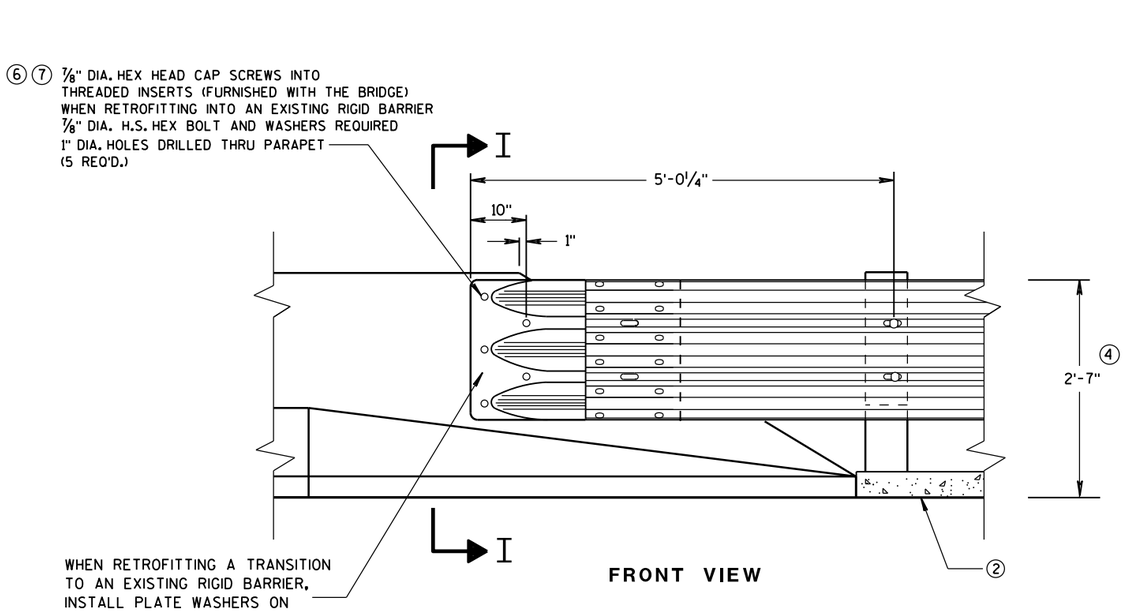
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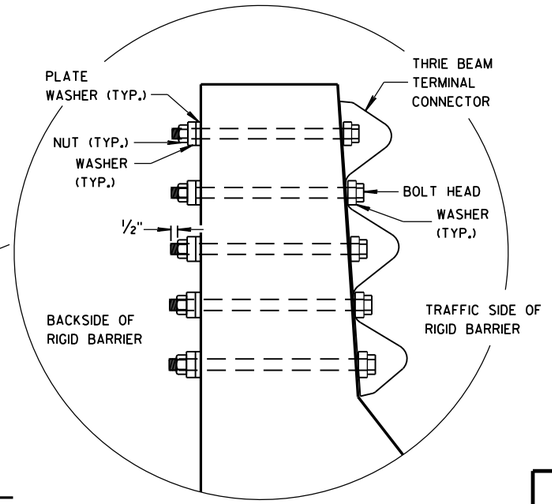


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

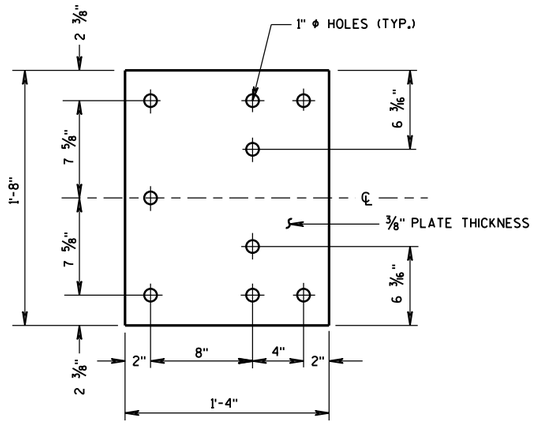
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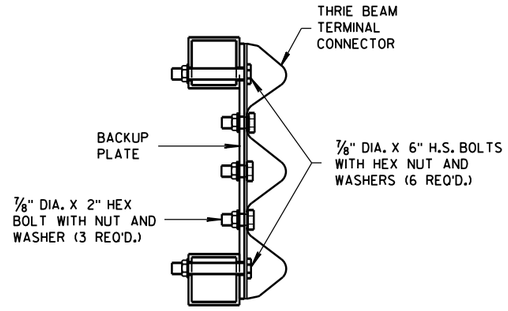
S.D.D. 14 B 45-4f

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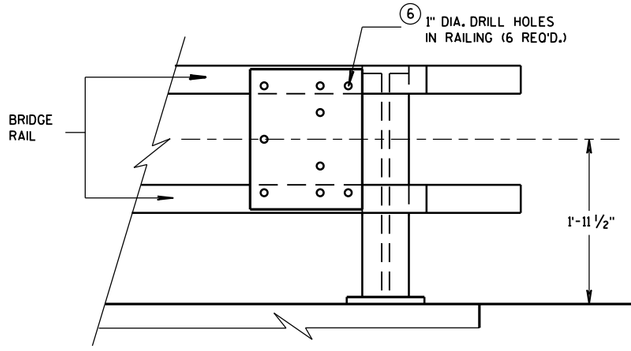
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

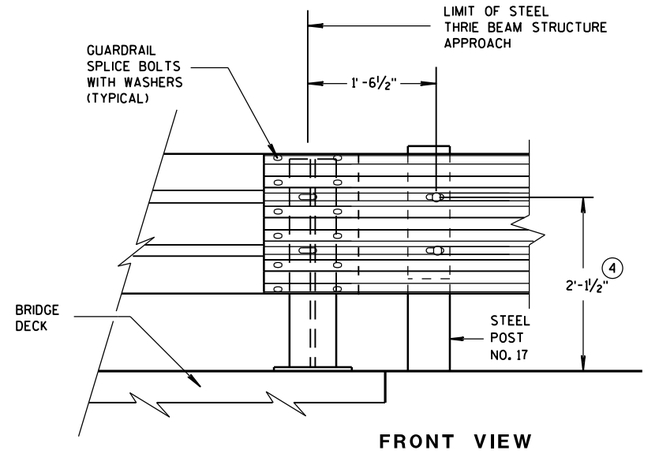


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

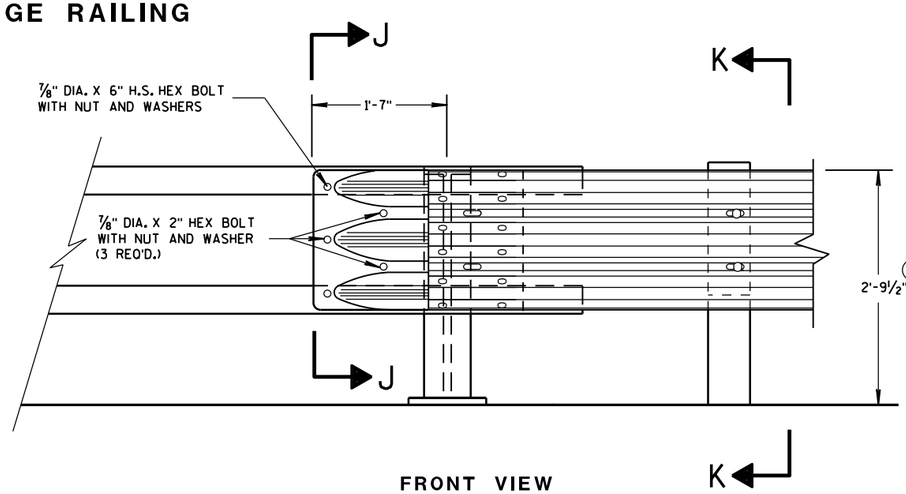
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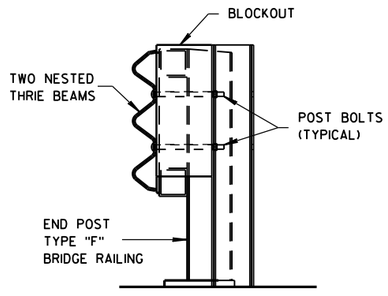


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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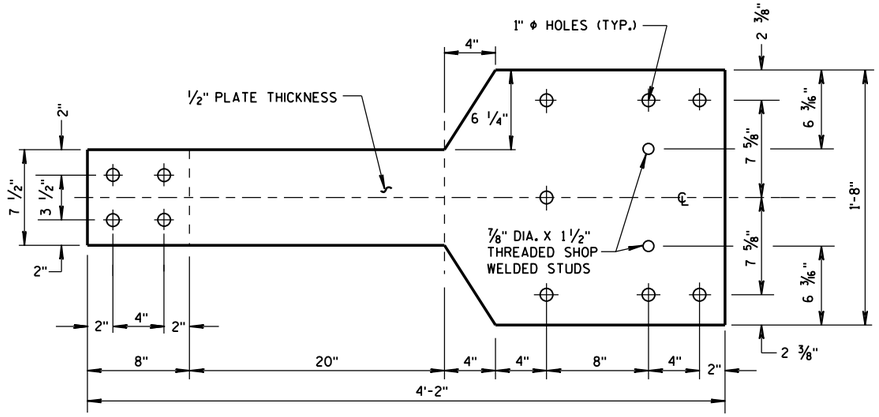
S.D.D. 14 B 45-4g

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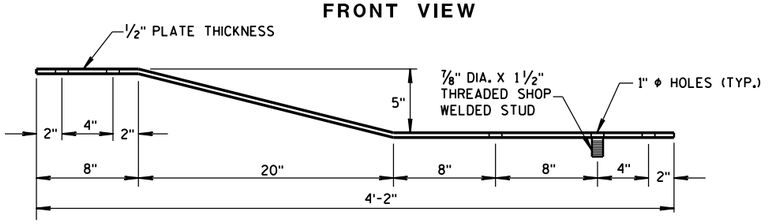
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

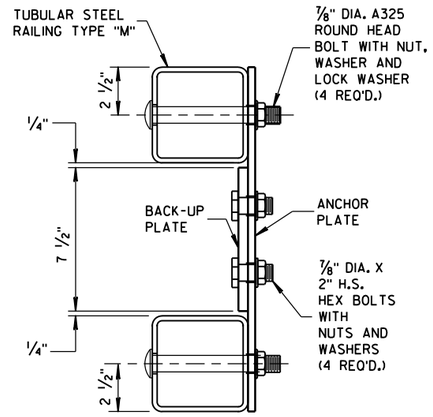


FRONT VIEW

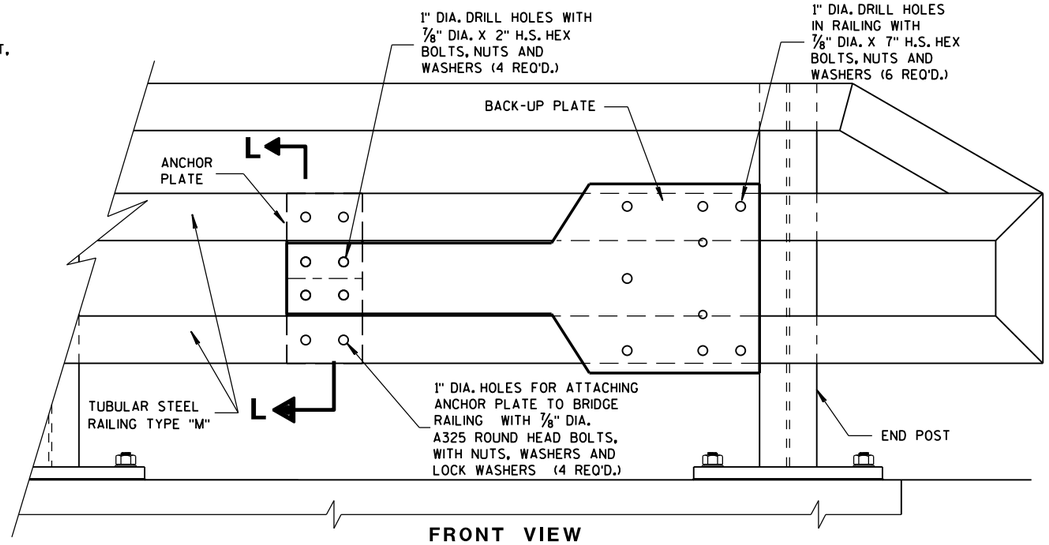


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

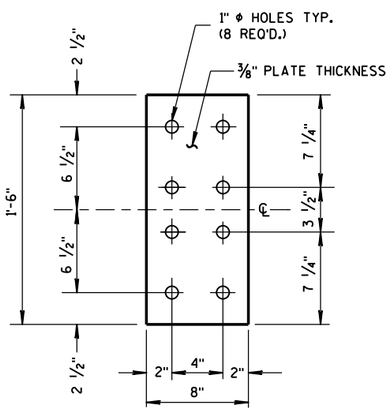


SECTION L-L



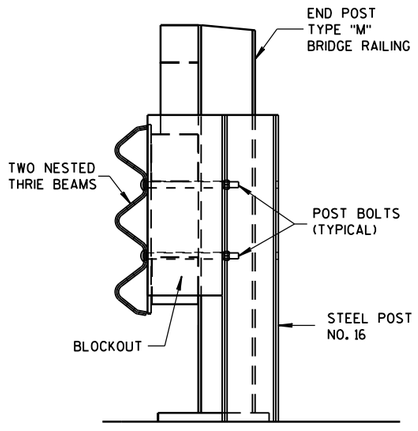
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

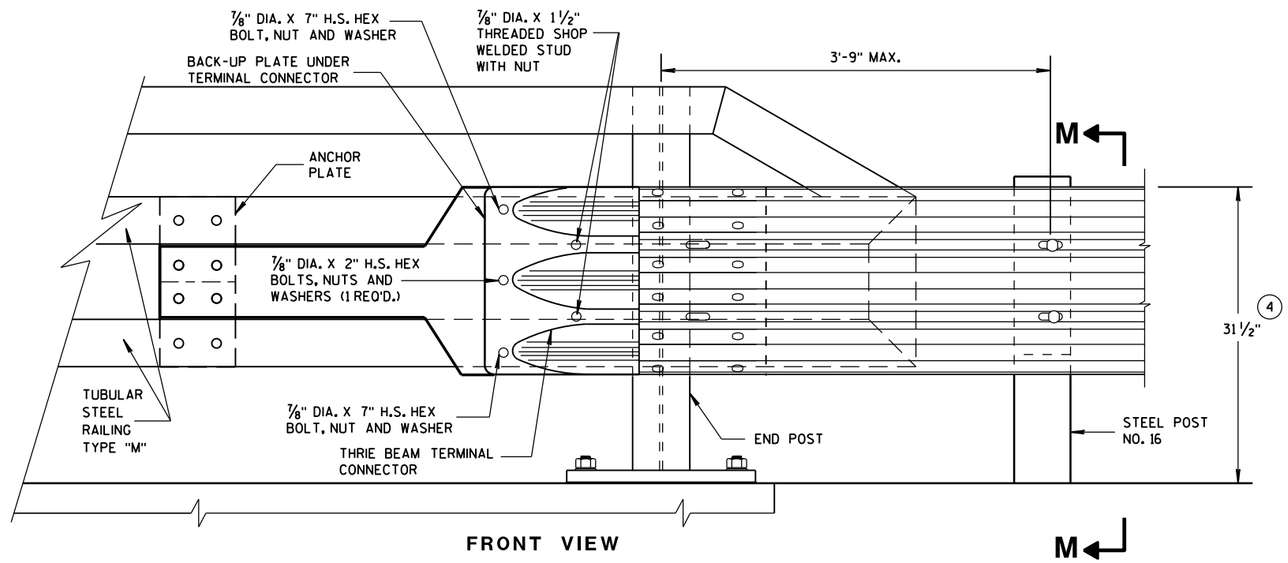


FRONT VIEW

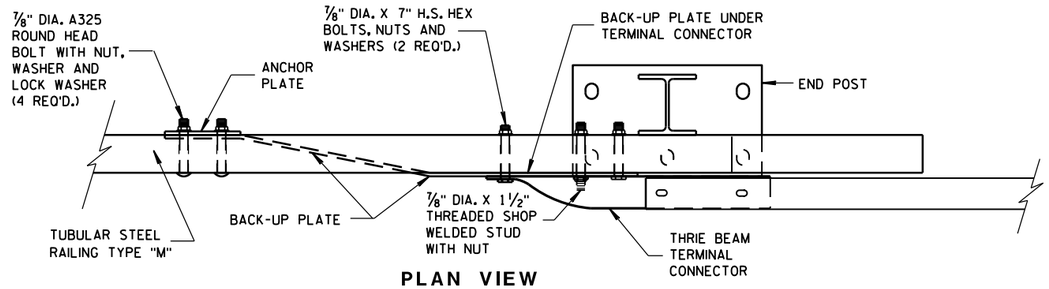
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

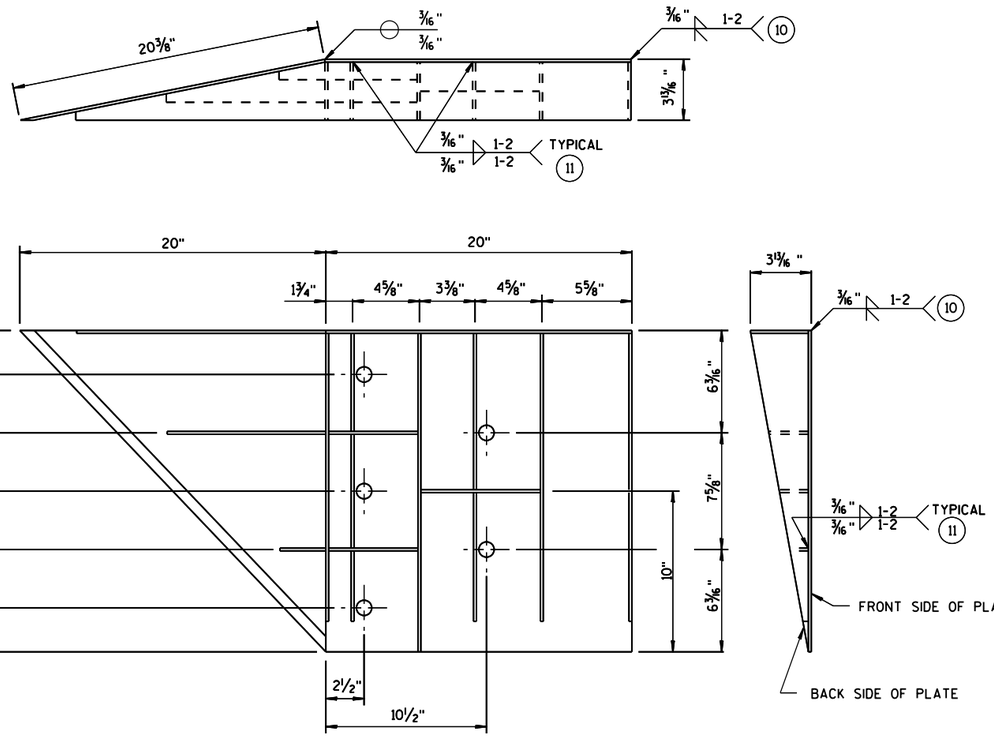
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S.D.D. 14 B 45-4h



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

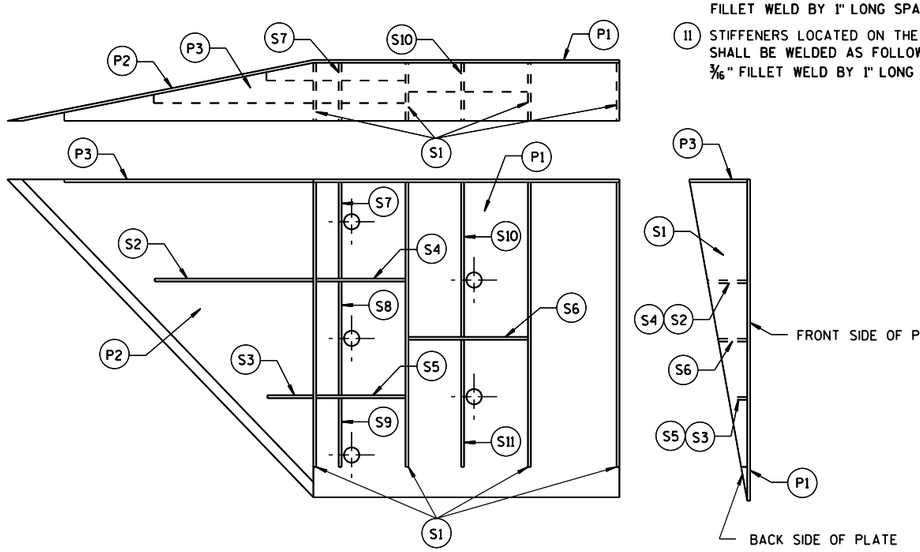


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

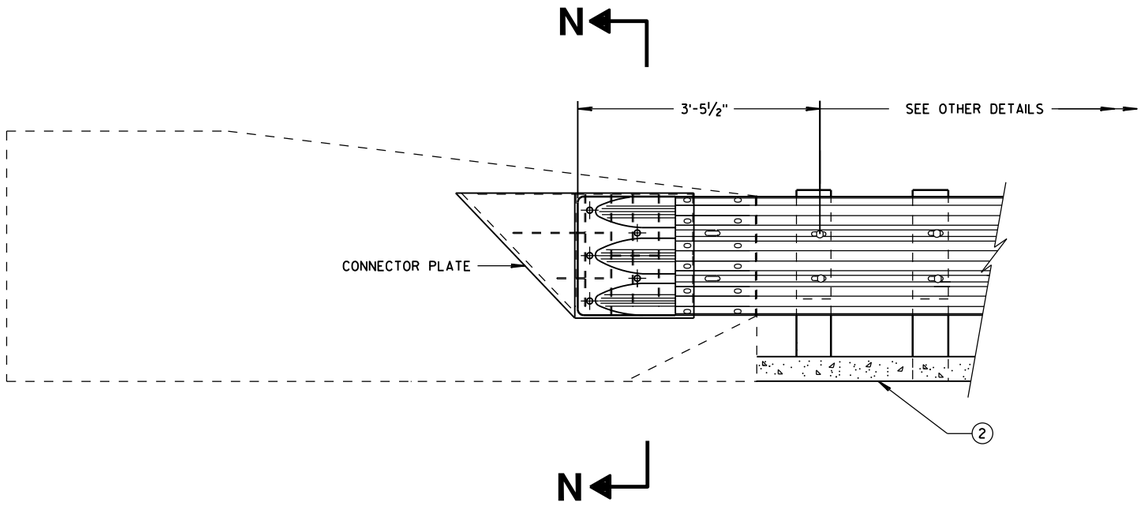
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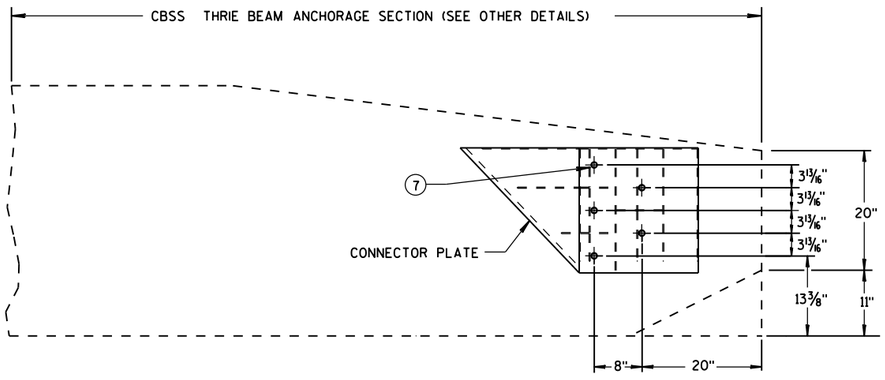
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S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



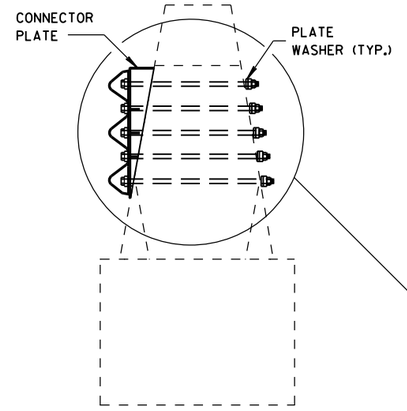
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

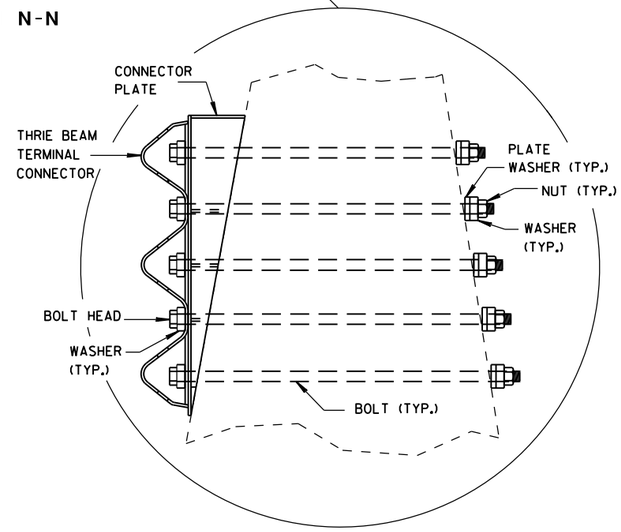
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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

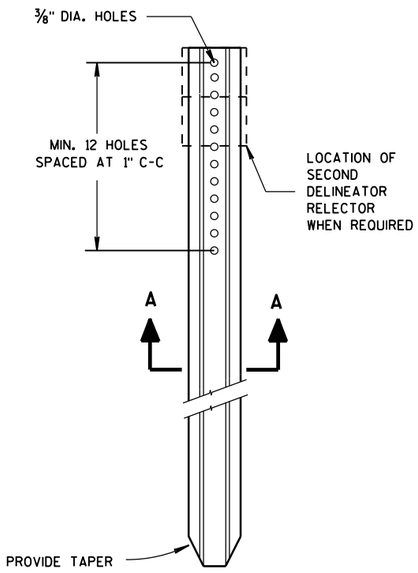
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FHWA

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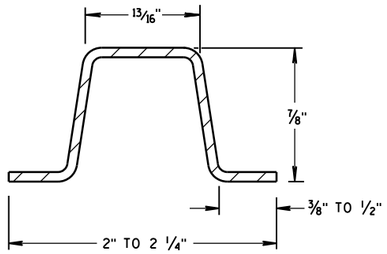
S.D.D. 14 B 45-4j

6

S.D.D. 14 B 45-4j

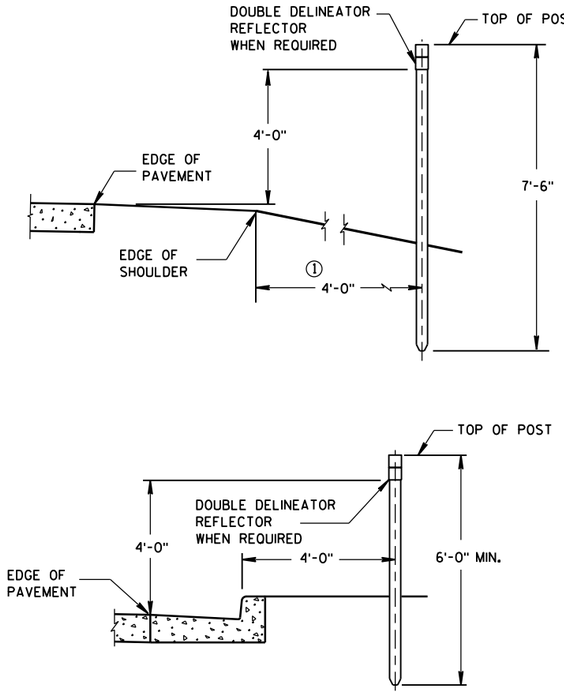


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

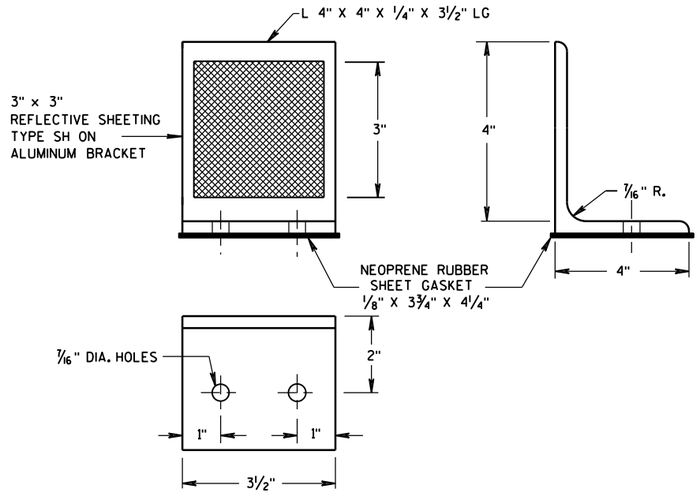


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

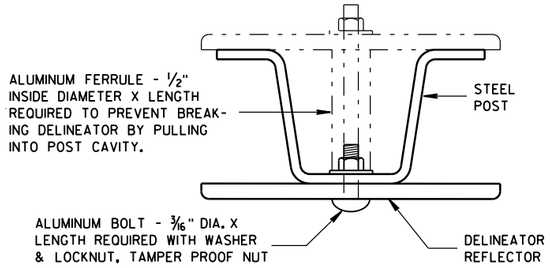
GENERAL NOTES

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

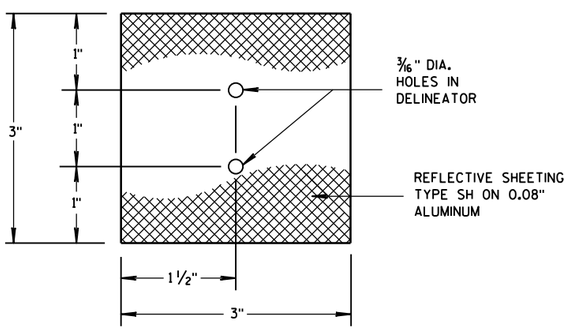
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



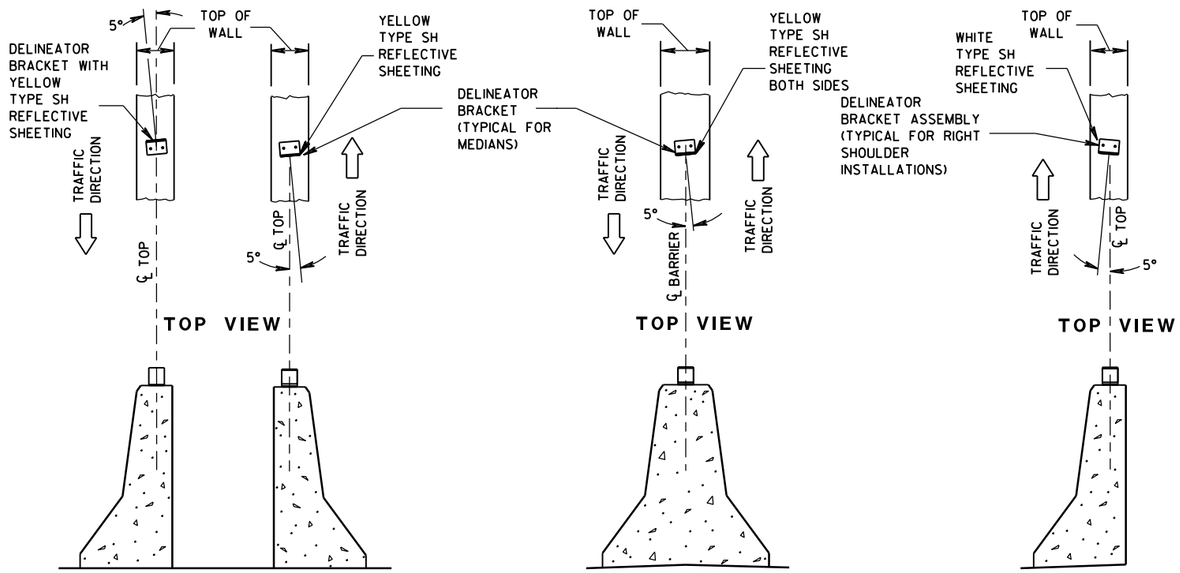
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR REFLECTOR

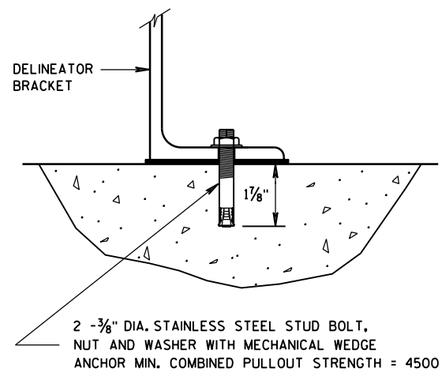


3"x 3" DELINEATOR REFLECTOR



DOUBLE BARRIERS IN MEDIAN | MEDIAN BARRIER | BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

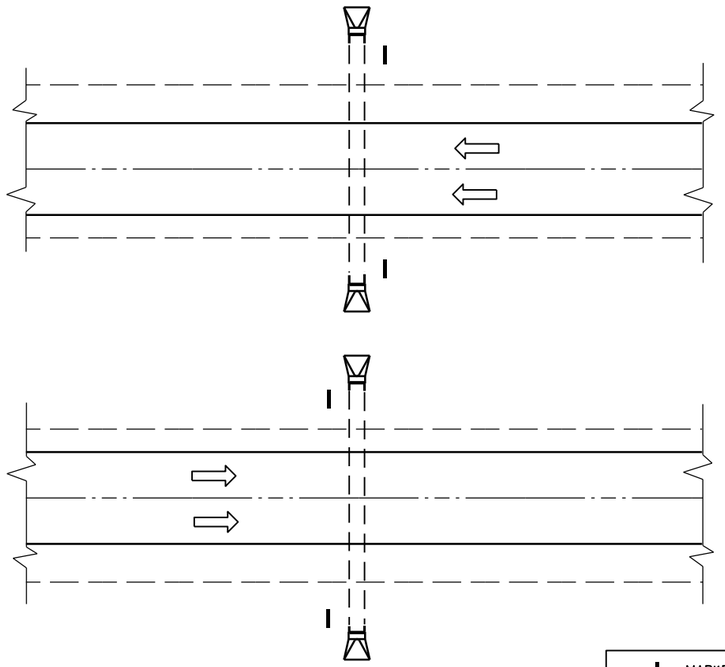
APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] ENGINEER
FHWA

6

S.D.D. 15 A 2-9

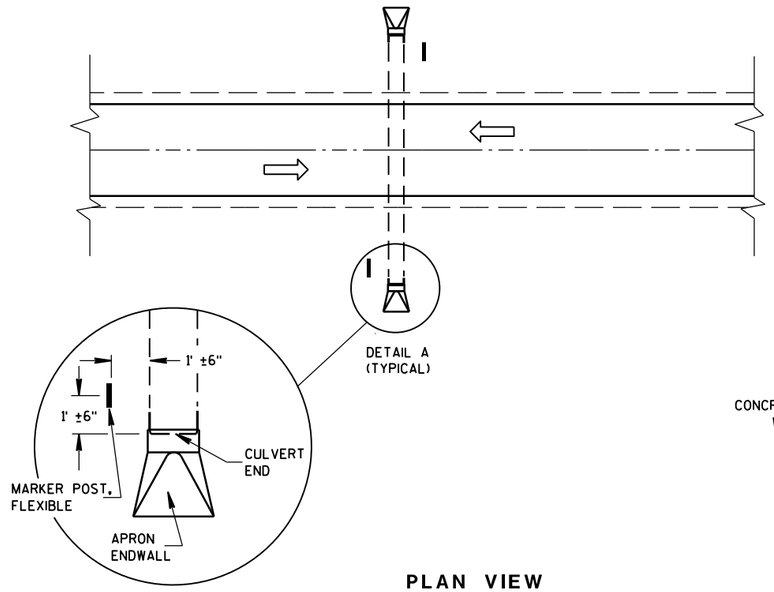
6

S.D.D. 15 A 2-9



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

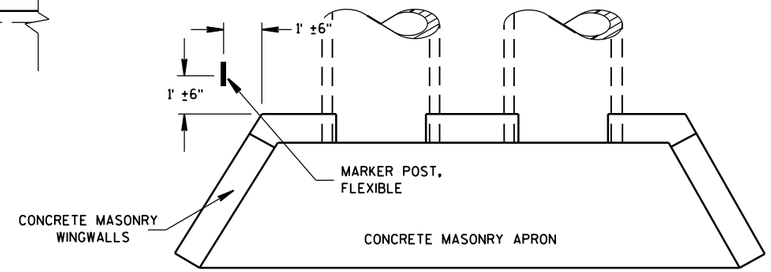
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

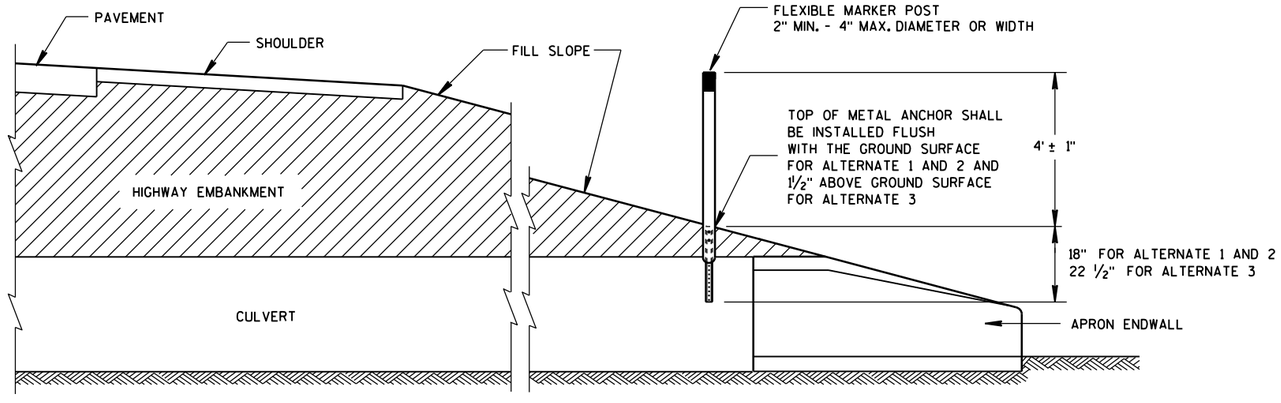
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

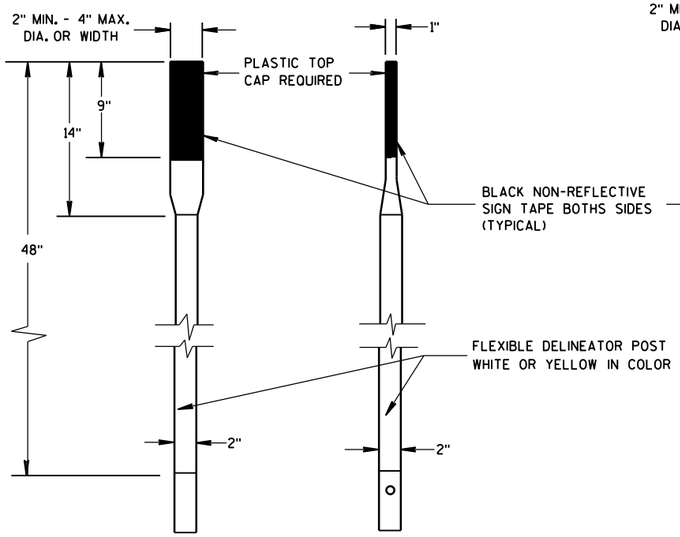
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

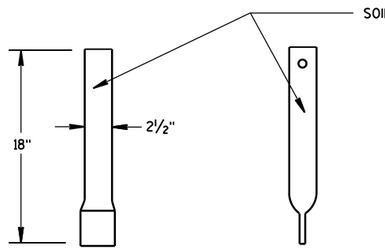
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S.D.D. 15 A 3-2a

6

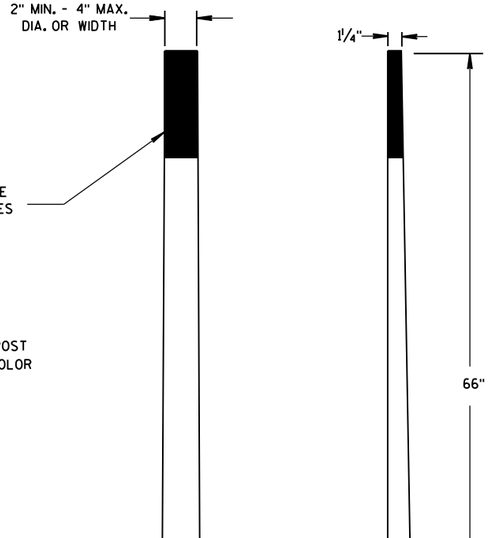
S.D.D. 15 A 3-2a





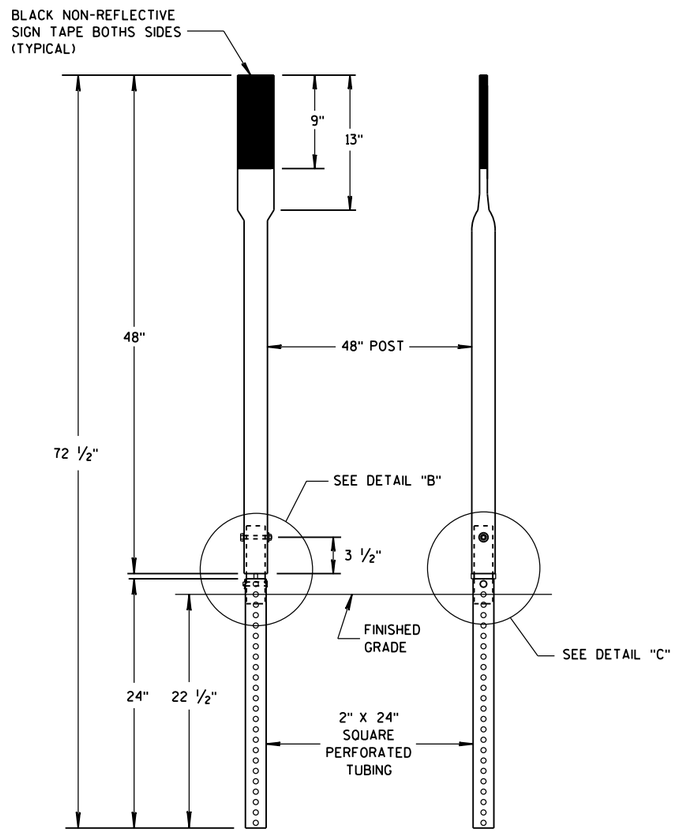
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

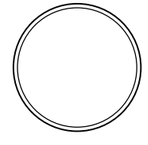
ALTERNATE 2



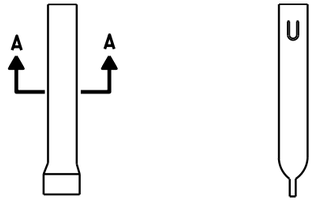
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

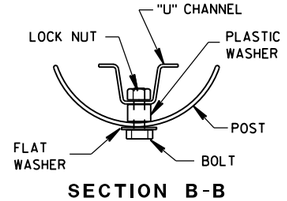


SECTION A-A

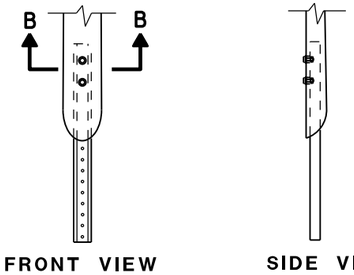


FRONT VIEW SIDE VIEW

ALTERNATE 1

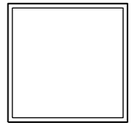


SECTION B-B

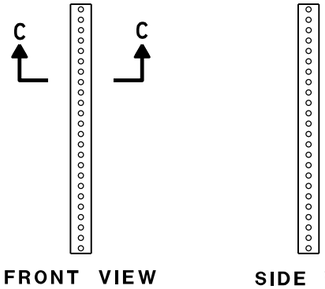


FRONT VIEW SIDE VIEW

ALTERNATE 2



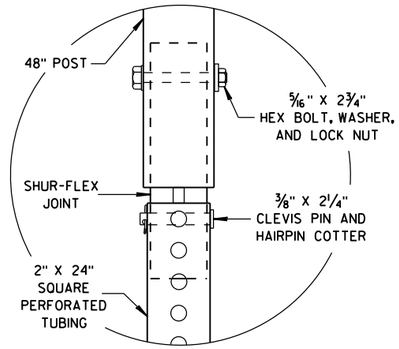
SECTION C-C



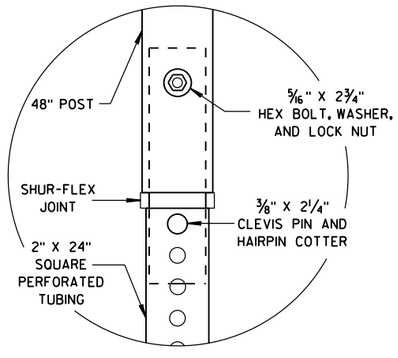
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b

GENERAL NOTES

PANEL THICKNESS SHALL BE A MINIMUM OF 0.08 INCHES.

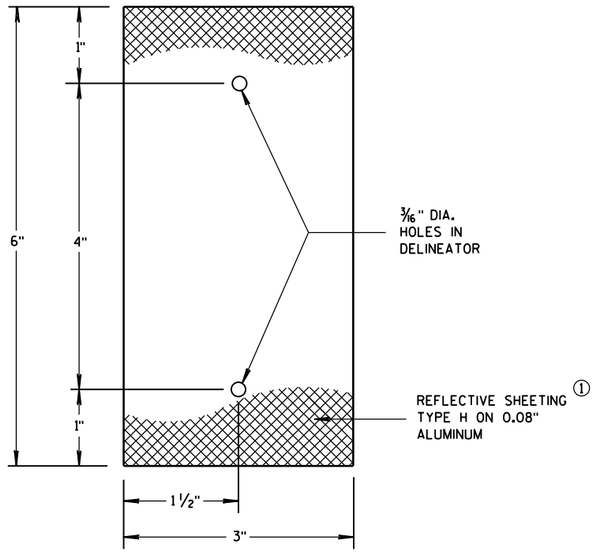
PLASTIC BASE MATERIAL SHALL BE WHITE, UV STABILIZED, FLAME TREATED TO THE MANUFACTURER SPECIFICATIONS AND BE ABLE TO WITHSTAND SUB FREEZING TEMPERATURES WITHOUT BREAKING.

① FURNISH TYPE H SHEETING FROM THE APPPROVED PRODUCTS LIST.

② FURNISH DELINEATOR REFLECTOR FOR GUARDRAIL FROM THE APPPROVED PRODUCTS LIST.

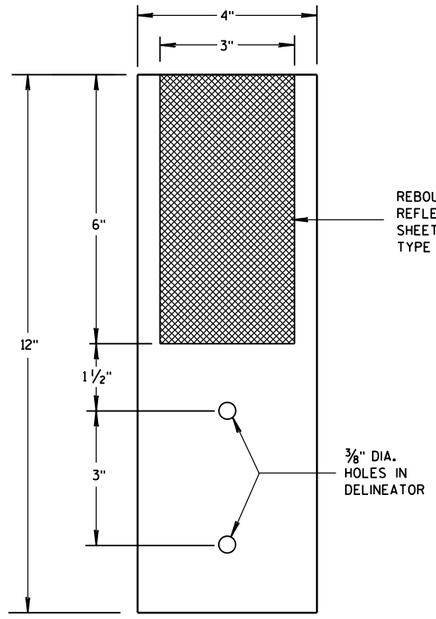
REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3



3"x 6" DELINEATOR REFLECTOR

(FOR STEEL POSTS)



4"x 12" DELINEATOR REFLECTOR

(FOR GUARDRAIL) ②

DELINEATOR
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible]INEER
FHWA

6

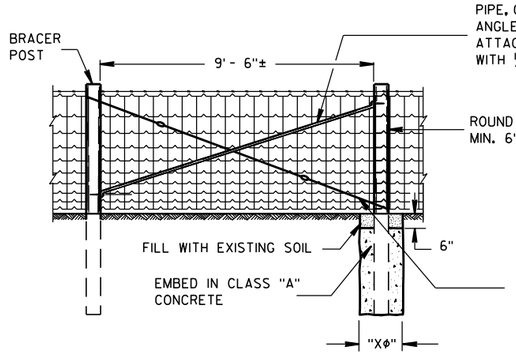
S.D.D. 15 A 4-3d

6

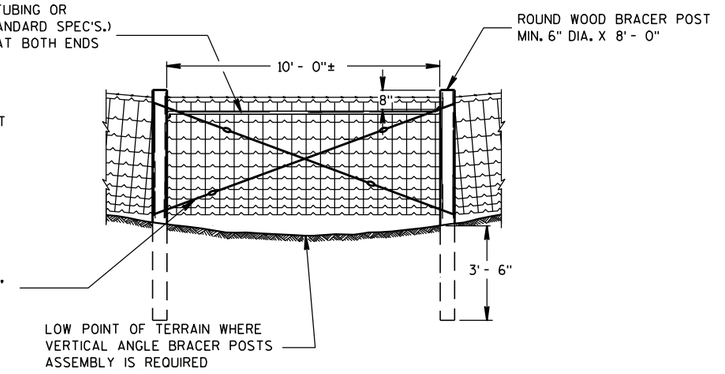
S.D.D. 15 A 4-3d

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

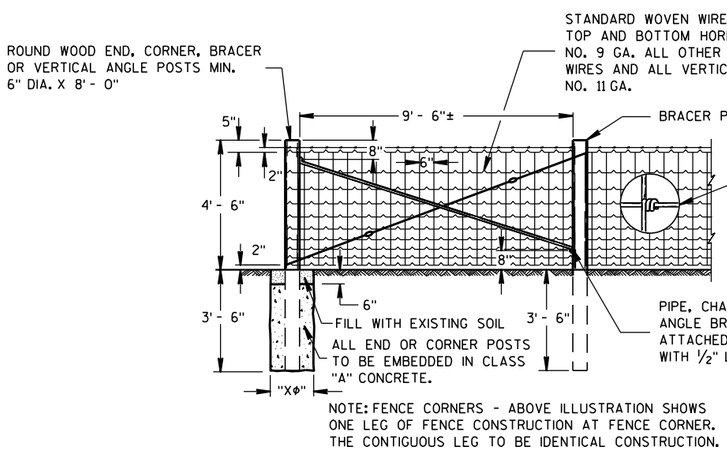
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

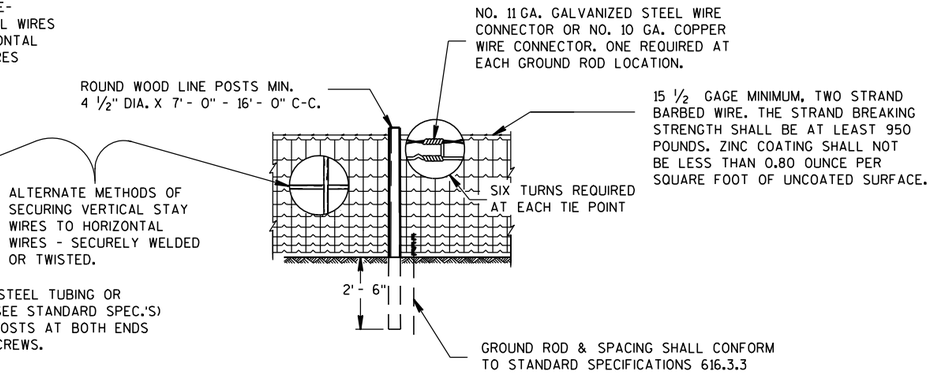
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



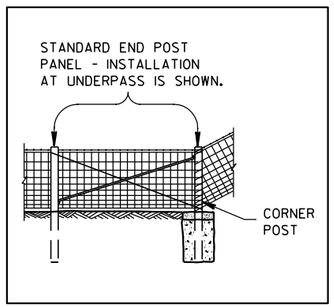
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

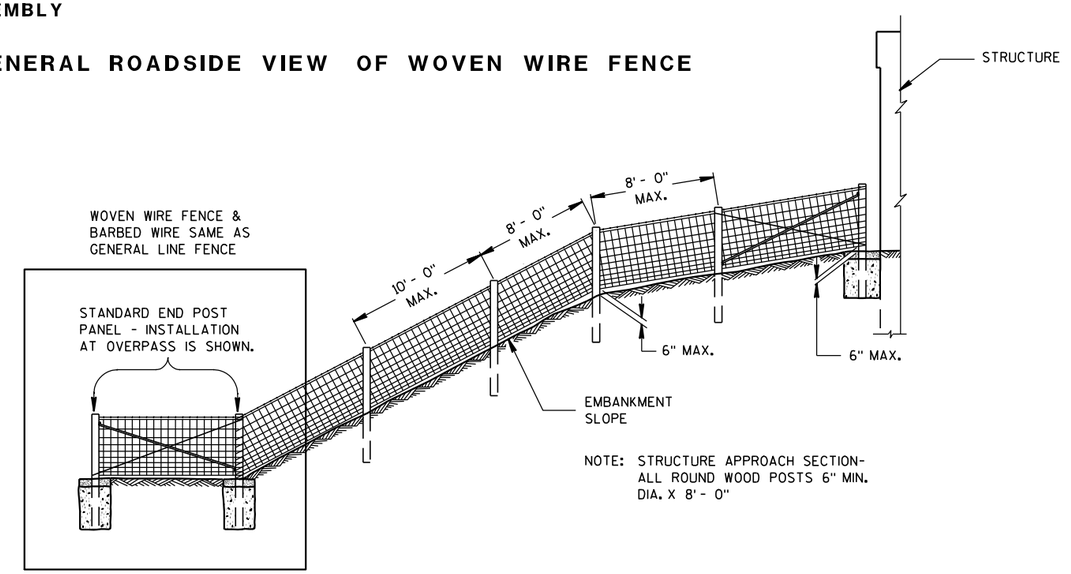


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

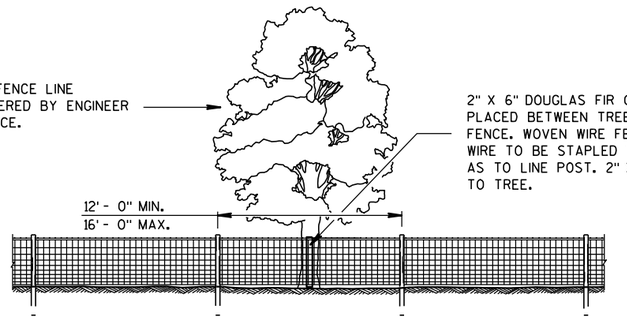
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

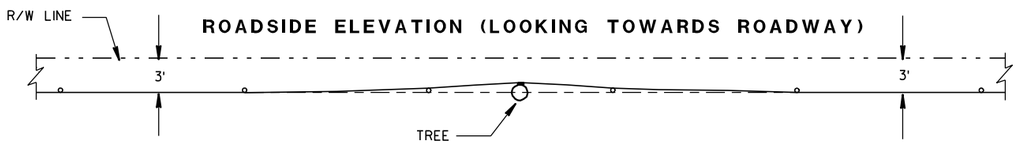
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

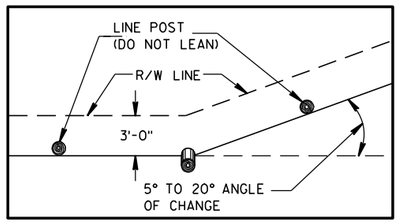


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

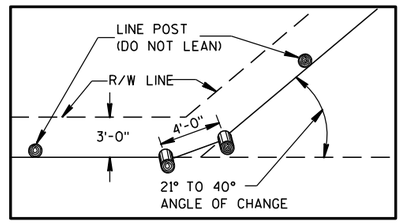


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

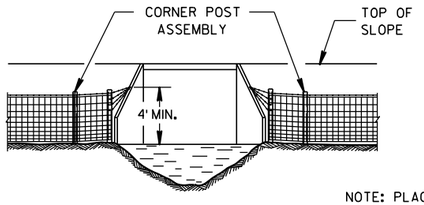


PLAN VIEW
DOUBLE POST CORNER

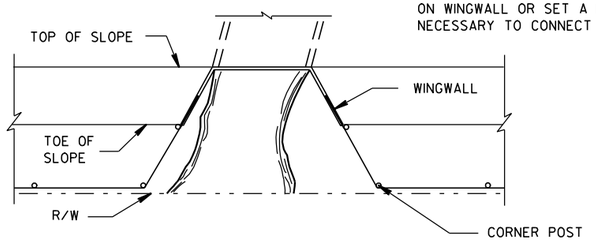
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

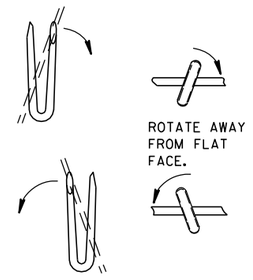
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



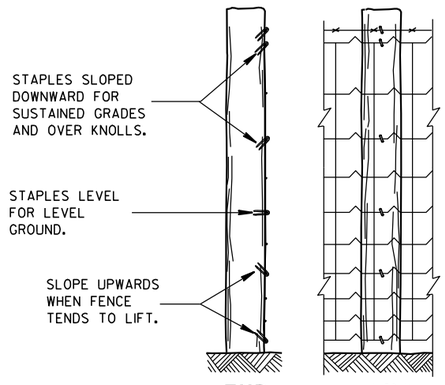
FENCE INSTALLATION TO WINGWALLS



LINE POST

FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

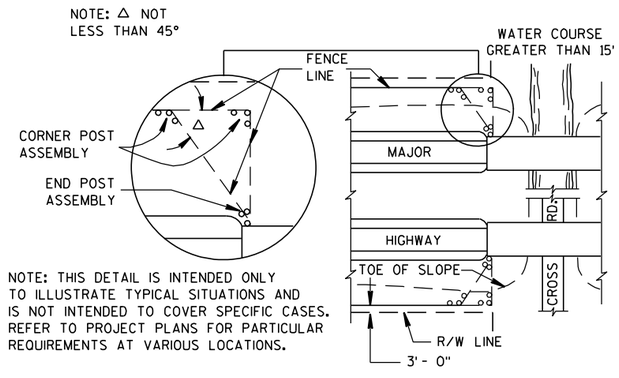
NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



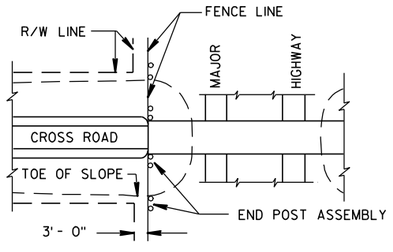
END ELEVATION

FARM SIDE ELEVATION

FENCE MOUNTING DETAIL



PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

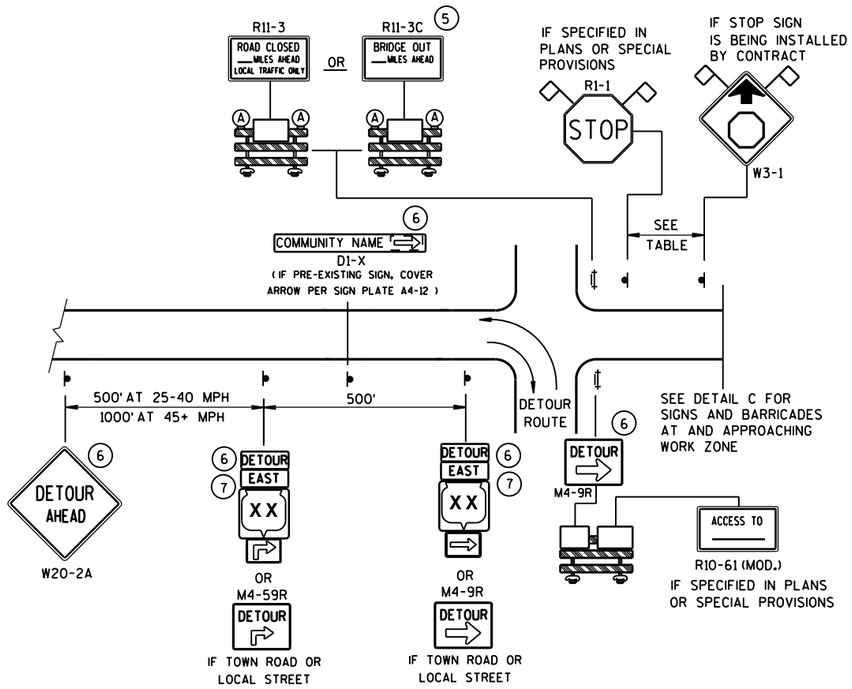
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

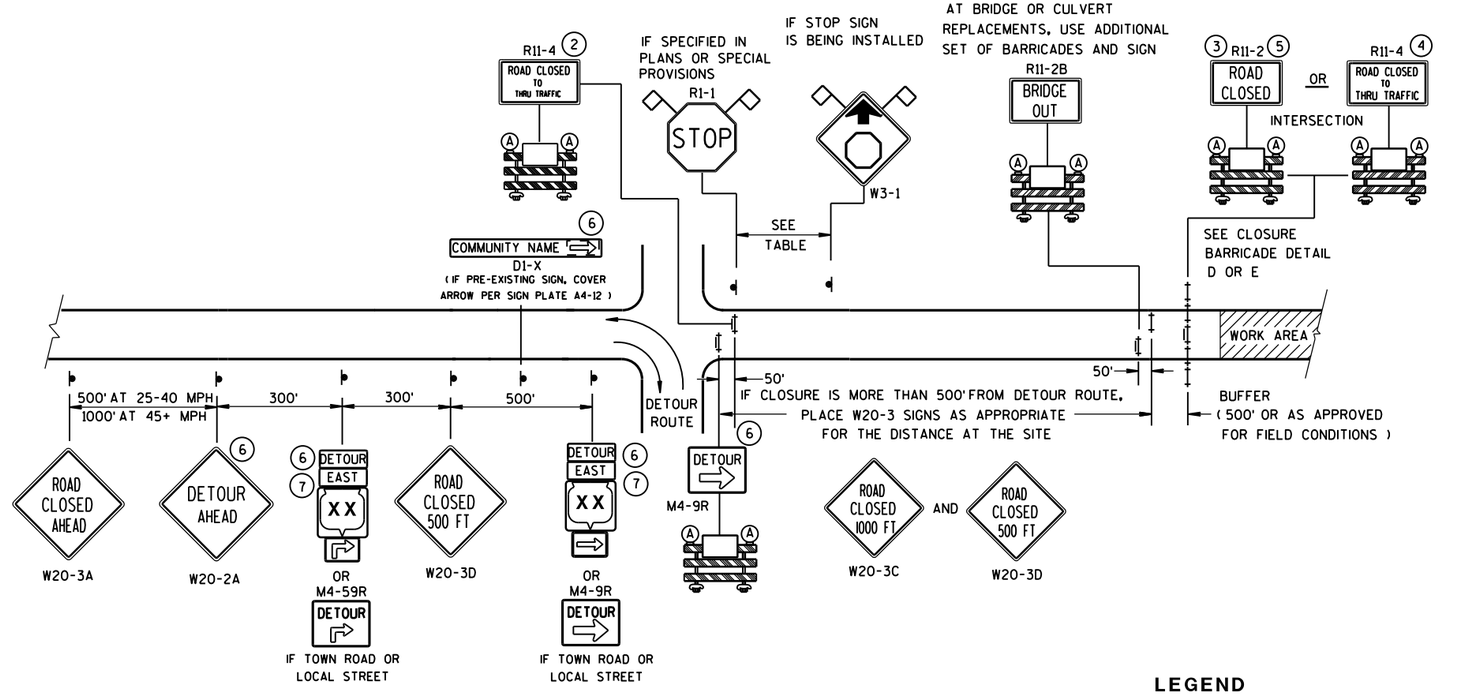
APPROVED
4/4/2008
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]
ENGINEER
FHWA

6
S.D.D. 15 B 1-8b



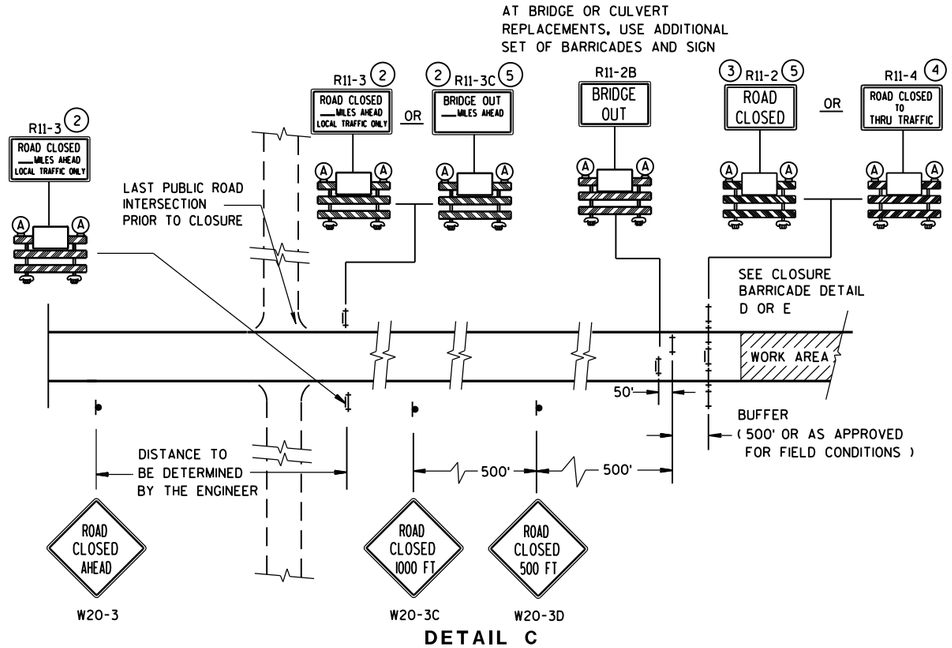
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

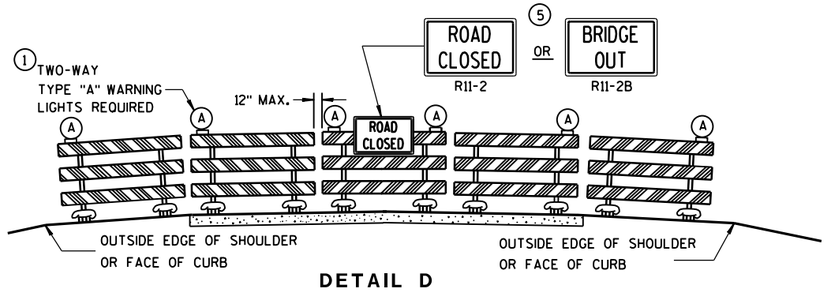
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 C 2-6a

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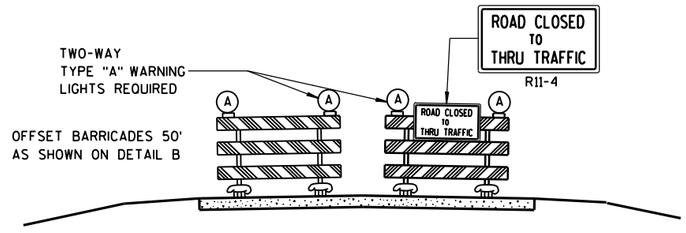
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC

FHWA

6

S.D.D. 15 C 2-6b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

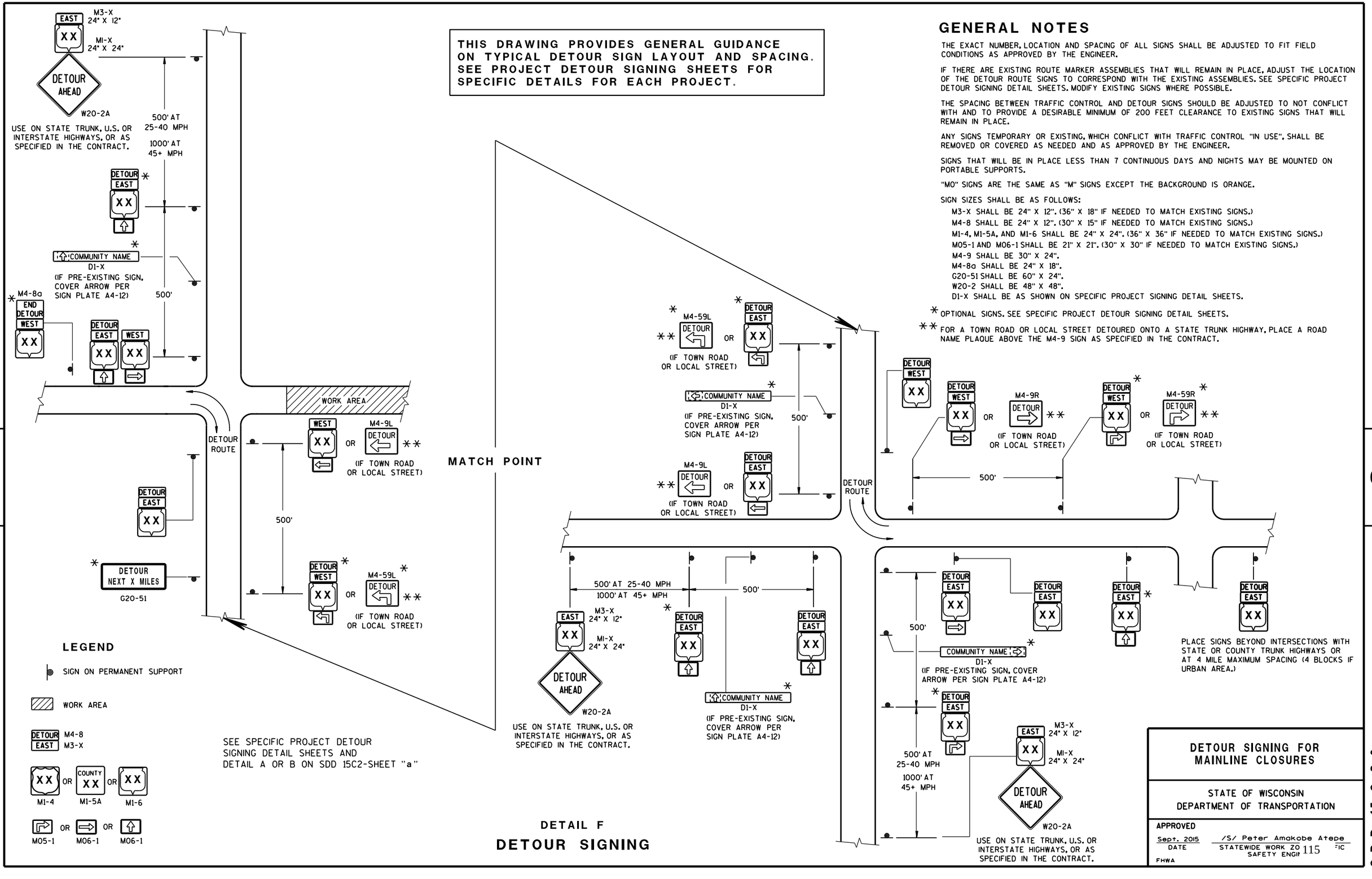
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

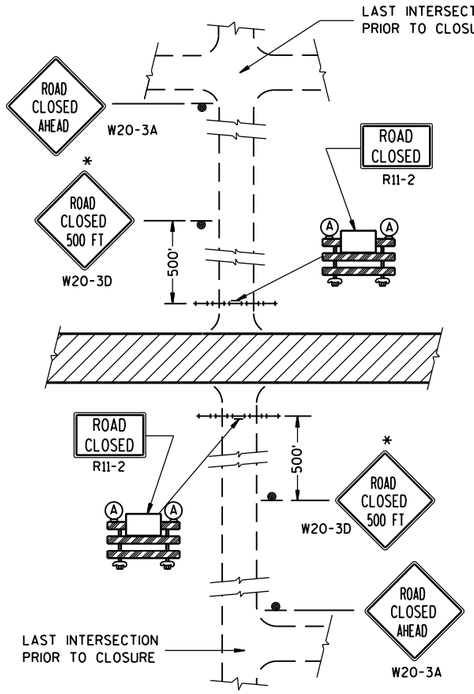
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO... SAFETY ENGI...

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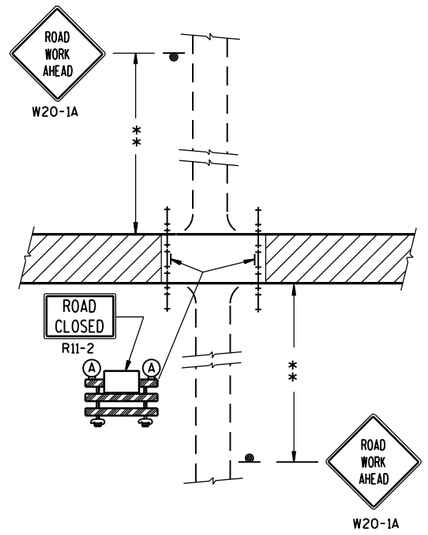
S.D.D. 15 C 2-6c

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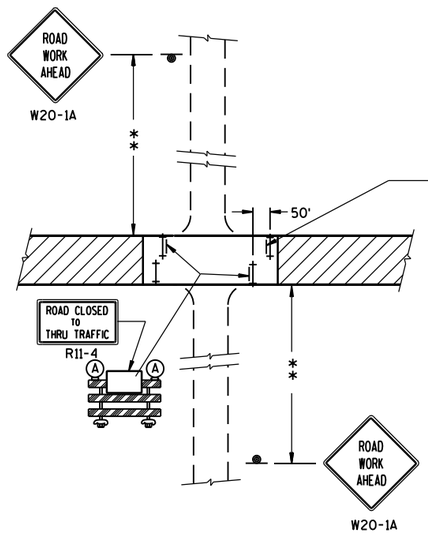
DETAIL 1

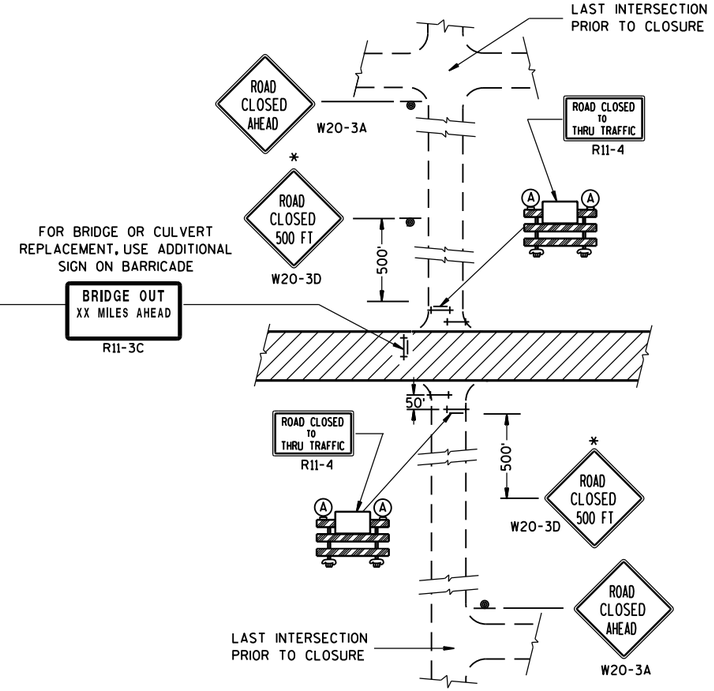
(NO ACCESS TO PROJECT)



DETAIL 2

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





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
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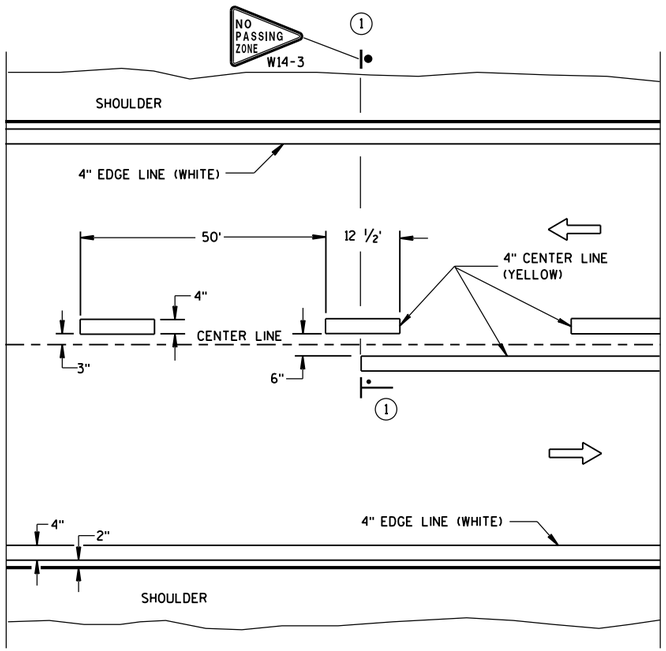
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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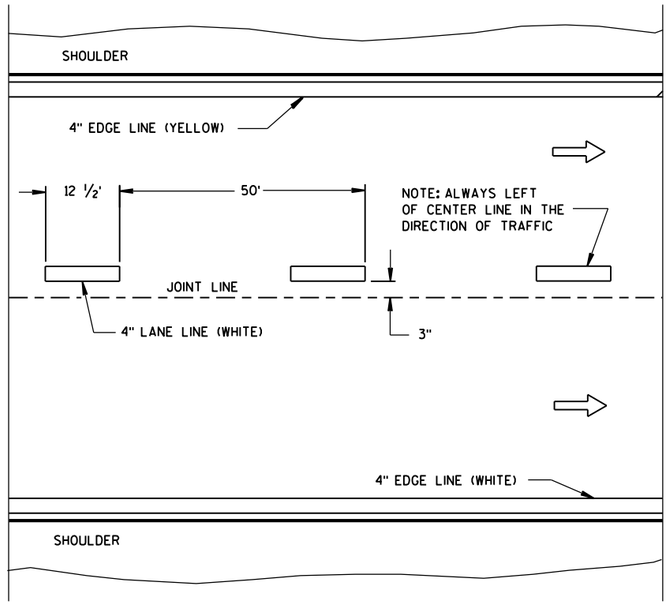
S.D.D. 15 C 3-3

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S.D.D. 15 C 3-3



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

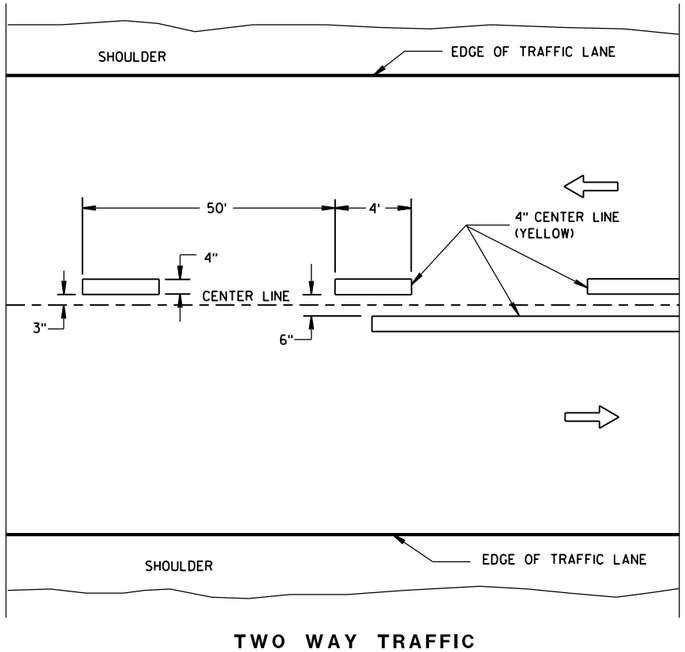
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

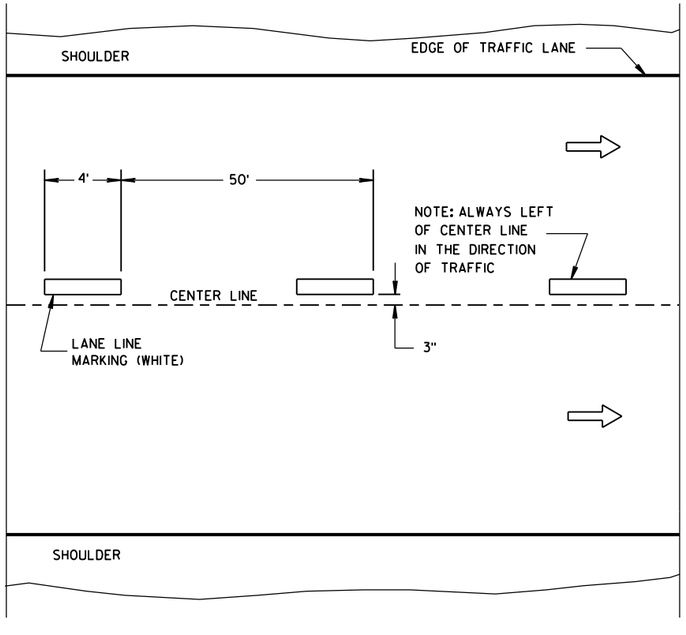
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2016	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MAR[illegible] 117 [illegible]INEER
FHWA	

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S.D.D. 15 C 8-17a

6

S.D.D. 15 C 8-17a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

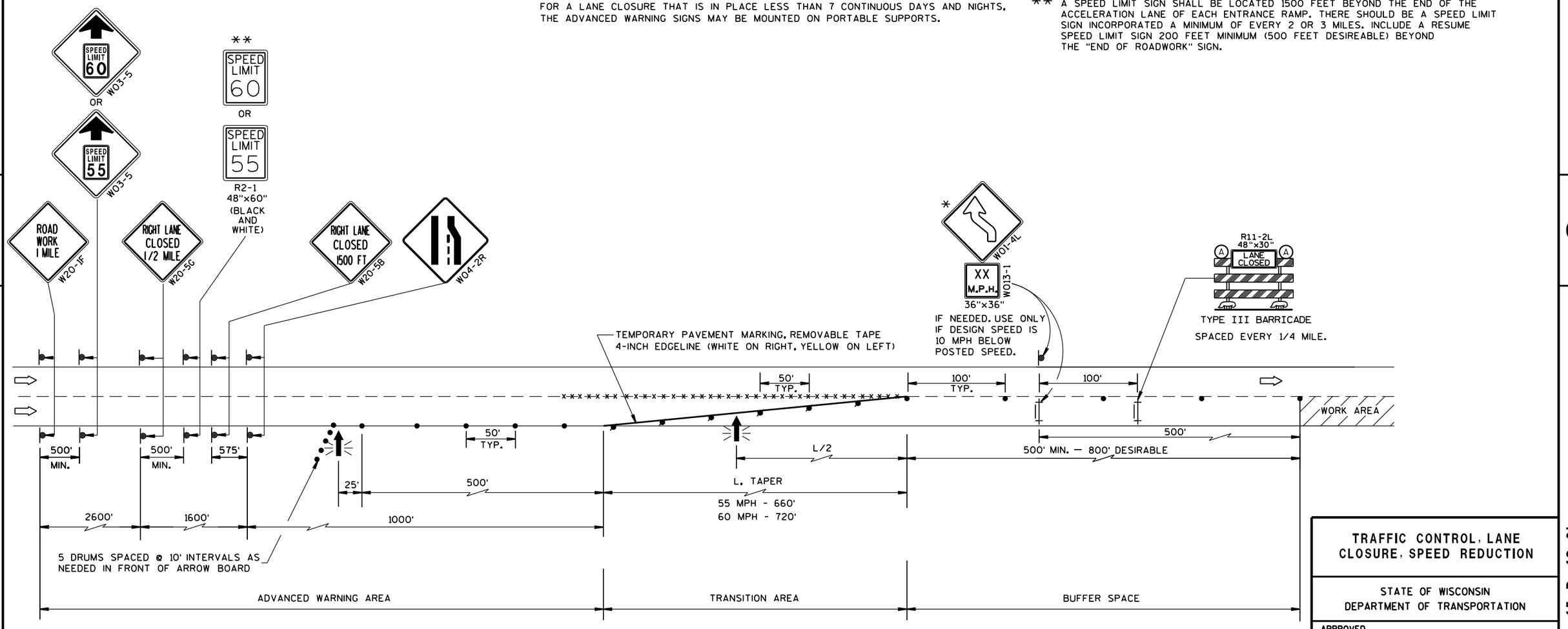
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

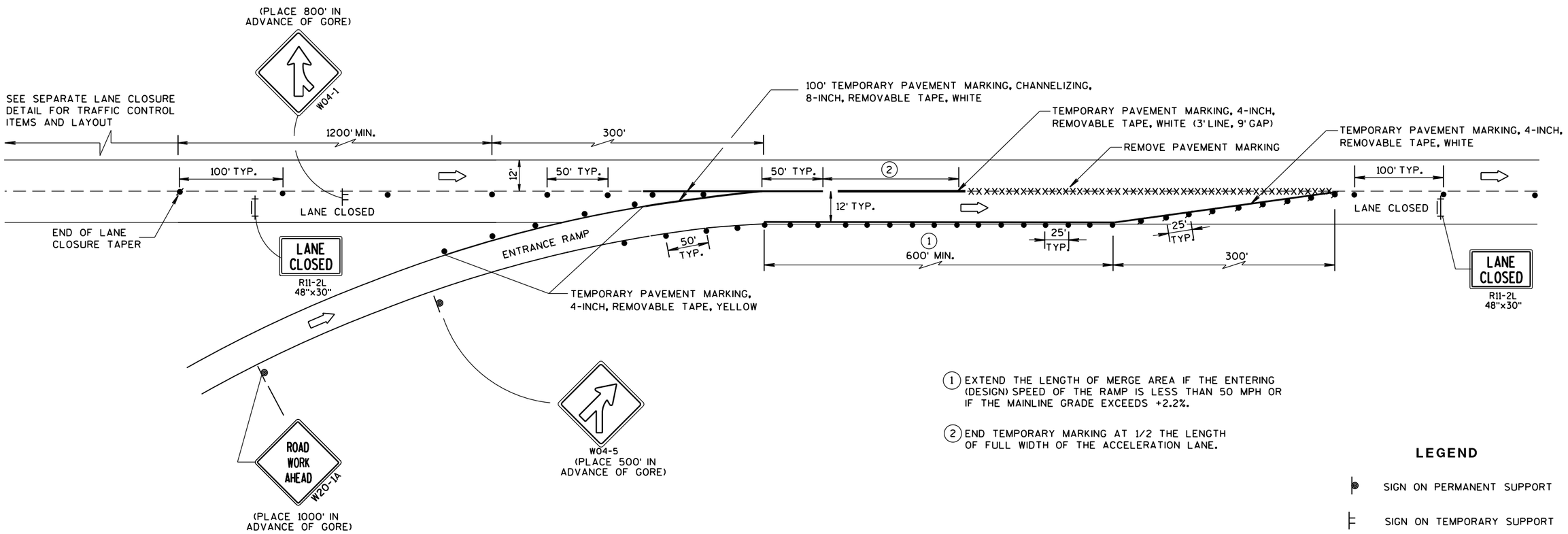
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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S.D.D. 15 D 12-6b

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



1. EXTEND THE LENGTH OF MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS +2.2%.

2. END TEMPORARY MARKING AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

PARALLEL ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

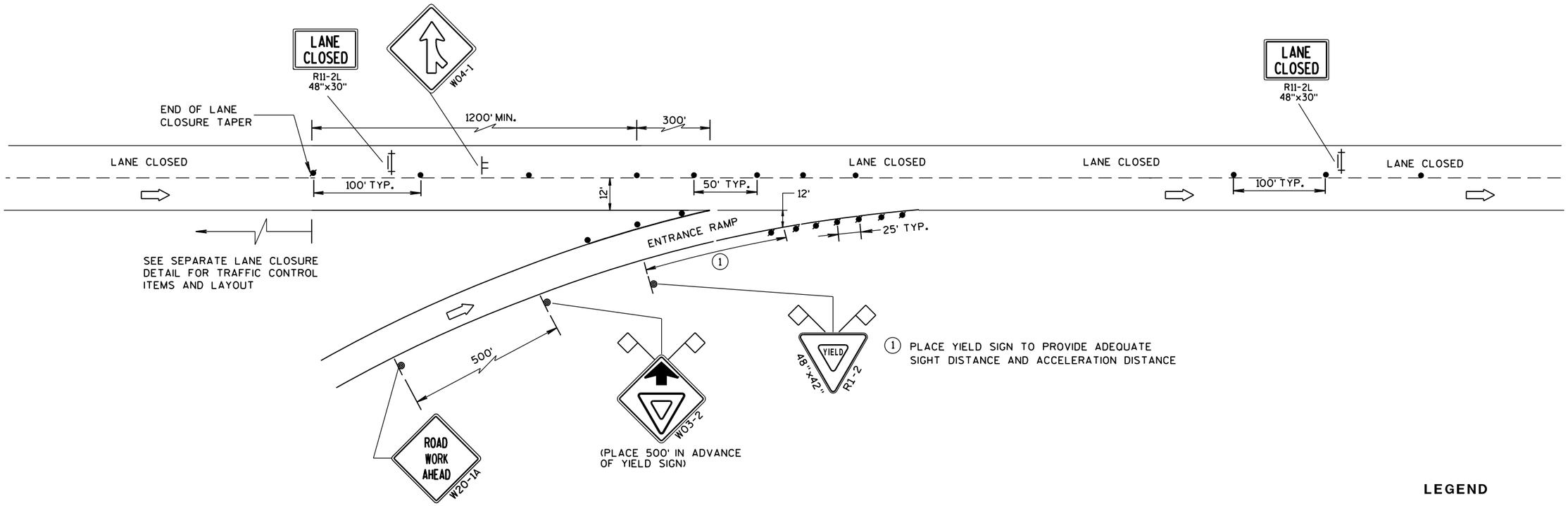
TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017
DATE
/S/ Andrew Heldtke
WORK ZONE ENG
FHWA

6

S.D.D. 15 D 15-3a



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

LEGEND

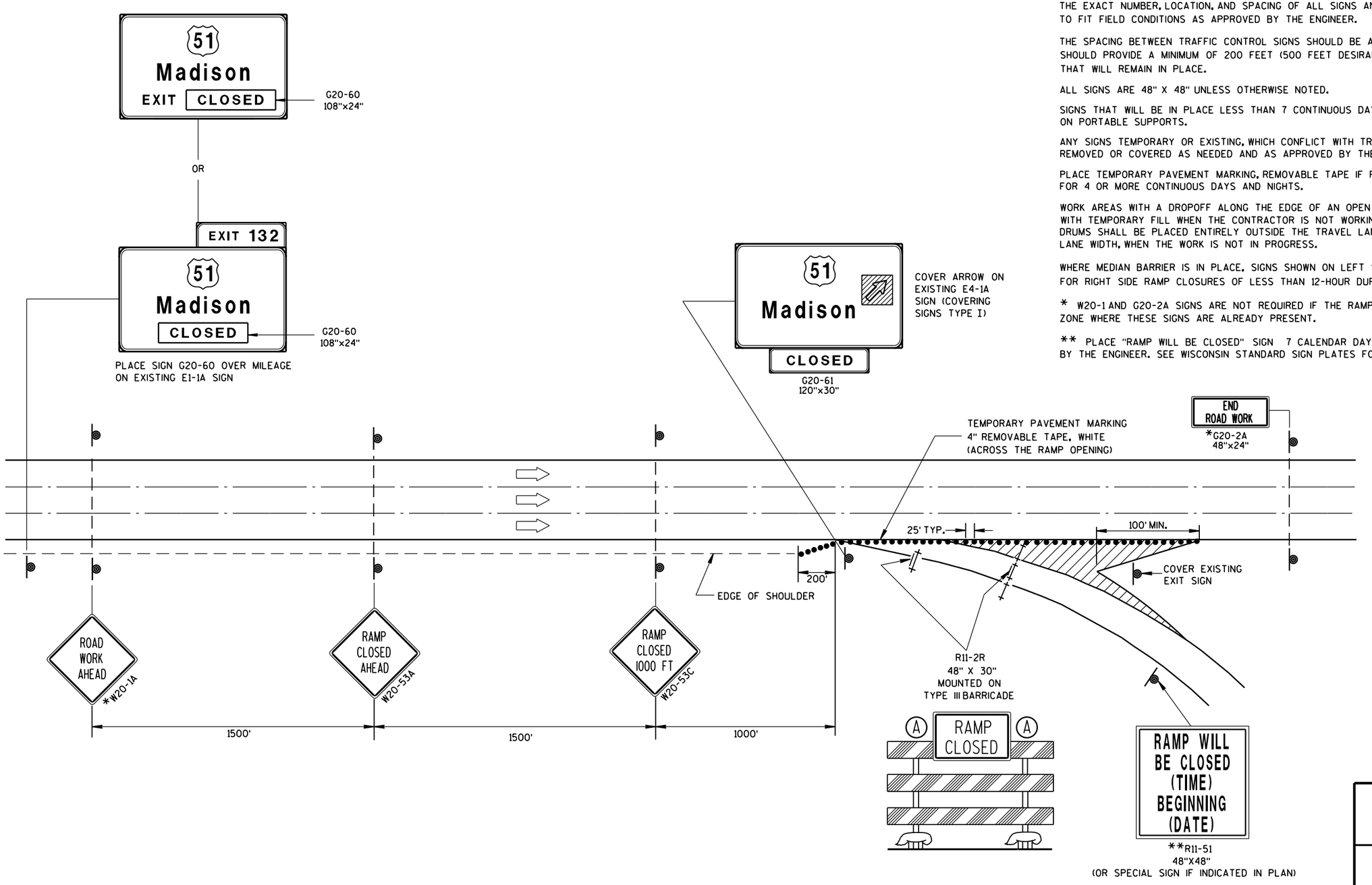
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

6
S.D.D. 15 D 15-3d



GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI FIC
FHWA

6

S.D.D. 15 D 16-3

6

S.D.D. 15 D 16-3

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

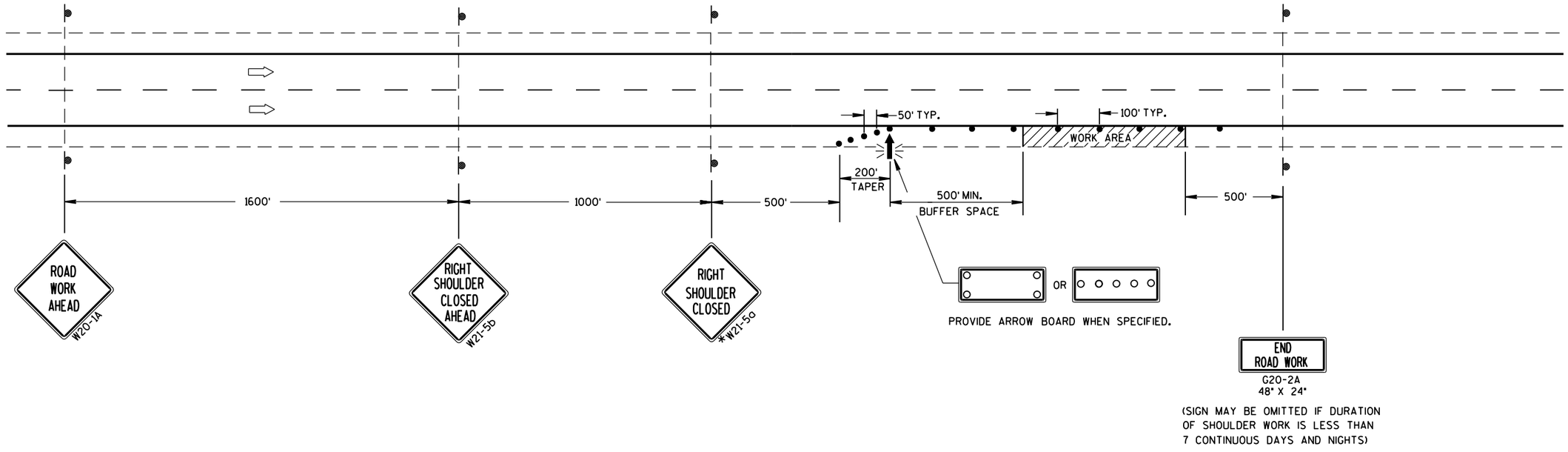
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

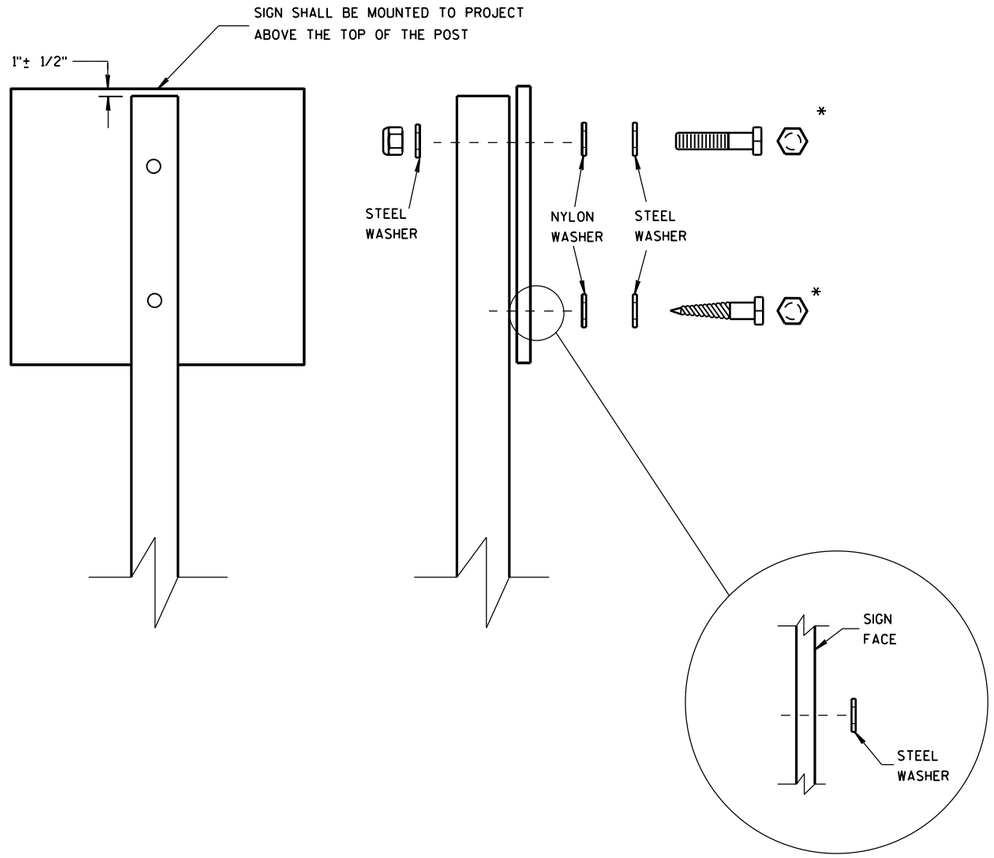
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

S.D.D. 15 D 27-3



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 — DATE

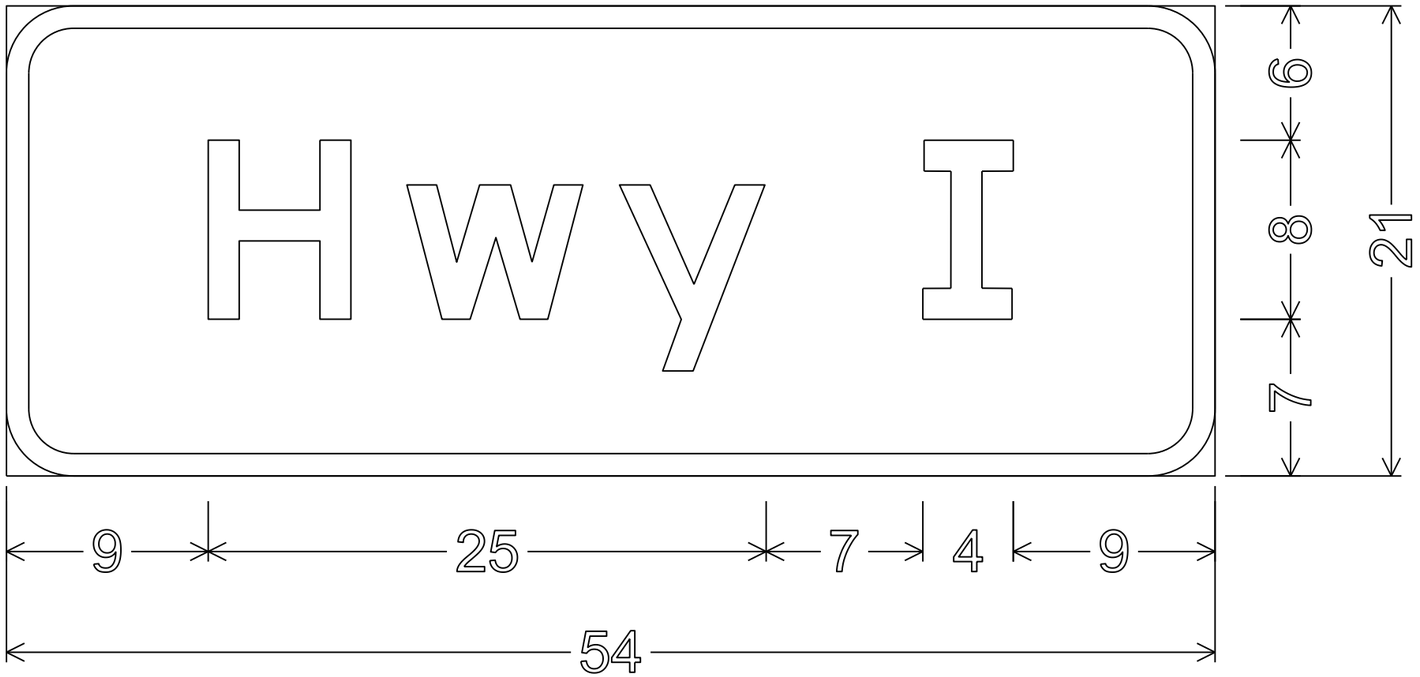
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

SIGN

NOTES

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

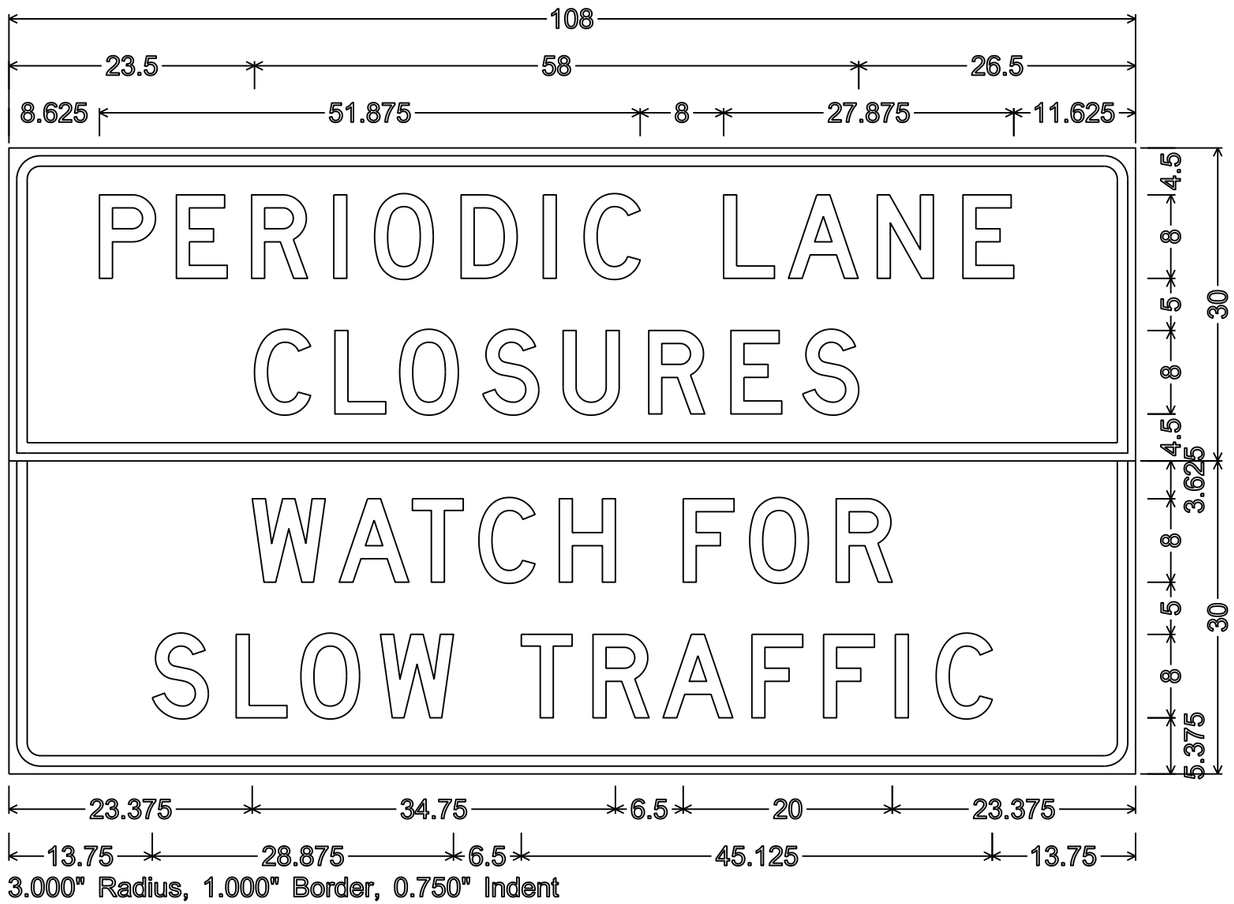


M1-94;

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

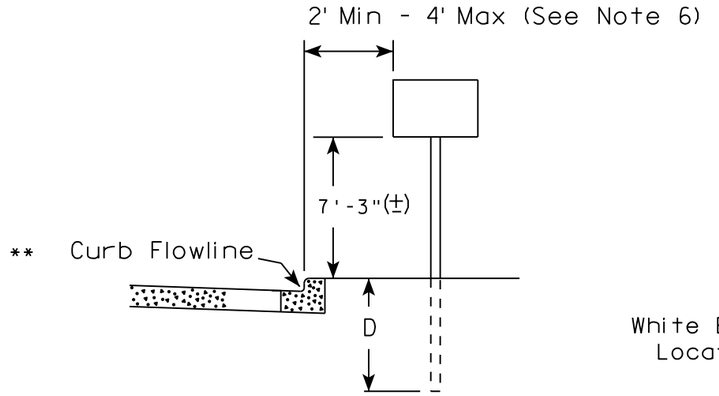


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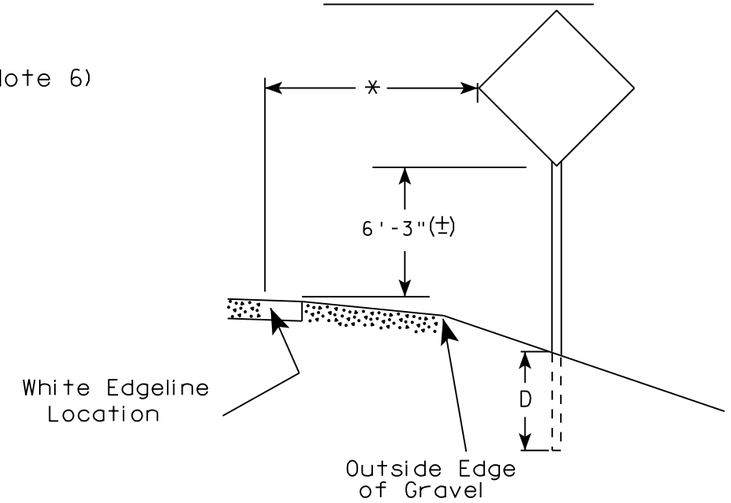
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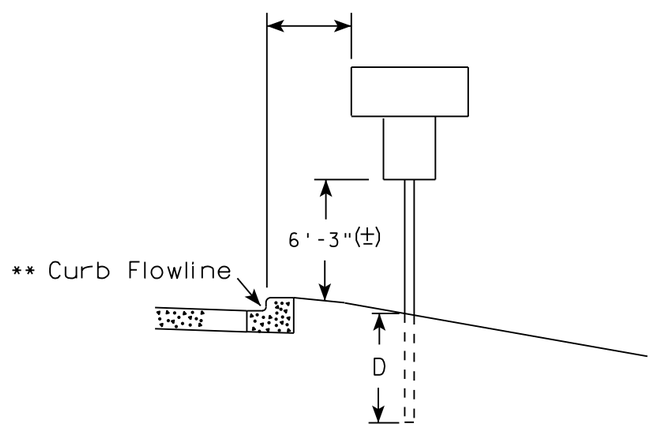
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	TEMPORARY SIGNING	SHEET NO: 125	E

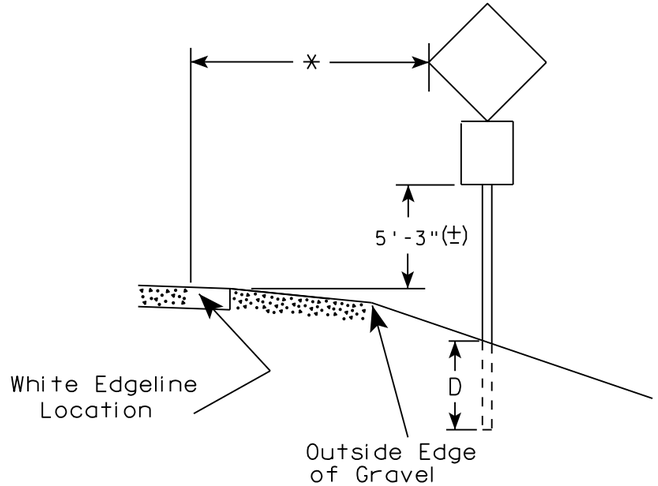
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

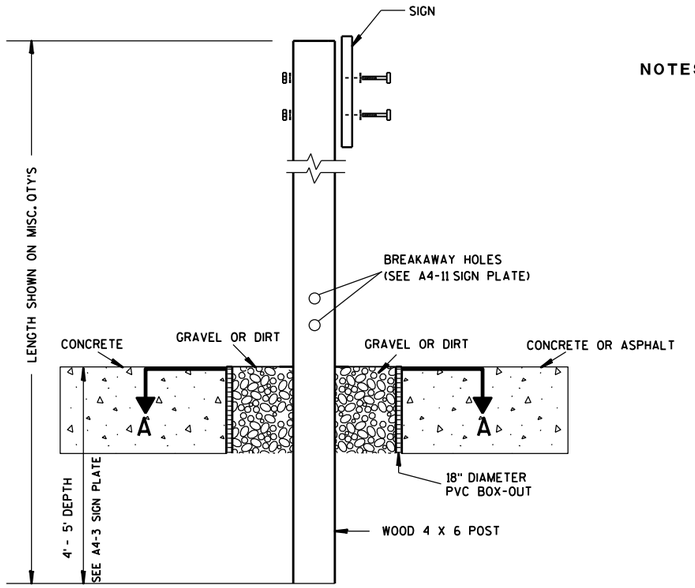
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7 7

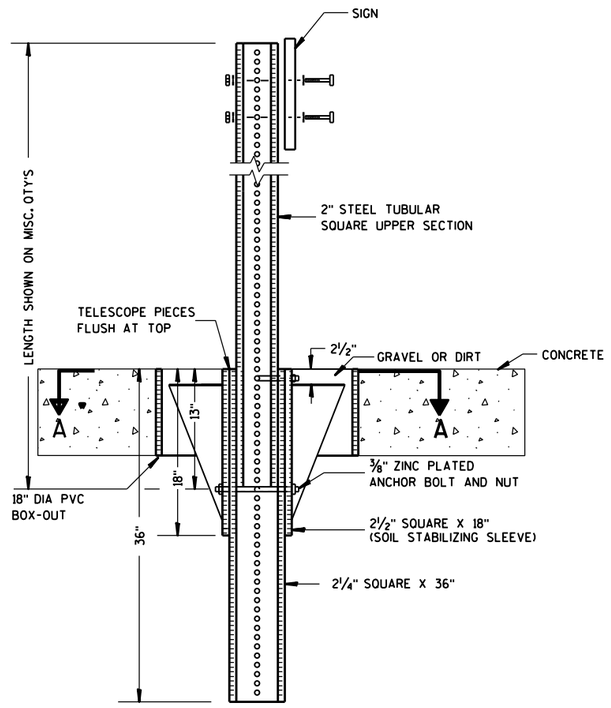
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 126	E



ELEVATION VIEW

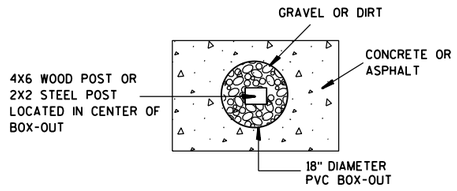
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

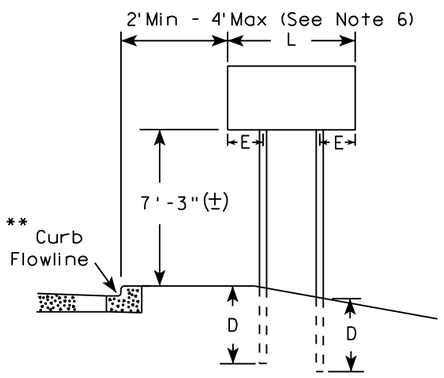
APPROVED Matthew R Rauch
for State Traffic Engineer

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

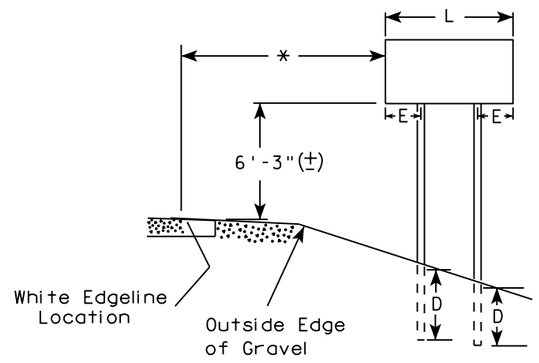
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

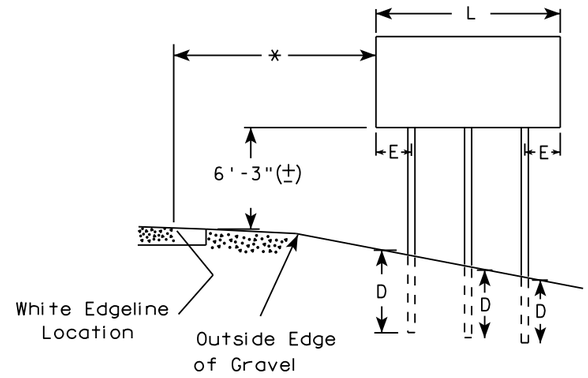
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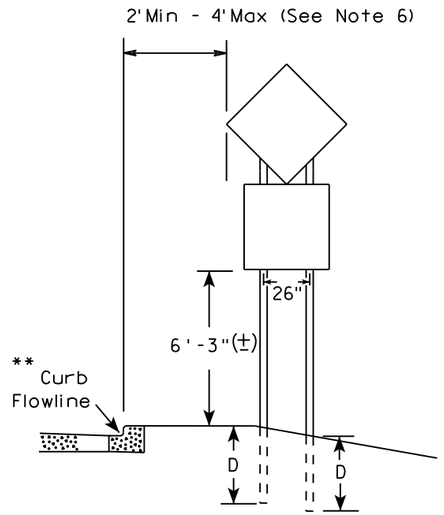
URBAN AREA



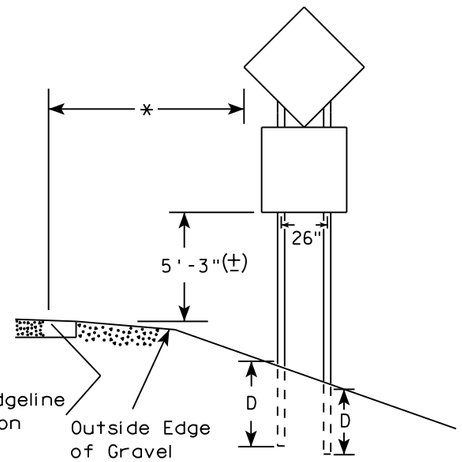
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

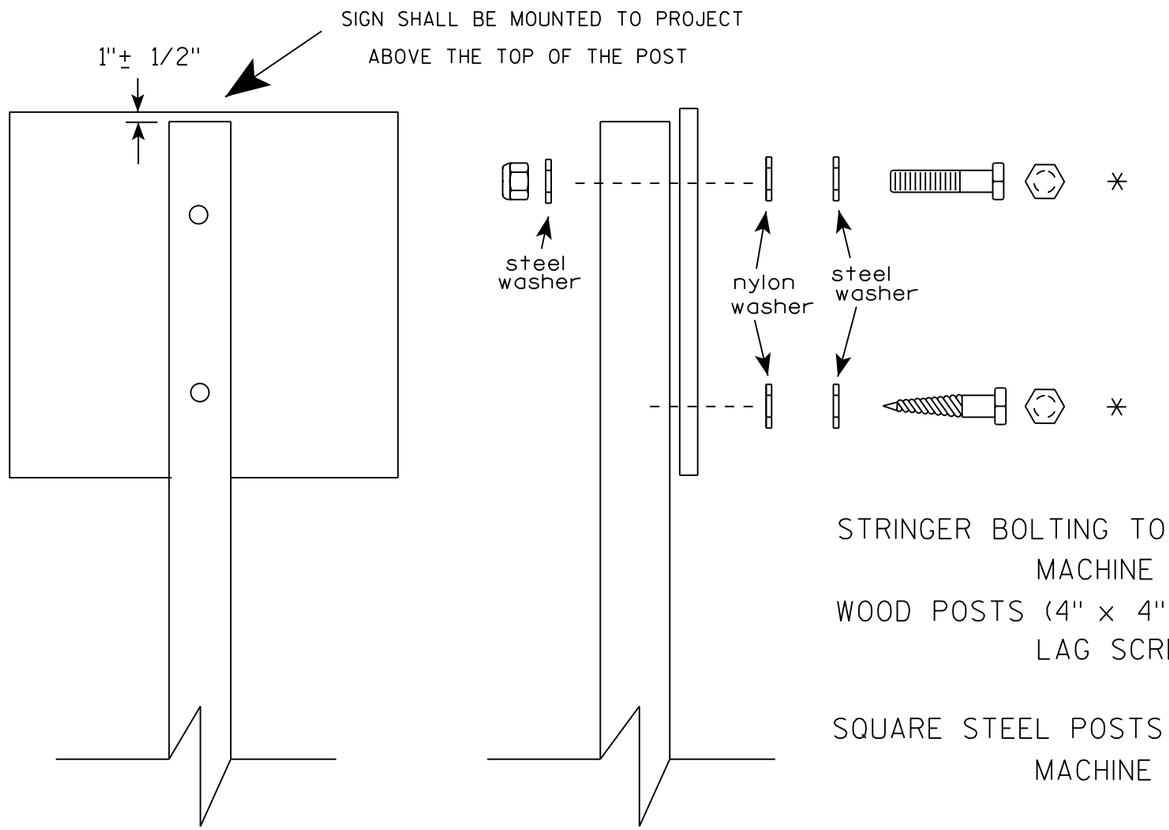
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 128	E



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

7

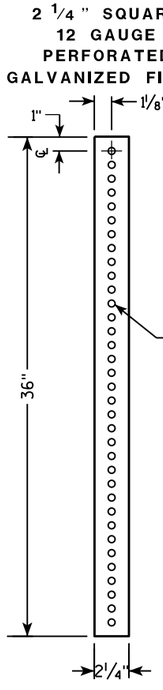
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SHEET NO: E

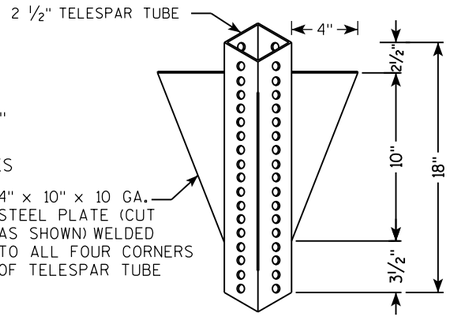
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TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

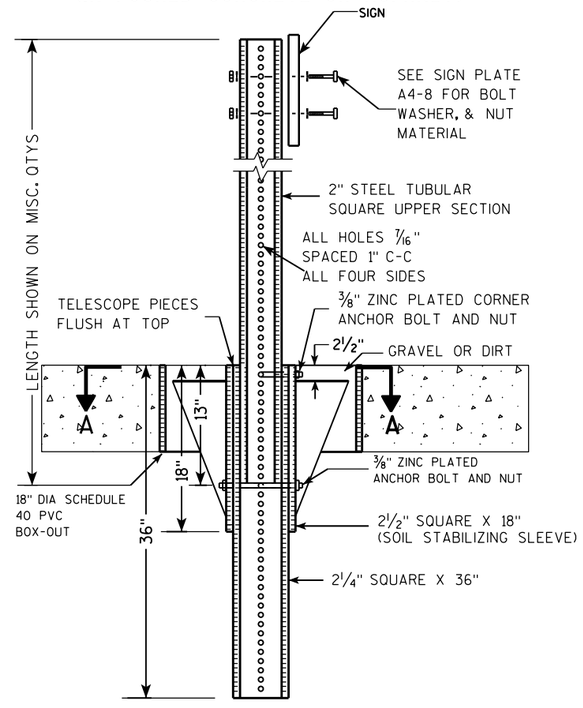
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



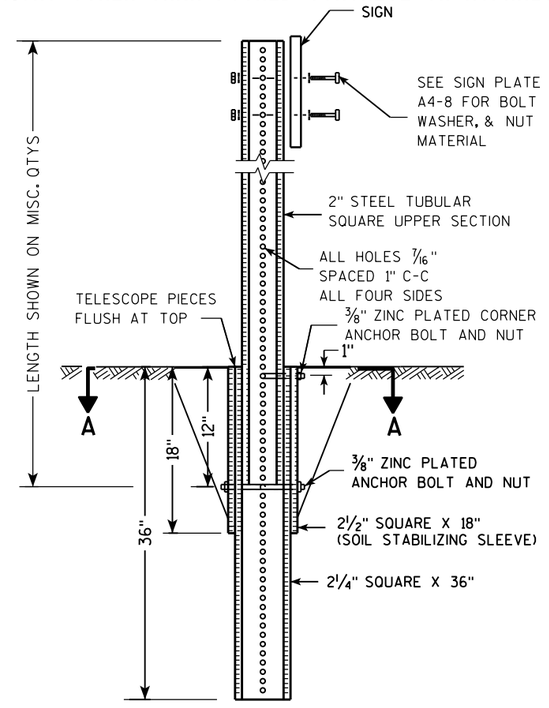
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

