MAD

PROJECT ID: 1012-01-62

WITH: N/A

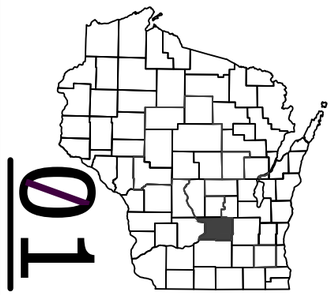
COUNTY: COLUMBIA

APRIL 2026

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 = 288



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MADISON - PORTAGE

STH 60 TO CTH CS

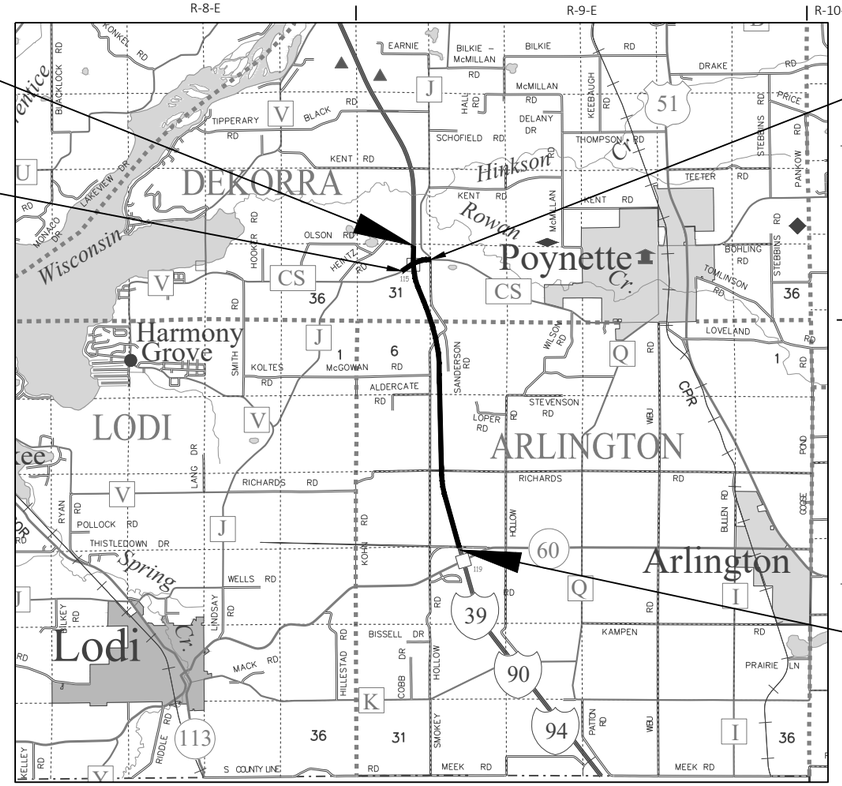
IH 39

COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1012-01-62		

STATE PROJECT NUMBER

1012-01-62



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 4.000 MILES

DESIGN DESIGNATION 1012-01-32

A.A.D.T.	2029	=	55,000
A.A.D.T.	2049	=	55,000
D.H.V.		=	7,425
D.D.		=	58/42
T.		=	32.5%
DESIGN SPEED		=	70 MPH
ESALS		=	44,000,000

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'EB')
- 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)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SURVEYOR
Designer	ERIK NILSON
Project Manager	GREG BRECKA, PE
Regional Examiner	SW REGION
Regional Supervisor	MARC SCHWEIGER, PE

APPROVED FOR THE DEPARTMENT

DATE: 2/11/26 (Signature)

E

FILE NAME : 010101-TI.DWG PLOT DATE : 2/9/2026 10:19 AM PLOT BY : NILSON, ERIK PLOT NAME :

GENERAL NOTES

1. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
2. PRIOR TO ORDERING CULVERT PIPE LINER, THE CONTRACTOR SHALL FIELD VERIFY RELATED CULVERT PIPE INFORMATION IN THE PLAN WITH THE ENGINEER.
3. BASE AGGREGATE DENSE 3/4-INCH WEIGHT CALCULATIONS ARE BASED ON 2.1 TONS/CY.
4. EXISTING PIPE CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR WILL BASE ITS BID ON THE ACTUAL FIELD CONDITIONS.
5. DISTURBED AREAS SHALL BE FERTILIZED, SEEDED, (NO. 40), AND MULCHED WITHIN 7 WORKING DAYS AFTER WORK IS COMPLETED.
6. A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.
7. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
8. TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.07 GAL./S.Y. AND SHALL BE PLACED BETWEEN THE MILLED EXISTING ASPHALTIC PAVEMENT AND THE NEW ASPHALTIC PAVEMENT.
9. HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
10. CURVE DATA IS BASED ON THE RADIUS DEFINITION.
11. ITEM BASE AGGREGATE DENSE 3/4-INCH WILL BE USED FOR GRADING AND SHAPING AT BEAM GUARD LOCATIONS PER THE ENGINEER.

ABBREVIATIONS

AHEAD	AH
BACK	BK
CENTERLINE	CL or C/L
CONCRETE	CONC
COUNTY TRUNK HIGHWAY	CTH
EXISTING	EX
GRID NORTH	GN
LEFT	LT
POINT OF TANGENCY	PT
REFERENCE LINE	RL or R/L
POINT OF CURVATURE	PC
POINT OF INTERSECTION	PI
RIGHT	RT
RIGHT OF WAY	RW or R/W
SQUARE FEET	SF
STATE TRUNK HIGHWAY	STH
STATION	STA
VOLUME	V

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRIC
RYAN SMEDEMA
2777 COLUMBIA DRIVE
PORTAGE, WI 53901
(608) 742-0848
(608) 963-0880 (MOBILE)
RYANSMEDEMA@ALLIANTENERGY.COM

ALLIANT ENERGY - GAS/PETROLEUM
RYAN SMEDEMA
2777 COLUMBIA DRIVE
PORTAGE, WI 53901
(608) 742-0848
(608) 963-0880 (MOBILE)
RYANSMEDEMA@ALLIANTENERGY.COM

AT&T LEGACY - COMMUNICATION LINE
VANESSA ROSS
555 E. COOK STREET
SPRINGFIELD, IL 62703
(217) 814-2314
VF2021@ATT.COM

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
DOUG VOSBERG
2489 RINDEN ROAD
COTTAGE GROVE, WI 53527
(608) 877-7650
DVOSBERG@ATCLLC.COM

BRIGHTSPEED OF WESTERN WISCONSIN, LLC - COMMUNICATION LINE
SCOTT HEINZELMAN
144 NORTH PEARL STREET
BERLIN, WI 54923
(980) 376-1653
(920) 757-4802
SCOTT.HEINZELMAN@BRIGHTSPEED.COM

EVERSTREAM - COMMUNICATION LINE
SHAD GARCIA
324 EAST WISCONSIN AVENUE, SUITE 730
MILWAUKEE, WI 53202
(414) 522-6685
SGARCIA@EVERSTREAM.NET

MADISON GAS AND ELECTRIC COMPANY - GAS/PETROLEUM
JOHN WICHERN
623 RAILROAD STREET
MADISON, WI 53703
(608) 252-1563
JWICHERN@MGE.COM

SPECTRUM - COMMUNICATION LINE
JOHNATHAN HALL
2701 DANIELS ST
MADISON, WI 53718
(608) 419-5462
JOHNATHAN.HALL@CHARTER.COM

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN SHEETS
CONCRETE PAVEMENT PATCH LOCATIONS
TRAFFIC CONTROL
DETOUR PLAN
ALIGNMENT DATA

WISDOT DESIGN PROJECT MANAGER

GREG BRECKA, PE
SOUTHWEST REGION, MADISON OFFICE
2101 WRIGHT ST
MADISON, WI 53704
(608) 516-6524
GREGORY.BRECKA@DOT.WI.GOV

WISDOT DESIGN CONTACT

ERIK NILSON
SOUTHWEST REGION, MADISON OFFICE
2101 WRIGHT ST
MADISON, WI 53704
(608) 516-6571
ERIK.NILSON@DOT.WI.GOV

WISDNR

(SOUTHWEST REGION)
ERIC HEGGELUND
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
(608) 228-7927
ERIC.HEGGELUND@WISCONSIN.GOV

BEGIN PROJECT
1349+95 EB
X=535694.4864
Y=341163.1902

END CONSTRUCTION
62+00 CS

BEGIN CONSTRUCTION
39+50 CS

END PROJECT
1561+15 EB

Rowan

Poynette

Cr.

Harmony Grove

LODI

ARLINGTON

Arlington

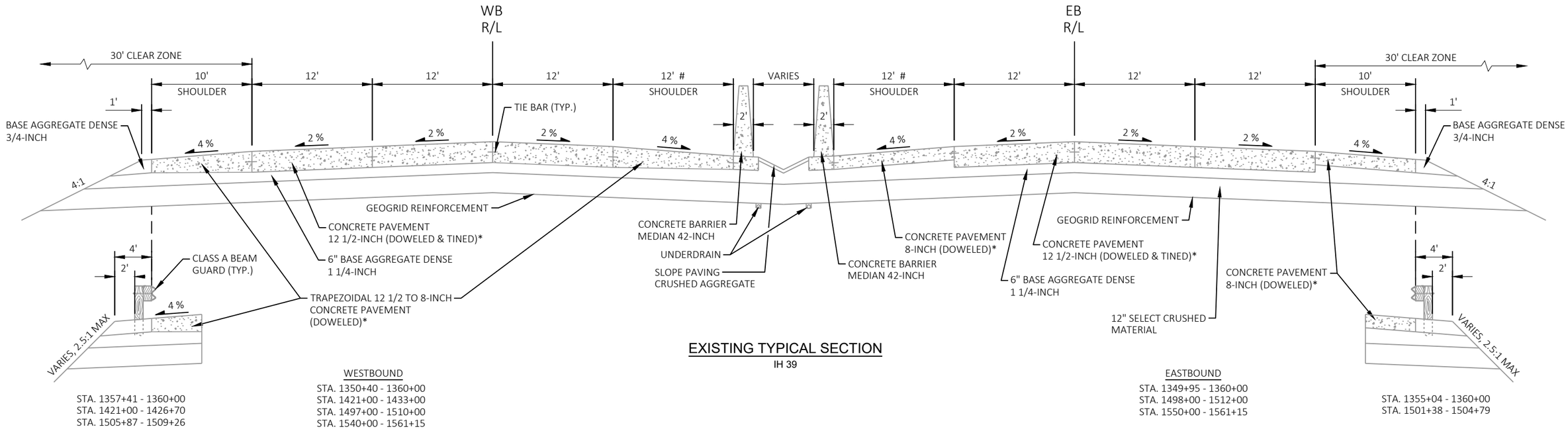
OLSON RD
HOOKER RD
HEINTZ RD
KENT RD
McMILLAN
BOHLING RD
STEBBINS RD
TOMLINSON RD
LOVELAND RD
SMITH RD
KOLTES RD
McGOWAN RD
ALDERCATE RD
SANDERSON RD
WILSON RD
STEVENSON RD
LOPER RD
CPR
WBU
LANG DR
RICHARDS RD
BULLEN RD
KOHN RD
PINE HOLLOW RD
THISTLEDOWN DR
WELLS RD
LINDSAY RD
BISSELL DR
KAMPEN RD

CS
V
J
Q
I
36
1
6
15
119
60
39

N

2

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION
IH 39

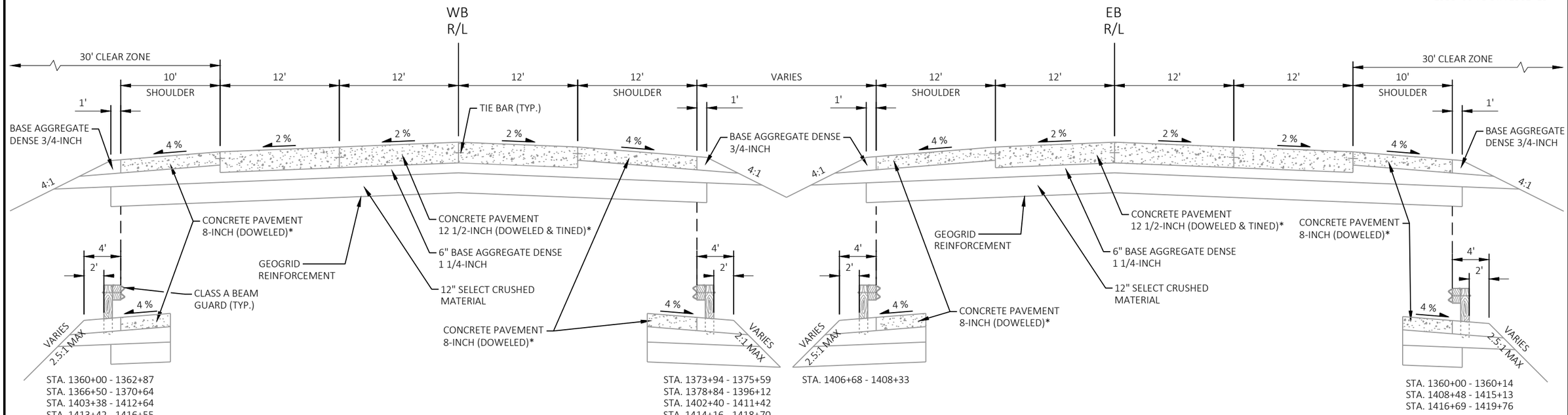
WESTBOUND
STA. 1357+41 - 1360+00
STA. 1421+00 - 1426+70
STA. 1505+87 - 1509+26

WESTBOUND
STA. 1350+40 - 1360+00
STA. 1421+00 - 1433+00
STA. 1497+00 - 1510+00
STA. 1540+00 - 1561+15

EASTBOUND
STA. 1349+95 - 1360+00
STA. 1498+00 - 1512+00
STA. 1550+00 - 1561+15

EASTBOUND
STA. 1355+04 - 1360+00
STA. 1501+38 - 1504+79

\# VARIES 12' - 15', FROM STA 1558+00 TO STA 1561+15



EXISTING TYPICAL SECTION
IH 39

WESTBOUND
STA. 1360+00 - 1362+87
STA. 1366+50 - 1370+64
STA. 1403+38 - 1412+64
STA. 1413+42 - 1416+55
STA. 1419+91 - 1421+00

WESTBOUND
STA. 1360+00 - 1421+00

STA. 1373+94 - 1375+59
STA. 1378+84 - 1396+12
STA. 1402+40 - 1411+42
STA. 1414+16 - 1418+70

STA. 1406+68 - 1408+33

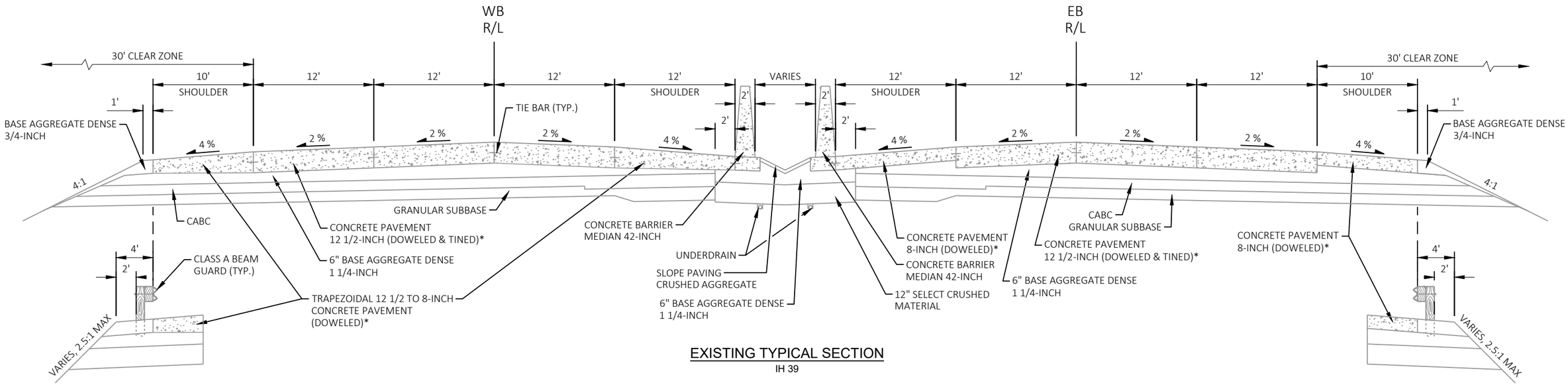
EASTBOUND
STA. 1360+00 - 1430+00

STA. 1360+00 - 1360+14
STA. 1408+48 - 1415+13
STA. 1416+69 - 1419+76

* NOMINAL THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 4	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020301-TS.DWG
LAYOUT NAME - 01-10ft
PLOT DATE : 9/30/2025 5:17 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION

IH 39

STA. 1440+95 - 1442+85
STA. 1459+78 - 1474+05

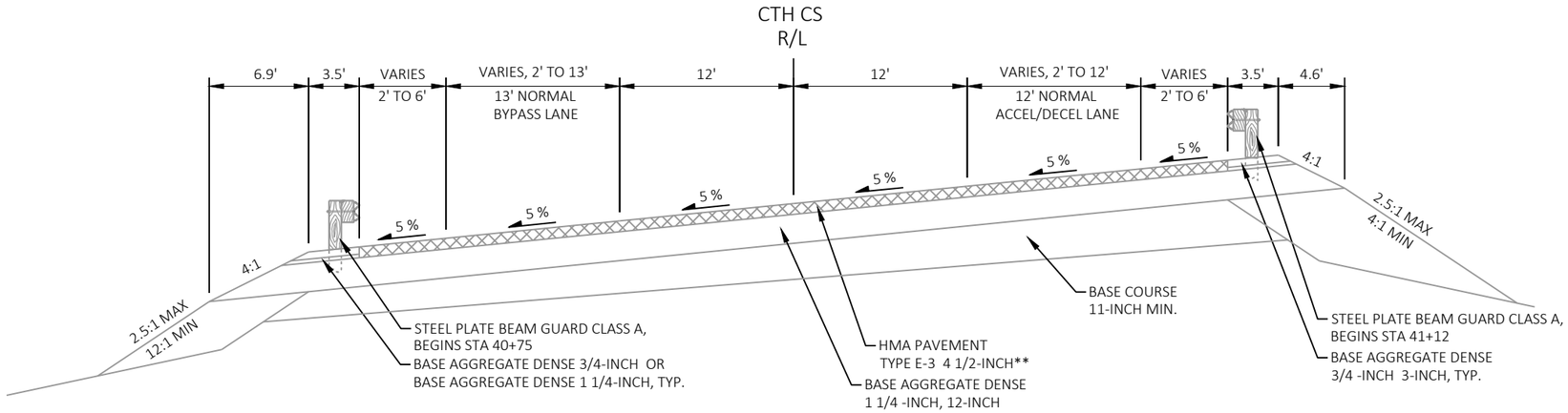
WESTBOUND
STA. 1433+00 - 1497+00
STA. 1510+00 - 1540+00

EASTBOUND
STA. 1430+00 - 1498+00
STA. 1512+00 - 1550+00

STA. 1466+17 - 1469+95

* NOMINAL THICKNESS BASED ON PAST
PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 5	E

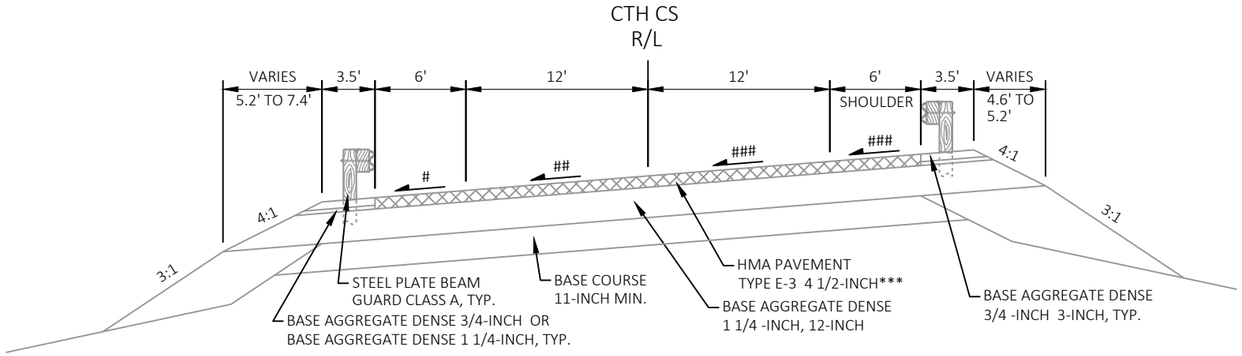


EXISTING TYPICAL SECTION

CTH CS

STA 39+50 - 46+87

** STA 43+50 TO STA 48+23, THICKNESS VARIES FROM 4 1/2-INCH TO 8-INCH. PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-



EXISTING TYPICAL SECTION

CTH CS

STA 46+87 - 48+38

\# VARIES 5% TO 4%
\## VARIES 5% TO 2%
\### VARIES 5% TO -2%

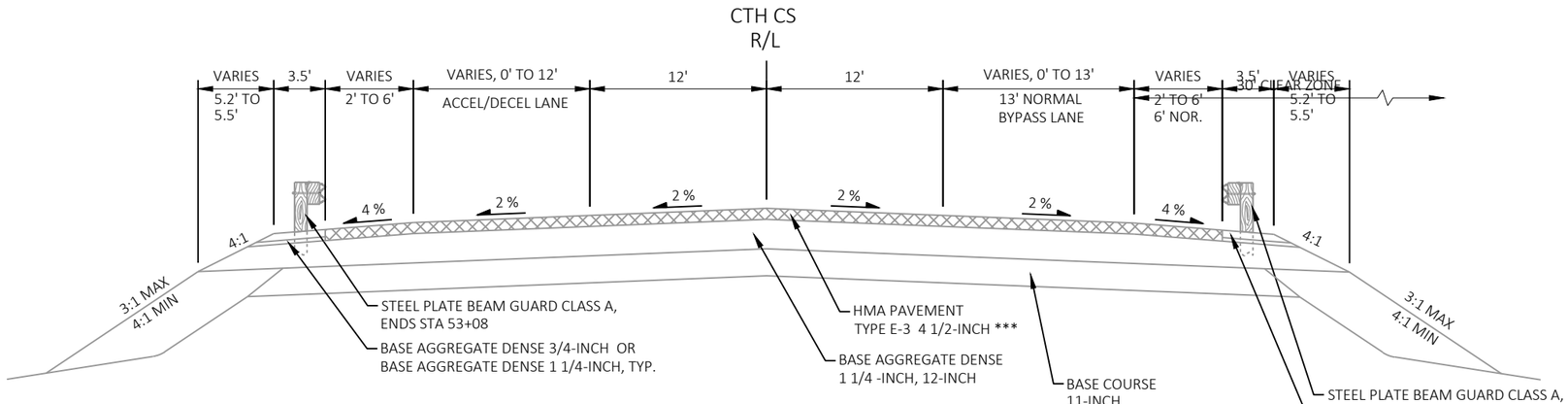
*** NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020301-TS.DWG
LAYOUT NAME - 03-10ft

PLOT DATE : 9/30/2025 5:17 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT

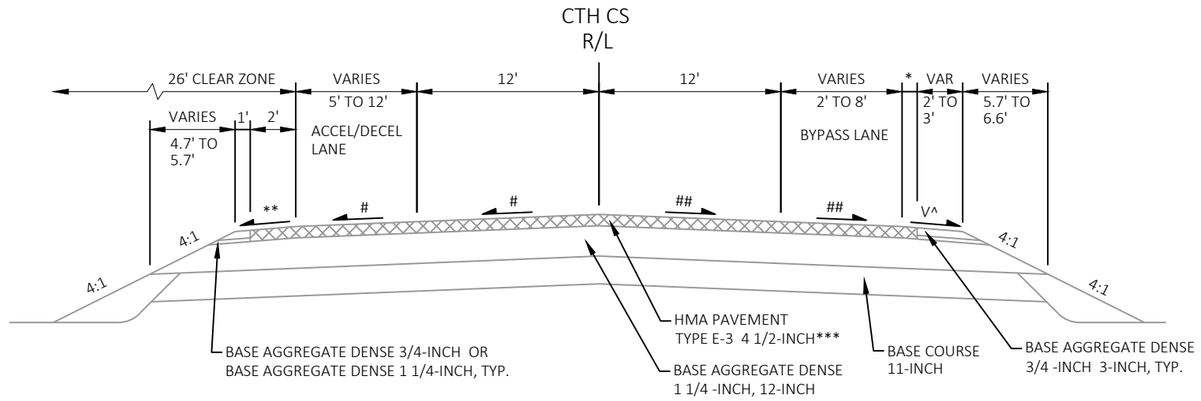
WISDOT/CADDS SHEET 42



*** STA 51+08 TO STA 54+00
THICKNESS VARIES FROM
8-INCH TO 4 $\frac{1}{2}$-INCH

EXISTING TYPICAL SECTION

CTH CS
STA 50+82 - 58+84



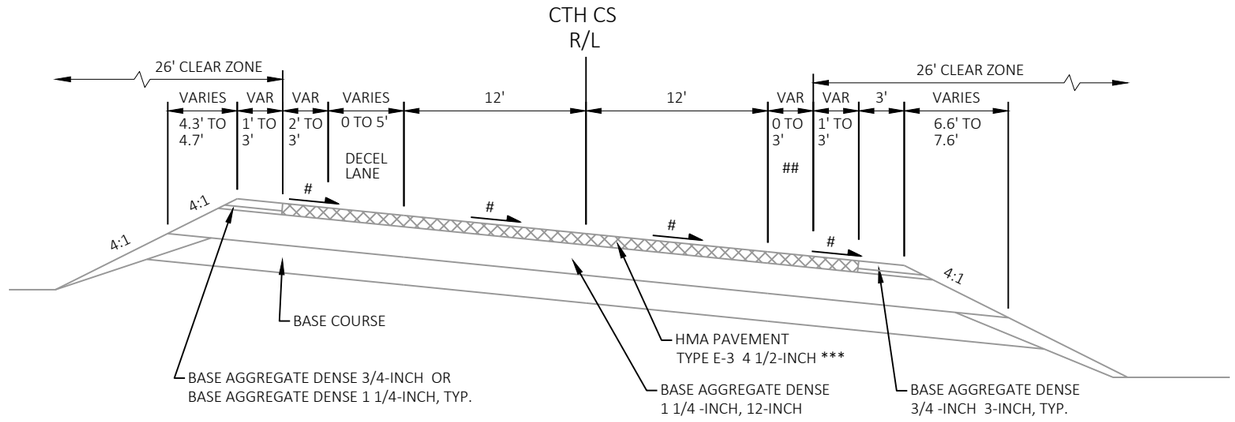
* VARIES, 0 TO 1'
** VARIES, 4% TO -4.1%
\# VARIES, 2% TO -4.1%
VARIES, 2% TO 4.1%
V^ VARIES, 4% TO 4.1%

EXISTING TYPICAL SECTION

CTH CS
STA 58+84 - 60+30

*** NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 7	E



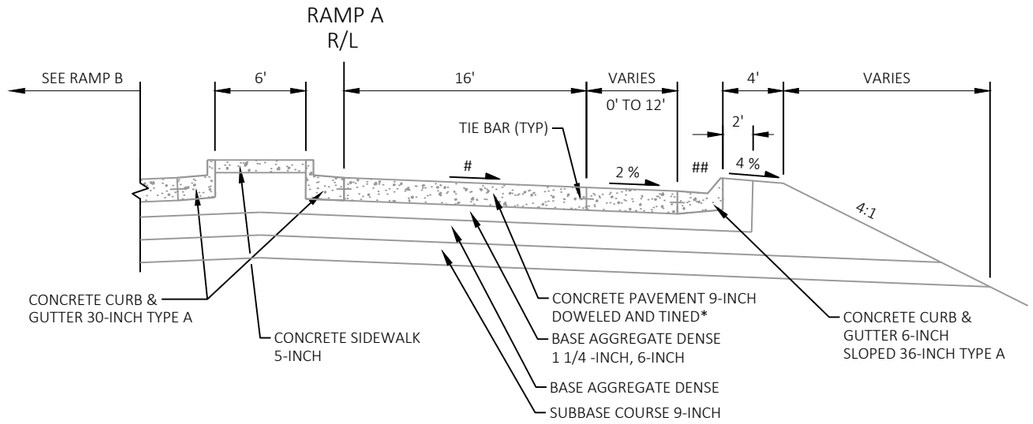
VARIES, 4.1% TO 7%
BYPASS LANE

EXISTING TYPICAL SECTION

CTH CS
STA 60+30 - 62+00

*** NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 8	E

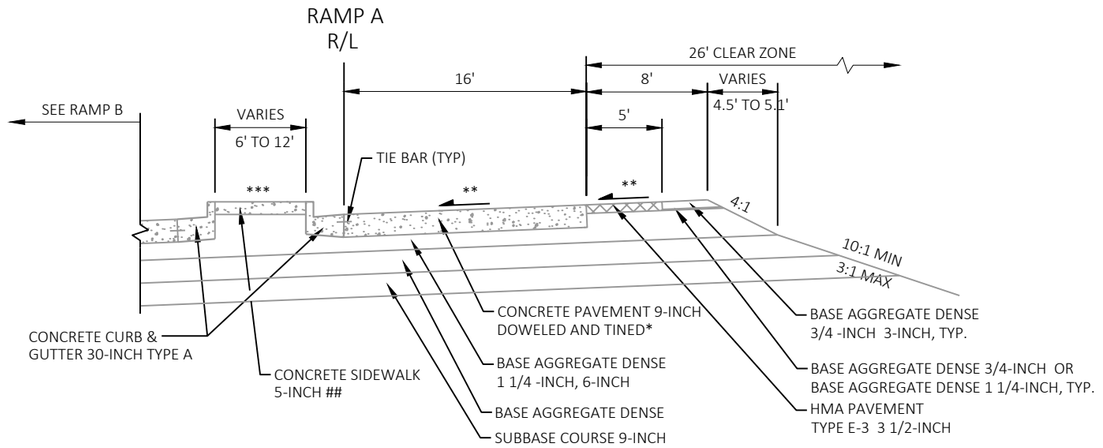


EXISTING TYPICAL SECTION

RAMP A

STA 260'A'+47 - 261'A'+93

\# VARIES, -2% TO 2%
\## CONCRETE CURB & GUTTER ENDS AT STA 260'A'+89



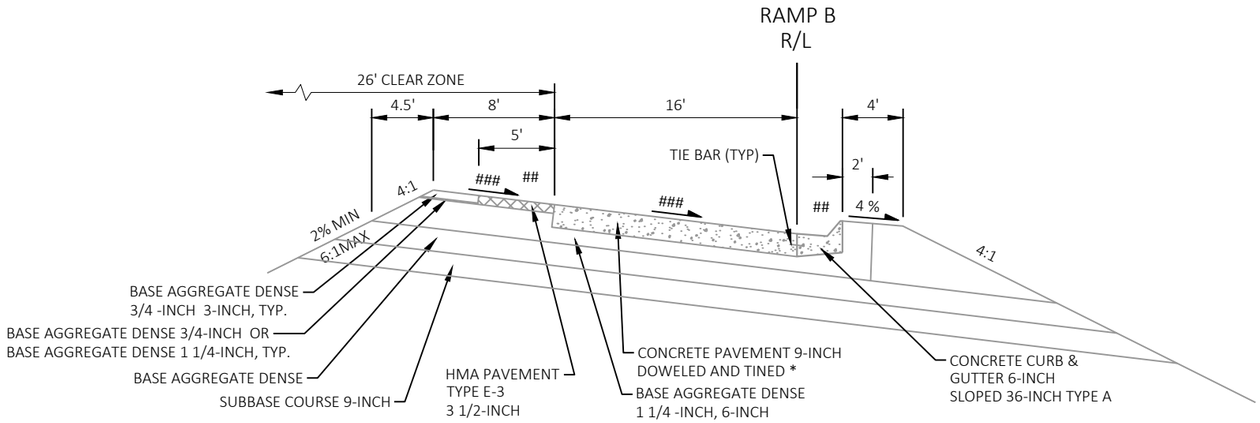
EXISTING TYPICAL SECTION

RAMP A

STA 261'A'+93 - 273'A'+00

** VARIES, 2% TO 5.4%
*** RAMP MEDIAN ISLAND ENDS AT STA 263'A'+60. RURAL SHOULDER STA 263'A'+60 TO 270'A'+00.

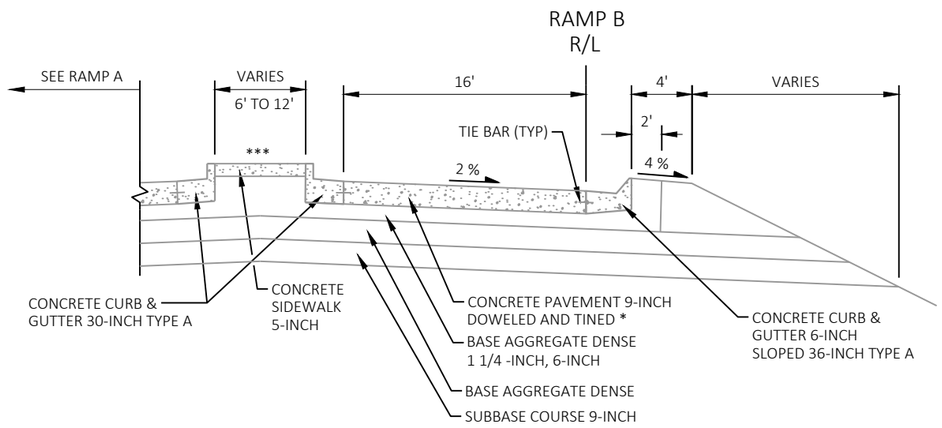
* NOMINAL THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-



EXISTING TYPICAL SECTION

RAMP B
STA 358'B'+18 - 366'B'+91

BEGINS 363'B'+36
VARIES, 8% MAX



EXISTING TYPICAL SECTION

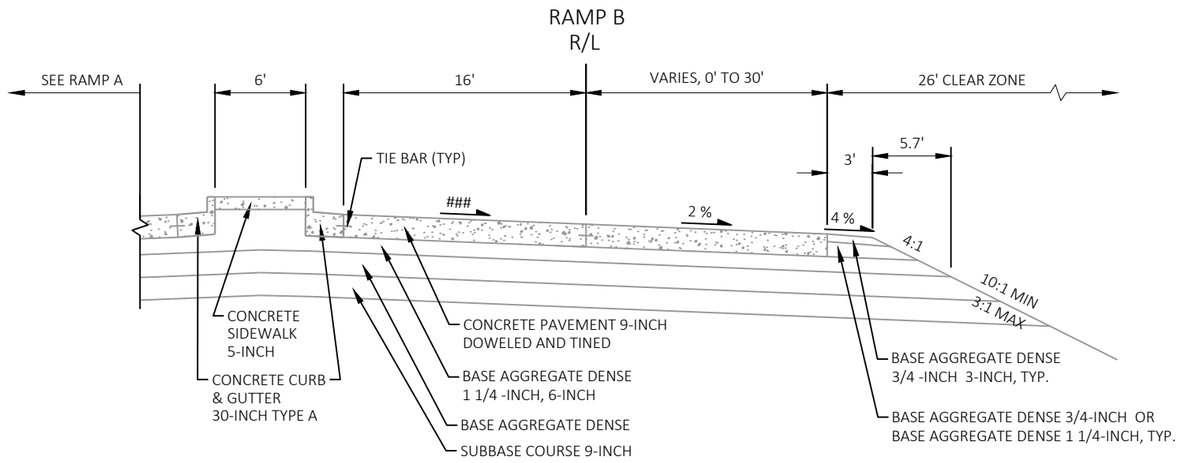
RAMP B
STA 366'B'+91 - 368'B'+29

*** BEGINS 366'B'+96

* NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 10	E

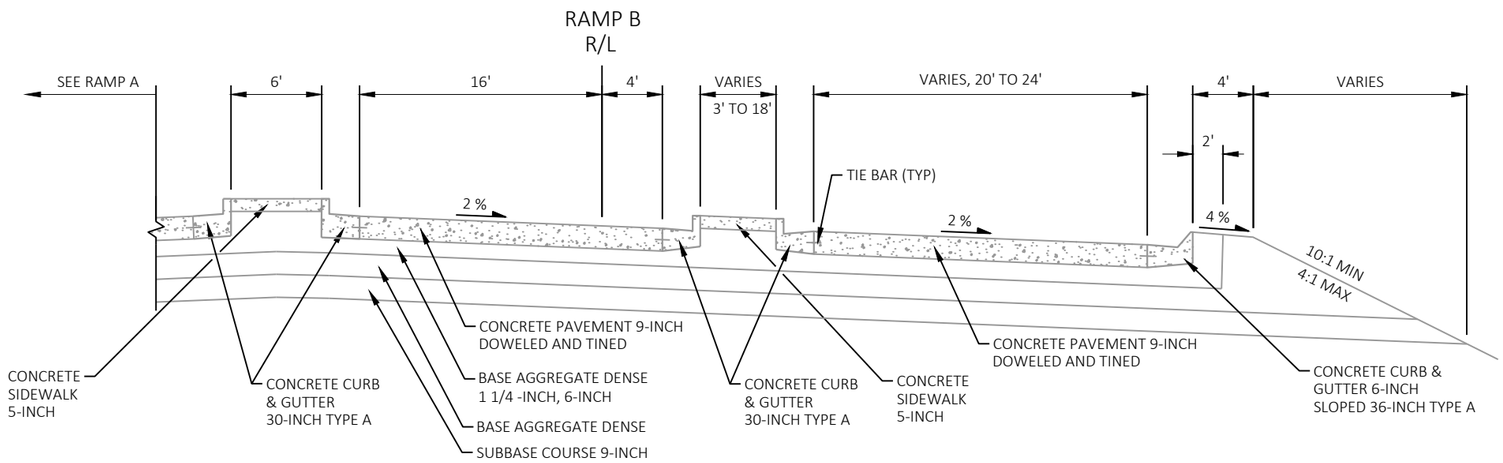
FILE NAME : N:\PDS\C3D\10120132\SHEETS\020302-TS.DWG
LAYOUT NAME - 01-10ft
PLOT DATE : 1/28/2026 1:06 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT



VARIES, 2% TO 3%

EXISTING TYPICAL SECTION

RAMP B
STA 368'B'+29 - 369'B'+46

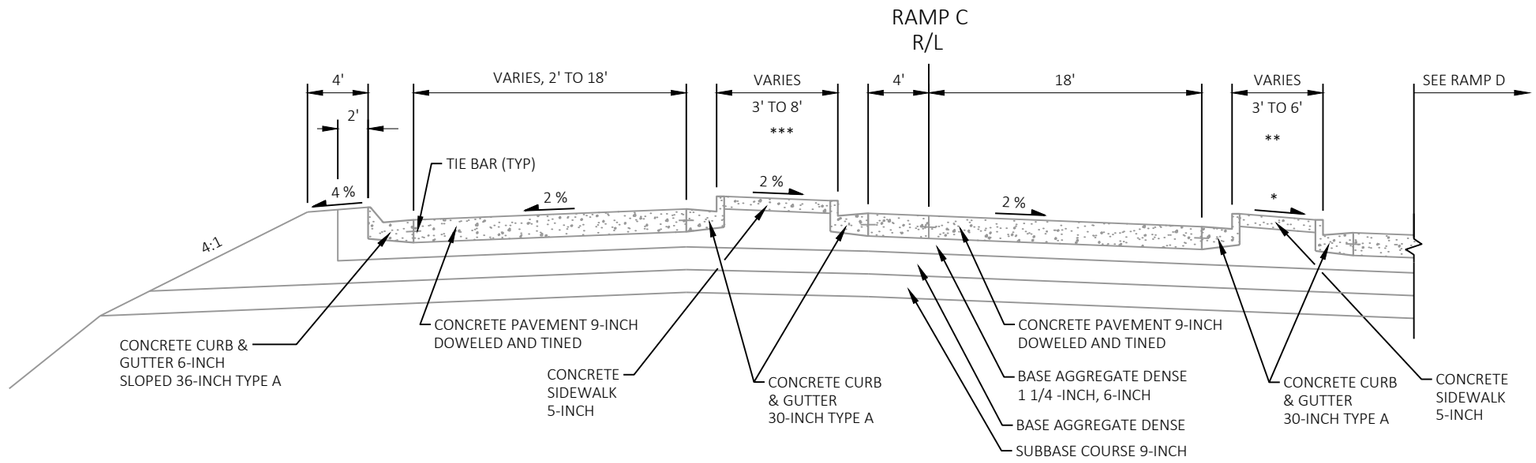


EXISTING TYPICAL SECTION

RAMP B
STA 369'B'+46 - 369'B'+88

NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

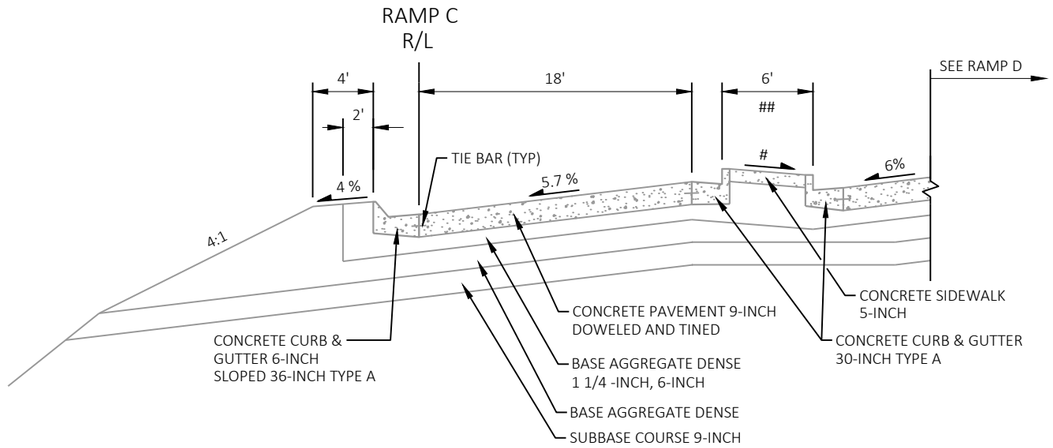
2



* VARIES, 3% TO 7%
** MEDIAN ISLAND BEGINS AT STA 1347'C'+21
*** TRIANGLE ISLAND BETWEEN STA 1347'C'+17 - 1347'C'+45

EXISTING TYPICAL SECTION

RAMP C
STA 1347'C'+17 - 1348'C'+55

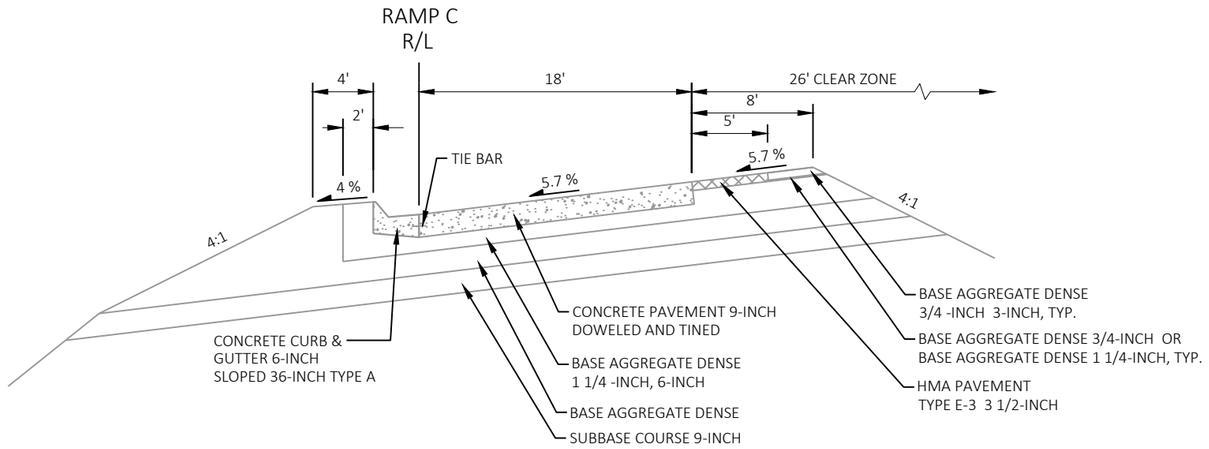


\# VARIES, 3% TO 10%
\## ENDS 1351'C'+36

EXISTING TYPICAL SECTION

RAMP C
STA 1348'C'+55 - 1354'C'+20

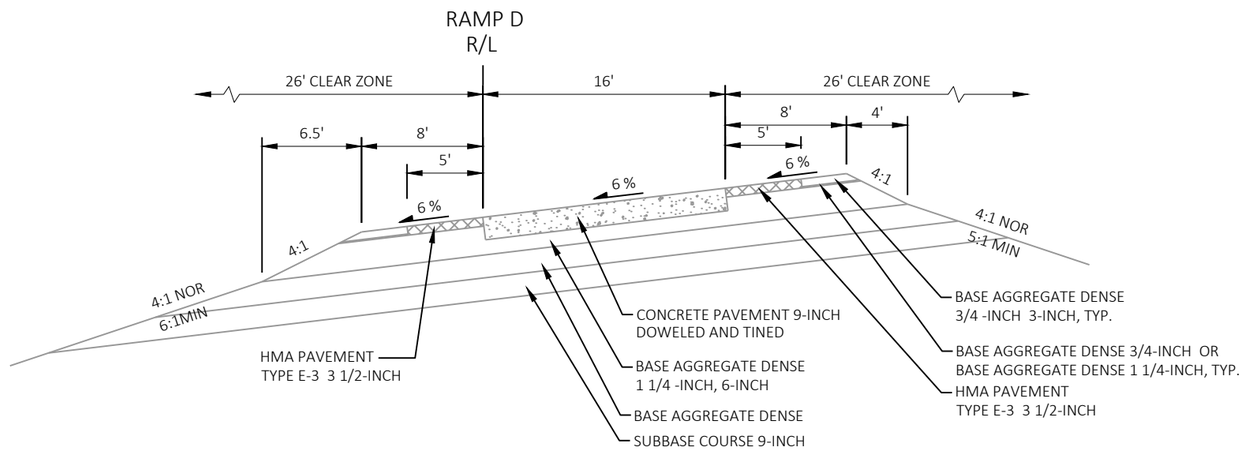
NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-



EXISTING TYPICAL SECTION

RAMP C

STA 1354'C'+20 - 1355'C'+32



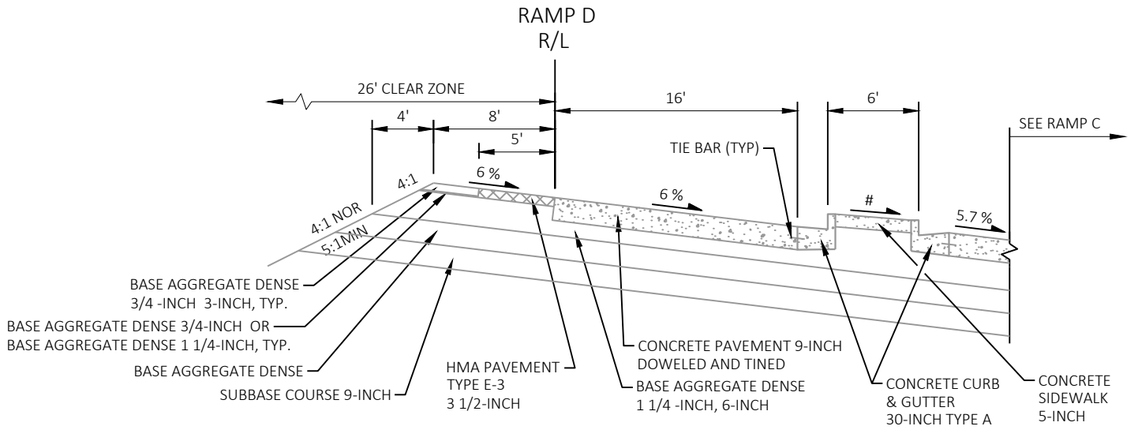
EXISTING TYPICAL SECTION

RAMP D

STA 1349'D'+06 - 1353'D'+26

NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

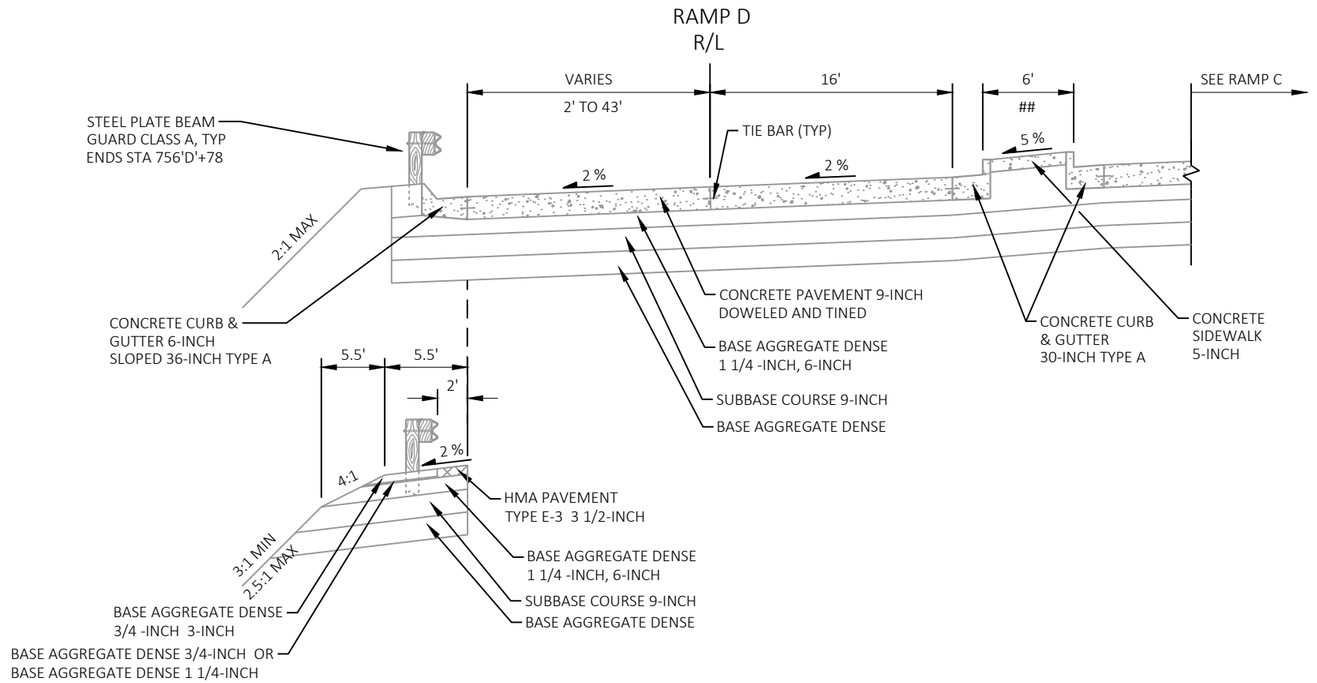
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 13	E



VARIES, 10% MAX

EXISTING TYPICAL SECTION

RAMP D
STA 1353'D'+26 - 1356'D'+72



STA 1356'D'+72 - 1357'D'+59

EXISTING TYPICAL SECTION

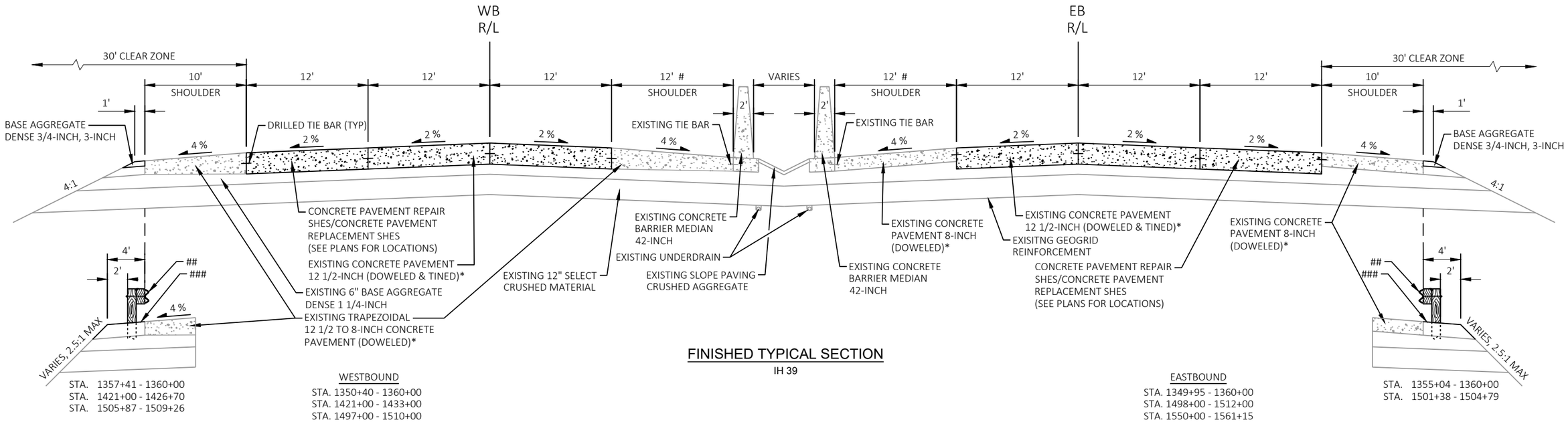
RAMP D
STA 1356'D'+72 - 1358'D'+04

MEDIAN ISLAND ENDS AT STA 1357'D'+86

NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 14	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020302-TS.DWG
LAYOUT NAME - 05-10ft
PLOT DATE : 9/30/2025 5:13 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



FINISHED TYPICAL SECTION

IH 39

WESTBOUND

STA. 1357+41 - 1360+00
STA. 1421+00 - 1426+70
STA. 1505+87 - 1509+26

STA. 1350+40 - 1360+00
STA. 1421+00 - 1433+00
STA. 1497+00 - 1510+00
STA. 1540+00 - 1561+15

EASTBOUND

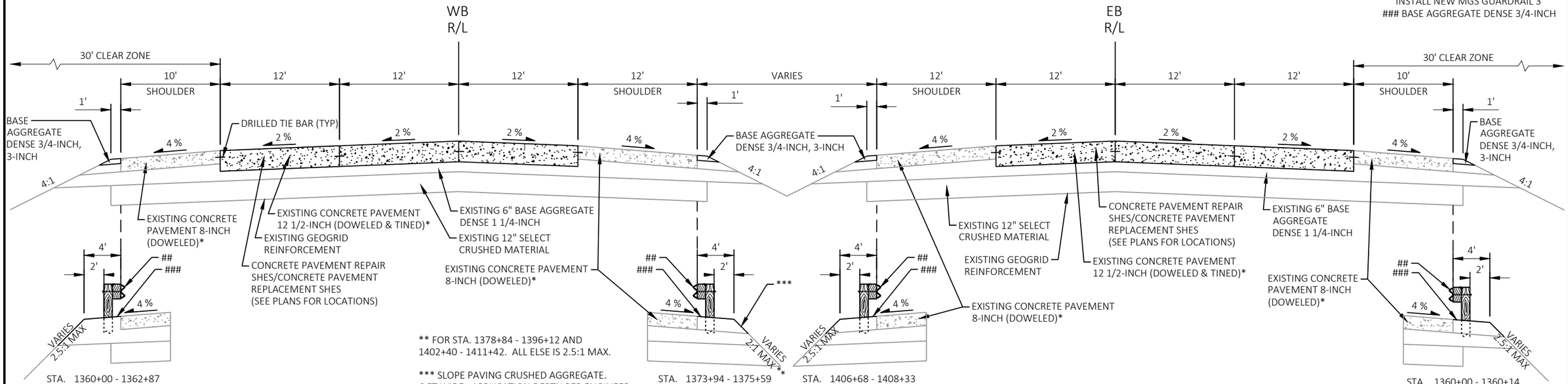
STA. 1349+95 - 1360+00
STA. 1498+00 - 1512+00
STA. 1550+00 - 1561+15

STA. 1355+04 - 1360+00
STA. 1501+38 - 1504+79

\# VARIES 12' - 15', FROM STA 1558+00 TO STA 1561+15

REMOVE EXISTING BEAM GUARD AND INSTALL NEW MGS GUARDRAIL 3

BASE AGGREGATE DENSE 3/4-INCH



** FOR STA. 1378+84 - 1396+12 AND 1402+40 - 1411+42. ALL ELSE IS 2.5:1 MAX.

*** SLOPE PAVING CRUSHED AGGREGATE. 6 FT WIDE. APPLICATION DEPTH PER ENGINEER. USED AT STA. 1378+84 - 1395+11 AND 1402+40 - 1410+42.

WESTBOUND

STA. 1360+00 - 1362+87
STA. 1366+50 - 1370+64
STA. 1403+38 - 1412+64
STA. 1413+42 - 1416+55
STA. 1419+91 - 1421+00

STA. 1360+00 - 1421+00

STA. 1373+94 - 1375+59
STA. 1378+84 - 1396+12
STA. 1402+40 - 1411+42
STA. 1414+16 - 1418+70

STA. 1406+68 - 1408+33

EASTBOUND

STA. 1360+00 - 1430+00

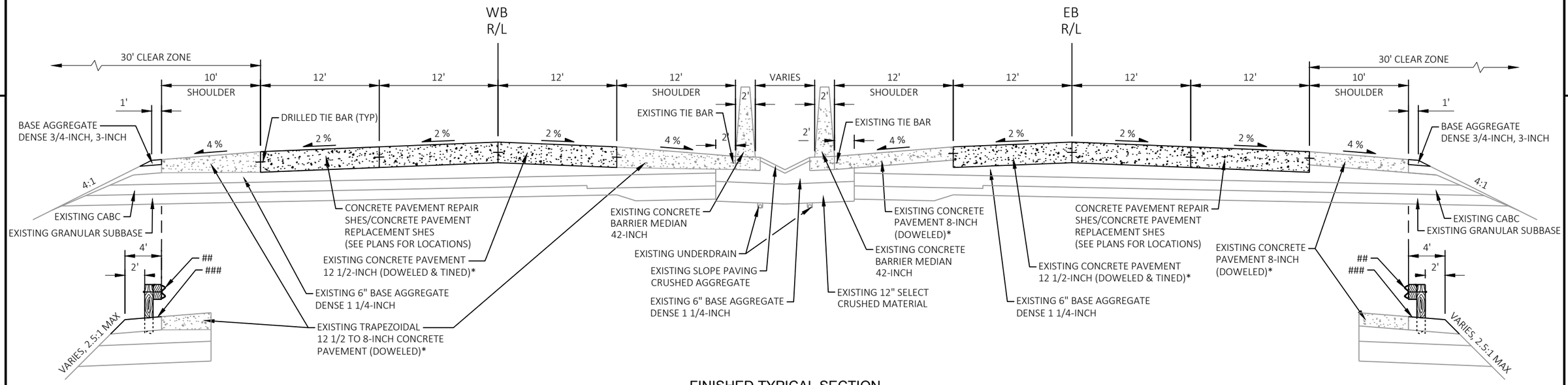
STA. 1360+00 - 1360+14
STA. 1408+48 - 1415+13
STA. 1416+69 - 1419+76

FINISHED TYPICAL SECTION

IH 39

* NOMINAL THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 15	E



STA. 1440+95 - 1442+85
STA. 1459+78 - 1474+05

WESTBOUND
STA. 1433+00 - 1497+00
STA. 1510+00 - 1540+00

FINISHED TYPICAL SECTION

IH 39

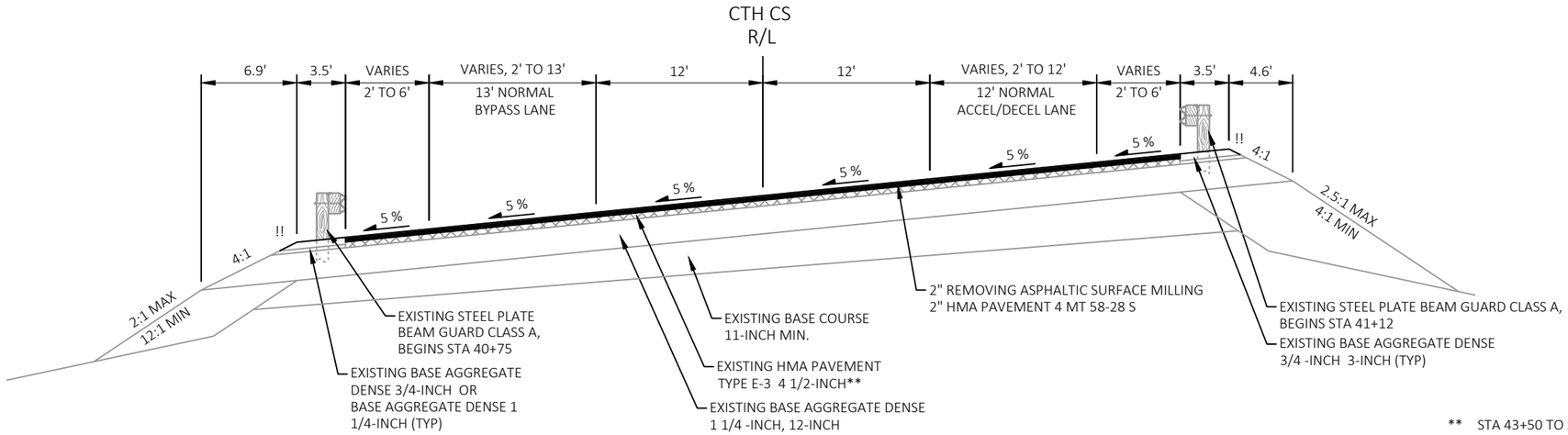
EASTBOUND
STA. 1430+00 - 1498+00
STA. 1512+00 - 1550+00

STA. 1466+17 - 1469+95

REMOVE EXISTING BEAM GUARD AND INSTALL NEW MGS GUARDRAIL 3
BASE AGGREGATE DENSE 3/4-INCH

* NOMINAL THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 16	E

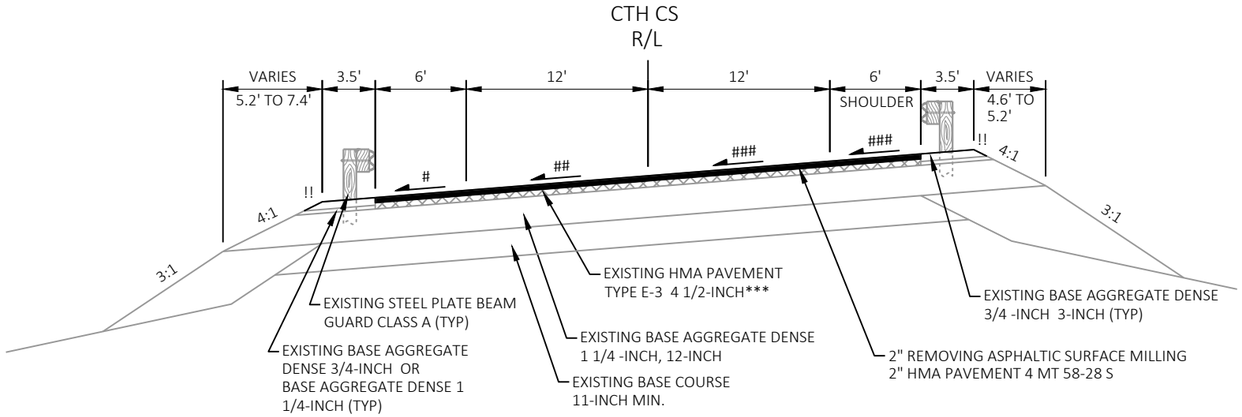


FINISHED TYPICAL SECTION

CTH CS
STA 39+50 - 46+87

** STA 43+50 TO STA 48+23, THICKNESS VARIES FROM 4 ½-INCH TO 8-INCH. PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

!! SHAPING SHOULDERS



FINISHED TYPICAL SECTION

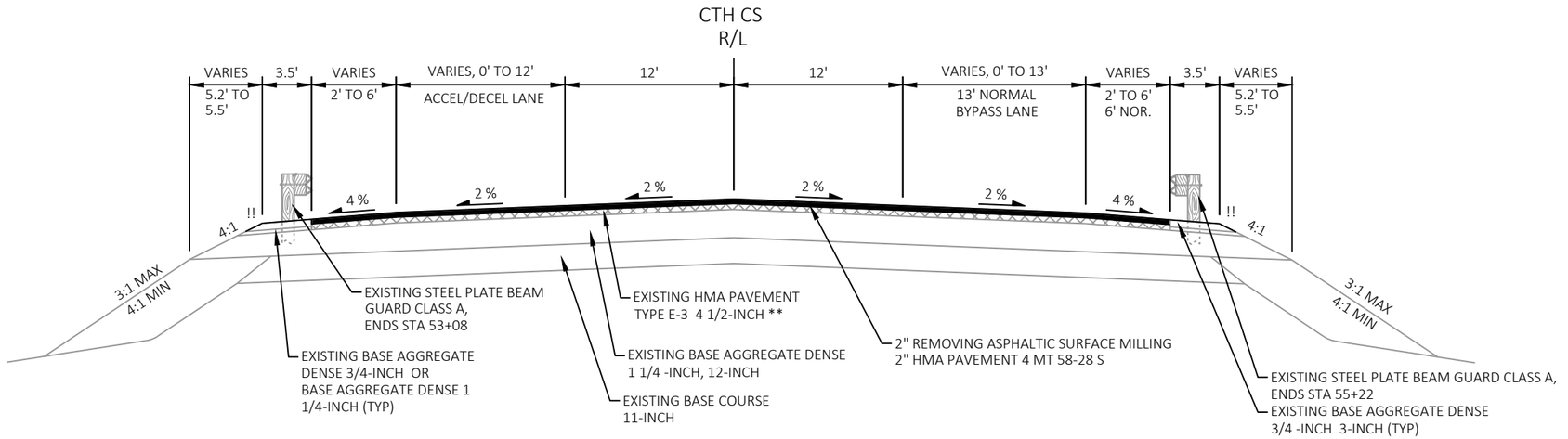
CTH CS
STA 46+87 - 48+38

VARIES 5% TO 4%
VARIES 5% TO 2%
VARIES 5% TO -2%

*** NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 17	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020303-TS.DWG
LAYOUT NAME - 03-10ft
PLOT DATE : 3/9/2026 10:08 AM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

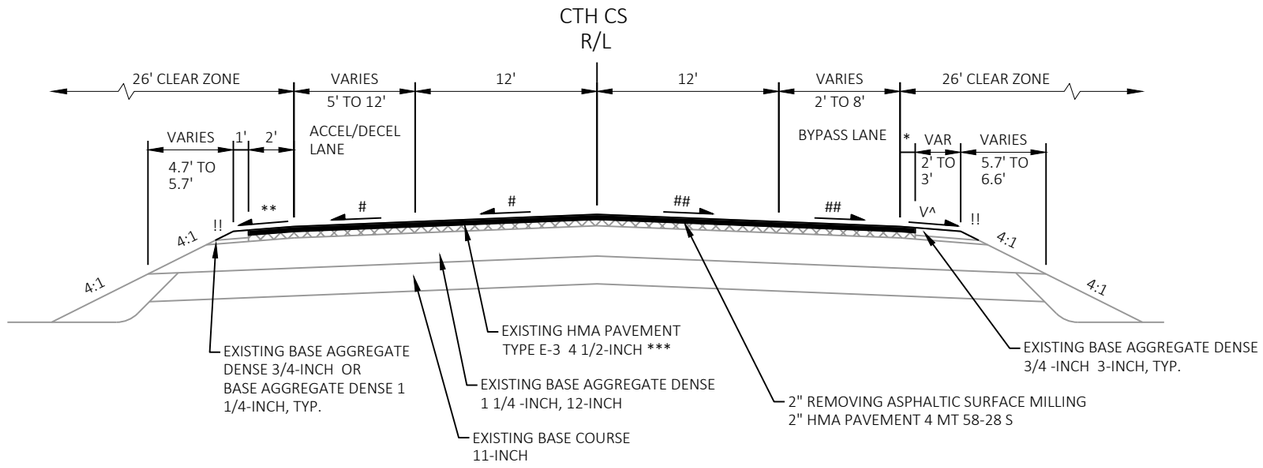


FINISHED TYPICAL SECTION

CTH CS
STA 50+82 - 58+84

** STA 51+08 TO 54+00, THICKNESS VARIES FROM 4 ½-INCH TO 8-INCH. PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

!! SHAPING SHOULDERS



FINISHED TYPICAL SECTION

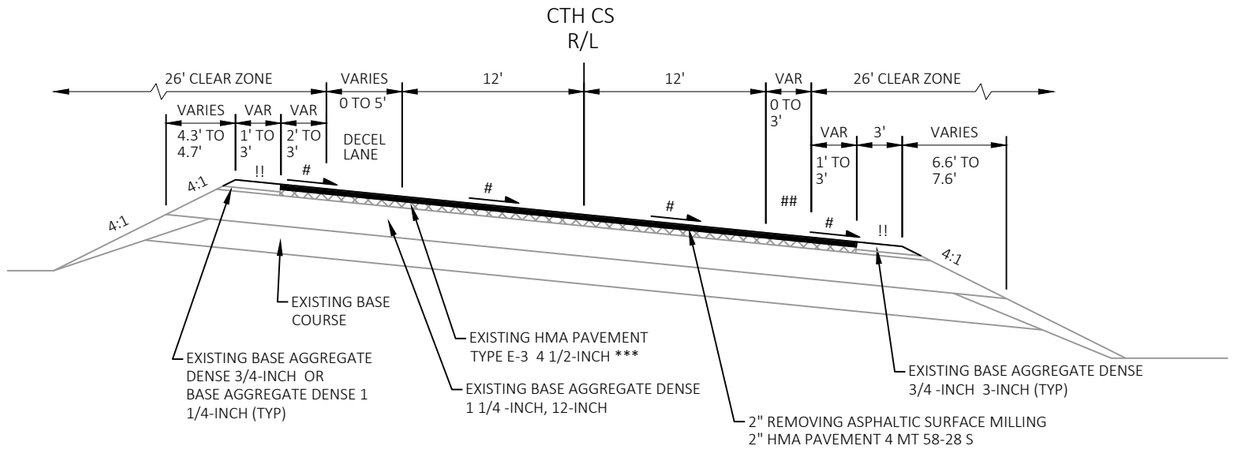
CTH CS
STA 58+84 - 60+30

* VARIES, 0 TO 1'
** VARIES, 4% TO -4.1%
\# VARIES, 2% TO -4.1%
VARIES, 2% TO 4.1%
V^ VARIES, 4% TO 4.1%

*** NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 18	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020303-TS.DWG
LAYOUT NAME - 04-10ft
PLOT DATE : 3/9/2026 10:08 AM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



\# VARIES, 4.1% TO 7%
\## BYPASS LANE

!! SHAPING SHOULDERS

FINISHED TYPICAL SECTION

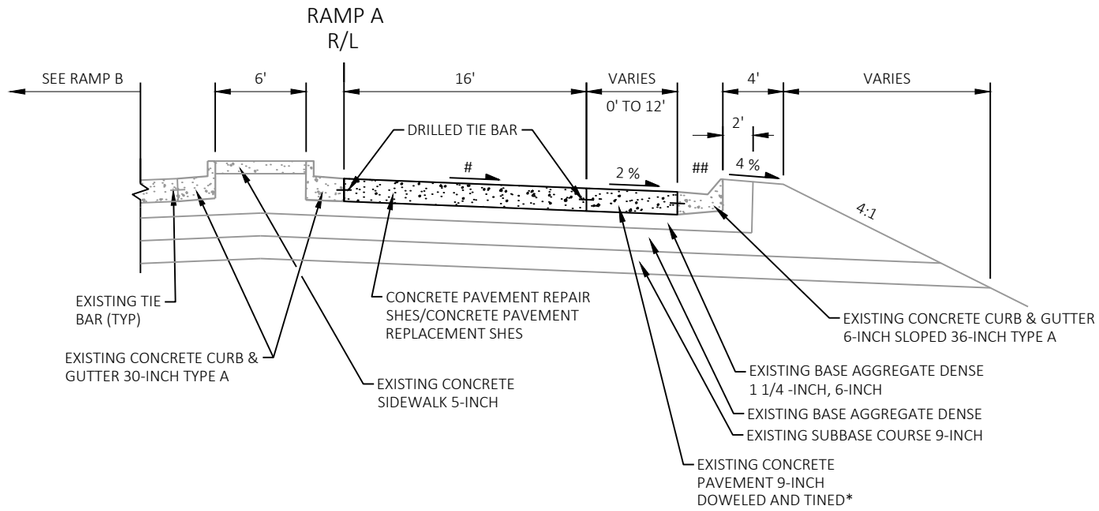
CTH CS
STA 60+30 - 62+00

*** NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 19	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020303-TS.DWG
LAYOUT NAME - 05-10ft
PLOT DATE : 3/9/2026 10:08 AM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

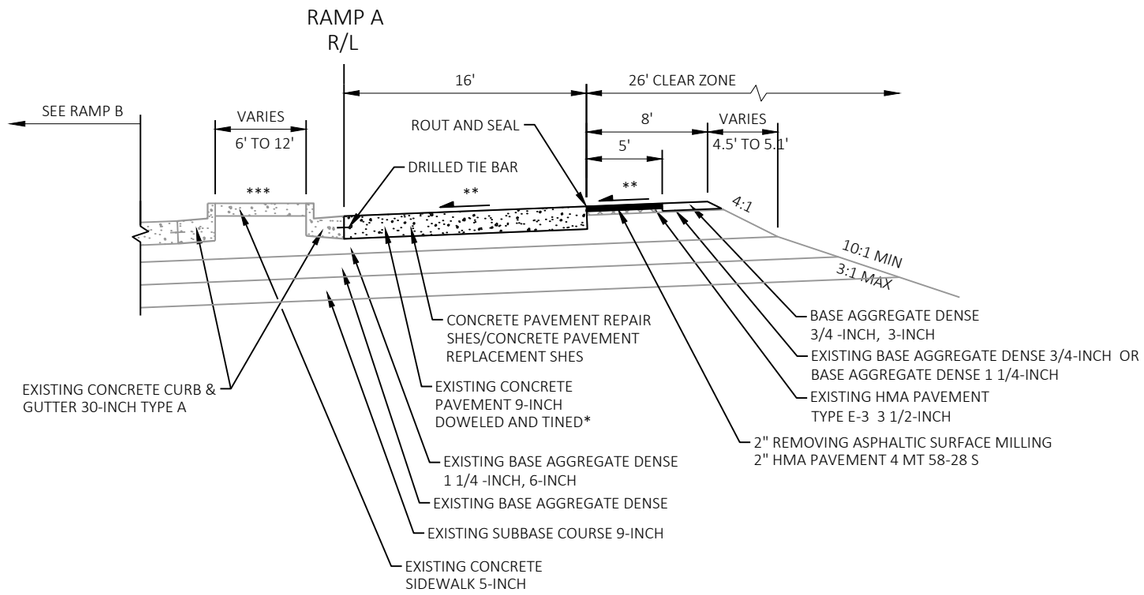
2



\# VARIES, -2% TO 2%
\## EXISTING CONCRETE CURB & GUTTER ENDS AT STA 260'B'+89

FINISHED TYPICAL SECTION

RAMP A
STA 260'A'+47 - 261'A'+93



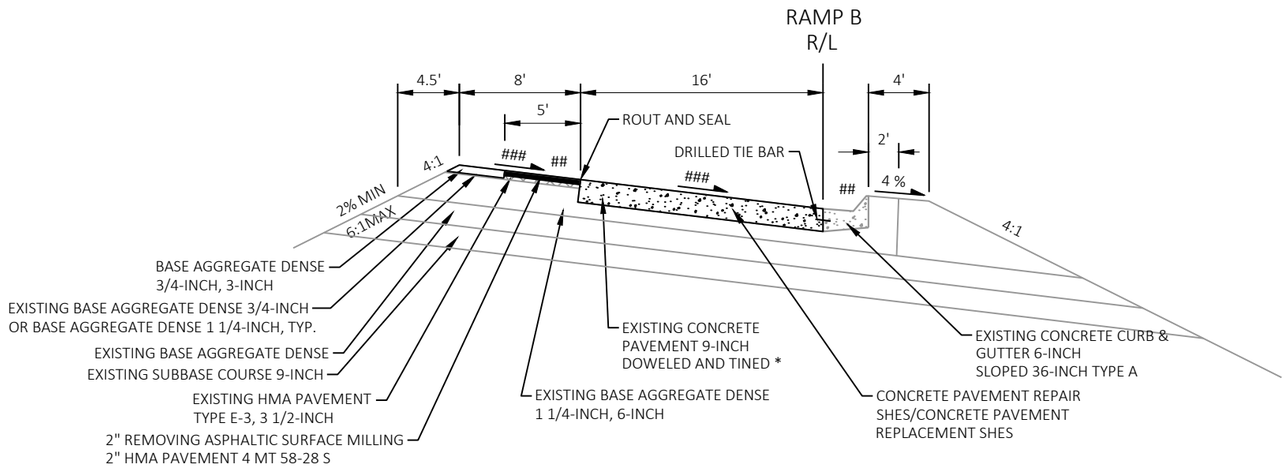
FINISHED TYPICAL SECTION

RAMP A
STA 261'A'+93 - 273'A'+00

** VARIES, 2% TO 5.4%
*** RAMP MEDIAN ISLAND ENDS AT STA 263'B'+60. RURAL SHOULDER STA 263'B'+60 TO 265'B'+00.

* NOMINAL THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

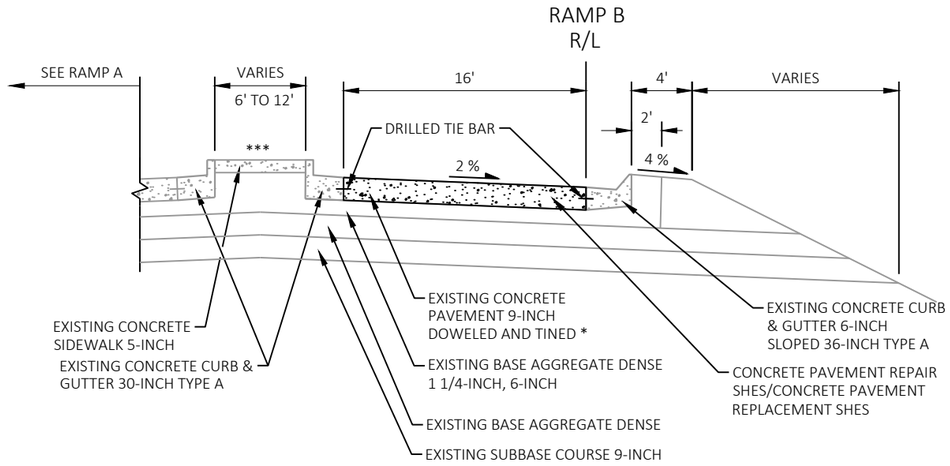
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 20	E



FINISHED TYPICAL SECTION

RAMP B
STA 358'B'+18 - 366'B'+91

BEGINS 363'B'+36
VARIES, 8% MAX

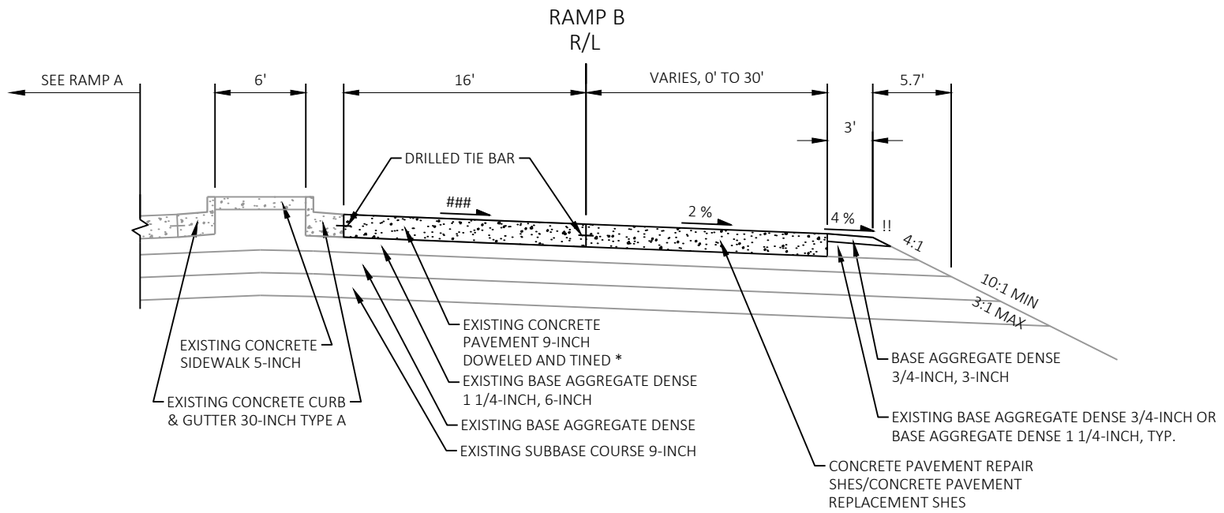


FINISHED TYPICAL SECTION

RAMP B
STA 366'B'+91 - 368'B'+29

* NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

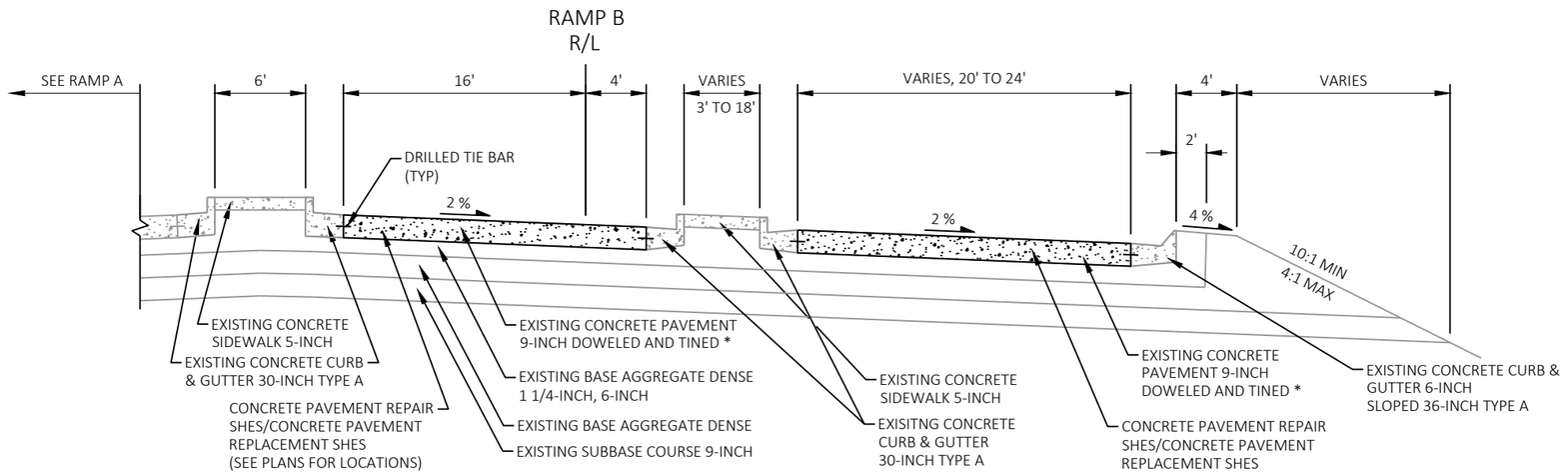
*** BEGINS 366'B'+96



VARIES, 2% TO 3%

FINISHED TYPICAL SECTION

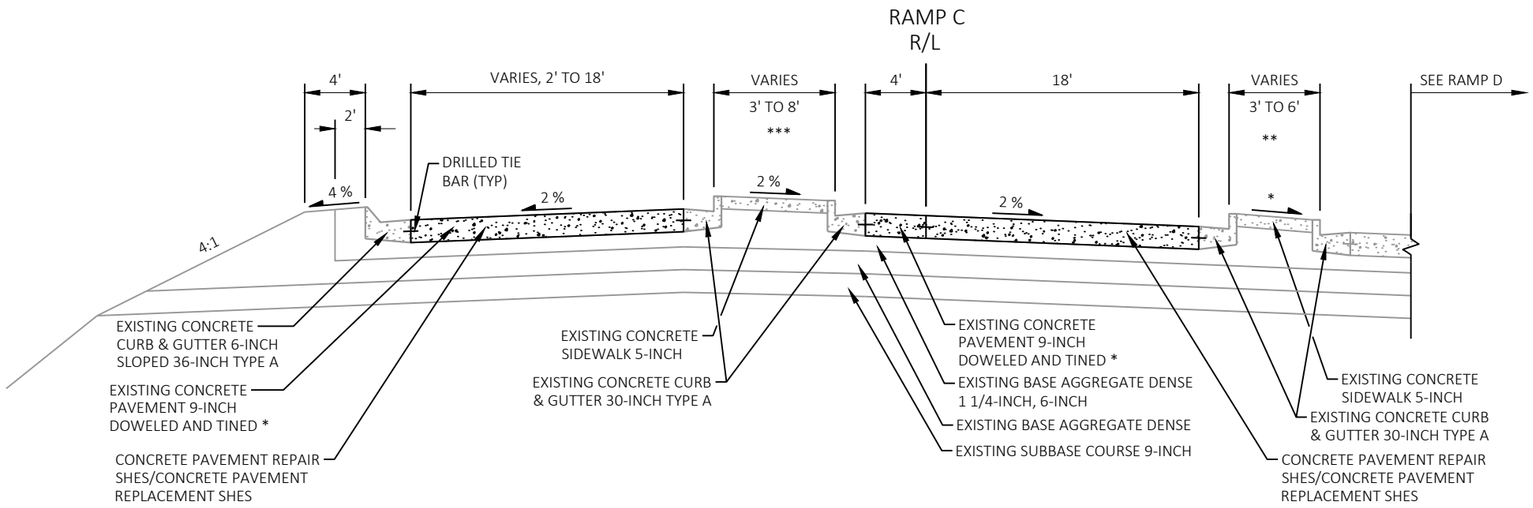
RAMP B
STA 368'B'+29 - 369'B'+46



FINISHED TYPICAL SECTION

RAMP B
STA 369'B'+46 - 369'B'+88

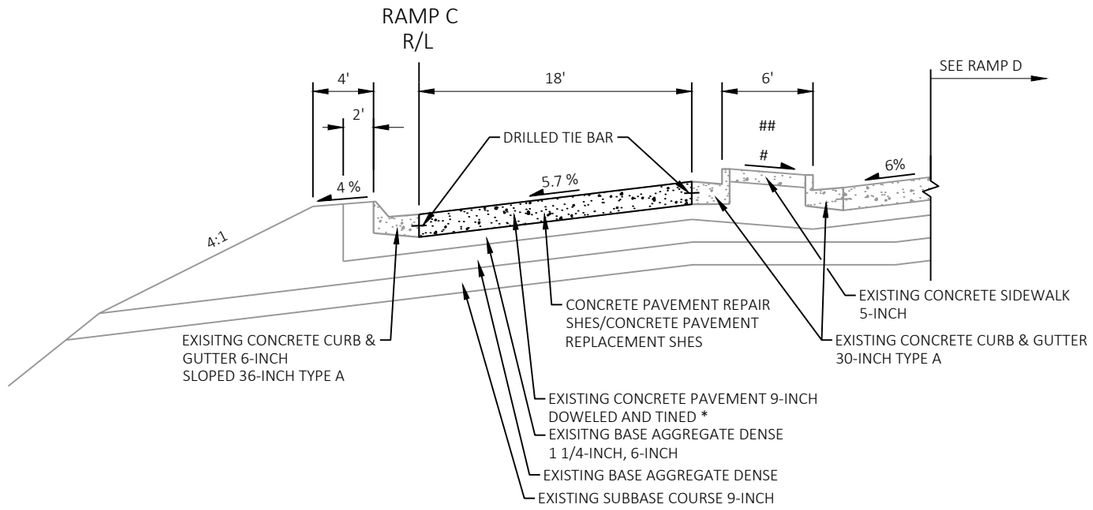
* NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-



* VARIES, 3% TO 7%
** MEDIAN ISLAND BEGINS AT STA 1347'C'+21
*** TRIANGLE ISLAND BETWEEN STA 1347'C'+09 - 1347'C'+45

FINISHED TYPICAL SECTION

RAMP C
STA 1347'C'+17 - 1348'C'+55



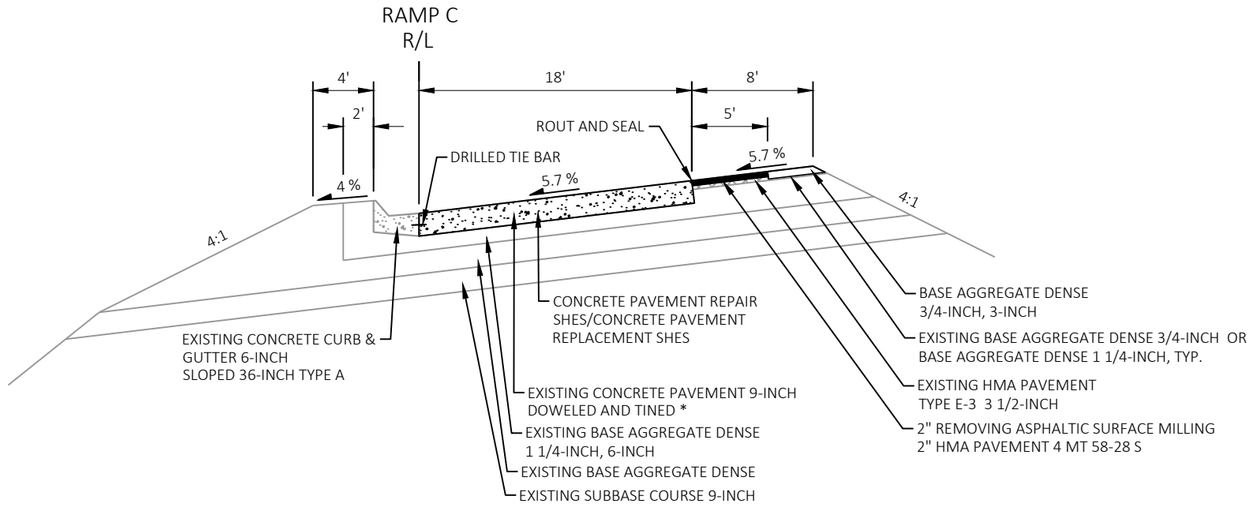
\# VARIES, 3% TO 10%
\## ENDS 1351'C'+36

FINISHED TYPICAL SECTION

RAMP C
STA 1348'C'+55 - 1354'C'+20

* NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

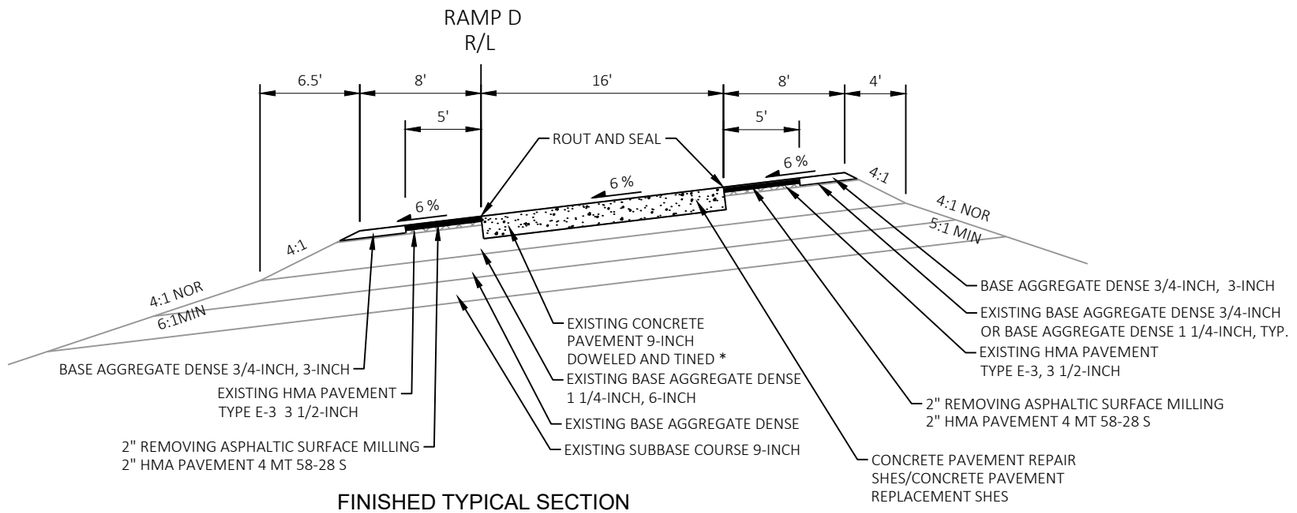
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 23	E



FINISHED TYPICAL SECTION

RAMP C

STA 1354'C'+20 - 1355'C'+32



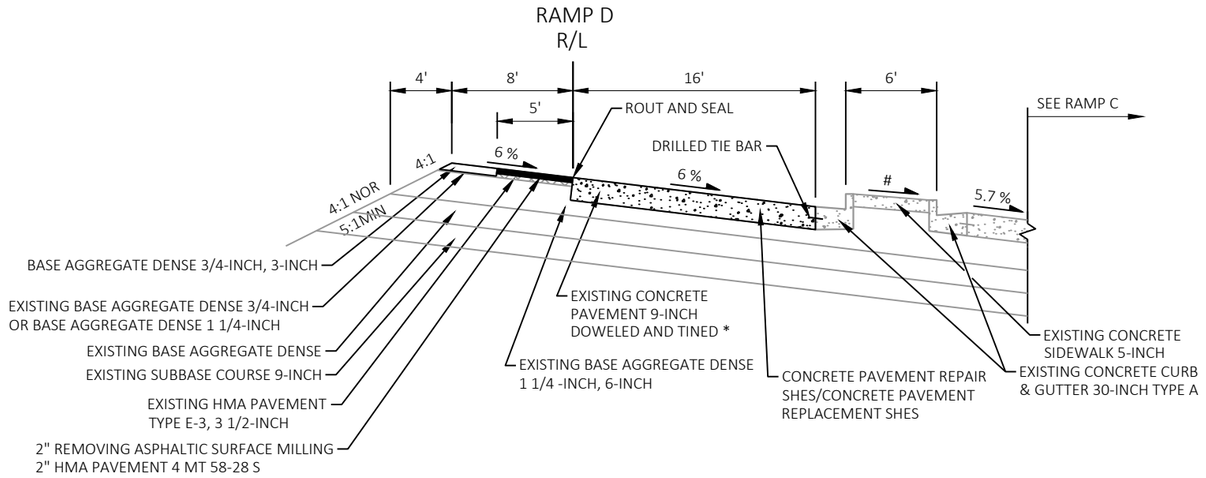
FINISHED TYPICAL SECTION

RAMP D

STA 1349'D'+06 - 1353'D'+26

* NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

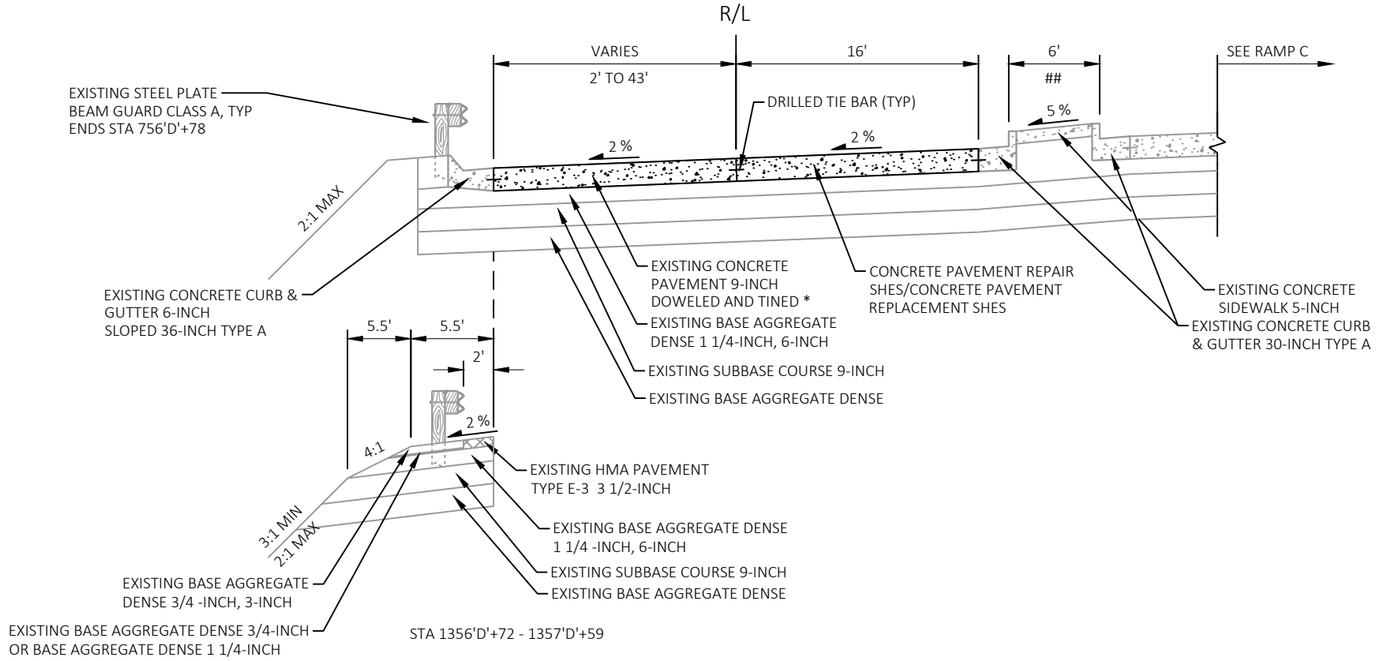
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 24	E



VARIES, 10% MAX

FINISHED TYPICAL SECTION

RAMP D
STA 1353'D'+26 - 1356'D'+72



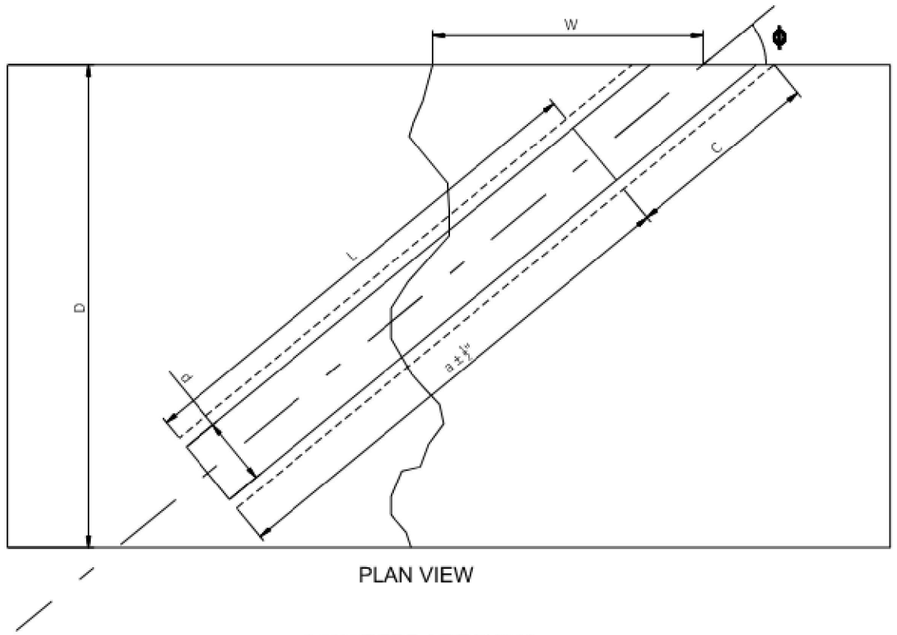
FINISHED TYPICAL SECTION

RAMP D
STA 1356'D'+72 - 1358'D'+04

VARIES, MEDIAN ISLAND ENDS AT STA 1357'D'+86

* NOMINAL PAVEMENT THICKNESS BASED ON PAST PROJECT INFORMATION. MAY VARY 1-INCH +/-

2



PLAN VIEW

CONCRETE STITCHING

Cross-Stitching

Slab Thickness D (in)	Angle Φ (deg)	Offset W (in)	Bar Diameter d (in)	Length of Bar L (in)	Depth of Slot a (in)	Minimum Depth to Bar c (in)
8.00	35	5.75	0.75	9.00	12.50	3.00
8.50	35	6.00	0.75	9.50	13.00	3.00
9.00	35	6.50	0.75	10.50	14.00	3.00
9.50	35	6.75	0.75	11.50	15.00	3.00
10.00	35	7.25	0.75	12.50	16.00	3.00
10.50	45	5.25	0.75	10.50	13.25	2.25
11.00	45	5.50	0.75	11.50	14.25	2.25
11.50	45	5.75	0.75	12.00	14.75	2.25
12.00	45	6.00	0.75	13.00	15.75	2.25
12.50	45	6.25	0.75	13.50	16.25	2.25
13.00	45	6.50	1.00	14.00	17.00	2.50
13.50	45	6.75	1.00	14.50	17.50	2.50
14.00	45	7.00	1.00	15.50	18.50	2.50
14.50	45	7.25	1.00	16.00	19.00	2.50
15.00	45	7.50	1.00	17.00	20.00	2.50

NOTES:
Minimum of 1/2" of cover on bottom of bar is required
Minimum of 1" of cover on top of bar is required
Slot depth has a tolerance of +/- 1/2"
Bar lengths measure in 1/2" increments
All other measurements are 1/4"
Distance between holes will be 36" for 10" thick PCCP and less
Distance between holes will be 24" for PCCP thickness greater than 10"
Drill diameter will be no more than 3/8" larger than the tie bar diameter

2

2

N

CTH J

RAMP D

1358+00 D

1356+00 D

1354+00 D

1352+00 D

1350+00 D

1348+00 D

RAMP C

1348+00 C

1350+00 C

1352+00 C

1354+00 C

1356+00 C

MILL AND OVERLAY
ASPHALT SHOULDERS

40+00 CS

42+00 CS

44+00 CS

46+00 CS

48+00 CS

50+00 CS

52+00 CS

54+00 CS

56+00 CS

58+00 CS

60+00 CS

CAUTION

OH

BRIGHTSPEED (COMMUNICATION)

SPECTRUM (COMMUNICATION)

ALLIANT (OVERHEAD ELECTRIC)

AT&T LEGACY (FIBER OPTIC)

WISDOT (FIBER OPTIC
AND ELECTRIC)

REMOVE AND REPLACE BEAM
GUARD AND EAT

ATC (OVERHEAD ELECTRIC)

REMOVE AND REPLACE BEAM
GUARD AND EAT

REMOVE AND REPLACE BEAM
GUARD AND EAT

1350+00 WB

1355+00 WB

1360+00 WB

1365+00 WB

1370+00 WB

1375+00 WB

NB IH 39 / WB IH 90/94

SB IH 39 / EB IH 90/94

1350+00 EB

1355+00 EB

1360+00 EB

1365+00 EB

1370+00 EB

1375+00 EB

360+00 B

362+00 B

364+00 B

RAMP B

270+00 A

272+00 A

268+00 A

266+00 A

264+00 A

262+00 A

RAMP A

MILL AND OVERLAY
ASPHALT SHOULDERS

CONCRETE CROSS STITCHING WORK

BEGIN PROJECT
STA 1349+95 EB

REMOVE AND REPLACE BEAM
GUARD AND EAT

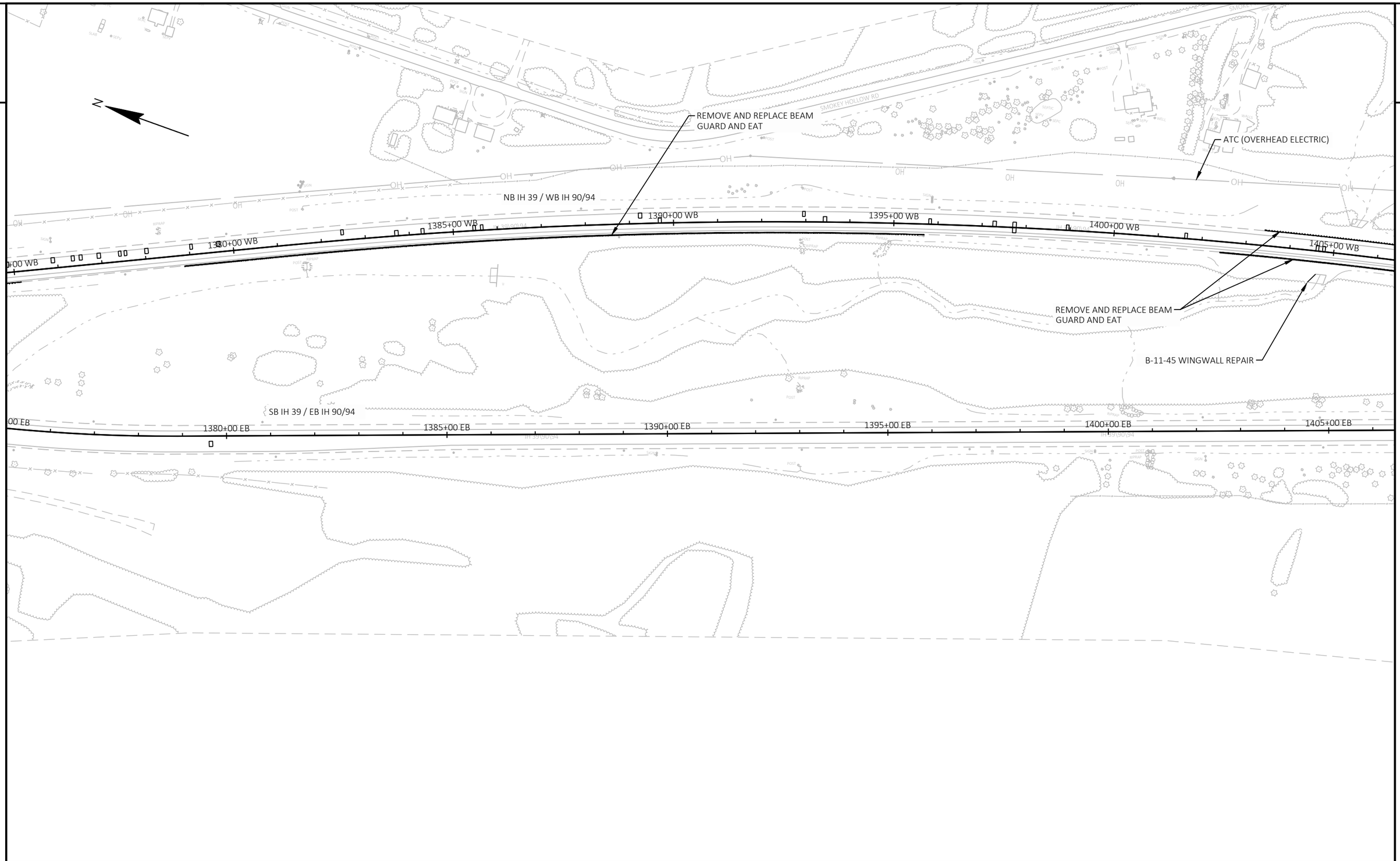
BRIGHTSPEED
(FIBER OPTIC)

DO NOT FLAIR OUT THE PROPOSED BEAM GUARD
EATS. SEE CROSS SECTIONS.

BEAM GUARD NOT NOTED ON PLANS ARE EXISTING TO REMAIN.

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 27	E

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 28	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 1/27/2026 5:27 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

2

ATC (OVERHEAD ELECTRIC)

CLEAN 30" X 30" CULVERT PIPE

REMOVE AND REPLACE BEAM GUARD AND EAT

ATC (OVERHEAD ELECTRIC)

REMOVE AND REPLACE BEAM GUARD AND EAT

ALLIANT (OVERHEAD ELECTRIC)

CLEAN 18-INCH CULVERT PIPE

STA BACK = 1429+58.91 WB

STA AHEAD = 1429+08.69 WB

CLEAN 15-INCH CULVERT PIPE

1405+00 WB

1410+00 WB

1415+00 WB

1420+00 WB

NB IH 39 / WB IH 90/94

1425+00 WB

1430+00 WB

1435+00 WB

REMOVE AND REPLACE BEAM GUARD AND EAT

EVERSTREAM (FIBER OPTIC)

1405+00 EB

1410+00 EB

1415+00 EB

1420+00 EB

1425+00 EB

SB IH 39 / EB IH 90/94

1430+00 EB

1435+00 EB

REMOVE AND REPLACE BEAM GUARD AND EAT

REMOVE AND REPLACE BEAM GUARD AND EAT

SMOKEY HOLLOW RD

SANDERSON RD

N

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 29	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 1/27/2026 5:28 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

ATC (OVERHEAD ELECTRIC)

CLEAN 18-INCH CULVERT PIPE

REMOVE AND REPLACE BEAM GUARD AND EAT

ATC (OVERHEAD ELECTRIC)

REMOVE AND REPLACE BEAM GUARD AND EAT

NB IH 39 / WB IH 90/94

1435+00 WB | 1440+00 WB | 1445+00 WB | 1450+00 WB | 1455+00 WB | 1460+00 WB

1435+00 EB | 1440+00 EB | 1445+00 EB | 1450+00 EB | 1455+00 EB | 1460+00 EB

BRIGHTSPEED (COMMUNICATION LINES)

SB IH 39 / EB IH 90/94

N

SMOKEY HOLLOW RD

SMOKEY HOLLOW RD

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 30	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 04

PLOT DATE : 10/15/2025 4:12 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

N

ATC (OVERHEAD ELECTRIC)

REMOVE AND REPLACE BEAM GUARD AND EAT

NB IH 39 / WB IH 90/94

1460+00 WB | 1465+00 WB | 1470+00 WB | 1475+00 WB | 1480+00 WB | 1485+00 WB | 1490+00

1460+00 EB | 1465+00 EB | 1470+00 EB | 1475+00 EB | 1480+00 EB | 1485+00 EB | 1490+0

SB IH 39 / EB IH 90/94

REMOVE AND REPLACE BEAM GUARD AND EAT

CLEAN 24-INCH CULVERT PIPE

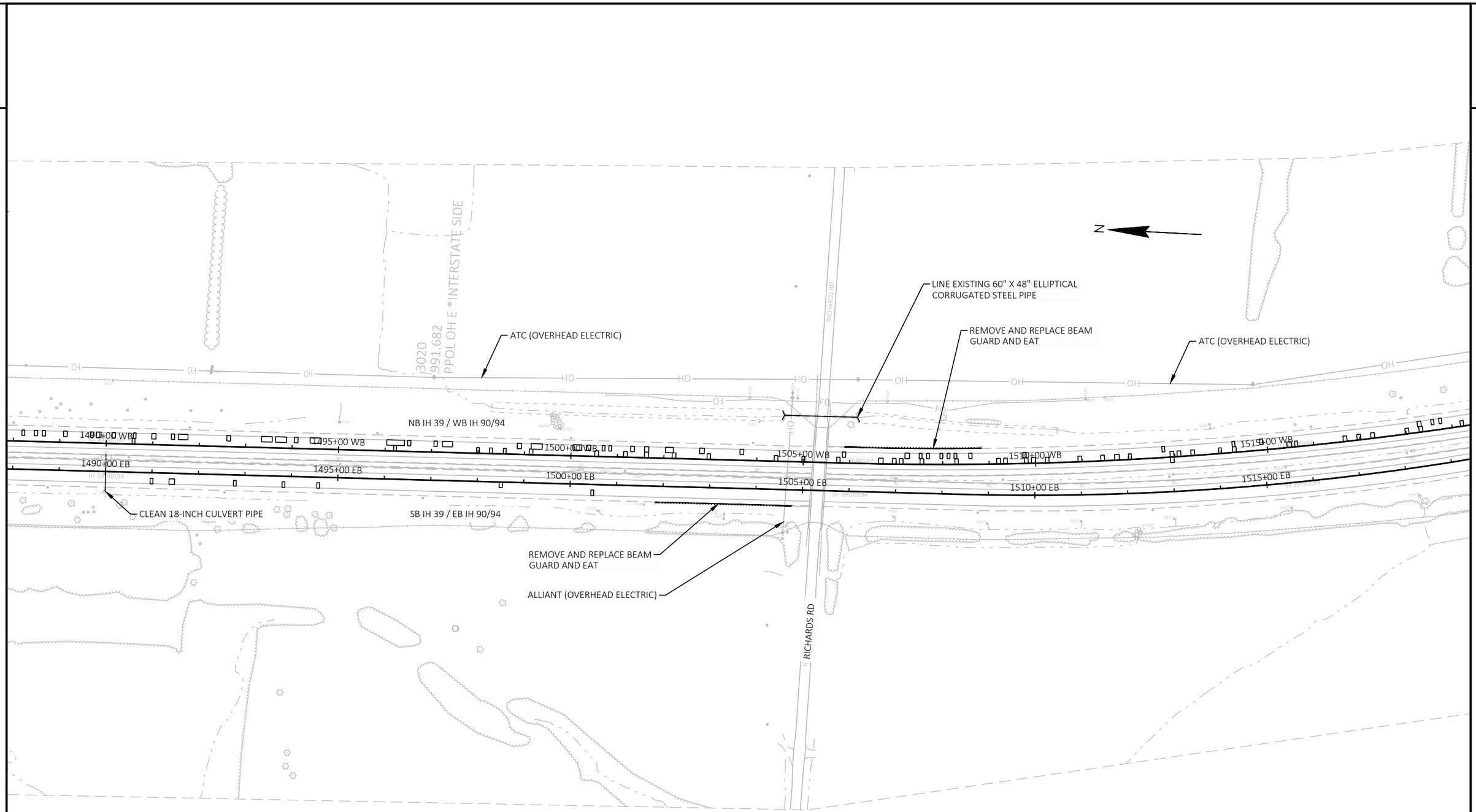
CLEAN 12-INCH CULVERT PIPE

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 31	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 05

PLOT DATE : 10/15/2025 4:14 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 32	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 06

PLOT DATE : 10/15/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

N

ATC (OVERHEAD ELECTRIC)

STA BACK = 1525+11.70WB

STA AHEAD = 1525+29.35 WB

OH

1520+00 WB

1525+00 WB

1530+00 WB

1535+00 WB

1540+00 WB

1545+00 WB

NB IH 39 / WB IH 90/94

1520+00 EB

1525+00 EB

1530+00 EB

1535+00 EB

1540+00 EB

1545+00 EB

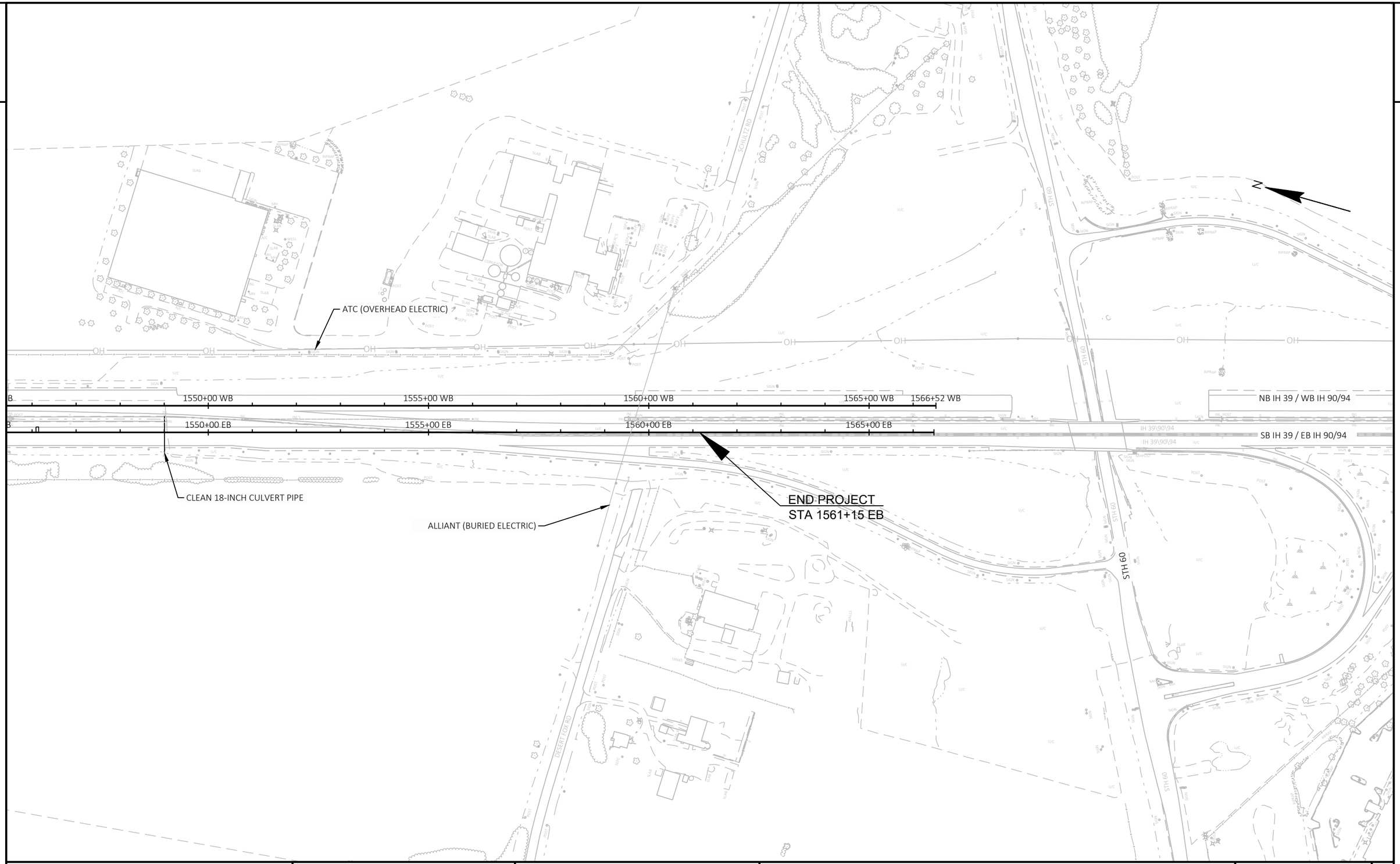
SB IH 39 / EB IH 90/94

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 33	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 07

PLOT DATE : 10/15/2025 4:16 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - IH 39	SHEET 34	E

2

N

38+00 CS

40+00 CS

42+00 CS

42+96.77 CTH CS

44+00 CS

46+00 CS

48+00 CS

50+00 CS

52+00 CS

BEGIN CONSTRUCTION
STA 39+50 CS
MATCH EXISTING
SAW CUT REQ'D

MILL AND OVERLAY
ASPHALT PAVEMENT

1358+00 D

1348+00 C

1356+00 D

1350+00 C

1354+00 C

1356+00 C

1355+00 WB

1355+00 EB

1360+00 WB

1360+00 EB

360+00 B

362+00 B

364+00 B

IH 39

MATCH LINE

2

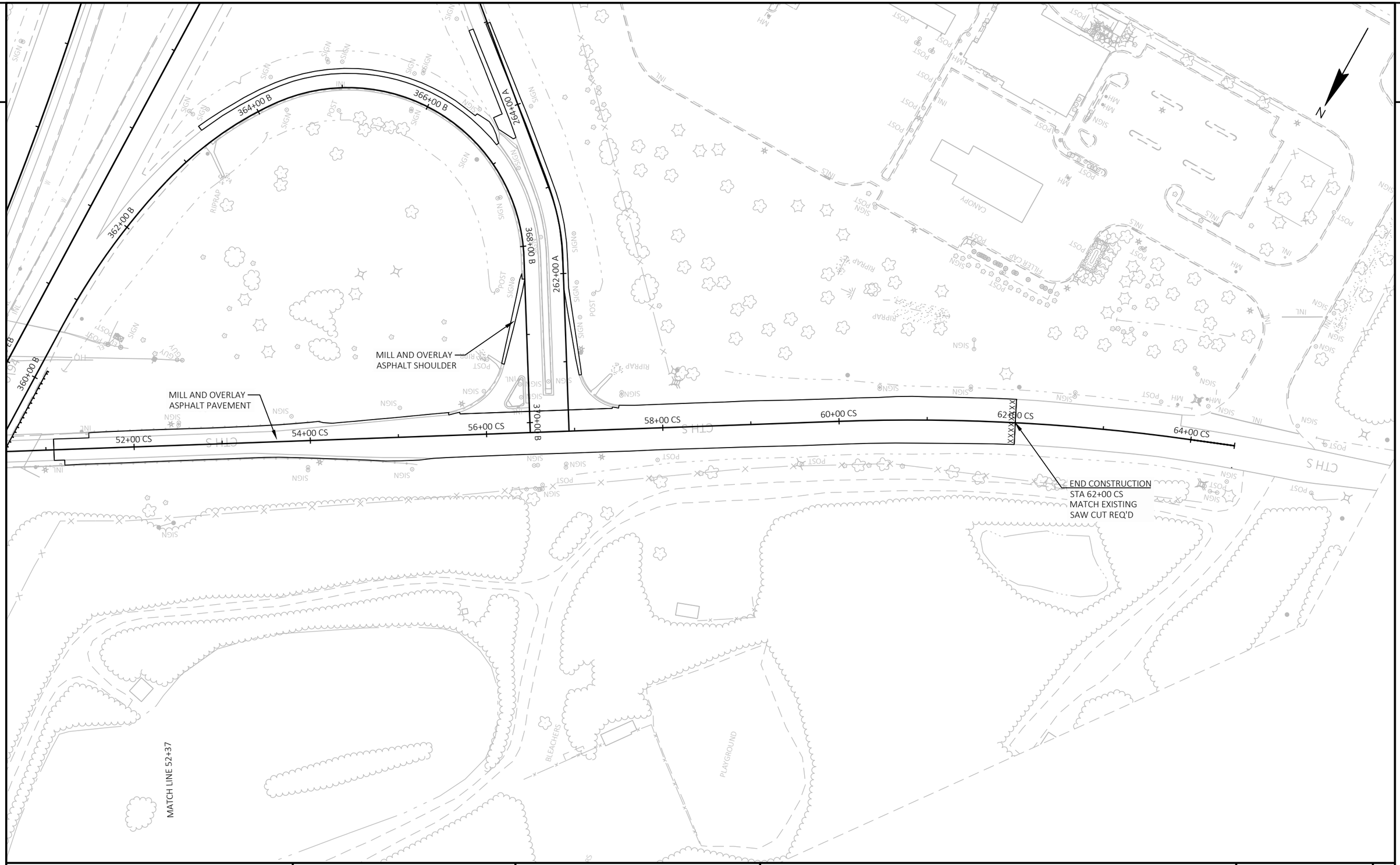
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - CTH CS	SHEET 35	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 09

PLOT DATE : 10/15/2025 4:18 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PLAN SHEET - CTH CS	SHEET 36	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020401-PD.DWG
LAYOUT NAME - 10
PLOT DATE : 10/15/2025 4:19 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

CONCRETE PATCH LOCATIONS AND SIZES ARE APPROXIMATE.
FIELD VERIFY (ALL). NOT ALL PATCH LOCATIONS ARE SHOWN.

N

22' PATCHES
+43

40' PATCHES
+95

BEGIN PROJECT
STA 1349+95 EB

BP: 1345+00.00 EB

PC: 1356+59.14 WB

1346WB 1348WB 1350WB 1352WB 1354WB 1356WB 1358WB 1360WB

1346EB 1348EB 1350EB 1352EB 1354EB 1356EB 1358EB 1360EB

IH 39\90\94

CTH S

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 37	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/16/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

7' PATCH
+26

6' PATCH
+56

8' PATCH
+27

6' PATCH
+98

6' PATCH
+41

8' PATCH
+71

6' PATCH
+33

6' PATCH
+18

11' PATCH
+18

34' PATCH
+40

6' PATCH
+83

8' PATCH
+85

7' PATCH
+31

6' PATCH
+15

1362WB
1364WB
1366WB
1368WB
1370WB
1372WB
1374WB
1376WB

1362EB
1364EB
1366EB
1368EB
1370EB
1372EB
1374EB
1376EB

PC: 1366+02.24 EB

PT: 1373+94.64 WB

IH 39\90\94

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 38	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/16/2025 2:43 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

PC: 1381+10.42 WB

6' PATCH +52
8' PATCH +90
6' PATCH +39
7' PATCH +49
8' PATCH +99
6' PATCH +01
7' PATCH +63
6' PATCH +45
8' PATCH +67
7' PATCH +27
6' PATCH +44
6' PATCH +62
8' PATCH +20
7' PATCH +65

1376WB
1378WB
1380WB
1382WB
1384WB
1386WB
1388WB
1390WB

SIGN
POST
RIPRAP
IH 39\90\94

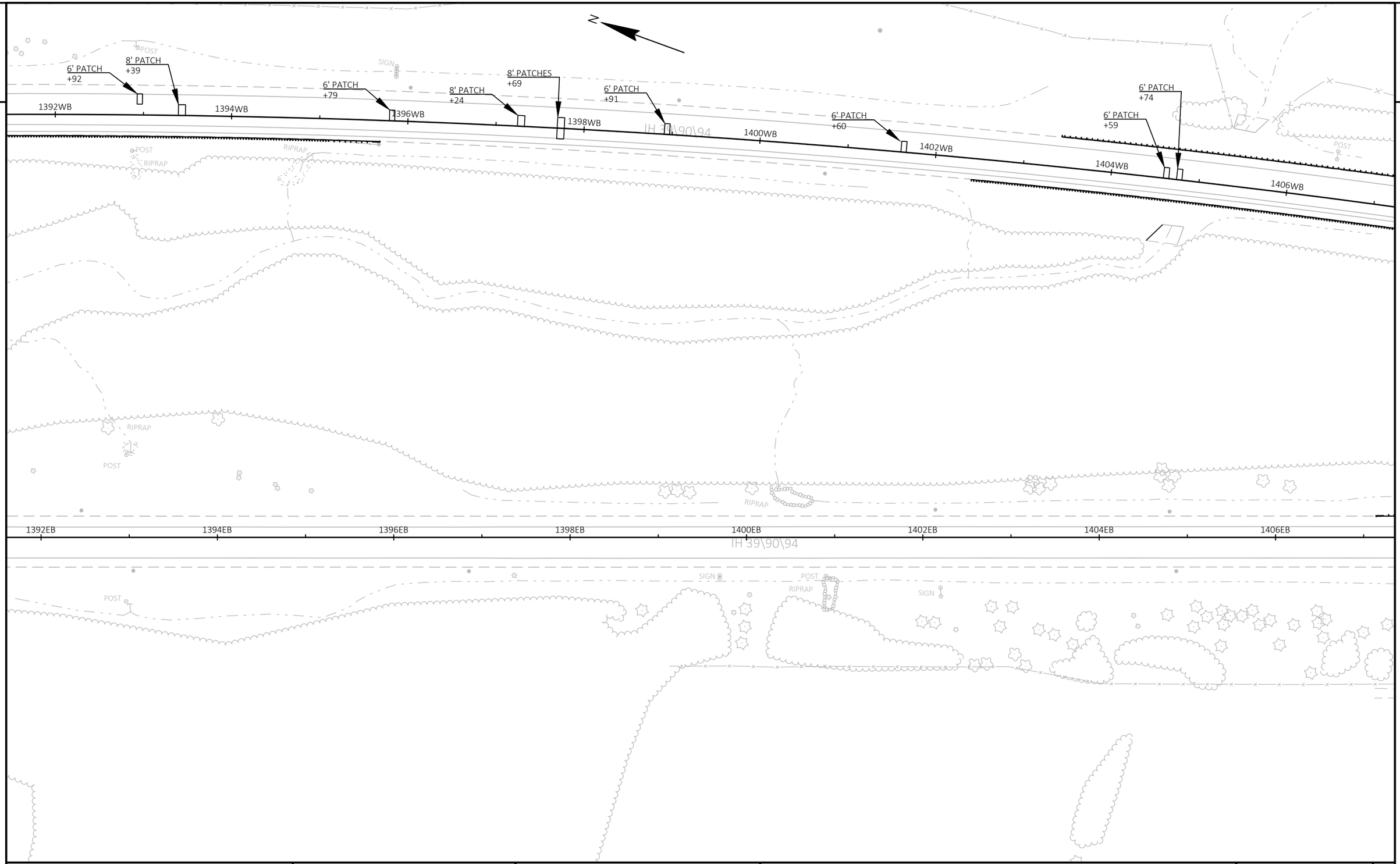
PT: 1378+88.07 EB

8' PATCH +60

1378EB
1380EB
1382EB
1384EB
1386EB
1388EB
1390EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 39	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 03
PLOT DATE : 10/16/2025 2:44 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

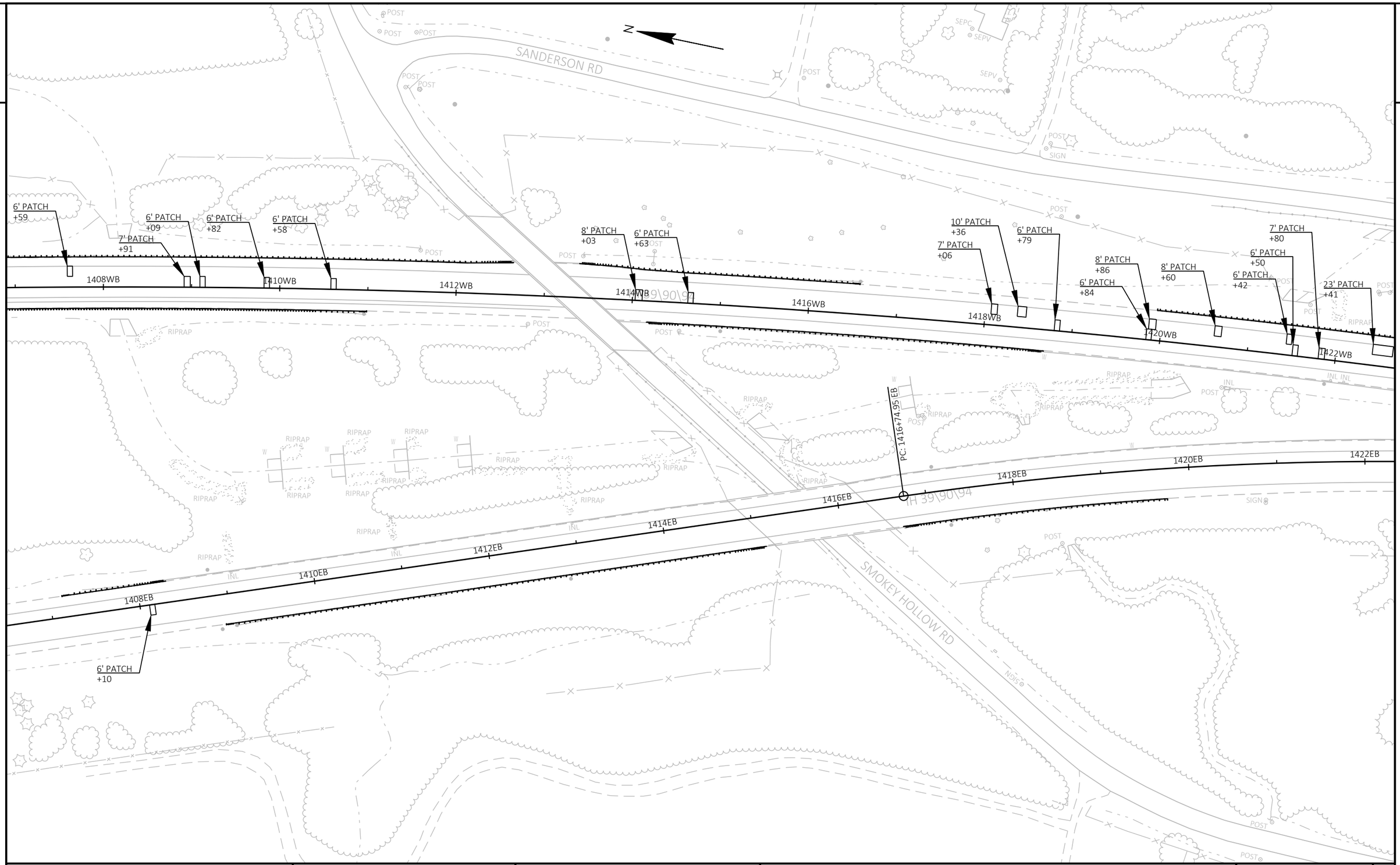


2

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 40	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 04
PLOT DATE : 1/27/2026 5:05 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

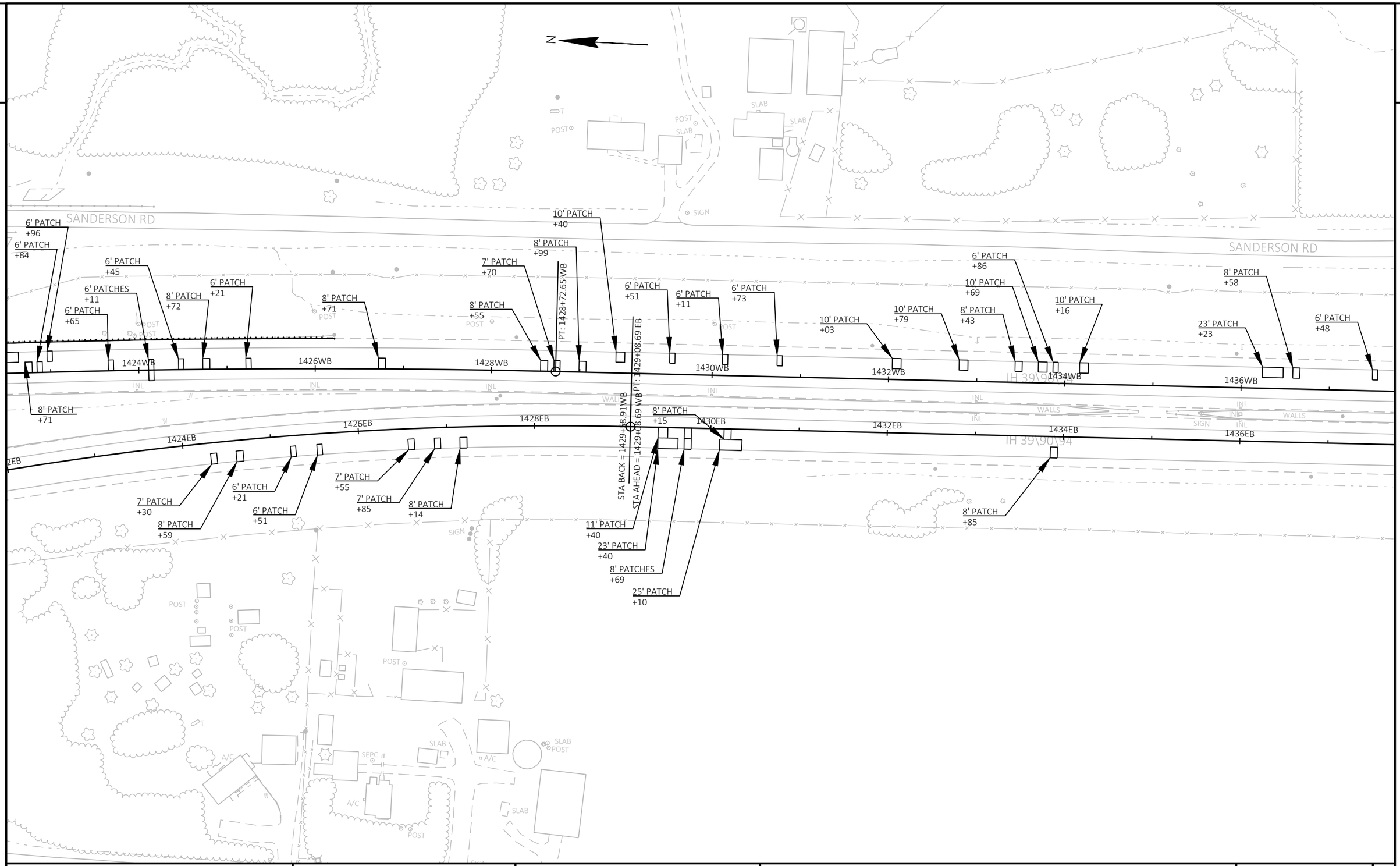


PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 41	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 05

PLOT DATE : 10/16/2025 2:47 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 42	E

2

2

N

7' PATCH +65
8' PATCHES +43
6' PATCH +95
6' PATCH +91
7' PATCH +14
8' PATCH +28
6' PATCH +12
6' PATCH +47
6' PATCH +32
6' PATCH +66
8' PATCH +98
7' PATCH +39
7' PATCH +67
6' PATCH +98
8' PATCH +13
6' PATCH +15
7' PATCH +06
6' PATCH +75
7' PATCH +59

1438WB 1440WB 1442WB 1444WB 1446WB 1448WB 1450WB 1452WB

1438EB 1440EB 1442EB 1444EB 1446EB 1448EB 1450EB 1452EB

6' PATCH +47
9' PATCH +49
8' PATCH +75
6' PATCHES +51
8' PATCH +93

IH 39\90\94

RIPRAP POST SIGN SEPC SEPV SLAB WALLS INL A/C ANT W

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 43	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 07
PLOT DATE : 10/16/2025 2:49 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

6' PATCH
+11

6' PATCH
+58

6' PATCH
+85

6' PATCH
+20

8' PATCH
+52

8' PATCH
+97

6' PATCH
+10

6' PATCH
+39

8' PATCH
+88

6' PATCH
+50

6' PATCH
+24

7' PATCH
+57

6' PATCH
+86

7' PATCH
+00

6' PATCH
+65

1454WB 1456WB 1458WB 1460WB 1462WB 1464WB 1466WB 1468WB

IH 39\90\94

1454EB 1456EB 1458EB 1460EB 1462EB 1464EB 1466EB 1468EB

IH 39\90\94

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 44	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 08

PLOT DATE : 10/16/2025 2:50 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

7' PATCH +53
6' PATCH +21
7' PATCH +82
6' PATCHES +06
6' PATCH +47
10' PATCH +27
8' PATCH +03
8' PATCH +97
7' PATCH +73
6' PATCH +18
6' PATCH +92
38' PATCH +46
8' PATCH +66
7' PATCHES +25
7' PATCH +33
7' PATCH +72
6' PATCH +42
6' PATCH +17
19' PATCH +12

1470WB 1472WB 1474WB 1476WB 1478WB 1480WB 1482WB 1484WB

1470EB 1472EB 1474EB 1476EB 1478EB 1480EB 1482EB 1484EB

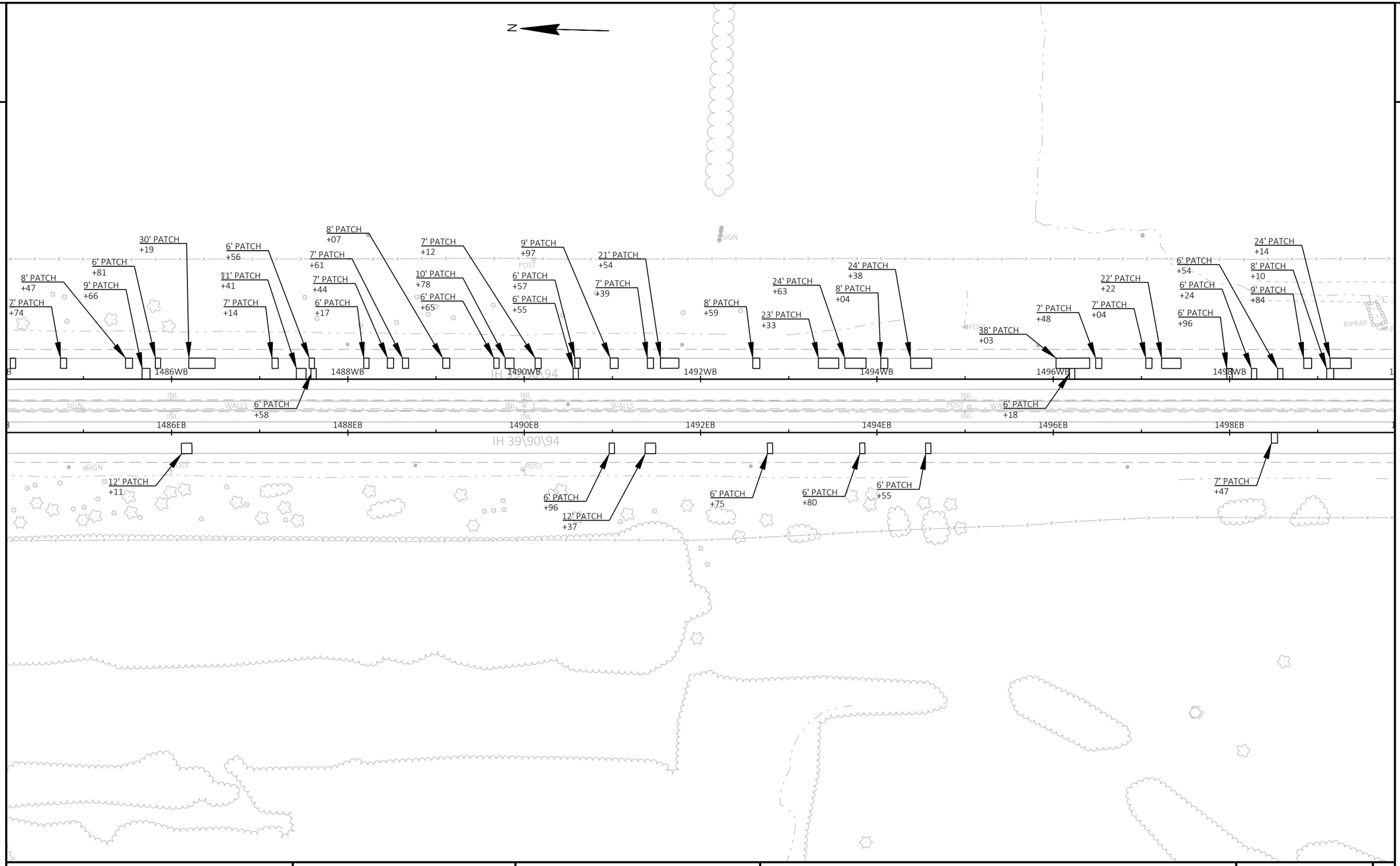
IH 39\90\94

POST WALLS INL W SLAB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 45	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 09
PLOT DATE : 10/16/2025 2:51 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

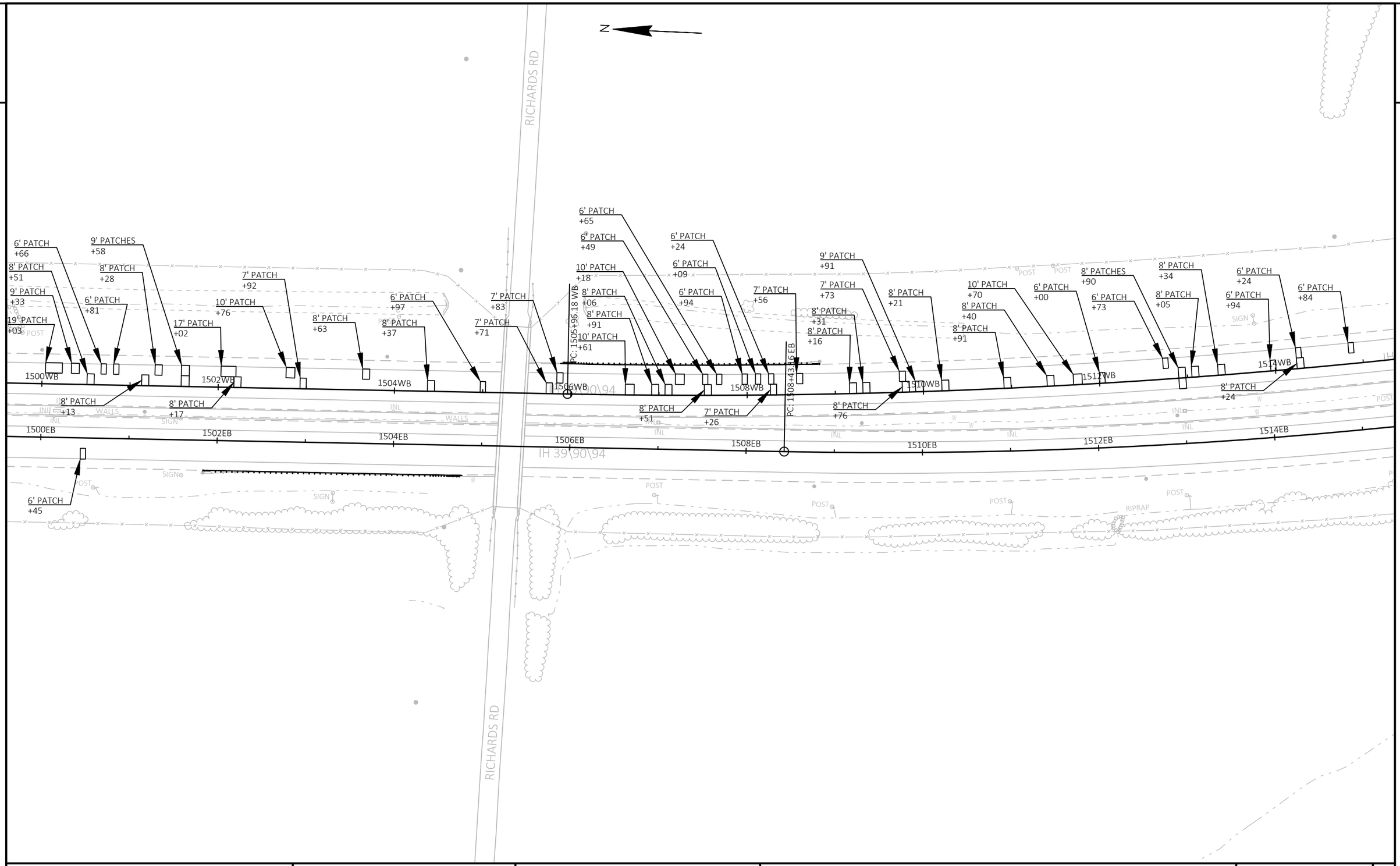
2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 46	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 10
PLOT DATE : 10/16/2025 2:52 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

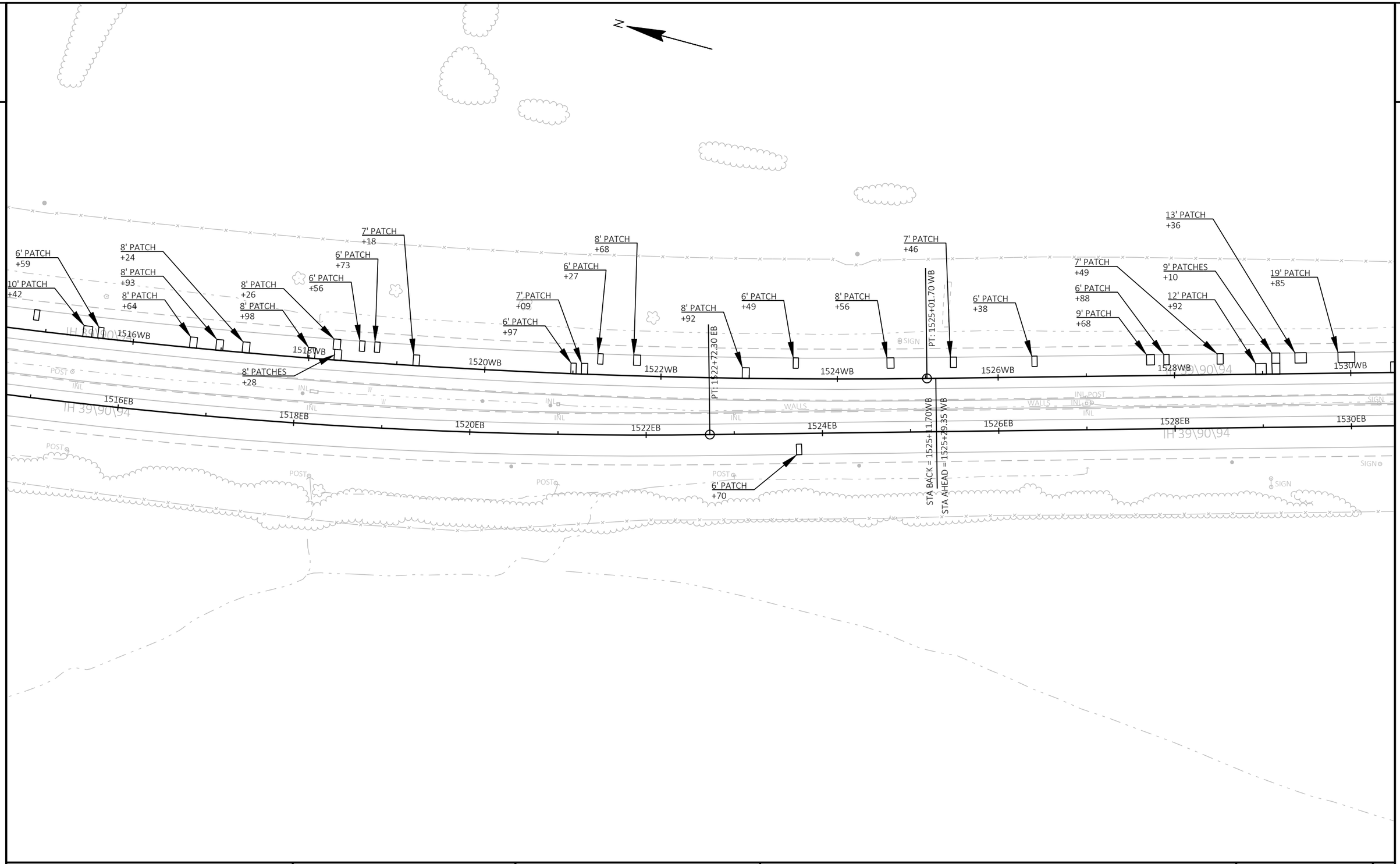


PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 47	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 11

PLOT DATE : 10/16/2025 2:54 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

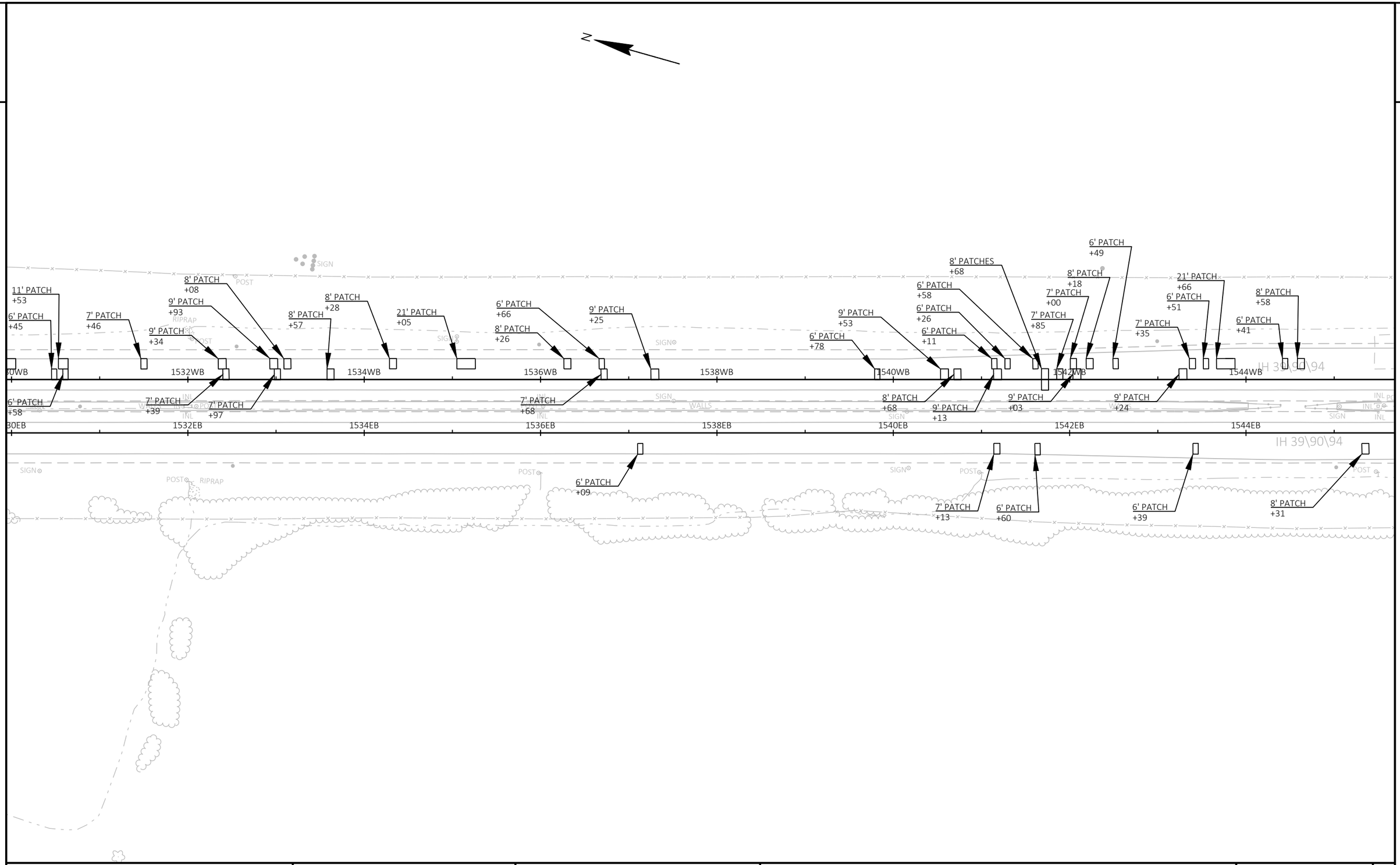


PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 48	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 12

PLOT DATE : 10/16/2025 2:55 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 49	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 13
PLOT DATE : 10/16/2025 2:56 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

1546WB 1548WB 1550WB 1552WB 1554WB 1556WB 1558WB 1560WB

1546EB 1548EB 1550EB 1552EB 1554EB 1556EB 1558EB 1560EB

6' PATCH
+09

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 50	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 14

PLOT DATE : 10/16/2025 2:57 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

1560WB 1562WB 1564WB 1566WB 1568WB

1560EB 1562EB 1564EB 1566EB

EP: 1566+47.43 EB
EP: 1566+51.89 WB

END PROJECT
STA 1561+15 EB

STH 90

IH 39\90\94

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CONCRETE PAVEMENT PATCH LOCATIONS	SHEET 51	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020402-PD.DWG
LAYOUT NAME - 15

PLOT DATE : 10/16/2025 2:58 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTES:

- FOR PAVEMENT MARKING ON CTH CS, SEE SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "PAVEMENT MARKING (TURN LANES)", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".
- FOR REPLACEMENT PAVEMENT MARKING IMPACTED BY CONCRETE PATCHING/REPAIR WORK ON IH 39 AND THE CTH CS RAMPS, SEE SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP", AND SDD "PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP" FOR MORE INFORMATION.
- STATION AND OFFSET INFORMATION IS APPROXIMATE

N

BP: 37+62.53

PC: 39+51.41

PT: 47+79.56

38+00 CS

39+00 CS

40+00 CS

41+00 CS

42+00 CS

43+00 CS

44+00 CS

45+00 CS

46+00 CS

47+00 CS

48+00 CS

49+00 CS

50+00 CS

51+00 CS

52+00

39+50 CS +12' OFFSET

39+50 CS

39+50 CS -12' OFFSET

39+50 CS -24' OFFSET

41+50 CS +12' OFFSET

42+18 CS +24 OFFSET

42+39 CS

42+39 CS -12' OFFSET

42+39 CS -24' OFFSET

43+45 CS

44+20 CS +24' OFFSET

44+78 CS +12' OFFSET

44+35 CS -24' OFFSET

46+25 CS +12' OFFSET

46+71 CS -12' OFFSET

MARKING LINE EPOXY 4-INCH (WHITE EDGELINE)

MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW CENTERLINE)

MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' GAP (WHITE LANE LINE)

MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW CENTERLINE)

MARKING LINE EPOXY 8-INCH 3' LINE, 9' GAP (WHITE CHANNELIZING LINE)

MARKING ARROW EPOXY (WHITE)

MARKING ARROW EPOXY (WHITE)

MARKING LINE EPOXY 8-INCH (WHITE CHANNELIZING LINE)

MARKING LINE EPOXY 4-INCH (WHITE EDGELINE)

IH 39|90|94

CTH J

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING - CTH CS	SHEET 52	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020501-PM.DWG
LAYOUT NAME - 01
PLOT DATE : 10/7/2025 4:03 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

MARKING LINE
SAME DAY
EPOXY 4-INCH
(DOUBLE YELLOW
CENTERLINE)

55+58 CS
+23' OFFSET

53+97 CS
+12' OFFSET

57+50 CS
+12' OFFSET

57+50 CS
+24' OFFSET

MARKING
ARROW
EPOXY
(WHITE)

MARKING
WORD
EPOXY
(WHITE)

MARKING LINE
SAME DAY
EPOXY 4-INCH
(DOUBLE YELLOW
CENTERLINE)

PC: 59+97.24

MARKING LINE
EPOXY 8-INCH
(WHITE CHANNELIZING
LINE)

MARKING LINE
EPOXY 4-INCH
(WHITE EDGELINE)

62+00 CS
+24' OFFSET

62+00 CS
+12' OFFSET

PT: 63+98.03

EP: 64+50.00

52+00 CS

53+00 CS

54+00 CS

55+00 CS

56+00 CS

57+00 CS

57+50 CS

58+00 CS

59+00 CS

60+00 CS

61+00 CS

62+00 CS

62+00 CS

63+00 CS

64+00 CS

56+46 CS

62+00 CS
-12' OFFSET

62+00 CS
-24' OFFSET

CTH S

53+36 CS
-12' OFFSET

55+39 CS
-12' OFFSET

55+39 CS
-24' OFFSET

MARKING LINE
EPOXY 4-INCH
(WHITE EDGELINE)

MARKING LINE
EPOXY 4-INCH
12.5' LINE 37.5' GAP
(WHITE LANE LINE)

BLEACHERS

PLAYGROUND

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING - CTH CS	SHEET 53	E

PREWARNING

- PLACE PCMS AT BOTH ENDS OF THE PROJECT AND DISPLAY THIS MESSAGE:

ROAD WORK	BEGINS (DATE)

STAGE 1A & 1B

- CONCRETE PATCHING ON MAINLINE SB IH 39.
  WORK TO BE DONE WITH A DOUBLE LANE CLOSURE. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR MORE INFORMATION.
- CONCRETE STITCHING AND/OR CONCRETE PATCHING ON RAMP A. CONCRETE PATCHING ON RAMP B.
  WORK TO BE DONE WITH A RAMP CLOSURE. SEE DETOUR PLANS.
- REPLACE BEAM GUARD ON MAINLINE SB IH 39.
  WORK TO BE DONE WITH A SINGLE LANE CLOSURE WHILE BEAM GUARD IS BEING REPLACED.
- REMARK PAVEMENT MARKING IMPACTED BY CONCRETE PATCHING WORK.
  WORK TO BE DONE WITH A SINGLE OR DOUBLE LANE CLOSURE. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR MORE INFORMATION.
- CLEAN OUT NOTED CULVERT PIPES.
  WORK TO BE DONE WITH A SHOULDER CLOSURE. SEE SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH.

STAGE 2A & 2B

- CONCRETE PATCHING ON MAINLINE NB IH 39.
  WORK TO BE DONE WITH A DOUBLE LANE CLOSURE. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR MORE INFORMATION.
- CONCRETE PATCHING ON RAMP C AND D.
  WORK TO BE DONE WITH A RAMP CLOSURE. SEE DETOUR PLANS.
- REPLACE BEAM GUARD ON MAINLINE NB IH 39.
  WORK TO BE DONE WITH A SINGLE LANE CLOSURE WHILE BEAM GUARD IS BEING REPLACED.
- REMARK PAVEMENT MARKING IMPACTED BY CONCRETE PATCHING WORK.
  WORK TO BE DONE WITH A SINGLE OR DOUBLE LANE CLOSURE. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR MORE INFORMATION.
- LINE NOTED CULVERT PIPE.
  WORK TO BE DONE WITH A SHOULDER CLOSURE. SEE SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH.

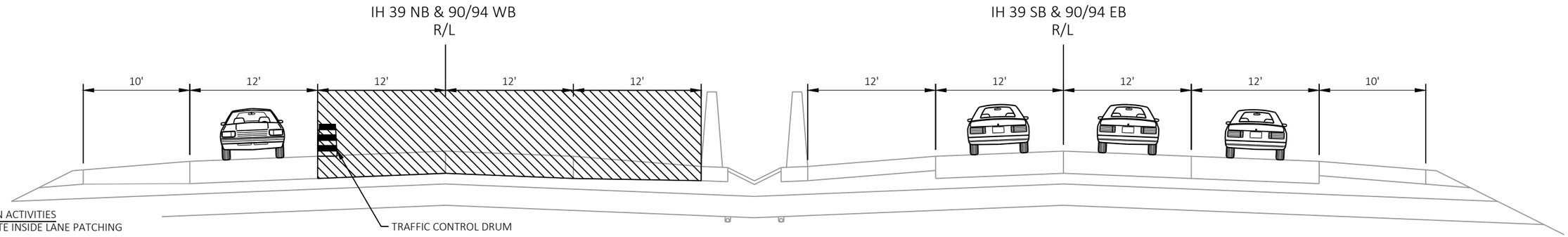
STAGE 3

- MILL AND OVERLAY PAVEMENT ON CTH CS.
  WORK TO BE DONE WITH A FLAGGING OPERATION. SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION.
- MILL AND OVERLAY PAVEMENT ON THE SHOULDERS OF RAMP A - D.
  WORK TO BE DONE WITH RAMP CLOSURES. SEE DETOUR PLANS.
- REPAIR B-11-45 WINGWALL USING SHOULDER AND LANE CLOSURE ON NB IH 39. SEE TRAFFIC CONTROL - WINGWALL REPLACEMENT PLANS.

TRAFFIC GENERAL NOTES

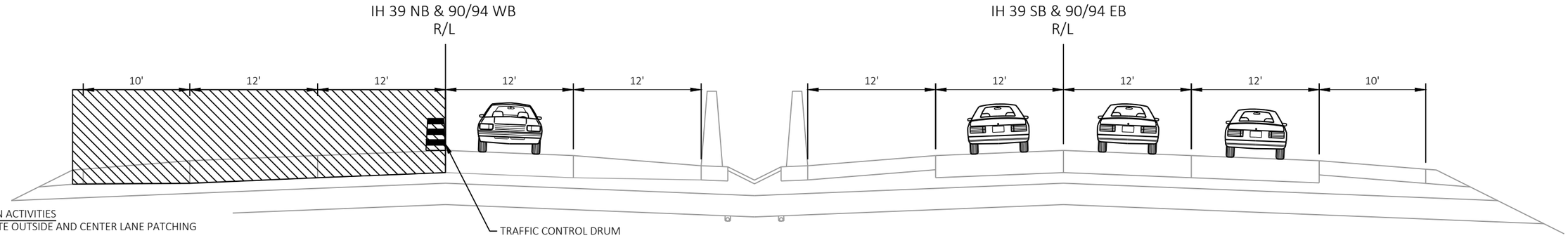
- ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- DOUBLE LANE CLOSURES ON MAINLINE IH 39 TO TAKE PLACE DURING OFF-PEAK HOURS. REVIEW THE SPECIAL PROVISIONS FOR ALL WORK ZONE RESTRICTIONS.
- ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS, SIGN MESSAGE BOARDS, AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1,500 FEET IN FRONT OF THE DRUMS
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5 FT MOUNTING HEIGHT.
- ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- THE LANE CLOSURE SERIES SHALL BE INSTALLED AS A COMPLETE UNIT WHICH INCLUDES ALL ADVANCE WARNING SIGNING, DRUMS, AND ARROW BOARDS.
- CONTRACTOR'S EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE OF IH 39 OR IH 39 RAMPS WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST. CONSTRUCTION CLEAR ZONE = 20 FT, MEASURED FROM EDGE OF LANE LINE.
- TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2



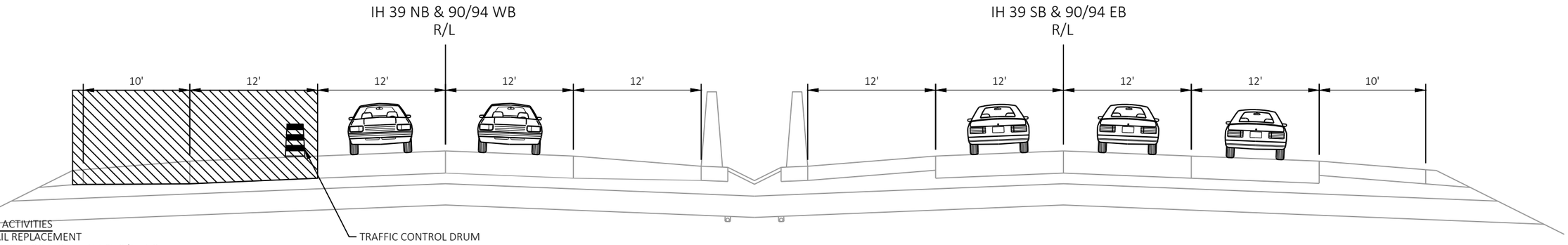
STAGE 1A
CONSTRUCTION ACTIVITIES
1. COMPLETE INSIDE LANE PATCHING
TRAFFIC
1. CENTER AND INSIDE LANES CLOSED DURING NIGHT TIME CLOSURES
STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM
2. TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
3. TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

TRAFFIC CONTROL TYPICAL SECTION
STAGE 1A NIGHT TIME LANE CLOSURE



STAGE 1B
CONSTRUCTION ACTIVITIES
1. COMPLETE OUTSIDE AND CENTER LANE PATCHING
TRAFFIC
1. CENTER AND OUTSIDE LANES CLOSED DURING NIGHT TIME CLOSURES
STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM
2. TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
3. TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
4. TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
5. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
6. TRAFFIC CONTROL, DIGITAL SPEED REDUCTION SYSTEM

TRAFFIC CONTROL TYPICAL SECTION
STAGE 1B NIGHT TIME LANE CLOSURE

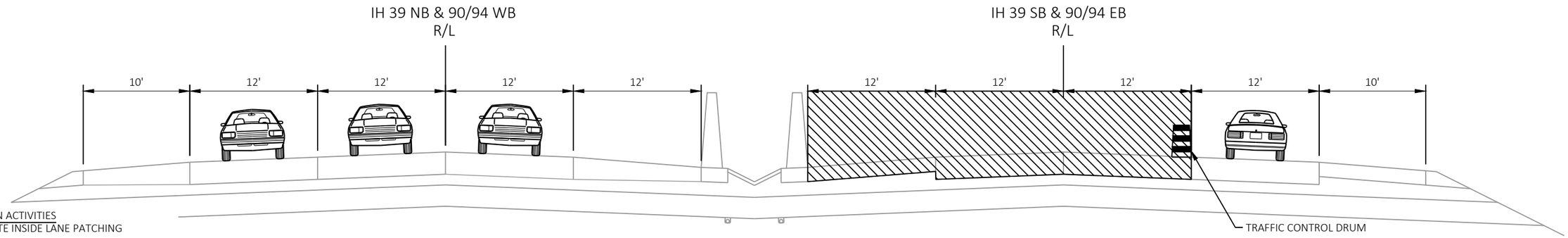


STAGE 1A & 1B
CONSTRUCTION ACTIVITIES
1. GUARDRAIL REPLACEMENT
2. PLACING BASE AGGREGATE DENSE 3/4 -INCH
TRAFFIC
1. OUTSIDE OR INSIDE LANE CLOSED TO TRAFFIC
STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM

TRAFFIC CONTROL TYPICAL SECTION
STAGE 1A & 1B DAYTIME

WORK ZONE

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 55	E

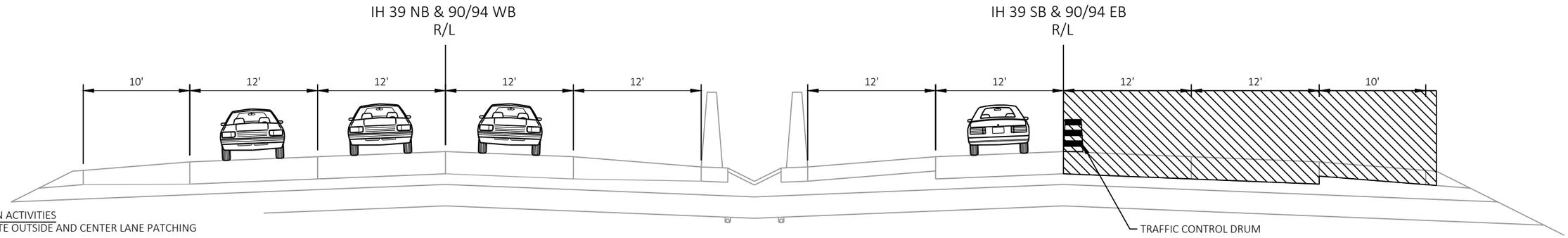


STAGE 2A
CONSTRUCTION ACTIVITIES
1. COMPLETE INSIDE LANE PATCHING

TRAFFIC
1. CENTER AND INSIDE LANES CLOSED DURING NIGHT TIME CLOSURES

STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM
2. TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
3. TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

TRAFFIC CONTROL TYPICAL SECTION
STAGE 2A NIGHT TIME LANE CLOSURE

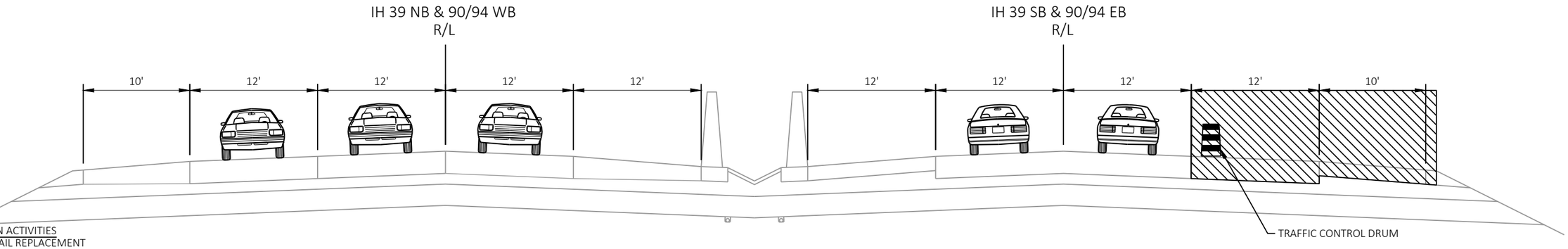


STAGE 2B
CONSTRUCTION ACTIVITIES
1. COMPLETE OUTSIDE AND CENTER LANE PATCHING

TRAFFIC
1. CENTER AND OUTSIDE LANES CLOSED DURING NIGHT TIME CLOSURES

STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM
2. TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
3. TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
4. TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
5. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
6. TRAFFIC CONTROL, DIGITAL SPEED REDUCTION SYSTEM

TRAFFIC CONTROL TYPICAL SECTION
STAGE 2B NIGHT TIME LANE CLOSURE



STAGE 2A & 2B
CONSTRUCTION ACTIVITIES
1. GUARDRAIL REPLACEMENT
2. PLACING BASE AGGREGATE DENSE 3/4 -INCH

TRAFFIC
1. OUTSIDE OR INSIDE LANE CLOSED TO TRAFFIC

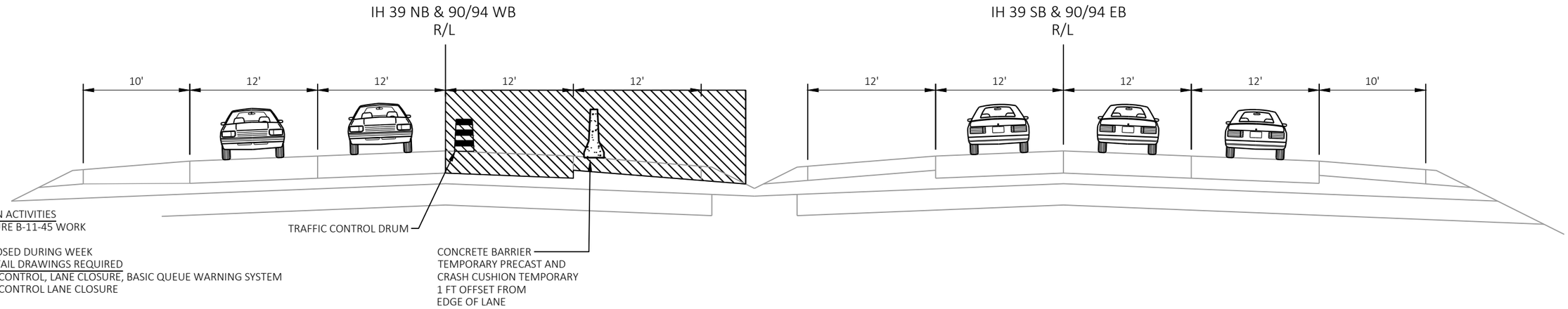
STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM

TRAFFIC CONTROL TYPICAL SECTION
STAGE 2A & 2B DAYTIME

WORK ZONE

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 56	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020601-TC.DWG
LAYOUT NAME - STAGE 2A & 2B
PLOT DATE : 1/27/2026 9:27 AM
PLOT BY : NILSON, ERIK
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

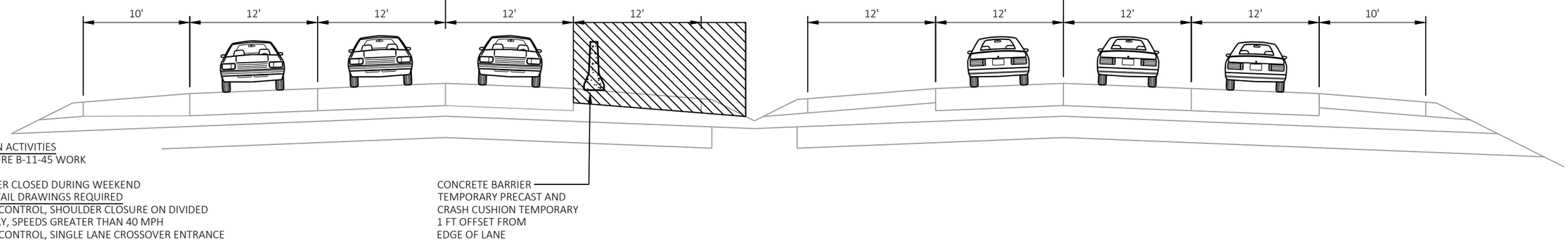


STAGE 3
CONSTRUCTION ACTIVITIES
1. STRUCTURE B-11-45 WORK

TRAFFIC
1. LANE CLOSED DURING WEEK

STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM
2. TRAFFIC CONTROL LANE CLOSURE

TRAFFIC CONTROL TYPICAL SECTION
STAGE 3 LANE CLOSURE



STAGE 3
CONSTRUCTION ACTIVITIES
1. STRUCTURE B-11-45 WORK

TRAFFIC
1. SHOULDER CLOSED DURING WEEKEND

STANDARD DETAIL DRAWINGS REQUIRED
1. TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
2. TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

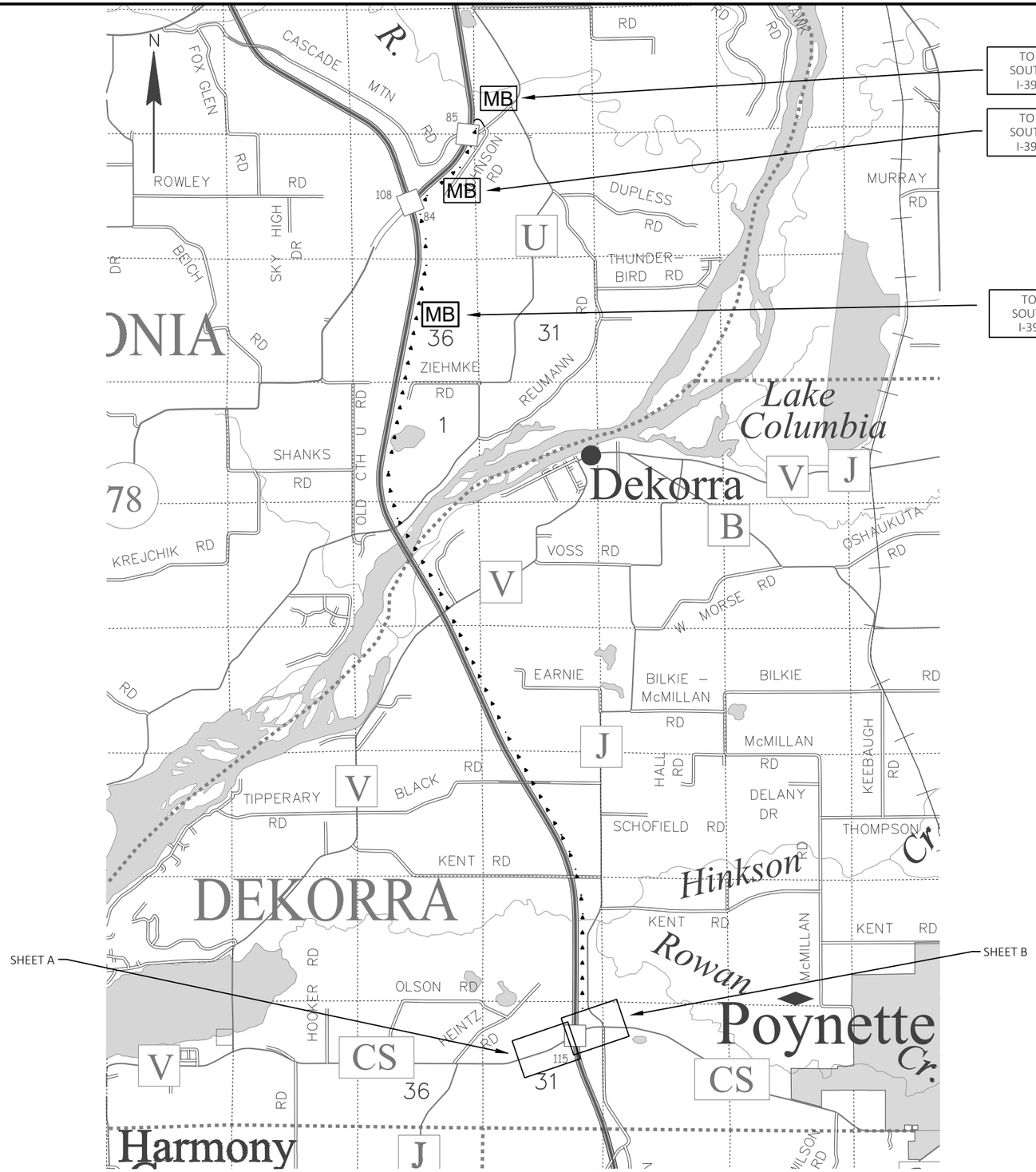
TRAFFIC CONTROL TYPICAL SECTION
STAGE 3 SHOULDER CLOSURE

WORK ZONE

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 57	E

NOTES:

-ADD 5 DRUMS SPACED AT 10 FT INTERVALS IN FRONT OF EACH PCMS SHOWN.



DETOUR ROUTE · · · · · · · · · ·

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	DETOUR OVERVIEW - SB IH 39 ON RAMP CLOSURE	SHEET 58 E

2

2

RAMP CLOSED

PREWARNING ONLY

RAMP TO CLOSE

(DATE) (TIME)

TO SOUTH I-39

TURN LEFT AHEAD

364+00 B

366+00 B

264+00 A

362+00 B

360+00 B

368+00 B

262+00 A

MB

MB

R11-2R 24"X30" RAMP CLOSED TYPE III BARRICADE

R3-1 24"X24"

370+00 B

25' SPACING

PC: 59+97.24 CS

R11-2R 24"X30" RAMP CLOSED TYPE III BARRICADE

RAMP CLOSED 500 FT W20-5aD

PT: 63+98.03 CS

EP: 64+50.00 CS

ROAD WORK AHEAD W20-1A

52+00 CS

54+00 CS

56+00 CS

58+00 CS

60+00 CS

62+00 CS

64+00 CS

50' SPACING

RAMP CLOSED 500 FT W20-5aD

R3-2 24"X24"

END ROAD WORK G20-2A 48"X24"

CTH S

BLEACHERS

PLAYGROUND

MATCH LINE 52+37

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	SHEET A - SB IH ON RAMP CLOSURE	SHEET 59	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020603-TC.DWG
LAYOUT NAME - SHEET A

PLOT DATE : 10/2/2025 5:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- TEMPORARY 16-INCH FLAGS

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

BP: 37+62.53 CS

PC: 39+51.41 CS

38+00 CS

40+00 CS

42+00 CS

44+00 CS

46+00 CS

48+00 CS

50+00 CS

52+00 CS

MB

TO SOUTH I-39

TURN RIGHT

1358+00 D

1356+00 D

1354+00 D

1352+00 D

1348+00 C

1350+00 C

1356+00 C

PC: 1356+59.14 WB

1355+00 WB

1355+00 EB

PC: 53+47.47 CS

1360+00 WB

1360+00 EB

360+00 B

362+00 B

364+00 B

MATCH LINE

IH 39

CTH I

CTH S

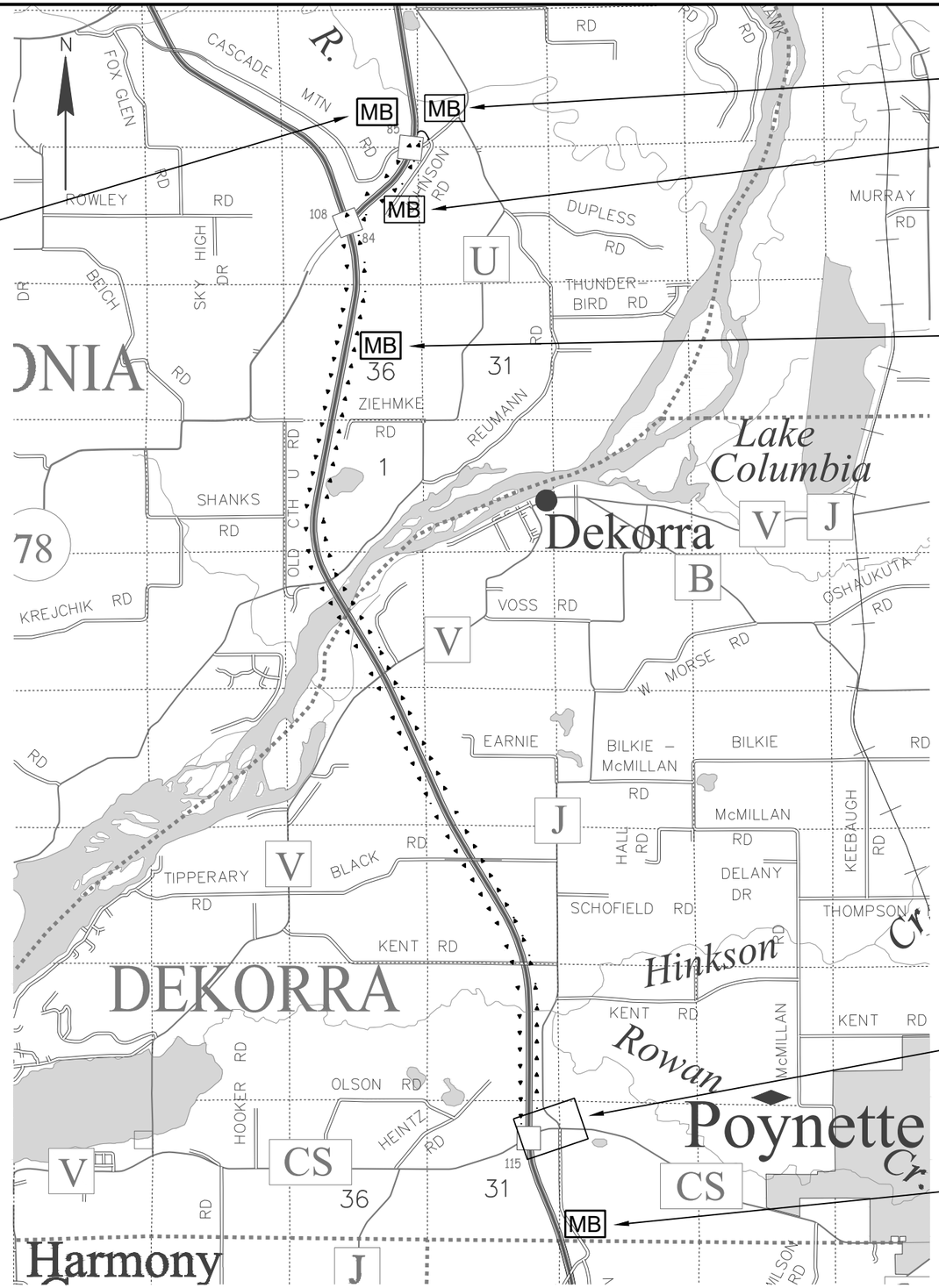
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	SHEET B - SB IH 39 ON RAMP CLOSURE	SHEET 60	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020603-TC.DWG
LAYOUT NAME - SHEET B

PLOT DATE : 10/2/2025 5:30 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTES:

-ADD 5 DRUMS SPACED AT 10 FT INTERVALS IN FRONT OF EACH PCMS SHOWN.



PCMS ON WB CASCADE MTN RD, BETWEEN THE RAMPS

TO	FOLLOW
HWY CS	SOUTH I-39

PCMS ON OFF RAMP

TO	TURN
HWY CS	RIGHT

TO	USE
HWY CS	EXIT 85

TO	USE
HWY CS	EXIT 108 B

SHEET C

EXIT 115	FOLLOW
CLOSED	I-39

DETOUR ROUTE · · ▸ ▸ ▸ ▸ ▸ ▸ ▸ ▸ ▸

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	DETOUR OVERVIEW - NB IH 39 OFF RAMP CLOSURE	SHEET 61	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020604-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/2/2025 5:39 PM PLOT BY : NILSON, ERIK PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 42

2

N

38+00 CS
40+00 CS
42+00 CS
44+00 CS
46+00 CS
48+00 CS
50+00 CS
52+00 CS
CTH S

1358+00 D
1356+00 D
1354+00 D
1352+00 D
1348+00 C
1350+00 CW
1356+00 C
1354+00 C

RAMP CLOSED

SEE SDD TRAFFIC CONTROL,
EXIT RAMP CLOSURE

PREWARNING ONLY

RAMP TO CLOSE

(DATE) (TIME)

MB

1360+00 WB
1360+00 EB
360+00 B
362+00 B
364+00 B
MATCH LINE
IH 39|90|94
1355+00 WB
1355+00 EB

PARKING
CTH S
CTH J

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	SHEET C - NB IH 39 OFF RAMP CLOSURE	SHEET 62	E

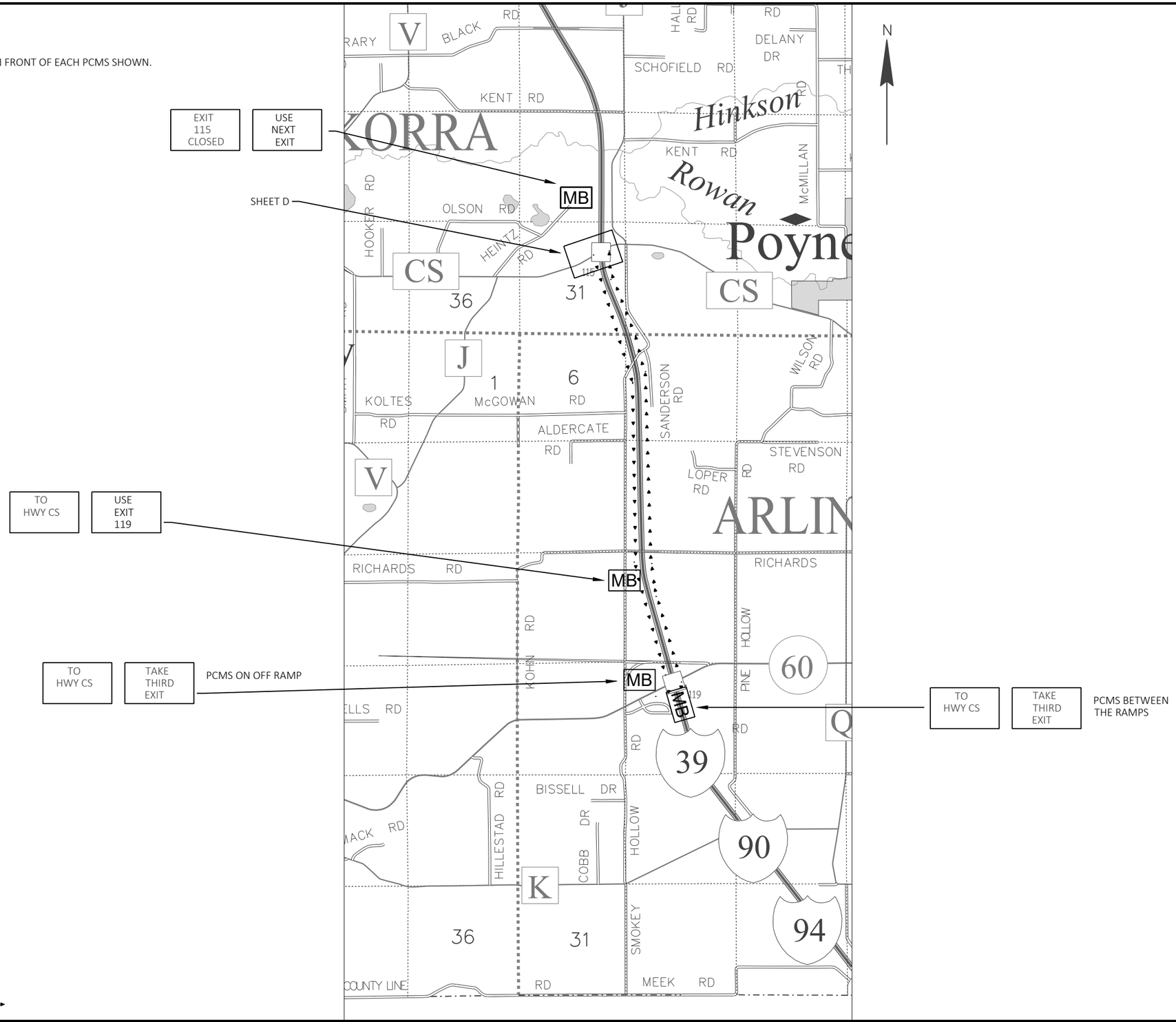
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020605-TC.DWG
LAYOUT NAME - SHEET C

PLOT DATE : 10/6/2025 2:09 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

NOTES:

-ADD 5 DRUMS SPACED AT 10 FT INTERVALS IN FRONT OF EACH PCMS SHOWN.

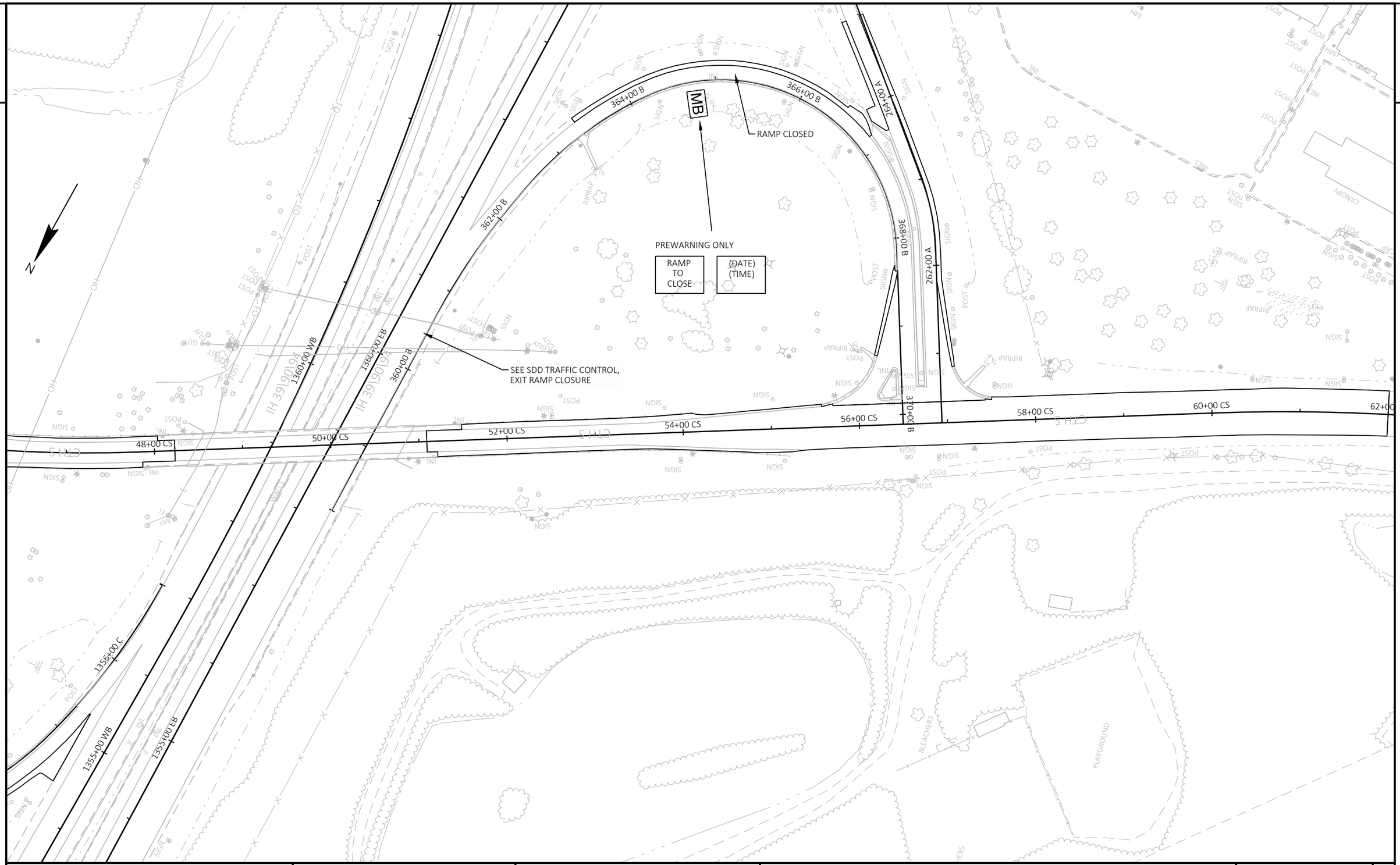


DETOUR ROUTE · ▸ ▸ ▸ ▸ ▸ ▸ ▸ ▸ ▸

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	DETOUR OVERVIEW - SB IH 39 OFF RAMP CLOSURE	SHEET 63	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020608-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/2/2025 5:58 PM
PLOT BY : NILSON, ERIK
PLOT NAME :
PLOT SCALE : Custom
WISDOT/CADDS SHEET 42

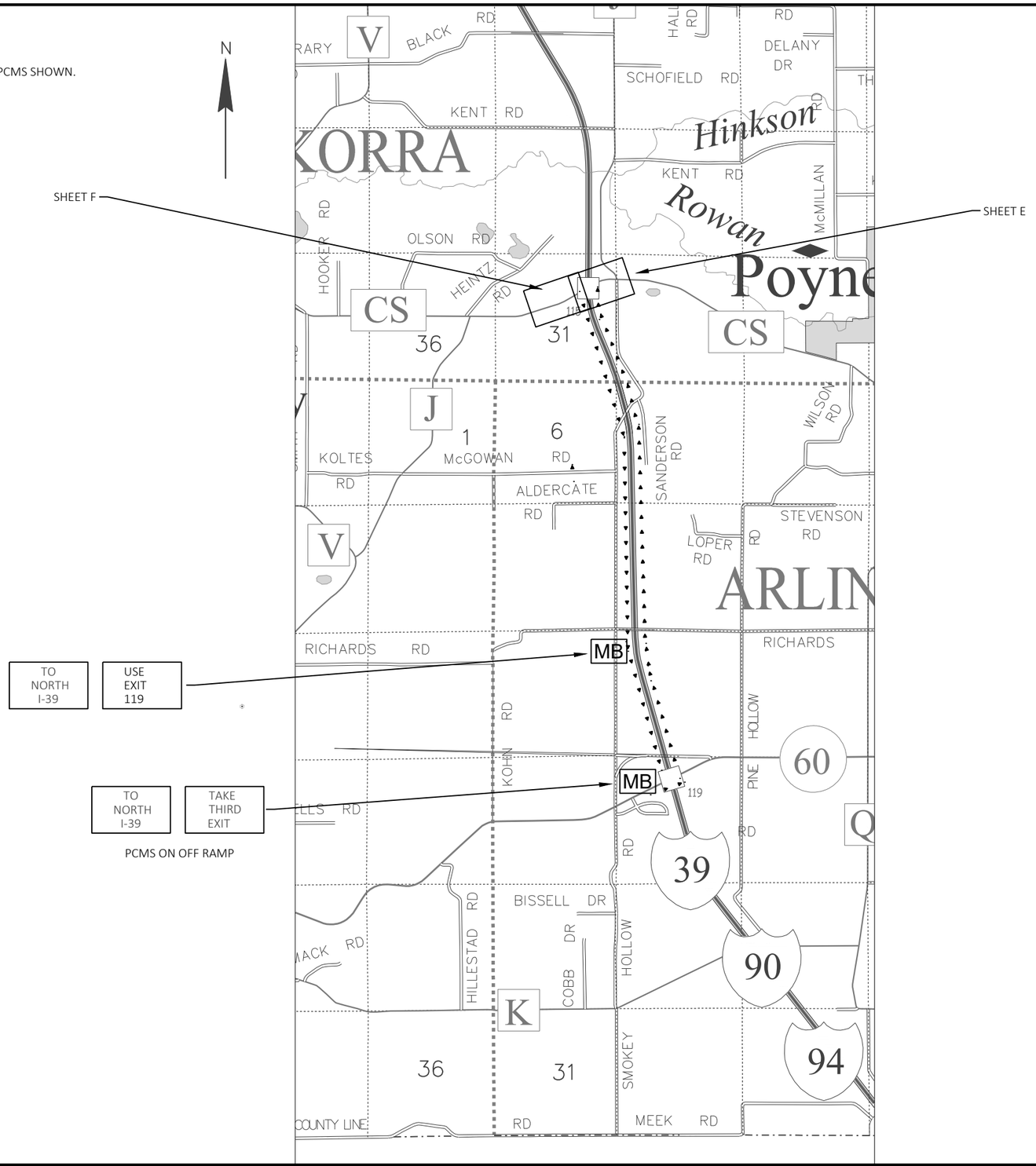
2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	SHEET D - SB IH 39 OFF RAMP CLOSURE	SHEET 64	E

NOTES:

-ADD 5 DRUMS SPACED AT 10 FT INTERVALS IN FRONT OF EACH PCMS SHOWN.



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	DETOUR OVERVIEW - NB IH 39 ON RAMP CLOSURE	SHEET 65	E

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

RAMP CLOSED 500 FT
W20-3aD

BP: 37CS+62.53

PC: 39CS+51.41

38CS+00
39CS+00
40CS+00
41CS+00
42CS+00
43CS+00
44CS+00
45CS+00
46CS+00
47CS+00
48CS+00
49CS+00
50CS+00
51CS+00
52CS+00
53CS+

MB

R11-2R
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

TO NORTH I-39

TURN LEFT AHEAD

R3-1
24"X24"

25' SPACING

50' SPACING

R3-2
24"X24"

1358+00 D

RAMP CLOSED 500 FT
W20-3aD

PT: 47CS+79.56

1360+00 WB

1360+00 EB

IH 39|90|94

PC: 1356+59.14 WB

MB

1356+00 D

PREWARNING ONLY

RAMP TO CLOSE

(DATE) (TIME)

RAMP CLOSED

1355+00 WB

1355+00 EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	SHEET E - NB IH 39 ON RAMP CLOSURE	SHEET 66 E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020607-TC.DWG
LAYOUT NAME - SHEET E

PLOT DATE : 10/6/2025 11:53 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

TO NORTH I-39

TURN RIGHT

MB

PC: 59CS+97.24

PT: 63CS+98.03

EP: 64CS+50.00

ROAD WORK AHEAD
W20-1A

51CS+00 52CS+00 53CS+00 54CS+00 55CS+00 56CS+00 57CS+00 58CS+00 59CS+00 60CS+00 61CS+00 62CS+00 63CS+00 64CS+00

MB

SPACING

TO NORTH I-39

TURN LEFT

END ROAD WORK
G20-2A
48"X24"

BLEACHERS

PLAYGROUND

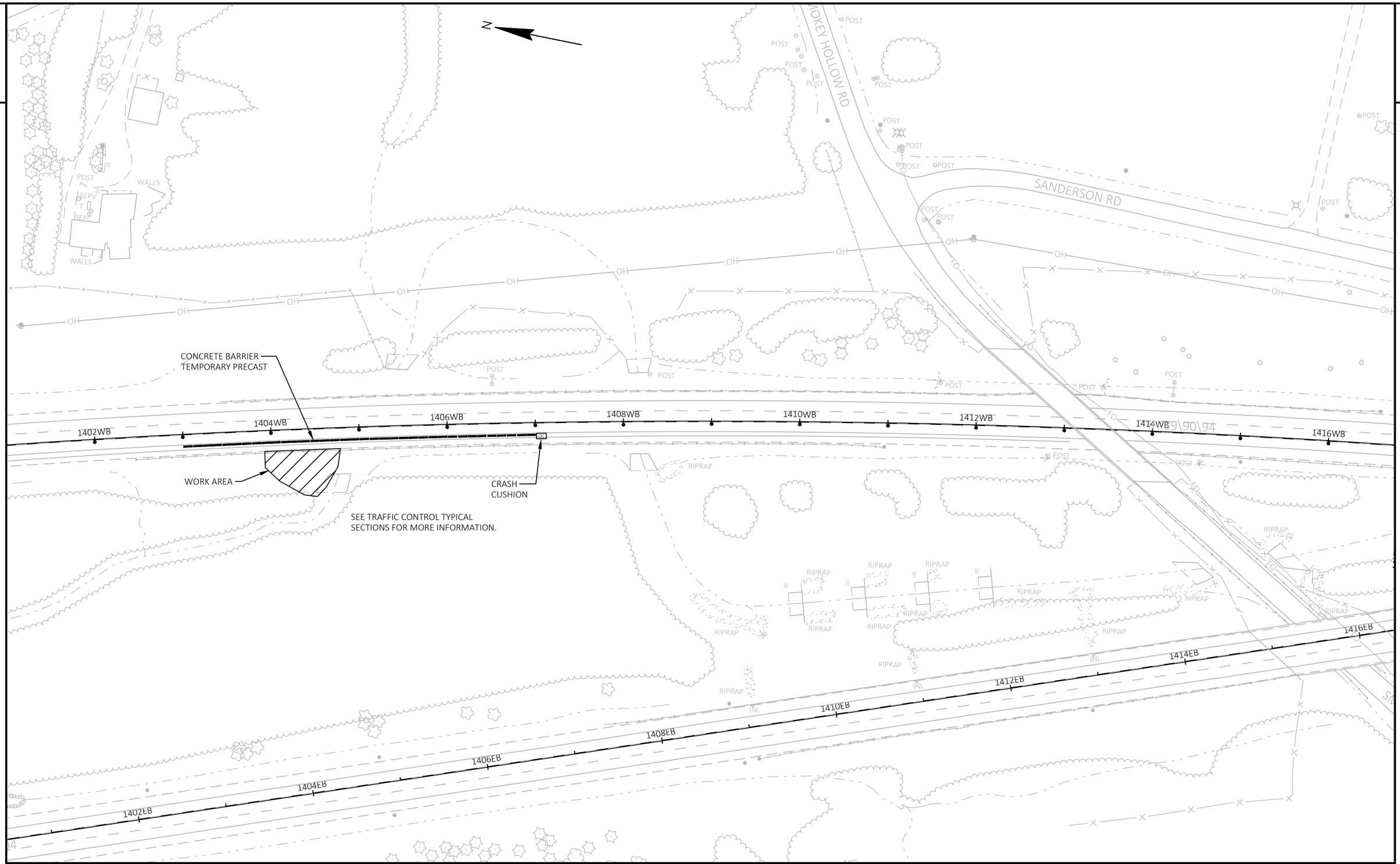
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	SHEET F - NB IH 39 ON RAMP CLOSURE	SHEET 67	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020607-TC.DWG
LAYOUT NAME - SHEET F

PLOT DATE : 10/6/2025 11:54 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - WINGWALL REPLACEMENT	SHEET 68	E

2

2

N

SANDERSON RD

SMOKEY HOLLOW RD

IH 39

END OF LANE CLOSURE TAPER

SEE SDD TRAFFIC CONTROL LANE CLOSURE, SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H., AND SDD TRAFFIC CONTROL, LANE CLOSURE, BASIC QUEUE WARNING SYSTEM

PT: 1428+72.65 WB

PT: 1429+08.69 EB

STA BACK = 1429+58.91WB

STA AHEAD = 1429+08.69 WB

PC: 1416+74.95 EB

1418WB 1420WB 1422WB 1424WB 1426WB 1428WB 1430WB

1418EB 1420EB 1422EB 1424EB 1426EB 1428EB 1430EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - WINGWALL REPLACEMENT	SHEET 69	E

FILE NAME : N:\PDS\C3D\10120132\SHEETS\020610-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/27/2026 2:17 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

PC: 39+51.41 CS

40CS

EP: 1358+27.76 D

PT: 1356+05.17 D

PC: 1354+30.07 D

1355D

PT: 1352+55.88 D

1350SC

PC: 1349+01.12 C

BP: 1346+79.57 C

45CS

PC: 1347+24.82 D

PCC: 1348+24.84 D

1350D

RAMP D

RAMP C

PCC: 1353+50.31 C

PCC: 1354+94.36 C

1355SC

EP: 1357+00.71 C

CTH CS

PT: 47+79.56 CS

PI STA = 1365+42.14 WB
DELTA = 26°01'57" LT
D = 1°30'00"
T = 882.99'
L = 1735.50'
R = 3819.72'
PC STA = 1356+59.14 WB
PT STA = 1373+94.64 WB

S25°19'18"E

1375WB

1370WB

NB/WB IH 39/90/94

PC: 1366+02.24 EB

1350WB

S0°42'39"W

1355WB

1365WB

1360WB

1350EB

S0°43'46"E

1355EB

1360EB

1365EB

SB/EB IH 39/90/94

1370EB

1375EB

50CS

360B

RAMP B

365B

270A

RAMP A

265A

PI STA = 1372+51.29 EB
DELTA = 19°17'15" LT
D = 1°30'00"
T = 649.06'
L = 1285.83'
R = 3819.72'
PC STA = 1366+02.24 EB
PT STA = 1378+88.07 EB

BEGIN PROJECT
STA 1349+95EB
X=535694.4864
Y=341163.1902

BP: 358+18.00 B

PC: 360+68.29 B

PCC: 362+68.29 B

PCC: 364+18.28 B

PT: 368+12.99 B

EP: 370+11.23 B

55CS

37CS

PC: 262+19.44 A

PT: 262+97.78 A

BP: 260+21.24 A

60CS

PC: 59+97.24 CS

PC: 265+56.71 A

PT: 270+00.10 A

EP: 273+00.10 A

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 70	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 01
PLOT DATE : 1/13/2025 11:26 AM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

N

NB/WB IH 39/90/94

75WB

S25°19'18"E

1380WB

1385WB

1390WB

1395WB

1400WB

1405WB

PI STA = 1405+26.41 WB
DELTA = 23°48'40" RT
D = 0°30'00"
T = 2415.98'
L = 4762.22'
R = 11459.16'
PC STA = 1381+10.42 WB
PT STA = 1428+72.65 WB

PT: 1378+88.07 EB

5EB

SB/EB IH 39/90/94

1380EB

1385EB

1390EB

S20°01'00"E

1395EB

1400EB

1405EB

PI STA = 1372+51.29 EB
DELTA = 19°17'15" LT
D = 1°30'00"
T = 649.06'
L = 1285.83'
R = 3819.72'
PC STA = 1366+02.24 EB
PT STA = 1378+88.07 EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 71	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 02

PLOT DATE : 1/13/2025 11:26 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

1405WB

1410WB

1415WB

NB/WB IH 39/90/94

1420WB

1425WB

STA BACK = 1429+58.91WB

STA AHEAD = 1429+08.69 WB

1430WB

S1°30'38"E

1435WB

PI STA = 1405+26.41 WB
DELTA = 23°48'40" RT
D = 0°30'00"
T = 2415.98'
L = 4762.22'
R = 11459.16'
PC STA = 1381+10.42 WB
PT STA = 1428+72.65 WB

1405EB

S20°01'00"E

1410EB

1415EB

SB/EB IH 39/90/94

1420EB

1425EB

1430EB

S1°30'38"E

1435EB

PC: 1416+74.95 EB

PI STA = 1422+97.24 EB
DELTA = 18°30'22" RT
D = 1°30'00"
T = 622.29'
L = 1233.74'
R = 3819.72'
PC STA = 1416+74.95 EB
PT STA = 1429+08.69 EB

PT: 1429+08.69 EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 72	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 03

PLOT DATE : 1/13/2025 11:26 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

N

NB/WB IH 39/90/94

S1°30'38"E 1435WB 1440WB 1445WB 1450WB 1455WB 1460WB

S1°30'38"E 1435EB 1440EB 1445EB 1450EB 1455EB 1460EB

SB/EB IH 39/90/94

2

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 73	E

2

2

N

NB/WB IH 39/90/94

1460WB 1465WB 1470WB S1°30'38"E 1475WB 1480WB 1485WB 1490W

1460EB 1465EB 1470EB S1°30'38"E 1475EB 1480EB 1485EB 1490E

SB/EB IH 39/90/94

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 74	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 05

PLOT DATE : 1/13/2025 11:26 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

PI STA = 1515+53.91 WB
DELTA = 14°17'29" LT
D = 0°45'00"
T = 957.73'
L = 1905.52'
R = 7639.44'
PC STA = 1505+96.18 WB
PT STA = 1525+01.70 WB

1490WB 1495WB S1°30'38"E 1500WB NB/WB IH 39/90/94 1505WB PC: 1508+43.16 EB 1510WB 1515WB

1490EB 1495EB S1°30'38"E 1500EB 1505EB 1510EB 1515EB

SB/EB IH 39/90/94

PI STA = 1515+61.45 EB
DELTA = 14°17'29" LT
D = 1°00'00"
T = 718.30'
L = 1429.14'
R = 5729.58'
PC STA = 1508+43.16 EB
PT STA = 1522+72.30 EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 75	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 06

PLOT DATE : 1/13/2025 11:26 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

N

PI STA = 1515+53.91 WB
DELTA = 14°17'29" LT
D = 0°45'00"
T = 957.73'
L = 1905.52'
R = 7639.44'
PC STA = 1505+96.18 WB
PT STA = 1525+01.70 WB

STA BACK = 1525+11.70WB
STA AHEAD = 1525+29.35 WB

WB

1520WB

1525WB

1530WB

1535WB

S15°48'07"E

1540WB

1545WB

NB/WB IH 39/90/94

B

1520EB

1525EB

1530EB

1535EB

S15°48'07"E

1540EB

1545EB

SB/EB IH 39/90/94

PI STA = 1515+61.45 EB
DELTA = 14°17'29" LT
D = 1°00'00"
T = 718.30'
L = 1429.14'
R = 5729.58'
PC STA = 1508+43.16 EB
PT STA = 1522+72.30 EB

PT: 1522+72.30 EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 76	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 07

PLOT DATE : 1/13/2025 11:26 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

N

NB/WB IH 39/90/94

1550WB 1555WB 1560WB S15°48'07"E 1565WB 1566WB

EP: 1566+51.89 WB

1550EB 1555EB 1560EB S15°48'07"E 1565EB

SB/EB IH 39/90/94

END PROJECT
STA 1561+15EB

EP: 1566+47.43 EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39	SHEET 77	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020701-AD.DWG
LAYOUT NAME - 08

PLOT DATE : 1/13/2025 11:26 AM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

BP: 37+62.53 CS

38CS

S89°57'49"W

PC: 39+51.41 CS

40CS

BEGIN CONSTRUCTION
STA 39+50 CS

CTH CS

42CS

EP: 1358+27.76 D

STA 42+95.63 CS
STA 1358+27.76 D

STA 43+39.96 CS
STA 1346+79.57 C

BP: 1346+79.57 C

44CS

46CS

48CS

PI STA = 43+75.93 CS
DELTA = 31°03'19" LT
D = 3°45'00"
T = 424.52'
L = 828.15'
R = 1527.89'
PC STA = 39+51.41 CS
PT STA = 47+79.56 CS

PT: 47+79.56 CS

1358D

RAMP D

1348C

RAMP C

PT: 1356+05.17 D

1358D

PC: 1349+01.12 C

1350C

1354D

0.07 D

N

364B

362B

RAMP B

PCC: 362+68.29 B

PC: 360+68.29 B

1360WB

1360EB

3608

50CS

52CS

S58°54'29"W

BP: 358+18.00 B

NB/WB IH 39/90/94

SB/EB IH 39/90/94

EP: 1357+00.71 C

PC: 1356+59.14 WB

1356C

PCC: 1354+94.36 C

PCC: 1353+50.31 C

1354C

1355WB

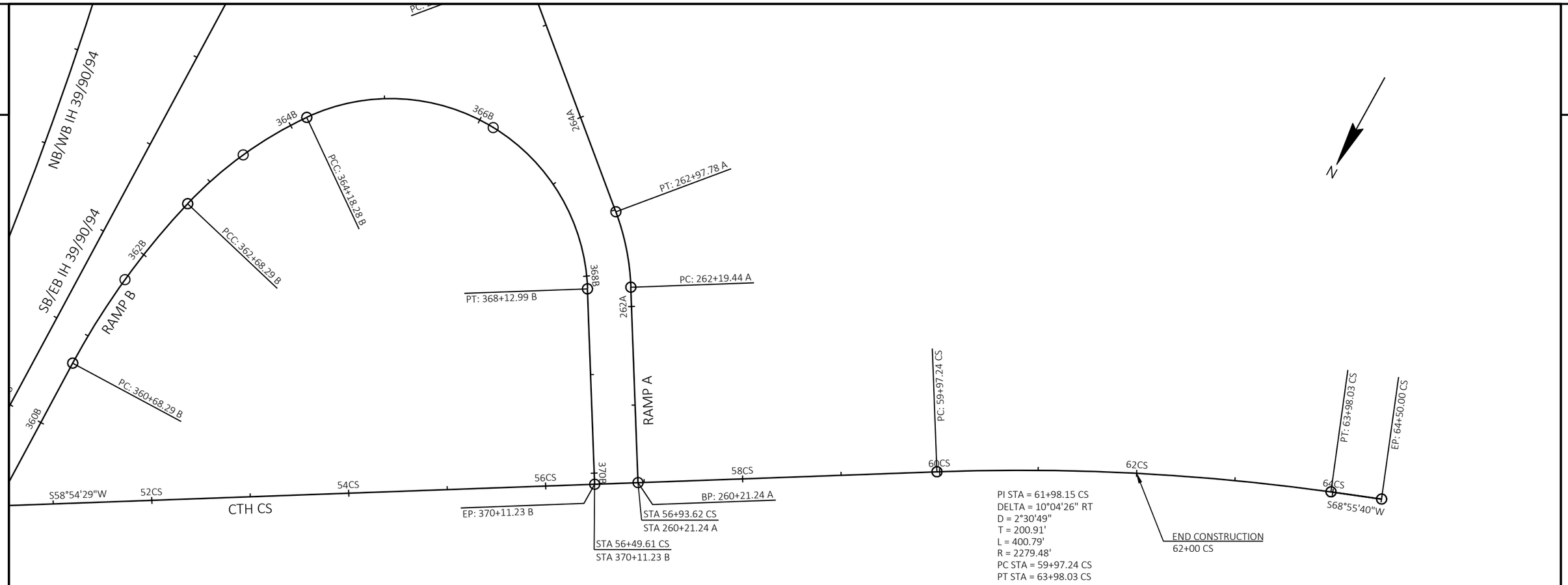
1355EB

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - CTH CS	SHEET 78	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020702-AD.DWG
LAYOUT NAME - 11

PLOT DATE : 1/14/2025 4:52 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - CTH CS	SHEET 79	E

2

2

N

1360WB

1360EB

1365WB

1365EB

1370WB

1370EB

NB/WB IH 39/90/94

SB/EB IH 39/90/94

50CS

52CS

54CS

56CS

58CS

CTH CS

S0°43'49"E

360B

BP: 358+18.00 B

PC: 360+68.29 B

RAMP B

362B

PCC: 362+68.29 B

364B

PCC: 364+18.28 B

PC: 1366+02.24 EB

PI STA = 361+68.87 B
DELTA = 15°04'40" RT
D = 7°32'20"
T = 100.58'
L = 200.00'
R = 760.00'
PC STA = 360+68.29 B
PT STA = 362+68.29 B

PI STA = 363+44.18 B
DELTA = 21°29'04" RT
D = 14°19'26"
T = 75.89'
L = 149.99'
R = 400.00'
PC STA = 362+68.29 B
PT STA = 364+18.28 B

PT: 368+12.99 B

368B

EP: 370+11.23 B

STA 370+11.23 B
STA 56+49.61 CS

370B

N31°05'31"W

S31°05'31"E

262A

STA 260+21.24 A
STA 56+93.62 CS

BP: 260+21.24 A

PC: 262+19.44 A

PI STA = 262+58.95 A
DELTA = 18°23'45" LT
D = 23°28'55"
T = 39.51'
L = 78.34'
R = 244.00'
PC STA = 262+19.44 A
PT STA = 262+97.78 A

PT: 262+97.78 A

264A

S49°29'16"E

PC: 265+56.71 A

266A

PI STA = 367+20.88 B
DELTA = 113°04'34" RT
D = 28°38'52"
T = 302.60'
L = 394.71'
R = 200.00'
PC STA = 364+18.28 B
PT STA = 368+12.99 B

RAMP A

268A

PI STA = 267+86.13 A
DELTA = 36°17'31" RT
D = 8°11'06"
T = 229.42'
L = 443.39'
R = 700.00'
PC STA = 265+56.71 A
PT STA = 270+00.10 A

270A

PT: 270+00.10 A

S13°11'44"E

272A

EP: 273+00.10 A

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39 RAMPS	SHEET 80	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020703-AD.DWG
LAYOUT NAME - 09

PLOT DATE : 9/30/2025 3:45 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

BP: 1333+56.99 WB

1335WB

1340WB

BP: 1340+77.43 D

1342D

S0°24'35"E

1344D

1345WB

1346D

PI STA = 1347+74.86 D
DELTA = 4°51'00" LT
D = 4°50'56"
T = 50.04'
L = 100.03'
R = 1181.65'
PC STA = 1347+24.82 D
PT STA = 1348+24.84 D

PC: 1347+24.82 D

PCC: 1348+24.84 D

1348D

1350D

RAMP D

PI STA = 1350+54.78 D
DELTA = 49°23'37" LT
D = 11°27'33"
T = 229.94'
L = 431.04'
R = 500.00'
PC STA = 1348+24.84 D
PT STA = 1352+55.88 D

PT: 1352+55.88 D

PC: 1354+30.07 D

1352D

S56°13'21"E

1354D

PI STA = 1355+21.59 D
DELTA = 41°07'00" RT
D = 23°28'55"
T = 91.51'
L = 175.10'
R = 244.00'
PC STA = 1354+30.07 D
PT STA = 1356+05.17 D

PT: 1356+05.17 D

1356D

S15°06'21"E

1358D

N15°06'21"W

1348C

1350C

1352C

RAMP C

1354C

PC: 1349+01.12 C

PC: 1353+50.31 C

PCC: 1354+94.36 C

EP: 1357+00.71 C

1356C

BP: 1345+00.00 EB

1350WB

NB/WB IH 39/90/94

1350EB

SB/EB IH 39/90/94

1355EB

1355WB

PC: 1356+59.14 WB

PI STA = 1353+17.46 C
DELTA = 128°41'00" LT
D = 28°38'52"
T = 416.35'
L = 449.19'
R = 200.00'
PC STA = 1349+01.12 C
PT STA = 1353+50.31 C

PI STA = 1354+23.12 C
DELTA = 20°38'01" LT
D = 14°19'26"
T = 72.81'
L = 144.05'
R = 400.00'
PC STA = 1353+50.31 C
PT STA = 1354+94.36 C

PI STA = 1355+98.17 C
DELTA = 15°33'24" LT
D = 7°32'20"
T = 103.81'
L = 206.35'
R = 760.00'
PC STA = 1354+94.36 C
PT STA = 1357+00.71 C

38CS

BP: 37+62.53 CS

PC: 39+51.41 CS

40CS

EP: 1358+27.76 D

42CS

STA 1358+27.76 D
STA 42+95.63 CS

STA 1346+79.57 C
STA 43+39.96 CS

44CS

46CS

BP: 1346+79.57 C

48CS

PT: 47+79.56 CS

1360WB

1360EB

50CS

S0°43'49"E

B60B

1365WB

362B

BP: 358+18.00 B

CTH CS

52CS

PC: 360+68.29 B

PCC: 362+68.29 B

364B

PCC: 366+68.28 B

PC: 265+56.71 A

54CS

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL - IH 39 RAMPS	SHEET 81	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\020703-AD.DWG
LAYOUT NAME - 10

PLOT DATE : 9/30/2025 3:46 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

Estimate Of Quantities

1012-01-62

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 01. B-11-45	EACH	1.000	1.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	11,761.000	11,761.000
0006	204.0165	Removing Guardrail	LF	9,529.000	9,529.000
0008	206.2001	Excavation for Structures Culverts (structure) 01. B-11-45	EACH	1.000	1.000
0010	206.5001	Cofferdams (structure) 01. B-11-45	EACH	1.000	1.000
0012	210.2500	Backfill Structure Type B	TON	118.000	118.000
0014	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1012-01-62	EACH	1.000	1.000
0016	213.0100	Finishing Roadway (project) 01. 1012-01-62	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,438.000	1,438.000
0020	305.0500	Shaping Shoulders	STA	7.000	7.000
0022	311.0115	Breaker Run	CY	29.000	29.000
0024	415.6000.S	Rout and Seal	LF	2,677.000	2,677.000
0026	416.0610	Drilled Tie Bars	EACH	938.000	938.000
0028	416.0620	Drilled Dowel Bars	EACH	8,880.000	8,880.000
0030	416.1710	Concrete Pavement Repair	SY	2,735.000	2,735.000
0032	416.1715	Concrete Pavement Repair SHES	SY	2,437.000	2,437.000
0034	416.1720	Concrete Pavement Replacement	SY	1,233.000	1,233.000
0036	416.1725	Concrete Pavement Replacement SHES	SY	366.000	366.000
0038	420.1000	Continuous Diamond Grinding Concrete Pavement	SY	9,721.000	9,721.000
0040	450.4000	HMA Cold Weather Paving	TON	330.000	330.000
0042	455.0605	Tack Coat	GAL	82.000	82.000
0044	460.2000	Incentive Density HMA Pavement	DOL	850.000	850.000
0046	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,318.000	1,318.000
0048	492.2020.S	Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant	MI	0.090	0.090
0050	504.0100	Concrete Masonry Culverts	CY	20.000	20.000
0052	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,620.000	2,620.000
0054	511.1200	Temporary Shoring (structure) 01. B-11-45	SF	320.000	320.000
0056	516.0500	Rubberized Membrane Waterproofing	SY	7.000	7.000
0058	520.8700	Cleaning Culvert Pipes	EACH	8.000	8.000
0060	603.8000	Concrete Barrier Temporary Precast Delivered	LF	400.000	400.000
0062	603.8125	Concrete Barrier Temporary Precast Installed	LF	400.000	400.000
0064	604.0500	Slope Paving Crushed Aggregate	SY	1,620.000	1,620.000
0066	606.0300	Riprap Heavy	CY	8.000	8.000
0068	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0070	614.2300	MGS Guardrail 3	LF	6,068.000	6,068.000
0072	614.2330	MGS Guardrail 3 K	LF	2,429.000	2,429.000
0074	614.2500	MGS Thrie Beam Transition	LF	391.000	391.000
0076	614.2610	MGS Guardrail Terminal EAT	EACH	15.000	15.000
0078	614.2620	MGS Guardrail Terminal Type 2	EACH	11.000	11.000
0080	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1012-01-62	EACH	1.000	1.000
0082	619.1000	Mobilization	EACH	1.000	1.000
0084	624.0100	Water	MGAL	14.000	14.000
0086	642.5401	Field Office Type D	EACH	1.000	1.000
0088	643.0300	Traffic Control Drums	DAY	11,250.000	11,250.000
0090	643.0370.S	Digital Speed Reduction System (DSRS)	DAY	30.000	30.000
0092	643.0420	Traffic Control Barricades Type III	DAY	135.000	135.000
0094	643.0705	Traffic Control Warning Lights Type A	DAY	270.000	270.000
0096	643.0715	Traffic Control Warning Lights Type C	DAY	1,543.000	1,543.000
0098	643.0810	Traffic Control Connected Arrow Boards	DAY	109.000	109.000

1012-01-62

Line	Item	Item Description	Unit	Total	Qty
0100	643.0900	Traffic Control Signs	DAY	1,060.000	1,060.000
0102	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0104	643.1050	Traffic Control Signs PCMS	DAY	102.000	102.000
0106	643.1205.S	Basic Traffic Queue Warning System	DAY	67.000	67.000
0108	643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY	79.000	79.000
0110	643.5000	Traffic Control	EACH	1.000	1.000
0112	645.0120	Geotextile Type HR	SY	23.000	23.000
0114	645.0140	Geotextile Type SAS	SY	43.000	43.000
0116	646.1020	Marking Line Epoxy 4-Inch	LF	4,450.000	4,450.000
0118	646.2020	Marking Line Epoxy 6-Inch	LF	3,600.000	3,600.000
0120	646.3020	Marking Line Epoxy 8-Inch	LF	627.000	627.000
0122	646.4020	Marking Line Epoxy 10-Inch	LF	100.000	100.000
0124	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	4,080.000	4,080.000
0126	646.5020	Marking Arrow Epoxy	EACH	3.000	3.000
0128	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0130	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	500.000	500.000
0132	650.6501	Construction Staking Structure Layout (structure) 01. B-11-45	EACH	1.000	1.000
0134	650.8000	Construction Staking Resurfacing Reference	LF	4,071.000	4,071.000
0136	650.9911	Construction Staking Supplemental Control (project) 01. 1012-01-62	EACH	1.000	1.000
0138	690.0150	Sawing Asphalt	LF	94.000	94.000
0140	690.0250	Sawing Concrete	LF	21,826.000	21,826.000
0142	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0144	740.0440	Incentive IRI Ride	DOL	3,000.000	3,000.000
0146	SPV.0060	Special .01 Special Cross Stitching Longitudinal Joints and Cracks	EACH	150.000	150.000
0148	SPV.0060	Special .02 Temporary Access For Structure B-11-45 Repair	EACH	1.000	1.000
0150	SPV.0090	Special .01 UV GRP CIPP 48x60-Inch	LF	157.000	157.000

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CONCRETE PATCHING

ITEM 492.2020.S AND SPV.0060.01 ARE USED IN THE SAME LOCATION.

CATEGORY	LOCATION	415.6000.S ROUT AND SEAL LF	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1715 CONCRETE PAVEMENT REPAIR SHES SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY	492.2020.S CLEANING AND SEALING CRACKS AND JOINTS WITH HOT-APPLIED SEALANT MI	690.0250 SAWING CONCRETE LF	SPV.0060.01 SPECIAL (01. CROSS STITCHING LONGITUDINAL JOINTS AND CRACKS) EACH	REMARKS
0010	NB IH 39	---	408	4,576	1,475	1,084	616	59	---	11,714	---	
0010	SB IH 39	---	130	688	260	105	117	107	---	1,916	---	
0010	RAMP A	545	---	---	---	---	---	---	0.09	---	150	
0010	RAMP B	475	---	16	---	16	---	---	---	32	---	
0010	RAMP C	449	---	16	---	16	---	---	---	32	---	
0010	RAMP D	1,208	---	16	---	16	---	---	---	32	---	
0010	UNDISTRIBUTED	---	400	3,568	1,000	1,200	500	200	---	8,100	---	
	TOTAL 0010	2,677	938	8,880	2,735	2,437	1,233	366	0.09	21,826	150	

ASPHALT PAVEMENT

CATEGORY	LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	305.0500 SHAPING SHOULDERS STA	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	690.0150 SAWING ASPHALT LF	REMARKS
0010	CTH CS	9,981	3	280	70	1,118	94	
0010	RAMP A	337	1	10	2	38	---	
0010	RAMP B	297	1	8	2	33	---	
0010	RAMP C	327	1	9	2	37	---	
0010	RAMP D	819	1	23	6	92	---	
	TOTAL 0010	11,761	7	330	82	1,318	94	

DIAMOND GRINDING

CATEGORY	STATION	TO	STATION	LOCATION	420.1000 CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT SY	REMARKS
0010	1349+70 EB	-	1350+60 EB	ALL LANES	360	
0010	1350+18 WB	-	1350+90 WB	ALL LANES	288	
0010	1371+73 WB	-	1379+95 WB	OUTSIDE LANE	1,096	
0010	1419+61 WB	-	1422+89 WB	OUTSIDE LANE	437	
0010	1422+46 WB	-	1425+52 WB	MIDDLE LANE	408	
0010	1429+15 EB	-	1430+60 EB	OUTSIDE LANE	193	
0010	1429+15 WB	-	1434+51 WB	OUTSIDE LANE	781	
0010	1435+98 WB	-	1436+91 WB	OUTSIDE LANE	124	
0010	1478+21 WB	-	1479+09 WB	OUTSIDE LANE	117	
0010	1482+87 WB	-	1503+96 WB	OUTSIDE LANE	2,812	
0010	1506+36 WB	-	1514+57 WB	MIDDLE LANE	1,095	
0010	1506+93 WB	-	1510+05 WB	OUTSIDE LANE	416	
0010	1518+01 WB	-	1519+04 WB	OUTSIDE LANE	137	
0010	1527+43 WB	-	1530+89 WB	OUTSIDE LANE	461	
0010	1535+51 WB	-	1532+09 WB	OUTSIDE LANE	456	
0010	1540+86 WB	-	1544+91 WB	OUTSIDE LANE	540	
				TOTAL 0010	9,721	

SLOPE PAVING

CATEGORY	STATION	TO	STATION	LOCATION	604.0500 SLOPE PAVING CRUSHED AGGREGATE SY	REMARKS
0010	1378+84 WB	-	1395+11 WB	INSIDE SHOULDER	1,085	
0010	1402+40 WB	-	1410+42 WB	INSIDE SHOULDER	535	
				TOTAL 0010	1,620	

BASE AGGREGATE DENSE

CATEGORY	ROADWAY	LOCATION	LENGTH	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	REMARKS
0010	NB IH 39	INSIDE SHOULDER	1,156 FT	36	
0010	NB IH 39	OUTSIDE SHOULDER	14,817 FT	459	
0010	SB IH 39	INSIDE SHOULDER	4,263 FT	132	
0010	SB IH 39	OUTSIDE SHOULDER	17,405 FT	540	
0010	RAMP A	OUTSIDE SHOULDER	1,107 FT	77	
0010	RAMP B	BOTH SHOULDERS	472 FT	33	
0010	RAMP C	INSIDE SHOULDER	112 FT	8	
0010	RAMP D	BOTH SHOULDERS	1,186 FT	83	
0010	IH 39	GUARDRAIL LOCATIONS	9,502 FT	70	
			TOTAL 0010	1,438	

GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	REMARKS
0010	1355+04 EB	-	1360+14 EB	OUTSIDE SHOULDER	352	352	---	---	1	1	
0010	1406+68 EB	-	1408+33 EB	INSIDE SHOULDER	95	25	---	39	1	---	
0010	1408+48 EB	-	1415+13 EB	OUTSIDE SHOULDER	609	525	---	39	1	---	
0010	1416+69 EB	-	1419+76 EB	OUTSIDE SHOULDER	296	265	---	39	---	1	
0010	1466+17 EB	-	1469+95 EB	OUTSIDE SHOULDER	328	277	---	---	1	1	
0010	1501+38 EB	-	1504+79 EB	OUTSIDE SHOULDER	295	200	---	39	1	---	
0010	1357+41 WB	-	1362+87 WB	OUTSIDE SHOULDER	453	402	---	---	1	1	
0010	1366+50 WB	-	1370+64 WB	OUTSIDE SHOULDER	366	315	---	---	1	1	
0010	1373+94 WB	-	1375+59 WB	INSIDE SHOULDER	71	25	---	39	1	---	
0010	1378+84 WB	-	1396+12 WB	INSIDE SHOULDER	1,678	---	1,627	---	1	1	
0010	1402+40 WB	-	1411+42 WB	INSIDE SHOULDER	853	---	802	---	1	1	
0010	1403+38 WB	-	1412+64 WB	OUTSIDE SHOULDER	924	890	---	39	---	1	
0010	1413+38 WB	-	1407+04 WB	OUTSIDE SHOULDER	321	225	---	39	1	---	
0010	1414+16 WB	-	1418+70 WB	INSIDE SHOULDER	448	375	---	79	---	---	MAY NEED TO SHORTEN A RUN OF GUARDRAIL
0010	1419+91 WB	-	1426+70 WB	OUTSIDE SHOULDER	628	575	---	---	1	1	
0010	1440+95 WB	-	1442+85 WB	OUTSIDE SHOULDER	140	90	---	---	1	1	
0010	1459+78 WB	-	1474+05 WB	OUTSIDE SHOULDER	1,377	1,327	---	---	1	1	
0010	1505+87 WB	-	1509+26 WB	OUTSIDE SHOULDER	295	200	---	39	1	---	
				TOTAL 0010	9,529	6,068	2,429	391	15	11	

CULVERT PIPES

CATEGORY	STATION	LOCATION	520.8700 CLEANING CULVERT PIPES EACH	SPV.0090.01 SPECIAL (01. UV GRP CIPP 48X60-INCH) LF	REMARKS
0010	1412+00 WB	NB IH 39 OUTSIDE SHOULDER	1	---	
0010	1427+98 WB	NB IH 39 ONLY	1	---	
0010	1430+00 WB	NB IH 39 ONLY	1	---	
0010	1439+00 WB	NB IH 39 ONLY	1	---	
0010	1474+00 EB	BOTH NB & SB IH 39	1	---	
0010	1483+00 EB	SB IH 39 ONLY	1	---	
0010	1490+00 EB	SB IH 39 ONLY	1	---	
0010	1505+00 WB	NB IH 39 OUTSIDE SHOULDER	---	157	VERTICAL ELLIPTICAL PIPE
0010	1549+00 EB	SB IH 39 ONLY	1	---	
		TOTAL 0010	8	157	

FIELD OFFICE

642.5401

FIELD OFFICE TYPE D

CATEGORY	LOCATION	EACH	REMARKS
0010	PROJECT	1	
	TOTAL 0010	1	

CONSTRUCTION STAKING

CATEGORY	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 1012-01-62) EACH	REMARKS
0010	NB & SB IH 39	---	1	
0010	CTH CS	1,964	---	
0010	RAMP A	415	---	
0010	RAMP B	475	---	
0010	RAMP C	449	---	
0010	RAMP D	768	---	
	TOTAL 0010	4,071	1	

CONCRETE BARRIER TEMPORARY PRECAST

CATEGORY	STATION	TO	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	REMARKS
0010	1403'WB'+00	-	1407''WB'+00	INSIDE SHOULDER	400	400	1	
				TOTAL 0010	400	400	1	

CRASH CUSHIONS

LOCATION	614.0905 CRASH CUSHIONS TEMPORARY	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELD
1407''WB'+00	1	2	OM-3L (L5-58L)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER ON SHOULDER
	1						

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TRAFFIC CONTROL

CATEGORY	LOCATION	NUMBER OF DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0370.S DIGITAL SPEED REDUCTION SYSTEM (DSRS) EACH	643.0370.S DIGITAL SPEED REDUCTION SYSTEM (DSRS) DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0810 TRAFFIC CONTROL CONNECTED ARROW BOARDS EACH	643.0810 TRAFFIC CONTROL CONNECTED ARROW BOARDS DAY
0010	IH 39 BEAM GUARD REPLACEMENT (BOTH DIRECTIONS)	17	110	1,870	---	---	1	17	2	34	19	323	1	17
0010	IH 39 CONCRETE PATCHING (BOTH DIRECTIONS)	30	175	5,250	1	30	2	60	4	120	28	840	2	60
0010	B-11-45 SHOULDER CLOSURES (NB IH 39 ONLY)	12	30	360	---	---	---	---	---	---	---	---	1	12
0010	B-11-45 LANE CLOSURES (NB IH 39 ONLY)	20	85	1,700	---	---	1	20	2	40	19	380	1	20
0010	RAMP A CLOSURE	2	75	150	---	---	4	8	8	16	---	---	---	---
0010	RAMP B CLOSURE	2	370	740	---	---	4	8	8	16	---	---	---	---
0010	RAMP C CLOSURE	2	370	740	---	---	4	8	8	16	---	---	---	---
0010	RAMP D CLOSURE	2	70	140	---	---	4	8	8	16	---	---	---	---
0010	UNDISTRIBUTED	---		300		---		6		12		---		---
		TOTAL 0010		11,250		30		135		270		1,543		109

TRAFFIC CONTROL (CONTINUED)

CATEGORY	LOCATION	NUMBER OF DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM EACH	643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM DAY	643.1220 TRAFFIC CONTROL CONNECTED WORK ZONE START AND END LOCATION MARKERS EACH	643.1220 TRAFFIC CONTROL CONNECTED WORK ZONE START AND END LOCATION MARKERS DAY	REMARKS
0010	IH 39 BEAM GUARD REPLACEMENT (BOTH DIRECTIONS)	17	9	153	---	---	---	1	17	1	17	SINGLE LANE CLOSURES
0010	IH 39 CONCRETE PATCHING (BOTH DIRECTIONS)	30	18	540	2	---	---	1	30	1	30	DOUBLE LANE CLOSURES
0010	B-11-45 SHOULDER CLOSURES (NB IH 39 ONLY)	12	8	96	---	---	---	---	---	1	12	---
0010	B-11-45 LANE CLOSURES (NB IH 39 ONLY)	20	9	180	---	---	---	1	20	1	20	---
0010	RAMP A CLOSURE	2	11	22	---	8	19	---	---	---	---	INCLUDES PREWARNING
0010	RAMP B CLOSURE	2	8	16	---	7	17	---	---	---	---	INCLUDES PREWARNING
0010	RAMP C CLOSURE	2	8	16	---	8	19	---	---	---	---	INCLUDES PREWARNING
0010	RAMP D CLOSURE	2	11	22	---	8	19	---	---	---	---	INCLUDES PREWARNING
0010	UNDISTRIBUTED	---		15	---	4	28		---		---	INCLUDES PROJECT PREWARNINGS
		TOTAL 0010		1,060	2		102		67		79	

643.0370.S DIGITAL SPEED REDUCTION SYSTEM

STAGE / LOCATION	DIGITAL SPEED LIMIT TRAILERS (DSLT)	
IH 39 CONCRETE PATCHING (BOTH DIRECTIONS)	8	30

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643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II

STAGE	EACH	624.0100 NUMBER OF CYCLES	NUMBER OF SIGNS
PROJECT	2	1	2
	2		

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643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM

STAGE/LOCATION	FLASHING BEACON SIGNS (FBS)	PORTABLE TRAFFIC SENSORS (PTS)	BASIC QUEUE WARNING SYSTEM (DAY)
IH 39 BEAM GUARD REPLACEMENT (BOTH DIRECTIONS)	6	3	17
IH 39 CONCRETE PATCHING (BOTH DIRECTIONS)	6	3	30
B-11-45 LANE CLOSURES (NB IH 39 ONLY)	6	3	20

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WATER

CATEGORY	LOCATION	624.0100 WATER MGAL	REMARKS
0010	PROJECT	14	USED FOR AGGREGATE COMPACTION
	TOTAL 0010	14	

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CONNECTED WORK ZONES

STAGE / LOCATION	NUMBER OF DAYS	643.0810 TRAFFIC CONTROL CONNECTED ARROW BOARDS EACH	643.0810 TRAFFIC CONTROL CONNECTED ARROW BOARDS DAY	643.1220 TRAFFIC CONTROL CONNECTED WORK ZONE START AND END LOCATION MARKERS EACH	643.1220 TRAFFIC CONTROL CONNECTED WORK ZONE START AND END LOCATION MARKERS DAY	REMARKS
IH 39 BEAM GUARD REPLACEMENT (BOTH DIRECTIONS)	17	1	17	1	17	SINGLE LANE CLOSURES
IH 39 CONCRETE PATCHING (BOTH DIRECTIONS)	30	2	60	1	30	DOUBLE LANE CLOSURES
B-11-45 SHOULDER CLOSURES (NB IH 39 ONLY)	12	1	12	1	12	---
B-11-45 LANE CLOSURES (NB IH 39 ONLY)	20	1	20	1	20	---

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PAVEMENT MARKING

CATEGORY	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINES, 37.5' GAPS LF (WHITE)	646.1020 MARKING LINE EPOXY 4-INCH EDGELINE LF (WHITE)	646.2020 MARKING LINE EPOXY 6-INCH 12.5' LINES, 37.5' GAPS LF (WHITE)	646.2020 MARKING LINE EPOXY 6-INCH EDGELINE LF (WHITE)	646.2020 MARKING LINE EPOXY 6-INCH CENTERLINE LF (YELLOW)	646.3020 MARKING LINE EPOXY 8-INCH 3' LINES, 9' GAPS LF (WHITE)	646.3020 MARKING LINE EPOXY 8-INCH CHANNELIZING LF (WHITE)	646.4020 MARKING LINE EPOXY 10-INCH LF (WHITE)	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH LF (YELLOW)	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	REMARKS
0010	IH 39 AND RAMPS	---	---	1,500	2,000	100	---	---	100	---	---	---	500	LOCATIONS WHERE CONCRETE WAS PATCHED/REPAIRED
0010	CTH CS	250	4,200	---	---	---	36	591	---	4,080	3	1	---	
	TOTAL 0010	4,450		3,600			627		100	4,080	3	1	500	

CONSTRUCTION STAKING STRUCTURES

CATEGORY	LOCATION	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-11-45) EACH	REMARKS
0010	B-11-45	1	
	TOTAL 0010	1	

TEMPORARY STRUCTURE ACCESS

CATEGORY	LOCATION	SPV.0060.02 SPECIAL (02. TEMPORARY ACCESS FOR STRUCTURE B-11-45 REPAIR) EACH	REMARKS
0020	STRUCTURE B-11-45	1	
	TOTAL 0020	1	

Standard Detail Drawing List

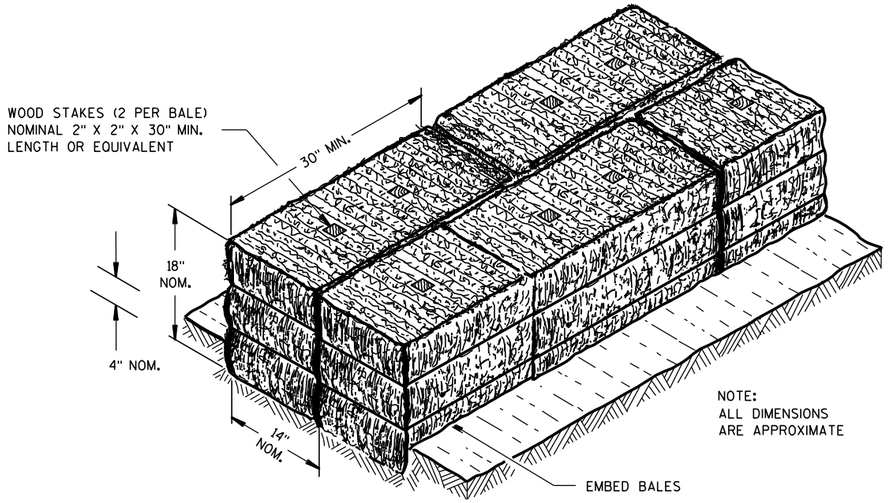
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
12A03-10	NAME PLATE (STRUCTURES)
13C09-17A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	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
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-06A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-06G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A04-08E	DELINEATOR POST WITH REFLECTIVE SHEETING
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C31-08A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-08C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D05-06	TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER
15D12-15A	TRAFFIC CONTROL, LANE CLOSURE
15D12-15B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-15D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D12-15G	TRAFFIC CONTROL, LANE CLOSURE , DIGITAL SPEED REDUCTION SYSTEM
15D14-09	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

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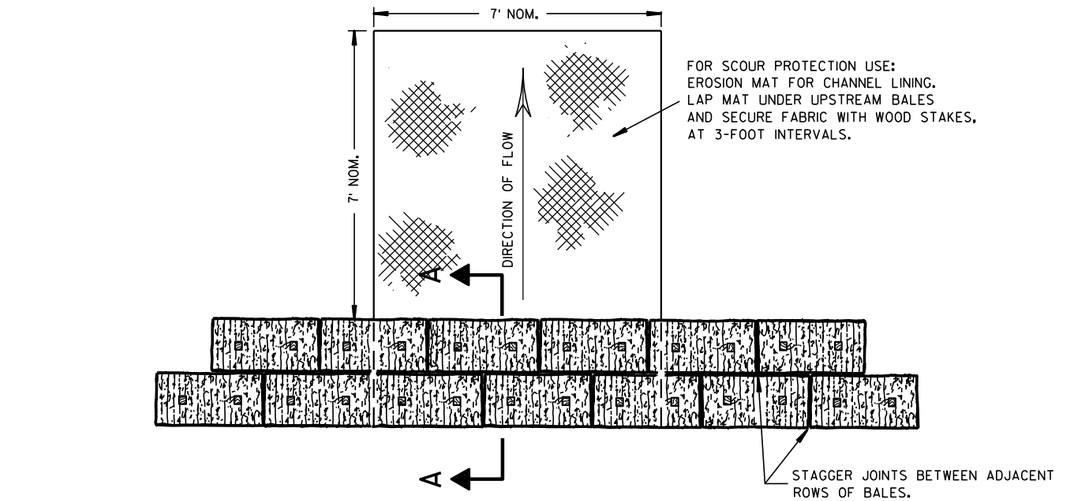
Standard Detail Drawing List

15D15-08A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-08B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-04	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

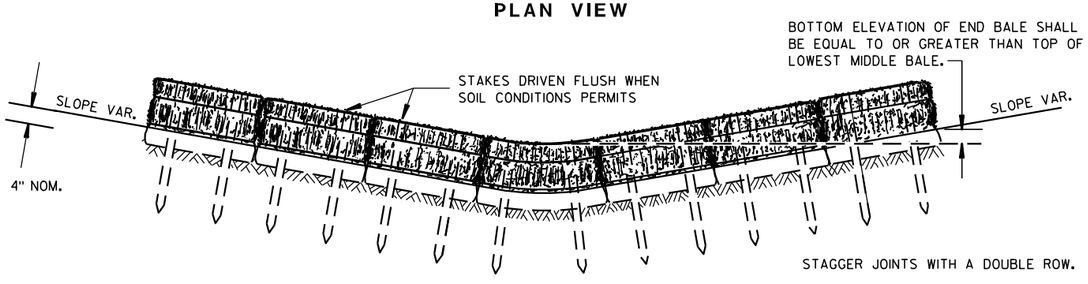
6



SECTION A-A



PLAN VIEW



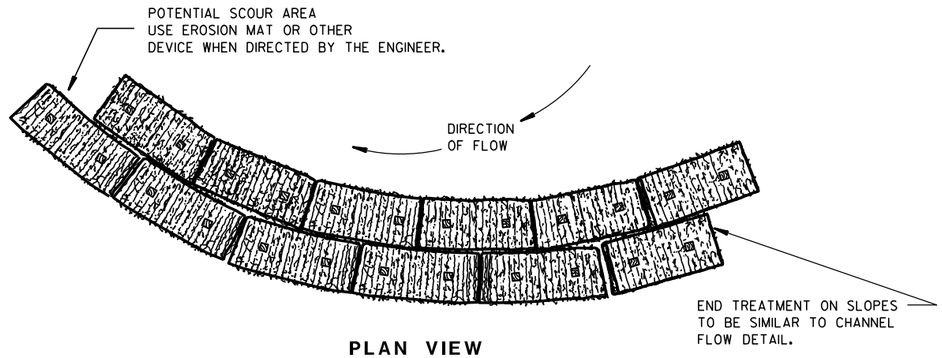
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

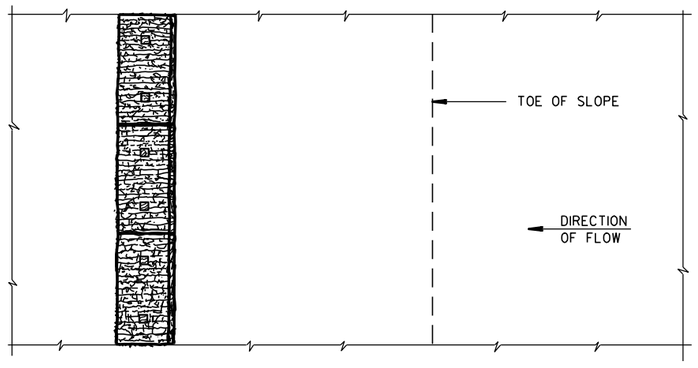
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

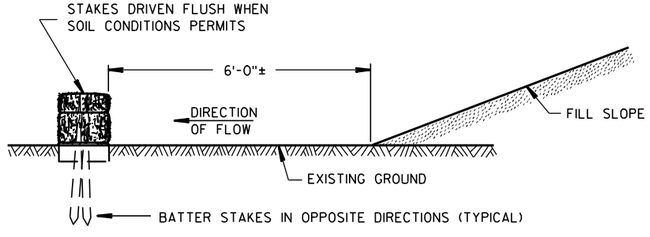


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

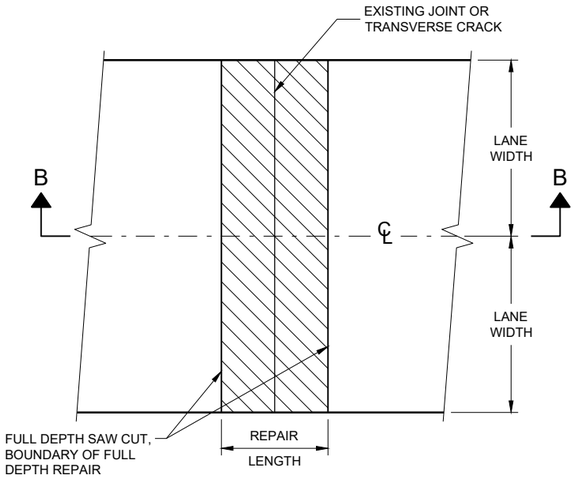
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

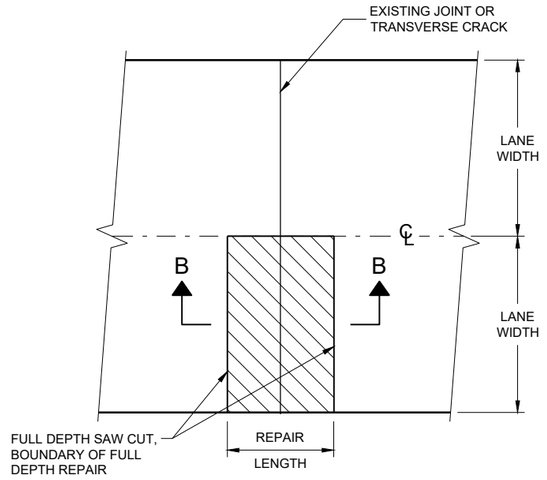
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

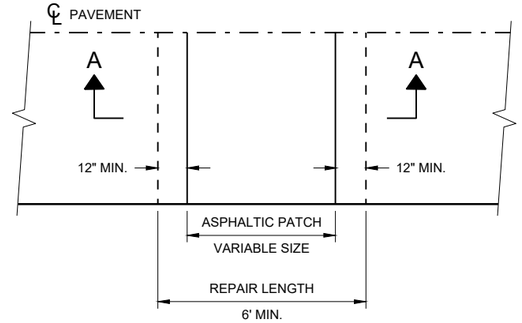
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

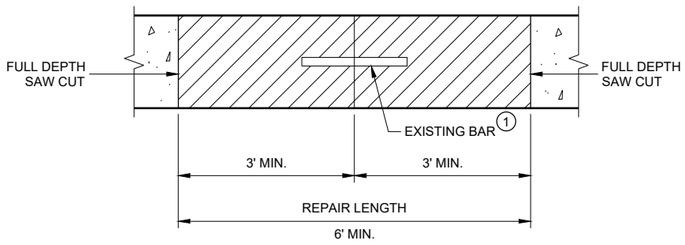
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.