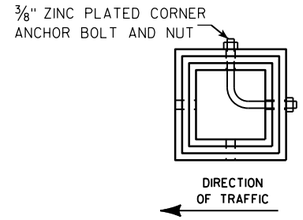


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

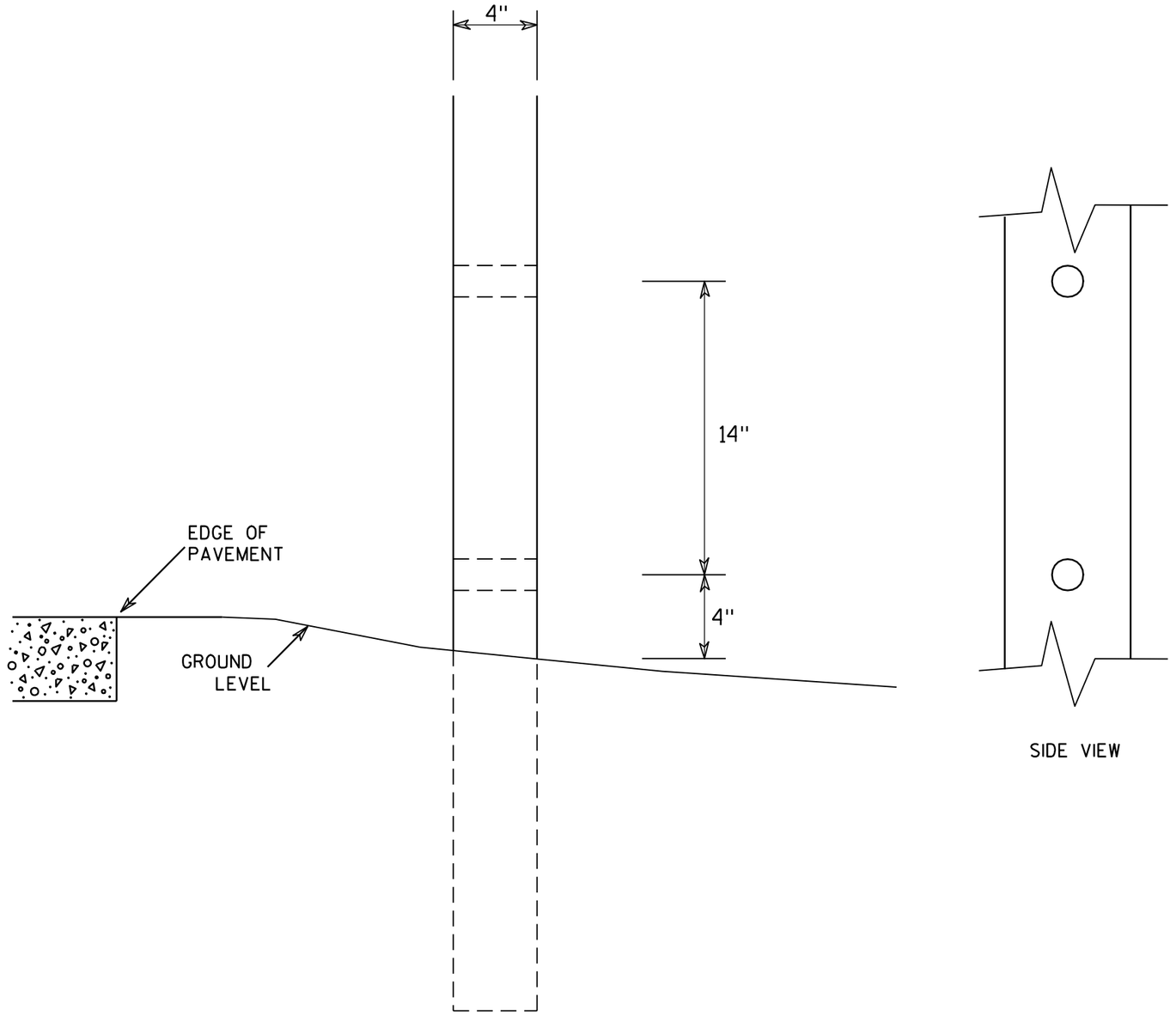
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

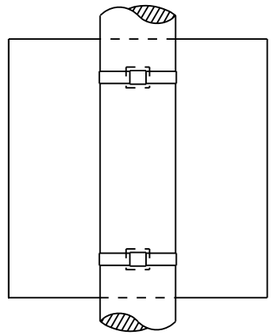
APPROVED Chester J Spang for State Traffic Engineer

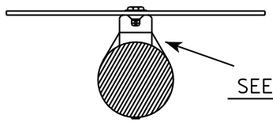
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 131	E

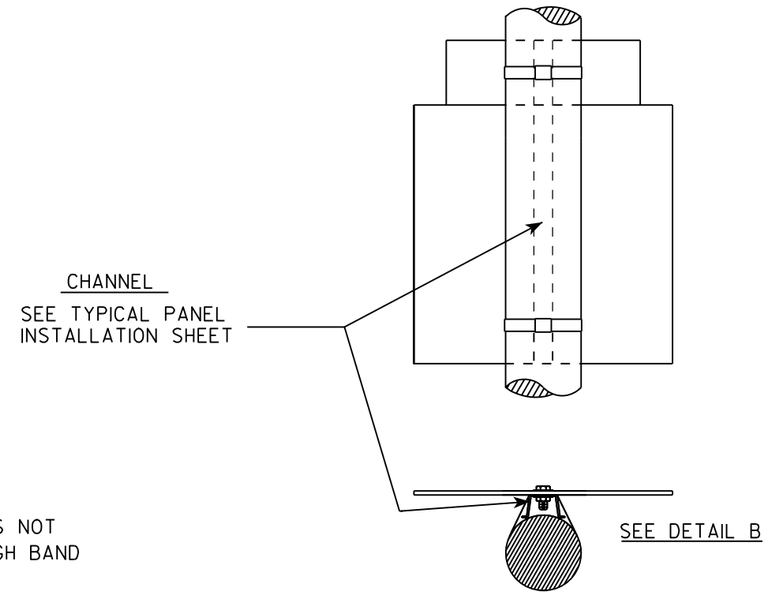
BANDING

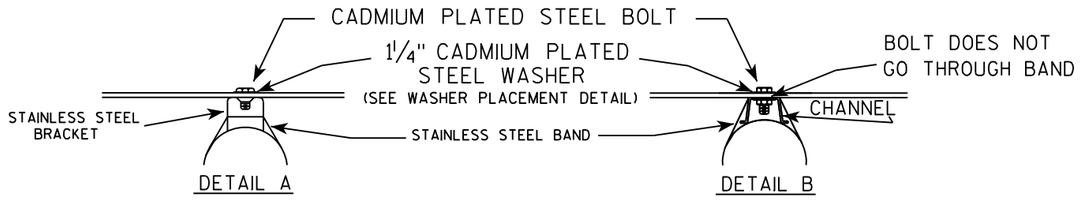
SINGLE SIGN



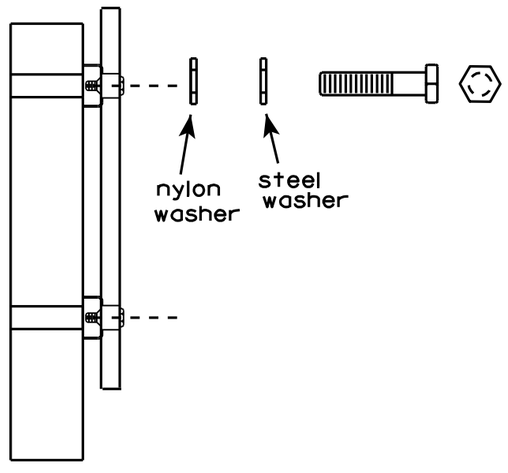


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

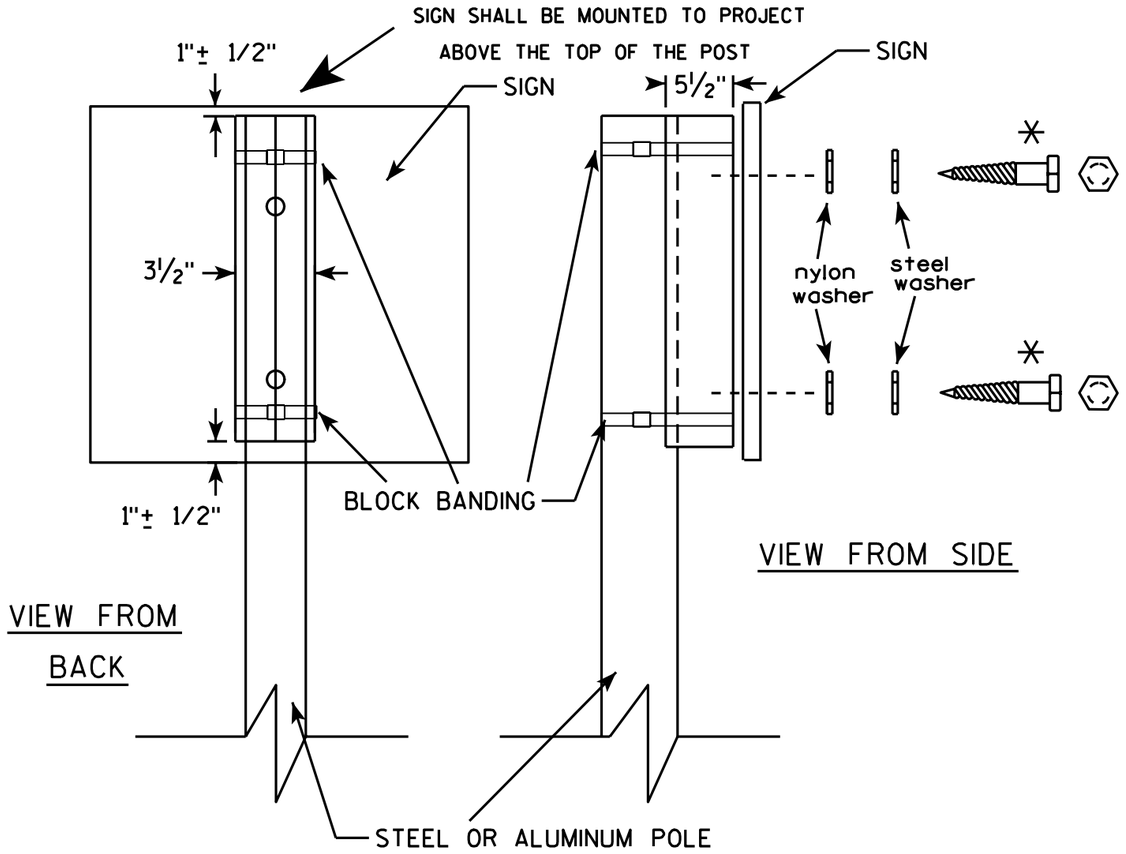
STANDARD SIGN
SIGN BANDING DETAILS

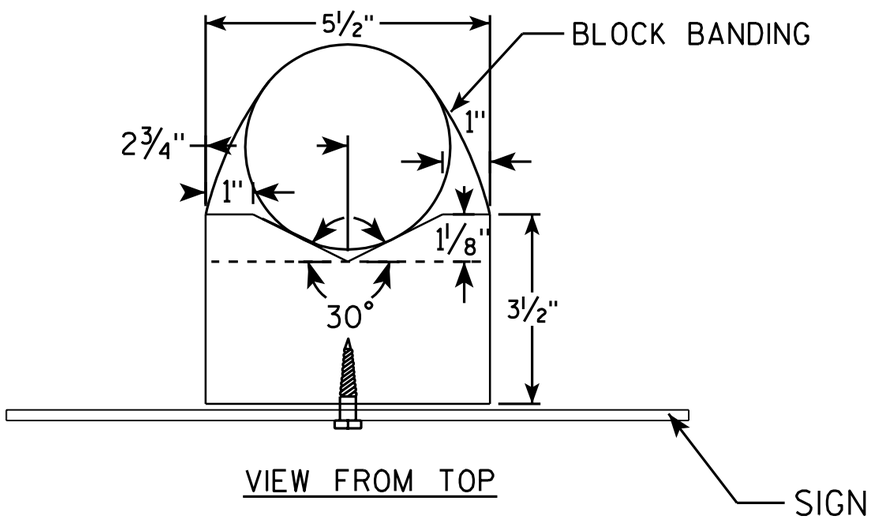
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 132	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

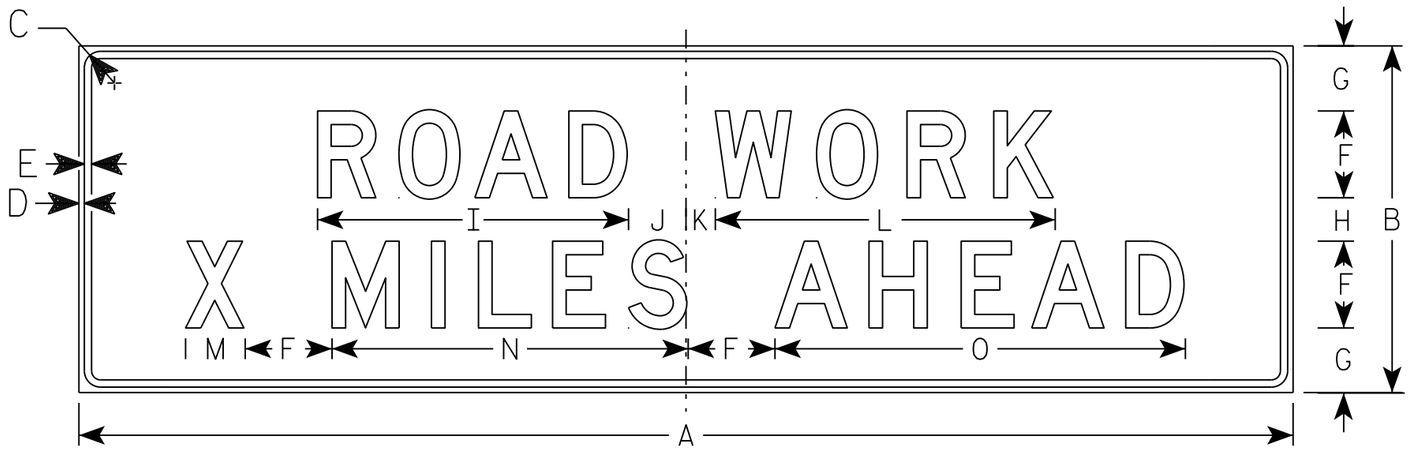
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 133 E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-55

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	84	24	1 1/8	3/8	1/2	6	4 1/2	3	21 1/2	4	2	23 1/2	4 1/8	24 5/8	28 3/8												14.0
5																											

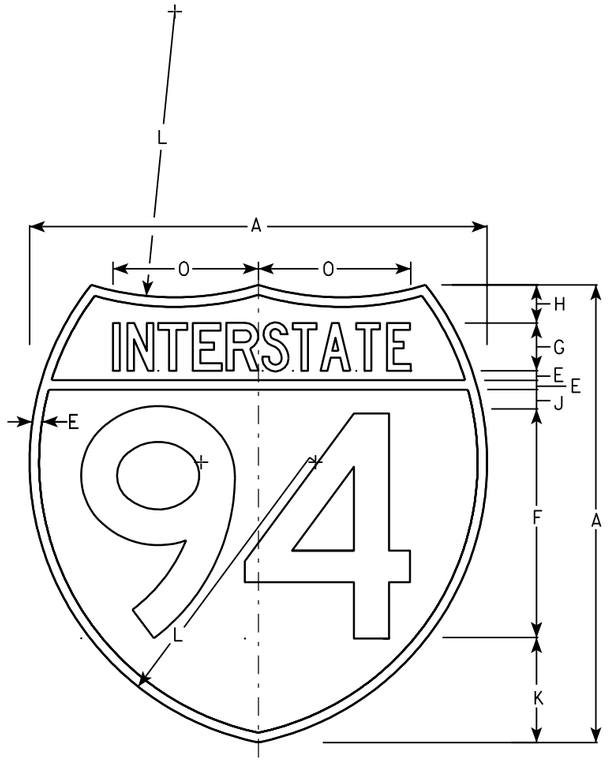
STANDARD SIGN
G20-55

WISCONSIN DEPT OF TRANSPORTATION

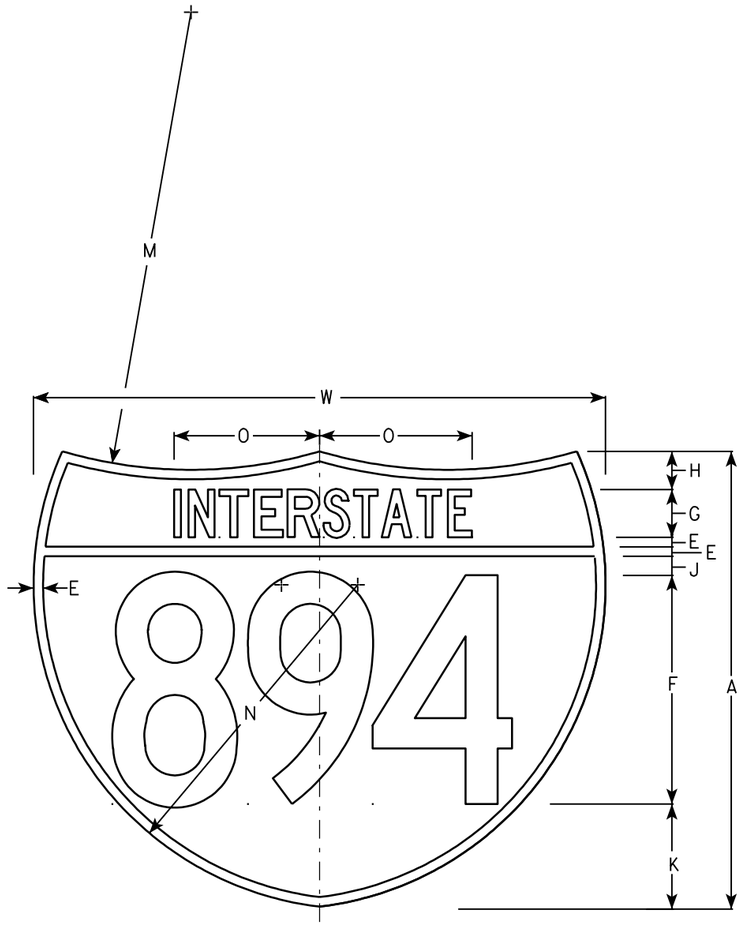
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/22/17 PLATE NO. G20-55.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 134 | E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

7

7

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

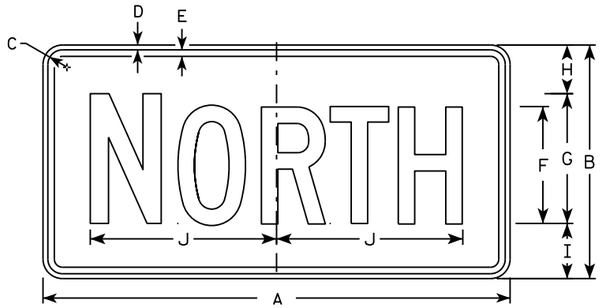
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

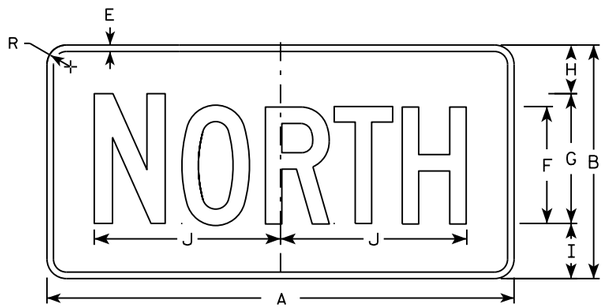
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 135	E



M3-1
MM3-1
MP3-1



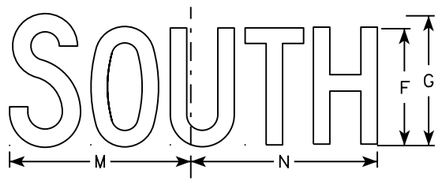
MB3-1
MK3-1
MN3-1



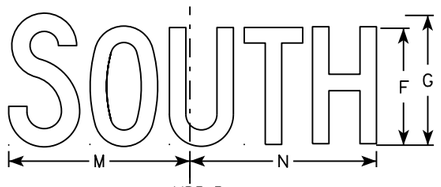
M3-2
MM3-2
MP3-2



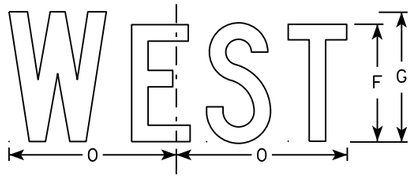
MB3-2
MK3-2
MN3-2



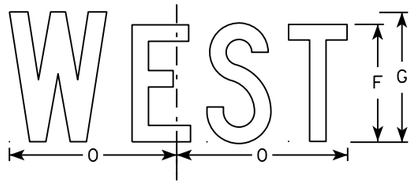
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

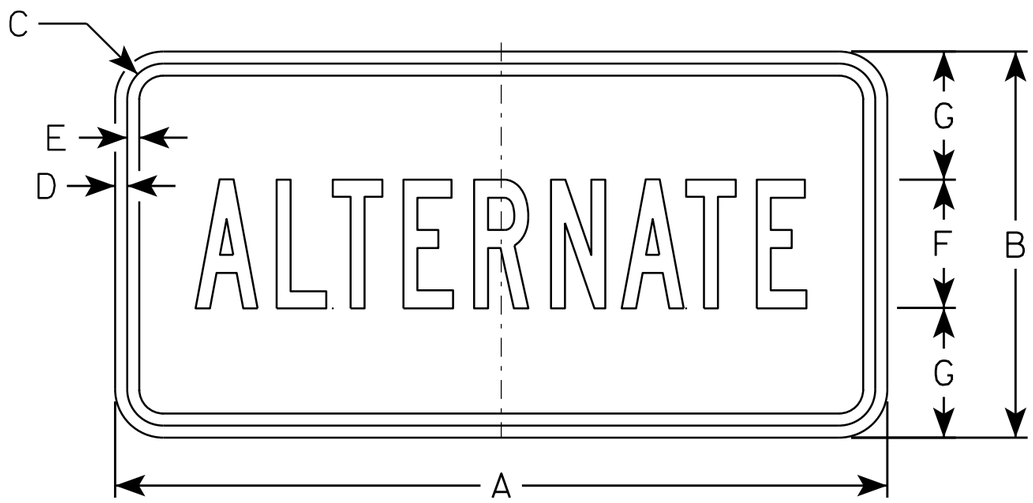
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

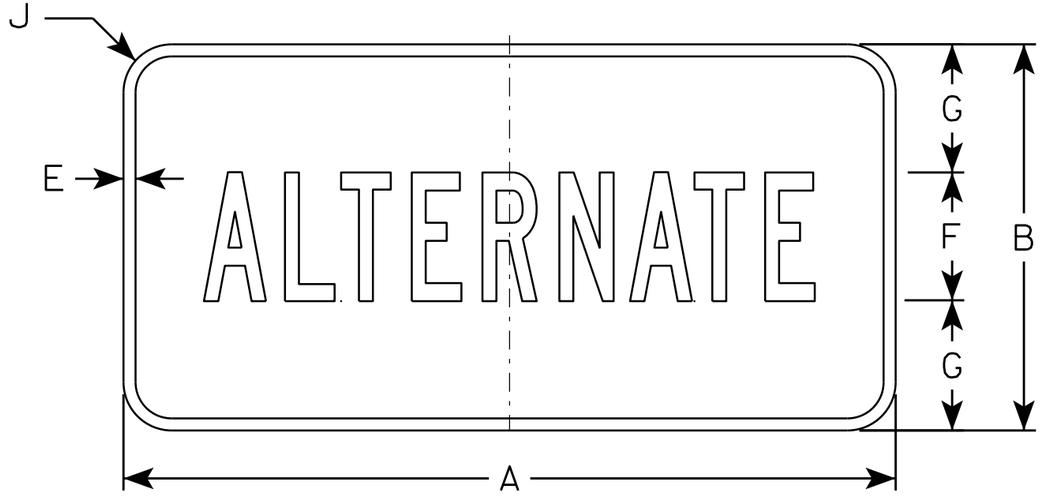
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-1
M04-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

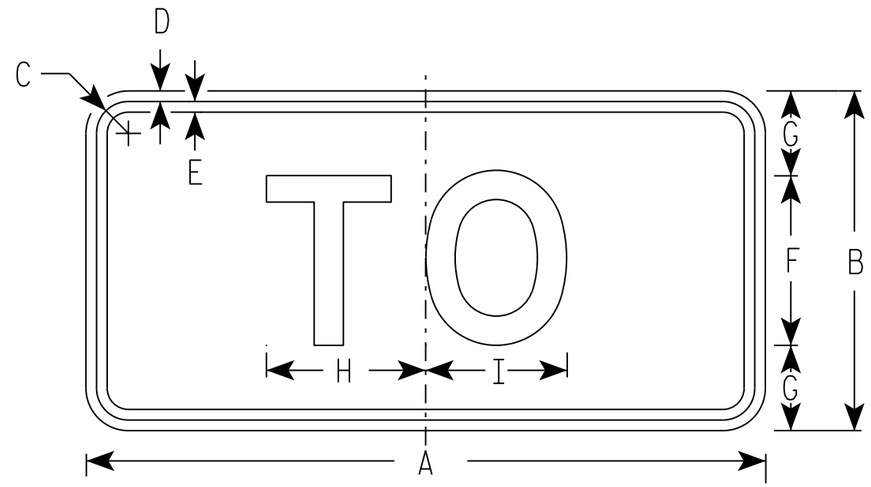
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

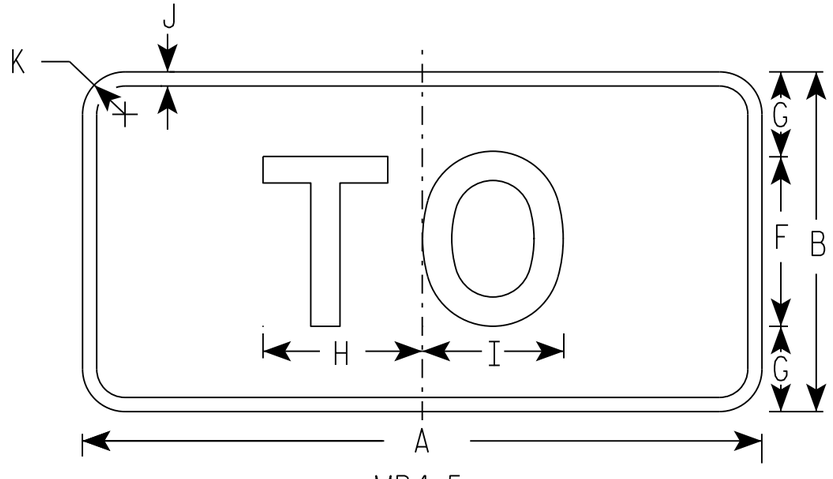
DATE 6/30/14 PLATE 14-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000
WISDOT/CADDS SHEET 42



M4-5
MM4-5
MP4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

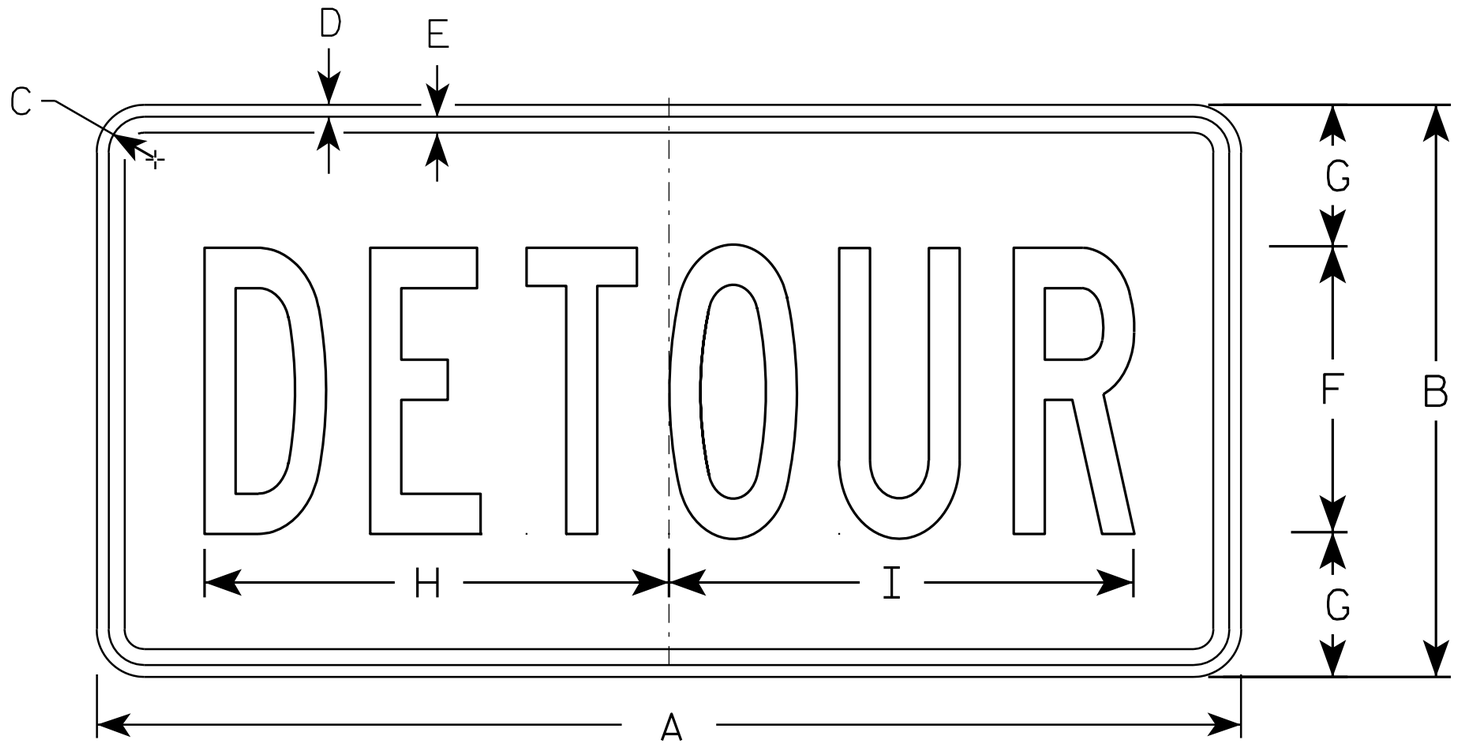
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 138 M4-5.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

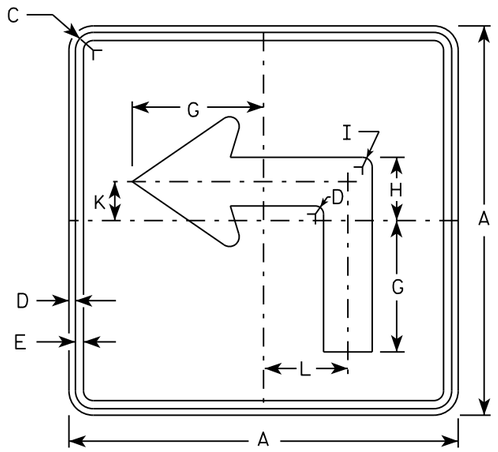
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

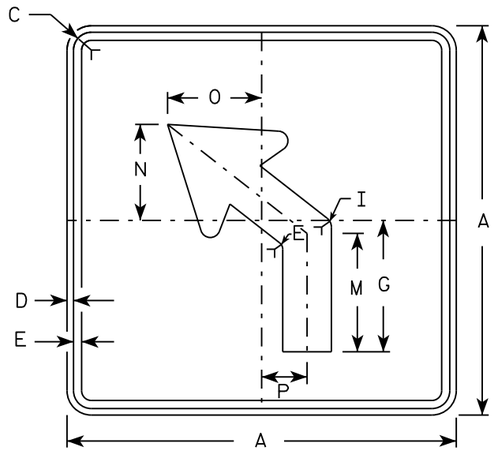
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

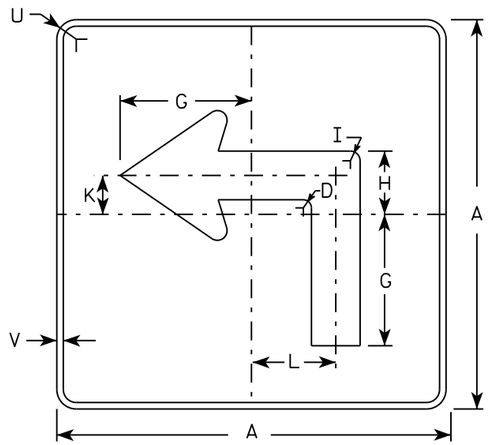
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 139	E



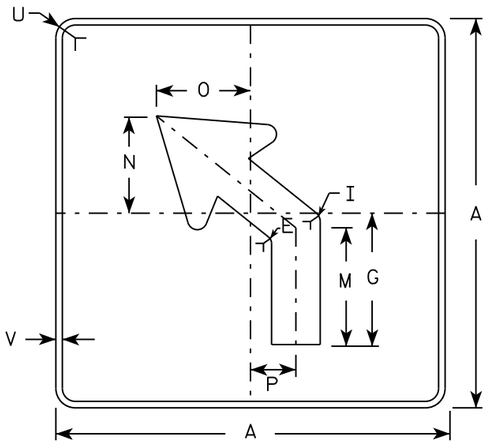
M5-1L
MM5-1L
MO5-1L
MP5-1L



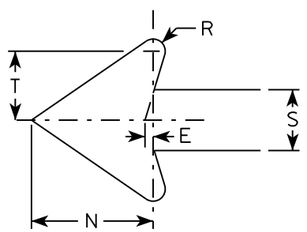
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

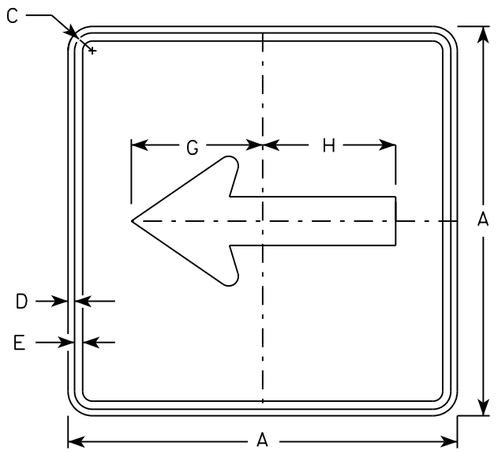
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

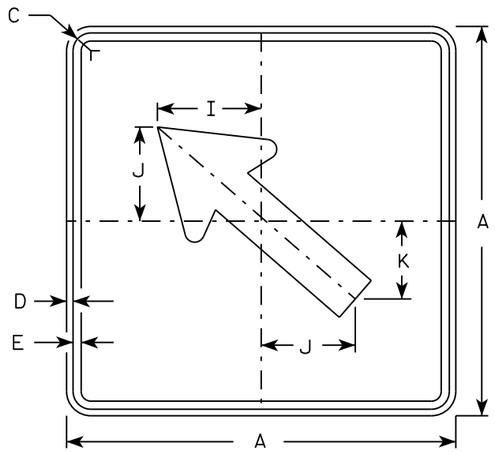
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



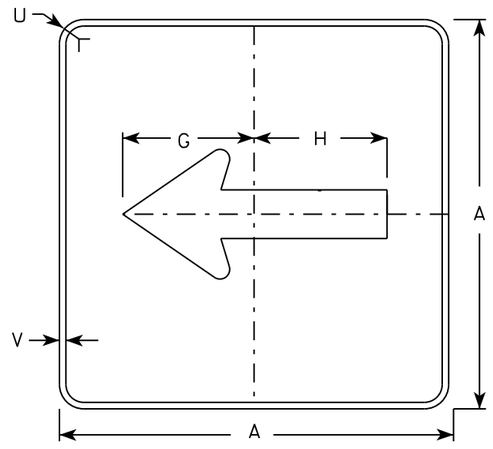
M6-1
MM6-1
MO6-1
MP6-1



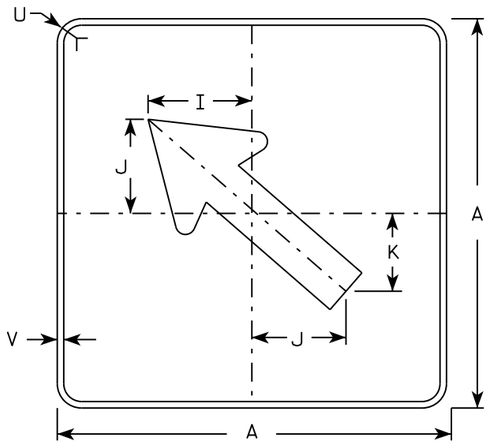
M6-2
MM6-2
MO6-2
MP6-2

NOTES

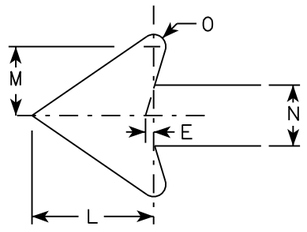
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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

STANDARD SIGN
M6-1 & M6-2
SERIES

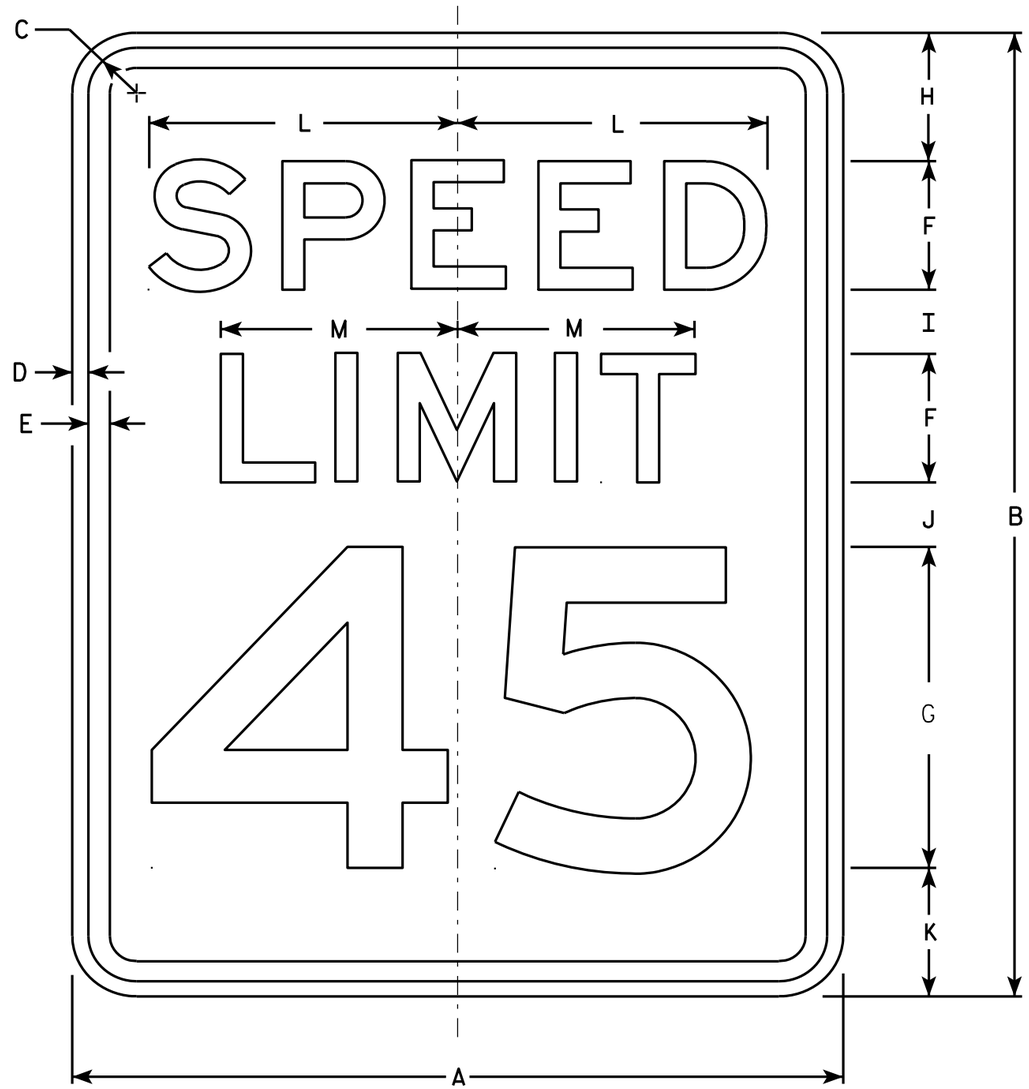
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 141 M6-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

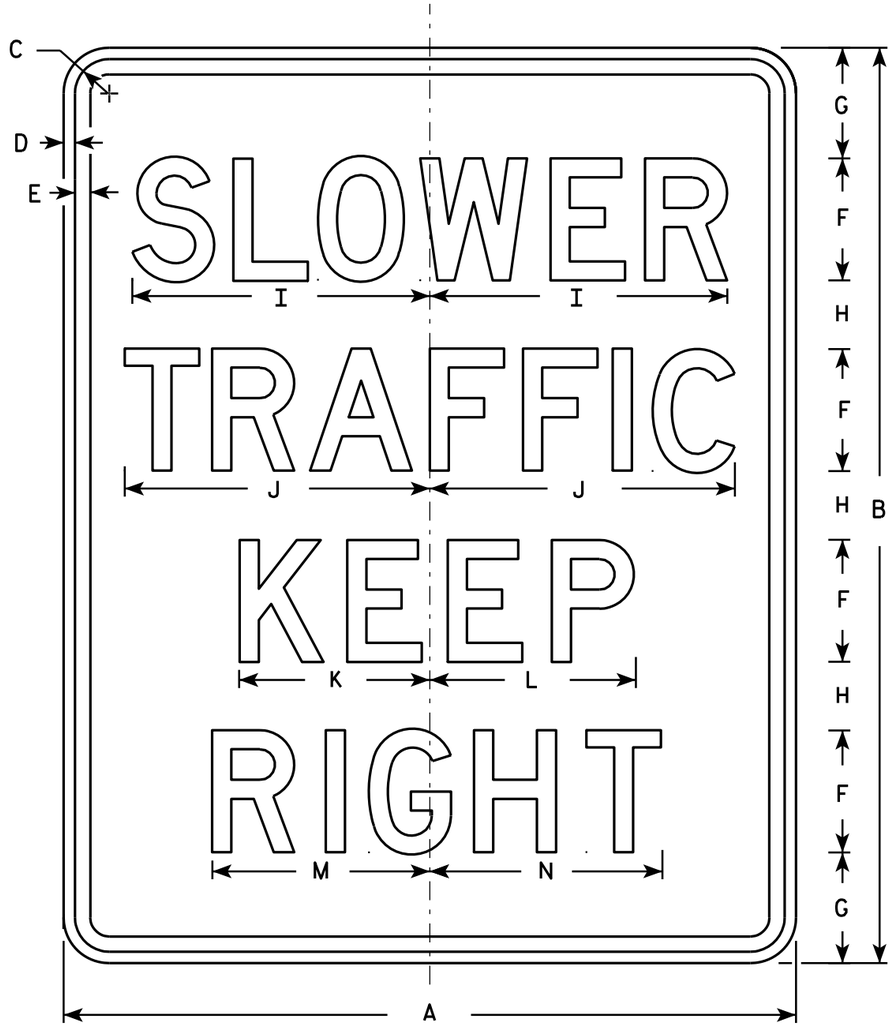
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 142	E



R4-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

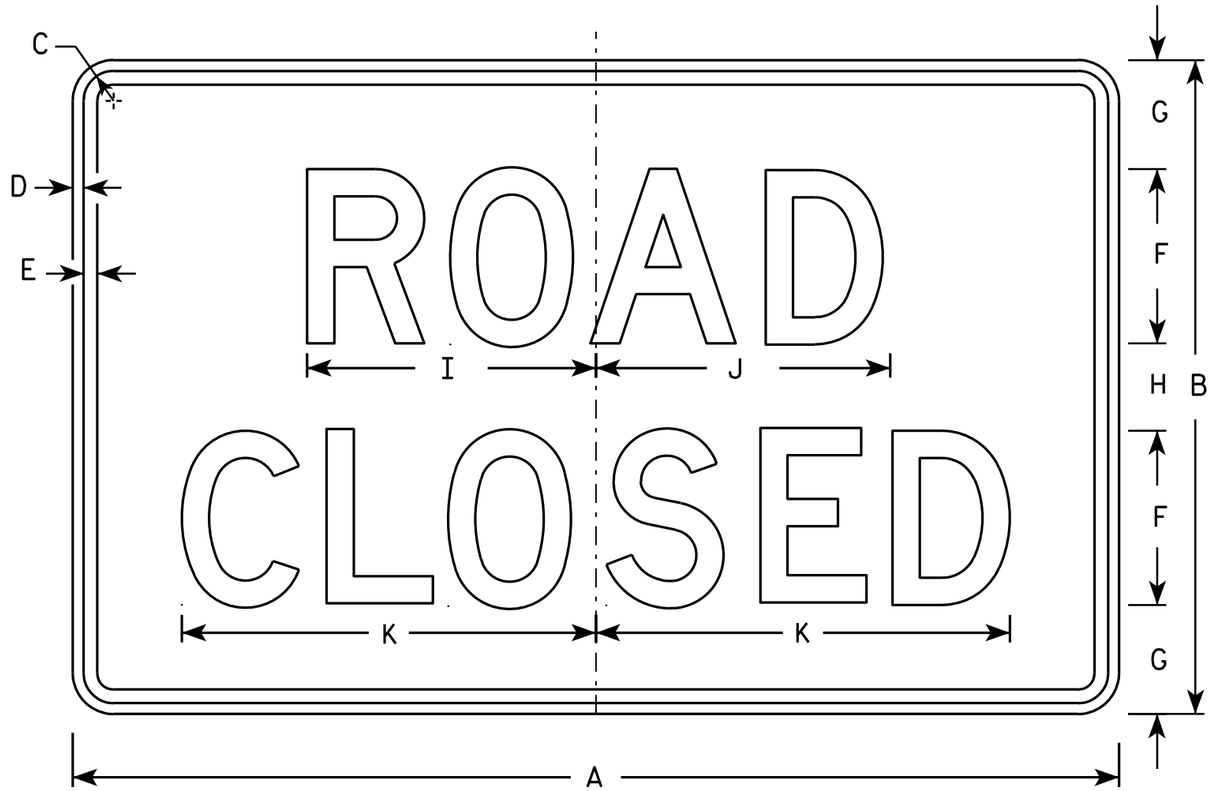
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

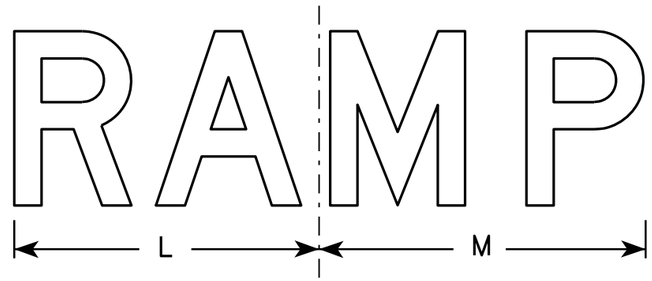
SHEET NO: 143 E



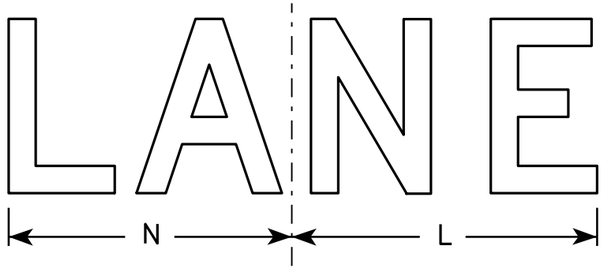
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

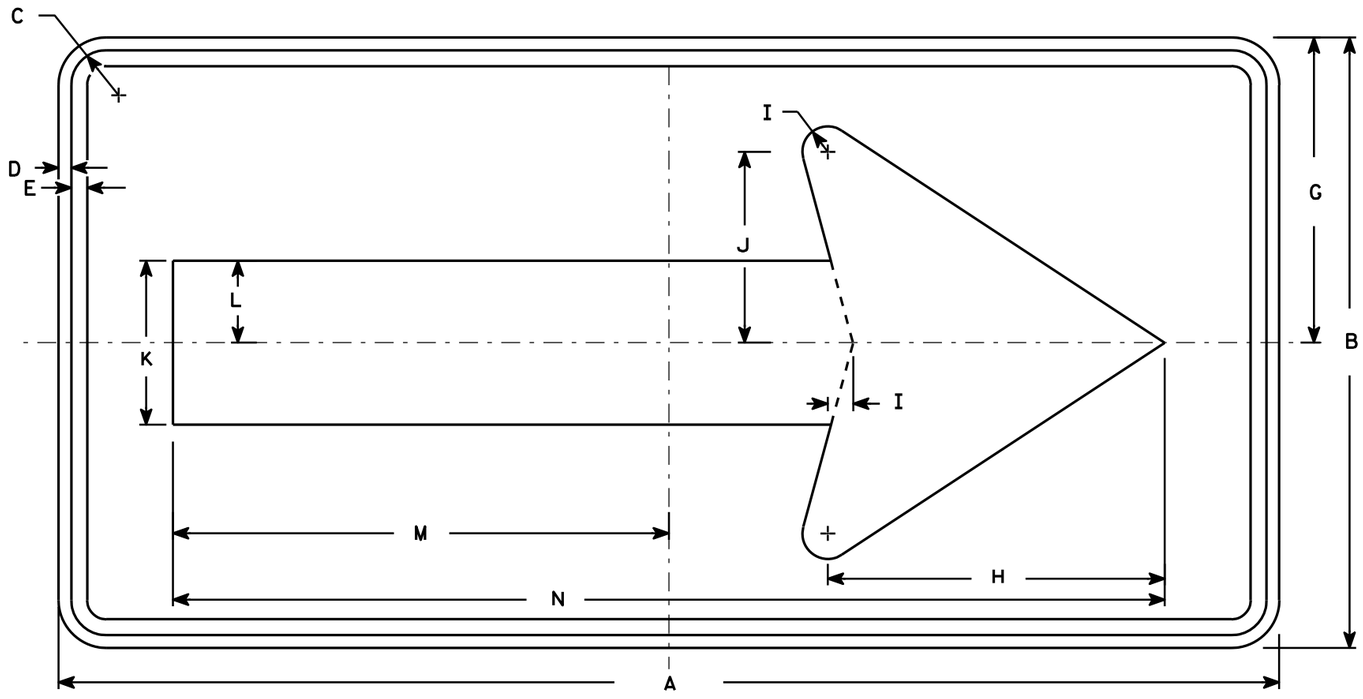
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 144 | E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

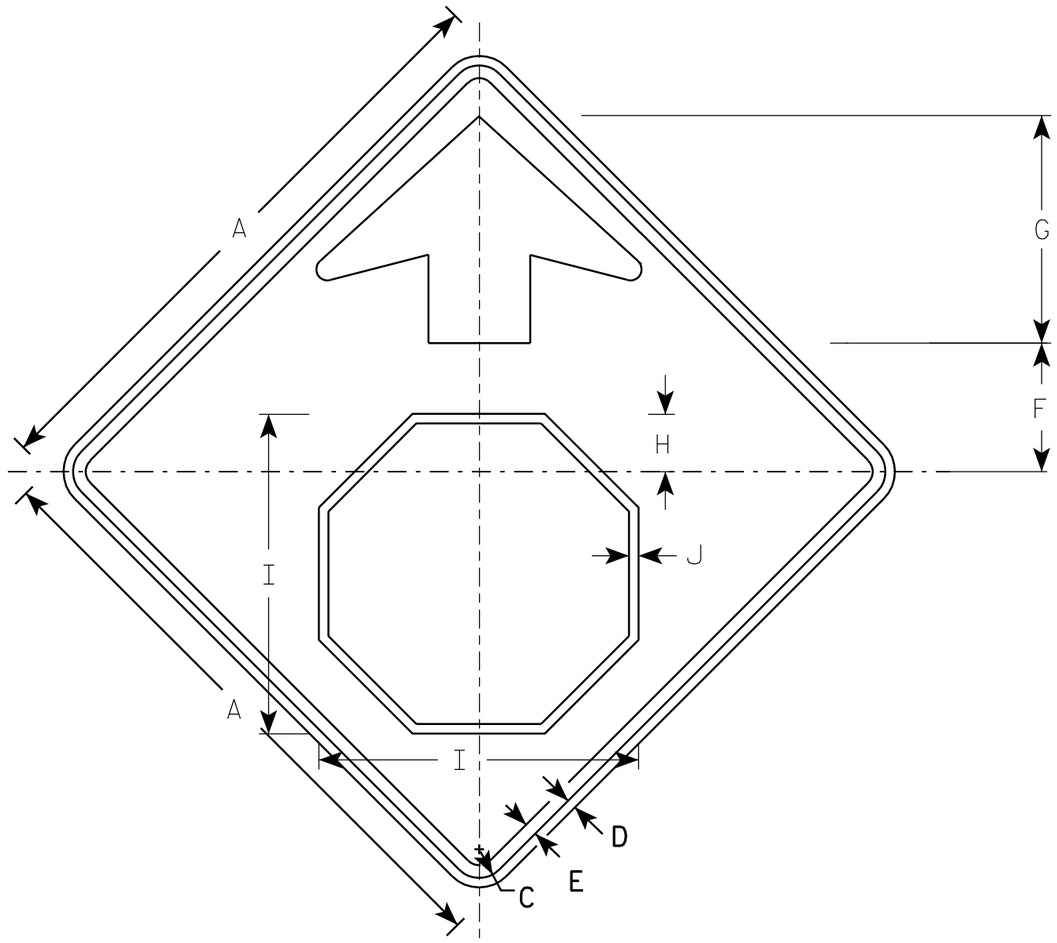
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

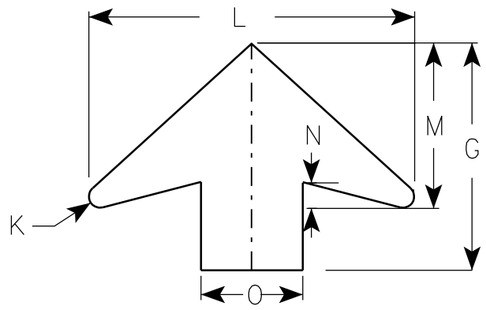
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 145



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

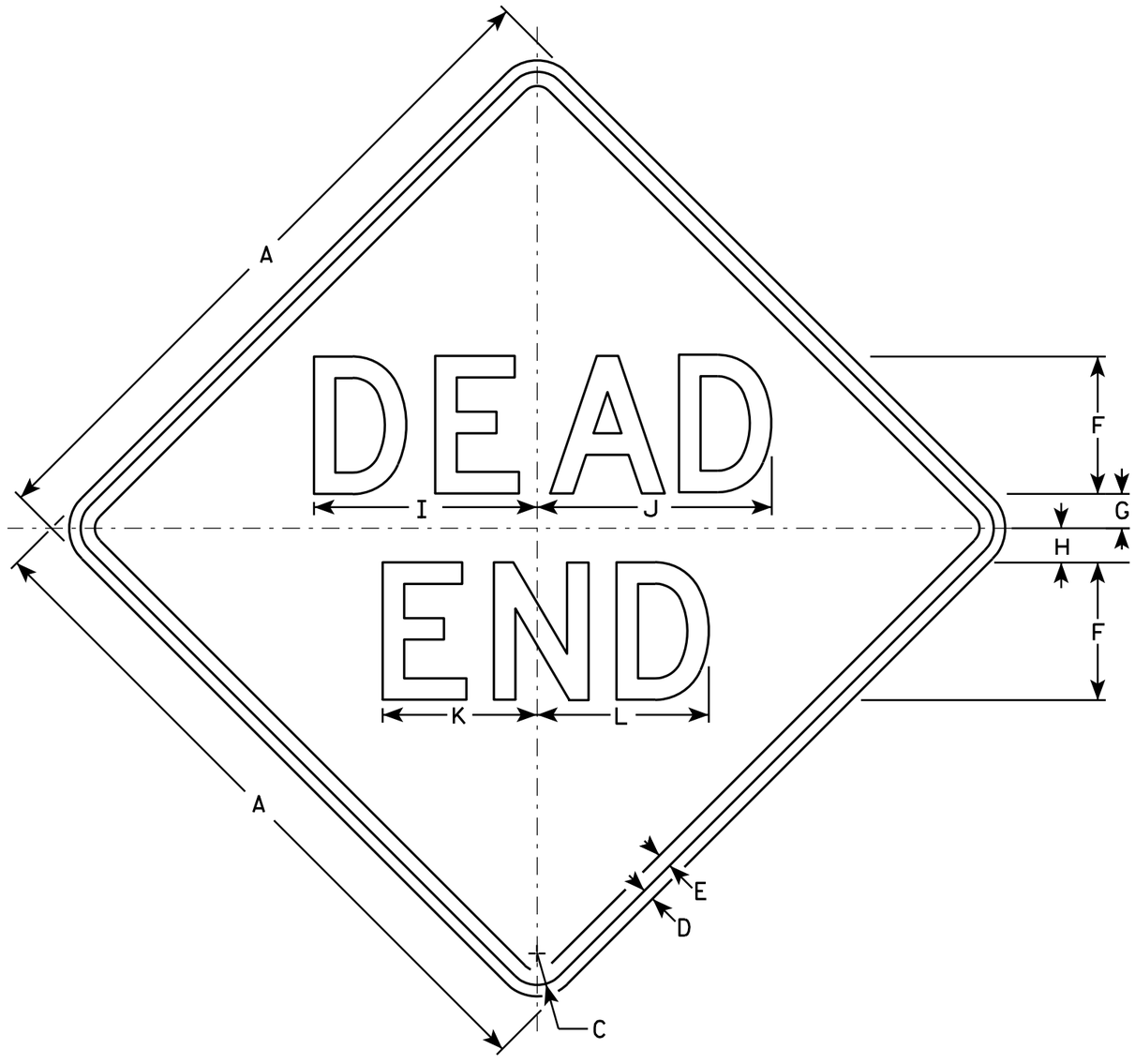
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 146 E



W14-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

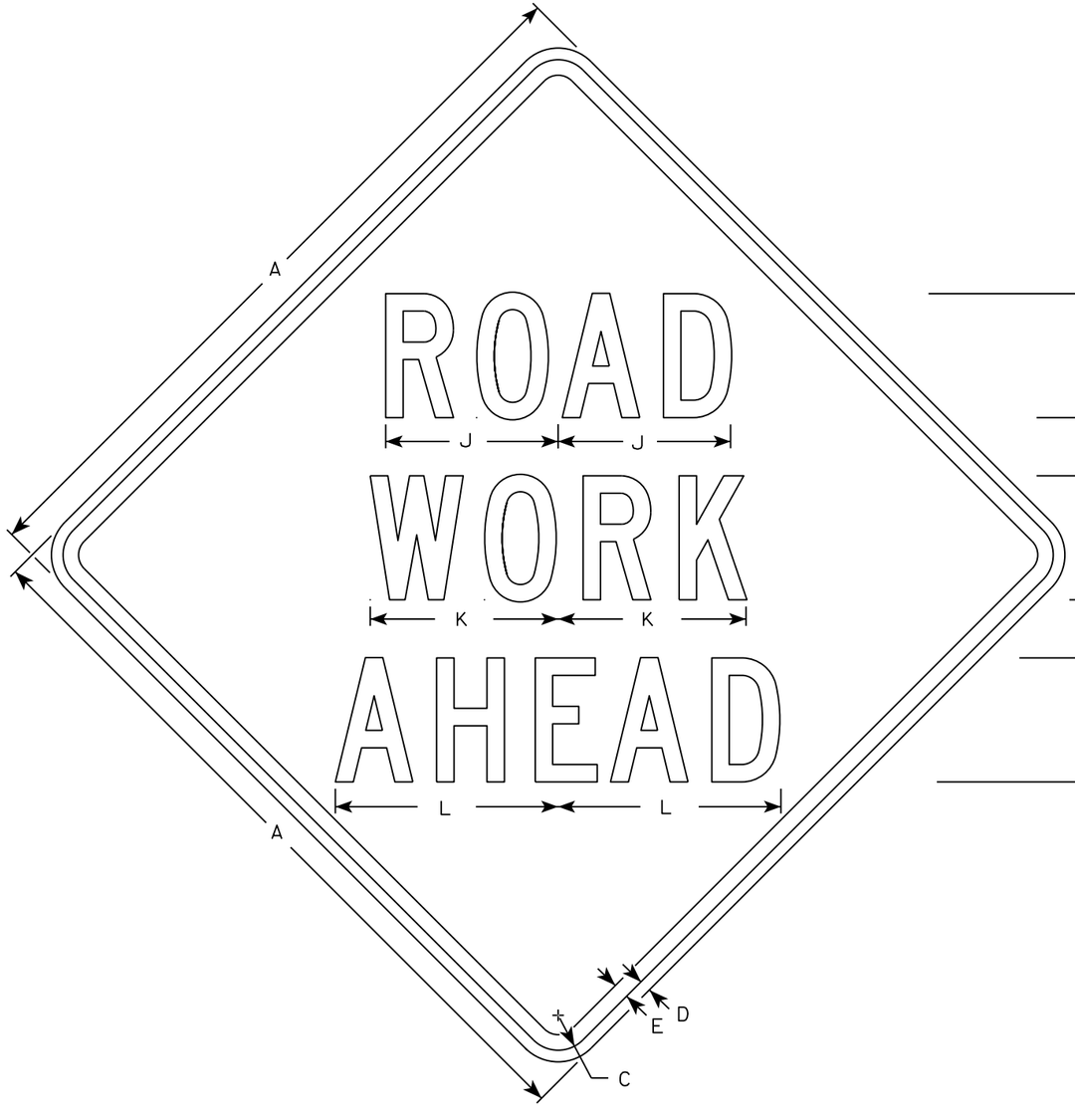
STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

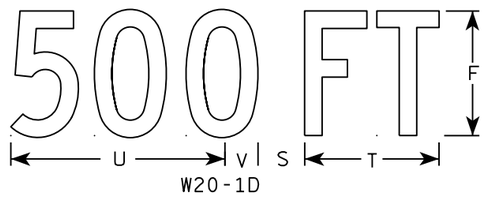
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

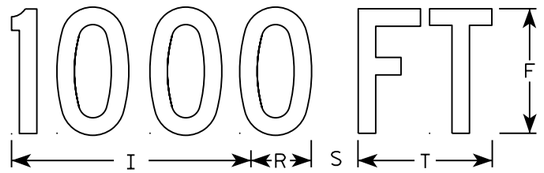
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 147	E



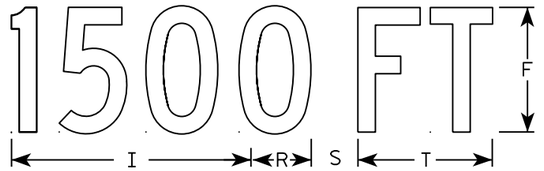
W20-1A



W20-1D



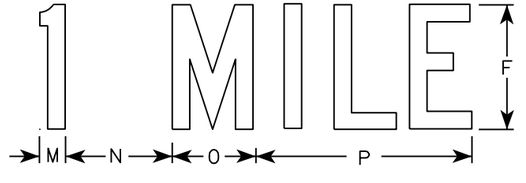
W20-1C



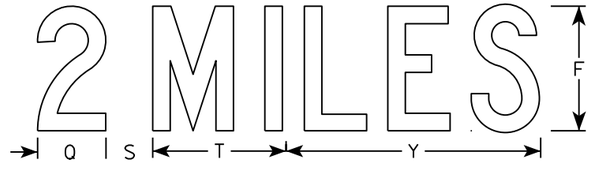
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

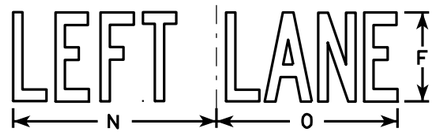
PROJECT NO:

SHEET NO: E

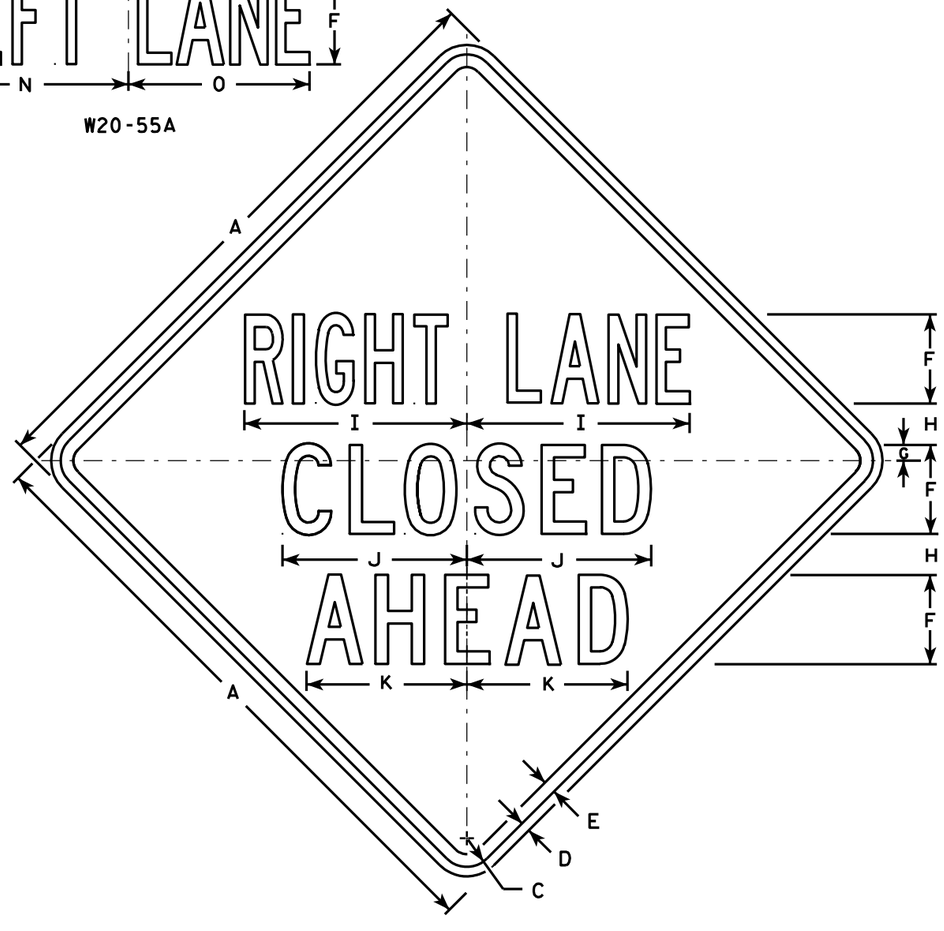
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



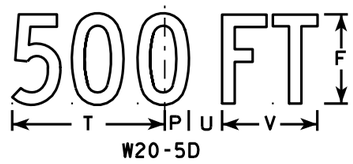
W20-56A



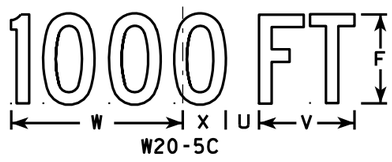
W20-55A



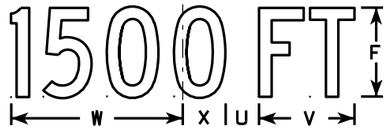
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

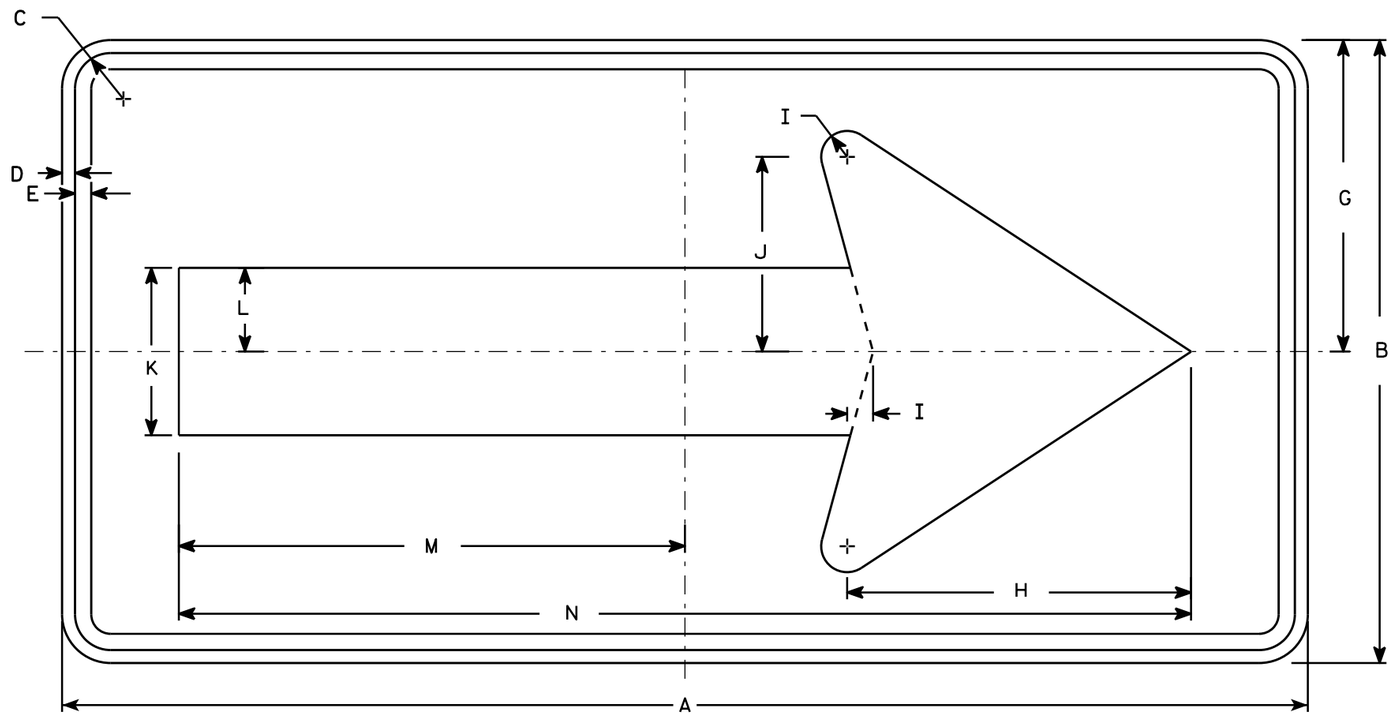
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 149 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

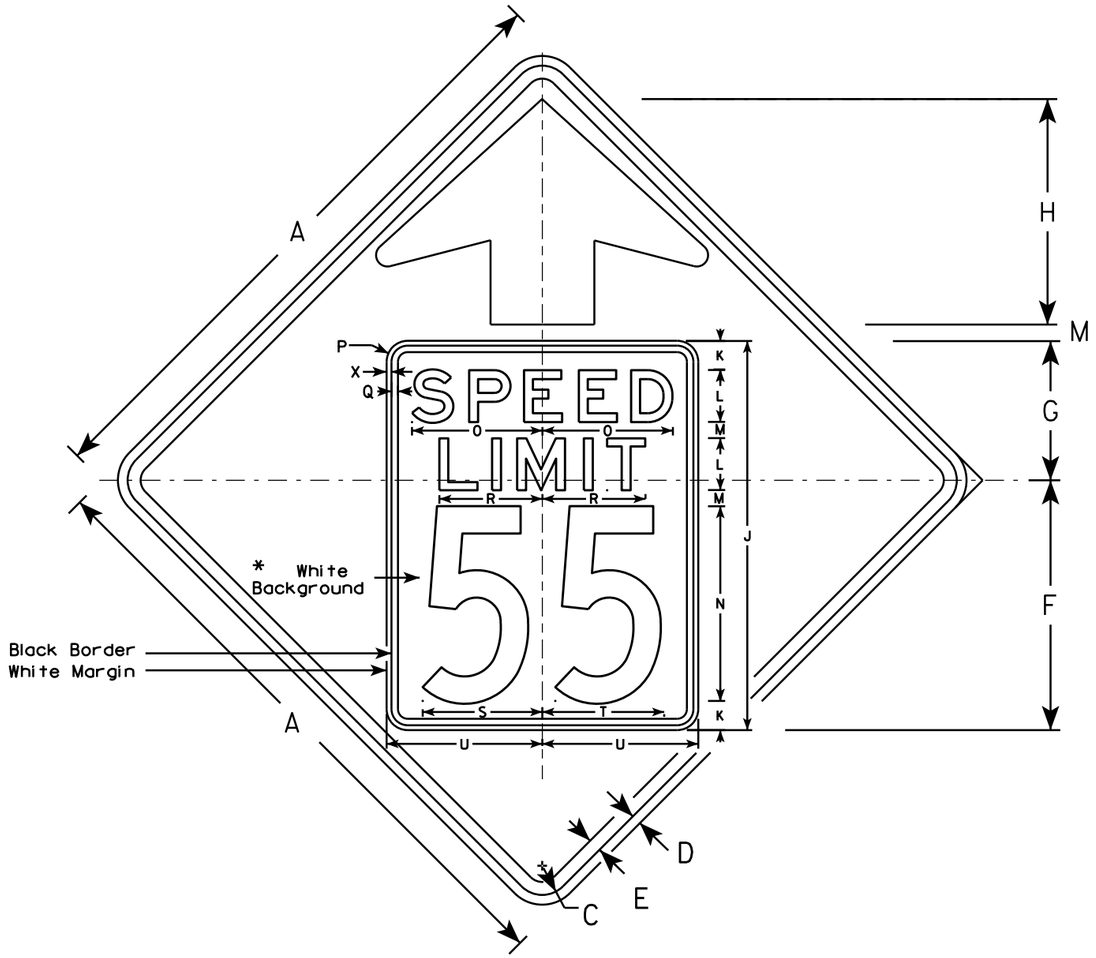
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

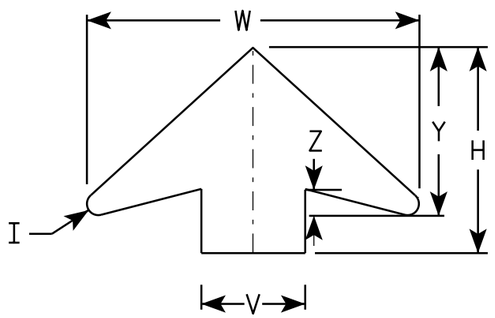


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

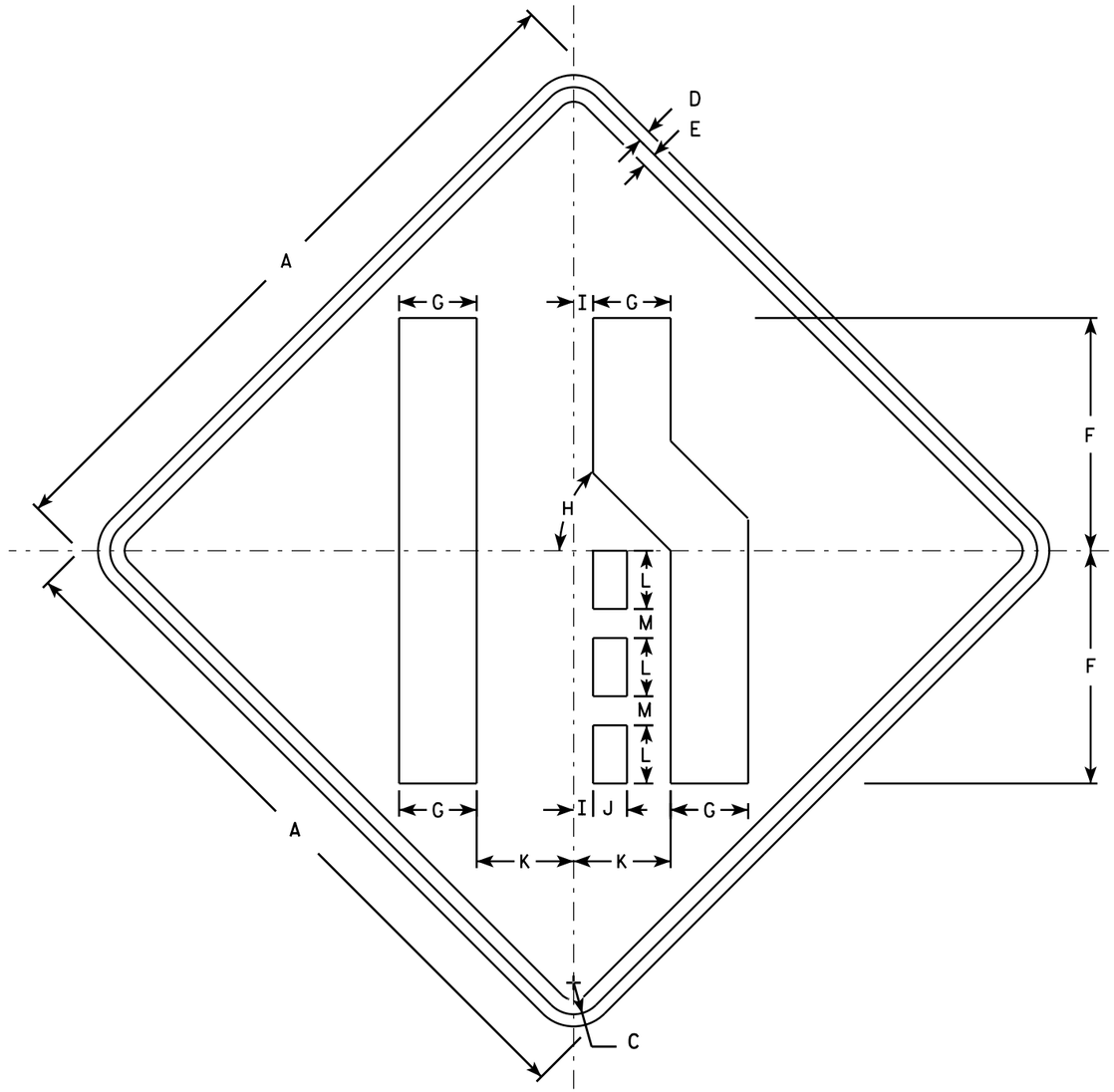
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

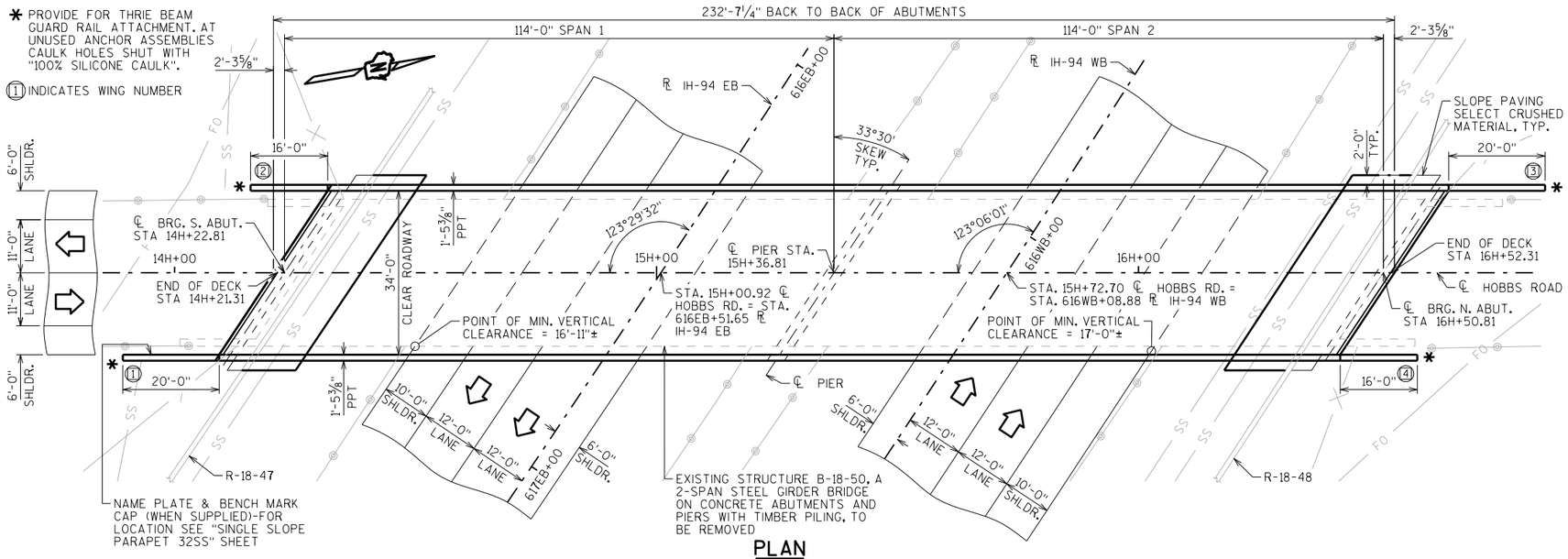
DATE 11/20/13 PLATE 152 W04-2.1

PROJECT NO:

SHEET NO: E

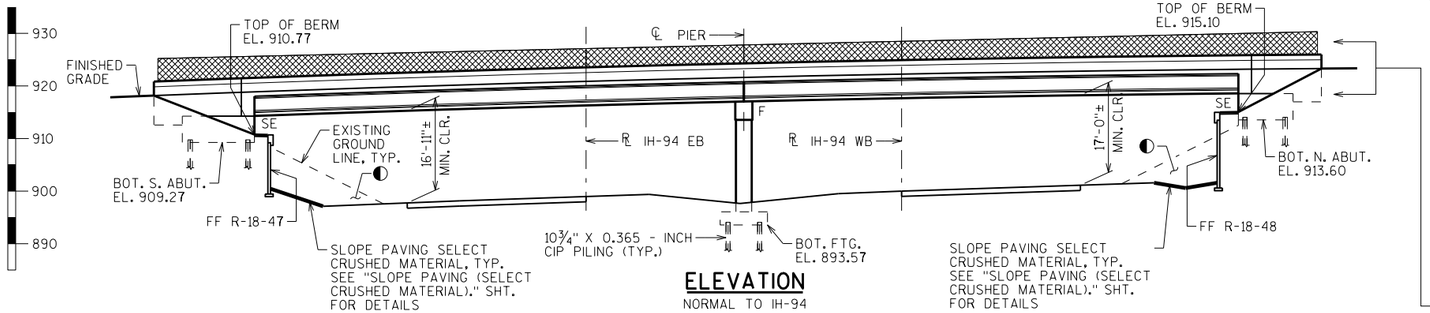
STATE PROJECT NUMBER

1021-03-74



PLAN

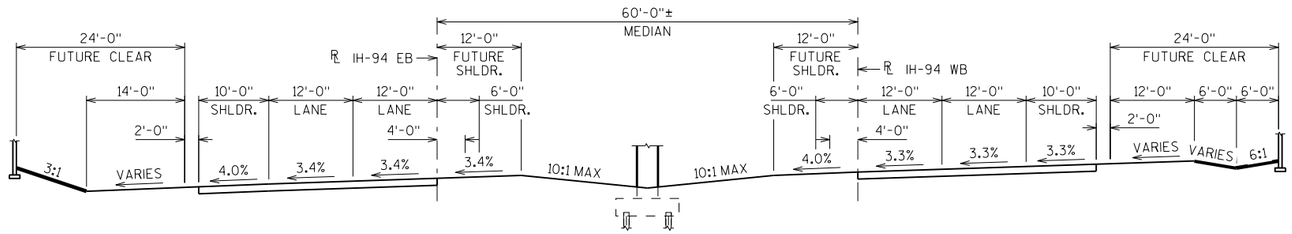
2 SPAN - 45W" PRESTRESSED GIRDERS



ELEVATION

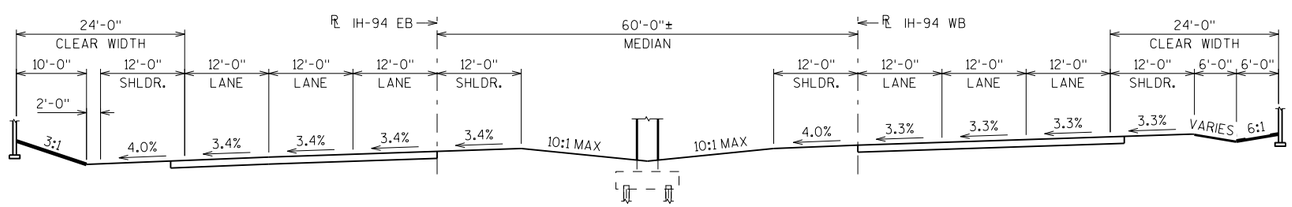
NORMAL TO IH-94

◐EXCAVATION IN THIS AREA WILL BE PAID FOR AS " EXCAVATION FOR STRUCTURES BRIDGES B-18-210."



TYP. FINISHED SECTION THRU IH-94

(LOOKING WEST)



TYP. FUTURE SECTION THRU IH-94

(LOOKING WEST)

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:
GRADE 60 — fy = 60,000 P.S.I.

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 0.365-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 0.365-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

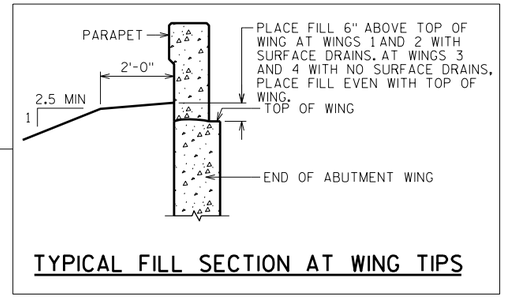
HOBBS ROAD
ADT = 575 (2038)
R.D.S. = 45 M.P.H.

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

CURVE DATA

IH-94 EB
P.I. = 606EB+04.99
△ = 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

IH-94 WB
P.I. = 605WB+90.87
△ = 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



TYPICAL FILL SECTION AT WING TIPS

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 (SELECT CRUSHED MATERIAL)

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

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 11/27/17
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-18-210

HOBBS ROAD OVER IH-94

COUNTY	TOWN
EAU CLAIRE	WASHINGTON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DFD	DLM	JDM	MWB

GENERAL PLAN

SHEET 1 OF 18

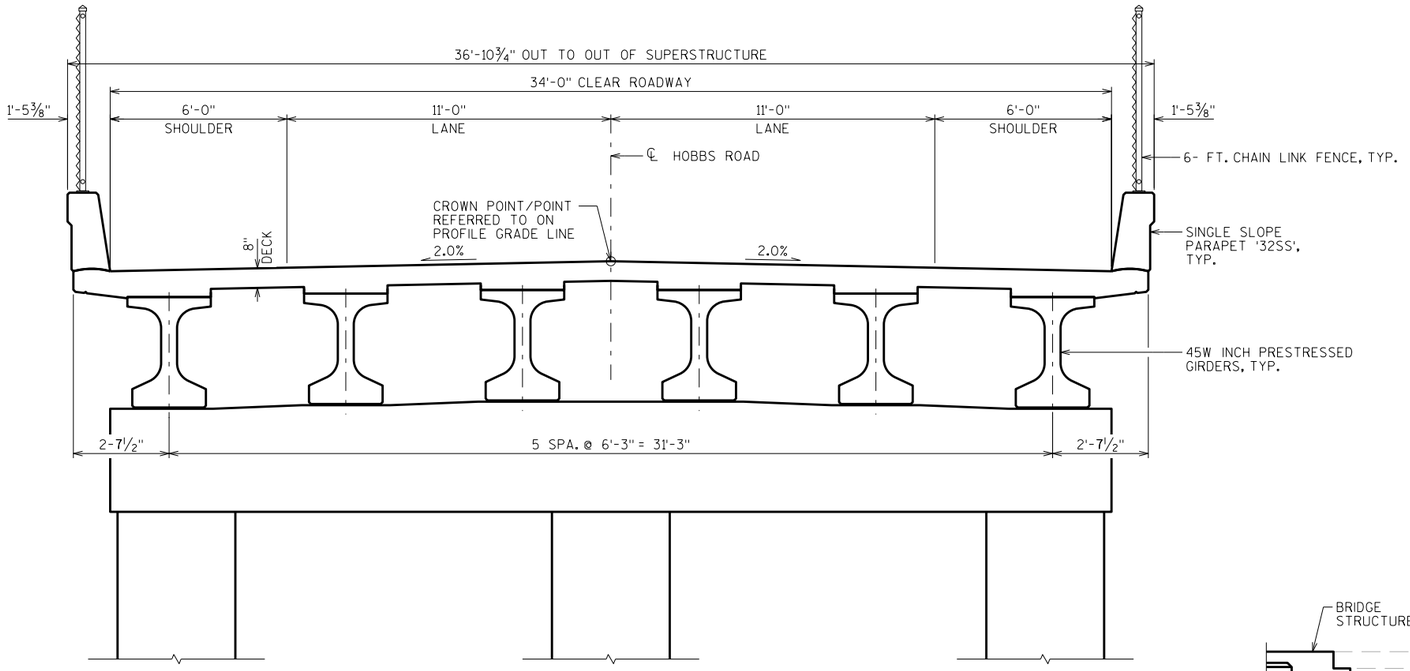
153

I.D. 1021-03-04A DATE: NOV. 2017

SCALE = 14.00

8

8



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 ¾" 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.

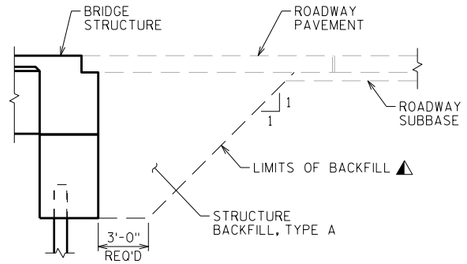
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 18 AND THE ABUTMENT DETAILS.

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.

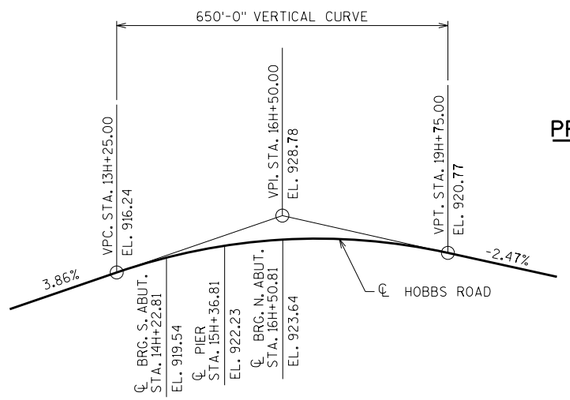
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	PIER	NORTH ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 15H+37	LS	———	———	———	———	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAING MATERIAL B-18-50	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	———	3,310	1,580	3,170	8,060
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	71,420	3,290	11,370	3,240	89,320
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
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	———	76	———	87	163
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	———	———	———	———	½", ¾", 1½"

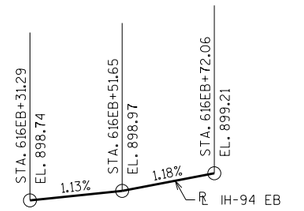


TYPICAL SECTION THRU ABUTMENT

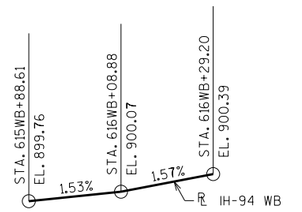
⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



PROFILE GRADE LINE - HOBBS ROAD



PROFILE GRADE LINE - IH-94 EB



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. MWB

CROSS SECTION & QUANTITIES

SHEET 2

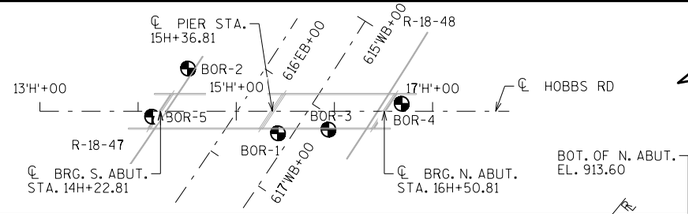
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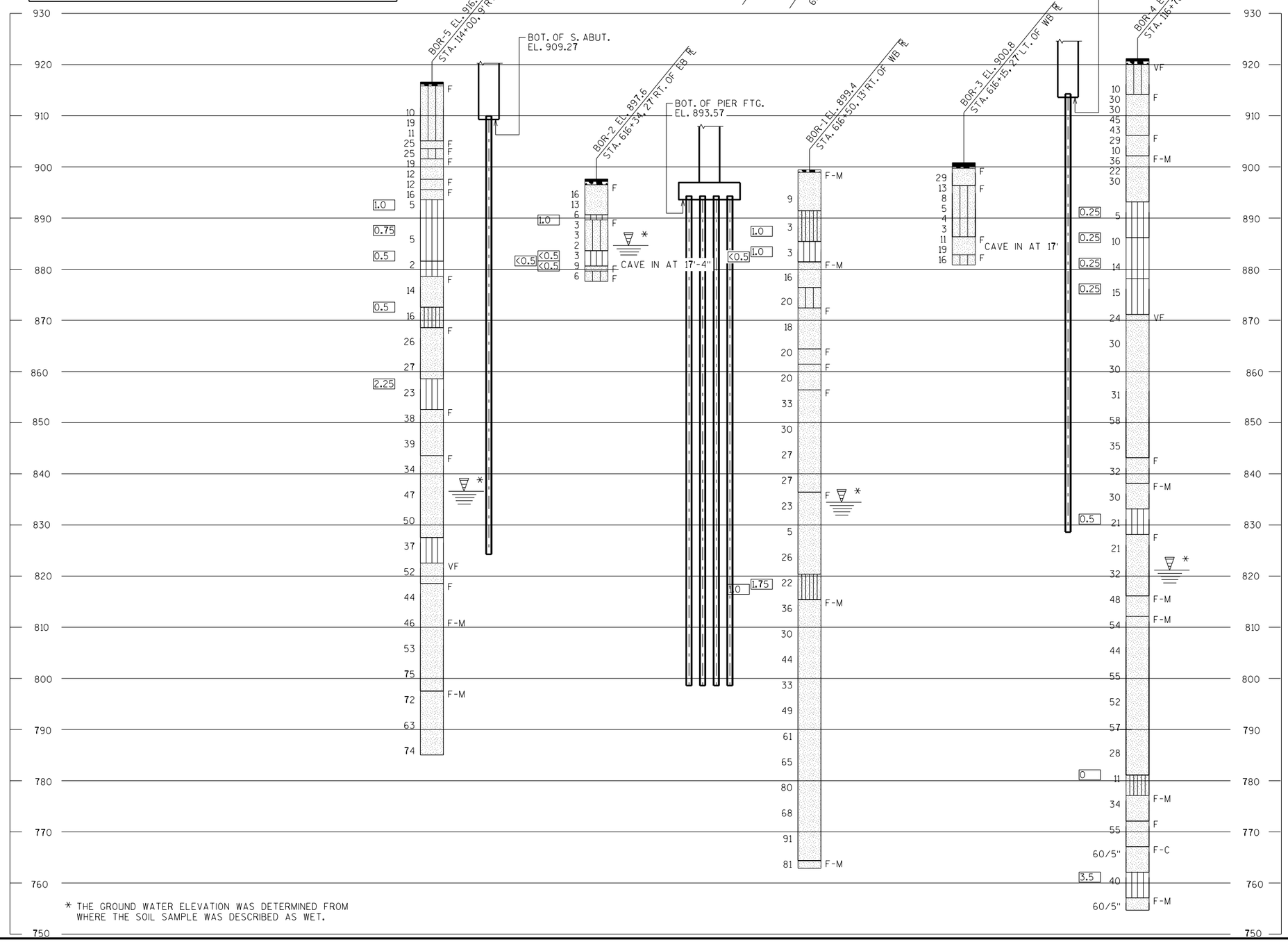
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8

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			





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

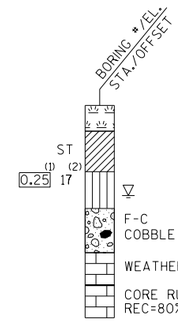
STATE PROJECT NUMBER

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



(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/ TLP | PLANS CK'D. MWB

SUBSURFACE EXPLORATION

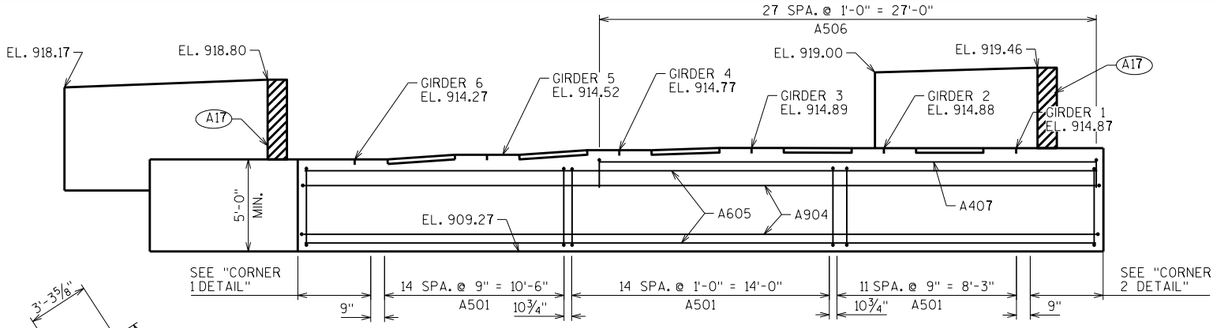
SHEET 3

155

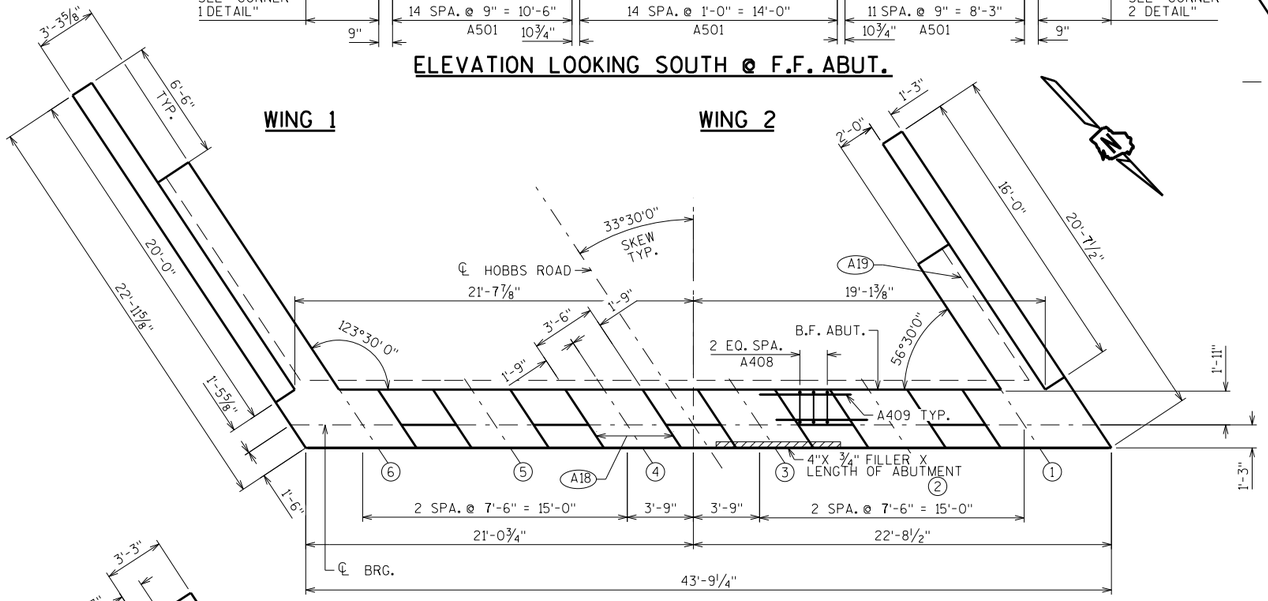
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STATE PROJECT NUMBER

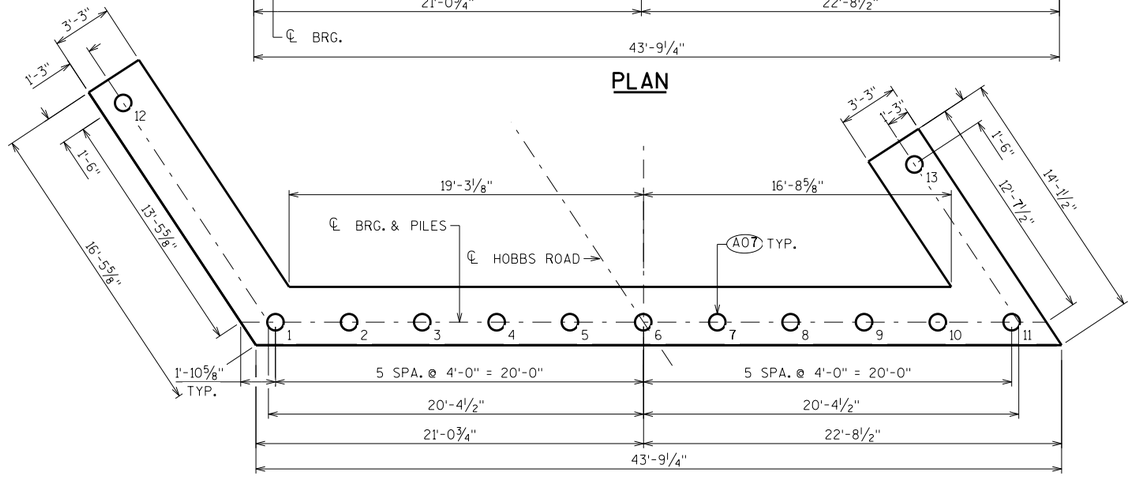
1021-03-74



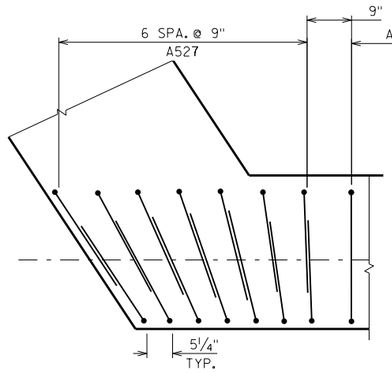
ELEVATION LOOKING SOUTH @ F.F. ABUT.



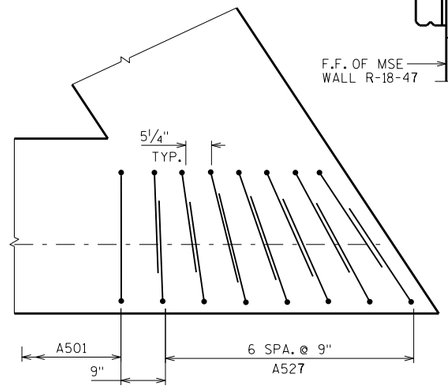
PLAN



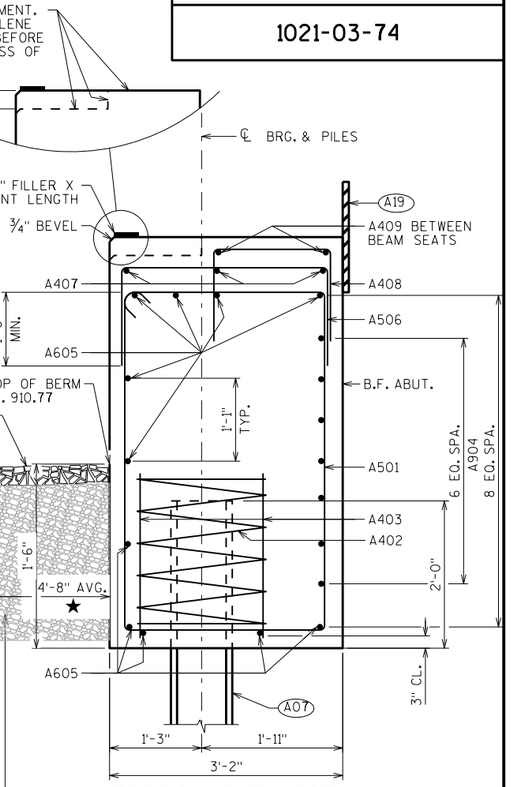
PILE PLAN



CORNER 1 DETAIL

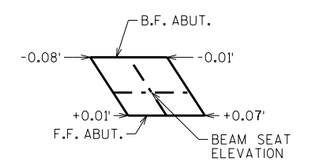


CORNER 2 DETAIL

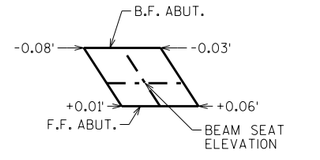


SECTION THRU BODY

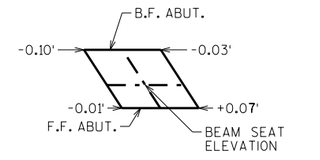
SIZE 2 COARSE AGGREGATE. COST INCIDENTAL TO BID ITEM "SLOPE PAVING (SELECT CRUSHED MATERIAL)"



SLOPED BEAM SEAT DETAIL GIRDER 1



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



SLOPED BEAM SEAT DETAIL GIRDERS 6

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

A07 SUPPORT ABUTMENT ON 10¾" X 0.365 INCH CIP PILING. ESTIMATED 85'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

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. MWB

SOUTH ABUTMENT

SHEET 4

156

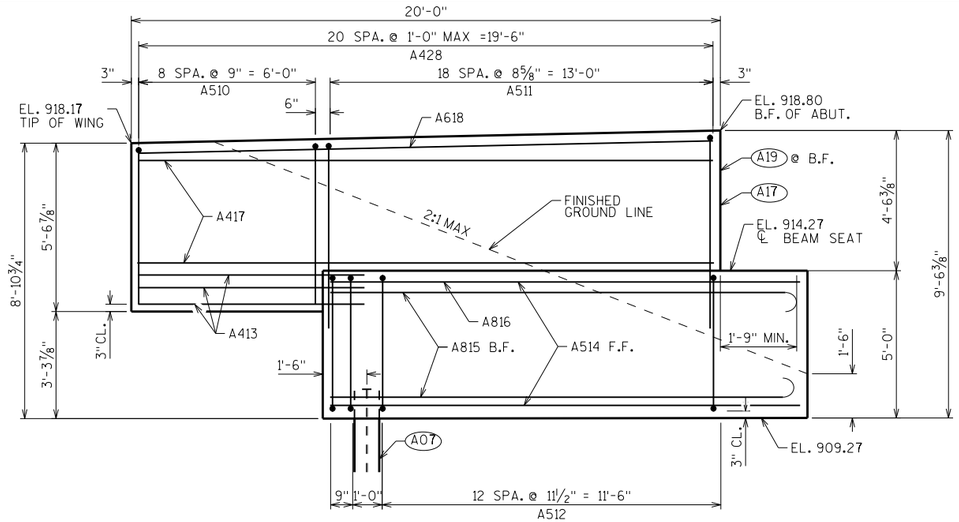
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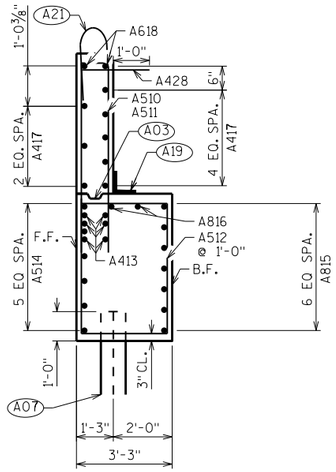
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STATE PROJECT NUMBER

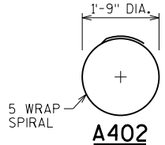
1021-03-74



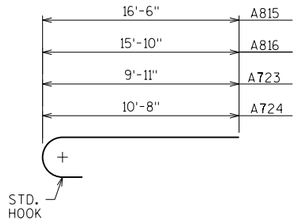
WING 1 ELEVATION



WING 1 SECTION



A402

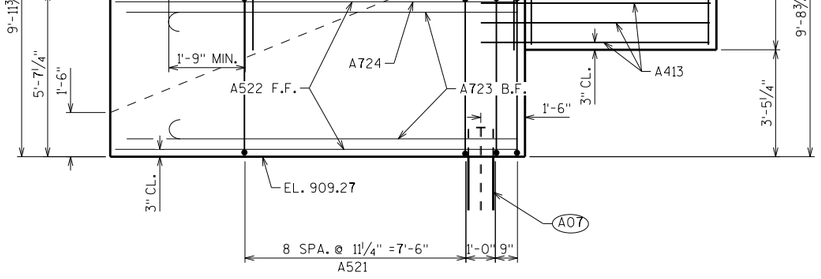


A815, A816, A723, A724

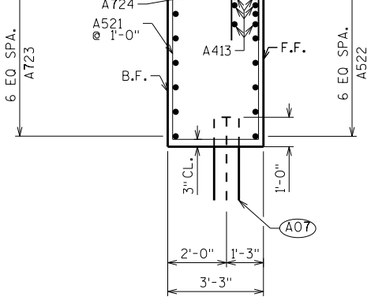
BILL OF BARS

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

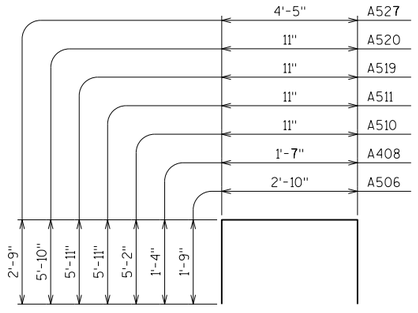
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		42	15'-3"	X		BODY-STIRRUP
A402		11	28'-0"	X		BODY-1 PER BODY PILE
A403		22	2'-3"			BODY- 2 PER BODY PILE-VERT.
A904		7	45'-10"	X		BODY-HORIZ.-B.F.
A605		11	43'-5"			BODY-HORIZ.
A506		28	6'-1"	X		BODY-VERT.-TOP-UNDER G1-G4
A407		3	27'-0"			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.
A527		28	9'-11"	X		BODY CORNER-STIRRUP
A428	X	34	2'-0"			WINGS-HORIZ.-SURFACE DRAINS



WING 2 ELEVATION

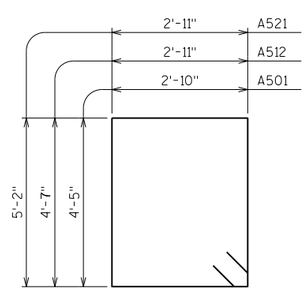


WING 2 SECTION



A904

A506, A408, A510, A511, A519, A520, A527



A501, A512, A521

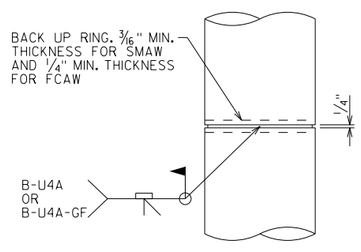
(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(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.

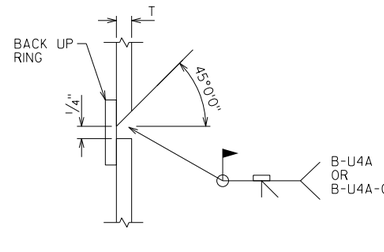
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

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

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



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

DRAWN BY JDM | PLANS CK'D. MWB

SOUTH ABUTMENT DETAILS

SHEET 5

157

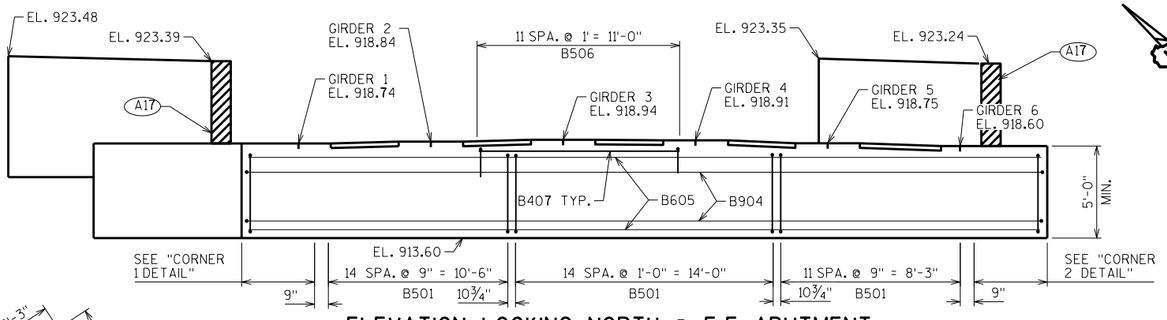
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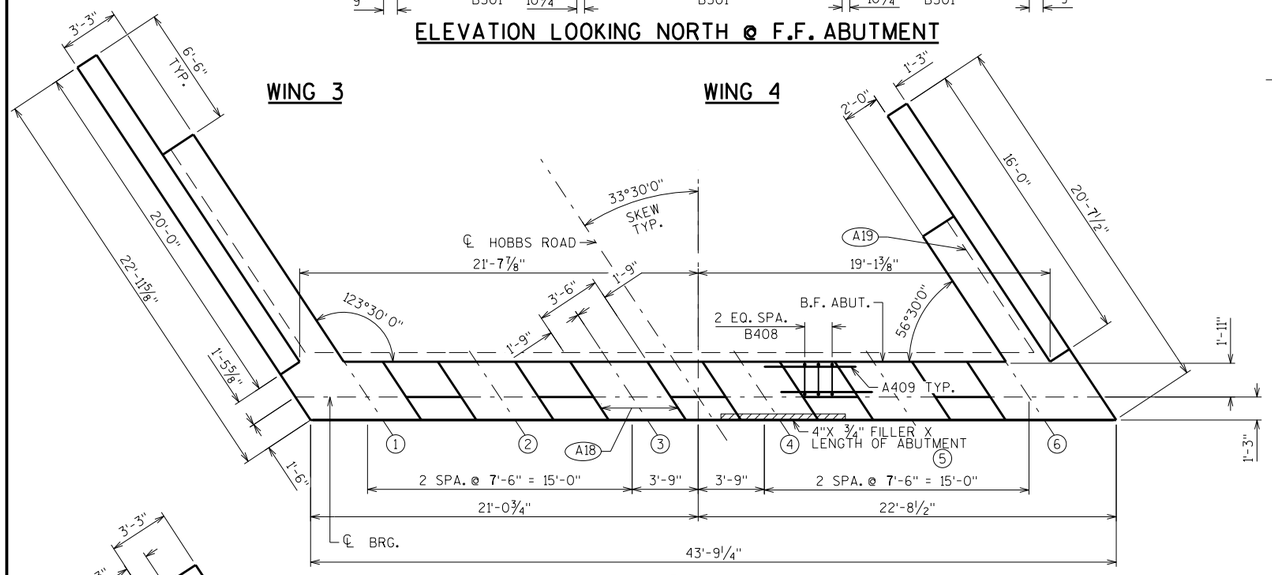
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STATE PROJECT NUMBER

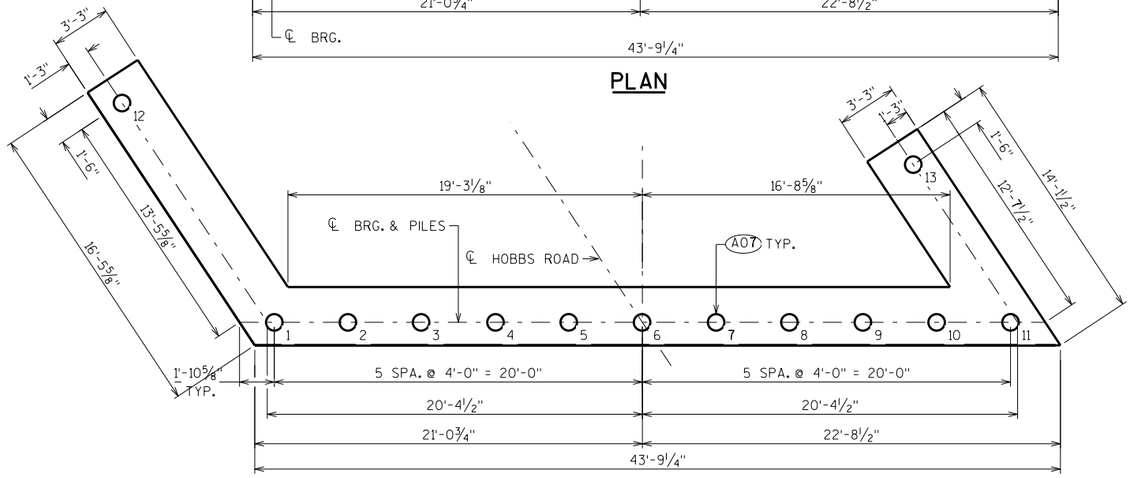
1021-03-74



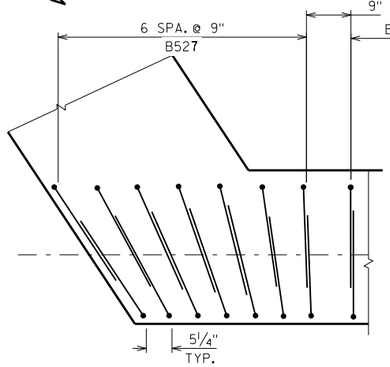
ELEVATION LOOKING NORTH @ F.F. ABUTMENT



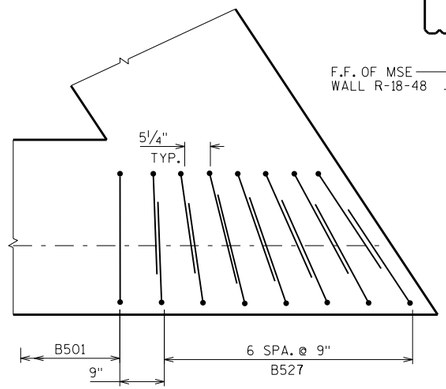
PLAN



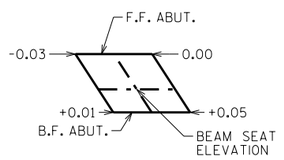
PILE PLAN



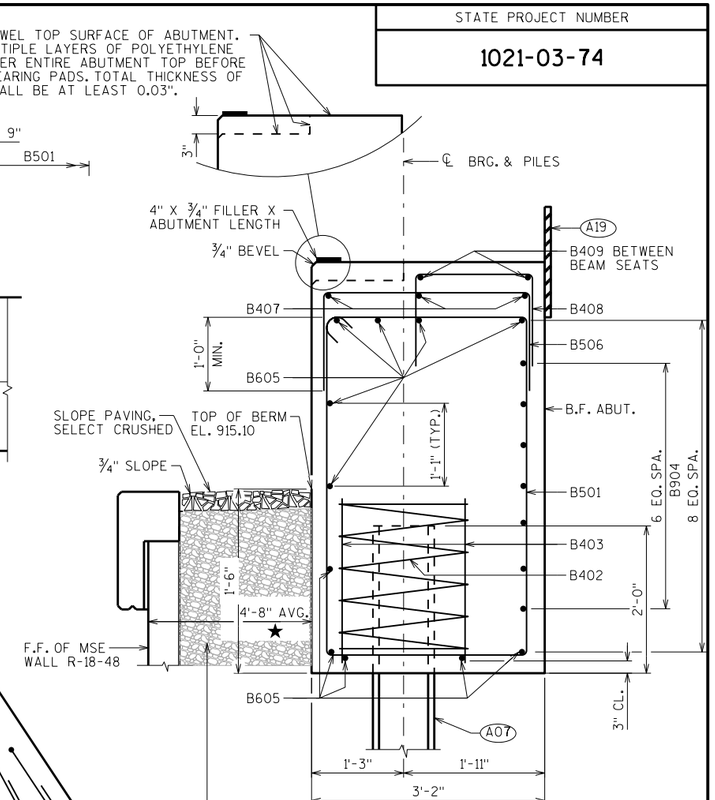
CORNER 1 DETAIL



CORNER 2 DETAIL



SLOPED BEAM SEAT DETAIL



SECTION THRU BODY

SIZE 2 COARSE AGGREGATE. COST INCIDENTAL TO BID ITEM "SLOPE PAVING (SELECT CRUSHED MATERIAL)"

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

(A07) SUPPORT ABUTMENT ON 10¾" X 0.365 INCH CIP PILING, ESTIMATED 85'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(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. MWB

NORTH ABUTMENT

SHEET 6

158

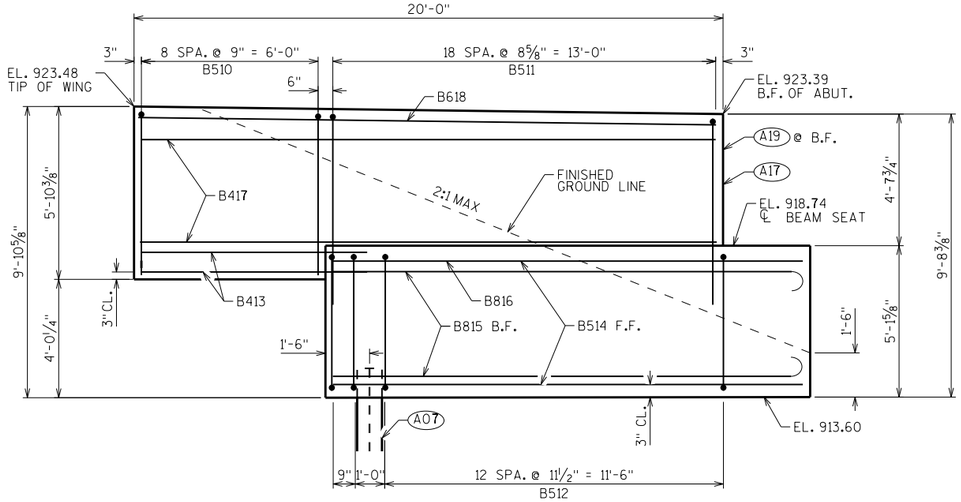
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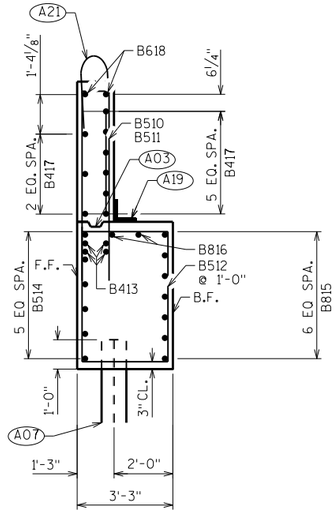
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STATE PROJECT NUMBER

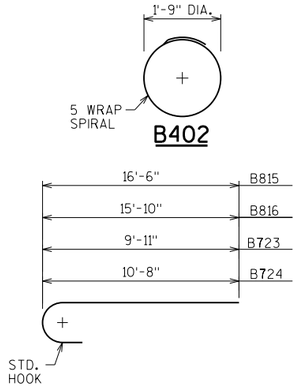
1021-03-74



WING 3 ELEVATION



WING 3 SECTION

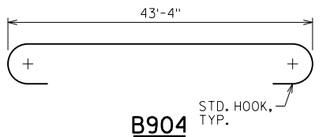


B815, B816, B723, B724

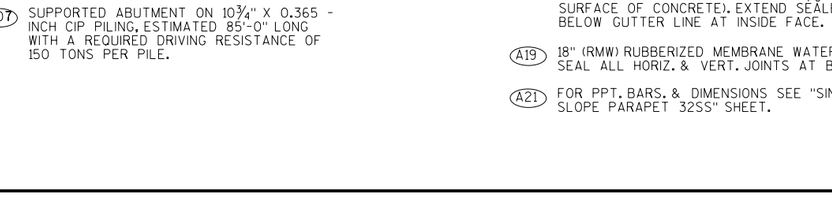
BILL OF BARS

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

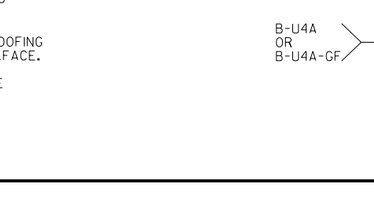
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		42	15'-2"	X		BODY-STIRRUP
B402		11	28'-0"	X		BODY-1 PER BODY PILE
B403		22	2'-3"			BODY- 2 PER BODY PILE-VERT.
B904		7	45'-10"	X		BODY-HORIZ.-B.F.
B605		11	43'-5"			BODY-HORIZ.
B506		12	6'-1"	X		BODY-VERT.-TOP-UNDER G1-G5
B407		3	11'-0"			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.
B527		28	9'-11"	X		BODY CORNER-STIRRUP



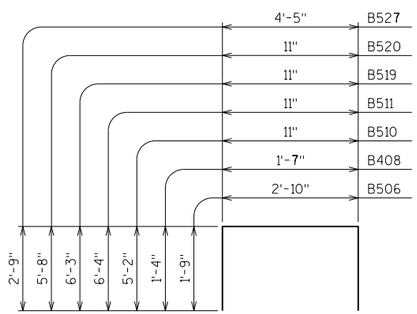
B904



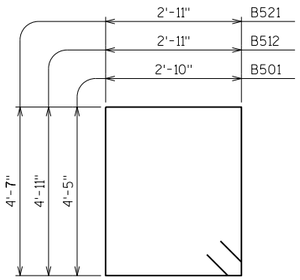
WING 4 ELEVATION



WING 4 SECTION



B506, B408, B510, B511, B519, B520, B527



B501, B512, B521

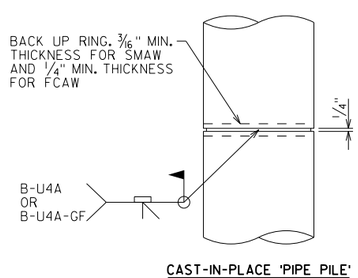
(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(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.