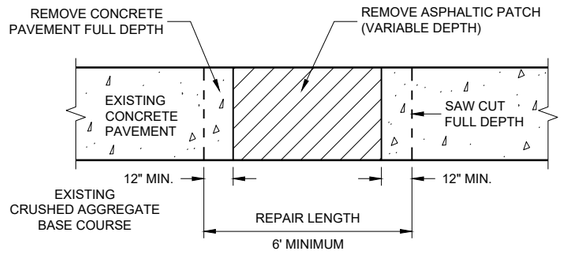
PLAN VIEW

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B

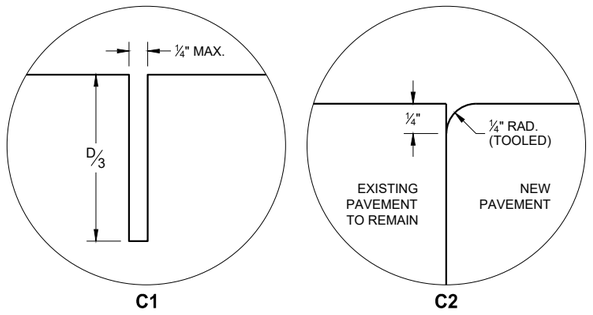
CONCRETE REMOVAL



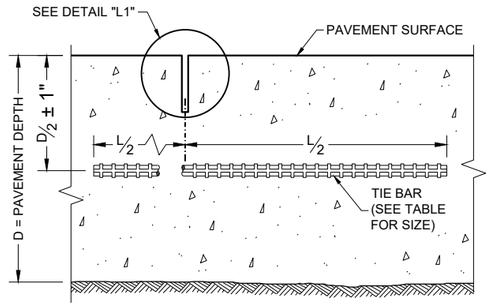
SECTION A - A

HMA PATCH REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

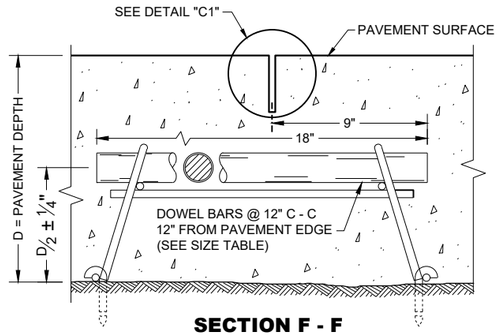


TRANSVERSE JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

DOWELED CONTRACTION JOINT

GENERAL NOTES

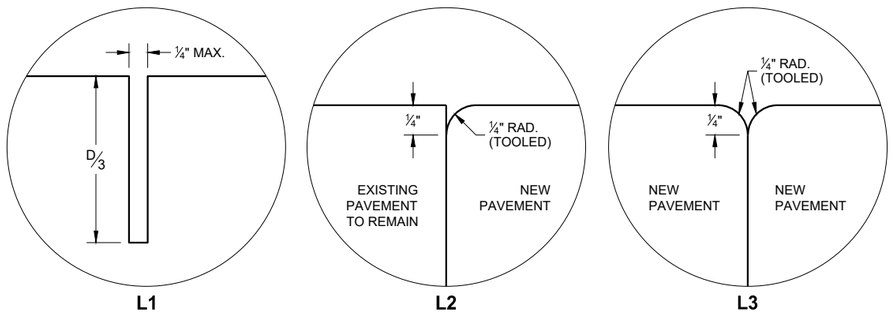
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

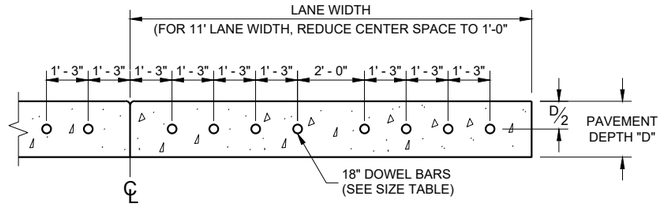
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

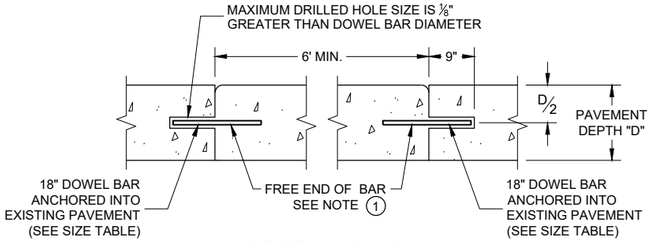


LONGITUDINAL JOINTS



SECTION E - E

DRILLED DOWEL BAR CONSTRUCTION JOINT



SECTION D - D

TIE BAR TABLE

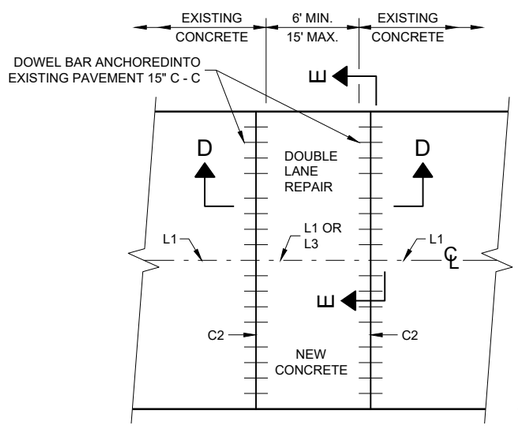
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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

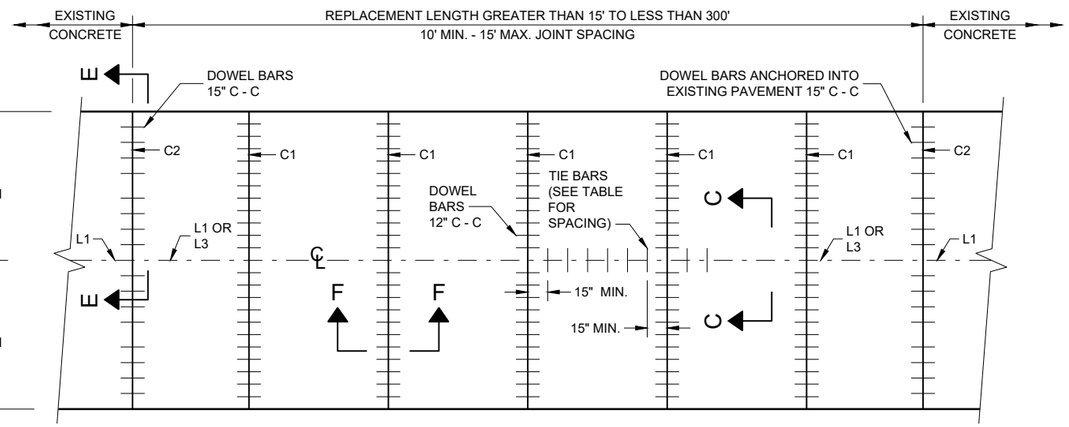
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

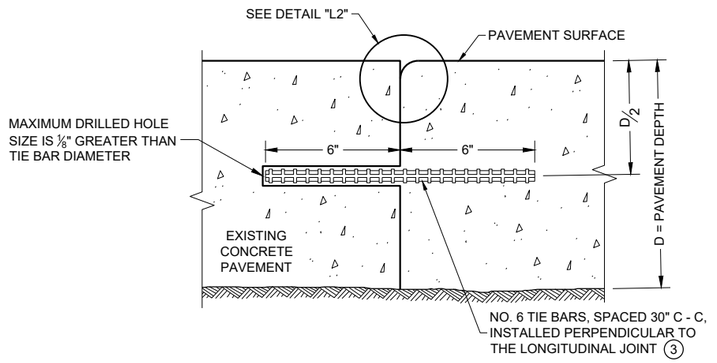
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C09 - 17b
SDD 13C09 - 17b

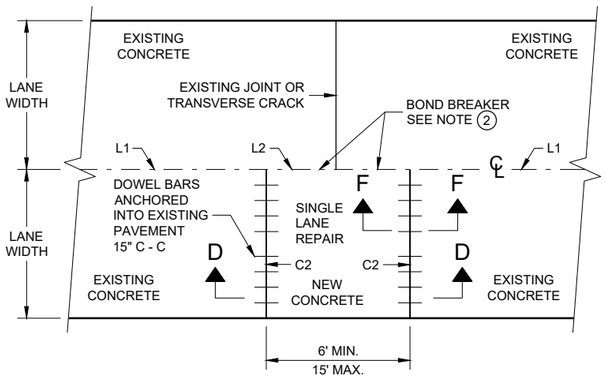
GENERAL NOTES

1. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
2. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
3. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



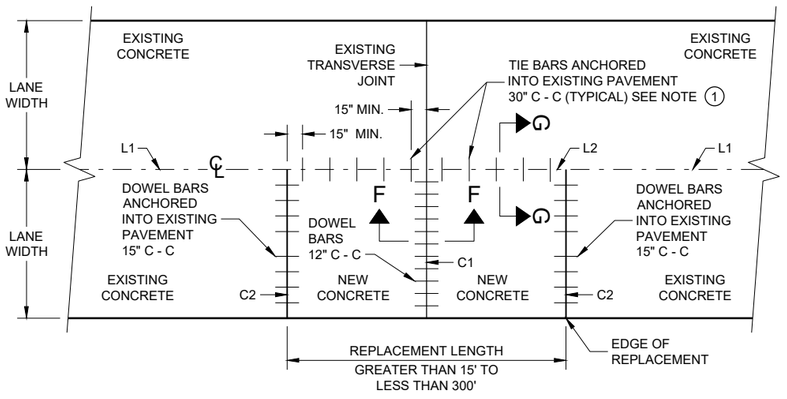
SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE REPAIR AND REPLACEMENT

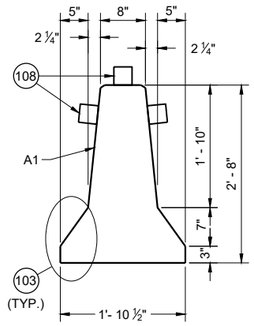
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

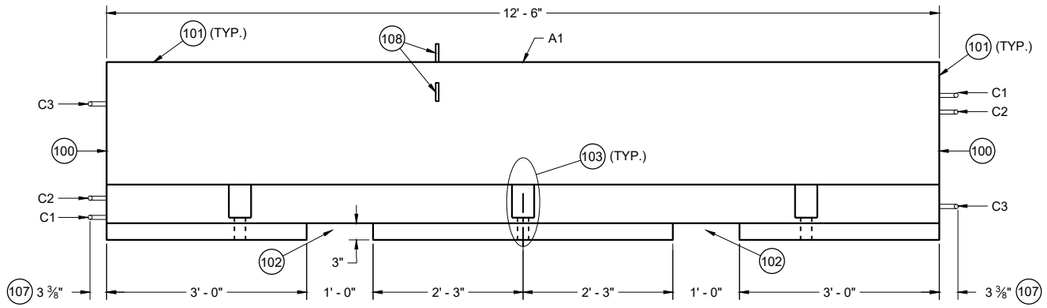
FHWA

6

SDD 13C09 - 17c



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

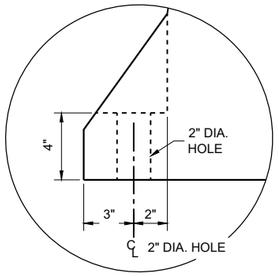
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

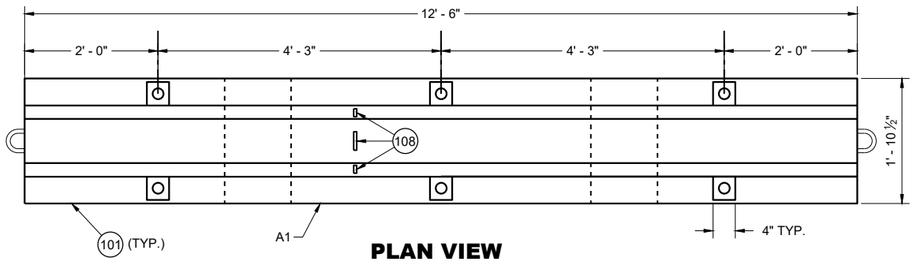
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

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

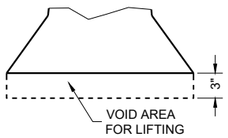


ANCHOR BLOCK DETAIL

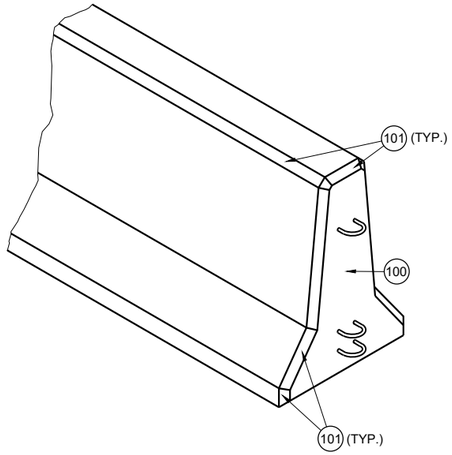


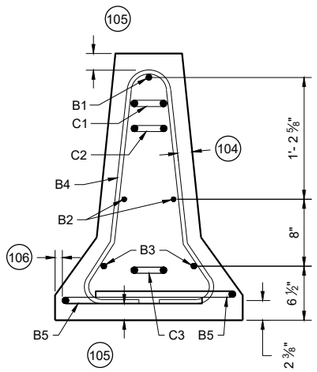
PLAN VIEW

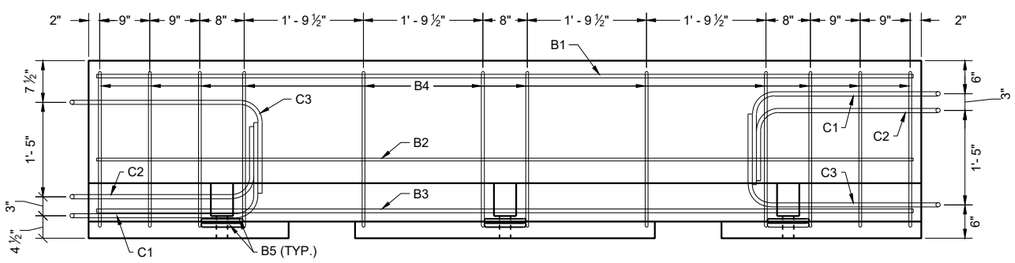
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







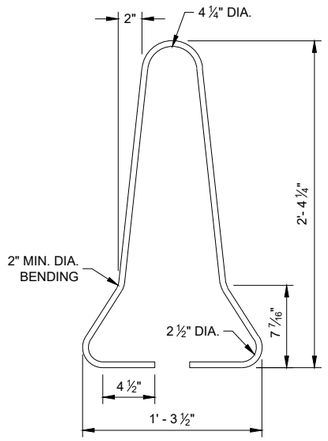
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

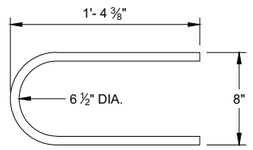
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

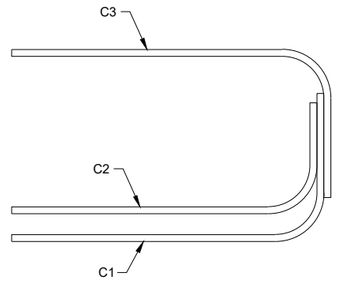
6
SDD 14B07-16a



B4 BAR DETAIL

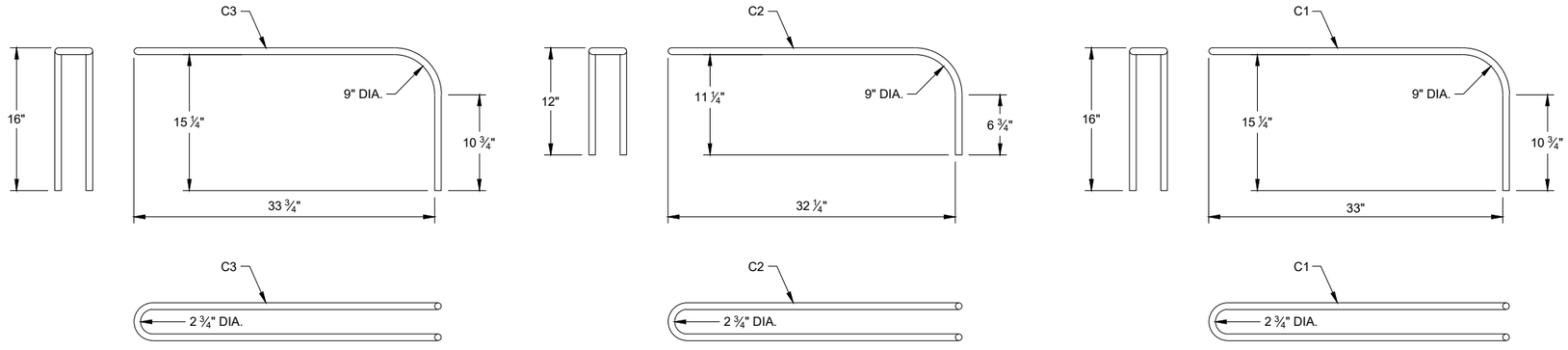


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



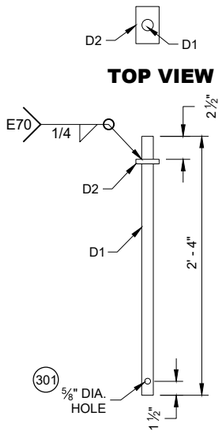
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

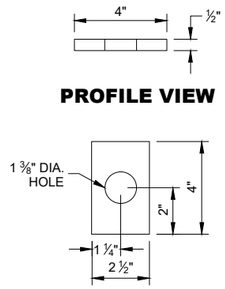
6

SDD 14B07-16b

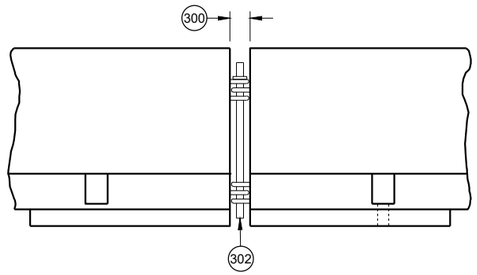


PROFILE VIEW

CONNECTOR PIN ASSEMBLY



TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

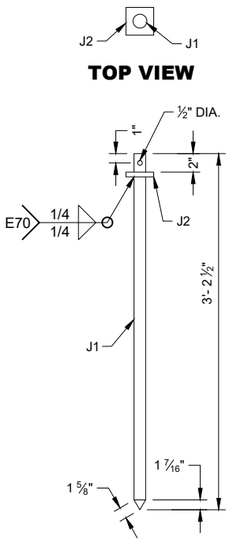
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

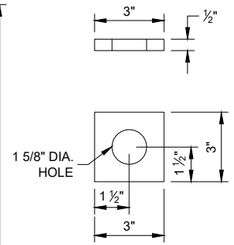
308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.

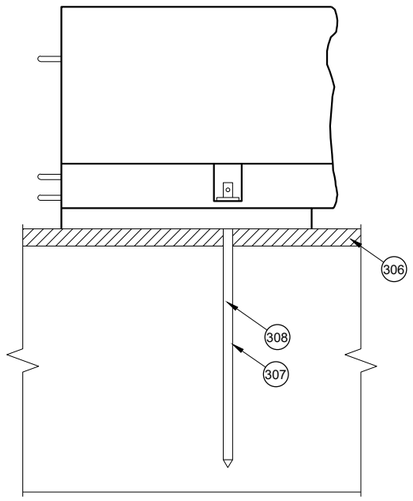


PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

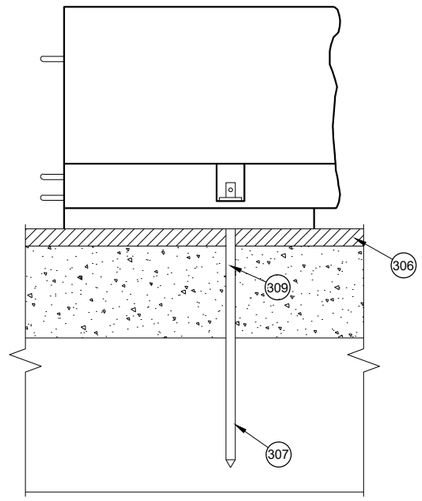


TOP VIEW J2



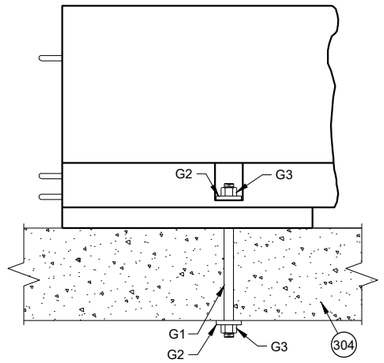
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



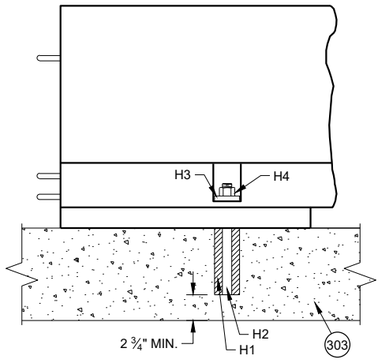
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



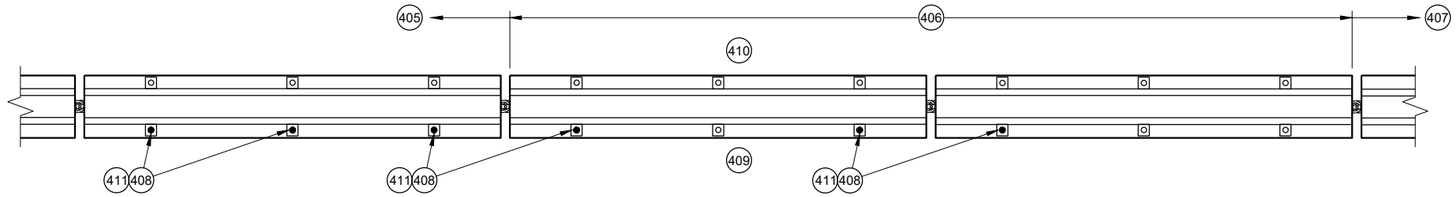
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

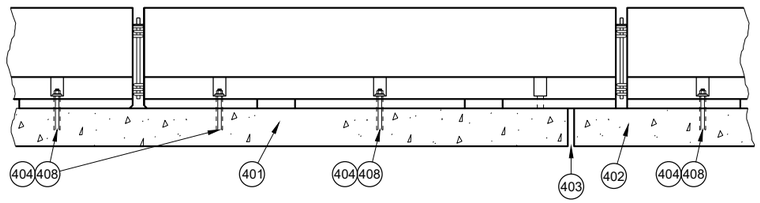
6

SDD 14B07-16c



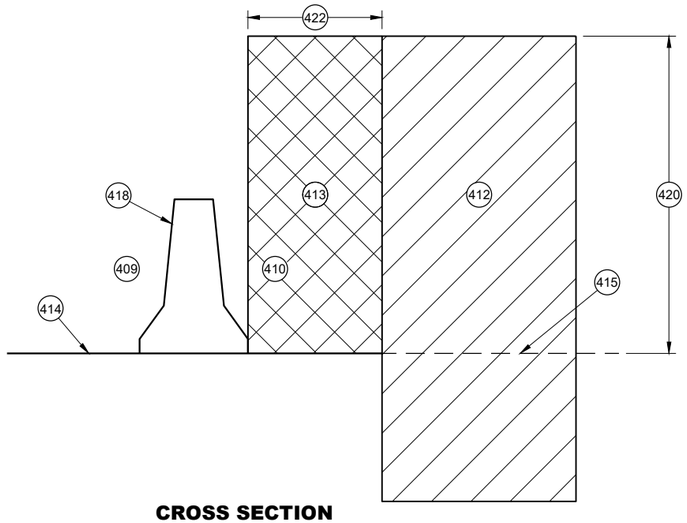
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



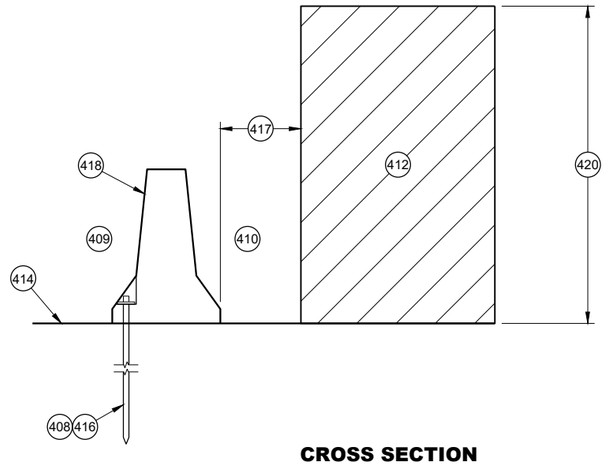
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



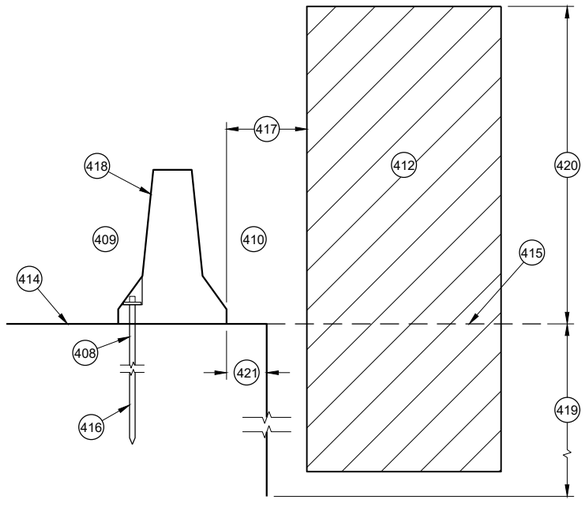
CROSS SECTION

FREE STANDING BARRIER



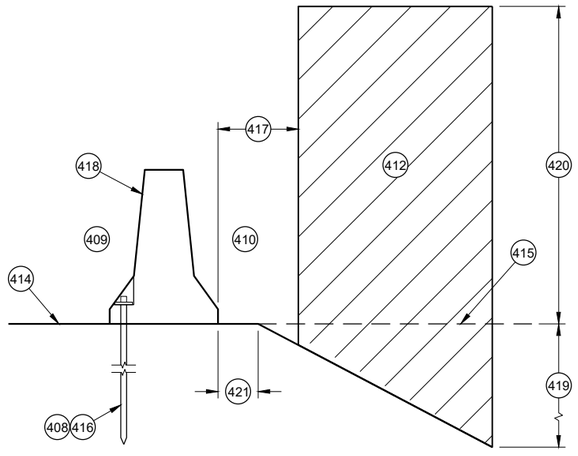
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) 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.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

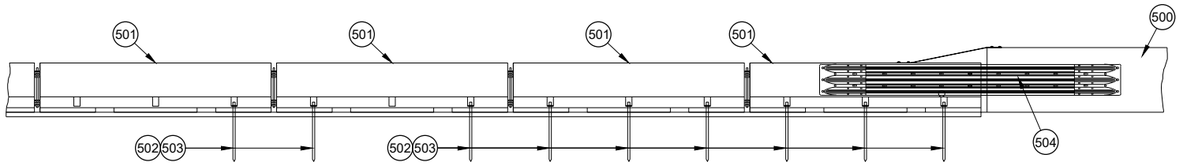
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

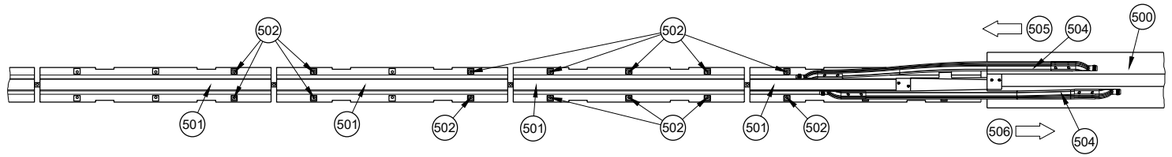
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

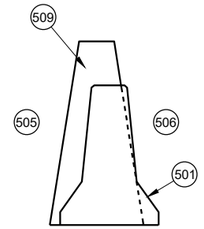
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



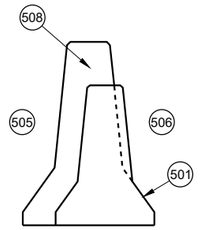
PROFILE VIEW



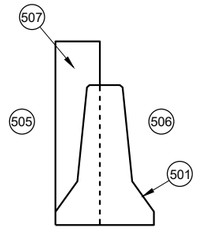
PLAN VIEW
TRANSITION TO RIGID BARRIER



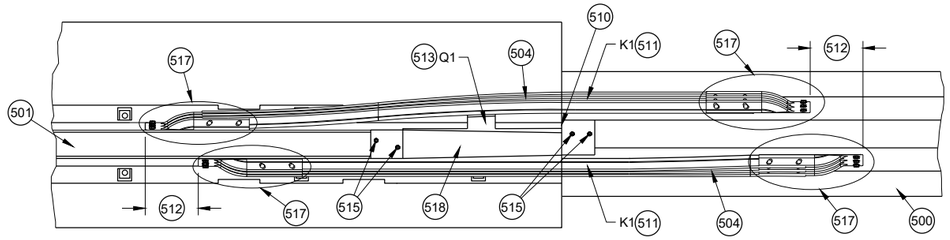
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



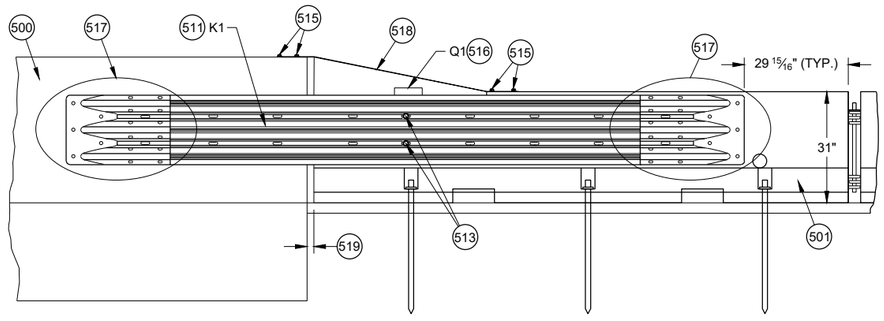
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



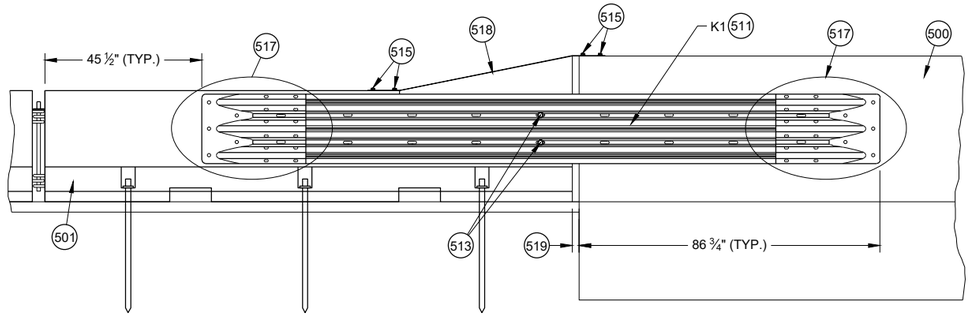
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



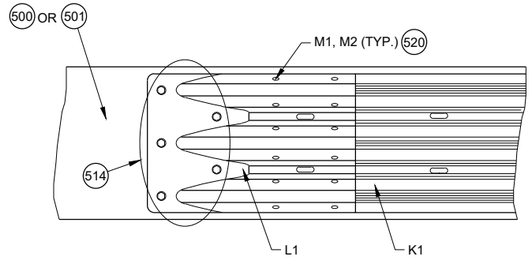
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



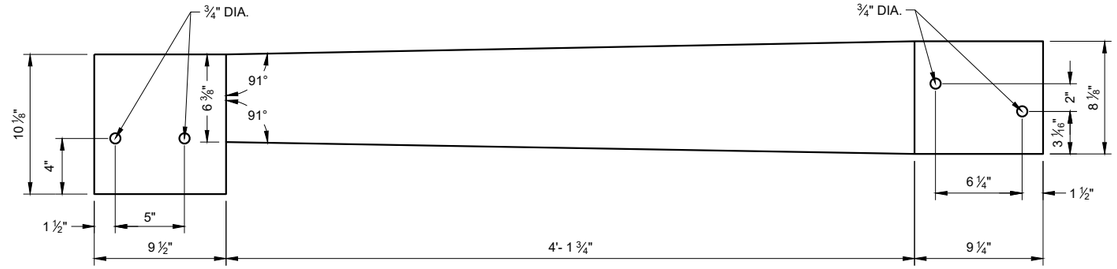
(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

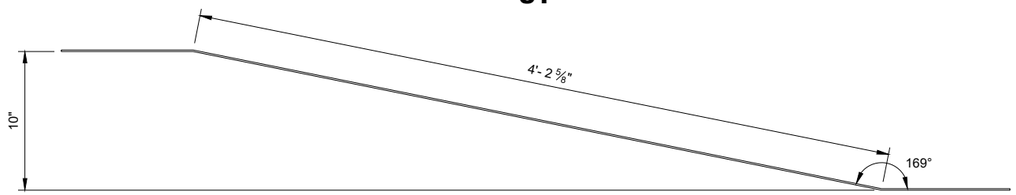
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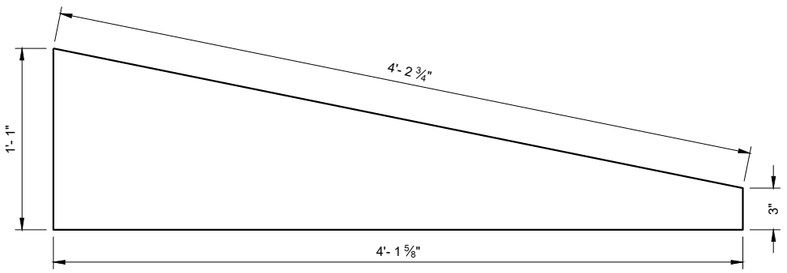
TOP VIEW

S1



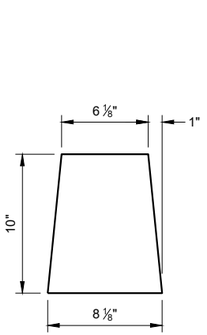
ELEVATION VIEW

S1

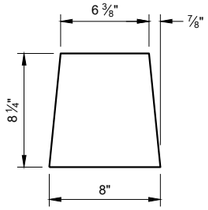


SIDE VIEW

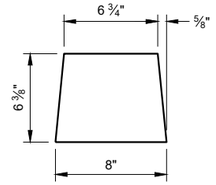
S3



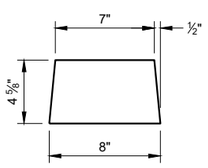
S2



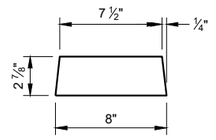
S4



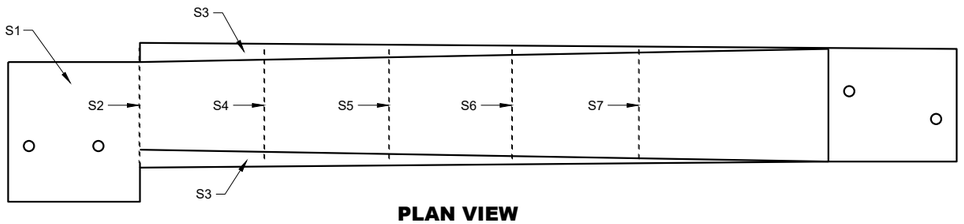
S5



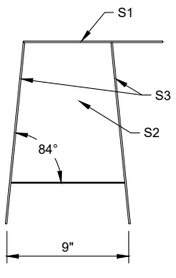
S6



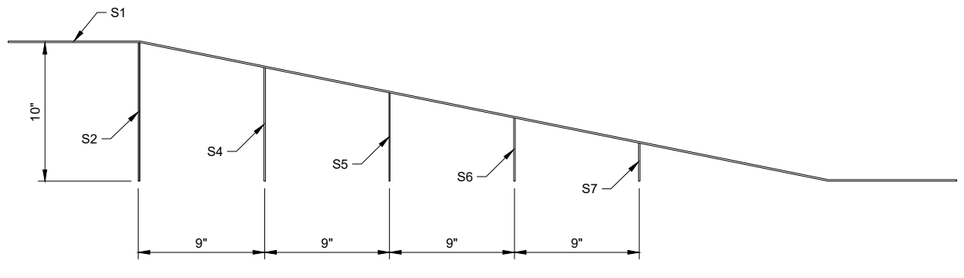
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

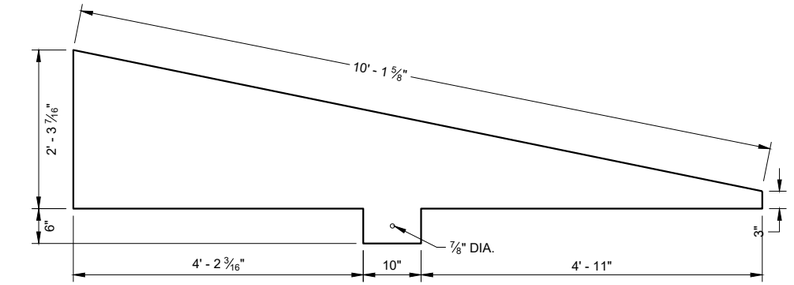
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

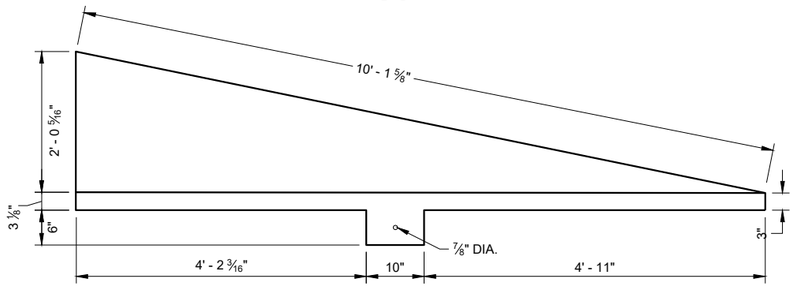
SDD 14B07-16f



SIDE VIEW
T4



END VIEW



SIDE VIEW
T3

END VIEW

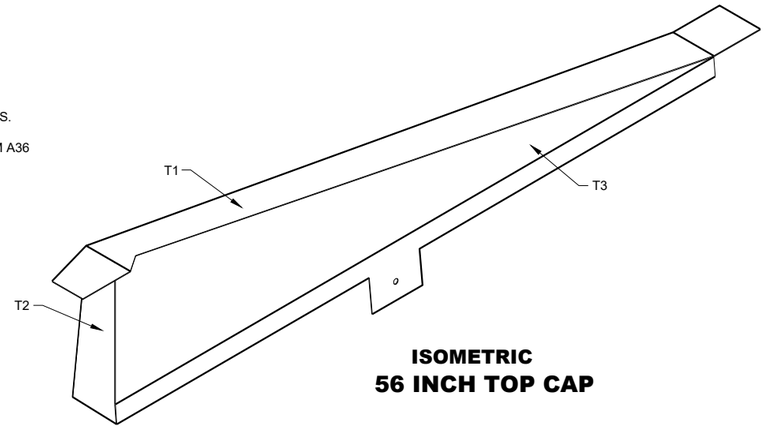
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

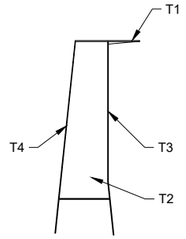
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

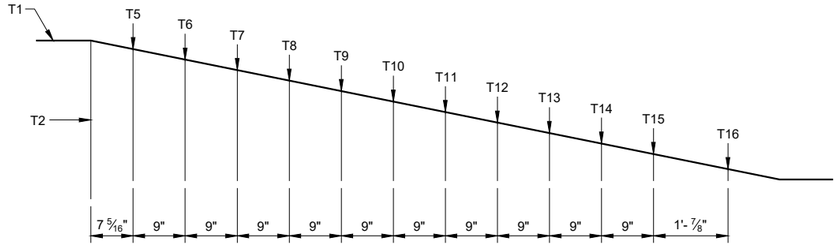
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



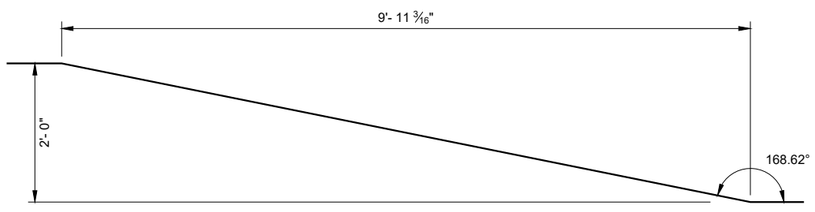
ISOMETRIC
56 INCH TOP CAP



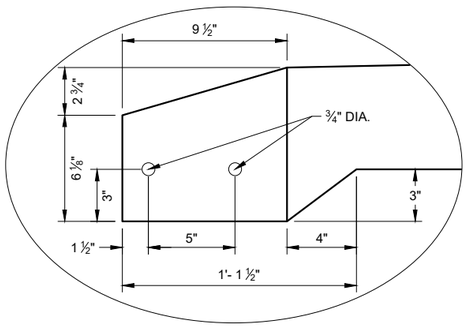
END VIEW
56 INCH TOP CAP



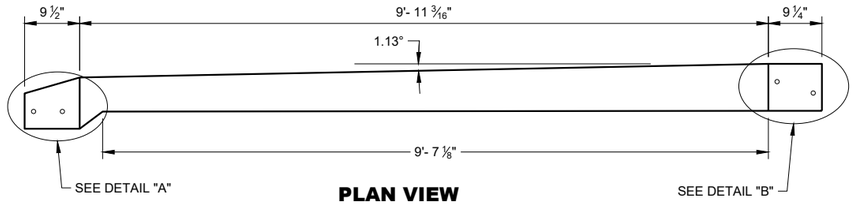
SIDE VIEW (700)
56 INCH TOP CAP



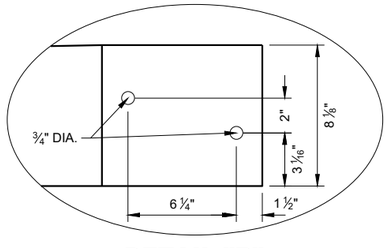
SIDE VIEW
TOP PLATE T1



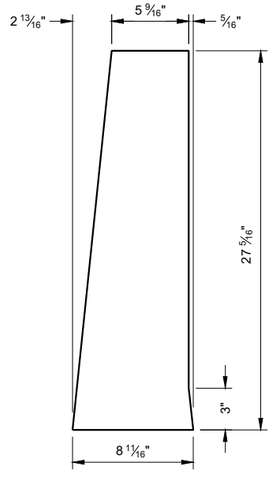
DETAIL "A"



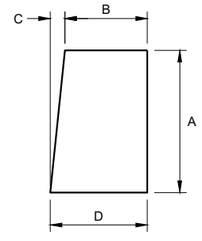
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

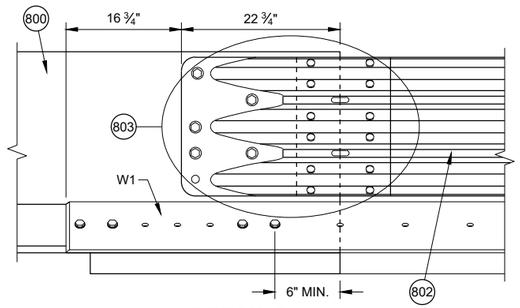
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

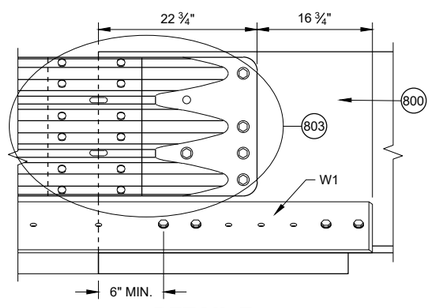
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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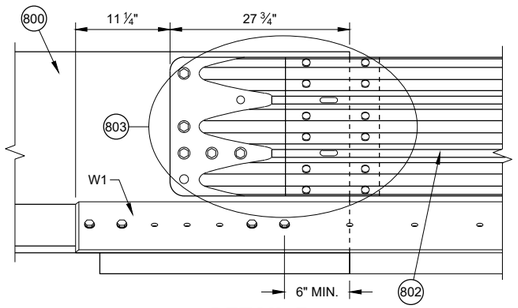
SDD 14B07-16g



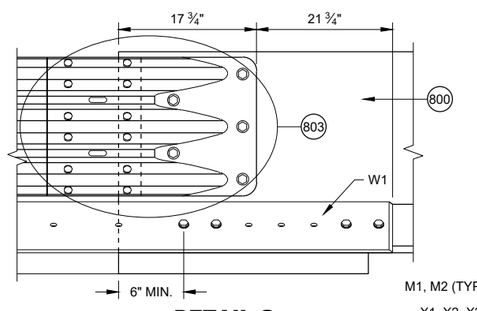
DETAIL D



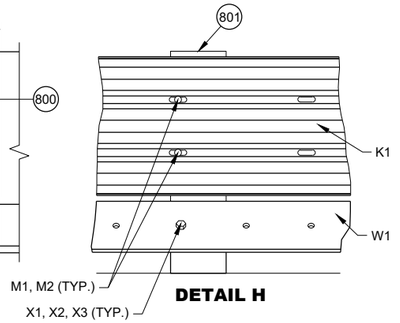
DETAIL E



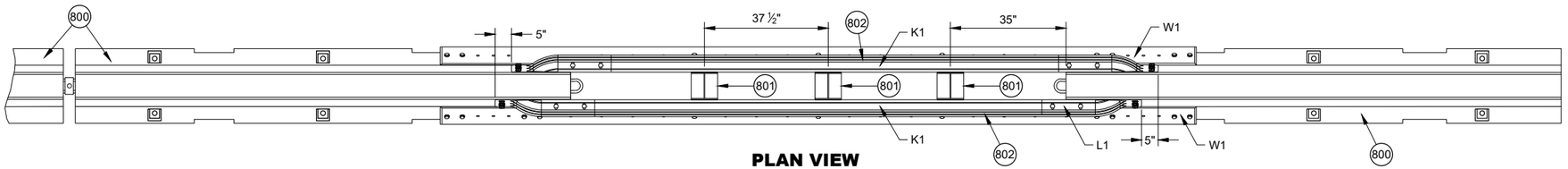
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

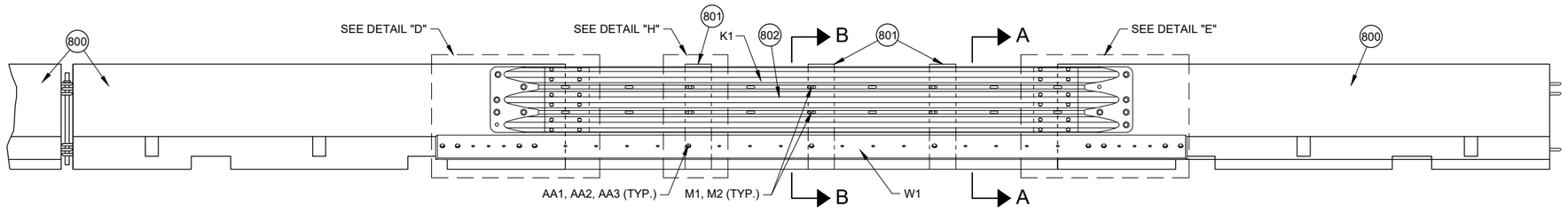
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

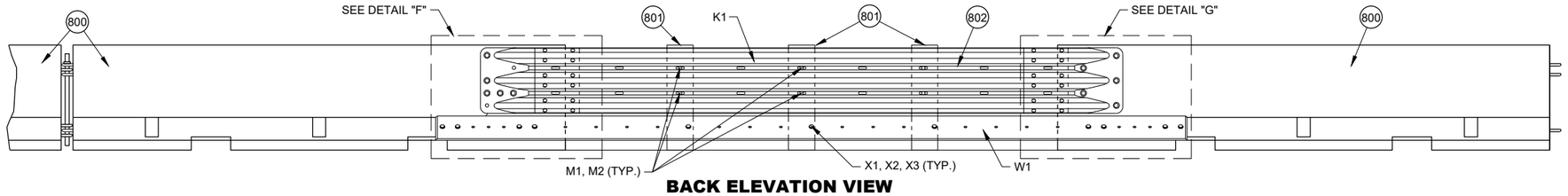
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



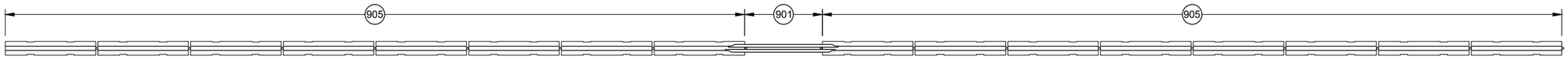
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

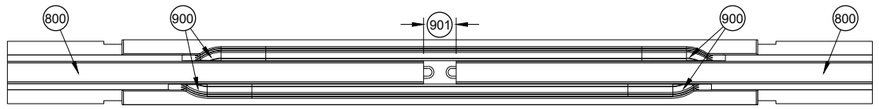
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

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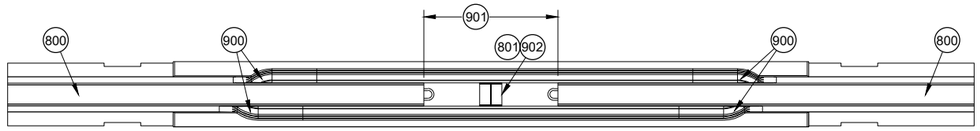
PLAN VIEW
GAP WITHIN SPACING



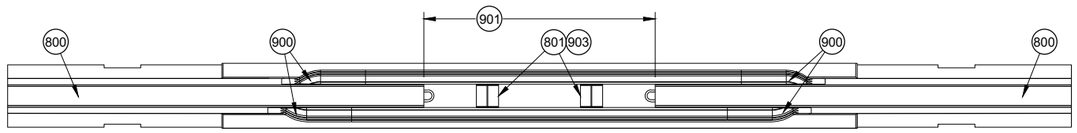
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

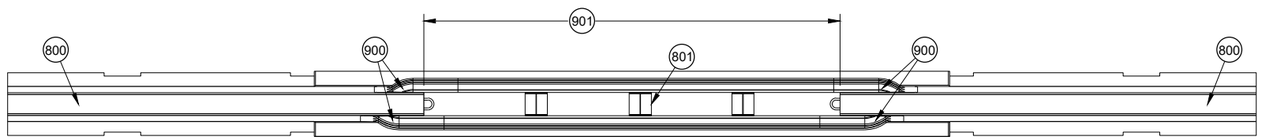
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

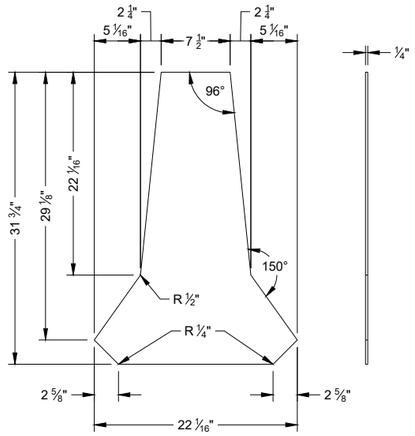


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

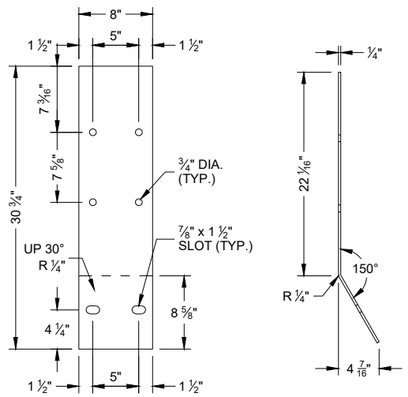
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PROFILE VIEW SIDE VIEW

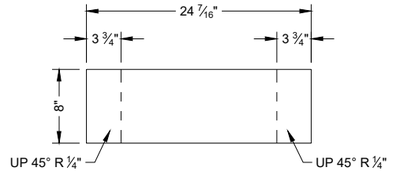
STIFFENER ASSEMBLY CENTER PANEL U1



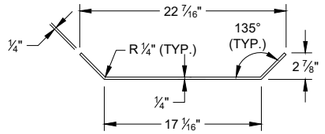
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

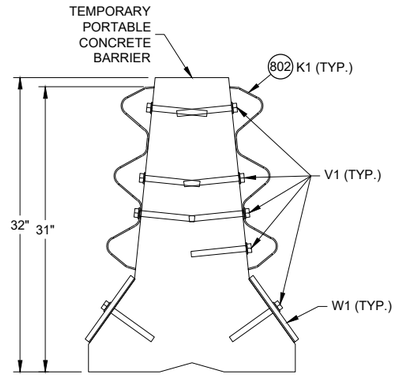


FLAT PATTERN

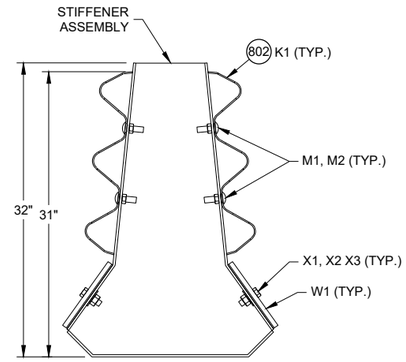


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

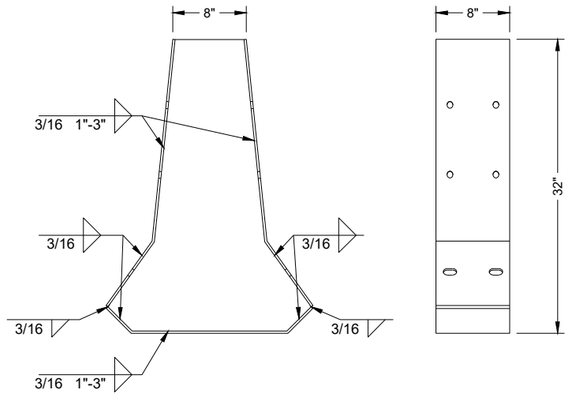


SECTION A - A



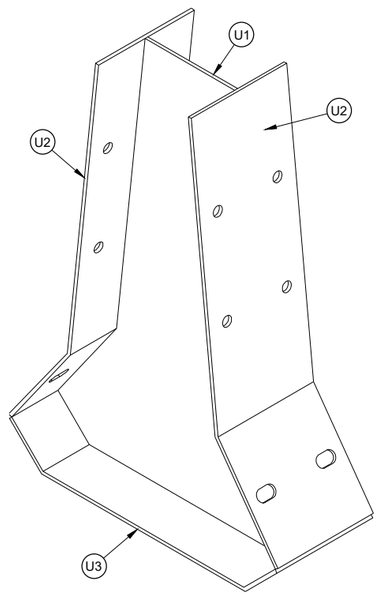
SECTION B - B

PLAN VIEW



PROFILE VIEW

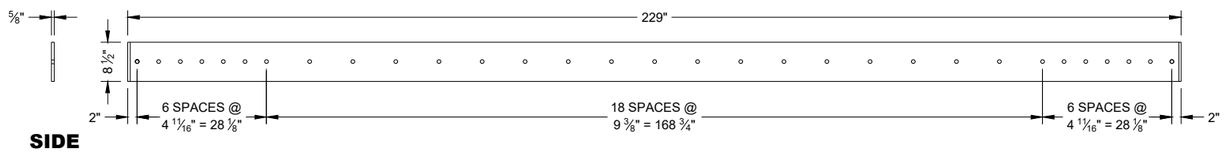
SIDE VIEW



ISOMETRIC

GAP STIFFENER ASSEMBLY

PLAN VIEW



SIDE VIEW

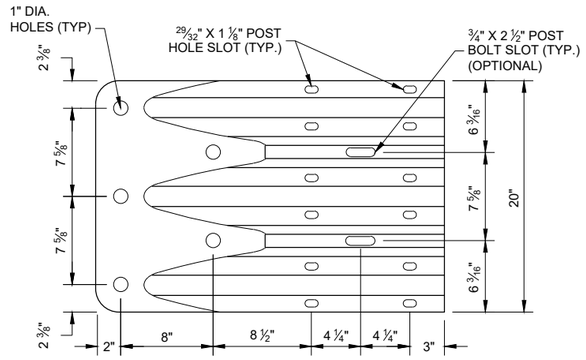
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

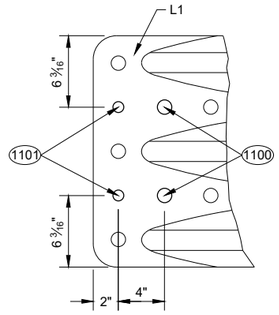
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ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

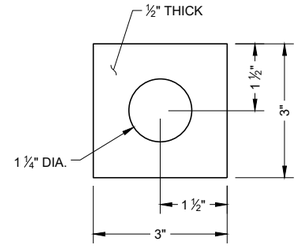


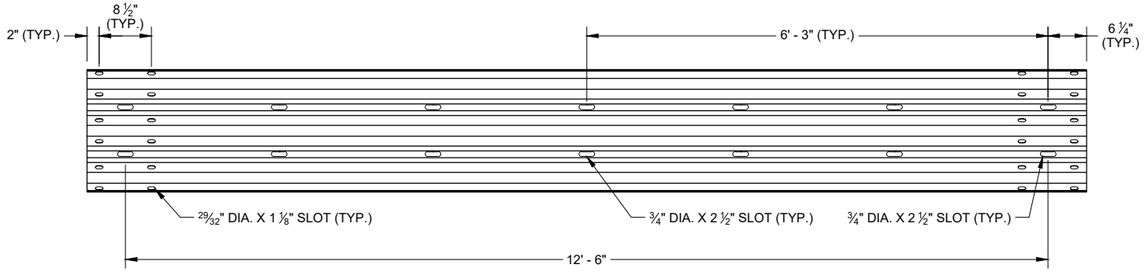
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

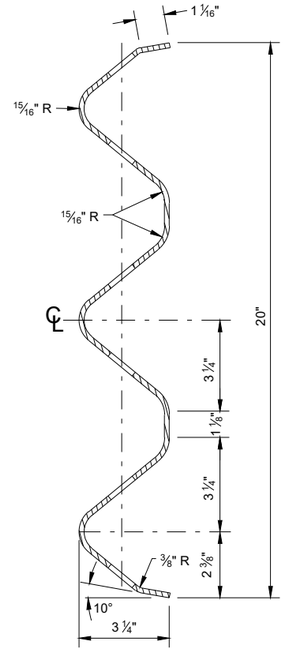
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



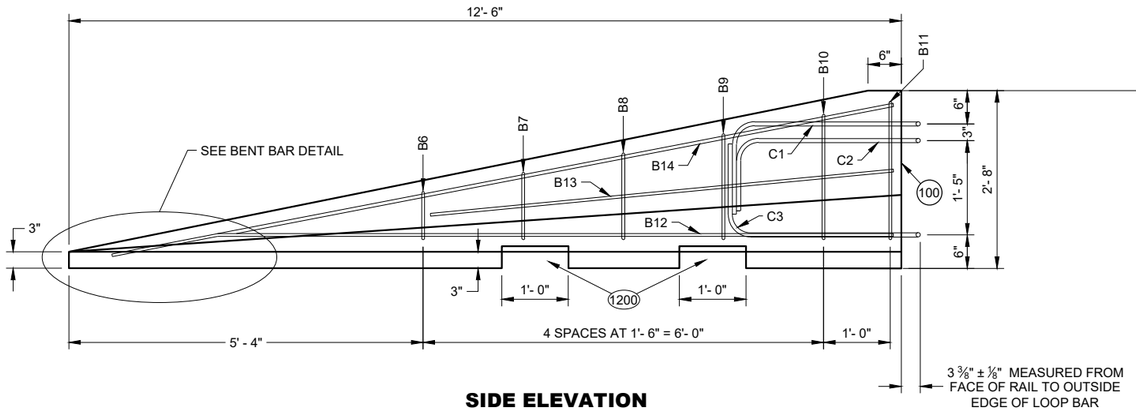
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

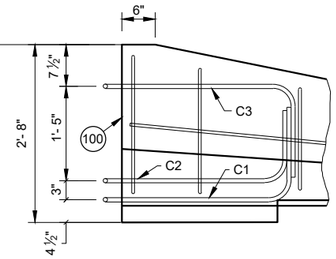
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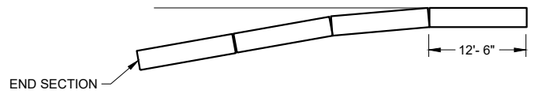
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

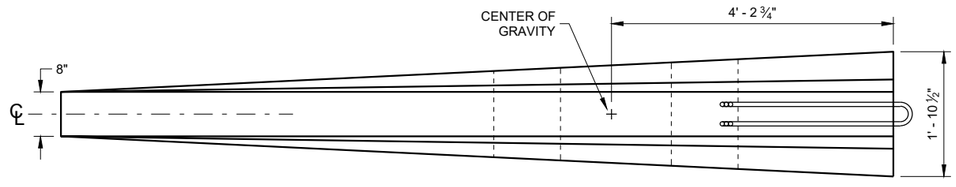
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

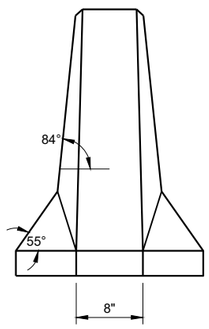


FLARE AT BARRIER END

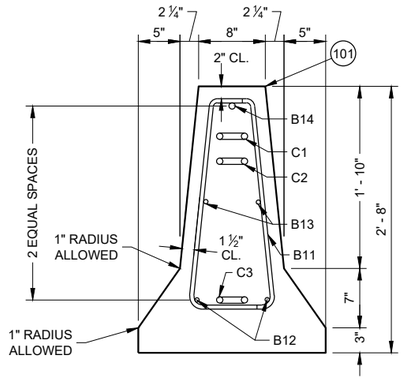
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

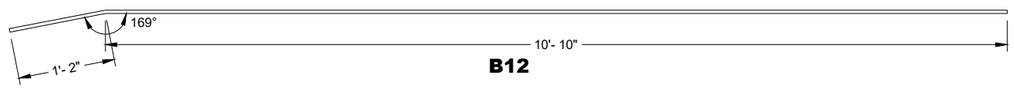


FRONT ELEVATION

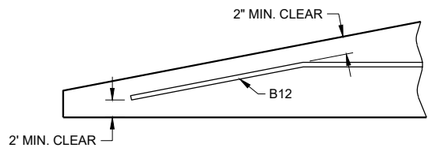


END SECTION

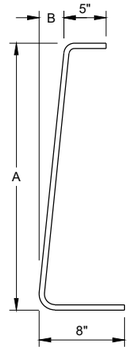
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

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BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

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SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

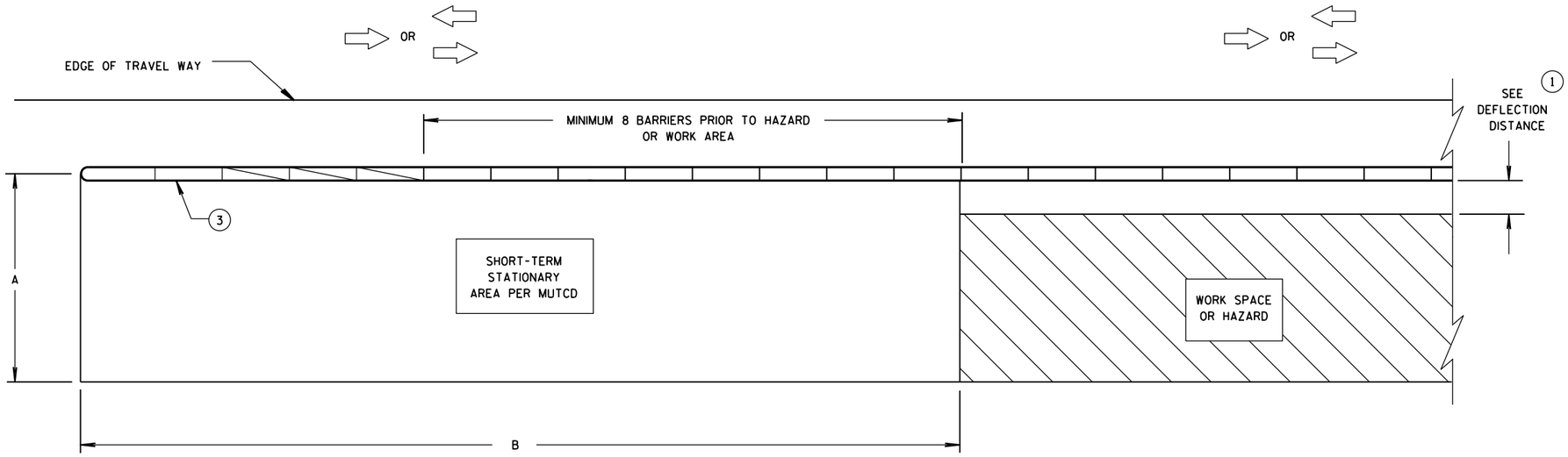
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 14B07-16n



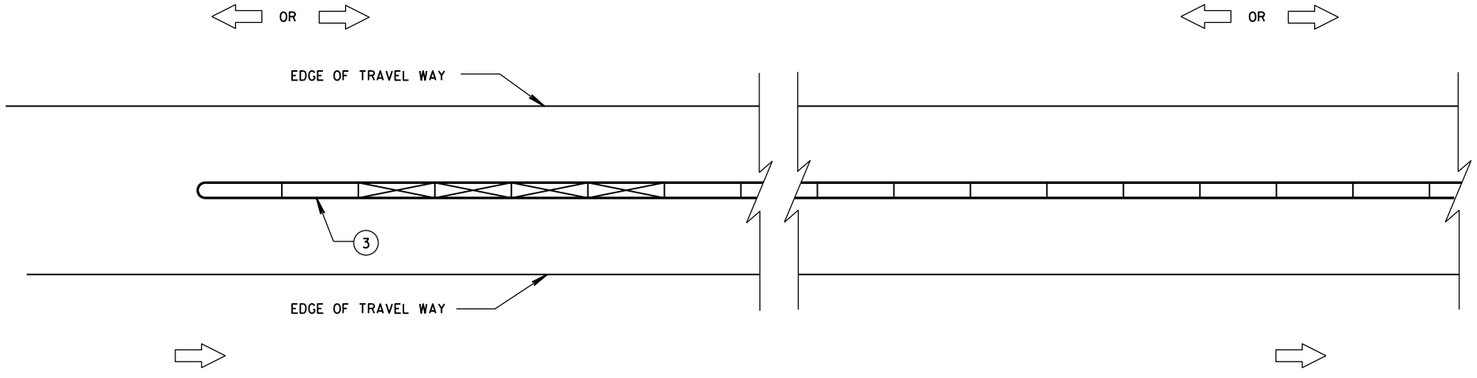
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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.

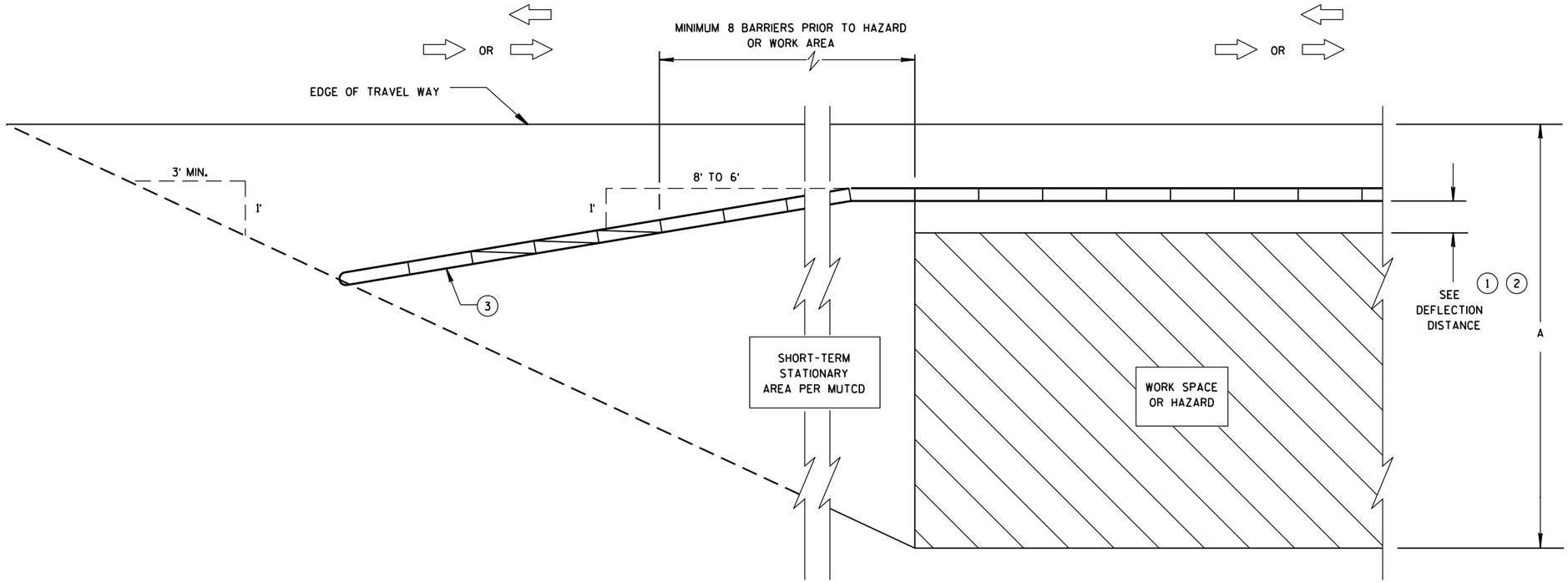
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

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

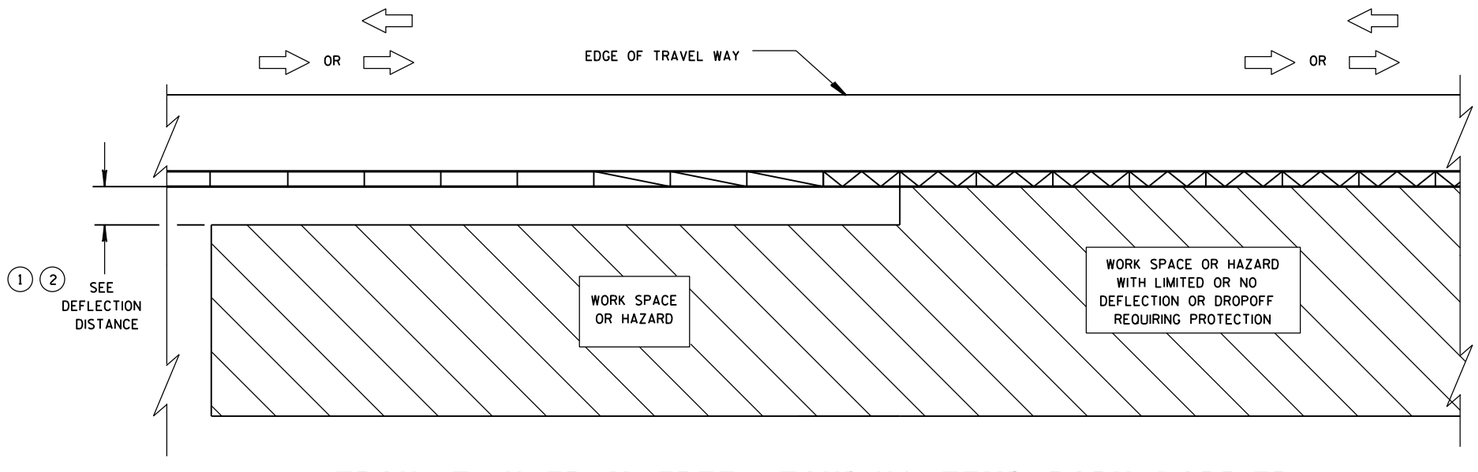
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

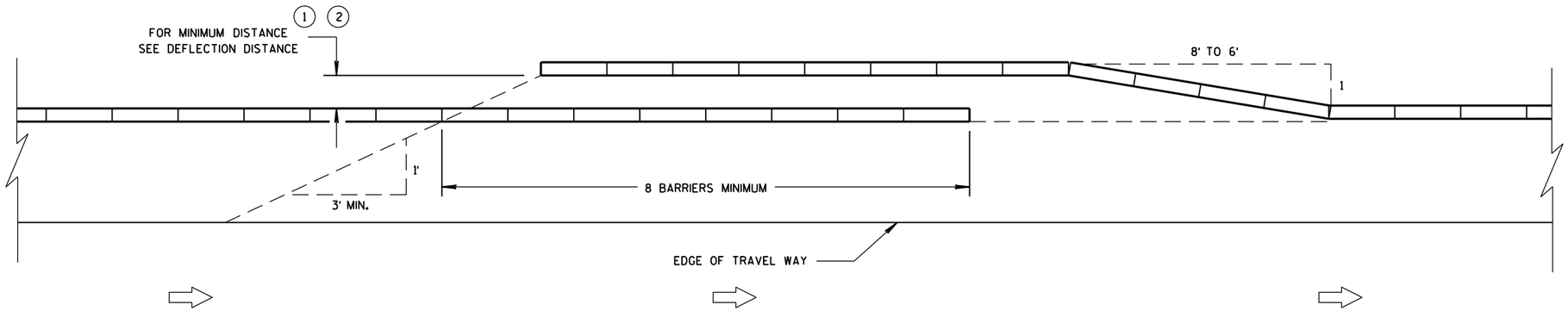
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

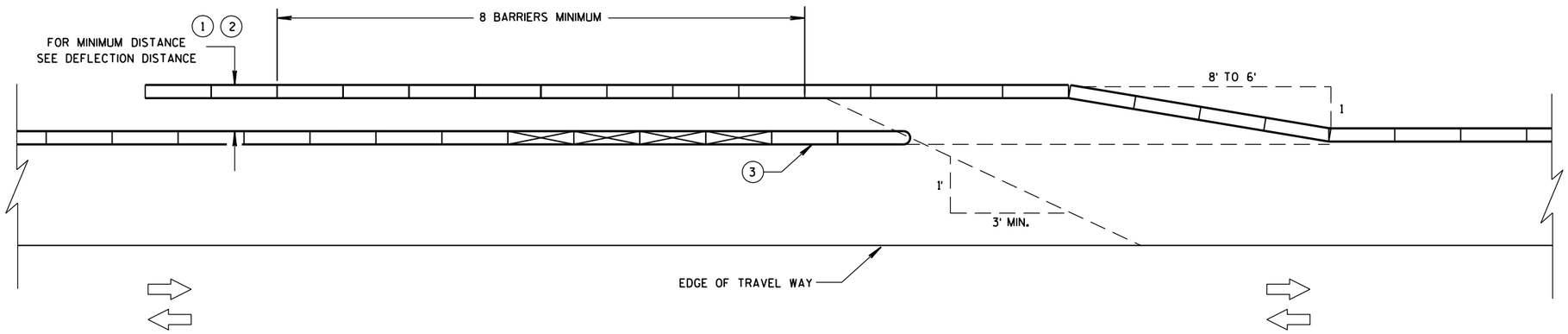
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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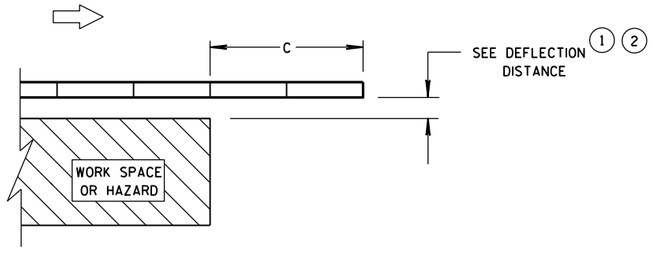
S.D.D. 14 B 8-2b



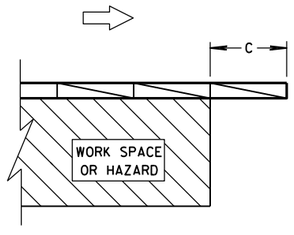
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

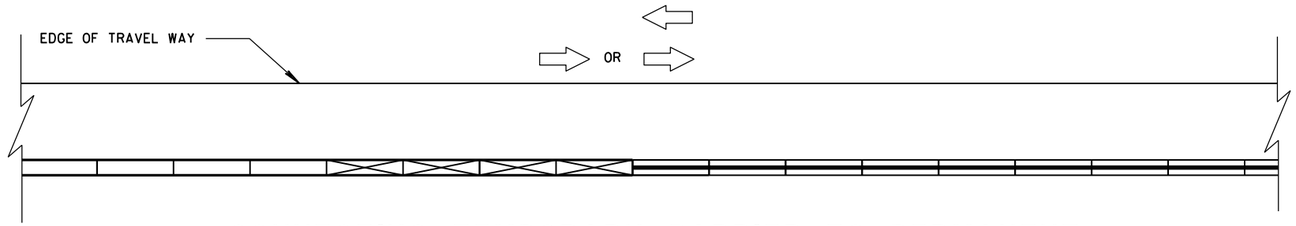
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

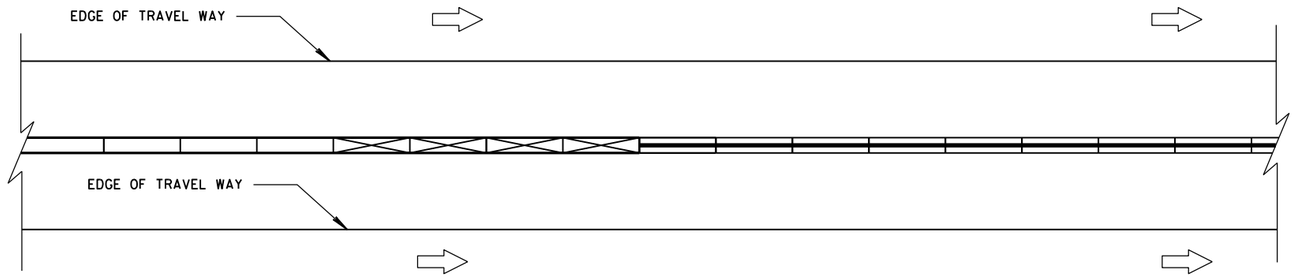
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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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

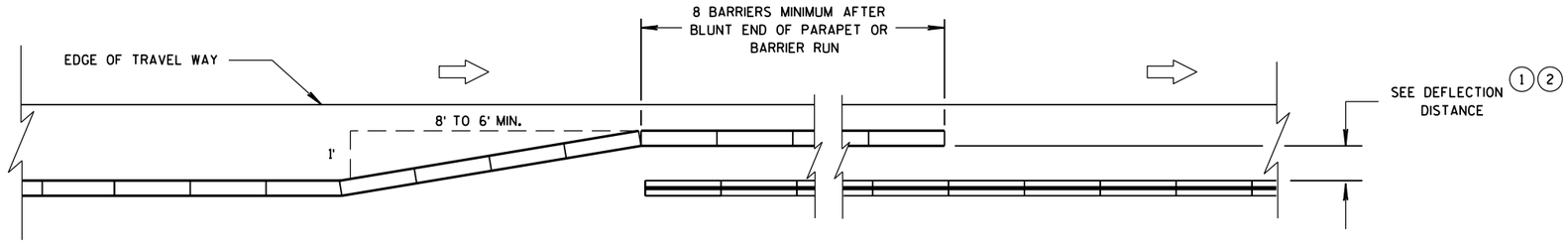
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

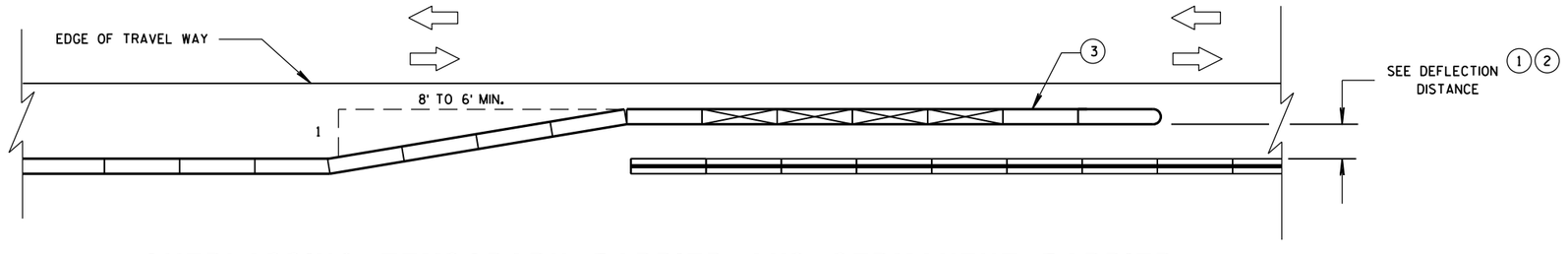
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

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 TRANSPOI

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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

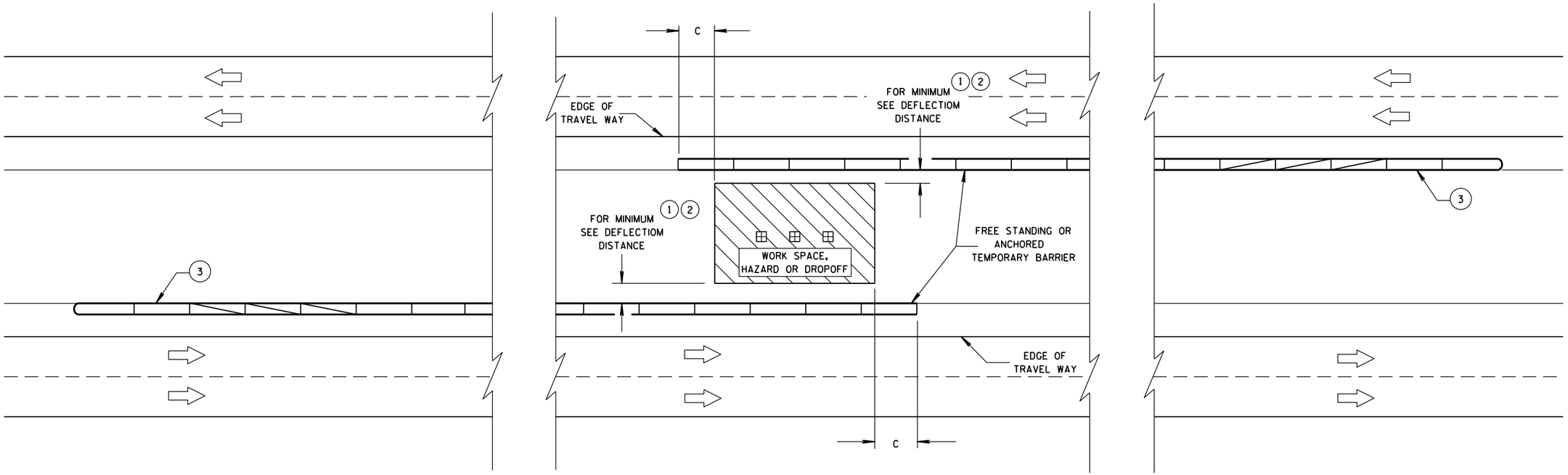
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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

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

(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.

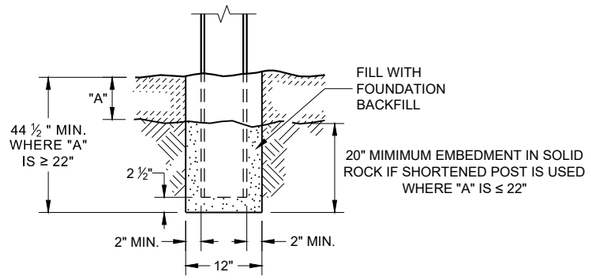
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

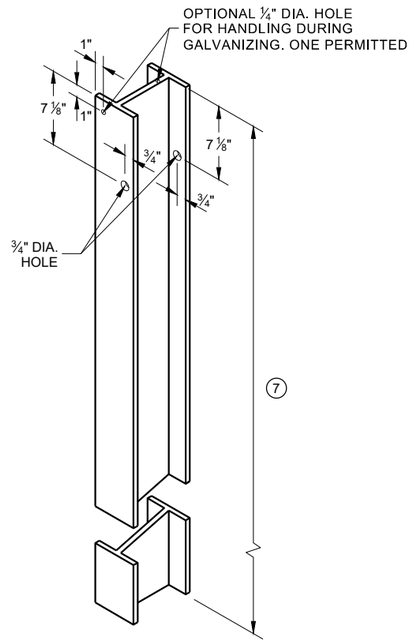
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

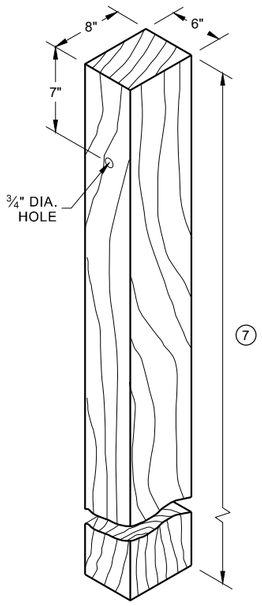
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



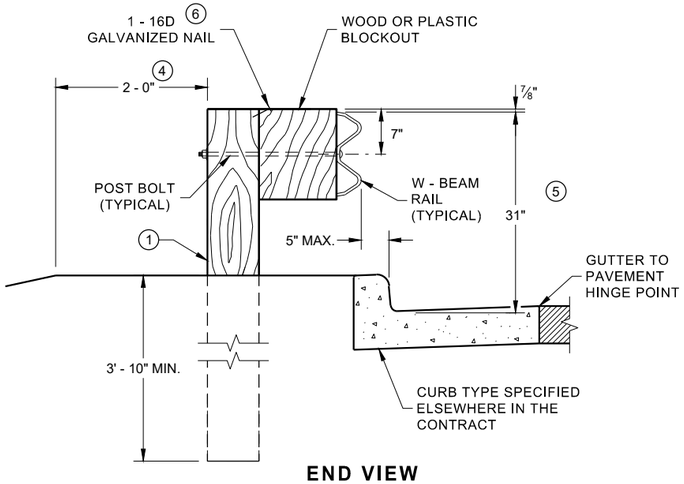
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



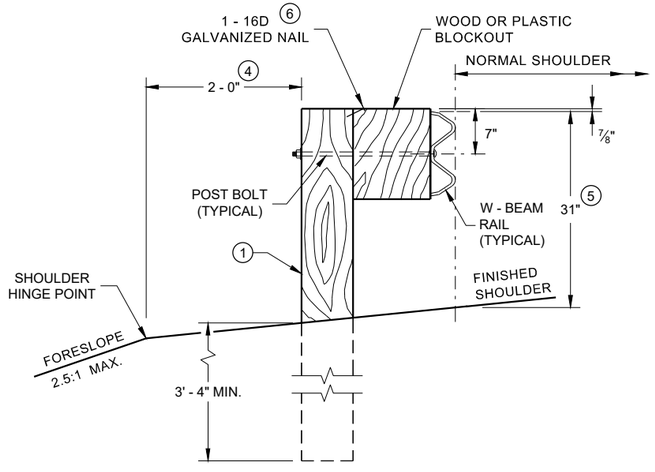
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



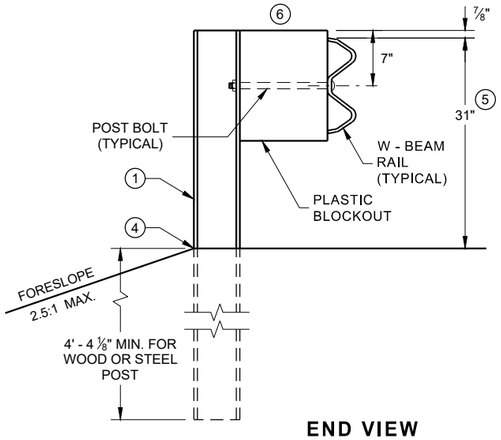
WOOD POST (6" X 8") NOMINAL (1)



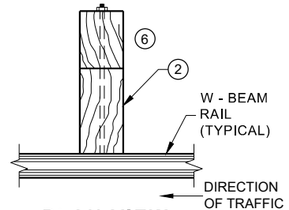
END VIEW
LOCATED ALONG A CURBED ROADWAY



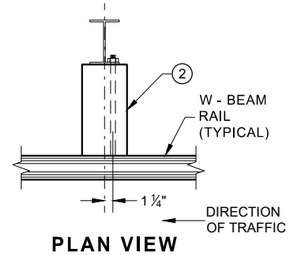
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



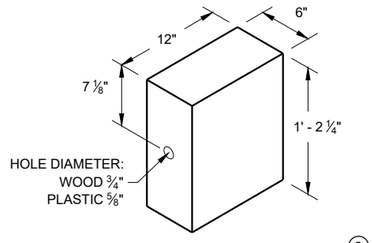
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW WOOD POST, BLOCKOUT & BEAM



PLAN VIEW STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

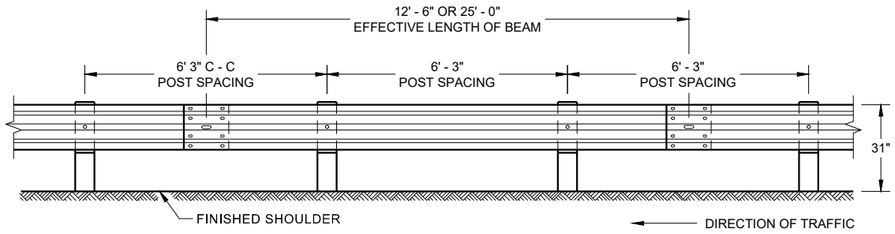
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

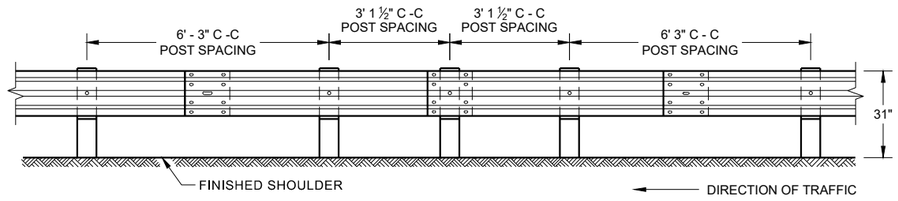
SDD 14B42 - 07a

6

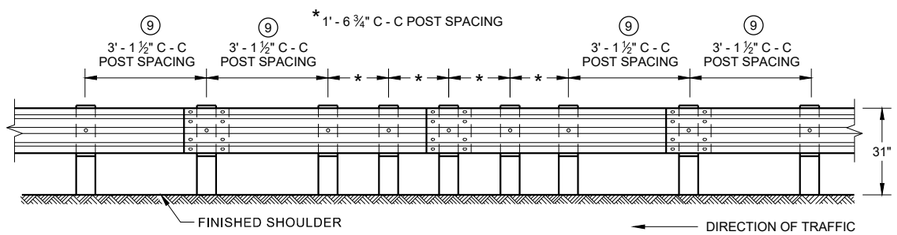
SDD 14B42 - 07a



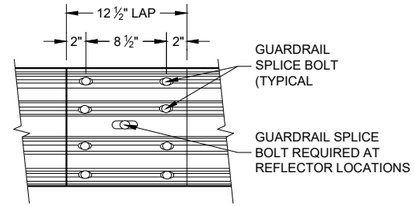
FRONT VIEW
POST SPACING STANDARD INSTALLATION



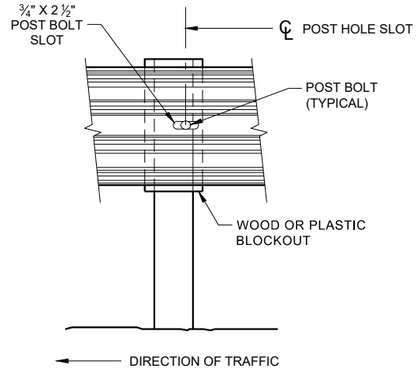
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



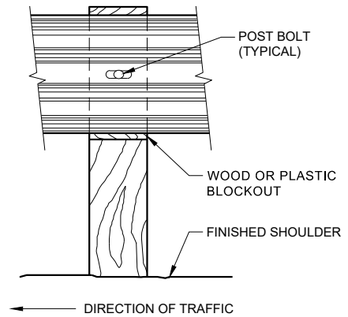
FRONT VIEW
QUARTER POST SPACING (QS)



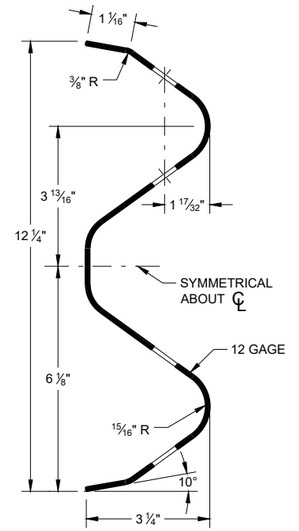
FRONT VIEW
MID-SPAN BEAM SPLICE



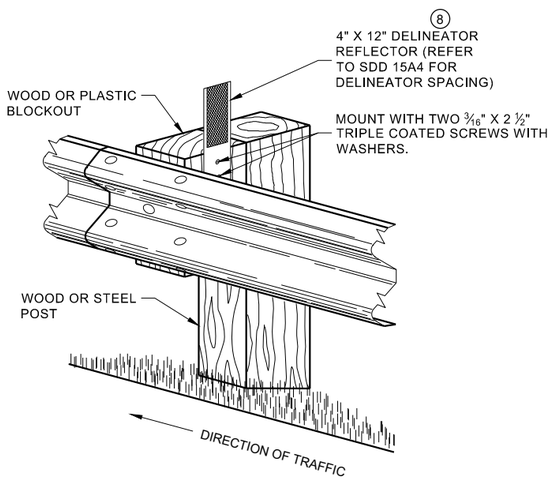
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

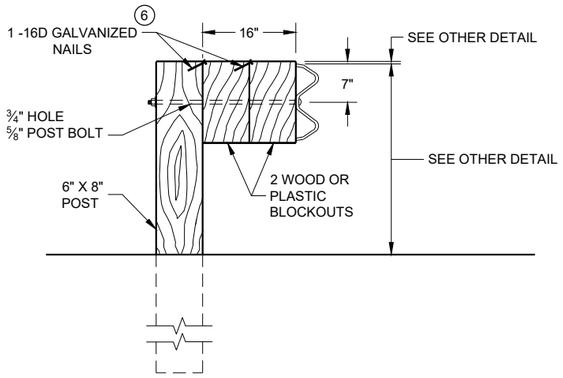
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

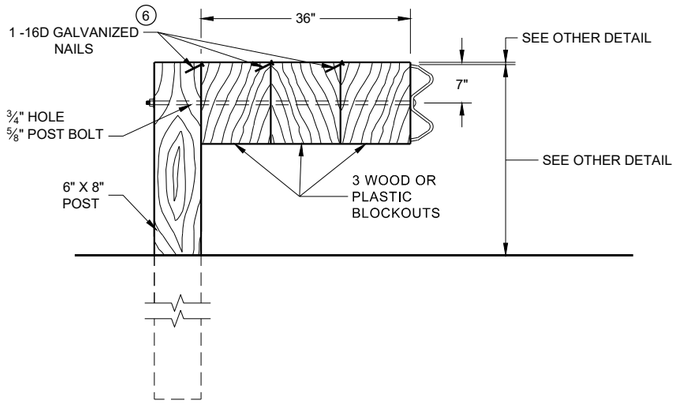
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SDD 14B42 - 07b



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.



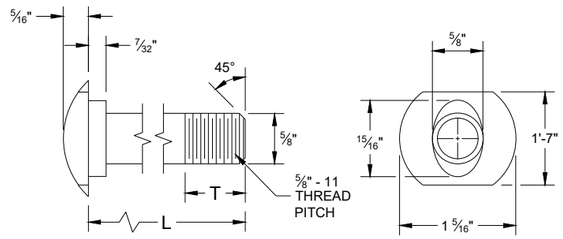
DETAIL FOR 36" BLOCKOUT DEPTH

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.

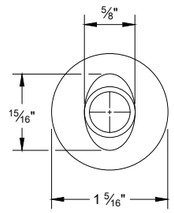
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

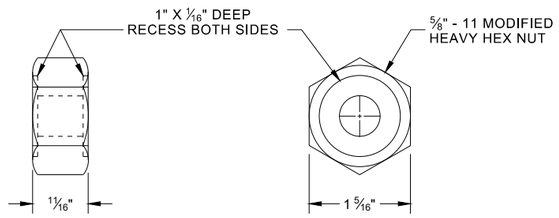


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"

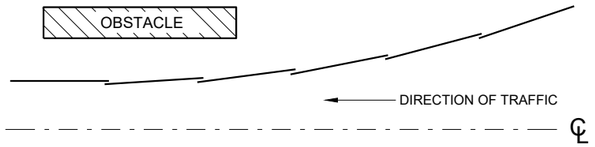


ALTERNATE BOLT HEAD

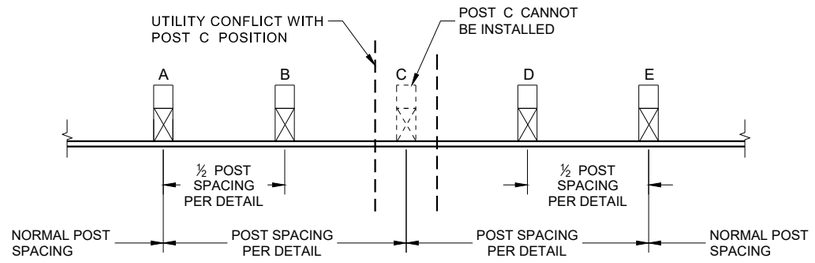


POST BOLT, SPLICE BOLT AND RECESS NUT

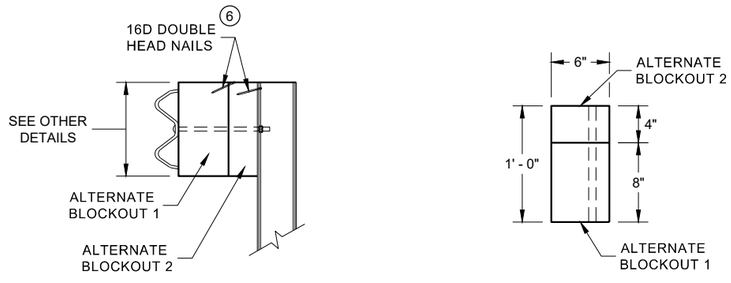
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

PLAN VIEW

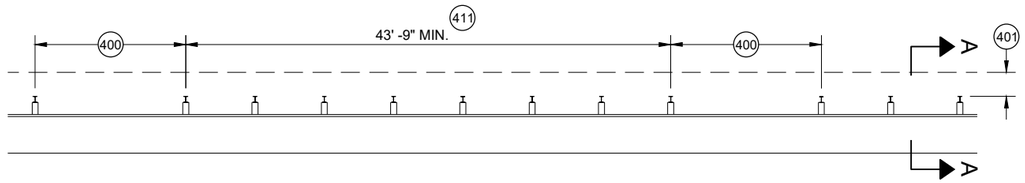
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

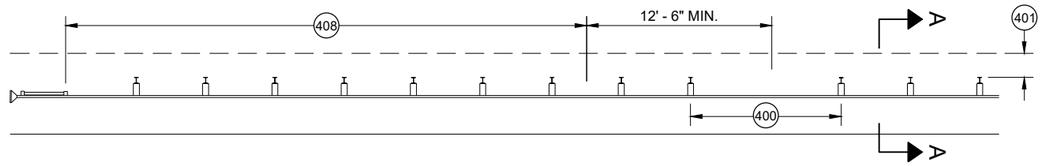
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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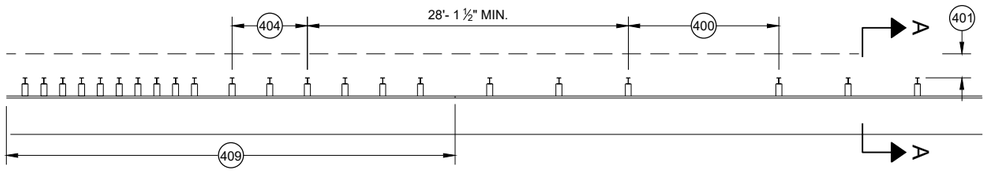
SDD 14B42 - 07c



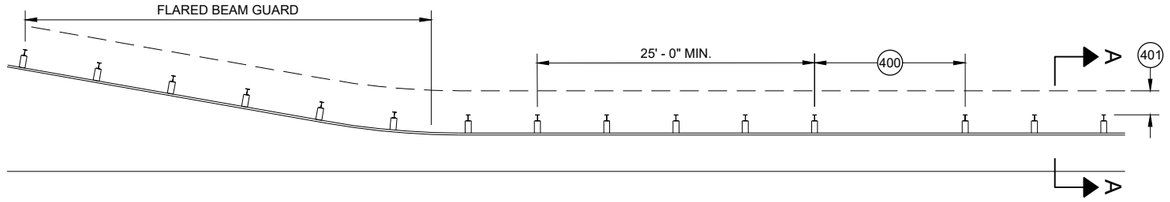
MISSING POST IN MGS GUARDRAIL



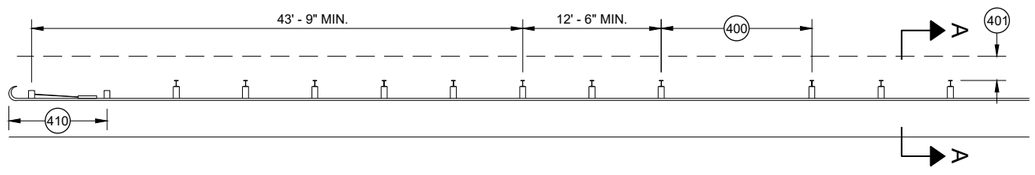
MISSING POST IN MGS GUARDRAIL NEAR EAT



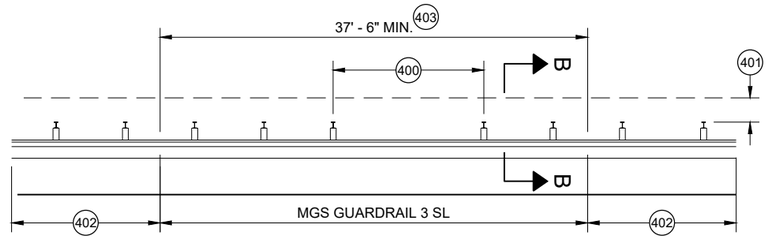
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

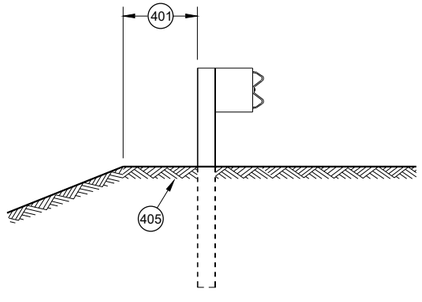


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

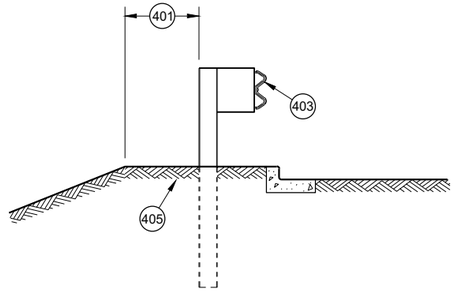


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

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 MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

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

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

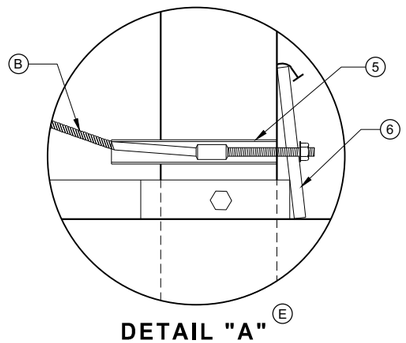
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

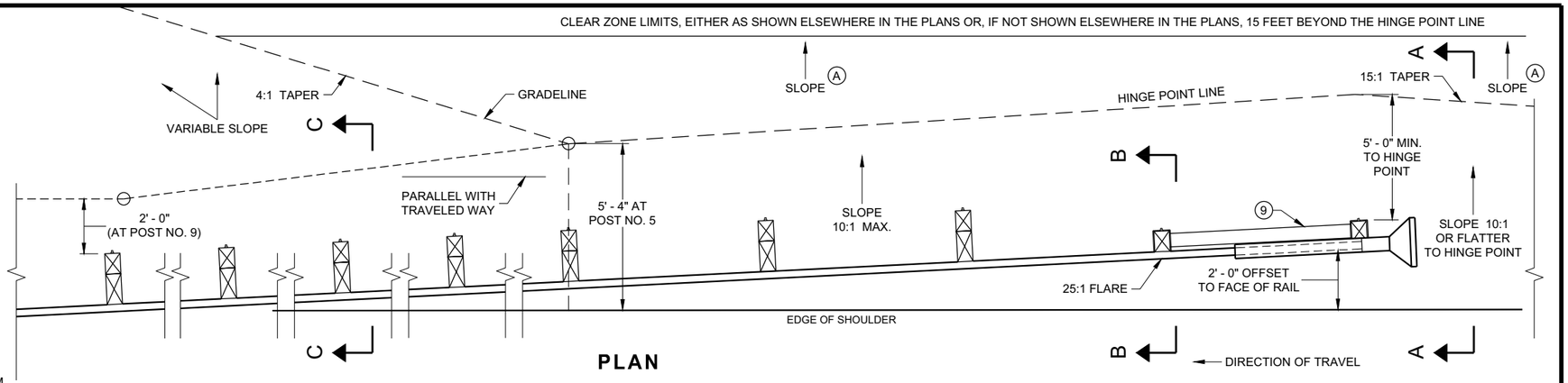
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

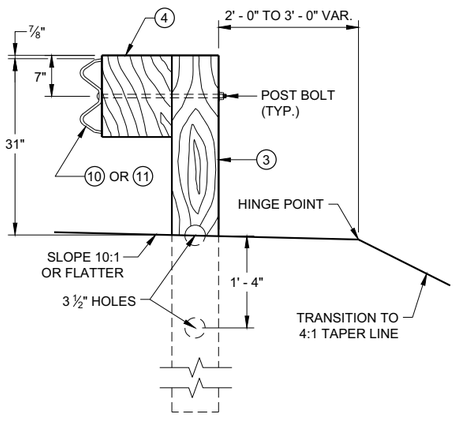
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" 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. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

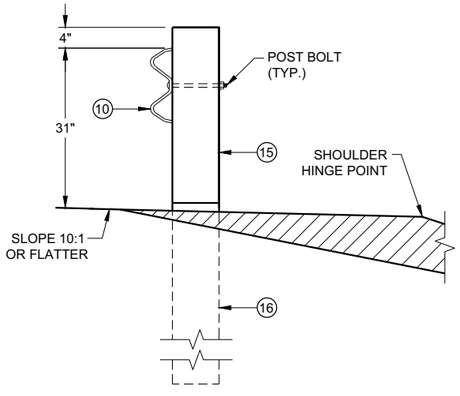


DETAIL "A" (E)

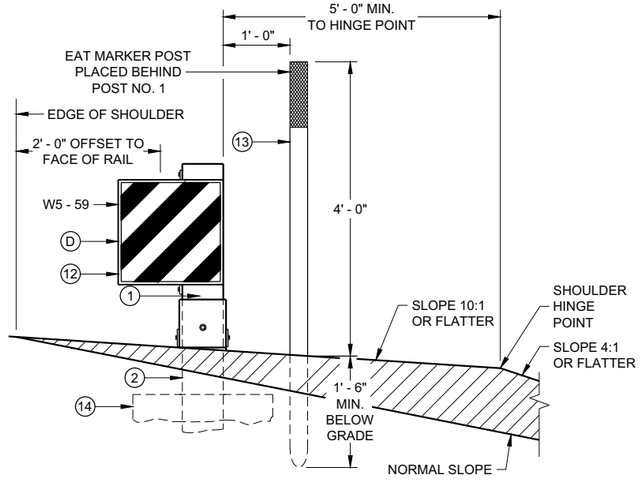




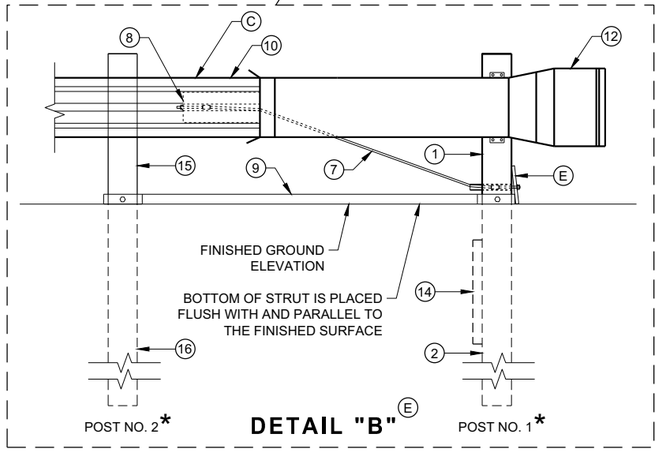
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



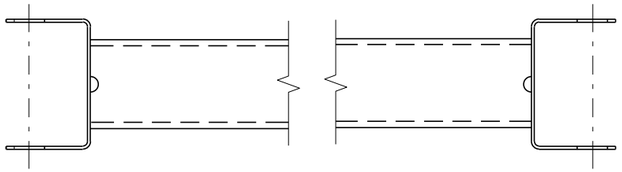
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

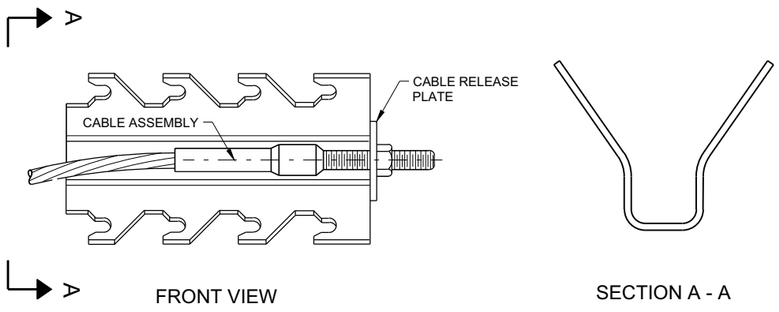
SDD 14B44 - 04a



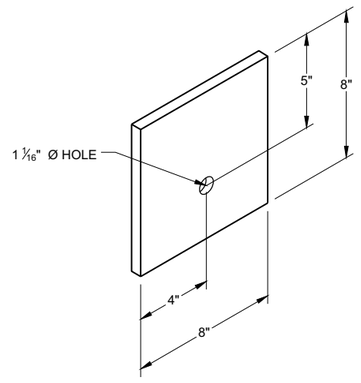
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
(1)	UPPER POST NO. 1 6" X 6" TUBE
(2)	LOWER POST NO. 1
(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)	IMPACT HEAD
(13)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
(14)	SOIL PLATE
(15)	UPPER POST NO. 2
(16)	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

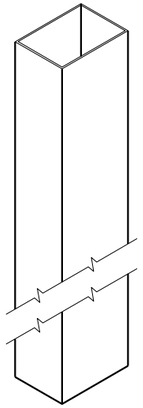
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SDD 14B44 - 04b

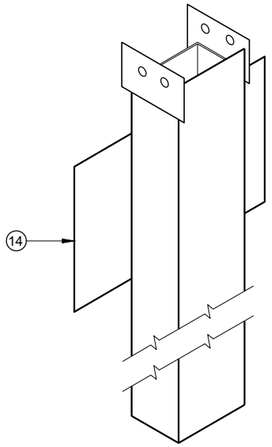
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

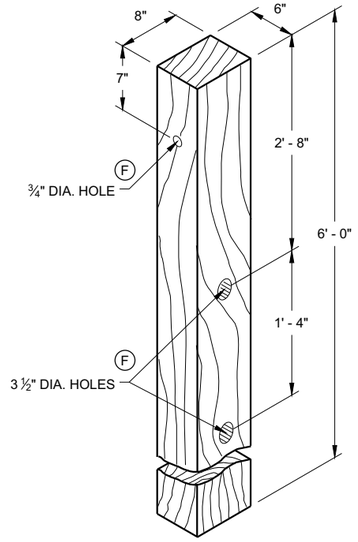
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



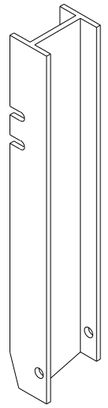
UPPER POST NO. 1 (1) (E)



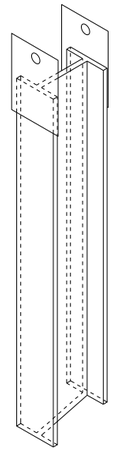
LOWER POST NO. 1 (2) (E)



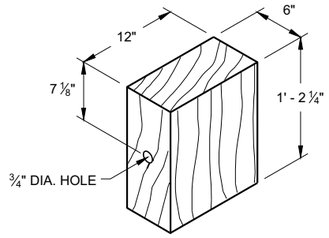
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



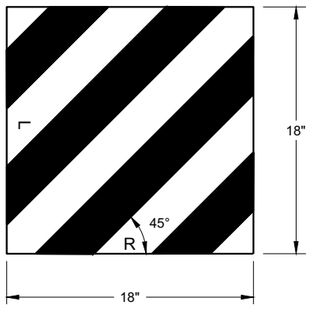
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

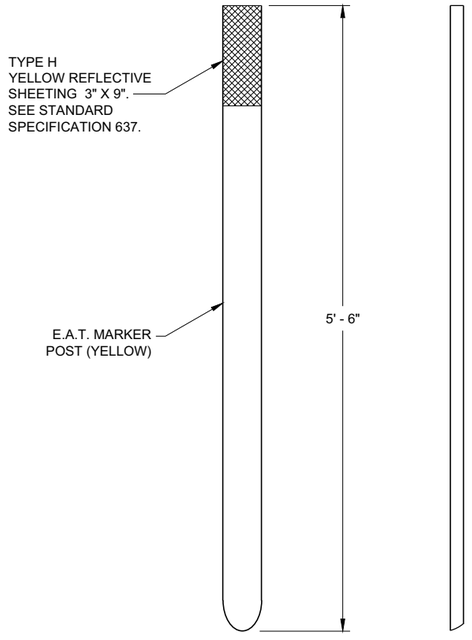


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



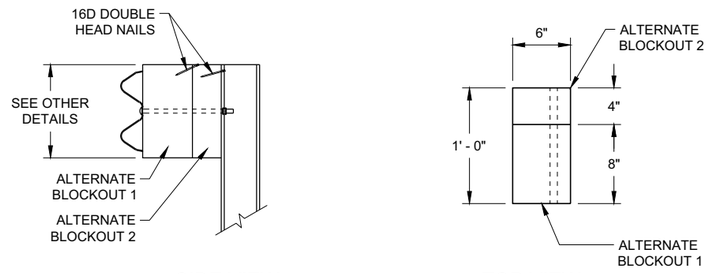
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

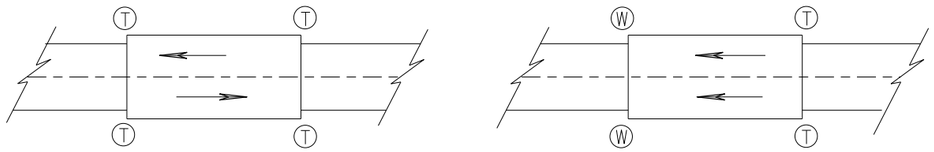
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) 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.

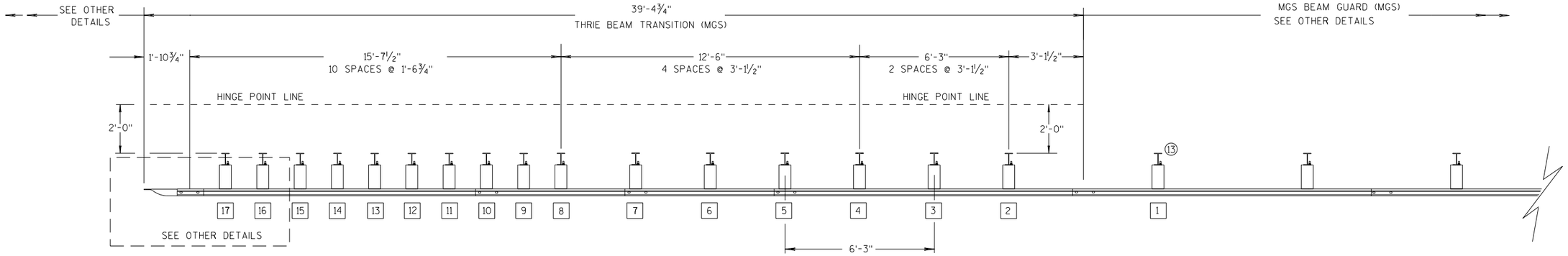
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

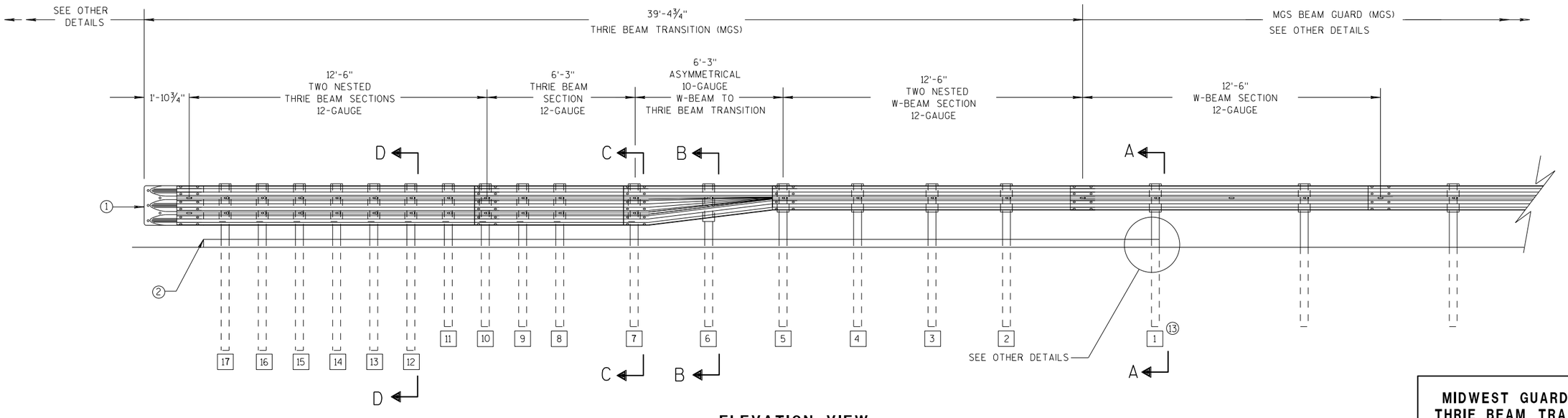
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

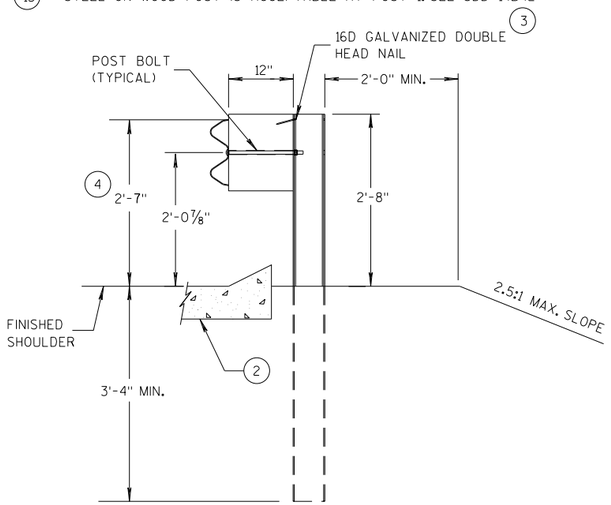
GENERAL NOTES

(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.

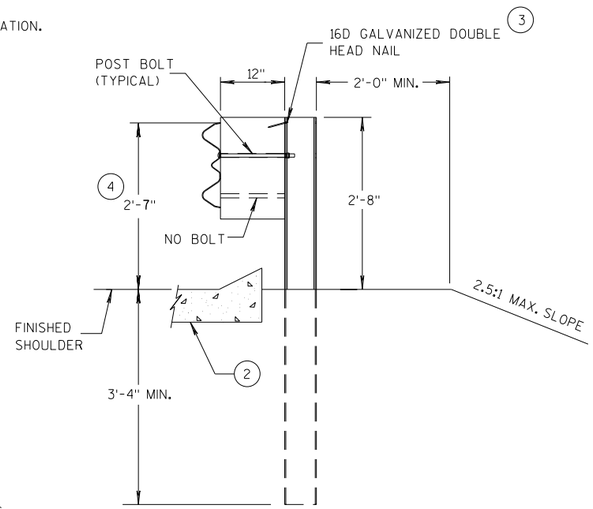
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



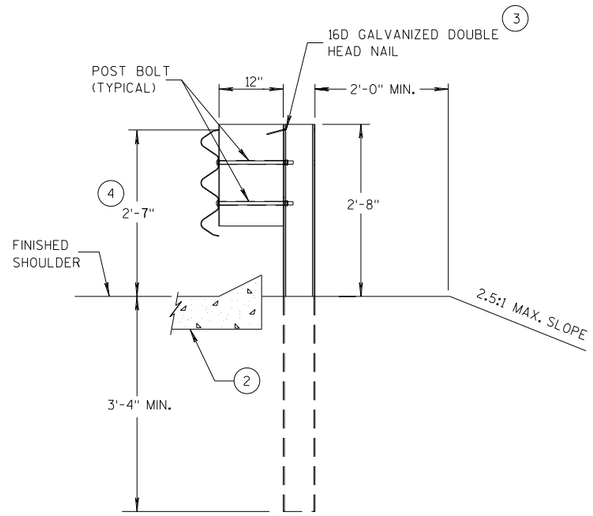
SECTION A-A (13)

POSTS 1-5



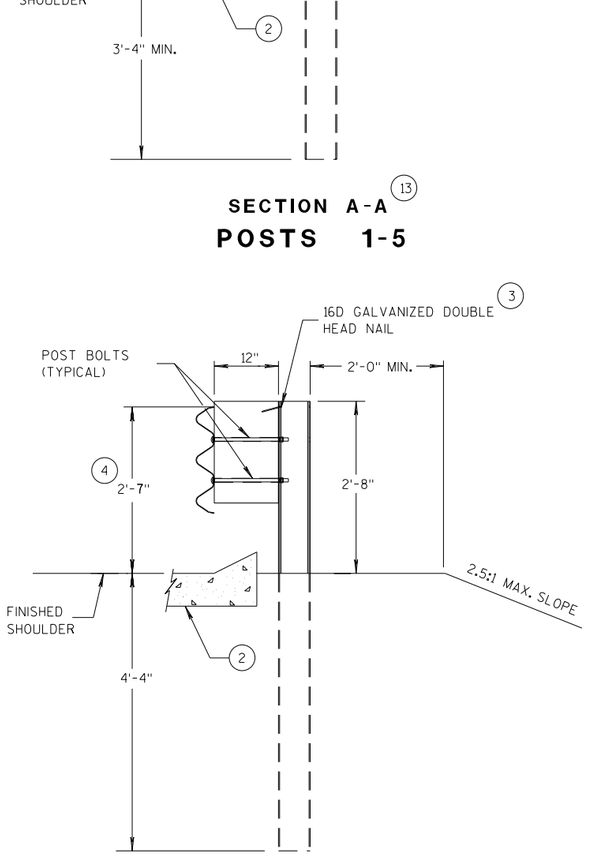
SECTION B-B

POST 6



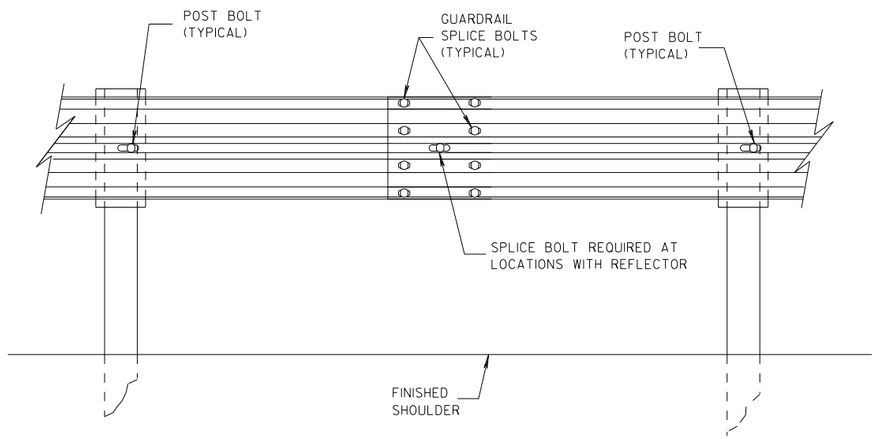
SECTION C-C

POSTS 7-11



SECTION D-D

POSTS 12-17



SPLICE DETAIL

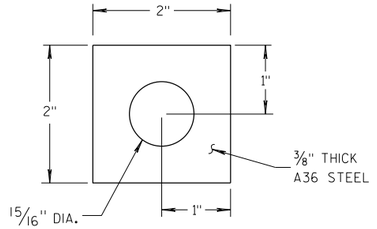
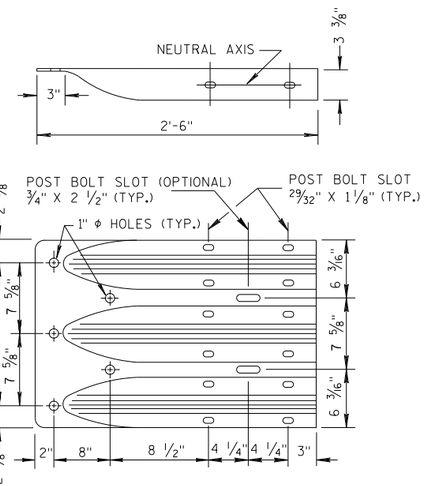
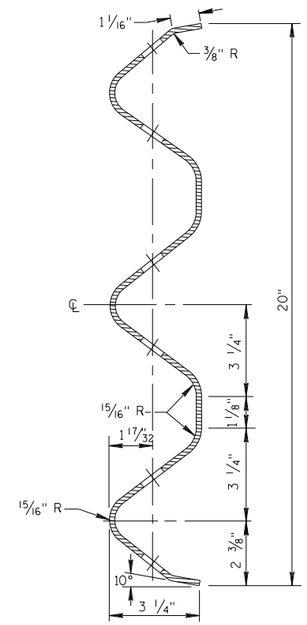


PLATE WASHER DETAIL



THRIE BEAM TERMINAL CONNECTOR



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

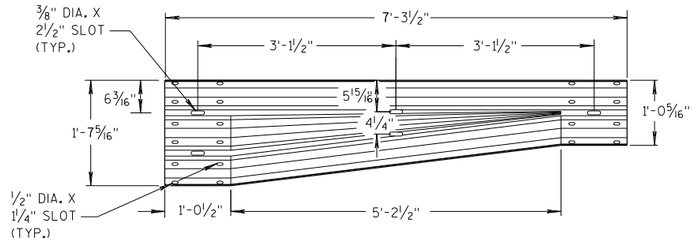
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 121

6

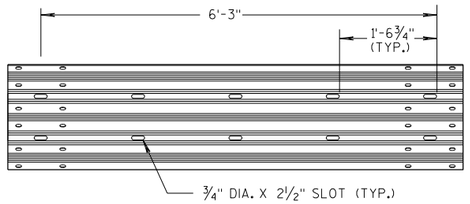
S.D.D. 14 B 45-5b

6

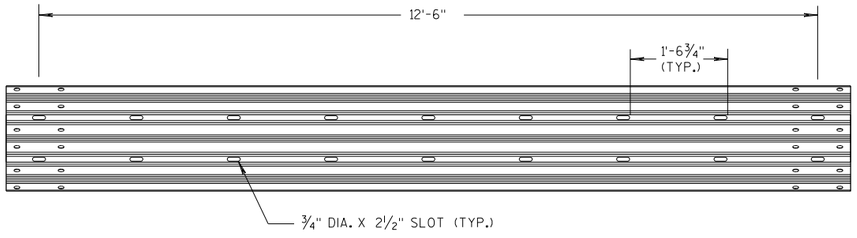
S.D.D. 14 B 45-5b



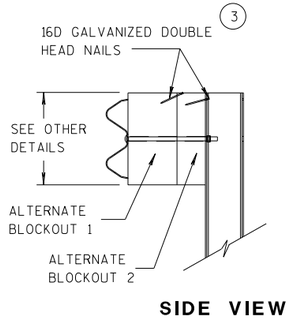
W-BEAM TO THRIE BEAM TRANSITION SECTION



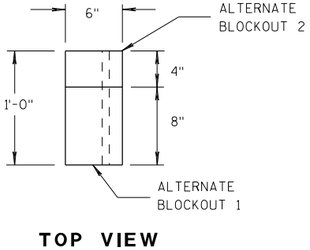
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

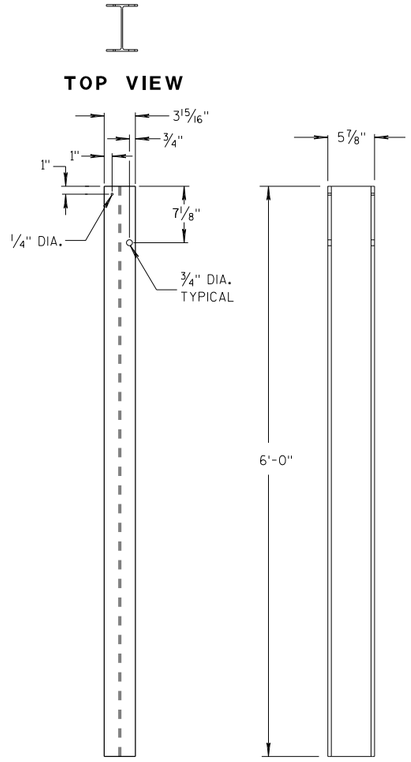


SIDE VIEW



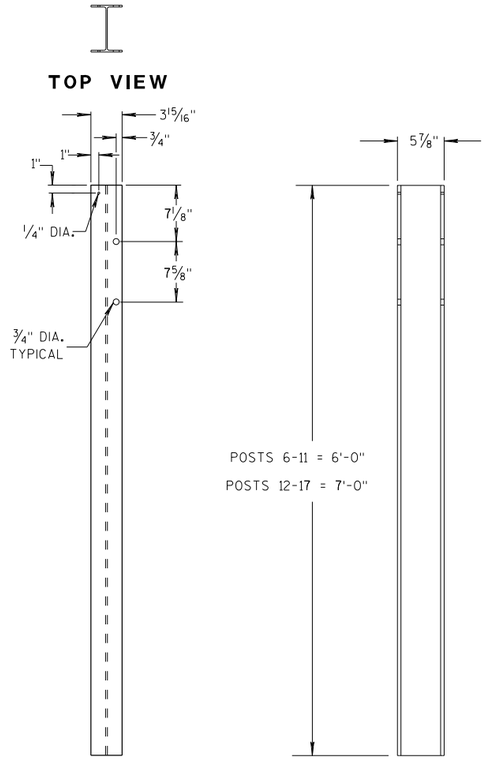
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



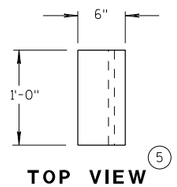
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

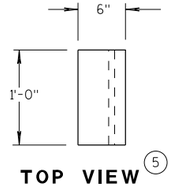


FRONT VIEW SIDE VIEW

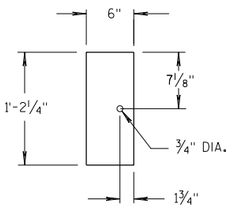
STEEL POSTS 6-17



TOP VIEW (5)

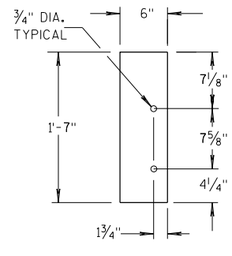


TOP VIEW (5)



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.

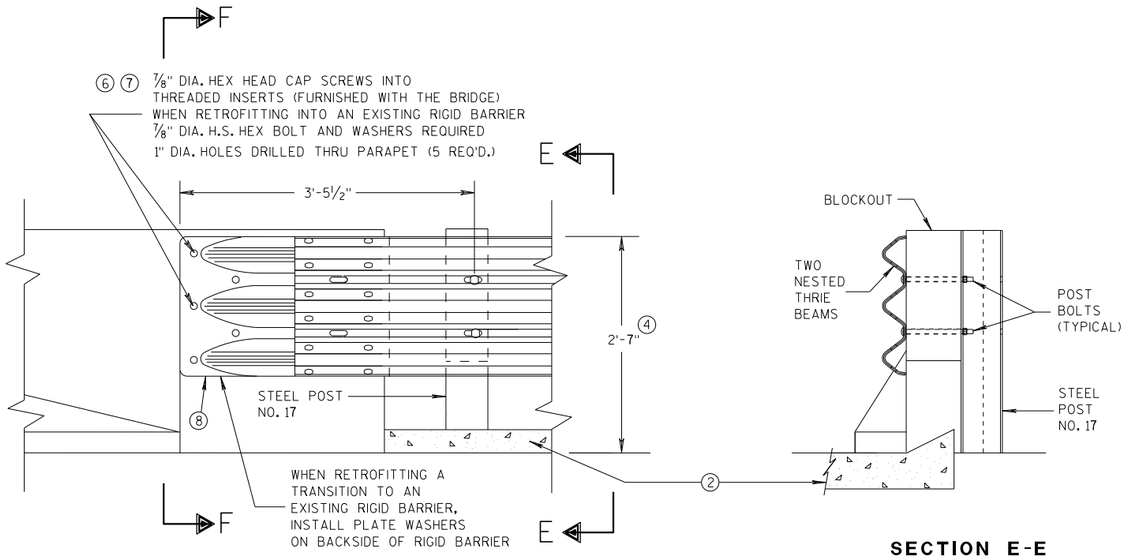
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6
S.D.D. 14 B 45-5c



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.

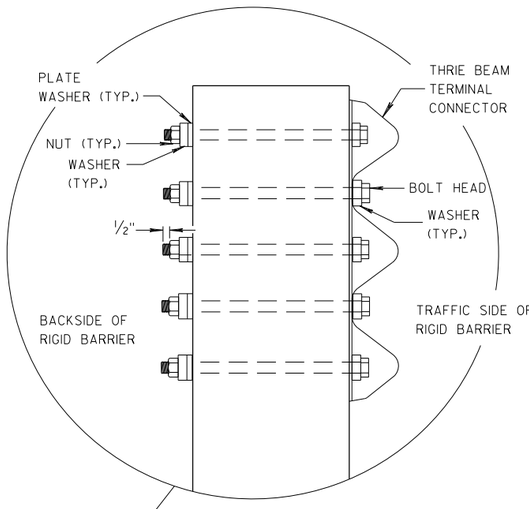
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

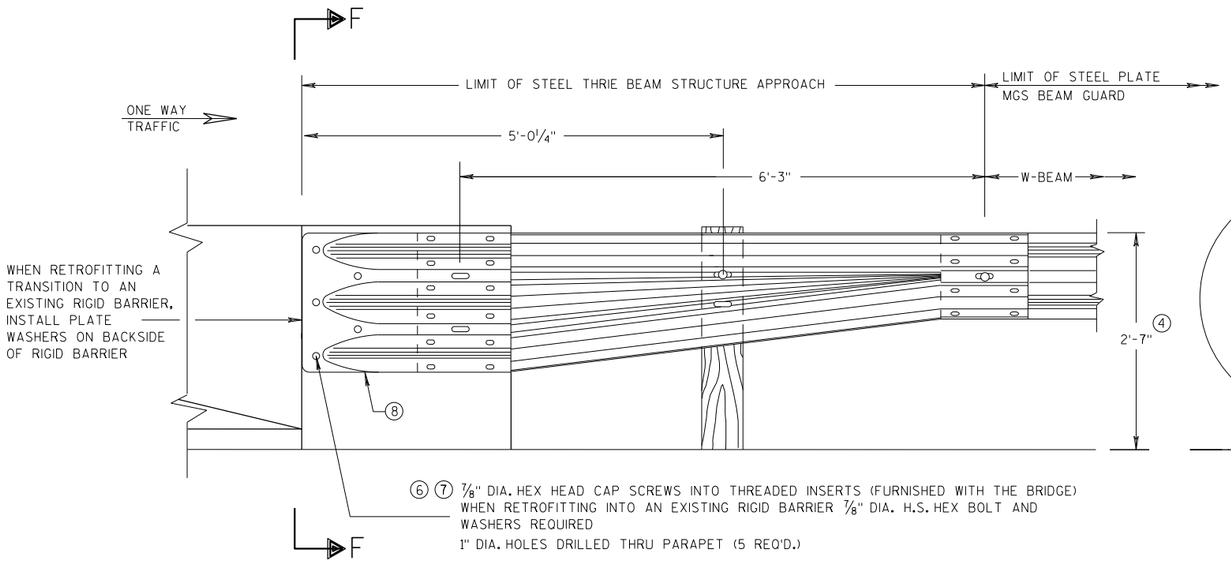
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

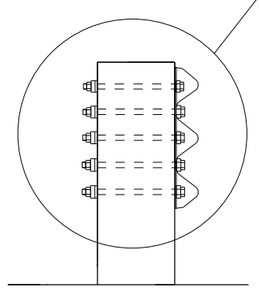
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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".

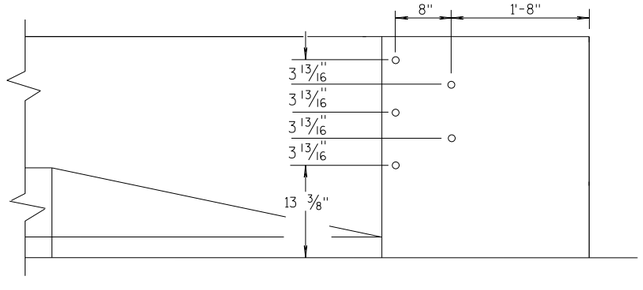




FRONT VIEW



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
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible] NT
FHWA

6

S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

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.

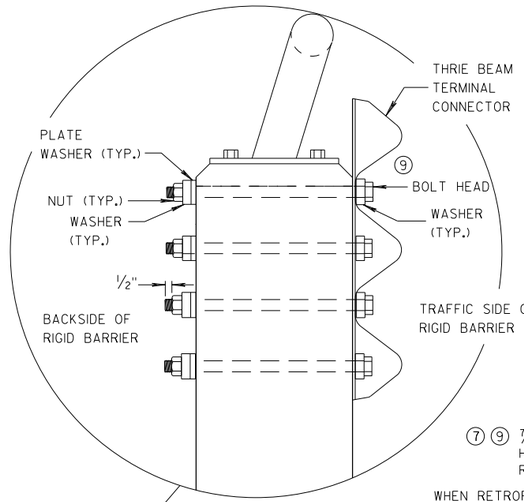
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

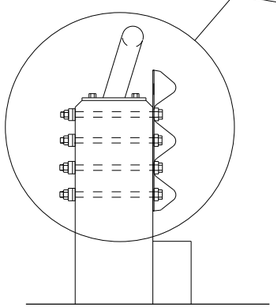
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

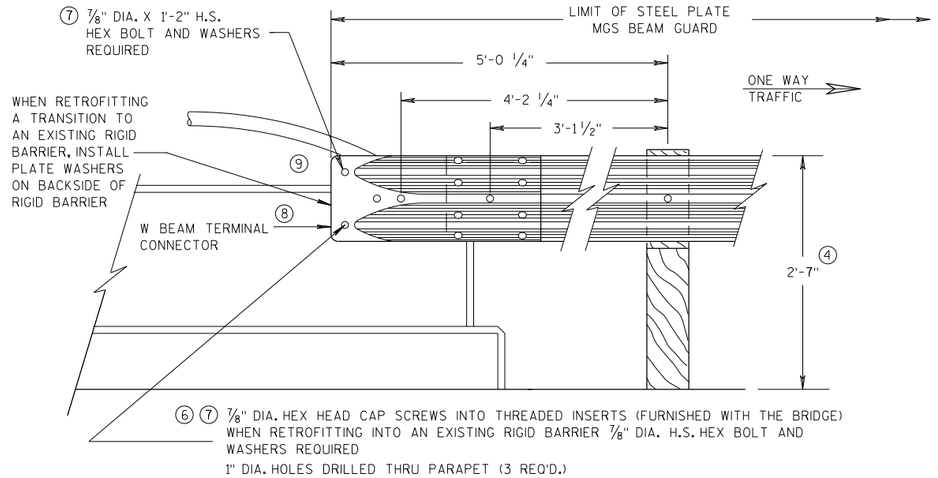
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





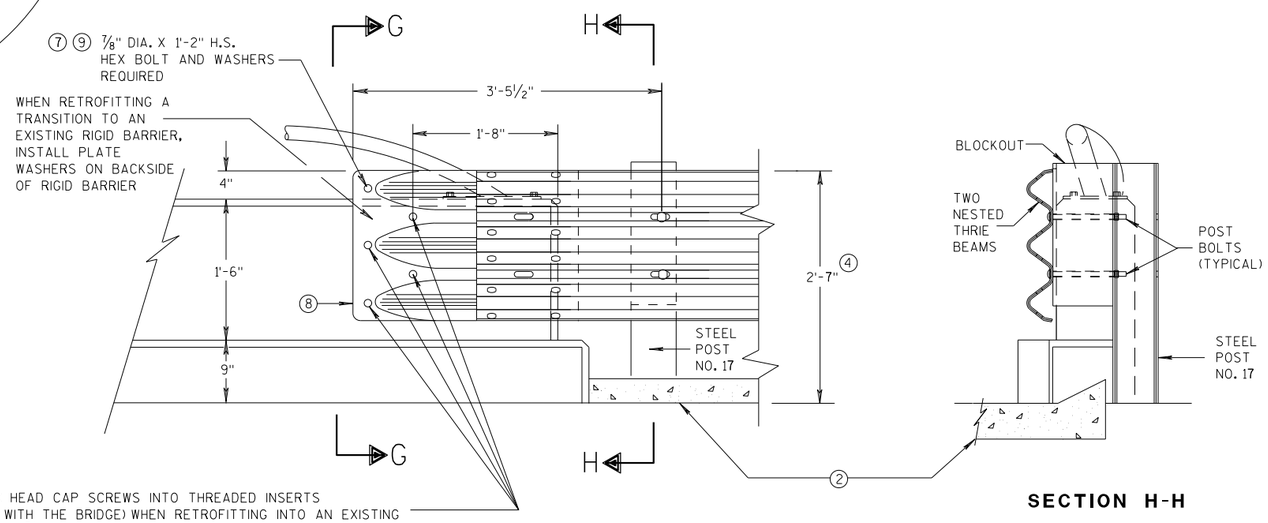
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

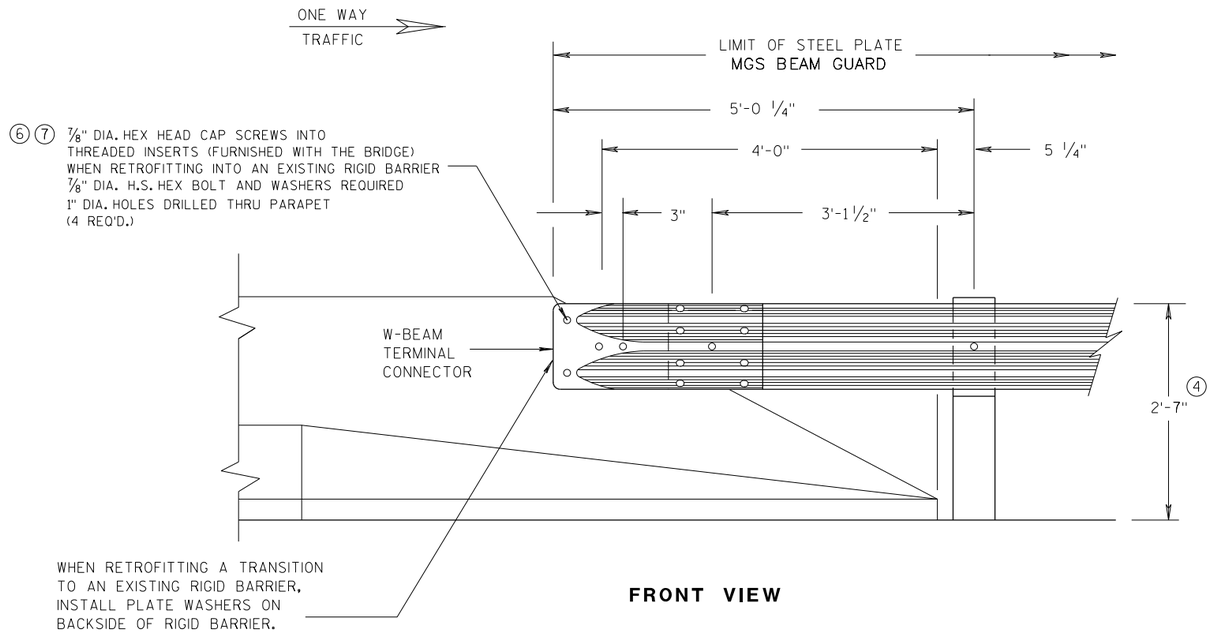
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S.D.D. 14 B 45-5e

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S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

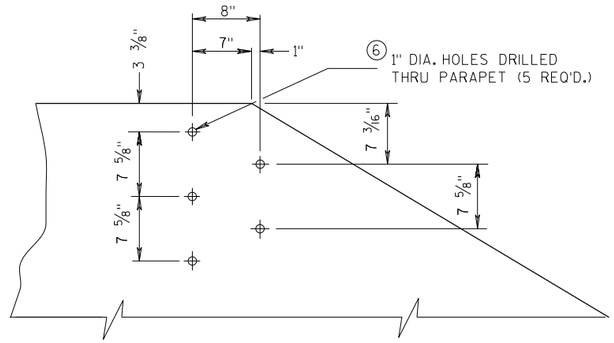
GENERAL NOTES

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

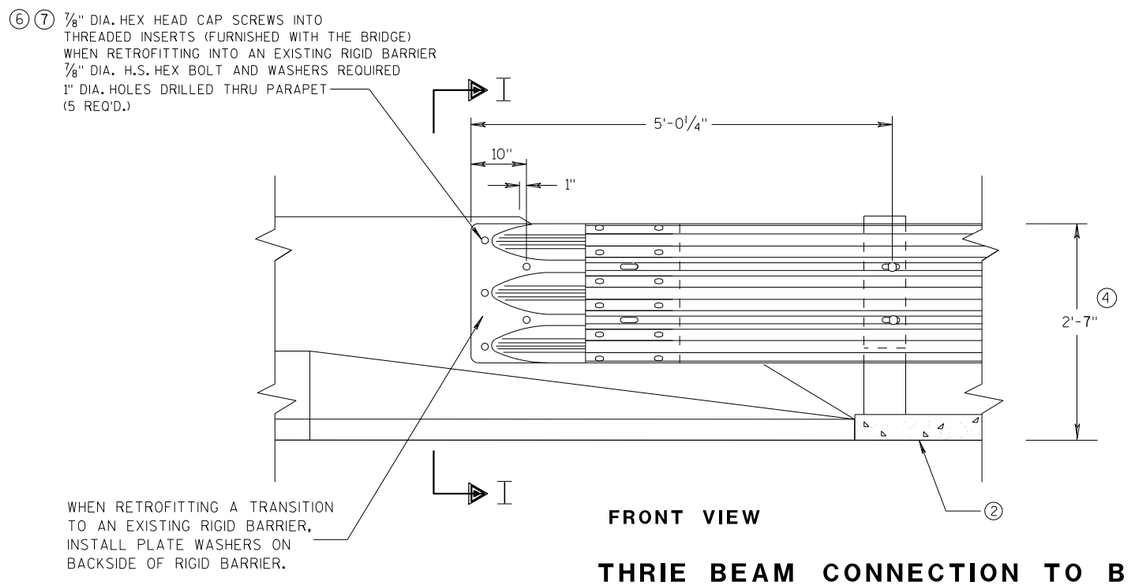
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

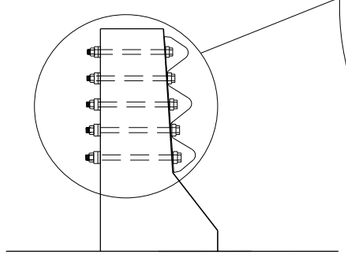
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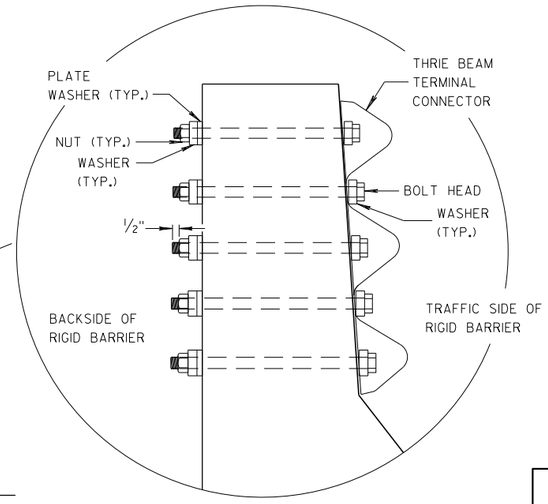
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

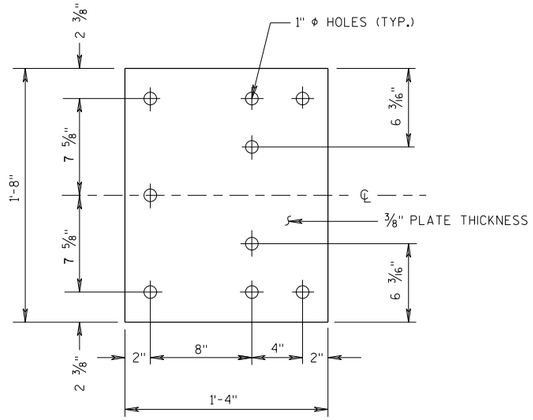
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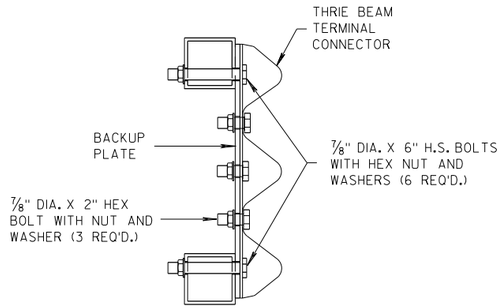
S.D.D. 14 B 45-5f

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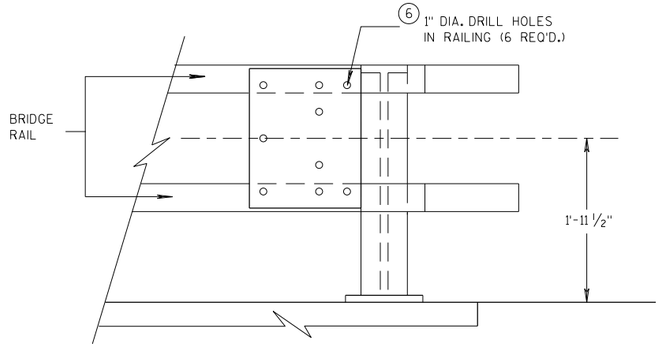
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BACK-UP PLATE DETAIL



SECTION J-J

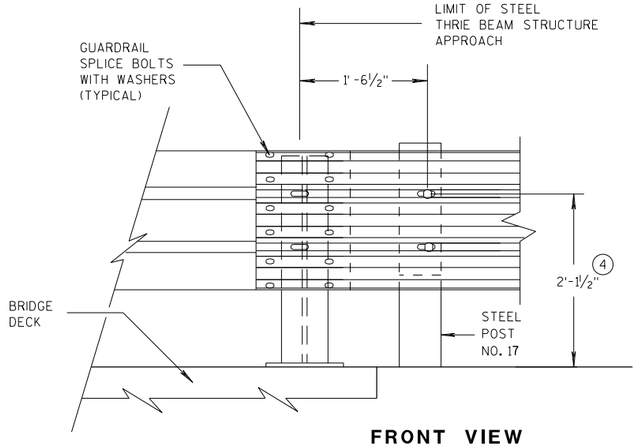


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

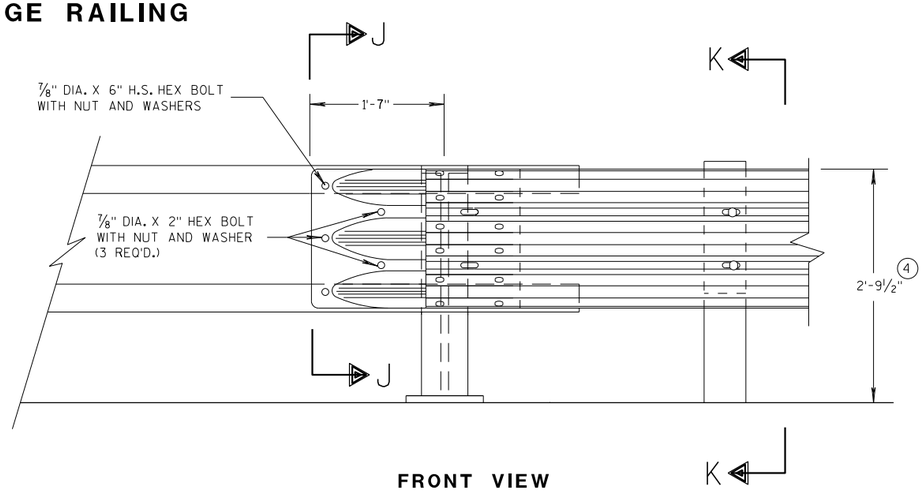
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

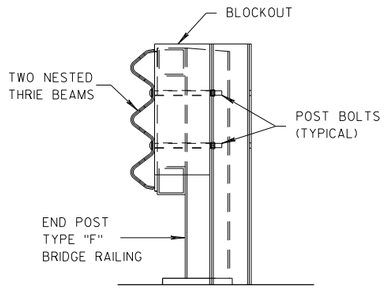


FRONT VIEW

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

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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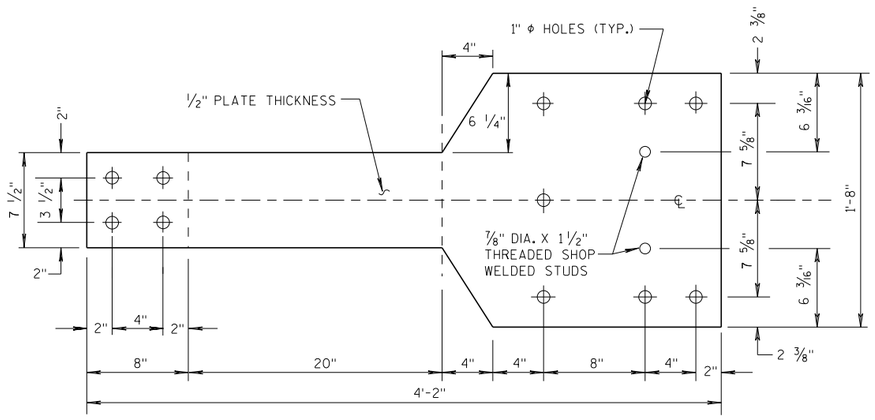
S.D.D. 14 B 45-5g

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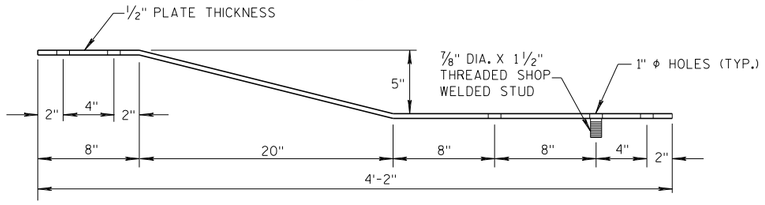
S.D.D. 14 B 45-5g

GENERAL NOTES

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

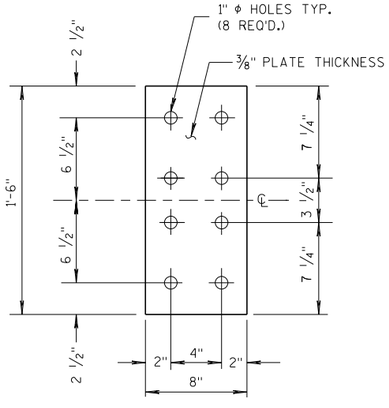


FRONT VIEW



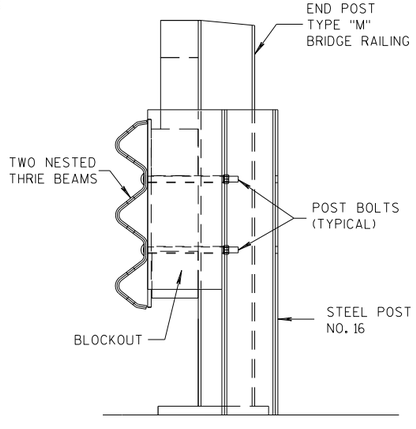
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

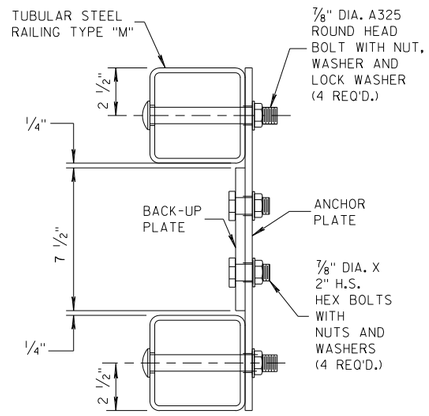


FRONT VIEW

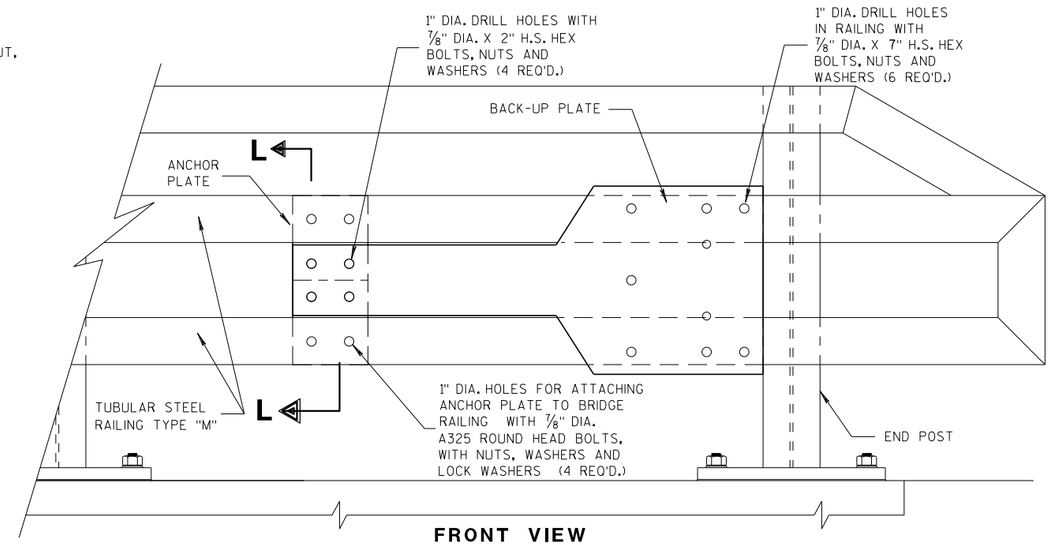
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

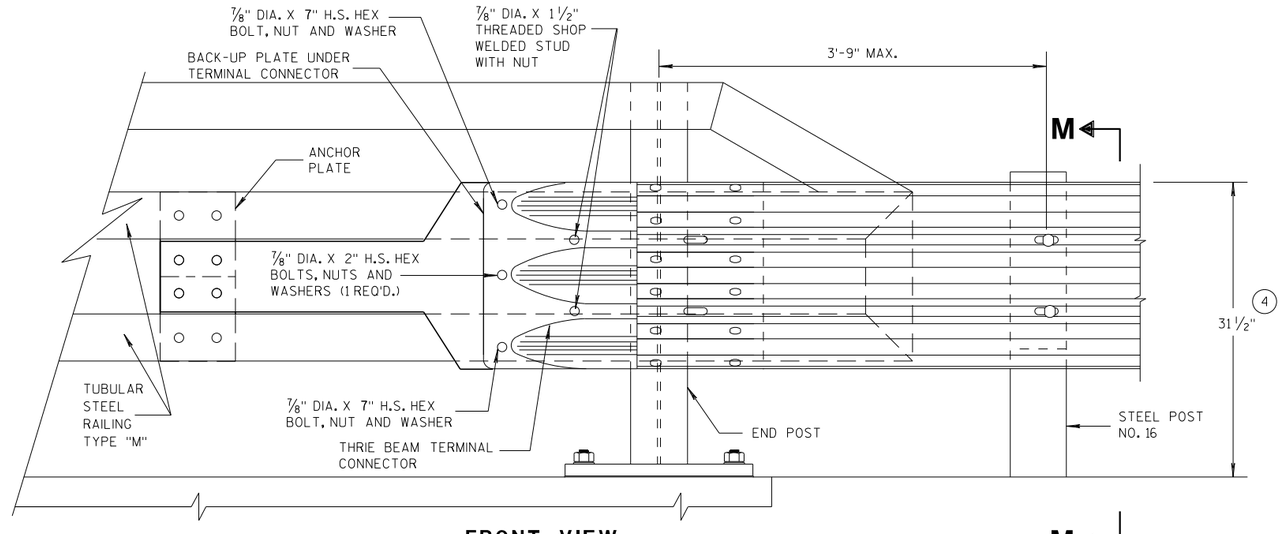


SECTION L-L

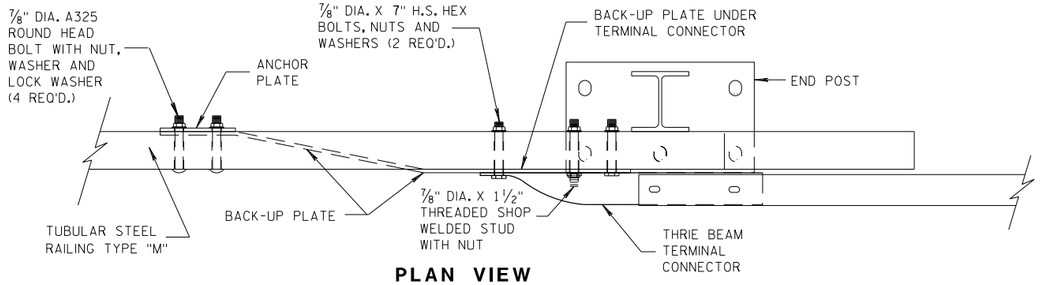


FRONT VIEW

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

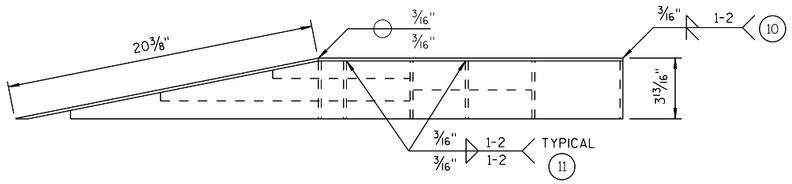
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FHWA

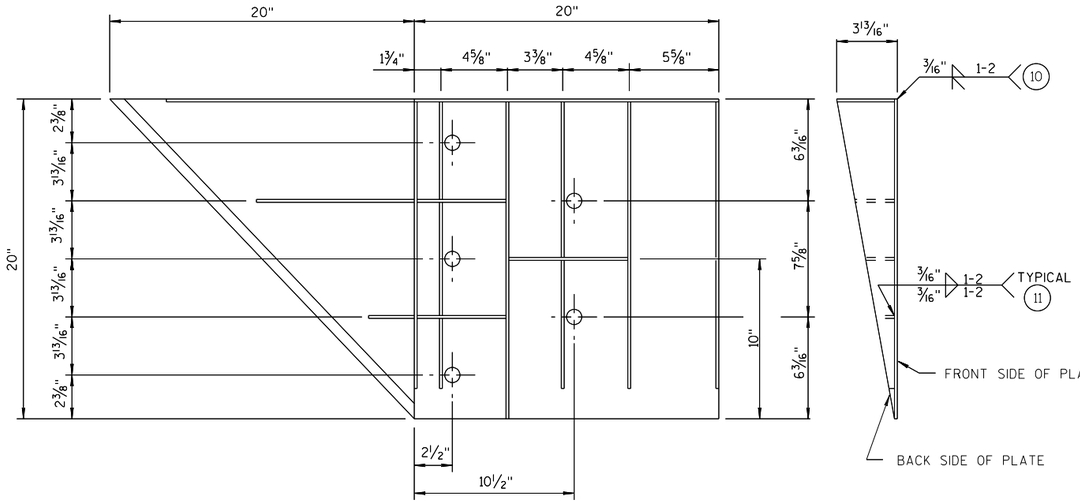
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S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

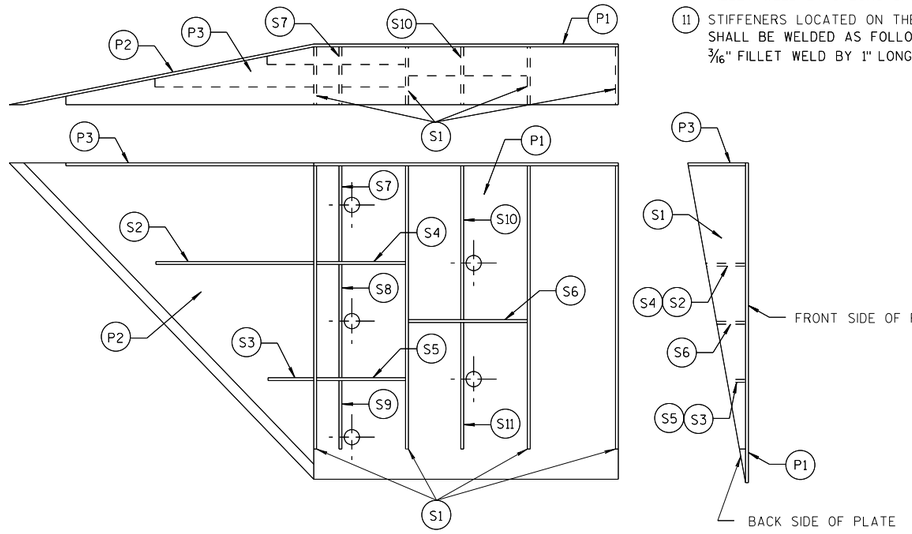


PLATE AND STIFFENER IDENTIFICATION

(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 5/8" 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 3/32"	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

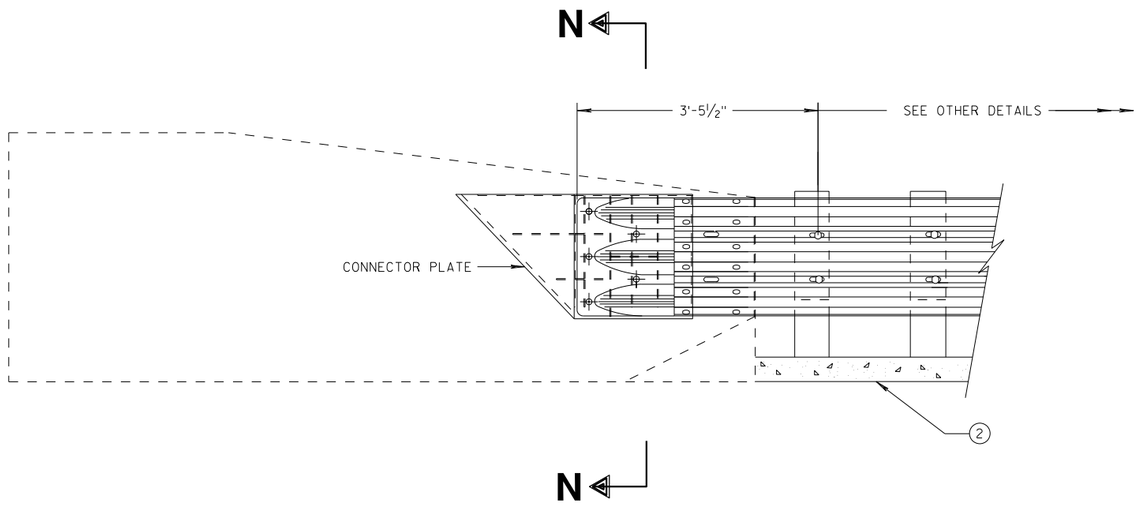
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

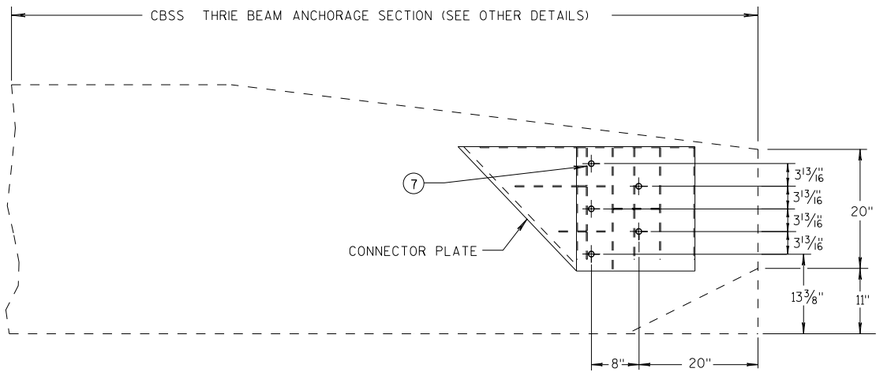
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S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



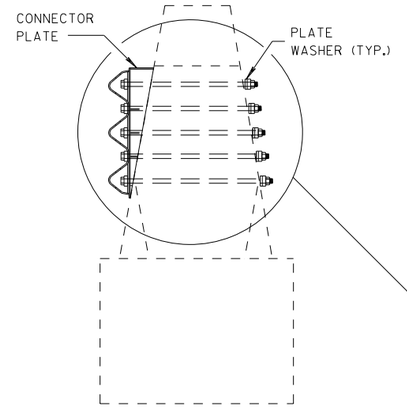
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

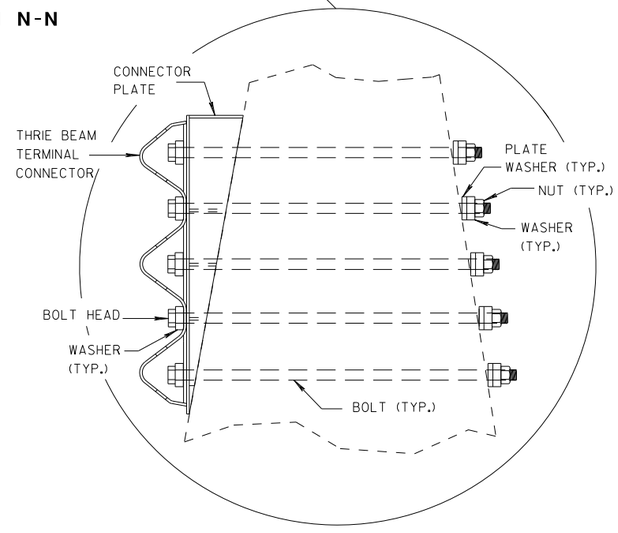
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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

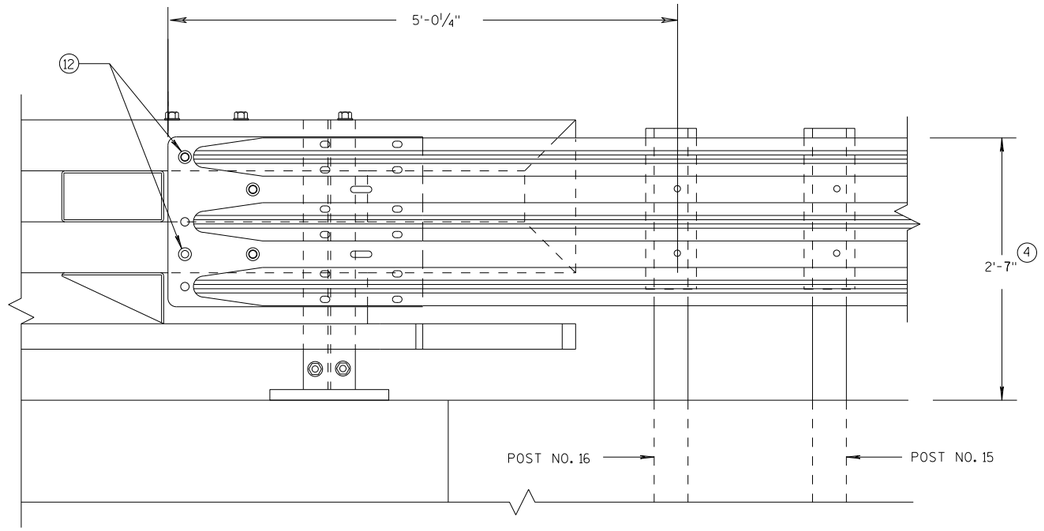
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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UNIT SUPERVIS

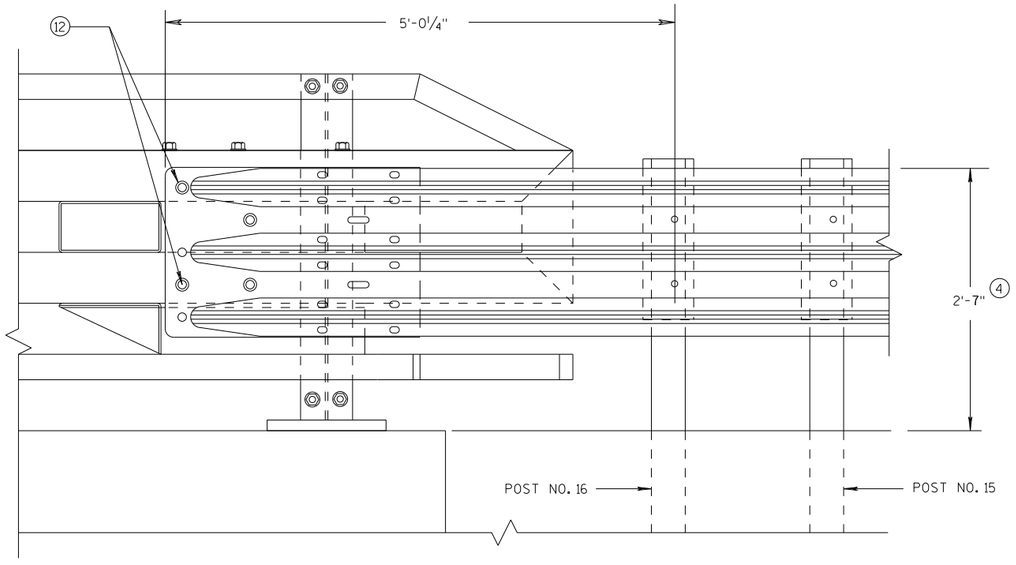
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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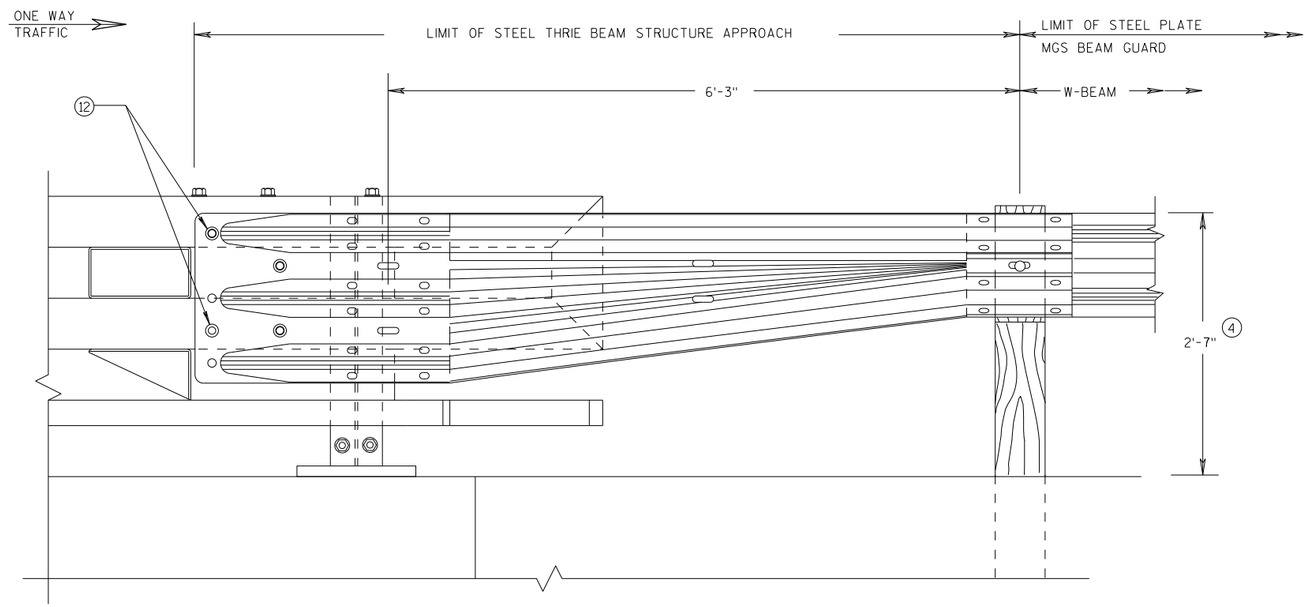
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S.D.D. 14 B 45-5k



FRONT VIEW

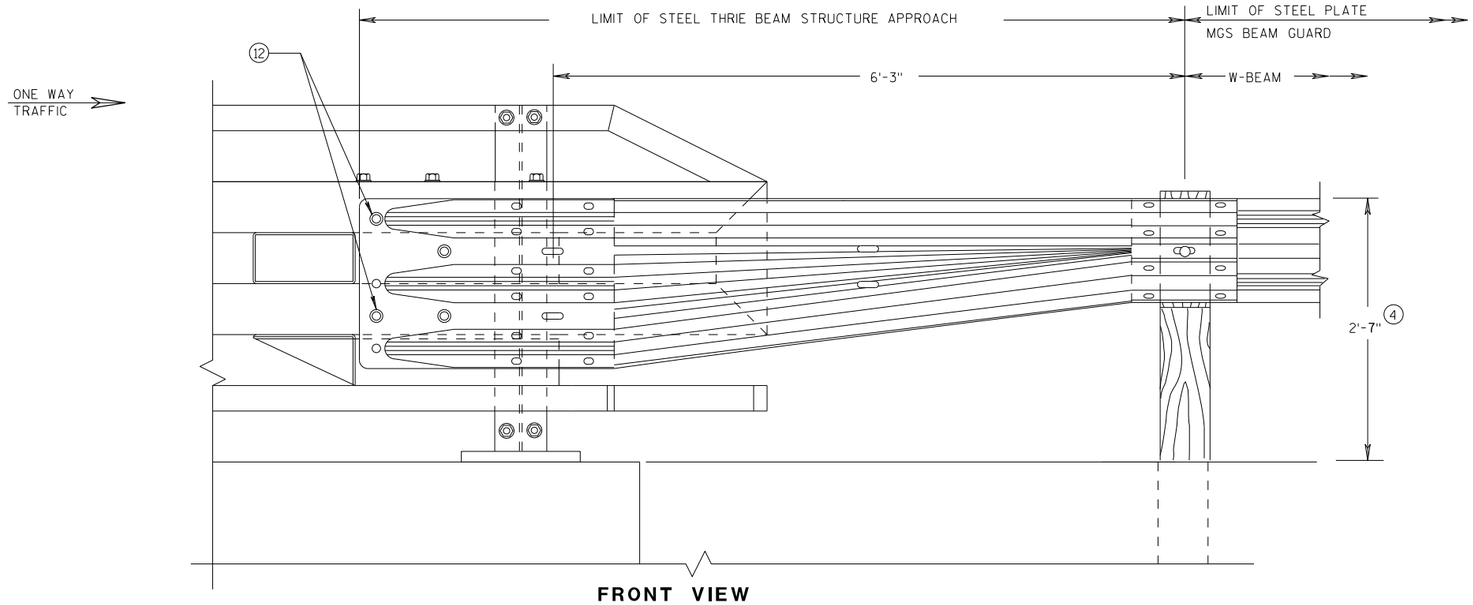
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(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
7/2018 DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

131

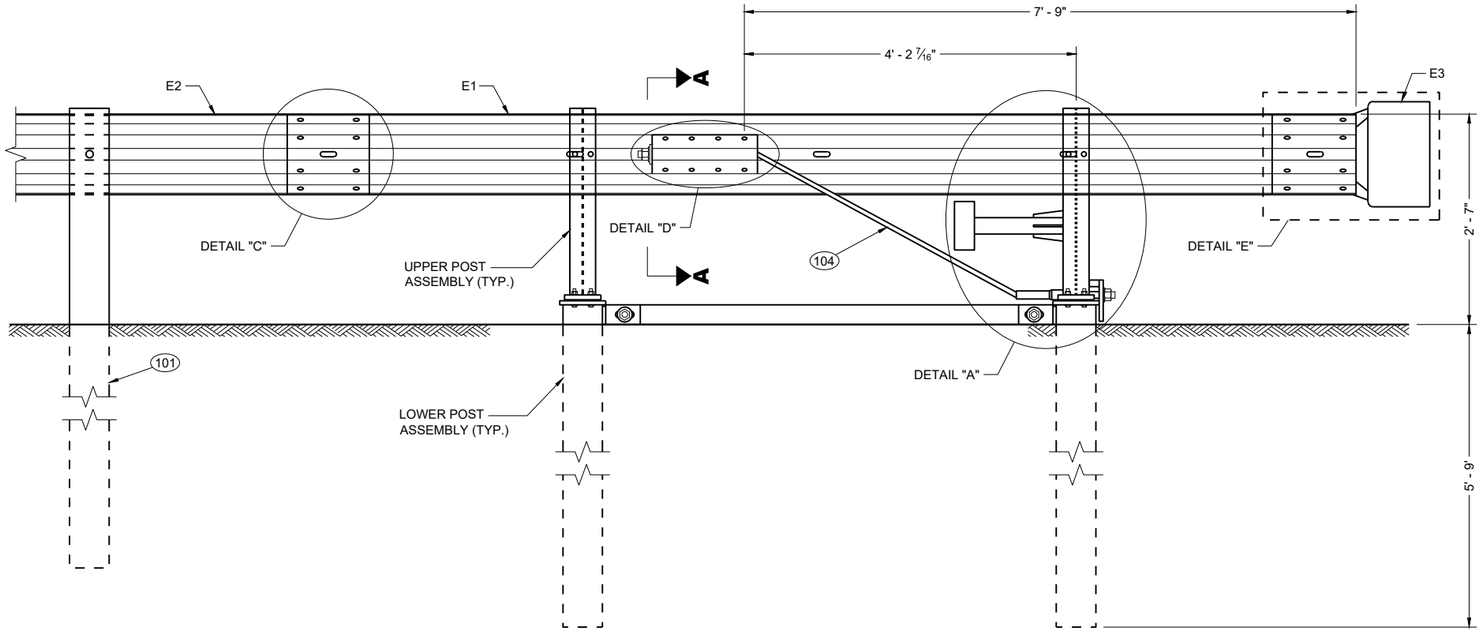
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S.D.D. 14 B 45-5L

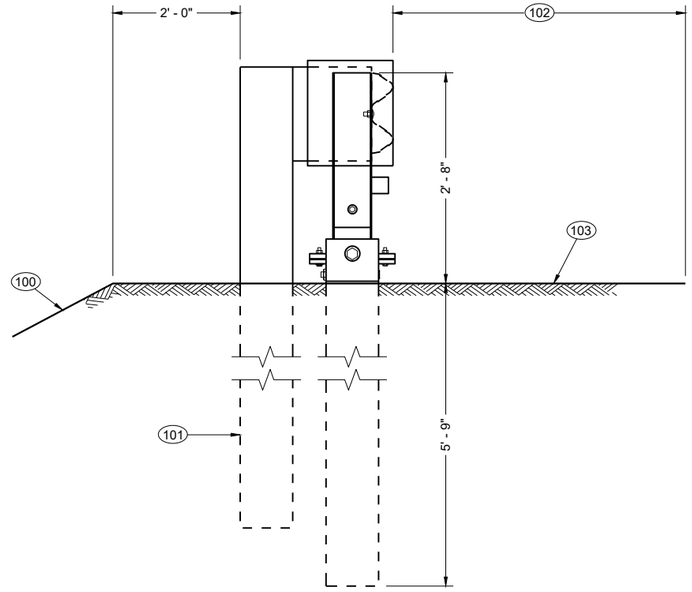
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S.D.D. 14 B 45-5L



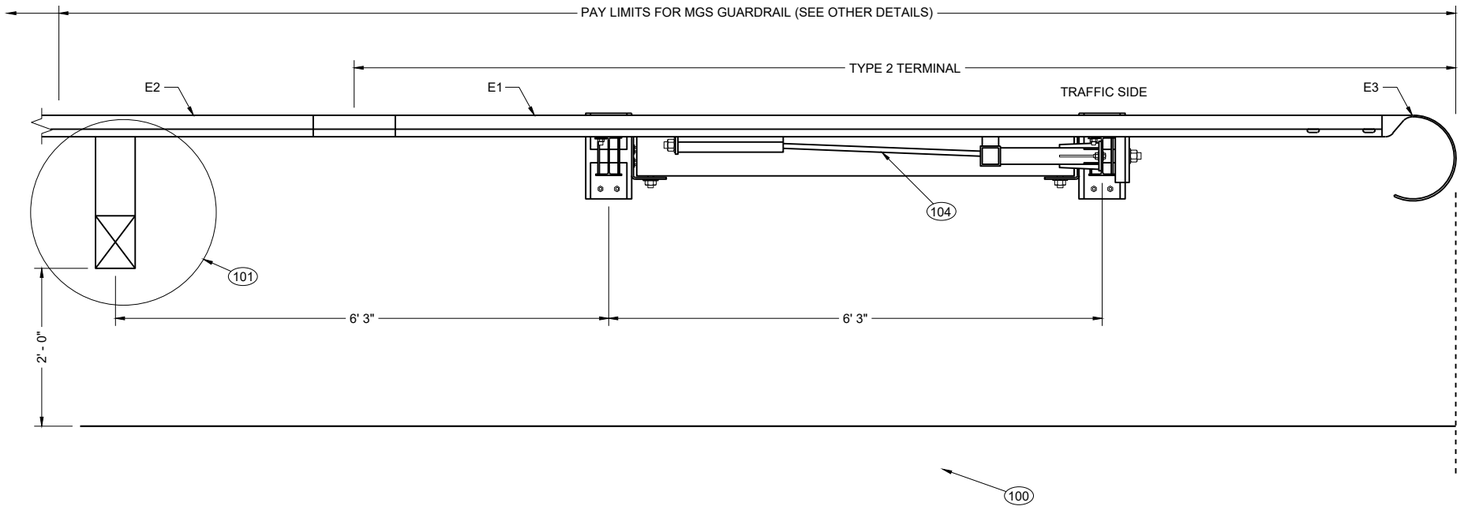
BACK VIEW

TYPE 2 TERMINAL



SIDE VIEW

TYPE 2 TERMINAL



TOP VIEW

TYPE 2 TERMINAL

GENERAL NOTES

SEE SDD 14B42 FOR MORE INFORMATION

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

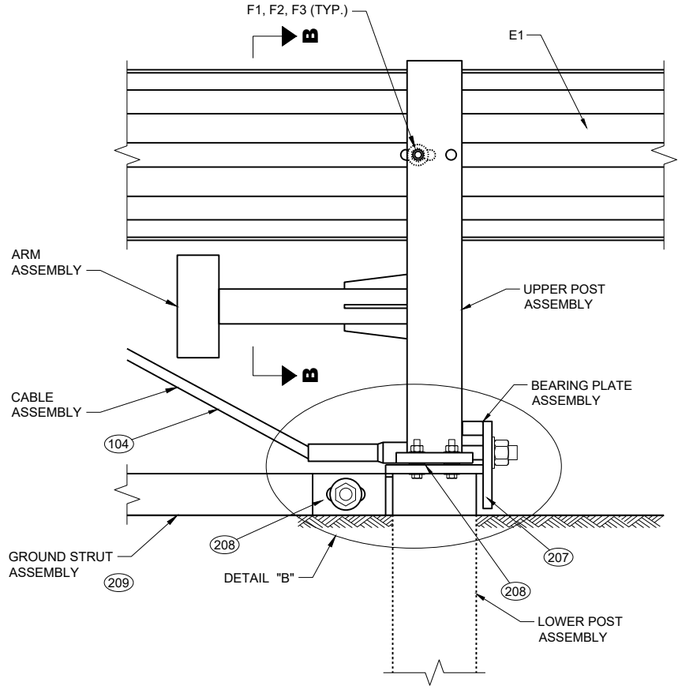
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

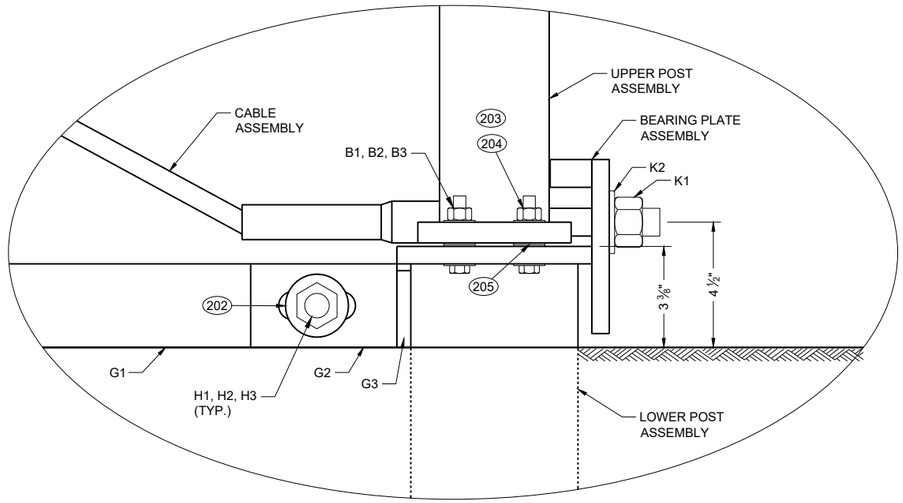
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

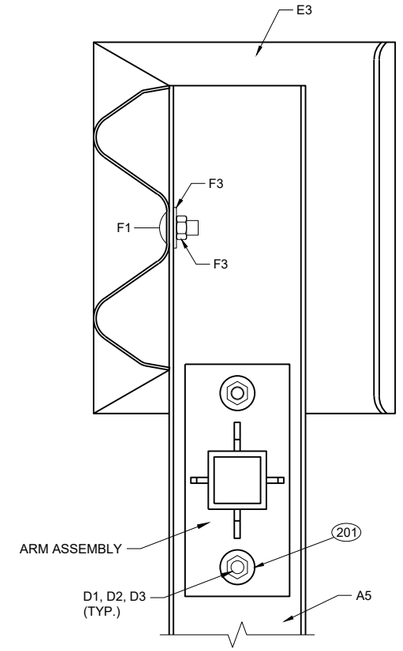
SDD 14B47-07a



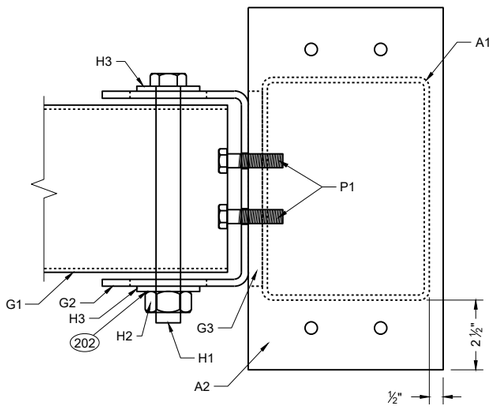
DETAIL "A"



DETAIL "B"

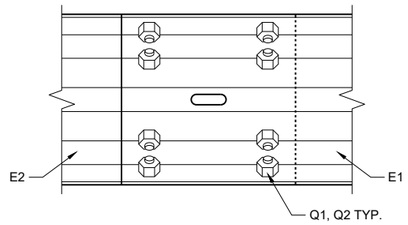


SECTION B - B

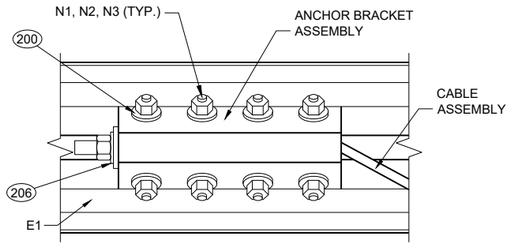


TOP VIEW

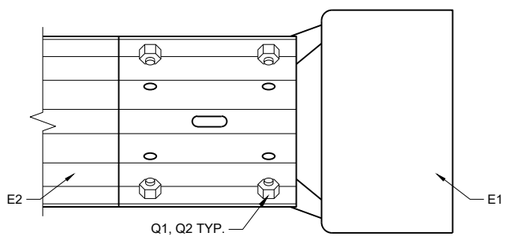
GROUND STRUT CONNECTION DETAIL



DETAIL "C"



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

207 NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

208 PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST ASSEMBLIES AND GROUND STRUT.

209 PREVENT OR REMOVE MATERIALS THAT IMPEDE REMOVAL OF GROUND STRUT.

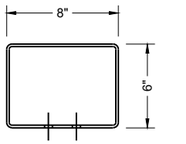
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

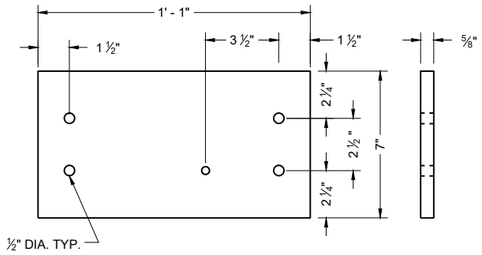
6
SDD 14B47-07b

GENERAL NOTES

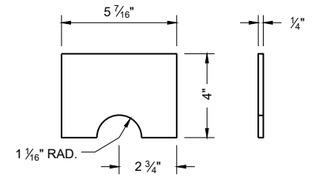
(300) TAP FOR 1/2" AFTER GALVANIZATION



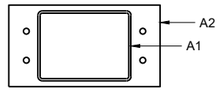
TOP VIEW



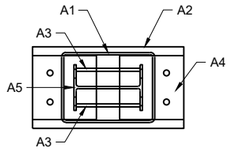
LOWER PLATE (A2)

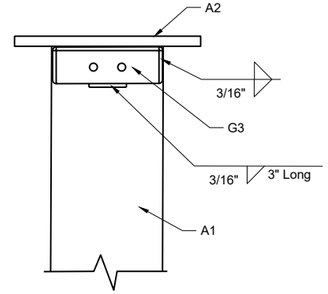


POST GUSSET (A3)

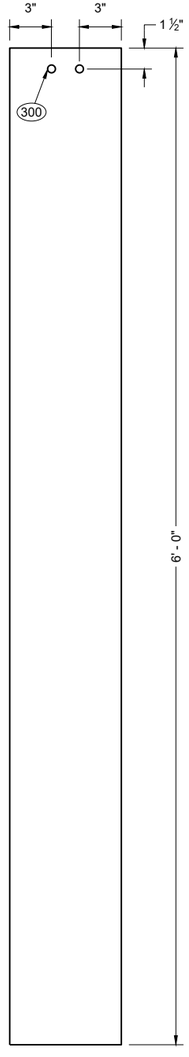


PLAN VIEW



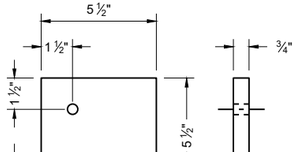


WELDING DETAIL
G3 AND A1

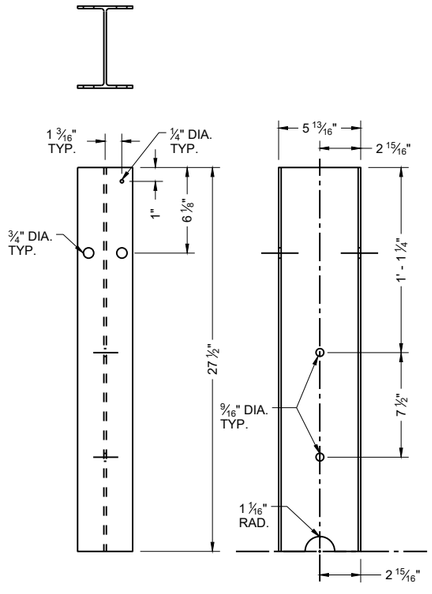


SIDE VIEW

FOUNDATION TUBE (A1)

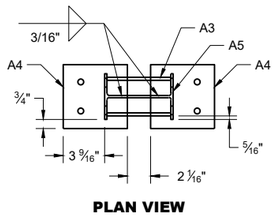


UPPER PLATE (A4)

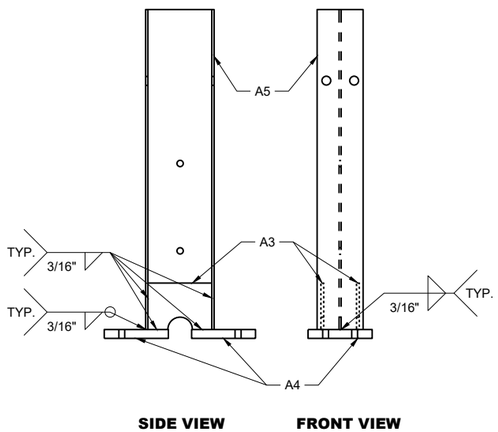


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

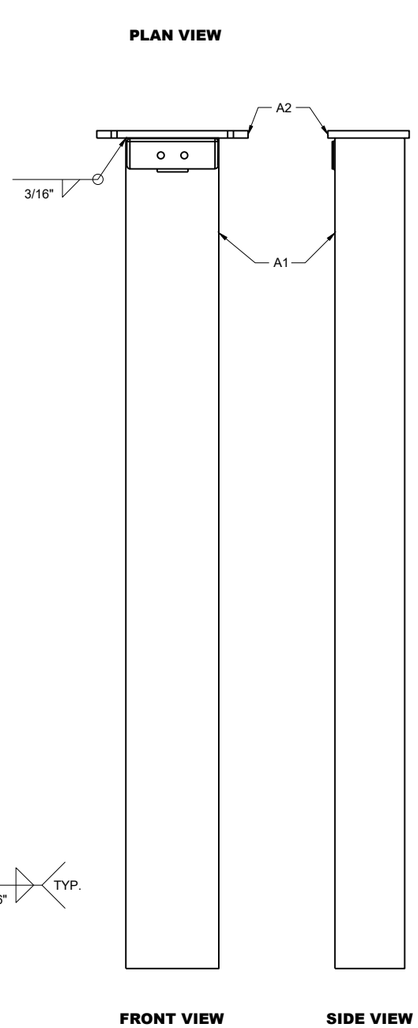


PLAN VIEW



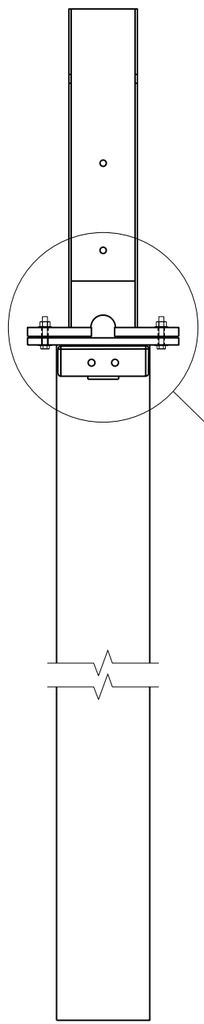
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

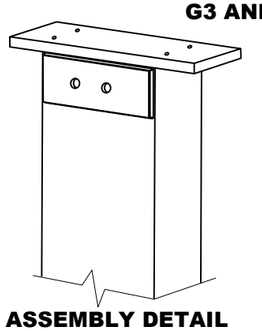


FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY

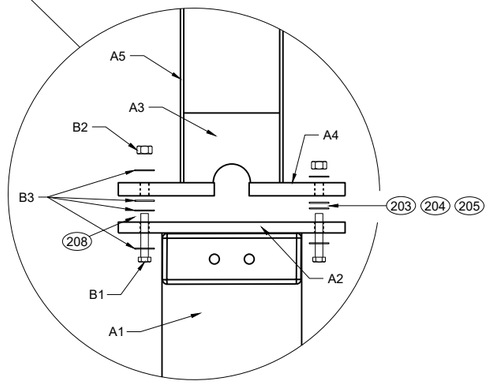


ASSEMBLED POST



ASSEMBLY DETAIL ISOMETRIC

A1



POST CONNECTION DETAIL

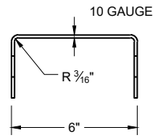
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	

6

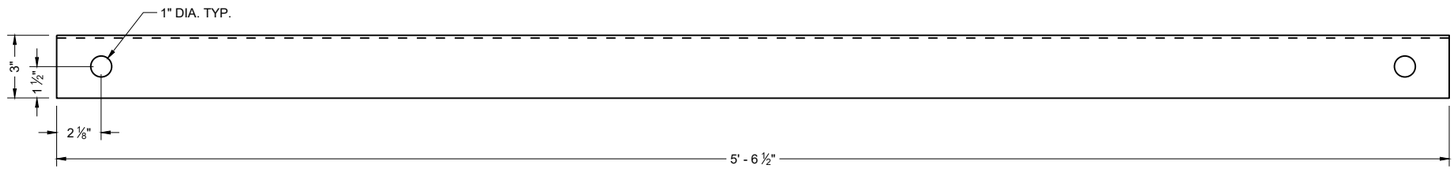
SDD 14B47-07c

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SDD 14B47-07c

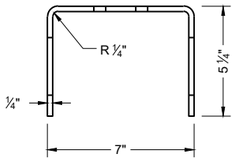


SIDE VIEW

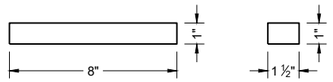


FRONT VIEW

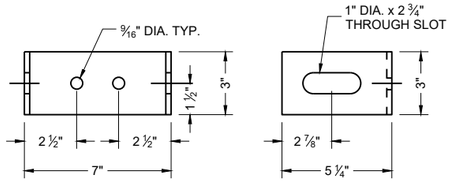
GROUND STRUT CHANNEL (G1)



TOP VIEW



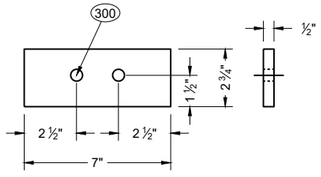
BEARING PLATE FLANGE (L2)



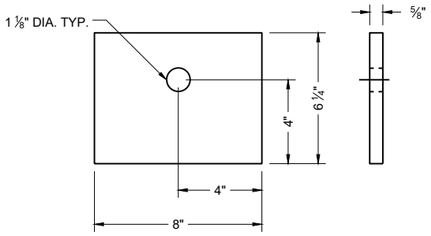
FRONT VIEW

SIDE VIEW

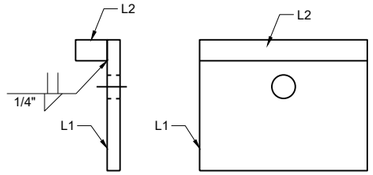
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)



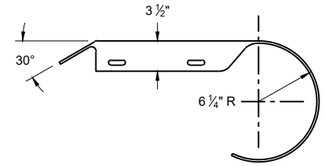
BEARING PLATE (L1)



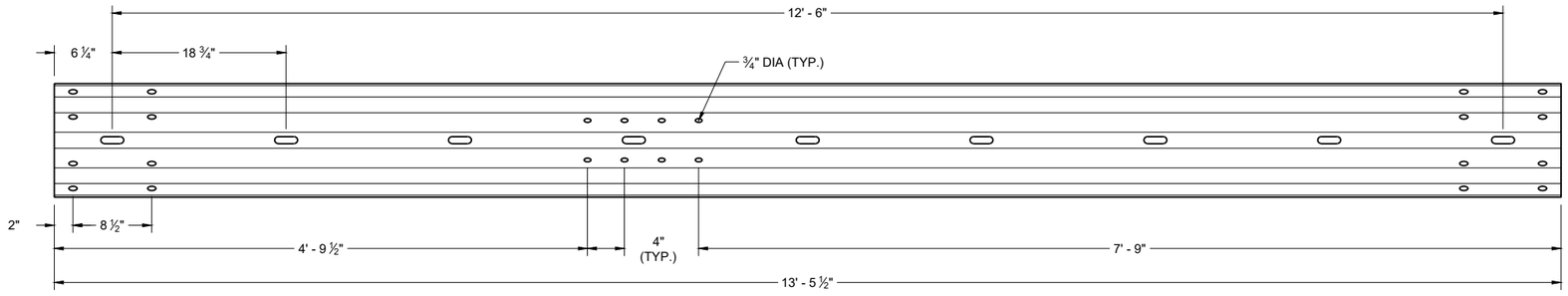
SIDE VIEW

FRONT VIEW

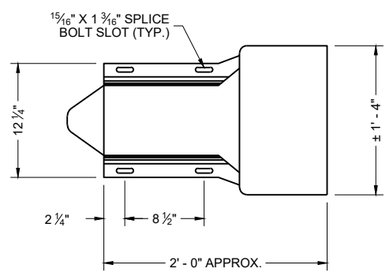
BEARING PLATE ASSEMBLY



PLAN VIEW

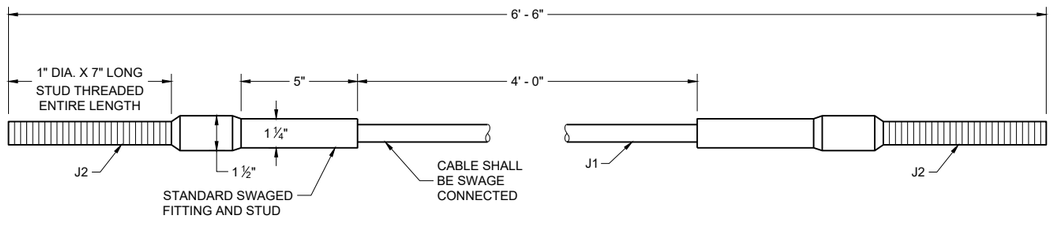


TYPE 2 GUARDRAIL (E1)



ELEVATION VIEW

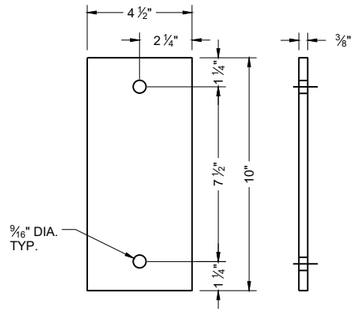
ROUNDED BUFFER END (E3)



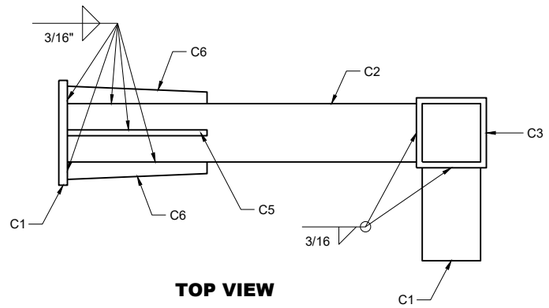
CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

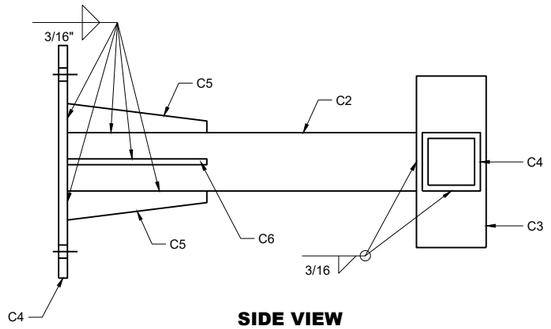
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



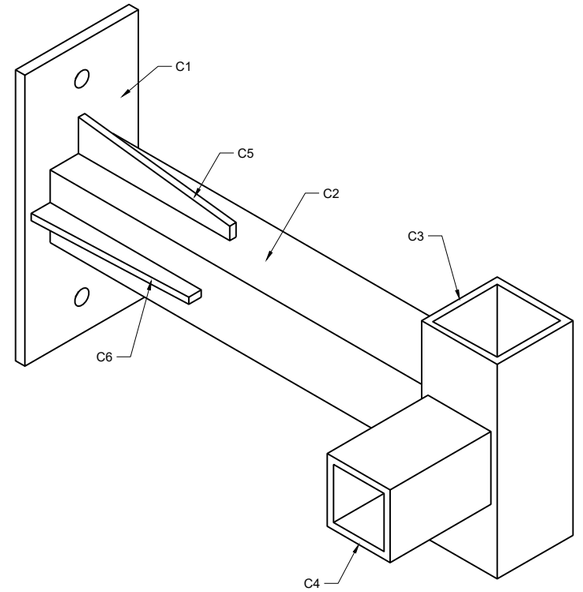
ARM PLATE (C1)



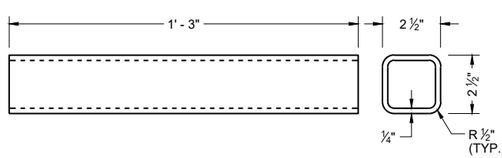
TOP VIEW
ARM ASSEMBLY



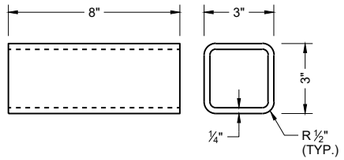
SIDE VIEW
ARM ASSEMBLY



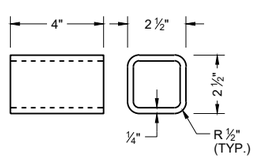
ISOMETRIC VIEW
ARM ASSEMBLY



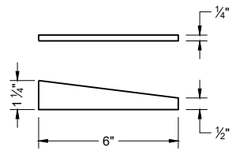
ARM TUBE 1 (C2)



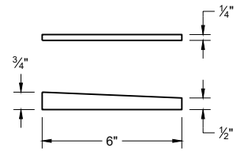
ARM TUBE 2 (C3)



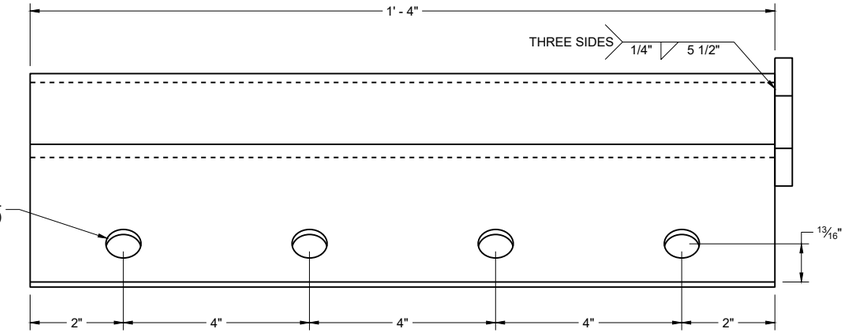
ARM TUBE 3 (C4)

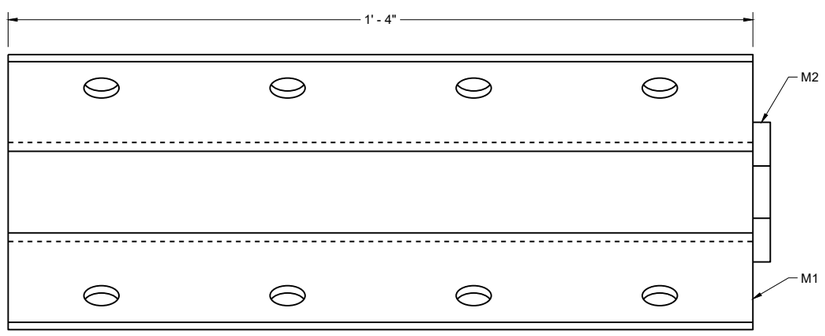


ARM GUSSET PLATE 1 (C5)

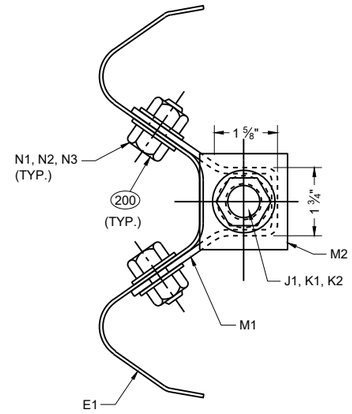


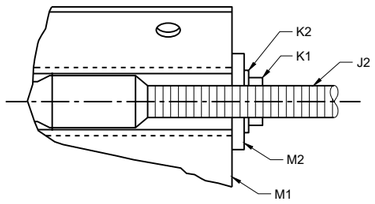
ARM GUSSET PLATE 2 (C6)



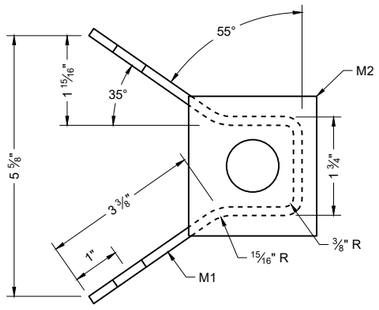


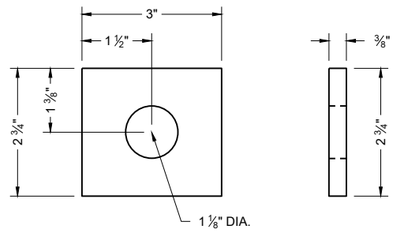
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI, w6x9 or w6x8.5	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B47-07f

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	3/4" DIA.
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

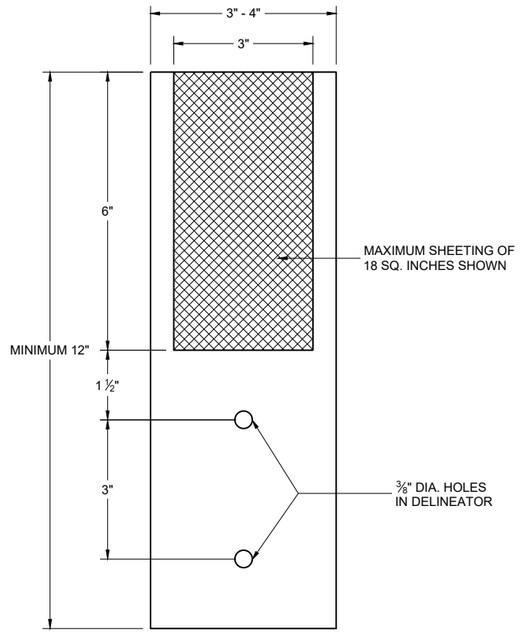
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2025 — DATE
/S/ Rodney Taylor — <position>

FHWA

6

SDD 14B47-07g



4" x 12" DELINEATOR
WITH REFLECTIVE SHEETING

REFLECTOR SPACING TABLE

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

DELINEATOR POST
WITH REFLECTIVE SHEETING

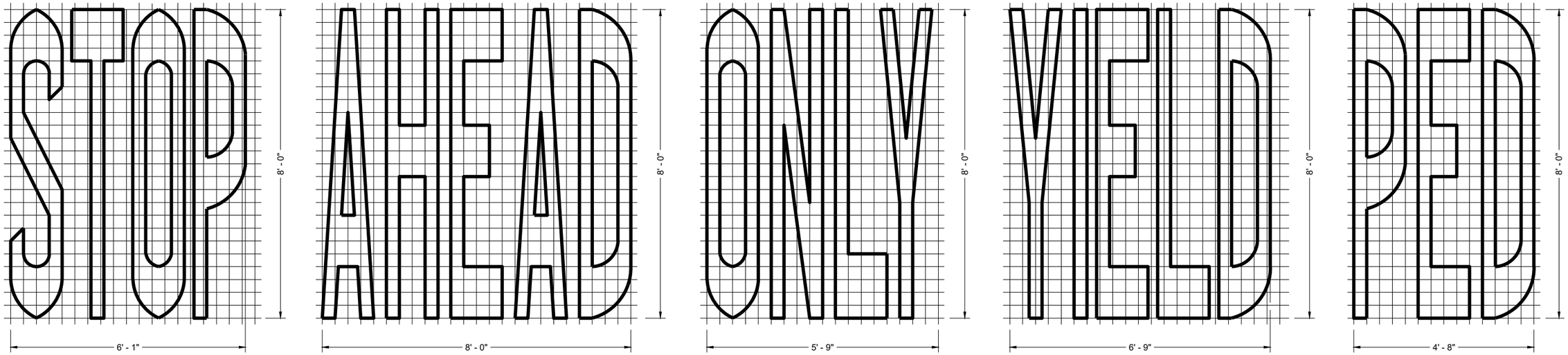
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

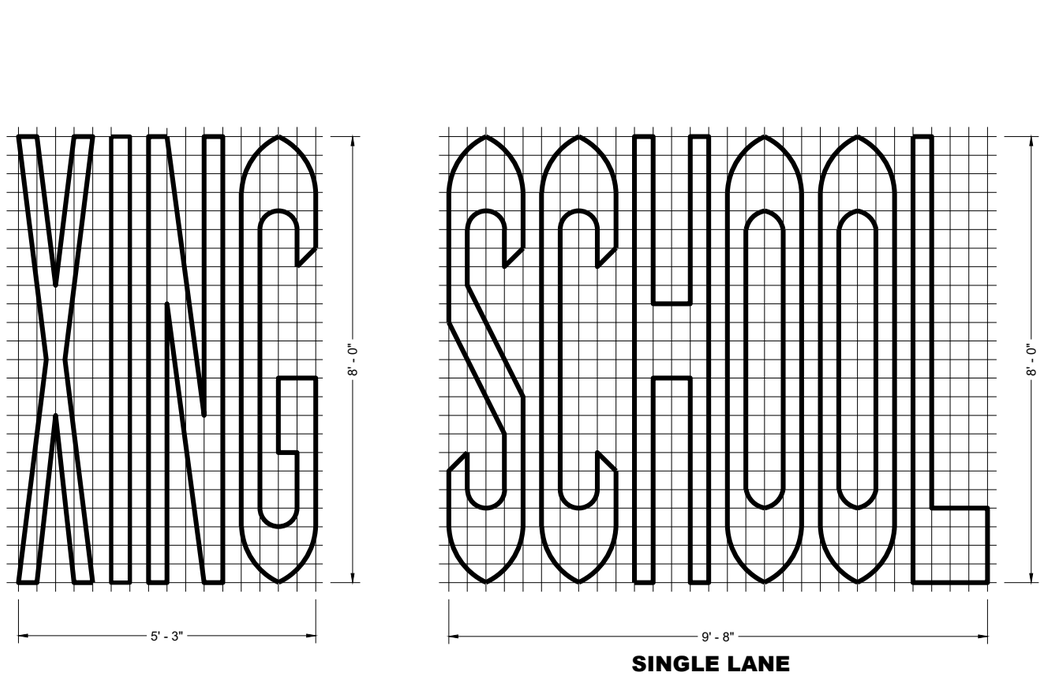
APPROVED
March 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

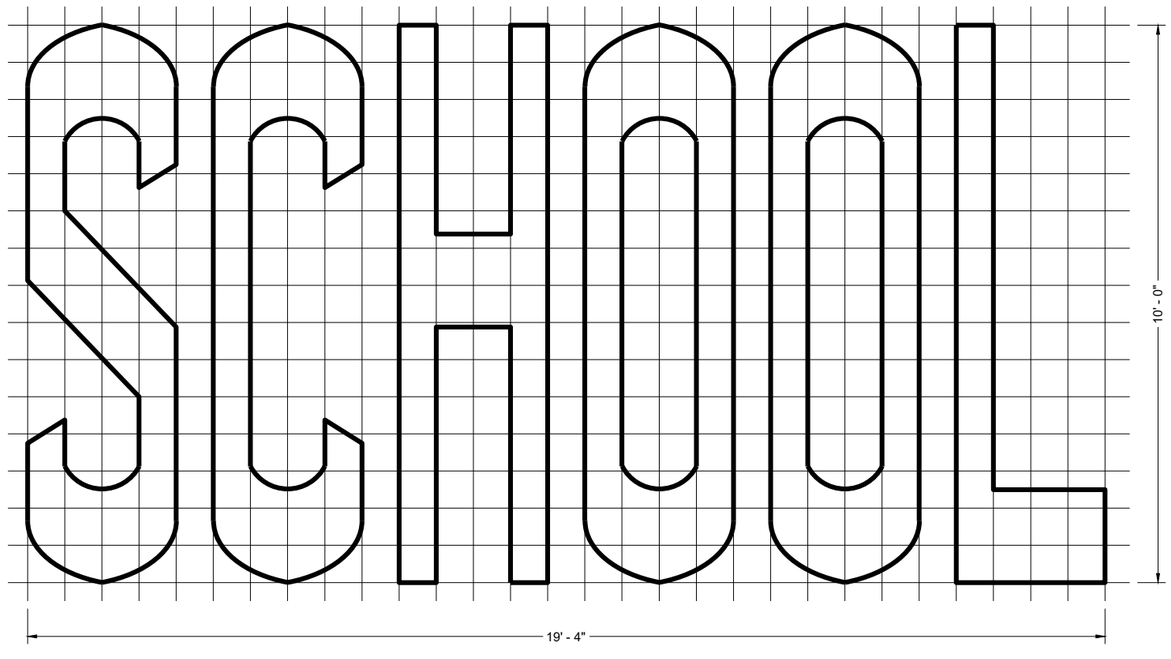
FHWA

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SDD 15A04-08e





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

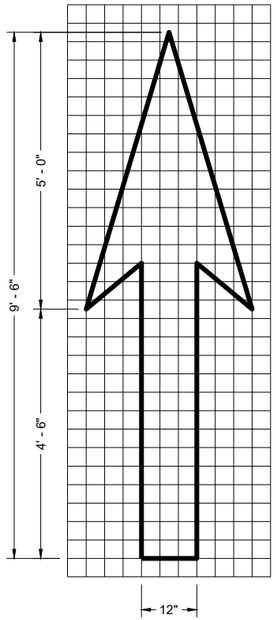
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

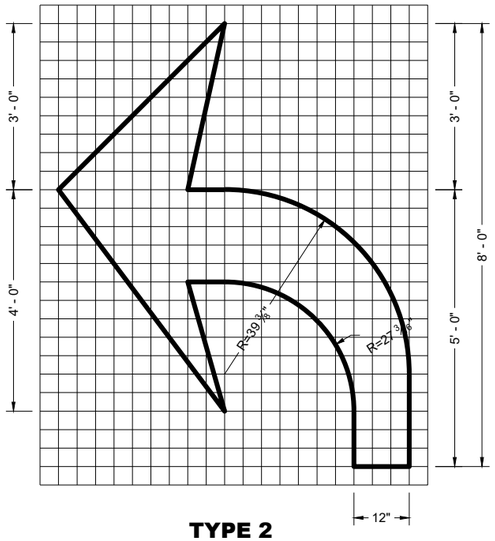
FHWA

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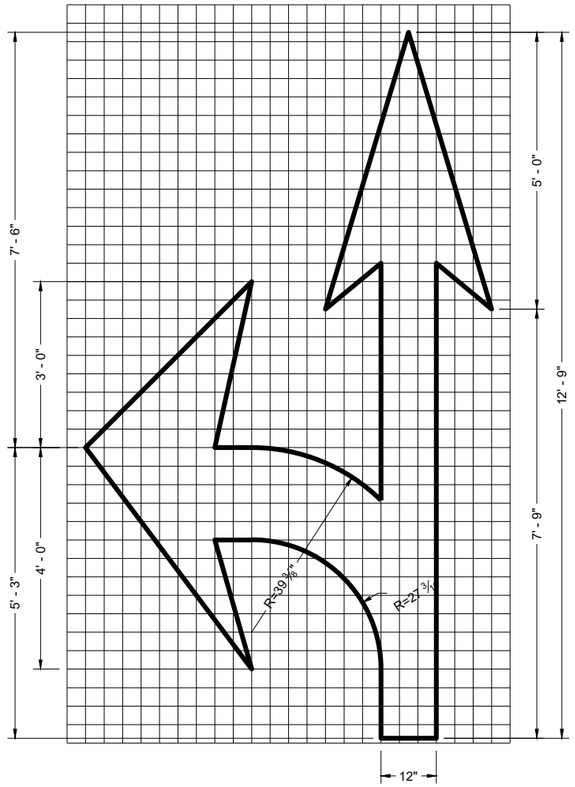
SDD 15C07-16b



TYPE 1



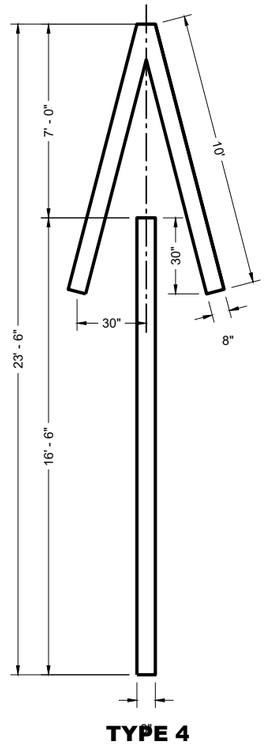
TYPE 2



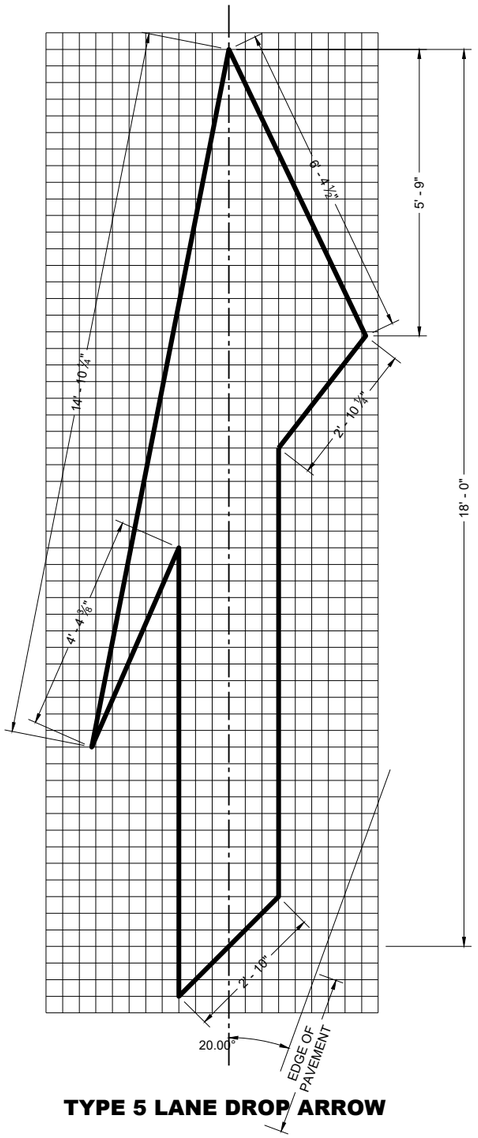
TYPE 3

GENERAL NOTES

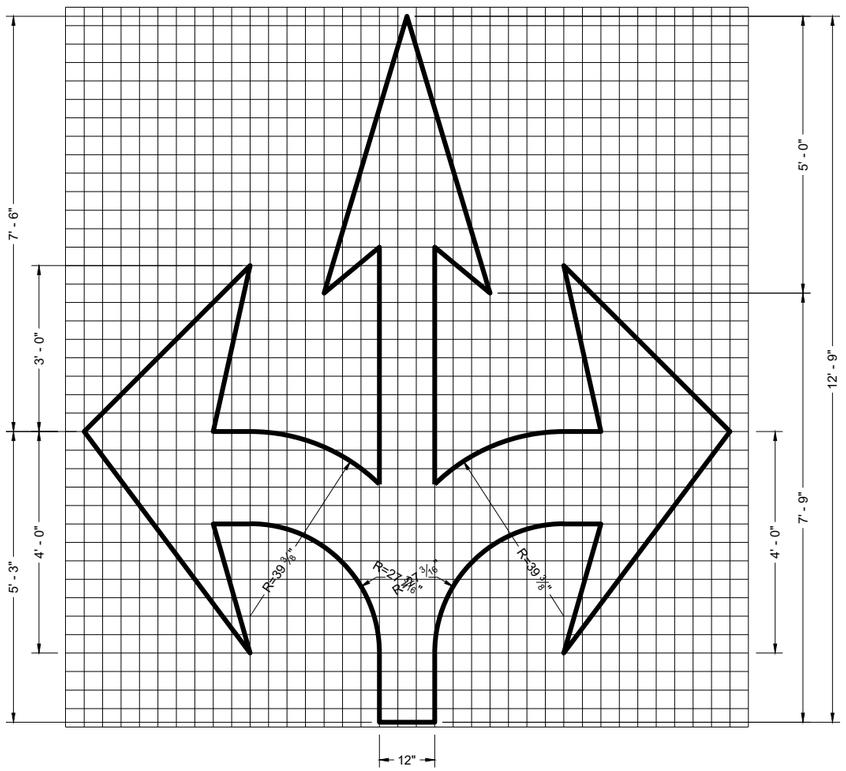
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



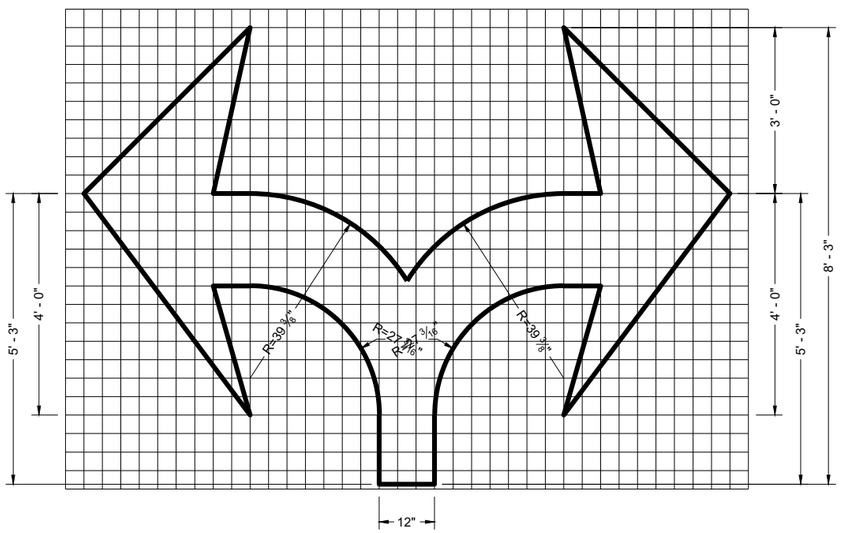
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

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SDD 15C07-16c

SDD 15C07-16c

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

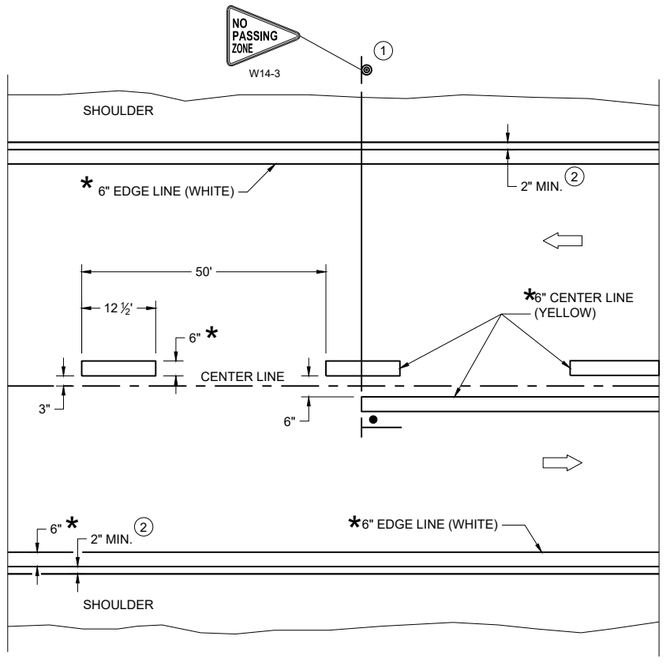
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