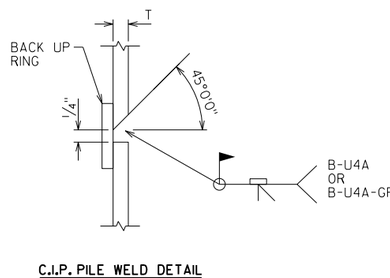
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

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

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



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

DRAWN BY JDM | PLANS CK'D. MWB

NORTH ABUTMENT DETAILS

SHEET 7

159

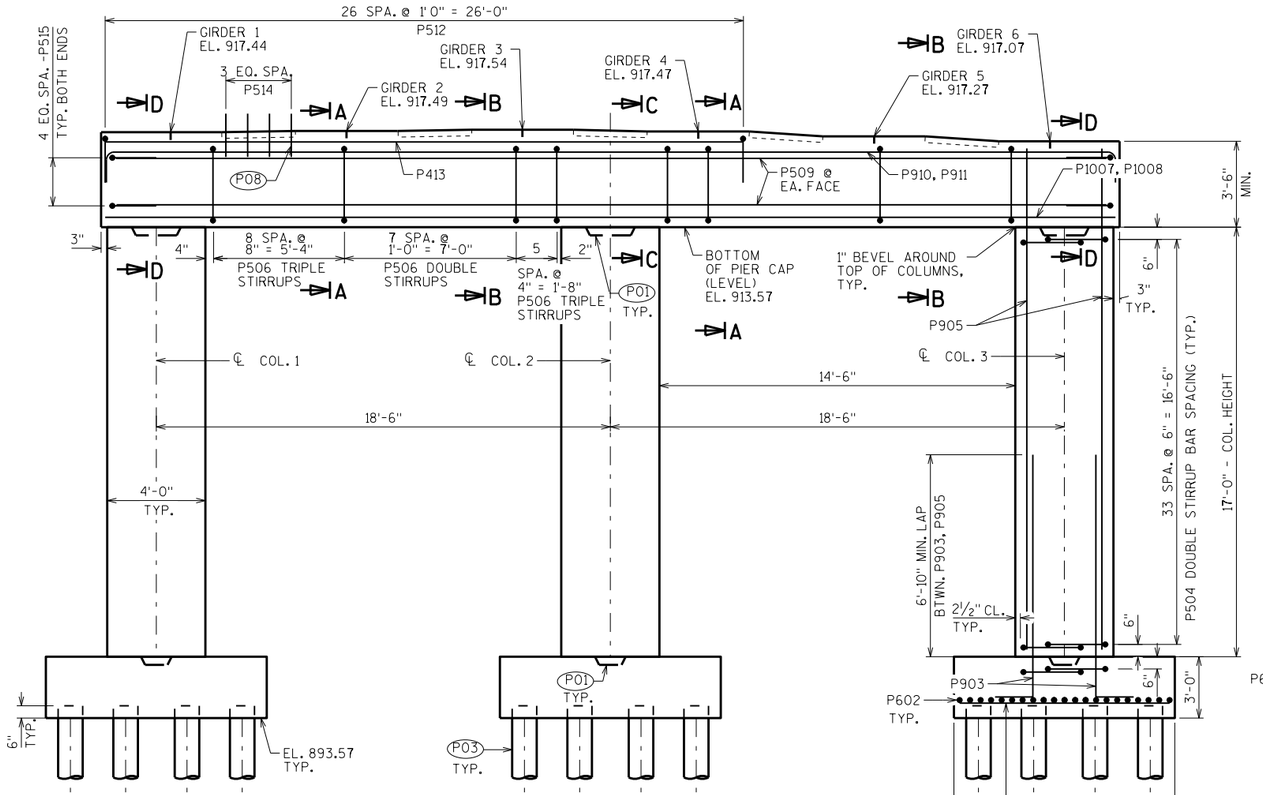
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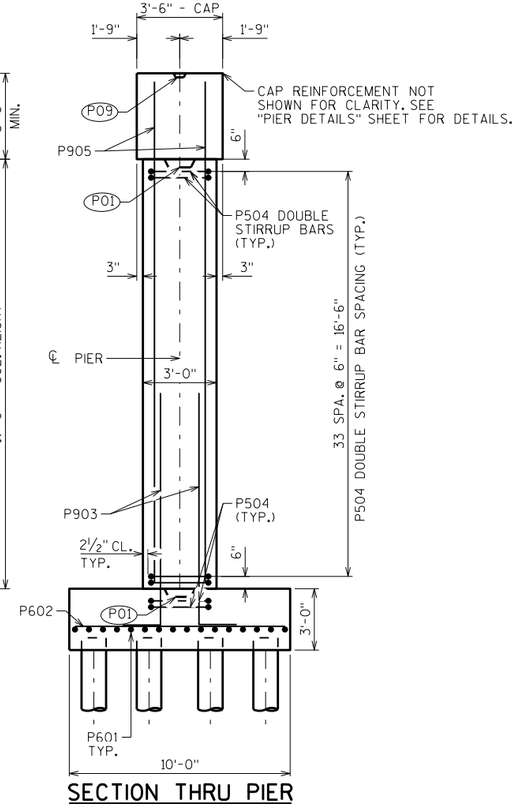
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STATE PROJECT NUMBER

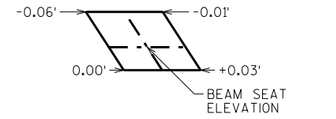
1021-03-74



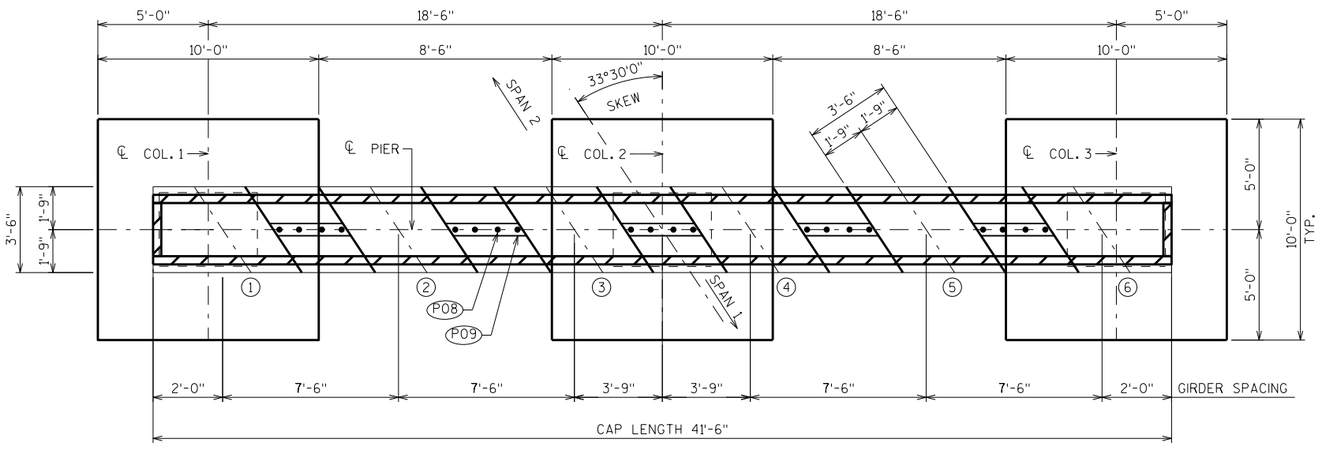
ELEVATION LOOKING NORTH



SECTION THRU PIER



SLOPED BEAM SEAT DETAIL



PLAN

◯ INDICATES GIRDER NUMBER

(P01) 1'-3" X 2'-0" X 4" CONST. JOINT FORMED BY BEVELED KEYWAY.

(P03) SUPPORT PIER ON 10¾" 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 CONC.)

(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. MWB

PIER

SHEET 8

160

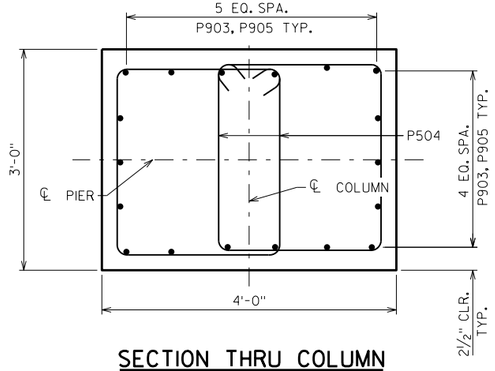
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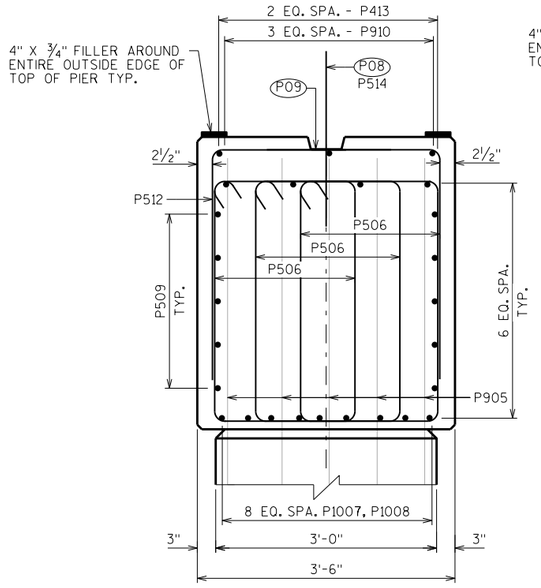
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STATE PROJECT NUMBER

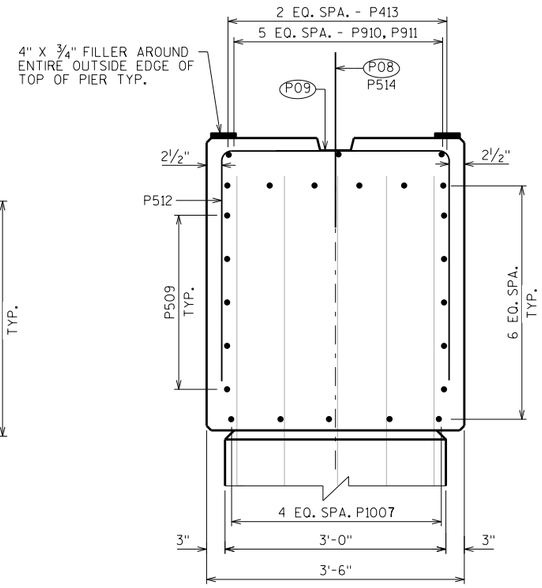
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SECTION THRU COLUMN



CAP SECTION A-A

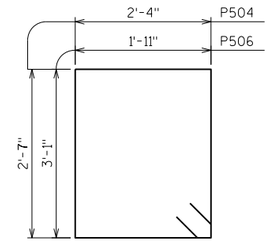


CAP SECTION C-C

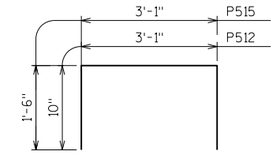
BILL OF BARS

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

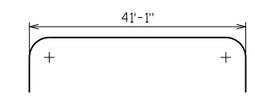
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P601		48	9'-6"			FOOTINGS-BOT.-HORIZ.-LONGIT.
P602		63	9'-6"			FOOTINGS-BOT.-HORIZ.-TRANS.
P903	X	54	8'-4"	X		FOOTINGS-COLUMNS-VERT.-ALL FACES
P504	X	210	9'-8"	X		COLUMNS-HORIZ.-STIRRUPS
P905	X	54	20'-0"			COLUMNS-VERT.-ALL FACES
P506	X	112	10'-8"	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



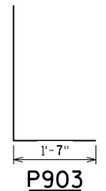
P504, P506



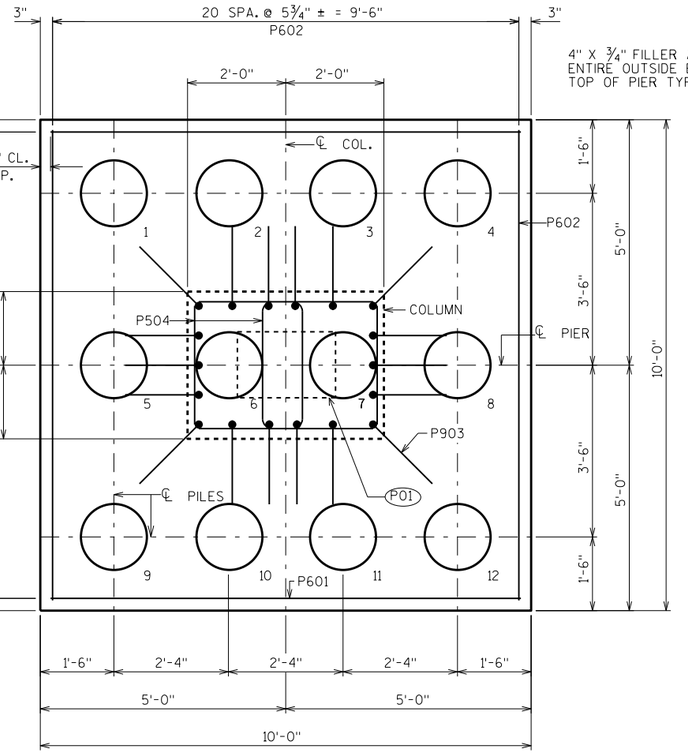
P512, P515



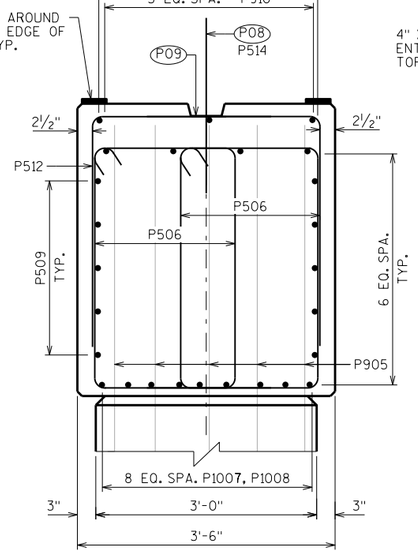
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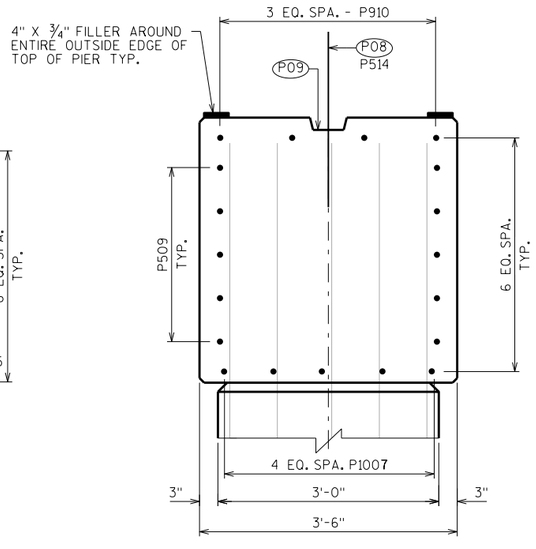
P903



TYPICAL FOOTING/PILE PLAN



CAP SECTION B-B



CAP SECTION D-D

P01 1'-3" X 2'-0" X 4" CONST. JOINT FORMED BY BEVELED KEYWAY.

P05 SUPPORT PIER ON 10¾" 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

DRAWN BY JDM | PLANS CK'D. MWB

PIER DETAILS

SHEET 9

161

SCALE = 1.50

8

8

STATE PROJECT NUMBER

1021-03-74

SPAN 1 DIAPHRAGM HOLE LOCATIONS

GIRDER	"D"	"E"	"F"	"G"	"H"
1	36'-0⅝"		38'-1½"		40'-2⅜"
2	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
3	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
4	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
5	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
6	40'-2⅜"		38'-1½"		36'-0⅝"

SPAN 2 DIAPHRAGM HOLE LOCATIONS

GIRDER	"D"	"E"	"F"	"G"	"H"
1	36'-0⅝"		38'-1½"		40'-2⅜"
2	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
3	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
4	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
5	36'-0⅝"	4'-1⅝"	38'-1½"	4'-1⅝"	36'-0⅝"
6	40'-2⅜"		38'-1½"		36'-0⅝"

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.

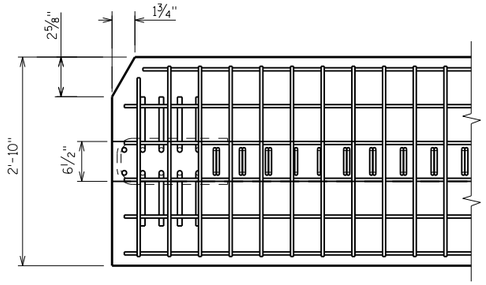
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

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

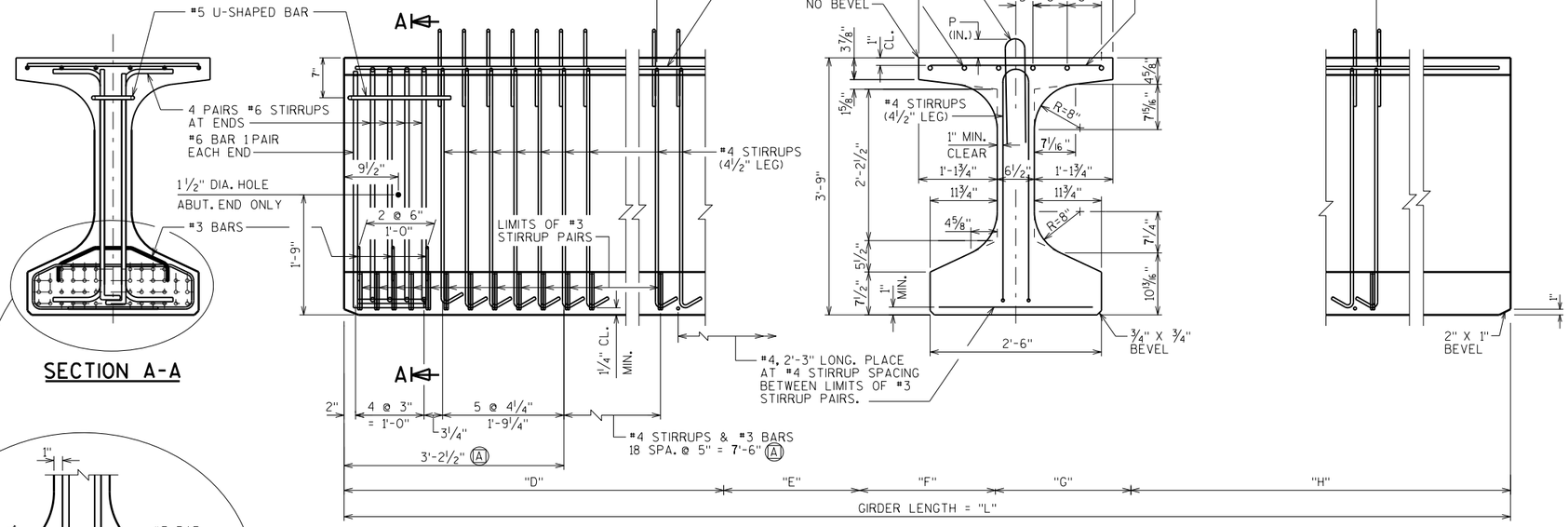
AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (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.



TOP FLANGE

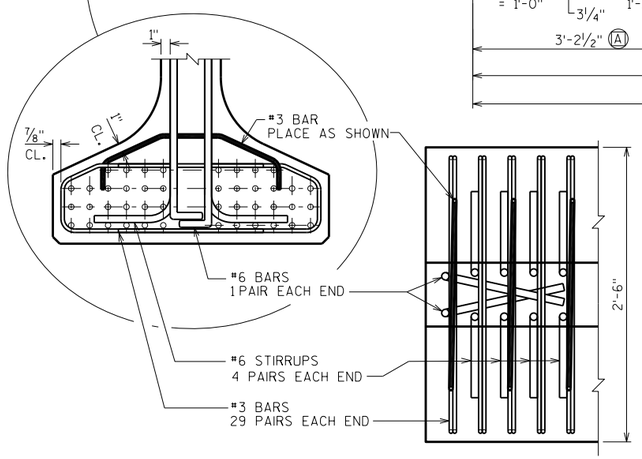


SECTION A-A

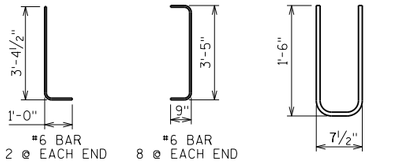
SIDE VIEW & TYPICAL SECTION IN SPAN

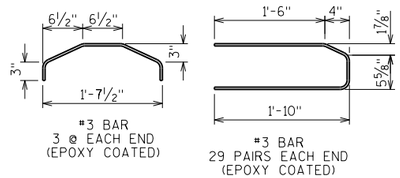
Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"



BOTTOM FLANGE





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

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" IST 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.) "A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
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. MWB

45W" PRESTRESSED GIRDER DETAILS 1

SHEET 10

162

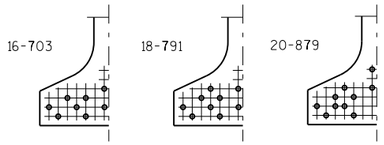
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8 20 9 12

8

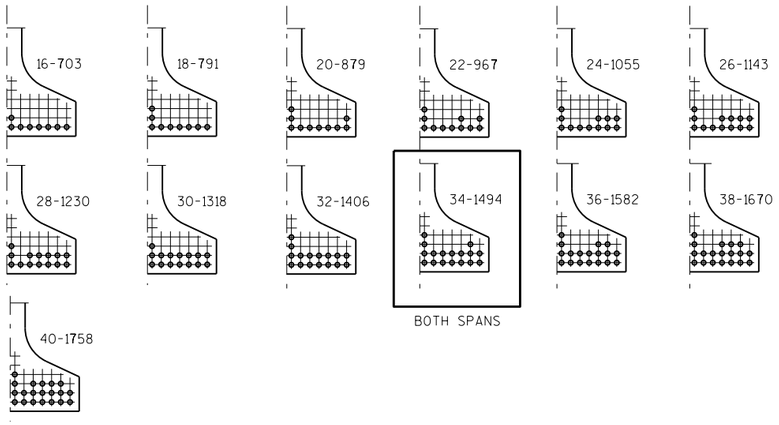
STATE PROJECT NUMBER

1021-03-74



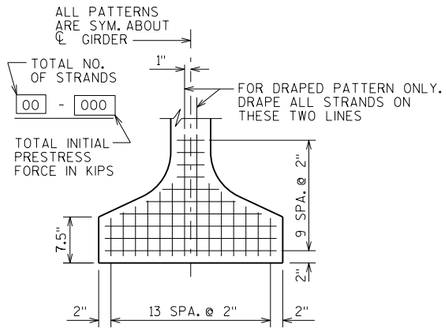
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"φ STRANDS

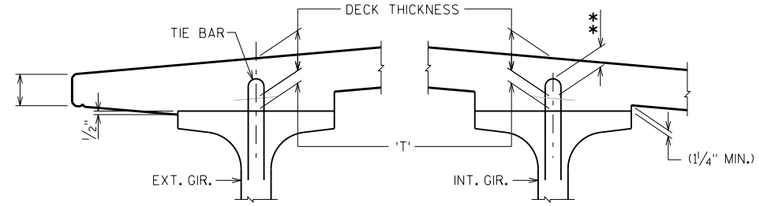


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"φ STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

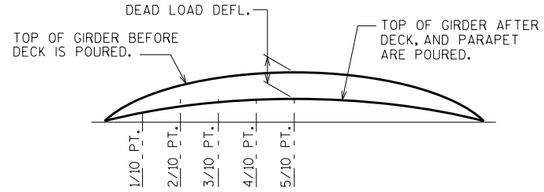
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

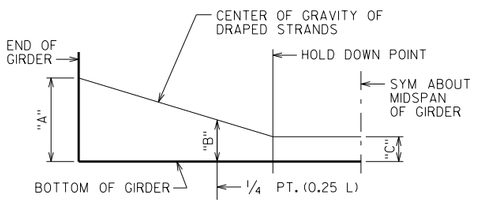
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

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 2¾" 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.

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STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

DRAWN BY JDM | PLANS CK'D. MWB

45W" PRESTRESSED GIRDER DETAILS 2

SHEET 11

163

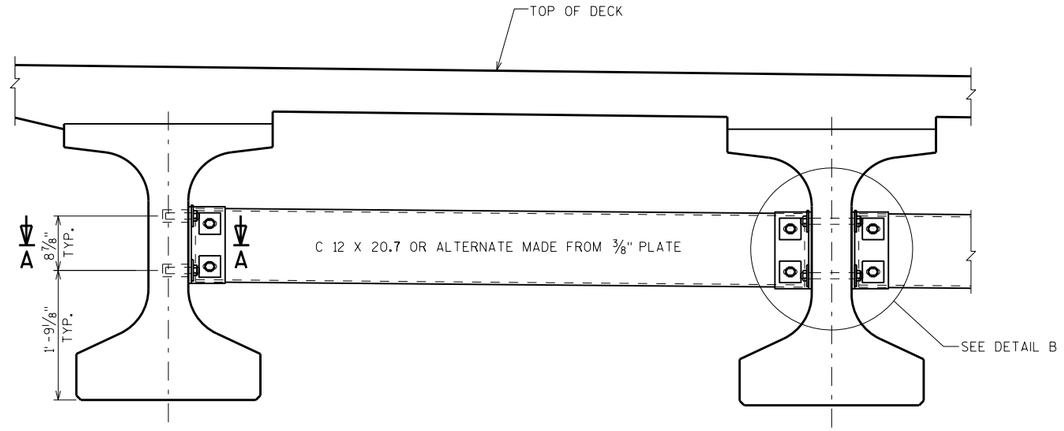
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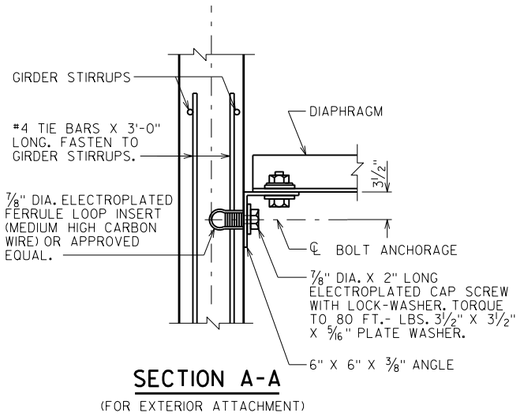
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STATE PROJECT NUMBER

1021-03-74

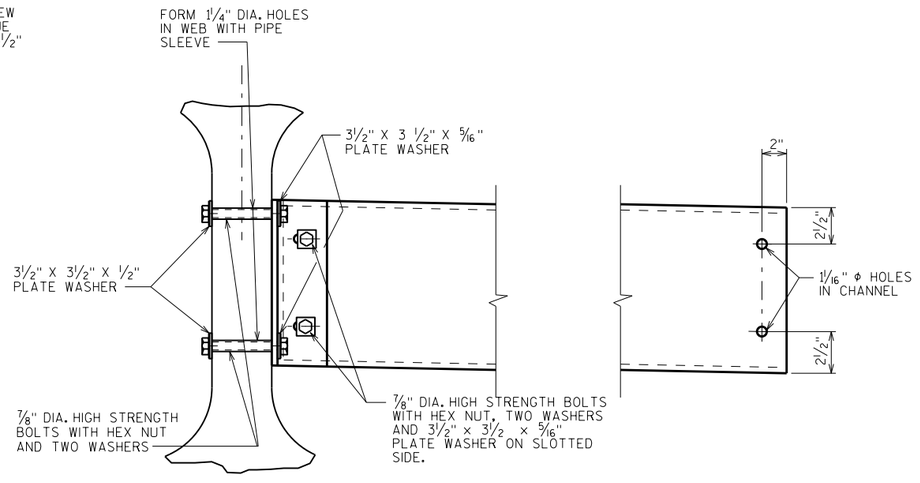


PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)



DETAIL B

NOTES

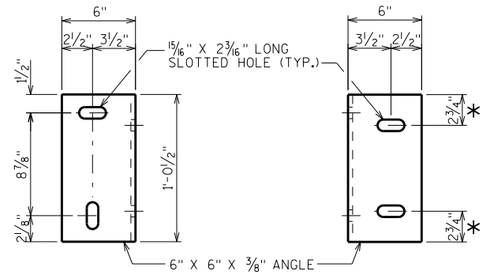
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-18-210", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

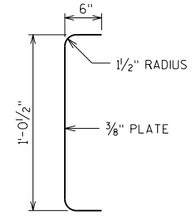
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

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

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

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STEEL DIAPHRAGM

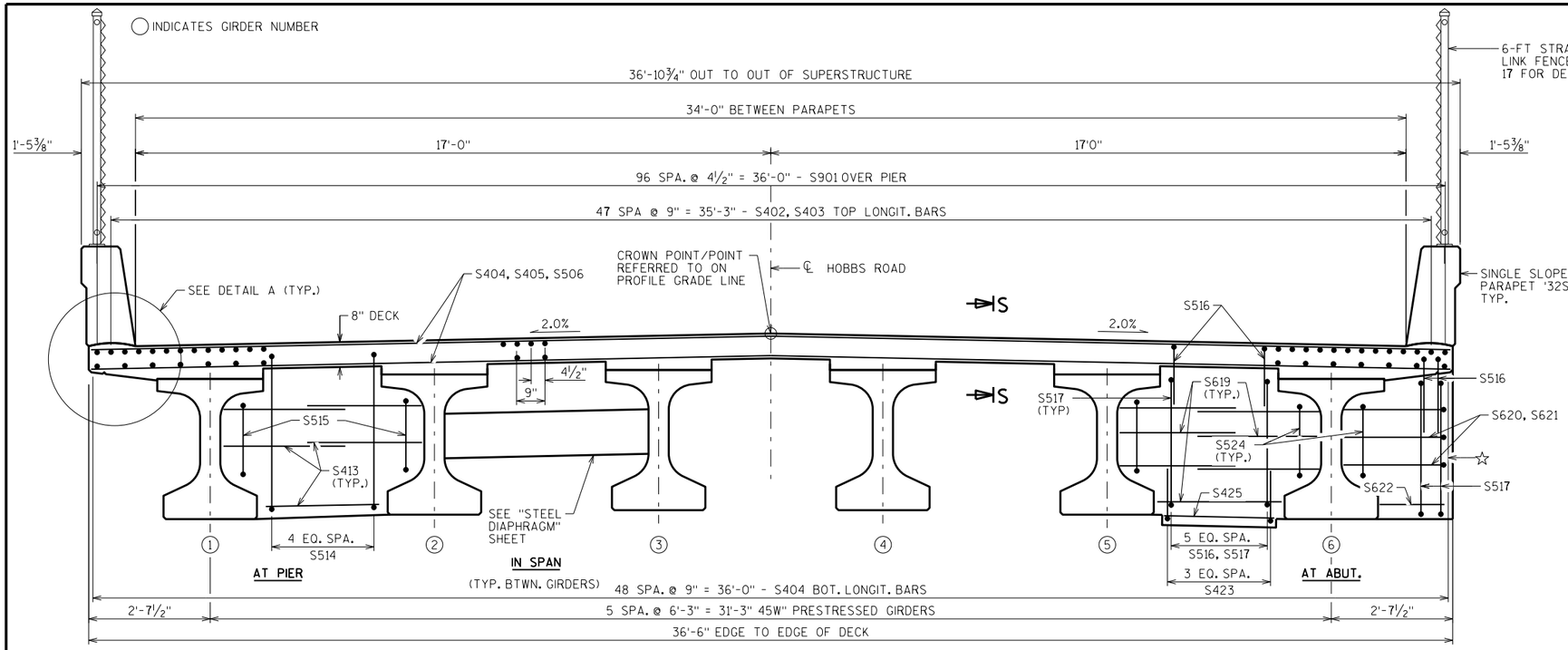
SHEET 12

164

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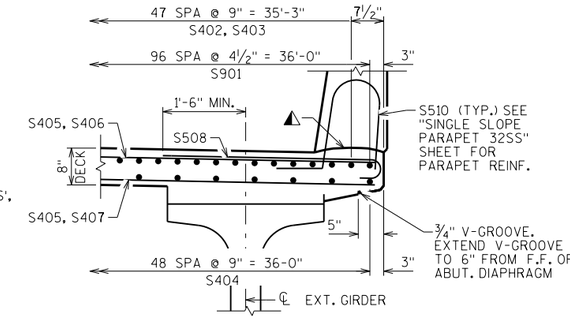
STATE PROJECT NUMBER

1021-03-74

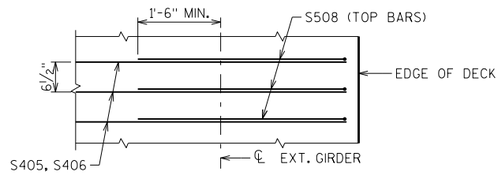


CROSS SECTION THRU ROADWAY

LOOKING NORTH

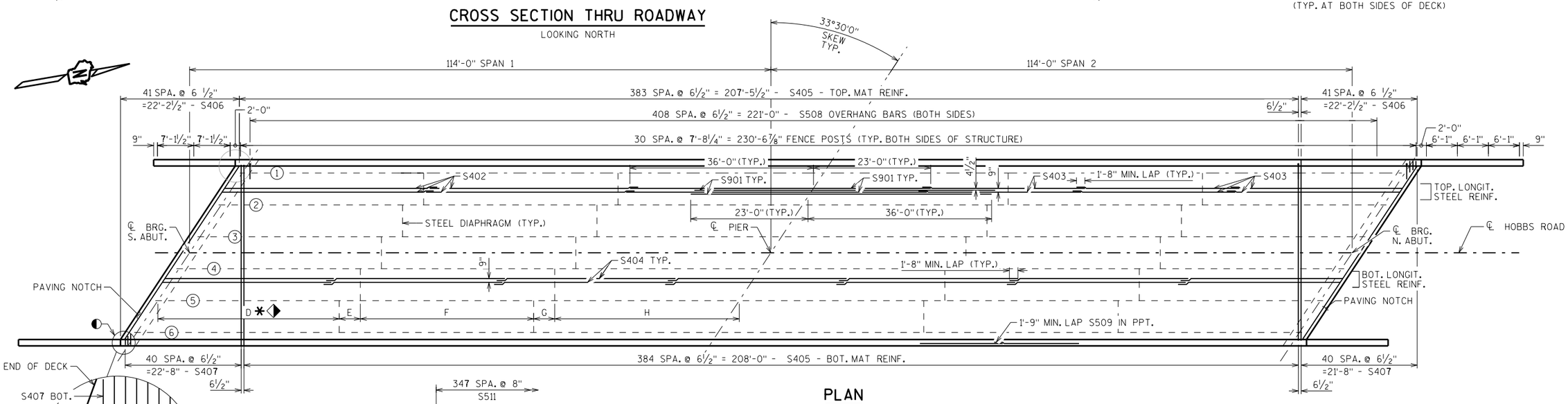


DETAIL A

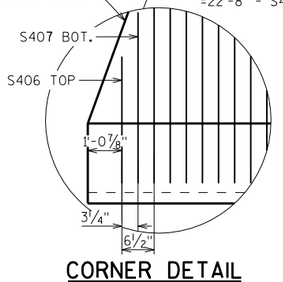


ADDITIONAL REINF. DETAIL

(TYP. AT BOTH SIDES OF DECK)

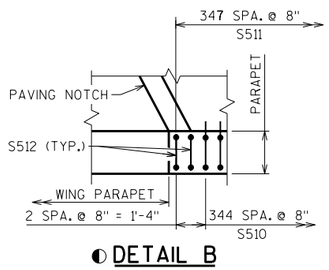


PLAN



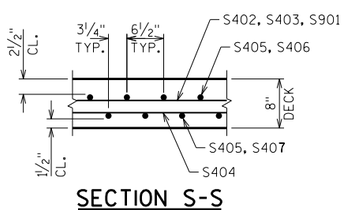
CORNER DETAIL

TYP. WINGS 1 AND 3



◐ DETAIL B

WING 1 SHOWN. OTHERS SIMILAR



SECTION S-S

▲ 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

✱ SEE "45W" PRESTRESSED GIRDER DETAILS 1" SHEET

◆ MEASURED FROM END OF GIRDER

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

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SUPERSTRUCTURE

SHEET 13

165

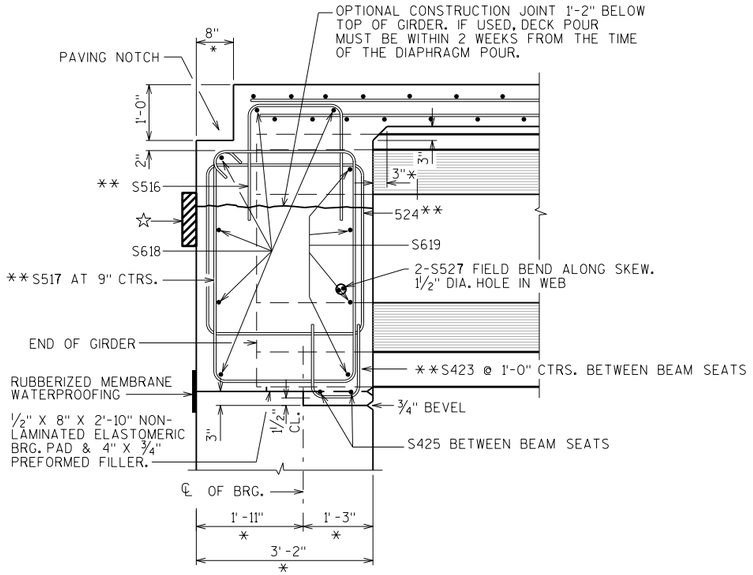
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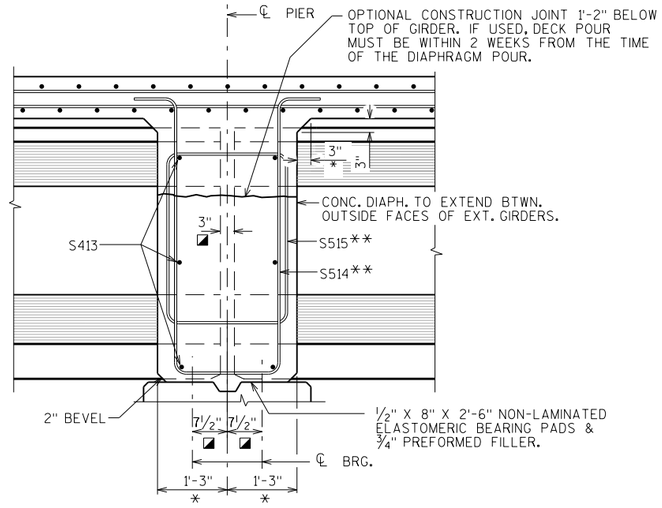
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STATE PROJECT NUMBER

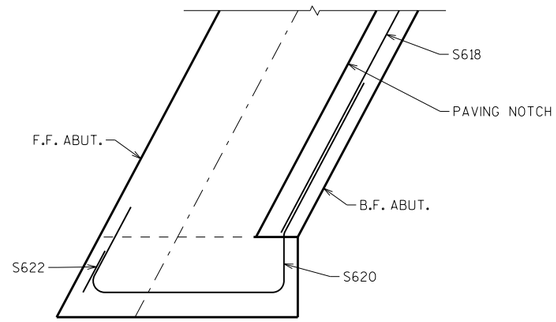
1021-03-74



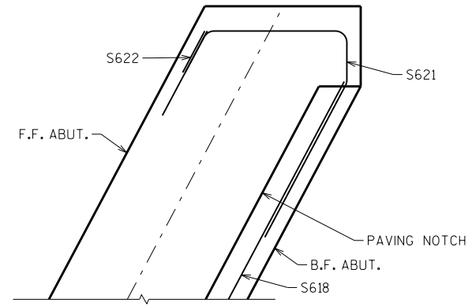
CROSS SECTION THRU ABUTMENT DIAPHRAGM BTWN. EXTERIOR GIRDERS



CROSS SECTION THRU PIER DIAPHRAGM



WING 4 SHOWN, WING 2 SIMILAR



WING 3 SHOWN, WING 1 SIMILAR

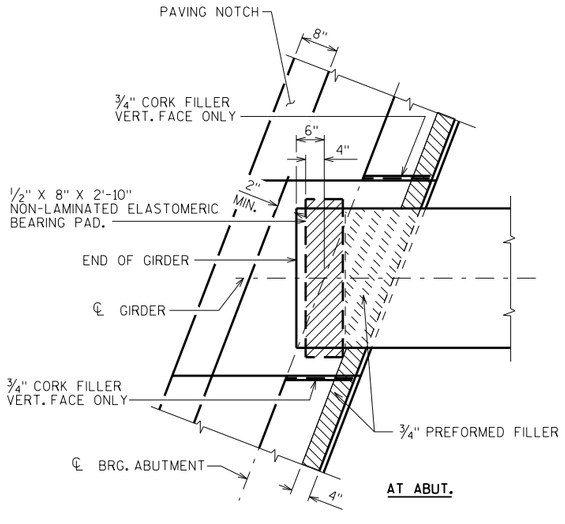
ABUTMENT DIAPHRAGM CORNER DETAILS

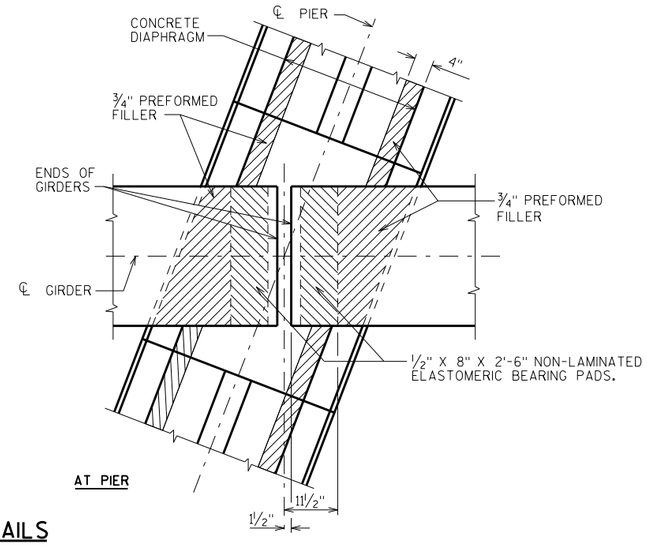
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

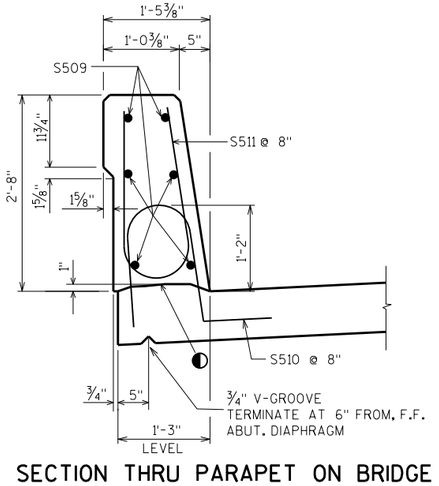
◪ DIMENSION IS TAKEN PARALLEL TO ℄ OF GIRDER

☆ RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED. COST INCLUDED WITH "CONCRETE MASONRY BRIDGES."





BEARING PAD DETAILS



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-210

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SUPERSTRUCTURE DETAILS 1

SHEET 14

166

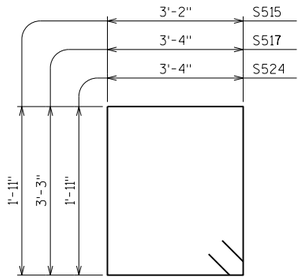
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8

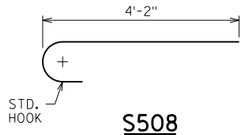
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STATE PROJECT NUMBER

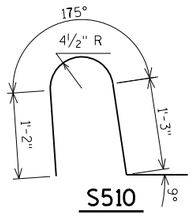
1021-03-74



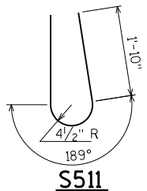
S515, S517, S524



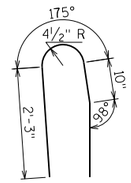
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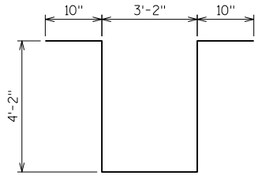
S510



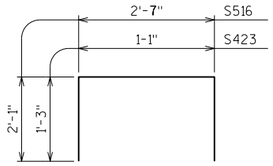
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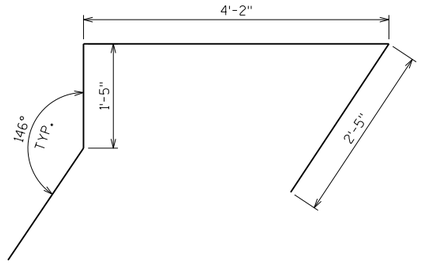
S512



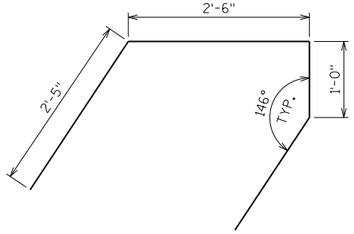
S514



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

	℄ 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.	℄ 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.	℄ 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. MWB

SUPERSTRUCTURE DETAILS 2

SHEET 15

167

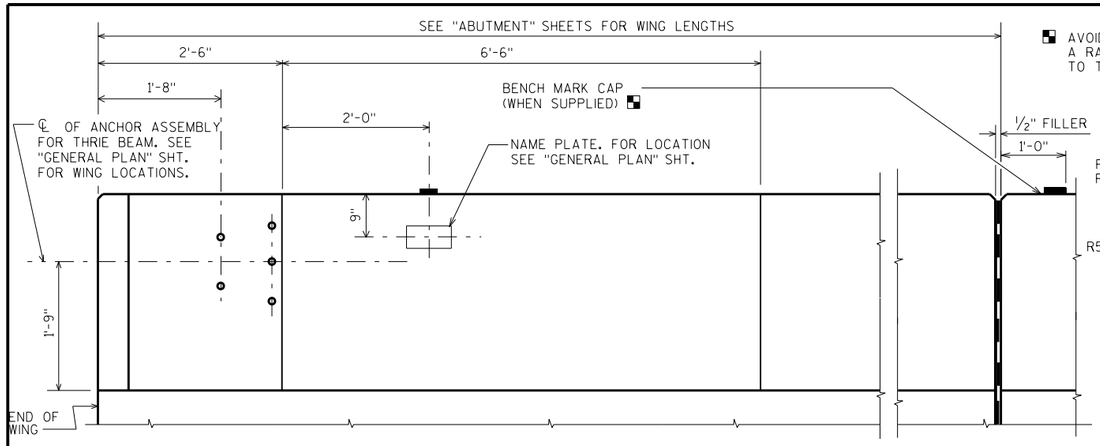
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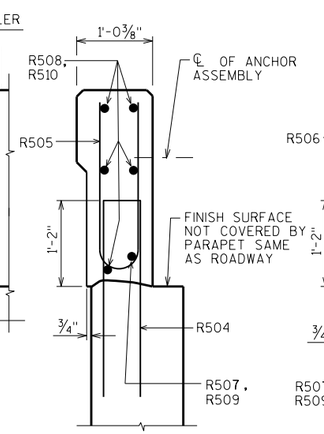
STATE PROJECT NUMBER

1021-03-74

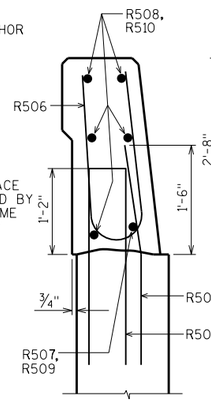


AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

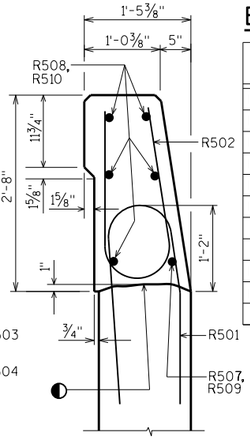
INSIDE ELEVATION



SECTION A



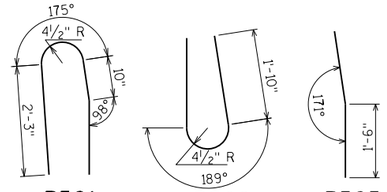
SECTION B

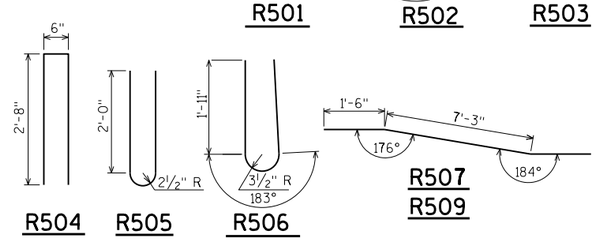


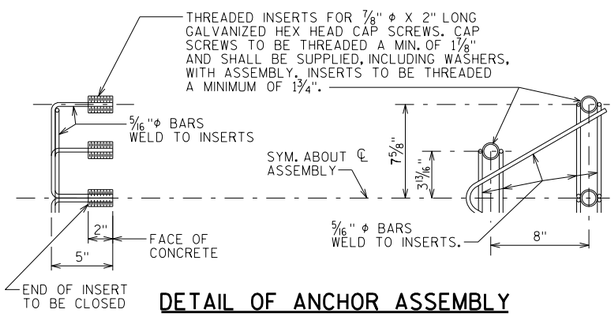
SECTION C

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



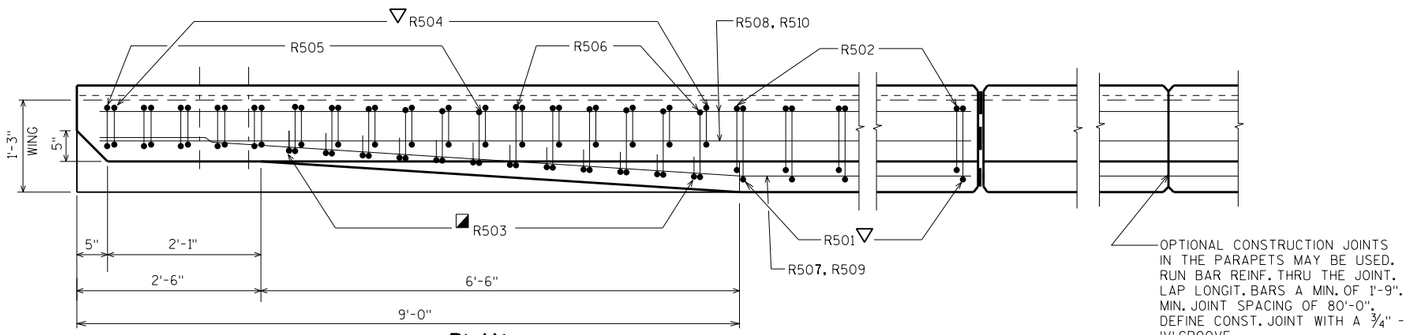




DETAIL OF ANCHOR ASSEMBLY

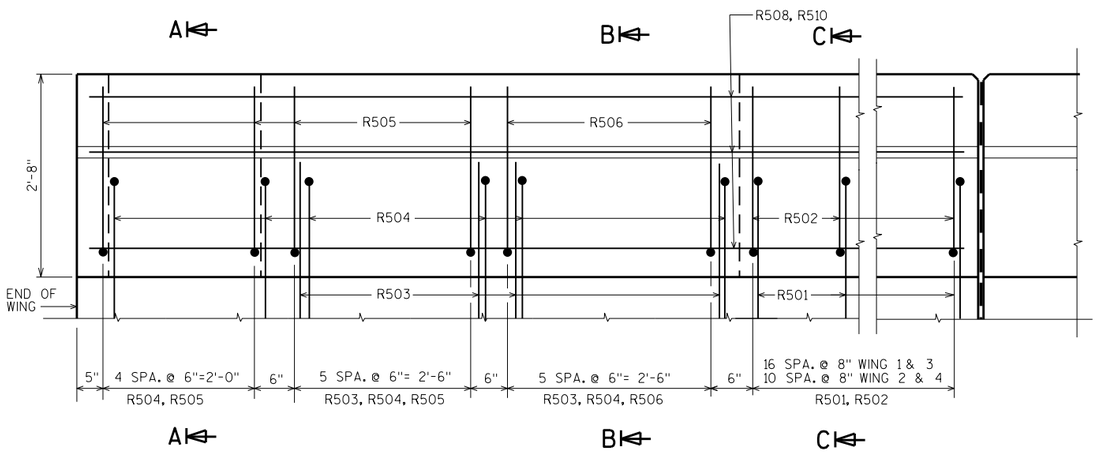
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

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



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.

PLAN



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

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SINGLE SLOPE PARAPET 32SS

SHEET 16

168

SCALE = 1.00

8

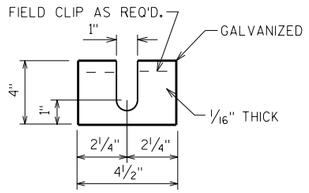
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STATE PROJECT NUMBER

1021-03-74

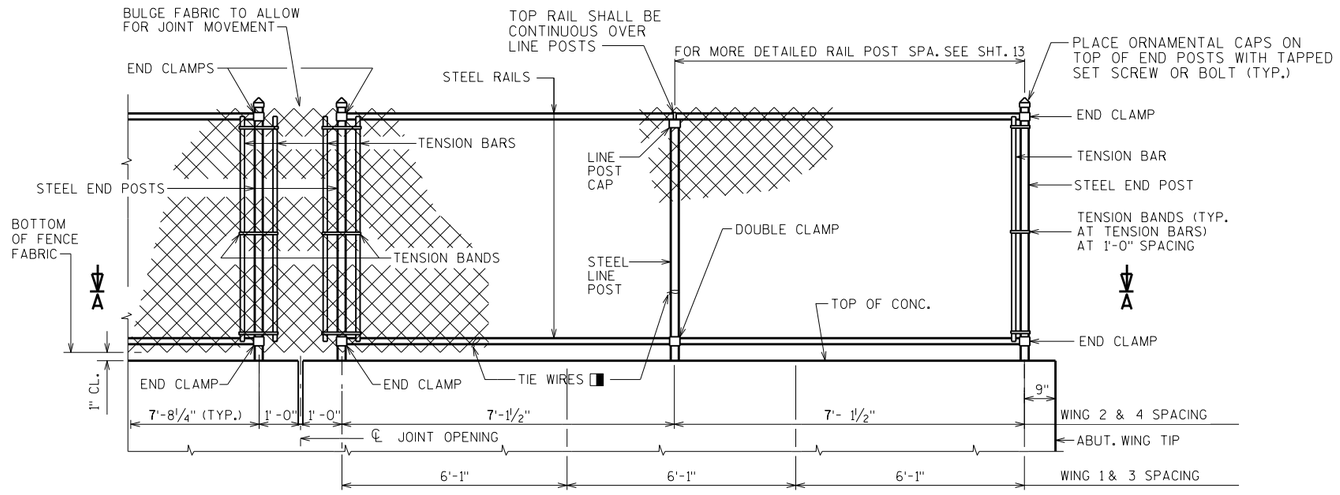
FENCE MEMBER SIZE & WEIGHT

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



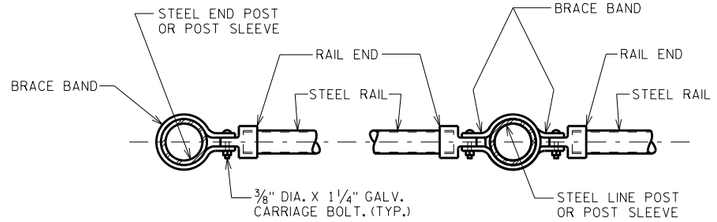
POST SHIM DETAILS

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

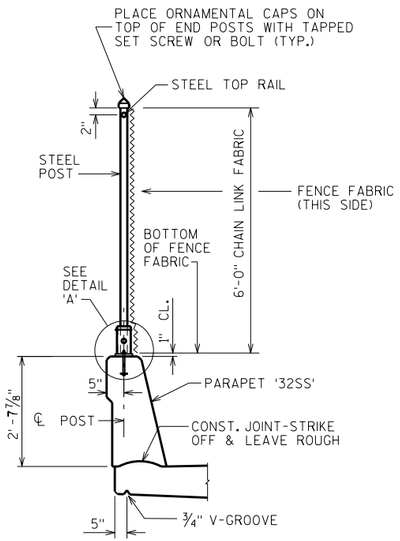


FENCE PART ELEVATION

VIEWING FABRIC SIDE



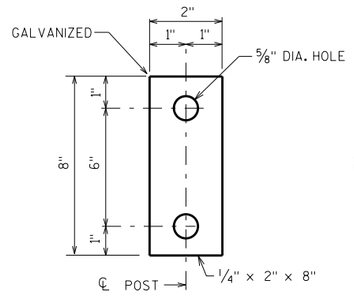
END CLAMP ✳ DOUBLE CLAMP



SECTION THRU FENCE

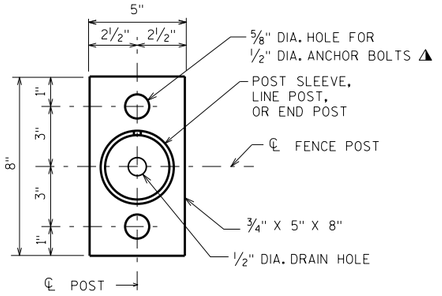
SECTION A-A

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

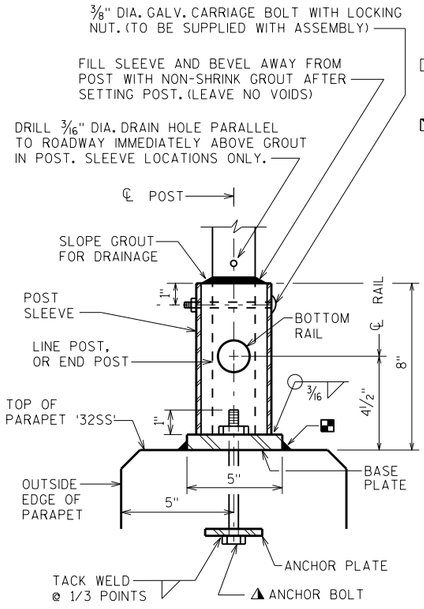


ANCHOR PLATE

✿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 BLACK IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6- FT. B-18-210", 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.

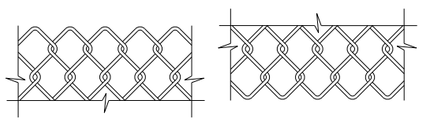
◭ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ✿

✿ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ½-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 ¼ POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

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-18-210

DRAWN BY JDM | PLANS CK'D. MWB

FENCING DETAILS

SHEET 17

169

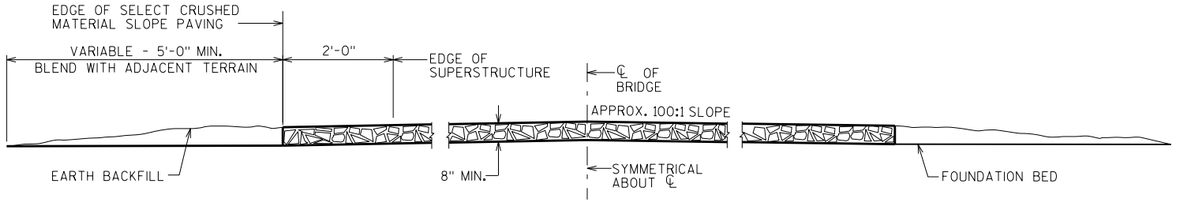
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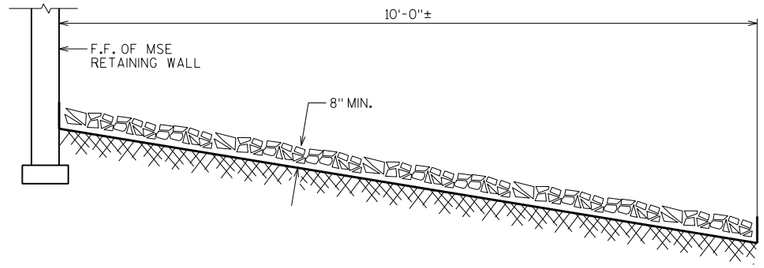
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STATE PROJECT NUMBER

1021-03-74

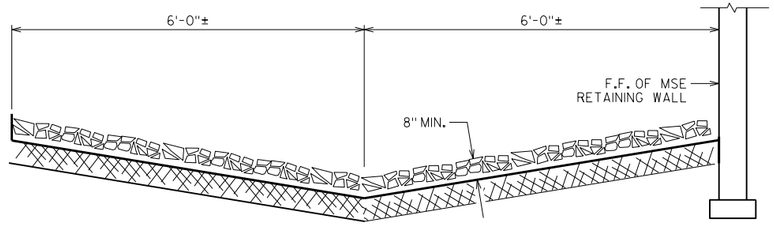


SECTION A-A



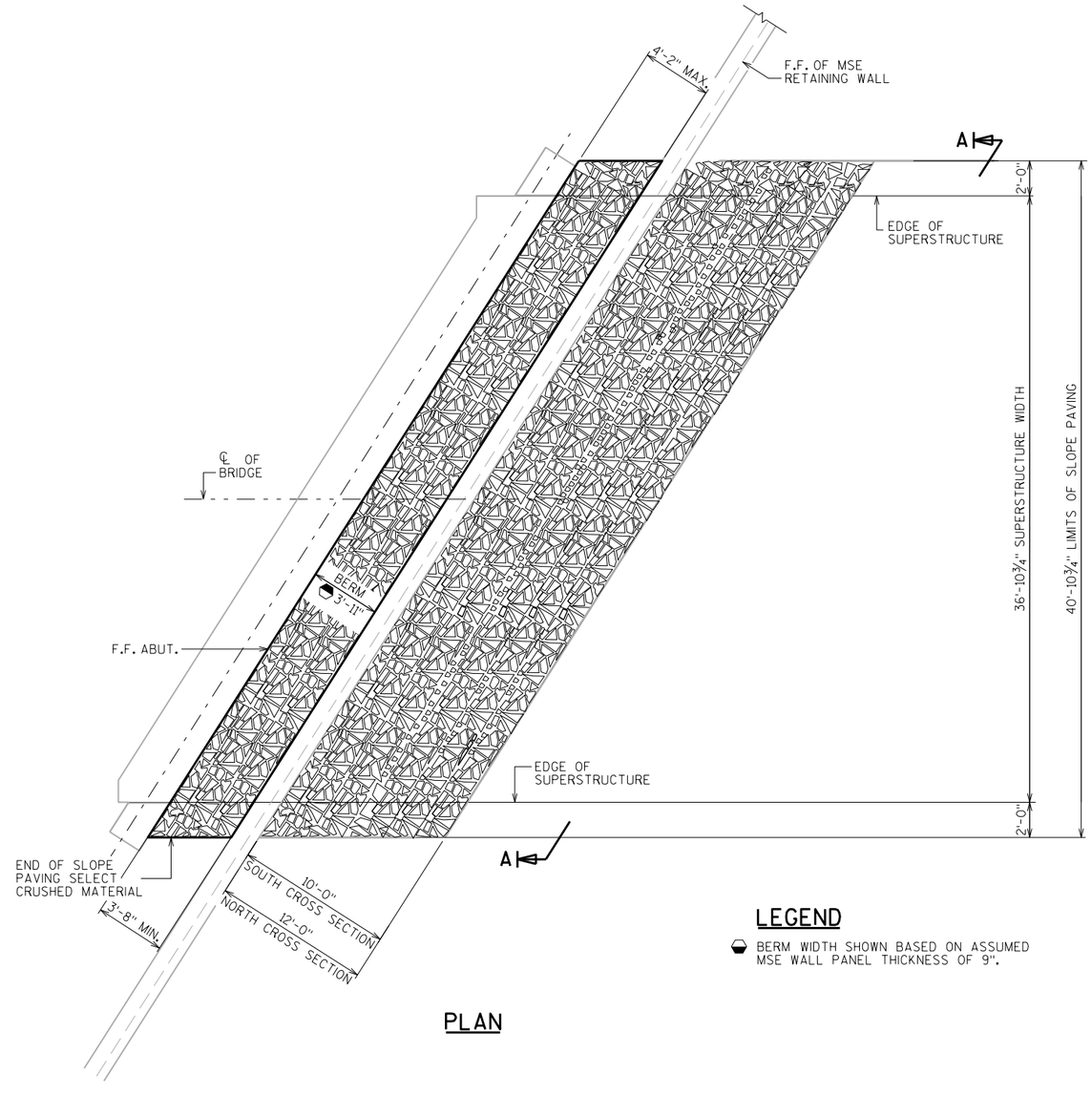
SOUTH CROSS SECTION SELECT CRUSHED MATERIAL

(NORMAL TO MSE RETAINING WALL)



NORTH CROSS SECTION SELECT CRUSHED MATERIAL

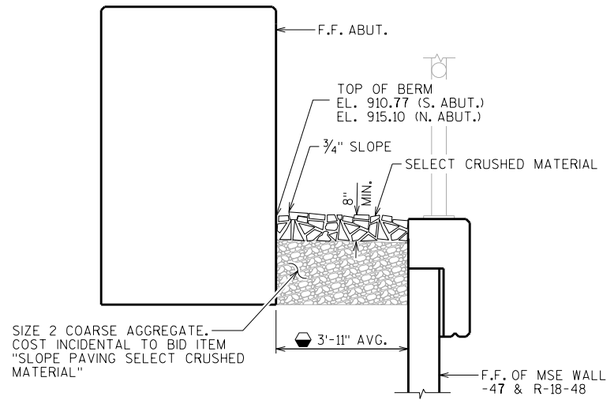
(NORMAL TO MSE RETAINING WALL)



PLAN

LEGEND

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



TYPICAL SECTION THRU SELECT CRUSHED MATERIAL

ASPHALTIC MATERIAL SHALL NOT BE APPLIED TO THE SURFACE OF SELECT CRUSHED MATERIAL.

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. MWB

SLOPE PAVING (SELECT CRUSHED MATERIAL)

SHEET 18

170

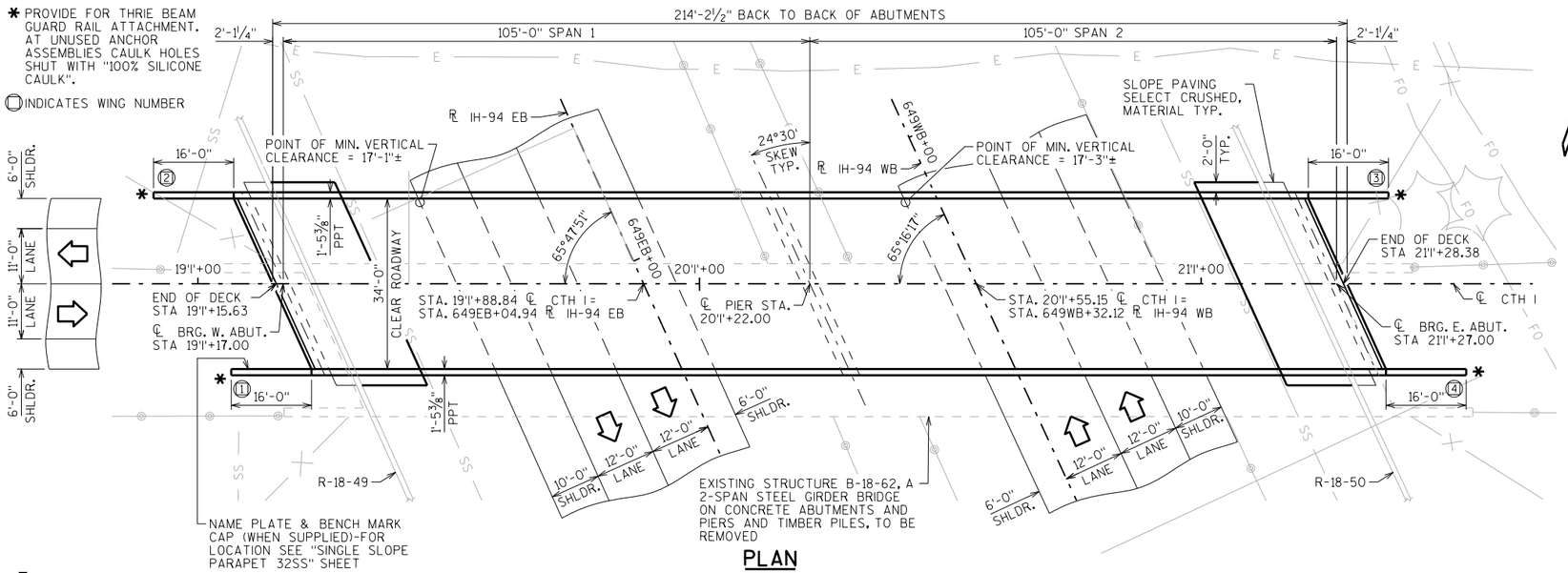
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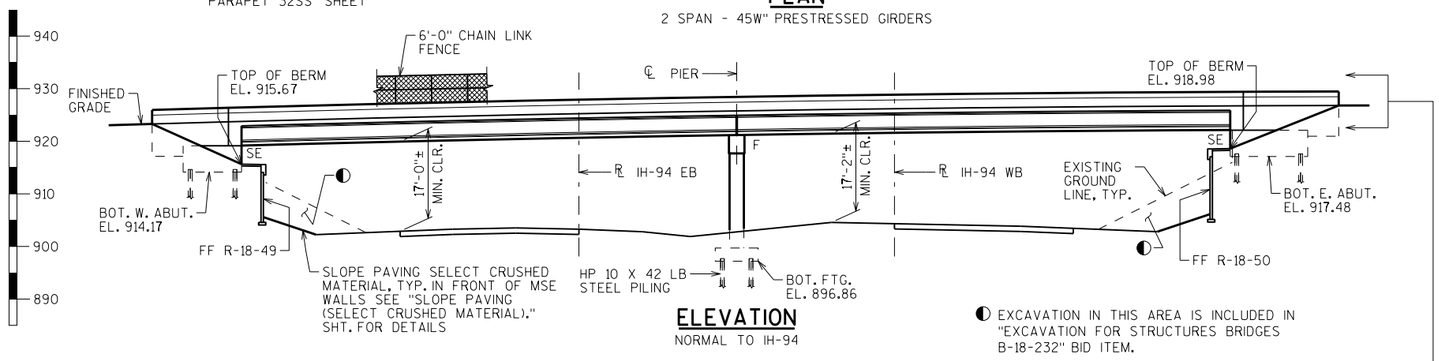
STATE PROJECT NUMBER

1021-03-74



PLAN

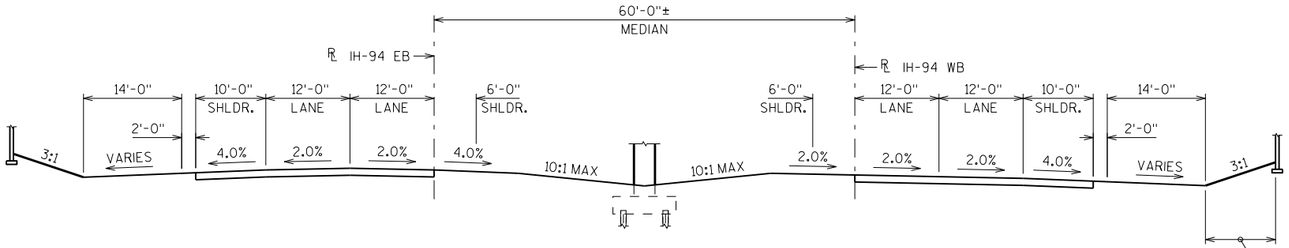
2 SPAN - 45W" PRESTRESSED GIRDERS



ELEVATION

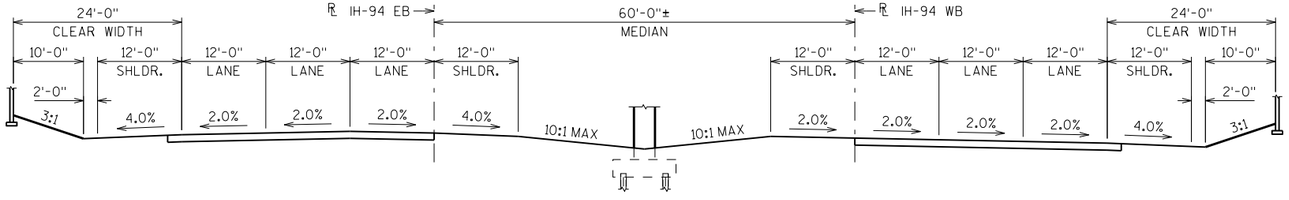
NORMAL TO IH-94

◐ EXCAVATION IN THIS AREA IS INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES B-18-232" BID ITEM.



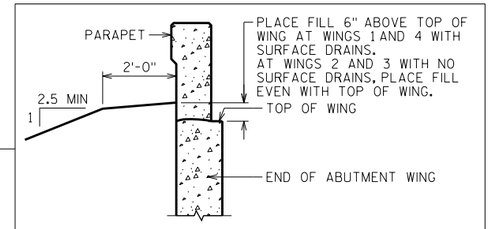
TYP. FINISHED SECTION THRU IH-94

(LOOKING NORTH)



TYP. FUTURE SECTION THRU IH-94

(LOOKING NORTH)



TYPICAL FILL SECTION AT WING TIPS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.06
OPERATING RATING FACTOR: RF = 1.38
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:
GRADE 60 — fy = 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.

FOUNDATION DATA

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

PIER TO BE SUPPORTED ON HP 10 X 42 STEEL 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.

TRAFFIC VOLUME

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.

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

LIST OF DRAWINGS

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. SUPERSTRUCTURE
12. STEEL DIAPHRAGMS
13. SUPERSTRUCTURE DETAILS
14. SINGLE SLOPE PARAPET 32SS
15. FENCING DETAILS
16. SLOPE PAVING (SELECT CRUSHED MATERIAL)

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

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 11/27/17
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-18-232

CTH I OVER IH-94

COUNTY: EAU CLAIRE
TOWN/~~CITY/VILLAGE~~: WASHINGTON

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

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

GENERAL PLAN

SHEET 1 OF 16

171

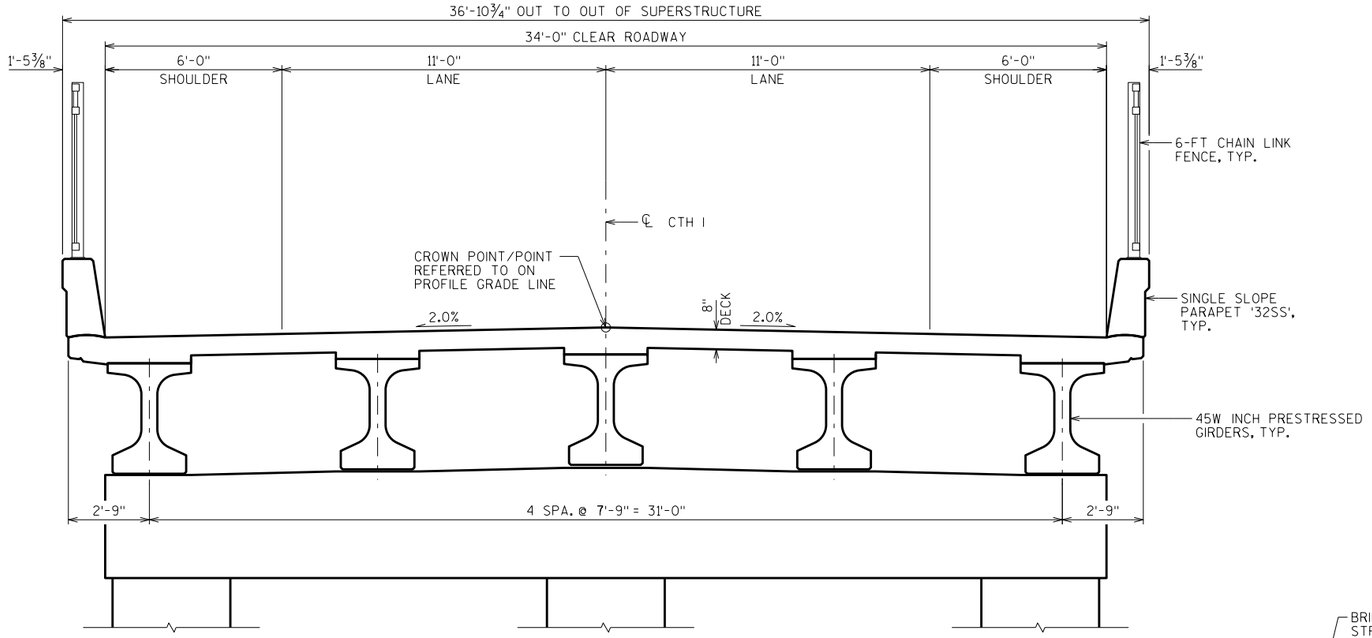
I.D. 1021-03-04B

DATE: NOV 2017

SCALE = 14.00

STATE PROJECT NUMBER

1021-03-74



CROSS SECTION THRU ROADWAY

LOOKING EAST

GENERAL NOTES

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 ¾" 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.

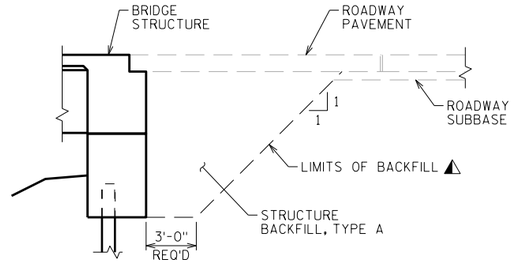
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 16 AND THE ABUTMENT DETAILS.

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.

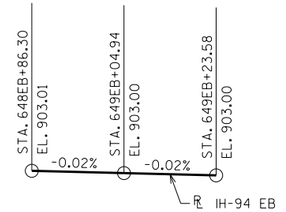
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 1	EAST ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 21'1'+24	LS	———	———	———	———	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL	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	———	13	200
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	1,054	———	———	———	1,054
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	———	2,400	1,580	2,210	6,190
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	71,320	2,740	11,540	2,700	88,300
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	PILING STEEL HP 10-INCH X 42 LB	LF	———	1,350	2,700	1,300	5,350
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	———	55	———	55	110
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	494
	NON-BID ITEMS						
	FILLER	SIZE	———	———	———	———	½", ¾"

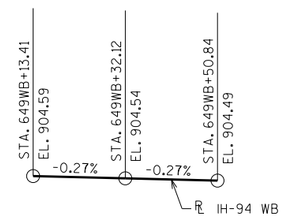


TYPICAL SECTION THRU ABUTMENT

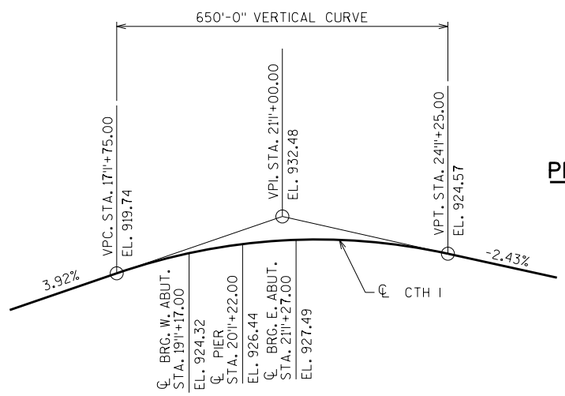
⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



PROFILE GRADE LINE - IH-94 EB



PROFILE GRADE LINE - IH-94 WB



PROFILE GRADE LINE - CTH I

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

172

SCALE = 2.50

8

8

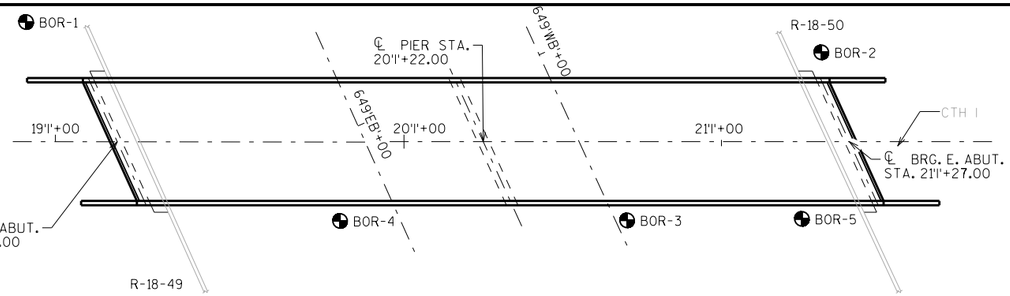
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/02/2016	258681.464	366217.572
2	11/03/2016	258744.530	366448.731
3	11/08/2016	258655.547	366403.36
4	11/10/2016	258625.889	366327.961
5	11/10/2016	258667.256	366446.380

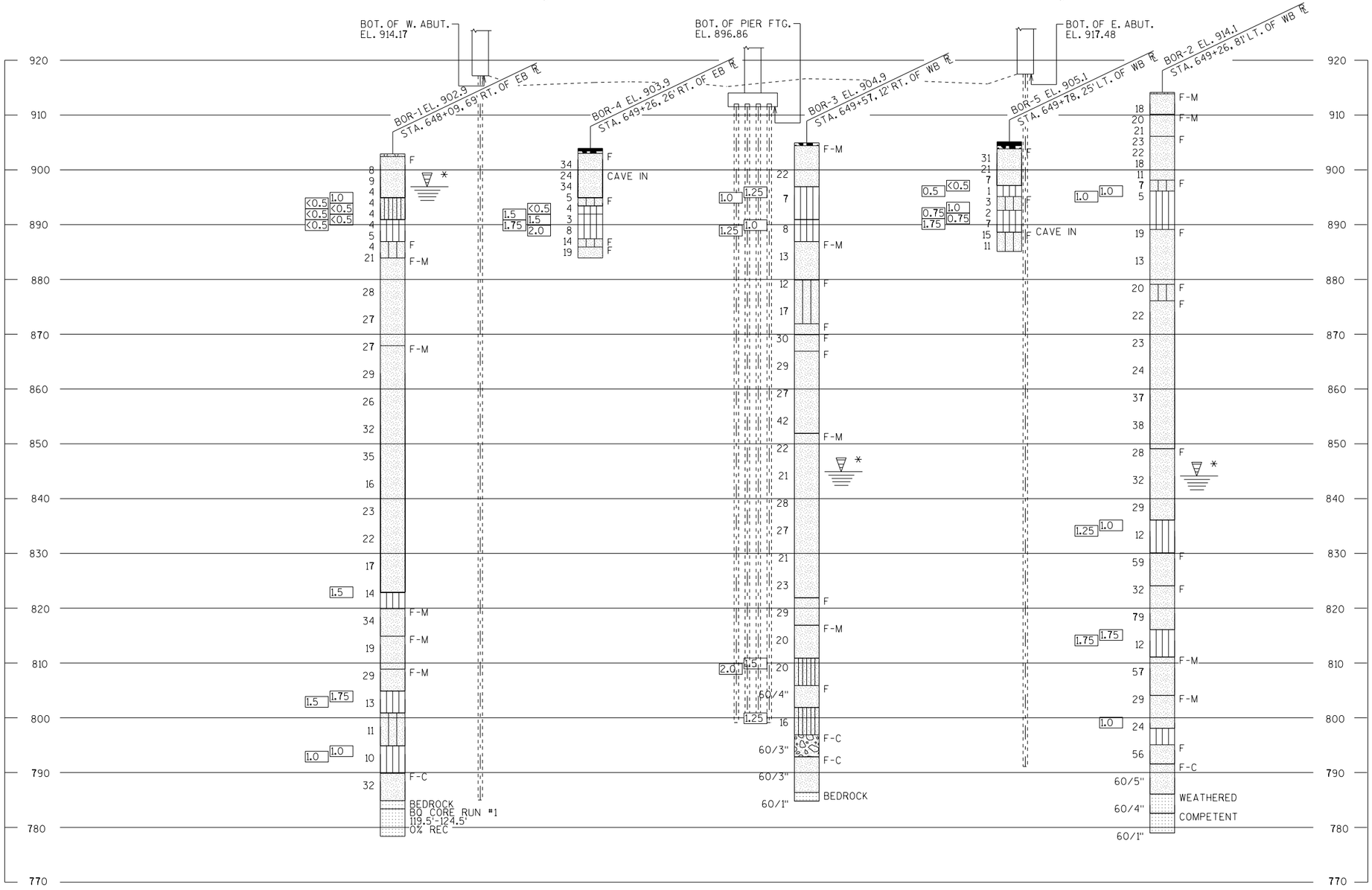
BORINGS COMPLETED BY: WISDOT

REPORT COMPLETED BY: WISDOT

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

COORDINATES ARE COLLECTED USING NON-SURVEY GRADE EQUIPMENT.





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

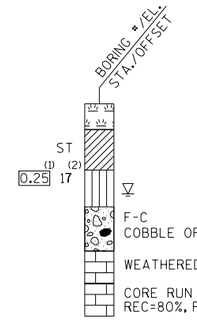
STATE PROJECT NUMBER

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



(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

173

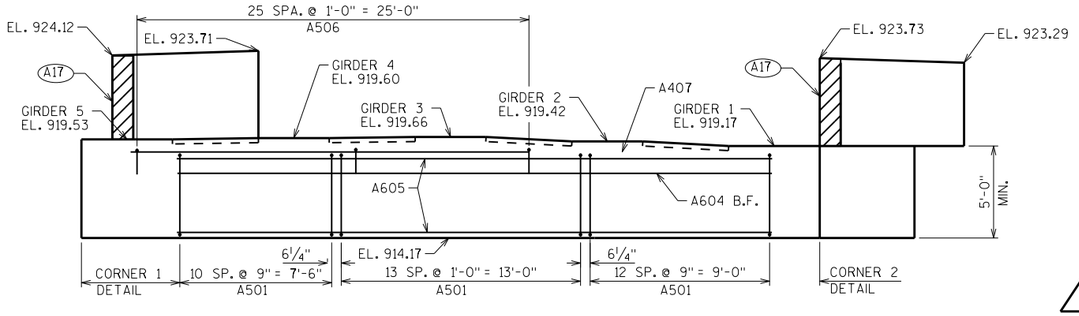
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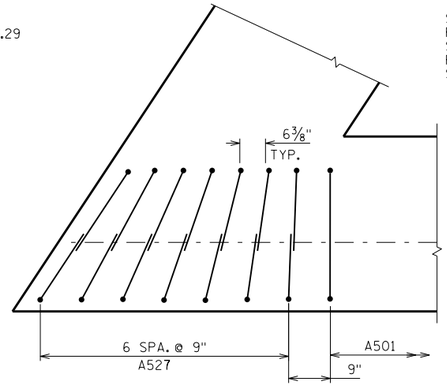
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STATE PROJECT NUMBER

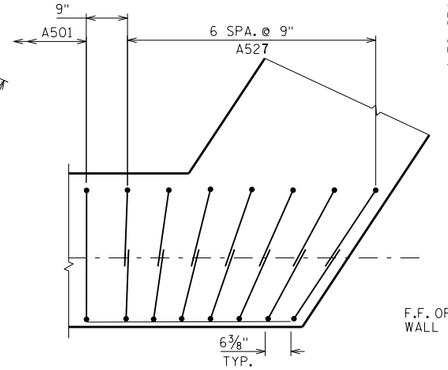
1021-03-74



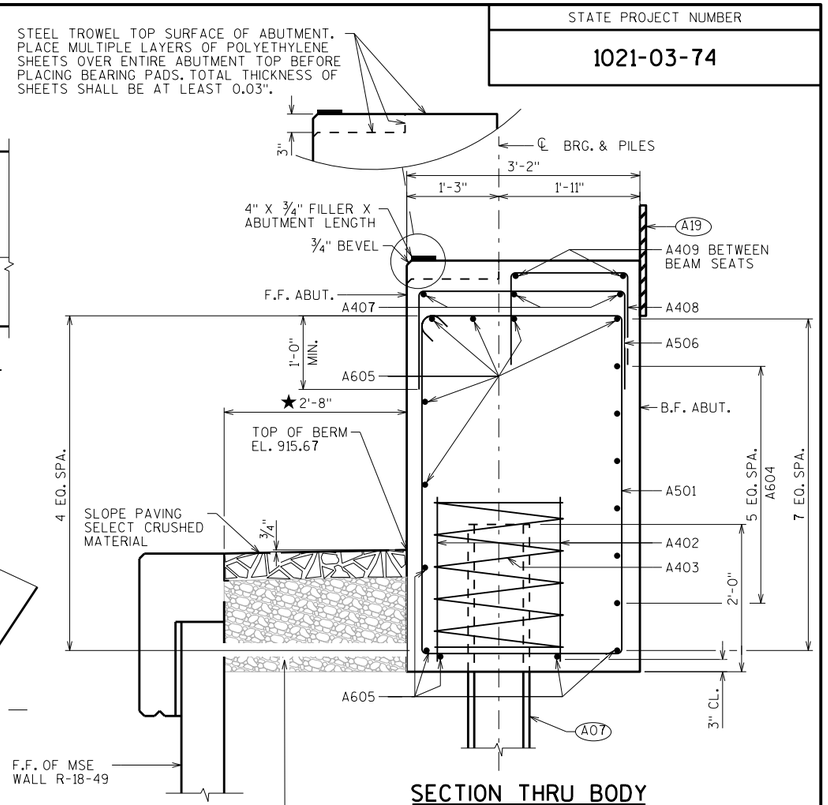
ELEVATION LOOKING WEST @ F.F. ABUT.



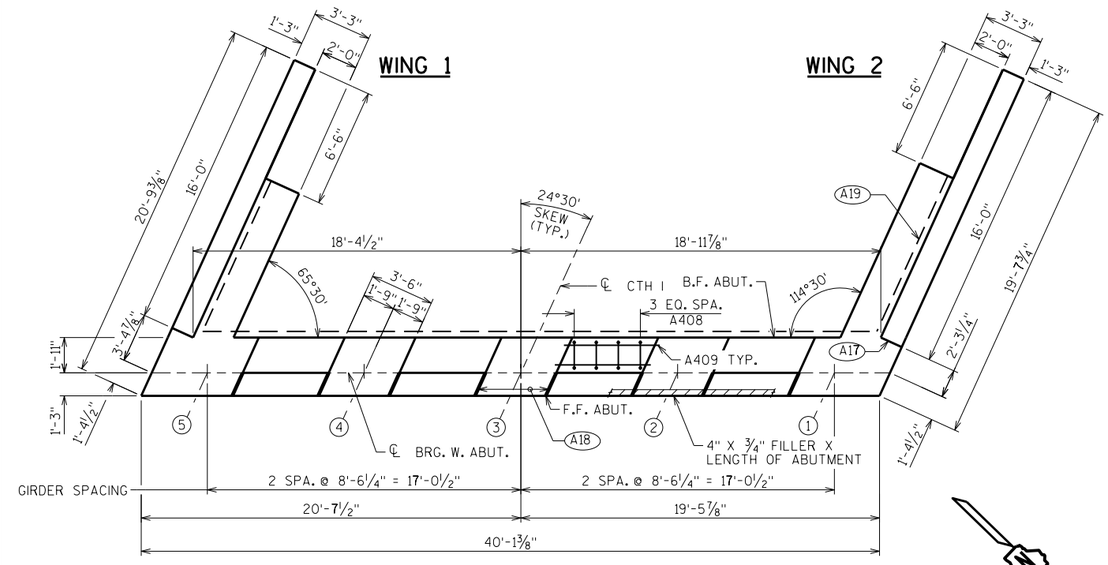
CORNER 1 DETAIL



CORNER 2 DETAIL

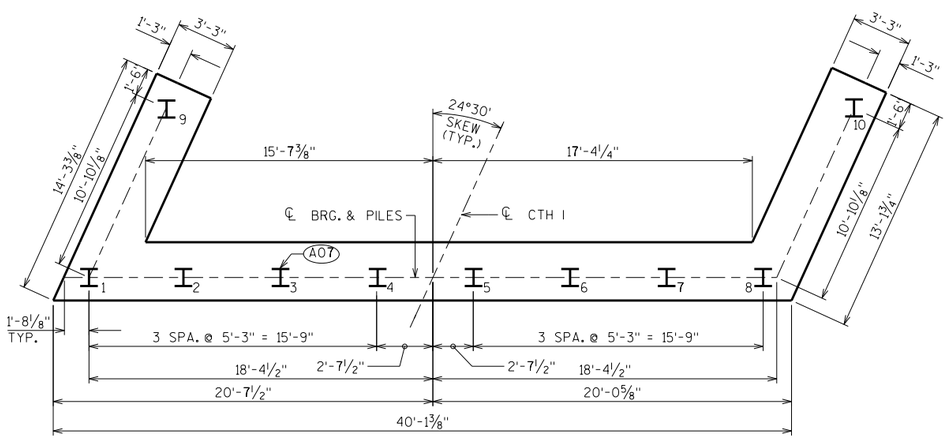


SECTION THRU BODY

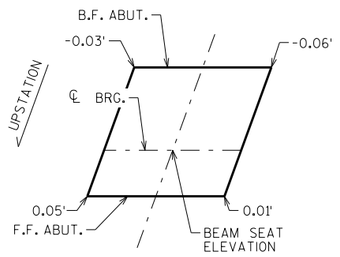


PLAN

◯ INDICATES GIRDER NUMBER



PILE PLAN



SLOPED BEAM SEAT DETAIL

★ 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.

(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-18-232

DRAWN BY MJH | PLANS CK'D. MWB

WEST ABUTMENT

SHEET 4

174

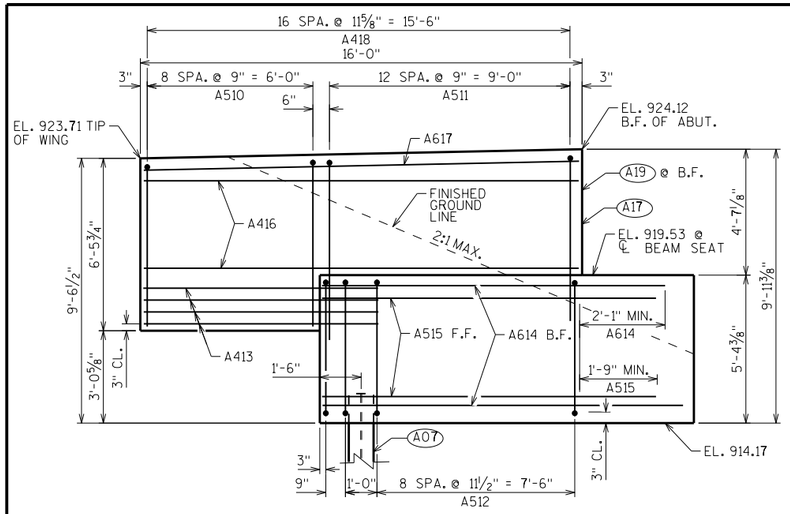
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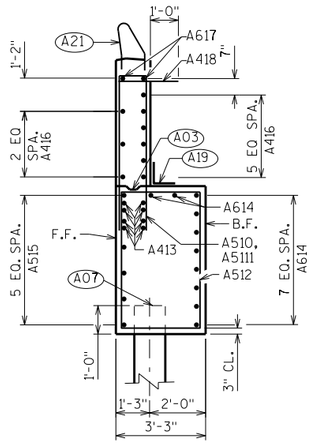
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STATE PROJECT NUMBER

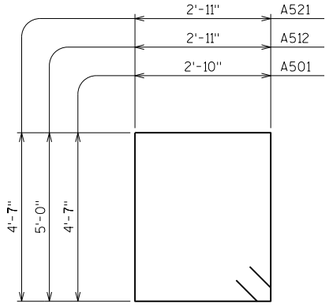
1021-03-74



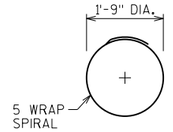
WING 1 ELEVATION



WING 1 SECTION



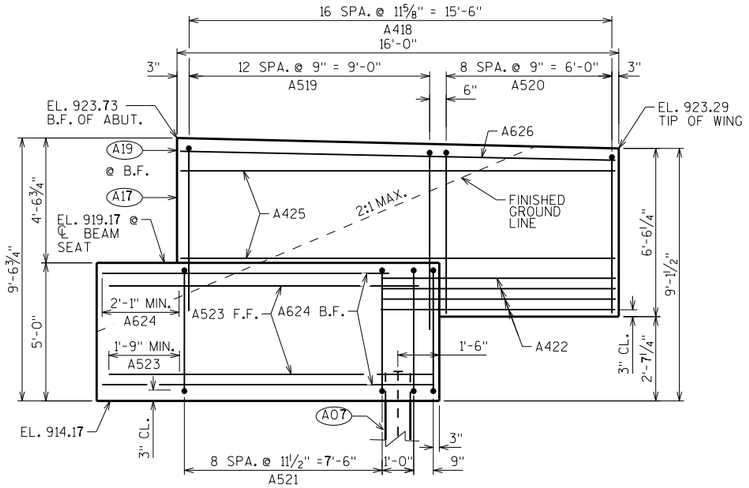
A501, A512, A521



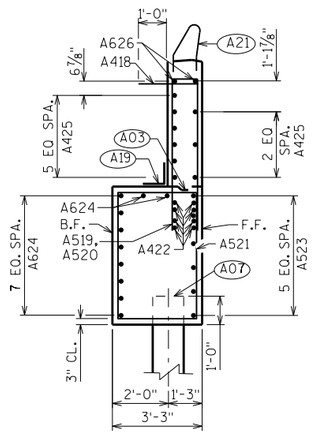
A403

BILL OF BARS

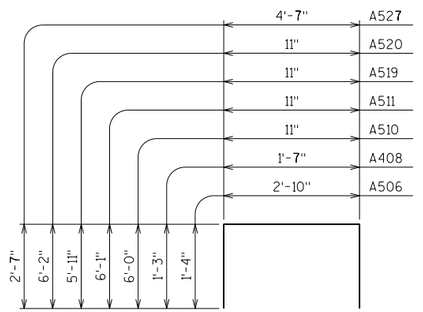
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		38	15'-6"	X		BODY-STIRRUPS
A402		20	2'-3"			BODY-2-PER-BODY-PILE-VERTICAL
A403		10	28'-0"	X		BODY-1-PER-BODY-PILE
A604		6	39'-9"			BODY-HORIZONTAL-B.F.
A605		11	39'-9"			BODY-HORIZONTAL
A506		26	5'-3"	X		BODY-VERTICAL.-TOP-UNDER GIR. 1-3
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
A614	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	34	2'-0"			WING 1+2 SURFACE DRAIN ANCHORS
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
A624	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
A527		28	9'-6"	X		BODY-STIRRUPS-CORNERS



WING 2 ELEVATION



WING 2 SECTION



A506, A408, A510, A511, A519, A520, A527

A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6. (18" RMW @ B.F. & ¾" "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.

A17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" 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

175

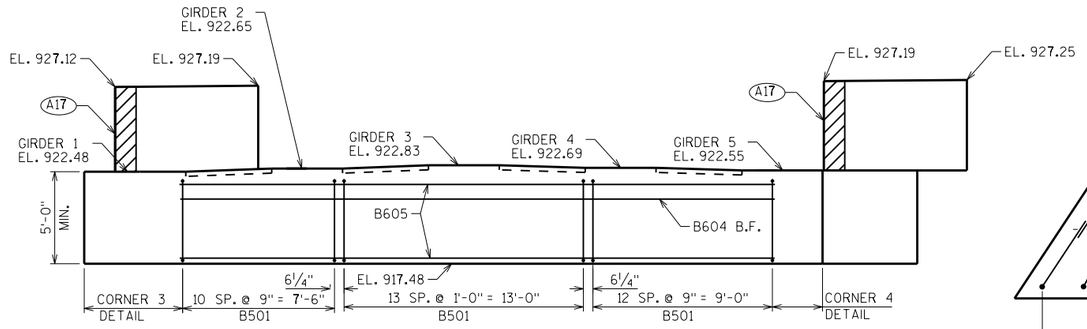
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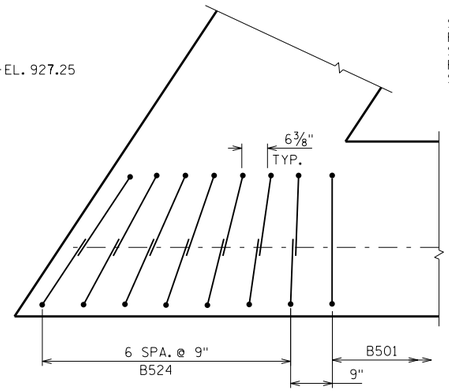
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STATE PROJECT NUMBER

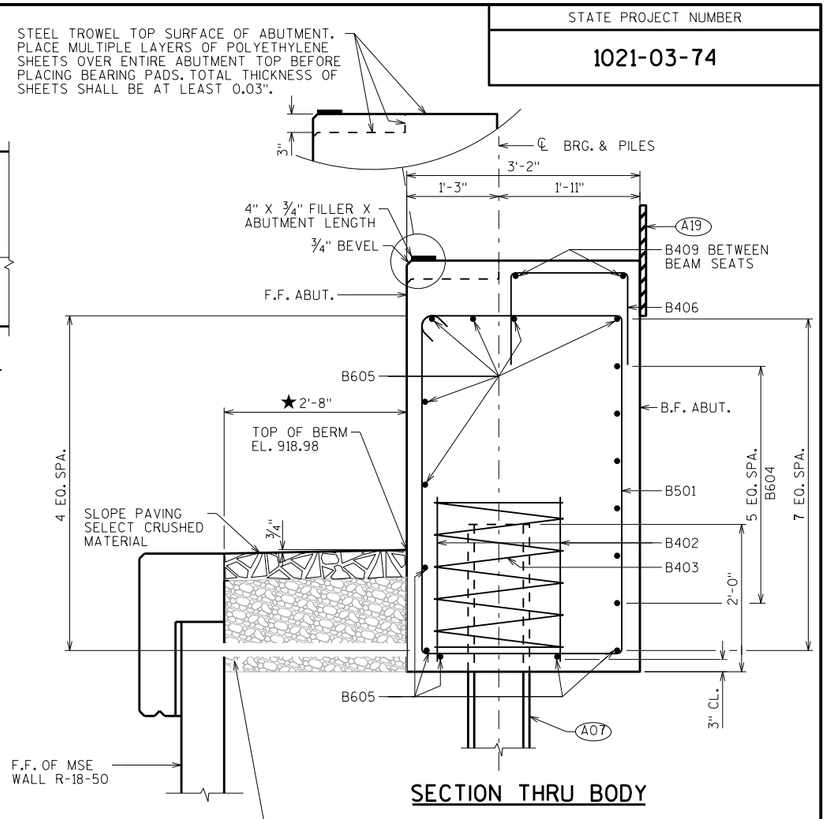
1021-03-74



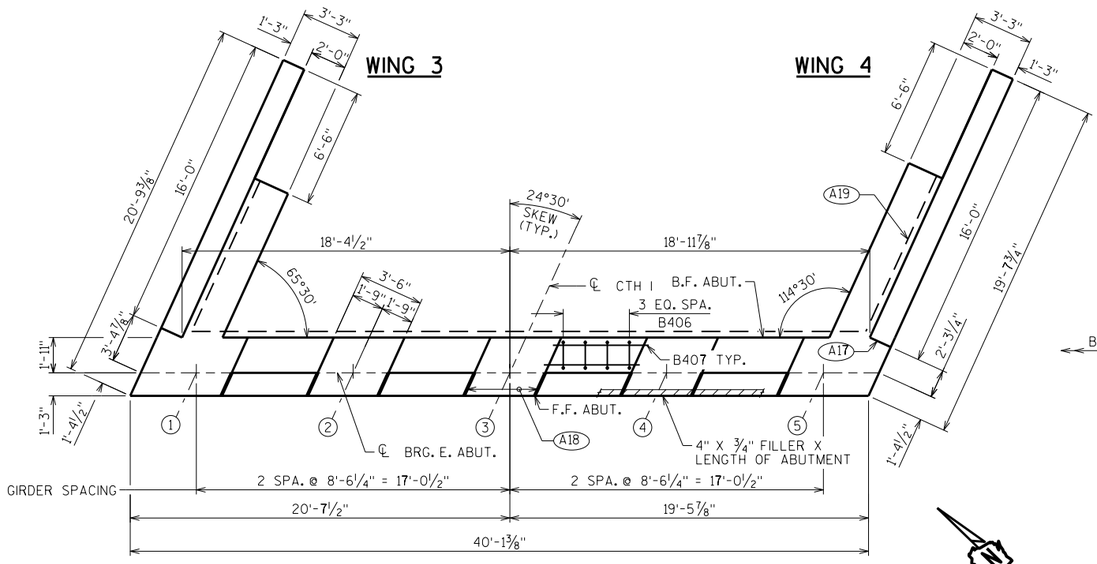
ELEVATION LOOKING EAST @ F.F. ABUT.



CORNER 3 DETAIL

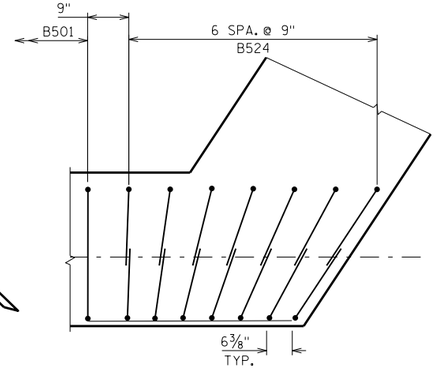


SECTION THRU BODY

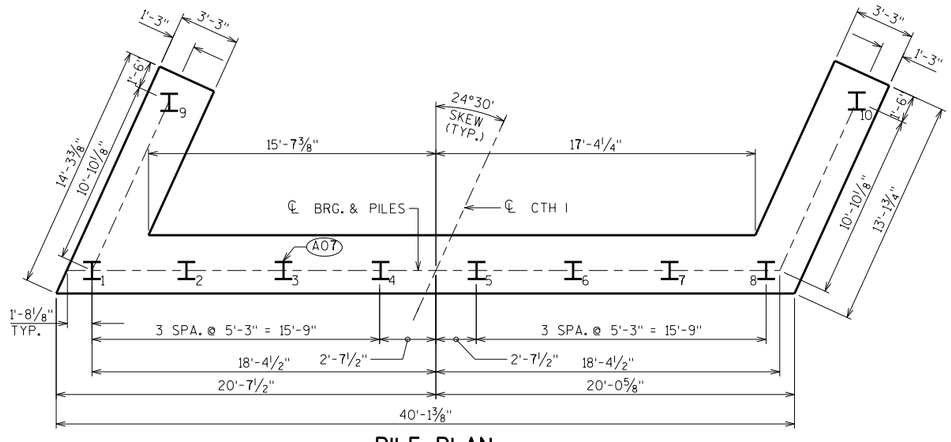


PLAN

◯ INDICATES GIRDER NUMBER



CORNER 4 DETAIL



PILE PLAN

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

(A07) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING, ESTIMATED 130' LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. PILE POINTS 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.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

DRAWN BY MJH | PLANS CK'D. MWB

EAST ABUTMENT

SHEET 6

176

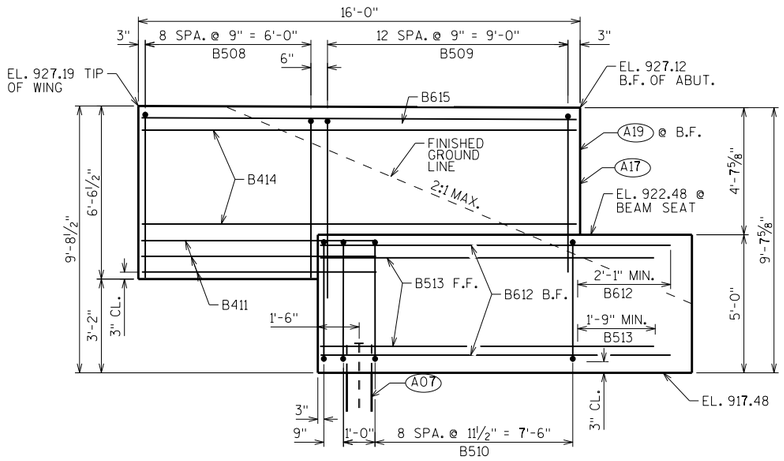
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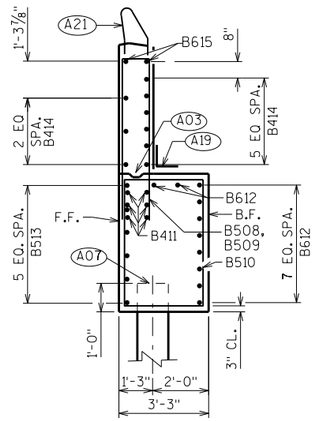
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STATE PROJECT NUMBER

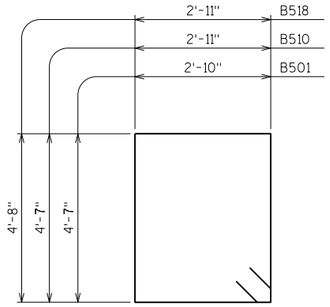
1021-03-74



WING 3 ELEVATION



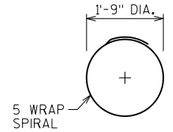
WING 3 SECTION



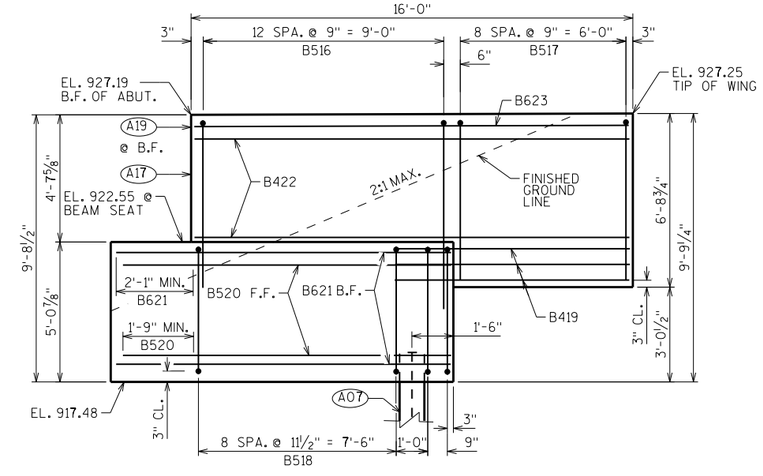
B501, B510, B518

BILL OF BARS

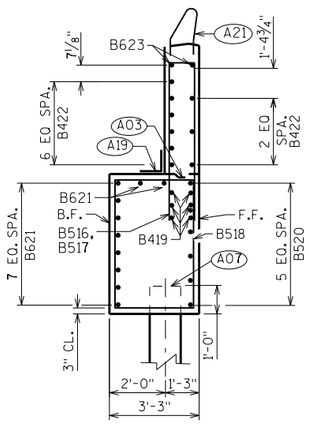
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		38	15'-6"	X		BODY-STIRRUPS
B402		20	2'-3"			BODY-2-PER-BODY-PILE-VERTICAL
B403		10	28'-0"	X		BODY-1-PER-BODY-PILE
B604		6	39'-9"			BODY-HORIZONTAL-B.F.
B605		11	39'-9"			BODY-HORIZONTAL
B406		16	3'-11"	X		BODY-VERTICAL-TOP-BTWN. BEAM SEATS
B407		8	6'-8"			BODY-HORIZONTAL-TOP-BTWN. BEAM SEATS
B508	X	9	12'-6"	X		WING 3-VERTICAL-UPPER WING
B509	X	13	13'-6"	X		WING 3-VERTICAL-UPPER WING
B510	X	11	15'-8"	X		WING 3-STIRRUP-LOWER WING
B411	X	6	7'-9"			WING 3-HORIZONTAL-UPPER WING
B612	X	10	11'-7"			WING 3-HORIZONTAL-B.F.-LOWER WING
B513	X	6	11'-2"			WING 3-HORIZONTAL-F.F.- LOWER WING
B414	X	9	15'-7"			WING 3-HORIZONTAL-UPPER WING
B615	X	2	15'-7"			WING 3-HORIZONTAL-UPPER WING
B516	X	13	13'-6"	X		WING 4-VERTICAL-UPPER WING
B517	X	9	13'-0"	X		WING 4-VERTICAL--UPPER WING
B518	X	11	15'-10"	X		WING 4-STIRRUP-LOWER WING
B419	X	6	7'-9"			WING 4-HORIZONTAL-UPPER WING
B520	X	6	11'-2"			WING 4-HORIZONTAL-F.F.- OWER WING
B621	X	10	11'-7"			WING 4-HORIZONTAL-B.F.-LOWER WING
B422	X	10	15'-7"			WING 4-HORIZONTAL-UPPER WING
B623	X	2	15'-7"			WING 4-HORIZONTAL-UPPER WING
B524		28	9'-6"	X		WING 4-HORIZONTAL-UPPER WING



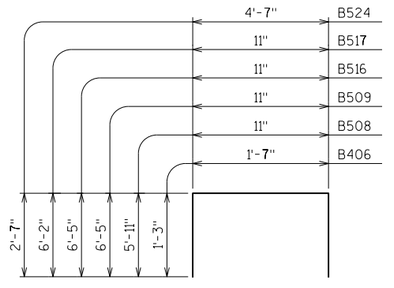
B403



WING 4 ELEVATION



WING 4 SECTION



B406, B508, B509, B516, B517, B524

A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2X6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

A07 SUPPORTED ABUTMENT ON HP 10 X 42 STEEL PILING. ESTIMATED 130'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

A17 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" 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

EAST ABUTMENT DETAILS

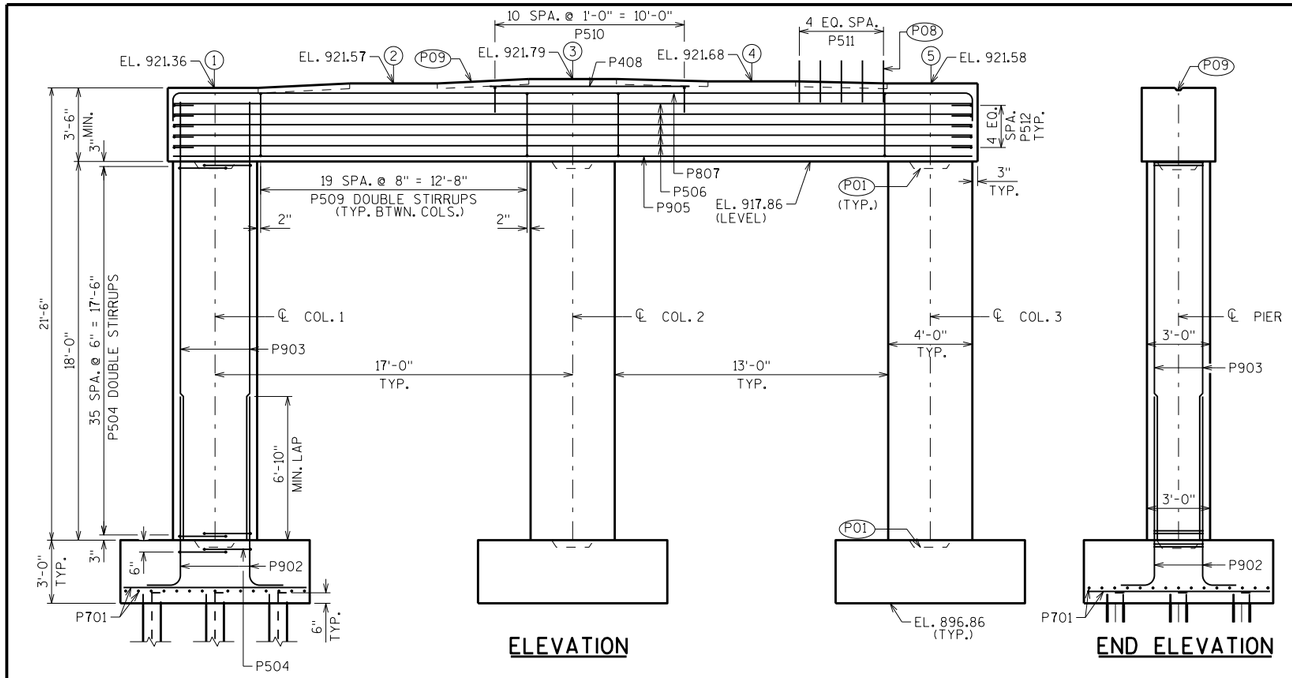
SHEET 7

177

SCALE = 2.67

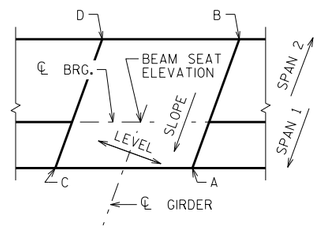
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8



ELEVATION

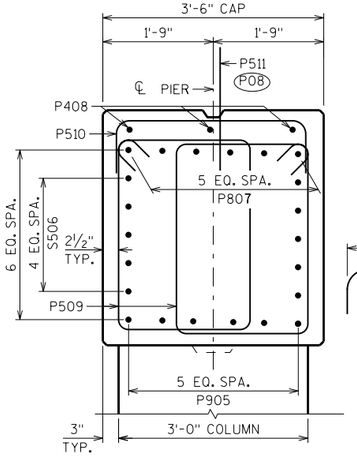
END ELEVATION



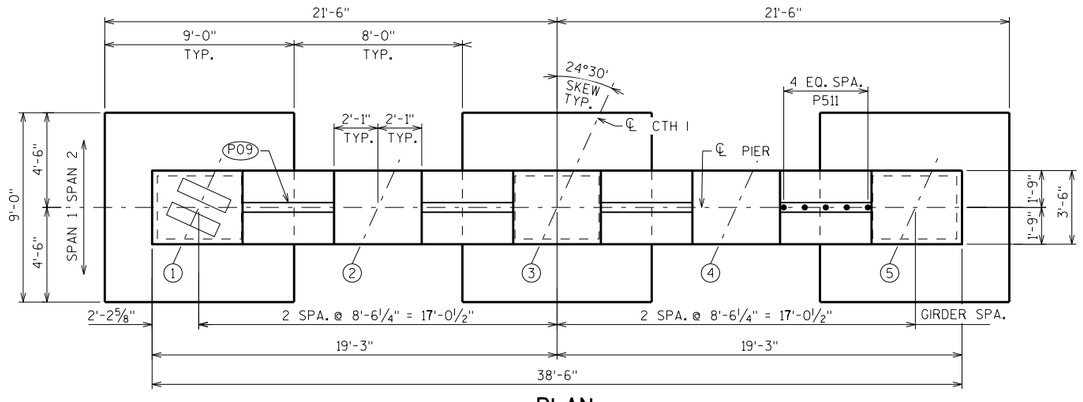
SLOPED BEAM SEAT DETAIL

PIER SLOPED BEAM SEATS

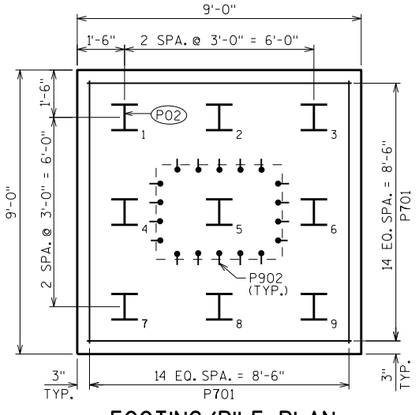
GIRDER	BSE	△A EL.	△B EL.	△C EL.	△D EL.
1	921.36	-0.02'	0.03'	-0.05'	0.01'
2	921.57	-0.01'	0.03'	-0.05'	0.01'
3	921.79	-0.01'	0.02'	-0.05'	0.01'
4	921.68	-0.01'	0.02'	-0.05'	0.01'
5	921.58	-0.01'	0.02'	-0.05'	0.01'



SECTION THRU CAP

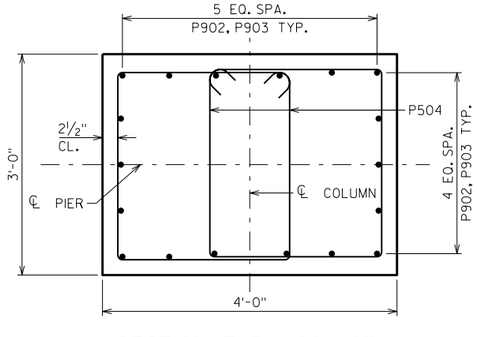


PLAN

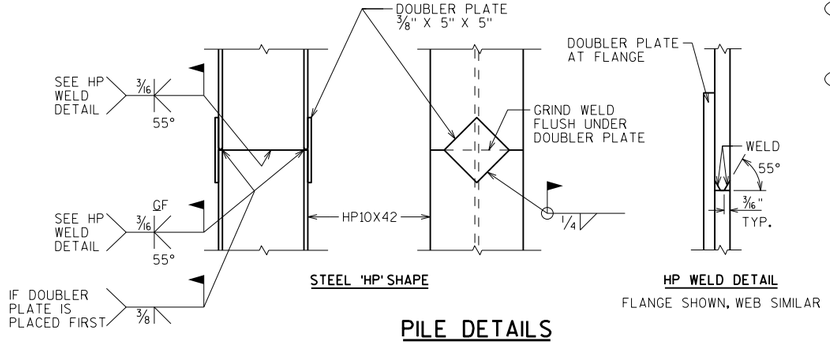


FOOTING/PILE PLAN

TYPICAL ALL FOOTINGS



SECTION THRU COLUMN



STEEL 'HP' SHAPE

HP WELD DETAIL

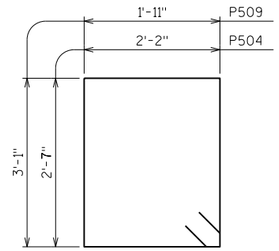
FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

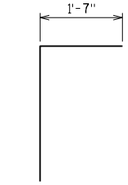
BILL OF BARS

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

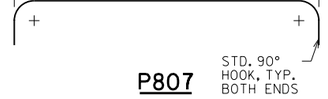
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P701		90	8'-7"			FOOTING - HORIZ.
P902	X	54	10'-7"	X		COLUMN/FOOTING - VERT.
P903	X	54	20'-8"			COLUMN - VERT.
P504	X	222	10'-4"	X		COLUMN - STIRRUP
P905	X	10	38'-2"			CAP - HORIZ. - BOTTOM
P506	X	10	38'-2"			CAP - HORIZ. - SIDES
P807	X	6	40'-4"	X		CAP - HORIZ. - TOP
P408	X	3	10'-0"			CAP - HORIZ. - UNDER BEAM SEAT 3
P509	X	80	10'-8"	X		CAP - STIRRUP
P510	X	11	6'-2"	X		CAP - VERT. - UNDER BEAM SEAT 3
P511	X	20	2'-0"			DOWEL BARS
P512	X	10	4'-10"	X		CAP - HORIZ. - ENDS



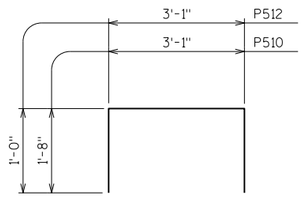
P504, P509



P902



P807



P510, P512

(P01) 1'-3" x 2'-0" x 4" CONST. JOINT FORMED BY BEVELED KEYWAY.