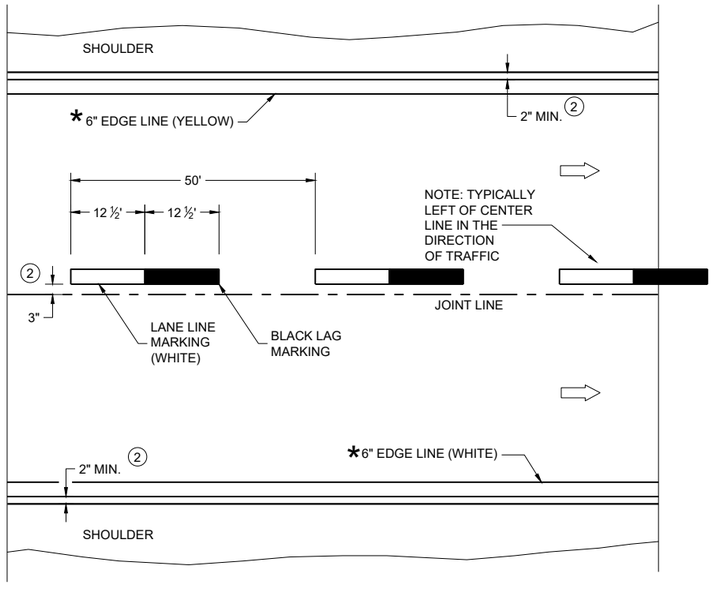
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

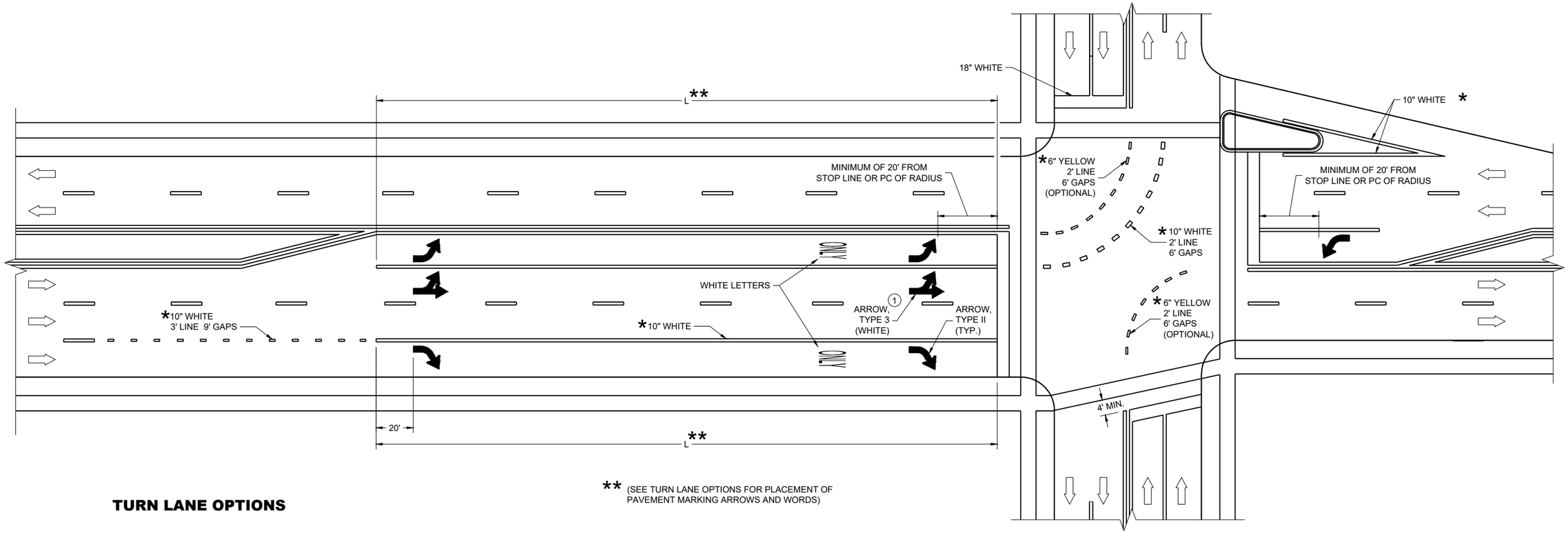
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-24a

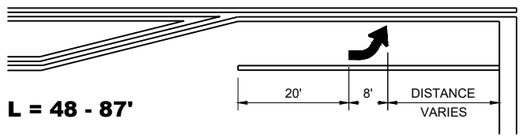
SDD 15C08-24a



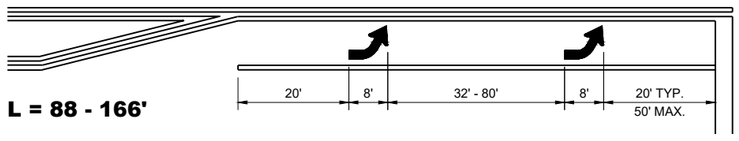
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

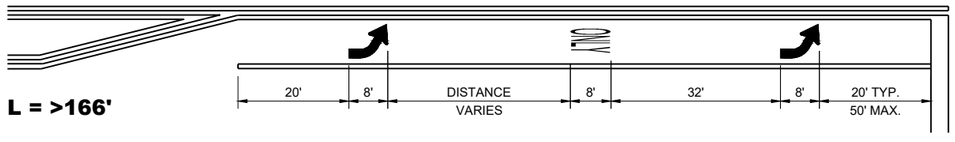
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT
REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

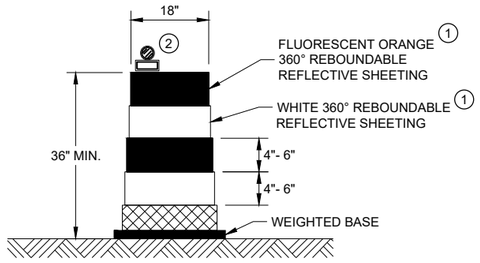
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

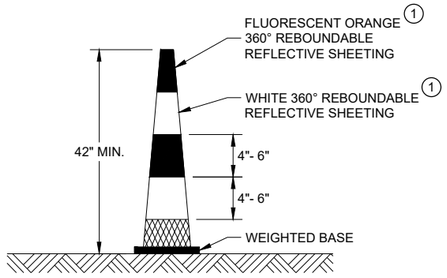
GENERAL NOTES

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



DRUM

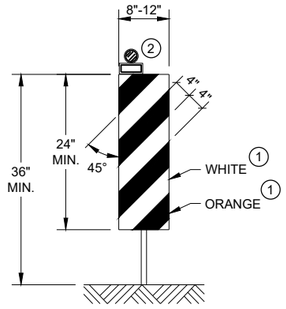
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

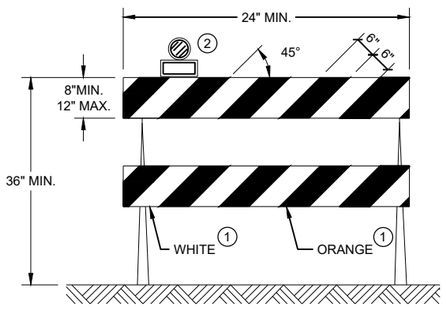
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



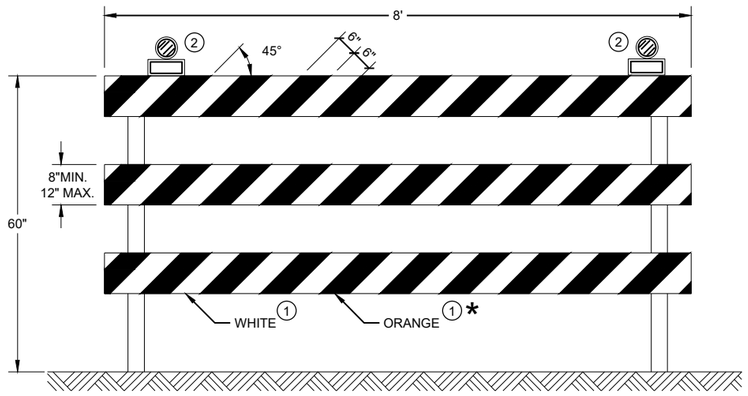
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR 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.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

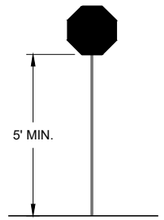
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

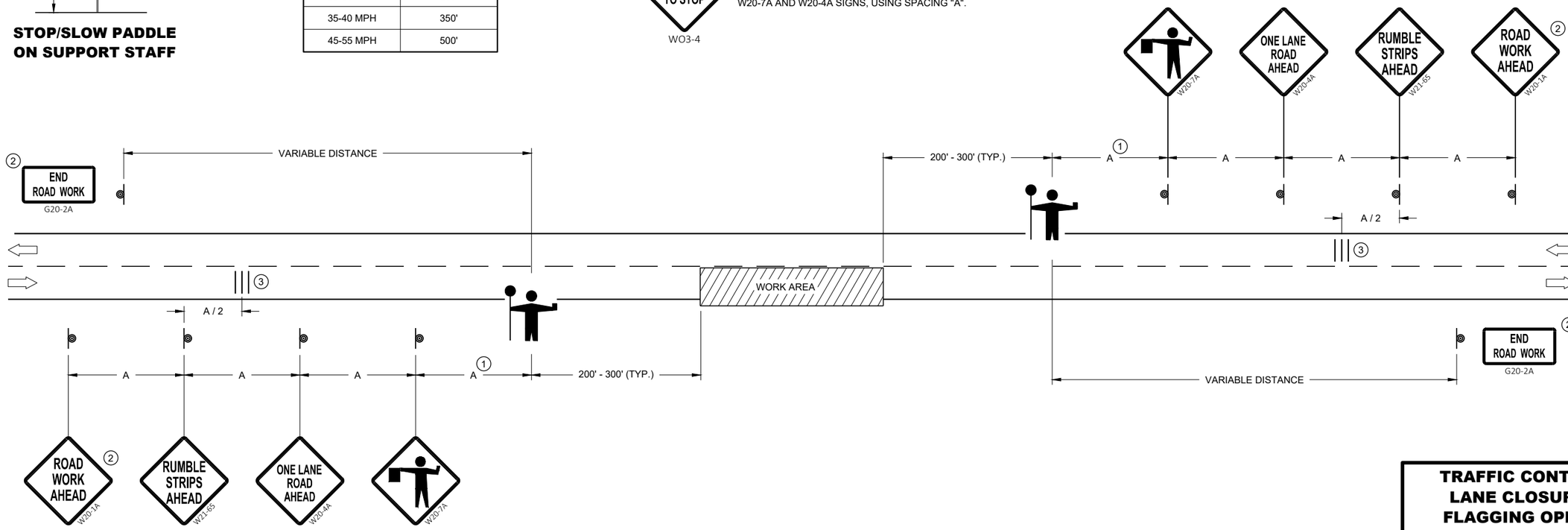
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

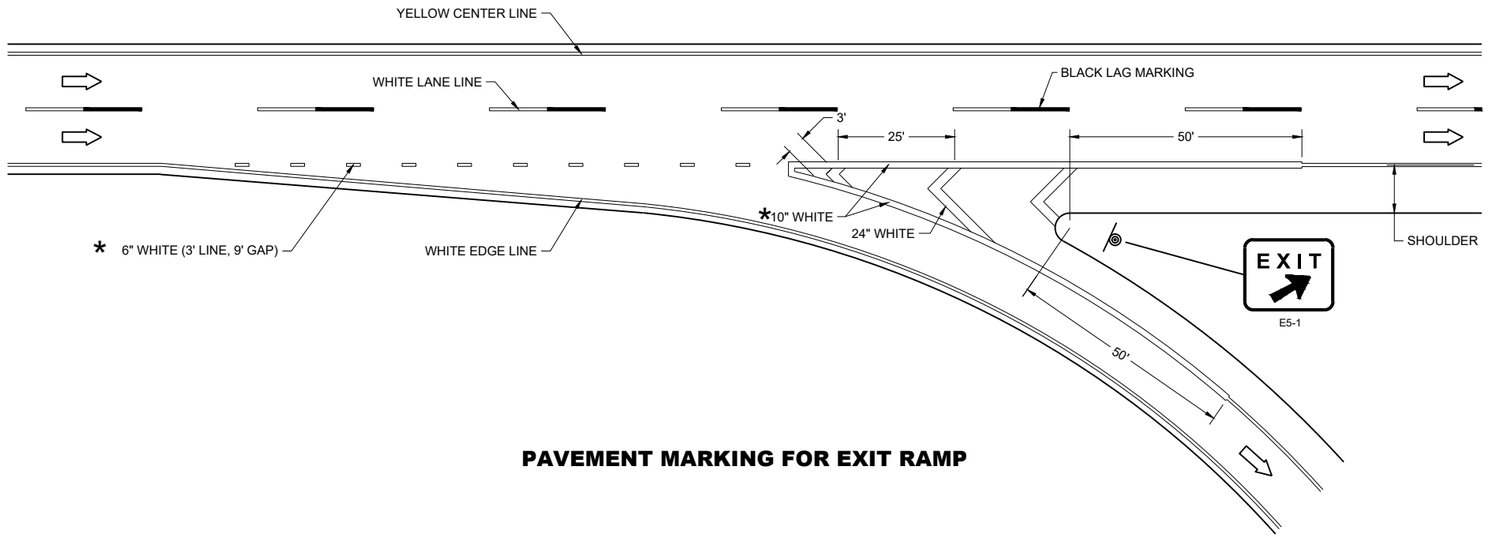
APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

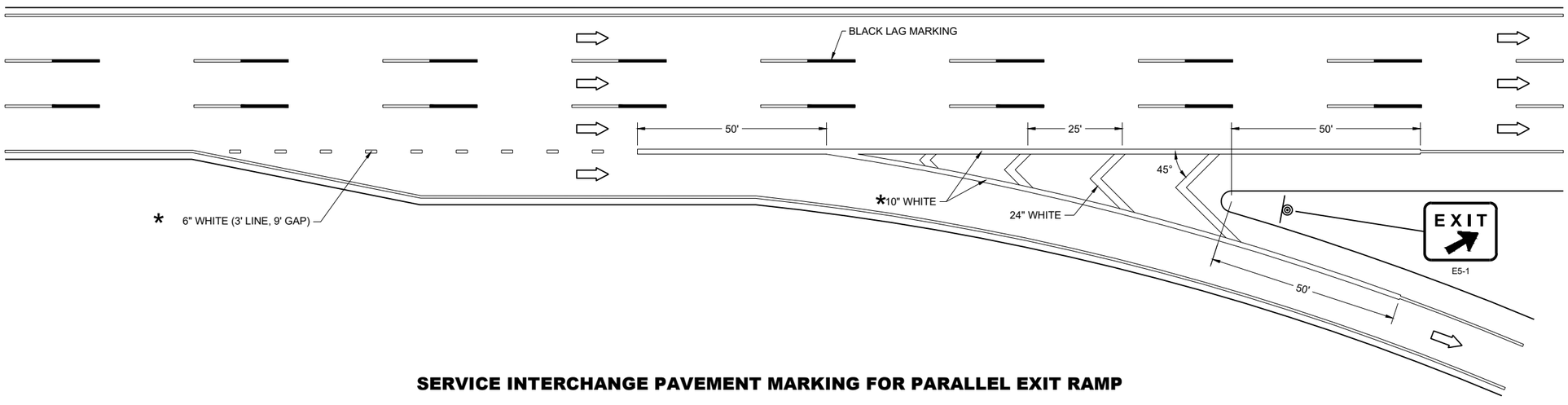
FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15C31-08a

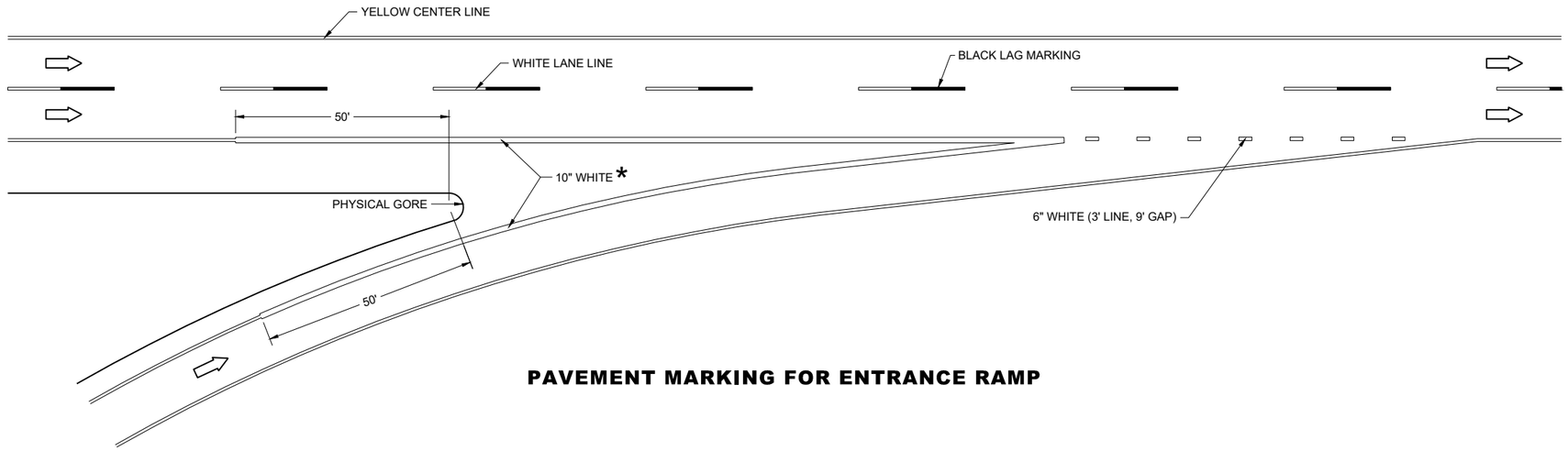
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

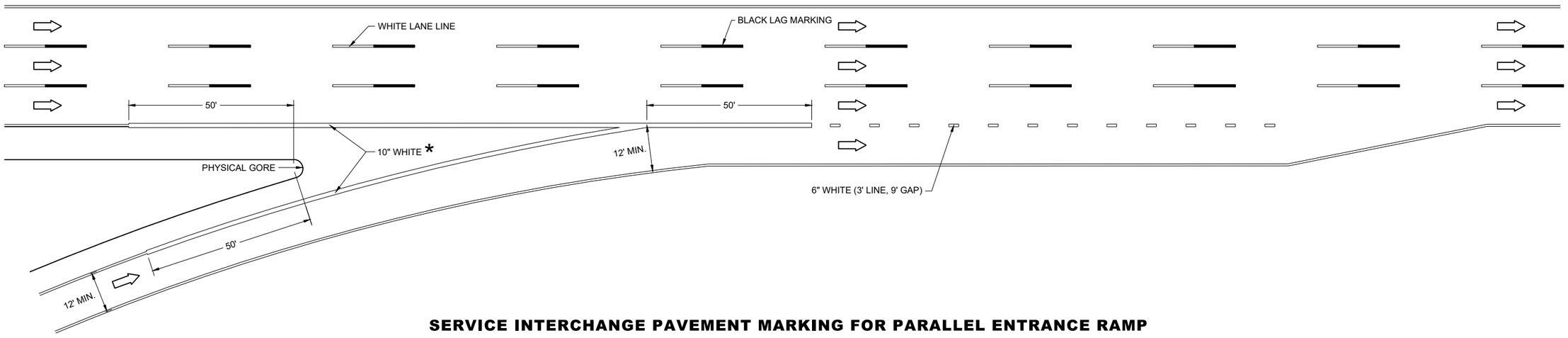
LEGEND

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



PAVEMENT MARKING FOR ENTRANCE RAMP



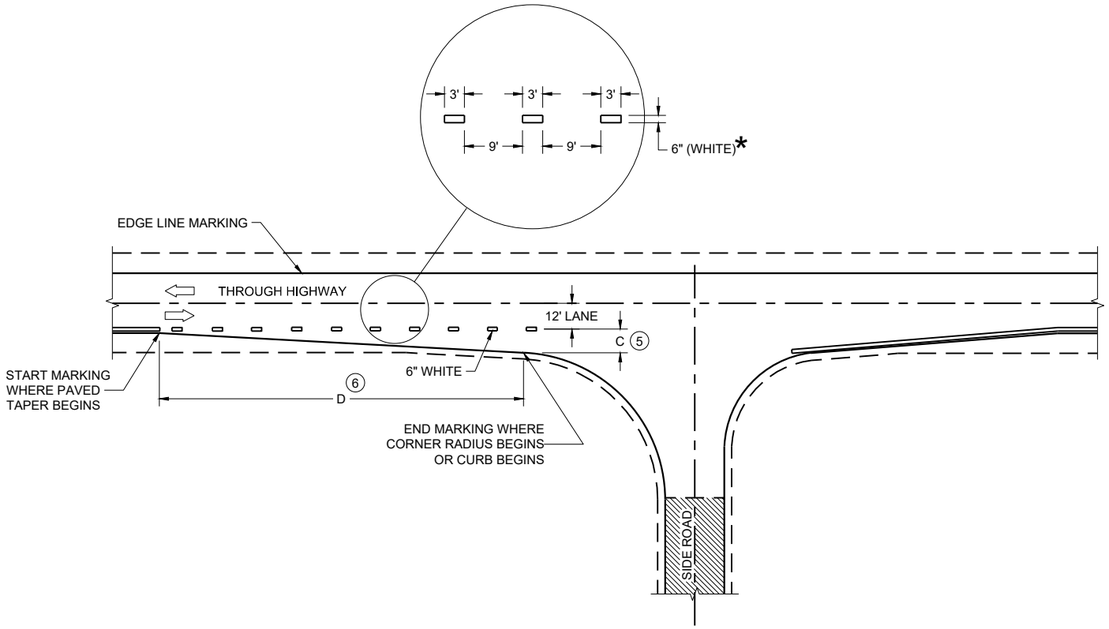
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

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SDD 15C31-08c

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

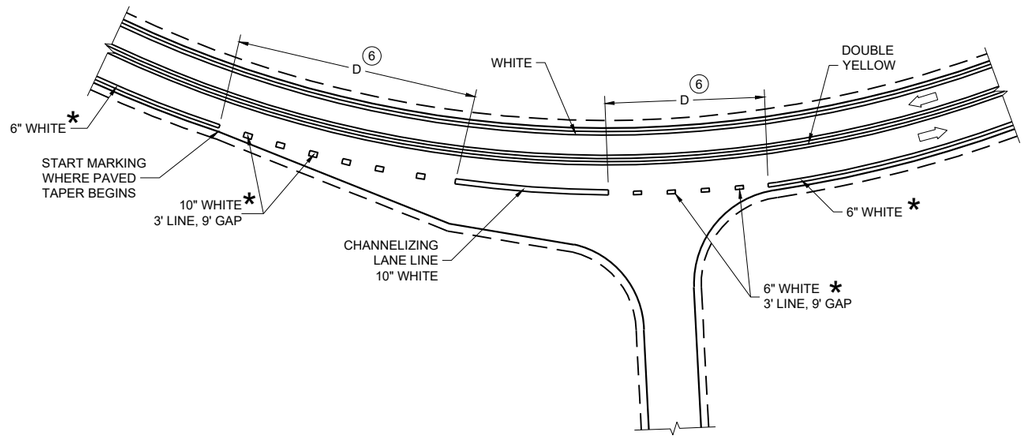
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

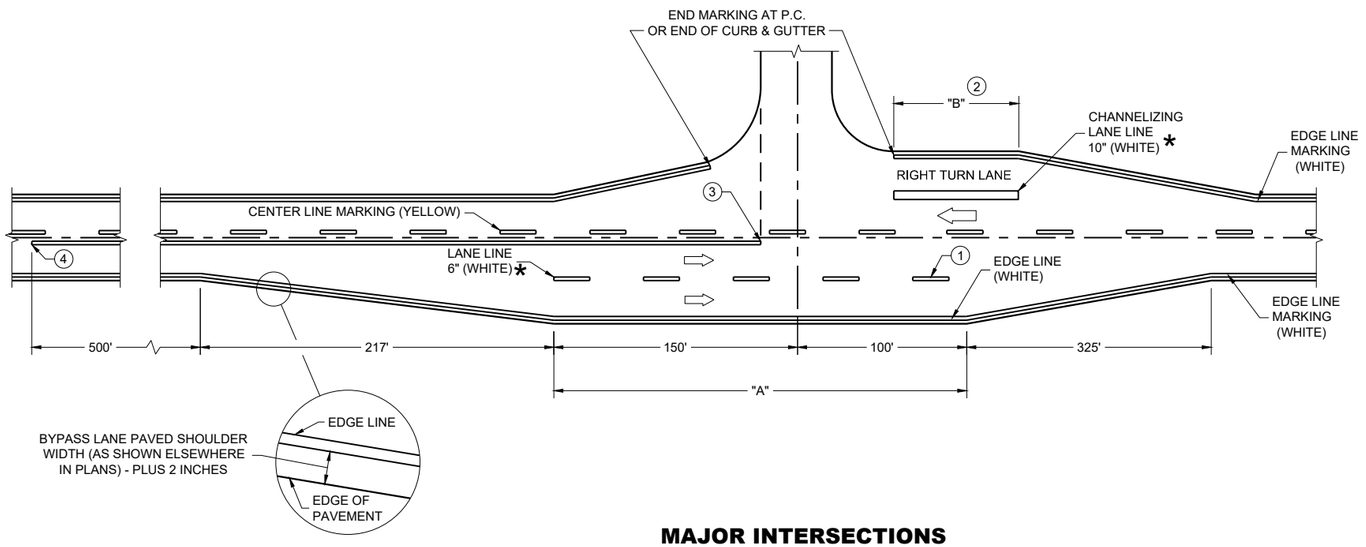
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR, FLEXIBLE/TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR)
- PORTABLE CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

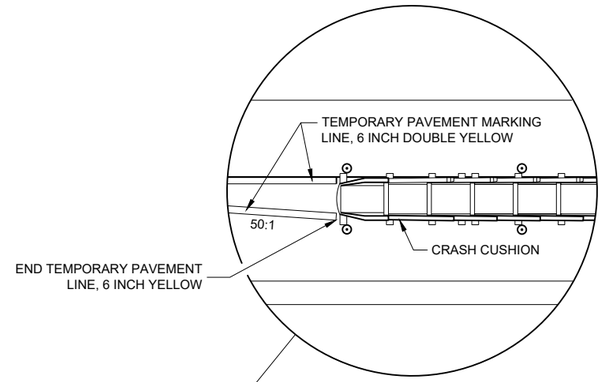
"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

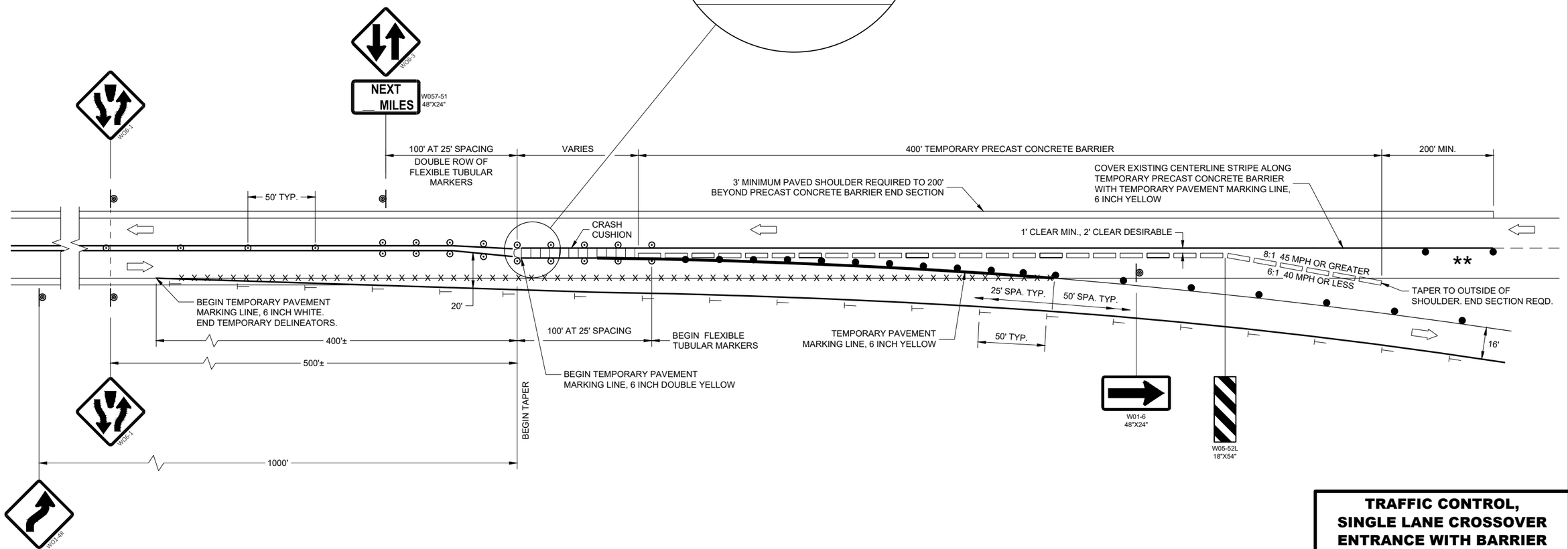
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS.

** SEE SDD 15D12 FOR LANE CLOSURE DETAILS.





TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D05-06

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

ALL SIGNS ARE 48" x 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 OR AS APPROVED BY THE ENGINEER.

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 MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

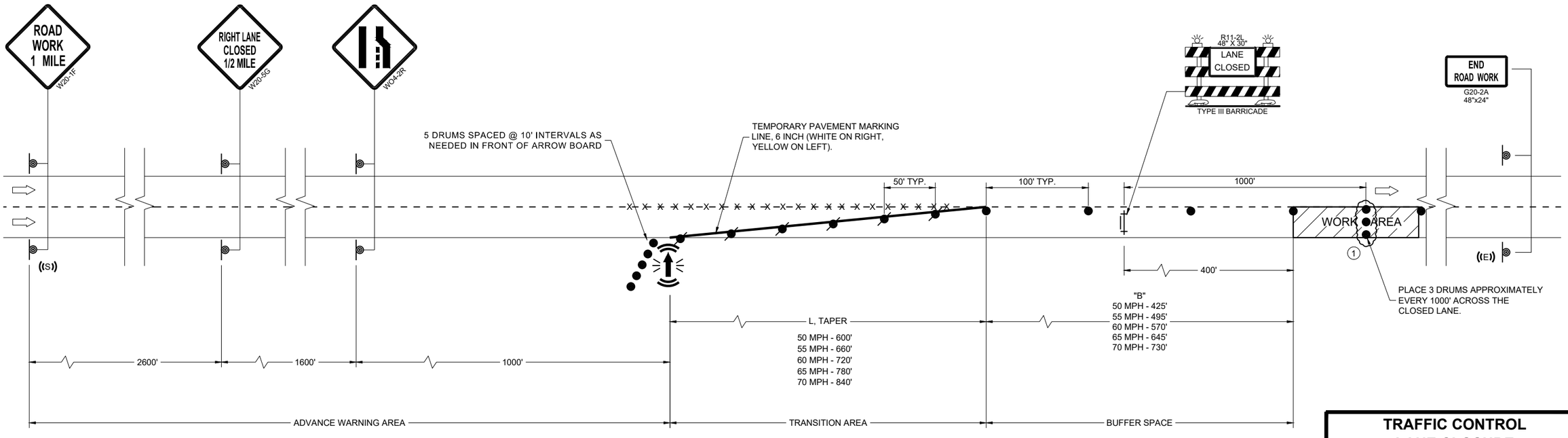
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

(1) DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 15D12-16a

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SDD 15D12-16a

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE 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 MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS 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 OR INTERSECTION. THE LANE CLOSURE 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 ONE HALF 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.

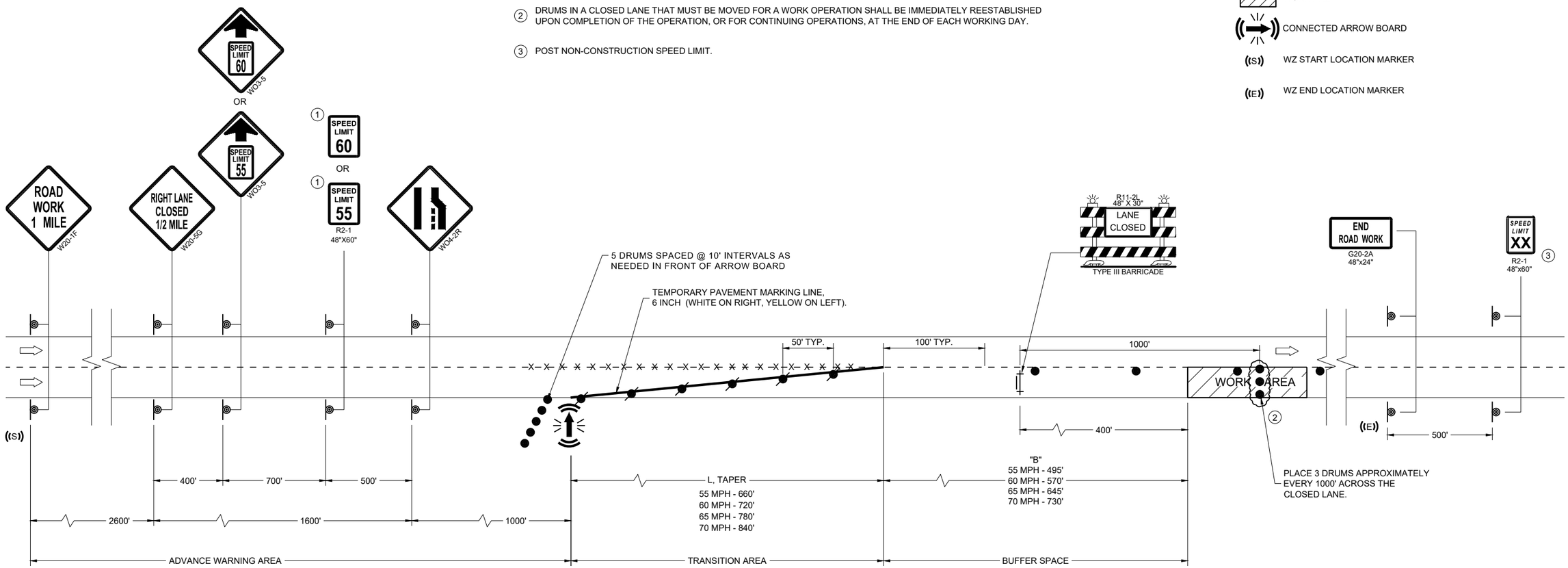
(1) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES.

(2) DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

(3) POST NON-CONSTRUCTION SPEED LIMIT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 15D12-16b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER
- CONNECTED ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- (S) — PORTABLE TRAFFIC SENSOR (PTS)
- FBS — FLASHING BEACON SIGNS
- STOPPED OR SLOW TRAFFIC WHEN FLASHING — WO8-76, 96" x 48"

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING FBS 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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

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

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 MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS. WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

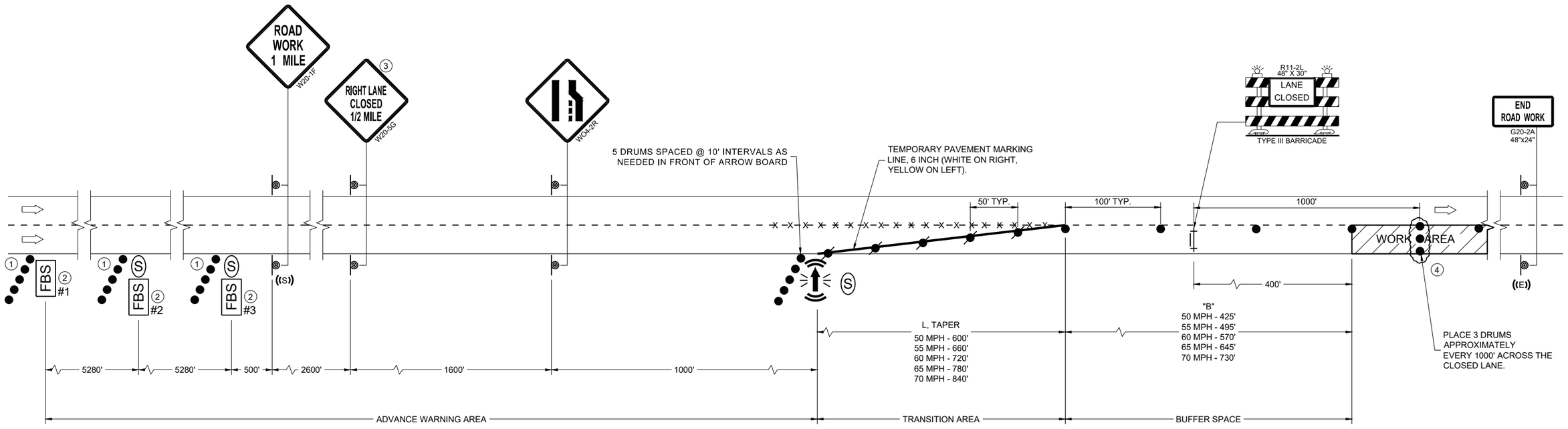
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE 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 ONE HALF 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

1. 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
2. IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.
3. IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN
4. DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Erin Schwark — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-16d

SDD 15D12-16d

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE 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 MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS 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 OR INTERSECTION. THE LANE CLOSURE 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 ONE HALF 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.

IF THE SPEED LIMIT WILL CHANGE BASED ON THE PRESENCE OF WORKERS, USE THE TAPER LENGTH THAT MATCHES THE HIGHER OF THE TWO SPEEDS FOR A CONTINUOUS LANE CLOSURE.

EXISTING POST MOUNTED SPEED LIMIT SIGNS SHOULD BE COVERED OR REMOVED.

(1) POST NON-CONSTRUCTION SPEED LIMIT.

(2) IF THE LANE CLOSURE MOVES DOWNSTREAM, LEAVE DSLT IN PLACE.

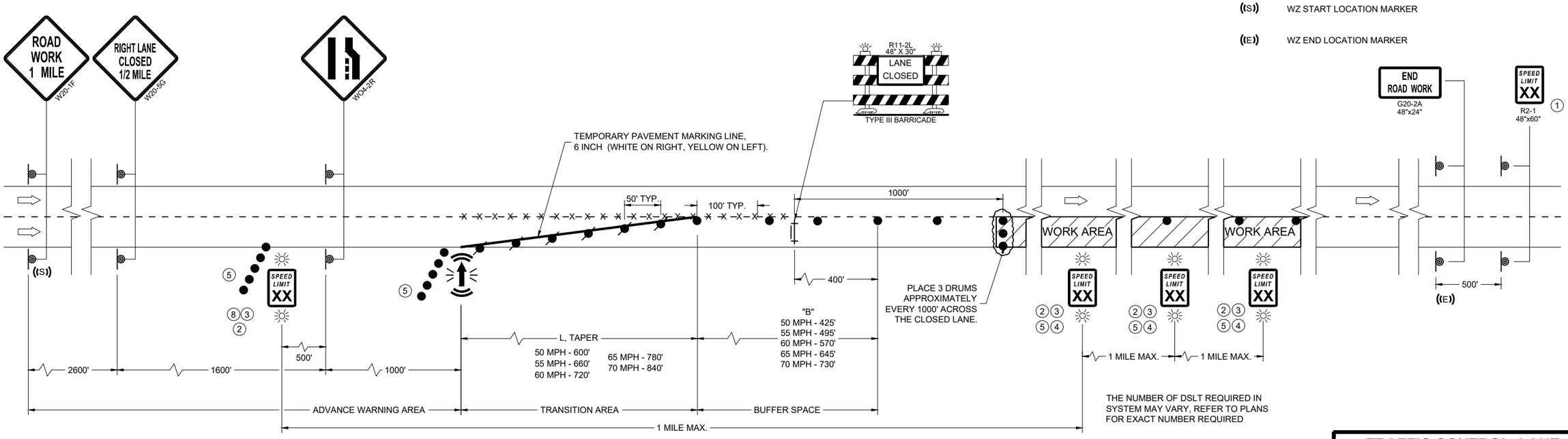
(3) PLACE DSLT AT EXISTING POST MOUNTED SPEED LIMIT SIGN AFTER THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. IF THERE IS NOT AN EXISTING SIGN, PLACE 1,500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP

(4) FOR LEFT LANE CLOSURES, DSLT REMAINS ON RIGHT SHOULDER.

(5) 5 DRUMS SPACED @ 10' INTERVALS AS NEEDED.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- DIGITAL SPEED LIMIT TRAILER (DSLT)
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER



TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6 SDD 15D12-16g

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE 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.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

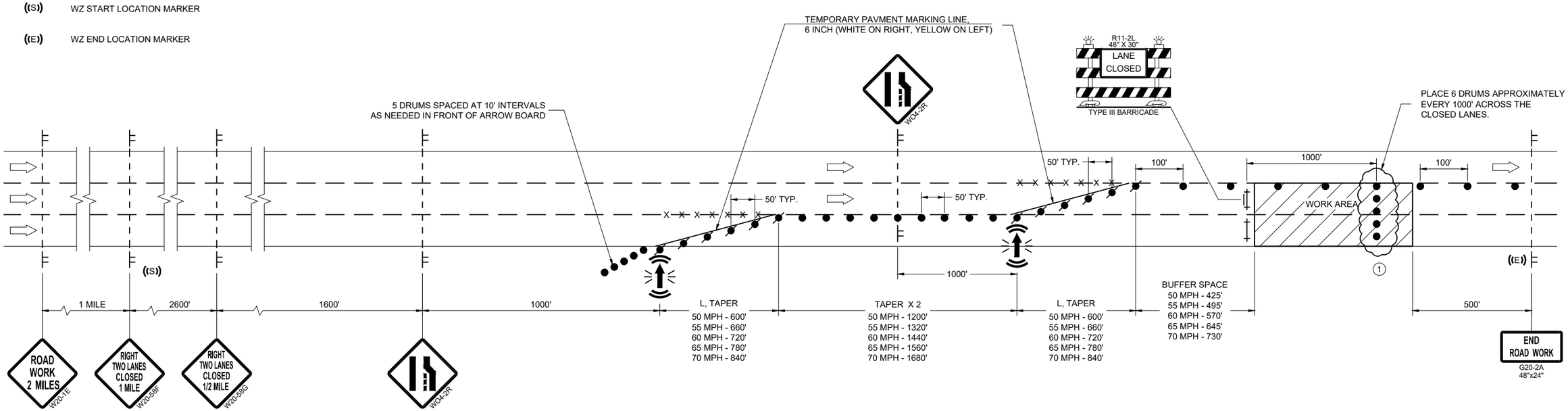
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

(1) DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEFR

FHWA

6

SDD 15D14-10

6

SDD 15D14-10

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

DIRECTION OF TRAFFIC

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" X 48" 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 CONSECUTIVE 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.

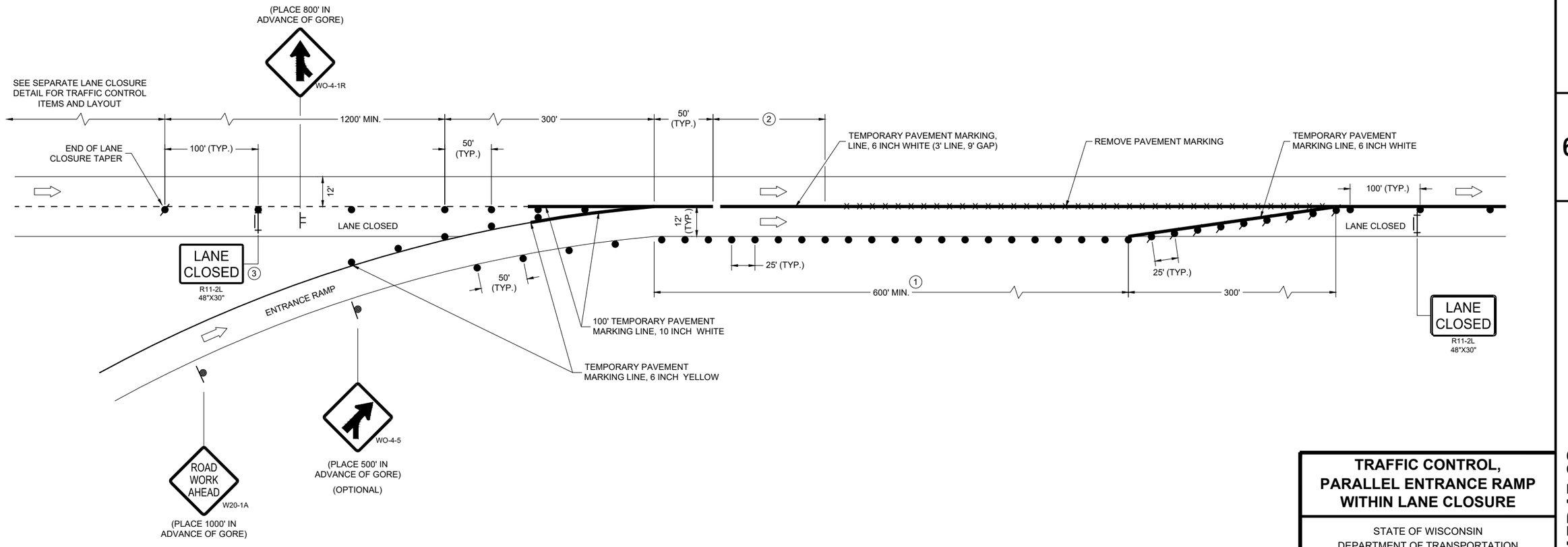
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

(2) END TEMPORARY PAVEMENT MARKING LINE AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

(3) IF LOCATED AFTER INITIAL LANE CLOSURE BARRICADE AND "LANE CLOSED" SIGN, USE 3 DRUMS IN PLACE OF BARRICADE AND SIGN.



TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6
SDD 15D15-08a

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
- DIRECTION OF TRAFFIC

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" X 48" 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 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

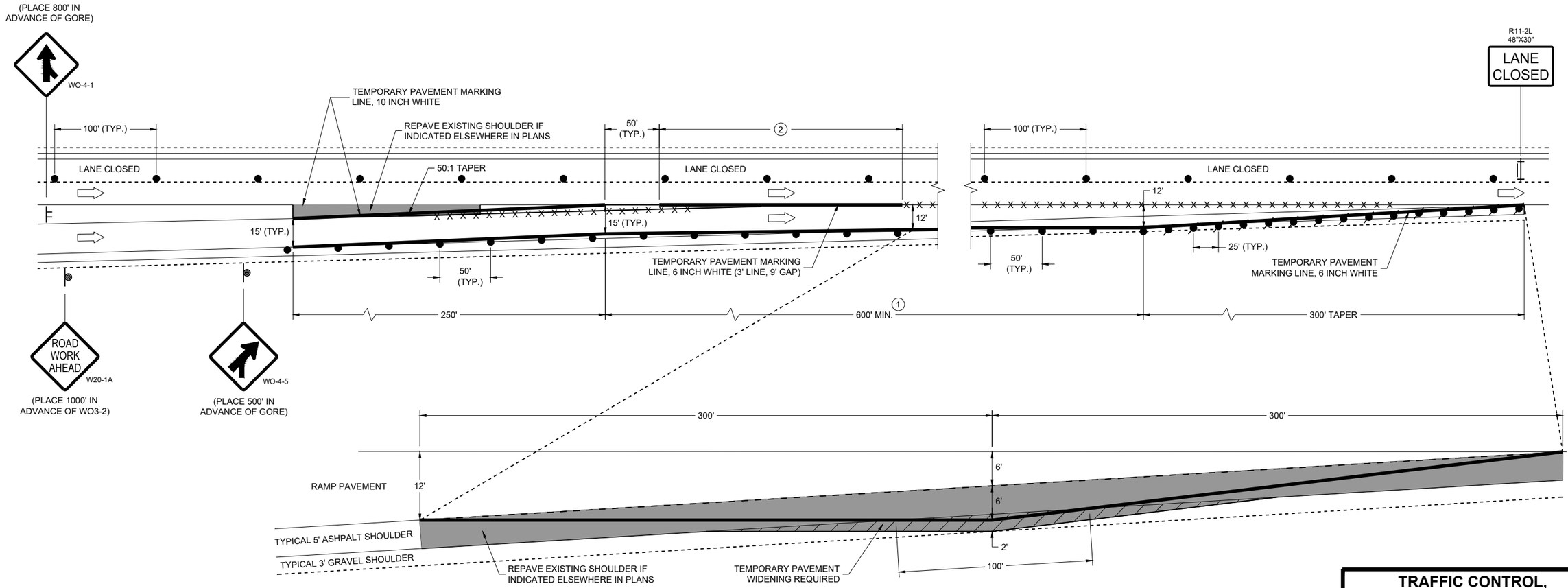
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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 LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

(1) EXTEND THE LENGTH OF THE 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 PAVEMENT MARKING LINE AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

SDD 15D15-08b

SDD 15D15-08b

LEGEND

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

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 LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF 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 WORK IS NOT IN PROGRESS.

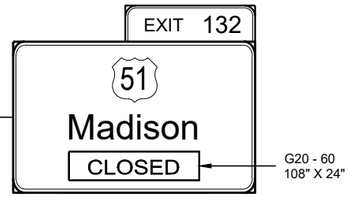
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

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

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR

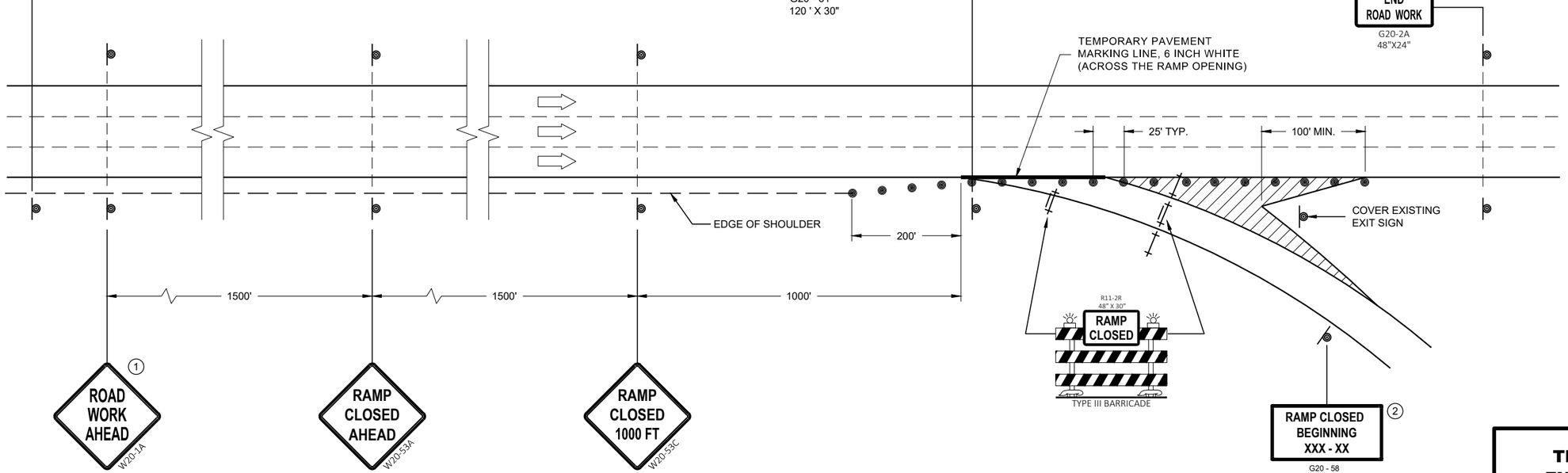


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



G20 - 61
120 ' X 30"

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16-06

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- CONNECTED ARROW BOARD
- WORK AREA
- (S) WZ START LOCATION MARKER
- (E) WZ END LOCATION MARKER

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.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

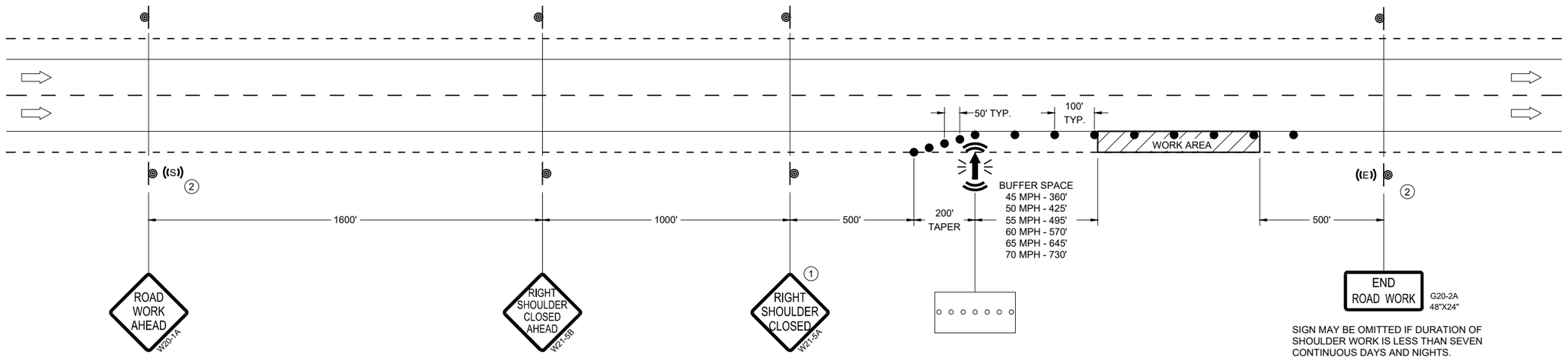
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(1) FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR THE W21-5A SIGN MAY BE OMITTED.

(2) IF ALREADY PRESENT WITHIN PROJECT , DO NOT INCLUDE ADDITIONAL DEVICE.



SIGN MAY BE OMITTED IF DURATION OF SHOULDER WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

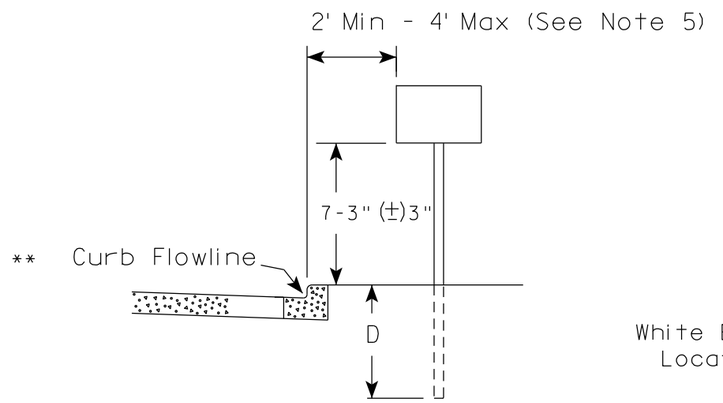
Noveber 2025
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

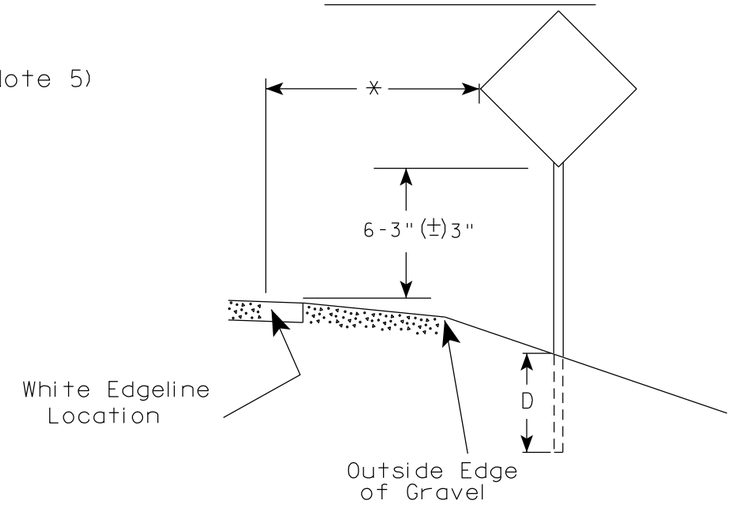
FHWA

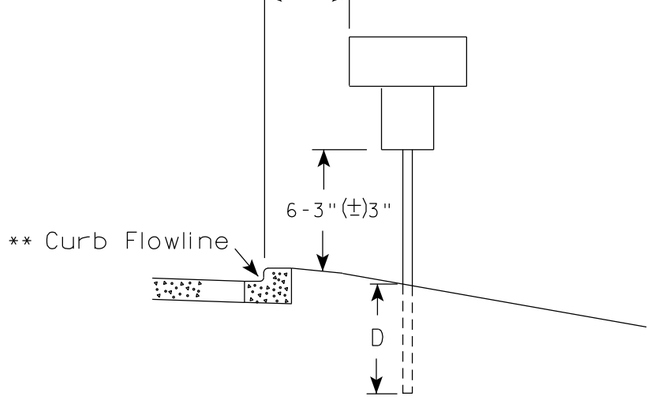
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SDD 15D27-05

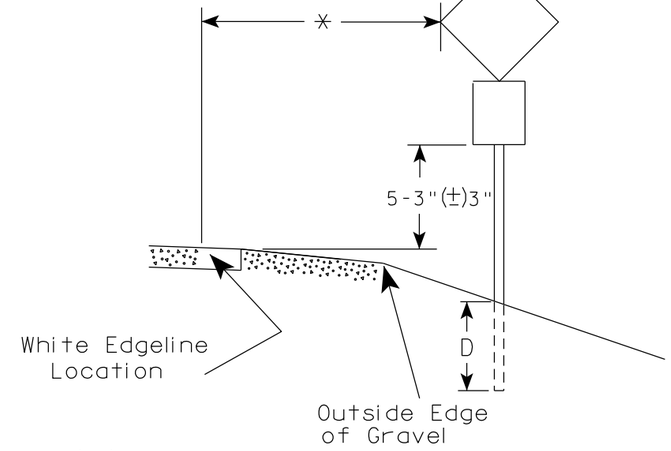
URBAN AREA



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

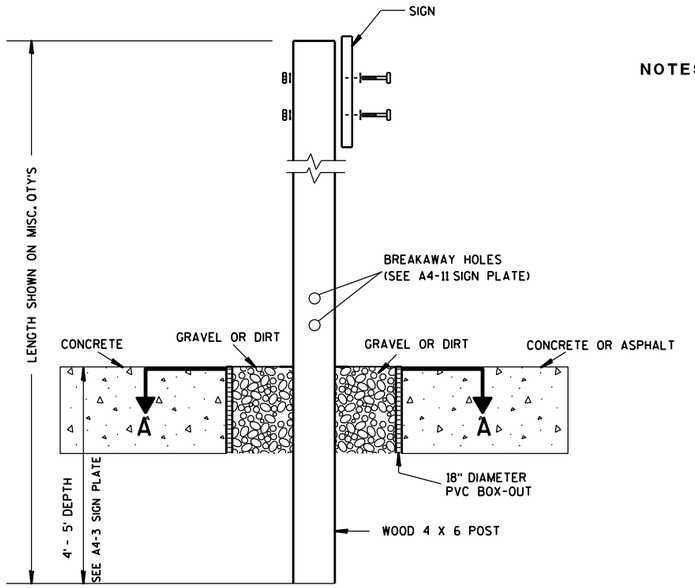
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

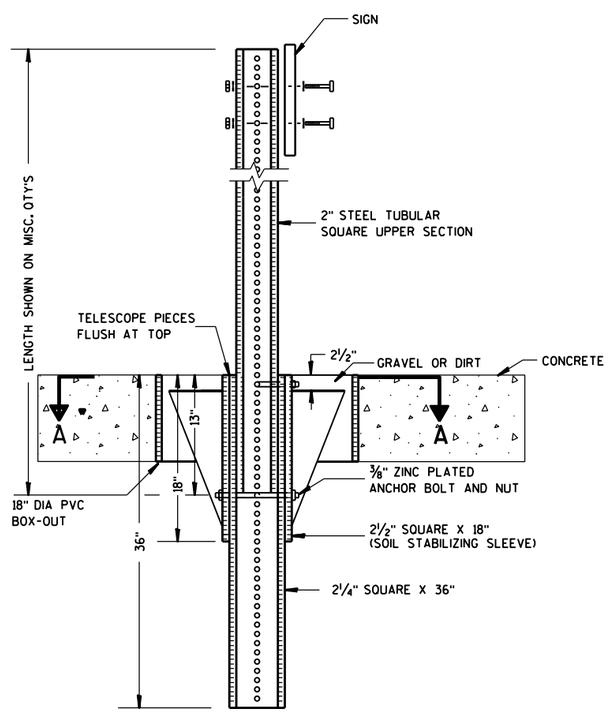
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 159	E



ELEVATION VIEW

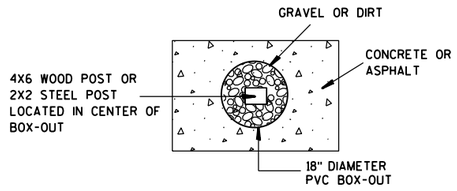
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

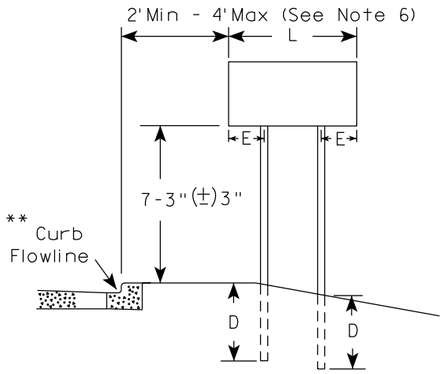
APPROVED Matthew R Rauch
for State Traffic Engineer

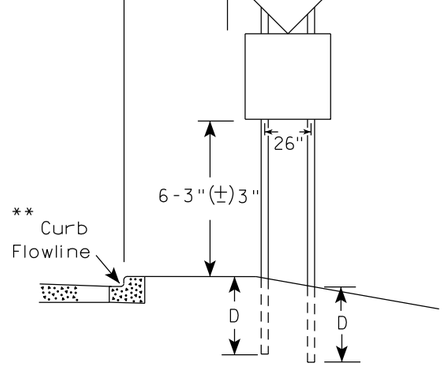
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

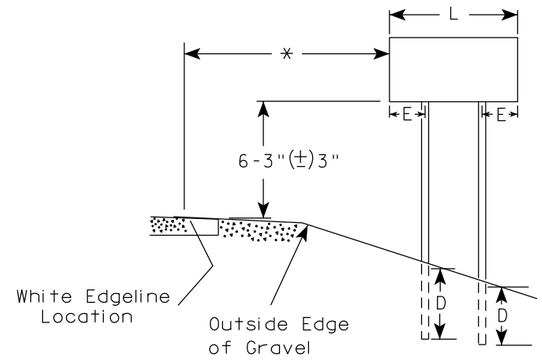
URBAN AREA

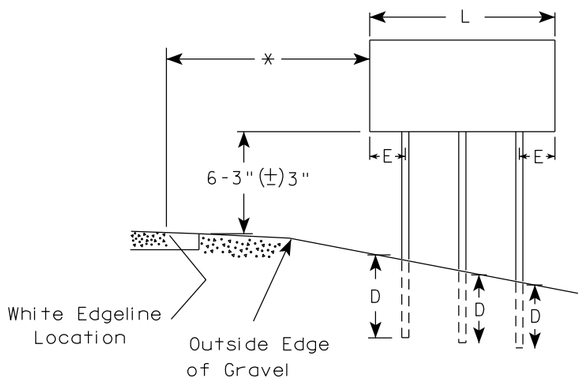


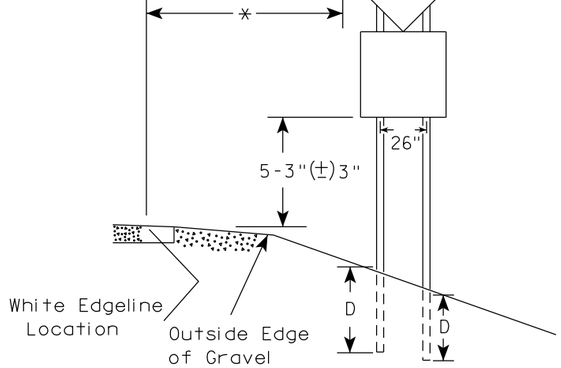


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







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

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

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

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

POST EMBEDMENT DEPTH

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

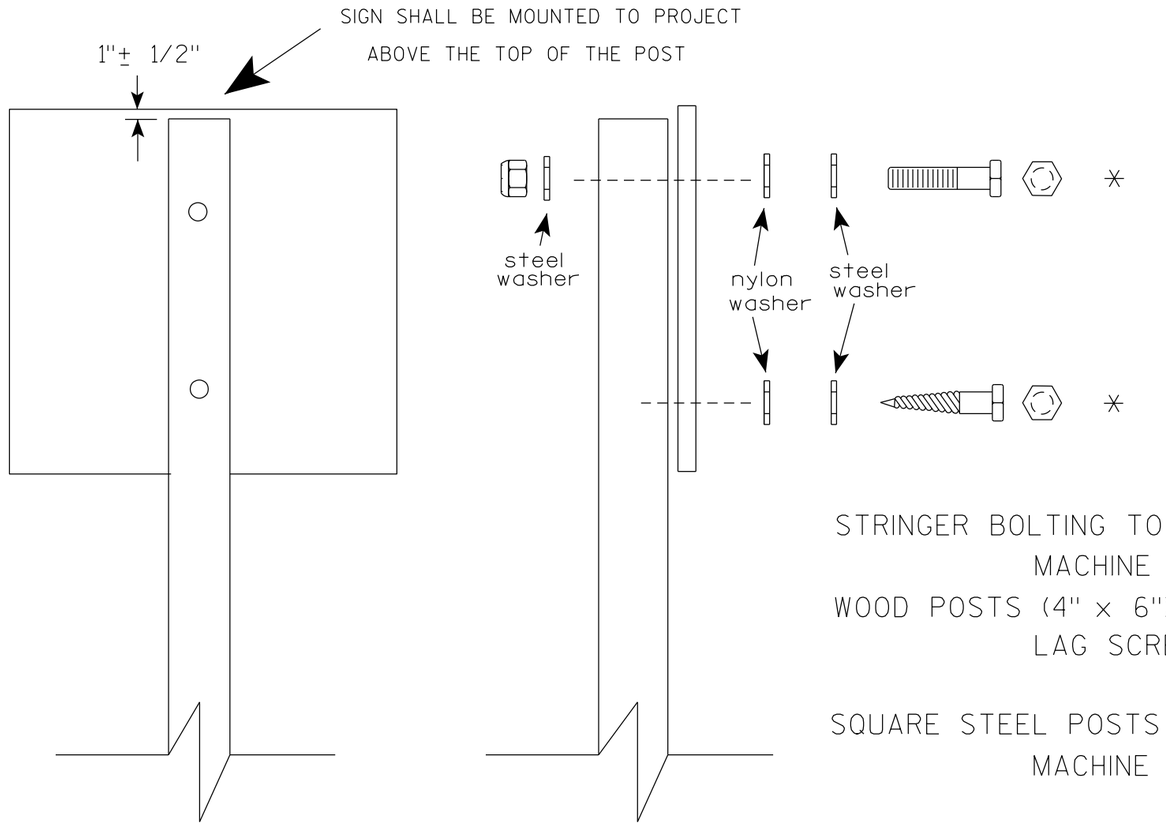
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 161	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 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

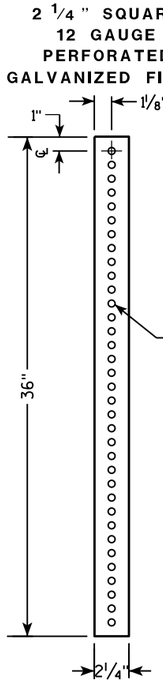
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

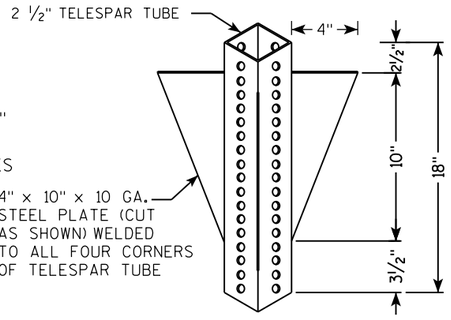
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

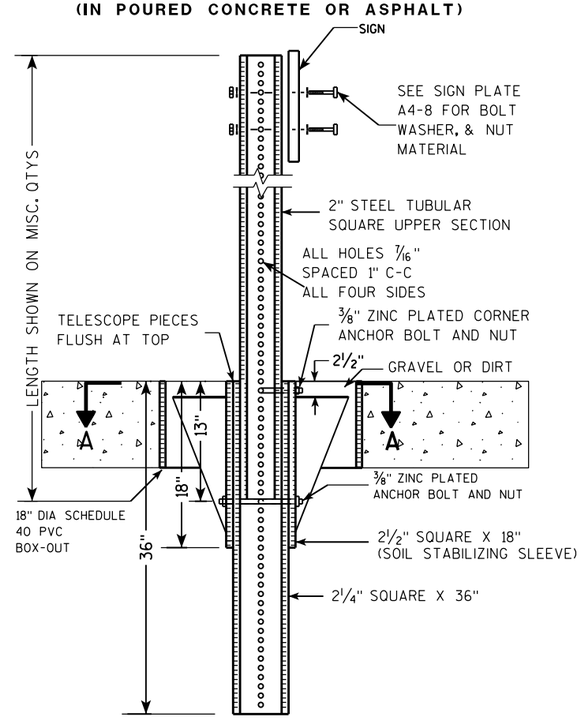
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



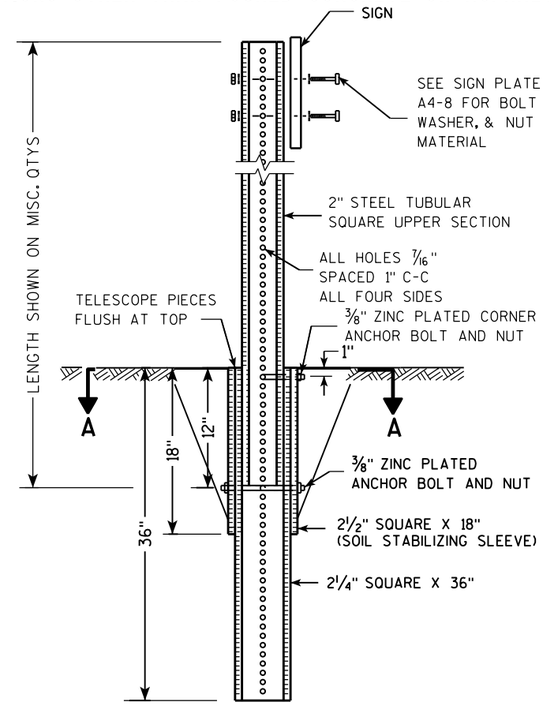
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

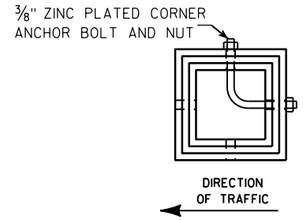


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

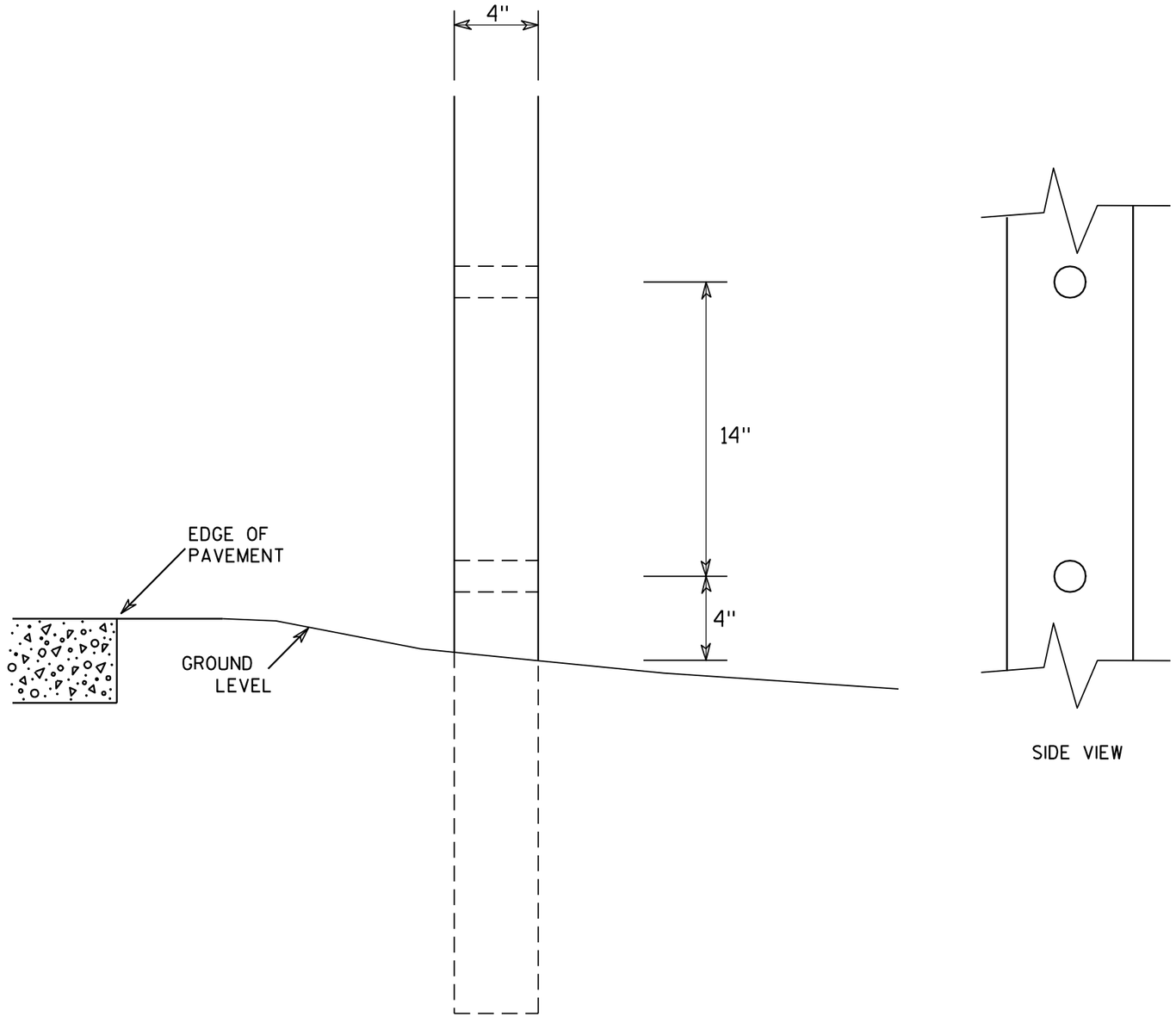
WISCONSIN DEPT OF TRANSPORTATION

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

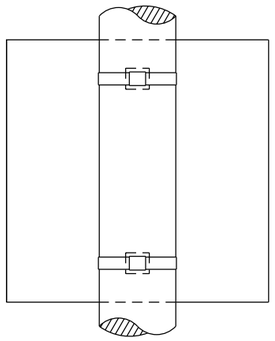
APPROVED Chester J Spang for State Traffic Engineer

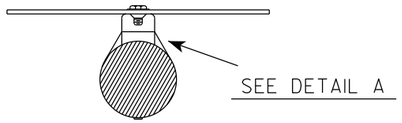
DATE 3/27/97 PLATE NO. A4-11.2

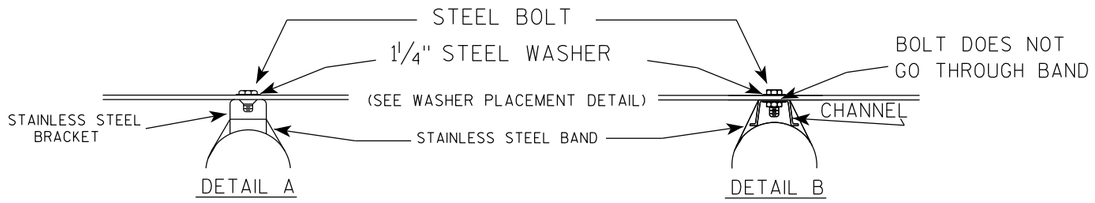
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 164	E

BANDING

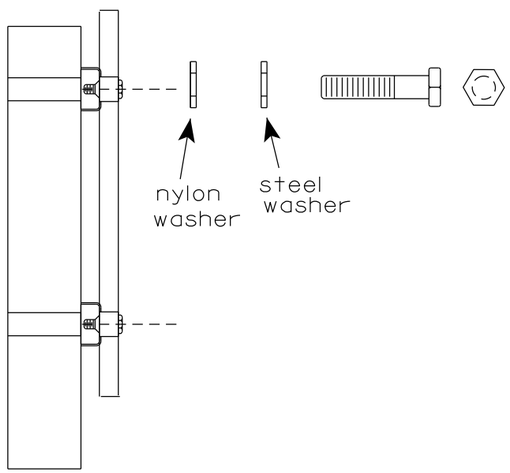
SINGLE SIGN







WASHER PLACEMENT

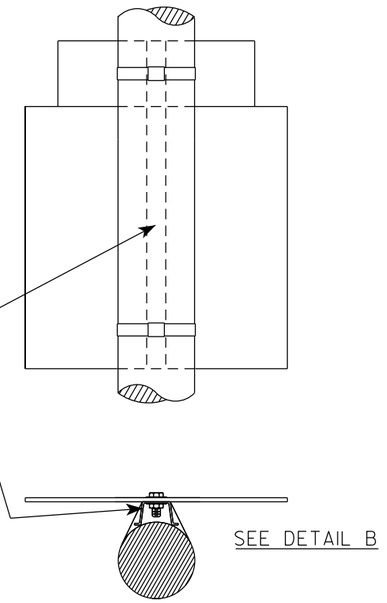


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

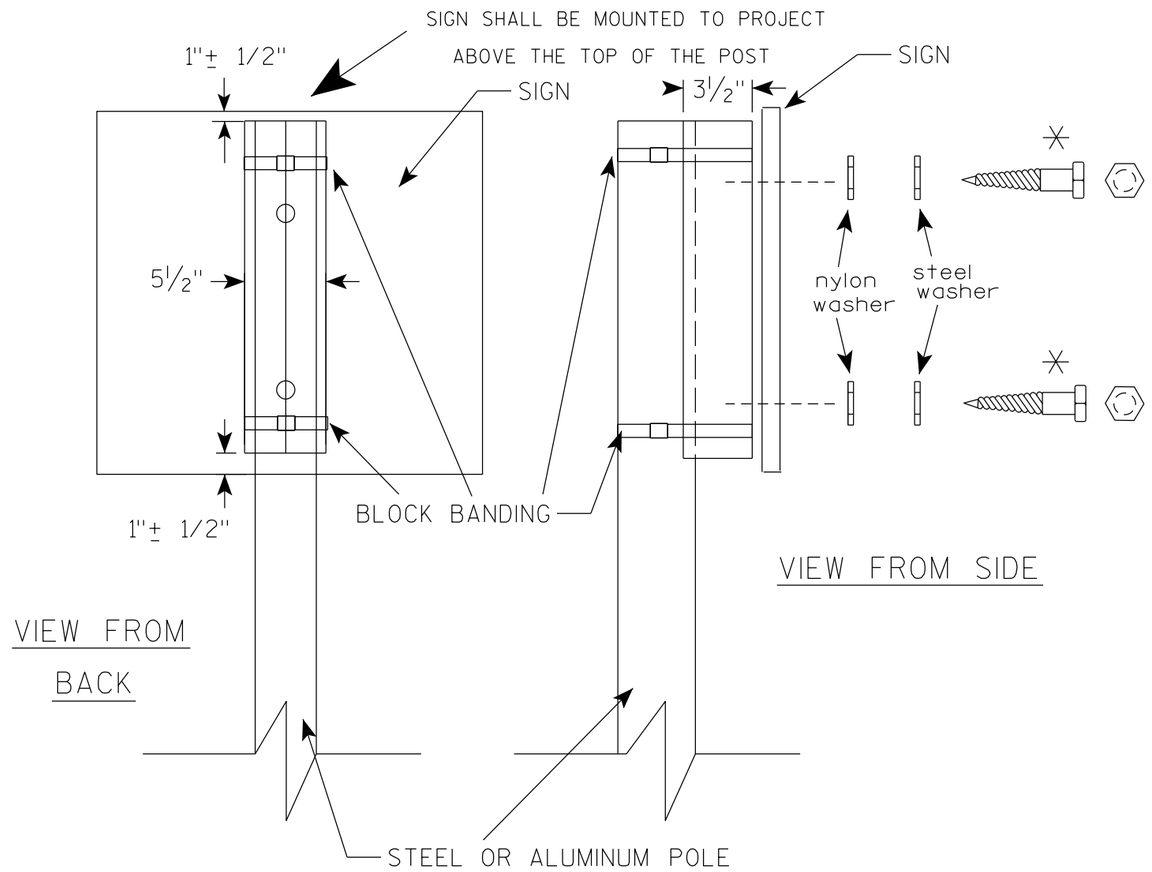
DATE 6/10/19 PLATE NO. A5-9.4

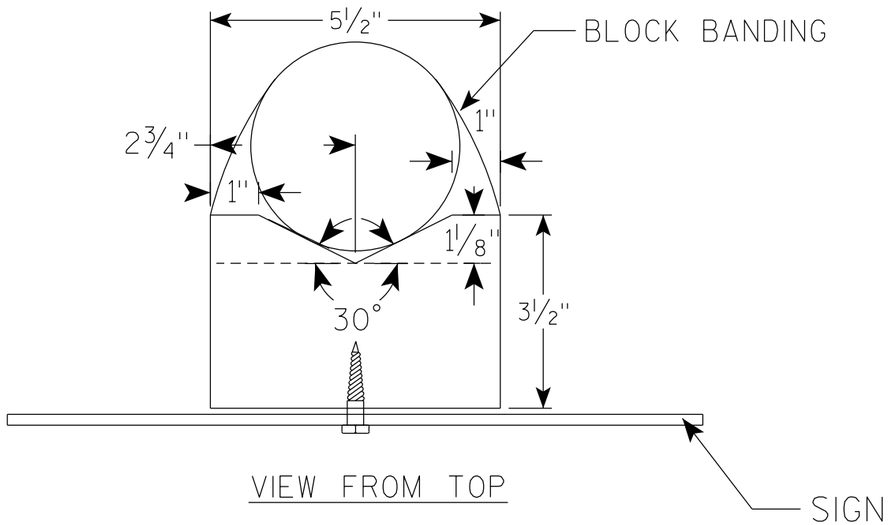
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





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
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 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)

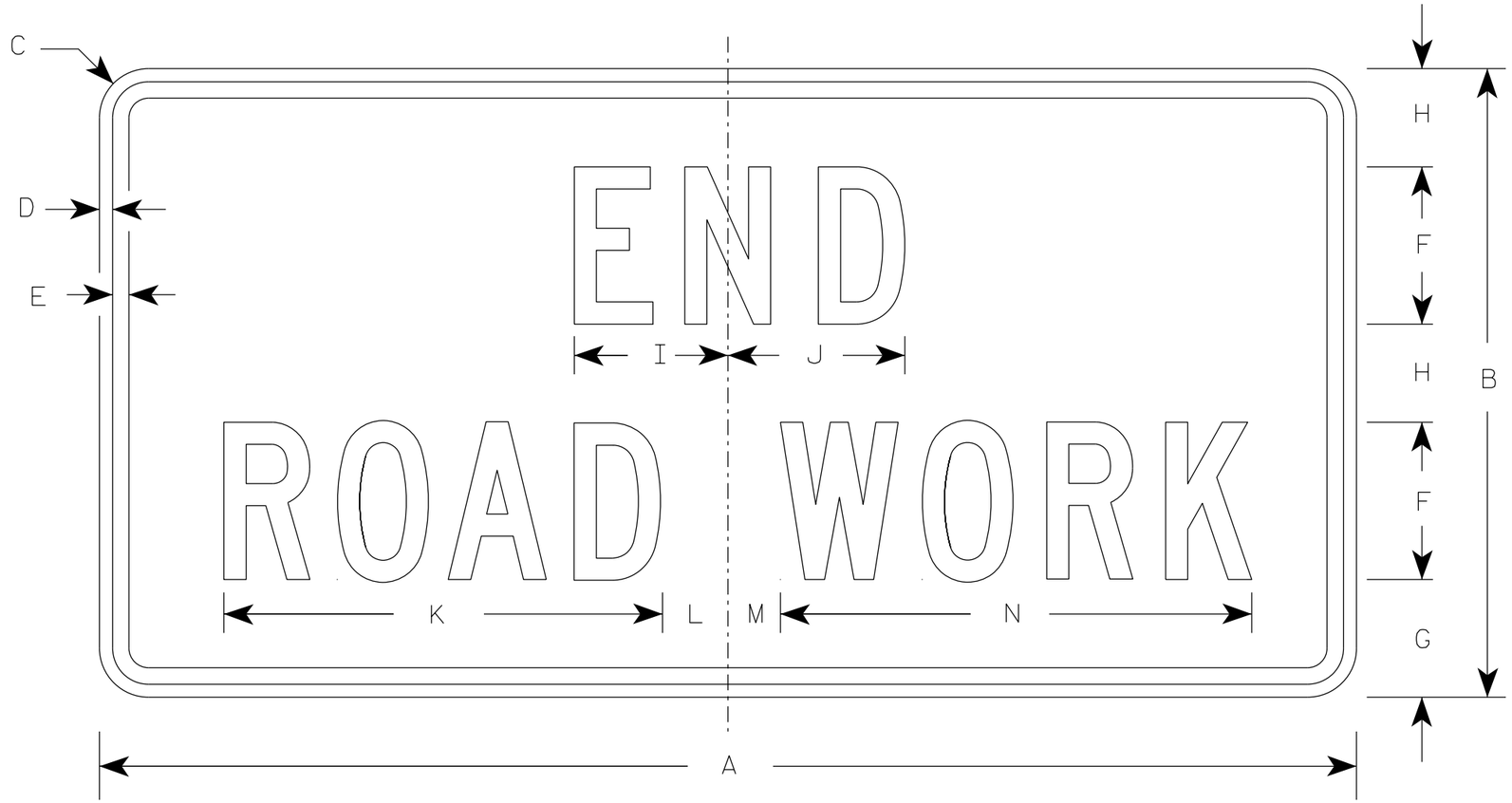
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 166 E



G20-2A

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	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

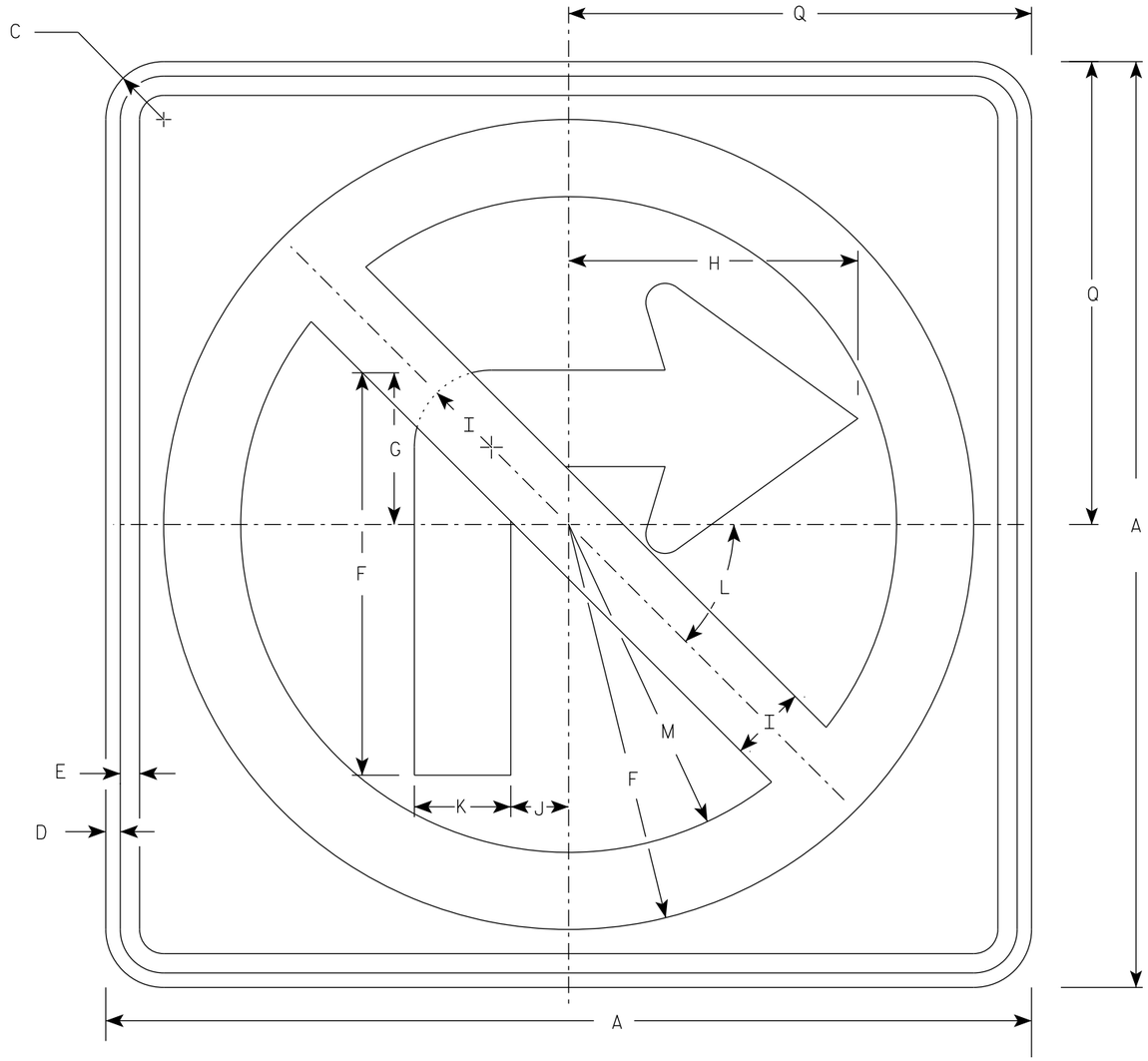
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

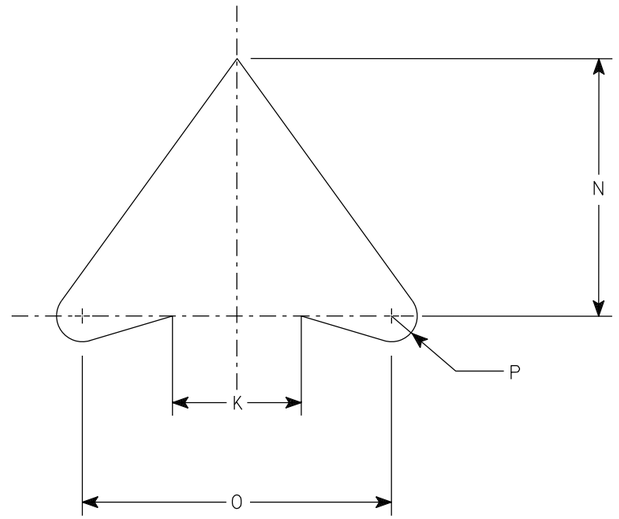
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



R3-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45	8 ½	5	6	½	12										4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½	12										4.0
2M	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45	12 ¾	7 ½	9	¾	18										9.0
3	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45	12 ¾	7 ½	9	¾	18										9.0
4	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾	18										9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

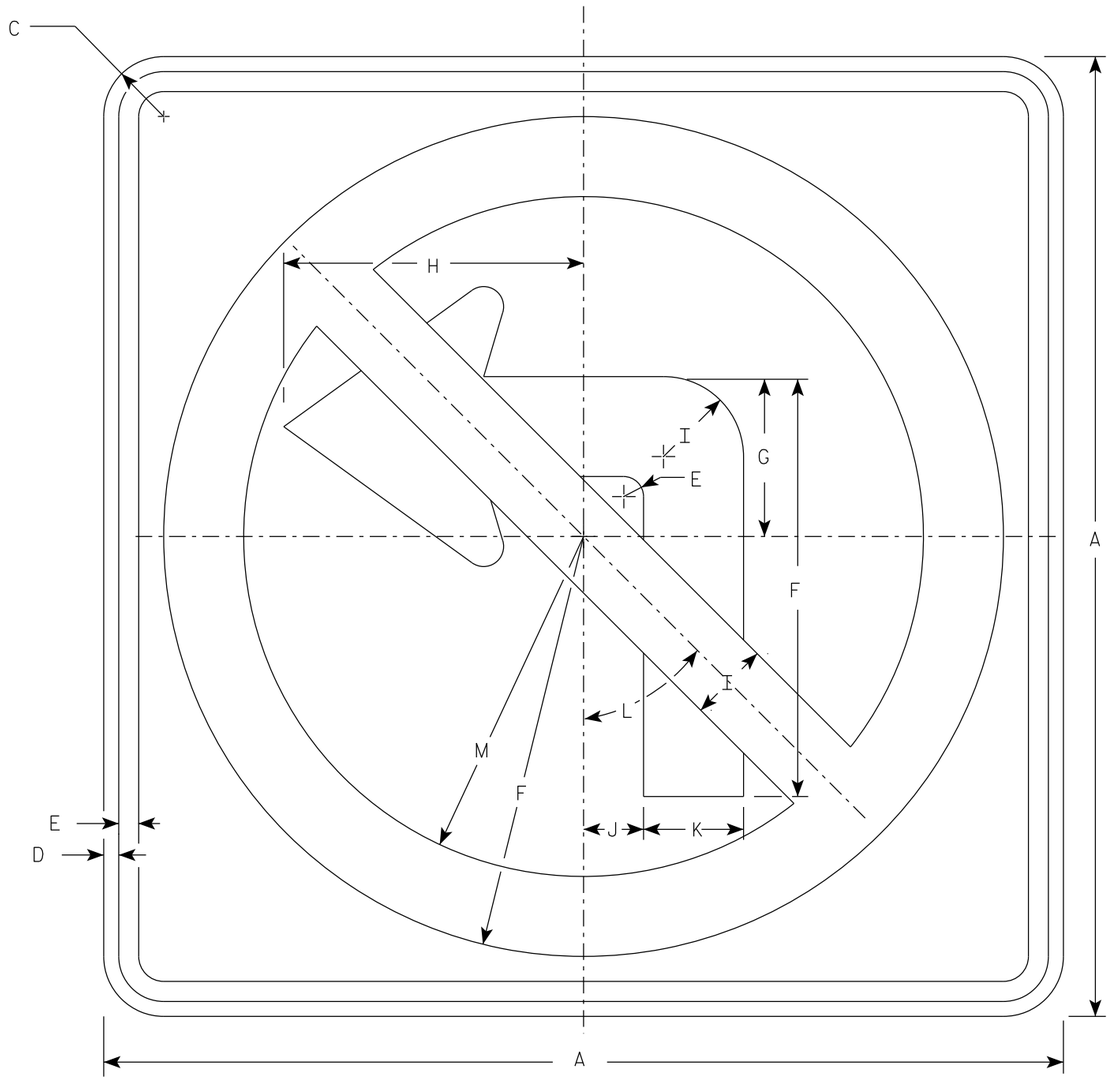
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-1.6

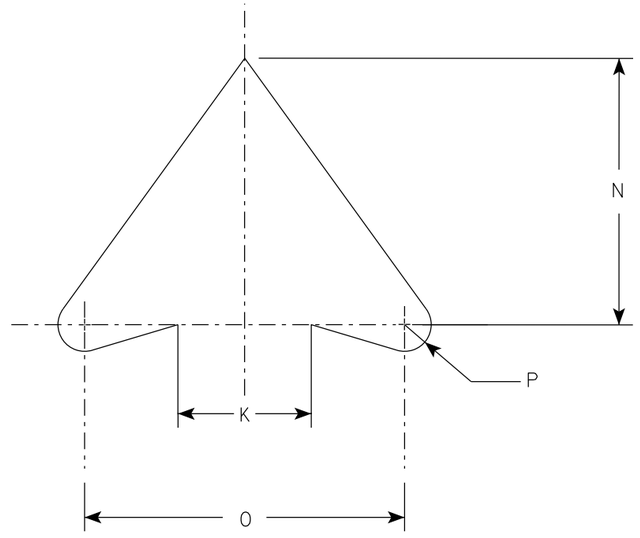
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 168 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											4.0
2M	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
3	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
4	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

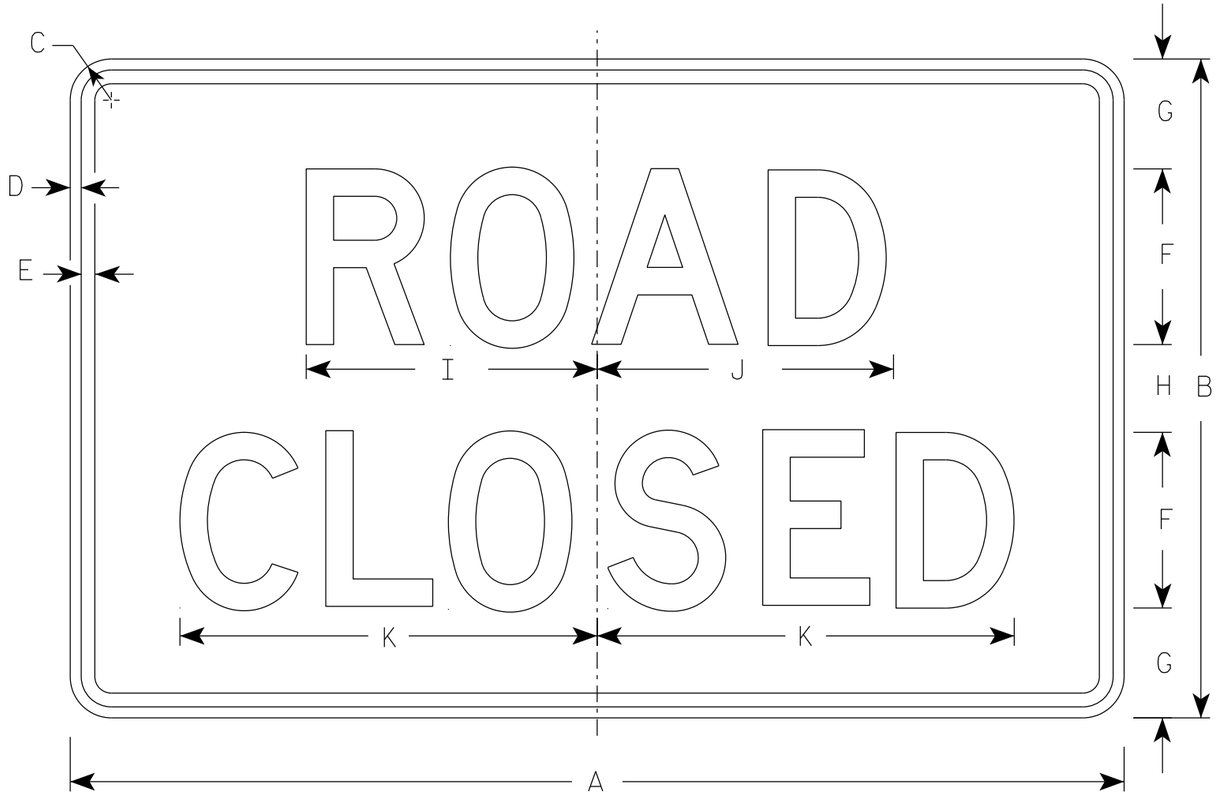
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-2.11

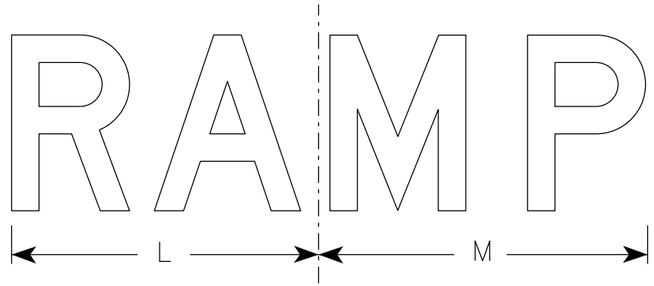
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 169 | E



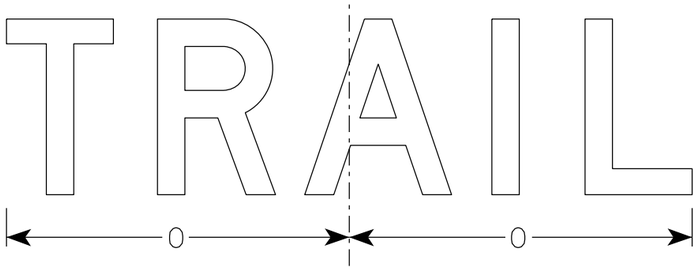
R11-2

NOTES

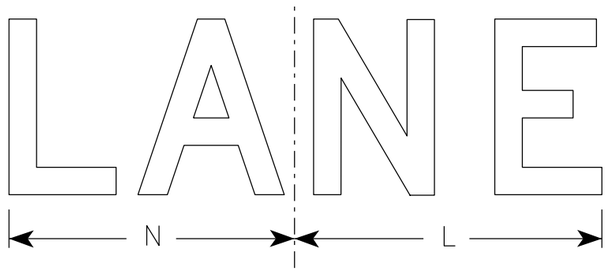
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



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 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

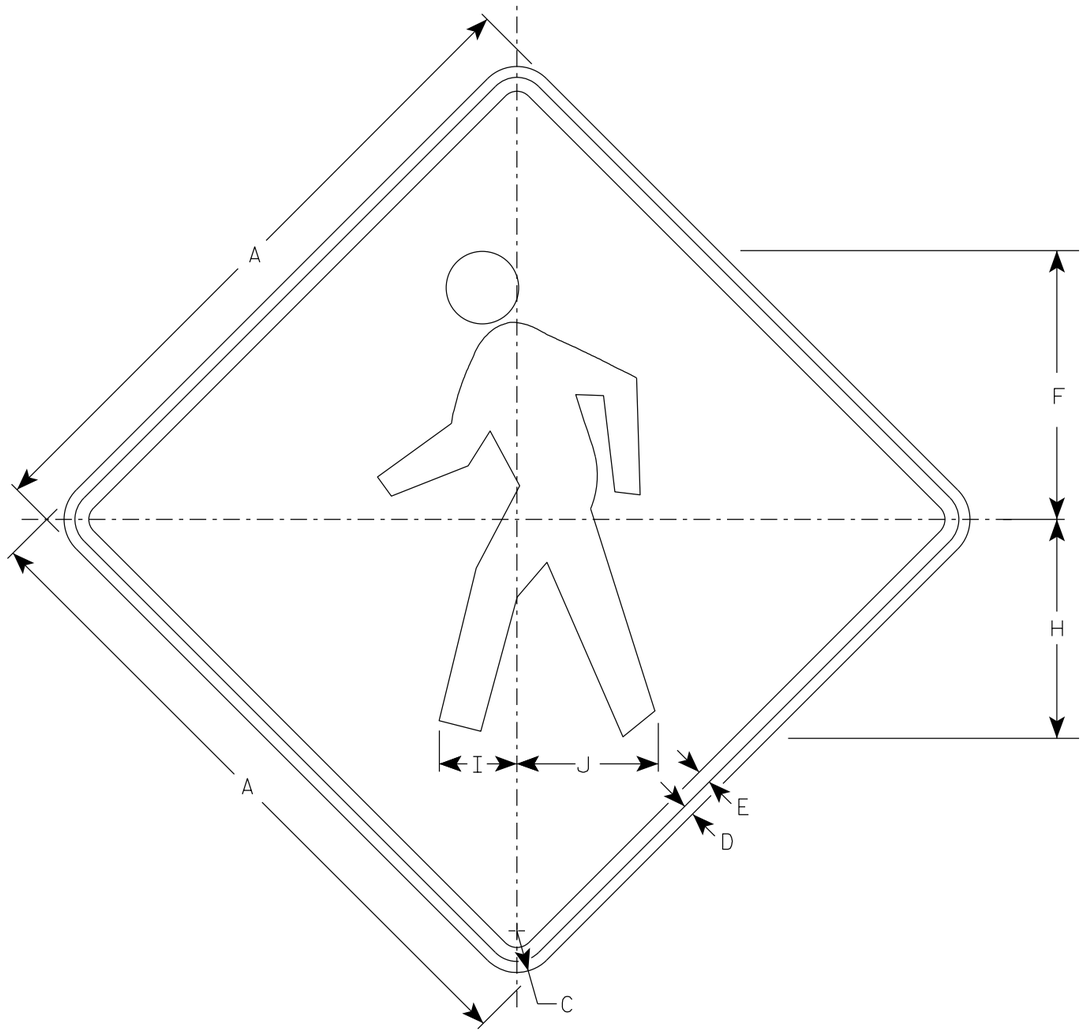
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 170	E



W11-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   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	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

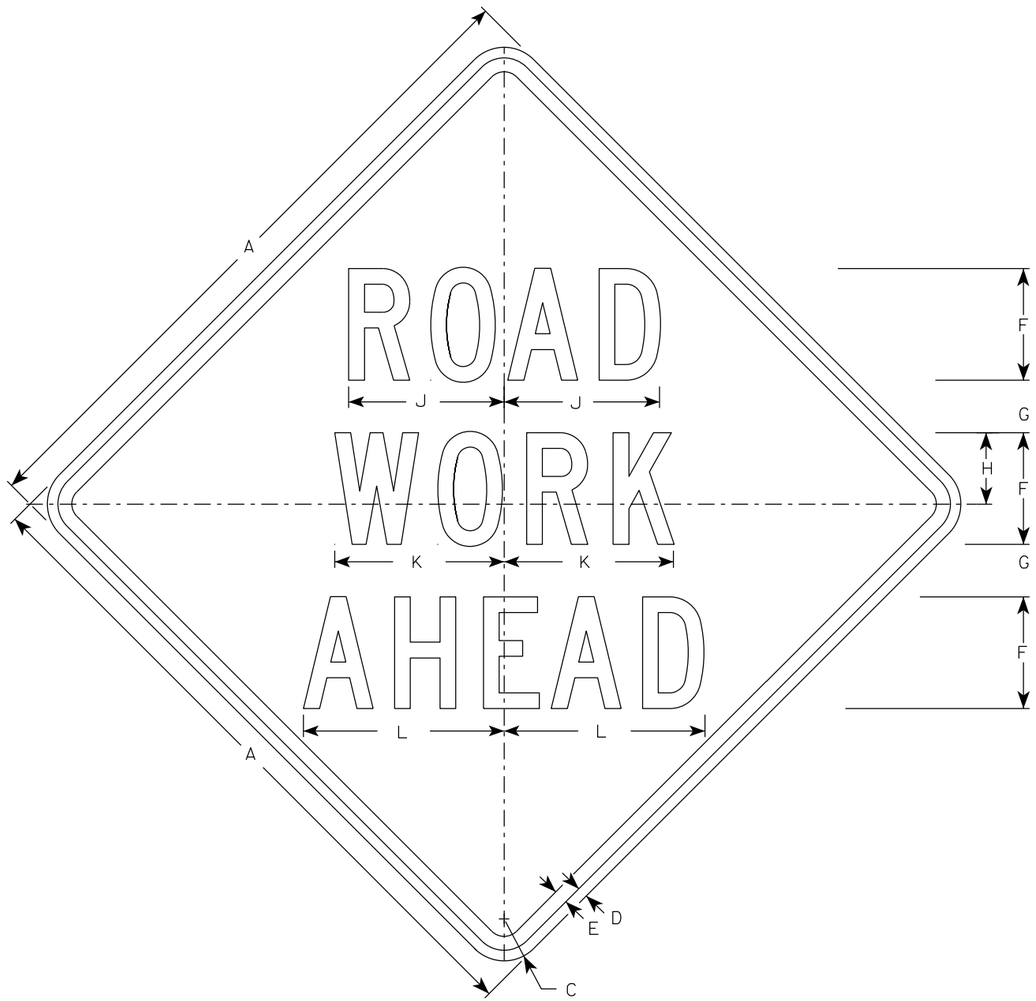
For State Traffic Engineer

DATE 6/15/2023 PLATE NO. W11-2.9

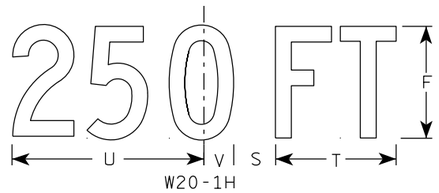
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 171 E

NOTES

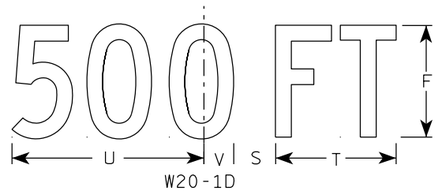
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



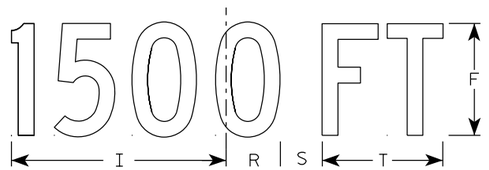
W20-1H



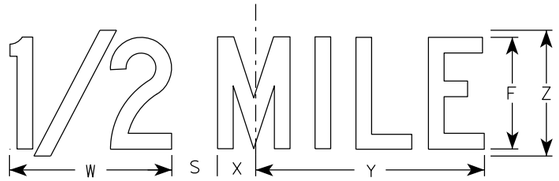
W20-1D



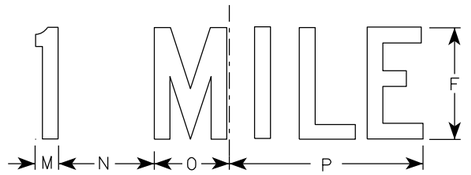
W20-1C



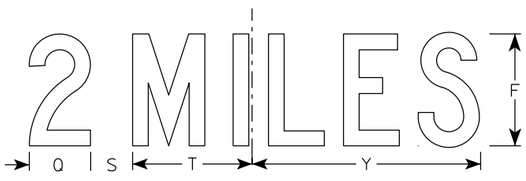
W20-1B



W20-1G



W20-1F



W20-1E

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		2 1/4	5/8	3/4	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	3 1/4	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		3	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		3	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		3	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		3	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		3	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, E, F, G & H

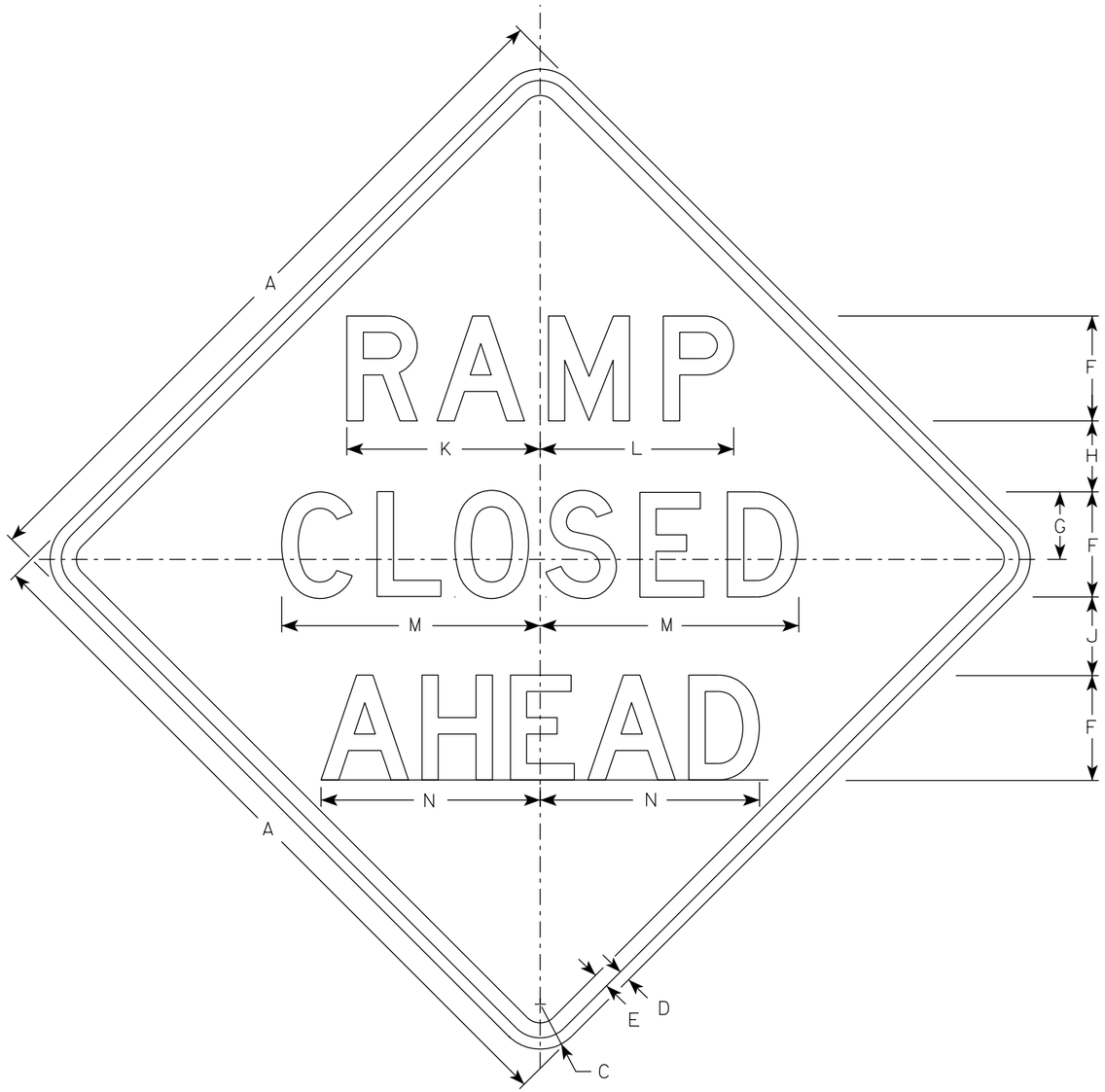
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

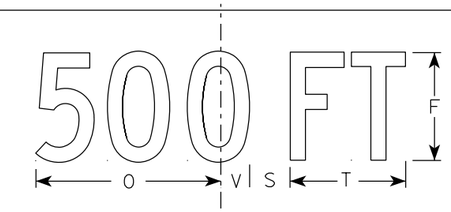
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

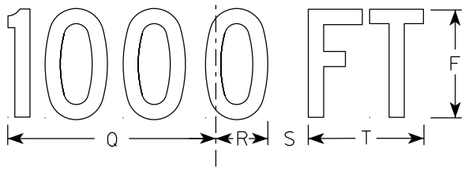
SHEET NO: E



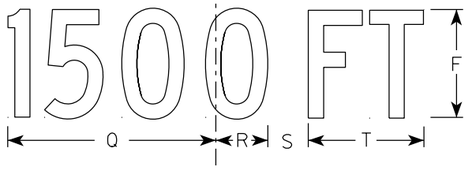
W20-53A



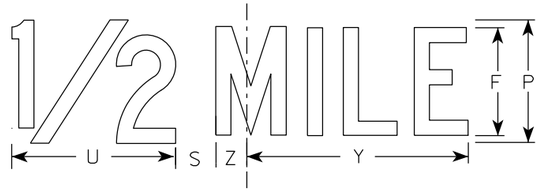
W20-53D



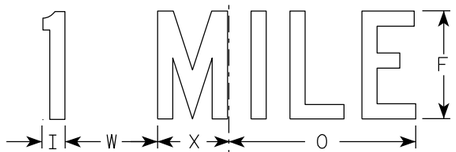
W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective
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. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-53.2

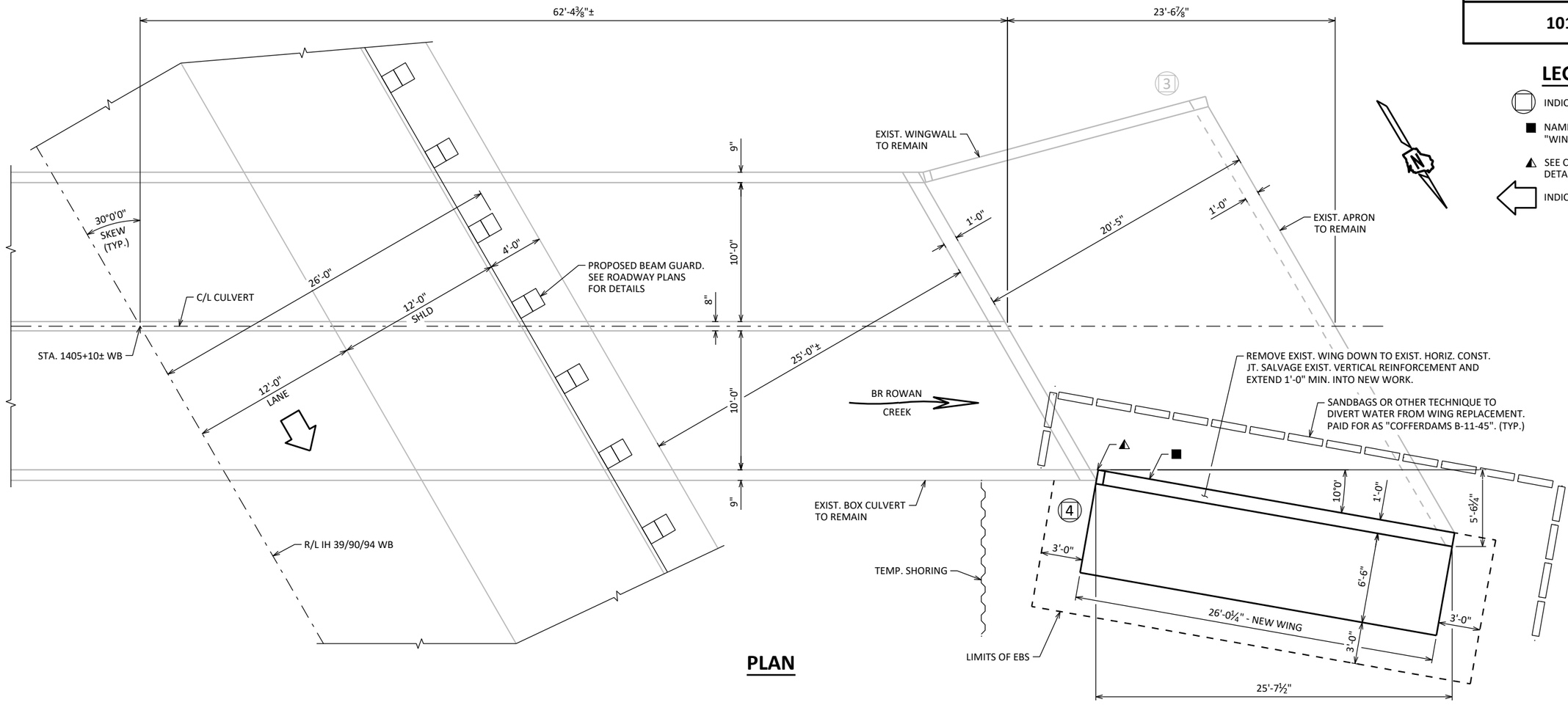
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

STATE PROJECT NUMBER

1012-01-62

LEGEND

- INDICATES WING NUMBER.
- NAME PLATE LOCATION (SEE "WING DETAILS" SHEET).
- SEE CORNER DETAIL ON "WING DETAILS" SHEET.
- INDICATES TRAFFIC FLOW.



PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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.

REMOVE SOIL BELOW PROPOSED WING FOOTING AND REPLACE WITH BREAKER RUN. EXCAVATION BELOW SUBGRADE (EBS) ESTIMATED TO EXTEND 2'-6" MINIMUM BELOW PROPOSED WING FOOTING. EBS SHOULD BE OVERSIZED LATERALLY 3 FEET MINIMUM BEYOND THE BACKFACE AND WIDTHS OF FOOTING. THE BOTTOM OF EBS SHALL BE LINED WITH GEOTEXTILE TYPE SAS AND BACKFILLED WITH BREAKER RUN AND COMPACT BACKFILL ACCORDING TO STANDARD SPECIFICATIONS.

EXCAVATION BELOW SUBGRADE SHALL BE IN INCLUDED IN BID ITEM "EXCAVATION FOR STRUCTURES CULVERTS B-11-45". THE EXISTING GROUNDLINE IS THE UPPER LIMITS OF EXCAVATION.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT WING AND FOOTING CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE ELEMENTS SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

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

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 504.3.4 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1961. WORK SHALL BE INCLUDED IN THE BID ITEM "CONCRETE MASONRY CULVERTS.

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY — f'_c = 3,500 PSI
BAR STEEL REINFORCEMENT — f_y = 60,000 PSI

LIST OF DRAWINGS

1. WING REPLACEMENT
2. WING DETAILS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE B-11-45	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS B-11-45	EACH	1
206.5001	COFFERDAMS B-11-45	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	118
311.0115	BREAKER RUN	CY	29
504.0100	CONCRETE MASONRY CULVERTS	CY	20
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,620
511.1200	TEMPORARY SHORING B-11-45	SF	320
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7
606.0300	RIPRAP HEAVY	CY	8
645.0120	GEOTEXTILE TYPE HR	SY	23
645.0140	GEOTEXTILE TYPE SAS	SY	43
	NON-BID ITEMS		
	FILLER	SIZE	¾"

STRUCTURE DESIGN CONTACTS:

ISATOU CEESAY 608-266-9557
DOMINIQUE BECHLE 608-261-8205

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED — CHIEF STRUCTURES DESIGN ENGINEER — DMB — DATE 01/26/26

STRUCTURE B-11-45

IH 90 WB OVER BR ROWAN CREEK

COUNTY	TOWN
COLUMBIA	ARLINGTON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
IFC	VS	DTH	IFC

WING REPLACEMENT

SHEET 1 OF 2
174

I.D. 1012-01-32A

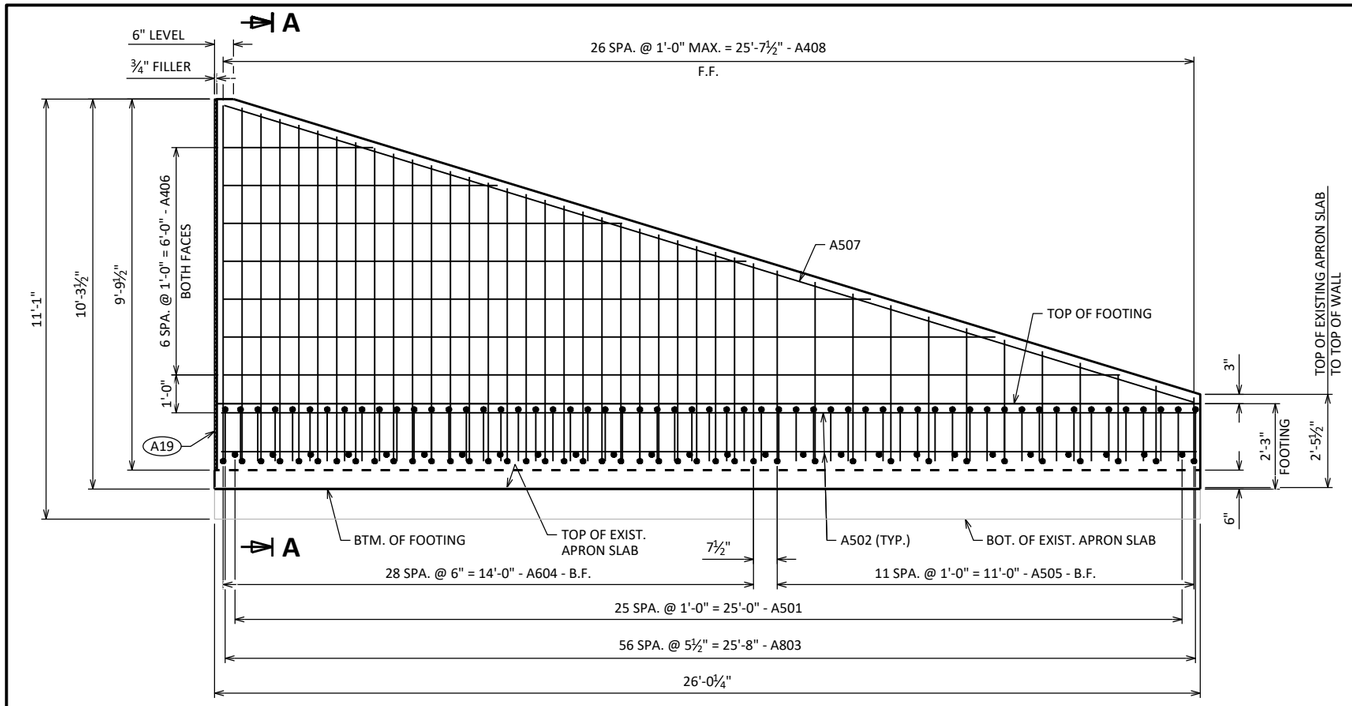
DATE: DEC. 2025

8

8

STATE PROJECT NUMBER

1012-01-62



ELEVATION WING 4

SHOWING B.F. REINFORCEMENT

BILL OF BARS

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

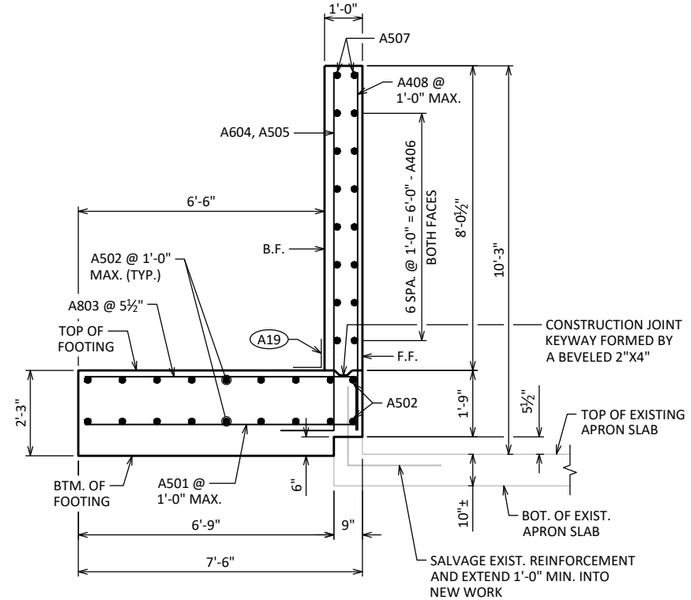
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	26	7'-2"			FOOTING - HORIZ. - BTM.
A502	X	18	25'-7"			FOOTING - LONGIT. - TOP & BTM.
A803	X	57	8'-3"	X		FOOTING - HORIZ. - TOP
A604	X	29	8'-2"	X	⚠	WING - VERT. - B.F.
A505	X	12	4'-1"	X	⚠	WING - VERT. - B.F.
A406	X	14	13'-10"		⚠	WING - HORIZ. BOTH FACES
A507	X	2	26'-9"			WING - HORIZ. BOTH FACES - TOP
A408	X	27	5'-6"		⚠	WING - VERT. - F.F.

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

BAR SERIES TABLE

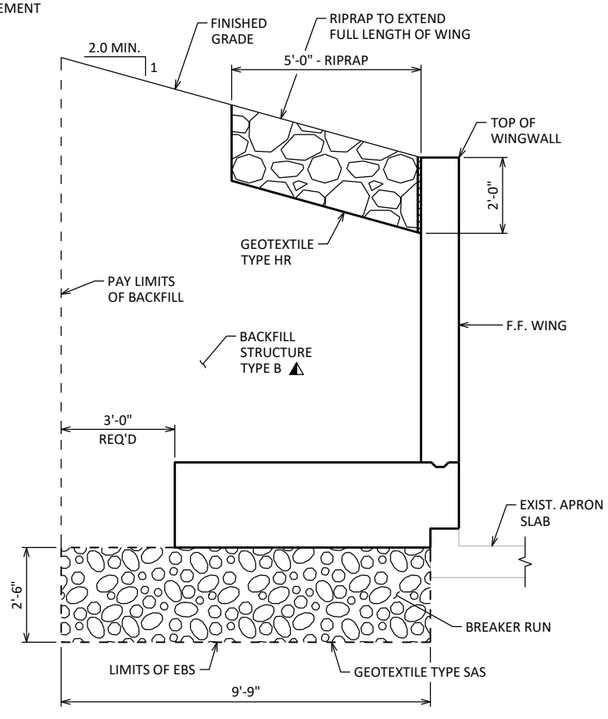
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
A604	1 SERIES OF 29	6'-1" TO 10'-3"
A505	1 SERIES OF 12	2'-5" TO 5'-9"
A406	2 SERIES OF 7	4'-0" TO 23'-8"
A408	1 SERIES OF 27	1'-8" TO 9'-5"



SECTION A-A

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

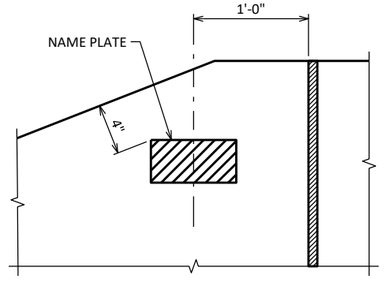


TYPICAL SECTION THRU WINGWALL & EXCAVATION BELOW SUBGRADE

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

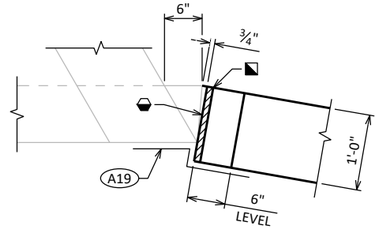


A803, A604, A505



NAME PLATE DETAIL

WING 4



CORNER DETAIL

¾" FILLER (TYP. EXTEND FILLER TO FULL WING HEIGHT).

1" BEVEL

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-11-45

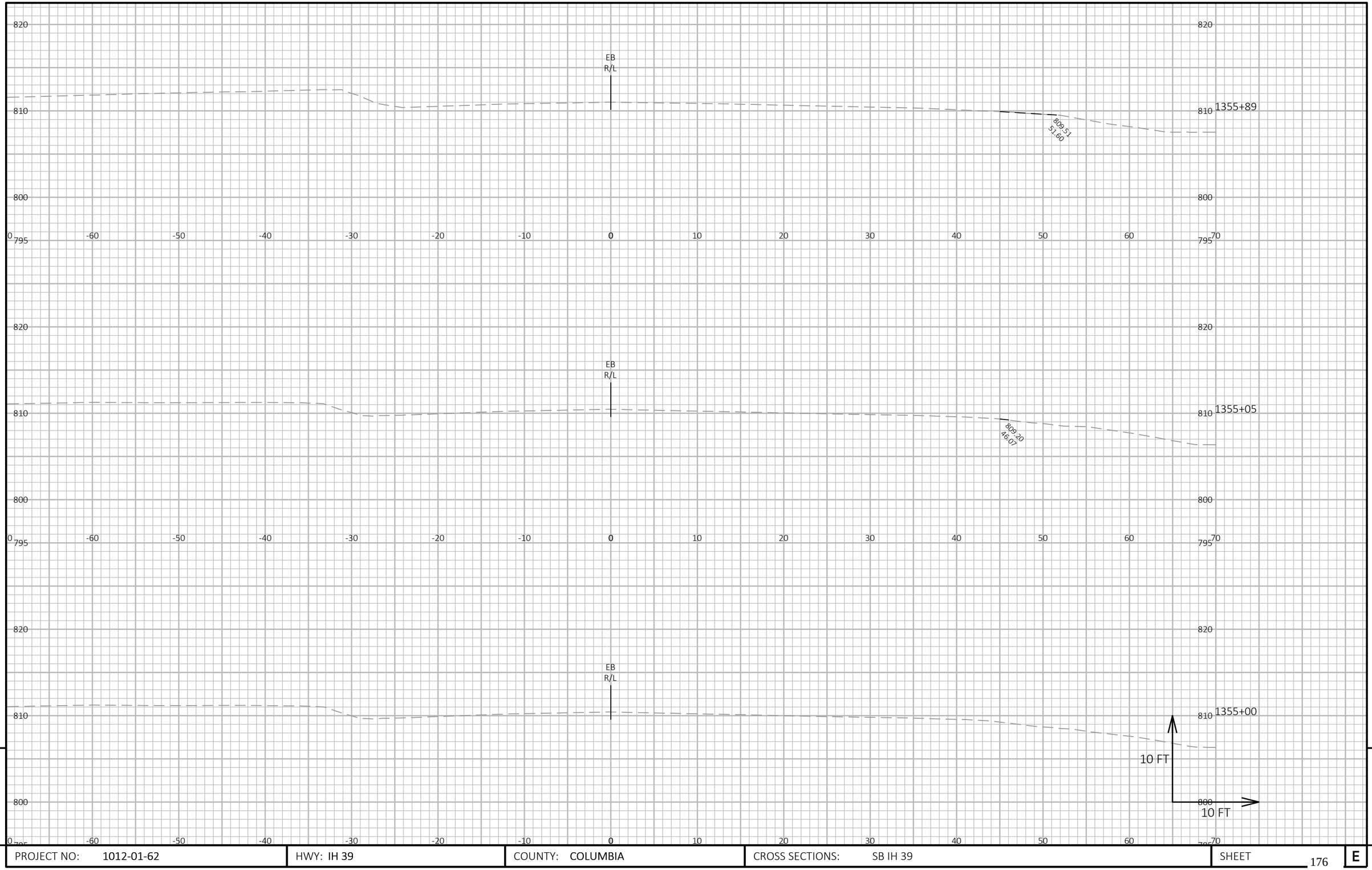
DRAWN BY DTH | PLANS CK'D IFC

WING DETAILS

SHEET 2
175

8

8



9

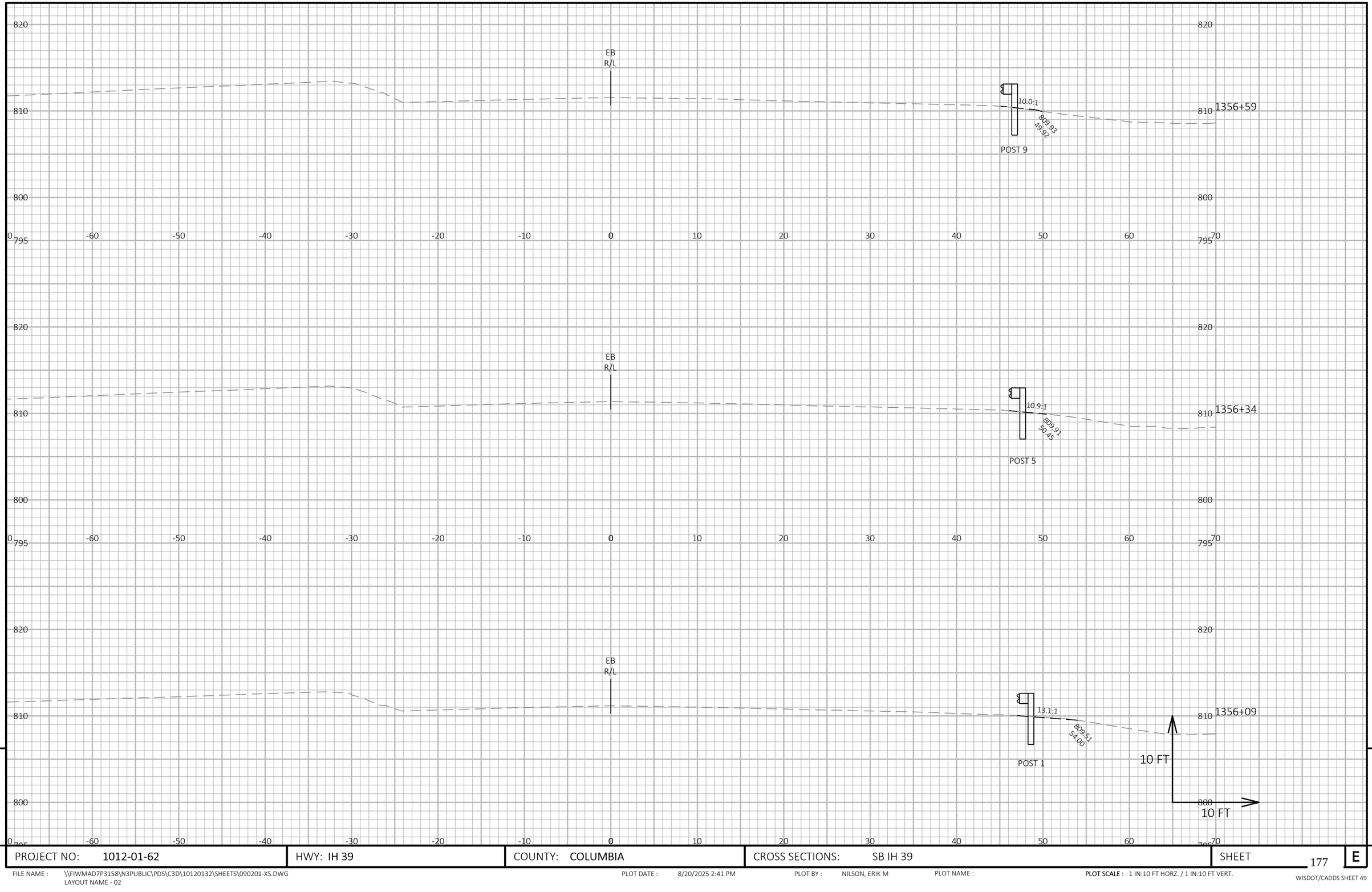
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 176	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 8/20/2025 2:41 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

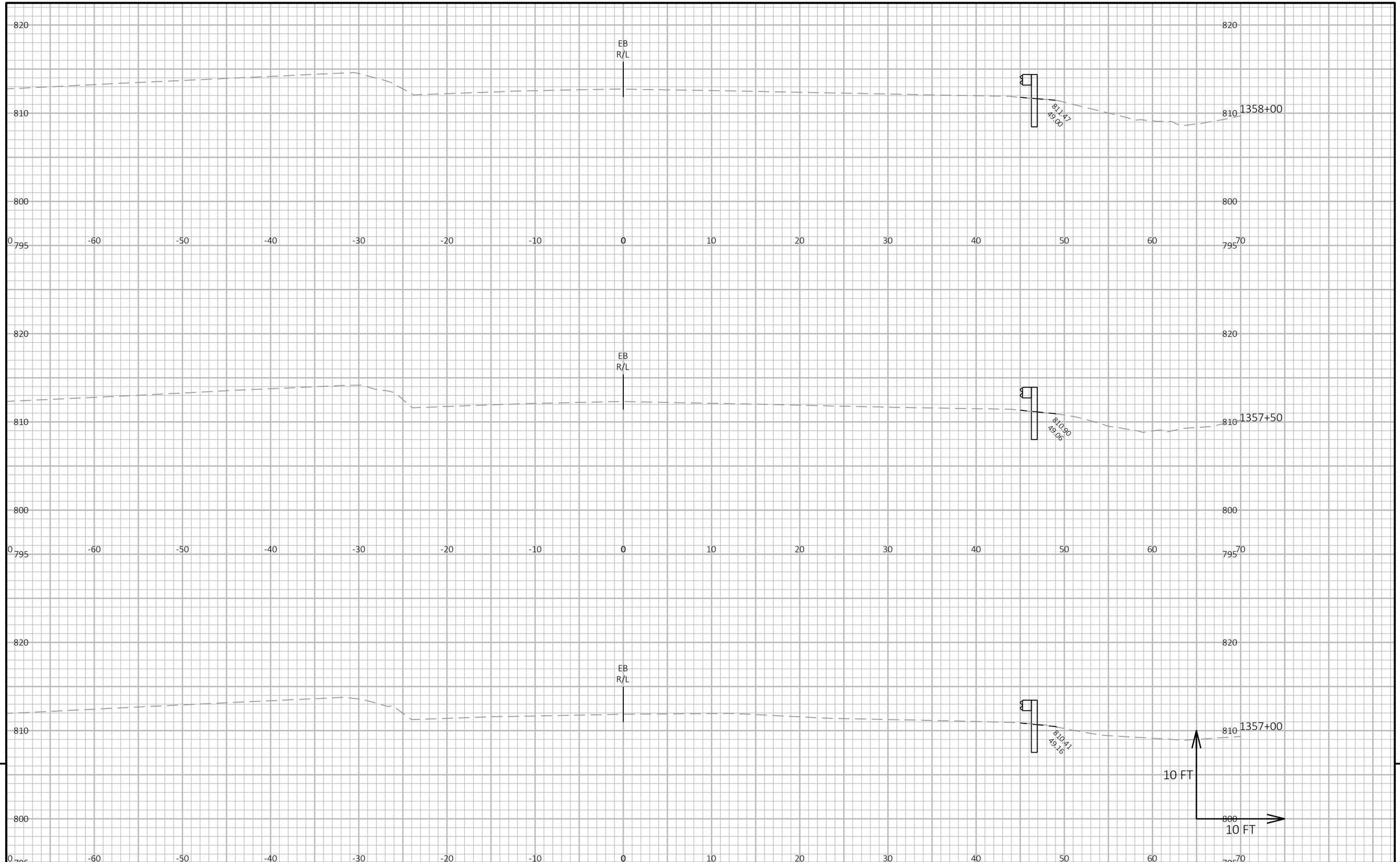
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 177	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 8/20/2025 2:41 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

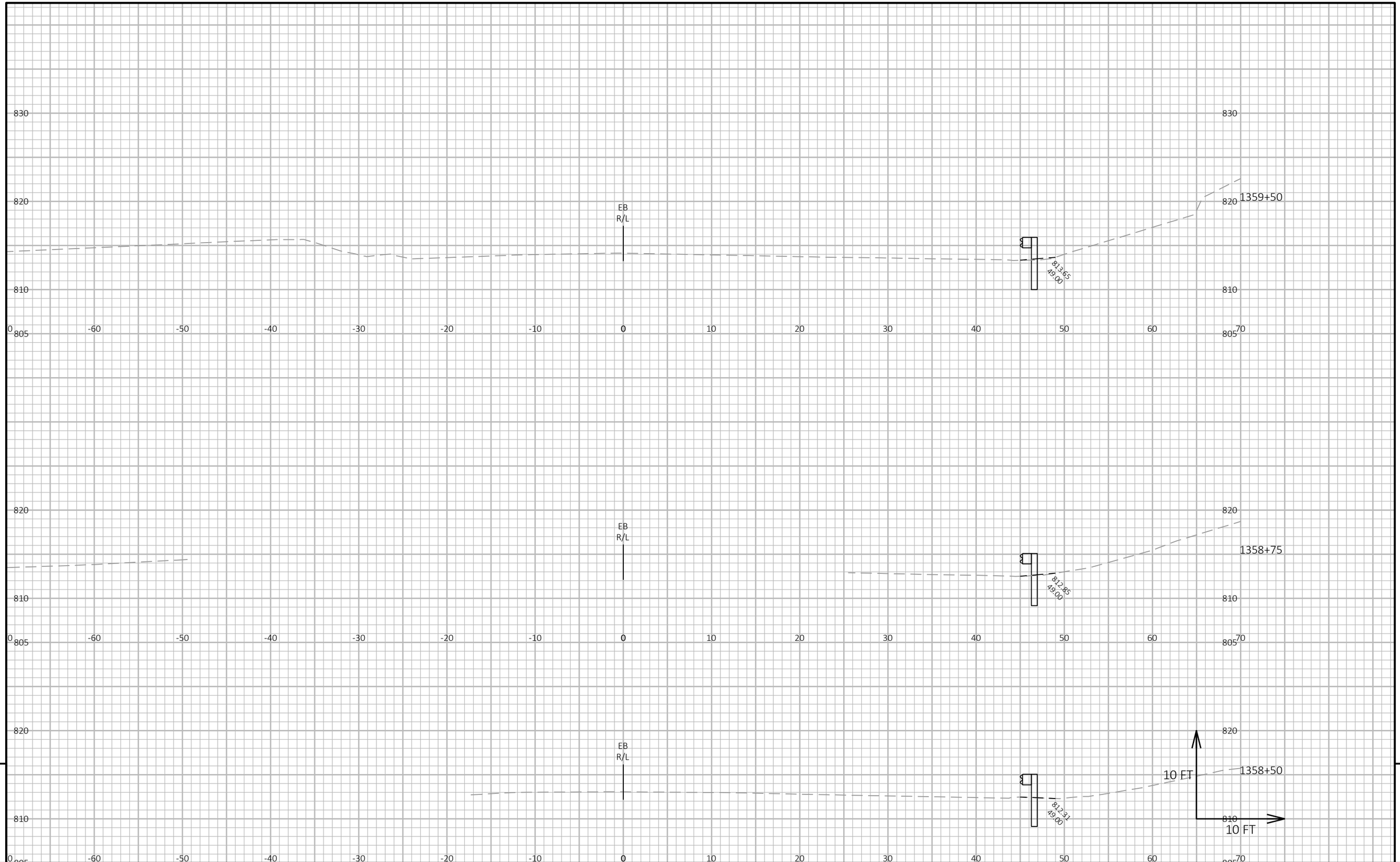
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 178	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 8/20/2025 2:41 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

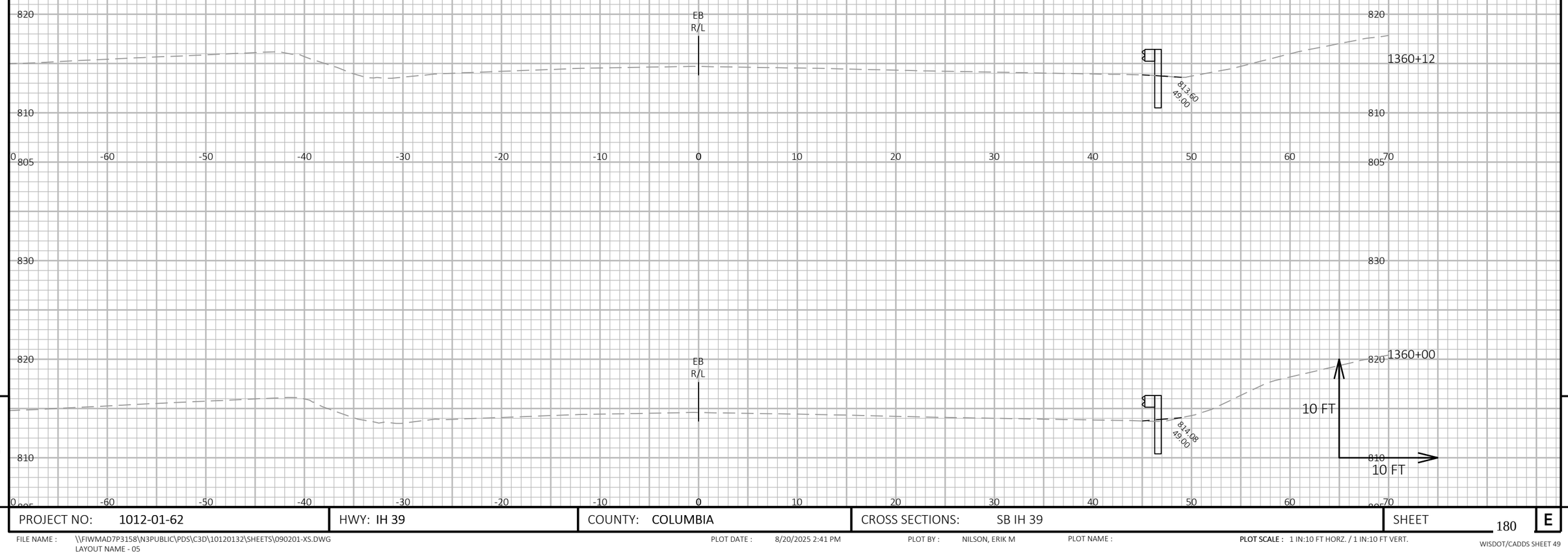
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 179	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 8/20/2025 2:41 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

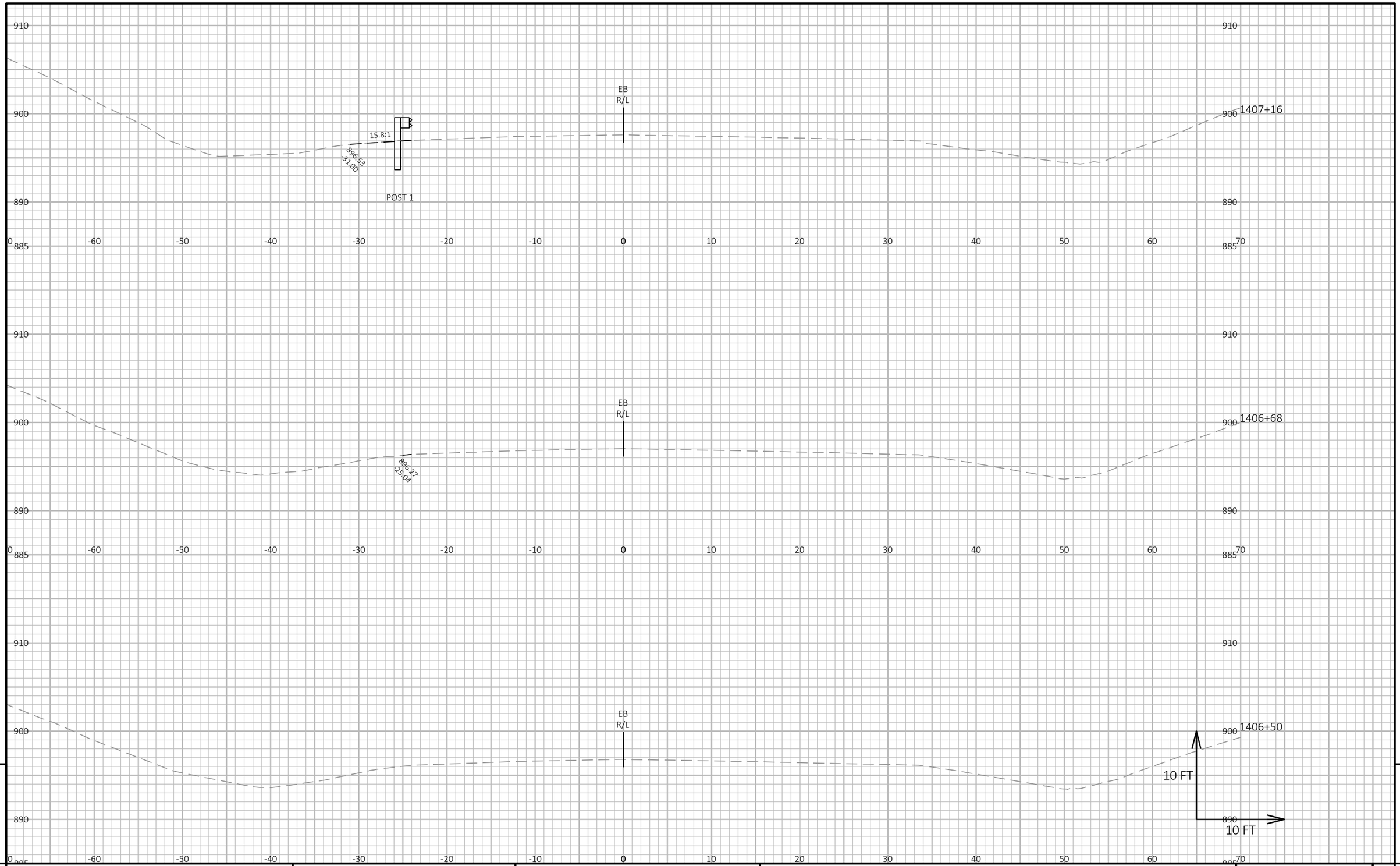


PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 180	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 8/20/2025 2:41 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



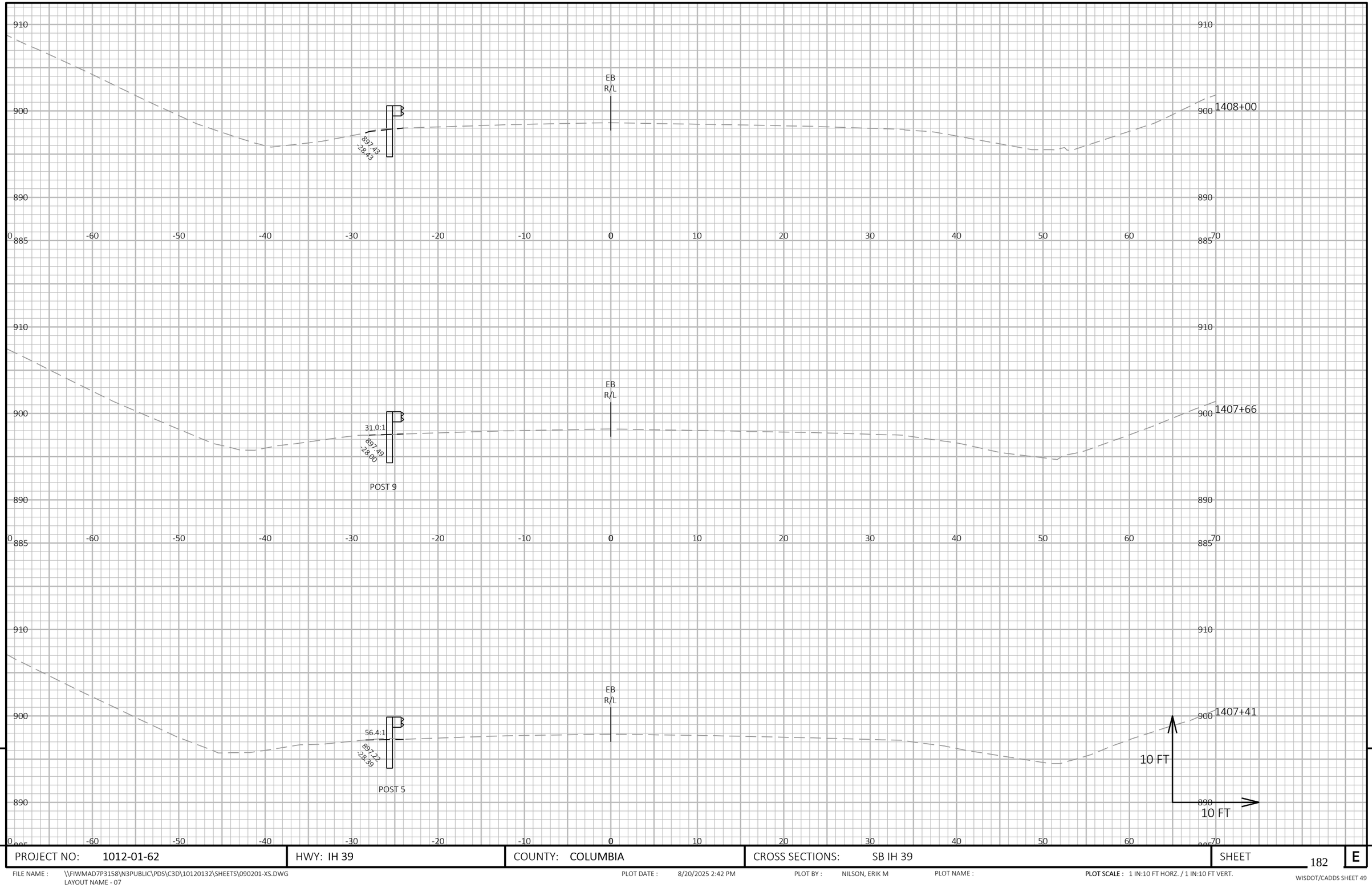
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 181	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 8/20/2025 2:41 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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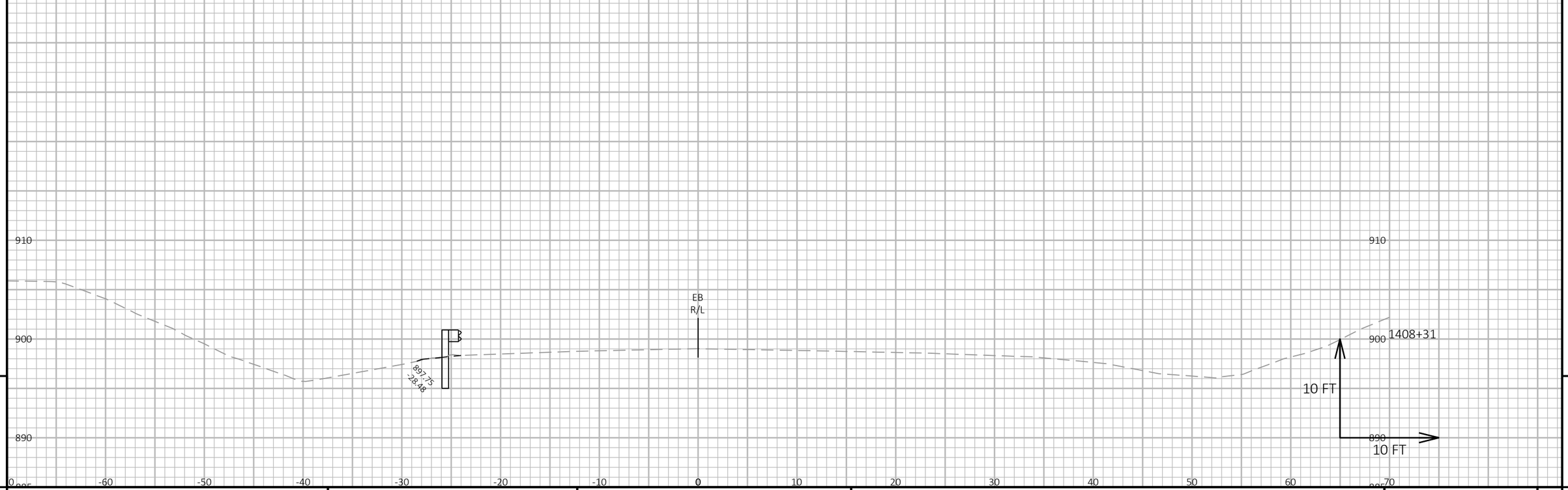
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 182	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

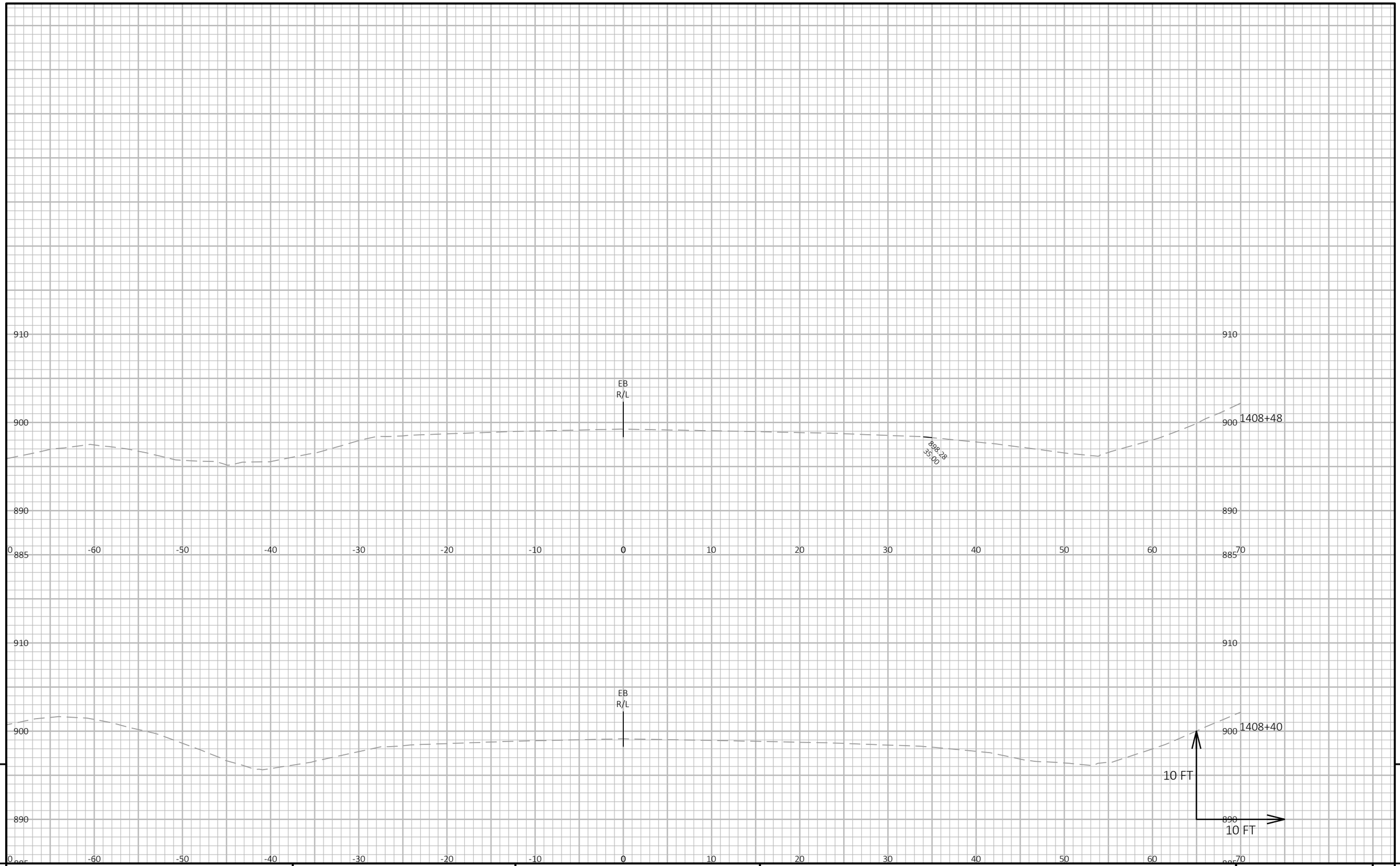


PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 183	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

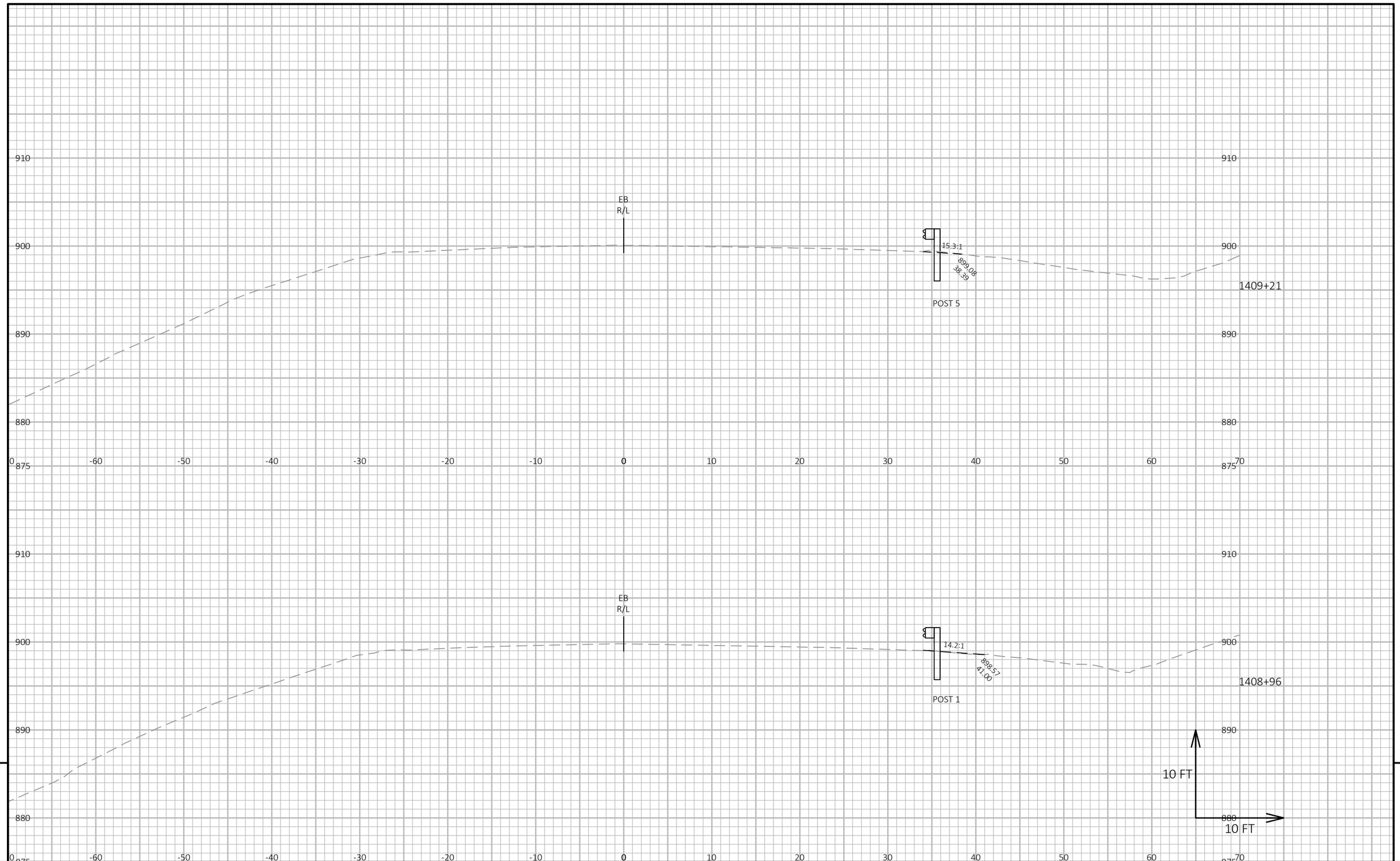
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 184	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

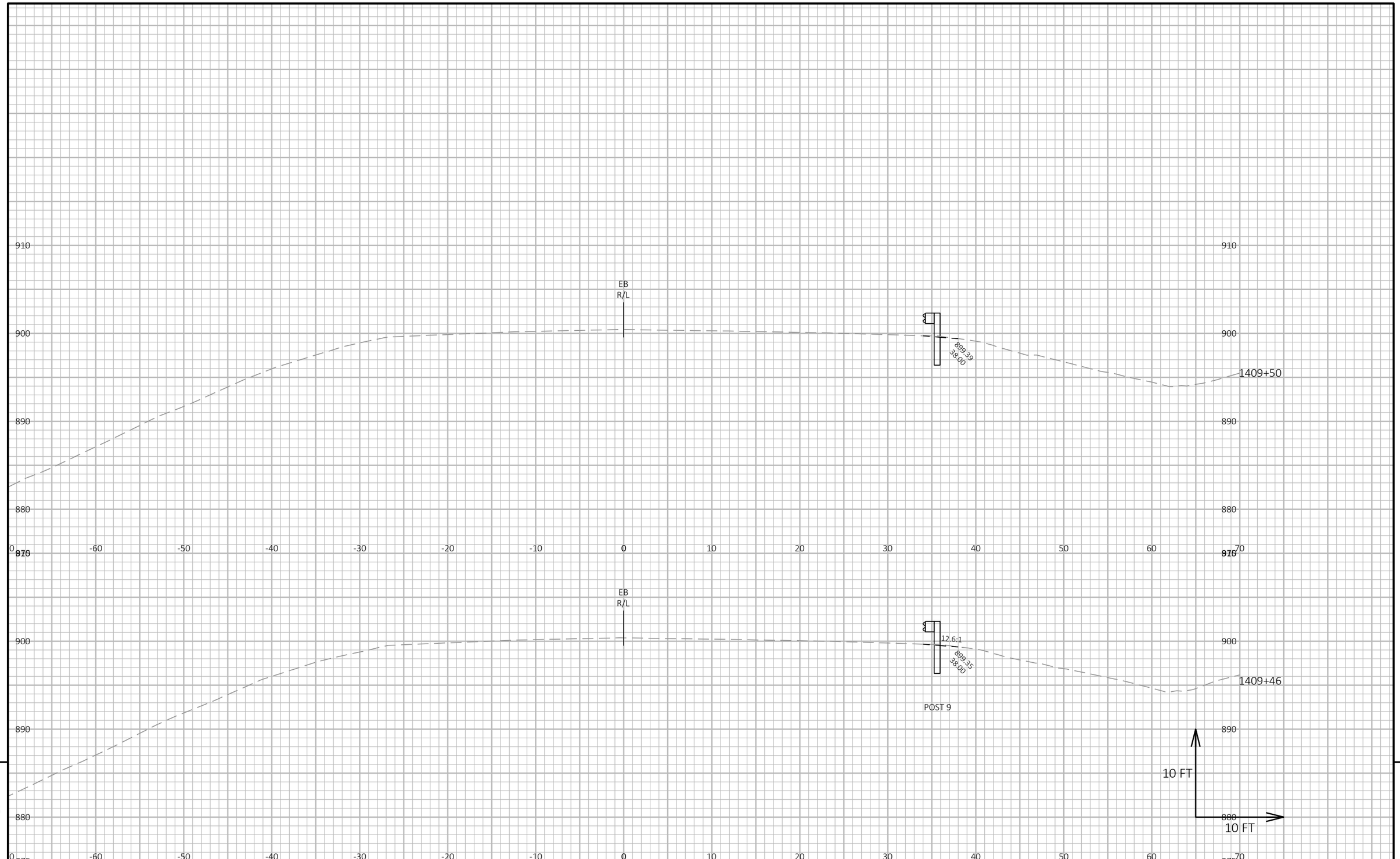
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 185	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

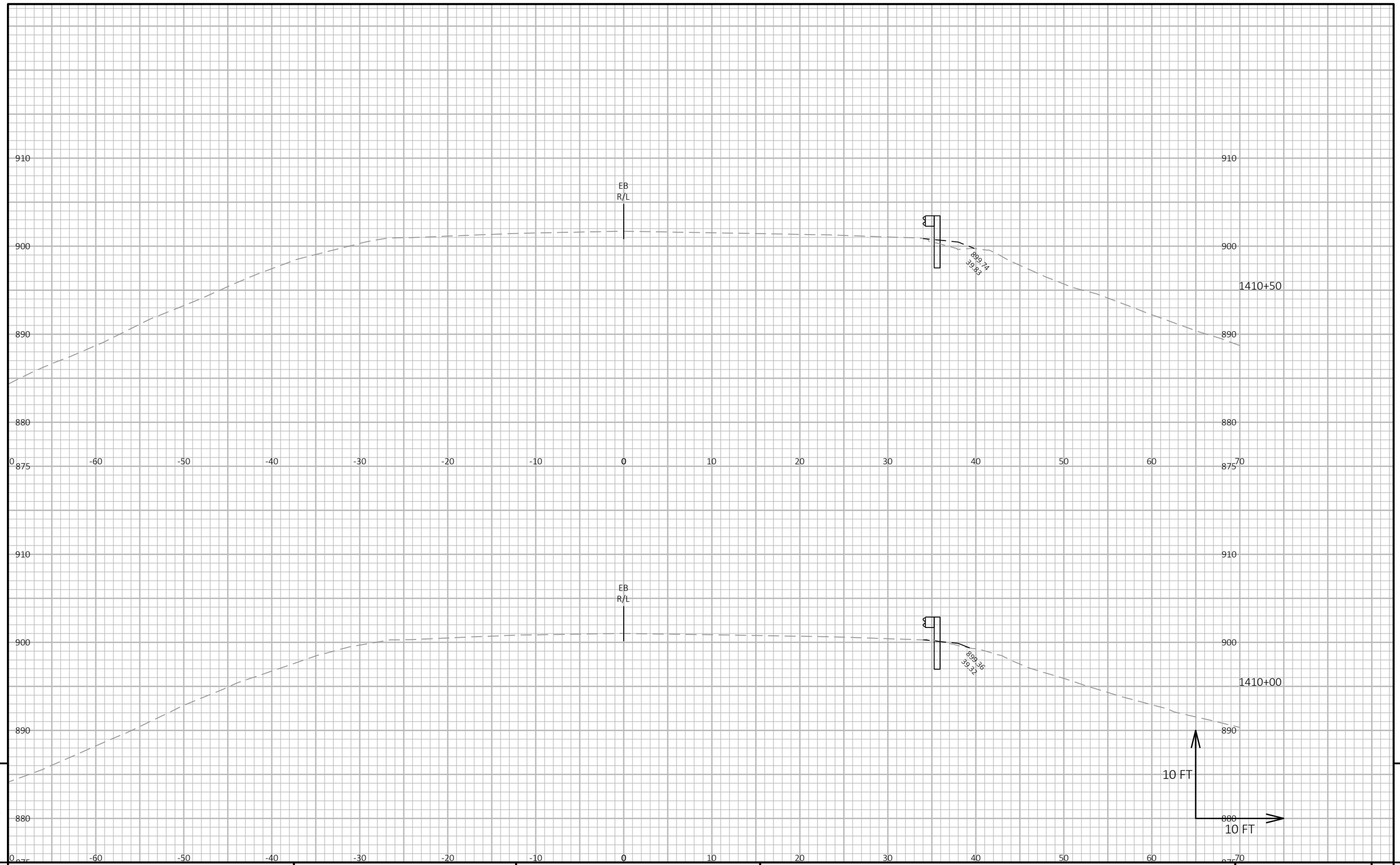
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 186	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

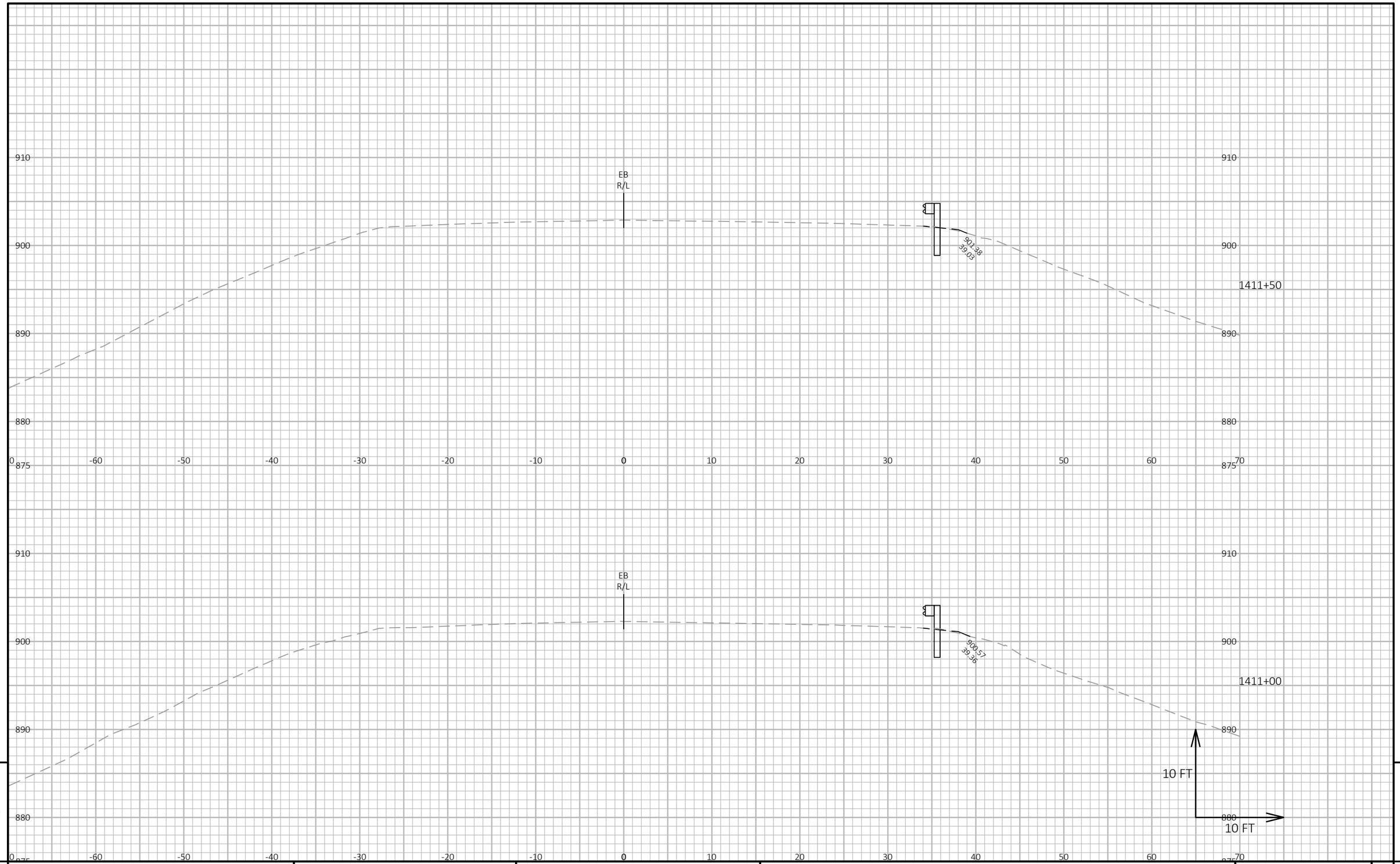
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 187	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



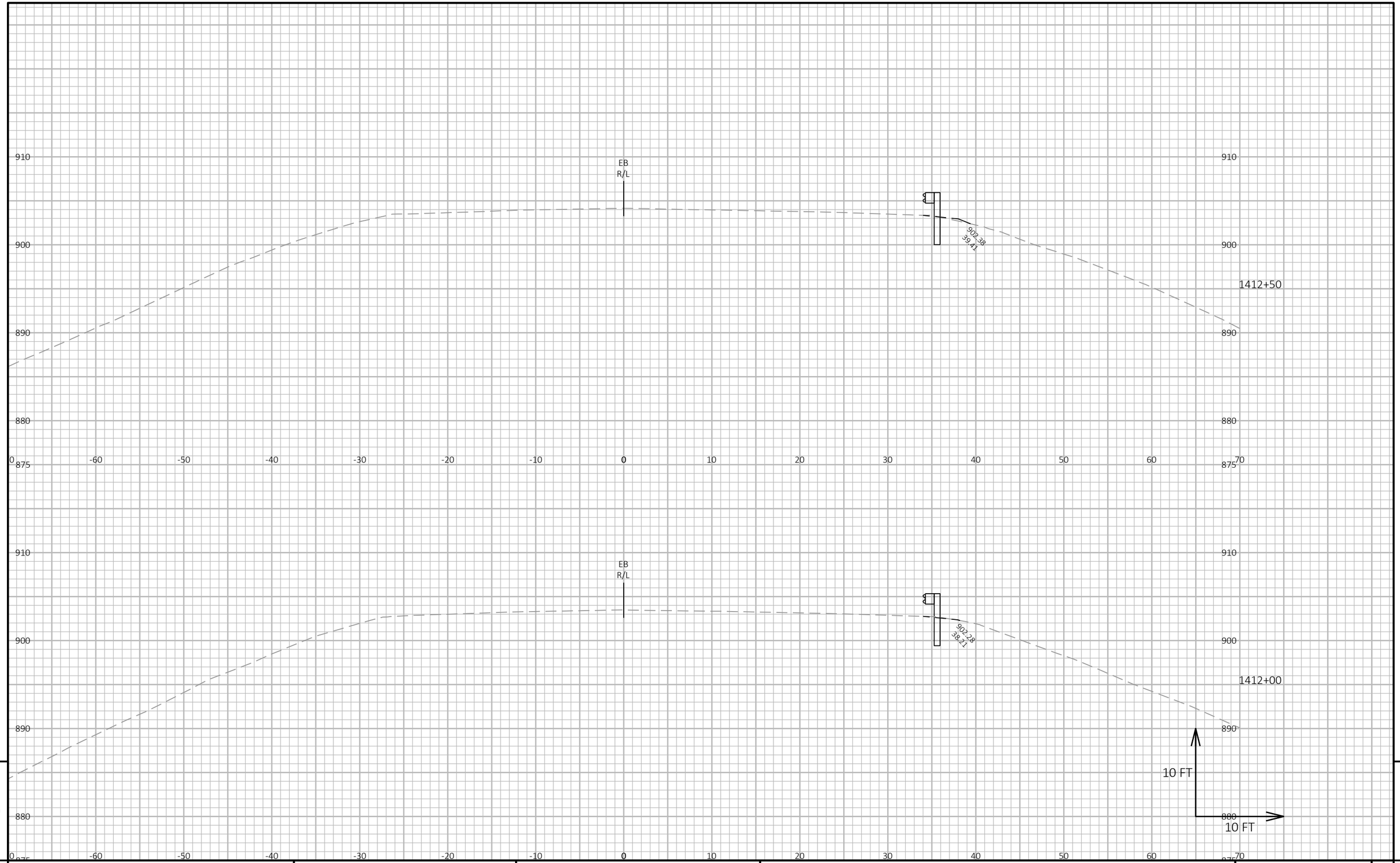
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9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 188	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

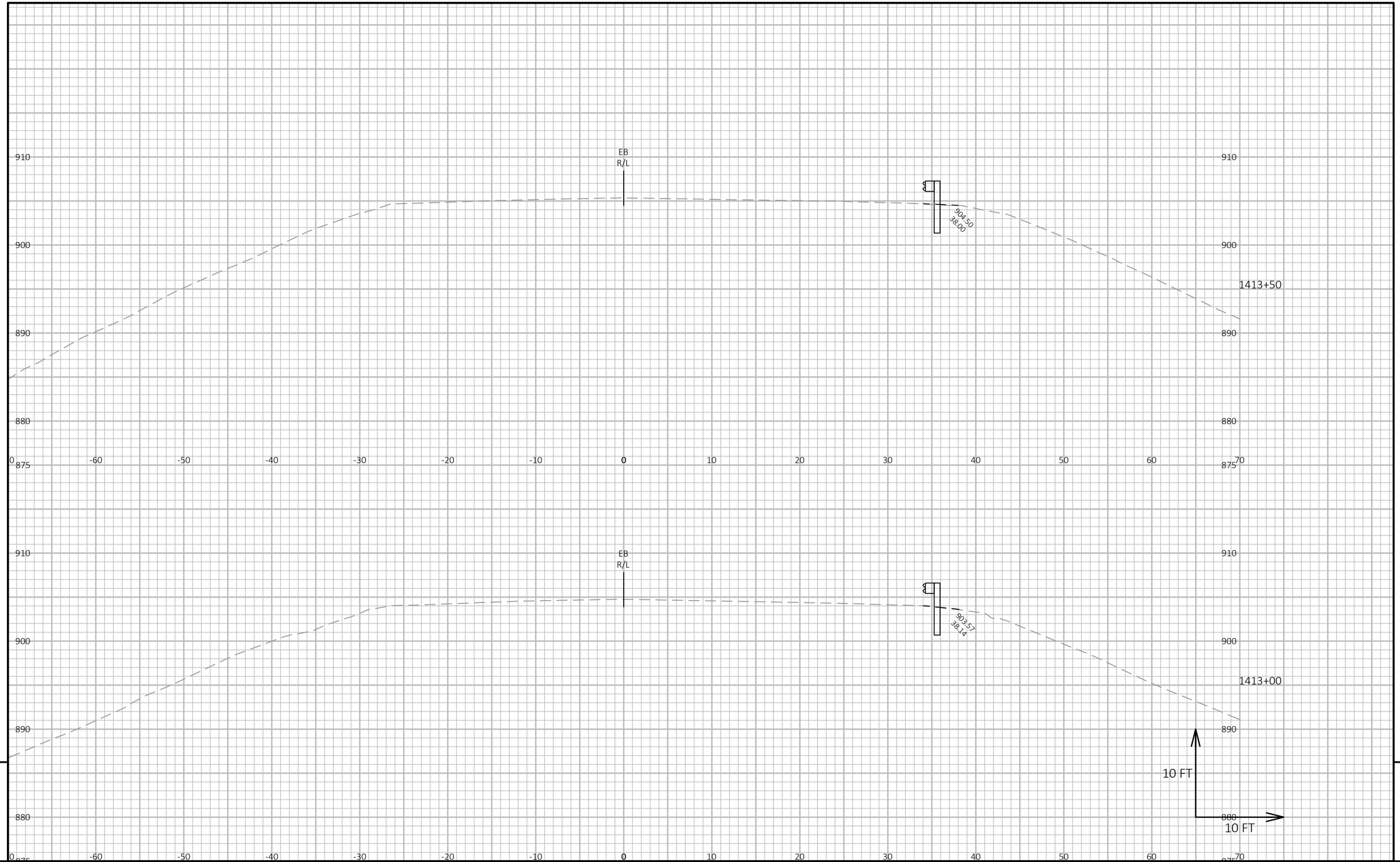
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 189	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

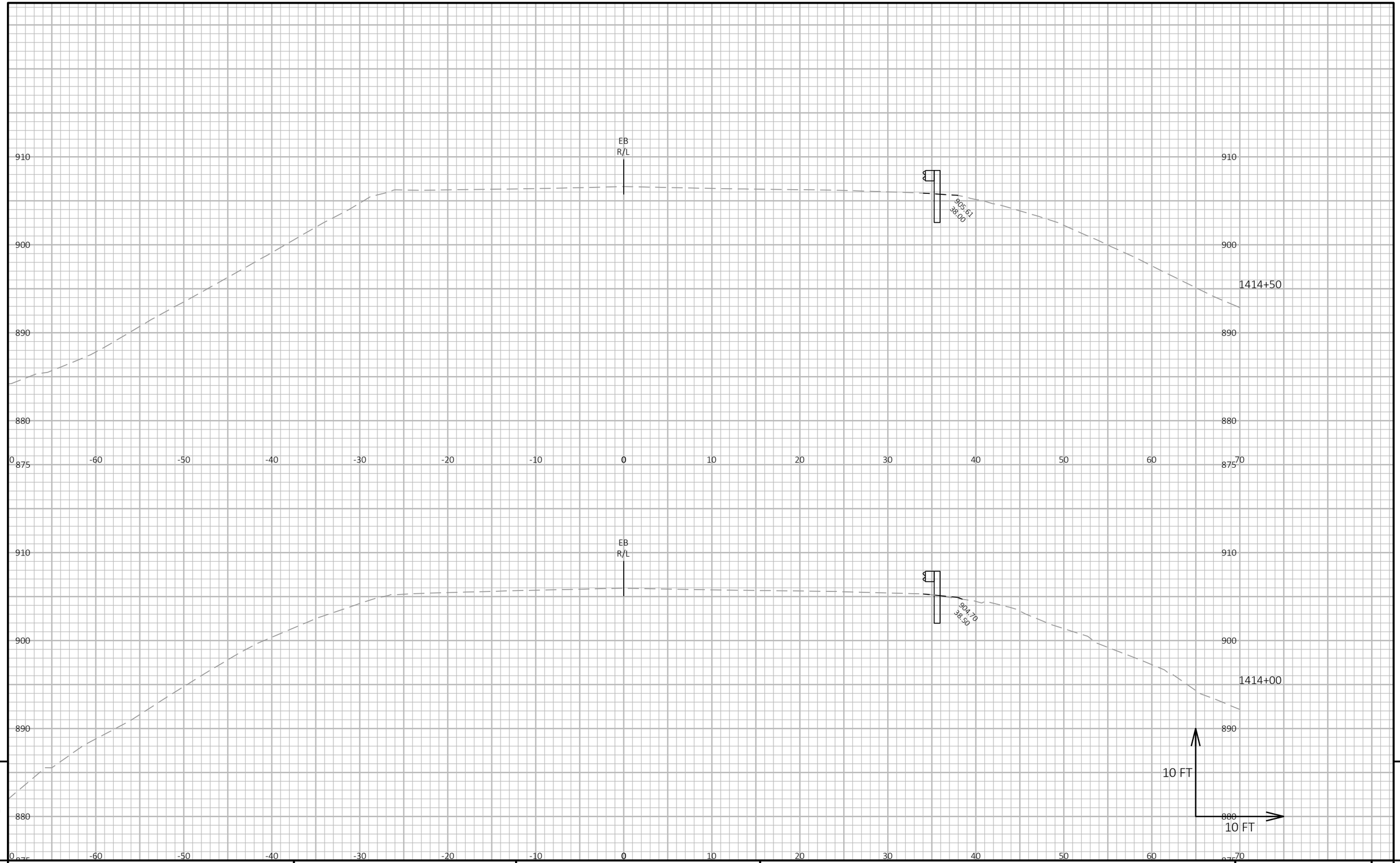
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 190	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



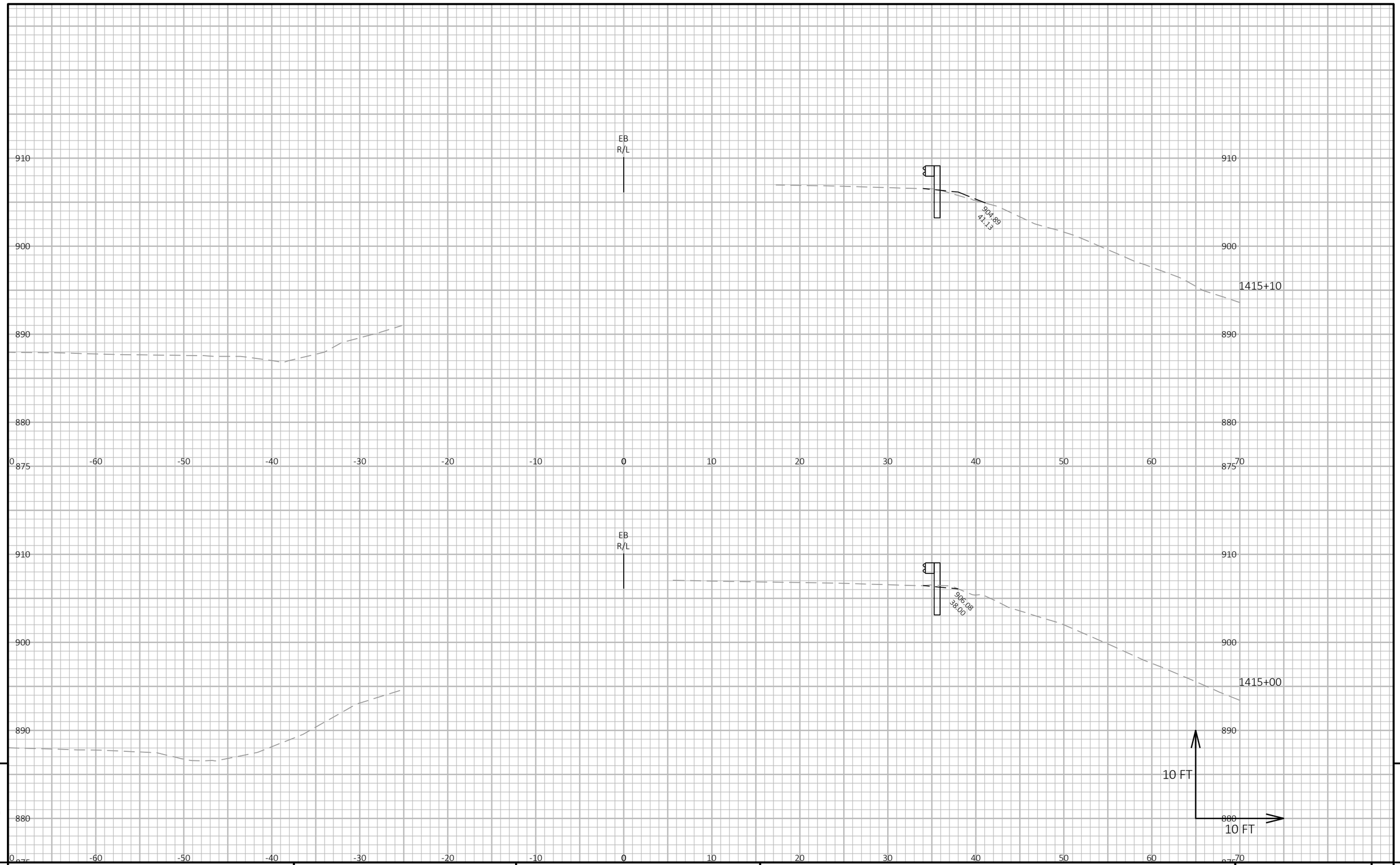
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 191	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 16

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

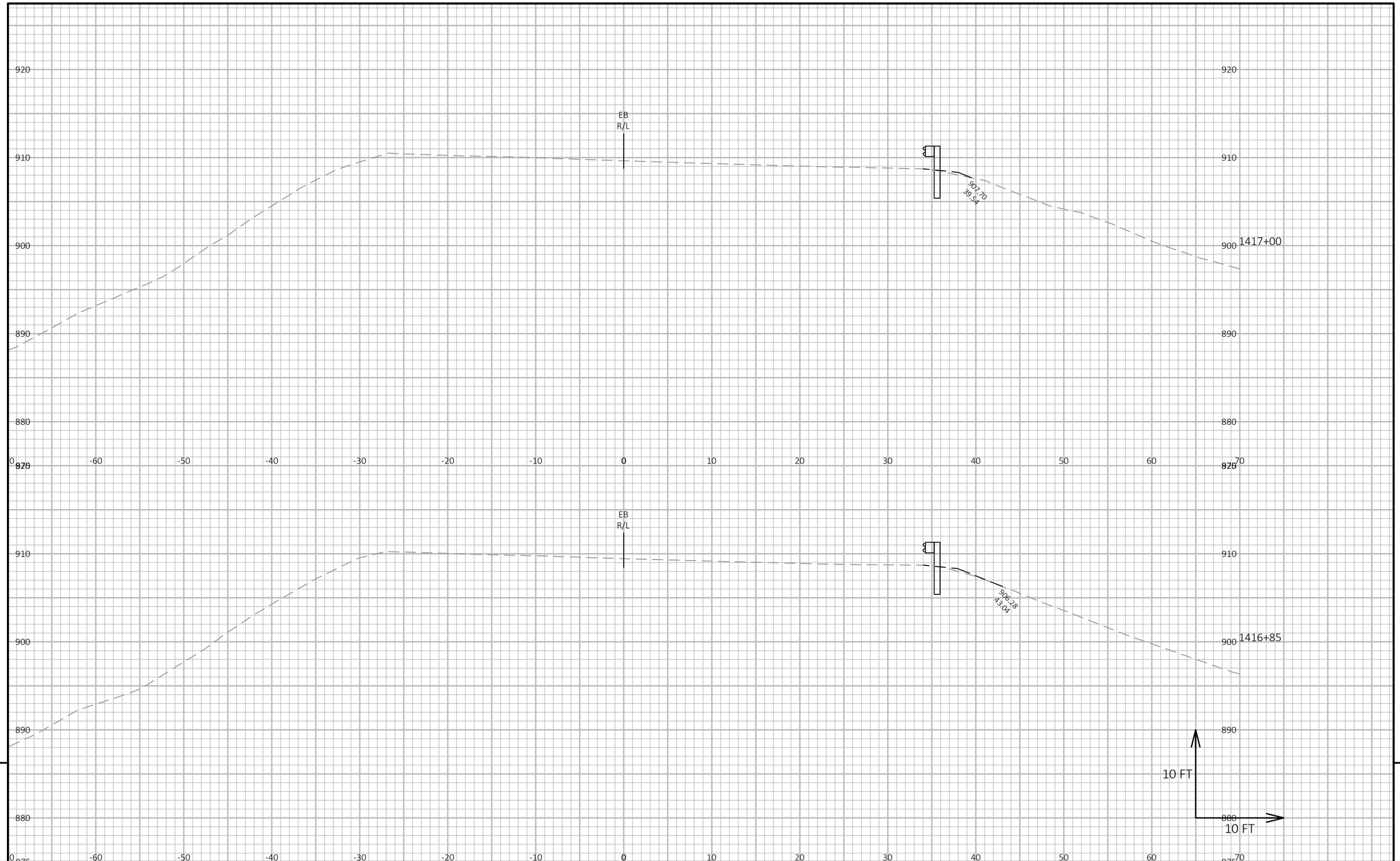
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 192	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 17

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

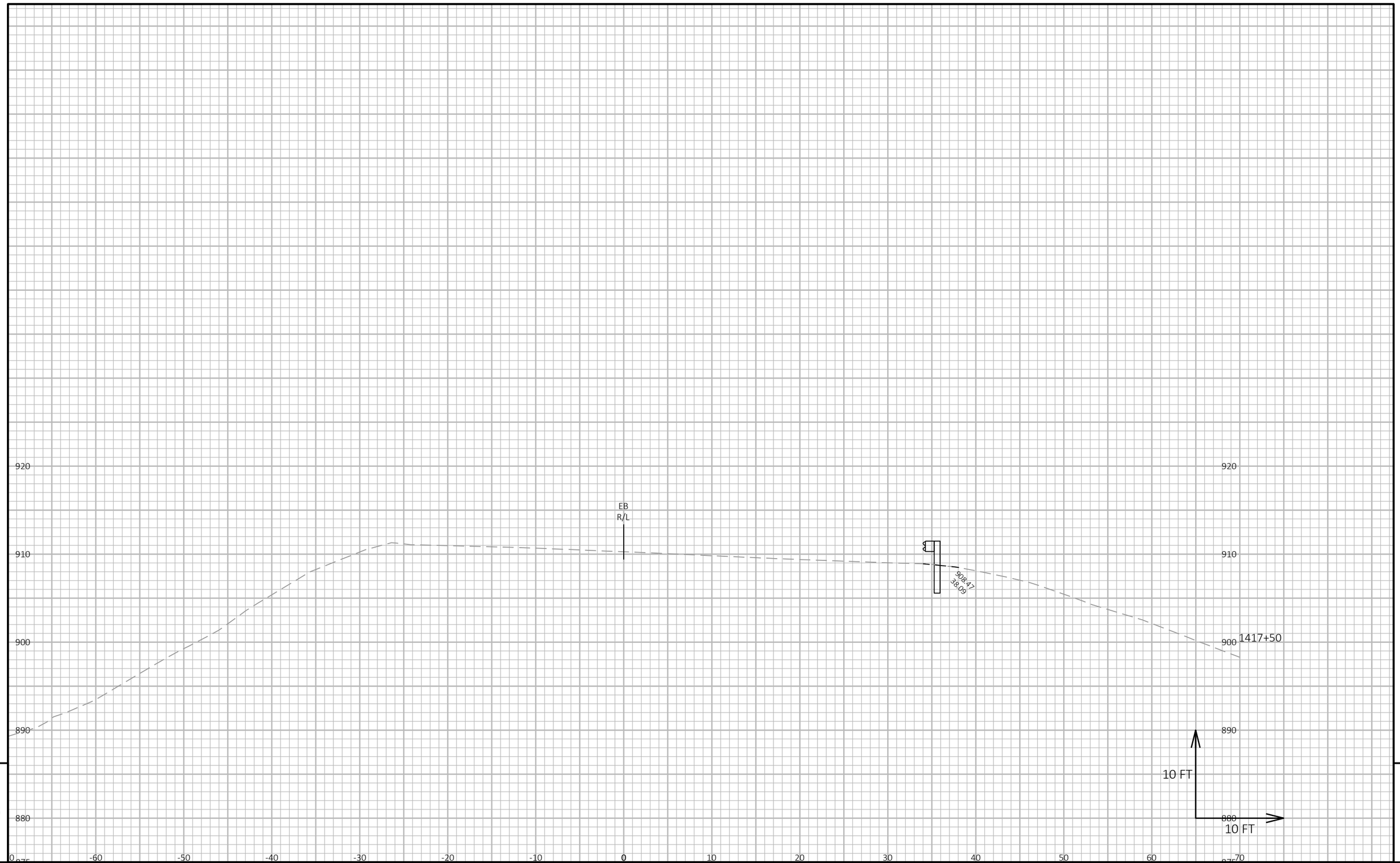


PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 193	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



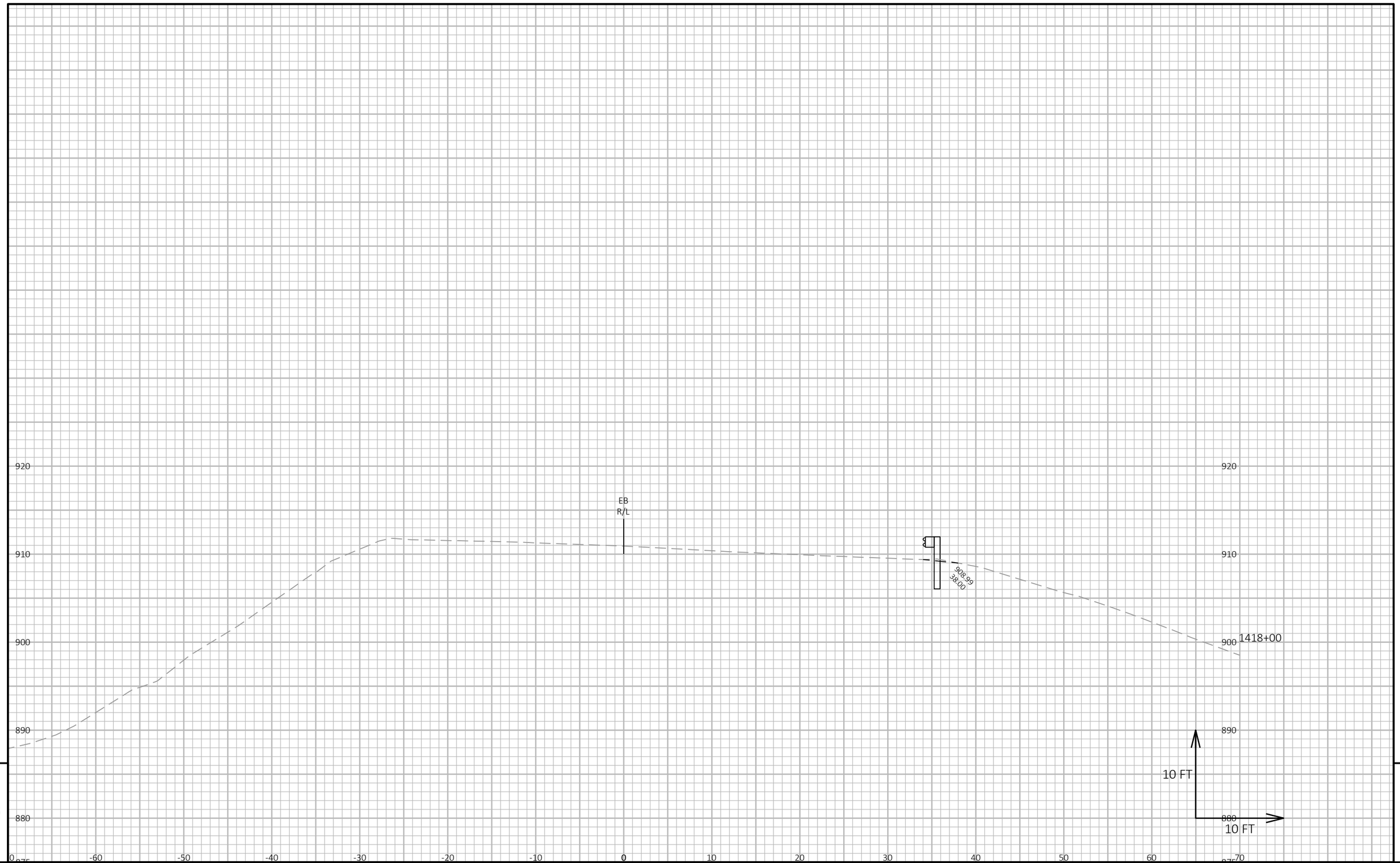
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 194	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 195	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 20

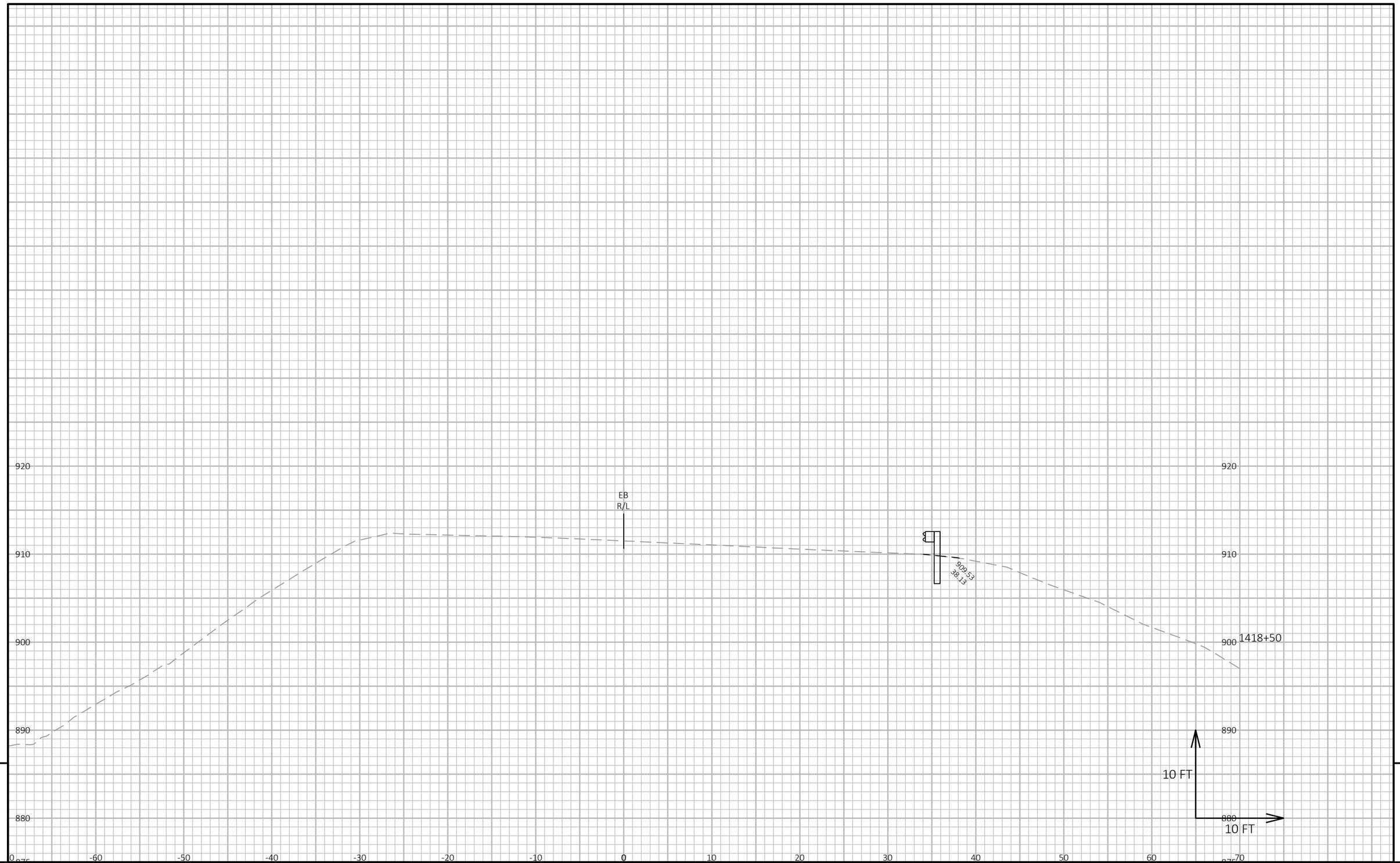
PLOT DATE : 8/20/2025 2:42 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



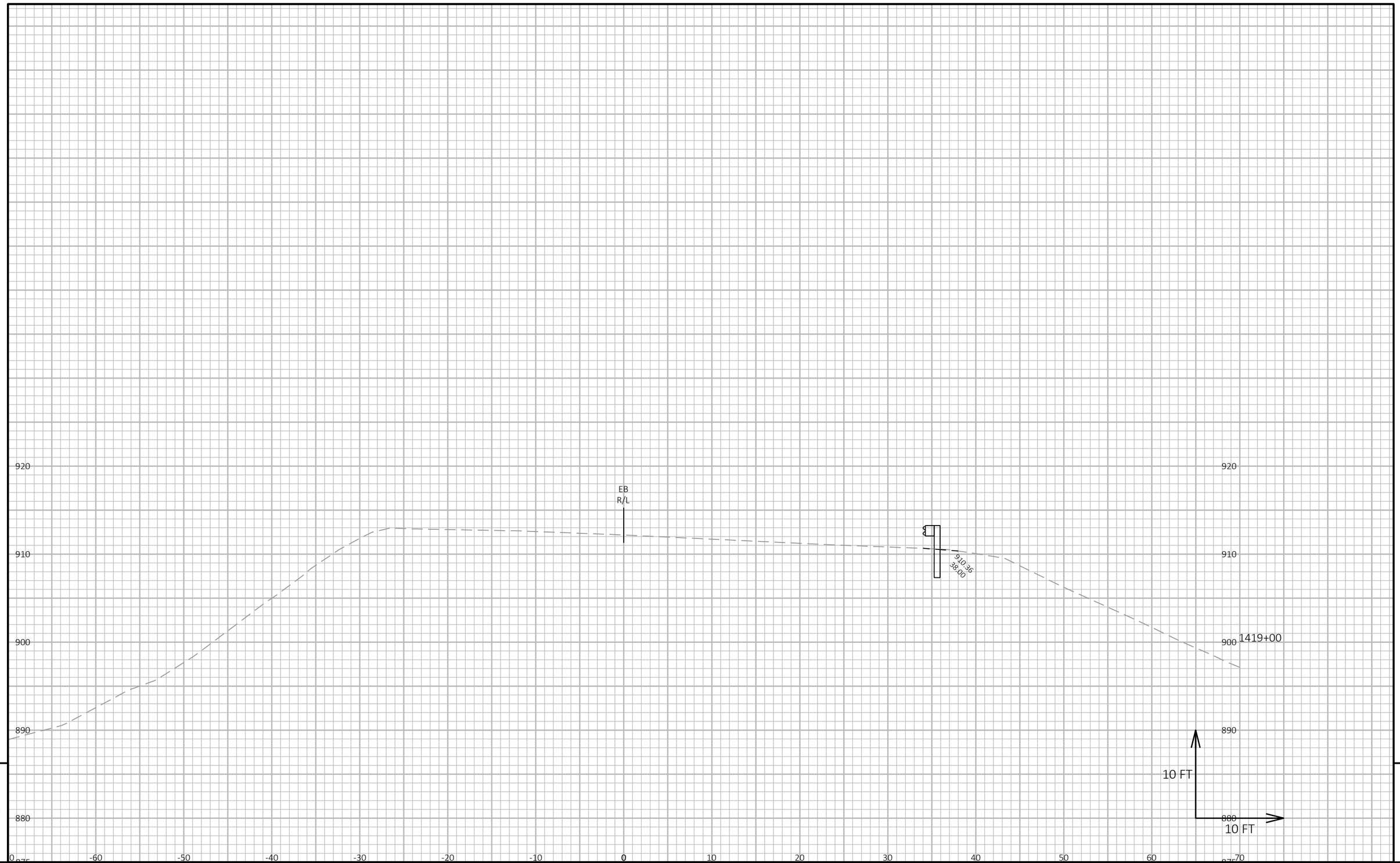
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 196	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 21

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

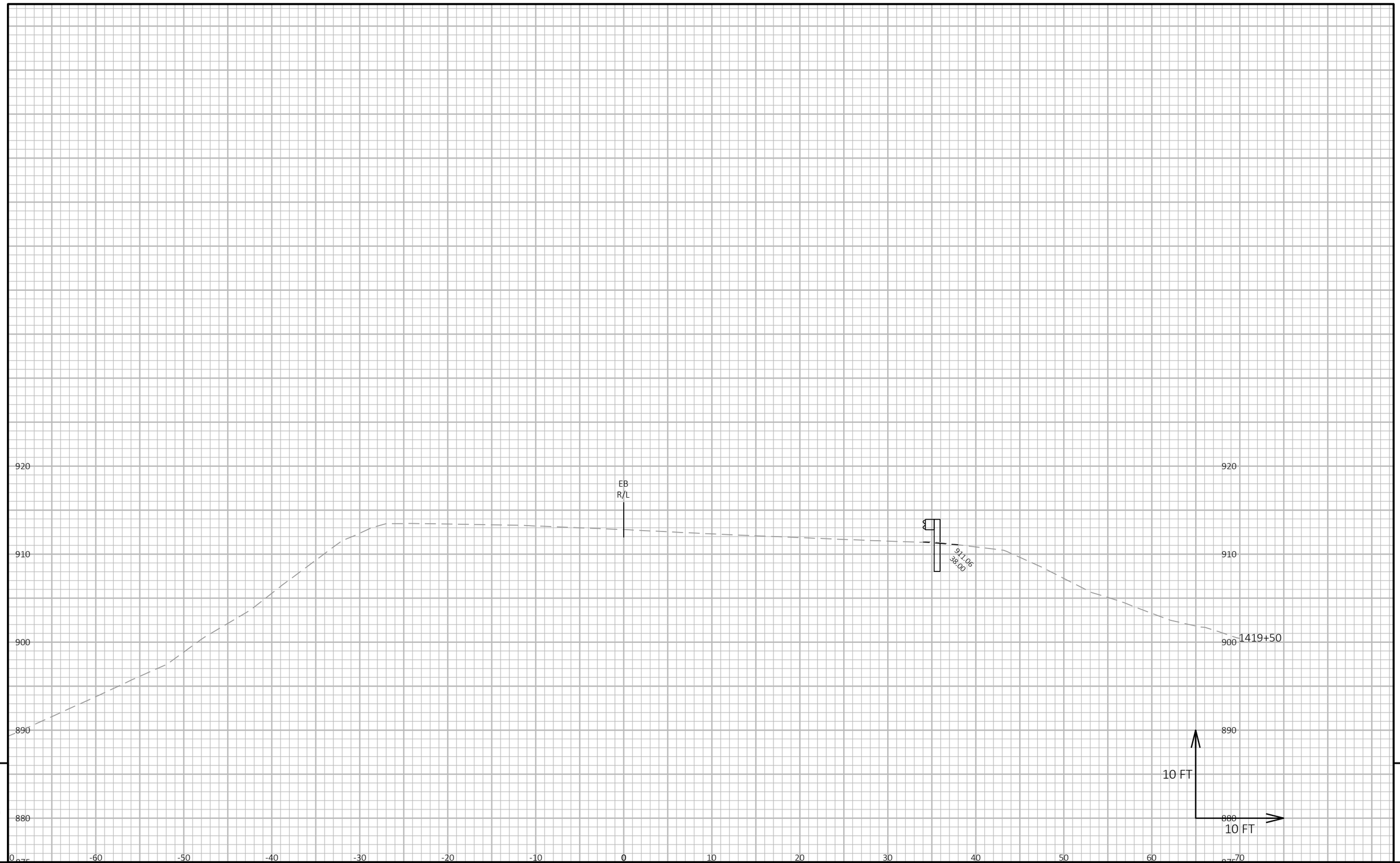


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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 197	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 22

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

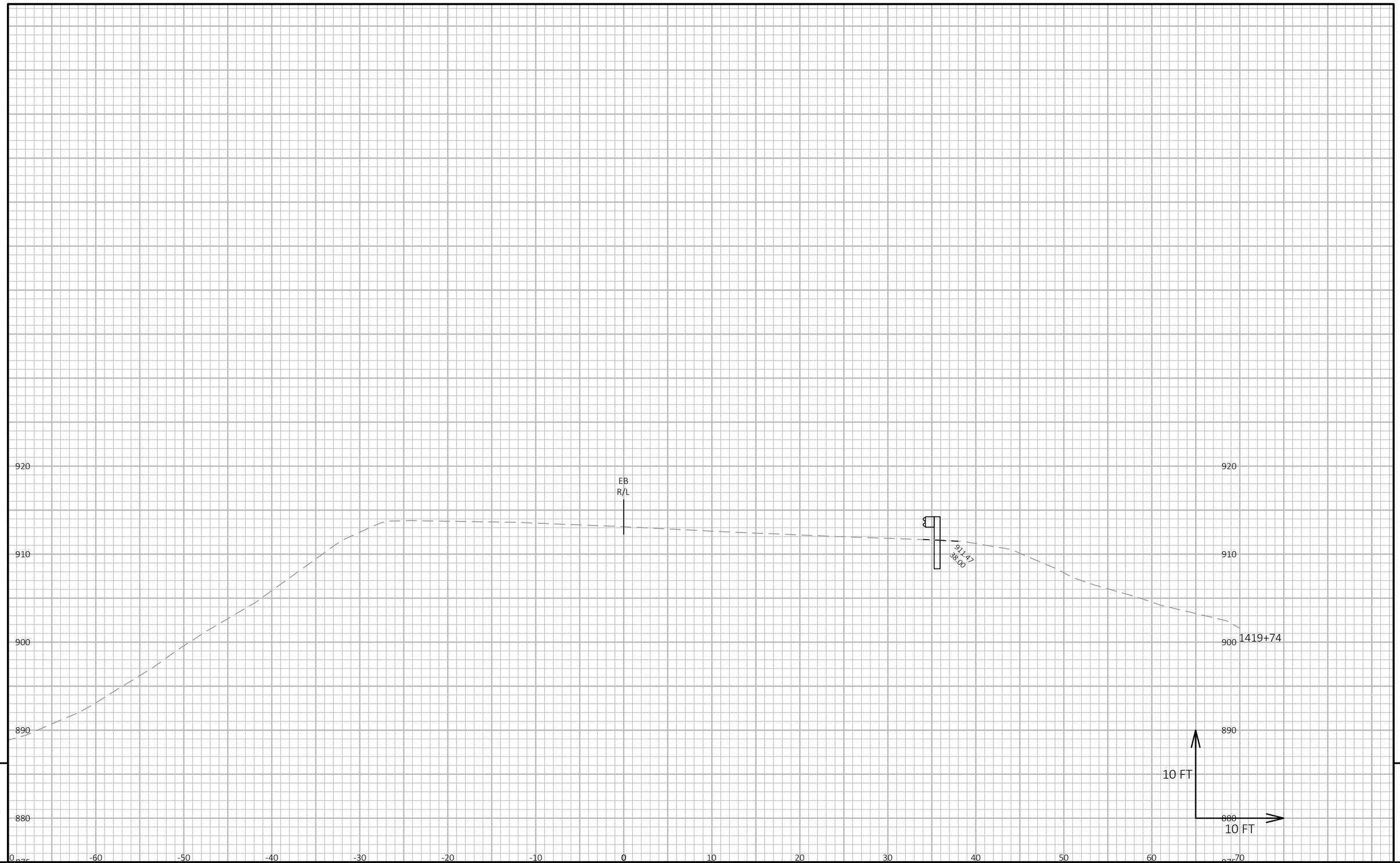


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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 198	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 23

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

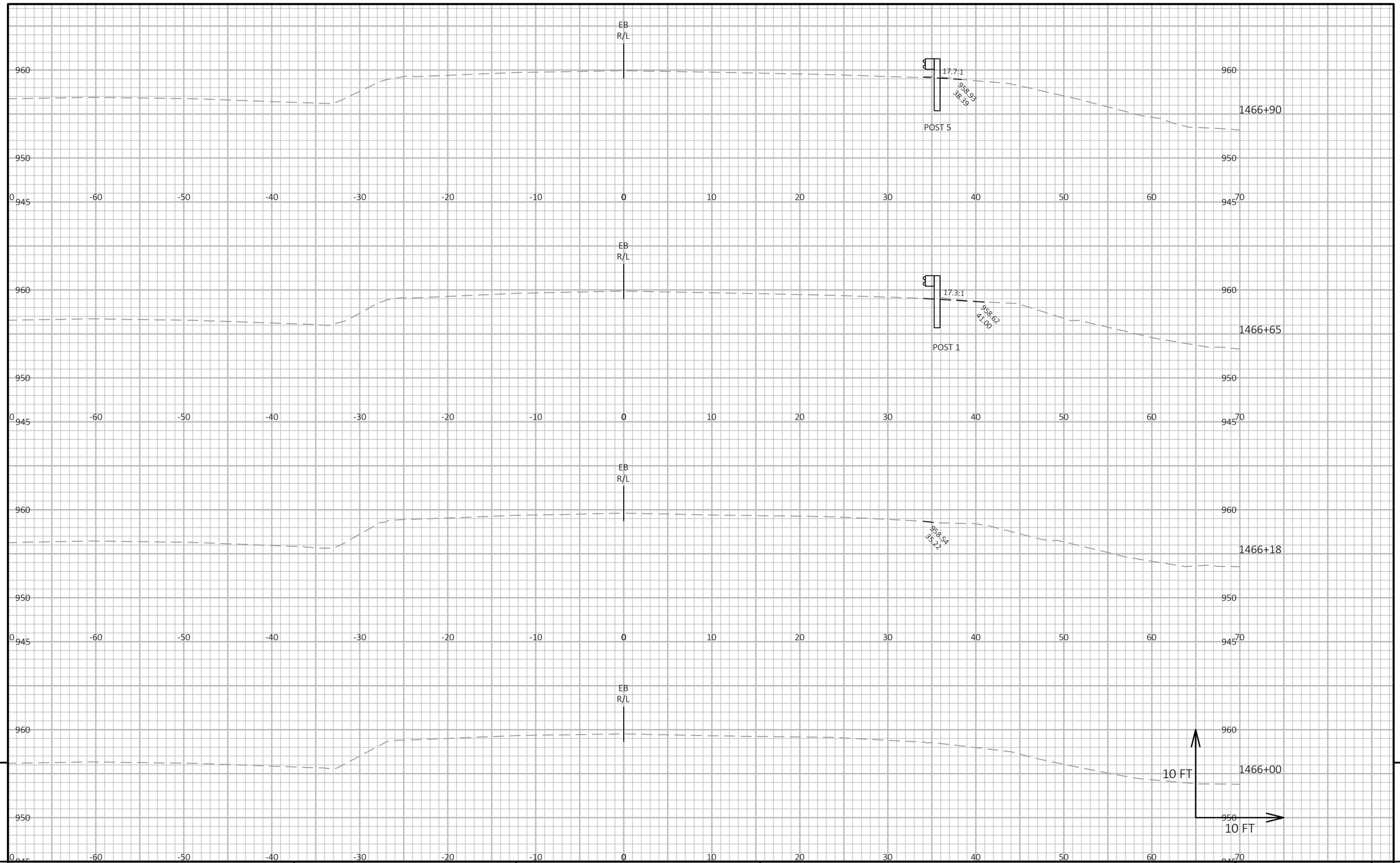
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 199	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 24

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



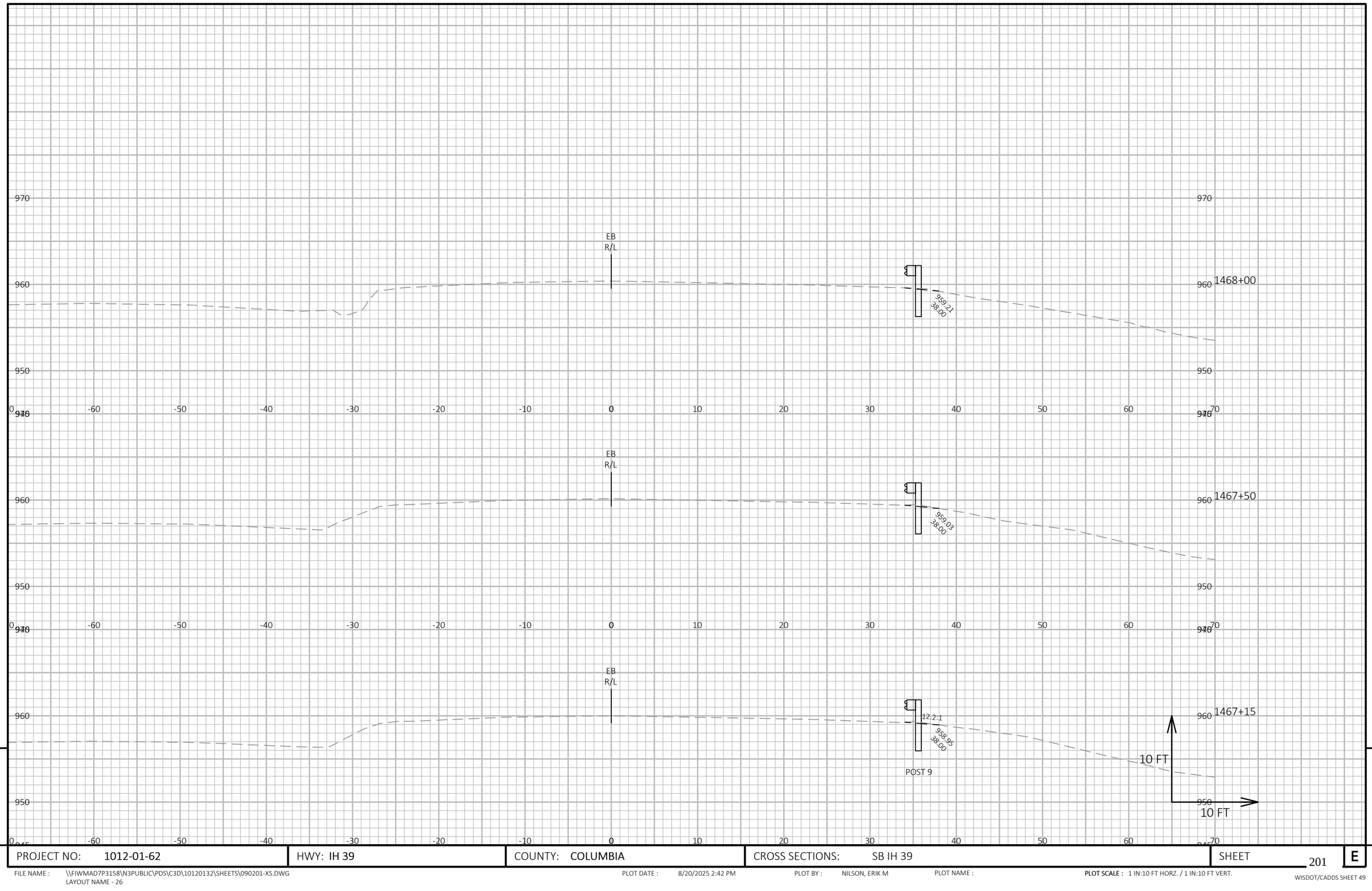
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9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 200	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 25

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



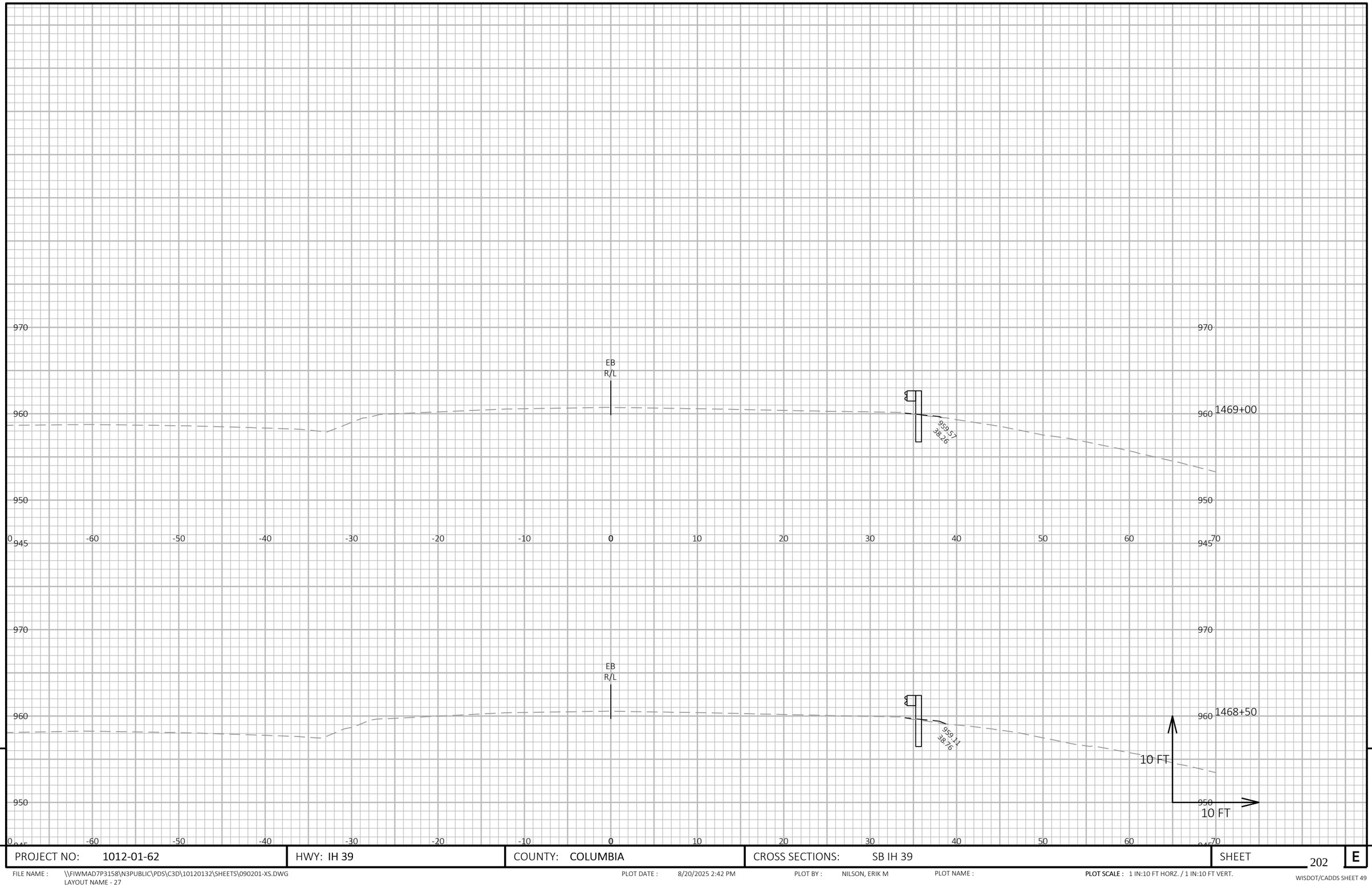
9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 201	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 26

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 202	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 27

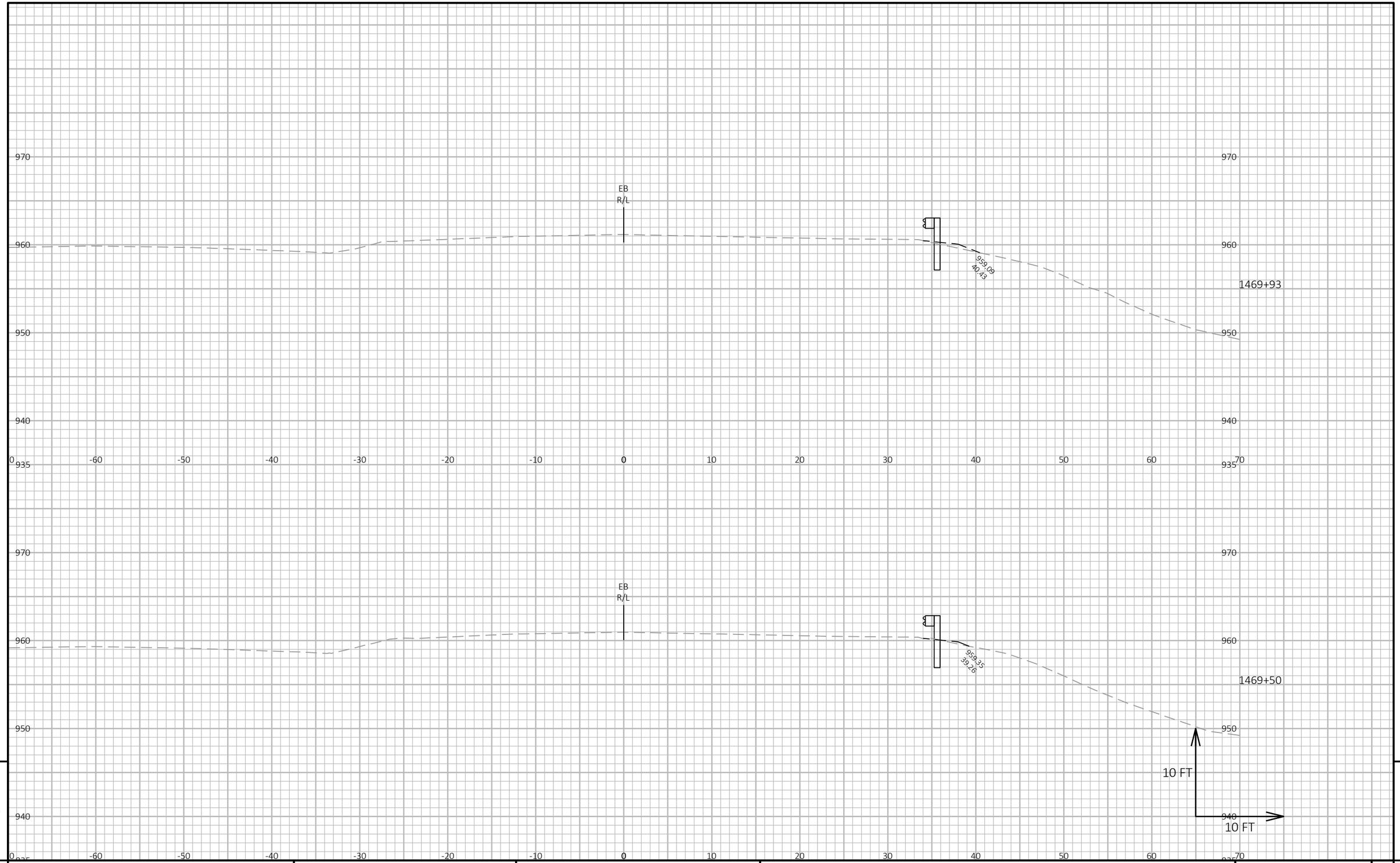
PLOT DATE : 8/20/2025 2:42 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

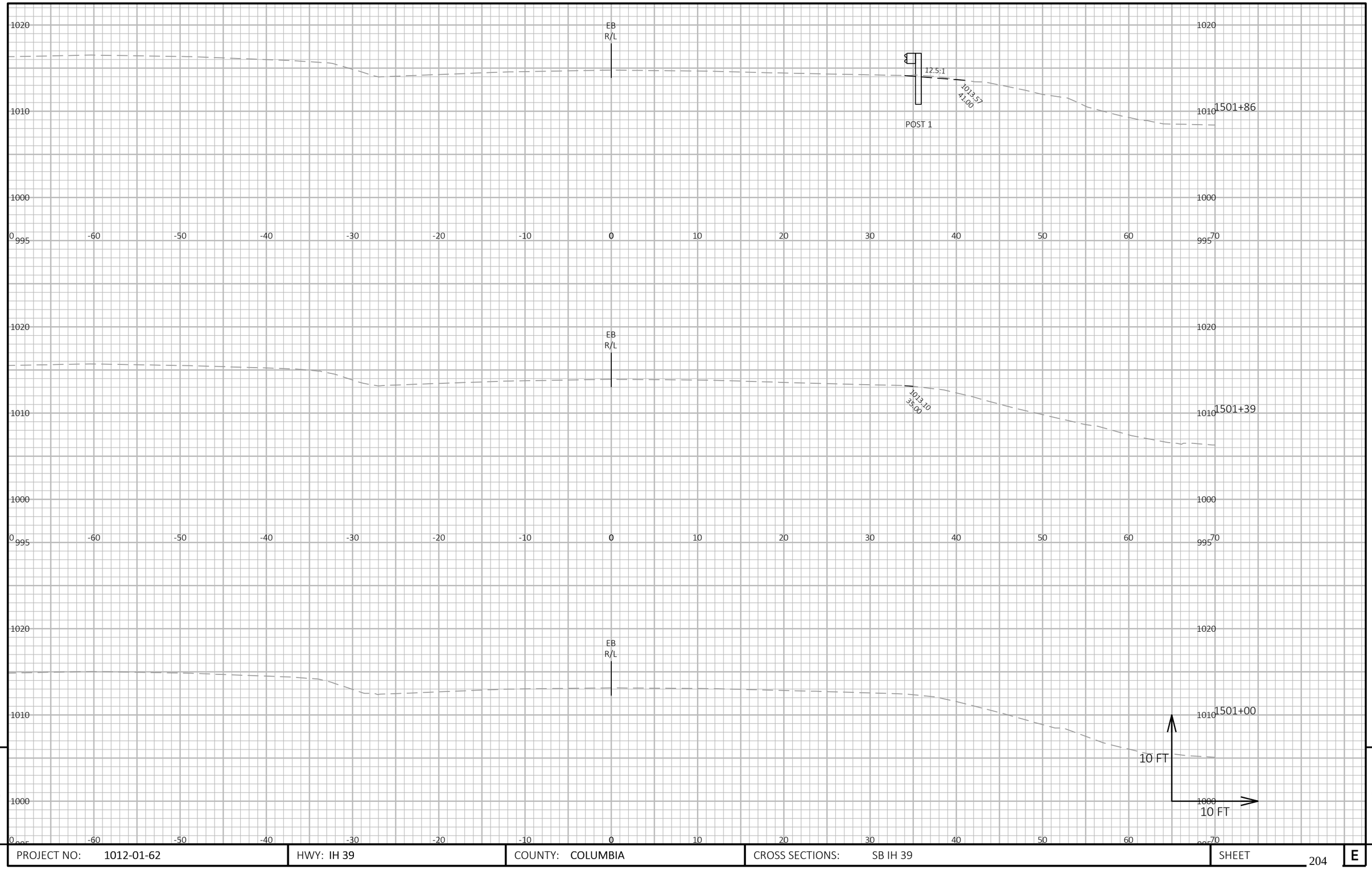
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 203	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 28

PLOT DATE : 8/20/2025 2:42 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

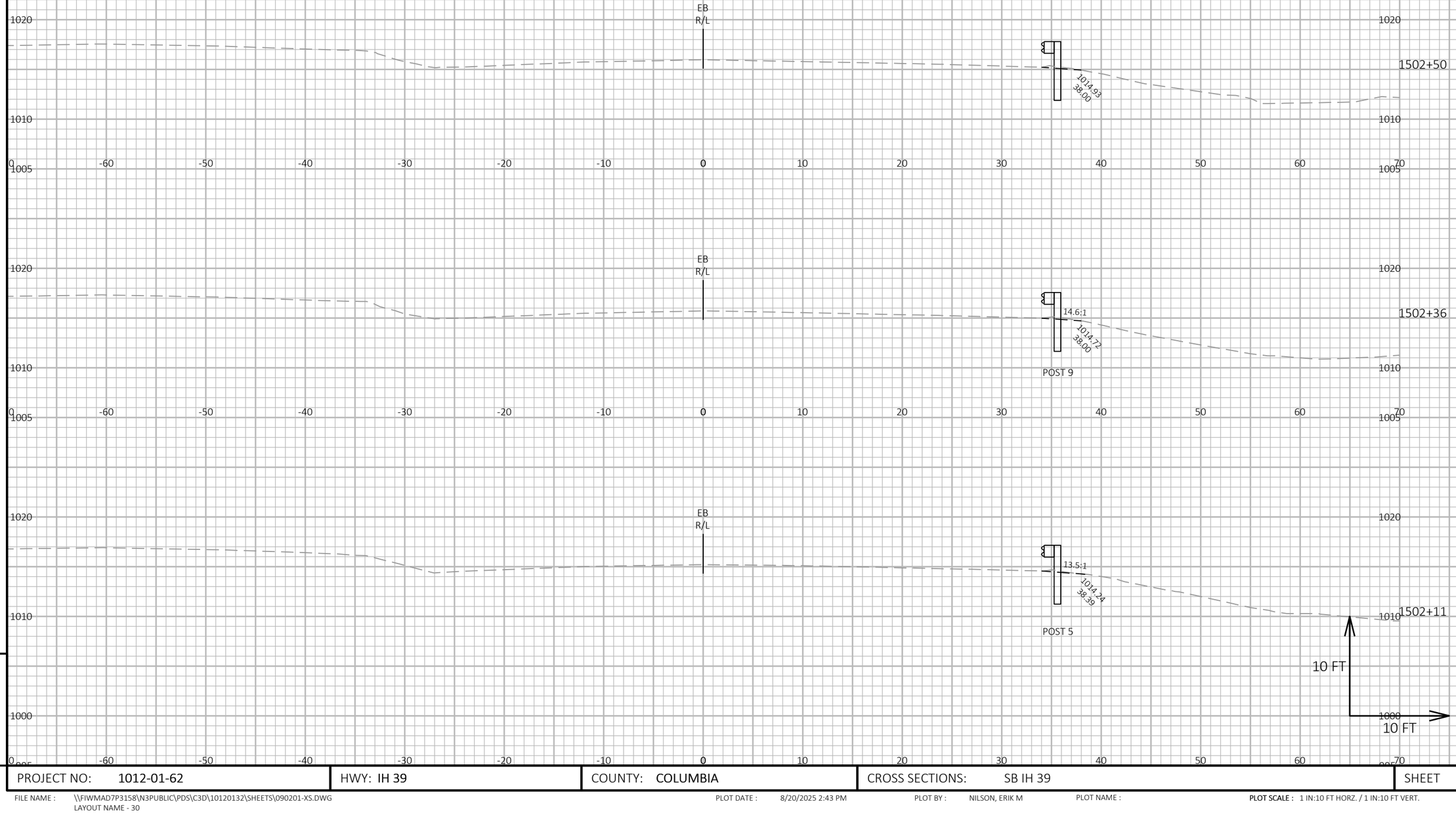
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 204	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 29

PLOT DATE : 8/20/2025 2:43 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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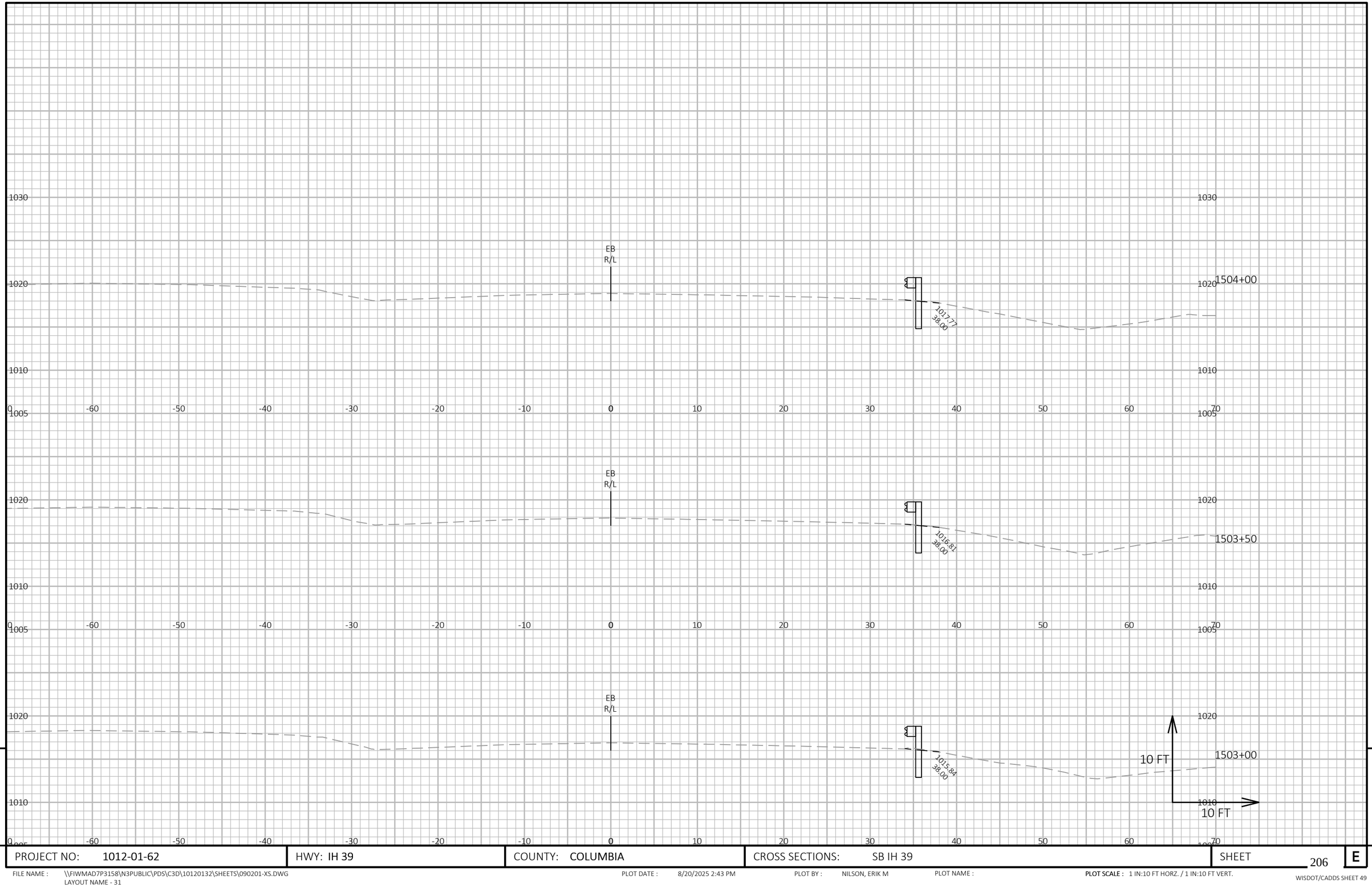
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 205	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 30