(P02) SUPPORT PIER ON HP 10 x 42 STEEL PILING, ESTIMATED 100'-0" A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(P08) 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.)

(P09) KEYED CONST. JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

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PIER

SHEET 8

178

STATE PROJECT NUMBER

1021-03-74

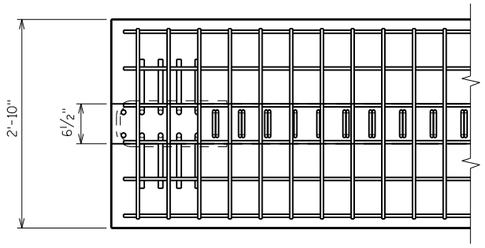
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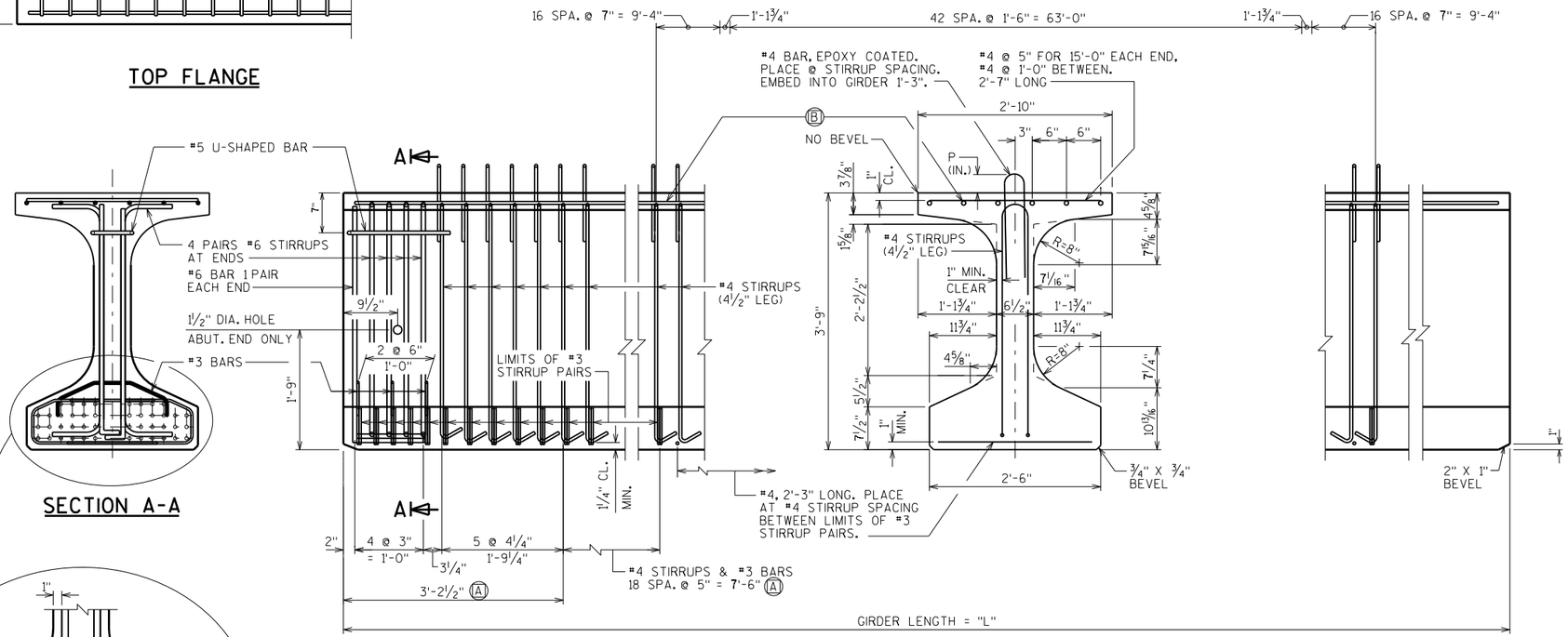
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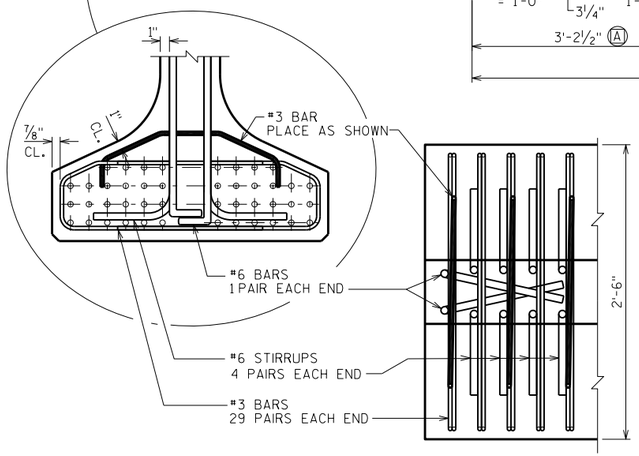
1021-03-74



TOP FLANGE



SECTION A-A

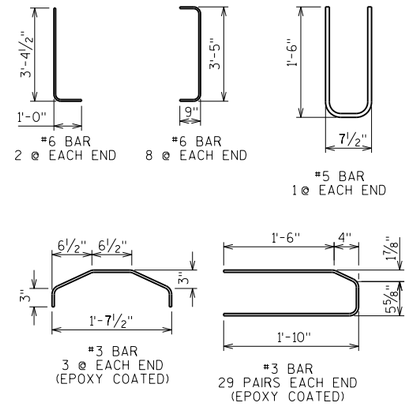


BOTTOM FLANGE

SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"



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 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.

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

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	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 TOTAL NO. OF STRANDS	f'ci (P.S.I.)	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.)
1	1-5	105.38	0.7	1.3	1.8	2.1	2.2	2.1	1.8	1.3	0.7	8000	7	7	7	0.6	32	6800	40	13.75	16.75	5		
2	1-5	105.38	0.7	1.3	1.8	2.1	2.2	2.1	1.8	1.3	0.7	8000	7	7	7	0.6	32	6800	40	13.75	16.75	5		

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

DRAWN BY MJH | PLANS CK'D. MWB

45W" PRESTRESSED GIRDER DETAILS 1

SHEET 9

179

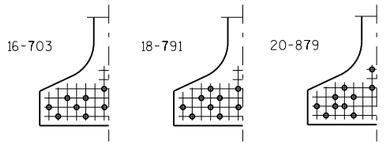
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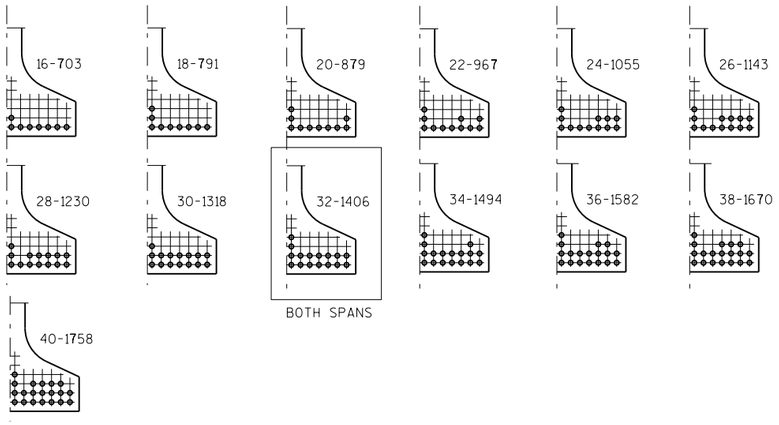
STATE PROJECT NUMBER

1021-03-74



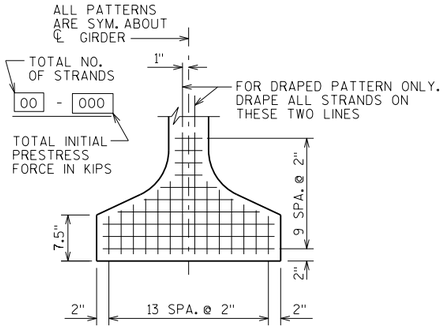
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

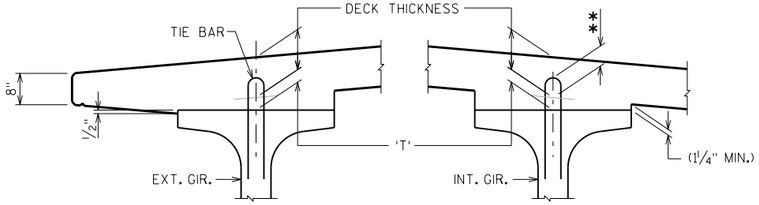


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

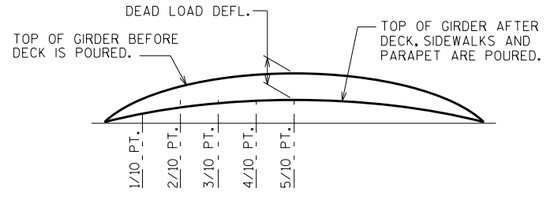
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

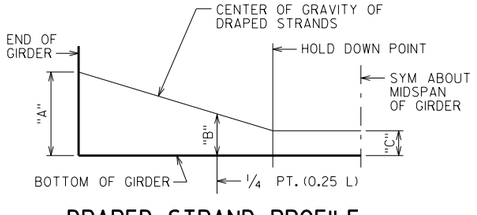
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

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 2⅝" 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

180

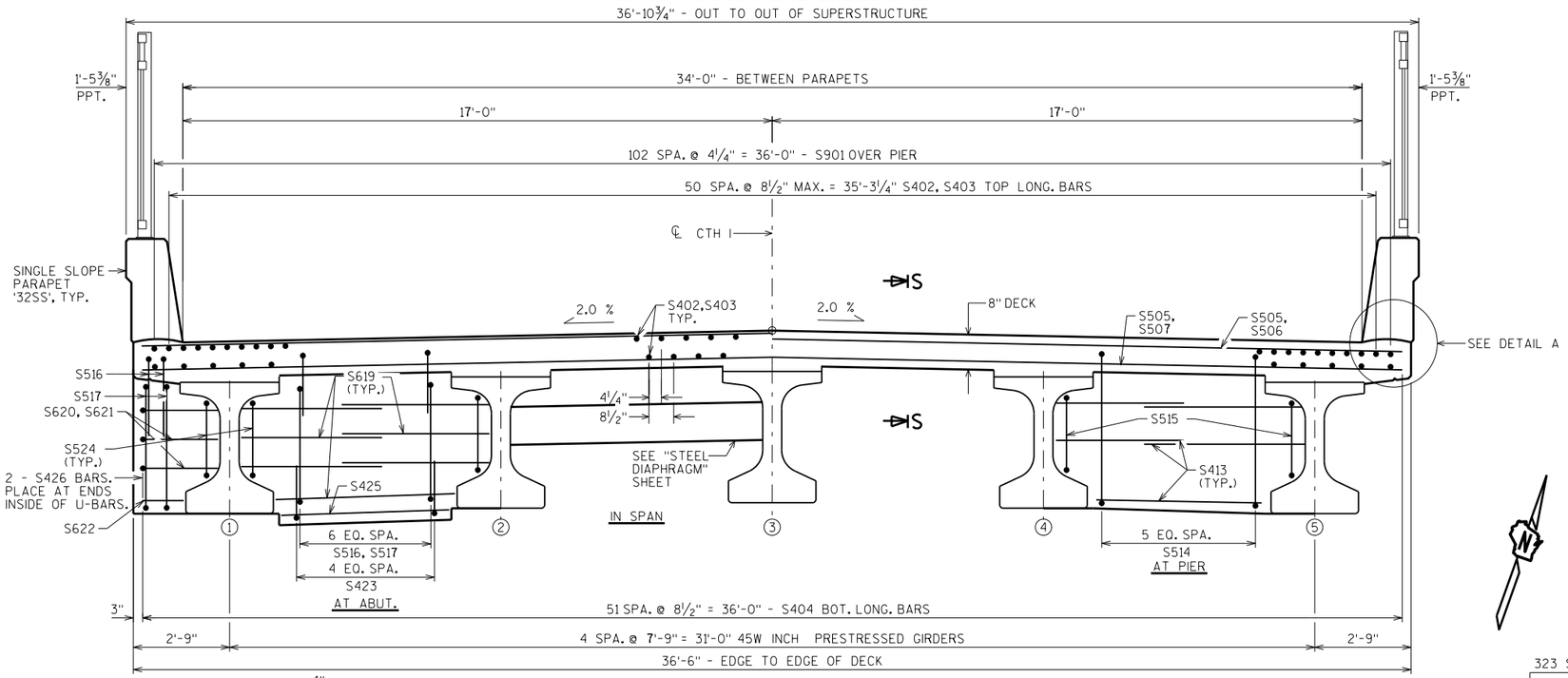
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8

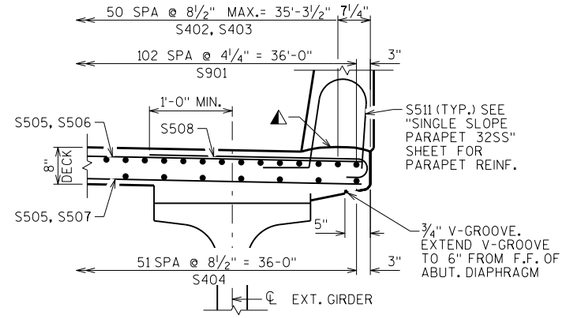
STATE PROJECT NUMBER

1021-03-74

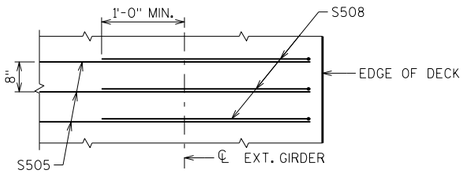


CROSS SECTION THRU ROADWAY

(LOOKING EAST)

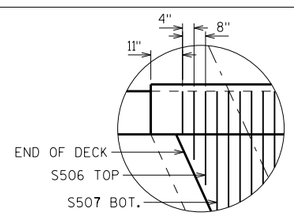


DETAIL A



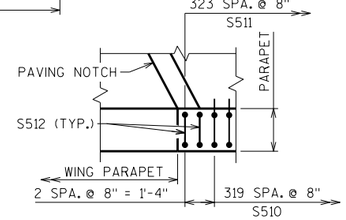
ADDITIONAL REINF. DETAIL

(TYP. AT BOTH SIDES OF DECK)



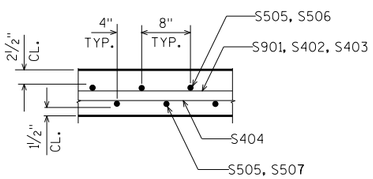
CORNER DETAIL

TYP. WINGS 2 AND 4

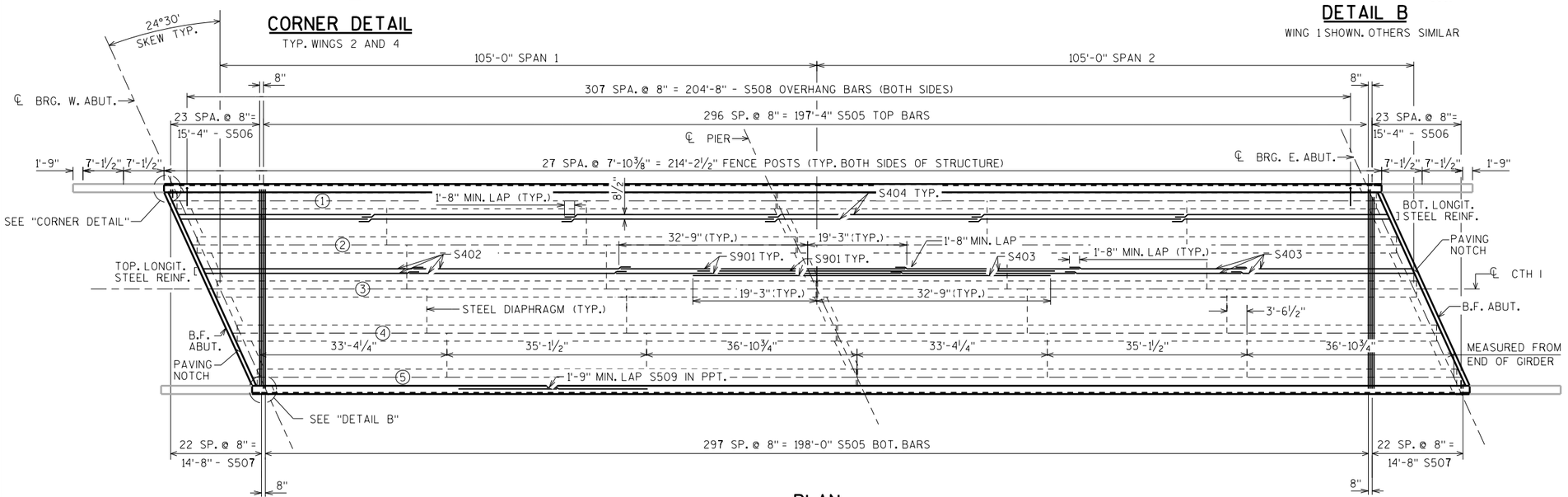


DETAIL B

WING 1 SHOWN. OTHERS SIMILAR



SECTION S-S



PLAN

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

◯ INDICATES GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

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SUPERSTRUCTURE

SHEET 11

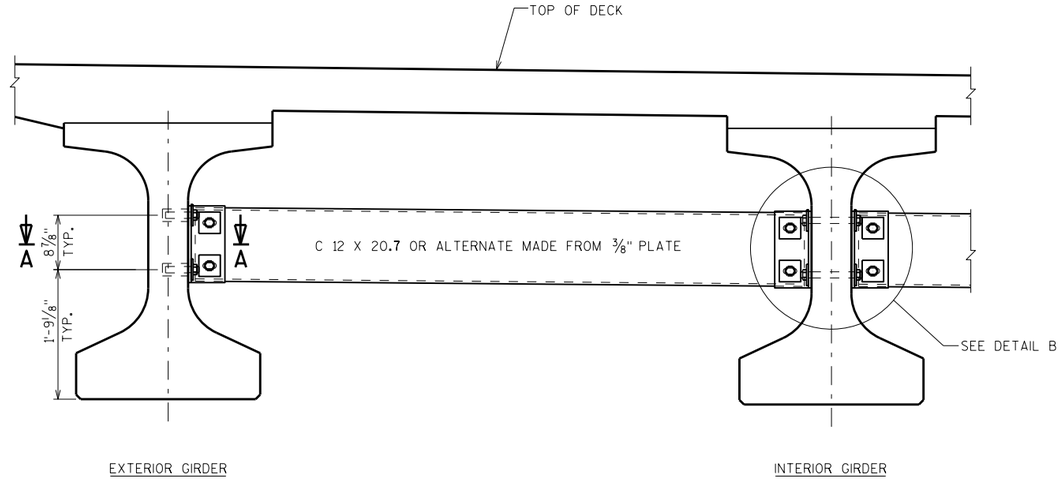
181

SCALE = 10.67

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8

STATE PROJECT NUMBER
1021-03-74



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

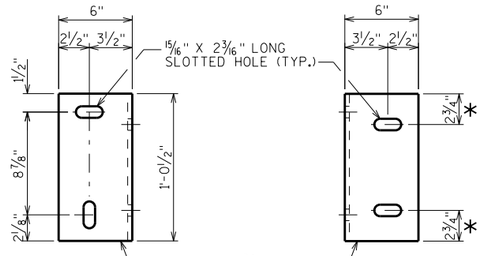
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-18-232", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

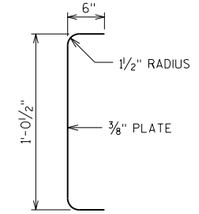
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

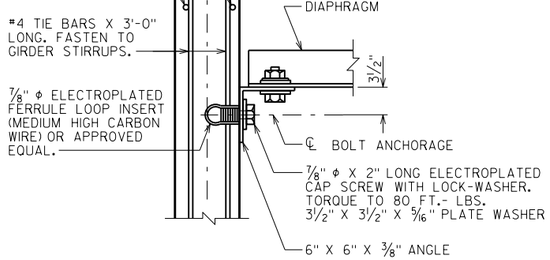


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM

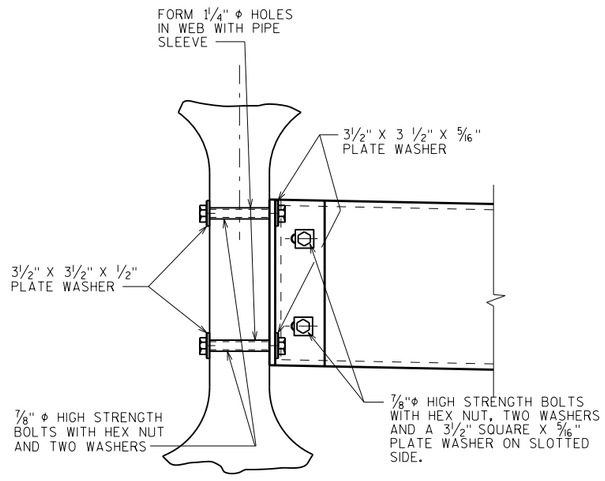


SECTION THRU ALTERNATE DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)



(FOR STAGGERED DIAPHRAGM)

DETAIL B

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-18-232

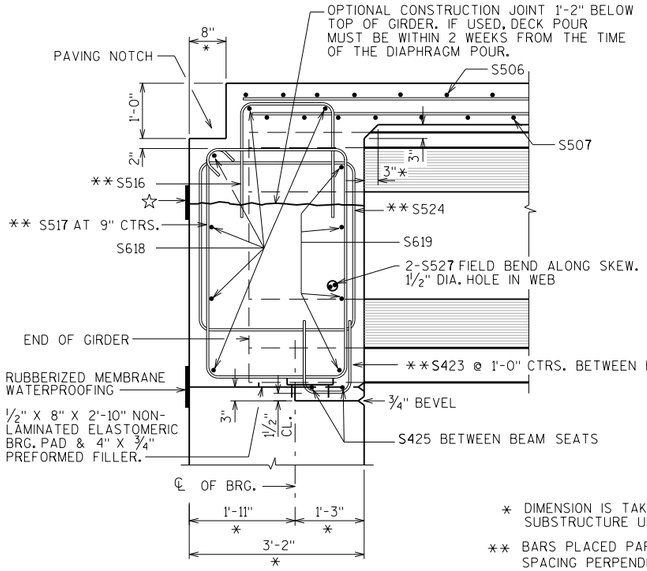
DRAWN BY MJH | PLANS CK'D. MWB

STEEL DIAPHRAGMS

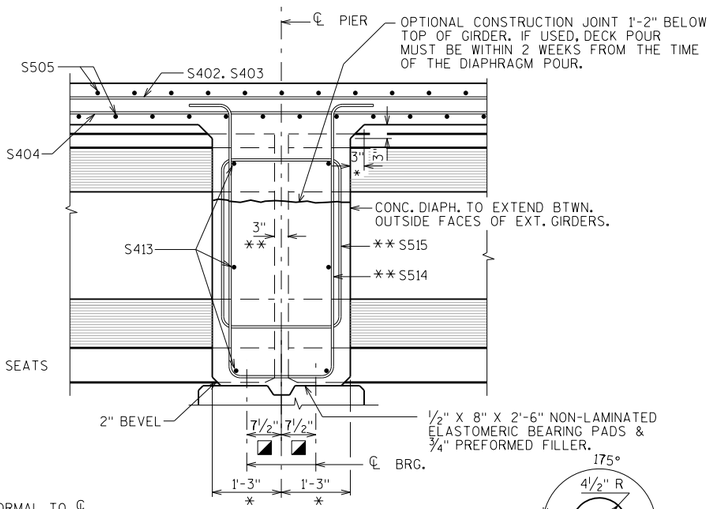
SHEET 12

182

SCALE = 1.00



CROSS SECTION THRU ABUTMENT DIAPHRAGMS BETWEEN EXTERIOR GIRDERS



CROSS SECTION THRU PIER DIAPHRAGM

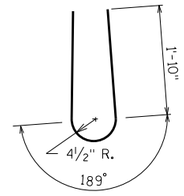
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

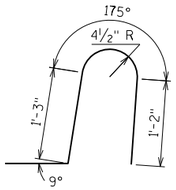
☆ RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES"

◪ DIMENSION IS TAKEN PARALLEL TO ℄ GIRDERS

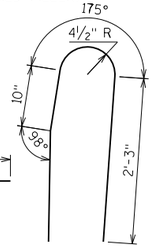
◐ CONST. JOINT - STRIKE OFF AS SHOWN



S511

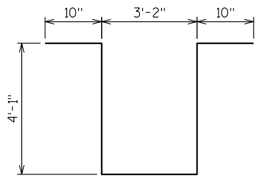


S510



S508

S512



S514

BILL OF BARS

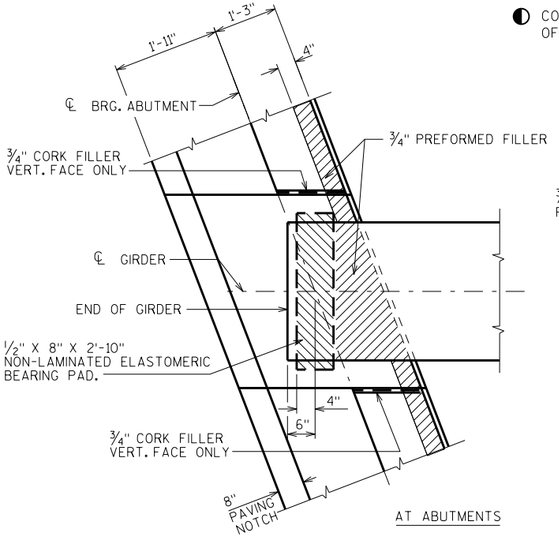
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

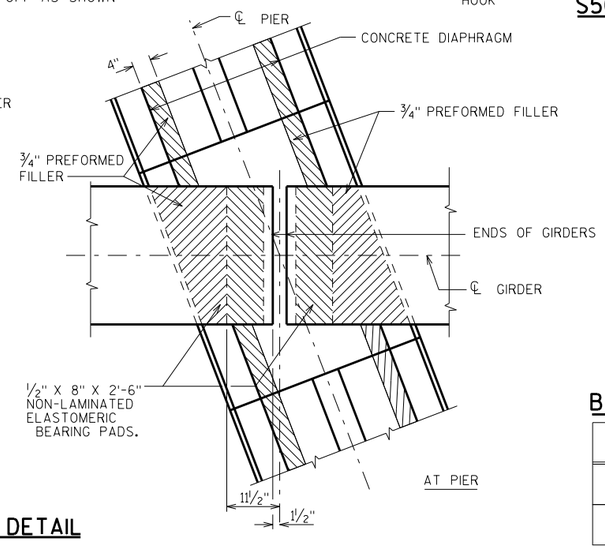
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S901	X	103	52'-0"			DECK-LONGIT.-CONTINUITY-OVER PIER
S402	X	102	38'-9"			DECK-LONGIT.-TOP-SPAN 1
S403	X	153	30'-11"			DECK-LONGIT.-BOT.-SPAN 2
S404	X	364	32'-0"			DECK-LONGIT.-BOT.
S505	X	595	36'-2"			TRANSVERSE TOP AND BOTTOM
S506	X	48	18'-1"		⚠	TRANSVERSE TOP AT CORNERS
S507	X	46	18'-1"		⚠	TRANSVERSE BOT AT CORNERS
S508	X	616	4'-1"	X		DECK-TRANSVERSE-OVERHANG
S509	X	48	55'-2"			PARAPET-HORIZ.
S510	X	640	4'-5"	X		DECK & PARAPET-VERT.
S511	X	648	5'-0"	X		PARAPET-VERT.
S512	X	8	5'-10"	X		DECK & PARAPET-VERT. AT PAVING NOTCH
S413	X	40	4'-11"			PIER DIAPHRAGM-HORIZ.
S514	X	24	12'-6"	X		PIER DIAPHRAGM-VERT.-BTWN. GIRDERS
S515	X	8	10'-10"	X		PIER DIAPHRAGM-VERT.-UNDER FLANGES
S516	X	56	7'-0"	X		ABUT. DIAPHRAGM-VERT. & DECK
S517	X	56	13'-10"	X		ABUT. DIAPHRAGM-VERT.-BTWN. GIRDERS
S618	X	12	39'-9"			ABUT._DIAPH._HORIZ.-B.F._ABUT
S619	X	56	4'-10"			ABUT._DIAPH._HORIZ.-F.F._ABUT._BTWN_GIRDERS
S620	X	6	8'-3"	X		ABUT. DIAPH. HORIZ.-ENDS-WINGS 2 AND 4
S621	X	6	8'-2"	X		ABUT. DIAPH. HORIZ.-ENDS-WINGS 1 AND 3
S622	X	4	1'-3"			ABUT. DIAPH. HORIZ.-ENDS-BOT.
S423	X	40	3'-5"	X		ABUT. DIAPH. VERT.-BTWN. BEAM SEATS
S524	X	20	10'-10"	X		ABUT. DIAPH. VERT.-UNDER FLANGES
S425	X	16	3'-11"			ABUT. DIAPH. HORIZ.-BTWN. BEAM SEATS
S426	X	8	3'-8"			ABUT. DIAPH. VERT.-ENDS
S527	X	20	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.

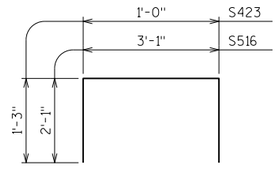
STATE PROJECT NUMBER

1021-03-74

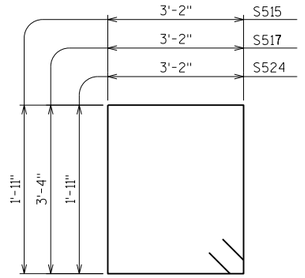




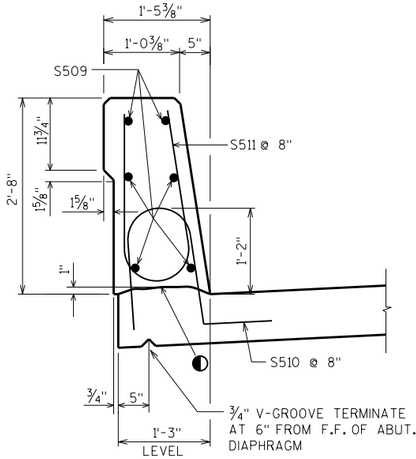
BEARING PAD DETAIL



S516, S423



S515, S517, S524

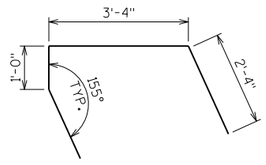


SECTION THRU PARAPET ON BRIDGE

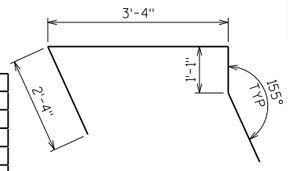
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
S506	2 SERIES OF 24	1'-3" TO 34'-11"
S507	2 SERIES OF 23	2'-0" TO 34'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY



S620



S621

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	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
L 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
R 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

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

183

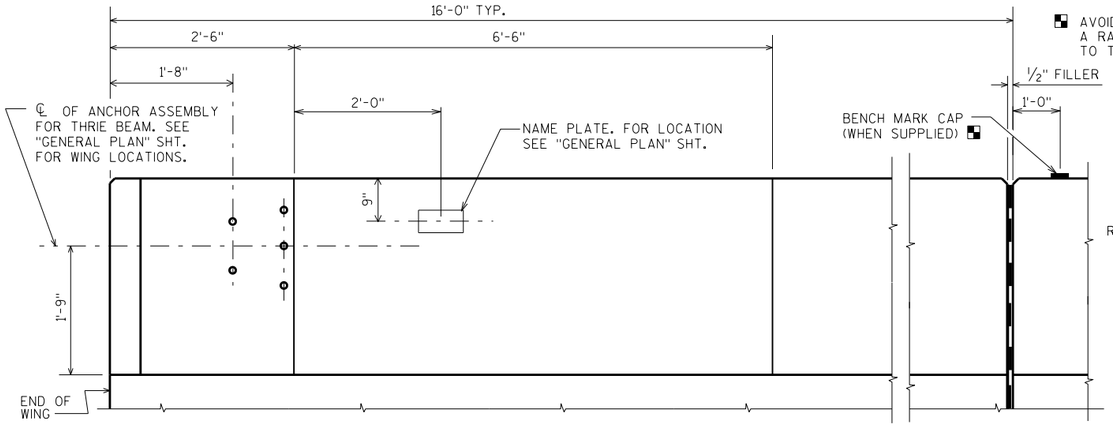
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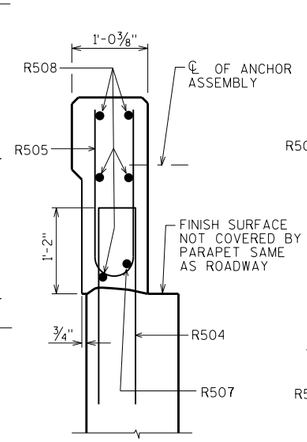
STATE PROJECT NUMBER

1021-03-74

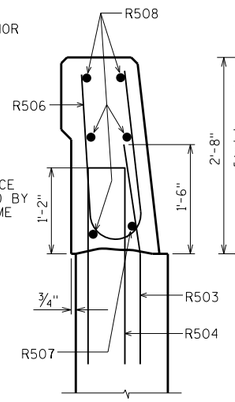


AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

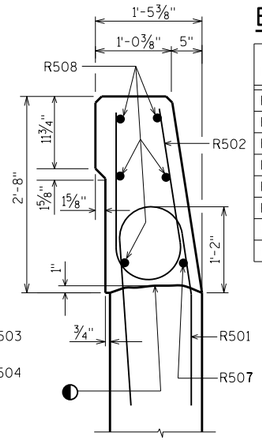
INSIDE ELEVATION



SECTION A



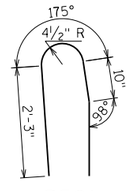
SECTION B



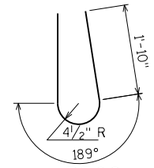
SECTION C

BILL OF BARS

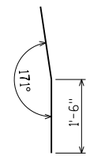
BAR MARK	COAT	S ABUT.	N ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	22	22	5'-10"	X		PARAPET VERT.
R502	X	22	22	5'-0"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	22	22	4'-9"	X		PARAPET VERT.
R506	X	12	12	4'-10"	X		PARAPET VERT.
R507	X	2	2	15'-6"	X	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



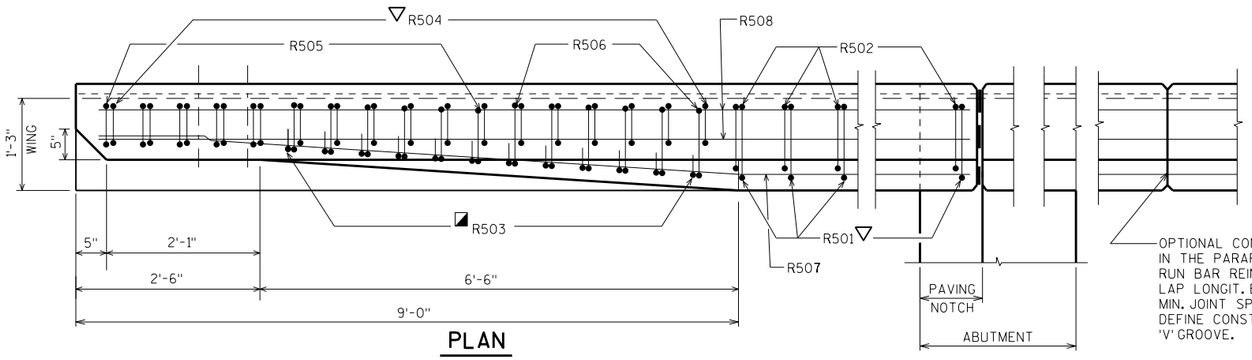
R501



R502

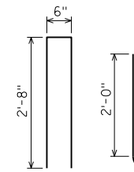


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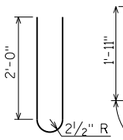


PLAN

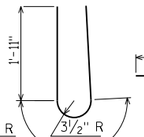
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



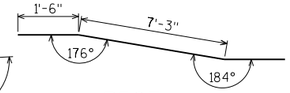
R504



R505

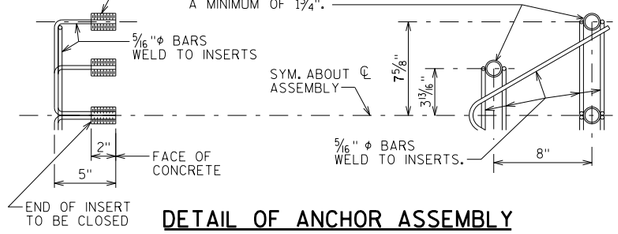


R506



R507

OUTSIDE ELEVATION



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.

◐ 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-18-232

DRAWN BY MJH | PLANS CK'D. MWB

SINGLE SLOPE PARAPET 32SS

SHEET 14

184

SCALE = 1.00

8

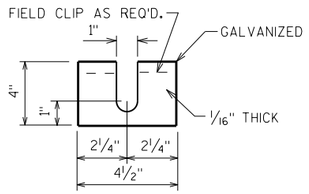
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STATE PROJECT NUMBER

1021-03-74

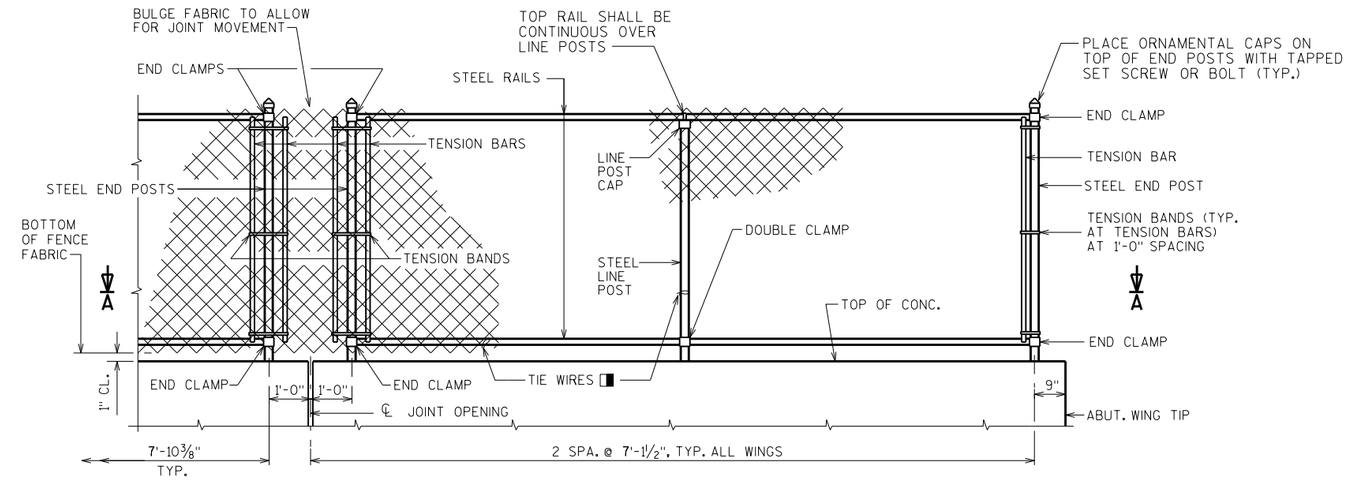
FENCE MEMBER SIZE & WEIGHT

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



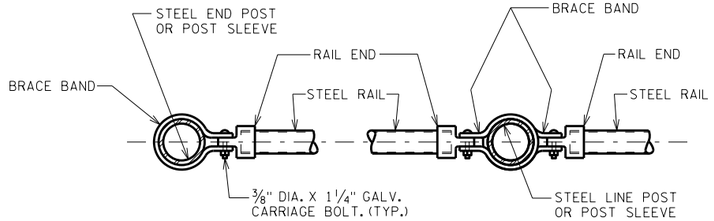
POST SHIM DETAILS

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

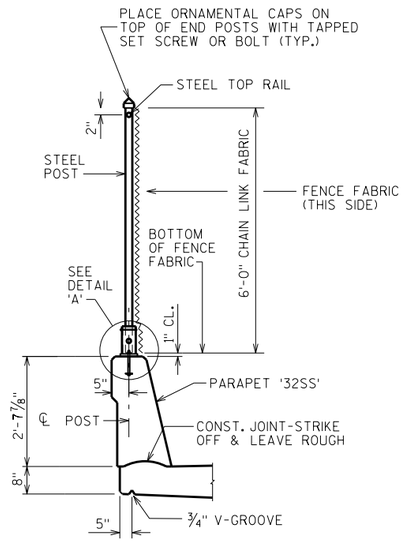
VIEWING FABRIC SIDE



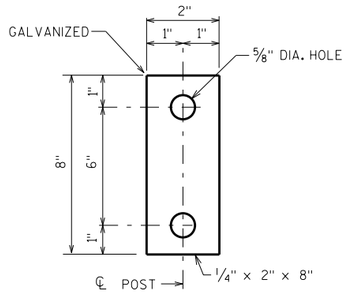
END CLAMP ✳ DOUBLE CLAMP

SECTION A-A

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

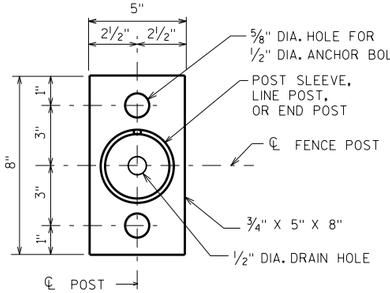


SECTION THRU FENCE

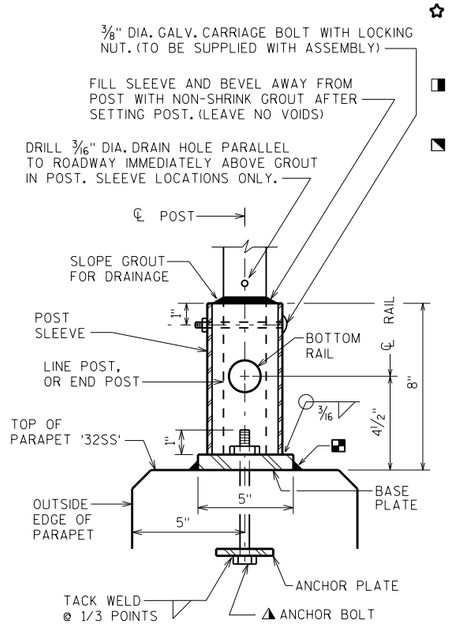


ANCHOR PLATE

✿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 BLACK IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6- 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.

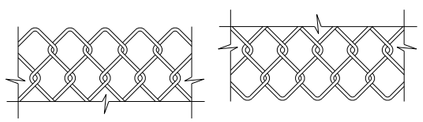
◭ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ✿

✿ 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.



TOP DETAIL BOTTOM DETAIL

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

185

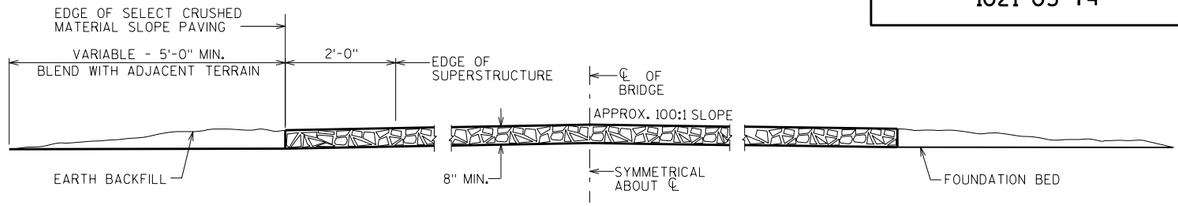
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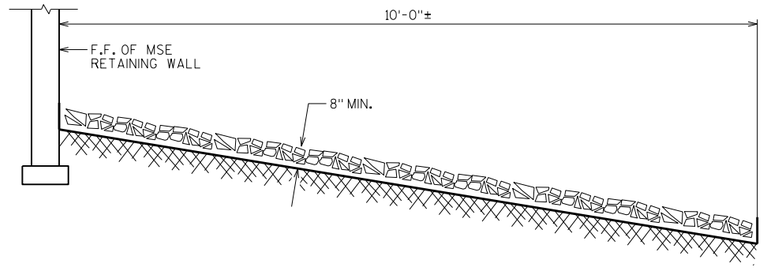
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STATE PROJECT NUMBER

1021-03-74

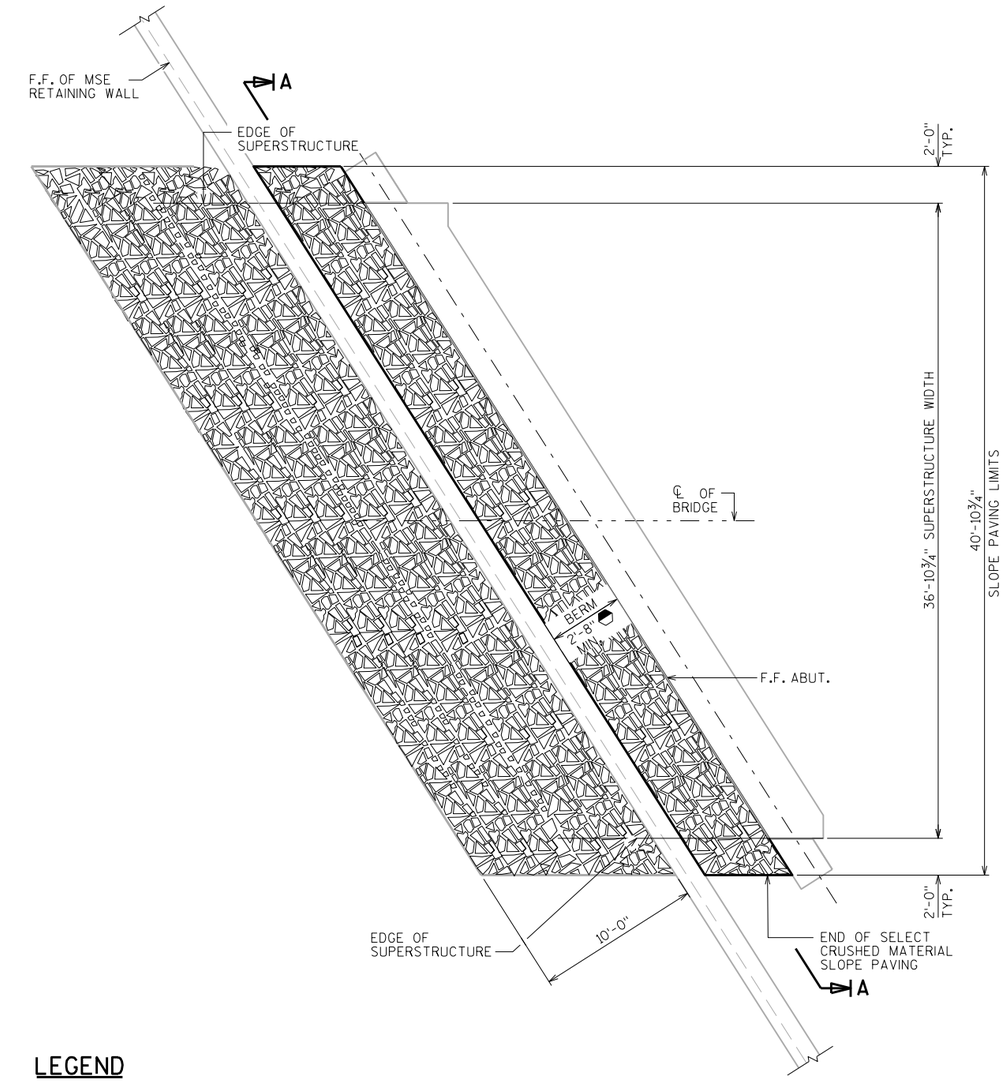


SECTION A-A

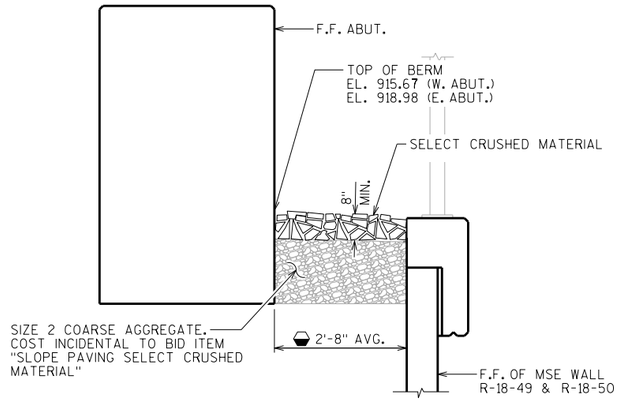


CROSS SECTION SELECT CRUSHED MATERIAL

(NORMAL TO MSE RETAINING WALL)



PLAN



TYPICAL SECTION THRU SELECT CRUSHED MATERIAL

ASPHALTIC MATERIAL SHALL NOT BE APPLIED TO THE SURFACE OF SELECT CRUSHED MATERIAL.

LEGEND

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

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-18-232

DRAWN BY MJH | PLANS CK'D. MWB

SLOPE PAVING (SELECT CRUSHED MATERIAL)

SHEET 16

186

8

8

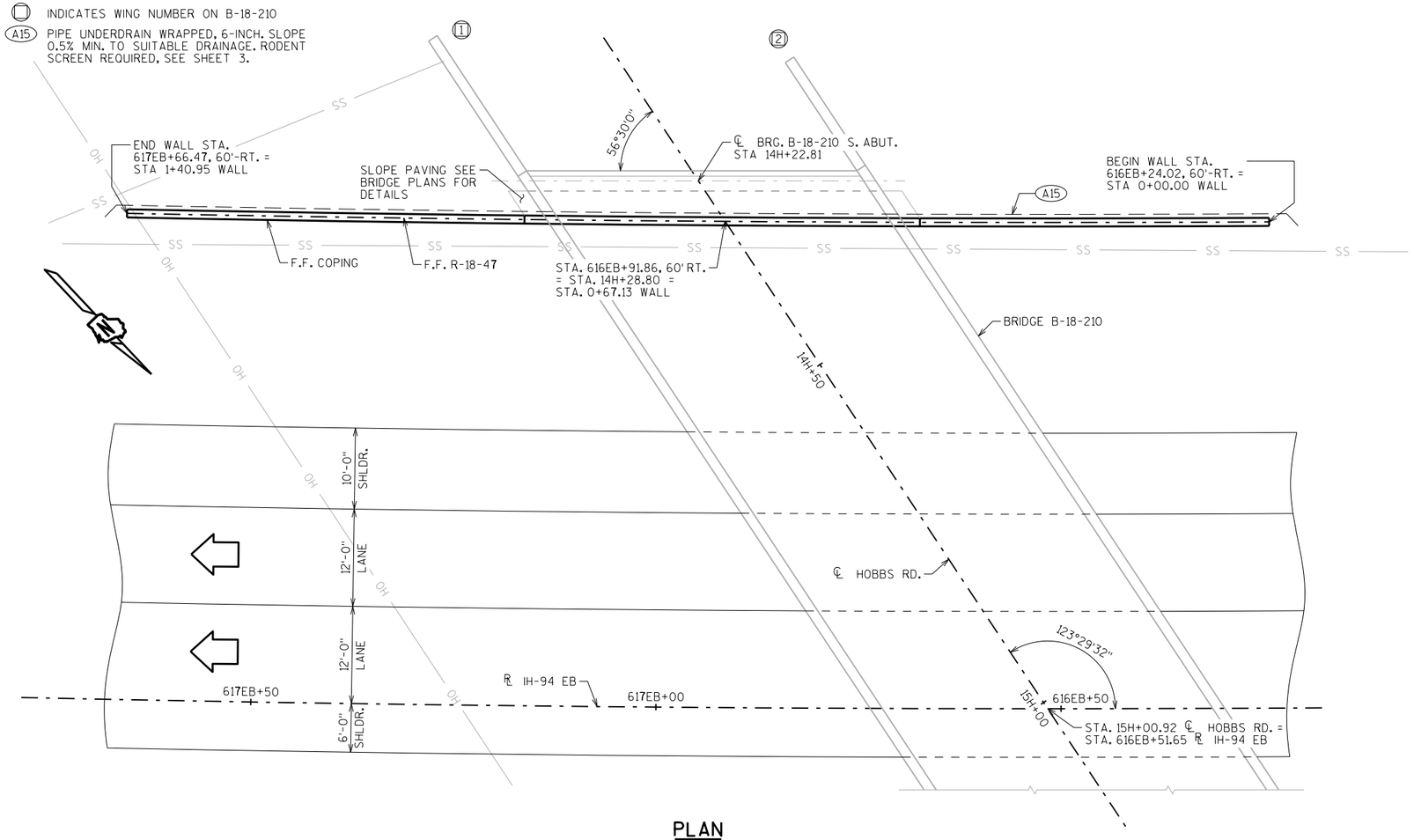
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STATE PROJECT NUMBER

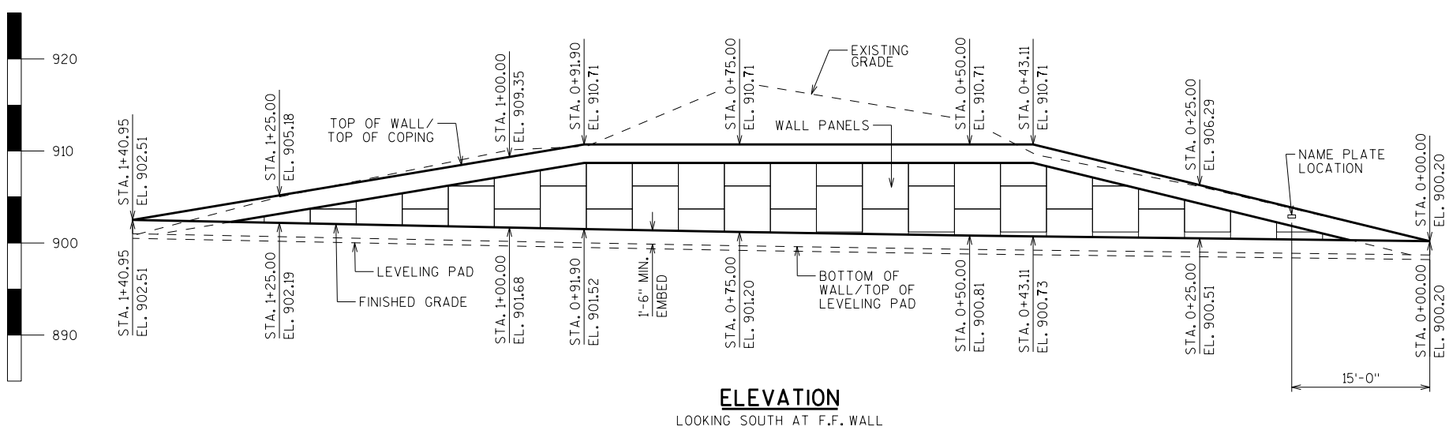
1021-03-74

(1) INDICATES WING NUMBER ON B-18-210

(A15) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.



PLAN



ELEVATION

LOOKING SOUTH AT F.F. WALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" 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-18-47.

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 R-18-47" 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.

IN AREAS WHERE SILT IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE 12 INCHES OF SILT BELOW THE BASE BLOCK AND REPLACE WITH GRANULAR BACKFILL TO MITIGATE SLIDING CONCERNS.

THE NORTHWEST REGION SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/QMP

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
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. SUBSURFACE EXPLORATION

CURVE DATA

IH-94 EB

P.I. = 606EB+04.99
△ = 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:

DANIELLE DE TENNIS (608) 266-8689

LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 11/27/17

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	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DFD	DLM	DFD	DLM

GENERAL PLAN

SHEET 1 OF 4

187

I.D. 1021-03-04C DATE: NOV 2017

SCALE = 8.00

STATE PROJECT NUMBER

1021-03-74

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 ℄ 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	℄ 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	1125
	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 R-18-47".

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.

8

8

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

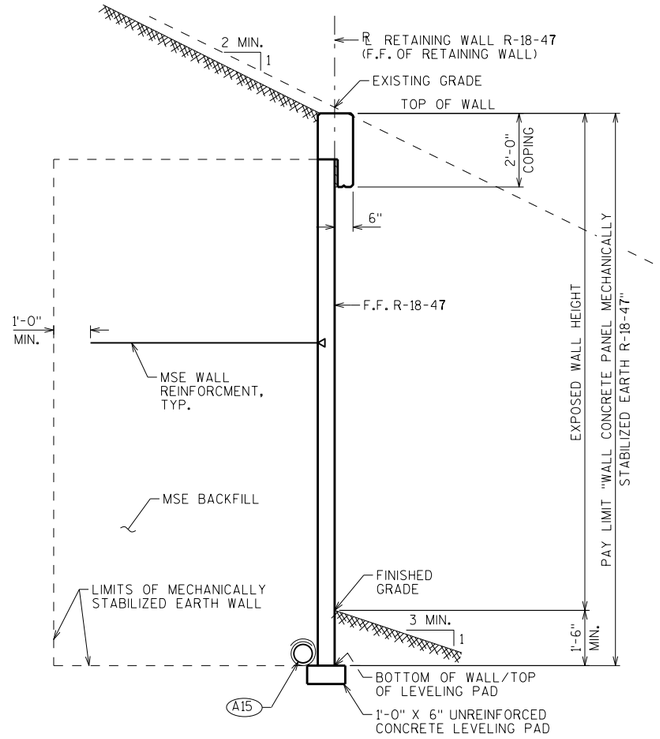
SHEET 2

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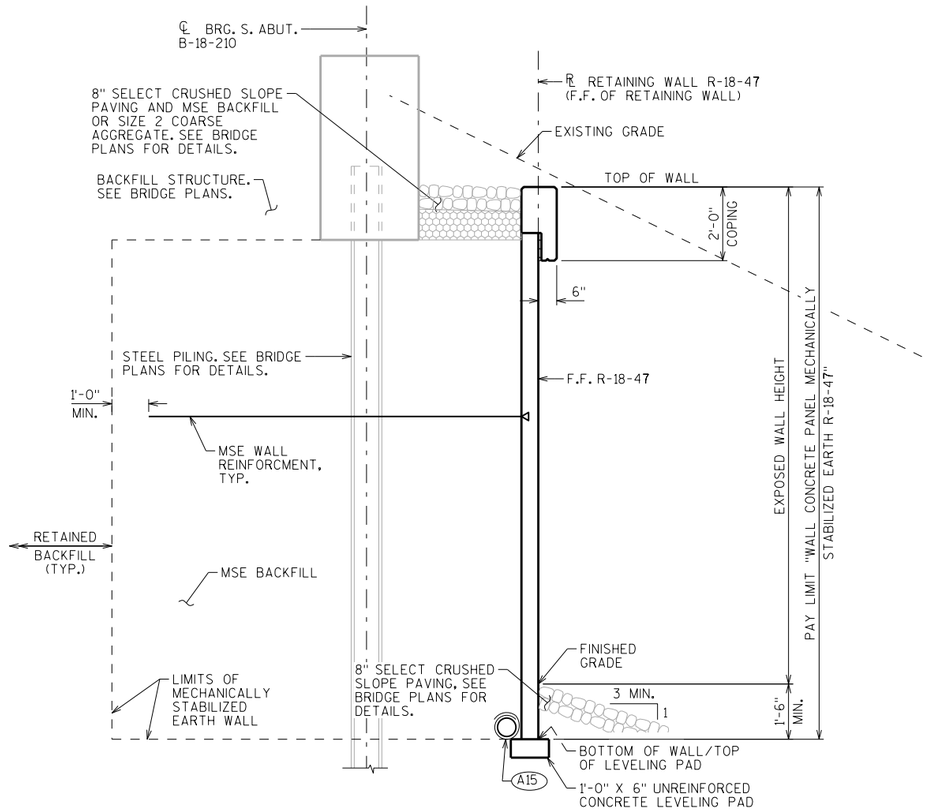
STATE PROJECT NUMBER

1021-03-74



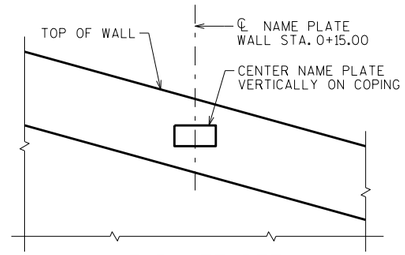
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STA. 0+00.00 TO 0+43.11 &
STA. 0+91.90 TO 1+40.95

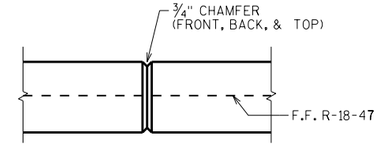


TYPICAL SECTION AT ABUTMENT

LOOKING WEST
0+43.11 TO 0+91.90

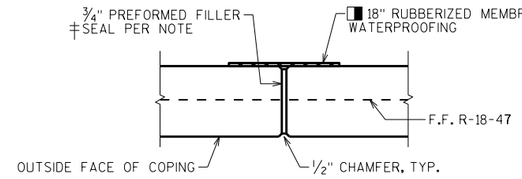


NAME PLATE DETAIL



COPING CONTRACTION JOINT

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

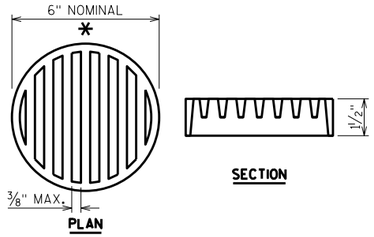


COPING EXPANSION JOINT

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 ⅛" BELOW SURFACE OF CONC.)

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

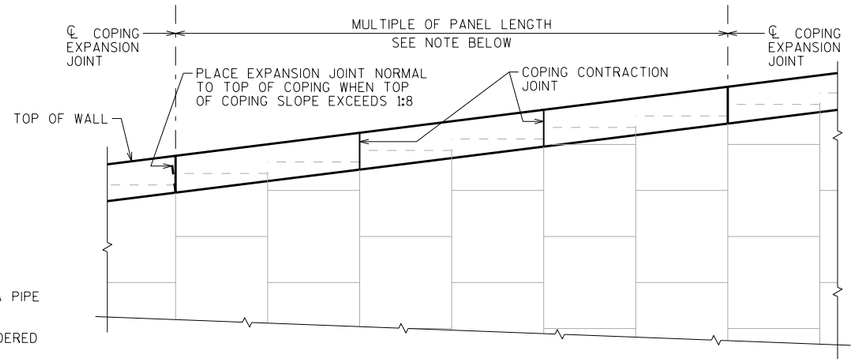


RODENT SHIELD DETAIL

* 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".

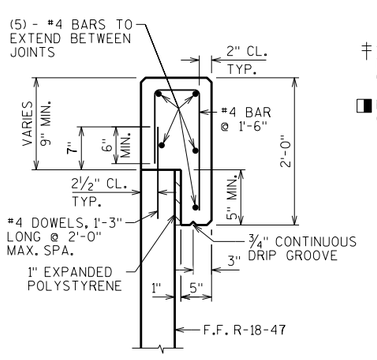
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CAST-IN-PLACE COPING PARTIAL ELEVATION

LOOKING AT F.F. WALL

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



CAST-IN-PLACE CONCRETE COPING DETAIL

NOTE: COPING CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL FOR MECHANICALLY STABILIZED EARTH R-18-47.

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

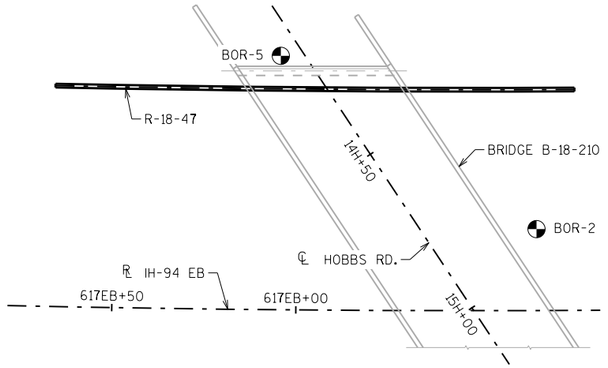
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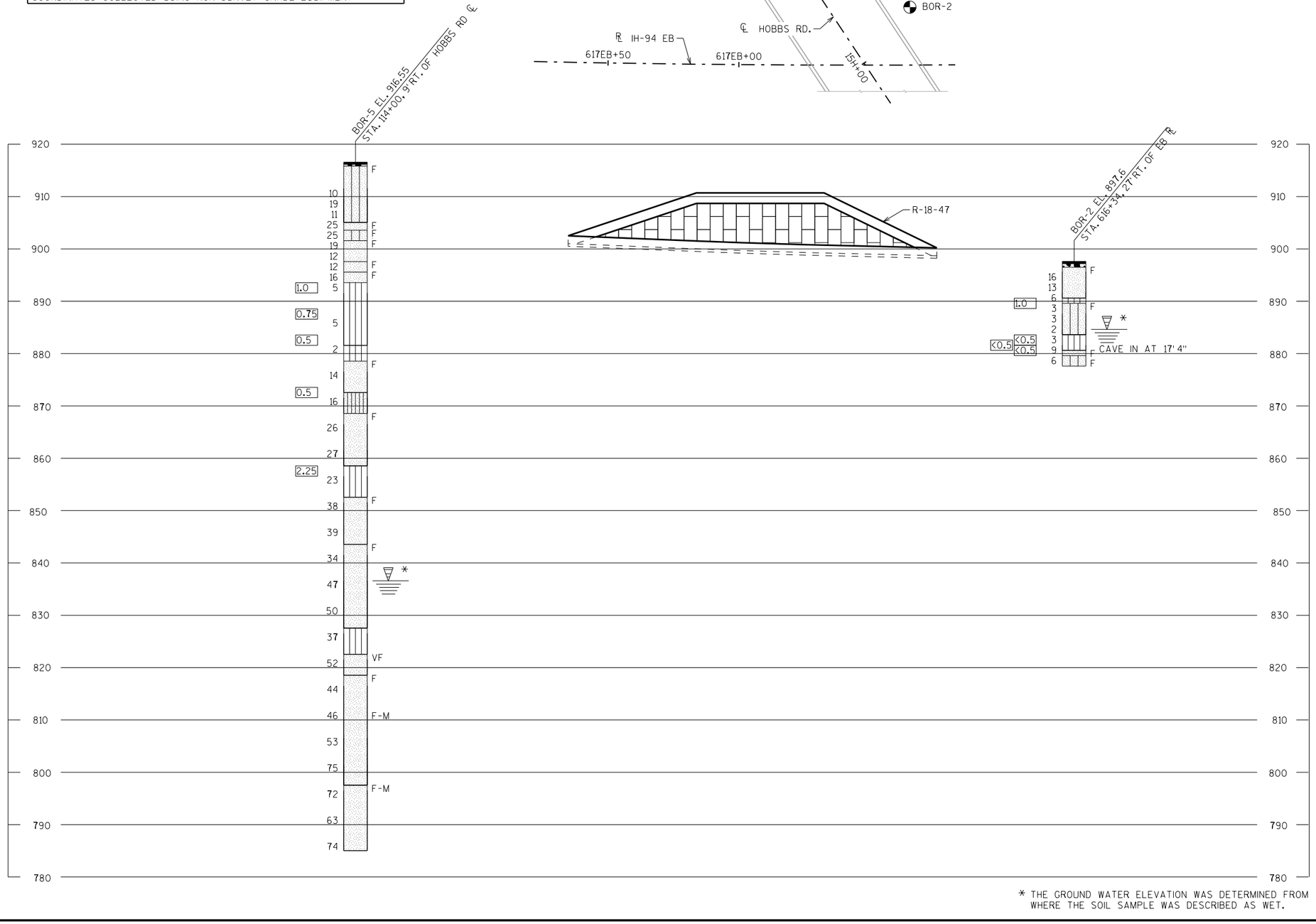
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
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5	11/15/2016	260914.553	364067.552
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU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





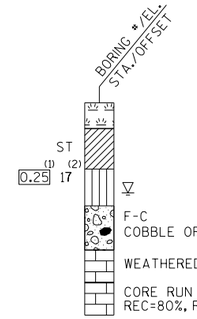
STATE PROJECT NUMBER

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



(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-18-47

DRAWN BY TLP/DFD | PLANS CK'D. DLM

SUBSURFACE EXPLORATION

SHEET 4

190

SCALE = 20.00

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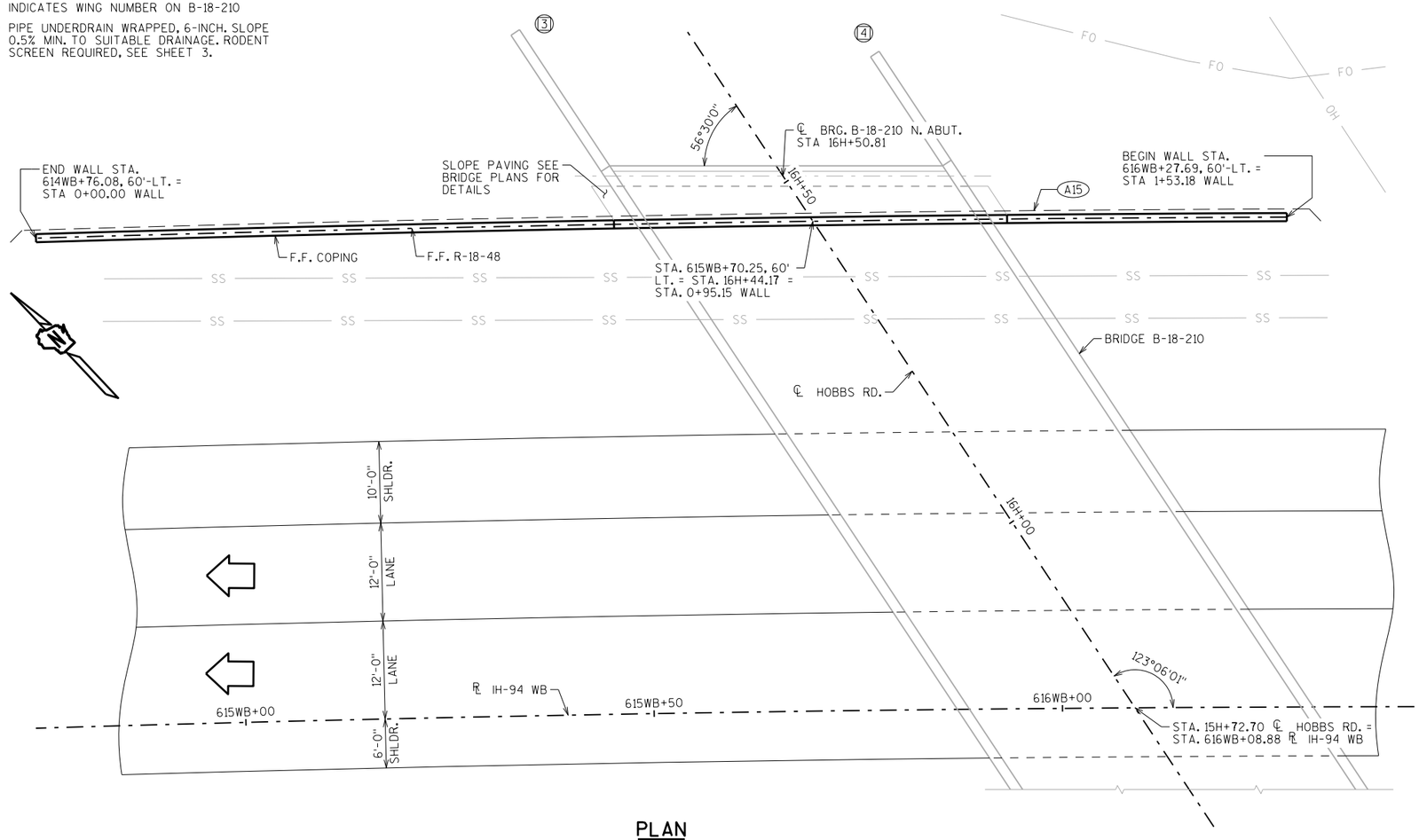
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STATE PROJECT NUMBER

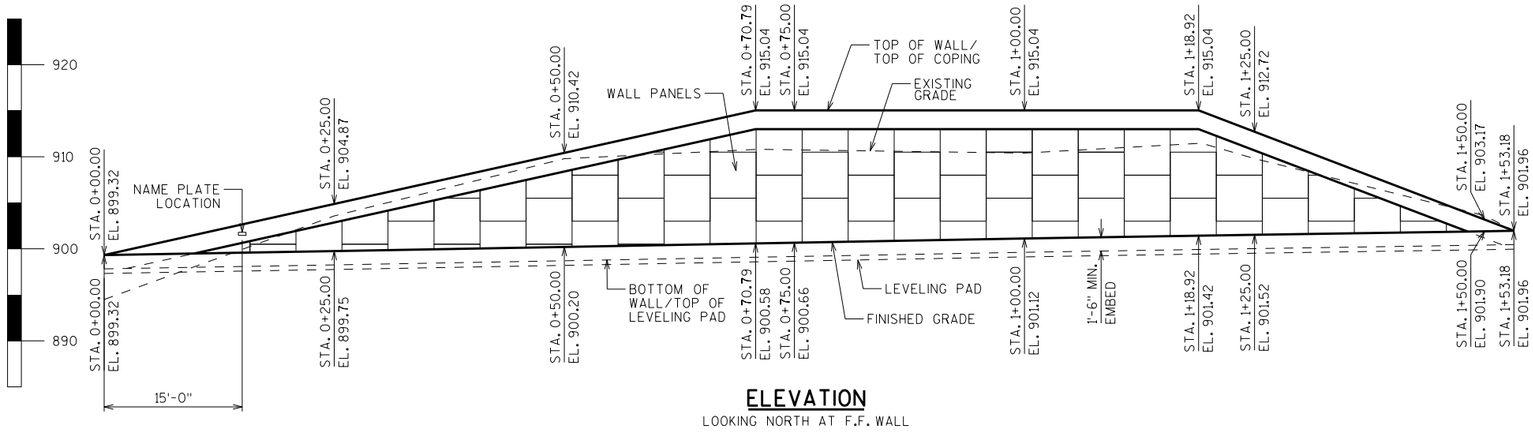
1021-03-74

③ INDICATES WING NUMBER ON B-18-210

(A15) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.



PLAN



ELEVATION

LOOKING NORTH AT F.F. WALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" 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-18-48.

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 R-18-48" 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.

IN AREAS WHERE SILT IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE 12 INCHES OF SILT BELOW THE BASE BLOCK AND REPLACE WITH GRANULAR BACKFILL TO MITIGATE SLIDING CONCERNS.

THE NORTHWEST REGION SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/QMP

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
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. SUBSURFACE EXPLORATION

CURVE DATA

IH-94 WB

P.I. = 605WB+90.87
△ = 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:
DANIELLE DE TENNIS (608) 266-8689
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 11/27/17
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	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DFD	DLM	DFD	DLM

GENERAL PLAN

SHEET 1 OF 4

191

I.D. 1021-03-04D DATE: NOV 2017

SCALE = 8.00

STATE PROJECT NUMBER

1021-03-74

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. 16+78 - 6'LT OF ℄ HOBBS ROAD			
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	℄ 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	1655
	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 R-18-48".

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.

8

8

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

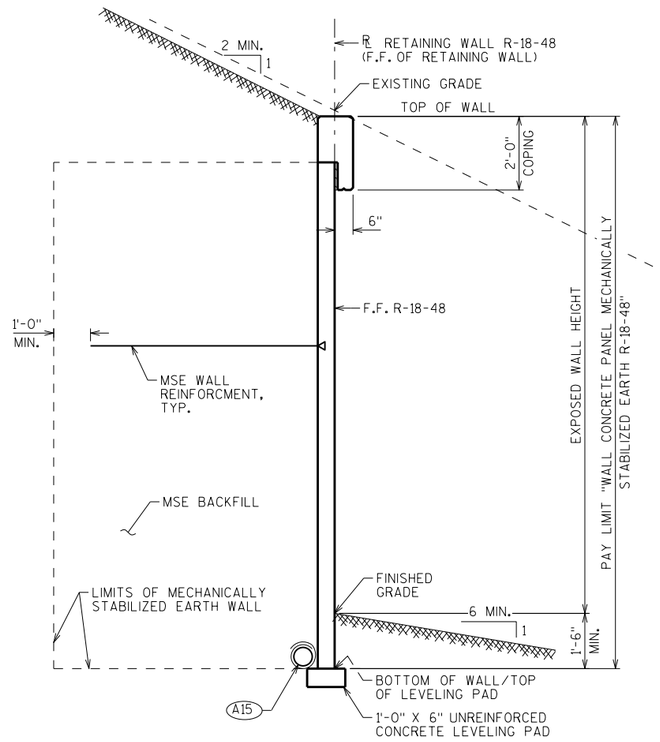
SHEET 2

192

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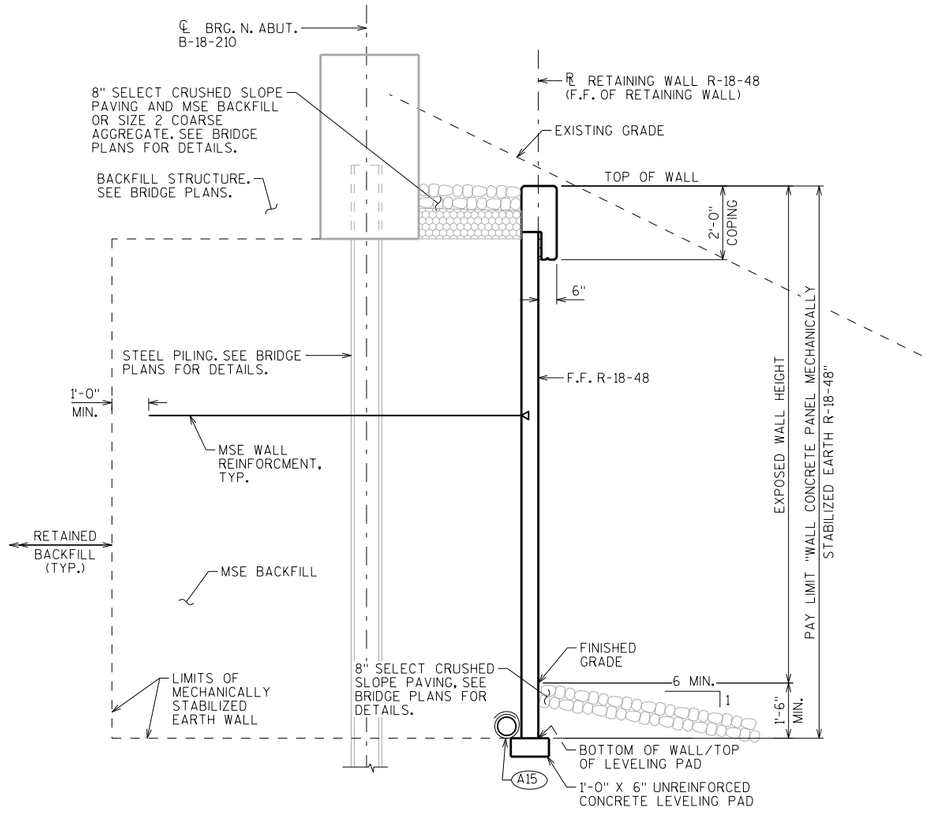
STATE PROJECT NUMBER

1021-03-74



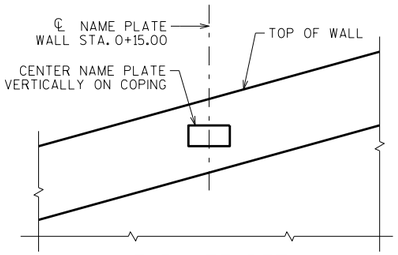
TYPICAL SECTION

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

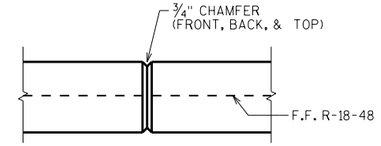


TYPICAL SECTION AT ABUTMENT

LOOKING EAST
0+70.79 TO 1+18.92

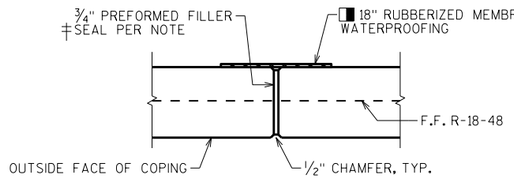


NAME PLATE DETAIL



COPING CONTRACTION JOINT

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

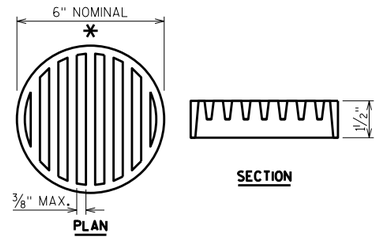


COPING EXPANSION JOINT

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

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

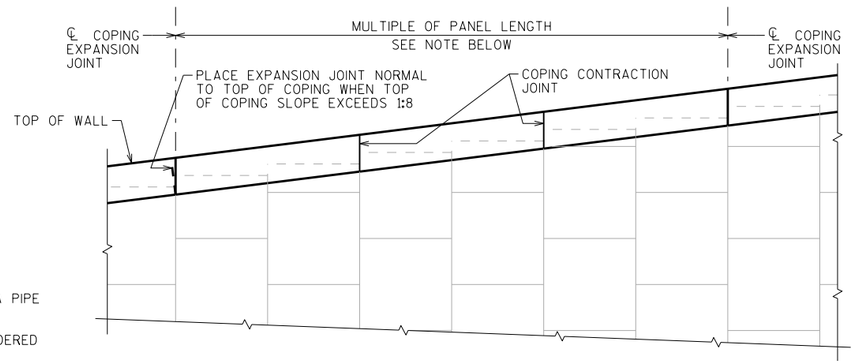


RODENT SHIELD DETAIL

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

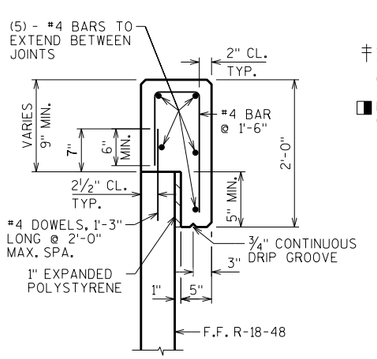
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CAST-IN-PLACE COPING PARTIAL ELEVATION

LOOKING AT F.F. WALL

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



CAST-IN-PLACE CONCRETE COPING DETAIL

NOTE: COPING CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL FOR MECHANICALLY STABILIZED EARTH R-18-48.

Ⓐ15 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

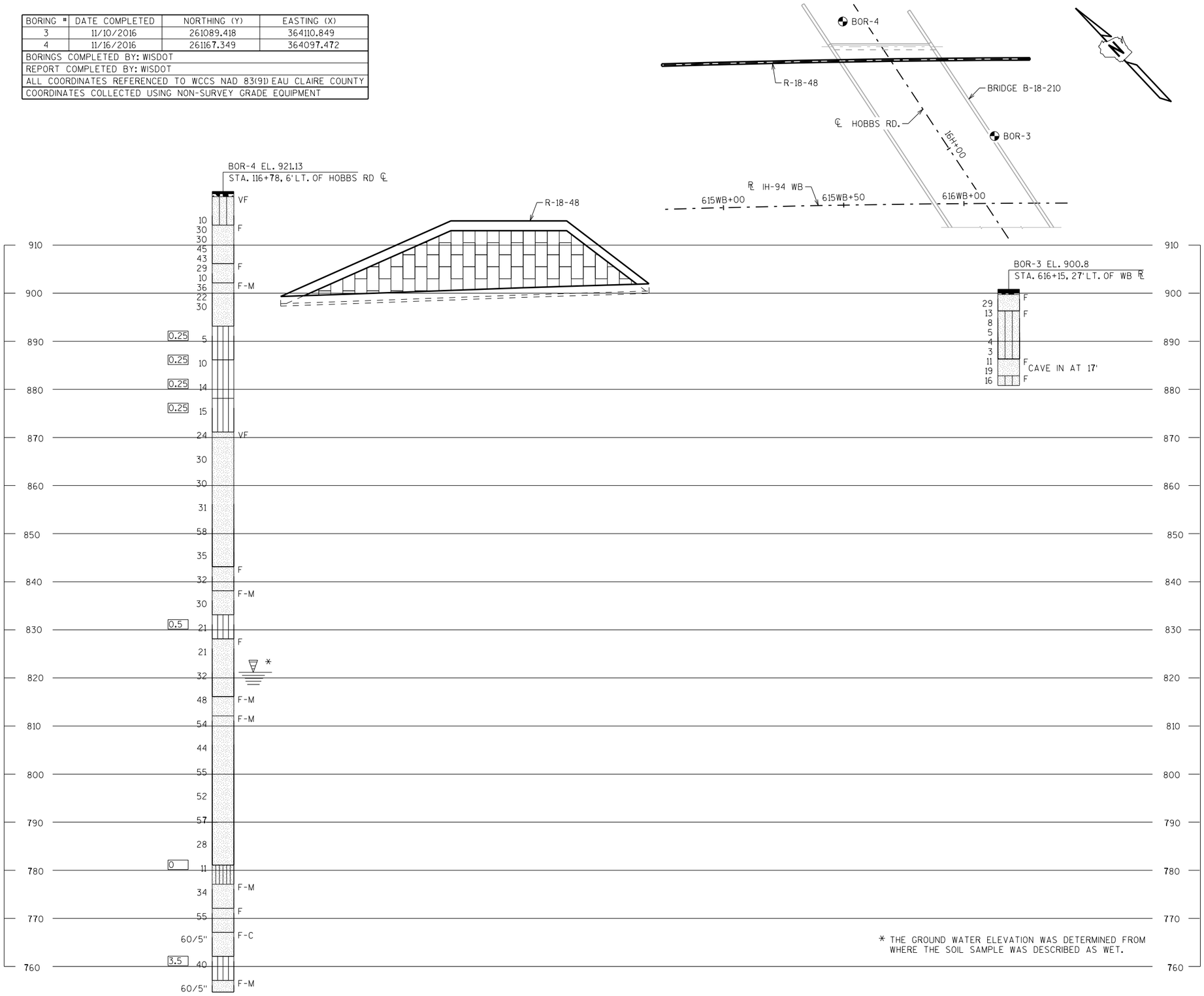
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SCALE = 2.00

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
3	11/10/2016	261089.418	364110.849
4	11/16/2016	261167.349	364097.472
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.

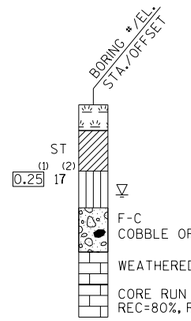
STATE PROJECT NUMBER

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



(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-18-48

DRAWN BY TLP/DFD | PLANS CK'D. DLM

SUBSURFACE EXPLORATION

SHEET 4

194

SCALE = 20.00

8

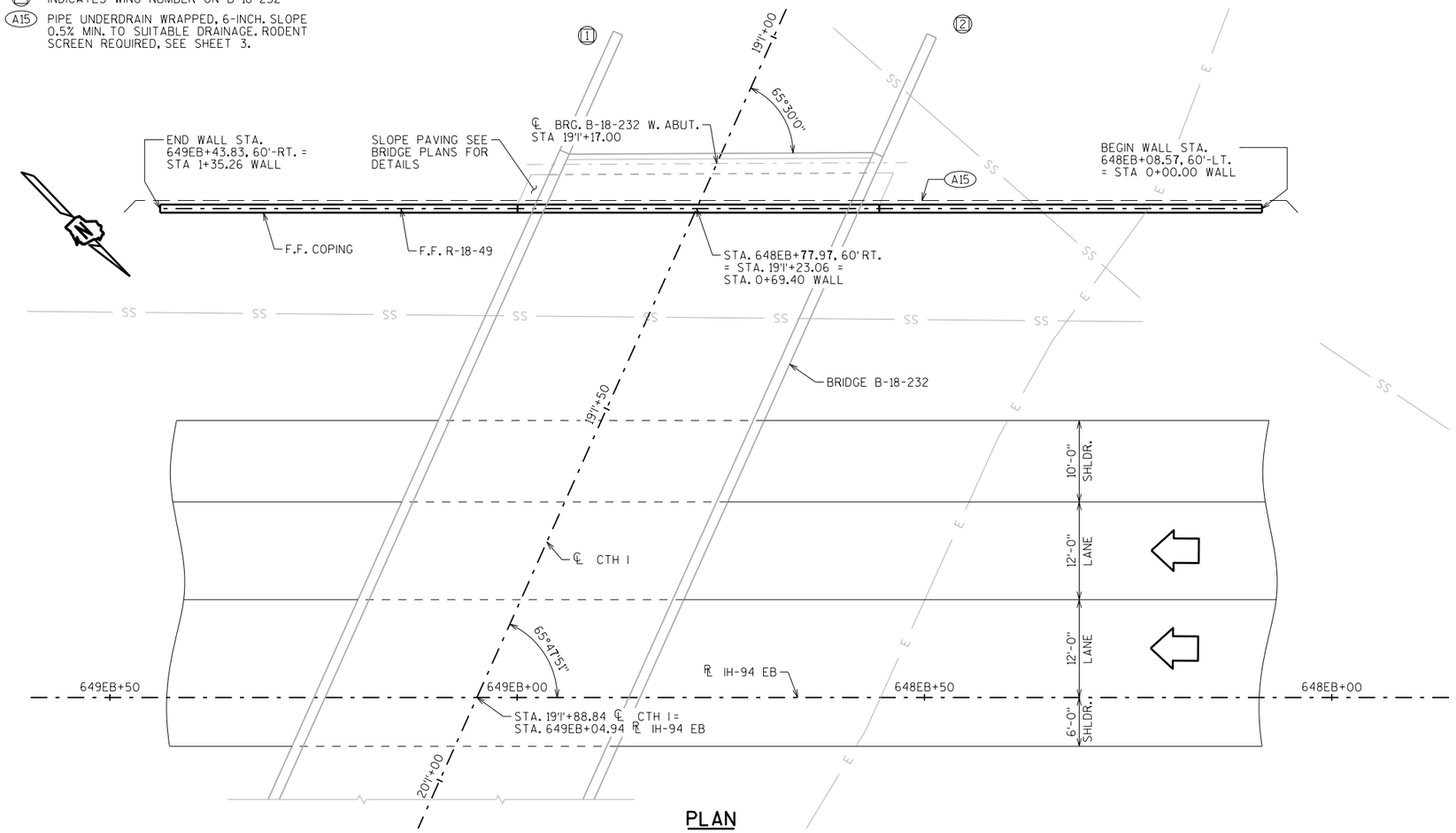
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STATE PROJECT NUMBER

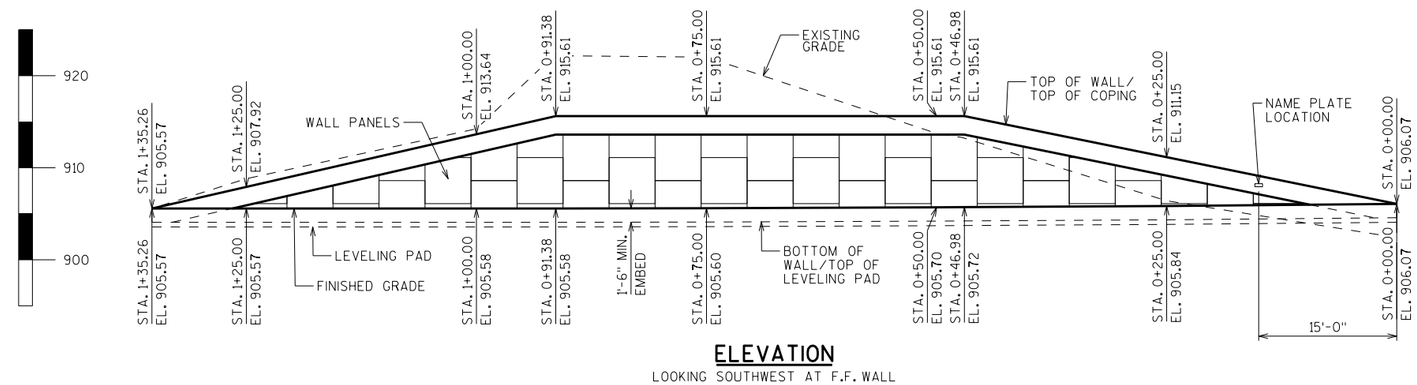
1021-03-74

(1) INDICATES WING NUMBER ON B-18-232

(A15) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.



PLAN



ELEVATION

LOOKING SOUTHWEST AT F.F. WALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" 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-18-49.

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 R-18-49" 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.

IN AREAS WHERE SILT IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE 12 INCHES OF SILT BELOW THE BASE BLOCK AND REPLACE WITH GRANULAR BACKFILL TO MITIGATE SLIDING CONCERNS.

THE NORTHWEST REGION SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/QMP

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
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:

DANIELLE DE TENNIS (608) 266-8689

LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 11/27/17

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	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
DFD	DLM	DFD	DLM

GENERAL PLAN

SHEET 1 OF 4

195

I.D. 1021-03-04E DATE: NOV 2017

SCALE = 8.00

8

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STATE PROJECT NUMBER

1021-03-74

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. 648+09 - 69' RT OF ℄ CTH I			
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
SAND, BROWN, FINE, SOME SILT EL. 886.9 TO EL 883.9	28	0	110
SAND, TAN/BROWN, FINE TO MEDIUM EL. 883.9 TO EL 853.9	33	0	125
SAND, BROWN, FINE TO MEDIUM LITTLE SILT 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	0+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	℄ 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	1100
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	½" & ¾"
	NON-BITUMINOUS JOINT SEALER	SIZE	½" & ¾"
	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 R-18-49".

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.

8

8

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

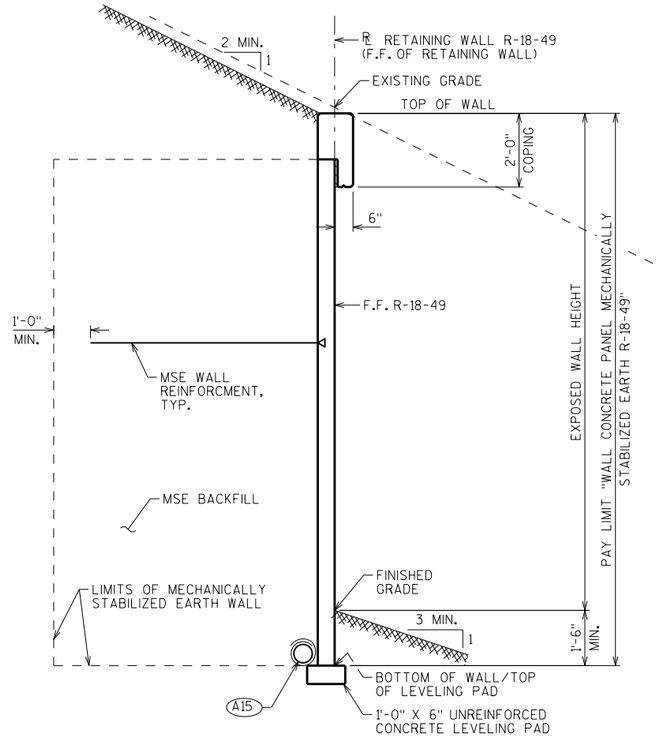
SHEET 2

196

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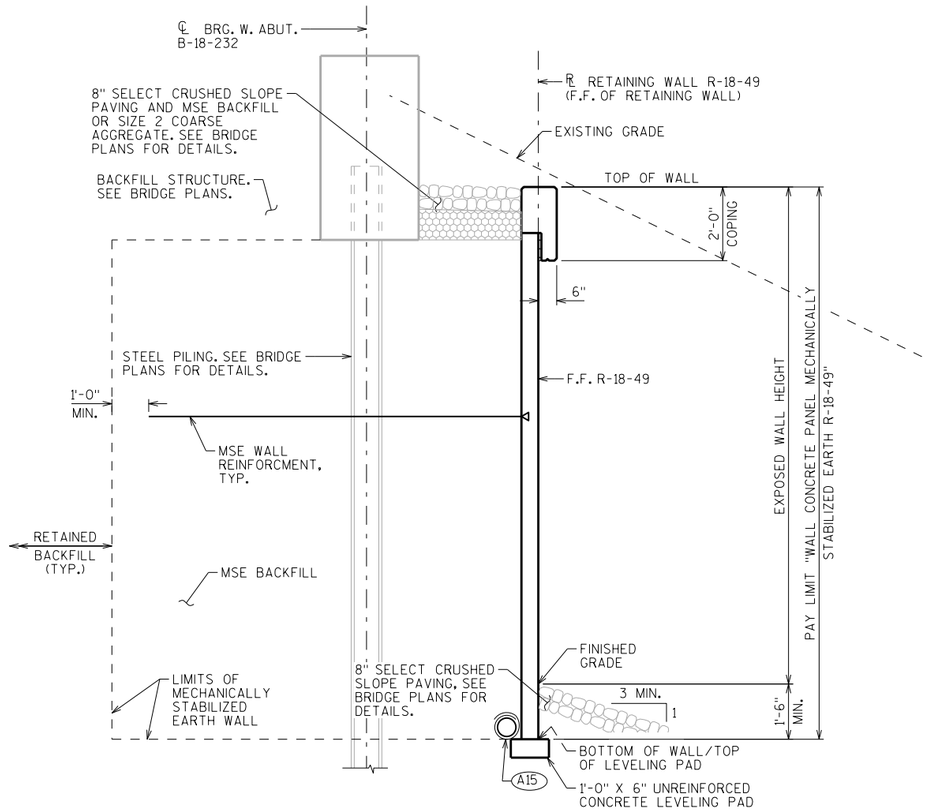
STATE PROJECT NUMBER

1021-03-74



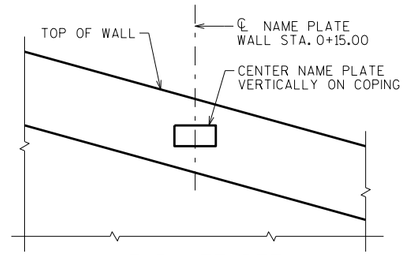
TYPICAL SECTION

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

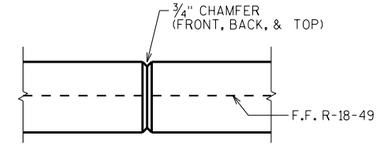


TYPICAL SECTION AT ABUTMENT

LOOKING NORTHEAST
STA. 0+46.98 TO 0+91.38

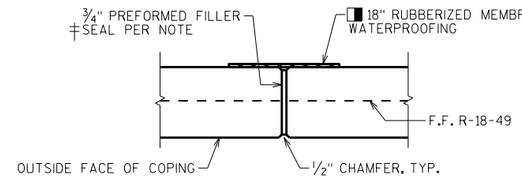


NAME PLATE DETAIL



COPING CONTRACTION JOINT

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

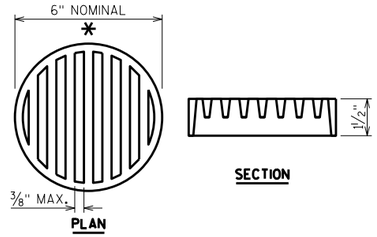


COPING EXPANSION JOINT

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 ⅛" BELOW SURFACE OF CONC.)

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

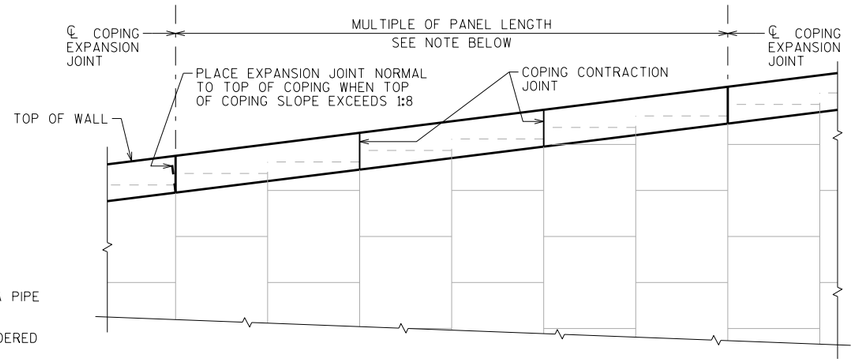


RODENT SHIELD DETAIL

* 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".

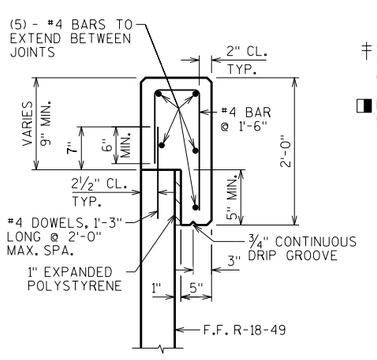
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHEMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 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

NOTE: COPING CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL FOR MECHANICALLY STABILIZED EARTH R-18-49.

Ⓐ15 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

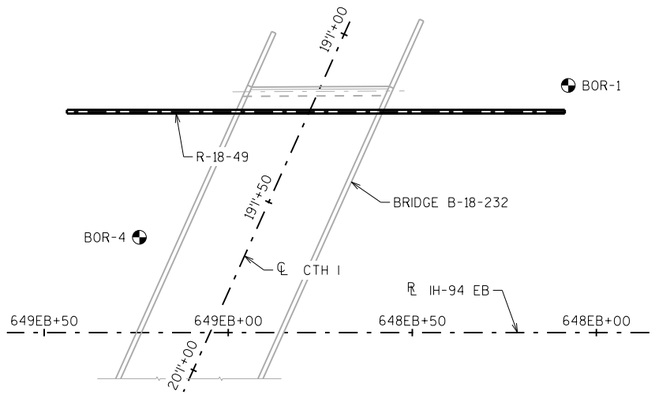
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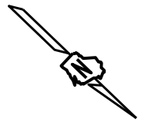
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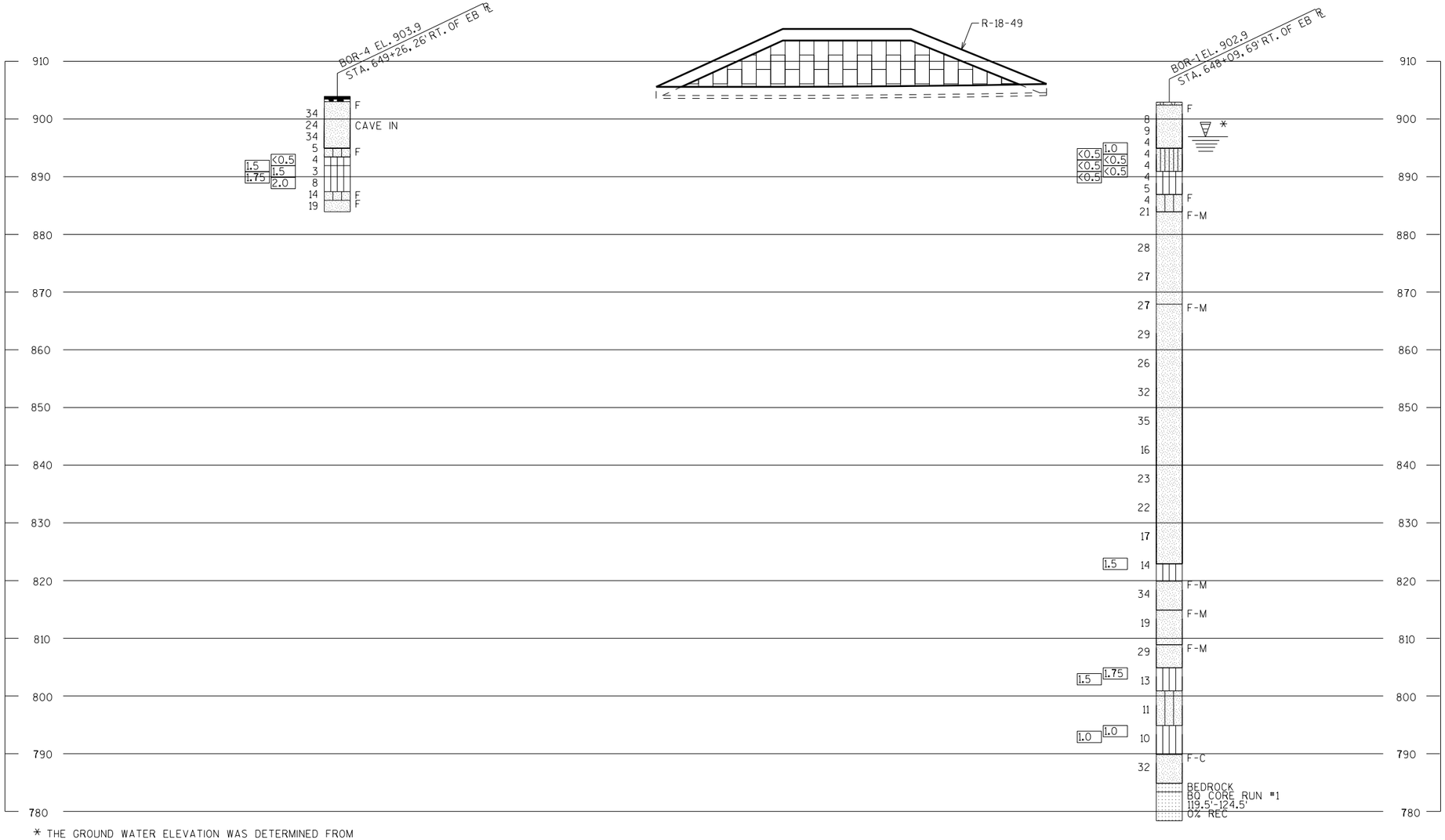
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/02/2016	258681.464	366217.572
4	11/10/2016	258625.889	366327.961
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) EAU CLAIRE COUNTY		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







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

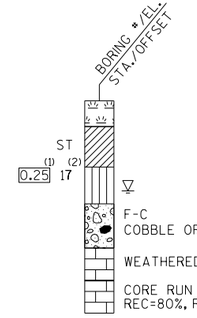
STATE PROJECT NUMBER

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



(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-18-49

DRAWN BY DFD/TLP | PLANS CK'D. DLM

SUBSURFACE EXPLORATION

SHEET 4

198

SCALE = 20.00

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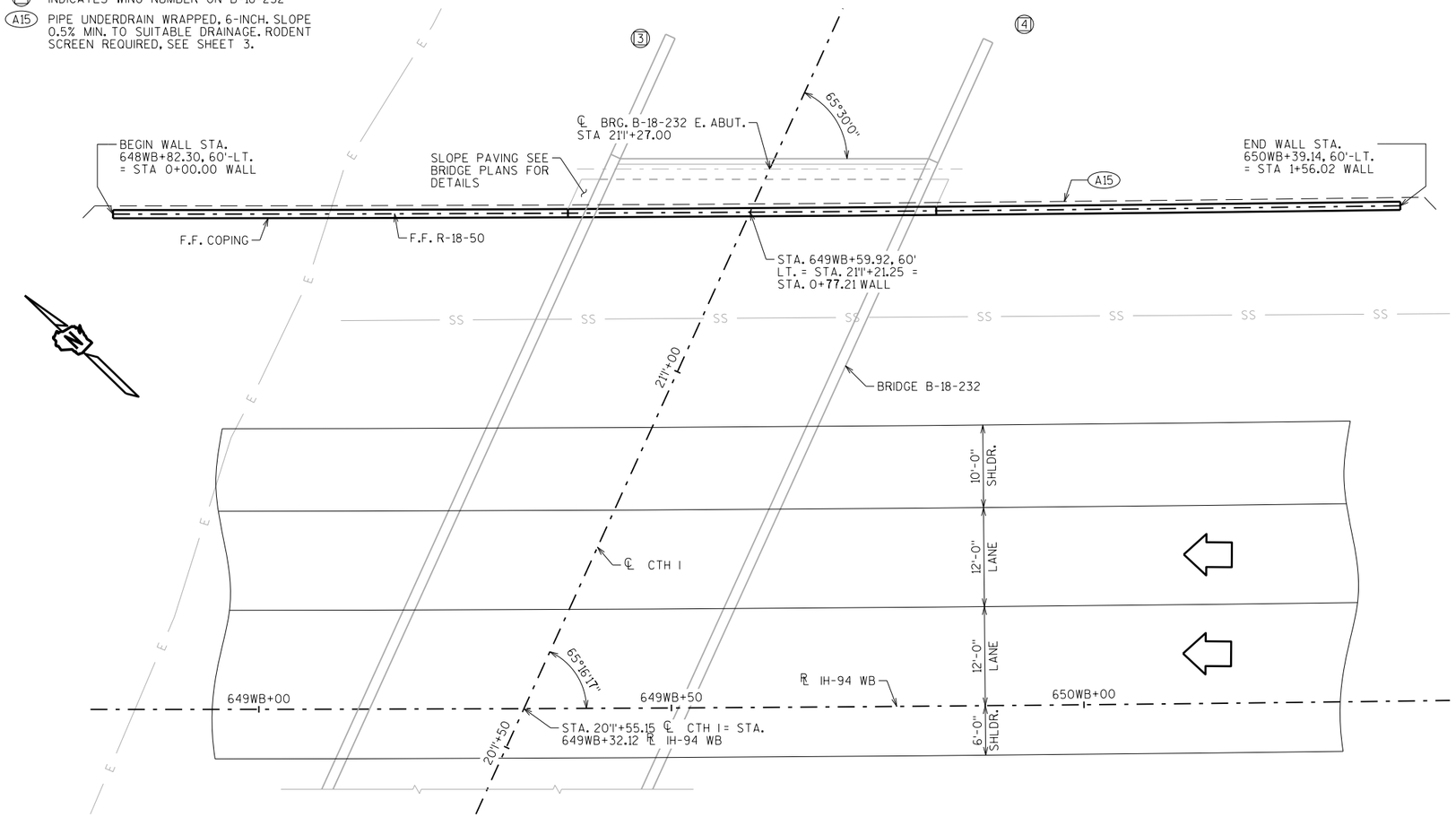
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STATE PROJECT NUMBER

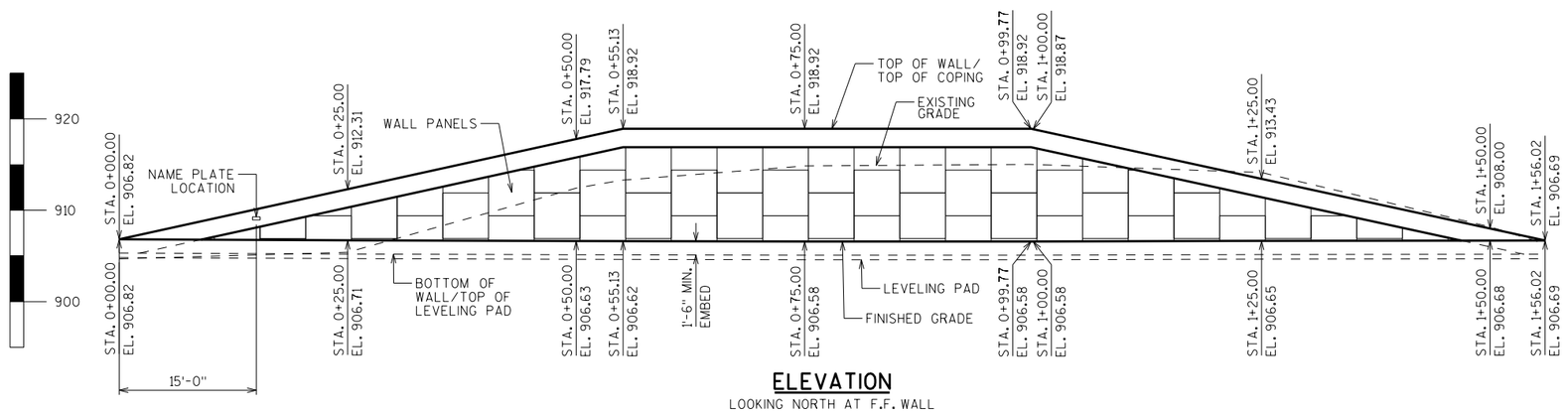
1021-03-74

(3) INDICATES WING NUMBER ON B-18-232

(A15) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED, SEE SHEET 3.



PLAN



ELEVATION

LOOKING NORTH AT F.F. WALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" 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 R-18-50" 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.

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THE NORTHWEST REGION SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE LRFD/QMP

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
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. SUBSURFACE EXPLORATION

CURVE DATA

IH-94 WB

P.I. = 653WB+95.69
△ = 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:

DANIELLE DE TENNIS (608) 266-8689

LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 11/27/17

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

199

I.D. 1021-03-04F DATE: NOV 2017

SCALE = 8.00

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STATE PROJECT NUMBER

1021-03-74

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 ℄ CTH I WB			
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	℄ 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	1470
	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 R-18-50".

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.

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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

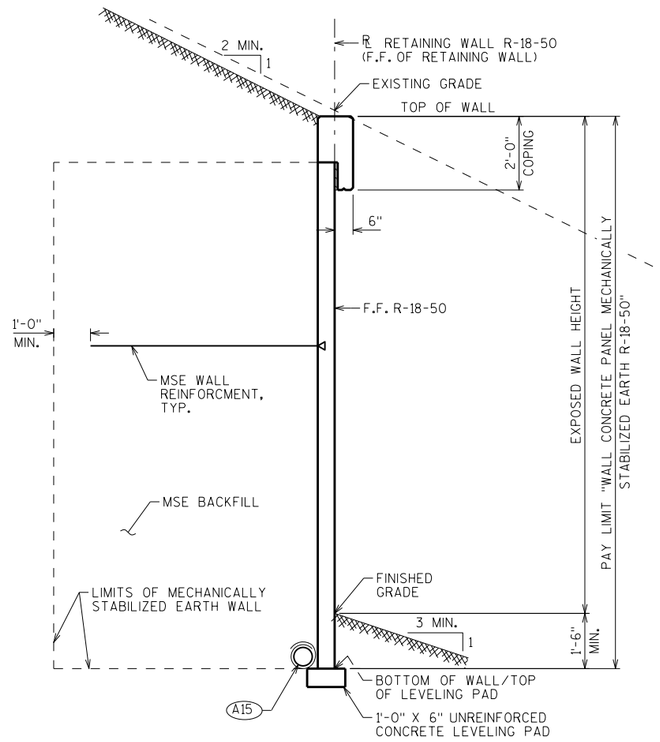
SHEET 2

200

SCALE = 1.00

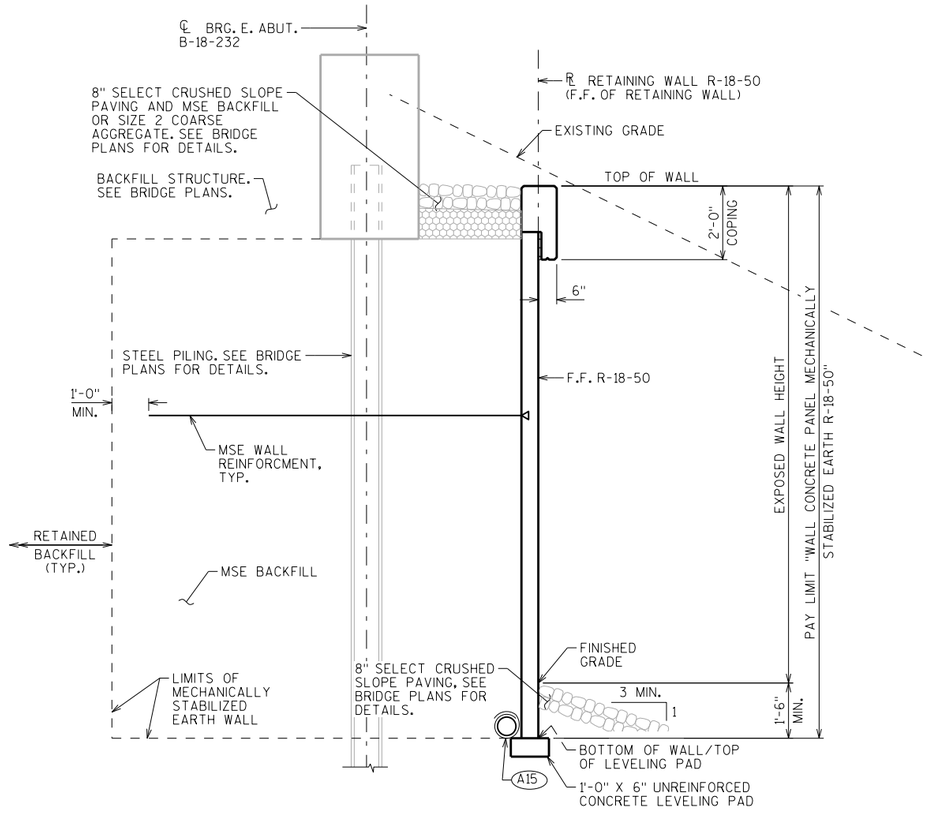
STATE PROJECT NUMBER

1021-03-74



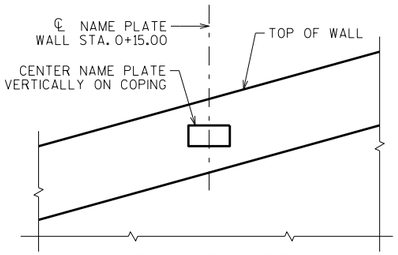
TYPICAL SECTION

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

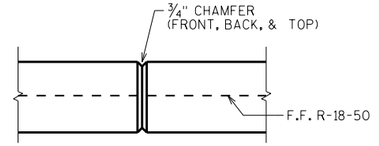


TYPICAL SECTION AT ABUTMENT

LOOKING SOUTHEAST
STA. 0+55.13 TO 0+99.77

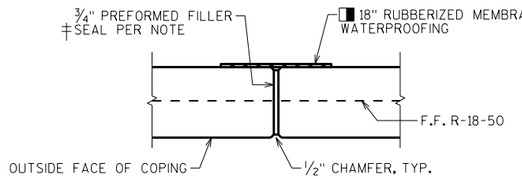


NAME PLATE DETAIL



COPING CONTRACTION JOINT

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

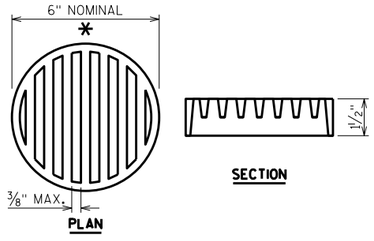


COPING EXPANSION JOINT

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 ⅛" BELOW SURFACE OF CONC.)

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

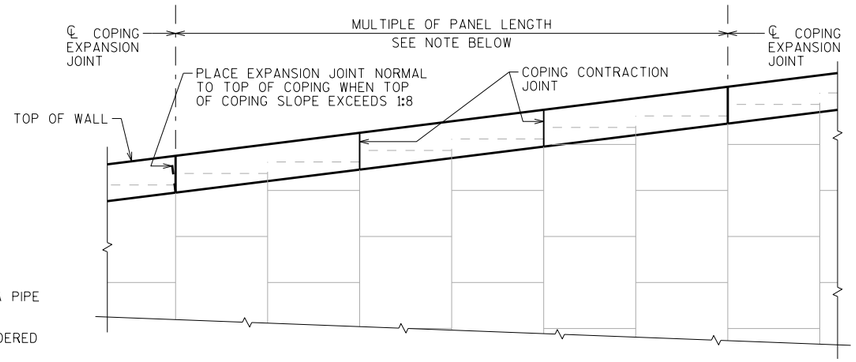


RODENT SHIELD DETAIL

* 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".

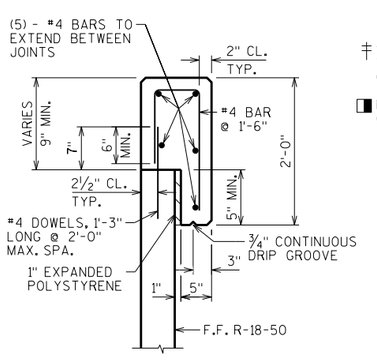
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHEMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 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

NOTE: COPING CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL FOR MECHANICALLY STABILIZED EARTH R-18-50.

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

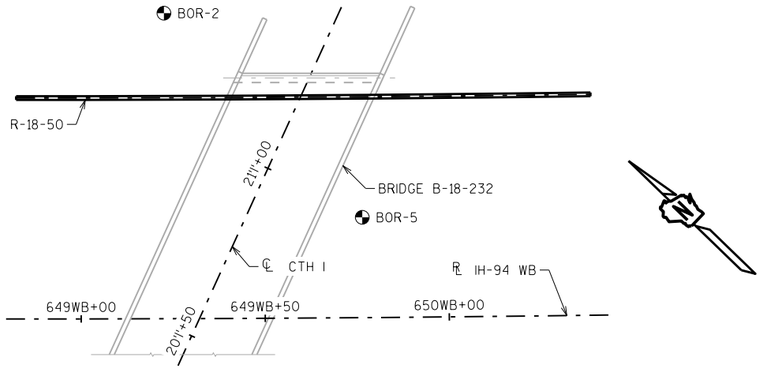
201

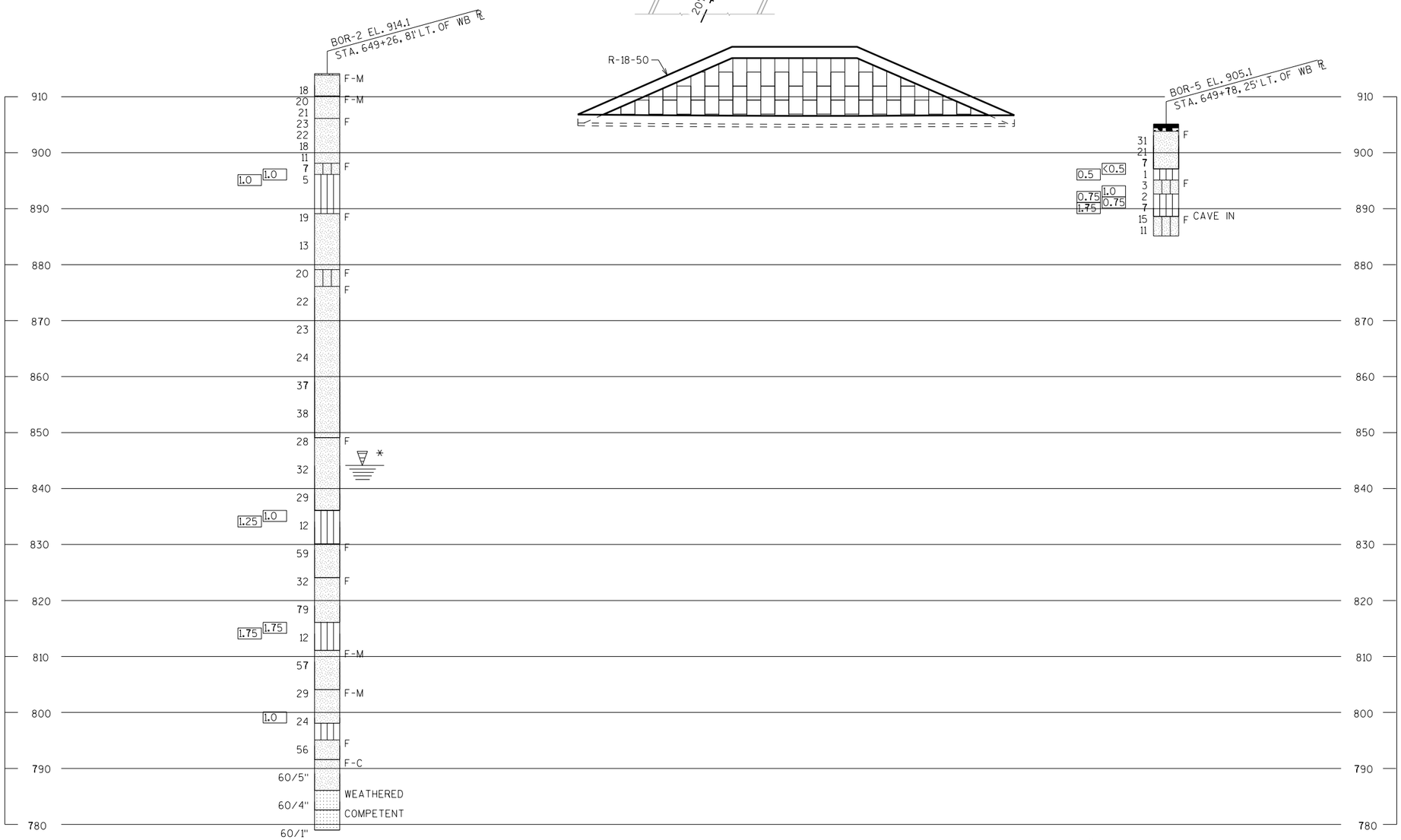
SCALE = 2.00

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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			





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

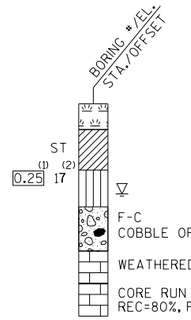
STATE PROJECT NUMBER

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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 R-18-50

DRAWN BY TLP/DFD | PLANS CK'D. DLM

SUBSURFACE EXPLORATION

SHEET 4

202

SCALE = 20.00

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Alignment: Ali-Ex_HobbsRd
Sample Line Group: SLG-HobbsRd-1
Start Sta: 11'H'+00.000
End Sta: 14'H'+16.562

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
11'H'+00.000	28.8	0	0	0.1	0	0	0	0	0
11'H'+19.095	32.76	21.77	21.77	0.08	0.08	21.77	21.77	0.08	21.69
11'H'+41.110	35.52	27.84	27.84	0.7	0.4	49.6	49.6	0.48	49.13
11'H'+50.000	34	11.44	11.44	1.73	0.5	61.05	61.05	0.97	60.07
12'H'+00.000	28.03	57.43	57.43	23.48	29.17	118.48	118.48	30.15	88.34
12'H'+50.000	14.68	39.55	39.55	87.74	128.72	158.03	158.03	158.87	-0.84
13'H'+00.000	1.97	15.42	15.42	241.69	381.28	173.46	173.46	540.15	-366.7
13'H'+50.000	0	1.83	1.83	187.03	496.2	175.28	175.28	1036.36	-861.07
13'H'+64.035	0	0	0	161.37	113.19	175.28	175.28	1149.54	-974.26
13'H'+90.058	0	0	0	236.64	239.75	175.28	175.28	1389.3	-1214.02
14'H'+00.000	0	0	0	126.98	83.68	175.28	175.28	1472.98	-1297.7
14'H'+16.562	0	0	0	135.77	100.73	175.28	175.28	1573.71	-1398.43

Alignment: Ali-Ex_IH94-EB_10210304
Sample Line Group: SLG-Ali-Ex_IH94-EB_10210304-4
Start Sta: 615'EB'+00.000
End Sta: 620'EB'+00.000

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
616'EB'+06.698	0	0	0	0	0	0	0	0	0
616'EB'+24.022	8.13	2.61	2.61	0.31	0.12	2.61	2.61	0.12	2.48
616'EB'+49.286	37.97	21.57	21.57	0	0.18	24.17	24.17	0.31	23.87
616'EB'+67.590	46.64	28.68	28.68	0	0	52.85	52.85	0.31	52.54
616'EB'+74.550	48.69	12.29	12.29	0	0	65.14	65.14	0.31	64.83
616'EB'+99.820	49.96	46.17	46.17	0	0	111.3	111.3	0.31	111
617'EB'+16.900	59.06	34.48	34.48	0	0	145.79	145.79	0.31	145.48
617'EB'+25.080	55.77	17.4	17.4	0	0	163.18	163.18	0.31	162.87
617'EB'+50.340	21.51	36.15	36.15	0	0	199.33	199.33	0.31	199.02
617'EB'+66.463	0.21	6.49	6.49	7.27	2.71	205.82	205.82	3.03	202.79
617'EB'+75.843	0	0.04	0.04	0	1.58	205.85	205.85	4.6	201.25

Alignment: Ali-Ex_HobbsRd
Sample Line Group: SLG-HobbsRd-2
Start Sta: 16'H'+57.058
End Sta: 23'H'+16.669

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
16'H'+57.058	0	0	0	210.36	0	0	0	0	0
16'H'+83.562	0	0	0	515.7	445.45	0	0	445.45	-445.45
17'H'+00.000	0	0	0	507.92	389.5	0	0	834.95	-834.95
17'H'+21.609	0	0	0	479.24	493.78	0	0	1328.73	-1328.73
17'H'+50.000	0	0	0	595.89	706.58	0	0	2035.31	-2035.31
18'H'+00.000	0	0	0	698.72	1498.39	0	0	3533.7	-3533.7
18'H'+50.000	0	0	0	578.86	1478.68	0	0	5012.38	-5012.38
19'H'+00.000	0	0	0	394.85	1126.98	0	0	6139.36	-6139.36
19'H'+50.000	1.62	1.5	1.5	306.41	811.65	1.5	1.5	6951.01	-6949.5
20'H'+00.000	15.73	16.07	16.07	204.12	590.89	17.57	17.57	7541.9	-7524.33
20'H'+50.000	22.43	35.33	35.33	127.86	384.23	52.91	52.91	7926.13	-7873.23
21'H'+00.000	30.67	49.16	49.16	75.16	234.97	102.07	102.07	8161.1	-8059.03
21'H'+50.000	36.22	61.93	61.93	44.03	137.95	164	164	8299.05	-8135.05
21'H'+69.310	37.3	26.29	26.29	57.59	45.42	190.29	190.29	8344.47	-8154.18
21'H'+69.320	37.3	0.01	0.01	57.65	0.03	190.31	190.31	8344.5	-8154.19
22'H'+00.000	50.62	49.95	49.95	36.14	66.61	240.26	240.26	8411.11	-8170.85
22'H'+50.000	47.84	91.17	91.17	1.34	43.38	331.43	331.43	8454.49	-8123.06
22'H'+63.720	41.94	22.81	22.81	0.05	0.44	354.24	354.24	8454.93	-8100.69
22'H'+80.750	35.71	24.49	24.49	2.58	1.03	378.73	378.73	8455.96	-8077.24
23'H'+00.000	38.28	26.38	26.38	3.71	2.8	405.1	405.1	8458.76	-8053.66
23'H'+16.669	32.32	21.79	21.79	1.58	2.04	426.9	426.9	8460.8	-8033.91

Alignment: Ali-Ex_HobbsRd
Sample Line Group: SLG-HobbsRd-3
Start Sta: 23'H'+25.000
End Sta: 23'H'+75.000

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
23'H'+25.000	3.76	0	0	1.21	0	0	0	0	0
23'H'+39.724	3.71	2.04	2.04	0.52	0.59	2.04	2.04	0.59	1.45
23'H'+50.000	3.73	1.42	1.42	0.15	0.16	3.45	3.45	0.75	2.7
23'H'+64.707	1.52	1.43	1.43	0.21	0.12	4.88	4.88	0.87	4.01
23'H'+67.698	1.42	0.16	0.16	0.21	0.03	5.05	5.05	0.9	4.14
23'H'+75.000	0	0.19	0.19	0.2	0.07	5.24	5.24	0.97	4.27

Alignment: Ali-Ex_IH94-WB_10210304
Sample Line Group: SLG-Ali-Ex_IH94-WB_10210304-4
Start Sta: 614'WB'+00.000
End Sta: 618'WB'+00.000

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
614'WB'+74.924	0	0	0	0	0	0	0	0	0
614'WB'+76.082	0.2	0	0	31.22	0.84	0	0	0.84	-0.83
614'WB'+82.846	0.28	0.06	0.06	25.33	8.85	0.06	0.06	9.69	-9.63
615'WB'+00.826	5.42	1.9	1.9	1.36	11.11	1.96	1.96	20.8	-18.84
615'WB'+25.569	45.37	23.27	23.27	0	0.78	25.23	25.23	21.58	3.65
615'WB'+46.150	57.58	39.24	39.24	0	0	64.47	64.47	21.58	42.89
615'WB'+50.313	58.03	8.91	8.91	0	0	73.38	73.38	21.58	51.8
615'WB'+75.056	47.19	48.21	48.21	0	0	121.59	121.59	21.58	100.01
615'WB'+93.780	50.66	33.93	33.93	0	0	155.52	155.52	21.58	133.94
615'WB'+99.800	51.18	11.35	11.35	0	0	166.88	166.88	21.58	145.3
616'WB'+24.544	5.23	25.85	25.85	2.41	1.38	192.72	192.72	22.96	169.76
616'WB'+27.690	0.56	0.34	0.34	5.11	0.55	193.06	193.06	23.51	169.55
616'WB'+32.589	0	0.05	0.05	0	0.58	193.11	193.11	24.09	169.02

Alignment: Ali-Ex_IH94-EB_10210304
Sample Line Group: SLG-Ali-Ex_IH94-EB_10210304-3
Start Sta: 613'EB'+34.796
End Sta: 619'EB'+50.472

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
613'EB'+34.796	0	0	0	0	0	0	0	0	0
614'EB'+84.014	14.4	40	40	0	0	40	40	0	40
615'EB'+47.104	24.3	45.21	45.21	0	0	85.21	85.21	0	85.21
615'EB'+59.457	26.88	11.71	11.71	0	0	96.92	96.92	0	96.92
616'EB'+09.195	23.35	46.26	46.26	0	0	143.18	143.18	0	143.18
616'EB'+54.703	25.32	41.01	41.01	0	0	184.19	184.19	0	184.19
617'EB'+04.438	19.62	41.38	41.38	0	0	225.57	225.57	0	225.57
617'EB'+15.793	19.63	8.25	8.25	0	0	233.83	233.83	0	233.83
617'EB'+78.881	4.32	27.98	27.98	7.6	11.11	261.8	261.8	11.11	250.7
618'EB'+01.249	0	1.79	1.79	0	3.94	263.59	263.59	15.04	248.55

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

File: N:\PDS\Projects-LET\1021-03-04\PSE\misq\030201_mq_1021-03-04 MISC sheets - normal.ppt
PLOT DATE : 2/27/2007 4:34:45 PM PLOT BY : DOTLXB PLOT NAME : _____ PLOT SCALE : 1:1

Alignment: CTH I
Sample Line Group: SLG-CTH I-1
Start Sta: 13'I'+66.374
End Sta: 19'I'+07.381

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
13'I'+66.374	31.82	0	0	3.67	0	0	0	0	0
14'I'+00.000	27.78	37.11	37.11	7.52	8.71	37.11	37.11	8.71	28.41
14'I'+10.590	26.39	10.62	10.62	5.27	3.14	47.74	47.74	11.84	35.89
14'I'+10.604	25.52	0.01	0.01	2.73	0	47.75	47.75	11.84	35.91
14'I'+23.793	22.39	11.7	11.7	1.39	1.26	59.45	59.45	13.1	46.35
14'I'+39.211	17	11.25	11.25	3.79	1.85	70.7	70.7	14.95	55.75
14'I'+39.220	17.01	0	0	7.24	0	70.7	70.7	14.95	55.75
14'I'+50.000	12.48	5.89	5.89	15.33	5.63	76.59	76.59	20.58	56.01
15'I'+00.000	0	11.56	11.56	48.42	73.78	88.15	88.15	94.37	-6.22
15'I'+50.000	0	0	0	96.8	168.07	88.15	88.15	262.44	-174.29
16'I'+00.000	0	0	0	155.73	292.28	88.15	88.15	554.72	-466.57
16'I'+08.730	0	0	0	155.17	62.83	88.15	88.15	617.55	-529.4
16'I'+08.735	0	0	0	132.79	0.03	88.15	88.15	617.58	-529.43
16'I'+16.540	0	0	0	103.15	42.63	88.15	88.15	660.21	-572.06
16'I'+16.554	0	0	0	75.05	0.06	88.15	88.15	660.26	-572.12
16'I'+26.066	0	0	0	81.37	34.44	88.15	88.15	694.71	-606.56
16'I'+26.080	0	0	0	104.84	0.06	88.15	88.15	694.77	-606.62
16'I'+50.000	0	0	0	154.21	143.44	88.15	88.15	838.2	-750.05
16'I'+50.071	0	0	0	154.42	0.51	88.15	88.15	838.71	-750.56
16'I'+50.080	0	0	0	220.32	0.08	88.15	88.15	838.79	-750.64
17'I'+00.000	0	0	0	359.25	669.73	88.15	88.15	1508.51	-1420.36
17'I'+10.850	0	0	0	368.98	182.9	88.15	88.15	1691.41	-1603.26
17'I'+50.000	0	0	0	453.99	745.81	88.15	88.15	2437.23	-2349.08
17'I'+63.931	0	0	0	486.02	303.13	88.15	88.15	2740.36	-2652.21
17'I'+75.000	0	0	0	503.26	253.48	88.15	88.15	2993.84	-2905.69
18'I'+00.000	0	0	0	514.14	588.77	88.15	88.15	3582.61	-3494.46
18'I'+13.020	0	0	0	480.21	299.69	88.15	88.15	3882.3	-3794.15
18'I'+35.355	0	0	0	429.95	470.55	88.15	88.15	4352.85	-4264.7
18'I'+50.000	0	0	0	438.89	294.54	88.15	88.15	4647.39	-4559.24
18'I'+87.879	0	0	0	454.07	782.97	88.15	88.15	5430.37	-5342.22
19'I'+00.000	0	0	0	33.38	136.77	88.15	88.15	5567.14	-5478.99
19'I'+07.381	0	0	0	33.78	11.48	88.15	88.15	5578.61	-5490.46

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

File: N:\PDS\Projects-LET\1021-03-04\PSE\misq\030201_mq_1021-03-04 MISC sheets - normal.ppt
PLOT DATE : 2/27/2007 4:34:45 PM PLOT BY : DOTLXB PLOT NAME : _____ PLOT SCALE : 1:1

Alignment: CTH I Driveway STA 14+25 RT
Sample Line Group: SLG-PE1
Start Sta: 0'PE1'+16.989
End Sta: 0'PE1'+55.090

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
0'PE1'+16.989	0	0	0	9.86	0	0	0	0	0
0'PE1'+25.000	0	0	0	27.27	6.89	0	0	6.89	-6.89
0'PE1'+34.490	0	0	0	15.37	9.37	0	0	16.25	-16.25
0'PE1'+37.500	0	0	0	14.87	2.11	0	0	18.36	-18.36
0'PE1'+39.490	0	0	0	15.99	1.42	0	0	19.78	-19.78
0'PE1'+44.740	0	0	0	22.44	4.67	0	0	24.45	-24.45
0'PE1'+50.000	0	0	0	10.33	3.99	0	0	28.44	-28.44
0'PE1'+50.090	0	0	0	10.19	0.04	0	0	28.49	-28.49
0'PE1'+55.090	0	0	0	0	1.18	0	0	29.67	-29.67

Alignment: CTH I Driveway STA 16+15 RT
Sample Line Group: SLG-PE2
Start Sta: 0'PE2'+22.506
End Sta: 1'PE2'+11.830

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
0'PE2'+22.506	0	0	0	0.01	0	0	0	0	0
0'PE2'+23.124	0	0	0	30.98	0.44	0	0	0.44	-0.44
0'PE2'+25.000	0	0	0	71.97	4.47	0	0	4.91	-4.91
0'PE2'+37.500	0	0	0	95.86	48.56	0	0	53.48	-53.48
0'PE2'+39.500	0	0	0	97.08	8.93	0	0	62.41	-62.41
0'PE2'+40.790	0	0	0	97.25	5.8	0	0	68.21	-68.21
0'PE2'+46.570	0	0	0	109.82	27.71	0	0	95.92	-95.92
0'PE2'+48.070	0	0	0	108.83	7.59	0	0	103.51	-103.51
0'PE2'+50.000	0	0	0	105.54	9.58	0	0	113.09	-113.09
0'PE2'+62.500	0	0	0	88.39	56.11	0	0	169.2	-169.2
0'PE2'+75.000	0	0	0	62.98	43.8	0	0	213	-213
0'PE2'+87.500	0	0	0	29.5	26.76	0	0	239.76	-239.76
1'PE2'+00.000	0	0	0	3.23	9.47	0	0	249.23	-249.23
1'PE2'+07.570	4.56	0.64	0.64	0	0.57	0.64	0.64	249.8	-249.16

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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

File: N:\PDS\Projects-LET\1021-03-04\PSE\misq\030201_mq_1021-03-04 MISC sheets - normal.ppt PLOT DATE : 2/27/2007 4:34:45 PM PLOT BY : DOTLXB PLOT NAME : _____ PLOT SCALE : 1:1

Alignment: CTH I Driveway STA 16+30 LT
Sample Line Group: SLG-PE3
Start Sta: 0'PE3'+04.494
End Sta: 0'PE3'+82.060

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
0'PE3'+04.494	0	0	0	0	0	0	0	0	0
0'PE3'+05.043	0	0	0	0.08	0	0	0	0	0
0'PE3'+05.592	0	0	0	0.29	0	0	0	0	0
0'PE3'+10.040	0	0	0	2.7	0.31	0	0	0.31	-0.31
0'PE3'+12.500	0	0	0	6.79	0.54	0	0	0.85	-0.85
0'PE3'+20.390	0	0	0	19.29	4.76	0	0	5.62	-5.62
0'PE3'+25.000	0	0	0	24.78	4.7	0	0	10.32	-10.32
0'PE3'+37.500	0	0	0	63.43	25.53	0	0	35.84	-35.84
0'PE3'+50.000	0	0	0	93.32	45.36	0	0	81.2	-81.2
0'PE3'+59.070	0	0	0	119.26	44.63	0	0	125.83	-125.83
0'PE3'+62.500	0	0	0	145.16	20.99	0	0	146.83	-146.83
0'PE3'+74.190	0	0	0	125.21	73.16	0	0	219.99	-219.99
0'PE3'+75.000	0	0	0	110.97	4.43	0	0	224.42	-224.42
0'PE3'+79.080	0	0	0	45.64	14.79	0	0	239.21	-239.21
0'PE3'+82.060	0	0	0	0.08	3.15	0	0	242.36	-242.36

Alignment: Ali-Ex_IH94-EB_10210304
Sample Line Group: SLG-Ali-Ex_IH94-EB_10210304-3
Start Sta: 647'EB'+14.127
End Sta: 651'EB'+48.993

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
648'EB'+01.458	0	0	0	0	0	0	0	0	0
648'EB'+08.573	0	0	0	32.3	5.32	0	0	5.32	-5.32
648'EB'+23.168	0	0	0	27.91	20.34	0	0	25.66	-25.66
648'EB'+23.168	0	0	0	0	0	0	0	25.66	-25.66
648'EB'+33.573	8.51	1.64	1.64	1.84	0.44	1.64	1.64	26.1	-24.46
648'EB'+55.550	48.48	23.19	23.19	0	0.94	24.83	24.83	27.04	-2.21
648'EB'+58.570	51.21	5.58	5.58	0	0	30.41	30.41	27.04	3.37
648'EB'+83.573	49.37	46.57	46.57	0	0	76.98	76.98	27.04	49.94
648'EB'+99.950	48.88	29.8	29.8	0.01	0	106.78	106.78	27.05	79.73
649'EB'+08.573	48.88	15.61	15.61	0	0	122.39	122.39	27.05	95.34
649'EB'+33.573	34.76	38.73	38.73	0	0	161.11	161.11	27.05	134.06
649'EB'+43.833	19.18	10.25	10.25	0	0	171.36	171.36	27.05	144.31
649'EB'+60.141	0	5.79	5.79	0	0	177.15	177.15	27.05	150.1

9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

File: N:\PDS\Projects-LET\1021-03-04\PSE\misq\030201_mq_1021-03-04 MISC sheets - normal.ppt PLOT DATE : 2/27/2007 4:34:45 PM PLOT BY : DOTLXB PLOT NAME : _____ PLOT SCALE : 1:1

Alignment: CTH I Sample Line Group: SLG-CTH I-2 Start Sta: 21'I'+36.630 End Sta: 35'I'+05.138

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
21'I'+36.630	0	0	0	300.21	0	0	0	0	0
21'I'+50.000	0	0	0	309.16	188.6	0	0	188.6	-188.6
21'I'+56.130	0	0	0	377.03	97.37	0	0	285.96	-285.96
22'I'+00.000	0	0	0	389.75	778.67	0	0	1064.64	-1064.64
22'I'+50.000	0	0	0	364.12	872.54	0	0	1937.18	-1937.18
22'I'+89.420	0	0	0	159.2	477.53	0	0	2414.71	-2414.71
22'I'+89.431	0	0	0	104.76	0.06	0	0	2414.77	-2414.77
23'I'+00.000	0	0	0	103.77	51.02	0	0	2465.79	-2465.79
23'I'+07.125	0	0	0	102.9	34.09	0	0	2499.88	-2499.88
23'I'+07.130	0	0	0	174.37	0.03	0	0	2499.91	-2499.91
23'I'+50.000	0	0	0	297.46	468.22	0	0	2968.14	-2968.14
24'I'+00.000	0	0	0	293.67	684.18	0	0	3652.31	-3652.31
24'I'+50.000	0	0	0	246.13	624.77	0	0	4277.08	-4277.08
24'I'+53.330	0	0	0	218.11	35.78	0	0	4312.87	-4312.87
24'I'+53.340	0	0	0	102.58	0.07	0	0	4312.94	-4312.94
24'I'+83.278	0	0	0	89.33	132.99	0	0	4445.93	-4445.93
24'I'+83.290	0	0	0	149.83	0.07	0	0	4446	-4446
25'I'+00.000	0	0	0	227.51	145.96	0	0	4591.96	-4591.96
25'I'+50.000	0	0	0	180.84	472.63	0	0	5064.58	-5064.58
26'I'+00.000	0	0	0	126.81	356.07	0	0	5420.66	-5420.66
26'I'+50.000	0.92	0.85	0.85	89.64	250.52	0.85	0.85	5671.17	-5670.32
27'I'+00.000	16.79	16.4	16.4	81.7	198.32	17.25	17.25	5869.49	-5852.24
27'I'+50.000	45.3	57.49	57.49	65.44	170.31	74.74	74.74	6039.8	-5965.06
27'I'+83.570	53.05	61.14	61.14	10.03	58.65	135.88	135.88	6098.44	-5962.56
27'I'+83.576	52.96	0.01	0.01	1.04	0	135.89	135.89	6098.45	-5962.55
28'I'+00.000	52.45	32.06	32.06	1	0.77	167.95	167.95	6099.22	-5931.27
28'I'+16.040	47.34	29.64	29.64	11.67	4.7	197.59	197.59	6103.92	-5906.33
28'I'+16.050	47.33	0.02	0.02	50.32	0.01	197.61	197.61	6103.94	-5906.33
28'I'+50.000	47.33	59.51	59.51	38.51	69.81	257.12	257.12	6173.75	-5916.62
29'I'+00.000	83.07	120.74	120.74	11.18	57.52	377.87	377.87	6231.26	-5853.4
29'I'+25.000	103.52	86.39	86.39	5.75	9.8	464.25	464.25	6241.06	-5776.81
29'I'+50.000	95.19	91.99	91.99	4	5.64	556.25	556.25	6246.7	-5690.46
30'I'+00.000	62.05	145.59	145.59	4.97	10.39	701.84	701.84	6257.09	-5555.25
30'I'+50.000	58.43	111.56	111.56	1.5	7.48	813.4	813.4	6264.57	-5451.17
31'I'+00.000	25.55	77.77	77.77	6.15	8.85	891.17	891.17	6273.42	-5382.26
31'I'+50.000	22.91	44.88	44.88	10.66	19.46	936.04	936.04	6292.89	-5356.84
32'I'+00.000	25.93	45.22	45.22	56.42	77.65	981.27	981.27	6370.53	-5389.27
32'I'+50.000	33.07	54.63	54.63	10.35	77.28	1035.9	1035.9	6447.82	-5411.92
33'I'+00.000	40.17	67.82	67.82	21.92	37.35	1103.71	1103.71	6485.16	-5381.45
33'I'+50.000	26.51	61.74	61.74	49.76	82.96	1165.45	1165.45	6568.12	-5402.68
33'I'+75.000	28.12	25.29	25.29	26.91	44.37	1190.74	1190.74	6612.49	-5421.75
34'I'+00.000	33.3	28.44	28.44	18.14	26.07	1219.18	1219.18	6638.56	-5419.38
34'I'+25.000	37.16	32.62	32.62	7.57	14.88	1251.8	1251.8	6653.43	-5401.63
34'I'+50.000	37.6	34.61	34.61	5.28	7.44	1286.42	1286.42	6660.87	-5374.45
34'I'+72.975	42.2	33.95	33.95	6.01	6.01	1320.37	1320.37	6666.88	-5346.51
35'I'+00.000	47.54	44.91	44.91	6.37	7.74	1365.28	1365.28	6674.62	-5309.34
35'I'+05.138	49.97	9.28	9.28	2.69	1.08	1374.56	1374.56	6675.7	-5301.14

9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

File: N:\PDS\Projects-LET\1021-03-04\PSE\misq\030201_mq_1021-03-04 MISC sheets - normal.ppt PLOT DATE : 2/27/2007 4:34:45 PM PLOT BY : DOTLXB PLOT NAME : _____ PLOT SCALE : 1:1

Alignment: Ali-Ex_CTH-I
Sample Line Group: SLG-Ali-Ex_CTH-I
Start Sta: 35'I'+05.140
End Sta: 36'I'+44.474

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
35'I'+05.140	41.22	0	0	3.76	0	0	0	0	0
35'I'+19.155	7.29	12.59	12.59	8.95	4.12	12.59	12.59	4.12	8.47
35'I'+29.510	10.74	3.46	3.46	9.32	4.38	16.05	16.05	8.5	7.54
35'I'+47.469	9.29	6.66	6.66	2.83	5.05	22.71	22.71	13.56	9.15
35'I'+50.000	9.65	0.89	0.89	3.59	0.38	23.6	23.6	13.93	9.67
35'I'+76.249	3.83	6.55	6.55	0.32	2.37	30.15	30.15	16.31	13.85
35'I'+77.240	0.42	0.08	0.08	1	0.03	30.23	30.23	16.34	13.89
36'I'+00.000	0.48	0.38	0.38	0.1	0.58	30.61	30.61	16.92	13.69
36'I'+44.474	0.04	0.42	0.42	0.01	0.12	31.03	31.03	17.04	13.99

Alignment: CTH I Driveway STA 23+00 LT
Sample Line Group: SLG-PE4
Start Sta: 0'PE4'+04.788
End Sta: 1'PE4'+34.950

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
0'PE4'+04.788	0	0	0	0	0	0	0	0	0
0'PE4'+05.040	0.45	0	0	0	0	0	0	0	0
0'PE4'+05.222	0.57	0	0	0	0	0	0	0	0
0'PE4'+12.500	0	0.08	0.08	4.06	0.68	0.08	0.08	0.68	-0.6
0'PE4'+15.040	0	0	0	6.17	0.6	0.08	0.08	1.28	-1.2
0'PE4'+25.000	0	0	0	23.79	6.91	0.08	0.08	8.19	-8.11
0'PE4'+37.500	0	0	0	56.9	23.35	0.08	0.08	31.54	-31.46
0'PE4'+50.000	0	0	0	100.64	45.59	0.08	0.08	77.13	-77.05
0'PE4'+62.500	0	0	0	156.03	74.27	0.08	0.08	151.4	-151.31
0'PE4'+75.000	0	0	0	221.42	109.22	0.08	0.08	260.61	-260.53
0'PE4'+87.500	0	0	0	271.78	142.71	0.08	0.08	403.32	-403.24
1'PE4'+00.000	0	0	0	331.88	174.67	0.08	0.08	577.99	-577.91
1'PE4'+12.500	0	0	0	337.68	193.74	0.08	0.08	771.73	-771.65
1'PE4'+16.770	0	0	0	298.77	62.91	0.08	0.08	834.64	-834.55
1'PE4'+21.770	0	0	0	275.87	66.51	0.08	0.08	901.15	-901.06
1'PE4'+25.000	0	0	0	228.03	37.68	0.08	0.08	938.82	-938.74
1'PE4'+34.590	0	0	0	84.91	69.47	0.08	0.08	1008.29	-1008.21
1'PE4'+34.700	0	0	0	45.01	0.33	0.08	0.08	1008.62	-1008.54
1'PE4'+34.950	0	0	0	0	0.26	0.08	0.08	1008.88	-1008.8

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

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PLOT DATE : 2/27/2007 4:34:45 PM PLOT BY : DOTLXB PLOT NAME : _____ PLOT SCALE : 1:1

Alignment: CTH I Driveway STA 24+68 LT
Sample Line Group: SLG-PE5
Start Sta: 0'PE5'+04.911
End Sta: 1'PE5'+06.900

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
0'PE5'+05.001	0	0	0	0	0	0	0	0	0
0'PE5'+05.091	0	0	0	0.04	0	0	0	0	0
0'PE5'+12.500	0	0	0	4.71	0.81	0	0	0.81	-0.81
0'PE5'+15.000	0	0	0	6.9	0.67	0	0	1.48	-1.48
0'PE5'+25.000	0	0	0	32.66	9.16	0	0	10.64	-10.64
0'PE5'+37.500	0	0	0	79.93	32.58	0	0	43.22	-43.22
0'PE5'+50.000	0	0	0	138.82	63.3	0	0	106.52	-106.52
0'PE5'+62.500	0	0	0	207.43	100.19	0	0	206.71	-206.71
0'PE5'+75.000	0	0	0	279.09	140.78	0	0	347.48	-347.48
0'PE5'+81.740	0	0	0	305.43	91.2	0	0	438.68	-438.68
0'PE5'+87.500	0	0	0	340.53	86.13	0	0	524.81	-524.81
0'PE5'+91.740	0	0	0	334.73	66.28	0	0	591.08	-591.08
1'PE5'+00.000	0	0	0	218.26	105.73	0	0	696.82	-696.82
1'PE5'+06.740	0	0	0	142.02	56.21	0	0	753.03	-753.03
1'PE5'+06.900	0	0	0	0	0.53	0	0	753.55	-753.55

Alignment: CTH I Driveway STA 27+97 LT
Sample Line Group: SLG-PE6
Start Sta: 0'PE6'+05.000
End Sta: 0'PE6'+67.280

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
0'PE6'+05.000	0.87	0	0	0	0	0	0	0	0
0'PE6'+10.000	0.2	0.1	0.1	0.61	0.07	0.1	0.1	0.07	0.03
0'PE6'+12.500	0	0	0	2.15	0.16	0.11	0.11	0.23	-0.12
0'PE6'+25.000	0	0	0	15.93	5.23	0.11	0.11	5.46	-5.35
0'PE6'+37.500	0	0	0	44.3	17.43	0.11	0.11	22.89	-22.78
0'PE6'+42.010	0	0	0	58.49	10.73	0.11	0.11	33.62	-33.51
0'PE6'+50.000	0	0	0	80.44	25.7	0.11	0.11	59.31	-59.21
0'PE6'+52.010	0	0	0	82.84	7.6	0.11	0.11	66.91	-66.8
0'PE6'+56.700	0	0	0	86.75	18.41	0.11	0.11	85.32	-85.22
0'PE6'+62.500	0	0	0	76.14	21.87	0.11	0.11	107.19	-107.09
0'PE6'+66.830	0	0	0	63.9	14.04	0.11	0.11	121.23	-121.12
0'PE6'+67.010	0	0	0	57.14	0.5	0.11	0.11	121.73	-121.63
0'PE6'+67.120	0	0	0	24.33	0.21	0.11	0.11	121.94	-121.83
0'PE6'+67.280	0	0	0	0	0.09	0.11	0.11	122.03	-121.92

Alignment: Ali-Ex_IH94-WB_10210304
Sample Line Group: SLG-Ali-Ex_IH94-WB_10210304-3
Start Sta: 648'WB'+00.000
End Sta: 651'WB'+50.000

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
648'WB'+50.000	0	0	0	0	0	0	0	0	0
648'WB'+82.297	0	0	0	27.76	20.75	0	0	20.75	-20.75
649'WB'+07.429	0	0	0	32.14	34.85	0	0	55.6	-55.6
649'WB'+08.661	0	0	0	28.35	1.73	0	0	57.33	-57.33
649'WB'+32.561	31.66	14.01	14.01	0	15.69	14.01	14.01	73.02	-59
649'WB'+37.720	38.98	6.75	6.75	0	0	20.76	20.76	73.02	-52.26
649'WB'+57.692	47.31	31.91	31.91	0	0	52.67	52.67	73.02	-20.35
649'WB'+82.600	50.26	45	45	0	0	97.67	97.67	73.02	24.65
649'WB'+82.824	50.19	0.42	0.42	0	0	98.09	98.09	73.02	25.07
650'WB'+07.955	47.93	45.66	45.66	0	0	143.75	143.75	73.02	70.73
650'WB'+33.087	11.95	27.86	27.86	0	0	171.62	171.62	73.03	98.59
650'WB'+39.138	1.74	1.53	1.53	1	0.14	173.15	173.15	73.17	99.99
650'WB'+50.298	0	0.36	0.36	0	0.26	173.51	173.51	73.43	100.09

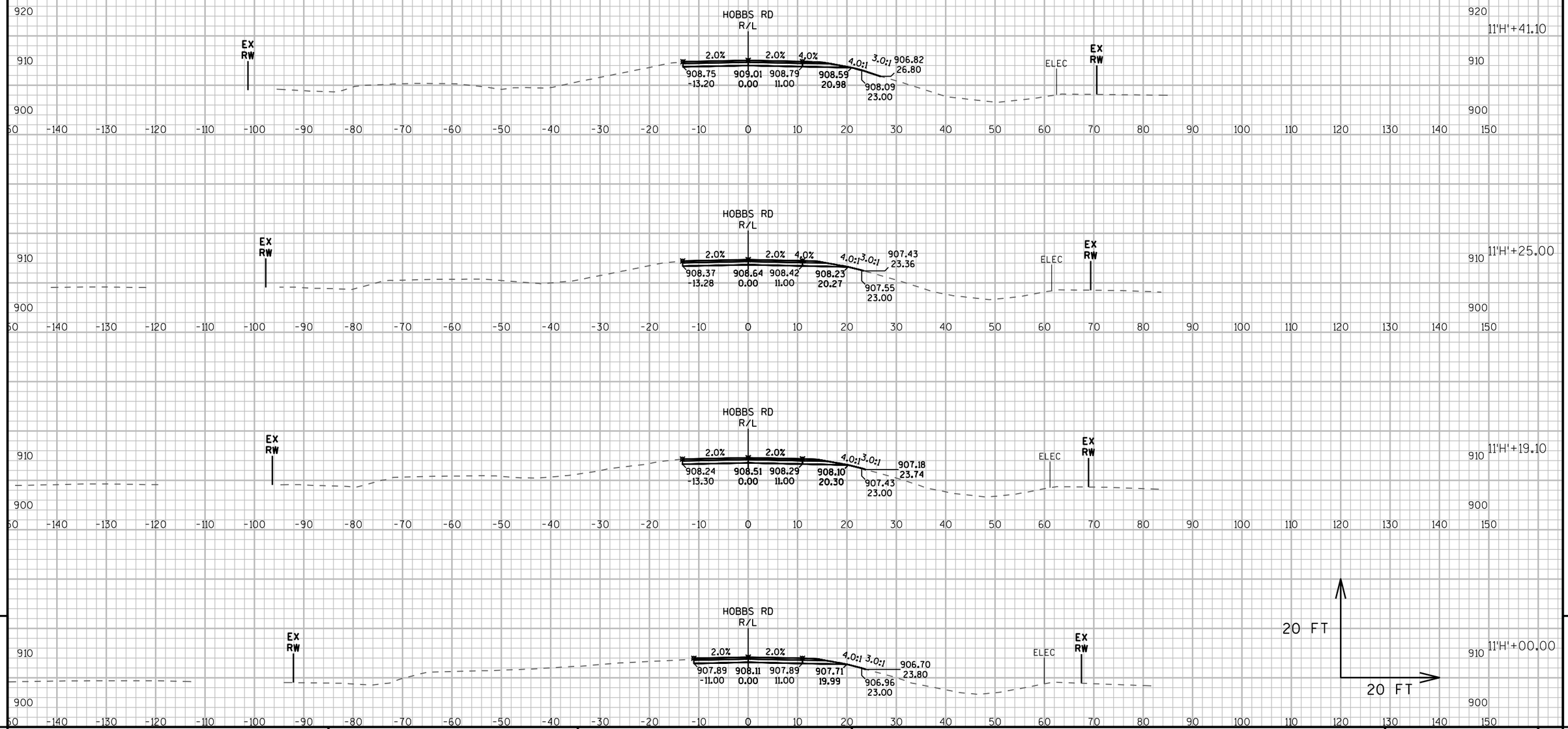
Alignment: Ali-Ex_IH94-WB_10210304
Sample Line Group: Median BG-Ali-Ex_IH94-WB_10210304-2
Start Sta: 645'WB'+64.120
End Sta: 653'WB'+66.107

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
645'WB'+64.120	0	0	0	0.28	0	0	0	0	0
646'WB'+22.603	0	0	0	19.13	26.27	0	0	26.27	-26.27
647'WB'+14.112	0.37	0.62	0.62	11.21	64.28	0.62	0.62	90.55	-89.93
647'WB'+71.600	0	0.39	0.39	15.9	36.09	1.01	1.01	126.64	-125.63
647'WB'+99.953	0	0	0	13.49	19.29	1.01	1.01	145.93	-144.91
648'WB'+35.989	0	0	0	13.41	22.44	1.01	1.01	168.37	-167.35
648'WB'+48.362	0.56	0.13	0.13	5.62	5.45	1.14	1.14	173.82	-172.68
648'WB'+97.605	4.7	4.8	4.8	2.4	9.14	5.94	5.94	182.96	-177.02
649'WB'+18.291	2.19	2.64	2.64	0.23	1.26	8.58	8.58	184.22	-175.64
649'WB'+38.294	3.72	2.19	2.19	0	0.11	10.77	10.77	184.33	-173.56
649'WB'+88.162	0.88	4.25	4.25	1.92	2.22	15.01	15.01	186.55	-171.54
650'WB'+00.544	1.81	0.62	0.62	3.35	1.51	15.63	15.63	188.06	-172.43
650'WB'+63.793	8.63	12.22	12.22	2.79	8.99	27.85	27.85	197.04	-169.19
650'WB'+74.117	37.44	8.81	8.81	0.04	0.68	36.66	36.66	197.72	-161.06
651'WB'+47.578	7.66	61.35	61.35	18.06	30.79	98.01	98.01	228.5	-130.49
652'WB'+13.399	0.03	9.37	9.37	23.17	62.81	107.38	107.38	291.32	-183.93
652'WB'+25.000	0	0	0	23.14	12.44	107.39	107.39	303.75	-196.36
652'WB'+97.186	0	0	0	16.45	66.15	107.39	107.39	369.91	-262.52
653'WB'+66.107	0	0	0	0.18	26.53	107.39	107.39	396.43	-289.04

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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	EARTHWORK TABULATIONS	SHEET:	E

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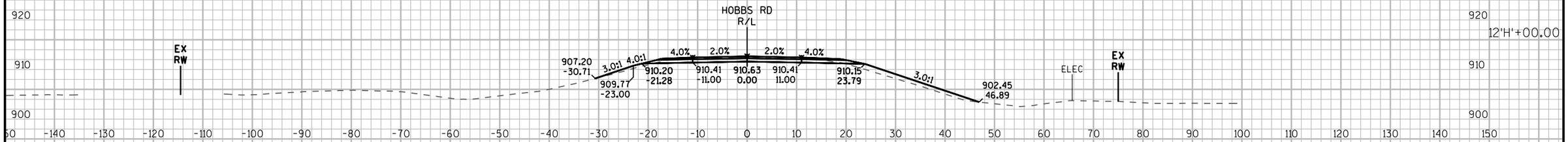


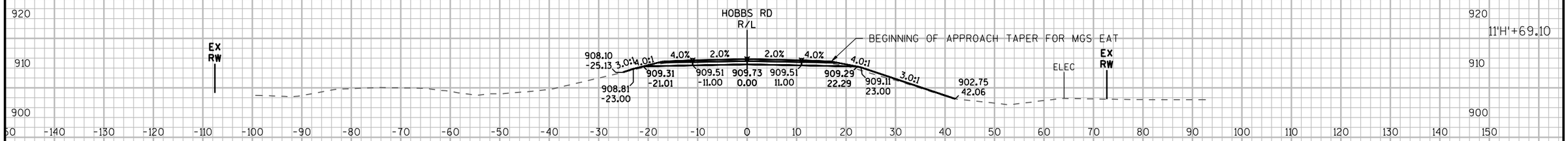
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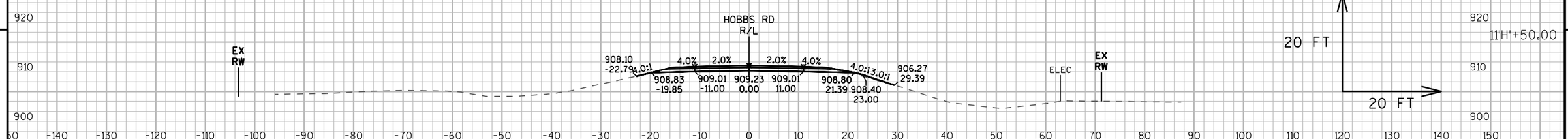
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LAYOUT NAME - HOBBS RD - (01)

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WISDOT/CADDS SHEET 49



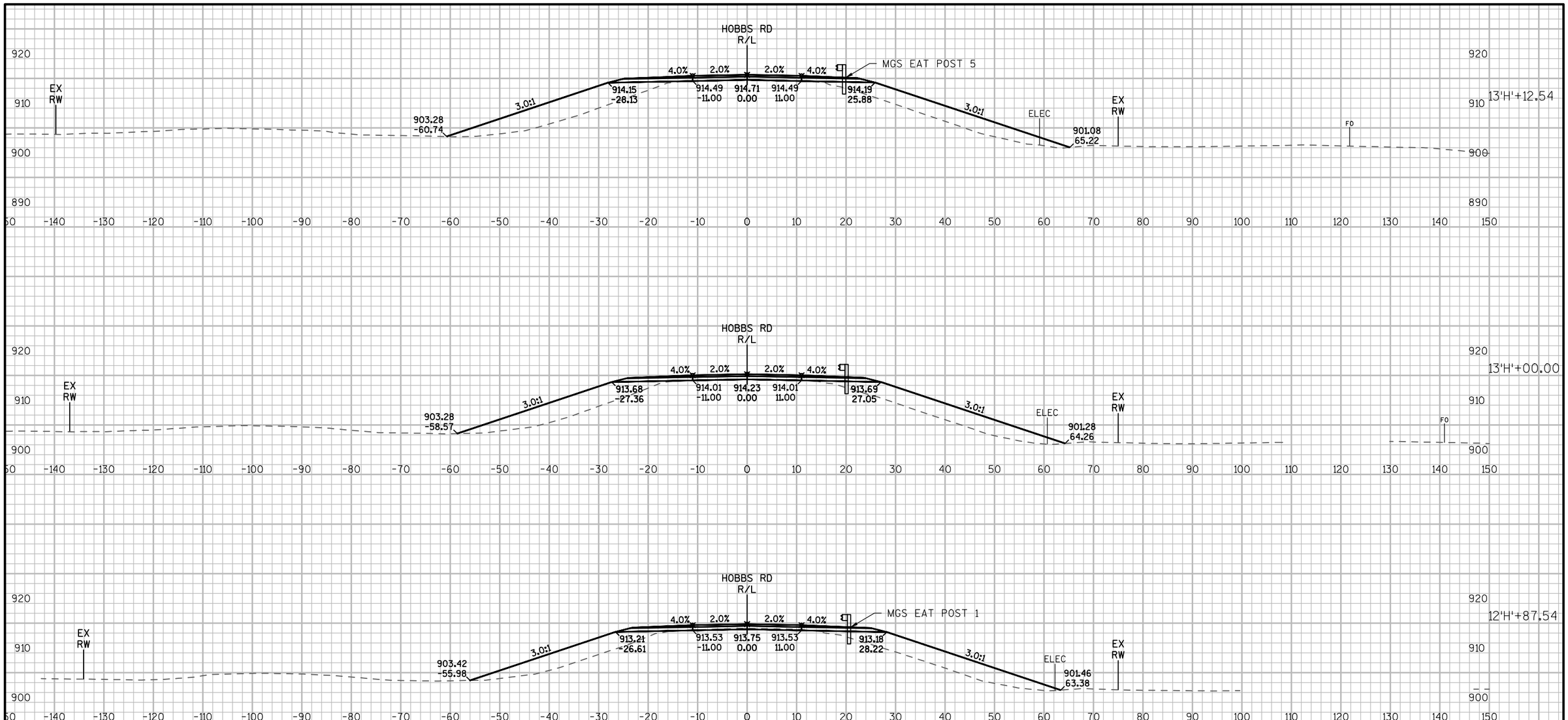




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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 214	E

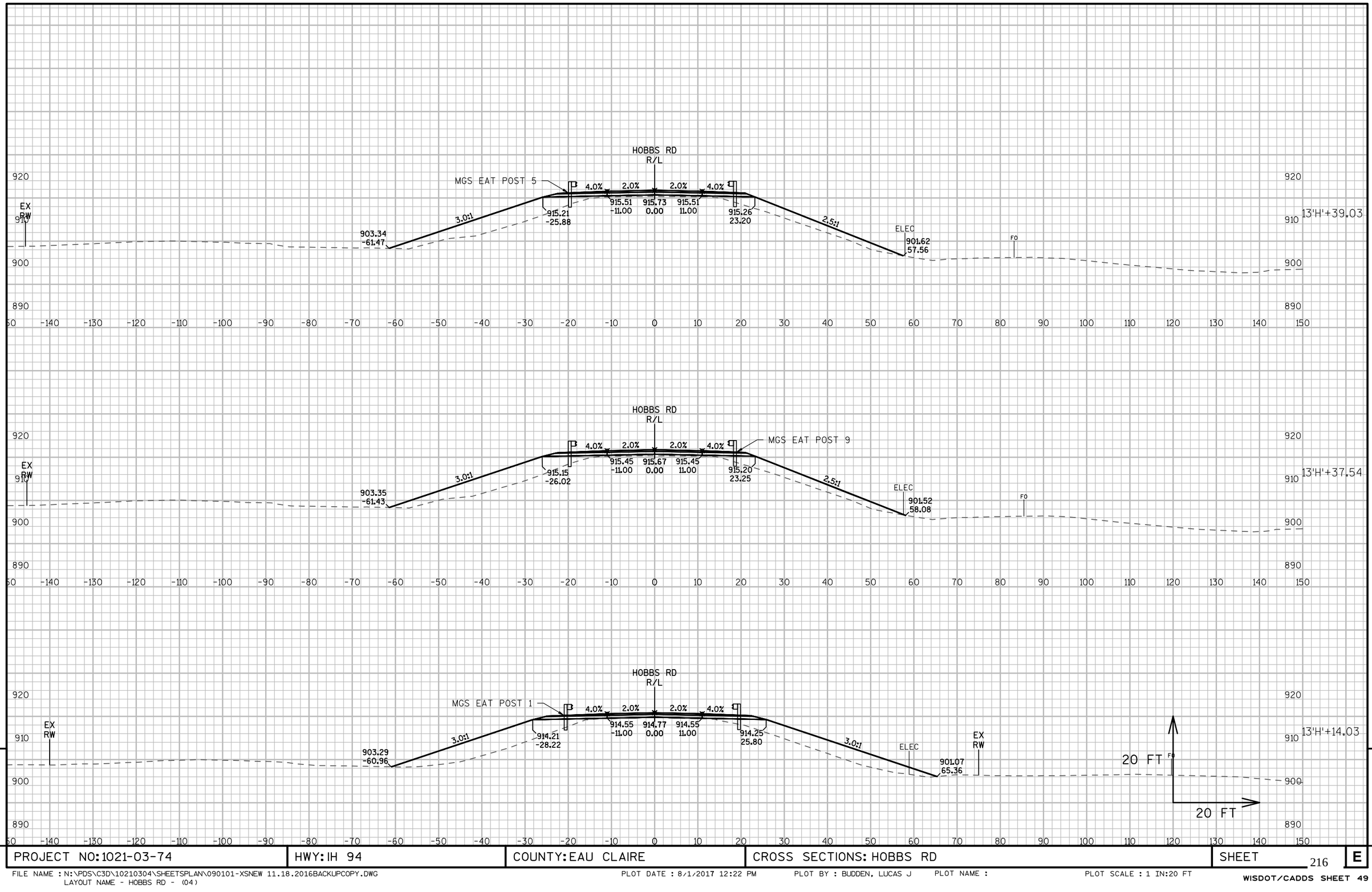


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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 215	E

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WISDOT/CADDS SHEET 49



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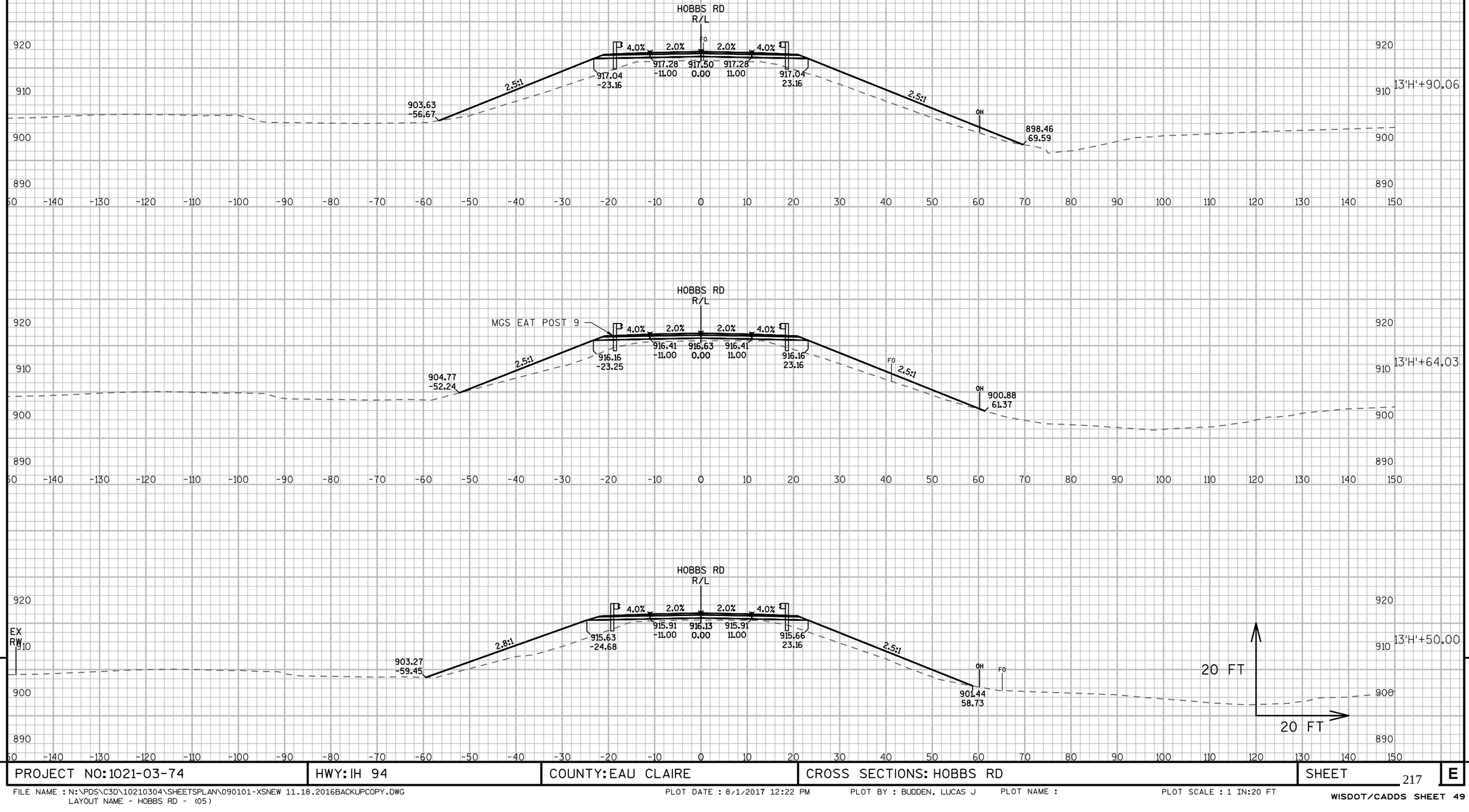
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 216	E

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LAYOUT NAME - HOBBS RD - (04)

PLOT DATE : 8/1/2017 12:22 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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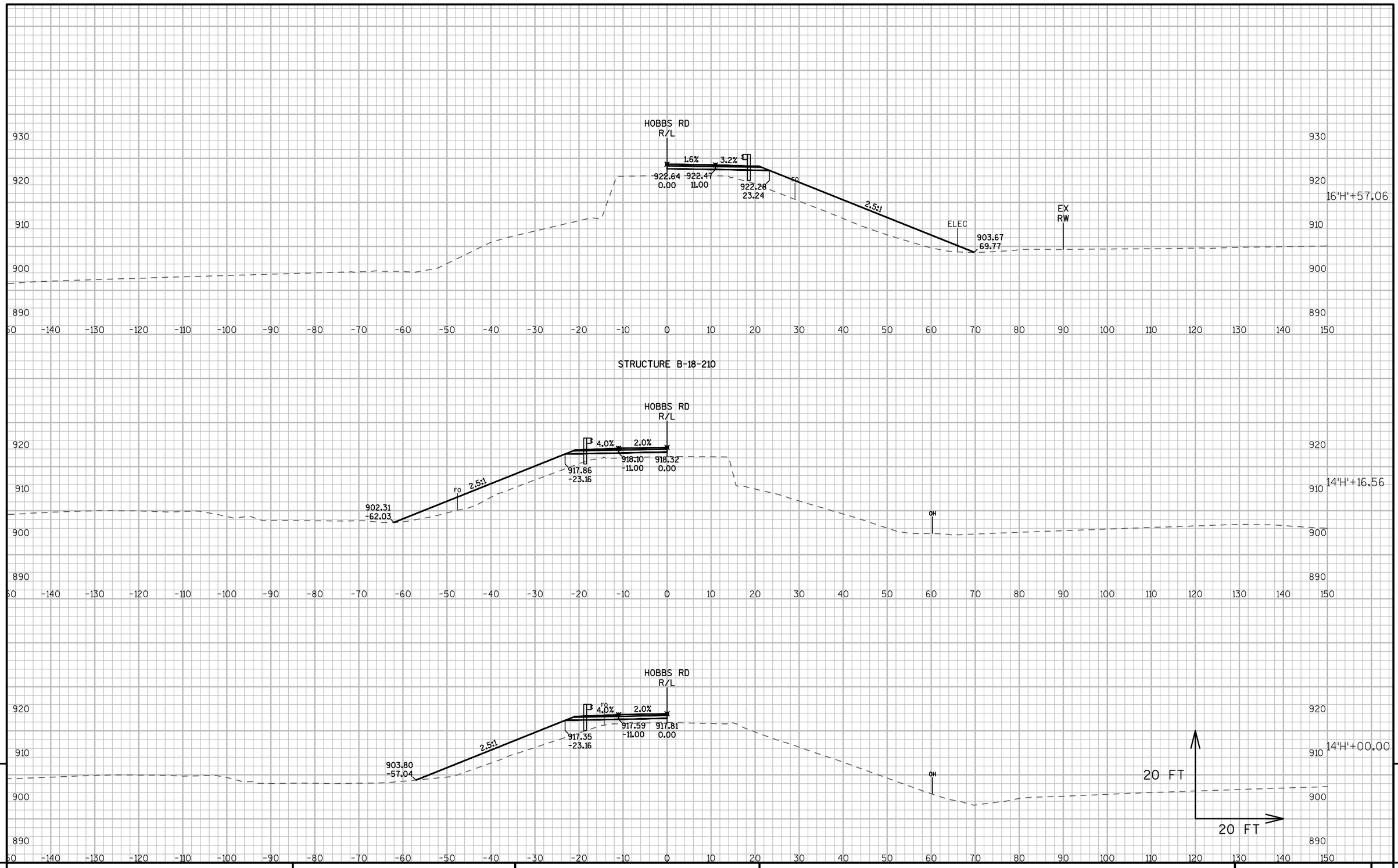
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 217 E

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LAYOUT NAME - HOBBS RD - (05)

PLOT DATE : 8/1/2017 12:22 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



STRUCTURE B-18-210

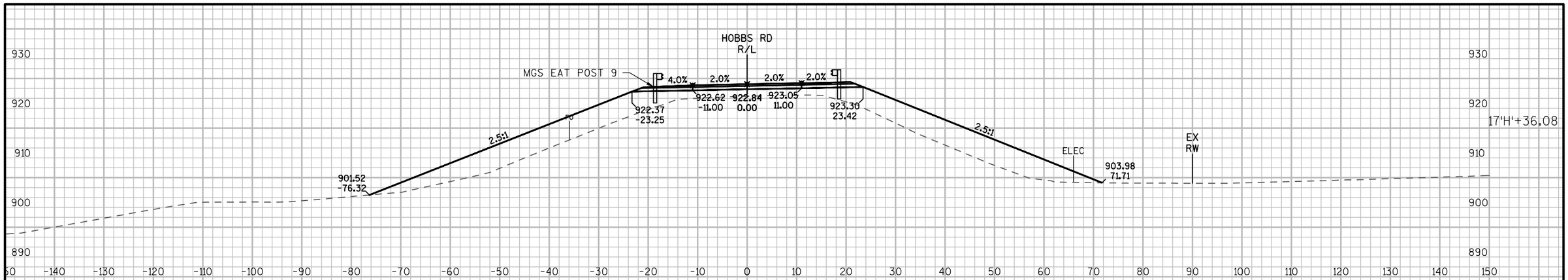
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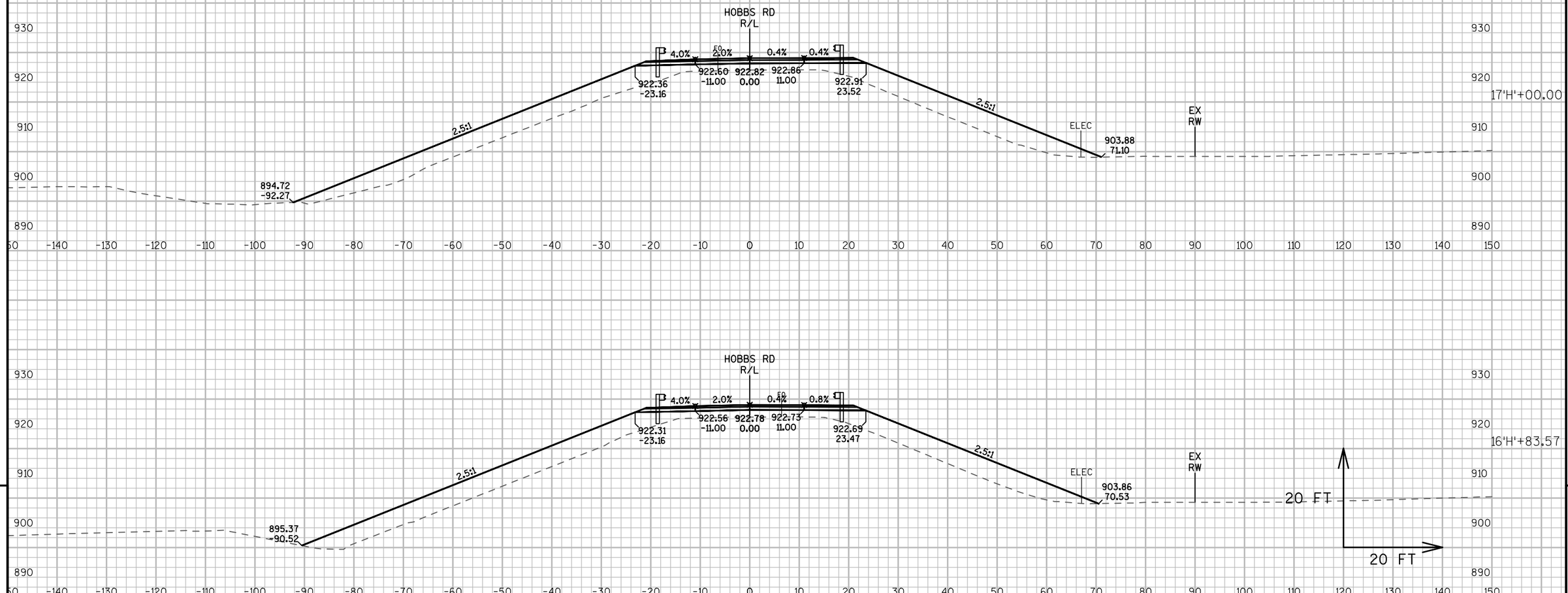
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 218	E

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LAYOUT NAME - HOBBS RD - (06)

PLOT DATE : 8/1/2017 12:22 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT





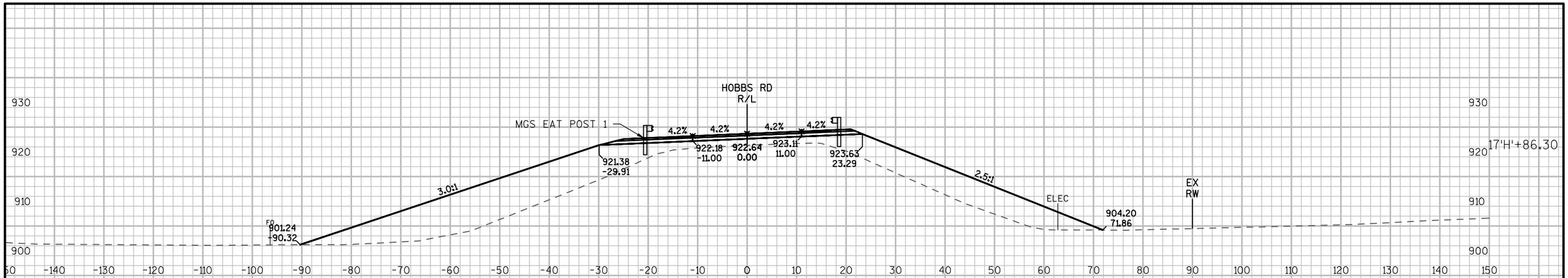
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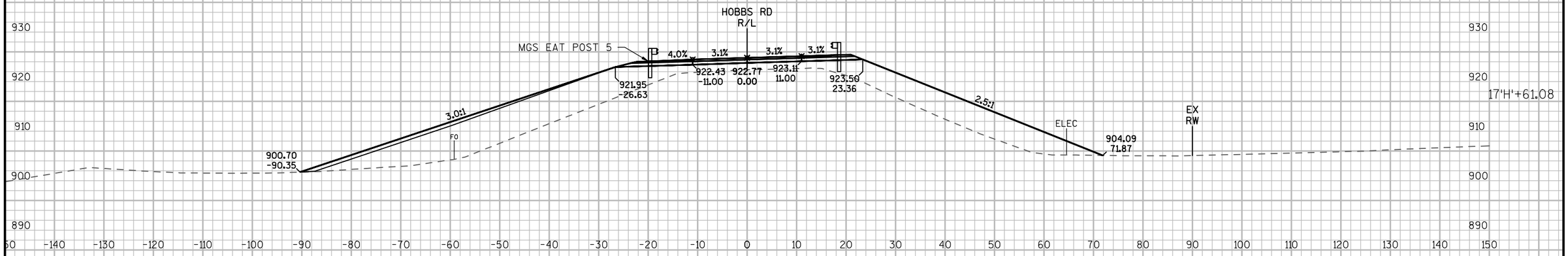
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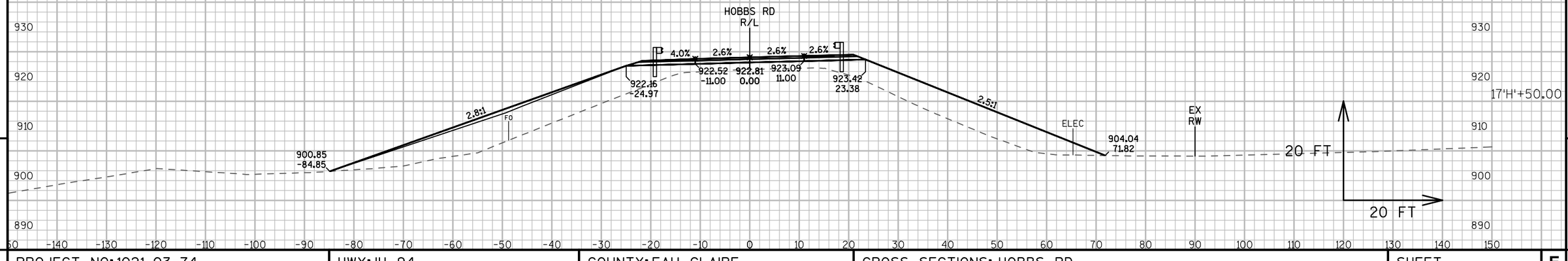
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LAYOUT NAME - HOBBS RD - (07)

PLOT DATE : 8/1/2017 12:22 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT





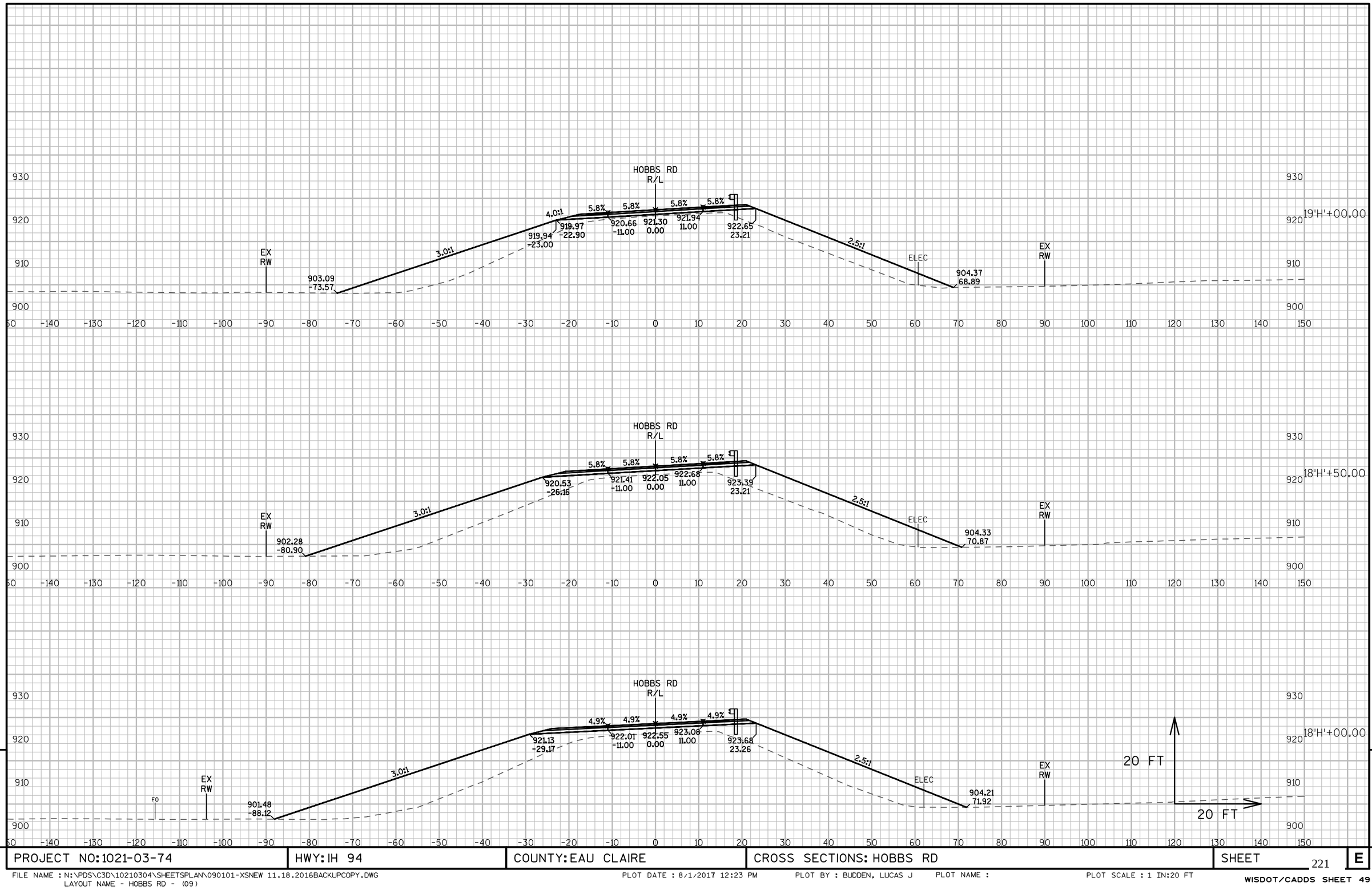


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LAYOUT NAME - HOBBS RD - (08)

PLOT DATE : 8/1/2017 12:22 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

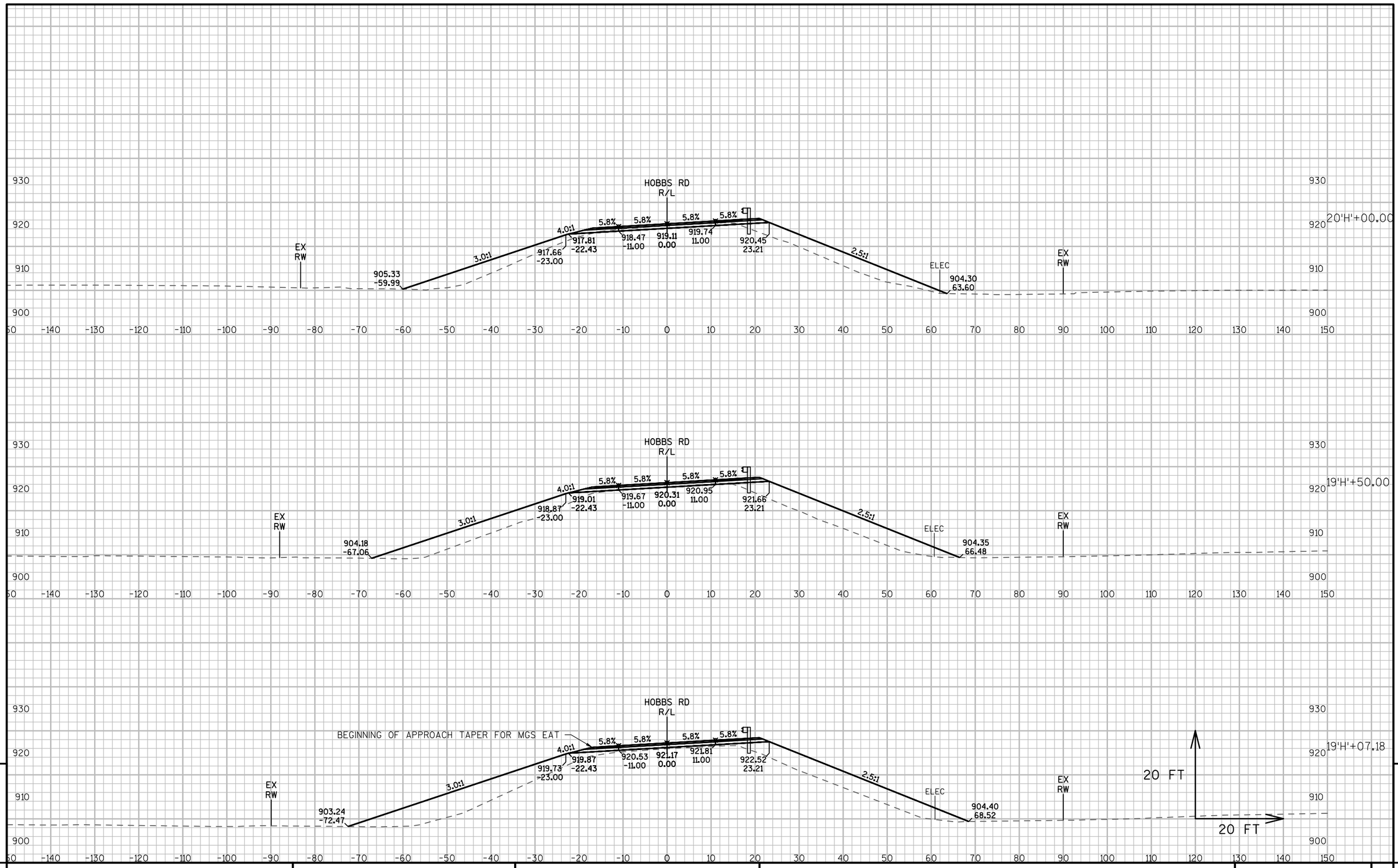
WISDOT/CADDS SHEET 49



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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 221	E

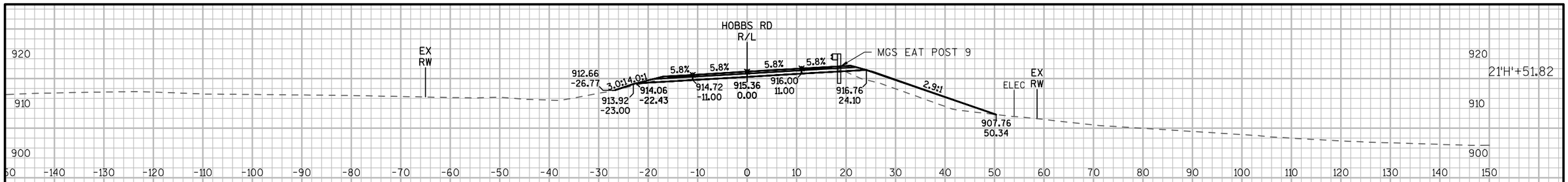


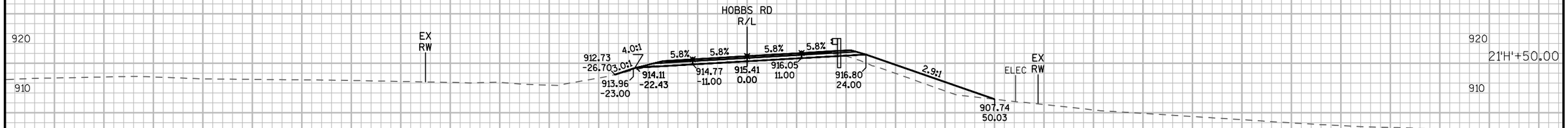
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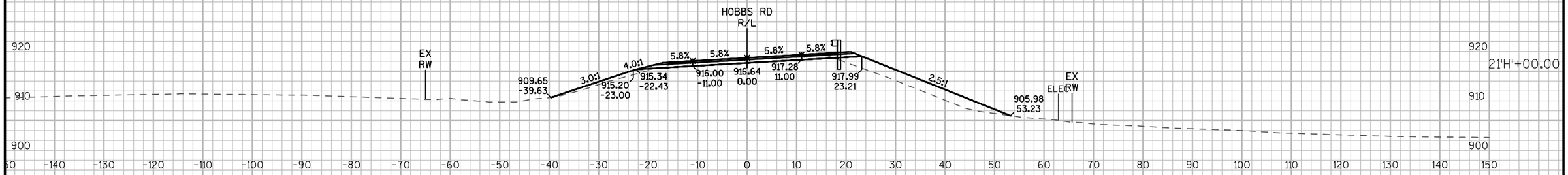
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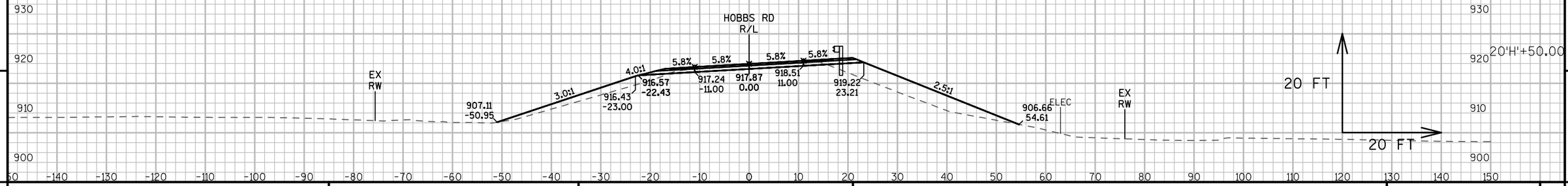
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 222	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090101-XSNEW 11.18.2016BACKUPCOPY.DWG
LAYOUT NAME - HOBBS RD - (10)
PLOT DATE : 8/1/2017 12:23 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





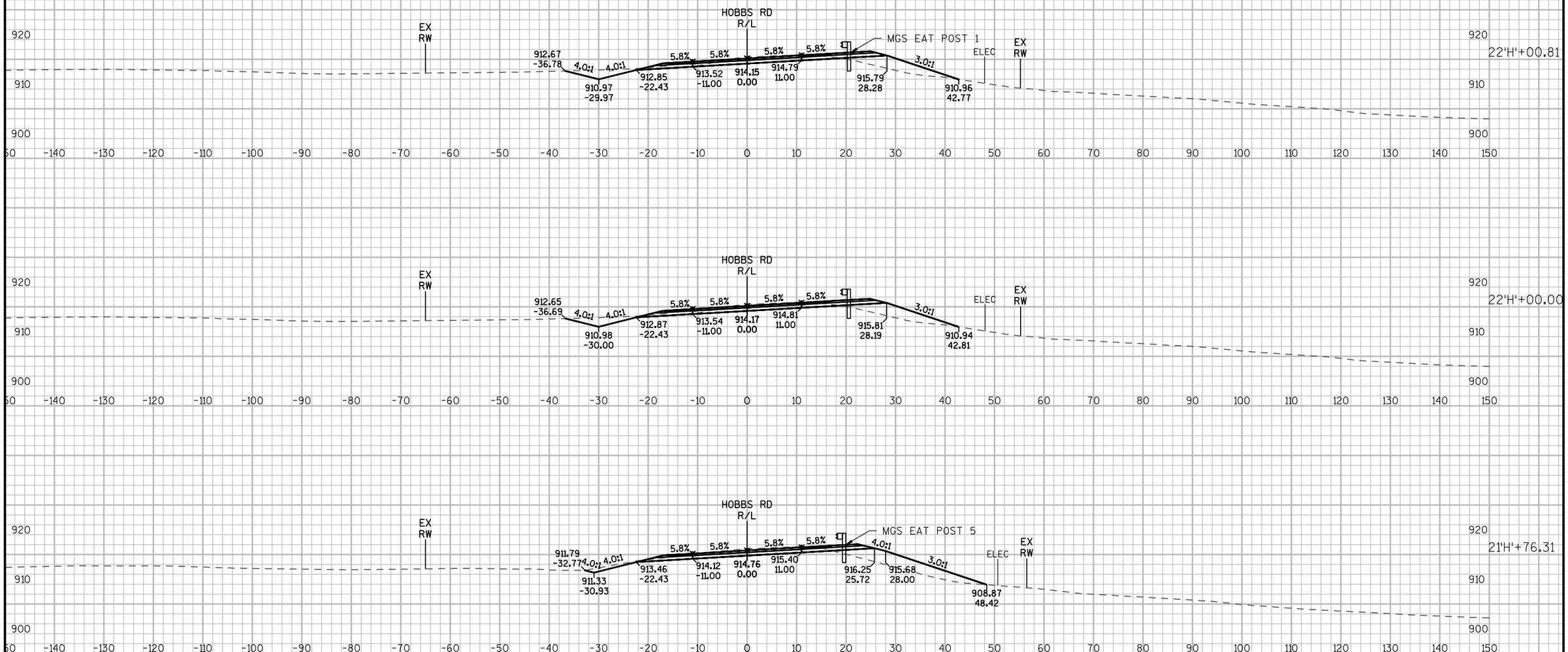




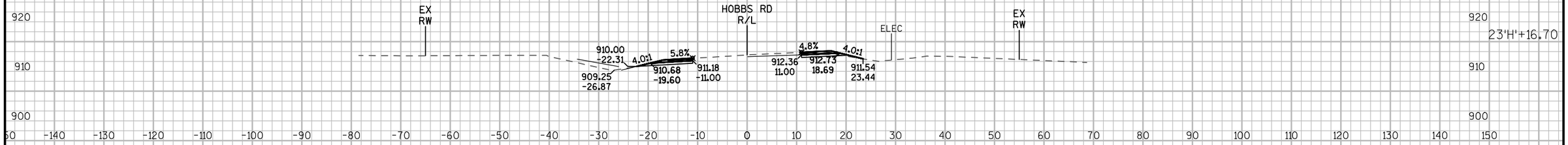
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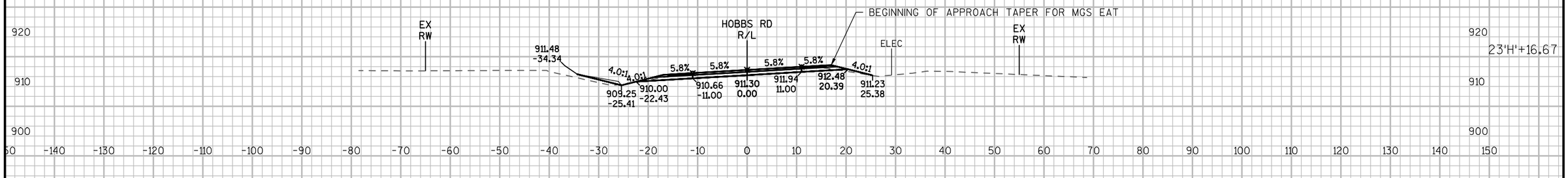
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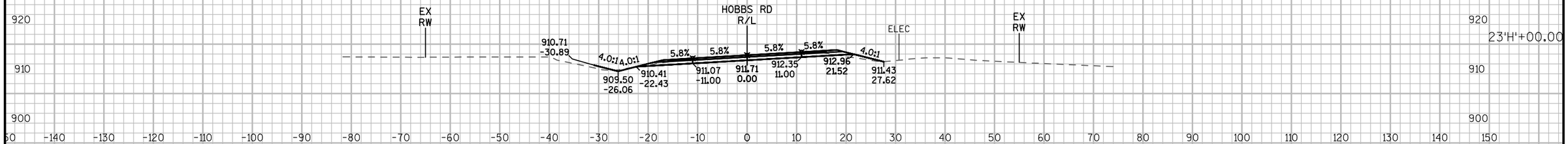
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 223	E

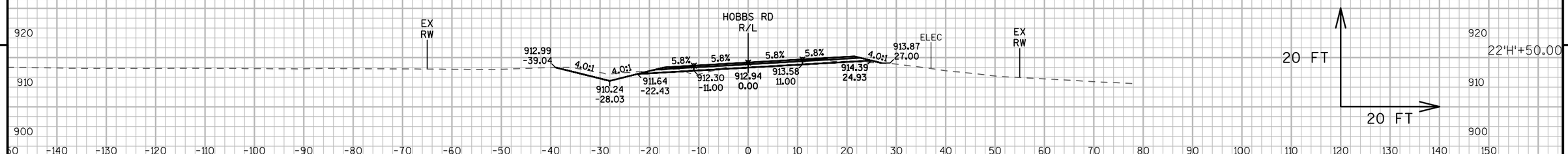


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 224	E







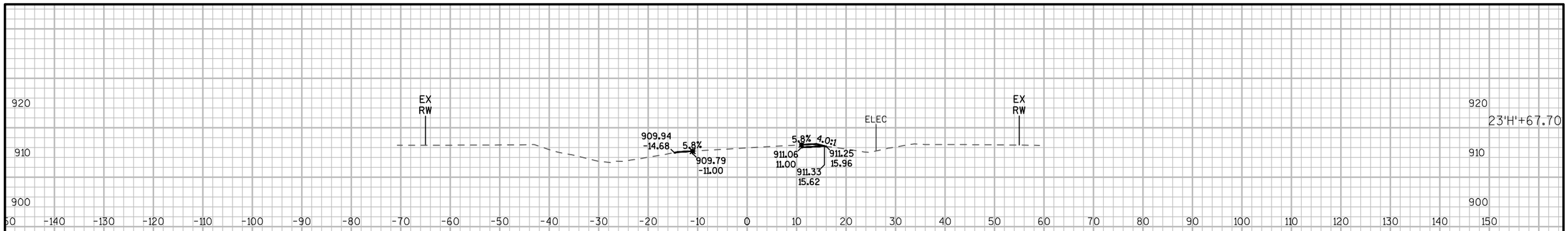


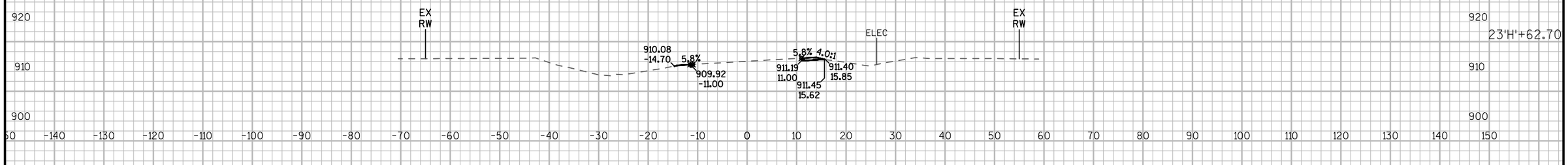
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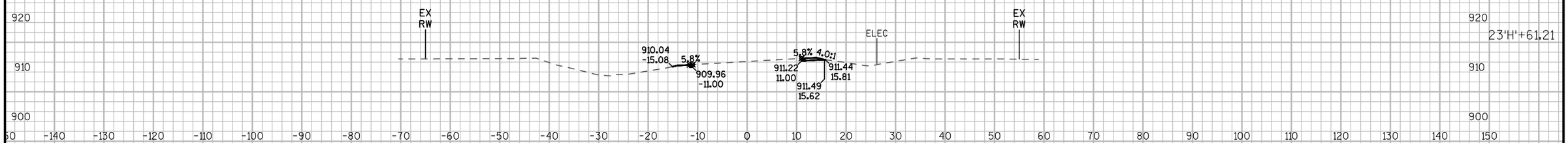
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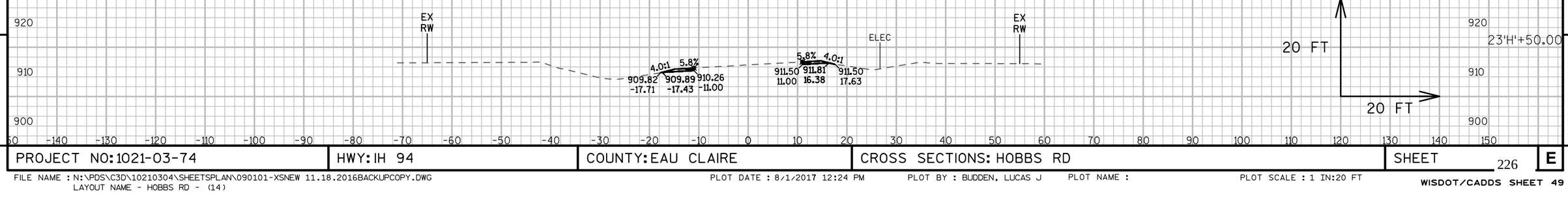
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 225	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090101-XSNEW 11.18.2016BACKUPCOPY.DWG
LAYOUT NAME - HOBBS RD - (13)
PLOT DATE : 8/1/2017 12:24 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49







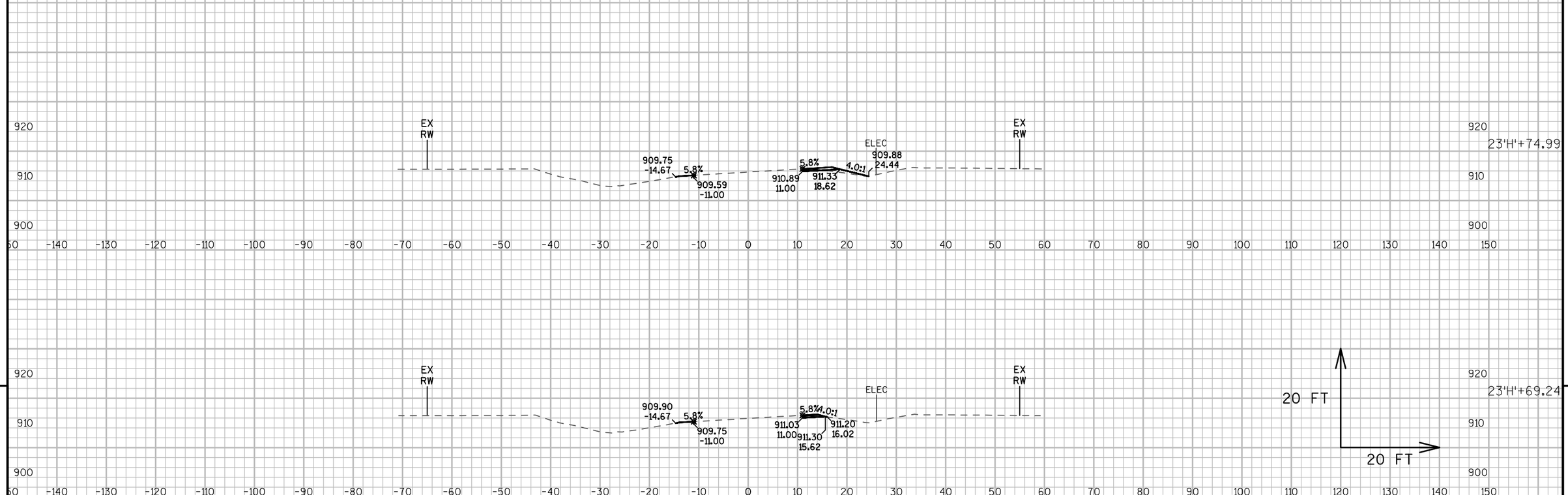


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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 226	E

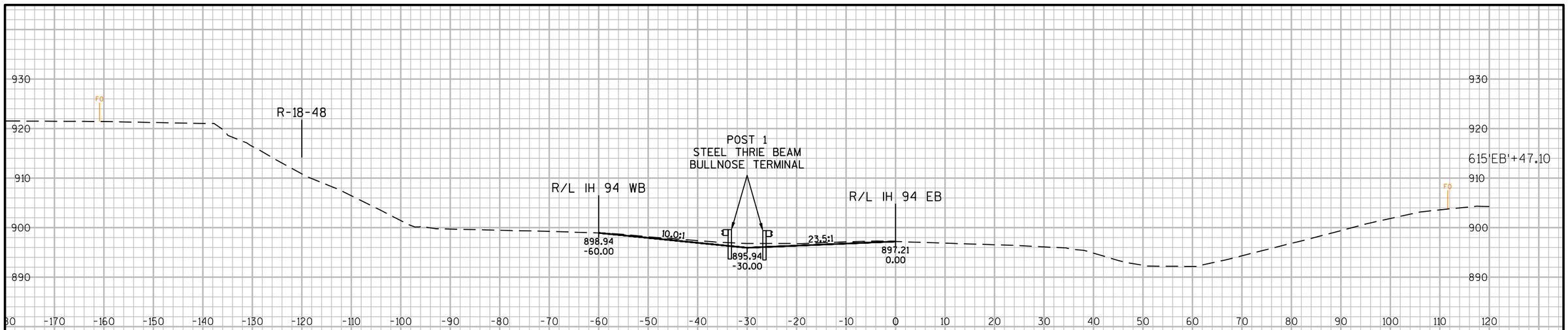
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090101-XSNEW 11.18.2016BACKUPCOPY.DWG
LAYOUT NAME - HOBBS RD - (14)
PLOT DATE : 8/1/2017 12:24 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

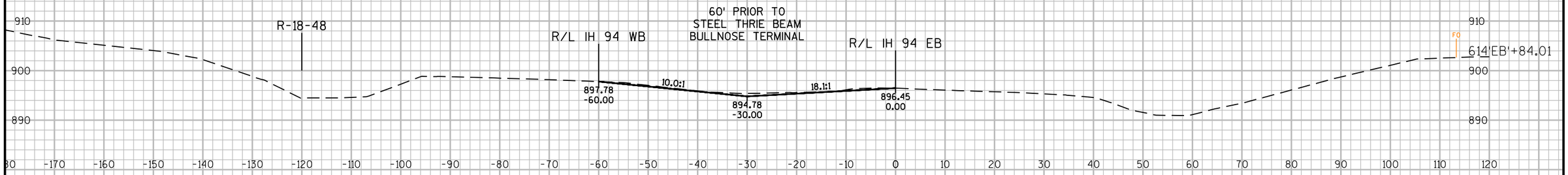


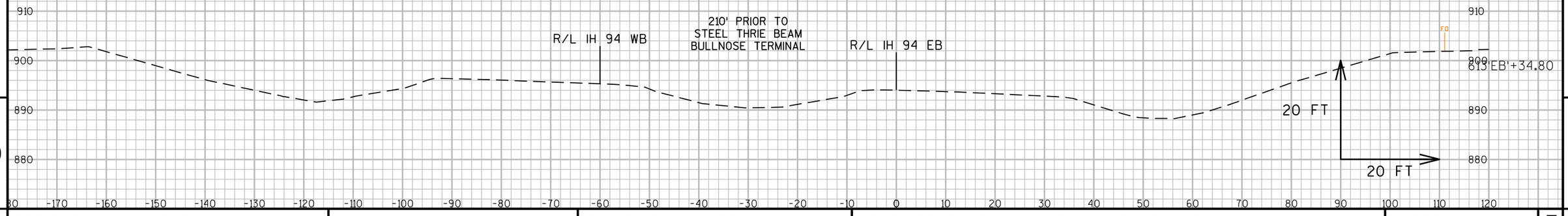
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: HOBBS RD	SHEET 227 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090101-XSNEW 11.18.2016BACKUPCOPY.DWG
LAYOUT NAME - HOBBS RD - (15)
PLOT DATE : 8/1/2017 12:24 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





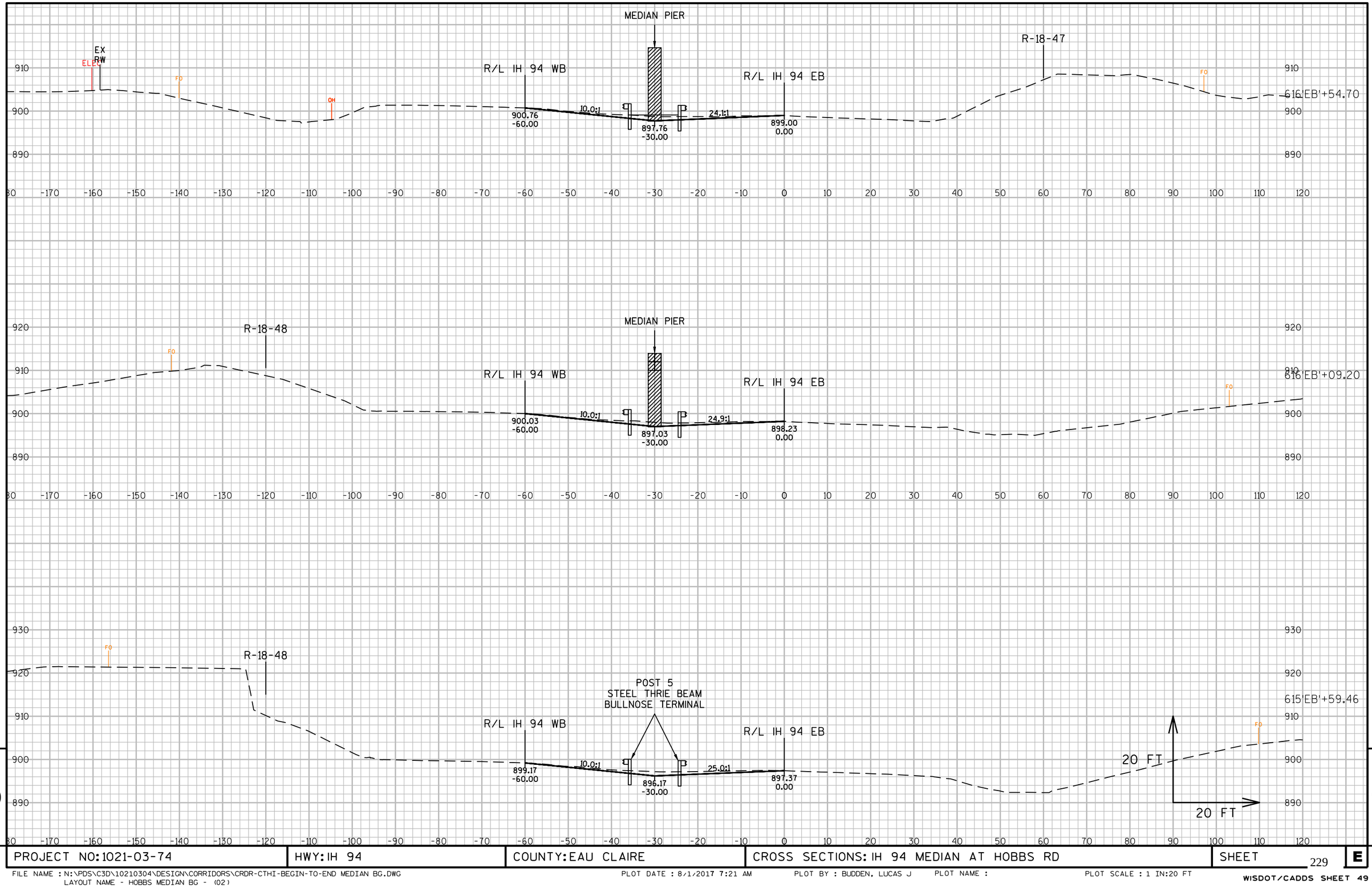


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT HOBBS RD	SHEET 228	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG.DWG
LAYOUT NAME - HOBBS MEDIAN BG - (01)

PLOT DATE : 8/1/2017 7:21 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

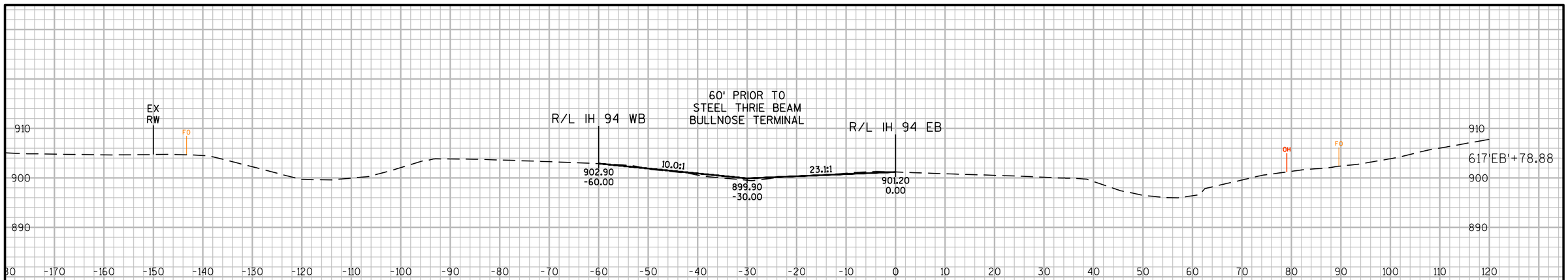
WISDOT/CADDS SHEET 49

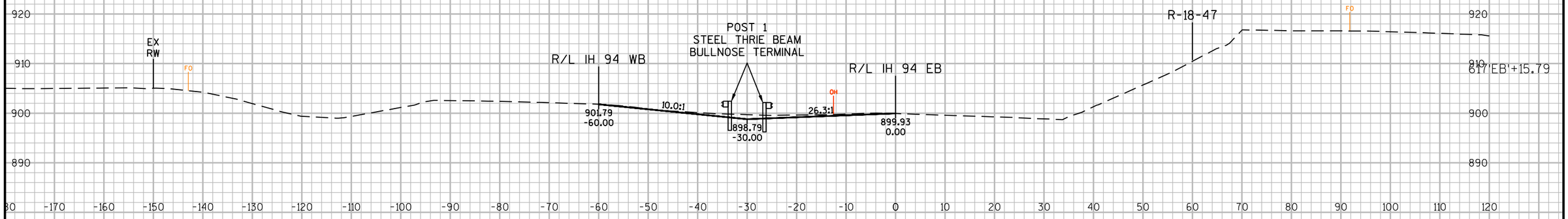


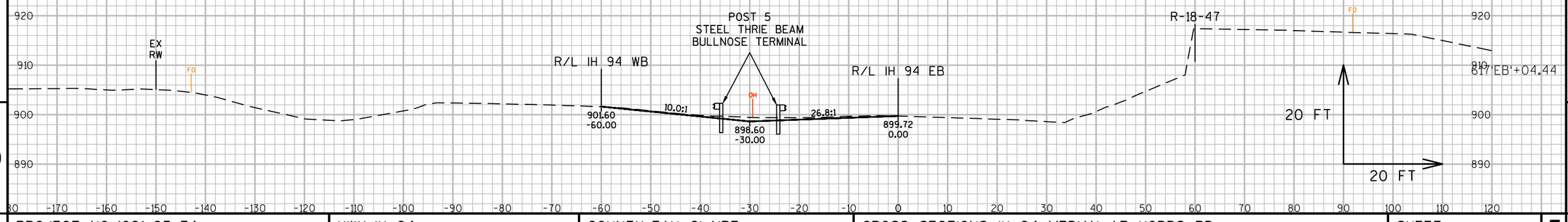
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT HOBBS RD	SHEET 229	E







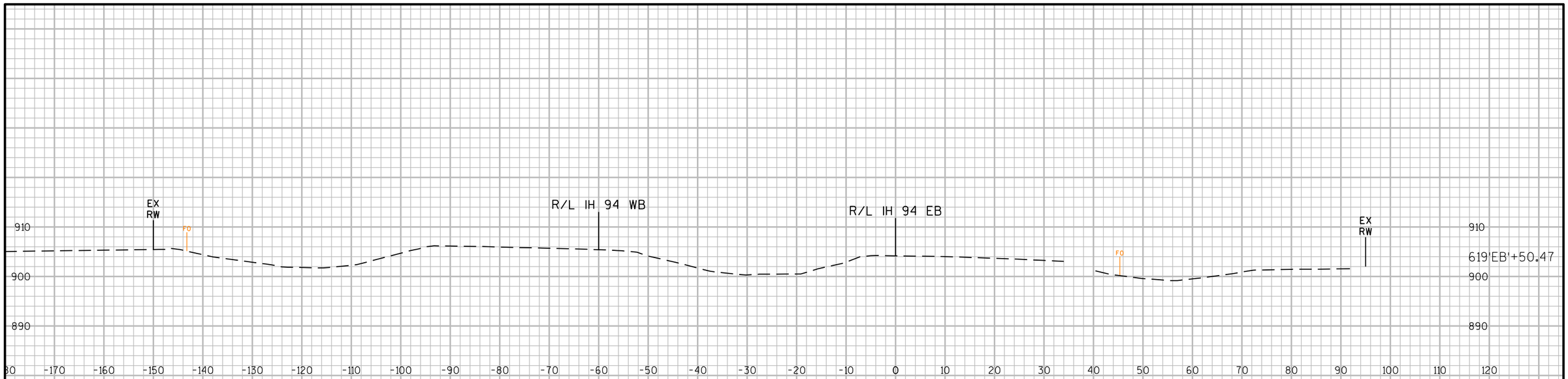
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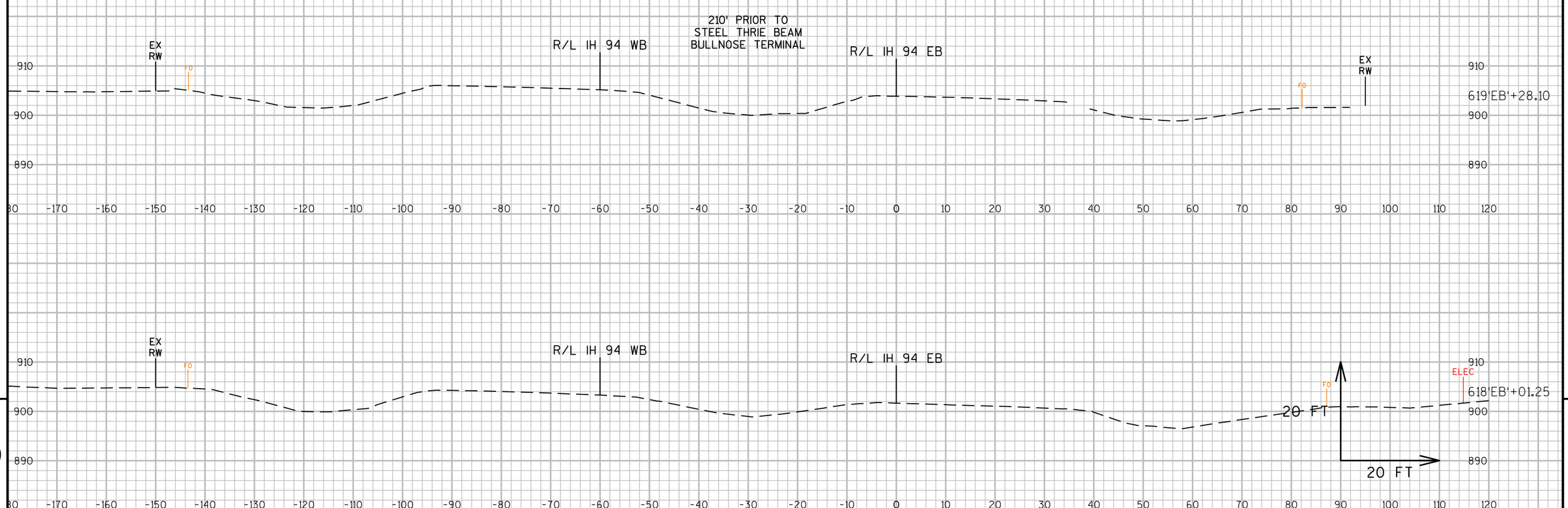
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT HOBBS RD	SHEET 230	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG.DWG
LAYOUT NAME - HOBBS MEDIAN BG - (03)

PLOT DATE : 8/1/2017 7:21 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





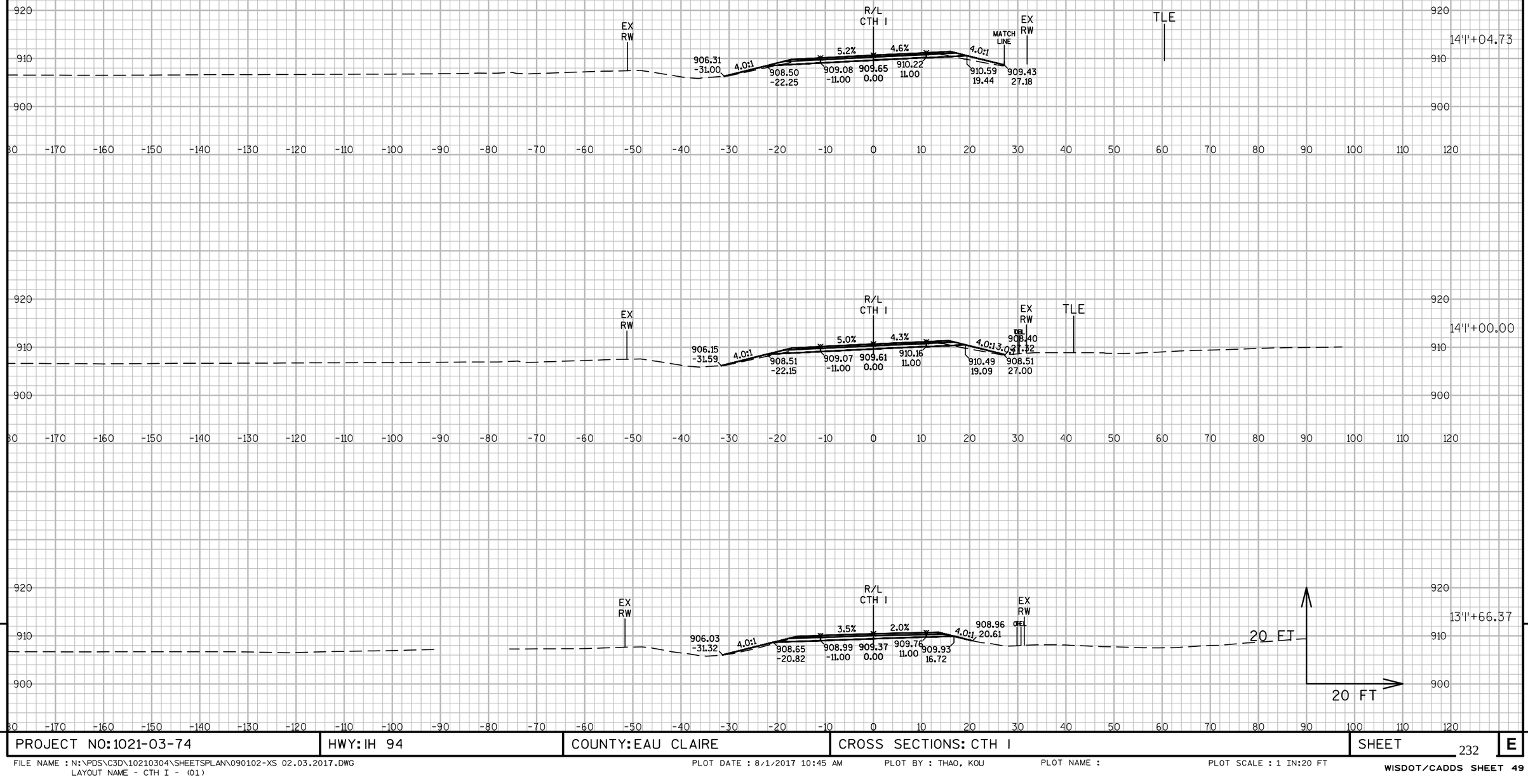
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT HOBBS RD	SHEET 231 E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG.DWG
LAYOUT NAME - HOBBS MEDIAN BG - (04)

PLOT DATE : 8/1/2017 7:21 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

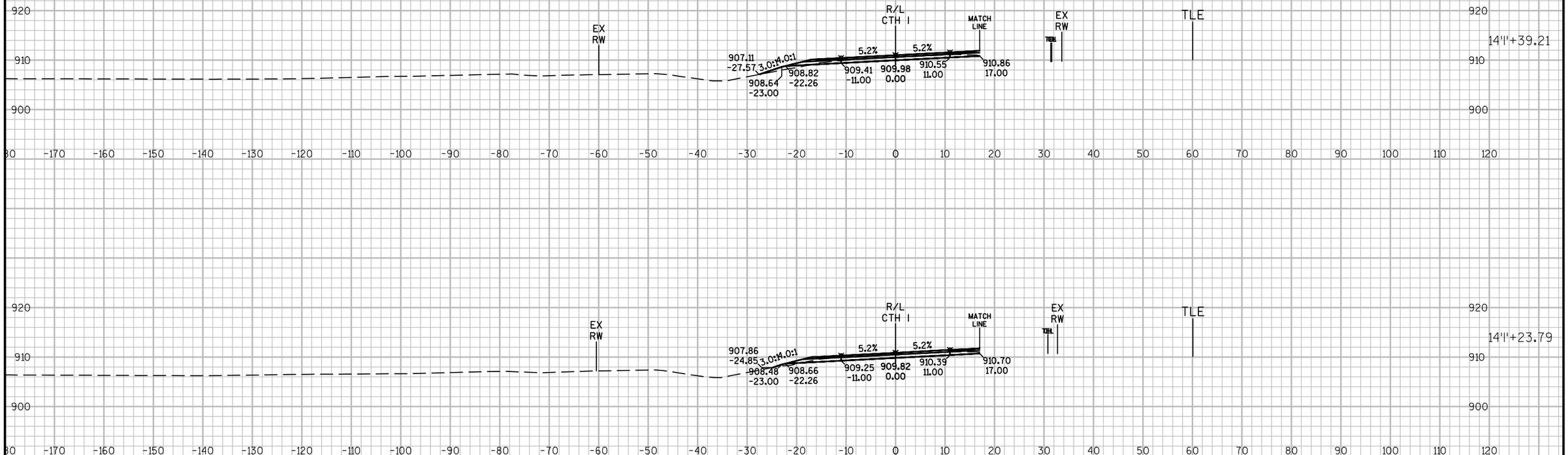


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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 232 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (01)
PLOT DATE : 8/1/2017 10:45 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

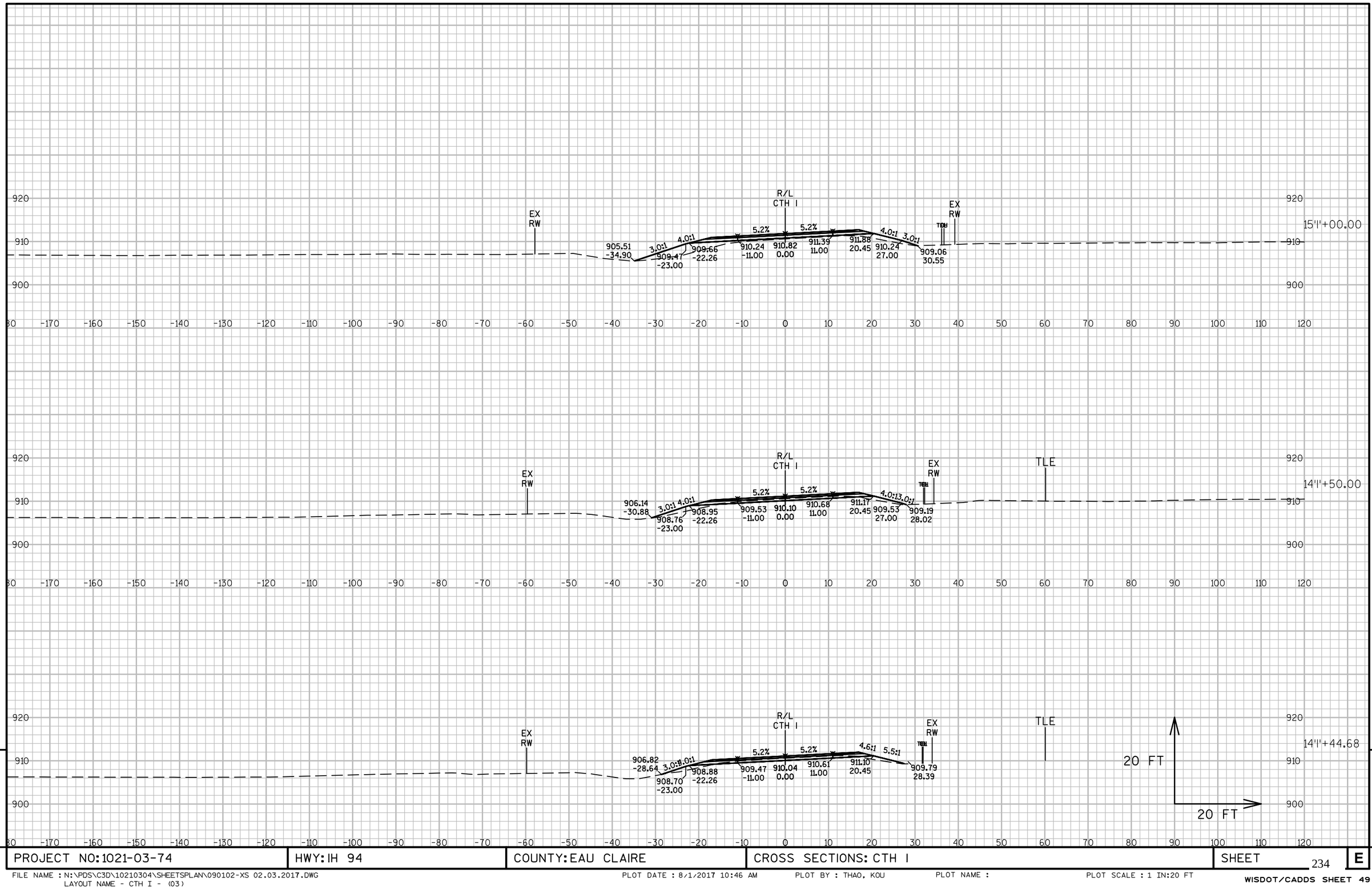
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 233	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (02)