PLOT DATE : 8/20/2025 2:43 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

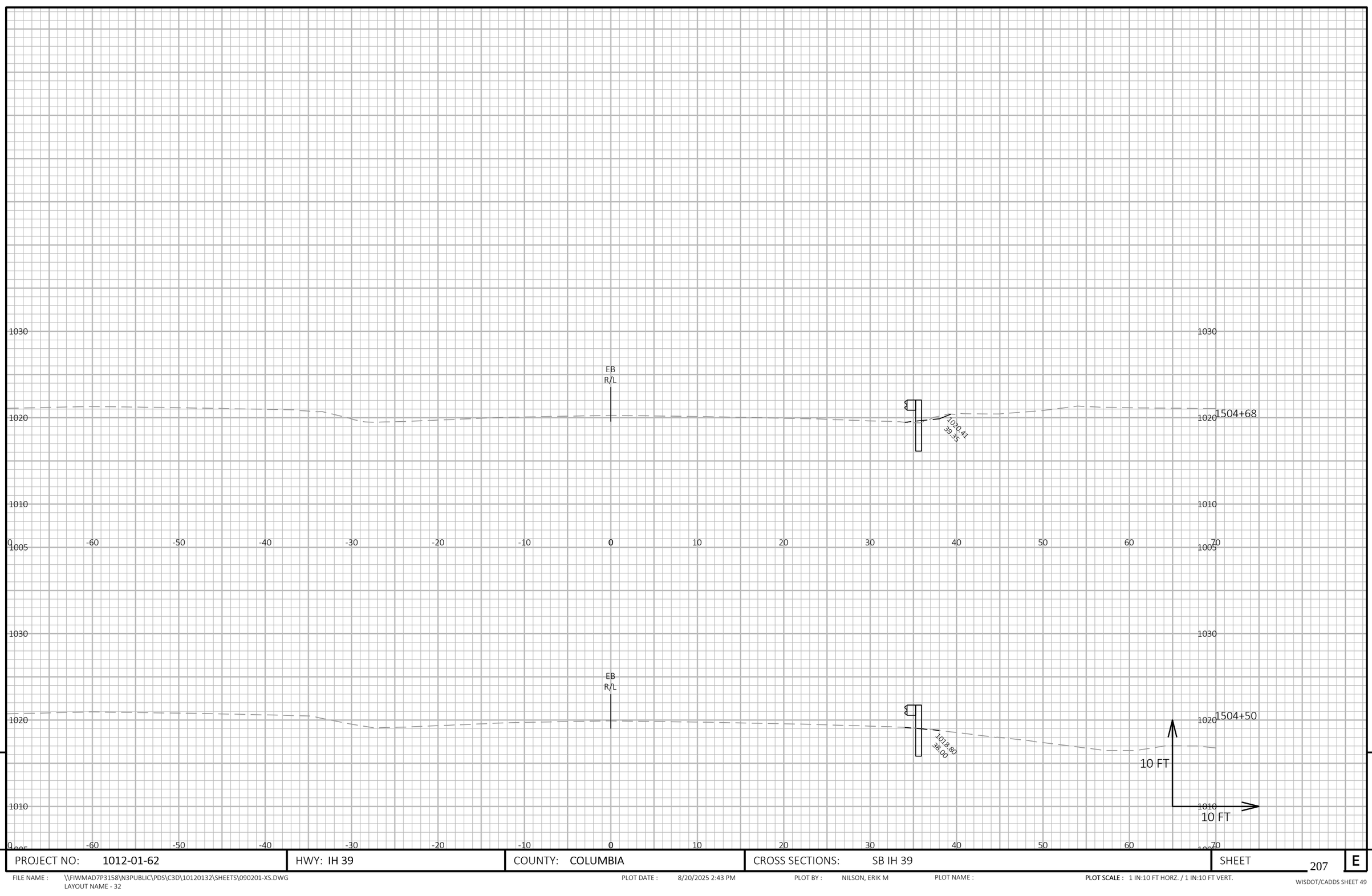
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 206	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 31

PLOT DATE : 8/20/2025 2:43 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

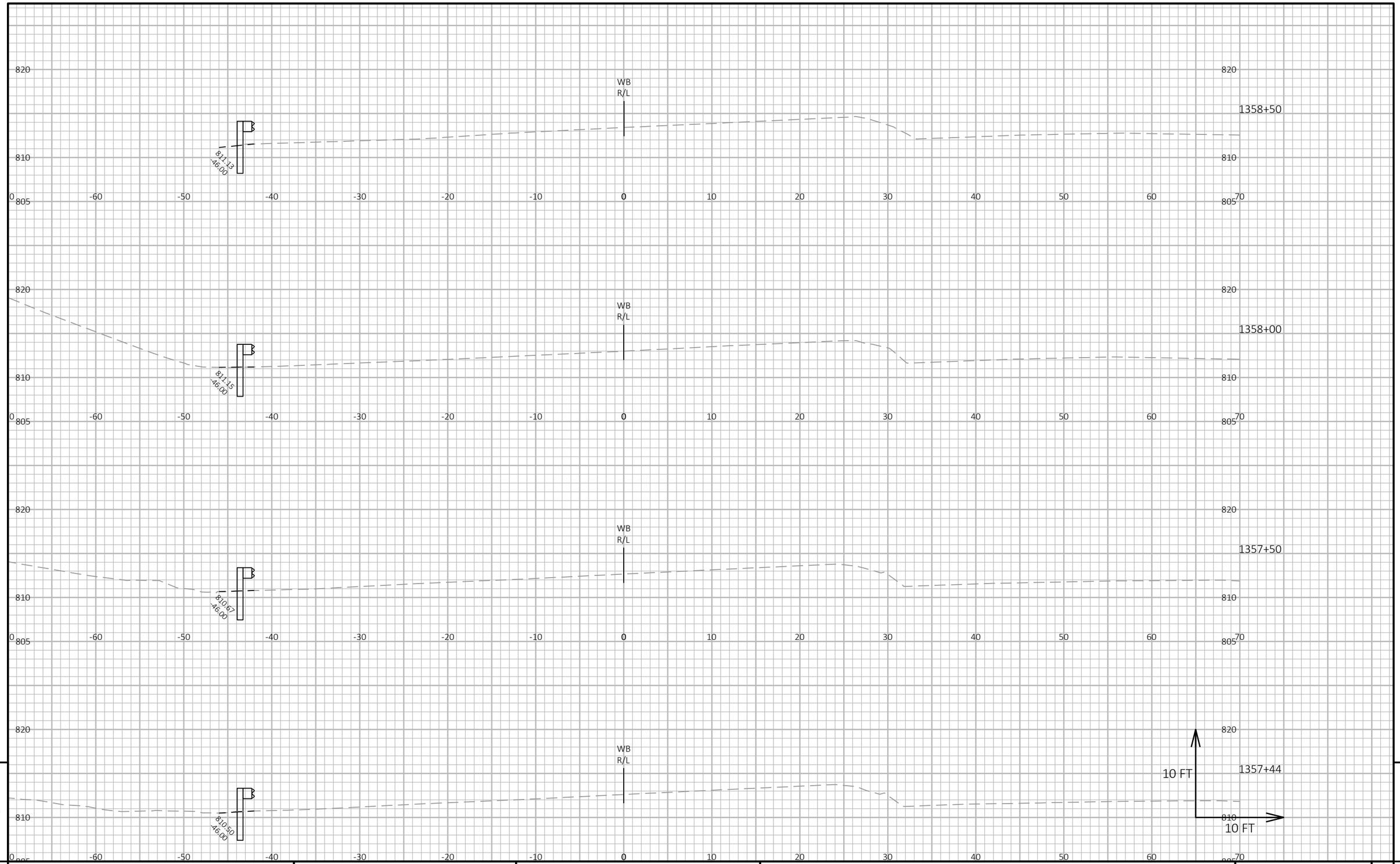
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: SB IH 39	SHEET 207	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090201-XS.DWG
LAYOUT NAME - 32

PLOT DATE : 8/20/2025 2:43 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

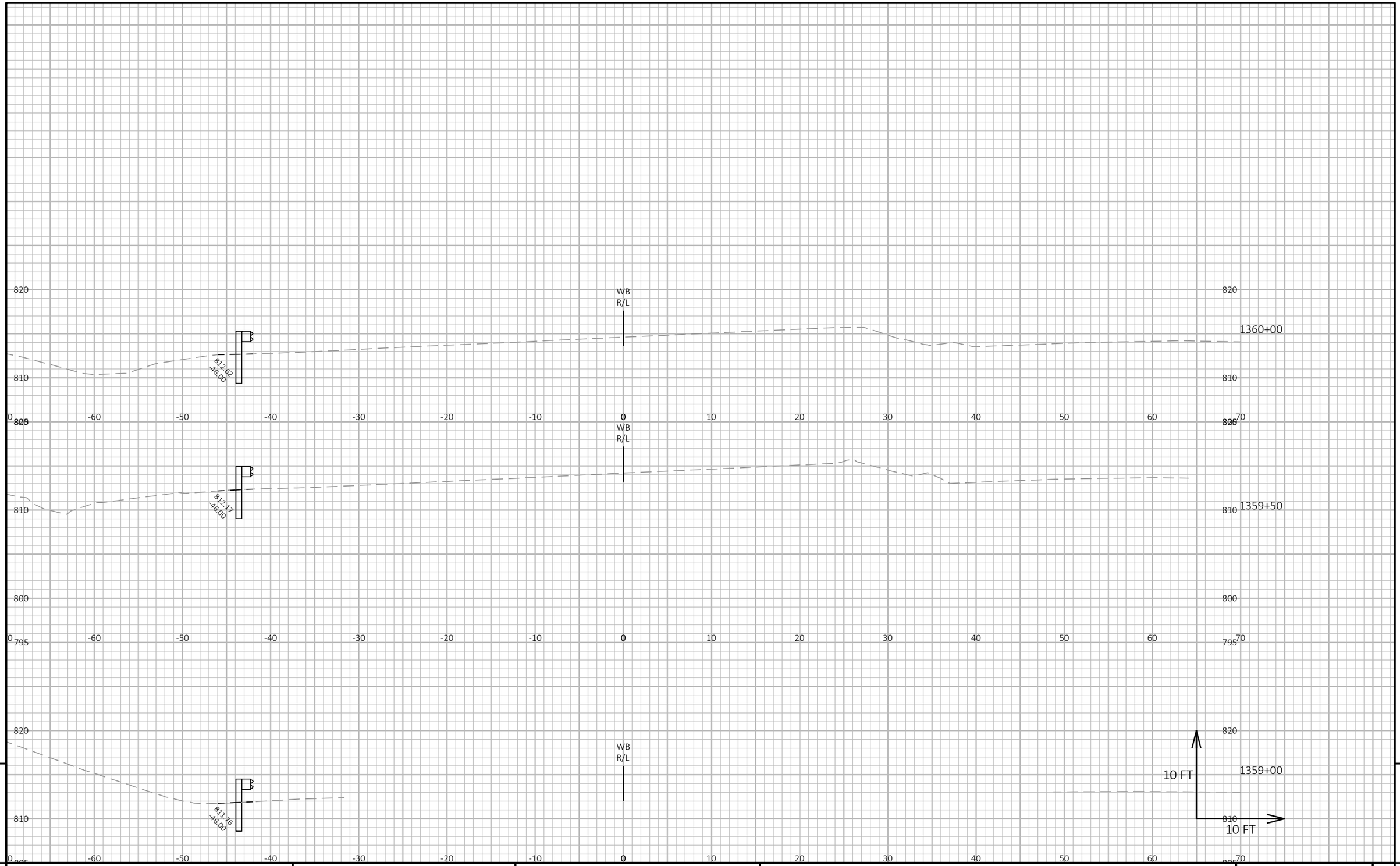
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 208	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 8/20/2025 3:24 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

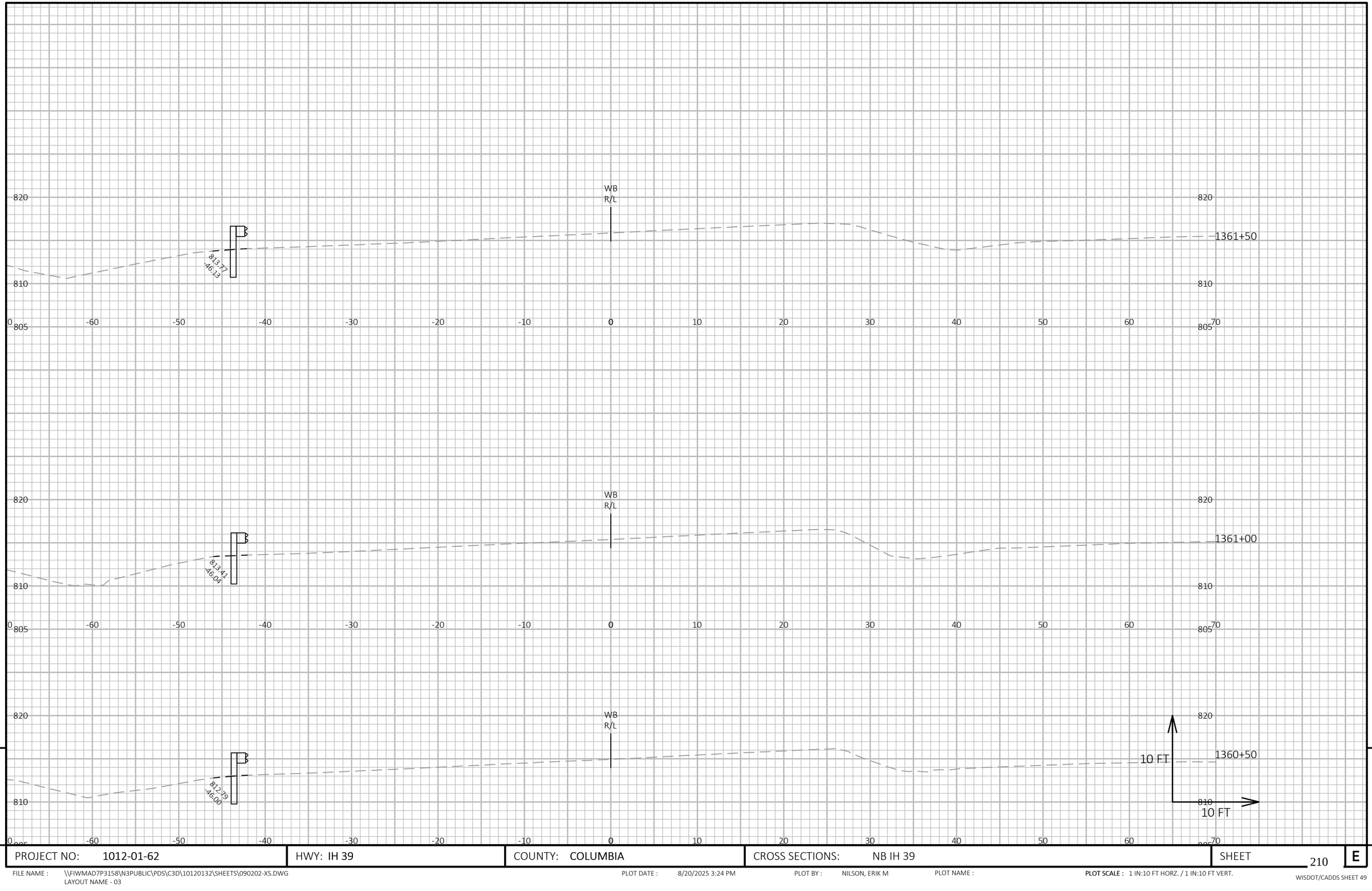
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 209	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 8/20/2025 3:24 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

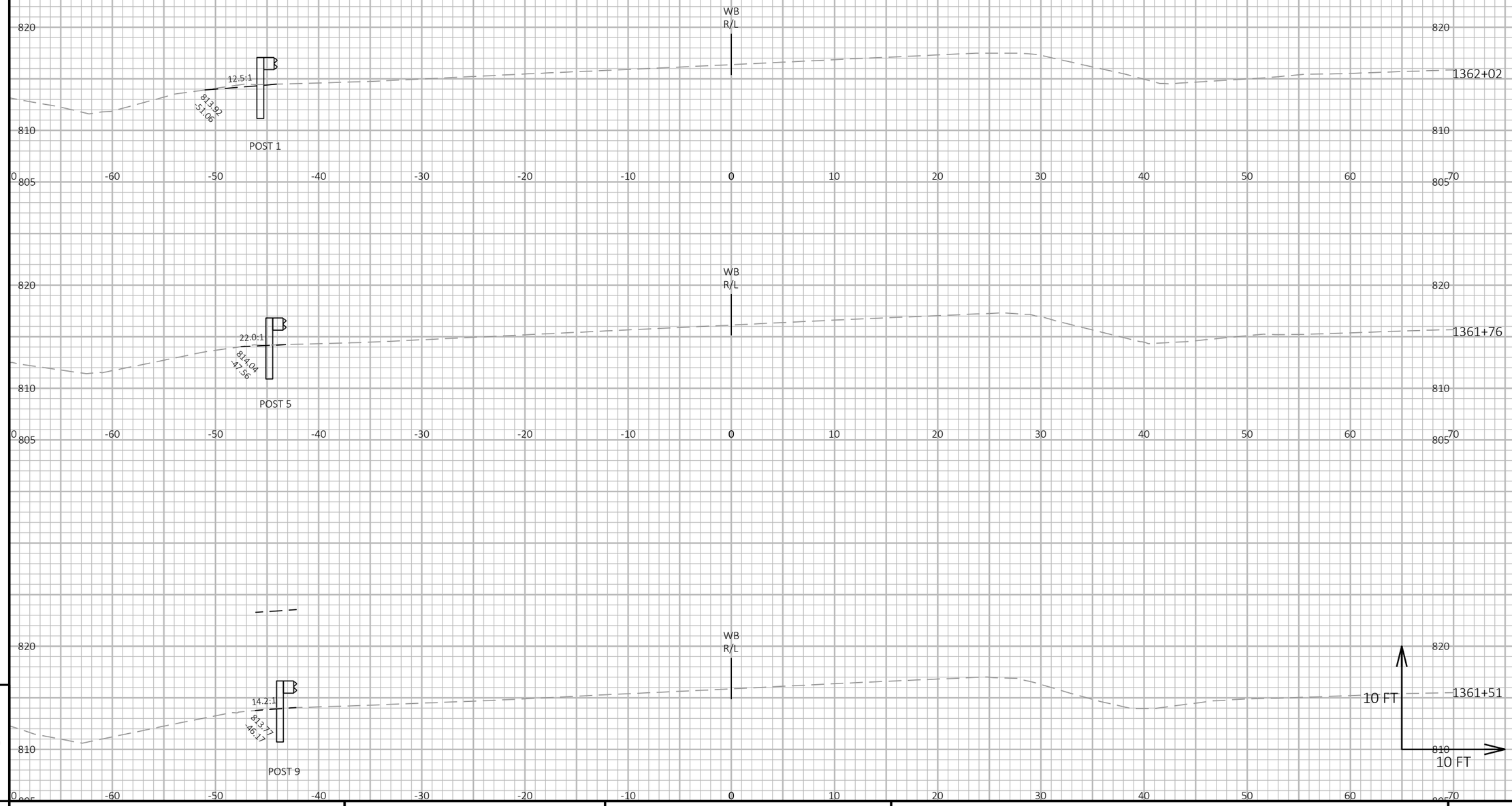
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 210	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 8/20/2025 3:24 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

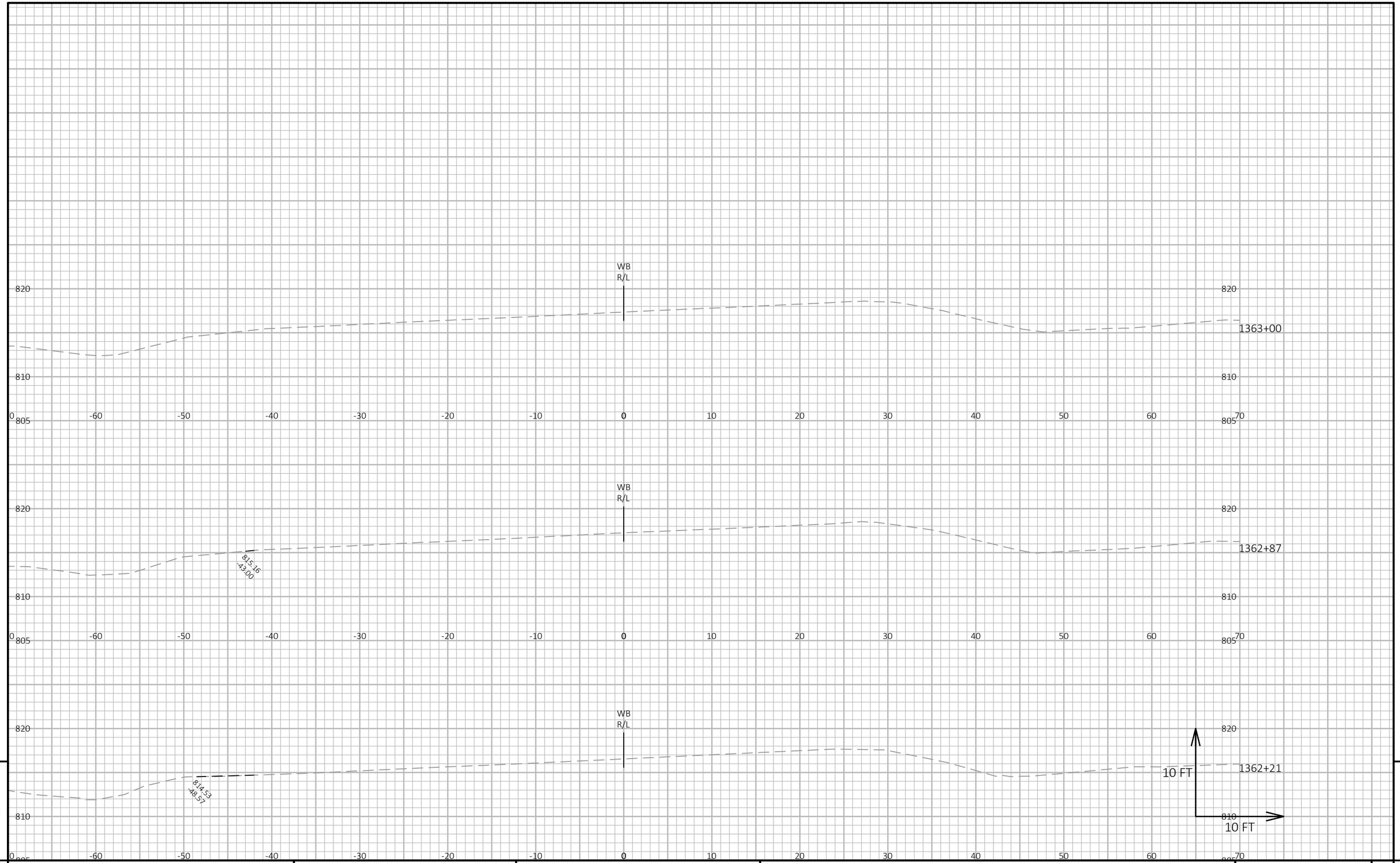
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 211	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 8/20/2025 3:24 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

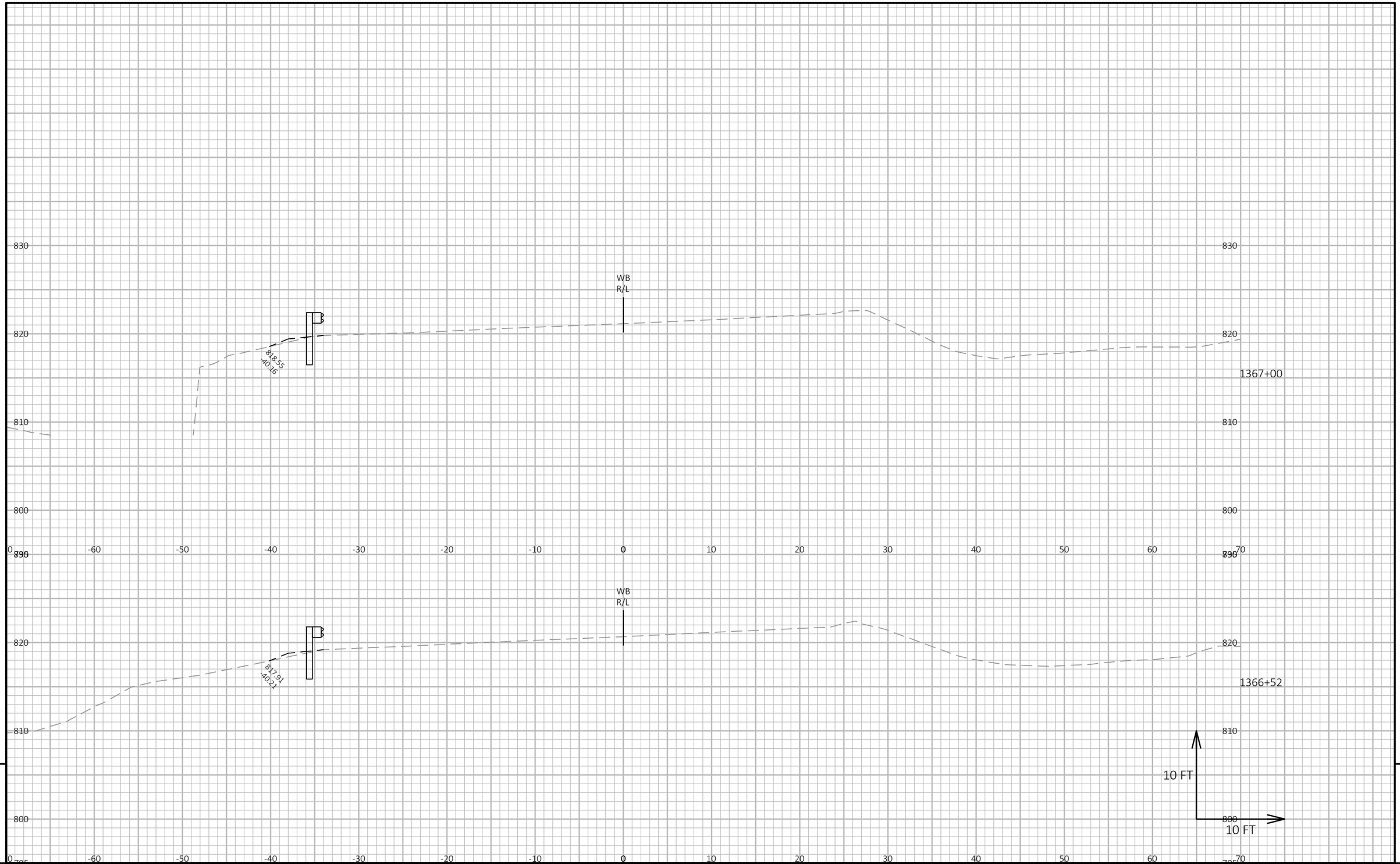
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 212	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 9/30/2025 3:21 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 213	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 06

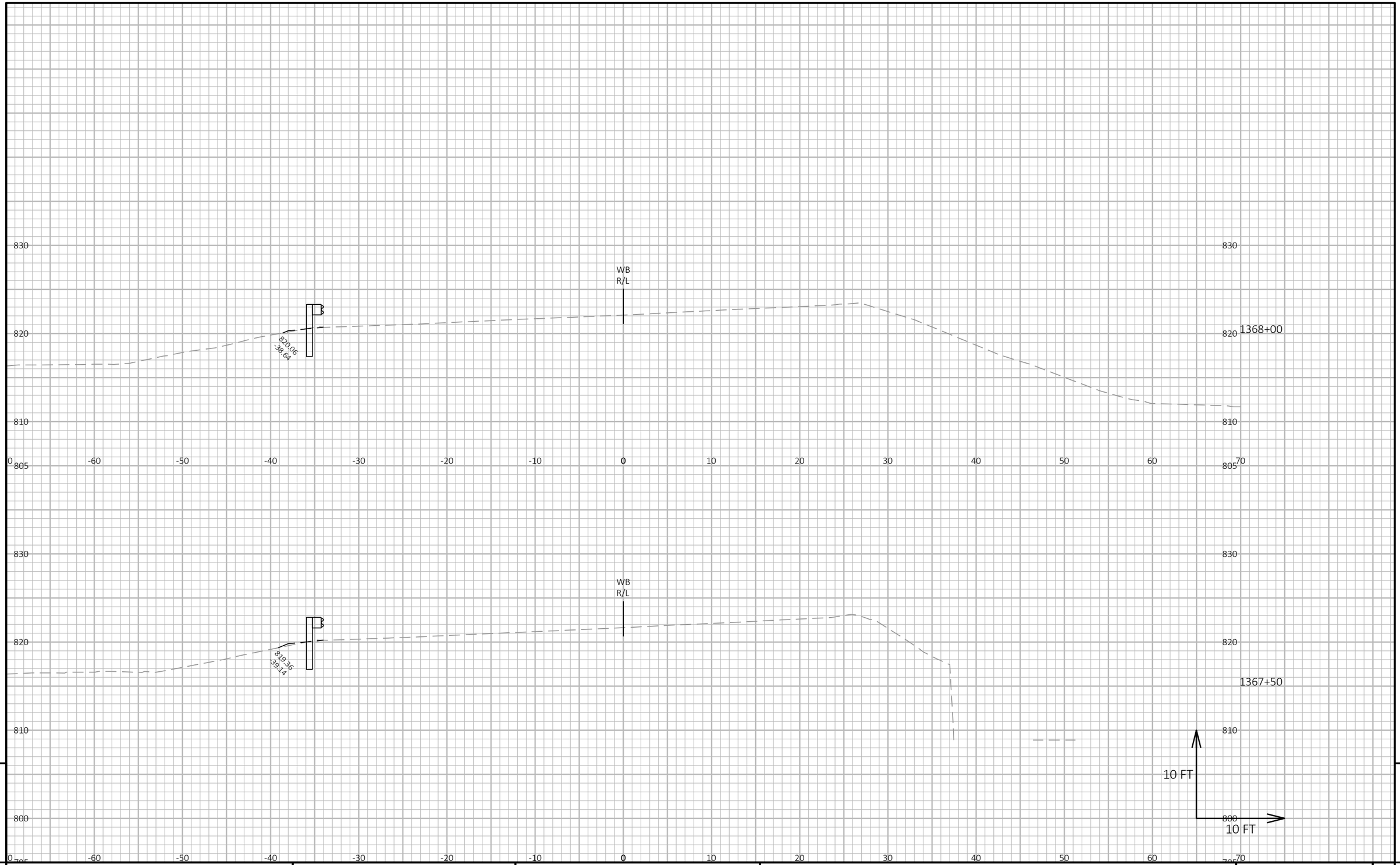
PLOT DATE : 8/20/2025 3:24 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 214	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 07

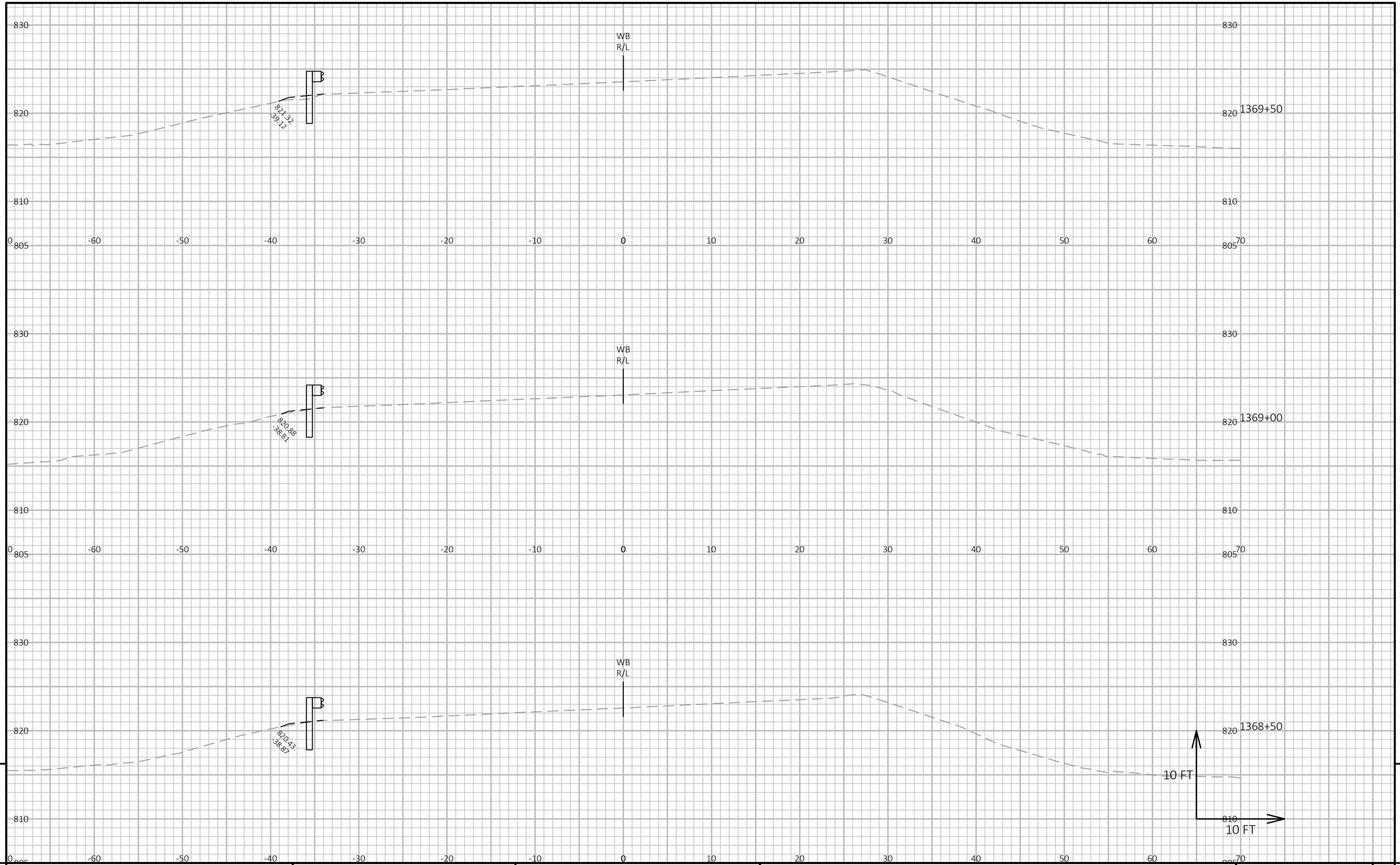
PLOT DATE : 8/20/2025 3:25 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

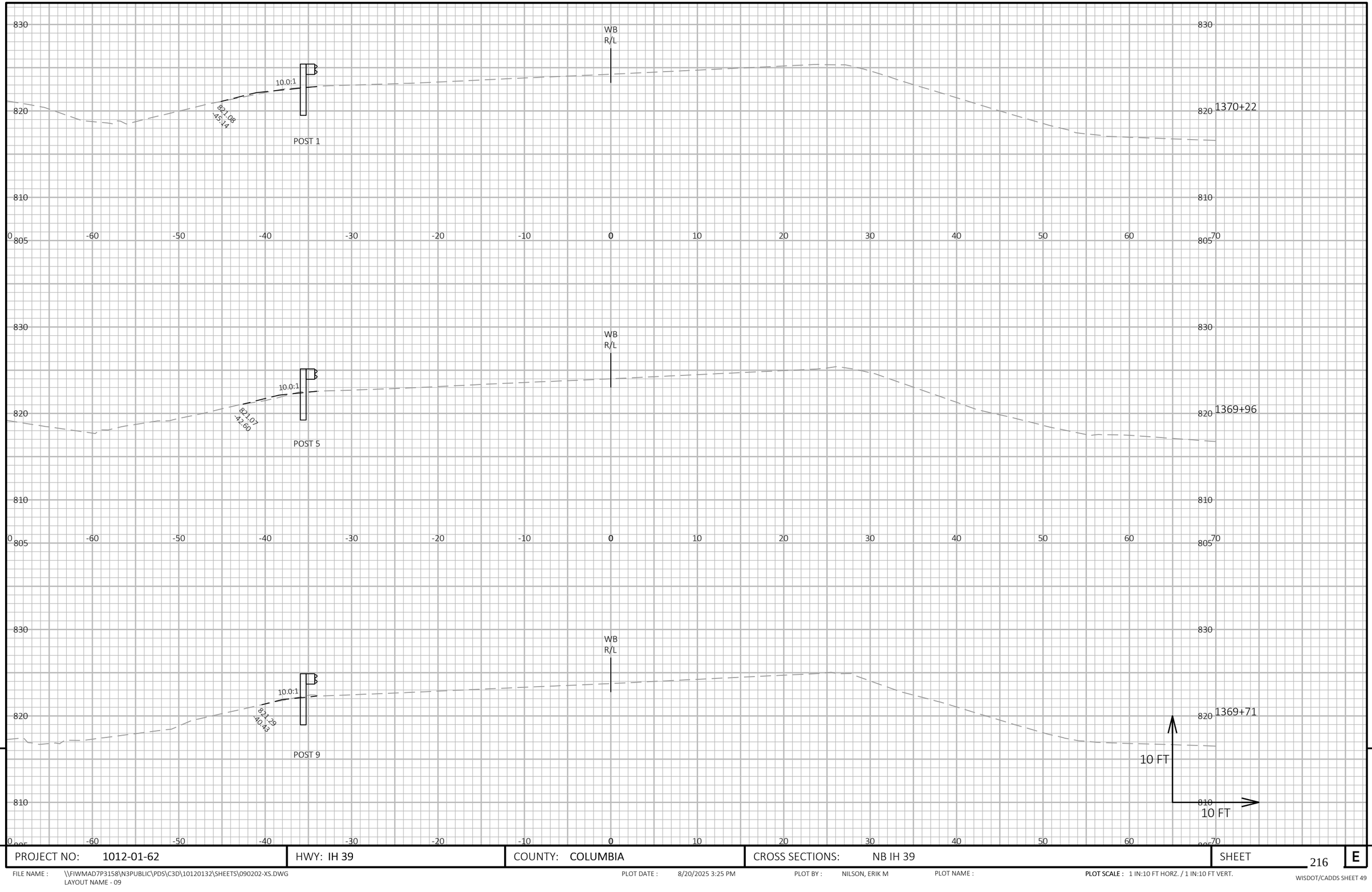
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 215	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 8/20/2025 3:25 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

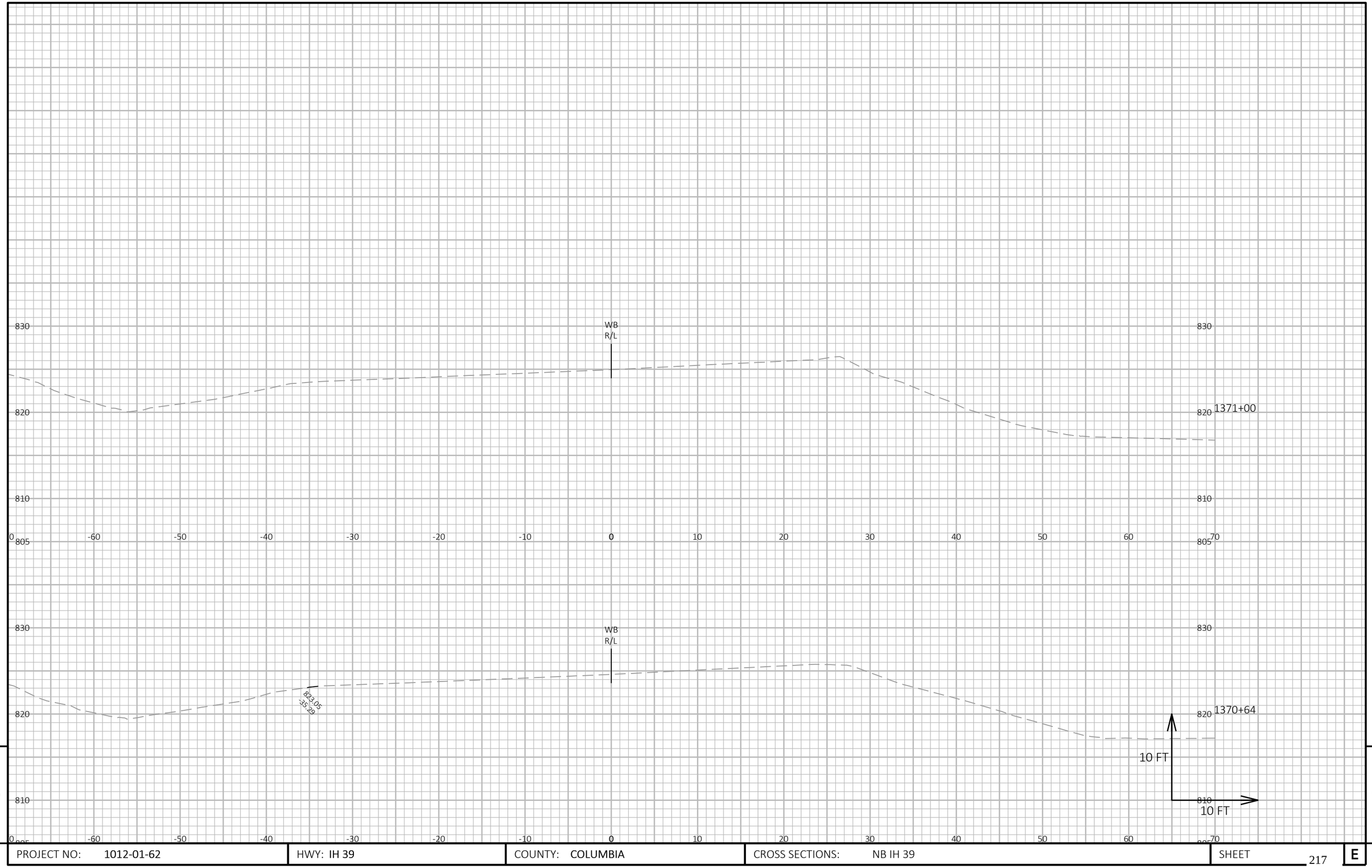
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 216	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 8/20/2025 3:25 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

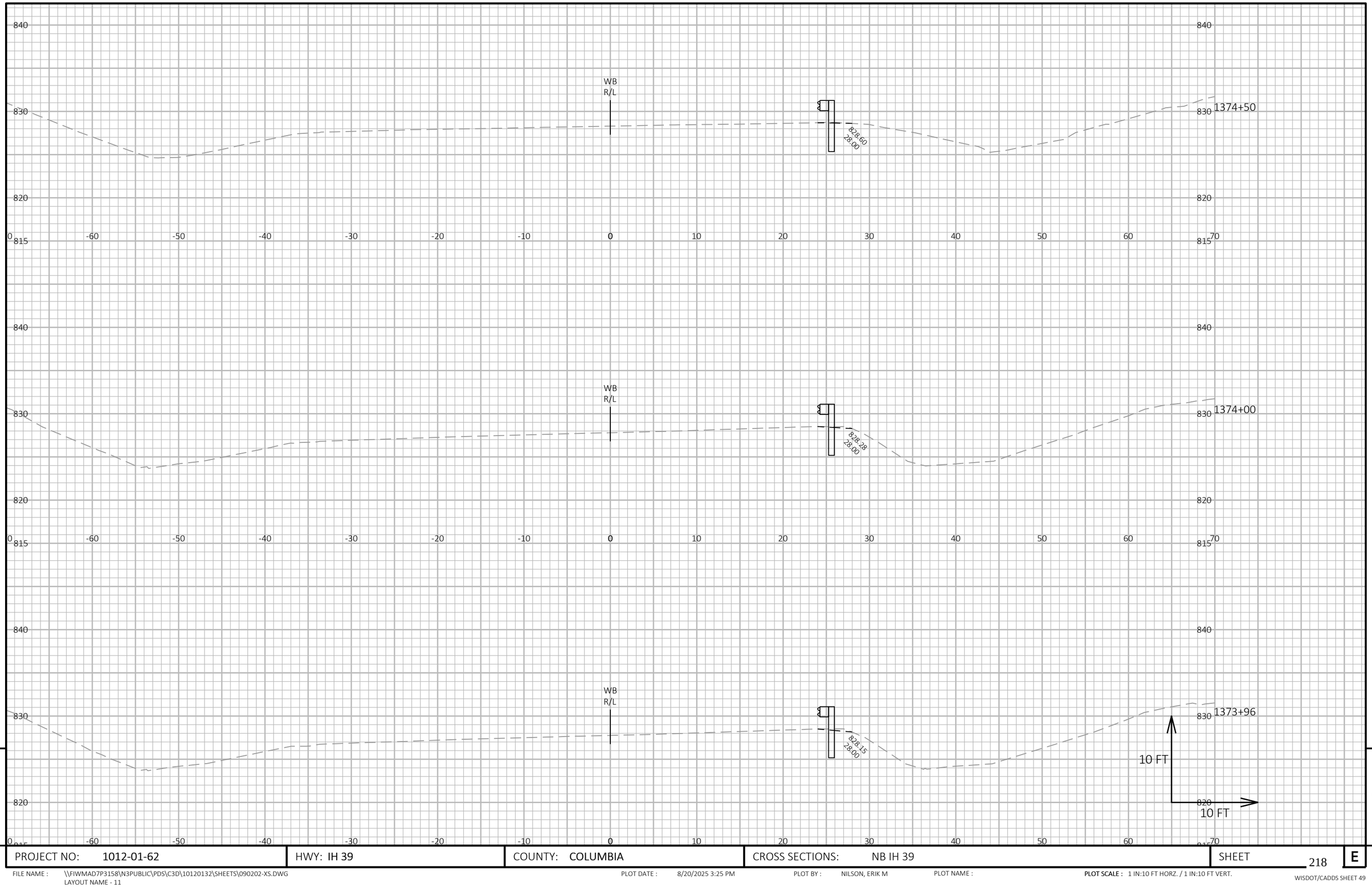
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 217	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 8/20/2025 3:25 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 218	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 11

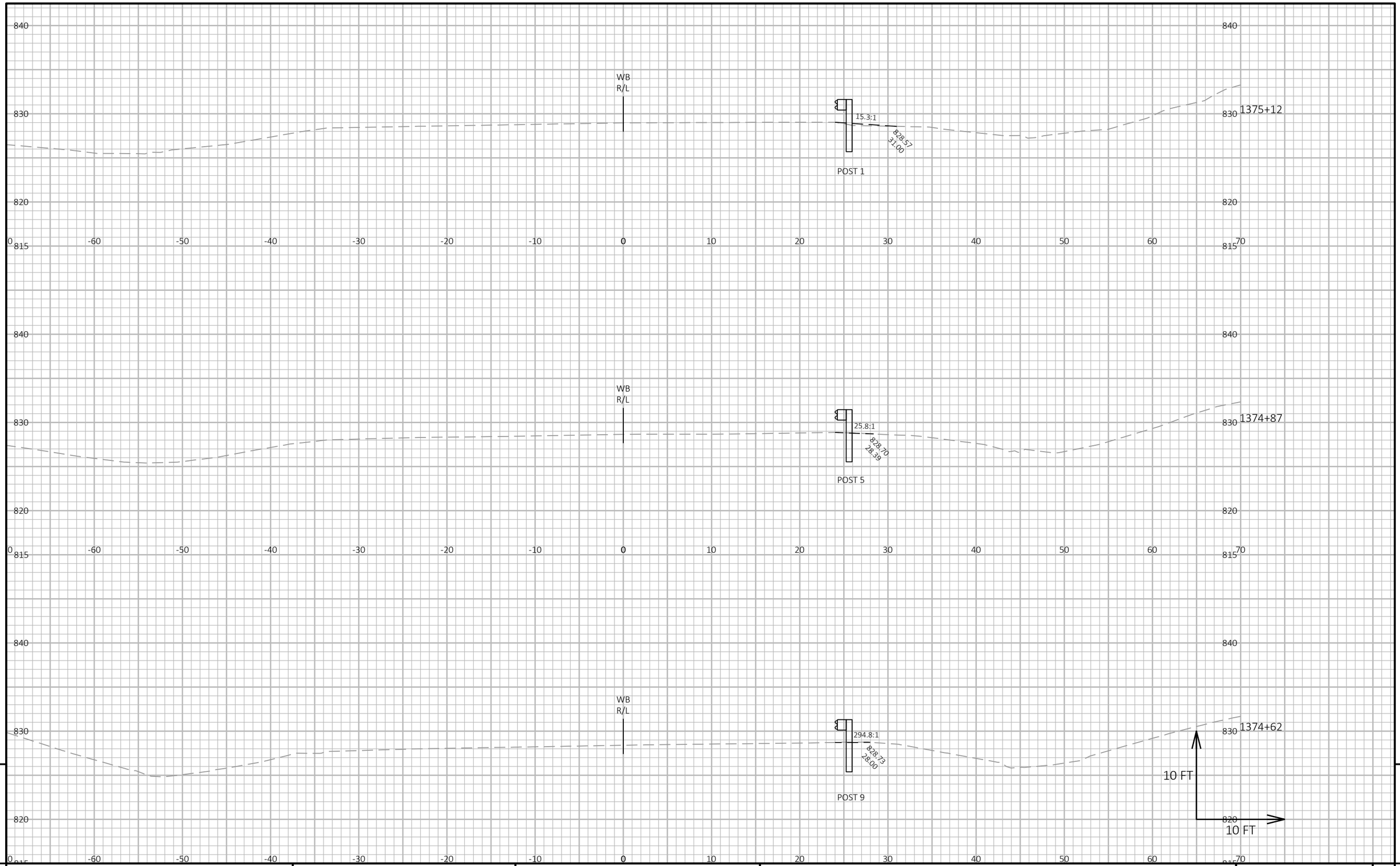
PLOT DATE : 8/20/2025 3:25 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 219	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 8/20/2025 3:25 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

840
830
820
815
0
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
70
WB
R/L
1376+00
840
830
820
815
840
830
820
815
WB
R/L
829.08
25.00
1375+59
10 FT
10 FT

9

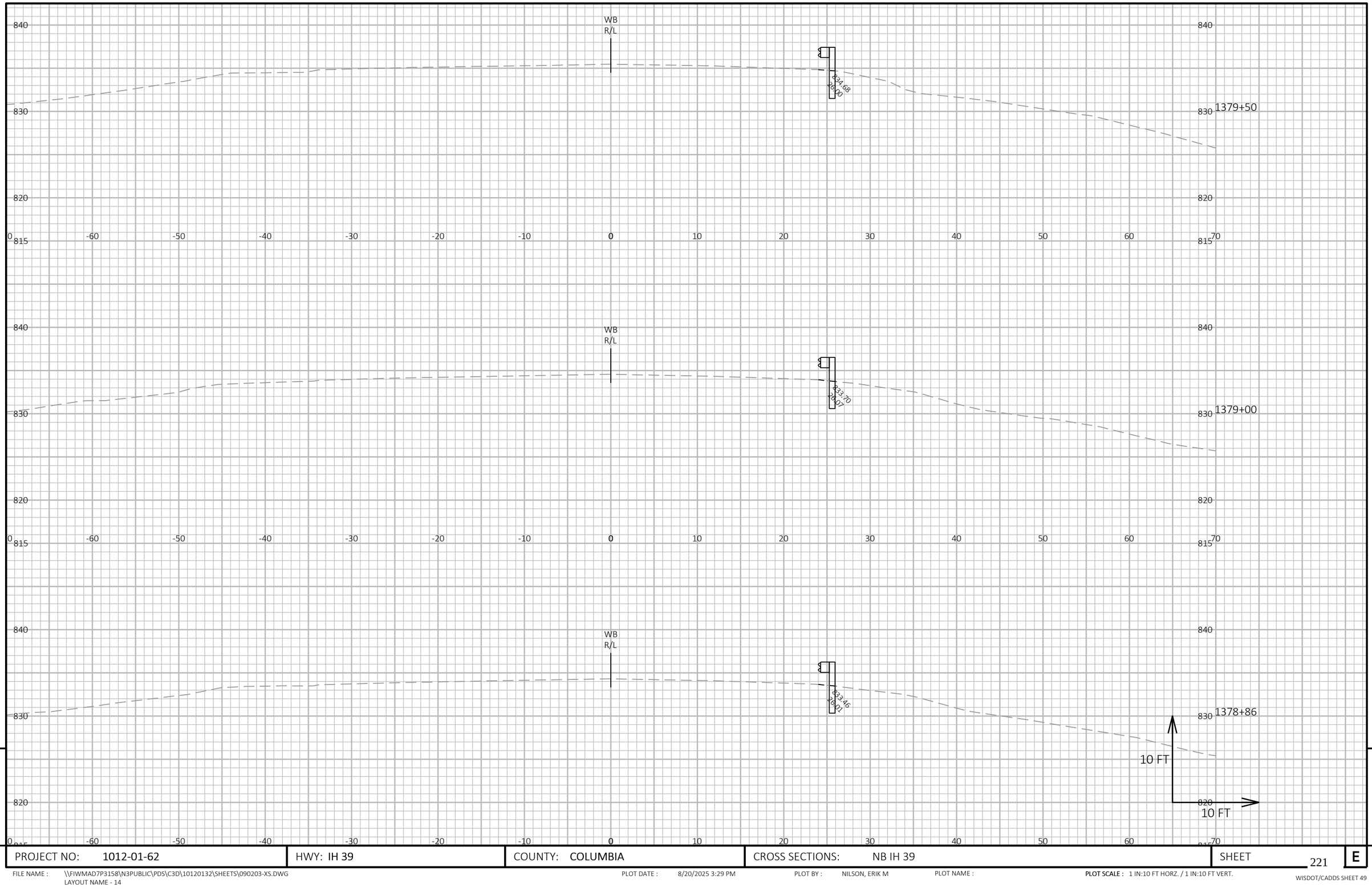
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 220	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090202-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 8/20/2025 3:25 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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



9

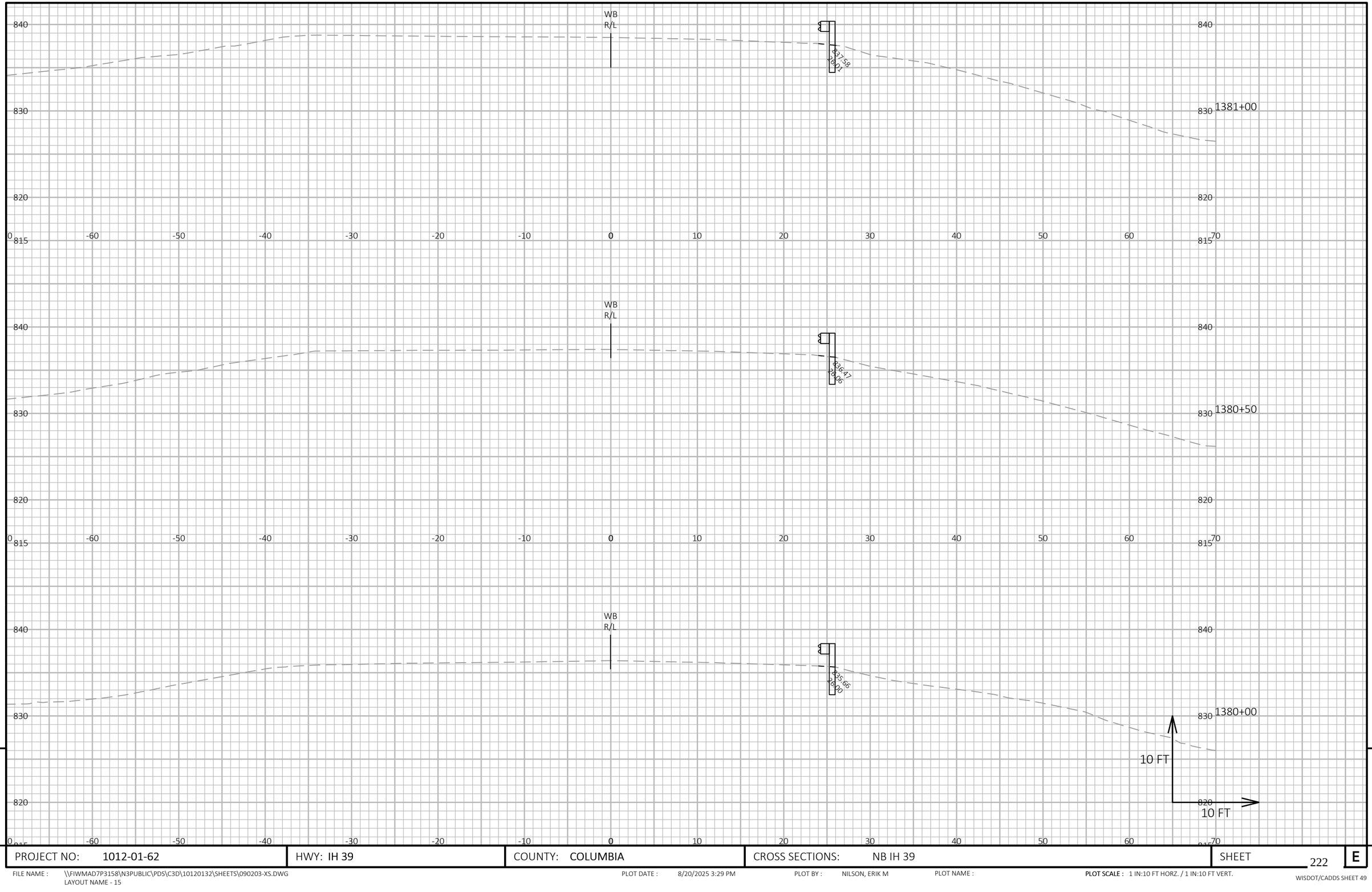
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 221	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

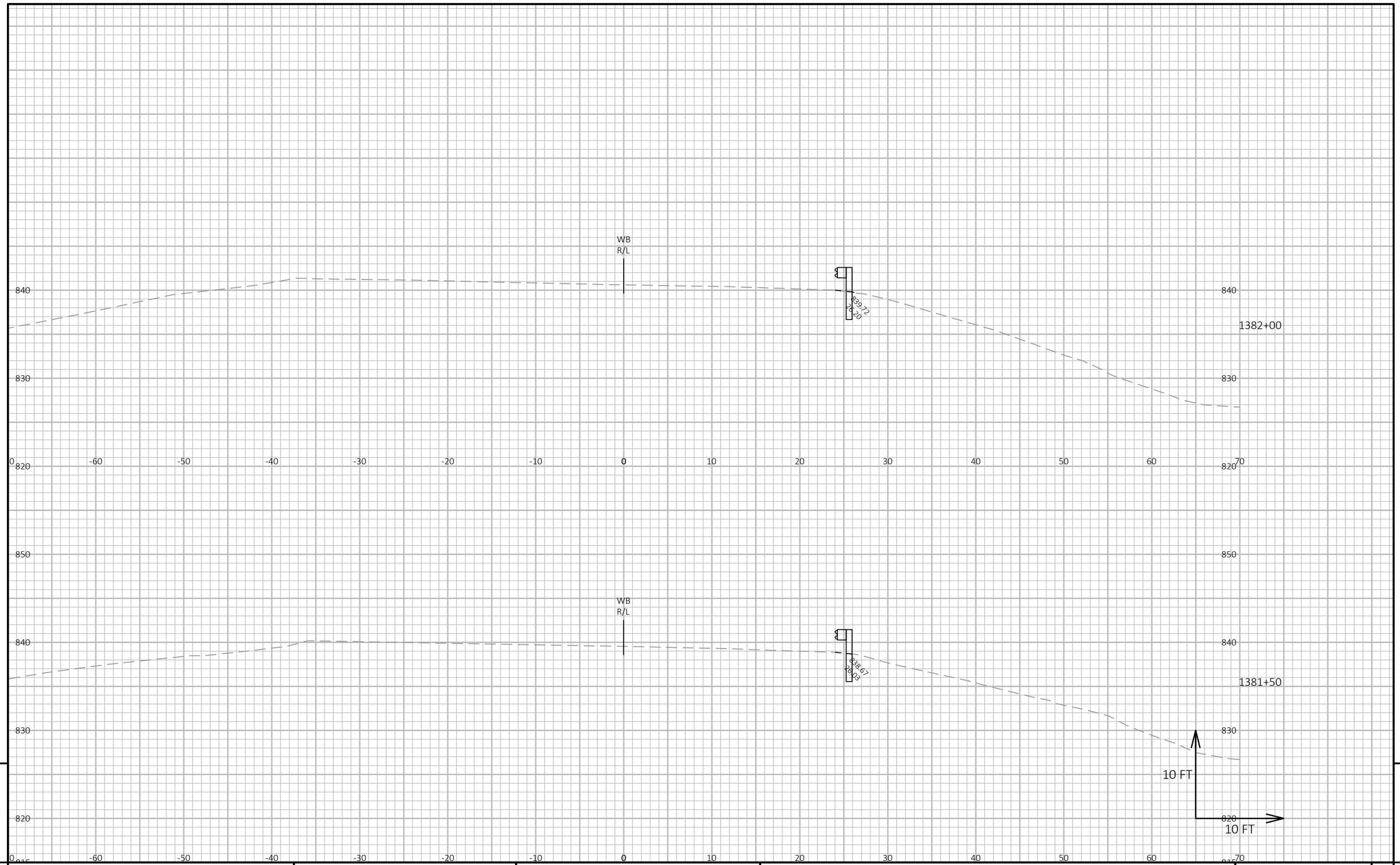
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 222	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

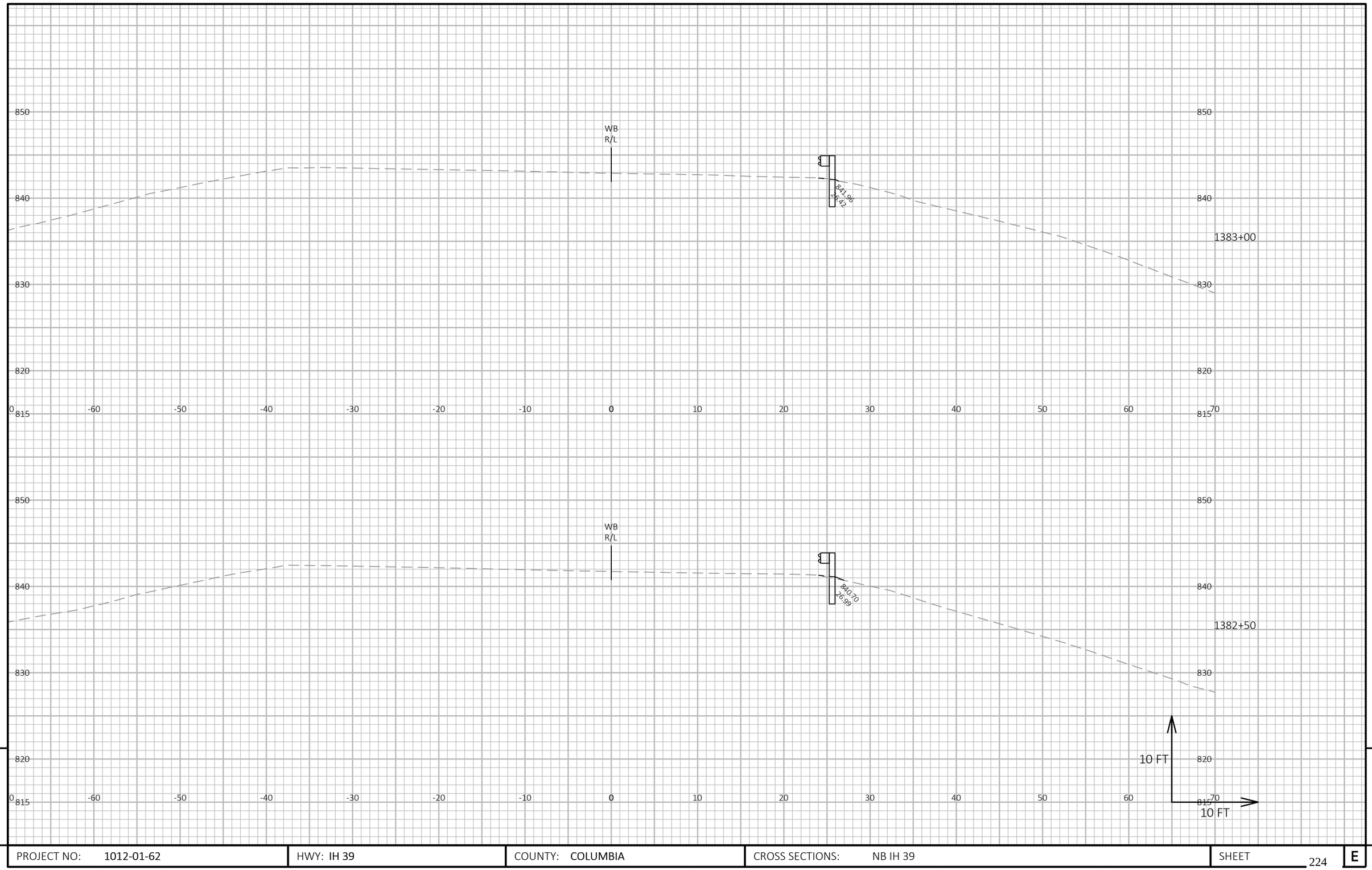
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 223	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 16

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 224	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 17

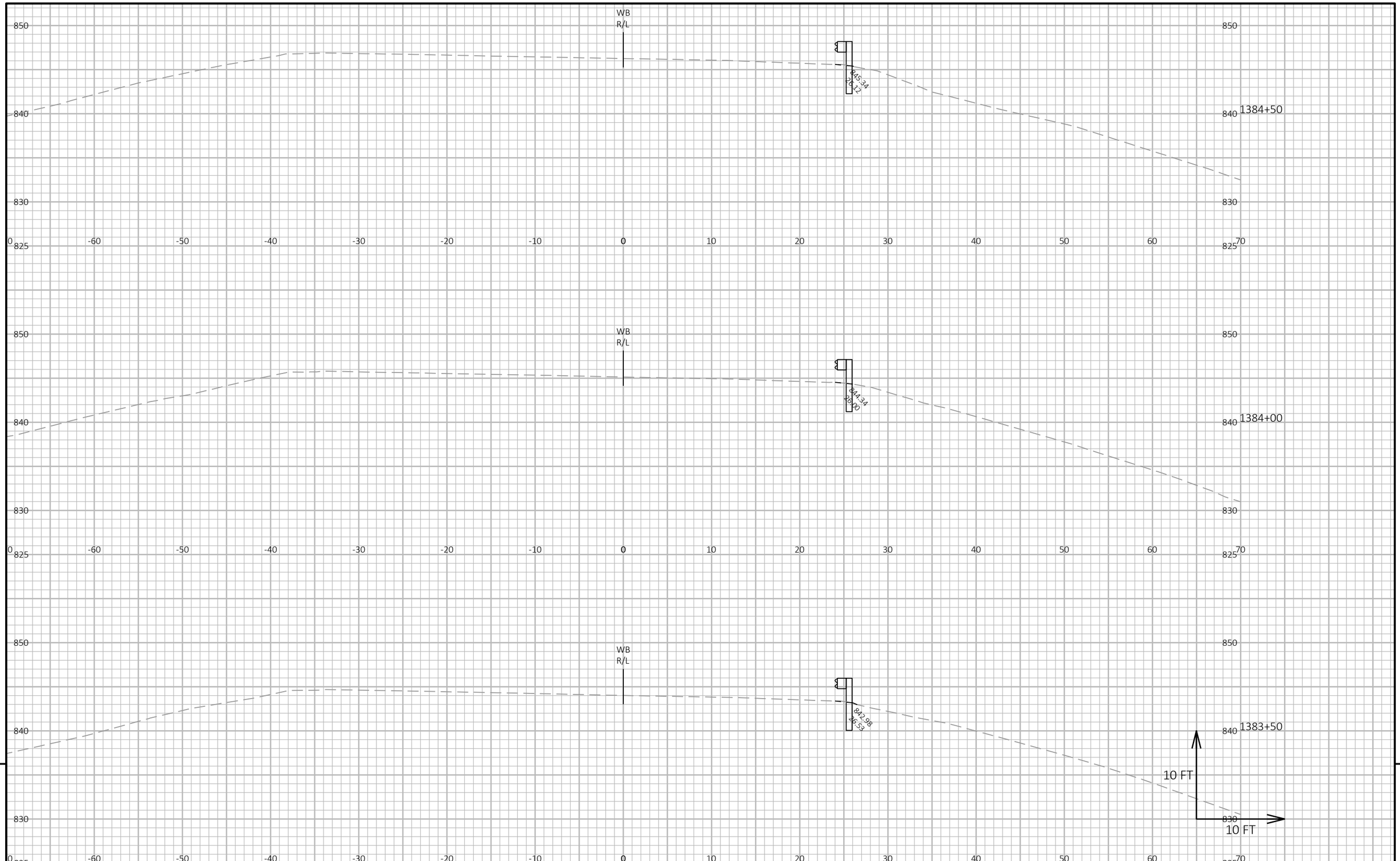
PLOT DATE : 8/20/2025 3:29 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

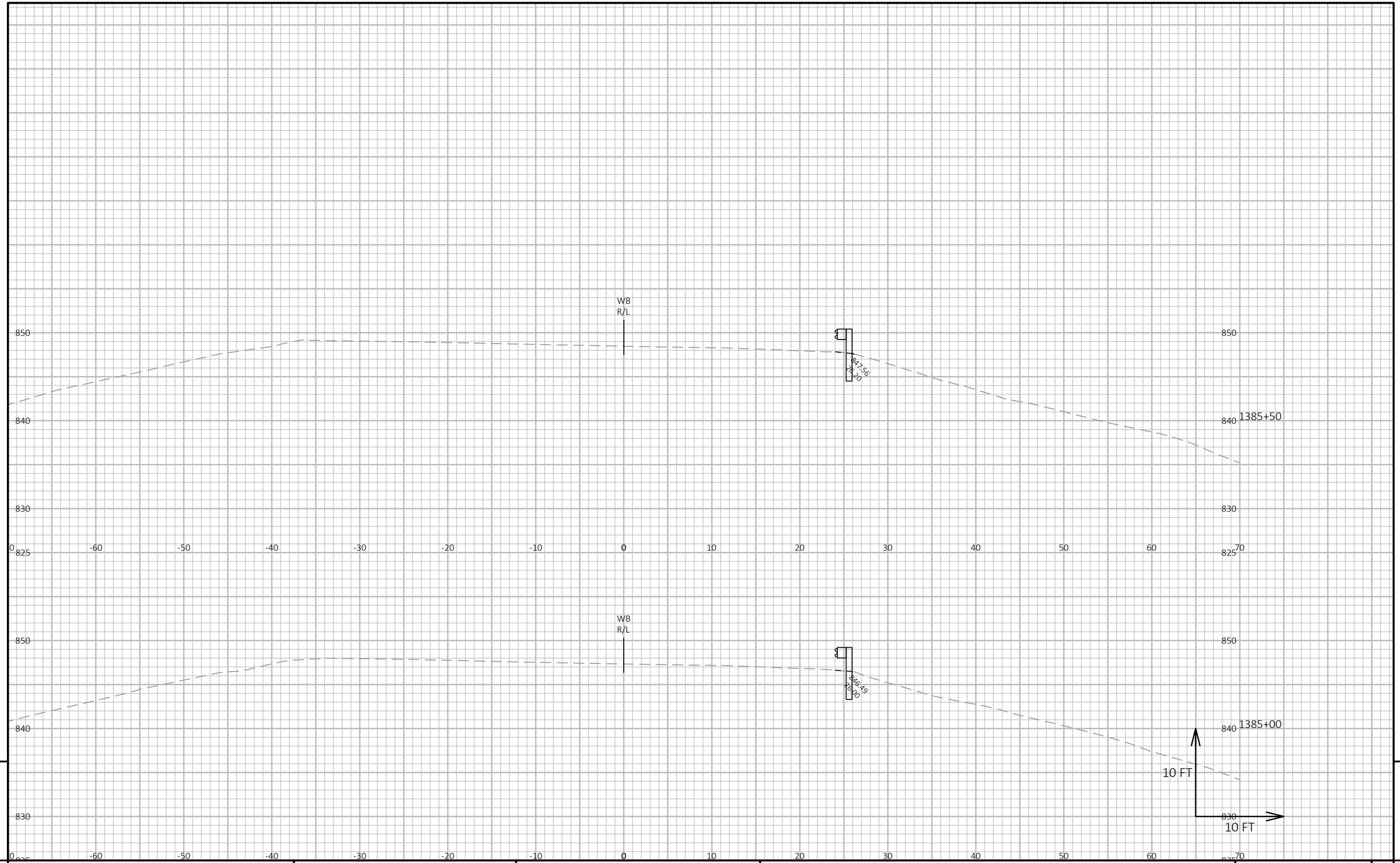
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 225	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

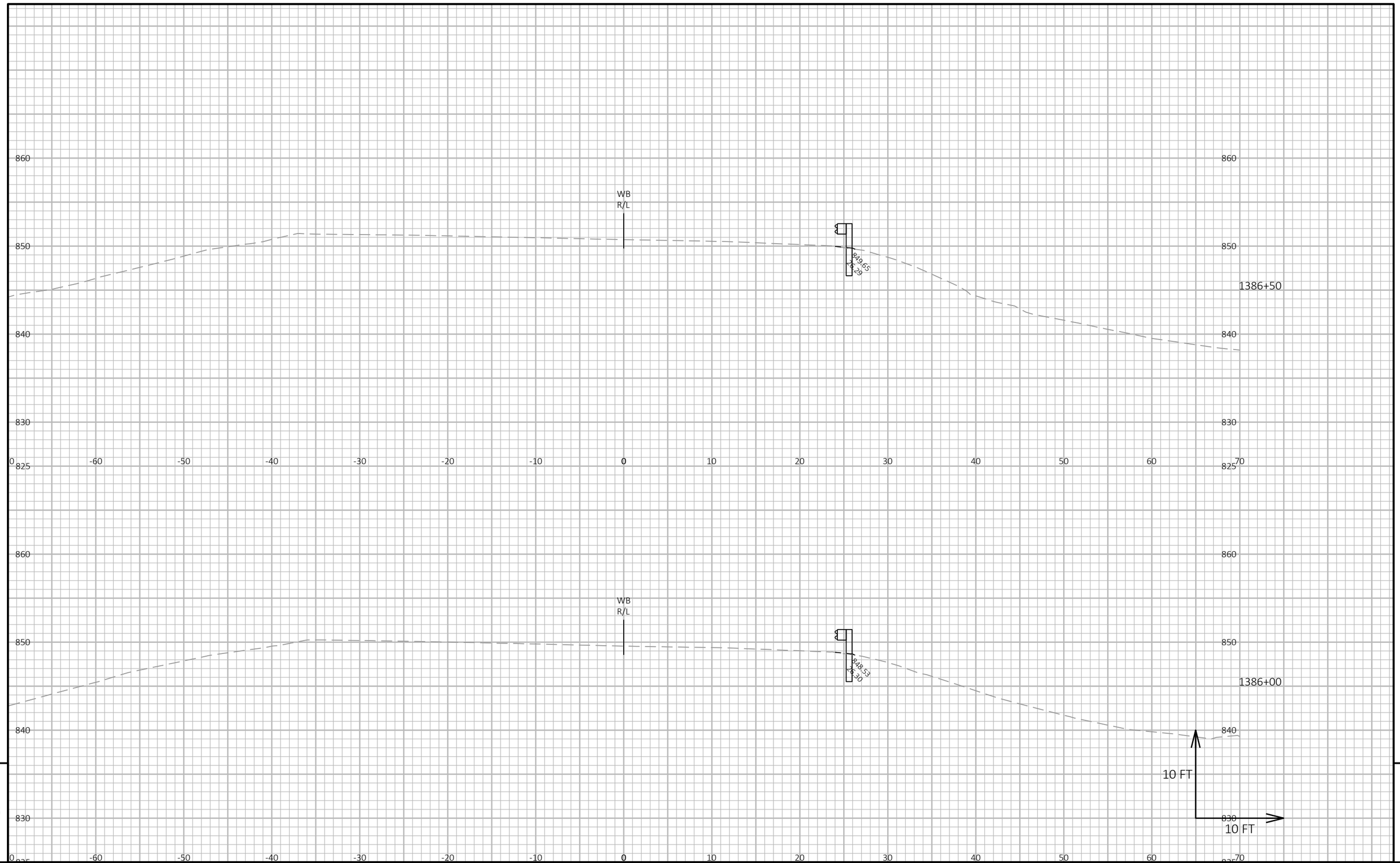
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 226	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 227	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 20

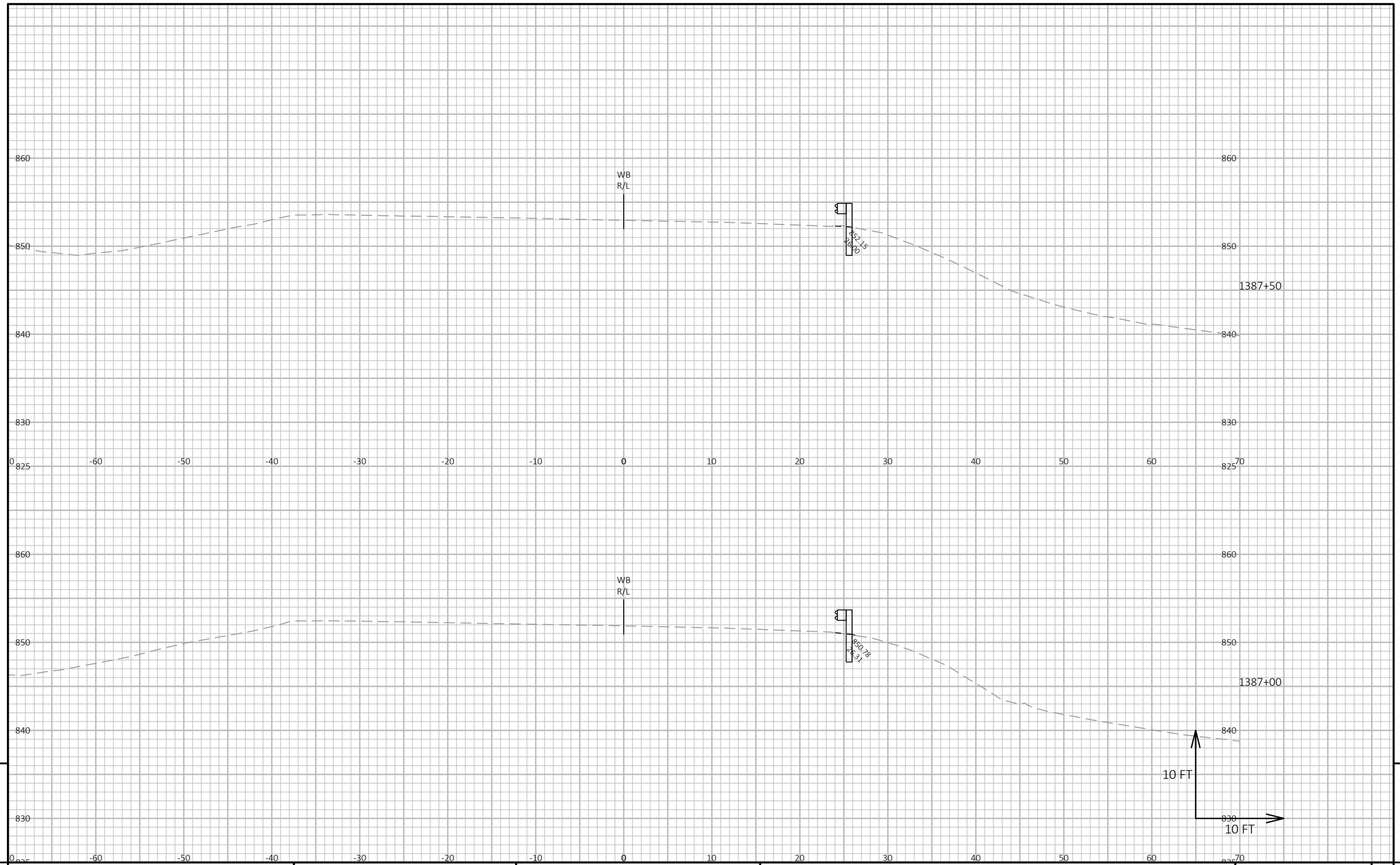
PLOT DATE : 8/20/2025 3:29 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

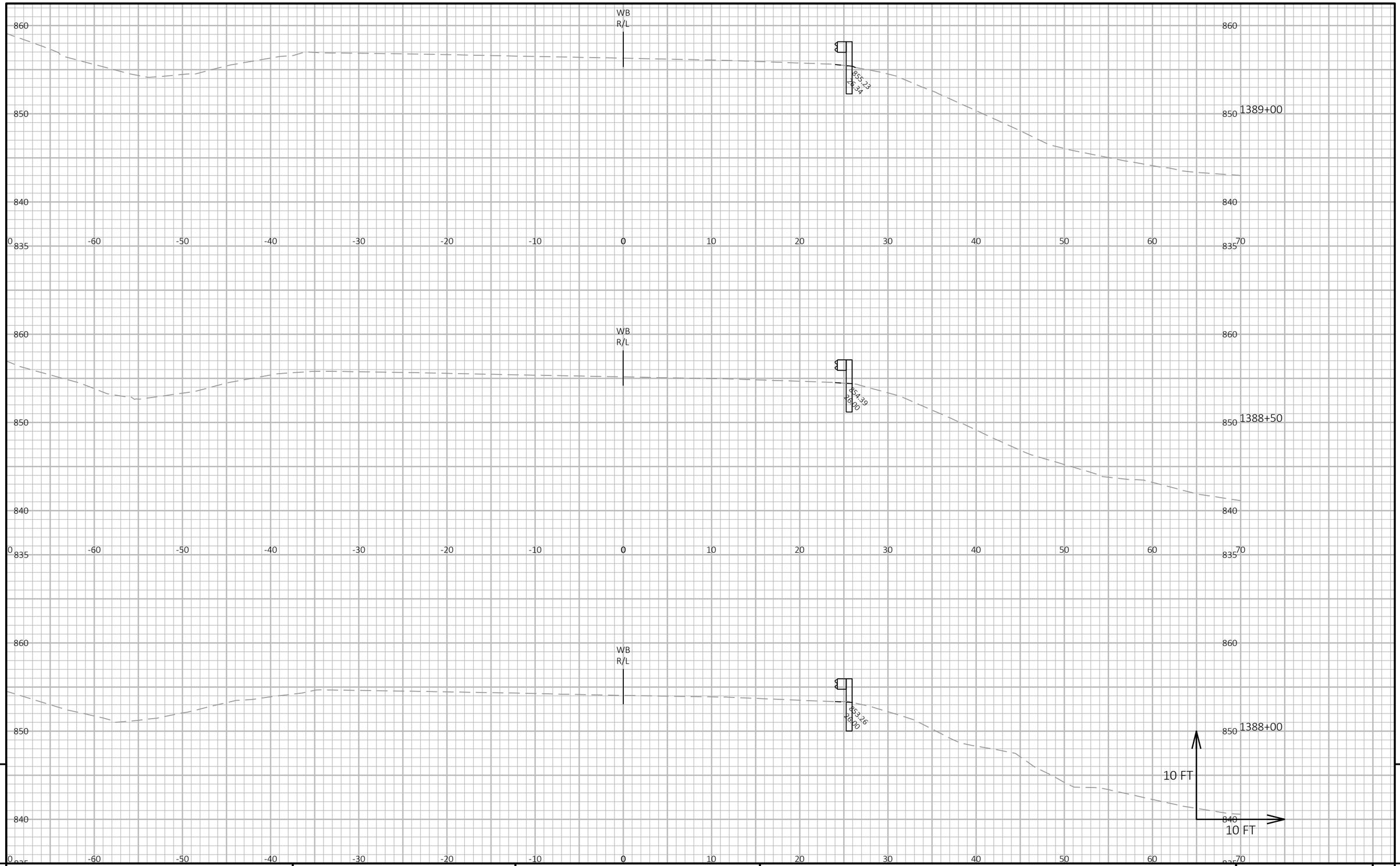
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 228	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 21

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 229	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 22

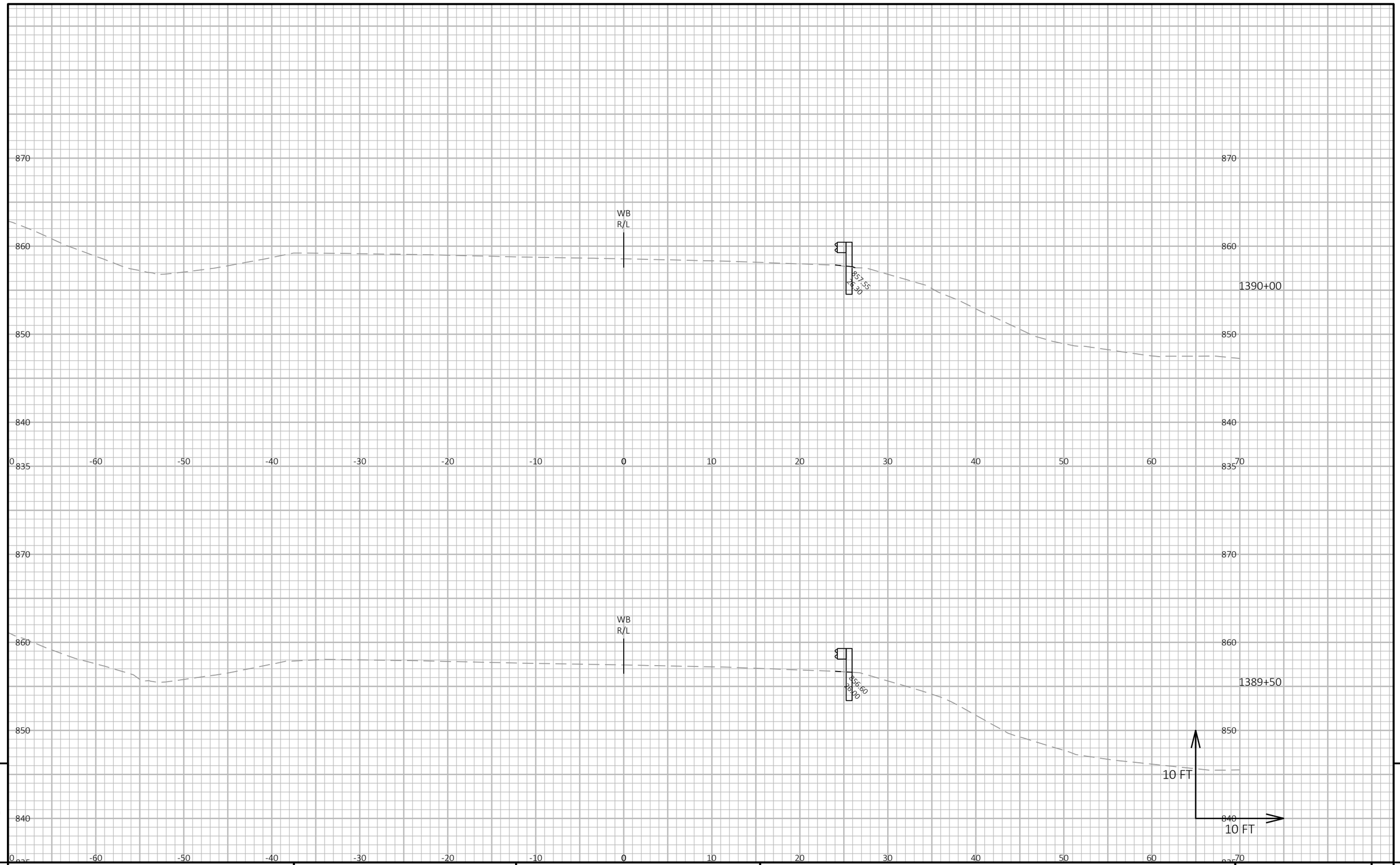
PLOT DATE : 8/20/2025 3:29 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 230	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 23

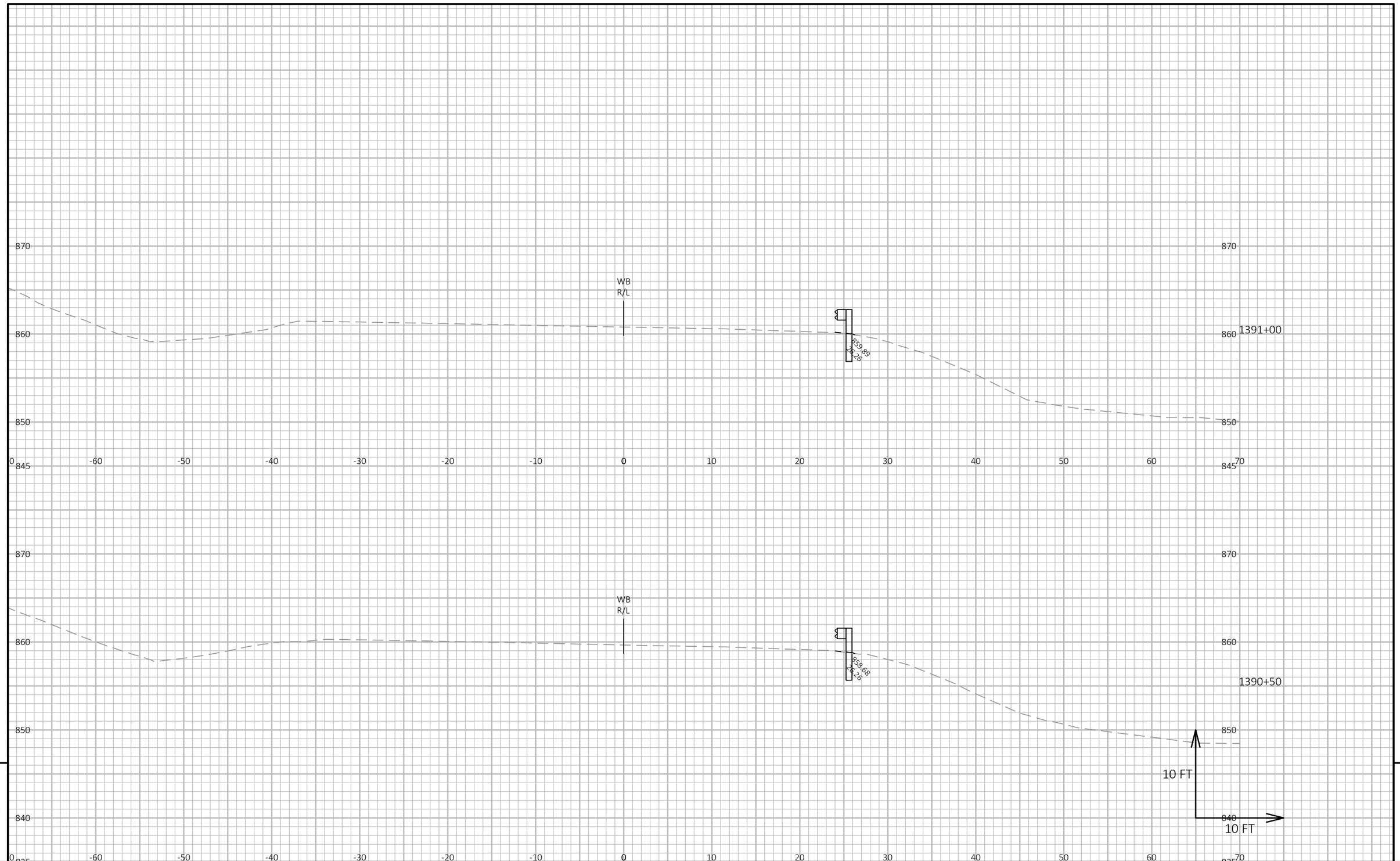
PLOT DATE : 8/20/2025 3:29 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 231	E

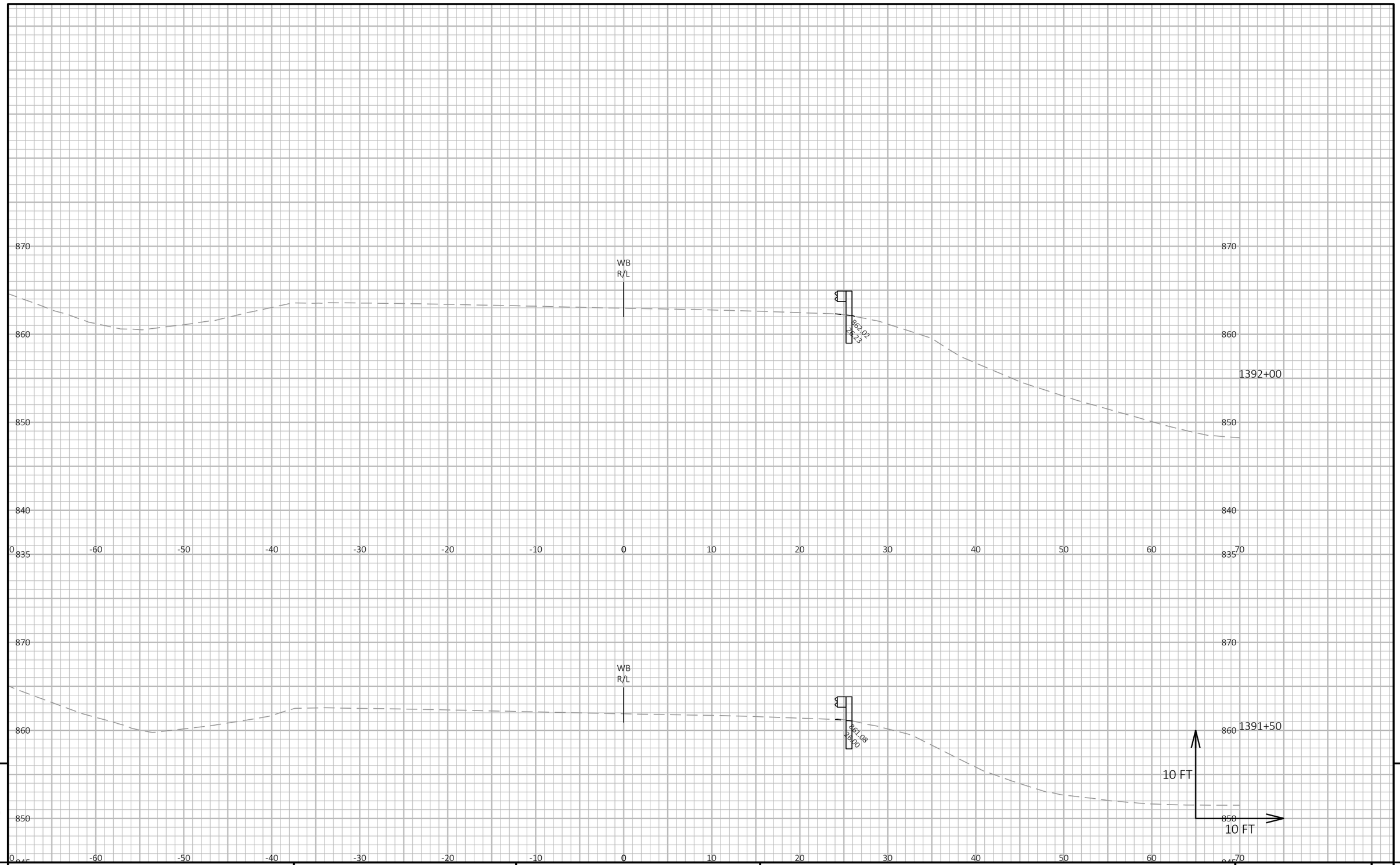
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 24

PLOT DATE : 8/20/2025 3:29 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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



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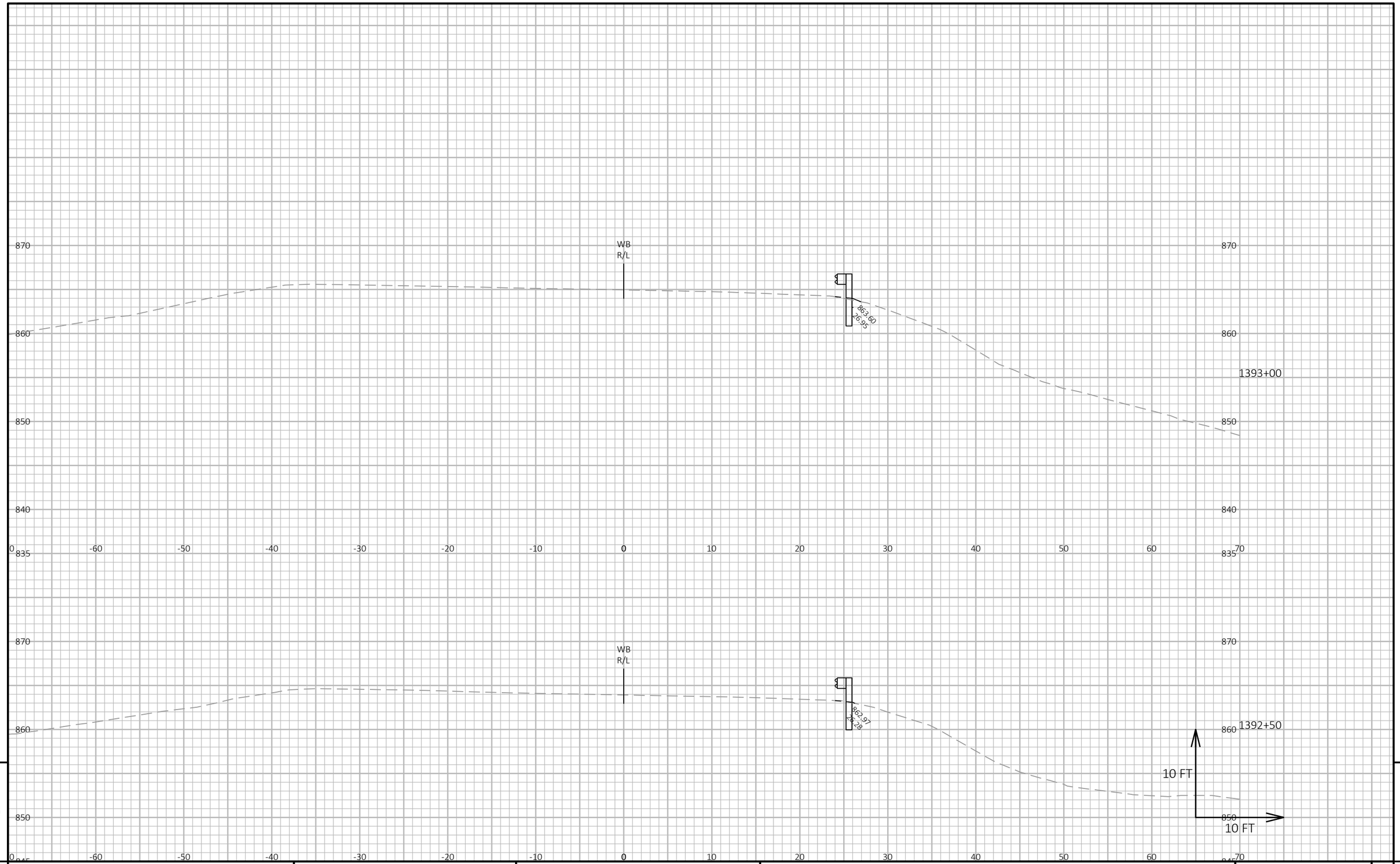
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 232	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 25

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



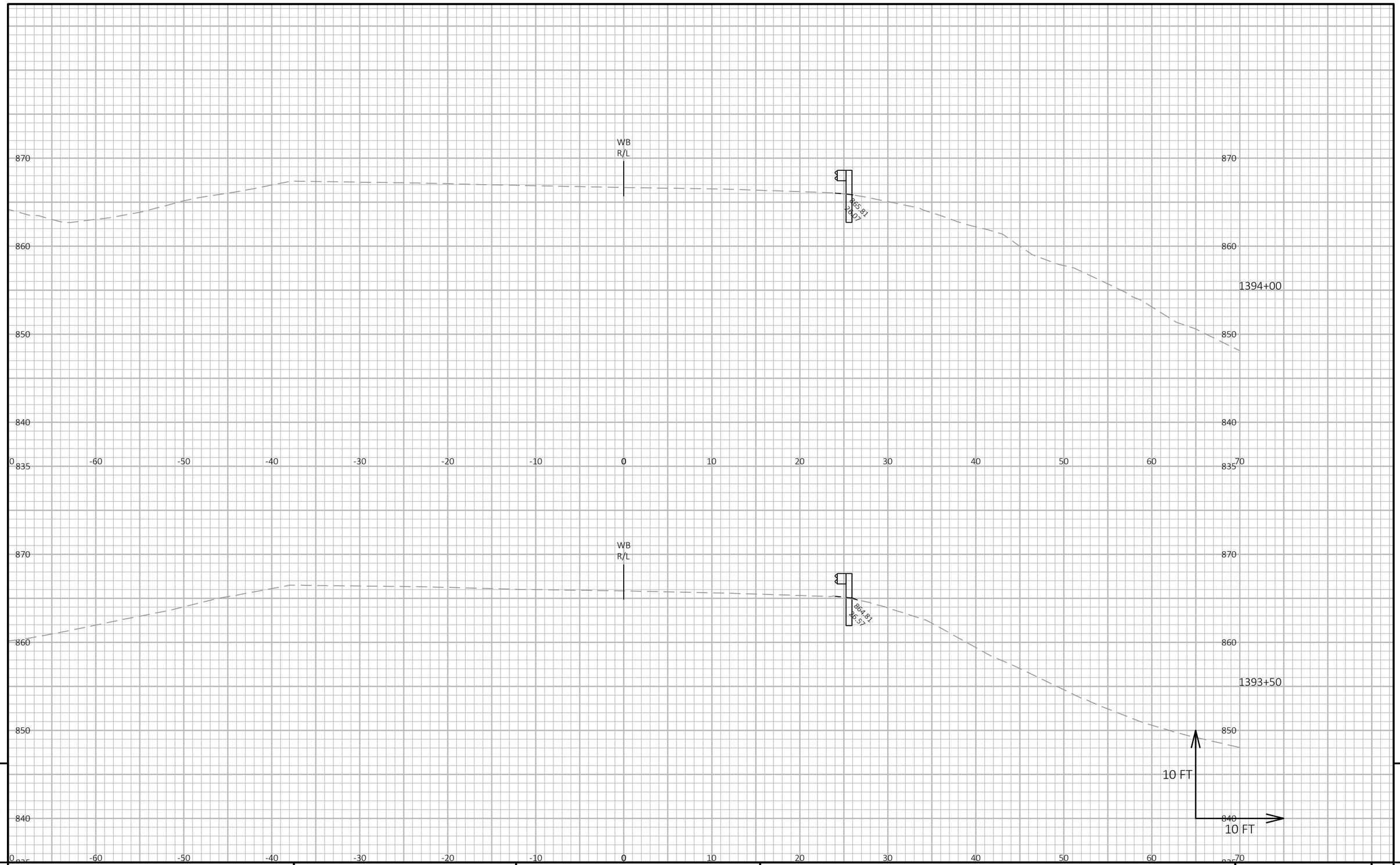
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 233	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 26

PLOT DATE : 8/20/2025 3:29 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 234	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 27

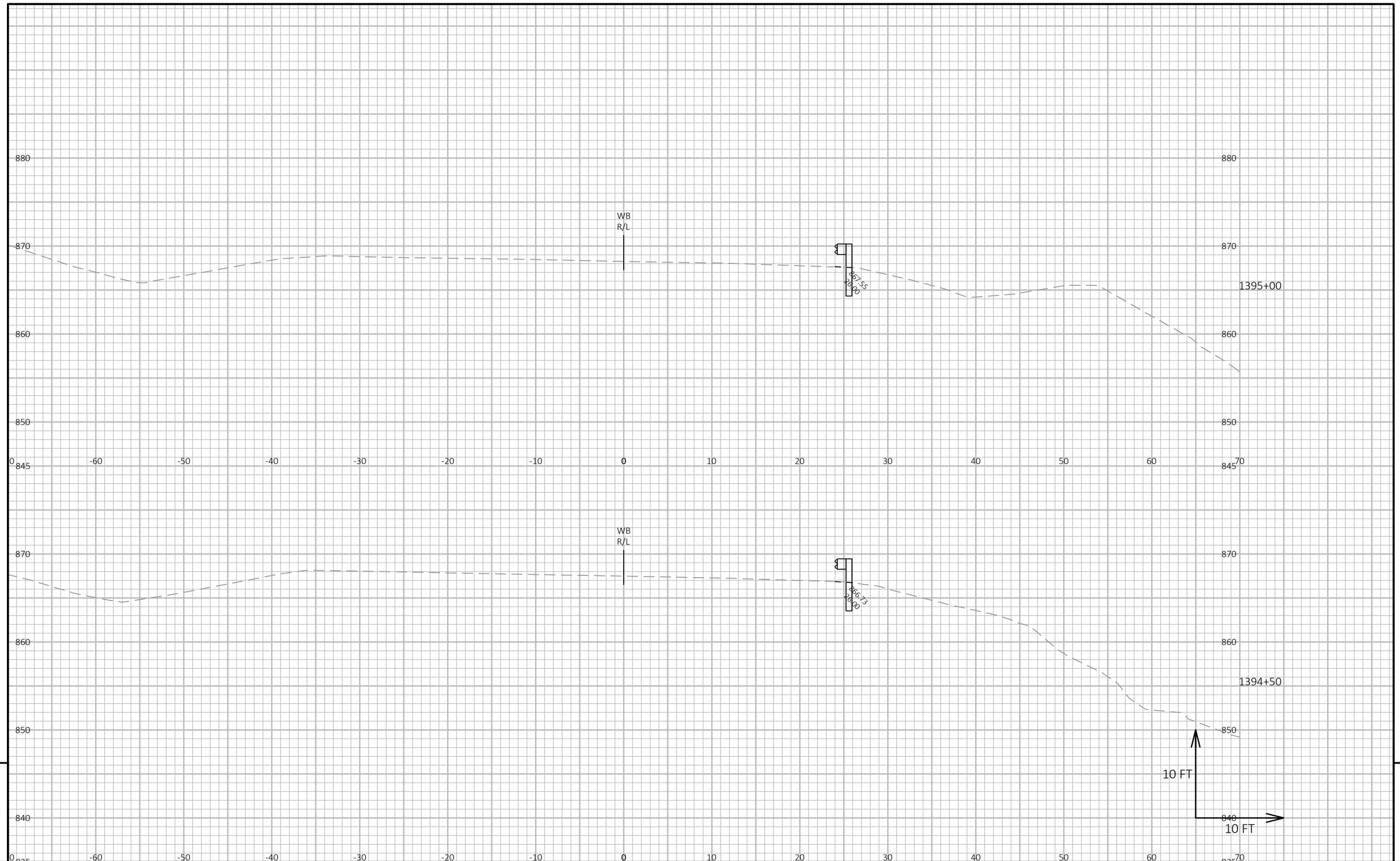
PLOT DATE : 8/20/2025 3:29 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 235	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 28

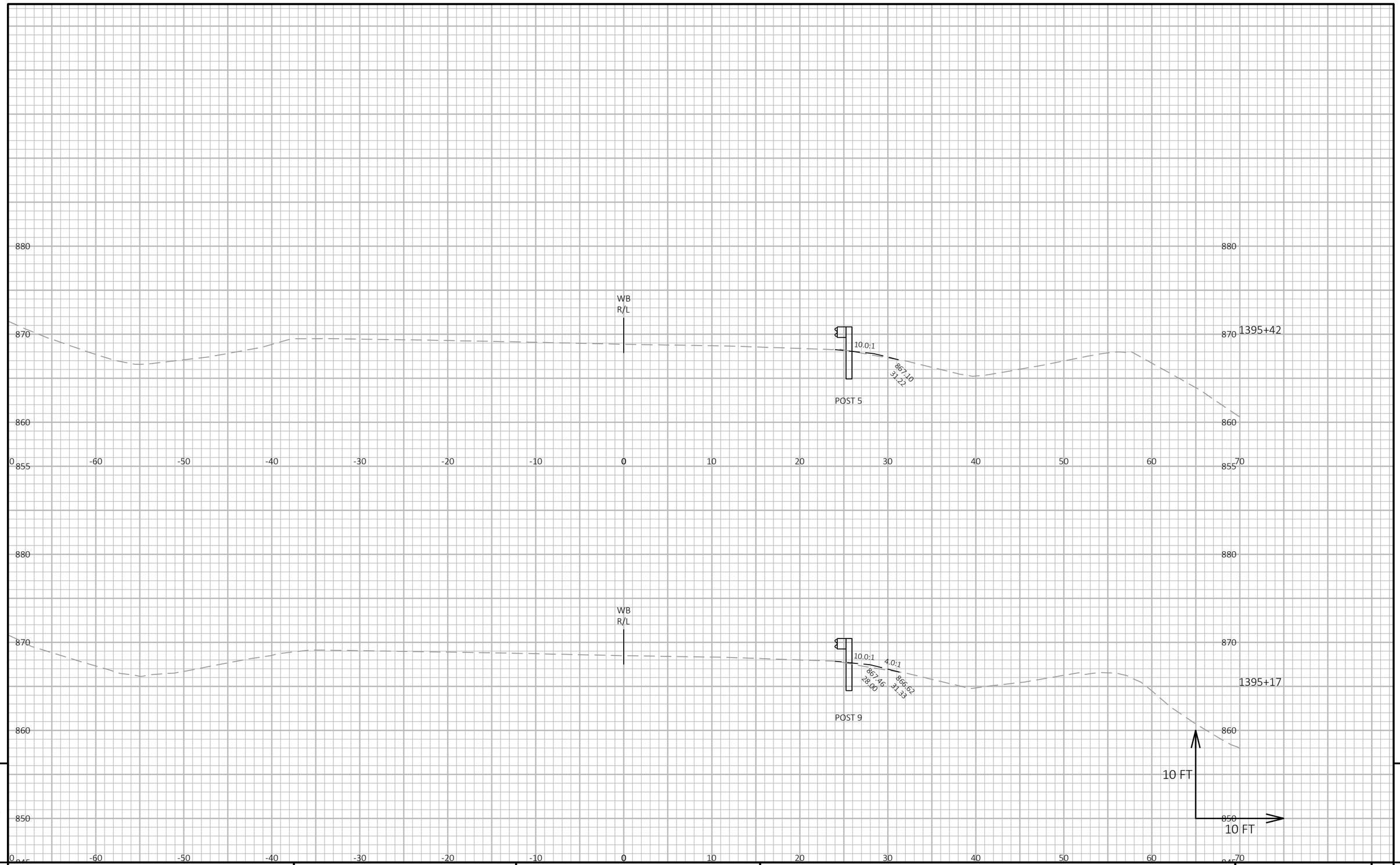
PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 236	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 29

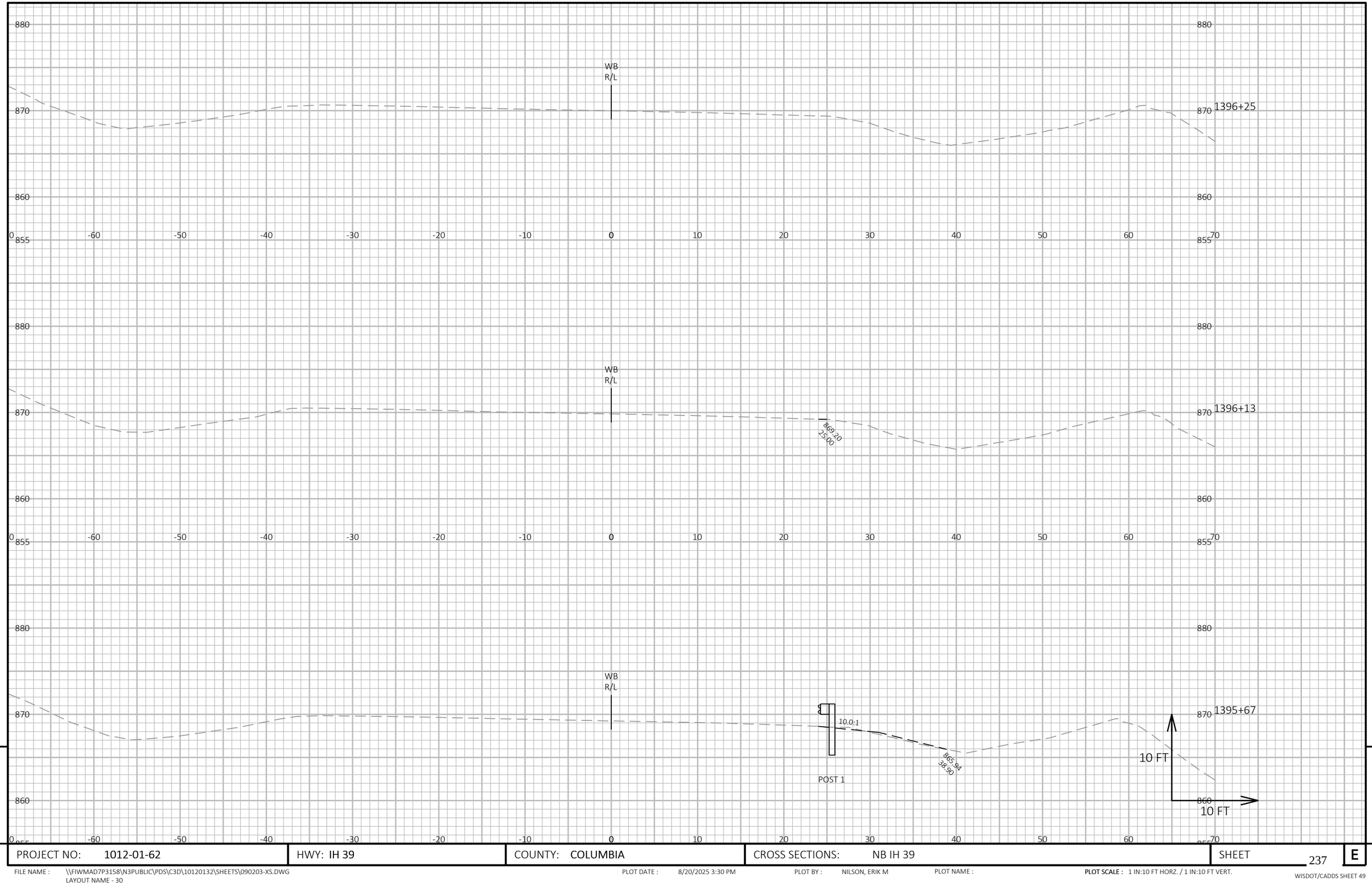
PLOT DATE : 9/30/2025 3:32 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

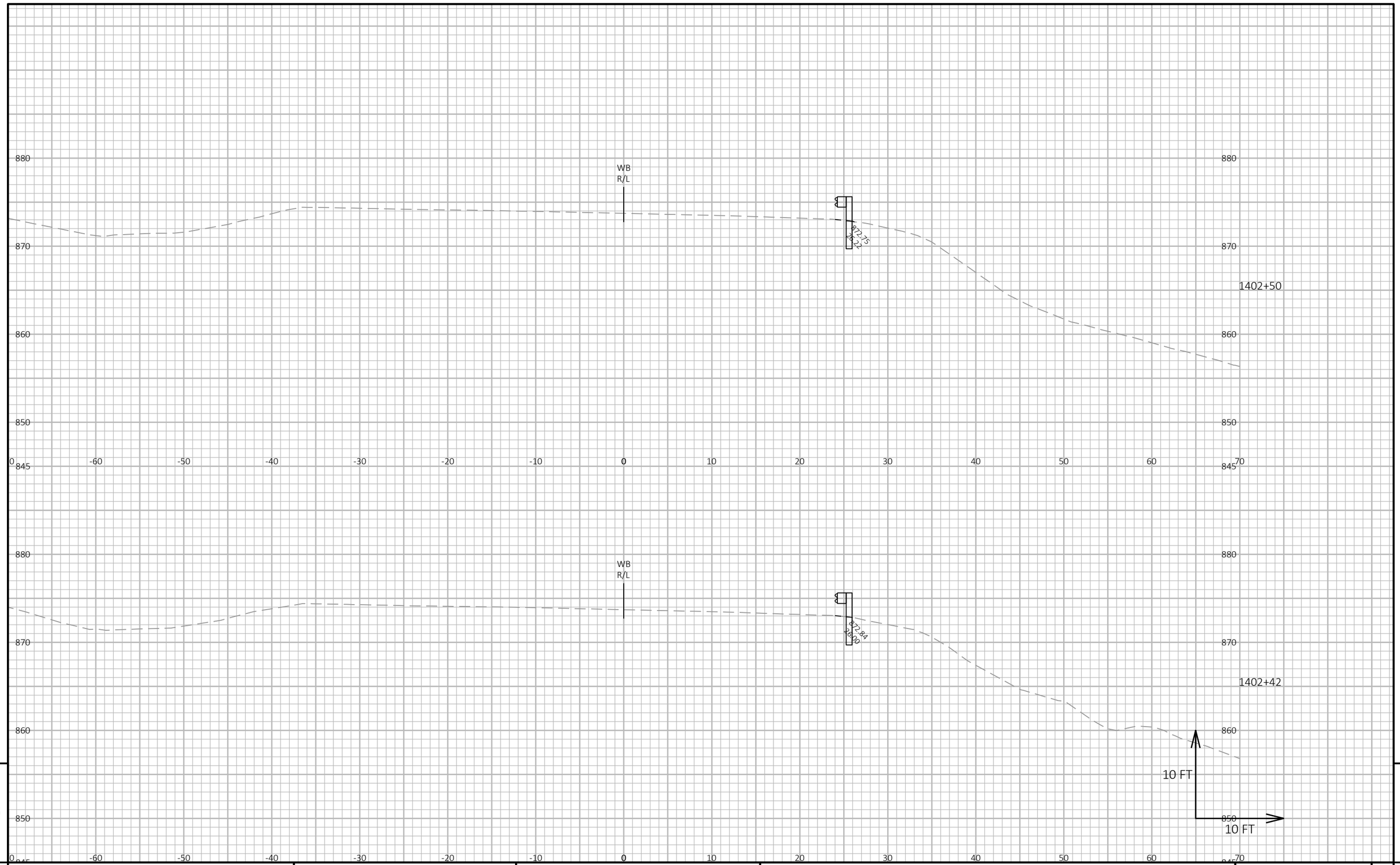


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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 237	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 30
PLOT DATE : 8/20/2025 3:30 PM
PLOT BY : NILSON, ERIK M
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 238	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 31

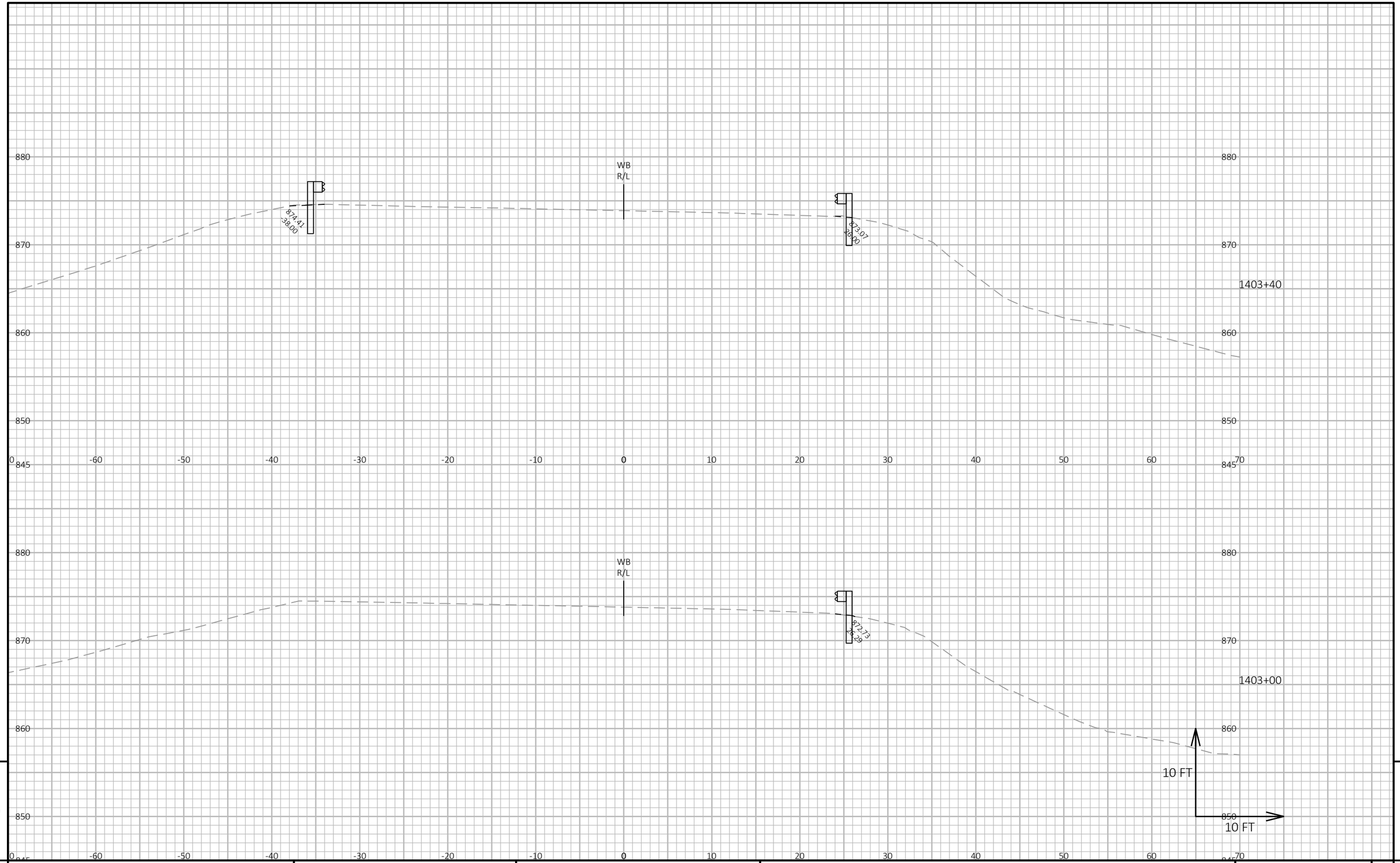
PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



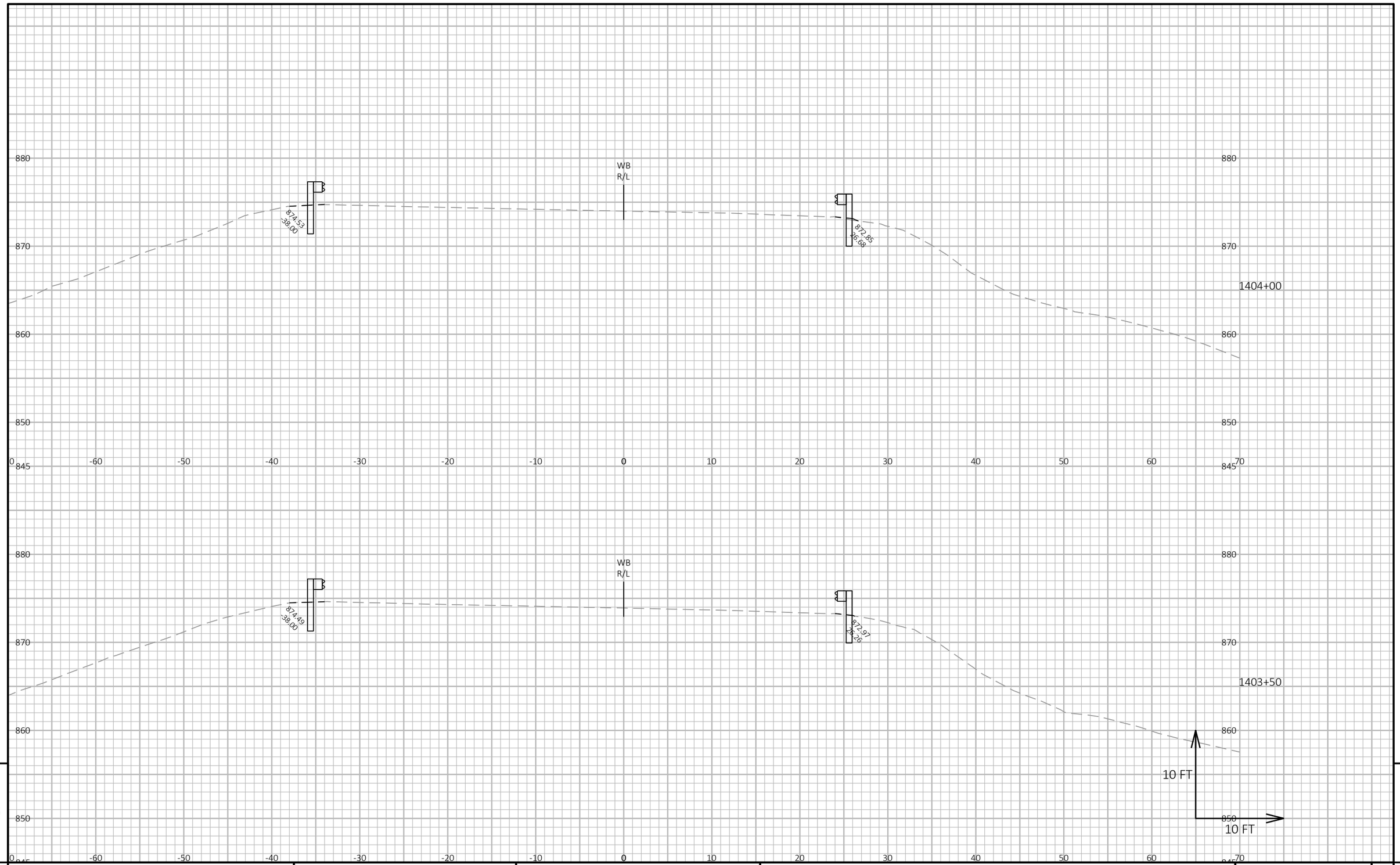
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 239	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 32

PLOT DATE : 8/20/2025 3:30 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 240	E

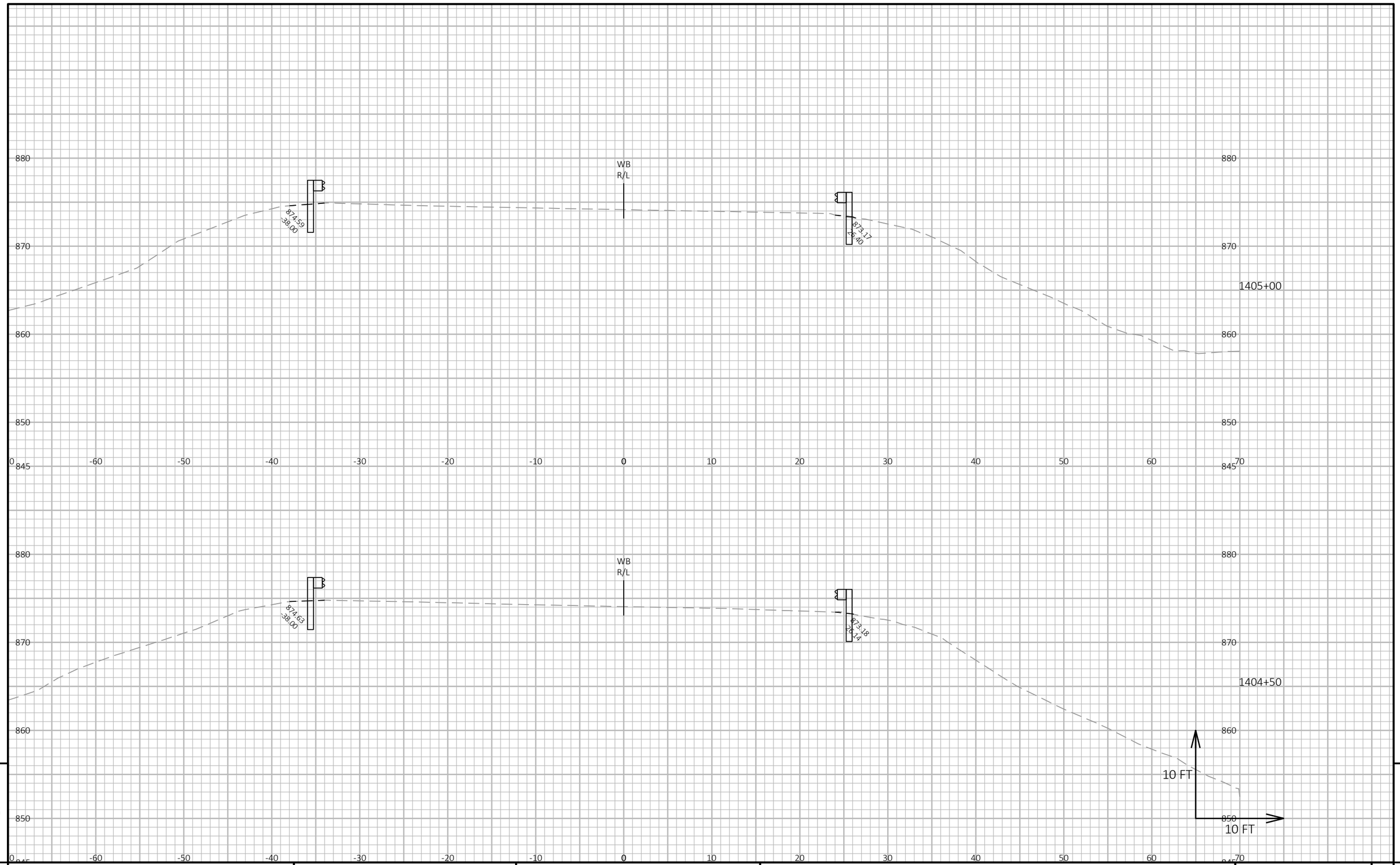
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 33

PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 241	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 34

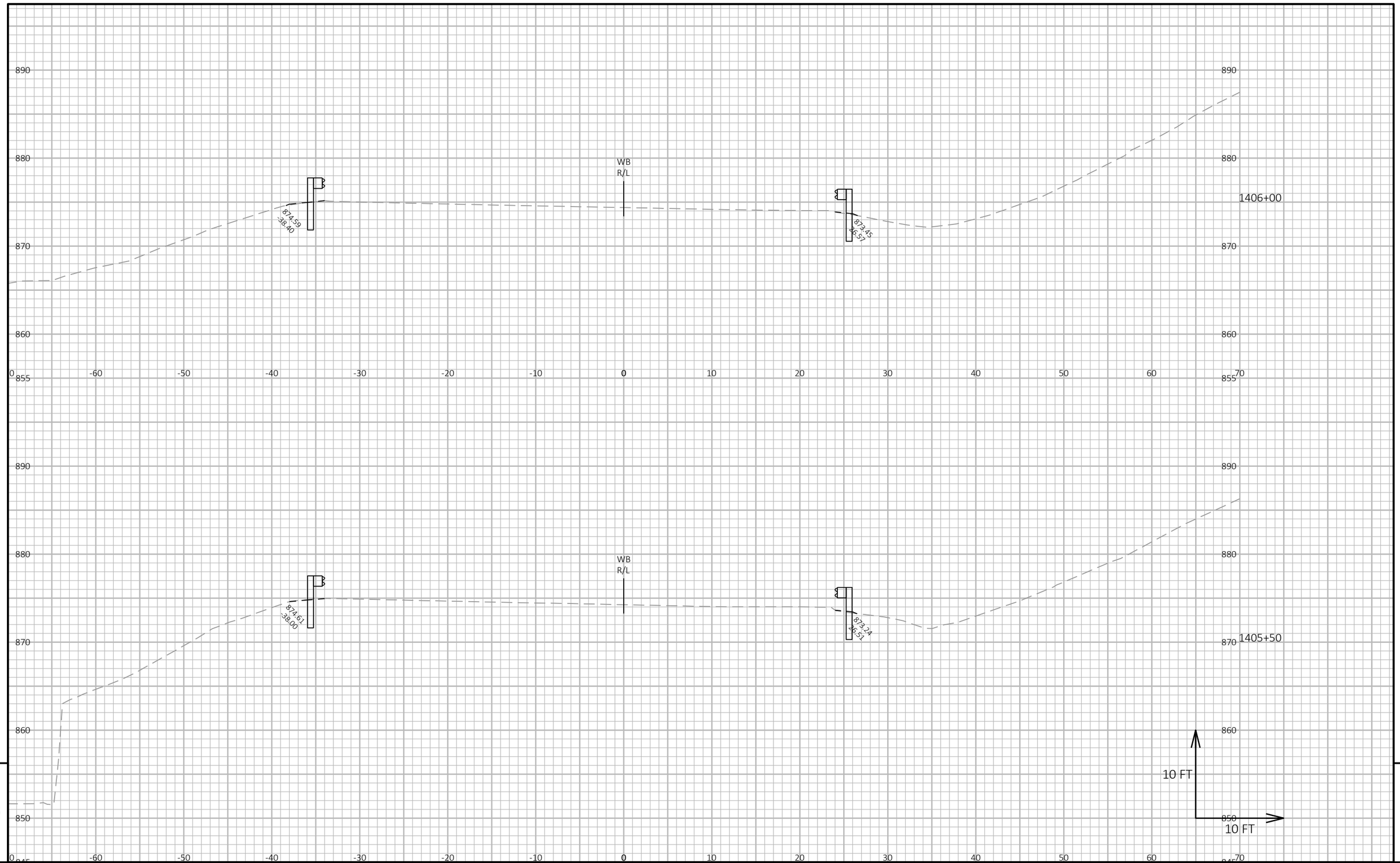
PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 242	E

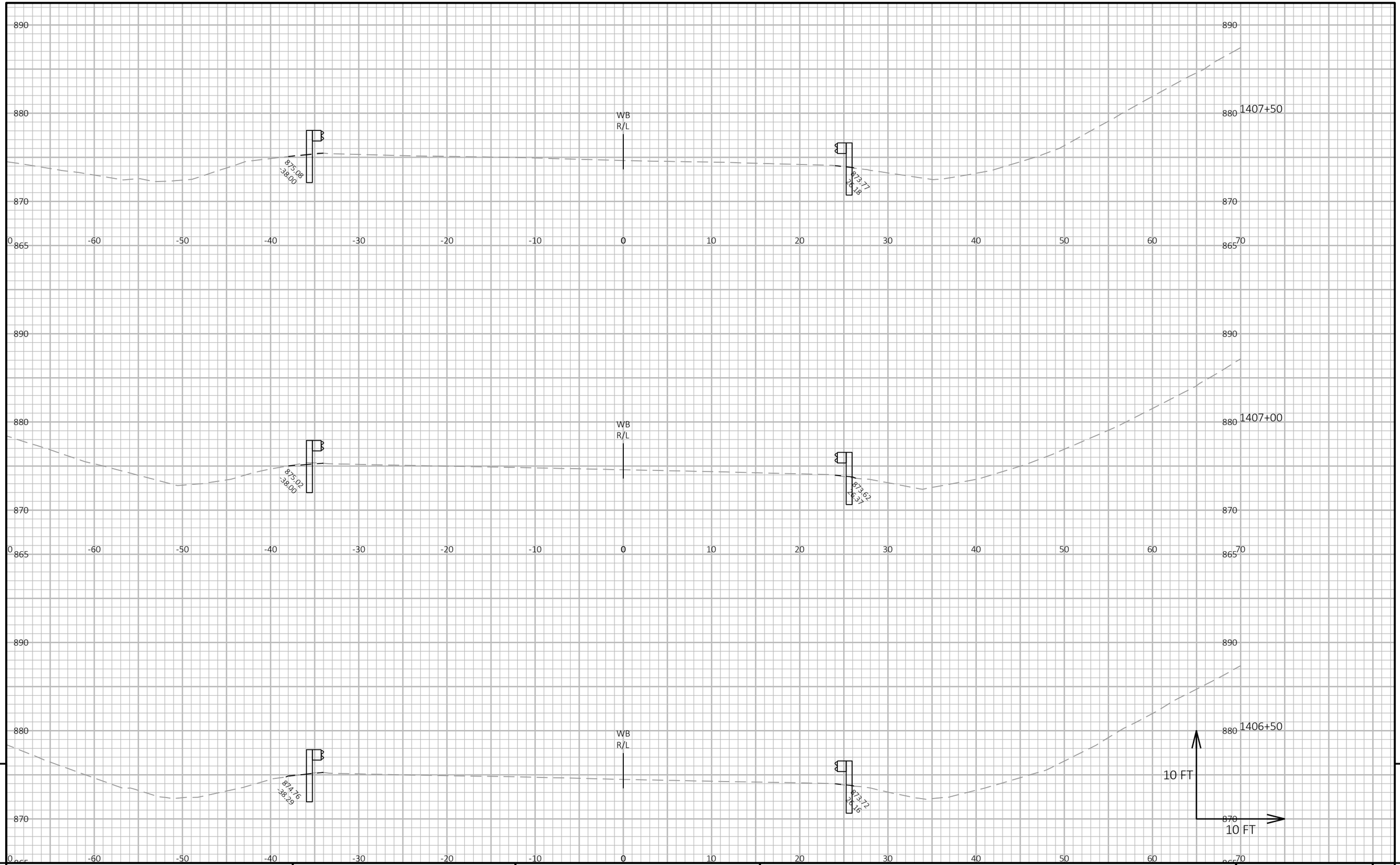
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 35

PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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



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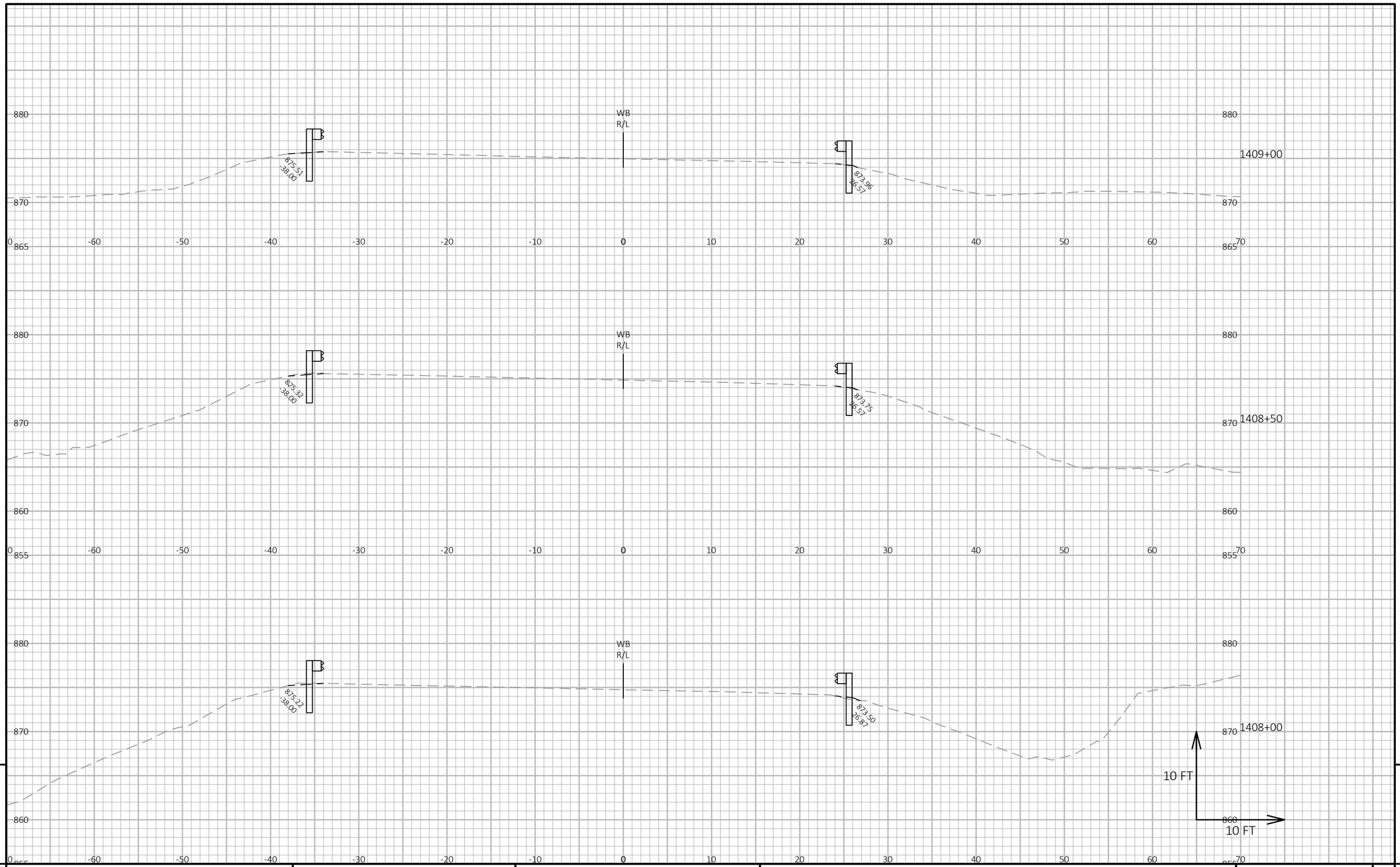
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 243	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 36

PLOT DATE : 8/20/2025 3:30 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 244	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 37

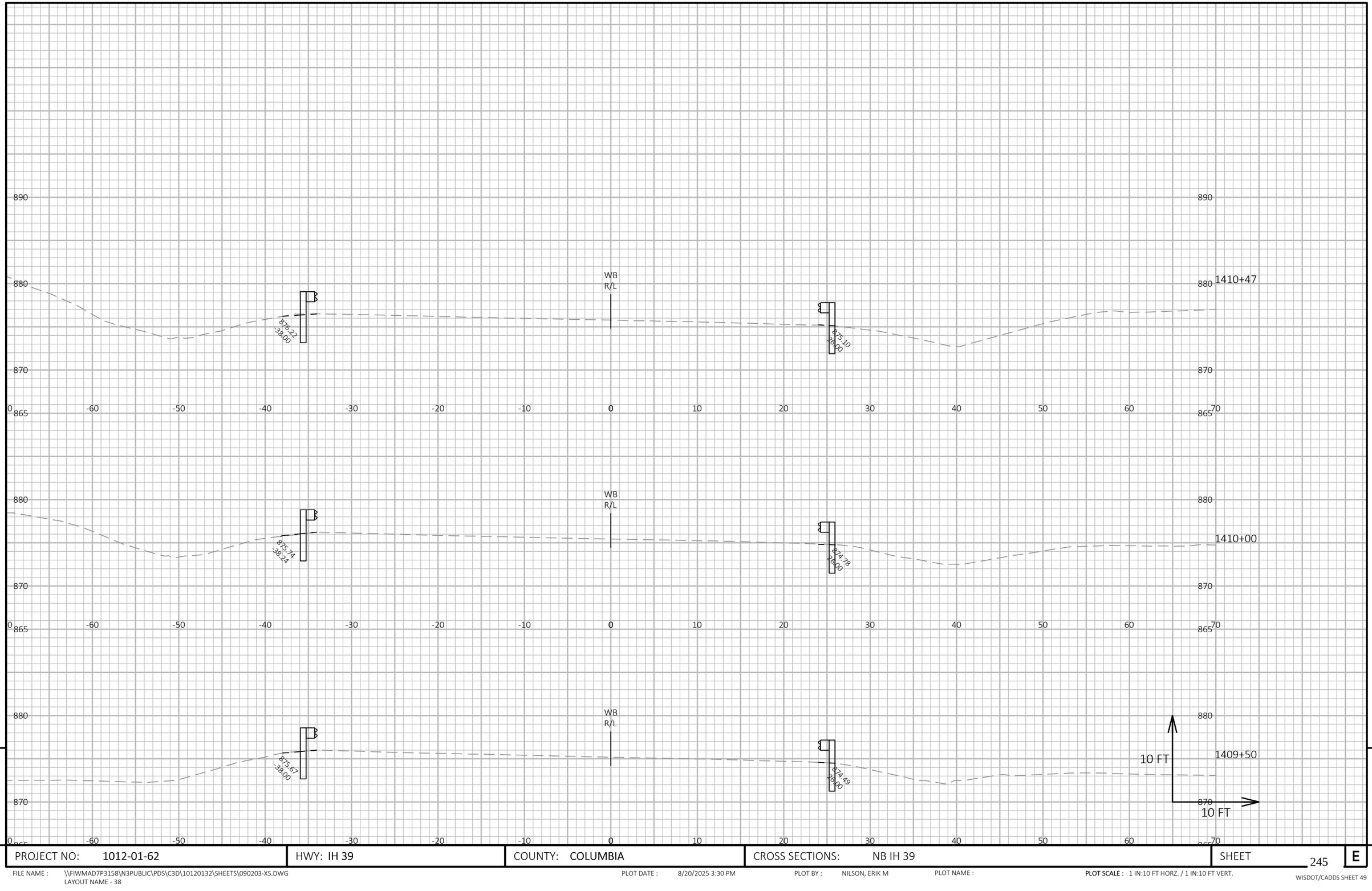
PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 245	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 38

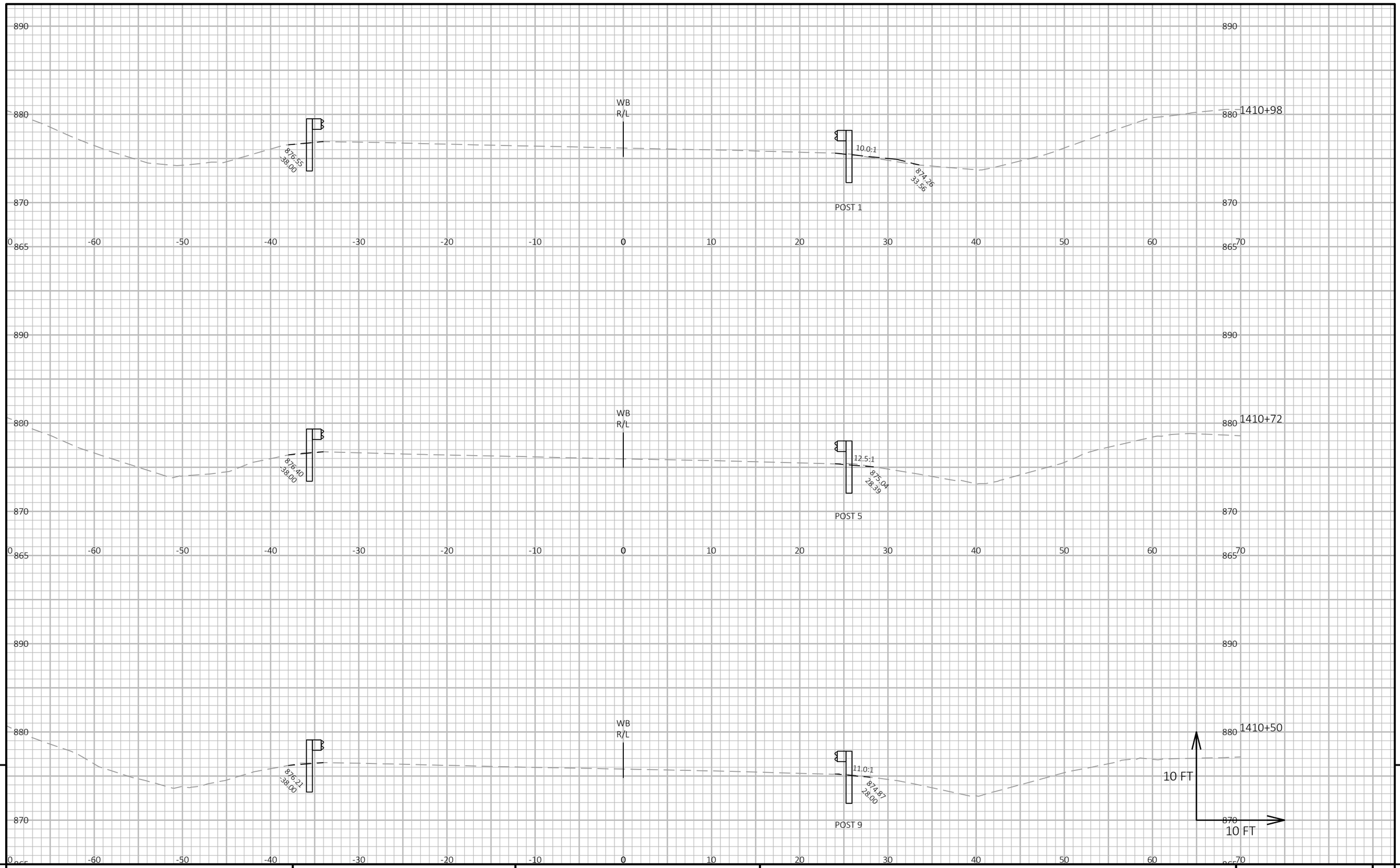
PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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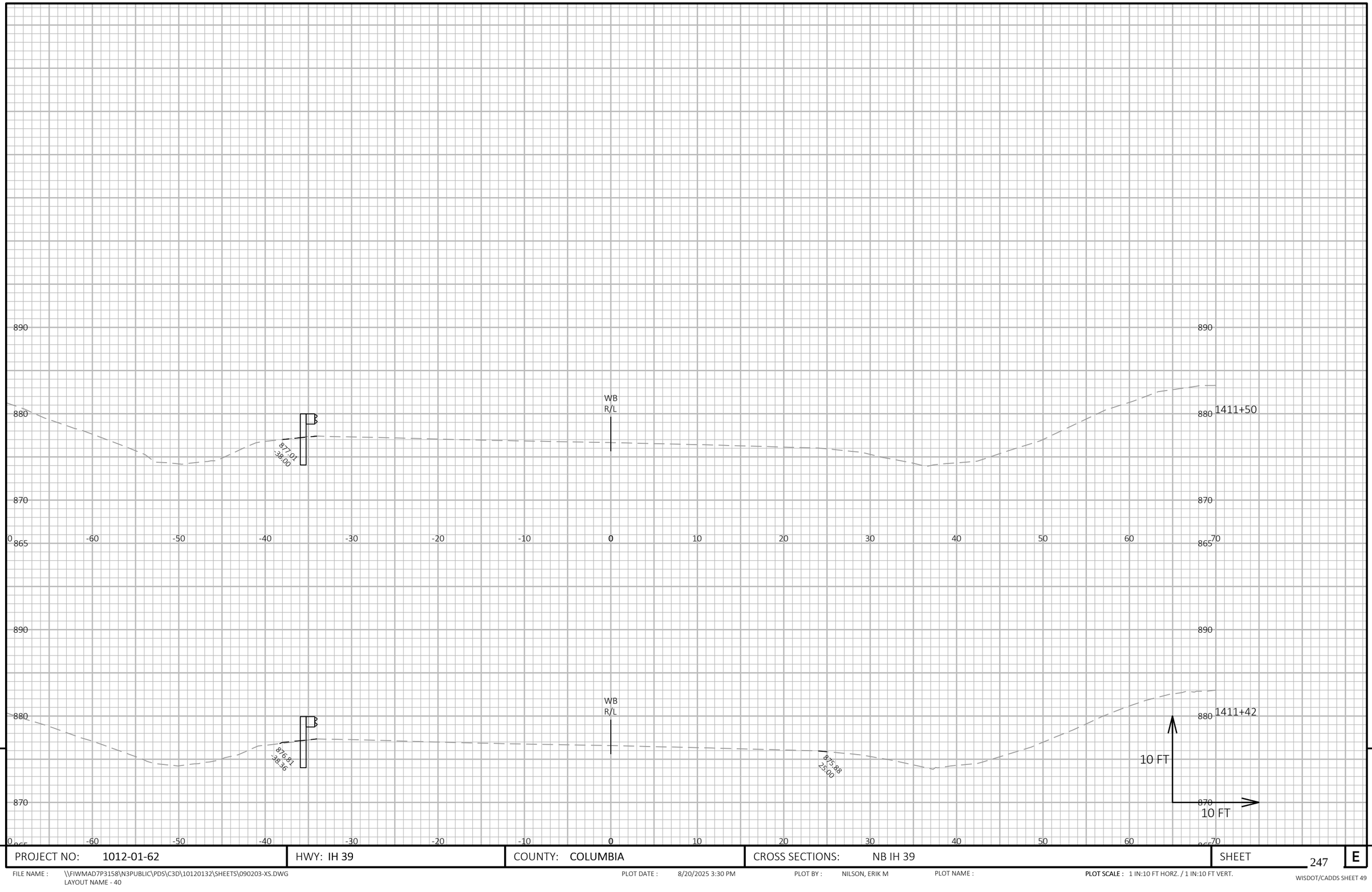
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FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 39

PLOT DATE : 8/20/2025 3:30 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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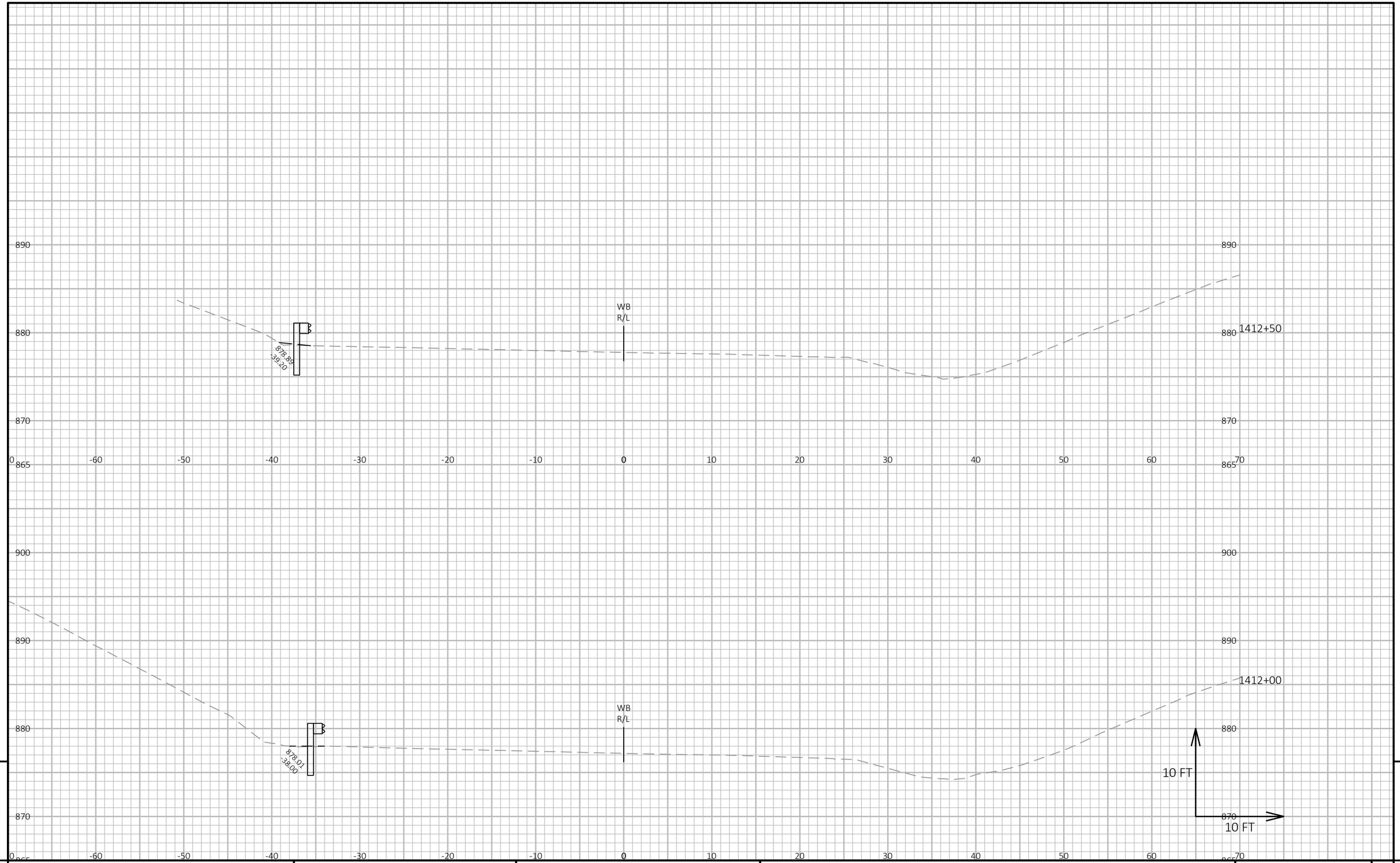
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 247	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 40

PLOT DATE : 8/20/2025 3:30 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 248	E

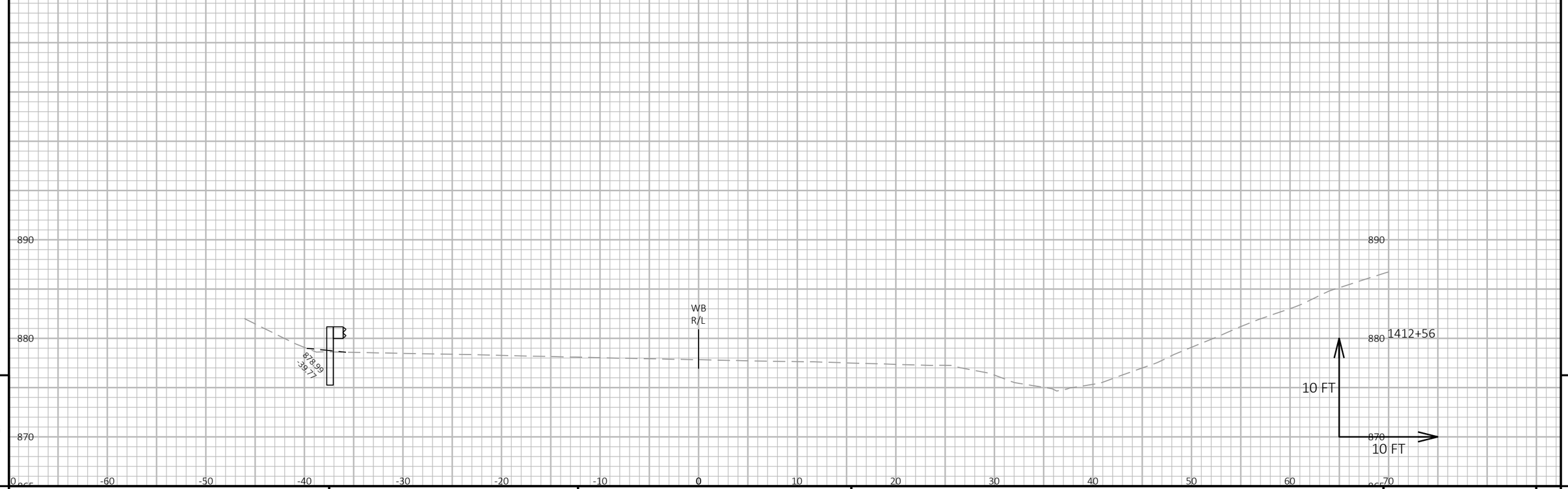
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 41

PLOT DATE : 8/20/2025 3:30 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 249	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090203-XS.DWG
LAYOUT NAME - 42

PLOT DATE : 8/20/2025 3:30 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

900
890
880
870
865
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60

879.78
41.94

WB
R/L

1413+50

879.94
42.22

1413+40

10 FT

10 FT

9

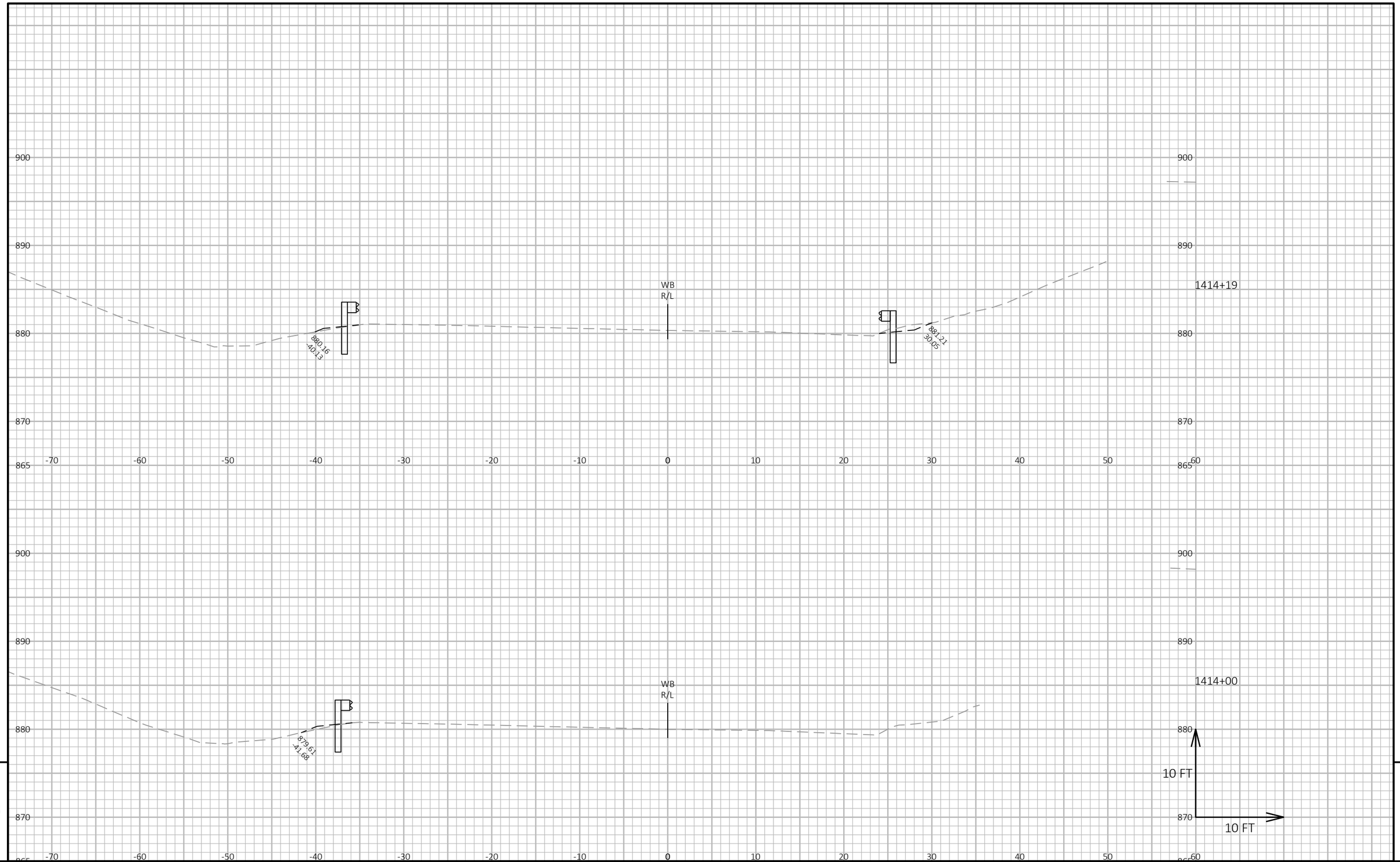
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 250	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 43

PLOT DATE : 8/20/2025 4:14 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 251	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 44

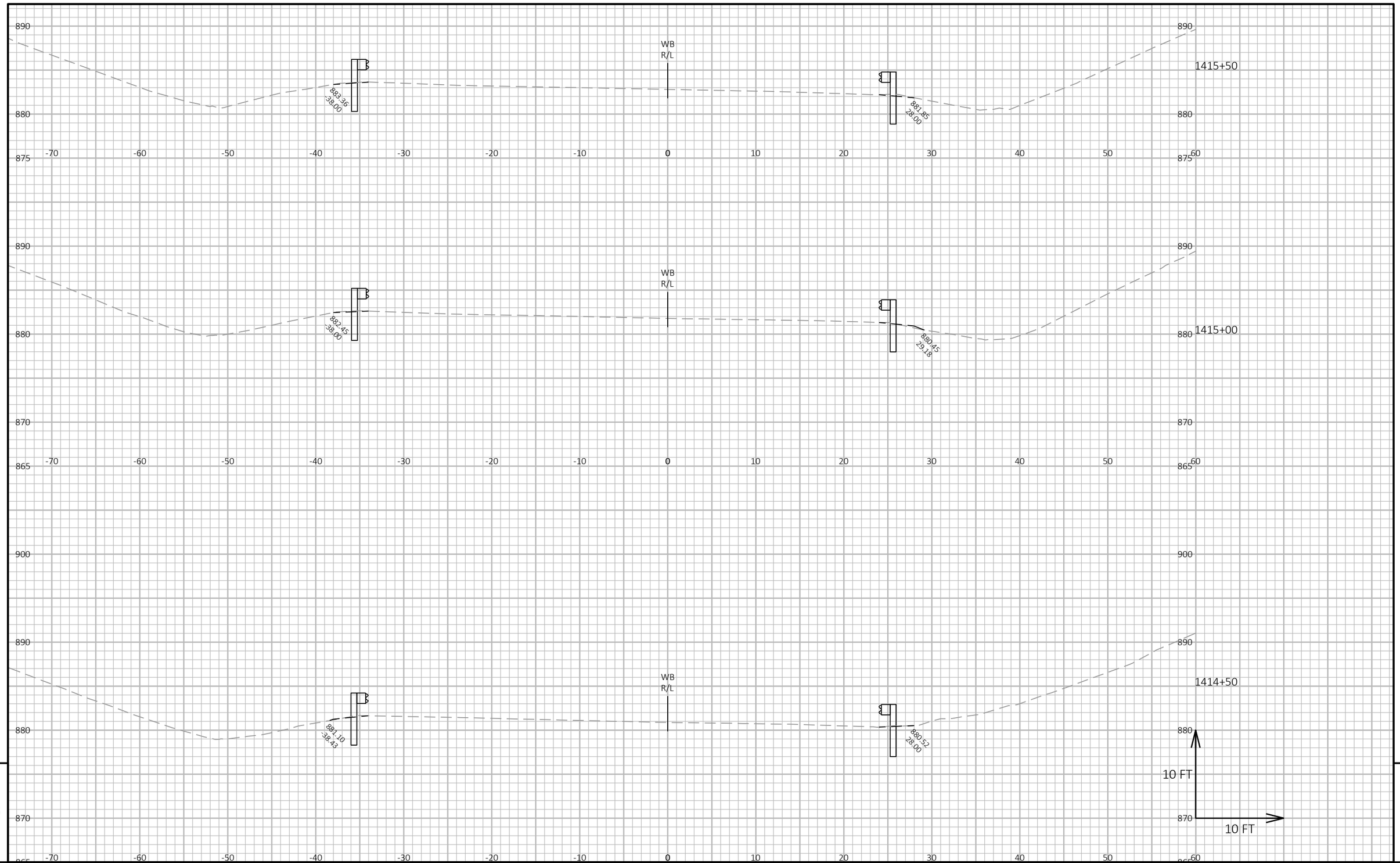
PLOT DATE : 8/20/2025 4:14 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

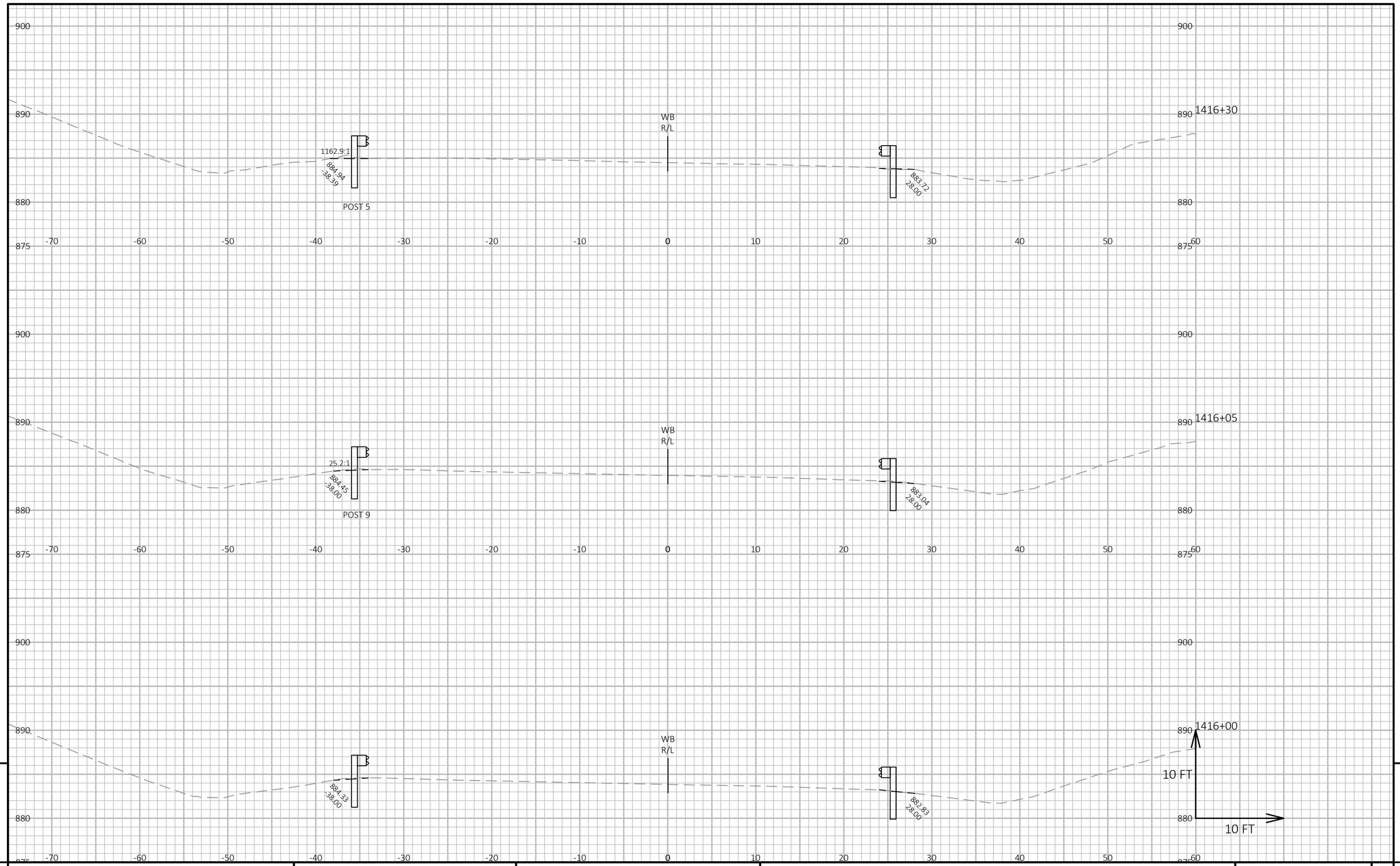
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 252	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 45

PLOT DATE : 8/20/2025 4:14 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

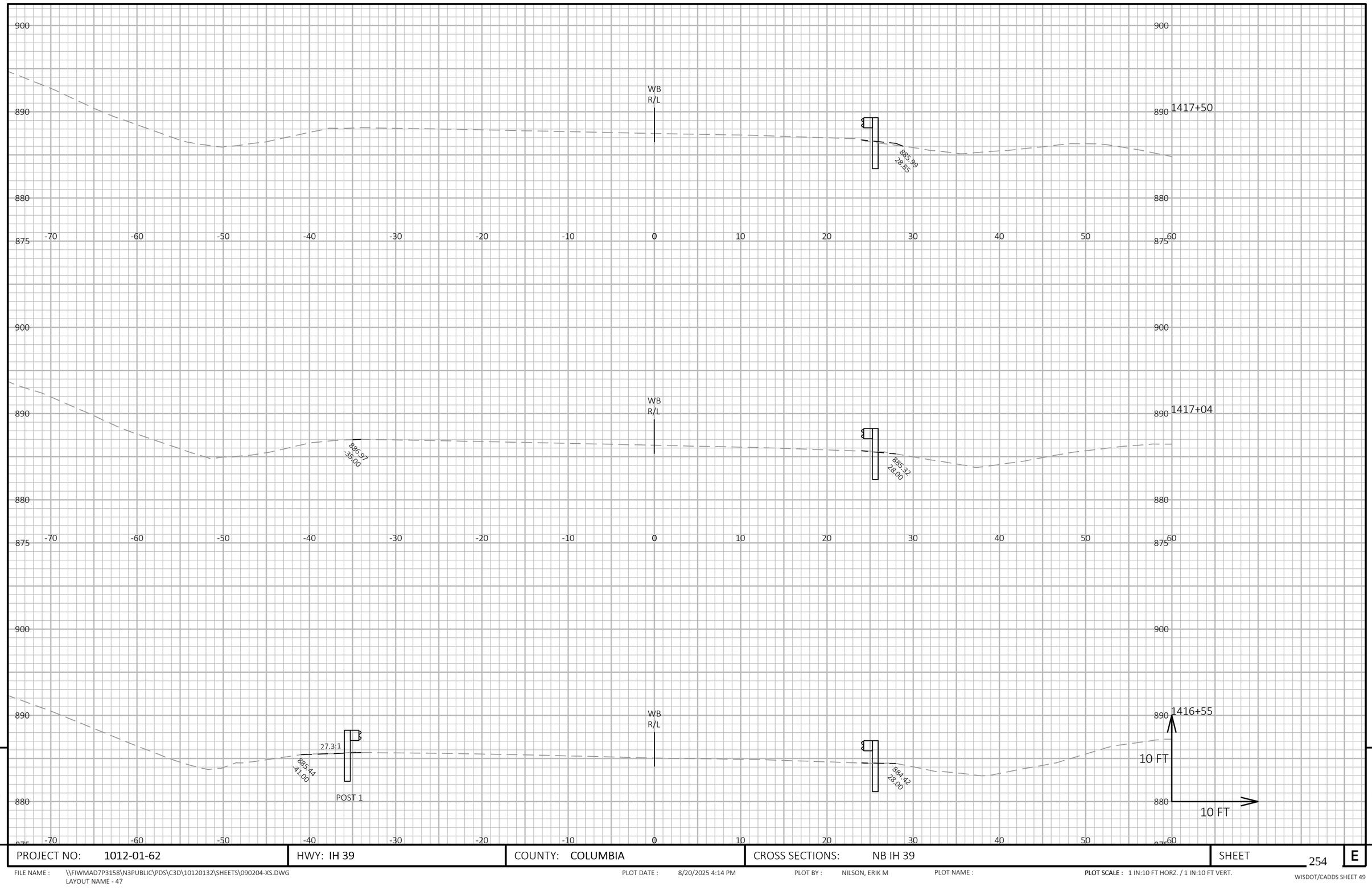
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 253	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 46

PLOT DATE : 8/20/2025 4:14 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

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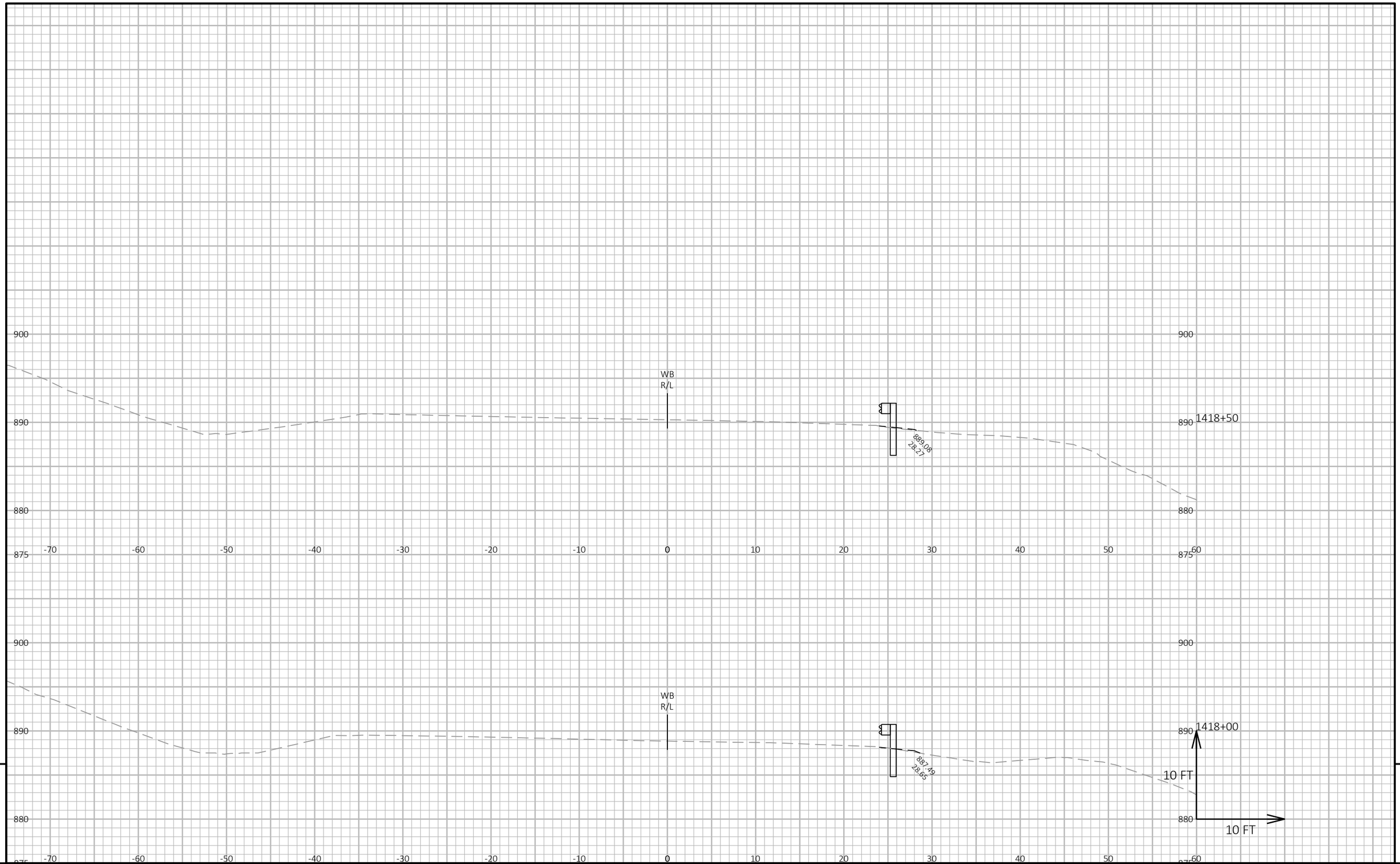
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 254	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 47

PLOT DATE : 8/20/2025 4:14 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

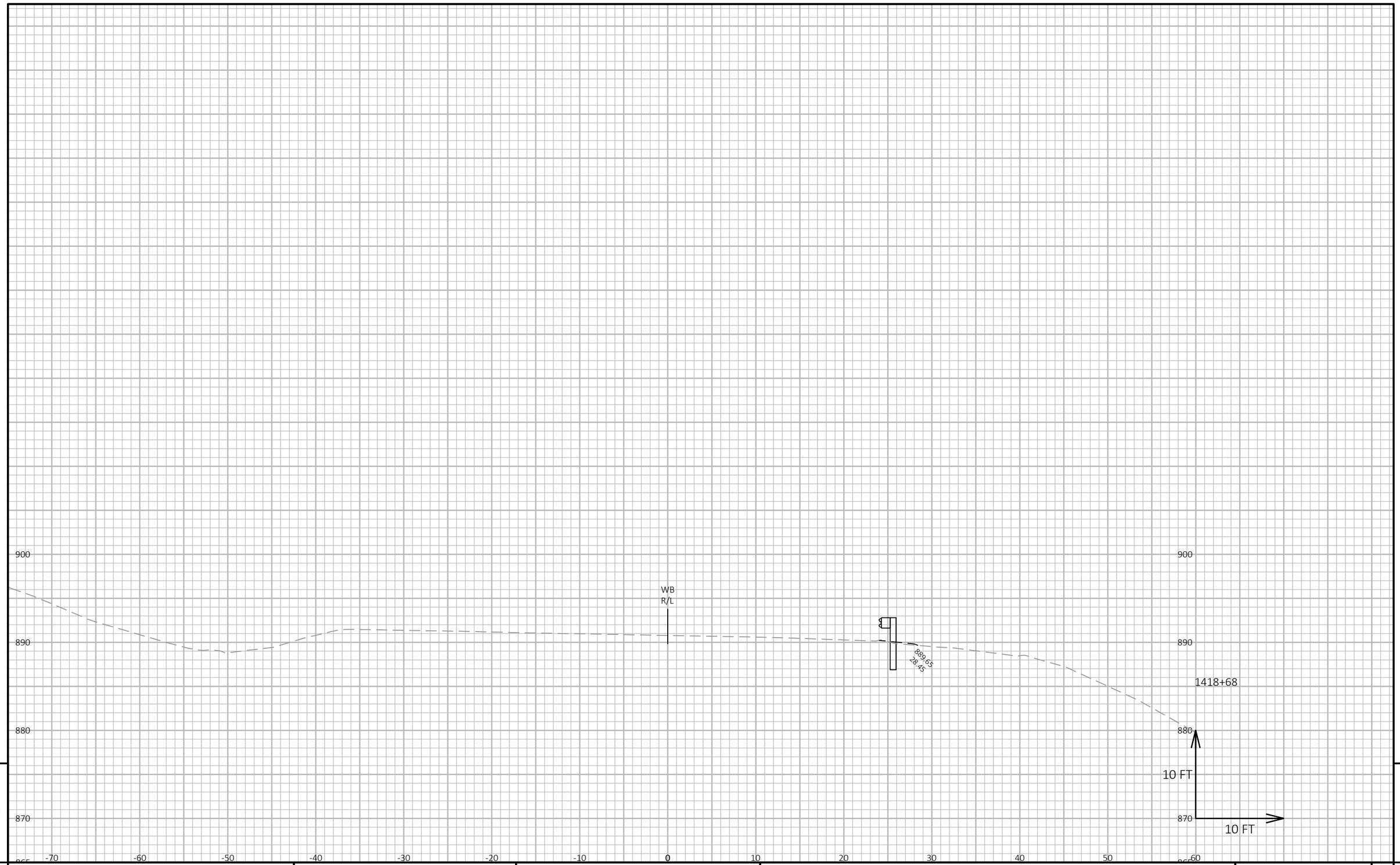
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 255	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 48

PLOT DATE : 8/20/2025 4:14 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

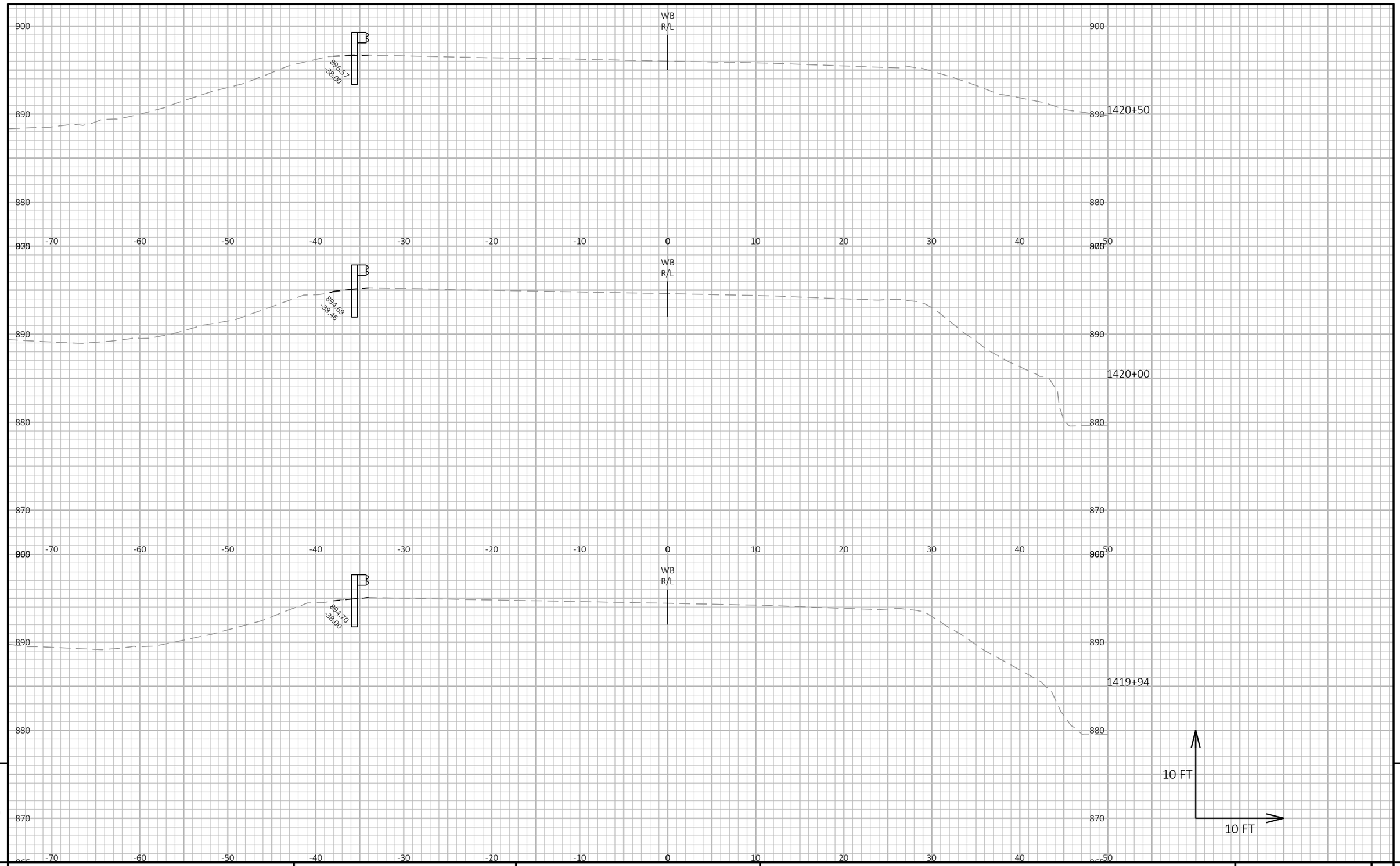
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 256	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 49

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

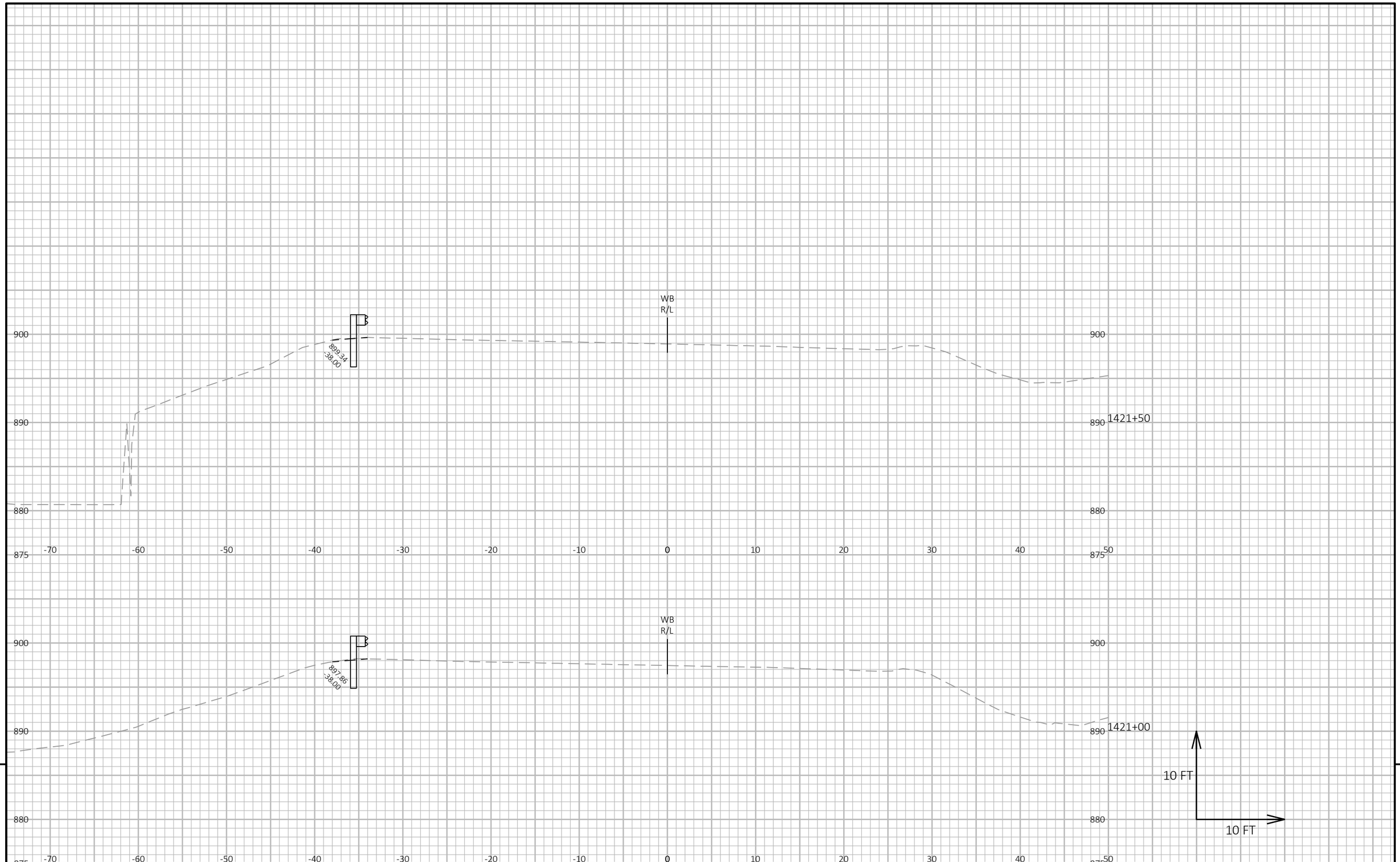
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 257	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 50

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

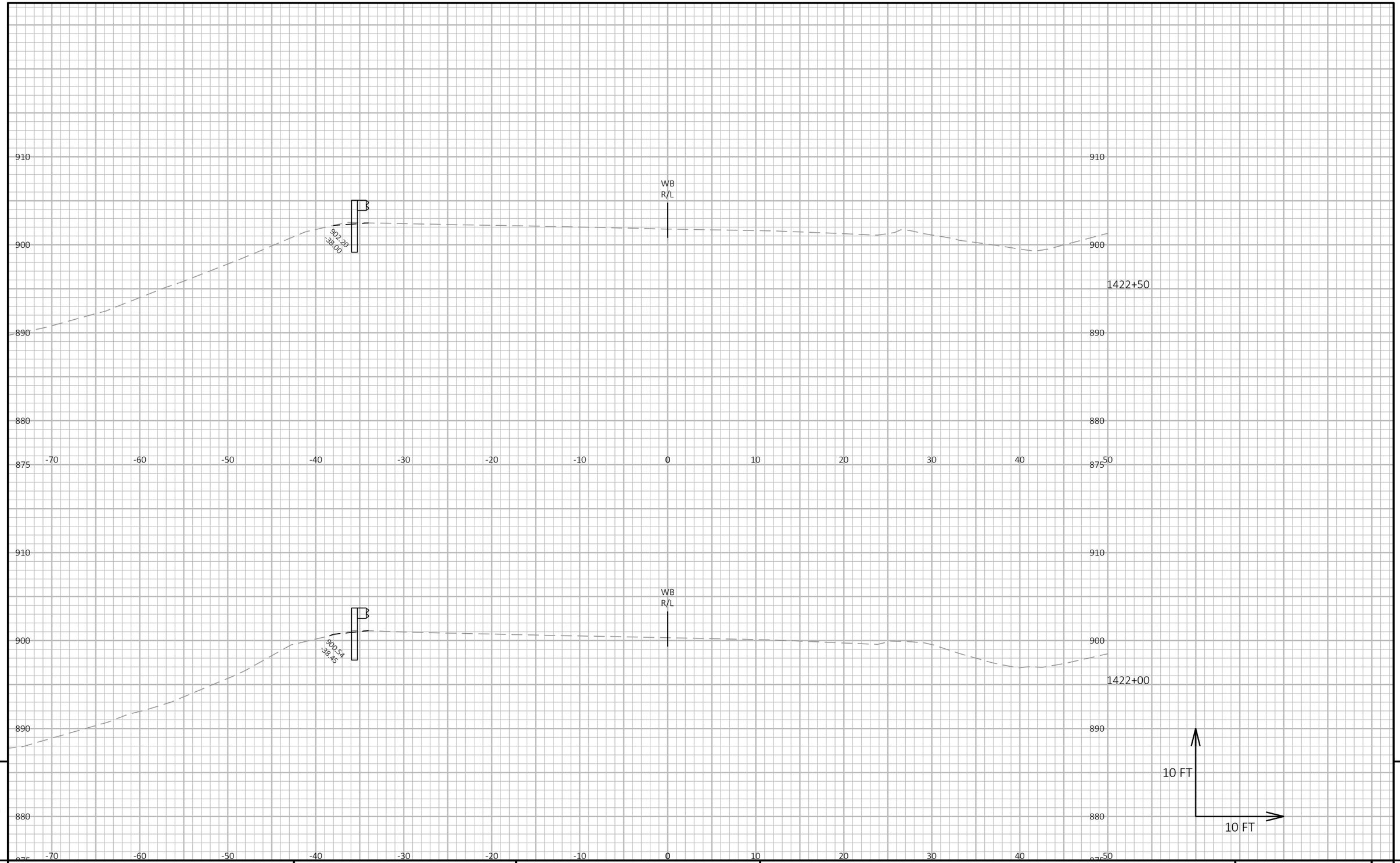
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 258	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 51

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 259	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 52

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

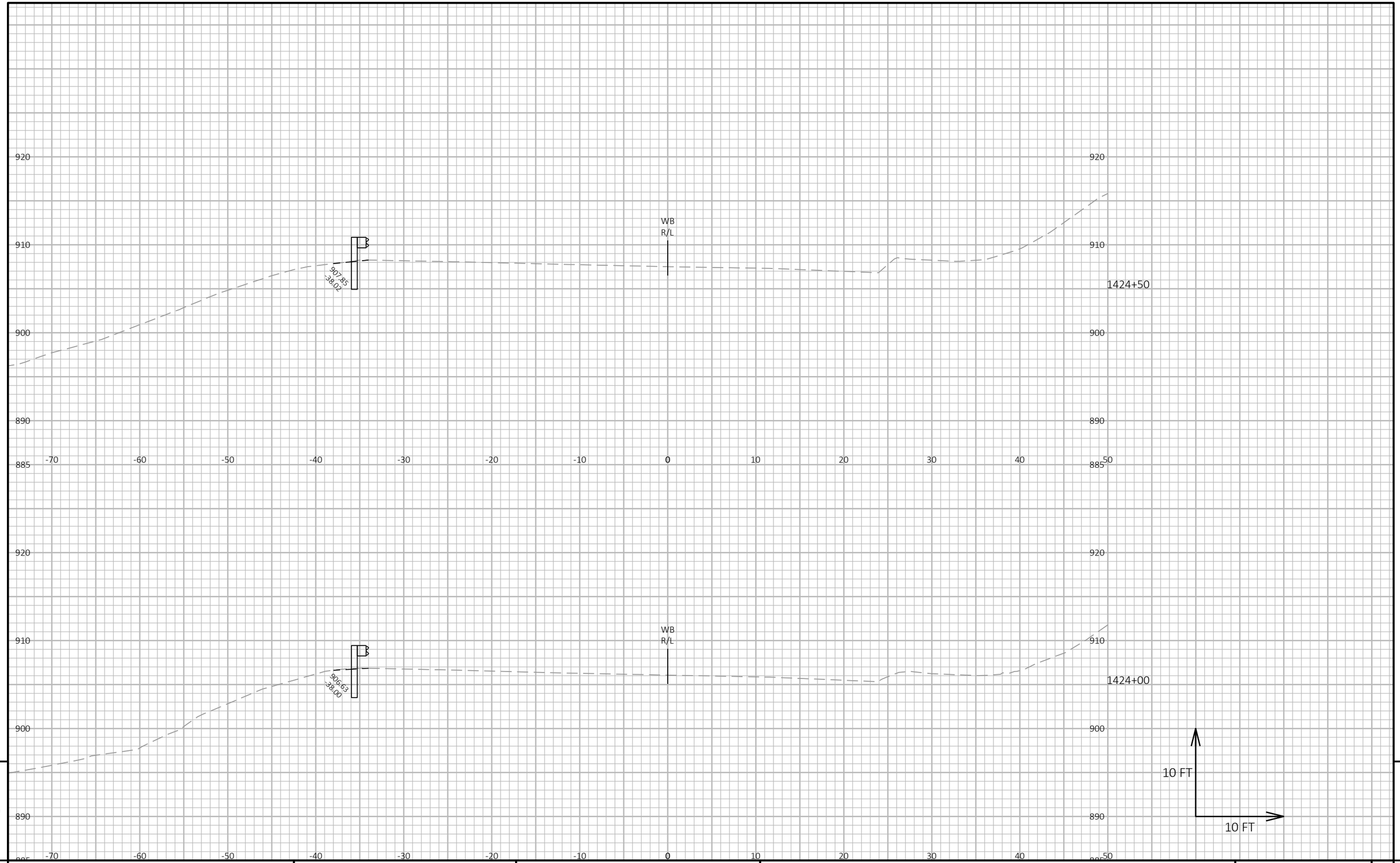
910
900
890
885
910
900
890
885
WB
R/L
905.24
-38.00
903.73
-38.00
-70
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
1423+50
1423+00
10 FT
10 FT
9
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 260	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 53

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 261	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 54

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

930
920
910
900
895
930
920
910
900
895
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
910.69
-38.00
1425+50
WB
R/L
909.54
-38.00
1425+00
10 FT
10 FT
9
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 262	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 55

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

930
920
910
900
890

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

13.0:1
912.13
38.39
POST 5

1425+95

31.6:1
911.63
38.00
POST 9

1425+70

10 FT
10 FT

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 263	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 56

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

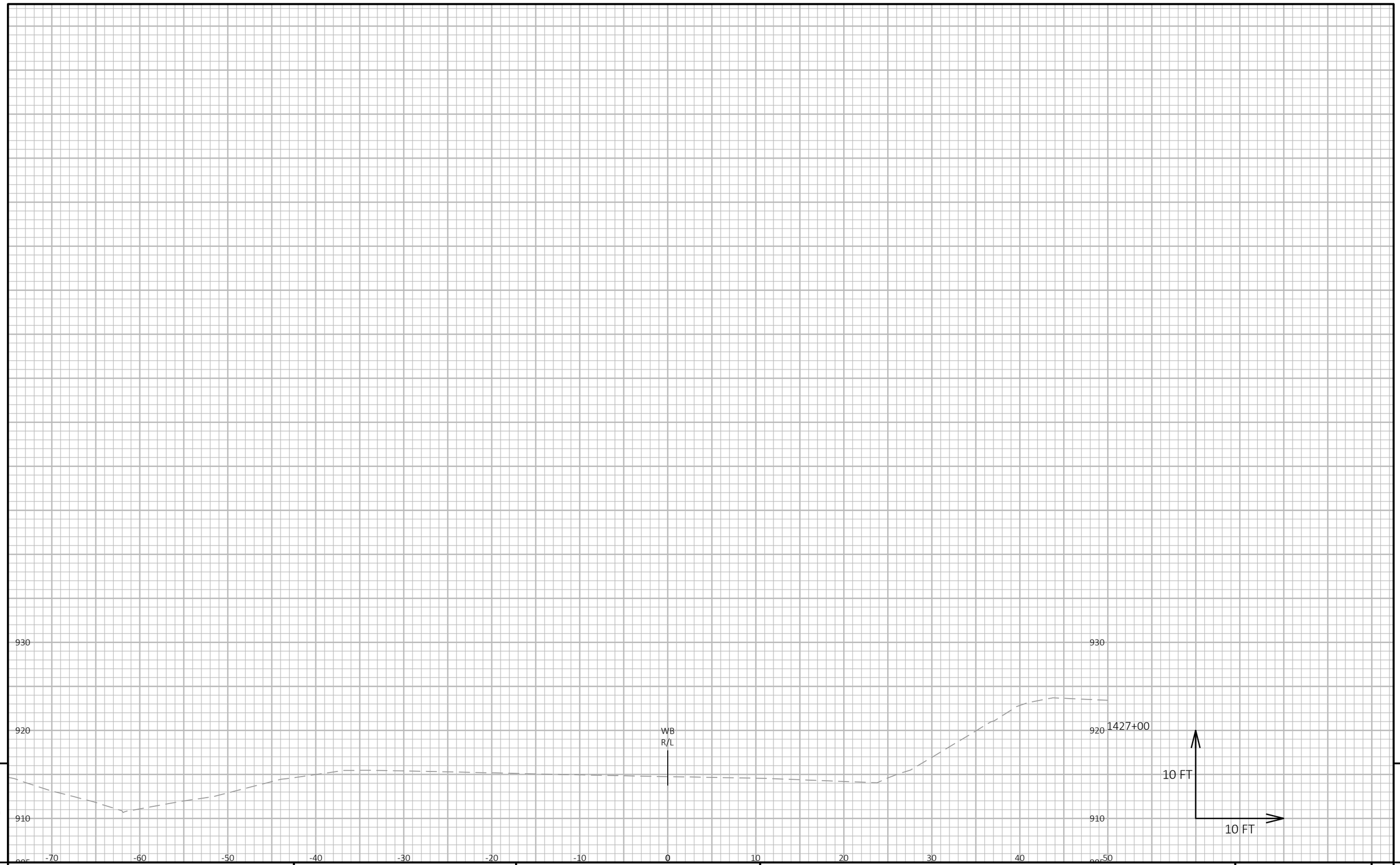
WISDOT/CADDS SHEET 49

930
920
910
900
895
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
914.63
35.00
1426+71
930
920
910
900
895
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
12.3:1
912.61
41.00
POST 1
WB
R/L
1426+20
10 FT
10 FT
9
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 264	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 57

PLOT DATE : 8/20/2025 4:15 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 265	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090204-XS.DWG
LAYOUT NAME - 58

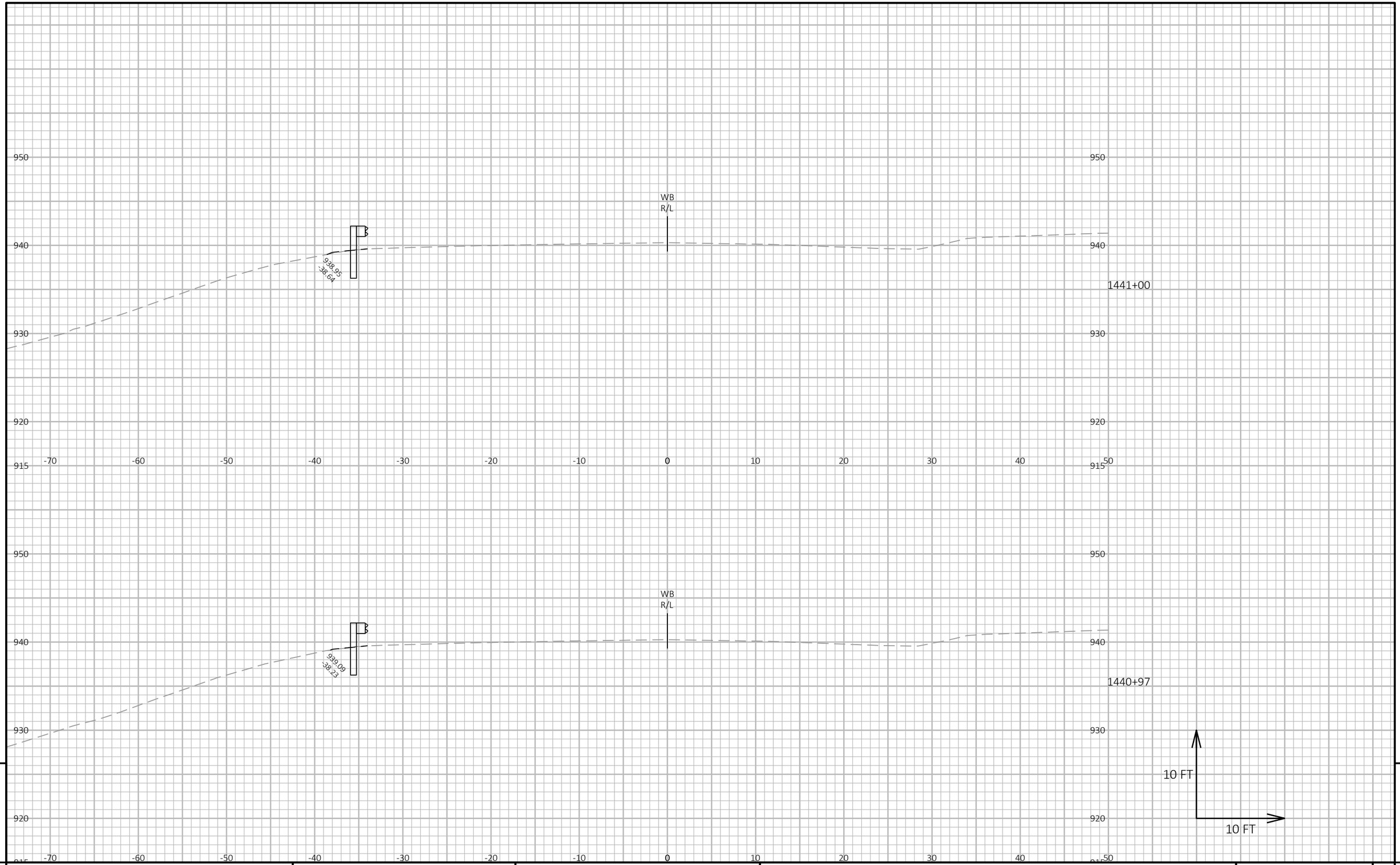
PLOT DATE : 8/20/2025 4:15 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 266	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090205-XS.DWG
LAYOUT NAME - 59

PLOT DATE : 8/20/2025 4:20 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
920
915
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

10.0:1
939.98
38.23
POST 9

1441+88

950
940
930
920
915
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

939.67
38.00

1441+50

10 FT
10 FT

9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 267	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090205-XS.DWG
LAYOUT NAME - 60

PLOT DATE : 8/20/2025 4:20 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49

950
940
930
925
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

941.36
-35.00

1442+85

950
940
930
925
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

13.1:1
940.43
-41.00

POST 1

1442+38

950
940
930
925
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

12.2:1
940.34
-38.39

POST 5

1442+13

10 FT
10 FT

9 9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 268	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090205-XS.DWG
LAYOUT NAME - 61

PLOT DATE : 8/20/2025 4:20 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

950
940
930
925
WB
R/L
-70
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
1443+00
10 FT
10 FT

9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 269	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090205-XS.DWG
LAYOUT NAME - 62

PLOT DATE : 8/20/2025 4:20 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
953.13
38.00
1460+00
960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
953.03
38.00
1459+80
10 FT
10 FT

9 9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 270	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 63

PLOT DATE : 8/20/2025 4:27 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

960
950
940
930
925
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
953.47
-38.00
1461+00

960
950
940
930
925
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
953.32
-38.00
1460+50
10 FT
10 FT

9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 271	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 64

PLOT DATE : 8/20/2025 4:27 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
953.68
38.00
1462+00
960
950
940
935
960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
953.66
38.00
1461+50
10 FT
10 FT
9
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 272	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 65

PLOT DATE : 8/20/2025 4:27 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

954.41
-38.00

1463+50

960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

954.19
-38.00

1463+00

960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

953.79
-38.15

1462+50

10 FT
10 FT

9

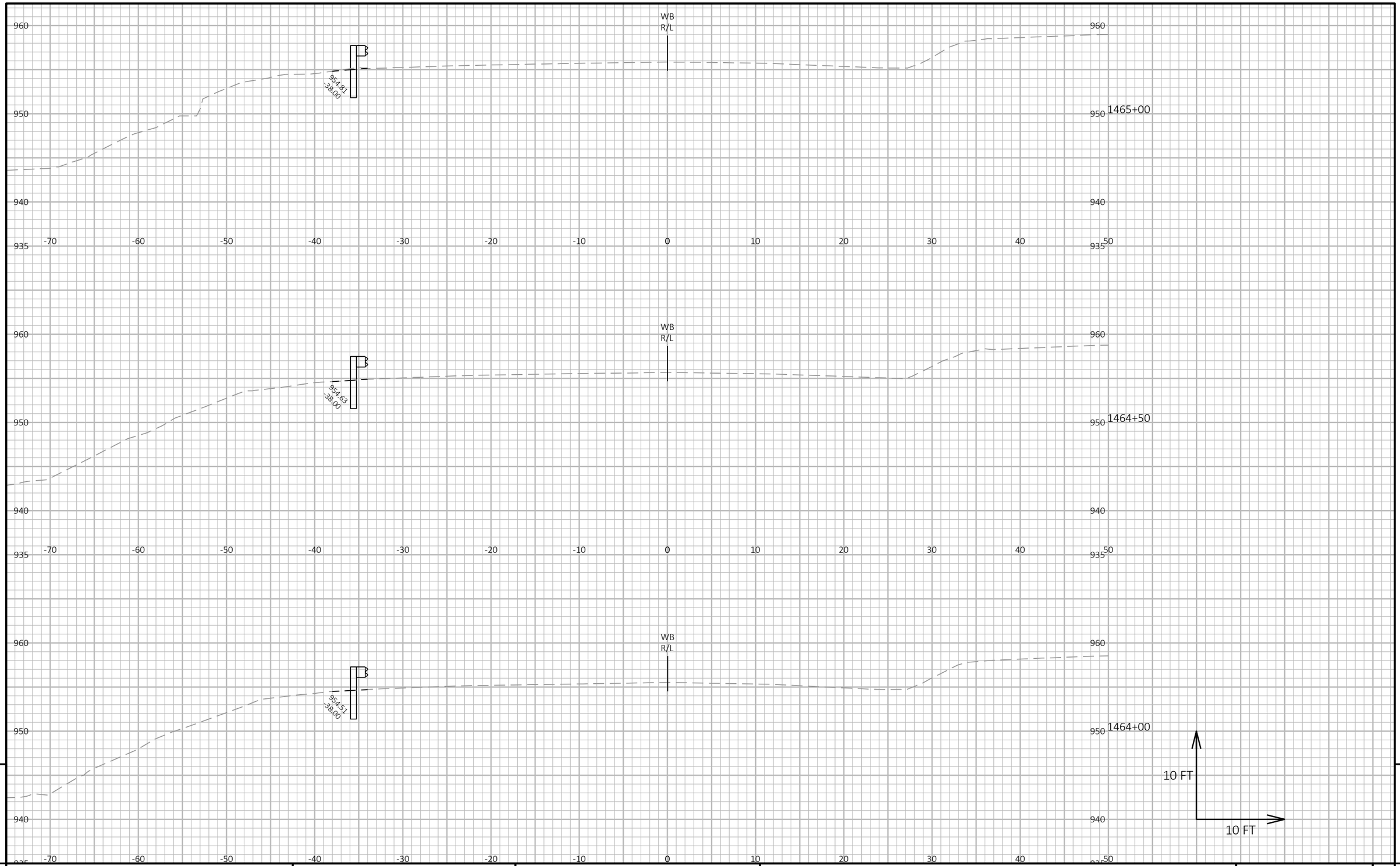
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 273	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 66

PLOT DATE : 8/20/2025 4:27 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 274	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 67

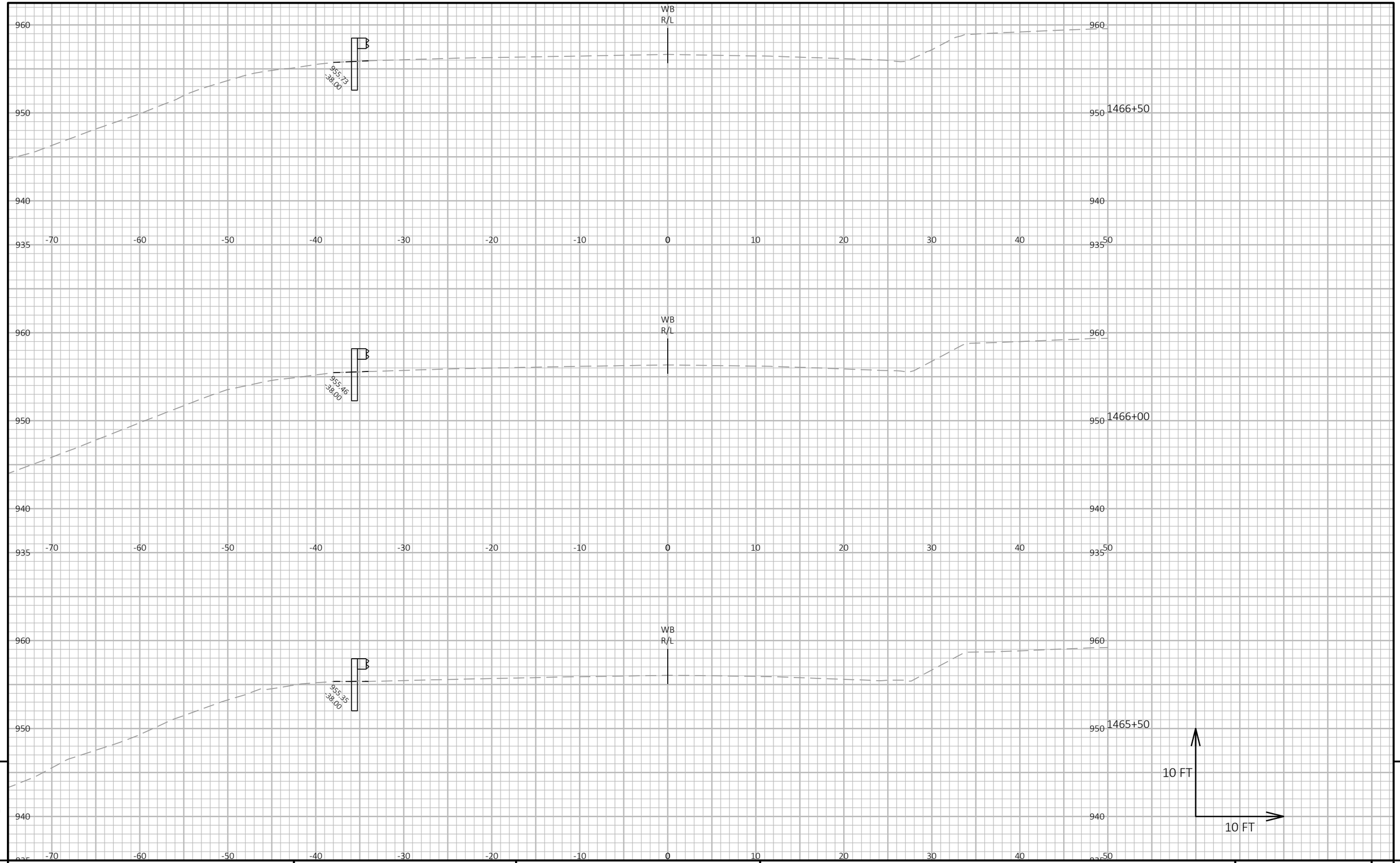
PLOT DATE : 8/20/2025 4:27 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

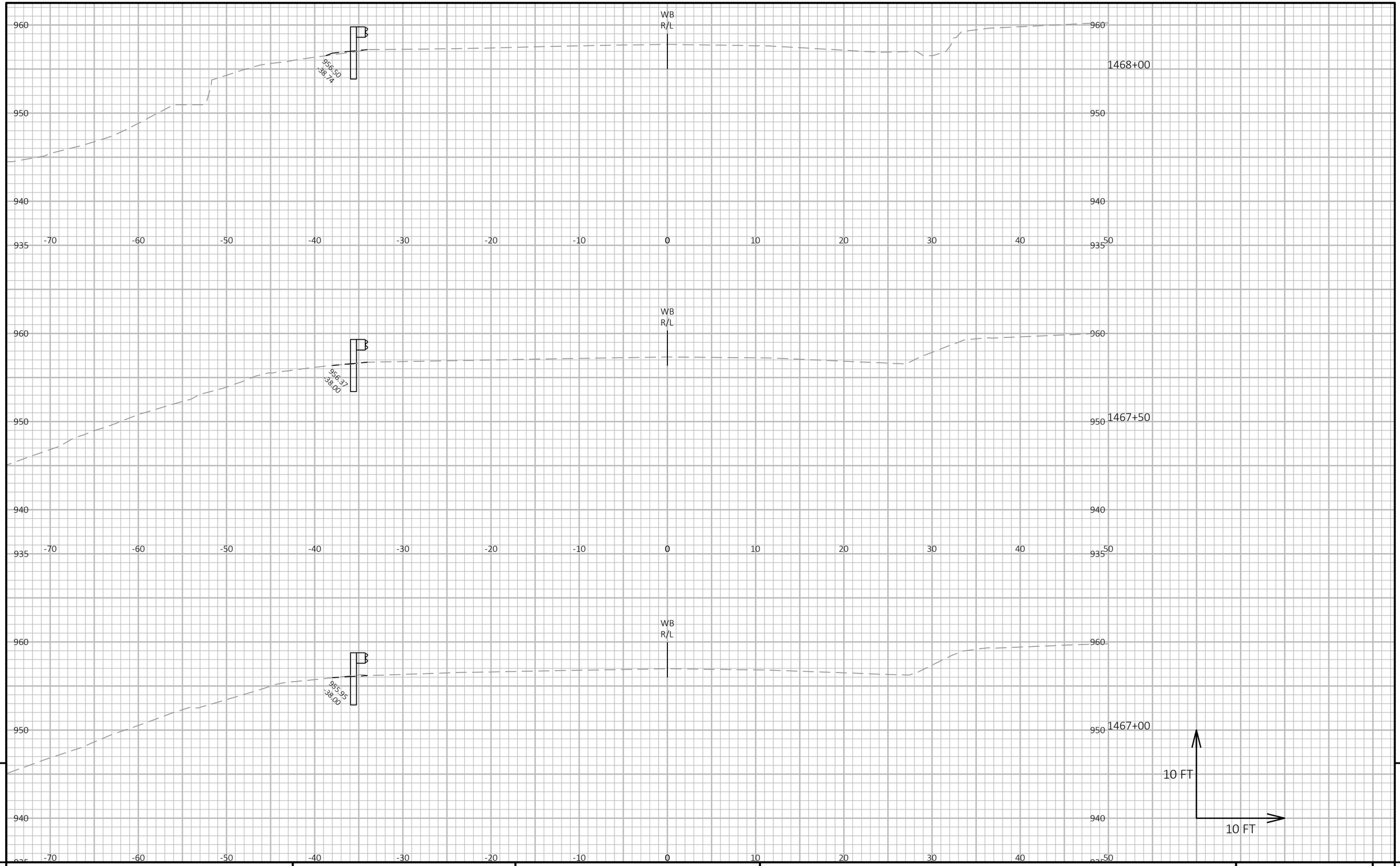
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PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 275	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 68

PLOT DATE : 8/20/2025 4:27 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 276	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 69

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

956.48
38.53

1469+00

970
960
950
940
935
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

956.97
38.73

1468+50

10 FT
10 FT

9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 277	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 70

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

970
960
950
945
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

958.93
-38.00

1470+00

970
960
950
945
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

WB
R/L

958.12
-38.18

1469+50

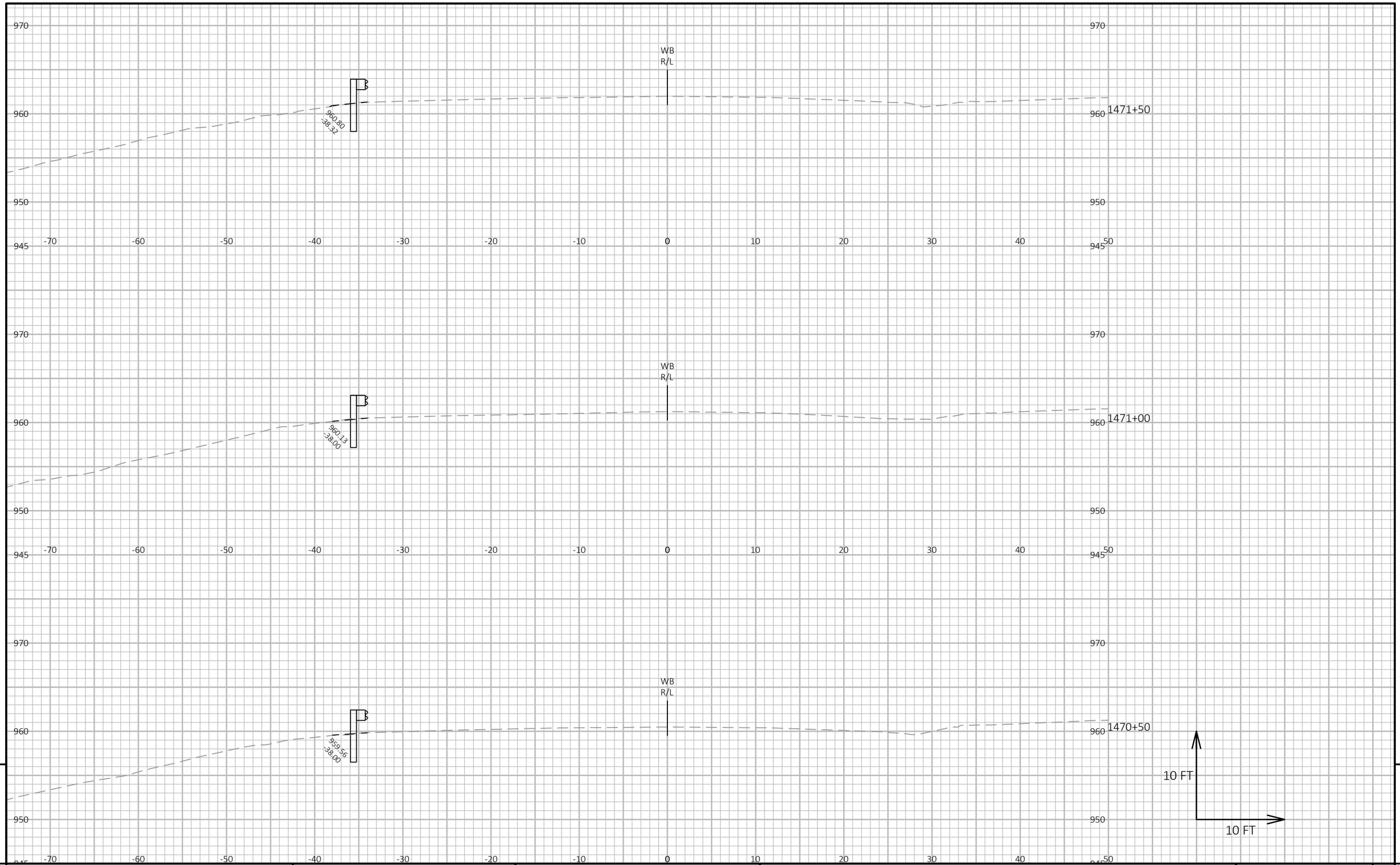
10 FT
10 FT

9 9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 278	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 71

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 279	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 72

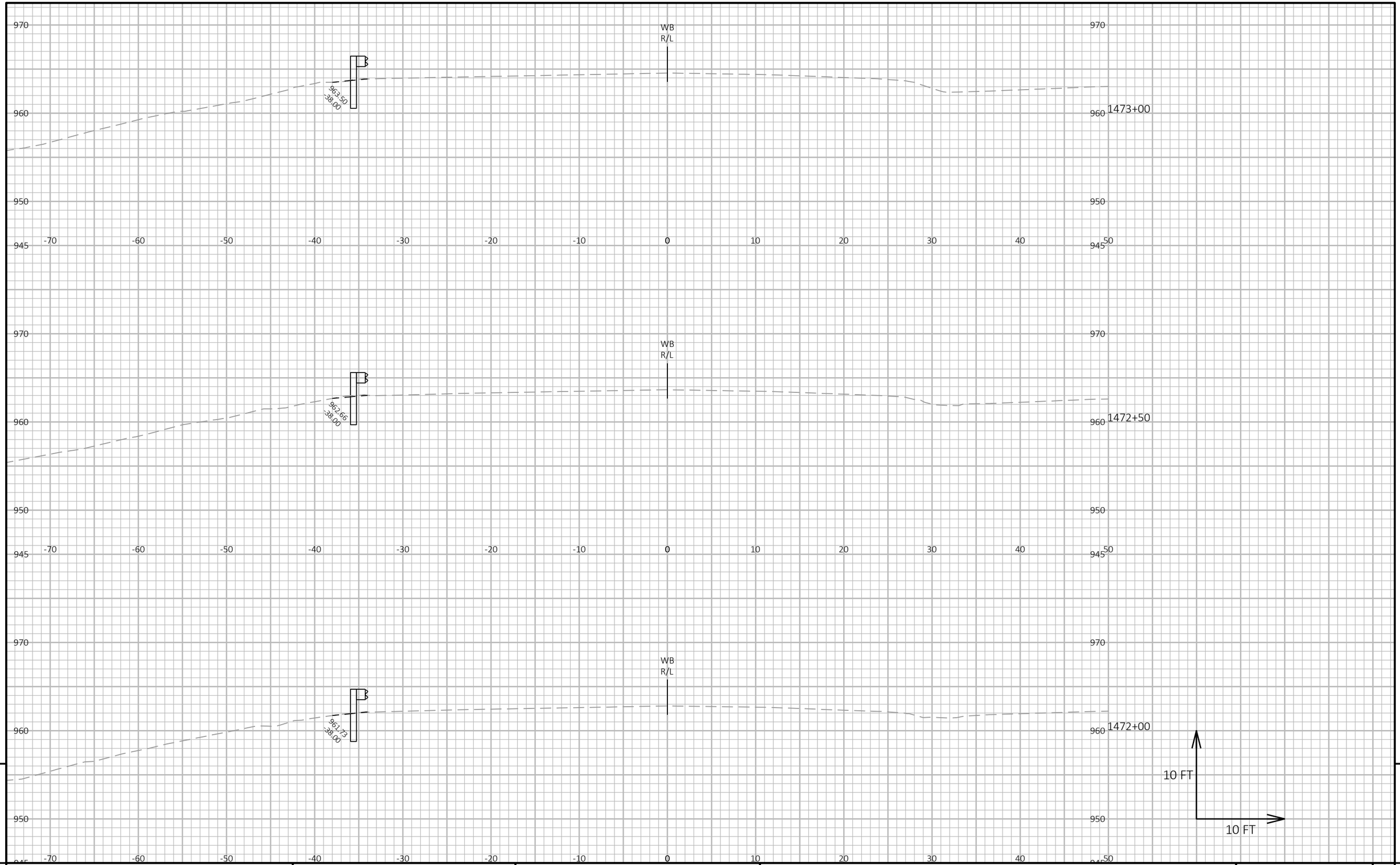
PLOT DATE : 8/20/2025 4:28 PM

PLOT BY : NILSON, ERIK M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

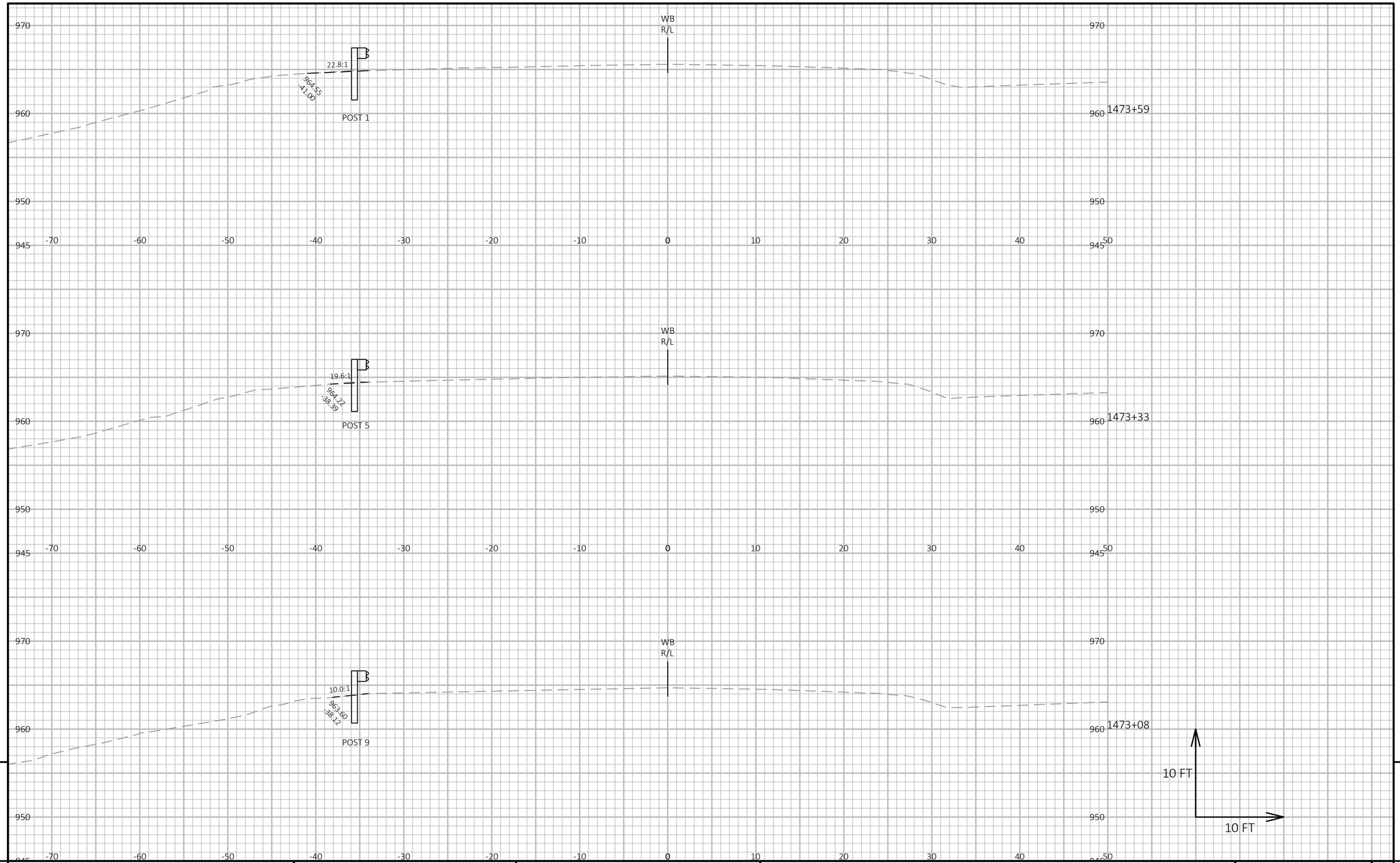
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 280	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 73

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 281	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 74

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

970
960
950
945
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
1474+50
970
960
950
945
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
965.52
35.21
1474+06
10 FT
10 FT

9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 282	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 75

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

1030
1020
1010
1005
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
1023.12
-39.31
1506+50

1030
1020
1015
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
1023.35
-38.23
1506+00

1030
1040
1030
1020
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
WB
R/L
1026.57
-46.41
1505+89
10 FT
10 FT

9

9

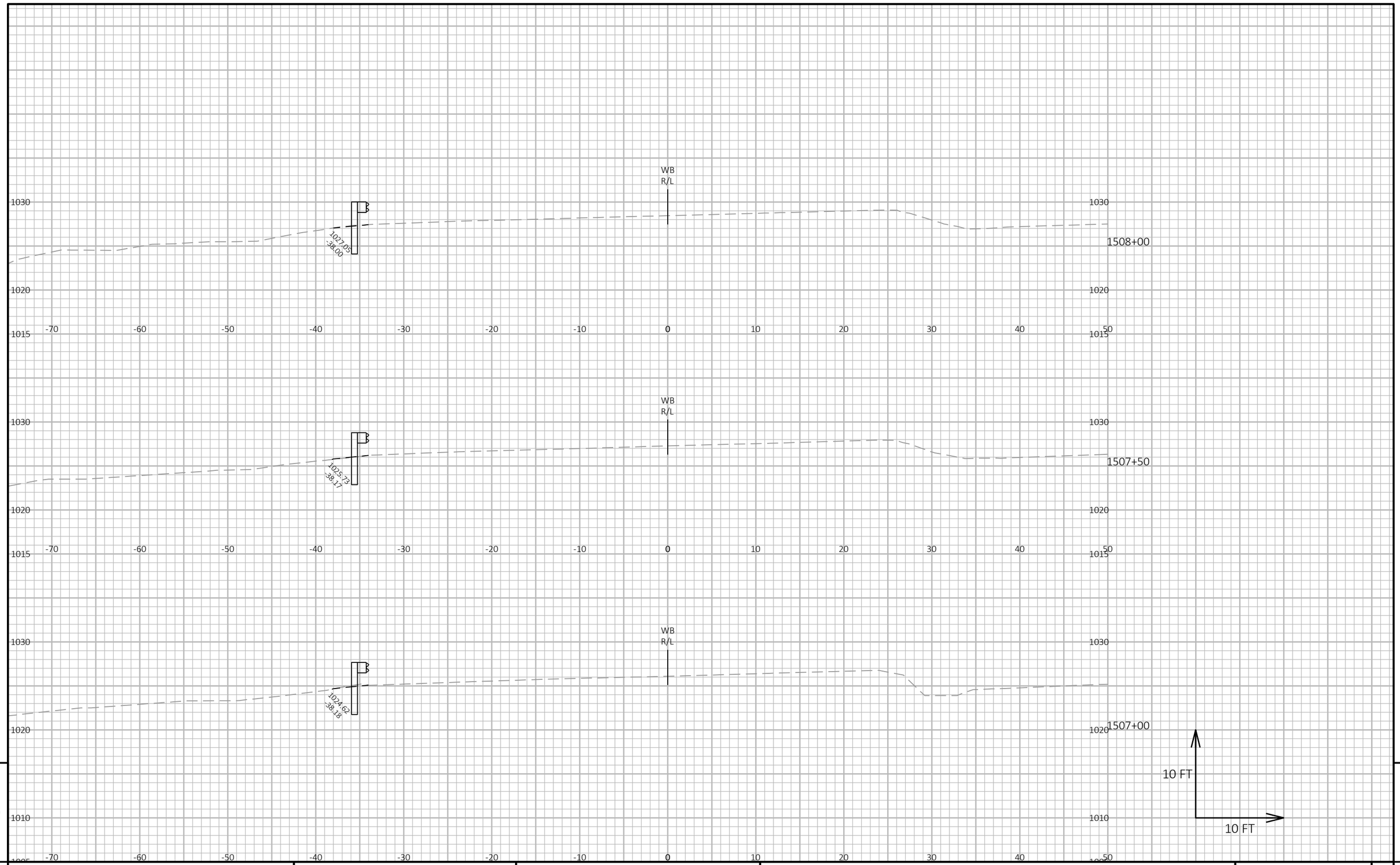
PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 283	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 76

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

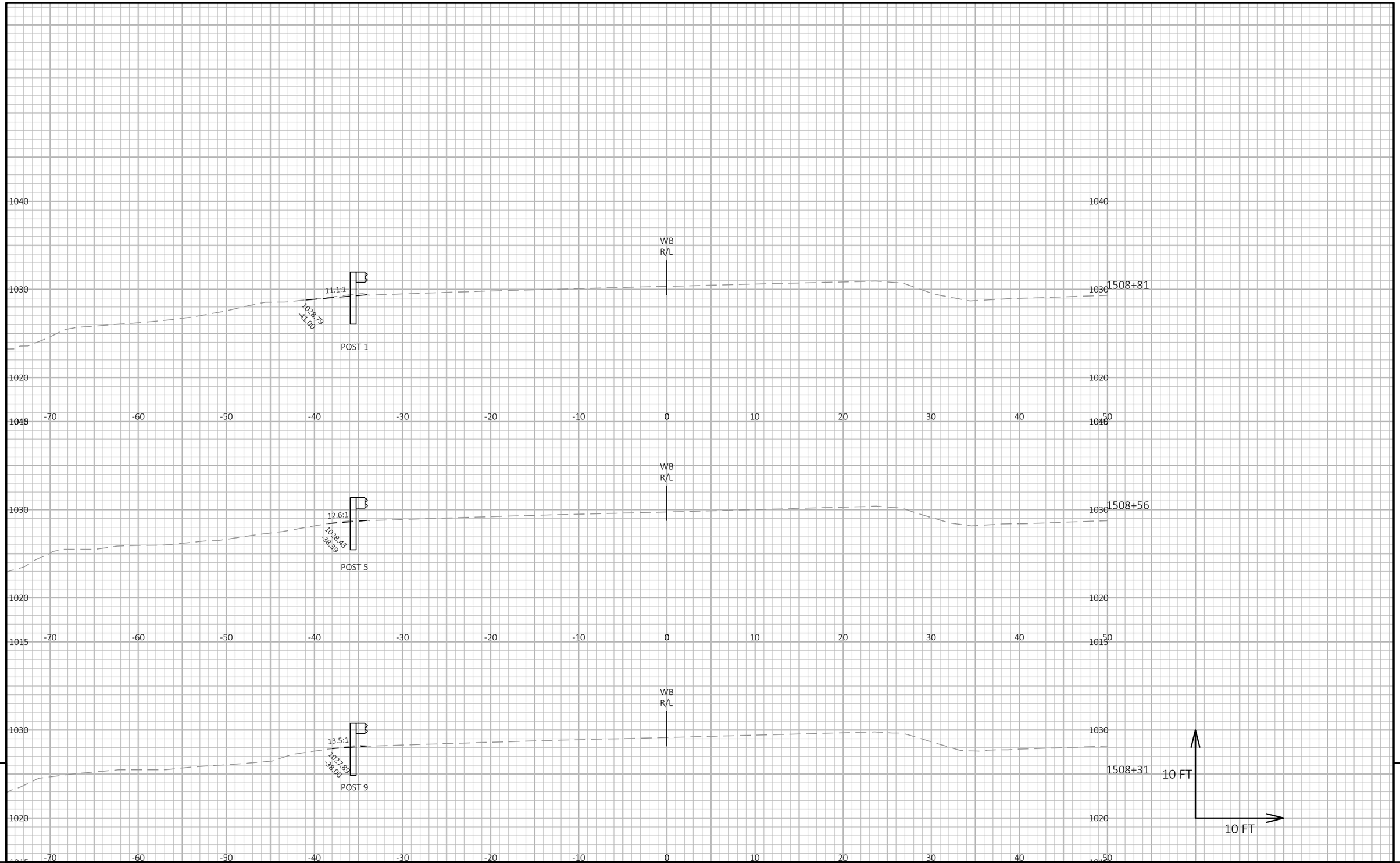
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 284	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 77

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

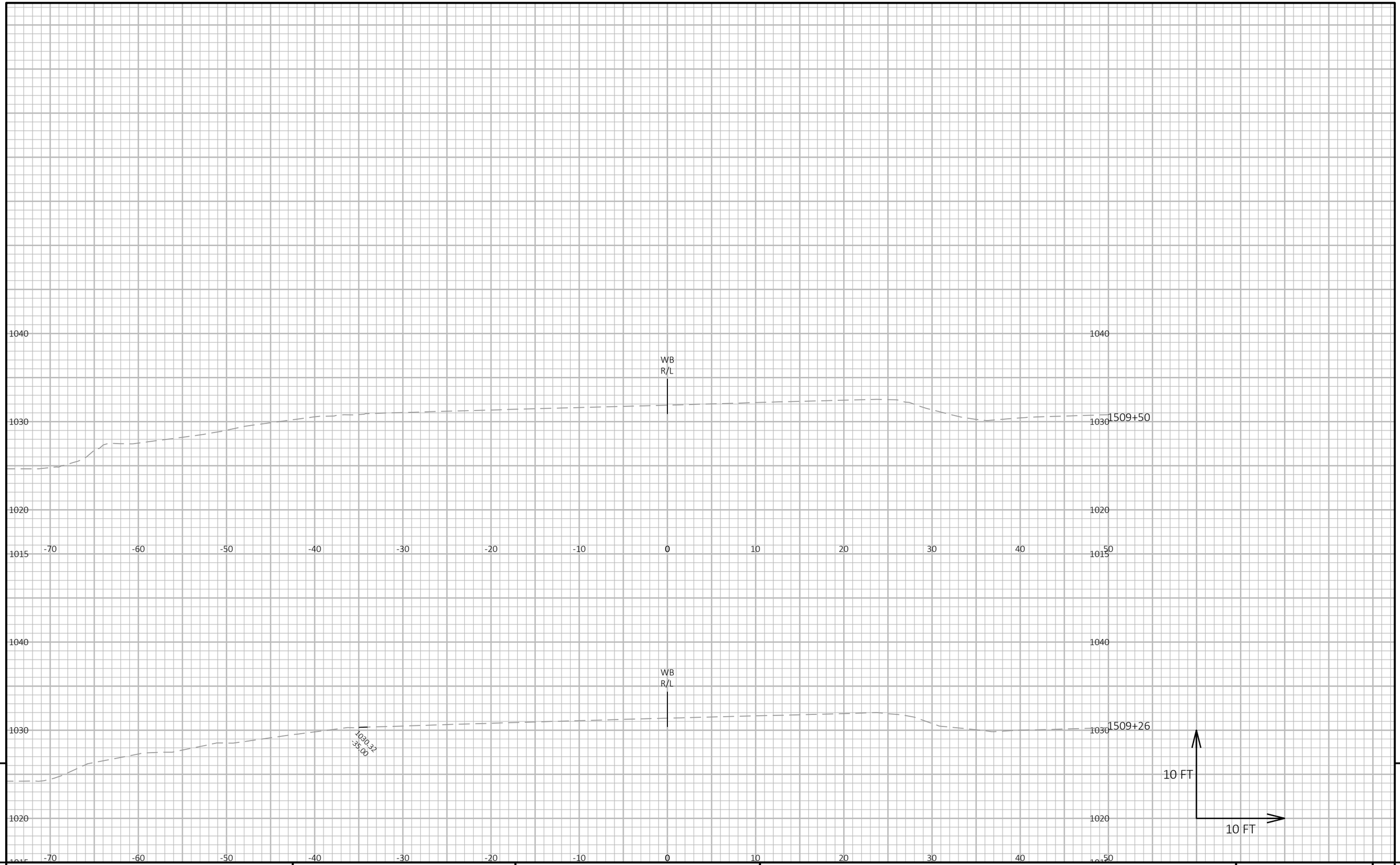
9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 285	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 78

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1012-01-62	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: NB IH 39	SHEET 286	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10120132\SHEETS\090206-XS.DWG
LAYOUT NAME - 79

PLOT DATE : 8/20/2025 4:28 PM PLOT BY : NILSON, ERIK M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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