PLOT DATE : 8/1/2017 10:45 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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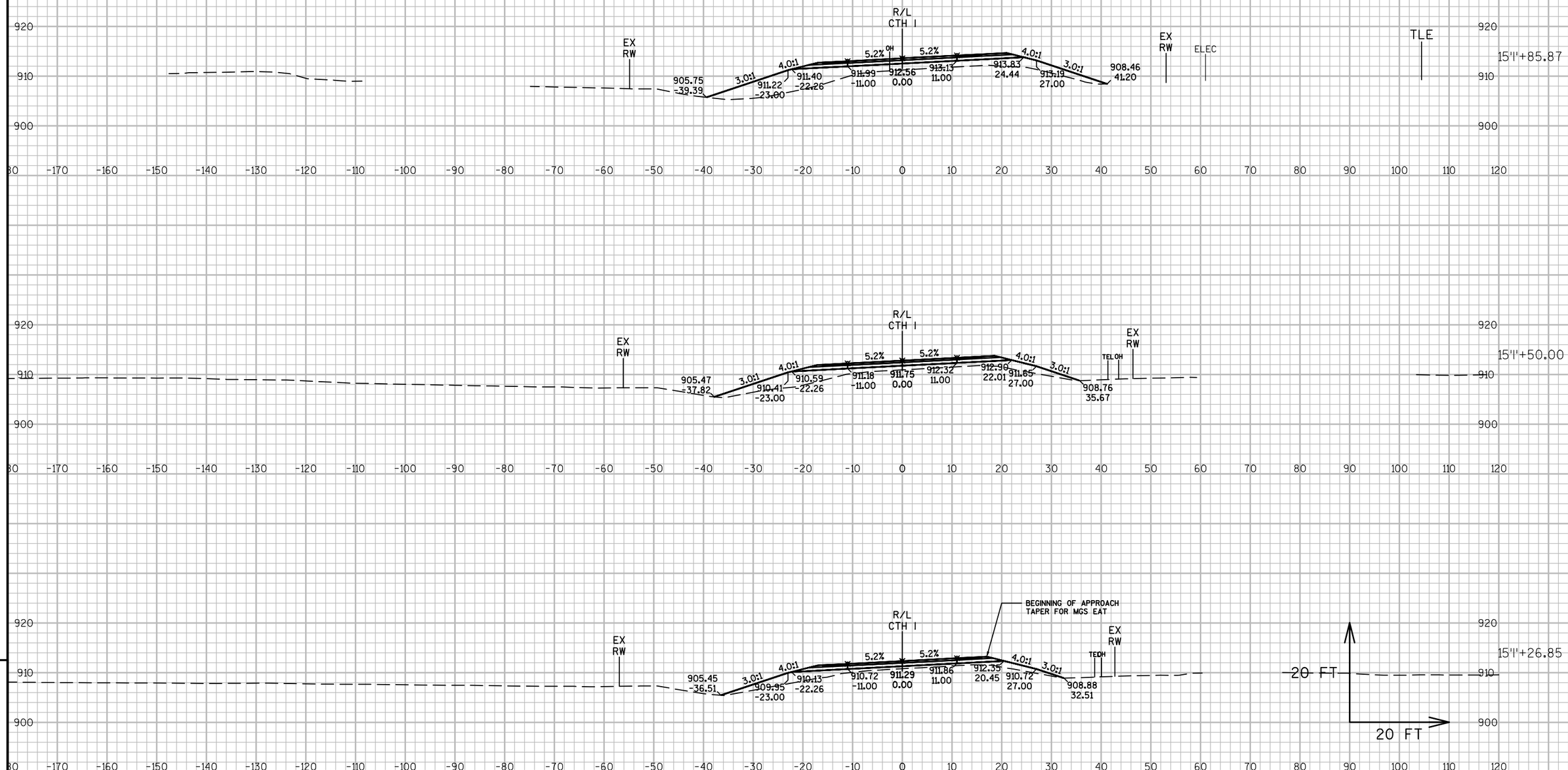
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 234	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (03)

PLOT DATE : 8/1/2017 10:46 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

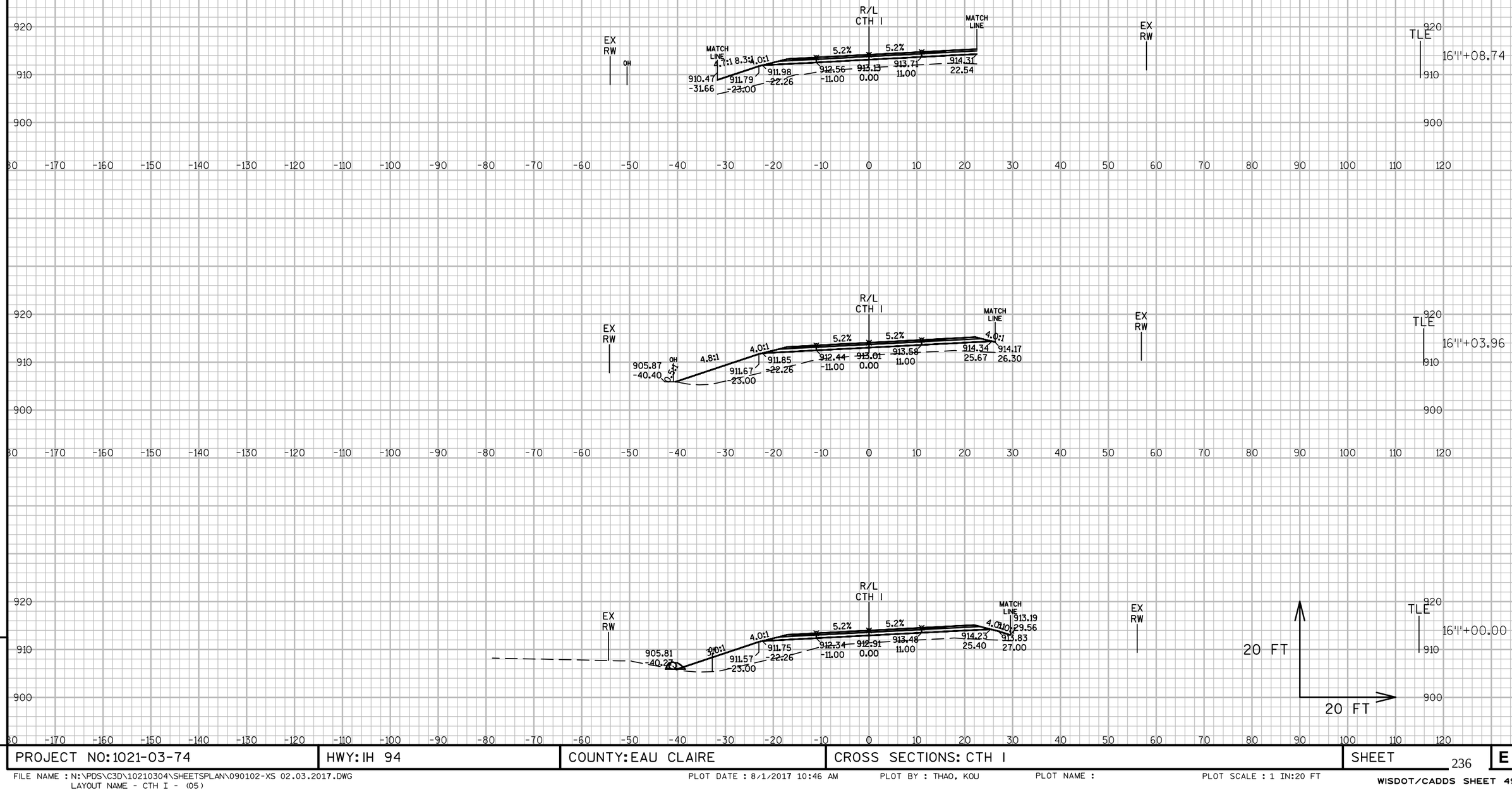
WISDOT/CADDS SHEET 49



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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 235	E



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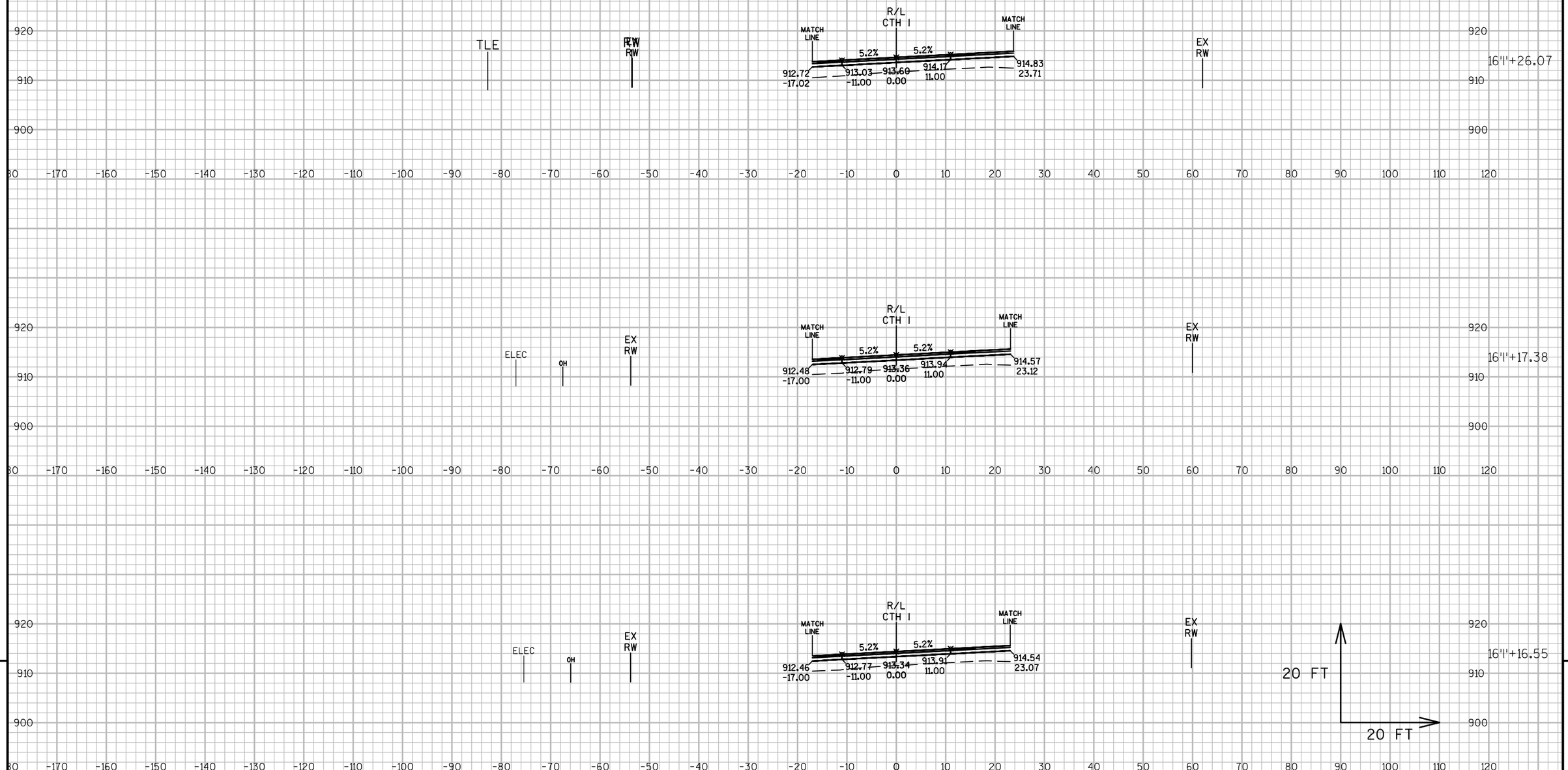
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 236	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (05)

PLOT DATE : 8/1/2017 10:46 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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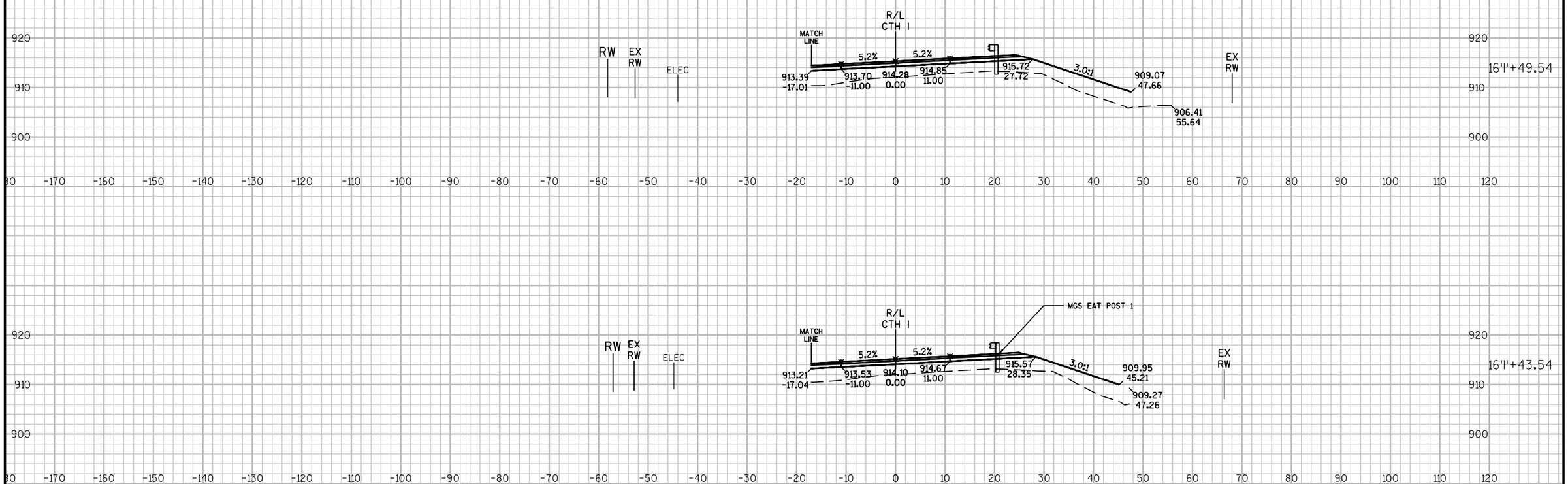
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 237	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (06)

PLOT DATE : 8/1/2017 10:46 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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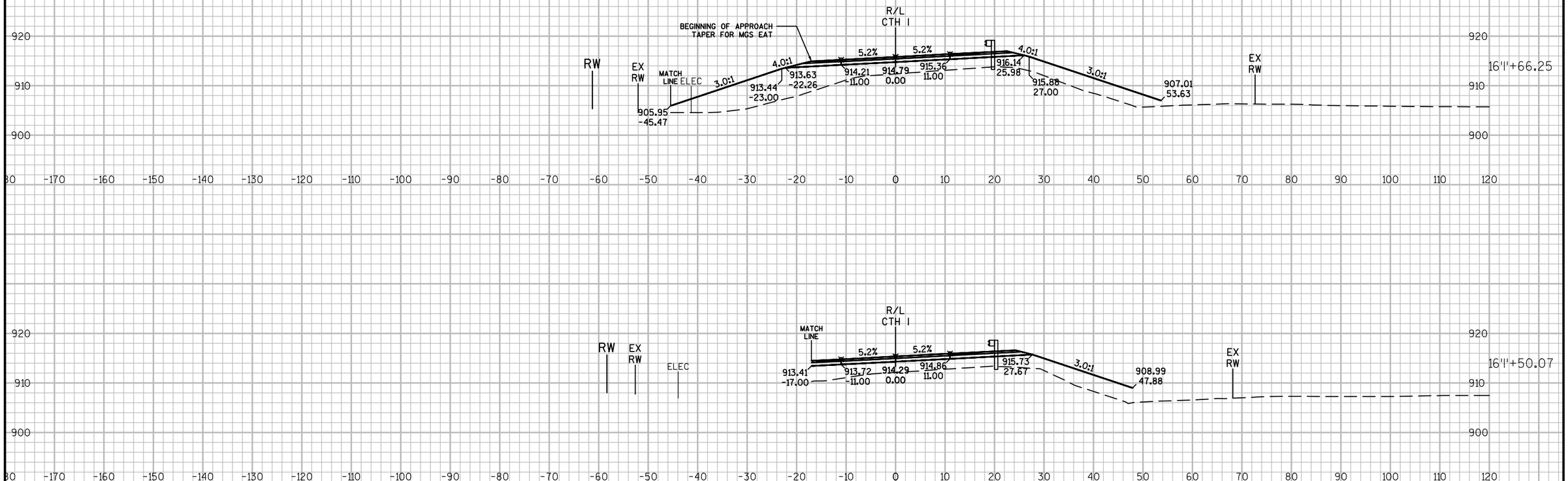
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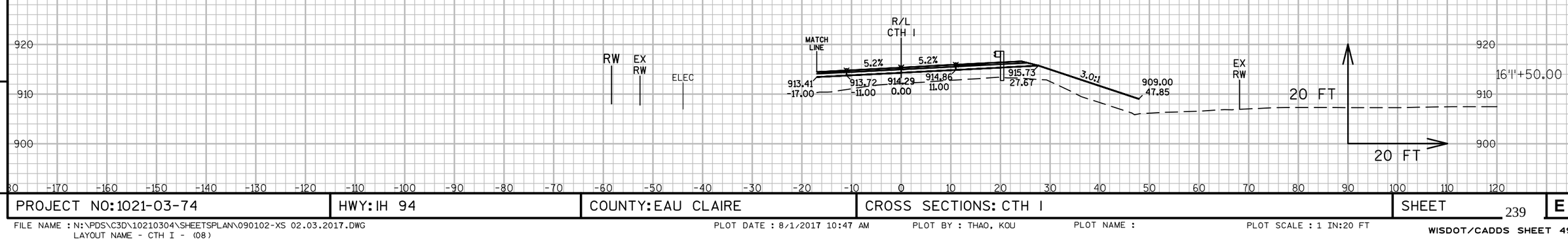
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 238	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (07)

PLOT DATE : 8/1/2017 10:47 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





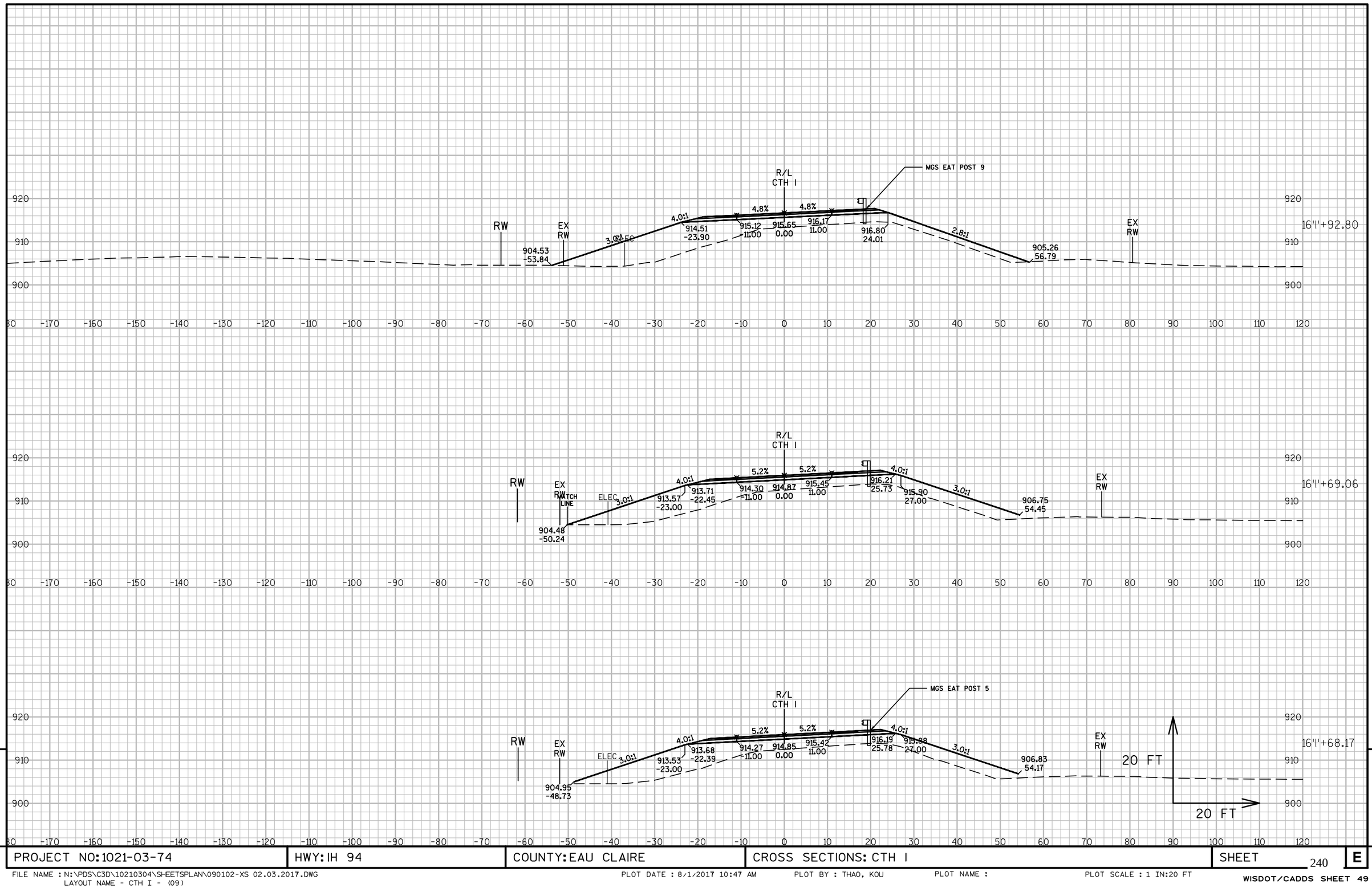
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 239	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (08)

PLOT DATE : 8/1/2017 10:47 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 240	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (09)

PLOT DATE : 8/1/2017 10:47 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

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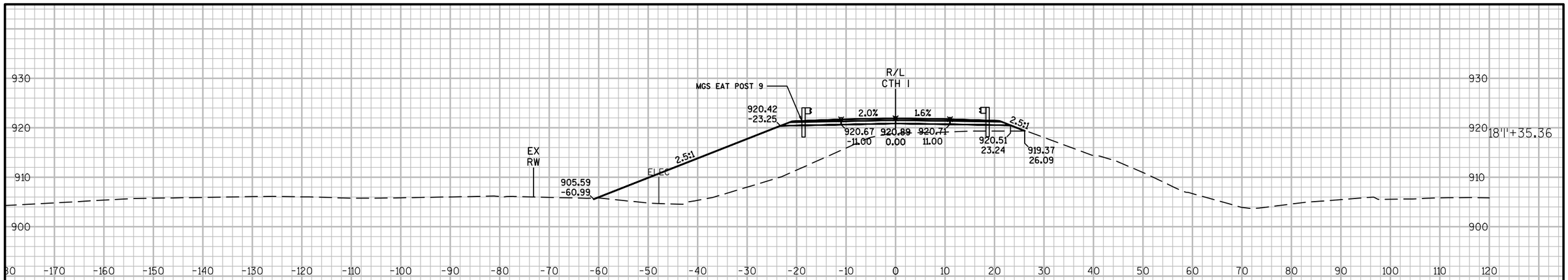
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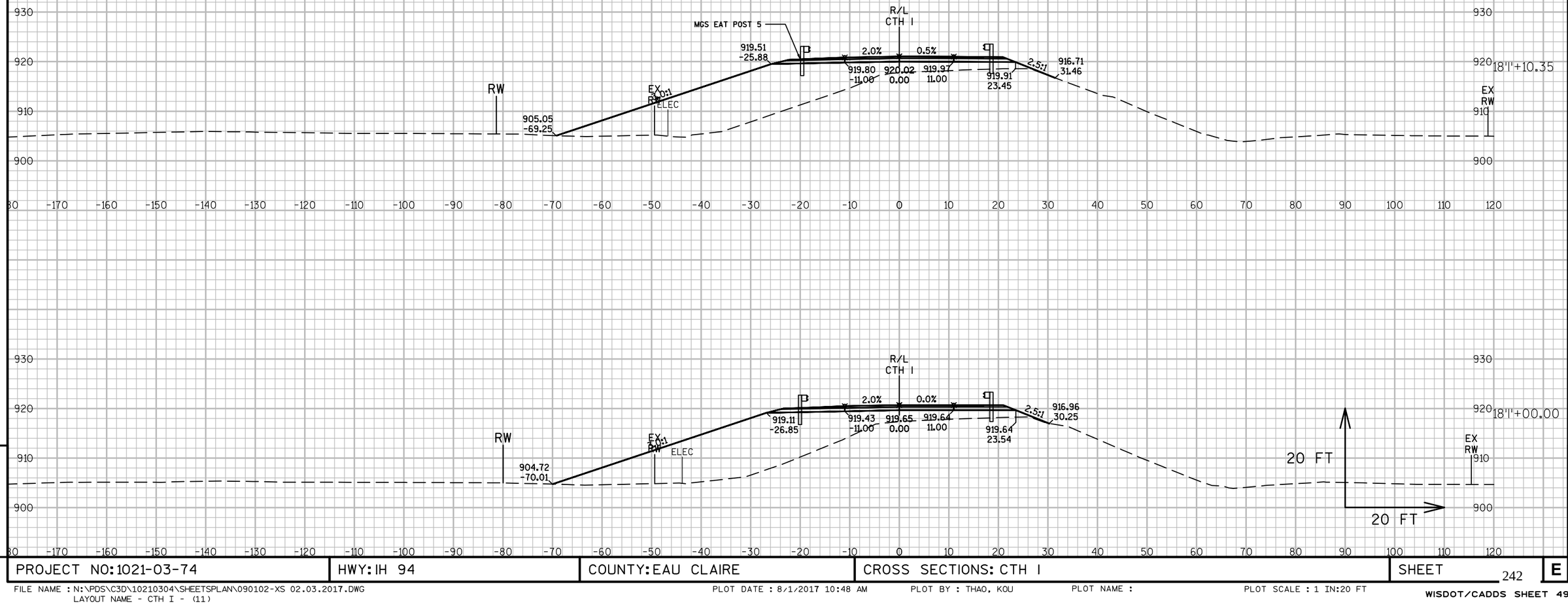
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 241	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (10)

PLOT DATE : 8/1/2017 10:47 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





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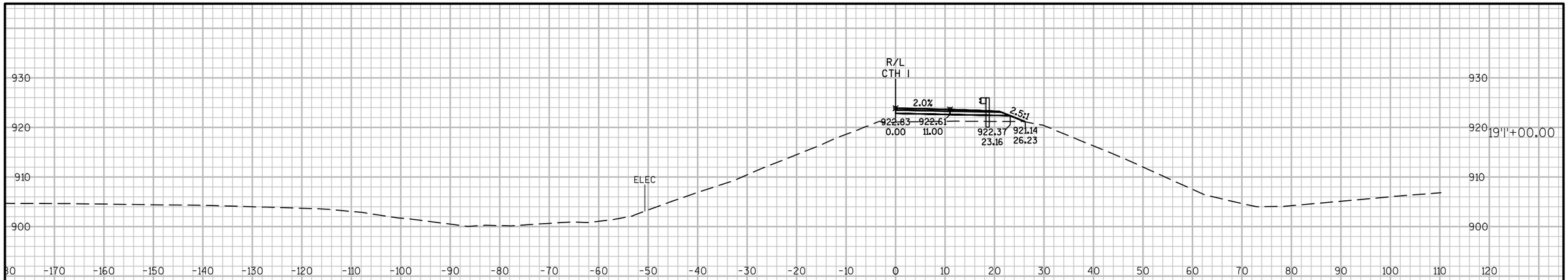
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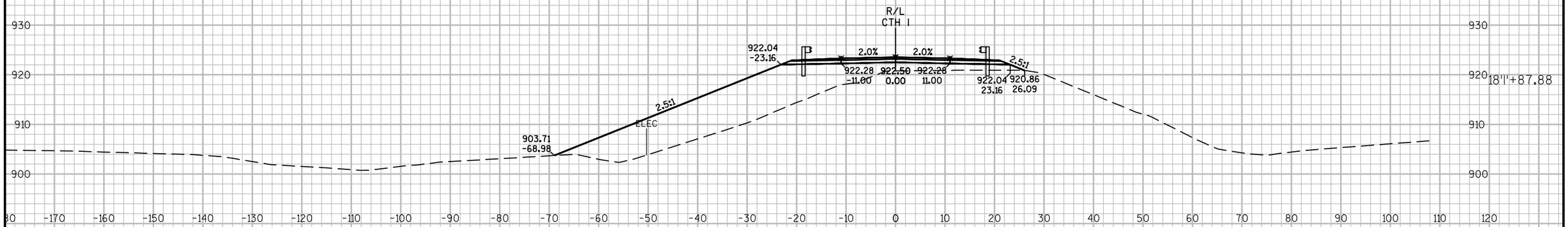
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 242	E

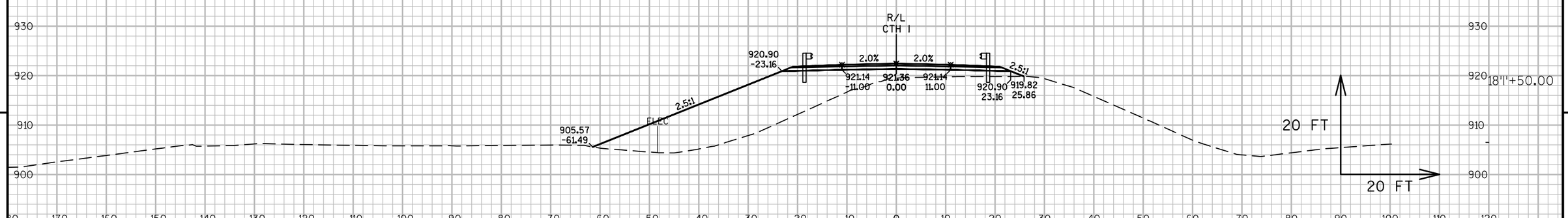
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (11)

PLOT DATE : 8/1/2017 10:48 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



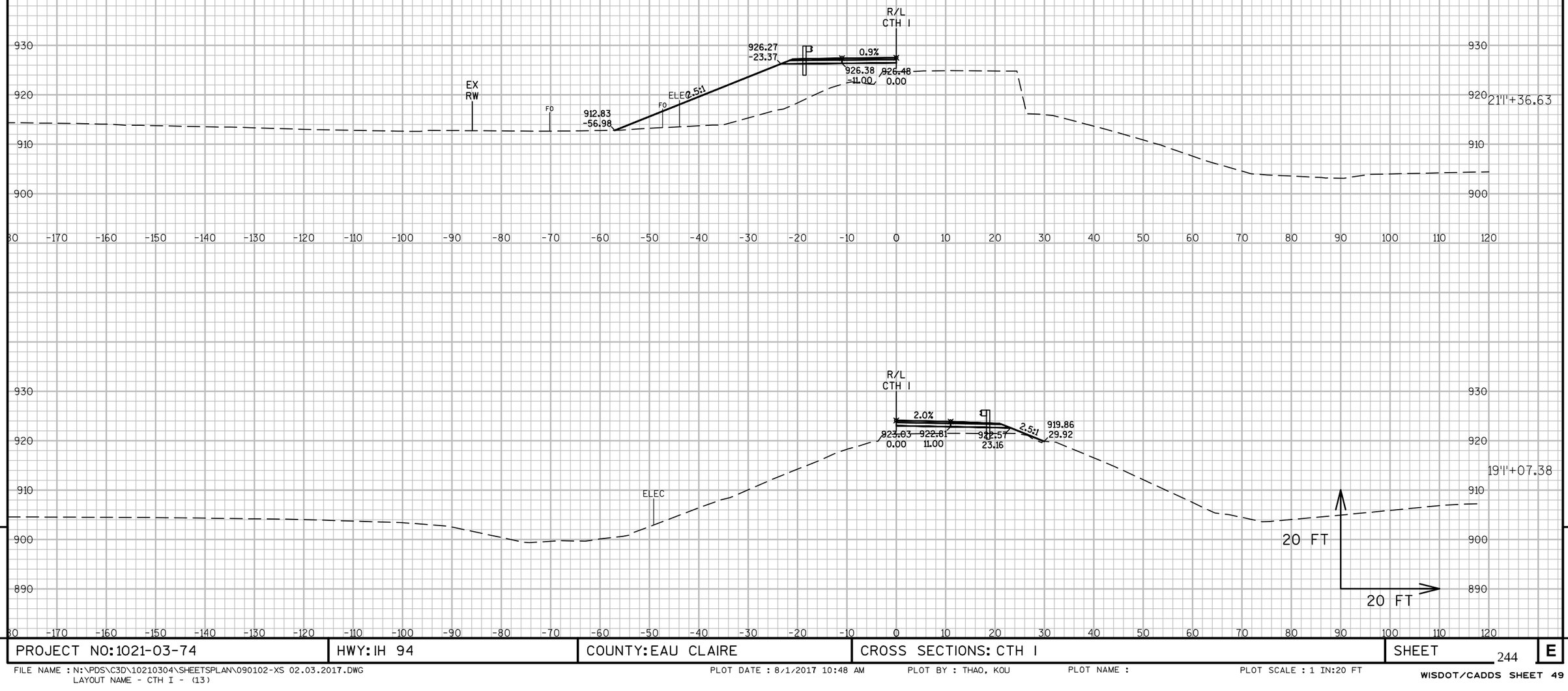




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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 243	E

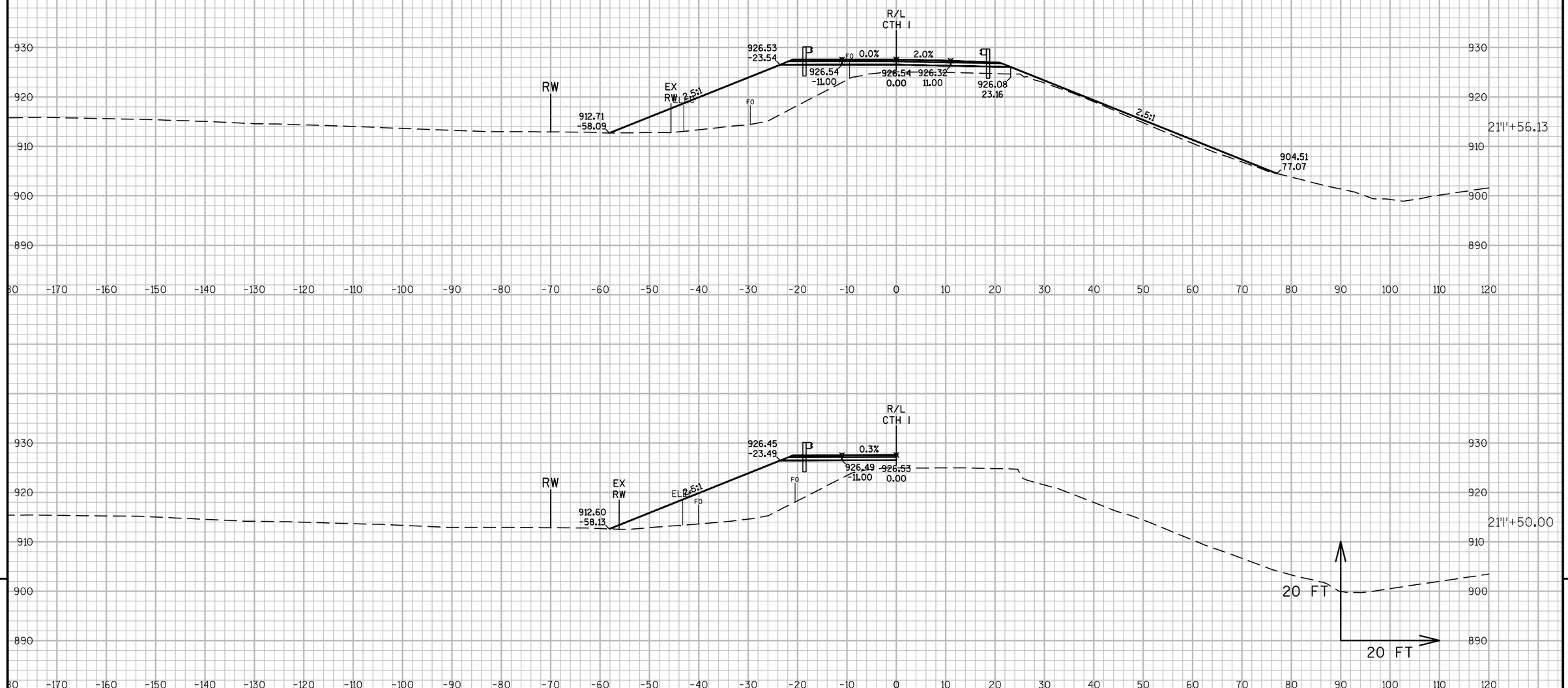


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 244	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (13)

PLOT DATE : 8/1/2017 10:48 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

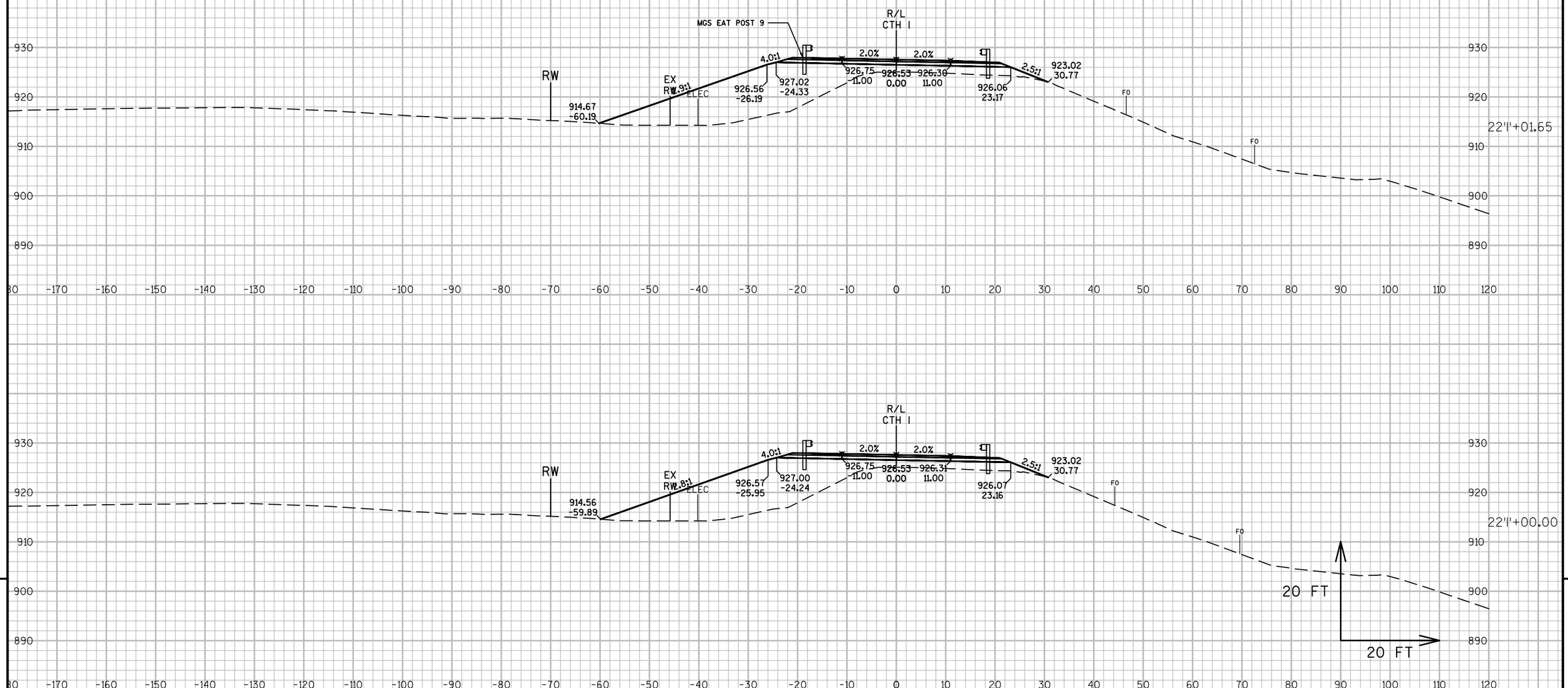


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 245 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (14)

PLOT DATE : 8/1/2017 10:48 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



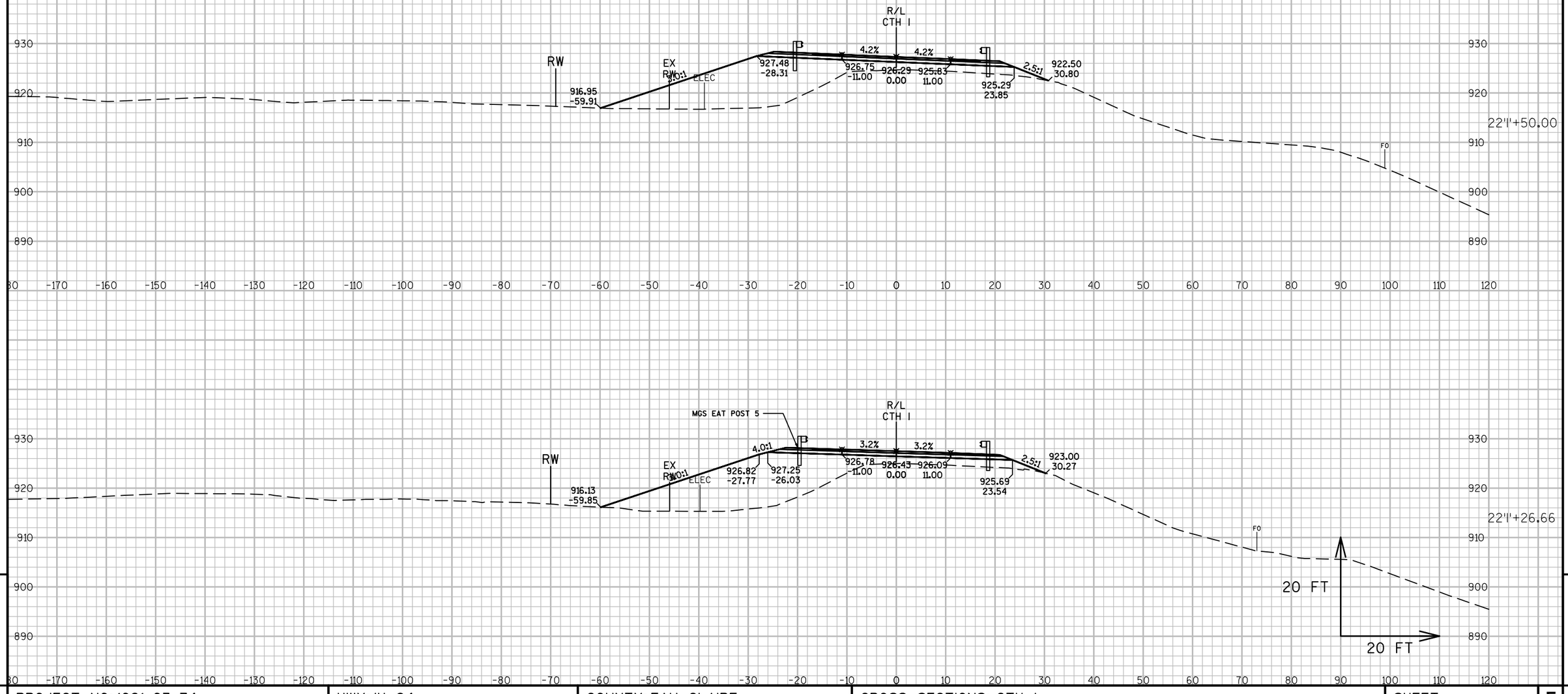
9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 246 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (15)

PLOT DATE : 8/1/2017 10:49 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

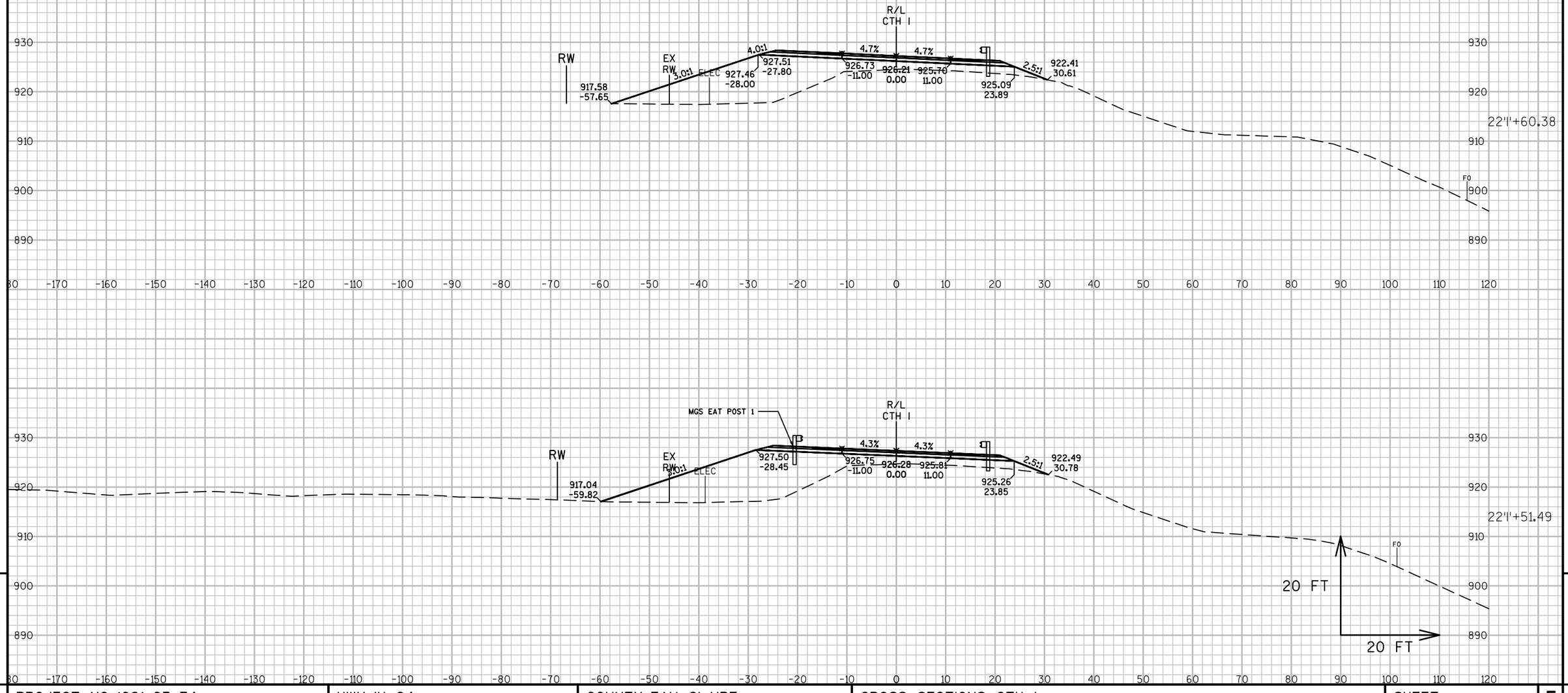


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 247	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (16)

PLOT DATE : 8/1/2017 10:49 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

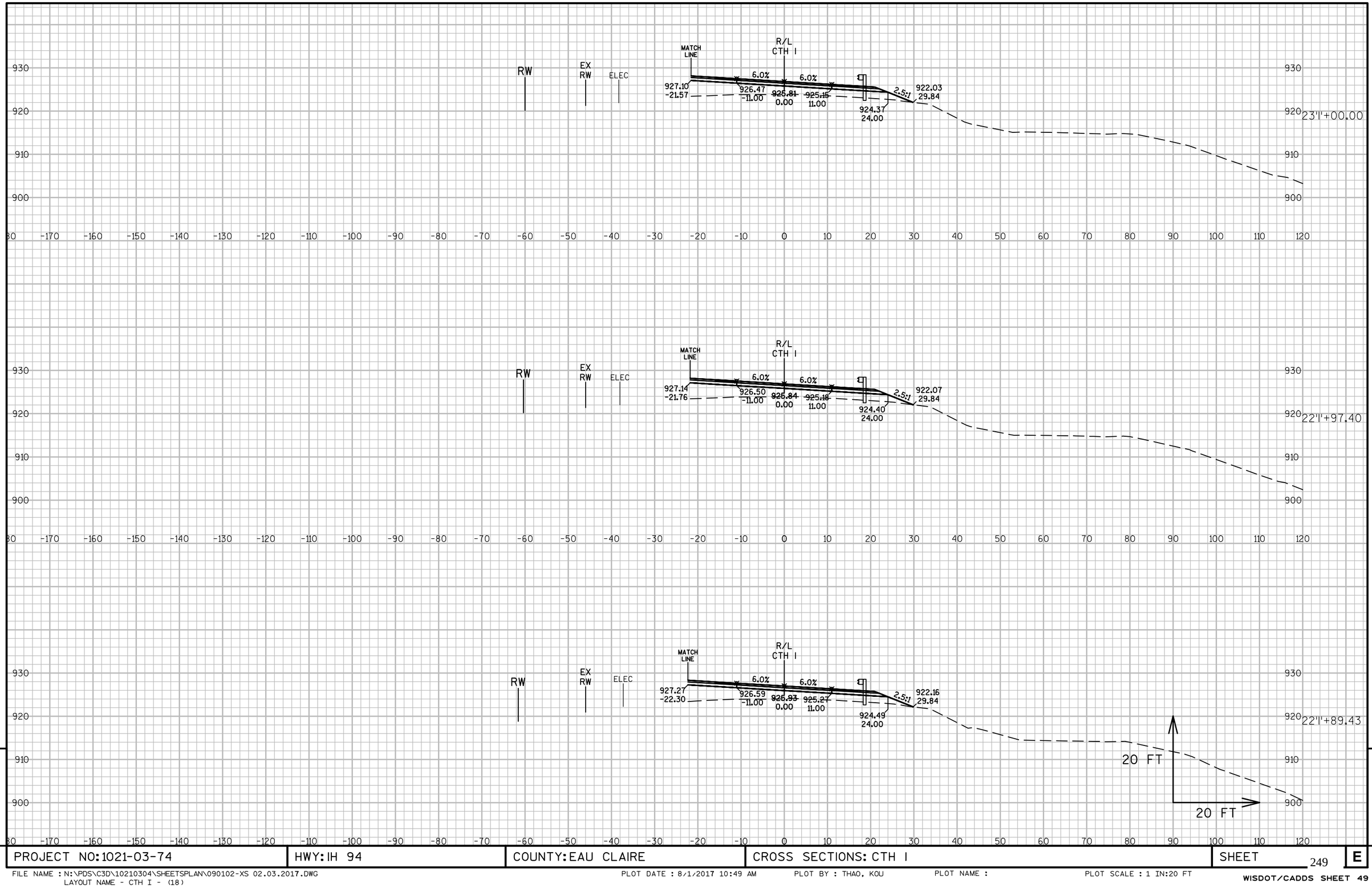


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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 248 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (17)

PLOT DATE : 8/1/2017 10:49 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 249	E

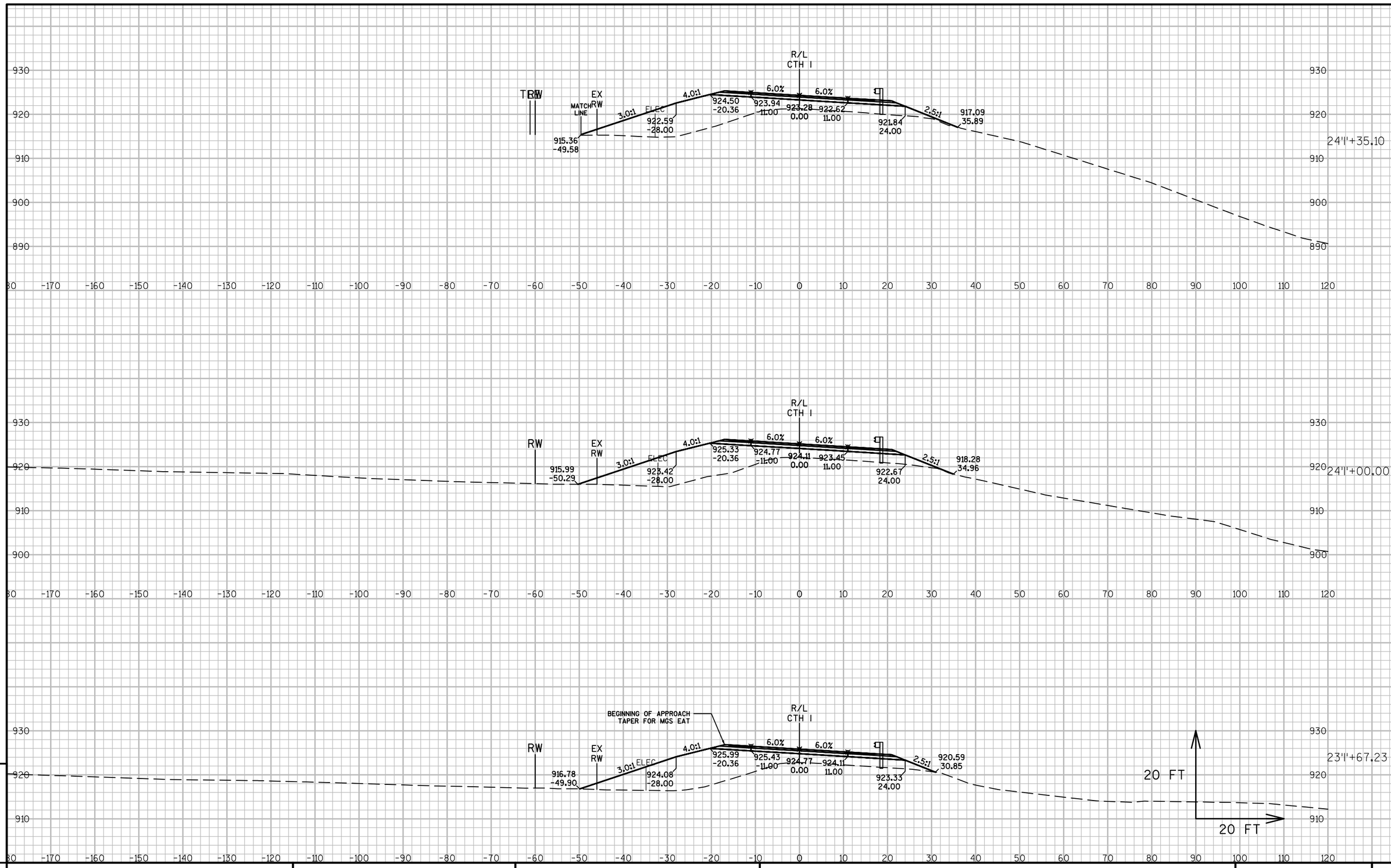
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (18)

PLOT DATE : 8/1/2017 10:49 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 250	E



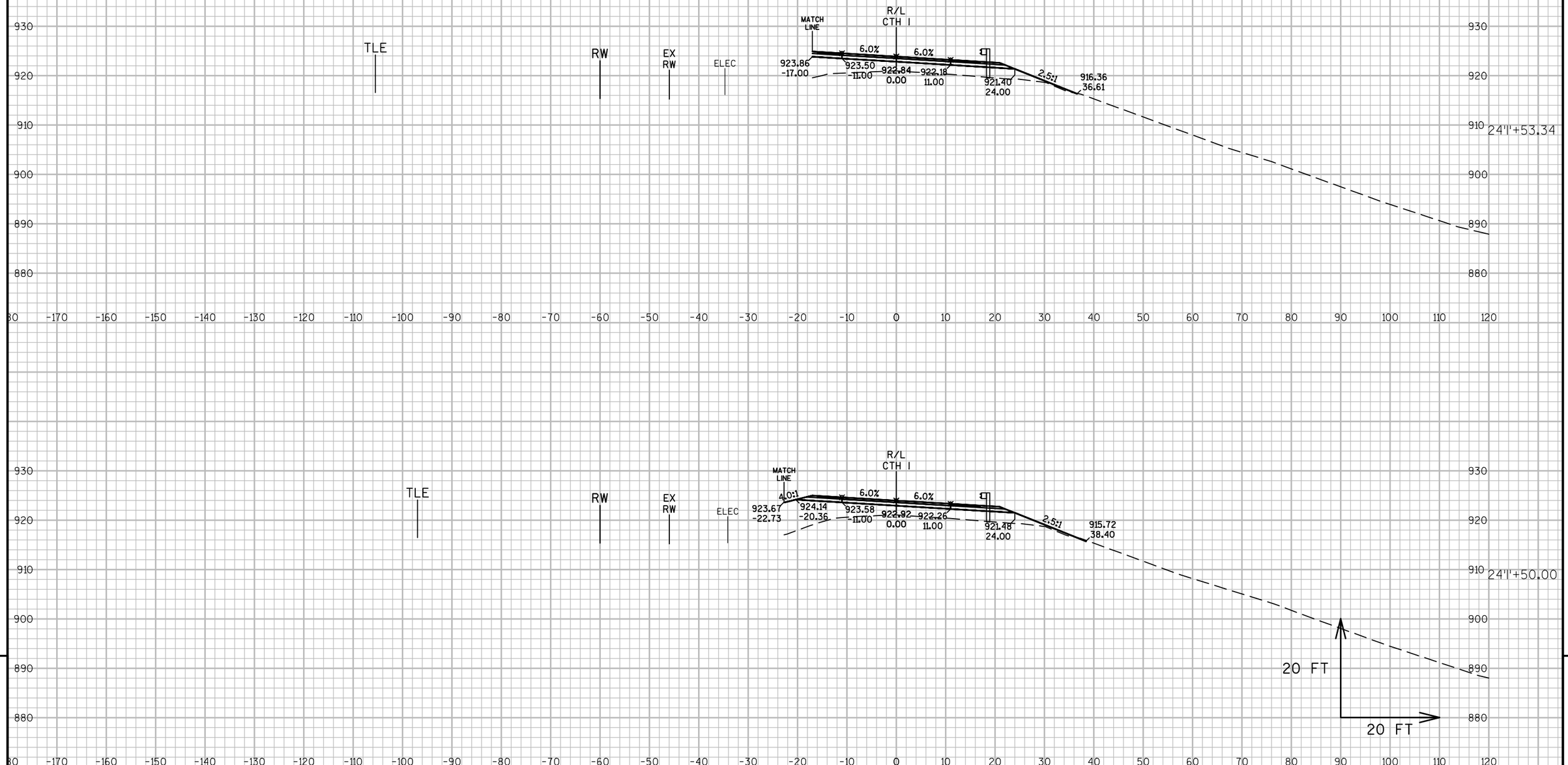
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9

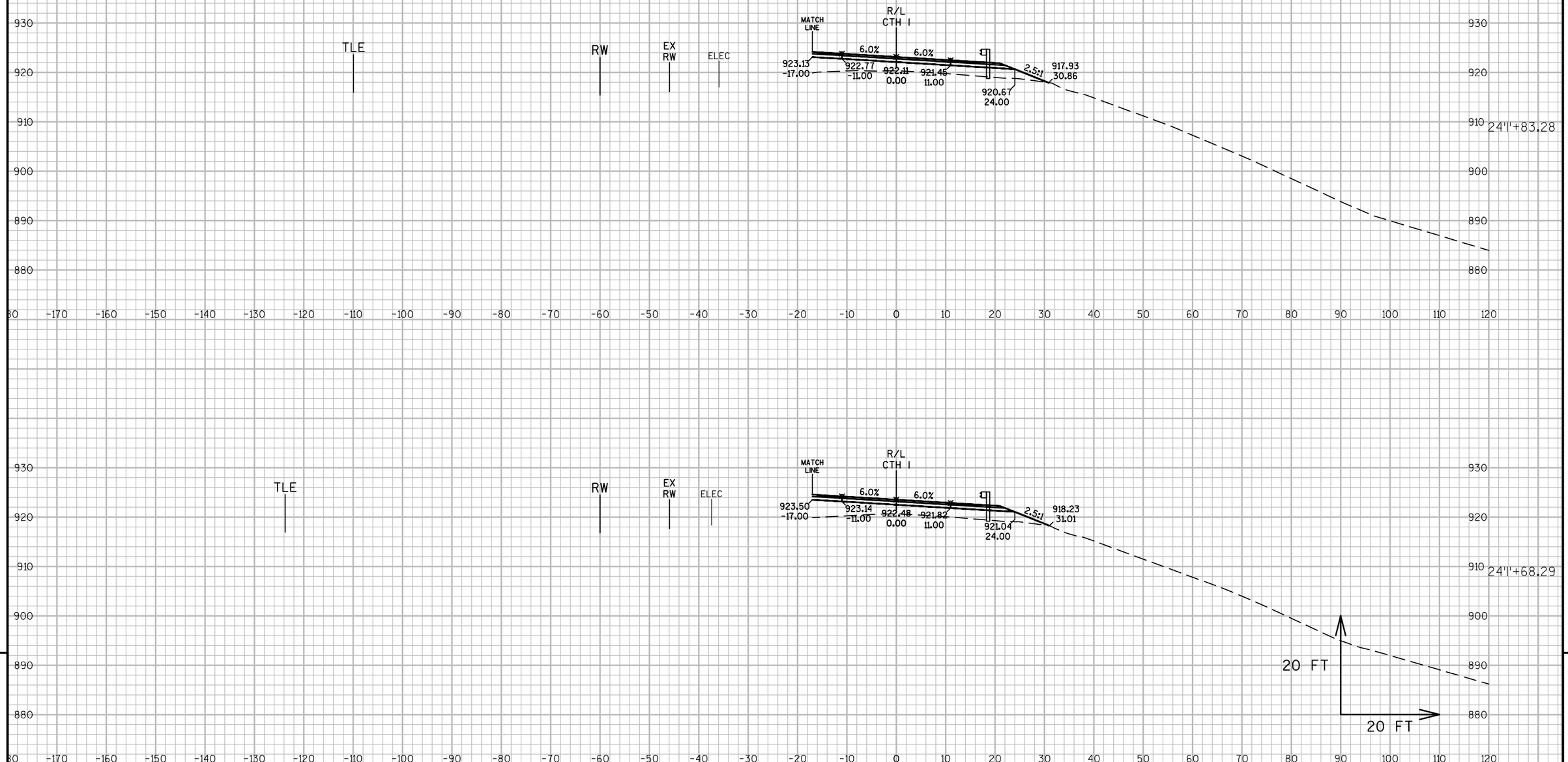
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 251	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (20)

PLOT DATE : 8/1/2017 10:50 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 252	E

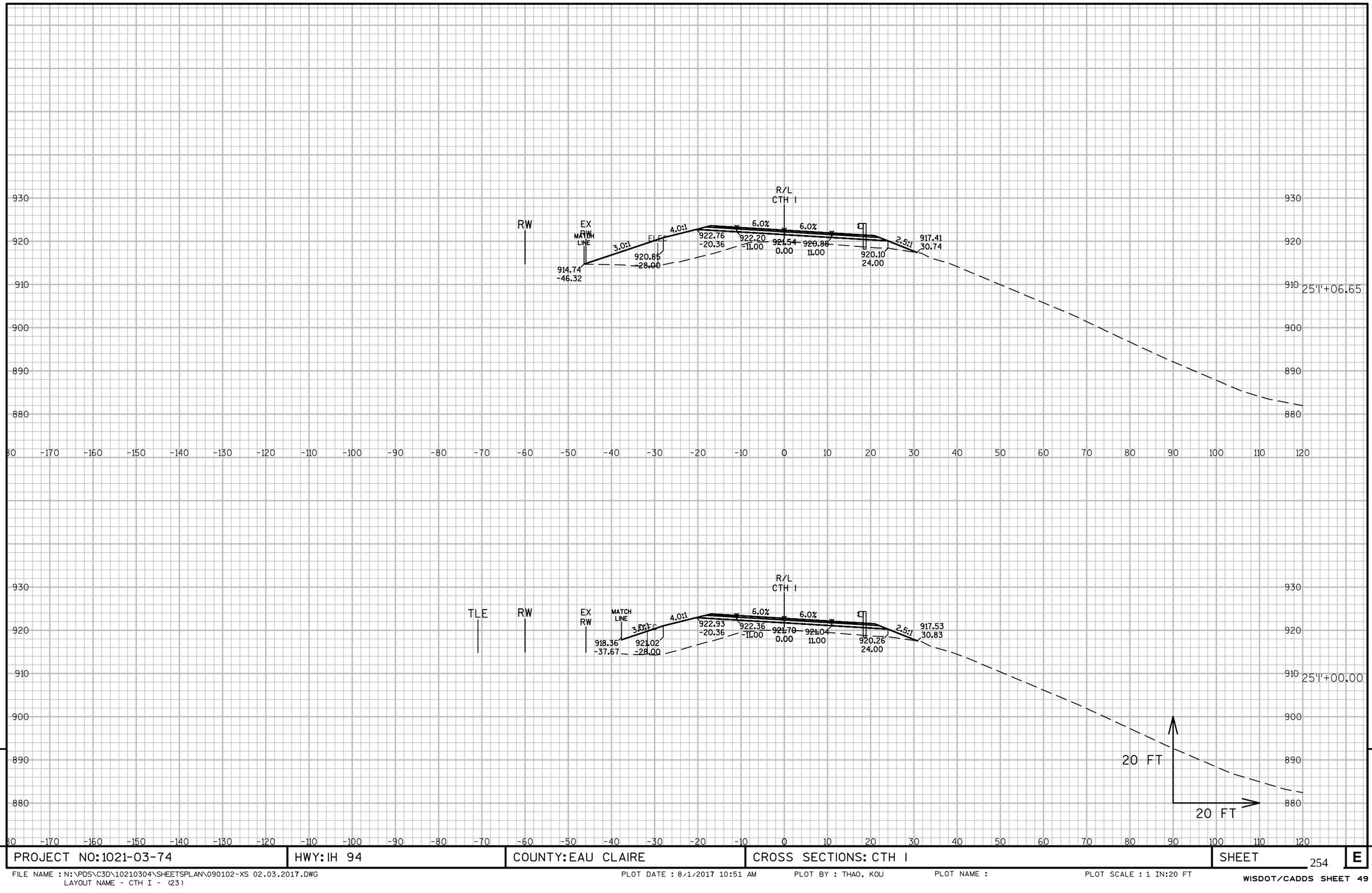


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 253 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (22)

PLOT DATE : 8/1/2017 10:50 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

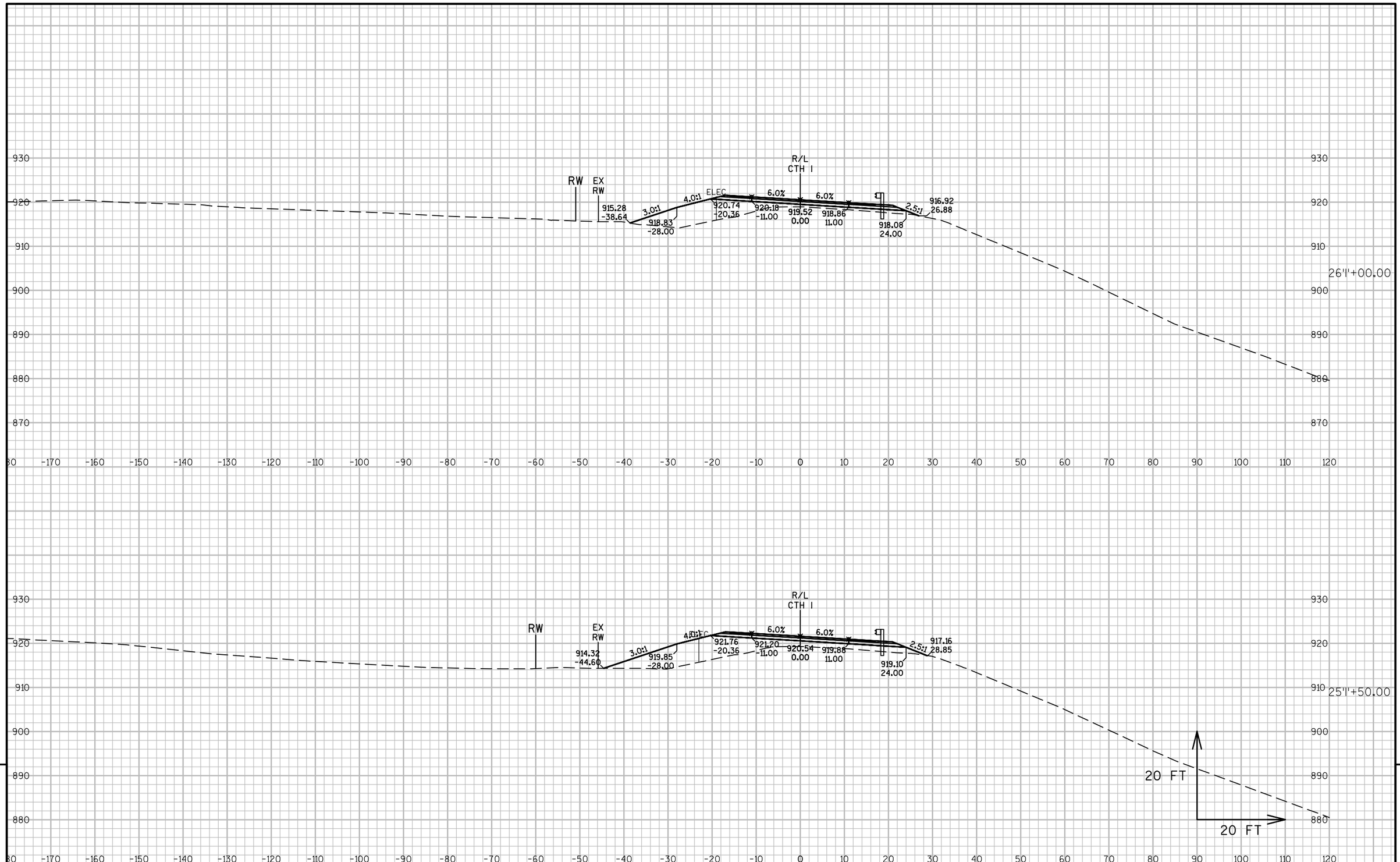


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 254 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (23)

PLOT DATE : 8/1/2017 10:51 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

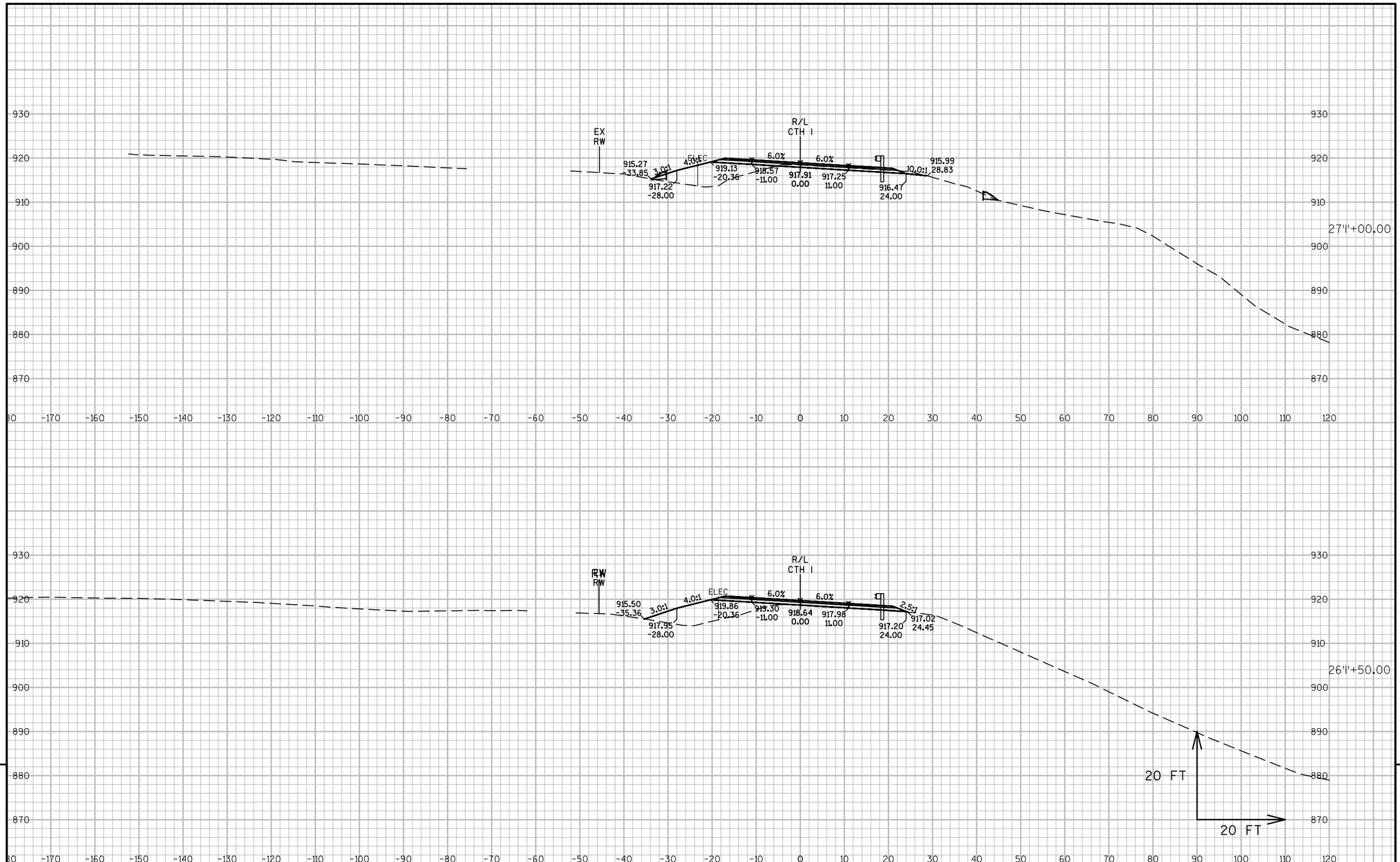


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 255 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (24)

PLOT DATE : 8/1/2017 10:51 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

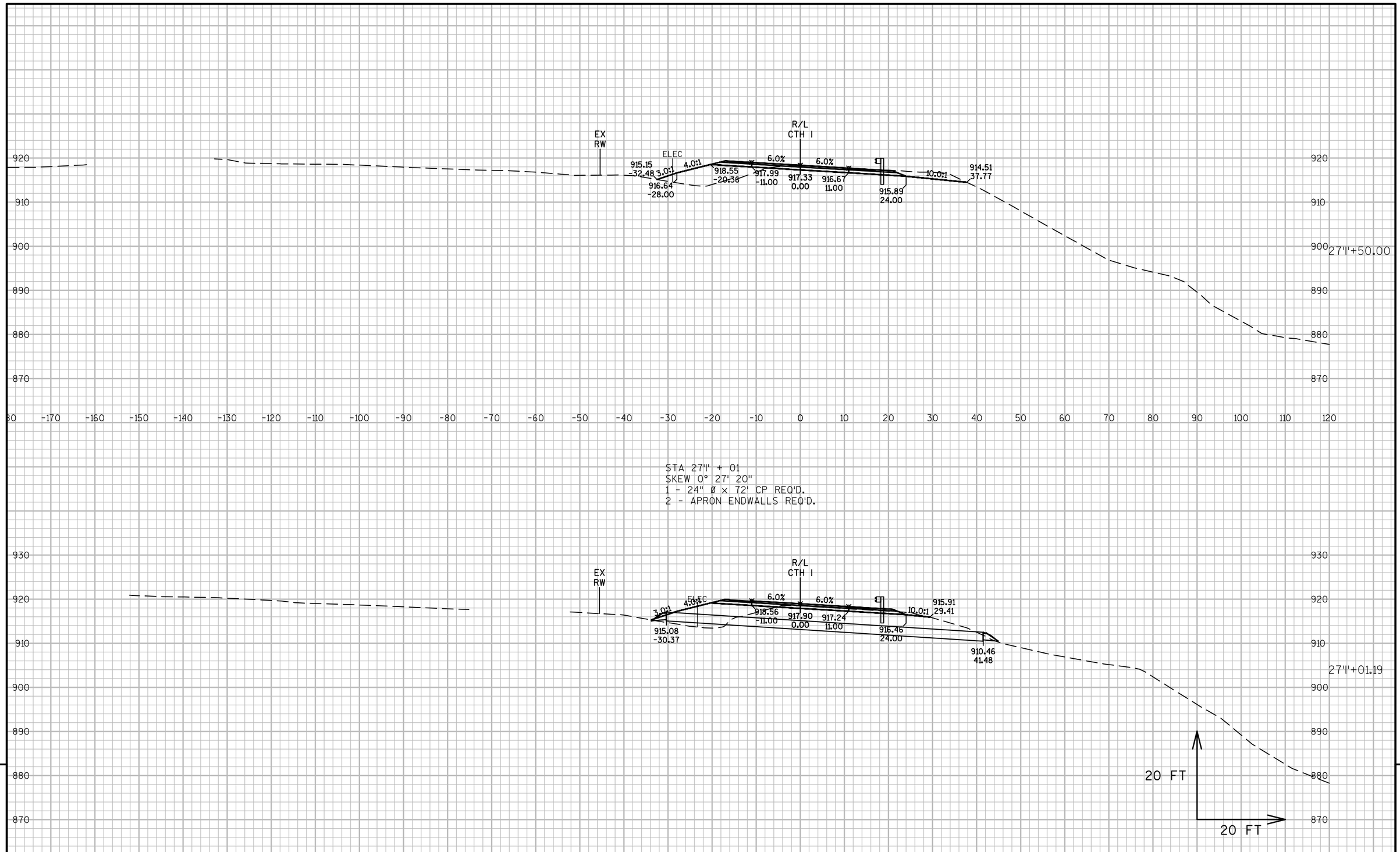
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 256	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (25)

PLOT DATE : 8/1/2017 10:51 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

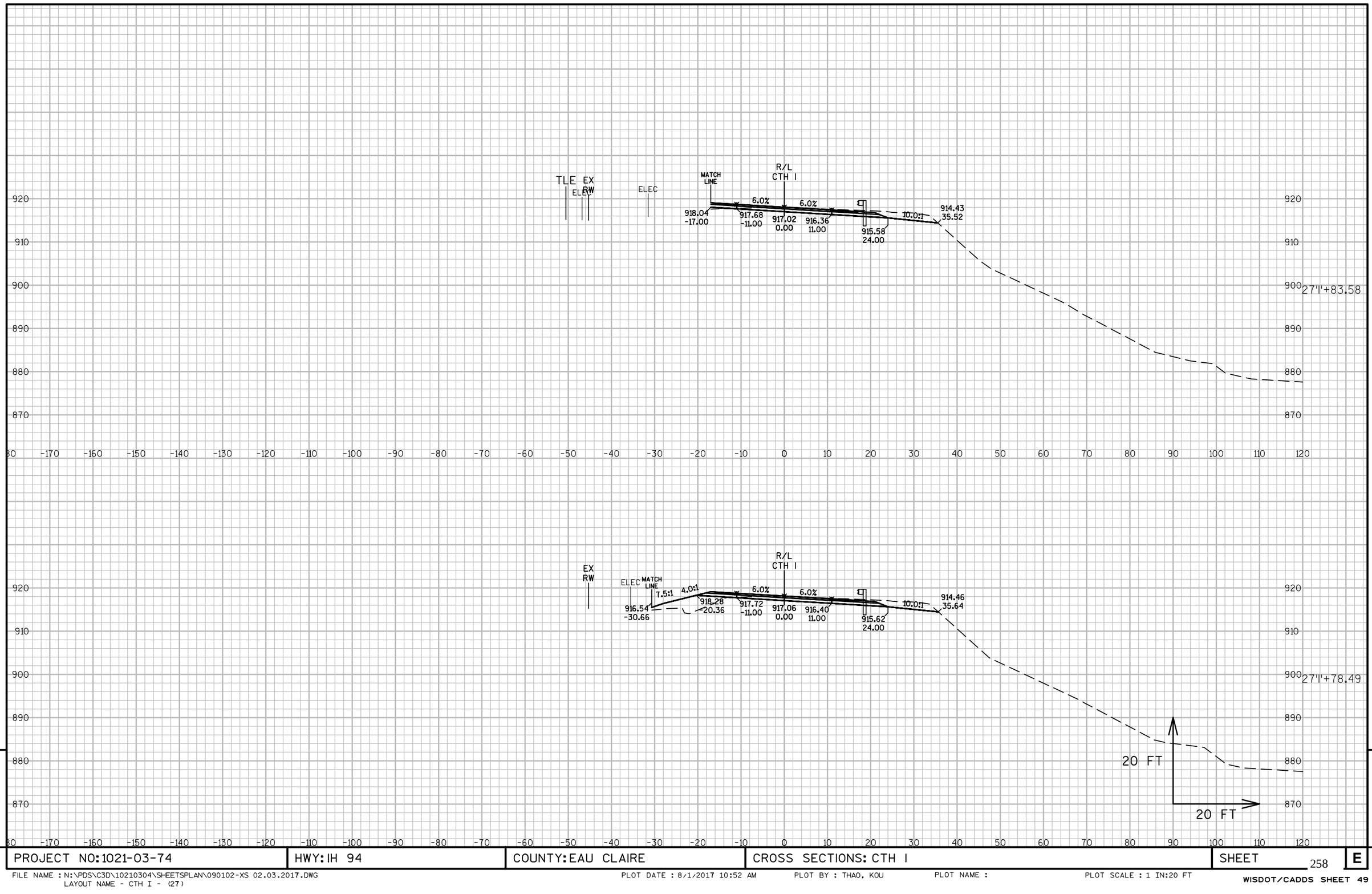


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 257	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (26)

PLOT DATE : 8/1/2017 10:51 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

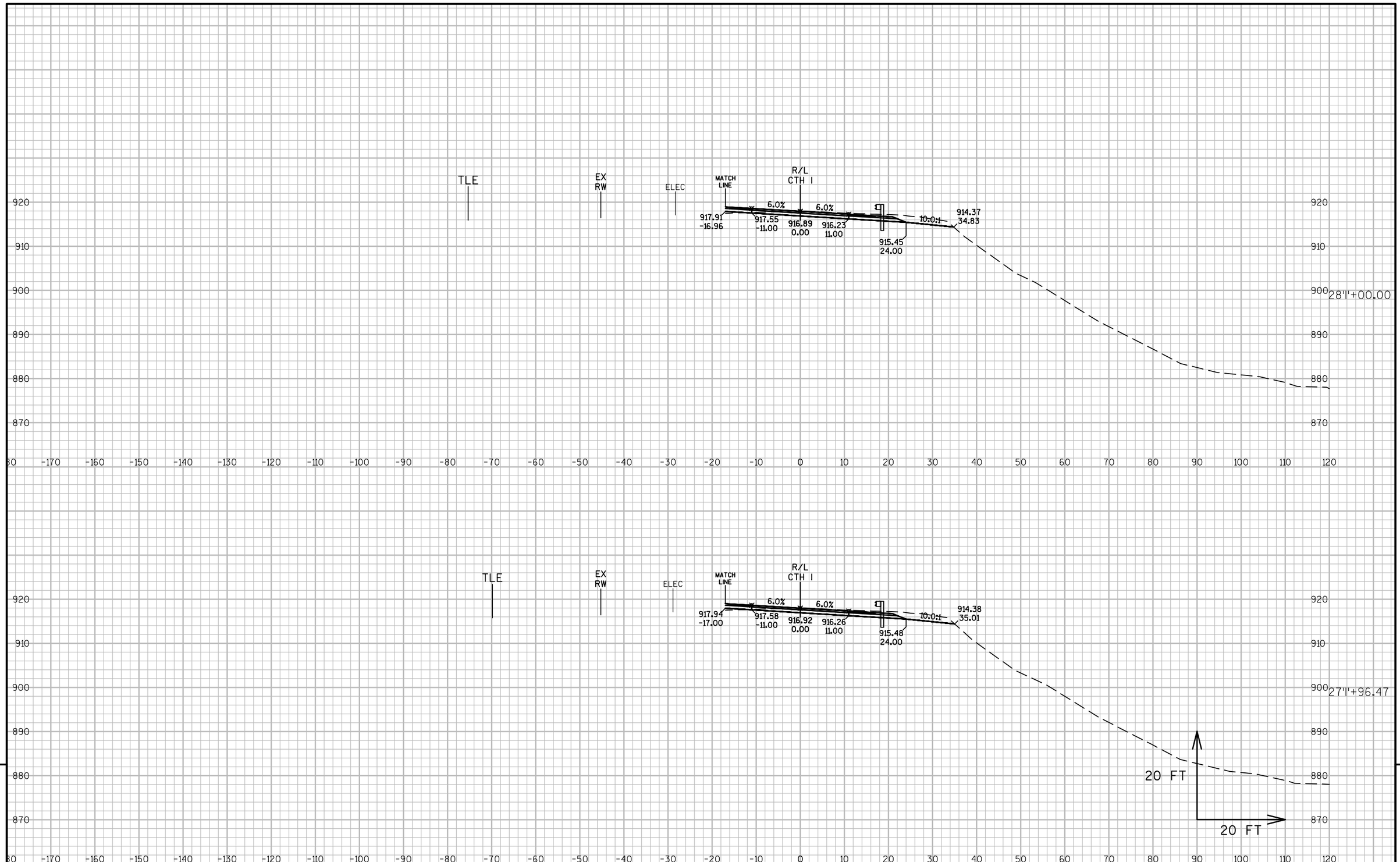
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 258	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (27)

PLOT DATE : 8/1/2017 10:52 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

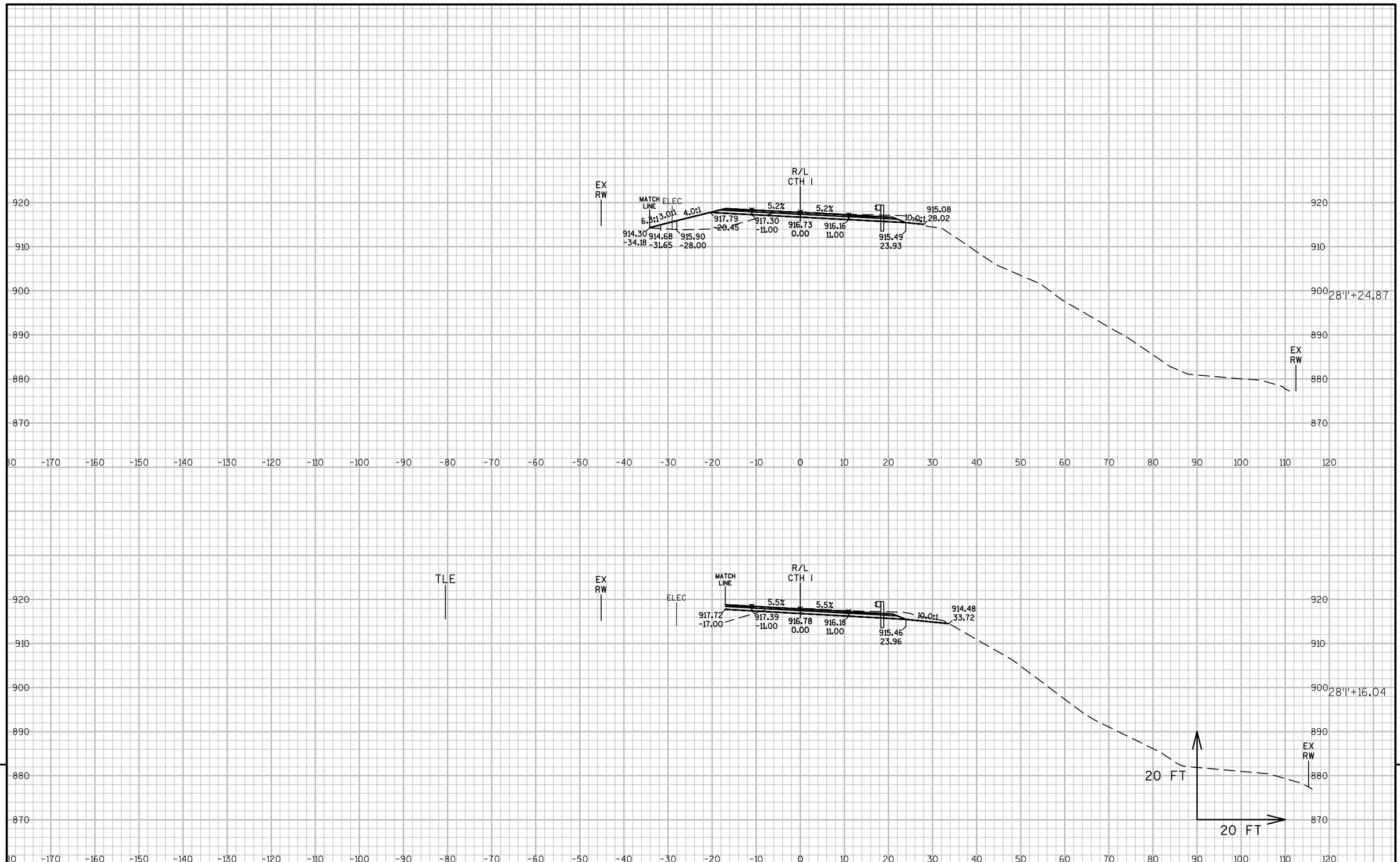
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 259	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (28)

PLOT DATE : 8/1/2017 10:52 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



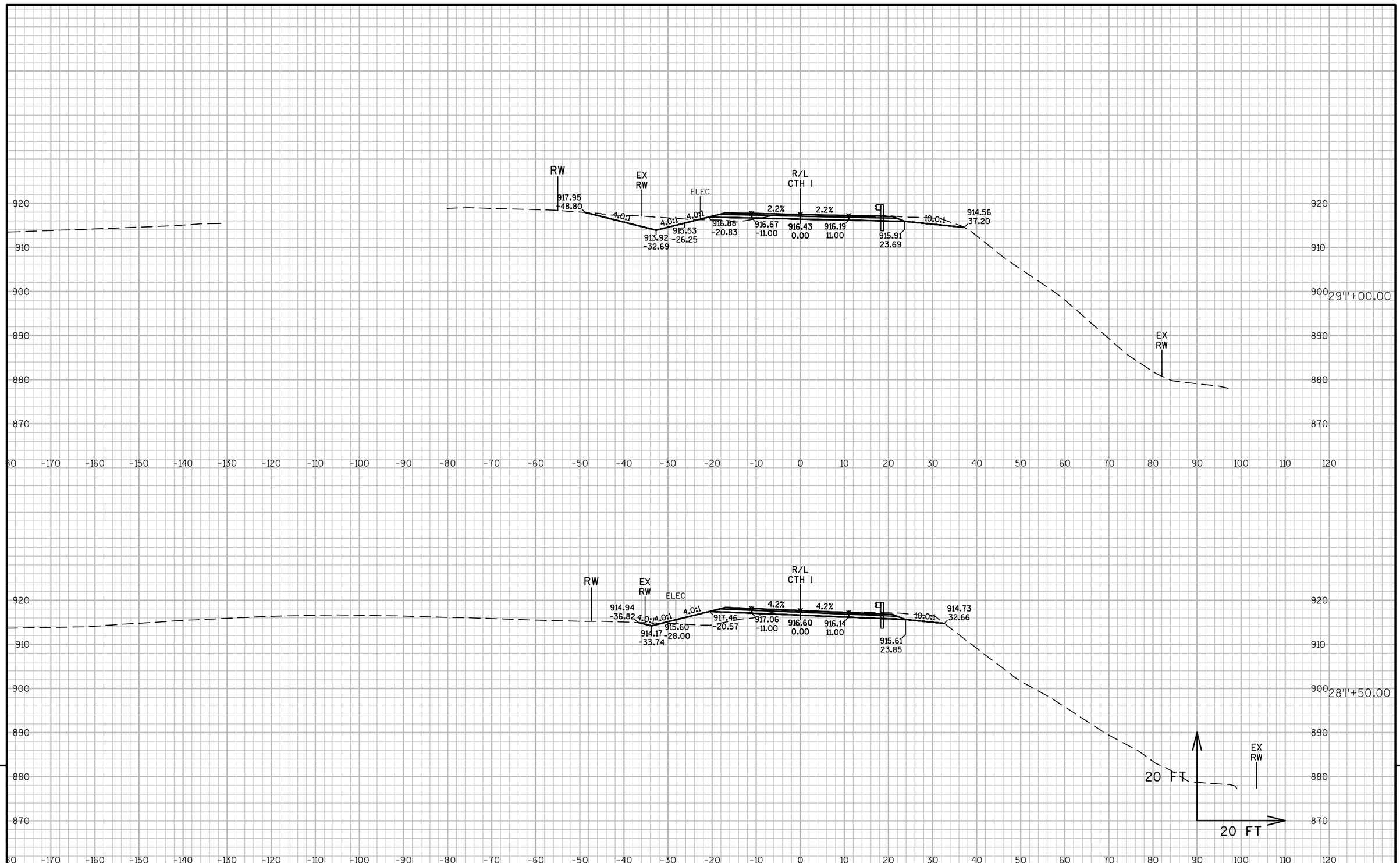
9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 260 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (29)

PLOT DATE : 8/1/2017 10:52 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

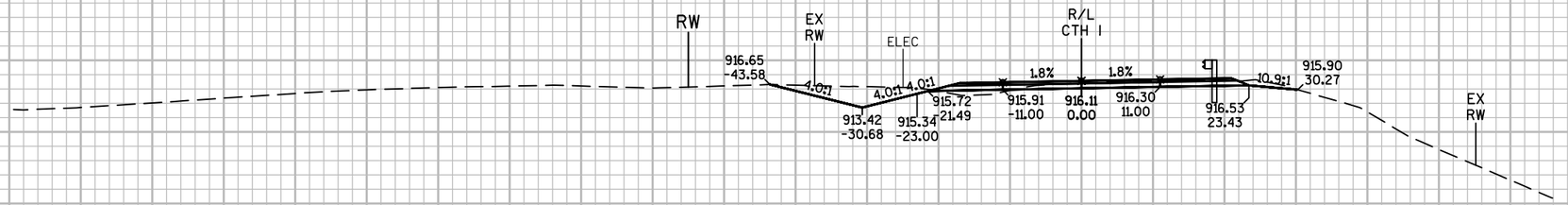
9

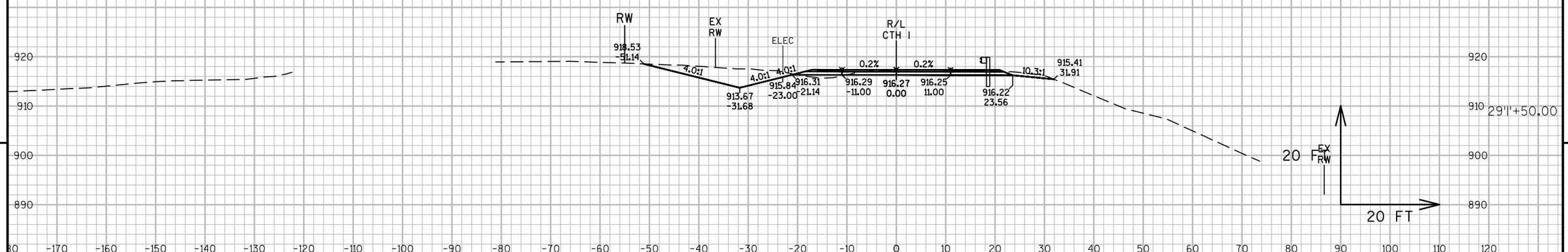
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 261	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (30)

PLOT DATE : 8/1/2017 10:52 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

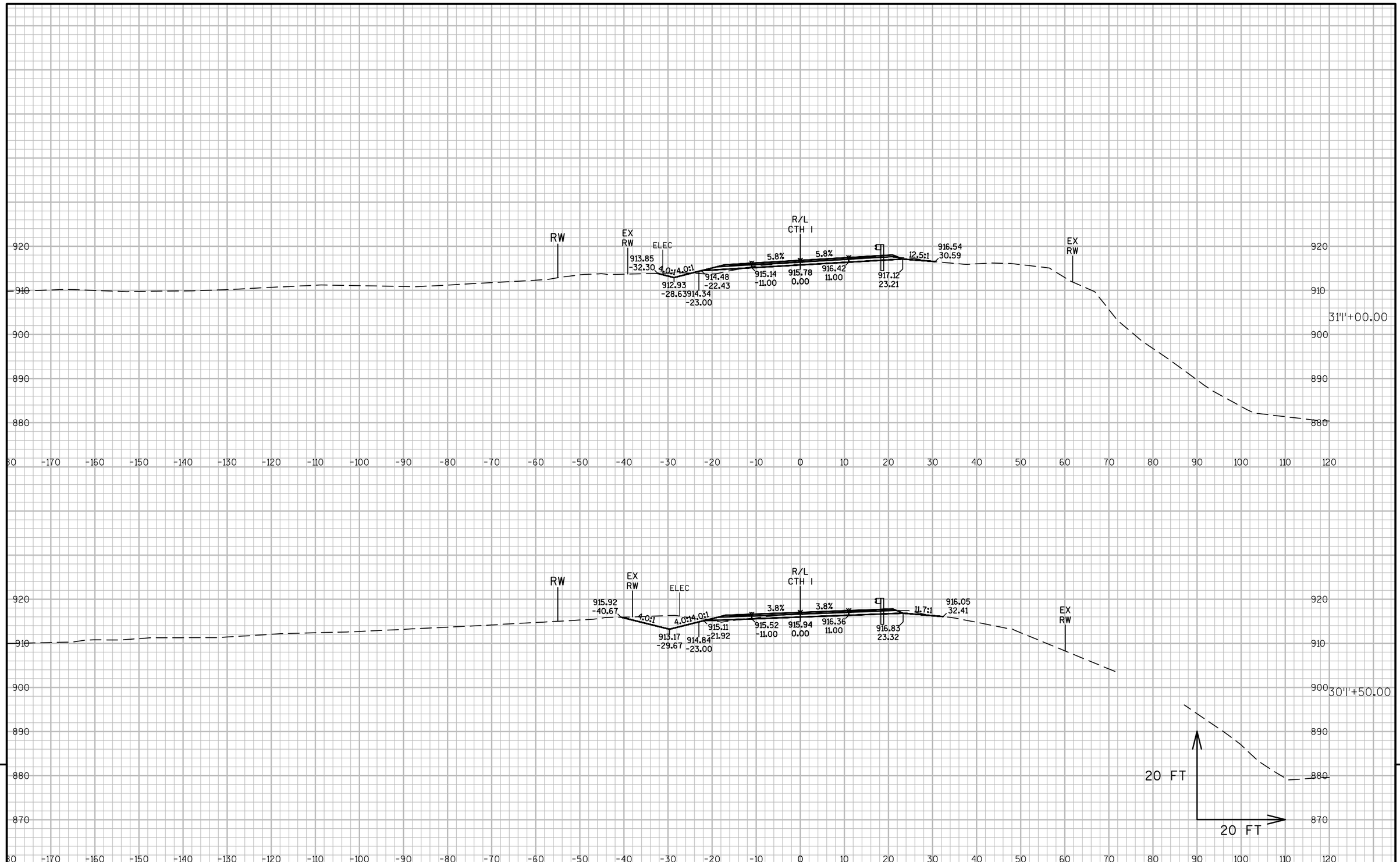




FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (31)

PLOT DATE : 8/1/2017 10:53 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

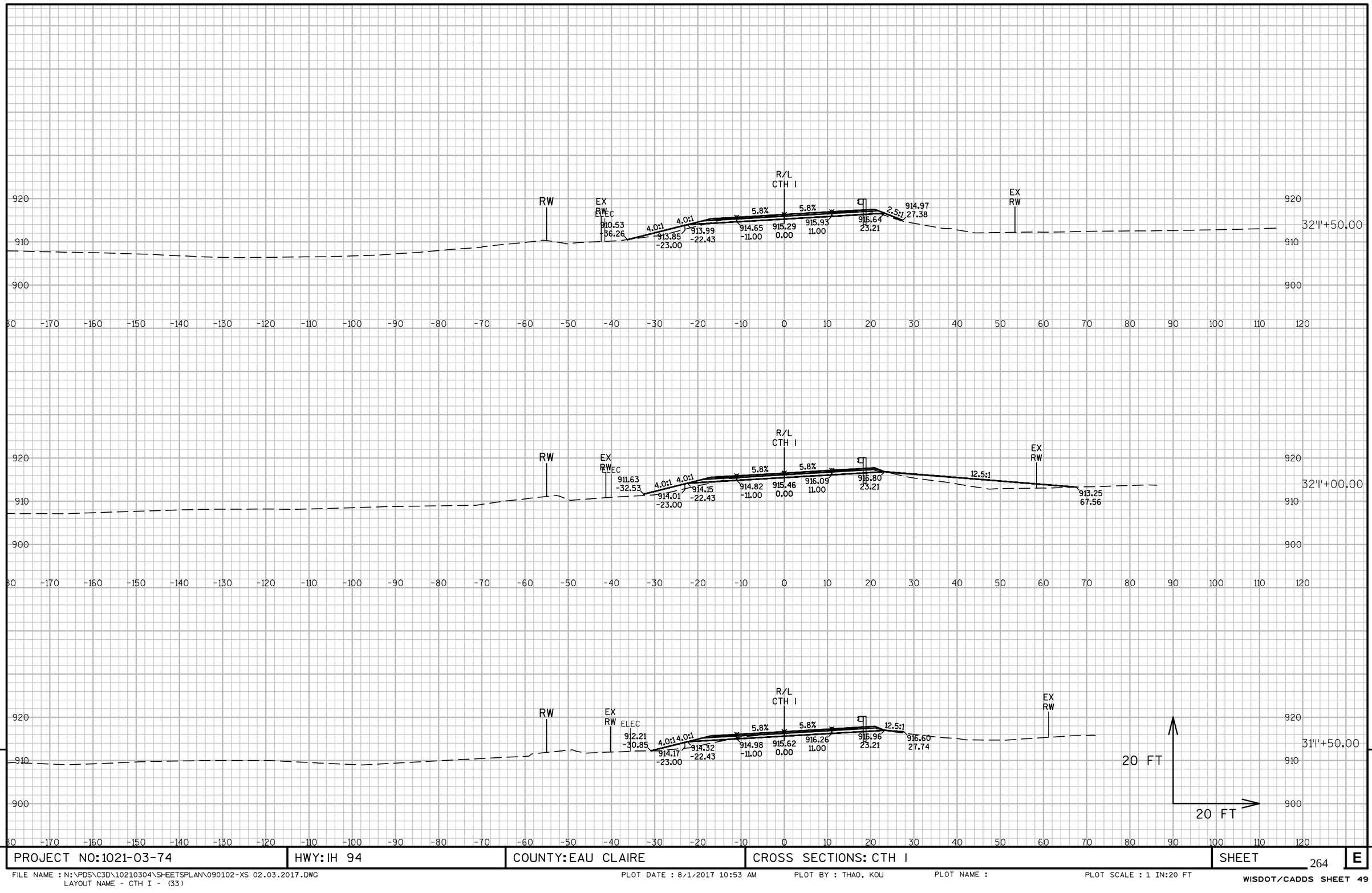
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 263 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (32)

PLOT DATE : 8/1/2017 10:53 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 264	E

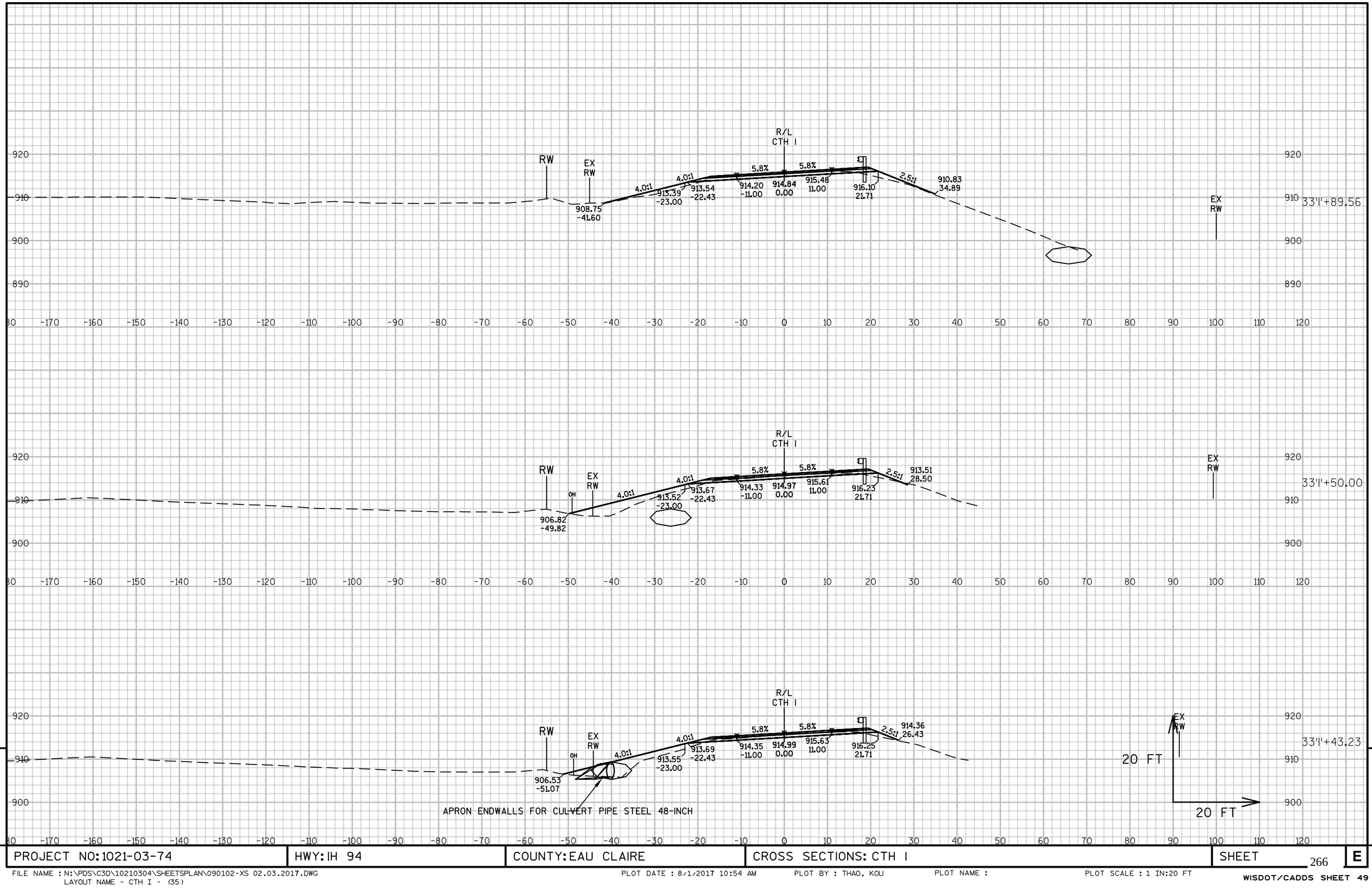
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (33)
PLOT DATE : 8/1/2017 10:53 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 265	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (34)
PLOT DATE : 8/1/2017 10:53 AM
PLOT BY : THAO, KOU
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

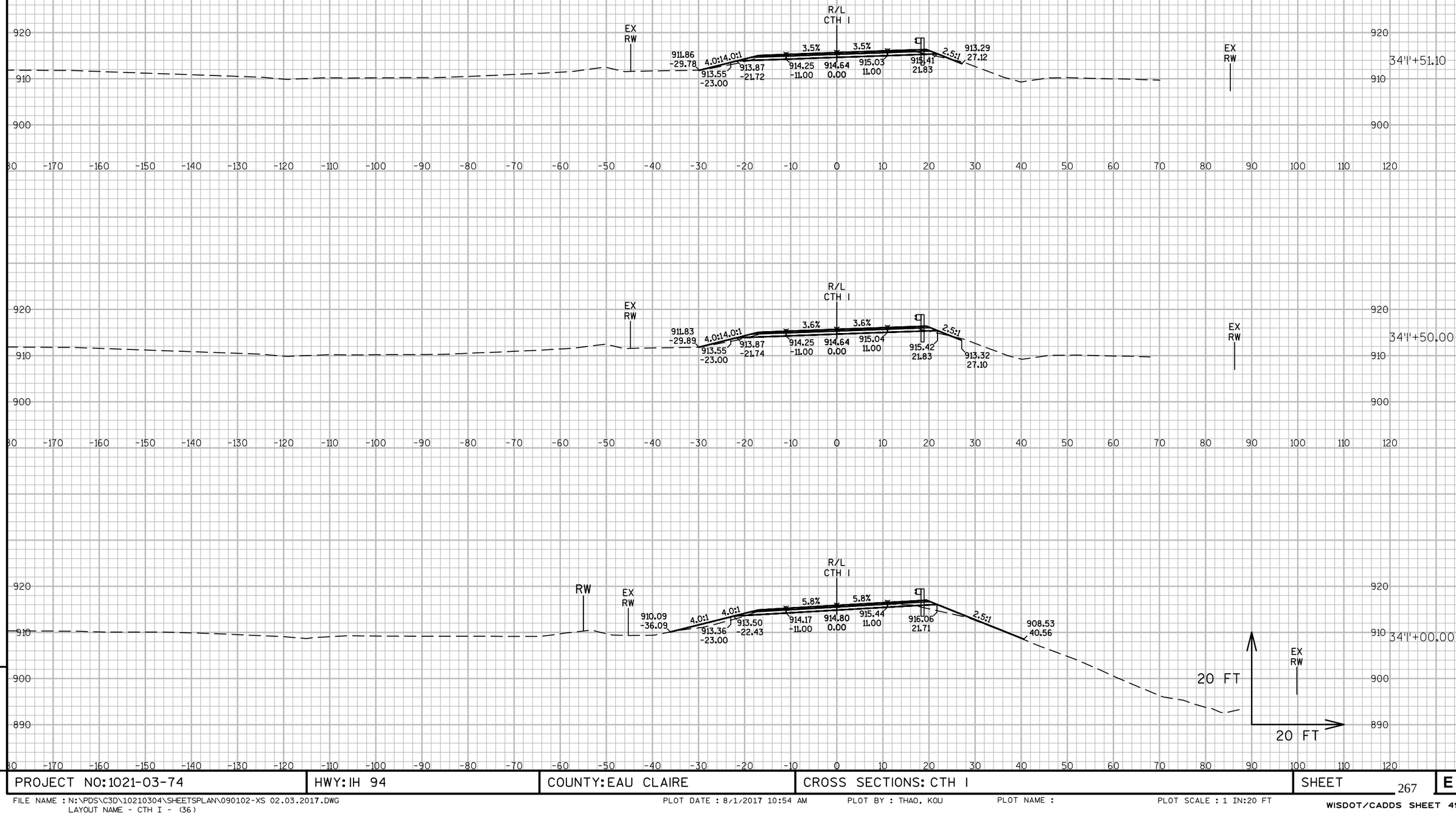


9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 266	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (35)
PLOT DATE : 8/1/2017 10:54 AM
PLOT BY : THAO, KOU
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

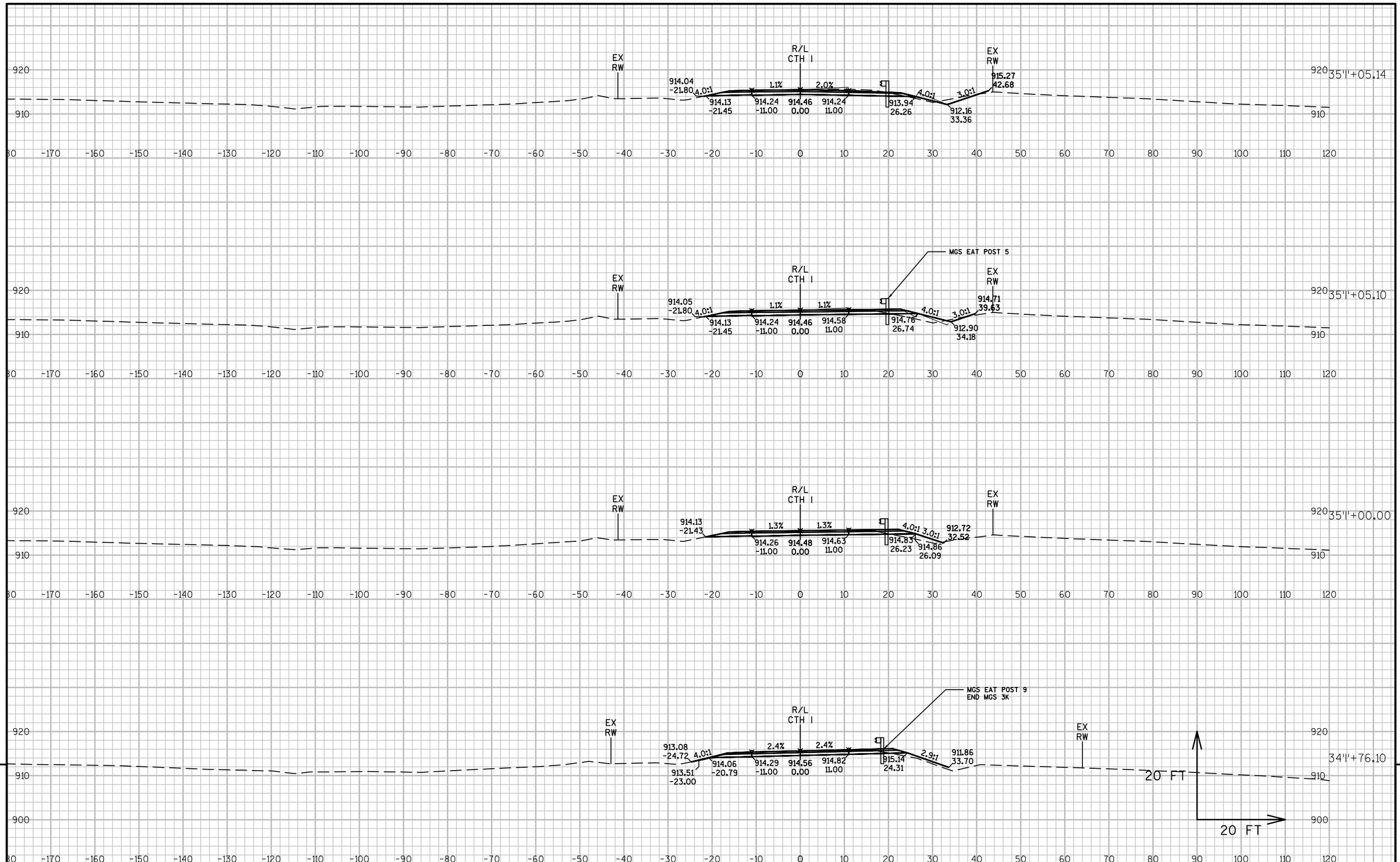
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 267	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (36)

PLOT DATE : 8/1/2017 10:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

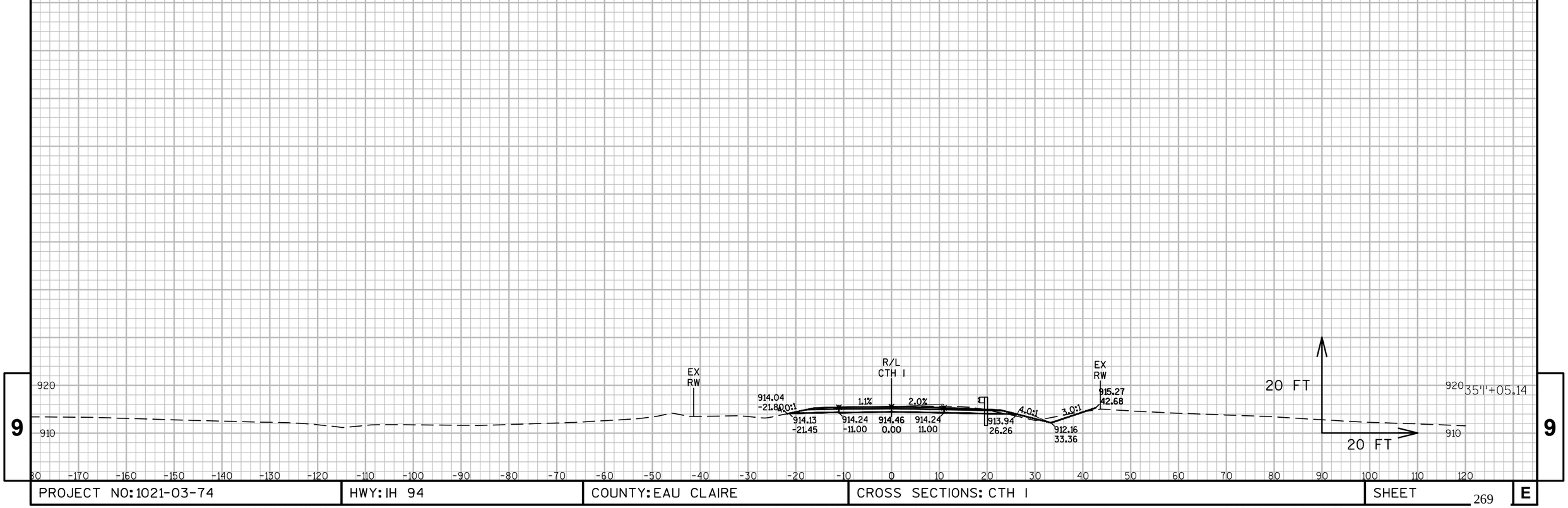
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 268	E



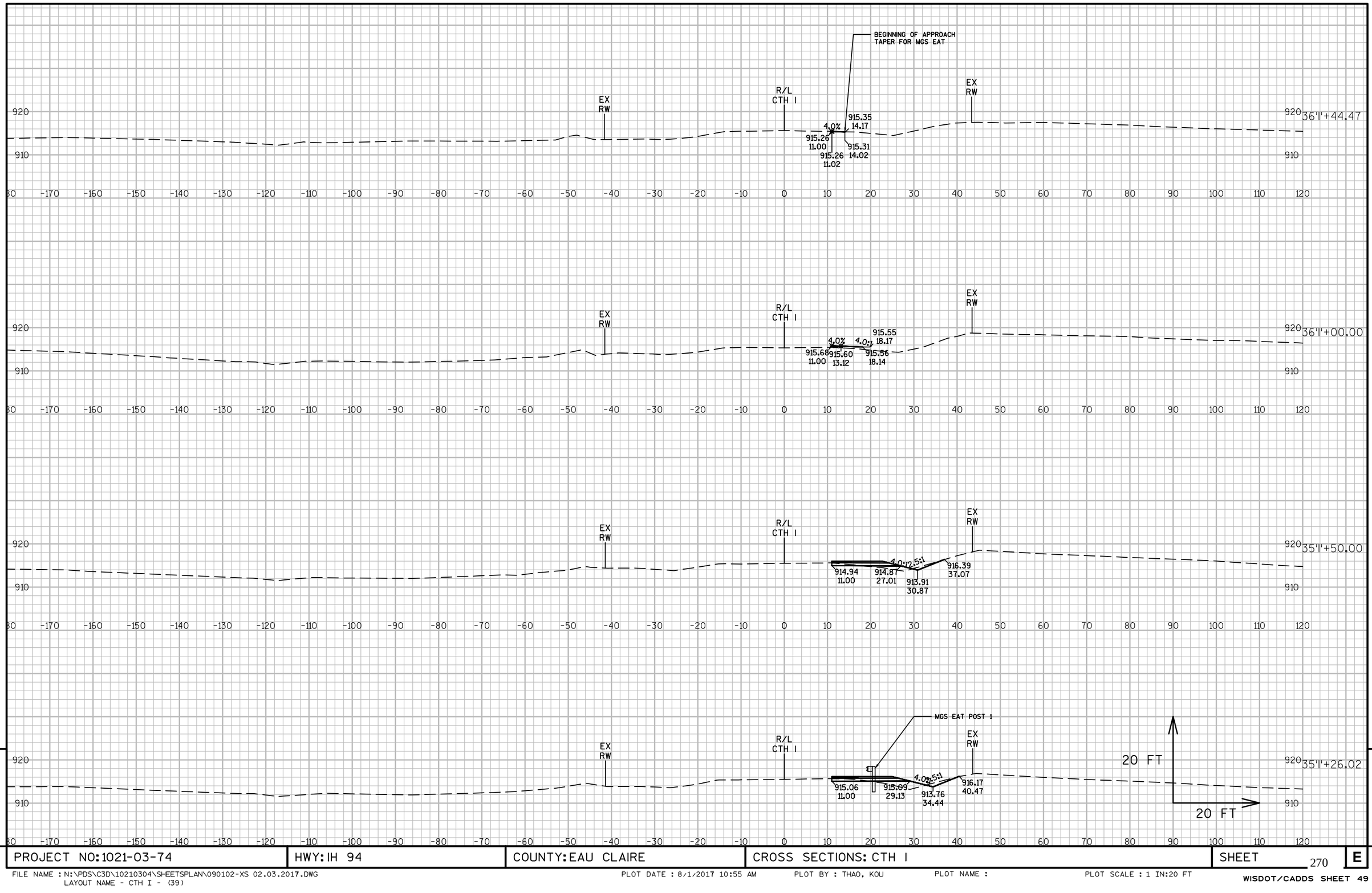
9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 269 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (38)

PLOT DATE : 8/1/2017 10:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



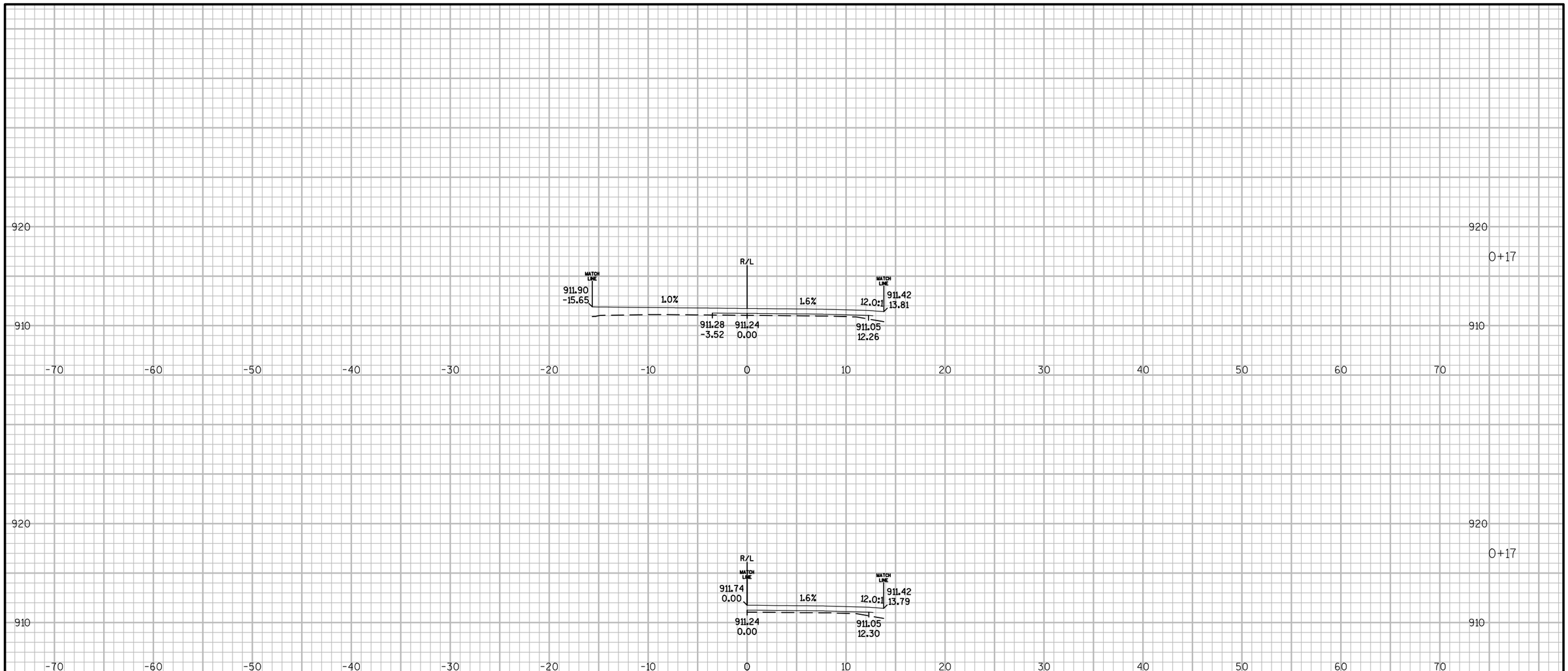
9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: CTH I	SHEET 270	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS 02.03.2017.DWG
LAYOUT NAME - CTH I - (39)

PLOT DATE : 8/1/2017 10:55 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



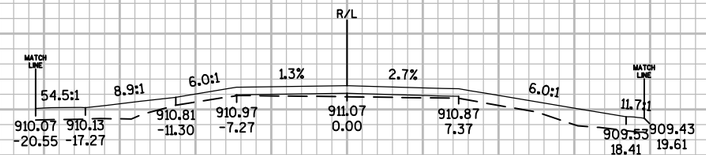
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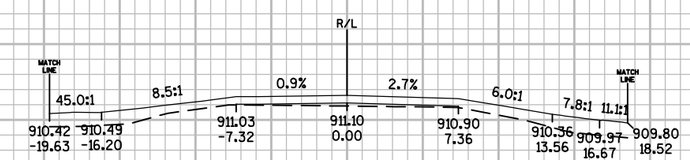
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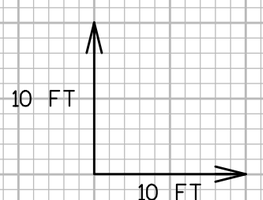
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET 271	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 14+25 RT - (01)

PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

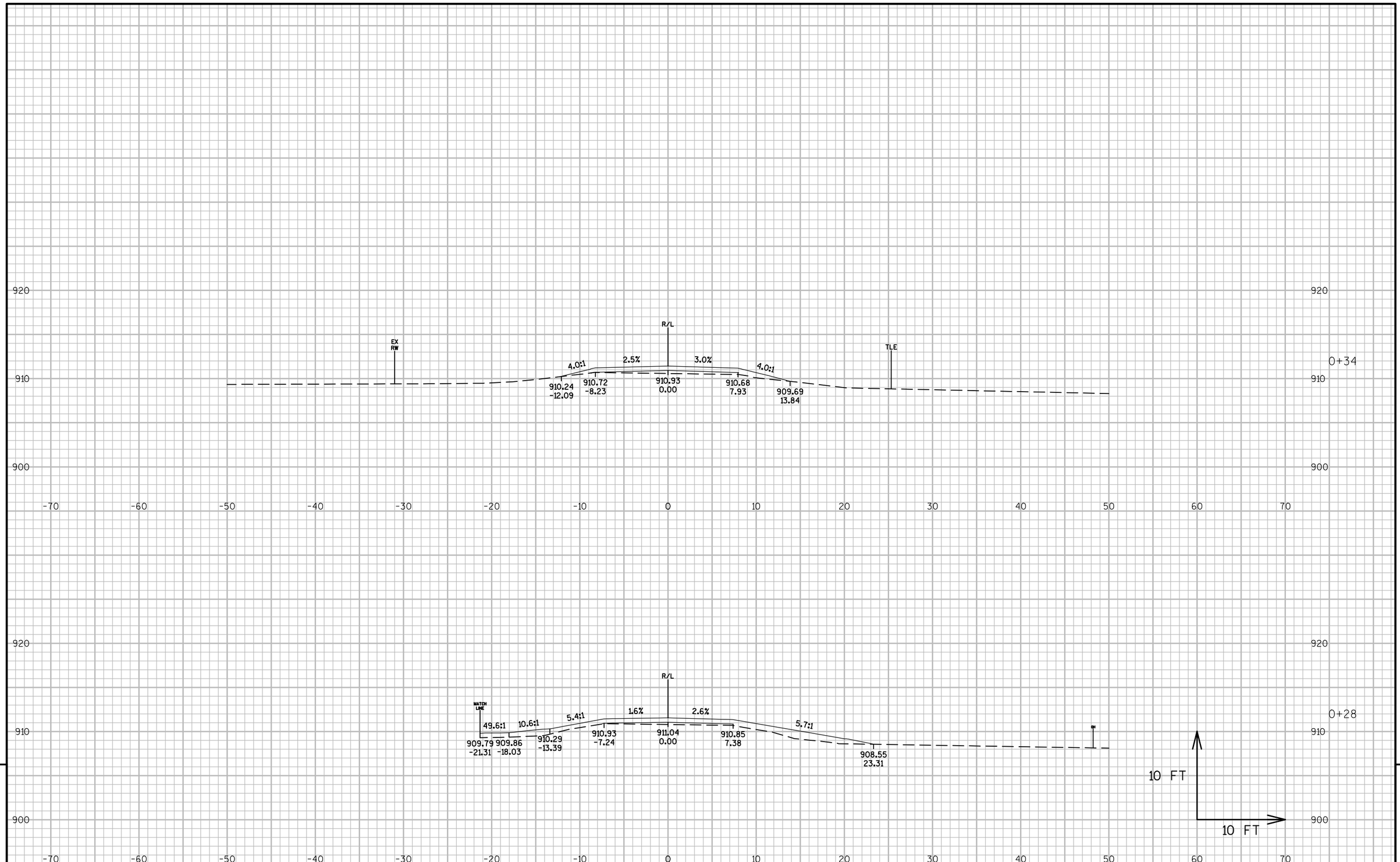






PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET 272 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 14+25 RT - (02)
PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49



9

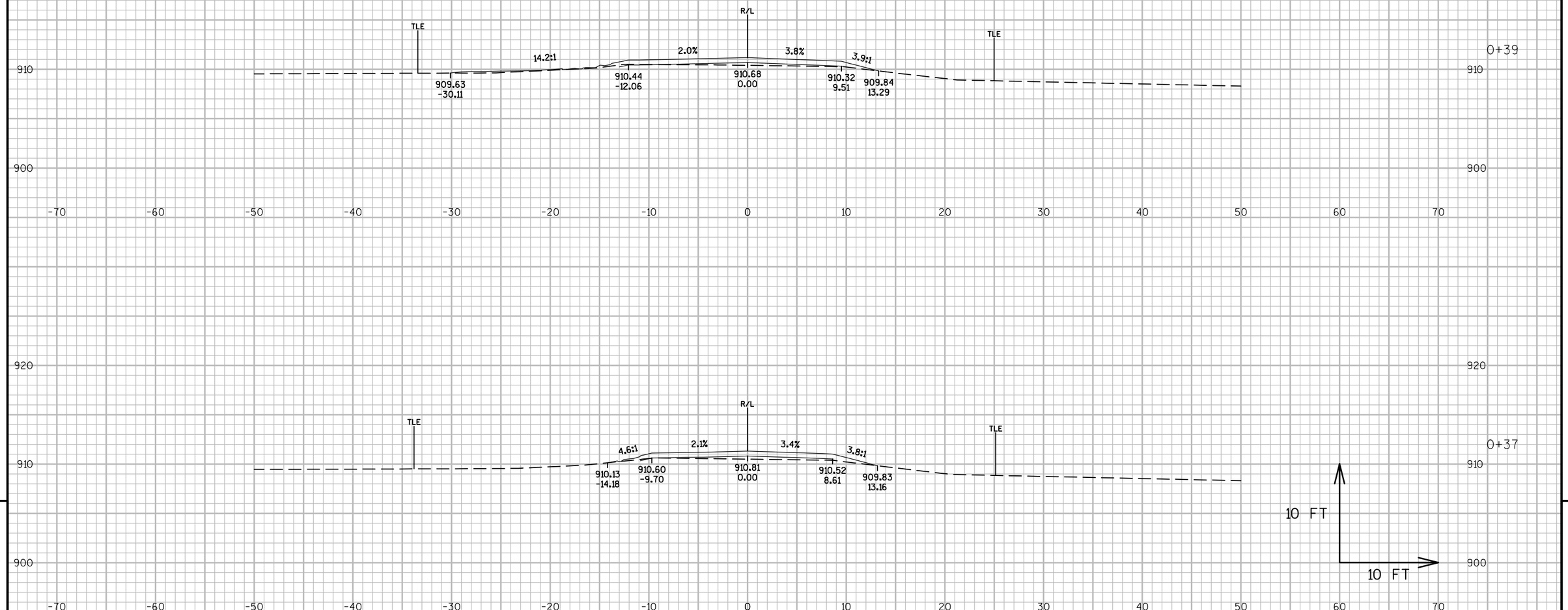
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET 273	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 14+25 RT - (03)

PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

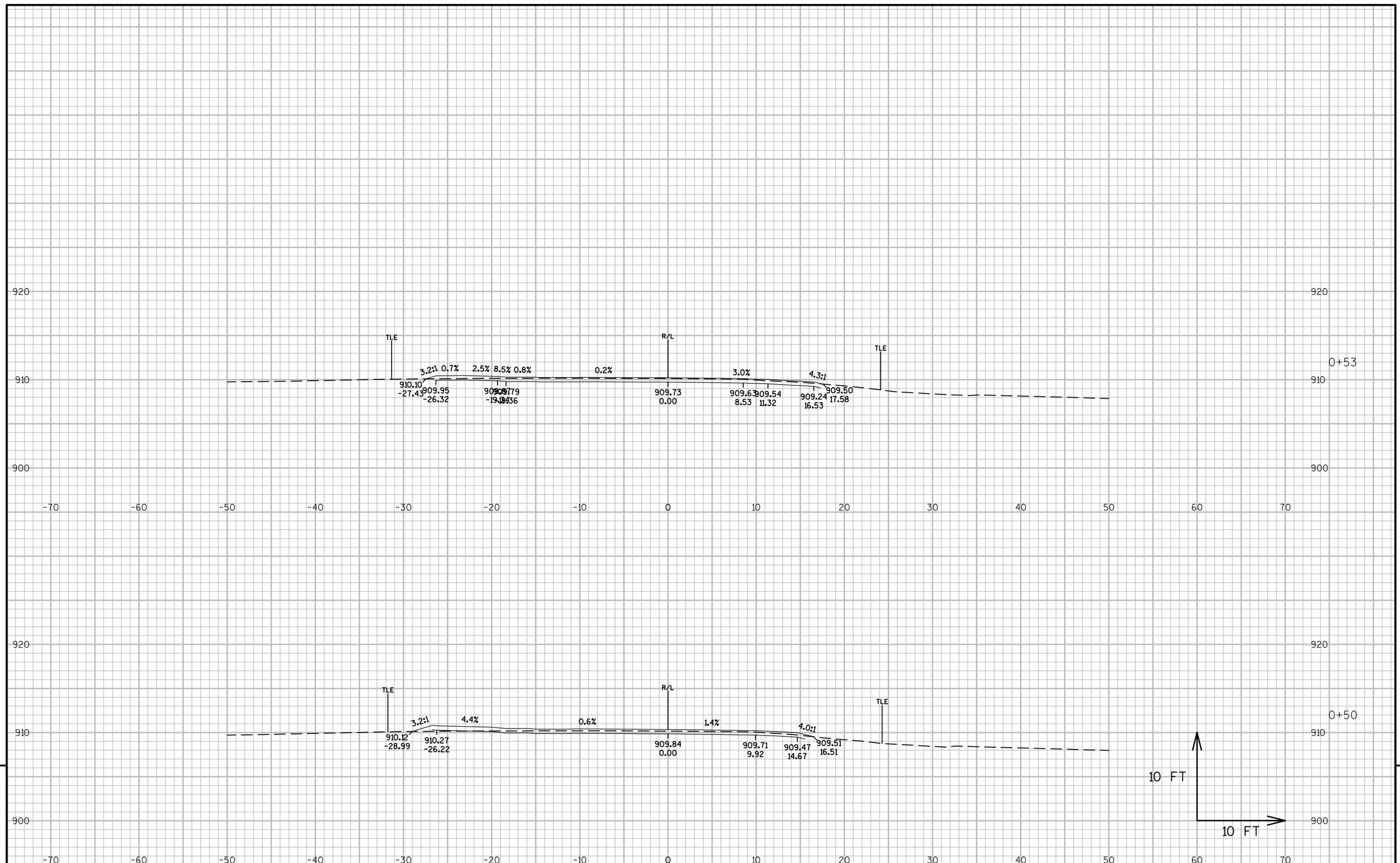
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET 274	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 14+25 RT - (04)

PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

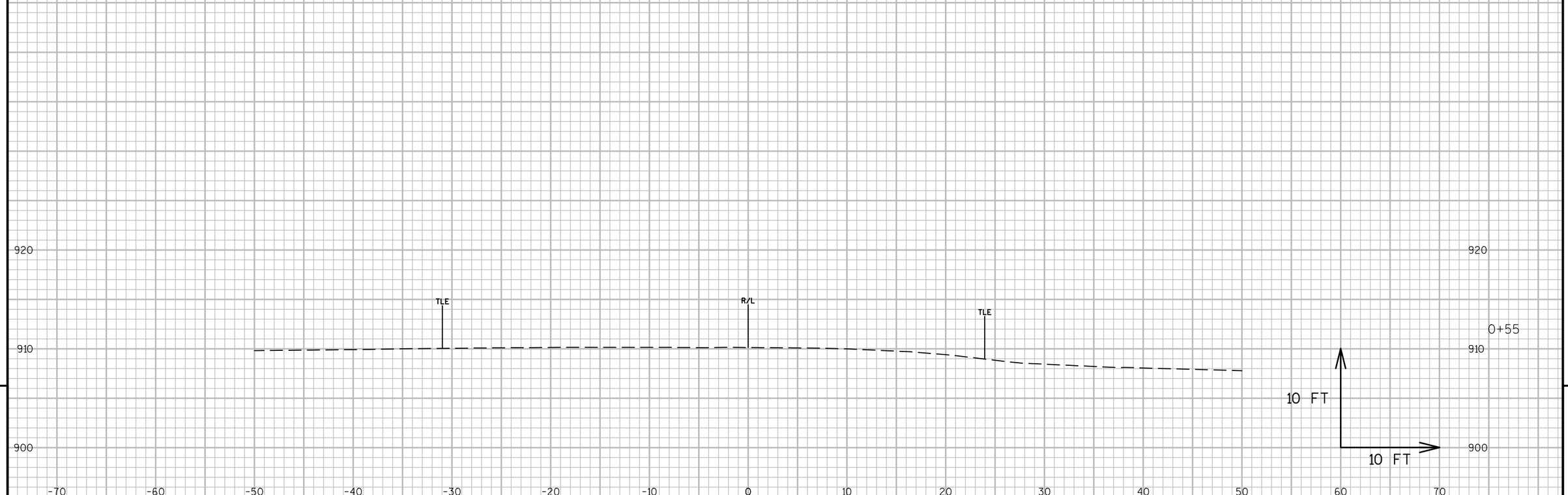
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET 275	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 14+25 RT - (05)

PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



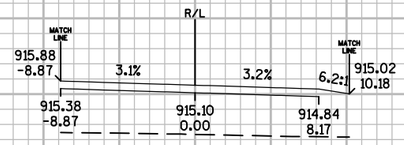
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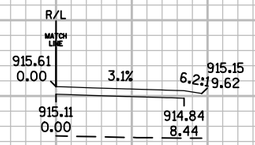
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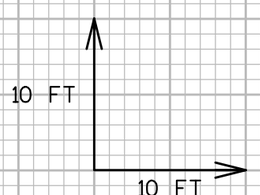
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE1'	SHEET 276	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 14+25 RT - (06)

PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1







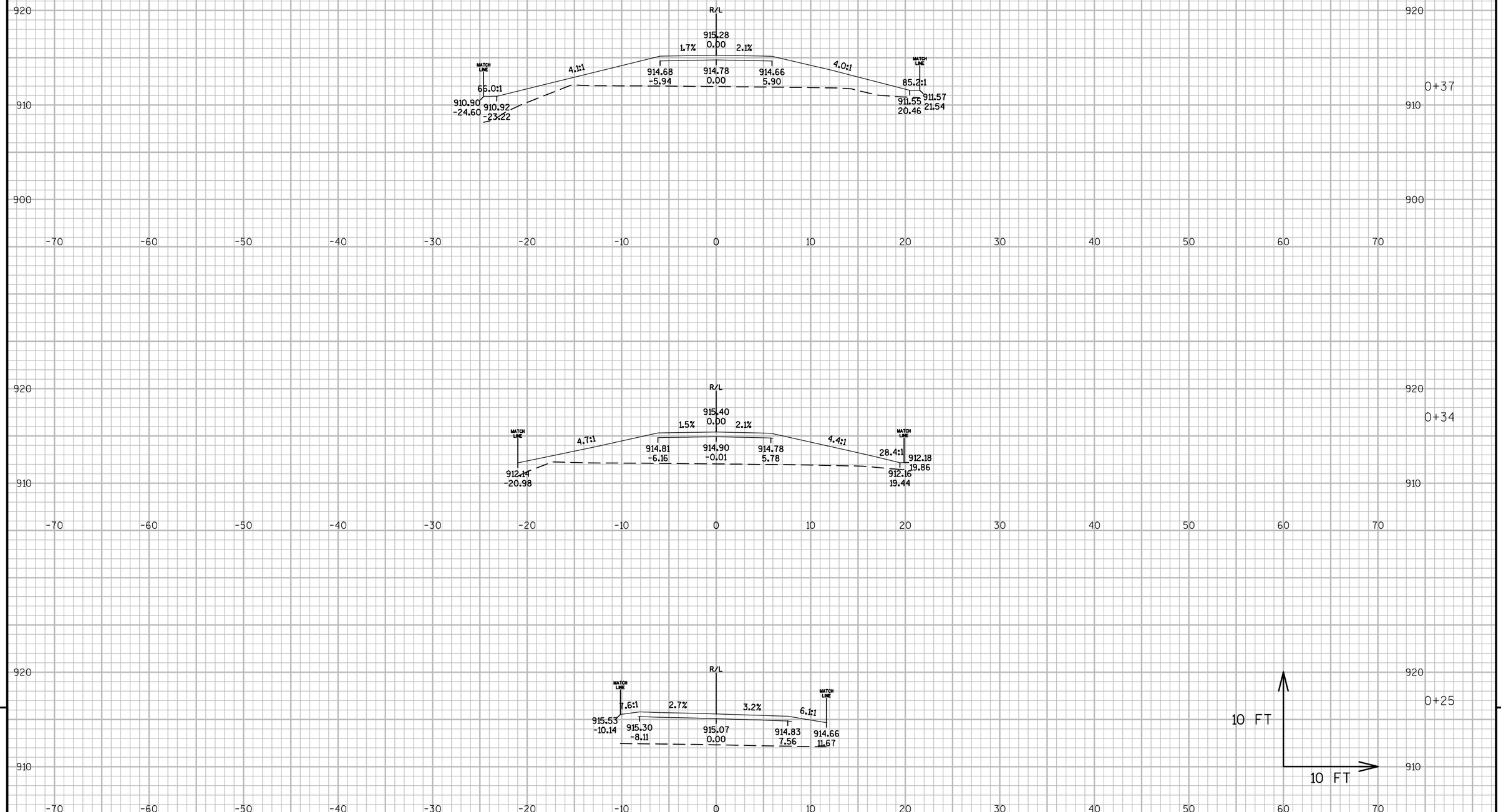
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 277	E

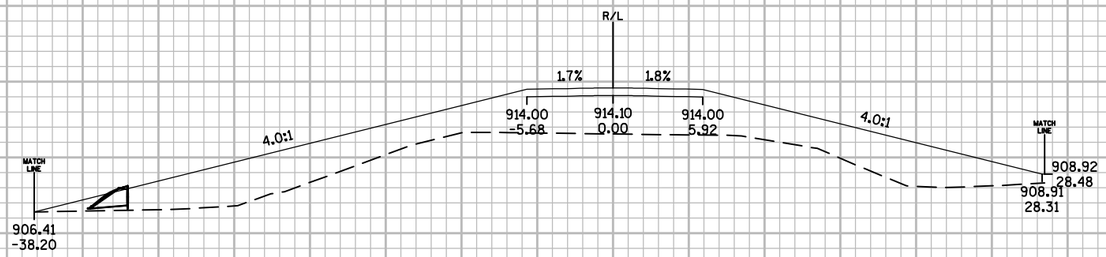
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (01)

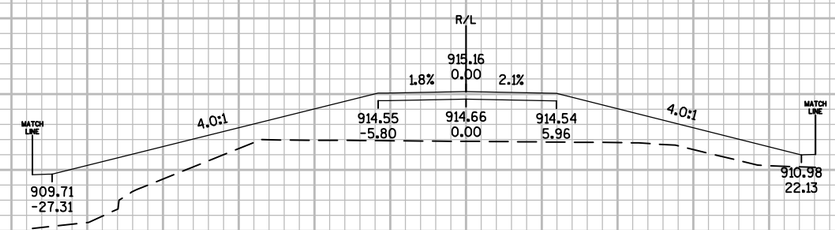
PLOT DATE : 3/9/2017 5:49 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 278	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (02)
PLOT DATE : 3/9/2017 5:49 PM
PLOT BY : BUDDEN, LUCAS J
PLOT NAME :
PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49







0+47

0+40

9

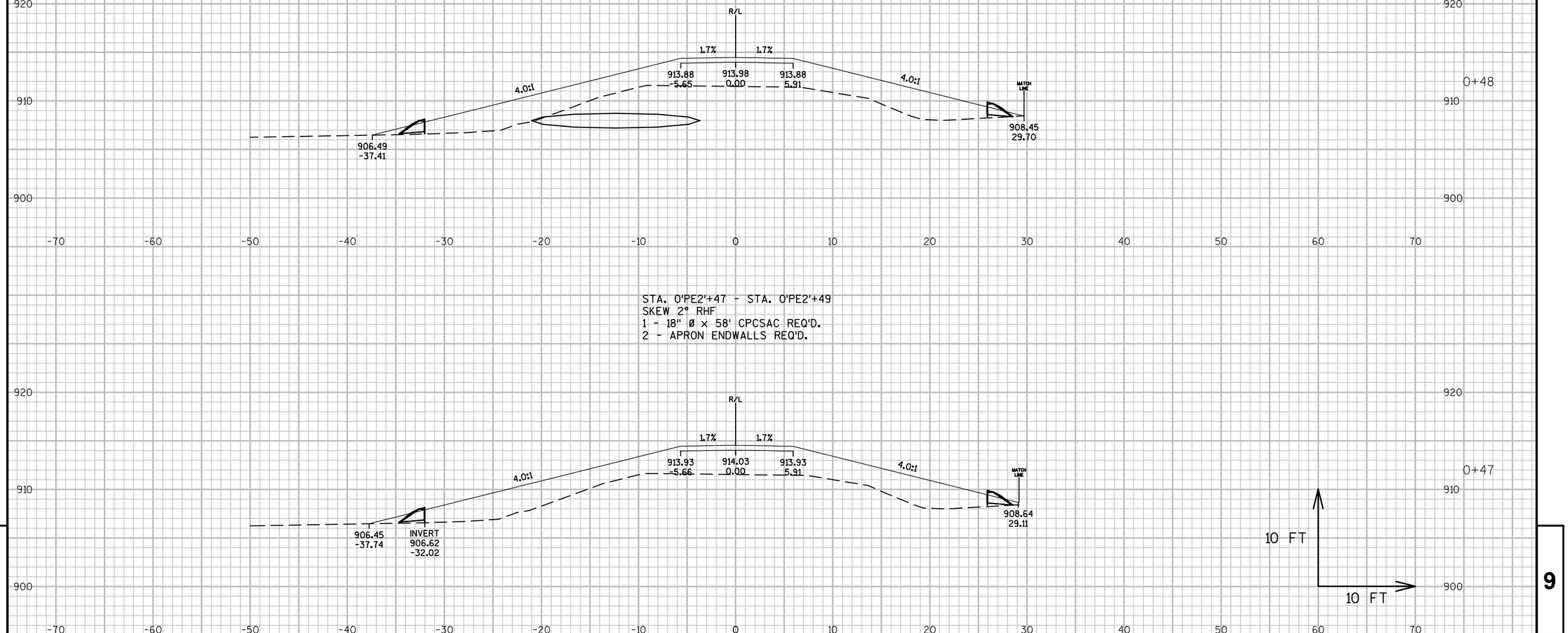
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 279	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (03)

PLOT DATE : 3/9/2017 5:50 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

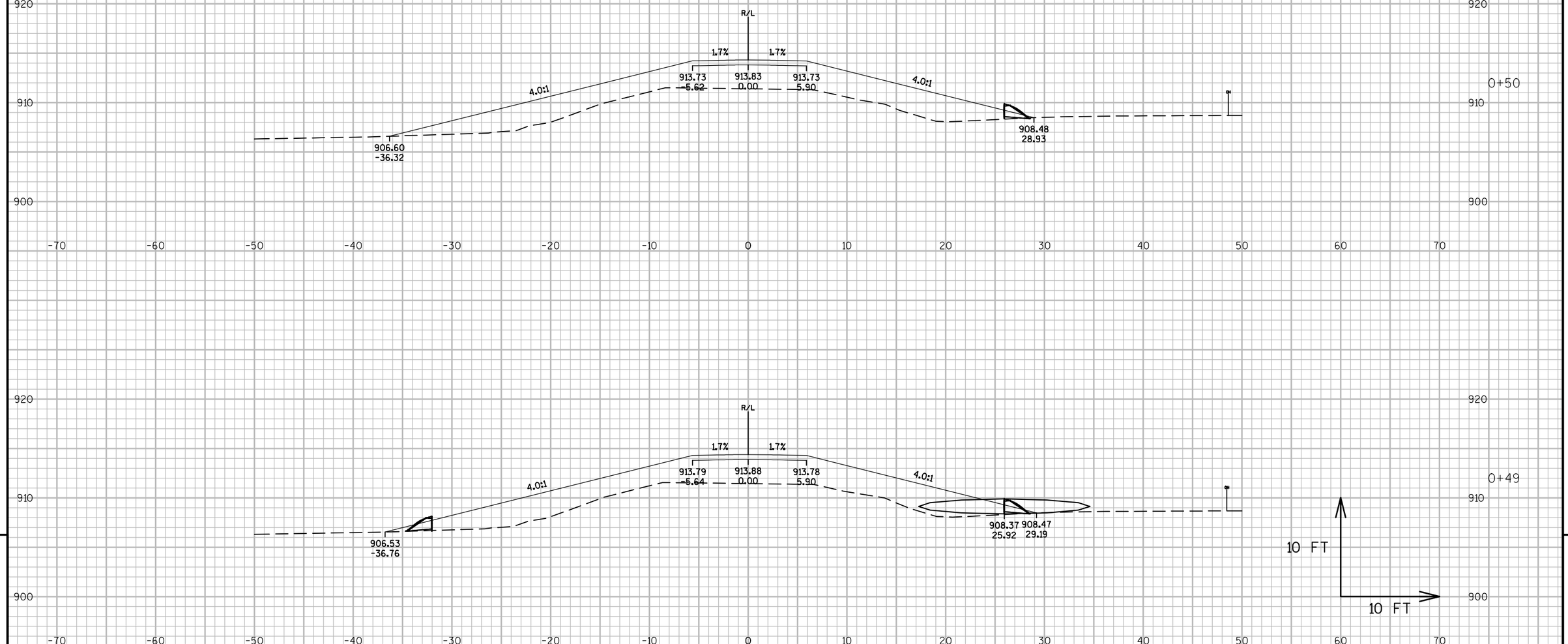
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 280	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (04)

PLOT DATE : 3/9/2017 5:50 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

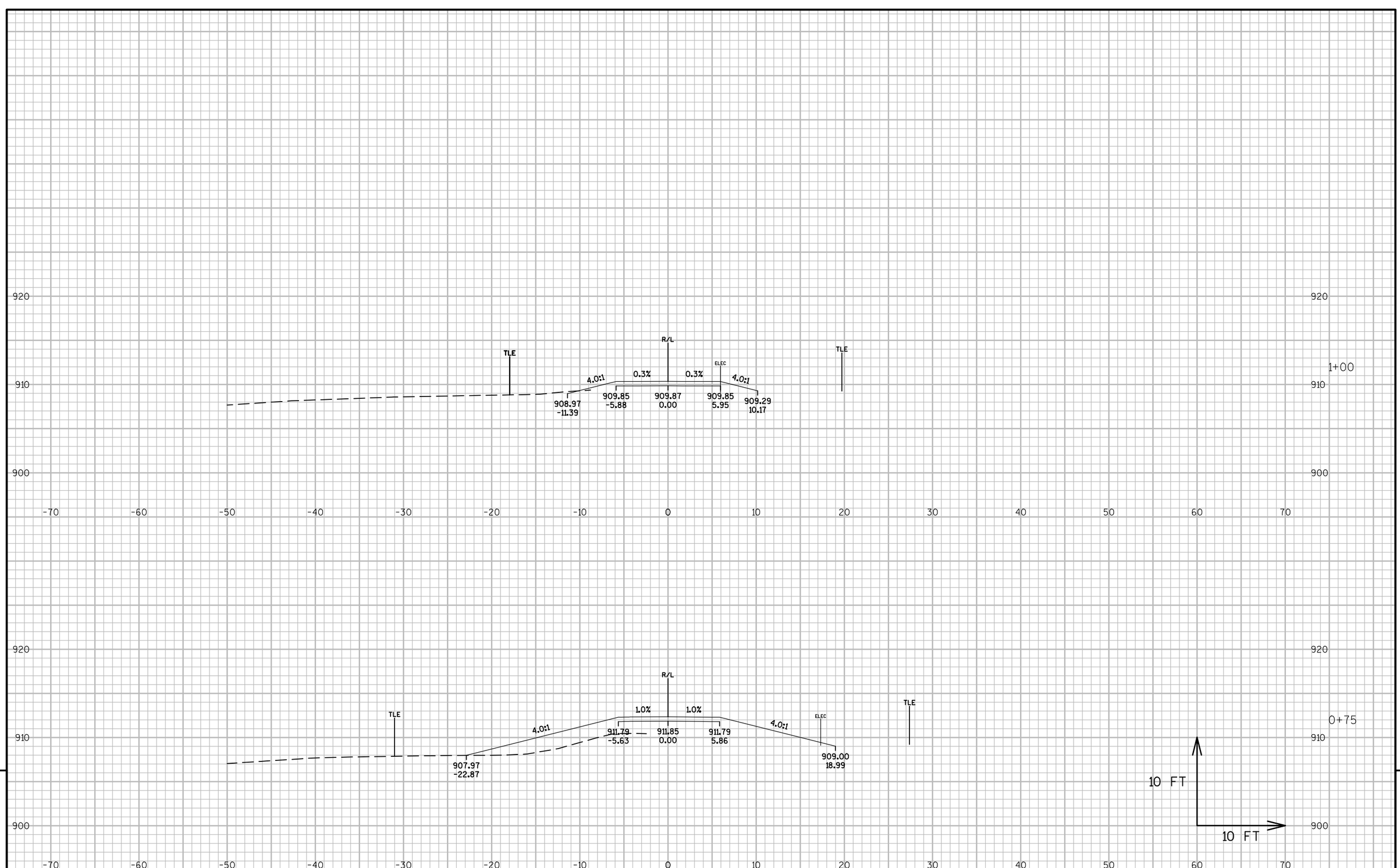
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 281	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (05)

PLOT DATE : 3/9/2017 5:50 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



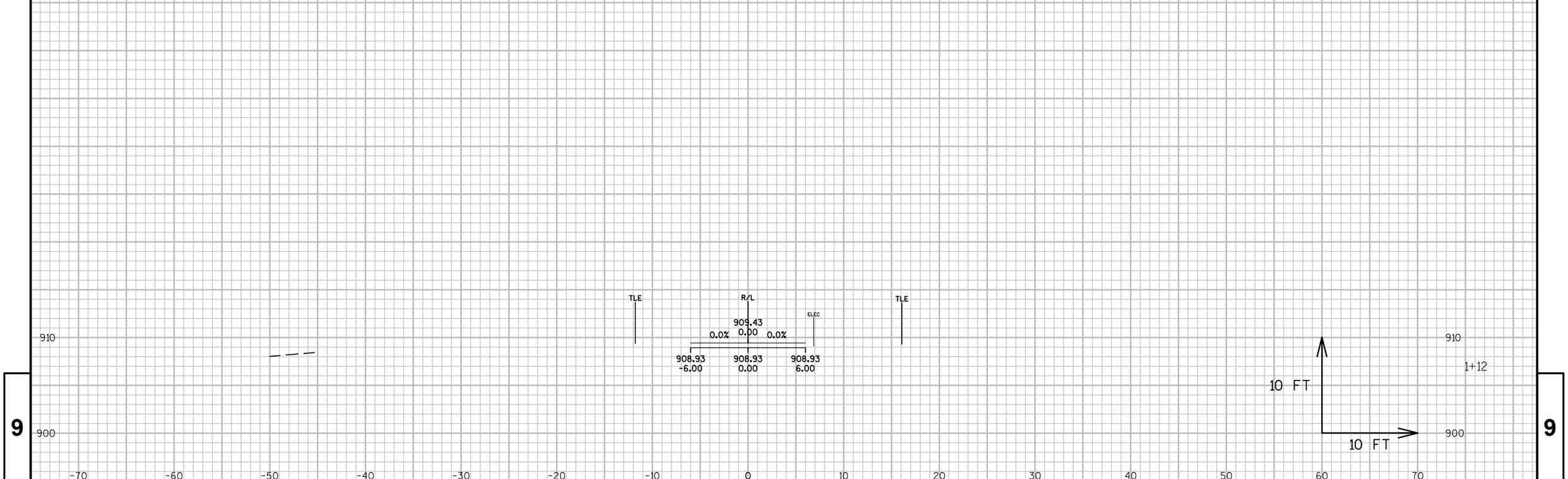
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 282	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (06)

PLOT DATE : 3/9/2017 5:50 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

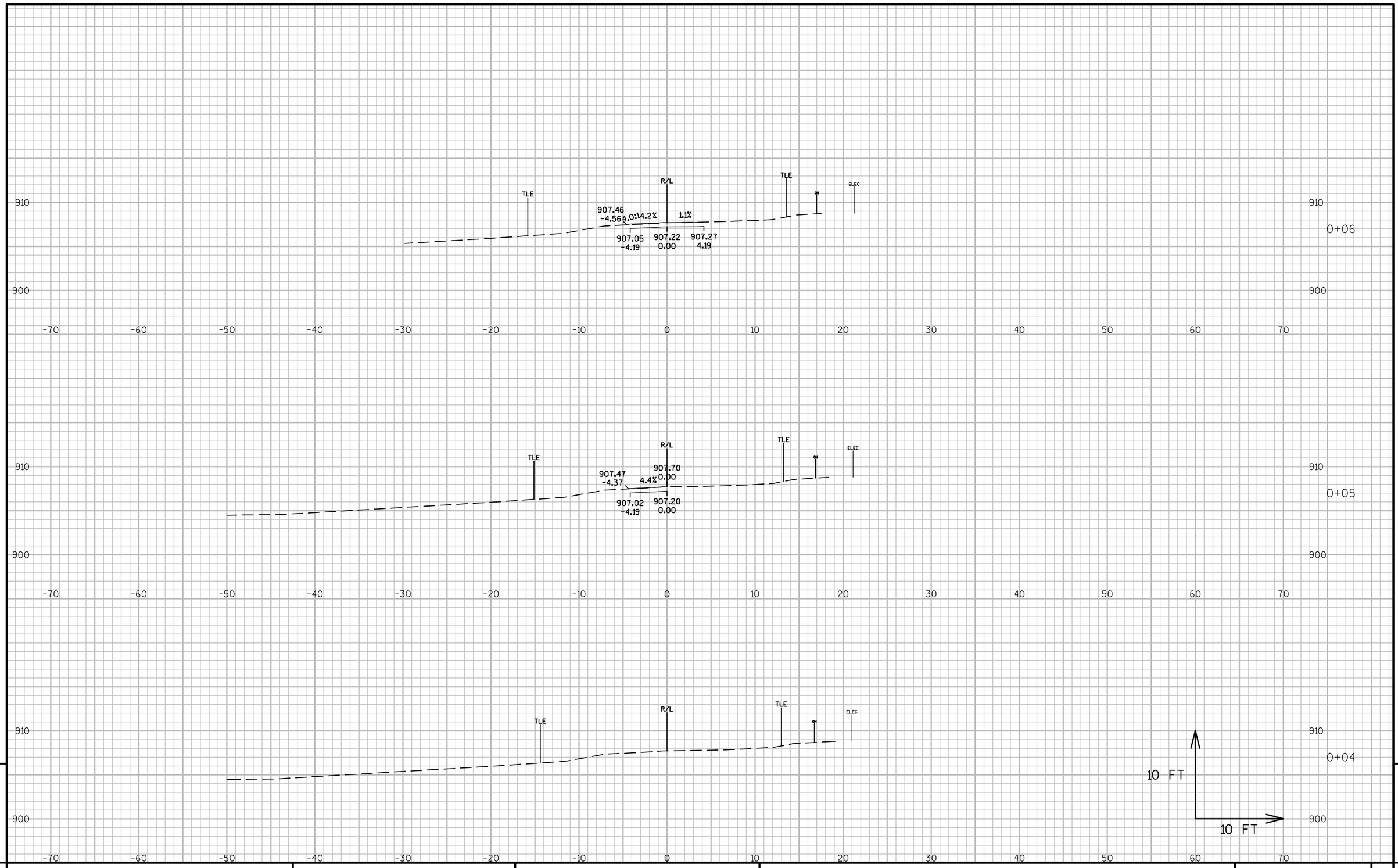


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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE2'	SHEET 283	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+15 RT - (07)
PLOT DATE : 3/9/2017 5:50 PM
PLOT BY : BUDDEN, LUCAS J
PLOT NAME :
PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49

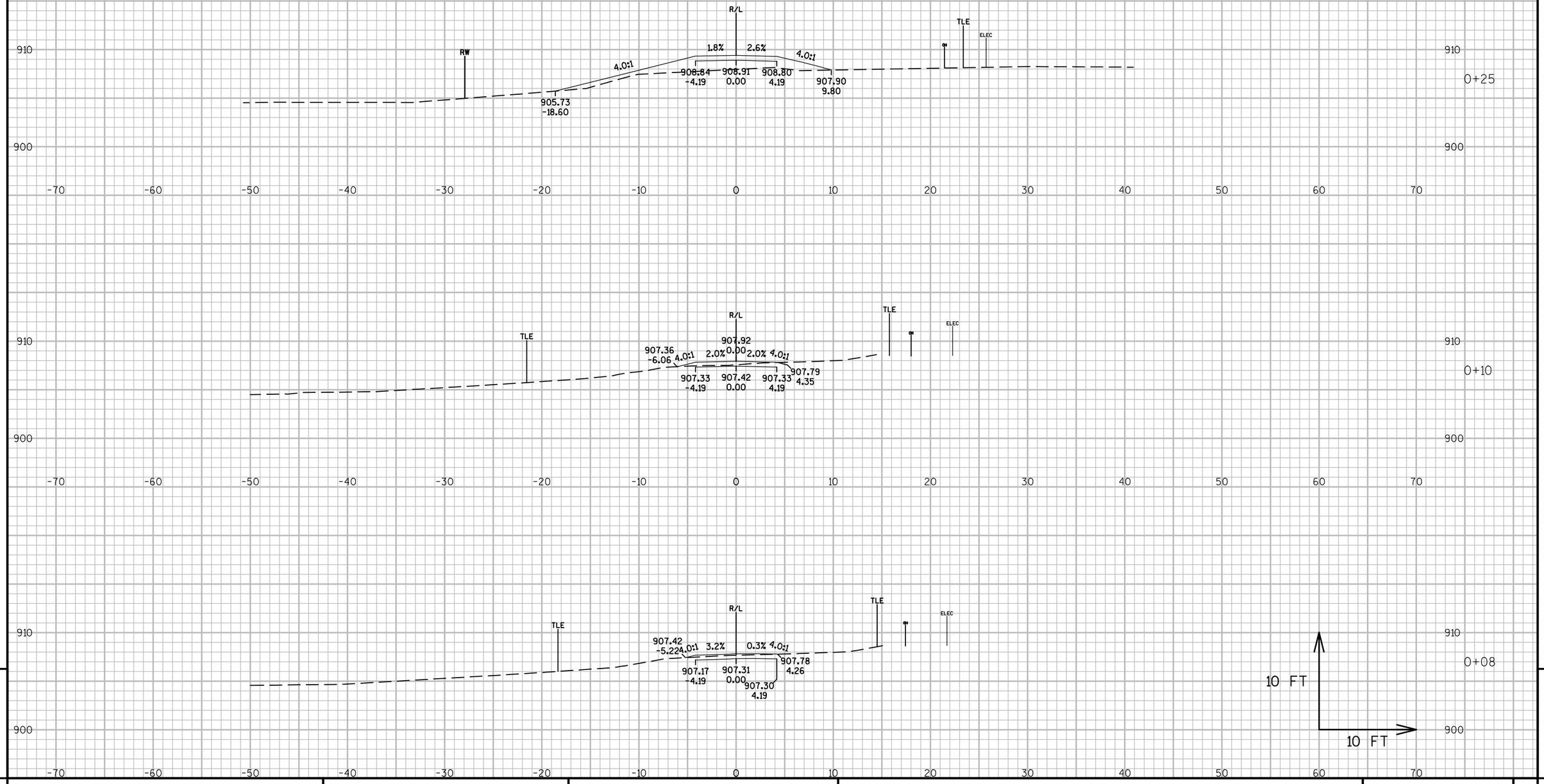


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 284	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (01)

PLOT DATE : 3/9/2017 5:50 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

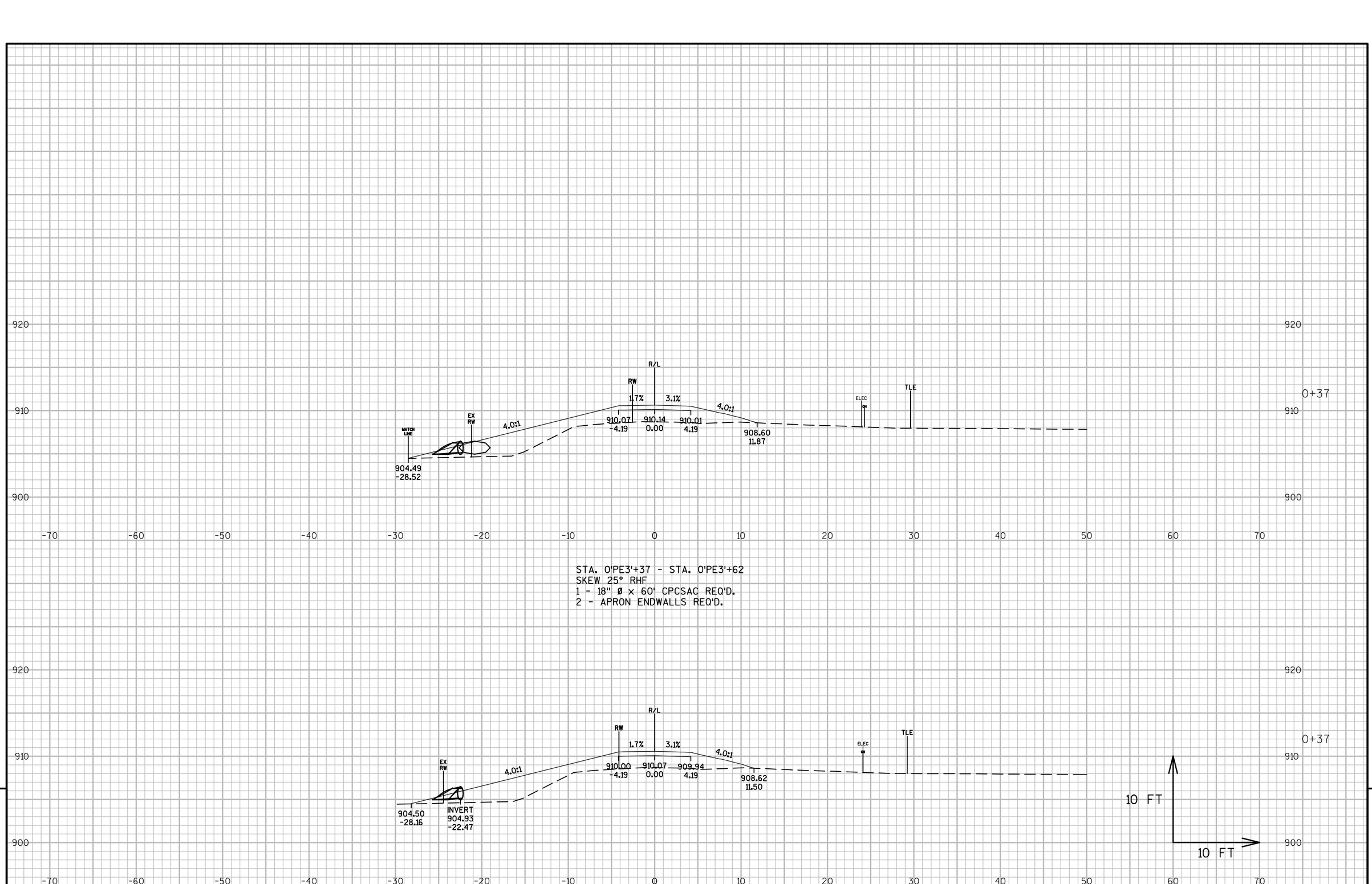
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 285	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (02)

PLOT DATE : 3/9/2017 5:50 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

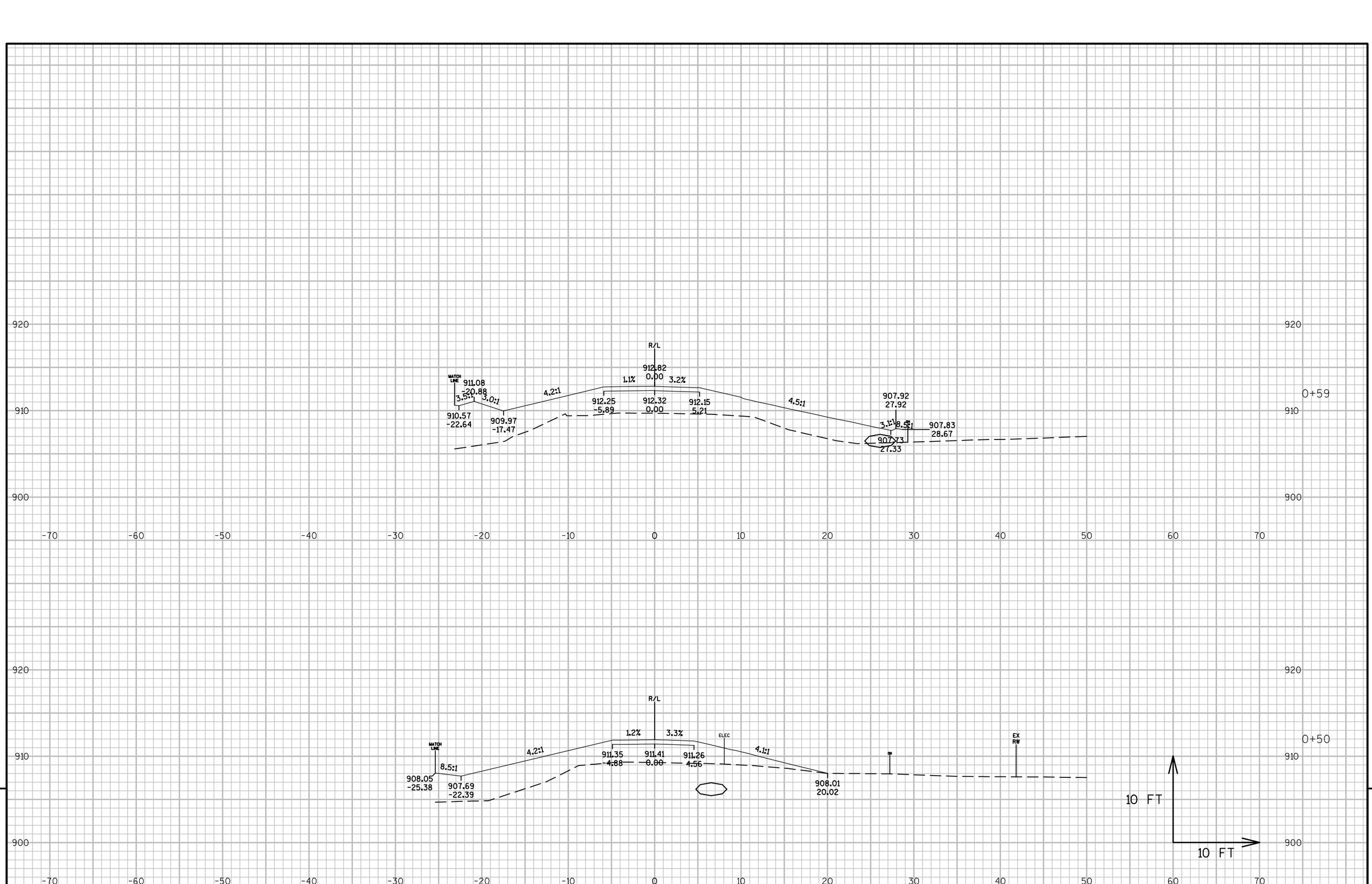


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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 286	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (03)
PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 49



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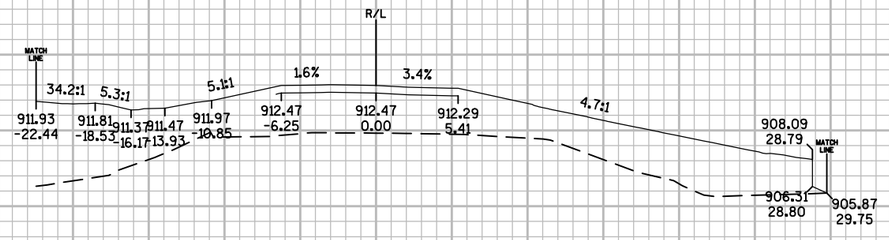
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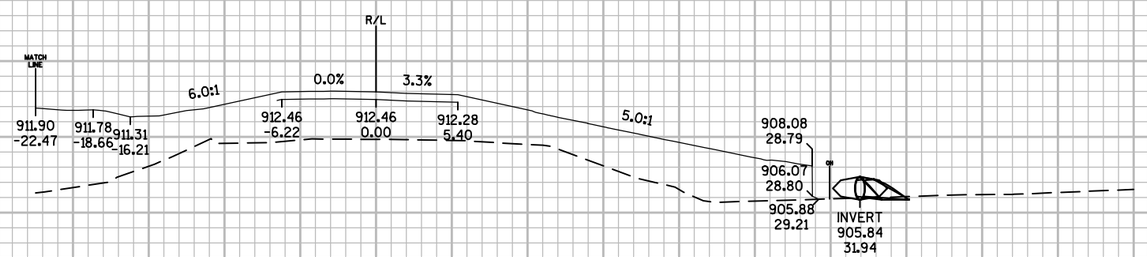
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 287	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (04)

PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49





9

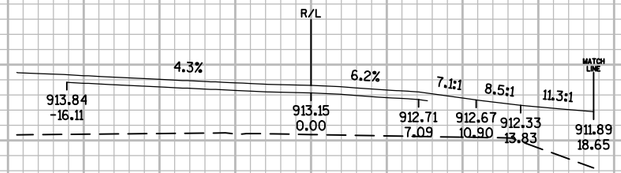
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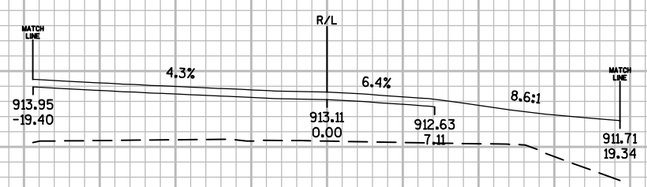
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 288	E

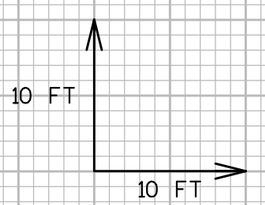
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (05)

PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49





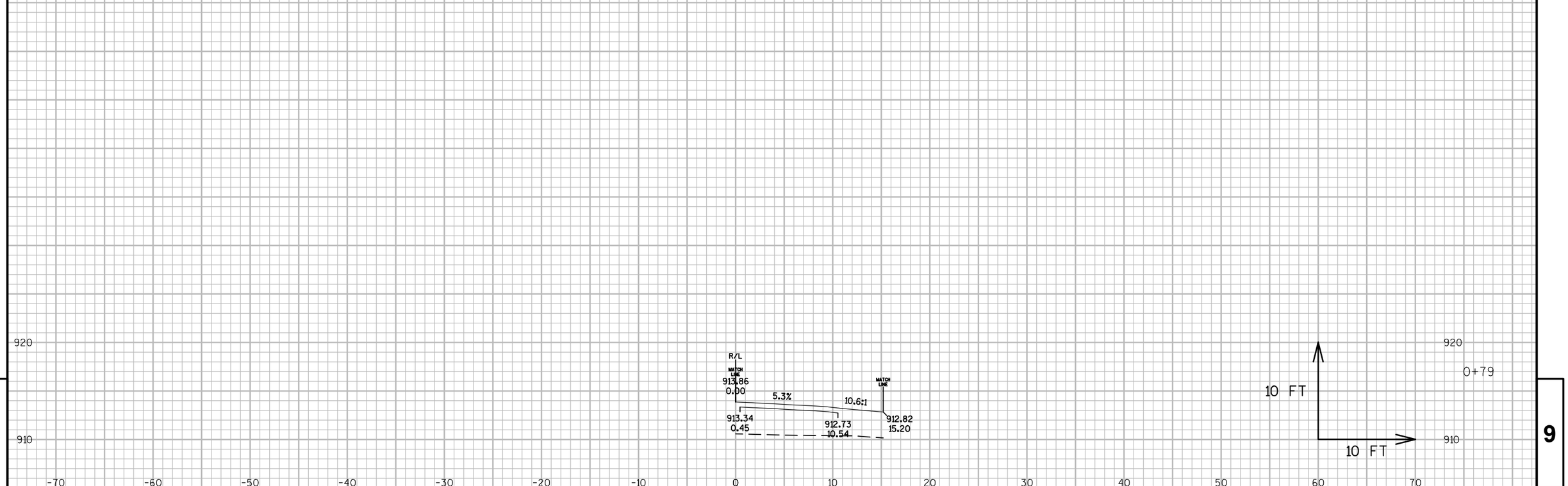


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 289	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (06)

PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



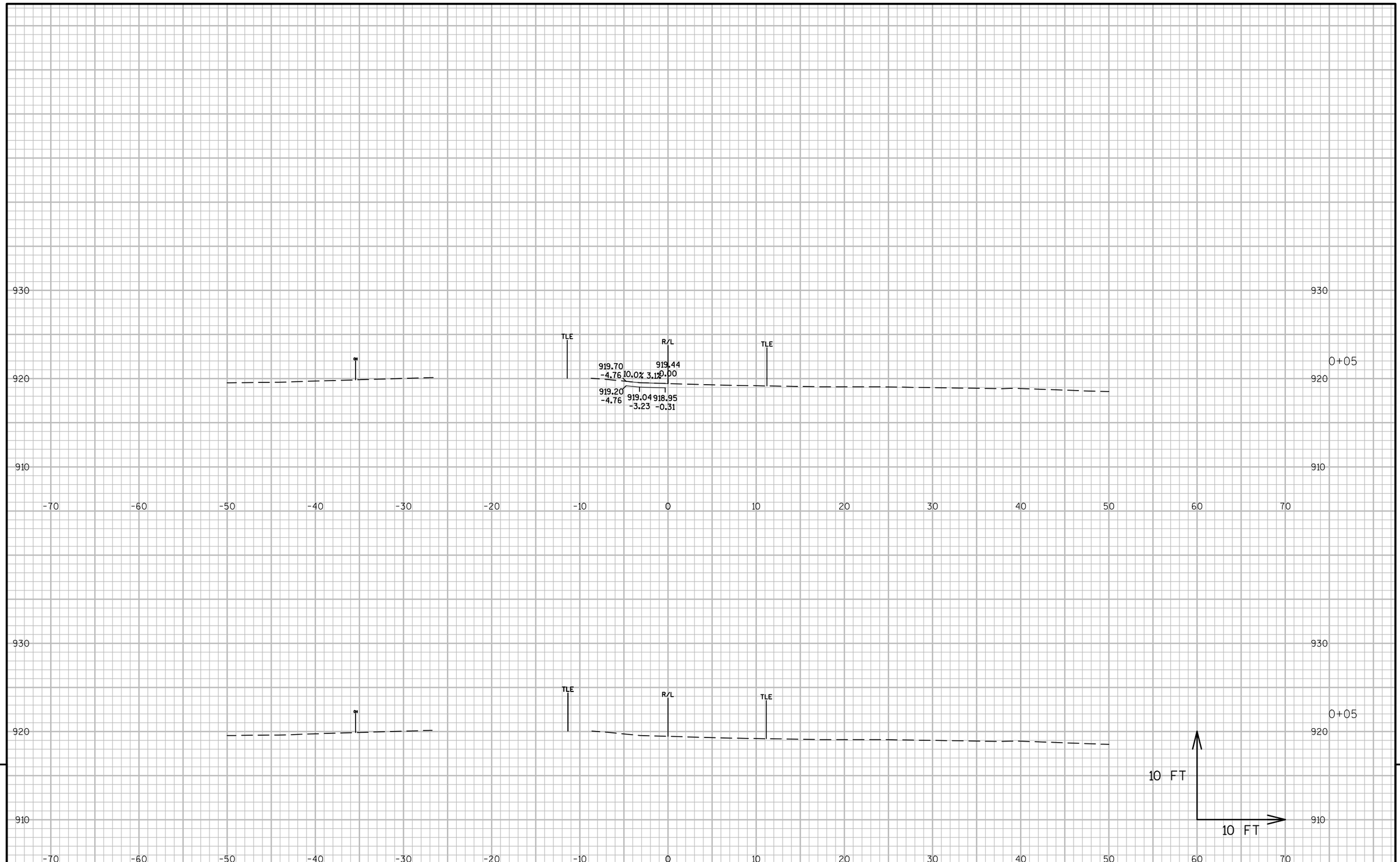
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE3'	SHEET 290	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 16+30 LT - (07)

PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



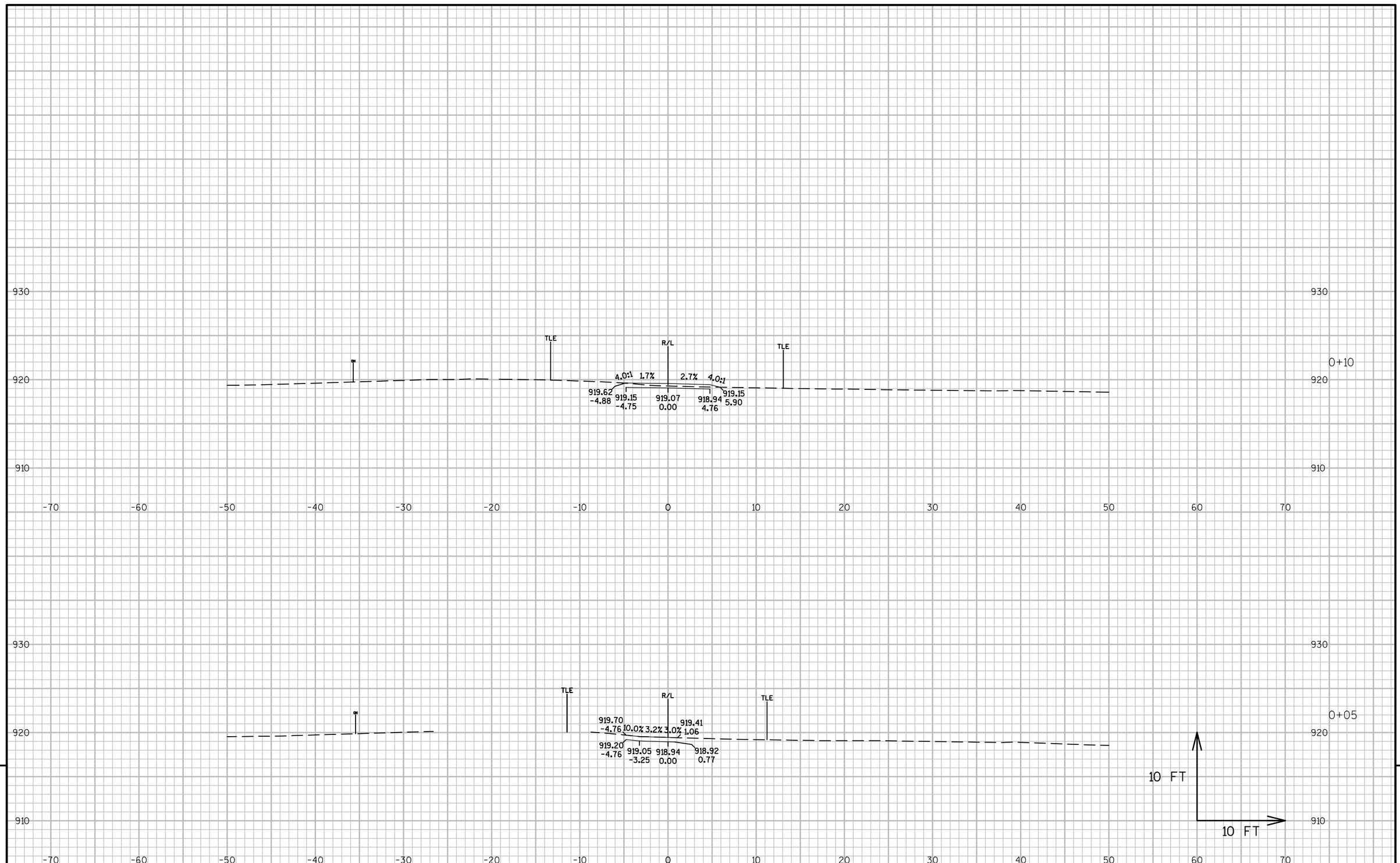
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 291	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (01)

PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

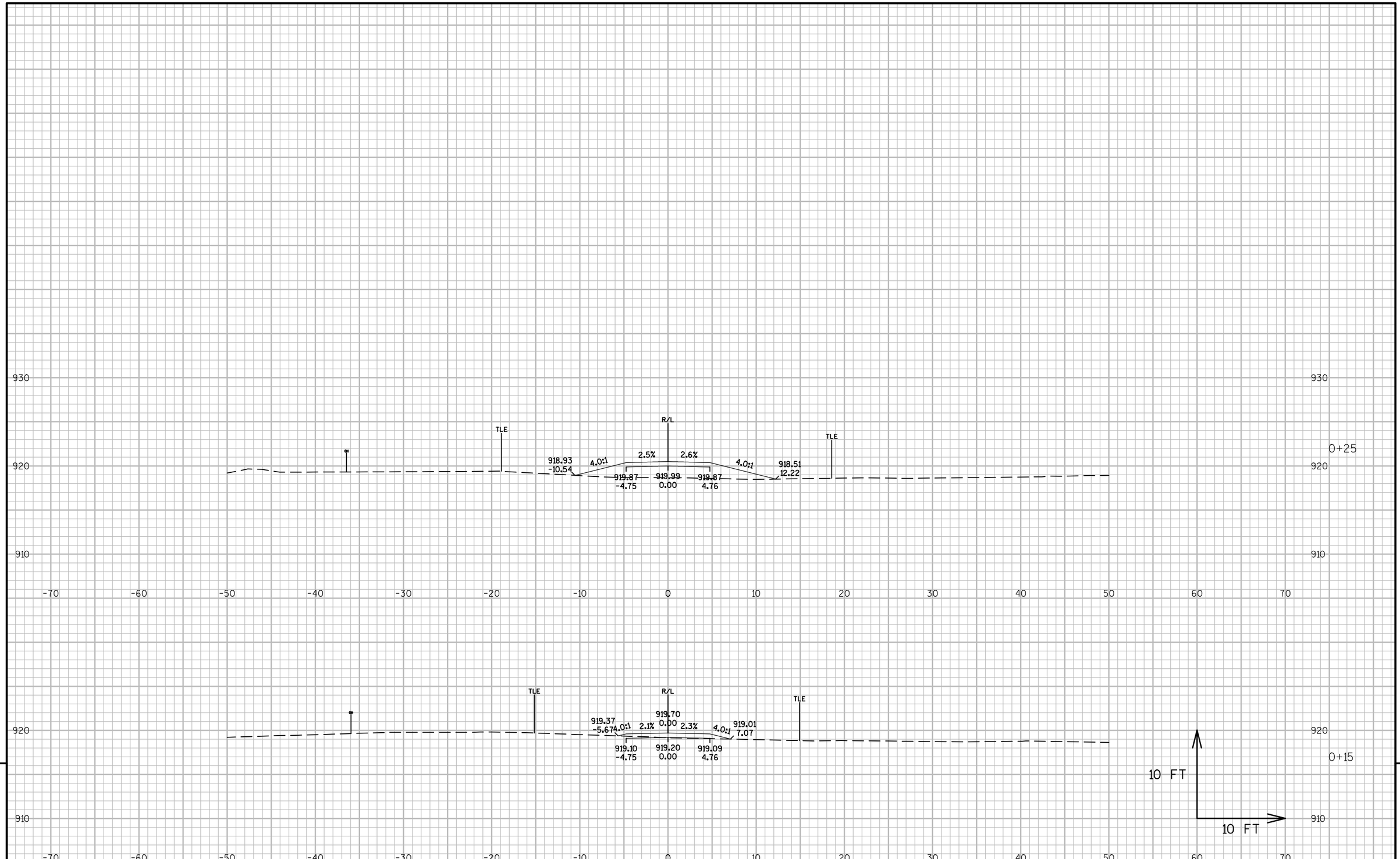


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 292	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (02)

PLOT DATE : 3/9/2017 5:51 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

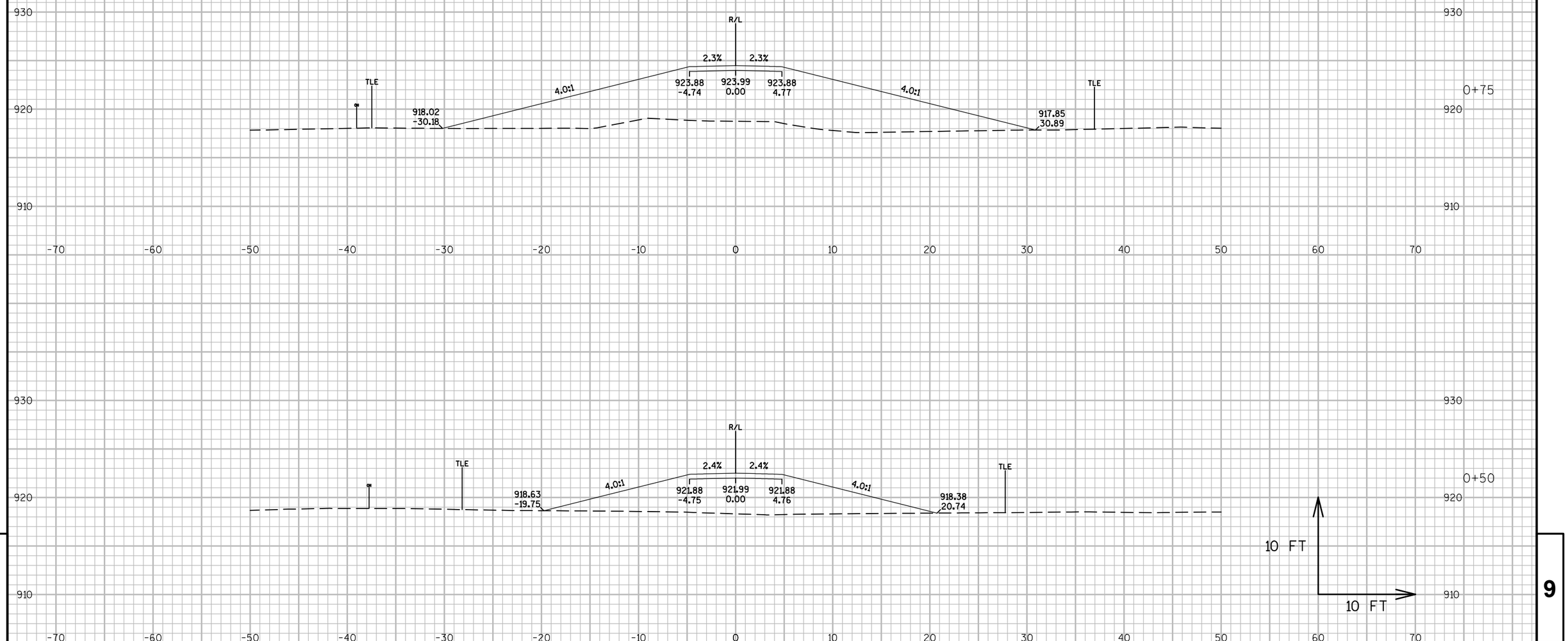
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 293	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (03)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

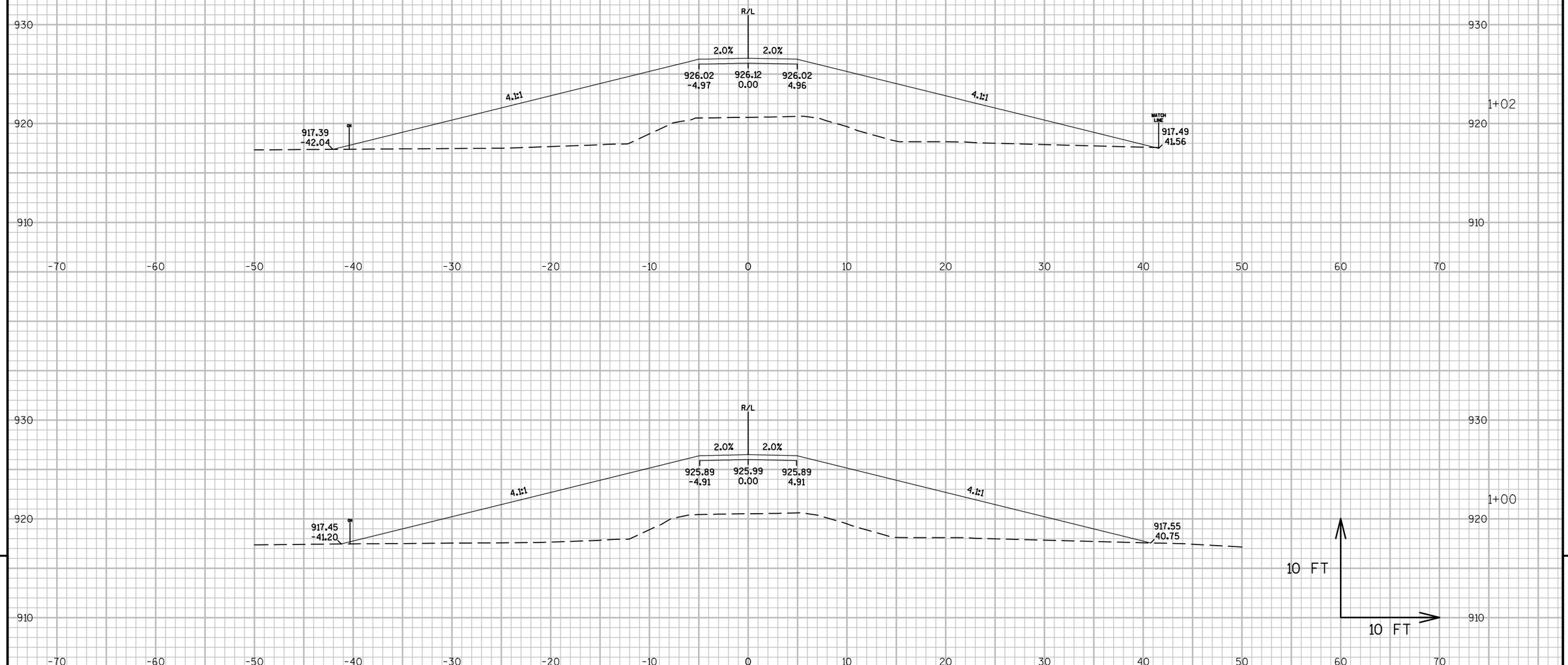
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 294	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (04)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

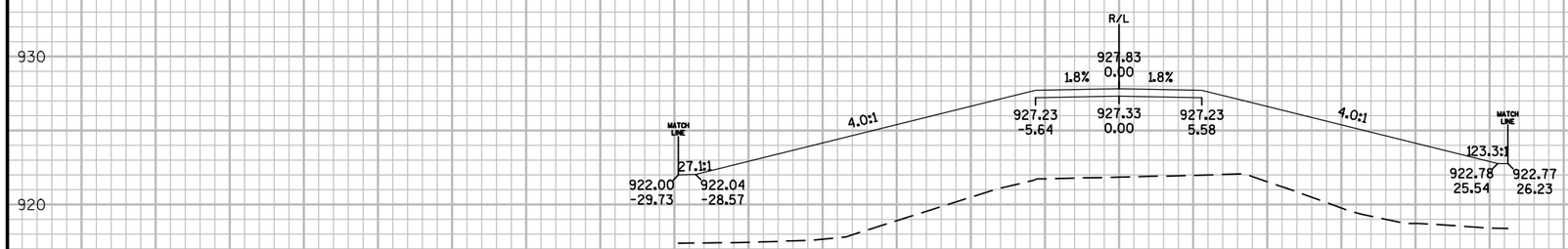
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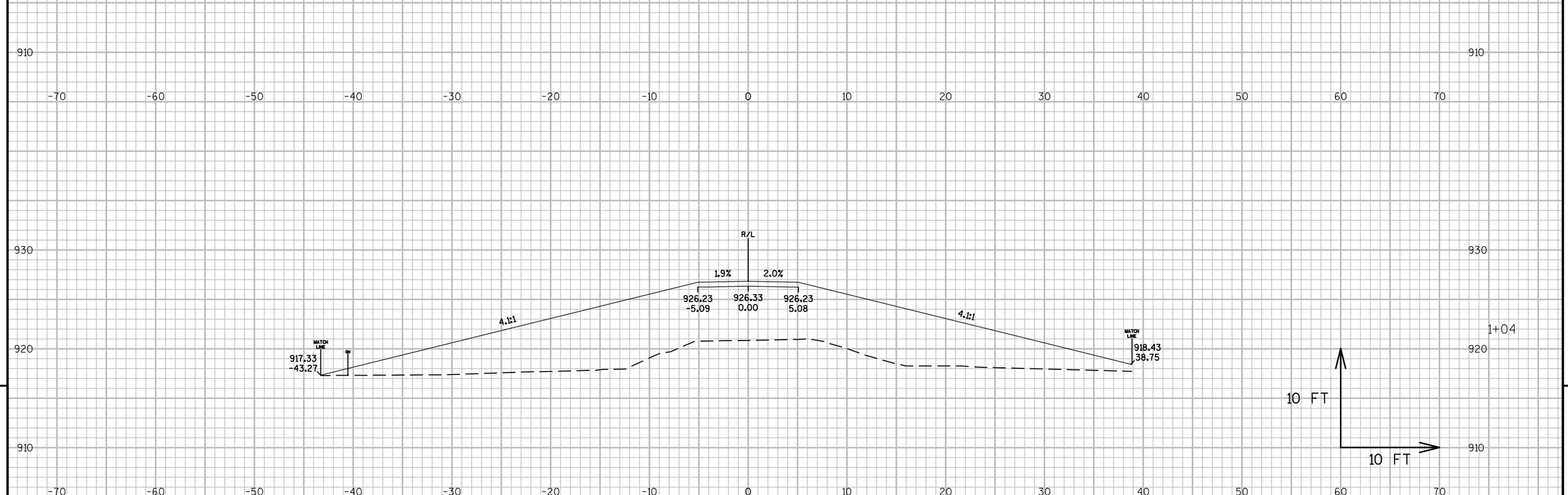
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 295	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (05)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49





9

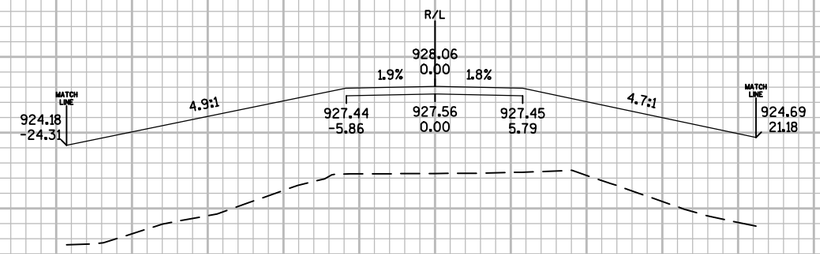
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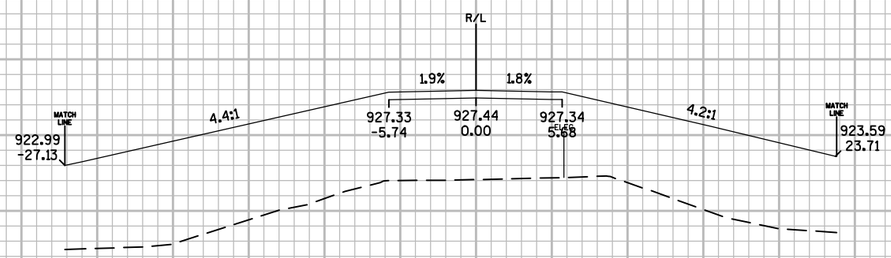
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 296	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (06)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49





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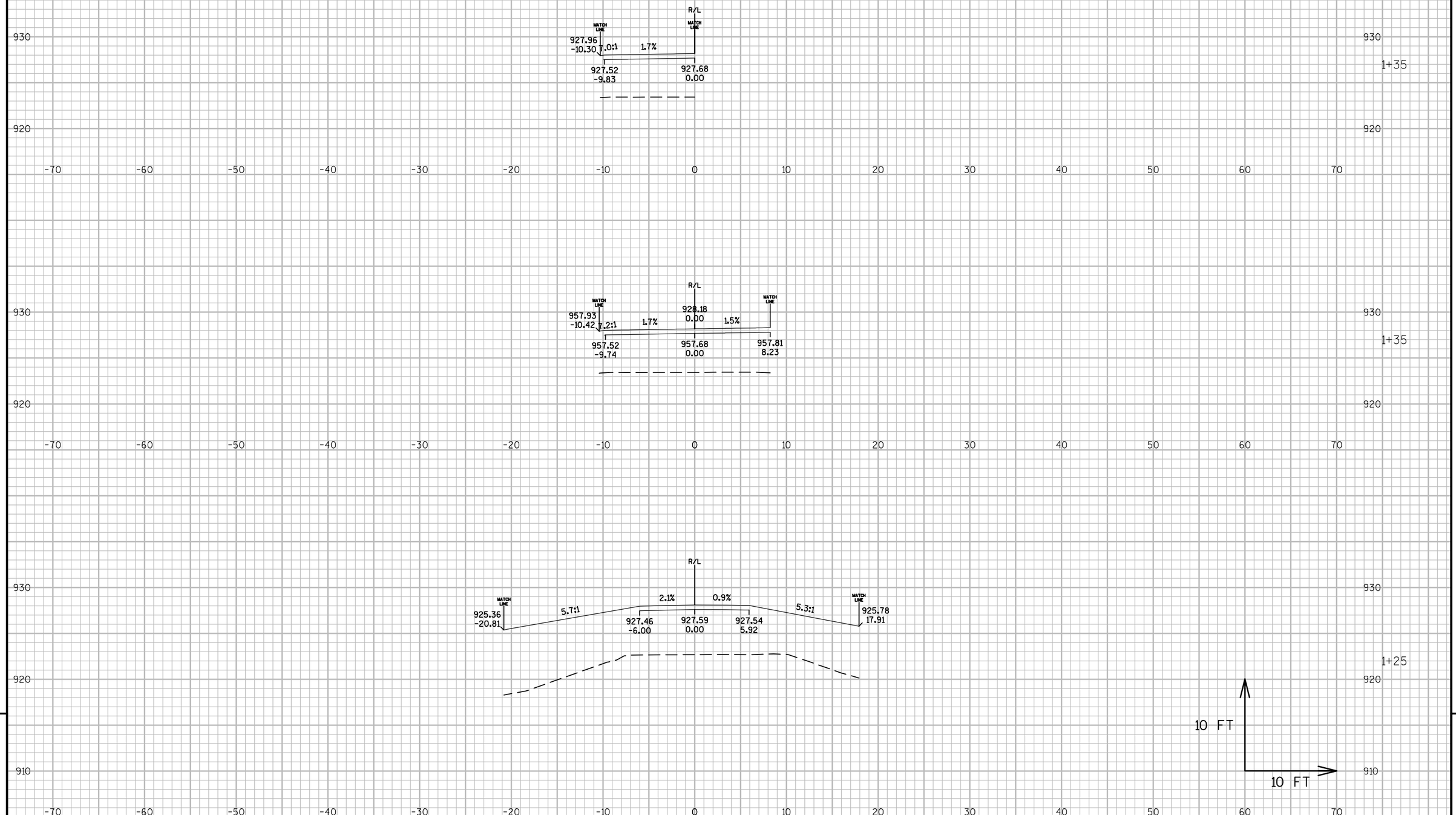
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 297	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (07)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE4'	SHEET 298	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 23+00 LT - (08)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49

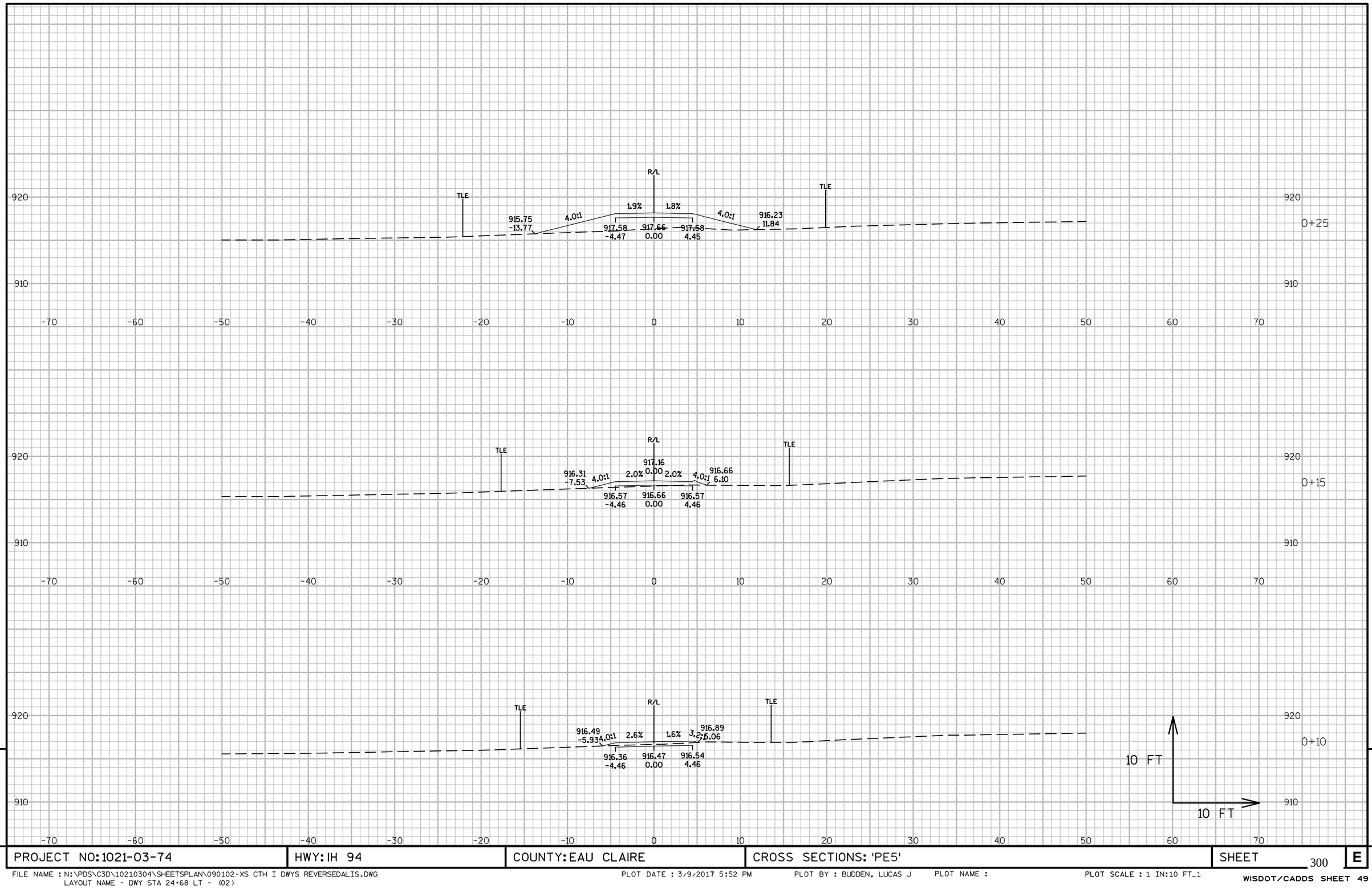
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9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 299	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 24+68 LT - (01)

PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



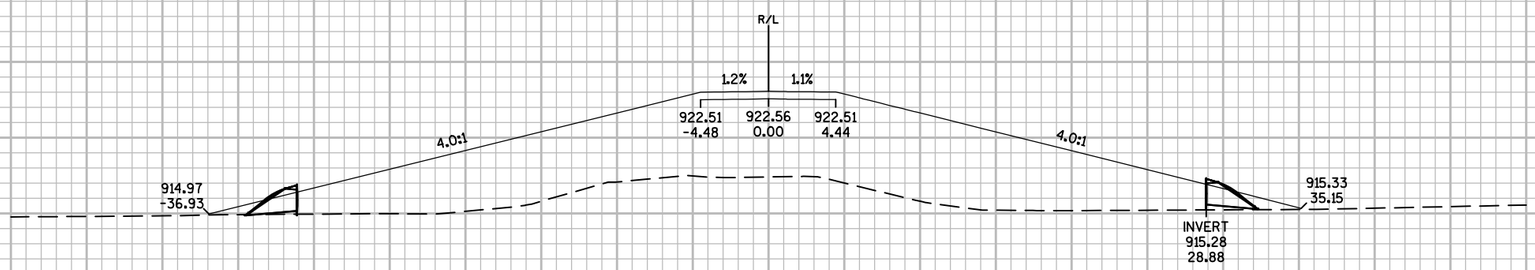
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 300	E

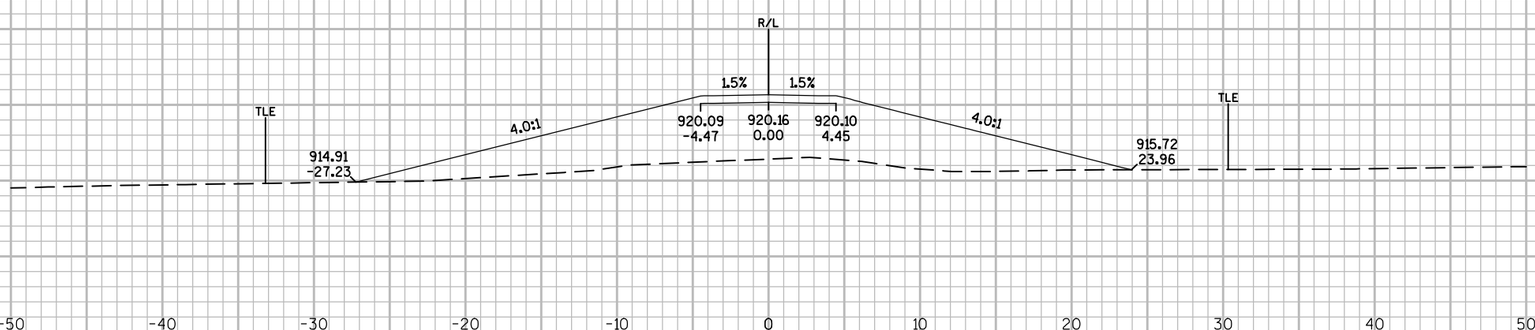
FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 24+68 LT - (02)
PLOT DATE : 3/9/2017 5:52 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

STA. 0'PE5'+74 - STA. 0'PE5'+75
SKEW 1° LHF
1 - 24" Ø x 60' CPCSAC REQ'D.
2 - APRON ENDWALLS REQ'D.

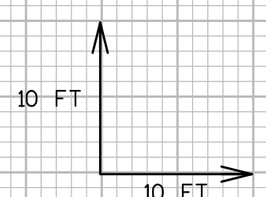


0+74

930
920
910
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70



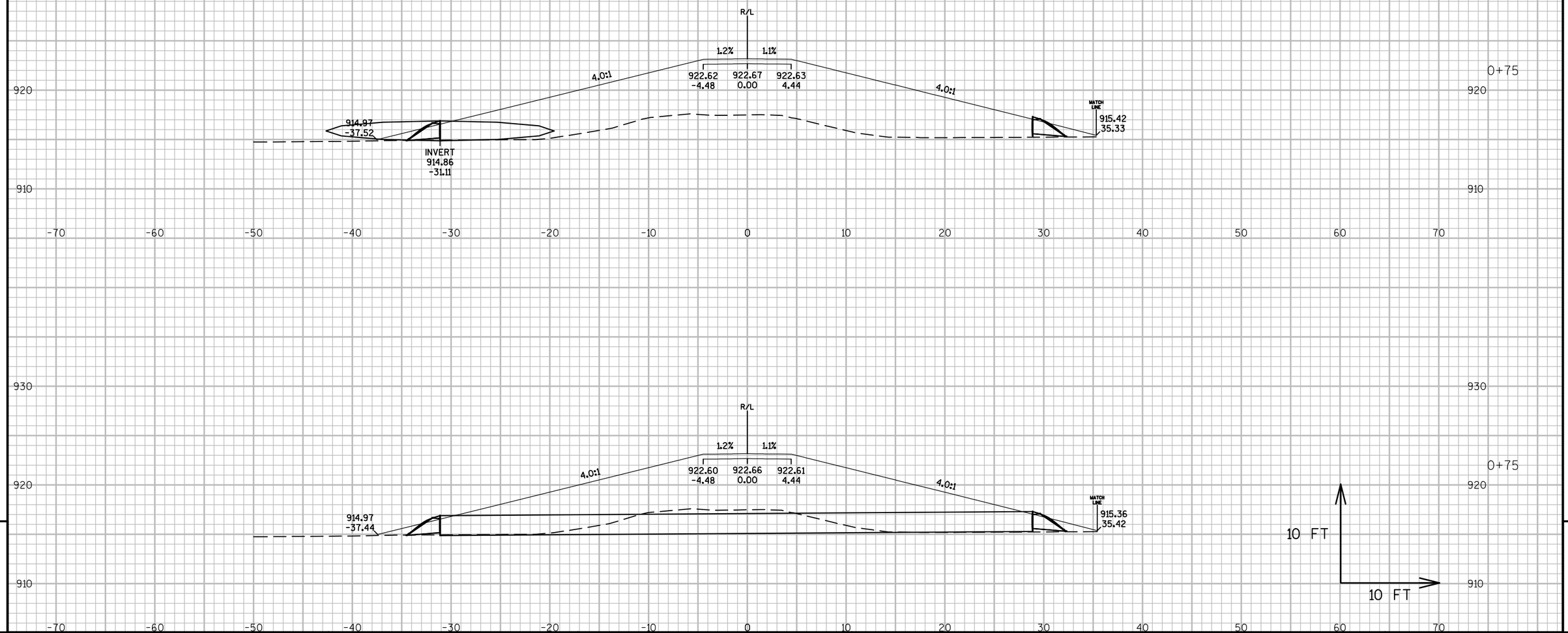
0+50



930
920
910
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9 9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 301	E



9

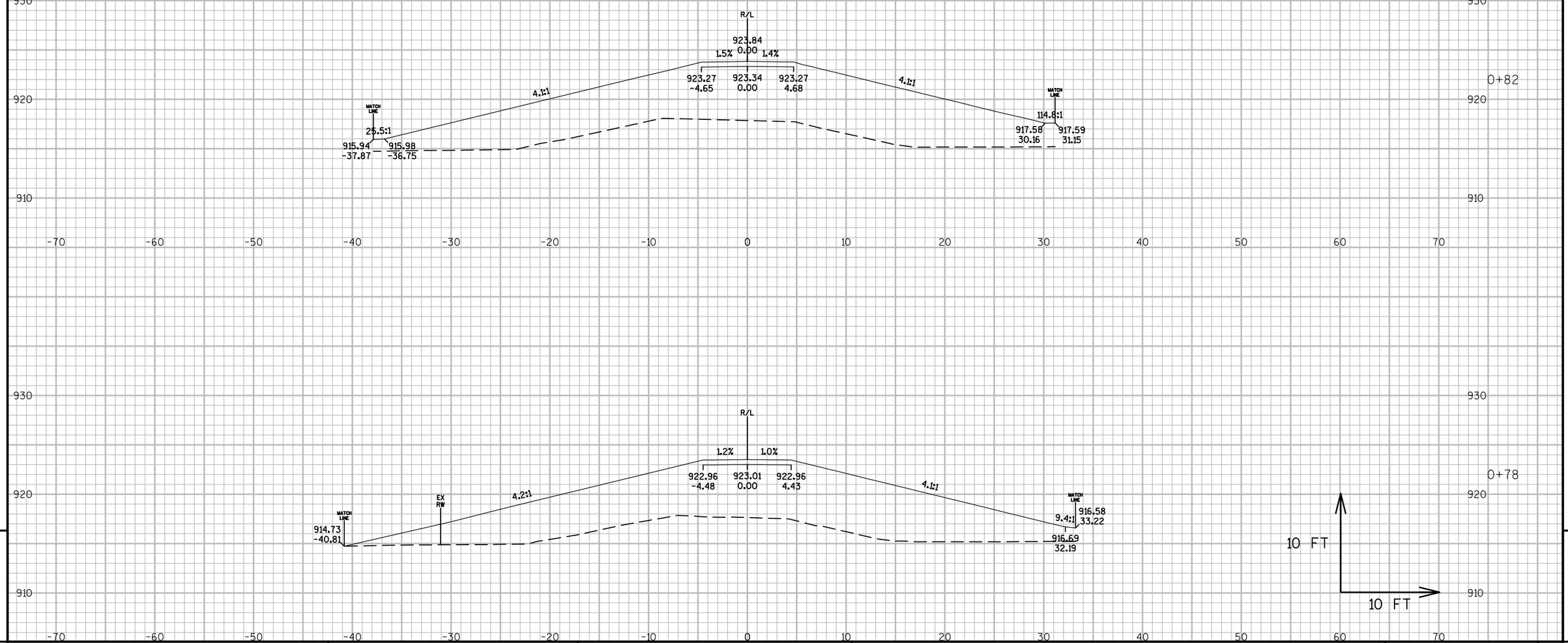
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PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 302	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 24+68 LT - (04)

PLOT DATE : 3/9/2017 5:53 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



9

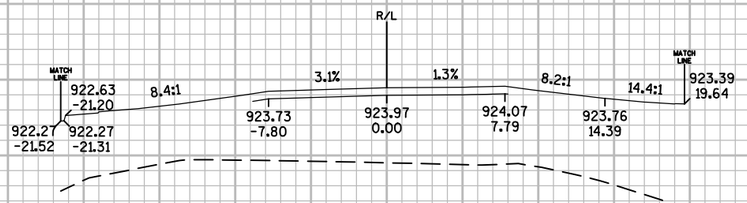
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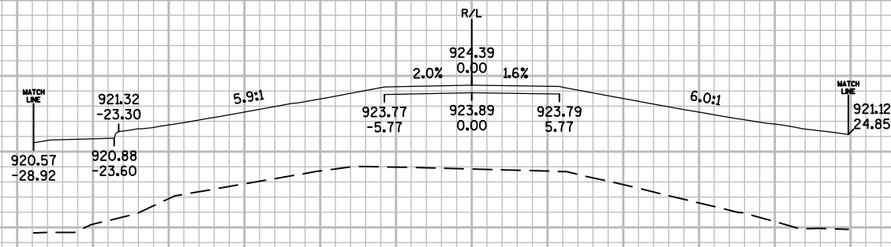
PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 303	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 24+68 LT - (05)

PLOT DATE : 3/9/2017 5:53 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



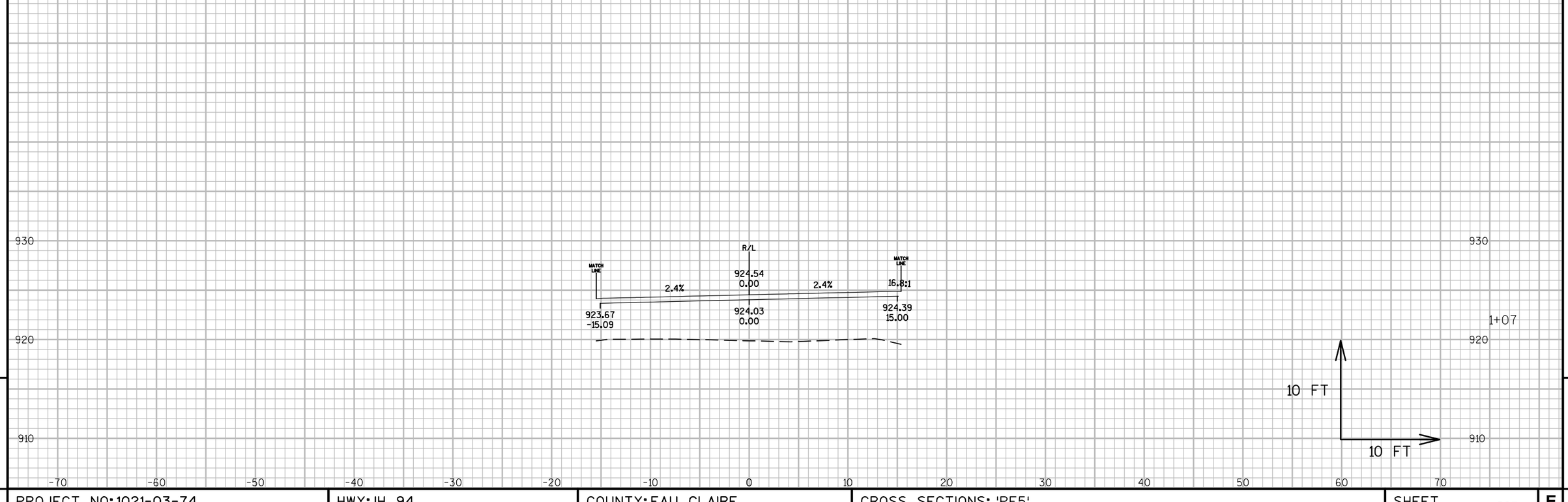


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 304	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 24+68 LT - (06)

PLOT DATE : 3/9/2017 5:53 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



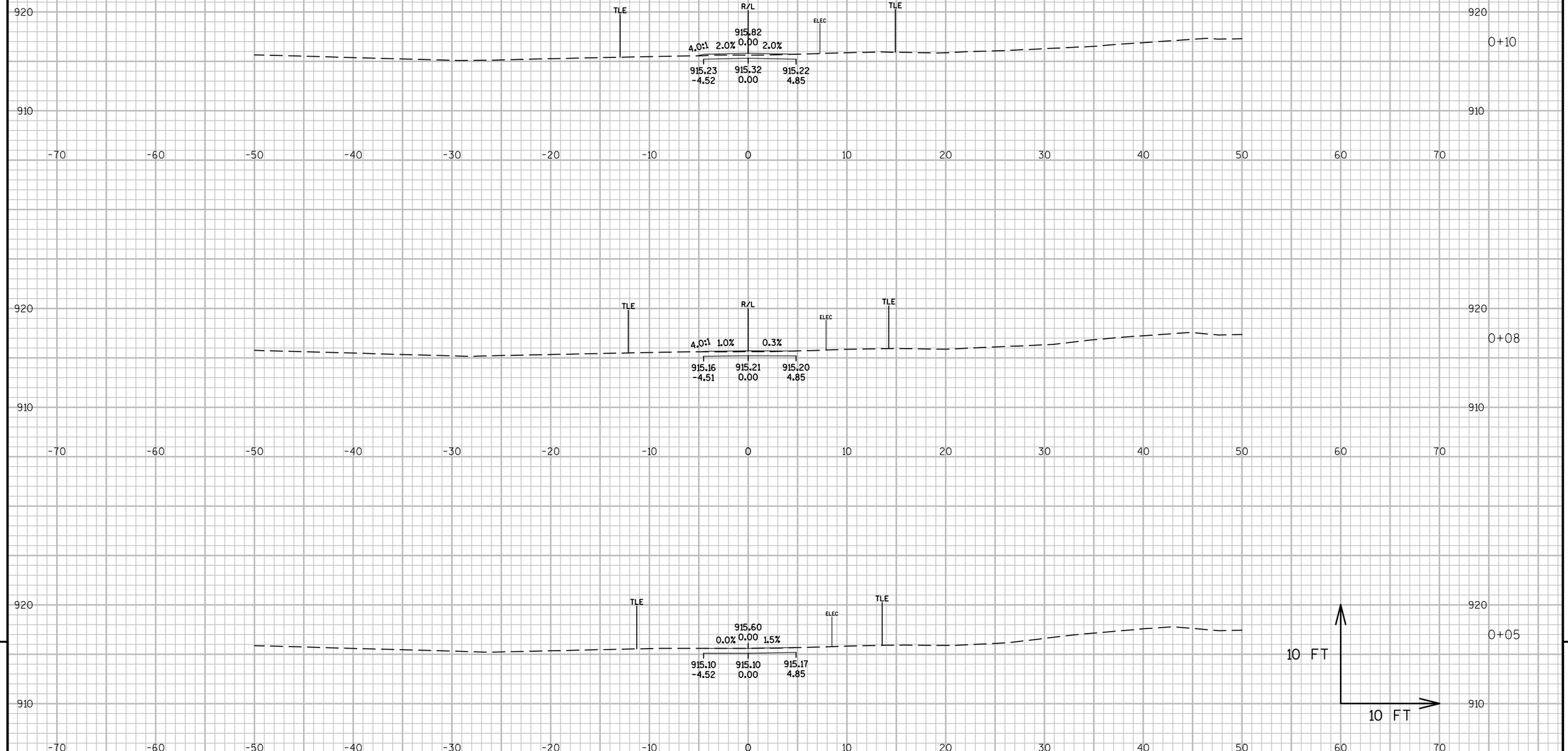
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE5'	SHEET 305	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 24+68 LT - (07)

PLOT DATE : 3/9/2017 5:53 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



9

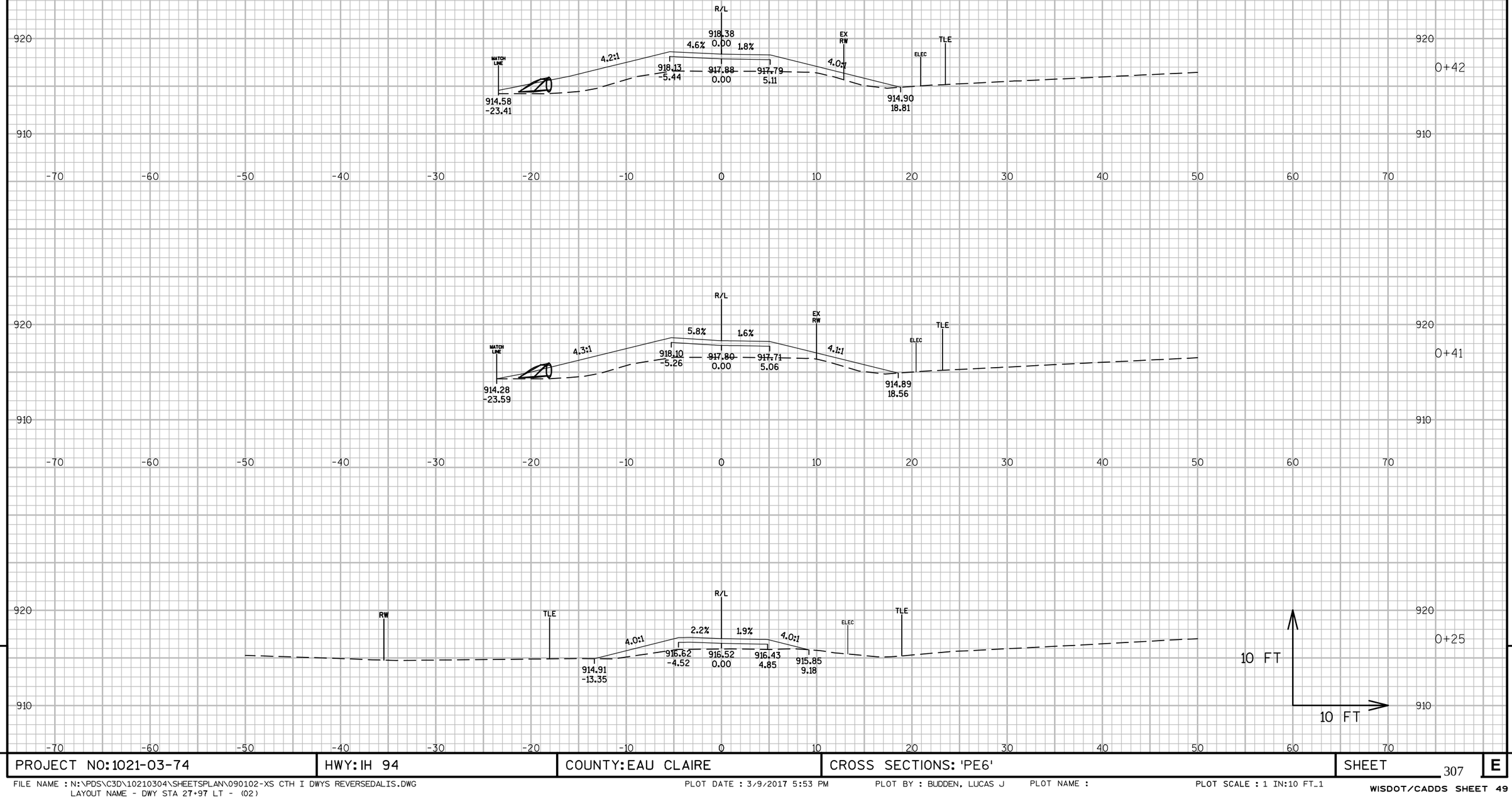
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE6'	SHEET 306	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 27+97 LT - (01)

PLOT DATE : 3/9/2017 5:53 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1

WISDOT/CADDS SHEET 49



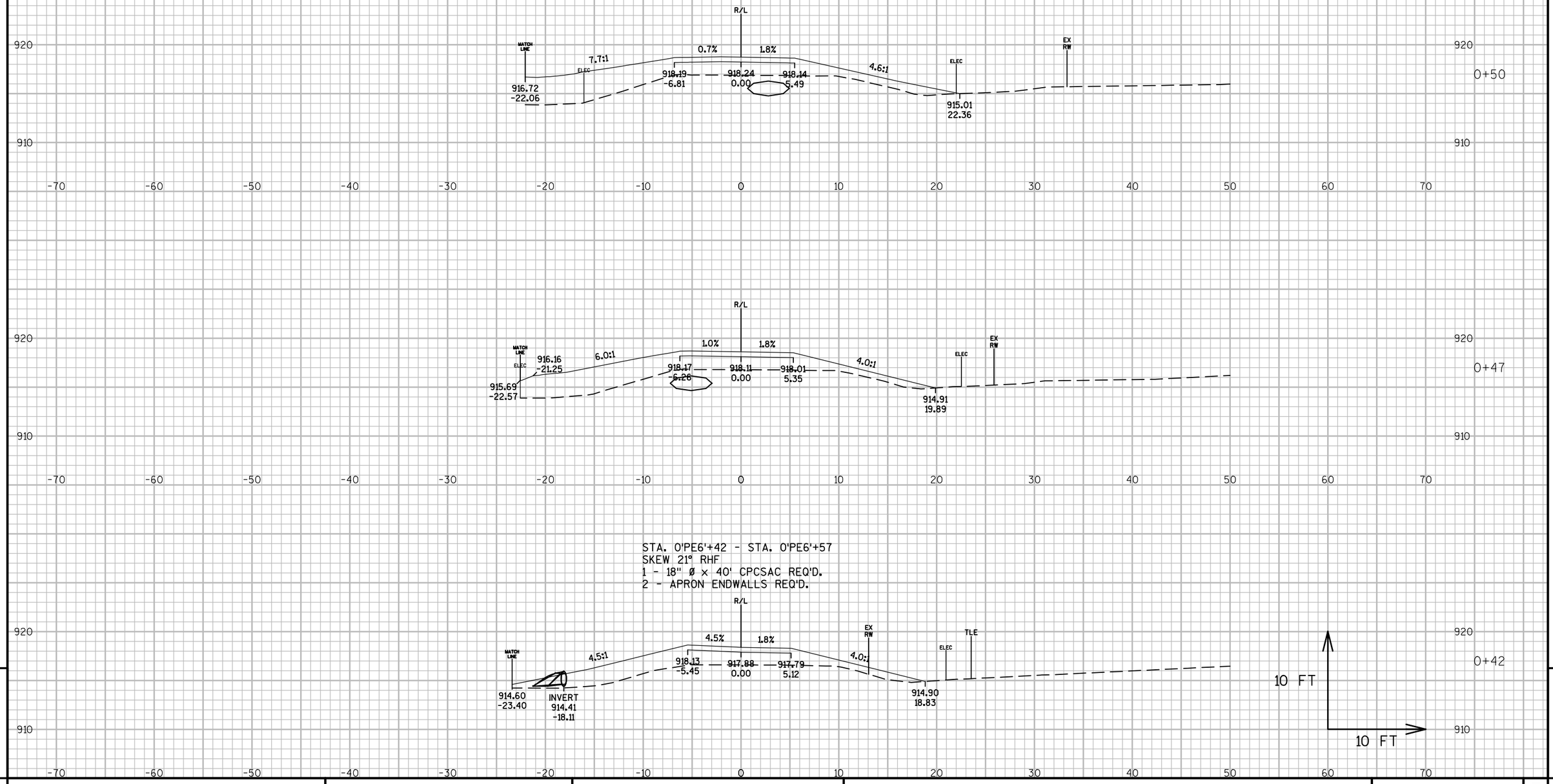
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE6'	SHEET 307	E

9

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 27+97 LT - (02)

PLOT DATE : 3/9/2017 5:53 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



STA. 0'PE6'+42 - STA. 0'PE6'+57
SKEW 21° RHF
1 - 18" Ø x 40' CPCSAC REQ'D.
2 - APRON ENDWALLS REQ'D.

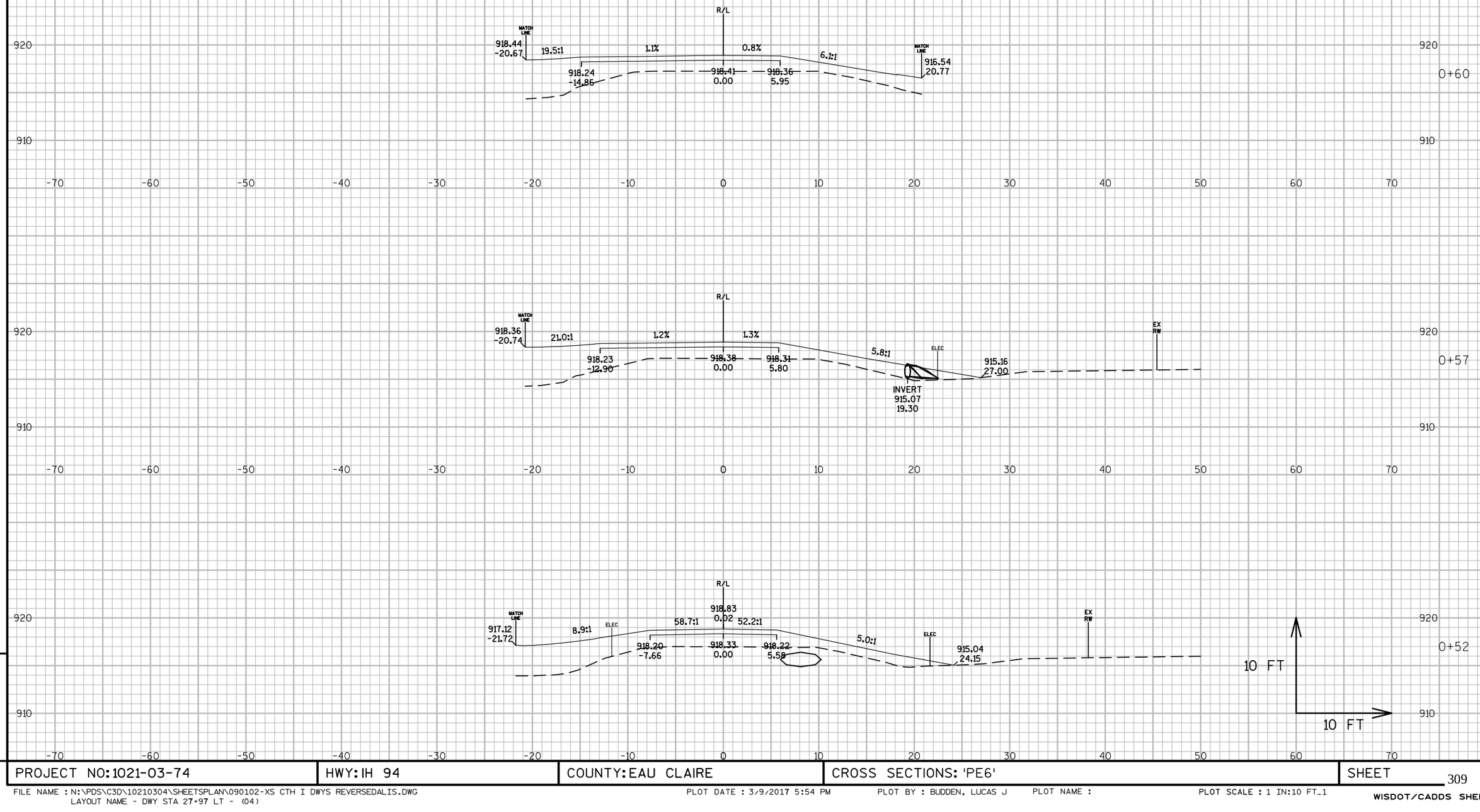
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE6'	SHEET 308	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 27+97 LT - (03)

PLOT DATE : 3/9/2017 5:54 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



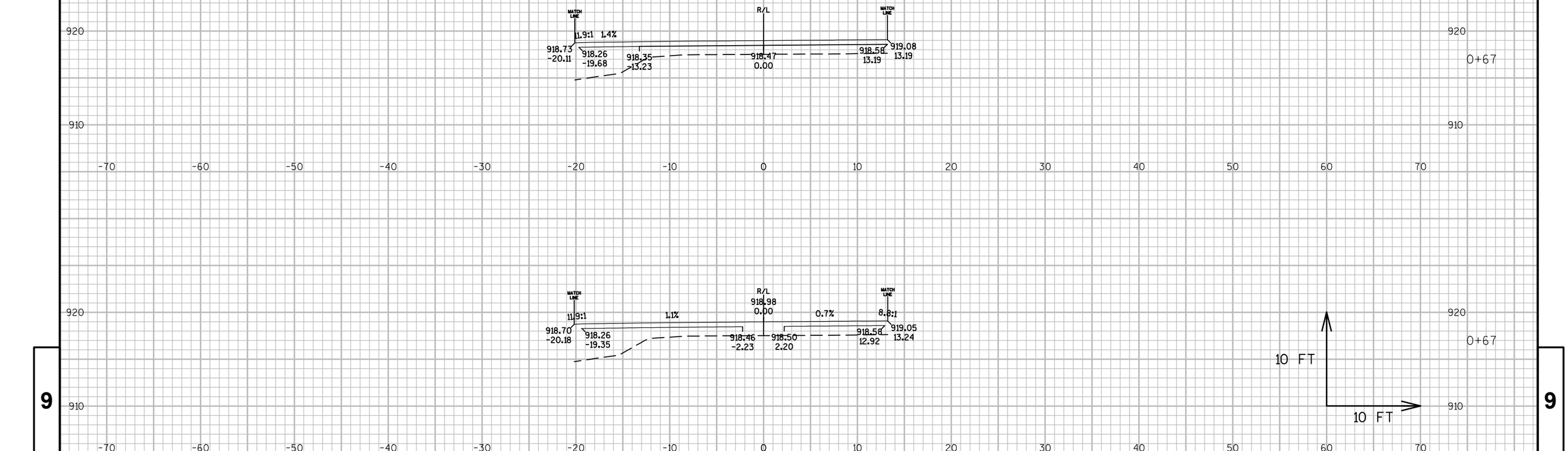
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE6'	SHEET 309	E

9

FILE NAME : N:\PDS\C3D\10210304\SHEETSPLAN\090102-XS CTH I DWYS REVERSEDALIS.DWG
LAYOUT NAME - DWY STA 27+97 LT - (04)

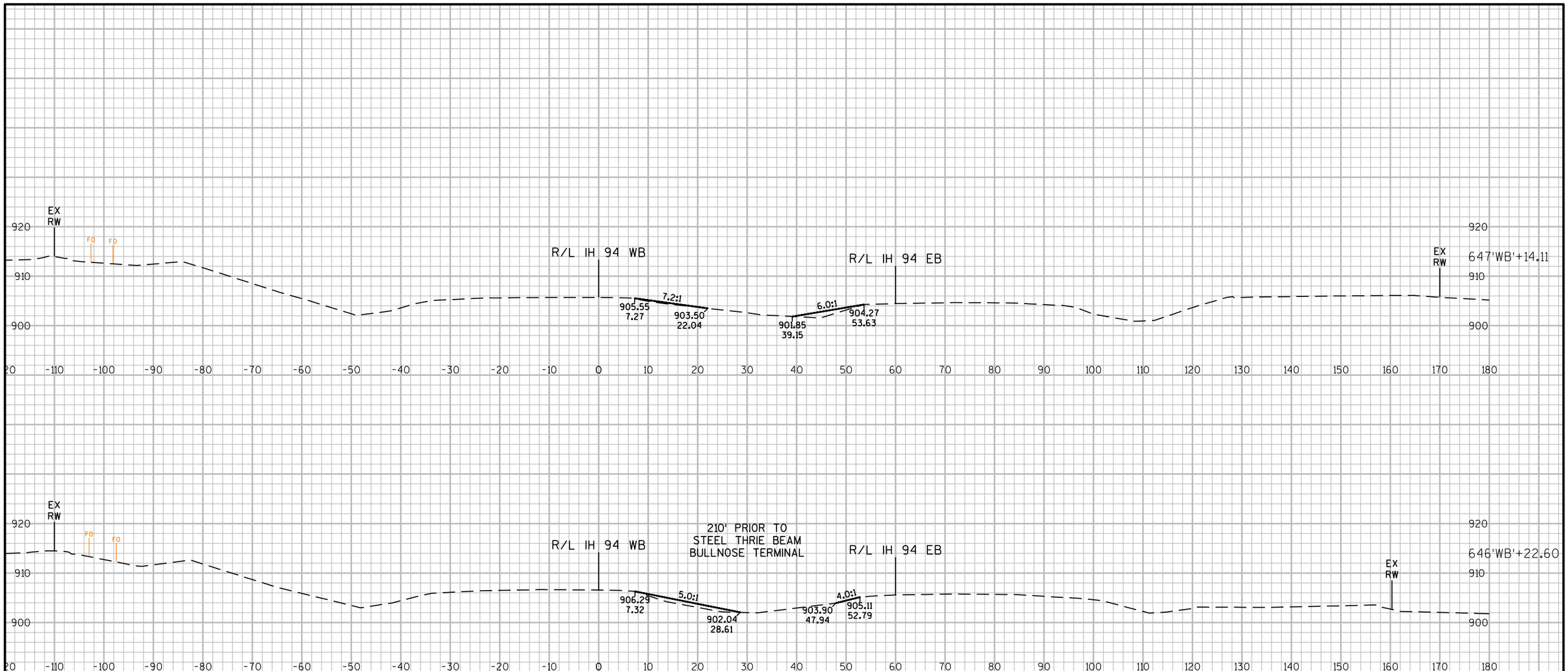
PLOT DATE : 3/9/2017 5:54 PM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:10 FT_1



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: 'PE6'	SHEET 310	E



9

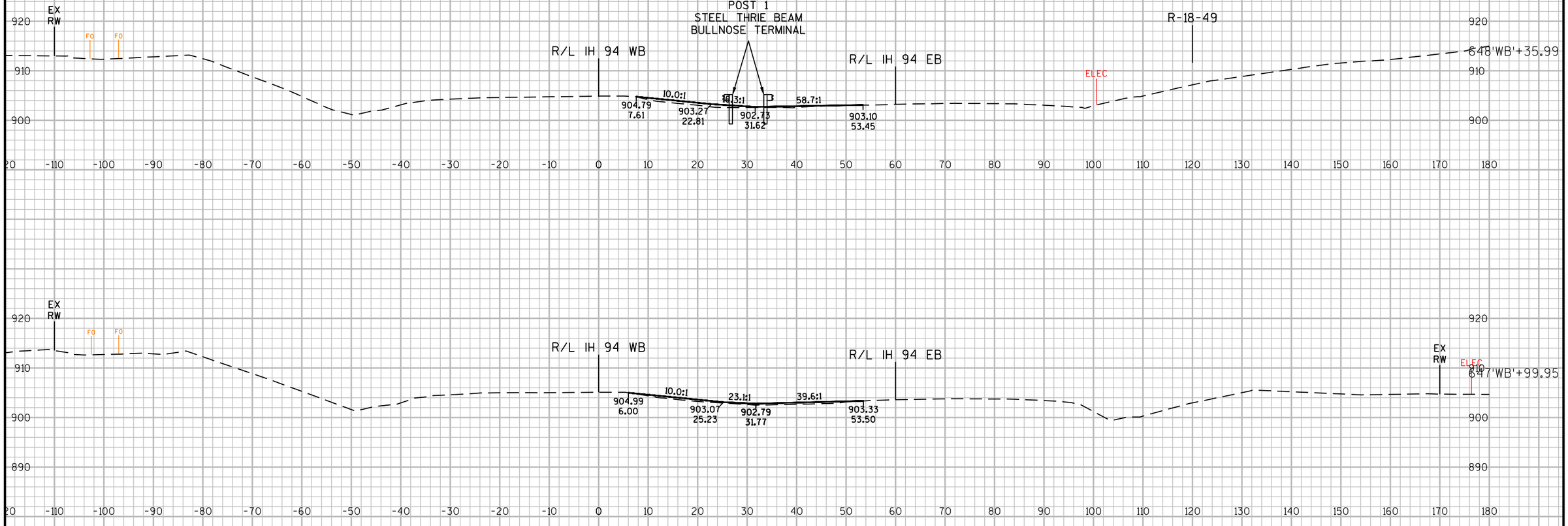
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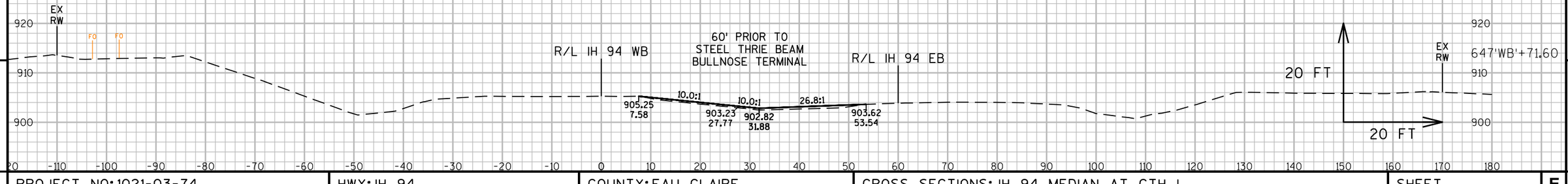
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 311	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (1)

PLOT DATE : 8/1/2017 7:06 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





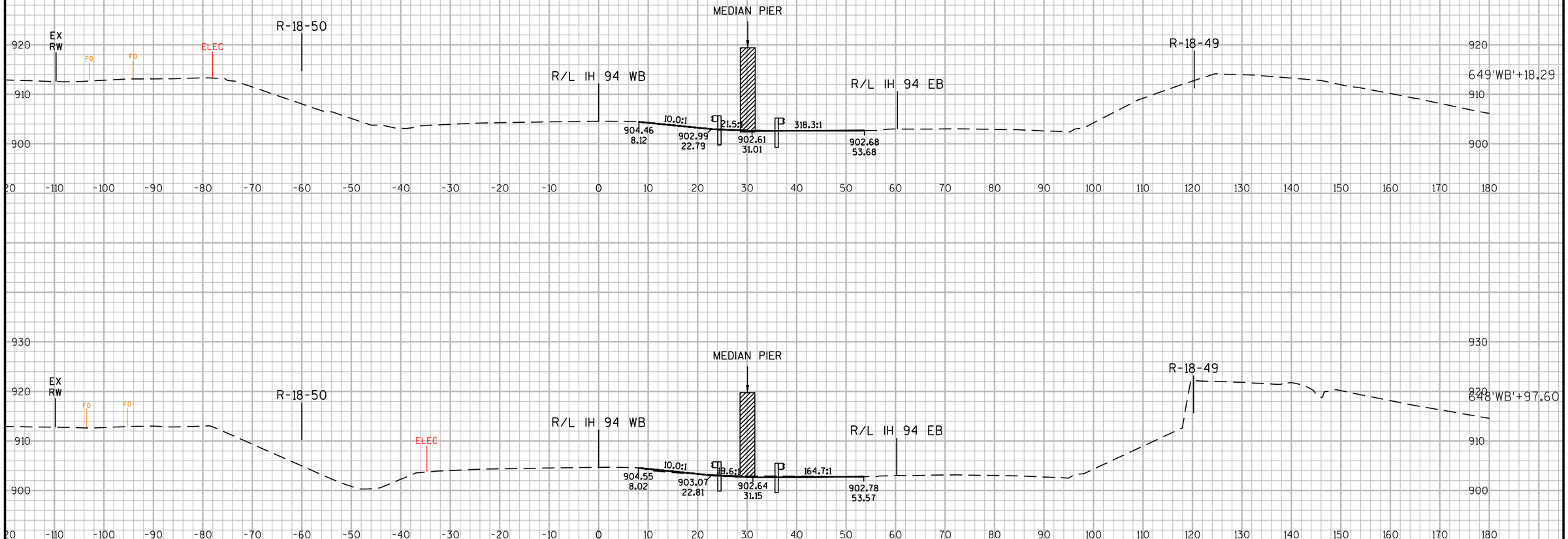
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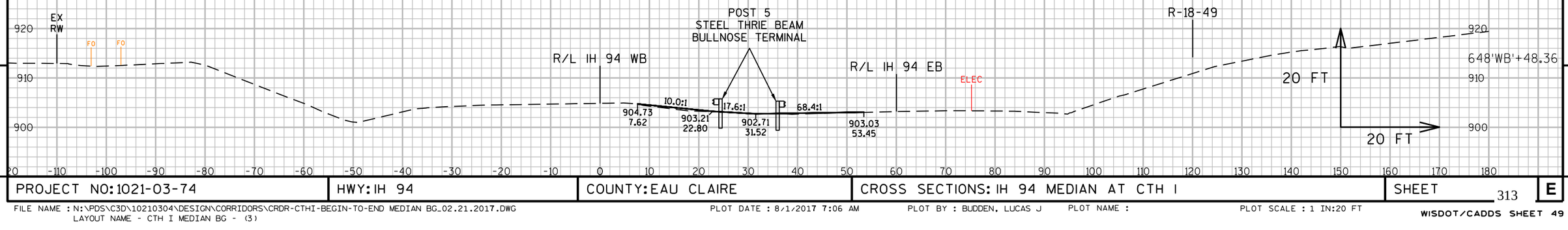
PROJECT NO:1021-03-74	HWY:IH 94	COUNTY:EAU CLAIRE	CROSS SECTIONS:IH 94 MEDIAN AT CTH I	SHEET 312	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (2)

PLOT DATE : 8/1/2017 7:06 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





9

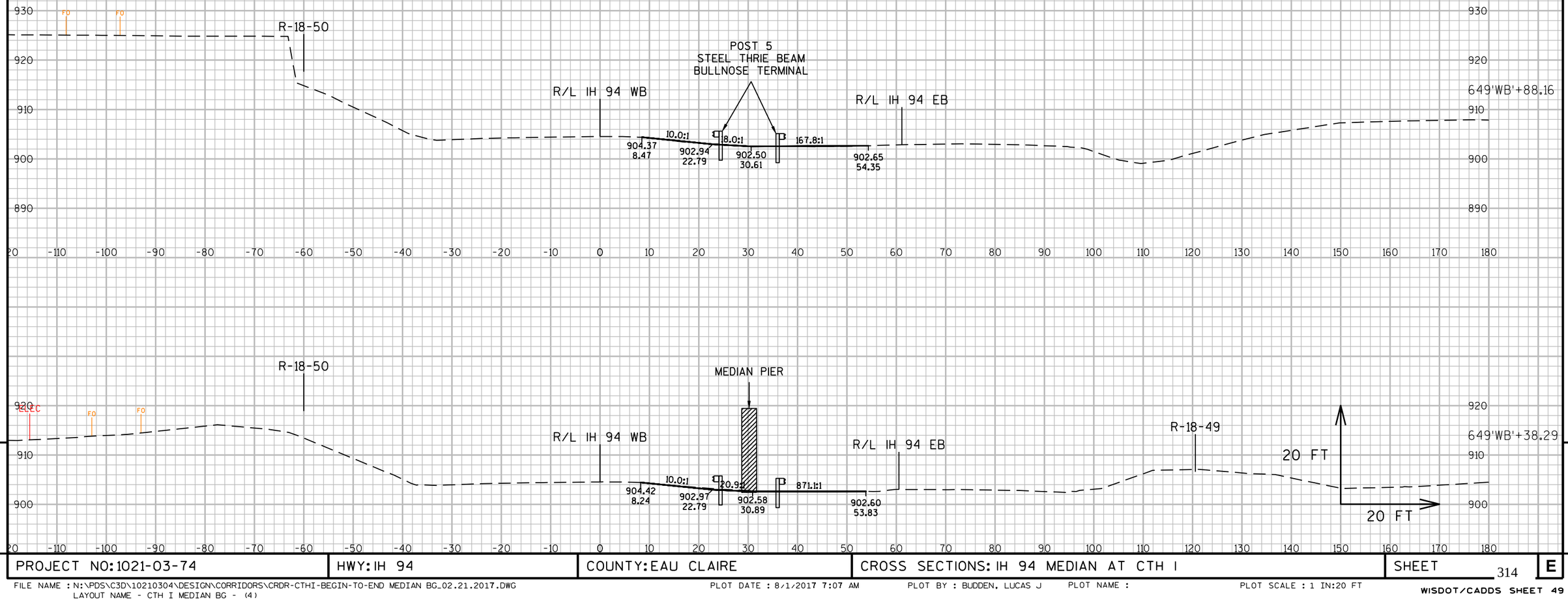
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 313	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (3)

PLOT DATE : 8/1/2017 7:06 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



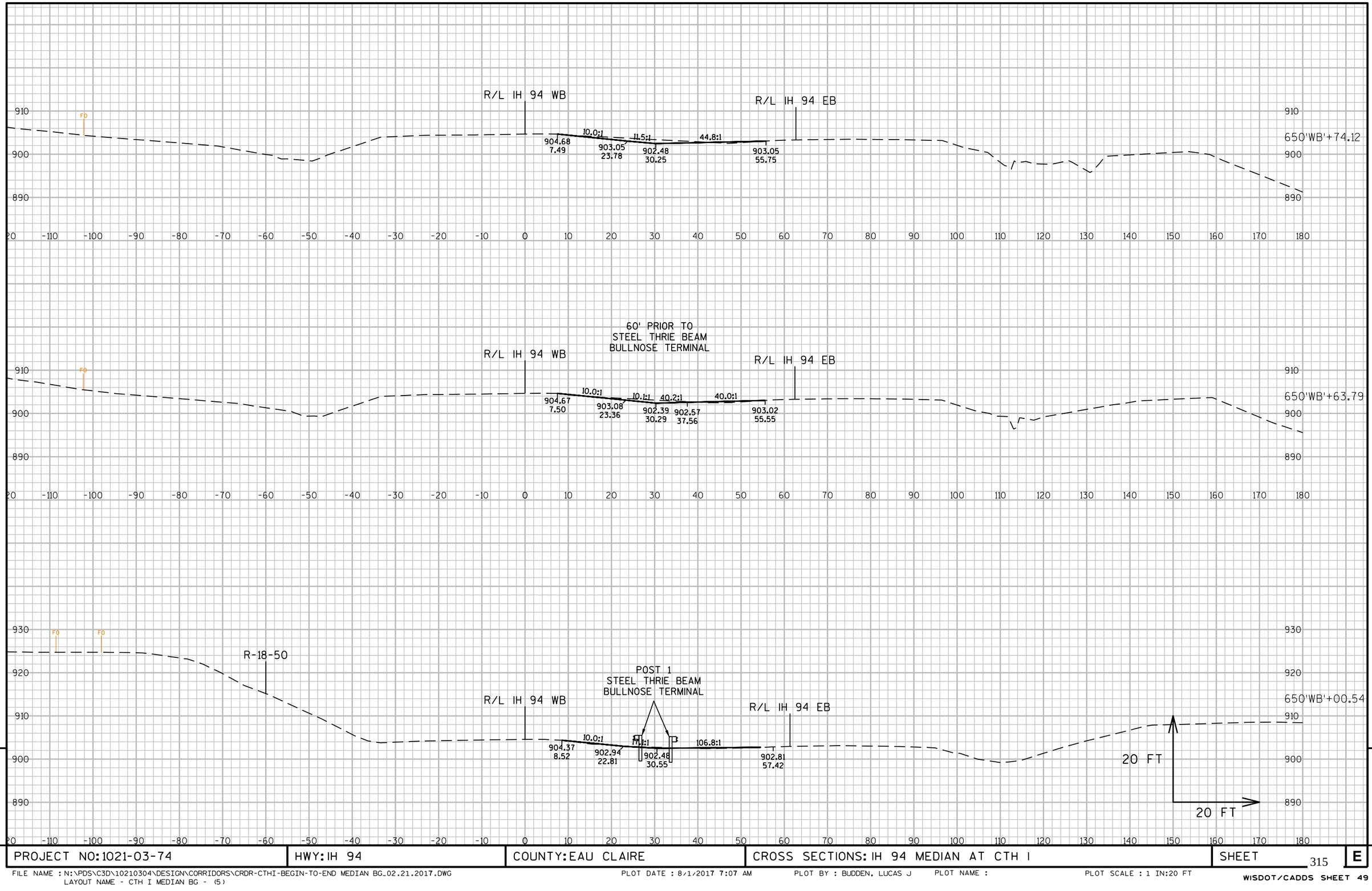
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 314 E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (4)

PLOT DATE : 8/1/2017 7:07 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

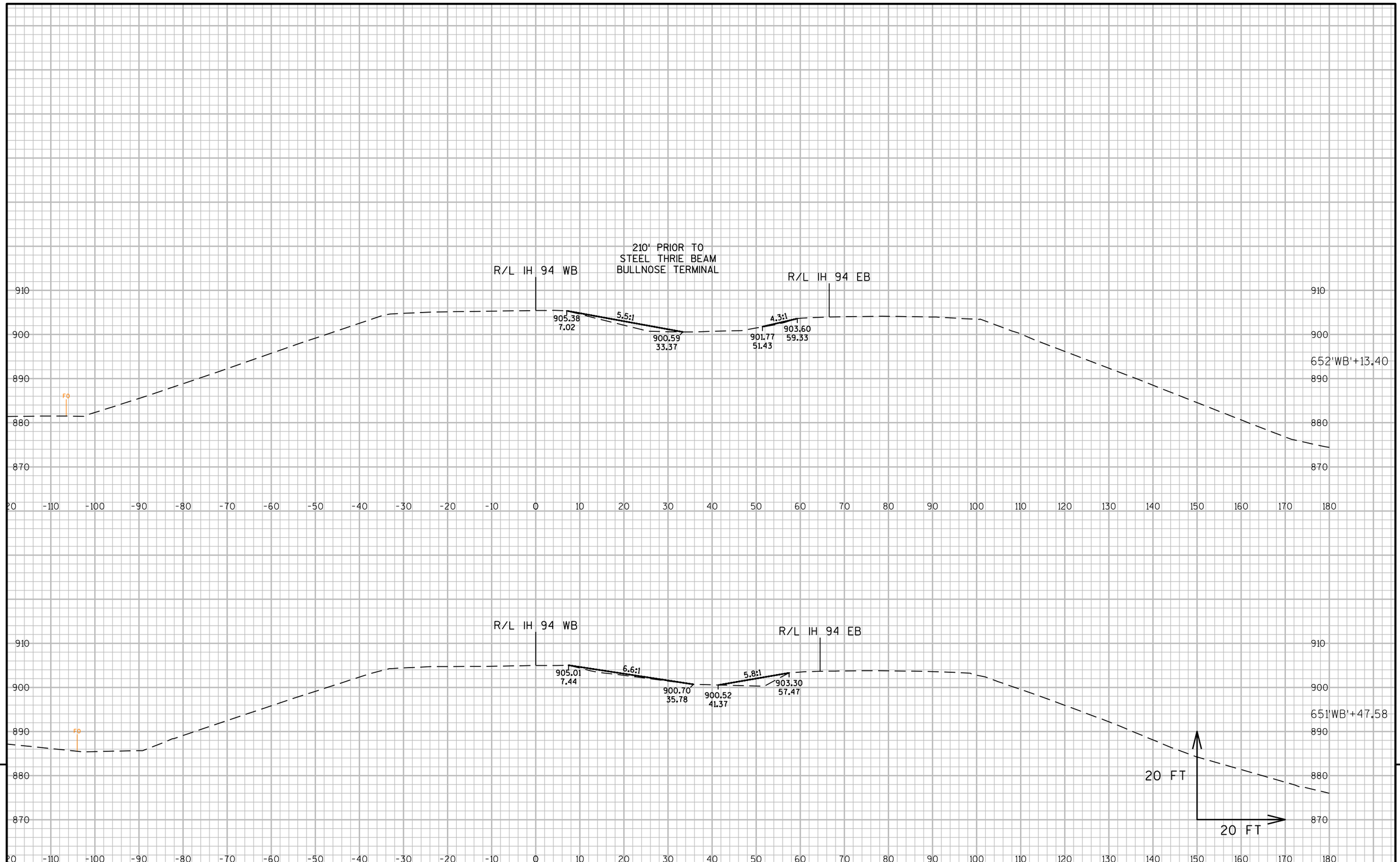
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 315	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (5)

PLOT DATE : 8/1/2017 7:07 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

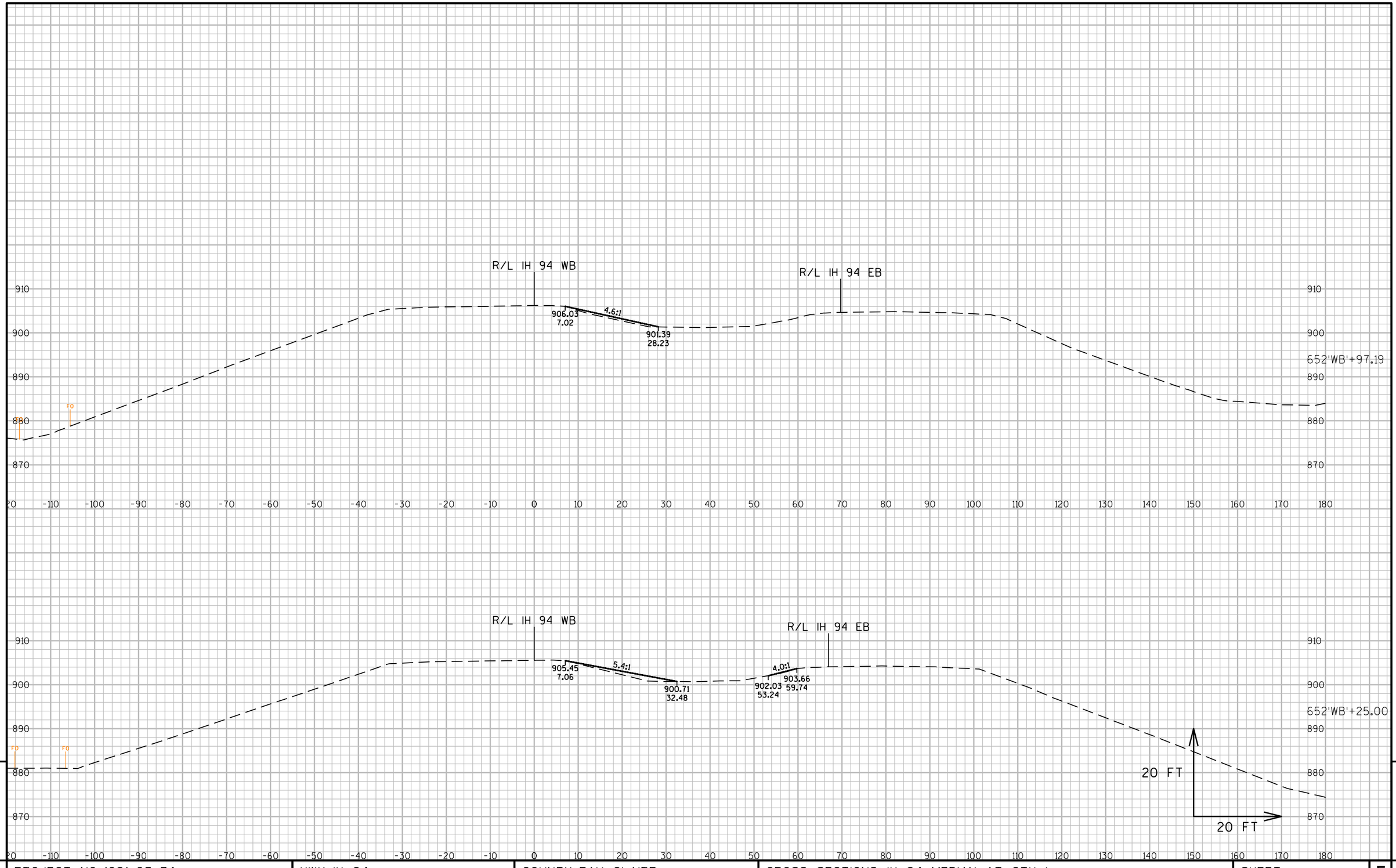
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 316	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (6)

PLOT DATE : 8/1/2017 7:07 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

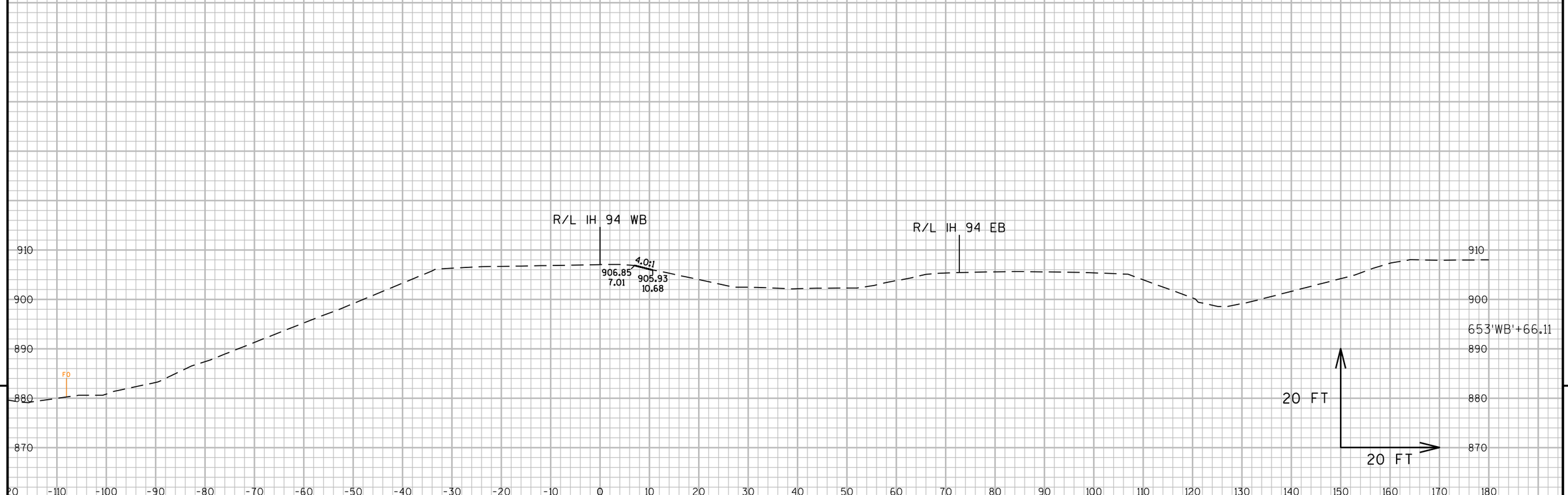
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 317	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (7)

PLOT DATE : 8/1/2017 7:07 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



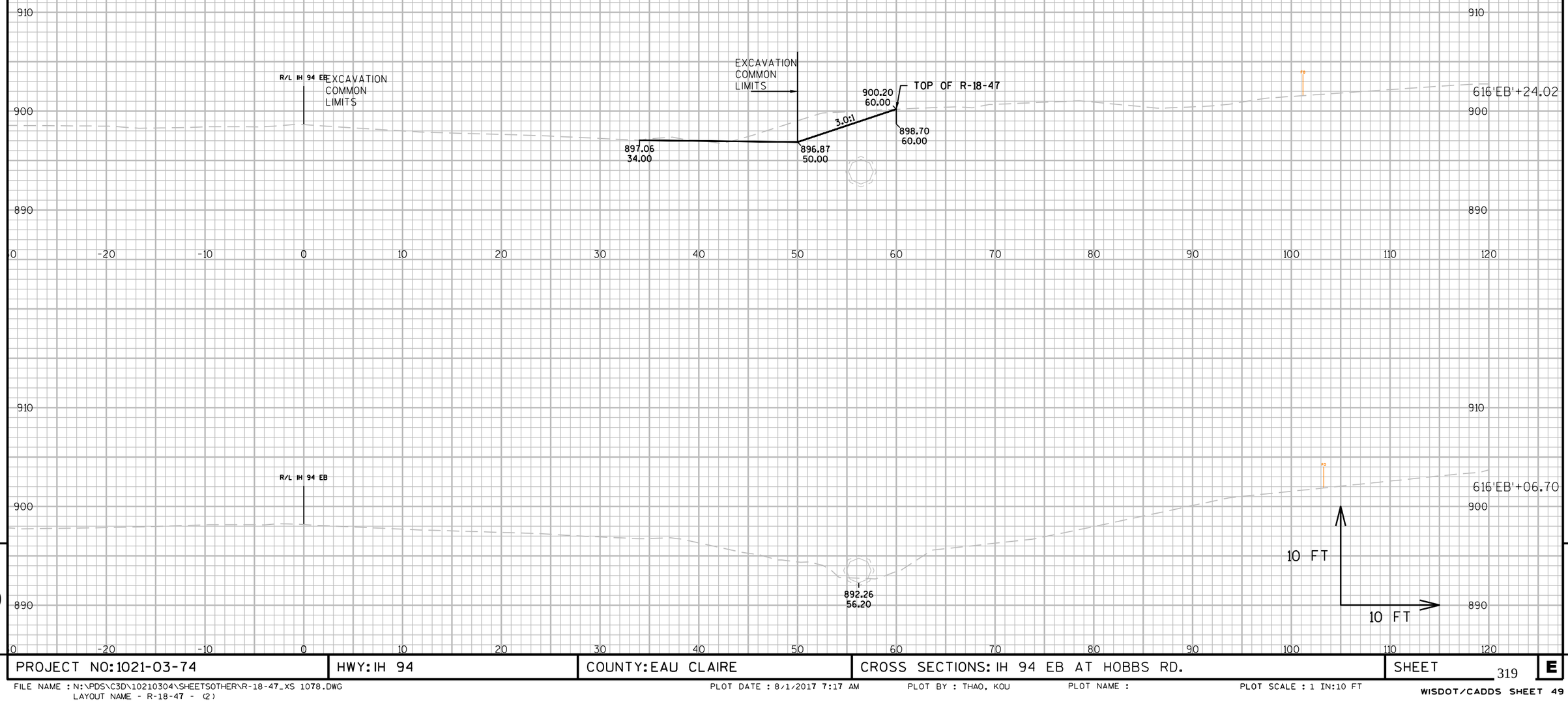
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 MEDIAN AT CTH I	SHEET 318	E

FILE NAME : N:\PDS\C3D\10210304\DESIGN\CORRIDORS\CRDR-CTHI-BEGIN-TO-END MEDIAN BG_02.21.2017.DWG
LAYOUT NAME - CTH I MEDIAN BG - (8)

PLOT DATE : 8/1/2017 7:07 AM PLOT BY : BUDDEN, LUCAS J PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

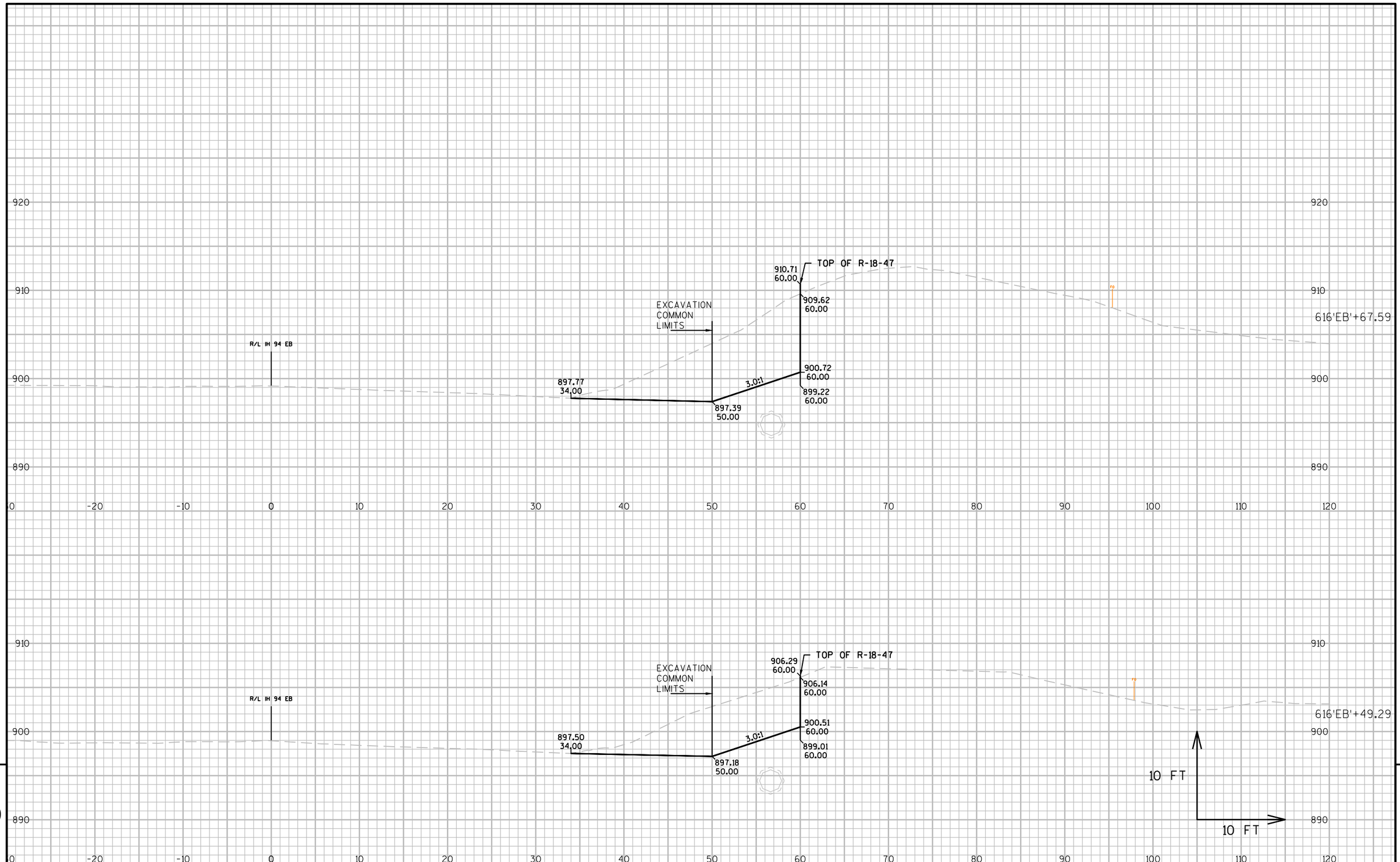
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT HOBBS RD.	SHEET 319	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-47_XS 1078.DWG
LAYOUT NAME - R-18-47 - (2)

PLOT DATE : 8/1/2017 7:17 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

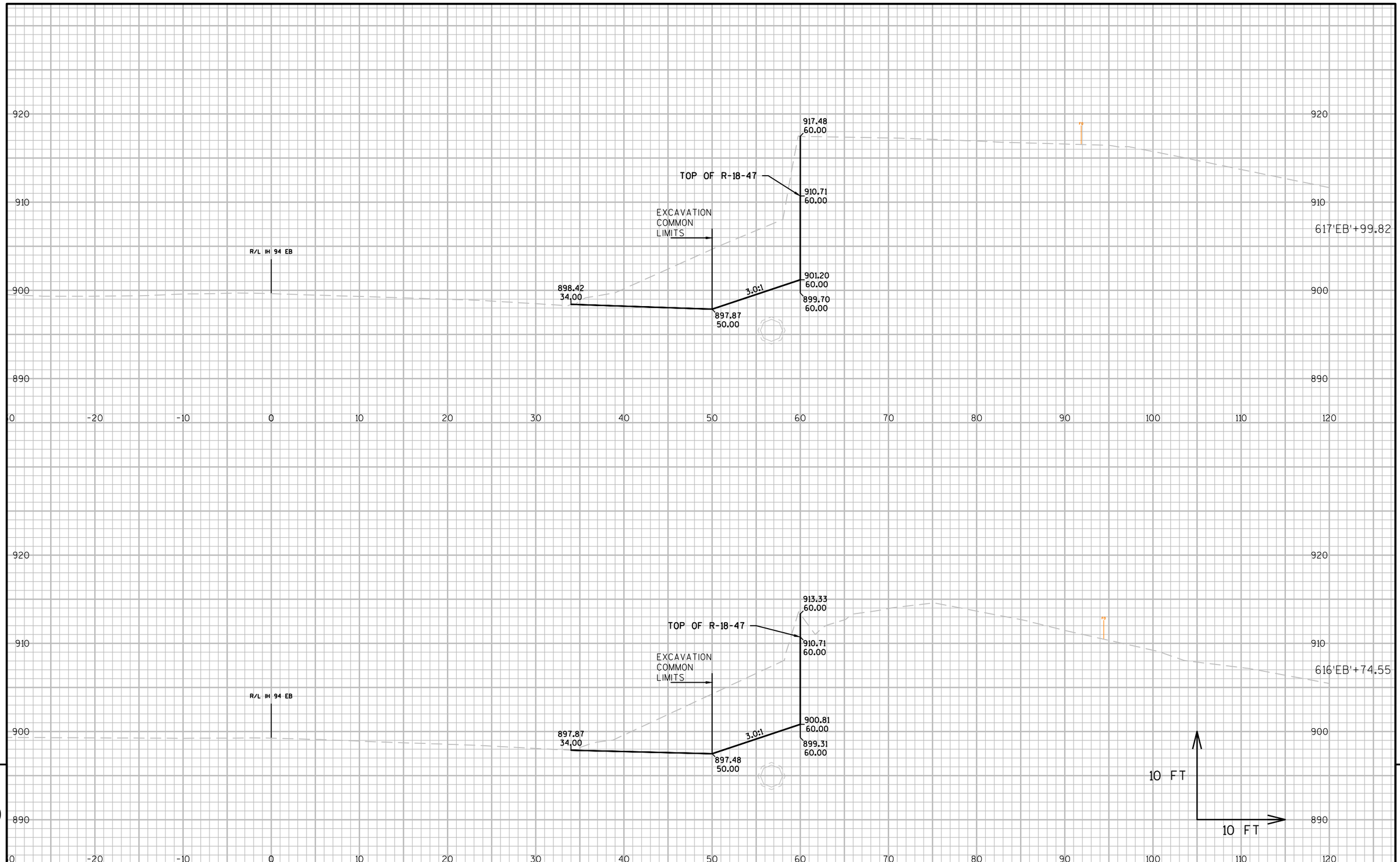


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT HOBBS RD.	SHEET 320 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-47_XS 1078.DWG
LAYOUT NAME - R-18-47 - (3)

PLOT DATE : 8/1/2017 7:18 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

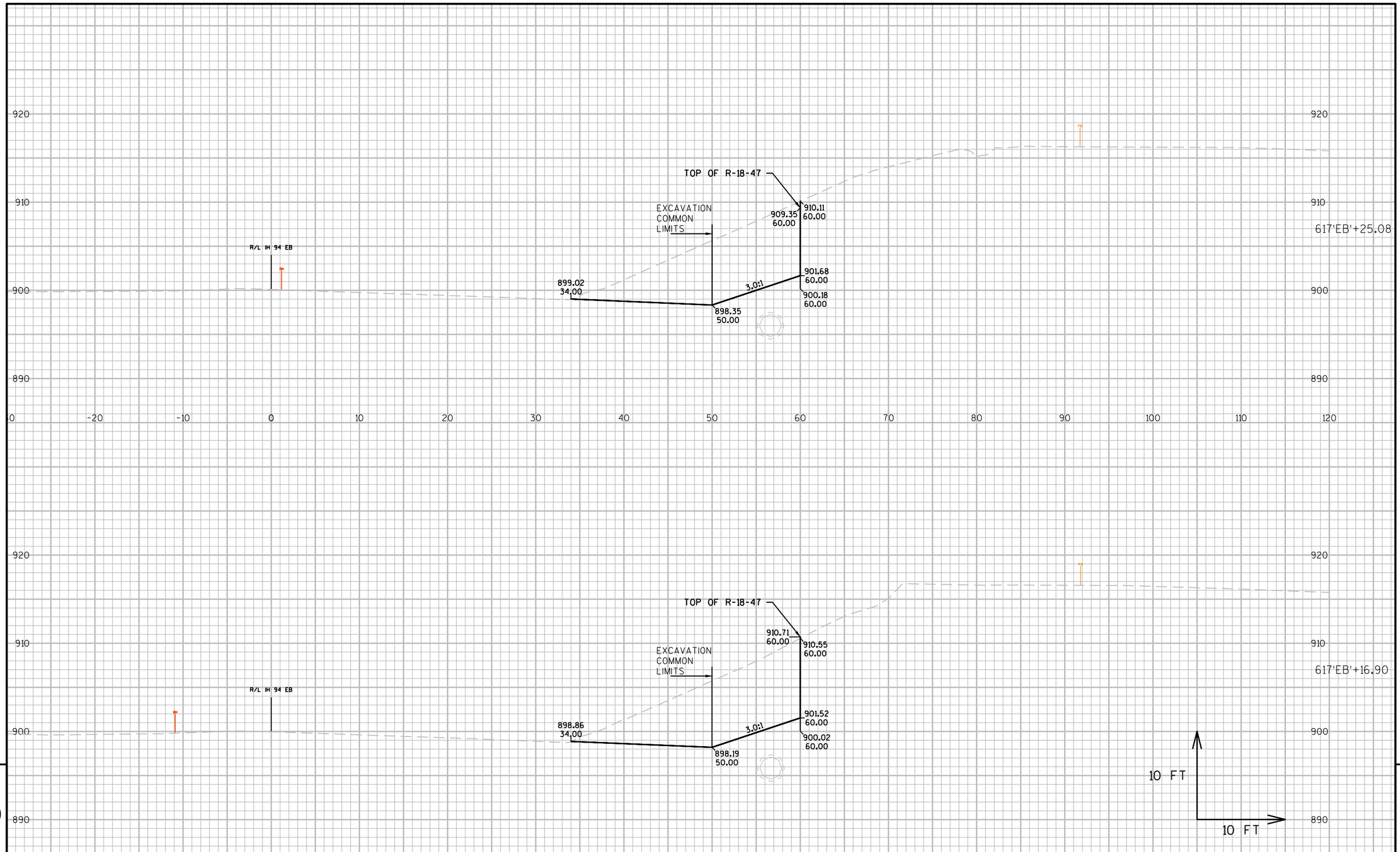
WISDOT/CADDS SHEET 49



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT HOBBS RD.	SHEET 321 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-47_XS 1078.DWG
LAYOUT NAME - R-18-47 - (4)

PLOT DATE : 8/1/2017 7:18 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

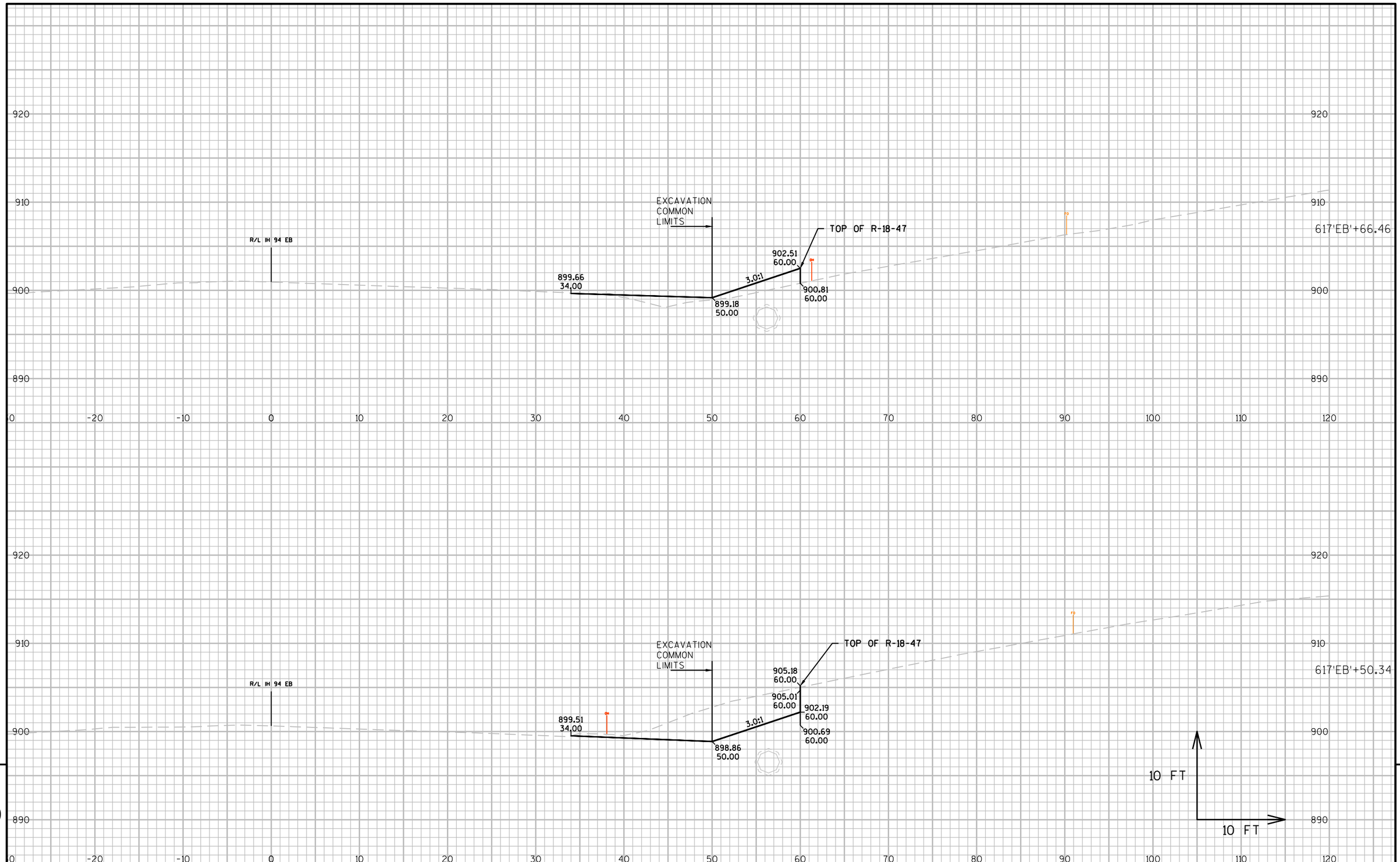
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT HOBBS RD.	SHEET 322 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-47_XS 1078.DWG
LAYOUT NAME - R-18-47 - (5)

PLOT DATE : 8/1/2017 7:18 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT HOBBS RD.	SHEET 323	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-47_XS 1078.DWG
LAYOUT NAME - R-18-47 - (6)

PLOT DATE : 8/1/2017 7:18 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

910

900

R/L IH 94 EB

ELEC

618'EB'+00.00

910

900

890

0 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

890

910

900

R/L IH 94 EB

617'EB'+75.84

895.82
56.06

10 FT

10 FT

890

0 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT HOBBS RD.	SHEET 324	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-47_XS 1078.DWG
LAYOUT NAME - R-18-47 - (7)

PLOT DATE : 8/1/2017 7:18 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

910
900
890
910
900
890

-120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20

893.77
-55.02

893.73
-49.80

R/L IH
94 WB

614'WB'+74.92

614'WB'+50.00

10 FT

10 FT

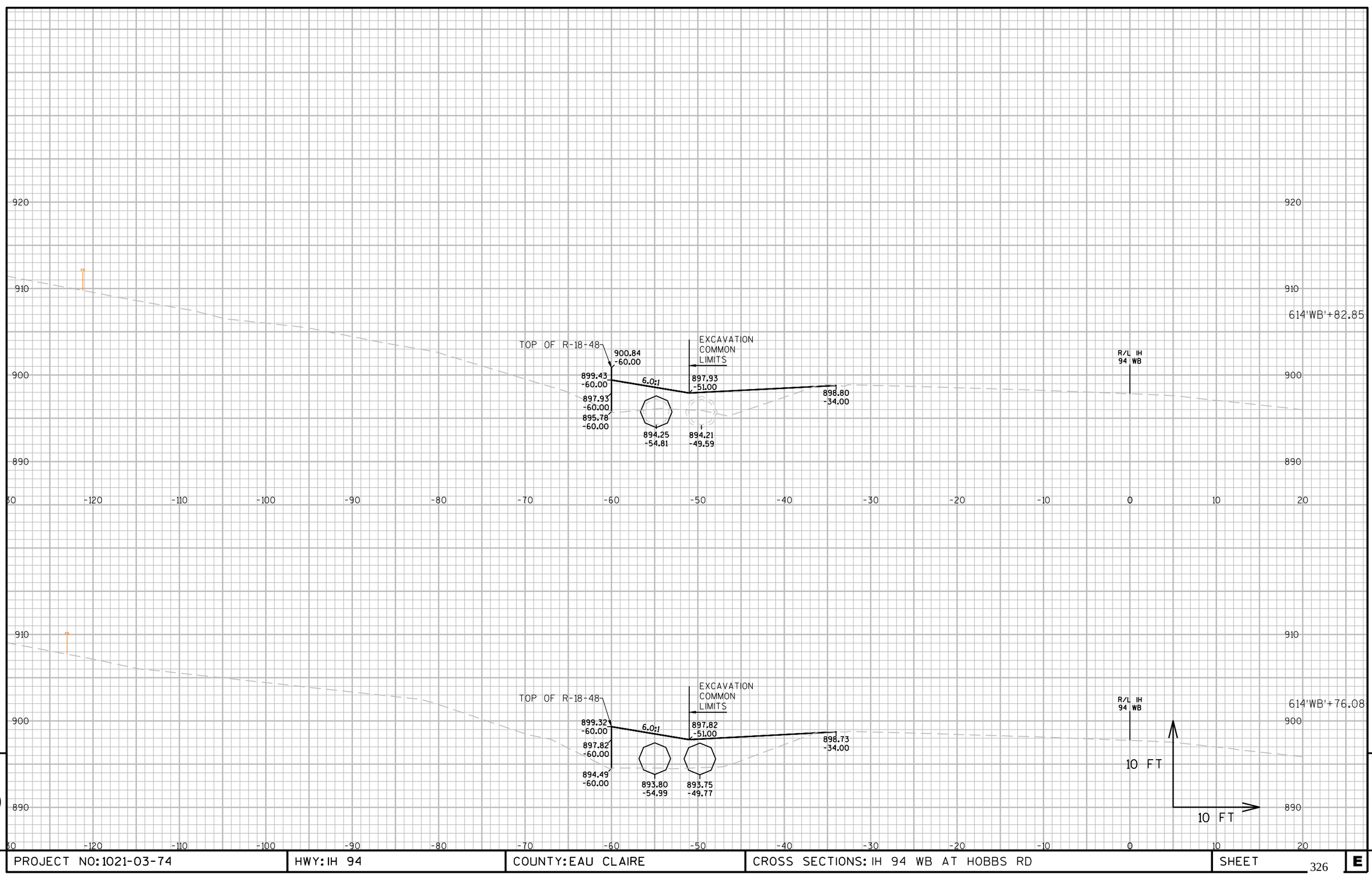
9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 325	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (2)

PLOT DATE : 8/1/2017 7:31 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT



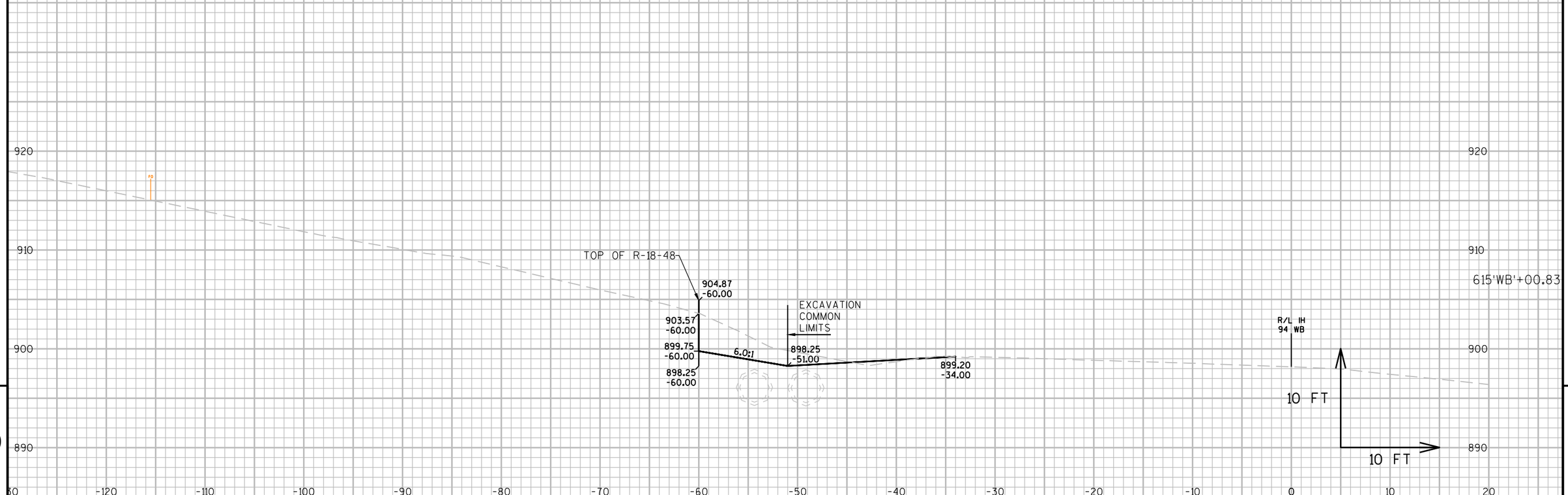
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 326	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (3)

PLOT DATE : 8/1/2017 7:31 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

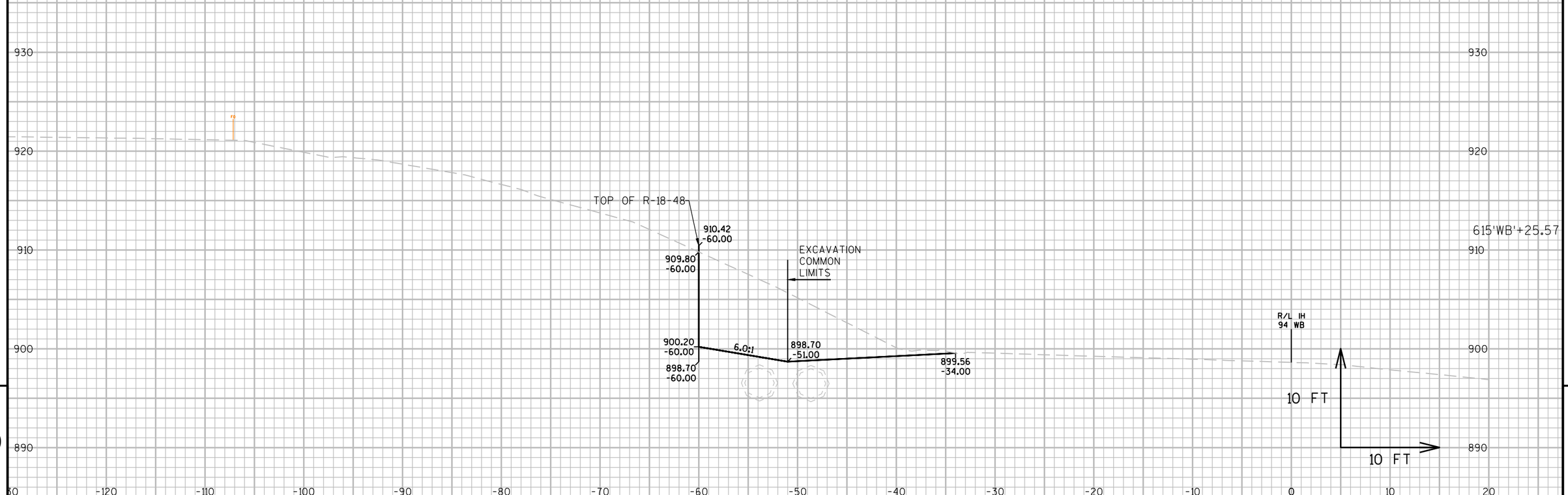
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 327 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (4)

PLOT DATE : 8/1/2017 7:32 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

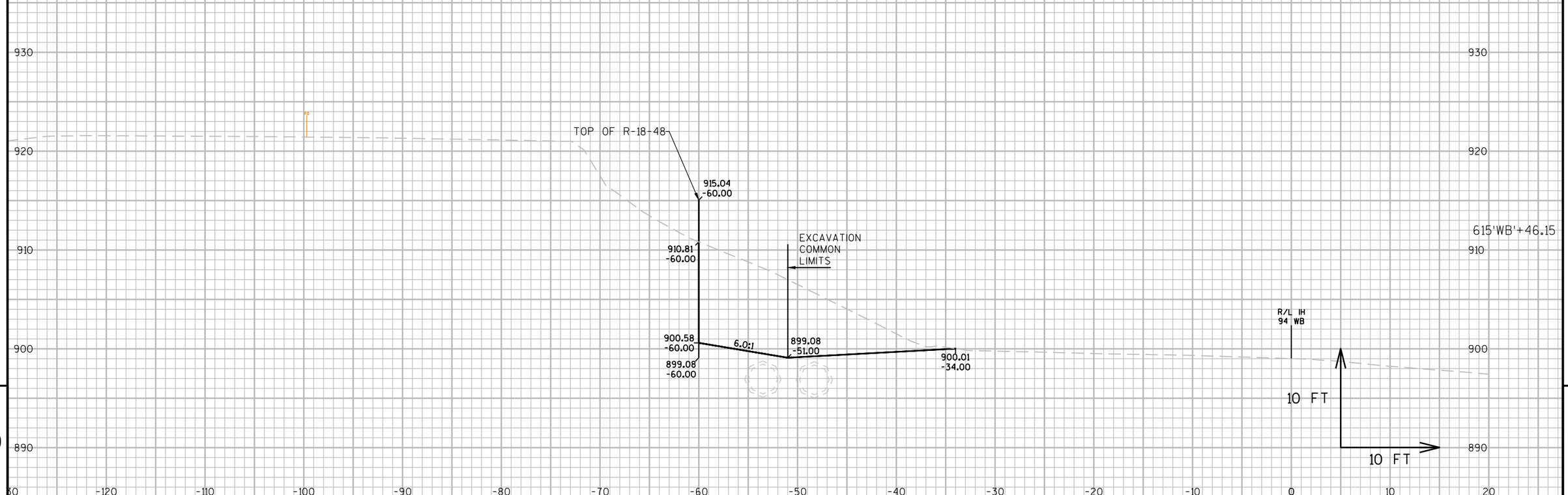
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 328	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (5)

PLOT DATE : 8/1/2017 7:32 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



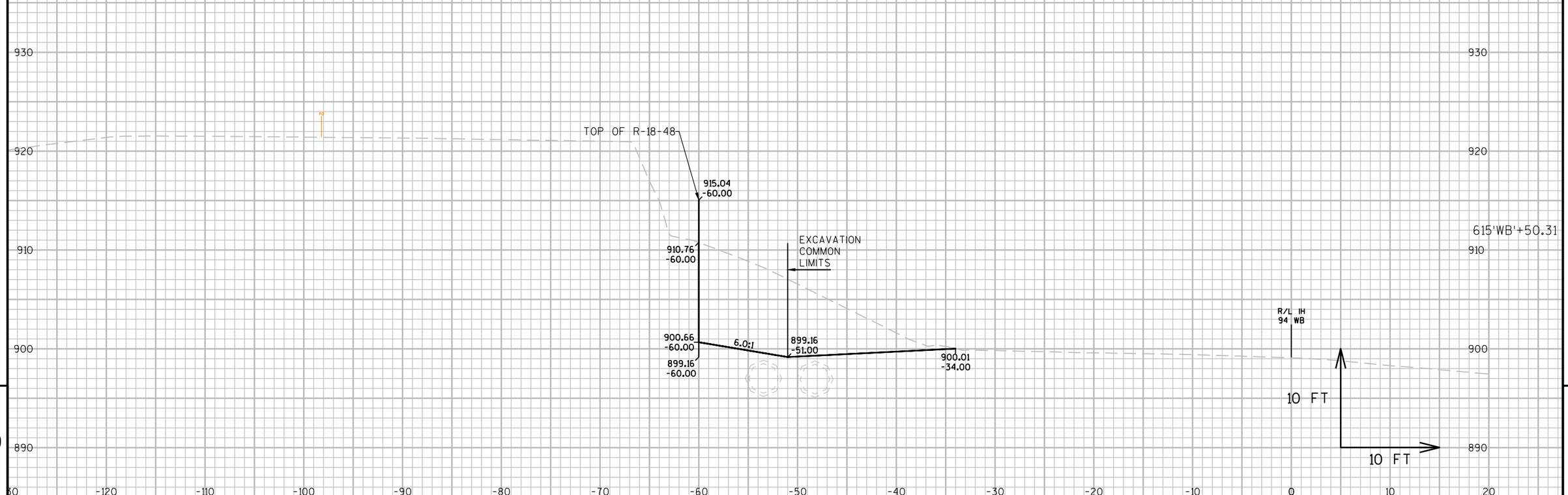
9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 329	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (6)

PLOT DATE : 8/1/2017 7:32 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT



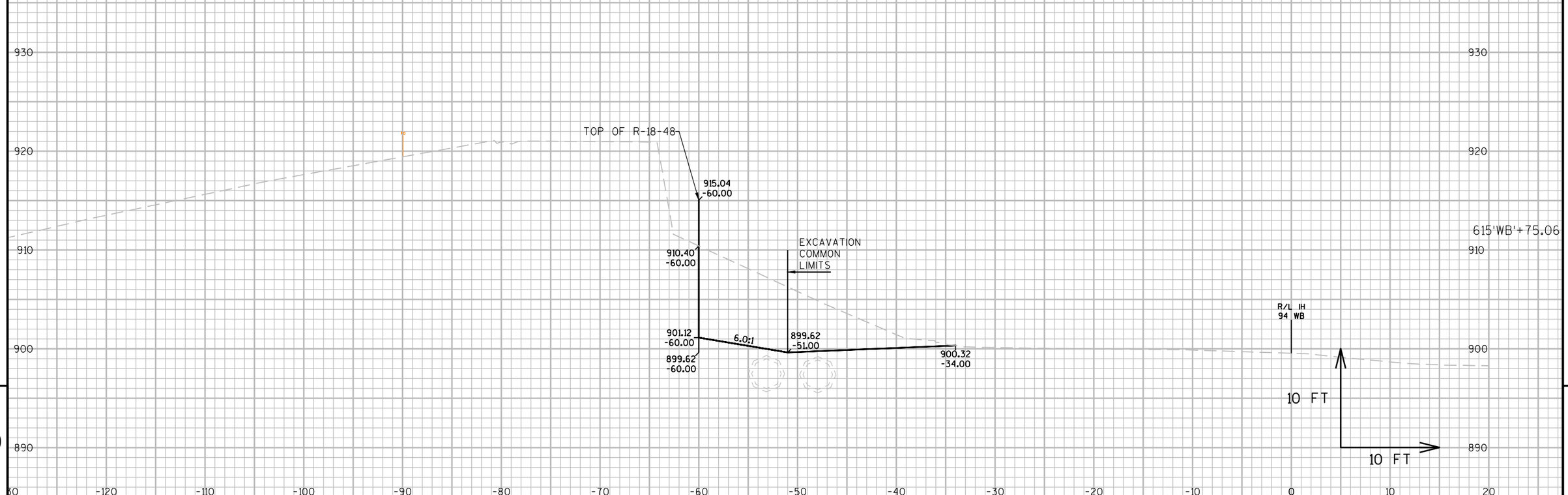
9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 330	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (7)

PLOT DATE : 8/1/2017 7:32 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

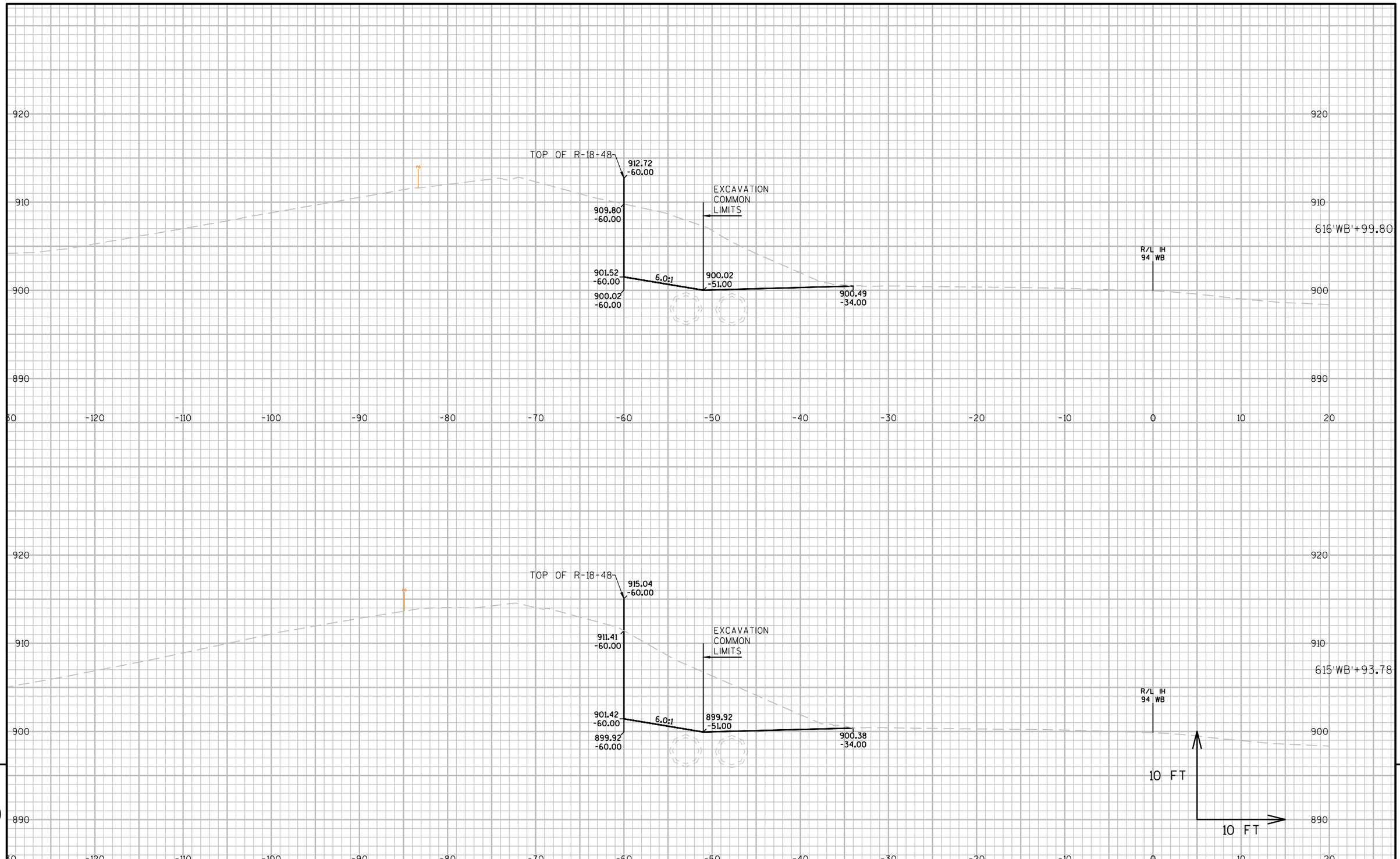
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 331 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (8)

PLOT DATE : 8/1/2017 7:32 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

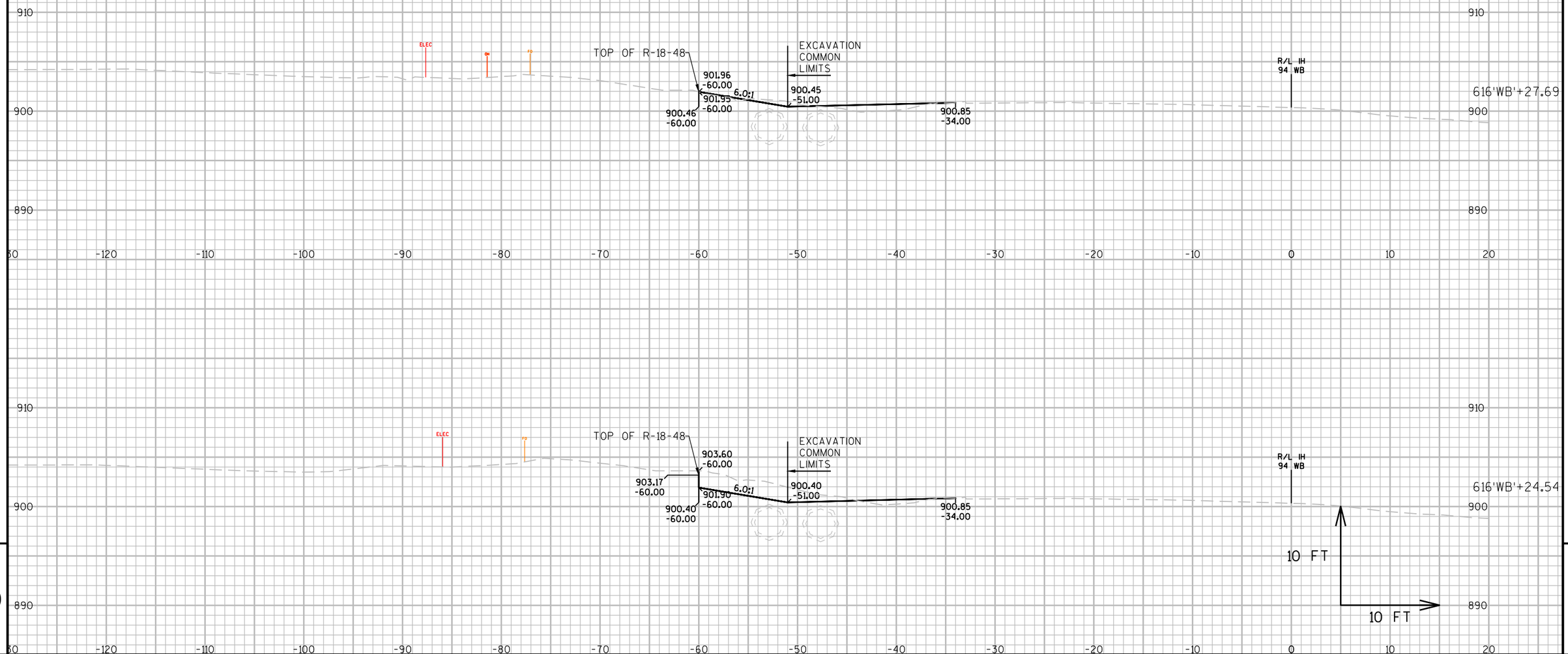
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 332 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (9)

PLOT DATE : 8/1/2017 7:32 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

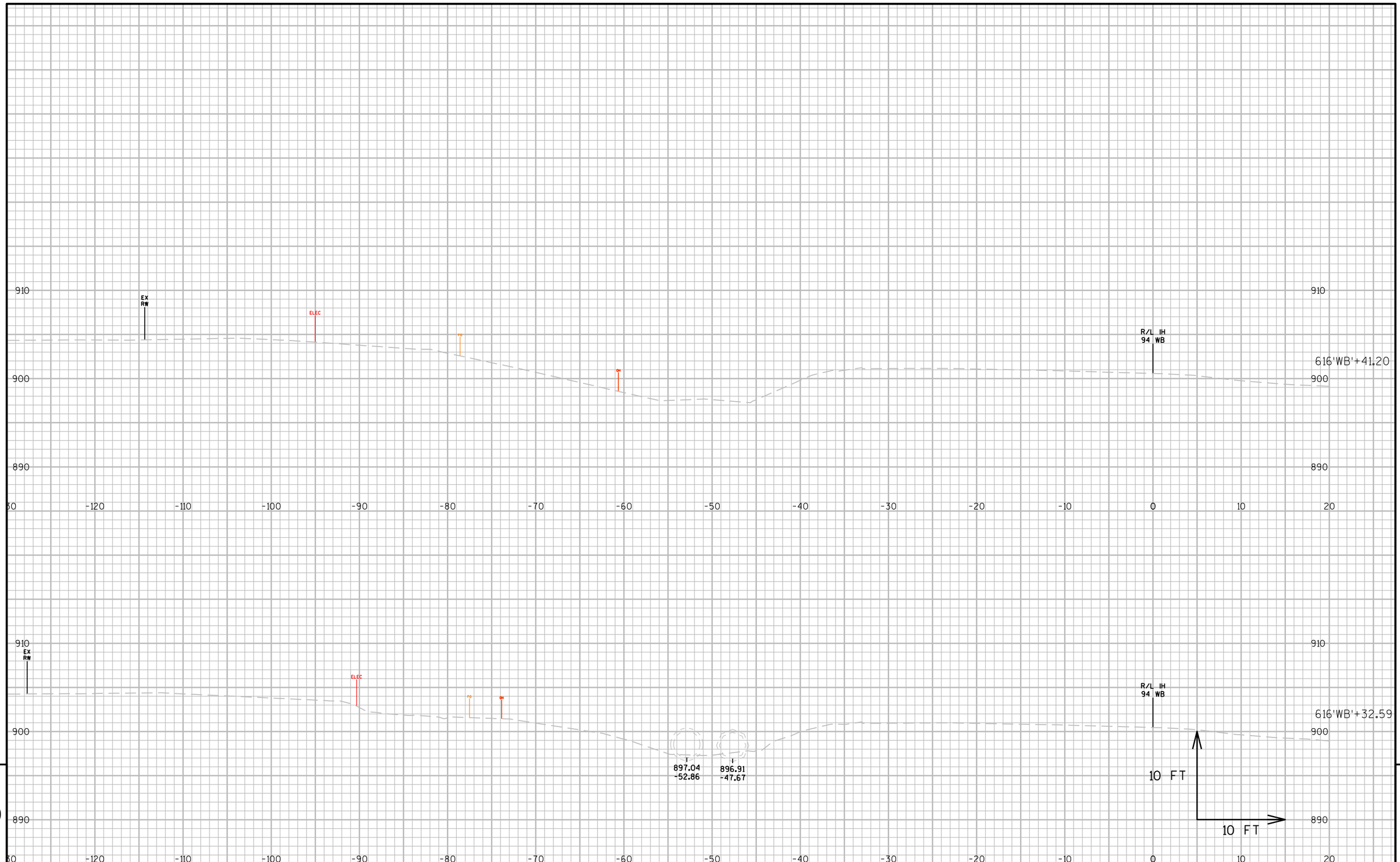


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 333 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (10)

PLOT DATE : 8/1/2017 7:33 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT HOBBS RD	SHEET 334	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-48_XS_1078.DWG
LAYOUT NAME - R-18-48 - (11)

PLOT DATE : 8/1/2017 7:33 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

910

R/L IH 94 EB

899.34
43.52

900.73
47.67

R/L IH 94 EB

910

ELEC

648'EB'+01.46

647'EB'+75.00

EX
RW

10 FT

10 FT

900
890
910
900

0 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

9

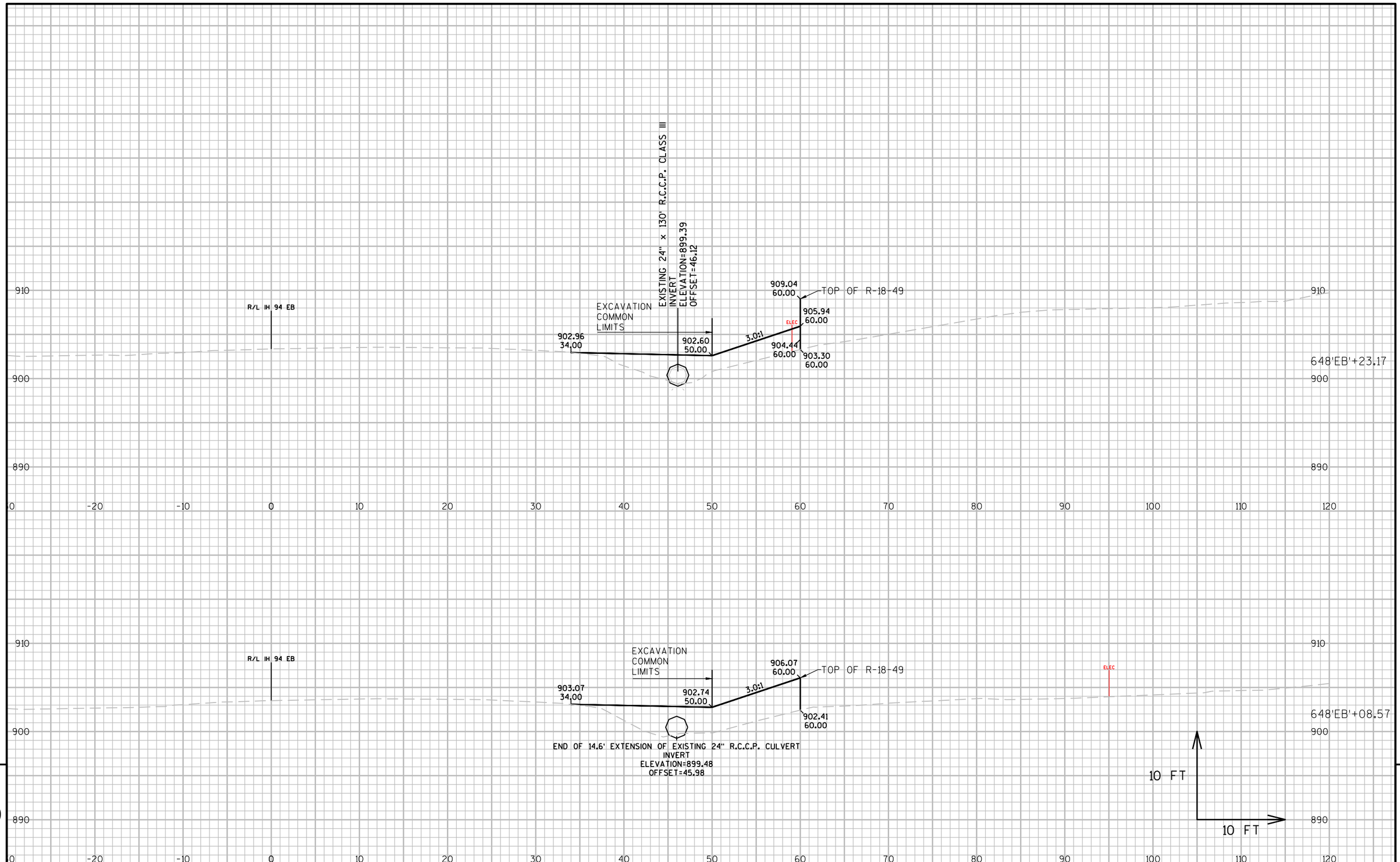
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 335	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (2)

PLOT DATE : 8/1/2017 7:38 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

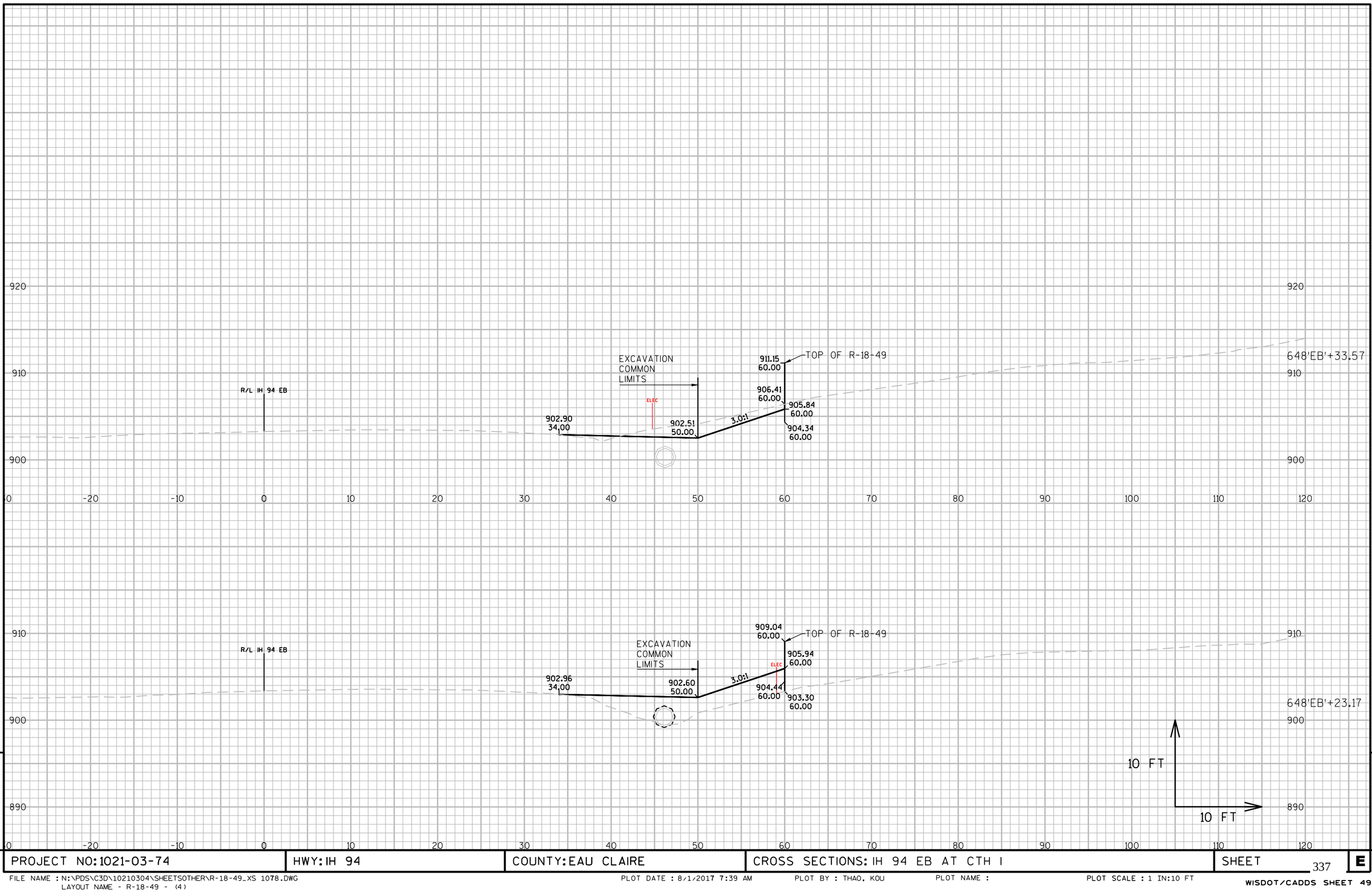


PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 336 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (3)

PLOT DATE : 8/1/2017 7:39 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

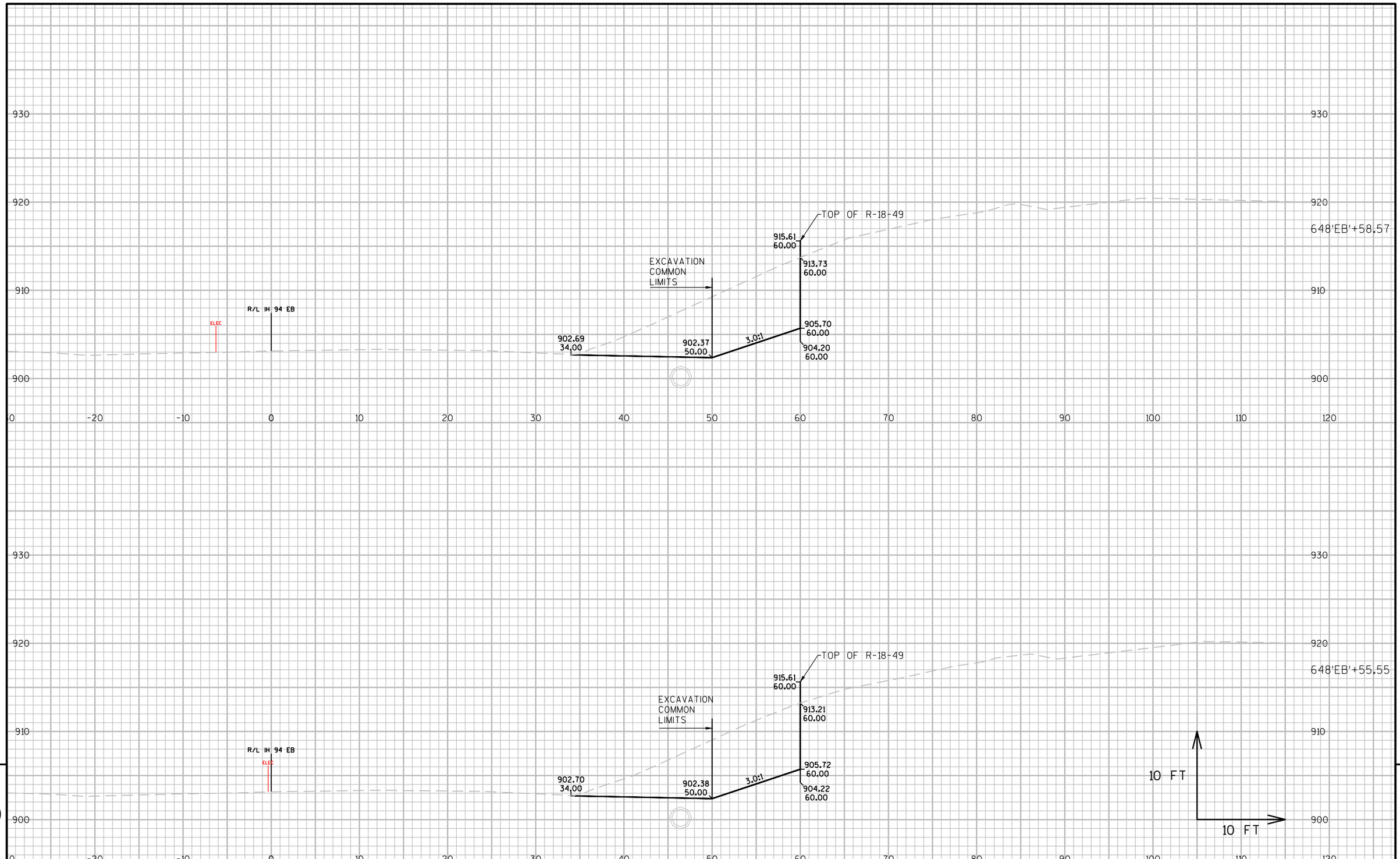
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 337	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (4)

PLOT DATE : 8/1/2017 7:39 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

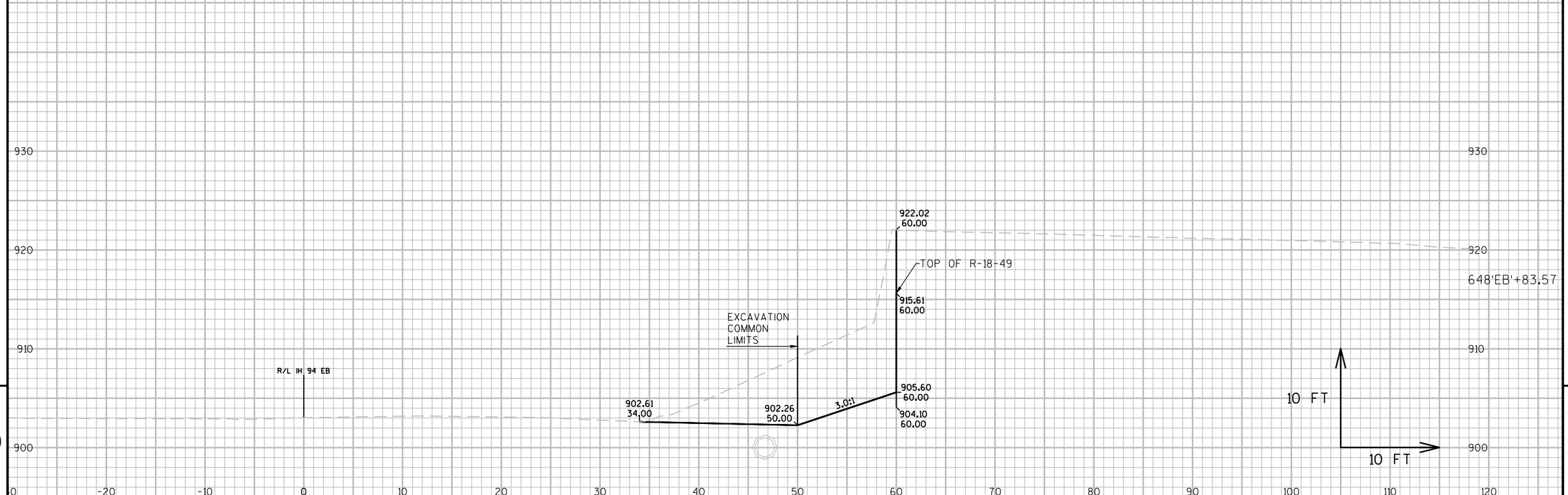
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 338	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (5)

PLOT DATE : 8/1/2017 7:39 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

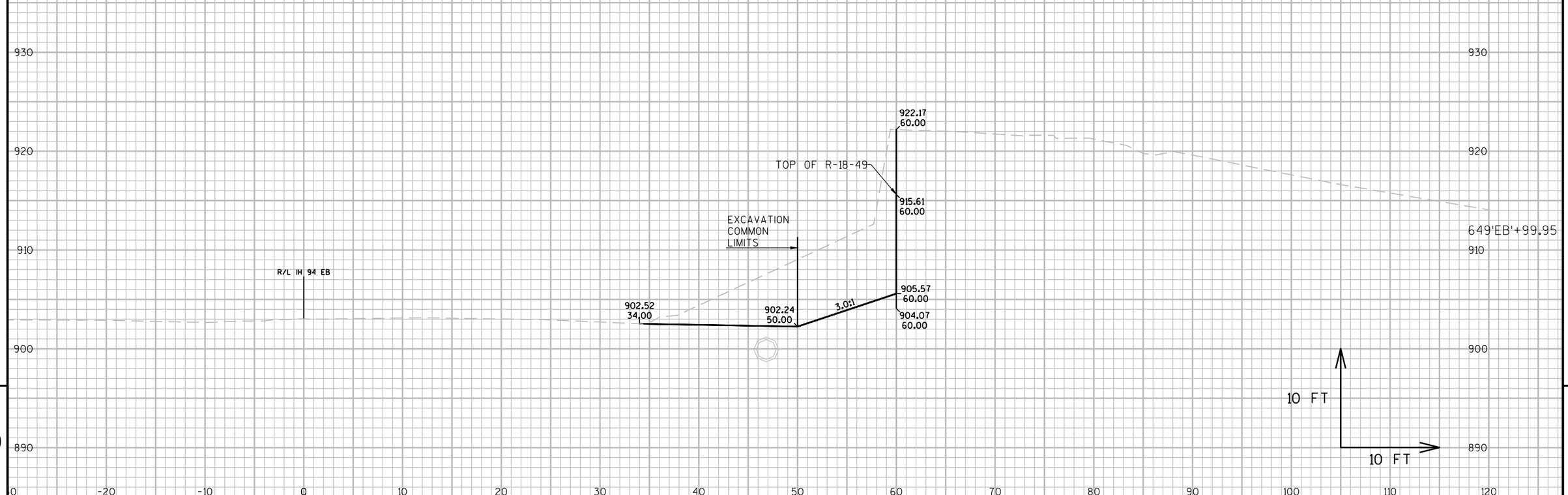
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 339	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (6)

PLOT DATE : 8/1/2017 7:39 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

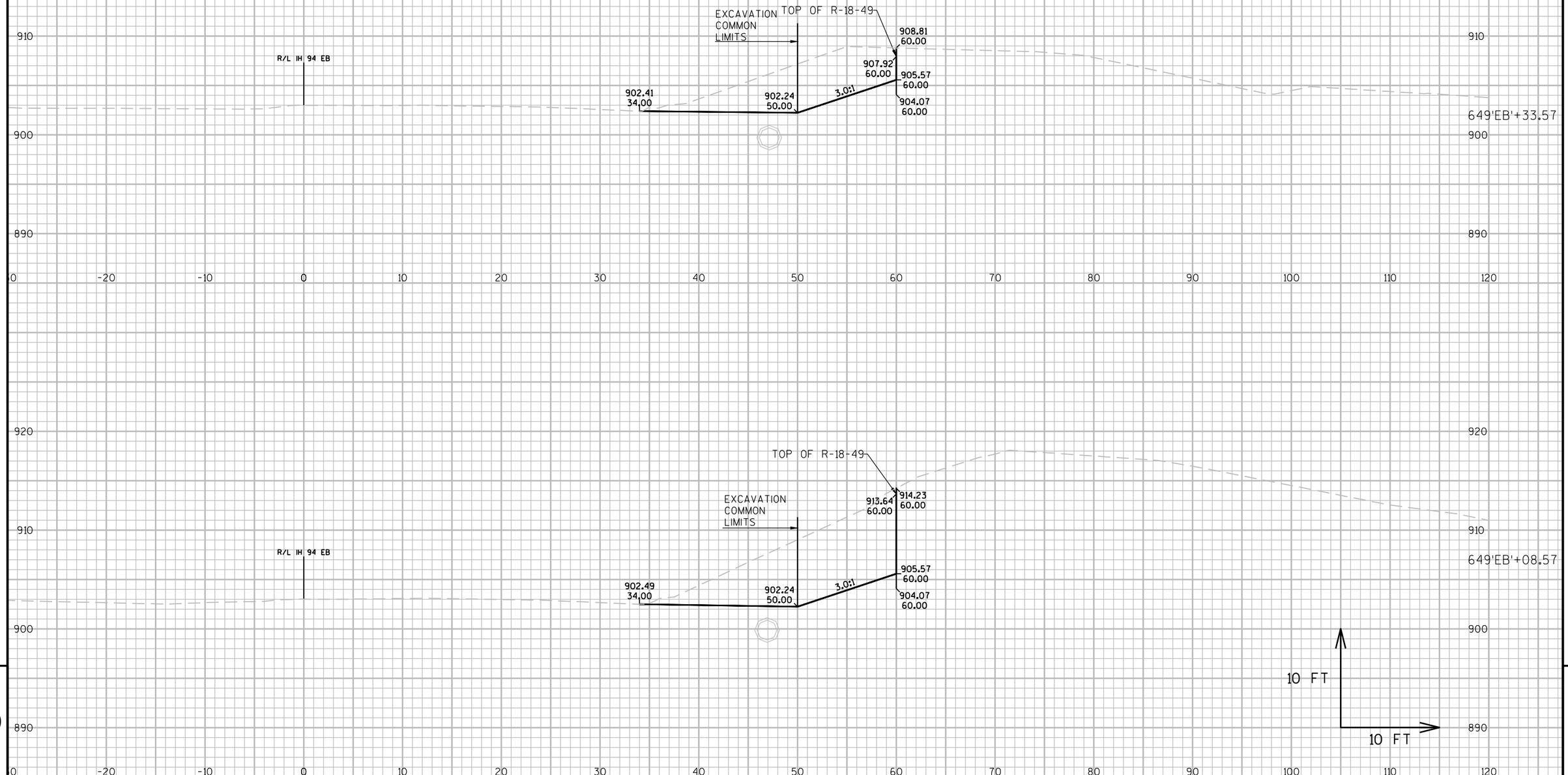
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 340	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (7)

PLOT DATE : 8/1/2017 7:39 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

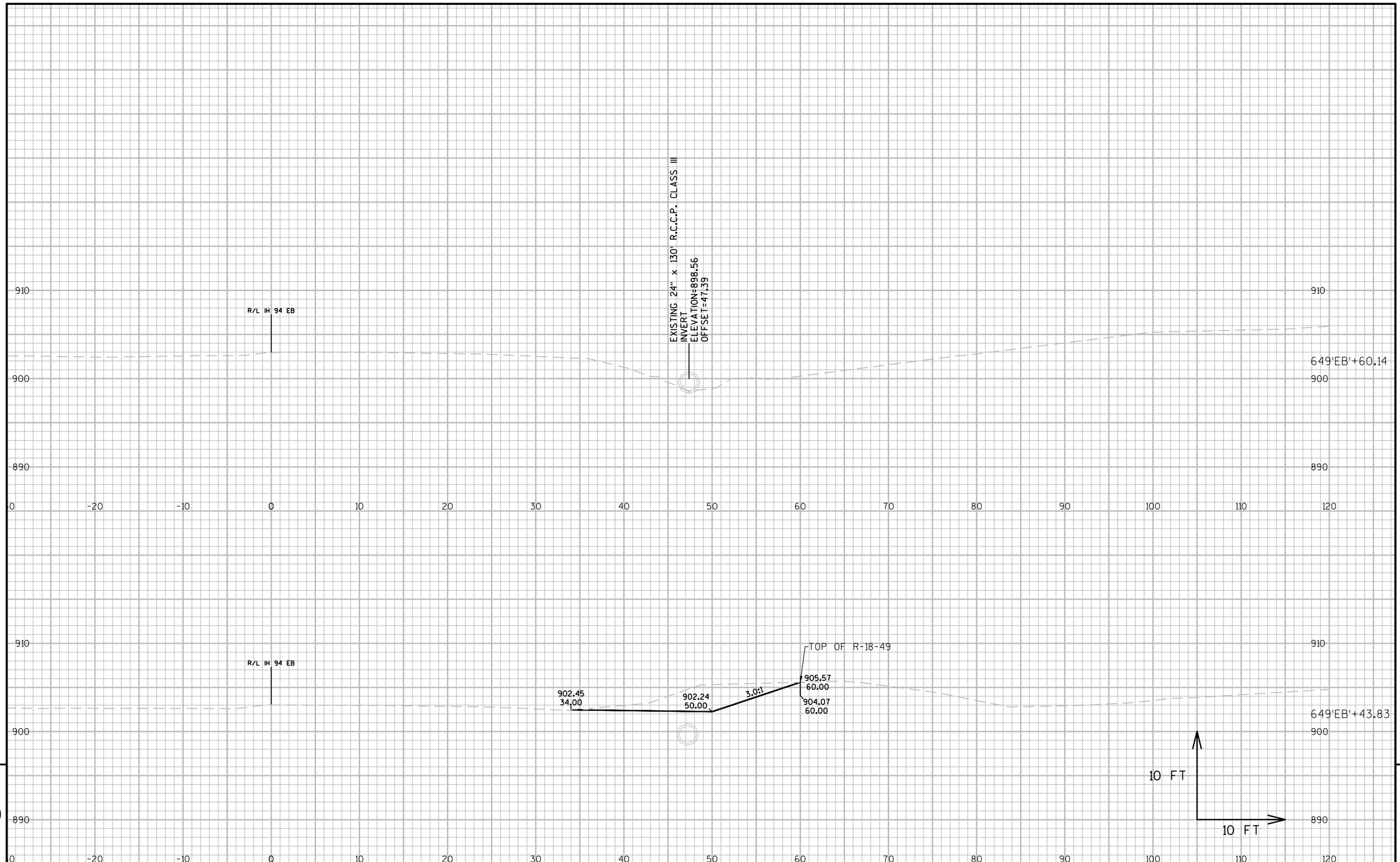
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 341	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (8)

PLOT DATE : 8/1/2017 7:40 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 342 E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-49_XS 1078.DWG
LAYOUT NAME - R-18-49 - (9)

PLOT DATE : 8/1/2017 7:40 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

910
900
890

R/L IH 94 EB

899.17
48.64

650'EB'+00.00

0 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

910
900
890

R/L IH 94 EB

899.04
48.34

649'EB'+75.00

10 FT
10 FT

9

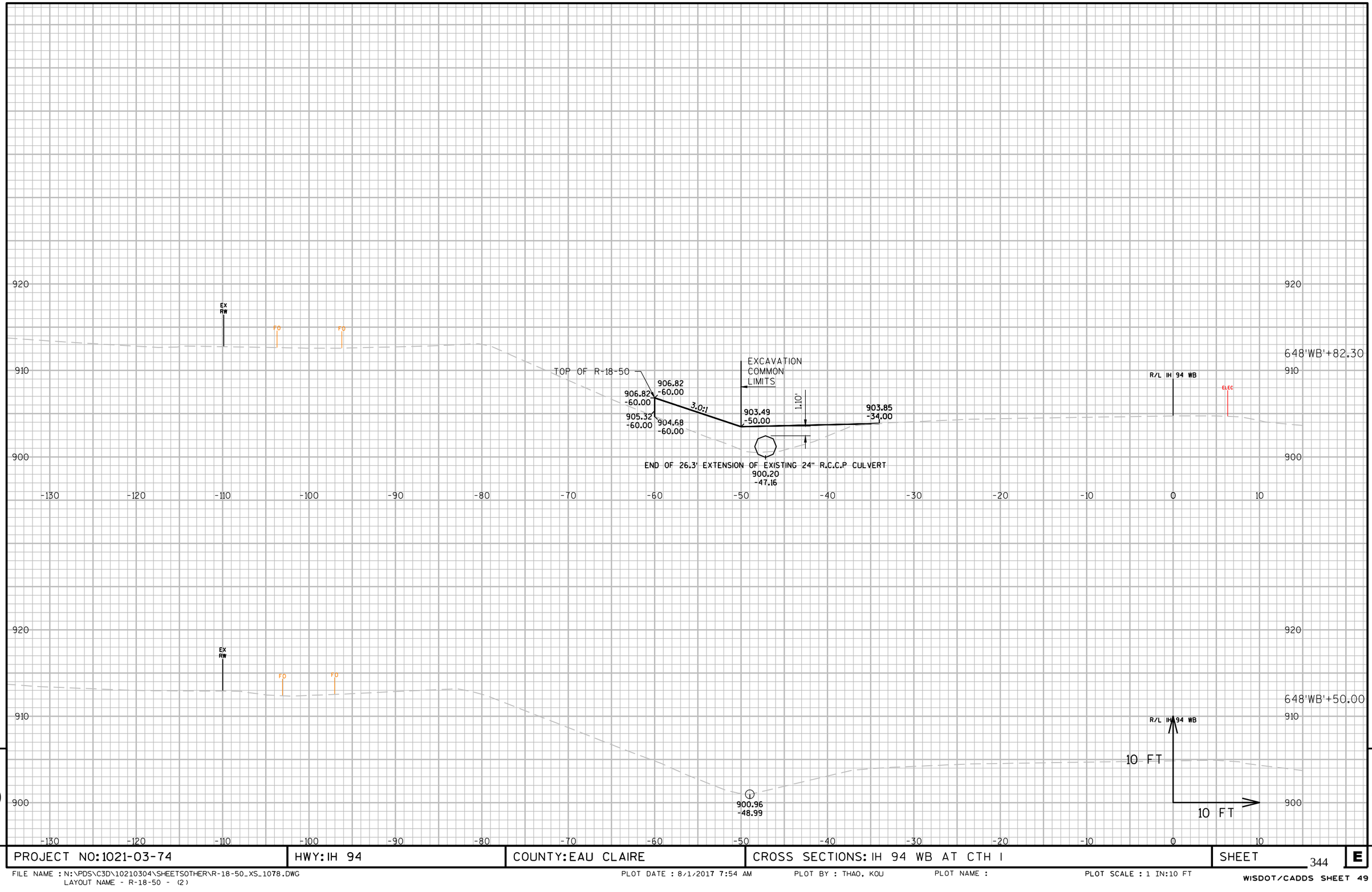
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 EB AT CTH I	SHEET 343	E

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

PLOT DATE : 8/1/2017 7:40 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

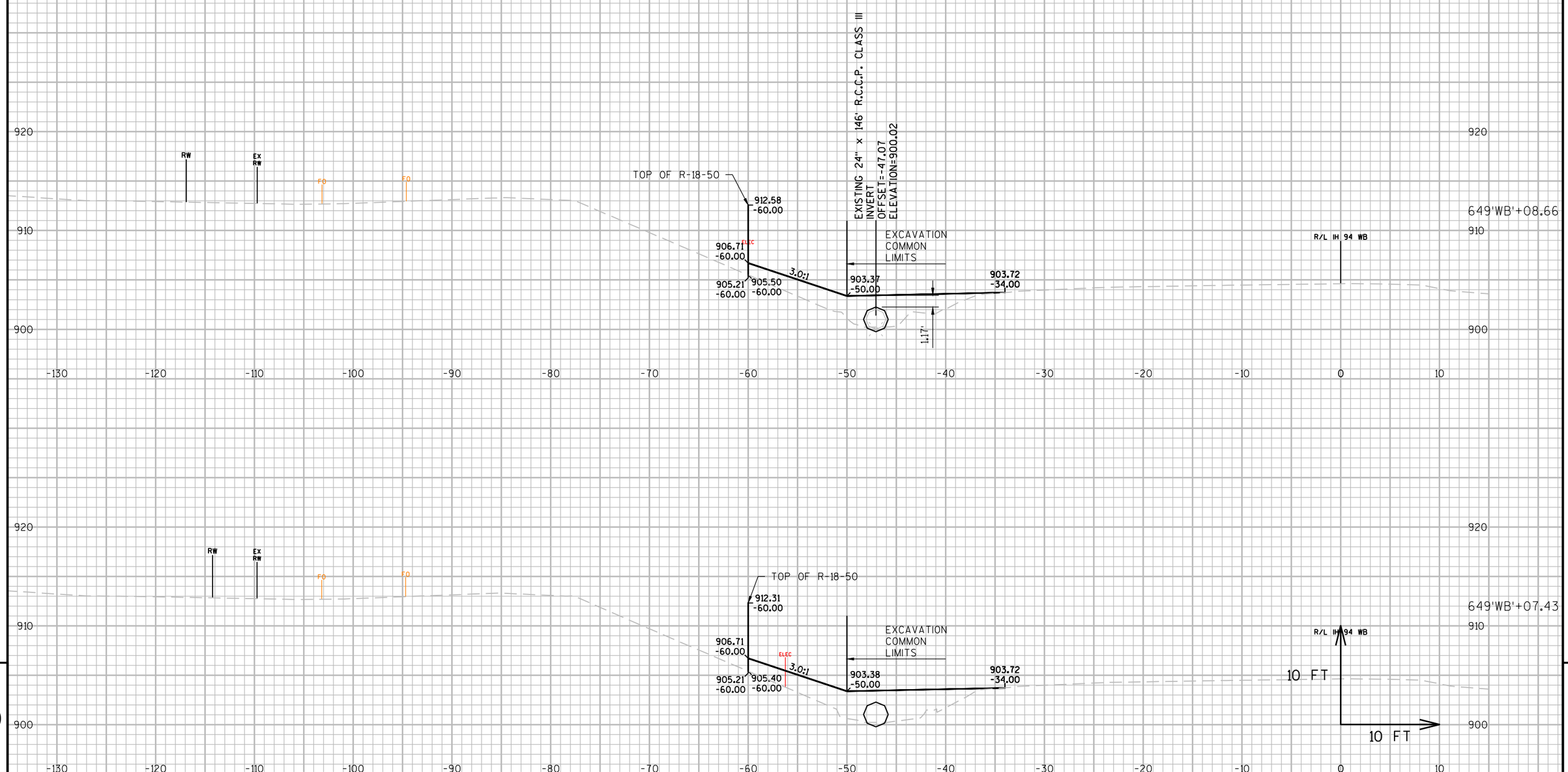
9

PROJECT NO:1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 344	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (2)

PLOT DATE : 8/1/2017 7:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

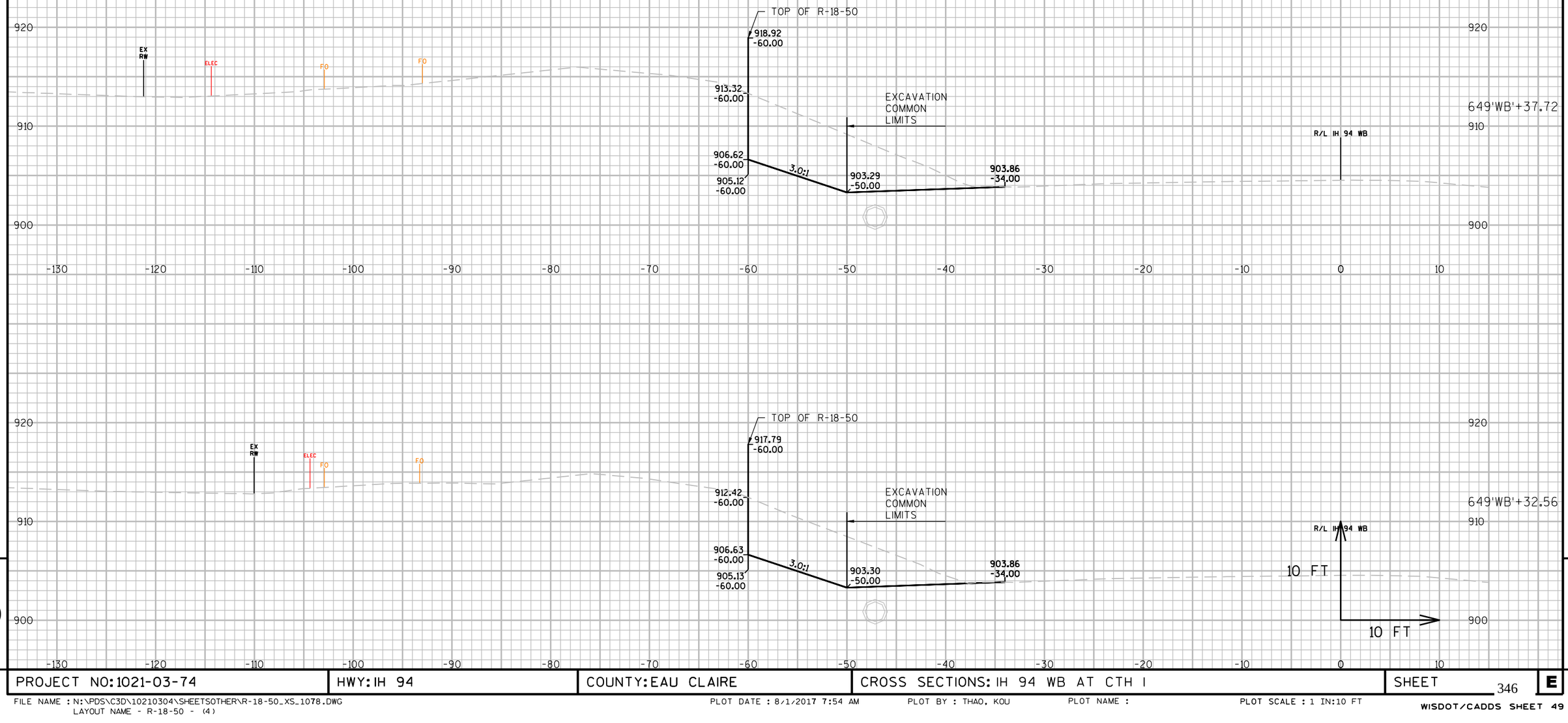
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 345	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (3)

PLOT DATE : 8/1/2017 7:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

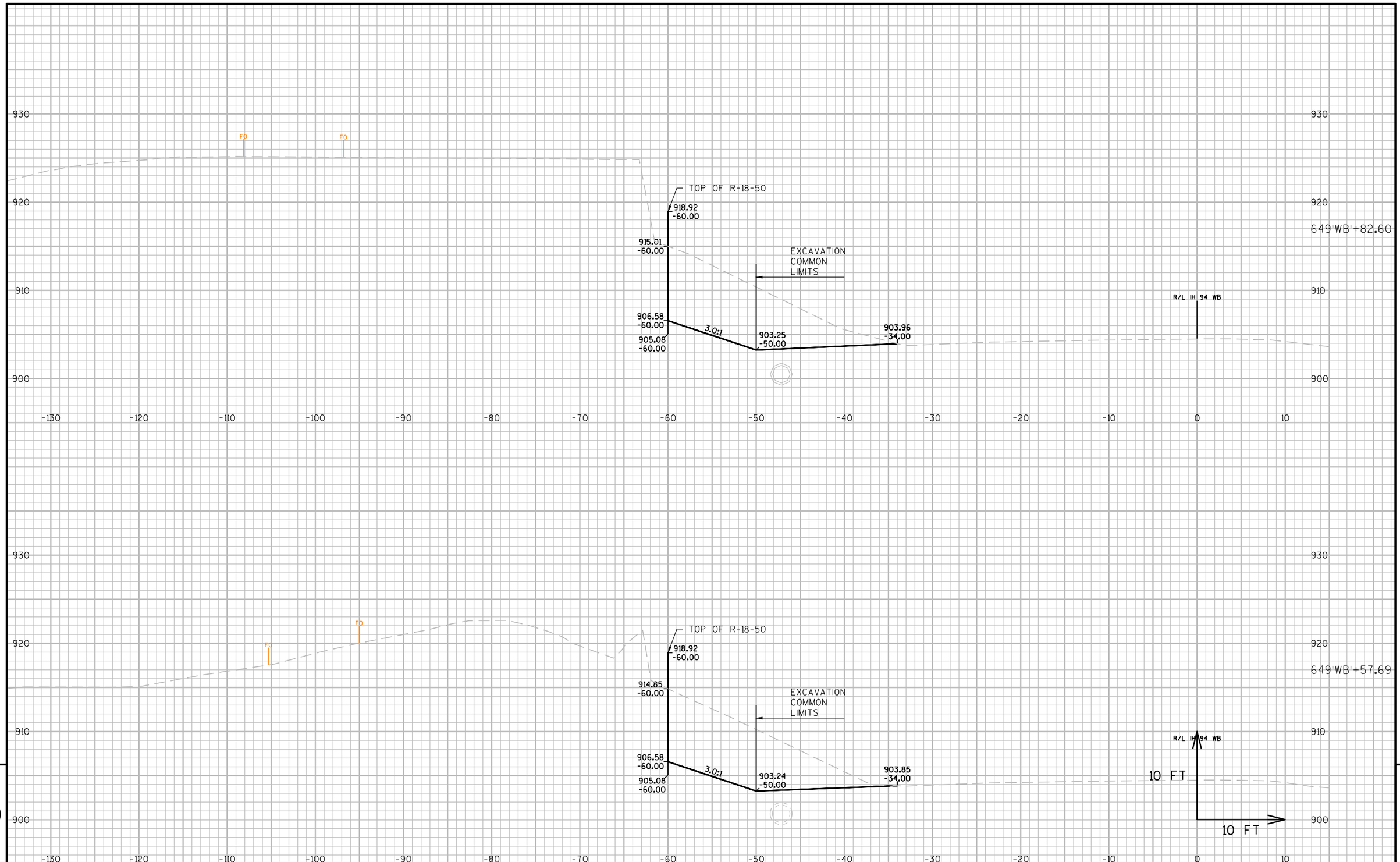
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 346	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (4)

PLOT DATE : 8/1/2017 7:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

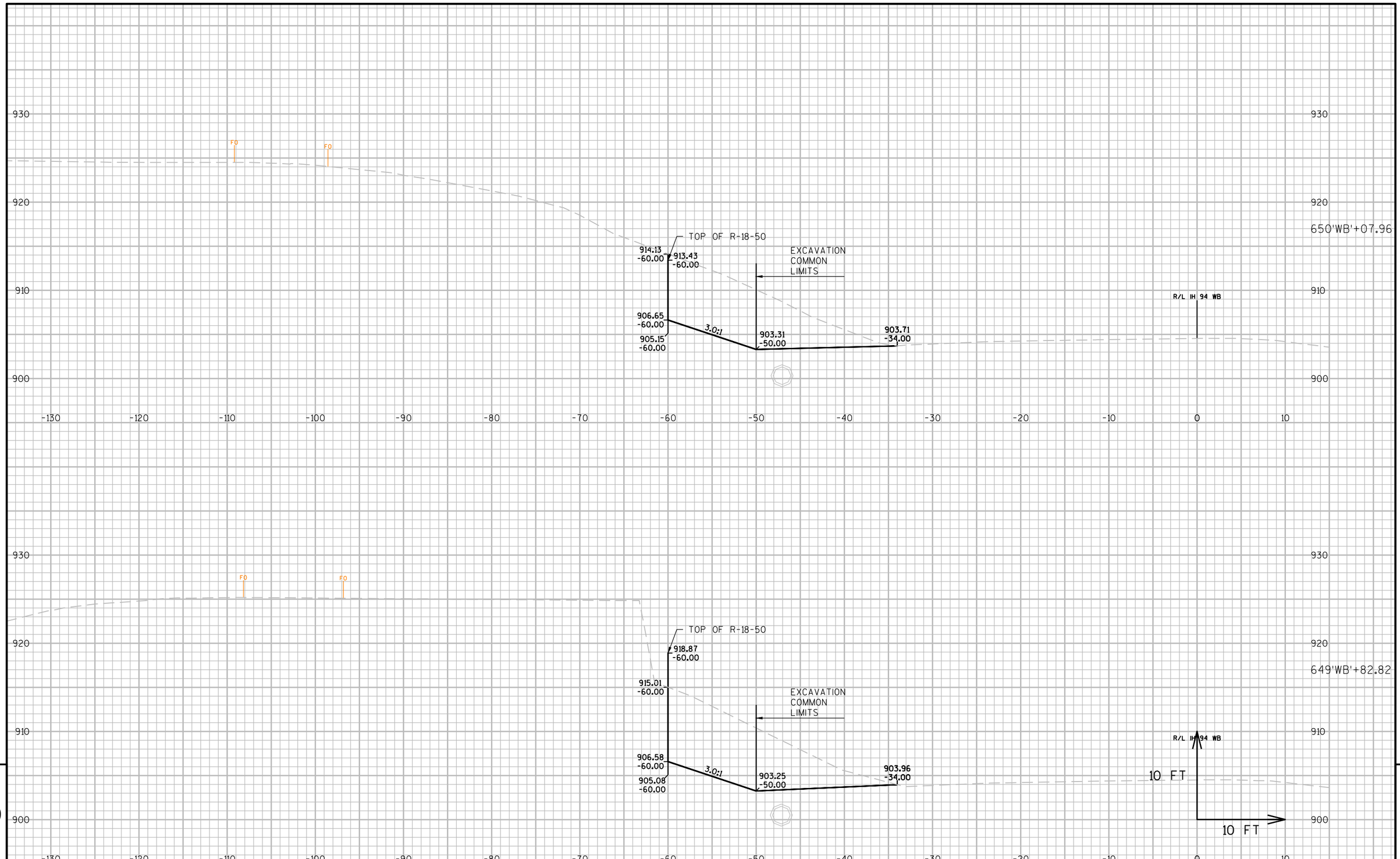
PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 347	E

9

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (5)

PLOT DATE : 8/1/2017 7:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

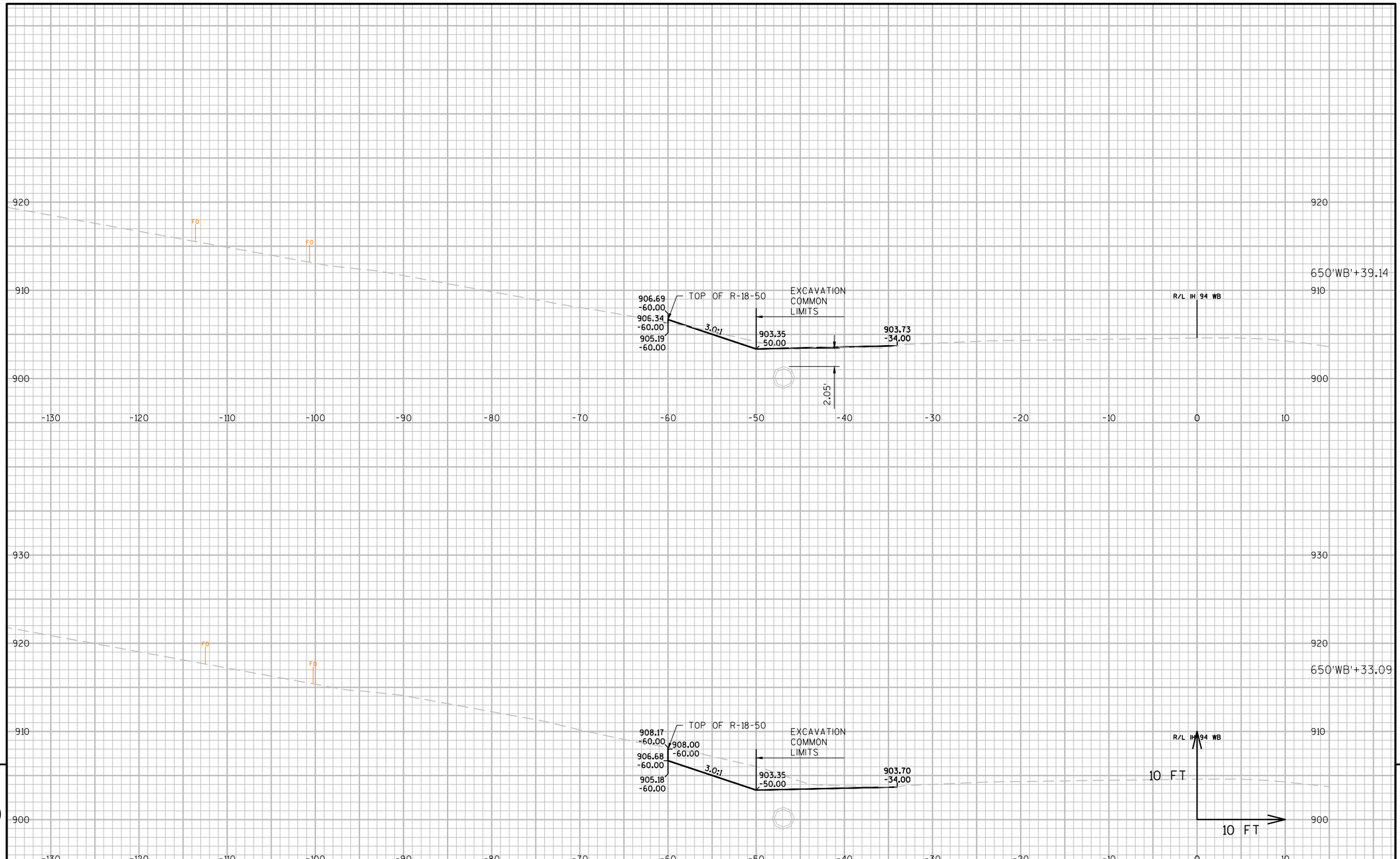
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PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 348	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (6)

PLOT DATE : 8/1/2017 7:54 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

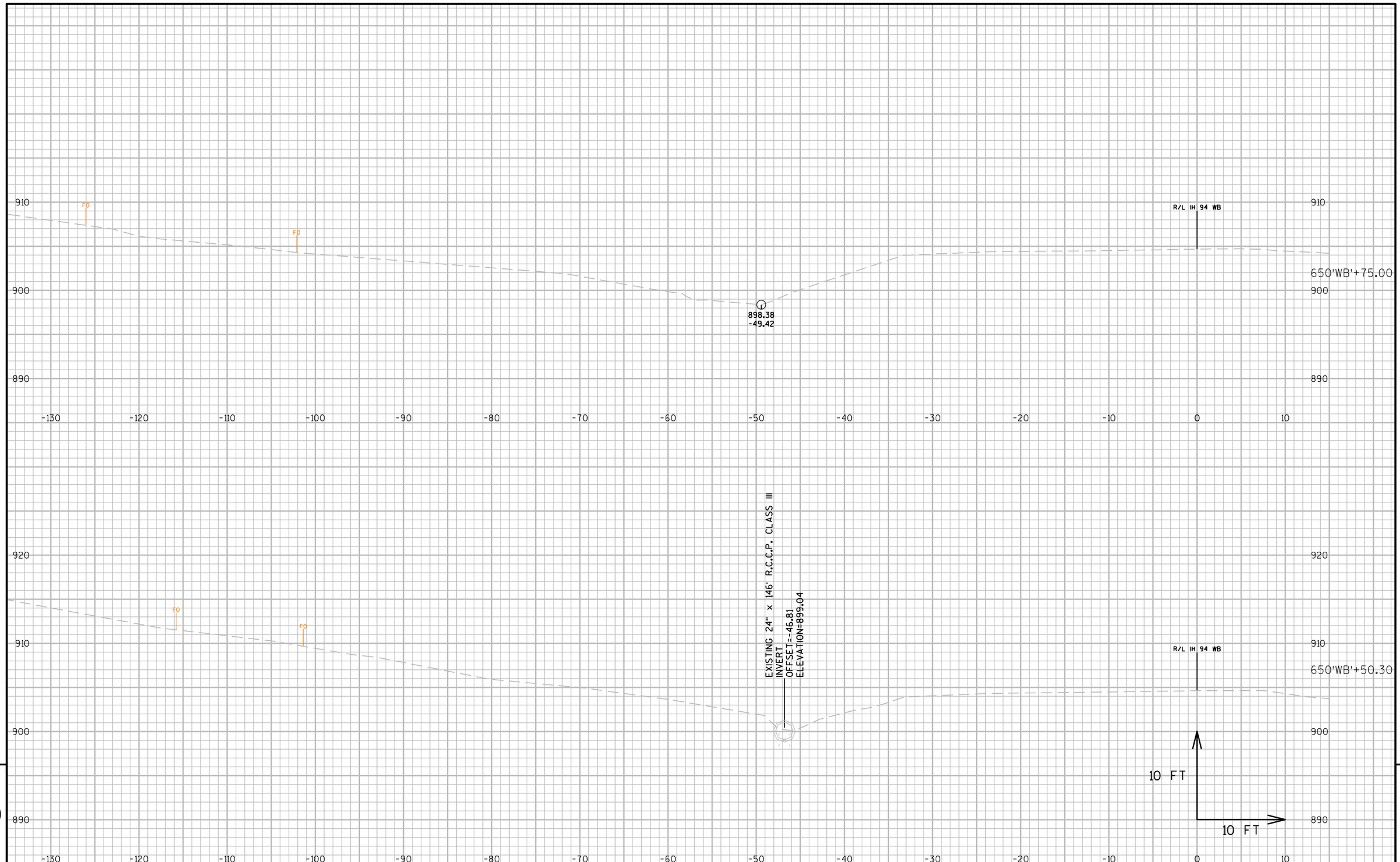
9

PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 349	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (7)

PLOT DATE : 8/1/2017 7:55 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1021-03-74	HWY: IH 94	COUNTY: EAU CLAIRE	CROSS SECTIONS: IH 94 WB AT CTH I	SHEET 350	E

FILE NAME : N:\PDS\C3D\10210304\SHEETSOTHER\R-18-50_XS_1078.DWG
LAYOUT NAME - R-18-50 - (8)

PLOT DATE : 8/1/2017 7:55 AM PLOT BY : THAO, KOU PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov