GRE AUGUST 2024

PROJECT ID: 1100-52-71

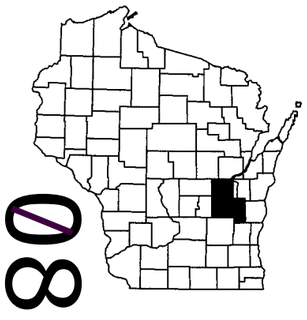
WITH: N/A

COUNTY: FOND DU LAC, WINNEBAGO

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 = 898



08

N

DESIGN DESIGNATION

A.A.D.T.	2027	=	41,420
A.A.D.T.	2047	=	46,680
D.H.V.		=	--
D.D.		=	--
T.		=	20.4%
DESIGN SPEED		=	70
ESALS		=	19,000,000 (HMA)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

FOND DU LAC - OSHKOSH

CTH D - STH 26

IH 41

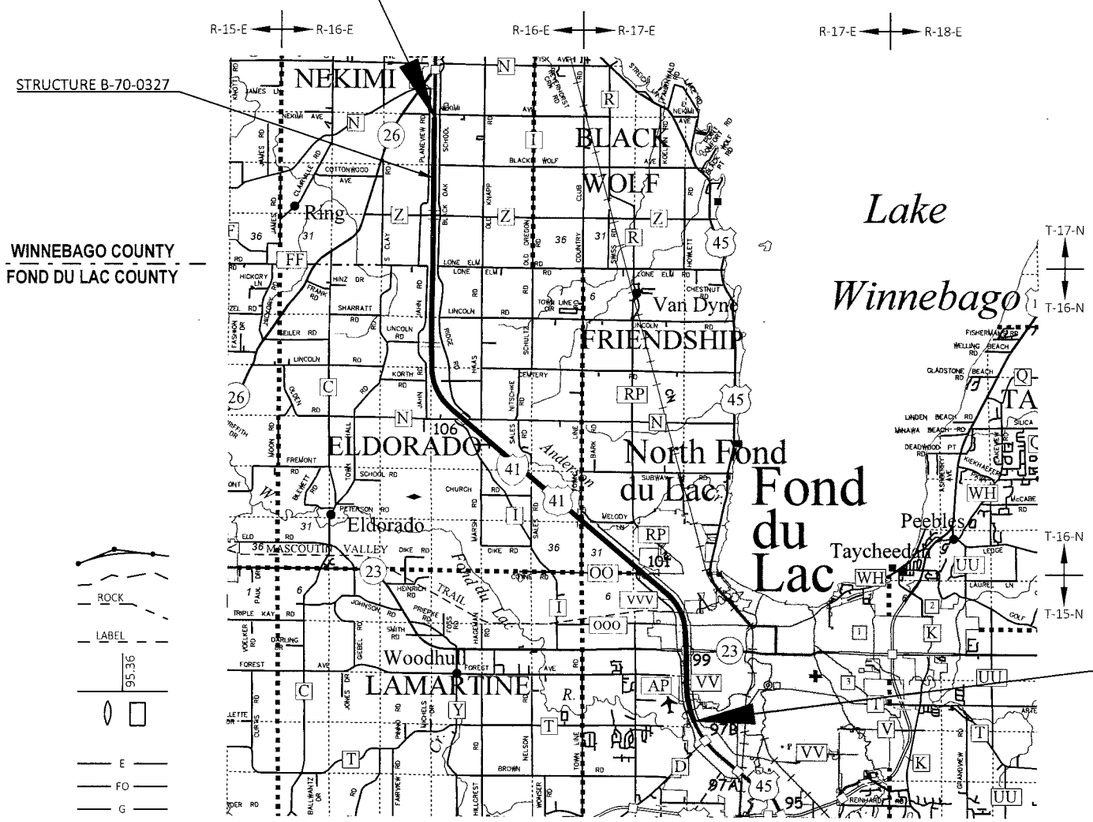
FOND DU LAC & WINNEBAGO COUNTIES

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1100-52-71	WISC 2024403	1

END PROJECT
STA 3075+80
Y=443775.440
X=781058.072

STATE PROJECT NUMBER
1100-52-71

STRUCTURE B-70-0327



WINNEBAGO COUNTY
FOND DU LAC COUNTY

BEGIN PROJECT
STA 2328+40
Y=380811.289
X=808451.025

LAYOUT

SCALE 0 3 MI

TOTAL NET LENGTH OF CENTERLINE = 14.155 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), FOND DU LAC COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
93 South Pioneer Road, Suite 300
Fond du Lac, WI 54935
(920) 924-5720

WISCONSIN
BENJAMIN L. OITZINGER
E-36149
NEENAH, WI
PROFESSIONAL ENGINEER

DATE: 4-23-24

BENJAMIN L. OITZINGER, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT, GREMMER & ASSOCIATES, INC.
Designer	GREMMER & ASSOCIATES, INC.
Project Manager	RYAN ERDMANN, PE
Regional Examiner	NORTHEAST REGION
Regional Supervisor	ROBERT WAGNER, PE

APPROVED FOR THE DEPARTMENT

DATE: 4/23/24 (Signature)

E

GENERAL NOTES

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

PAVEMENT LIMITS AT RAMPS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STATION AND OFFSET OF BEAM GUARD WHEN CONNECTING TO EXISTING STRUCTURE ARE APPROXIMATE AND SHALL BE ADJUSTED TO MATCH INTO THE EXISTING CONNECTION.

ALIGNMENT SHOWN IN PLAN IS FOR REFERENCE ONLY. THE CENTERLINE OF ROADWAY TO BE DETERMINED IN THE FIELD BASED ON THE EXISTING ROADWAY.

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

NO WORK SHALL BE DONE OUTSIDE OF THE SLOPE INTERCEPTS WITHIN WETLAND AREAS.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIMES AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DESIGNER NOTES

DESIGN, PLANS, SPECIFICATIONS AND ESTIMATE FOR TRAFFIC CONTROL PLANS PREPARED BY HNTB

DESIGN, PLANS, SPECIFICATIONS AND ESTIMATE FOR STRUCTURE PLANS PREPARED BY HNTB

ABBREVIATIONS

AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALT
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CC	CENTER OF CURVATURE
CE	COMMERCIAL ENTRANCE
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
E	EXTERNAL DISTANCE FROM MIDPOINT OF CIRCULAR CURVE FROM ANGLE INTERSECTION
ELEV	ELEVATION
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
L	LENGTH OF CURVE
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
M/L	MATCHLINE
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
REQ'D	REQUIRED
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SEG	SEGMENT
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TYP	TYPICAL
V	VELOCITY OR DESIGN SPEED

UTILITIES

ELECTRIC

ALLIANT ENERGY
883 WEST SCOTT STREET
FOND DU LAC, WI 54937
ATTN: BILL BASTIAN
PHONE: (920) 322-6716
EMAIL: williambastian@alliantenergy.com

ELECTRIC TRANSMISSION

ATC MANAGEMENT INC.
P.O. BOX 47
WAUKESHA, WI 53187
ATTN: CHRIS DAILEY
PHONE: (262) 506-6884
EMAIL: cdailey@atcllc.com

SEWER

CITY OF FOND DU LAC
DEPARTMENT OF PUBLIC WORKS
160 SOUTH MACY STREET
FOND DU LAC, WI 54936
ATTN: CHRISTOPHER JOHNSON
PHONE: (920) 322-3449
EMAIL: cjohnson@fdl.wi.gov

SEWER

VILLAGE OF NORTH FOND DU LAC
DEPARTMENT OF PUBLIC WORKS
16 GARFIELD STREET
NORTH FOND DU LAC, WI 54937
ATTN: MITCH VIS
PHONE: (920) 929-3765
EMAIL: Mvis@fndl.org

GAS

ANR PIPELINE CO.
W3925 PIPELINE LANE
EDEN, WI 53019
ATTN: TODD BRISTER
PHONE: (920) 477-2235
EMAIL: todd_brister@transcanada.com

COMMUNICATION

BUG TUSSEL WIRELESS, LLC
1262 CAMBER COURT
DE PERE, WI 54115
ATTN: DUSTIN TEAFF
PHONE: (920) 254-3539
EMAIL: Dustin.teaff@kesexcavating.com

COMMUNICATION

NET LEC, LLC
450 SECURITY BOULEVARD
P.O. BOX 19079
GREEN BAY, WI 54307
ATTN: RICK VINCENT
PHONE: (920) 617-7316
EMAIL: rick.vincent@nsight.com

WATER

VILLAGE OF NORTH FOND DU LAC
DEPARTMENT OF PUBLIC WORKS
16 GARFIELD STREET
NORTH FOND DU LAC, WI 54937
ATTN: MICTH VIS
PHONE: (920) 929-3765
EMAIL: Mvis@fndl.org

COMMUNICATIONS

AT&T WISCONSIN
70 EAST DIVISION STREET
FOND DU LAC, WI 54935
ATTN: CHUCK BARTELT
PHONE: (920) 410-5104
EMAIL: cb1461@att.com

COMMUNICATION

CITY OF FOND DU LAC
DEPARTMENT OF PUBLIC WORKS
160 SOUTH MACY STREET
P.O. BOX 150
FOND DU LAC, WI 54935-0150
ATTN: PAUL DEVRIES
PHONE: (920) 322-3473
EMAIL: pdevries@fdl.wi.gov

COMMUNICATION

PAETEC COMMUNICATIONS, LLC
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
ATTN: ERIC BECKER
PHONE: (262) 792-7938
EMAIL: eric.becker@windstream.com

GAS

WISCONSIN PUBLIC SERVICE CORPORATION
3300 NORTH MAIN STREET
OSHKOSH, WI 54901
ATTN: ADAM VANDENHOUTEN
PHONE: (920) 660-5548
EMAIL: Adam.VandenHouten@wisconsinpublicservice.com

COMMUNICATIONS

ATC MANAGEMENT INC.
P.O. BOX 47
WAUKESHA, WI 53187
ATTN: CHRIS DAILEY
PHONE: (262) 506-6884
EMAIL: cdailey@atcllc.com

WATER

CITY OF FOND DU LAC
DEPARTMENT OF PUBLIC WORKS
160 SOUTH MACY STREET
FOND DU LAC, WI 54936
ATTN: TRAVIS KLOETZKE
PHONE: (920) 322-3680
EMAIL: tkloetzke@fdl.wi.gov

COMMUNICATIONS

SPECTRUM
1515 WEST WASHINGTON STREET
WEST BEND, WI 53095
ATTN: NICK FRASE
PHONE: (920) 793-2216
EMAIL: Nick.Frase@charter.com

ELECTRIC

WISCONSIN PUBLIC SERVICE CORPORATION
2850 SOUTH ASHLAND AVENUE
GREEN BAY, WI 54304
ATTN: LINDA TREBIATOWSKI
PHONE: (920) 660-3266
EMAIL: linda.trebiatowski@wisconsinpublicservice.com

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL PLAN
TRAFFIC CONTROL
ALIGNMENT PLAN

REFERENCE LINE CALL OUTS

'EFR'	EAST FRONTAGE ROAD (BLACK OAK SCHOOL ROAD)
'WFR'	WEST FRONTAGE ROAD (PLANEVIEW ROAD)
'A'	CTH OO NORTHBOUND OFF-RAMP
'B'	CTH OO SOUTHBOUND ON-RAMP
'C'	CTH OO SOUTHBOUND OFF-RAMP
'D'	CTH OO NORTHBOUND ON-RAMP
'E'	STH 23 NORTHBOUND OFF-RAMP
'F'	STH 23 SOUTHBOUND ON-RAMP
'G'	STH 23 SOUTHBOUND OFF-RAMP
'H'	STH 23 NORTHBOUND ON-RAMP
'NA'	CTH N NORTHBOUND OFF-RAMP
'NB'	CTH N SOUTHBOUND ON-RAMP
'NC'	CTH N SOUTHBOUND OFF-RAMP
'ND'	CTH N NORTHBOUND ON-RAMP
'XN'	IH 41 NORTHBOUND TEMPORARY CROSSOVER
'XS'	IH 41 SOUTHBOUND TEMPORARY WIDENING

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

OTHER CONTACTS

COMMUNICATION TOWER

WISCONSIN DEPARTMENT OF TRANSPORTATION
P.O. BOX 7986
MADISON, WI 53707
ATTN: MIKE ADAMS
PHONE: (608) 266-5004
EMAIL: Michael.Adams@dot.wi.gov

COMMUNICATION

WISCONSIN DEPARTMENT OF TRANSPORTATION
433 WEST ST. PAUL AVENUE, SUITE 300
MILWAUKEE, WI 53203
ATTN: JOHN MITTELSTADT
PHONE: (608) 205-7859
EMAIL: John.Mittelstadt@dot.wi.gov

NE REGION SURVEY COORDINATOR

WISCONSIN DEPARTMENT OF TRANSPORTATION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
ATTN: MIKE ANDRASCHKO
PHONE: (920) 492-4166
EMAIL: michael.andraschko@dot.wi.gov

NE REGION PROJECT MANAGER

WISCONSIN DEPARTMENT OF TRANSPORTATION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
ATTN: RYAN ERDMANN, PE
PHONE: (920) 370-2642
EMAIL: ryand.erdmann@dot.wi.gov

DNR AREA LIAISON

WISCONSIN DEPT. OF NATURAL RESOURCES
WDNR NORTHEAST REGIONAL HQ
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
ATTN: JAY SCHIEFELBEIN
PHONE: (920) 360-3784
EMAIL: jeremiah.schiefelbein@wiscosnsin.gov

FOND DU LAC COUNTY CONTACT

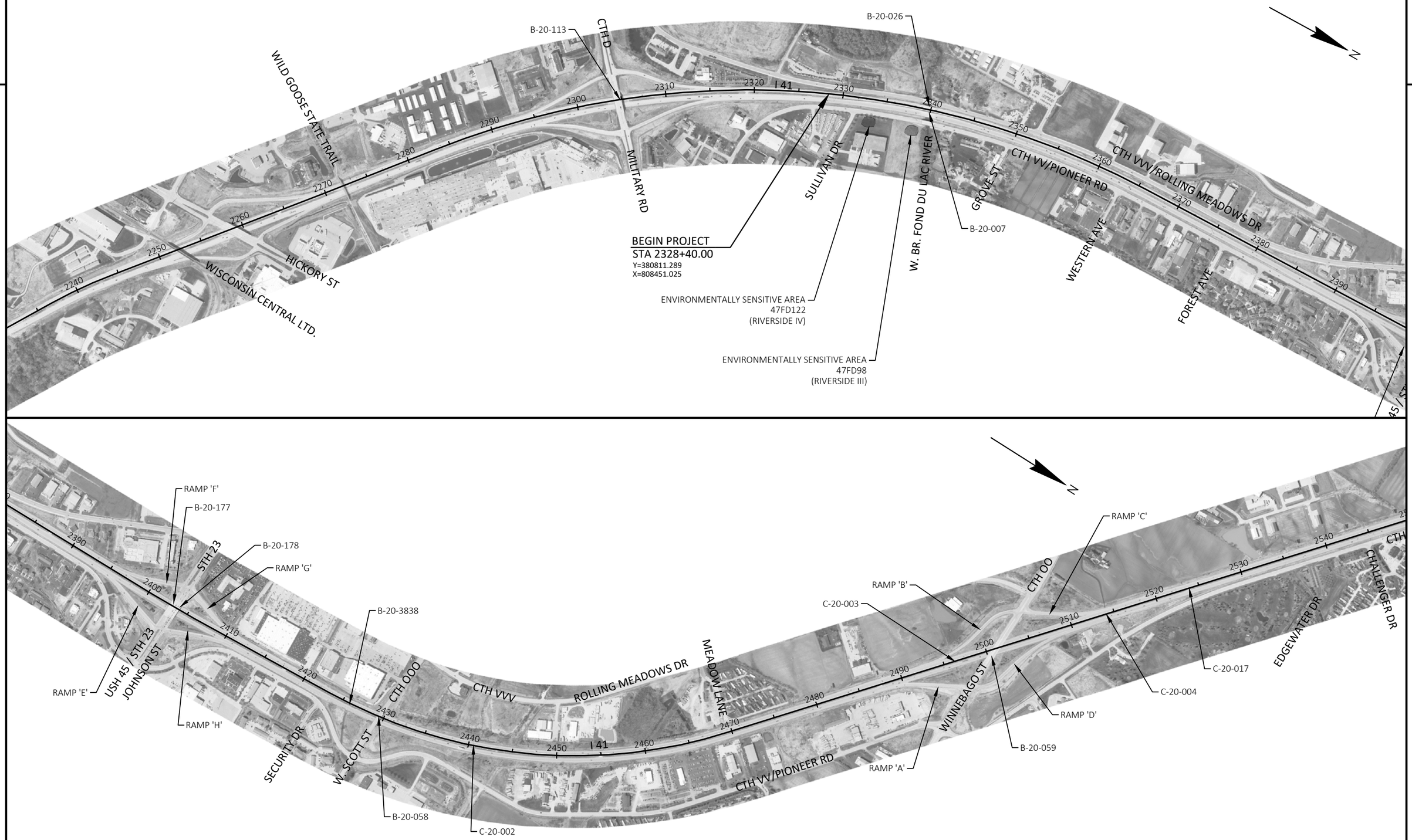
RYAN SOMMER
HIGHWAY ENGINEER
1820 SOUTH HICKORY STREET
P.O. BOX 1234
FOND DU LAC, WI 54937
PHONE: (920) 929-3408
EMAIL: ryan.sommer@fdlco.wi.gov

WINNEBAGO COUNTY CONTACT

ROBERT DOEMEL
HIGHWAY COMMISSIONER
901 W COUNTY ROAD Y
OSHKOSH, WI 54901
PHONE: (920) 232-1700
EMAIL: rdoemel@co.winnebago.wi.us

DESIGN CONTACT

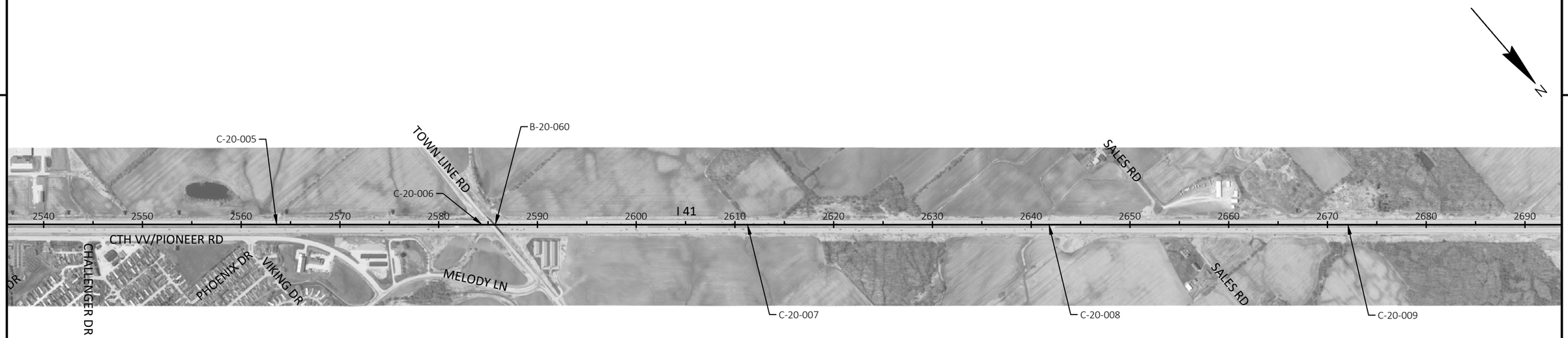
GREMMER & ASSOCIATES, INC.
93 SOUTH PIONEER ROAD, SUITE 300
FOND DU LAC, WI 54935
ATTN: BENJAMIN L. OITZINGER, PE
PHONE: (920) 924-5720
EMAIL: b.oitzinger@gremmerassociates.com

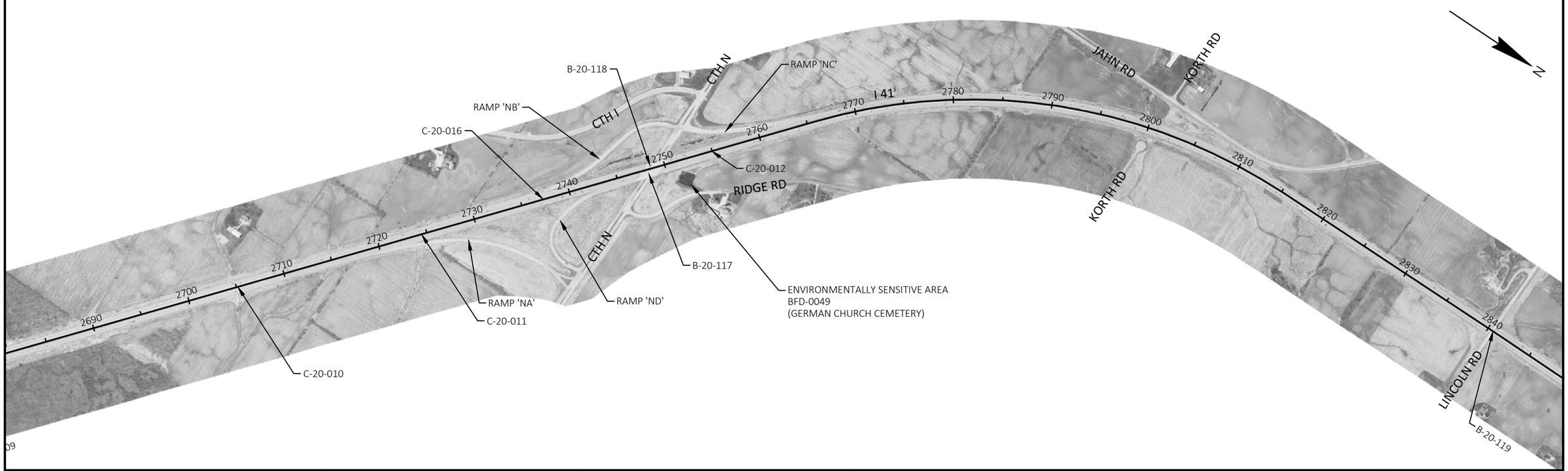


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-020201-PO.DWG
LAYOUT NAME - Sheet-01
PLOT DATE : 4/5/2024 1:20 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 44

2





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LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:20 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:1000 FT

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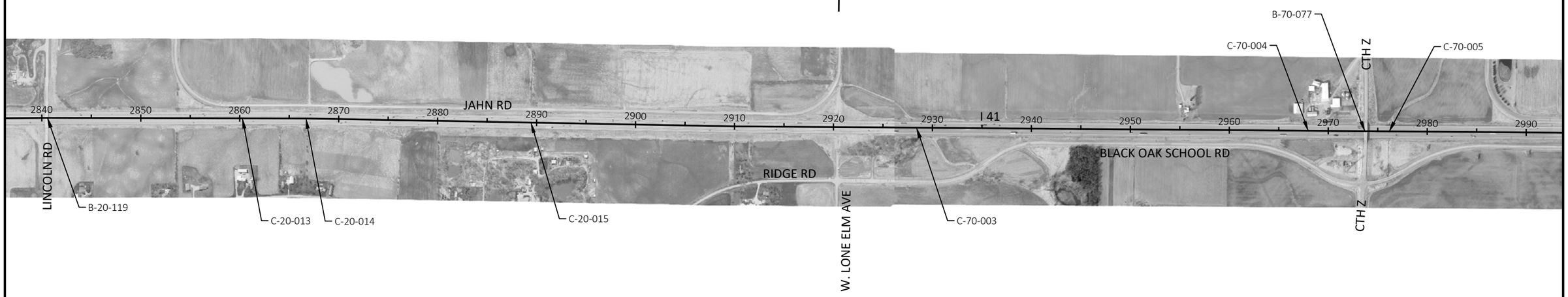

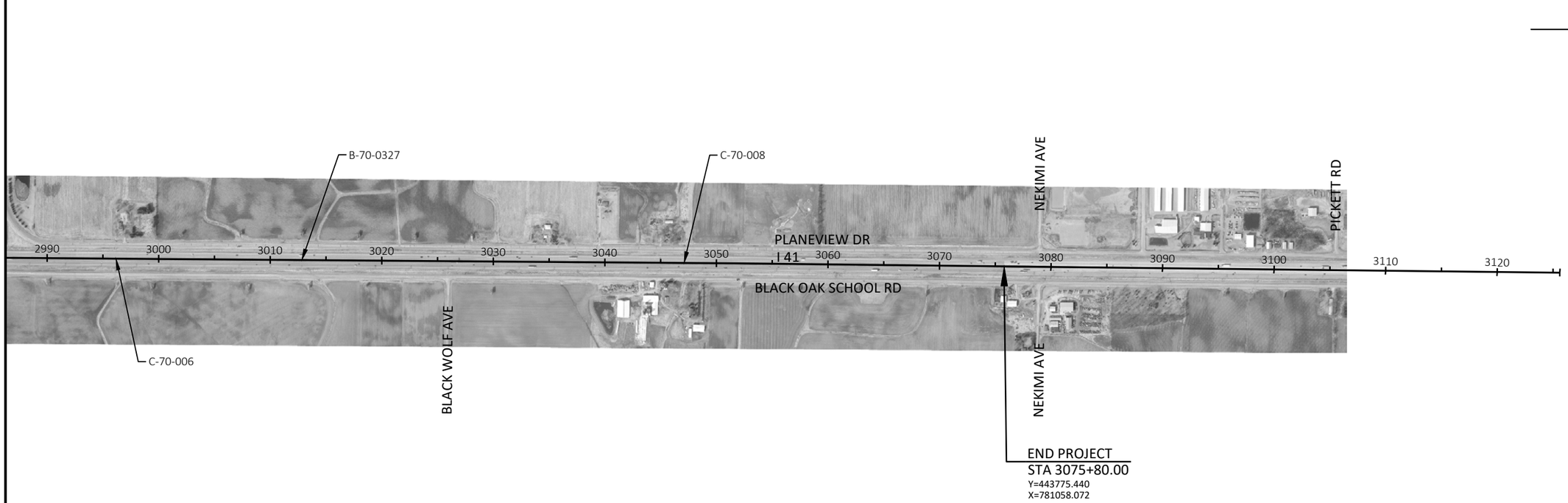

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LAYOUT NAME - Sheet-03

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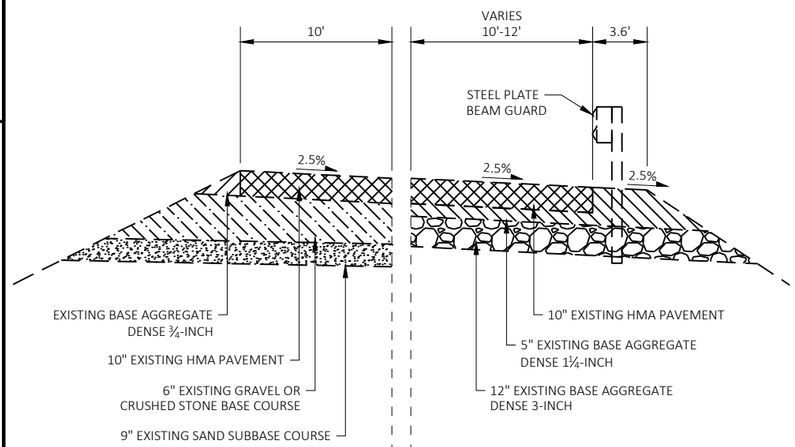
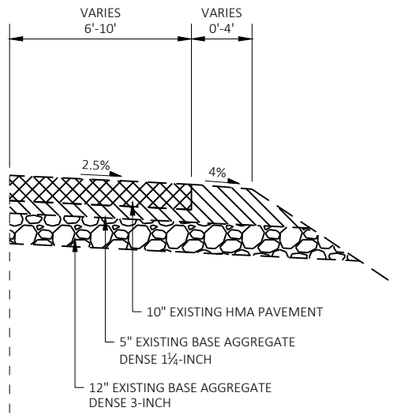
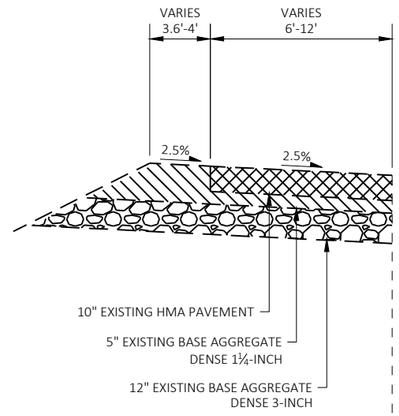


SHOULDER SECTION
STA 2357+49 - STA 2359+49

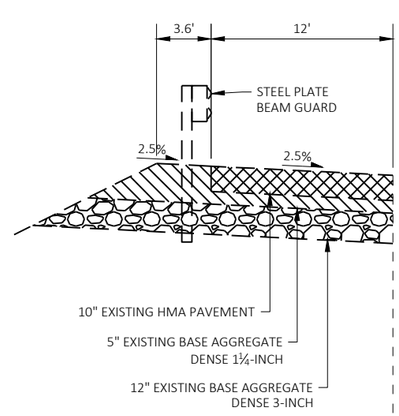
BEAMGUARD SECTION
STA 2350+53 - STA 2357+49



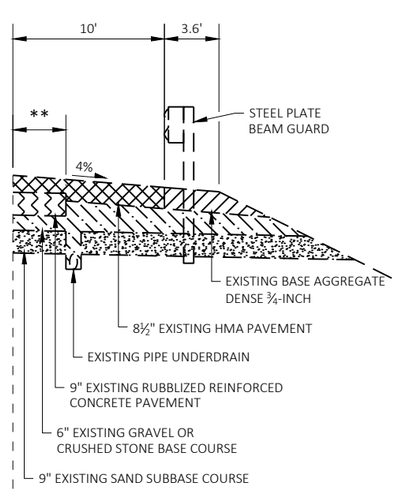
SHOULDER SECTION
STA 2357+49 - STA 2359+49



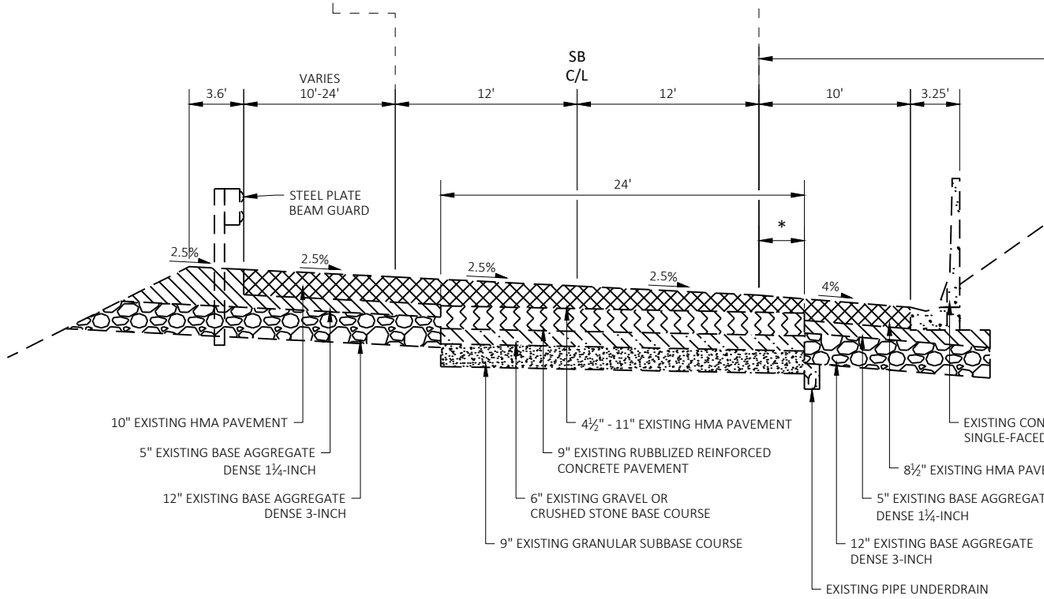
CABLE GUARD SECTION
STA 2349+18 - STA 2351+52

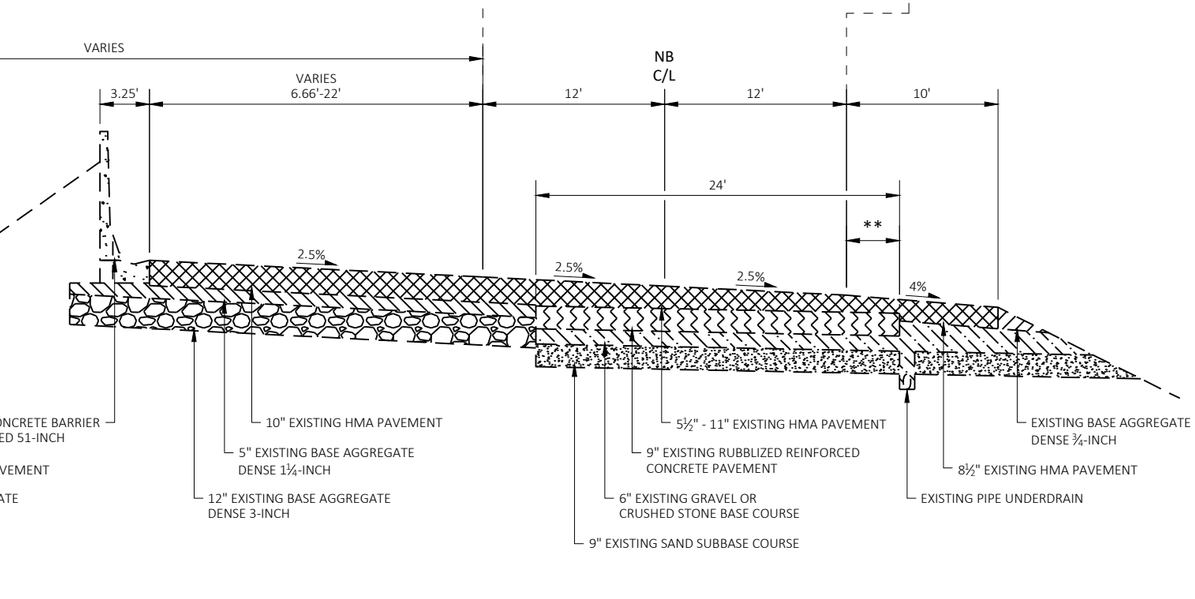


BEAMGUARD SECTION
STA 2347+12 - STA 2349+18



BEAMGUARD SECTION
STA 2333+67 - BEGIN BRIDGE
END BRIDGE - STA 2342+27





TYPICAL EXISTING SECTION

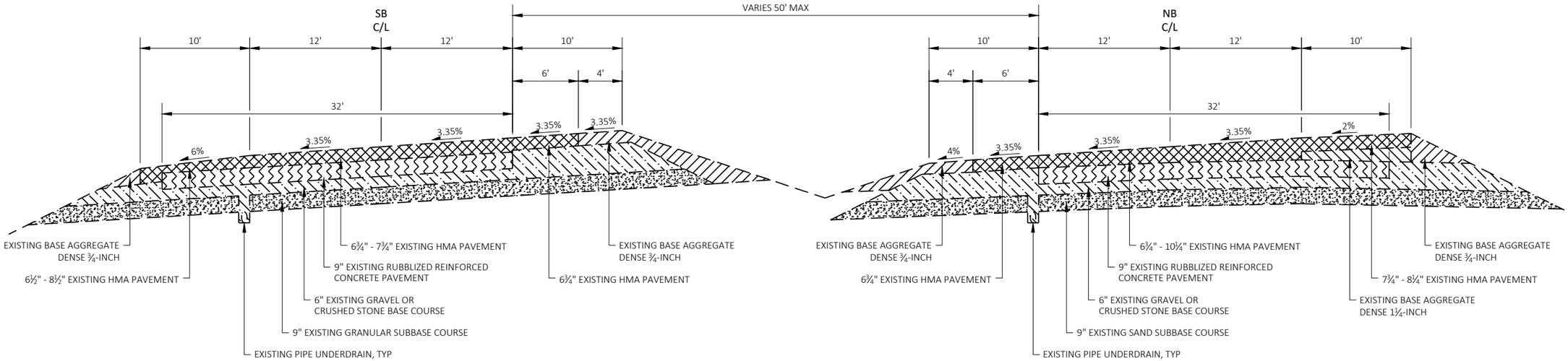
I 41

SOUTHBOUND
STA 2328+40 - STA 2359+49

NORTHBOUND
STA 2328+40 - STA 2351+52

* 0' STA 2329+12 TO STA 2332+26
VARIES FROM 0.00' TO 6.17' STA 2332+26 TO STA 2338+97
VARIES FROM 6.17' TO 0.00' STA 2338+97 TO STA 2350+53

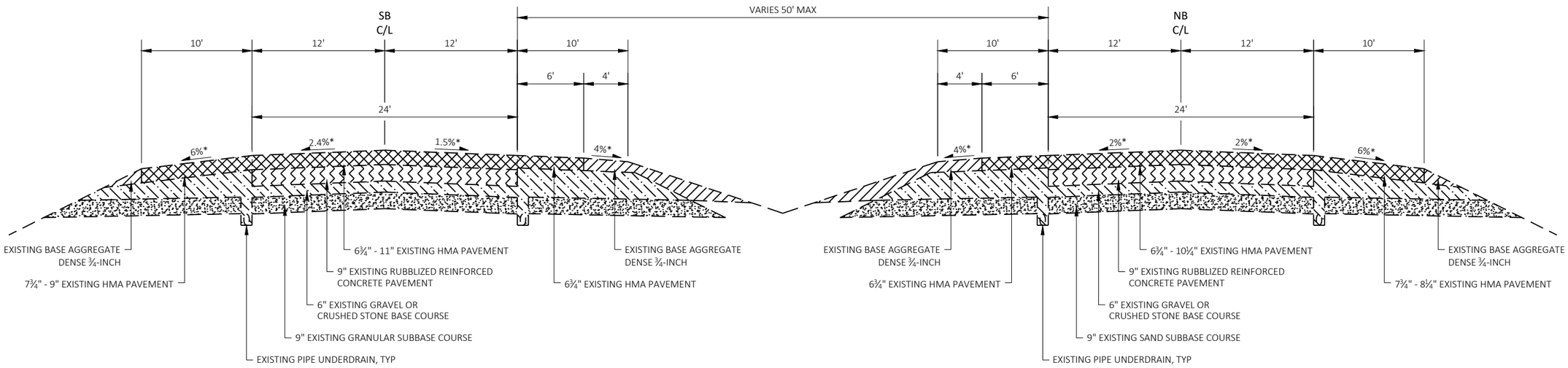
0' STA 2329+12 TO STA 2329+90
VARIES FROM 0.00' TO 6.96' STA 2329+90 TO STA 2339+07
VARIES FROM 6.96' TO 0.00' STA 2339+07 TO STA 2351+93



TYPICAL EXISTING SECTION

I 41

SOUTHBOUND	NORTHBOUND
STA 2438+62 - STA 2449+62	STA 2438+62 - STA 2449+62



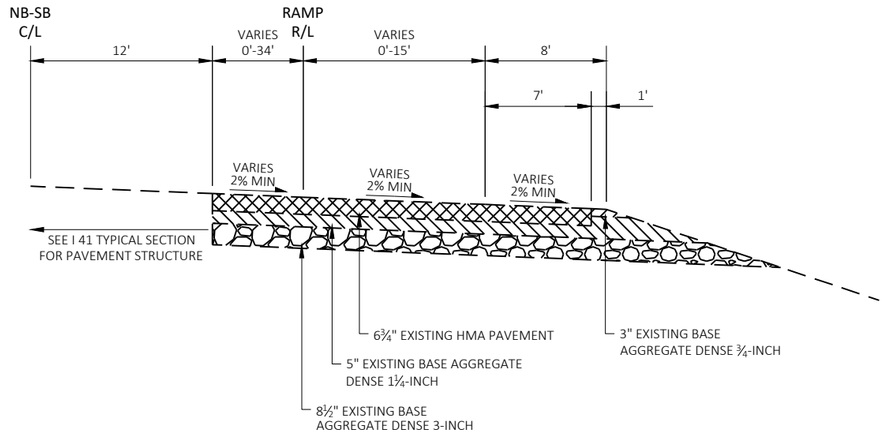
TYPICAL EXISTING SECTION

I 41

SOUTHBOUND	NORTHBOUND
STA 2359+49 - STA 2438+62 STA 2449+62 - STA 2920+50	STA 2351+52 - STA 2438+62 STA 2449+62 - STA 2920+50

* SLOPE VARIES DUE TO SUPERELEVATION

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TYPICAL SECTIONS	SHEET 7	E

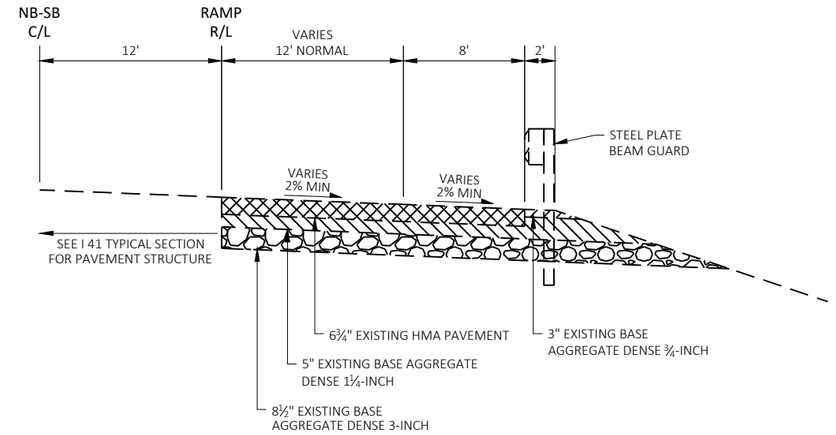


TYPICAL EXISTING SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

STH 23	CTH OO
RAMP E - STA 2382+96 - STA 2396+22	RAMP A - STA 2479+24 - STA 2490+57
RAMP F - STA 2381+86 - STA 2397+41	RAMP B - STA 2479+99 - STA 2494+77
RAMP G - STA 2409+38 - STA 2422+58	RAMP C - STA 2511+78 - STA 2514+17
RAMP H - STA 2409+18 - STA 2415+08	RAMP C - STA 2518+72 - STA 2523+09
	RAMP D - STA 2506+96 - STA 2512+02

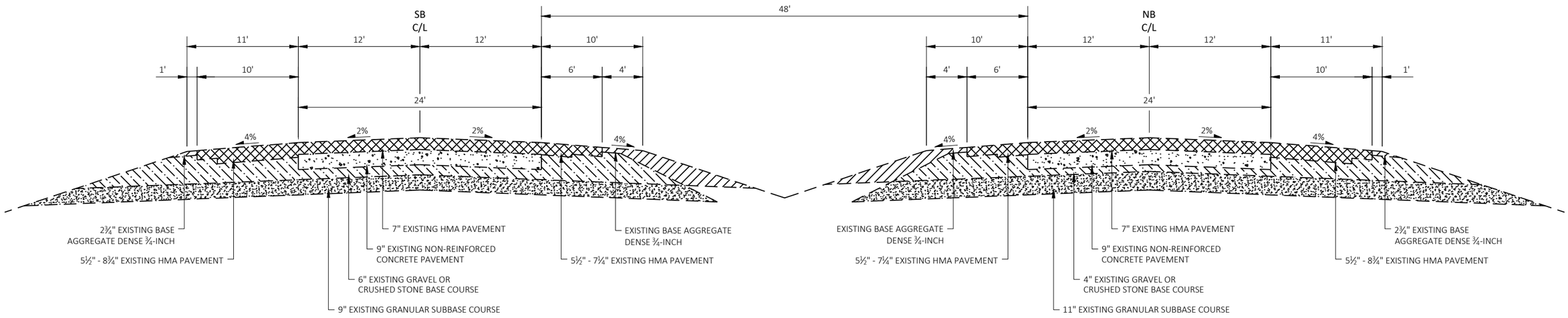


TYPICAL EXISTING SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

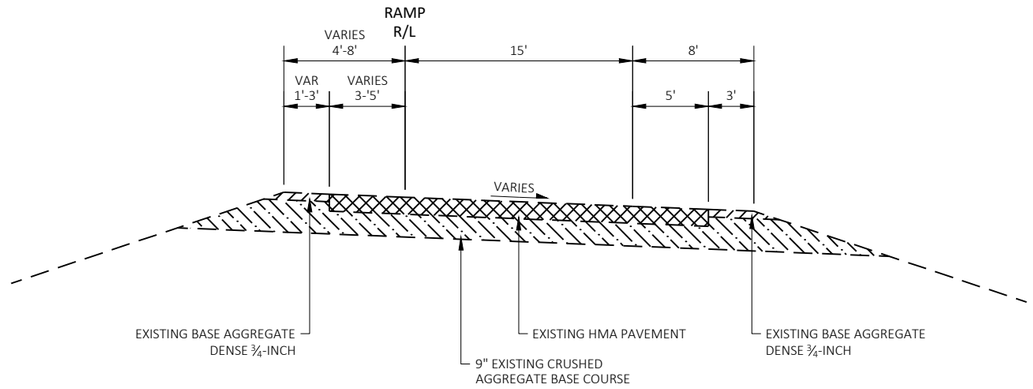
STH 23	CTH OO
RAMP H - STA 2415+08 - STA 2425+10	RAMP C - STA 2514+17 - STA 2518+72
	RAMP D - STA 2512+02 - STA 2521+29



TYPICAL EXISTING SECTION

I 41

SOUTHBOUND	NORTHBOUND
STA 2920+50 - STA 3075+80	STA 2920+50 - STA 3075+80

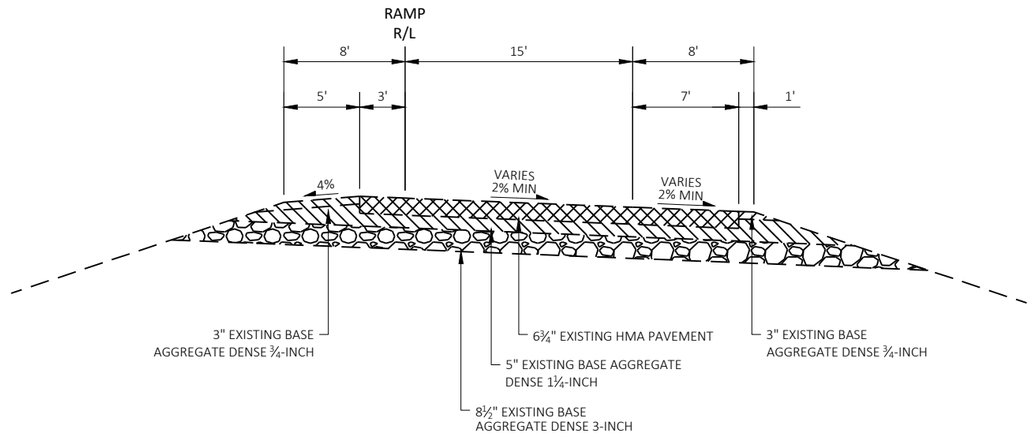


TYPICAL EXISTING SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

CTH N



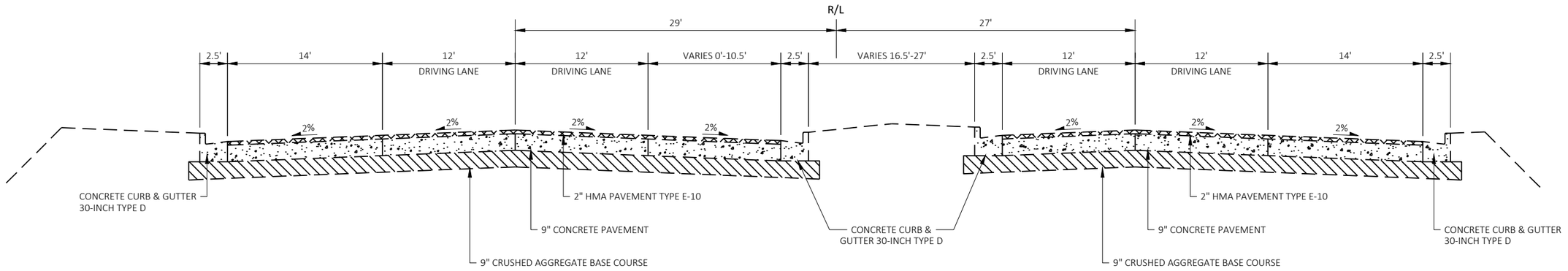
TYPICAL EXISTING SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

STH 23	CTH OO
RAMP E - STA 2396+22 - STA 2397+06	RAMP A - STA 2490+57 - STA 2493+06
RAMP F - STA 2397+41 - STA 2041+06	RAMP B - STA 2494+77 - STA 2496+22
RAMP G - STA 2408+07 - STA 2409+38	RAMP C - STA 2509+62 - STA 2511+78
RAMP H - STA 2406+08 - STA 2409+18	RAMP D - STA 2502+48 - STA 2506+96

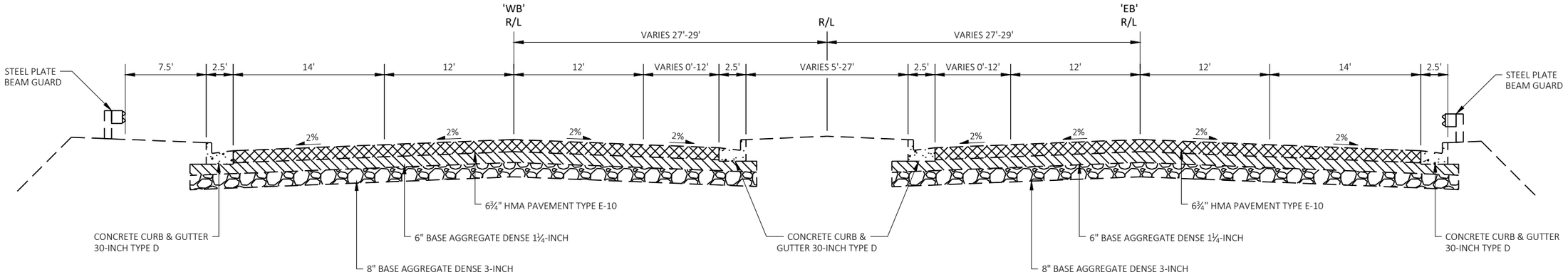
2



TYPICAL EXISTING SECTION

JOHNSON STREET

STA 93+95 - STA 95+00



TYPICAL EXISTING SECTION

JOHNSON STREET

STA 95+00 - STA 98+79

STA 101+22 - STA 104+94

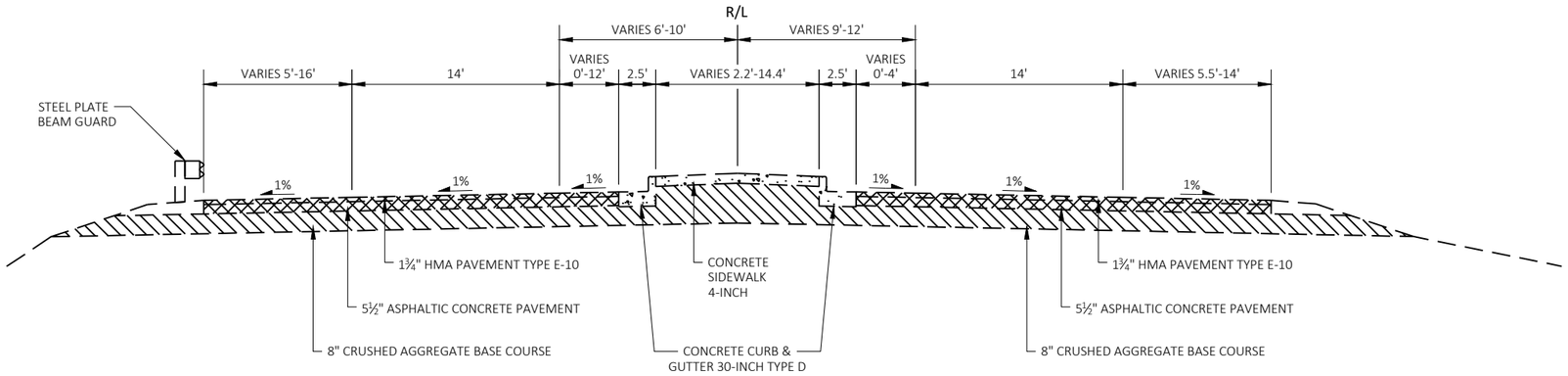
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TYPICAL SECTIONS	SHEET 10	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-020301-TS.DWG
LAYOUT NAME - Sheet - 05

PLOT DATE : 6/14/2024 6:55 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT

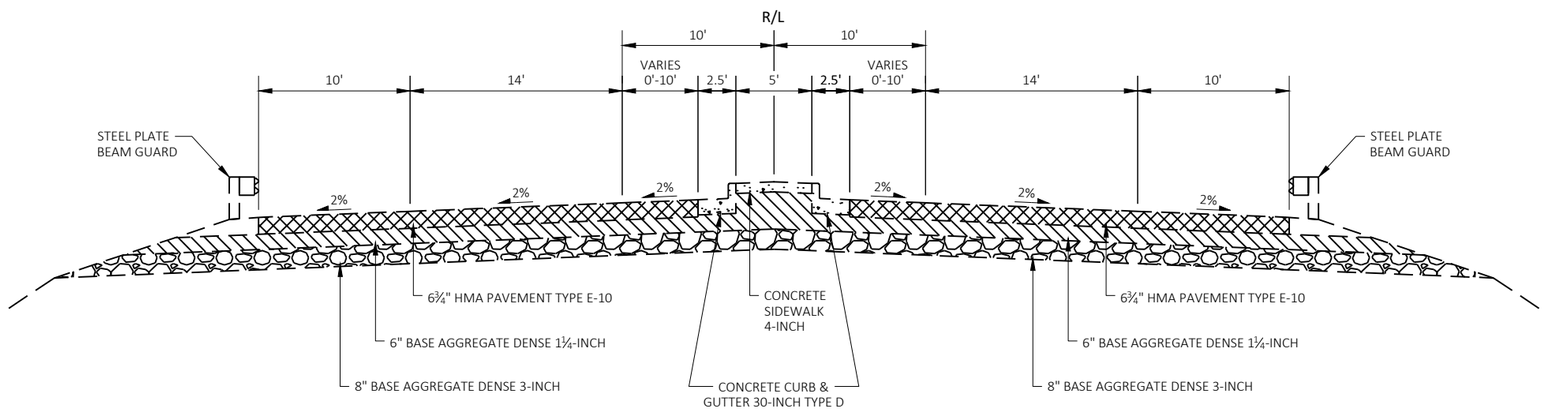
WISDOT/CADDS SHEET 42

2



TYPICAL EXISTING SECTION

WINNEBAGO STREET
STA 13+69 - STA 15+60
STA 24+50 - STA 28+59

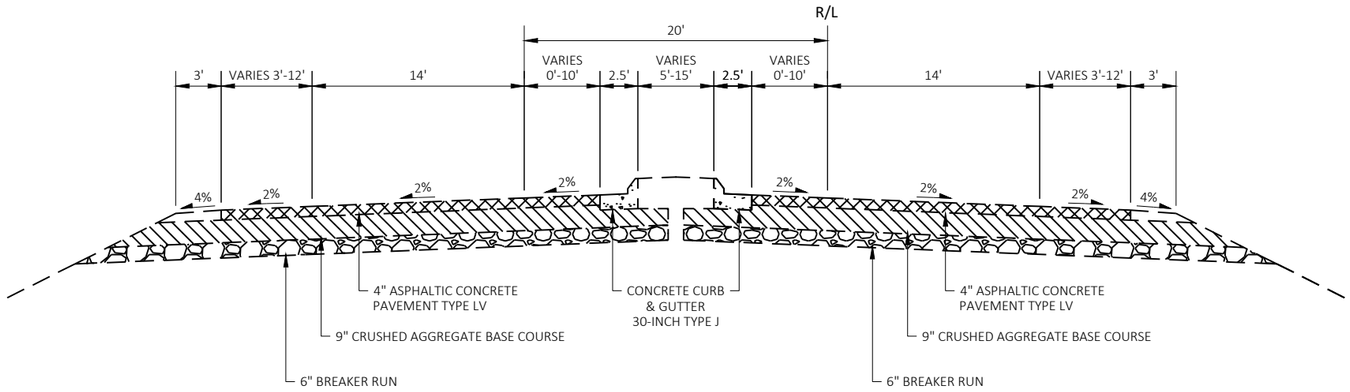


TYPICAL EXISTING SECTION

WINNEBAGO STREET
STA 15+60 - STA 18+53
STA 21+48 - STA 24+50

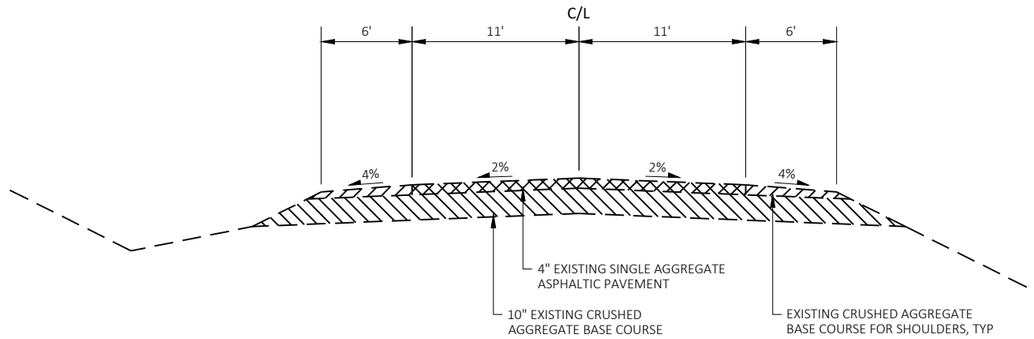
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TYPICAL SECTIONS	SHEET 11	E

2



TYPICAL EXISTING SECTION

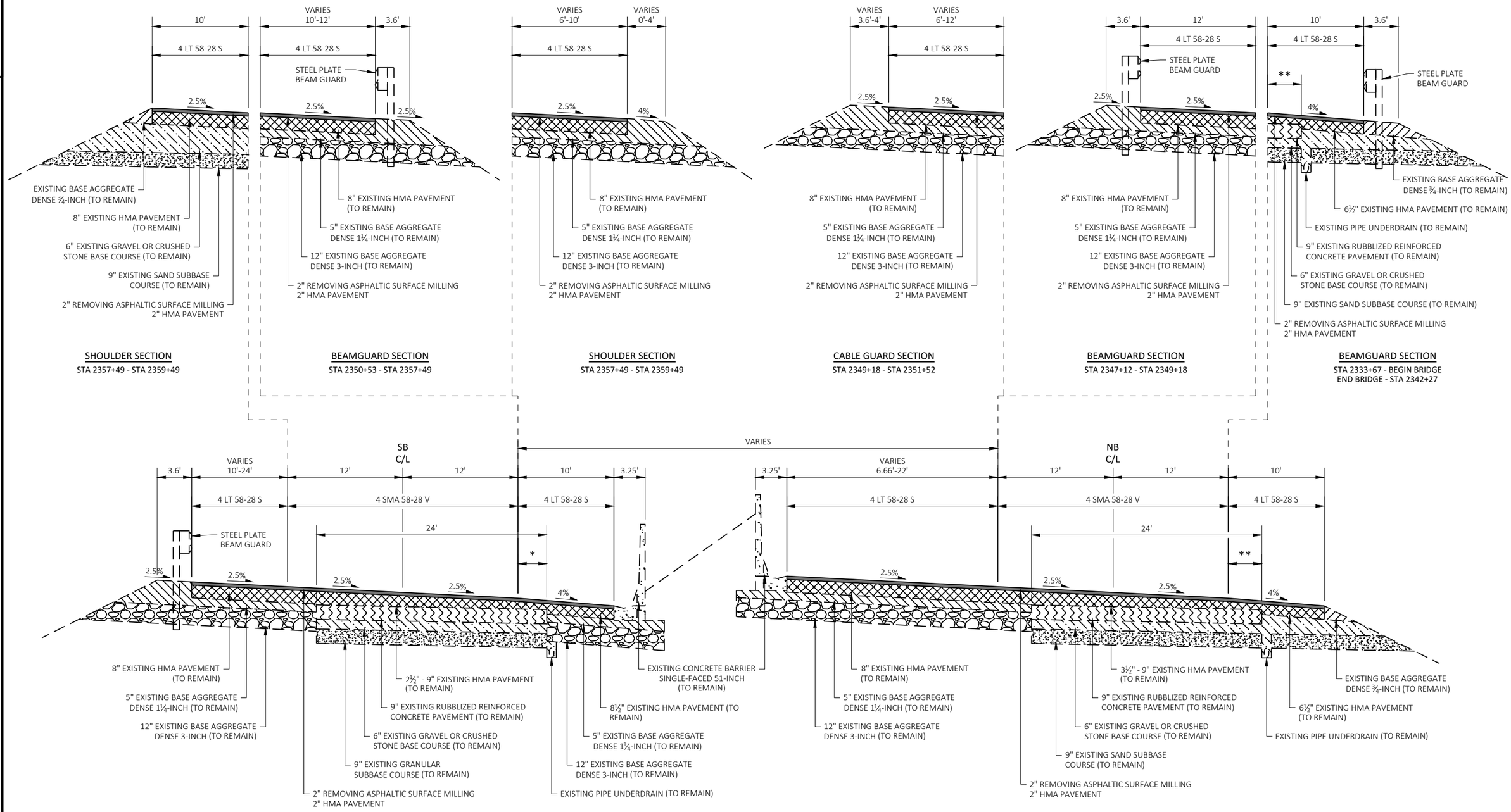
CTH N
STA 43+80 - STA 65+20



TYPICAL EXISTING SECTION

FRONTAGE ROADS

PLANEVIEW DRIVE	BLACK OAK SCHOOL ROAD
STA 141+13 - STA 142+11	STA 143+81 - STA 144+78
STA 161+94 - STA 162+15	STA 166+33 - STA 166+62
STA 167+66 - STA 167+99	



TYPICAL FINISHED SECTION

I 41

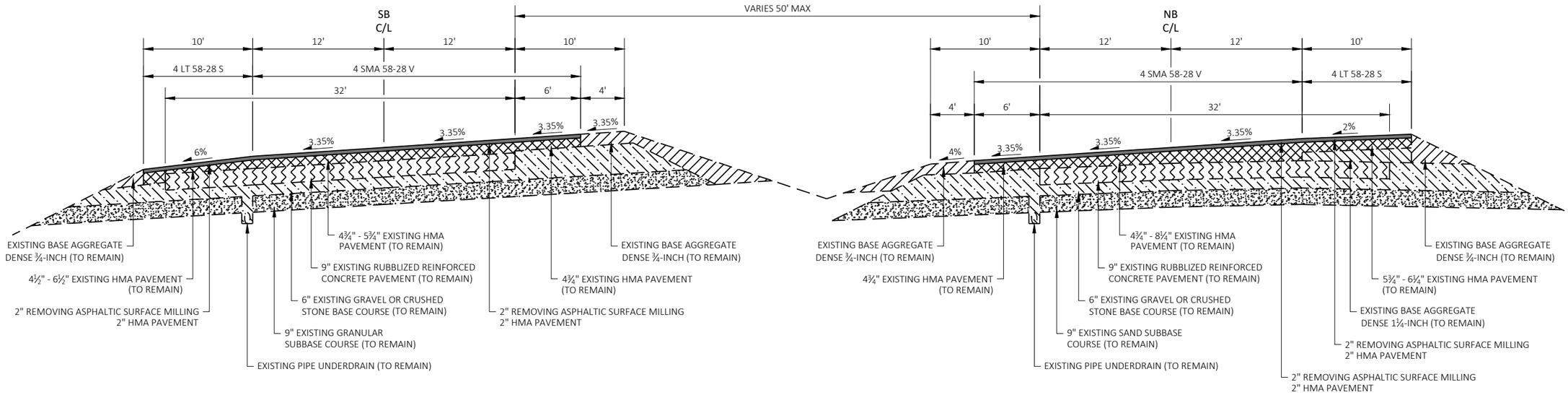
SOUTHBOUND	NORTHBOUND
STA 2328+40 - STA 2359+49	STA 2328+40 - STA 2351+52

* 0' STA 2329+12 TO STA 2332+26
VARIES FROM 0.00' TO 6.17' STA 2332+26 TO STA 2338+97
VARIES FROM 6.17' TO 0.00' STA 2338+97 TO STA 2350+53

** 0' STA 2329+12 TO STA 2329+90
VARIES FROM 0.00' TO 6.96' STA 2329+90 TO STA 2339+07
VARIES FROM 6.96' TO 0.00' STA 2339+07 TO STA 2351+93

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TYPICAL SECTIONS	SHEET 13	E

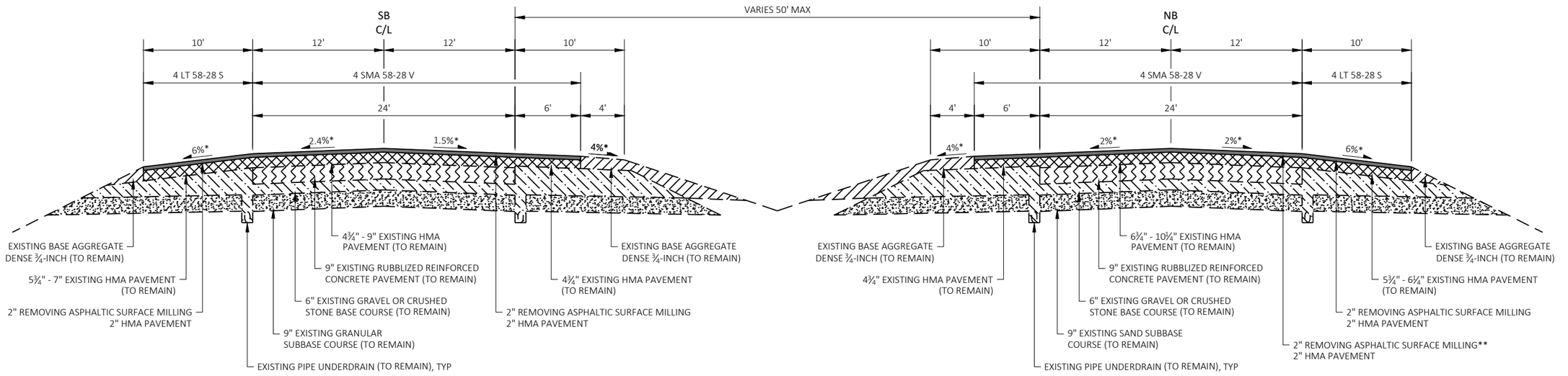
FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-020301-TS.DWG
LAYOUT NAME - Sheet - 08
PLOT DATE : 6/14/2024 6:55 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



TYPICAL FINISHED SECTION

I 41

SOUTHBOUND	NORTHBOUND
STA 2438+62 - STA 2449+62	STA 2438+62 - STA 2449+62



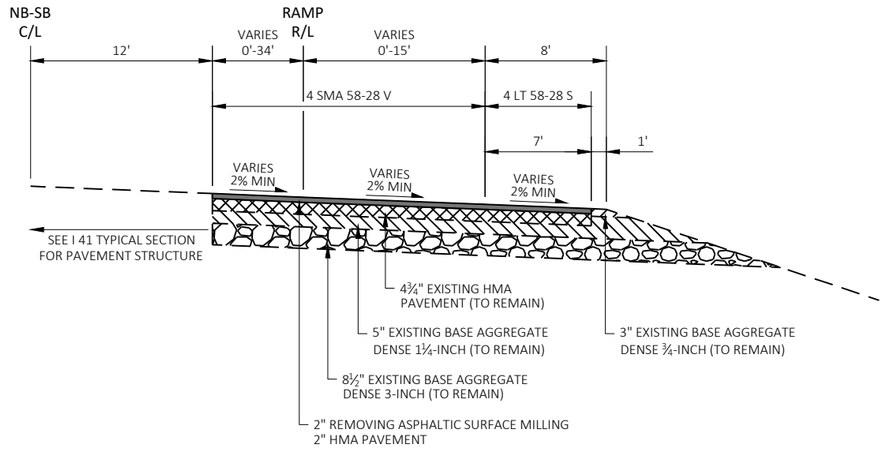
TYPICAL FINISHED SECTION

I 41

SOUTHBOUND	NORTHBOUND
STA 2359+49 - STA 2438+62	STA 2351+52 - STA 2438+62
STA 2449+62 - STA 2920+50	STA 2449+62 - STA 2920+50

* SLOPE VARIES DUE TO SUPERELEVATION

** PROFILE MILL FROM STATION 2498+00 NB TO 2504+00 NB TO PROVIDE A MINIMUM 16' VERTICAL CLEARANCE FROM FINISHED ASPHALT SURFACE TO BOTTOM OF GIRDERS ON STRUCTURE B-20-59 (CTH OO/WINNEBAGO STREET)

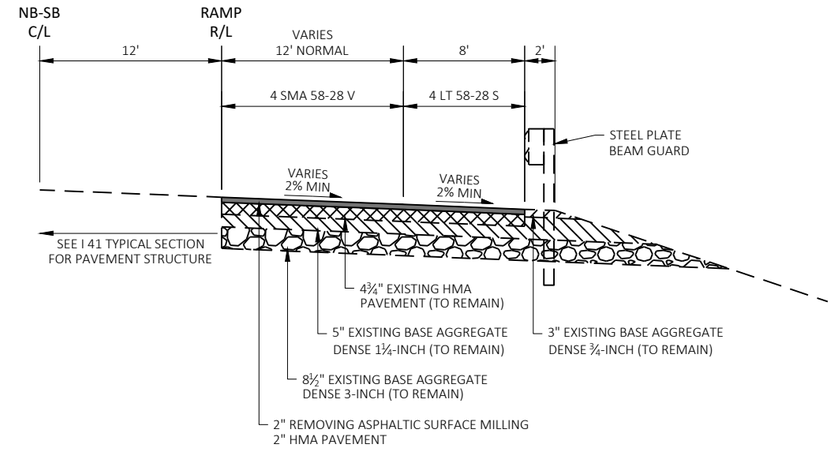


TYPICAL FINISHED SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

STH 23	CTH OO
RAMP E - STA 2382+96 - STA 2396+22	RAMP A - STA 2479+24 - STA 2490+57
RAMP F - STA 2381+86 - STA 2397+41	RAMP B - STA 2479+99 - STA 2494+77
RAMP G - STA 2409+38 - STA 2422+58	RAMP C - STA 2511+78 - STA 2514+17
RAMP H - STA 2409+18 - STA 2415+08	RAMP C - STA 2518+72 - STA 2523+09
	RAMP D - STA 2506+96 - STA 2512+02

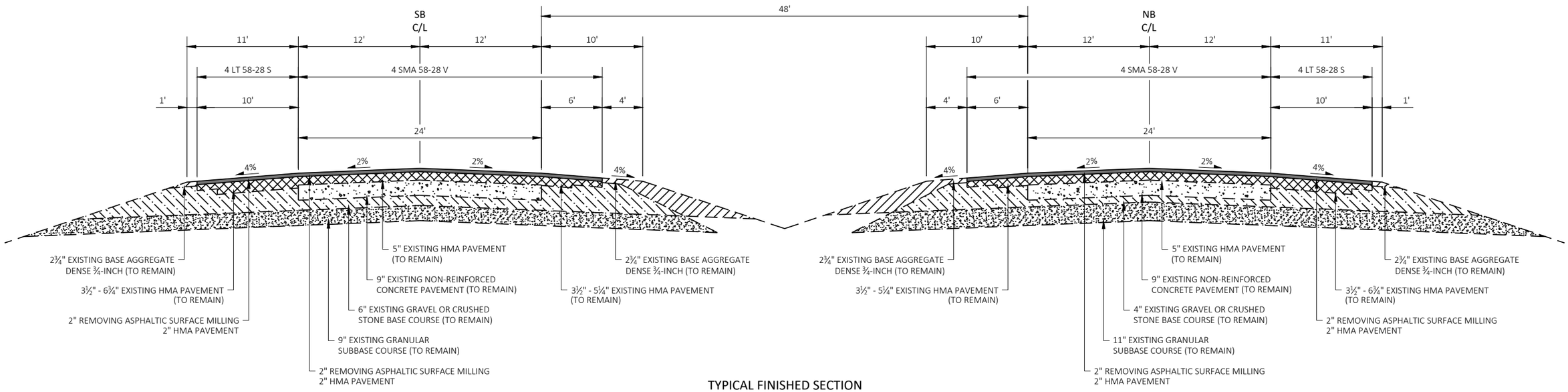


TYPICAL FINISHED SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

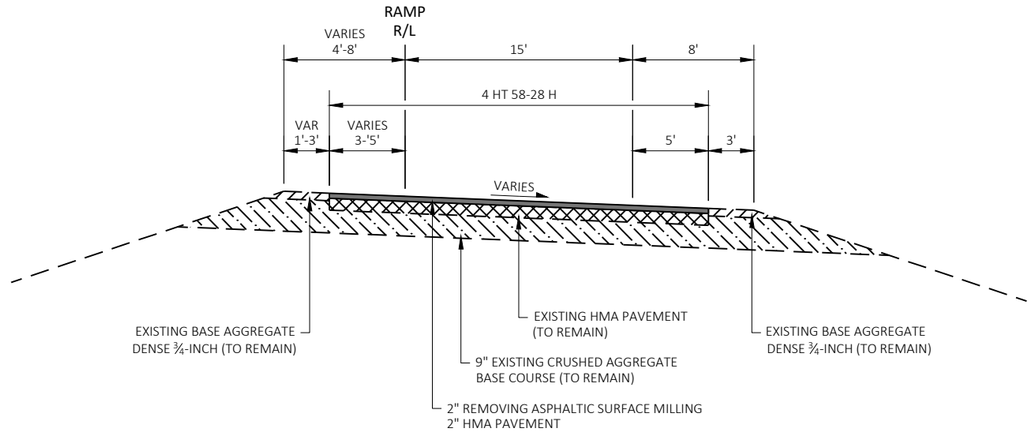
STH 23	CTH OO
RAMP H - STA 2415+08 - STA 2425+10	RAMP C - STA 2514+17 - STA 2518+72
	RAMP D - STA 2512+02 - STA 2521+29



TYPICAL FINISHED SECTION

I 41

SOUTHBOUND	NORTHBOUND
STA 2920+50 - STA 3075+80	STA 2920+50 - STA 3075+80

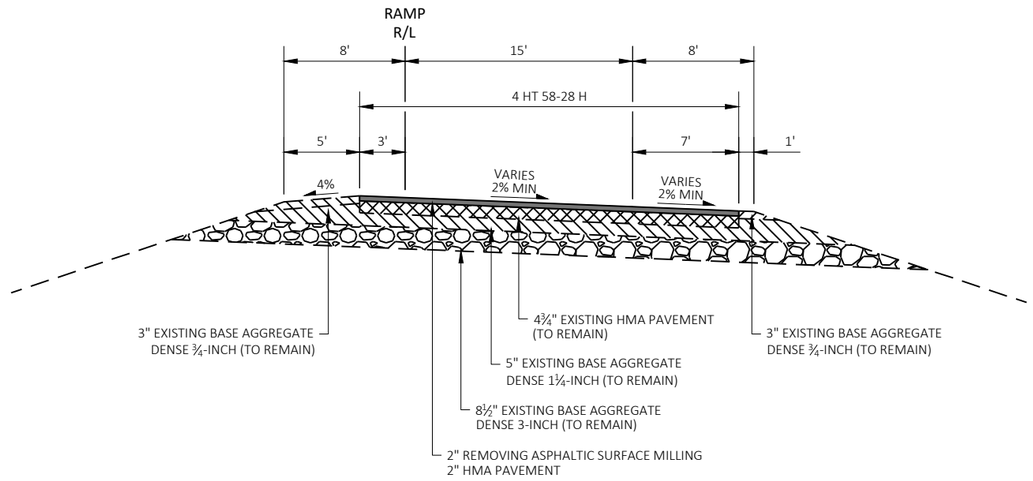


TYPICAL FINISHED SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

CTH N



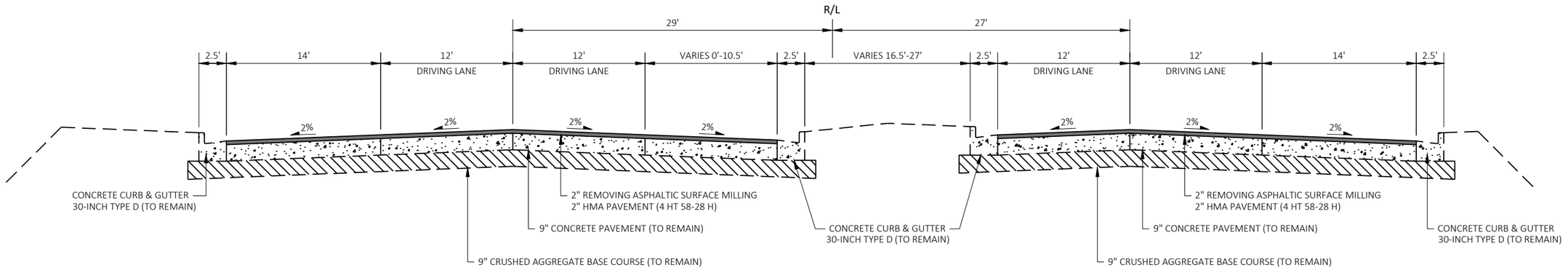
TYPICAL FINISHED SECTION

RAMPS

LOOKING IN DIRECTION OF TRAVEL

STH 23	CTH OO
RAMP E - STA 1396'E'+59 - STA 1403'E'+36	RAMP A - STA 1490'A'+97 - STA 1497'A'+67
RAMP F - STA 1397'F'+52 - STA 1403'F'+65	RAMP B - STA 1494'B'+98 - STA 1505'B'+49
RAMP G - STA 1404'G'+20 - STA 1410'G'+11	RAMP C - STA 1505'C'+14 - STA 1512'C'+49
RAMP H - STA 1403'H'+72 - STA 1409'H'+80	RAMP D - STA 1497'D'+37 - STA 1507'D'+92

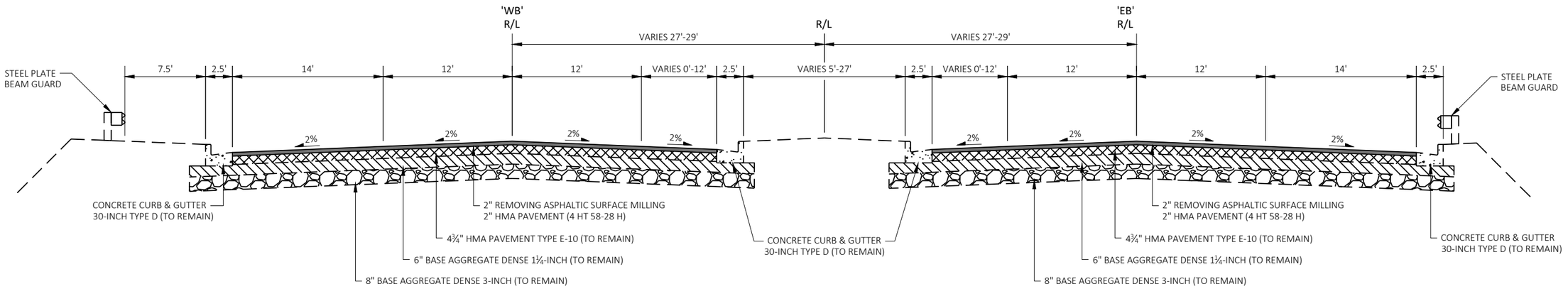
2



TYPICAL EXISTING SECTION

JOHNSON STREET

STA 93+95 - STA 95+00



TYPICAL EXISTING SECTION

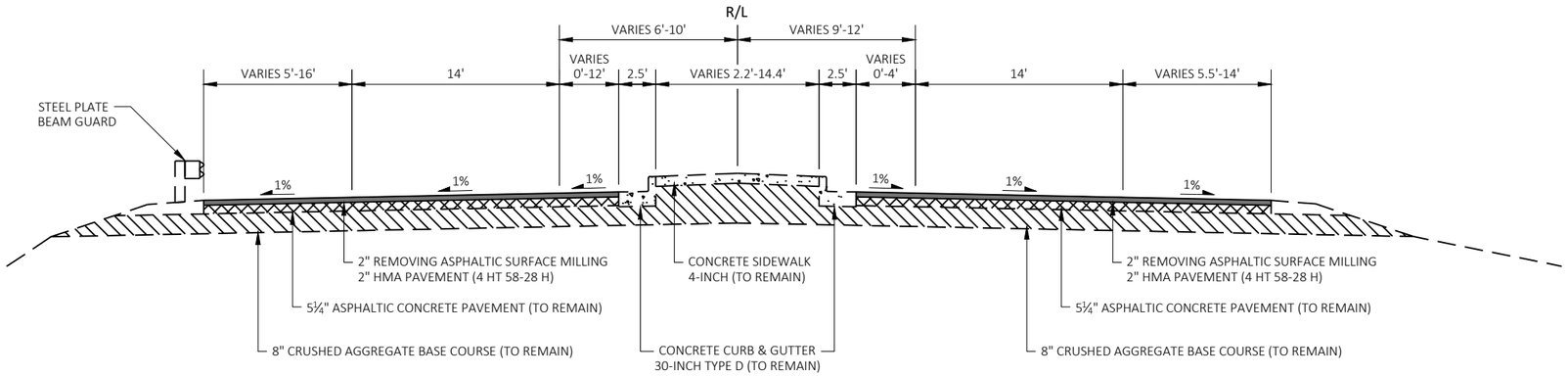
JOHNSON STREET

STA 95+00 - STA 98+79

STA 101+22 - STA 104+94

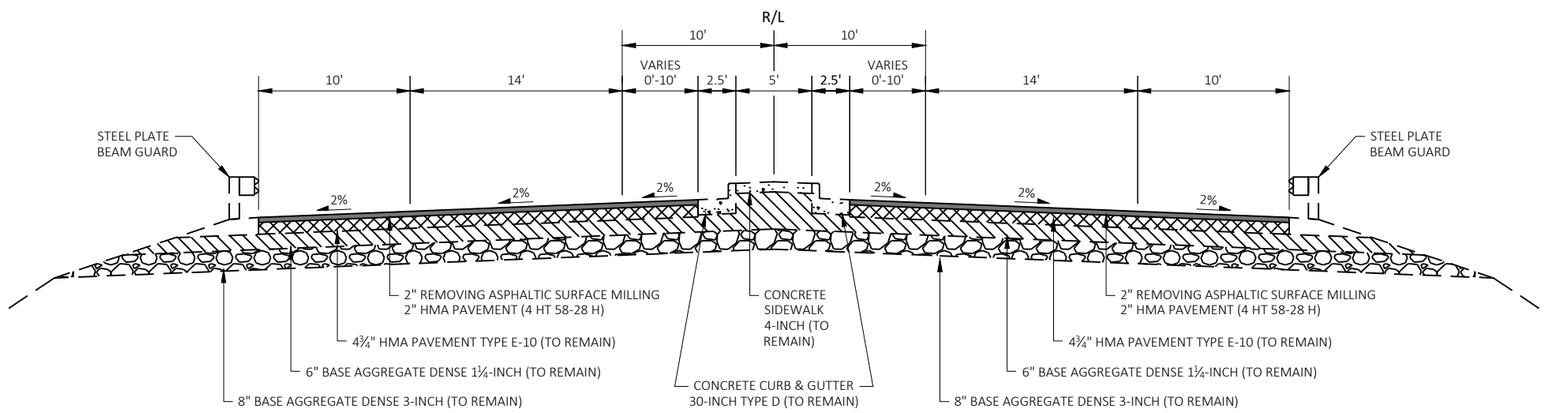
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TYPICAL SECTIONS	SHEET 17	E

2



TYPICAL EXISTING SECTION

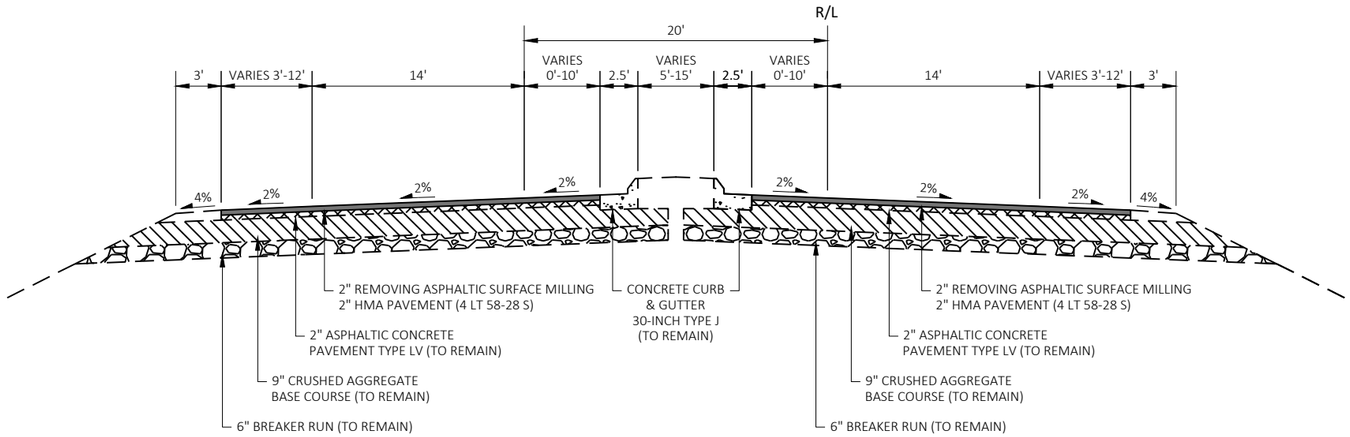
WINNEBAGO STREET
STA 13+69 - STA 15+60
STA 24+50 - STA 28+59



TYPICAL EXISTING SECTION

WINNEBAGO STREET
STA 15+60 - STA 18+53
STA 21+48 - STA 24+50

2



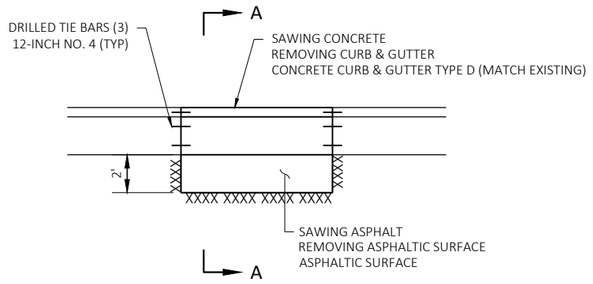
TYPICAL EXISTING SECTION

CTH N

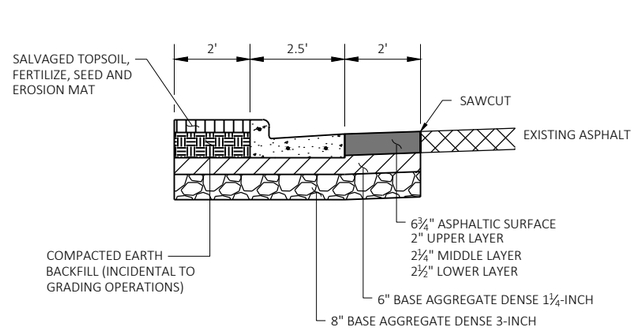
STA 43+80 - STA 65+20

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TYPICAL SECTIONS	SHEET 19	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-020301-TS.DWG
LAYOUT NAME - Sheet - 14
PLOT DATE : 6/18/2024 2:30 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

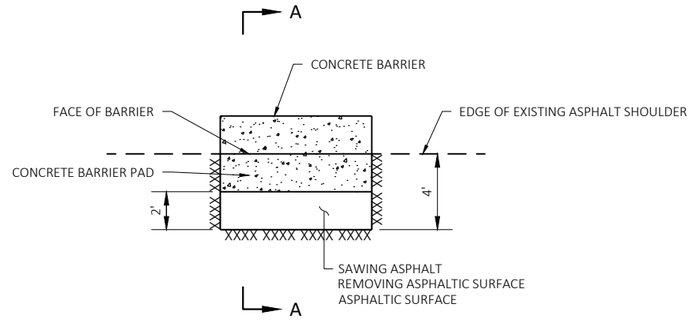


PLAN VIEW

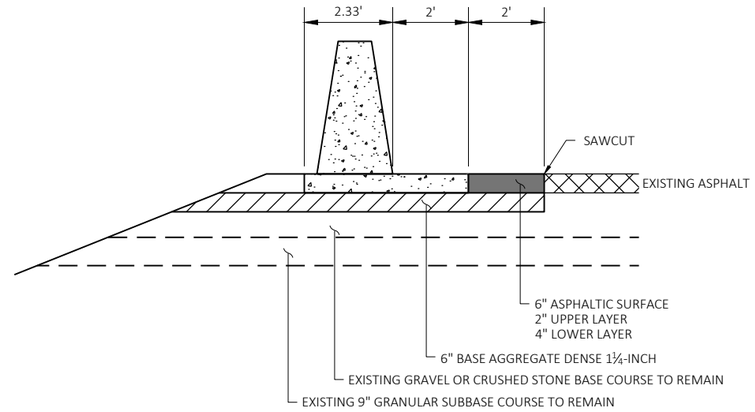


SECTION A-A

DETAIL FOR CURB AND GUTTER REMOVAL/REPLACEMENT

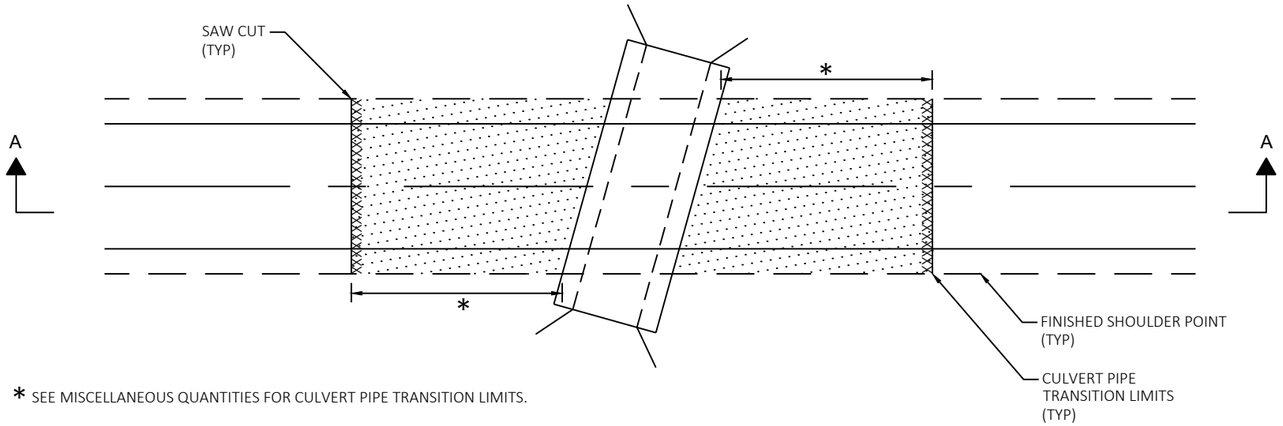


PLAN VIEW

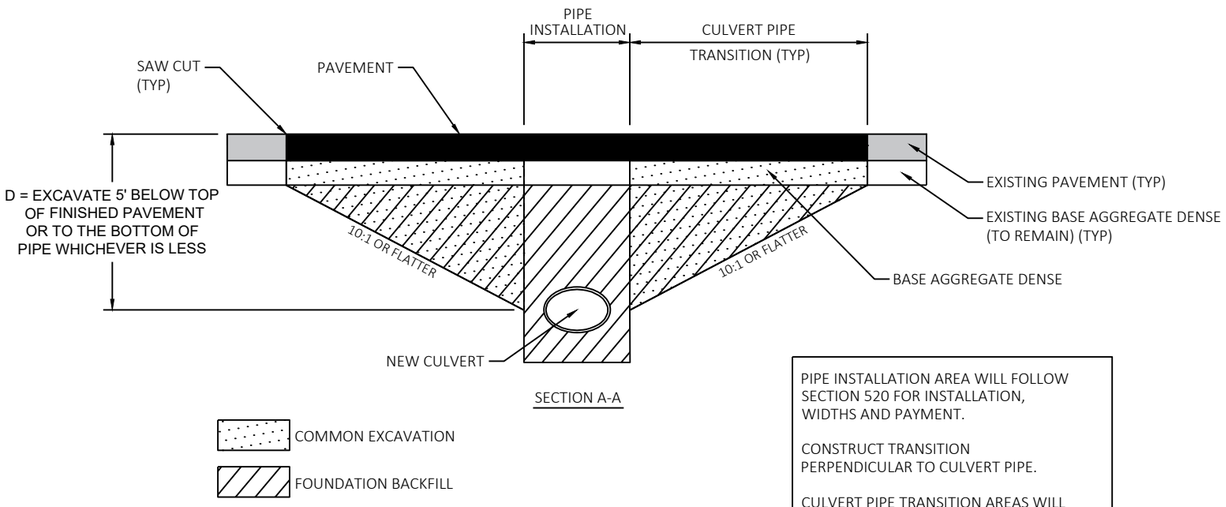


SECTION A-A

DETAIL FOR CONCRETE BARRIER INSTALLATION



* SEE MISCELLANEOUS QUANTITIES FOR CULVERT PIPE TRANSITION LIMITS.



SECTION A-A

PIPE INSTALLATION AREA WILL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

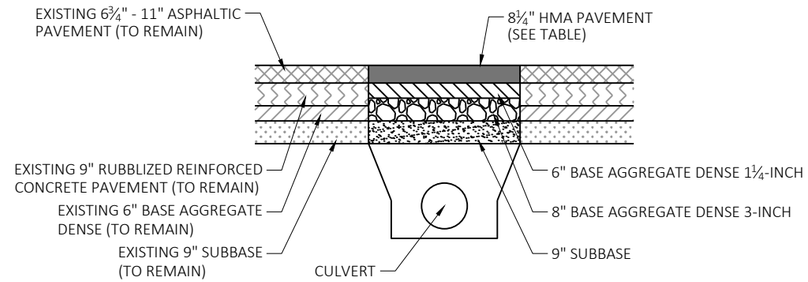
CULVERT PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.

PAVEMENT SAW CUT TO BE PERPENDICULAR TO ROADWAY ALIGNMENT.

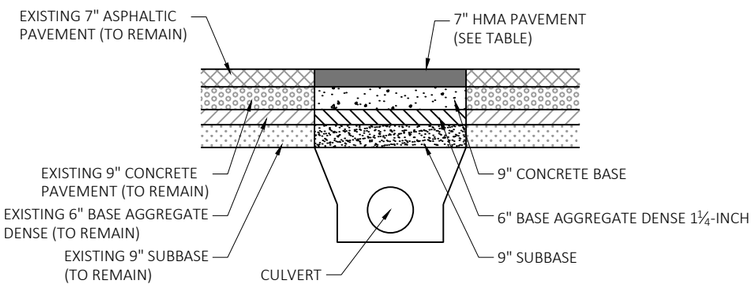
NEW CULVERT PIPES WITH TRANSITION

HMA PAVEMENT LAYERS				
LOCATION	UPPER LAYER		LOWER LAYER(S)	
	THICKNESS	TYPE*	THICKNESS	TYPE
I-41 MAINLINE & INSIDE SHOULDER - FOND DU LAC COUNTY	2"	4 SMA 58-28 V	2½" / 3¾"	ASPHALTIC SURFACE
I-41 OUTSIDE SHOULDER - FOND DU LAC COUNTY	2"	4 LT 58-28 S	2½" / 3¾"	ASPHALTIC SURFACE
I-41 MAINLINE & INSIDE SHOULDER - WINNEBAGO COUNTY	2"	4 SMA 58-28 V	(2) 2½"	ASPHALTIC SURFACE
I-41 OUTSIDE SHOULDER - WINNEBAGO COUNTY	2"	4 LT 58-28 S	(2) 2½"	ASPHALTIC SURFACE

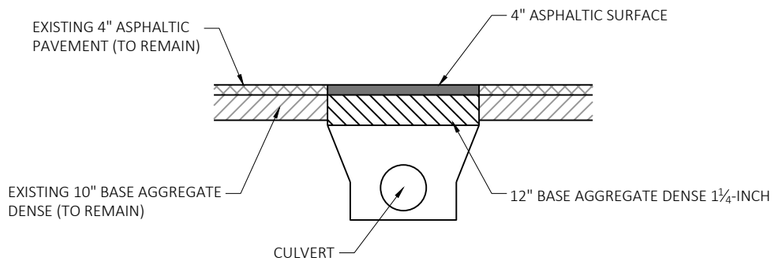
*ASPHALTIC SURFACE SHALL BE USED IF PLACED PRIOR TO MILLING OPERATIONS



I-41 - FOND DU LAC COUNTY

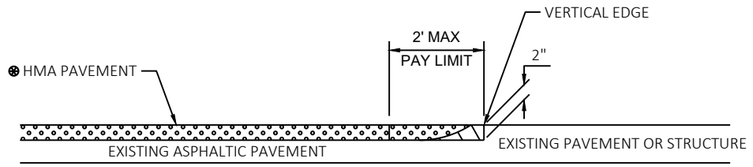


I-41 - WINNEBAGO COUNTY



FRONTAGE ROADS

PAVEMENT AT CULVERT REPLACEMENTS

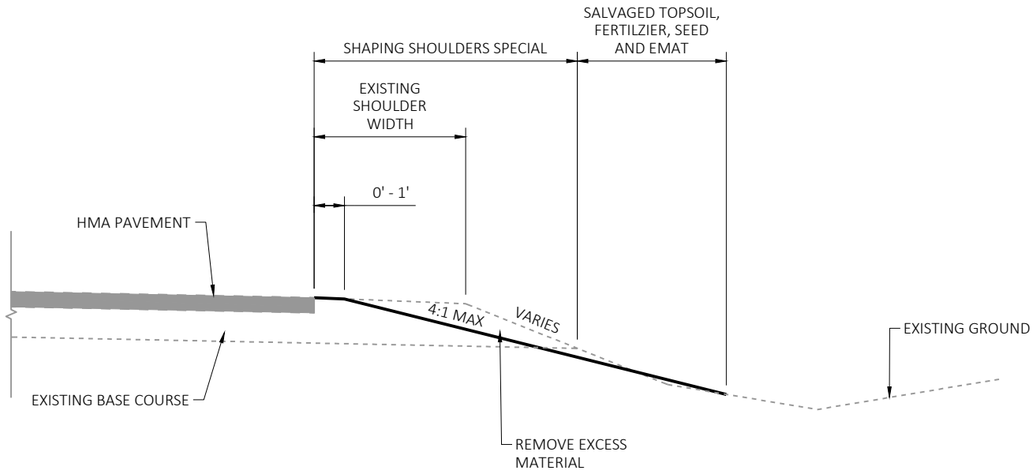


⊛ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

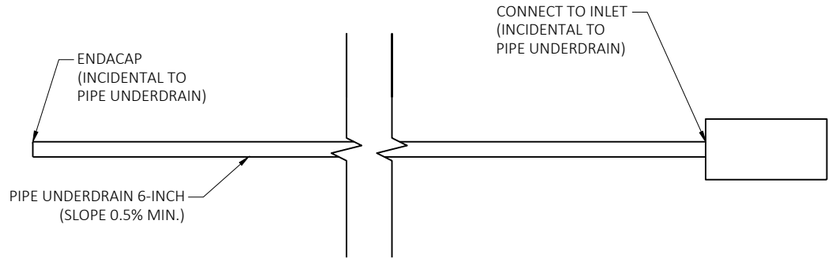
REMOVING ASPHALTIC SURFACE, MILLING

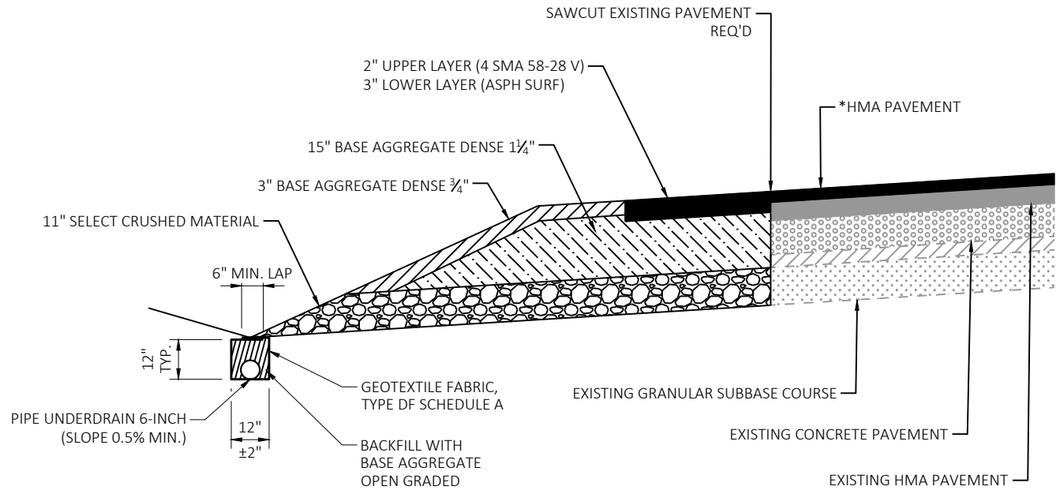
REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



SHAPING OUTSIDE SHOULDER DETAIL





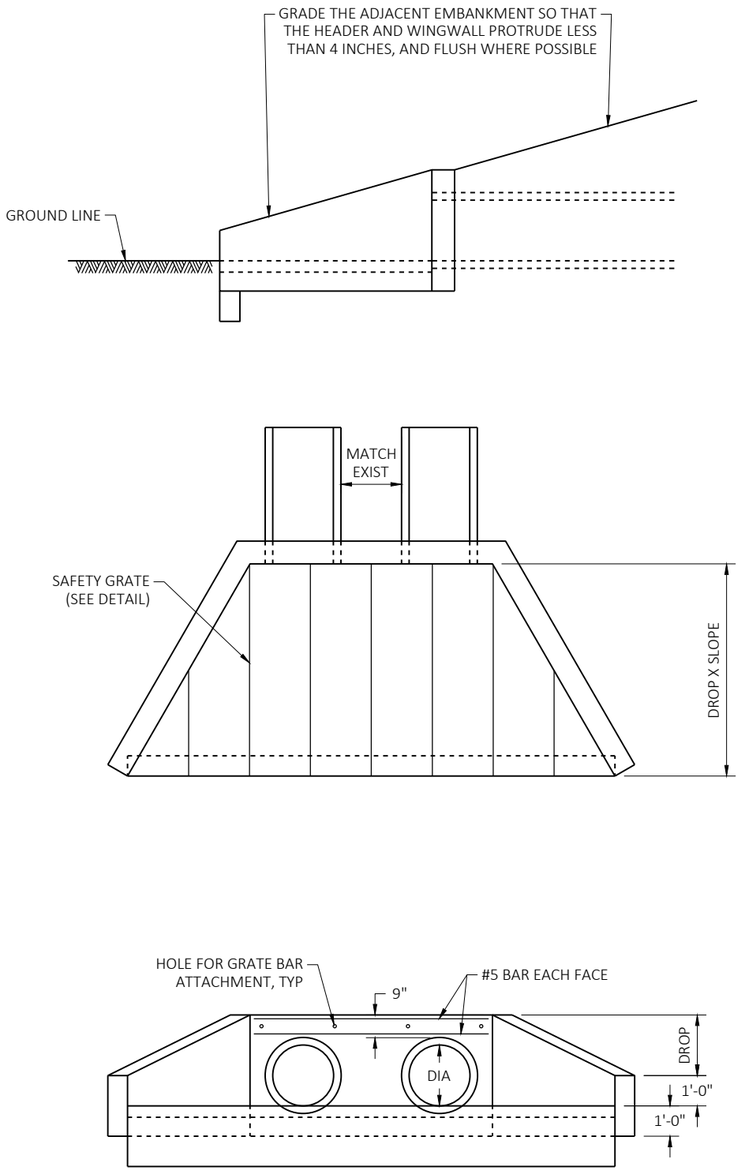
NOTES:
* SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

DETAIL FOR FRENCH DRAINS

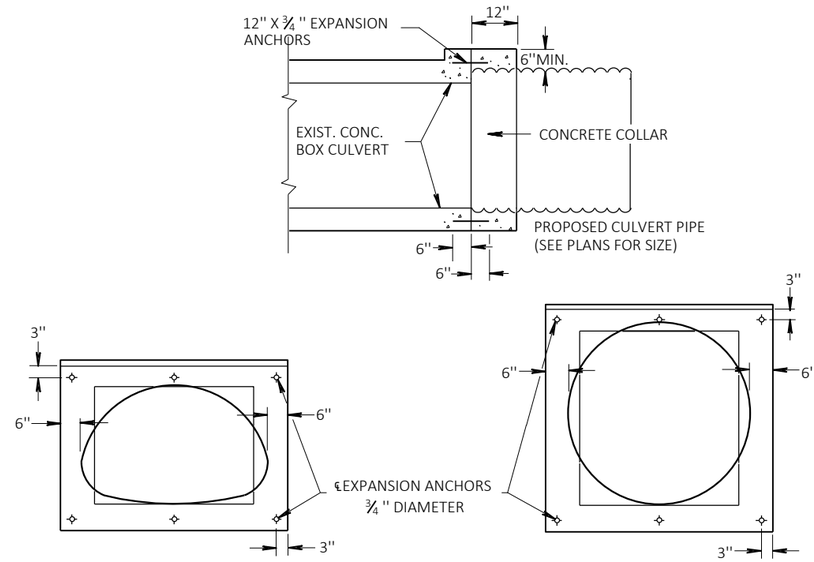
DRAINS ARE TO BE CONSTRUCTED FOR IH-41 NB TO THE MEDIAN AT THE LOCATIONS BELOW AND AS DIRECTED BY THE ENGINEER.

STA 2925+50 - STA 2928+31
NB MEDIAN SHOULDER

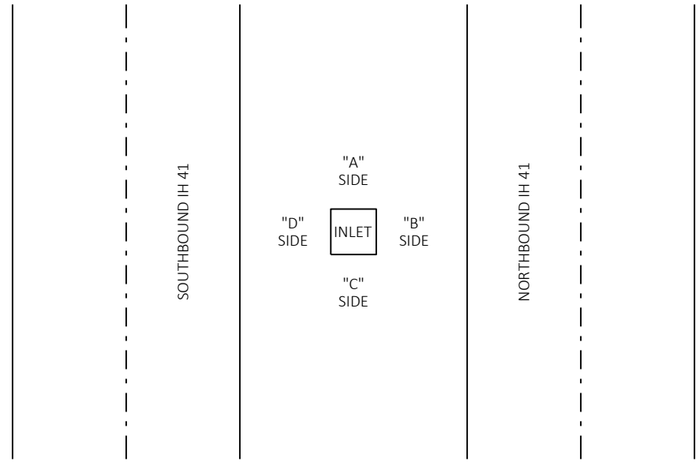
NOTES:
SEE SDD "CONCRETE MASONRY ENDWALLS FOR CULVERT PIPES" FOR ALL OTHER PERTINENT INFORMATION NOT SHOWN ON THIS DETAIL.



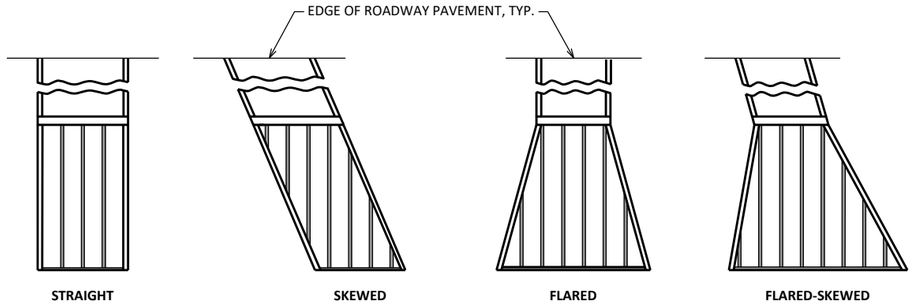
MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE DETAIL



DETAILS OF CONCRETE COLLAR FOR BOX CULVERT EXTENSIONS

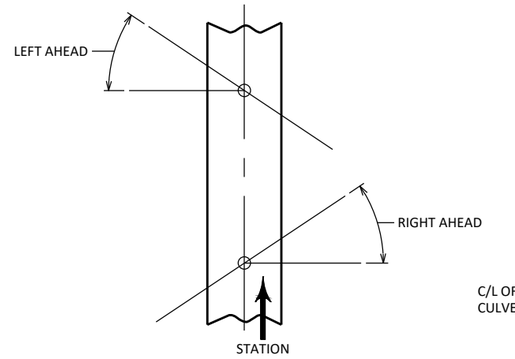


INLET LOCATION DETAIL

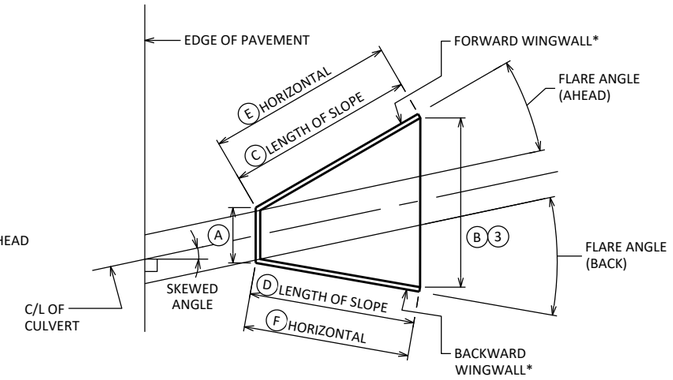


INSTALLATION TYPES

GRATE BARS TO BE PERPENDICULAR TO DIRECTION OF TRAFFIC FLOW

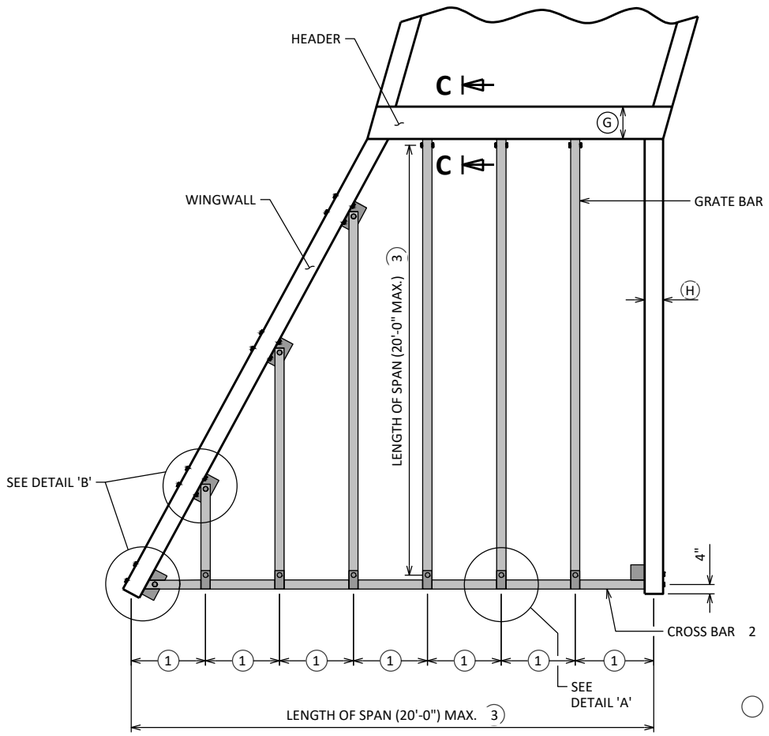


SKEW ANGLE DETERMINATION

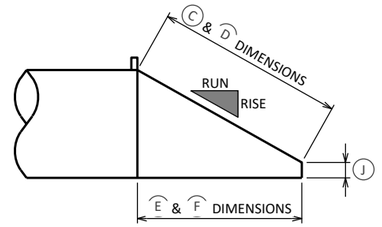


TOP VIEW

*FROM ROADWAY STATIONING



INSTALLATION PLAN



SIDE VIEW DETAILS OF DIMENSIONS

USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B. GALVANIZE ASTM A123 PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

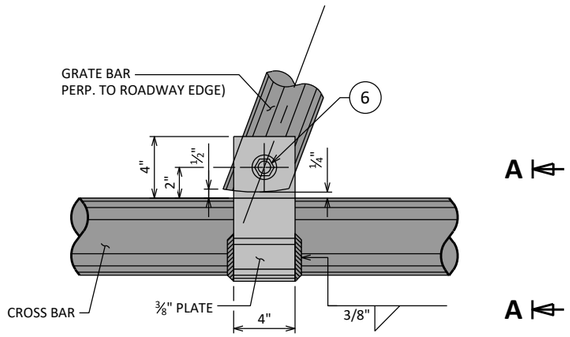
ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH HEADWALL OPENING.

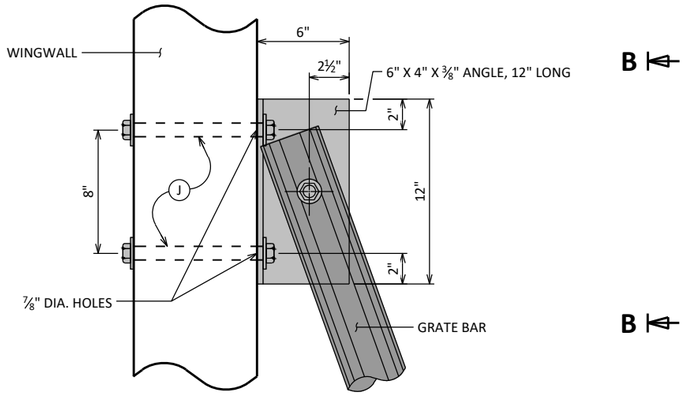
1. EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.
2. CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.
3. EQUAL SPACING ALONG SPAN OF WINGWALL. DIMENSION WILL DEPEND ON ANGLE OF WINGWALL PARALLEL TO VERTICAL BARS.
4. BRACKETS TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF X INCHES OF MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.
5. SHIM AT ANGLE OF INTERSECTION BETWEEN VERTICAL BARS AND HEADER TO BE FABRICATED TO ALLOW FOR BRACKET TO MATCH ANGLE OF VERTICAL BARS.

GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

SAFETY GRATE DETAIL



DETAIL 'A' TOP VIEW



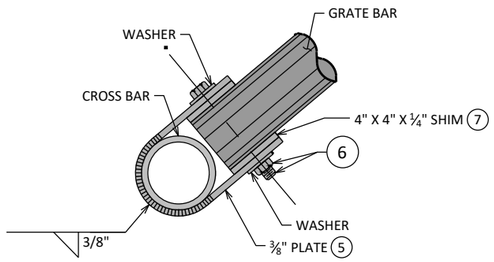
DETAIL 'B' TOP VIEW

4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

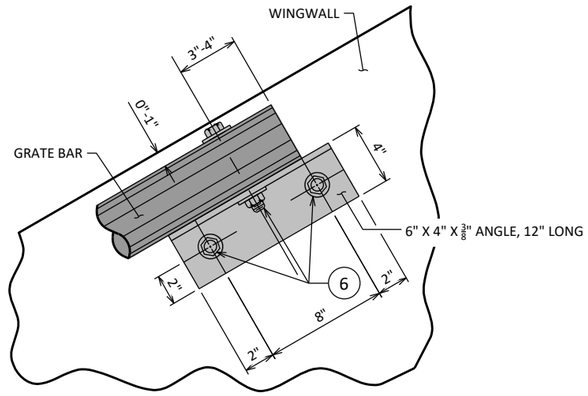
5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

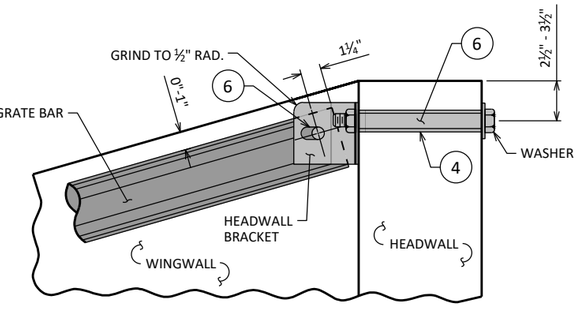
7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.



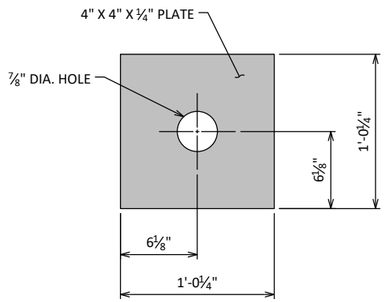
SECTION A-A



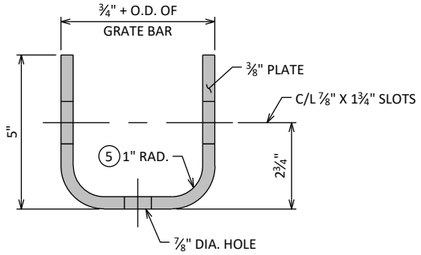
SECTION B-B



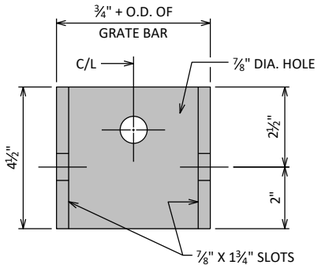
SECTION C-C



SHIM DETAIL



HEADWALL BRACKET TOP VIEW



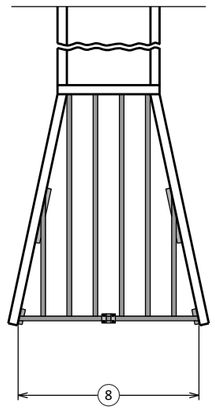
HEADWALL BRACKET FRONT VIEW

SAFETY GRATE DETAIL

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS	SHEET 25	E

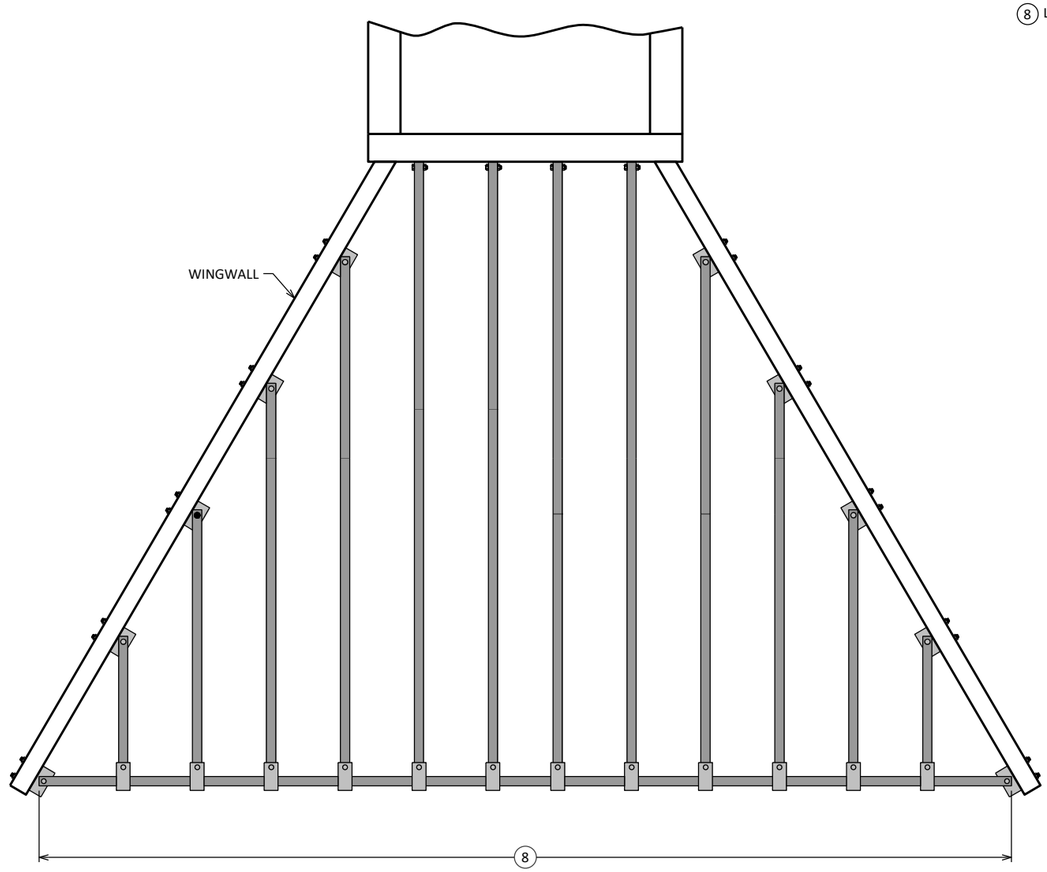
FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021001-CD.DWG
LAYOUT NAME - Sheet-06
PLOT DATE : 6/14/2024 6:55 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:1 FT
WISDOT/CADDS SHEET 42

2



CASE 1

(8) LENGTH OF SPAN (20 FEET MAXIMUM).



INSTALLATION PLAN

SAFETY GRATE DETAIL

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS	SHEET 26	E

2

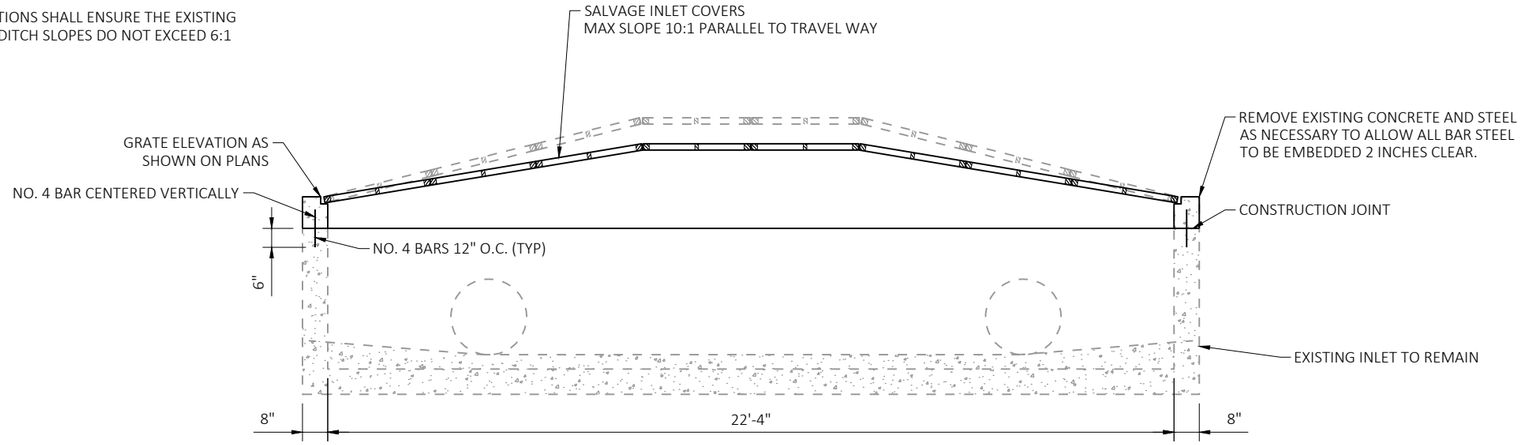
NOTES:

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

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

SEE STANDARD DETAIL DRAWING "INLETS MEDIAN 1 AND 2 GRATE" AND "INLETS MEDIAN 3 AND 4 GRATE" FOR MORE INFORMATION.

ALL GRADING WORK REQUIRED FOR INLET RECONSTRUCTIONS SHALL ENSURE THE EXISTING DRAINAGE PATTERN IS MAINTAINED AND THAT MEDIAN DITCH SLOPES DO NOT EXCEED 6:1 PERPENDICULAR OR 10:1 PARALLEL TO THE TRAVEL WAY.



RECONSTRUCTING INLETS MEDIAN GRATE DETAIL

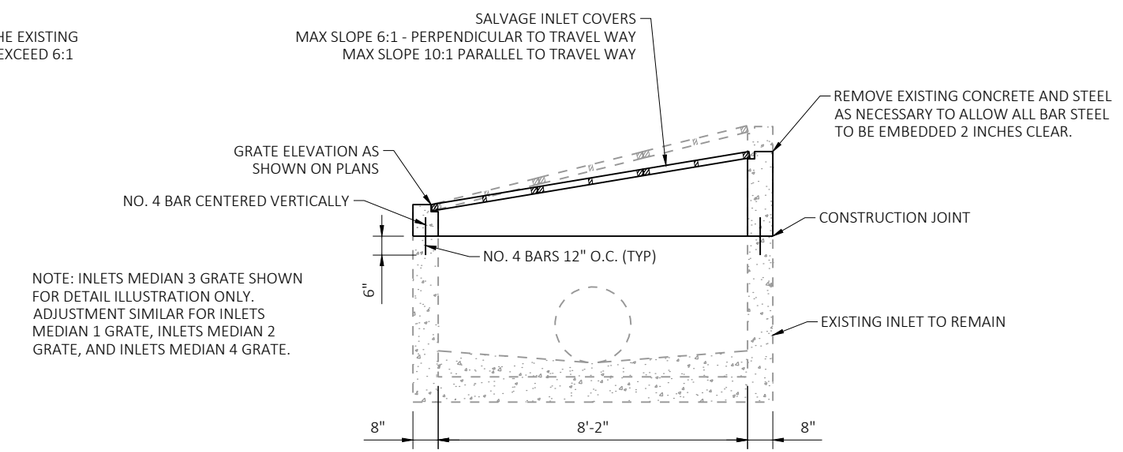
NOTES:

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

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

SEE STANDARD DETAIL DRAWING "INLETS MEDIAN 1 AND 2 GRATE" AND "INLETS MEDIAN 3 AND 4 GRATE" FOR MORE INFORMATION.

ALL GRADING WORK REQUIRED FOR INLET RECONSTRUCTIONS SHALL ENSURE THE EXISTING DRAINAGE PATTERN IS MAINTAINED AND THAT MEDIAN DITCH SLOPES DO NOT EXCEED 6:1 PERPENDICULAR OR 10:1 PARALLEL TO THE TRAVEL WAY.

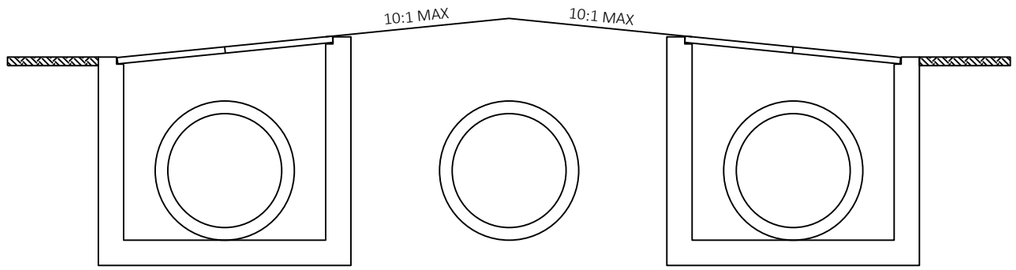


NOTE: INLETS MEDIAN 3 GRATE SHOWN FOR DETAIL ILLUSTRATION ONLY. ADJUSTMENT SIMILAR FOR INLETS MEDIAN 1 GRATE, INLETS MEDIAN 2 GRATE, AND INLETS MEDIAN 4 GRATE.

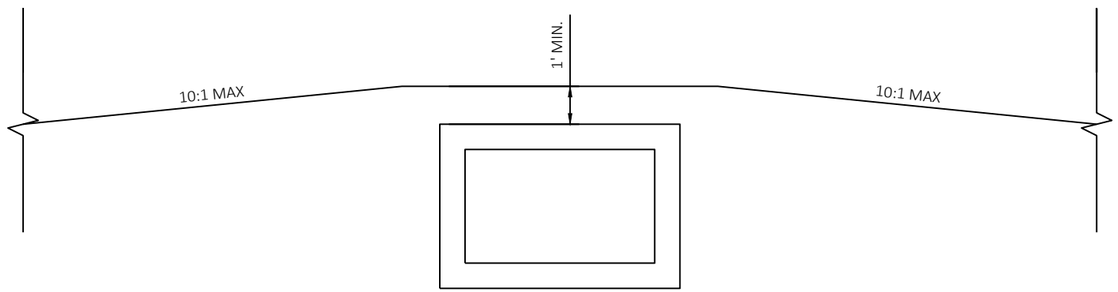
RECONSTRUCTING INLETS MEDIAN GRATE DETAIL

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS	SHEET 27	E

2

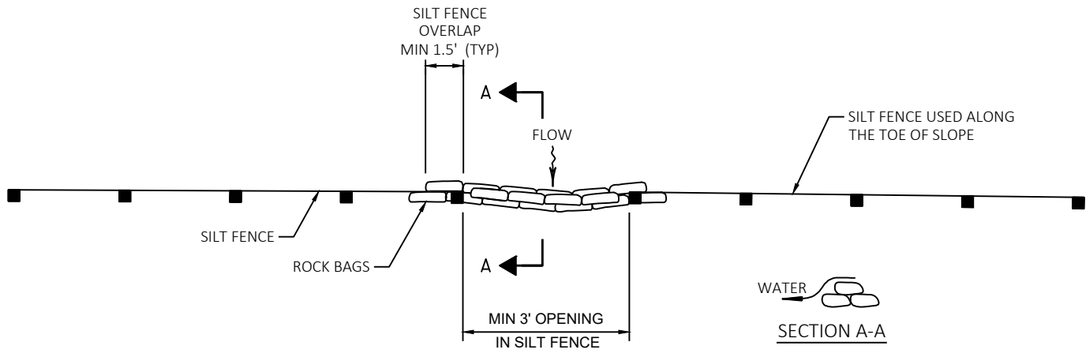


DETAIL FOR GRADING MEDIAN AT MULTIPLE INLETS



DETAIL FOR GRADING MEDIAN AT BOX CULVETS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS	SHEET 28	E

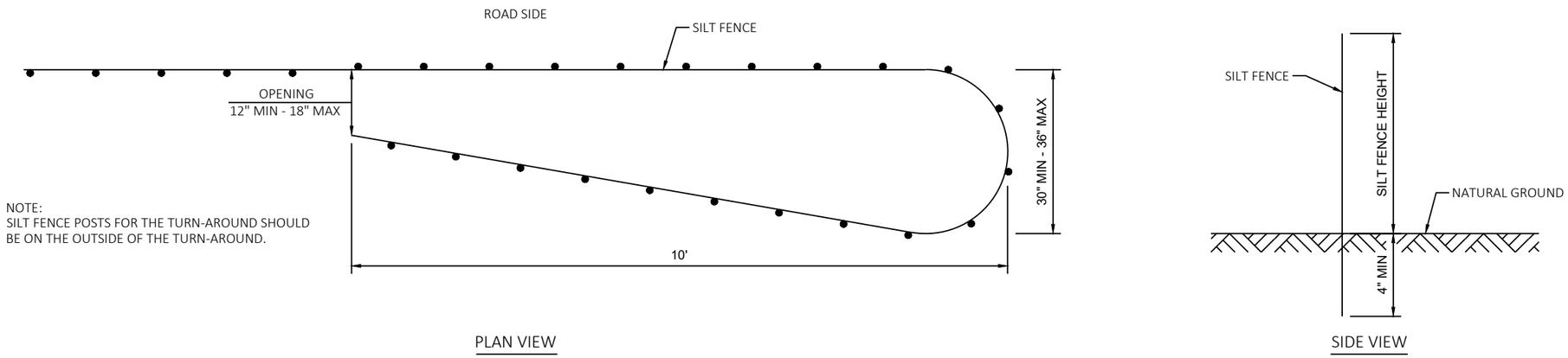


ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

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

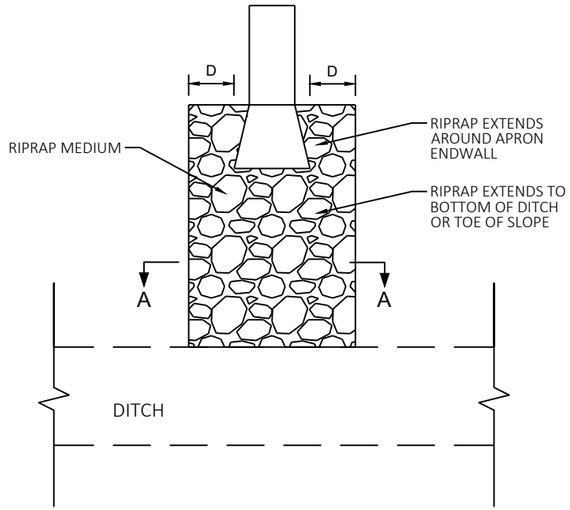
TOTAL PROJECT AREA = 404.519 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 43.186 ACRES

RUNOFF COEFFICIENT TABLE

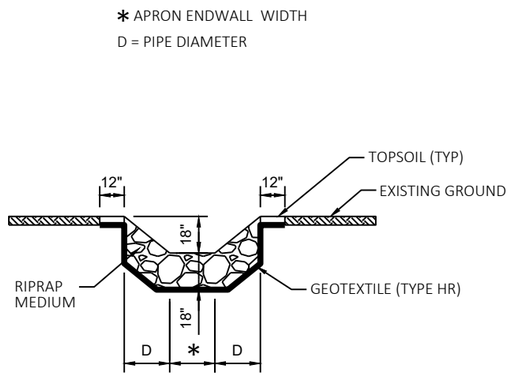


SILT FENCE TURN-AROUND DETAIL

2

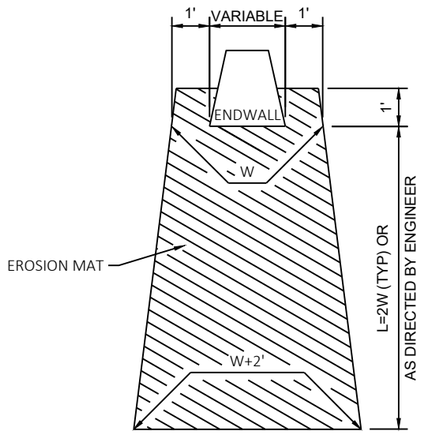


PLAN VIEW

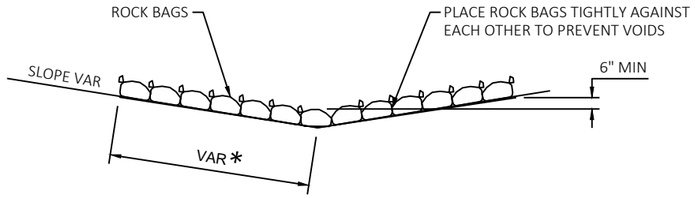


SECTION A-A

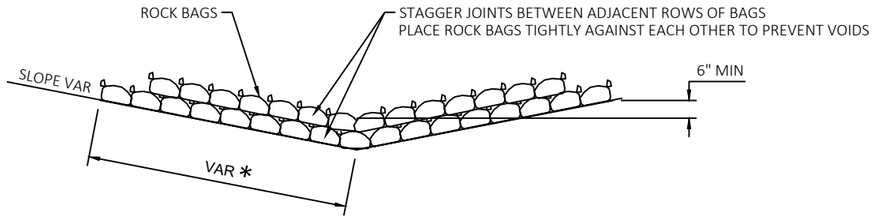
RIPRAP TREATMENT AT STORM SEWER OUTFALLS



EROSION MAT TREATMENT AT CULVERTS



SIDE VIEW (SINGLE LAYER)

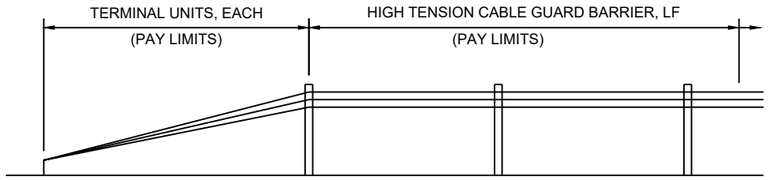


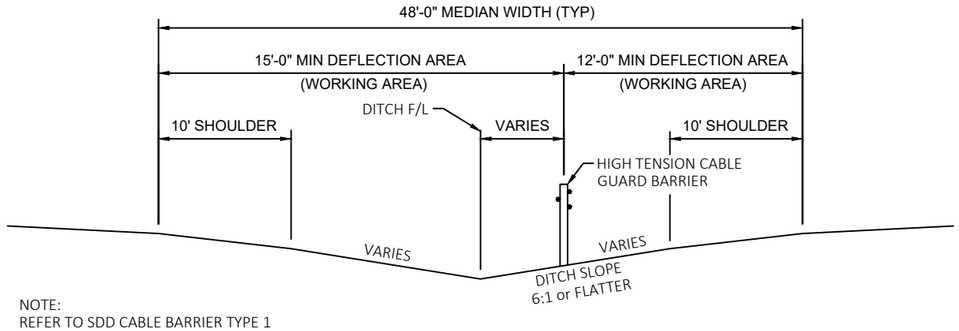
SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS

2

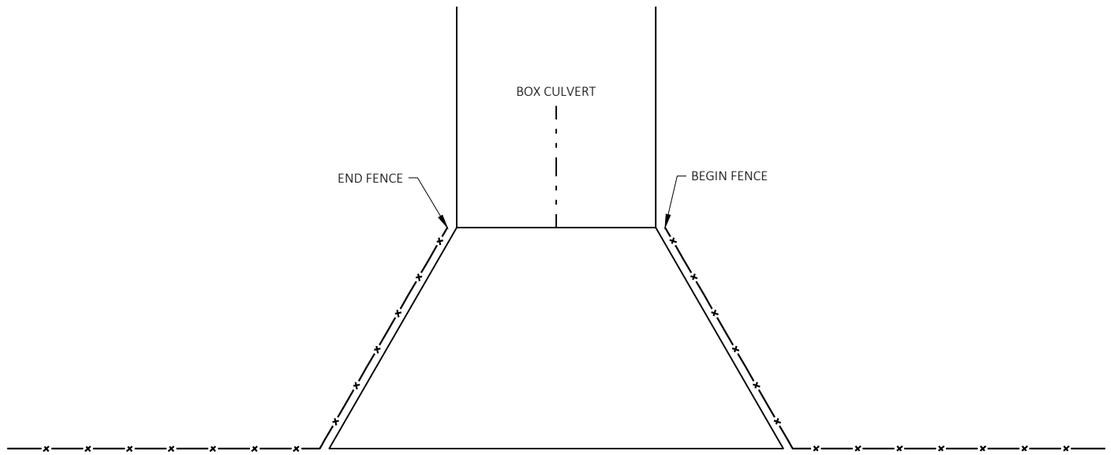




NOTE:
REFER TO SDD CABLE BARRIER TYPE 1

HIGH TENSION CABLE GUARD BARRIER OFFSET LOCATIONS

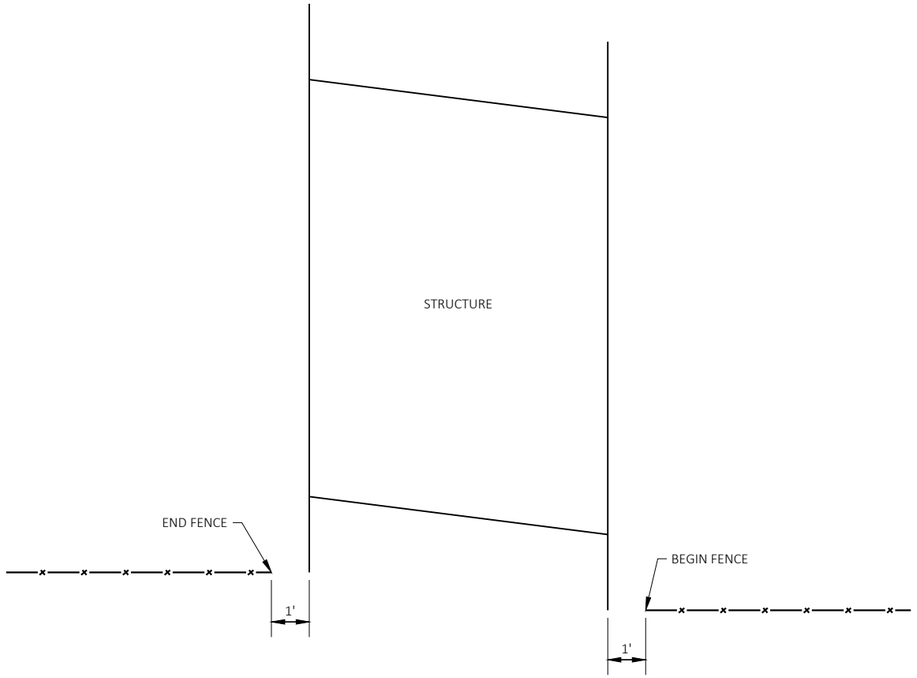
(TYP)



PLAN VIEW

FENCE DETAIL AT BOX CULVERTS

NOT TO SCALE

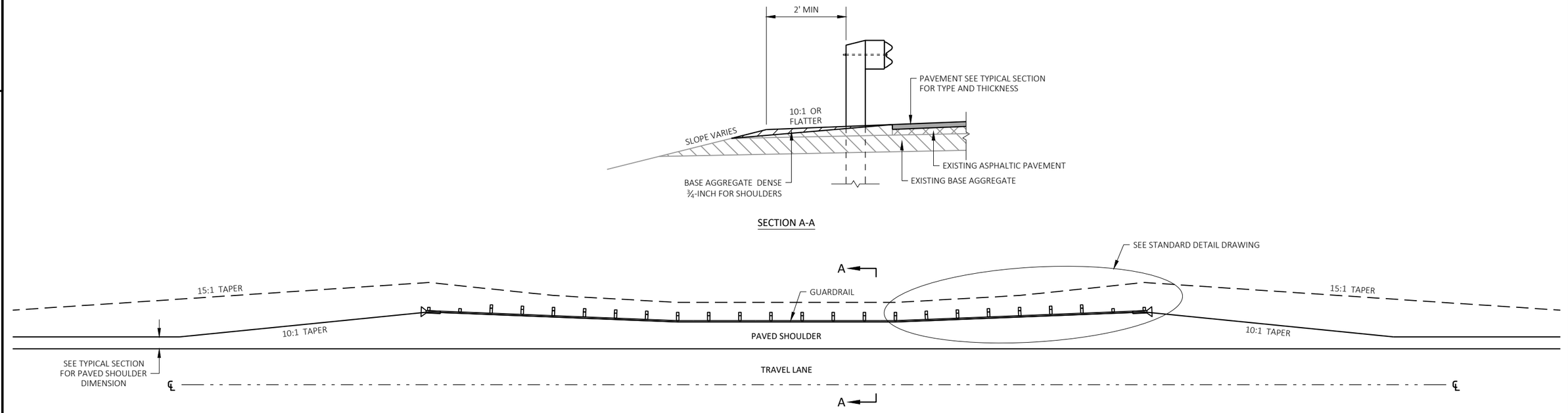


PLAN VIEW

FENCE DETAIL AT STRUCTURES

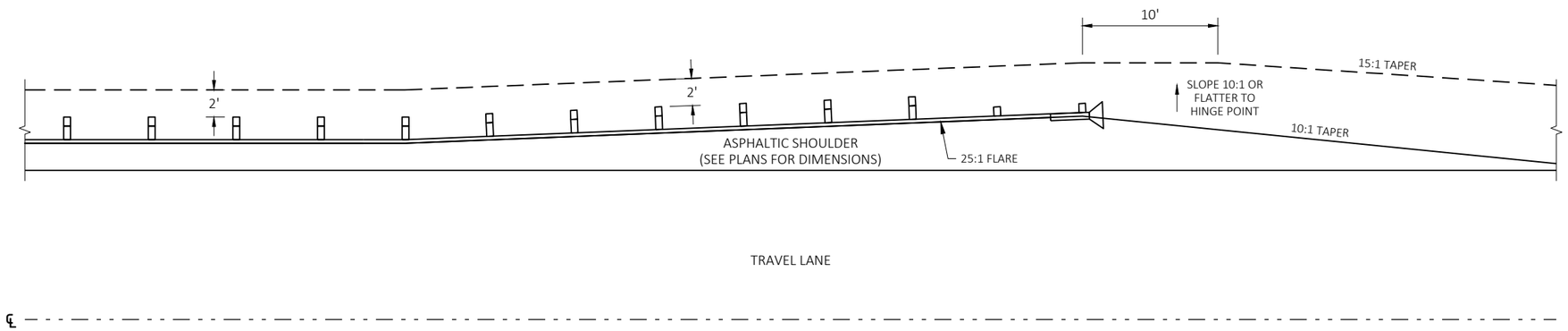
NOT TO SCALE

2



DETAIL FOR PAVED SHOULDER AT GUARDRAIL

SEE SDD "MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)" FOR ALL OTHER PERTINENT INFORMATION



DETAIL FOR SHOULDER ALTERNATE GRADING AT MGS ENERGY ABSORBING TERMINAL

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS	SHEET 33	E

2

2

EXIST R/W

N

MATCH LINE 2331+00

MGS GUARDRAIL 3

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

NET LEC

MGS GUARDRAIL TERMINAL TYPE 2

MGS GUARDRAIL TERMINAL TYPE 2

STA 2330+50.45
-49.96' LT

STA 2330+64.34
-49.98' LT

REMOVE EXISTING BEAM GUARD

IH 41 SB

STA 2326+64.02
-8.77' LT

STA 2326+77.96
-8.59' LT

STA 2326+90.45
-8.43' LT

REMOVE EXISTING BEAM GUARD

STA 2328+77.75
-2.47' LT

STA 2329+17.30
-2.14' LT

2325 2326 2327 2328 2329 2330

INL

18" RCP

STA 2326+62.10
13.47' RT
POST 1

STA 2326+87.12
14.42' RT
POST 5

STA 2327+15.27
15.48' RT

STA 2327+12.14
15.36' RT
POST 9

STA 2328+12.40
15.50' RT

STA 2328+27.95
15.51' RT

STA 2329+03.07
14.62' RT

STA 2329+42.51
13.91' RT

IH 41 NB

REMOVE EXISTING BEAM GUARD

MP

MP

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

SLOPE INTERCEPT, TYP

EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 34	E

2

EXIST R/W

N

MATCH LINE 2337+00

MGS GUARDRAIL 3

NET LEC

FO FO FO FO FO FO MP FO FO FO FO FO

STA 2332+06.20
-51.38' LT

STA 2333+25.41
-53.31' LT

IH 41 SB

REMOVE EXISTING
BEAM GUARD

31 2332 2333 2334 2335 2336 23

18" RCP

IH 41 NB

STA 2335+52.97
56.80' RT
POST 1

STA 2335+78.09
55.61' RT
POST 5

STA 2336+03.21
54.43' RT
POST 9

STA 2336+06.35
54.29' RT

REMOVE EXISTING
BEAM GUARD

SLOPE INTERCEPT, TYP

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MATCH LINE 2331+00

EXIST R/W

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 35	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-002

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

MATCH LINE 2343+00

EXIST R/W

N

W. BR. FOND DU LAC RIVER

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

REMOVE EXISTING BEAM GUARD

STA 2337+22.50
-69.72' LT

STA 2338+46.59
-70.45' LT

STA 2338+85.70
-70.62' LT

B-20-026

NET LEC

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

STA 2340+63.38
-71.01' LT

STA 2341+02.49
-71.01' LT

REMOVE EXISTING BEAM GUARD

IH 41 SB

FO

2338

2339

2340

2341

2342

IH 41 NB

B-20-007

STA 2338+70.50
52.55' RT

STA 2339+10.11
52.41' RT

STA 2340+82.89
52.06' RT

STA 2341+22.50
51.69' RT

STA 2341+47.64
51.72' RT

STA 2341+61.67
51.75' RT

REMOVE EXISTING BEAM GUARD

SIGN

MGS GUARDRAIL TERMINAL TYPE 2

SLOPE INTERCEPT, TYP

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MATCH LINE 2337+00

EXIST R/W

W. BR. FOND DU LAC RIVER

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 36	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-003

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

EXIST R/W

MATCH LINE 2349+00

2

MGS GUARDRAIL 3

NET LEC

FO

STA 2344+55.54
-69.64' LT

STA 2346+23.66
-68.61' LT

REMOVE EXISTING
BEAM GUARD

IH 41 SB

43

2344

2345

2346

2347

NL

2348

23

18" RCP

STA 2347+13.70
9.78' RT

STA 2347+53.14
10.24' RT

STA 2348+40.73
11.14' RT

REMOVE EXISTING
BEAM GUARD

IH 41 NB

MGS THRIE BEAM
TRANSITION

MGS GUARDRAIL 3

SLOPE INTERCEPT, TYP

MATCH LINE 2343+00

EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 37	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-004

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EXIST R/W

N

MATCH LINE 2355+00

2

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

NET LEC

REMOVE EXISTING
BEAM GUARD

STA 2351+60.68
-54.12' LT
POST 9

STA 2350+45.70
-53.79' LT

STA 2351+57.57
-53.99' LT

STA 2351+85.51
-55.13' LT
POST 5

STA 2352+10.35
-56.16' LT
POST 1

IH 41 SB

MGS THRIE BEAM
TRANSITION

MGS GUARDRAIL 3

STA 2349+63.56
-7.25' LT

STA 2350+02.93
-7.25' LT

STA 2350+52.89
-7.29' LT

REMOVE EXISTING
BEAM GUARD

STA 2352+02.74
-9.63' LT

STA 2352+52.69
-9.78' LT

STA 2353+27.60
-10.51' LT

24" RCP

15" RCP

ALLIANT

STA 2350+91.05
15.11' RT

REMOVE EXISTING
BEAM GUARD

STA 2353+28.01
15.55' RT

IH 41 NB

MGS GUARDRAIL 3

SLOPE INTERCEPT, TYP

MATCH LINE 2349+00

EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 38	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-005

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

EXIST R/W

N

FO

NET LEC

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

STA 2356+80.32
-11.51' LT
POST 9

STA 2357+05.27
-10.65' LT
POST 5

STA 2357+30.23
-9.79' LT
POST 1

REMOVE EXISTING
BEAM GUARD

STA 2356+77.20
-11.62' LT

IH 41 SB

55

2356

2357

2358

2359

2360

2361

INL

REMOVE EXISTING
BEAM GUARD

STA 2356+04.38
15.31' RT

STA 2356+18.36
15.28' RT

MGS GUARDRAIL
TERMINAL TYPE 2

IH 41 NB

24" RCP

MP

SIGN

SLOPE INTERCEPT, TYP

MGS GUARDRAIL 3

MATCH LINE 2355+00

EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 39	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-006

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

1401'F' RAMP 'F'

RAMP 'G'

2

N

CITY OF FOND DU LAC

STH 23 EB

STH 23 WB

99

SLOPE INTERCEPT, TYP

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

IH 41 SB

STA 2401+70.87
-12.50' LT

STA 2401+84.84
-12.49' LT

TWIN 36" RCP

18" RCP

REMOVE EXISTING
BEAM GUARD

STA 2404+85.17
-12.50' LT

STA 2404+88.29
-12.38' LT
POST 9

STA 2405+13.30
-11.44' LT
POST 5

STA 2405+38.31
-10.50' LT
POST 1

2401 2402 2403 2404 2405 2406

100

STA 2401+43.98
14.00' RT
POST 1

STA 2401+68.93
14.94' RT
POST 5

STA 2401+93.88
15.88' RT
POST 9

STA 2401+97
16.00' RT

TWIN 36" RCP

STA 2404+21.68
16.00' RT

STA 2404+96.57
14.69' RT

STA 2405+10.51
14.50' RT

24" RCP

IH 41 NB

REMOVE EXISTING
BEAM GUARD

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL TYPE 2

B-20-177

B-20-178

101

ALLIANT

CAMERA
POLE

JOHNSON ST

CITY OF
FOND DU LAC

CITY OF FOND DU LAC

WISDOT

1406'H' RAMP 'H'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 40	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-013

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCH LINE 2423+00

2

EXIST R/W

MP

MP

SIGN

1418'G'

1419'G'

1420'G'

1421'G'

1422'G'

24" RCP

IH 41 SB

2417

2418

2419

2420

2421

2422

INL

MP

INL

15" RCP

MP

STA 1417'H'+93.02
20.12' RT
POST 9

IH 41 NB

1418'H'

1419'H'

1420'H'

1421'H'

1422'H'

1423'H'

STA 1417'H'+68.03
21.06' RT
POST 5

STA 1417'H'+96.14
20.00' RT

STA 1419'H'+59.01
20.00' RT

RAMP 'H'

STA 1420'H'+69
20.00' RT

STA 1421'H'+88.80
18.40' RT

REMOVE EXISTING
BEAM GUARD

ALLIANT

OH

STA 1417'H'+43.05
22.00' RT
POST 1

SLOPE INTERCEPT, TYP

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 41	E

2

2

N

MATCH LINE 2429+00

MATCH LINE 2423+00

INSTALL CONCRETE BARRIER TYPE S42

EXIST R/W

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

IH 41 SB

STA 2425+43
-58.00' LT
FACE OF BARRIER

STA 2426+31.39
-58.00' LT

STA 2426+33.92
-58.00' LT
FACE OF BARRIER

STA 2426+71.19
-58.00' LT

NET LEC

REMOVE EXISTING BEAM GUARD

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL TYPE 2
STA 2427+90.20
-13.50' LT

STA 2428+04.20
-13.50' LT

REMOVE EXISTING BEAM GUARD

23

2424

2425

2426

2427

2428

24

INL

15" RCP

INL

IH 41 NB

B-20-3838
TRIPLE CELL 8'X4' BOX CULVERT

REMOVE EXISTING BEAM GUARD

1424'H'

1425'H'

STA 1423'H'+45.42
14.56' RT

STA 1425'H'+20.67
10.52' RT

STA 2425+09.81
58.50' RT

STA 2425+48.81
58.50' RT

STA 2425+46.33
58.50' RT
FACE OF BARRIER

STA 2426+32.95
58.50' RT

STA 2426+35.42
58.50' RT
FACE OF BARRIER

STA 2426+71.95
58.50' RT

STA 2426+90.19
12.50' RT
POST 1

STA 2427+15.11
13.44' RT
POST 5

STA 2427+40.03
14.38' RT
POST 9

STA 2427+43.15
14.50' RT

REMOVE EXISTING BEAM GUARD

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

ALLIANT

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

INSTALL CONCRETE BARRIER TYPE S42

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 42	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-017

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

EXIST R/W

NET LEC

N

97'000'

CTH OOO
W. SCOTT ST

98'000'

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

B-20-058

SIGN

MP

OH

STA 2433+05.73
-58.12' LT
POST 9

REMOVE EXISTING
BEAM GUARD

STA 2433+02.57
-58.00' LT

STA 2433+30.97
-59.06' LT
POST 5

STA 2433+56.21
-60.00' LT
POST 1

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

24" RCP

REMOVE EXISTING
BEAM GUARD

STA 2430+54.79
-13.50' LT

STA 2430+57.92
-13.38' LT
POST 9

STA 2430+82.95
-12.44' LT
POST 5

STA 2431+07.99
-11.50' LT
POST 1

IH 41 SB

18" RCP

SSO

29

2430

2431

2432

INL

2433

2434

2435

STA 2430+81.25
14.50' RT

18" RCP

REMOVE EXISTING
BEAM GUARD

24" RCP

STA 2430+67.33
14.50' RT

MGS GUARDRAIL
TERMINAL TYPE 2

99'000'

MGS GUARDRAIL 3

IH 41 NB

STA 2429+44.17
58.50' RT

STA 2429+57.98
58.50' RT

REMOVE
EXISTING
BEAM GUARD

MP

OH

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL 3

ALLIANT

SLOPE INTERCEPT, TYP

MATCH LINE 2429+00

CTH OOO
W. SCOTT ST

100'000'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 43	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-018

PLOT DATE : 6/14/2024 6:56 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

EXIST R/W

MATCH LINE 2497+00

N

MP

1492'B'

1493'B'

1494'B'

1495'B'

RAMP 'B'

1496'B'

1497'B'

C-20-003
12'X5' BOX CULVERT

24" RCP

IH 41 SB

2491 INL 2492 2493 2494 INL 2495 2496 24

15" RCP

IH 41 NB

STA 2492+77
60.50' RT
POST 1

STA 2493+01.98
59.56' RT
POST 5

STA 2493+30.09
58.50' RT

STA 2493+26.96
58.62' RT
POST 9

REMOVE EXISTING
BEAM GUARD

STA 2495+80.09
58.50' RT

STA 2496+92.59
58.50' RT

SLOPE INTERCEPT, TYP

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

1492'A'

1493'A'

RAMP 'A'

1494'A'

OH

EXIST R/W

OH

ATC

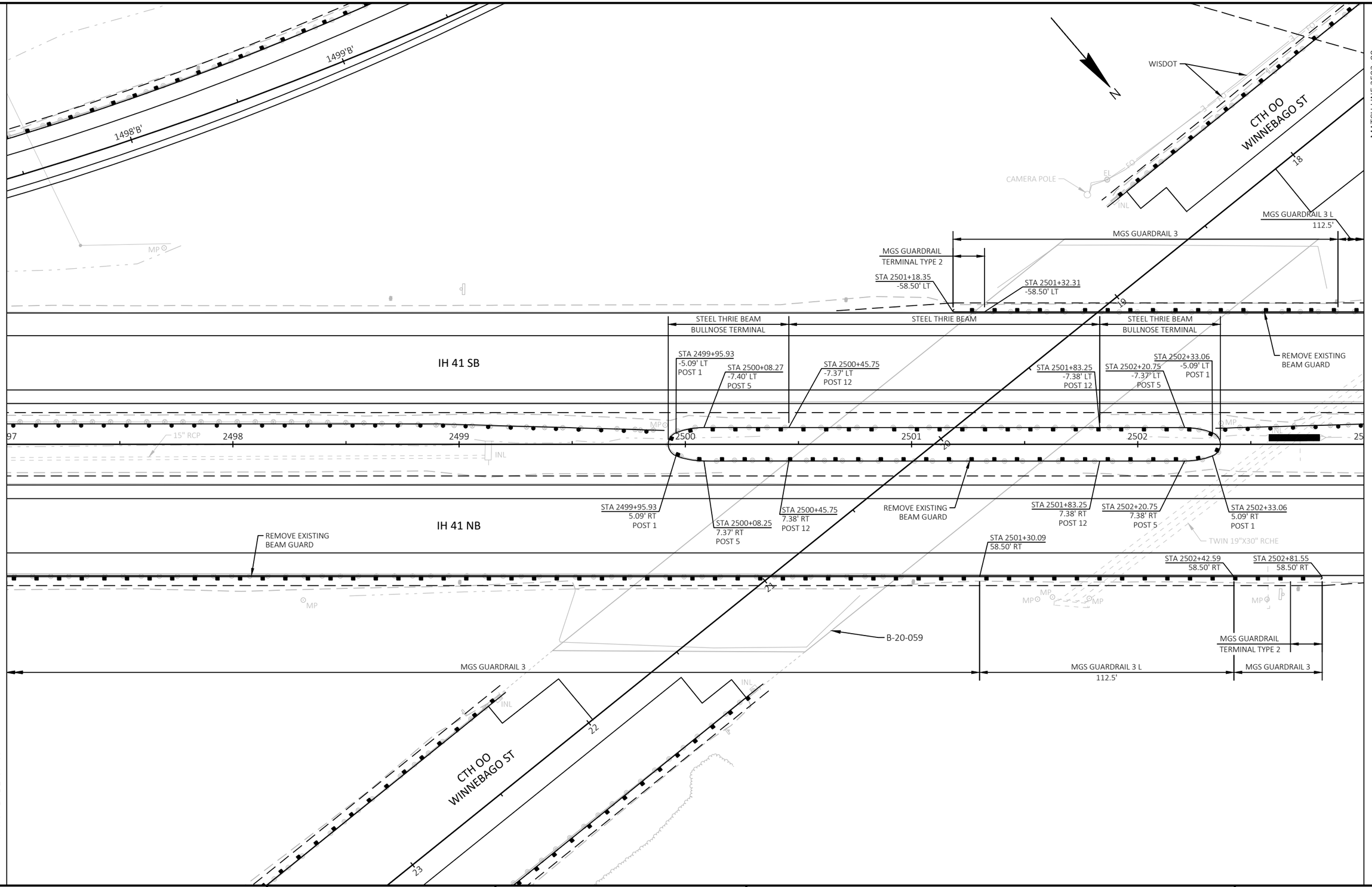
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 44	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-028

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 45	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-029

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

CTH OO
WINNEBAGO ST

17

ANR

RAMP 'C'

1509'C'

N

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

MP

STA 2504+01.06
-58.50' LT

REMOVE EXISTING
BEAM GUARD

STA 2505+19.81
-58.50' LT

STA 2505+22.93
-58.62' LT
POST 9

STA 2505+47.91
-59.56' LT
POST 5

STA 2505+72.89
-60.50' LT
POST 1

TWIN 19"X30" RCHE

IH 41 SB

03 2504 2505 2506 2507 2508 2509

IH 41 NB

SLOPE INTERCEPT, TYP

1504'D' 1505'D' 1506'D' 1507'D' 1508'D' 1509'D'

RAMP 'D'

EXIST R/W

OH

ATC

MATCH LINE 2503+00

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 46	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-030

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

MATCH LINE 2517+00

N

MGS GUARDRAIL 3

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

EXIST R/W

NET LEC

MGS GUARDRAIL
TERMINAL TYPE 2

STA 1513'C'+62.09
-19.83' LT

STA 1515'C'+21.66
-19.00' LT

REMOVE EXISTING
BEAM GUARD

1512'C'

RAMP 'C'

1513'C'

STA 1513'C'+76.28
-19.80' LT

STA 1514'C'+07.96
-19.59' LT

1514'C'

STA 1514'C'+97.43
-19.00' LT

1515'C'

1516'C'

1517'C'

IH 41 SB

2511

2512

2513

2514

2515

2516

INL
18" RCP

C-20-004
10'X5' BOX CULVERT

STA 1512'D'+35.50
23.00' RT
POST 1

STA 1512'D'+60.48
22.06' RT
POST 5

STA 1512'D'+85.46
21.12' RT
POST 9

IH 41 NB

ALLIANT

ALLIANT

1512'D'

1513'D'

1514'D'

1515'D'

1516'D'

1517'D'

RAMP 'D'

REMOVE EXISTING
BEAM GUARD

STA 1512'D'+88.58
21.00' RT

ATC

EXIST R/W

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

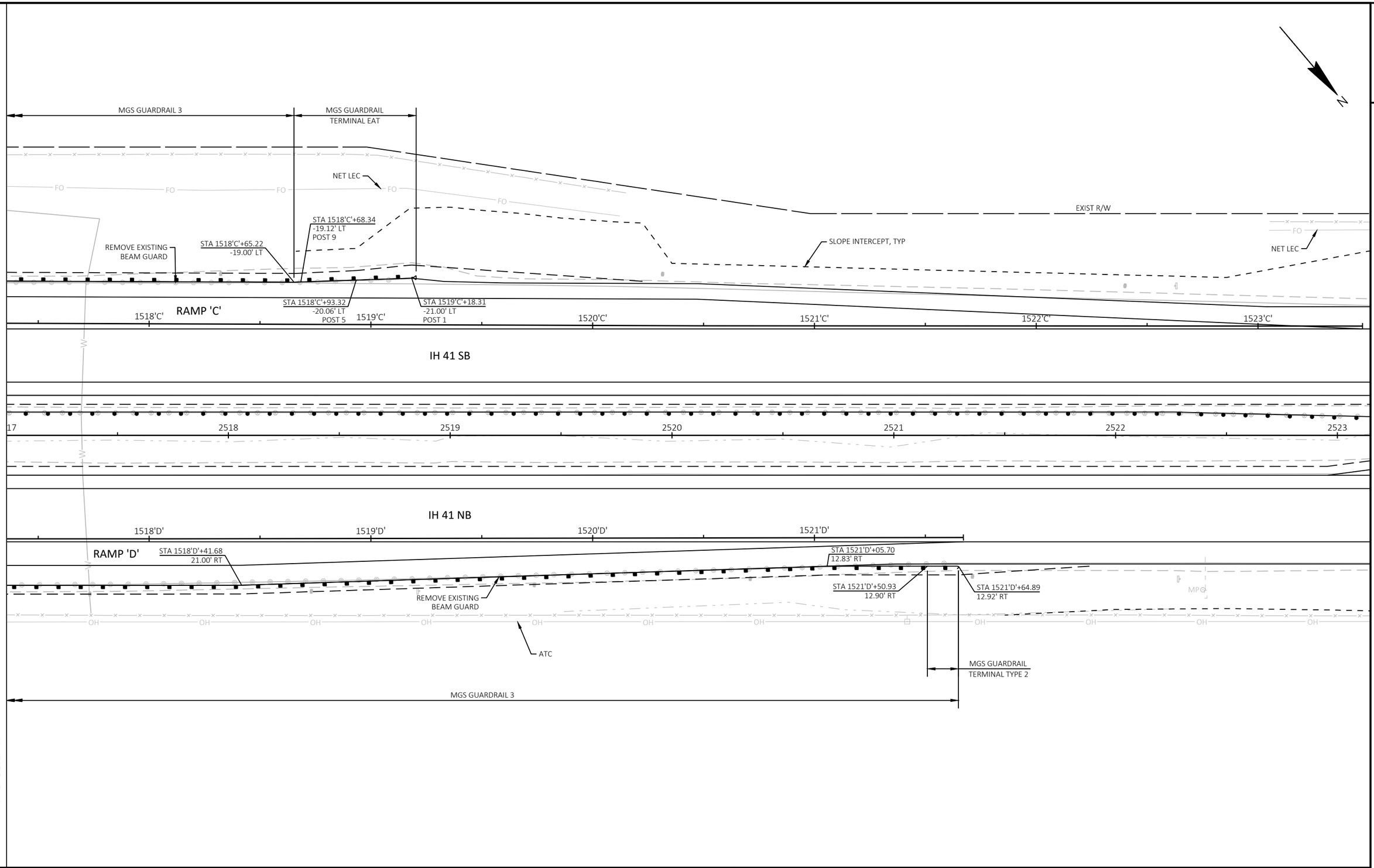
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 47	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-032

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 48	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-033
PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

MATCH LINE 2584+00

N

EXIST R/W

FO

MGS GUARDRAIL 3 L
112.5'

NET LEC

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL TYPE 2

IH 41 SB

REMOVE EXISTING
BEAM GUARD

STA 2582+60.31
-14.00' LT

STA 2582+74.27
-14.00' LT

STA 2583+93.02
-14.00' LT

2578 2579 2580 2581 2582 2583 25

INL

MP

15" RCP

STA 2582+94.40
14.50' RT

STA 2583+81.90
14.50' RT

STA 2580+59.47
60.00' RT
POST 1

STA 2580+84.45
59.06' RT
POST 5

STA 2581+09.44
58.12' RT
POST 9

IH 41 NB

STA 2582+41.31
12.50' RT
POST 1

STA 2582+66.29
13.44' RT
POST 5

STA 2582+91.28
14.38' RT
POST 9

REMOVE EXISTING
BEAM GUARD

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

STA 2581+12.56
58.00' RT

STA 2583+75.06
58.00' RT

REMOVE EXISTING
BEAM GUARD

MGS GUARDRAIL 3 L
112.5'

SLOPE INTERCEPT, TYP

OH

ATC

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

EXIST R/W

MGS GUARDRAIL 3 L
112.5'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 49	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-043

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

TOWNLINE RD

N

MATCH LINE 2590+00

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL
TERMINAL EAT

EXIST R/W

STA 2587+79.40
-58.12' LT
POST 9

STA 2588+04.38
-59.06' LT
POST 5

STA 2588+29.36
-60.00' LT
POST 1

SLOPE INTERCEPT, TYP

STA 2585+01.27
-58.00' LT

STA 2585+47.31
-58.00' LT

REMOVE EXISTING
BEAM GUARD

STA 2587+76.27
-57.97' LT

STA 2584+87.31
-58.00' LT

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

IH 41 SB

STA 2585+47.30
-14.00' LT

REMOVE EXISTING
BEAM GUARD

STA 2585+05.52
-14.00' LT

84 2585 2586 2587 2588 2589 25

STA 2584+94.40
14.50' RT

STA 2585+47.30
14.50' RT

B-20-060

REMOVE EXISTING
BEAM GUARD

IH 41 NB

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

STA 2584+87.56
58.00' RT

C-20-006
TWIN 8'X4'
BOX CULVERT

REMOVE EXISTING
BEAM GUARD

STA 2585+47.30
58.00' RT

STA 2586+50.05
58.00' RT

STA 2586+64.01
58.00' RT

ALLIANT

ATC

ATC

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

TOWNLINE RD

EXIST R/W

MATCH LINE 2584+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 50	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-044

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE 2596+00

MGS GUARDRAIL 3

EXIST R/W

FO

NET LEC

SLOPE INTERCEPT, TYP

IH 41 SB

REMOVE EXISTING
BEAM GUARD

90 2591 2592 2593 2594 2595 25

REMOVE EXISTING
BEAM GUARD

IH 41 NB

MGS GUARDRAIL 3

EXIST R/W

OH

ATC

MATCH LINE 2590+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 51	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-045

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

NET LEC

EXIST R/W

FO

SLOPE INTERCEPT, TYP

IH 41 SB

REMOVE EXISTING
BEAM GUARD

STA 2599+61.77
-14.00' LT

STA 2599+64.89
-13.88' LT
POST 9

STA 2599+89.88
-12.94' LT
POST 5

STA 2600+14.86
-12.00' LT
POST 1

96 2597 2598 2599 2600 2601 2602

REMOVE EXISTING
BEAM GUARD

IH 41 NB

STA 2601+19.40
14.50' RT

STA 2601+33.35
14.50' RT

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL 3

OH

EXIST R/W

ATC

MATCH LINE 2596+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 52	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-046

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL TYPE 2

EXIST R/W

FO

NET LEC

REMOVE EXISTING BEAM GUARD

STA 1726'NB'+48.95
-10.50' LT
POST 1

STA 1725'NB'+98.99
-8.62' LT
POST 9

STA 1725'NB'+95.86
-8.50' LT

STA 1724'NB'+56.91
-8.50' LT

SLOPE INTERCEPT, TYP

MP

1723'NB'

1724'NB'

1725'NB'

1726'NB'

1727'NB'

1728'NB'

RAMP 'NB'

STA 1724'NB'+70.86
-8.50' LT

STA 1726'NB'+23.97
-9.56' LT
POST 5

24" RCP

IH 41 SB

2722

2723

2724

2725

2726

2727

2728

INL

IH 41 NB

C-20-011
4'X6' BOX CULVERT

1723'NA'

1724'NA'

1725'NA'

RAMP 'NA'

1726'NA'

1727'NA'

1728'NA'

OH

ATC

MP

EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 53	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-067

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCH LINE 2749+00

IH 41 SB

B-20-118

2743 2744 2745 2746 2747 2748

50'N-EB''

IH 41 NB

STA 2744+49.93
13.00' RT
POST 1

STA 2744+74.91
13.94' RT
POST 5

STA 2744+99.89
14.88' RT
POST 9

STA 2745+03.01
15.00' RT

REMOVE EXISTING
BEAM GUARD

STA 2747+03.01
15.00' RT

STA 2747+42.41
15.00' RT

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

B-20-117

STA 1744'ND'+42.91
9.06' RT
POST 5

STA 1744'ND'+67.89
8.12' RT
POST 9

RAMP 'ND'

STA 1746'ND'+85.41
8.00' RT

STA 1746'ND'+46.01
8.00' RT

1744'ND' 1745'ND' 1746'ND' 1747'ND' 1748'ND' 1749'ND'

51'N-EB''

CTH N

STA 1744'ND'+71.01
8.00' RT

STA 1744'ND'+17.92
10.00' RT
POST 1

REMOVE EXISTING
BEAM GUARD

ATC

52'N-EB''

53'N-EB''

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 54	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-070

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

47'N-EB''

48'N-EB''

CTH N

49'N-EB''

B-20-118

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

STA 2752+61.85
-57.62' LT
POST 9

STA 2753+11.81
-59.50' LT
POST 1

STA 2752+86.83
-58.56' LT
POST 5

WISDOT

REMOVE EXISTING BEAM GUARD

SLOPE INTERCEPT, TYP

STA 2750+94.33
-57.50' LT

STA 2751+33.72
-57.50' LT

STA 2752+58.72
-57.50' LT

FL

MP

CB

OMP

INL

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

STA 2750+31.25
-13.00' LT

STA 2750+70.65
-13.00' LT

REMOVE EXISTING BEAM GUARD

STA 2752+70.65
-13.00' LT

STA 2752+98.75
-11.94' LT
POST 5

IH 41 SB

C-20-012
3.5'X6' BOX CULVERT

24" RCP

INL

49

2750

2751

2752

2753

2754

2755

MP

STA 2752+73.77
-12.88' LT
POST 9

STA 2753+23.74
-11.00' LT
POST 1

IH 41 NB

B-20-117

RAMP 'ND'

1750'ND'

1751'ND'

1752'ND'

1753'ND'

1754'ND'

1755'ND'

36" RCP

EXIST R/W

OH

ATC

MATCH LINE 2749+00

ENVIRONMENTALLY SENSITIVE AREA
BFD-0049
(GERMAN CHURCH CEMETERY)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 55	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-071

PLOT DATE : 6/14/2024 6:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXIST R/W

NET LEC

SLOPE INTERCEPT, TYP

LINCOLN RD

STEEL THRIE BEAM BULLNOSE TERMINAL

STEEL THRIE BEAM

STEEL THRIE BEAM BULLNOSE TERMINAL

24" RCP

STA 2839+71.89
-5.71' LT
POST 1

STA 2839+84.22
-7.90' LT
POST 5

STA 2840+21.72
-7.62' LT
POST 12

STA 2840+84.17
-7.37' LT
POST 12

STA 2841+21.67
-7.37' LT
POST 5

STA 2841+33.98
-5.09' LT
POST 1

IH 41 SB

2838 2839 2840 2841 2842 2843

MP

STA 2839+71.81
4.47' RT
POST 1

STA 2839+84.11
6.85' RT
POST 5

STA 2840+21.61
7.13' RT
POST 12

STA 2840+84.17
7.38' RT
POST 12

STA 2841+21.67
7.38' RT
POST 5

STA 2841+33.98
5.09' RT
POST 1

IH 41 NB

REMOVE EXISTING BEAM GUARD

B-20-119

LINCOLN RD

EXIST R/W

ATC

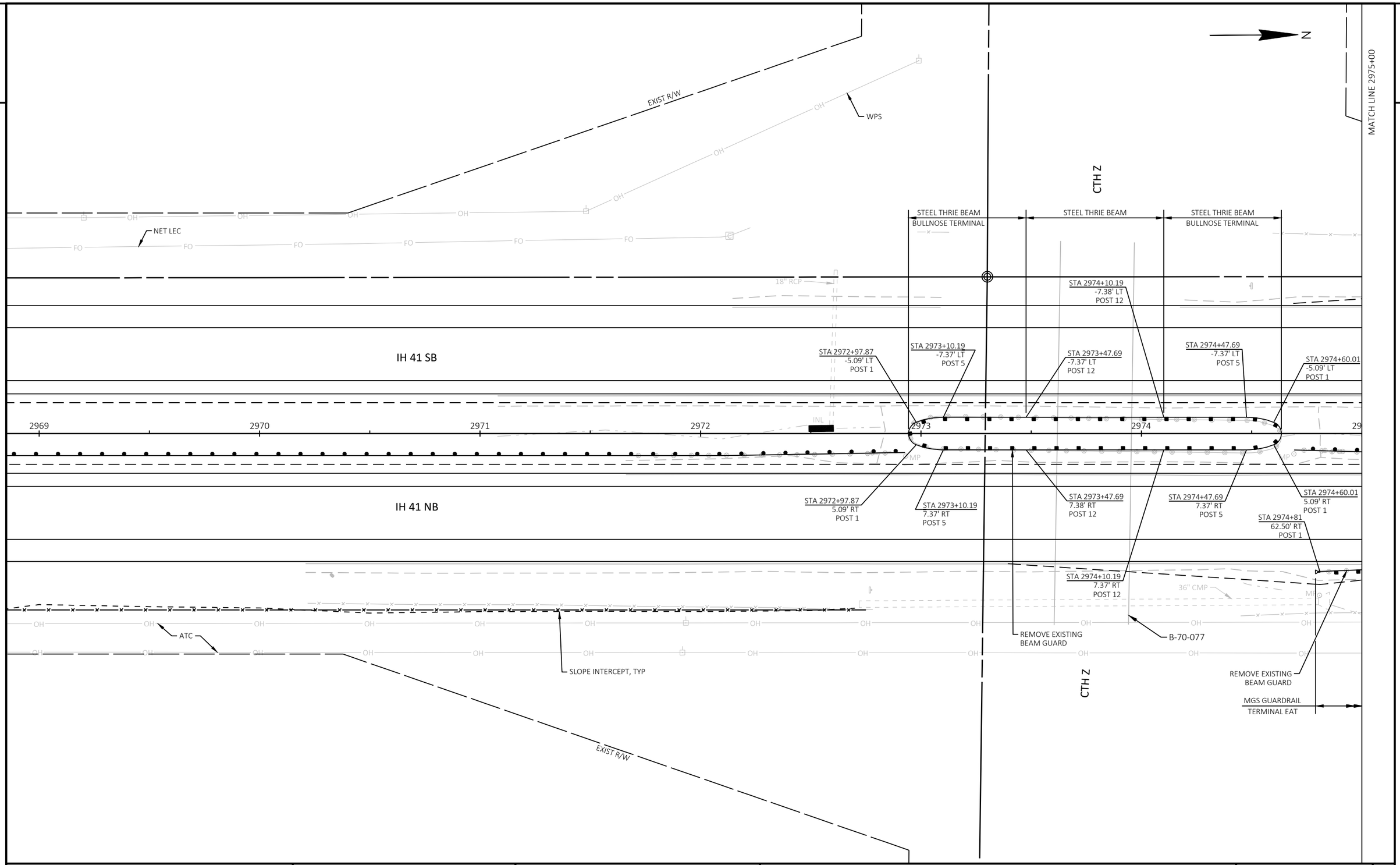
EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 56	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-086

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 57	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-108
PLOT DATE : 6/14/2024 6:58 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

MGS GUARDRAIL 3

MGS GUARDRAIL 3 L
112.5'

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL
TERMINAL TYPE 2

EXIST R/W

REMOVE EXISTING
BEAM GUARD

NET LEC

STA 2975+59.41
-58.50' LT

STA 2976+71.91
-58.50' LT

STA 2975+34.41
-58.50' LT

STA 2978+71.91
-58.50' LT

STA 2975+20.45
-58.50' LT

STA 2978+75.04
-58.62' LT
POST 9

STA 2979+00.02
-59.56' LT
POST 5

STA 2979+25
-60.50' LT
POST 1

IH 41 SB

75 INL 18" CMP 2976 18" CMP INL 2977 2978 2979 2980 2981

STA 2975+05.98
61.56' RT
POST 5

STA 2975+30.96
60.62' RT
POST 9

STA 2975+34.09
60.50' RT

STA 2976+71.59
60.50' RT

STA 2976+84.09
60.50' RT

C-70-005
14' RC SLAB SPAN CULV

IH 41 NB

STA 2975+59.09
60.50' RT

REMOVE EXISTING
BEAM GUARD

STA 2976+98.05
60.50' RT

ATC

SLOPE INTERCEPT, TYP

EXIST R/W

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL
TERMINAL EAT

MGS
GUARDRAIL 3

MGS GUARDRAIL 3 L
112.5'

MGS
GUARDRAIL 3

EXIST R/W

EXIST R/W

MATCH LINE 2975+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 58	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-109

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EXIST R/W

N

2

155'WFR' 156'WFR' 157'WFR' 158'WFR' 159'WFR' 160'WFR'

PLANEVIEW DR

STEEL THRIE BEAM BULLNOSE TERMINAL

STEEL THRIE BEAM

STEEL THRIE BEAM BULLNOSE TERMINAL

FO

NET LEC

STA 3026+14.79
-5.09' LT
POST 1

STA 3026+27.11
-7.37' LT
POST 5

STA 3026+64.61
-7.38' LT
POST 12

STA 3026+77.11
-7.38' LT
POST 12

STA 3027+14.61
-7.37' LT
POST 5

WISDOT

IH 41 SB

STA 3027+26.93
-5.09' LT
POST 1

3024 3025 3026 3027 3028 3029 3030

YARD INLET

EL

SIGN

STA 3026+14.79
5.09' RT
POST 1

STA 3026+27.11
7.37' RT
POST 5

STA 3026+64.61
7.38' RT
POST 12

STA 3026+77.11
7.38' RT
POST 12

STA 3027+14.61
7.37' RT
POST 5

STA 3027+26.89
5.11' RT
POST 1

IH 41 NB

OH

REMOVE EXISTING BEAM GUARD

SLOPE INTERCEPT, TYP

ATC

155'EFR' 156'EFR' 157'EFR' 158'EFR' 159'EFR' 160'EFR'

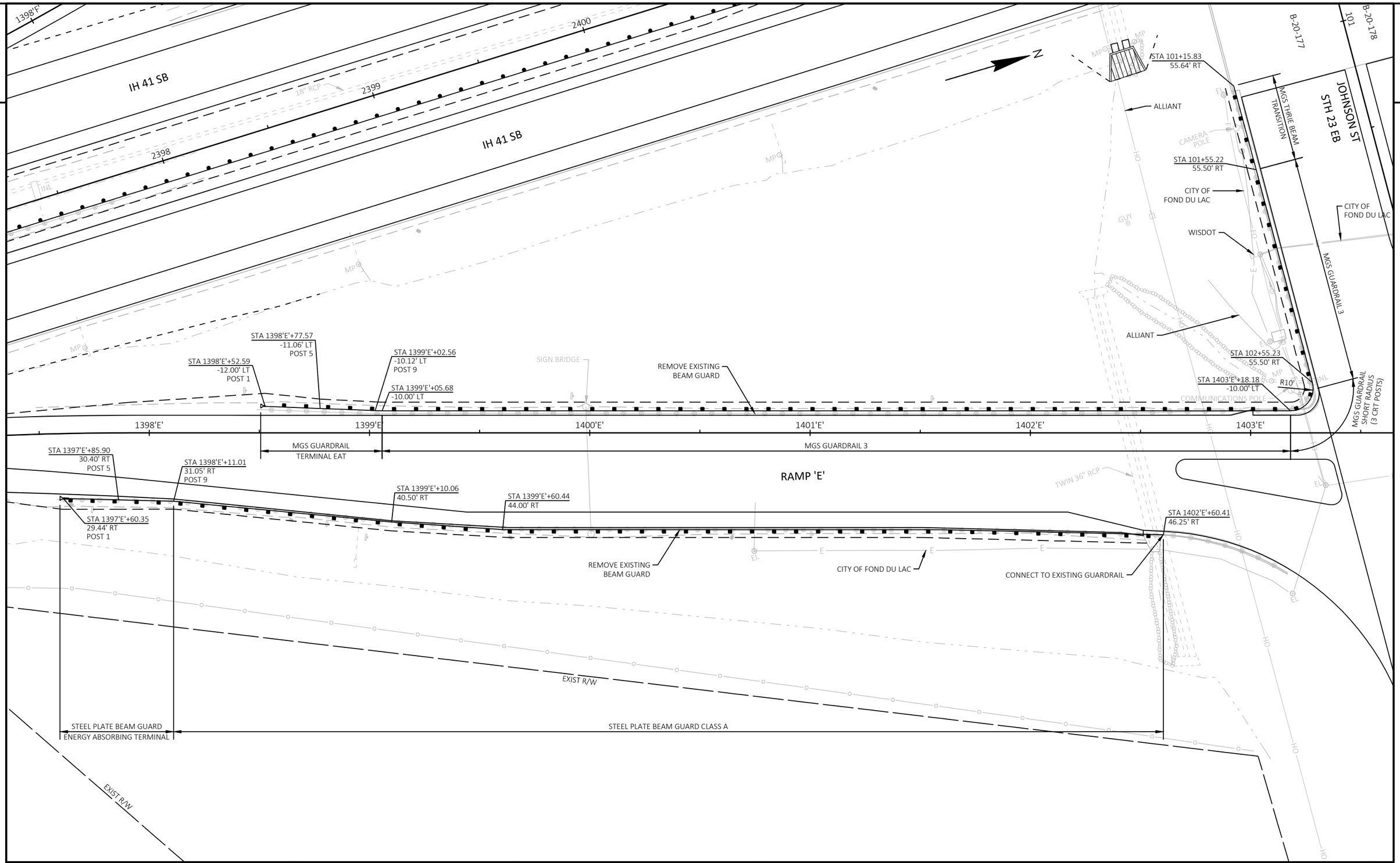
BLACK OAK SCHOOL RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 59	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021021-CD.DWG
LAYOUT NAME - Sheet-117

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 60	E

2

2

EXIST R/W

STEEL PLATE BEAM GUARD CLASS A

ANCHORAGES FOR STEEL
PLATE BEAM GUARD TYPE 2

STA 1401'F'+49.43
-22.50' LT

STA 1401'F'+57.14
-22.60' LT

REMOVE EXISTING
BEAM GUARD

CONNECT TO EXISTING GUARDRAIL

SOLAR PANEL POST

RAMP GATE

STA 1403'F'+19.63
-24.75' LT

REMOVE EXISTING
BEAM GUARD

1399'F'

1400'F'

1401'F'

RAMP 'F'

1402'F'

1403'F'

1404'F'

STA 1401'F'+87.64
8.50' RT

STA 1402'F'+01.60
8.74' RT

STA 1403'F'+01.58
10.50' RT

STA 1403'F'+26.58
10.50' RT

R21.25'

MGS GUARDRAIL
TERMINAL TYPE 2

MGS GUARDRAIL 3

MGS GUARDRAIL
SHORT RADIUS
(7 CRT POSTS)

1404'G'

ALLIANT

STA 97+81.79
56.00' RT

CITY OF FOND DU LAC

MGS GUARDRAIL 3

STA 98+56.79
56.00' RT

STH 23 EB

JOHNSON ST

STH 23 WB

ALLIANT

STA 98+95.74
56.05' RT

MGS THRIE BEAM
TRANSITION

2399

2400

2401

IH 41 SB

IH 41 SB

18" RCP

B-20-177

B-20-178

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 61	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

STEEL PLATE BEAM GUARD CLASS A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

EXIST R/W

NET LEC

CONNECT TO EXISTING GUARDRAIL

REMOVE EXISTING
BEAM GUARD

CITY OF
FOND DU LAC

STA 1404'G'+62.32
-54.65' LT

STA 1405'G'+14.08
-51.32' LT

STA 1406'G'+34.34
-44.00' LT

STA 1406'G'+96.20
-44.00' LT

STA 1407'G'+86.64
-34.96' LT
POST 9

STA 1408'G'+37.78
-31.86' LT
POST 1

STA 1408'G'+12.21
-33.63' LT
POST 5

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

RAMP 'G'

1404'G'

1405'G'

1406'G'

1407'G'

1408'G'

1409'G'

1404'F'

96

97

98

99

STH 23 EB

STH 23 WB

JOHNSON ST

MGS GUARDRAIL
SHORT RADIUS
(4 CRT POSTS)

R14'

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

STA 1404'G'+51.66
12.25' RT

STA 1404'G'+82.83
10.00' RT

STA 1405'G'+64.05
8.00' RT

REMOVE EXISTING
BEAM GUARD

STA 1407'G'+51.55
8.00' RT

STA 1407'G'+54.68
8.12' RT
POST 9

STA 1407'G'+79.66
9.06' RT
POST 5

STA 1408'G'+04.50
10.22' RT
POST 1

STA 97+67.73
-66.50' LT

CITY OF
FOND DU LAC

STA 98+42.73
-66.50' LT

STA 98+82.13
-66.50' LT

B-20-177

B-20-178

IH 41 SB

IH 41 NB

2406

2407

2408

18" RCP

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 62	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-03

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

B-20-177

B-20-178

101

102

STH 23 EB

JOHNSON ST

STH 23 WB

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

STA 101+06.44
-66.50' LT

STA 101+48.91
-67.00' LT

REMOVE EXISTING BEAM GUARD

STA 102+08.28
-67.00' LT

R15'

STA 1404'H'+13.19
-11.50' LT

STA 1404'H'+38.14
-9.90' LT

STA 1404'H'+52.07
-9.00' LT

RAMP GATE

SOLAR PANEL POST

MGS GUARDRAIL SHORT RADIUS (5 CRT POSTS)

IH 41 SB

IH 41 NB

2406

2407

2408

2409

24" RCP

18" RCP

1409

MP

SS

N

1404'H'

1405'H'

1406'H'

1407'H'

1408'H'

1409'H'

RAMP 'H'

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL TYPE 2

STA 1404'H'+42.59
26.00' RT

STA 1404'H'+17.60
26.75' RT

STA 1404'H'+92.57
25.00' RT

REMOVE EXISTING BEAM GUARD

STA 1406'H'+42.56
23.50' RT

STA 1407'H'+59.53
23.50' RT

STA 1408'H'+37.60
23.50' RT

STA 1408'H'+45.44
23.50' RT

CONNECT TO EXISTING GUARDRAIL

CITY OF FOND DU LAC

STEEL PLATE BEAM GUARD CLASS A

ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2

ALLIANT

EXIST R/W

EXIST R/W

OH

EL

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 63	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-04

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL TYPE 2

EXIST R/W

NET LEC

ANR

STA 1500'B'+04.87
-23.16' LT
POST 1

STA 1499'B'+54.32
-19.83' LT
POST 9

STA 1499'B'+79.59
-21.46' LT
POST 5

STA 1496'B'+73.18
-17.26' LT

STA 1496'B'+59.08
-17.38' LT

STA 1499'B'+51.16
-19.64' LT

C-20-003

REMOVE EXISTING BEAM GUARD

1495'B'

RAMP 'B'

1496'B'

1497'B'

1498'B'

1499'B'

1500'B'

1501'B'

C-20-003
12'X5' BOX CULVERT

MP

2495

2496

IH 41 SB

2497

15" RCP

2498

IH 41 NB

2499

INL

MP

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 64	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-05

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

STA 13+42.66
-28.55' LT

MGS GUARDRAIL SHORT RADIUS TERMINAL

MGS GUARDRAIL 3

STA 13+71.62
-31.12' LT

MGS GUARDRAIL SHORT RADIUS (4 CRT POSTS)

R61.5'

STA 1505'C'+81.02
-83.75' LT

REMOVE EXISTING BEAM GUARD

R31.5'

STA 1505'C'+90.76
-59.39' LT

MGS GUARDRAIL SHORT RADIUS (4 CRT POSTS)

R106.5'

STA 1506'C'+83.48
-27.72' LT
POST 9

STA 1506'C'+80.36
-27.87' LT

STA 1507'C'+08.45
-26.50' LT
POST 5

STA 1506'C'+55.46
-30.04' LT

STA 1507'C'+33.42
-25.27' LT
POST 1

MGS GUARDRAIL SHORT RADIUS (12 CRT POSTS)

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

NET LEC

WISDOT

RAMP 'B'

1505'B'

RAMP 'C'

1505'C' 1506'C' 1507'C' 1508'C' 1509'C' 1510'C'

CTH OO
WINNEBAGO ST

IH 41 SB

IH 41 NB

2508

2509

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 65	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-06

PLOT DATE : 6/14/2024 6:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

CTH OO
WINNEBAGO ST

23

24

25

26

1497'A'

1498'A'

RAMP 'A'

1497'D'

1498'D'

1499'D'

1500'D'

1501'D'

1502'D'

SOLAR PANEL POST

RAMP GATE

RAMP 'D'

STA 1497'D'+91.85
24.50' RT

STA 1498'D'+46.66
24.50' RT

STA 1498'D'+85.42
24.50' RT

CONNECT TO EXISTING GUARDRAIL

REMOVE EXISTING BEAM GUARD

STEEL PLATE BEAM GUARD CLASS A

STA 1500'D'+09.81
22.00' RT

STA 1500'D'+28.94
22.00' RT

STA 1500'D'+36.65
22.00' RT

ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2

OH

EXIST R/W

ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 66	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-07

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCH LINE 20+00

1507'C'

1506'C'

RAMP 'C'

1505'C'

ANR

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

REMOVE EXISTING
BEAM GUARD

STA 15+44.46
-37.00' LT
POST 1

STA 15+69.44
-36.06' LT
POST 5

STA 15+94.43
-35.12' LT
POST 9

STA 15+97.55
-35.00' LT

STA 17+47.55
-35.00' LT

STA 17+86.95
-35.00' LT

IH 41 NB

IH 41 SB

2504

2503

2502

14

15

16

17

18

19

CTH OO
WINNEBAGO ST

STA 15+86.02
35.50' RT
POST 1

STA 16+11
34.56' RT
POST 5

STA 16+35.98
33.62' RT
POST 9

STA 16+39.11
33.50' RT

STA 18+39.11
33.50' RT

STA 18+78.50
33.50' RT

WISDOT

REMOVE EXISTING
BEAM GUARD

B-20-059

1505'B'

1504'B'

RAMP 'B'

MGS GUARDRAIL
TERMINAL EAT

MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 67	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-08

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

B-20-059

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

STA 21+29.16
-35.00' LT

STA 21+68.56
-35.00' LT

REMOVE EXISTING BEAM GUARD

STA 23+81.06
-35.00' LT

STA 23+84.18
-35.12' LT
POST 9

STA 24+09.16
-36.06' LT
POST 5

STA 24+34.14
-37.00' LT
POST 1

RAMP 'D'

1498'D'

1497'D'

1498'A'

CTH OO
WINNEBAGO ST

STA 22+20.10
33.50' RT

STA 22+59.50
33.50' RT

REMOVE EXISTING BEAM GUARD

STA 24+34.50
33.50' RT

STA 24+37.62
33.62' RT
POST 9

STA 24+62.60
34.56' RT
POST 5

STA 24+87.58
35.50' RT
POST 1

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

RAMP 'A'

1497'A'

1496'A'

IH 41 NB

IH 41 SB

2501

2500

2499

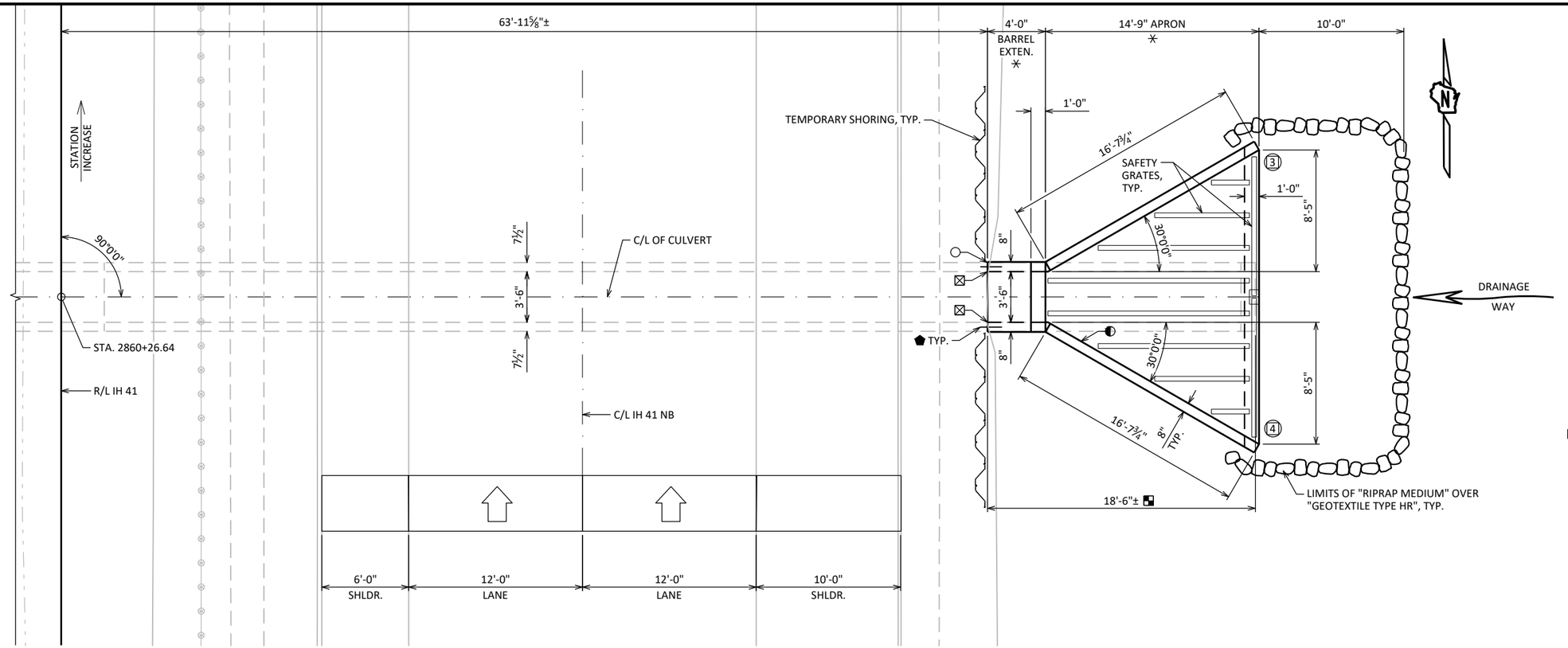
MATCH LINE 20+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CONSTRUCTION DETAILS - GUARDRAIL LOCATIONS	SHEET 68	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021022-CD.DWG
LAYOUT NAME - Sheet-09

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



PARTIAL PLAN

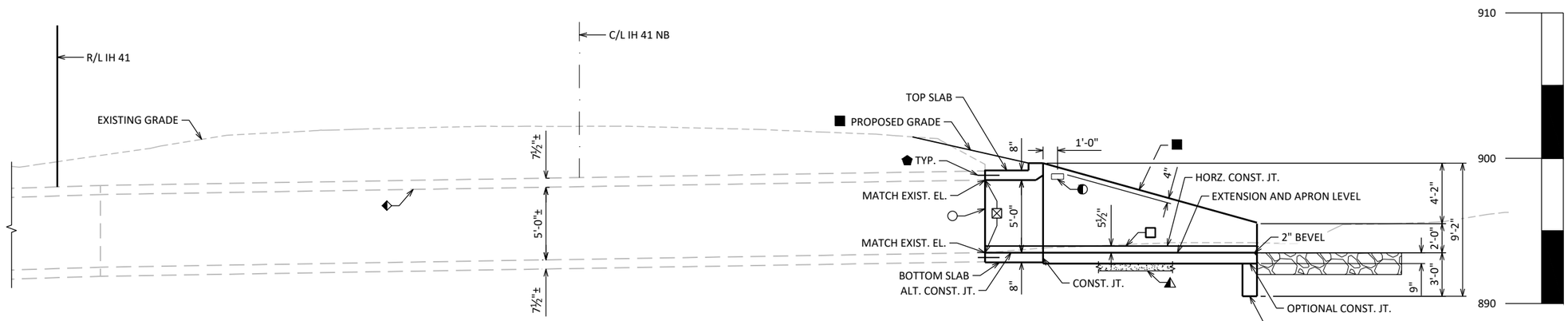
CONCRETE BOX CULVERT EXTENSION

LEGEND

- ☒ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ⬖ EXISTING BARREL TO REMAIN IN PLACE
- ⚹ BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- ▩ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDERCUT 6". BACKFILL WITH "BACKFILL STRUCTURE TYPE B". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND BETWEEN CUTOFF WALLS
- ◐ NAME PLATE, SEE PARTIAL PLAN FOR LOCATION
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓝ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC
- ■ GRADE THE ADJACENT EMBANKMENT SO THAT THE HEADER AND WINGWALL PROTRUDE LESS THAN 4 INCHES, AND FLUSH WHERE POSSIBLE

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI



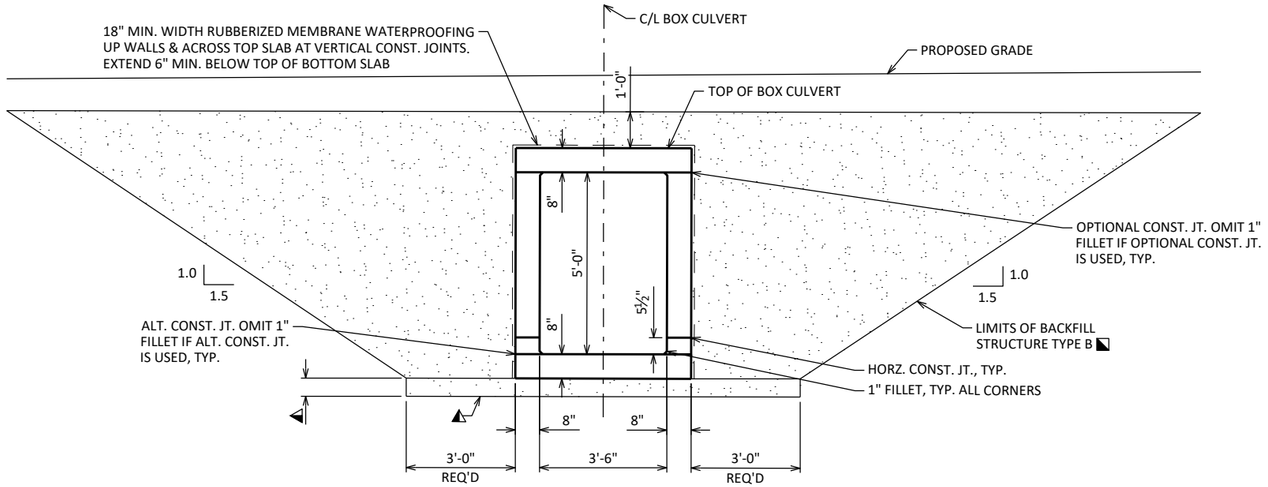
PARTIAL ELEVATION

ALONG C/L CULVERT

INLET

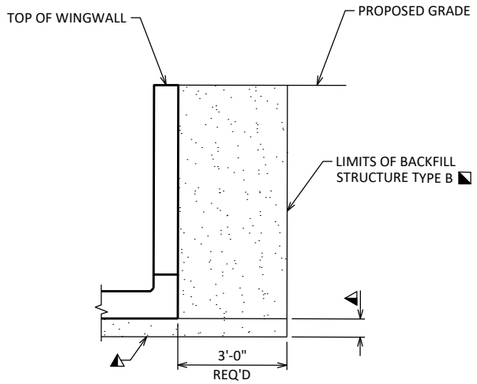
PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	EXTENSION OF EXISTING BOX CULVERT AT STA. 2860+26.64 (FORMERLY C-20-0013)	SHEET 69	E

FILE NAME : I:\77451\C3D\11005271\STRC\C-20-0013\SHEETS\C-20-13_080101_GP.DWG
LAYOUT NAME - Plan 1 IN 100 FT
PLOT DATE : 5/9/2018 2:47 PM
PLOT BY : CARLEE HAYDEN
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

PAYMENT FOR ALL ITEMS REQUIRED FOR BOX CULVERT EXTENSION, EXCEPT FOR SAFETY GRATE, INCLUDED IN BID ITEM "BOX CULVERT EXTENSION STA. 2860+26.64. PAYMENT FOR SAFETY GRATE INCLUDED UNDER BID ITEM "SAFETY GRATE STA. 2860+26.64".

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

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

ALL BAR STEEL REINFORCEMENT FOR CAST-IN-PLACE CONCRETE BOX CULVERTS SHALL BE UNCOATED. BAR STEEL FOR CAST-IN-PLACE CONCRETE APRONS SHALL BE UNCOATED. BAR STEEL FOR WINGWALL DOWELS AND ALL WINGWALL BARS SHALL BE EPOXY COATED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS.

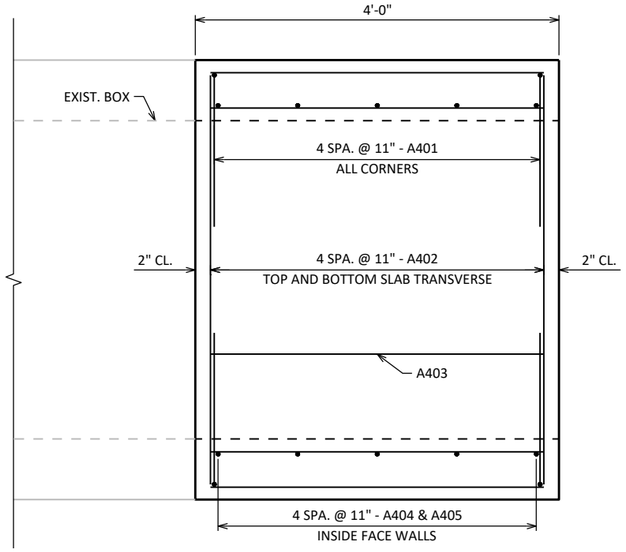
THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

◥ BACKFILL LIMITS. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

◭ UNDERCUT 6". BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

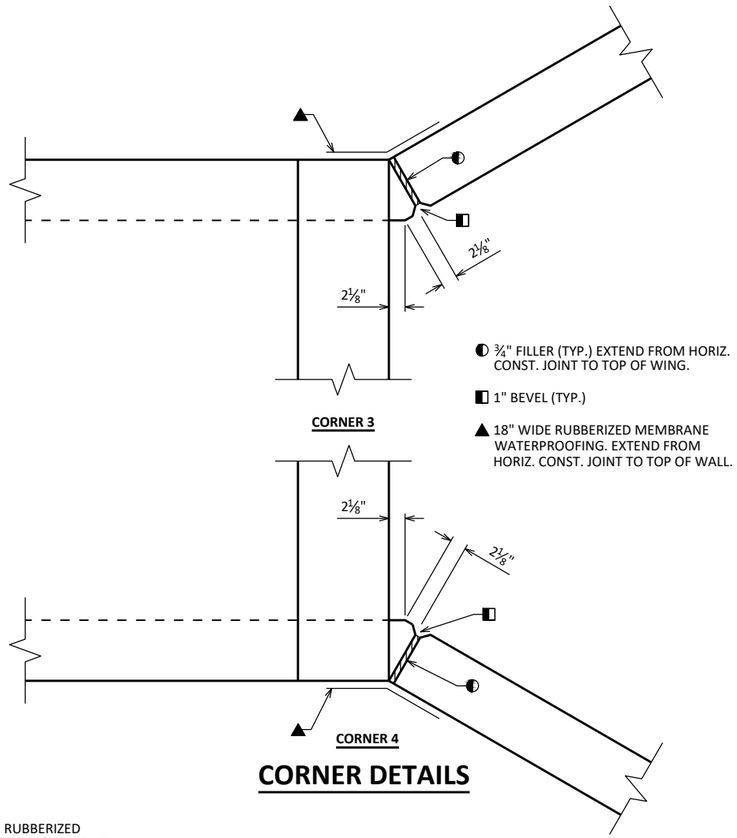
TOTAL ESTIMATED QUANTITIES - FOR INFORMATION ONLY

ITEMS	UNIT	TOTALS
REMOVING STRUCTURE	EACH	1
EXCAVATION FOR STRUCTURES CULVERTS	EACH	1
BACKFILL STRUCTURE TYPE B	TON	70
ADHESIVE ANCHORS NO. 5 BAR	EACH	20
CONCRETE MASONRY CULVERTS	CY	13
BAR STEEL REINFORCEMENT HS STRUCTURES	LB	640
BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	750
TEMPORARY SHORING	SF	140
RUBBERIZED MEMBRANE WATERPROOFING	SY	10
RIPRAP MEDIUM	CY	13
GEOTEXTILE TYPE HR	SY	40
TEMPORARY WATER DIVERSION CULVERT	EACH	1
SAFETY GRATE STA. 2860+26.64	EACH	1



PLAN

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN



◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

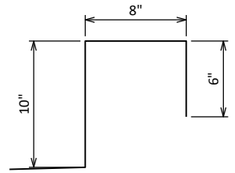
CORNER DETAILS

BILL OF BARS

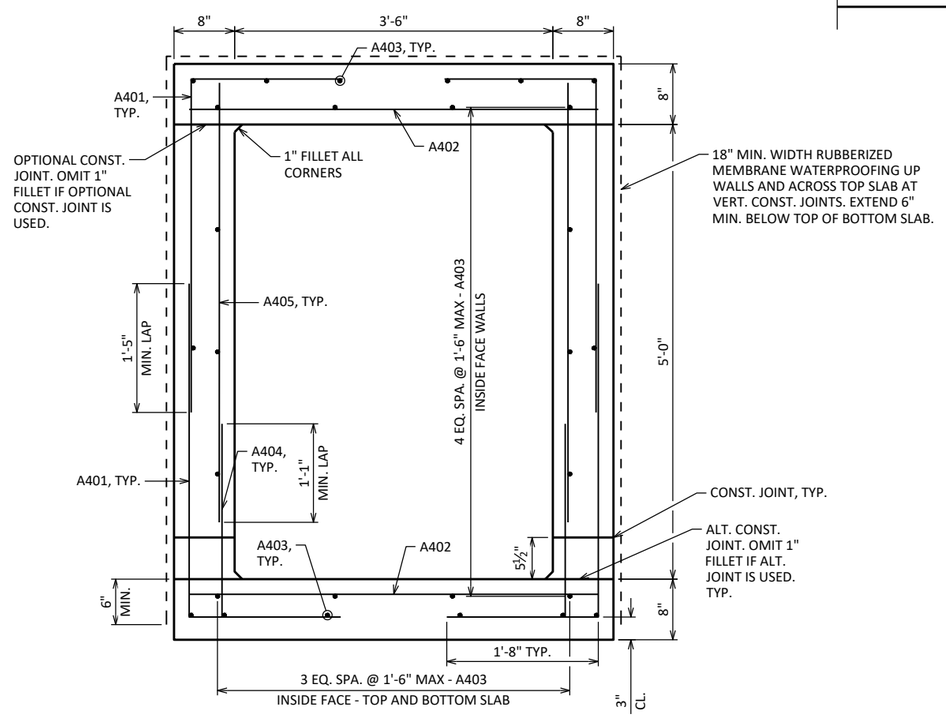
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		20	5'-3"	X		CORNERS
A402		10	4'-2"			SLABS TRANSVERSE
A403		28	3'-8"			SLABS AND WALLS LONGITUDINAL
A404		10	2'-2"			SLAB TO WALL DOWELS
A405		10	4'-10"			WALLS VERTICAL
⬟ A506		20	2'-6"			JOINT DOWEL
A407		2	4'-6"			HEADER TRANSVERSE
A308		7	2'-3"	X		HEADER STIRRUP

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.

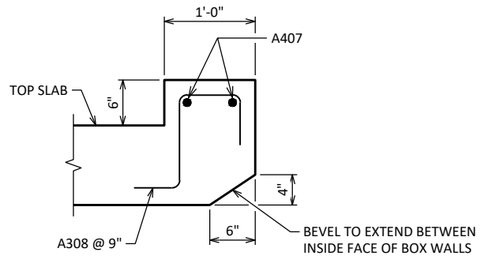
A401



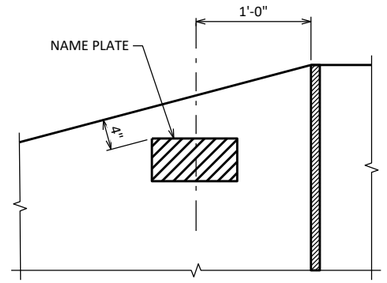
A308



SECTION THRU BOX

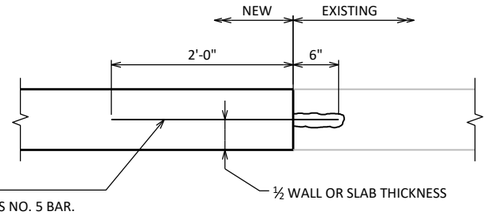


SECTION THRU HEADER

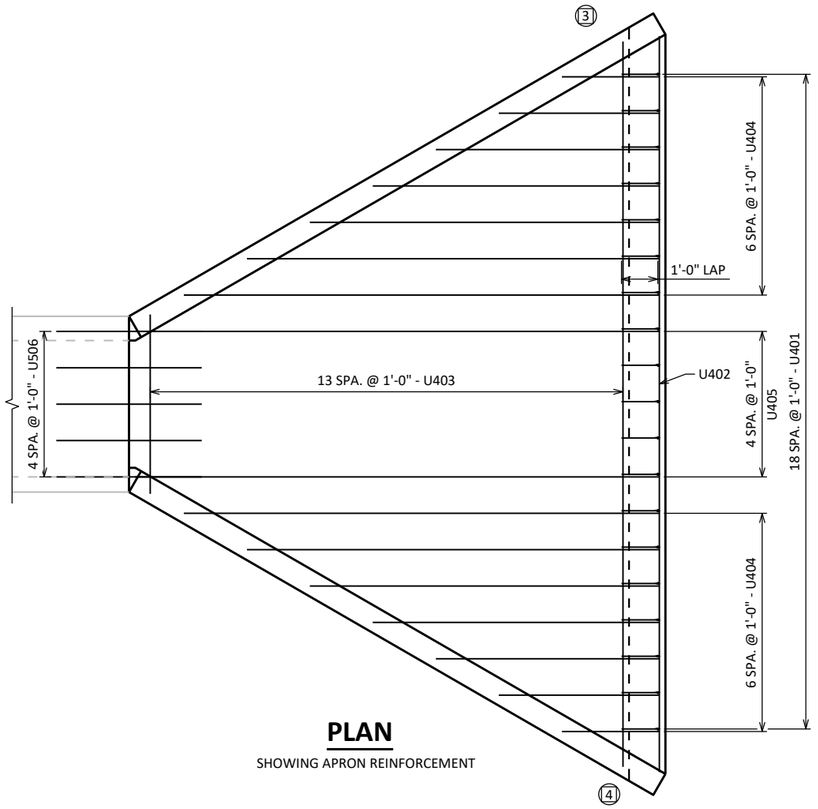


NAME PLATE DETAIL

WING 4



CONSTRUCTION JOINT

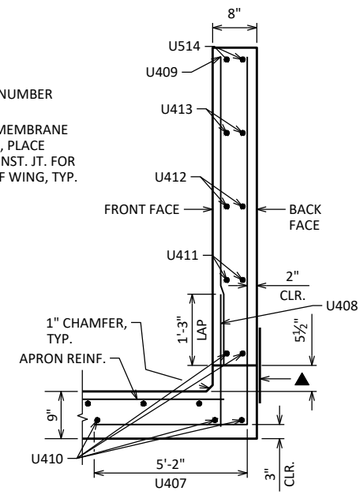


PLAN

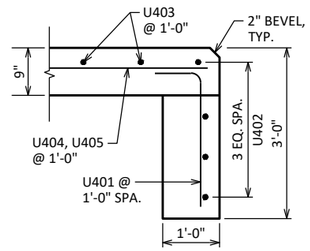
SHOWING APRON REINFORCEMENT

Ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.



SECTION THRU WINGS



INLET

CUT-OFF WALL

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES △	LOCATION
U401		19	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	20'-3"			CUTOFF WALL HORIZONTAL
U403		14	12'-5"		X	APRON TRANSVERSE
U404		14	7'-11"		X	APRON LONGITUDINAL
U405		5	14'-5"			APRON LONGITUDINAL
U506		5	4'-0"			APRON TO BARREL DOWEL
U507	X	42	9'-5"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	24	2'-3"			APRON TO WALL FRONT FACE
U409	X	24	3'-6"		X	WALL FRONT FACE VERTICAL
U410	X	10	16'-4"			WALL HORIZONTAL
U411	X	4	13'-9"			WALL HORIZONTAL
U412	X	4	7'-9"			WALL HORIZONTAL
U413	X	4	1'-9"			WALL HORIZONTAL
U514	X	4	16'-10"			WALL HORIZONTAL TOP

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

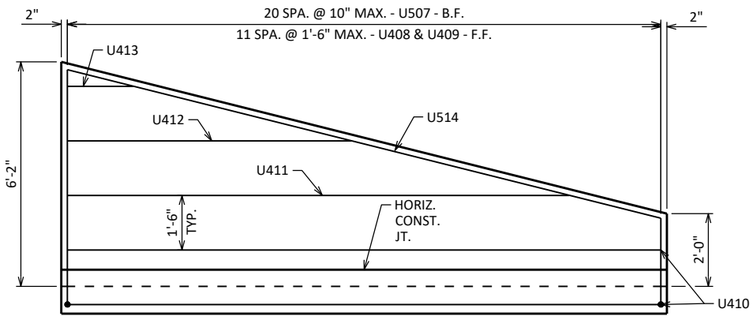
U401

U507

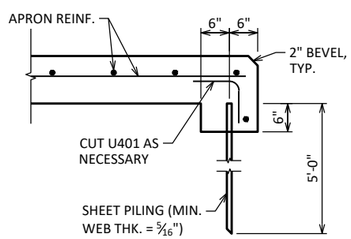
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 14	4'-11" TO 19'-11"
U404	2 SERIES OF 7	2'-9" TO 13'-1"
U507	2 SERIES OF 21	7'-4" TO 11'-5"
U409	2 SERIES OF 12	1'-5" TO 5'-6"

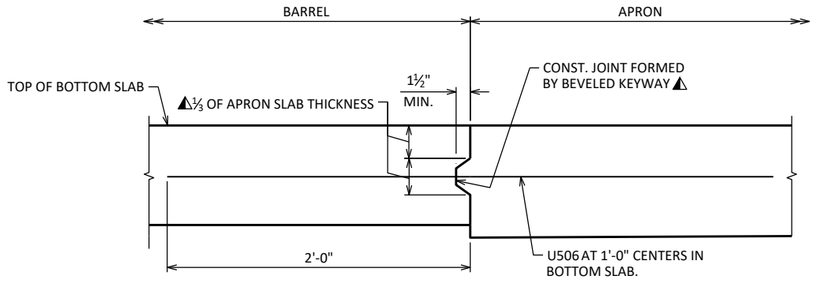


WING ELEVATION



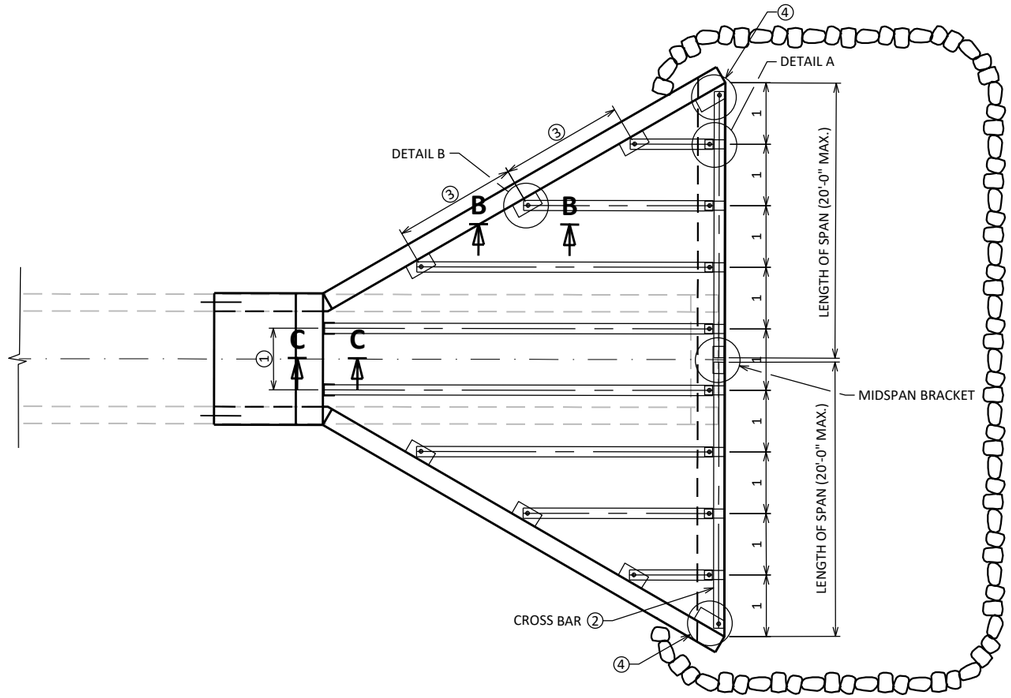
ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



APRON CONNECTION DETAIL

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.



USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B. GALVANIZE ASTM A123 PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH HEADWALL OPENING.

(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

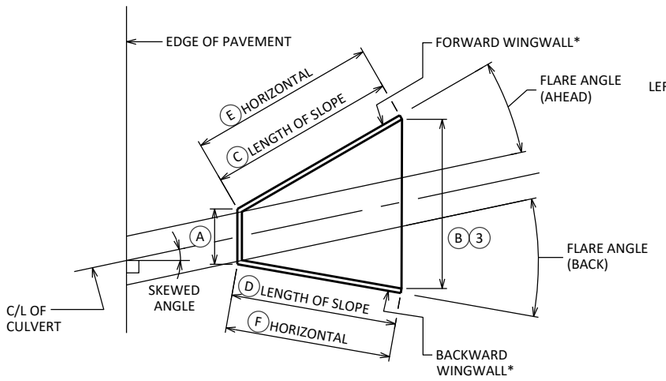
(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL. DIMENSION WILL DEPEND ON ANGLE OF WINGWALL PARALLEL TO VERTICAL BARS.

(4) BRACKETS TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF X INCHES OF MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

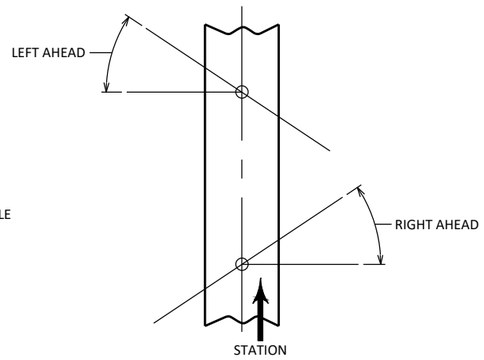
GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

INSTALLATION PLAN - C-20-13
EAST

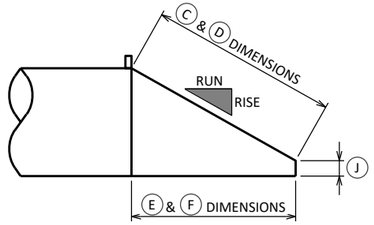


TOP VIEW

*FROM ROADWAY STATIONING

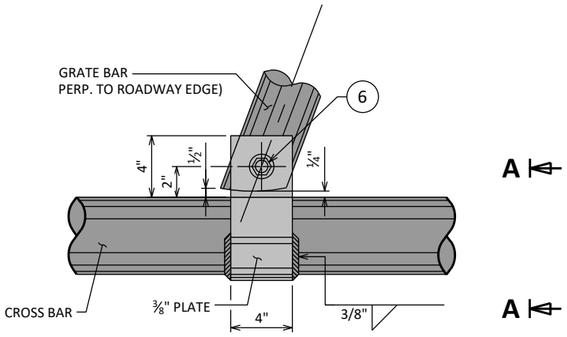


SKEW ANGLE DETERMINATION

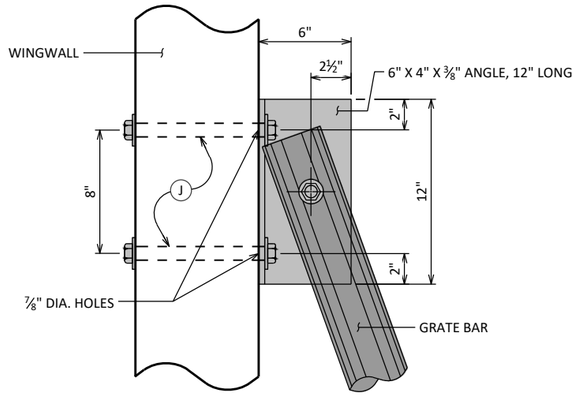


SIDE VIEW DETAILS OF DIMENSIONS

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	EXTENSION OF EXISTING BOX CULVERT AT STA. 2860+26.64 (FORMERLY C-20-0013)	SHEET 73	E



DETAIL 'A' TOP VIEW



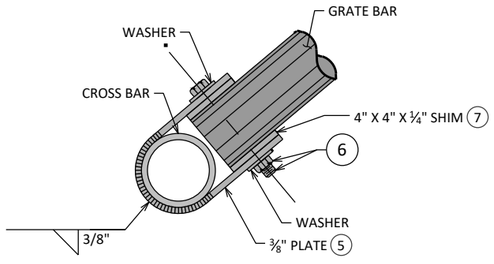
DETAIL 'B' TOP VIEW

4 DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

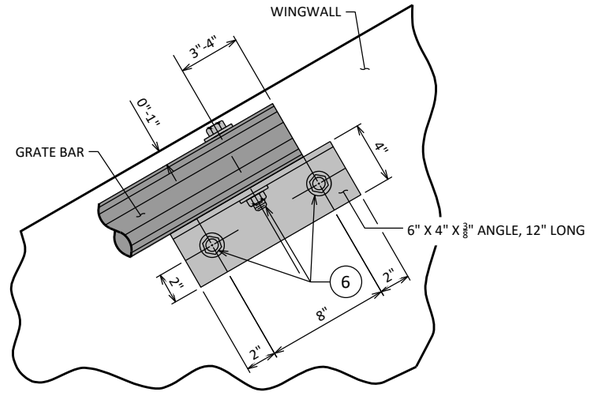
5 BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

6 ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

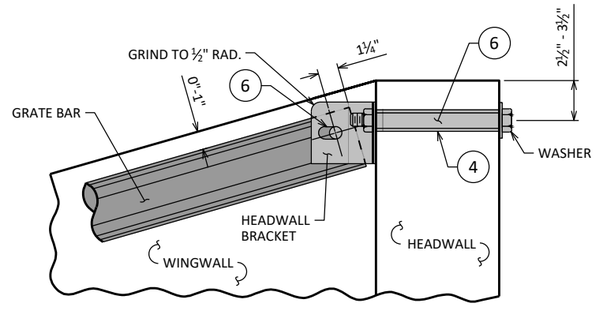
7 SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.



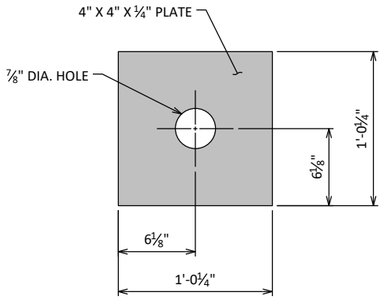
SECTION A-A



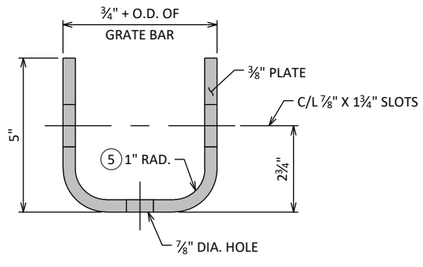
SECTION B-B



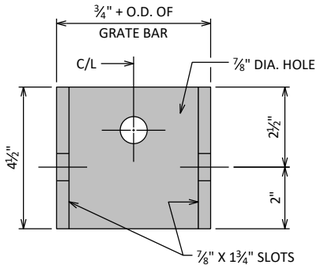
SECTION C-C



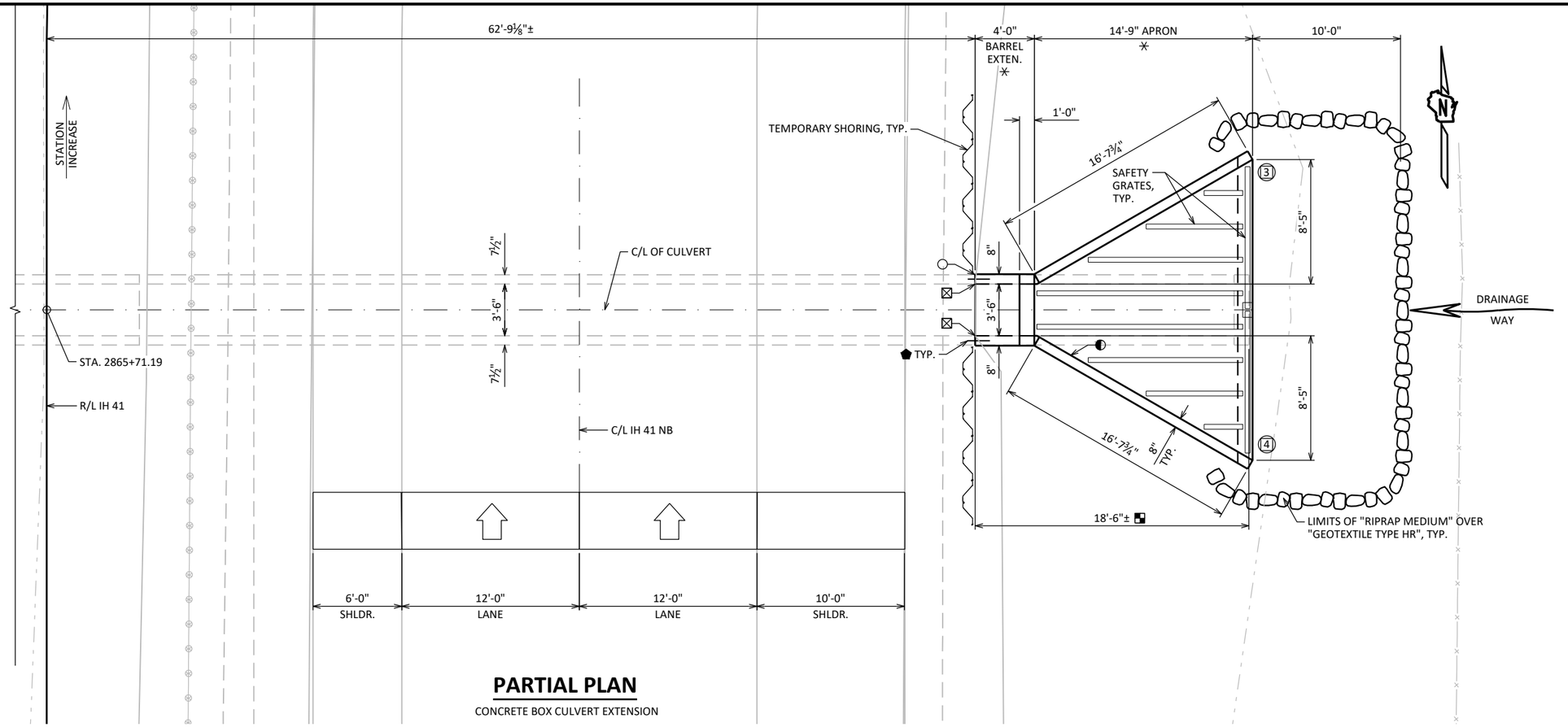
SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW



PARTIAL PLAN

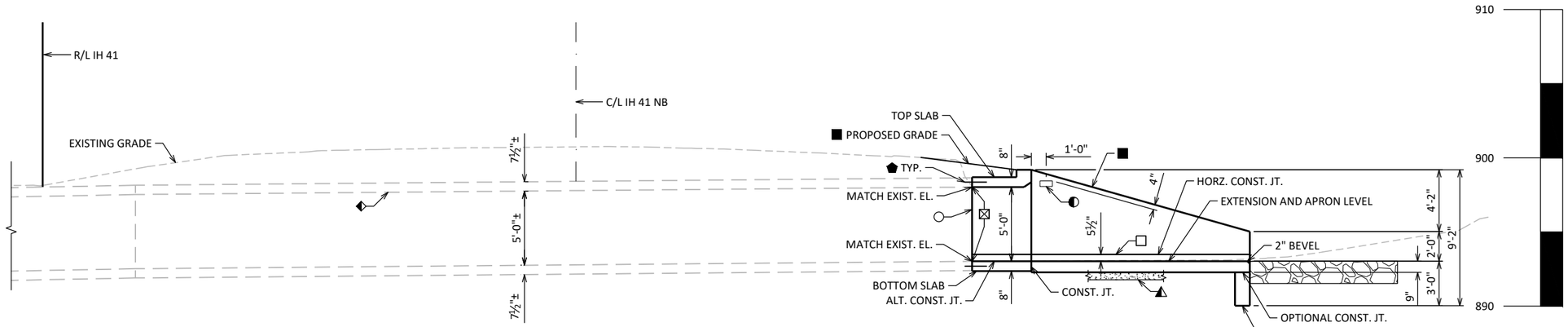
CONCRETE BOX CULVERT EXTENSION

LEGEND

- INSIDE SURFACE TO MATCH EXISTING (TYP.)
- EXISTING BARREL TO REMAIN IN PLACE
- BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- REMOVE EXISTING APRON AND WINGWALLS
- ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- UNDERCUT 6". BACKFILL WITH "BACKFILL STRUCTURE TYPE B". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND BETWEEN CUTOFF WALLS.
- NAME PLATE, SEE PARTIAL PLAN FOR LOCATION
- 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- WINGWALL NUMBER
- DIRECTION OF TRAFFIC
- GRADE THE ADJACENT EMBANKMENT SO THAT THE HEADER AND WINGWALL PROTRUDE LESS THAN 4 INCHES, AND FLUSH WHERE POSSIBLE

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

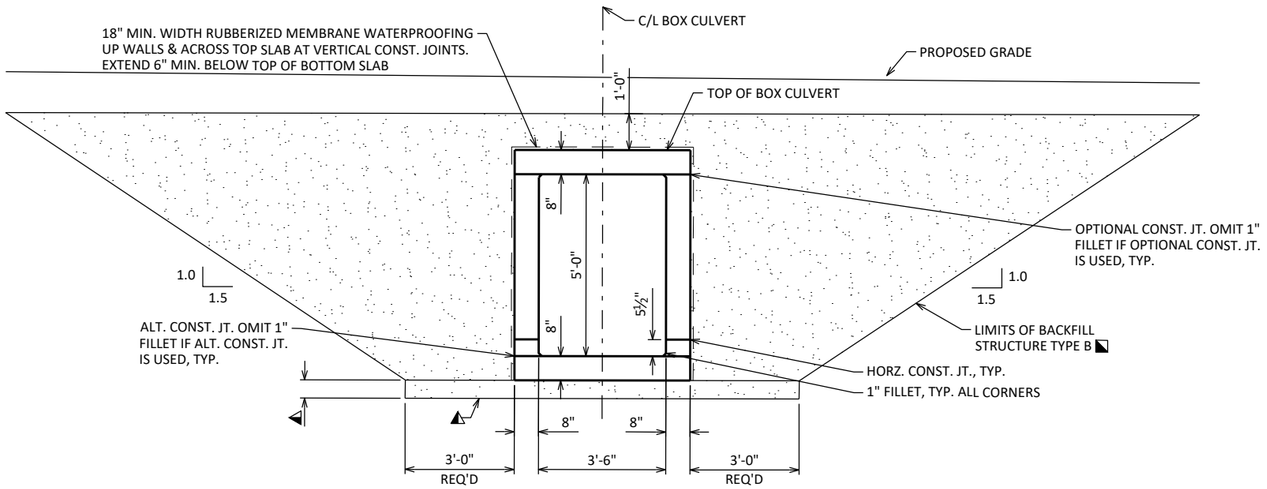


PARTIAL ELEVATION

ALONG C/L CULVERT

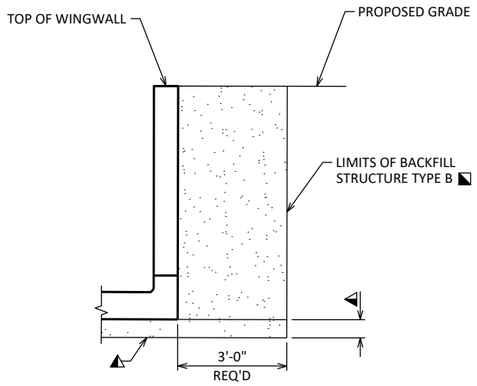
INLET

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	EXTENSION OF EXISTING BOX CULVERT AT STA. 2865+71.19 (FORMERLY C-20-0014)	SHEET 75	E



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

PAYMENT FOR ALL ITEMS REQUIRED FOR BOX CULVERT EXTENSION, EXCEPT FOR SAFETY GRATE, INCLUDED IN BID ITEM "BOX CULVERT EXTENSION STA. 2865+71.19. PAYMENT FOR SAFETY GRATE INCLUDED UNDER BID ITEM "SAFETY GRATE STA. 2865+71.19".

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

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

ALL BAR STEEL REINFORCEMENT FOR CAST-IN-PLACE CONCRETE BOX CULVERTS SHALL BE UNCOATED. BAR STEEL FOR CAST-IN-PLACE CONCRETE APRONS SHALL BE UNCOATED. BAR STEEL FOR WINGWALL DOWELS AND ALL WINGWALL BARS SHALL BE EPOXY COATED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS.

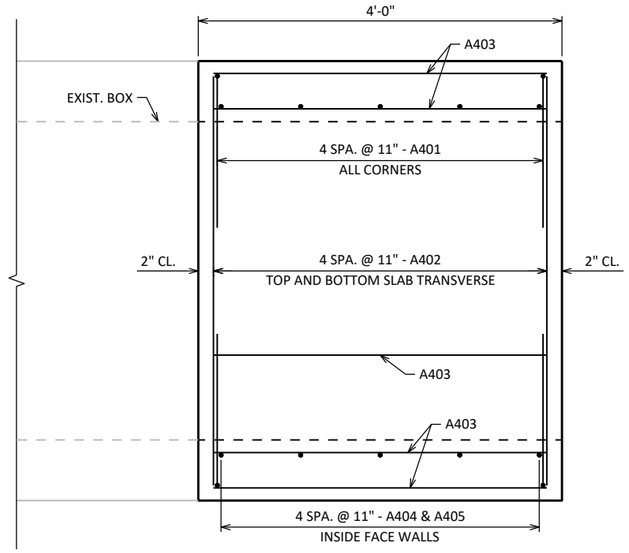
THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

◥ BACKFILL LIMITS. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

◭ UNDERCUT 6". BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

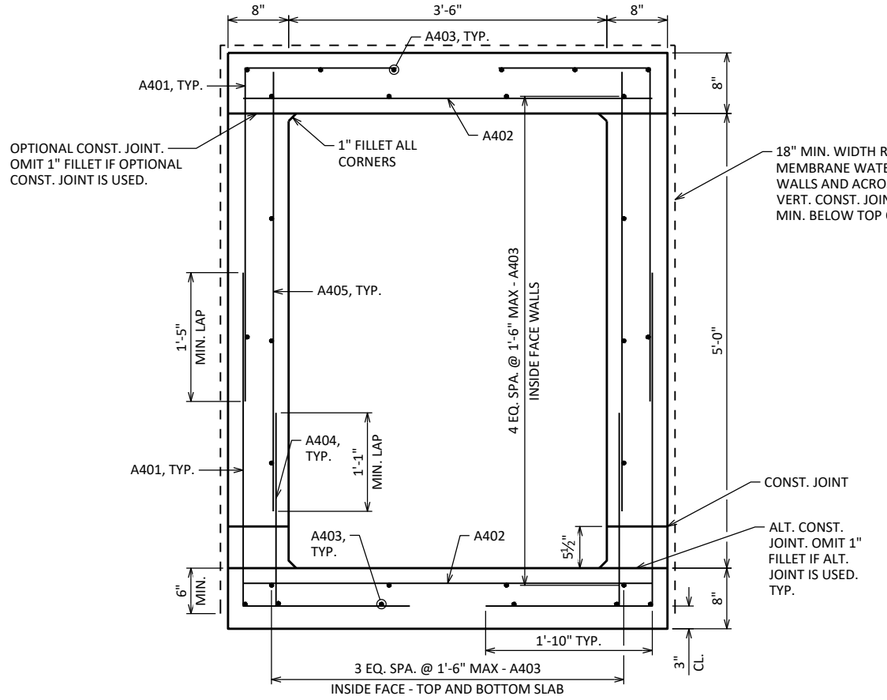
TOTAL ESTIMATED QUANTITIES - FOR INFORMATION ONLY

ITEMS	UNIT	TOTALS
REMOVING STRUCTURE	EACH	1
EXCAVATION FOR STRUCTURES CULVERTS	EACH	1
BACKFILL STRUCTURE TYPE B	TON	70
ADHESIVE ANCHORS NO. 5 BAR	EACH	20
CONCRETE MASONRY CULVERTS	CY	13
BAR STEEL REINFORCEMENT HS STRUCTURES	LB	640
BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	750
TEMPORARY SHORING	SF	140
RUBBERIZED MEMBRANE WATERPROOFING	SY	10
RIPRAP MEDIUM	CY	14
GEOTEXTILE TYPE HR	SY	40
TEMPORARY WATER DIVERSION CULVERT	EACH	1
SAFETY GRATE STA. 2865+71.19	EACH	1

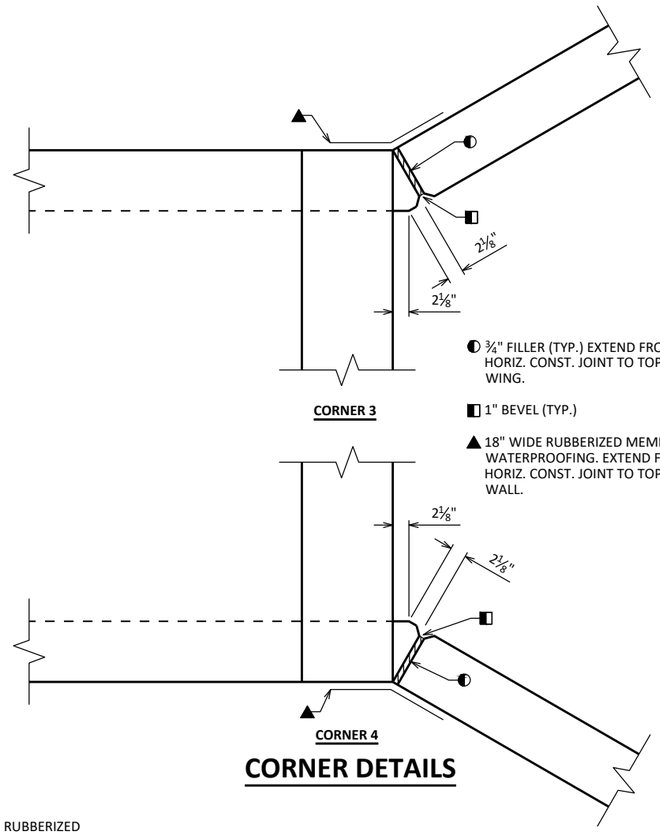


PLAN

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN



SECTION THRU BOX

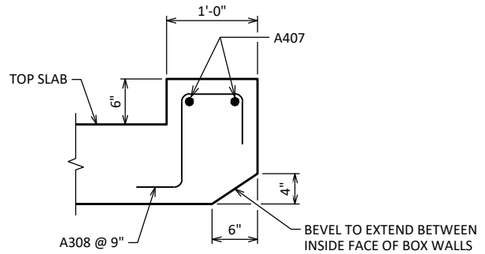


◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

CORNER DETAILS

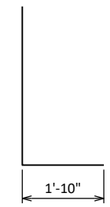


SECTION THRU HEADER

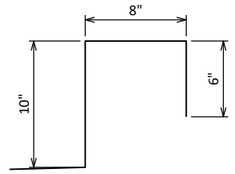
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		20	5'-5"	X		CORNERS
A402		10	4'-2"			SLABS TRANSVERSE
A403		28	3'-8"			SLABS AND WALLS LONGITUDINAL
A404		10	2'-2"			SLAB TO WALL DOWELS
A405		10	4'-10"			WALLS VERTICAL
⬟ A506		20	2'-6"			JOINT DOWEL
A407		2	4'-6"			HEADER TRANSVERSE
A308		7	2'-3"	X		HEADER STIRRUP

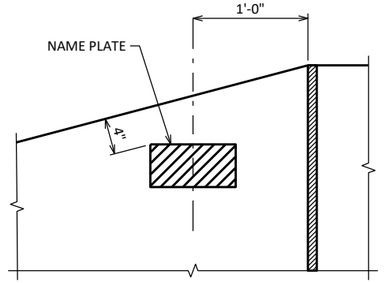
⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.



A401

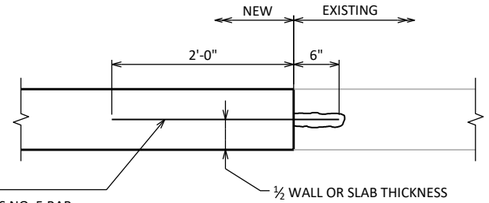


A308



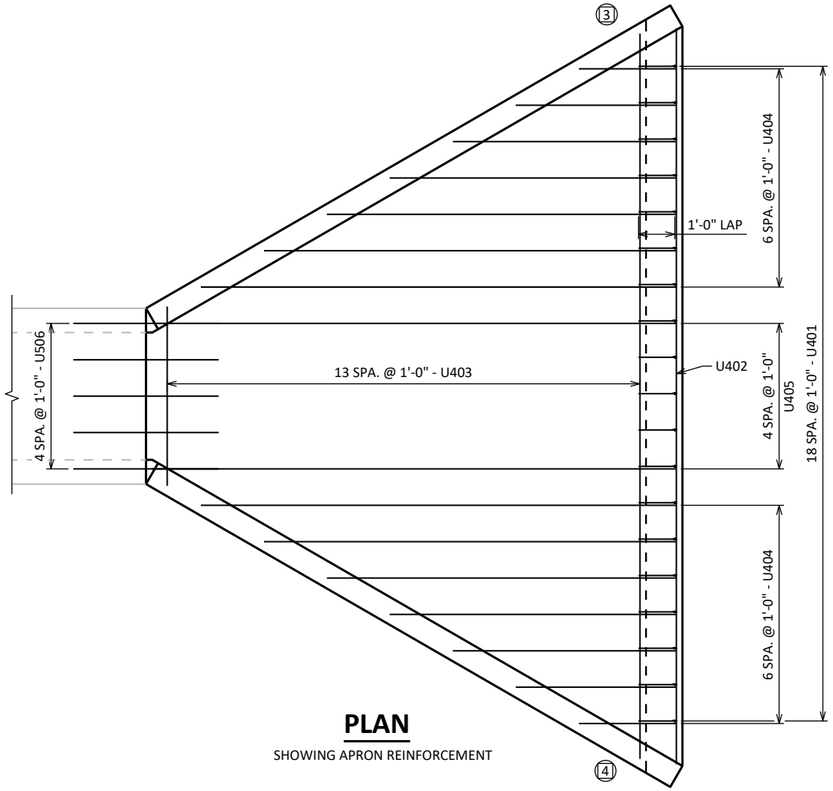
NAME PLATE DETAIL

WING 4



A506 @ 1'-0"
ADHESIVE ANCHORS NO. 5 BAR. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENETERS. TYP. ALL WALLS AND SLABS.

CONSTRUCTION JOINT

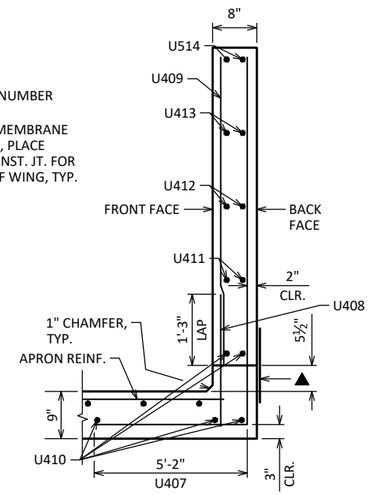


PLAN

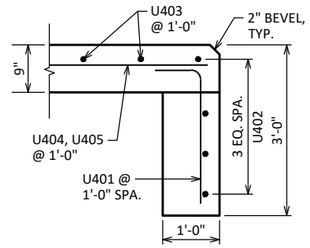
SHOWING APRON REINFORCEMENT

Ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.



SECTION THRU WINGS



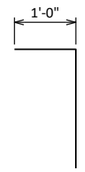
INLET

CUT-OFF WALL

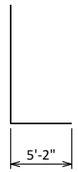
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES △	LOCATION
U401		19	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	20'-3"			CUTOFF WALL HORIZONTAL
U403		14	12'-5"		X	APRON TRANSVERSE
U404		14	7'-11"		X	APRON LONGITUDINAL
U405		5	14'-5"			APRON LONGITUDINAL
U506		5	4'-0"			APRON TO BARREL DOWEL
U507	X	42	9'-5"	X	X	APRON TO WALL BACK FACE
U408	X	24	2'-3"			APRON TO WALL FRONT FACE
U409	X	24	3'-6"		X	WALL FRONT FACE VERTICAL
U410	X	10	16'-4"			WALL HORIZONTAL
U411	X	4	13'-9"			WALL HORIZONTAL
U412	X	4	7'-9"			WALL HORIZONTAL
U413	X	4	1'-9"			WALL HORIZONTAL
U514	X	4	16'-10"			WALL HORIZONTAL TOP

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



U401

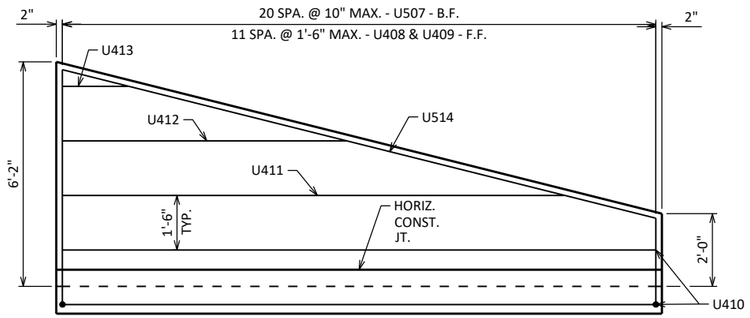


U507

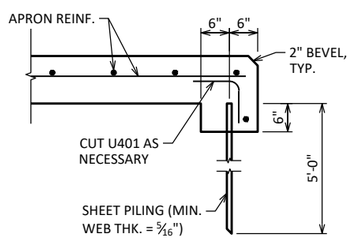
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 14	4'-11" TO 19'-11"
U404	2 SERIES OF 7	2'-9" TO 13'-1"
U507	2 SERIES OF 21	7'-4" TO 11'-5"
U409	2 SERIES OF 12	1'-5" TO 5'-6"

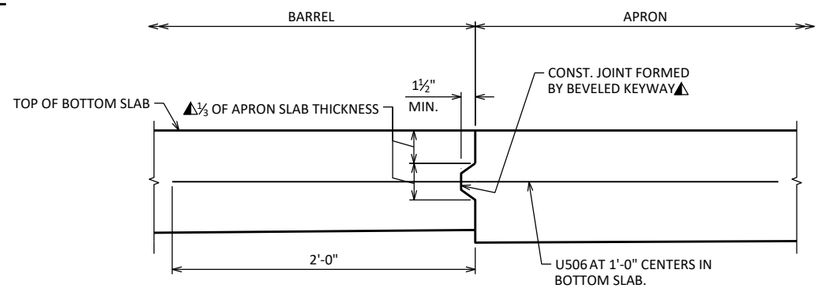


WING ELEVATION



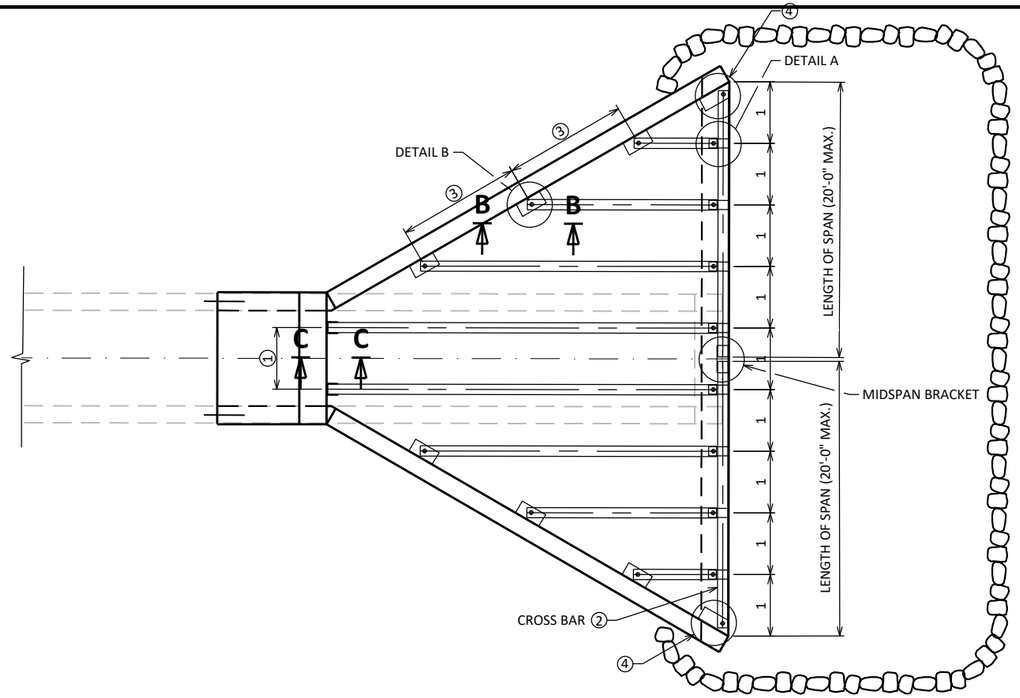
ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



APRON CONNECTION DETAIL

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.



USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B. GALVANIZE ASTM A123 PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH HEADWALL OPENING.

(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

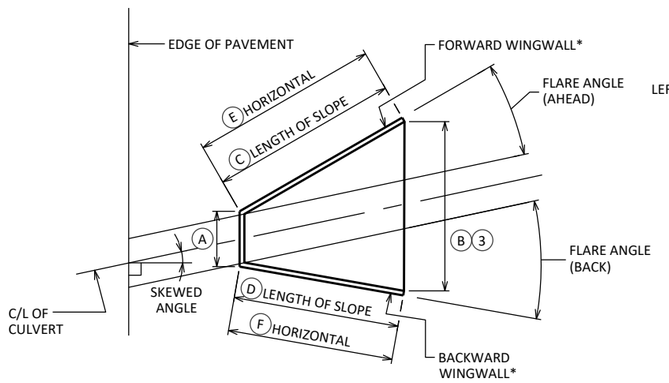
(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL. DIMENSION WILL DEPEND ON ANGLE OF WINGWALL PARALLEL TO VERTICAL BARS.

(4) BRACKETS TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF X INCHES OF MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

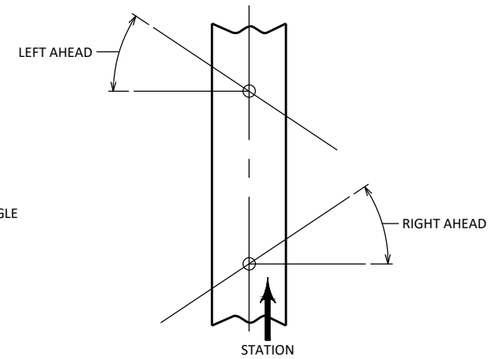
GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

INSTALLATION PLAN - C-20-14
EAST

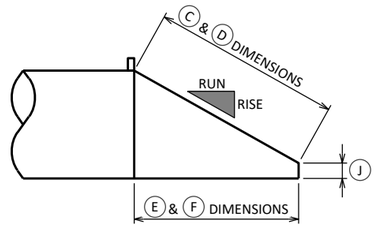


TOP VIEW

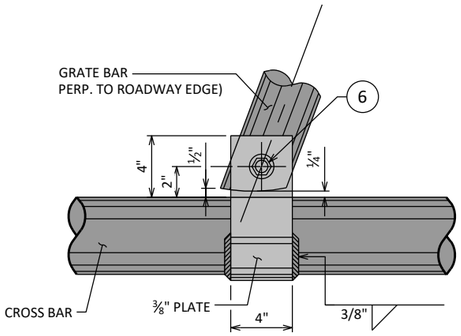
*FROM ROADWAY STATIONING



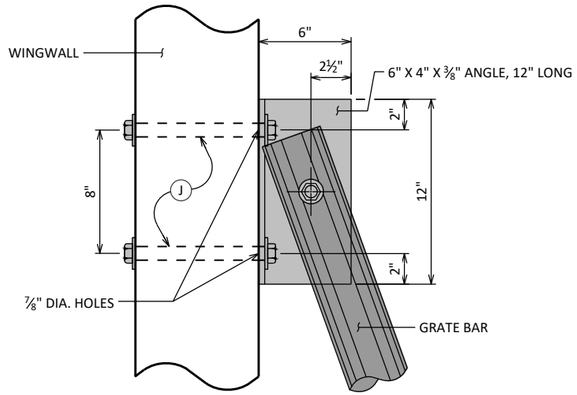
SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

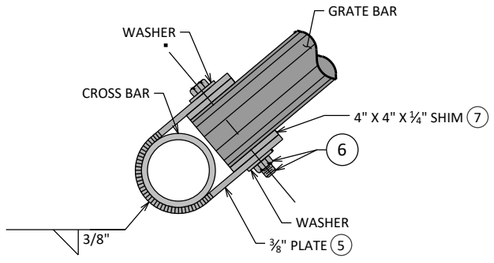
4 DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

5 BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

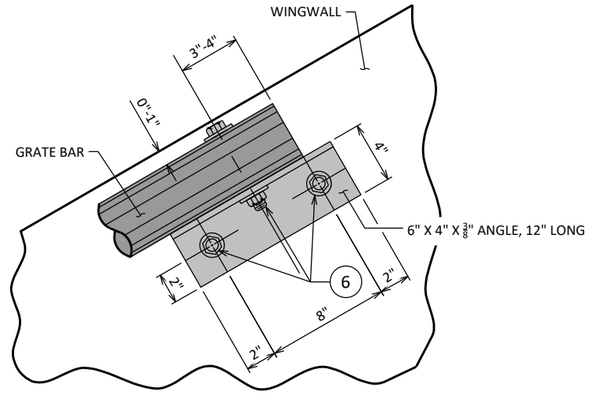
6 ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

7 SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

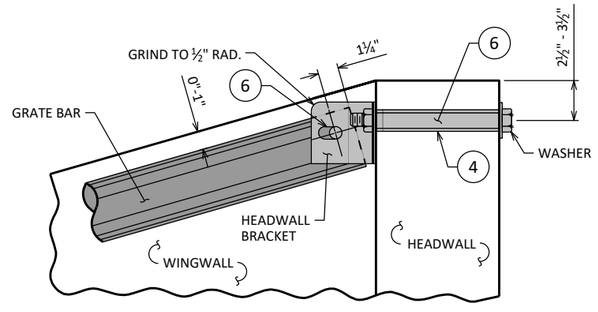
2



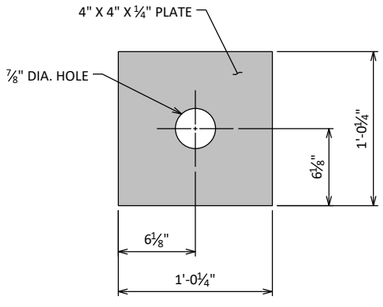
SECTION A-A



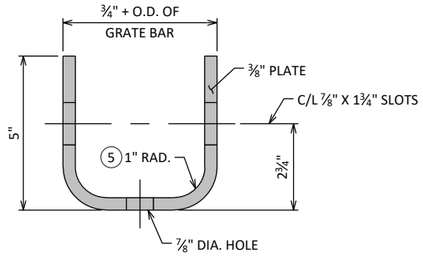
SECTION B-B



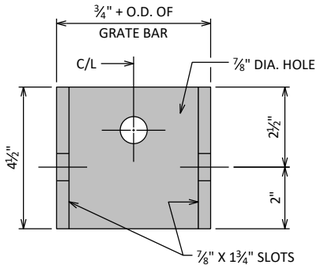
SECTION C-C



SHIM DETAIL

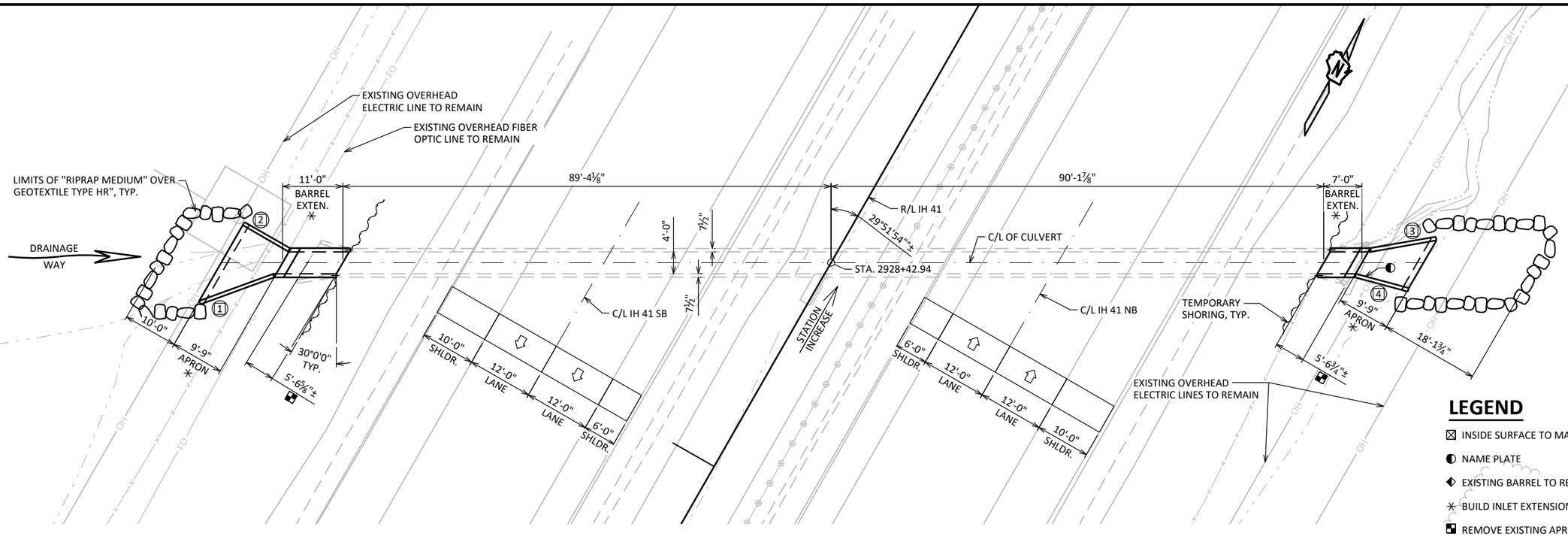


HEADWALL BRACKET TOP VIEW



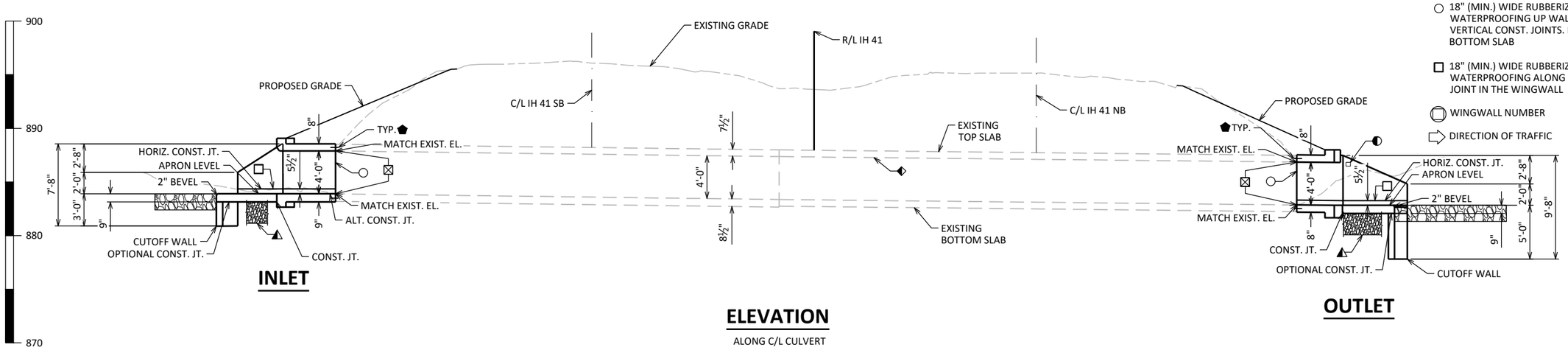
HEADWALL BRACKET FRONT VIEW

2



PLAN

CONCRETE BOX CULVERT EXTENSION



INLET

ELEVATION

ALONG C/L CULVERT

OUTLET

LEGEND

- ☒ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◐ NAME PLATE
- ⬖ EXISTING BARREL TO REMAIN IN PLACE
- ✳ BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- ◪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDERCUT 2'-0". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND UP TO CUTOFF WALL.
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⬭ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC

MATERIAL PROPERTIES:

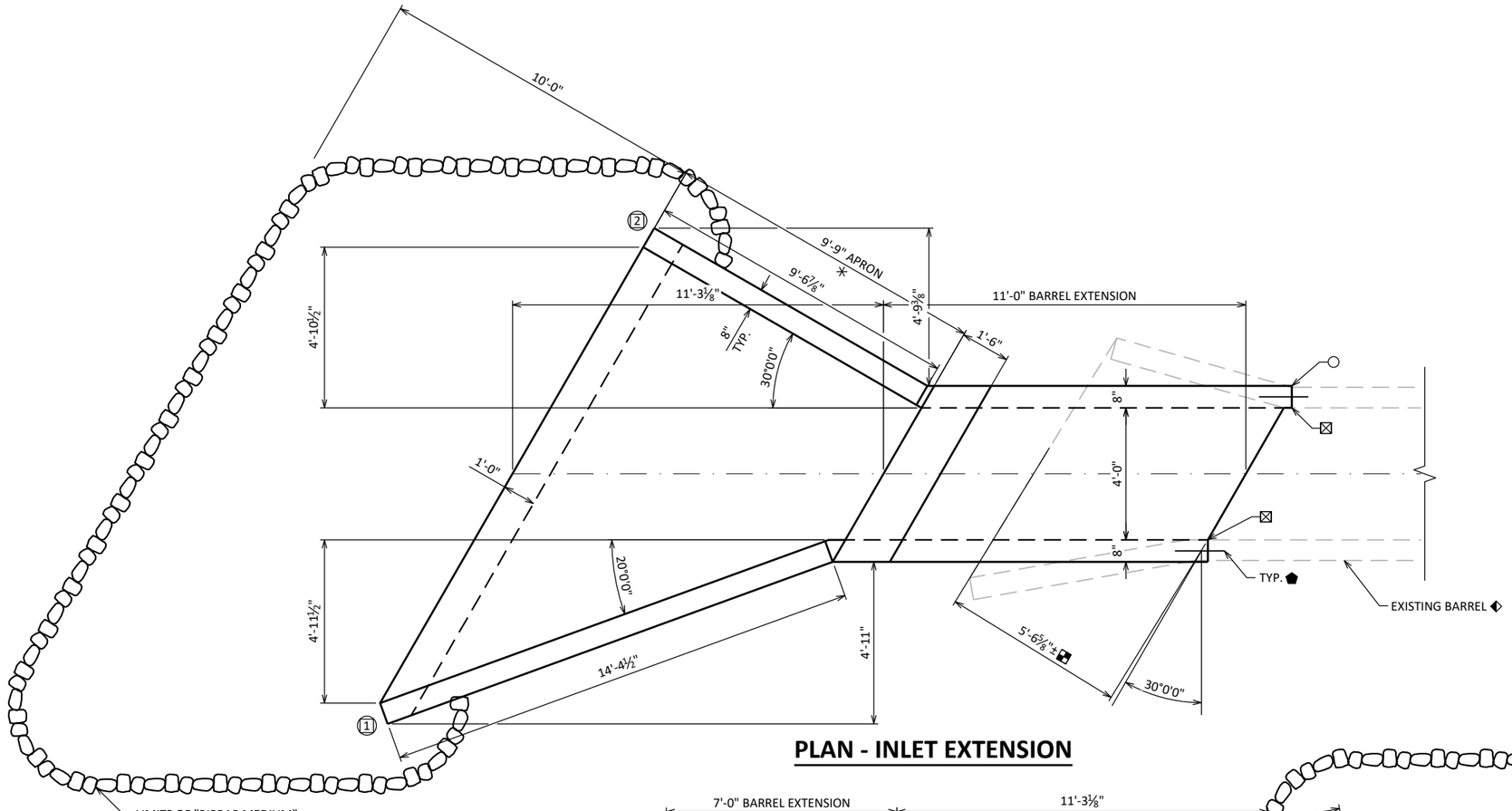
CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	EXTENSION OF EXISTING BOX CULVERT AT STA. 2928+42.94 (FORMERLY C-70-0003)	SHEET 81	E

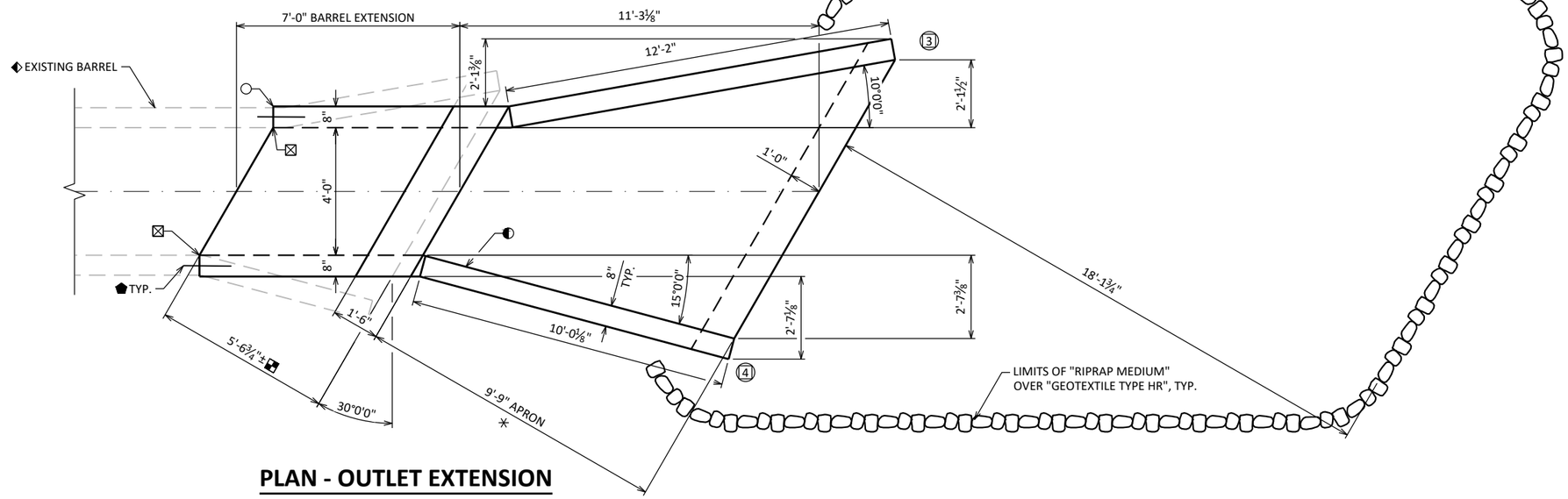
2

LEGEND

- INSIDE SURFACE TO MATCH EXISTING (TYP.)
- NAME PLATE
- EXISTING BARREL TO REMAIN IN PLACE
- BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- REMOVE EXISTING APRON AND WINGWALLS
- ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- WINGWALL NUMBER



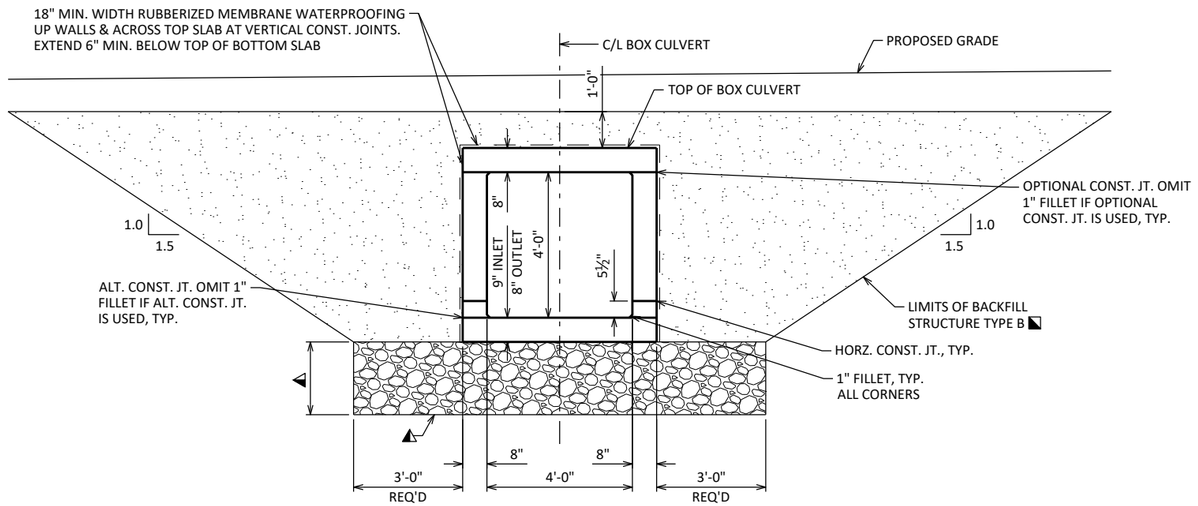
PLAN - INLET EXTENSION



PLAN - OUTLET EXTENSION

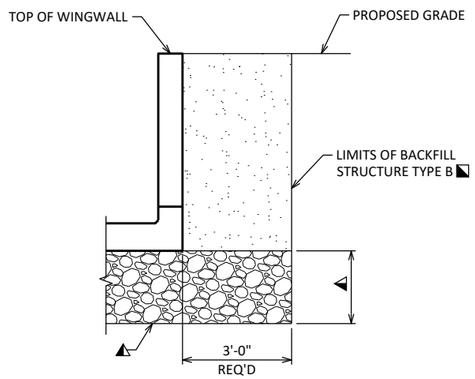
PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	EXTENSION OF EXISTING BOX CULVERT AT STA. 2928+42.94 (FORMERLY C-70-0003)	SHEET 82	E

FILE NAME : I:\77451\C3D\11005271\STRC\C-70-0003\SHEETS\C-70-3_080102_GP.DWG
LAYOUT NAME - Plan 1 IN 50 FT
PLOT DATE : 5/9/2018 2:47 PM
PLOT BY : FAITH GILLEN
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

PAYMENT FOR ALL ITEMS REQUIRED FOR BOX CULVERT EXTENSION, EXCEPT FOR SAFETY GRATE, INCLUDED IN BID ITEM "BOX CULVERT EXTENSION STA. 2928+42.94.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

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

ALL BAR STEEL REINFORCEMENT FOR CAST-IN-PLACE CONCRETE BOX CULVERTS SHALL BE UNCOATED. BAR STEEL FOR CAST-IN-PLACE CONCRETE APRONS SHALL BE UNCOATED. BAR STEEL FOR WINGWALL DOWELS AND ALL WINGWALL BARS SHALL BE EPOXY COATED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS.

◪ BACKFILL LIMITS. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

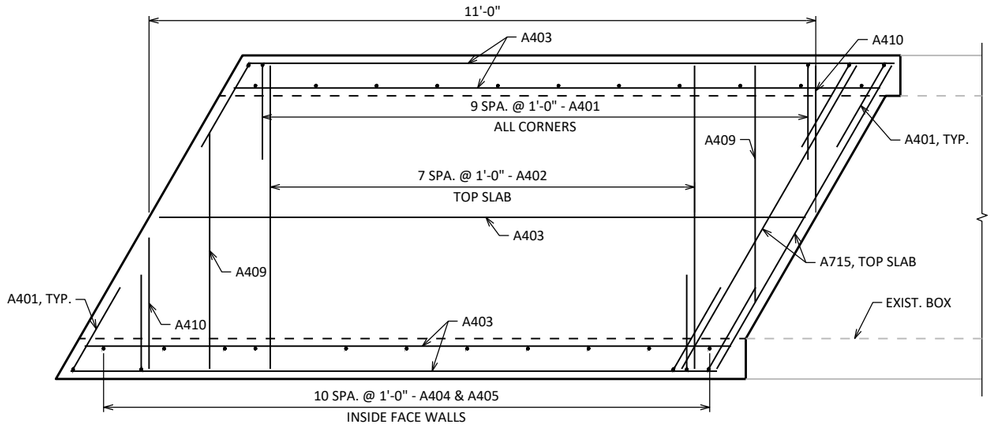
◭ UNDERCUT 2'-0". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR ANOTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

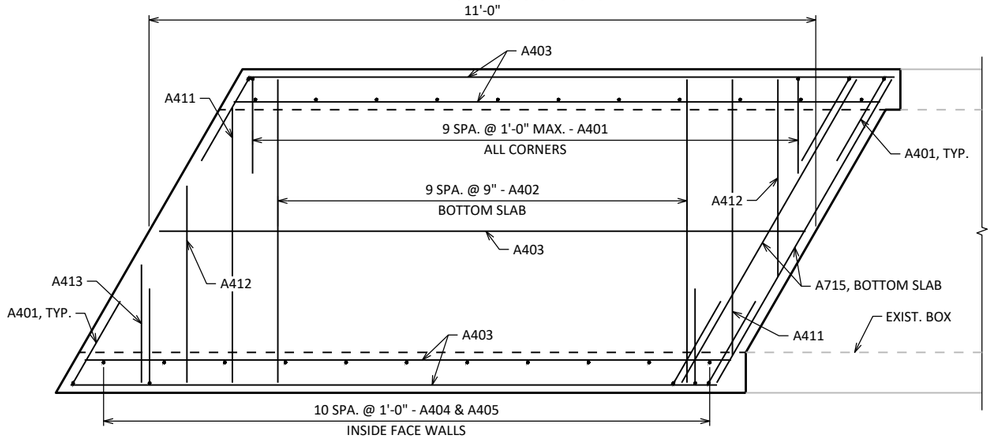
TOTAL ESTIMATED QUANTITIES - FOR INFORMATION ONLY

ITEMS	UNIT	TOTALS
REMOVING STRUCTURE	EACH	1
EXCAVATION FOR STRUCTURES CULVERTS	EACH	1
BACKFILL STRUCTURE TYPE B	TON	180
BREAKER RUN	TON	80
ADHESIVE ANCHORS NO. 5 BAR	EACH	40
CONCRETE MASONRY CULVERTS	CY	22
BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,800
BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	740
TEMPORARY SHORING	SF	320
RUBBERIZED MEMBRANE WATERPROOFING	SY	17
RIPRAP MEDIUM	CY	28
GEOTEXTILE TYPE C	SY	70
GEOTEXTILE TYPE HR	SY	70
TEMPORARY WATER DIVERSION CULVERT	EACH	1



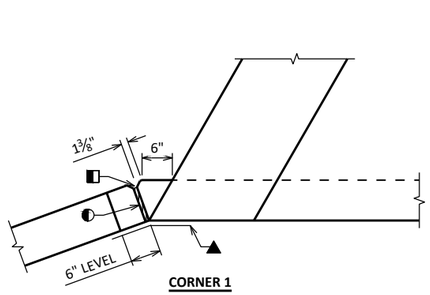
PLAN - INLET - TOP SLAB

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN

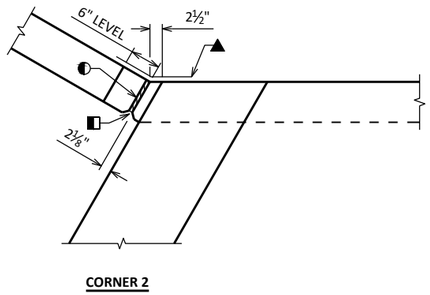


PLAN - INLET - BOTTOM SLAB

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN

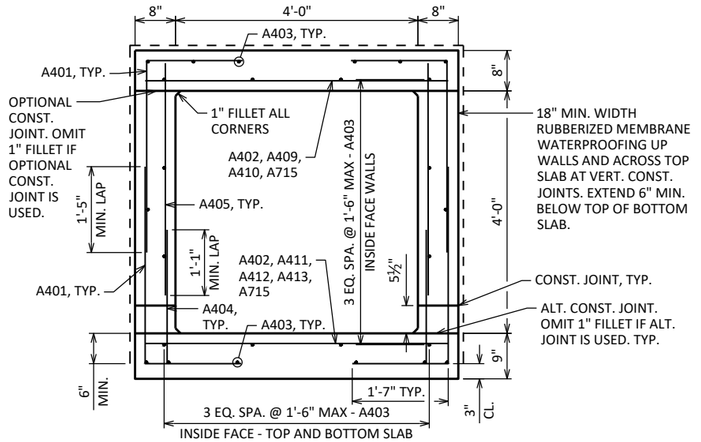


CORNER 1

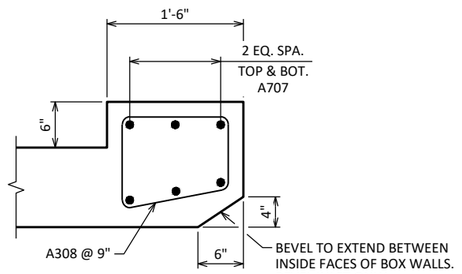


CORNER 2

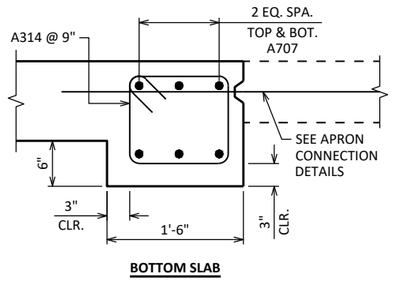
CORNER DETAILS



SECTION THRU BOX



TOP SLAB



BOTTOM SLAB

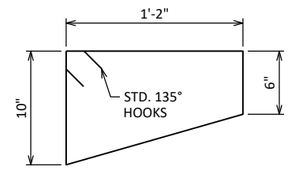
SECTION THRU HEADER

BILL OF BARS

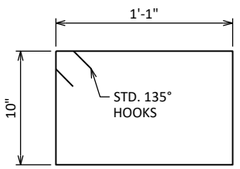
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		52	4'-9"	X		CORNERS
A402		18	5'-0"			SLABS TRANSVERSE
A403		26	10'-7"			SLABS AND WALLS LONGITUDINAL
A404		22	2'-3"			SLAB TO WALL DOWELS
A405		22	3'-10"			WALLS VERTICAL
⬟ A506		20	2'-6"			JOINT DOWEL
A707		12	5'-9"			HEADER TRANSVERSE
A308		8	4'-3"	X		HEADER STIRRUP
A409		2	3'-10"			SLABS TRANSVERSE - TOP SLAB
A410		2	2'-2"			SLABS TRANSVERSE - TOP SLAB
A411		2	4'-6"			SLABS TRANSVERSE - BOTTOM SLAB
A412		2	3'-3"			SLABS TRANSVERSE - BOTTOM SLAB
A413		1	1'-11"			SLABS TRANSVERSE - BOTTOM SLAB
A314		8	4'-5"	X		HEADER STIRRUP
A715		4	5'-9"			SLABS TRANSVERSE - TOP & BOTTOM SLAB

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.

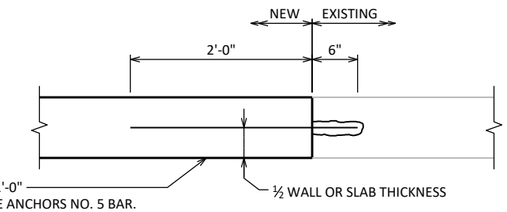
A401



A308



A314

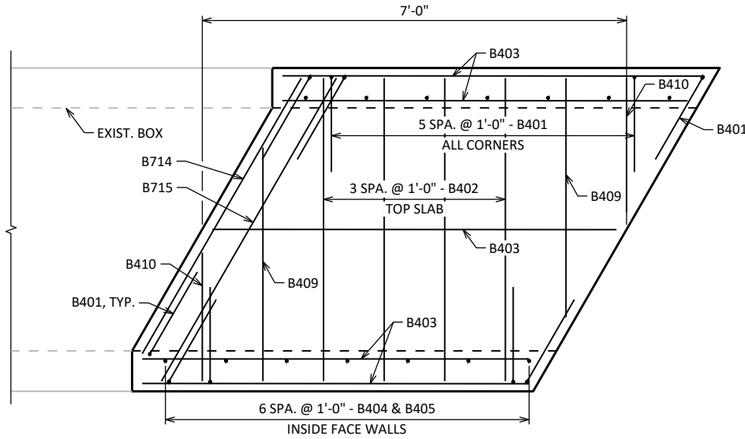


CONSTRUCTION JOINT

◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

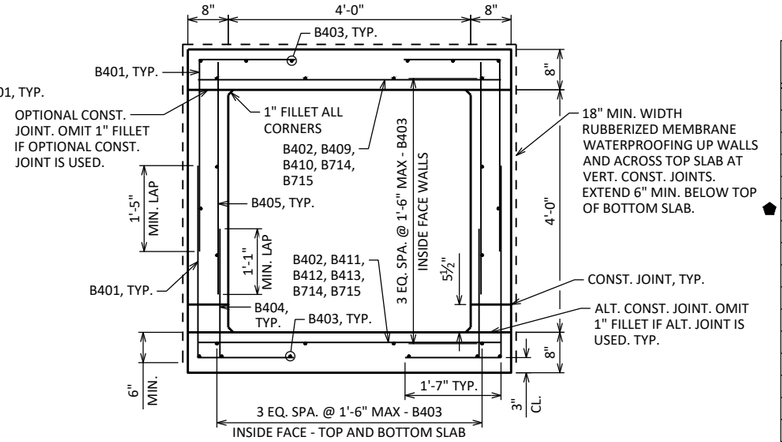
◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST JOINT TO TOP OF WALL.



PLAN - OUTLET - TOP SLAB

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN

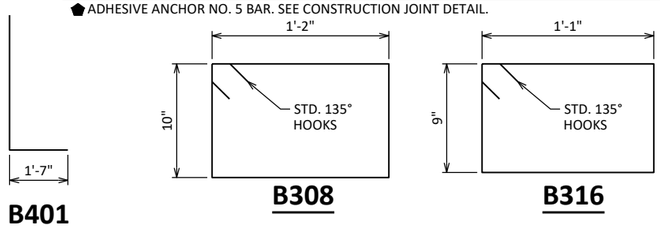


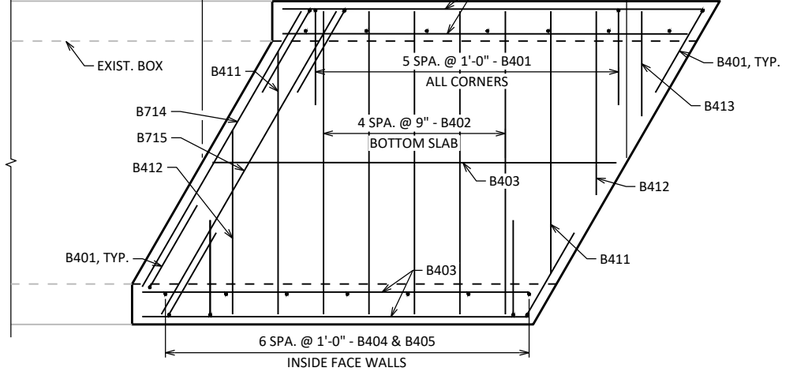
SECTION THRU BOX

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		36	4'-8"	X		CORNERS
B402		9	5'-0"			SLABS TRANSVERSE
B403		26	6'-8"			SLABS AND WALLS LONGITUDINAL
B404		14	2'-2"			SLAB TO WALL DOWELS
B405		14	3'-10"			WALLS VERTICAL
⬟ B506		20	2'-6"			JOINT DOWEL
B707		12	5'-9"			HEADER TRANSVERSE
B308		8	4'-7"	X		TOP HEADER STIRRUP
B409		2	3'-10"			SLABS TRANSVERSE - TOP SLAB
B410		2	2'-1"			SLABS TRANSVERSE - TOP SLAB
B411		2	4'-4"			SLABS TRANSVERSE - BOTTOM SLAB
B412		2	3'-0"			SLABS TRANSVERSE - BOTTOM SLAB
B413		1	1'-8"			SLABS TRANSVERSE - BOTTOM SLAB
B714		2	5'-3"			SLABS TRANSVERSE - TOP & BOTTOM SLAB
B715		2	5'-9"			SLABS TRANSVERSE - TOP & BOTTOM SLAB
B316		8	4'-3"	X		BOTTOM HEADER STIRRUP

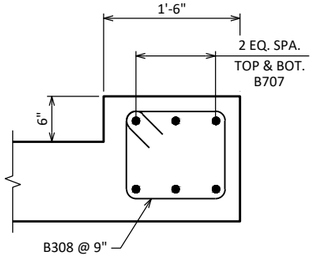
⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.



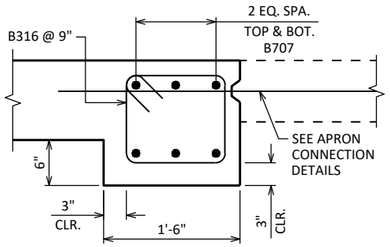


PLAN - OUTLET - BOTTOM SLAB

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN

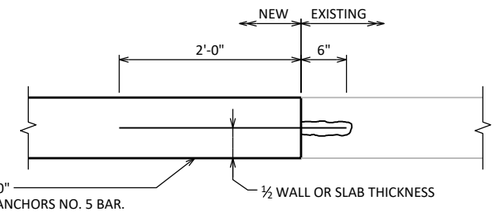


TOP SLAB

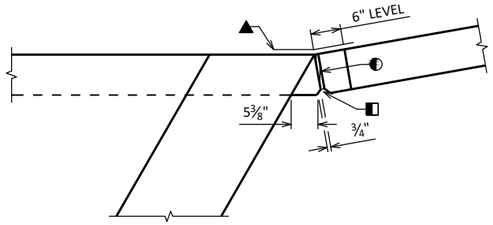


BOTTOM SLAB

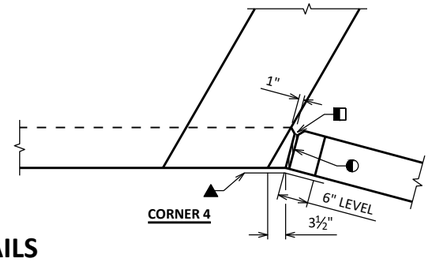
SECTION THRU HEADER



CONSTRUCTION JOINT

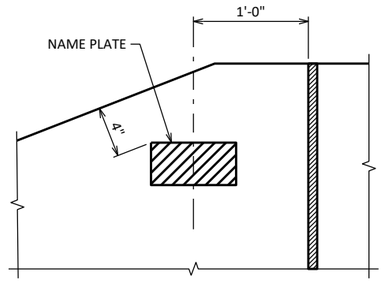


CORNER 3



CORNER 4

CORNER DETAILS



NAME PLATE DETAIL

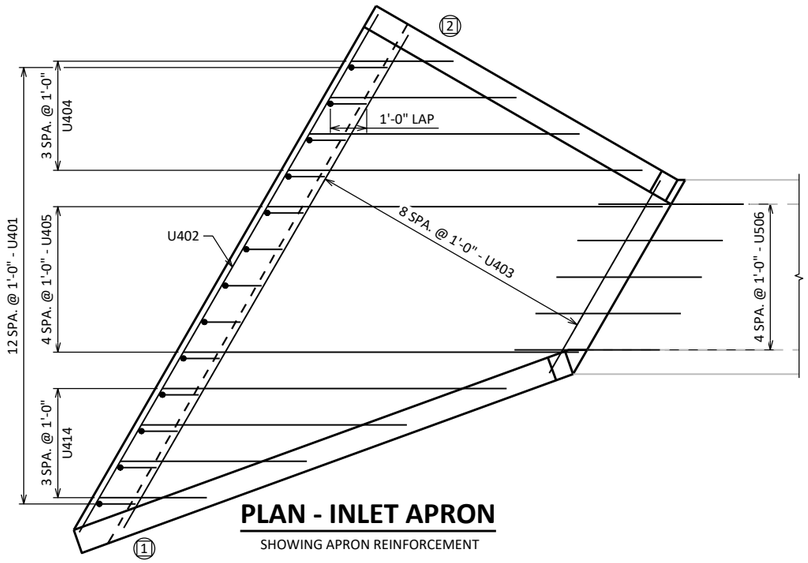
WING 4

◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

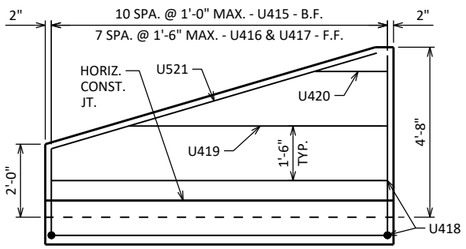
PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	EXTENSION OF EXISTING BOX CULVERT AT STA. 2928+42.94 (FORMERLY C-70-0003)	SHEET 85	E



PLAN - INLET APRON

SHOWING APRON REINFORCEMENT

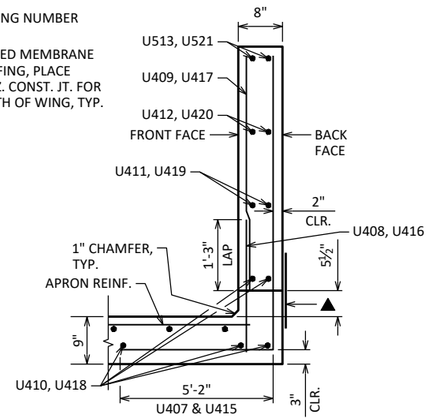
WING 1 ELEVATION



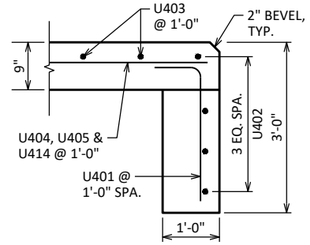
WING 2 ELEVATION

ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

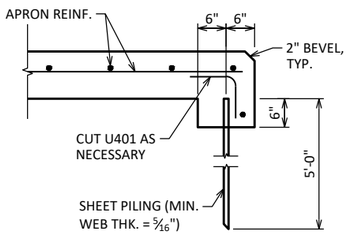


SECTION THRU WINGS



INLET

CUT-OFF WALL



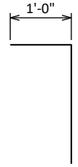
ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

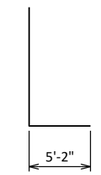
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR △ SERIES	LOCATION
U401		13	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	16'-5"			CUTOFF WALL HORIZONTAL
U403		9	10'-10"		X	APRON TRANSVERSE
U404		4	6'-3"		X	APRON LONGITUDINAL
U405		5	10'-10"			APRON LONGITUDINAL
U506		5	4'-0"			APRON TO BARREL DOWEL
U407	X	15	8'-9"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	11	2'-3"			APRON TO WALL FRONT FACE
U409	X	11	2'-9"		X	WALL FRONT FACE VERTICAL
U410	X	5	14'-0"			WALL HORIZONTAL
U411	X	2	10'-8"			WALL HORIZONTAL
U412	X	2	2'-11"			WALL HORIZONTAL
U513	X	2	14'-0"			WALL HORIZONTAL TOP
U414		4	6'-2"		X	APRON LONGITUDINAL
U415	X	11	8'-9"	X	X	APRON TO WALL BACK FACE VERTICAL
U416	X	8	2'-3"			APRON TO WALL FRONT FACE
U417	X	8	2'-9"		X	WALL FRONT FACE VERTICAL
U418	X	5	9'-2"			WALL HORIZONTAL
U419	X	2	7'-1"			WALL HORIZONTAL
U420	X	2	2'-0"			WALL HORIZONTAL
U521	X	2	9'-4"			WALL HORIZONTAL TOP

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



U401

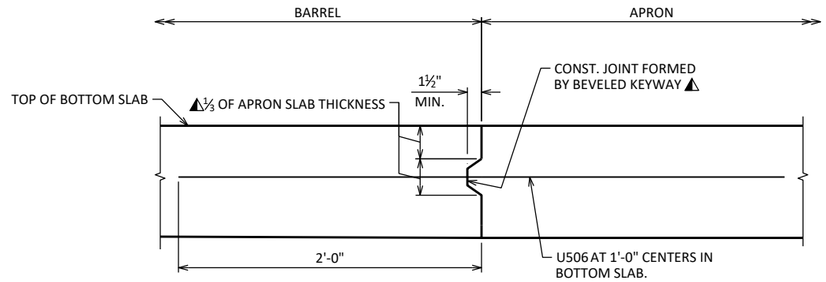


U407, U415

BAR SERIES TABLE

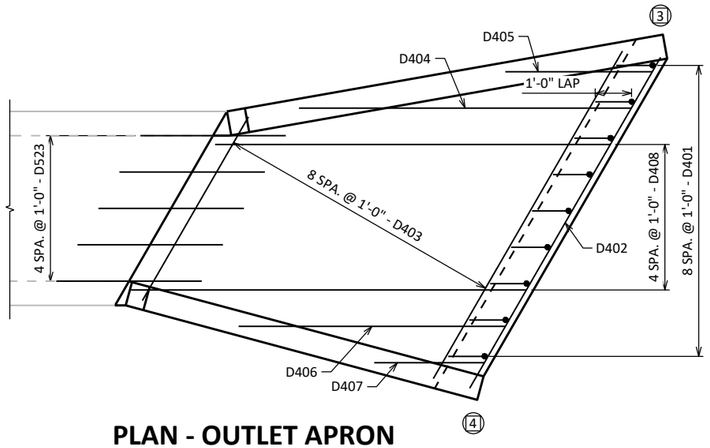
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.		LENGTH		
U403	1	SERIES OF 9	6'-1"	TO	15'-7"
U404	1	SERIES OF 4	2'-9"	TO	9'-9"
U407	1	SERIES OF 15	7'-5"	TO	10'-0"
U409	1	SERIES OF 11	1'-5"	TO	4'-0"
U414	1	SERIES OF 4	2'-11"	TO	9'-5"
U415	1	SERIES OF 11	7'-5"	TO	10'-0"
U417	1	SERIES OF 8	1'-5"	TO	4'-0"



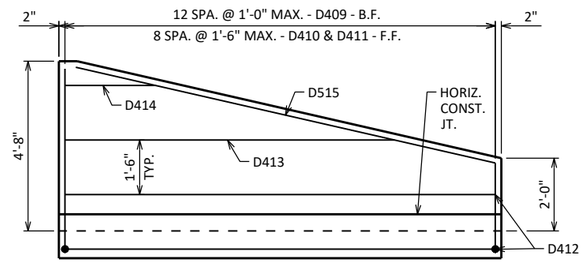
INLET APRON CONNECTION DETAIL

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

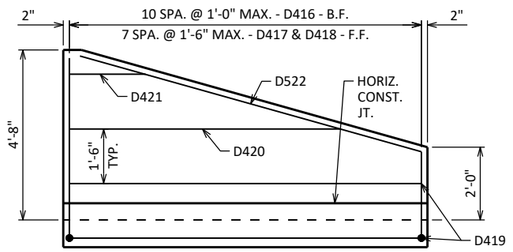


PLAN - OUTLET APRON

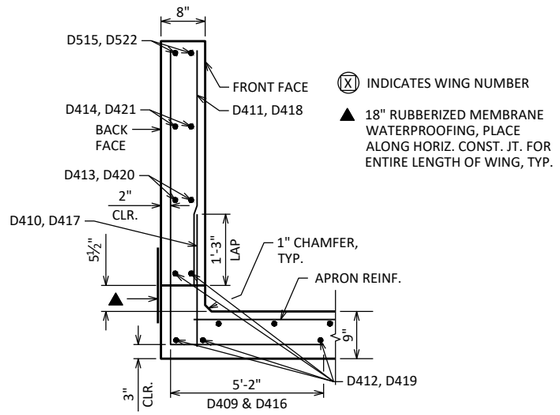
SHOWING APRON REINFORCEMENT



WING 3 ELEVATION



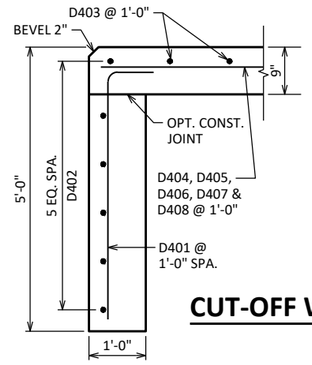
WING 4 ELEVATION



ⓧ INDICATES WING NUMBER

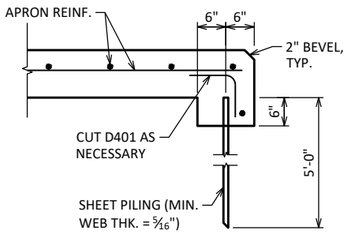
▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

SECTION THRU WINGS



CUT-OFF WALL

OUTLET



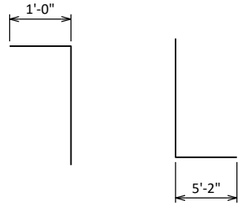
ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR △ SERIES	LOCATION
D401		9	5'-6"	X		CUTOFF WALL VERTICAL
D402		6	10'-6"			CUTOFF WALL HORIZONTAL
D403		9	8'-1"		X	APRON TRANSVERSE
D404		1	9'-1"			APRON LONGITUDINAL
D405		1	4'-0"			APRON LONGITUDINAL
D406		1	7'-4"			APRON LONGITUDINAL
D407		1	3'-0"			APRON LONGITUDINAL
D408		5	10'-10"			APRON LONGITUDINAL
D409	X	13	8'-9"	X	X	APRON TO WALL BACK FACE VERTICAL
D410	X	9	2'-3"			APRON TO WALL FRONT FACE
D411	X	9	2'-9"		X	WALL FRONT FACE VERTICAL
D412	X	5	11'-10"			WALL HORIZONTAL
D413	X	2	9'-1"			WALL HORIZONTAL
D414	X	2	2'-6"			WALL HORIZONTAL
D515	X	2	11'-10"			WALL HORIZONTAL TOP
D416	X	11	8'-9"	X	X	APRON TO WALL BACK FACE VERTICAL
D417	X	8	2'-3"			APRON TO WALL FRONT FACE
D418	X	8	2'-9"		X	WALL FRONT FACE VERTICAL
D419	X	5	9'-8"			WALL HORIZONTAL
D420	X	2	7'-5"			WALL HORIZONTAL
D421	X	2	2'-1"			WALL HORIZONTAL
D522	X	2	9'-9"			WALL HORIZONTAL TOP
D523		5	4'-0"			APRON TO BARREL DOWEL

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



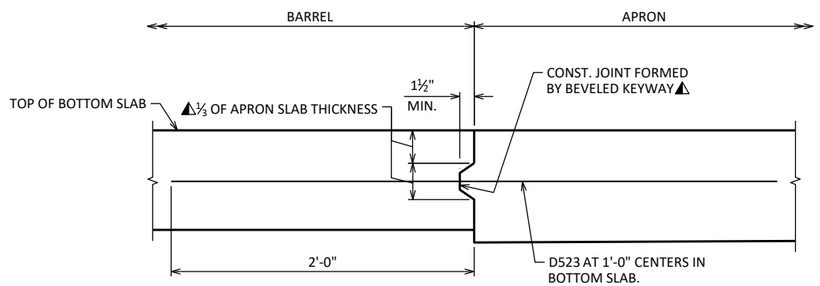
D401

D409, D416

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
D403	1 SERIES OF 9	5'-10" TO 10'-4"
D409	1 SERIES OF 13	7'-5" TO 10'-0"
D411	1 SERIES OF 9	1'-5" TO 4'-0"
D416	1 SERIES OF 11	7'-5" TO 10'-0"
D418	1 SERIES OF 8	1'-5" TO 4'-0"



OUTLET APRON CONNECTION DETAIL

IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

2

CTH VVV/ROLLING MEADOWS DR

EXIST R/W

N

MATCH LINE 2335+00

NET LEC

FO

MP

IH 41 SB

2320

2322

2324

2326

2328

2330

2332

2334

INL

15" RCP

18" RCP

24" RCP

IH 41 NB

CTH VV/PIONEER RD

2329+48.90
84.00' RT

101

SALVAGE AND REINSTALL
EXISTING AEW, EXTEND PIPE 4 LF,
CONCRETE COLLAR, TIE JOINTS

SLOPE INTERCEPT, TYP

REMOVE & REPLACE FENCE

ENVIRONMENTALLY SENSITIVE AREA
47FD122
(RIVERSIDE IV)

SULLIVAN DR

EXIST R/W

2

W. BR.
FOND DU LAC
RIVER

EXIST R/W

CTH VVV/ROLLING MEADOWS DR

MATCH LINE 2350+00

NET LEC

15" RCP

FO

24" RCP

18" RCP

B-20-026

B-20-007

2336

2338

2340

2342

2344

2346

2348

IH 41 SB

IH 41 NB

8" RCP

12" PUU

SIGN

SS

2339+37.73
84.00' RT

2339+39.38
94.24' RT

2340+64.23
84.00' RT

2340+59.10
94.46' RT

CTH VV/PIONEER RD

SLOPE INTERCEPT, TYP

REMOVE & REPLACE FENCE

ALLIANT

MATCH LINE 2335+00

W. BR.
FOND DU LAC
RIVER

EXIST R/W

ENVIRONMENTALLY SENSITIVE AREA
47FD98
(RIVERSIDE III)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 88	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-01

PLOT DATE : 4/5/2024 1:25 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

EXIST R/W

BEGIN CABLE GUARD REPLACEMENT STA 2355+66.8

CTH VVV/ROLLING MEADOWS DR

NET LEC

106

RECONSTRUCT MEDIAN INLET 3 GRATE MAX. OF 6:1 PERP. SLOPE

107

SALVAGE AND REINSTALL EXISTING AEW, EXTEND PIPE 4 LF, CONCRETE COLLAR, TIE JOINTS

MATCH LINE 2365+00

IH 41 SB

2352 2354 2356 2358 2360 2362 2364

IH 41 NB

24" RCP

INL

SIGN

102

SALVAGE AND REINSTALL EXISTING AEW, EXTEND PIPE 6 LF, TIE JOINTS

REMOVE & REPLACE FENCE

CTH VV/PIONEER RD

SLOPE INTERCEPT, TYP

104

SALVAGE AND REINSTALL EXISTING AEW, EXTEND PIPE 6 LF, TIE JOINTS

ANR

MATCH LINE 2350+00

EXIST R/W

FOREST AVE

EXIST R/W

CTH VVV/ROLLING MEADOWS DR

NET LEC

SLOPE INTERCEPT, TYP

111

RECONSTRUCT INLET MEDIAN 2 GRATE MAX. OF 10:1 PARALLEL SLOPE

MATCH LINE 2380+00

IH 41 SB

2366 2368 2370 2372 2374 2376 2378

IH 41 NB

18" RCP

24" RCP

2365+85.35
84.00' RT

109

SALVAGE AND REINSTALL EXISTING AEW, EXTEND PIPE 4 LF, CONCRETE COLLAR, TIE JOINTS

ALLIANT

MATCH LINE 2365+00

EXIST R/W

EXIST R/W

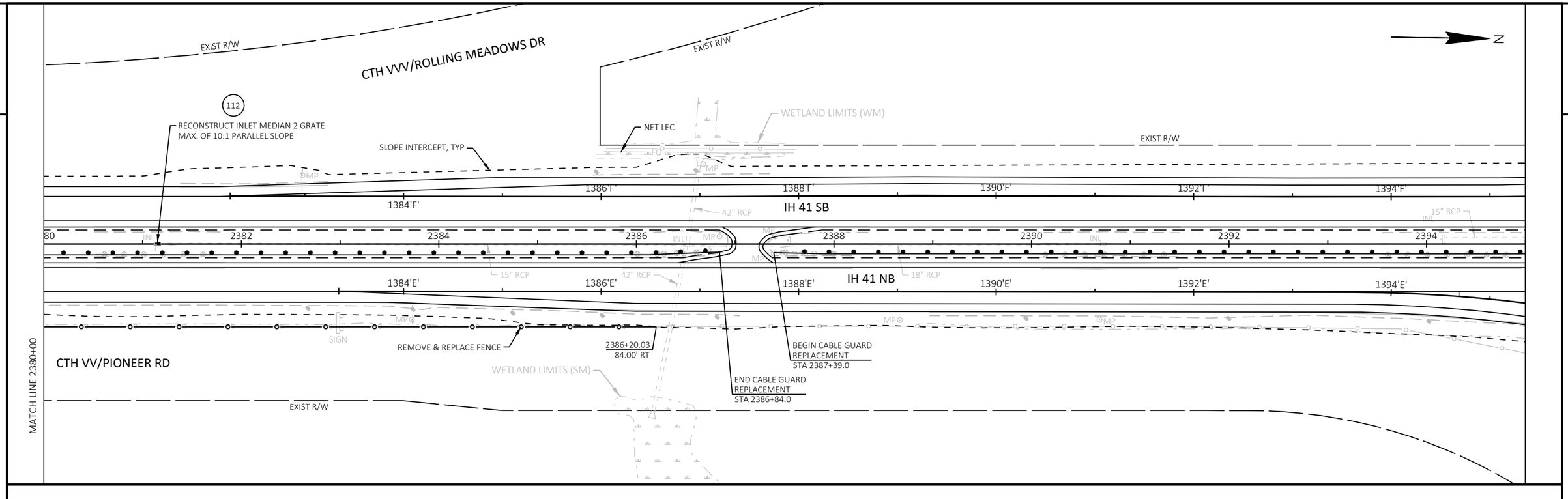
FOREST AVE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 89	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:25 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 90	E

2

2

N

MATCH LINE 2410+00

MATCH LINE 2395+00

STH 23 EB

JOHNSON ST

STH 23 WB

IH 41 SB

IH 41 NB

USH 45
STH 23 EB

USH 45
STH 23 WB

RAMP 'F'

RAMP 'G'

RAMP 'E'

RAMP 'H'

EXIST R/W

354
ADJUST INLET COVER
REMOVE & REPLACE
CONCRETE CURB & GUTTER

118
REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 4 LF). INSTALL 6 LF OF PIPES, TIE JOINTS, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE EBS 1.0'

115
REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 4 LF). INSTALL 4 LF OF PIPES, TIE JOINTS, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE

SLOPE INTERCEPT, TYP

CITY OF FOND DU LAC

NET LEC

BEGIN CABLE GUARD REPLACEMENT
STA 2404+68.1

END CABLE GUARD REPLACEMENT
STA 2402+13.3

WISDOT

ALLIANT

REMOVE & REPLACE FENCE

2404+61.49
361.50' RT

2409+36.27
141.83' RT

B-20-177

B-20-178

SOLAR PANEL POST

RAMP GATE

SIGN BRIDGE

CAMERA POLE

GUY

COMMUNICATIONS POLE

15" RCP

18" RCP

24" RCP

TWIN 36" RCP

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 91	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-03B

PLOT DATE : 4/5/2024 1:25 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

END CABLE GUARD REPLACEMENT STA 2417+34.3

BEGIN CABLE GUARD REPLACEMENT STA 2417+88.3

120 RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 10:1 PARALLEL SLOPE

121 RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 10:1 PARALLEL SLOPE

122 RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

SLOPE INTERCEPT, TYP

EXIST R/W

WETLAND LIMITS (WM)

NET LEC

MATCH LINE 2425+00

IH 41 SB

IH 41 NB

CTH VV/PIONEER RD

REMOVE & REPLACE FENCE

2411+86.00 87.51' RT

2417+24.73 87.74' RT

2419+24.73 86.33' RT

2421+02.27 86.40' RT

2422+58.46 107.00' RT

2422+68.46 107.00' RT

REMOVE & REPLACE FENCE

EXTEND BOX CULVERT SEE DETAILS

2425+44.25 92.41' LT

2425+74.80 65.04' LT

2426+07.42 64.98' LT

2426+26.46 -76.29' LT

CTH OOO W. SCOTT ST

END CABLE GUARD REPLACEMENT STA 2428+19.0

B-20-058

BEGIN CABLE GUARD REPLACEMENT STA 2430+37.5

ALLIANT

MATCH LINE 2440+00

2425+75.80 70.00' RT

2426+08.52 70.00' RT

B-20-3838 TRIPLE CELL 8'X4' BOX CULVERT

2428+62.79 95.00' RT

2429+03.61 95.00' RT

123 RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

124 RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

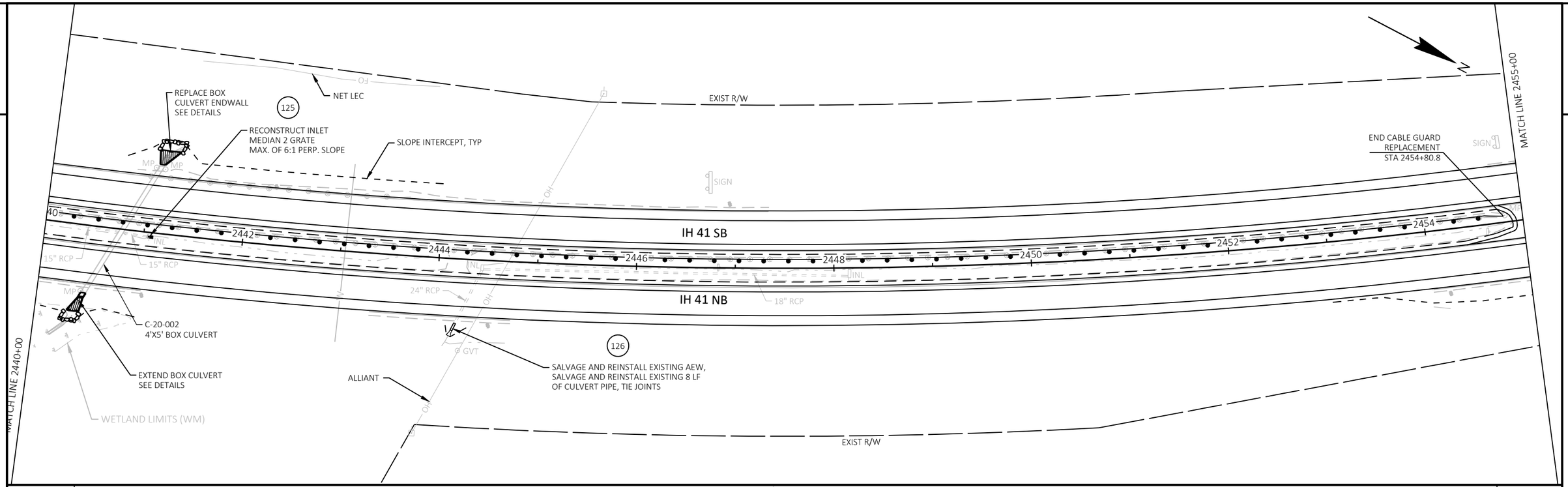
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 92	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-04

PLOT DATE : 4/5/2024 1:25 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

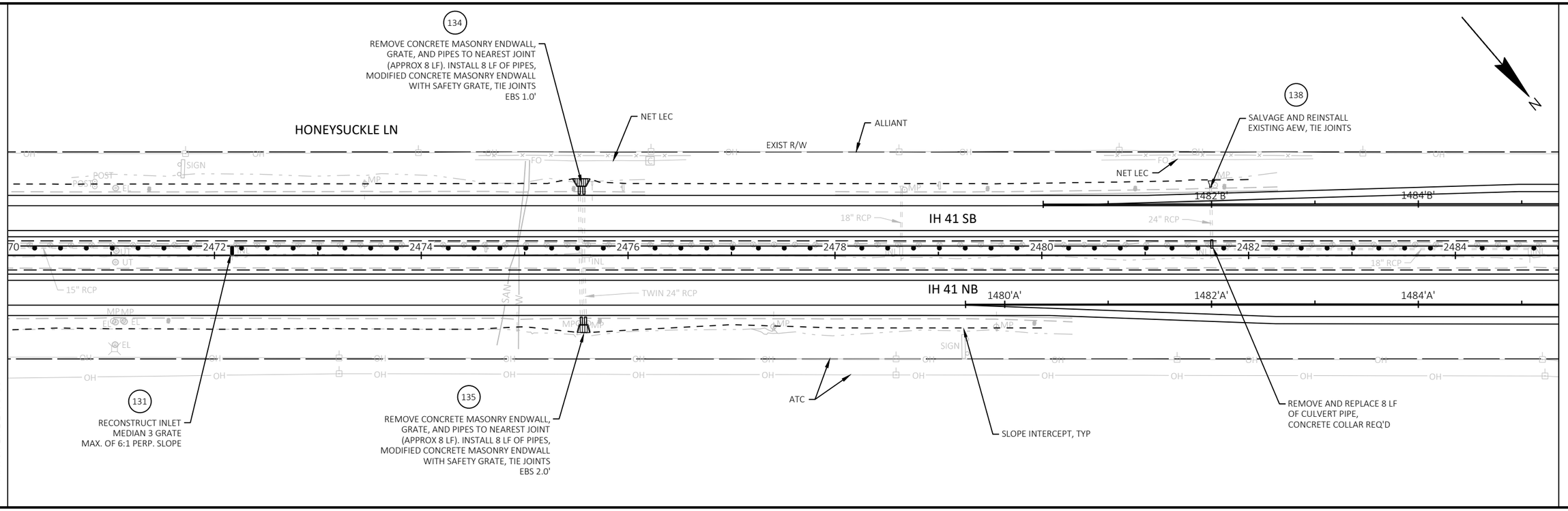
2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 93	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-05
PLOT DATE : 4/5/2024 1:25 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 94	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-06A
PLOT DATE : 4/5/2024 1:25 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2

MATCH LINE 2500+00

MATCH LINE 2485+00

N

END CABLE GUARD REPLACEMENT STA 2487+29.1

BEGIN CABLE GUARD REPLACEMENT STA 2487+79.9

142

RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

EXIST R/W

ANR

NET LEC

RAMP 'B'

1500'B'

1498'B'

1496'B'

1494'B'

1492'B'

1490'B'

1488'B'

1486'B'

18" RCP

END CABLE GUARD REPLACEMENT STA 2499+90.7

IH 41 SB

C-20-003
12'X5' BOX CULVERT

24" RCP

15" RCP

IH 41 NB

1486'A'

1488'A'

1490'A'

1492'A'

1494'A'

1496'A'

1498'A'

1498'D'

RAMP 'A'

RAMP 'D'

143

RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

SLOPE INTERCEPT, TYP

B-20-059

CTH OO/WINNEBAGO ST

SOLAR PANEL POST

RAMP GATE

141

RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 10:1 PARALLEL SLOPE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 95	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-06B

PLOT DATE : 4/5/2024 1:25 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

EXIST R/W

RAMP 'B' 1504'B'

1502'B'

RAMP GATE

SOLAR PANEL POST

CTH OO/WINNEBAGO ST

14

16

18

1506'C'

NET LEC

EXIST R/W

1508'C'

RAMP 'C'

1510'C'

1512'C'

1514'C'

145

RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

ALLIANT

WETLAND LIMITS (M)

EXIST R/W

NET LEC

ALLIANT

WISDOT

BEGIN CABLE GUARD
REPLACEMENT
STA 2502+34.4

CAMERA POLE

SLOPE INTERCEPT, TYP

TWIN 19"X30" RCHE

IH 41 SB

2502 2504 2506 2508 2510 2512 2514

IH 41 NB

1510'D' 1512'D' 1514'D'

18" RCP

B-20-059

144

RECONSTRUCT INLET MEDIAN 8 GRATE
MAX. OF 10:1 PARALLEL SLOPE

TWIN 19"X30" RCHE

1508'D'

1506'D'

ANR

EXIST R/W

C-20-004
10'X5' BOX CULVERT

WETLAND LIMITS (M)

1504'D'

1502'D'

RAMP 'D'

1500'D'

ATC

EXIST R/W

PIONEER RD

EXIST R/W

EXIST R/W

MATCH LINE 2500+00

MATCH LINE 2515+00

2

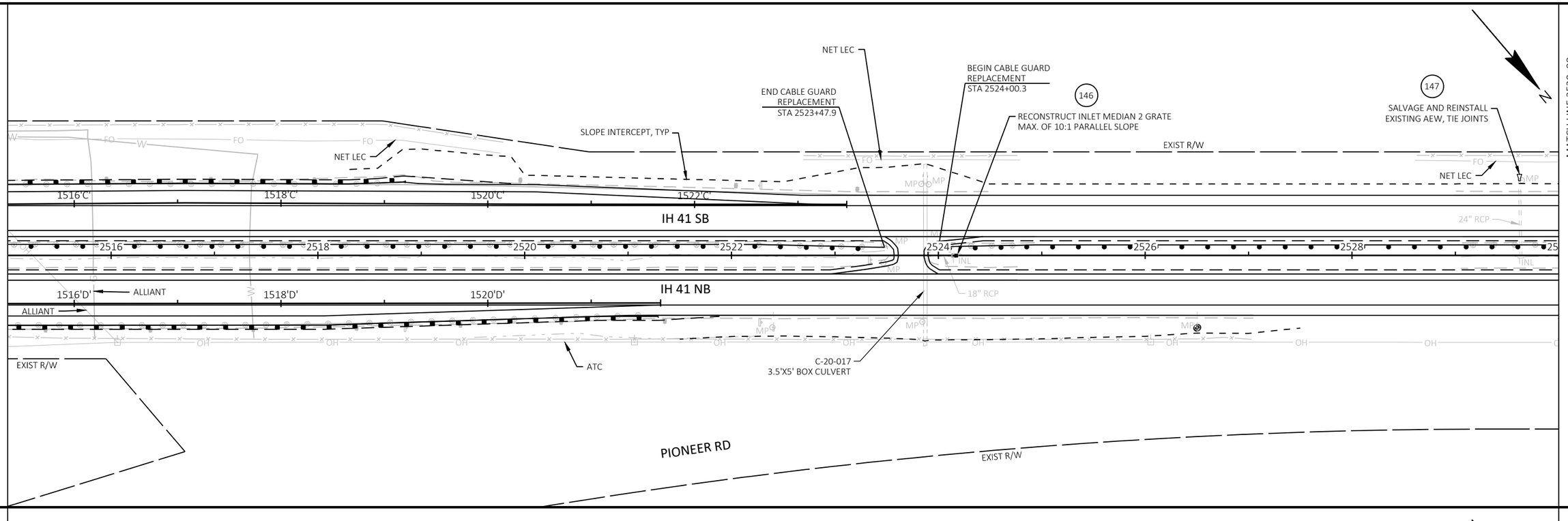
N

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 96	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-07

PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 97	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-08
PLOT DATE : 4/5/2024 1:26 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 2545+00

MATCH LINE 2560+00

2

164
SALVAGE AND REINSTALL
EXISTING AEW, TIE JOINTS

SLOPE INTERCEPT, TYP

ATC

NET LEC

24" RCP

IH 41 SB

15" RCP

2546 2548 2550 2552 2554 2556 2558

IH 41 NB

2545+20.00
80.96' RT

2545+15.00
86.50' RT

REMOVE & REPLACE FENCE

163
RECONSTRUCT INLET
MEDIAN 3 GRATE
MAX. OF 6:1 PERP. SLOPE

PIONEER RD

ATC

EXIST R/W

159 161
REMOVE CONCRETE MASONRY ENDWALL,
GRATE, AND PIPES TO NEAREST JOINT
(APPROX 8 LF). INSTALL 8 LF OF PIPES AND
TWO AEW SLOPED CROSS DRAIN STEEL 4:1

TWIN 36" CMP

MATCH LINE 2560+00

MATCH LINE 2575+00

165
RECONSTRUCT INLET
MEDIAN 3 GRATE
MAX. OF 6:1 PERP. SLOPE

EXIST R/W

SLOPE INTERCEPT, TYP

NET LEC

SIGN

C-20-005
4'X5' BOX CULVERT

15" RCP

IH 41 SB

2560 2562 2564 2566 2568 2570 2572 2574

IH 41 NB

60" CMP

2563+40.00
81.00' RT

2563+75.00
81.00' RT

PIONEER RD

REMOVE & REPLACE FENCE

167
RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

ATC

EXIST R/W

168
RECONSTRUCT INLET
MEDIAN 3 GRATE
MAX. OF 6:1 PERP. SLOPE

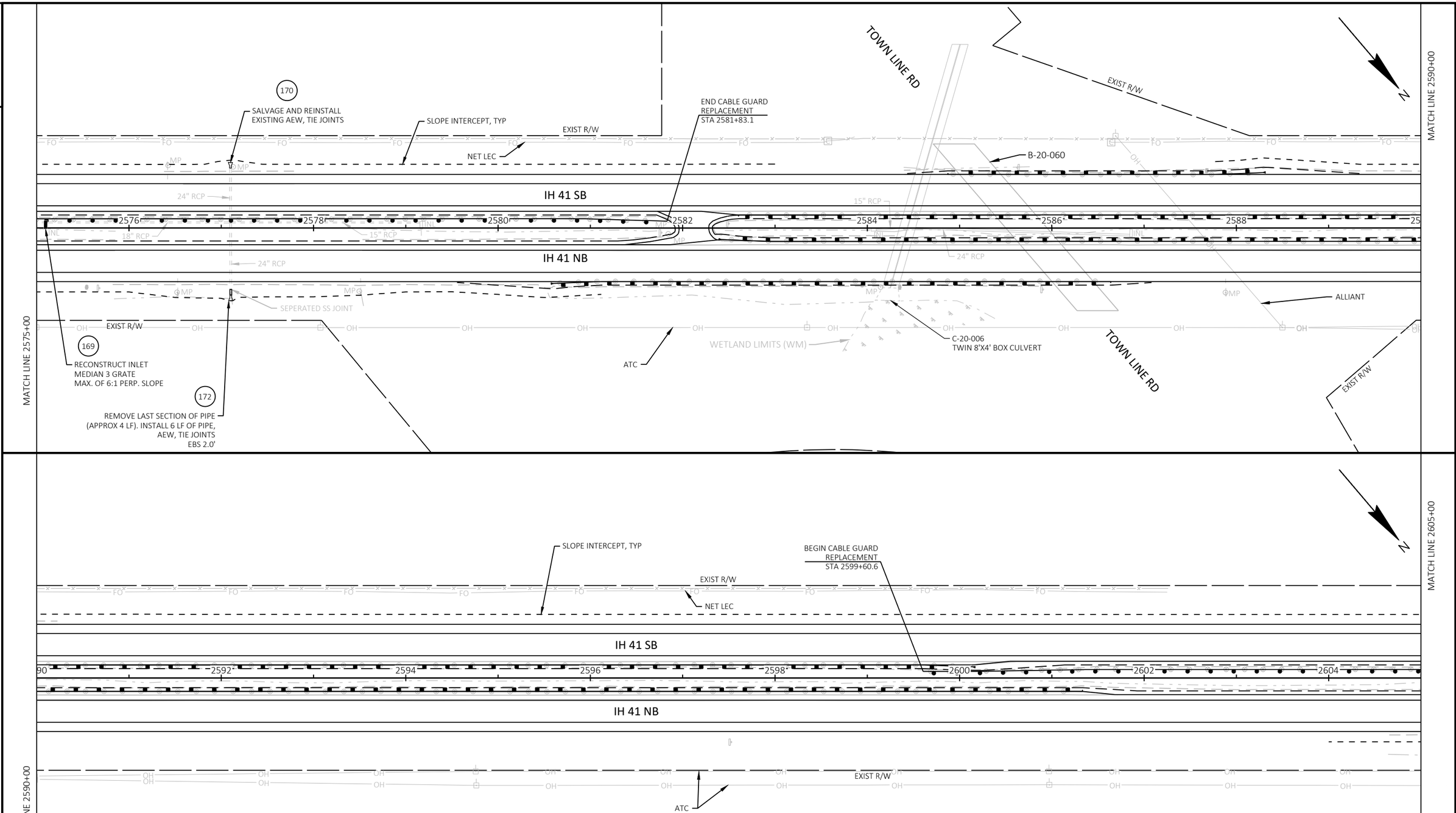
166
RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

EXIST R/W

MATCH LINE 2560+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 98	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-09
PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 99	E

2

MATCH LINE 2605+00

MATCH LINE 2620+00

2

173
RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

174
RECONSTRUCT INLET MEDIAN 2 GRATE MAX. OF 10:1 PARALLEL SLOPE

EXTEND BOX CULVERT SEE DETAILS

WETLAND LIMITS (WS)

EXIST R/W

175
REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 8 LF). INSTALL 8 LF OF PIPES, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE, TIE JOINTS

178
RECONSTRUCT INLET MEDIAN 2 GRATE MAX. OF 10:1 PARALLEL SLOPE

179
RECONSTRUCT INLET MEDIAN 2 GRATE MAX. OF 10:1 PARALLEL SLOPE

WETLAND LIMITS (WS)

NET LEC

SIGN

IH 41 SB

IH 41 NB

2606 2608 2610 2612 2614 2616 2618

24" RCP

15" RCP

15" RCP

C-20-007
4'X5' BOX CULVERT

15" RCP

15" RCP

TWIN 30" RCP

TWIN 30" RCP

SLOPE INTERCEPT, TYP

EXIST R/W

ATC

WETLAND LIMITS (WM)

WETLAND LIMITS (WM)

182
REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 8 LF). INSTALL 8 LF OF PIPES, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE, TIE JOINTS

MATCH LINE 2620+00

MATCH LINE 2635+00

183
RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

SLOPE INTERCEPT, TYP

185
SALVAGE AND REINSTALL EXISTING AEW, TIE JOINTS

NET LEC

EXIST R/W

ALLIANT

EXIST R/W

IH 41 SB

IH 41 NB

2620 2622 2624 2626 2628 2630 2632 2634

24" RCP

15" RCP

15" RCP

YARD INLET

TWIN 30" RCP

18" RCP

TWIN 30" RCP

EXIST R/W

184
RECONSTRUCT INLET MEDIAN 3 GRATE MAX. OF 6:1 PERP. SLOPE

ATC

187
REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 8 LF). INSTALL 8 LF OF PIPES, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE, TIE JOINTS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 100	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-11

PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 2635+00

EXTEND BOX CULVERT
SEE DETAILS

BEGIN CABLE GUARD
REPLACEMENT
STA 2642+73.1

ALLIANT

SLOPE INTERCEPT, TYP

EXIST R/W

NET LEC

IH 41 SB

C-20-008
4'X5' BOX CULVERT

2636 2638 2640 2642 2644 2646 2648

IH 41 NB

15" RCP

ATC

WETLAND LIMITS (SM)

END CABLE GUARD
REPLACEMENT
STA 2642+21.0

EXTEND BOX CULVERT
SEE DETAILS

EXIST R/W

MATCH LINE 2650+00

2

MATCH LINE 2650+00

SALES RD

EXIST R/W

ALLIANT

SLOPE INTERCEPT, TYP

EXIST R/W

NET LEC

IH 41 SB

24" RCP

2652 2654 2656 2658 2660 2662 2664

IH 41 NB

24" RCP

18" RCP

SIGN

ATC

EXIST R/W

190

SALVAGE AND REINSTALL EXISTING AEW,
SALVAGE AND REINSTALL EXISTING 8 LF
OF CULVERT PIPE, TIE JOINTS

EXIST R/W

SALES RD

MATCH LINE 2665+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 101	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-12

PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 2665+00

EXIST R/W

NET LEC

ALLIANT

WETLAND LIMITS (WM)

SLOPE INTERCEPT, TYP

18" RCP

IH 41 SB

C-20-009
6'X4' BOX CULVERT

2666 2668 2670 2672 2674 2676 2678

IH 41 NB

24" RCP

ATC

EXTEND BOX CULVERT
SEE DETAILS

191

RECONSTRUCT INLET
MEDIAN 3 GRATE
MAX. OF 6:1 PERP. SLOPE

MATCH LINE 2680+00

2

193

REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 8 LF). INSTALL 8 LF OF PIPES, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE, TIE JOINTS

ALLIANT

EXIST R/W

NET LEC

198

SALVAGE AND REINSTALL
EXISTING AEW, TIE JOINTS

SLOPE INTERCEPT, TYP

MATCH LINE 2695+00

TWIN 36" RCP

36" RCP

IH 41 SB

2680 2682 2684 2686 2688 2690 2692 2694

TWIN 36" RCP

36" CMP

24" RCP

IH 41 NB

EXIST R/W

ATC

MATCH LINE 2680+00

196

REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND PIPES TO NEAREST JOINT (APPROX 8 LF). INSTALL 8 LF OF PIPES, MODIFIED CONCRETE MASONRY ENDWALL WITH SAFETY GRATE, TIE JOINTS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 102	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-13

PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 2695+00

EXIST R/W

SLOPE INTERCEPT, TYP

NET LEC

END CABLE GUARD REPLACEMENT STA 2707+54.7

BEGIN CABLE GUARD REPLACEMENT STA 2708+18.3

MATCH LINE 2710+00

2

18" RCP

IH 41 SB

2696 2698 2700 2702 2704 2706 2708

IH 41 NB

C-20-010
3.5'X6' BOX CULVERT

24" RCP

21"X15" PACSA

EXIST R/W

ATC

199

RECONSTRUCT INLET
MEDIAN 3 GRATE
MAX. OF 6:1 PERP. SLOPE

200

RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

201

RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

208

REMOVE CONCRETE MASONRY ENDWALL,
GRATE, AND PIPES TO NEAREST JOINT
(APPROX 8 LF). INSTALL 8 LF OF PIPES,
MODIFIED CONCRETE MASONRY ENDWALL
WITH SAFETY GRATE, TIE JOINTS

MATCH LINE 2710+00

EXIST R/W

NET LEC

SLOPE INTERCEPT, TYP

MATCH LINE 2725+00

TWIN 30" RCP

IH 41 SB

1722'NB'

1724'NB'

C-20-011
4'X6' BOX CULVERT

10 2712 2714 2716 2718 2720 2722 2724

TWIN 30" RCP

IH 41 NB

1722'NA'

RAMP 'NA'

1724'NA'

EXIST R/W

ATC

202

REMOVE CONCRETE MASONRY ENDWALL,
GRATE, AND PIPES TO NEAREST JOINT
(APPROX 8 LF). INSTALL 8 LF OF PIPES,
MODIFIED CONCRETE MASONRY ENDWALL
WITH SAFETY GRATE, TIE JOINTS

205

RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 103	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-14

PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 2725+00

MATCH LINE 2740+00

MATCH LINE 2740+00

MATCH LINE 2755+00

EXIST R/W

FO

MP

1726'NB'

1728'NB'

1730'NB'

1732'NB'

1734'NB'

1736'NB'

1738'NB'

RAMP 'NB'

1740'NB'

24" RCP

IH 41 SB

2726

2728

2730

2732

2734

2736

2738

IN

IH 41 NB

36" RCP

C-20-016
3.5'X5' BOX CULVERT

SLOPE INTERCEPT, TYP

ATC

209

REMOVE CONCRETE MASONRY ENDWALL AND GRATE.
EXTEND WITH 12 LF OF CPRC CLASS III 36-INCH,
CONCRETE COLLAR, TIE JOINTS.
INSTALL AEW SLOPED CROSS DRAIN STEEL 4:1

1726'NA'

1728'NA'

RAMP 'NA'

1730'NA'

OH

RAMP 'ND'

1740'ND'

RAMP 'NC'

1742'NB'

RAMP 'NB'

1744'NB'

END CABLE GUARD
REPLACEMENT
STA 2746+29.9

2740

2742

2744

2746

2748

B-20-118

CTH N

48'N-EB'

50'N-EB'

B-20-117

52'N-EB'

1742'ND'

RAMP 'ND'

1744'ND'

1746'ND'

1748'ND'

1750'ND'

1752'ND'

1754'ND'

SLOPE INTERCEPT, TYP

BEGIN CABLE GUARD
REPLACEMENT
STA 2751+44.9

INSTALL
SAFETY GRATE

WISDOT

EL

LB

2750

2752

2754

C-20-012
3.5'X6' BOX CULVERT

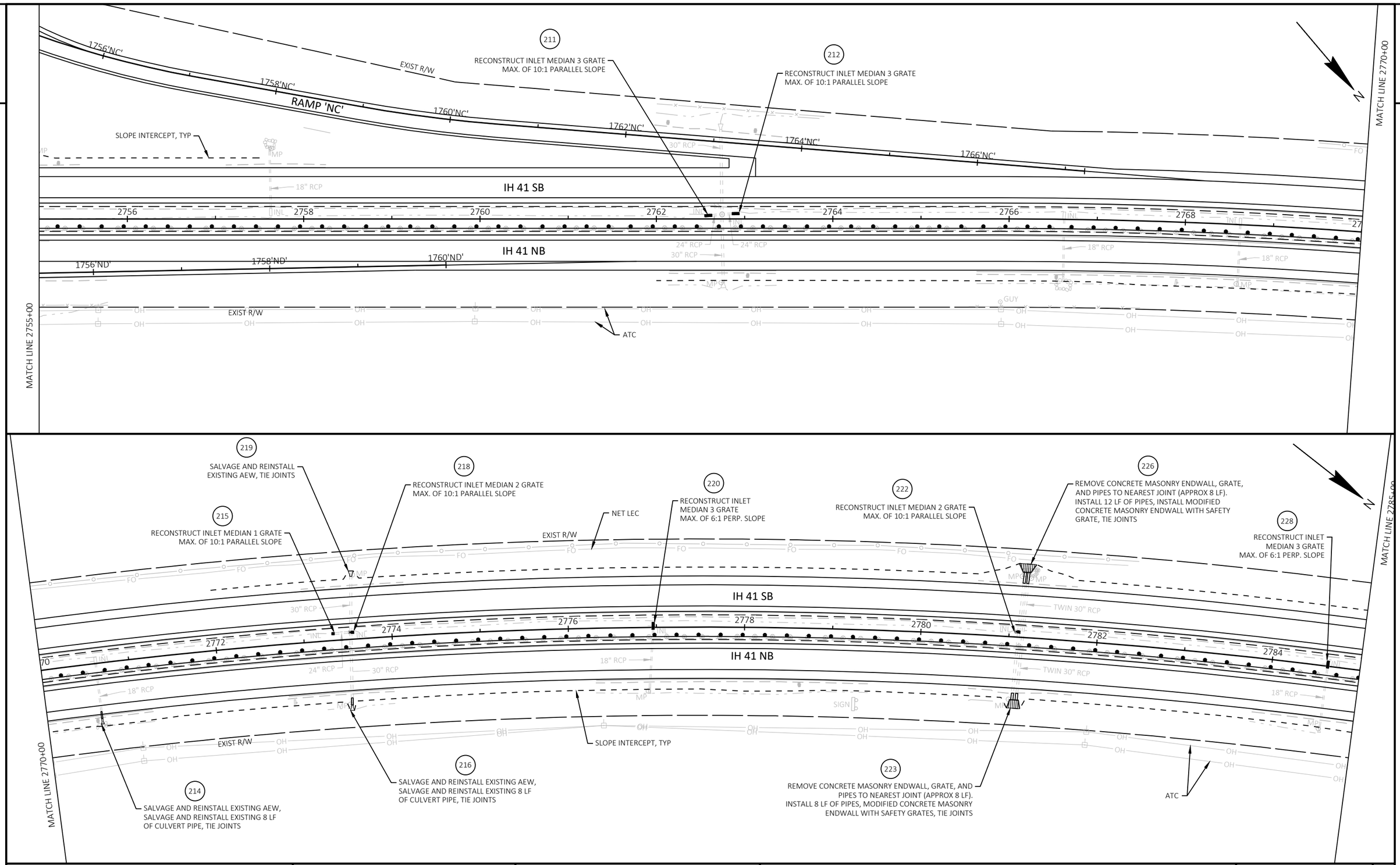
ENVIRONMENTALLY SENSITIVE AREA
BFD-0049
(GERMAN CHURCH CEMETERY)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 104	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-15

PLOT DATE : 4/5/2024 1:26 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 105	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-16
PLOT DATE : 4/5/2024 1:26 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2

229
RECONSTRUCT INLET
MEDIAN 3 GRATE
MAX. OF 6:1 PERP. SLOPE

230
RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

231
RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

242
RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

SLOPE INTERCEPT, TYP

EXIST R/W

NET LEC

IH 41 SB

IH 41 NB

2786 2788 2790 2792 2794 2796 2798

21"X15" PACSA

TRIPLE 36" RCP

TWIN 30" RCP

18" RCP

MATCH LINE 2785+00

MATCH LINE 2800+00

END CABLE GUARD
REPLACEMENT
STA 2792+88.8

BEGIN CABLE GUARD
REPLACEMENT
STA 2793+47.5

233
RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

234
REMOVE CONCRETE MASONRY ENDWALL, GRATE, AND
PIPES TO THIRD JOINT (APPROX 18 LF).
INSTALL 24 LF OF PIPES, MODIFIED CONCRETE
MASONRY ENDWALL WITH SAFETY GRATE, TIE JOINTS

238 241 244
SALVAGE THREE CONCRETE AEW,
INSTALL 6 LF OF PIPES, REPLACE
CONCRETE AEW

245
SALVAGE AND REINSTALL
EXISTING AEW, EXTEND PIPE 4 LF,
CONCRETE COLLAR, TIE JOINTS

N

MATCH LINE 2815+00

2802 2804 2806 2808 2810 2812 2814

SLOPE INTERCEPT, TYP

ALLIANT

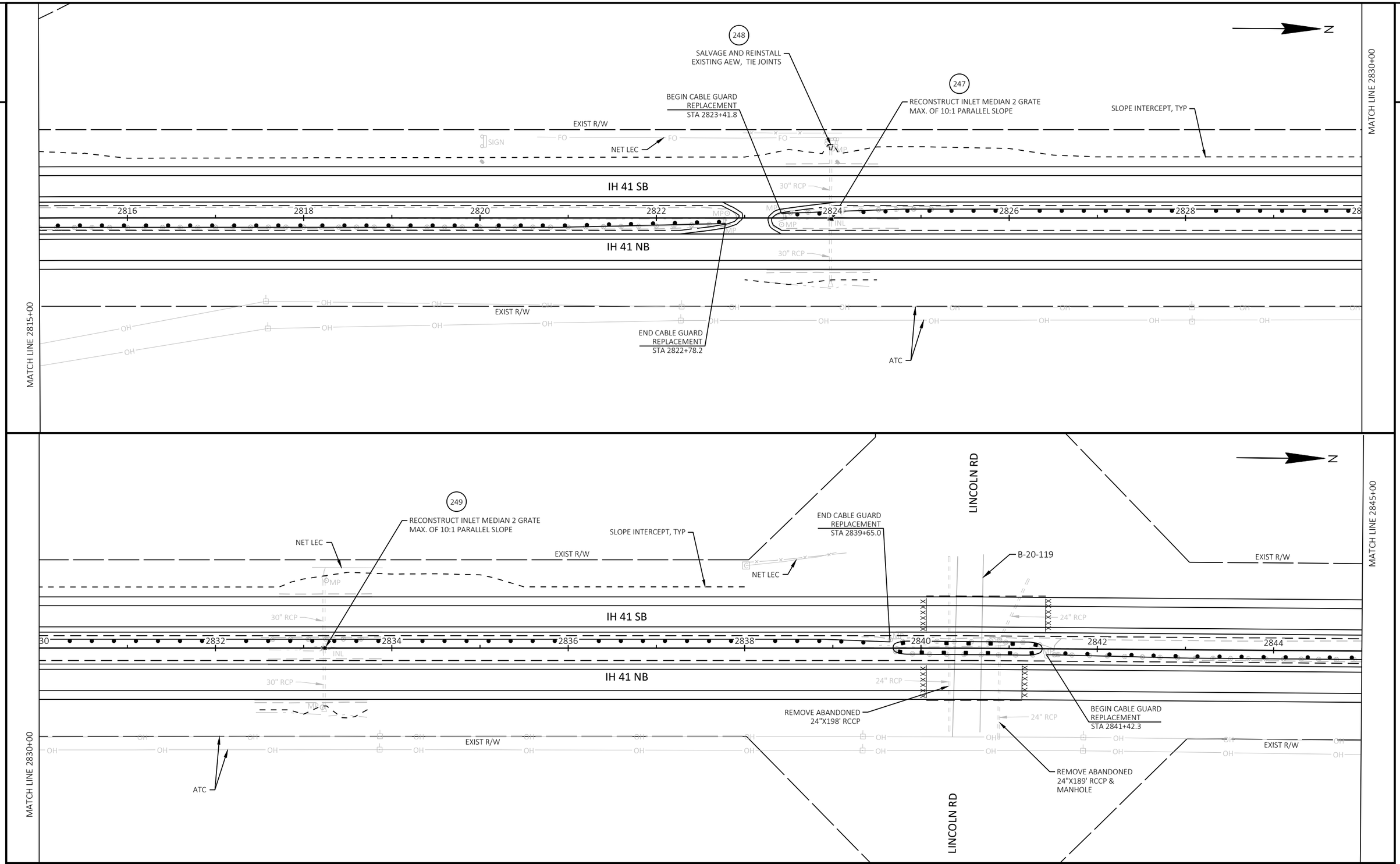
ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 106	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-17

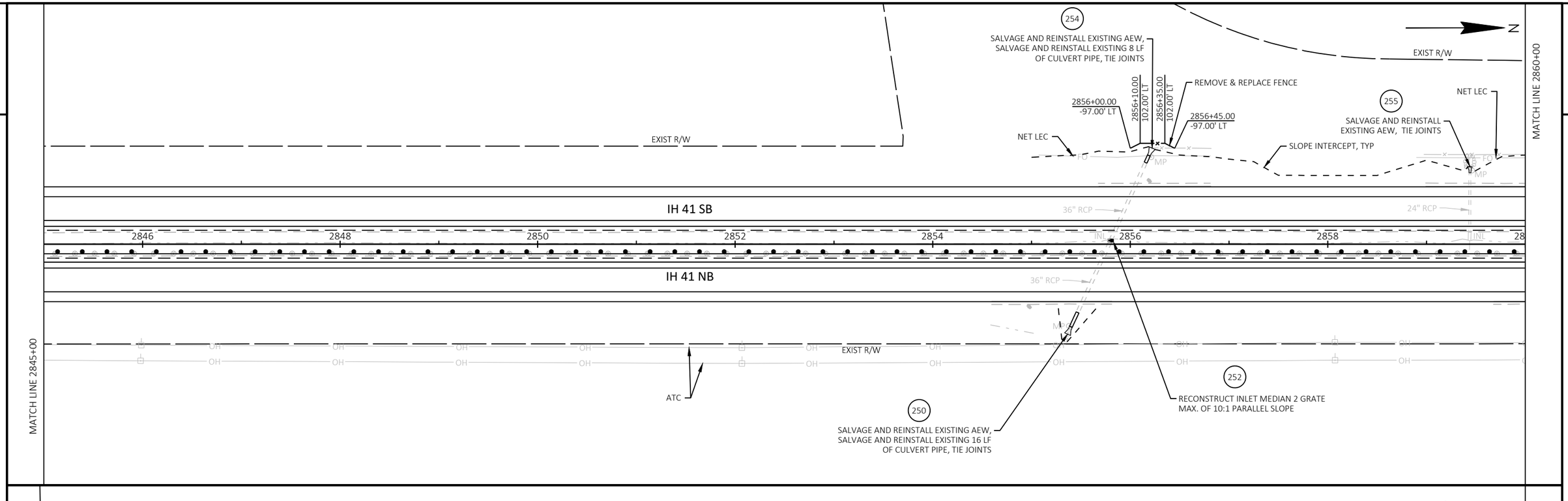
PLOT DATE : 4/5/2024 1:27 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 107	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-18
PLOT DATE : 4/5/2024 1:27 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44


N
EXIST R/W
254
SALVAGE AND REINSTALL EXISTING AEW,
SALVAGE AND REINSTALL EXISTING 8 LF
OF CULVERT PIPE, TIE JOINTS
REMOVE & REPLACE FENCE
2856+00.00
-97.00' LT
2856+10.00
102.00' LT
2856+35.00
102.00' LT
2856+45.00
-97.00' LT
255
SALVAGE AND REINSTALL
EXISTING AEW, TIE JOINTS
NET LEC
SLOPE INTERCEPT, TYP
MATCH LINE 2860+00
IH 41 SB
IH 41 NB
2846
2848
2850
2852
2854
2856
2858
36" RCP
24" RCP
JNL
MATCH LINE 2845+00
ATC
250
SALVAGE AND REINSTALL EXISTING AEW,
SALVAGE AND REINSTALL EXISTING 16 LF
OF CULVERT PIPE, TIE JOINTS
252
RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE
N
EXIST R/W
JAHN RD
36" RCP
256
RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE
NET LEC
MATCH LINE 2875+00
IH 41 SB
IH 41 NB
18" RCP
30" RCP
2860
2862
2864
2866
2868
2870
2872
2874
C-20-013
3'X5' BOX CULVERT
C-20-014
3.5'X5' BOX CULVERT
SLOPE INTERCEPT, TYP
EXIST R/W
MATCH LINE 2860+00
ATC
EXTEND BOX CULVERT
SEE DETAILS
EXTEND BOX CULVERT
SEE DETAILS

N

EXIST R/W

JAHN RD

IH 41 SB

IH 41 NB

MATCH LINE 2875+00

MATCH LINE 2890+00

2876 2878 2880 2882 2884 2886 2888

258 RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

257 RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

NET LEC

SLOPE INTERCEPT, TYP

36" RCP

18" RCP

C-20-015
3.5'X6' BOX CULVERT

END CABLE GUARD
REPLACEMENT
STA 2889+22.8

EXTEND BOX CULVERT
SEE DETAILS

BEGIN CABLE GUARD
REPLACEMENT
STA 2889+89.4

ATC

N

EXIST R/W

JAHN RD

IH 41 SB

IH 41 NB

MATCH LINE 2890+00

MATCH LINE 2905+00

2892 2894 2896 2898 2900 2902 2904

259 RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

36" CMP

36" RCP W/STEEL LINER

SLOPE INTERCEPT, TYP

261 RECONSTRUCT INLET MEDIAN 2 GRATE
MAX. OF 10:1 PARALLEL SLOPE

260 REMOVE AND RELAY EXISTING ENDWALL.
PLACE BASE AGGREGATE AND COMPACT
PRIOR TO RELAYING ENDWALL. PLACE
FILL AROUND INSTALLED ENDWALL TO
MATCH EXISTING SLOPE.

ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 109	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-20
PLOT DATE : 4/5/2024 1:27 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

N

EXIST R/W

JAHN RD

262

INSTALL AEW, TIE JOINTS

NET LEC

SIGN

FO

MP

18" RCP

INL

IH 41 SB

2906 2908 2910 2912 2914 2916 2918

IH 41 NB

OH

ATC

EXIST R/W

MATCH LINE 2905+00

MATCH LINE 2920+00

2

FOND DU LAC COUNTY

WINNEBAGO COUNTY

N

266

RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

265

RECONSTRUCT INLET MEDIAN 3 GRATE
MAX. OF 10:1 PARALLEL SLOPE

4" DRAIN TILE

6" DRAIN TILE

6" DRAIN TILE

2927+88.76
-85.53' LT

2927+98.92
-85.51' LT

2928+21.31
-91.00' LT

2928+35.00
-91.00' LT

2927+66.37
-91.00' LT

2927+00.00
-91.00' LT

PROP R/W

WPS

SLOPE INTERCEPT, TYP

NET LEC

EXIST R/W

FO

EXTEND BOX CULVERT SEE DETAILS

C-70-003
4'X4' BOX CULVERT

24" CMP

IH 41 SB

2920 2922 2924 2926 2928 2930 2932 2934

INSTALL FRENCH DRAIN AND
PIPE UNDERDRAIN (SEE DETAIL)

EXTEND BOX CULVERT SEE DETAILS

IH 41 NB

21"X15" PACSAC

2930+60.00
81.00' RT

2927+15.19
81.00' RT

PROP R/W

ATC

WPS

REMOVE & REPLACE FENCE

2928+63.46
81.00' RT

REMOVE & REPLACE FENCE

END CABLE GUARD
REPLACEMENT
STA 2933+32.0

EXIST R/W

BEGIN CABLE GUARD
REPLACEMENT
STA 2933+99.2

263

REMOVE EXISTING INLET & 8 LF OF CMP.
INSTALL INLET MEDIAN 2 GRATE, 8 LF OF CPRC

2928+86.25
84.24' RT

2929+19.19
81.00' RT

2928+96.40
84.27' RT

WETLAND LIMITS (WM)

MATCH LINE 2935+00

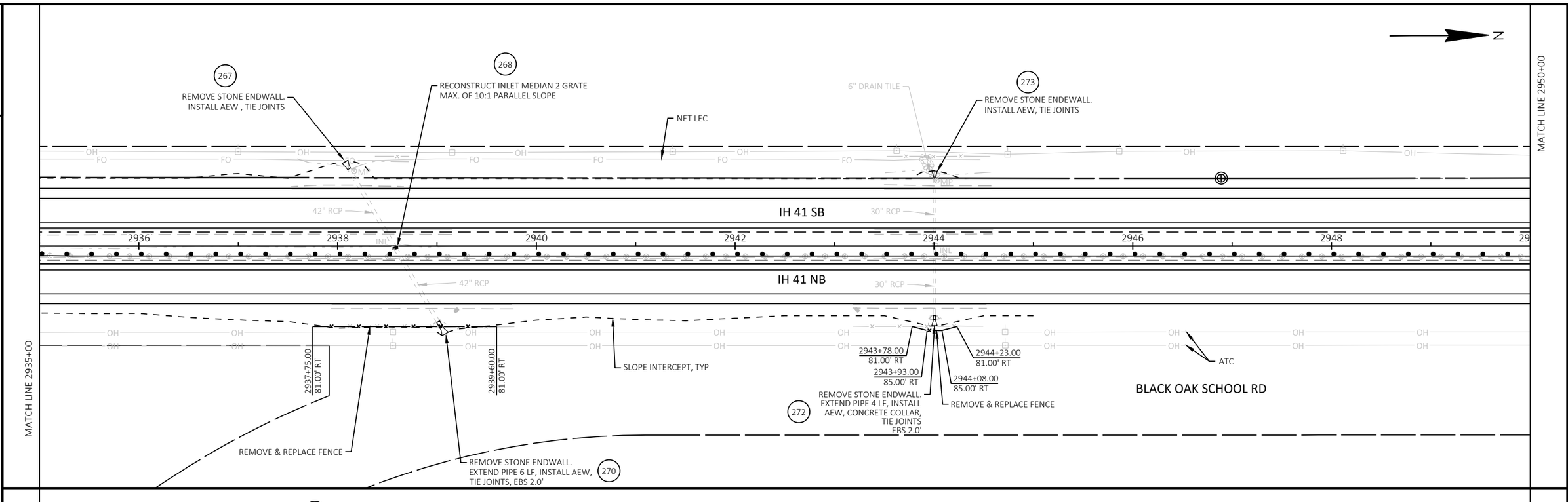
MATCH LINE 2920+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 110	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-21

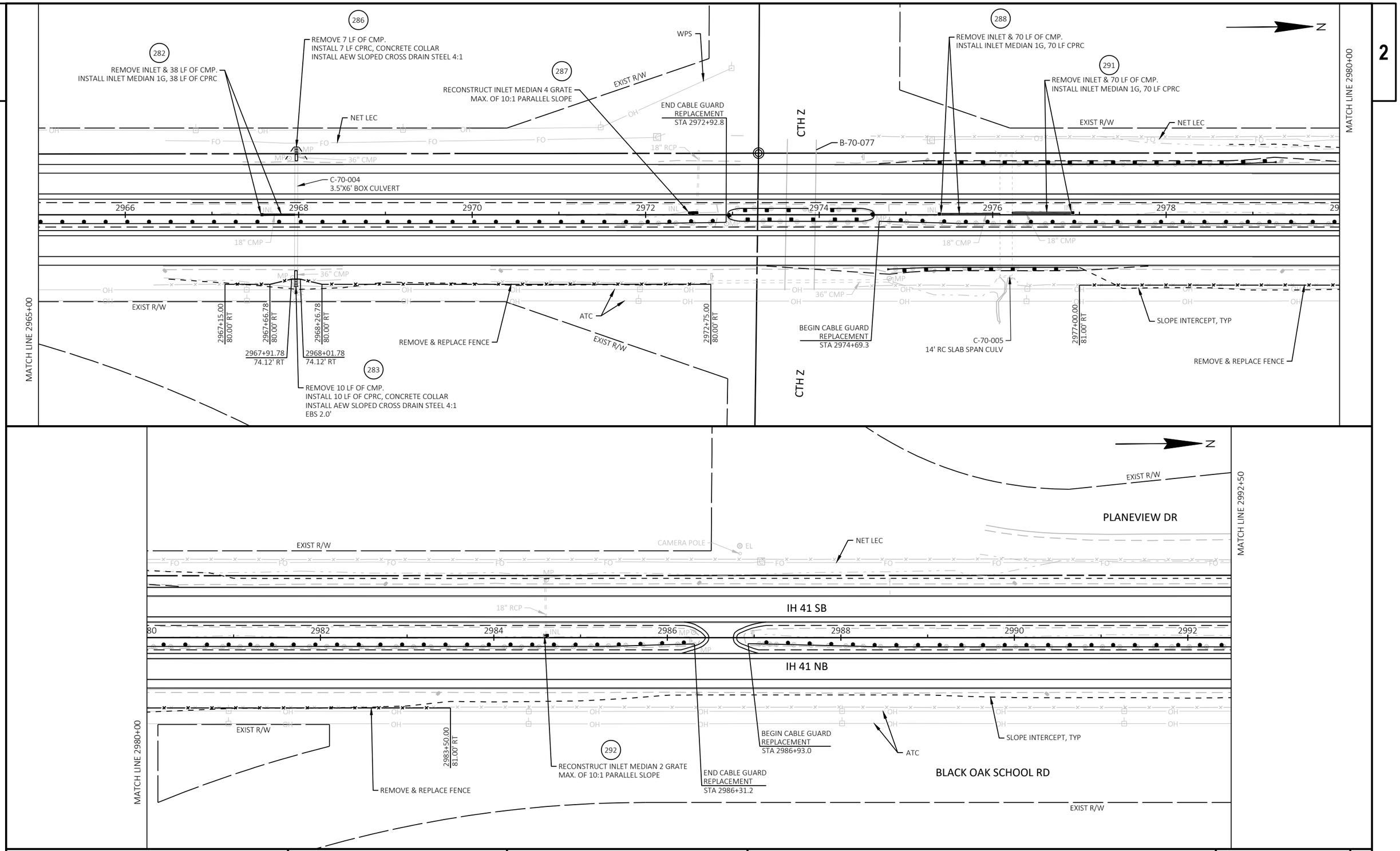
PLOT DATE : 4/5/2024 1:27 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



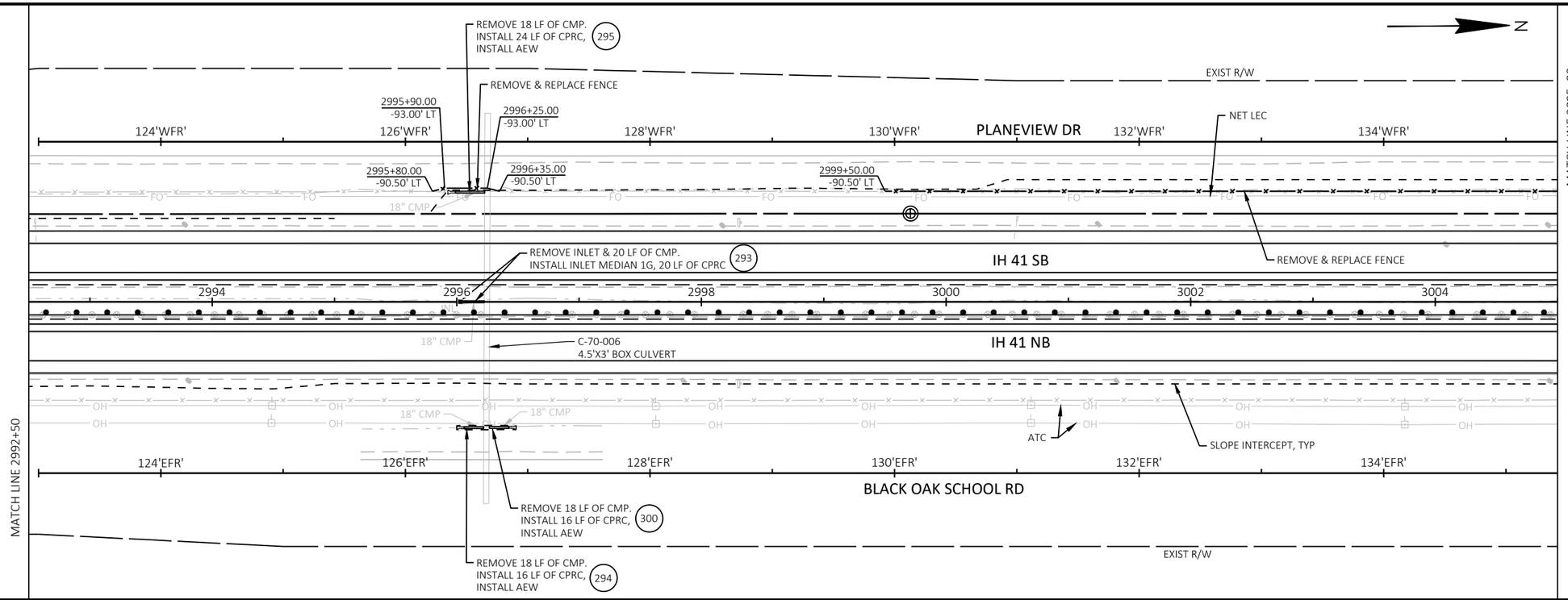
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 111	E

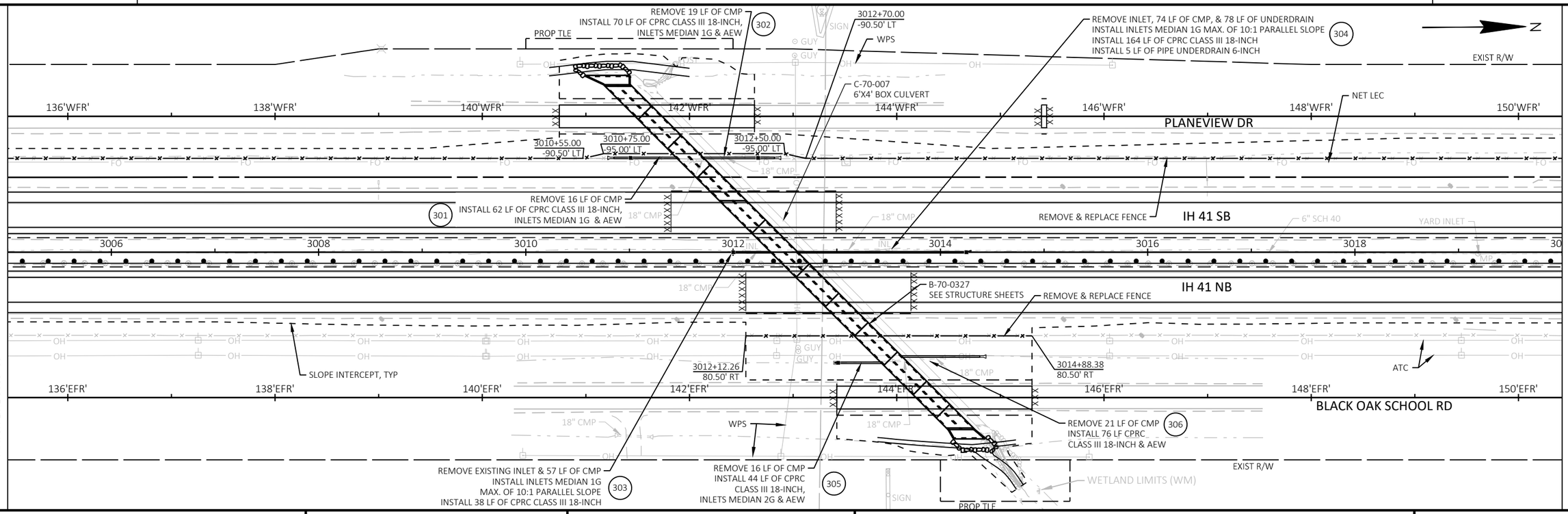
FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-22
PLOT DATE : 4/5/2024 1:27 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

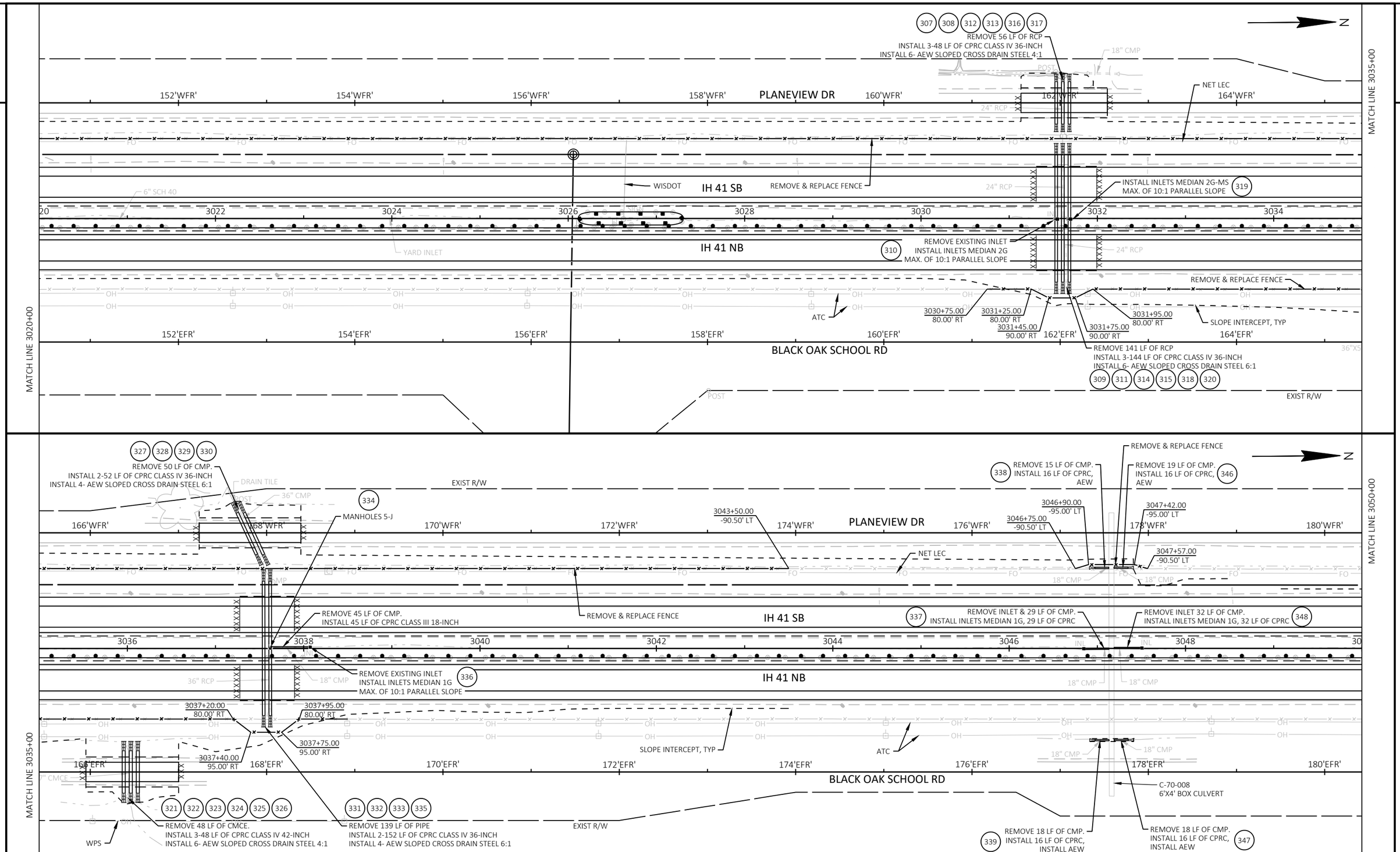


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 112	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-23
PLOT DATE : 4/5/2024 1:27 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44


N
REMOVE 18 LF OF CMP.
INSTALL 24 LF OF CPRC,
INSTALL AEW
295
EXIST R/W
REMOVE & REPLACE FENCE
2995+90.00
-93.00' LT
2996+25.00
-93.00' LT
124'WFR'
126'WFR'
128'WFR'
130'WFR'
PLANEVIEW DR
132'WFR'
134'WFR'
NET LEC
2995+80.00
-90.50' LT
2996+35.00
-90.50' LT
2999+50.00
-90.50' LT
18" CMP
REMOVE INLET & 20 LF OF CMP.
INSTALL INLET MEDIAN 1G, 20 LF OF CPRC
293
IH 41 SB
REMOVE & REPLACE FENCE
2994
2996
2998
3000
3002
3004
IH 41 NB
C-70-006
4.5'X3' BOX CULVERT
ATC
SLOPE INTERCEPT, TYP
124'EFR'
126'EFR'
128'EFR'
130'EFR'
132'EFR'
134'EFR'
BLACK OAK SCHOOL RD
REMOVE 18 LF OF CMP.
INSTALL 16 LF OF CPRC,
INSTALL AEW
300
EXIST R/W
REMOVE 18 LF OF CMP.
INSTALL 16 LF OF CPRC,
INSTALL AEW
294
MATCH LINE 2992+50
MATCH LINE 3005+00


N
REMOVE 19 LF OF CMP
INSTALL 70 LF OF CPRC CLASS III 18-INCH,
INLETS MEDIAN 1G & AEW
302
PROP TLE
3012+70.00
-90.50' LT
WPS
REMOVE INLET, 74 LF OF CMP, & 78 LF OF UNDERDRAIN
INSTALL INLETS MEDIAN 1G MAX. OF 10:1 PARALLEL SLOPE
INSTALL 164 LF OF CPRC CLASS III 18-INCH
INSTALL 5 LF OF PIPE UNDERDRAIN 6-INCH
304
EXIST R/W
C-70-007
6'X4' BOX CULVERT
NET LEC
136'WFR'
138'WFR'
140'WFR'
142'WFR'
144'WFR'
146'WFR'
148'WFR'
150'WFR'
PLANEVIEW DR
3010+55.00
-90.50' LT
3010+75.00
-95.00' LT
3012+50.00
-95.00' LT
18" CMP
REMOVE 16 LF OF CMP
INSTALL 62 LF OF CPRC CLASS III 18-INCH,
INLETS MEDIAN 1G & AEW
301
REMOVE & REPLACE FENCE
IH 41 SB
6" SCH 40
YARD INLET
3006
3008
3010
3012
3014
3016
3018
IH 41 NB
B-70-0327
SEE STRUCTURE SHEETS
REMOVE & REPLACE FENCE
3012+12.26
80.50' RT
3014+88.38
80.50' RT
ATC
SLOPE INTERCEPT, TYP
136'EFR'
138'EFR'
140'EFR'
142'EFR'
144'EFR'
146'EFR'
148'EFR'
150'EFR'
BLACK OAK SCHOOL RD
WPS
REMOVE 21 LF OF CMP
INSTALL 76 LF CPRC
CLASS III 18-INCH & AEW
306
REMOVE EXISTING INLET & 57 LF OF CMP
INSTALL INLETS MEDIAN 1G
MAX. OF 10:1 PARALLEL SLOPE
INSTALL 38 LF OF CPRC CLASS III 18-INCH
303
REMOVE 16 LF OF CMP
INSTALL 44 LF OF CPRC
CLASS III 18-INCH,
INLETS MEDIAN 2G & AEW
305
WETLAND LIMITS (WM)
EXIST R/W
PROP TLE
MATCH LINE 3005+00
MATCH LINE 3020+00



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 114	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-25
PLOT DATE : 4/5/2024 1:27 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

182'WFR'

LANDMARK REFERENCE MONUMENTS TO REMAIN
PERFORM WORK ADJACENT TO THE MONUMENTS
WITHOUT DAMAGING THE MONUMENT

PLANEVIEW DR

NET LEC

WPS

IH 41 SB

30" RCP

18" CMP

3050 3052 3054 3056 3058 3060 3062 3064

IH 41 NB

30" RCP

MATCH LINE 3050+00

182'EFR'

ATC

353

SLOPE INTERCEPT, TYP

RECONSTRUCT INLET MEDIAN 1 GRATE
MAX. OF 10:1 PARALLEL SLOPE

BLACK OAK SCHOOL RD

MATCH LINE 3065+00

2

N

EXIST R/W

349

EXTEND PIPE 6 LF,
INSTALL AEW, TIE JOINTS
EBS 1.0'

PLANEVIEW DR

NET LEC

24" RCP

IH 41 SB

3066 3068 3070 3072 3074 3076 3078 3080

24" RCP

IH 41 NB

MATCH LINE 3065+00

352

EXTEND PIPE 6 LF,
INSTALL AEW, TIE JOINTS

SLOPE INTERCEPT, TYP

ATC

END CABLE GUARD
REPLACEMENT
STA 3074+97.4

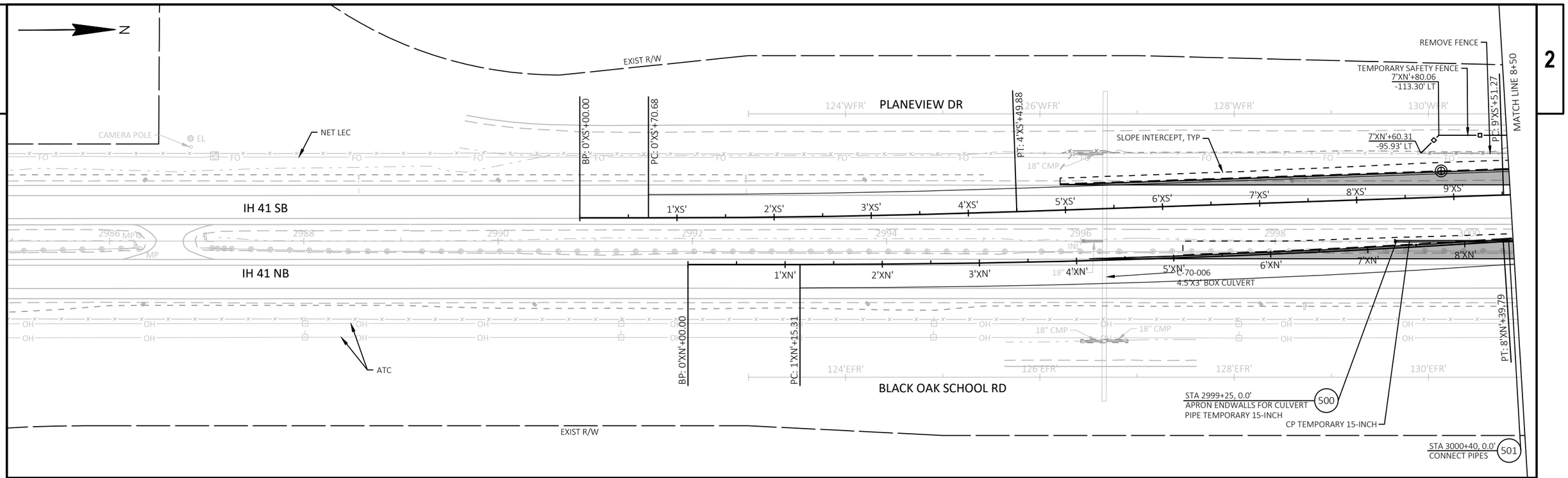
BLACK OAK SCHOOL RD

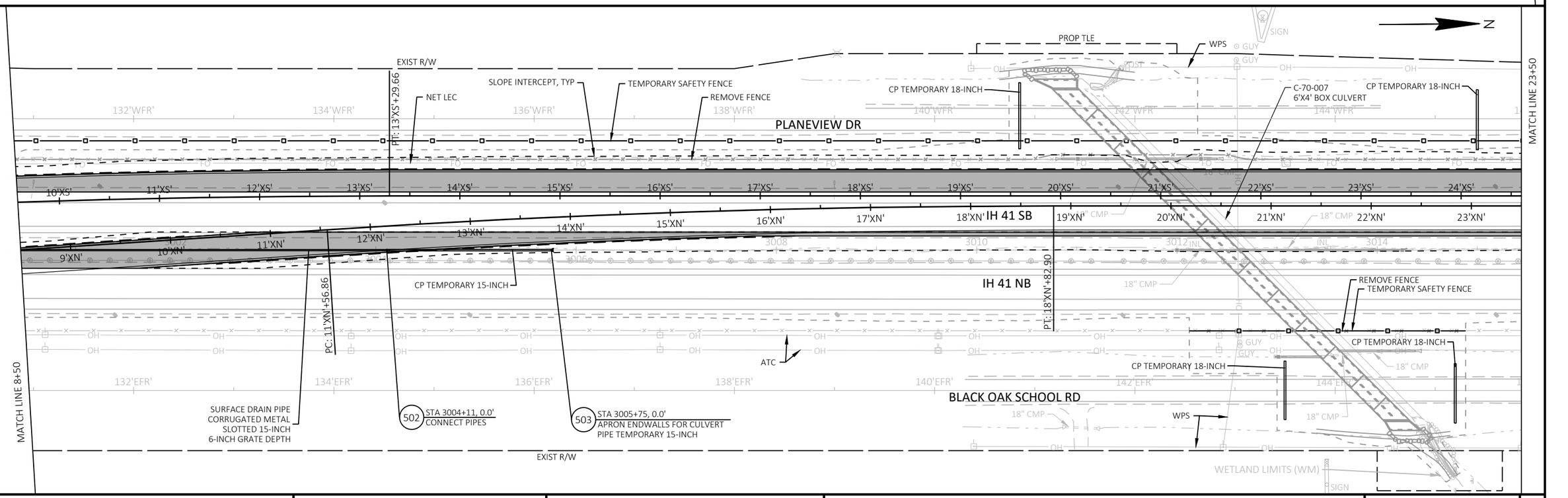
EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - IH 41	SHEET 115	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021201-PD.DWG
LAYOUT NAME - Sheet-26

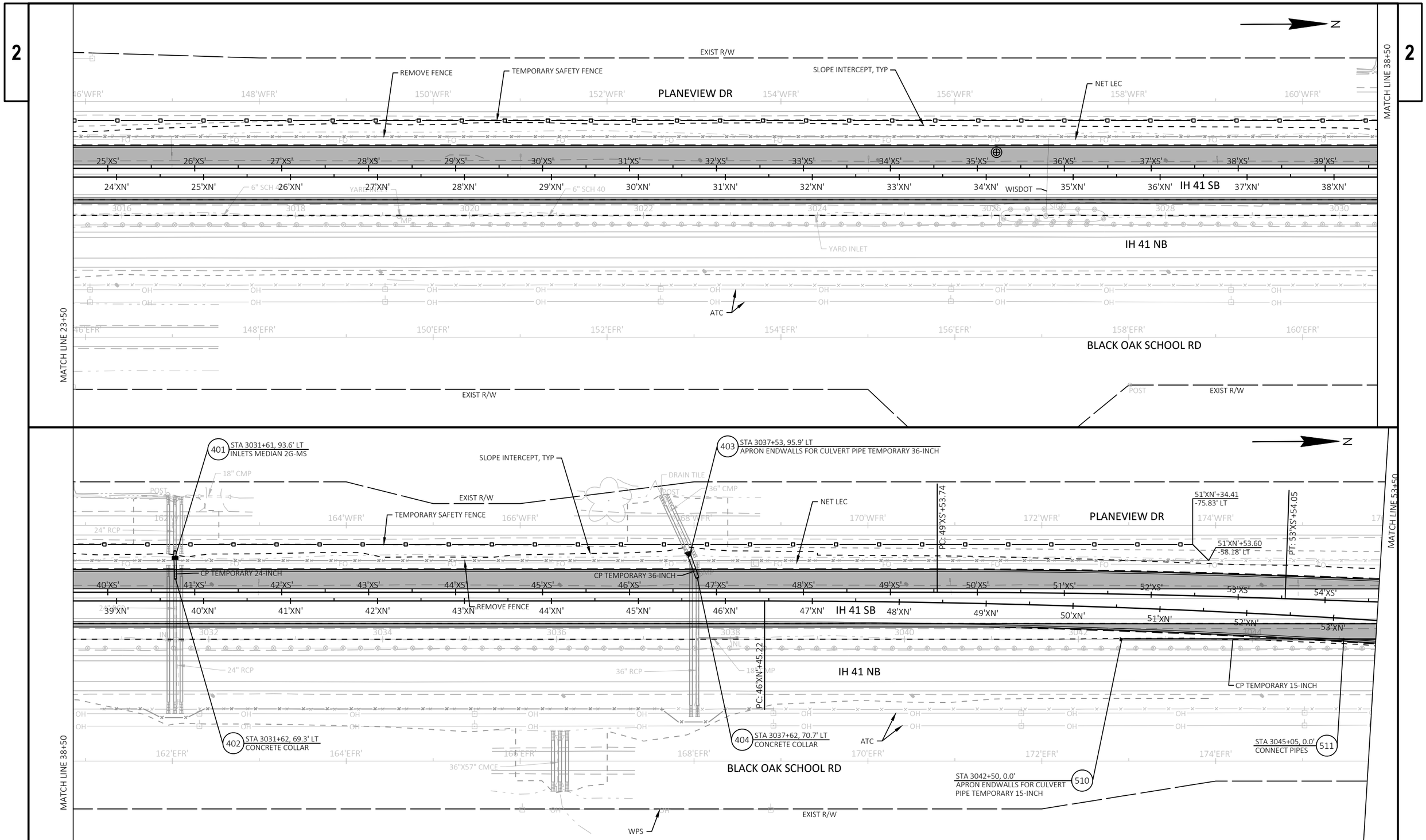
PLOT DATE : 4/5/2024 1:27 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ############





PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - TEMPORARY WIDENING & CROSSOVER	SHEET 116	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021211-PD.DWG
LAYOUT NAME - Sheet-01
PLOT DATE : 6/18/2024 2:36 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

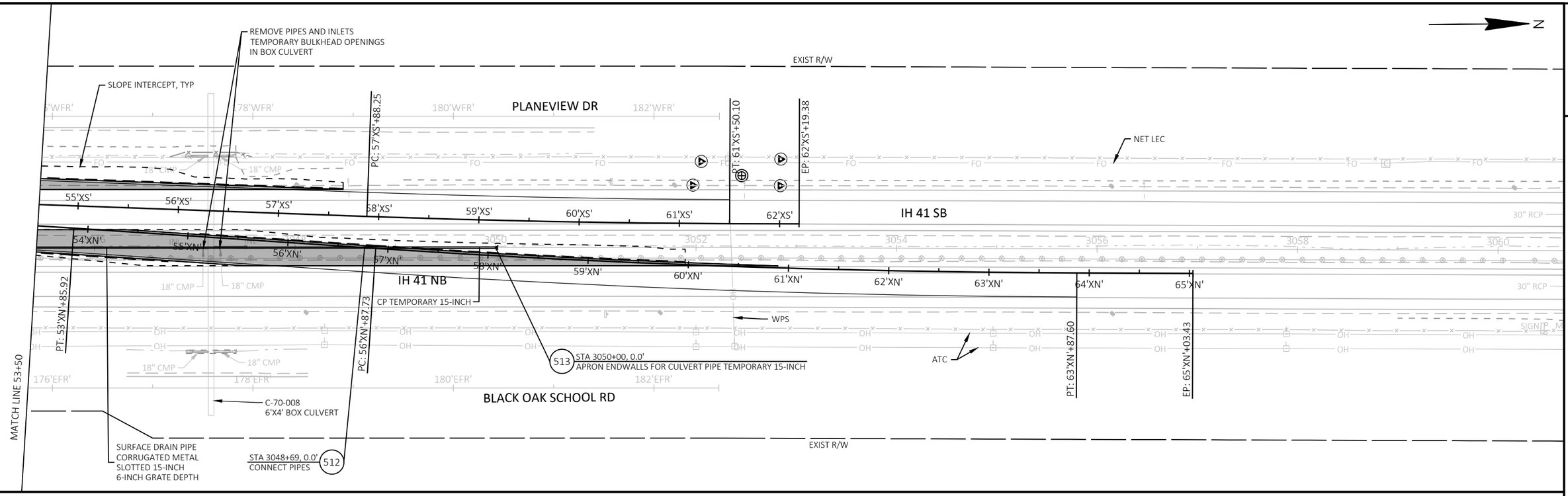


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - TEMPORARY WIDENING & CROSSOVER	SHEET 117	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021211-PD.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 6/17/2024 11:17 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN DETAILS - TEMPORARY WIDENING & CROSSOVER	SHEET 118	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-021211-PD.DWG
LAYOUT NAME - Sheet-03
PLOT DATE : 6/17/2024 11:17 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

CTH VVV/ROLLING MEADOWS DR

EXIST R/W

MATCH LINE 2335+00

NET LEC

IH 41 SB

IH 41 NB

2320 2322 2324 2326 2328 2330 2332 2334

18" RCP 15" RCP 24" RCP

SLOPE INTERCEPT, TYP

CTH VV/PIONEER RD

EXIST R/W

SULLIVAN DR

ENVIRONMENTALLY SENSITIVE AREA
47FD122
(RIVERSIDE IV)

EXIST R/W

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

W. BR. FOND DU LAC RIVER

CTH VVV/ROLLING MEADOWS DR

EXIST R/W

MATCH LINE 2350+00

NET LEC

B-20-026

B-20-007

IH 41 SB

IH 41 NB

2338 2340 2342 2344 2346 2348

15" RCP 18" RCP 24" RCP

CTH VV/PIONEER RD

SLOPE INTERCEPT, TYP

ALLIANT

MATCH LINE 2335+00

W. BR. FOND DU LAC RIVER

EXIST R/W

ENVIRONMENTALLY SENSITIVE AREA
47FD98
(RIVERSIDE III)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 119	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-01

PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

EXIST R/W

CTH VVV/ROLLING MEADOWS DR

NET LEC

IH 41 SB

IH 41 NB

CTH VV/PIONEER RD

MATCH LINE 2350+00

MATCH LINE 2365+00

2352 2354 2356 2358 2360 2362 2364

24" RCP

SIGN

SLOPE INTERCEPT, TYP

ANR

EXIST R/W

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

EXIST R/W

FOREST AVE

EXIST R/W

MATCH LINE 2380+00

CTH VVV/ROLLING MEADOWS DR

NET LEC

SLOPE INTERCEPT, TYP

IH 41 SB

IH 41 NB

CTH VV/PIONEER RD

2366 2368 2370 2374 2378

18" RCP

24" RCP

ALLIANT

MATCH LINE 2365+00

EXIST R/W

EXIST R/W

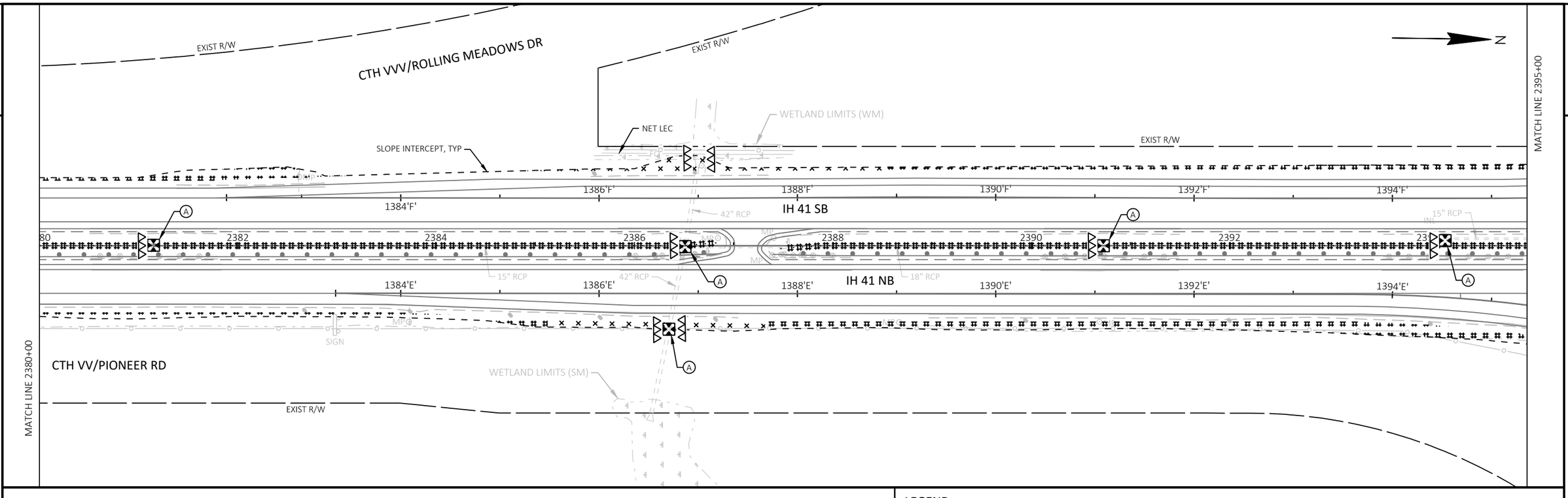
FOREST AVE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 120	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 121	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-03A
PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

N

MATCH LINE 2410+00

2

STH 23 EB

JOHNSON ST

STH 23 WB

SOLAR PANEL POST

RAMP GATE

1404'F'

1404'G'

EXIST R/W

RAMP 'F'

1402'F'

1400'F'

1398'F'

1396'F'

CITY OF FOND DU LAC

98

NET LEC

1406'G'

RAMP 'G'

1408'G'

1410'G'

SLOPE INTERCEPT, TYP

IH 41 SB

IH 41 NB

15" RCP

18" RCP

TWIN 36" RCP

24" RCP

2396

2398

2400

2402

2404

2406

2408

1396'E'

1398'E'

RAMP 'E'

1400'E'

1402'E'

SIGN BRIDGE

CAMERA POLE

GUY

COMMUNICATIONS POLE

WISDOT

ALLIANT

B-20-177

B-20-178

102

104

1406'H'

RAMP 'H'

1408'H'

1410'H'

RAMP GATE

SOLAR PANEL POST

USH 45/STH 23 EB

USH 45/ STH 23 WB

MATCH LINE 2395+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 122	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-03B

PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

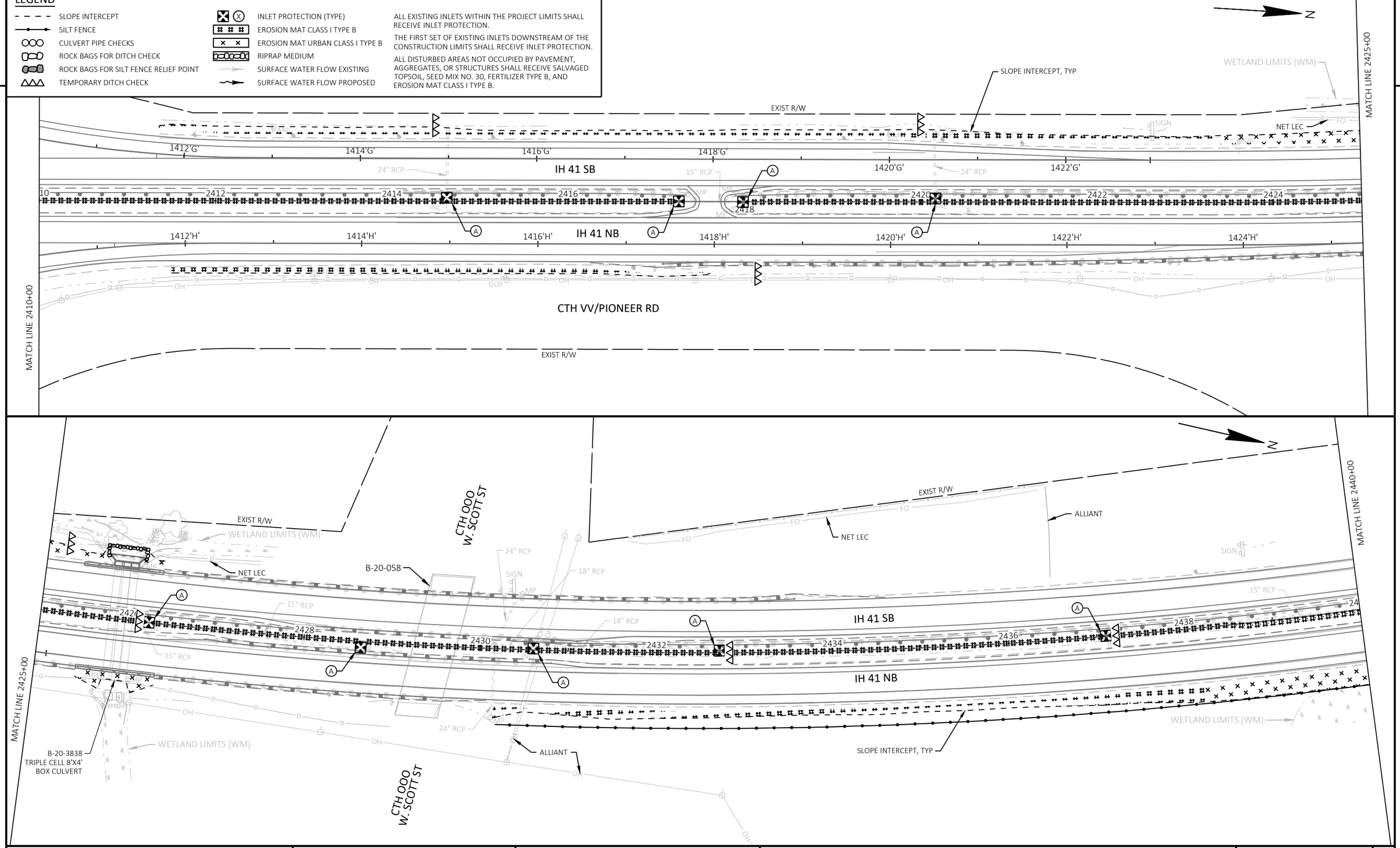
LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 123	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-04

PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

NET LEC

EXIST R/W

SLOPE INTERCEPT, TYP

MATCH LINE 2455+00

SIGN

IH 41 SB

IH 41 NB

2440

2442

2444

2446

2448

2450

2452

2454

15" RCP

15" RCP

24" RCP

18" RCP

MATCH LINE 2440+00

C-20-002
4'X5' BOX CULVERT

WETLAND LIMITS (WM)

ALLIANT

GVT

EXIST R/W

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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ATC

ALLIANT

MATCH LINE 2470+00

SIGN

24" RCP

IH 41 SB

IH 41 NB

2456

2458

2460

2462

2464

2466

2468

15" RCP

MATCH LINE 2455+00

ALLIANT

EXIST R/W

SLOPE INTERCEPT, TYP

ATC

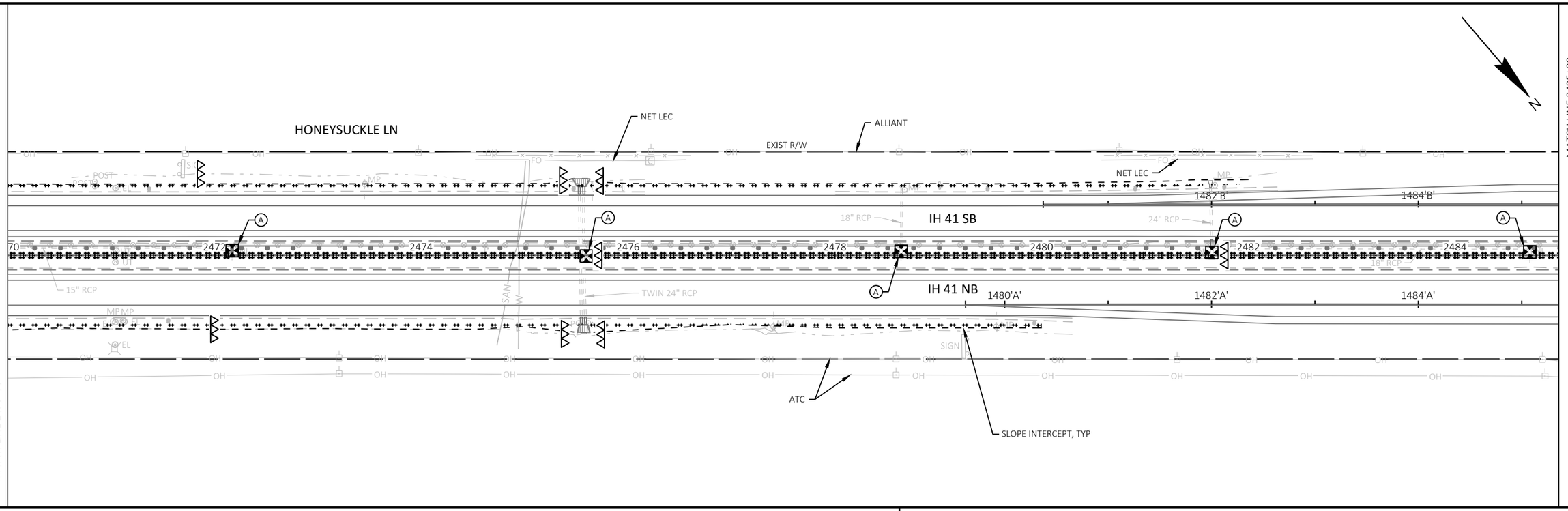
ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 124	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-05

PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 125	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-06A
PLOT DATE : 4/5/2024 1:29 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
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- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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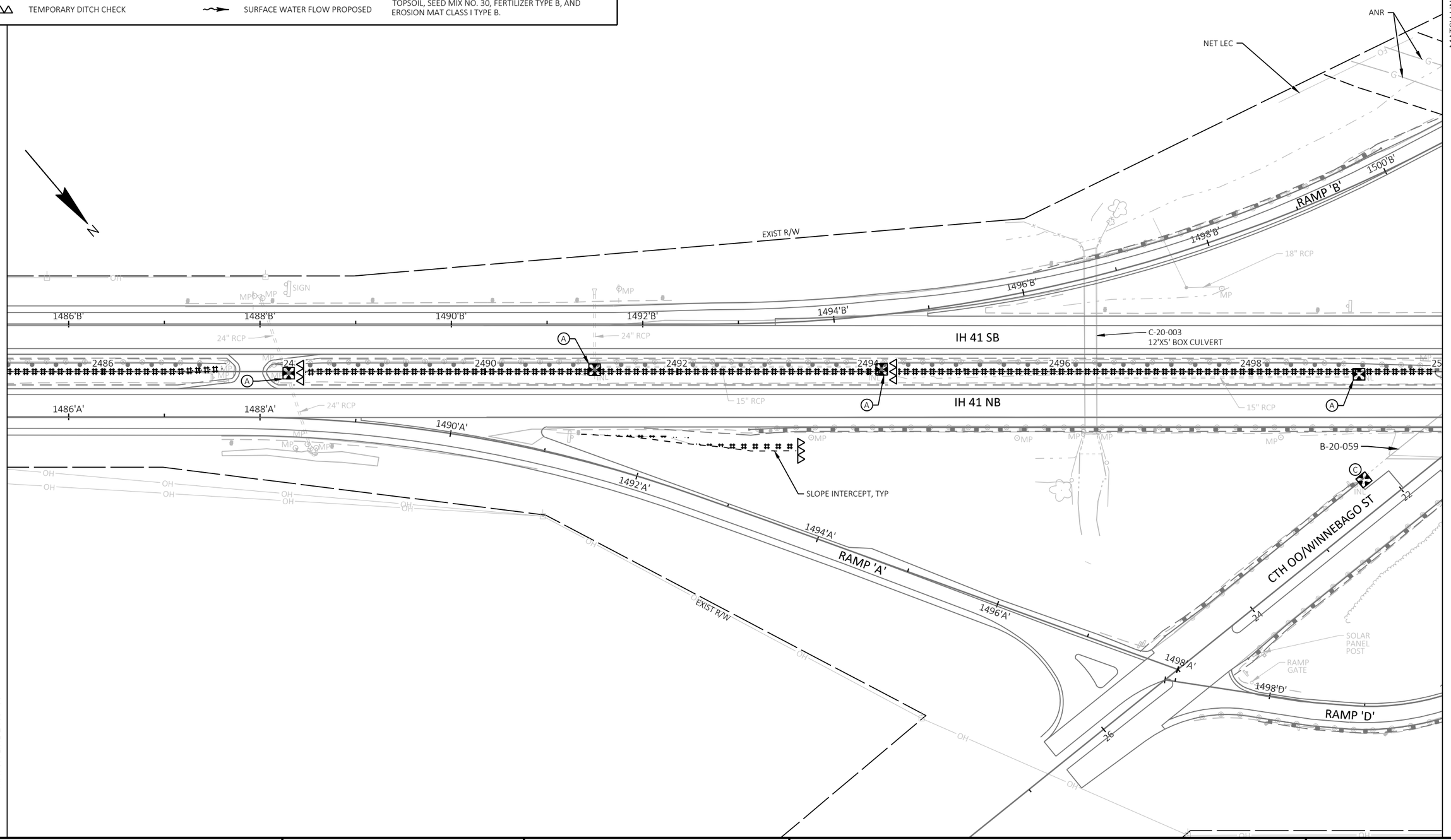

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 126	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-06B

PLOT DATE : 4/5/2024 1:29 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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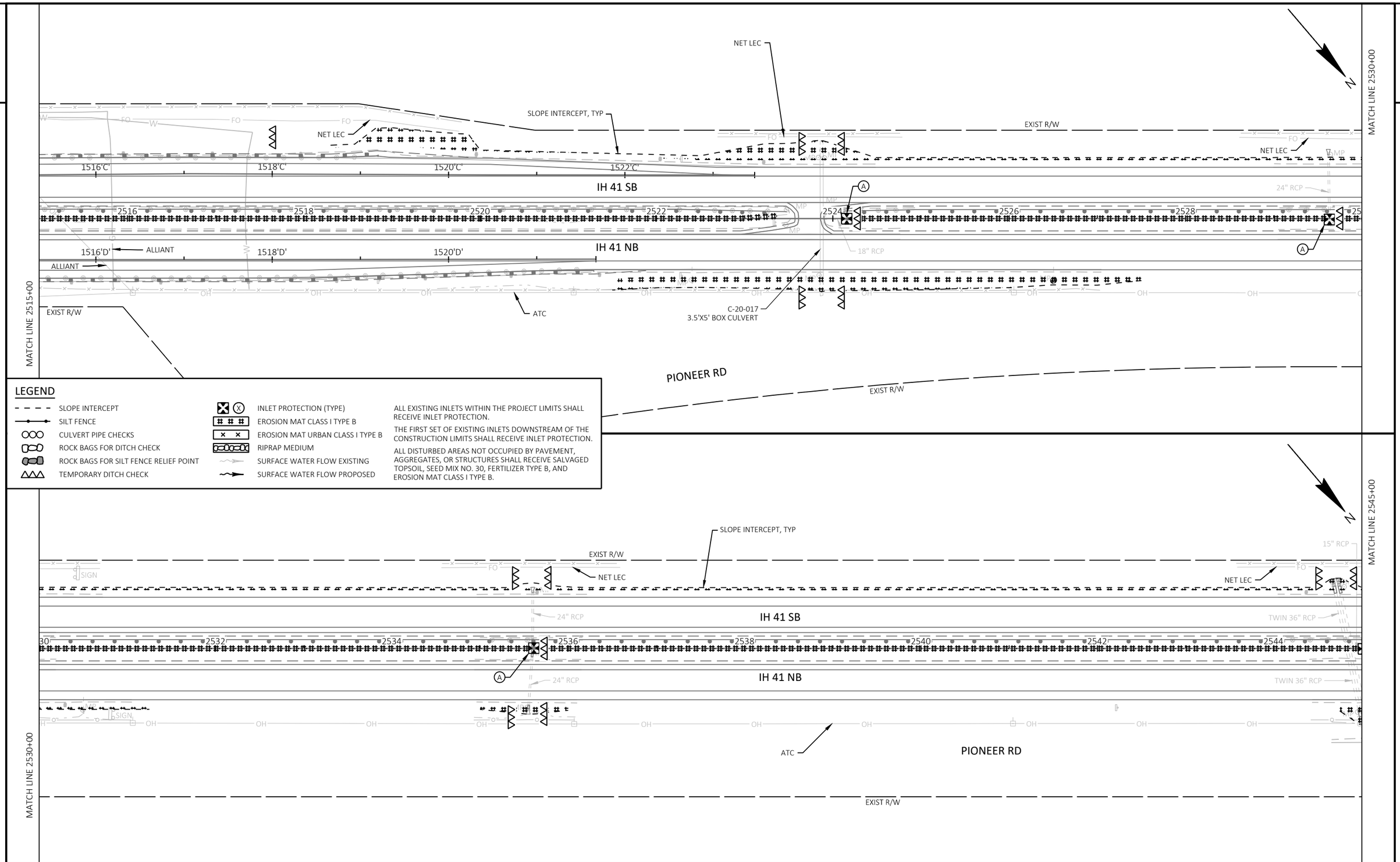
EXIST R/W
RAMP 'B' 1504'B'
1502'B'
RAMP GATE
SOLAR PANEL POST
CTH OO/WINNEBAGO ST
14
16
18
NET LEC
1506'C'
1508'C'
RAMP 'C'
1510'C'
1512'C'
1514'C'
WISDOT
CAMERA POLE
SLOPE INTERCEPT, TYP
ALLIANT
WETLAND LIMITS (M)
MATCH LINE 2515+00
TWIN 19"X30" RCHE
IH 41 SB
2502
2504
2506
2508
2510
2512
2514
IH 41 NB
1510'D'
1512'D'
1514'D'
18" RCP
B-20-059
1508'D'
1506'D'
1504'D'
ANR
C-20-004
10'X5' BOX CULVERT
1502'D'
RAMP 'D'
1500'D'
ATC
MATCH LINE 2500+00
PIONEER RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 127	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-07

PLOT DATE : 4/5/2024 1:30 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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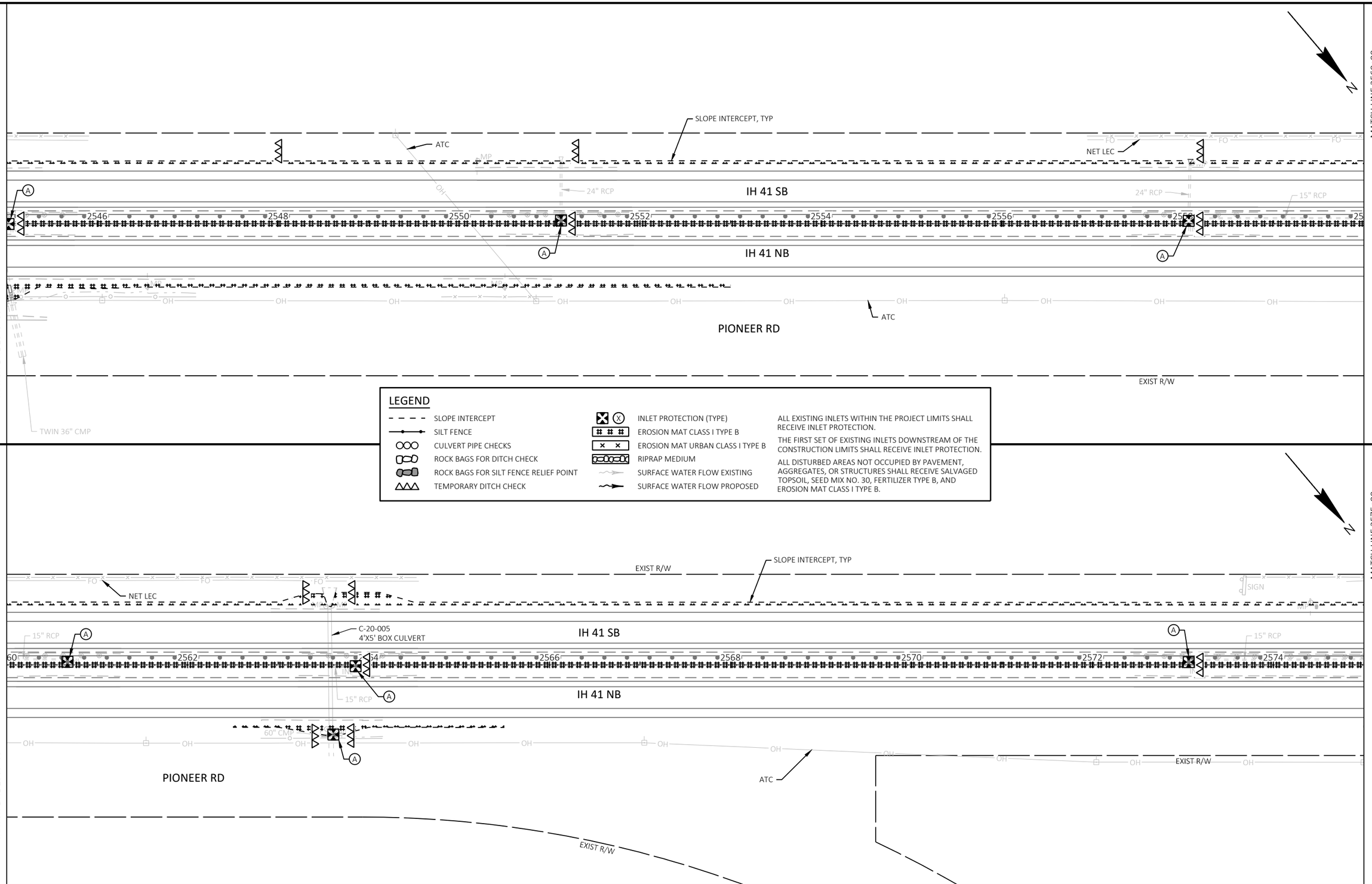
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 128	E

2



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 129	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-09
PLOT DATE : 4/5/2024 1:30 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 2575+00

SLOPE INTERCEPT, TYP

EXIST R/W

NET LEC

TOWN LINE RD

EXIST R/W

N

B-20-060

MATCH LINE 2590+00

IH 41 SB

24" RCP

15" RCP

2576 2578 2580 2582 2584 2586 2588

18" RCP

15" RCP

IH 41 NB

24" RCP

SEPERATED SS JOINT

ALLIANT

EXIST R/W

ATC

WETLAND LIMITS (WM)

C-20-006
TWIN 8'X4' BOX CULVERT

TOWN LINE RD

EXIST R/W

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
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MATCH LINE 2590+00

SLOPE INTERCEPT, TYP

EXIST R/W

NET LEC

N

MATCH LINE 2605+00

IH 41 SB

2590 2592 2594 2596 2598 2600 2602 2604

IH 41 NB

EXIST R/W

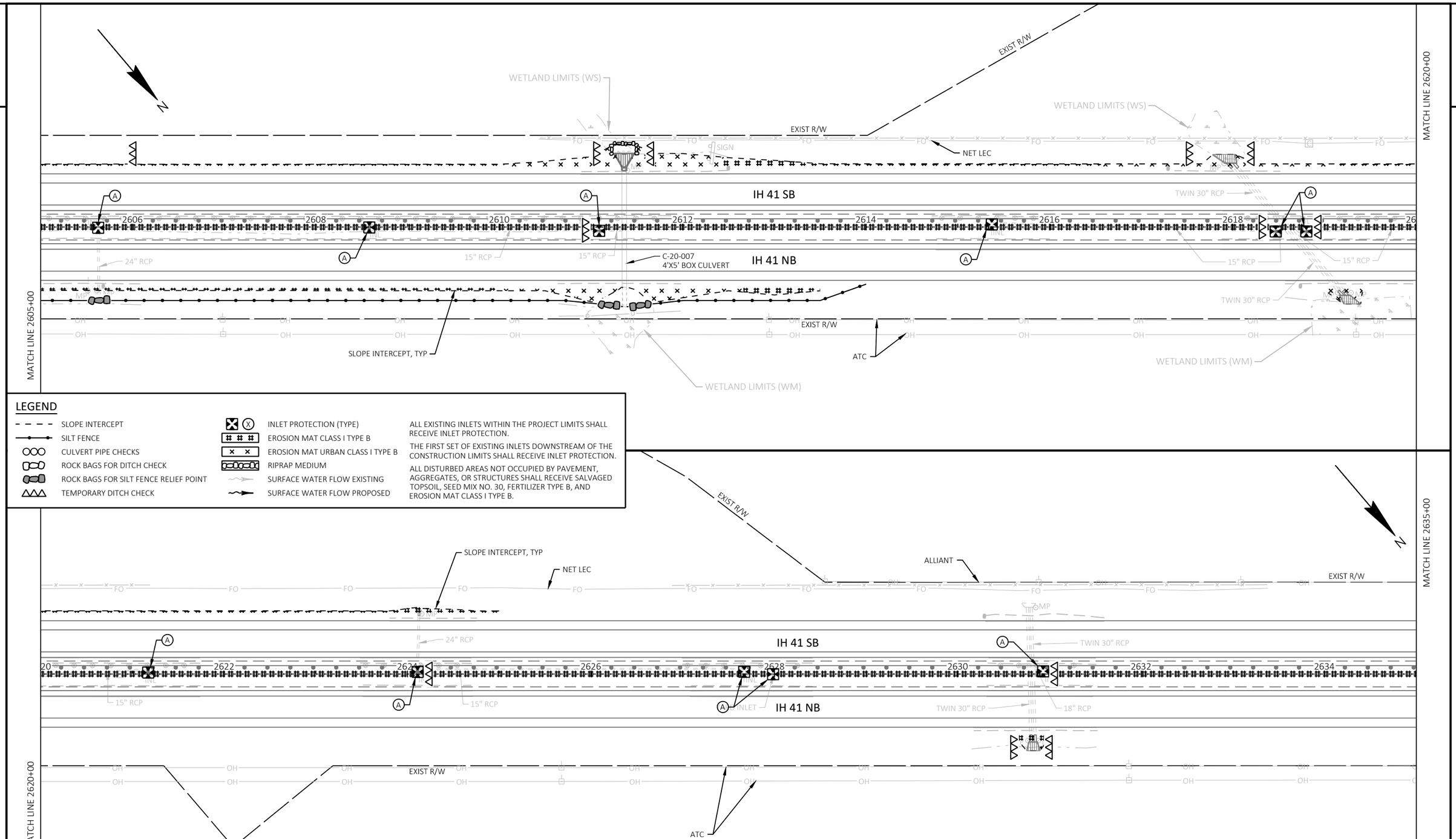
ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 130	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-10

PLOT DATE : 4/5/2024 1:30 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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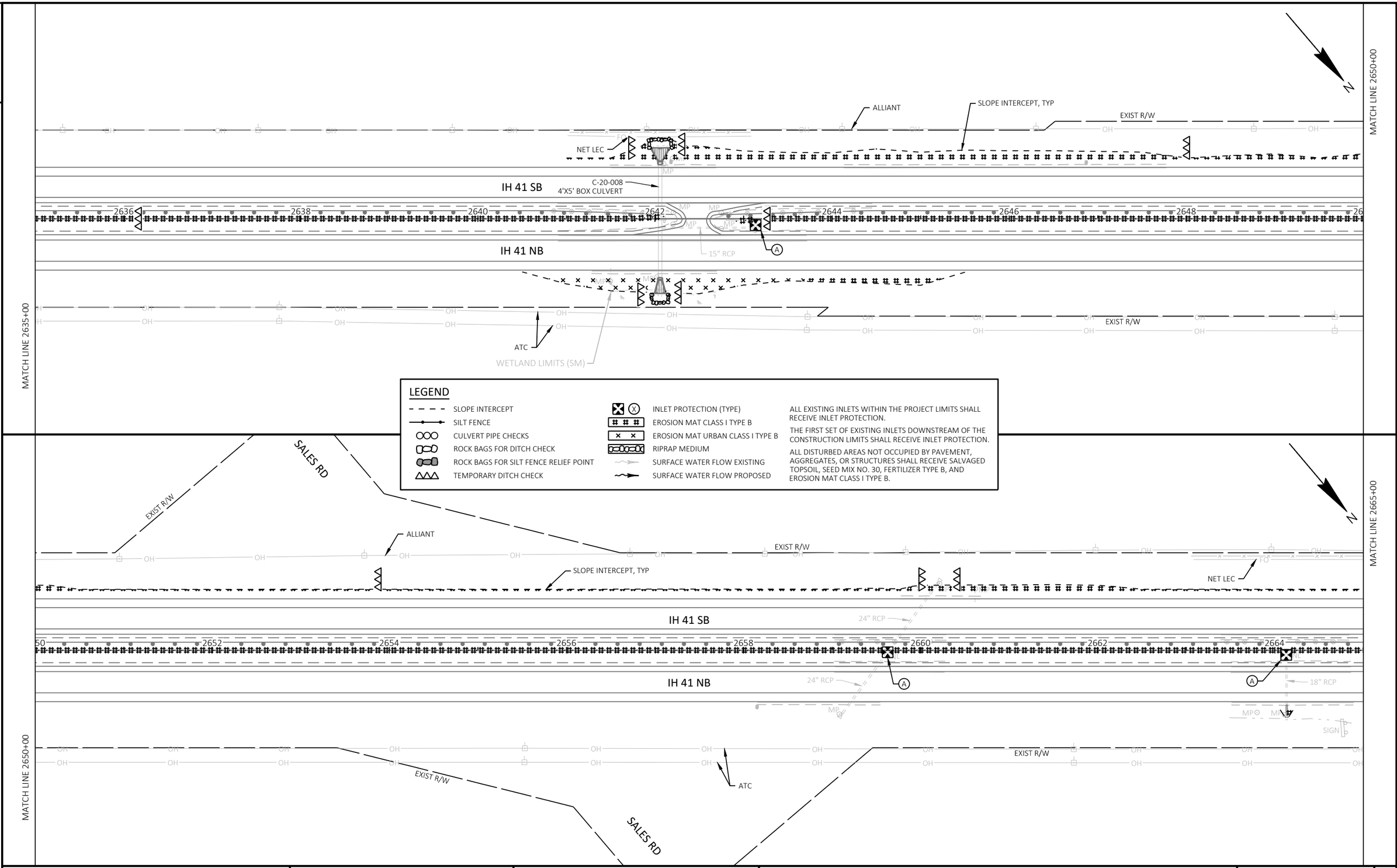
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 131	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-11
PLOT DATE : 4/5/2024 1:30 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
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- EROSION MAT URBAN CLASS I TYPE B
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- SURFACE WATER FLOW PROPOSED

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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 132	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-12
PLOT DATE : 4/5/2024 1:30 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 2665+00

EXIST R/W

NET LEC

ALLIANT

WETLAND LIMITS (WM)

SLOPE INTERCEPT, TYP

MATCH LINE 2680+00

2

18" RCP

IH 41 SB

C-20-009
6'X4' BOX CULVERT

2666 2668 2670 2672 2674 2676 2678

24" RCP

24" RCP

18" RCP

IH 41 NB

WETLAND LIMITS (WM)

EXIST R/W

ATC

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
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MATCH LINE 2680+00

ALLIANT

EXIST R/W

NET LEC

SLOPE INTERCEPT, TYP

MATCH LINE 2695+00

TWIN 36" RCP

36" RCP

IH 41 SB

2680 2682 2684 2686 2688 2690 2692 2694

TWIN 36" RCP

36" CMP

24" RCP

IH 41 NB

EXIST R/W

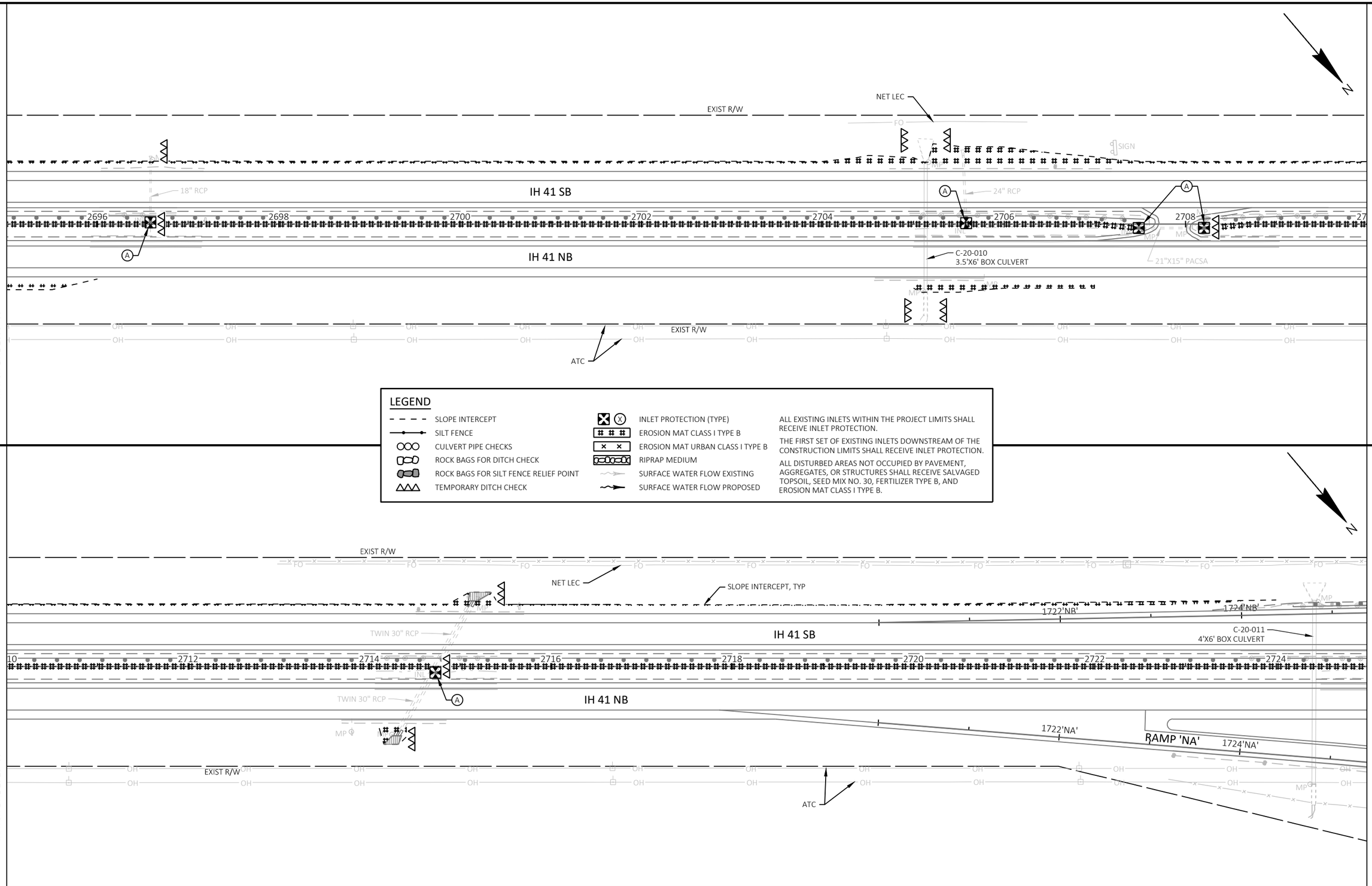
ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 133	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-13

PLOT DATE : 4/5/2024 1:30 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
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- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 134	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-14
PLOT DATE : 4/5/2024 1:30 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2

MATCH LINE 2725+00

MATCH LINE 2740+00

MATCH LINE 2740+00

MATCH LINE 2755+00

EXIST R/W

FO

MP

1726'NB'

1728'NB'

1730'NB'

1732'NB'

1734'NB'

1736'NB'

1738'NB'

RAMP 'NB'

1740'NB'

36" RCP

24" RCP

IH 41 SB

IH 41 NB

2726

2728

2730

2732

2734

2736

2738

C-20-016
3.5'X5' BOX CULVERT

SLOPE INTERCEPT, TYP

ATC

1726'NA'

1728'NA'

RAMP 'NA'

1730'NA'

EXIST R/W

1744'NB'

1742'NB'

RAMP 'NB'

RAMP 'ND'

1740'ND'

RAMP 'NC'

N

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

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1744'NB'

1742'NB'

RAMP 'NB'

IH 41 SB

IH 41 NB

2740

2742

2744

2746

2748

2750

2752

2754

B-20-118

B-20-117

48'N-EB'

50'N-EB'

52'N-EB'

CTH N

WISDOT

24" RCP

C-20-012
3.5'X6' BOX CULVERT

1742'ND'

RAMP 'ND'

1744'ND'

1746'ND'

1748'ND'

1750'ND'

1752'ND'

1754'ND'

36" RCP

ATC

ENVIRONMENTALLY SENSITIVE AREA
BFD-0049
(GERMAN CHURCH CEMETERY)

EXIST R/W

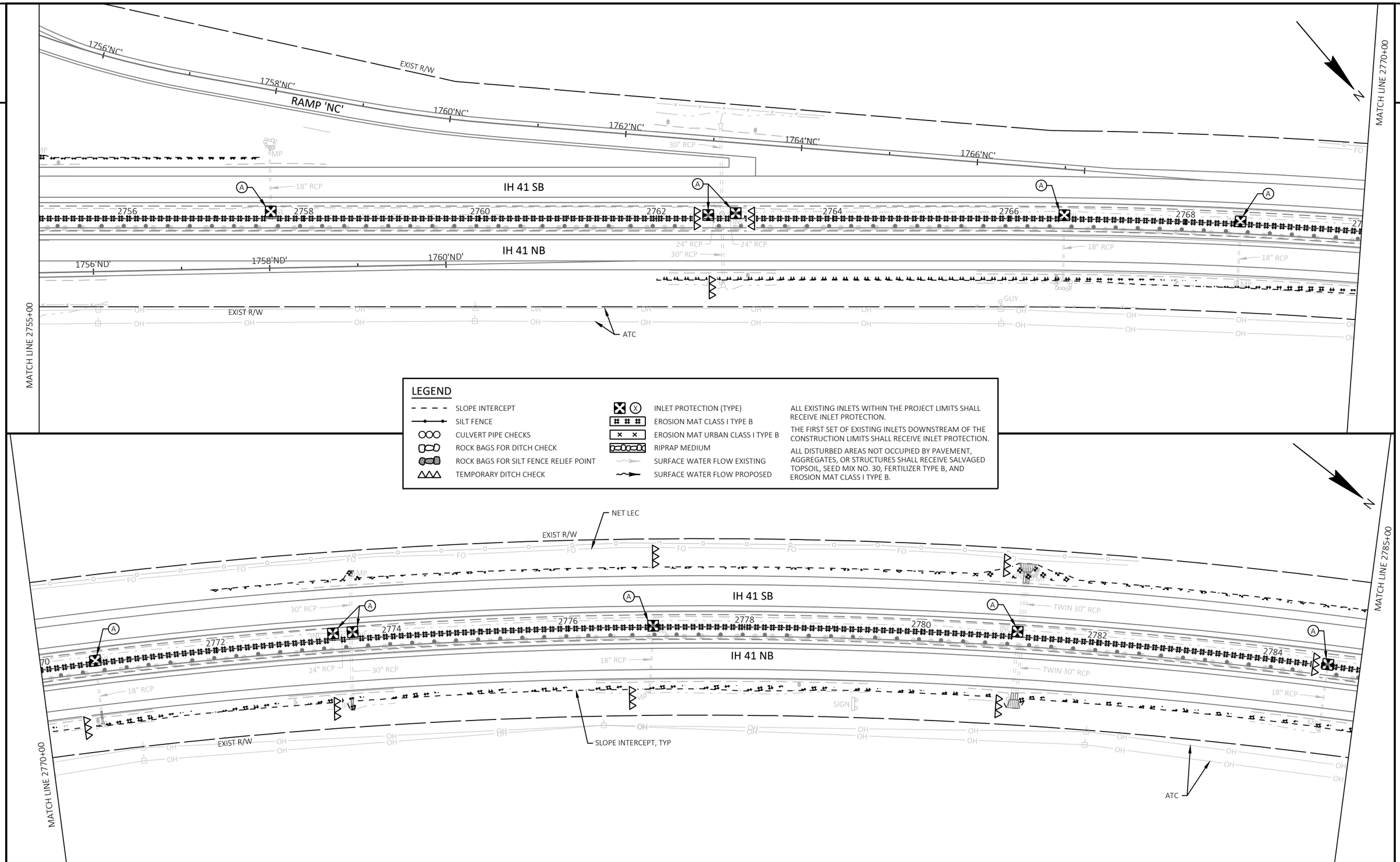
ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 135	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-15

PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 136	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-16

PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 2785+00

MATCH LINE 2800+00

SLOPE INTERCEPT, TYP

EXIST R/W

IH 41 SB

IH 41 NB

2786 2788 2790 2792 2794 2796 2798

21"X15" PACSA

TRIPLE 36" RCP

TWIN 30" RCP

18" RCP

NET LEC

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

N

MATCH LINE 2800+00

MATCH LINE 2815+00

NET LEC

IH 41 SB

IH 41 NB

2802 2804 2806 2808 2810 2812 2814

EXIST R/W

SLOPE INTERCEPT, TYP

ALLIANT

ATC

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 137	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-17

PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

N

MATCH LINE 2830+00

SLOPE INTERCEPT, TYP

EXIST R/W

SIGN

FO

NET LEC

IH 41 SB

30" RCP

2816 2818 2820 2822 2826 2828

MP

IH 41 NB

A

30" RCP

EXIST R/W

OH

ATC

MATCH LINE 2815+00

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

N

LINCOLN RD

MATCH LINE 2845+00

SLOPE INTERCEPT, TYP

NET LEC

EXIST R/W

B-20-119

24" RCP

IH 41 SB

2830 2832 2834 2836 2838 2840 2842 2844

IH 41 NB

EXIST R/W

ATC

MATCH LINE 2830+00

LINCOLN RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 138	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-18

PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 2845+00

EXIST R/W

IH 41 SB

IH 41 NB

2846 2848 2850 2852 2854 2856 2858

NET LEC

SLOPE INTERCEPT, TYP

36" RCP

24" RCP

ATC

MATCH LINE 2860+00

2

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

MATCH LINE 2860+00

EXIST R/W

JAHN RD

NET LEC

IH 41 SB

IH 41 NB

2860 2862 2864 2866 2868 2870 2872 2874

18" RCP

30" RCP

C-20-013
3'X5' BOX CULVERT

C-20-014
3.5'X5' BOX CULVERT

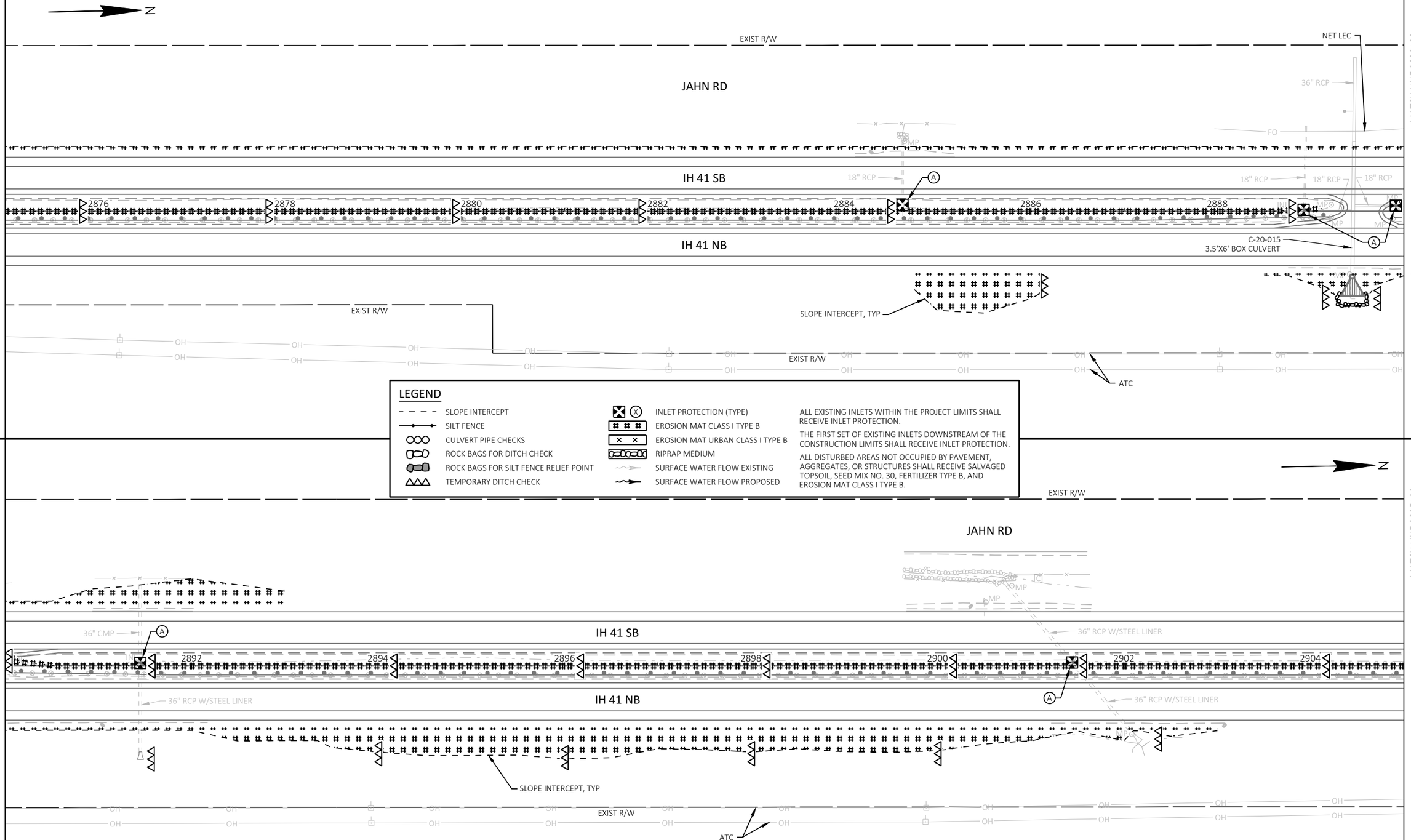
SLOPE INTERCEPT, TYP

ATC

MATCH LINE 2875+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 139	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-19
PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 140	E

2

2

N

EXIST R/W

JAHN RD

MATCH LINE 2920+00

SIGN

NET LEC

FO

MP

18" RCP

IH 41 SB

2906 2908 2910 2912 2914 2916 2918

IH 41 NB

A

MATCH LINE 2905+00

OH

ATC

EXIST R/W

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

FOND DU LAC COUNTY

WINNEBAGO COUNTY

4" DRAIN TILE

6" DRAIN TILE

6" DRAIN TILE

WPS

PROP R/W

POST

NET LEC

EXIST R/W

MATCH LINE 2935+00

C-70-003
4'X4' BOX CULVERT

24" CMP

IH 41 SB

2920 2922 2924 2926 2928 2930 2932 2934

IH 41 NB

21"X15" PACSAC

ATC

WPS

SLOPE INTERCEPT, TYP

PROP R/W

EXIST R/W

WETLAND LIMITS (WM)

MATCH LINE 2920+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 141	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-21

PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

N

MATCH LINE 2935+00

MATCH LINE 2950+00

6" DRAIN TILE

NET LEC

OH FO FO OH FO OH FO FO FO OH OH

42" RCP

A

IH 41 SB

30" RCP

2936 2938 2940 2942 2944 2946 2948

42" RCP

IH 41 NB

30" RCP

A

OH OH OH OH OH OH OH OH OH OH OH OH OH OH OH OH

SLOPE INTERCEPT, TYP

ATC

BLACK OAK SCHOOL RD

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

N

MATCH LINE 2950+00

MATCH LINE 2965+00

NET LEC

EXIST R/W

WPS

NET LEC

OH FO DRAIN TILE OH OH OH FO OH

A

24" RCP

IH 41 SB

24" RCP

50 2952 2954 2956 2958 2960 2962 2964

24" RCP

IH 41 NB

A

24" RCP

OH OH OH OH OH OH OH OH OH OH OH OH OH OH OH OH

SLOPE INTERCEPT, TYP

ATC

EXIST R/W

BLACK OAK SCHOOL RD

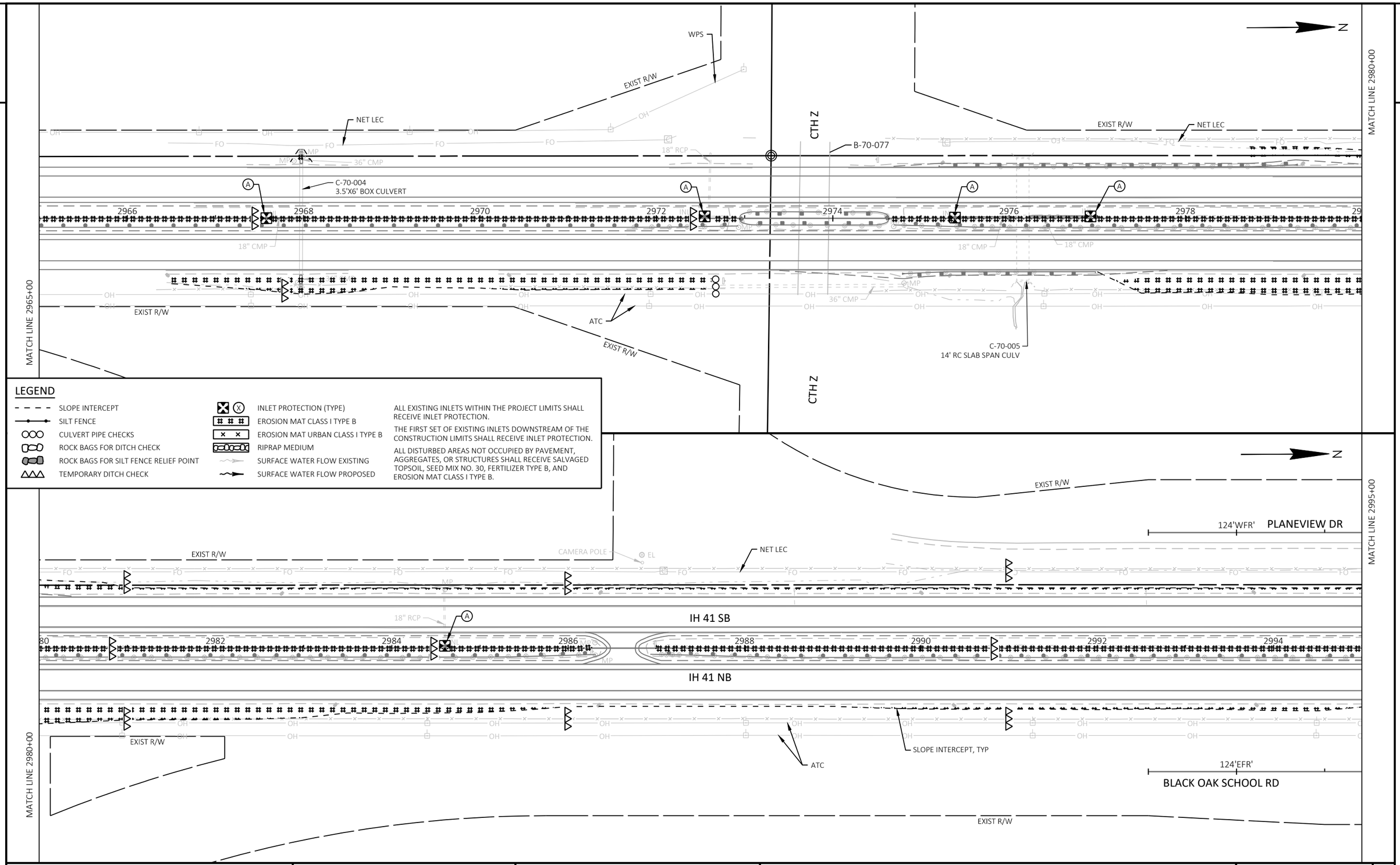
EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 142	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-22

PLOT DATE : 4/5/2024 1:31 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 143	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-23
PLOT DATE : 4/5/2024 1:31 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

N

EXIST R/W

126'WFR' 128'WFR' 130'WFR' 132'WFR' 134'WFR' 136'WFR' 138'WFR' 140'WFR'

NET LEC

MATCH LINE 2995+00

MATCH LINE 3010+00

2996 2998 3000 3002 3004 3006 3008

A

18" CMP

C-70-006
4.5'X3' BOX CULVERT

SLOPE INTERCEPT, TYP

ATC

126'EFR' 128'EFR' 130'EFR' 132'EFR' 134'EFR' 136'EFR' 138'EFR' 140'EFR'

EXIST R/W

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

N

PROP TLE

WPS

SIGN

GUY

EXIST R/W

C-70-007
6'X4' BOX CULVERT

142'WFR' 144'WFR' 146'WFR' 148'WFR' 150'WFR' 152'WFR' 154'WFR'

NET LEC

PLANEVIEW DR

MATCH LINE 3025+00

18" CMP

IH 41 SB

6" SCH 40

YARD INLET

3010 3012 3014 3016 3018 3020 3022 3024

IH 41 NB

ATC

SLOPE INTERCEPT, TYP

MATCH LINE 3010+00

142'EFR' 144'EFR' 146'EFR' 148'EFR' 150'EFR' 152'EFR' 154'EFR'

BLACK OAK SCHOOL RD

WPS

EXIST R/W

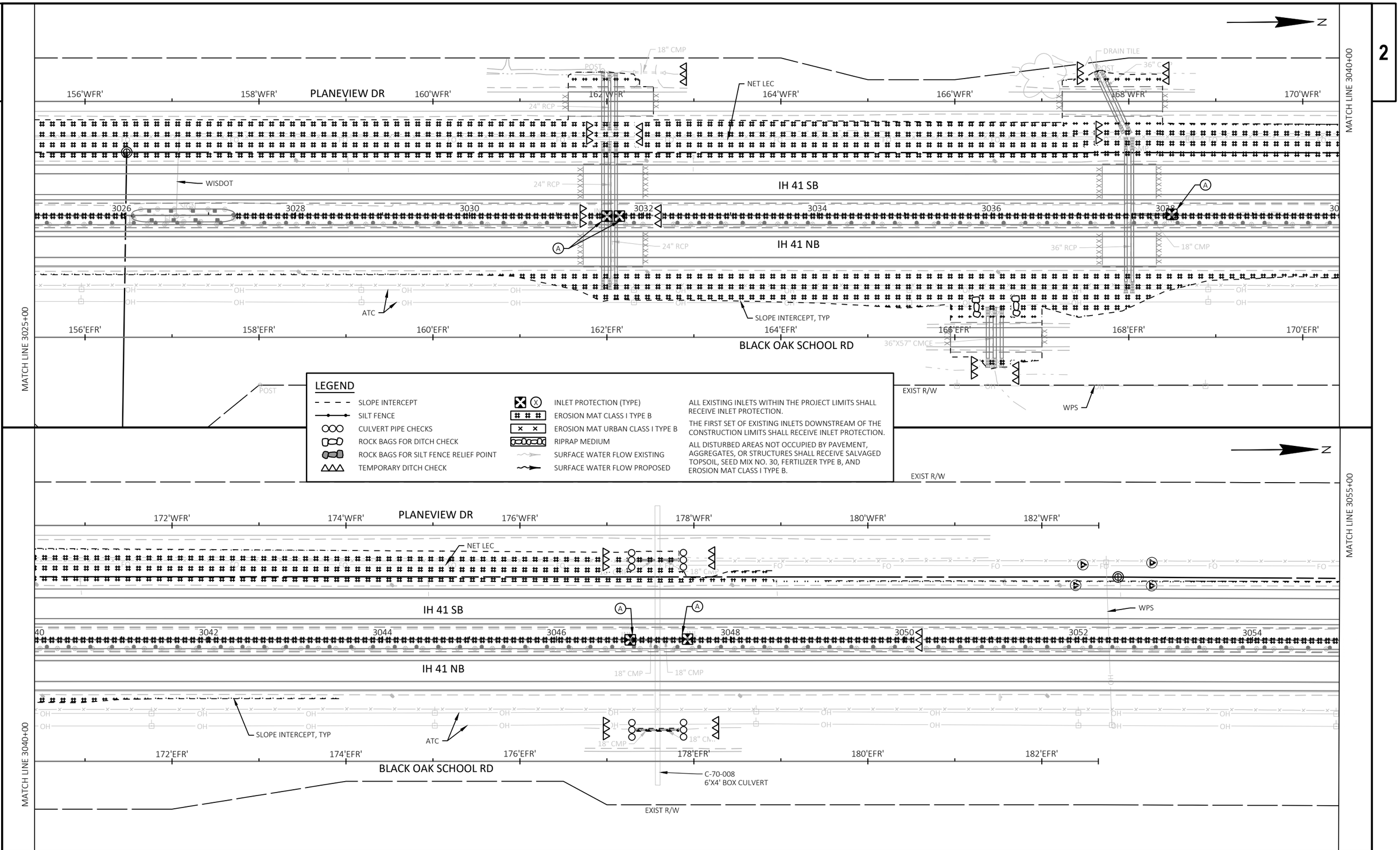
WETLAND LIMITS (WM)

PROP TLE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 144	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-24

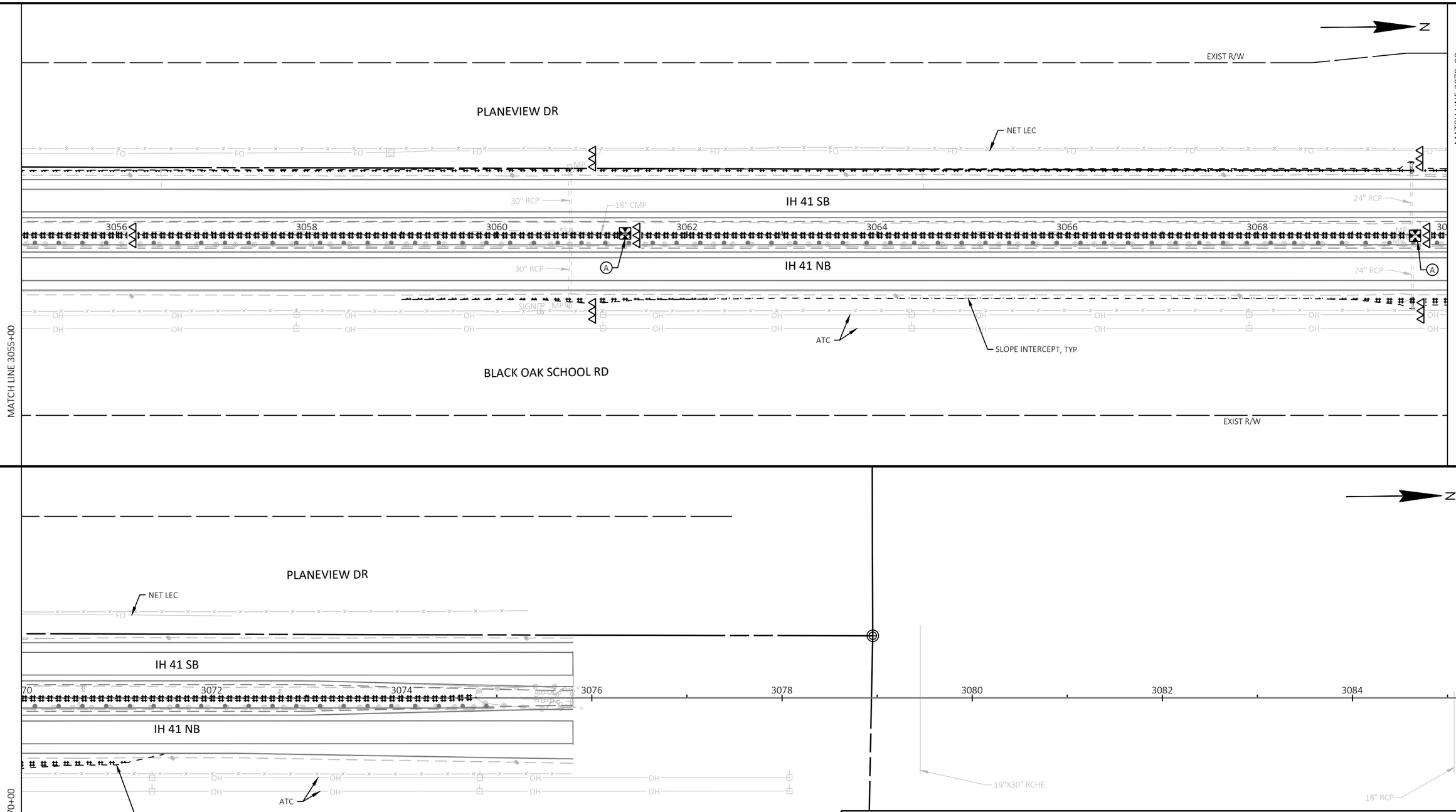
PLOT DATE : 4/5/2024 1:32 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 145	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022001-EC.DWG
LAYOUT NAME - Sheet-25

PLOT DATE : 4/5/2024 1:32 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT



2

LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND EROSION MAT CLASS I TYPE B.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL - IH 41	SHEET 146	E

LEGEND

- SLOPE INTERCEPT
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- MULCH
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

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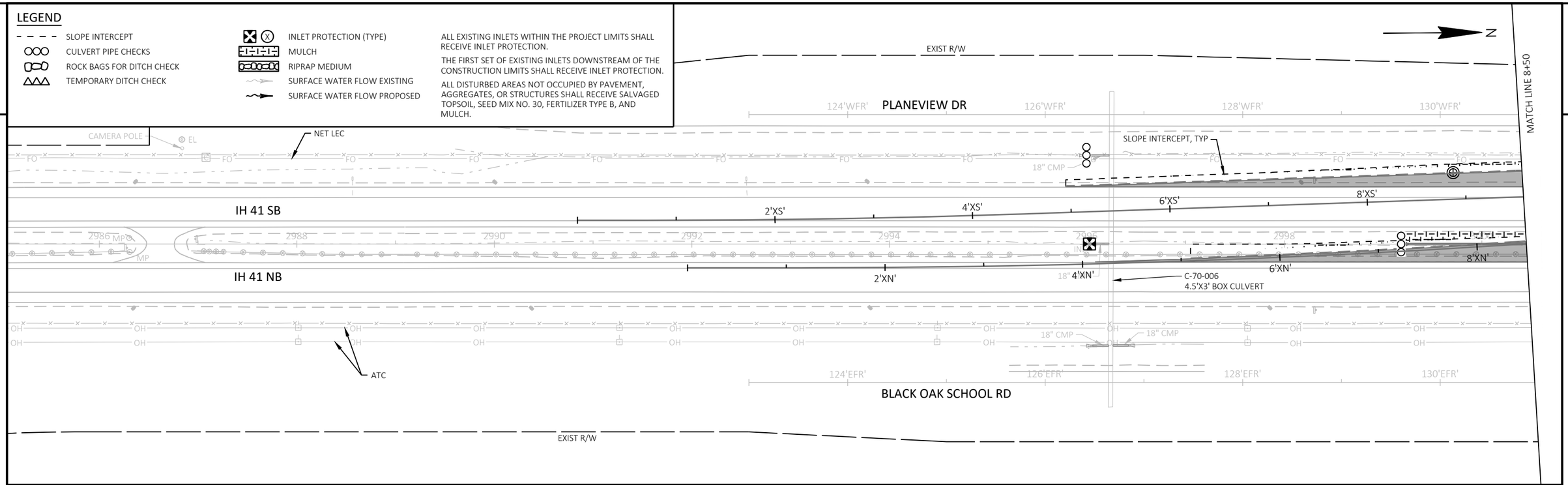
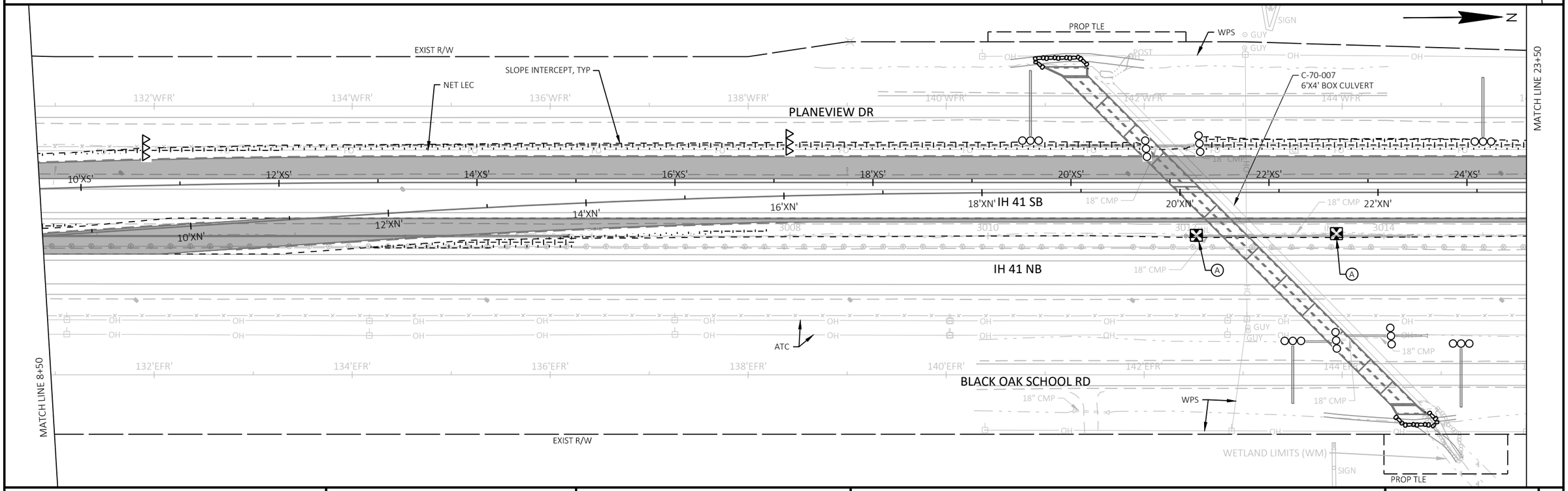
ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND MULCH.





PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY WIDENING & CROSSOVER	SHEET 147	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022002-EC.DWG
LAYOUT NAME - Sheet-01
PLOT DATE : 4/5/2024 1:32 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

EXIST R/W

SLOPE INTERCEPT, TYP

NET LEC

PLANEVIEW DR

146'WFR' 148'WFR' 150'WFR' 152'WFR' 154'WFR' 156'WFR' 158'WFR' 160'WFR'

26'XS' 28'XS' 30'XS' 32'XS' 34'XS' 36'XS' 38'XS'

24'XN' 26'XN' 28'XN' 30'XN' 32'XN' 34'XN' 36'XN' 38'XN'

6" SCH 40 YARD INLET 6" SCH 40 WISDOT SIGN

3016 3018 3020 3022 3024 3026 3028 3030

IH 41 SB

IH 41 NB

YARD INLET

ATC

MATCH LINE 23+50

MATCH LINE 38+50

146'EFR' 148'EFR' 150'EFR' 152'EFR' 154'EFR' 156'EFR' 158'EFR' 160'EFR'

BLACK OAK SCHOOL RD

POST

EXIST R/W

2

LEGEND

- SLOPE INTERCEPT
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- MULCH
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

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ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND MULCH.

N

SLOPE INTERCEPT, TYP

DRAIN TILE

POST

36" CMP

EXIST R/W

NET LEC

160'WFR' 162'WFR' 164'WFR' 166'WFR' 168'WFR' 170'WFR' 172'WFR' 174'WFR'

PLANEVIEW DR

24" RCP

40'XS' 42'XS' 44'XS' 46'XS' 48'XS' 50'XS' 52'XS' 54'XS'

40'XN' 42'XN' 44'XN' 46'XN' 48'XN' 50'XN' 52'XN'

IH 41 SB

IH 41 NB

3032 3034 3036 3038 3040 3042

24" RCP 36" RCP 18" CMP

ATC

MATCH LINE 38+50

MATCH LINE 53+50

160'EFR' 162'EFR' 164'EFR' 166'EFR' 168'EFR' 170'EFR' 172'EFR' 174'EFR'

36"X57" CMCE

BLACK OAK SCHOOL RD

WPS

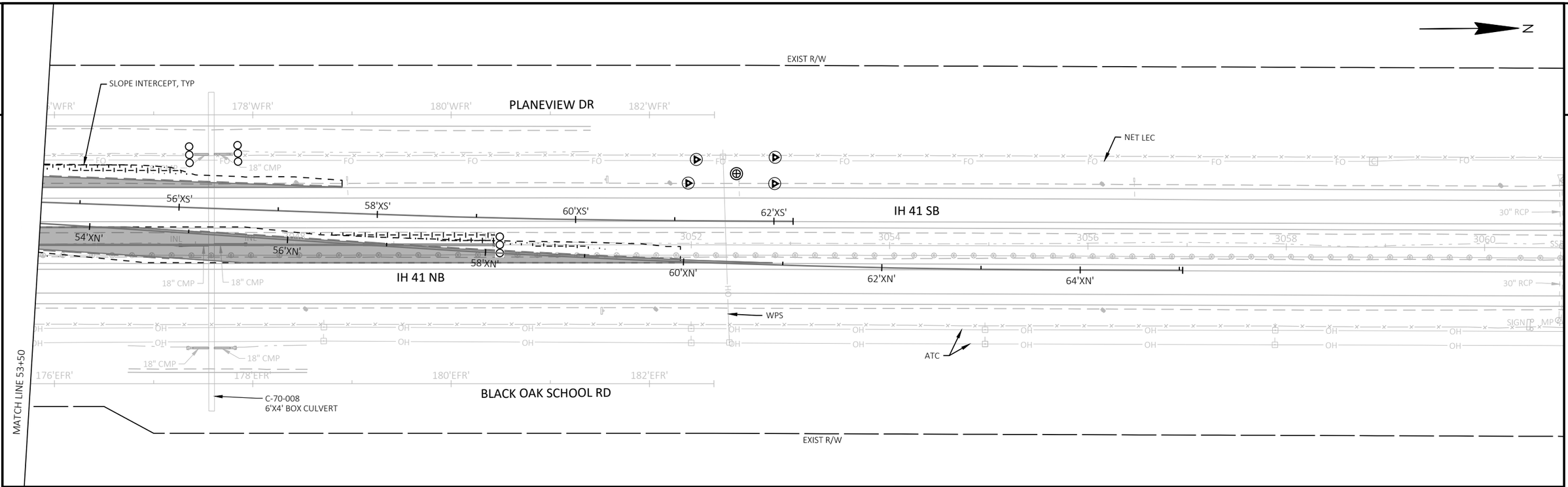
EXIST R/W

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY WIDENING & CROSSOVER	SHEET 148	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022002-EC.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:33 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



LEGEND

- SLOPE INTERCEPT
- CULVERT PIPE CHECKS
- ROCK BAGS FOR DITCH CHECK
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- MULCH
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

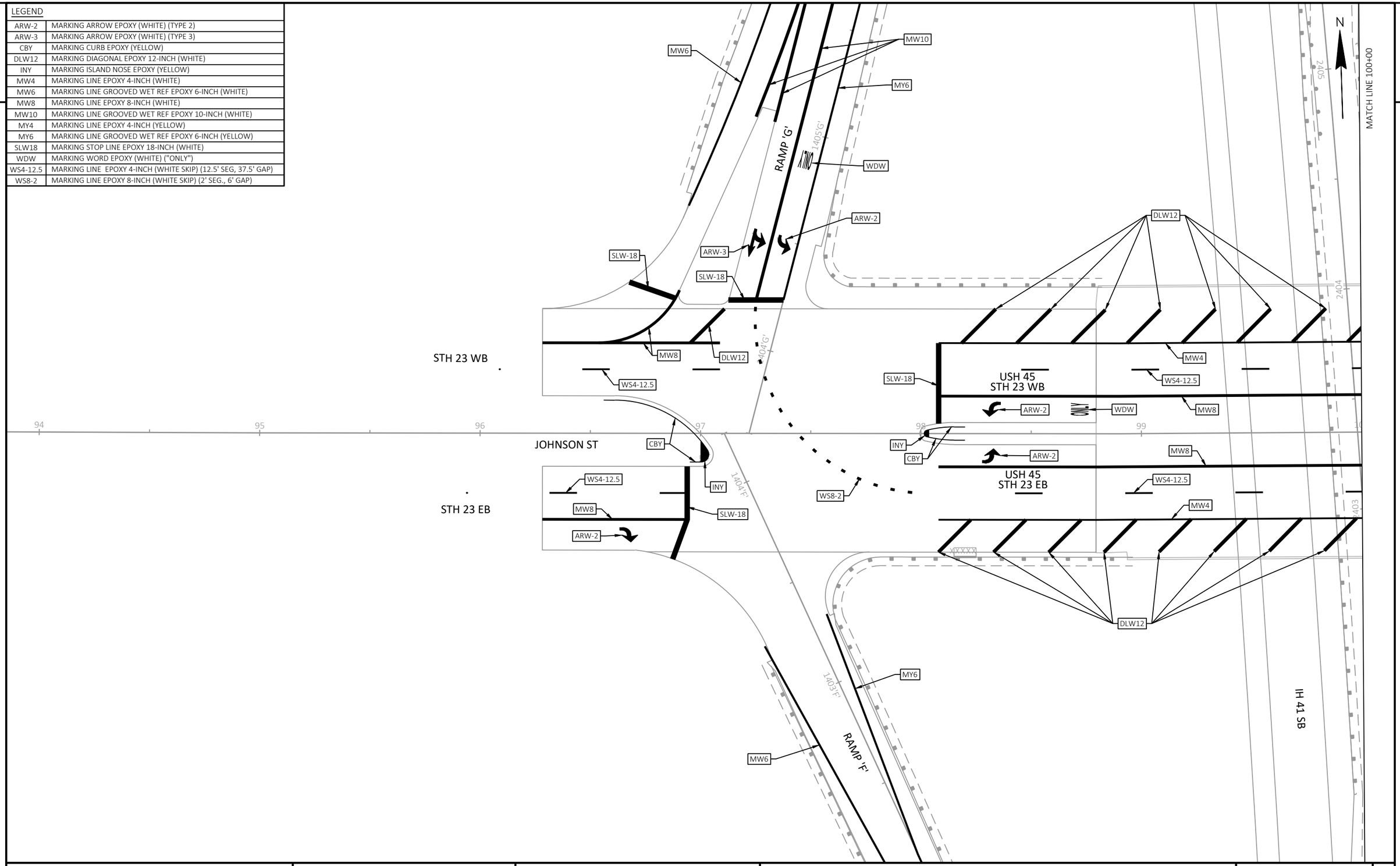
ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, AGGREGATES, OR STRUCTURES SHALL RECEIVE SALVAGED TOPSOIL, SEED MIX NO. 30, FERTILIZER TYPE B, AND MULCH.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY WIDENING & CROSSOVER	SHEET 149	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-022002-EC.DWG
LAYOUT NAME - Sheet-03
PLOT DATE : 4/5/2024 1:33 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
DLW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
MW4	MARKING LINE EPOXY 4-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MW8	MARKING LINE EPOXY 8-INCH (WHITE)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MY4	MARKING LINE EPOXY 4-INCH (YELLOW)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WDW	MARKING WORD EPOXY (WHITE) ("ONLY")
WS4-12.5	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

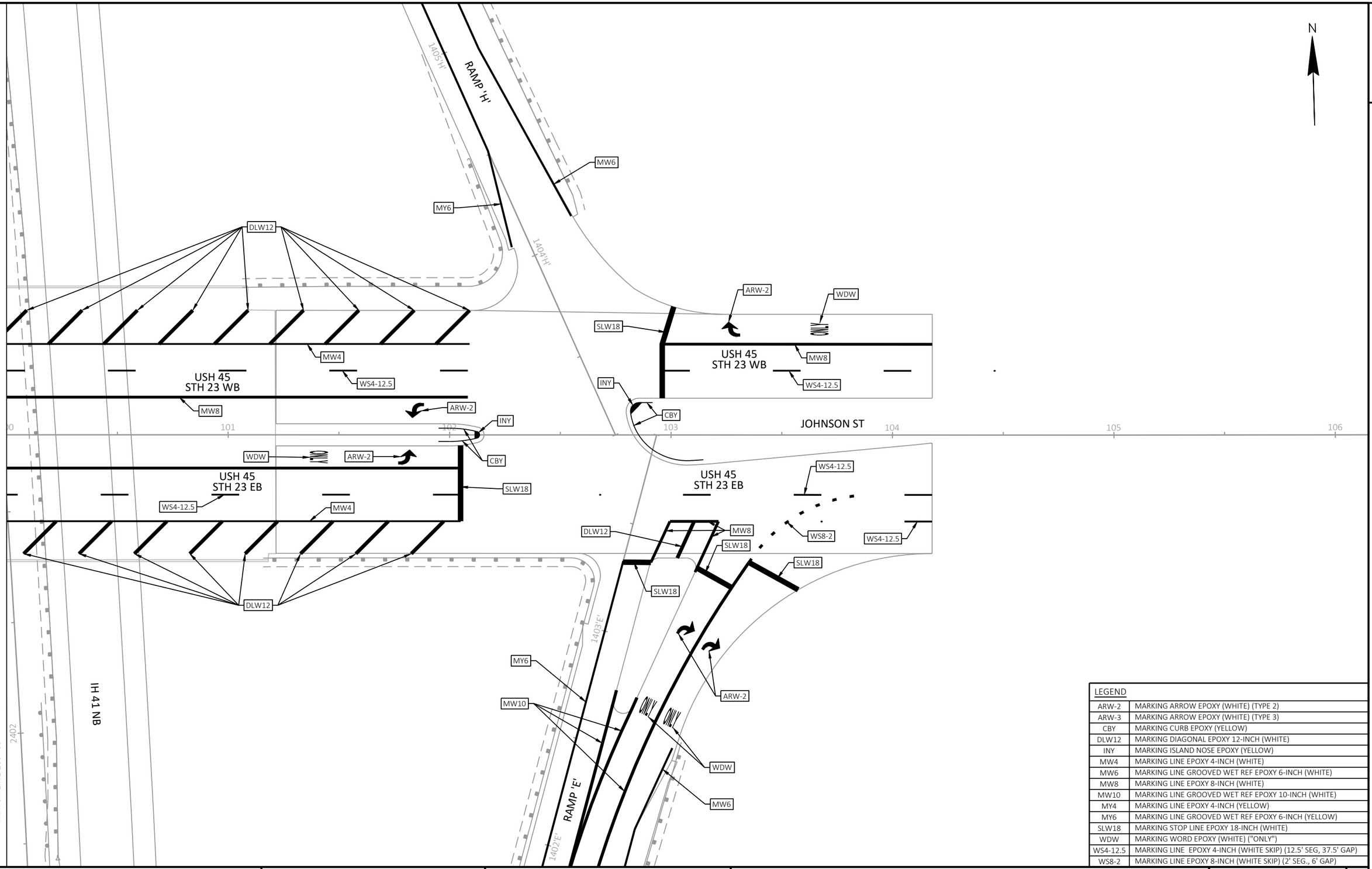


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - STH 23	SHEET 150	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-01

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
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CBY	MARKING CURB EPOXY (YELLOW)
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WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - STH 23	SHEET 151	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-02
PLOT DATE : 6/14/2024 6:59 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
DLW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
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WS4-12.5	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
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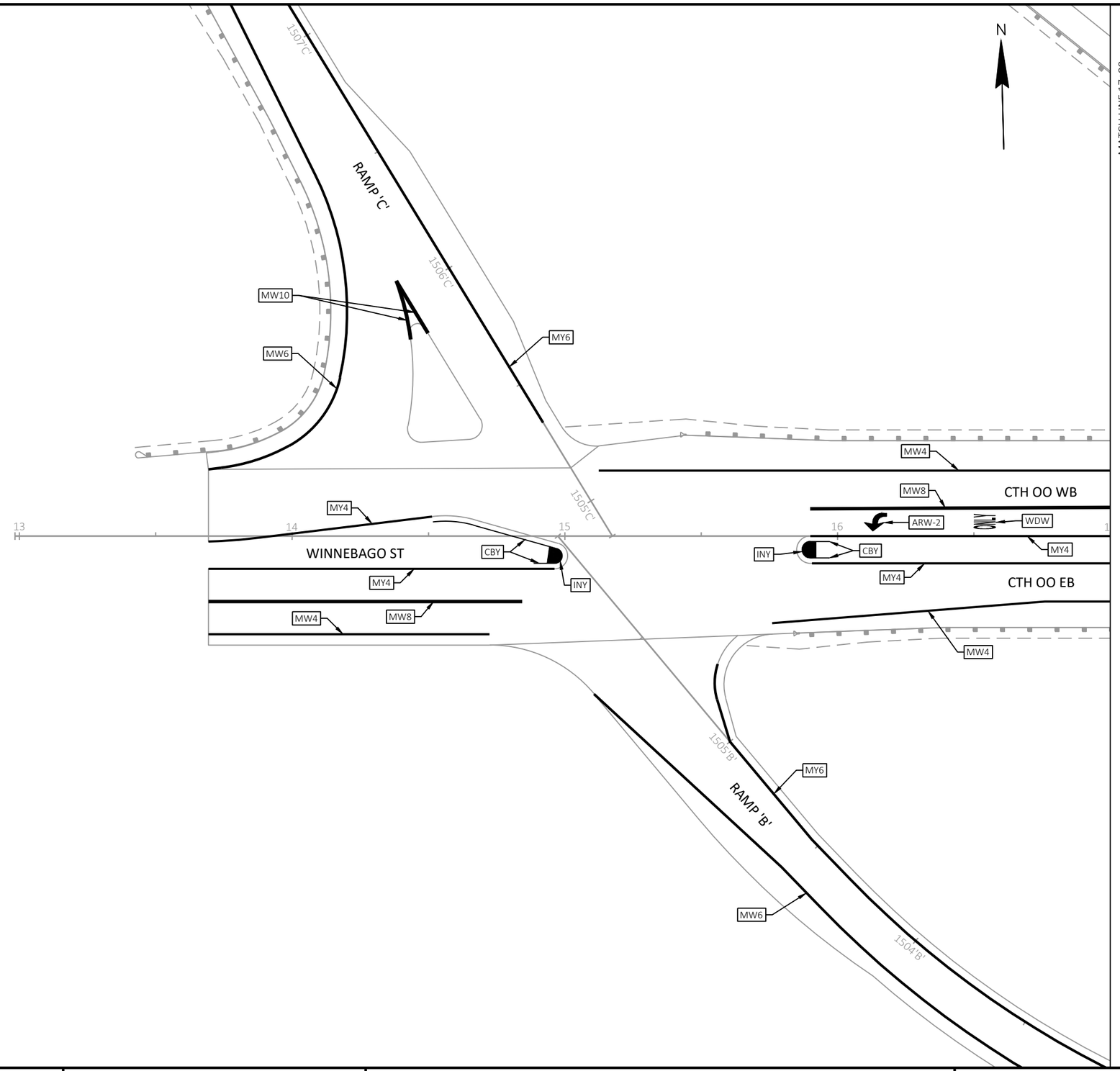

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH OO	SHEET 152	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-03

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCH LINE 23+00

MATCH LINE 17+00

2504

2503

2502

2501

2500

2499

MW4

MW8

MY4

ARW-2

CTH OO WB

WINNEBAGO ST

CTH OO EB

IH 41 SB

IH 41 NB

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
DLW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
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WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH OO	SHEET 153	E

2

2

N

RAMP 'D'

1498'D'

1497'D'

MW6

MY6

MW4

MW8

MW4

CTH OO WB

MY4

CBY

INY

INY

MY4

3

24

25

26

27

28

29

1497'D'

1498'A'

WINNEBAGO ST

MY4

WDW

ARW-2

CBY

CTH OO EB

MW8

MW4

MY6

1497'A'

MW6

MW10

RAMP 'A'

1496'A'

MATCH LINE 23+00

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
DLW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
MW4	MARKING LINE EPOXY 4-INCH (WHITE)
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WS4-12.5	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH OO	SHEET 154	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-05

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
DLW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
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WS4-12.5	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

N

IH 41 SB

MATCH LINE 48+00

2

MW10
MW6
1754'NC'
RAMP 'NC'
MY6
SLW18
SLW18
1753'NC'
MW4
MW8
CTH N WB
MY4
INY
CBY
CBY
INY
42'N-EB''
43'N-EB''
44'N-EB''
45'N-EB''
46'N-EB''
47'N-EB''
48'N
MY4
MW8
CTH N EB
MW4
MW4
MW6
1753'NB'
MY6
RAMP 'NB'
1752'NB'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH N	SHEET 155	E

2

2

N

MATCH LINE 54+00

MATCH LINE 48+00

IH 41 NB

IH 41 SB

IH 41 NB

CTH N WB

CTH N EB

MW4

MY4

MW4

1751'ND'

1750'ND'

1749'ND'

1748'ND'

1747'ND'

1746'ND'

2751

2750

2749

2748

2747

2746

49'N-EB''

50'N-EB''

51'N-EB''

52'N-EB''

53'N-EB''

54'N

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
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WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH N	SHEET 156	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-07

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCH LINE 60+00

2

RIDGE RD

MW4

MW4

MY4

CBY

INY

MY4

MW8

INY

CBY

MW4

MY4

MW4

CTH N WB

CTH N EB

-EB''

55'N-EB''

56'N-EB''

57'N-EB''

58'N-EB''

59'N-EB''

60'N

MATCH LINE 54+00

LEGEND

ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
ARW-3	MARKING ARROW EPOXY (WHITE) (TYPE 3)
CBY	MARKING CURB EPOXY (YELLOW)
DLW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
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WS8-2	MARKING LINE EPOXY 8-INCH (WHITE SKIP) (2' SEG., 6' GAP)

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH N	SHEET 157 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-08
PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND	
ARW-2	MARKING ARROW EPOXY (WHITE) (TYPE 2)
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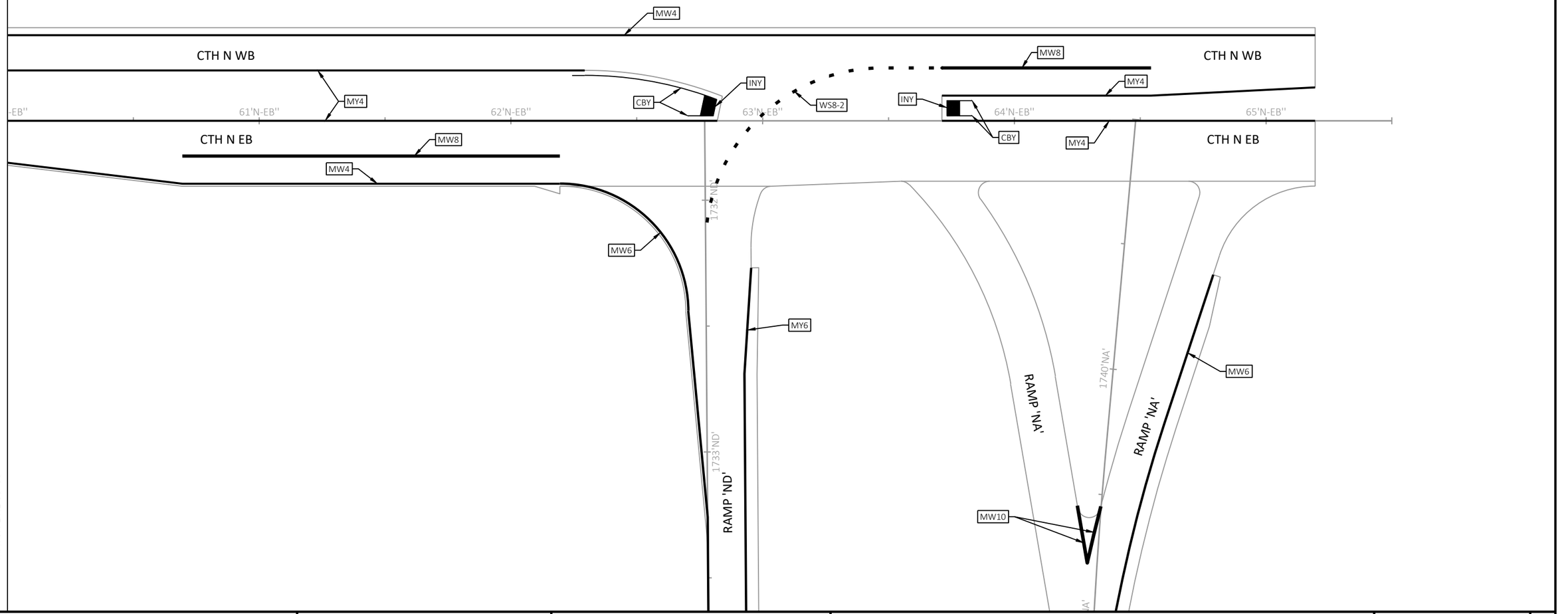
N

2

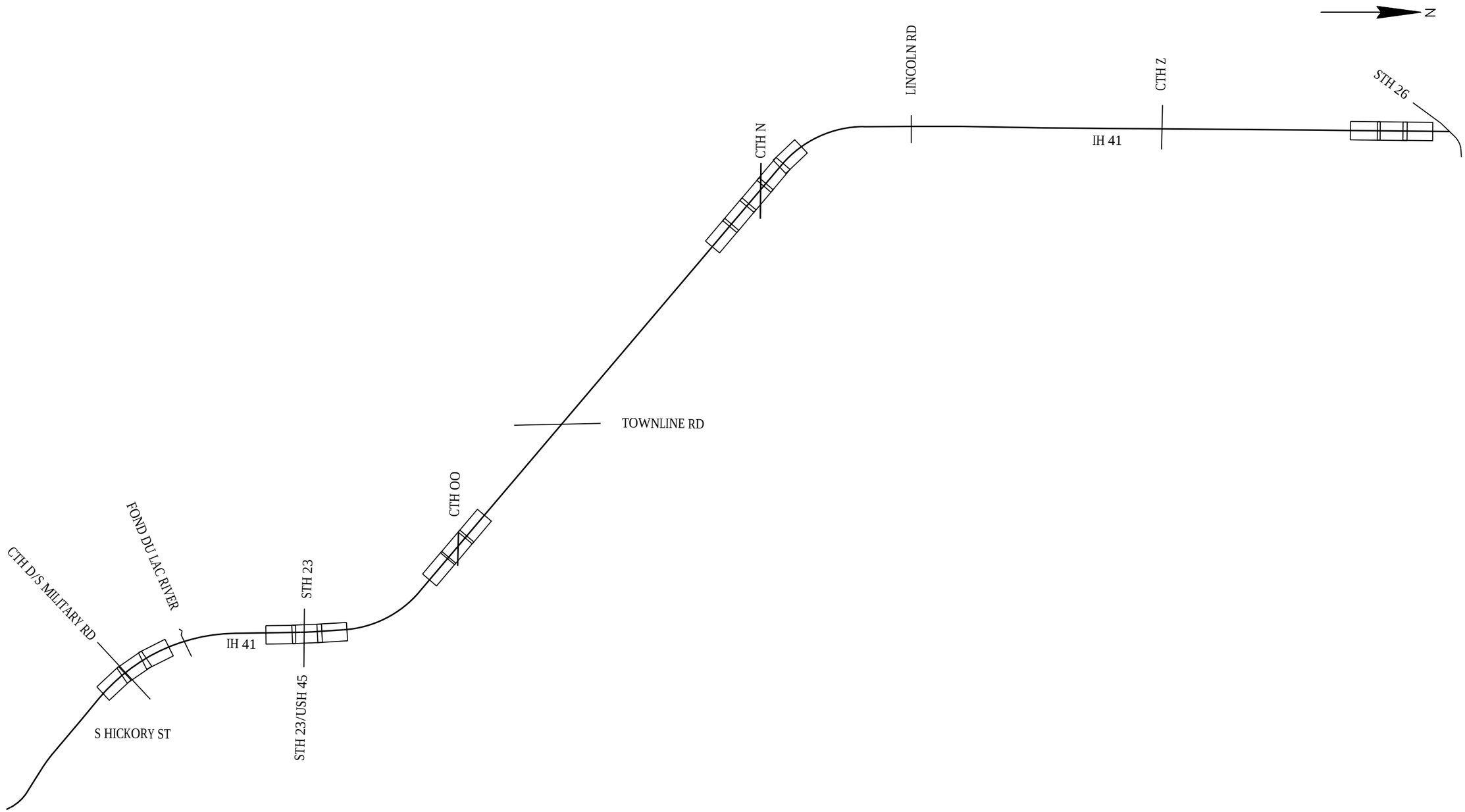


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PAVEMENT MARKING PLAN - CTH N	SHEET 158	E

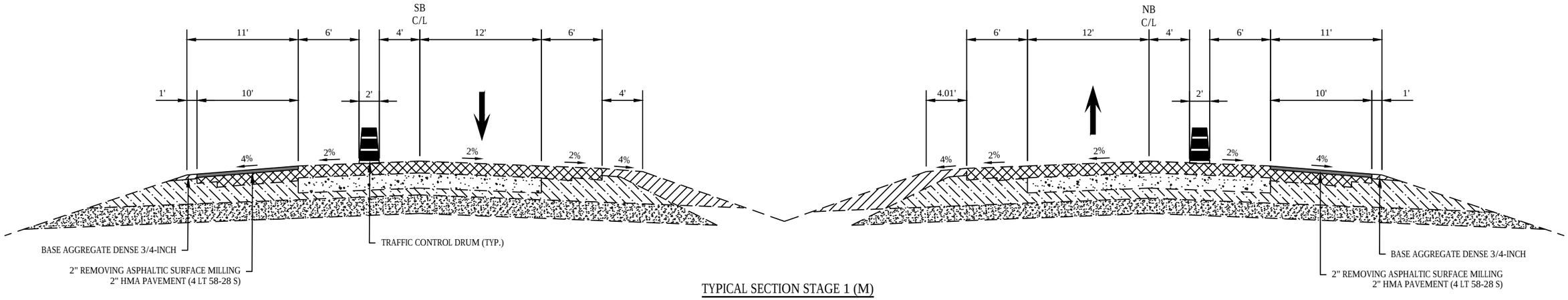
FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-024501-PM.DWG
LAYOUT NAME - Sheet-09

PLOT DATE : 6/14/2024 6:59 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M) OVERVIEW	SHEET 159	E



TYPICAL SECTION STAGE 1 (M)

IH 41

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW		TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT		FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 1 MAINLINE CONSTRUCTION

-PLACE PCMS PRIOR TO WORKZONE IN BOTH NB AND SB DIRECTIONS FOR 7 DAYS EACH "ROAD WORK BEGINS" AND "XXXXDAY XX/XX"
-CLOSE OUTSIDE LANE IN BOTH DIRECTIONS
-MILL AND OVERLAY OUTSIDE SHOULDER
-REPLACE OUTSIDE GUARDRAIL
-EXTEND BOTH ENDS OF CULVERT
C-20-002 (STA 2440+50)
C-20-008 (STA 2642+00)
C-70-003 (STA 2928+50)
-EXTEND WEST END OF CULVERTS
B-20-3838 (STA 2426+00)
C-20-007 (STA 2611+00)
-EXTEND EAST END OF CULVERTS
C-20-009 (STA 2672+00)
C-20-013 (STA 2860+25)
C-20-014 (STA 2865+75)
C-20-015 (STA 2889+50)
-INSTALL GRATE ON WEST END OF CULVERT C-20-012 (Station 2755+00)
-SEE SDD14B8a "END TREATMENTS AND GENERAL NOTE" FOR ADDITIONAL DETAILS ON CULVERT EXTENSIONS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 160	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 00B
PLOT DATE : 10/25/2023 3:35 PM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

2

N

IH 41 SB

2290

2295

2300

IH 41 NB

50

MATCH LINE 2303+00

ROAD WORK 1 MILE
W20-1F

RIGHT LANE CLOSED 1/2 MILE
W20-5G

SPEED LIMIT 55
W03-5

SPEED LIMIT 55
R2-1
48"X60"

W04-2R

5280' 5280' 500' 2600' 400' 700' 500'

FBS FBS FBS

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-7G
96"X48"

NOTE:
1. SEE SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM" FOR ADDITIONAL NOTES.
2. ADD SIGN W20-1A "ROAD WORK AHEAD" TO IH 41 NB ENTRANCE RAMPS FROM S HICKORY ST AND US 151/45.

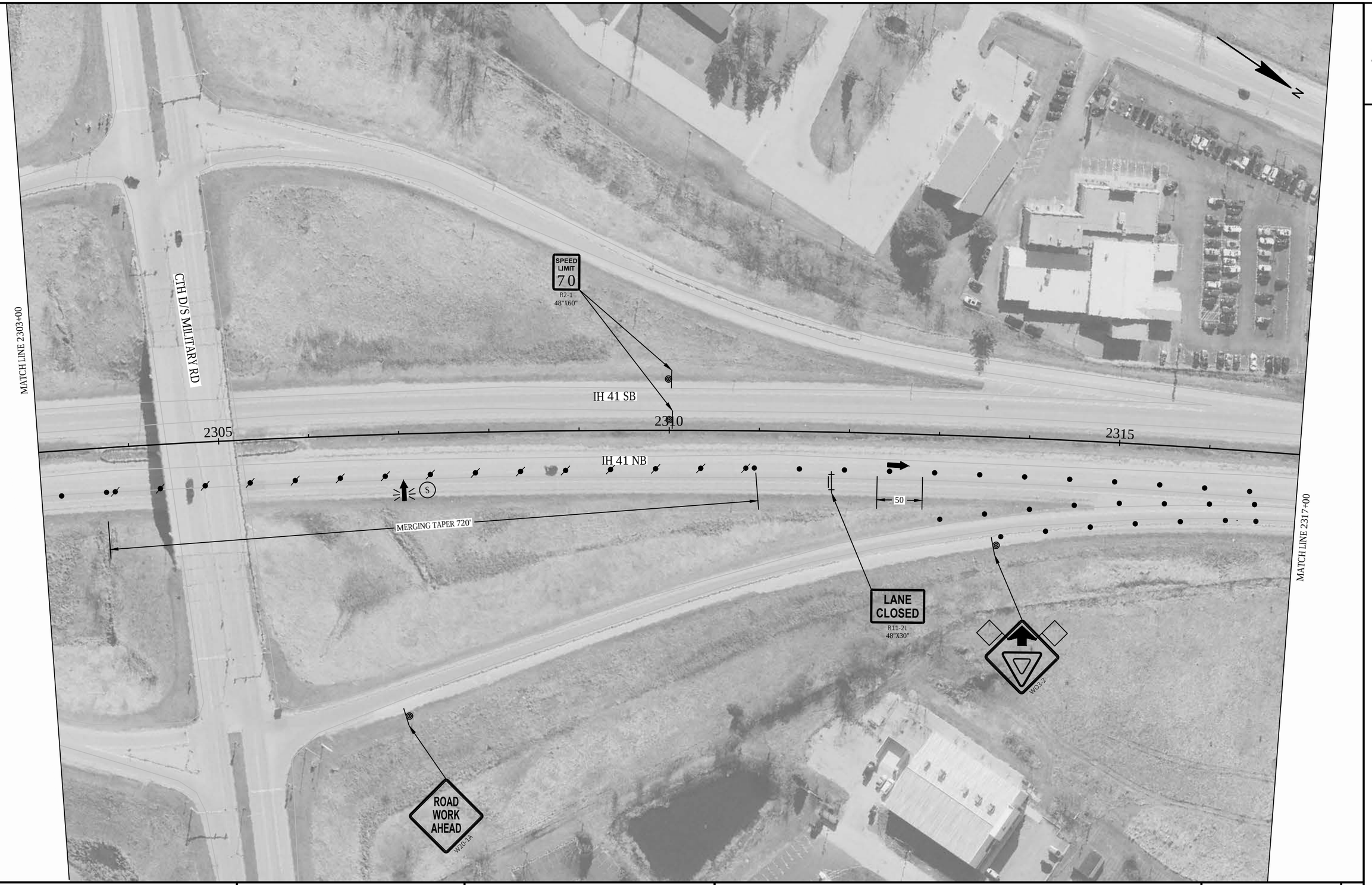
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 161	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 11:26 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



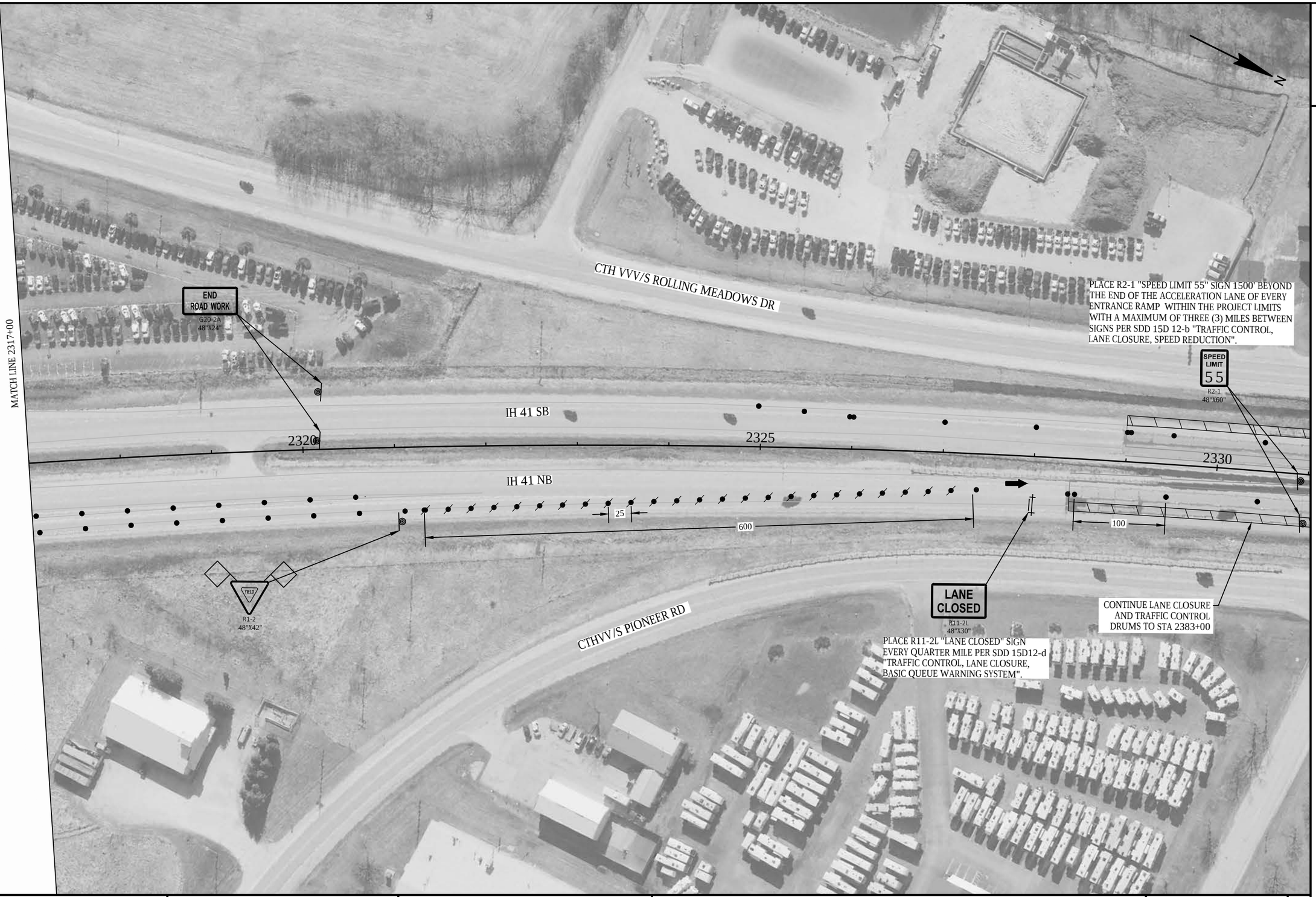
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 162	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 11:26 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

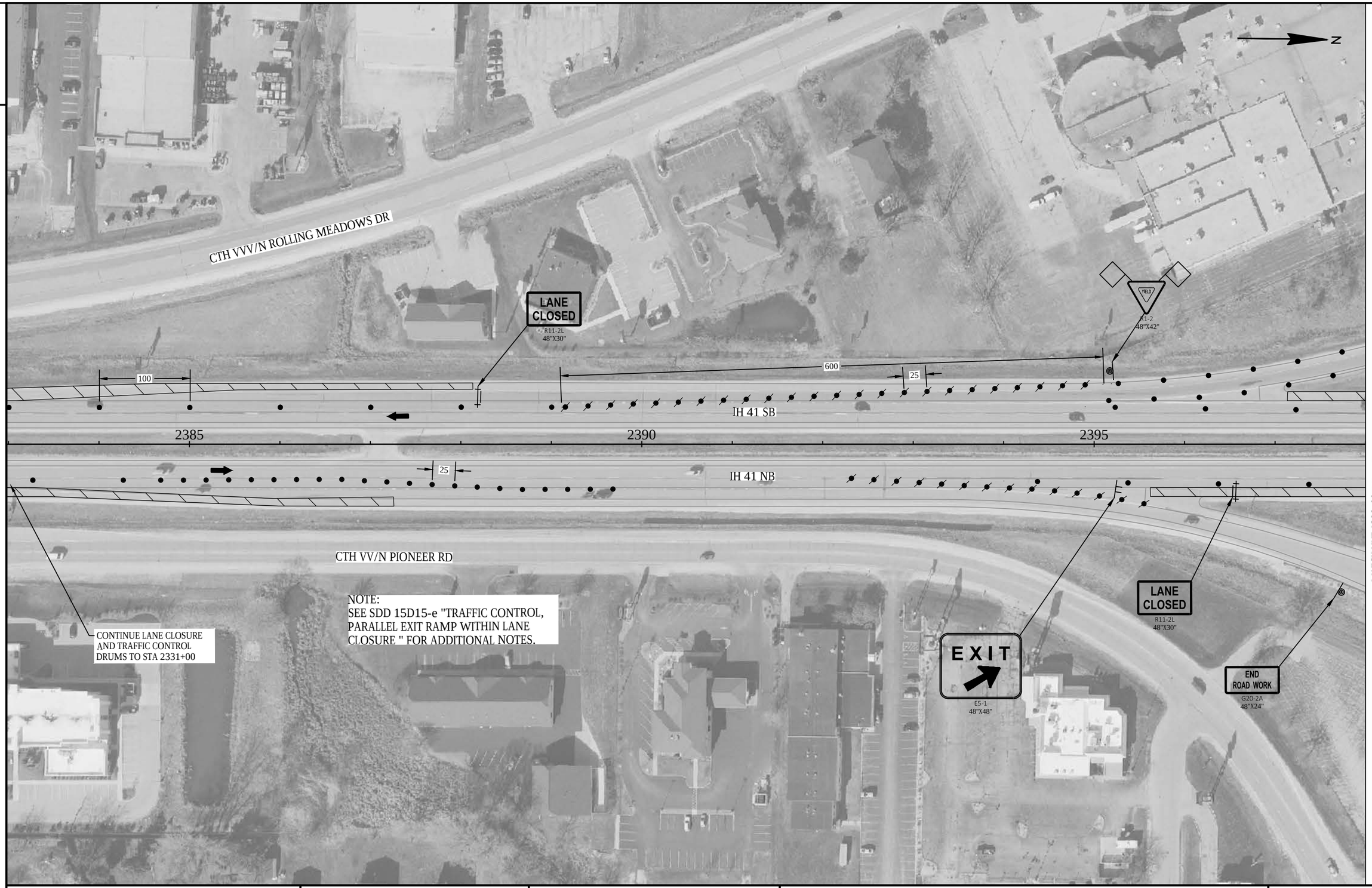
WISDOT/CADDS SHEET 42

2



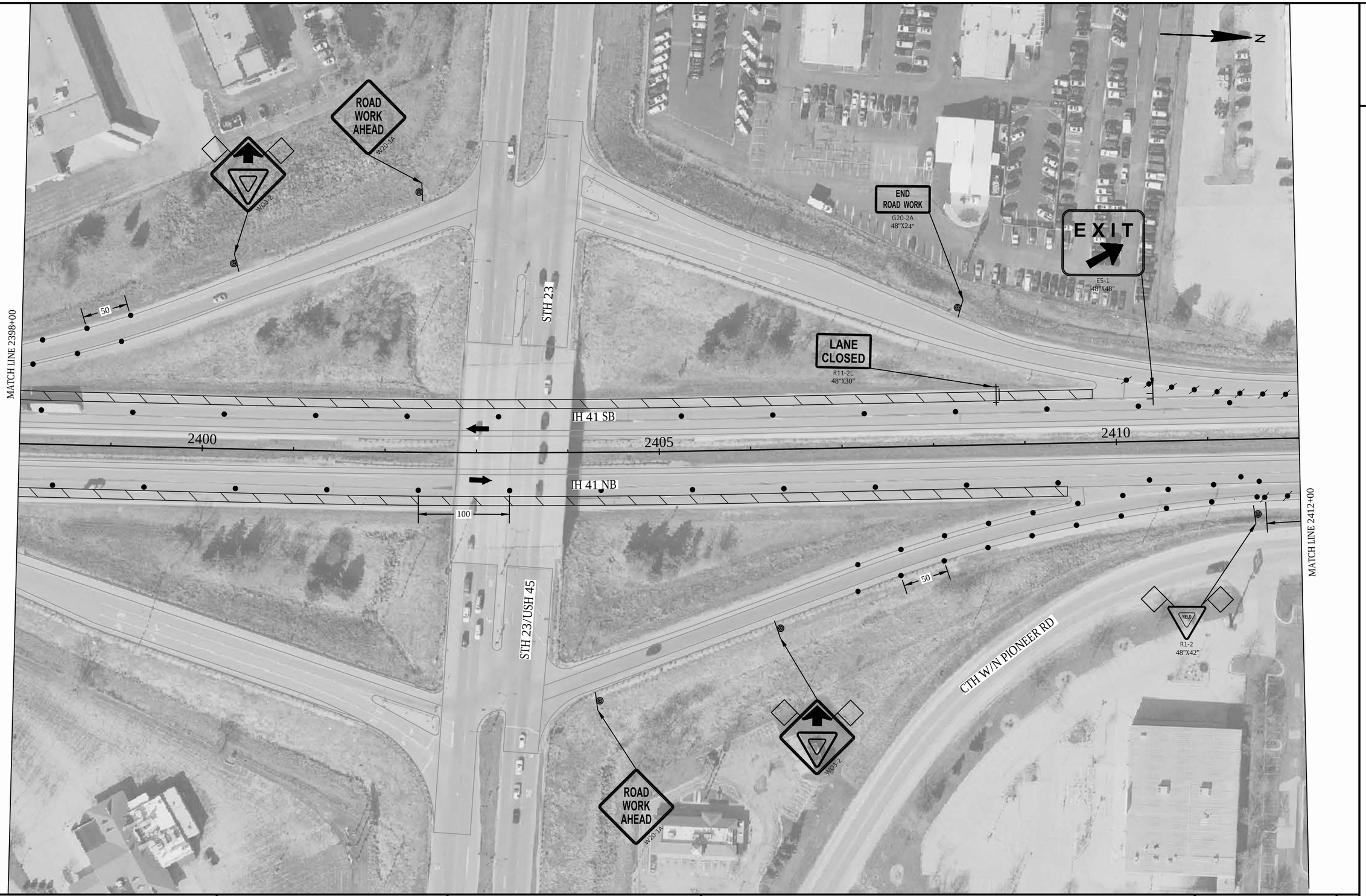
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 163	E

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 164	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 04
PLOT DATE : 10/13/2023 11:26 AM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL STAGE 1 (M)	SHEET 165	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 05
PLOT DATE : 10/13/2023 11:26 AM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

MATCH LINE 2412+00

N

25

IH 41 SB

2415

2420

2425

IH 41 NB

25

600'

100

CTH VV/N PIONEER RD

LANE CLOSED

R11-2L
48"X30"

CONTINUE LANE CLOSURE AND TRAFFIC CONTROL DRUMS TO STA 2479+00

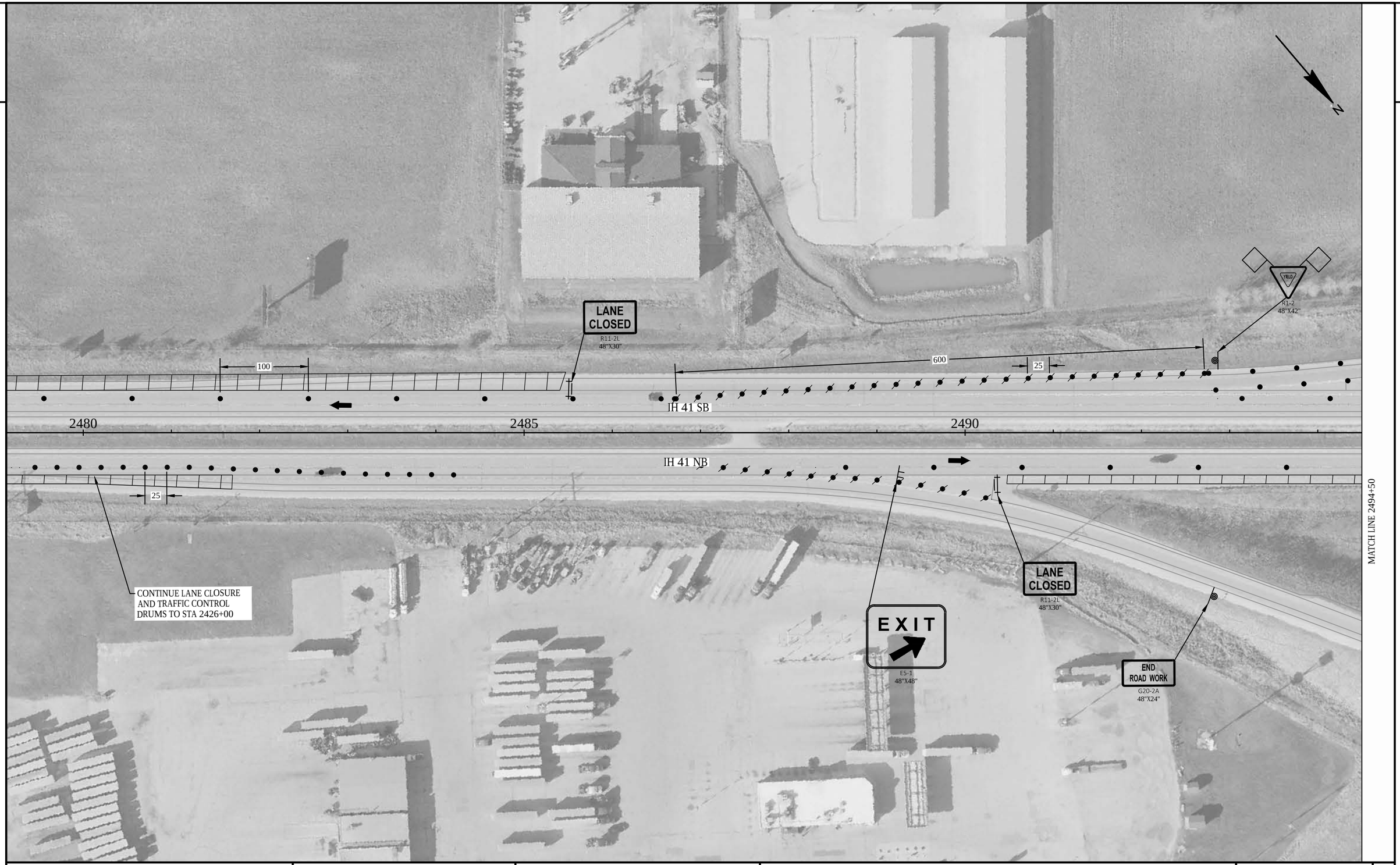
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 166	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 06

PLOT DATE : 10/13/2023 11:26 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

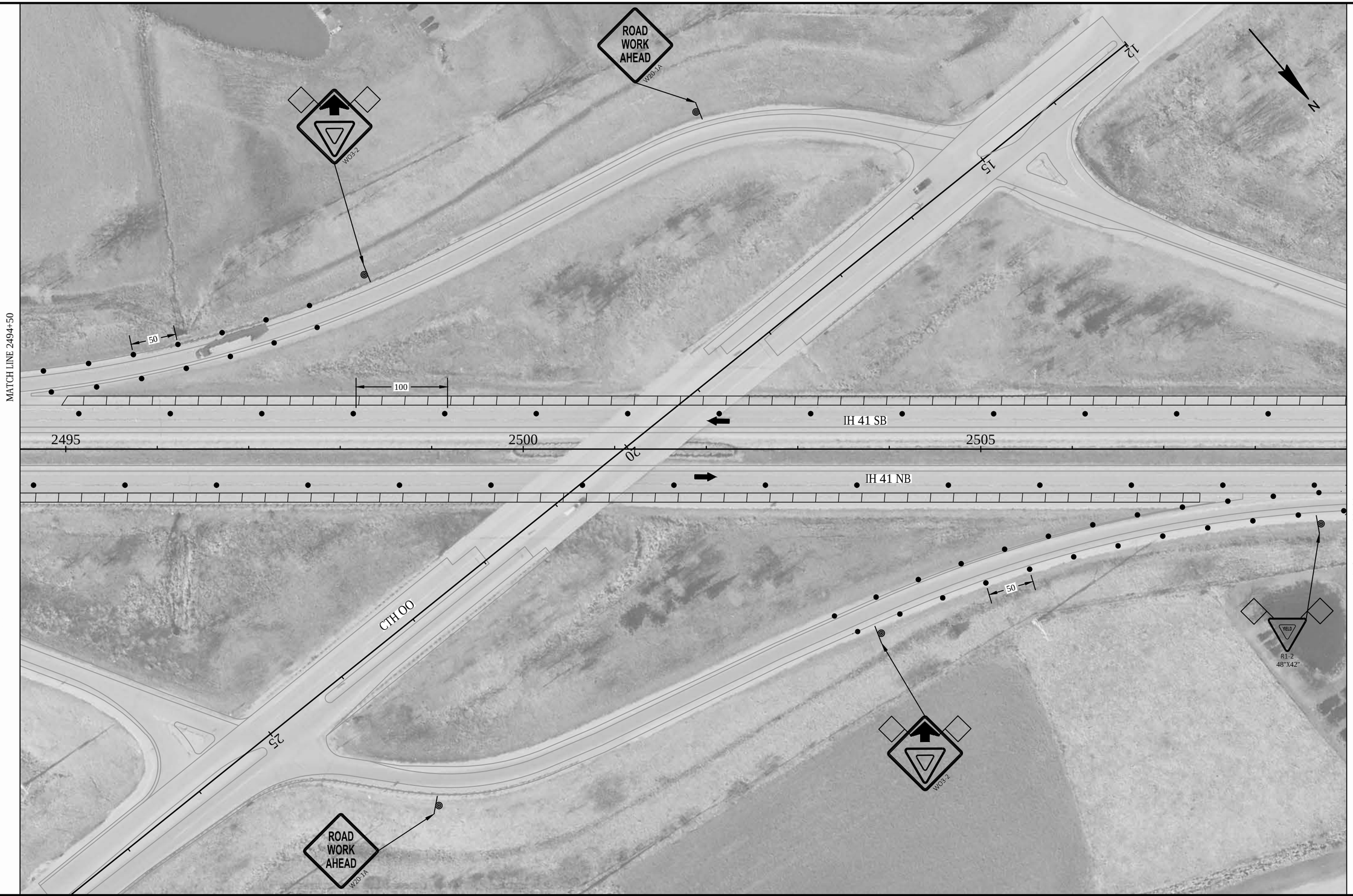


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 167	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 07

PLOT DATE : 10/13/2023 11:26 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 168	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 08

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

END
ROAD WORK
G20-2A
48"X24"

EXIT
E5-1
48"X48"

LANE
CLOSED
R11-2L
48"X30"

N

MATCH LINE 2509+00

IH 41 SB

2510

2515

2520

25

IH 41 NB

600

25

100

LANE
CLOSED
R11-2L
48"X30"

CONTINUE LANE CLOSURE
AND TRAFFIC CONTROL
DRUMS TO STA 2709+00

CTH VV/N PIONEER RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 169	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 09

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 170	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 10

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

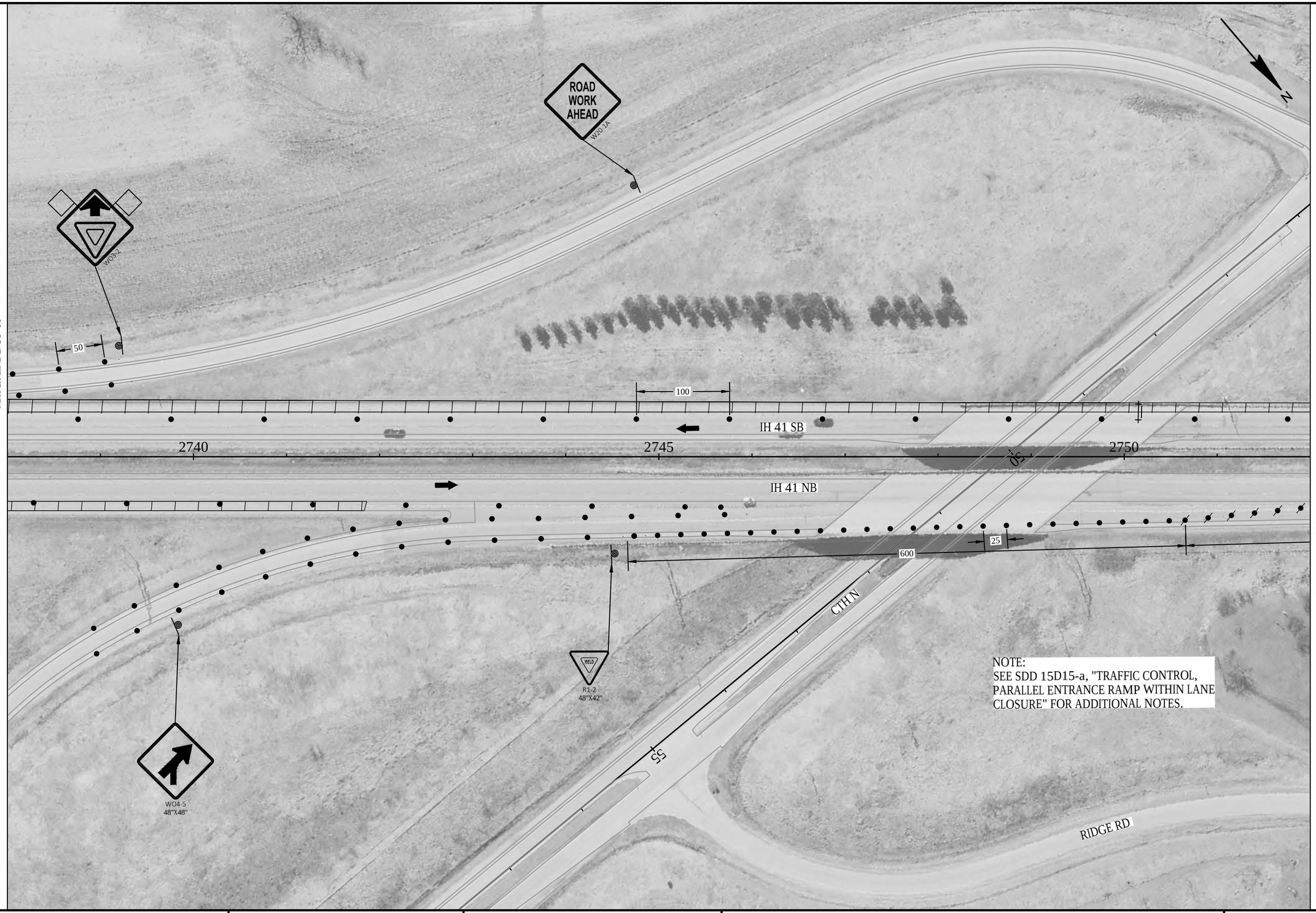
2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 171	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 11

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



NOTE:
SEE SDD 15D15-a, "TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL NOTES.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 172	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 12
PLOT DATE : 10/16/2023 12:13 PM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 173	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 13

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 174	E

2

2

N

NEKIMI AVE

PLACE R11-2L "LANE CLOSED" SIGN EVERY QUARTER MILE PER SDD 15D 12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".

PLANEVIEW DR

LANE CLOSED
R11-2L
48"X30"

100

50

MERGING TAPER 720

S

IH 41 SB

3075

3080

3085

IH 41 NB

CONTINUE LANE CLOSURE AND TRAFFIC CONTROL DRUMS TO STA 2780+00

BLACK OAK SCHOOL RD

NEKIMI AVE

END ROAD WORK
G20-2A
48"X24"

MATCH LINE 3089+50

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 175	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 15

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCH LINE 3089+50

MATCH LINE 3104+50

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 176	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 16

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

PLACE R2-1 "SPEED LIMIT 55" SIGN 1500' BEYOND THE END OF THE ACCELERATION LANE OF EVERY ENTRANCE RAMP WITHIN THE PROJECT LIMITS WITH A MAXIMUM OF THREE (3) MILES BETWEEN SIGNS PER SDD 15D 12-b "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION".

N

ROAD WORK AHEAD
W20-1A

W01-5
48"X48"

PICKETT RD

PLANEVIEW DR

MATCH LINE 3104+50

300

25

100

IH 41 SB

3105

3110

3115

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3119+50

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 177	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 17

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

NOTE:
1. SEE SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM" AND SDD 15D14 "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY" FOR ADDITIONAL NOTES.
2. PROVIDE FBS ON BOTH SIDES OF IH 41 PER NOTE 2 OF SDD 15D12-D "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".
3. ADD SIGN W20-1A "ROAD WORK AHEAD" TO SB ENTRANCE RAMPS FROM STH 44 AND 9TH AVE.

N

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
96"X48"

W04-2R

SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 55
W03-5

RIGHT TWO LANES CLOSED 1/2 MILE
W20-3RG

RIGHT TWO LANES CLOSED 1 MILE
W20-3RF

ROAD WORK 2 MILES
W20-1E

FBS (S)
FBS (S)
FBS

500' 700' 400' 2600' 5280' 500' 5280' 5280'

MERGING TAPER 720

50

IH 41 SB

IH 41 NB

1620'

3120

3125

STH 26

MATCH LINE 3119+50

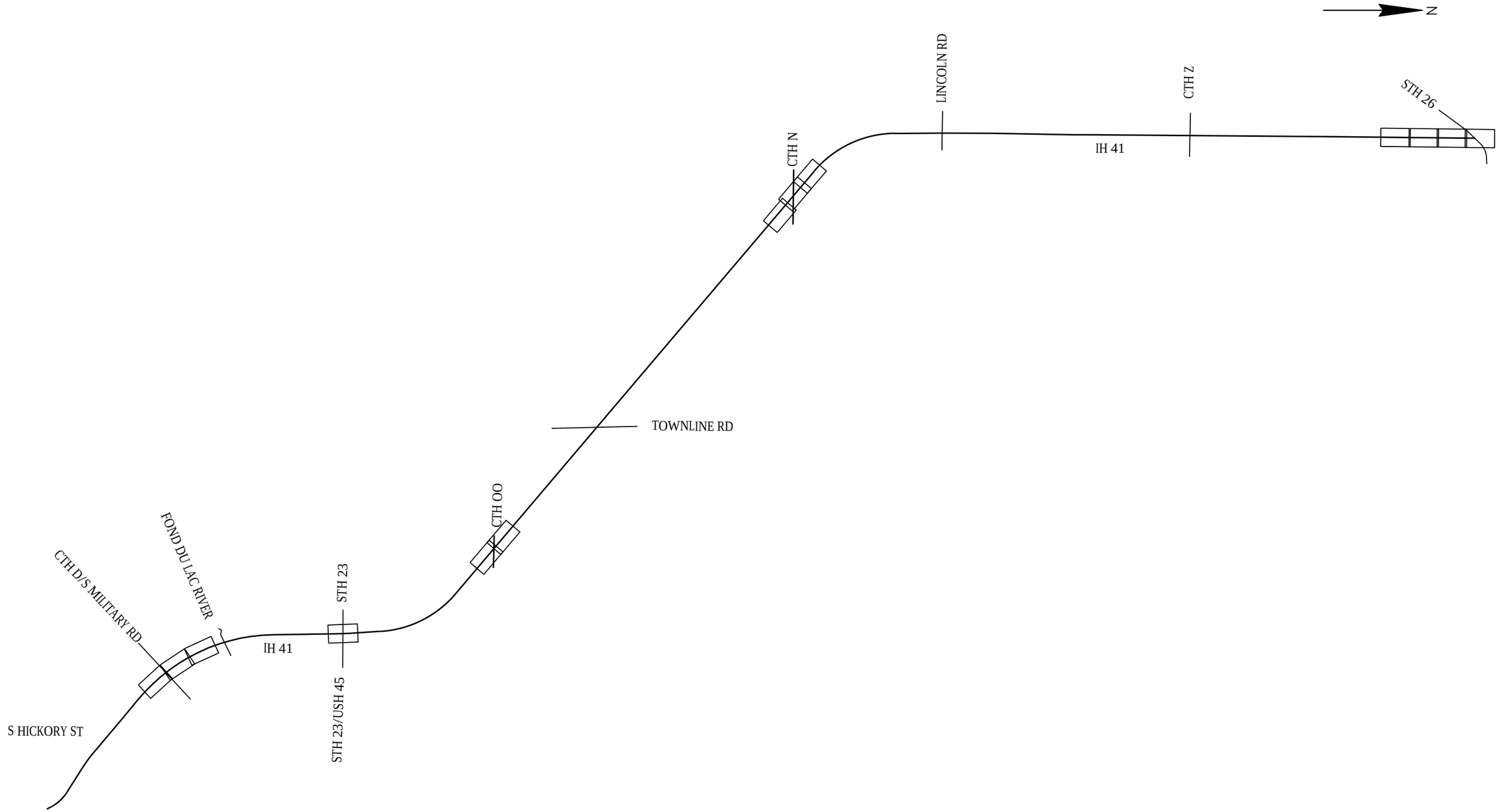
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINEBAGO	TRAFFIC CONTROL - STAGE 1 (M)	SHEET 178	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-S1.DWG
LAYOUT NAME - 18

PLOT DATE : 10/16/2023 3:06 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

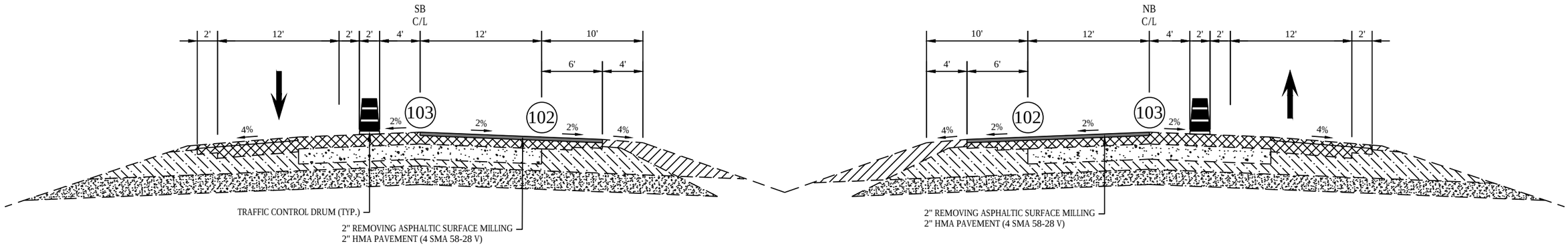


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M) OVERVIEW	SHEET 179	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 00A

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:1 MI

2



TYPICAL SECTION STAGE 2 (M)

IH 41
MILL AND OVERLAY INSIDE LANE AND SHOULDERS

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT		FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 2 MAINLINE CONSTRUCTION

-CLOSE INSIDE LANE IN BOTH DIRECTIONS
-SHIFT TRAFFIC 8' ONTO COMPLETED OUTSIDE SHOULDER
-MILL AND OVERLAY INSIDE LANE AND SHOULDER
-INSTALL INSIDE CABLE BARRIER

2

N

IH 41 SB

2290

2295

2300

IH 41 NB

50

MATCH LINE 2304+00

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
96"X48"

FBS

FBS

FBS

ROAD WORK 1 MILE
W20-1F

LEFT LANE CLOSED 1/2 MILE
W20-5G

SPEED LIMIT 55
W03-5

SPEED LIMIT 55
R2-1
48"X60"

W04-2L

5280'

5280'

500'

2600'

400'

700'

500'

NOTE:
1. SEE SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM" FOR ADDITIONAL NOTES.
2. ADD SIGN W20-1A ROAD WORK AHEAD TO IH 41 NB ON RAMPS FROM S HICKORY ST AND US 151/45.

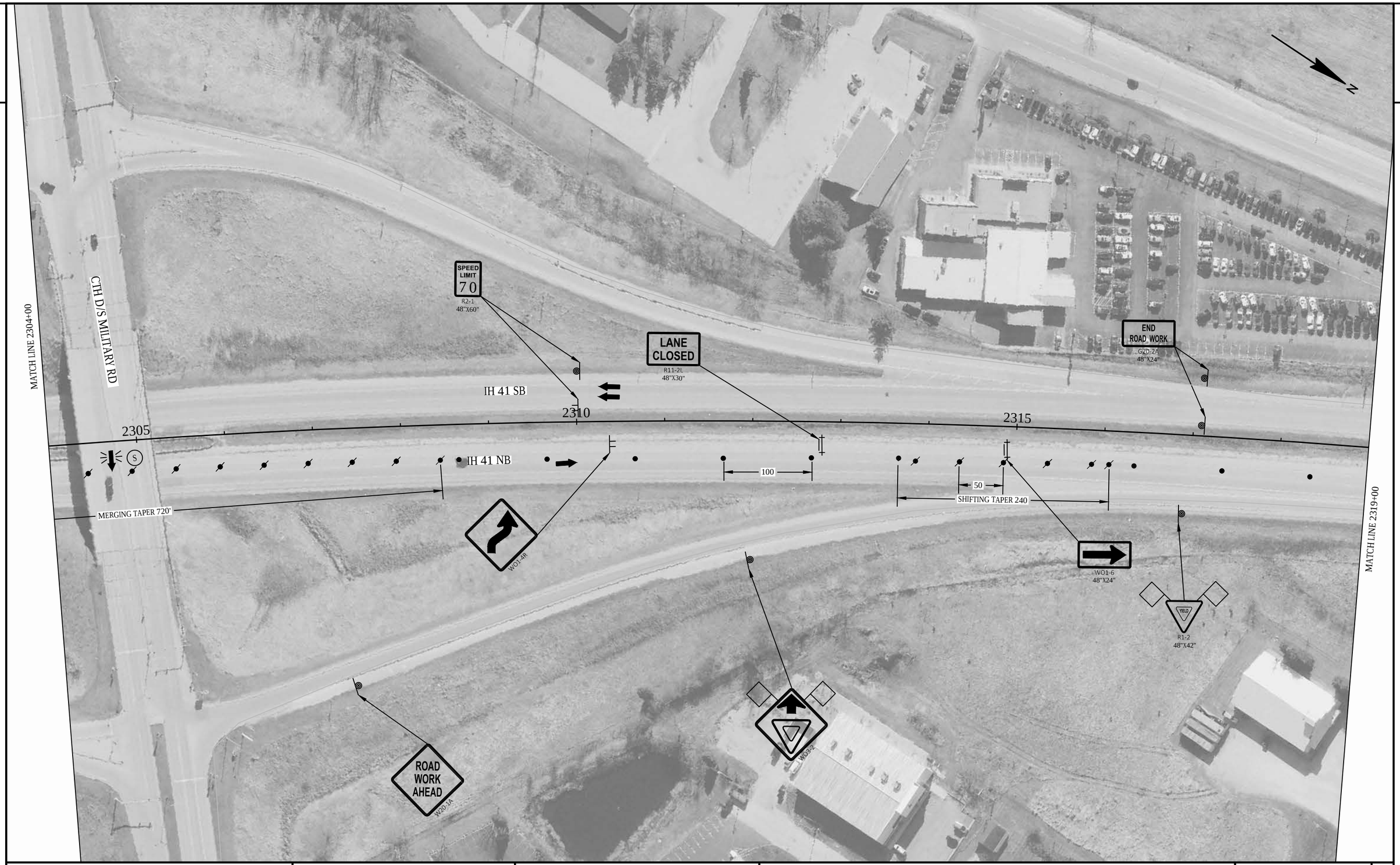
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 181	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 182	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 11:27 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 2319+00

CTH VVV/S ROLLING MEADOWS DR

WO1-6
48"X24"

240

50

IH 41 SB

2320

2325

2330

IH 41 NB

WO1-4L

100

LANE CLOSED
R11-2L
48"X30"

CONTINUE LANE CLOSURE AND TRAFFIC CONTROL DRUMS TO STA 2395+00

CTHVV/S PIONEER RD

PLACE R11-2L "LANE CLOSED" SIGN EVERY QUARTER MILE PER SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".

SPEED LIMIT 55
R2-1
48"X60"

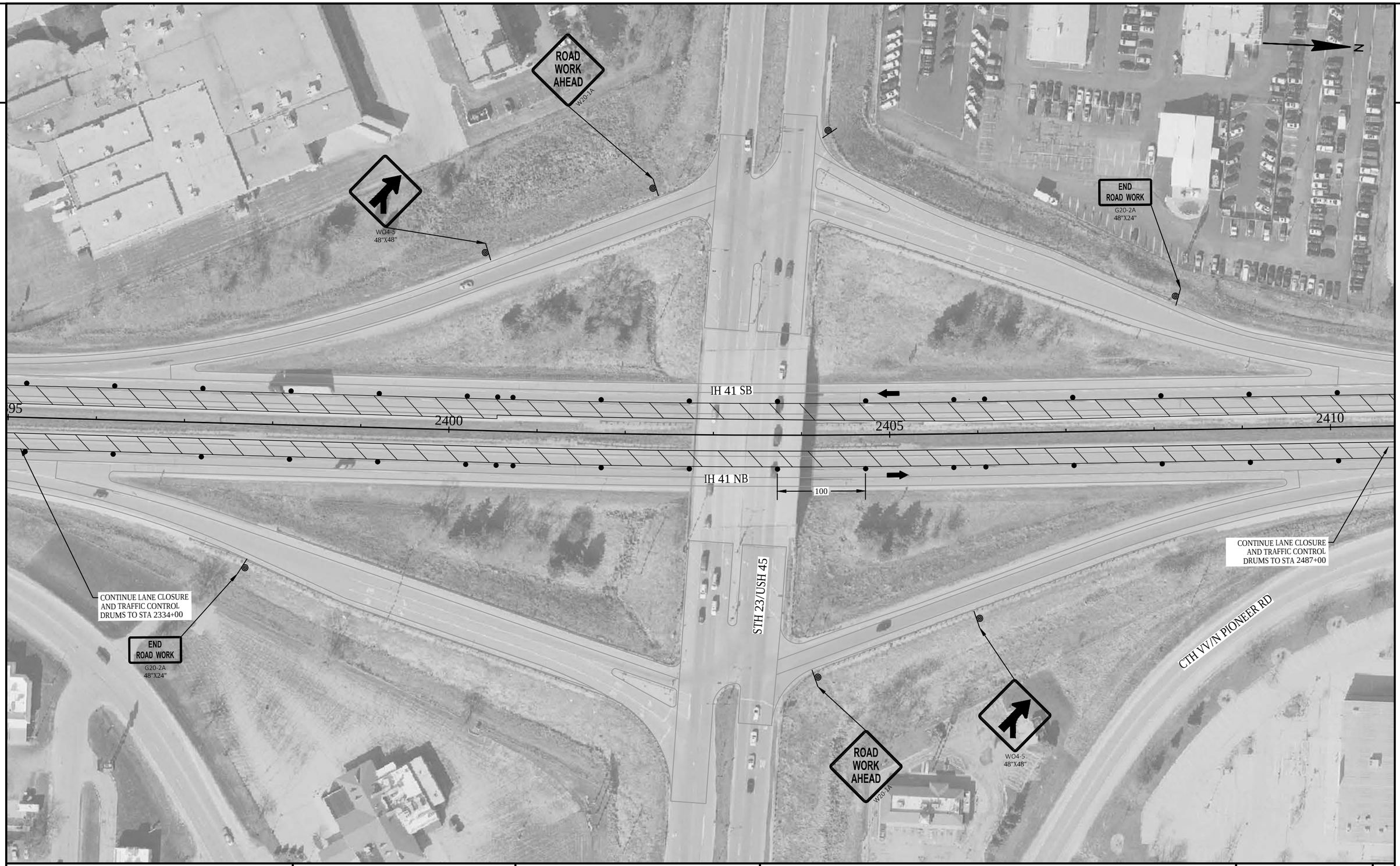
PLACE R2-1 "SPEED LIMIT 55" SIGN 1500' BEYOND THE END OF THE ACCELERATION LANE OF EVERY ENTRANCE RAMP WITHIN THE PROJECT LIMITS WITH A MAXIMUM OF THREE (3) MILES BETWEEN SIGNS PER SDD 15D 12-b "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION".

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 183	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

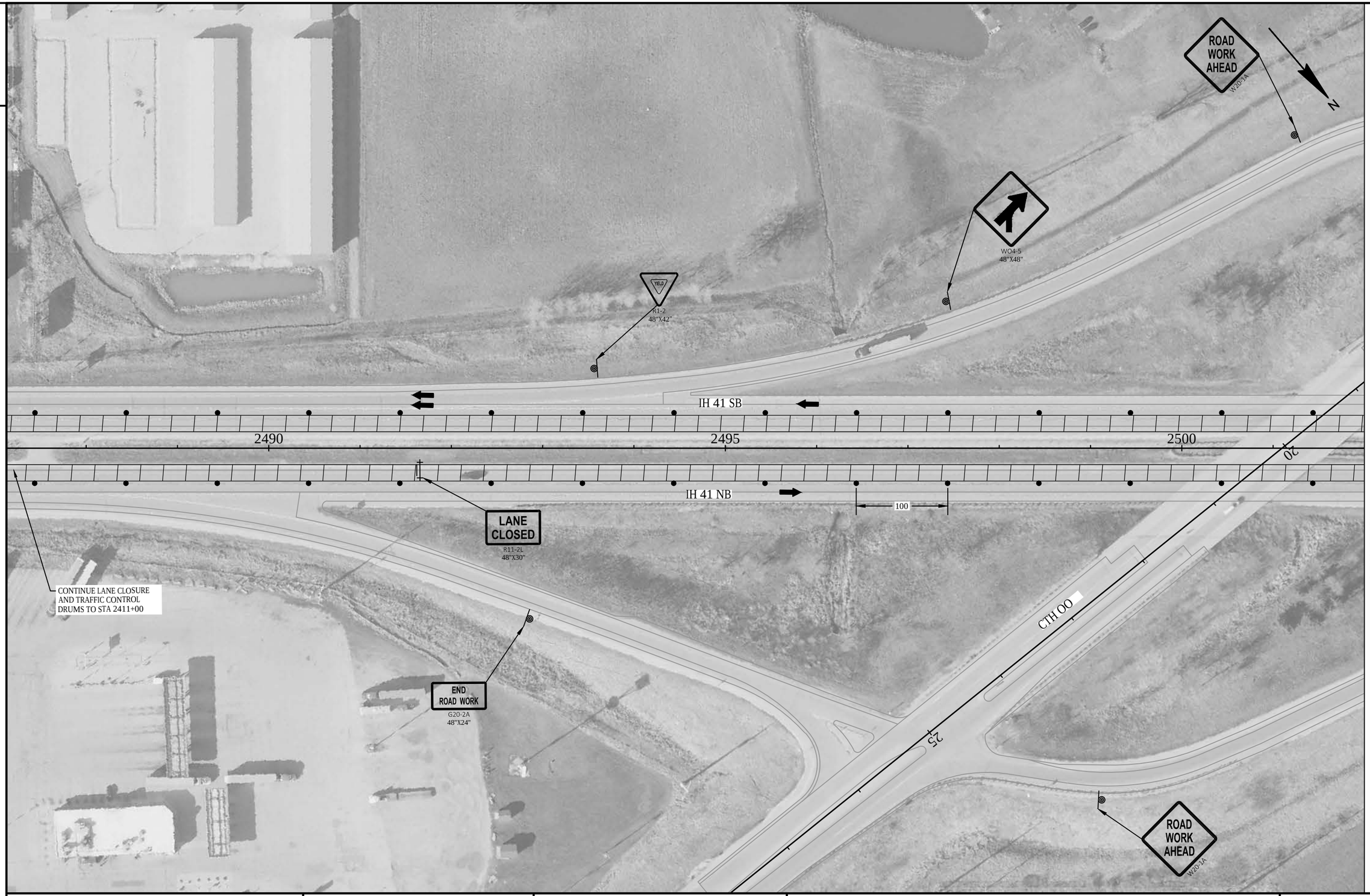


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 184	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 04

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 185	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 05

PLOT DATE : 10/16/2023 12:28 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 2502+00

CTH OO

15

12

END
ROAD WORK
G20-2A
48"X24"

IH 41 SB

2505

2510

2515

IH 41 NB

100

CONTINUE LANE CLOSURE
AND TRAFFIC CONTROL
DRUMS TO STA 2728+00

CTH VV/N PIONEER RD

W04-5
48"X48"

N

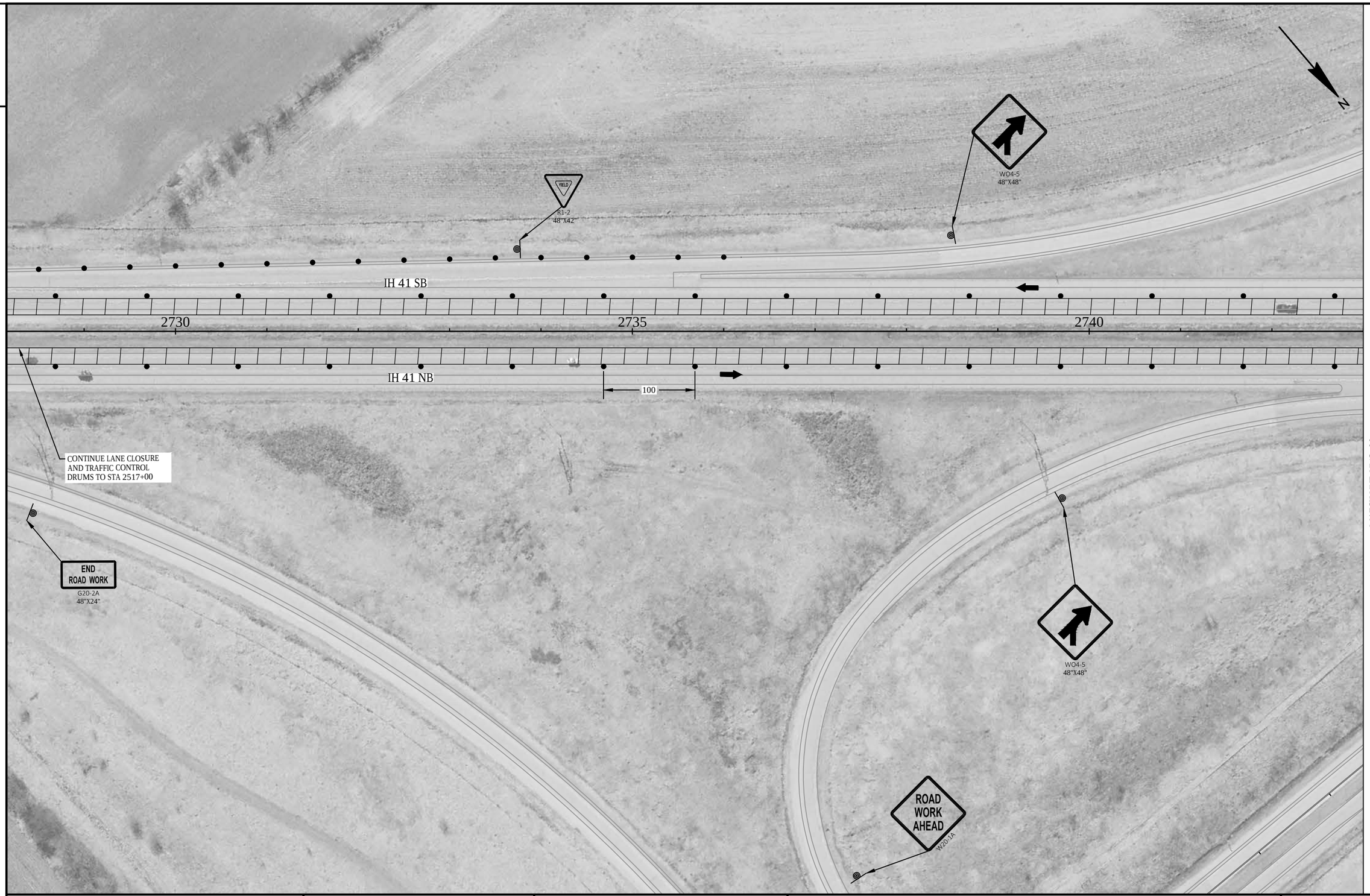
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 186	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 06

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 187	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 07

PLOT DATE : 10/16/2023 12:28 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 188	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 08

PLOT DATE : 10/16/2023 12:28 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

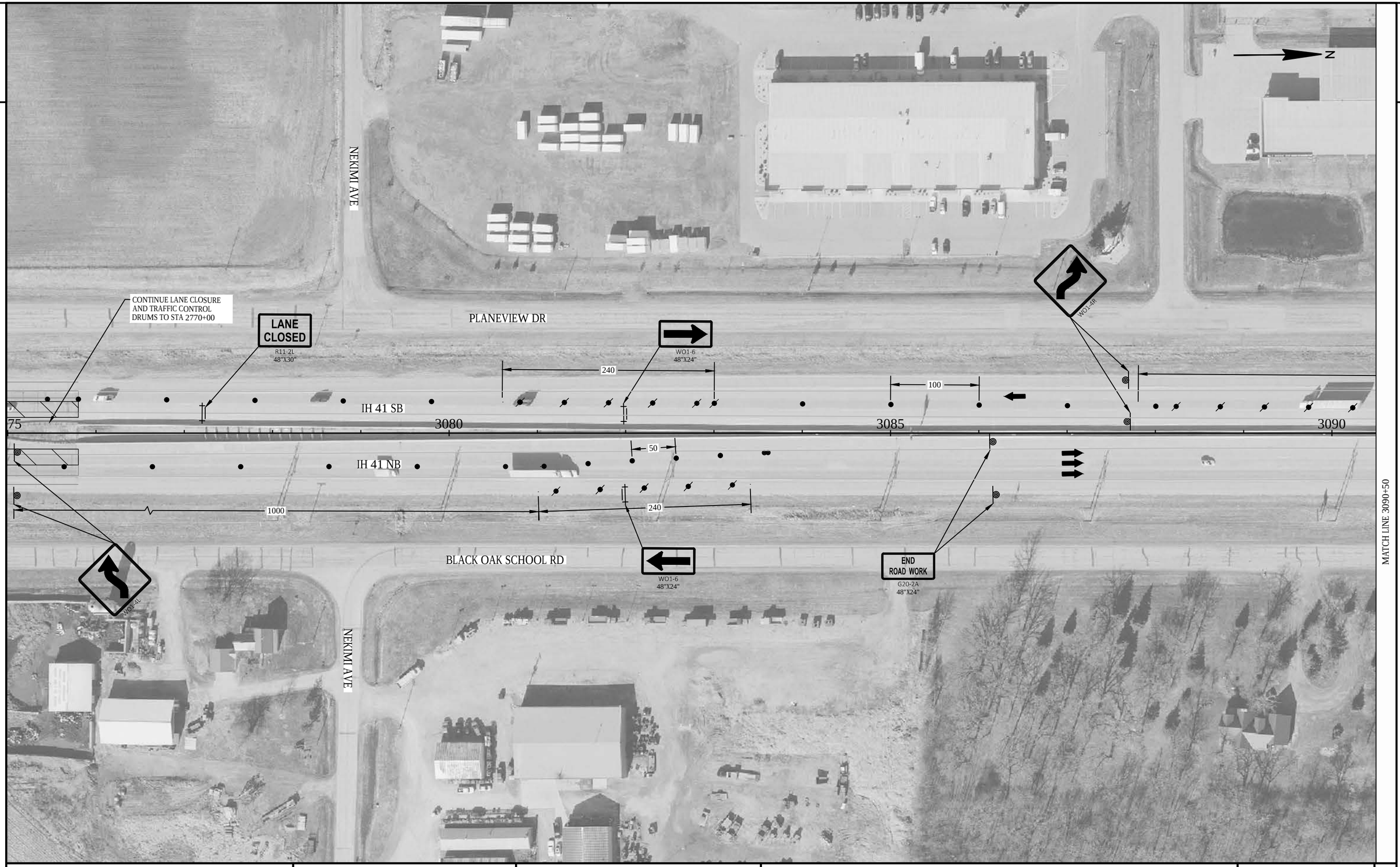
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 189	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 09

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 190	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 10

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 3090+50

MATCH LINE 3105+50

N

PLANEVIEW DR

MERGING TAPER 720

50

IH 41 SB

3095

3100

3105

W0A-2L

IH 41 NB

SPEED LIMIT 70

R2-1
48"X60"

BLACK OAK SCHOOL RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 191	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 11

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

PLACE R2-1 "SPEED LIMIT 55" SIGN 1500' BEYOND THE END OF THE ACCELERATION LANE OF EVERY ENTRANCE RAMP WITHIN THE PROJECT LIMITS WITH A MAXIMUM OF THREE (3) MILES BETWEEN SIGNS PER SDD 15D 12-b "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION".

ROAD WORK AHEAD
W20-1A

N

PLANEVIEW DR

MATCH LINE 3105+50

IH 41 SB

50

3110

3115

3120

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3120+50

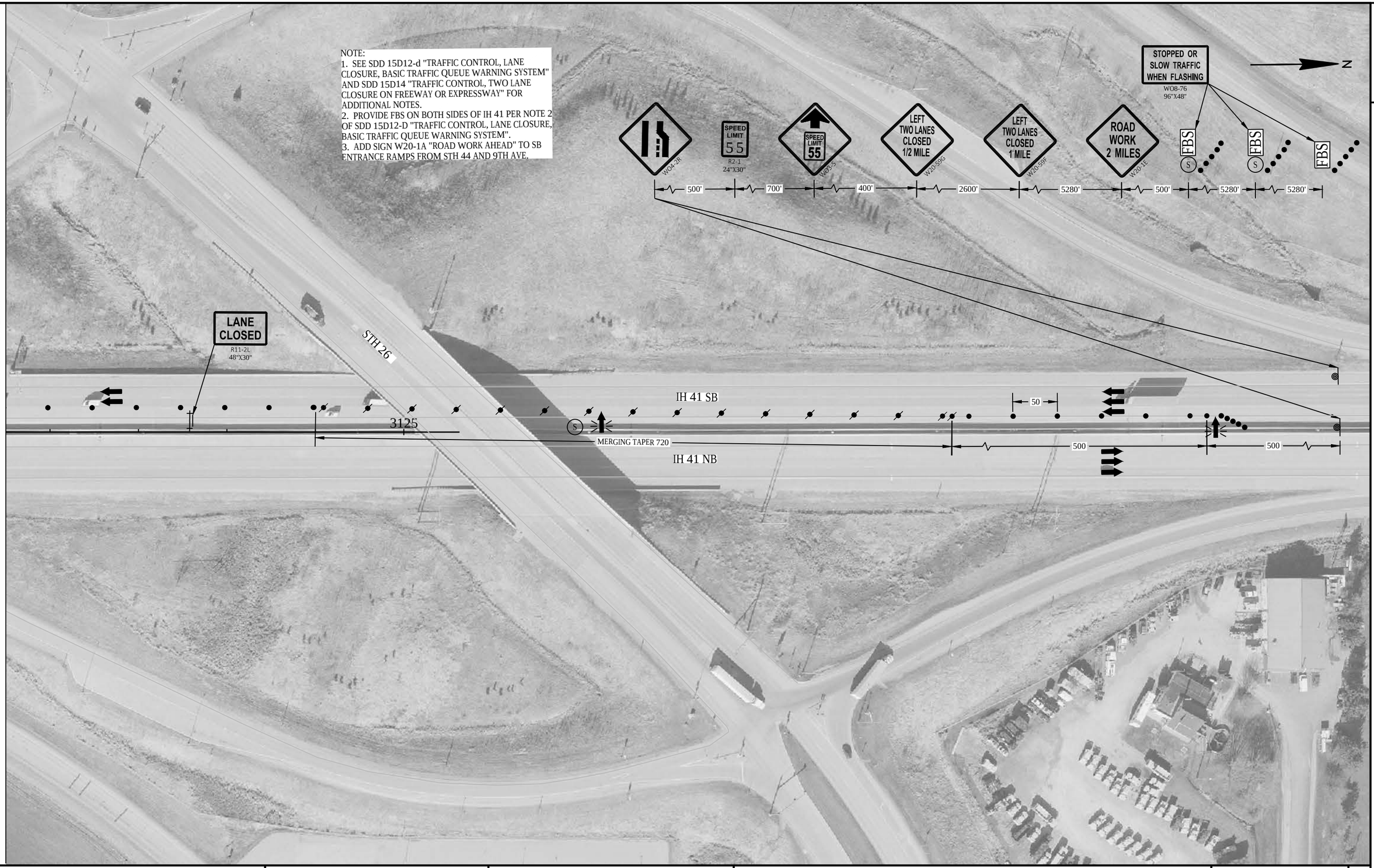
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 192	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 12

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

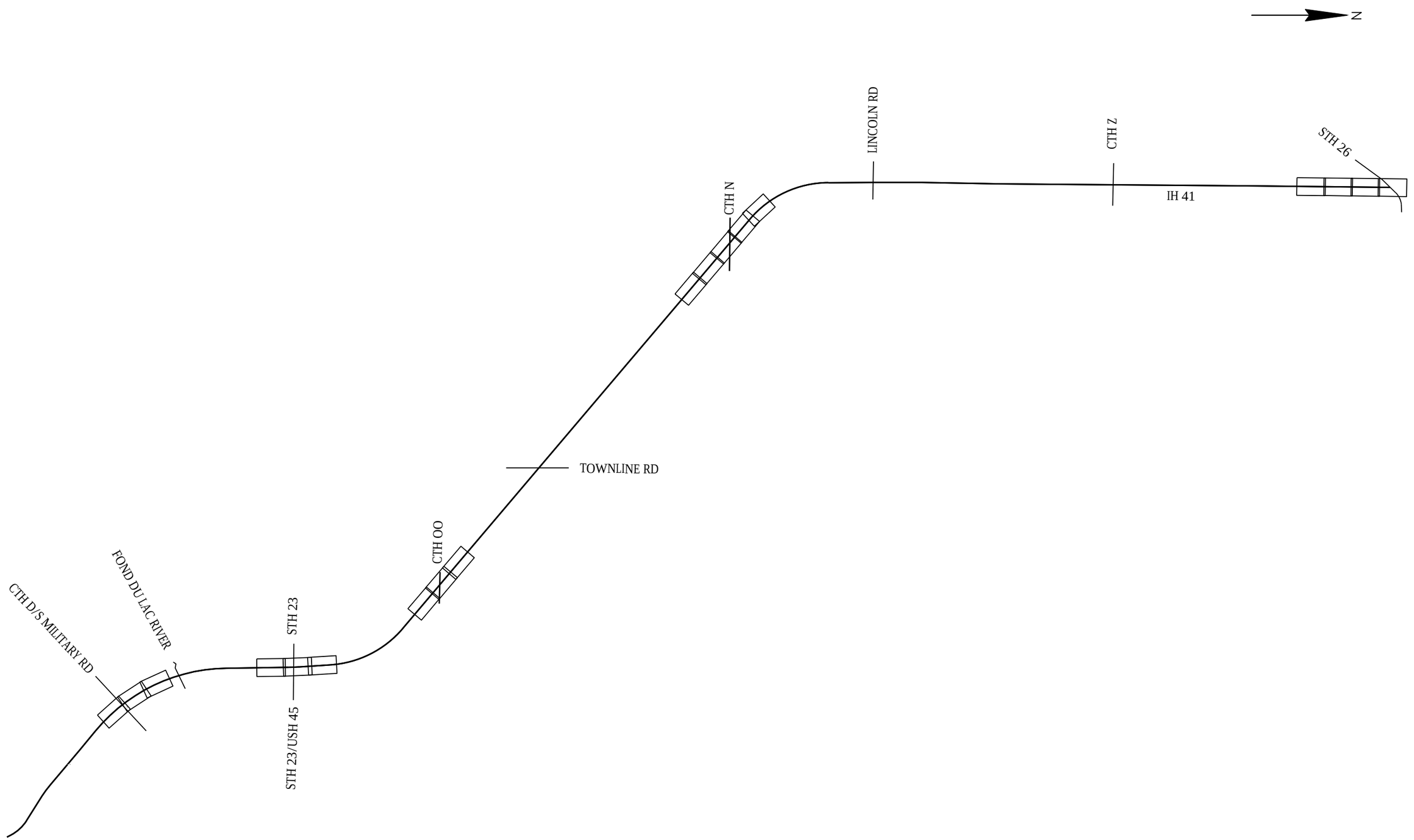
NOTE:
1. SEE SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM" AND SDD 15D14 "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY" FOR ADDITIONAL NOTES.
2. PROVIDE FBS ON BOTH SIDES OF IH 41 PER NOTE 2 OF SDD 15D12-D "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".
3. ADD SIGN W20-1A "ROAD WORK AHEAD" TO SB ENTRANCE RAMPS FROM STH 44 AND 9TH AVE.



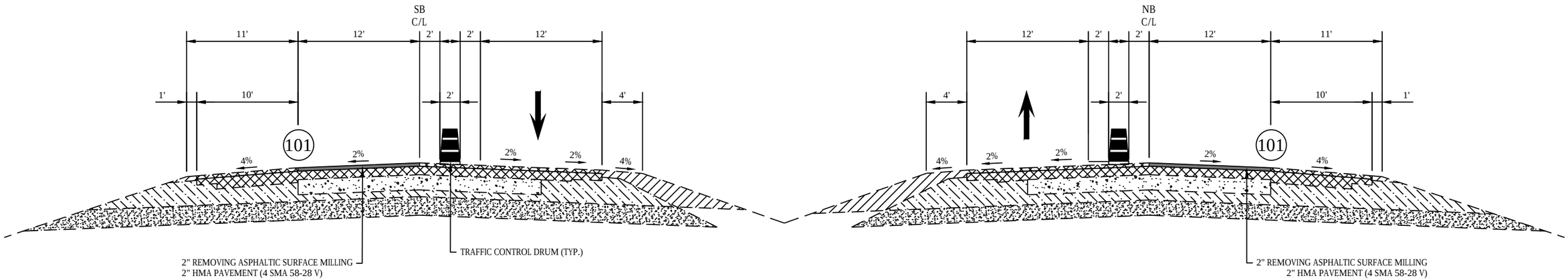
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (M)	SHEET 193	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026002-S2.DWG
LAYOUT NAME - 13
PLOT DATE : 10/16/2023 3:07 PM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M) OVERVIEW	SHEET 194	E



TYPICAL SECTION STAGE 3 (M)

IH 41

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW		TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT		FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 3 MAINLINE CONSTRUCTION

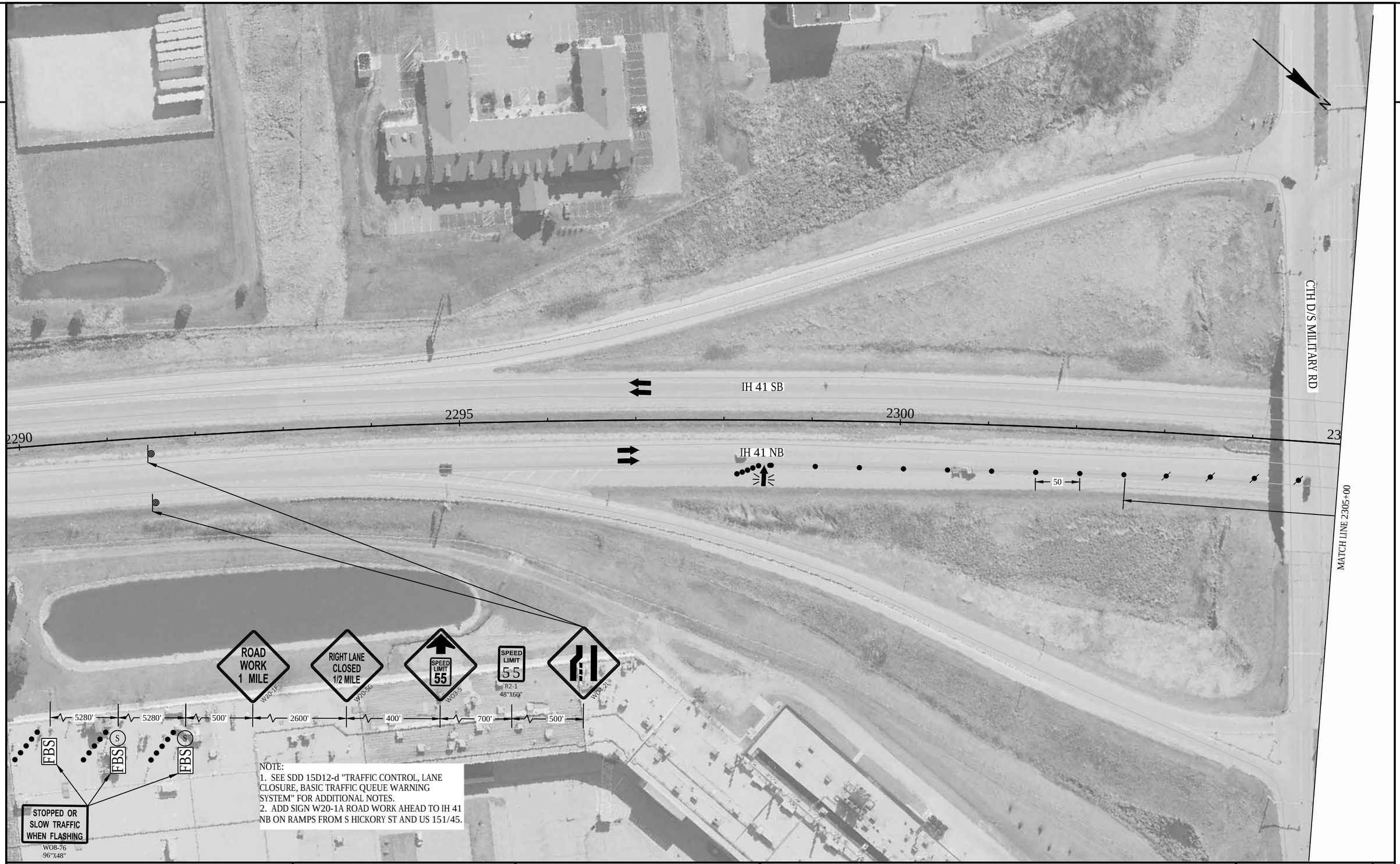
-CLOSE OUTSIDE LANE IN BOTH DIRECTIONS AND RAMPS
-SHIFT TRAFFIC 6' ONTO COMPLETED INSIDE SHOULDER
-MILL AND OVERLAY OUTSIDE LANE AND RAMPS
-INSTALL OUTSIDE RUMBLE STRIP

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 195	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 00B

PLOT DATE : 10/30/2023 8:04 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



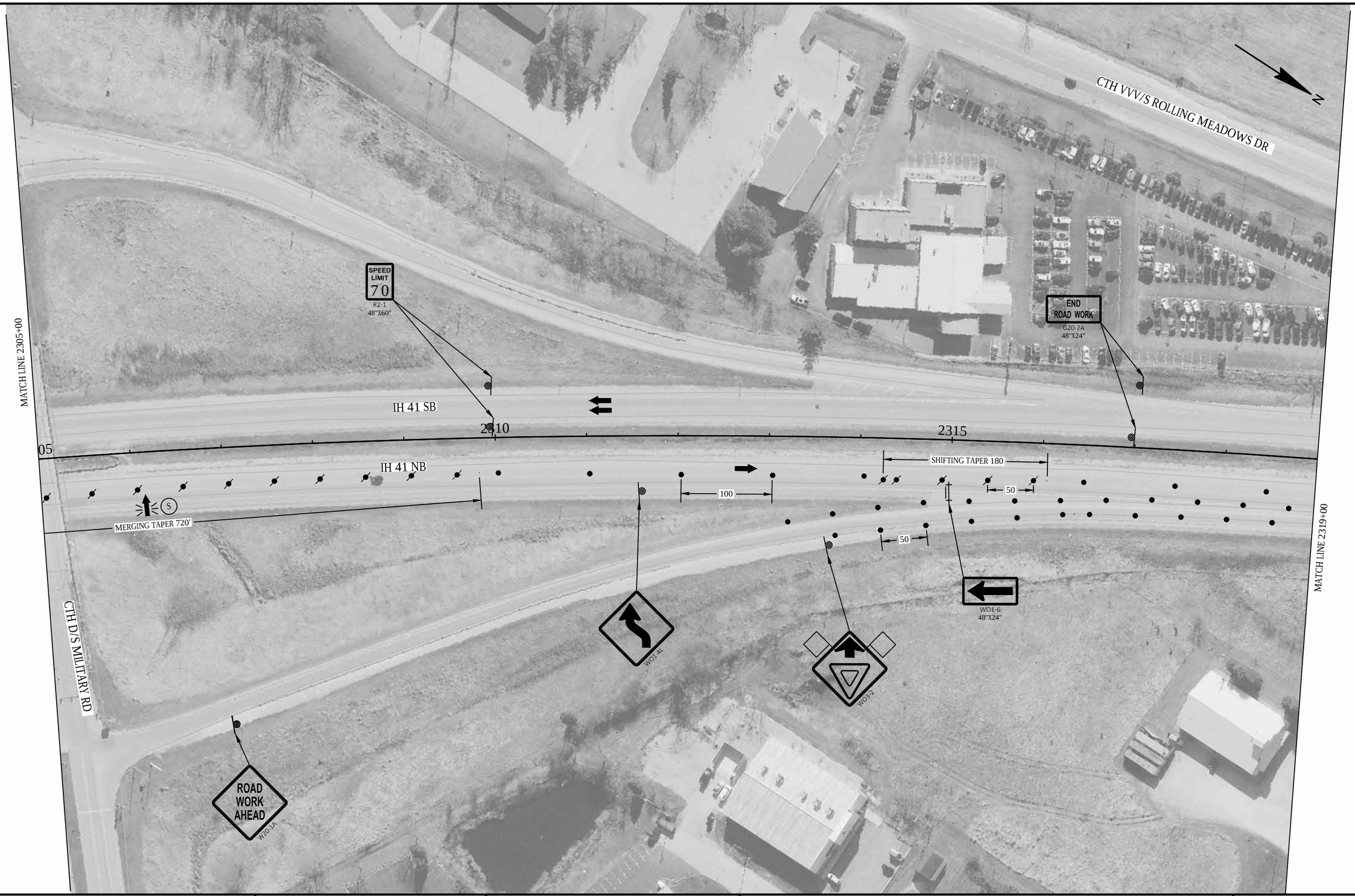
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 196	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 197	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 11:28 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 2319+00

CTH VVV/S ROLLING MEADOWS DR

W01-6
48"X24"

50

180

IH 41 SB

2320

2325

2330

W01-4R

1000

PLACE R2-1 "SPEED LIMIT 55" SIGN 1500' BEYOND THE END OF THE ACCELERATION LANE OF EVERY ENTRANCE RAMP WITHIN THE PROJECT LIMITS WITH A MAXIMUM OF THREE (3) MILES BETWEEN SIGNS PER SDD 15D 12-b "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION".

SPEED LIMIT 55
R2-1
48"X60"

IH 41 NB

50

25

600

YIELD
R1-2
48"X42"

LANE CLOSED
R11-2L
48"X30"

CONTINUE LANE CLOSURE AND TRAFFIC CONTROL DRUMS TO STA 2383+00

CTHVV/S PIONEER RD

PLACE R11-2L "LANE CLOSED" SIGN EVERY QUARTER MILE PER SDD 15D 12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 198	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

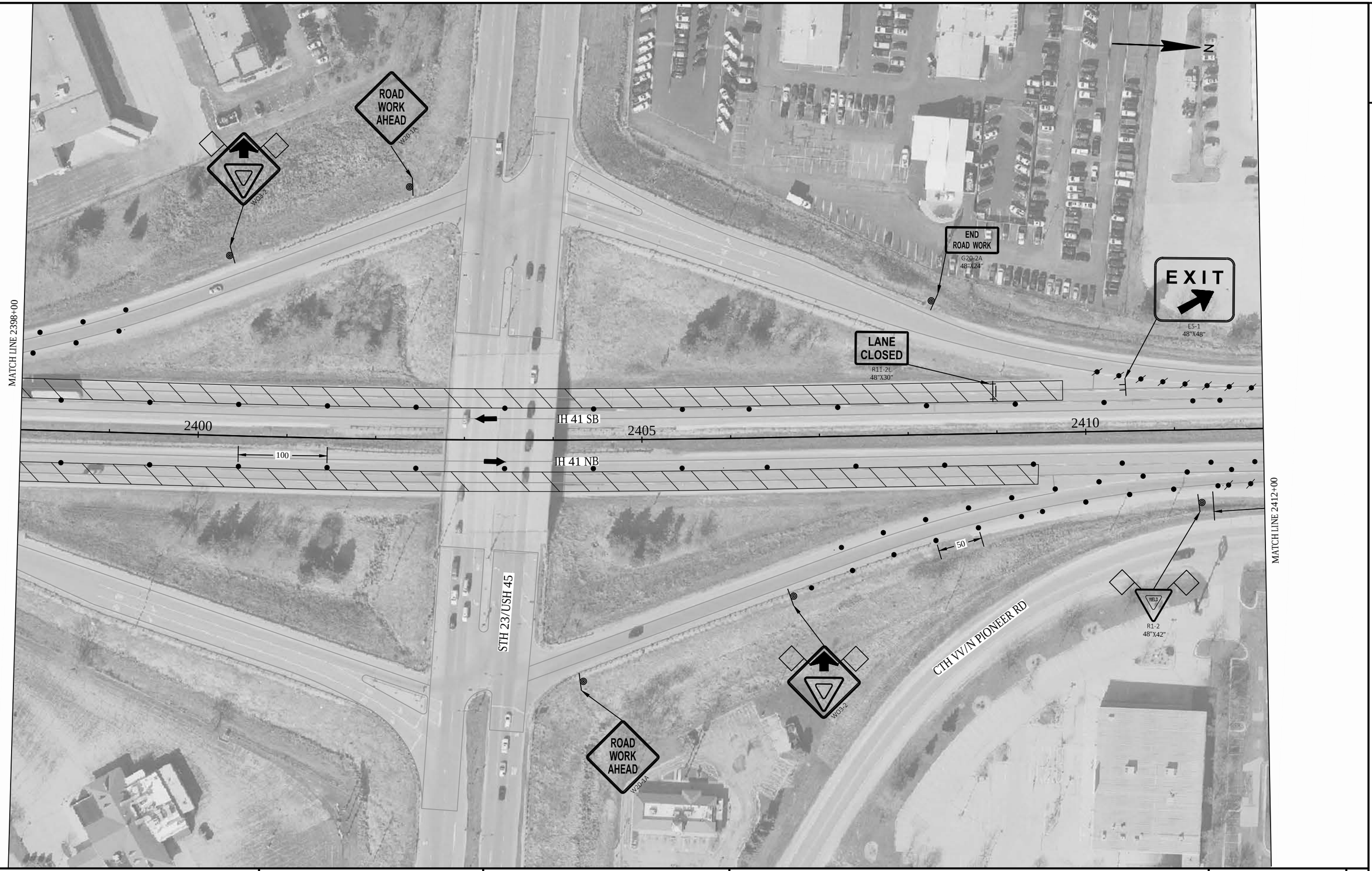
2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 199	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 04

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 200	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 05

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCH LINE 2412+00

25

2415

2420

IH 41 SB

2425

IH 41 NB

25

600

100

CTH VV/N PIONEER RD

LANE CLOSED

R11-2L
48"X30"

CONTINUE LANE CLOSURE AND TRAFFIC CONTROL DRUMS TO STA 2480+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 201	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 06

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

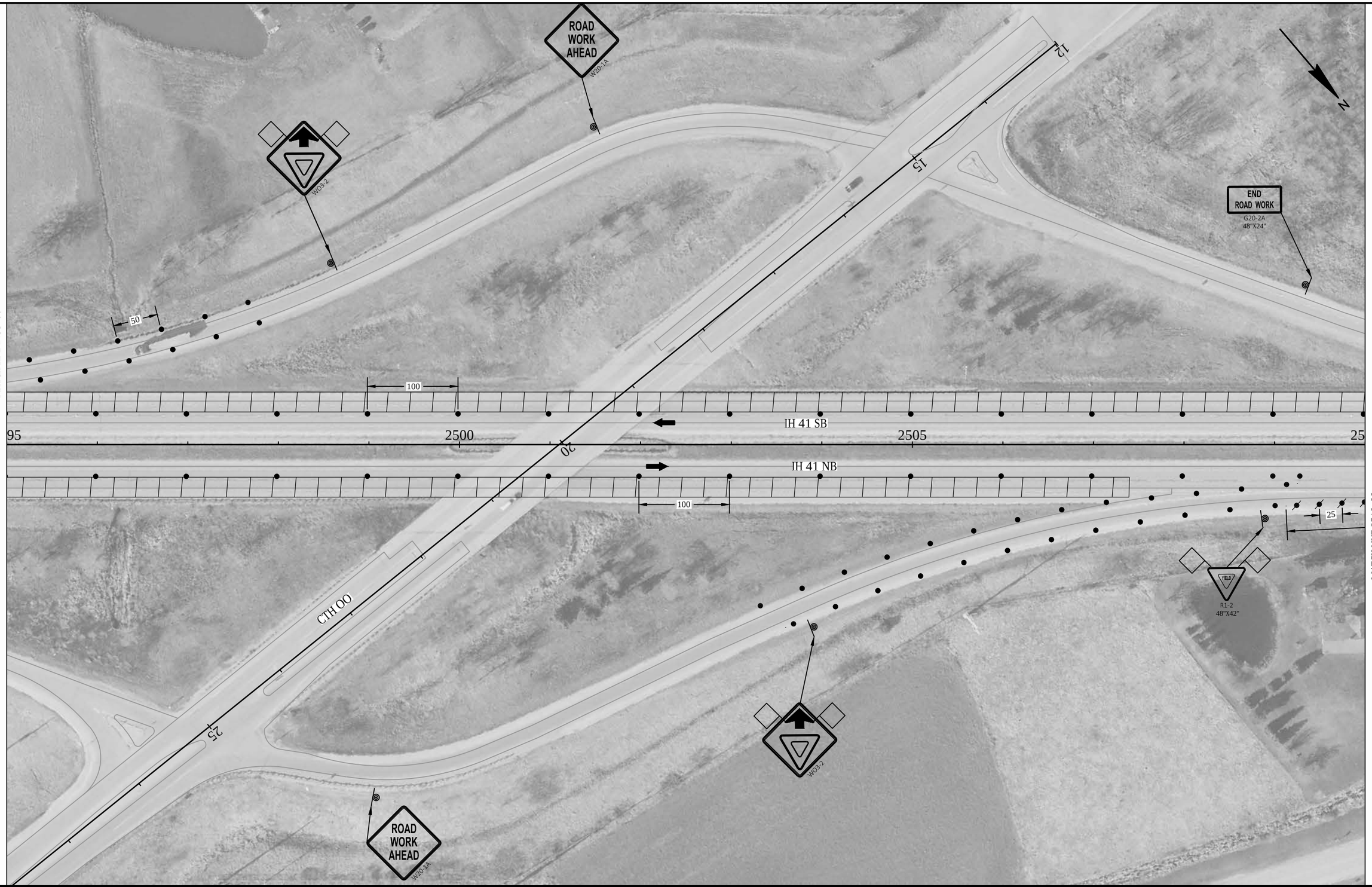
2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 202	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 07

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

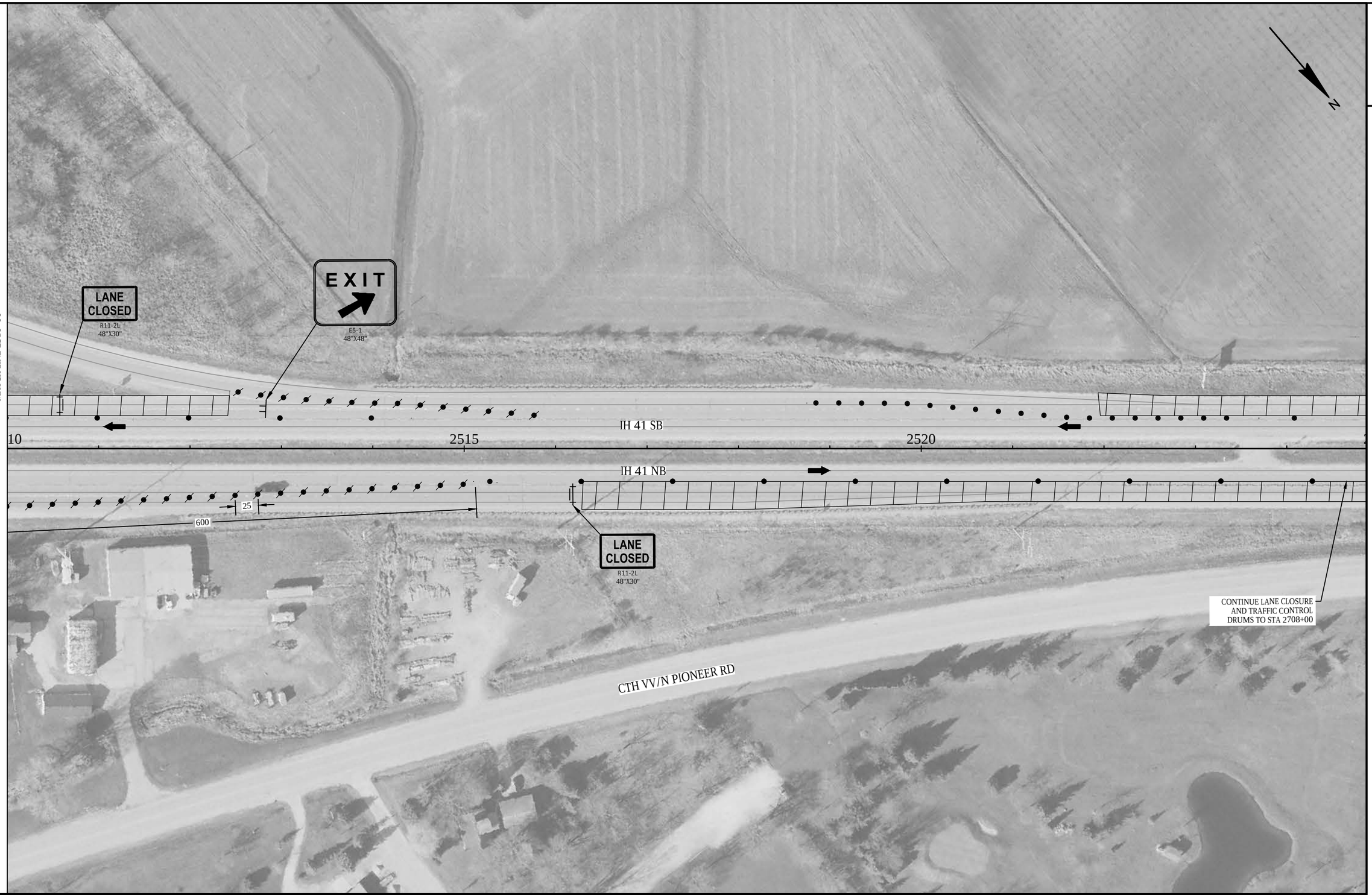


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 203	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 08

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 204	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 09

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 SB

2710

2715

2720

IH 41 NB

100

CONTINUE LANE CLOSURE
AND TRAFFIC CONTROL
DRUMS TO STA 2525+00

EXIT

E5-1
48"X48"

MATCH LINE 2723+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 205	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 10

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

MATCH LINE 2723+00

MATCH LINE 2738+00

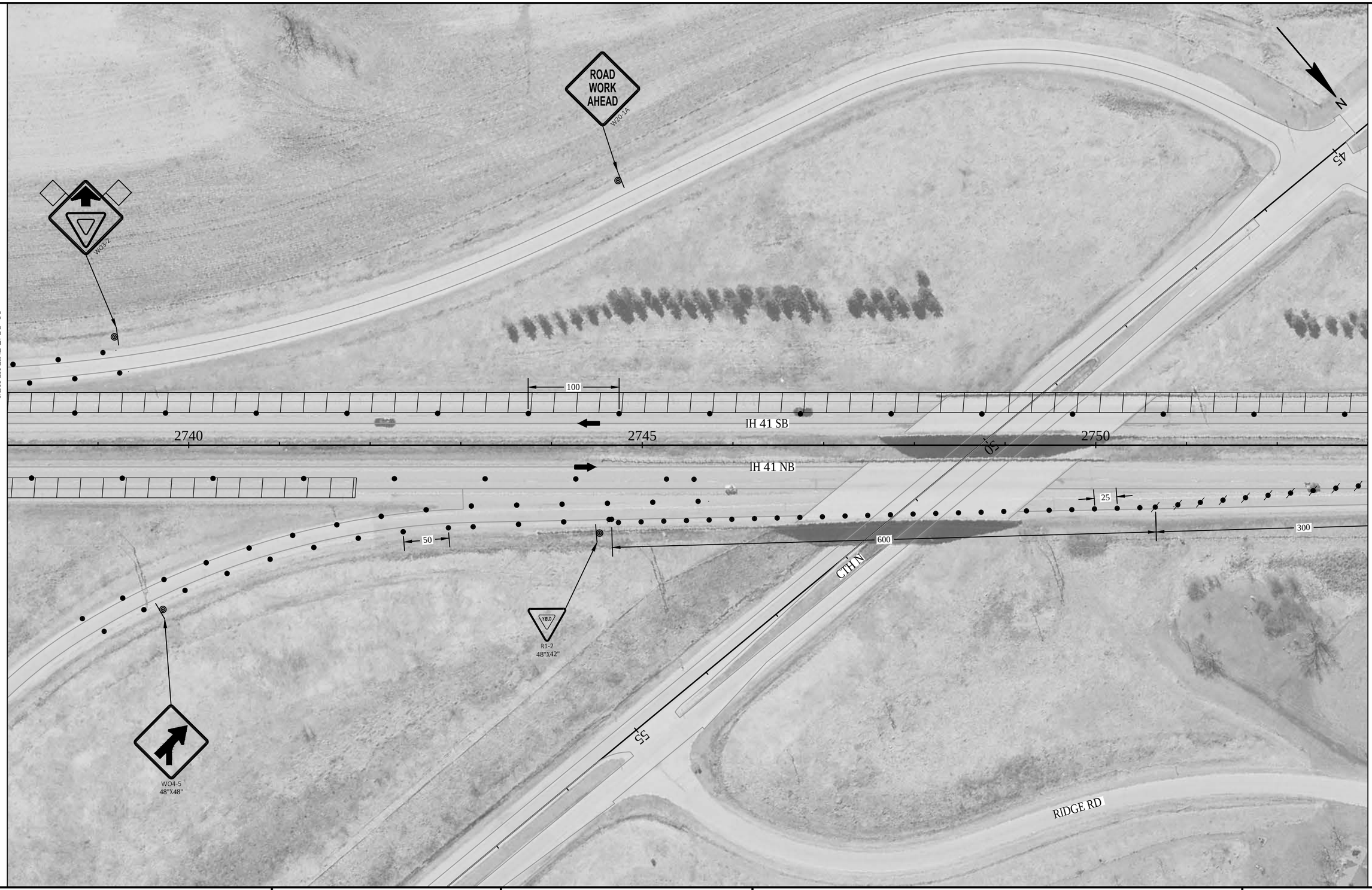
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 206	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 11

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 207	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 12

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

EXIT
E5-1
48"X48"

25

MATCH LINE 2753+00

IH 41 SB

2755

2760

2765

IH 41 NB

100

LANE CLOSED
R11-2L
48"X30"

MATCH LINE 2768+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 208	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 13

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 209	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 14

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

NEKIMI AVE

PLANEVIEW DR

CONTINUE LANE CLOSURE AND TRAFFIC CONTROL DRUMS TO STA 2781+00

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

98

180

50

IH 41 SB

3075

3080

180

3085

50

IH 41 NB

1000

WO1-6
48"X24"

BLACK OAK SCHOOL RD

WO1-4R

END ROAD WORK
G20-2A
48"X24"

NEKIMI AVE

MATCH LINE 3089+50

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 210	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 15

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 3089+50

MATCH LINE 3104+50

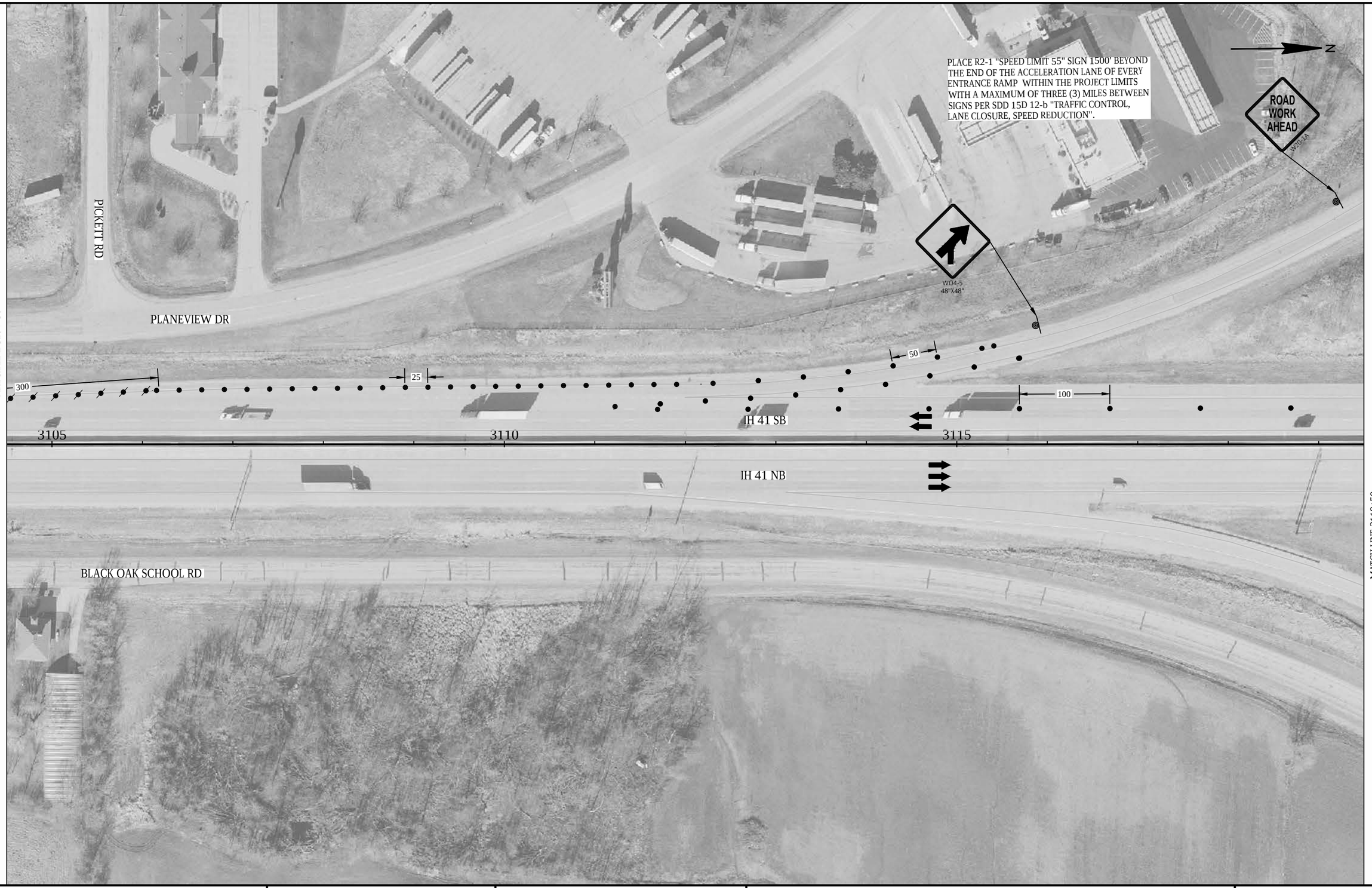
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 211	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 16

PLOT DATE : 10/13/2023 11:29 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

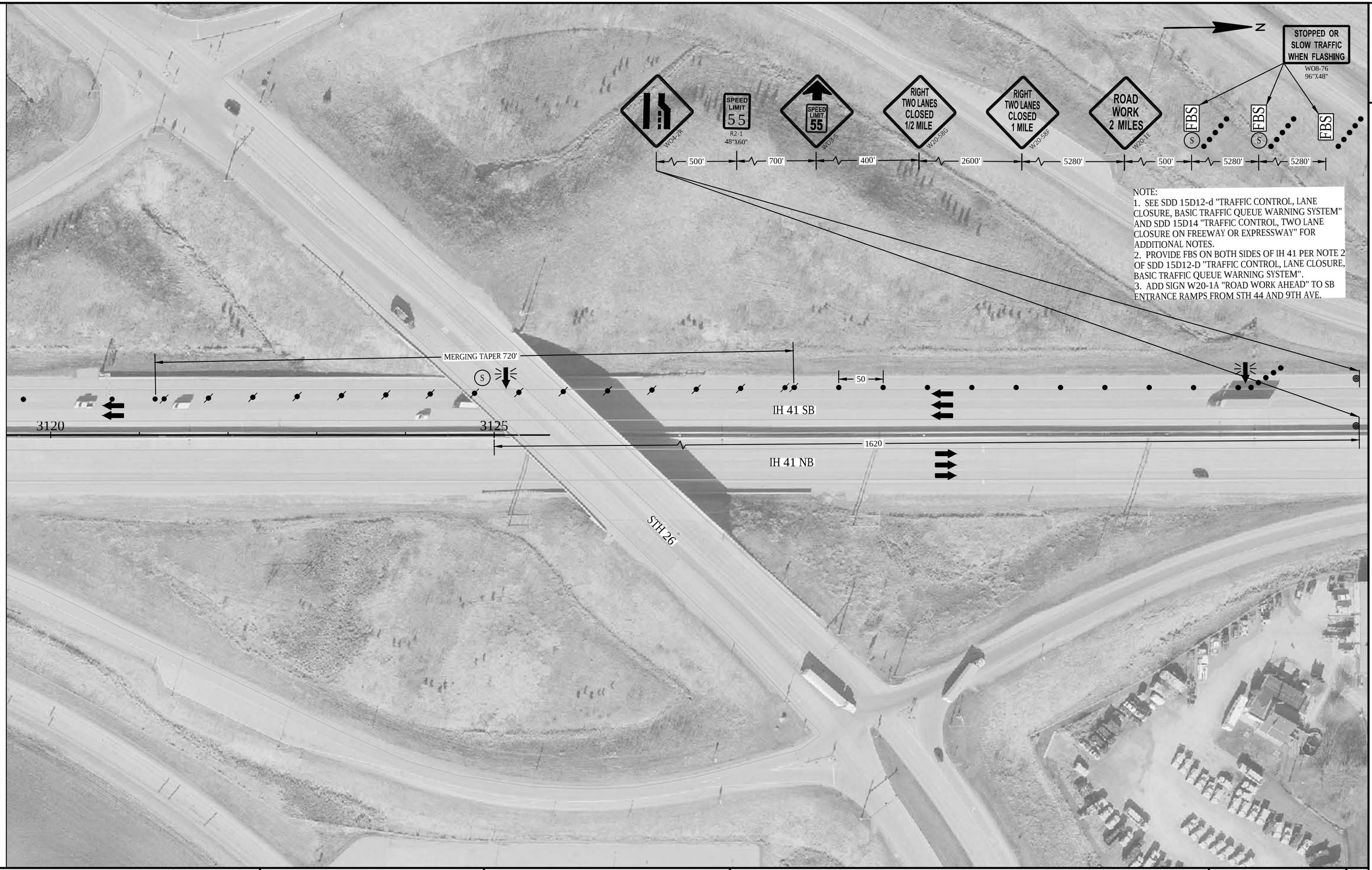


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 212	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026003-S3.DWG
LAYOUT NAME - 17

PLOT DATE : 10/13/2023 11:30 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

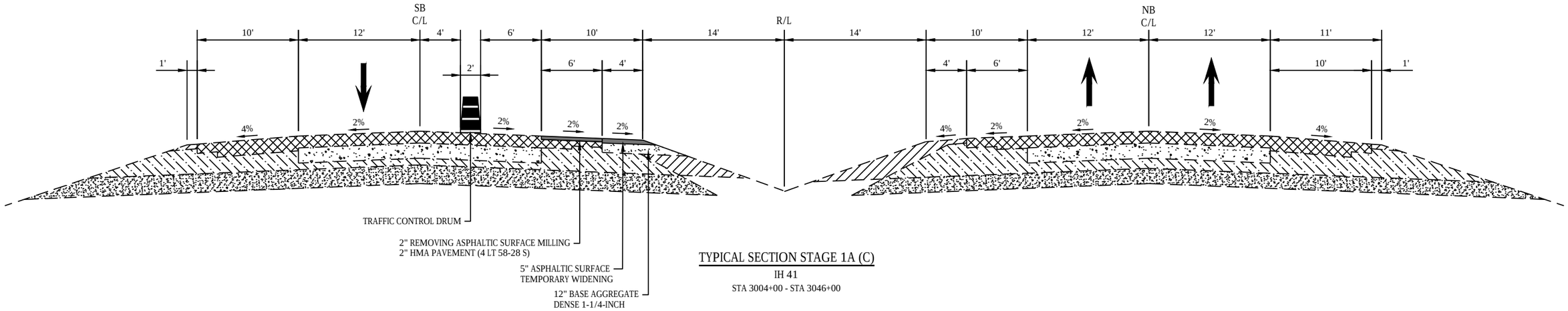
2



NOTE:
1. SEE SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM" AND SDD 15D14 "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY" FOR ADDITIONAL NOTES.
2. PROVIDE FBS ON BOTH SIDES OF IH 41 PER NOTE 2 OF SDD 15D12-D "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".
3. ADD SIGN W20-1A "ROAD WORK AHEAD" TO SB ENTRANCE RAMPS FROM STH 44 AND 9TH AVE.

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (M)	SHEET 213	E

2



TYPICAL SECTION STAGE 1A (C)

IH 41

STA 3004+00 - STA 3046+00

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT		FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 1A CULVERT CONSTRUCTION

-CLOSE INSIDE SB LANE

-MILL AND OVERLAY INSIDE SB SHOULDER

-4' TEMPORARY WIDENING INSIDE SHOULDER

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1A (C)	SHEET 214	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026101-S1A.DWG
LAYOUT NAME - 00

PLOT DATE : 10/27/2023 1:55 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

NOTE:
PLACE W20-F SIGN 1 MILE
BEFORE ROAD WORK

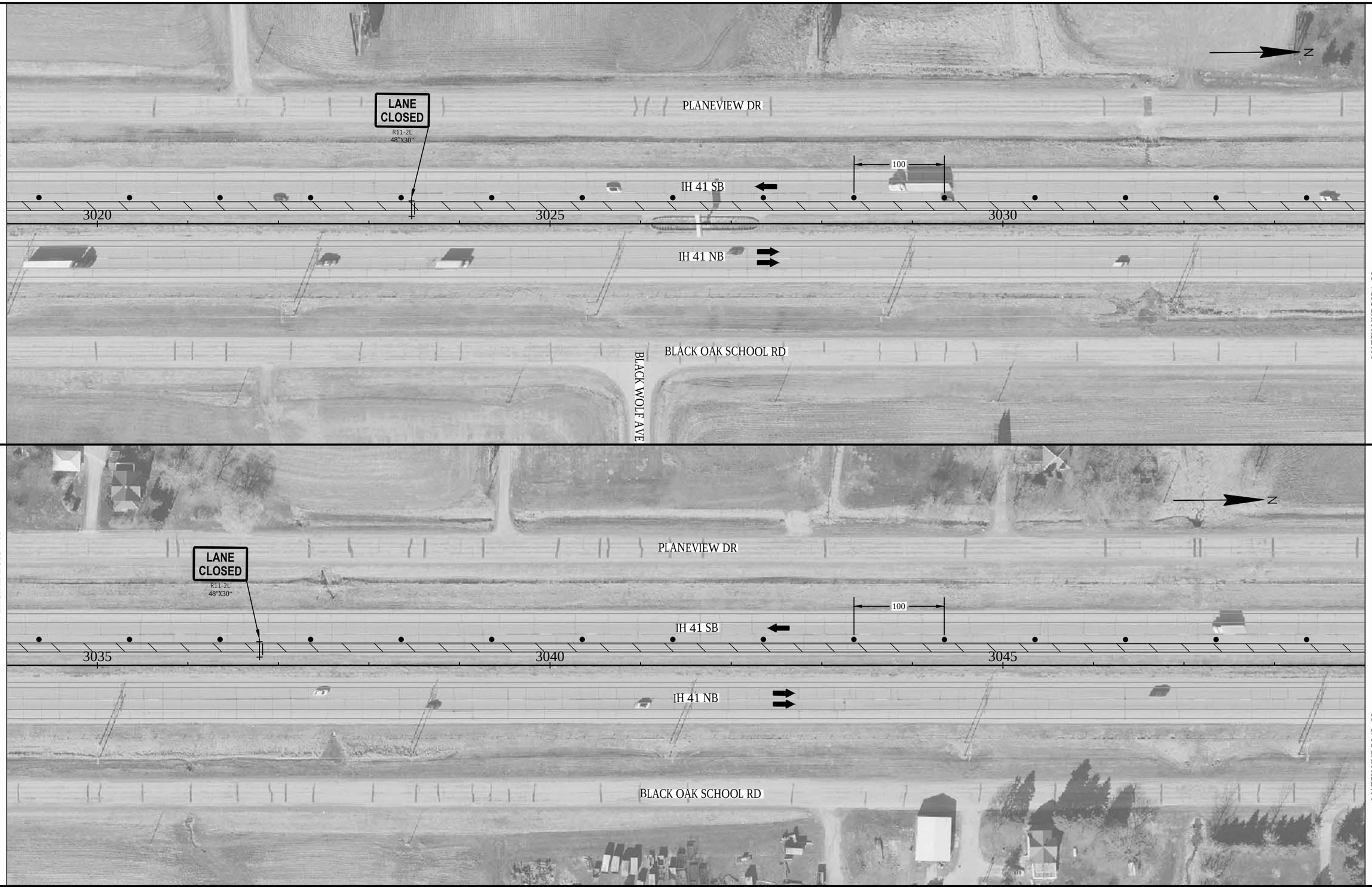
2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1A (C)	SHEET 215	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026101-S1A.DWG
LAYOUT NAME - 01
PLOT DATE : 10/16/2023 8:21 AM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 3019+00



MATCH LINE 3034+00

MATCH LINE 3034+00

MATCH LINE 3049+00

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1A (C)	SHEET 216	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026101-S1A.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 11:49 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 3049+00

PLANEVIEW DR

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

100

IH 41 SB

3050

3055

3060

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3064+00

2

NOTE:
1. SEE SDD 15D12-d "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM" FOR ADDITIONAL NOTES.
2. PROVIDE FBS ON BOTH SIDES OF IH 41 PER NOTE 2 OF SDD 15D12-D "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM".

500' 700' 400' 2600' 500' 5280' 5280'

W04-2L

SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 55
W03-5

LEFT LANE CLOSED 1/2 MILE
W20-5SG

ROAD WORK 1 MILE
W20-1F

FBS FBS FBS

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W08-76
96"X48"

MATCH LINE 3064+00

720

50

IH 41 SB

3065

3070

3075

IH 41 NB

PLANEVIEW DR

BLACK OAK SCHOOL RD

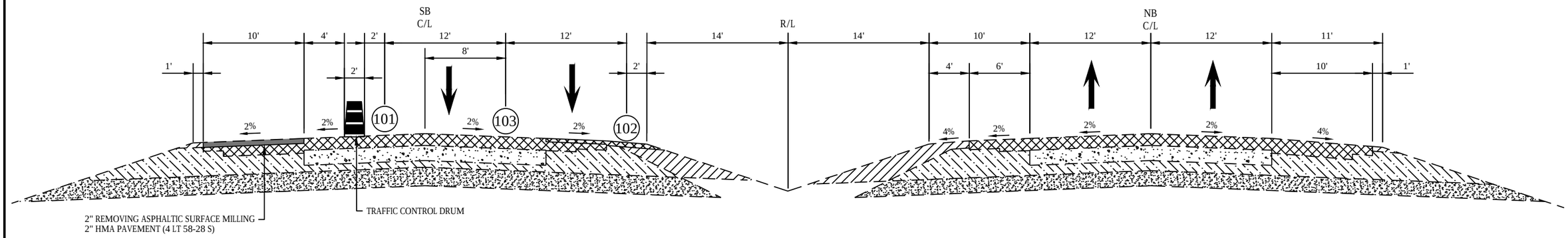
NEKIMI AVE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1A (C)	SHEET 217	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026101-S1A.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 11:49 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



TYPICAL SECTION STAGE 1B (C)

IH 41

STA 3004+00 - STA 3046+00

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT	◇ ◇	FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 1B CULVERT CONSTRUCTION

-SHIFT SB LANES 8' ONTO WIDENED INSIDE SHOULDER

-MILL AND OVERLAY OUTSIDE SB SHOULDER

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1B (C)	SHEET 218	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026102-S1B.DWG
LAYOUT NAME - 00

PLOT DATE : 10/16/2023 8:22 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

500'

SPEED LIMIT 70
R2-1
48"X60"

END ROAD WORK
G20-2A
48"X24"

PLANEVIEW DR

240

50

101

102

103

100

IH 41 SB

2990

2995

3000

IH 41 NB

ROAD WORK 1 MILE
W20-1F

NOTE:
PLACE W20-F SIGN 1 MILE
BEFORE ROAD WORK

BLACK OAK SCHOOL RD

N

MATCH LINE 3001+00

MATCH LINE 3001+00

LANE CLOSED
R11-2L
48"X30"

W01-4BR

PLANEVIEW DR

101

102

103

100

IH 41 SB

3005

3010

3015

IH 41 NB

BLACK OAK SCHOOL RD

N

LANE CLOSED
R11-2L
48"X30"

MATCH LINE 3016+00

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1B (C)	SHEET 219	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026102-S1B.DWG
LAYOUT NAME - 01

PLOT DATE : 10/16/2023 8:22 AM

PLOT BY : ELIZABETH CASTELLAN

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 3016+00

PLANEVIEW DR

101 102 103

LANE CLOSED
R11-2L
48"X30"

100

IH 41 SB

3020 3025 3030

IH 41 NB

BLACK OAK SCHOOL RD

BLACK WOLF AVE

MATCH LINE 3031+00

2

MATCH LINE 3031+00

LANE CLOSED
R11-2L
48"X30"

PLANEVIEW DR

101 102 103

100

IH 41 SB

3035 3040 3045

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3046+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1B (C)	SHEET 220	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026102-S1B.DWG
LAYOUT NAME - 02

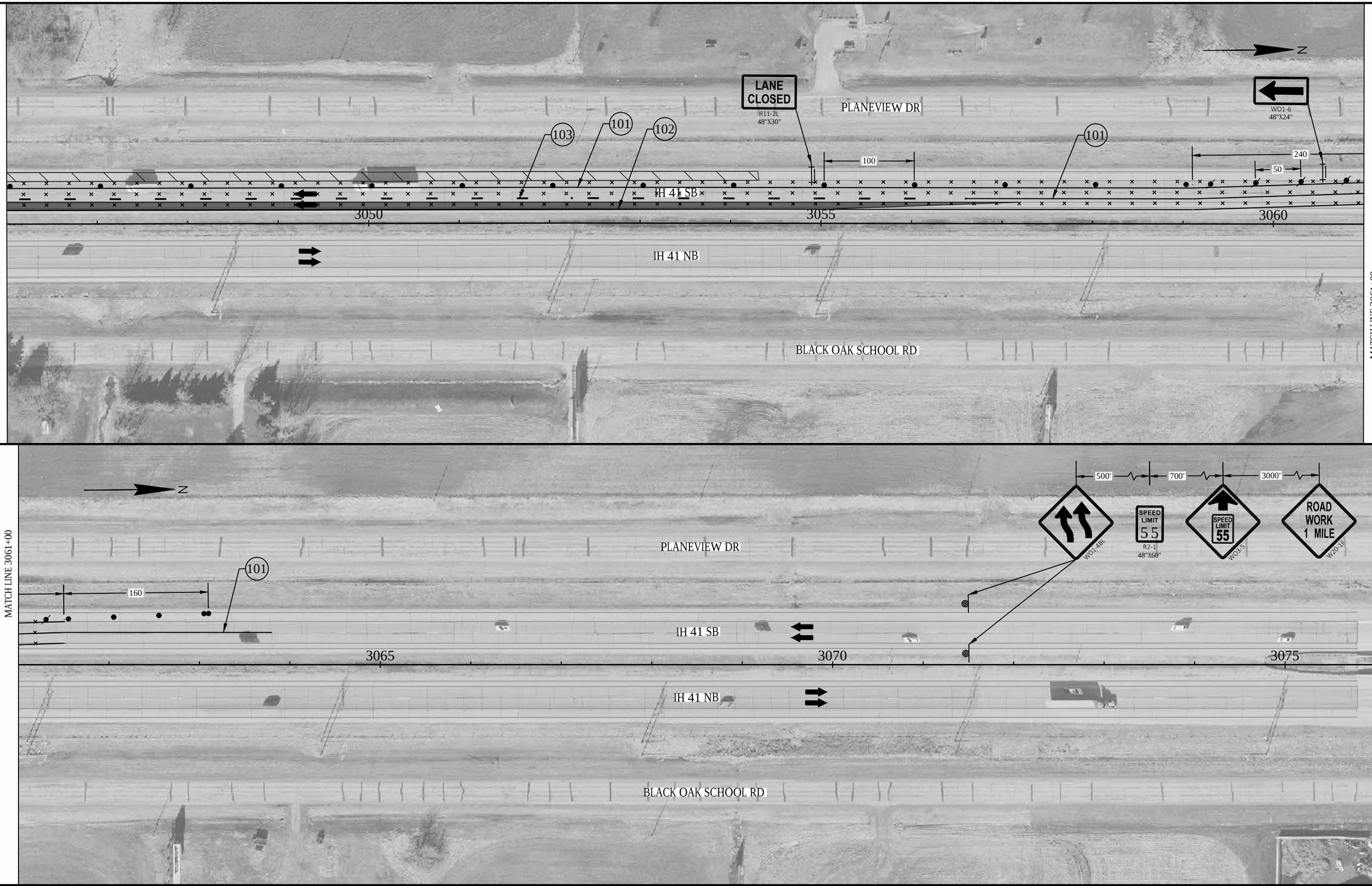
PLOT DATE : 10/13/2023 11:51 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 3046+00

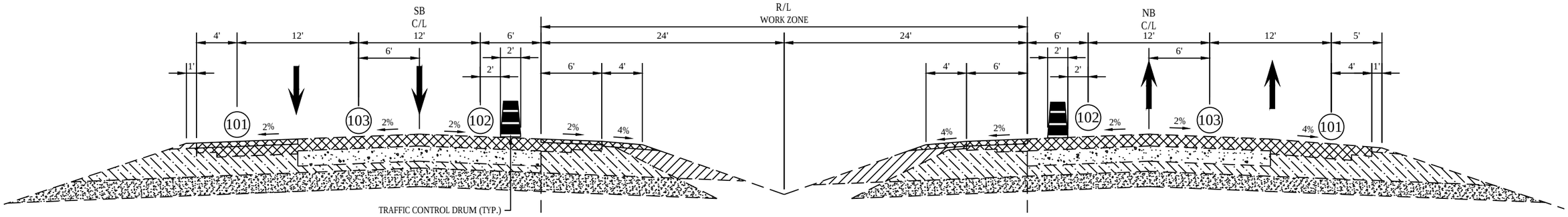
MATCH LINE 3061+00



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1B (C)	SHEET 221	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026102-S1B.DWG
LAYOUT NAME - 03

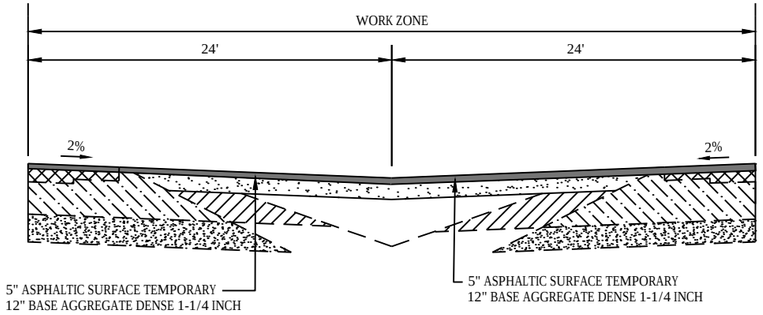
PLOT DATE : 10/13/2023 11:51 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT



TYPICAL SECTION STAGE 1C (C)

IH 41

STA 3004+00 - STA 3046+00



IH 41 CROSSOVER

TYPICAL SECTION CROSSOVER

IH 41

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT	◇ ◇	FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 1C CULVERT CONSTRUCTION

-SHIFT BOTH DIRECTIONS 6' TO OUTSIDE SHOULDER

-CONSTRUCT MEDIAN CROSSOVERS

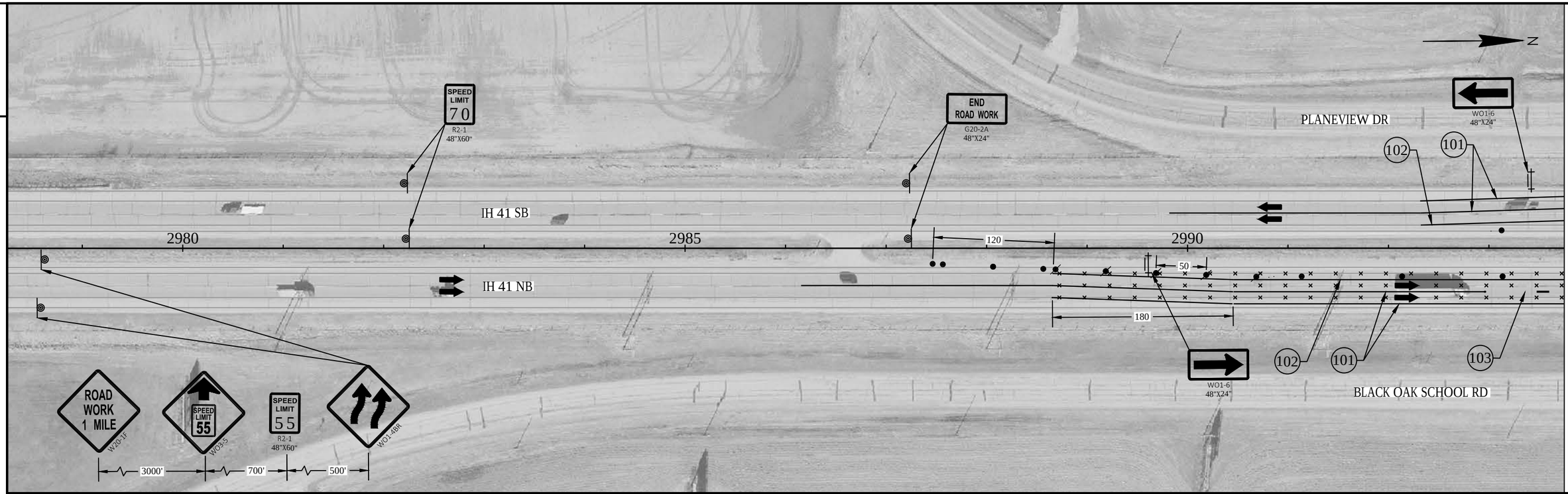
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1C (C)	SHEET 222	E

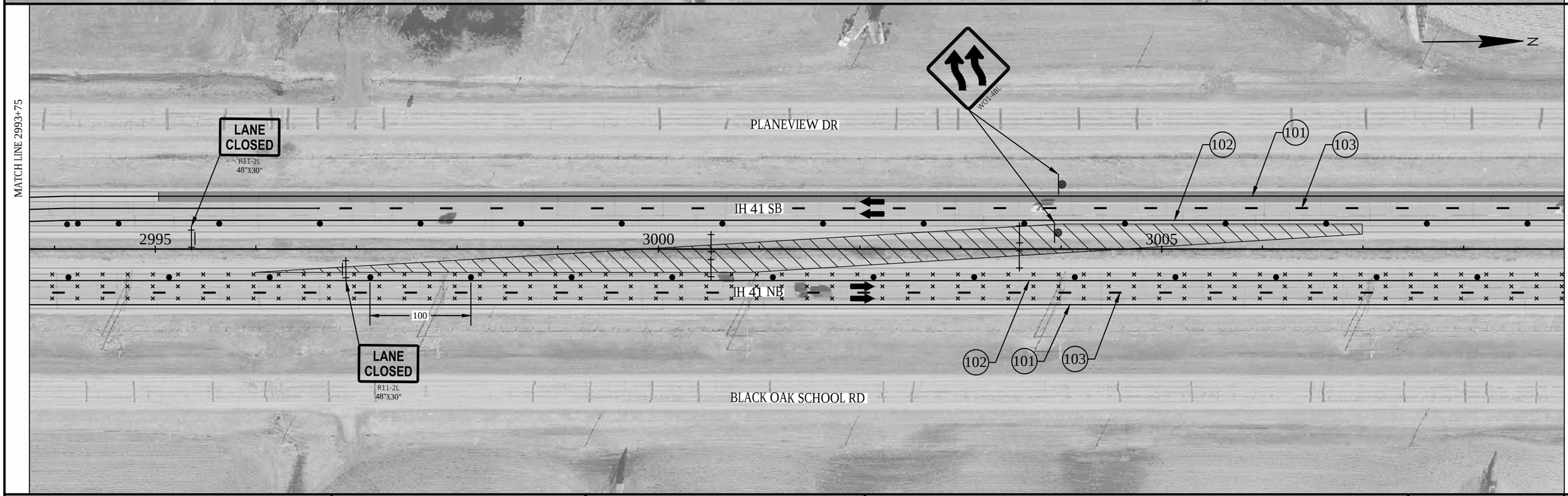
FILE NAME : I:\77451\CIVIL3D\STAGING\026103-S1C.DWG
LAYOUT NAME - 00

PLOT DATE : 10/13/2023 11:51 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2





PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1C (C)	SHEET 223	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026103-S1C.DWG
LAYOUT NAME - 01

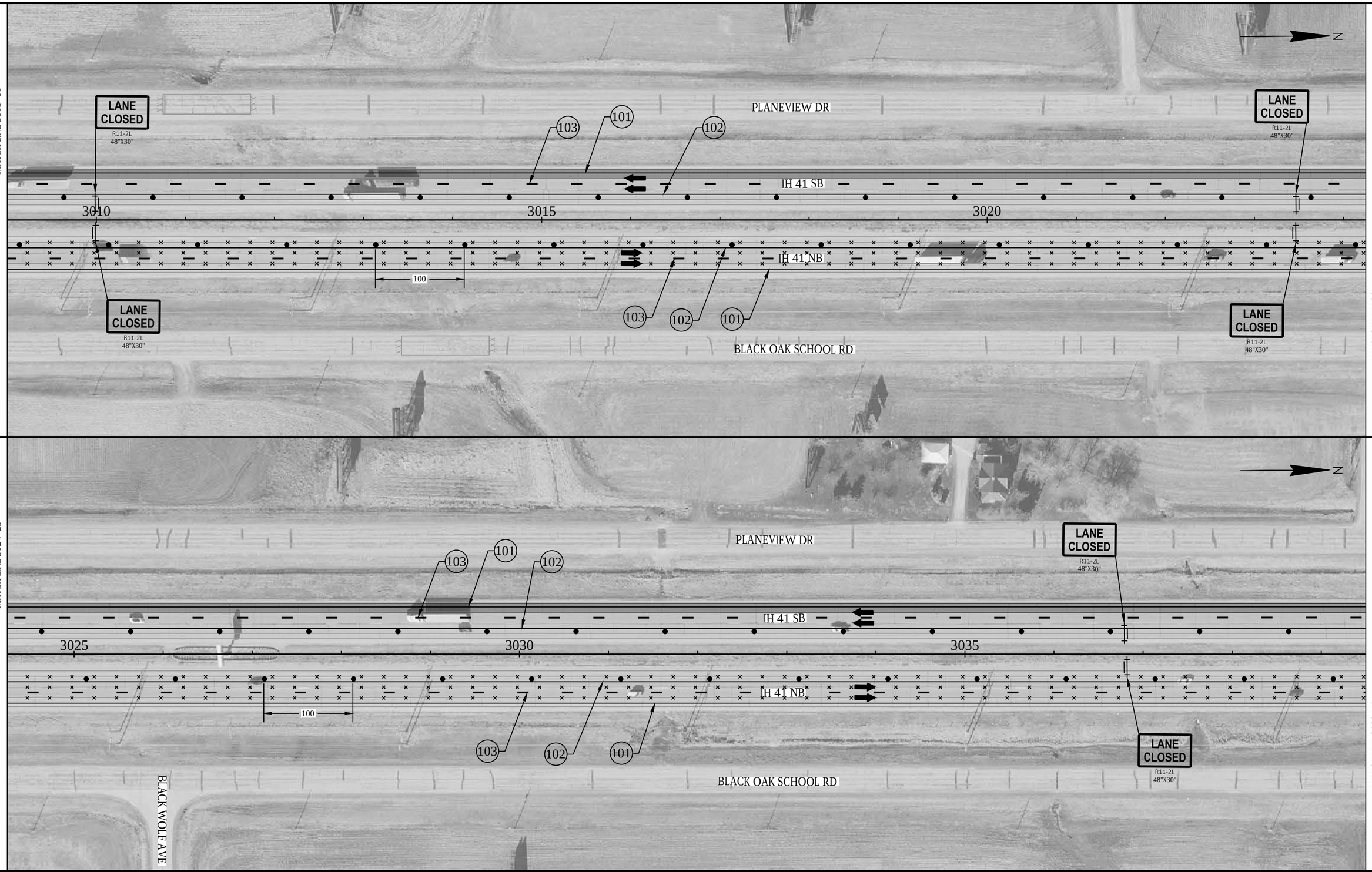
PLOT DATE : 10/13/2023 11:52 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCH LINE 3009+00

MATCH LINE 3024+25



MATCH LINE 3024+25

MATCH LINE 3039+50

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1C (C)	SHEET 224	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026103-S1C.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 11:52 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 3039+50

PLANEVIEW DR

103 101 102

LANE CLOSED
R11-2L
48"X30"

IH 41 SB

3040 3045 3050

IH 41 NB

103 102 101

WO1-4BL

LANE CLOSED
R11-2L
48"X30"

BLACK OAK SCHOOL RD

MATCH LINE 3054+75

2

MATCH LINE 3054+75

101 102

WO1-6
48"X24"

180 120

PLANEVIEW DR

WO1-4BR

SPEED LIMIT 55
R2-1
48"X60"

WO3-5

ROAD WORK 1 MILE
W20-1F

500' 700' 3000'

IH 41 SB

3055 3060 3065 3070

IH 41 NB

101

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT 70
R2-1
48"X60"

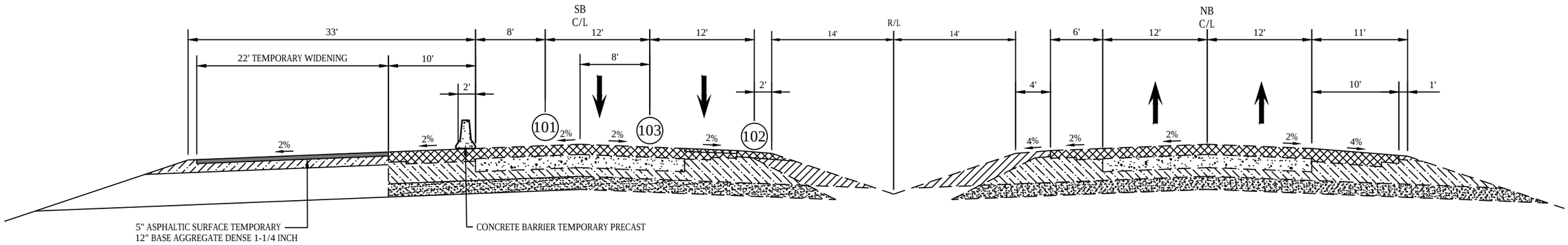
BLACK OAK SCHOOL RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 1C (C)	SHEET 225	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026103-S1C.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 11:52 AM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



TYPICAL SECTION STAGE 2 (C)

IH 41

STA 2995+00 - STA 3055+00

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)
	REMOVE PAVEMENT MARKINGS
	TEMPORARY RAISED PAVEMENT MARKERS
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORTS
	TYPE III BARRICADE WITH SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	DIRECTION OF TRAFFIC
	WORK AREA
	CONCRETE BARRIER TEMPORARY PRECAST
FBS	FLASHING BEACON SIGN (WO8-76)
S	PORTABLE TRAFFIC SENSOR
	FLAGS, 16" X 16" MIN., ORANGE
	DELINEATOR TEMPORARY

STAGE 2 CULVERT CONSTRUCTION

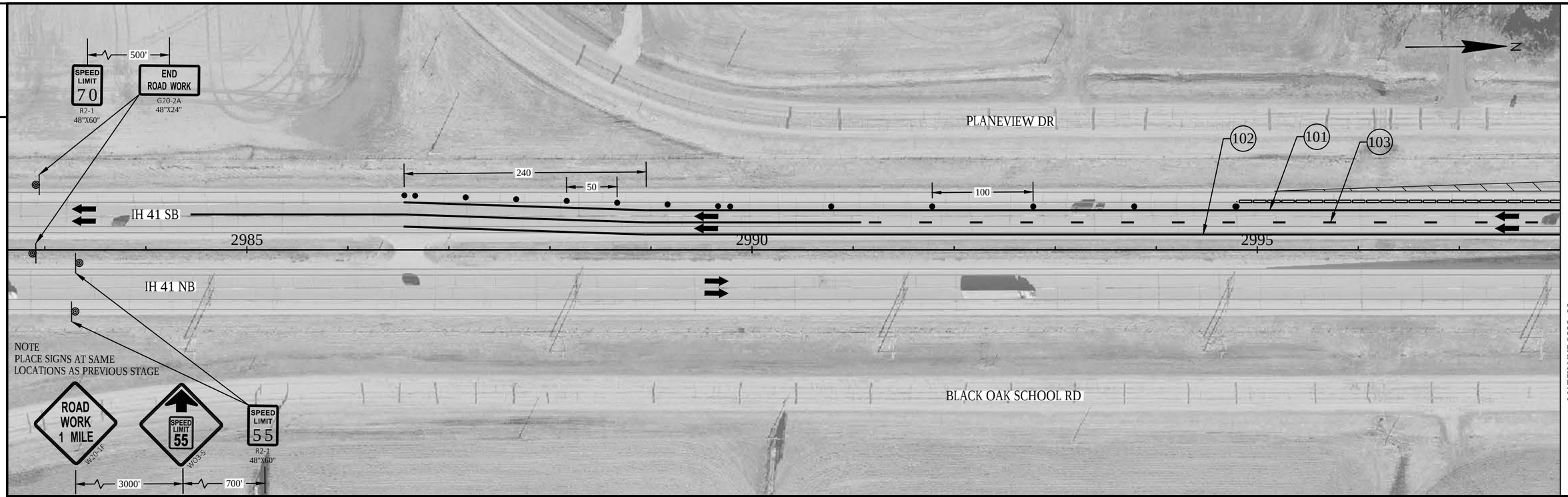
-SHIFT SB LANES 8' TO INSIDE SHOULDER

-CONSTRUCT TEMPORARY SB OUTSIDE WIDENING

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (C)	SHEET 226	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026104-S2.DWG
LAYOUT NAME - 00
PLOT DATE : 10/13/2023 12:02 PM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN: 12 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (C)	SHEET 227	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026104-S2.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 12:02 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 3013+00

MATCH LINE 3028+00

MATCH LINE 3043+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (C)	SHEET 228	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026104-S2.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 12:02 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 3043+00

N

PLANEVIEW DR

102

101

103

CRASH CUSHIONS
TEMPORARY REQUIRED

WO5-52R
18"X54"

IH 41 SB

3045

3050

3055

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3058+00

2

MATCH LINE 3058+00

N

WO1-6
48"X24"

240

160

PLANEVIEW DR

500'

700'

3000'

WO1-10L

SPEED LIMIT 55
R2-1
48"X60"

WO3-5

ROAD WORK 1 MILE
W20-1F

IH 41 SB

3060

3065

3070

IH 41 NB

102

101

END ROAD WORK
G20-2A
48"X24"

BLACK OAK SCHOOL RD

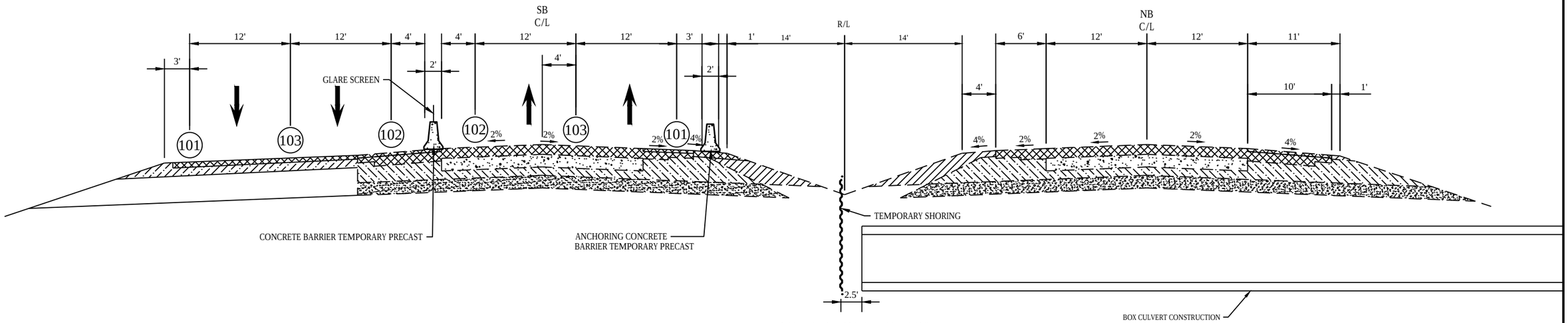
SPEED LIMIT 70
R2-1
48"X60"

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 2 (C)	SHEET 229	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026104-S2.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 12:02 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



TYPICAL SECTION STAGE 3 (C)

IH 41

STA 2995+00 - STA 3055+00

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW		TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT		FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 3 CULVERT CONSTRUCTION

-PLACE PCMS AT BEGINNING OF PROJECT STAGE IN BOTH NB AND SB DIRECTIONS FOR 7 DAYS EACH "NEW TRAFFIC PATTERN" AND "LANES SHIFT LEFT/RIGHT"

-SHIFT SB LANES TO TEMPORARY OUTSIDE SHOULDER

-NB LANES CROSSOVER TO SB SIDE

-CONSTRUCT BOX CULVERT UNDER NB LANES

-CROSS CULVERT REPLACEMENTS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (C)	SHEET 230	E

2

3000'
700'
500'
500'
ROAD WORK 1 MILE
W20-1F
SPEED LIMIT 55
W03-5
SPEED LIMIT 55
R2-1
48"X60"
W01-4BL
SPEED LIMIT 70
R2-1
48"X60"
END ROAD WORK
G20-2A
48"X24"

NOTE
PLACE SIGNS AT SAME
LOCATIONS AS PREVIOUS STAGE

N

PLANEVIEW DR

102
101

IH 41 SB

IH 41 NB

2985
2990
2995

102
101

BLACK OAK SCHOOL RD

MATCH LINE 2996+00

MATCH LINE 2996+00

N

102
101

PLANEVIEW DR

103

IH 41 SB

IH 41 NB

50
10
15
15
20
5
3000
3005
3010

WO1-6
48"X24"

ROAD CLOSED
R11-2
48"X30"

102
101

BLACK OAK SCHOOL RD

MATCH LINE 3011+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (C)	SHEET 231	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026105-S3.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 12:05 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCH LINE 3011+00

PLANEVIEW DR

IH 41 SB

IH 41 NB

BLACK OAK SCHOOL RD

BLACK WOLF AVE

MATCH LINE 3026+00

102 101 103

20 25 25 30 30 35

3015 3020 3025

CRASH CUSHIONS, TEMPORARY REQUIRED

B-70-327

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

W01-4BR

N

MATCH LINE 3026+00

PLANEVIEW DR

IH 41 SB

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3041+00

102 101 103

35 40 40 45 45 50

3030 3035 3040

W01-4BR

N

2

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (C)	SHEET 232	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026105-S3.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 12:05 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 3041+00

MATCH LINE 3056+00

102

101

WO1-6
48"X24"

PLANEVIEW DR

50

55

55

60

60

50

3045

3050

3055

IH 41 SB

IH 41 NB

BLACK OAK SCHOOL RD

N

500'

700'

3000'

WO1-4BR

SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 55
WO3-5

ROAD WORK 1 MILE
W20-1F

PLANEVIEW DR

IH 41 SB

3060

3065

3070

IH 41 NB

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT 70
R2-1
48"X60"

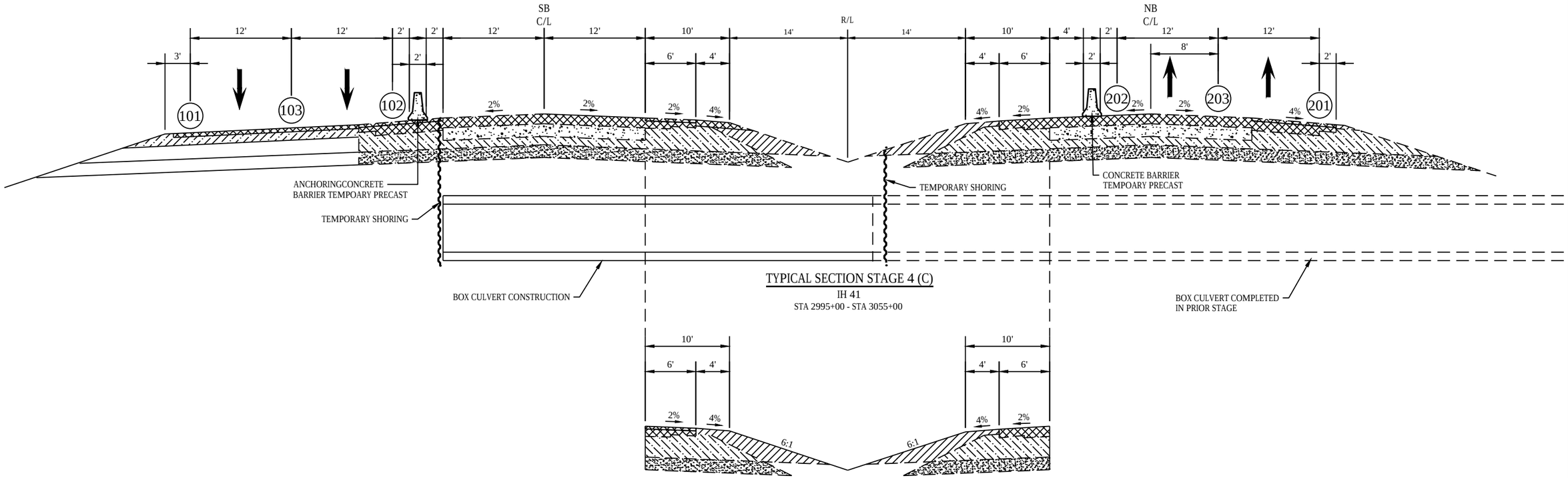
BLACK OAK SCHOOL RD

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 (C)	SHEET 233	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026105-S3.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 12:05 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



TYPICAL SECTION STAGE 4 (C)

IH 41
STA 2995+00 - STA 3055+00

CROSSOVER REMOVAL

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT	◇ ◇	FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 4 CULVERT CONSTRUCTION

-SHIFT SB LANES TO TEMPORARY OUTSIDE SHOULDER
-SHIFT NB LANES 8' TO OUTSIDE SHOULDER
-CONSTRUCT CULVERT UNDER SB LANES
-REMOVE TEMPORARY MEDIAN CROSSOVERS
-CROSS CULVERT REPLACEMENTS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 4 (C)	SHEET 234	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026106-S4.DWG
LAYOUT NAME - 00
PLOT DATE : 10/13/2023 12:05 PM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN: 12 FT
WISDOT/CADDS SHEET 42

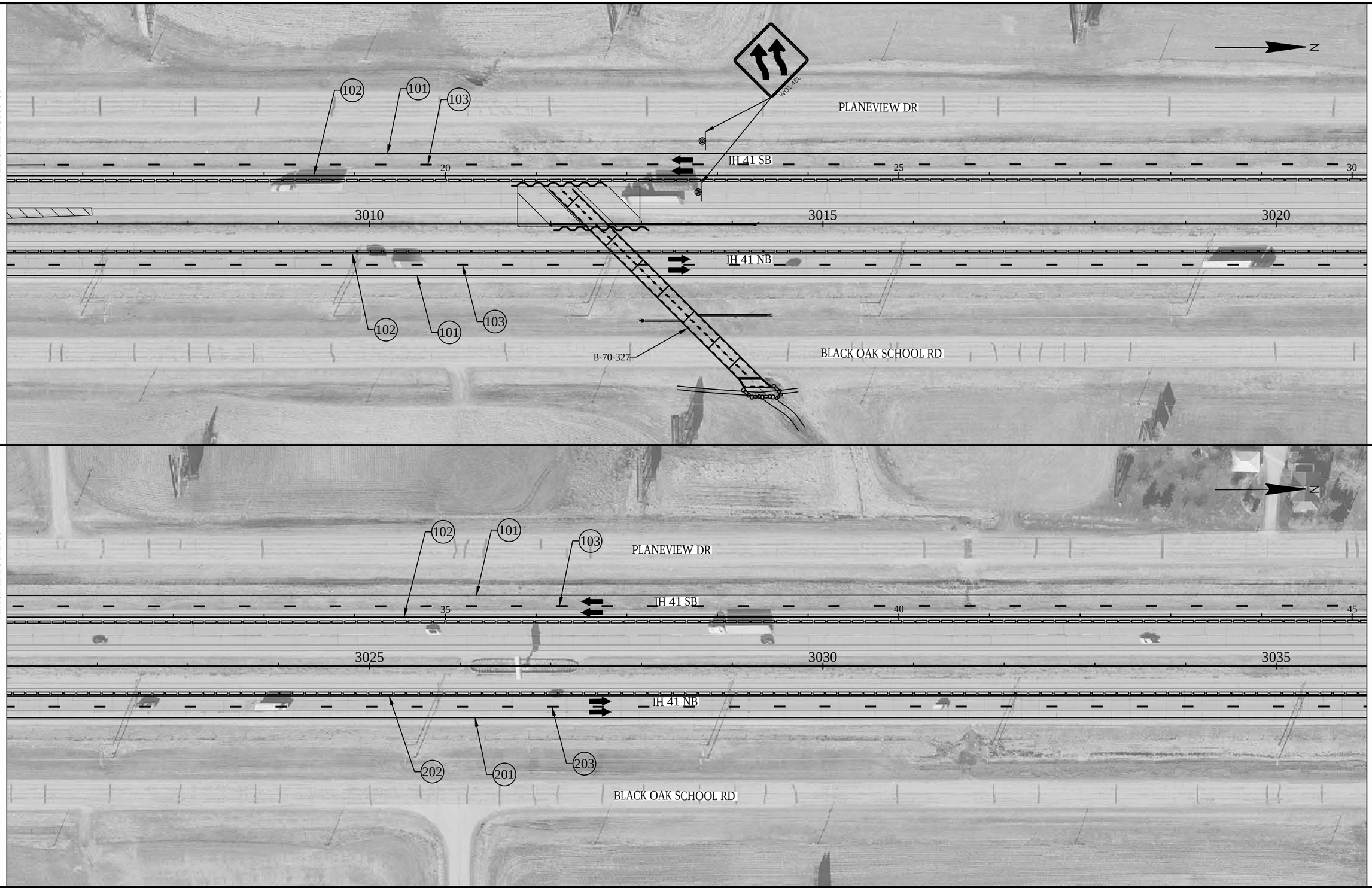
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 4 (C)	SHEET 235	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026106-S4.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 12:05 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 4 (C)	SHEET 236	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026106-S4.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 12:06 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCH LINE 3036+00

PLANEVIEW DR

IH 41 SB

IH 41 NB

BLACK OAK SCHOOL RD

102 101 103 102 101

WO1-6
48"X24"

30 35 60

3040 3045 3050

WO1-4BL

MATCH LINE 3051+00

MATCH LINE 3051+00

PLANEVIEW DR

IH 41 SB

IH 41 NB

BLACK OAK SCHOOL RD

102 101 203 202 201

WO5-52L
18"X54"

CRASH CUSHIONS
TEMPORARY REQUIRED

8:1

50

240

3055 3060 3065

500' 700' 3000'

WO1-4BR

SPEED LIMIT 55
R2-1
48"X60"

WO3-5
SPEED LIMIT 55

ROAD WORK 1 MILE
W20-1F

END ROAD WORK
G20-2A
48"X24"

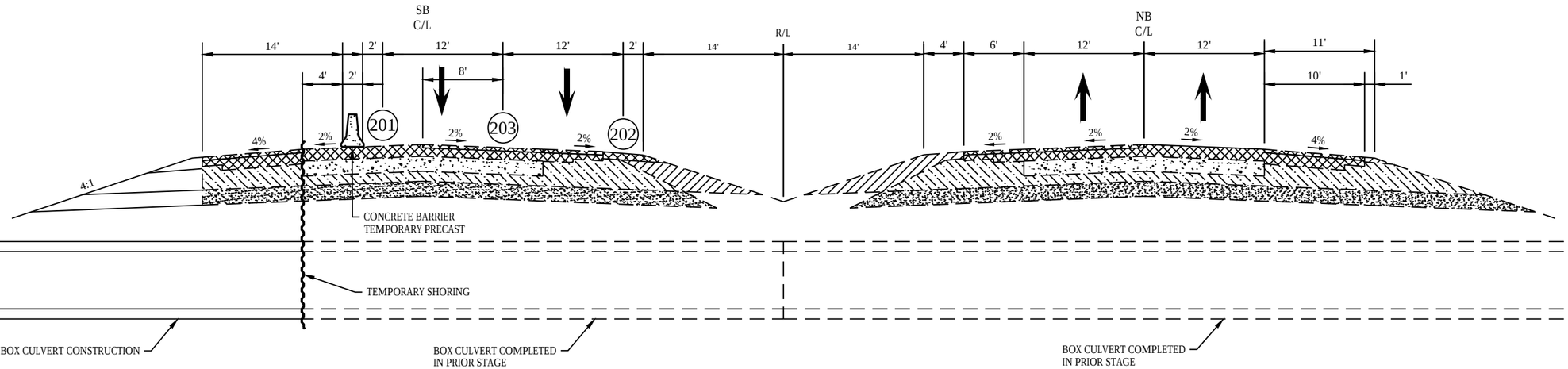
SPEED LIMIT 70
R2-1
48"X60"

500'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 4 (C)	SHEET 237	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026106-S4.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 12:06 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT



TYPICAL SECTION STAGE 5 (C)

IH 41

STA 2995+00 - STA 3055+00

LEGEND

101	TEMPORARY MARKING LINE PAINT 6-INCH WHITE	●	TRAFFIC CONTROL DRUM
102	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
103	TEMPORARY MARKING LINE PAINT 6-INCH WHITE (12.5' LINE, 37.5' GAP)		FLASHING ARROW BOARD
201	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE		DIRECTION OF TRAFFIC
202	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH YELLOW		WORK AREA
203	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH WHITE (12.5' LINE, 37.5' GAP)		CONCRETE BARRIER TEMPORARY PRECAST
× × ×	REMOVE PAVEMENT MARKINGS	FBS	FLASHING BEACON SIGN (WO8-76)
▸ ▸ ▸	TEMPORARY RAISED PAVEMENT MARKERS	S	PORTABLE TRAFFIC SENSOR
	SIGN ON PERMANENT SUPPORT		FLAGS, 16" X 16" MIN., ORANGE
	SIGN ON TEMPORARY SUPPORTS		DELINEATOR TEMPORARY
	TYPE III BARRICADE WITH SIGN		

STAGE 5 CULVERT CONSTRUCTION

-SHIFT SB LANES TO INSIDE SHOULDER

-CONSTRUCT CULVERT UNDER OUTSIDE SB SHOULDER

-REMOVE SB TEMPORARY WIDENING

-CROSS CULVERT REPLACEMENTS

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 5 (C)	SHEET 238	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026107-S5.DWG
LAYOUT NAME - 00

PLOT DATE : 10/13/2023 12:06 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN: 12 FT

WISDOT/CADDS SHEET 42

2

N

PLANEVIEW DR

SPEED LIMIT 70
R2-1
48"X60"

IH 41 SB

2980 2985 2990

IH 41 NB

NOTE
PLACE SIGNS AT SAME
LOCATIONS AS PREVIOUS STAGE

ROAD WORK 1 MILE
W20-1F

SPEED LIMIT 55
W03-5

SPEED LIMIT 55
R2-1
48"X60"

3000' 700'

BLACK OAK SCHOOL RD

MATCH LINE 2994+00

MATCH LINE 2994+00

N

END ROAD WORK
G20-2A
48"X24"

PLANEVIEW DR

240

201 202 203

IH 41 SB

2995 3000 3005

IH 41 NB

BLACK OAK SCHOOL RD

MATCH LINE 3009+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 5 (C)	SHEET 239	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026107-S5.DWG
LAYOUT NAME - 01

PLOT DATE : 10/13/2023 12:06 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCH LINE 3009+00

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

202

201

203

PLANEVIEW DR

W01-48R

N

IH 41 SB

3010

3015

3020

IH 41 NB

BOX CULVERT COMPLETED THIS STAGE

BLACK OAK SCHOOL RD

MATCH LINE 3024+00

MATCH LINE 3024+00

N

PLANEVIEW DR

202

201

203

IH 41 SB

3025

3030

3035

IH 41 NB

BLACK OAK SCHOOL RD

BLACK WOLF AVE

MATCH LINE 3039+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 5 (C)	SHEET 240	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026107-S5.DWG
LAYOUT NAME - 02

PLOT DATE : 10/13/2023 12:06 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCH LINE 3039+00

202

201

203

WO5-52R
18"X54"

8:1 TAPER

PLANEVIEW DR

W1-6
48"X24"

240

50

160

IH 41 SB

3040

3045

3050

IH 41 NB

BLACK OAK SCHOOL RD

N

MATCH LINE 3054+00

2

MATCH LINE 3054+00

500'

700'

3000'

N

SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 55
WO3-5

ROAD WORK 1 MILE
W20-1F

WO1-4BL

PLANEVIEW DR

IH 41 SB

3055

3060

3065

IH 41 NB

BLACK OAK SCHOOL RD

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT 70
R2-1
48"X60"

500'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 5 (C)	SHEET 241	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026107-S5.DWG
LAYOUT NAME - 03

PLOT DATE : 10/13/2023 12:06 PM

PLOT BY : ELIZABETH CASTELLAN

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

RAMP G

IH 41 SB

350'

91 92 94 96 98

+73
40.90' RT

+18
26.74' RT

10

25

15

50

STH 23/USH 45

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

RIGHT LANE CLOSED AHEAD
W20-5A

350'

ROLLING MEADOWS DR

RAMP F

MATCH LINE 100+00

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - STH 23 - PHASE 1	SHEET 242	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - STH 23 STAGE 3-1-1

PLOT DATE : 4/23/2024 2:52 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

NOTE:
CLOSE OUTSIDE TWO LANES ON STH 23 WB PRIOR TO CTH W PER SDD "TRAFFIC CONTROL TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"; ADJUST TO MEET FIELD CONDITIONS

CTH W/N PIONEER RD

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

IH 41 NB

RAMP H

STH 23/USH 45

MATCH LINE 100+00

100

102

104

106

107

50

25

15

10

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

WO12-1D
48"X48"

RAMP E

2400

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PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - STH 23 - PHASE 1	SHEET 243	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - STH 23 STAGE 3-1-2
PLOT DATE : 4/23/2024 3:22 PM
PLOT BY : ELIZABETH CASTELLAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

NOTE:
RAMP G CLOSED

RAMP G

IH 41 SB

25

91 92 94 96 98

10

STH 23/USH 45

25

15

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

NOTE:
RAMP F CLOSED

RAMP F

END ROAD WORK
G20-2A
48"X24"

ROLLING MEADOWS DR

ROAD WORK AHEAD
W20-1A

MATCH LINE 100+00

NOTE:
CLOSE INSIDE LANE ON STH 23 EB PER SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"; ADJUST TO MEET FIELD CONDITIONS. ALSO SEE SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE".

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - STH 23 - PHASE 2	SHEET 244	E

2

2

CTH W/N PIONEER RD

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

15

25

NOTE:
RAMP H CLOSED

RAMP H

I-41 NB

MATCH LINE 100+00

STH 23/USH 45

102

104

106

107

25

NOTE:
RAMP E CLOSED

RAMP E

2400

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

N

NOTE:
CLOSE INSIDE LANE ON STH 23 WB PER SDD "TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"; ADJUST TO FIT FIELD CONDITIONS.

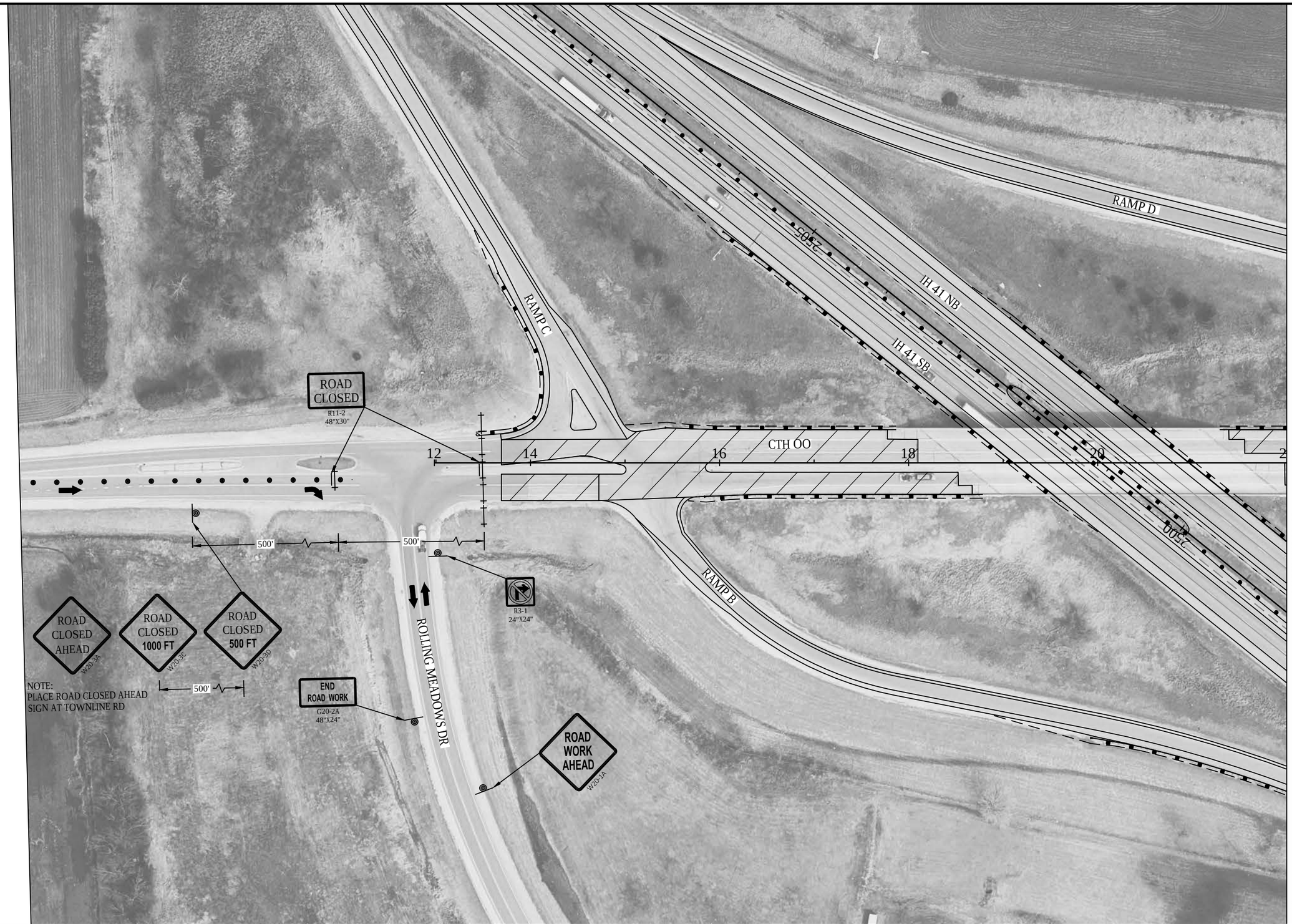
BEGIN LEFT TURN LANE
R3-20L
24"X36"

Image © 2024 Airbus

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - STH 23 - PHASE 2	SHEET 245	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - STH 23 STAGE 3-2-2

PLOT DATE : 4/23/2024 4:03 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - CTH OO	SHEET 246	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - OO-1

PLOT DATE : 4/23/2024 2:52 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

PIONEER RD

END ROAD WORK
G20-2A
48"X24"

NOTE:
PLACE ROAD CLOSED AHEAD SIGN AT PROSPECT AVE

500'

ROAD CLOSED 500 FT
W20-3D

ROAD CLOSED 1000 FT
W20-3C

ROAD CLOSED AHEAD
W20-3A

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"

500'

500'

RAMP D

MATCH LINE 22+00

CTH OO

22 24 26 28 30E 30

LEFT LANE MUST TURN LEFT
R3-7L
30"X30"

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

RAMP A

IH 41 NB

IH 41 SB

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - CTH OO	SHEET 247	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - OO-2

PLOT DATE : 4/23/2024 2:52 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

ROAD CLOSED AHEAD
W20-3A

NOTE:
PLACE AT KORTH RD

ROAD CLOSED
00 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60"X30"

ROAD CLOSED
1000 FT
W20-3C

ROAD CLOSED
500 FT
W20-3D

ROAD CLOSED
R11-2
48"X30"

500'

500'

IH 41 NB

IH 41 SB

2755

RAMP NC

RIDGE RD

2750

END
ROAD WORK
G20-2A
48"X24"

CTH N

40

42

44

46

48

50

52

54

500'

ROAD WORK AHEAD
W20-1A

RUMBLE STRIPS AHEAD
W21-6S

ONE LANE ROAD AHEAD
W20-4A

W20-7A

500'

500'

500'

250'

NOTE:
SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR ADDITIONAL INFORMATION

TEMPORARY PORTABLE RUMBLE STRIPS

CTH N

NOTE:
MILL AND OVERLAY ONE SIDE AT A TIME

RAMP NB

IH 41 NB

IH 41 SB

2755

MATCH LINE 54+50

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - CTH N	SHEET 248	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - N-1

PLOT DATE : 4/23/2024 2:52 PM

PLOT BY : ELIZABETH CASTELLAN

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

MATCH LINE 54+50

RIDGE RD

ROAD CLOSED
R11-2
48"X30"

CTH N

56 58 60 62 64 65

NOTE:
MILL AND OVERLAY ONE SIDE AT A TIME

RAMP ND

RAMP NA

IH 41 NB

IH 41 SB

HASS RD

N

NOTE:
SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR ADDITIONAL INFORMATION

TEMPORARY PORTABLE RUMBLE STRIPS

250'

500' 500' 500'

ONE LANE ROAD AHEAD
W20-4A

RUMBLE STRIPS AHEAD
W21-5S

ROAD WORK AHEAD
W20-1A

W20-7A

500'

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 1100-52-71	HWY: I-41	COUNTY: FOND DU LAC, WINNEBAGO	TRAFFIC CONTROL - STAGE 3 - CTH N	SHEET 249	E

FILE NAME : I:\77451\CIVIL3D\STAGING\026001-CROSSROADS.DWG
LAYOUT NAME - N-2

PLOT DATE : 4/23/2024 2:52 PM PLOT BY : ELIZABETH CASTELLAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

CURVE-1
PI STA = 2214+85.98
DELTA = 29°50'10" LT
D = 2°29'59"
T = 610.63'
L = 1193.53'
R = 2292.00'
PC STA = 2208+75.35
PT STA = 2220+68.88

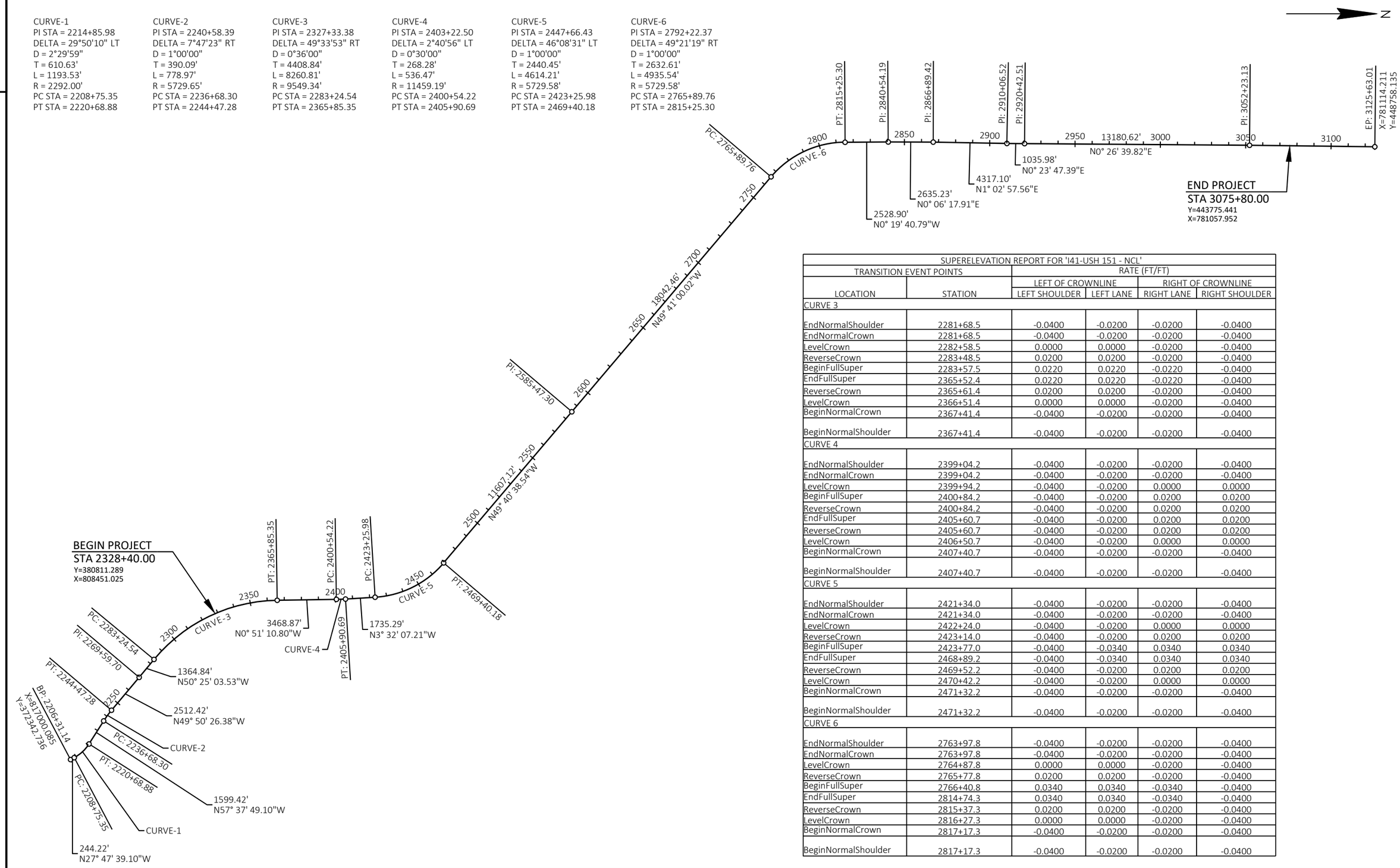
CURVE-2
PI STA = 2240+58.39
DELTA = 7°47'23" RT
D = 1°00'00"
T = 390.09'
L = 778.97'
R = 5729.65'
PC STA = 2236+68.30
PT STA = 2244+47.28

CURVE-3
PI STA = 2327+33.38
DELTA = 49°33'53" RT
D = 0°36'00"
T = 4408.84'
L = 8260.81'
R = 9549.34'
PC STA = 2283+24.54
PT STA = 2365+85.35

CURVE-4
PI STA = 2403+22.50
DELTA = 2°40'56" LT
D = 0°30'00"
T = 268.28'
L = 536.47'
R = 11459.19'
PC STA = 2400+54.22
PT STA = 2405+90.69

CURVE-5
PI STA = 2447+66.43
DELTA = 46°08'31" LT
D = 1°00'00"
T = 2440.45'
L = 4614.21'
R = 5729.58'
PC STA = 2423+25.98
PT STA = 2469+40.18

CURVE-6
PI STA = 2792+22.37
DELTA = 49°21'19" RT
D = 1°00'00"
T = 2632.61'
L = 4935.54'
R = 5729.58'
PC STA = 2765+89.76
PT STA = 2815+25.30



SUPERELEVATION REPORT FOR 'I41-USH 151 - NCL'

TRANSITION EVENT POINTS		RATE (FT/FT)			
		LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
LOCATION	STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
CURVE 3					
EndNormalShoulder	2281+68.5	-0.0400	-0.0200	-0.0200	-0.0400
EndNormalCrown	2281+68.5	-0.0400	-0.0200	-0.0200	-0.0400
LevelCrown	2282+58.5	0.0000	0.0000	-0.0200	-0.0400
ReverseCrown	2283+48.5	0.0200	0.0200	-0.0200	-0.0400
BeginFullSuper	2283+57.5	0.0220	0.0220	-0.0220	-0.0400
EndFullSuper	2365+52.4	0.0220	0.0220	-0.0220	-0.0400
ReverseCrown	2365+61.4	0.0200	0.0200	-0.0200	-0.0400
LevelCrown	2366+51.4	0.0000	0.0000	-0.0200	-0.0400
BeginNormalCrown	2367+41.4	-0.0400	-0.0200	-0.0200	-0.0400
BeginNormalShoulder	2367+41.4	-0.0400	-0.0200	-0.0200	-0.0400
CURVE 4					
EndNormalShoulder	2399+04.2	-0.0400	-0.0200	-0.0200	-0.0400
EndNormalCrown	2399+04.2	-0.0400	-0.0200	-0.0200	-0.0400
LevelCrown	2399+94.2	-0.0400	-0.0200	0.0000	0.0000
BeginFullSuper	2400+84.2	-0.0400	-0.0200	0.0200	0.0200
ReverseCrown	2400+84.2	-0.0400	-0.0200	0.0200	0.0200
EndFullSuper	2405+60.7	-0.0400	-0.0200	0.0200	0.0200
ReverseCrown	2405+60.7	-0.0400	-0.0200	0.0200	0.0200
LevelCrown	2406+50.7	-0.0400	-0.0200	0.0000	0.0000
BeginNormalCrown	2407+40.7	-0.0400	-0.0200	-0.0200	-0.0400
BeginNormalShoulder	2407+40.7	-0.0400	-0.0200	-0.0200	-0.0400
CURVE 5					
EndNormalShoulder	2421+34.0	-0.0400	-0.0200	-0.0200	-0.0400
EndNormalCrown	2421+34.0	-0.0400	-0.0200	-0.0200	-0.0400
LevelCrown	2422+24.0	-0.0400	-0.0200	0.0000	0.0000
ReverseCrown	2423+14.0	-0.0400	-0.0200	0.0200	0.0200
BeginFullSuper	2423+77.0	-0.0400	-0.0340	0.0340	0.0340
EndFullSuper	2468+89.2	-0.0400	-0.0340	0.0340	0.0340
ReverseCrown	2469+52.2	-0.0400	-0.0200	0.0200	0.0200
LevelCrown	2470+42.2	-0.0400	-0.0200	0.0000	0.0000
BeginNormalCrown	2471+32.2	-0.0400	-0.0200	-0.0200	-0.0400
BeginNormalShoulder	2471+32.2	-0.0400	-0.0200	-0.0200	-0.0400
CURVE 6					
EndNormalShoulder	2763+97.8	-0.0400	-0.0200	-0.0200	-0.0400
EndNormalCrown	2763+97.8	-0.0400	-0.0200	-0.0200	-0.0400
LevelCrown	2764+87.8	0.0000	0.0000	-0.0200	-0.0400
ReverseCrown	2765+77.8	0.0200	0.0200	-0.0200	-0.0400
BeginFullSuper	2766+40.8	0.0340	0.0340	-0.0340	-0.0400
EndFullSuper	2814+74.3	0.0340	0.0340	-0.0340	-0.0400
ReverseCrown	2815+37.3	0.0200	0.0200	-0.0200	-0.0400
LevelCrown	2816+27.3	0.0000	0.0000	-0.0200	-0.0400
BeginNormalCrown	2817+17.3	-0.0400	-0.0200	-0.0200	-0.0400
BeginNormalShoulder	2817+17.3	-0.0400	-0.0200	-0.0200	-0.0400

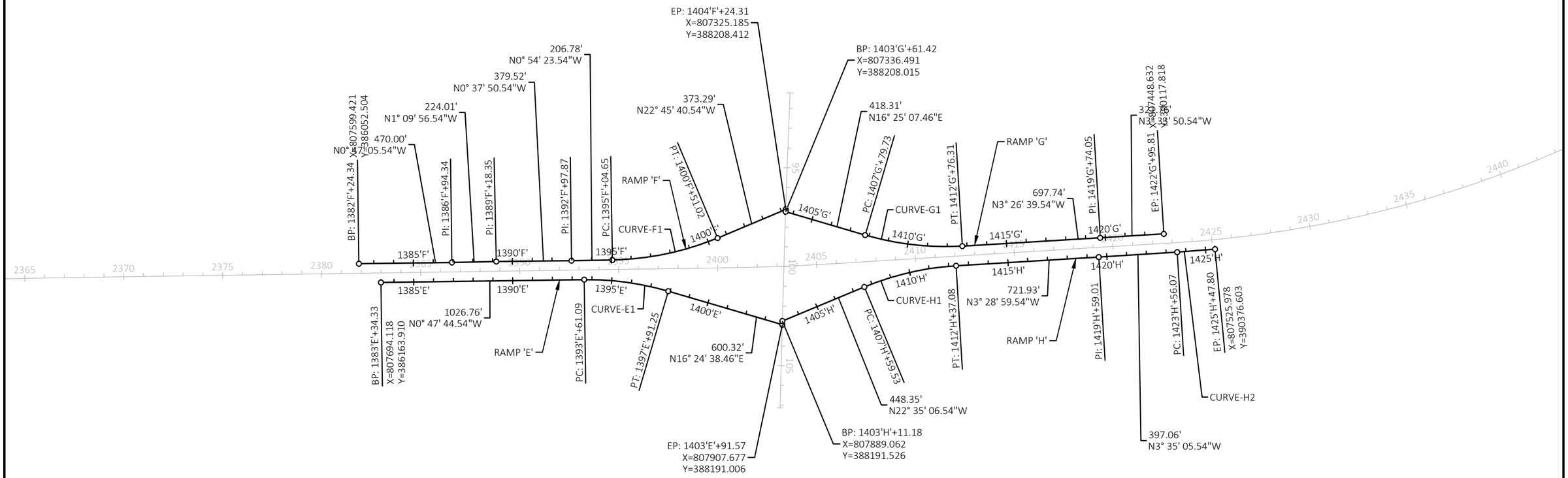
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 250	E

2

N

CURVE-F1
PI STA = 1397+81.19
DELTA = 21°51'17" LT
D = 4°00'00"
T = 276.55'
L = 546.37'
R = 1432.39'
PC STA = 1395+04.65
PT STA = 1400+51.02

CURVE-G1
PI STA = 1410'G'+30.54
DELTA = 19°51'47" LT
D = 4°00'00"
T = 250.81'
L = 496.58'
R = 1432.39'
PC STA = 1407'G'+79.73
PT STA = 1412'G'+76.31



CURVE-E1
PI STA = 1395'E'+77.80
DELTA = 17°12'23" RT
D = 4°00'00"
T = 216.71'
L = 430.16'
R = 1432.39'
PC STA = 1393'E'+61.09
PT STA = 1397'E'+91.25

PI STA = 1410'H'+00.54
DELTA = 19°06'07" RT
D = 4°00'00"
T = 241.01'
L = 477.55'
R = 1432.39'
PC STA = 1407'H'+59.53
PT STA = 1412'H'+37.08

PI STA = 1424'H'+51.94
DELTA = 1°48'15" LT
D = 0°56'27"
T = 95.88'
L = 191.73'
R = 6089.00'
PC STA = 1423'H'+56.07
PT STA = 1425'H'+47.80

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 251	E

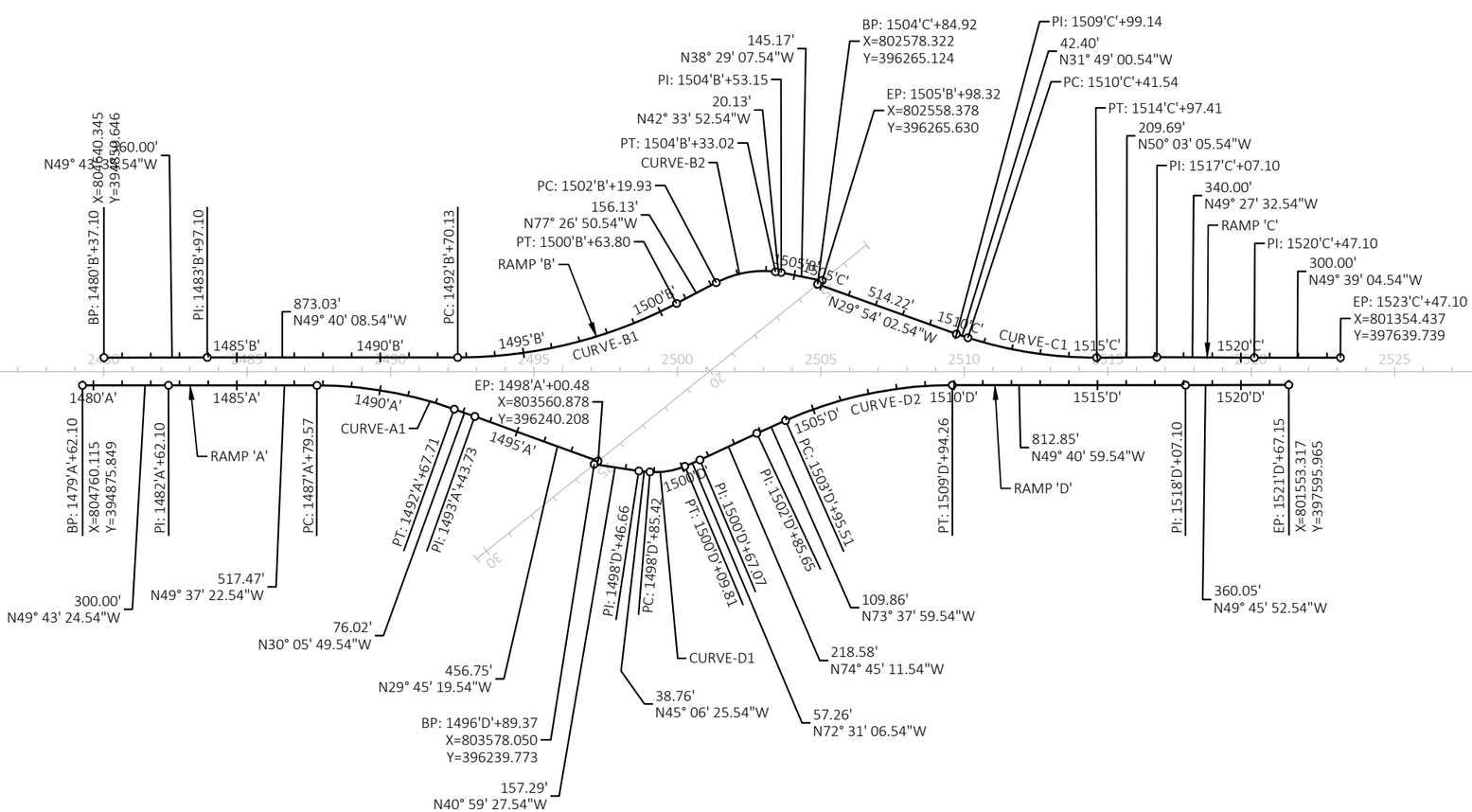
FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027202-AD.DWG
LAYOUT NAME - Sheet-01
PLOT DATE : 4/5/2024 1:34 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2

CURVE-B1
PI STA = 1496'B'+74.93
DELTA = 27°46'42" LT
D = 3°30'00"
T = 404.79'
L = 793.67'
R = 1637.02'
PC STA = 1492'B'+70.13
PT STA = 1500'B'+63.80

CURVE-B2
PI STA = 1503'B'+29.89
DELTA = 34°52'58" RT
D = 16°22'13"
T = 109.96'
L = 213.09'
R = 350.00'
PC STA = 1502'B'+19.93
PT STA = 1504'B'+33.02

CURVE-C1
PI STA = 1512'C'+71.42
DELTA = 18°14'05" LT
D = 4°00'00"
T = 229.88'
L = 455.87'
R = 1432.39'
PC STA = 1510'C'+41.54
PT STA = 1514'C'+97.41



CURVE-A1
PI STA = 1490'A'+26.03
DELTA = 19°31'33" RT
D = 4°00'00"
T = 246.46'
L = 488.14'
R = 1432.39'
PC STA = 1487'A'+79.57
PT STA = 1492'A'+67.71

CURVE-D1
PI STA = 1499'D'+48.83
DELTA = 27°24'41" LT
D = 22°02'13"
T = 63.41'
L = 124.39'
R = 260.00'
PC STA = 1498'D'+85.42
PT STA = 1500'D'+09.81

CURVE-D2
PI STA = 1506'D'+99.32
DELTA = 23°57'00" RT
D = 4°00'00"
T = 303.81'
L = 598.75'
R = 1432.39'
PC STA = 1503'D'+95.51
PT STA = 1509'D'+94.26

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 252	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027202-AD.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:34 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:500 FT

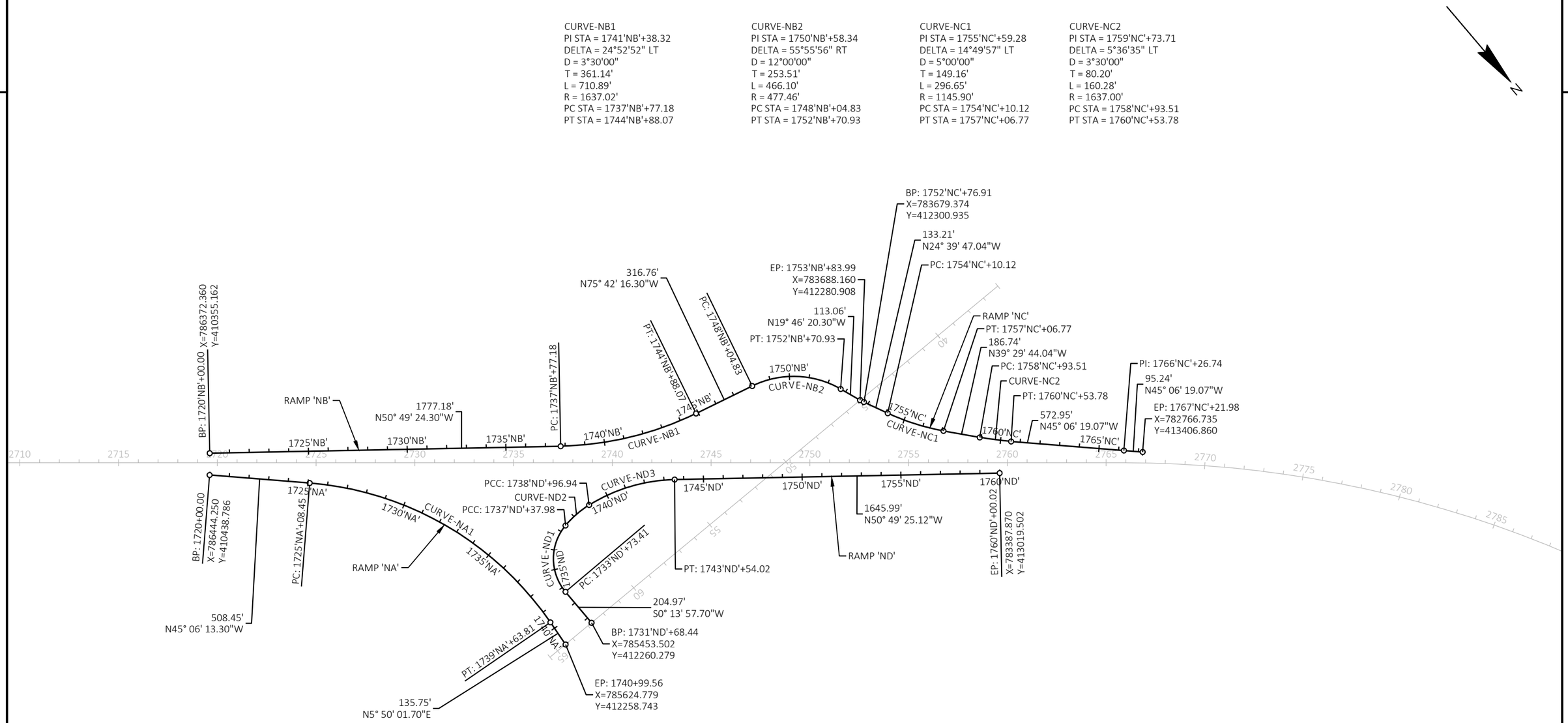
2

CURVE-NB1
PI STA = 1741'NB'+38.32
DELTA = 24°52'52" LT
D = 3°30'00"
T = 361.14'
L = 710.89'
R = 1637.02'
PC STA = 1737'NB'+77.18
PT STA = 1744'NB'+88.07

CURVE-NB2
PI STA = 1750'NB'+58.34
DELTA = 55°55'56" RT
D = 12°00'00"
T = 253.51'
L = 466.10'
R = 477.46'
PC STA = 1748'NB'+04.83
PT STA = 1752'NB'+70.93

CURVE-NC1
PI STA = 1755'NC'+59.28
DELTA = 14°49'57" LT
D = 5°00'00"
T = 149.16'
L = 296.65'
R = 1145.90'
PC STA = 1754'NC'+10.12
PT STA = 1757'NC'+06.77

CURVE-NC2
PI STA = 1759'NC'+73.71
DELTA = 5°36'35" LT
D = 3°30'00"
T = 80.20'
L = 160.28'
R = 1637.00'
PC STA = 1758'NC'+93.51
PT STA = 1760'NC'+53.78



CURVE-NA1
PI STA = 1732'NA'+88.17
DELTA = 50°56'15" RT
D = 3°30'00"
T = 779.72'
L = 1455.36'
R = 1637.02'
PC STA = 1725'NA'+08.45
PT STA = 1739'NA'+63.81

CURVE-ND1
PI STA = 1735'ND'+92.74
DELTA = 80°12'23" RT
D = 22°00'01"
T = 219.33'
L = 364.57'
R = 260.43'
PC STA = 1733'ND'+73.41
PT STA = 1737'ND'+37.98

CURVE-ND2
PI STA = 1738'ND'+18.11
DELTA = 17°52'59" RT
D = 11°15'00"
T = 80.13'
L = 158.96'
R = 509.30'
PC STA = 1737'ND'+37.98
PT STA = 1738'ND'+96.94

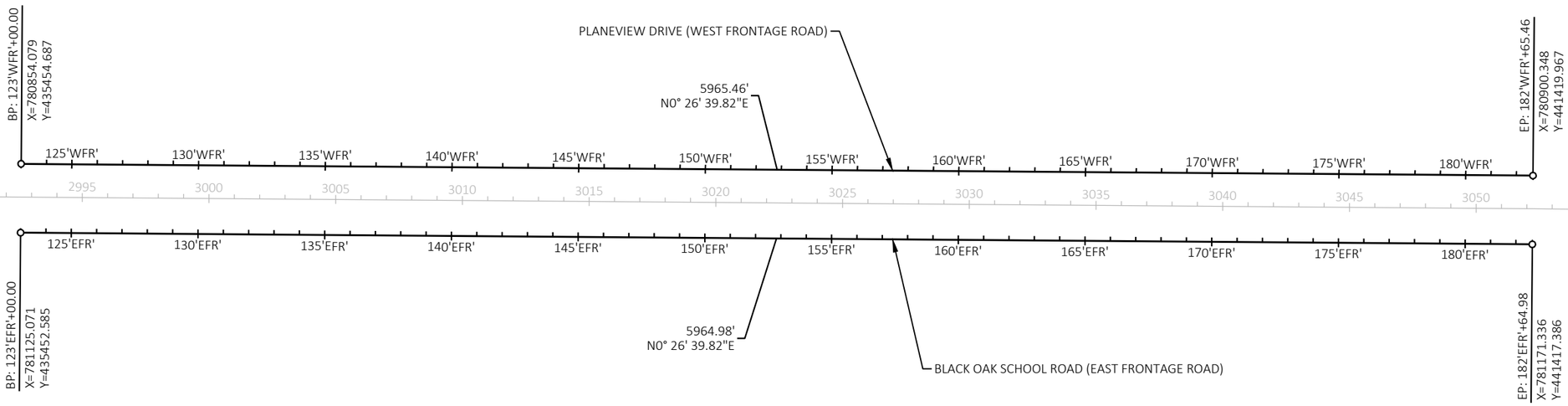
CURVE-ND3
PI STA = 1741'ND'+31.17
DELTA = 30°51'10" RT
D = 6°45'00"
T = 234.23'
L = 457.08'
R = 848.83'
PC STA = 1738'ND'+96.94
PT STA = 1743'ND'+54.02

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 253	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027202-AD.DWG
LAYOUT NAME - Sheet-03
PLOT DATE : 4/5/2024 1:34 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

N

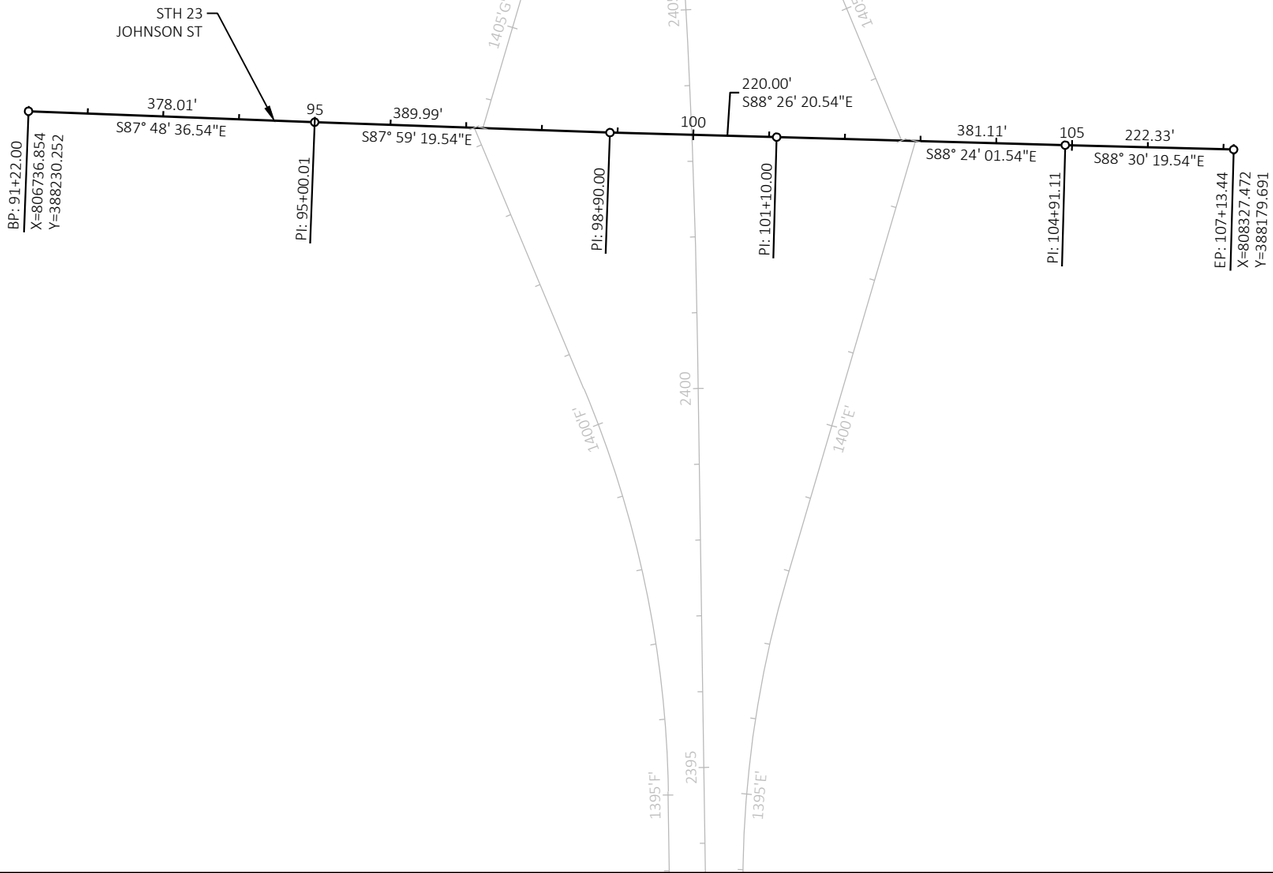


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 254	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027202-AD.DWG
LAYOUT NAME - Sheet-04
PLOT DATE : 4/5/2024 1:34 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2

N



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 255	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027203-AD.DWG
LAYOUT NAME - Sheet-01

PLOT DATE : 4/5/2024 1:34 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

N

1515'D'

2515

1515'C'

1510'D'

2510

1510'C'

1505'D'

2505

1500'D'

15

20

1744.90'

S88° 32' 50.62"E

25

CTH OO
WINNEBAGO ST

30

BP: 12+98.36
X=802359.352
Y=396270.677

EP: 30+43.26
X=804103.687
Y=396226.444

1505'B'

2500

1500'B'

1495'A'

2495

1495'B'

1490'A'

2490

1490'B'

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 256	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027203-AD.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:34 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

1765'NC'

1760'ND'

2760

1760'NC'

1755'ND'

2755

1755'NC'

1750'ND'

2750

40

45

50

2943.87'

S89° 19' 48.26"E

55

CTH N

60

65

BP: 36+06.10
X=782782.814
Y=412291.460

EP: 65+49.97
X=785726.482
Y=412257.040

1740'NA'

1735'NA'

1745'ND'

2745

1750'NB'

1740'ND'

1735'ND'

1745'NB'

2740

1740'NB'

2735

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 257	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027203-AD.DWG
LAYOUT NAME - Sheet-03

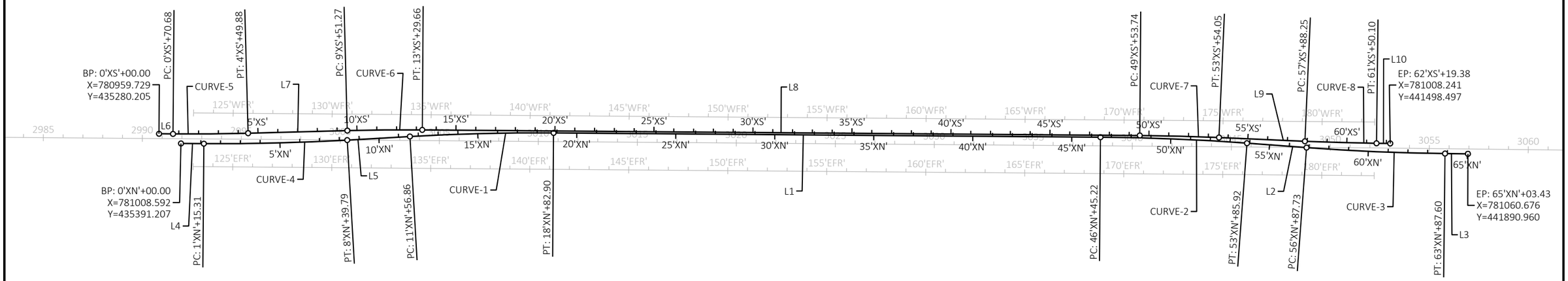
PLOT DATE : 4/5/2024 1:34 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

N

SB-STAGE-3										
SEGMENT NUMBER	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING	LENGTH	RADIUS	LINE/CHORD BEARING	DELTA ANGLE
L6	0+00.00	435280.205	780959.729	0+70.68	435350.879	780960.277	70.68		N0° 26' 40"E	
CURVE-5	PI 2+60.30	PI 435540.495	PI 780961.748				379.21	11124.00	N0° 31' 56"W	1° 57' 11"
L7	4+49.88	435730.050	780956.755	9+51.27	436231.264	780943.554	501.39		N1° 30' 32"W	
CURVE-6	PI 11+40.48	PI 436420.410	PI 780938.572				378.39	11100.00	N0° 31' 56"W	1° 57' 11"
L8	13+29.66	436609.617	780940.040	49+53.74	440233.595	780968.148	3624.09		N0° 26' 40"E	
CURVE-7	PI 51+53.92	PI 440433.764	PI 780969.701				400.31	11100.00	N1° 28' 39"E	2° 03' 59"
L9	53+54.05	440633.746	780978.470	57+88.25	441067.525	780997.490	434.20		N2° 30' 38"E	
CURVE-8	PI 59+69.19	PI 441248.295	PI 781005.416				361.86	11124.00	N1° 34' 44"E	1° 51' 50"
L10	61+50.10	441429.228	781007.459	62+19.38	441498.497	781008.241	69.27		N0° 38' 49"E	



NB-CROSSOVER										
SEGMENT NUMBER	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING	LENGTH	RADIUS	LINE/CHORD BEARING	DELTA ANGLE
L4	0+00.00	435391.207	781008.592	1+15.31	435506.510	781009.486	115.31		N0° 26' 40"E	
CURVE-4	PI 4+77.68	PI 435868.868	PI 781012.296				724.48	11100.00	N1° 25' 31"W	3° 44' 23"
L5	8+39.79	436230.638	780991.467	11+56.86	436547.181	780973.242	317.07		N3° 17' 43"W	
CURVE-1	PI 15+20.01	PI 436909.734	PI 780952.368				726.05	11124.00	N1° 25' 31"W	3° 44' 23"
L1	18+82.90	437272.875	780955.184	46+45.22	440035.112	780976.609	2762.32		N0° 26' 40"E	
CURVE-2	PI 50+15.71	PI 440405.586	PI 780979.483				740.70	11124.00	N2° 21' 07"E	3° 48' 54"
L2	53+85.92	440775.048	781007.000	56+87.73	441076.029	781029.417	301.81		N4° 15' 34"E	
CURVE-3	PI 60+37.78	PI 441425.112	PI 781055.416				699.87	11100.00	N2° 27' 11"E	3° 36' 45"
L3	63+87.60	441775.140	781059.368	65+03.43	441890.960	781060.676	115.83		N0° 38' 49"E	

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	ALIGNMENT DIAGRAM	SHEET 258	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-027204-AD.DWG
LAYOUT NAME - Sheet-01

PLOT DATE : 4/5/2024 1:35 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:500 FT

Estimate Of Quantities

1100-52-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	28.000	28.000
0004	203.0220	Removing Structure (structure) 010. B-20-3838	EACH	1.000	1.000
0006	203.0220	Removing Structure (structure) 013. C-70-7	EACH	1.000	1.000
0008	203.0220	Removing Structure (structure) 014. C-20-2	EACH	1.000	1.000
0010	203.0220	Removing Structure (structure) 015. C-20-7	EACH	1.000	1.000
0012	203.0220	Removing Structure (structure) 016. C-20-8	EACH	1.000	1.000
0014	203.0220	Removing Structure (structure) 017. C-20-9	EACH	1.000	1.000
0016	203.0220	Removing Structure (structure) 019. C-20-15	EACH	1.000	1.000
0018	204.0100	Removing Concrete Pavement	SY	1,570.000	1,570.000
0020	204.0110	Removing Asphaltic Surface	SY	3,930.000	3,930.000
0022	204.0115	Removing Asphaltic Surface Butt Joints	SY	330.000	330.000
0024	204.0120	Removing Asphaltic Surface Milling	SY	748,700.000	748,700.000
0026	204.0150	Removing Curb & Gutter	LF	10.000	10.000
0028	204.0165	Removing Guardrail	LF	23,710.000	23,710.000
0030	204.0170	Removing Fence	LF	15,850.000	15,850.000
0032	204.0210	Removing Manholes	EACH	1.000	1.000
0034	204.0220	Removing Inlets	EACH	12.000	12.000
0036	204.0245	Removing Storm Sewer (size) 001. 24-Inch	LF	451.000	451.000
0038	204.0245	Removing Storm Sewer (size) 002. 30-Inch	LF	128.000	128.000
0040	204.0245	Removing Storm Sewer (size) 003. 36-Inch	LF	113.000	113.000
0042	204.9060.S	Removing (item description) 001. Culvert Pipe Endwall	EACH	4.000	4.000
0044	204.9060.S	Removing (item description) 002. Concrete Masonry Endwall and Grate	EACH	17.000	17.000
0046	204.9060.S	Removing (item description) 003. Stone Endwall	EACH	8.000	8.000
0048	204.9060.S	Removing (item description) 004. Cable Barrier Terminals	EACH	40.000	40.000
0050	204.9090.S	Removing (item description) 001. Cable Barrier	LF	67,900.000	67,900.000
0052	204.9090.S	Removing (item description) 002. Surface Drain Pipe Corrugated Metal Slotted 15-Inch	LF	734.000	734.000
0054	205.0100	Excavation Common	CY	29,783.000	29,783.000
0056	206.2001	Excavation for Structures Culverts (structure) 010. B-20-3838	EACH	1.000	1.000
0058	206.2001	Excavation for Structures Culverts (structure) 013. B-70-327	EACH	1.000	1.000
0060	206.2001	Excavation for Structures Culverts (structure) 014. C-20-2	EACH	1.000	1.000
0062	206.2001	Excavation for Structures Culverts (structure) 015. C-20-7	EACH	1.000	1.000
0064	206.2001	Excavation for Structures Culverts (structure) 016. C-20-8	EACH	1.000	1.000
0066	206.2001	Excavation for Structures Culverts (structure) 017. C-20-9	EACH	1.000	1.000
0068	206.2001	Excavation for Structures Culverts (structure) 019. C-20-15	EACH	1.000	1.000
0070	208.0100	Borrow	CY	2,287.000	2,287.000
0072	209.0200.S	Backfill Controlled Low Strength	CY	276.000	276.000
0074	210.2500	Backfill Structure Type B	TON	5,895.000	5,895.000
0076	211.0101	Prepare Foundation for Asphaltic Paving (project) 001. 1100-52-71	EACH	1.000	1.000
0078	213.0100	Finishing Roadway (project) 001. 1100-52-71	EACH	1.000	1.000
0080	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,100.000	8,100.000
0082	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	20,600.000	20,600.000
0084	305.0130	Base Aggregate Dense 3-Inch	TON	1,040.000	1,040.000
0086	310.0115	Base Aggregate Open-Graded	CY	8.000	8.000
0088	311.0110	Breaker Run	TON	1,562.000	1,562.000
0090	312.0110	Select Crushed Material	TON	430.000	430.000
0092	320.0155	Concrete Base 9-Inch	SY	1,550.000	1,550.000
0094	320.0355	Concrete Base HES 9-Inch	SY	20.000	20.000
0096	350.0104	Subbase	TON	3,210.000	3,210.000
0098	416.0610	Drilled Tie Bars	EACH	6.000	6.000

1100-52-71

Line	Item	Item Description	Unit	Total	Qty
0100	416.0620	Drilled Dowel Bars	EACH	224.000	224.000
0102	450.4000	HMA Cold Weather Paving	TON	12,960.000	12,960.000
0104	455.0605	Tack Coat	GAL	54,510.000	54,510.000
0106	460.0115.S	HMA Pavement Test Strip Volumetrics	EACH	1.000	1.000
0108	460.0120.S	HMA Pavement Test Strip Density	EACH	1.000	1.000
0110	460.2000	Incentive Density HMA Pavement	DOL	55,280.000	55,280.000
0112	460.5224	HMA Pavement 4 LT 58-28 S	TON	21,020.000	21,020.000
0114	460.7424	HMA Pavement 4 HT 58-28 H	TON	6,960.000	6,960.000
0116	460.8624	HMA Pavement 4 SMA 58-28 V	TON	58,390.000	58,390.000
0118	460.9000.S	Material Transfer Vehicle	EACH	1.000	1.000
0120	465.0105	Asphaltic Surface	TON	1,820.000	1,820.000
0122	465.0125	Asphaltic Surface Temporary	TON	4,780.000	4,780.000
0124	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	285,670.000	285,670.000
0126	502.3101	Expansion Device	LF	65.000	65.000
0128	502.3200	Protective Surface Treatment	SY	24.000	24.000
0130	502.3205	Pigmented Surface Sealer Reseal	SY	1,868.000	1,868.000
0132	502.3210	Pigmented Surface Sealer	SY	6.000	6.000
0134	502.4205	Adhesive Anchors No. 5 Bar	EACH	273.000	273.000
0136	504.0100	Concrete Masonry Culverts	CY	934.000	934.000
0138	504.0900	Concrete Masonry Endwalls	CY	82.000	82.000
0140	505.0400	Bar Steel Reinforcement HS Structures	LB	110,750.000	110,750.000
0142	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	8,780.000	8,780.000
0144	509.0301	Preparation Decks Type 1	SY	2.000	2.000
0146	509.0302	Preparation Decks Type 2	SY	1.000	1.000
0148	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	40.000	40.000
0150	509.1000	Joint Repair	SY	28.000	28.000
0152	509.1500	Concrete Surface Repair	SF	10.000	10.000
0154	509.2100.S	Concrete Masonry Deck Repair	CY	11.000	11.000
0156	511.1200	Temporary Shoring (structure) 010. B-20-3838	SF	130.000	130.000
0158	511.1200	Temporary Shoring (structure) 013. B-70-327	SF	1,250.000	1,250.000
0160	511.1200	Temporary Shoring (structure) 014. C-20-2	SF	350.000	350.000
0162	511.1200	Temporary Shoring (structure) 015. C-20-7	SF	150.000	150.000
0164	511.1200	Temporary Shoring (structure) 016. C-20-8	SF	410.000	410.000
0166	511.1200	Temporary Shoring (structure) 017. C-20-9	SF	190.000	190.000
0168	511.1200	Temporary Shoring (structure) 019. C-20-15	SF	170.000	170.000
0170	511.2200	Temporary Shoring Left in Place (structure) 013. B-70-327	SF	500.000	500.000
0172	516.0500	Rubberized Membrane Waterproofing	SY	165.000	165.000
0174	520.2015	Culvert Pipe Temporary 15-Inch	LF	665.000	665.000
0176	520.2018	Culvert Pipe Temporary 18-Inch	LF	243.000	243.000
0178	520.2024	Culvert Pipe Temporary 24-Inch	LF	32.000	32.000
0180	520.2036	Culvert Pipe Temporary 36-Inch	LF	27.000	27.000
0182	520.8000	Concrete Collars for Pipe	EACH	13.000	13.000
0184	521.0336	Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 36-Inch 4 to 1	EACH	13.000	13.000
0186	521.0342	Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 42-Inch 4 to 1	EACH	6.000	6.000
0188	521.0436	Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 36-Inch 6 to 1	EACH	14.000	14.000
0190	521.2005.S	Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 15-Inch	LF	734.000	734.000
0192	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	894.000	894.000
0194	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	187.000	187.000
0196	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	174.000	174.000

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Line	Item	Item Description	Unit	Total	Qty
0198	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	131.000	131.000
0200	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	6.000	6.000
0202	522.0436	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	984.000	984.000
0204	522.0442	Culvert Pipe Reinforced Concrete Class IV 42-Inch	LF	144.000	144.000
0206	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	11.000	11.000
0208	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	8.000	8.000
0210	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000
0212	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	2.000	2.000
0214	524.0118	Culvert Pipe Salvaged 18-Inch	LF	8.000	8.000
0216	524.0124	Culvert Pipe Salvaged 24-Inch	LF	8.000	8.000
0218	524.0130	Culvert Pipe Salvaged 30-Inch	LF	8.000	8.000
0220	524.0136	Culvert Pipe Salvaged 36-Inch	LF	24.000	24.000
0222	524.0618	Apron Endwalls for Culvert Pipe Salvaged 18-Inch	EACH	4.000	4.000
0224	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	12.000	12.000
0226	524.0630	Apron Endwalls for Culvert Pipe Salvaged 30-Inch	EACH	3.000	3.000
0228	524.0636	Apron Endwalls for Culvert Pipe Salvaged 36-Inch	EACH	7.000	7.000
0230	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	10.000	10.000
0232	603.1142	Concrete Barrier Type S42	LF	180.000	180.000
0234	603.8000	Concrete Barrier Temporary Precast Delivered	LF	23,760.000	23,760.000
0236	603.8125	Concrete Barrier Temporary Precast Installed	LF	31,360.000	31,360.000
0238	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	800.000	800.000
0240	606.0200	Riprap Medium	CY	116.000	116.000
0242	606.0300	Riprap Heavy	CY	128.000	128.000
0244	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0246	611.0642	Inlet Covers Type MS	EACH	25.000	25.000
0248	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0250	611.3901	Inlets Median 1 Grate	EACH	11.000	11.000
0252	611.3902	Inlets Median 2 Grate	EACH	7.000	7.000
0254	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0256	612.0106	Pipe Underdrain 6-Inch	LF	281.000	281.000
0258	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	5.000	5.000
0260	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	9.000	9.000
0262	613.1100.S	Cable Barrier Type 1	LF	67,860.000	67,860.000
0264	613.1200.S	Cable Barrier End Terminal Type 1	EACH	40.000	40.000
0266	614.0115	Anchorages for Steel Plate Beam Guard Type 2	EACH	3.000	3.000
0268	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	8.000	8.000
0270	614.0230	Steel Thrie Beam	LF	550.000	550.000
0272	614.0305	Steel Plate Beam Guard Class A	LF	1,629.400	1,629.400
0274	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000
0276	614.0905	Crash Cushions Temporary	EACH	16.000	16.000
0278	614.2300	MGS Guardrail 3	LF	16,626.200	16,626.200
0280	614.2340	MGS Guardrail 3 L	LF	1,125.000	1,125.000
0282	614.2350	MGS Guardrail Short Radius	LF	238.900	238.900
0284	614.2500	MGS Thrie Beam Transition	LF	906.200	906.200
0286	614.2610	MGS Guardrail Terminal EAT	EACH	33.000	33.000
0288	614.2620	MGS Guardrail Terminal Type 2	EACH	23.000	23.000
0290	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0292	616.0100	Fence Woven Wire (height) 001. 4-FT	LF	8,175.000	8,175.000
0294	616.0206	Fence Chain Link 6-FT	LF	8,190.000	8,190.000

Estimate Of Quantities

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Line	Item	Item Description	Unit	Total	Qty
0296	616.0700.S	Fence Safety	LF	4,420.000	4,420.000
0298	618.0100	Maintenance and Repair of Haul Roads (project) 001. 1100-52-71	EACH	1.000	1.000
0300	619.1000	Mobilization	EACH	1.000	1.000
0302	624.0100	Water	MGAL	470.000	470.000
0304	625.0500	Salvaged Topsoil	SY	185,600.000	185,600.000
0306	627.0200	Mulching	SY	8,080.000	8,080.000
0308	628.1504	Silt Fence	LF	5,695.000	5,695.000
0310	628.1520	Silt Fence Maintenance	LF	5,695.000	5,695.000
0312	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
0314	628.1910	Mobilizations Emergency Erosion Control	EACH	7.000	7.000
0316	628.2004	Erosion Mat Class I Type B	SY	169,200.000	169,200.000
0318	628.2008	Erosion Mat Urban Class I Type B	SY	8,320.000	8,320.000
0320	628.7005	Inlet Protection Type A	EACH	188.000	188.000
0322	628.7010	Inlet Protection Type B	EACH	35.000	35.000
0324	628.7015	Inlet Protection Type C	EACH	10.000	10.000
0326	628.7504	Temporary Ditch Checks	LF	4,590.000	4,590.000
0328	628.7555	Culvert Pipe Checks	EACH	75.000	75.000
0330	628.7570	Rock Bags	EACH	165.000	165.000
0332	629.0210	Fertilizer Type B	CWT	116.900	116.900
0334	630.0130	Seeding Mixture No. 30	LB	3,195.000	3,195.000
0336	630.0200	Seeding Temporary	LB	219.000	219.000
0338	630.0500	Seed Water	MGAL	4,169.000	4,169.000
0340	633.1100	Delineators Temporary	EACH	50.000	50.000
0342	633.5200	Markers Culvert End	EACH	93.000	93.000
0344	642.5001	Field Office Type B	EACH	1.000	1.000
0346	643.0300	Traffic Control Drums	DAY	216,040.000	216,040.000
0348	643.0420	Traffic Control Barricades Type III	DAY	13,855.000	13,855.000
0350	643.0705	Traffic Control Warning Lights Type A	DAY	27,710.000	27,710.000
0352	643.0715	Traffic Control Warning Lights Type C	DAY	21,788.000	21,788.000
0354	643.0800	Traffic Control Arrow Boards	DAY	547.000	547.000
0356	643.0900	Traffic Control Signs	DAY	28,139.000	28,139.000
0358	643.0910	Traffic Control Covering Signs Type I	EACH	14.000	14.000
0360	643.1050	Traffic Control Signs PCMS	DAY	131.000	131.000
0362	643.1205.S	Basic Traffic Queue Warning System	DAY	218.000	218.000
0364	643.3165	Temporary Marking Line Paint 6-Inch	LF	617,419.000	617,419.000
0366	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	29,838.000	29,838.000
0368	643.3265	Temporary Marking Line Paint 10-Inch	LF	14,319.000	14,319.000
0370	643.3760	Temporary Marking Raised Pavement Marker Type I	EACH	360.000	360.000
0372	643.5000	Traffic Control	EACH	1.000	1.000
0374	645.0105	Geotextile Type C	SY	1,569.000	1,569.000
0376	645.0111	Geotextile Type DF Schedule A	SY	156.000	156.000
0378	645.0120	Geotextile Type HR	SY	490.000	490.000
0380	645.0140	Geotextile Type SAS	SY	270.000	270.000
0382	646.1020	Marking Line Epoxy 4-Inch	LF	13,030.000	13,030.000
0384	646.2020	Marking Line Epoxy 6-Inch	LF	1,180.000	1,180.000
0386	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	37,240.000	37,240.000
0388	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	319,600.000	319,600.000
0390	646.2050	Marking Line Grooved Permanent Tape 6-Inch	LF	37,240.000	37,240.000
0392	646.3020	Marking Line Epoxy 8-Inch	LF	2,620.000	2,620.000

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Line	Item	Item Description	Unit	Total	Qty
0394	646.4020	Marking Line Epoxy 10-Inch	LF	465.000	465.000
0396	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	13,390.000	13,390.000
0398	646.5020	Marking Arrow Epoxy	EACH	20.000	20.000
0400	646.5120	Marking Word Epoxy	EACH	8.000	8.000
0402	646.6120	Marking Stop Line Epoxy 18-Inch	LF	310.000	310.000
0404	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	98,820.000	98,820.000
0406	646.6470	Cold Weather Marking Epoxy 10-Inch	LF	13,860.000	13,860.000
0408	646.7120	Marking Diagonal Epoxy 12-Inch	LF	720.000	720.000
0410	646.7220	Marking Chevron Epoxy 24-Inch	LF	1,125.000	1,125.000
0412	646.8120	Marking Curb Epoxy	LF	485.000	485.000
0414	646.8220	Marking Island Nose Epoxy	EACH	14.000	14.000
0416	646.9000	Marking Removal Line 4-Inch	LF	30,151.000	30,151.000
0418	650.4000	Construction Staking Storm Sewer	EACH	64.000	64.000
0420	650.4500	Construction Staking Subgrade	LF	10,946.000	10,946.000
0422	650.5000	Construction Staking Base	LF	10,946.000	10,946.000
0424	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	10.000	10.000
0426	650.7500	Construction Staking Concrete Barrier	LF	180.000	180.000
0428	650.8000	Construction Staking Resurfacing Reference	LF	78,225.000	78,225.000
0430	650.9911	Construction Staking Supplemental Control (project) 001. 1100-52-71	EACH	1.000	1.000
0432	650.9920	Construction Staking Slope Stakes	LF	5,269.000	5,269.000
0434	690.0150	Sawing Asphalt	LF	11,855.000	11,855.000
0436	690.0250	Sawing Concrete	LF	341.000	341.000
0438	715.0502	Incentive Strength Concrete Structures	DOL	8,408.000	8,408.000
0440	740.0440	Incentive IRI Ride	DOL	226,392.000	226,392.000
0442	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,100.000	2,100.000
0444	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	5,760.000	5,760.000
0446	SPV.0035	Special 001. Foundation Backfill	CY	2,790.000	2,790.000
0448	SPV.0060	Special 001. Reconstructing Inlets Median 1 Grate	EACH	2.000	2.000
0450	SPV.0060	Special 002. Reconstructing Inlets Median 2 Grate	EACH	26.000	26.000
0452	SPV.0060	Special 003. Reconstructing Inlets Median 3 Grate	EACH	34.000	34.000
0454	SPV.0060	Special 004. Reconstructing Inlets Median 4 Grate	EACH	1.000	1.000
0456	SPV.0060	Special 005. Reconstructing Inlets Median 8 Grate	EACH	1.000	1.000
0458	SPV.0060	Special 006. Connect to Existing Box Culvert	EACH	14.000	14.000
0460	SPV.0060	Special 007. Temporary Pipe Underdrain Connections	EACH	9.000	9.000
0462	SPV.0060	Special 008. Apron Endwalls for Culvert Pipe Temporary 15-Inch	EACH	4.000	4.000
0464	SPV.0060	Special 009. Apron Endwalls for Culvert Pipe Temporary 36-Inch	EACH	1.000	1.000
0466	SPV.0060	Special 101. Safety Grate Sta 2402+29 RT	EACH	1.000	1.000
0468	SPV.0060	Special 102. Safety Grate Sta 2402+39 LT	EACH	1.000	1.000
0470	SPV.0060	Special 103. Safety Grate Sta 2475+56 LT	EACH	1.000	1.000
0472	SPV.0060	Special 104. Safety Grate Sta 2475+56 RT	EACH	1.000	1.000
0474	SPV.0060	Special 105. Safety Grate Sta 2618+58 LT	EACH	1.000	1.000
0476	SPV.0060	Special 106. Safety Grate Sta 2618+58 RT	EACH	1.000	1.000
0478	SPV.0060	Special 107. Safety Grate Sta 2630+80 RT	EACH	1.000	1.000
0480	SPV.0060	Special 108. Safety Grate Sta 2680+53 LT	EACH	1.000	1.000
0482	SPV.0060	Special 109. Safety Grate Sta 2680+53 RT	EACH	1.000	1.000
0484	SPV.0060	Special 110. Safety Grate Sta 2714+74 LT	EACH	1.000	1.000
0486	SPV.0060	Special 111. Safety Grate Sta 2714+74 RT	EACH	1.000	1.000
0488	SPV.0060	Special 112. Safety Grate Sta 2781+13 LT	EACH	1.000	1.000
0490	SPV.0060	Special 113. Safety Grate Sta 2781+13 RT	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0492	SPV.0060	Special 114. Safety Grate Sta 2799+33 RT	EACH	1.000	1.000
0494	SPV.0060	Special 115. Safety Grate Sta 2860+26.64	EACH	1.000	1.000
0496	SPV.0060	Special 116. Safety Grate Sta 2865+71.19	EACH	1.000	1.000
0498	SPV.0060	Special 117. Culvert Extension 2860+26.64	EACH	1.000	1.000
0500	SPV.0060	Special 118. Culvert Extension 2865+71.19	EACH	1.000	1.000
0502	SPV.0060	Special 119. Culvert Extension 2928+42.94	EACH	1.000	1.000
0504	SPV.0060	Special 200. Safety Grate C-20-2 Inlet	EACH	1.000	1.000
0506	SPV.0060	Special 201. Safety Grate C-20-2 Outlet	EACH	1.000	1.000
0508	SPV.0060	Special 202. Safety Grate C-20-7	EACH	1.000	1.000
0510	SPV.0060	Special 203. Safety Grate C-20-8 Inlet	EACH	1.000	1.000
0512	SPV.0060	Special 204. Safety Grate C-20-8 Outlet	EACH	1.000	1.000
0514	SPV.0060	Special 205. Safety Grate C-20-9	EACH	1.000	1.000
0516	SPV.0060	Special 206. Safety Grate C-20-12	EACH	1.000	1.000
0518	SPV.0060	Special 207. Safety Grate C-20-15	EACH	1.000	1.000
0520	SPV.0090	Special 200. Bridge Deck Crack Sealing	LF	1,600.000	1,600.000
0522	SPV.0090	Special 210. Joint Sealing	LF	1,032.000	1,032.000
0524	SPV.0090	Special 220. Strip Seal Gland Replacement	LF	60.000	60.000
0526	SPV.0170	Special 001. Shaping Shoulders Special	STA	1,331.000	1,331.000
0528	SPV.0180	Special 200. Methacrylate Flood Seal	SY	9,562.000	9,562.000

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH
CATEGORY CODE 0010		
2928+30	LT	1
2953+57	RT	1
2967+76	LT	1
2975+39	LT	1
2976+11	LT	1
2996+03	LT	1
2996+04	RT	1
2996+04	LT	1
2996+24	RT	1
3011+64	LT	1
3011+90	LT	1
3012+11	LT	1
3012+78	LT	1
3013+57	RT	1
3013+81	RT	1
3046+85	RT	1
3046+95	RT	1
3046+98	LT	1
3047+19	LT	1
3047+19	LT	1
3047+19	RT	1
CATEGORY CODE 0010 SUBTOTAL		21
CATEGORY CODE 0220		
3031+61	LT	1
3031+62	LT	1
3031+62	RT	1
3036+03	RT	1
3037+27	LT	1
3037+61	LT	1
3037+62	LT	1
CATEGORY CODE 0220 SUBTOTAL		7
TOTAL		**28**

REMOVING ASPHALT PAVEMENT ITEMS

STATION - STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	COMMENTS
CATEGORY CODE 0010					
2328+40 - 2338+96	LT & RT	--	46	11,610	--
2340+66 - 2748+42	LT & RT	--	67	418,970	--
2749+04 - 3075+80	LT & RT	--	62	296,080	--
2425+43 - 2426+31	LT	40	--	--	CONCRETE BARRIER INSTALLATION
2425+46 - 2426+35	RT	40	--	--	CONCRETE BARRIER INSTALLATION
2840+06 - 2841+41	LT	604	--	--	PIPE REMOVAL
2840+06 - 2841+15	RT	484	--	--	PIPE REMOVAL
2953+31 - 2953+84	RT	11	--	--	CULVERT RELAY
3011+40 - 3012+99	LT	284	--	--	CULVERT REPLACEMENT
3012+12 - 3013+72	RT	284	--	--	CULVERT REPLACEMENT
3031+31 - 3031+99	LT	122	--	--	CULVERT REPLACEMENT
3031+31 - 3031+99	RT	122	--	--	CULVERT REPLACEMENT
3037+28 - 3037+90	LT	110	--	--	CULVERT REPLACEMENT
3037+28 - 3037+90	RT	110	--	--	CULVERT REPLACEMENT
13+69 - 18+67	LT & RT	--	26	2,970	WINNEBAGO STREET
21+39 - 26+56	LT & RT	--	23	3,010	WINNEBAGO STREET
43'N-EB'+80 - 65'N-EB'+20	LT & RT	--	23	10,220	CTH N
140'WFR'+74 - 142'WFR'+63	LT & RT	461	--	--	CULVERT REPLACEMENT
145'WF'R+40 - 145'WFR'+45	LT & RT	13	--	--	TEMPORARY CULVERT
161'WFR'+66 - 162'WFR'+54	LT & RT	240	--	--	CULVERT REPLACEMENT
167'WFR'+24 - 168'WFR'+39	LT & RT	283	--	--	CULVERT REPLACEMENT
143'EFR'+42 - 145'EFR'+30	LT & RT	461	--	--	CULVERT REPLACEMENT
165'EFR'+95 - 167'EFR'+00	LT & RT	258	--	--	CULVERT REPLACEMENT
CATEGORY CODE 0010 SUBTOTALS		3,927	247	742,860	
CATEGORY CODE 0210					
96+28 - 98+79	LT & RT	--	40	2,750	JOHNSON STREET
98+15 - 98+25	RT	3	--	--	CURB & GUTTER REPLACEMENT
101+20 - 104+18	LT & RT	--	43	3,090	JOHNSON STREET
CATEGORY CODE 0210 SUBTOTALS		3	83	5,840	
TOTALS		**3,930**	**330**	**748,700**	

REMOVING CURB & GUTTER

STATION - STATION	LOCATION	204.0150 LF
CATEGORY CODE 0210		
98+15 - 98+25	RT	10
TOTAL		**10**

REMOVING GUARDRAIL

STATION - STATION	LOCATION	204.0165 LF
CATEGORY CODE 0010		
2326+69 - 2329+40	RT	271
2326+70 - 2329+14	LT	245
2330+57 - 2338+83	LT	832
2335+60 - 2339+08	RT	346
2340+66 - 2352+03	LT	1,145
2340+86 - 2341+56	RT	70
2347+16 - 2356+11	RT	893
2349+67 - 2357+23	LT	756
1397'E'+57 - 1402'E'+60	RT	503
1398'E'+49 - 101+18	RT	626
1401'F'+49 - 1403'F'+20	LT	171
1401'F'+88 - 98+96	LT	298
101+06 - 1404'H'+52	LT	366
98+82 - 1408'G'+04	LT	367
1404'H'+18 - 1408'H'+44	RT	172
1404'G'+62 - 1408'G'+40	LT	492
2401+45 - 2405+10	RT	366
2401+70 - 2405+38	LT	367
2417+08 - 2429+55	RT	1,254
2425+44 - 2433+56	LT	805
2426+92 - 2430+81	RT	390
2427+90 - 2431+07	LT	317
2440+86 - 2443+67	LT	279
2492+75 - 2501+03	RT	829
1496'B'+59 - 1500'B'+04	LT	341
22+20 - 24+79	RT	259
21+29 - 24+40	LT	311
1497'D'+92 - 1500'D'+38	RT	260
2500+21 - 2500+21	LT	502
2501+19 - 2505+73	LT	454
15+80 - 18+79	RT	298
15+53 - 17+87	LT	234
13+51 - 1507'C'+15	LT	204
2512+00 - 2521+29	RT	929
2514+03 - 2518+82	LT	479
2580+60 - 2586+64	RT	603
2582+42 - 2601+33	RT	1,892
2582+61 - 2600+14	LT	1,753
2584+87 - 2588+29	LT	342
1724'NB'+57 - 1726'NB'+49	LT	192
2743+87 - 2746+47	RT	261
2744+57 - 2747+39	RT	283
2750+33 - 2753+17	LT	284
2750+97 - 2753+05	LT	208
2839+84 - 2839+84	RT	351
2973+10 - 2973+10	RT	351
2974+80 - 2976+46	RT	166
2975+85 - 2979+26	LT	342
3026+27 - 3026+27	RT	251
	TOTAL	**23,710**

REMOVING DRAINAGE ITEMS

STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.001 REMOVING STORM SEWER 24-INCH LF	204.0245.002 REMOVING STORM SEWER 30-INCH LF	204.0245.003 REMOVING STORM SEWER 36-INCH LF	204.9060.S.001 REMOVING CULVERT PIPE ENDWALL EACH	204.9060.S.002 REMOVING CONCRETE MASONRY ENDWALL & GRATE EACH	204.9060.S.003 REMOVING STONE ENDWALL EACH	204.9090.S.002 REMOVING SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 15-INCH LF
CATEGORY CODE 0010										
2402+22	RT	--	--	--	--	16	--	1	--	--
2402+48	LT	--	--	--	--	16	--	1	--	--
2475+49	LT	--	--	16	--	--	--	1	--	--
2475+62	RT	--	--	16	--	--	--	1	--	--
2481+64	LT	--	--	8	--	--	--	--	--	--
2535+61	LT & RT	--	--	20	--	--	--	--	--	--
2535+61	LT	--	1	--	--	--	--	--	--	--
2544+81	LT	--	--	--	--	16	--	1	--	--
2544+95	RT	--	--	--	--	16	--	1	--	--
2577+10	RT	--	--	4	--	--	--	--	--	--
2618+06	LT	--	--	--	16	--	--	1	--	--
2619+28	RT	--	--	--	16	--	--	1	--	--
2630+87	RT	--	--	--	16	--	--	1	--	--
2680+50	RT	--	--	--	--	16	--	1	--	--
2680+57	LT	--	--	--	--	16	--	1	--	--
2714+22	RT	--	--	--	16	--	--	1	--	--
2715+22	LT	--	--	--	16	--	--	1	--	--
2737+20	RT	--	--	--	--	--	--	1	--	--
2781+04	RT	--	--	--	16	--	--	1	--	--
2781+22	LT	--	--	--	16	--	--	1	--	--
2799+23	RT	--	--	--	16	--	--	1	--	--
2799+64	RT	--	--	--	--	--	3	--	--	--
2840+32	LT & RT	--	--	198	--	--	--	--	--	--
2840+89	LT & RT	1	--	189	--	--	--	--	--	--
2928+31	LT	--	1	--	--	--	--	--	--	--
2937+97	LT	--	--	--	--	--	--	--	1	--
2939+14	RT	--	--	--	--	--	--	--	1	--
2943+96	LT	--	--	--	--	--	--	--	1	--
2944+08	RT	--	--	--	--	--	--	--	1	--
2953+51	RT	--	--	--	--	--	--	--	1	--
2953+53	LT	--	--	--	--	--	--	--	1	--
2959+96	LT	--	--	--	--	--	--	--	1	--
2960+08	RT	--	--	--	--	--	--	--	1	--
2967+58	LT	--	1	--	--	--	--	--	--	--
2967+97	LT	--	--	--	--	7	--	--	--	--
2967+97	RT	--	--	--	--	10	1	--	--	--
2975+39	LT	--	1	--	--	--	--	--	--	--
2976+92	LT	--	1	--	--	--	--	--	--	--
2996+03	LT	--	1	--	--	--	--	--	--	--
3011+81	LT	--	1	--	--	--	--	--	--	--
3013+20	LT	--	1	--	--	--	--	--	--	--
3031+62	RT	--	1	--	--	--	--	--	--	--
3038+07	LT	--	1	--	--	--	--	--	--	--
3046+85	RT	--	1	--	--	--	--	--	--	--
3047+51	LT	--	1	--	--	--	--	--	--	--
3000+41 - 3004+11		--	--	--	--	--	--	--	--	370
3045+05 - 3048+69		--	--	--	--	--	--	--	--	364
	TOTALS	**1**	**12**	**451**	**128**	**113**	**4**	**17**	**8**	**734**

REMOVING FENCE

STATION - STATION	LOCATION	204.0170 LF
CATEGORY CODE 0010		
2329+49 - 2339+39	RT	990
2340+59 - 2386+20	RT	4,545
1404'H'+21 - 2429+04	RT	2,516
2425+44 - 2426+26	LT	103
2544+85 - 2545+20	RT	35
2563+40 - 2563+75	RT	35
2856+00 - 2856+45	LT	45
2927+00 - 2928+35	LT	135
2927+15 - 2930+60	RT	346
2937+75 - 2939+60	RT	185
2943+78 - 2944+23	RT	45
2953+35 - 2953+80	RT	45
2959+84 - 2960+19	RT	35
2967+15 - 2972+75	RT	561
2977+00 - 2983+50	RT	650
2995+90 - 2996+35	LT	45
2999+50 - 3043+50	LT	4,401
3012+12 - 3014+88	RT	276
3030+75 - 3038+50	RT	775
3046+75 - 3047+57	LT	82
	TOTAL	**15,850**

REMOVING CABLE BARRIER ITEMS

STATION - STATION	LOCATION	204.9060.S.004 REMOVING CABLE BARRIER TERMINALS EACH	204.9090.S.001 REMOVING CABLE BARRIER LF
CATEGORY CODE 0010			
2355+67 - 2386+84	RT	2	3,118
2387+39 - 2402+13	RT	2	1,475
2404+68 - 2417+34	LT	2	1,267
2417+88 - 2428+19	LT	2	1,031
2430+38 - 2454+81	LT	2	2,441
2455+33 - 2487+29	LT	2	3,196
2487+80 - 2499+91	LT	2	1,212
2502+34 - 2523+48	LT	2	2,115
2524+00 - 2581+83	LT	2	5,787
2599+61 - 2642+21	LT	2	4,263
2642+73 - 2707+55	LT	2	6,486
2708+18 - 2746+30	LT	2	3,814
2751+45 - 2792+89	RT	2	4,142
2793+48 - 2822+78	RT	2	2,929
2823+42 - 2839+65	LT	2	1,624
2841+42 - 2889+23	RT	2	4,784
2889+89 - 2933+32	RT	2	4,346
2933+99 - 2972+93	RT	2	3,896
2974+69 - 2986+31	RT	2	1,163
2986+93 - 3074+97	RT	2	8,811
	TOTALS	**40**	**67,900**

BASE AGGREGATE DENSE, SUBBASE, AND WATER ITEMS

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	350.0104 SUBBASE TON	624.0100 WATER MGAL	COMMENTS
CATEGORY CODE 0010								
2325+11 - 2339+09	LT & RT	49	--	--	--	--	0.7	SHOULDERING
2340+66 - 2748+42	LT & RT	2,575	--	--	--	--	36.2	SHOULDERING
2749+04 - 3075+80	LT & RT	1,851	--	--	--	--	26.0	SHOULDERING
2425+43 - 2426+31	LT	--	26	--	--	--	0.4	CONCRETE BARRIER INSTALLATION
2425+46 - 2426+35	RT	--	26	--	--	--	0.4	CONCRETE BARRIER INSTALLATION
2840+06 - 2841+41	LT	149	273	575	--	487	20.8	PIPE REMOVAL
2840+06 - 2841+15	RT	119	218	461	--	390	16.7	PIPE REMOVAL
2925+50 - 2928+31	RT	29	414	--	430	--	12.4	FRENCH DRAIN
2953+31 - 2953+84	RT	4	12	--	--	21	0.5	CULVERT RELAY
3011+40 - 3012+99	LT	118	329	--	--	568	14.3	CULVERT REPLACEMENT
3012+12 - 3013+72	RT	118	329	--	--	568	14.3	CULVERT REPLACEMENT
3031+31 - 3031+99	LT	51	142	--	--	244	6.2	CULVERT REPLACEMENT
3031+31 - 3031+99	RT	51	142	--	--	244	6.2	CULVERT REPLACEMENT
3037+28 - 3037+90	LT	46	224	--	--	344	8.6	CULVERT REPLACEMENT
3037+28 - 3037+90	RT	46	224	--	--	344	8.6	CULVERT REPLACEMENT
13+69 - 18+67	LT & RT	18	--	--	--	--	0.3	WINNEBAGO STREET
21+39 - 26+56	LT & RT	14	--	--	--	--	0.2	WINNEBAGO STREET
43'N-EB'+80 - 65'N-EB'+20	LT & RT	127	--	--	--	--	1.8	CTH N
140'WFR'+74 - 142'WFR'+63	LT & RT	108	589	--	--	--	9.8	CULVERT REPLACEMENT
145'WF'R+40 - 145'WFR'+45	LT & RT	3	16	--	--	--	0.3	TEMPORARY CULVERT
161'WFR'+66 - 162'WFR'+54	LT & RT	56	306	--	--	--	5.1	CULVERT REPLACEMENT
167'WFR'+24 - 168'WFR'+39	LT & RT	61	346	--	--	--	5.7	CULVERT REPLACEMENT
143'EFR'+42 - 145'EFR'+30	LT & RT	108	589	--	--	--	9.8	CULVERT REPLACEMENT
165'EFR'+95 - 167'EFR'+00	LT & RT	66	343	--	--	--	5.8	CULVERT REPLACEMENT
4'XS'+95 - 57'XS'+64	LT	1,150	10,099	--	--	--	158.4	TEMPORARY SHOULDER WIDENING
5'XN'+10 - 59'XN'+97	LT & RT	1,183	5,950	--	--	--	100.5	MEDIAN CROSS-OVER
CATEGORY CODE 0010 SUBTOTALS		8,100	20,597	1,036	430	3,210	470.0	
CATEGORY CODE 0210								
98+15 - 98+25	RT	--	3	4	--	--	--	CURB & GUTTER REPLACEMENT
CATEGORY CODE 0210 SUBTOTALS		--	3	4	--	--	--	
	TOTALS	**8,100**	**20,600**	**1,040**	**430**	**3,210**	**470.0**	

BASE AGGREGATE DENSE 3/4-INCH WEIGHT CALCULATIONS BASED ON 2.1 TONS/CY.
BASE AGGREGATE DENSE 1 1/4-INCH WEIGHT CALCULATIONS BASED ON 2.0 TONS/CY.

3

DIVISION	FROM/TO STATION	LOCATION	205.0100* COMMON EXCAVATION (1) CUT (2)	205.0100* COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1	2995+79 - 3048+48	SB WIDENING	1,192	0	0	1,192	4,327	5,409	-4,217			
	2997+05 - 3051+89	MEDIAN CROSS OVER	2,197	0	0	2,197	214	268	1,930			
DIVISION 1 SUBTOTAL			3,389	0	0	3,389	4,541	5,676	-2,287	0	2,287	
DIVISION 2	2328+40 - 3075+80	IH 41 NB SLOPE FLATTENING	3,350	60	0	3,350	2,350	2,878	473			SURFACE VOLUME CALCULATION
	2328+99 - 3075+80	IH 41 SB SLOPE FLATTENING	3,300	25	0	3,300	2,100	2,600	700			SURFACE VOLUME CALCULATION
	2328+40 - 3075+80	MEDIAN SLOPE FLATTENING	750	0	0	750	1,200	1,500	-750			SURFACE VOLUME CALCULATION
	3012+12 - 3037+90	IH 41 NB PIPE CROSSINGS	1,606	0	438	1,168	1	1	1,167			
	3011+40 - 3037+90	IH 41 SB PIPE CROSSINGS	1,448	0	438	1,010	1	1	1,009			
	143+42 - 167+00	EAST FRONTAGE ROAD	548	0	80	468	55	69	399			
	140-74 - 168+39	WEST FRONTAGE ROAD	782	0	109	673	163	204	469			
DIVISION 2 SUBTOTAL			11,784	85	1,065	10,719	5,870	7,253	3,467	3,467	0	
DIVISION 3	2995+79 - 3048+48	SB WIDENING REMOVAL	8,448	0	1,570	6,878	99	124	6,754			
	2997+05 - 3051+89	MEDIAN CROSS OVER REMOVAL	1,247	0	730	517	42	53	465			
DIVISION 3 SUBTOTAL			9,695	0	2,300	7,395	141	176	7,219	7,219	0	
GRAND TOTAL			24,868	85	3,365	21,503	10,552	13,105	8,398	10,685	2,287	
TOTAL COMMON EXC			24,953									

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(13) EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

CONCRETE PAVEMENT ITEMS

STATION - STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	320.0155 CONCRETE BASE 9-INCH SY	320.0355 CONCRETE BASE HES 9-INCH SY	COMMENTS
CATEGORY CODE 0010					
2953+31 - 2953+84	RT	20	--	20	CULVERT RELAY
3011+40 - 3012+99	LT	426	426	--	CULVERT REPLACEMENT
3012+12 - 3013+72	RT	426	426	--	CULVERT REPLACEMENT
3031+31 - 3031+99	LT	183	183	--	CULVERT REPLACEMENT
3031+31 - 3031+99	RT	183	183	--	CULVERT REPLACEMENT
3037+28 - 3037+90	LT	166	166	--	CULVERT REPLACEMENT
3037+28 - 3037+90	RT	166	166	--	CULVERT REPLACEMENT
	TOTALS	**1,570**	**1,550**	**20**	

EARTHWORK AND BACKFILL ITEMS FOR CULVERT PIPE TRANSITIONS

LOCATION	205.0100* EXCAVATION COMMON CY	SPV.0035.001 FOUNDATION BACKFILL CY	COMMENTS
CATEGORY CODE 0010			
2840+06 - 2841+15; RT	1,560	570	PIPE REMOVAL
2840+06 - 2841+41; LT	1,750	640	PIPE REMOVAL
3031+31 - 3031+99; RT	170	170	CULVERT REPLACEMENT
3031+31 - 3031+99; LT	170	170	CULVERT REPLACEMENT
3037+28 - 3037+90; RT	170	210	CULVERT REPLACEMENT
3037+28 - 3037+90; LT	170	190	CULVERT REPLACEMENT
165'EFR'+95 - 167'EFR'+00	260	260	CULVERT REPLACEMENT
161'WFR'+56 - 162'WFR'+54	220	220	CULVERT REPLACEMENT
167'WFR'+23 - 168'WFR'+39	360	360	CULVERT REPLACEMENT
TOTALS	**4,830**	**2,790**	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

PREPARE FOUNDATION FOR ASPHALTIC PAVING

PROJECT	LOCATION	211.0101 EACH	COMMENTS
CATEGORY CODE 0010			
1100-52-71		1	
	2340+66 - 2748+42		NORTHBOUND & SOUTHBOUND
	2340+66 - 2748+42		NORTHBOUND & SOUTHBOUND
	2749+04 - 3075+80		NORTHBOUND & SOUTHBOUND
	96+28 - 98+78		STH 23 EASTBOUND & WESTBOUND
	101+20 - 104+18		STH 23 EASTBOUND & WESTBOUND
	13+69 - 18+67		CTH OO EASTBOUND & WESTBOUND
	21+39 - 26+56		CTH OO EASTBOUND & WESTBOUND
	43'N-EB'+80 - 65'N-EB'+20		CTH N EASTBOUND & WESTBOUND
	TOTAL	**1**	

BREAKER RUN & GEOSYNTHETICS

STATION	LOCATION	311.0110 BREAKER RUN TON	645.0140 GEOTEXTILE TYPE SAS SY
CATEGORY CODE 0010			
2402+30	LT	26	52
2475+60	RT	28	36
2475+60	LT	16	33
2535+65	RT	10	17
2577+10	RT	11	19
2939+00	RT	17	25
2944+00	RT	11	18
2953+50	RT	10	17
2960+00	RT	7	12
2967+95	RT	18	27
3069+50	LT	6	14
	TOTALS	**160**	**270**

ASPHALTIC ITEMS

STATION - STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.0115.S HMA PAVEMENT TEST STRIP VOLUMETRICS EACH	460.0120.S HMA PAVEMENT TEST STRIP DENSITY EACH	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	460.8624 HMA PAVEMENT 4 SMA 58-28 V TON	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	COMMENTS
CATEGORY CODE 0010											
2328+40 - 2339+09	LT & RT	201	837	1	1	710	--	626	--	--	--
2340+66 - 2748+42	LT & RT	7,252	30,208	--	--	10,800	4,785	32,748	--	--	--
2749+04 - 3075+80	LT & RT	5,125	21,348	--	--	8,330	811	25,016	--	--	--
2425+43 - 2426+31	LT	--	1	--	--	--	--	--	7	--	CONCRETE BARRIER INSTALLATION
2425+46 - 2426+35	RT	--	1	--	--	--	--	--	7	--	CONCRETE BARRIER INSTALLATION
2840+06 - 2841+41	LT	--	62	--	--	--	--	--	287	--	PIPE REMOVAL
2840+06 - 2841+15	RT	--	50	--	--	--	--	--	230	--	PIPE REMOVAL
2925+50 - 2928+31	RT	--	19	--	--	--	--	--	54	--	FRENCH DRAIN
2953+31 - 2953+84	RT	--	34	--	--	--	--	--	95	--	CULVERT RELAY
3011+40 - 3012+99	LT	--	75	--	--	--	--	--	204	--	CULVERT REPLACEMENT
3012+12 - 3013+72	RT	--	75	--	--	--	--	--	204	--	CULVERT REPLACEMENT
3031+31 - 3031+99	LT	--	32	--	--	--	--	--	88	--	CULVERT REPLACEMENT
3031+31 - 3031+99	RT	--	32	--	--	--	--	--	88	--	CULVERT REPLACEMENT
3037+28 - 3037+90	LT	--	29	--	--	--	--	--	80	--	CULVERT REPLACEMENT
3037+28 - 3037+90	RT	--	29	--	--	--	--	--	80	--	CULVERT REPLACEMENT
13+69 - 18+67	LT & RT	51	214	--	--	--	342	--	--	--	WINNEBAGO STREET
21+39 - 26+56	LT & RT	52	217	--	--	--	348	--	--	--	WINNEBAGO STREET
43'N-EB'+80 - 65'N-EB'+20	LT & RT	177	737	--	--	1,180	--	--	--	--	CTH N
140'WFR'+74 - 142'WFR'+63	LT & RT	--	24	--	--	--	--	--	106	--	CULVERT REPLACEMENT
145'WF'R+40 - 145'WFR'+45	LT & RT	--	1	--	--	--	--	--	3	3	TEMPORARY CULVERT
161'WFR'+66 - 162'WFR'+54	LT & RT	--	12	--	--	--	--	--	55	--	CULVERT REPLACEMENT
167'WFR'+24 - 168'WFR'+39	LT & RT	--	15	--	--	--	--	--	65	--	CULVERT REPLACEMENT
143'EFR'+42 - 145'EFR'+30	LT & RT	--	24	--	--	--	--	--	106	--	CULVERT REPLACEMENT
165'EFR'+95 - 167'EFR'+00	LT & RT	--	13	--	--	--	--	--	60	--	CULVERT REPLACEMENT
4'XS'+95 - 57'XS'+64	LT	--	--	--	--	--	--	--	--	3,258	TEMPORARY SHOULDER WIDENING
4'XN'+13 - 60'XN'+90	RT	--	--	--	--	--	--	--	--	1,519	MEDIAN CROSS-OVER
CATEGORY CODE 0010 SUBTOTALS		12,858	54,089	1	1	21,020	6,286	58,390	1,819	4,780	
CATEGORY CODE 0210											
96+28 - 98+79	LT & RT	48	198	--	--	--	317	--	--	--	JOHNSON STREET
98+15 - 98+25	RT	--	--	--	--	--	--	--	1	--	CURB & GUTTER REPLACEMENT
101+20 - 104+18	LT & RT	54	223	--	--	--	357	--	--	--	JOHNSON STREET
CATEGORY CODE 0210 SUBTOTALS		102	421	--	--	--	674	--	1	--	
TOTALS		**12,960**	**54,510**	**1**	**1**	**21,020**	**6,960**	**58,390**	**1,820**	**4,780**	

HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.
TACK COAT CALCULATIONS BASED ON 0.070 GAL/SY ON MILLED HMA, PULVERIZED HMA, CONCRETE OR RUBBLIZED CONCRETE
TACK COAT CALCULATIONS BASED ON 0.050 GAL/SY ON PREVIOUSLY PLACED LOWER LAYERS
ASPHALTIC SURFACE WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.

DRILLED TIE BARS AND DRILLED DOWEL BARS

STATION - STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	COMMENTS
CATEGORY CODE 0010				
2953+31 - 2953+84	RT	--	32	CULVERT RELAY
3011+40 - 3012+99	LT	--	32	CULVERT REPLACEMENT
3012+12 - 3013+72	RT	--	32	CULVERT REPLACEMENT
3031+31 - 3031+99	LT	--	32	CULVERT REPLACEMENT
3031+31 - 3031+99	RT	--	32	CULVERT REPLACEMENT
3037+28 - 3037+90	LT	--	32	CULVERT REPLACEMENT
3037+28 - 3037+90	RT	--	32	CULVERT REPLACEMENT
CATEGORY CODE 0010 SUBTOTALS		--	224	
CATEGORY CODE 0210				
98+15	RT	3	--	CURB & GUTTER REPLACEMENT
98+25	RT	3	--	CURB & GUTTER REPLACEMENT
CATEGORY CODE 0210 SUBTOTALS		6	--	
TOTALS		**6**	**224**	

ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED HIGHWAY

STATION - STATION	LOCATION	465.0510 LF
CATEGORY CODE 0010		
2328+40 - 2339+09	LT & RT	4,080
2340+66 - 2748+42	LT & RT	151,885
2749+04 - 3075+80	LT & RT	129,705
TOTAL		**285,670**

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CONCRETE MASONRY ENDWALL ITEMS

STATION	LOCATION	504.0900 CONCRETE MASONRY ENDWALLS CY	SPV.0060 SAFETY GRATE (STATION) EACH
CATEGORY CODE 0010			
101. 2402+29	RT	6.5	1
102. 2402+39	LT	8.0	1
103. 2475+56	LT	4.0	1
104. 2475+56	RT	3.5	1
105. 2618+58	LT	7.5	1
106. 2618+58	RT	6.0	1
107. 2630+80	RT	4.5	1
108. 2680+53	LT	7.5	1
109. 2680+53	RT	6.5	1
110. 2714+74	LT	7.0	1
111. 2714+74	RT	5.5	1
112. 2781+13	LT	5.5	1
113. 2781+13	RT	5.0	1
114. 2799+33	RT	5.0	1
	TOTAL	**82.0**	**14**

CONCRETE CURB AND GUTTER ITEMS

STATION - STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
CATEGORY CODE 0210			
98+15 - 98+25	RT	10	10
	TOTALS	**10**	**10**

CONCRETE BARRIER ITEMS

STATION - STATION	LOCATION	603.1142 CONCRETE BARRIER TYPE S42 LF	650.7500 CONSTRUCTION STAKING CONCRETE BARRIER LF
CATEGORY CODE 0010			
2425+43 - 2426+34	LT	90	90
2425+46 - 2426+35	RT	90	90
	TOTALS	**180**	**180**

PIPE UNDERDRAIN ITEMS

STATION	LOCATION	310.0115 BASE AGGREGATE OPEN-GRADED CY	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	COMMENTS
CATEGORY CODE 0010					
2825+50 - 2829+00	RT	8	281	156	FRENCH DRAIN
	TOTALS	**8**	**281**	**156**	

CABLE BARRIER ITEMS

STATION - STATION	LOCATION	613.1100.S CABLE BARRIER TYPE 1 LF	613.1200.S CABLE BARRIER END TERMINAL TYPE 1 EACH
CATEGORY CODE 0010			
2355+66 - 2386+84	RT	67,860.0	2.0
2387+38 - 2402+13	RT	--	2.0
2405+68 - 2417+35	LT	--	2.0
2417+88 - 2425+75	LT	--	2.0
2430+36 - 2454+81	LT	--	2.0
2455+32 - 2487+30	LT	--	2.0
2487+80 - 2499+90	LT	--	2.0
2502+34 - 2523+50	LT	--	2.0
2524+00 - 2582+83	LT	--	2.0
2599+60 - 2642+21	LT	--	2.0
2642+73 - 2707+55	LT	--	2.0
2708+17 - 2746+30	LT	--	2.0
2751+45 - 2792+90	RT	--	2.0
2793+47 - 2822+78	RT	--	2.0
2823+41 - 2839+65	LT	--	2.0
2841+42 - 2889+23	RT	--	2.0
2889+89 - 2933+32	RT	--	2.0
2933+99 - 2973+93	RT	--	2.0
2974+69 - 2986+31	RT	--	2.0
2986+93 - 3075+00	RT	--	2.0
	TOTALS	**67,860.0**	**40.0**

FENCE ITEMS

STATION - STATION	LOCATION	616.0100.001 FENCE WOVEN WIRE 4-FT LF	616.0206 FENCE CHAIN LINK 6-FT LF	616.0700.S FENCE SAFETY LF
CATEGORY CODE 0010				
2329+49 - 2339+39	RT	--	990	--
2340+59 - 2386+20	RT	--	4,546	--
1404'H'+21 - 2429+04	RT	--	2,516	--
2425+44 - 2426+26	LT	--	62	--
2544+85 - 2545+20	RT	--	40	--
2563+40 - 2563+75	RT	--	36	--
2856+00 - 2856+45	LT	48	--	--
2927+00 - 2928+35	LT	126	--	--
2927+15 - 2930+60	RT	335	--	--
2937+75 - 2939+60	RT	185	--	--
293+78 - 2944+23	RT	46	--	--
2953+35 - 2953+80	RT	46	--	--
2959+84 - 2960+19	RT	36	--	--
2967+15 - 2972+75	RT	561	--	--
2977+00 - 2983+50	RT	650	--	--
2995+80 - 2996+35	LT	56	--	--
2999+50 - 3043+50	LT	4,402	--	--
3012+12 - 3014+88	RT	276	--	--
3046+75 - 3047+57	LT	83	--	--
3030+75 - 3038+50	RT	1,325	--	--
8'XS'+68 - 52'XS'+65	LT	--	--	4,420
	TOTALS	**8,175**	**8,190**	**4,420**

DRAINAGE STRUCTURES

STRUCTURE	STATION	** OFFSET	LOCATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1 EACH	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH
CATEGORY CODE 0010															
100	2331+15.57	60.99' RT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
101	2331+15.57	64.99' RT	IH 41	--	--	--	--	--	--	--	--	1	--	--	--
102	2354+65.50	67.54' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
104	2359+16.15	66.76' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
106	2359+16.39	4.81' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
107	2364+34.80	67.75' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
108	2364+34.84	63.75' LT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
109	2376+09.53	74.87' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
110	2376+09.83	70.88' RT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
111	2376+15.14	1.17' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
112	2381+14.91	0.37' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
115	2402+29.24	82.67' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
118	2402+39.53	64.93' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
120	2417+28.52	0.23' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
121	2417+95.08	0.40' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
122	2420+16.41	7.08' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
123	2432+71.73	5.41' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
124	2437+10.43	3.87' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
125	2441+06.64	4.37' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
126	2444+16.18	72.55' RT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
128	2455+42.07	2.12' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
129	2460+65.18	5.41' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
130	2468+52.27	6.13' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
131	2472+17.04	7.89' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
134	2475+54.92	67.25' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
135	2475+56.87	67.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
138	2481+63.31	65.99' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
139	2481+64.39	15.11' LT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
141	2487+91.11	1.69' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
142	2491+13.88	5.14' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
143	2494+13.83	5.41' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
144	2502+69.27	2.91' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
145	2514+50.99	2.77' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
146	2524+15.92	0.29' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
147	2529+62.11	72.28' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
148	2535+54.95	68.18' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
149	2535+55.18	64.19' RT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
152	2535+59.70	63.22' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
153	2535+61.02	0.40' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
154	2544+68.73	70.59' LT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
		SHEET SUBTOTALS		**5**	**1**	**--**	**--**	**--**	**1**	**--**	**--**	**1**	**8**	**--**	**--**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0642* INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	611.8115 ADJUSTING INLET COVERS EACH	633.5200 MARKERS CULVERT END EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.001 RECONSTRUCTING INLETS MEDIAN 1 GRATE EACH	SPV.0060.002 RECONSTRUCTING INLETS MEDIAN 2 GRATE EACH	SPV.0060.003 RECONSTRUCTING INLETS MEDIAN 3 GRATE EACH	SPV.0060.004 RECONSTRUCTING INLETS MEDIAN 4 GRATE EACH	SPV.0060.005 RECONSTRUCTING INLETS MEDIAN 8 GRATE EACH	SPV.0060.006 CONNECT TO EXISTING BOX CULVERT EACH	*** RIM ELEVATION	**** INVERT ELEVATION	***** DEPTH FT	LOW SIDE	MAX SLOPE	NUMBER OF SLOPES
CATEGORY CODE 0010																							
100	2331+15.57	60.99' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	782.58	--	--	--	--
101	2331+15.57	64.99' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	782.54	--	--	--	--
102	2354+65.50	67.54' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	783.20	--	--	--	--
104	2359+16.15	66.76' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	782.42	--	--	--	--
106	2359+16.39	4.81' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	784.02	781.83	2.19	B	6:1	1
107	2364+34.80	67.75' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	780.08	--	--	--	--
108	2364+34.84	63.75' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	780.12	--	--	--	--
109	2376+09.53	74.87' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	774.47	--	--	--	--
110	2376+09.83	70.88' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	774.51	--	--	--	--
111	2376+15.14	1.17' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	778.80	774.80	4.00	C	10:1	2
112	2381+14.91	0.37' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	776.60	772.60	4.00	C	10:1	2
115	2402+29.24	82.67' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	766.30	--	--	--	--
118	2402+39.53	64.93' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	766.65	--	--	--	--
120	2417+28.52	0.23' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	764.78	762.59	2.19	C	10:1	1
121	2417+95.08	0.40' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	764.45	762.26	2.19	A	10:1	1
122	2420+16.41	7.08' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	762.73	760.54	2.19	B	6:1	1
123	2432+71.73	5.41' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	759.94	757.75	2.19	B	6:1	1
124	2437+10.43	3.87' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	761.41	759.22	2.19	B	6:1	1
125	2441+06.64	4.37' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	763.09	759.09	4.00	A	10:1	2
126	2444+16.18	72.55' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
128	2455+42.07	2.12' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	767.95	765.76	2.19	A	10:1	1
129	2460+65.18	5.41' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	769.43	767.24	2.19	B	6:1	1
130	2468+52.27	6.13' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	774.91	772.72	2.19	B	6:1	1
131	2472+17.04	7.89' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	776.18	773.99	2.19	B	6:1	1
134	2475+54.92	67.25' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
135	2475+56.87	67.50' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
138	2481+63.31	65.99' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
139	2481+64.39	15.11' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
141	2487+91.11	1.69' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	779.73	777.54	2.19	A	10:1	1
142	2491+13.88	5.14' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	779.83	777.64	2.19	B	6:1	1
143	2494+13.83	5.41' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	780.38	778.19	2.19	B	6:1	1
144	2502+69.27	2.91' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	1	--	779.05	775.05	3.25	A	10:1	3
145	2514+50.99	2.77' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	784.84	780.84	4.00	A	10:1	2
146	2524+15.92	0.29' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	789.52	785.52	4.00	A	10:1	2
147	2529+62.11	72.28' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
148	2535+54.95	68.18' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	791.15	--	--	--	--
149	2535+55.18	64.19' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
152	2535+59.70	63.22' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
153	2535+61.02	0.40' LT	IH 41	--	2	--	--	1	--	--	1	--	--	--	--	--	--	793.87	791.30	2.82	A	10:1	1
154	2544+68.73	70.59' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	794.84	--	--	--	--
SHEET SUBTOTALS				**--**	**2**	**--**	**--**	**1**	**--**	**14**	**1**	**--**	**5**	**13**	**--**	**1**	**--**						

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

*** RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

**** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1 EACH	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH
CATEGORY CODE 0010															
156	2544+74.73	70.64' LT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
159	2544+98.70	77.01' RT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
161	2545+04.22	76.02' RT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
163	2551+12.62	6.55' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
164	2558+07.92	64.84' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
165	2560+67.05	6.51' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
166	2563+60.99	76.88' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
167	2563+85.51	1.34' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
168	2573+06.30	6.23' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
169	2575+09.64	6.65' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
170	2577+09.86	64.94' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
172	2577+10.31	72.59' RT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
173	2608+58.32	2.80' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
174	2611+08.90	4.05' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
175	2617+97.71	70.00' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
178	2618+46.69	4.71' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
179	2618+80.03	4.82' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
182	2619+22.44	74.75' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
183	2621+16.99	4.65' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
184	2624+10.82	5.26' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
185	2624+12.45	63.71' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
187	2630+82.18	74.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
190	2664+13.50	69.93' RT	IH 41	--	--	--	--	--	--	--	--	1	--	--	--
191	2677+12.69	5.20' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
193	2680+49.95	71.00' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
196	2680+55.84	76.00' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
198	2686+53.32	70.79' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
199	2696+58.36	4.92' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
200	2707+51.42	4.38' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
201	2708+17.39	4.13' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
202	2714+30.02	76.75' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
205	2714+72.79	6.83' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
208	2715+14.15	72.50' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
209	2737+22.06	75.73' RT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
210	2737+22.07	63.73' RT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
211	2762+61.92	4.09' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
212	2762+86.76	6.03' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
214	2770+62.35	62.92' RT	IH 41	--	--	--	--	--	--	--	--	1	--	--	--
215	2773+33.44	7.71' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
216	2773+49.70	74.44' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--
		SHEET SUBTOTALS		**1**	**4**	**--**	**--**	**--**	**1**	**--**	**--**	**2**	**3**	**1**	**1**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0642* INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	611.8115 ADJUSTING INLET COVERS EACH	633.5200 MARKERS CULVERT END EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.001 RECONSTRUCTING INLETS MEDIAN 1 GRATE EACH	SPV.0060.002 RECONSTRUCTING INLETS MEDIAN 2 GRATE EACH	SPV.0060.003 RECONSTRUCTING INLETS MEDIAN 3 GRATE EACH	SPV.0060.004 RECONSTRUCTING INLETS MEDIAN 4 GRATE EACH	SPV.0060.005 RECONSTRUCTING INLETS MEDIAN 8 GRATE EACH	SPV.0060.006 CONNECT TO EXISTING BOX CULVERT EACH	*** RIM ELEVATION	**** INVERT ELEVATION	***** DEPTH FT	LOW SIDE	MAX SLOPE	NUMBER OF SLOPES
CATEGORY CODE 0010																							
156	2544+74.73	70.64' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	795.00	--	--	--	--
159	2544+98.70	77.01' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	795.02	--	--	--	--
161	2545+04.22	76.02' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	795.00	--	--	--	--
163	2551+12.62	6.55' LT	IH 41	--	--	--	--	--	--	1	--	--	--	1	--	--	--	800.48	798.29	2.19	B	6:1	1
164	2558+07.92	64.84' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
165	2560+67.05	6.51' LT	IH 41	--	--	--	--	--	--	1	--	--	--	1	--	--	--	804.33	802.14	2.19	B	6:1	1
166	2563+60.99	76.88' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	802.93	798.93	4.00	A	10:1	2
167	2563+85.51	1.34' RT	IH 41	--	--	--	--	--	--	1	--	--	1	--	--	--	--	805.05	801.05	4.00	A	10:1	2
168	2573+06.30	6.23' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	808.77	806.58	2.19	B	6:1	1
169	2575+09.64	6.65' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	808.52	806.33	2.19	B	6:1	1
170	2577+09.86	64.94' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
172	2577+10.31	72.59' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	805.05	--	--	--	--
173	2608+58.32	2.80' LT	IH 41	--	--	--	--	--	--	1	--	--	--	1	--	--	--	819.30	817.11	2.19	B	6:1	1
174	2611+08.90	4.05' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	819.25	815.25	4.00	A	10:1	2
175	2617+97.71	70.00' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
178	2618+46.69	4.71' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	817.87	813.87	4.00	C	10:1	2
179	2618+80.03	4.82' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	817.88	813.88	4.00	A	10:1	2
182	2619+22.44	74.75' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
183	2621+16.99	4.65' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	817.60	815.41	2.19	B	6:1	1
184	2624+10.82	5.26' LT	IH 41	--	--	--	--	--	--	1	--	--	--	1	--	--	--	818.25	816.06	2.19	B	6:1	1
185	2624+12.45	63.71' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
187	2630+82.18	74.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.13	--	--	--
190	2664+13.50	69.93' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
191	2677+12.69	5.20' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	839.40	837.21	2.19	B	6:1	1
193	2680+49.95	71.00' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
196	2680+55.84	76.00' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
198	2686+53.32	70.79' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
199	2696+58.36	4.92' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	851.60	849.41	2.19	B	6:1	1
200	2707+51.42	4.38' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	857.50	855.31	2.19	C	10:1	1
201	2708+17.39	4.13' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	858.15	855.96	2.19	A	10:1	1
202	2714+30.02	76.75' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
205	2714+72.79	6.83' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	863.81	859.81	4.00	A	10:1	1
208	2715+14.15	72.50' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
209	2737+22.06	75.73' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	879.10	--	--	--	--
210	2737+22.07	63.73' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
211	2762+61.92	4.09' LT	IH 41	--	--	--	--	--	--	1	--	--	--	1	--	--	--	888.35	886.16	2.19	C	10:1	1
212	2762+86.76	6.03' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	888.50	886.31	2.19	A	10:1	1
214	2770+62.35	62.92' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
215	2773+33.44	7.71' LT	IH 41	--	--	--	--	--	--	--	--	1	--	--	--	--	--	884.96	880.96	4.00	C	10:1	1
216	2773+49.70	74.44' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SHEET SUBTOTALS				--	--	--	--	--	--	**14**	--	**1**	**6**	**13**	--	--	--						

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

*** RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

**** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1 EACH	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH
CATEGORY CODE 0010															
218	2773+54.21	7.78' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
219	2773+57.83	71.10' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--
220	2776+96.25	1.48' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
222	2781+09.43	5.88' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
223	2781+10.20	71.75' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
226	2781+16.05	74.25' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
228	2784+63.08	1.27' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
229	2789+63.26	2.93' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
230	2792+86.33	4.95' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
231	2793+52.42	4.88' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
233	2799+29.80	4.76' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
234	2799+31.27	80.06' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
238	2799+56.23	77.27' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
241	2799+63.65	77.33' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
242	2799+69.33	3.70' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
244	2799+71.03	77.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
245	2813+51.30	72.10' LT	IH 41	--	--	--	--	--	--	--	--	1	--	--	--
246	2813+51.32	68.10' LT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
247	2823+97.41	1.18' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
248	2823+97.64	77.00' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--
249	2833+22.98	0.17' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
250	2855+39.97	83.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
252	2855+80.20	3.77' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
254	2856+18.90	89.82' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
255	2859+44.01	72.30' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--
256	2873+55.58	1.76' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
257	2888+92.65	1.63' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
258	2889+88.34	6.05' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
259	2891+44.82	3.30' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
260	2891+45.00	92.02' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1
261	2901+44.33	3.77' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
262	2919+78.72	76.14' LT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
263	2928+31.43	0.47' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
264	2928+37.69	5.06' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
265	2933+33.38	0.17' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
266	2933+99.35	0.79' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
267	2938+11.44	77.63' LT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--
268	2938+57.67	1.60' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
270	2939+04.07	81.40' RT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--
271	2944+00.49	69.90' RT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
		SHEET SUBTOTALS		**2**	**--**	**--**	**--**	**1**	**--**	**--**	**2**	**1**	**1**	**2**	**6**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0642* INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	611.8115 ADJUSTING INLET COVERS EACH	633.5200 MARKERS CULVERT END EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.001 RECONSTRUCTING INLETS MEDIAN 1 GRATE EACH	SPV.0060.002 RECONSTRUCTING INLETS MEDIAN 2 GRATE EACH	SPV.0060.003 RECONSTRUCTING INLETS MEDIAN 3 GRATE EACH	SPV.0060.004 RECONSTRUCTING INLETS MEDIAN 4 GRATE EACH	SPV.0060.005 RECONSTRUCTING INLETS MEDIAN 8 GRATE EACH	SPV.0060.006 CONNECT TO EXISTING BOX CULVERT EACH	*** RIM ELEVATION	**** INVERT ELEVATION	***** DEPTH FT	LOW SIDE	MAX SLOPE	NUMBER OF SLOPES
CATEGORY CODE 0010																							
218	2773+54.21	7.78' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	884.69	880.69	4.00	A	10:1	2
219	2773+57.83	71.10' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
220	2776+96.25	1.48' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	883.46	881.27	2.19	D	6:1	1
222	2781+09.43	5.88' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	882.37	878.37	4.00	C	10:1	2
223	2781+10.20	71.75' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
226	2781+16.05	74.25' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
228	2784+63.08	1.27' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	880.97	878.78	2.19	D	6:1	1
229	2789+63.26	2.93' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	879.28	877.09	2.19	D	6:1	1
230	2792+86.33	4.95' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	879.10	876.91	2.19	C	10:1	1
231	2793+52.42	4.88' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	878.50	876.31	2.19	A	10:1	1
233	2799+29.80	4.76' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	876.30	872.30	4.00	C	10:1	1
234	2799+31.27	80.06' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	875.79	--	3.08	--	--	--
238	2799+56.23	77.27' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	872.35	--	--	--	--
241	2799+63.65	77.33' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	872.25	--	--	--	--
242	2799+69.33	3.70' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	876.00	871.72	4.28	A	10:1	2
244	2799+71.03	77.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	871.95	--	--	--	--
245	2813+51.30	72.10' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	883.17	--	--	--	--
246	2813+51.32	68.10' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	883.21	--	--	--	--
247	2823+97.41	1.18' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	895.80	891.80	4.00	A	10:1	2
248	2823+97.64	77.00' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
249	2833+22.98	0.17' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	904.65	900.65	4.00	A	10:1	1
250	2855+39.97	83.50' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
252	2855+80.20	3.77' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	900.35	896.35	4.00	C	10:1	1
254	2856+18.90	89.82' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
255	2859+44.01	72.30' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
256	2873+55.58	1.76' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	884.20	880.20	4.00	C	10:1	1
257	2888+92.65	1.63' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	876.84	872.84	4.00	C	10:1	2
258	2889+88.34	6.05' LT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	877.92	875.73	2.19	A	10:1	1
259	2891+44.82	3.30' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	878.30	874.30	4.00	A	10:1	2
260	2891+45.00	92.02' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
261	2901+44.33	3.77' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	901.36	897.36	4.00	A	10:1	1
262	2919+78.72	76.14' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
263	2928+31.43	0.47' LT	IH 41	--	2	--	--	1	--	--	1	--	--	--	--	--	--	893.35	885.75	7.85	C	10:1	1
264	2928+37.69	5.06' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
265	2933+33.38	0.17' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	887.27	885.08	2.19	C	10:1	1
266	2933+99.35	0.79' RT	IH 41	--	--	--	--	--	--	--	--	--	--	1	--	--	--	886.86	884.67	2.19	A	10:1	1
267	2938+11.44	77.63' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--
268	2938+57.67	1.60' RT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	884.35	880.35	4.00	C	10:1	1
270	2939+04.07	81.40' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	877.11	--	--	--	--
271	2944+00.49	69.90' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	877.55	--	--	--	--
SHEET SUBTOTALS				**--**	**2**	**--**	**--**	**1**	**--**	**14**	**3**	**--**	**12**	**8**	**--**	**--**	**1**						

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

*** RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

**** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1 EACH	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH
CATEGORY CODE 0010															
272	2944+00.48	73.90' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--
273	2944+00.67	69.33' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--
274	2953+56.66	66.53' LT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
276	2953+56.75	0.95' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
277	2953+57.28	76.00' RT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
278	2960+00.16	68.98' LT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
279	2960+00.30	1.05' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
281	2960+01.77	71.70' RT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
282	2967+57.60	0.21' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
282.1	2967+95.25	0.11' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
283	2967+96.78	74.12' RT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
284	2967+96.80	64.42' RT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
285	2967+97.18	62.42' LT	IH 41	1	--	--	--	--	--	--	--	--	--	--	--
286	2967+97.20	69.72' LT	IH 41	--	1	--	--	--	--	--	--	--	--	--	--
287	2972+59.28	2.36' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
288	2975+38.60	0.95' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
289	2976+08.47	0.95' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
290	2976+22.55	2.28' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
291	2976+92.44	0	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
292	2984+60.13	2.51' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
293	2996+02.66	0.16' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
294	2996+05.95	102.84' RT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
295	2995+98.70	89.75' LT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
296	2996+21.95	102.84' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
297	2996+22.35	0.09' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
298	2996+22.70	89.75' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
299	2996+26.39	102.69' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
300	2996+42.39	102.68' RT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
301	3010+85.00	91.00' LT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
301.2	3011+01.00	91.00' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
302	3012+40.00	91.00' LT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
302.2	3012+24.00	91.00' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
303	3012+00.00	0	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
304	3014+25.00	0	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
305	3013+00.00	106.50' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
306	3014+38.00	100.50' RT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
307	161+95.50	24.00' LT	STAGE - PLAI	--	1	--	--	--	--	--	--	--	--	--	--
308	161+95.50	24.00' RT	STAGE - PLAI	--	1	--	--	--	--	--	--	--	--	--	--
309	3031+53.40	72.00' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
310	3031+53.40	0.73' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
		SHEET SUBTOTALS		**2**	**4**	**--**	**1**	**6**	**4**	**2**	**--**	**--**	**--**	**--**	**--**

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0642* INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	611.8115 ADJUSTING INLET COVERS EACH	633.5200 MARKERS CULVERT END EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.001 RECONSTRUCTING INLETS MEDIAN 1 GRATE EACH	SPV.0060.002 RECONSTRUCTING INLETS MEDIAN 2 GRATE EACH	SPV.0060.003 RECONSTRUCTING INLETS MEDIAN 3 GRATE EACH	SPV.0060.004 RECONSTRUCTING INLETS MEDIAN 4 GRATE EACH	SPV.0060.005 RECONSTRUCTING INLETS MEDIAN 8 GRATE EACH	SPV.0060.006 CONNECT TO EXISTING BOX CULVERT EACH	*** RIM ELEVATION	**** INVERT ELEVATION	***** DEPTH FT	LOW SIDE	MAX SLOPE	NUMBER OF SLOPES
CATEGORY CODE 0010																							
272	2944+00.48	73.90' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	877.53	--	--	--	--
273	2944+00.67	69.33' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
274	2953+56.66	66.53' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	874.89	--	--	--	--
276	2953+56.75	0.95' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	877.20	874.33	3.12	A	10:1	2
277	2953+57.28	76.00' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	872.82	--	--	--	--
278	2960+00.16	68.98' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
279	2960+00.30	1.05' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	874.68	870.68	4.00	C	10:1	2
281	2960+01.77	71.70' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	872.98	--	--	--	--	--
282	2967+57.60	0.21' LT	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	871.46	869.03	2.64	C	10:1	0
282.1	2967+95.25	0.11' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	870.46	868.75	1.42	--	--	--
283	2967+96.78	74.12' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	866.95	--	--	--	--
284	2967+96.80	64.42' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	867.05	--	--	--	--
285	2967+97.18	62.42' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	867.80	--	--	--	--
286	2967+97.20	69.72' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	867.87	--	--	--	--
287	2972+59.28	2.36' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	1	--	--	869.42	867.39	2.03	C	10:1	1
288	2975+38.60	0.95' LT	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	868.15	865.27	3.09	C	10:1	0
289	2976+08.47	0.95' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	863.33	--	--	--	--
290	2976+22.55	2.28' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	863.33	--	--	--	--
291	2976+92.44	0	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	867.17	864.37	3.01	C	10:1	0
292	2984+60.13	2.51' LT	IH 41	--	--	--	--	--	--	--	--	--	1	--	--	--	--	866.20	862.20	4.00	C	10:1	2
293	2996+02.66	0.16' LT	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	864.35	862.10	2.46	C	10:1	1
294	2996+05.95	102.84' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	861.68	--	--	--	--
295	2995+98.70	89.75' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	861.80	--	--	--	--
296	2996+21.95	102.84' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
297	2996+22.35	0.09' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	862.00	--	--	--	--
298	2996+22.70	89.75' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
299	2996+26.39	102.69' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
300	2996+42.39	102.68' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	861.72	--	--	--	--
301	3010+85.00	91.00' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	858.25	--	--	--	--
301.2	3011+01.00	91.00' LT	IH 41	--	1	--	1	--	--	1	1	--	--	--	--	--	--	860.78	857.89	3.10	C	10:1	1
302	3012+40.00	91.00' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	858.30	--	--	--	--
302.2	3012+24.00	91.00' LT	IH 41	--	1	--	1	--	--	1	1	--	--	--	--	--	--	860.80	857.97	3.03	A	10:1	1
303	3012+00.00	0	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	860.57	856.93	3.85	C	10:1	1
304	3014+25.00	0	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	860.04	856.20	4.05	A	10:1	1
305	3013+00.00	106.50' RT	IH 41	--	2	--	--	1	--	1	1	--	--	--	--	--	--	857.82	855.31	2.51	C	10:1	2
306	3014+38.00	100.50' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	856.49	--	--	--	--
307	161+95.50	24.00' LT	↓TAGE - PLAI	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	857.50	--	--	--	--
308	161+95.50	24.00' RT	↓TAGE - PLAI	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	857.00	--	--	--	--
309	3031+53.40	72.00' LT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	856.80	--	--	--	--
310	3031+53.40	0.73' RT	IH 41	--	2	--	--	1	--	--	1	--	--	--	--	--	--	860.06	856.40	3.99	C	10:1	1
	SHEET SUBTOTALS			--	12	--	8	2	--	18	19	--	3	--	1	--	7						

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

*** RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

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CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1 EACH	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH
CATEGORY CODE 0010															
311	3031+53.40	72.00' RT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
312	162+03.00	24.00' LT	NTAGE - PLAI	--	1	--	--	--	--	--	--	--	--	--	--
313	162+03.00	24.00' RT	NTAGE - PLAI	--	1	--	--	--	--	--	--	--	--	--	--
314	3031+60.90	72.00' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
315	3031+60.90	72.00' RT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
316	162+10.50	24.00' LT	NTAGE - PLAI	--	1	--	--	--	--	--	--	--	--	--	--
317	162+10.50	24.00' RT	NTAGE - PLAI	--	1	--	--	--	--	--	--	--	--	--	--
318	3031+68.40	72.00' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
319	3031+68.40	0.73' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
320	3031+68.40	72.00' RT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
321	166+38.00	24.00' RT	E - BLACK O.	--	--	1	--	--	--	--	--	--	--	--	--
322	166+38.00	24.00' LT	E - BLACK O.	--	--	1	--	--	--	--	--	--	--	--	--
323	166+46.00	24.00' RT	E - BLACK O.	--	--	1	--	--	--	--	--	--	--	--	--
324	166+46.00	24.00' LT	E - BLACK O.	--	--	1	--	--	--	--	--	--	--	--	--
325	166+54.00	24.00' RT	E - BLACK O.	--	--	1	--	--	--	--	--	--	--	--	--
326	166+54.00	24.00' LT	E - BLACK O.	--	--	1	--	--	--	--	--	--	--	--	--
327	3037+24.66	153.70' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
328	3037+32.56	153.70' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
329	3037+46.47	106.49' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
330	3037+54.36	106.49' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
331	3037+54.50	76.00' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
332	3037+54.51	76.00' RT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
333	3037+62.00	76.00' LT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
334	3037+62.00	1.31' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
335	3037+62.01	76.00' RT	IH 41	--	--	--	1	--	--	--	--	--	--	--	--
336	3038+07.34	1.31' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
337	3046+84.76	0.36' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
338	3046+97.13	91.23' LT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
339	3046+97.45	103.91' RT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
340	3047+13.13	91.24' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
341	3047+13.28	0.39' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
342	3047+13.45	103.89' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
343	3047+18.99	91.40' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
344	3047+19.05	0.47' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
345	3047+19.12	103.83' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
346	3047+34.99	91.40' LT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
347	3047+35.12	103.81' RT	IH 41	--	--	--	--	1	--	--	--	--	--	--	--
348	3047+50.63	0.50' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
349	3069+62.00	70.75' LT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
352	3069+63.54	71.82' RT	IH 41	--	--	--	--	--	1	--	--	--	--	--	--
		SHEET SUBTOTALS		**--**	**4**	**6**	**13**	**4**	**2**	**--**	**--**	**--**	**--**	**--**	**--**

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

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CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0642* INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	611.8115 ADJUSTING INLET COVERS EACH	633.5200 MARKERS CULVERT END EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.001 RECONSTRUCTING INLETS MEDIAN 1 GRATE EACH	SPV.0060.002 RECONSTRUCTING INLETS MEDIAN 2 GRATE EACH	SPV.0060.003 RECONSTRUCTING INLETS MEDIAN 3 GRATE EACH	SPV.0060.004 RECONSTRUCTING INLETS MEDIAN 4 GRATE EACH	SPV.0060.005 RECONSTRUCTING INLETS MEDIAN 8 GRATE EACH	SPV.0060.006 CONNECT TO EXISTING BOX CULVERT EACH	*** RIM ELEVATION	**** INVERT ELEVATION	***** DEPTH FT	LOW SIDE	MAX SLOPE	NUMBER OF SLOPES
CATEGORY CODE 0010																							
311	3031+53.40	72.00' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	856.00	--	--	--	--
312	162+03.00	24.00' LT	STAGE - PLAI	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	857.50	--	--	--	--
313	162+03.00	24.00' RT	STAGE - PLAI	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	857.00	--	--	--	--
314	3031+60.90	72.00' LT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	856.80	--	--	--	--
315	3031+60.90	72.00' RT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	856.00	--	--	--	--
316	162+10.50	24.00' LT	STAGE - PLAI	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	857.50	--	--	--	--
317	162+10.50	24.00' RT	STAGE - PLAI	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	857.00	--	--	--	--
318	3031+68.40	72.00' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	856.80	--	--	--	--
319	3031+68.40	0.73' RT	IH 41	--	2	--	--	1	--	--	1	--	--	--	--	--	--	--	860.06	856.40	3.99	A	10:1	1
320	3031+68.40	72.00' RT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	856.00	--	--	--	--
321	166+38.00	24.00' RT	E - BLACK O/	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	854.00	--	--	--	--
322	166+38.00	24.00' LT	E - BLACK O/	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	854.25	--	--	--	--
323	166+46.00	24.00' RT	E - BLACK O/	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	854.00	--	--	--	--
324	166+46.00	24.00' LT	E - BLACK O/	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	854.25	--	--	--	--
325	166+54.00	24.00' RT	E - BLACK O/	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	854.00	--	--	--	--
326	166+54.00	24.00' LT	E - BLACK O/	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	854.25	--	--	--	--
327	3037+24.66	153.70' LT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	857.48	--	--	--	--
328	3037+32.56	153.70' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	857.48	--	--	--	--
329	3037+46.47	106.49' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	857.00	--	--	--	--
330	3037+54.36	106.49' LT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	857.00	--	--	--	--
331	3037+54.50	76.00' LT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	856.75	--	--	--	--
332	3037+54.51	76.00' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	855.50	--	--	--	--
333	3037+62.00	76.00' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	856.75	--	--	--	--
334	3037+62.00	1.31' LT	IH 41	1	--	1	--	--	--	--	1	--	--	--	--	--	--	--	860.43	856.15	3.38	--	--	--
335	3037+62.01	76.00' RT	IH 41	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	855.50	--	--	--	--
336	3038+07.34	1.31' LT	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	--	860.77	857.35	3.62	A	10:1	1
337	3046+84.76	0.36' RT	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	--	861.35	858.07	3.49	C	10:1	1
338	3046+97.13	91.23' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	858.00	--	--	--	--
339	3046+97.45	103.91' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	856.62	--	--	--	--
340	3047+13.13	91.24' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
341	3047+13.28	0.39' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	857.50	--	--	--	--
342	3047+13.45	103.89' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	856.54	--	--	--	--
343	3047+18.99	91.40' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--
344	3047+19.05	0.47' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	857.50	--	--	--	--
345	3047+19.12	103.83' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	856.27	--	--	--	--
346	3047+34.99	91.40' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	857.80	--	--	--	--
347	3047+35.12	103.81' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	856.35	--	--	--	--
348	3047+50.63	0.50' LT	IH 41	--	1	--	1	--	--	--	1	--	--	--	--	--	--	--	861.55	858.13	3.63	A	10:1	0
349	3069+62.00	70.75' LT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	868.14	--	--	--	--
352	3069+63.54	71.82' RT	IH 41	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	867.31	--	--	--	--
	SHEET SUBTOTALS			**1**	**5**	**1**	**3**	**1**	**--**	**15**	**34**	**--**	**--**	**--**	**--**	**--**	**6**						

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

*** RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

**** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1 EACH	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH
CATEGORY CODE 0010															
353	3061+34.95	1.45' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
B-20-3838	2425+91.11	65.03' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
B-70-327-LT	3010+89.41	160.04' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
B-70-327-RT	3014+20.26	170.81' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-002-LT	2441+11.48	69.71' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-002-RT	2440+43.73	73.81' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-007	2611+36.22	64.59' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-008-LT	2642+05.78	64.26' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-008-RT	2642+05.78	68.57' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-009	2672+04.71	73.38' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-013	2860+26.64	66.97' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-014	2866+71.19	65.76' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-20-015	2889+44.81	71.18' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-70-003-LT	2927+93.84	85.52' LT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
C-70-003-RT	2928+90.46	82.75' RT	IH 41	--	--	--	--	--	--	--	--	--	--	--	--
	CATEGORY CODE 0010 SUBTOTALS			--	--	--	--	--	--	--	--	--	--	--	--
CATEGORY CODE 0210															
354	98+20.09	55.38' RT	STH 23	--	--	--	--	--	--	--	--	--	--	--	--
	CATEGORY CODE 0210 SUBTOTALS			--	--	--	--	--	--	--	--	--	--	--	--
SHEET SUBTOTALS				--	--	--	--	--	--	--	--	--	--	--	--
TOTALS				**10**	**13**	**6**	**14**	**11**	**8**	**2**	**2**	**4**	**12**	**3**	**7**

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

CONTINUED ON NEXT SHEET

DRAINAGE STRUCTURES - CONTINUED

STRUCTURE	STATION	** OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0642* INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	611.8115 ADJUSTING INLET COVERS EACH	633.5200 MARKERS CULVERT END EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.001 RECONSTRUCTING INLETS MEDIAN 1 GRATE EACH	SPV.0060.002 RECONSTRUCTING INLETS MEDIAN 2 GRATE EACH	SPV.0060.003 RECONSTRUCTING INLETS MEDIAN 3 GRATE EACH	SPV.0060.004 RECONSTRUCTING INLETS MEDIAN 4 GRATE EACH	SPV.0060.005 RECONSTRUCTING INLETS MEDIAN 8 GRATE EACH	SPV.0060.006 CONNECT TO EXISTING BOX CULVERT EACH	*** RIM ELEVATION	**** INVERT ELEVATION	***** DEPTH FT	LOW SIDE	MAX SLOPE	NUMBER OF SLOPES
CATEGORY CODE 0010																							
353	3061+34.95	1.45' LT	IH 41	--	--	--	--	--	--	--	--	1	--	--	--	--	--	865.73	861.73	4.00	A	10:1	0
B-20-3838	2425+91.11	65.03' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
B-70-327-LT	3010+89.41	160.04' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
B-70-327-RT	3014+20.26	170.81' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-002-LT	2441+11.48	69.71' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-002-RT	2440+43.73	73.81' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-007	2611+36.22	64.59' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-008-LT	2642+05.78	64.26' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-008-RT	2642+05.78	68.57' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-009	2672+04.71	73.38' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-013	2860+26.64	66.97' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-014	2866+71.19	65.76' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-20-015	2889+44.81	71.18' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-70-003-LT	2927+93.84	85.52' LT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
C-70-003-RT	2928+90.46	82.75' RT	IH 41	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
	CATEGORY CODE 0010 SUBTOTALS			--	--	--	--	--	--	14	--	1	--	--	--	--	--						
CATEGORY CODE 0210																							
354	98+20.09	55.38' RT	STH 23	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	CATEGORY CODE 0210 SUBTOTALS			--	--	--	--	--	1	--	--	--	--	--	--	--	--						
		SHEET SUBTOTALS		--	--	--	--	--	1	14	--	1	--	--	--	--	--						
		TOTALS		1	21	1	11	5	1	93	57	2	26	34	1	1	14						

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

*** RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

**** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

DRAINAGE PIPES

FROM - TO	LOCATION	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.0442 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	524.0118 CULVERT PIPE SALVAGED 18-INCH LF	524.0124 CULVERT PIPE SALVAGED 24-INCH LF	524.0130 CULVERT PIPE SALVAGED 30-INCH LF	524.0136 CULVERT PIPE SALVAGED 36-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
CATEGORY CODE 0010																
100 - 101	IH 41	4	--	--	--	--	--	--	--	--	--	--	--	782.58	782.54	0.010
103 - 102	IH 41	--	6	--	--	--	--	--	--	--	--	--	--	783.26	783.20	0.010
105 - 104	IH 41	--	6	--	--	--	--	--	--	--	--	--	--	782.46	782.42	0.007
108 - 107	IH 41	--	4	--	--	--	--	--	--	--	--	--	--	780.12	780.08	0.010
110 - 109	IH 41	--	4	--	--	--	--	--	--	--	--	--	--	774.51	774.47	0.010
114 - 115	IH 41	--	--	--	4	--	--	--	--	--	--	--	--	766.30	766.30	0.000
116 - 115	IH 41	--	--	--	4	--	--	--	--	--	--	--	--	766.30	766.30	0.000
118 - 117	IH 41	--	--	--	6	--	--	--	--	--	--	--	--	766.65	766.65	0.000
118 - 119	IH 41	--	--	--	6	--	--	--	--	--	--	--	--	766.65	766.65	0.000
127 - 126	IH 41	--	--	--	--	--	--	--	--	8	--	--	--	--	--	--
132 - 134	IH 41	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--
136 - 134	IH 41	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--
135 - 133	IH 41	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--
135 - 137	IH 41	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--
140 - 139	IH 41	--	8	--	--	--	--	--	--	--	--	--	--	777.20	777.15	0.006
149 - 148	IH 41	--	4	--	--	--	--	--	--	--	--	--	--	791.19	791.15	0.010
151 - 153	IH 41	--	10	--	--	--	--	--	--	--	--	--	--	791.49	791.37	0.012
153 - 150	IH 41	--	10	--	--	--	--	--	--	--	--	--	--	791.30	791.25	0.005
154 - 155	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	794.85	794.84	-0.001
156 - 157	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	795.00	795.00	0.000
158 - 159	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	795.02	795.01	-0.001
160 - 161	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	795.00	795.00	0.000
171 - 172	IH 41	--	6	--	--	--	--	--	--	--	--	--	--	805.11	805.05	0.010
175 - 177	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
175 - 176	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
180 - 181	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
180 - 182	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
186 - 187	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
188 - 187	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
189 - 190	IH 41	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
193 - 192	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	--	--	--
193 - 195	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	--	--	--
194 - 196	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	--	--	--
197 - 196	IH 41	--	--	--	8	--	--	--	--	--	--	--	--	--	--	--
203 - 202	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
204 - 202	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
208 - 206	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
208 - 207	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
210 - 209	IH 41	--	--	--	12	--	--	--	--	--	--	--	--	879.20	879.10	0.008
213 - 214	IH 41	--	--	--	--	--	--	--	8	--	--	--	--	--	--	--
217 - 216	IH 41	--	--	--	--	--	--	--	--	--	8	--	--	--	--	--
223 - 221	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
223 - 224	IH 41	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--
225 - 226	IH 41	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--
227 - 226	IH 41	--	--	13	--	--	--	--	--	--	--	--	--	--	--	--
SHEET SUBTOTALS		**12**	**90**	**122**	**96**	**--**	**--**	**--**	**8**	**8**	**8**	**--**	**--**			

CONTINUED ON NEXT SHEET

DRAINAGE PIPES - CONTINUED

FROM - TO	LOCATION	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.0442 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	524.0118 CULVERT PIPE SALVAGED 18-INCH LF	524.0124 CULVERT PIPE SALVAGED 24-INCH LF	524.0130 CULVERT PIPE SALVAGED 30-INCH LF	524.0136 CULVERT PIPE SALVAGED 36-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
CATEGORY CODE 0010																
232 - 235	IH 41	--	--	24	--	--	--	--	--	--	--	--	--	872.50	872.20	0.013
234 - 235	IH 41	--	--	24	--	--	--	--	--	--	--	--	--	872.50	872.20	0.013
238 - 238.1	IH 41	--	--	--	6	--	--	--	--	--	--	--	--	872.35	872.28	0.012
241 - 241.1	IH 41	--	--	--	6	--	--	--	--	--	--	--	--	872.25	872.18	0.012
244 - 244.1	IH 41	--	--	--	6	--	--	--	--	--	--	--	--	871.95	871.84	0.018
246 - 245	IH 41	4	--	--	--	--	--	--	--	--	--	--	--	883.21	883.17	0.010
250 - 251	IH 41	--	--	--	--	--	--	--	--	--	--	16	--	--	--	--
253 - 254	IH 41	--	--	--	--	--	--	--	--	--	--	8	--	--	--	--
263 - 264	IH 41	--	8	--	--	--	--	--	--	--	--	--	--	885.75	885.00	0.097
269 - 270	IH 41	--	--	--	--	6	--	--	--	--	--	--	--	877.14	877.11	0.005
271 - 272	IH 41	--	--	4	--	--	--	--	--	--	--	--	--	877.55	877.53	0.005
276 - 277	IH 41	--	77	--	--	--	--	--	--	--	--	--	--	874.33	872.82	0.020
282 - 282.1	IH 41	38	--	--	--	--	--	--	--	--	--	--	--	869.03	868.75	0.008
284 - 283	IH 41	--	--	--	10	--	--	--	--	--	--	--	--	867.05	866.95	0.010
286 - 285	IH 41	--	--	--	7	--	--	--	--	--	--	--	--	867.87	867.80	0.010
288 - 289	IH 41	70	--	--	--	--	--	--	--	--	--	--	--	865.27	863.33	0.028
291 - 290	IH 41	70	--	--	--	--	--	--	--	--	--	--	--	864.37	863.33	0.015
293 - 297	IH 41	20	--	--	--	--	--	--	--	--	--	--	--	862.10	862.00	0.005
294 - 296	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	861.68	861.45	0.014
295 - 298	IH 41	24	--	--	--	--	--	--	--	--	--	--	--	861.80	861.45	0.015
300 - 299	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	861.72	861.45	0.017
301 - 301.2	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	858.25	857.89	0.022
301.2 - 301.1	IH 41	46	--	--	--	--	--	--	--	--	--	--	--	857.89	856.87	0.022
302 - 302.2	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	858.30	857.97	0.021
302.2 - 302.1	IH 41	54	--	--	--	--	--	--	--	--	--	--	--	857.97	856.87	0.021
303 - 303.1	IH 41	38	--	--	--	--	--	--	--	--	--	--	--	856.93	856.18	0.020
304 - 304.1	IH 41	164	--	--	--	--	--	--	--	--	--	--	--	856.20	855.68	0.003
304.2 - 304	IH 41	--	--	--	--	--	--	--	--	--	--	--	5	856.50	856.30	0.038
305 - 305.1	IH 41	44	--	--	--	--	--	--	--	--	--	--	--	855.60	855.38	0.005
306 - 306.1	IH 41	76	--	--	--	--	--	--	--	--	--	--	--	856.49	855.38	0.015
307 - 308	IH 41	--	--	--	--	--	48	--	--	--	--	--	--	857.50	857.00	0.010
309 - 310	IH 41	--	--	--	--	--	73	--	--	--	--	--	--	856.80	856.40	0.006
310 - 311	IH 41	--	--	--	--	--	71	--	--	--	--	--	--	856.40	856.00	0.006
312 - 313	IH 41	--	--	--	--	--	48	--	--	--	--	--	--	857.50	857.00	0.010
314 - 315	IH 41	--	--	--	--	--	144	--	--	--	--	--	--	856.80	856.00	0.006
316 - 317	IH 41	--	--	--	--	--	48	--	--	--	--	--	--	857.50	857.00	0.010
318 - 319	IH 41	--	--	--	--	--	73	--	--	--	--	--	--	856.80	856.40	0.006
319 - 320	IH 41	--	--	--	--	--	71	--	--	--	--	--	--	856.40	856.00	0.006
322 - 321	IH 41	--	--	--	--	--	--	48	--	--	--	--	--	854.25	854.00	0.005
324 - 323	IH 41	--	--	--	--	--	--	48	--	--	--	--	--	854.25	854.00	0.005
326 - 325	IH 41	--	--	--	--	--	--	48	--	--	--	--	--	854.25	854.00	0.005
327 - 329	IH 41	--	--	--	--	--	52	--	--	--	--	--	--	857.48	857.00	0.009
328 - 330	IH 41	--	--	--	--	--	52	--	--	--	--	--	--	857.48	857.00	0.009
331 - 332	IH 41	--	--	--	--	--	152	--	--	--	--	--	--	856.75	855.50	0.008
SHEET SUBTOTALS		**712**	**85**	**52**	**35**	**6**	**832**	**144**	**--**	**--**	**--**	**24**	**5**			

CONTINUED ON NEXT SHEET

DRAINAGE PIPES - CONTINUED

FROM - TO	LOCATION	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.0442 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	524.0118 CULVERT PIPE SALVAGED 18-INCH LF	524.0124 CULVERT PIPE SALVAGED 24-INCH LF	524.0130 CULVERT PIPE SALVAGED 30-INCH LF	524.0136 CULVERT PIPE SALVAGED 36-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
CATEGORY CODE 0010																
333 - 334	IH 41	--	--	--	--	--	75	--	--	--	--	--	--	856.75	856.15	0.008
334 - 335	IH 41	--	--	--	--	--	77	--	--	--	--	--	--	856.15	855.50	0.008
336 - 334	IH 41	45	--	--	--	--	--	--	--	--	--	--	--	857.35	856.90	0.010
337 - 341	IH 41	29	--	--	--	--	--	--	--	--	--	--	--	858.07	857.50	0.020
338 - 340	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	858.00	857.50	0.031
339 - 342	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	856.62	856.54	0.005
346 - 343	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	857.80	857.50	0.019
347 - 345	IH 41	16	--	--	--	--	--	--	--	--	--	--	--	856.35	856.27	0.005
348 - 344	IH 41	32	--	--	--	--	--	--	--	--	--	--	--	858.13	857.50	0.020
350 - 349	IH 41	--	6	--	--	--	--	--	--	--	--	--	--	868.14	868.10	-0.007
351 - 352	IH 41	--	6	--	--	--	--	--	--	--	--	--	--	867.34	867.31	0.005
SHEET SUBTOTALS		**170**	**12**	**--**	**--**	**--**	**152**	**--**	**--**	**--**	**--**	**--**	**--**			
TOTALS		**894**	**187**	**174**	**131**	**6**	**984**	**144**	**8**	**8**	**8**	**24**	**5**			

*NON-BID ITEM: FOR INFORMATION ONLY

TEMPORARY DRAINAGE SUMMARY

STATION	LOCATION	520.2015 CULVERT PIPE TEMPORARY 15-INCH LF	520.2018 CULVERT PIPE TEMPORARY 18-INCH LF	520.2024 CULVERT PIPE TEMPORARY 24-INCH LF	520.2036 CULVERT PIPE TEMPORARY 36-INCH LF	520.8000* CONCRETE COLLARS FOR PIPE EACH	521.2005.S SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED (001. 15-INCH) LF	611.0642* INLET COVERS TYPE MS EACH	611.3902* INLETS MEDIAN 2 GRATE EACH	650.4000* CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.008 APRON ENDWALLS FOR CULVERT PIPE TEMPORARY 15-INCH EACH	SPV.0060.009 APRON ENDWALLS FOR CULVERT PIPE TEMPORARY 36-INCH EACH	** INLET ELEVATION	** OUTLET ELEVATION
CATEGORY CODE 0010														
2999+82.74	IH 41	115	--	--	--	--	--	--	--	1	1	--	863.93	863.61
3002+25.64	IH 41	--	--	--	--	--	370	--	--	--	--	--	863.61	862.51
3004+92.89	IH 41	164	--	--	--	--	--	--	--	1	1	--	862.51	862.01
3010+42.90' LT	IH 41	--	66	--	--	--	--	--	--	--	--	--	859.77	857.56
3013+07.90' RT	IH 41	--	58	--	--	--	--	--	--	--	--	--	858.00	858.00
3014+77.90' RT	IH 41	--	59	--	--	--	--	--	--	--	--	--	858.00	858.00
3015+00.00' LT	IH 41	--	60	--	--	--	--	--	--	--	--	--	858.84	858.33
3031+61.06' LT	IH 41	--	--	8	--	1	--	2	1	1	--	--	856.99	856.95
3031+61.43' LT	IH 41	--	--	24	--	1	--	2	1	1	--	--	856.95	856.86
3037+57.30' LT	IH 41	--	--	--	27	1	--	--	--	1	--	1	857.00	857.00
3043+77.59	IH 41	255	--	--	--	--	--	--	--	1	1	--	861.29	860.96
3046+87.31	IH 41	--	--	--	--	--	364	--	--	--	--	--	861.78	861.29
3049+34.73	IH 41	131	--	--	--	--	--	--	--	1	1	--	861.95	861.78
TOTALS		**665**	**243**	**32**	**27**	**3**	**734**	**4**	**2**	**7**	**4**	**1**		

REMARKS:

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

** NON-BID ITEM: FOR INFORMATION ONLY

STEEL PLATE BEAM GUARD ITEMS

STATION - STATION	LOCATION	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2 EACH	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.2300 MGS GUARDRAIL 3 LF	614.2340 MGS GUARDRAIL 3 L LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH
CATEGORY CODE 0010													
2326+62 - 2329+49	RT	--	--	--	--	--	187.5	--	--	39.4	1.0	--	--
2326+64 - 2329+17	LT	--	--	--	--	--	214.1	--	--	39.4	--	1.0	--
2330+50 - 2338+86	LT	--	--	--	--	--	801.5	--	--	39.4	--	1.0	--
2335+53 - 2339+10	RT	--	--	--	--	--	262.5	--	--	39.4	1.0	--	--
2340+63 - 2352+10	LT	--	--	--	--	--	1,062.5	--	--	39.4	1.0	--	--
2340+83 - 2341+62	RT	--	--	--	--	--	39.0	--	--	39.4	--	1.0	--
2347+14 - 2356+18	RT	--	--	--	--	--	864.0	--	--	39.4	--	1.0	--
2349+64 - 2357+30	LT	--	--	--	--	--	675.0	--	--	39.4	1.0	--	--
2401+44 - 2405+11	RT	--	--	--	--	--	314.0	--	--	--	1.0	1.0	--
2401+71 - 2405+38	LT	--	--	--	--	--	314.0	--	--	--	1.0	1.0	--
2417+09 - 2425+49	RT	--	--	--	--	--	750.0	--	--	39.4	1.0	--	--
2426+31 - 2433+56	LT	--	--	--	--	--	625.0	--	--	39.4	1.0	--	--
2426+33 - 2429+58	RT	--	--	--	--	--	289.0	--	--	39.4	--	1.0	--
2426+90 - 2430+81	RT	--	--	--	--	--	339.0	--	--	--	1.0	1.0	--
2427+90 - 2431+08	LT	--	--	--	--	--	264.0	--	--	--	1.0	1.0	--
2492+77 - 2502+82	RT	--	--	--	--	--	726.5	225.0	--	--	1.0	1.0	--
2499+92 - 2502+37	LT & RT	--	2.0	275.0	--	--	--	--	--	--	--	--	--
2501+18 - 2505+73	LT	--	--	--	--	--	289.0	112.5	--	--	1.0	1.0	--
2580+59 - 2586+64	RT	--	--	--	--	--	439.0	112.5	--	--	1.0	1.0	--
2582+41 - 2601+33	RT	--	--	--	--	--	1,726.5	112.5	--	--	1.0	1.0	--
2582+60 - 2600+15	LT	--	--	--	--	--	1,589.0	112.5	--	--	1.0	1.0	--
2584+87 - 2588+29	LT	--	--	--	--	--	289.0	--	--	--	1.0	1.0	--
2744+50 - 2747+42	RT	--	--	--	--	--	200.0	--	--	39.4	1.0	--	--
2750+31 - 2753+24	LT	--	--	--	--	--	200.0	--	--	39.4	1.0	--	--
2750+94 - 2753+12	LT	--	--	--	--	--	125.0	--	--	39.4	1.0	--	--
2839+68 - 2841+37	LT & RT	--	2.0	125.0	--	--	--	--	--	--	--	--	--
2972+94 - 2974+64	LT & RT	--	2.0	125.0	--	--	--	--	--	--	--	--	--
2974+81 - 2976+98	RT	--	--	--	--	--	51.5	112.5	--	--	1.0	1.0	--
2975+20 - 2979+25	LT	--	--	--	--	--	239.0	112.5	--	--	1.0	1.0	--
3026+11 - 3027+30	LT & RT	--	2.0	25.0	--	--	--	--	--	--	--	--	--
1397'E'+60 - 1402'E'+60	RT	--	--	--	450.0	1.0	--	--	--	--	--	--	--
1398'E'+53 - 101+16	LT	--	--	--	--	--	512.5	--	18.7	39.4	1.0	--	--
1401'F'+49 - 1403'F+20	LT	1.0	--	--	170.2	--	--	--	--	--	--	--	--
1401'F'+88 - 98+96	RT	--	--	--	--	--	214.0	--	40.9	39.4	--	1.0	--
98+82 - 1408'G'+05	RT	--	--	--	--	--	375.0	--	23.8	39.4	1.0	--	--
1404'G'+62 - 1408'G'+38	LT	--	--	--	325.0	1.0	--	--	--	--	--	--	--
101+06 - 1404'H'+52	LT	--	--	--	--	--	101.5	--	30.5	39.4	--	1.0	--
1404'H'+18 - 1408'H'+45	RT	1.0	--	--	426.5	--	--	--	--	--	--	--	--
1496'B'+59 - 1500'B'+05	LT	--	--	--	--	--	289.0	--	--	--	1.0	1.0	--
13+43 - 1507'C'+33	LT	--	--	--	--	--	54.1	--	125.0	--	1.0	--	1.0
1513'C'+62 - 1519'C'+18	LT	--	--	--	--	--	389.0	112.5	--	--	1.0	1.0	--
1497'D'+92 - 1500'D'+37	RT	1.0	--	--	257.7	--	--	--	--	--	--	--	--
1521'D'+35 - 1521'D'+65	RT	--	--	--	--	--	764.0	112.5	--	--	1.0	1.0	--
15+44 - 17+87	LT	--	--	--	--	--	150.0	--	--	39.4	1.0	--	--
15+86 - 18+79	RT	--	--	--	--	--	200.0	--	--	39.4	1.0	--	--
21+29 - 24+34	LT	--	--	--	--	--	212.5	--	--	39.4	1.0	--	--
22+20 - 24+88	RT	--	--	--	--	--	175.0	--	--	39.4	1.0	--	--
1724'NB'+57 - 1726'NB'+49	LT	--	--	--	--	--	139.0	--	--	--	1.0	1.0	--
1744'ND'+18 - 1746'ND'+85	RT	--	--	--	--	--	175.0	--	--	39.4	1.0	--	--
	TOTALS	**3.0**	**8.0**	**550.0**	**1,629.4**	**2.0**	**16,626.2**	**1,125.0**	**238.9**	**906.2**	**33.0**	**23.0**	**1.0**

3

RESTORATION ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEED MIX NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
CATEGORY CODE 0010									
2325+11 - 2339+09	LT & RT	1,543	--	1,543	--	1.0	28	--	35
2340+66 - 2748+42	LT & RT	61,773	--	57,268	4,505	38.9	1,112	--	1,387
2749+04 - 3075+80	LT & RT	78,699	--	76,549	2,150	49.6	1,417	--	1,768
5'XS'+77 - 56'XS'+15	LT	5,628	5,628	--	--	3.5	--	152	126
5'XN'+80 - 9'XN'+12	LT	142	142	--	--	0.1	--	4	3
11'XN'+55 - 15'XN'+84	RT	222	222	--	--	0.1	--	6	5
50'XN'+53 - 53'XN'+77	RT	295	295	--	--	0.2	--	8	7
56'XN'+12 - 59'XN'+38	LT	177	177	--	--	0.1	--	5	4
UNDISTRIBUTED		37,121	1,616	33,840	1,665	23.4	638	44	834
TOTALS		**185,600**	**8,080**	**169,200**	**8,320**	**116.9**	**3,195**	**219**	**4,169**

NOTES: DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A BODY OF WATER OR WETLAND

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH
CATEGORY CODE 0010											
PROJECT 1100-52-71		--	--	12	7	--	--	--	--	--	--
2325+11 - 2339+09	LT & RT	--	--	--	--	--	13	--	24	--	--
2340+66 - 2748+42	LT & RT	4,169	4,169	--	--	83	13	8	1,692	--	102
2749+04 - 3075+80	LT & RT	387	387	--	--	59	2	--	1,932	29	30
4'XS'+95 - 57'XS'+64	LT	--	--	--	--	1	--	--	24	21	--
4'XN'+13 - 60'XN'+90	LT & RT	--	--	--	--	7	--	--	--	12	--
UNDISTRIBUTED		1,139	1,139	--	--	38	7	2	918	13	33
TOTALS		**5,695**	**5,695**	**12**	**7**	**188**	**35**	**10**	**4,590**	**75**	**165**

PAVEMENT MARKING ITEMS

STATION - STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.2020 MARKING LINE EPOXY 6-INCH WHITE LF	646.2020 MARKING LINE EPOXY 6-INCH YELLOW LF	646.2020 MARKING LINE EPOXY 6-INCH BLACK LF	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	646.2050 MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.4020 MARKING LINE EPOXY 10-INCH WHITE LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE LF	646.5020 MARKING ARROW EPOXY WHITE EACH	646.5120 MARKING WORD EPOXY WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6470 COLD WEATHER MARKING EPOXY 10-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH	COMMENTS
CATEGORY CODE 0010																								
2328+40 - 2748+42	LT & RT	--	--	--	--	--	20,951	93,714	93,606	20,951	--	--	11,086	10	3	107	57,310	11,090	--	922	--	--	--
2748+42 - 2749+04	LT & RT	--	--	592	462	126	--	--	--	--	--	465	--	--	--	--	293	465	--	--	--	--	--
2749+04 - 3075+80	LT & RT	--	--	--	--	--	16,289	66,140	66,140	16,289	--	--	2,304	--	--	45	41,217	2,305	--	203	--	--	--
13+69 - 26+56	LT & RT	2,095	2,100	--	--	--	--	--	--	--	874	--	--	4	2	--	--	--	--	--	134	4	WINNEBAGO STREET
43'N-EB'+80 - 65'N-EB'+20	LT & RT	3,625	3,580	--	--	--	--	--	--	--	516	--	--	--	--	--	--	--	--	--	181	6	CTH N
140'WFR'+74 - 142'WFR'+63	C/L	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
145'WF'R+40 - 145'WFR'+45	C/L	--	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	TEMPORARY CULVERT
161'WFR'+66 - 162'WFR'+54	C/L	--	90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
167'WFR'+24 - 168'WFR'+39	C/L	--	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
143'EFR'+42 - 145'EFR'+30	C/L	--	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
165'EFR'+95 - 167'EFR'+00	C/L	--	90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
CATEGORY CODE 0010 SUBTOTALS		5,720	6,175	592	462	126	37,240	159,854	159,746	37,240	1,390	465	13,390	14	5	152	98,820	13,860	--	1,125	315	10	
CATEGORY CODE 0210																							
96+28 - 104+18	LT & RT	1,135	--	--	--	--	--	--	--	--	1,230	--	--	6	3	158	--	--	720	--	170	4	JOHNSON STREET
CATEGORY CODE 0210 SUBTOTALS		1,135	--	--	--	--	--	--	--	--	1,230	--	--	6	3	158	--	--	720	--	170	4	
		6,855	6,175	592	462	126		159,854	159,746														
TOTALS		**13,030**		**1,180**			**37,240**	**319,600**		**37,240**	**2,620**	**465**	**13,390**	**20**	**8**	**310**	**98,820**	**13,860**	**720**	**1,125**	**485**	**14**	

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
CATEGORY CODE 0010						
001. Project 1100-52-71		--	--	--	1	--
2328+40 - 2339+09	LT & RT	--	--	1,069	--	--
2340+66 - 2748+42	LT & RT	--	--	40,776	--	--
2749+04 - 3075+80	LT & RT	--	--	32,676	--	--
13+69 - 18+67	LT & RT	--	--	498	--	--
21+39 - 26+56	LT & RT	--	--	517	--	--
43'N-EB'+80 - 65'N-EB'+20	LT & RT	--	--	2,140	--	--
4'XS'+95 - 57'XS'+64	LT	5,269	5,269	--	--	5,269
4'XN'+13 - 60'XN'+90	LT & RT	5,677	5,677	--	--	--
CATEGORY CODE 0010 SUBTOTALS		10,946	10,946	77,676	1	5,269
CATEGORY CODE 0210						
96+28 - 98+79	LT & RT	--	--	251	--	--
101+20 - 104+18	LT & RT	--	--	298	--	--
CATEGORY CODE 0210 SUBTOTALS		--	--	549	--	--
TOTALS		**10,946**	**10,946**	**78,225**	**1**	**5,269**

STAKING ITEMS FOR STORM SEWER, PIPE CULVERTS, AND BARRIER SHOWN ELSEWHERE

SAWING PAVEMENT ITEMS

STATION - STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
CATEGORY CODE 0010				
2425+43 - 2426+31	LT	98	--	CONCRETE BARRIER INSTALLATION
2425+46 - 2426+35	RT	98	--	CONCRETE BARRIER INSTALLATION
2840+06 - 2841+41	LT	80	--	PIPE REMOVAL
2840+06 - 2841+15	RT	80	--	PIPE REMOVAL
2925+50 - 2928+31	RT	293	--	FRENCH DRAIN
2953+31 - 2953+84	RT	32	48	CULVERT RELAY
3011+40 - 3012+99	LT	32	48	CULVERT REPLACEMENT
3012+12 - 3013+72	RT	32	48	CULVERT REPLACEMENT
3031+31 - 3031+99	LT	32	48	CULVERT REPLACEMENT
3031+31 - 3031+99	RT	32	48	CULVERT REPLACEMENT
3037+28 - 3037+90	LT	32	48	CULVERT REPLACEMENT
3037+28 - 3037+90	RT	32	48	CULVERT REPLACEMENT
140'WFR'+74 - 142'WFR'+63	LT & RT	44	--	CULVERT REPLACEMENT
145'WFR'+40 - 145'WFR'+45	LT & RT	44	--	TEMPORARY CULVERT
161'WFR'+66 - 162'WFR'+54	LT & RT	44	--	CULVERT REPLACEMENT
167'WFR'+24 - 168'WFR'+39	LT & RT	44	--	CULVERT REPLACEMENT
143'EFR'+42 - 145'EFR'+30	LT & RT	44	--	CULVERT REPLACEMENT
165'EFR'+95 - 167'EFR'+00	LT & RT	44	--	CULVERT REPLACEMENT
4'XS'+95 - 57'XS'+64	LT	5,270	--	TEMPORARY WIDENING REMOVAL
4'XN'+13 - 9'XN'+67	LT & RT	555	--	TEMPORARY CROSS-OVER REMOVAL
10'XN'+91 - 54'XN'+36	LT & RT	4,345	--	TEMPORARY CROSS-OVER REMOVAL
55'XN'+57 - 60'XN'+90	LT & RT	534	--	TEMPORARY CROSS-OVER REMOVAL
CATEGORY CODE 0010 SUBTOTALS		11,841	336	
CATEGORY CODE 0210				
98+15 - 98+25	RT	14	5	CURB & GUTTER REPLACEMENT
CATEGORY CODE 0210 SUBTOTALS		14	5	
TOTALS		**11,855**	**341**	

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TEMPORARY PIPE UNDERDRAIN ITEMS

STATION	LOCATION	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH LOCATION	SPV.0060.007 TEMPORARY PIPE UNDERDRAIN CONNECTIONS EACH
CATEGORY CODE 0010			
3028+60	LT	1	1
3020+59	LT	1	1
3024+59	LT	1	1
3008+58	LT	1	1
3000+58	LT	1	1
3032+57	LT	1	1
3040+53	LT	1	1
3044+53	LT	1	1
3016+57	LT	1	1
TOTALS		**9**	**9**

BOX CULVERT EXTENSION ITEMS

STATION	SPV.0060.115 SAFETY GRATE (STATION) EACH	SPV.0060.116 SAFETY GRATE (STATION) EACH	SPV.0060.117 CULVERT EXTENSION (STATION) EACH	SPV.0060.118 CULVERT EXTENSION (STATION) EACH	SPV.0060.119 CULVERT EXTENSION (STATION) EACH
CATEGORY CODE 0010					
2860+26.64	1	--	1	--	--
2865+71.19	--	1	--	1	--
2828+42.94	--	--	--	--	1
TOTALS	**1**	**1**	**1**	**1**	**1**

SHAPING SHOULDERS SPECIAL

STATION - STATION	LOCATION	SPV.0170.001 STA
CATEGORY CODE 0010		
2328+40 - 2339+09	LT & RT	7
2340+66 - 2748+42	LT & RT	690
2749+04 - 3075+80	LT & RT	634
TOTAL		**1,331**

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	STAGE DURATION DAYS	633.1100 DELINEATORS TEMPORARY EACH	643.0300 TRAFFIC CONTROL DRUMS EACH**	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTOL ARROW BOARDS EACH**	643.0800 TRAFFIC CONTOL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH**	643.0900 TRAFFIC CONTROL SIGNS DAYS
1000	STAGE 1 (M)	25													
			--	2,175	54,375	104	2,600	208	5,200	298	7,450	5	125	196	4,900
	STAGE 1 (M) SUBTOTAL				54,375		2,600		5,200		7,450		125		4,900
	STAGE 2 (M)	44													
			--	1,768	77,792	123	5,412	246	10,824	81	3,564	5	220	213	9,372
	STAGE 2 (M) SUBTOTAL				77,792		5,412		10,824		3,564		220		9,372
	STAGE 3 (M)	30													
			--	2,192	65,760	118	3,540	236	7,080	309	9,270	5	150	216	6,480
	STH 23/USH 45 RAMP CLOSURES	4		112	448	20	80	40	160	8	32		0	64	256
	CTH OO RAMP CLOSURES	4		112	448	20	80	40	160	8	32		0	64	256
	CTH N RAMP CLOSURES	4		112	448	20	80	40	160	8	32		0	64	256
	STAGE 3 (M) SUBTOTAL		0		67,104		3,780		7,560		9,366		150		7,248
	STAGE 1A (C)	20													
			--	116	2,320	6	120	12	240	15	300	2	40	25	500
	STAGE 1A (C) SUBTOTAL		0		2,320		120		240		300		40		500
	STAGE 1B (C)	20													
			--	77	1,540	6	120	12	240	5	100	--	--	21	420
	STAGE 1B (C) SUBTOTAL		0		1,540		120		240		100		0		420
	STAGE 1C (C)	21													
			--	141	2,961	21	441	42	882	10	210	--	--	41	861
	STAGE 1C (C) SUBTOTAL		0		2,961		441		882		210		0		861
	STAGE 2 (C)	18													
			--	25	450	1	18	2	36	5	90	--	--	26	468
	STAGE 2 (C) SUBTOTAL		0		450		18		36		90		0		468
	STAGE 3 (C)	42													
			50	114	4,788	11	462	22	924	4	168	--	--	31	1,302
	STAGE 3 (C) SUBTOTAL		50		4,788		462		924		168		0		1,302
	STAGE 4 (C)	42													
			--	62	2,604	2	84	4	168	5	210	--	--	32	1,344
	STAGE 4 (C) SUBTOTAL		0		2,604		84		168		210		0		1,344
	STAGE 5 (C)	42													
			--	21	882	7	294	14	588	5	210	--	--	28	1,176
	STAGE 5 (C) SUBTOTAL		0		882		294		588		210		0		1,176
	B-20-059	2	--		--	18	36	36	72		--		--	14	28
	B-7-077	21	--		--	18	378	36	756		--		--	14	294
	B-20-119	2	--		--	18	36	36	72		--		--	14	28
	BRIDGE CLOSURES SUBTOTAL		0		0		450		900		0		0		350
	STH 23 PHASE 1	2	--	244	488	10	20	20	40	30	60	3	6	30	60
	STH 23 PHASE 2	2	--	318	636	6	12	12	24	30	60	3	6	31	62
	CTH OO	2	--	50	100	15	30	30	60	--	--	--	--	22	44
	CTH N	2	--	--	--	6	12	12	24	--	--	--	--	16	32
	INTERCHANGE SUBTOTAL		0		1,224		74		148		120		12		198
	TOTALS		50		216,040		13,855		27,710		21,788		547		28,139

** FOR INFORMATION ONLY

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TEMPORARY MARKING ITEMS

CATEGORY	STAGE	ROADWAY	646.9000 MARKING REMOVAL LINE 4-INCH LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH DASHED WHITE 12.5-FT LINE 37.5-FT SKIP WHITE LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH DASHED WHITE 12.5-FT LINE 37.5-FT SKIP YELLOW LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH DASHED WHITE 12.5-FT LINE 37.5-FT SKIP WHITE LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH DASHED WHITE 12.5-FT LINE 37.5-FT SKIP YELLOW LF	643.3265 TEMPORARY MARKING LINE PAINT 10-INCH LF	643.3760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I EACH
1000	STAGE 1 (M)		--	--	--	--	--	--	--
		STAGE 1 (M) SUBTOTAL	--	--		--		--	--
	STAGE 2 (M)		--	53,254	213,016	--	--	--	--
		STAGE 2 (M) SUBTOTAL	--	266,270		--		--	--
	STAGE 3 (M)		--	250,389	--	--	--	14,319	
		STAGE 3 (M) SUBTOTAL	--	250,389		--		14,319	--
	STAGE 1A (C)		--	--	--	--	--	--	--
		STAGE 1A (C) SUBTOTAL	--	--		--		--	--
	STAGE 1B (C)		15,413	1,475	6,850	--	--	--	--
		STAGE 1B (C) SUBTOTAL	15,413	16,675		--		--	--
	STAGE 1C (C)		14,738	2,885	13,200	--	--		
		STAGE 1C (C) SUBTOTAL	14,738	32,085		--		--	--
	STAGE 2 (C)		--	1,625	7,450	--	--	--	--
		STAGE 2 (C) SUBTOTAL	--	17,925		--		--	--
	STAGE 3 (C)		--	1,425	12,450	--	--	--	360
		STAGE 3 (C) SUBTOTAL	--	34,075		--		--	360
	STAGE 4 (C)		--	--	--	8,600	7,100	--	--
		STAGE 4 (C) SUBTOTAL	--	--		17,225		--	--
	STAGE 5 (C)		--	--	--	6,550	5,050	--	--
		STAGE 5 (C) SUBTOTAL	--	--		12,613		--	--
		TOTAL	30,151	617,419		29,838		14,319	360

PORTABLE CHANGEABLE MESSAGE SIGNS

CATEGORY	STAGE	LOCATION	DAYS	EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
1000	STAGE 1 (M)	NB	7	1	7
		SB		1	7
	STAGE 3 (C)	NB	7	1	7
		SB		1	7
	RAMP CLOSURE	STH 23	6	4	24
	RAMP CLOSURE	CTH OO	6	4	24
	RAMP CLOSURE	STH N	6	4	24
	BRIDGE CLOSURE	CTH Z	7	2	14
	SUBTOTAL				114
	UNDISTRIBUTED	15%			17
	TOTAL				131

CRASH CUSHIONS TEMPORARY

CATEGORY	STAGE	ROADWAY	STATION OR STRUCTURE	614.0905 CRASH CUSHIONS TEMPORARY EACH	** BACK WIDTH	** OBJECT MARKING PATTERN	** CRASH TEST LEVEL	** TRAFFIC DIRECTION	** TRAFFIC LOCATION	** CRASH CUSHION SHIELDS
1000	MAINLINE	IH 41	C-20-2	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-2	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-7	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-8	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-8	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-9	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-13	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-14	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-20-15	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-70-03	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			C-70-03	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
			B-20-3838	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY SHORING
	STAGE 2 (C)	IH 41	3051+00	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY BARRIER
	STAGE 3 (C)	IH 41	3011+00	1	2	OM-3R W05-58R	TL-3	UNIDIRECTIONAL	LEFT	TEMPORARY BARRIER
	STAGE 4 (C)	IH 41	2993+00	1	2	OM-3L W05-58L	TL-3	UNIDIRECTIONAL	RIGHT	TEMPORARY BARRIER
			3053+00	1	2	OM-3L W05-58L	TL-3	UNIDIRECTIONAL	RIGHT	TEMPORARY BARRIER
	TOTALS			16						

** FOR INFORMATION ONLY

TRAFFIC QUEUE WARNING SYSTEM

CATEGORY	STAGE	LOCATION	DAYS	EACH	643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM DAYS
1000	STAGE 1 (M)	NB	25	1	25
		SB		1	25
	STAGE 2 (M)	NB	44	1	44
		SB		1	44
	STAGE 3 (M)	NB	30	1	30
		SB		1	30
	STAGE 1A (C)	NB	20	0	0
		SB		1	20
	TOTAL				218

CONCRETE BARRIER TEMPORARY

CATEGORY	STAGE	ROADWAY	STA		603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8500 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST LF
1000	MAINLINE	IH 41			10,710	10,710	
			CULVERT EXTENSIONS				
	STAGE 2 (C)	IH 41	2995+00	3051+00	5,600	5,600	--
			3051+00				
	STAGE 3 (C)		3003+50	3040+50	300	300	300
	STAGE 4 (C)		2993+00	3053+00	7,150	10,850	500
			2993+00				
			3053+00				
	STAGE 5 (C)		3007+00	3046+00	--	3,900	
	TOTALS				23,760	31,360	800

3

TRAFFIC CONTROL

643.5000
TRAFFIC CONTROL

LOCATION	EACH
1100-52-71	1
TOTAL	1

COVERING SIGNS

643.0910
TRAFFIC CONTROL
COVERING SIGNS
TYPE I

LOCATION	SIGNS	CYCLES	EACH
IH 41	10	1	10
INTERCHANGES	4	1	4
TOTAL			14

TRANSPORTATION PROJECT PLAT NO: 1100-52-21 - 4.01

THAT PART OF LOT 2 OF CSM 7056, BEING PART OF THE SW1/4-SW1/4 OF SECTION 34, AND PART OF THE SE1/4-SE1/4 OF SECTION 33, ALL IN T17N, R16E, TOWN OF NEKIMI, WINNEBAGO COUNTY, WISCONSIN

RELOCATION ORDER IH-41 FOND DU LAC - OSHKOSH CTH D - STH 26 FOND DU LAC & WINNEBAGO COUNTIES

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

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

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

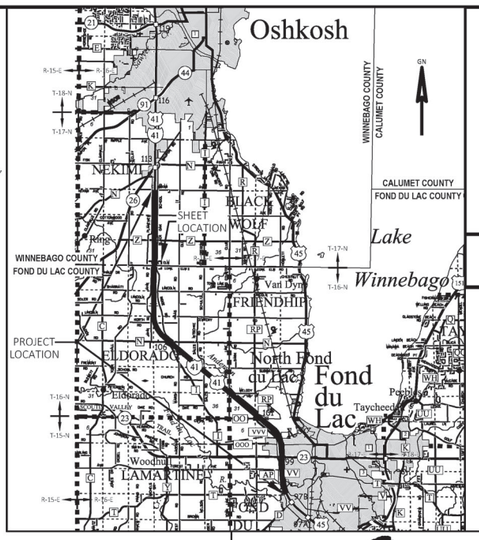
ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ⅝" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL
3	POTRATZ FARM, LLC	FEE	0.042	0	0.042
4	RONALD WACHHOLZ AND LINDA WACHHOLZ, TRUSTEES OF THE RONALD C. AND LINDA A. WACHHOLZ LIVING TRUST DATED FEBRUARY 24, 2016	FEE	0.060	0	0.060

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.



DOC# 1888281
NATALIE STROHMEYER
REGISTER OF DEEDS
WINNEBAGO COUNTY, WI
RECORDED ON:
08/05/2022 08:28 AM
RECORDING FEE: 25.00
PAGES: 2

The above recording information verifies that this document has been electronically recorded and returned to the submitter

294

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1100-52-21 - 4.01
SHEET 1 OF 2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2.

GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac

I, JAY W. PANETTI, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 1100-52-21 - 4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 8/4/2022
PRINT NAME: JAY W. PANETTI
REGISTRATION NUMBER: S-2747

WISCONSIN JAY W. PANETTI S-2747 WAUPUN, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

SIGNATURE: _____ DATE: 8/4/2022
PRINT NAME: AL ROMMEL

159 ALUMINUM MONUMENT FOUND
Y 430885.444
X 780881.456

S00°29'00"W 1639.01' SEC. COR TO TRAV. PT

S89°33'20"E 69.30' SEC. LINE TO R/L

S89°33'20"E 100.00' R/L TO R/W

S89°33'20"E 30.70' R/W TO SEC. LINE

2930+50.00 100.00' (307)
2930+50.00 100.00' (308)
2930+25.00 115.00' (309)
2928+75.00 115.00' (310)
2928+50.00 100.00' (311)
2928+35.00 100.00' (306)
2927+90.00 120.00' (305)
2927+40.00 120.00' (304)
2927+00.00 100.00' (303)
2924+03.45 100.00' R/W POST (302)
2924+01.33 100.00' (312)
2920+77.18 272.57' (301)
2920+71.42 272.57' (313)

GN

SCALE, FEET
0 50 100

TAX PARCEL NUMBER: 012-0607

TAX PARCEL NUMBER: 012-062103

LOT 2 CSM #7056 V1/P7056 DOC. #1706415

LOT 1 CSM #7056 V1/P7056 DOC. #1706415

TOWN

SE-SE

SW-SW

OF

NEKIMI

IH-41

BLACK OAK SCHOOL ROAD

100'

2930

2925

P.L.

OH

FO

SECTION LINE N00°29'00"E 2645.45'

SEC. COR. TO TRAV. PT. N00°29'00"E 1006.44'

R/L N00°26'40"E

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED	EASEMENTS
41	ATC MANAGEMENT, INC.	RELEASE OF RIGHTS	EASEMENT ASSIGNMENT DOC. 1534583 - PARCEL 4 ORIGINAL EASEMENT DOC. 215694 - PARCEL 4

R/W COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
301	302	N28°19'12"E	369.09'
302	303	N00°26'40"E	296.55'
303	304	N26°07'14"W	44.72'
304	305	N00°26'40"E	50.00'
305	306	N24°24'25"E	49.24'
306	307	N00°26'40"E	215.00'
308	309	S30°31'10"E	29.15'
309	310	S00°26'40"W	150.00'
310	311	S31°24'29"W	29.15'
311	312	S00°26'40"W	448.67'
312	313	S27°10'07"E	372.31'

BASIS OF EXISTING R/W

ROUTE	BASIS	YEAR
IH-41	R/W PROJECT ID 1109-1-21	1974
	F03-2(21)	1950
	DIVISION JOB NO. 3887	1944
LONE ELM AVENUE	DIVISION JOB NO. 3887	1944
BLACK OAK SCHOOL ROAD	R/W PROJECT ID 1109-1-21	1974

NOTICE OF NON-ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. 407872

FINDING, DETERMINATION AND DECLARATION DOC. 189410

IH-41 IN WINNEBAGO COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON JUNE 8, 1972

REVOCATION OF AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY DOC. 470093

ORDER TO VACATE A PORTION OF CONTROLLED-ACCESS HIGHWAY - PROJECT CA 03-2(4) DOC. 1489289

FD. IP 8.33' S. 3.89' E.

163 ALUMINUM MONUMENT FOUND
Y 428240.084
X 780859.134

PI 2920+42.51
Y = 428238.492
X = 780929.112
DELTA = 00°02'52" RT
DB = N00°23'47"E

PI: 2920+42.51

161 ALUMINUM MONUMENT FOUND
Y 428268.618
X 778227.947

LONE ELM AVENUE

N28°19'12"E 37.27' TRAV. PT. TO R/W

S27°10'07"E 37.54' R/W TO TRAV. PT.

164 MAG SPIKE FOUND
Y 428180.044
X 783497.821

LONE ELM AVENUE
WINNEBAGO COUNTY
FOND DU LAC COUNTY

33'

N89°22'43"W 220.00' SEC. COR. TO TRAV. PT.

S89°22'43"E 2411.34' SEC. COR. TO TRAV. PT.

SECTION LINE N89°22'43"W 2631.34'

SECTION LINE N88°41'48"W 2639.37'

N88°41'48"W 70.00' R/L TO SEC. COR.

N88°41'48"W 290.00' TRAV. PT. TO R/L

N88°41'48"W 2279.37' SEC. COR TO TRAV. PT.

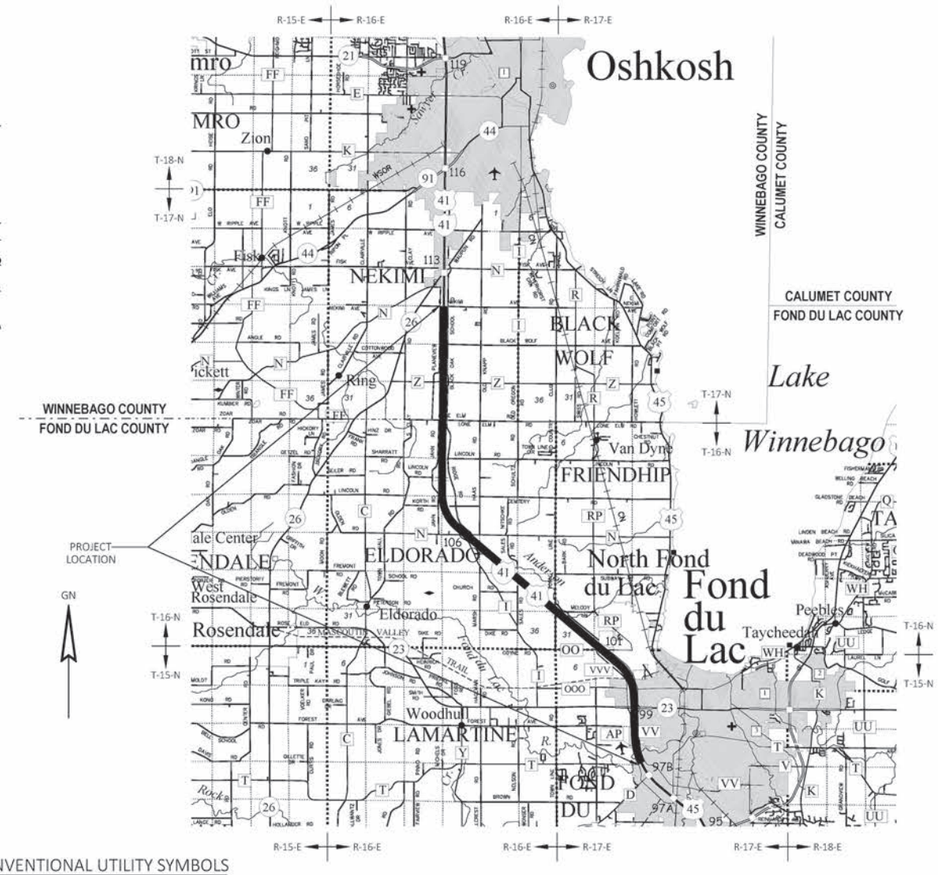
162 ALUMINUM MONUMENT FOUND
Y 428240.288
X 780839.313

HO

R/W POST

PLOT SCALE :
PLOT NAME :
PLOT BY : Jay Panetti
PLOT DATE : 8/4/2022 1:06 PM
PLOT DATE :
PLOT DATE :
FILE NAME : S:\CURRPROJ\FONDDUCO\041-FDL-OSHKOSH\CIVIL3D\1100520OR\DWG\040401-RP.DWG
APPRAISAL PLAT DATE : 8/4/2022
1100-52-21 - 4.01

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJ NO. 1100-52-21
FOND DU LAC - OSHKOSH
CTH D - STH 26
IH-41
FOND DU LAC & WINNEBAGO COUNTIES



LAYOUT
SCALE 0 2 MI.

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (3/4-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

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

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1100-52-21

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 1100-52-21 - 4. 01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\RW\DWG\040400-RP.DWG
LAYOUT NAME: TPP Title 34x22
PLOT DATE : 8/4/2022 8:35 AM PLOT BY : JAY PANETTI PLOT NAME :

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF ALL TLEs IS FOR GRADING, UNLESS OTHERWISE NOTED.

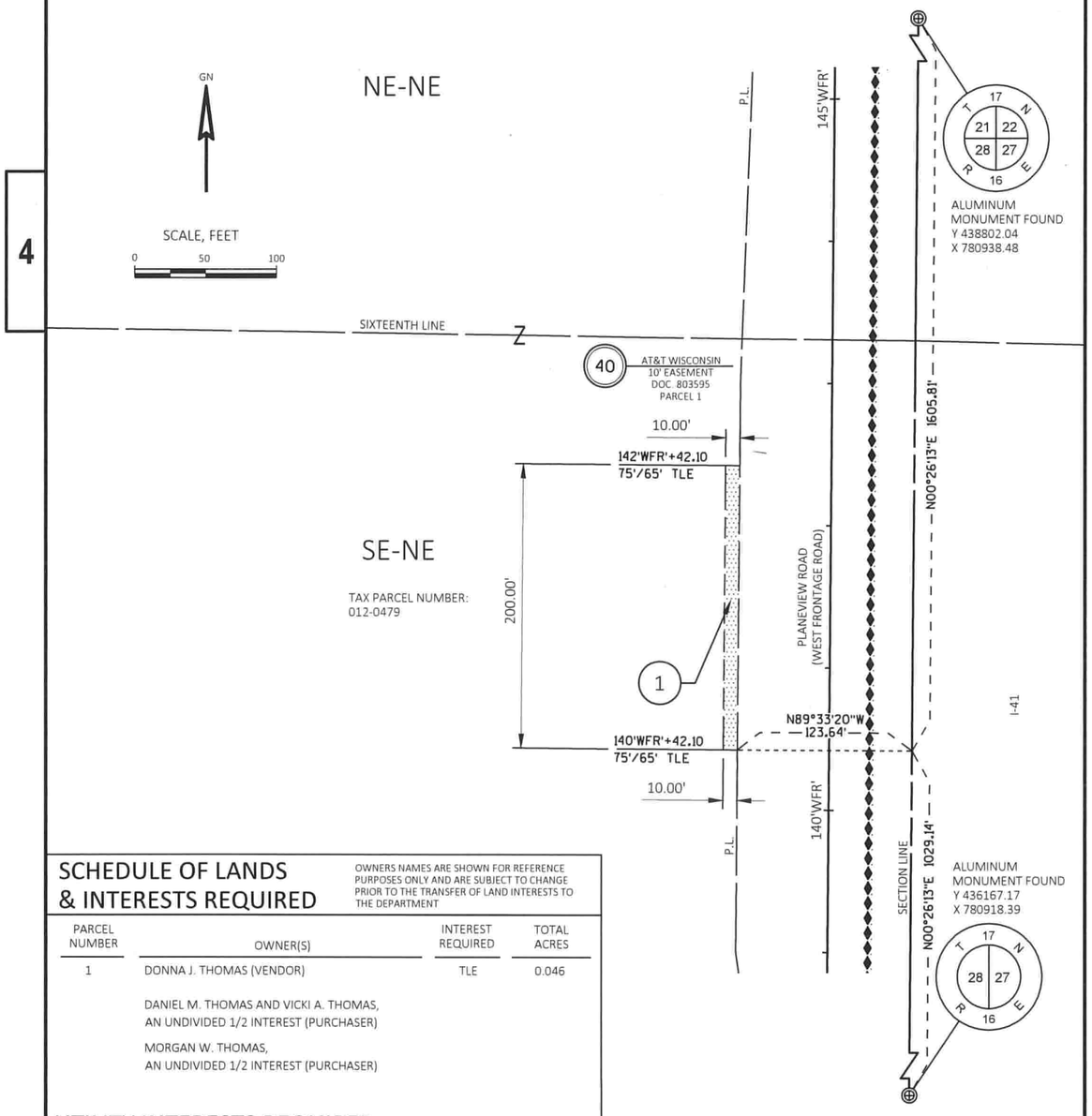
TLE ACQUISITION IS LOCATED APPROXIMATELY 1029 FEET NORTH OF THE SOUTH LINE OF THE NORTHEAST QUARTER OF SECTION 28, T17N, R16E.

R/W PROJECT NUMBER: 1100-52-21	SHEET NUMBER: 1

TLE ACQUISITION EXHIBIT
FOND DU LAC - OSHKOSH
CTH D - STH 26
I-41 WINNEBAGO COUNTY

PART OF THE SE1/4 OF THE NE1/4 OF SECTION 28, T17N, R16E,
TOWN OF NEKIMI, WINNEBAGO COUNTY, WISCONSIN.

4



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES
1	DONNA J. THOMAS (VENDOR)	TLE	0.046
	DANIEL M. THOMAS AND VICKI A. THOMAS, AN UNDIVIDED 1/2 INTEREST (PURCHASER)		
	MORGAN W. THOMAS, AN UNDIVIDED 1/2 INTEREST (PURCHASER)		

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
40	AT&T WISCONSIN	TEMPORARY RELEASE OF RIGHTS

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTHEAST REGION - GREEN BAY

SIGNATURE: Jon L Herbel DATE: 08/05/2022

PRINT NAME: JON L. HERBEL

FILE NAME : 11005200 TLE EXHIBIT.DWG PLOT DATE : 8/3/2022 2:07 PM R/W PROJECT: 1100-52-21

R/W PROJECT NUMBER: 1100-52-21	SHEET NUMBER: 2

TLE ACQUISITION EXHIBIT
FOND DU LAC - OSHKOSH
CTH D - STH 26
I-41 WINNEBAGO COUNTY

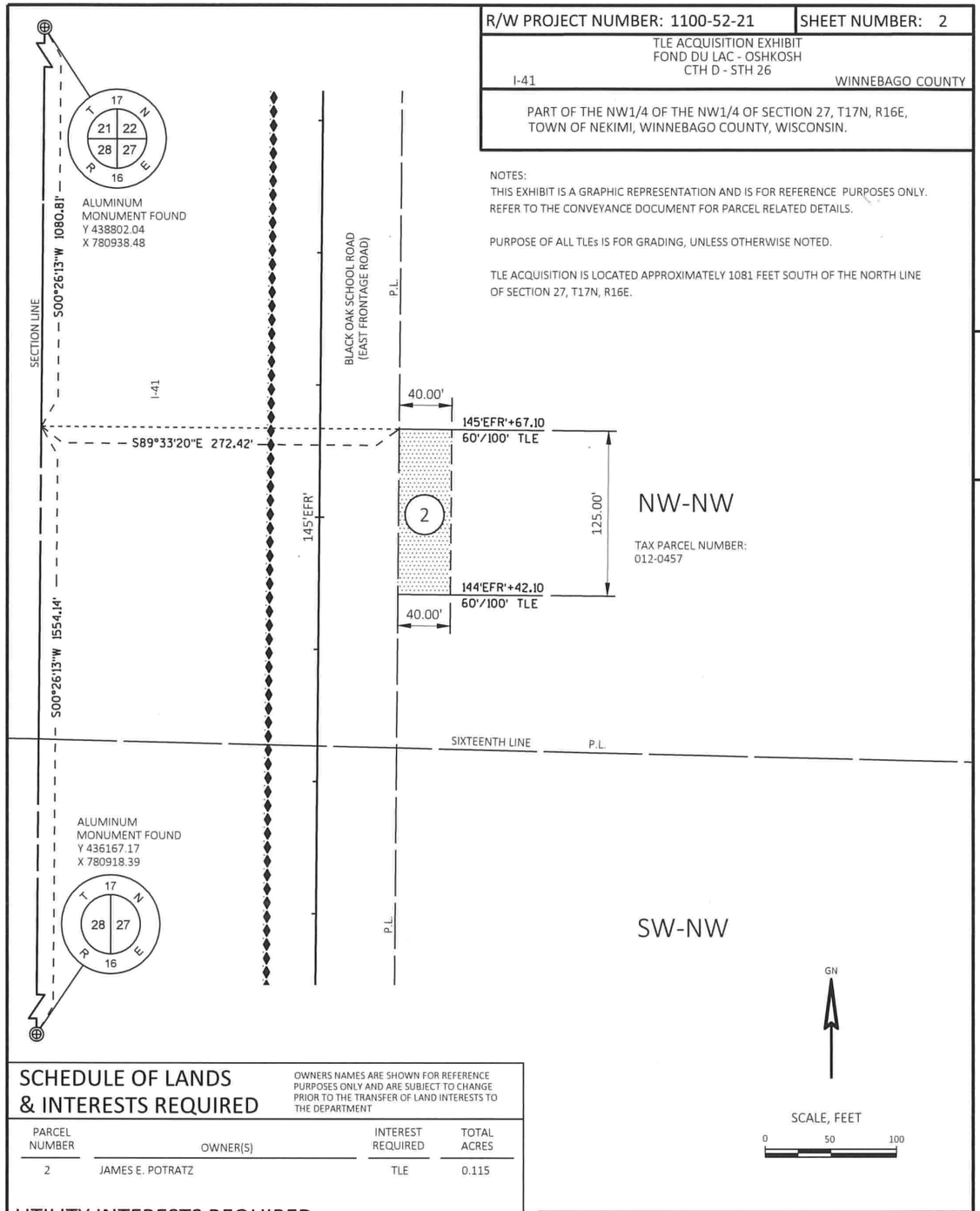
PART OF THE NW1/4 OF THE NW1/4 OF SECTION 27, T17N, R16E,
TOWN OF NEKIMI, WINNEBAGO COUNTY, WISCONSIN.

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF ALL TLEs IS FOR GRADING, UNLESS OTHERWISE NOTED.

TLE ACQUISITION IS LOCATED APPROXIMATELY 1081 FEET SOUTH OF THE NORTH LINE OF SECTION 27, T17N, R16E.

4



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES
2	JAMES E. POTRATZ	TLE	0.115

UTILITY INTERESTS REQUIRED

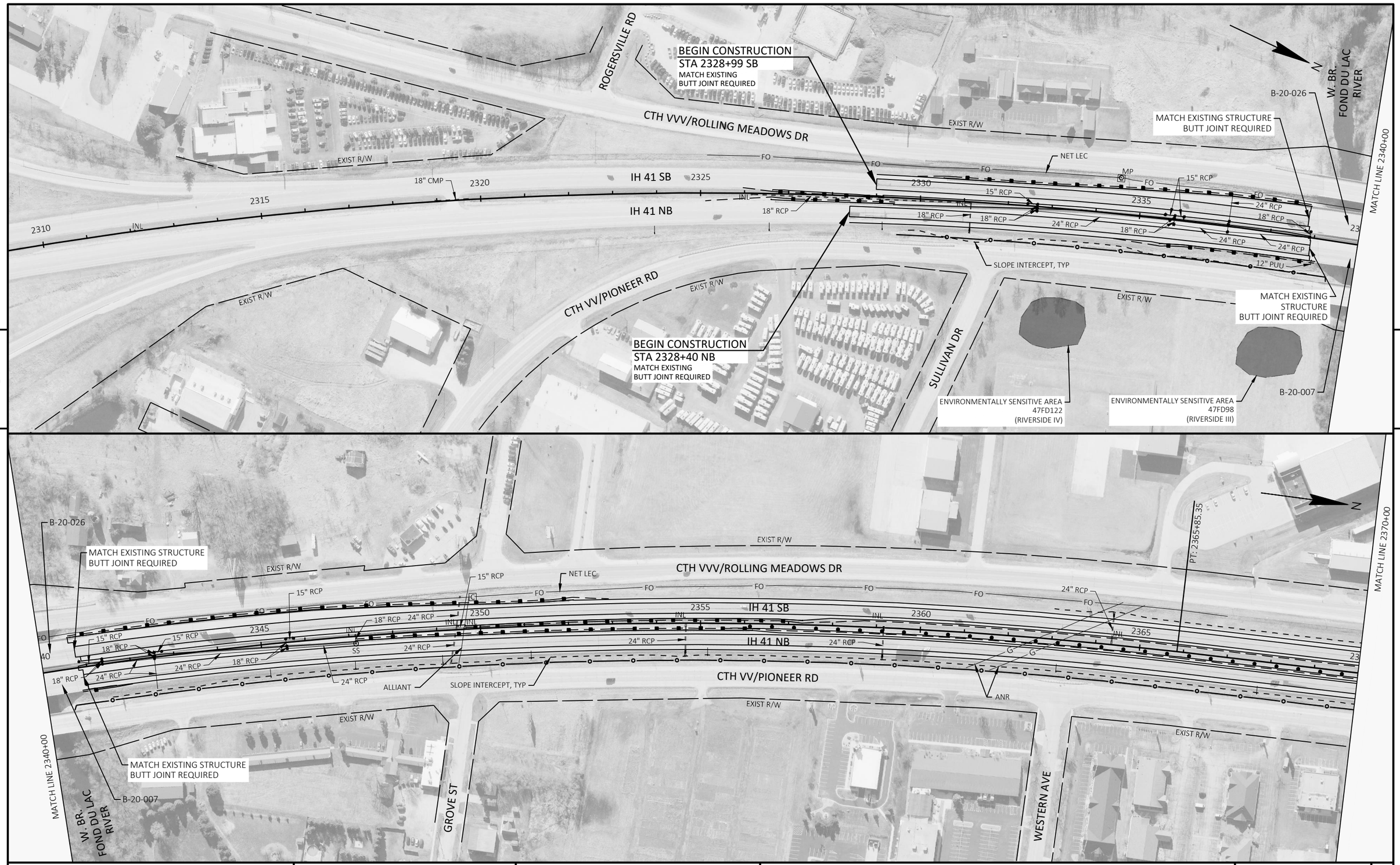
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTHEAST REGION - GREEN BAY

SIGNATURE: Jon L Herbel DATE: 08/05/2022

PRINT NAME: JON L. HERBEL

FILE NAME : 11005200 TLE EXHIBIT.DWG PLOT DATE : 8/3/2022 8:37 AM R/W PROJECT: 1100-52-21



5 5

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 297 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-01

PLOT DATE : 4/5/2024 1:36 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

MATCH LINE 2370+00

FOREST AVE

EXIST R/W

NET LEC

CTH VVV/ROLLING MEADOWS DR

24" RCP

WETLAND LIMITS (WM)

NET LEC

EXIST R/W

RAMP 'F'

MATCH LINE 2400+00

70 2375 2380 2385 2390 2395

IH 41 SB

IH 41 NB

42" RCP

18" RCP

15" RCP

18" RCP

24" RCP

15" RCP

42" RCP

18" RCP

15" RCP

ALLIANT

CTH VV/PIONEER RD

SLOPE INTERCEPT, TYP

EXIST R/W

EXIST R/W

RAMP 'E'

EXIST R/W

FOREST AVE

WETLAND LIMITS (SM)

5

MATCH LINE 2400+00

JOHNSON ST

MATCH EXISTING BUTT JOINT REQUIRED

MATCH EXISTING STRUCTURE BUTT JOINT REQUIRED

SOLAR PANEL POST RAMP GATE

STH 23 EB

STH 23 WB

RAMP 'F'

NET LEC

RAMP 'G'

CITY OF FOND DU LAC

B-20-177

PC: 2400+54.22

18" RCP

SS

TWIN 36" RCP

2405 2410 2415 2420 2425

24" RCP

18" RCP

24" RCP

PT: 2405+90.69

IH 41 SB

IH 41 NB

15" RCP

TWIN 36" RCP

CAMERA POLE GUY

B-20-178

CITY OF FOND DU LAC RAMP GATE

SOLAR PANEL POST

WISDOT/ ALLIANT

RAMP 'H'

RAMP 'E'

TWIN 36" RCP

USH 45 NB

USH 45 SB

EXIST R/W

ALLIANT

CTH VV/PIONEER RD

GUY

GUY

COMMUNICATIONS POLE

MATCH EXISTING BUTT JOINT REQUIRED

EXTEND BOX CULVERT SEE DETAILS

INSTALL CONCRETE BARRIER TYPE S42

WETLAND LIMITS (WM)

PC: 2423+25.98

SLOPE INTERCEPT, TYP

NET LEC

EXIST R/W

15" RCP

15" RCP

INSTALL CONCRETE BARRIER TYPE S42

B-20-3838 TRIPLE CELL 8'X4' BOX CULVERT

WETLAND LIMITS (WM)

B-20-058

MATCH LINE 2430+00

SECURITY DR

CTH OOO/W. SCOTT ST

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 298	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-02

PLOT DATE : 4/5/2024 1:37 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

CTH OOO
W. SCOTT ST

MATCH LINE 2430+00

MATCH LINE 2460+00

MATCH LINE 2490+00

NET LEC

ALLIANT

FO

24" RCP

18" RCP

INL

OH

C-20-002
4'X5' BOX CULVERT

REPLACE BOX
CULVERT ENDWALL
SEE DETAILS

NET LEC

EXIST R/W

15" RCP

CITY OF
FOND DU LAC

2435

2440

2445

IH 41 SB

IH 41 NB

2450

2455

18" RCP

24" RCP

INL

ALLIANT

ATC

OH

GVT

EXTEND BOX CULVERT
SEE DETAILS

WETLAND LIMITS (WM)

ALLIANT

EXIST R/W

SLOPE INTERCEPT, TYP

CTH VV/PIONEER RD

N

MEADOW LANE

CLOVER LN

HONEYSUCKLE LN

PT: 2469+40.18

ATC

ALLIANT

NET LEC

NET LEC

EXIST R/W

2465

2470

2475

2480

2485

IH 41 SB

IH 41 NB

24" RCP

18" RCP

15" RCP

INL

EL

OH

TWIN 24" RCP

ATC

VILLAGE OF NORTH
FOND DU LAC

VILLAGE OF NORTH
FOND DU LAC

SLOPE INTERCEPT, TYP

EXIST R/W

5

5

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 299	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-03

PLOT DATE : 4/5/2024 1:37 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

MATCH LINE 2490+00

MATCH LINE 2520+00

MATCH EXISTING BUTT JOINT REQUIRED

NET LEC

RAMP GATE

SOLAR PANEL POST

RAMP 'B'

WISDOT

MATCH EXISTING STRUCTURE BUTT JOINT REQUIRED

RAMP 'C'

WETLAND LIMITS (M)

NET LEC

VILLAGE OF NORTH FOND DU LAC

EXIST R/W

C-20-003
12'X5' BOX CULVERT

18" RCP

CAMERA POLE

TWIN 19"X30" RCHE

SLOPE INTERCEPT, TYP

24" RCP

IH 41 SB

IH 41 NB

15" RCP

ALLIANT

C-20-004
10'X5' BOX CULVERT

RAMP 'A'

MATCH EXISTING STRUCTURE BUTT JOINT REQUIRED

B-20-059

ANR

RAMP 'D'

CTH OO/WINNEBAGO ST

SOLAR PANEL POST

RAMP GATE

ATC

PIONEER RD

MATCH EXISTING BUTT JOINT REQUIRED

MATCH LINE 2520+00

MATCH LINE 2550+00

NET LEC

EXIST R/W

SLOPE INTERCEPT, TYP

24" RCP

IH 41 SB

IH 41 NB

TWIN 36" RCP

15" RCP

18" RCP

C-20-017
3.5'X5' BOX CULVERT

ATC

PIONEER RD

TWIN 36" CMP

EDGEWATER DR

ENTERPRISE RD

CHALLENGER DR

VOYAGER DR

APOLLO AVE

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 300	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-04

PLOT DATE : 4/5/2024 1:37 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

MATCH LINE 2550+00

MATCH LINE 2580+00

5

5

NET LEC

C-20-005
4'X5' BOX CULVERT

EXIST R/W

SLOPE INTERCEPT, TYP

NET LEC

FO FO FO FO FO FO

50 24" RCP 2555 24" RCP 2560 15" RCP 2565 IH 41 SB 2570 2575 24" RCP 15" RCP 25

INL INL INL INL INL INL INL INL INL

15" RCP

IH 41 NB

15" RCP 18" RCP 24" RCP

OH OH OH OH OH OH INL OH OH OH OH OH OH OH

PIONEER RD

60" CMP

ATC

EXIST R/W

EXIST R/W

EXIST R/W

ATLANTIS AVE

EAGLE LN

PHOENIX DR

VIKING DR

ENDEAVOUR DR

N

MATCH LINE 2580+00

MATCH LINE 2610+00

TOWN LINE RD

PI: 2585+47.30

NET LEC

NET LEC

B-20-060

EXIST R/W

SLOPE INTERCEPT, TYP

EXIST R/W

FO FO FO FO FO FO FO FO

80 15" RCP 2585 2590 2595 IH 41 SB 2600 2605 26

INL INL INL INL INL INL INL INL

24" RCP

IH 41 NB

24" RCP 15" RCP

ALLIANT

OH OH OH OH OH OH OH OH OH OH OH OH OH OH OH OH

C-20-006
TWIN 8'X4' BOX CULVERT

ATC

WETLAND LIMITS (WM)

EXIST R/W

TOWN LINE RD

N

MATCH LINE 2580+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 301	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-05

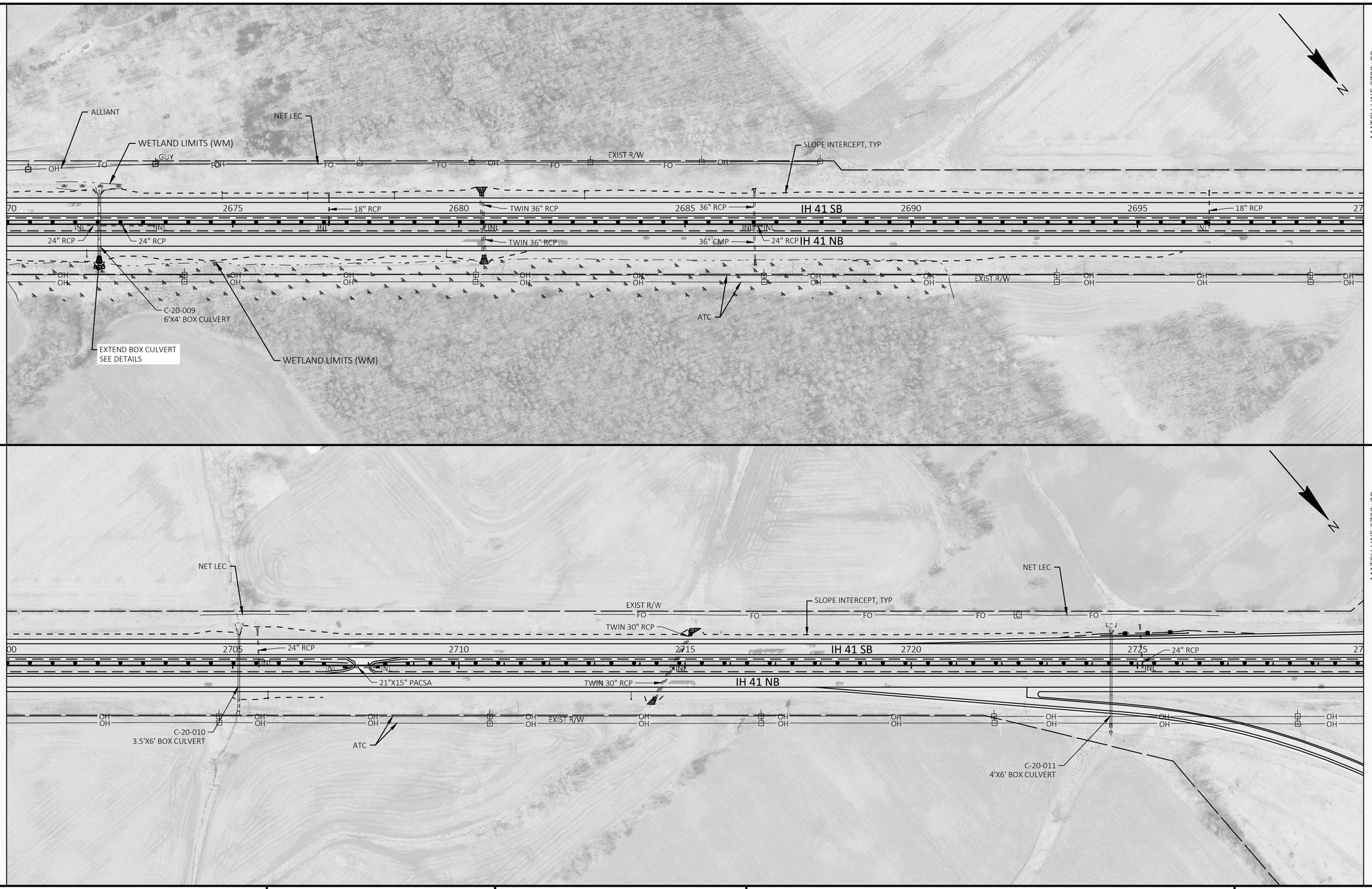
PLOT DATE : 4/5/2024 1:37 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 302	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-06

PLOT DATE : 4/5/2024 1:37 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

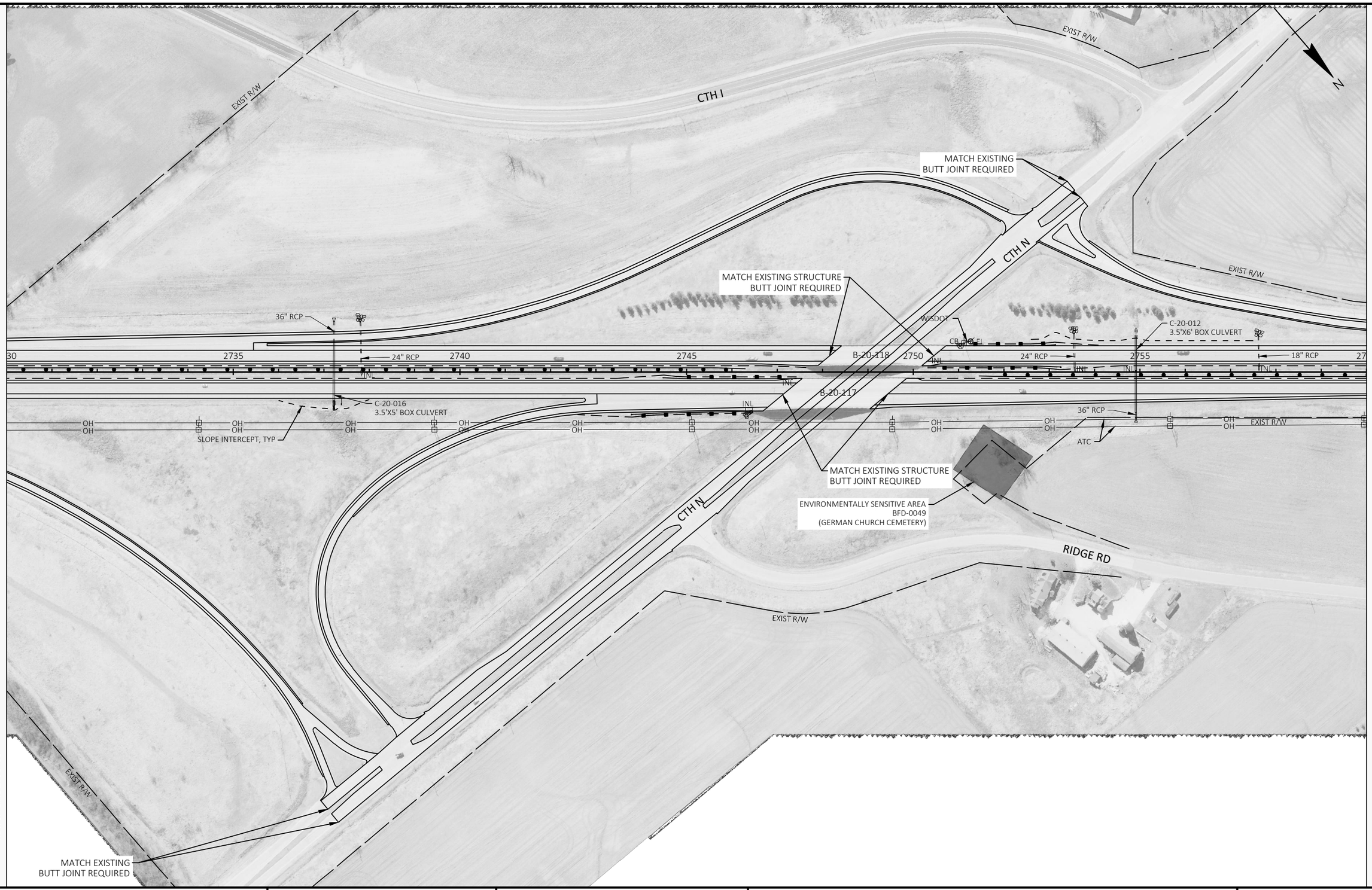


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 303 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-07

PLOT DATE : 4/5/2024 1:37 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

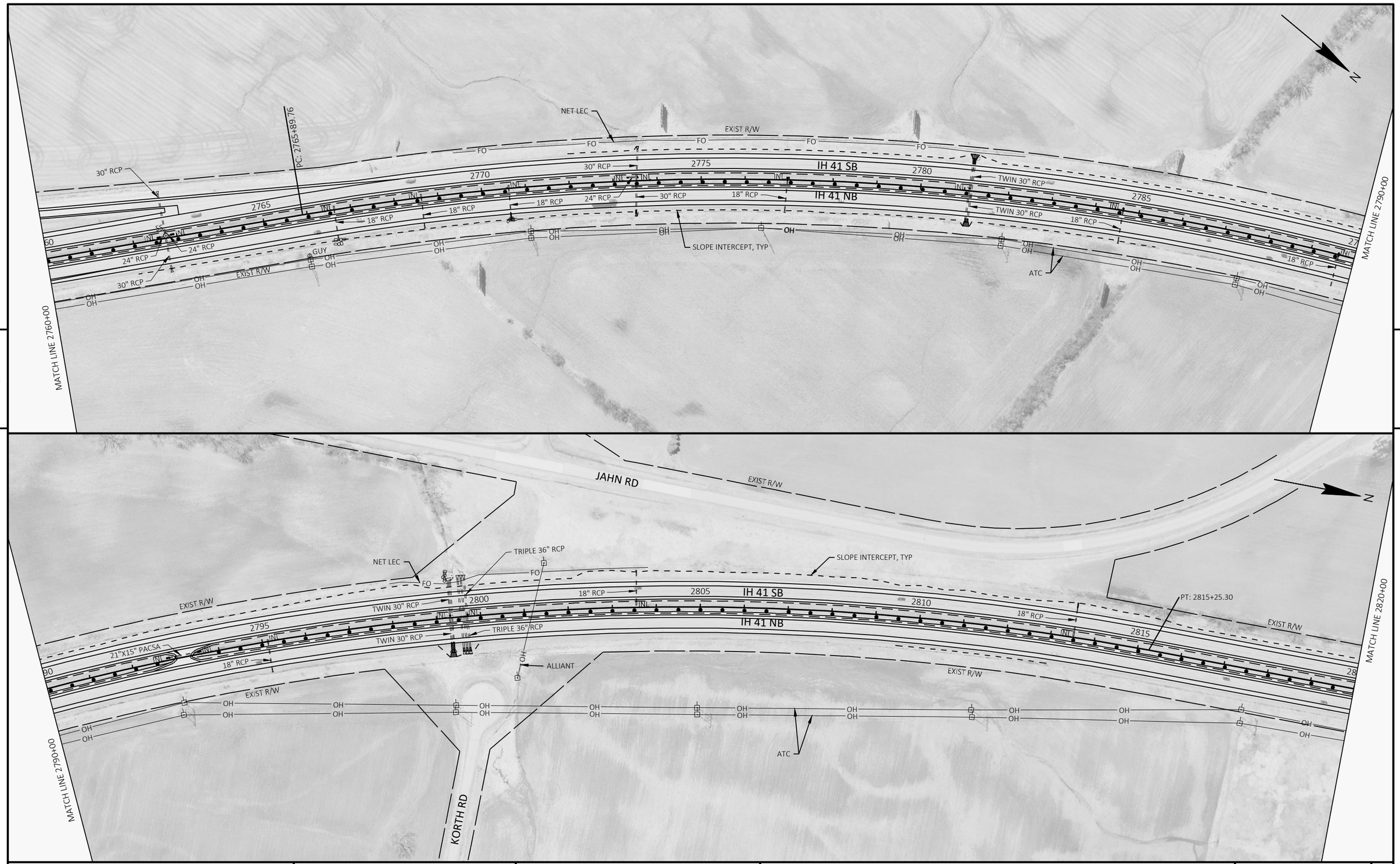


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 304	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-08

PLOT DATE : 4/5/2024 1:38 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 305	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-09

PLOT DATE : 4/5/2024 1:38 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 306	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-10

PLOT DATE : 4/5/2024 1:38 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

MATCH LINE 2880+00

MATCH LINE 2910+00

5

5

N

NET LEC

EXIST R/W

36" RCP

18" RCP

JAHN RD

80

18" RCP

2885

18" RCP

2890

36" CMP

2895

IH 41 SB

2900

36" RCP W/STEEL LINER

2905

29

INL

INL

INL

18" RCP

36" RCP W/STEEL LINER

IH 41 NB

36" RCP W/STEEL LINER

SLOPE INTERCEPT, TYP

OH

EXIST R/W

ATC

C-20-015
3.5'X6' BOX CULVERT

EXTEND BOX CULVERT
SEE DETAILS

MATCH LINE 2910+00

MATCH LINE 2940+00

N

FOND DU LAC COUNTY

WINNEBAGO COUNTY

EXTEND BOX CULVERT SEE DETAILS

4" DRAIN TILE

6" DRAIN TILE

6" DRAIN TILE

WPS

C-70-003
4'X4' BOX CULVERT

PROP R/W

NET LEC

EXIST R/W

JAHN RD

PI: 2920+42.51

FO

10

2915

18" RCP

2920

IH 41 SB

2925

2930

2935

42" RCP

29

INL

INL

INL

INL

IH 41 NB

21"X15" PACSAC

42" RCP

PI: 2910+06.52

OH

24" CMP

PROP R/W

EXIST R/W

ATC

SLOPE INTERCEPT, TYP

EXIST R/W

WPS

W. LONE ELM AVE

EXTEND BOX CULVERT
SEE DETAILS

WETLAND LIMITS (WM)

BLACK OAK SCHOOL RD

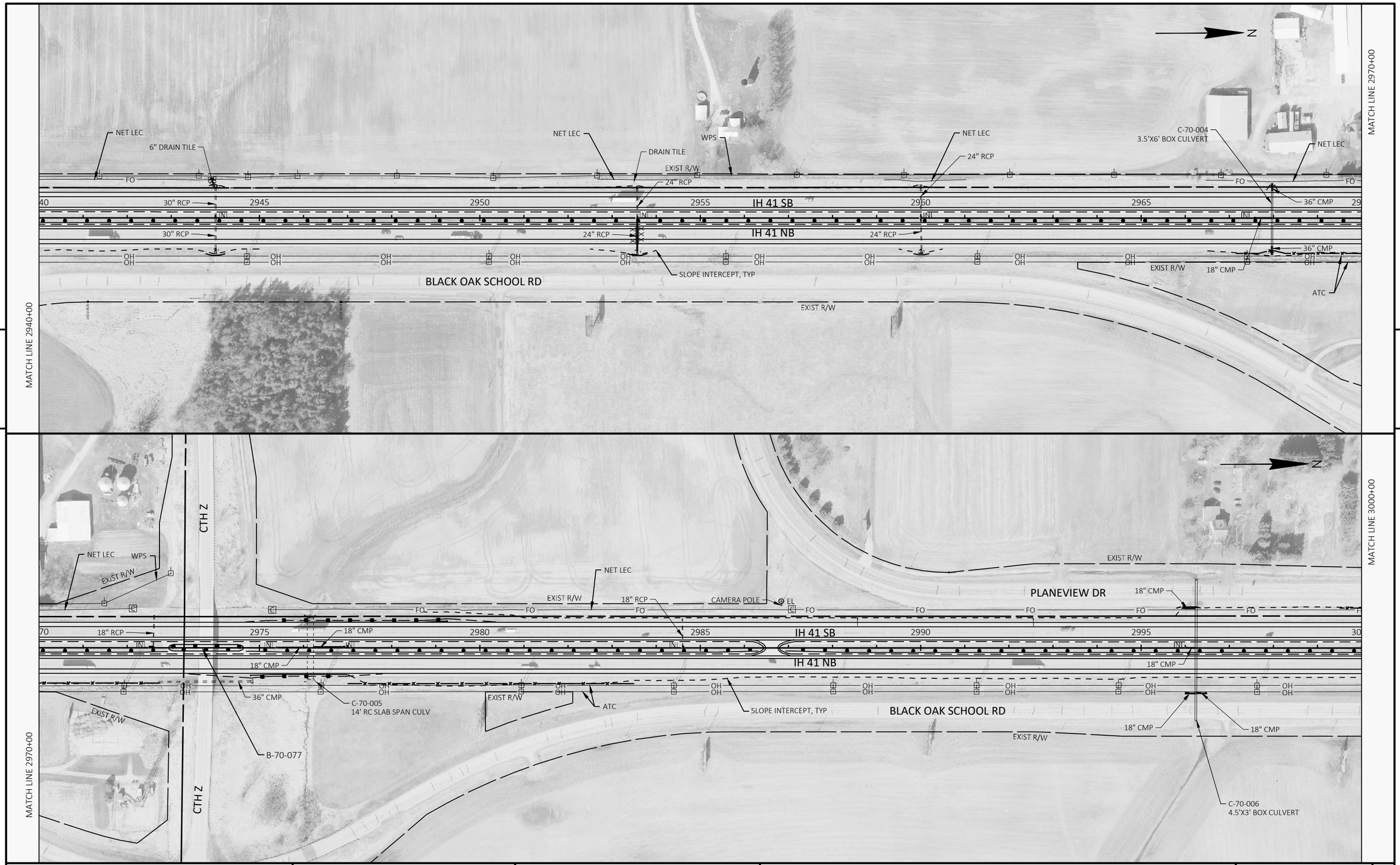
MATCH LINE 2910+00

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 307	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-11

PLOT DATE : 4/5/2024 1:38 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 308	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-12

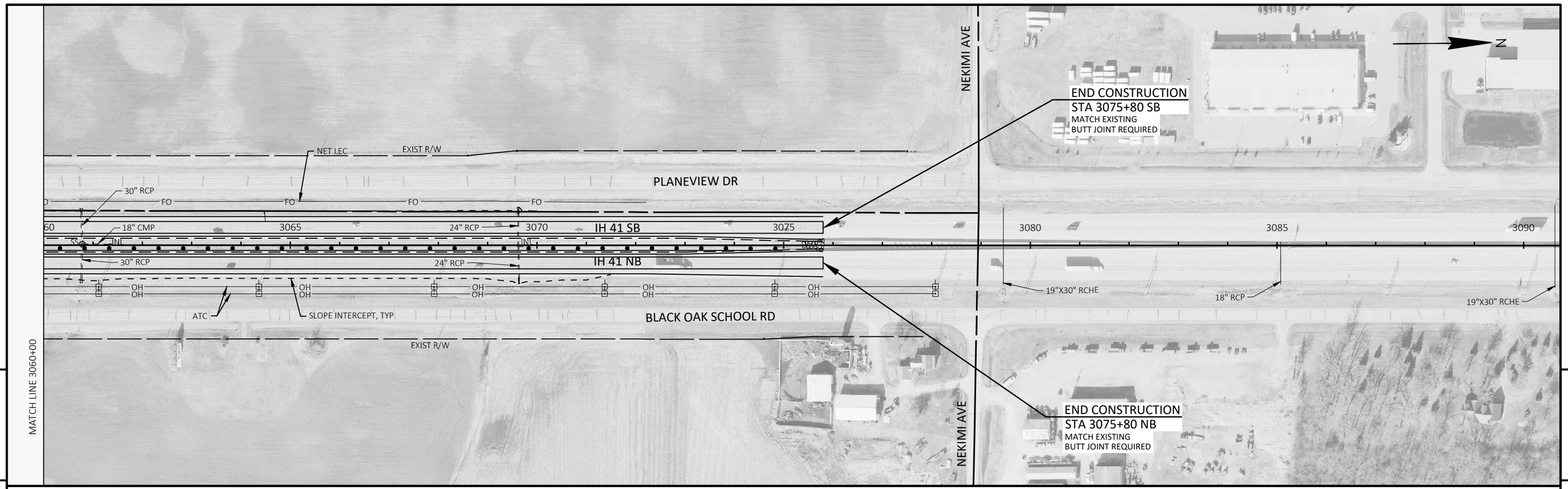
PLOT DATE : 4/5/2024 1:38 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

EXISTING DRAIN TILE TO REMAIN. GRADE TO DRAIN TO DITCH
B-70-0327 SEE STRUCTURE SHEETS
SLOPE INTERCEPT, TYP
WPS
EXIST R/W
PROP TLE
C-70-007 6'X4' BOX CULVERT
18" CMP
PLANEVIEW DR
NET LEC
YARD INLET
WISDOT
IH 41 SB
IH 41 NB
6" SCH 40
ATC
BLACK OAK SCHOOL RD
EXIST R/W
WETLAND LIMITS (WM)
BLACK WOLF AVE
MATCH LINE 3000+00
MATCH LINE 3030+00
3005
3010
3015
3020
3025
DRAIN TILE
24" RCP
36" CMP
36" RCP
36"X57" CMCE
SLOPE INTERCEPT, TYP
PI: 3052+23.13
C-70-008 6'X4' BOX CULVERT
MATCH LINE 3030+00
MATCH LINE 3060+00
3035
3040
3045
3050
3055

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 309	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-13
PLOT DATE : 4/5/2024 1:38 PM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	PLAN: IH 41	SHEET 310	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-050201-PN.DWG
LAYOUT NAME - Sheet-14

PLOT DATE : 4/5/2024 1:38 PM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21D	INLET COVERS TYPE V, V-B, & VV-B
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08C09-02	INLETS MEDIAN 3 AND 4 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D13-02	SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
08F10-02	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
12A03-10	NAME PLATE (STRUCTURES)
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13C15-08A	CONCRETE BASE
13C15-08B	CONCRETE BASE
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C19-03	HMA LONGITUDINAL JOINTS
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
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B26-05A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05F	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05H	STEEL THRIE BEAM BULLNOSE TERMINAL
14B32-10A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10D	CONCRETE BARRIER SINGLE SLOPE (CBSS)

6

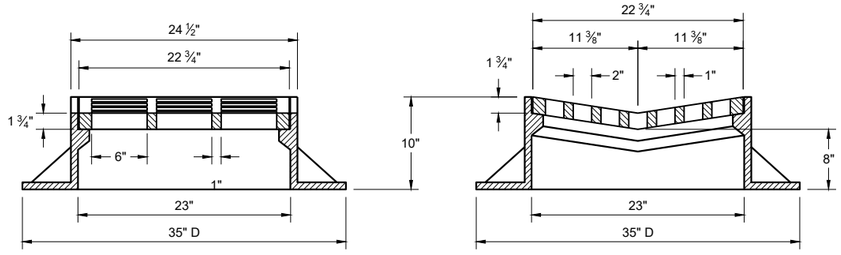
Standard Detail Drawing List

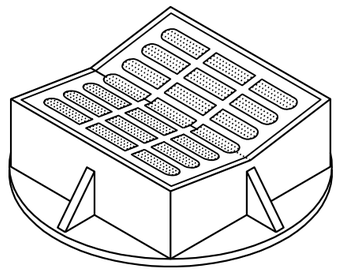
14B32-10E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10F	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10G	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10H	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-02G	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B33-02H	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
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
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
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)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-05A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B52-03A	CABLE BARRIER TYPE 1 LAYOUT
14B52-03B	CABLE BARRIER TYPE 1 LAYOUT
14B52-03C	CABLE BARRIER TYPE 1 LAYOUT
14B53-02A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09D	ON RAMP LANE CLOSURE
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-08C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-08C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-06A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-06C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D11-09	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-12B	TEMPORARY EMERGENCY PULLOUTS

6

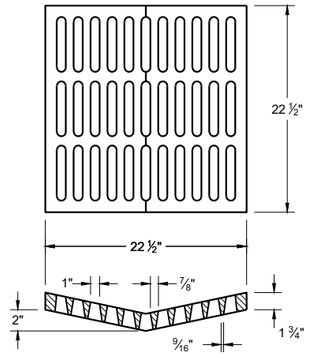
Standard Detail Drawing List

15D12-12D	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D14-06	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
15D15-07A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-06	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D23-07A	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D23-07B	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D40-05B	TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND OVER
15D40-05D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D41-04A	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
15D47-03B	TRAFFIC CONTROL, INGRESS/EGRESS WITHOUT BARRIER





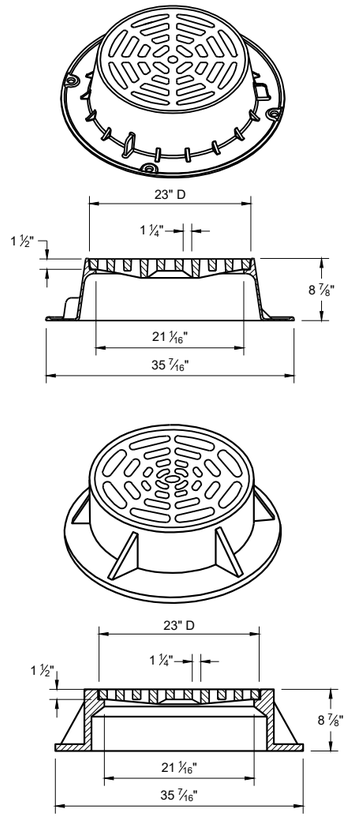
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

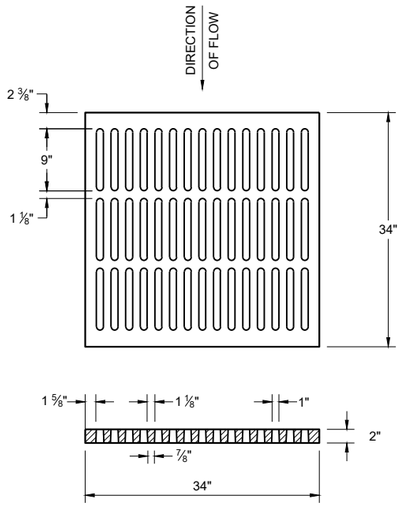
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

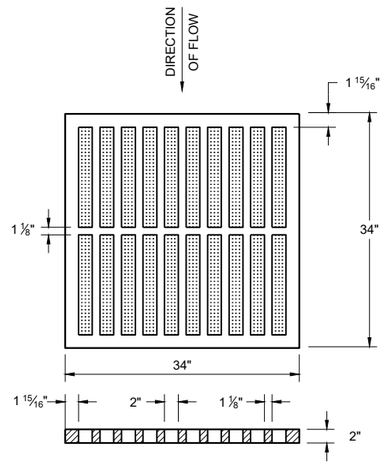
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

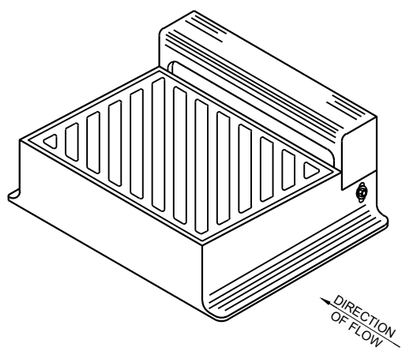
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



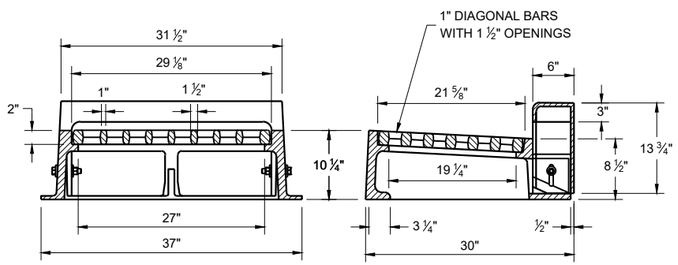
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS TYPES B, B-A, C, MS, MS-A AND WM

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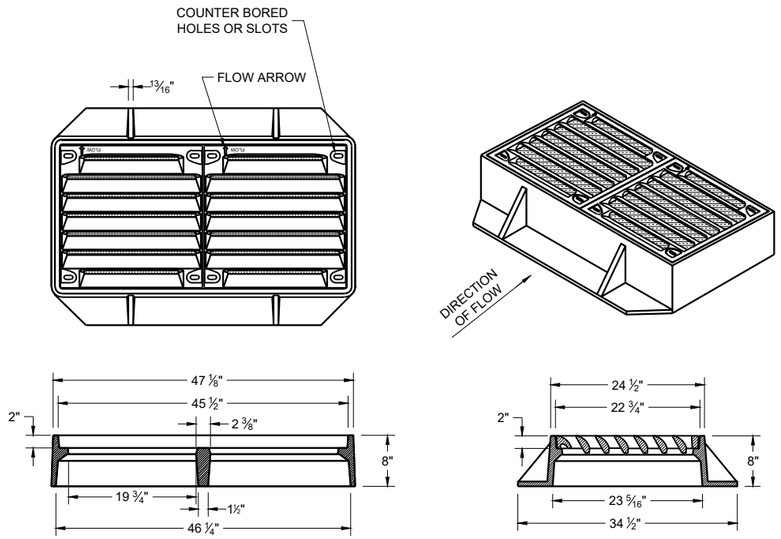
GENERAL NOTES

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

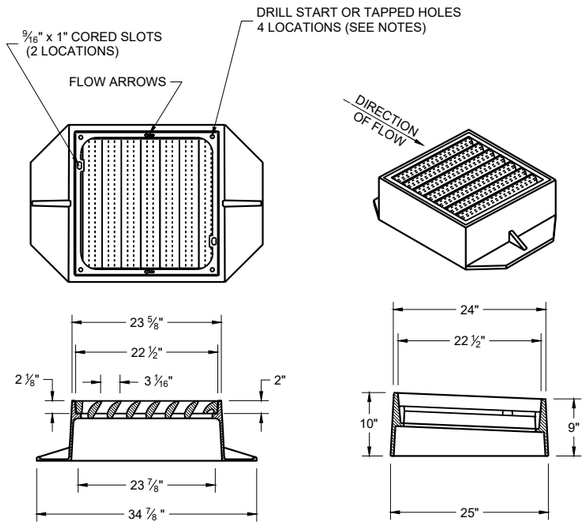
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "VV-B"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER
ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

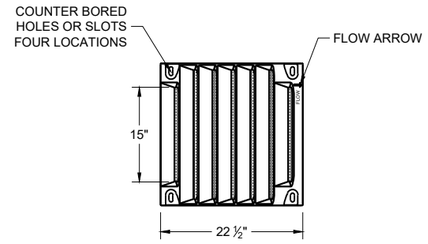
TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 35B
3/8" DIA. X 1/16" DRILL START IN 8 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" AND "VV-B" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" OR "VV-B" (FOR DOUBLE GRATE) ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS PER GRATE IN FRAME TO BOLT GRATE(S).
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS
TYPES V, V-B, AND VV-B

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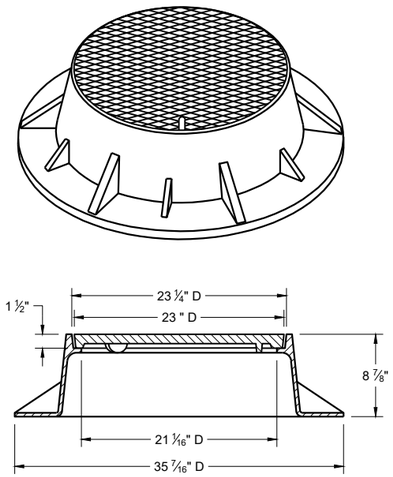
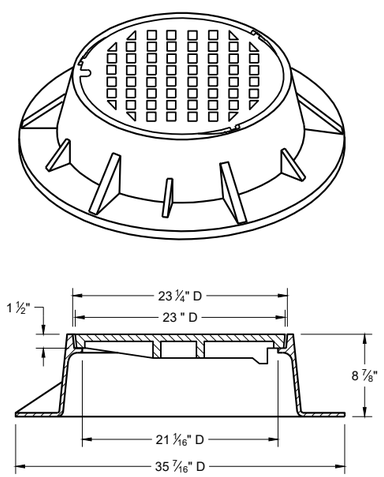
GENERAL NOTES

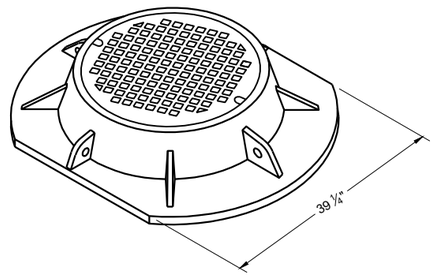
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

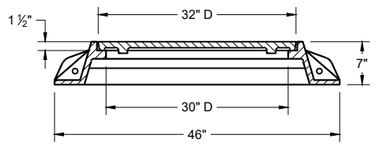
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

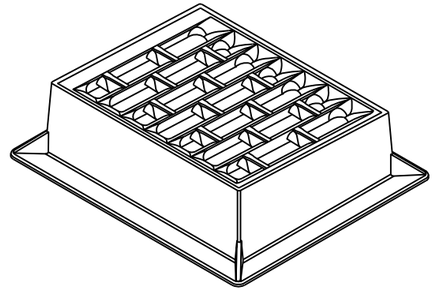


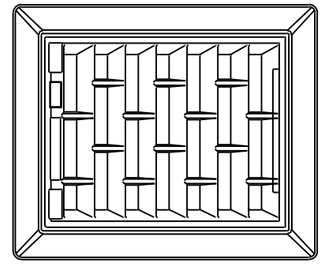


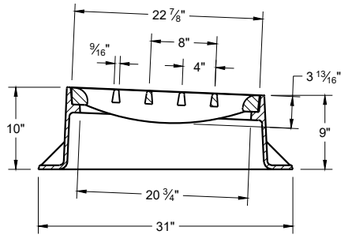


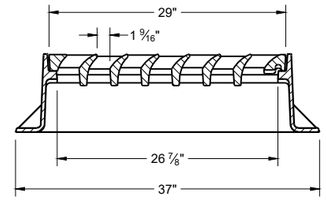


TYPE "K"

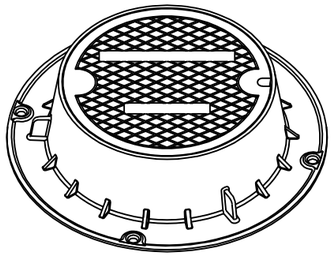


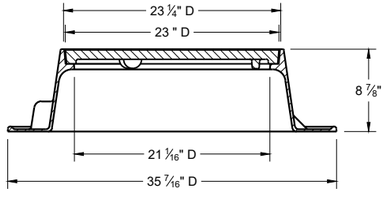






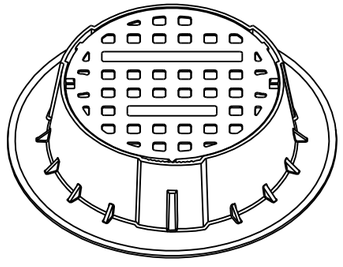
INLET COVER TYPE "BW"

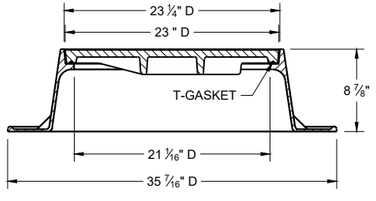




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

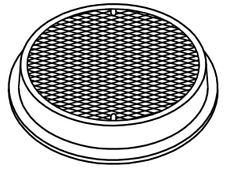


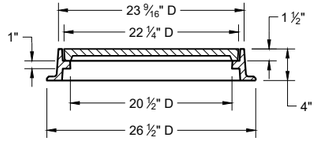


TYPE "J" SPECIAL

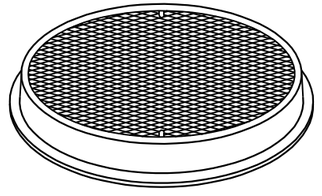
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

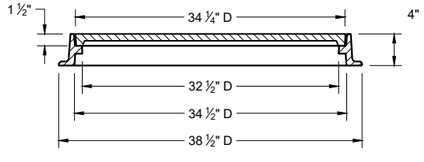
NOTE: EITHER CASTING IS ACCEPTABLE





TYPE "L"





TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

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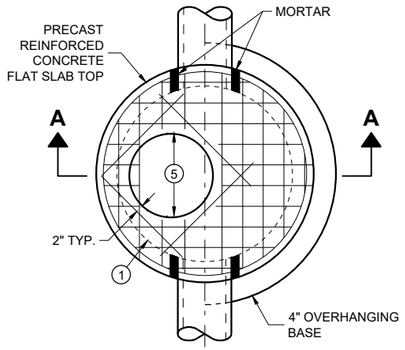
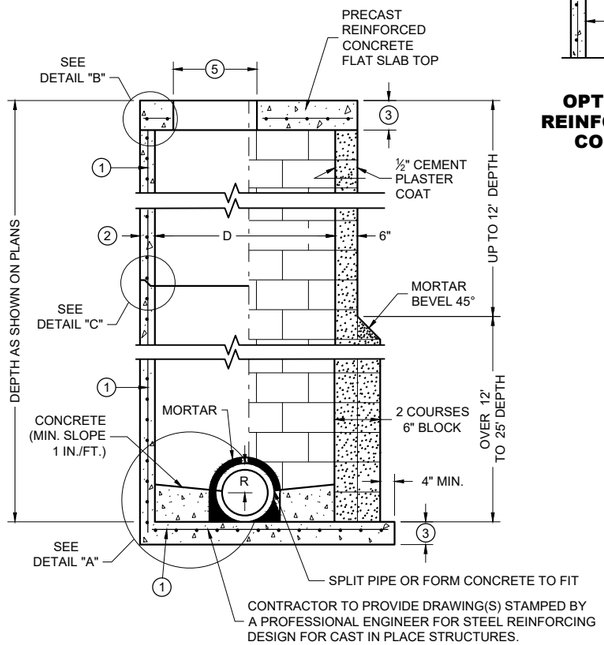


PLAN VIEW

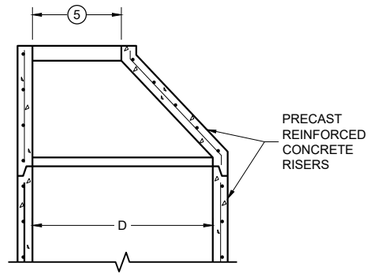
CIRCULAR OPENING



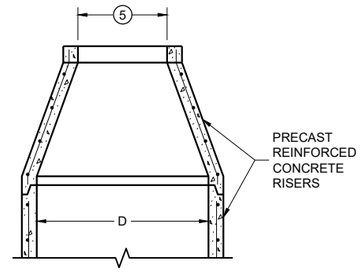
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

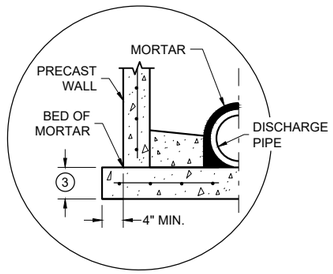
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



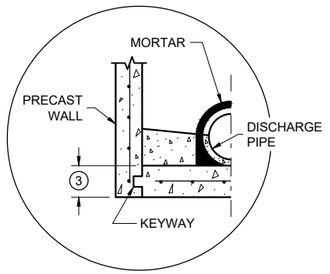
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

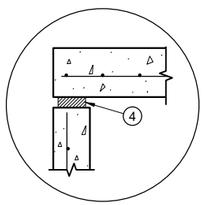


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

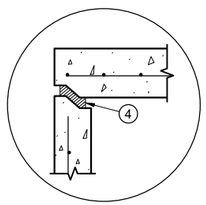


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

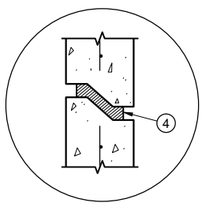
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

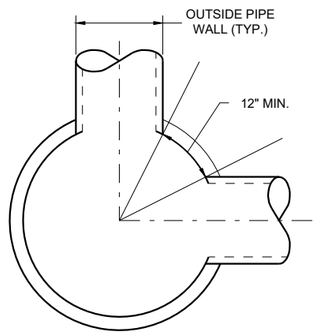
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
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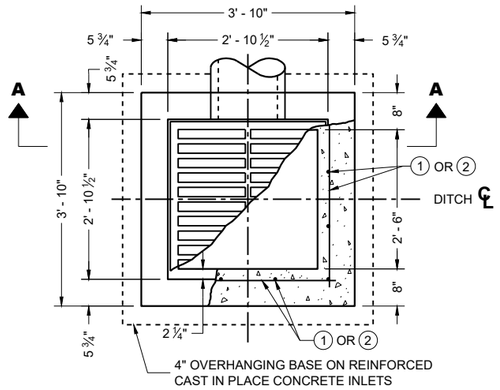
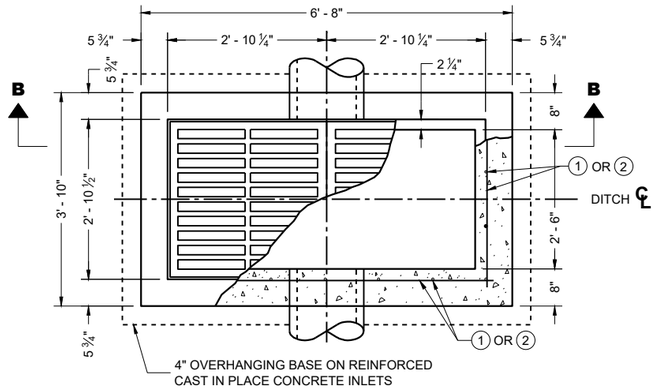
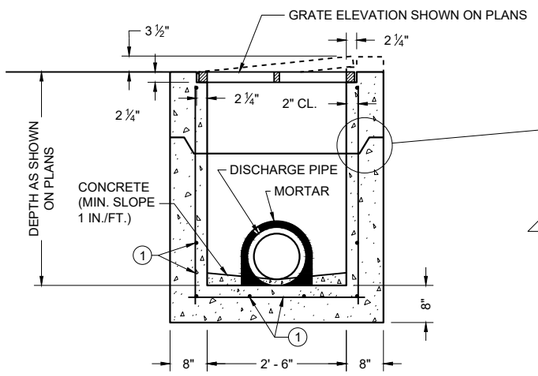
SDD 08B09-04



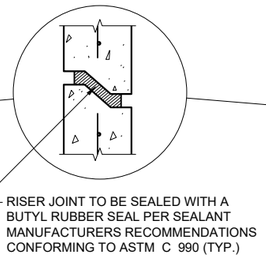
PLAN VIEW

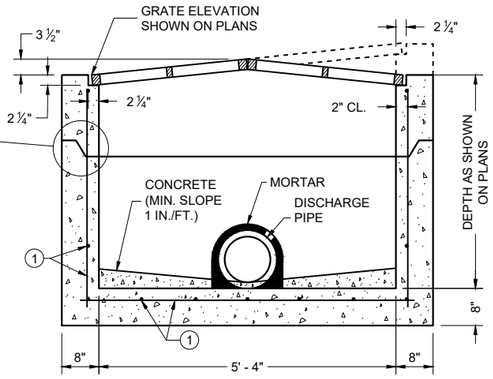


PLAN VIEW

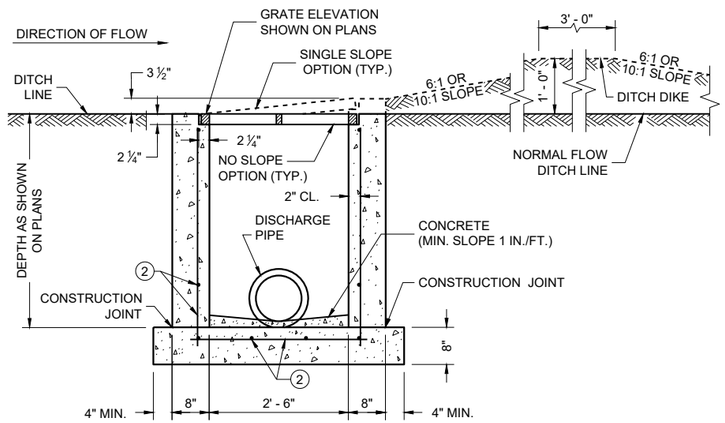


PRECAST REINFORCED CONCRETE SECTION A - A



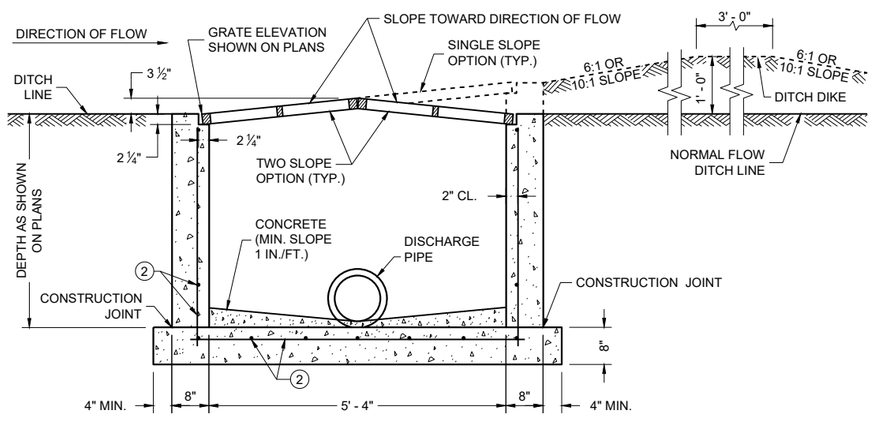


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

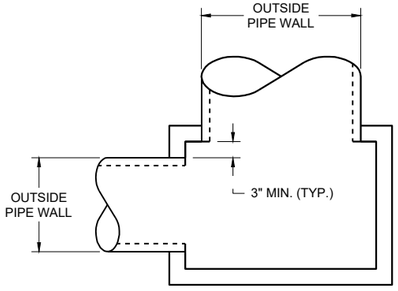
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.



DETAIL "A"

PIPE MATRIX

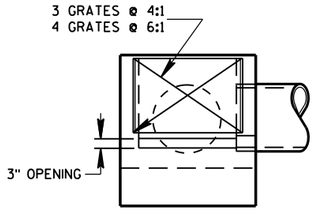
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

INLETS
MEDIAN 1 AND 2 GRATE

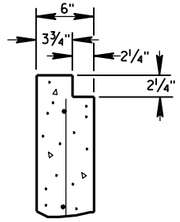
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

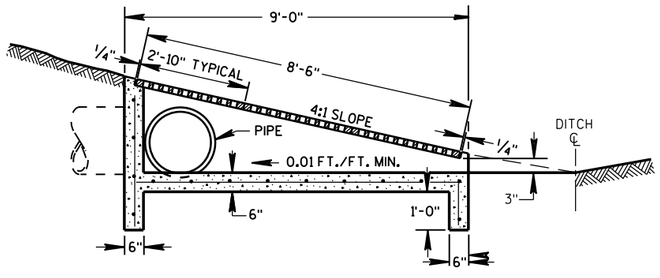
FHWA



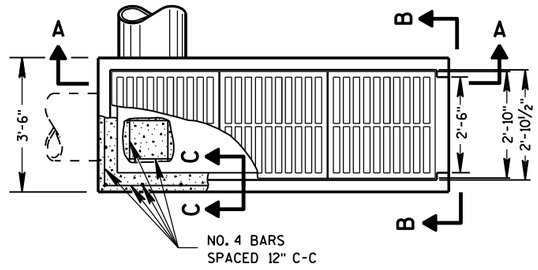
SECTION B-B



SECTION C-C

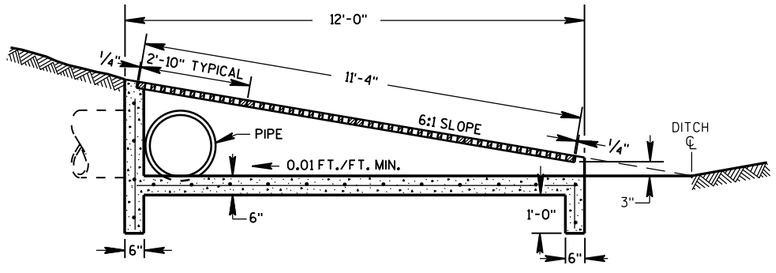


SECTION A-A

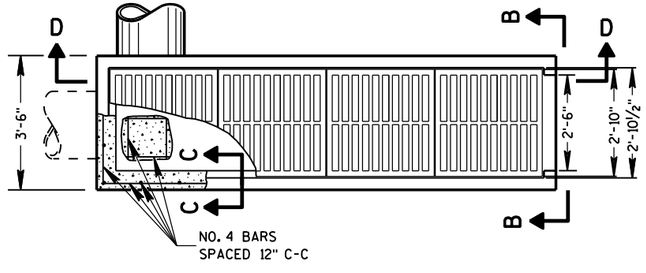


PLAN VIEW

INLETS MEDIAN 3 GRATE



SECTION D-D



PLAN VIEW

INLETS MEDIAN 4 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 3G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

6

S.D.D. 8 C 9-2

INLETS MEDIAN 3 AND 4 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

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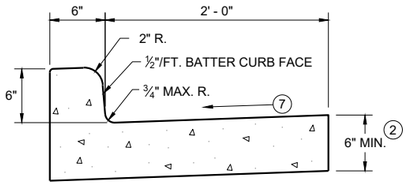
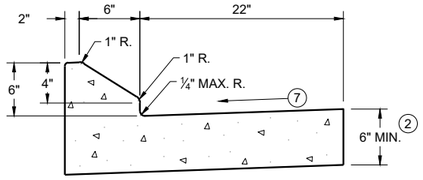
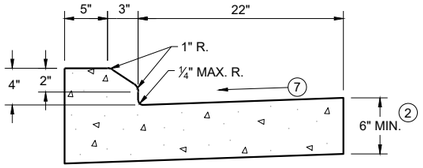
S.D.D. 8 C 9-2



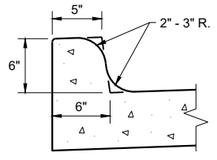
TYPES A (1) & D



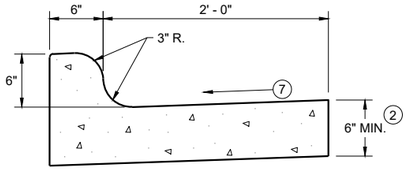
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

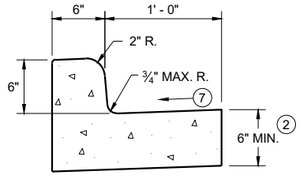


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



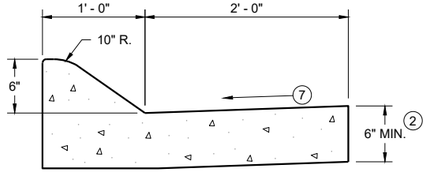
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

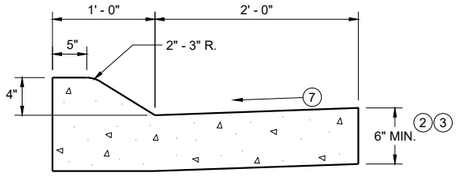


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

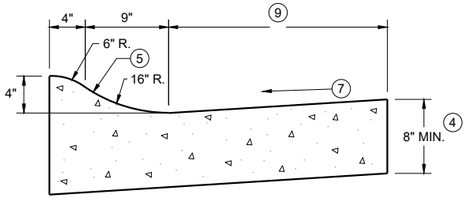


6" SLOPED CURB TYPES A (1) & D



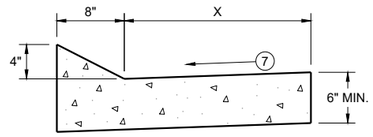
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

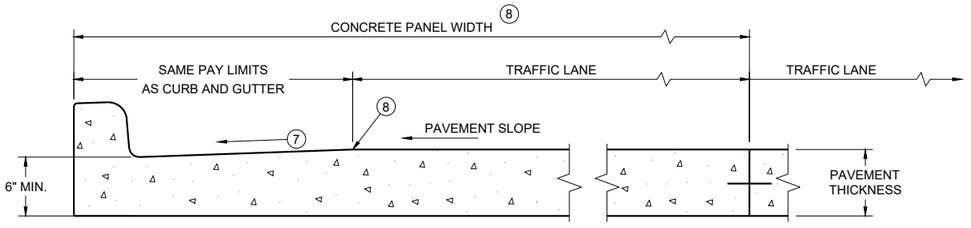


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

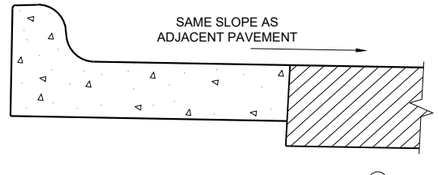
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

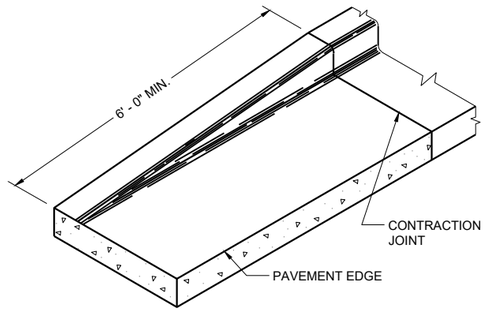
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

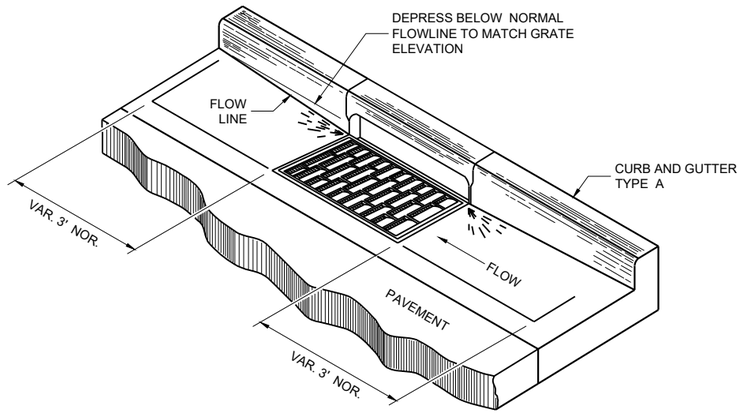
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

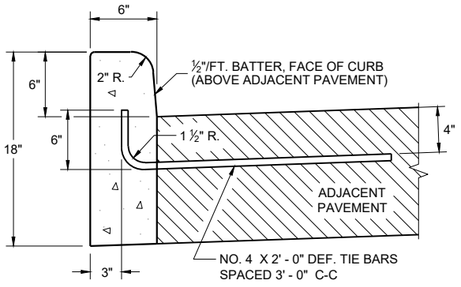
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

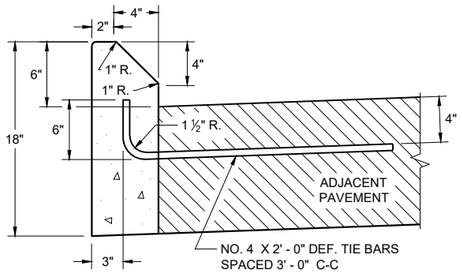
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

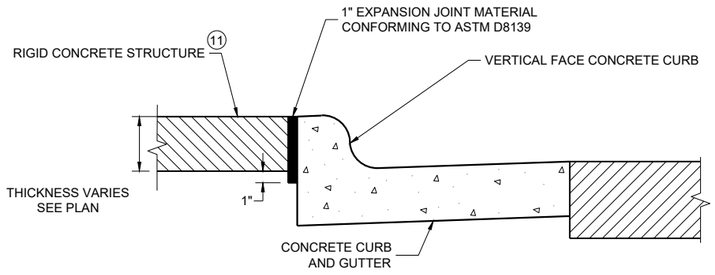


TYPES A (1) & D

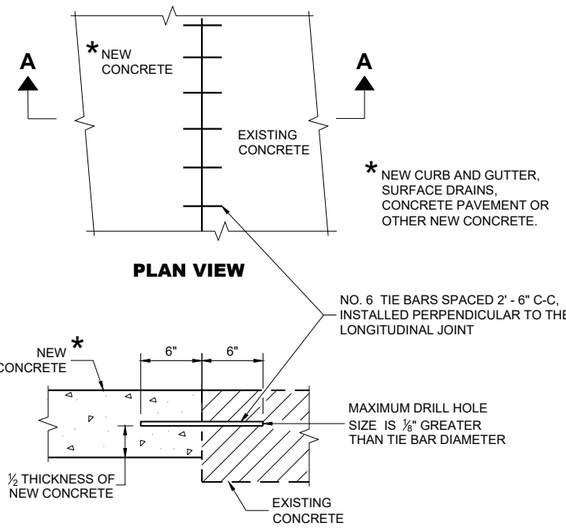


TYPES G (1) & J

CONCRETE CURB



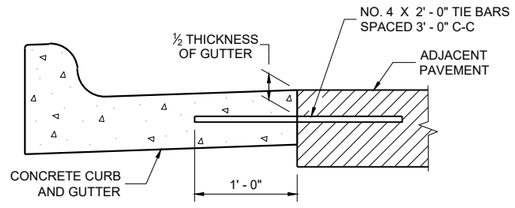
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



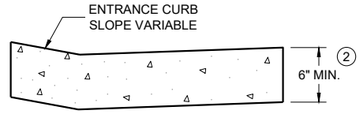
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

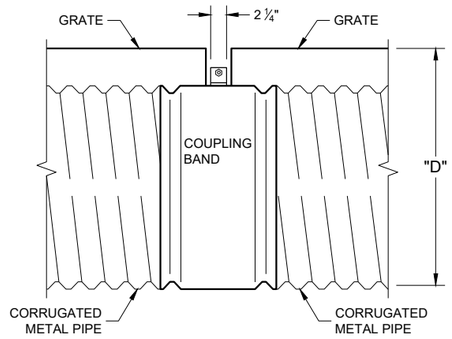
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

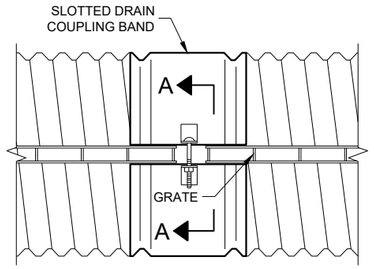
FHWA

6

SDD 08D01-23b



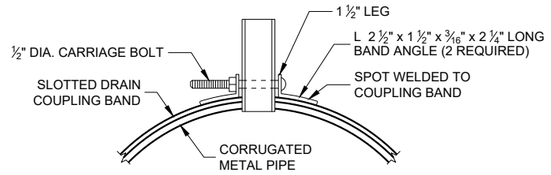
SIDE VIEW



PLAN VIEW

TYPICAL COUPLING BAND FOR SLOTTED DRAIN

(ALTERNATES PERMITTED AS APPROVED BY THE ENGINEER)



SECTION A - A

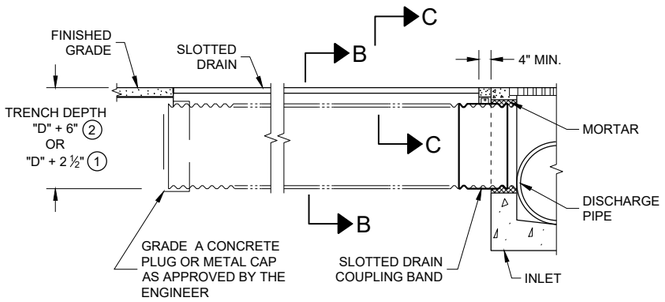
GENERAL NOTES

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

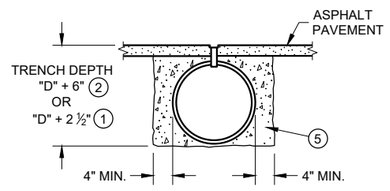
THE PIPE FOR THE SLOTTED DRAIN SHALL MEET AASHTO DESIGNATION M-36, AND THE GRATE ASSEMBLIES SHALL BE MADE FROM STRUCTURAL STEEL SUITABLY WELDED TO FORM THE OPEN SLOT AND HOT-DIP GALVANIZED TO MEET THE PROVISIONS OF AASHTO DESIGNATION M-111.

NORMAL PIPE SIZES ARE 12-INCH THROUGH 24-INCH DIAMETER IN 0.064 INCH THICKNESS, AND 30-INCH DIAMETER PIPE IN 0.079 INCH THICKNESS.

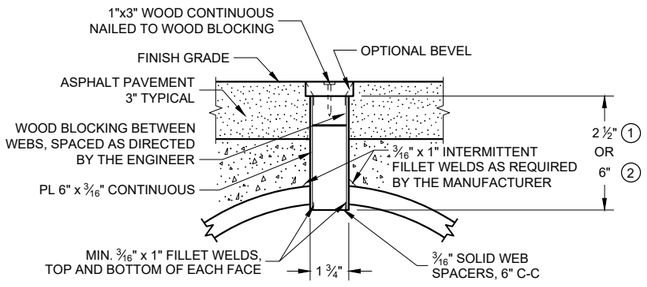
1. 2 ½" NORMAL GRATE DEPTH
2. 6" SPECIAL GRATE DEPTH, WHEN SPECIFIED ON THE PLANS.
3. FOR SCREEDING DIRECTLY OVER THE SLOTTED DRAIN WITH ASPHALT PAVER. FOR CONCRETE SURFACE USE 3" WIDE TAPE OVER THE SLOT TO KEEP MATERIAL OUT OF THE PIPE.
4. WHEN THE SURFACE IS CONCRETE PAVEMENT THE GRADE AS SHOWN ON THE PLANS WILL BE FLUSH WITH THE TOP OF THE SLOTTED DRAIN.
5. ENCASE CORRUGATED METAL PIPE SURFACE DRAIN IN GRADE "A" CONCRETE CONFORMING TO STANDARD SPECIFICATION 501 AS MODIFIED IN STANDARD SPECIFICATION 716. PROVIDE QMP FOR CLASS III ANCILLARY CONCRETE PER STANDARD SPECIFICATION 716. UTILIZING HIGH EARLY STRENGTH (HES) CONCRETE CONFORMING TO STANDARD SPECIFICATION 710.4(5) IS ALLOWED AND MAY BE REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER.



SLOTTED DRAIN INSTALLATION TYPE "A"

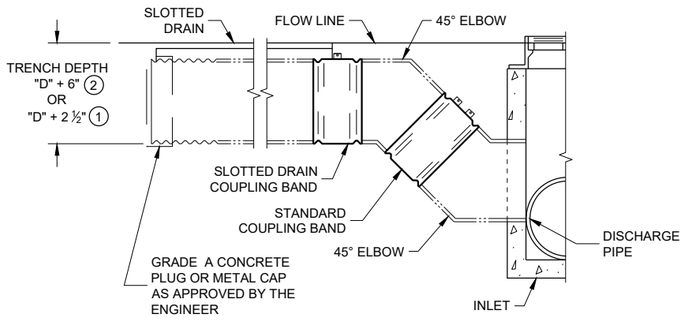


SECTION B - B

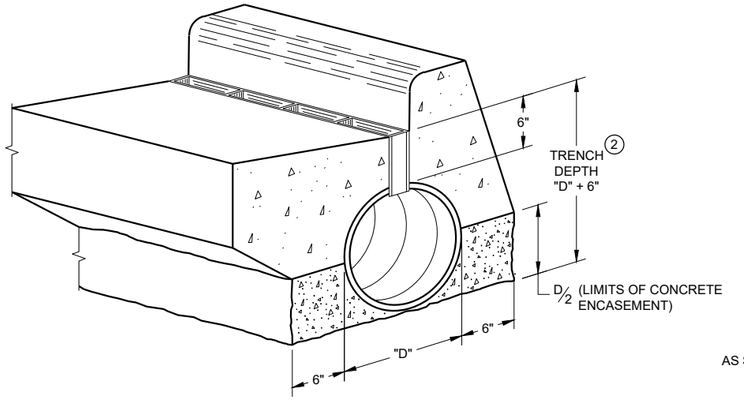


SECTION C - C
GRATE SLOT DETAIL

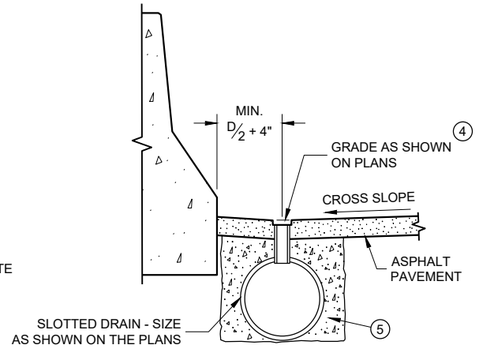
NOTE:
TO PREVENT "FLOATING" OF THE SLOTTED DRAIN DURING BACKFILL OPERATIONS, PROVIDE ADEQUATE WEDGES OR POUR THE LEAN GROUT ON TOP OF THE PLUGGED SLOT ALLOWING IT TO SLOUGH TO THE SIDES OF THE PIPE. THIS WILL PROVIDE ENOUGH WEIGHT ON TOP TO KEEP THE PIPE FROM FLOATING



SLOTTED DRAIN INSTALLATION TYPE "B"



SLOTTED DRAIN INSTALLATION IN FLOW LINE OF CURB AND GUTTER TYPE "C"



SLOTTED DRAIN INSTALLATION AT MEDIAN BARRIER TYPE "D"

SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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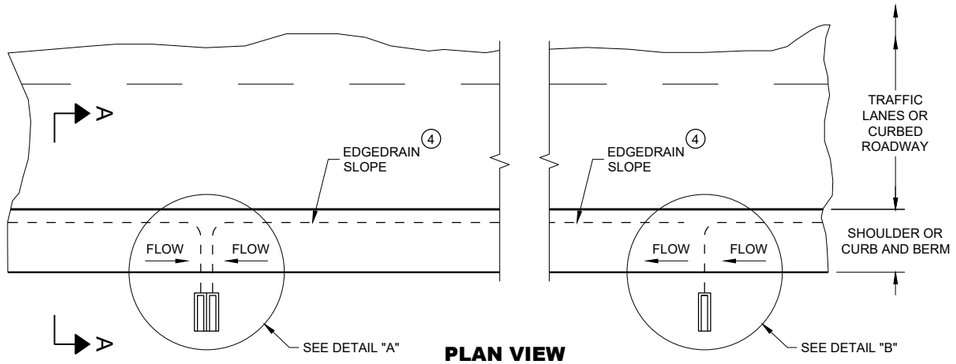
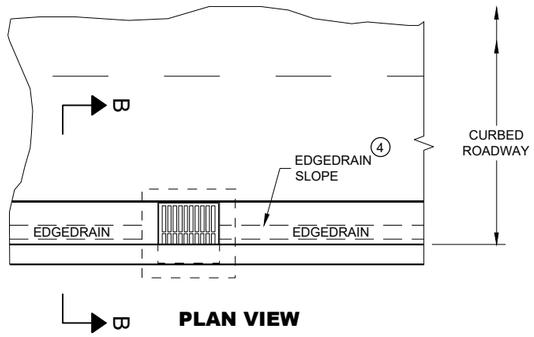
SDD 08D13 - 02



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

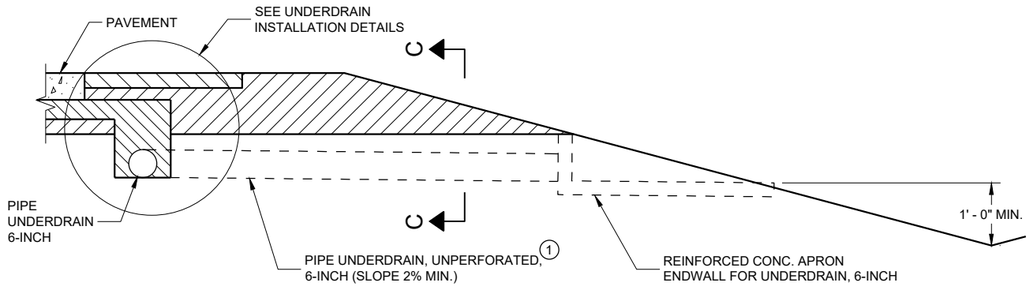
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

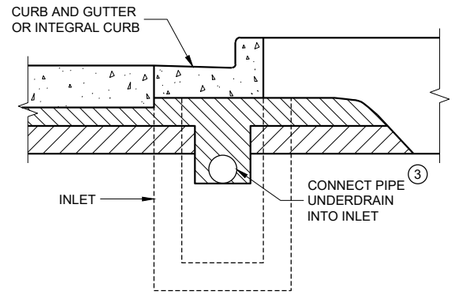
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



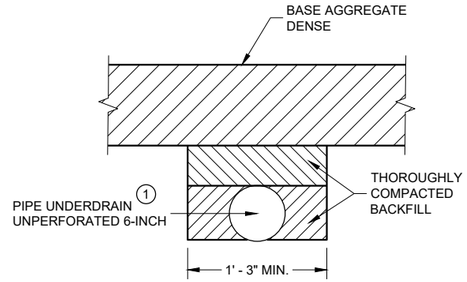
SECTION A - A

RURAL CROSS SECTION



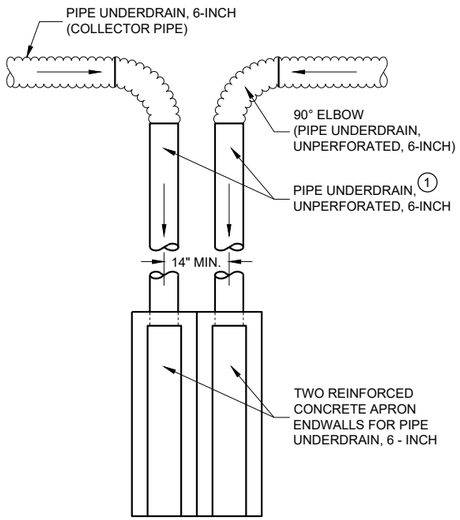
SECTION B - B

URBAN CROSS SECTION

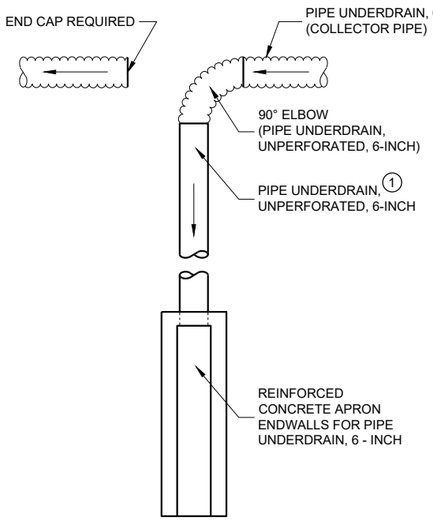


SECTION C - C

TRENCH FOR OUTFALL PIPE

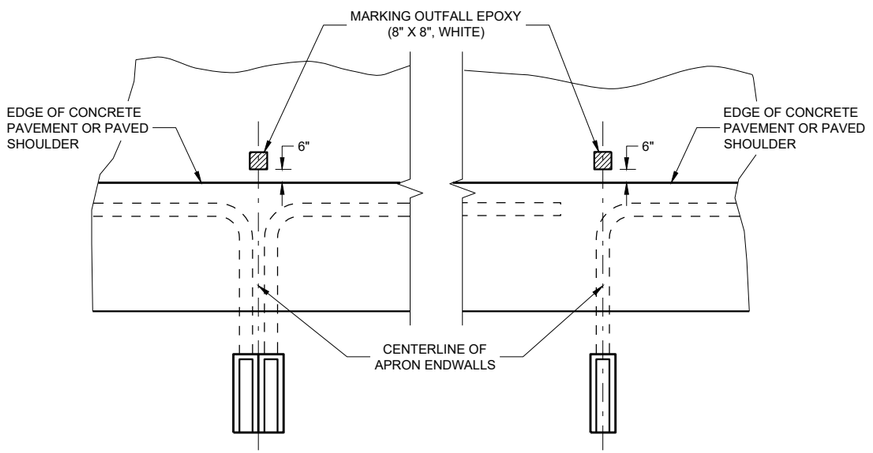


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

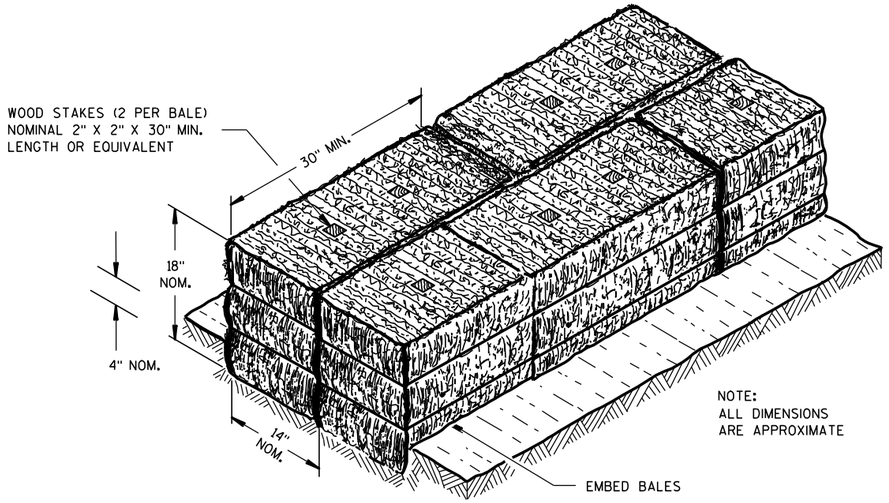
PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

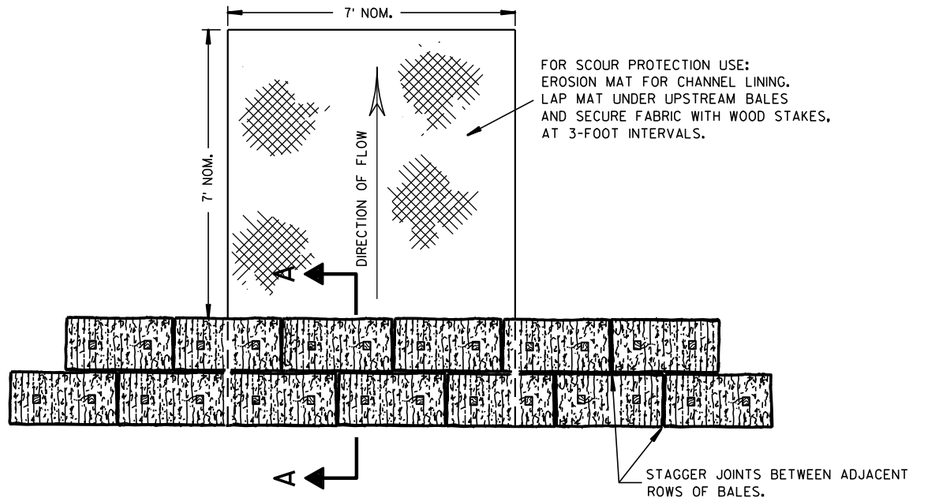
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD08D15 - 05a

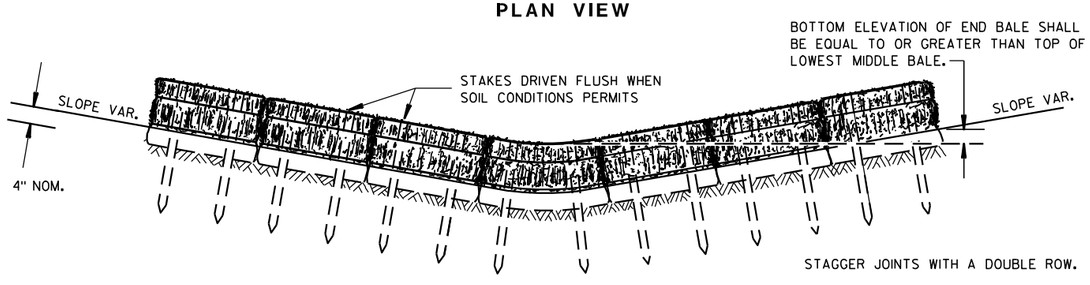
SDD08D15 - 05a



SECTION A-A



PLAN VIEW



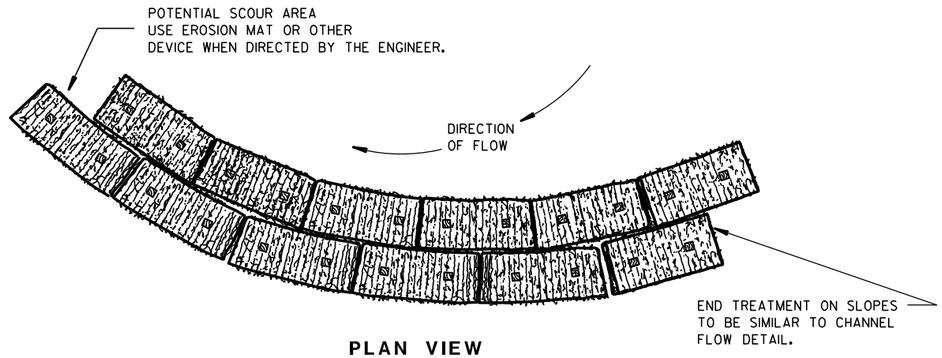
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

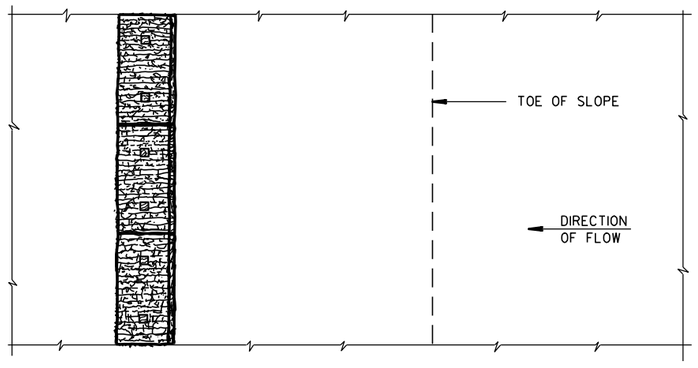
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

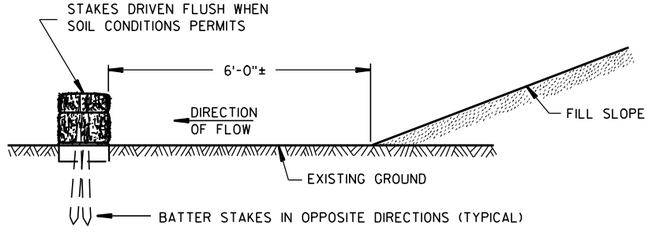


PLAN VIEW

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

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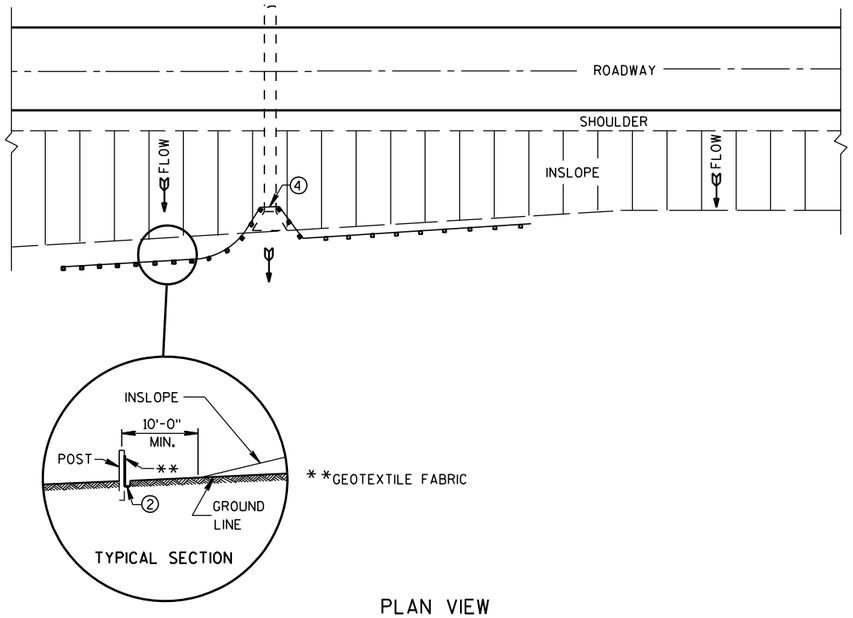
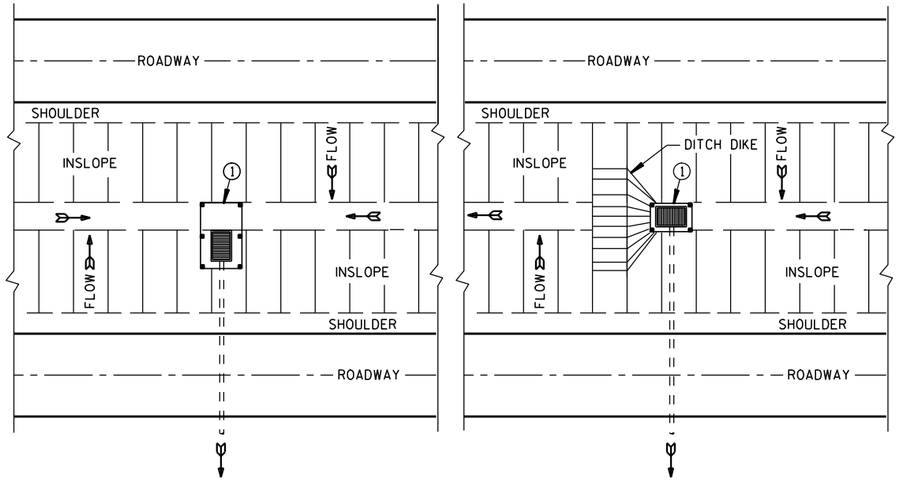
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



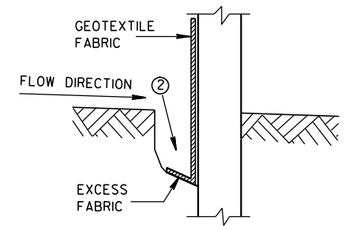
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

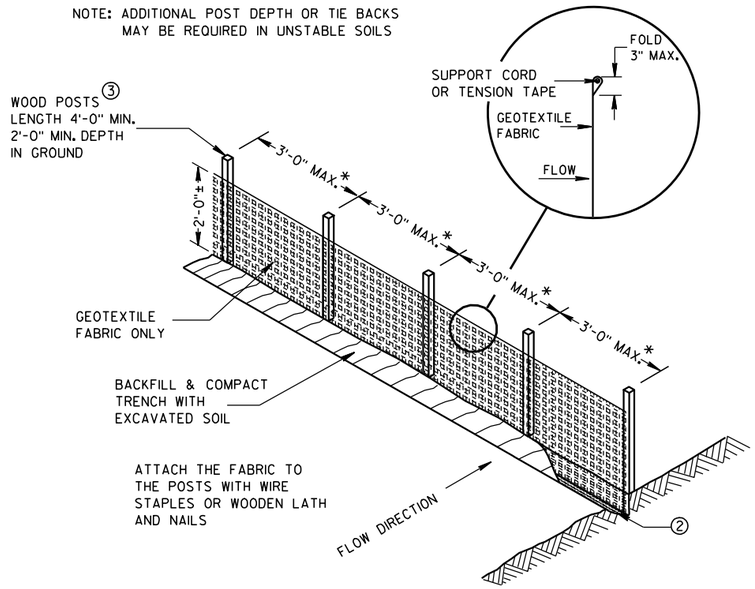
GENERAL NOTES

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

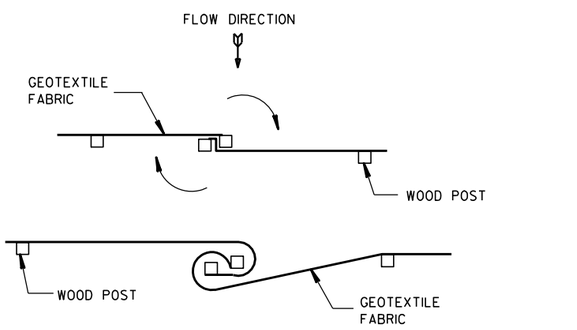
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



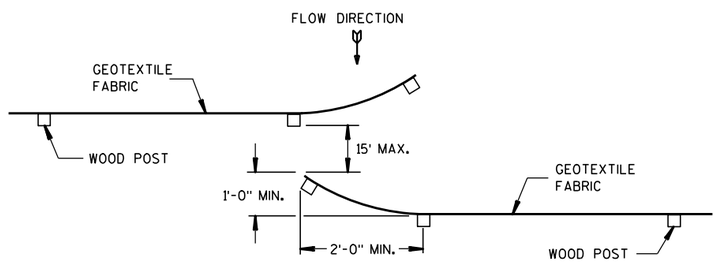
TRENCH DETAIL



SILT FENCE

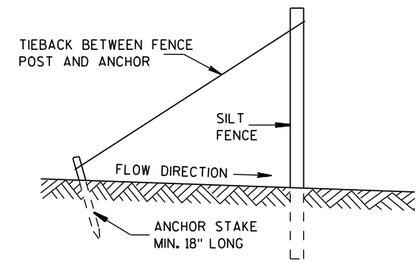


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 E 9-6

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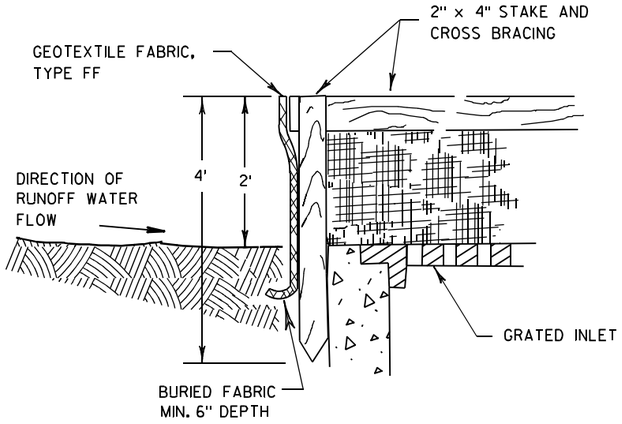
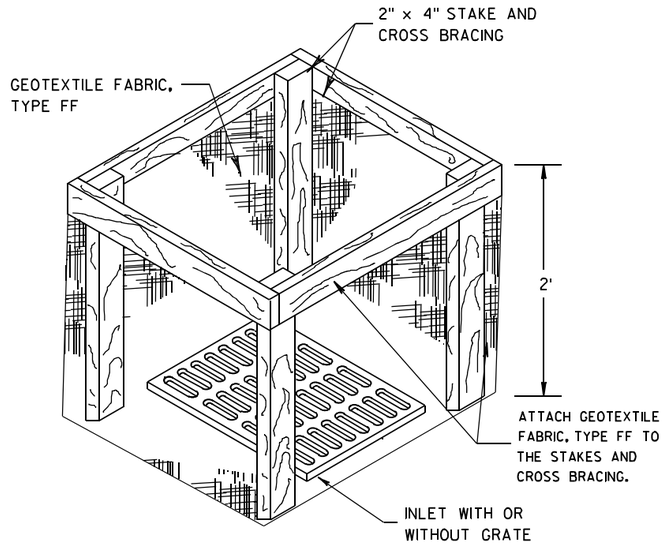
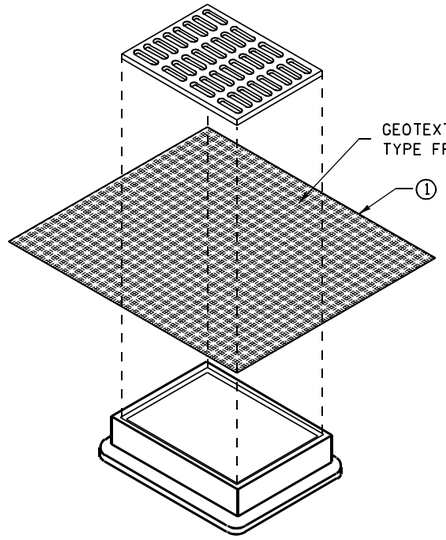
S.D.D. 8 E 9-6



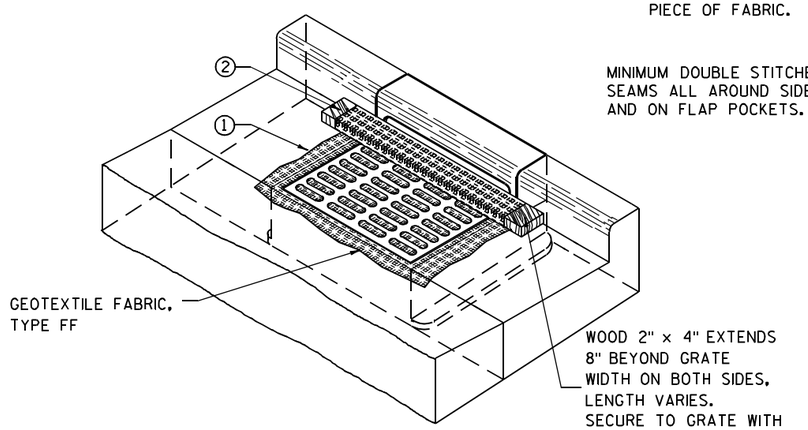


INLET PROTECTION, TYPE A

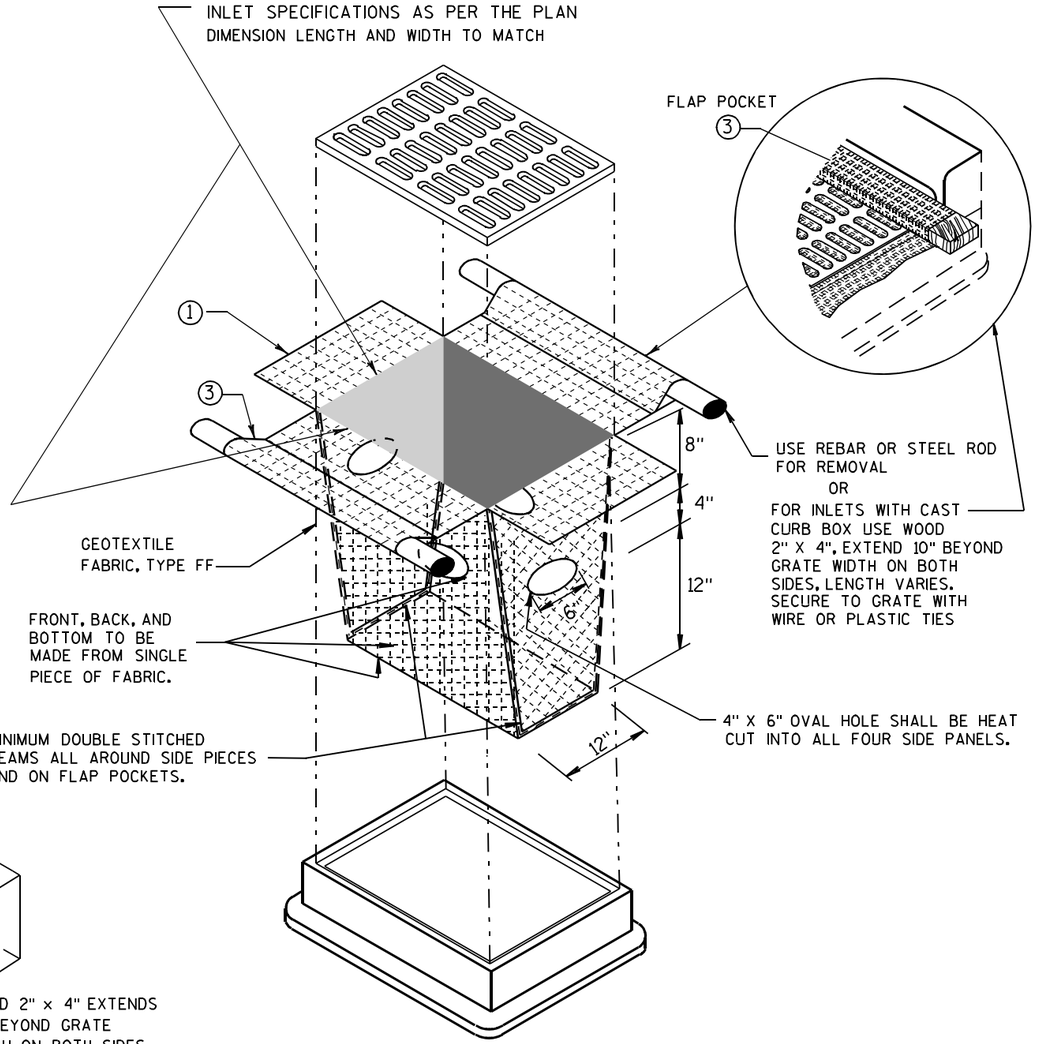


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 E 10-2

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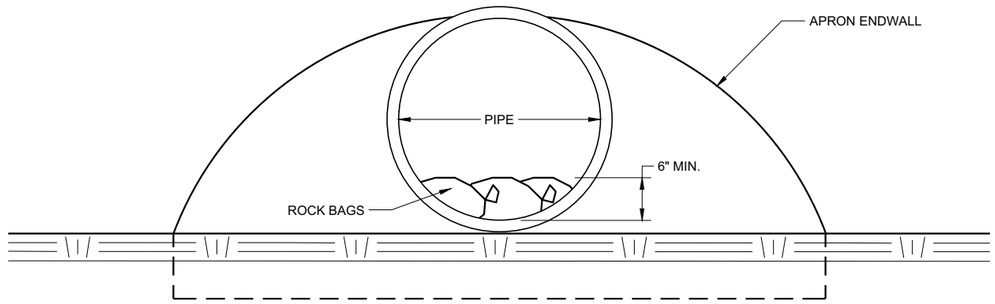
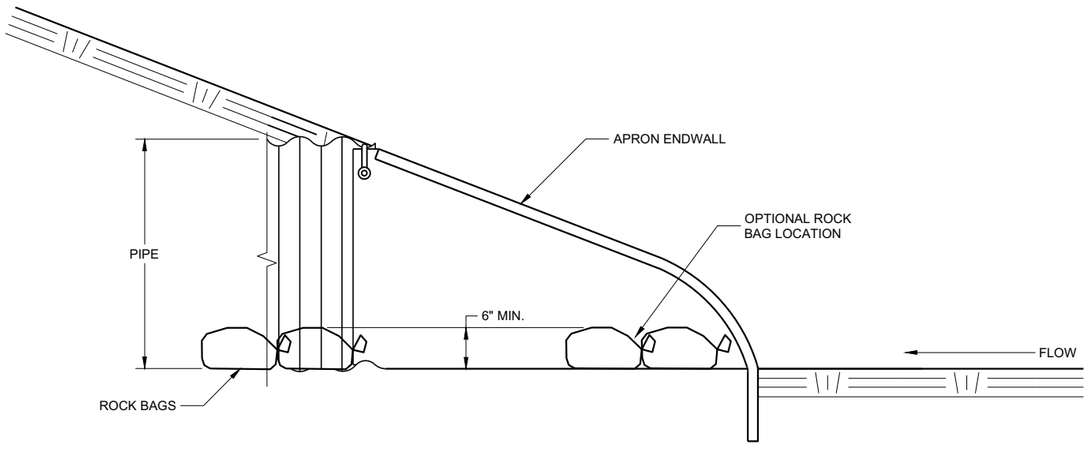
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

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

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SDD 08E15 - 01

METAL APRON ENDWALLS

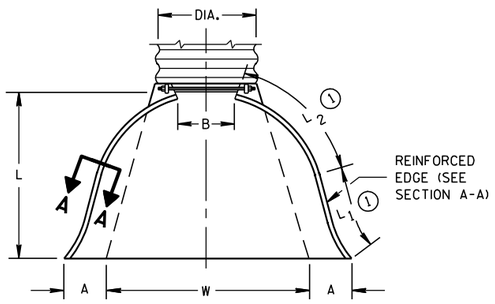
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

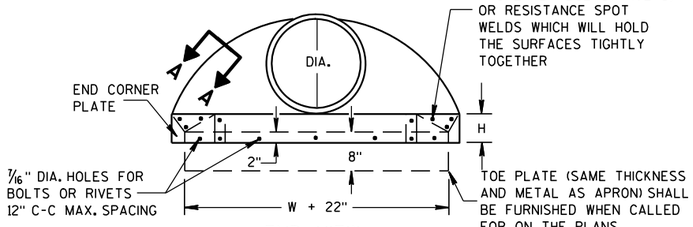
REINFORCED CONCRETE APRON ENDWALLS

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

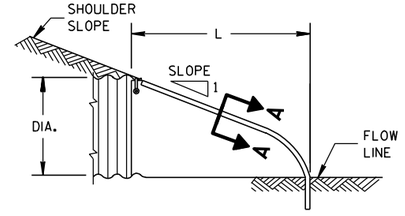
*MINIMUM
**MAXIMUM



PLAN VIEW

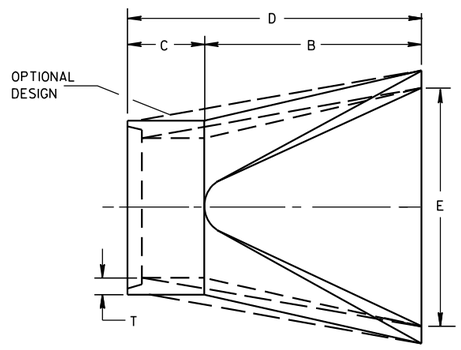


END VIEW

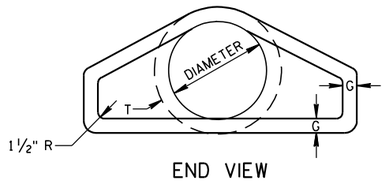


SIDE ELEVATION

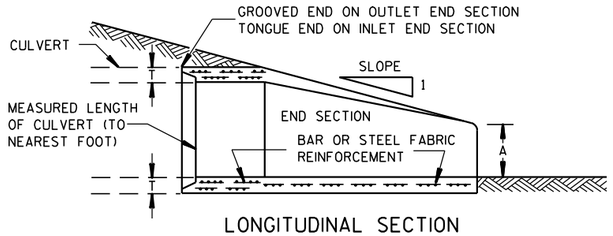
METAL ENDWALLS



PLAN

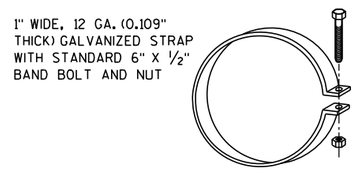


END VIEW



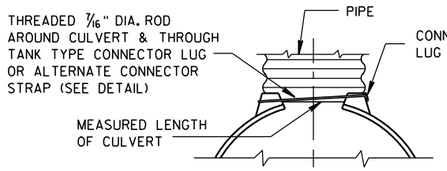
LONGITUDINAL SECTION

CONCRETE ENDWALLS

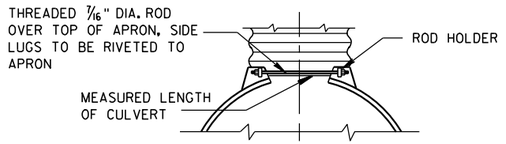


ALTERNATE FOR TYPE 1 CONNECTION

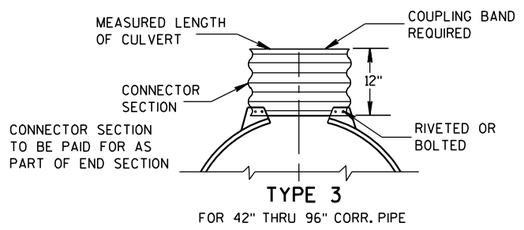
END SECTION CONNECTOR STRAP



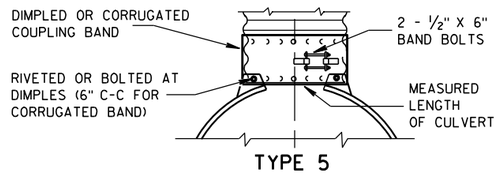
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

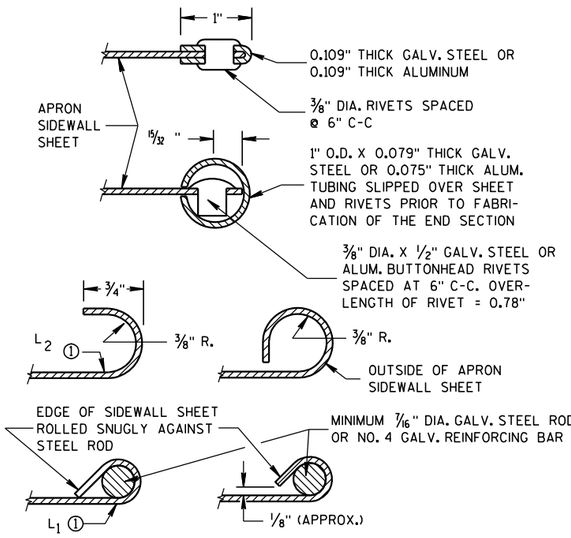
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

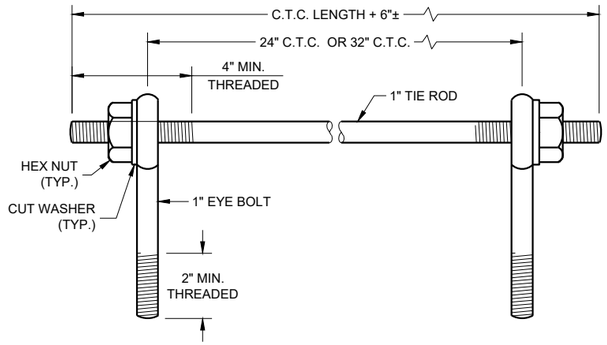
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

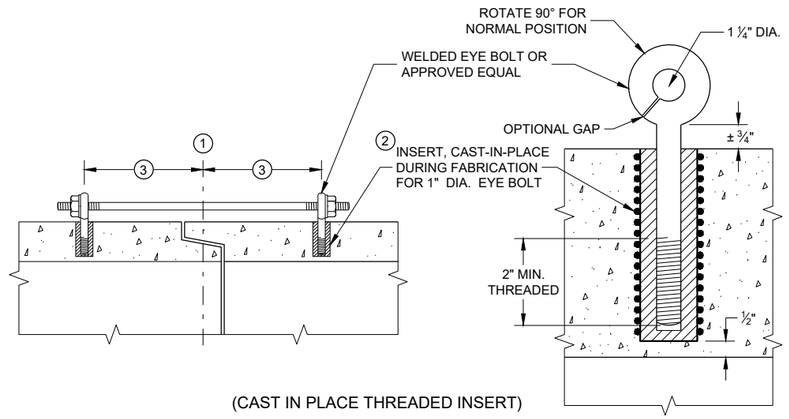
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

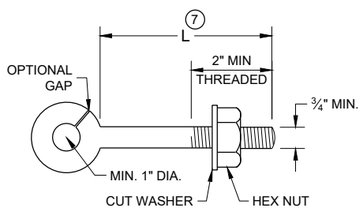
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

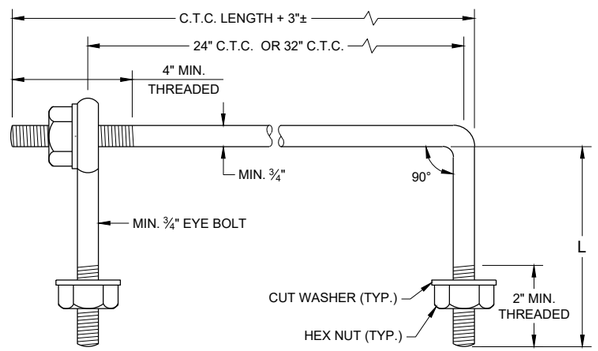
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

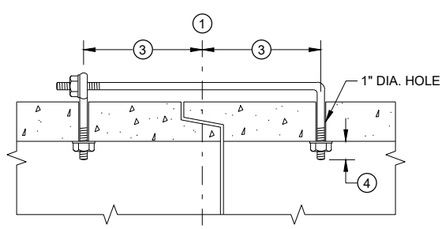


EYE BOLT (7)

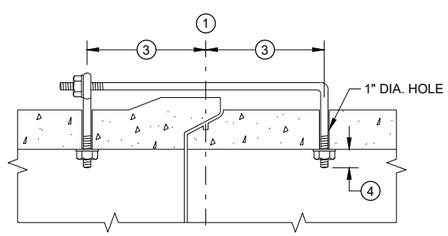
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

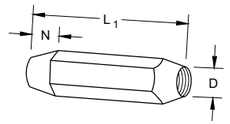
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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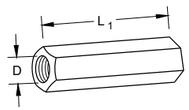
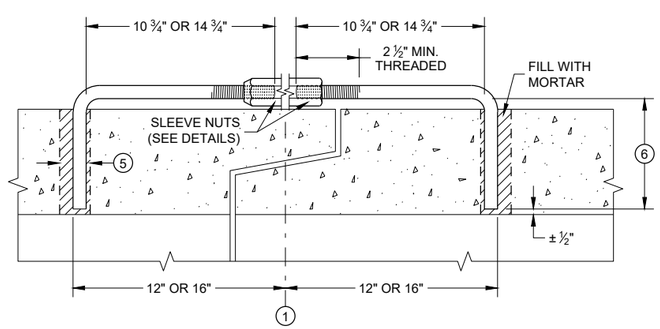


PLAIN

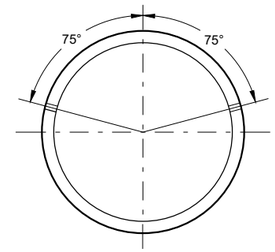
RIGHT AND LEFT THREADS

SLEEVE NUTS



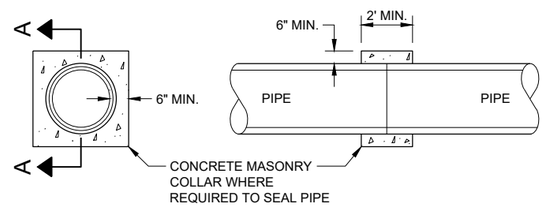
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

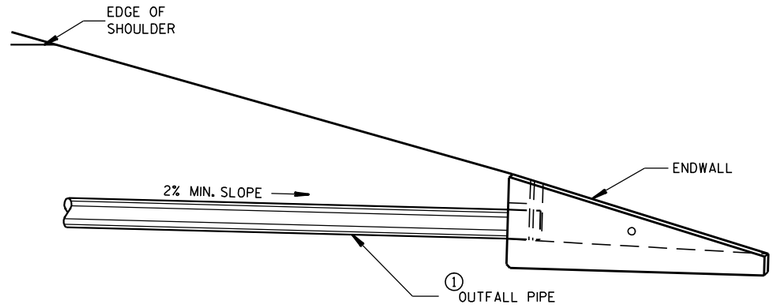
FHWA

SDD 08F04 - 08

SDD 08F04 - 08

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

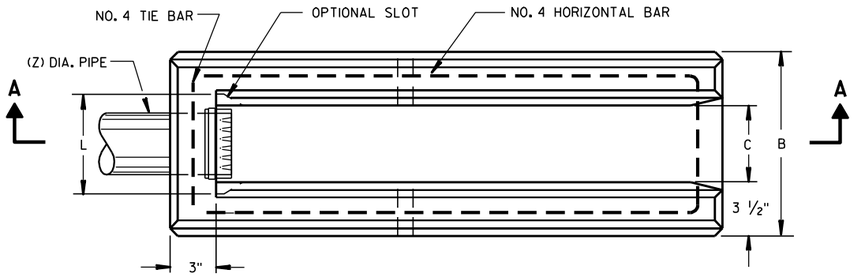
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

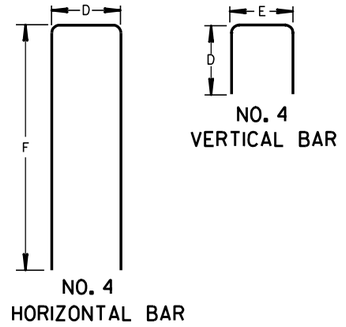
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

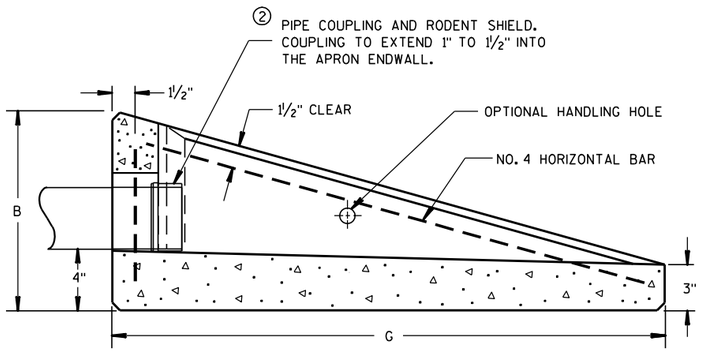
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



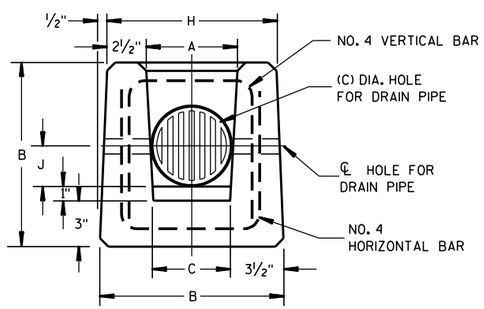
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

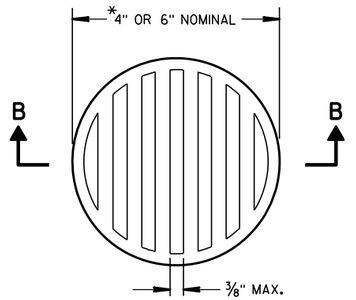


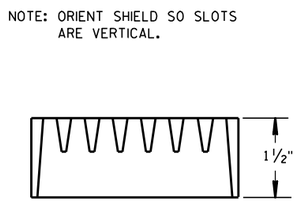
SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN





SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

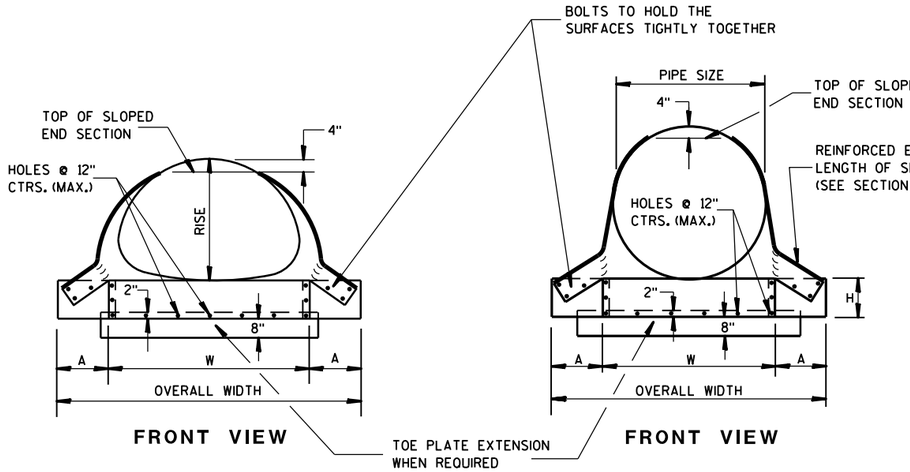
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 6-4

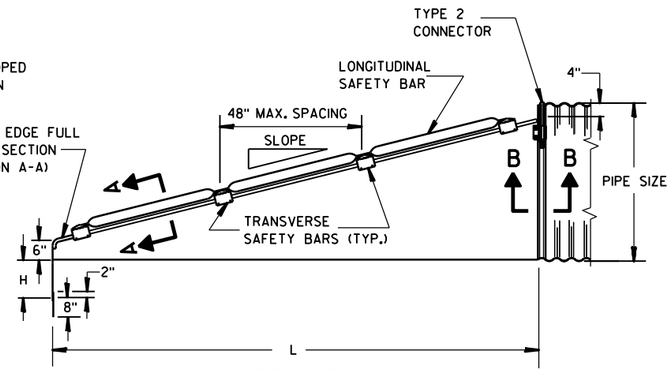
6

S.D.D. 8 F 6-4



FRONT VIEW

FRONT VIEW



SIDE VIEW
(48" SIZE ILLUSTRATED)

GENERAL NOTES

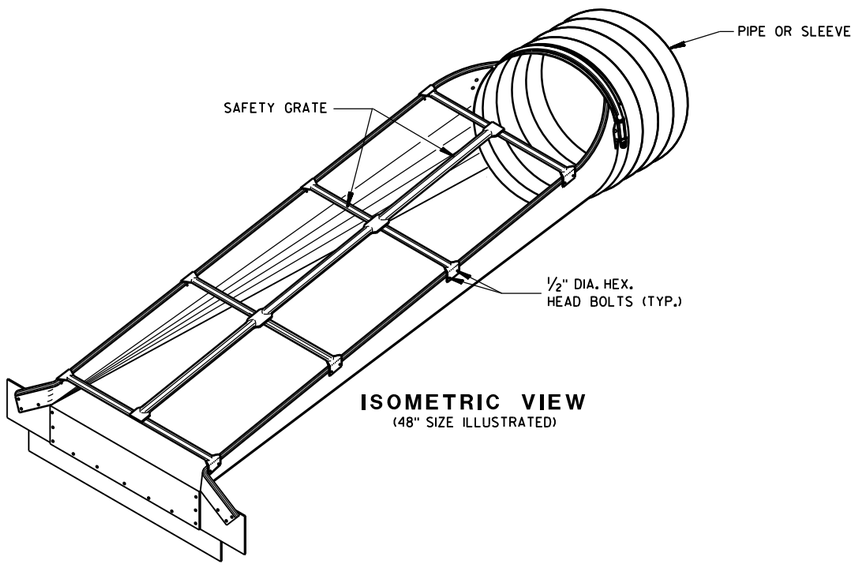
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

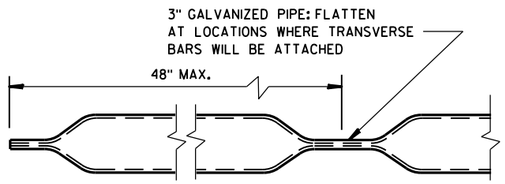
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

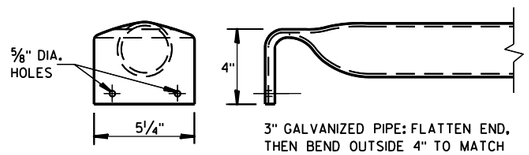
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



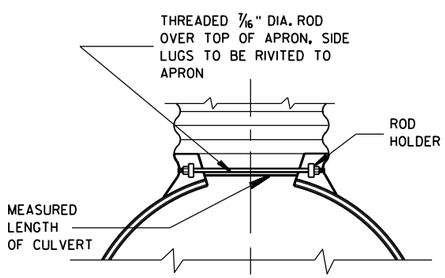
LONGITUDINAL SAFETY BAR



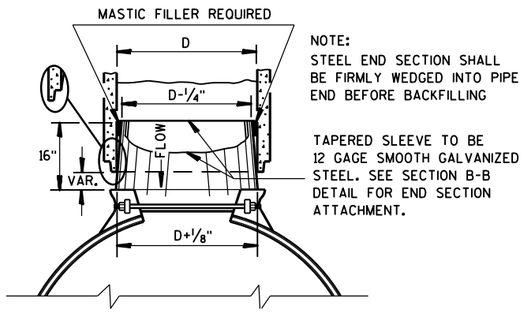
TRANSVERSE SAFETY BAR

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

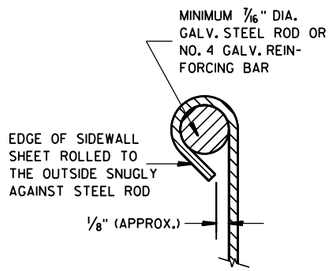
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



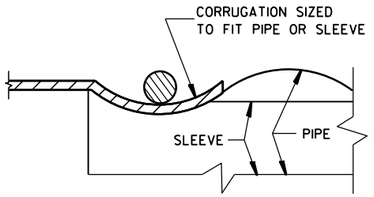
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 8-2

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.

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2' - 0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3' - 0"

(3) LIMITS OF TRENCH BACKFILL

(4) LIMITS OF FOUNDATION BACKFILL

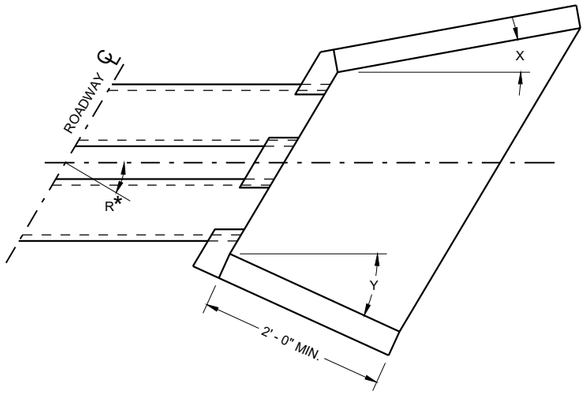
(5) FOUNDATION AND TRENCH BACKFILL ARE MATERIALS INCLUDED IN PAYMENT FOR CULVERT PIPE, PIPE ARCH, CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPSE OR CONCRETE MASONRY ENDWALLS.

(6) DO NOT PLACE FOUNDATION BACK FILL OR ANY OTHER GRANULAR BACKFILL AROUND OR BELOW CUT OFF WALL. POUR CUT OFF WALL AGAINST NATIVE SOIL

(7) MINIMUM HEIGHT SHALL BE THE GREATER OF 1'- 0" OR ¼ HEIGHT OF CULVERT PIPE.

TRENCH BACKFILL

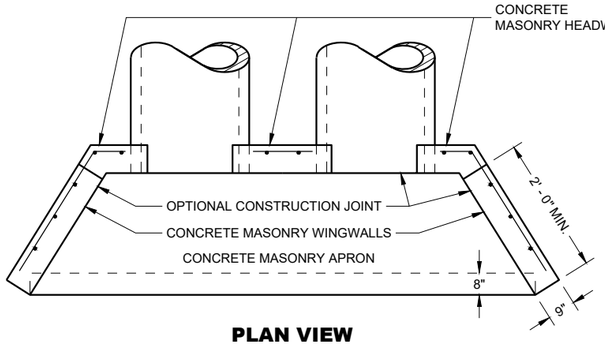
FOUNDATION BACKFILL



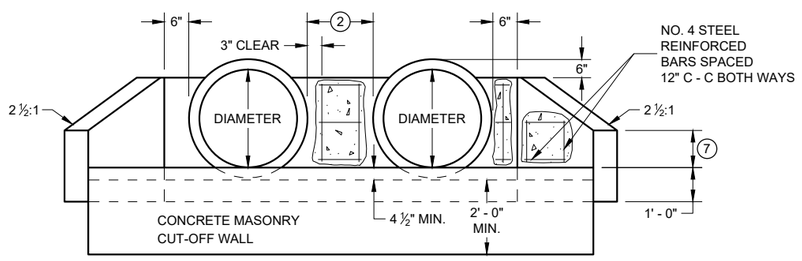
WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	30°	16 - 45°	10°	15°
23 - 37°	20°	30°	46 - 75°	5°	15°
38 - 52°	15°	30°	OVER 75°	0°	15°
53 - 67°	10°	30°			
68 - 82°	5°	30°			
OVER 82°	0°	30°			

R* = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

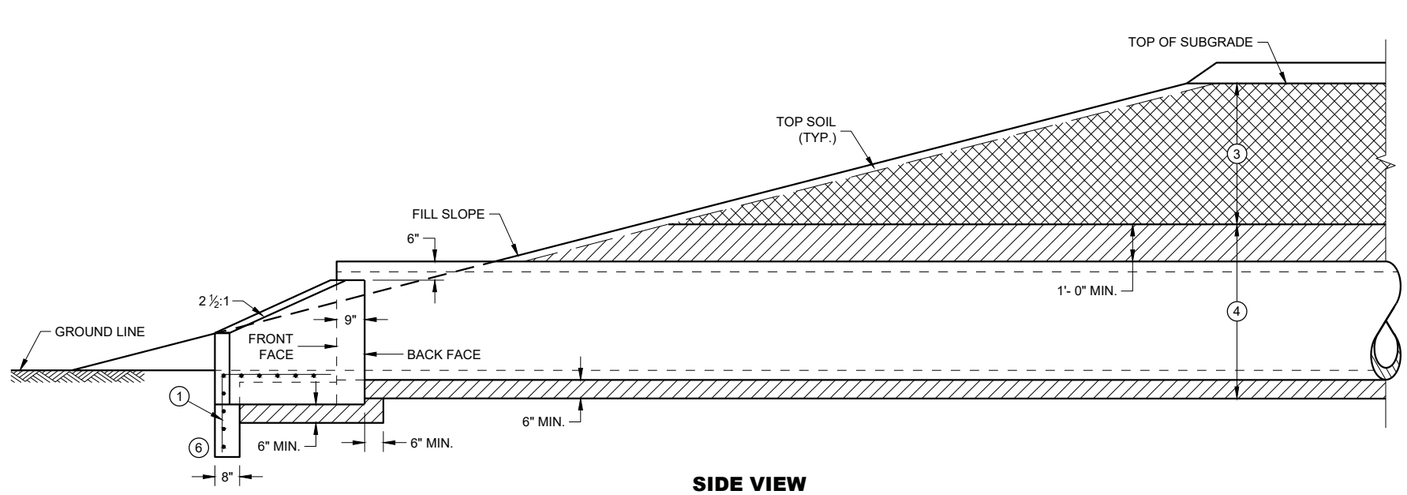


PLAN VIEW



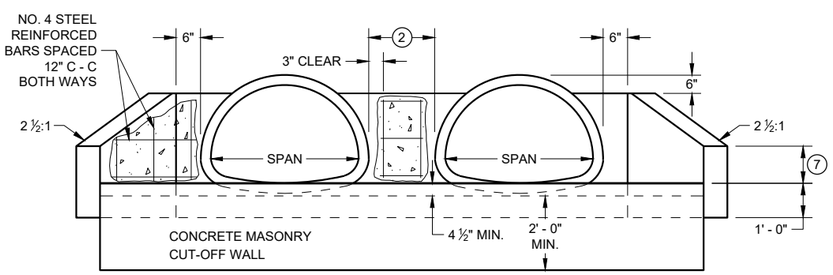
END VIEW

CIRCULAR PIPE



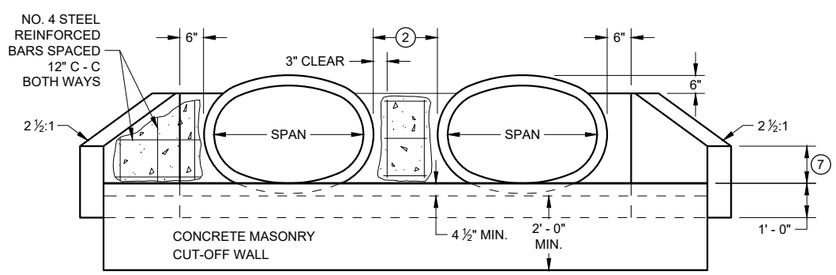
SIDE VIEW

CIRCULAR PIPE, PIPE ARCH OR HORIZONTAL ELLIPSE



END VIEW

PIPE ARCH



END VIEW

HORIZONTAL ELLIPSE

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

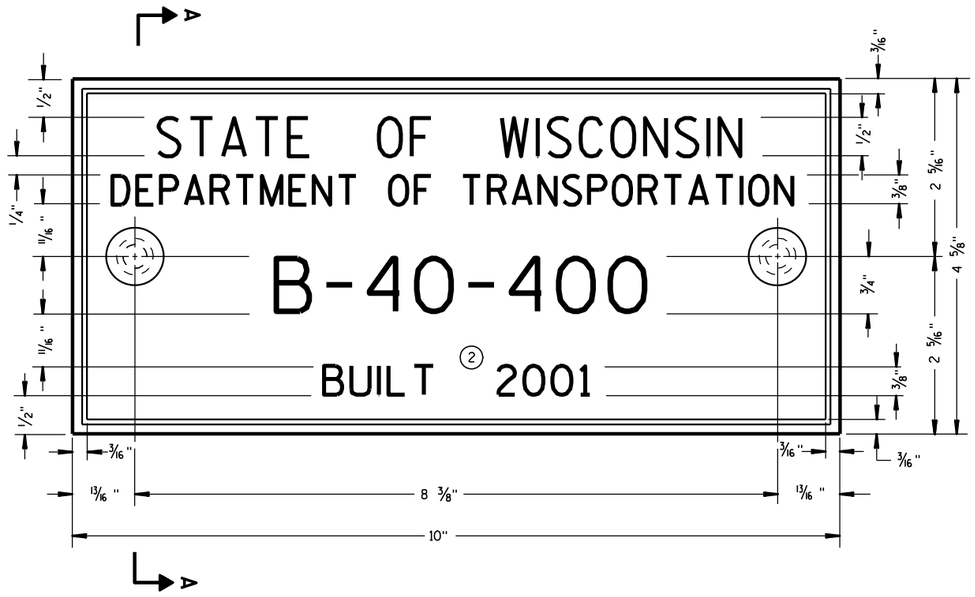
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6
SDD 08F10 - 02



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

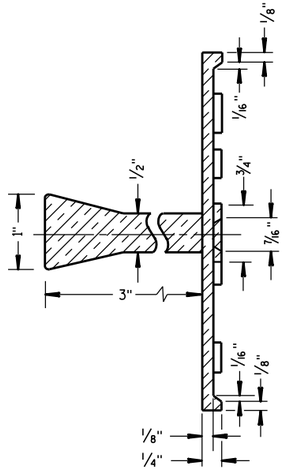
GENERAL NOTES

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

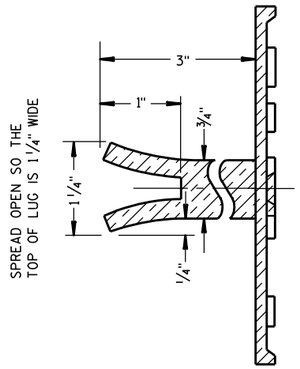
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

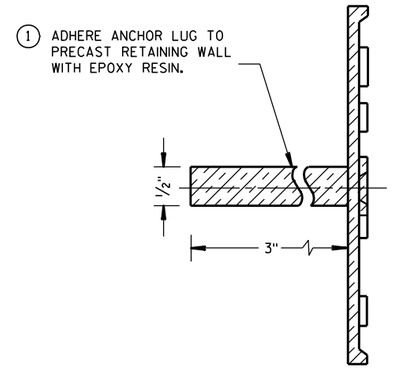
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

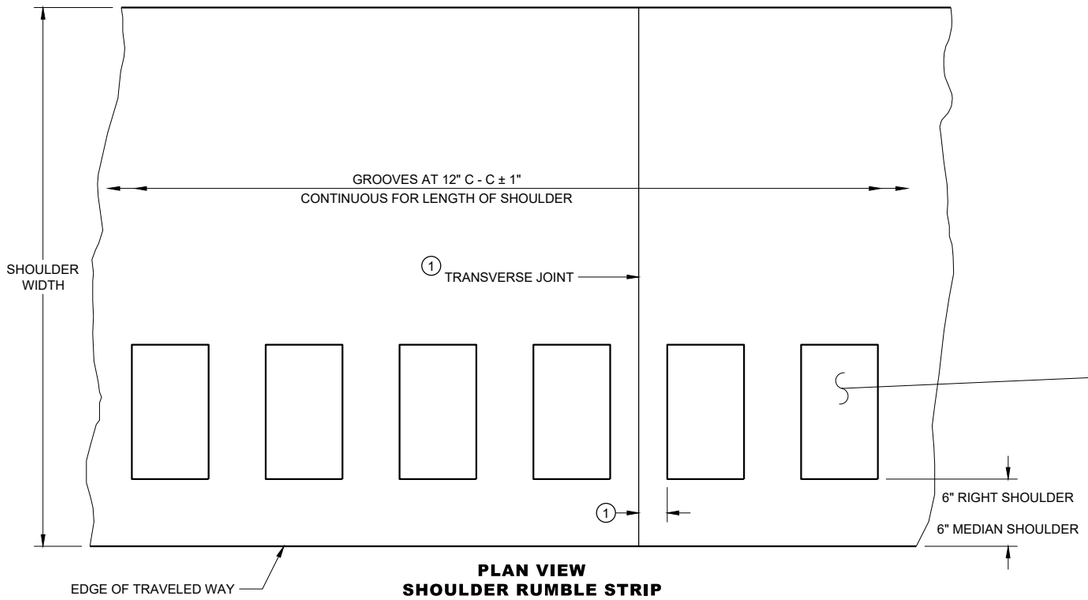
S.D.D. 12 A 3-10

GENERAL NOTES

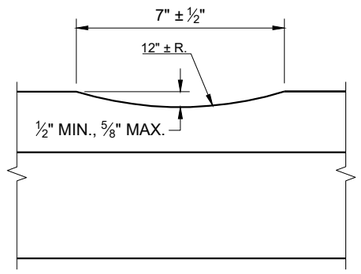
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

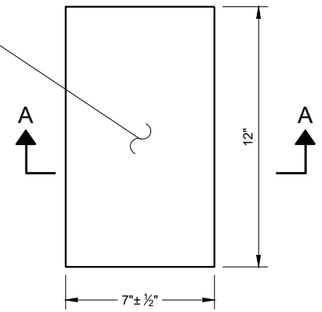
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



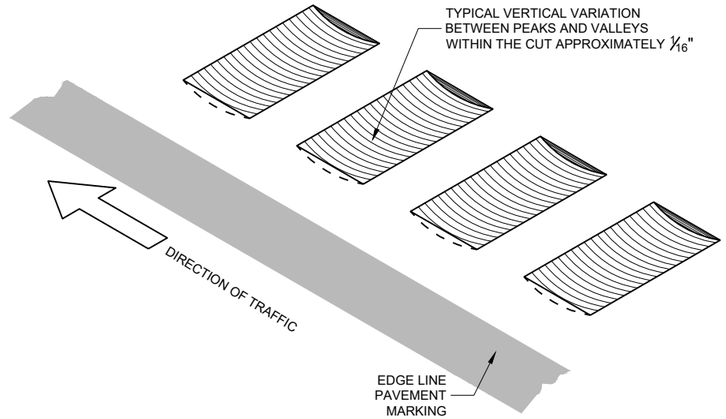
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

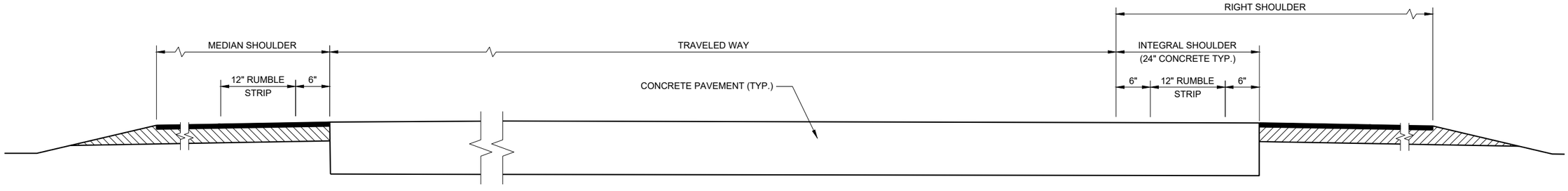


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

PLACEMENT DETAIL FOR RUMBLE STRIP



SECTION VIEW

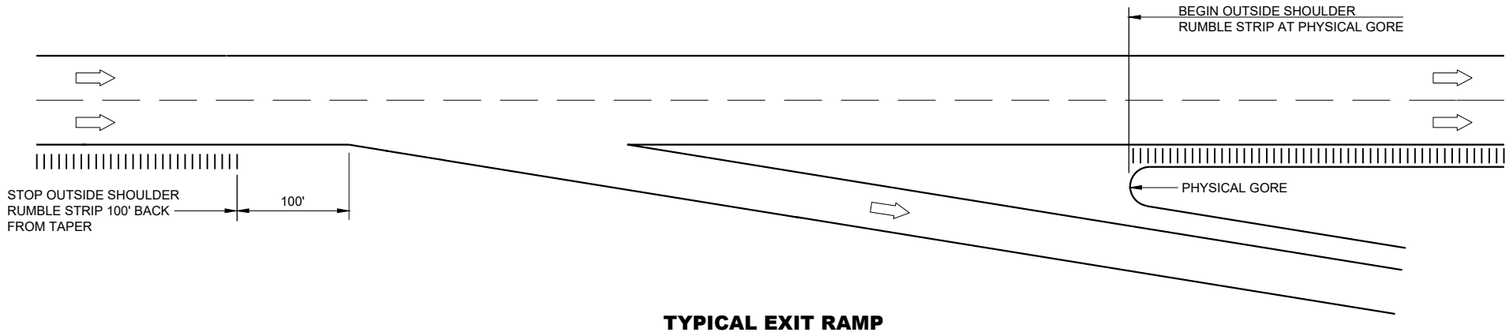
TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A05-06a



TYPICAL EXIT RAMP

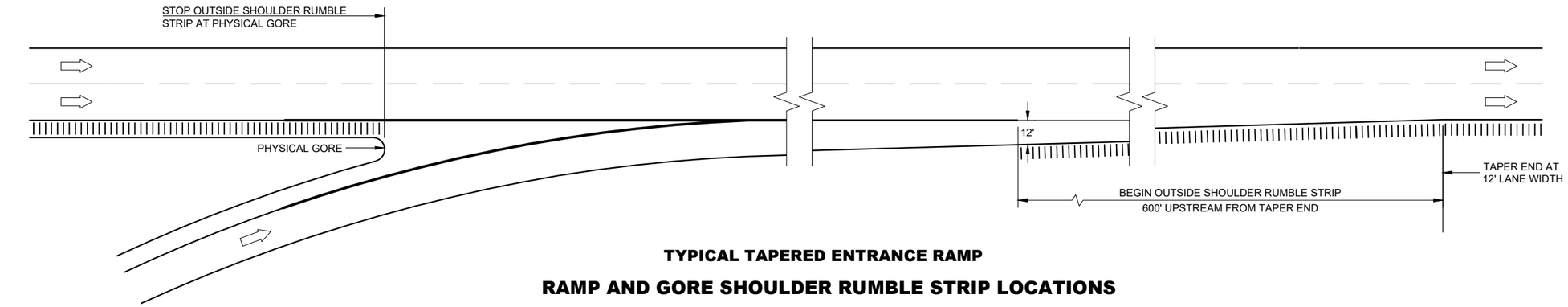
GENERAL NOTES

NO RUMBLE STRIP ON EXIT, DIRECTIONAL OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

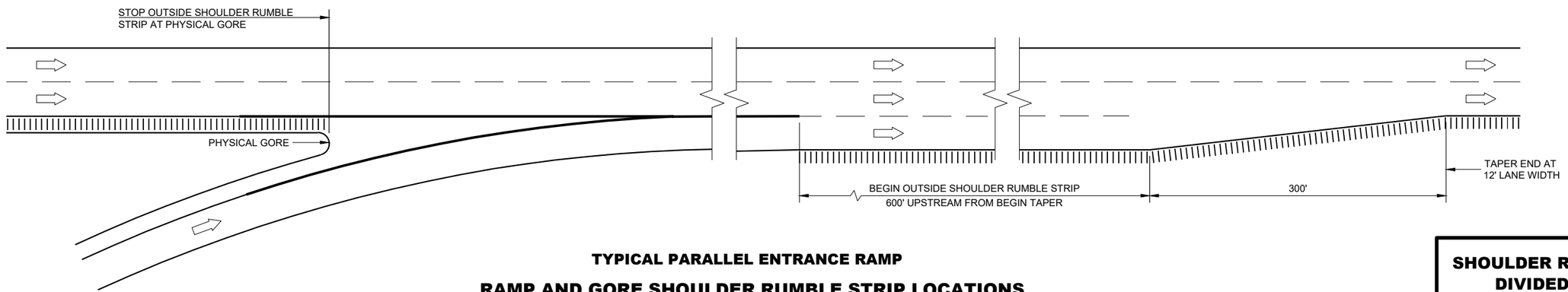
LEGEND

DIRECTION OF TRAFFIC



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

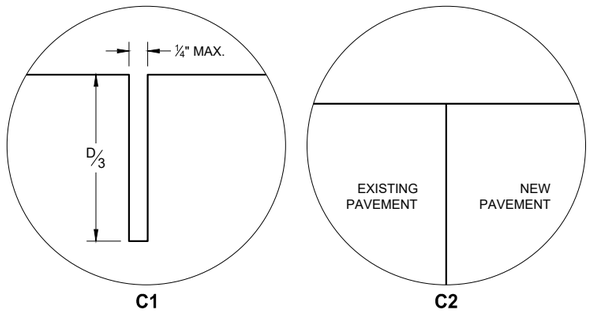
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

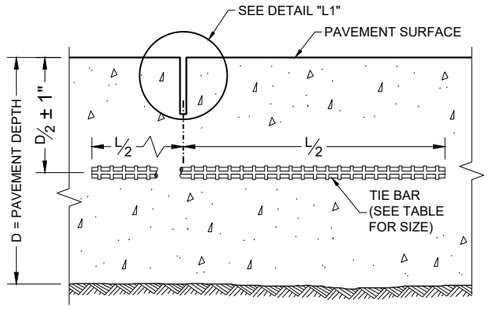
/S/ Rodney Taylor
ROADWAY DESIGN STANDARDS
UNIT SUPERVISOR

FHWA

6
SDD 13A05-06b

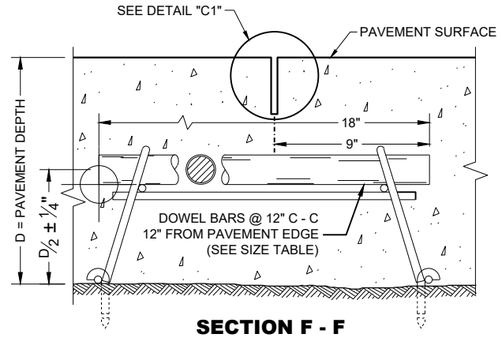


TRANSVERSE JOINTS



SECTION C - C

SAWED JOINT



SECTION F - F

CONTRACTION JOINT

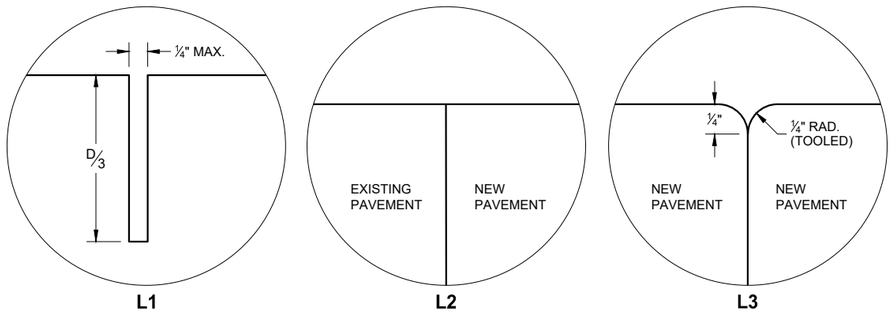
GENERAL NOTES

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

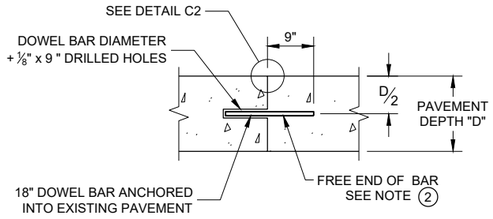
PROVIDE A MIMIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

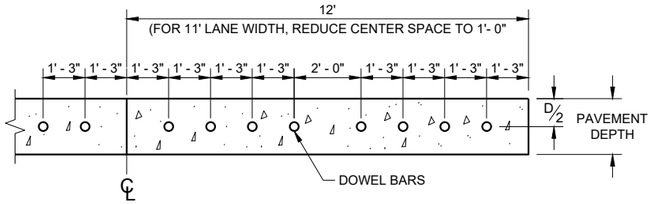
(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



LONGITUDINAL JOINTS

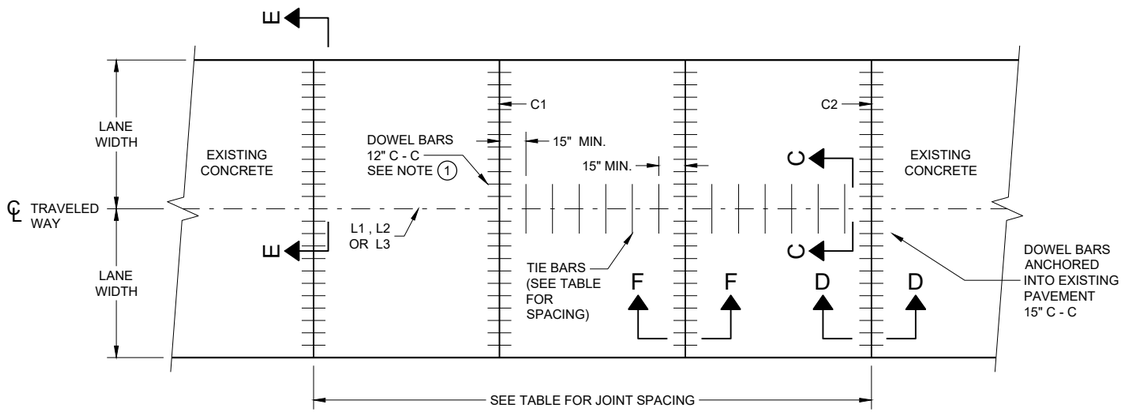


SECTION D - D



SECTION E - E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS

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	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'

CONCRETE BASE

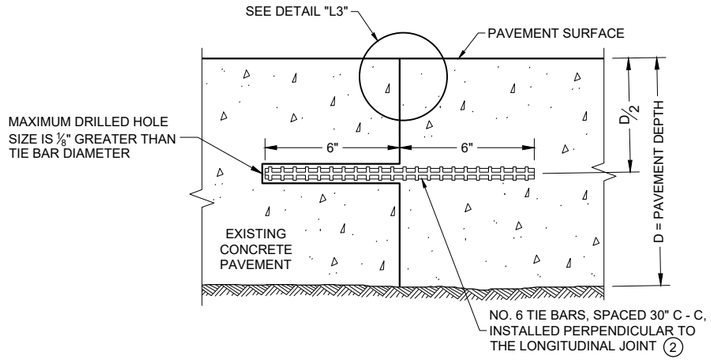
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C15 - 08a

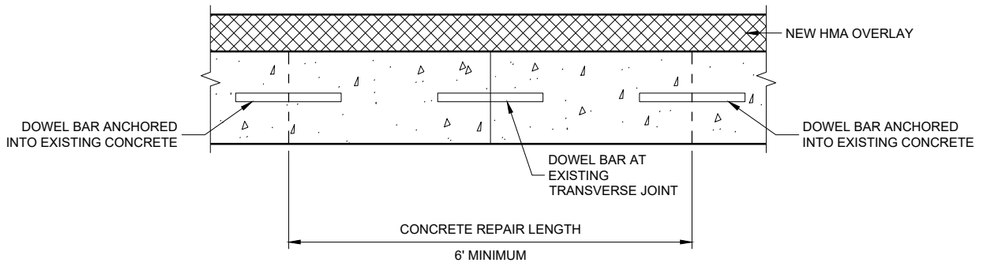
GENERAL NOTES

1. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.
2. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
3. PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

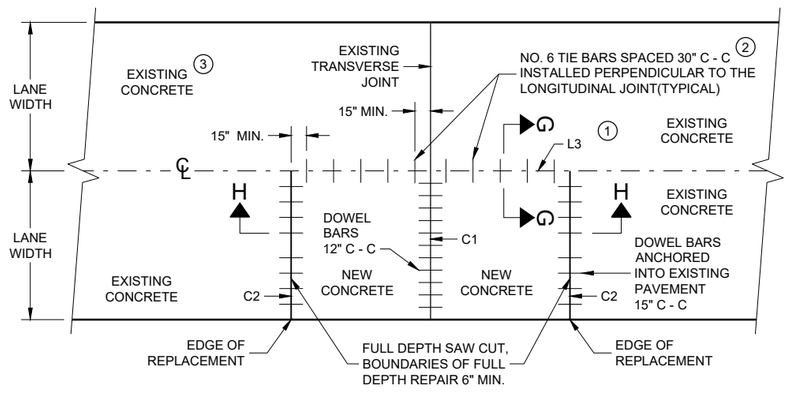


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H - H



PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

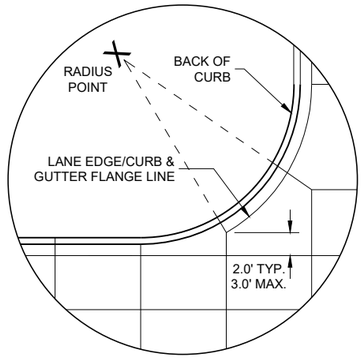
APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

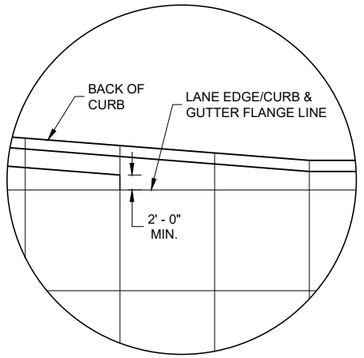
FHWA

6

SDD 13C15 - 08b



DETAIL "A"



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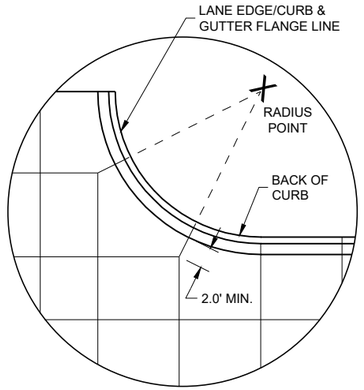

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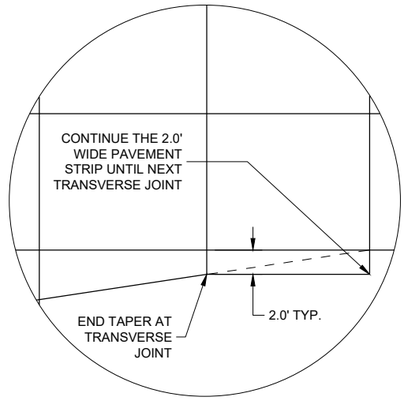


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

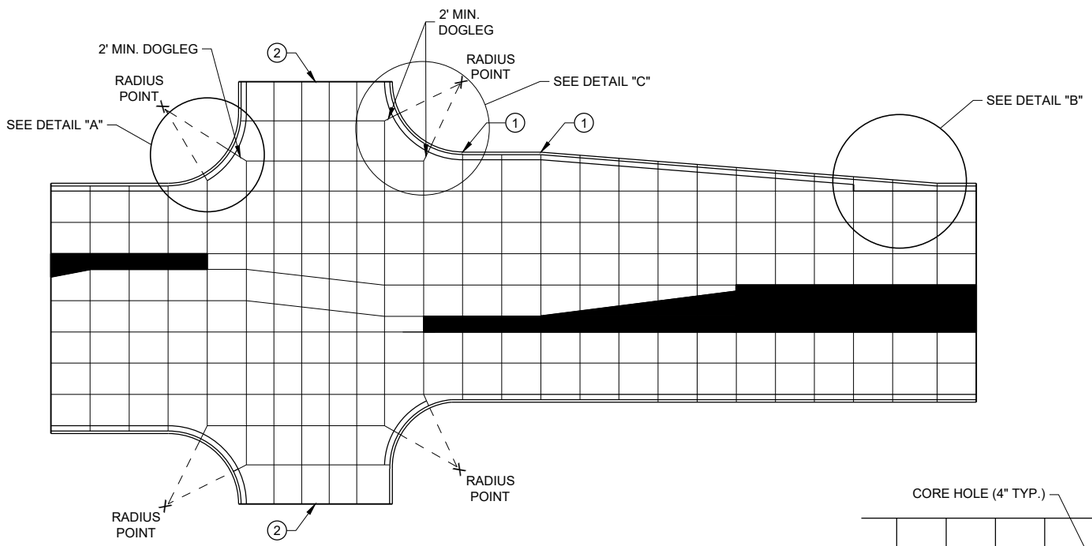
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.

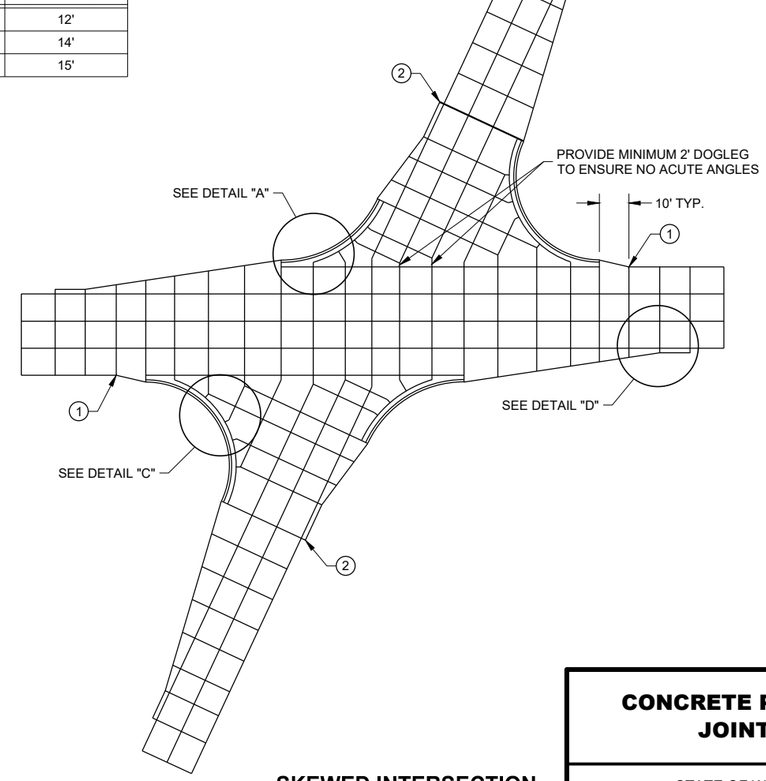
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



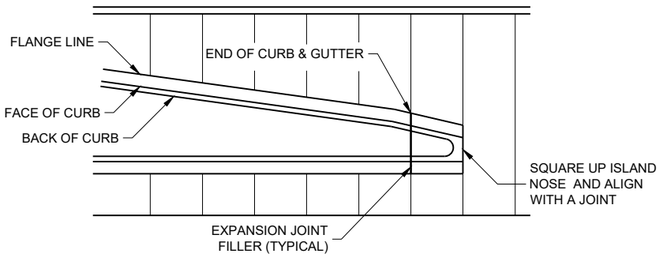
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

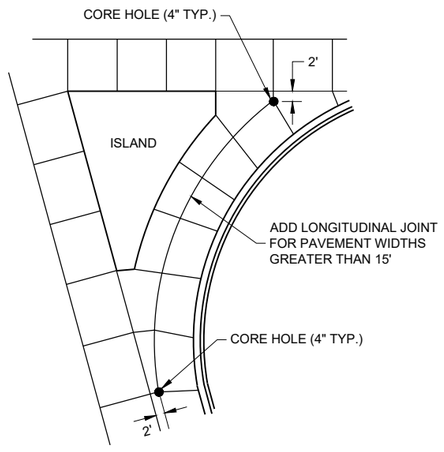
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

6

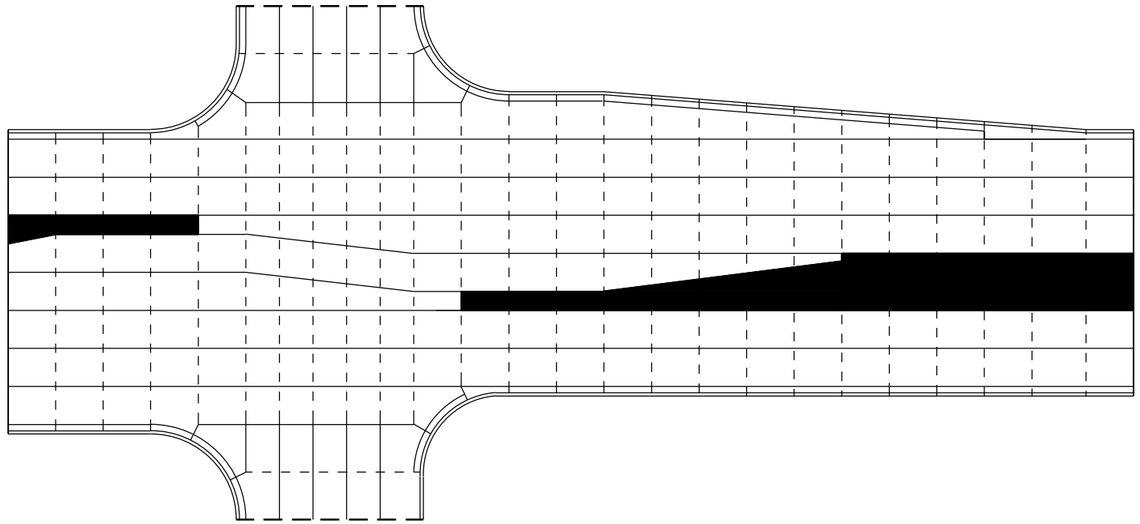
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

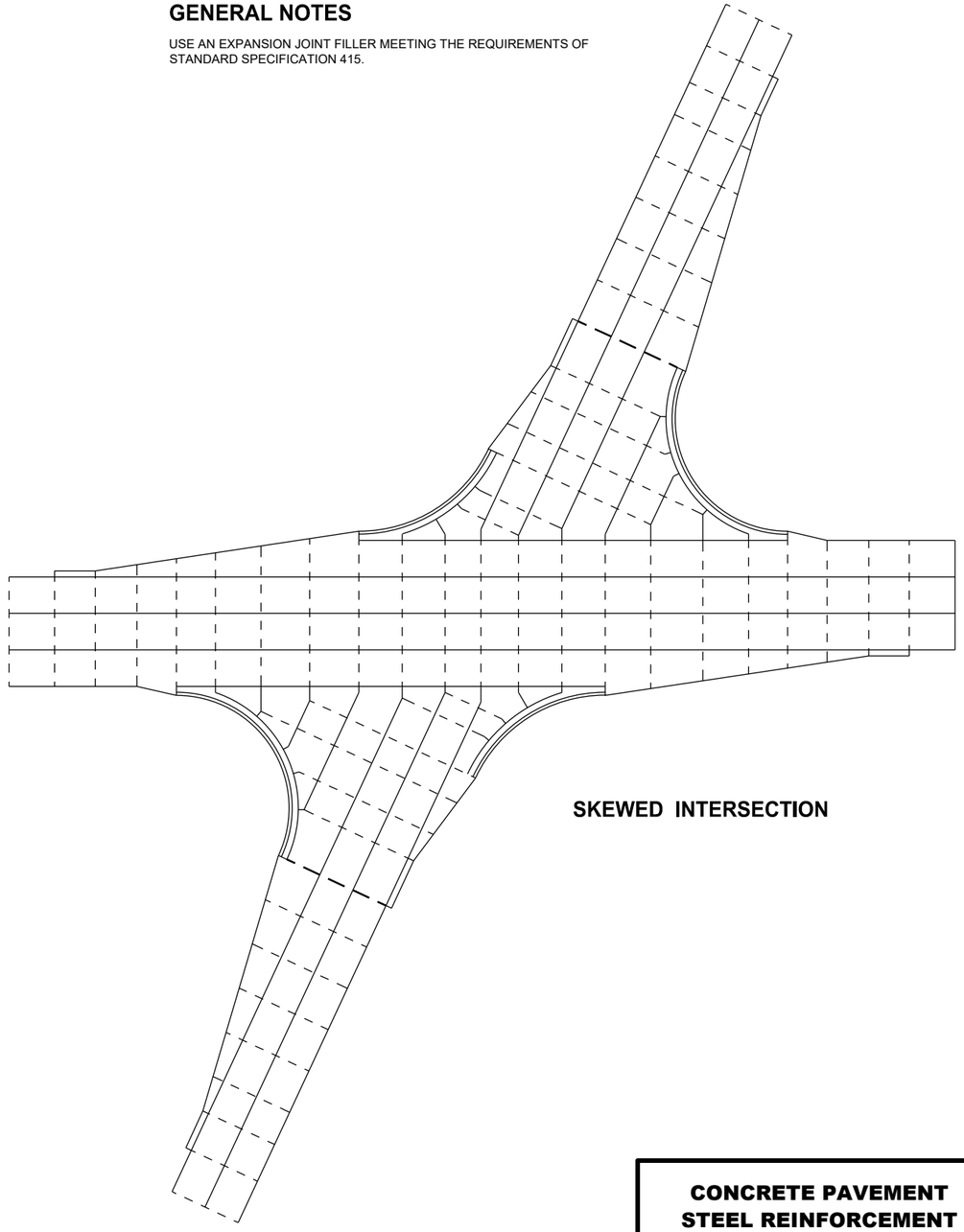
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

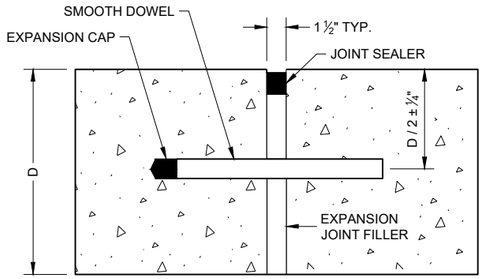
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

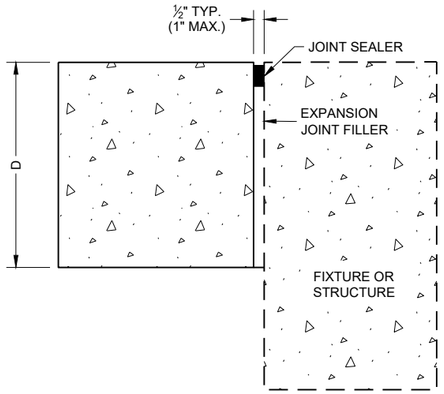
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

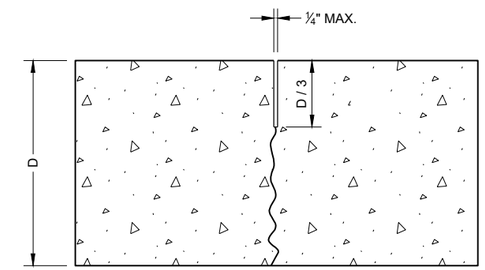
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

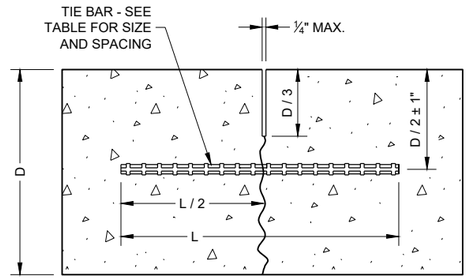
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

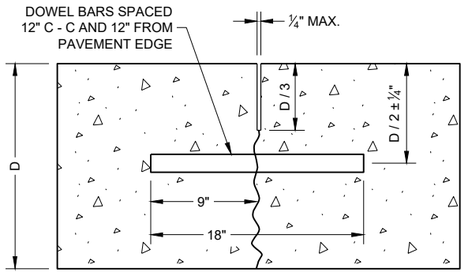
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

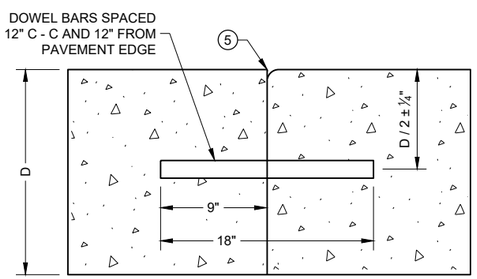


TIED LONGITUDINAL

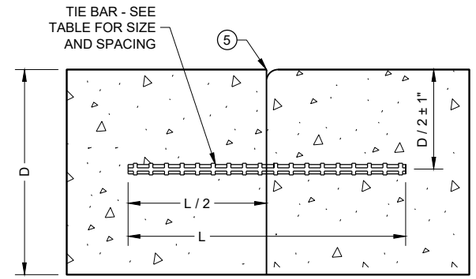


DOWELED TRANSVERSE

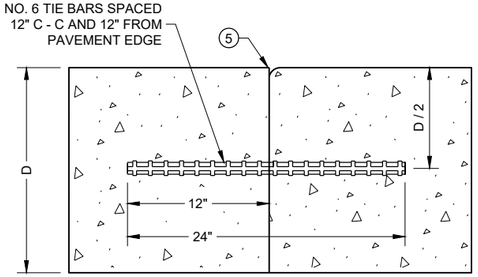
CONTRACTION JOINTS (2)



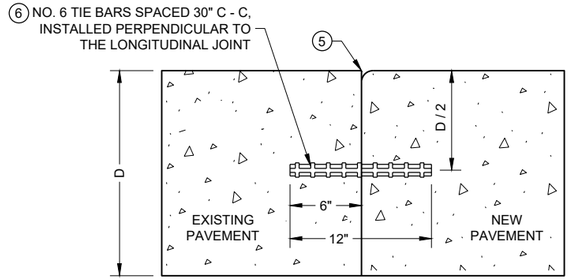
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

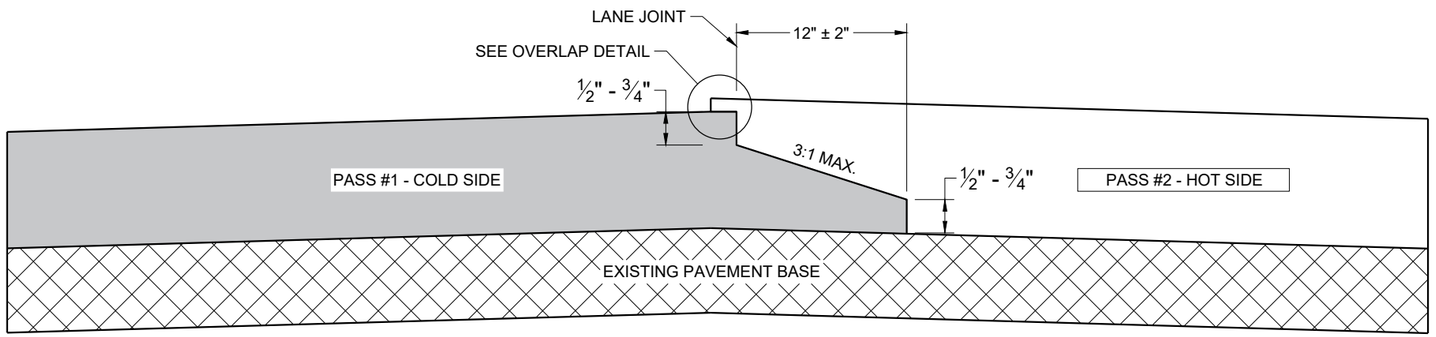
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

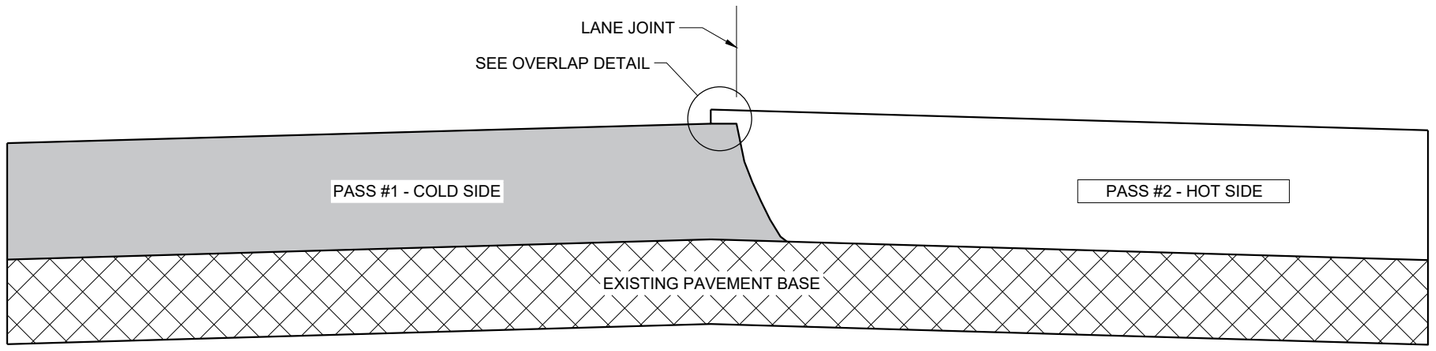
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13C18 - 08c

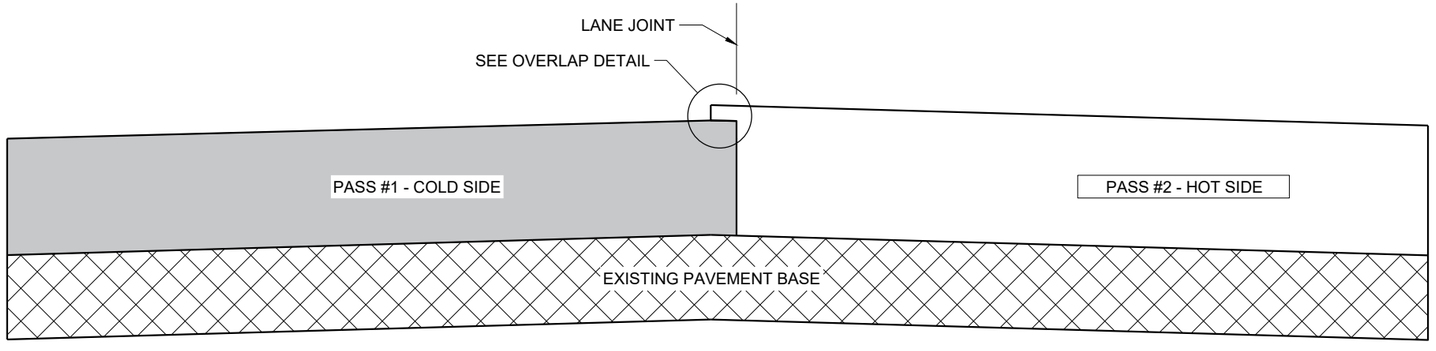
6



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

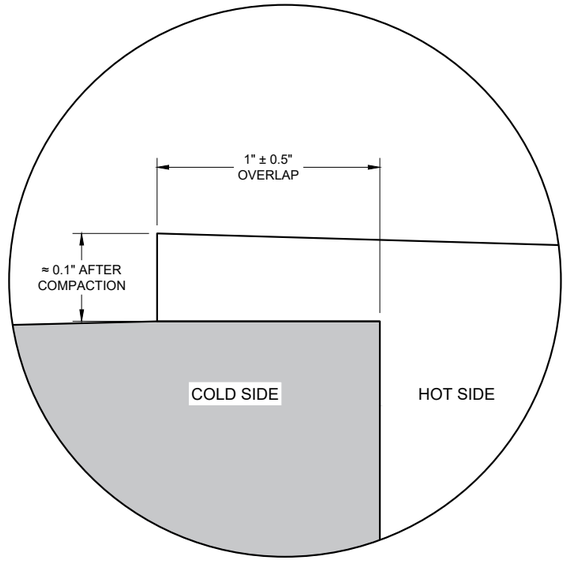
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

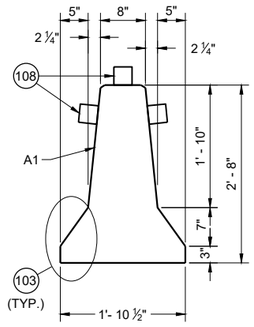
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

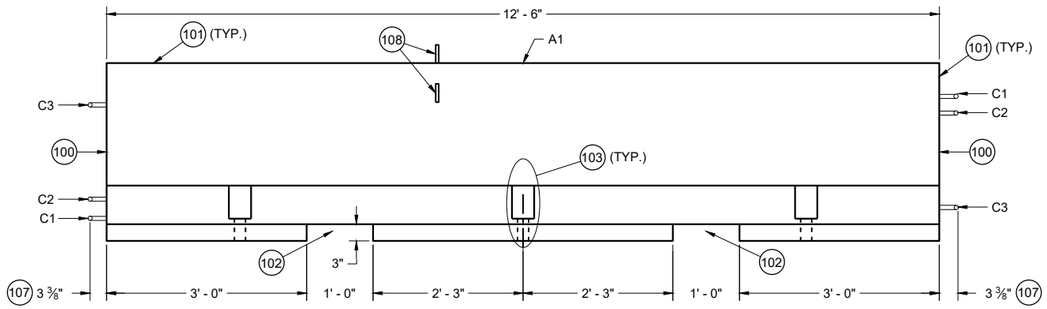
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



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

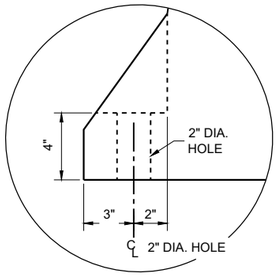
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

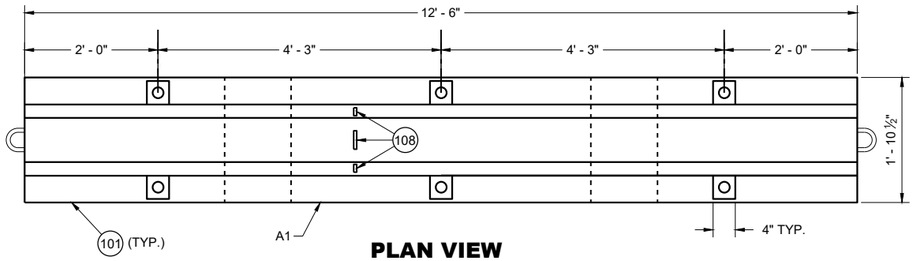
(106) 1" MIN. CLEAR COVER

(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.

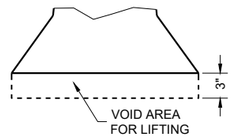


ANCHOR BLOCK DETAIL

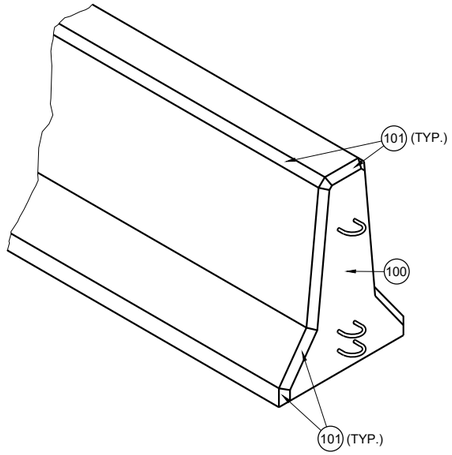


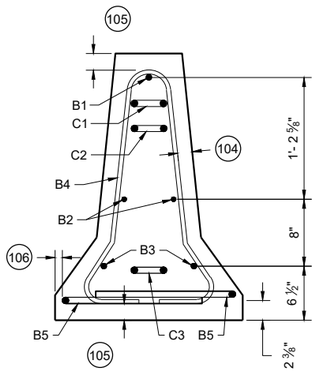
PLAN VIEW

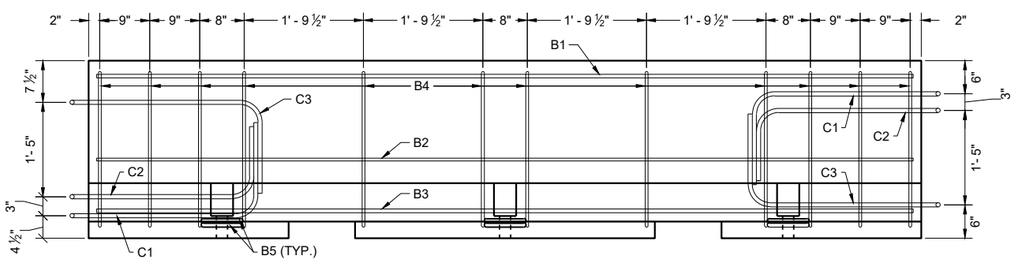
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







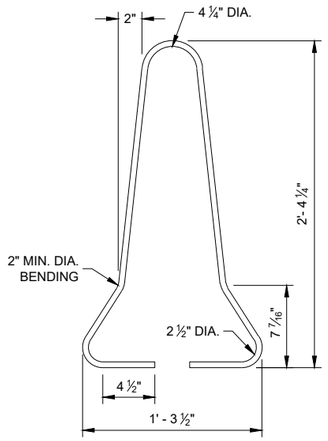
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

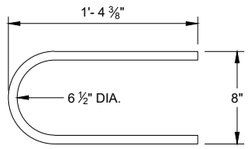
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

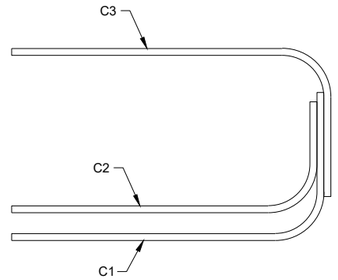
SDD 14B07-16a



B4 BAR DETAIL

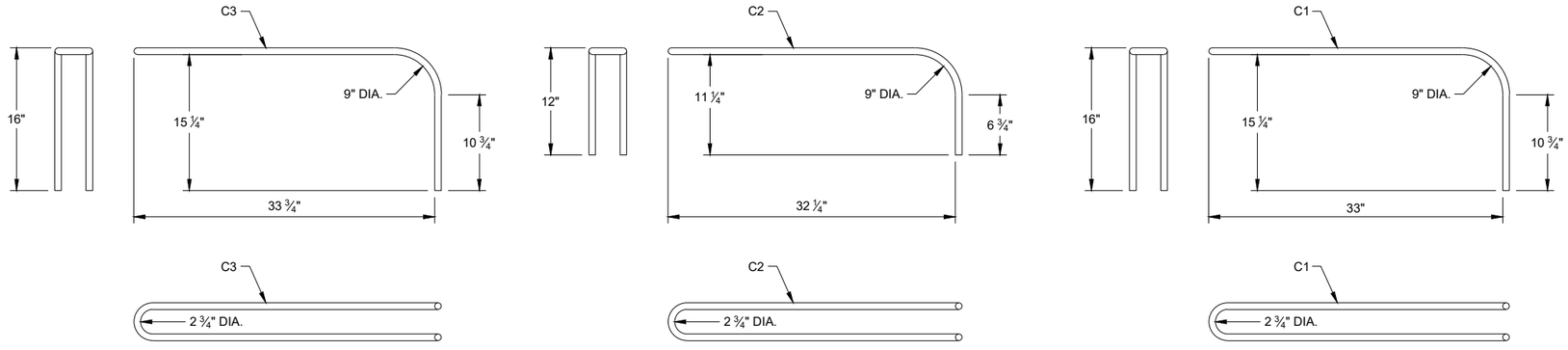


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY

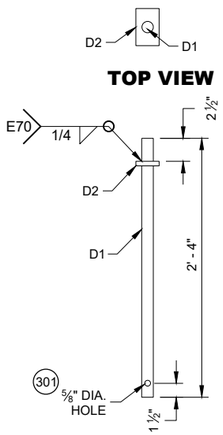


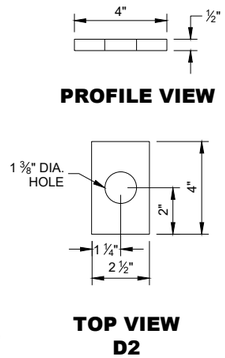
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

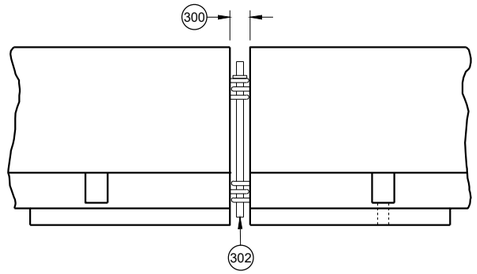
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16b





CONNECTOR PIN ASSEMBLY



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.

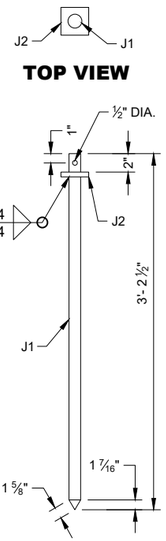
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

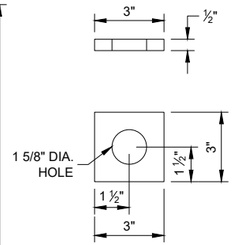
306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

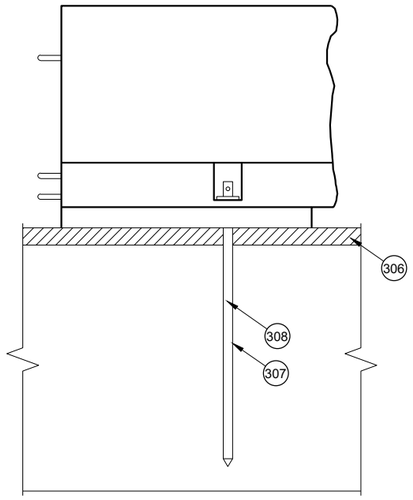
308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

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.



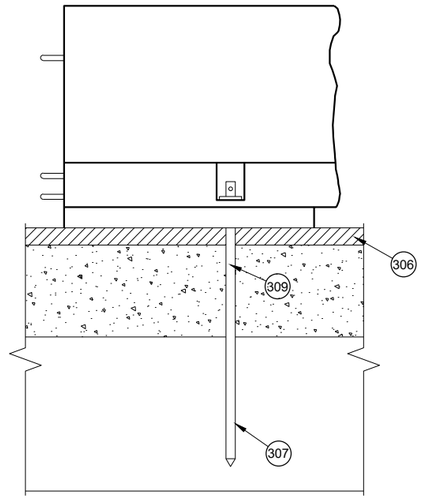


ASPHALT ANCHOR PIN ASSEMBLY



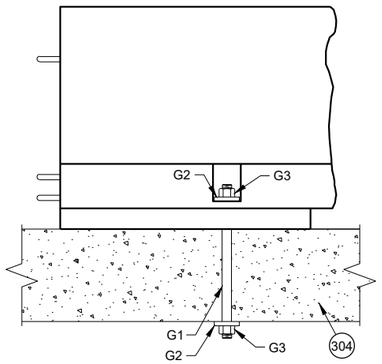
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



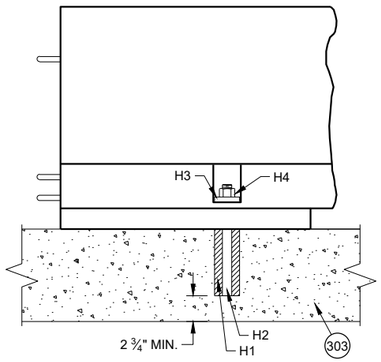
SIDE VIEW

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

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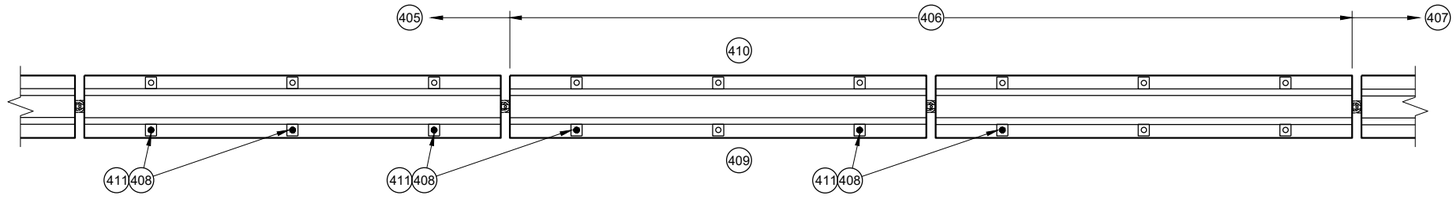
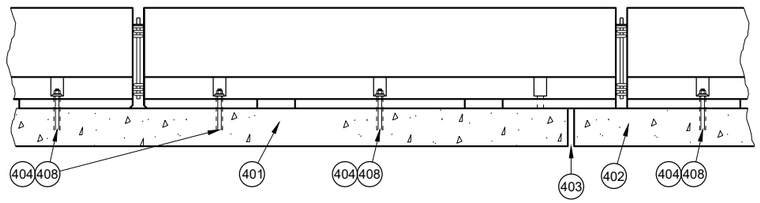


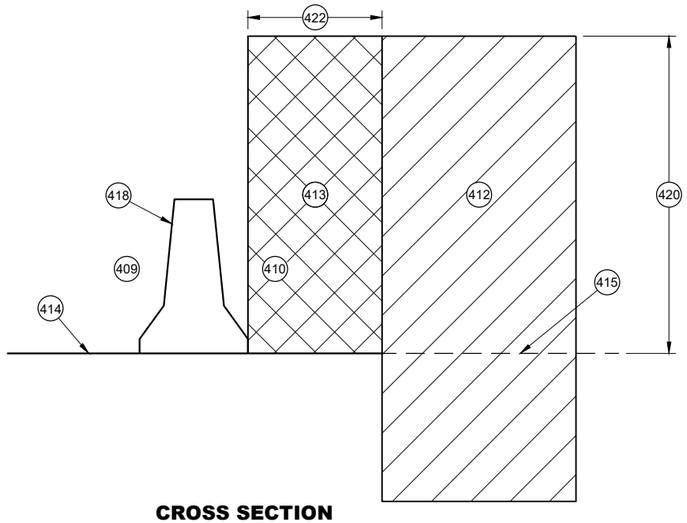
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



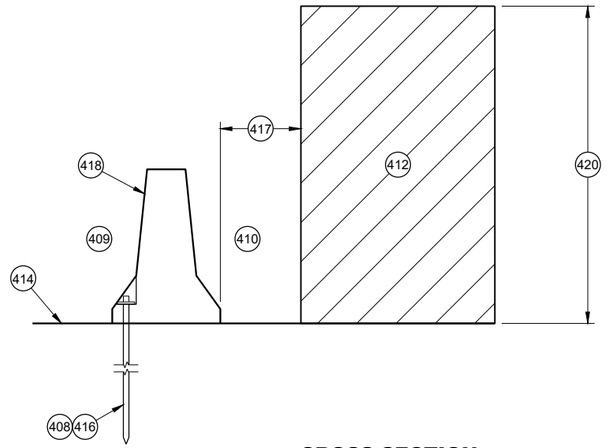
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



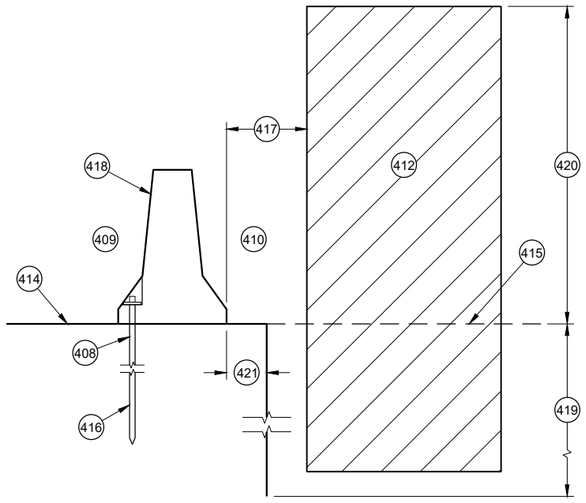
CROSS SECTION

FREE STANDING BARRIER



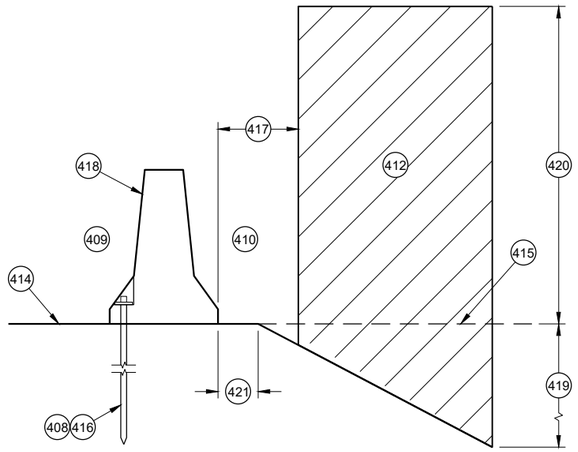
CROSS SECTION

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

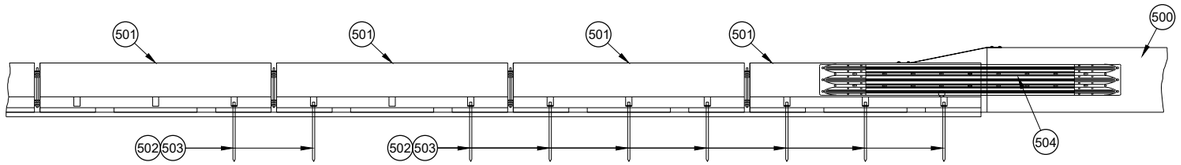
(516) CUT WOOD BLOCK TO FIT.

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

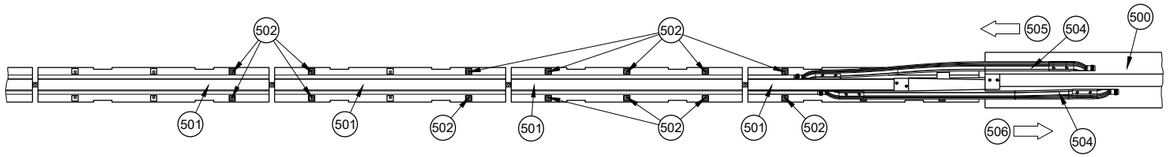
(518) CAP ASSEMBLY

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

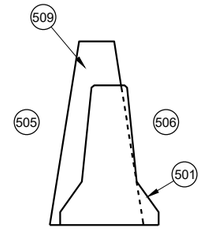
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



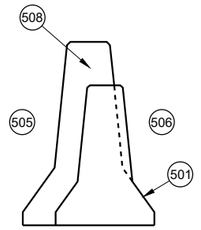
PROFILE VIEW



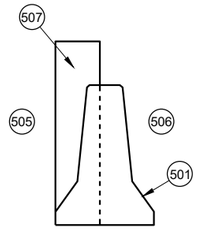
PLAN VIEW



CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE

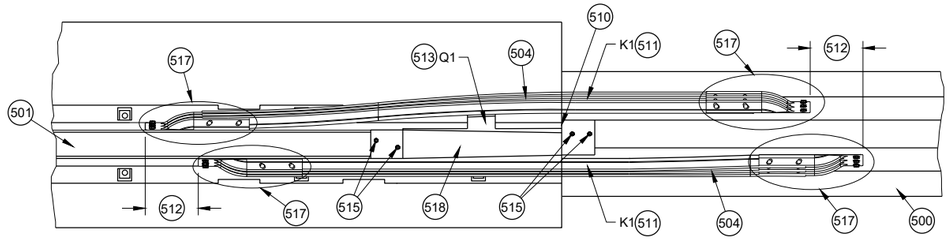


CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE

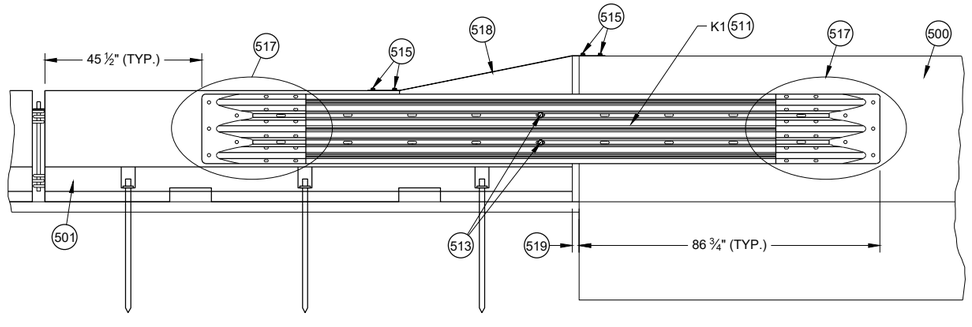


CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL

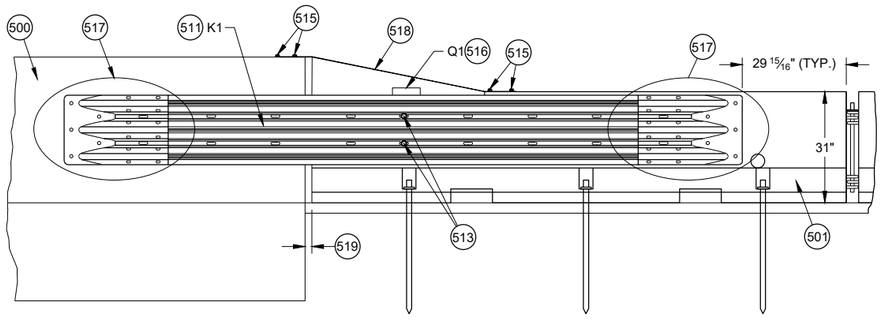
PLAN VIEW
TRANSITION TO RIGID BARRIER



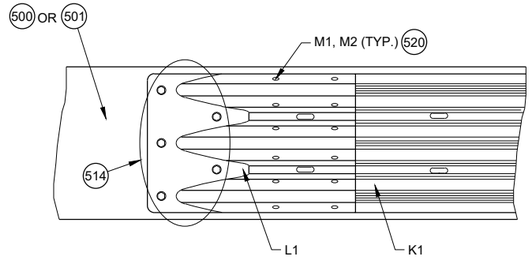
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER

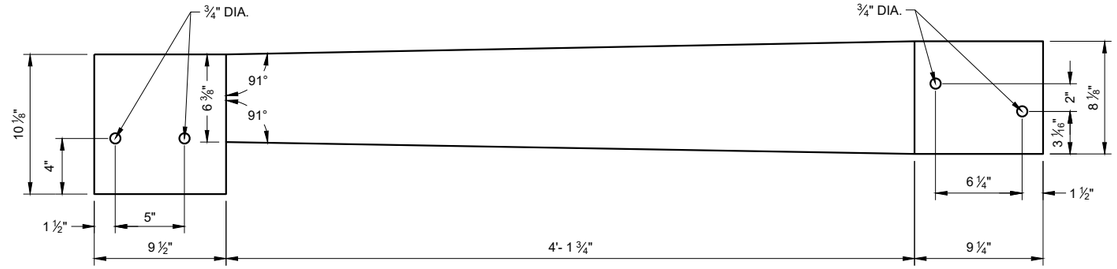


BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



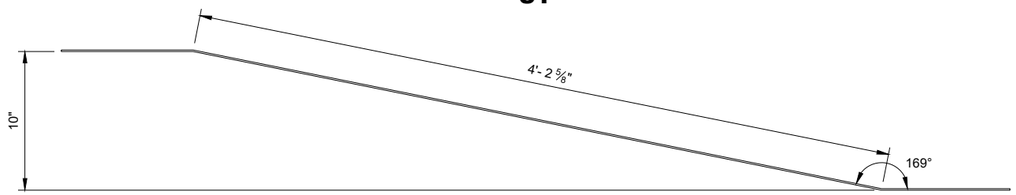
(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



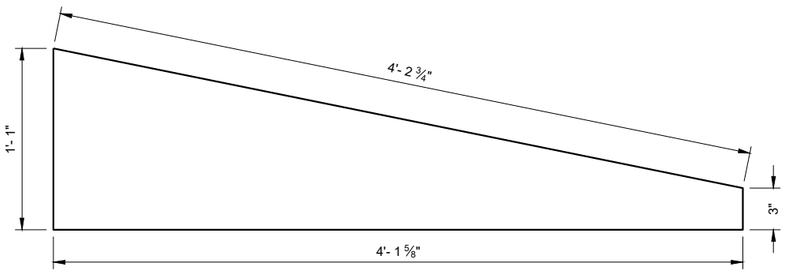
TOP VIEW

S1



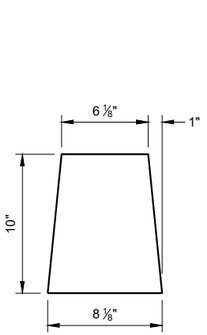
ELEVATION VIEW

S1

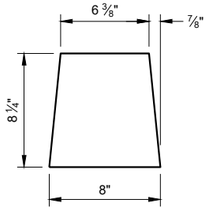


SIDE VIEW

S3



S2



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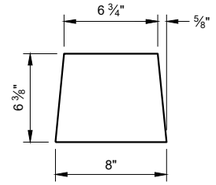

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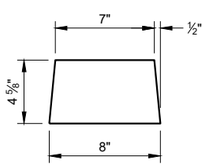
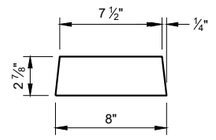


S6



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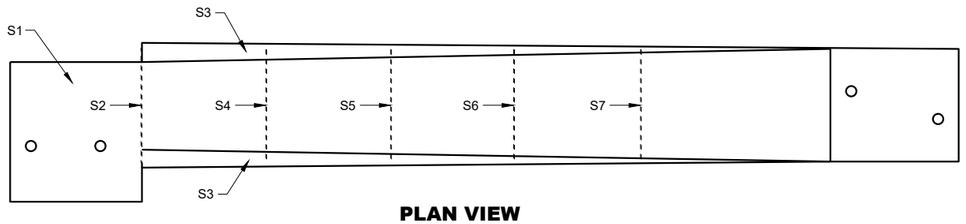
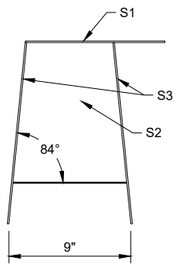
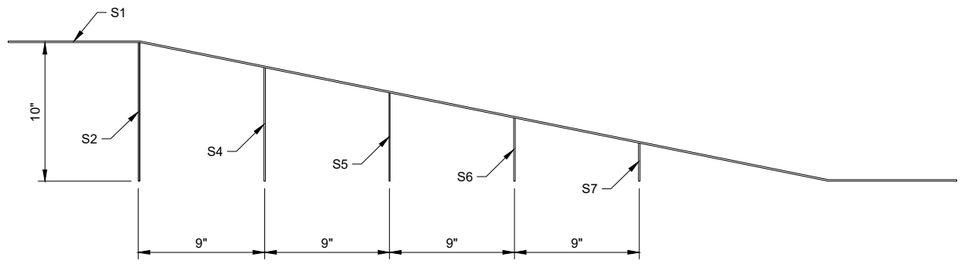


PLAN VIEW



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

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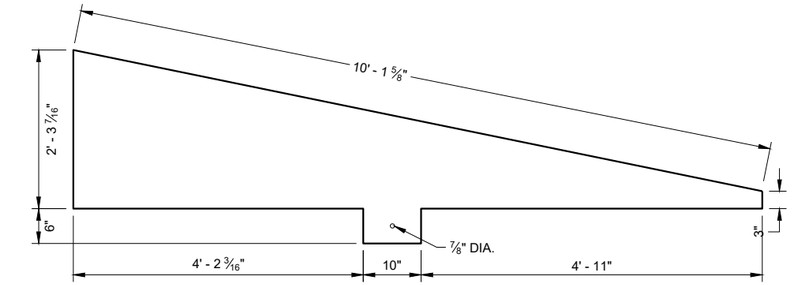
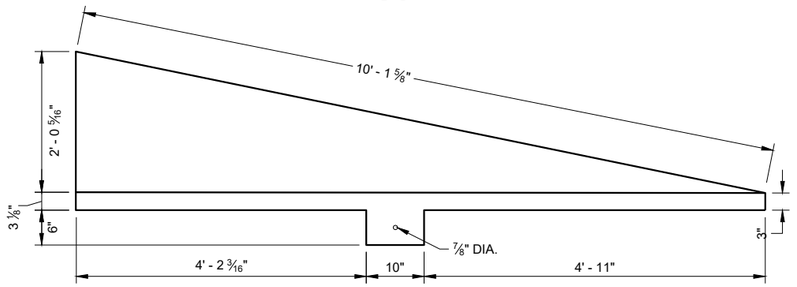
SDD 14B07-16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

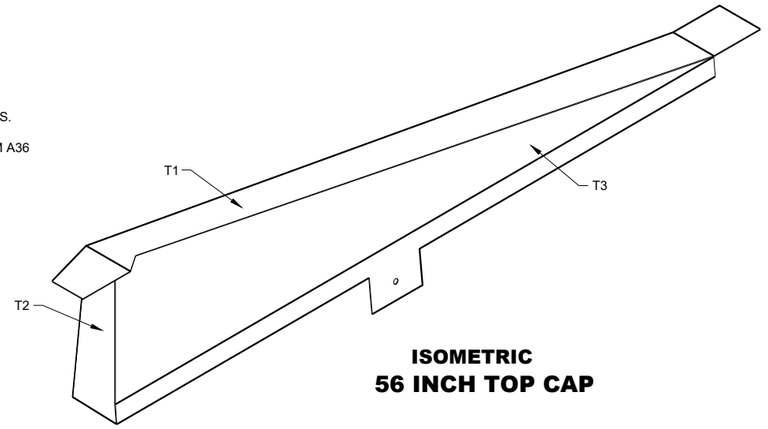
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

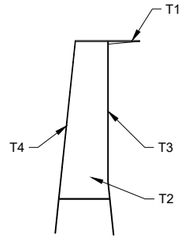
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

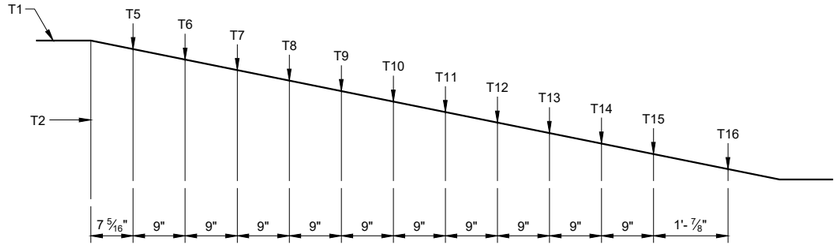
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



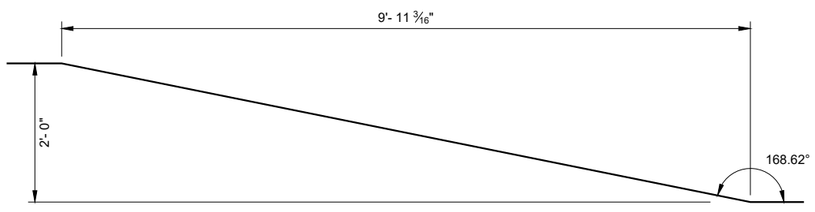
ISOMETRIC
56 INCH TOP CAP



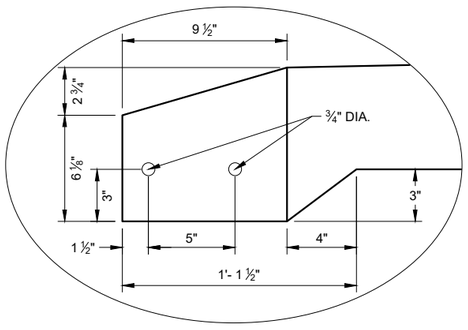
END VIEW
56 INCH TOP CAP



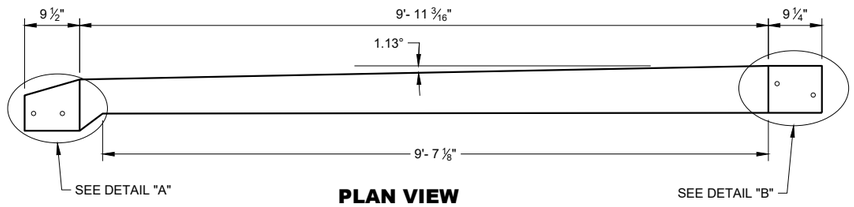
SIDE VIEW (700)
56 INCH TOP CAP



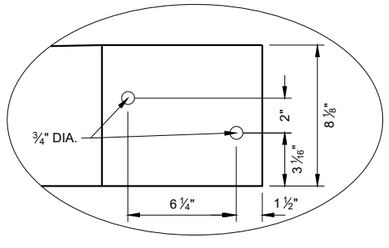
SIDE VIEW
TOP PLATE T1



DETAIL "A"



PLAN VIEW
TOP PLATE T1



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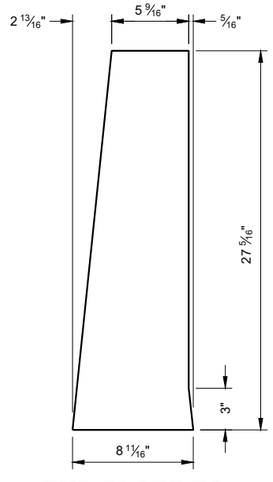
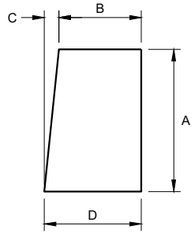


END PLATE T2



GUSSET PLATES
T5 - T16

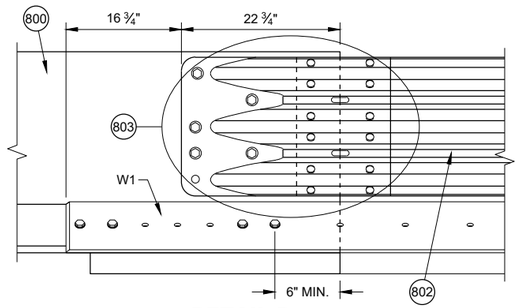
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"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

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

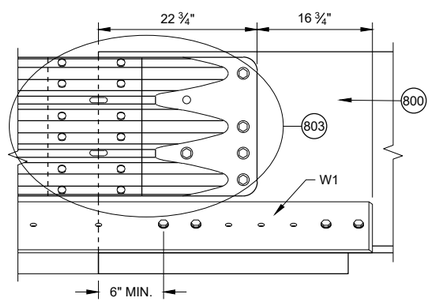
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16g



DETAIL D



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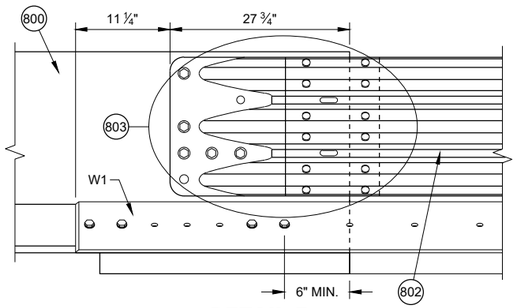
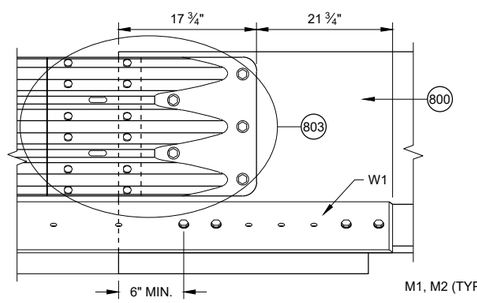
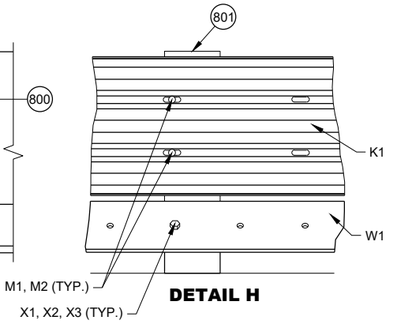


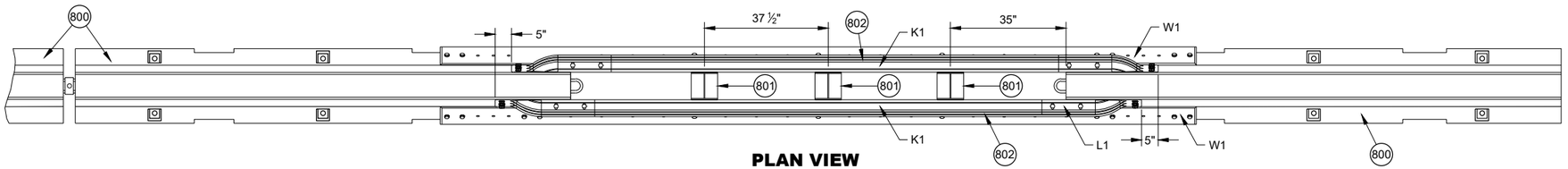
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

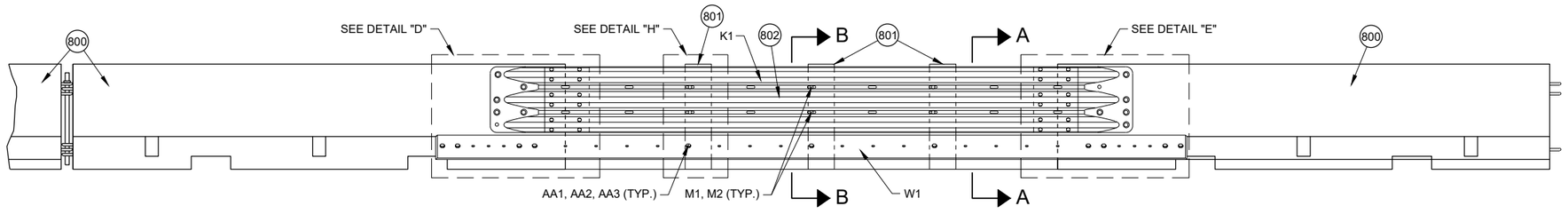
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

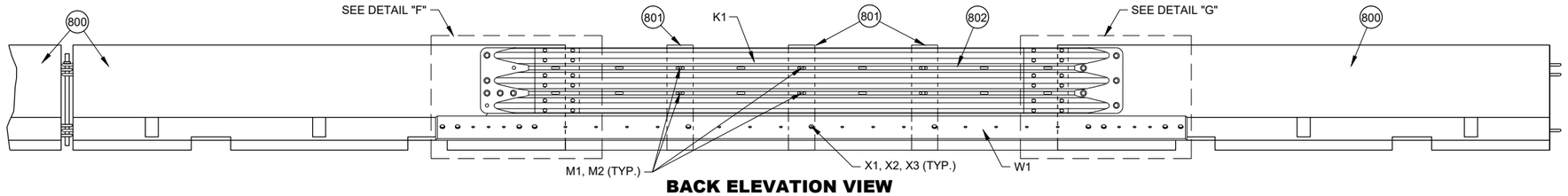
(801) GAP STIFFENER ASSEMBLY

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

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



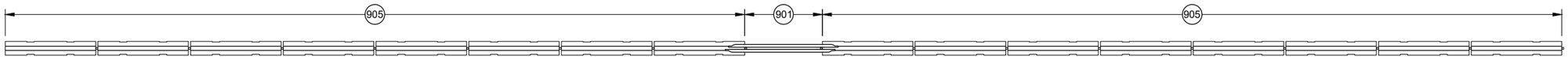
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

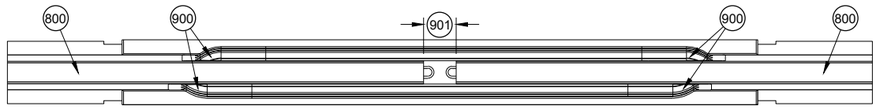
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



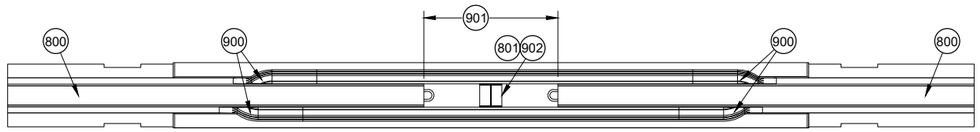
PLAN VIEW
GAP WITHIN SPACING



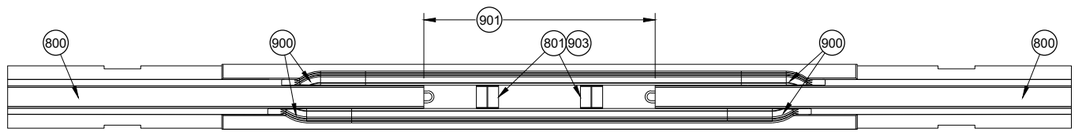
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

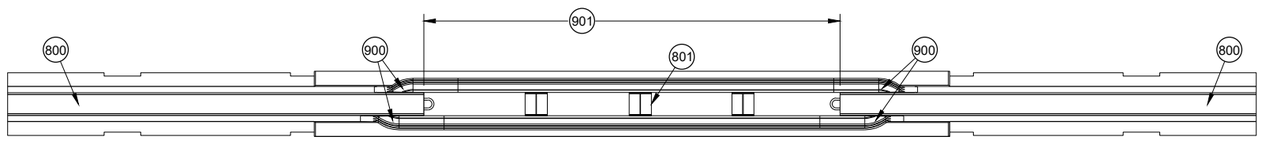
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING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



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



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

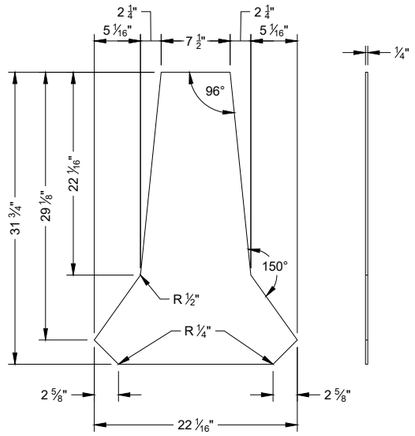


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

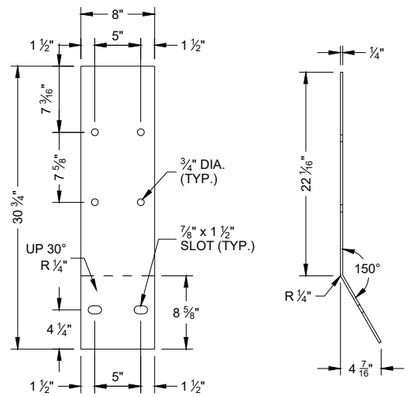
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16i



PROFILE VIEW SIDE VIEW

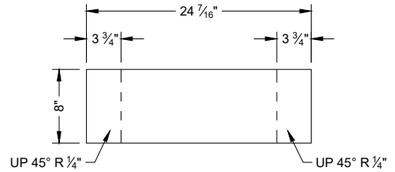
STIFFENER ASSEMBLY CENTER PANEL U1



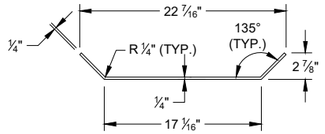
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

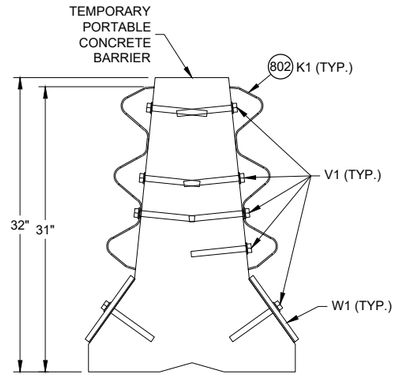


FLAT PATTERN

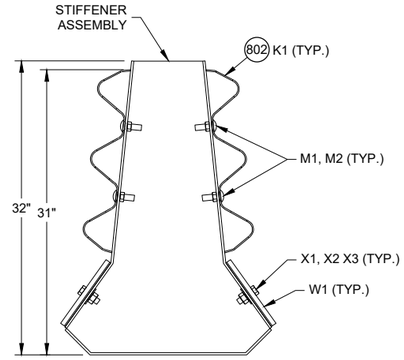


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

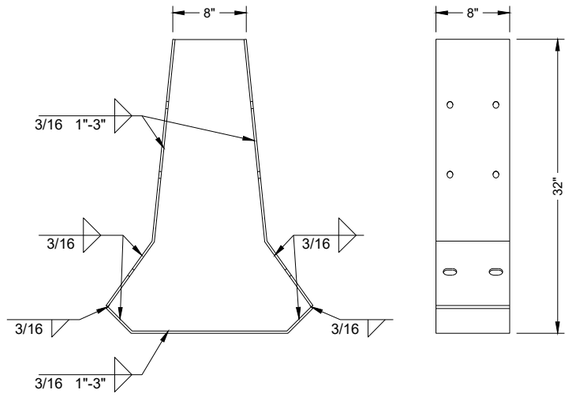


SECTION A - A



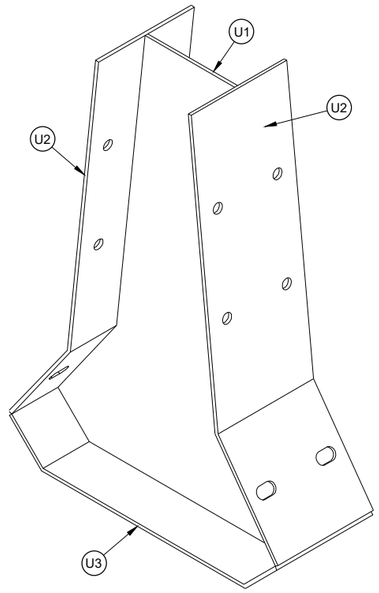
SECTION B - B

PLAN VIEW



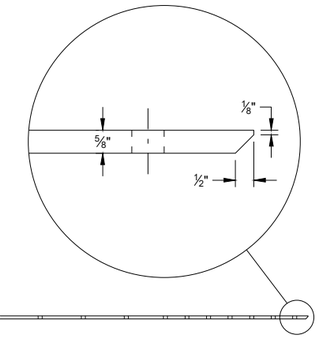
PROFILE VIEW

SIDE VIEW

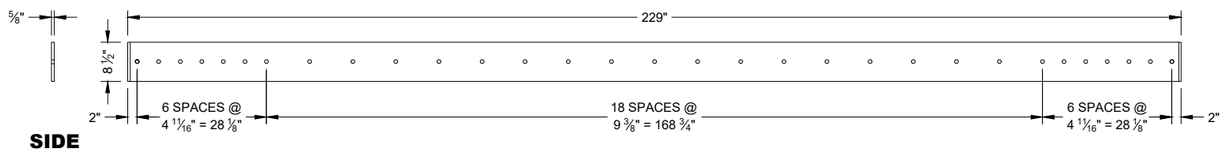


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

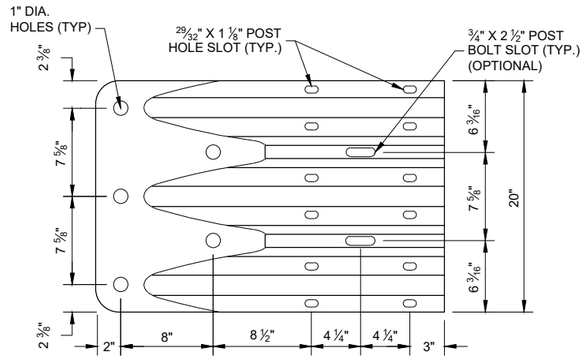
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

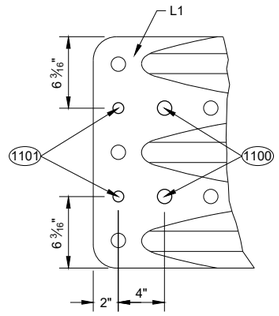
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

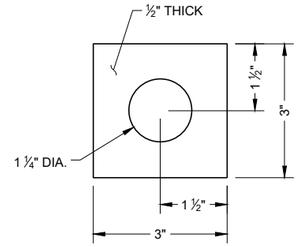


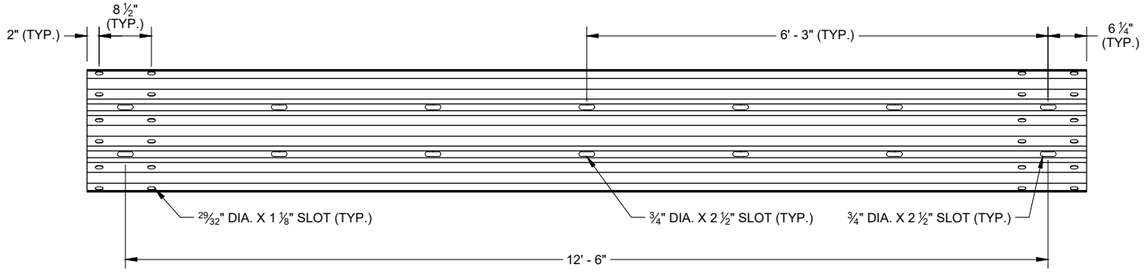
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

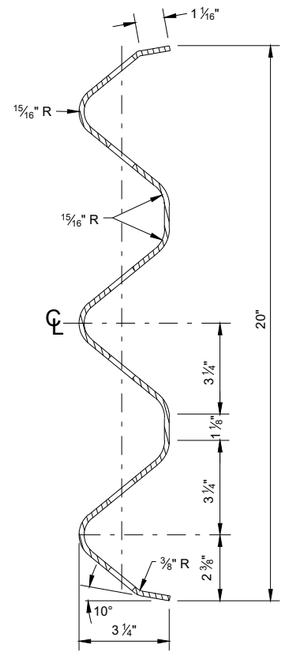
(1100) 1" DIA. HOLE

(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



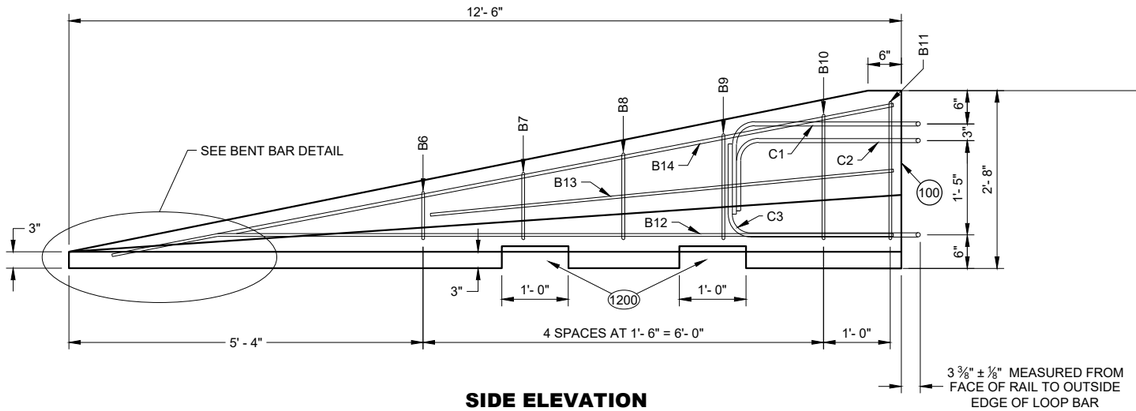
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

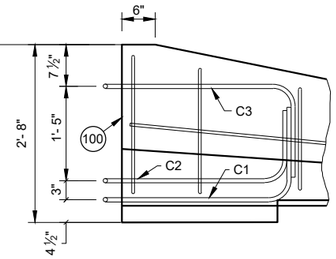
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16k



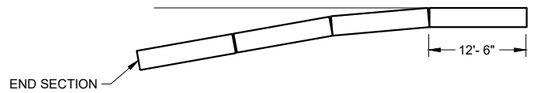
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

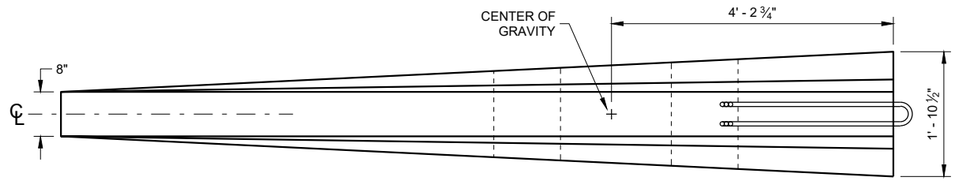
GENERAL NOTES

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

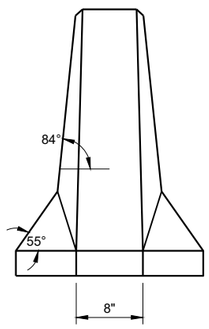


FLARE AT BARRIER END

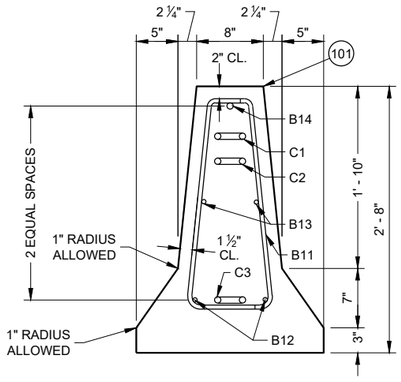
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



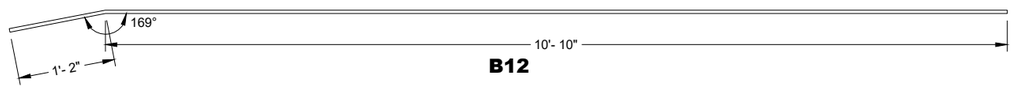
PLAN VIEW



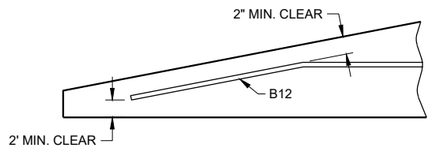
FRONT ELEVATION



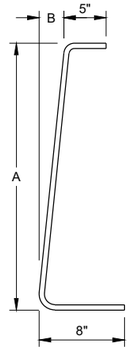
END SECTION



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

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16I

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"

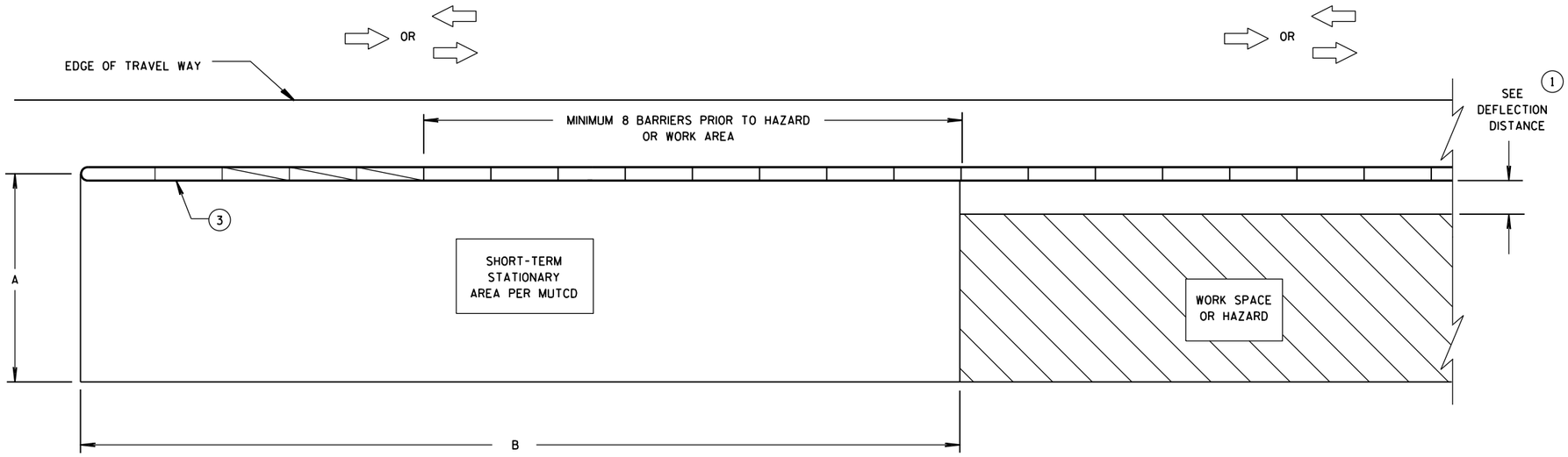
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B07-16n



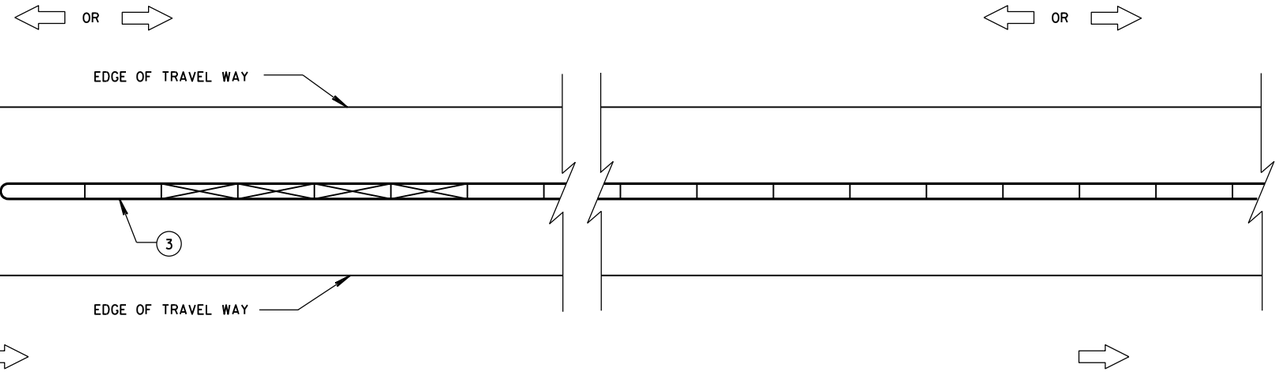
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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.

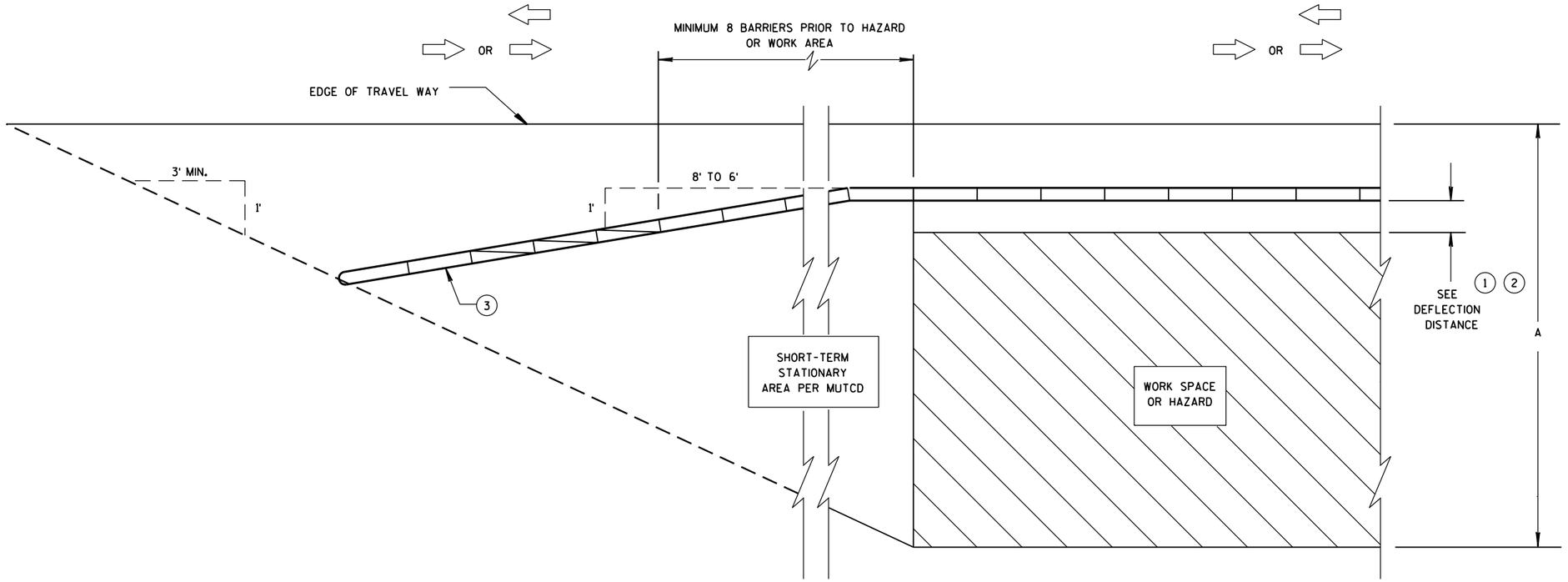
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(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.

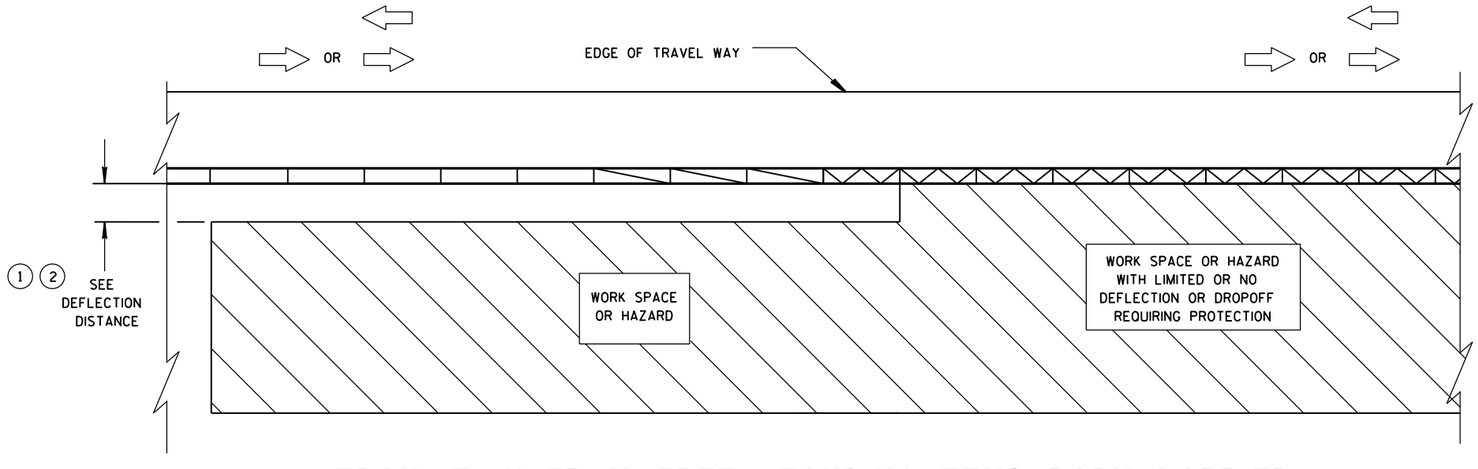
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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

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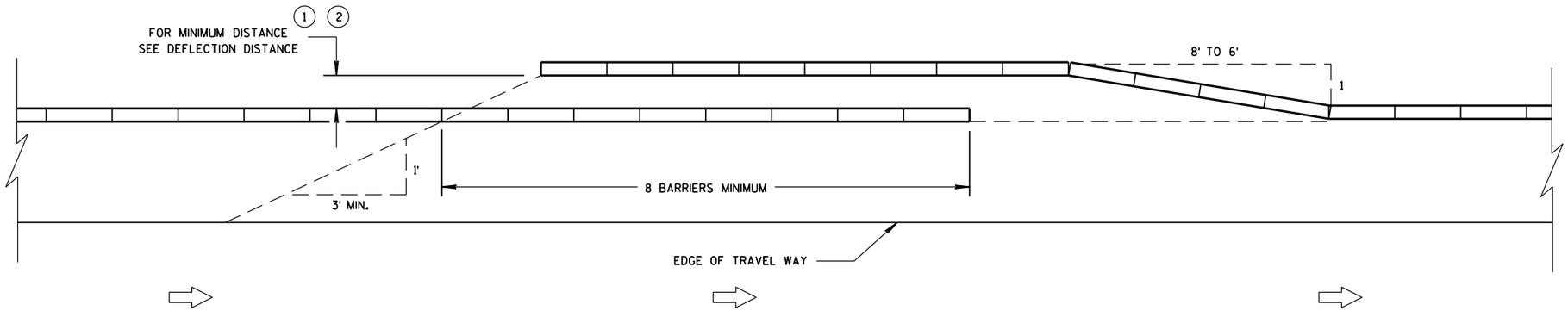
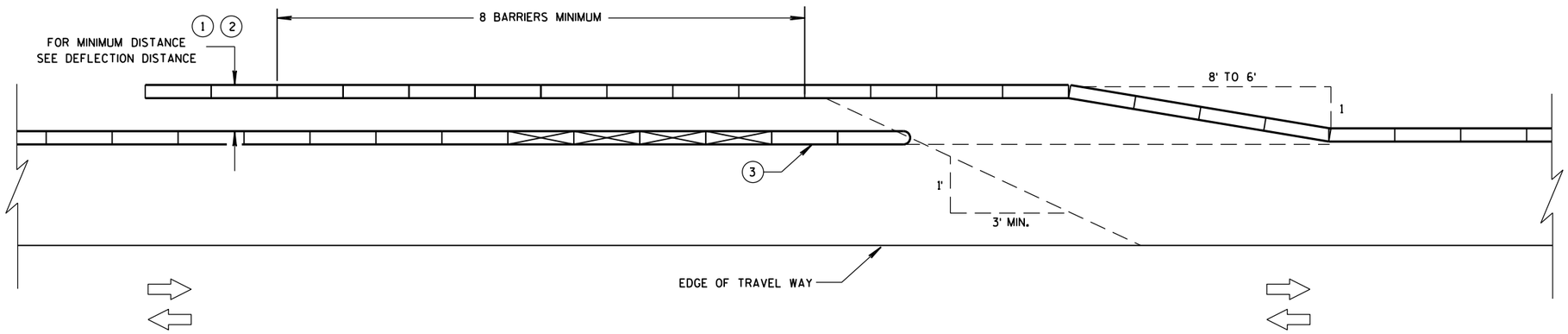
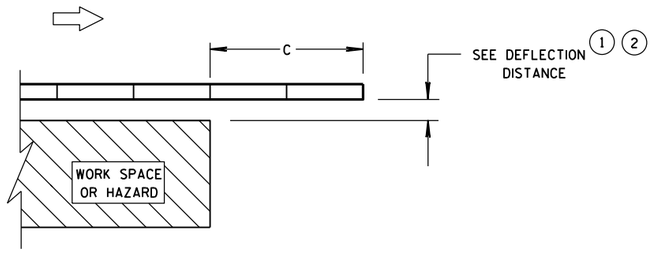
S.D.D. 14 B 8-2b



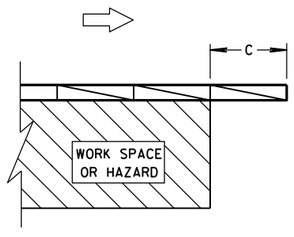
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



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
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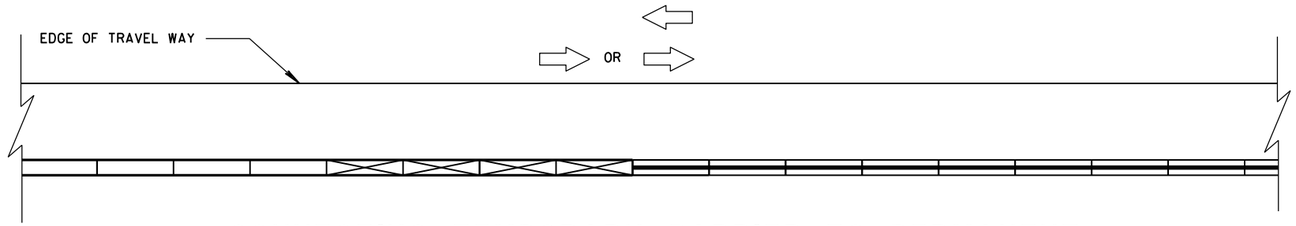
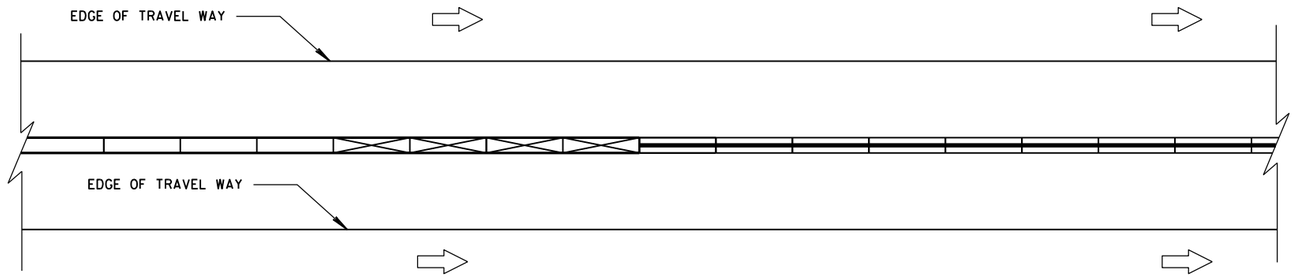


CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

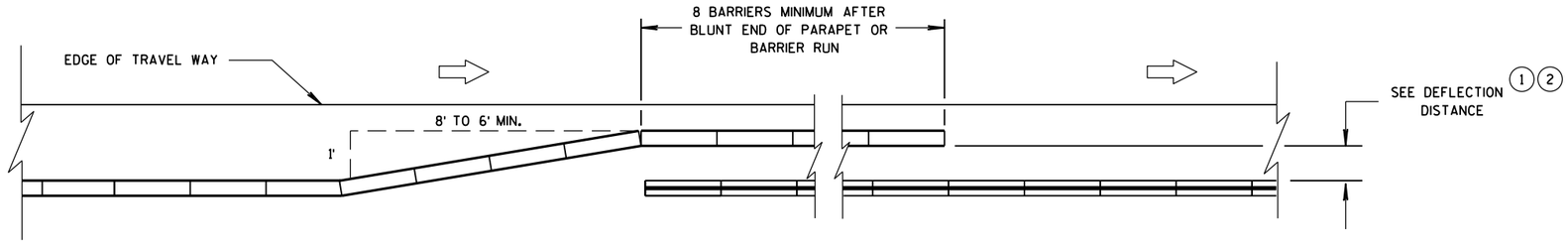
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

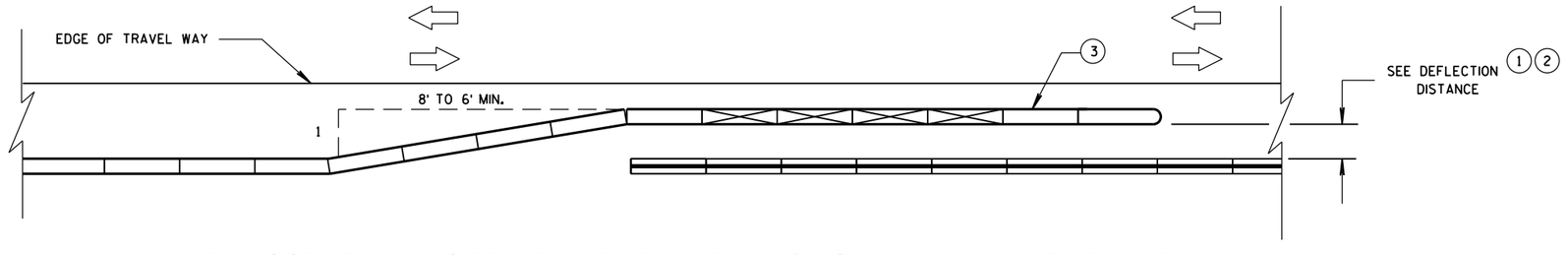
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

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
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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

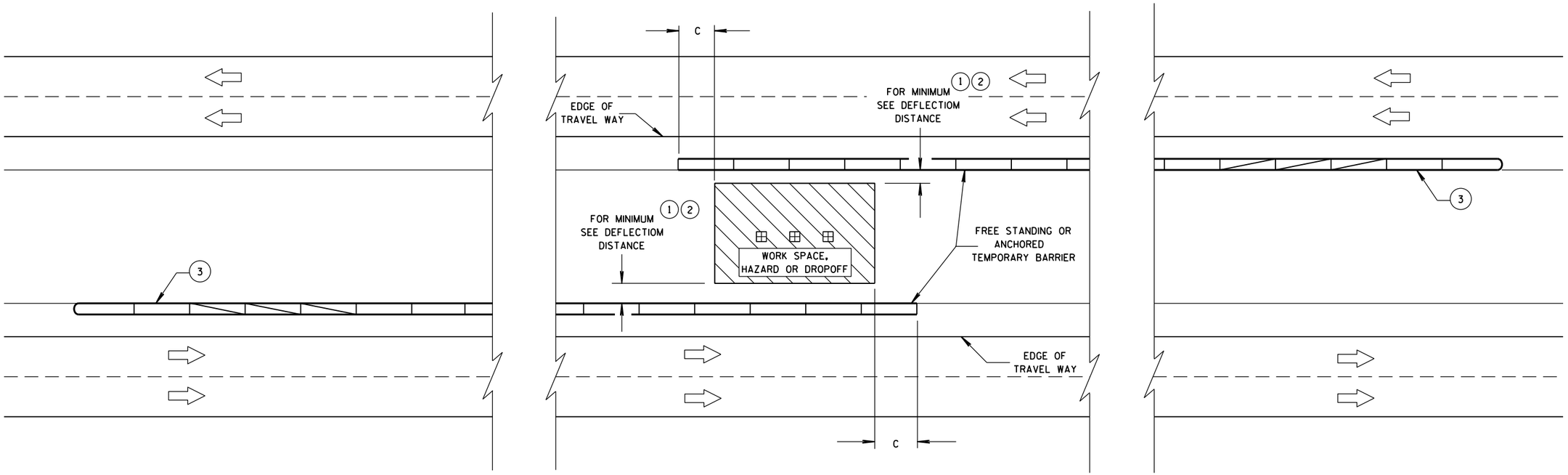
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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 DEVELOPMENT ENGINNER
FHWA

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GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

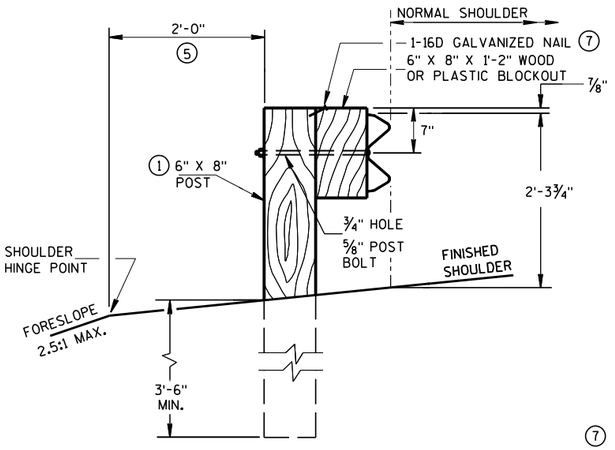
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

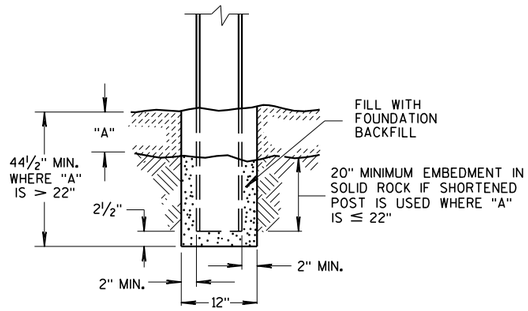
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

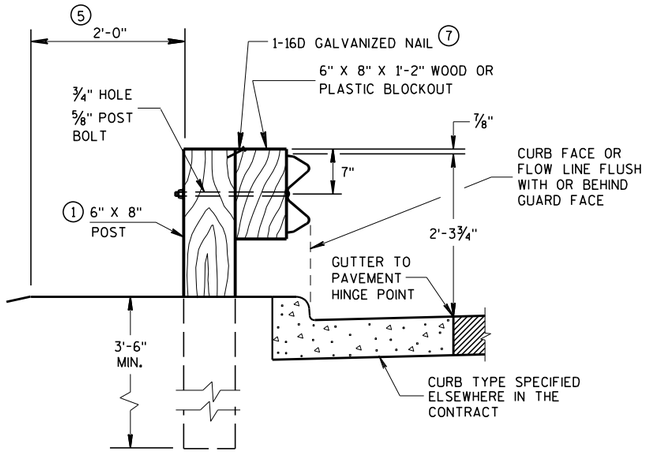
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



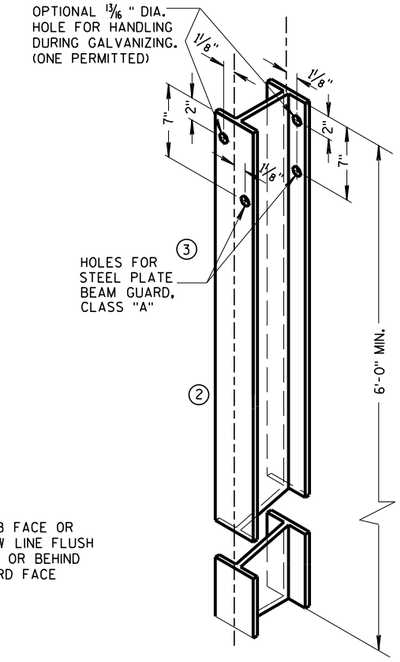
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

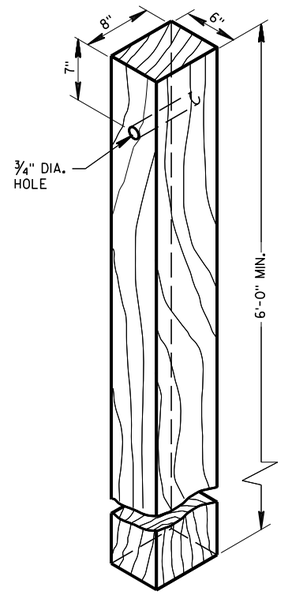


END VIEW
LOCATED ALONG A CURBED ROADWAY

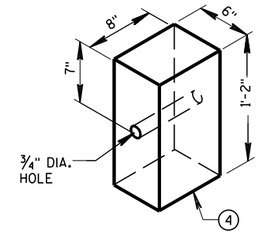


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

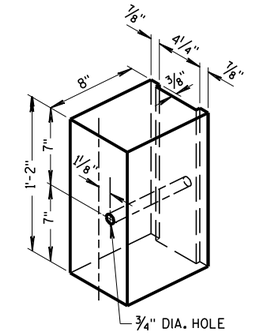
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



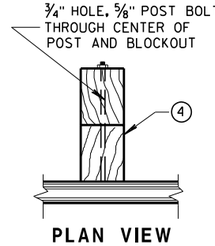
WOOD POST
(6"X8") NOMINAL



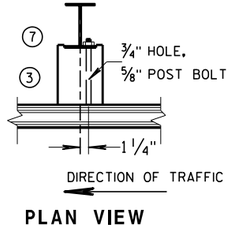
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



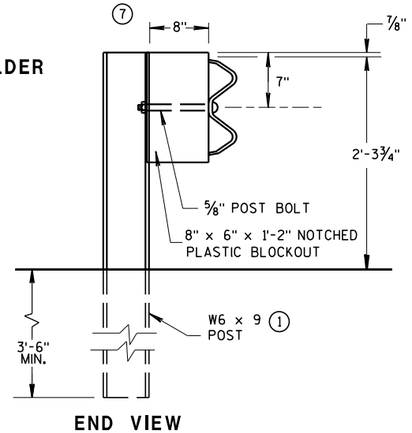
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



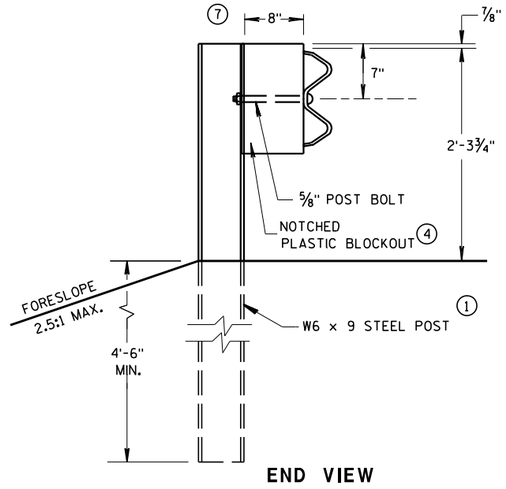
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



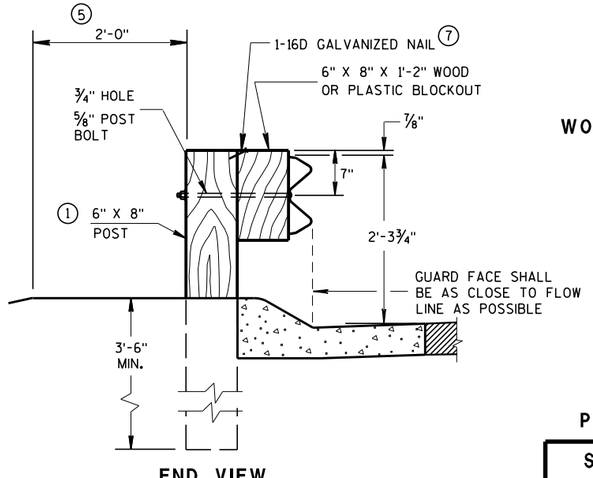
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
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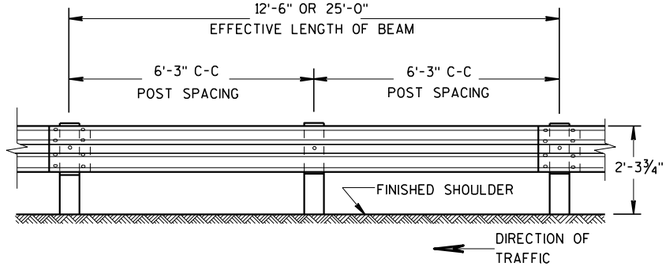
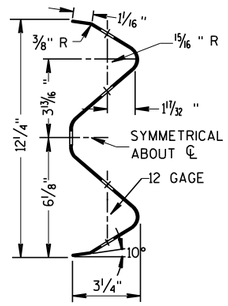
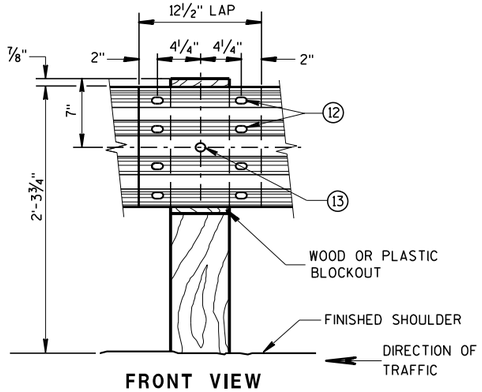


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

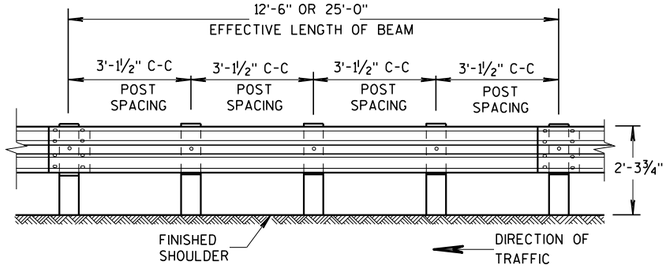
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

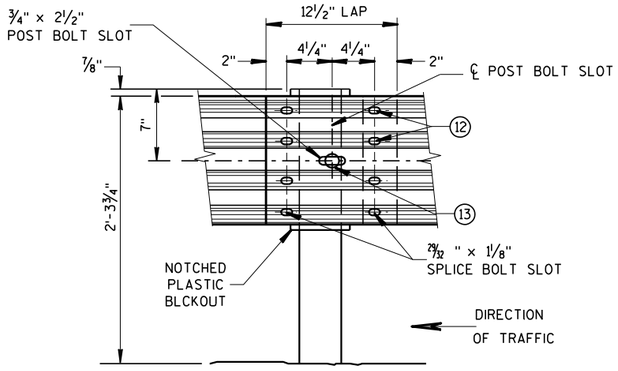
(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

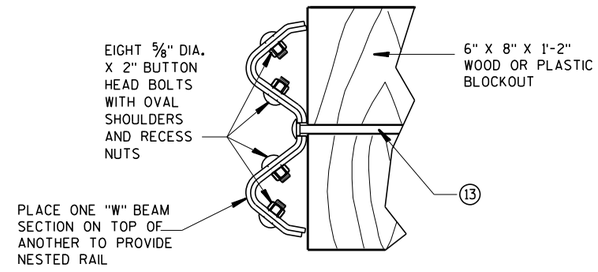
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

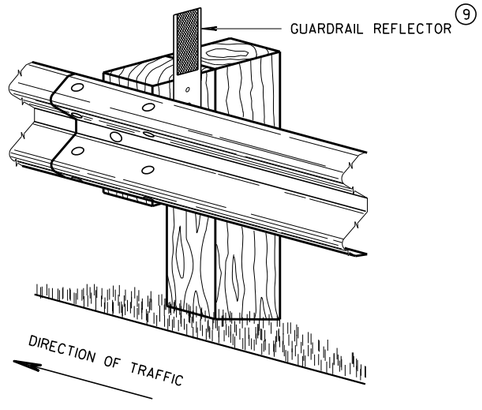
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



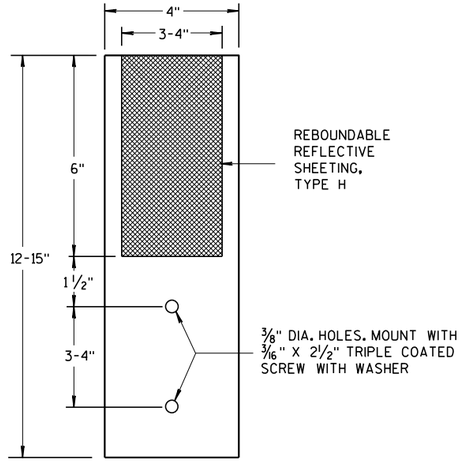
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

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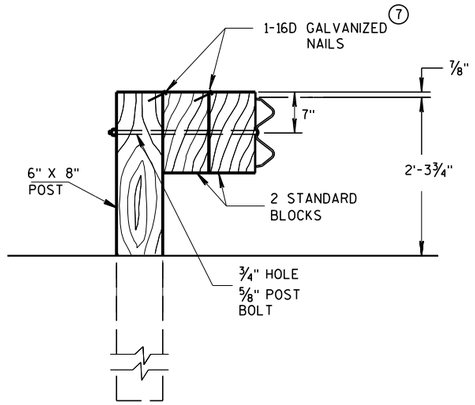
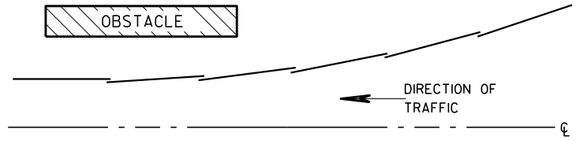
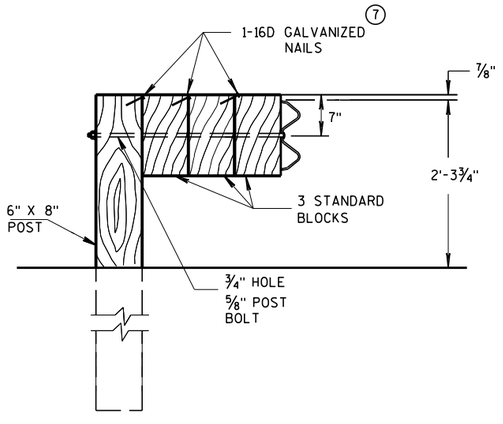


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

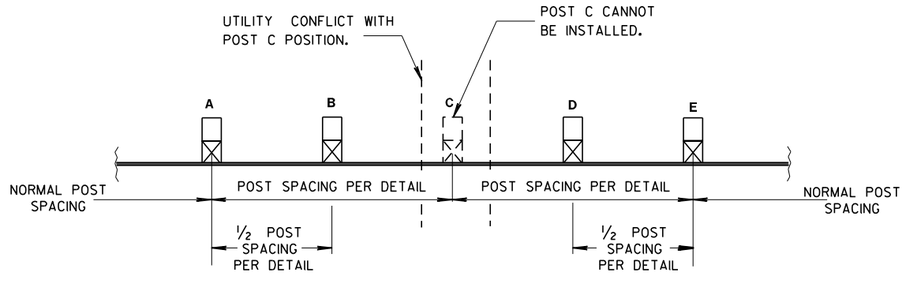


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
363
FHWA

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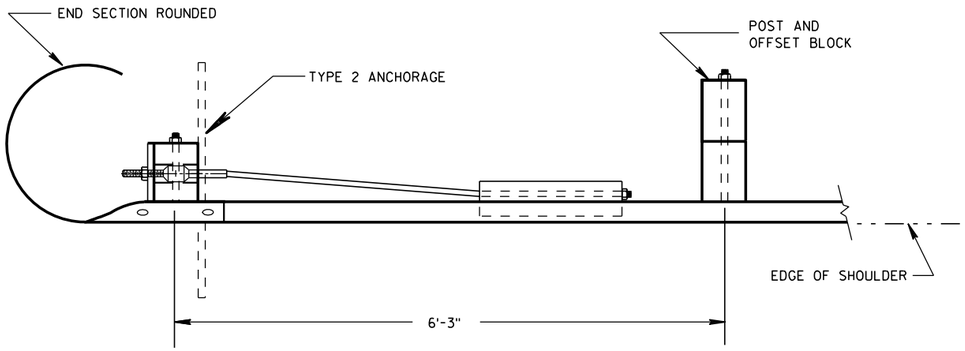
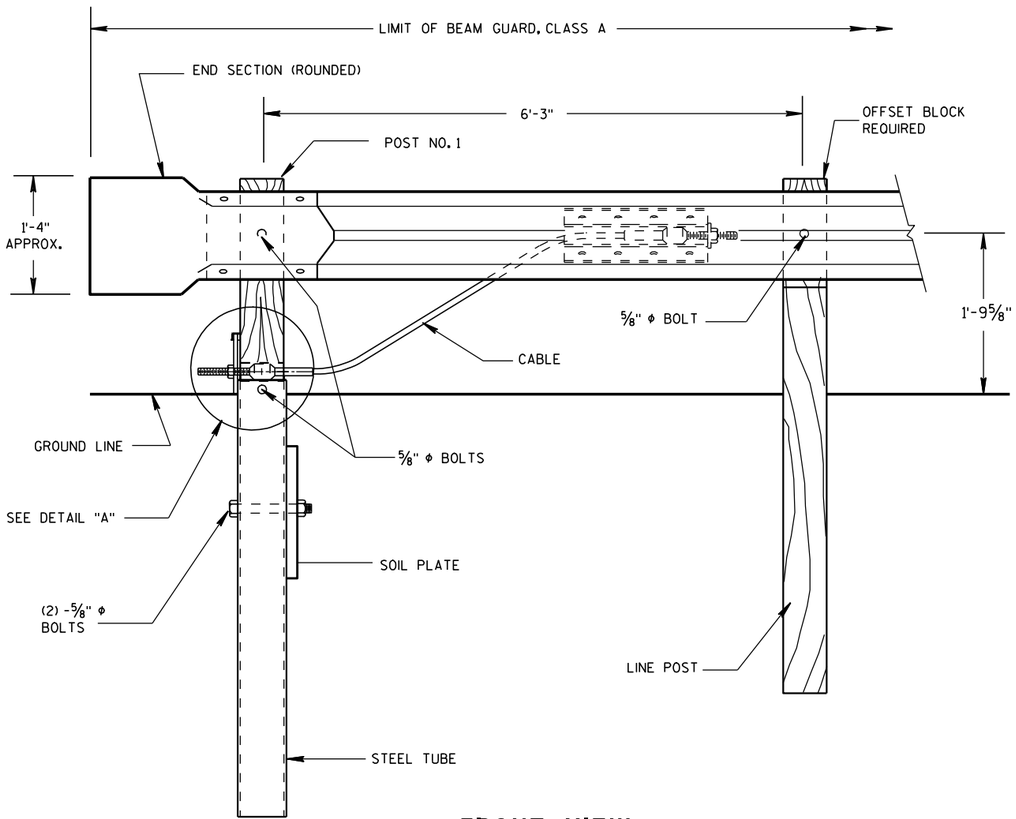


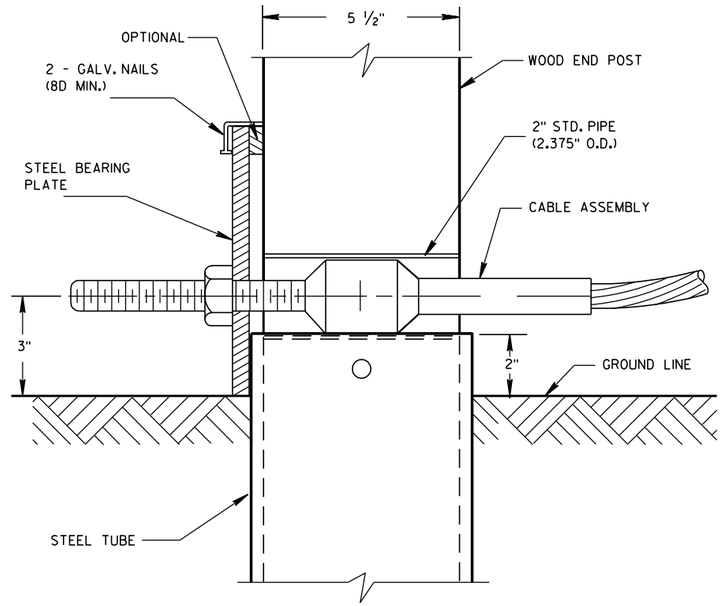
PLAN VIEW



FRONT VIEW

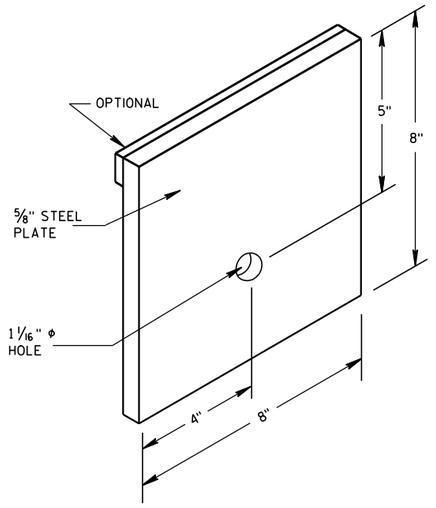
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

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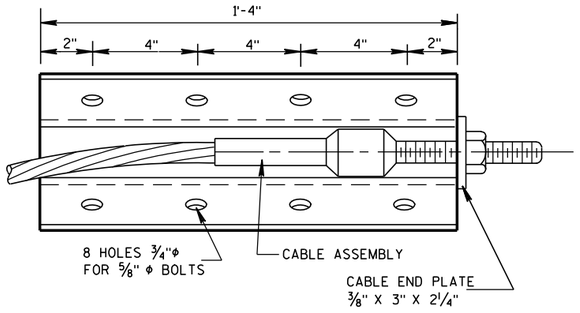
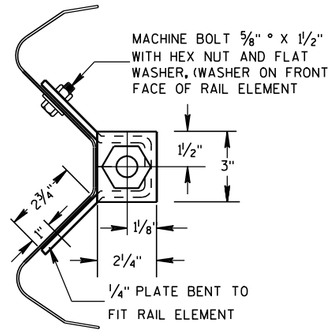
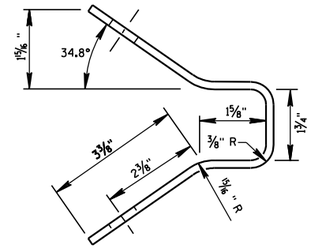


FRONT VIEW

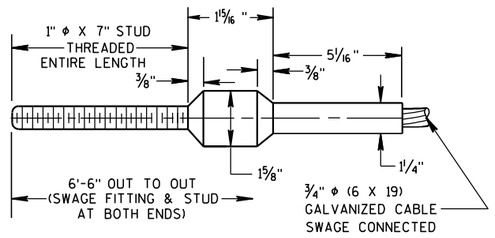


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP
A MINIMUM BREAKING STRENGTH OF 40,000 LB
(TIGHTEN UNTIL TAUT)

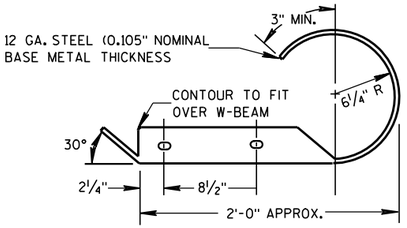
GENERAL NOTES

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

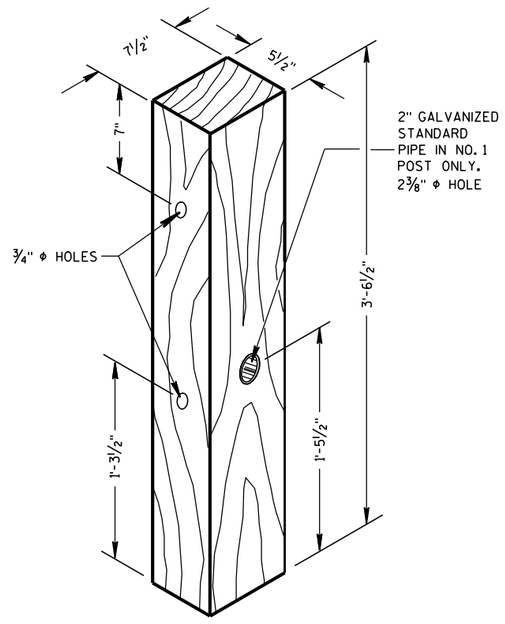
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

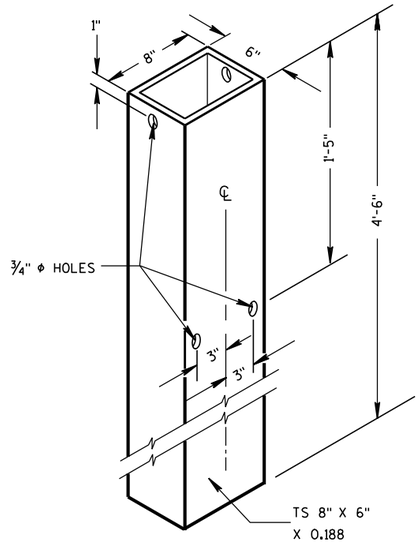
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

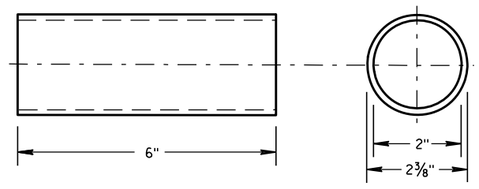


WOOD BREAKAWAY POST



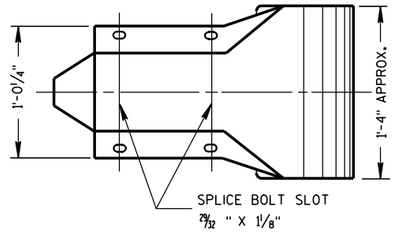
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

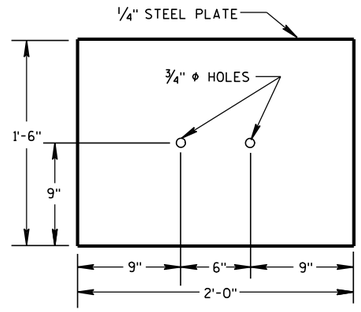


BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



FRONT VIEW
W BEAM END SECTION ROUNDED



SOIL PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/21/2007
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
365
FHWA

6

S.D.D. 14 B 16-4b

6

S.D.D. 14 B 16-4b

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(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.

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

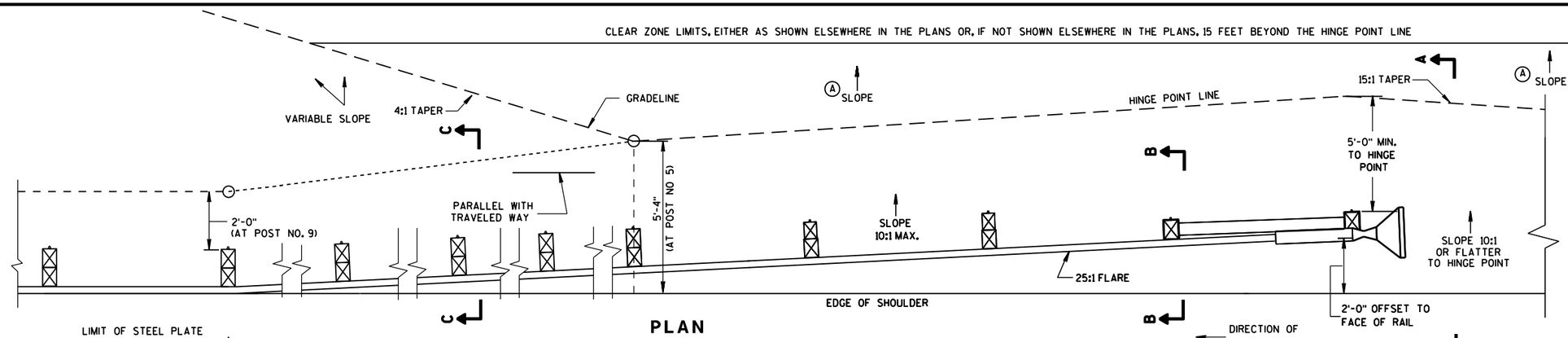
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

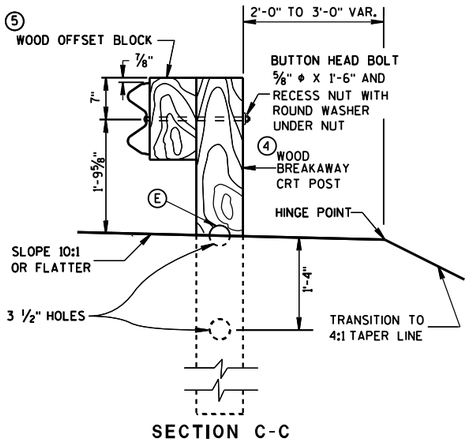
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

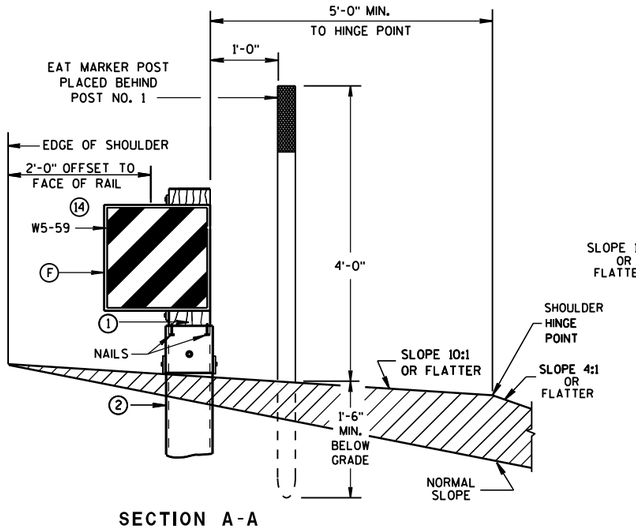
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

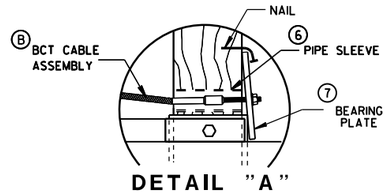




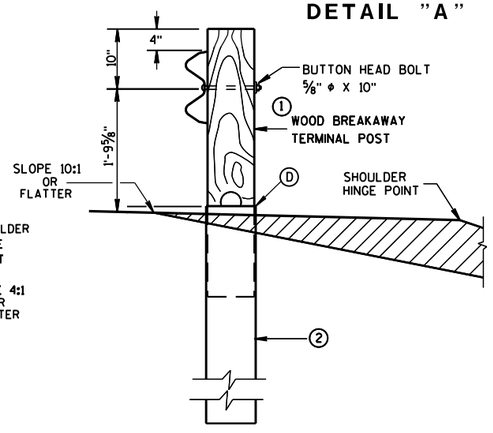
SECTION C-C
TYPICAL AT POST NOS. 6, 8



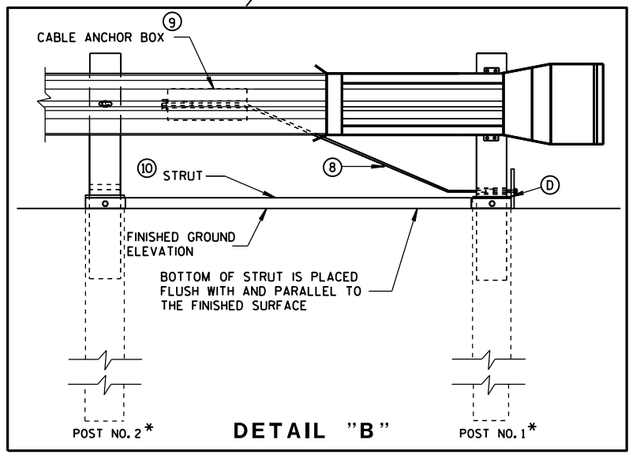
SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



SECTION B-B
TYPICAL AT POST NO. 2*

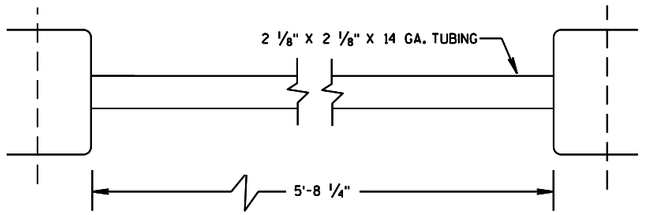


DETAIL "B"

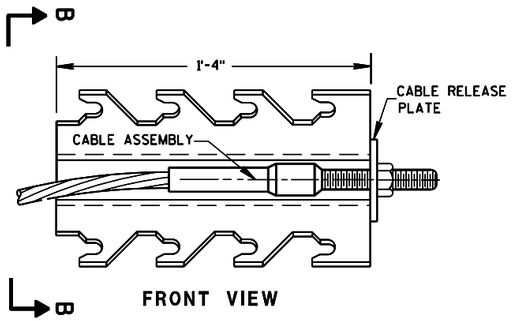
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

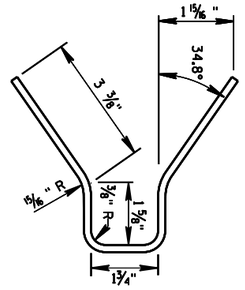
6
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

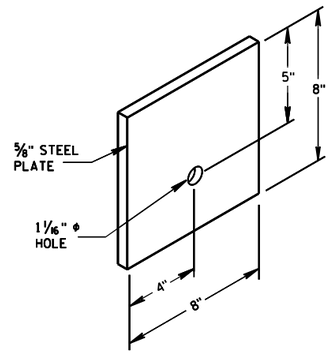


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

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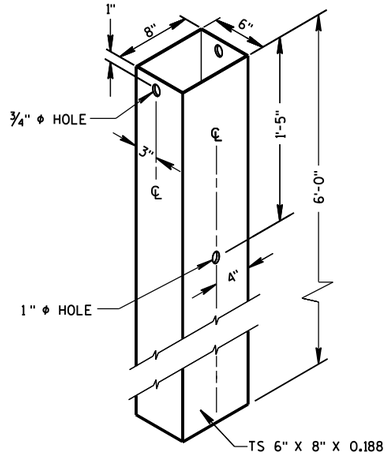
S.D.D. 14 B 24-9b

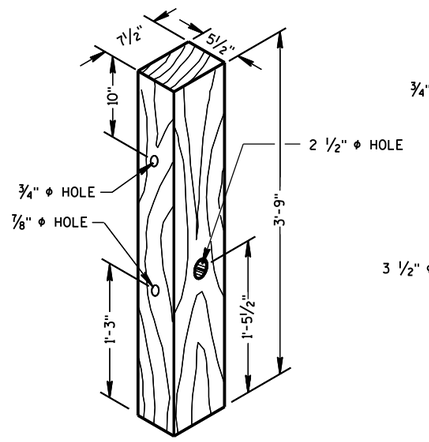
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

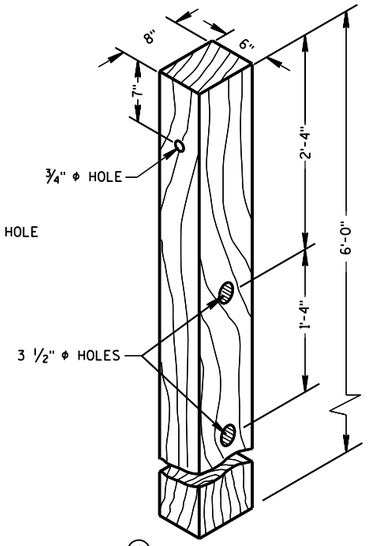
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

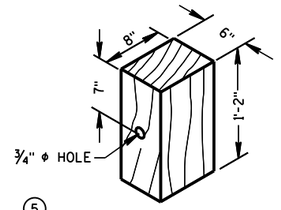


④ CRT POST
(POSTS NO'S 5-8

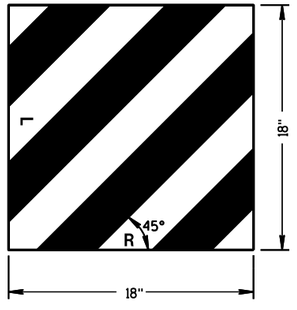
WOOD BREAKAWAY POSTS

GENERAL NOTES

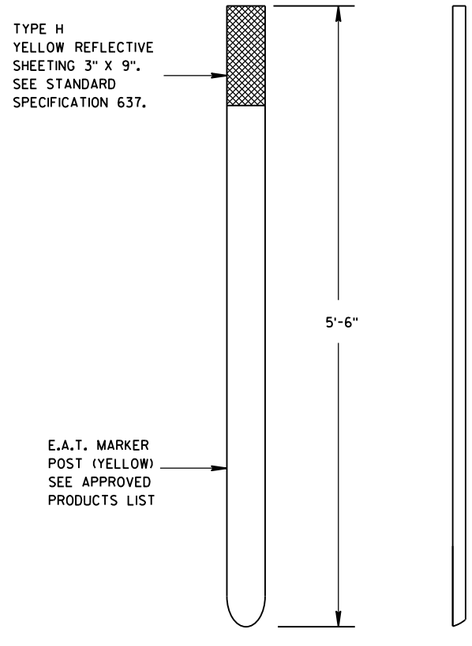
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERV...

ENT

6

S.D.D. 14 B 24-9c

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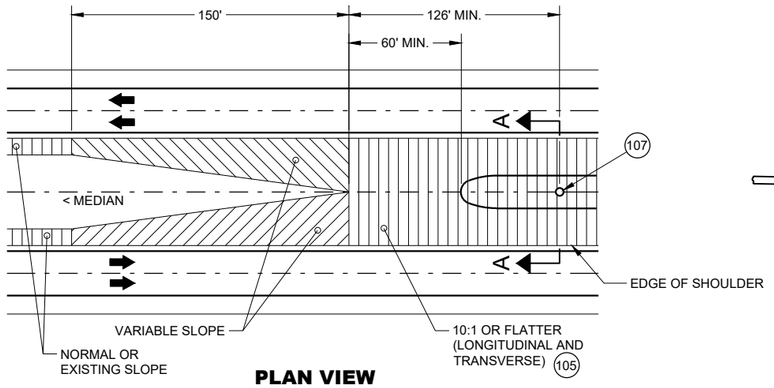
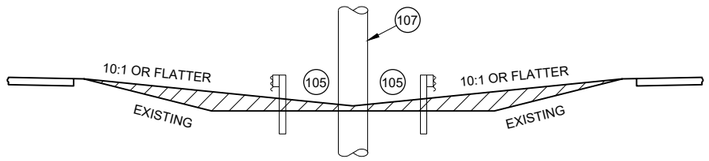
S.D.D. 14 B 24-9c



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

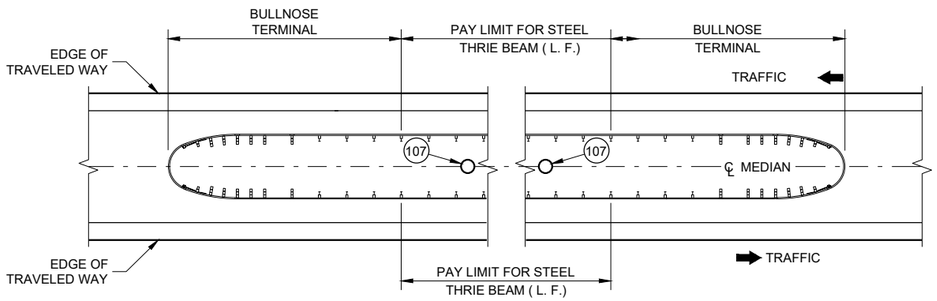
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

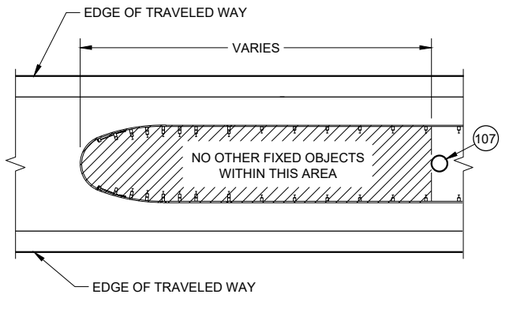
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

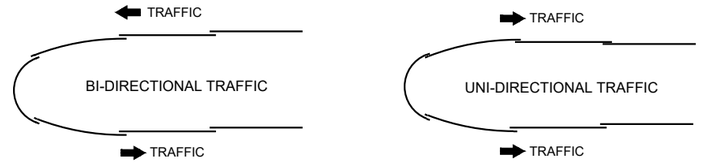
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



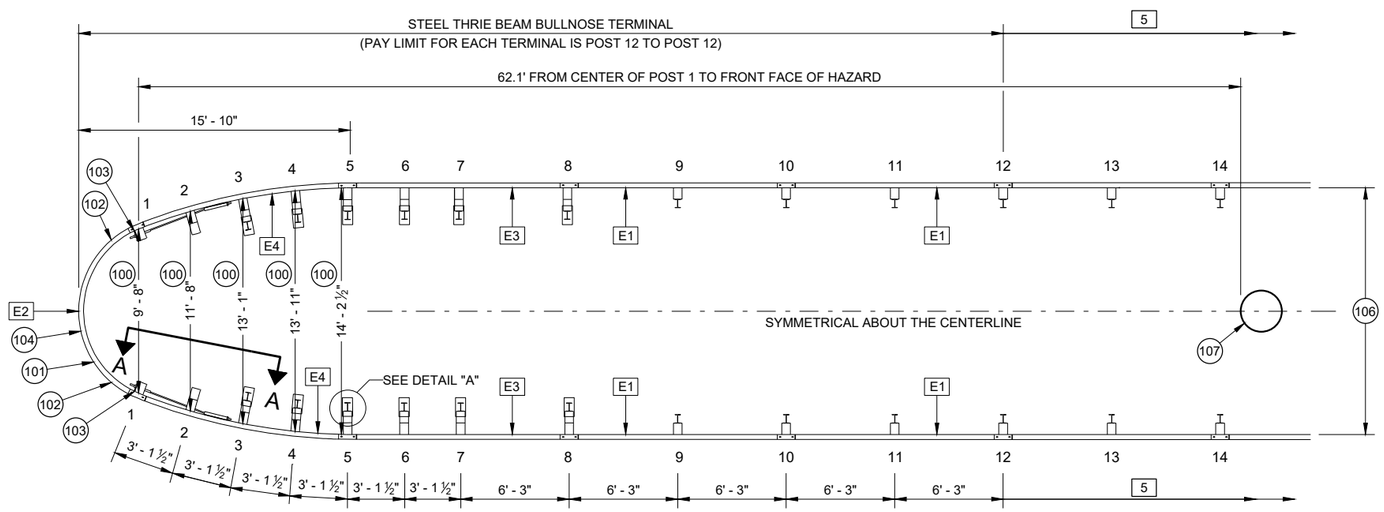
MEDIAN HAZARD PROTECTION PAY LIMITS



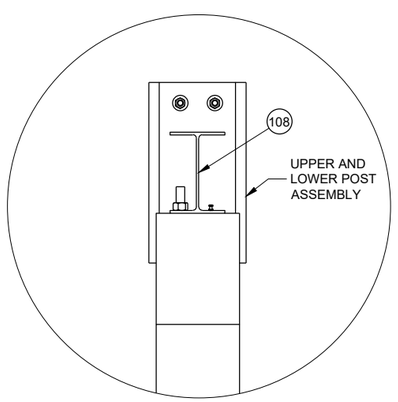
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



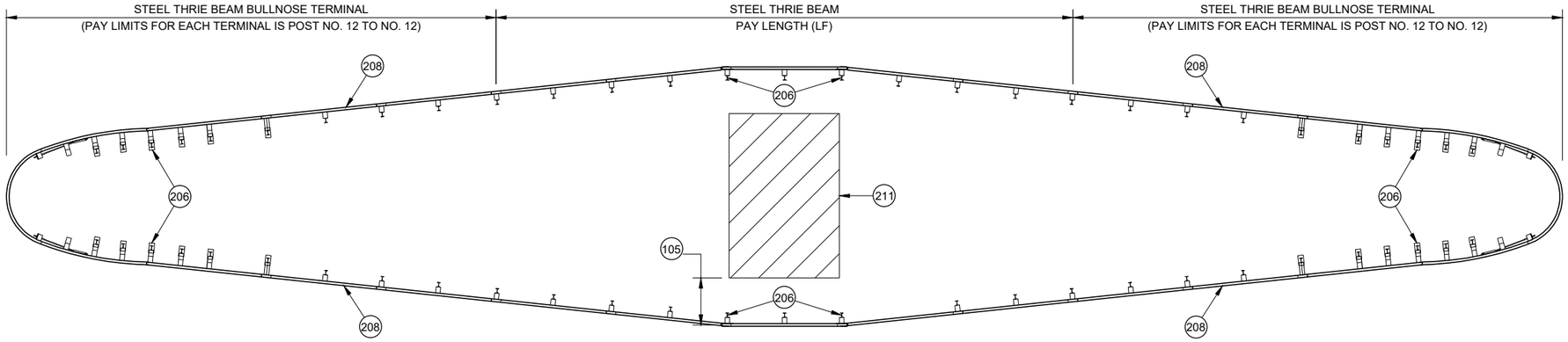
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 05a

SDD 14B26 - 05a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

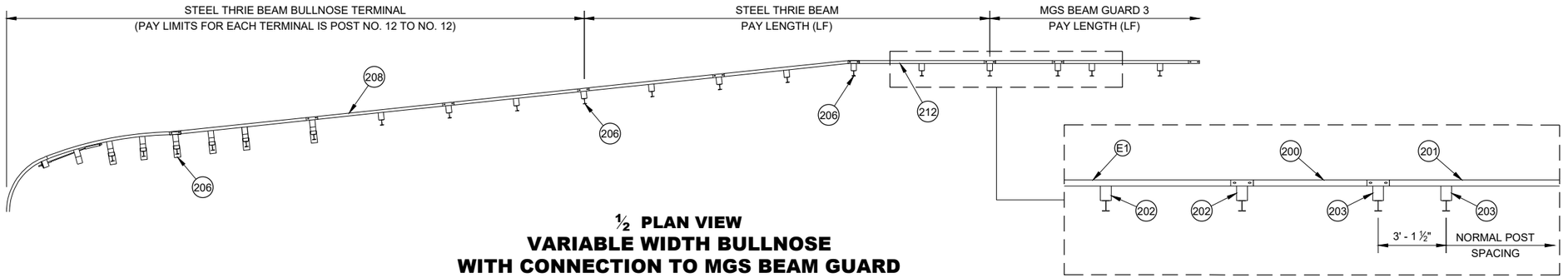
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

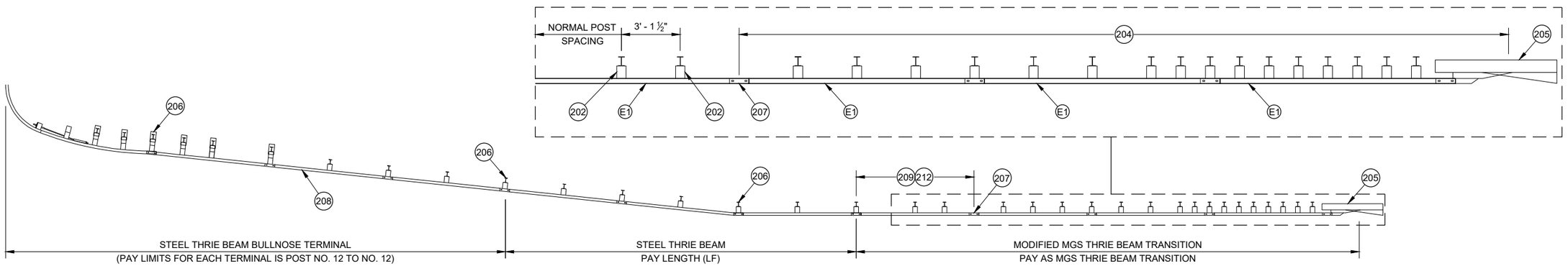
210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO MGS BEAM GUARD



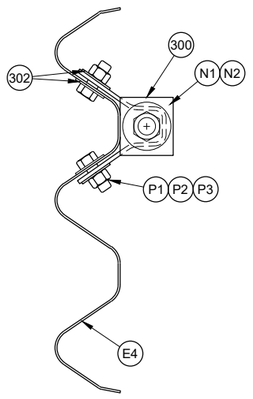
½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

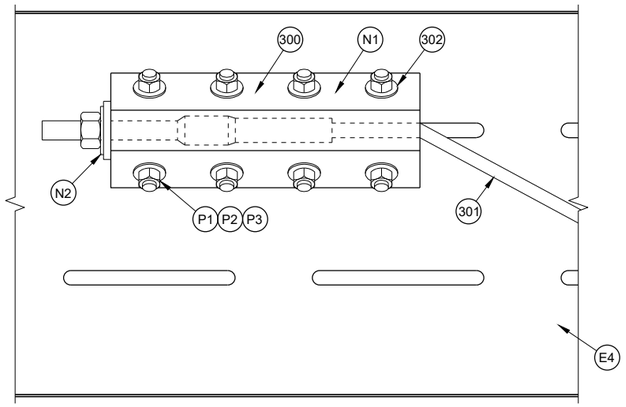
6

SDD 14B26 - 05b

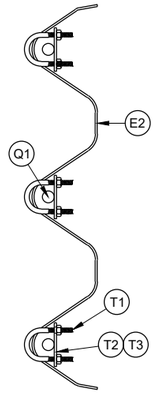


PROFILE VIEW

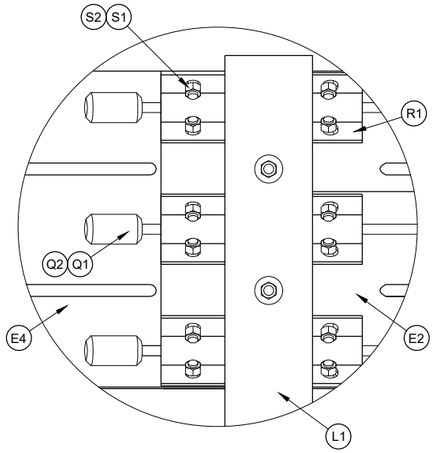
CABLE ANCHOR ASSEMBLY CONNECTION



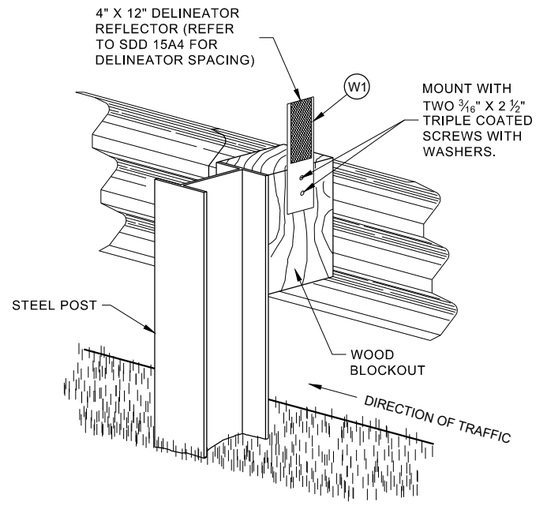
CABLE ANCHOR ASSEMBLY



NOSE CABLE RETAINING CLIP



DETAIL "A"



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

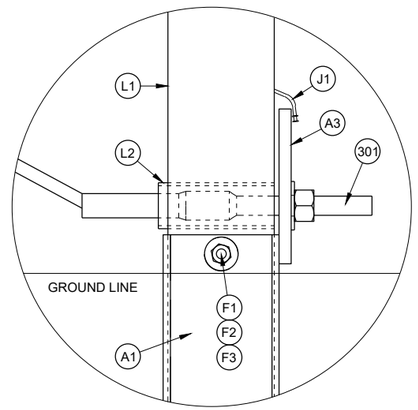
POST 8

POST 3

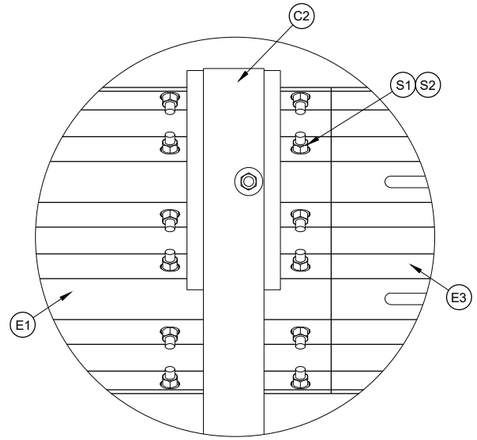
POST 2

POST 1

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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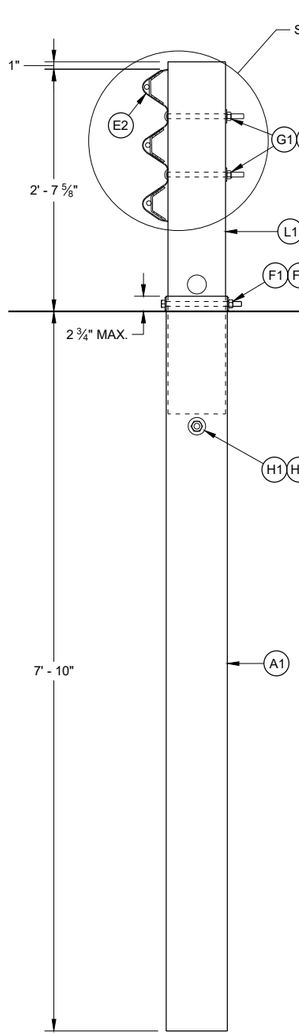
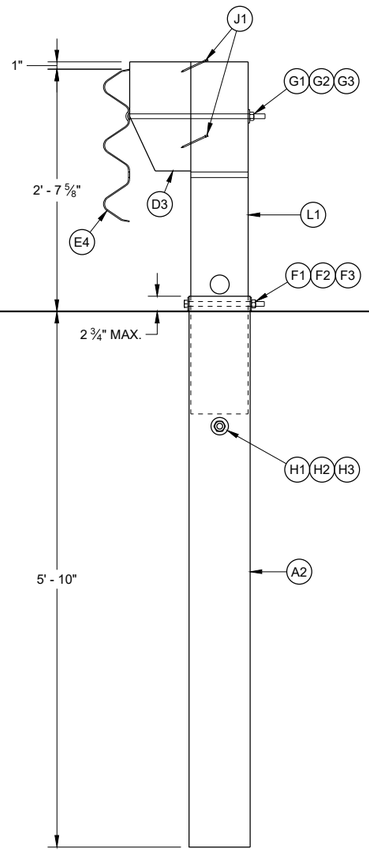


POST NO. 1



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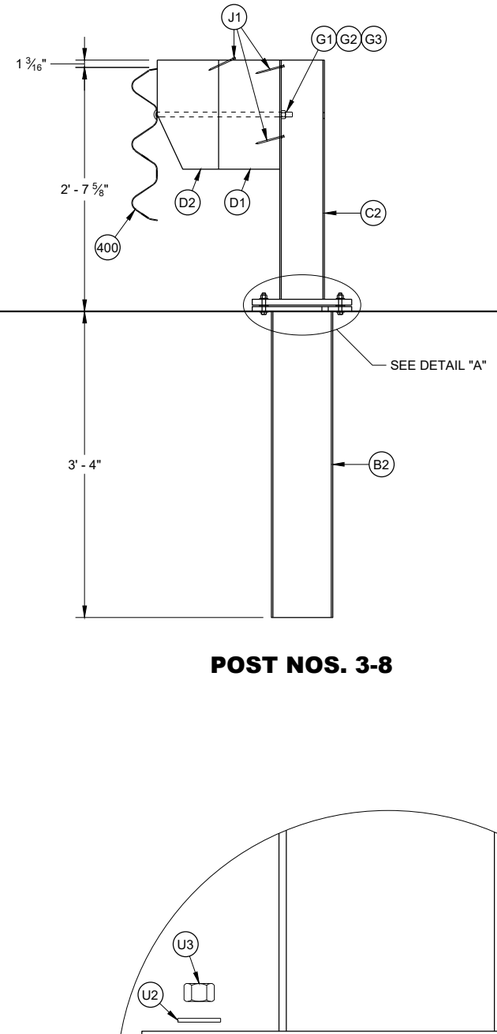
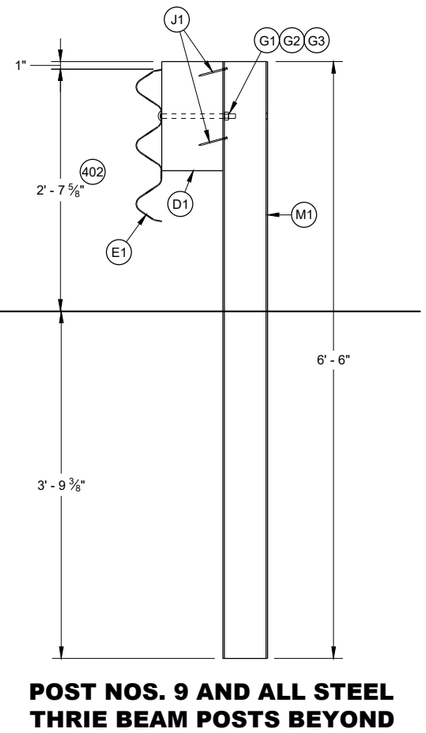


POST NOS. 3-8



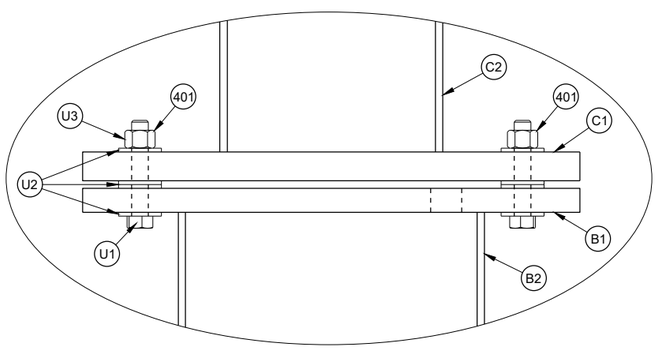
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

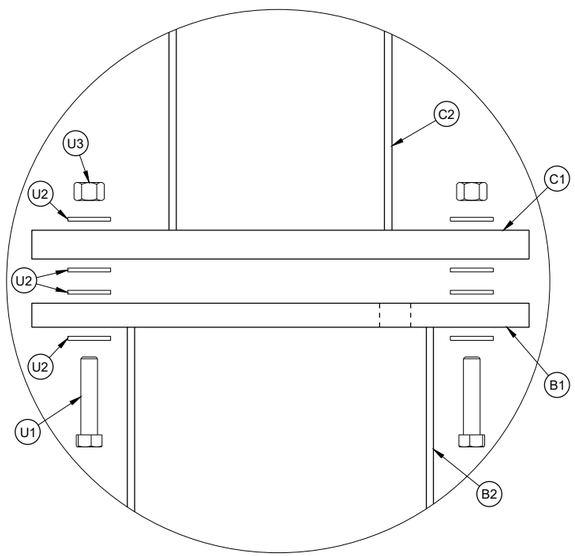
(400) RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

(401) TORQUE BOLD BETWEEN 60-75 FT-LB

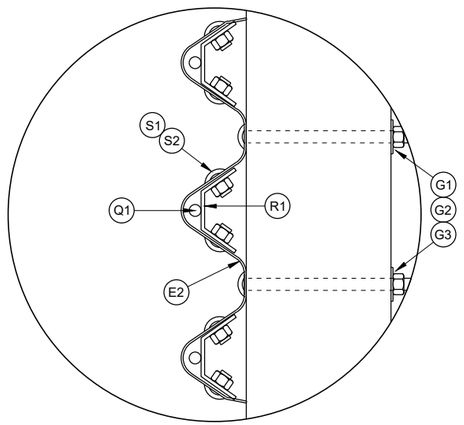
(402) HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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6

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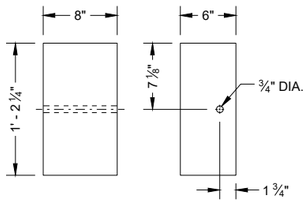
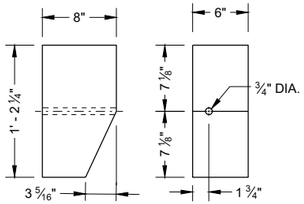


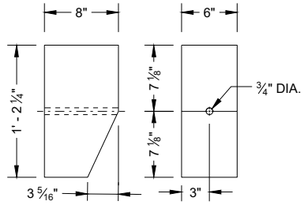
ELEVATION PROFILE

BLOCKOUT (D1)



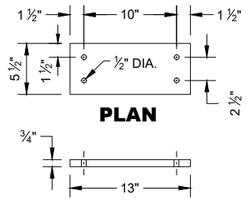
ELEVATION PROFILE

BLOCKOUT (D2)



ELEVATION PROFILE

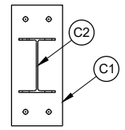
BLOCKOUT (D3)



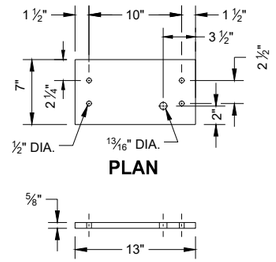
PLAN

PROFILE

UPPER SHEAR PLATE (C1)



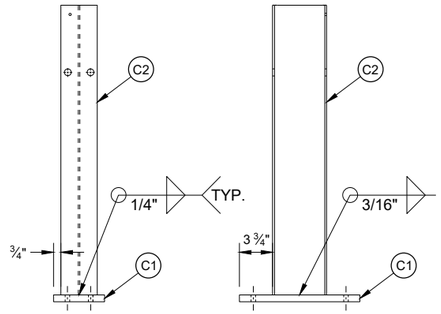
PLAN



PLAN

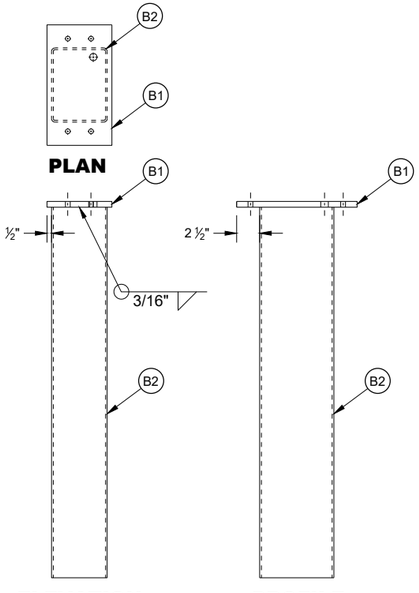
PROFILE

LOWER SHEAR PLATE (B1)



ELEVATION PROFILE

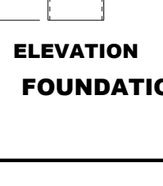
UPPER POST ASSEMBLY



PLAN

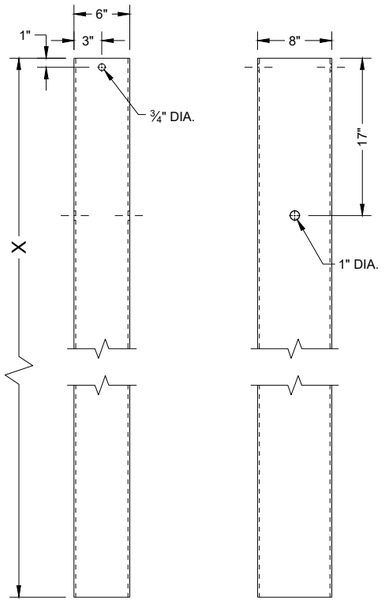
ELEVATION PROFILE

LOWER POST ASSEMBLY



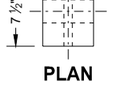
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 4"

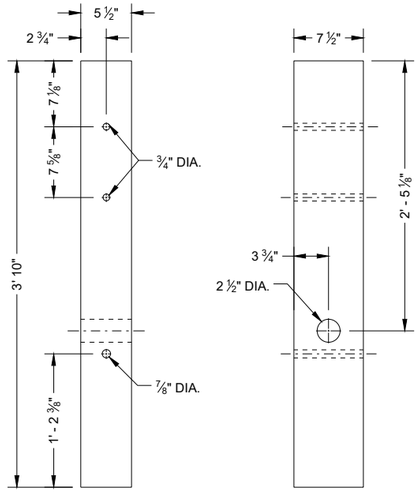


ELEVATION PROFILE

FOUNDATION TUBE

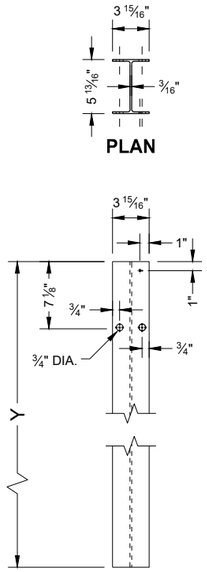


PLAN



ELEVATION PROFILE

BCT POST (L1)



PLAN

ELEVATION

POST

PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 7 5/8"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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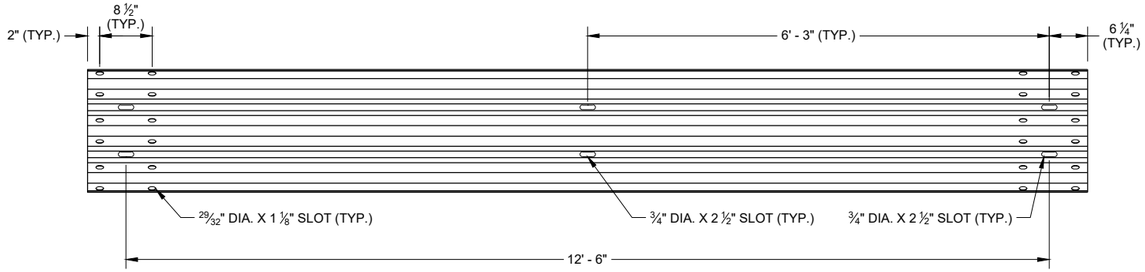
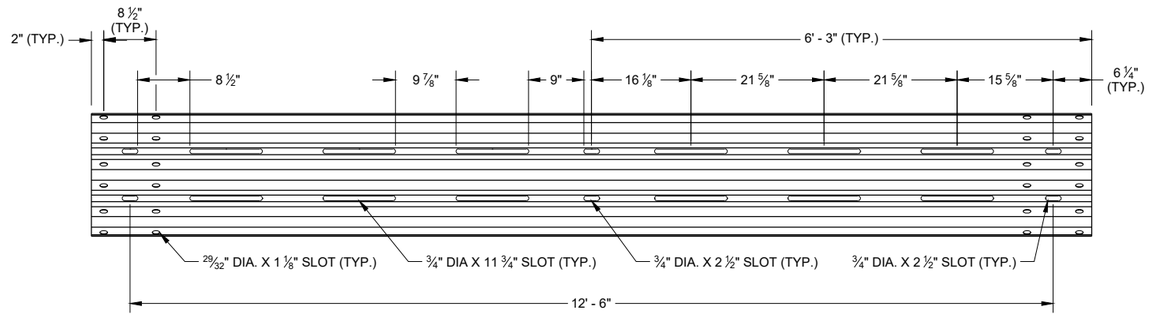
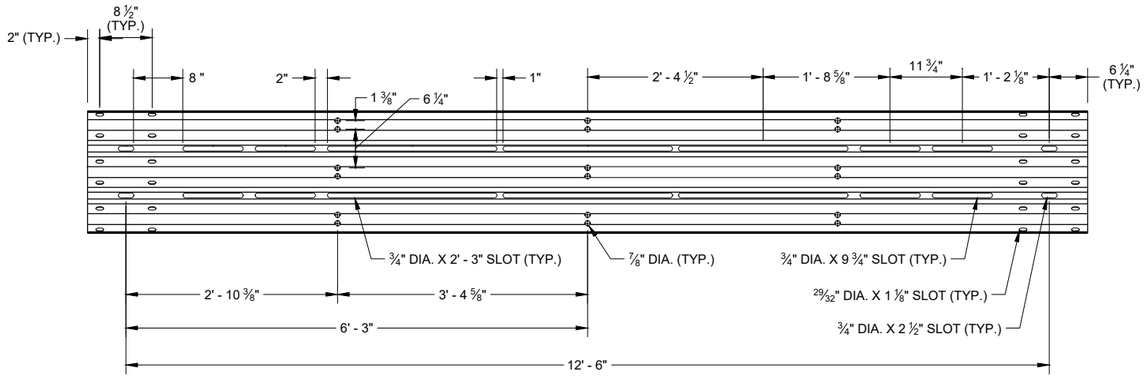


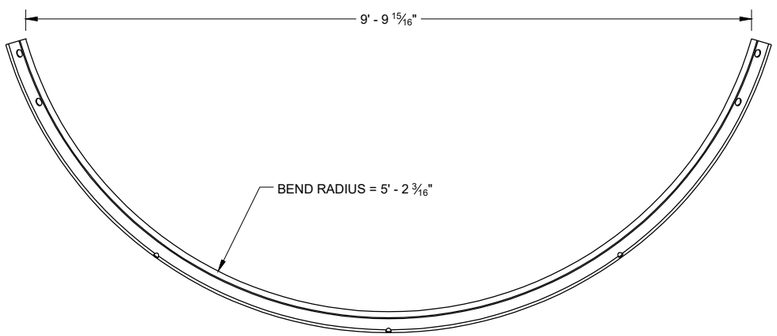
SLOTTED THRIE BEAM RAIL E1



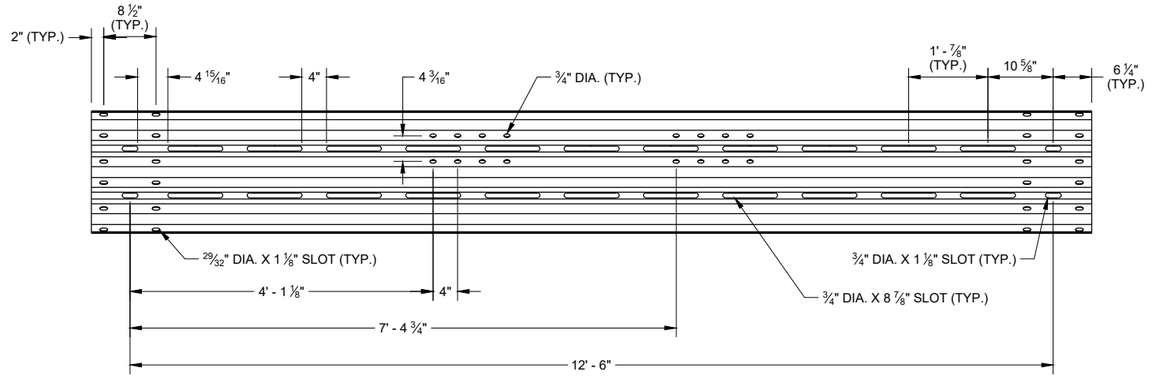
SLOTTED THRIE BEAM RAIL E3



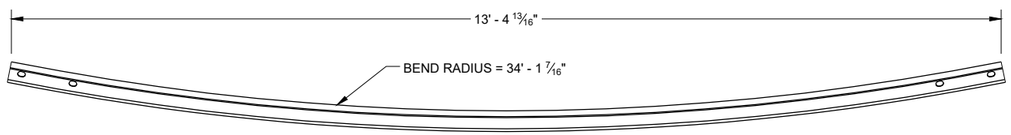
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4



PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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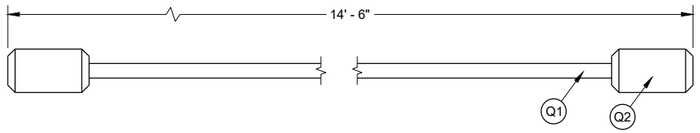
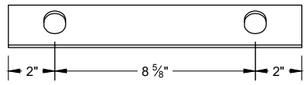
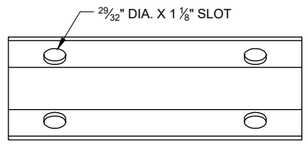


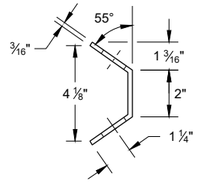
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

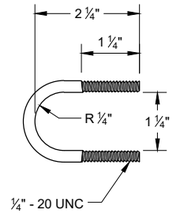


ELEVATION VIEW

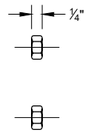


PROFILE VIEW

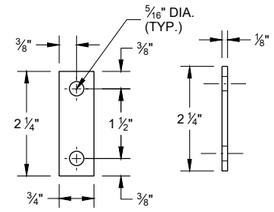
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

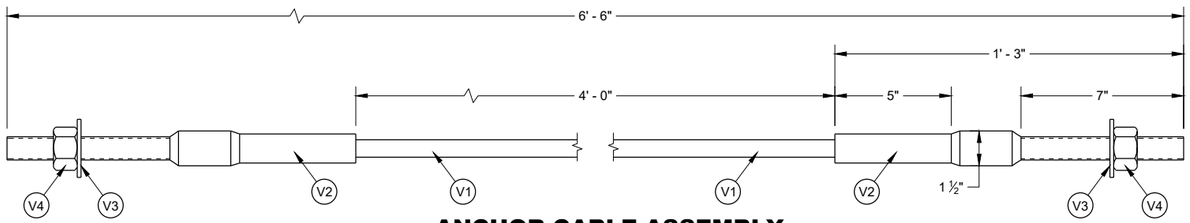


U - BOLT NUT (T3)

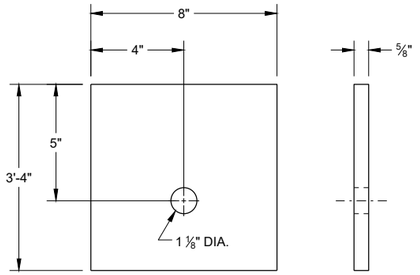


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

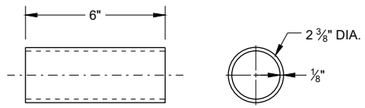


ANCHOR CABLE ASSEMBLY



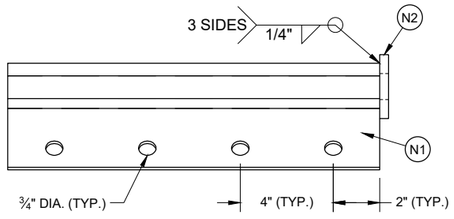
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

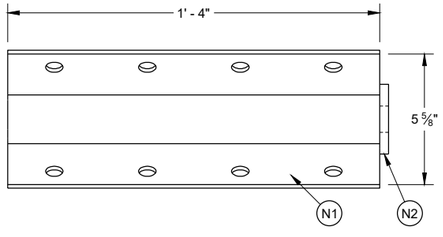


ELEVATION VIEW **PROFILE VIEW**

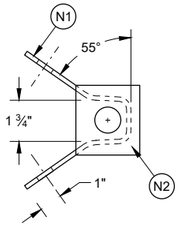
BCT POST SLEEVE (L2)



PLAN VIEW

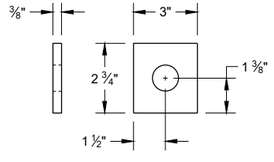


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT 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
B1	LOWER SLIP POST 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
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST 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
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE 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
F2	5/8" DIA. GROUND STRUT AND YOKE 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)
F3	GROUND STRUT AND YOKE 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
G1	5/8 " DIA. 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 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	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 TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	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
H1	7/8" DIA. SOIL 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 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE 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 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE 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 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
N1	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
N2	ANCHOR BRACKET - 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

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. 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 HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	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)
P3	SOIL TUBE 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
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE 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
S1	5/8" DIA. SPLICE BOLT - 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
S2	SPLICE - 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 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U 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
T2	U-BOLT - PLATE 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)
T3	U-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
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - 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 / STM 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
V1	¾" DIA. BCT CABLE	AASHTO M30 / ASTM A741 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN BREAKING STRENGTH OF 42.7 KIPS
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. 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."
V3	1" DIA. ANCHOR CABLE-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)
V4	1" DIA. ANCHOR CABLE-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
W1	REFLECTOR	SEE SDD 15A4

6

SDD 14B26 - 05h

6

SDD 14B26 - 05h

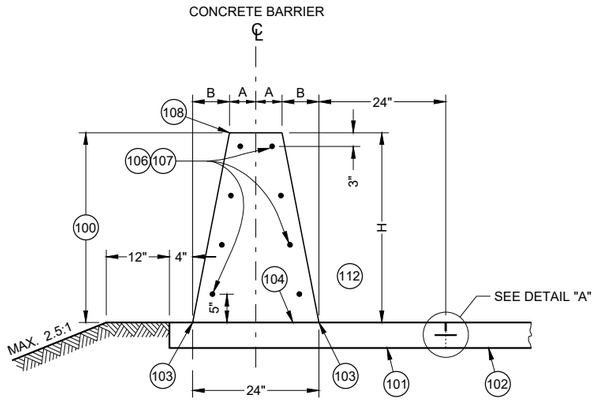
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

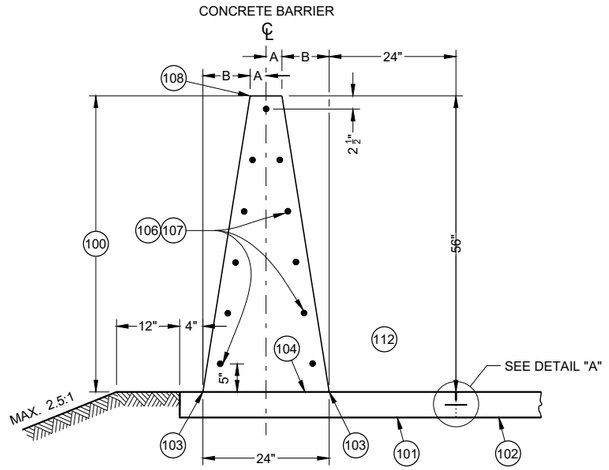
APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



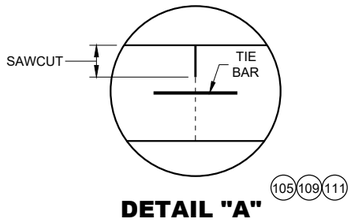
32 - INCH, 36 - INCH OR 42 - INCH SINGLE SLOPE CONCRETE BARRIER
(TYPE S32, TYPE S36, TYPE S42)



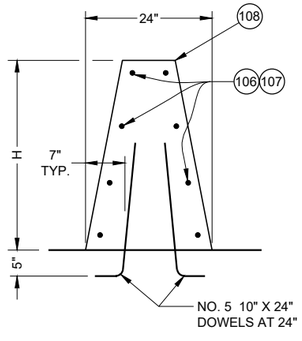
56 - INCH SINGLE SLOPE CONCRETE BARRIER
(TYPE S56)

TABLE "A"

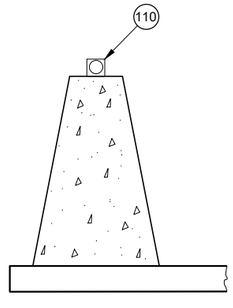
BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 ¼	5 ¾	8
42	5 ¼	6 ¾	10
56	3	9	11



DETAIL "A"



SINGLE SLOPE CONCRETE BARRIER ON BRIDGE
(NON OUTER PARAPET APPLICATION)



DELINEATION

GENERAL NOTES

WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

LOCATE EXPANSION JOINTS IN CONCRETE BARRIER SHALL AT ALL DECK AND PRINCIPAL WALL JOINTS. FILL EXPANSION JOINT WITH EXPANSION JOINT MATERIAL. SEAL THE EXPANSION JOINT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.

2" CLEAR COVER TYPICAL

ANCHORS ARE REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN IN THIS SDD OR DETAIL SHOWN ON SDD 14B33. ANCHORS INCIDENTAL TO CBSS.

PROVIDE A 1" DEEP CONTRACTION JOINT IN BARRIER PAD AND BARRIER. JOINT IS TO MATCH ADJACENT CONCRETE JOINTS. NO DOWEL BARS ARE REQUIRED FOR BARRIER PAD. IF ADJACENT TO ASPHALT, CONTRACTION JOINT IS REQUIRED EVERY 15'.

ALL REBAR SHALL BE EPOXY COATED M31 TYPE S. SEE STANDARD SPECIFICATION 505.

CONCRETE BARRIER, UPPER CONCRETE BARRIER, LOWER CONCRETE BARRIER, CONCRETE BARRIER PAD, AND FOOTINGS ARE TERMS USED TO DESCRIBE PARTS OF SINGLE SLOPE CONCRETE BARRIER BID ITEMS. THESE PARTS ARE INCIDENTAL TO THE SINGLE SLOPE CONCRETE BARRIER BID ITEMS.

(100) CONCRETE BARRIER

(101) CONCRETE BARRIER PAD

(102) PAVEMENT

(103) WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1 ½", USE TYPE A SINGLE SLOPE BARRIER.

(104) OPTIONAL CONSTRUCTION JOINT.

(105) CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAT 10'.

(106) STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL IS 2' BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.

(107) NO. 5 CONTINUOUS BARS EVENLY SPACED (SEE TABLE "A").

(108) USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

(109) CONCRETE BARRIER PAD UNDER CBSS MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED ⅓ DEPTH. CONCRETE BARRIER PAD AND SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6", OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

(110) SEE SDD 15A04 FOR DELINEATOR DETAILS AND SPACING.

(111) SEE SDD 13C01 FOR DETAILS TYPING CONCRETE BARRIER TO ADJACENT CONCRETE

(112) TRAFFIC SIDE

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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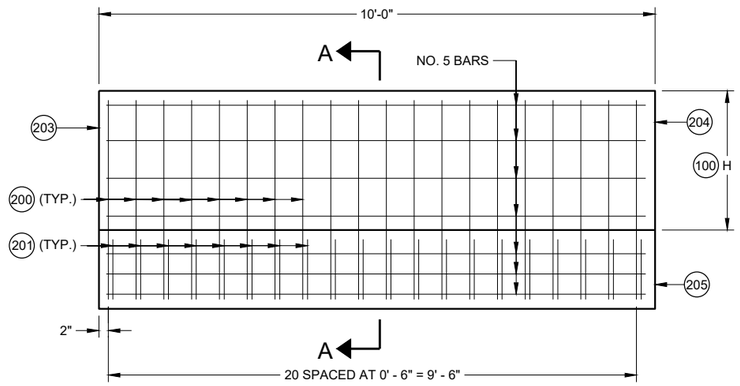
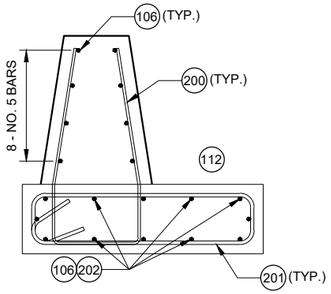
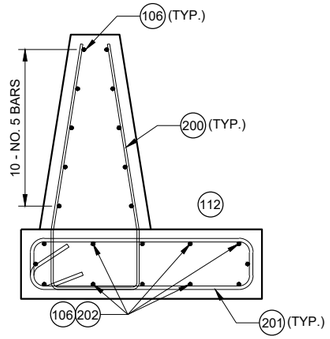
SDD 14B32 - 10a
SDD 14B32 - 10a



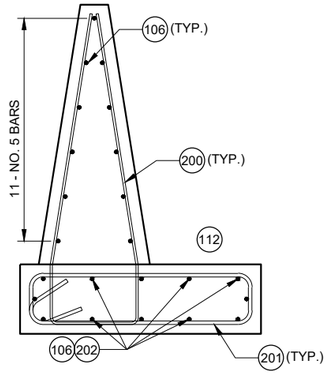
END ANCHOR SINGLE
SLOPE CONCRETE BARRIER



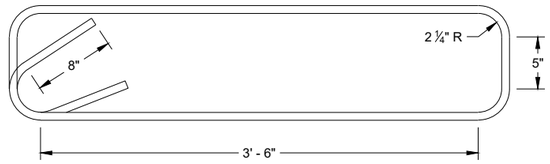
32" AND 36" CBSS



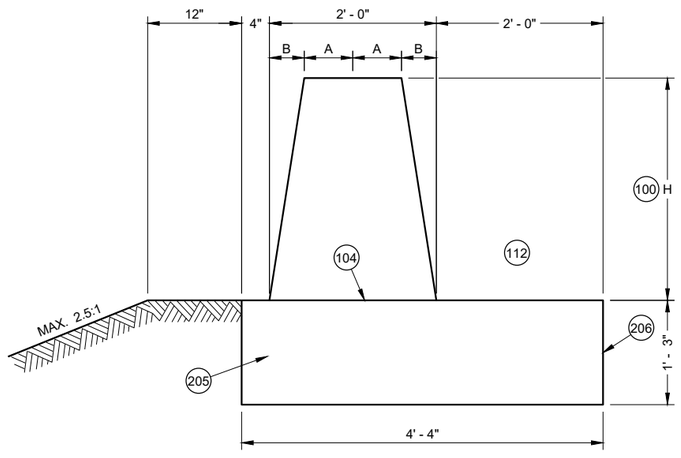
42" CBSS



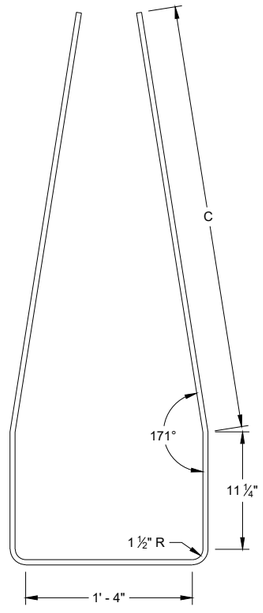
56" CBSS



STIRRUP BAR
BENDING DETAIL



SECTION A - A



V1 BAR
BENDING DETAIL

TABLE "B"

BARRIER HEIGHT H INCHES	C INCHES
32	2' - 6"
36	2' - 11"
42	3' - 4"
56	4' - 6 ½"

GENERAL NOTES

(200) V1 BARS ARE NO. 5 BARS. (SEE BAR BENDING DETAIL)

(201) STIRRUPS ARE NO. 6 BARS. (SEE BAR BENDING DETAIL)

(202) TWELVE (12) NO. 5 BARS EVENLY SPACED

(203) END OF INSTALLATION OR EXPANSION JOINT.

(204) SEE COLD JOINT DETAIL TO CONNECT END ANCHOR SINGLE SLOPE CONCRETE BARRIER TO SINGLE SLOPE CONCRETE BARRIER.

(205) FOOTING

(206) DO NOT TIE TO FOOTING TO ADJACENT PAVEMENT.

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SDD 14B32 - 10b

CONCRETE BARRIER
SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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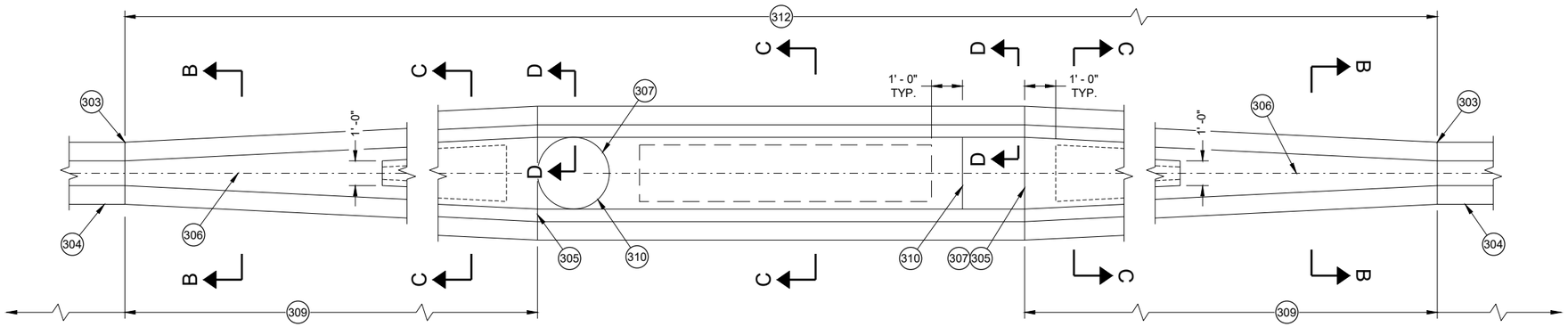
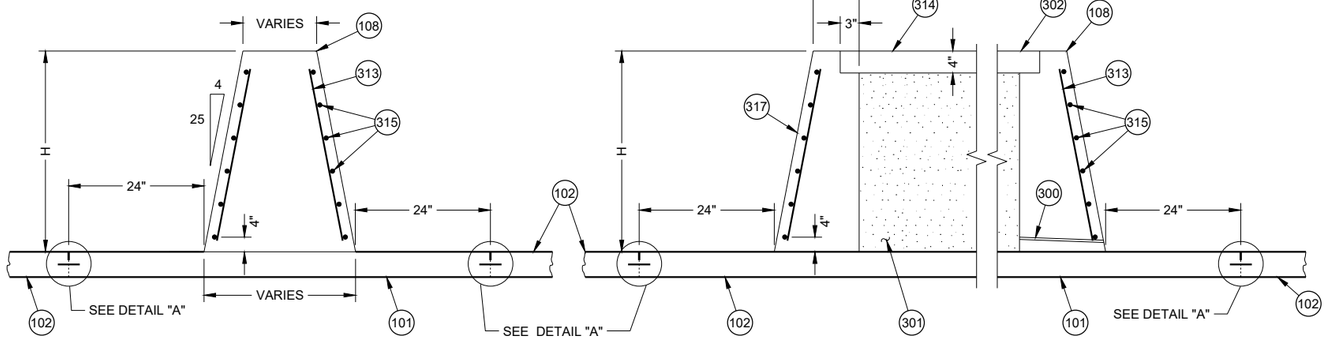
SDD 14B32 - 10b



LARGE FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

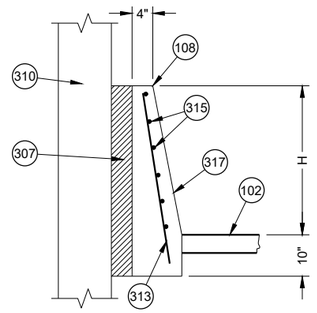
TABLE "C"

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	6

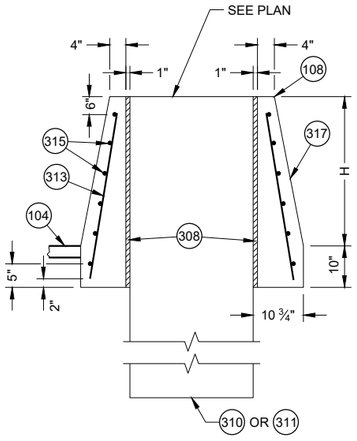


SECTION B - B

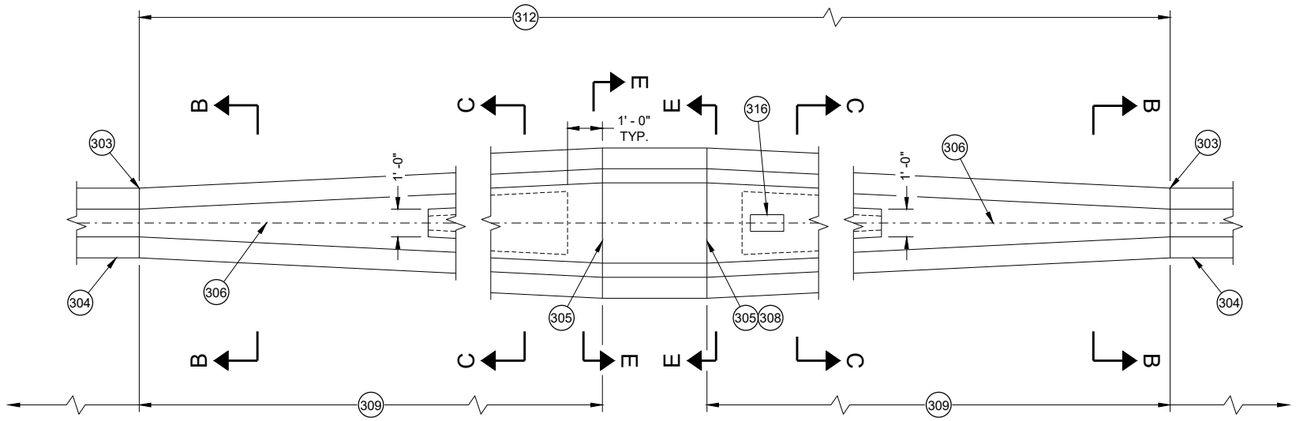
SECTION C - C



SECTION D - D



SECTION E - E



SMALL FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

GENERAL NOTES

(300) INSTALL 1 INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B -B. MINIMUM ONE DRAIN CAVITY.

(301) BETWEEN CONCRETE BARRIER WALLS FILL WITH FOUNDATION BACKFILL.

(302) LEVEL THE TOP OF CONCRETE BARRIER CAP ACROSS TOP OF BARRIER. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.

(303) USE COLD JOINTS BETWEEN FIXED OBJECT PROTECTION AND CONCRETE BARRIER ANCHOR.

(304) INSTALL END ANCHOR SINGLE SLOPE CONCRETE BARRIER.

(305) SEE COLD JOINT DETAIL

(306) CENTERLINE OF CONCRETE BARRIER.

(307) INSTALL 4" EXPANDED POLYSTYRENE BETWEEN COLUMN AND CONCRETE BARRIER.

(308) INSTALL 1" EXPANDED POLYSTYRENE BETWEEN PEDESTAL AND CONCRETE BARRIER.

(309) 20:1 MIN. TRANSITION.

(310) COLUMN

(311) PEDESTAL

(312) LIMITS OF PAYMENT FOR LARGE FIXED OBJECT PROTECTION (SEE PLAN)

(313) NO. 4 BARS SPACED 12" CENTER TO CENTER (TYP.)

(314) USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.

(315) SEE TABLE "C" FOR BAR INFORMATION

(316) ELECTRICAL PULL BOX FOR SIGN FLUSH WITH TOP OF CONCRETE BARRIER.

(317) VARIABLE SLOPE

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
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SDD 14B32 - 10c

GENERAL NOTES

(400) END ANCHOR SINGLE SLOPE CONCRETE BARRIER.

(401) PARAPET, SIGN BRIDGE BASE, LIGHT POLE BASE OR OTHER OBJECT SINGLE SLOPE CONCRETE BARRIER CANNOT TIE INTO.

(402) JOINT SEAL CONFORMING TO STANDARD SPECIFICATION 415.2.6

(403) EXPANSION JOINT MATERIAL.

(404) INLET (SEE PLAN)

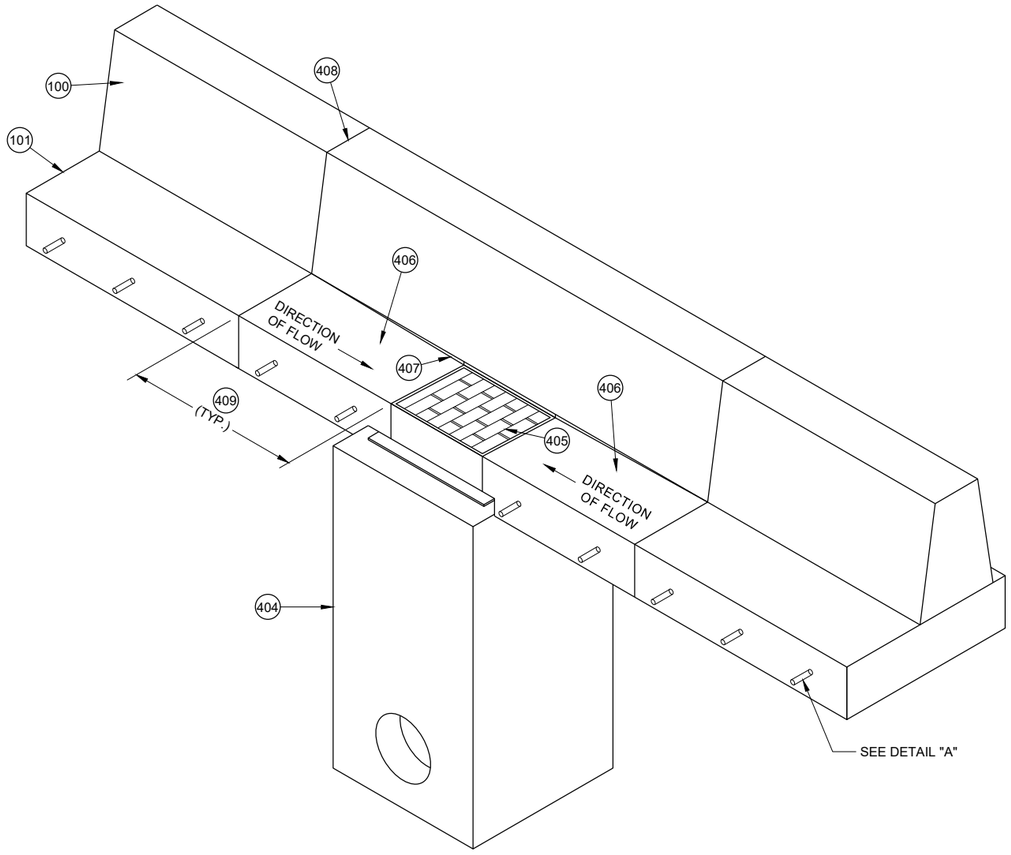
(405) INLET COVER BW (SEE PLAN)

(406) WARP PAN TO MATCH INLET COVER.

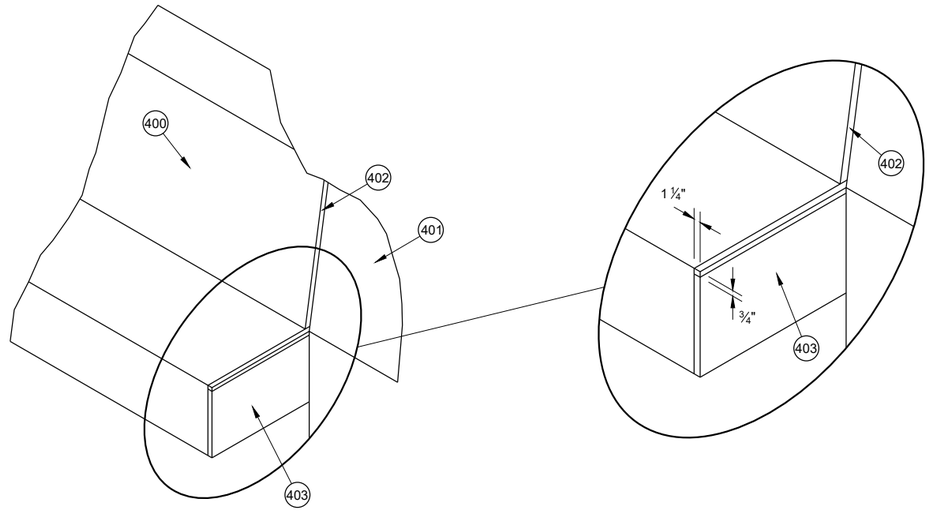
(407) EXTEND BARRIER SLOPE TO INLET. SEE PLAN FOR THE LENGTH OF EXTENSION.

(408) CONTRACTION JOINT.

(409) 3' (TYP.)



DRAINAGE DETAIL



EXPANSION JOINT DETAIL

6

6

SDD 14B32 - 10d

SDD 14B32 - 10d

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 380

GENERAL NOTES

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

(500) SEE TABLE "A" FOR DIMENSIONS

(501) SEE TABLE "D"

(502) MULTIPLE HEIGHT TRANSITION MAY BE USED IN SEQUENCE TO GET APPROPRIATE HEIGHT.

(503) COLD JOINT

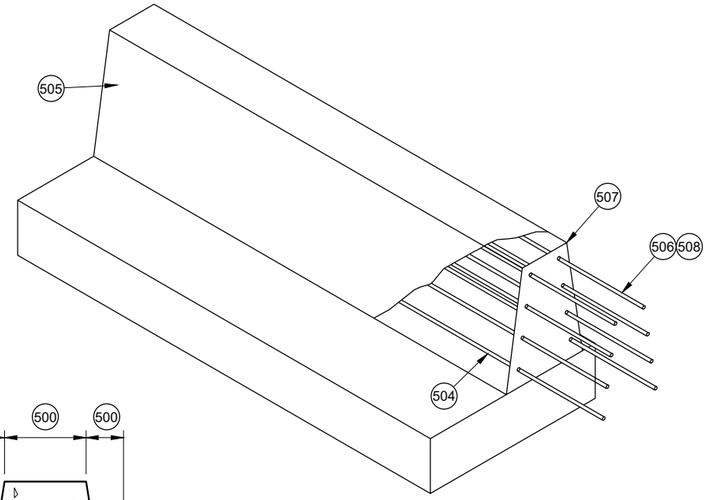
(504) BARRIER REBAR (SEE OTHER DETAILS FOR BAR SIZE, QUANTITY AND LOCATION).

(505) SINGLE SLOPE BARRIER SHOWN. SIMILAR DETAIL CAN BE USED FOR COLD JOINT IN END ANCHORS AND TRANSITIONS.

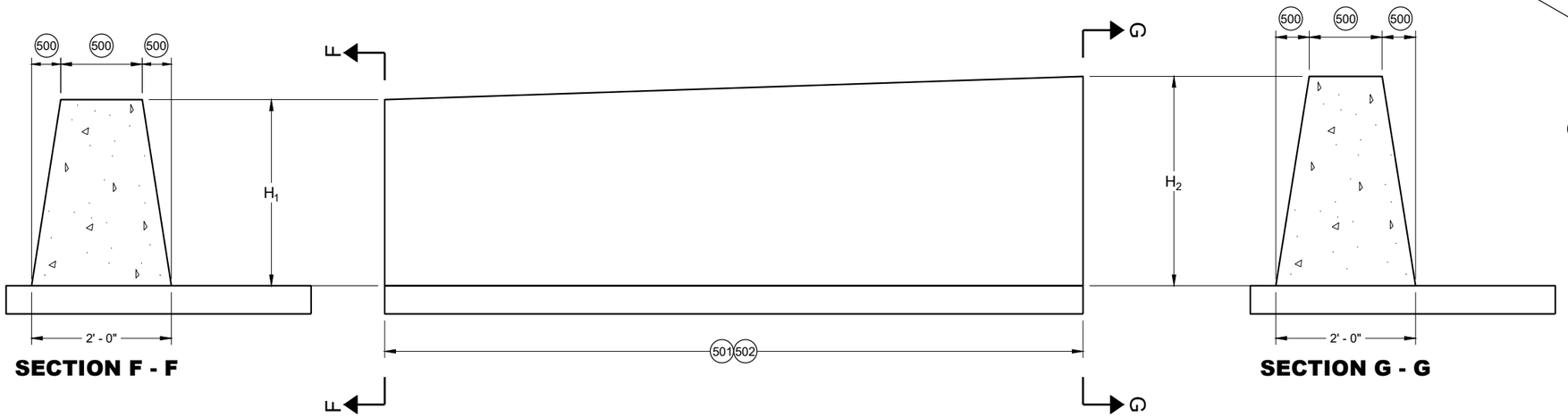
(506) NO. 5 REBAR FOR SPLICE. 3' OF SPLICE REBAR IS LAPPED AND TIED TO BARRIER REBAR. EXTEND 3' OF SPLICE REBAR BEYOND END OF POUR. ALL BARS ARE FIRMLY TIED OR CONNECTED. EVERY REBAR IN THE BARRIER SECTION REQUIRES A SPLICE BAR.

(507) END OF POUR.

(508) LAP AND TIE 3' OF NEXT POUR'S REBAR TO SPLICE REBAR.



COLD JOINT DETAIL



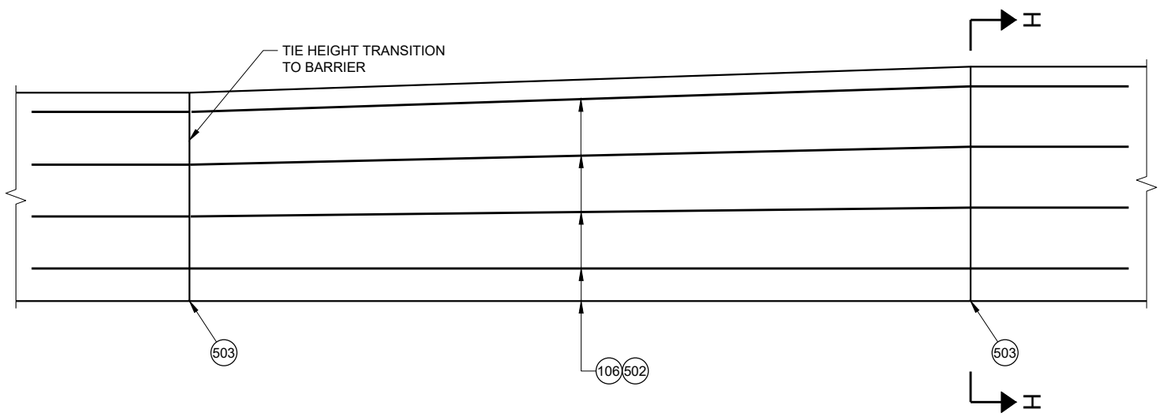
SECTION F - F

SECTION G - G

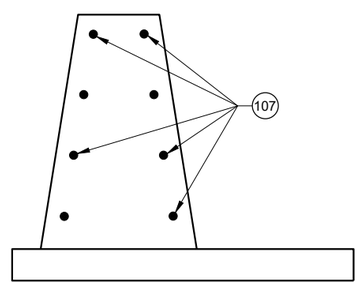
DOUBLE COLD JOINT HEIGHT TRANSITION

TABLE "D"

H_1	H_2	L	NUMBER OF NO. 5 BARS
32"	36"	10' - 0"	8
36"	42"	10' - 6"	10
42"	56"	24' - 6"	11



STEEL REINFORCEMENT DETAIL



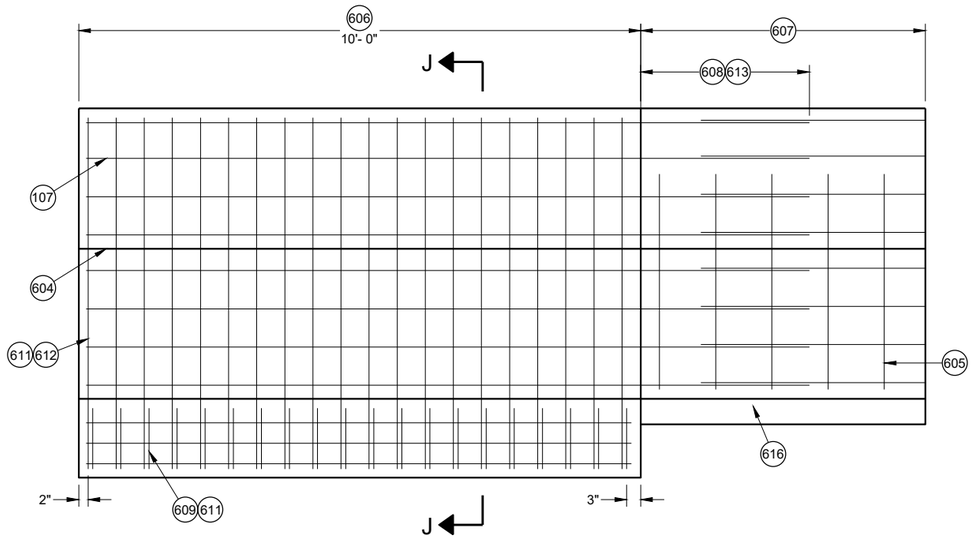
SECTION H - H

CONCRETE BARRIER SINGLE SLOPE (CBSS)

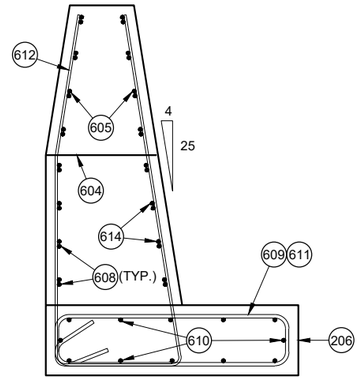
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B32 - 10e

SDD 14B32 - 10e



END ANCHOR MEDIAN BARRIER AND RETAINING WALL



SECTION J - J
END ANCHOR AND MEDIAN WALL END ANCHOR REINFORCEMENT DETAIL

GENERAL NOTES

600 UPPER CONCRETE BARRIER

601 LOWER CONCRETE BARRIER

602 MAX HEIGHT 36".

603 VERTICAL OFFSET FROM TOP ROADWAY SURFACES

604 OPTIONAL CONSTRUCTION JOINT WHEN HEIGHT IS GREATER THAN 1 ½".

605 NO. 4 BARRIER LOOP BARS ARE NOT REQUIRED FOR ROADWAY OFFSETS ARE LESS THAN 1'- 0", EXCEPT WHEN USED IN ANCHORS. BARRIER LOOP BARS ARE SPACED 12" CENTER TO CENTER OUTSIDE OF MEDIAN BARRIER AND RETAINING WALL END ANCHOR.

606 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL ANCHOR

607 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (SEE OTHER DETAILS)

608 NO. 5 REBAR 3' OF LAP OF LONGITUDINAL STEEL.

609 NO. 6 REBAR END ANCHOR FOOTING LOOP

610 TWELVE (12) NO. 5 BARS EVENLY SPACED.

611 SS ANCHOR END LOOP AND END ANCHOR FOOTING LOOP ARE SPACED 6" CENTER TO CENTER.

612 END ANCHOR LOOP BAR IS NO. 5 REBAR.

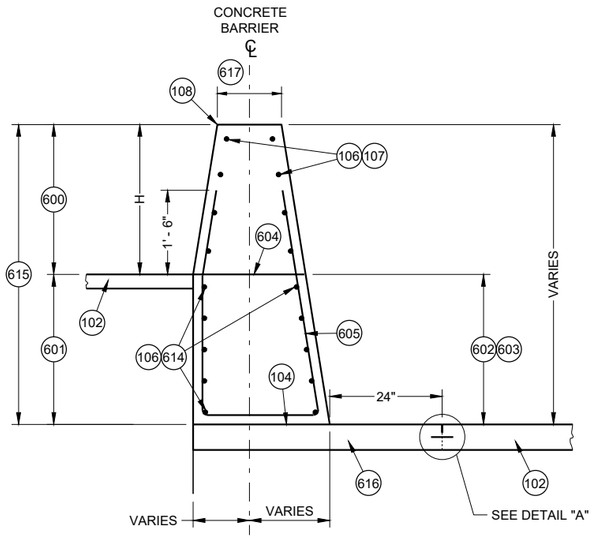
613 SEE COLD JOINT DETAIL.

614 SEE TABLE "E" FOR REQUIRED REBAR

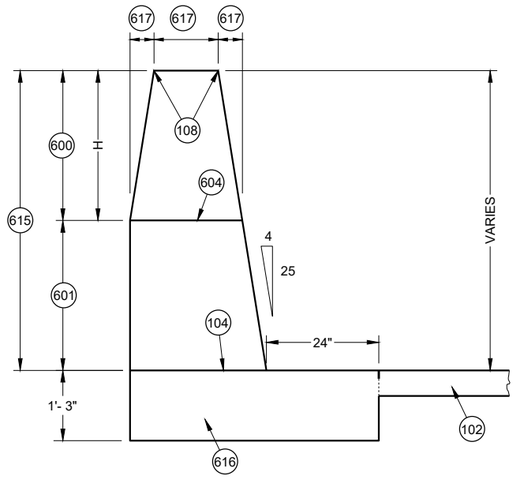
615 TOTAL BARRIER HEIGHT (SEE PLAN FOR HEIGHT)

616 FOR SOME LOCATIONS, NO PAN IS NEEDED. SEE OTHER DETAILS.

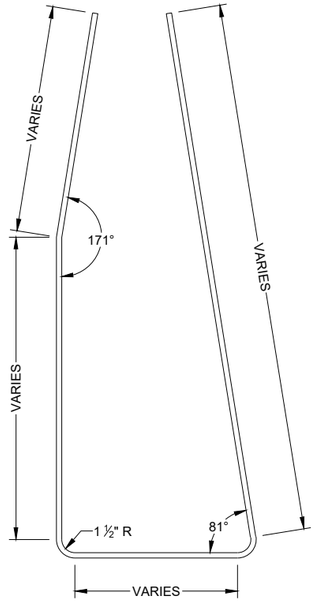
617 SEE TABLE "A" FOR DIMENSIONS



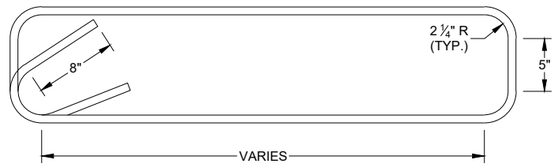
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)
(BETWEEN ADJACENT ROADWAYS)



SECTION J - J
MEDIAN BARRIER AND RETAINING WALL END ANCHOR DIMENSIONS



LOOP BAR BENDING DETAIL



END ANCHOR STIRRUP BAR BENDING DETAIL

TABLE "E"

HEIGHT BETWEEN ROADWAY	QUANTITY OF NO. 6 BARS
0 TO 3"	0
GREATER THAN 3" TO 8"	2
GREATER THAN 8" TO 12"	4
GREATER THAN 12" TO 36"	8

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B32 - 10f

6

SDD 14B32 - 10f

GENERAL NOTES

700 END ANCHOR SINGLE SLOPE CONCRETE BARRIER

701 SEE EXPANSION JOINT DETAIL

702 END ANCHOR SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

703 PAY LIMIT FOR SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

704 SEE COLD JOINT DETAIL

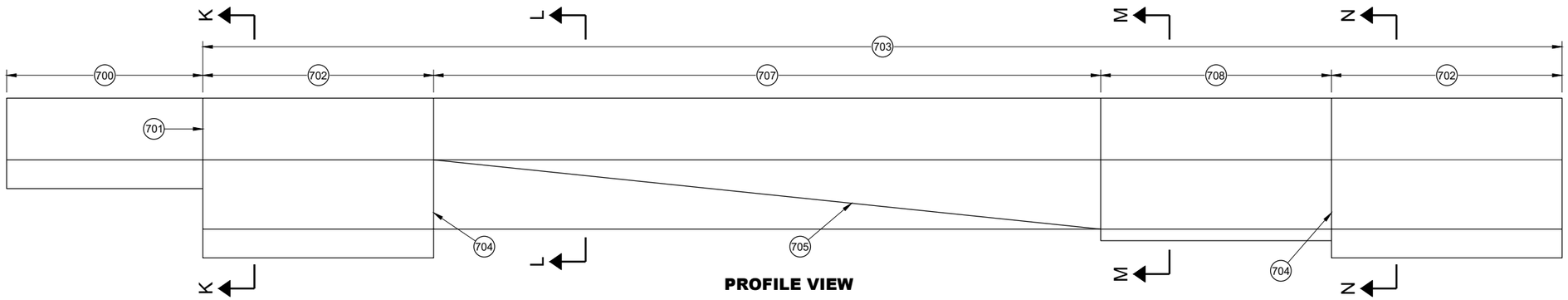
705 LOW SIDE SHOULDER

706 HIGH SIDE SHOULDER

707 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL INSTALLED WITHOUT A PAN.

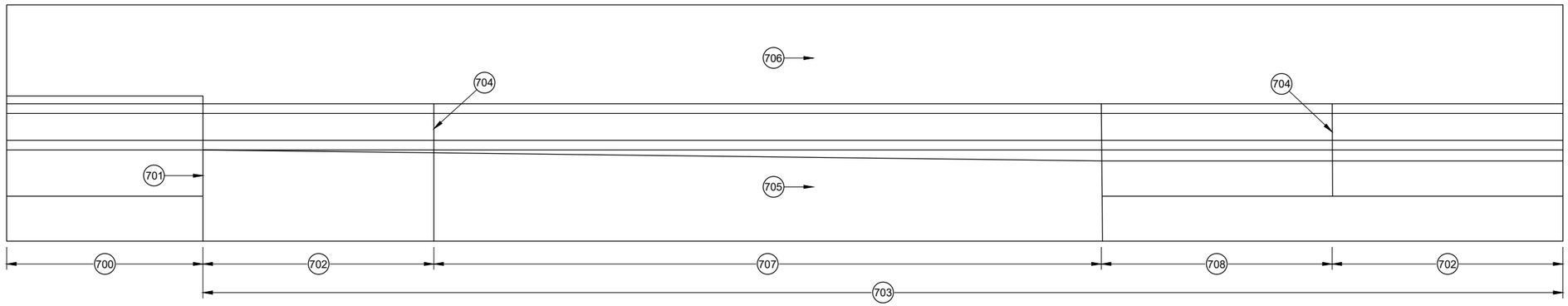
708 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL INSTALLED WITH A PAN.

709 EXCAVATION AND COMPACTION



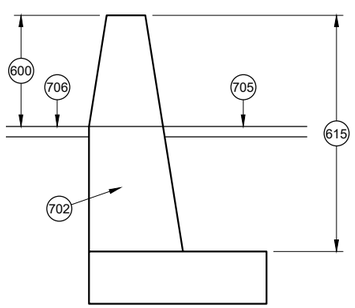
PROFILE VIEW

SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

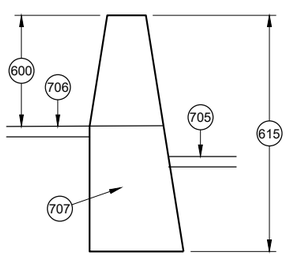


PLAN VIEW

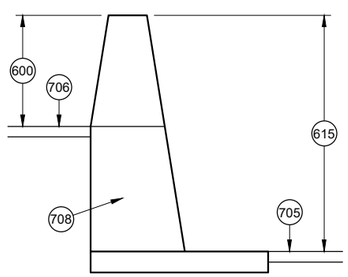
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL



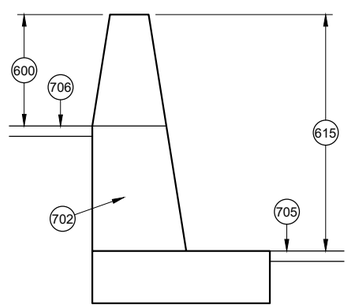
SECTION K - K



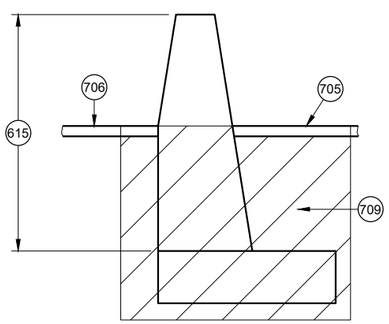
SECTION L - L



SECTION M - M



SECTION N - N

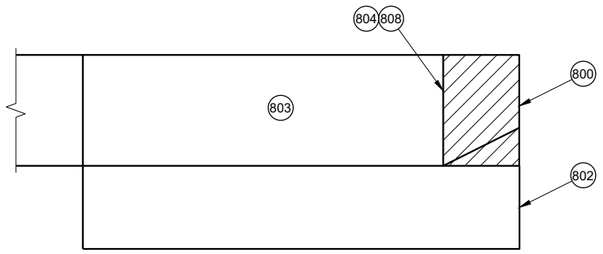


CONCRETE BARRIER
SINGLE SLOPE (CBSS)

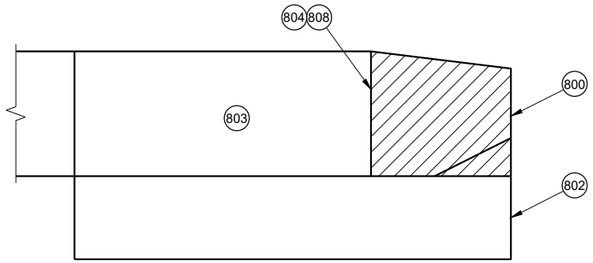
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

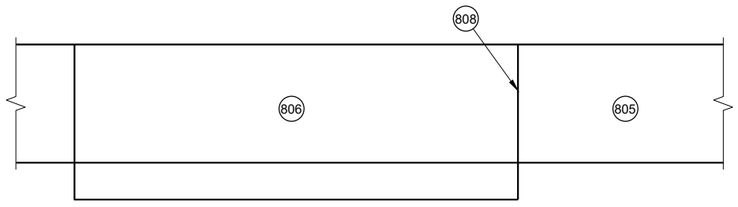
SDD 14B32 - 10g



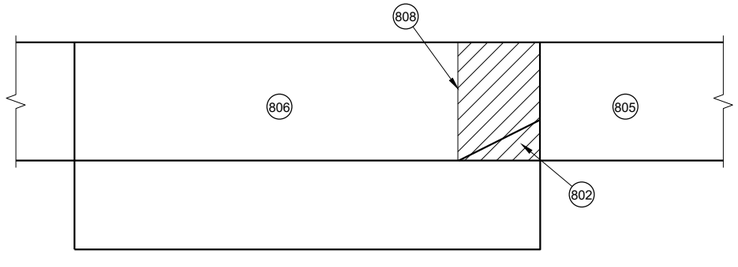
REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



REMOVAL AREA OF CONCRETE THRIE BEAM ANCHORAGE WITH HEIGHT GREATER THAN 32"



CONCRETE BARRIER EXTENSION NEAR END ANCHORAGE



CONCRETE BARRIER EXTENSION NEAR THRIE BEAM TERMINAL

GENERAL NOTES

END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIER.

REMOVE THRIE BEAM ANCHORAGE AS SHOWN.

(800) AREA OF BARRIER REMOVAL AN NEW CONCRETE AND STEEL IS INSTALLED.

(801) MINIMUM LENGTH OF REMOVAL IS 15'

(802) FOOTING BELOW GROUND MAY REMAIN IN PLACE.

(803) CONCRETE BARRIER SINGLE SLOPE THRIE BEAM ANCHOR TO REMAIN.

(804) SAW CUT

(805) NEW SINGLE SLOPE CONCRETE BARRIER.

(806) CONCRETE BARRIE SINGLE SLOPE TO REMAIN.

(807) SINGLE SLOPE CONCRETE BARRIER OR CONCRETE BARRIER SINGLE SLOPE THRIE BEAM ANCHOR TO REMAIN.

(808) SEE CONNECTION DETAIL.

(809) NO. 5 CONTINUOUS BAR.

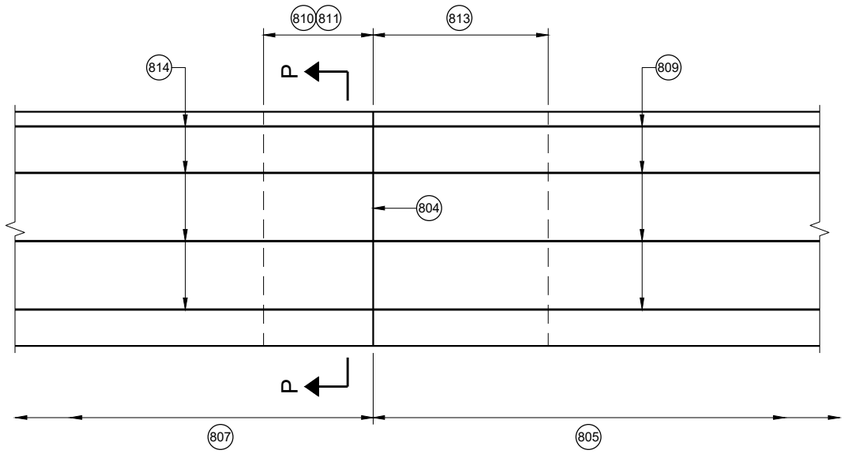
(810) 3' MIN. DRILL HOLES. USES NO. 5 ADHESIVE ANCHORS.

(811) THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF HORIZONTAL REBAR IN BARRIER. DRILL HOLES ARE TO BE A MINIMUM OF 4" FROM EDGE OF CONCRETE.

(812) EXISTING REBAR IN EXISTING BARRIER OR END ANCHOR.

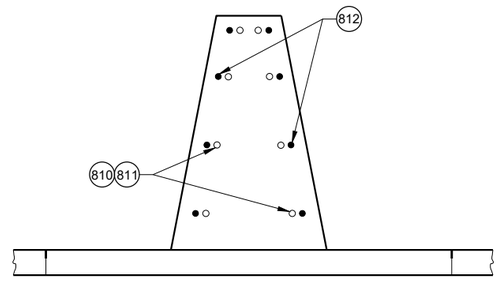
(813) 3' BAR OVERLAP

(814) EXISTING REINFORCEMENT

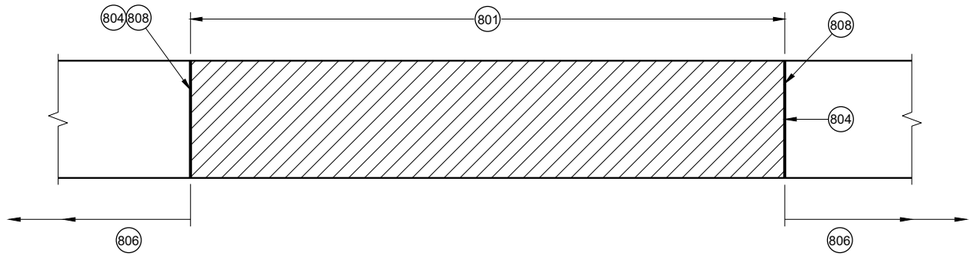


CONNECTION DETAIL

SINGLE SLOPE CONCRETE BARRIER TO NEW SINGLE SLOPE CONCRETE BARRIER



SECTION P - P



BARRIER REMOVAL AND REPLACEMENT

RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

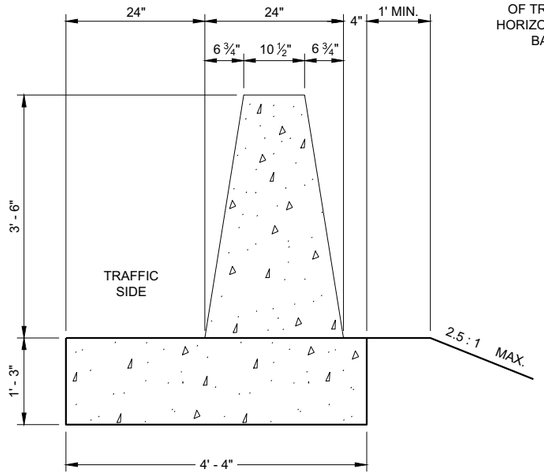
FHWA

6

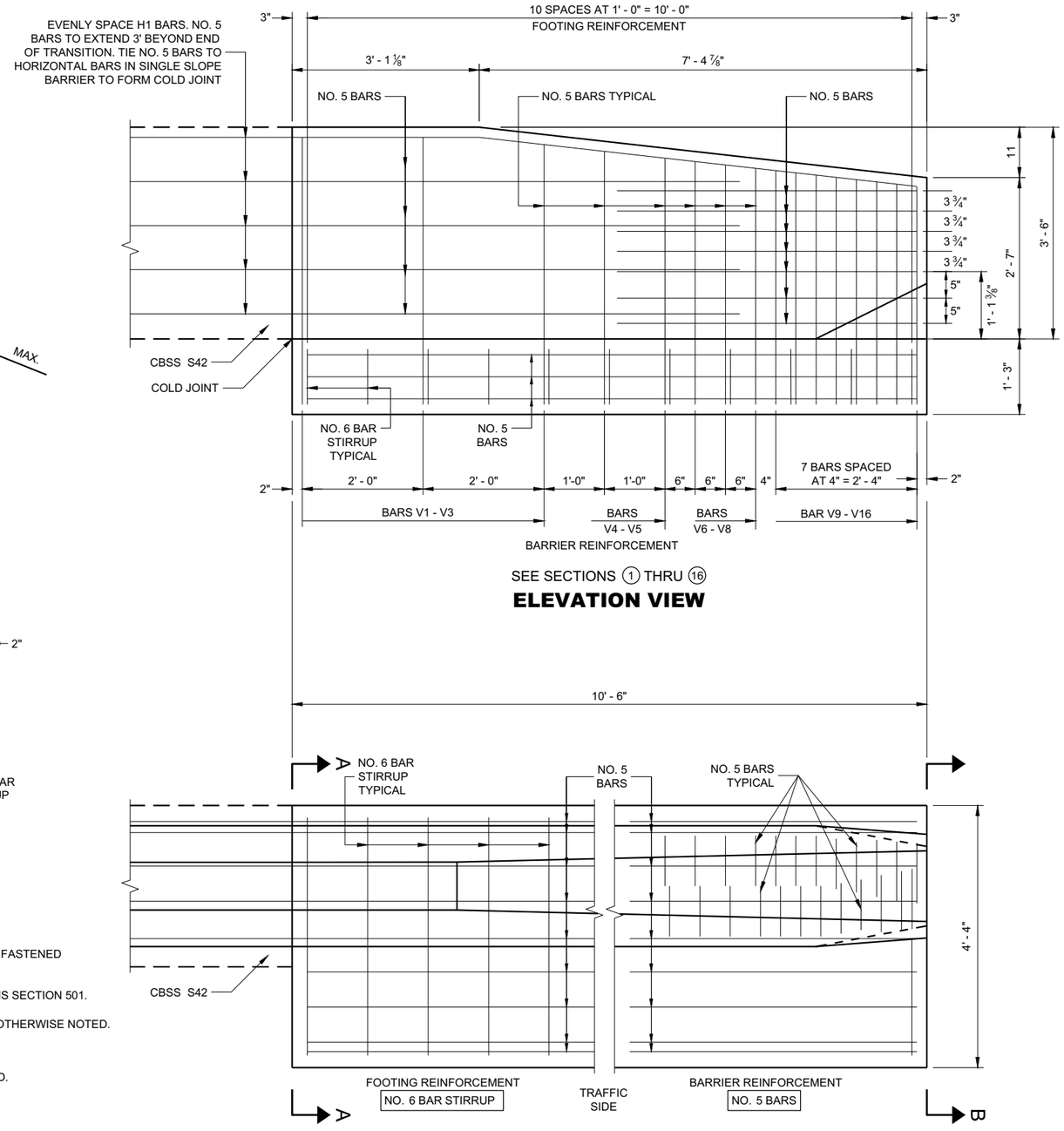
SDD 14B32 - 10h

6

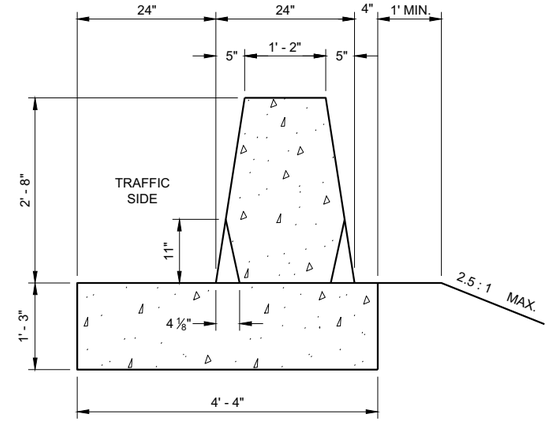
SDD 14B32 - 10h



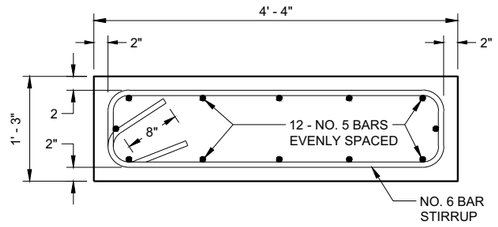
SECTION A - A



ELEVATION VIEW

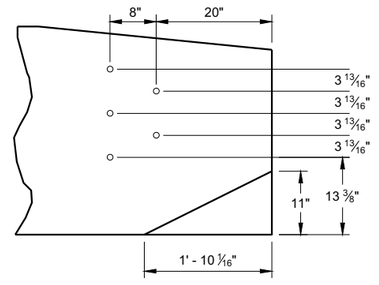


SECTION B - B



TYPICAL FOOTING

PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE OF BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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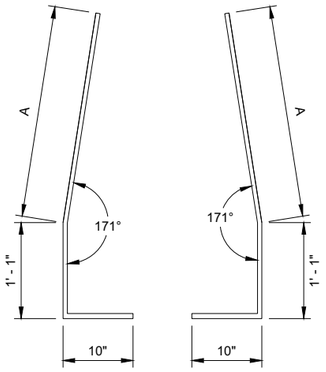
SDD 14B33 - 02g
SDD 14B33 - 02g

BAR CHART
BAR POSITIONS
1 - 11

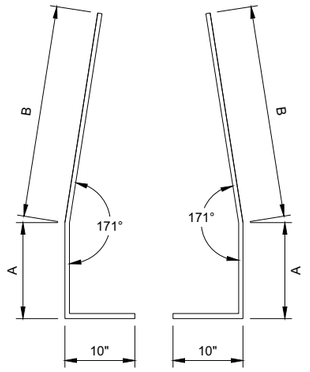
BAR	A
V1	3' - 4 ½"
V2	3' - 4 ½"
V3	3' - 2 ½"
V4	3' - 1"
V5	2' - 11 ½"
V6	2' - 11"
V7	2' - 10 ½"
V8	2' - 9 ½"
V9	2' - 9"
V10	2' - 8 ½"
V11	2' - 8"



BAR BENDING DETAIL
SECTIONS V1 - V4

BAR CHART
BAR POSITIONS
12 - 13

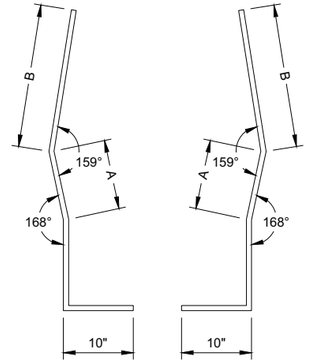
BAR	A	B
V12	1' - 3"	2' - 6"
V13	1' - 8"	2' - 1 ½"



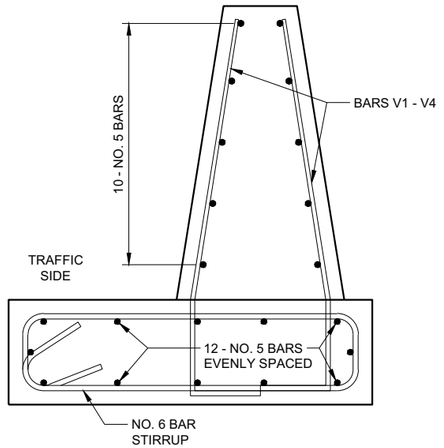
BAR BENDING DETAIL
SECTIONS V12 - V13

BAR CHART
BAR POSITIONS
14 - 16

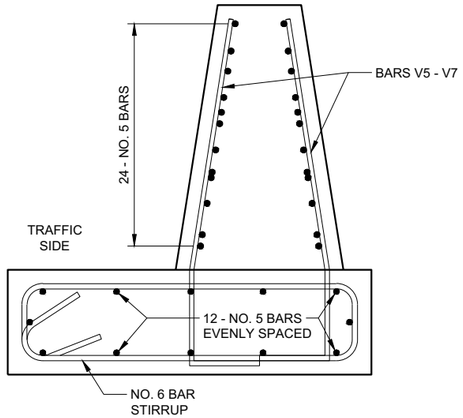
BAR	A	B
V14	6"	2' - 1"
V15	8"	1' - 11"
V16	10"	1' - 8 ½"



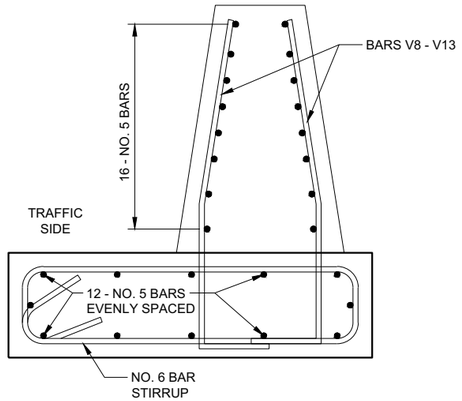
BAR BENDING DETAIL
SECTIONS V14 - V16



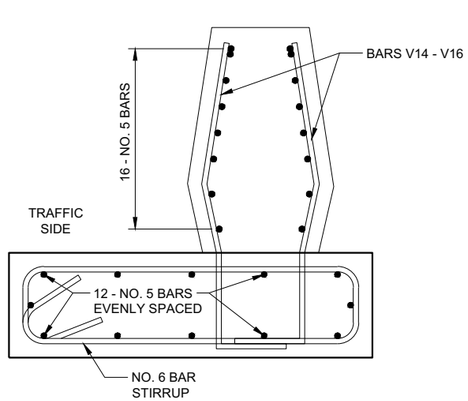
BAR DETAIL
SECTIONS 1 - 4



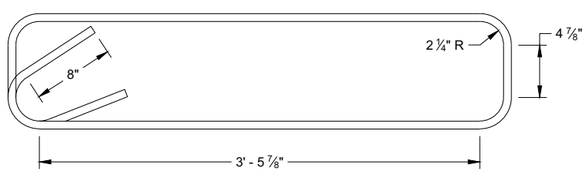
BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

FHWA

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SDD 14B33 - 02h

(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.

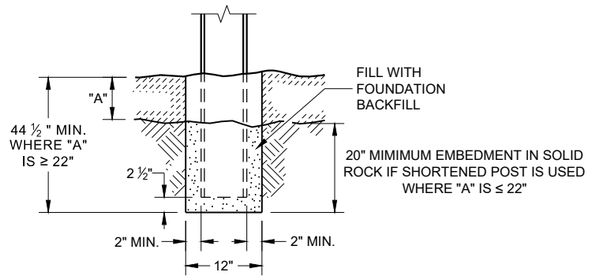
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

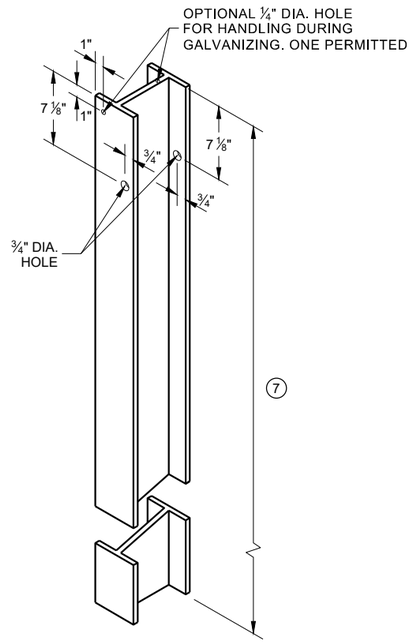
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

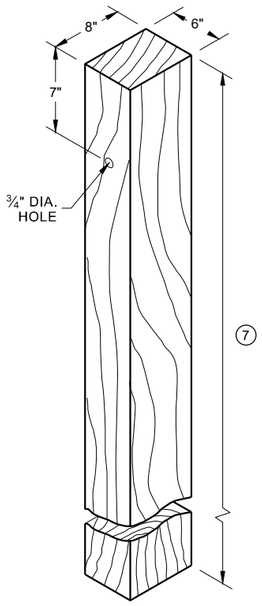
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



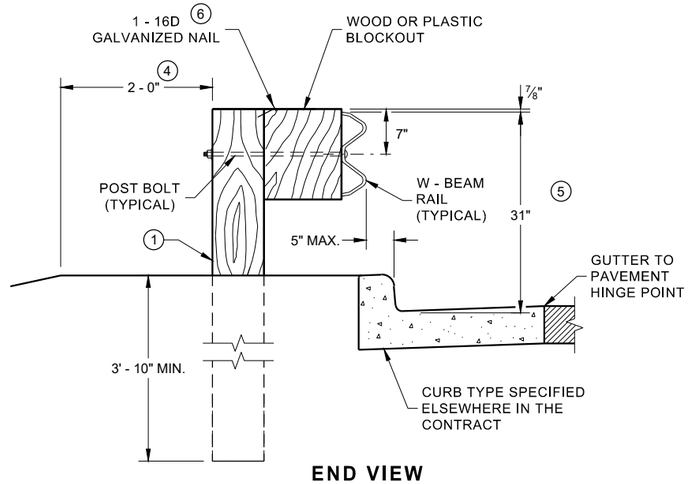
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



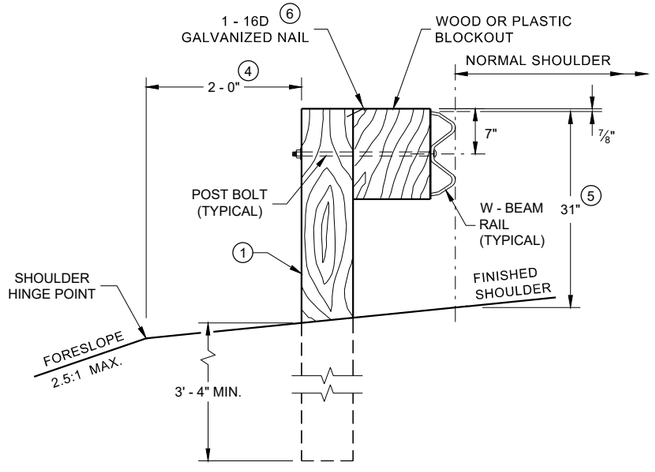
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



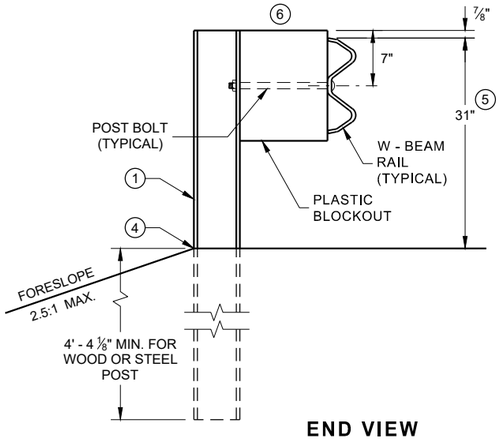
WOOD POST (6" X 8") NOMINAL (1)



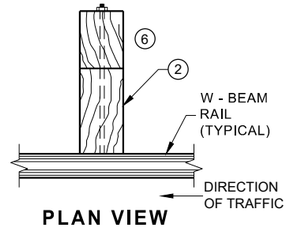
END VIEW
LOCATED ALONG A CURBED ROADWAY



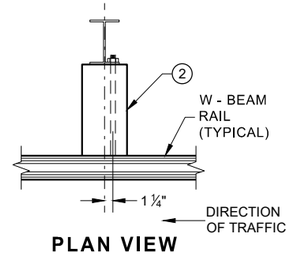
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



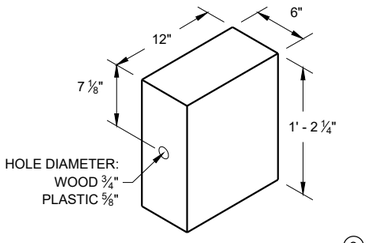
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

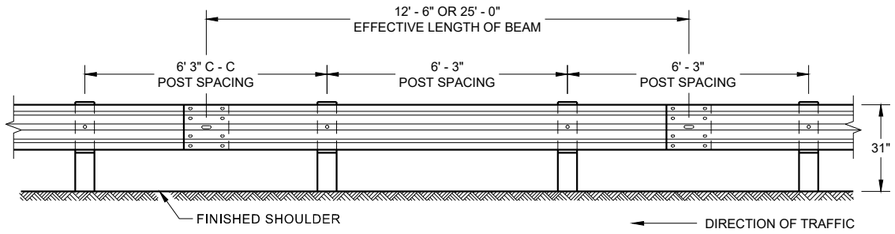
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

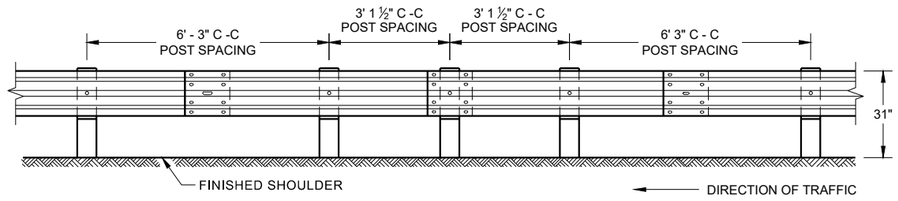
SDD 14B42 - 07a

6

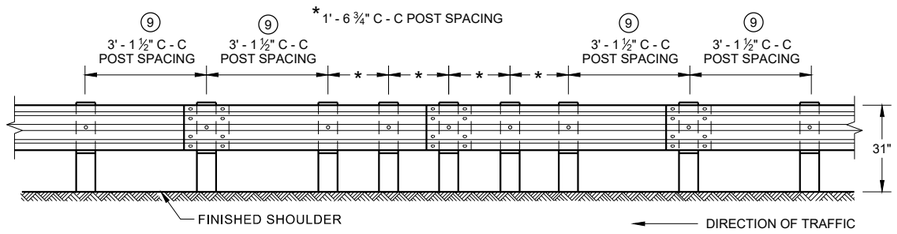
SDD 14B42 - 07a



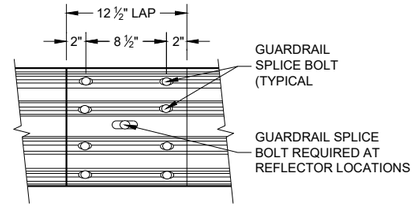
FRONT VIEW
POST SPACING STANDARD INSTALLATION



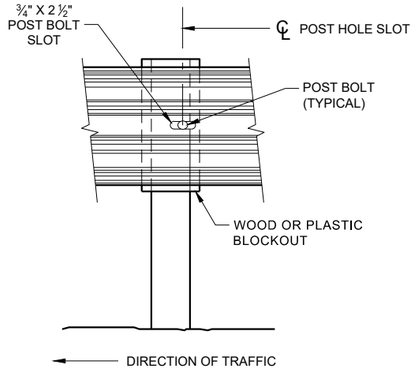
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



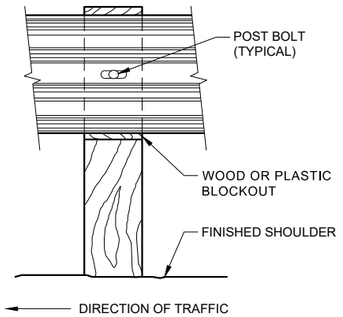
FRONT VIEW
QUARTER POST SPACING (QS)



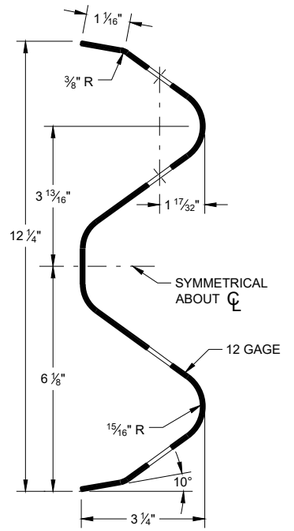
FRONT VIEW
MID-SPAN BEAM SPLICE



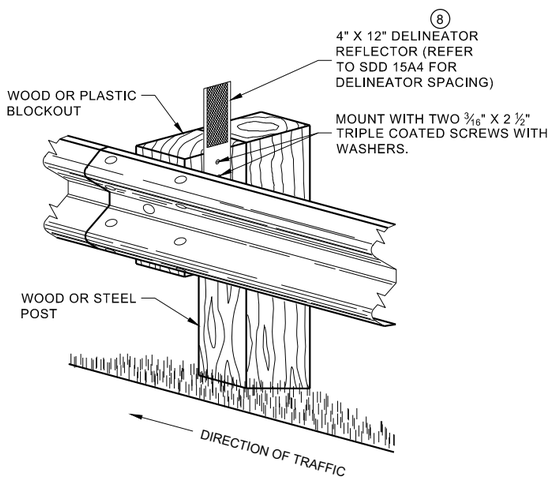
FRONT VIEW AT STEEL POST



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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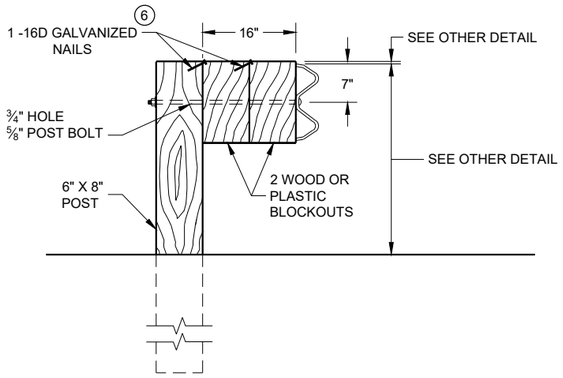
SDD 14B42 - 07b
SDD 14B42 - 07b

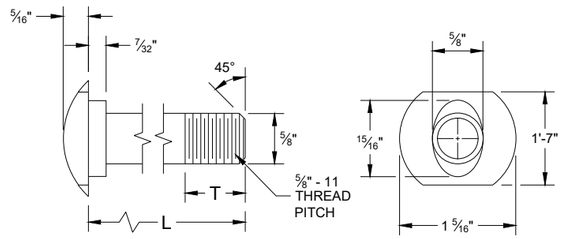


DETAIL FOR 16" BLOCKOUT DEPTH

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.

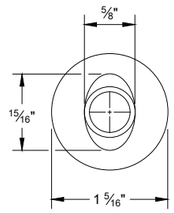
NOTE:

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.

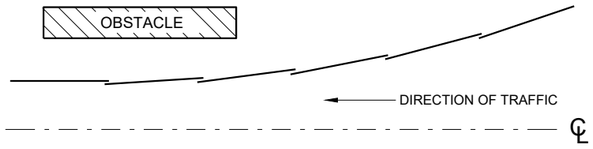


POST BOLT TABLE

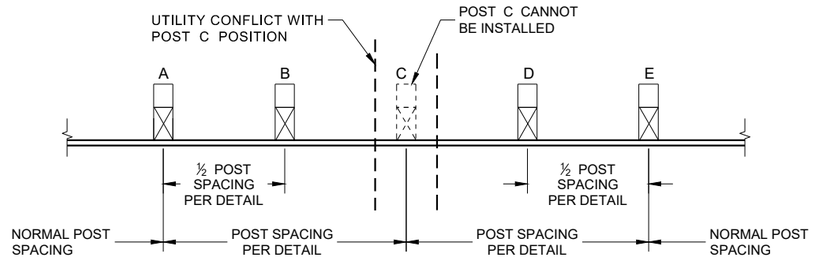
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



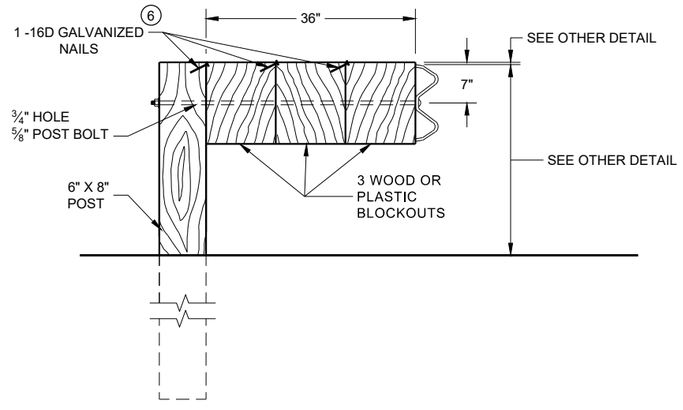
ALTERNATE BOLT HEAD



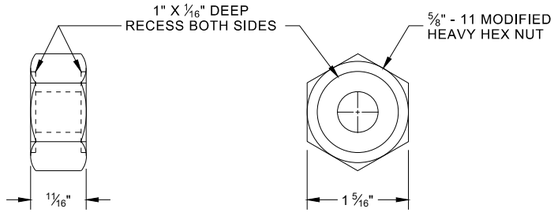
PLAN VIEW
BEAM LAPPING DETAIL



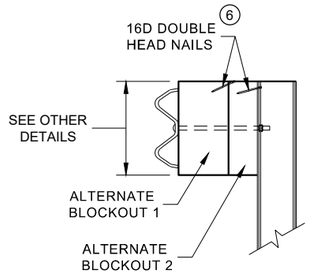
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



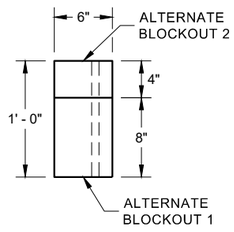
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

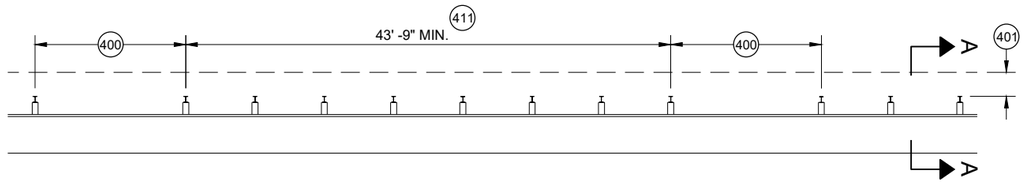
ALTERNATE WOOD BLOCKOUT DETAIL

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.

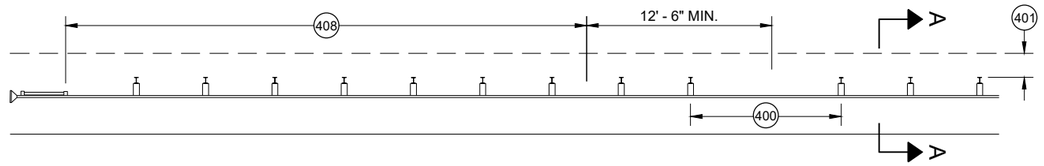
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

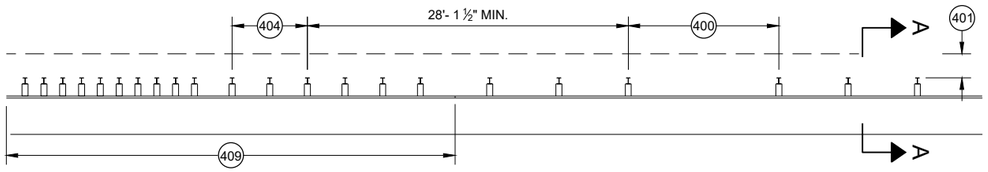
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



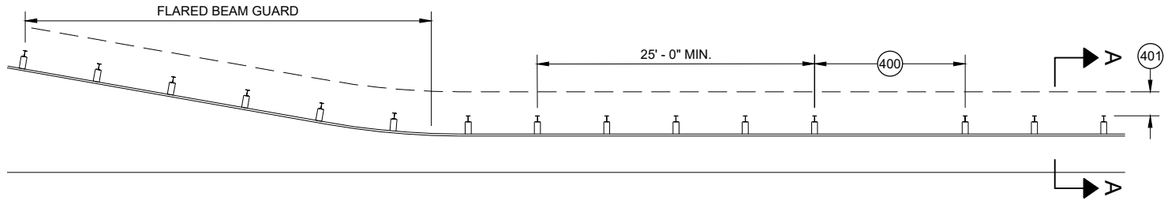
MISSING POST IN MGS GUARDRAIL



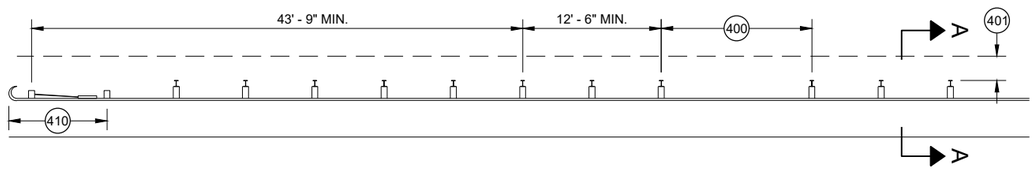
MISSING POST IN MGS GUARDRAIL NEAR EAT



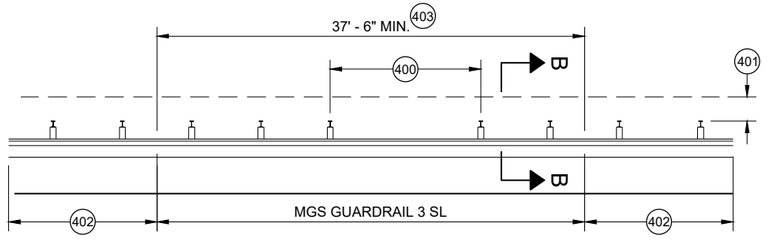
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

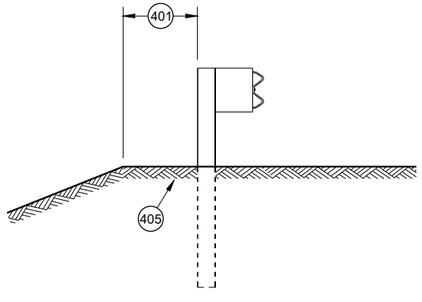


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

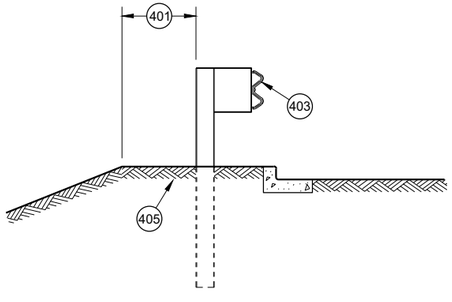


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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

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SDD 14B42 - 07d

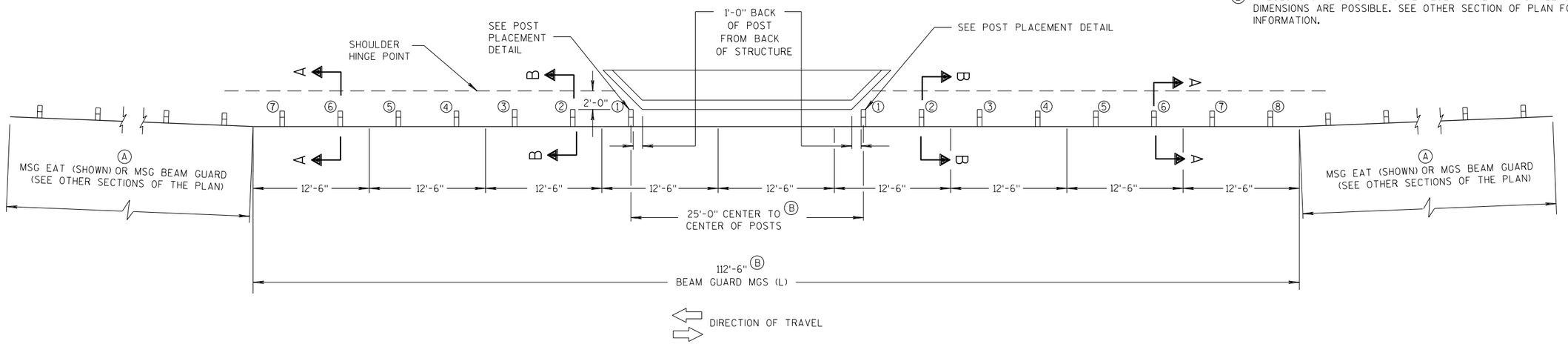
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

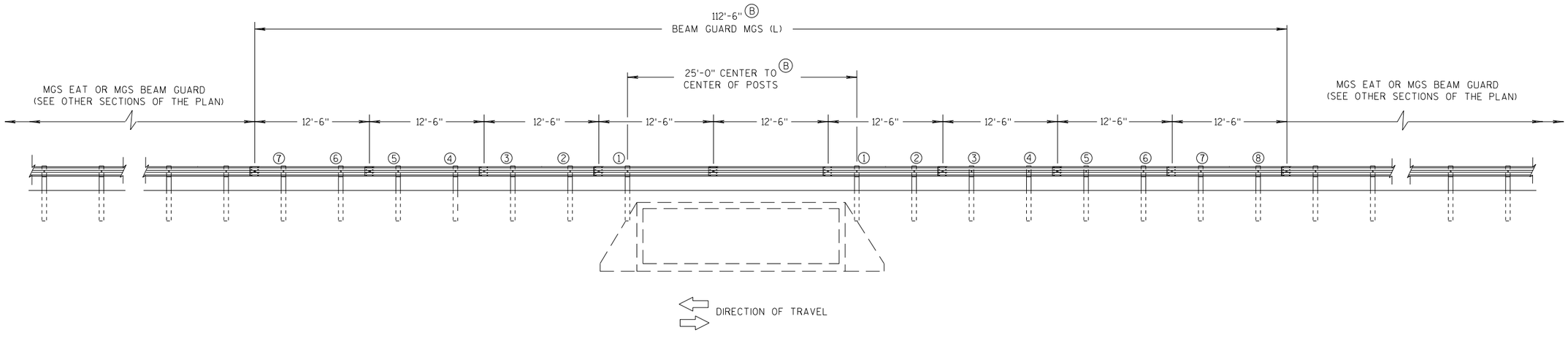
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 43-4a

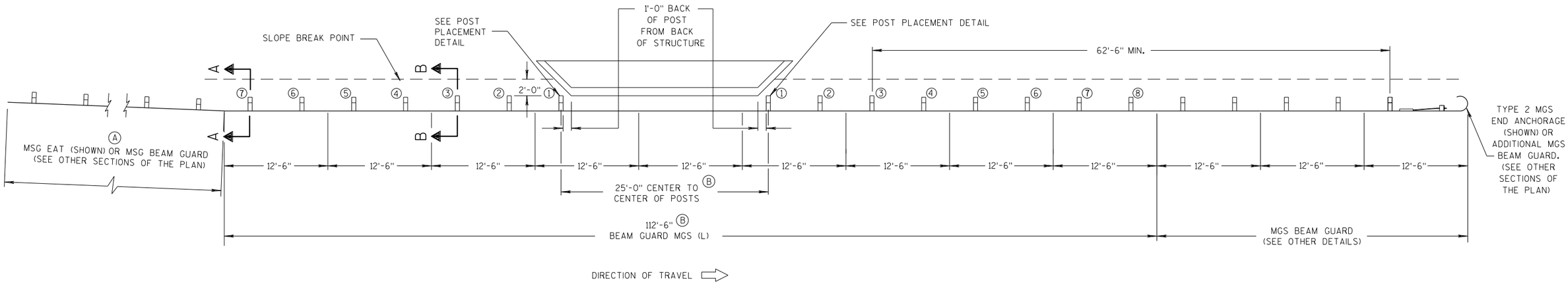
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

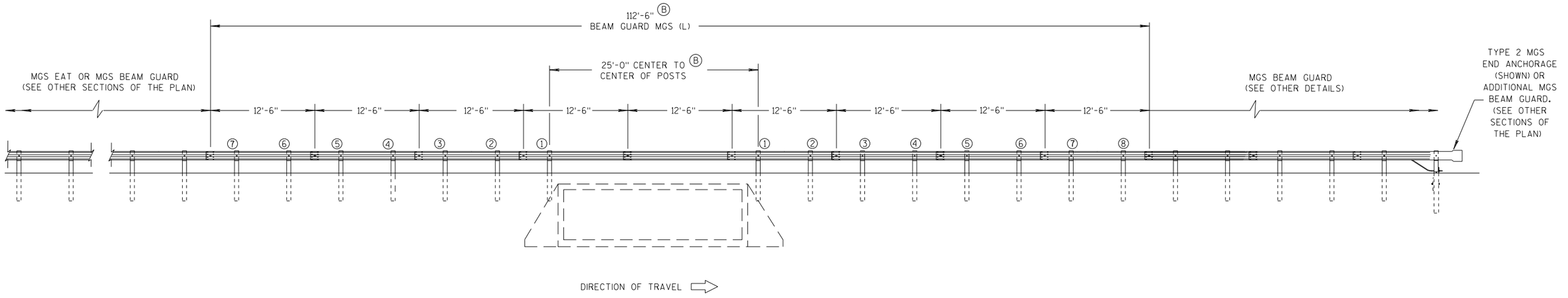
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



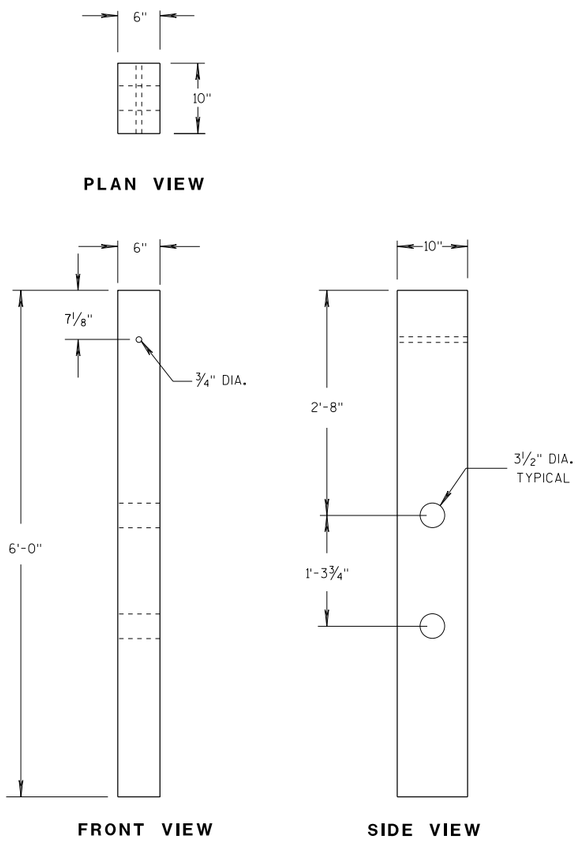
ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

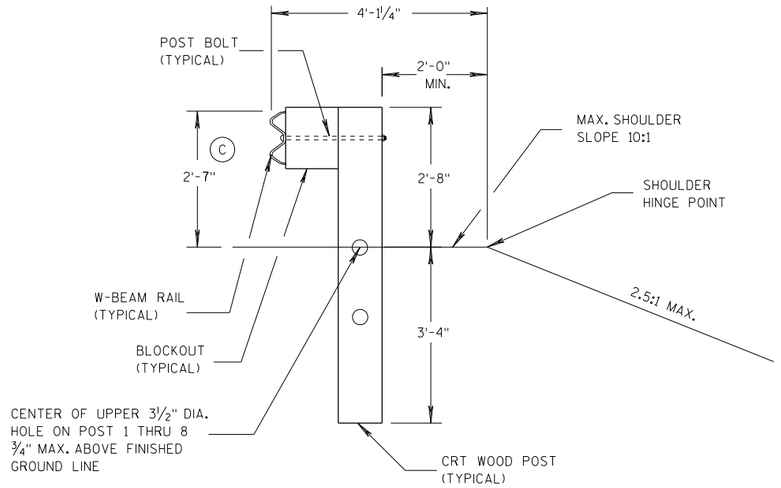
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	392

6

S.D.D. 14 B 43-4b



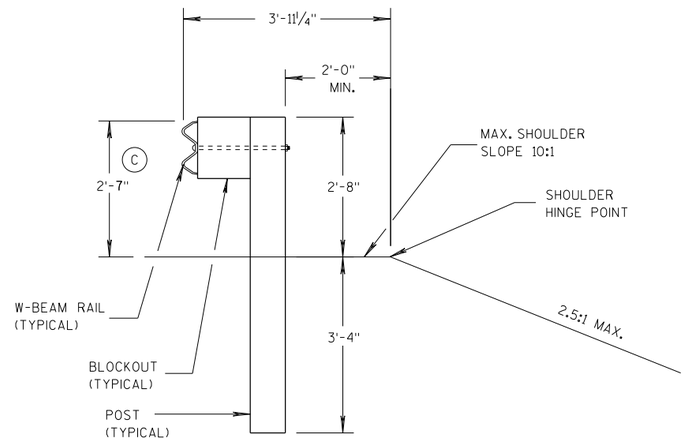
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



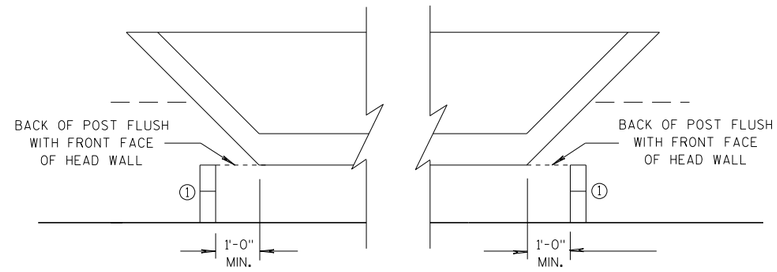
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D 393 NT
ENGINEER

6

S.D.D. 14 B 43-4c

6

S.D.D. 14 B 43-4c

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.

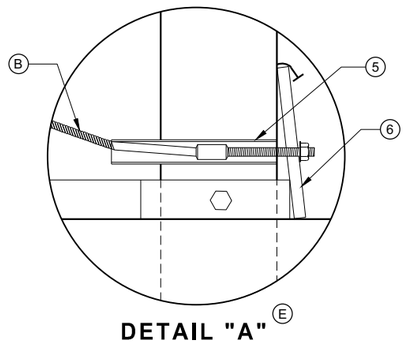
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

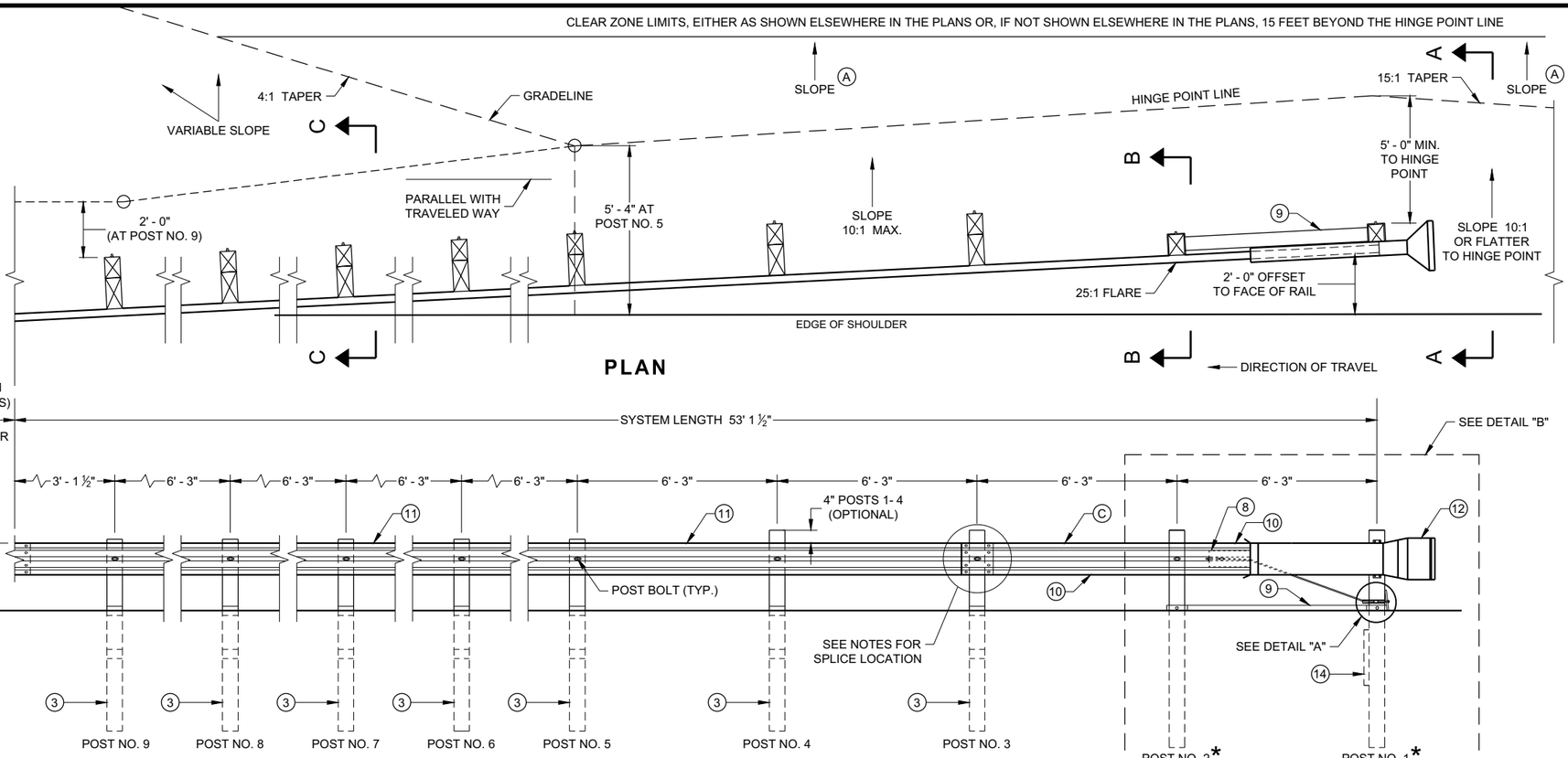
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

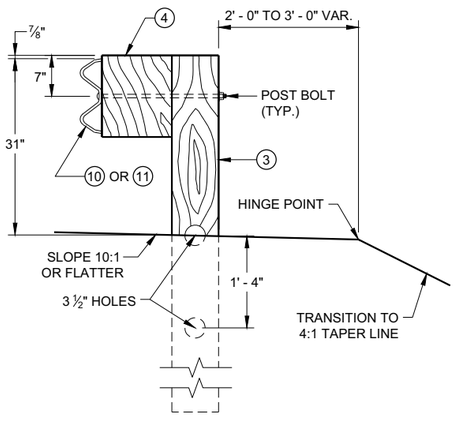
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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.

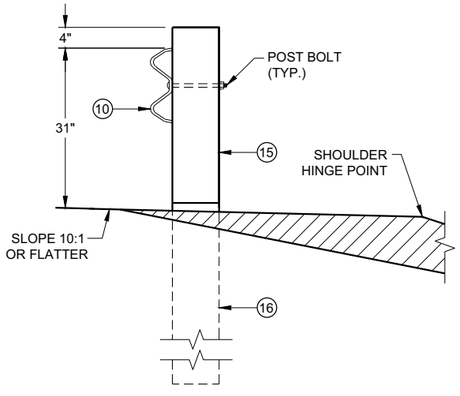


DETAIL "A" (E)

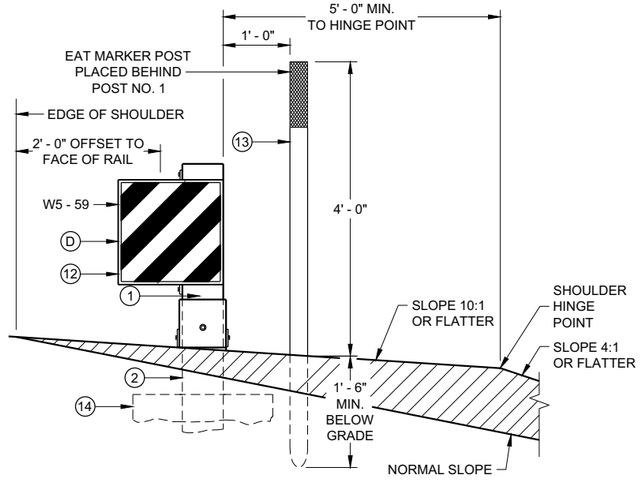




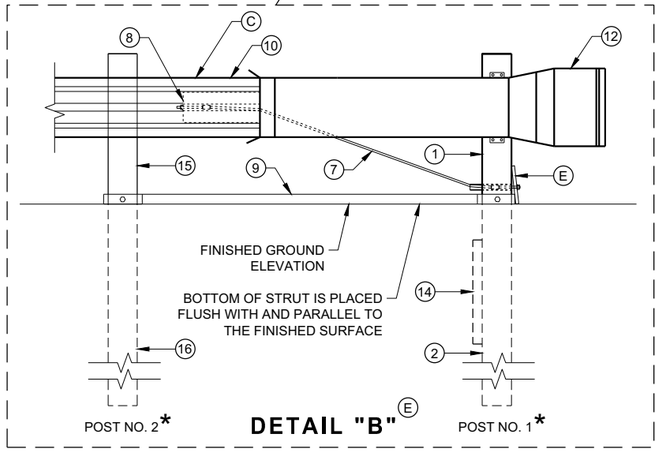
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

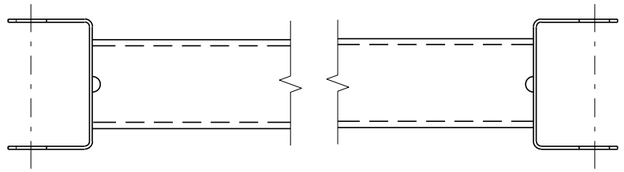
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

6

SDD 14B44 - 04a

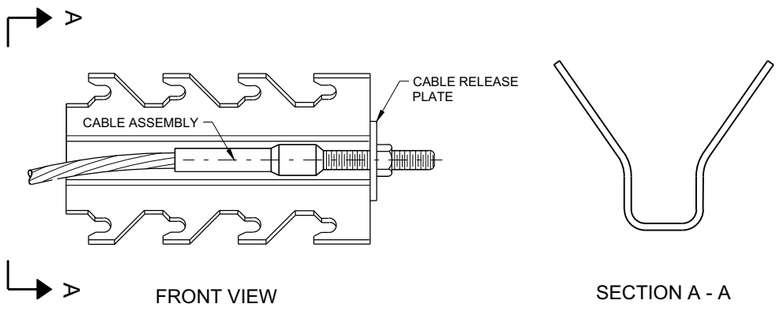
6



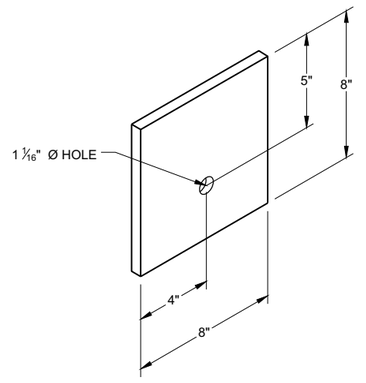
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

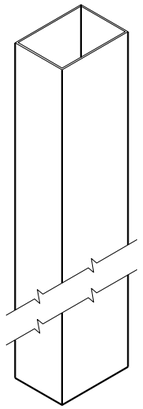
6

SDD 14B44 - 04b

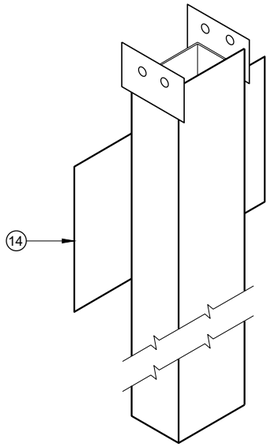
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

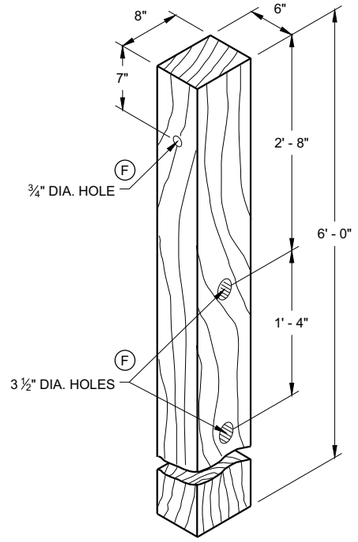
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



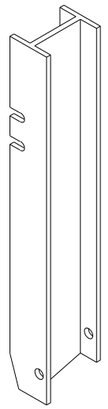
UPPER POST NO. 1 (1) (E)



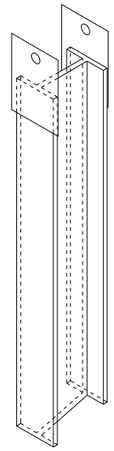
LOWER POST NO. 1 (2) (E)



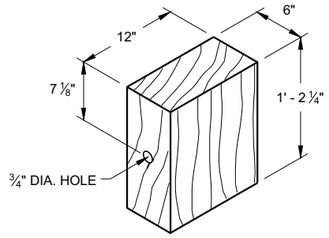
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



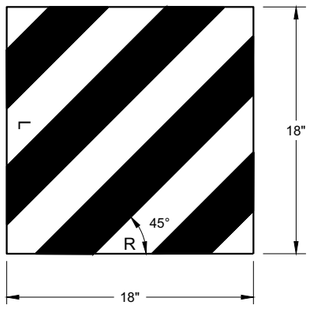
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

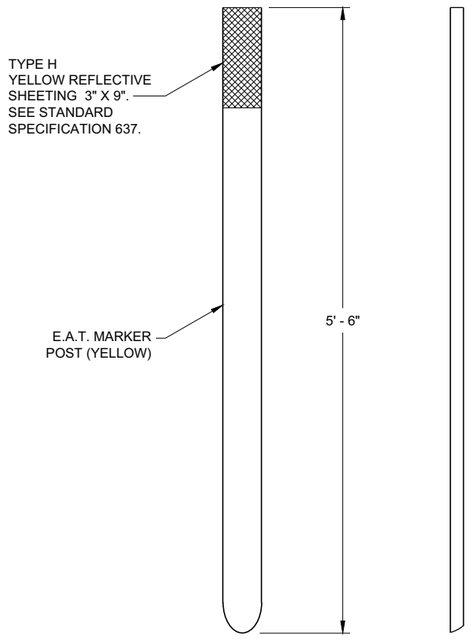


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



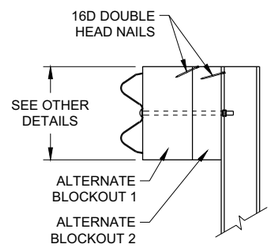
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

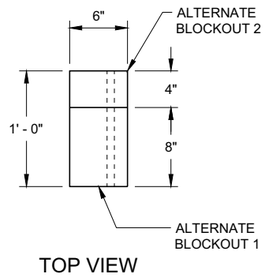


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

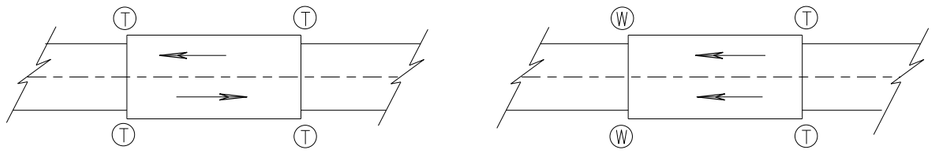
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

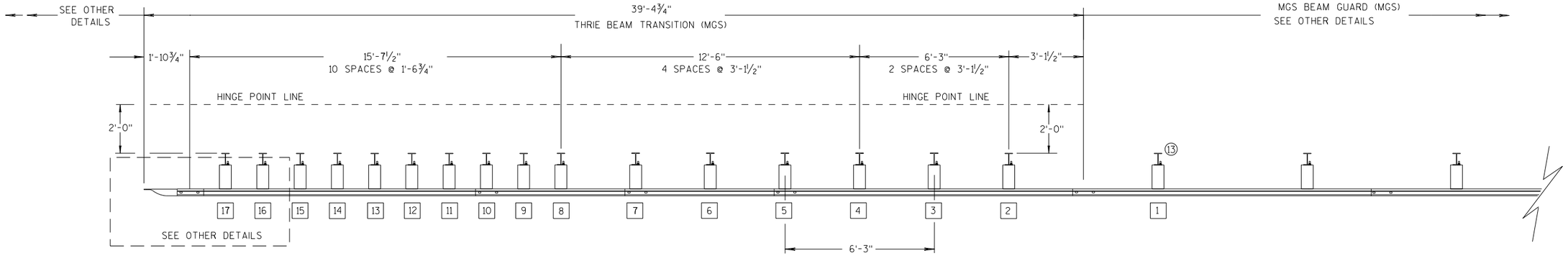
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

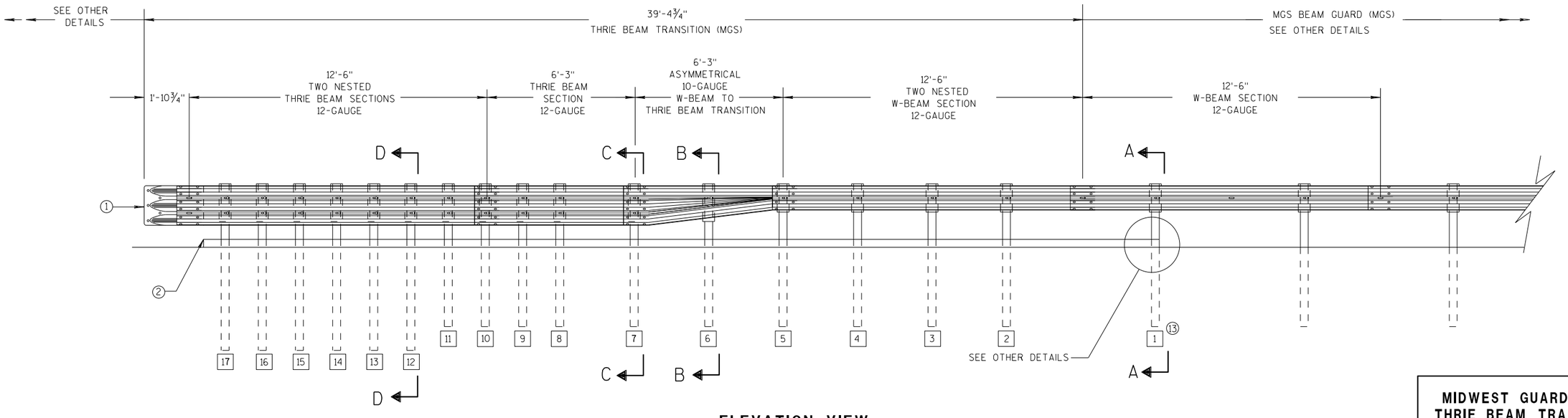
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

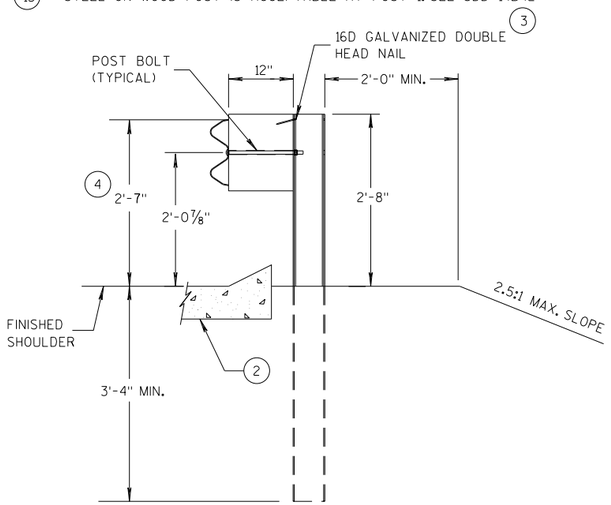
GENERAL NOTES

(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.

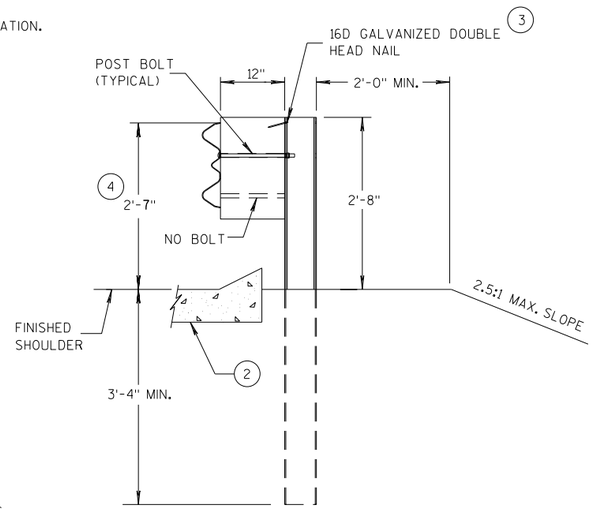
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



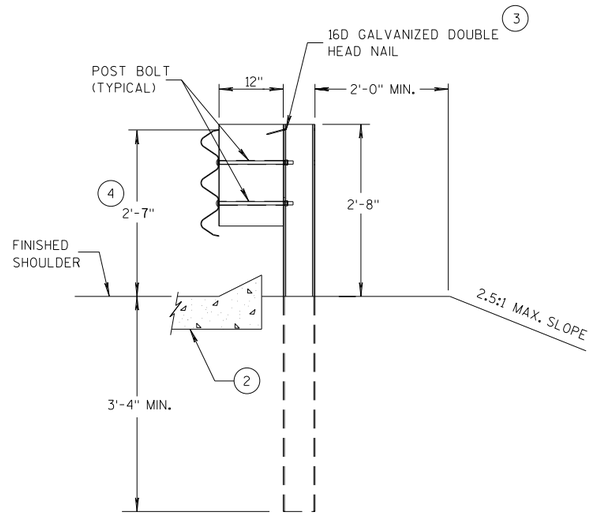
SECTION A-A (13)

POSTS 1-5



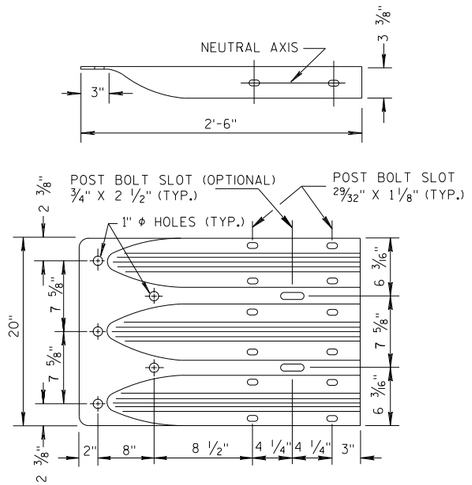
SECTION B-B

POST 6

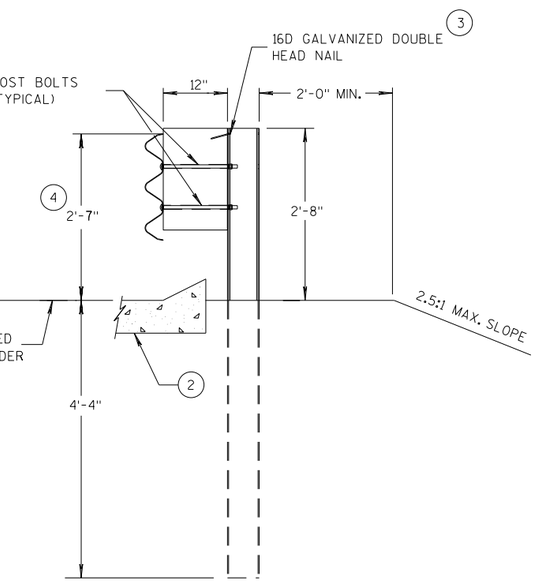


SECTION C-C

POSTS 7-11

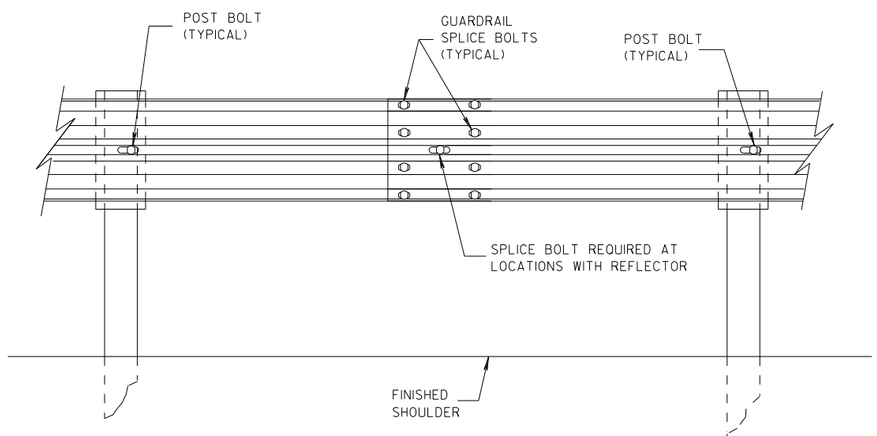


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

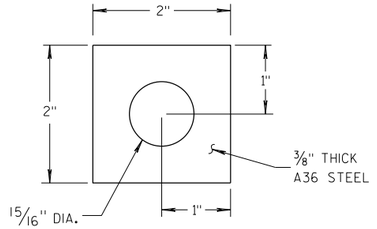
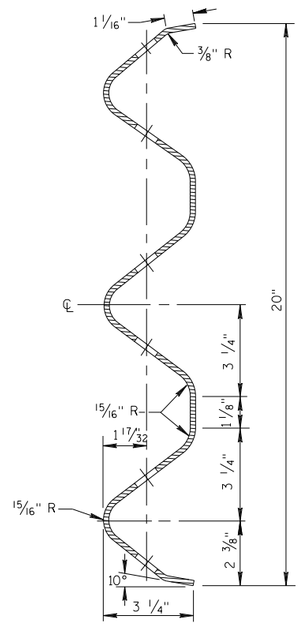


PLATE WASHER DETAIL



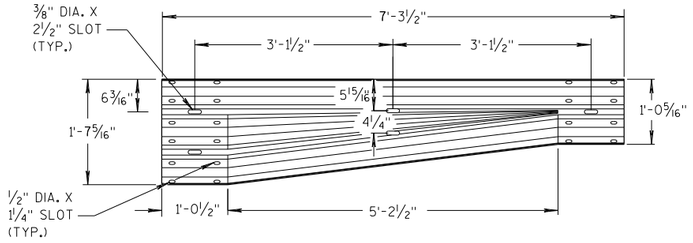
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

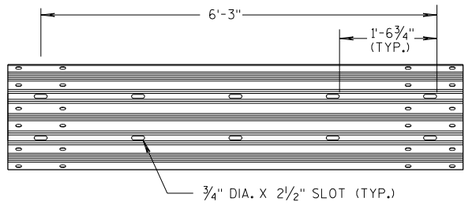
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

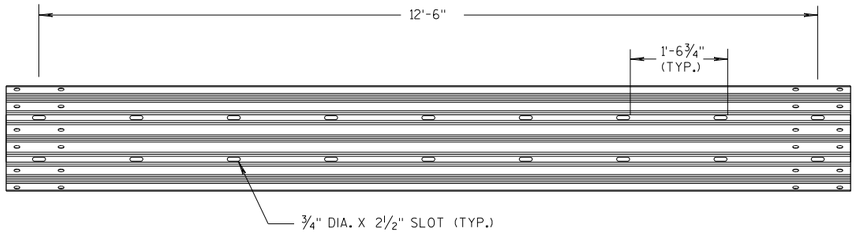
S.D.D. 14 B 45-5b



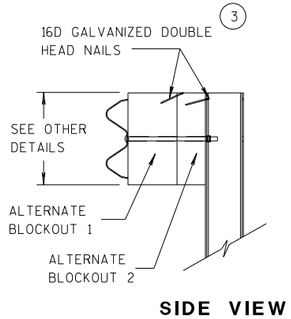
W-BEAM TO THRIE BEAM TRANSITION SECTION



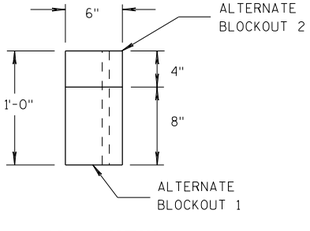
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

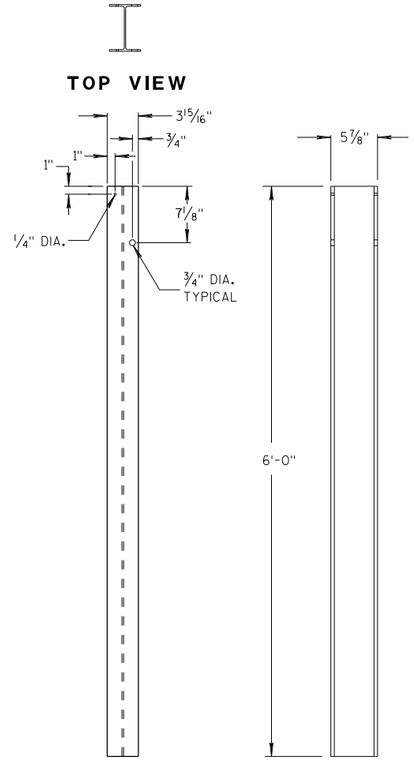


SIDE VIEW



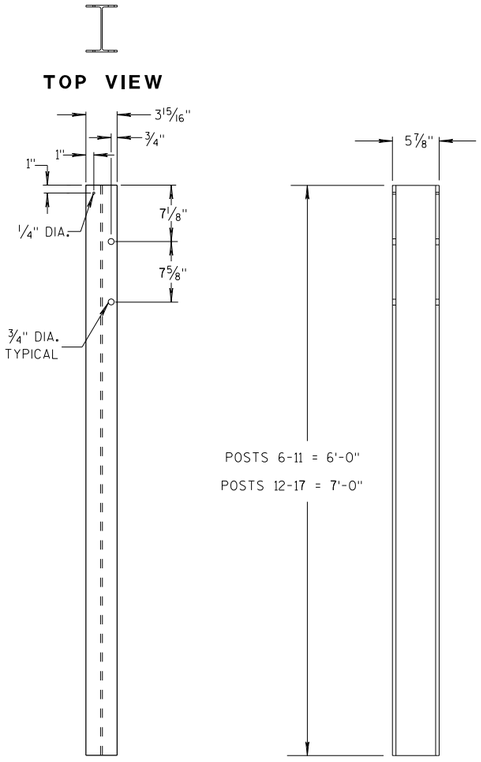
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



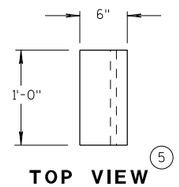
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

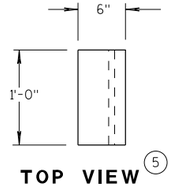


FRONT VIEW SIDE VIEW

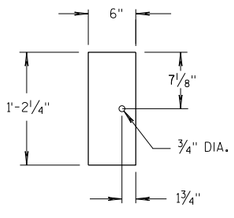
STEEL POSTS 6-17



TOP VIEW (5)

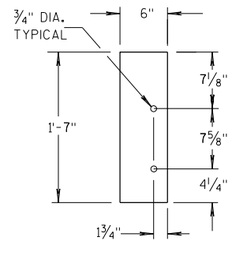


TOP VIEW (5)



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)

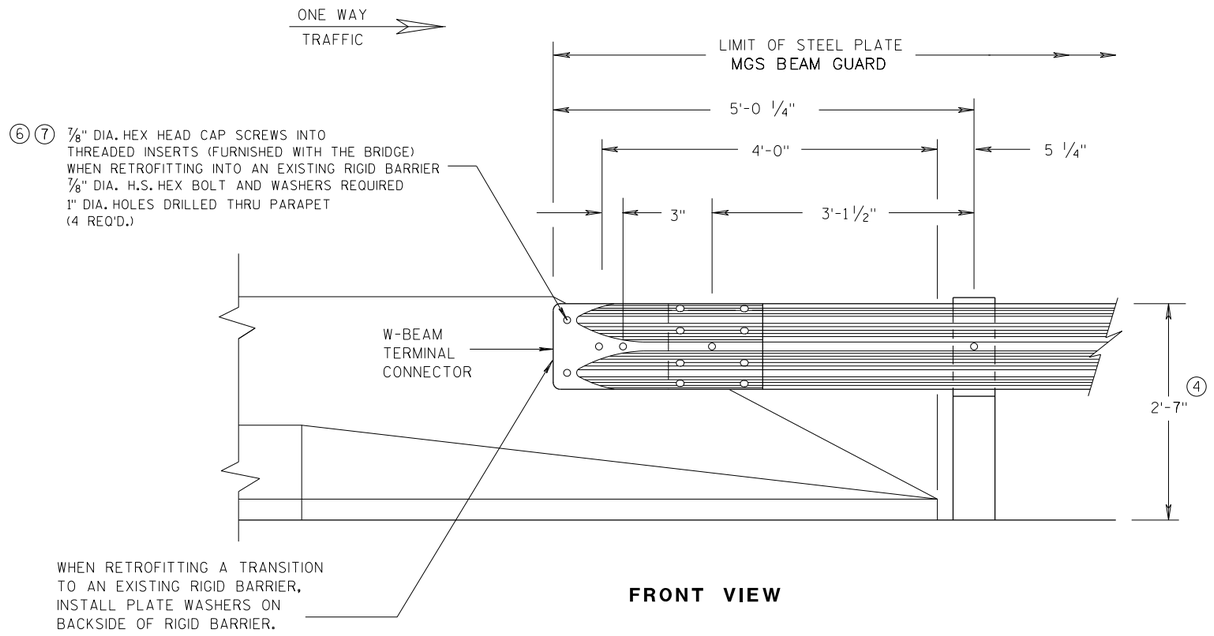
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 399

6

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

6

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



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

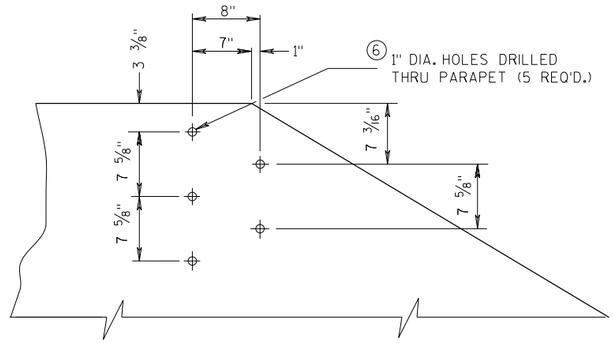
GENERAL NOTES

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

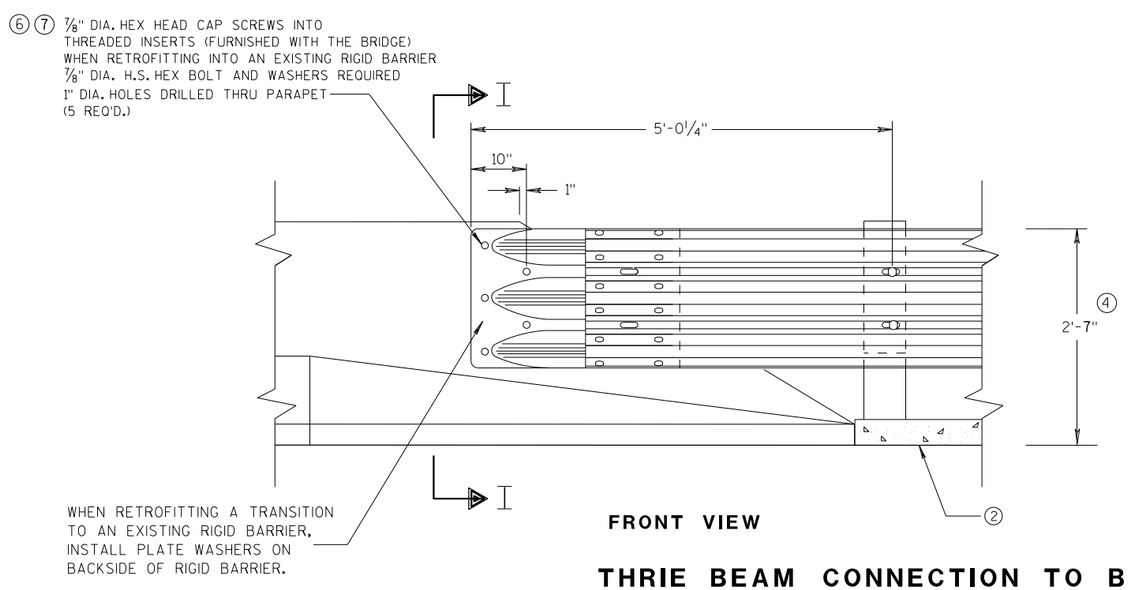
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

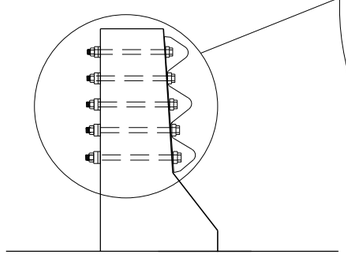
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



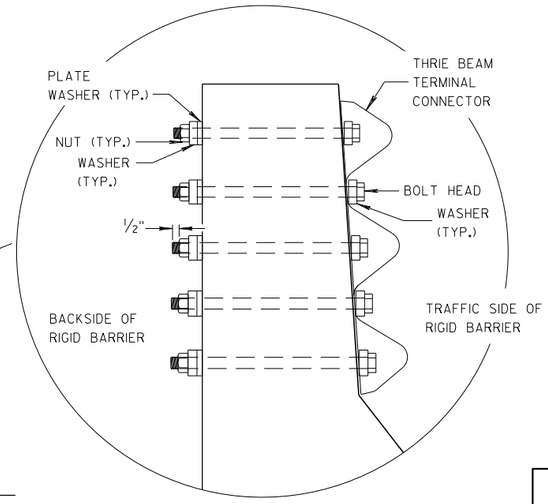
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS [illegible]ENT
UNIT SUPERVI
FHWA

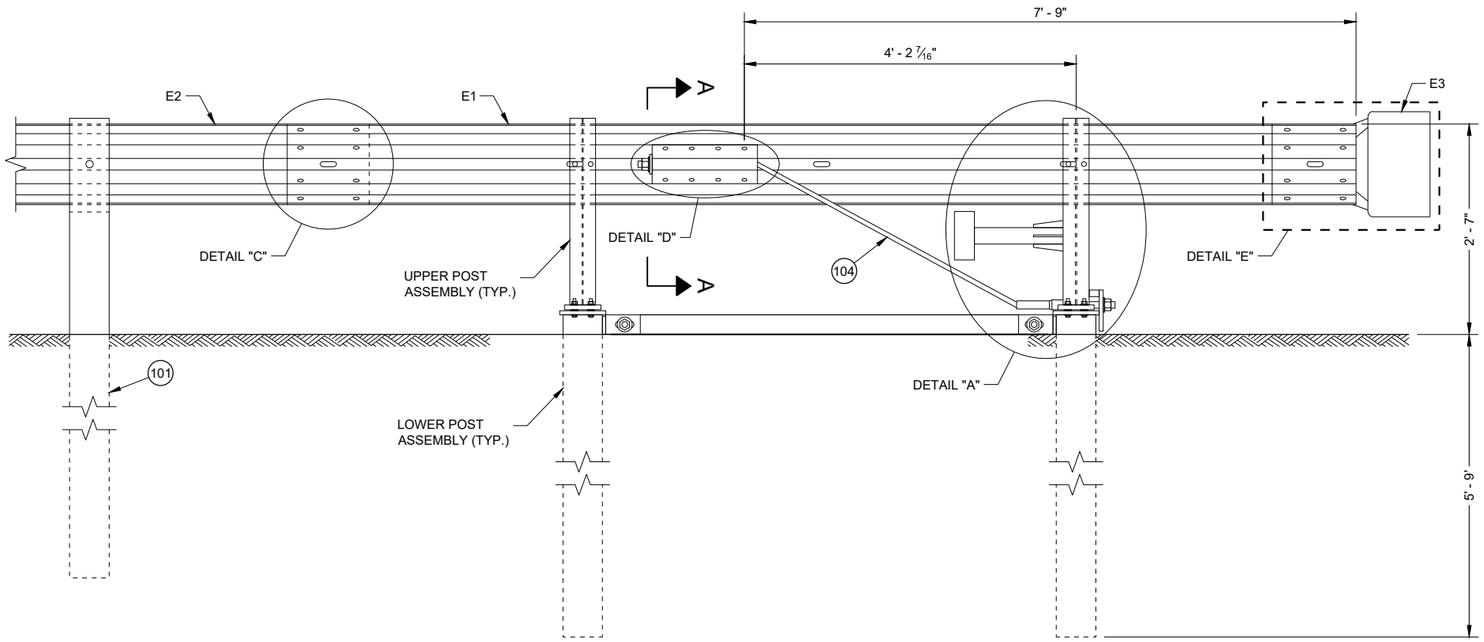
400

6

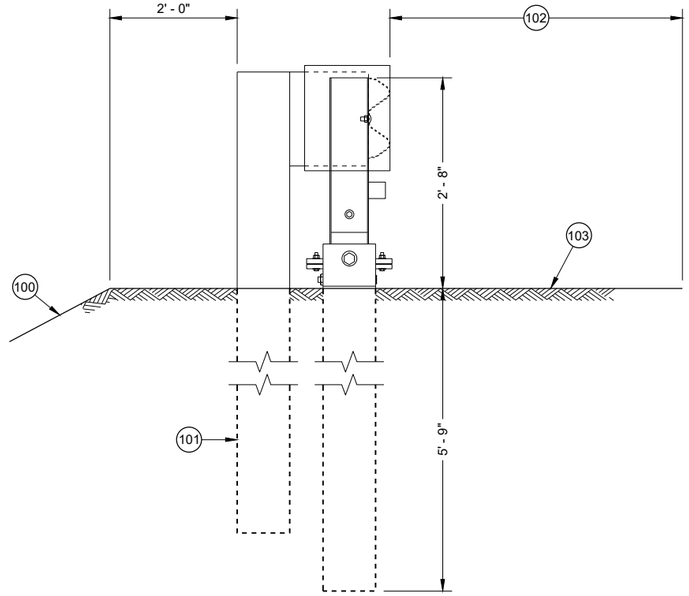
S.D.D. 14 B 45-5f

6

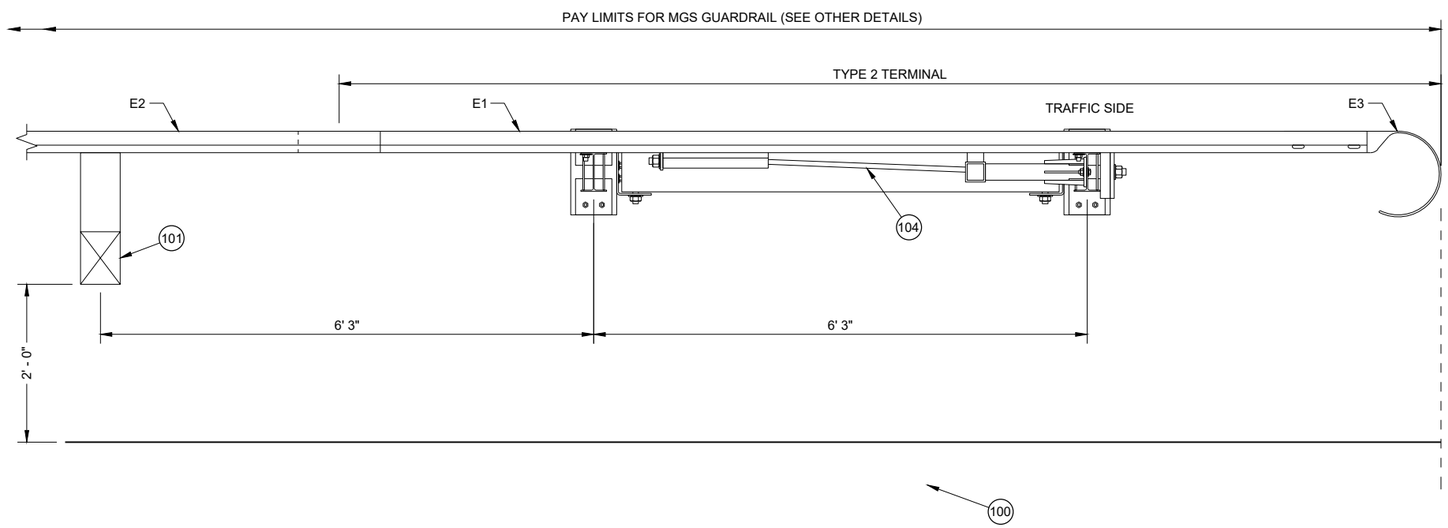
S.D.D. 14 B 45-5f



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

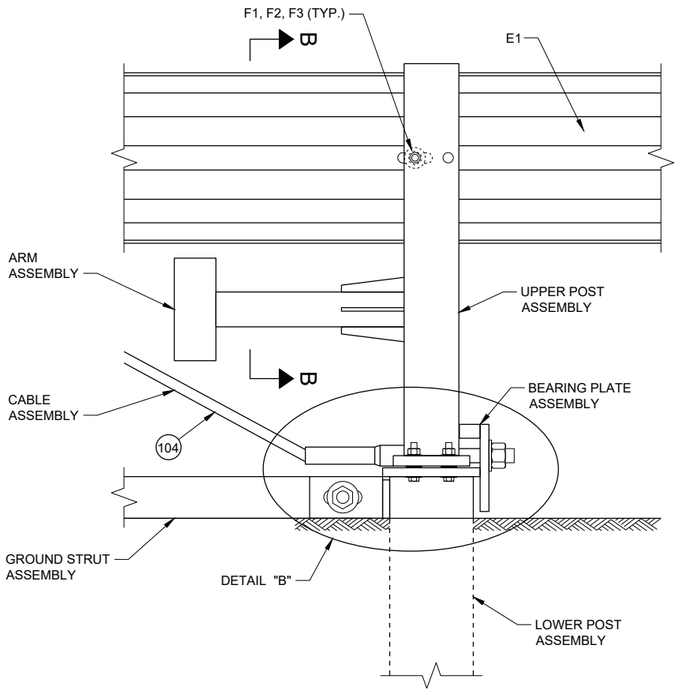
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

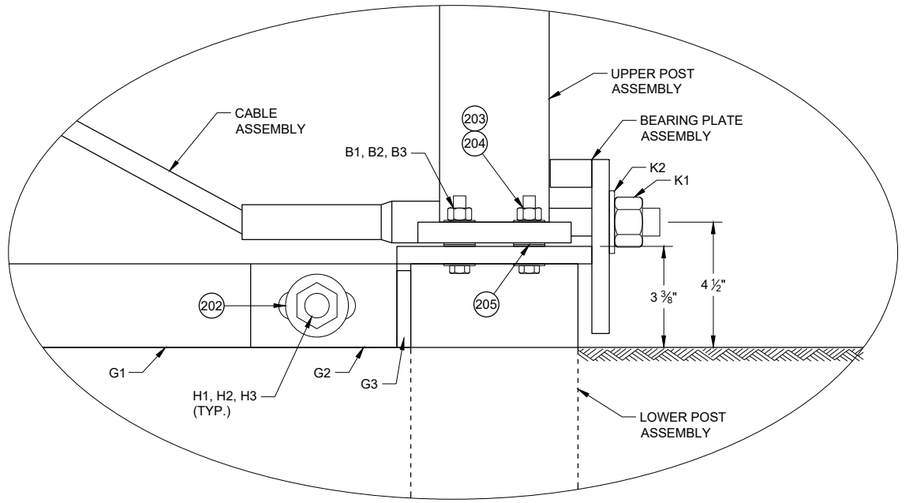
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B47 - 05a



DETAIL "A"



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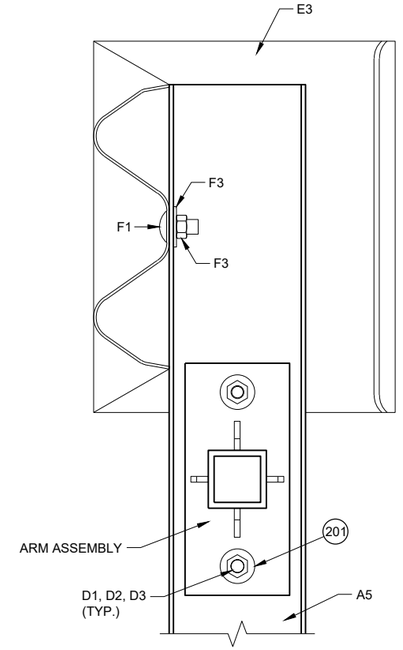
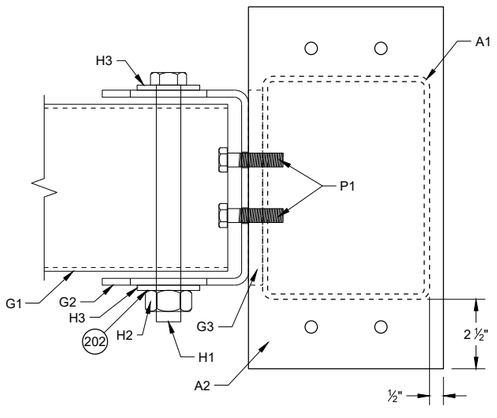
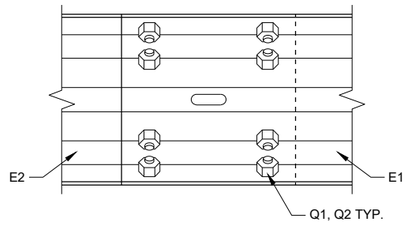


SECTION B - B



TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "C"

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.

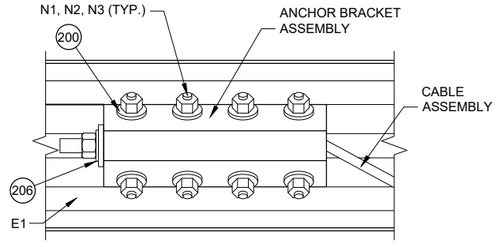
202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

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

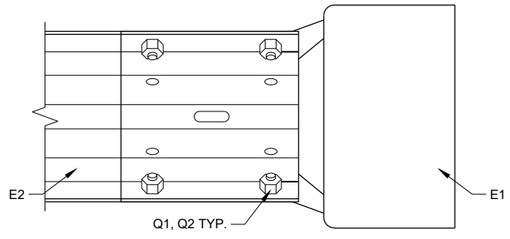
204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.



DETAIL "D"



DETAIL "E"

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

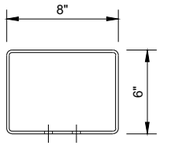
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

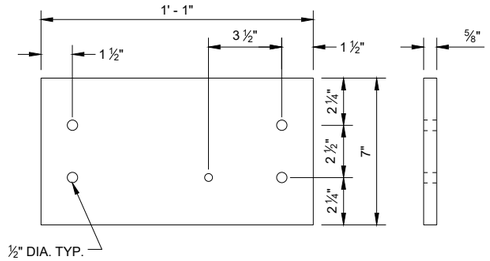
SDD 14B47 - 05b

GENERAL NOTES

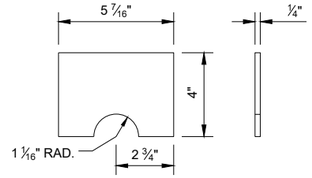
(300) TAP FOR 1/2" AFTER GALVANIZATION



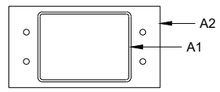
TOP VIEW



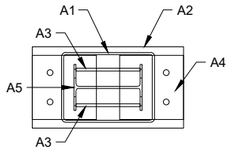
LOWER PLATE (A2)

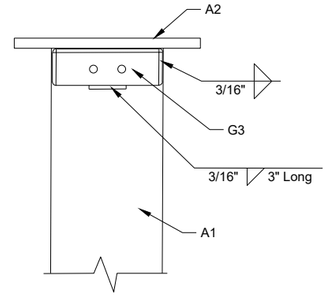


POST GUSSET (A3)

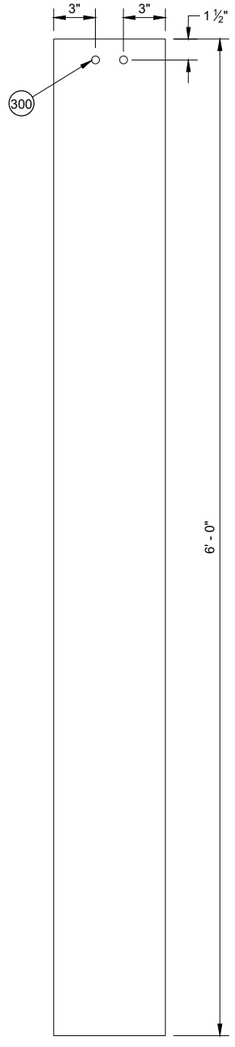


PLAN VIEW



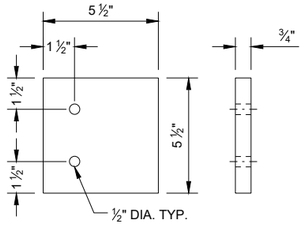


WELDING DETAIL
G3 AND A1

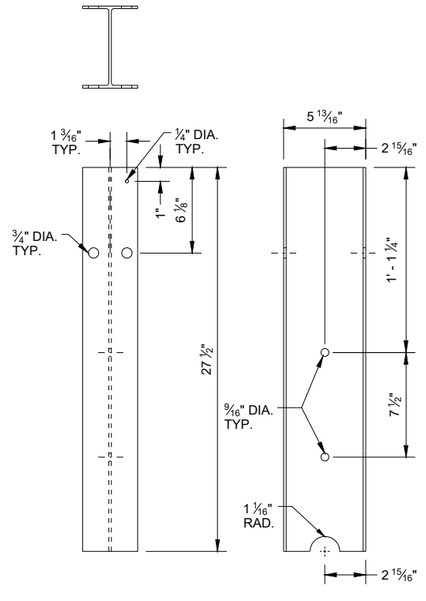


SIDE VIEW

FOUNDATION TUBE (A1)

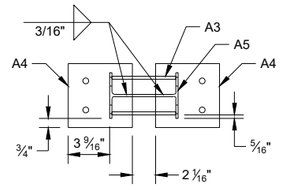


UPPER PLATE (A4)

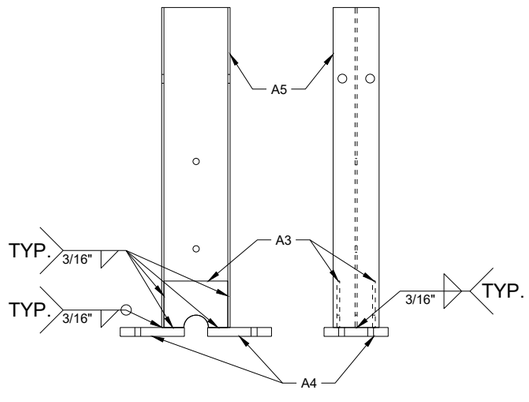


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

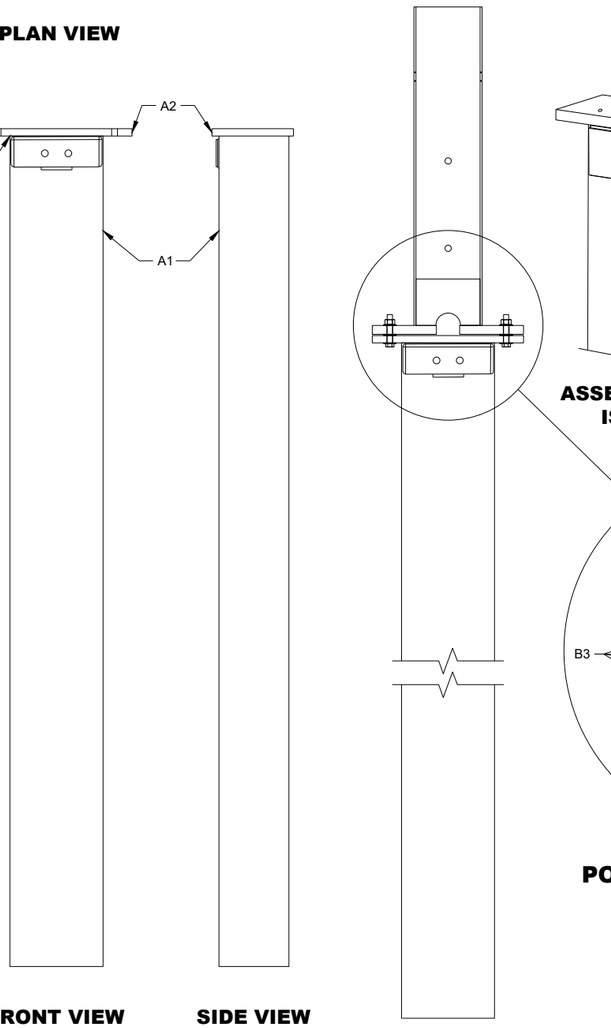


PLAN VIEW



SIDE VIEW FRONT VIEW

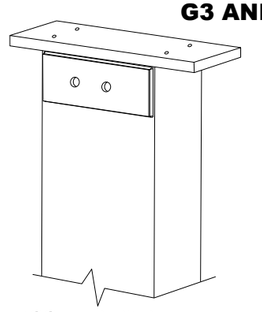
UPPER POST ASSEMBLY



FRONT VIEW SIDE VIEW

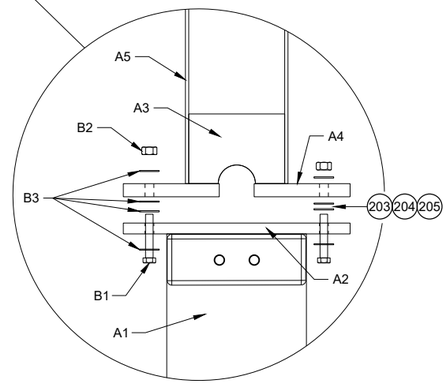
LOWER POST ASSEMBLY

ASSEMBLED POST



ASSEMBLY DETAIL ISOMETRIC

A1



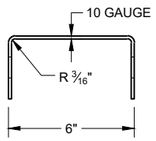
POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

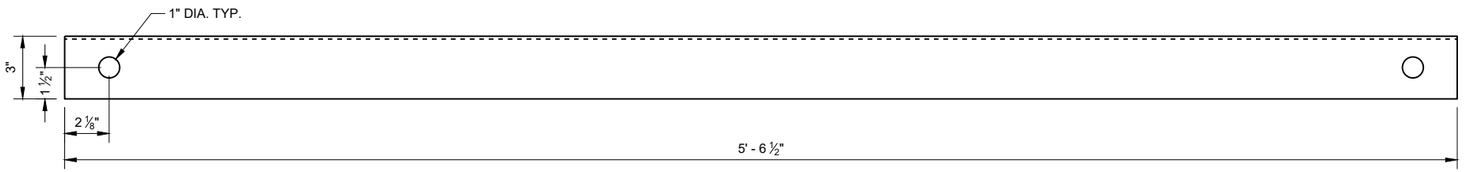
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B47 - 05c

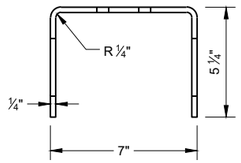


SIDE VIEW

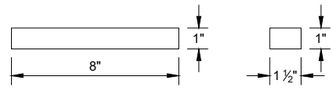


FRONT VIEW

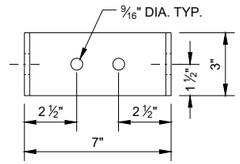
GROUND STRUT CHANNEL (G1)



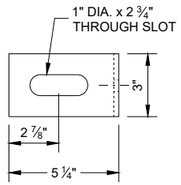
TOP VIEW



BEARING PLATE FLANGE (L2)

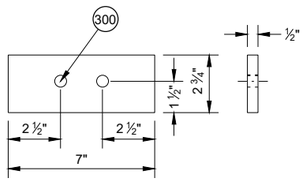


FRONT VIEW

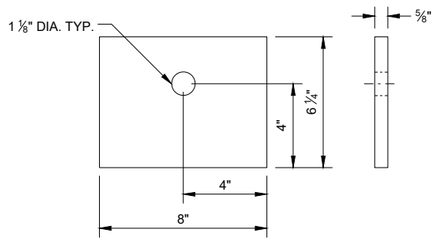


SIDE VIEW

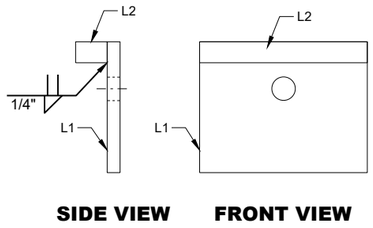
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

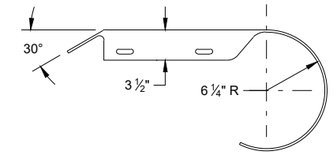


BEARING PLATE (L1)

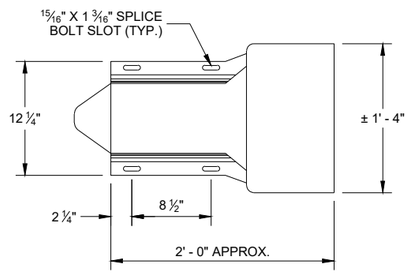


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

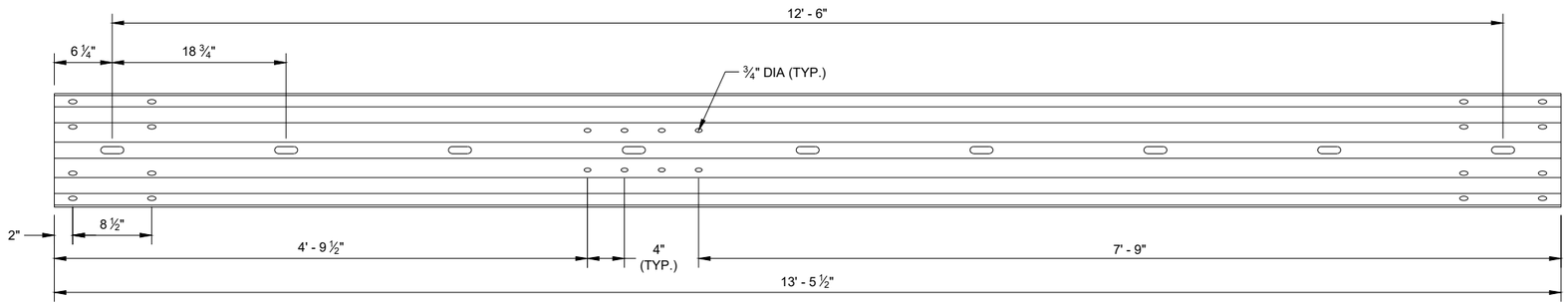


PLAN VIEW

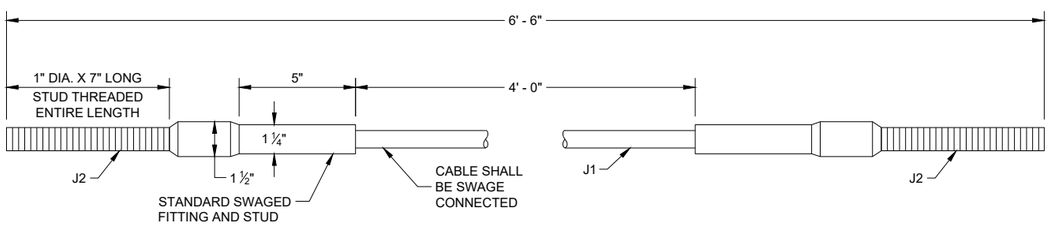


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



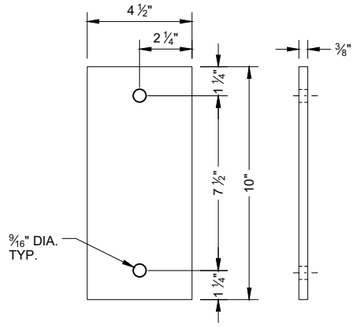
CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

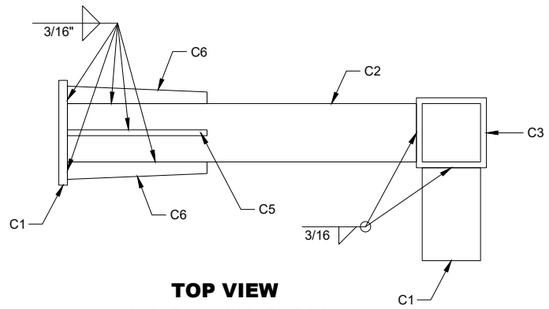
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

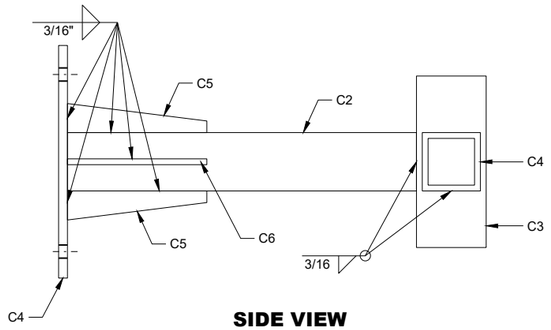
SDD 14B47 - 05d



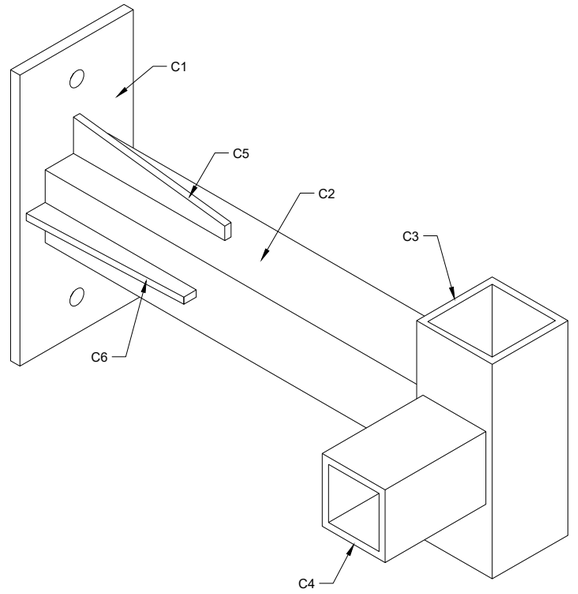
ARM PLATE (C1)



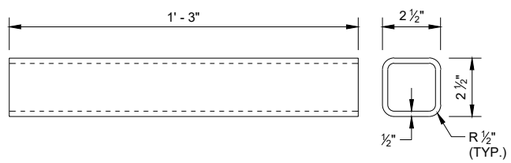
TOP VIEW
ARM ASSEMBLY



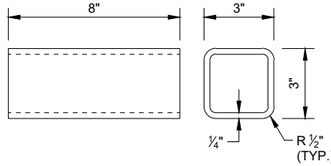
SIDE VIEW
ARM ASSEMBLY



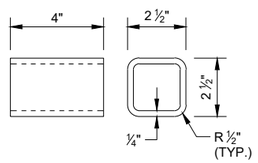
ISOMETRIC VIEW
ARM ASSEMBLY



ARM TUBE 1 (C2)



ARM TUBE 2 (C3)



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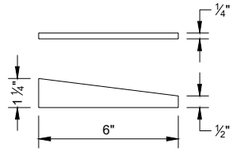
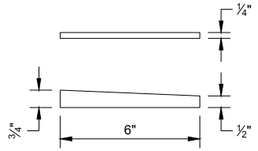
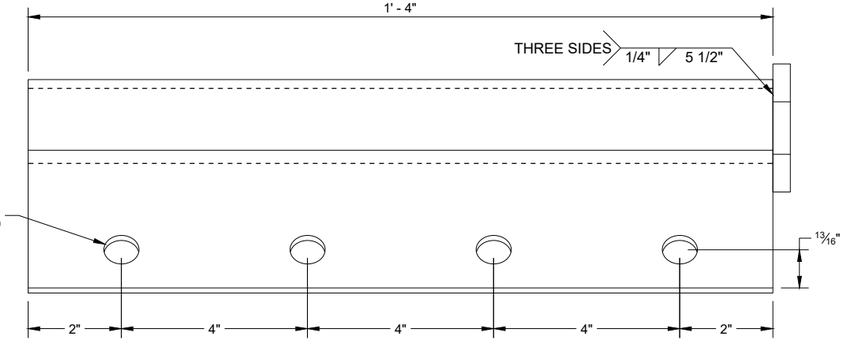
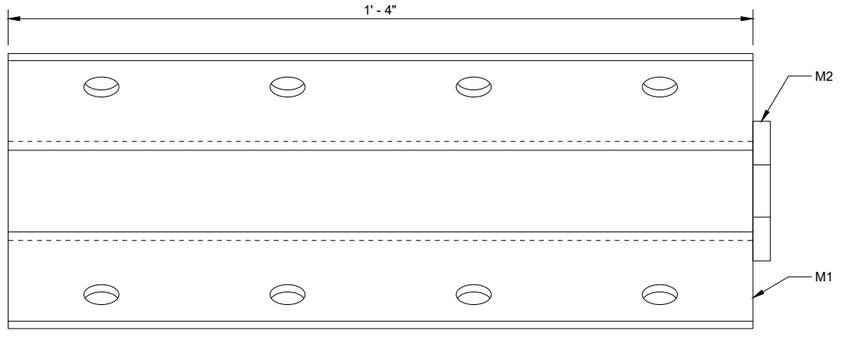


ARM GUSSET PLATE 1 (C5)

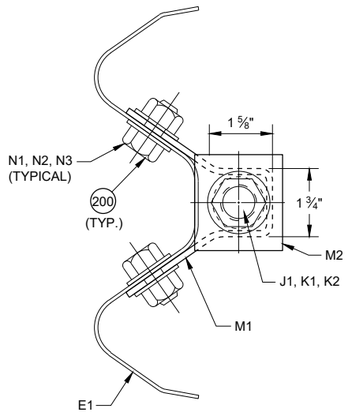


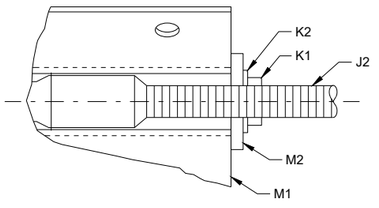
ARM GUSSET PLATE 2 (C6)



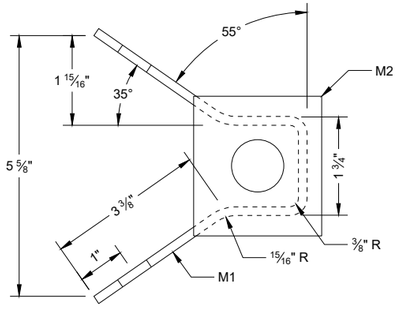


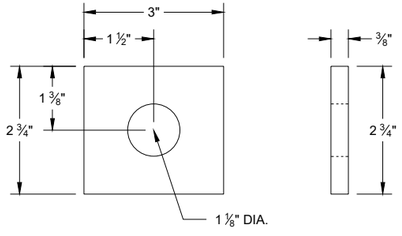
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD14B47 - 05e

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

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SDD 14B47 - 05f

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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SDD 14B47 - 05f

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.

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SDD 14B47 - 05g

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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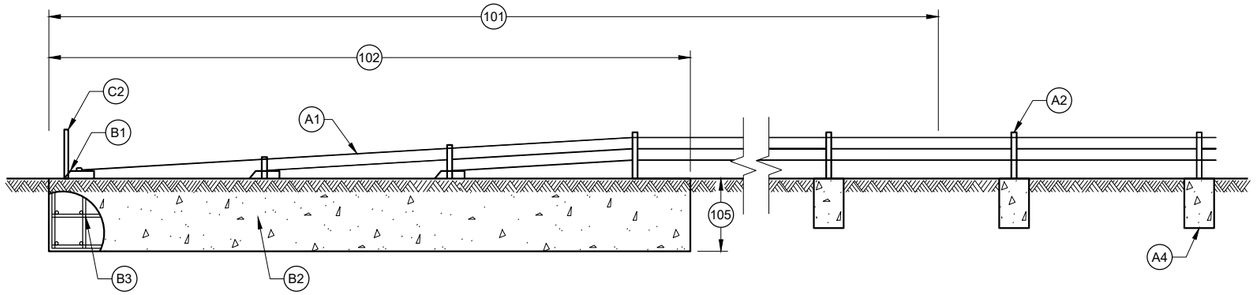
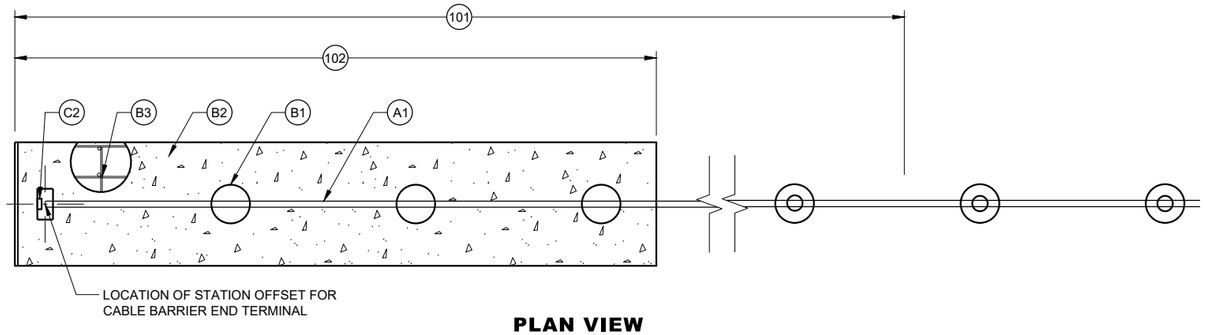
SDD 14B47 - 05g

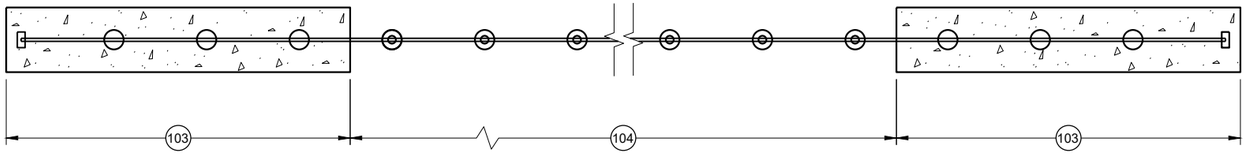


PROFILE VIEW

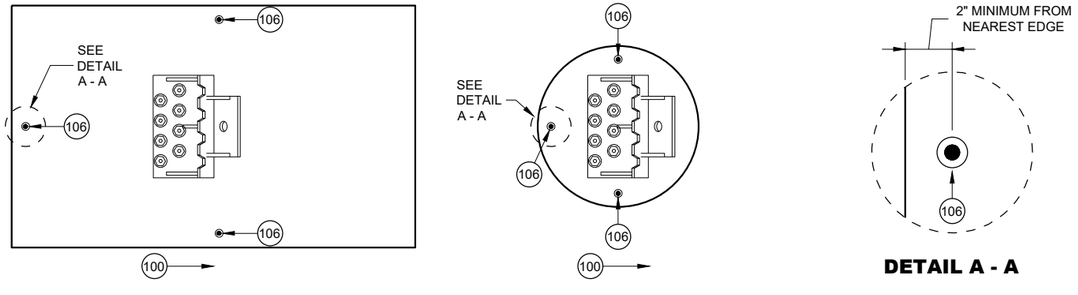


PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW



DETAIL A - A

ANCHOR MONITOR POINTS FOR CABLE BARRIER END TERMINAL ANCHORS

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POSTS PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICATED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

CONSTRUCT SHAFTS VERTICALLY. VERTICAL TOLERANCE OF SHAFT IS $\frac{1}{8}$" PER FOOT OF DEPTH. SHAFTS ARE TO MINIMIZE DISTURBANCE TO ADJACENT SOILS.

SECURE STEEL REINFORCEMENT AND STEEL SLEEVE PRIOR TO PLACEMENT OF CONCRETE. MAINTAIN CLEAR DISTANCE BETWEEN SOIL AND REINFORCEMENT CAGE.

PLACE CONCRETE IN ONE CONTINUOUS POUR FOR EACH FOOTING. USE VIBRATION TO CONSOLIDATE CONCRETE.

PROVIDE CASING AS NECESSARY TO PREVENT INTRUSION OF UNCONSOLIDATED MATERIALS OR WATER. USE CASINGS WHEN THERE IS 3 OR MORE INCHES OF WATER IN EXCAVATION.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN USING A CASING AND CONSTRUCTION SEQUENCE. PROJECT ENGINEER WILL REVIEW AND APPROVED CASING DESIGN AND CONSTRUCTION SEQUENCE. CASING IS TO HAVE INTIMATE CONTACT WITH SHAFT SIDEWALL. CASING IT TO WITHSTAND INSERTION STRESS, REMOVAL STRESS, CONCRETE PRESSURE AND SOIL PRESSURE. REMOVE CASING DURING CONCRETE PLACEMENT OR IMMEDIATELY AFTER CONCRETE PLACEMENT. NO TEMPORARY CASING MAY REMAIN IN-PLACE.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN AND CONSTRUCTION SEQUENCE WHEN OVER EXCAVATION IS REQUIRED NEAR A FOOTING. PROJECT ENGINEER WILL REVIEW AND APPROVED DESIGN AND CONSTRUCTION SEQUENCE.

FINISH TOP OF FOOTINGS TO THE DIMENSIONS INDICATED IN PLAN. REMOVE EXCESS CONCRETE.

DESIGN POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A NCHRP 350 TL-3 SMALL CAR.

USE MARINE GRADE ANTI-SEIZE LUBRICANT FOR THREADING FITTINGS THAT IS ACCEPTABLE FOR USE ON GALVANIZED STEEL.

(100) DIRECTION THAT THE CABLE PULLS THE END ANCHOR FOOTING

(101) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(102) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(103) CABLE BARRIER END TERMINAL

(104) CABLE BARRIER AND LINE POSTS

(105) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(106) ANCHOR MONITOR POINTS ARE GALVANIZED SURVEY NAIL, OR MASONRY NAIL, PLACED INTO CONCRETE FOOTING BEFORE HARDENING. IF THERE ARE MULTIPLE ANCHOR POINTS WITHIN A PAY LIMIT FOR A CABLE BARRIER END TERMINAL, EACH ANCHOR POINT NEEDS THREE ANCHOR MONITOR POINTS.

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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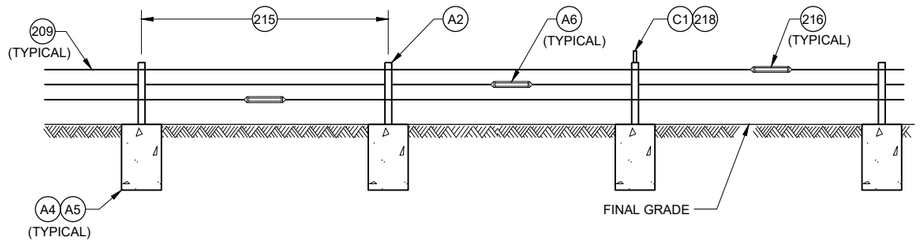
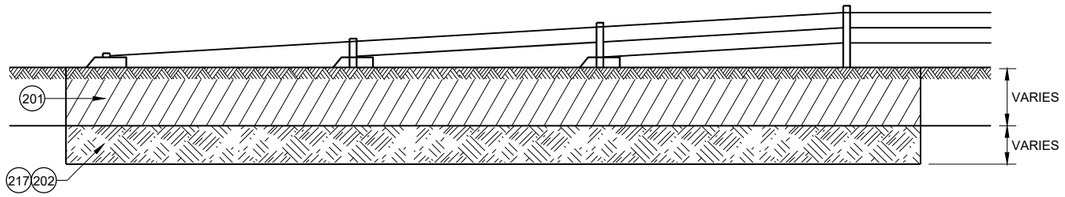


PROFILE VIEW
LINE POST INSTALLATION



CABLE BARRIER END TERMINAL
ROCK EXCAVATION DETAIL

GENERAL NOTES

201 SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

202 ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

203 SOIL TO BE EXCAVATED FOR LINE POST (VARIES)

204 ROCK TO BE EXCAVATED FOR LINE POST (VARIES)

205 EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

206 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

207 DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURERS' INFORMATION.

208 MINIMUM DEPTH OF LINE POST FOOTING IS 4' - 0" IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

209 NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURERS' INFORMATION.

210 LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURERS' INFORMATION.

211 LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

212 PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

213 GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

214 CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

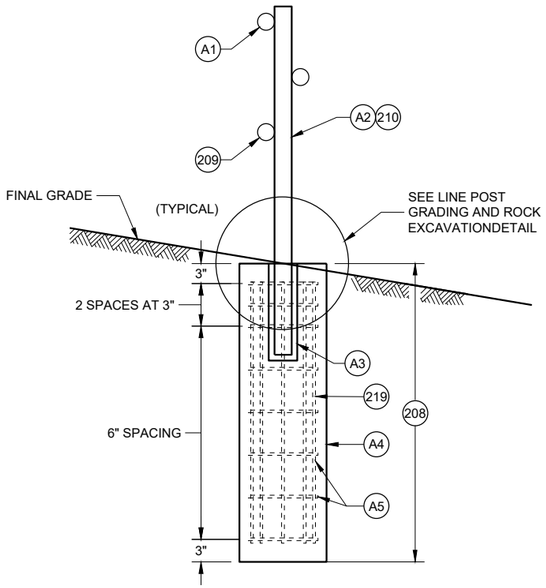
215 MAXIMUM POST SPACING IS 15 FEET.

216 STAGGER TURNBUCKLES (TYPICAL).

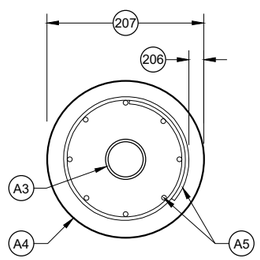
217 SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

218 LINE POST DELINEATOR SPACING IS 100 FEET.

219 MINIMUM LINE POST FOOTING REINFORCEMENT SHOWN. MANUFACTURER IS TO INDICATE REINFORCEMENT IS ADEQUATE FOR THEIR SYSTEM. IF REINFORCEMENT IS NOT ADEQUATE, PROVIDE FOOTING DESIGN WITH A ADEQUATE REINFORCEMENT.

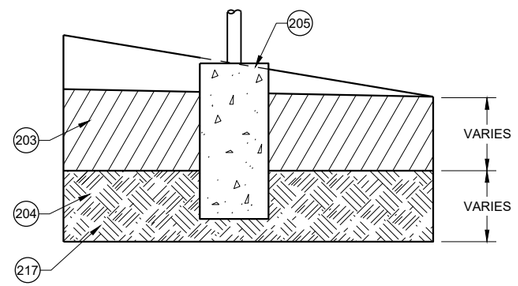


CROSS SECTION

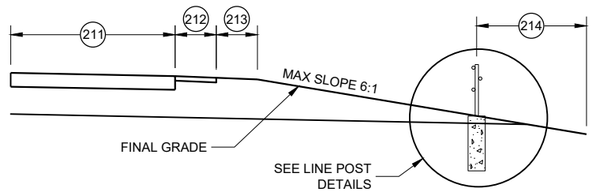


PROFILE VIEW
(LINE POSTS AND CABLES NOT SHOWN)

LINE POST DETAILS



LINE POST GRADING
AND ROCK EXCAVATION DETAIL



CABLE BARRIER OFFSET FROM DITCH LINE

CABLE BARRIER
TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
(A1)	3 OR 4	¾" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	AASHTO M30 TYPE 1 CLASS A OR ASTM A741 TYPE 1 CLASS A WITH MINIMUM BREAKING STRENGTH = 39 KIPS (173.5 KN)
(A2)	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A3)	1 PER LINE POST	GALVANIZED STEEL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A4)	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
(A5)	MINIMUM REINFORCEMENT: 8 HORIZONTAL LOOP BARS 8 VERTICAL BARS	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
			ALL BARS ARE NO. 4 BARS
(A6)	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATION AND DETAILS.
			PROVIDE DOCUMENTATION THAT THE FITTINGS ARE STRONGER THAN THE CABLE BARRIER. DOCUMENTATION IS TO INCLUDE: MANUFACTURER NAME, TESTING RESULTS, AND DATE OF TESTING.
(B1)	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
(B2)	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
(B3)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(C1)	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST YELLOW.
(C2)	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN

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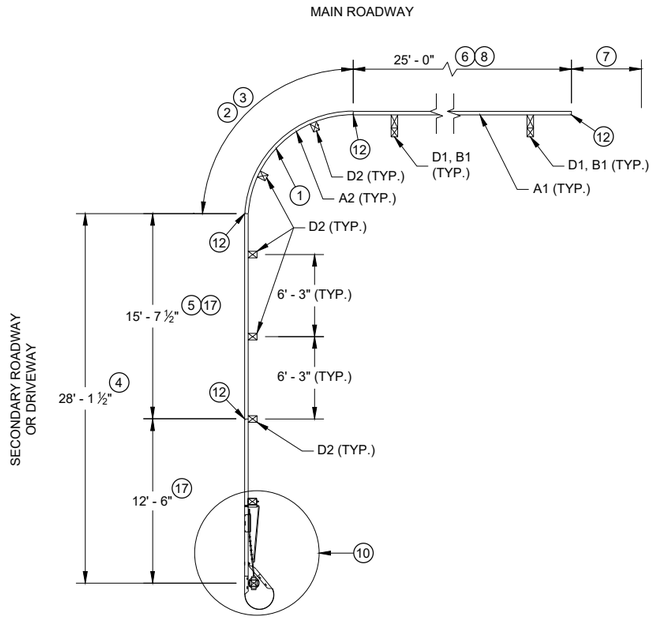
CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

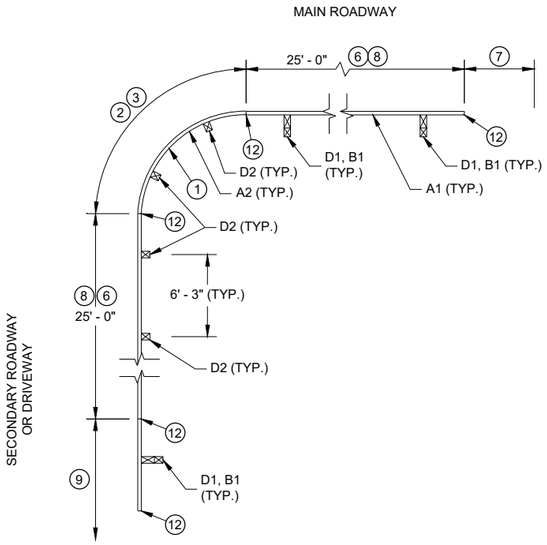
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



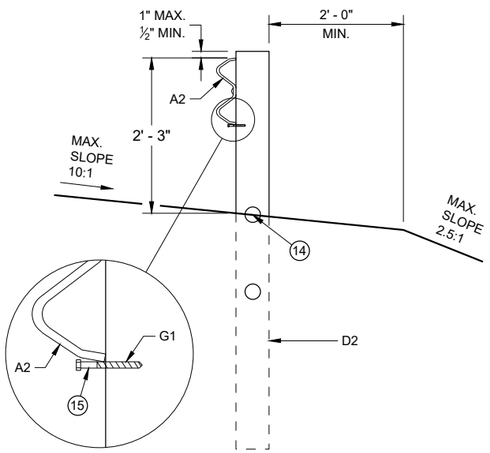
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

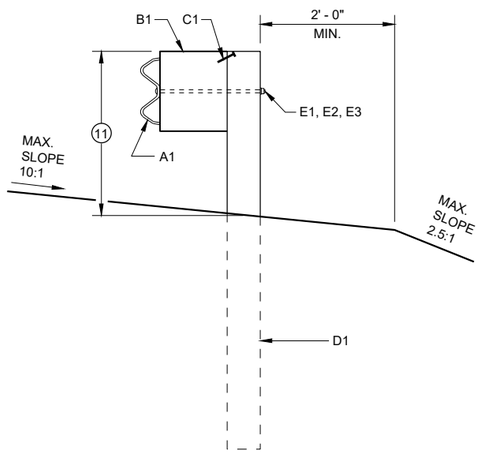


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



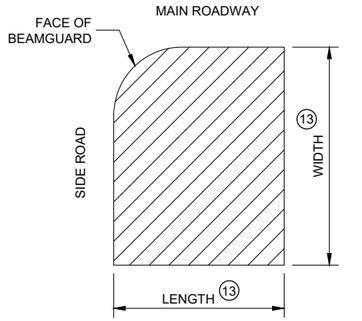
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



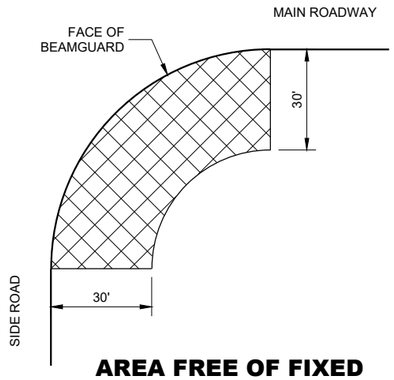
BEAM GUARD POSTS IN HEIGHT TRANSITION

TABLE FOR RADIUS OF 32' AND LESS

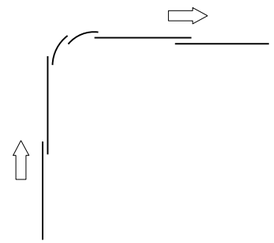
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (8).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

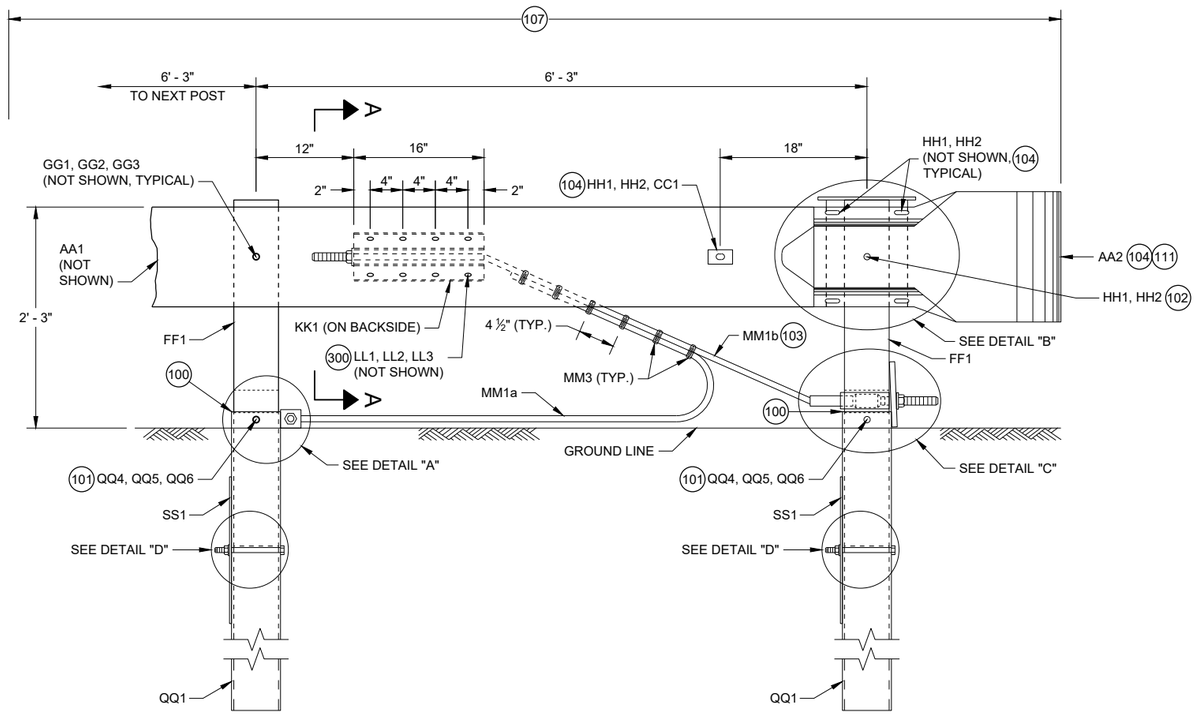
(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

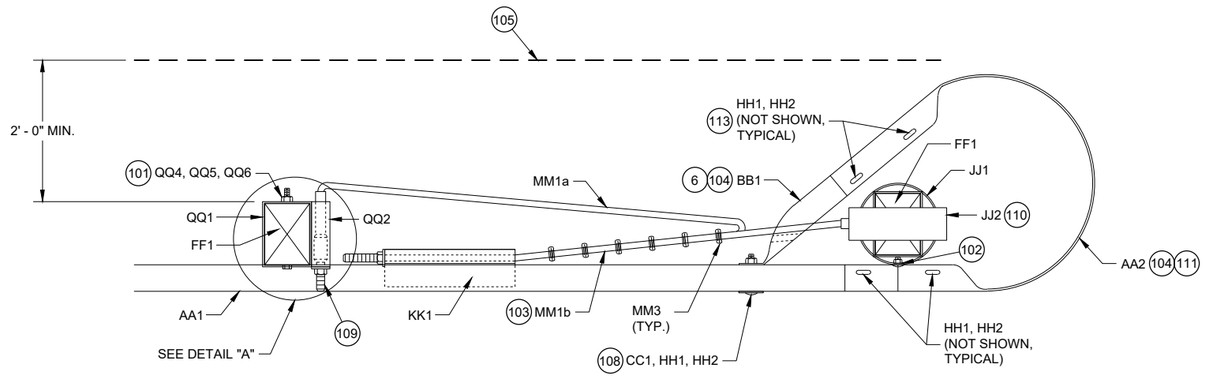
(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

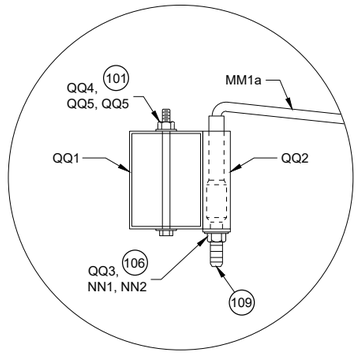
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

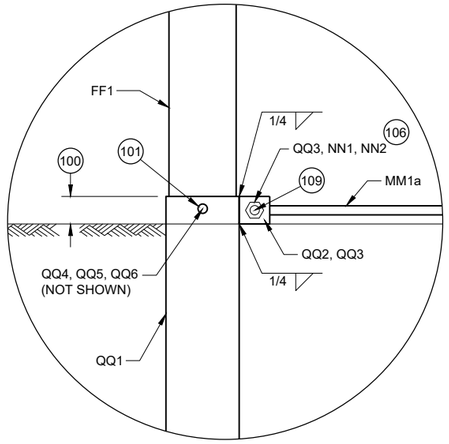
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

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SDD 14B53 - 02b

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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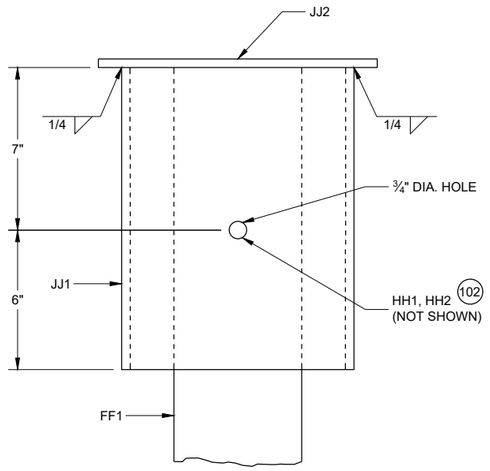
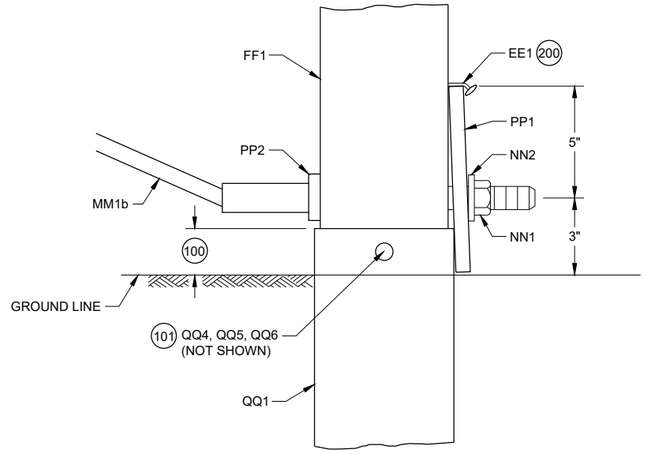
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



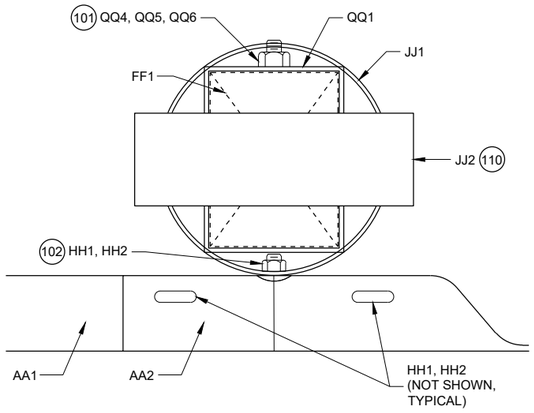
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



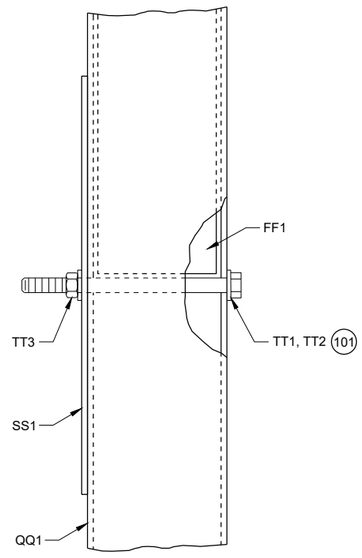
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
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SDD 14B53 - 02c

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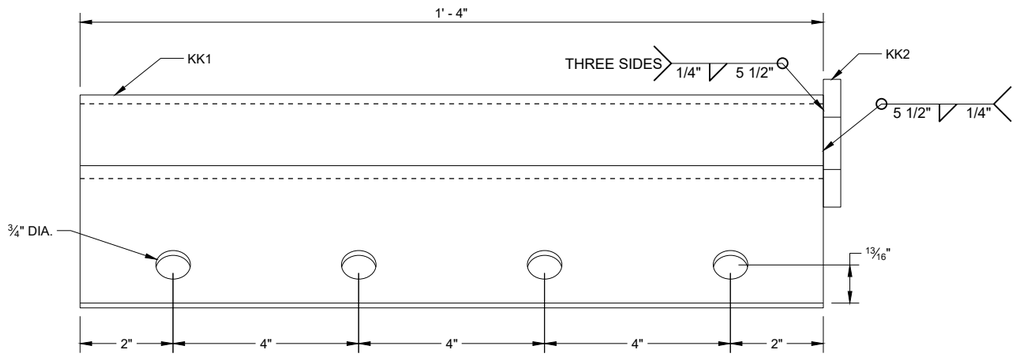
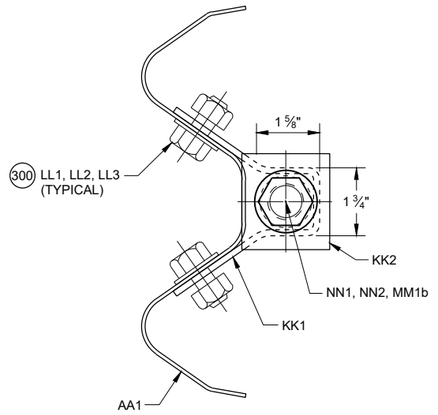
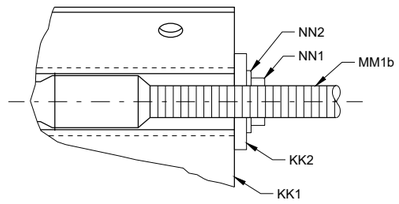
SDD 14B53 - 02c

GENERAL NOTES

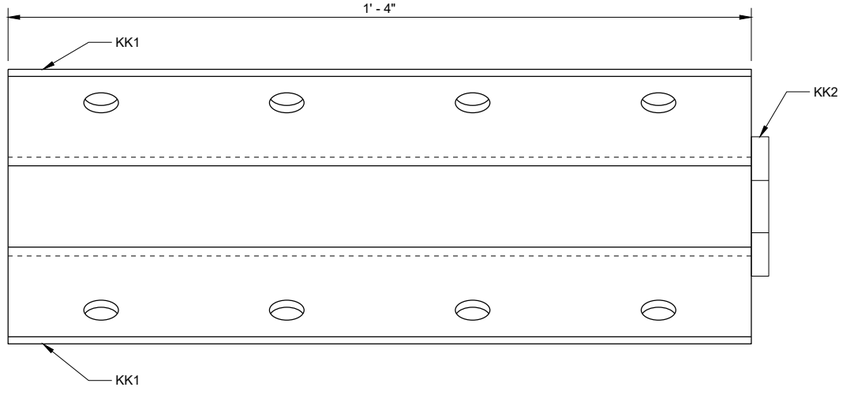
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

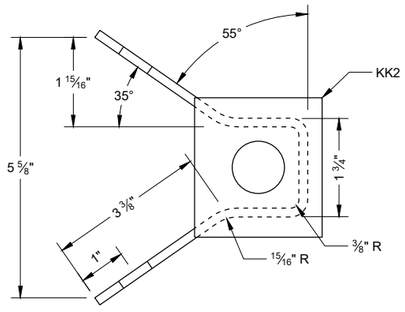




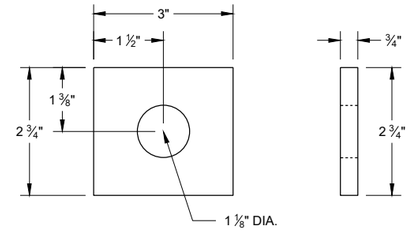


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

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SDD 14B53 - 02d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
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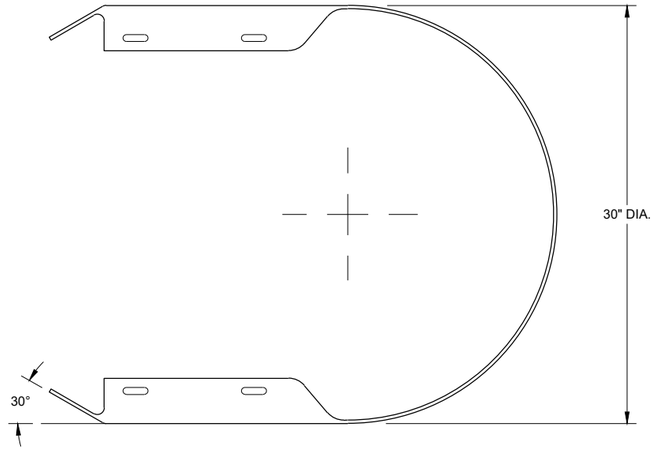
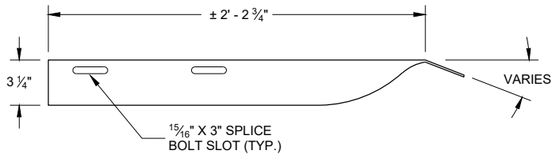
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

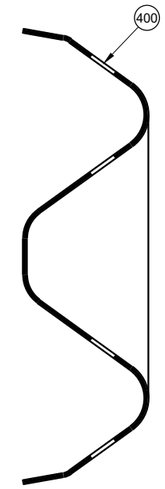
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



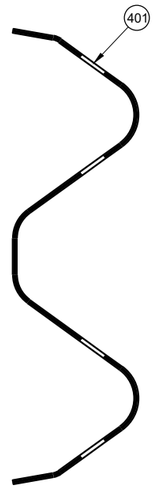
TOP VIEW



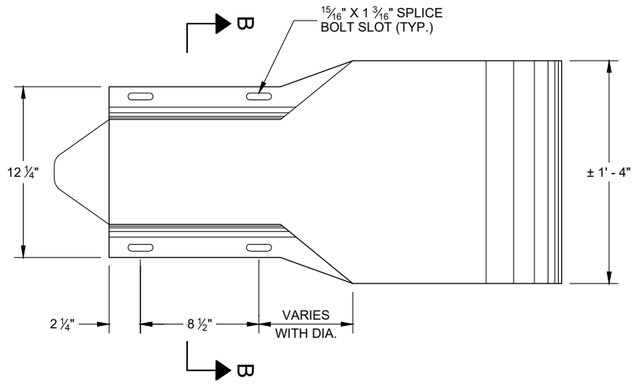
TOP VIEW



SECTION B -B

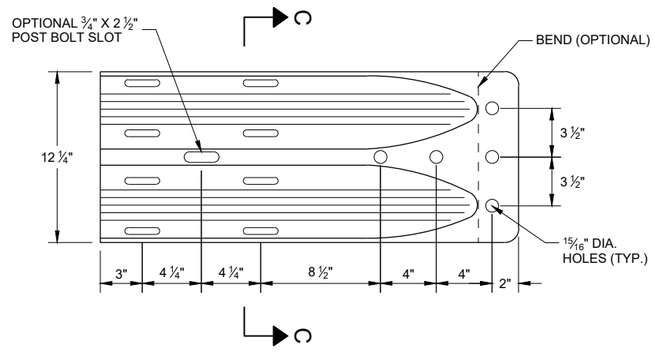


SECTION C -C



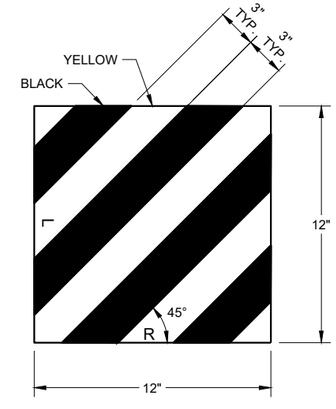
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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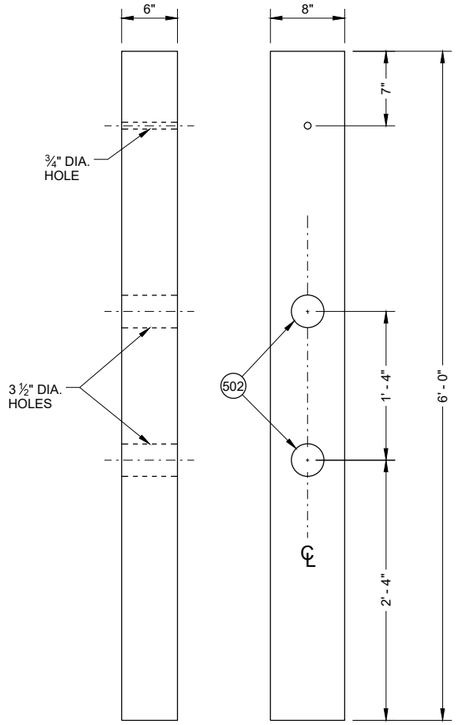
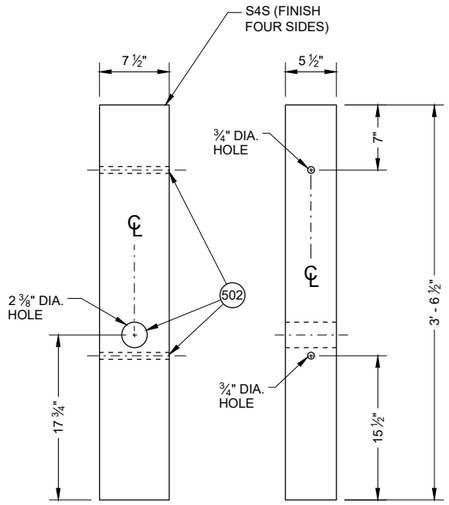


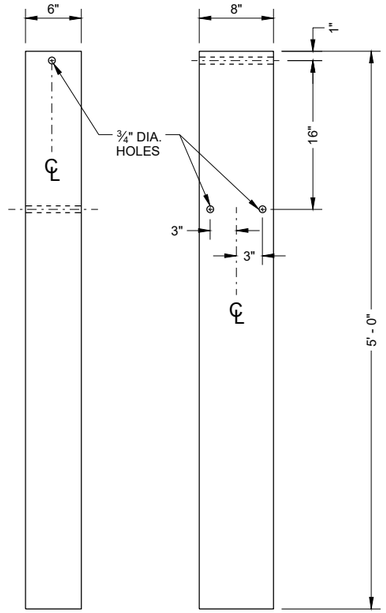
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

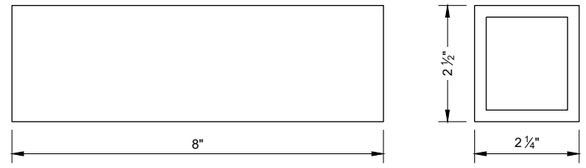
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

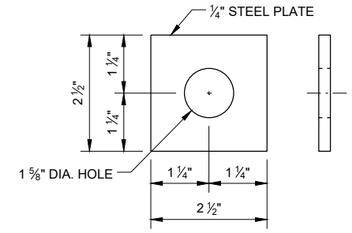
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

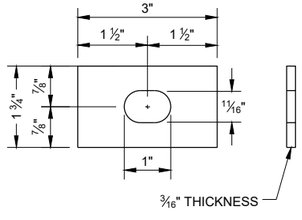
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



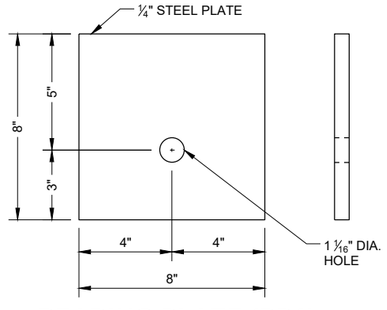
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



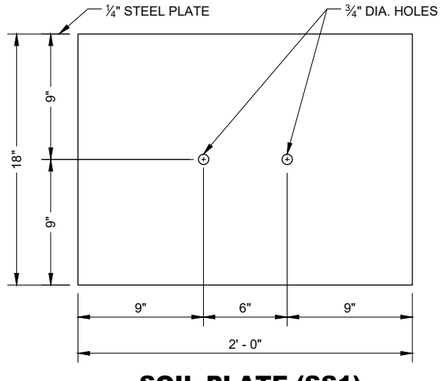
ANCHOR CABLE TUBE END PLATE (QQ3)



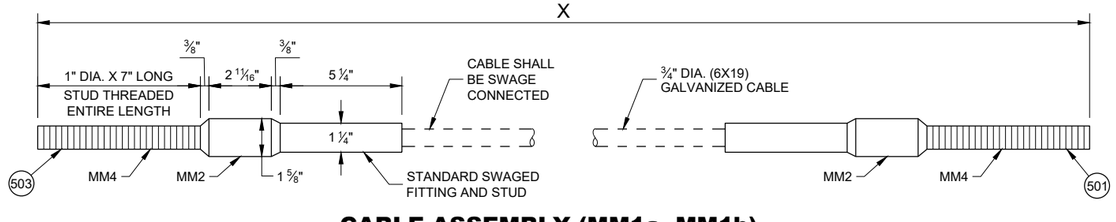
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 02f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

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SDD 14B53 - 02g

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	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	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	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	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	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	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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SDD 14B53 - 02h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	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	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	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	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	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	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

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SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

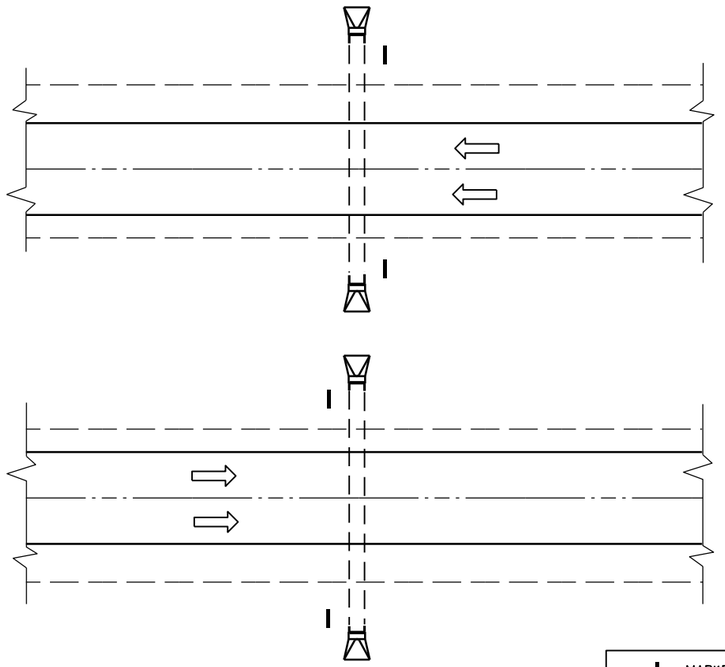
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

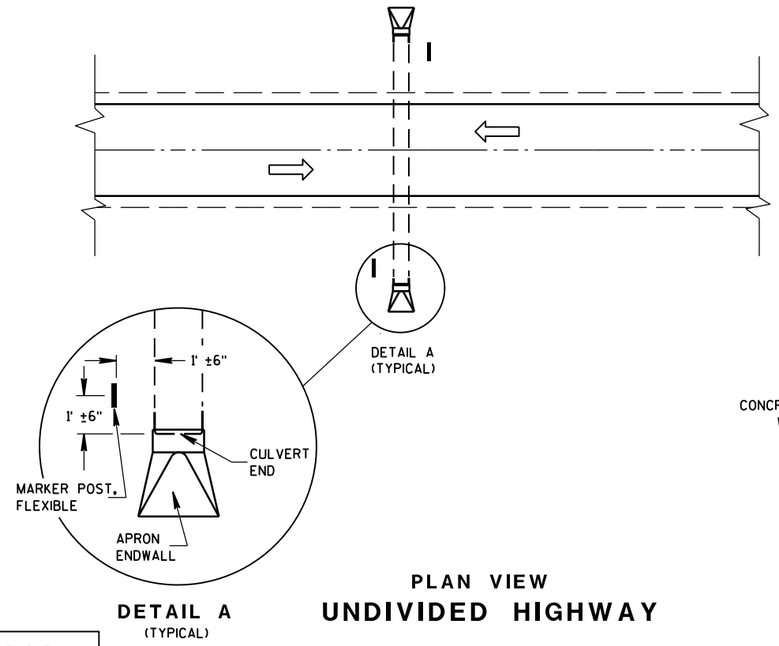
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

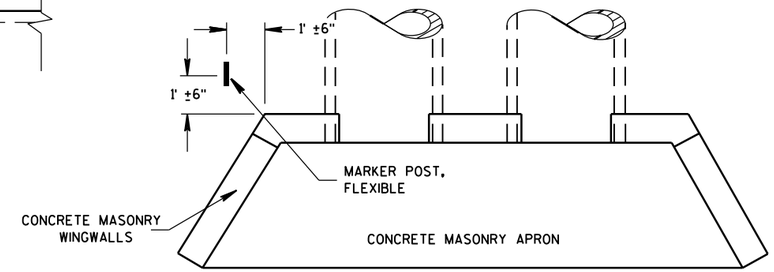
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

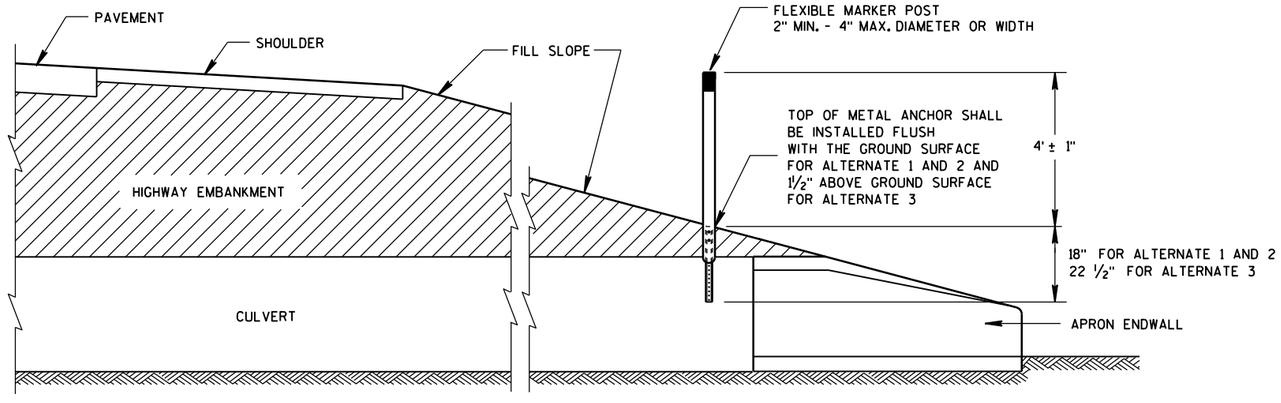
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

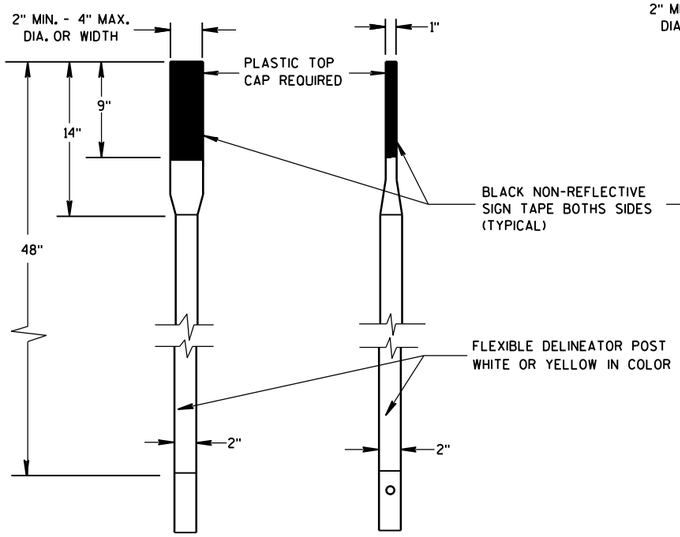
FLEXIBLE MARKER POST

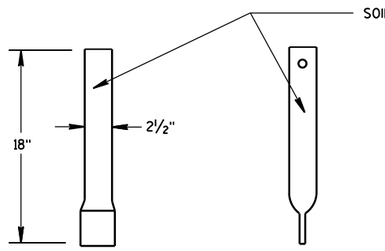
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

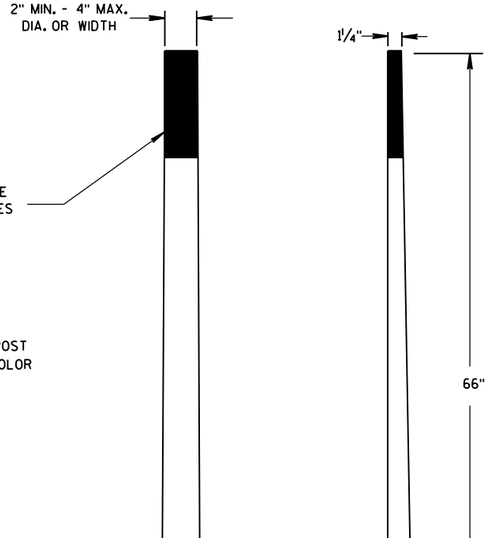
S.D.D. 15 A 3-2a





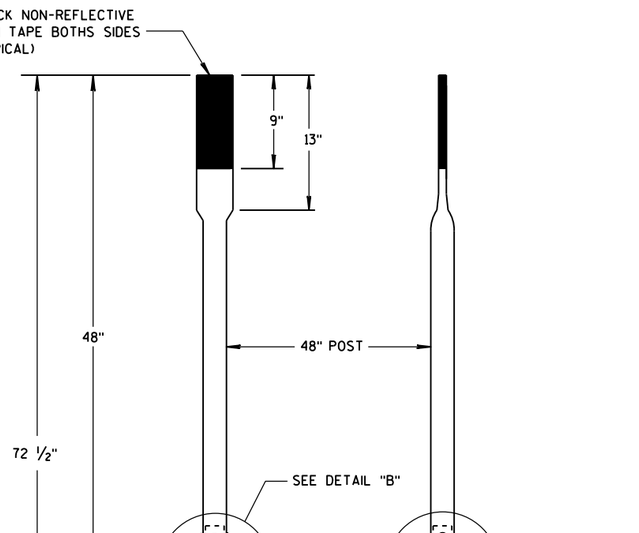
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

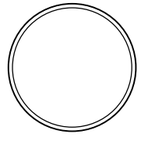
ALTERNATE 2



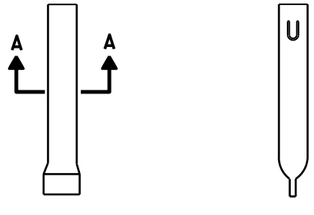
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

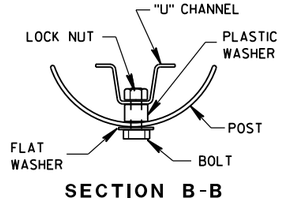


SECTION A-A

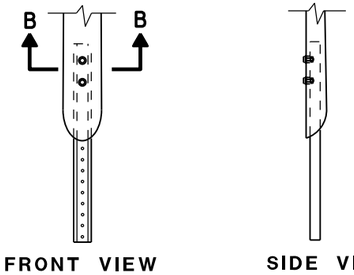


FRONT VIEW SIDE VIEW

ALTERNATE 1

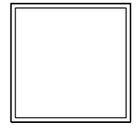


SECTION B-B

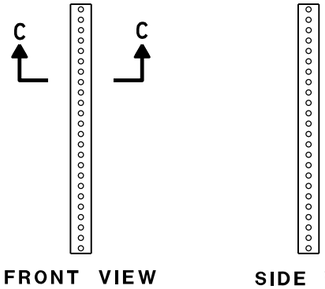


FRONT VIEW SIDE VIEW

ALTERNATE 2



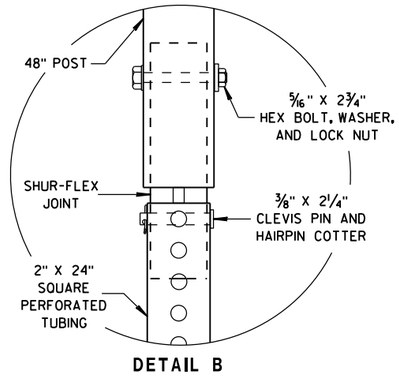
SECTION C-C



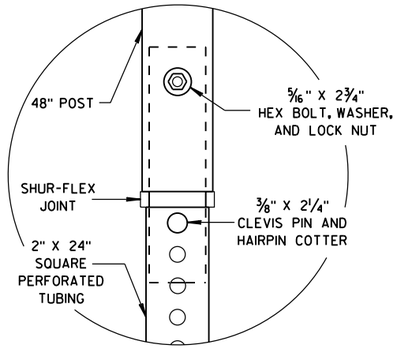
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

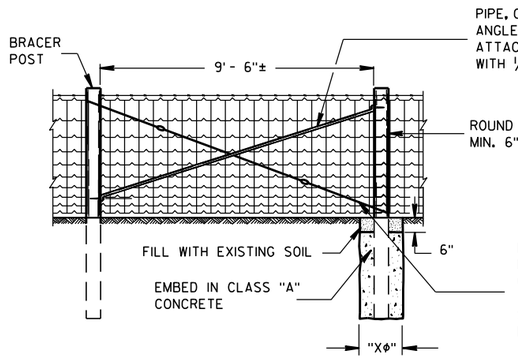
S.D.D. 15 A 3-2b

6

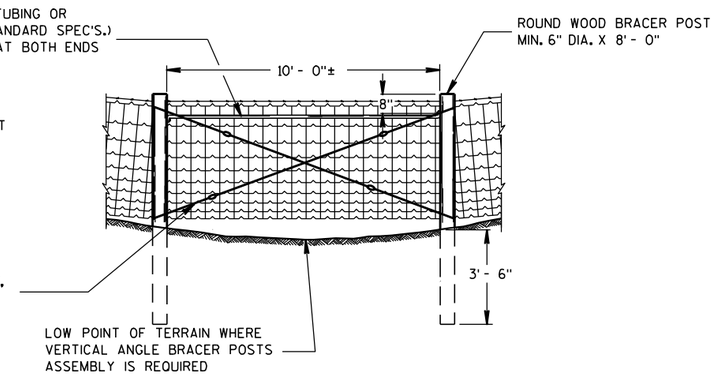
S.D.D. 15 A 3-2b

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

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



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

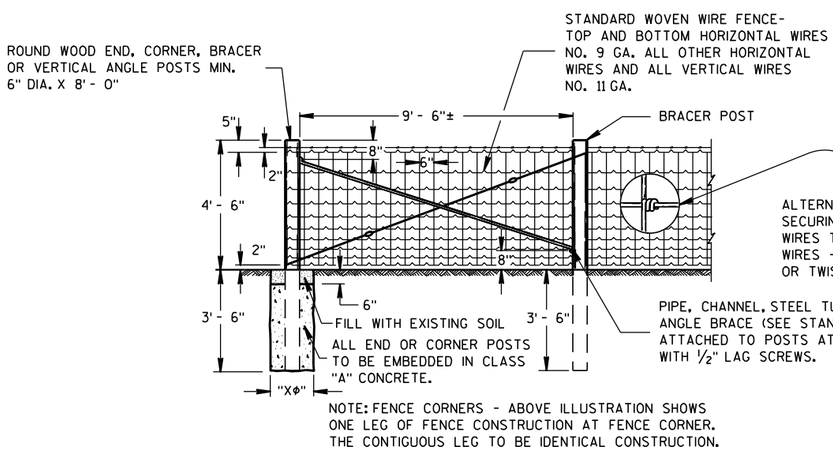
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

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

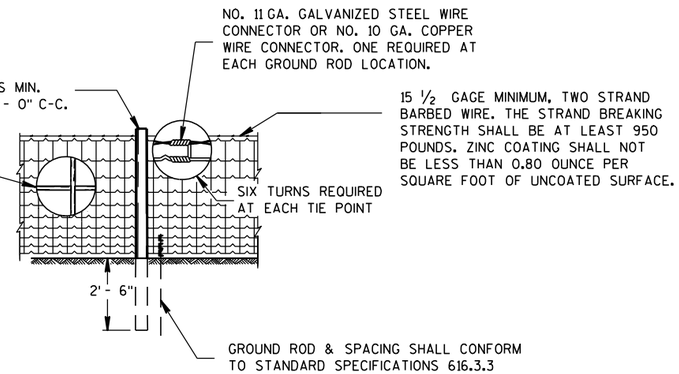
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED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

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



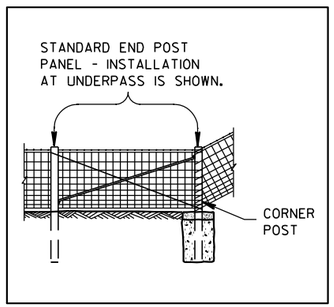
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

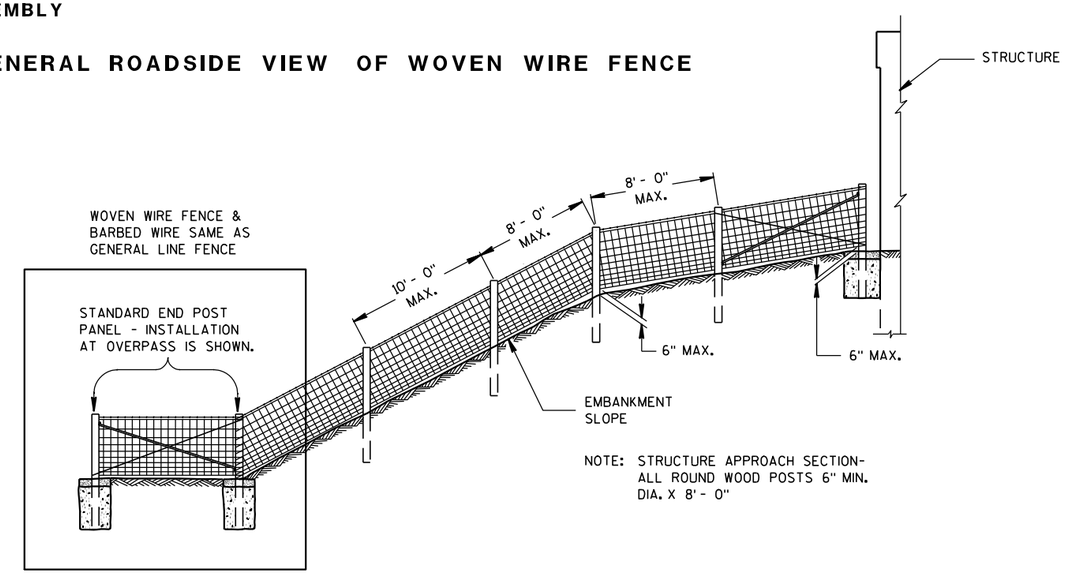


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

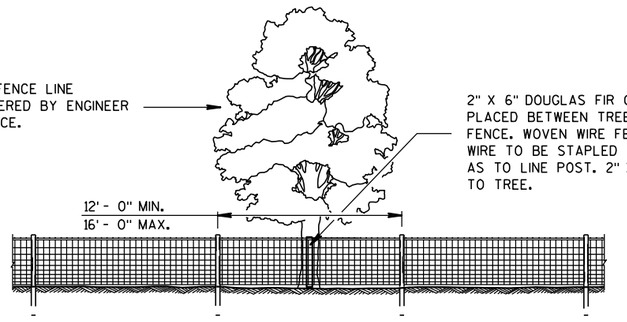
S.D.D. 15 B 1-8a

6

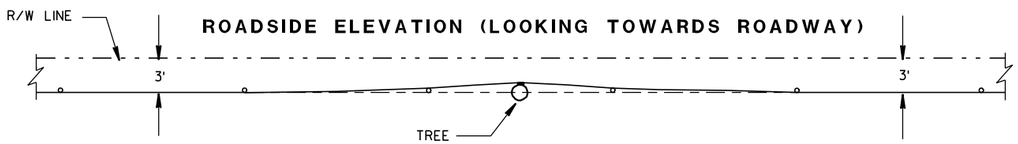
S.D.D. 15 B 1-8a

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

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

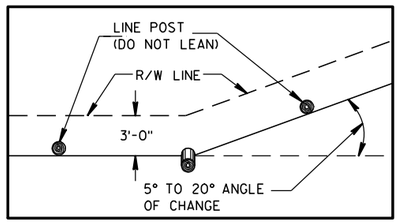


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

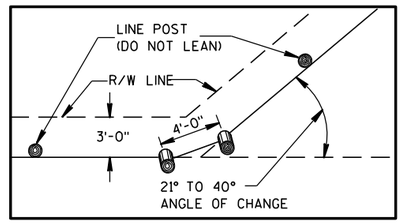


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

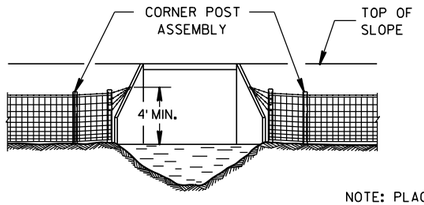


PLAN VIEW
DOUBLE POST CORNER

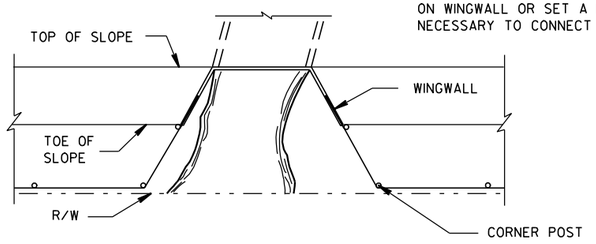
RIGHT OF WAY LINE CHANGE 40° AND LESS

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

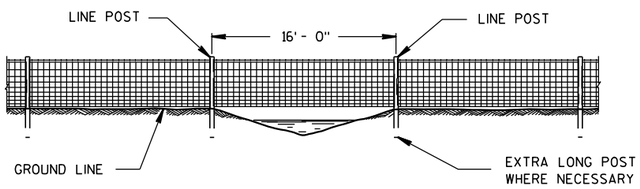
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



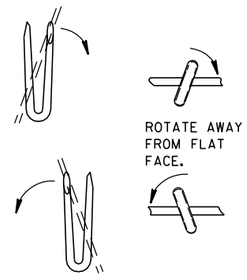
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

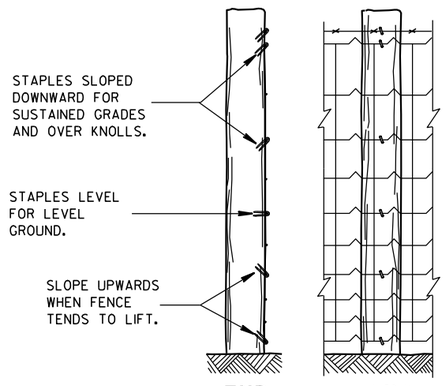


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



LINE POST

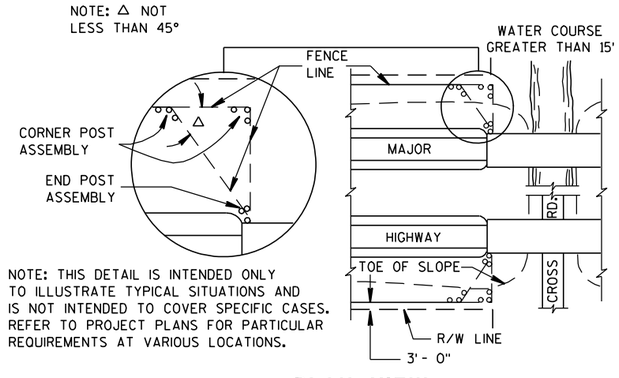
NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION — FARM SIDE ELEVATION

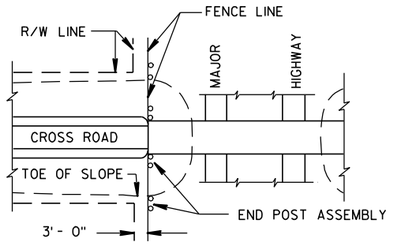
FENCE MOUNTING DETAIL

NOTE: △ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

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



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

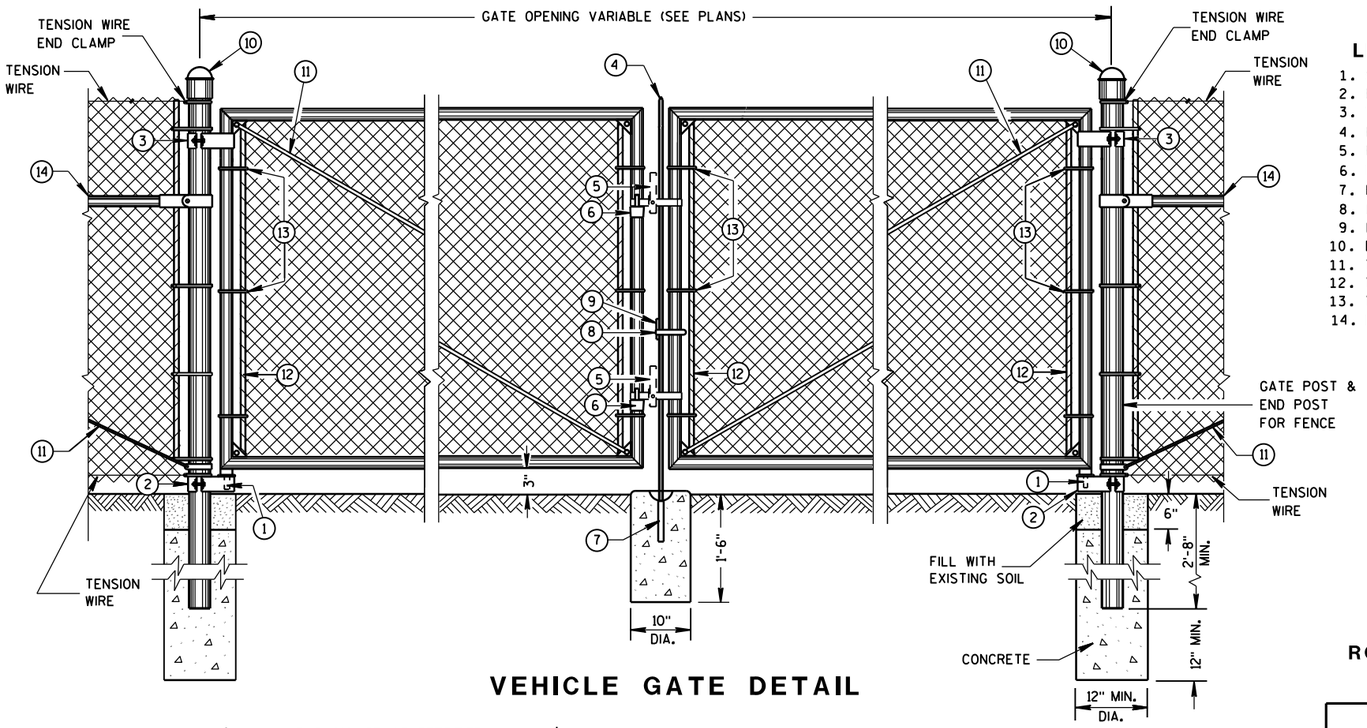
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

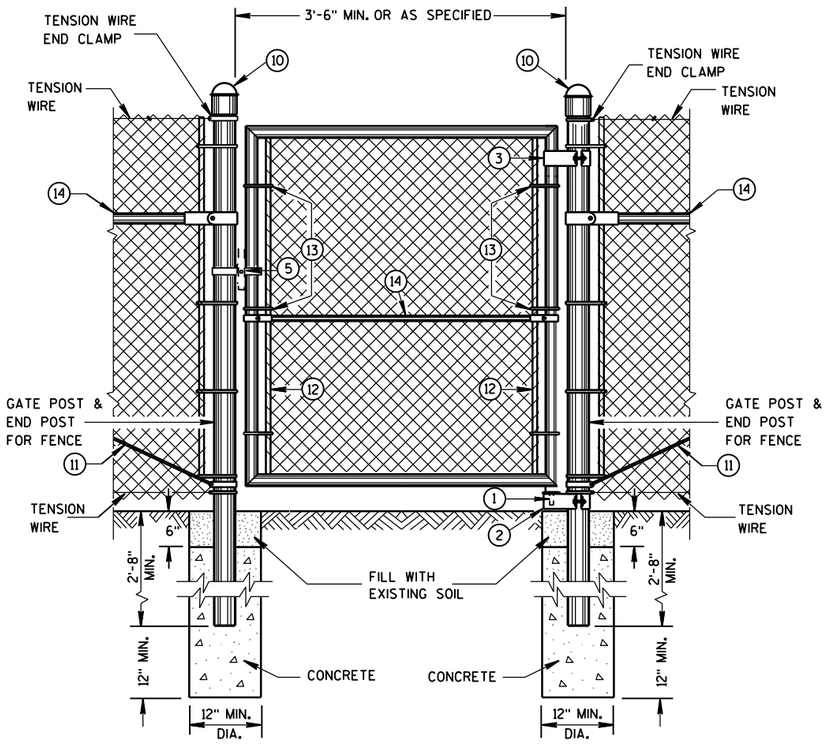
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

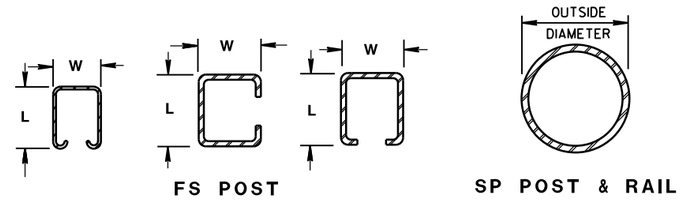
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

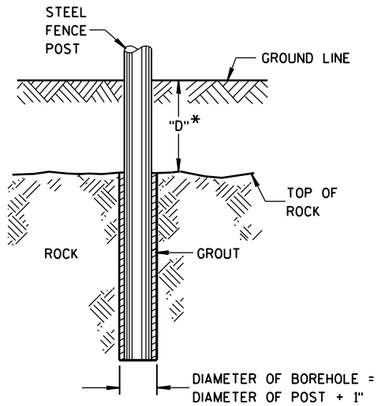
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

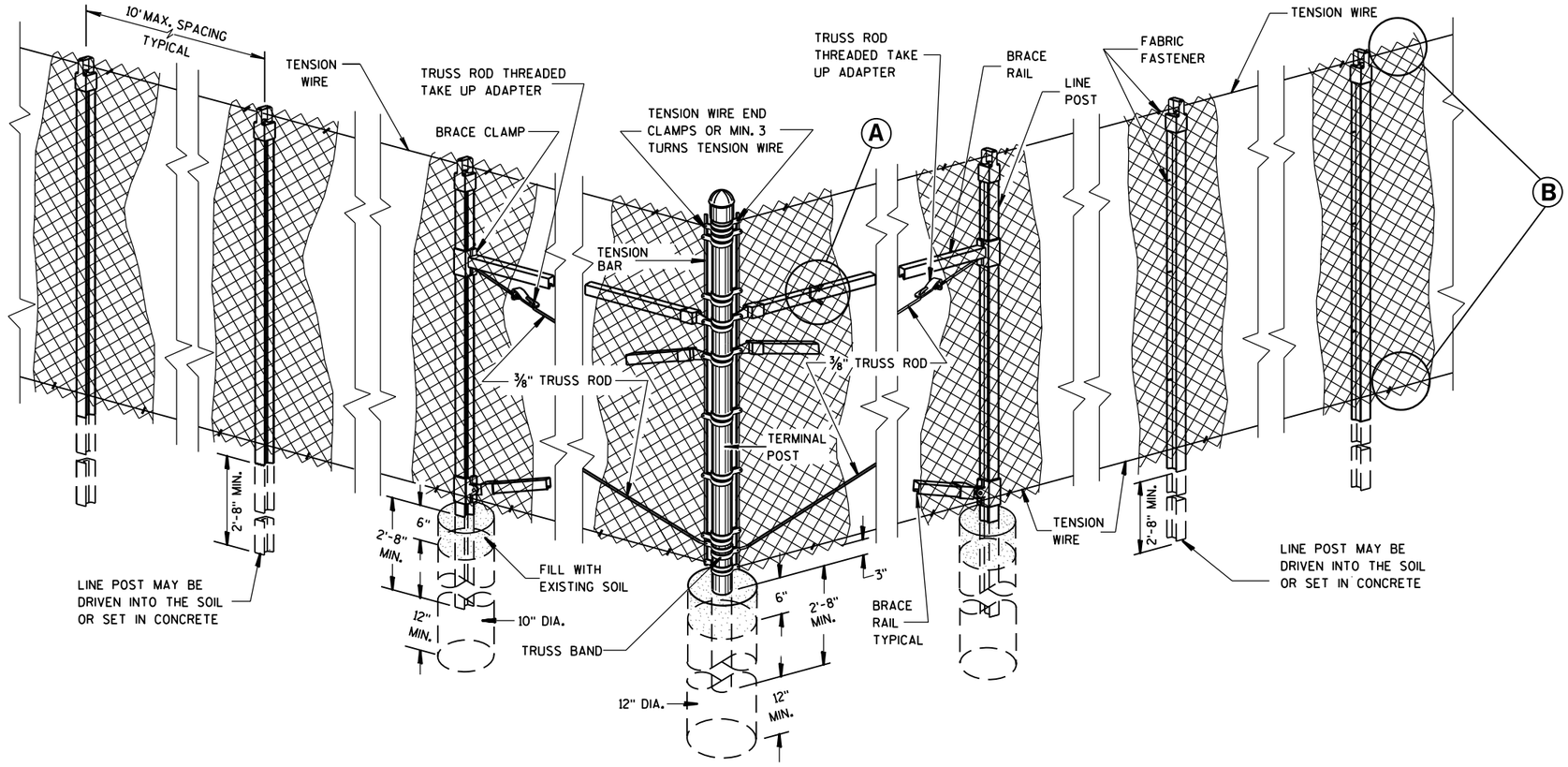
6

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

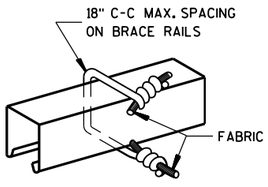


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



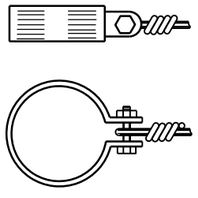
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



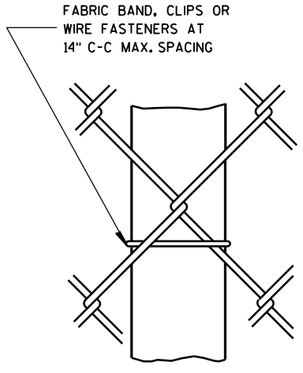
BRACE RAIL

FABRIC FASTENER

Ⓐ



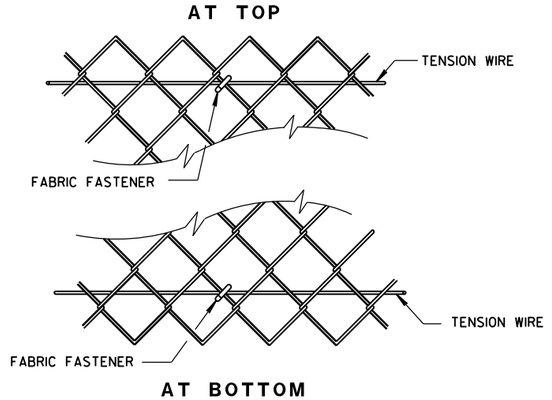
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

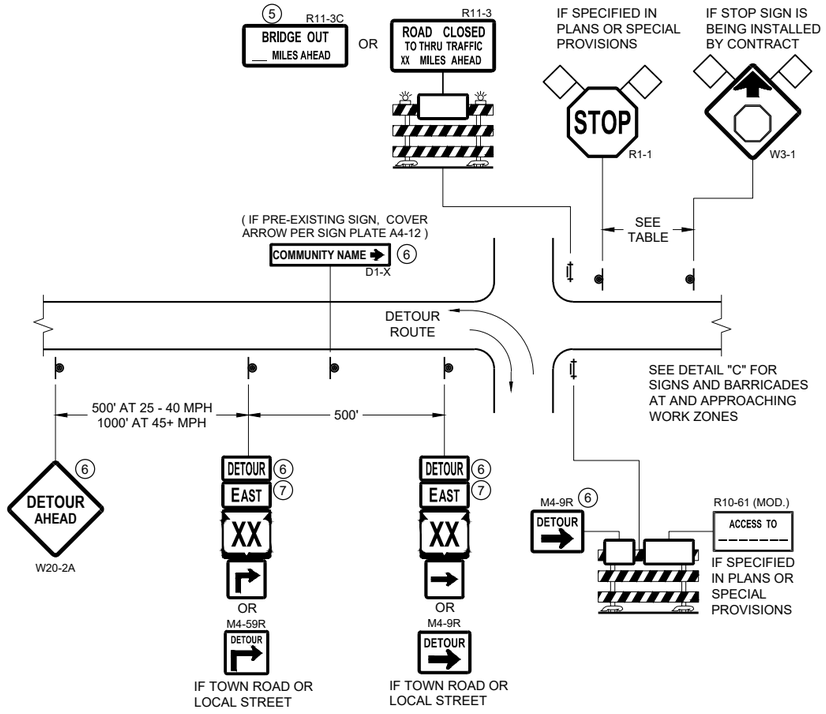
425

6

S.D.D. 15 B 3-15b

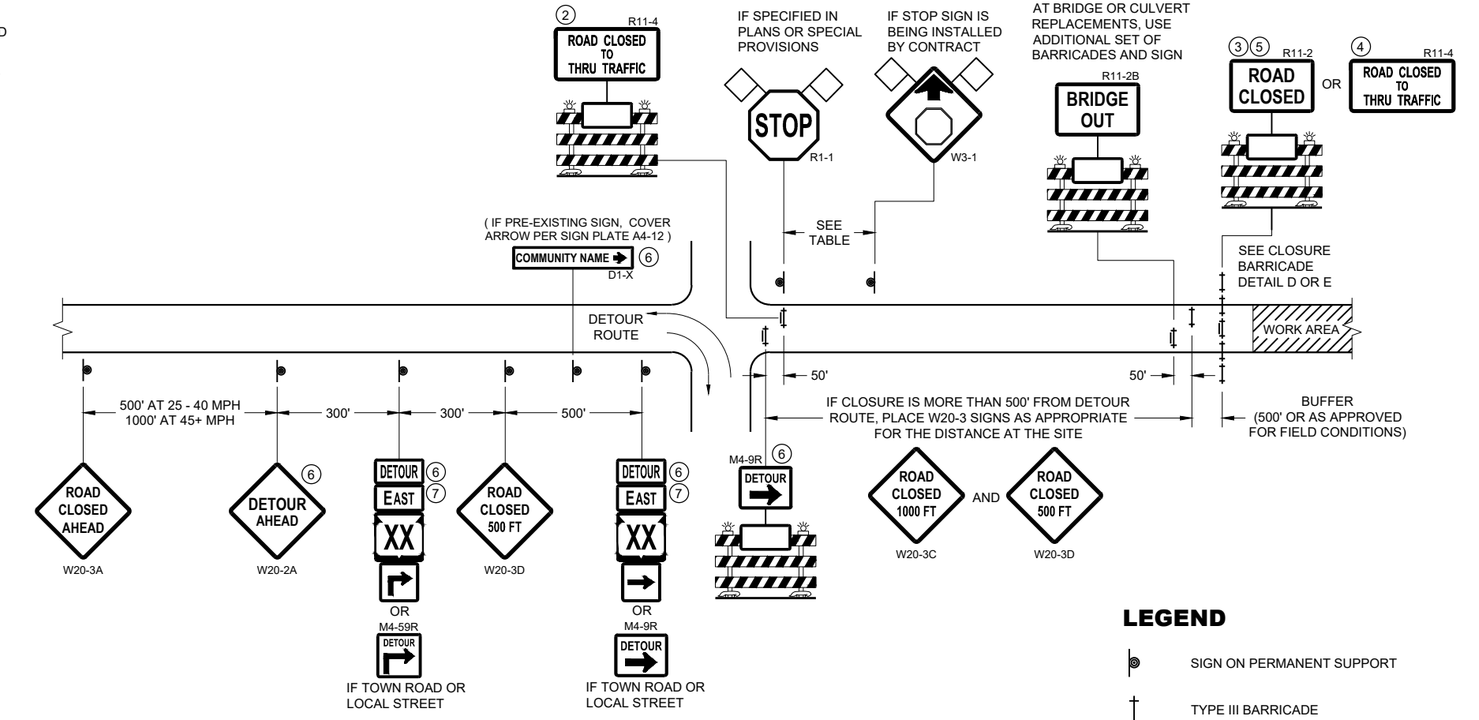
6

S.D.D. 15 B 3-15b



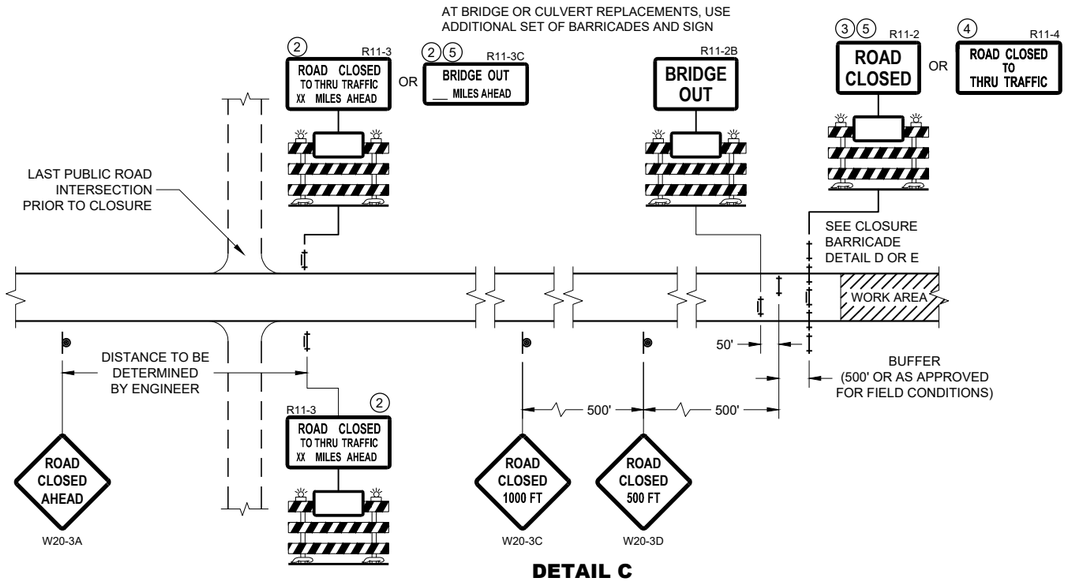
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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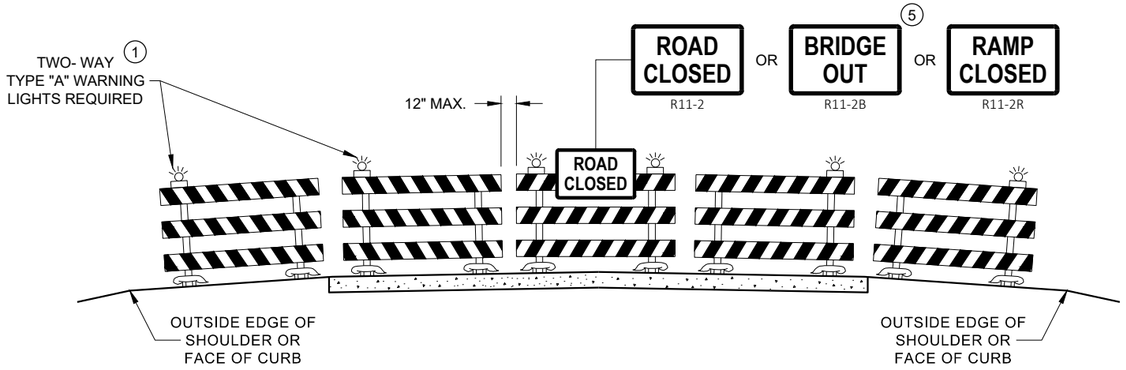
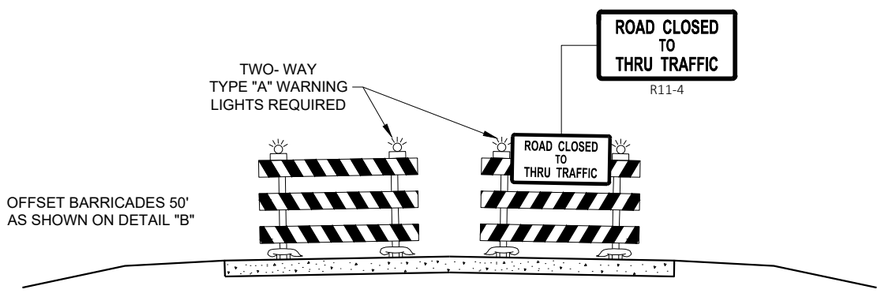
SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

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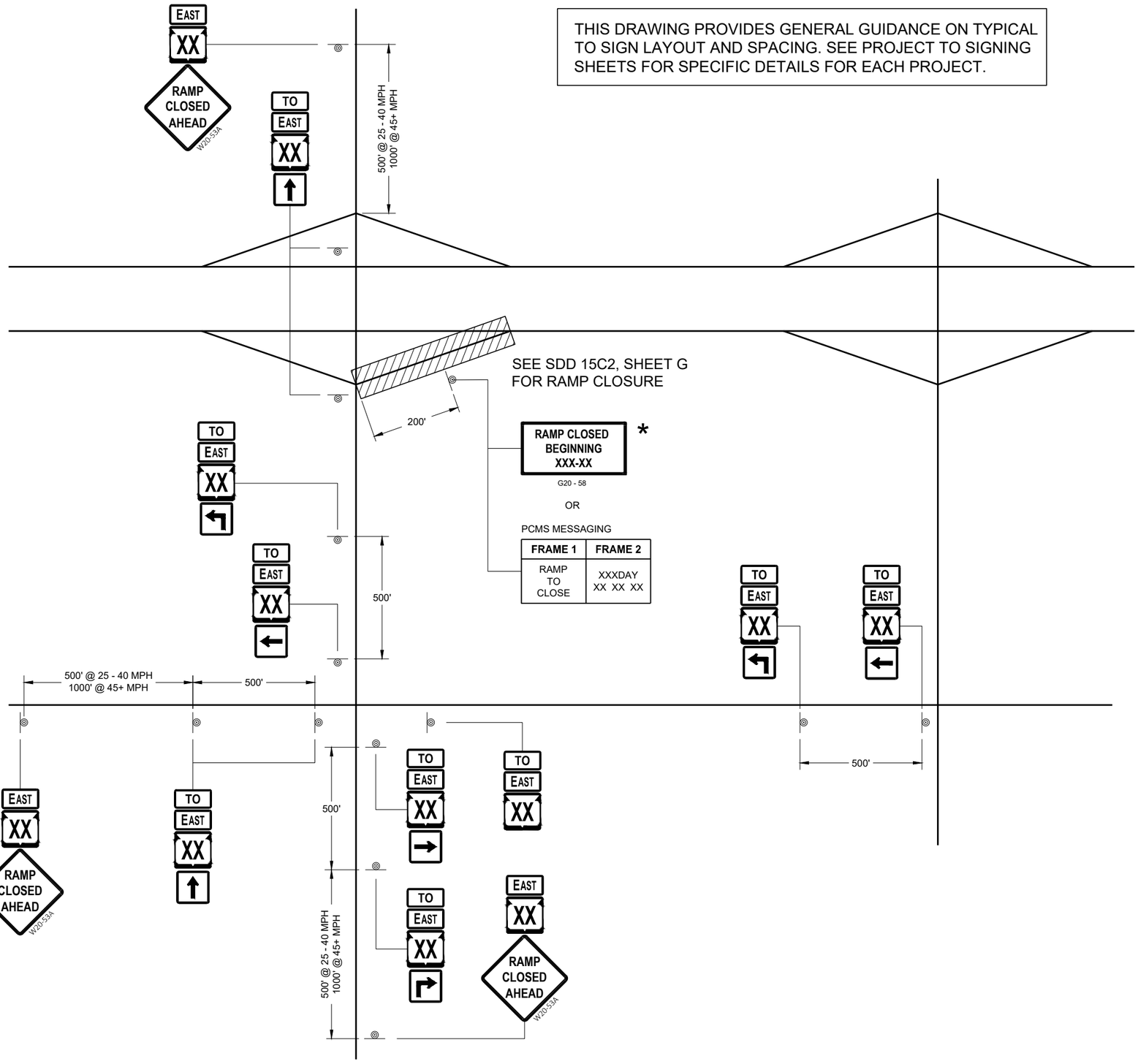
SDD 15C02 - 09b



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

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

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

ON RAMP LANE CLOSURE

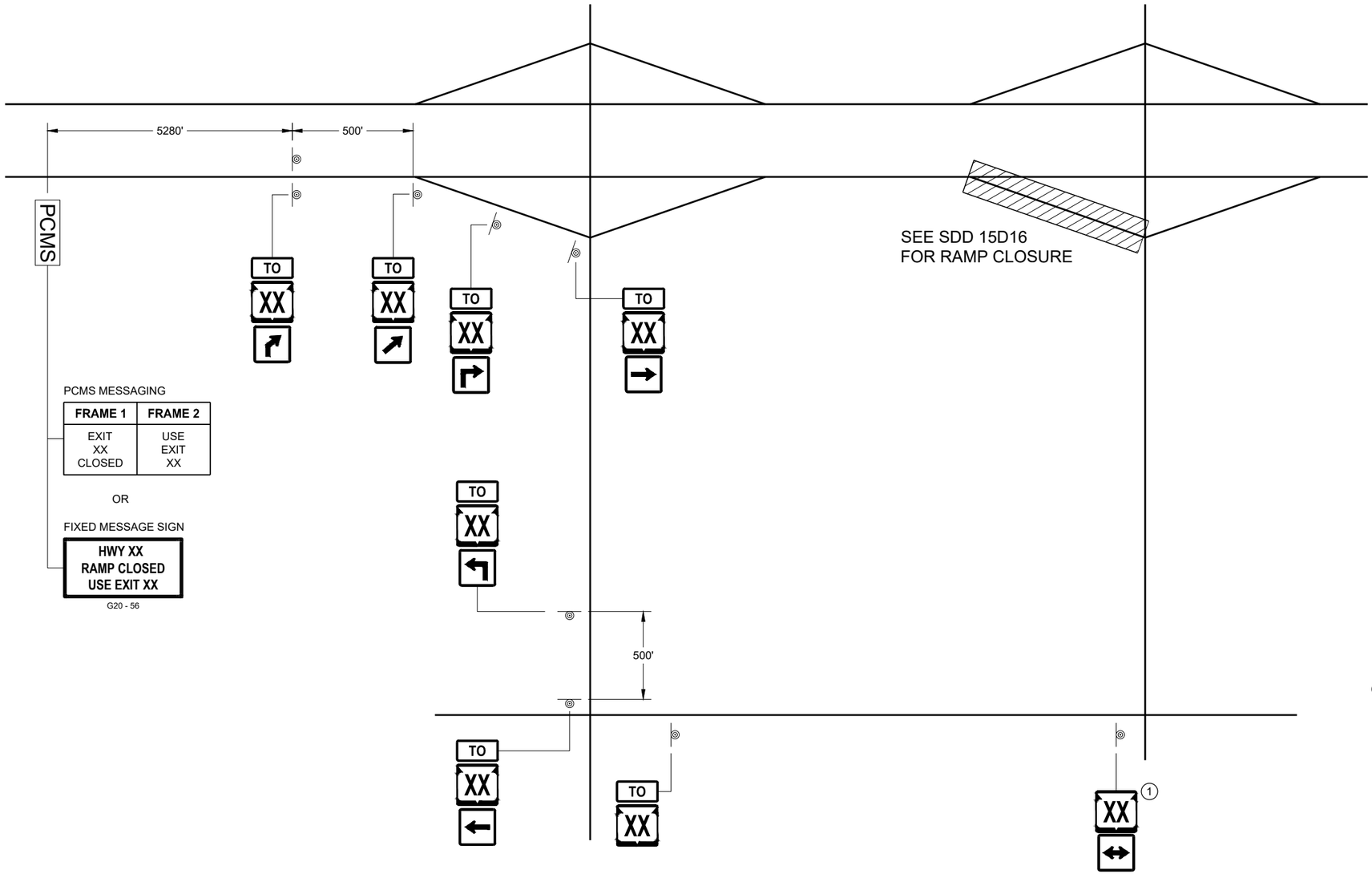
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C02 - 09d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

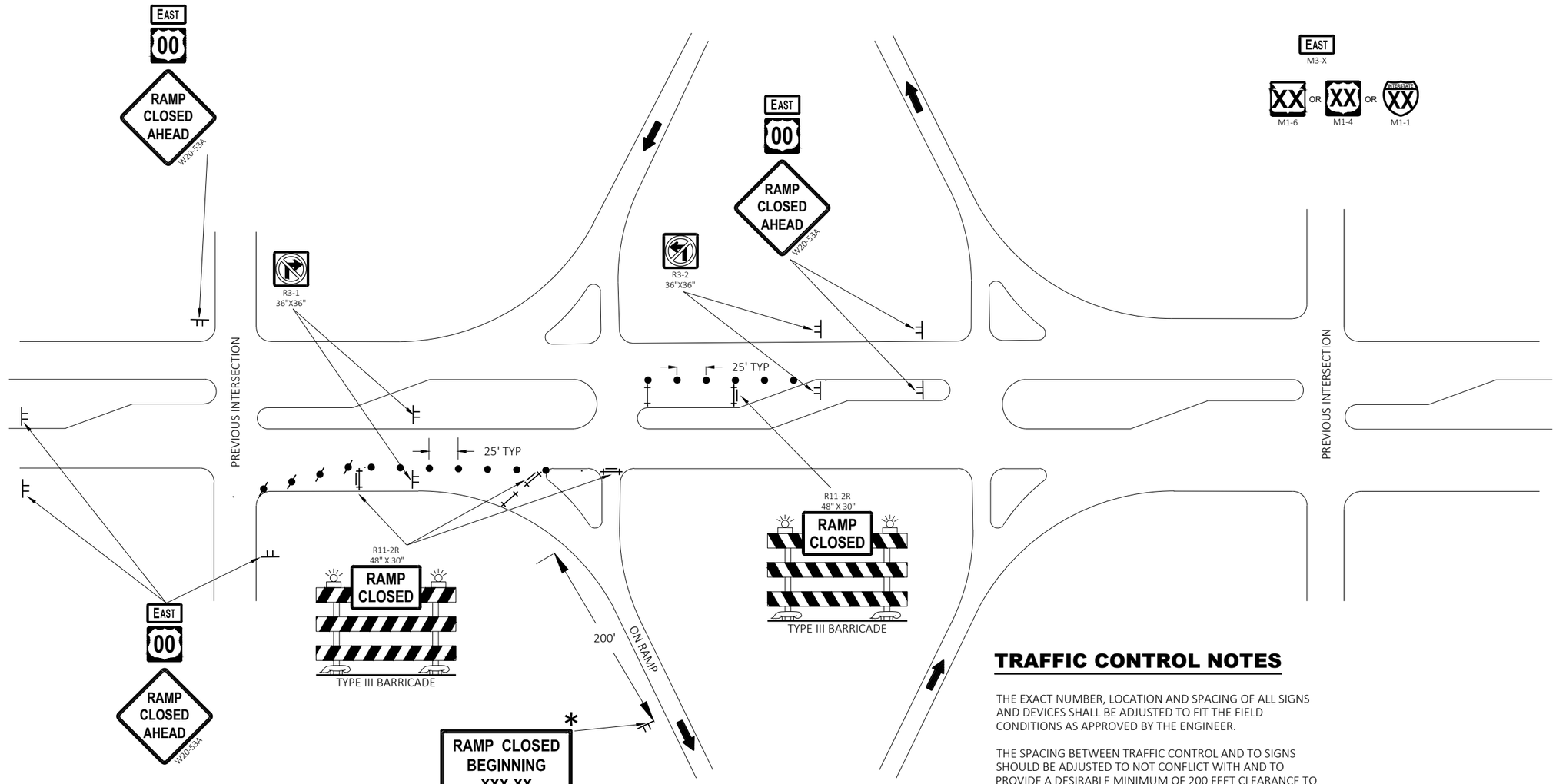
(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 15C02 - 09e



LEGEND

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

TRAFFIC CONTROL NOTES

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

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

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

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SDD 15C02-09g

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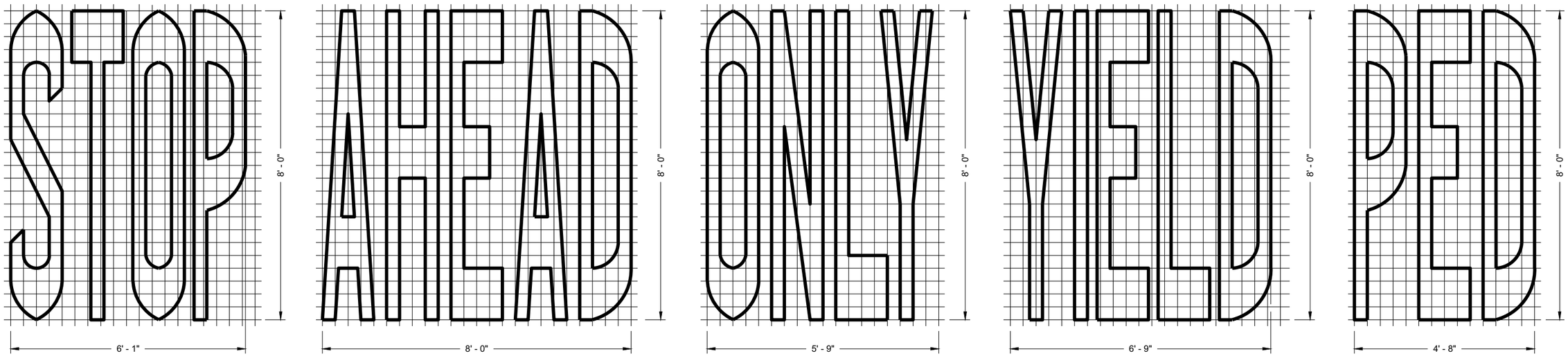
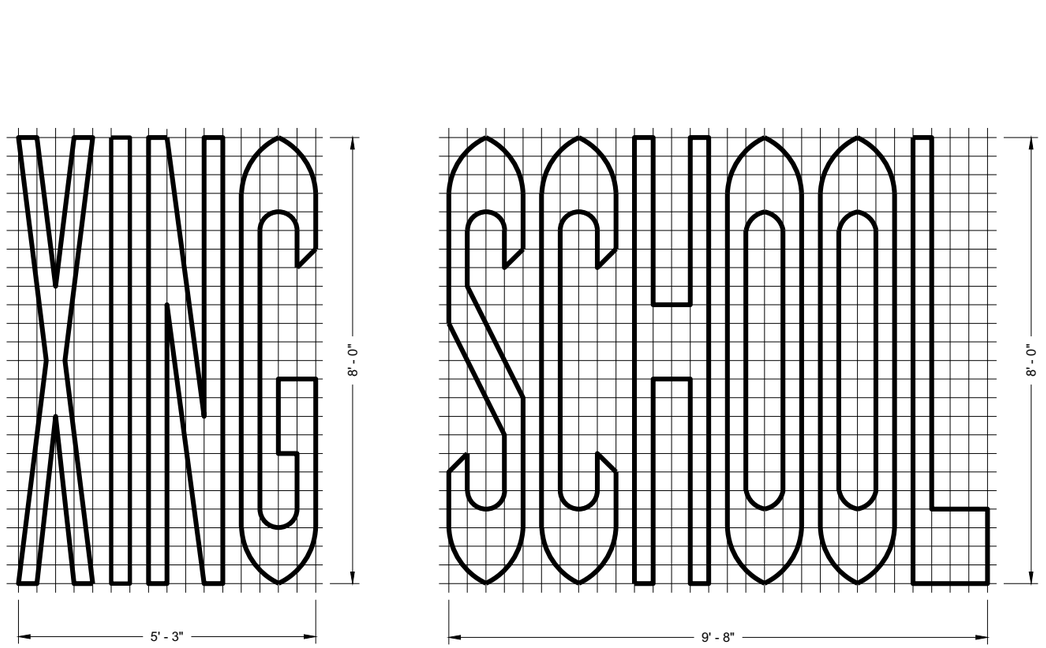
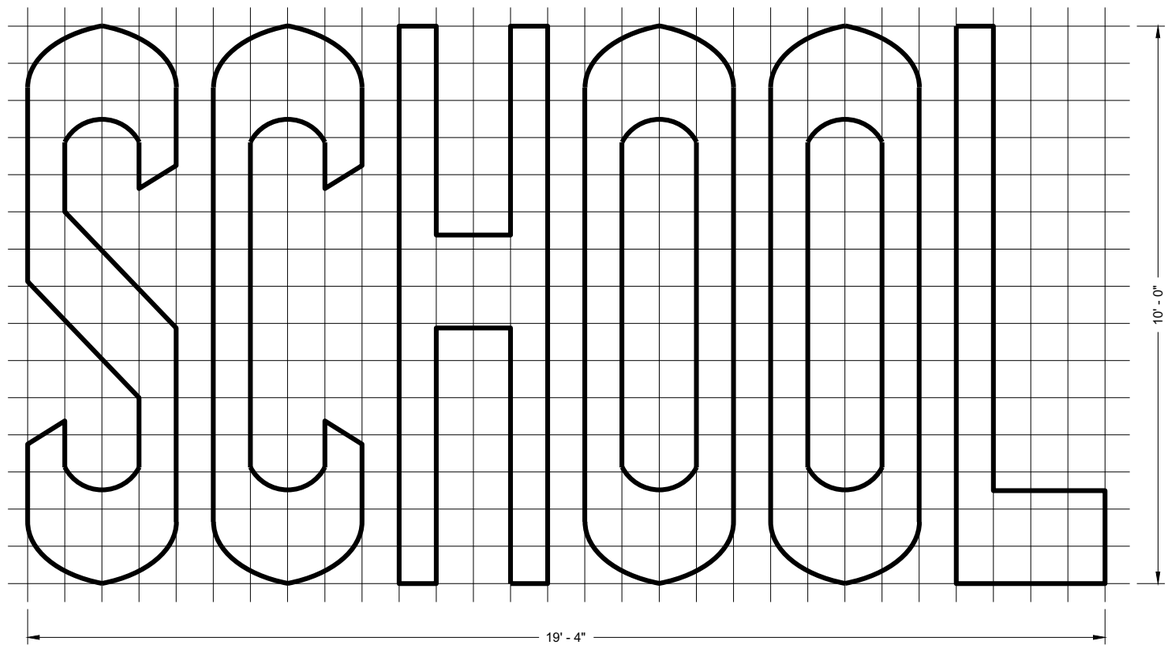
SDD 15C02-09g





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 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

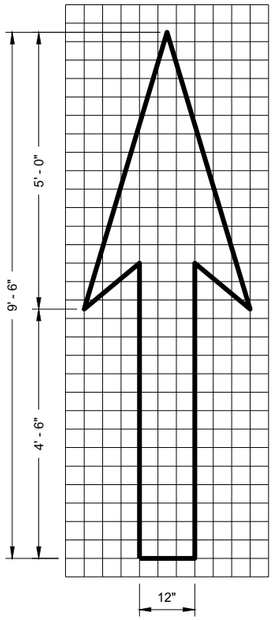
6

SDD 15C07 - 15b

SDD 15C07 - 15b

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.



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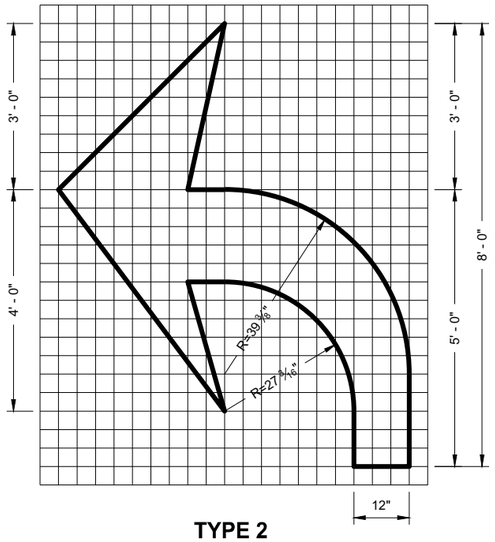

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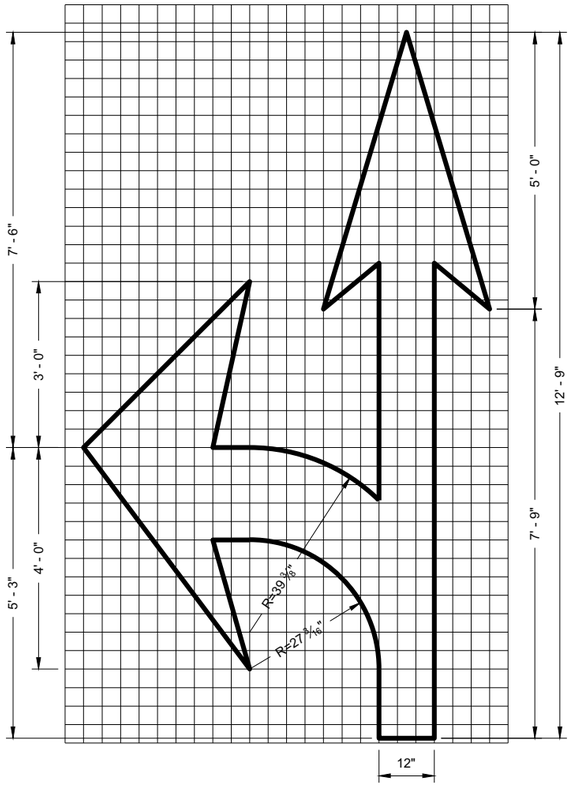

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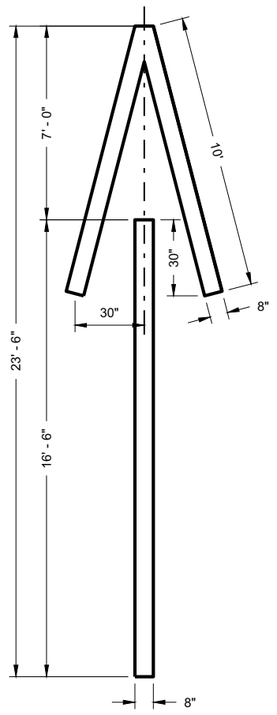

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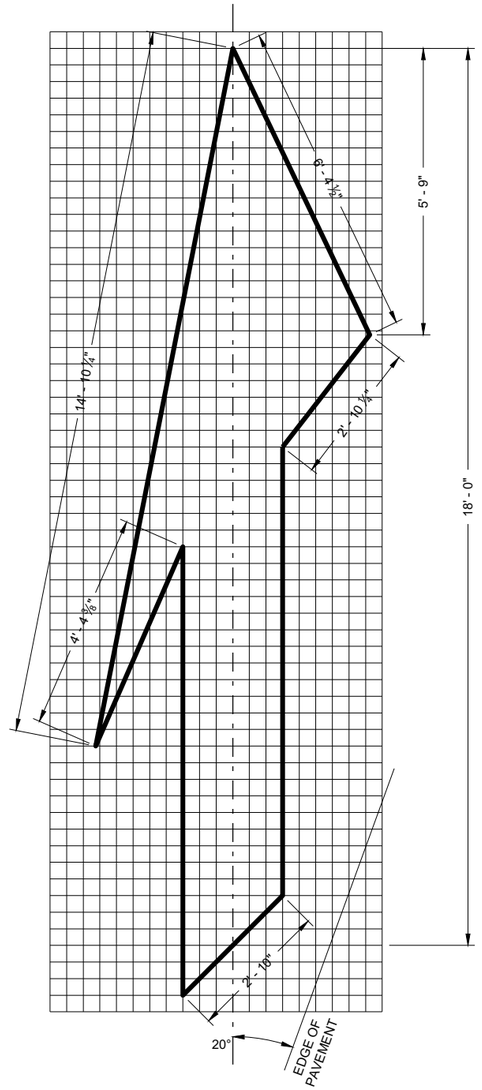
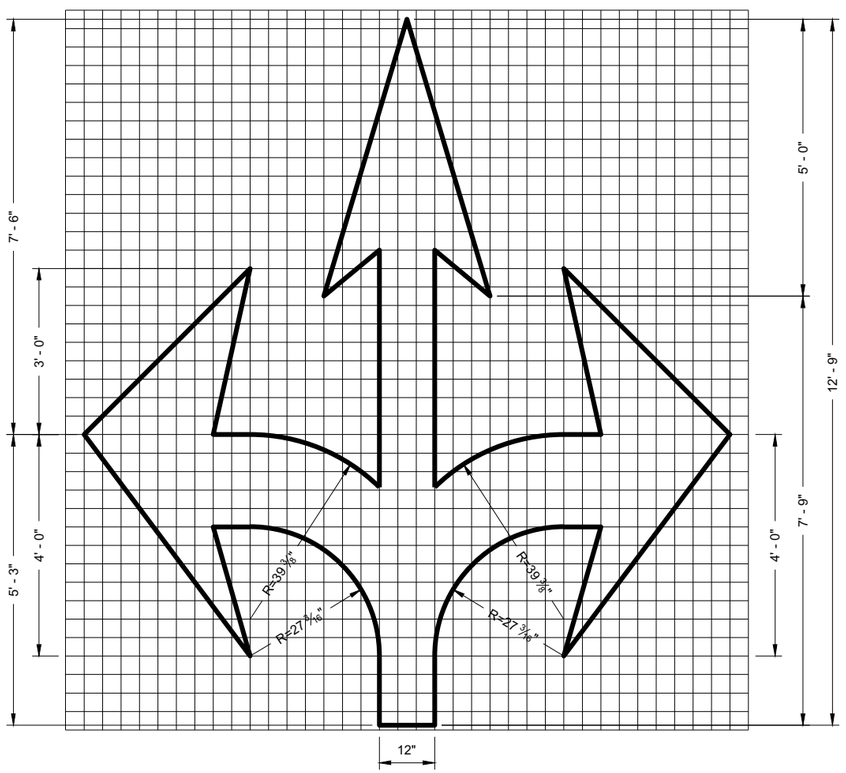
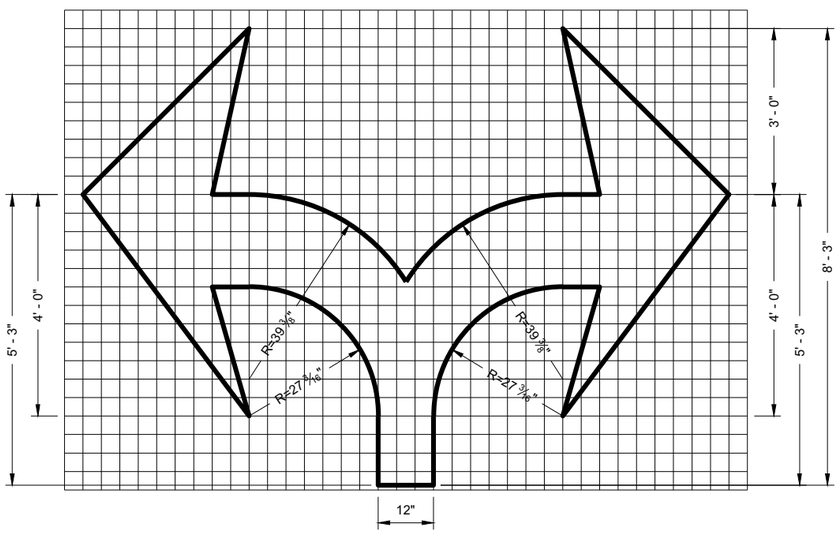


TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

6
SDD15C07 - 15c

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.

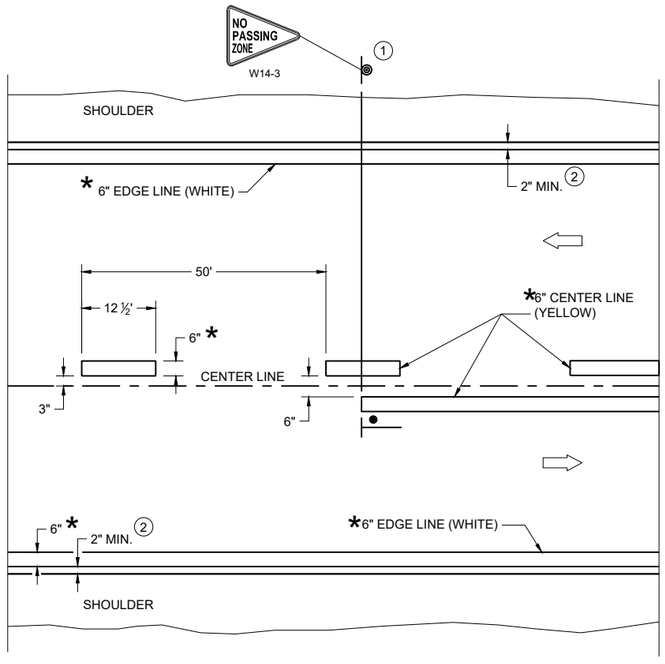
LEGEND

"T" MARKING

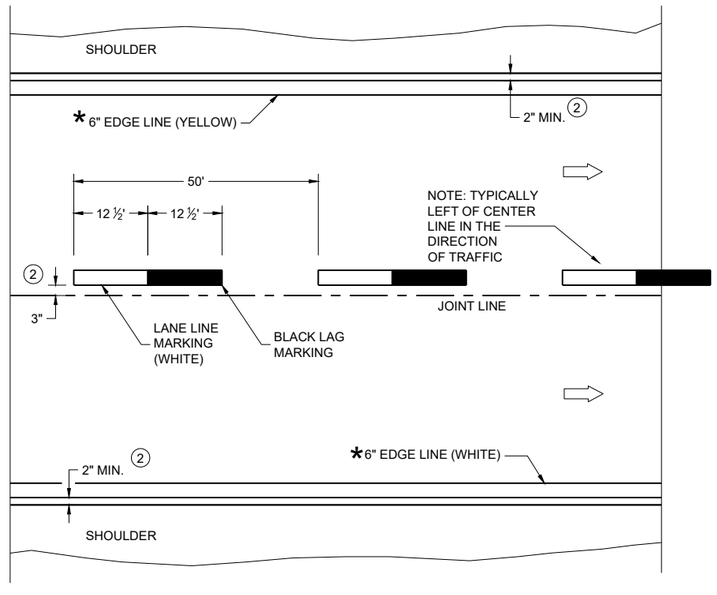
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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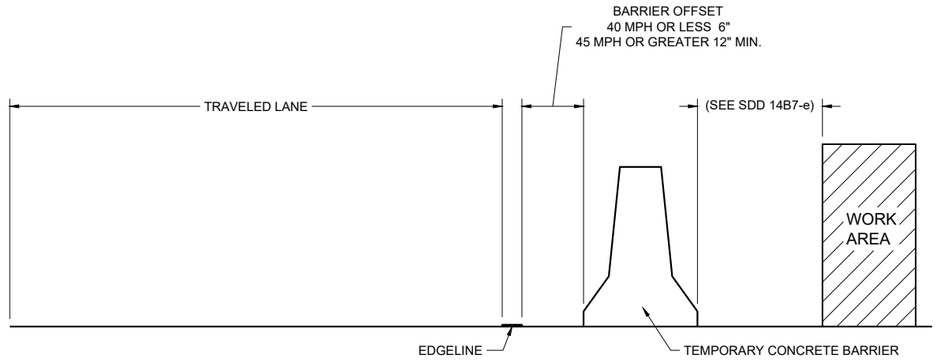
SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

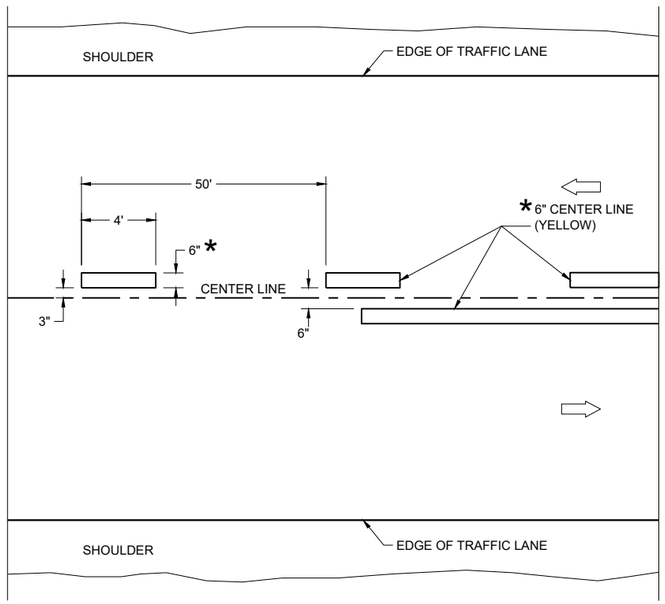
GENERAL NOTES

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

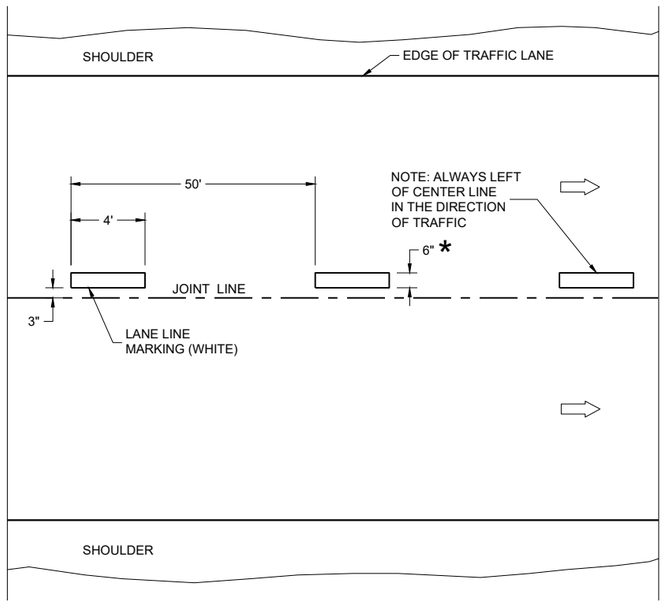
LEGEND

DIRECTION OF TRAFFIC

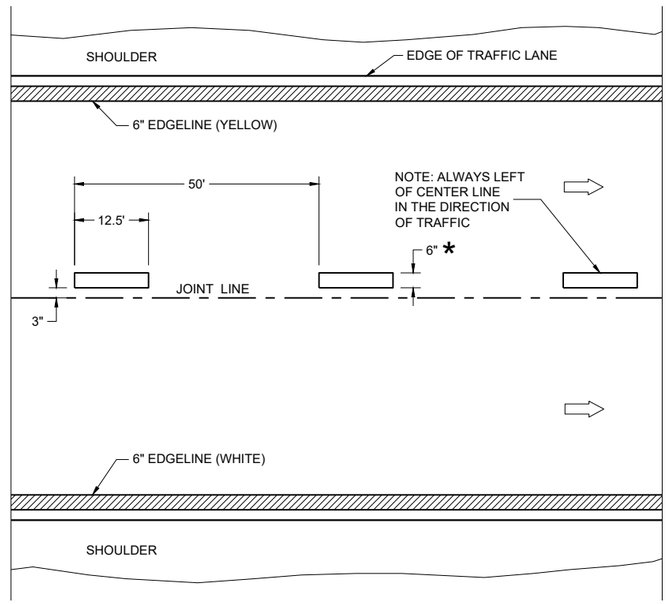
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — Statewide Pavement Marking Engineer

FHWA

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SDD 15C08-23b

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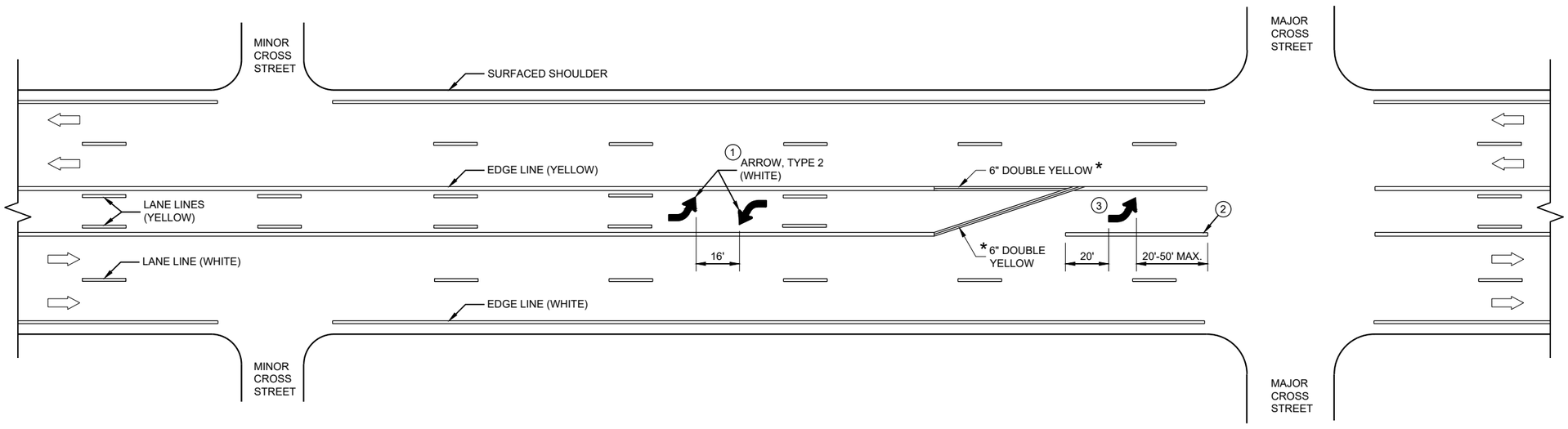
GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 435

SDD 15C08-23c

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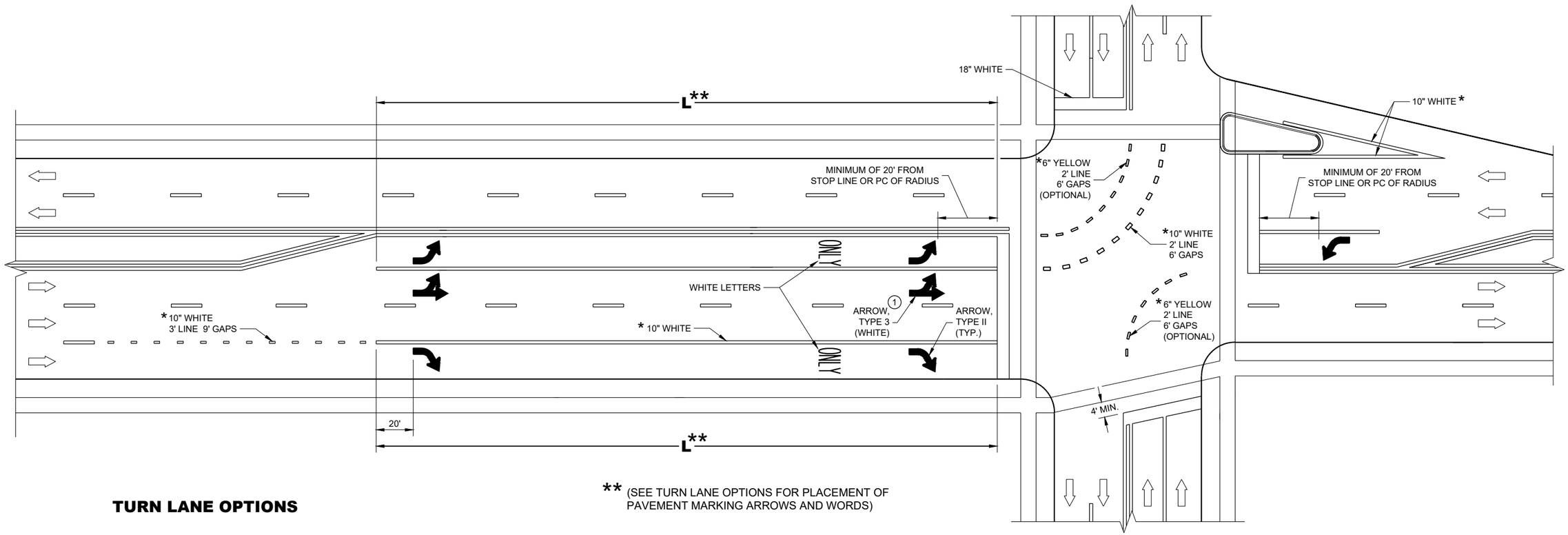
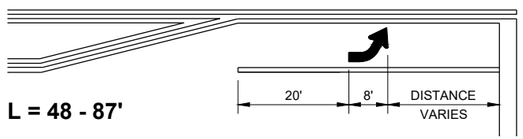


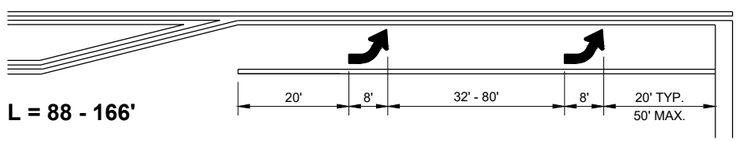
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

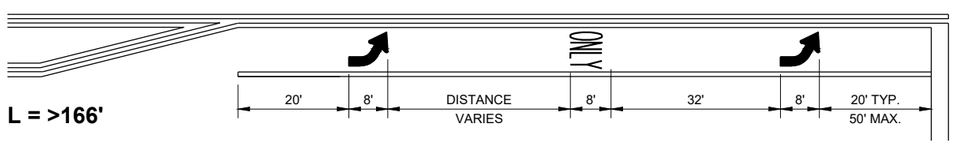
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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

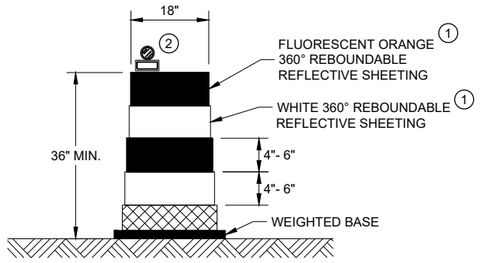
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15C08-23d

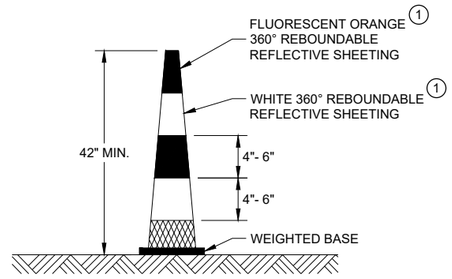
GENERAL NOTES

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

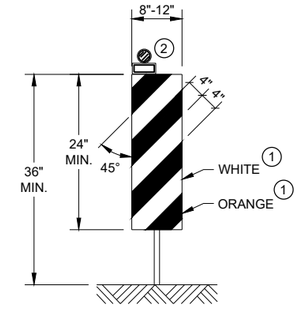
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

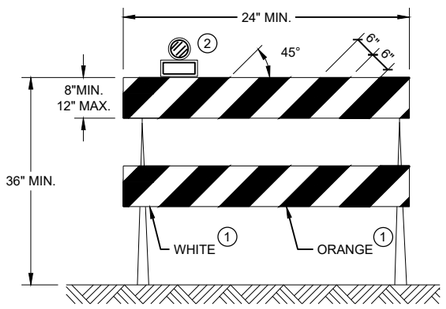
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



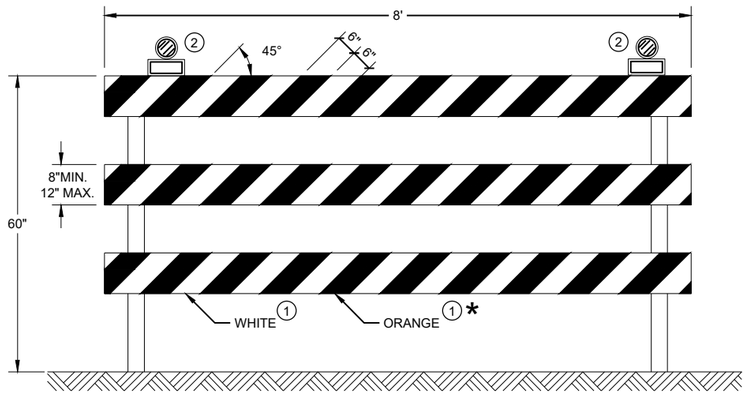
VERTICAL PANEL

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

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SDD 15C11 - 10b

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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.

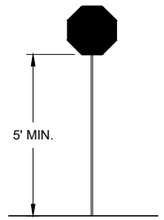
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.



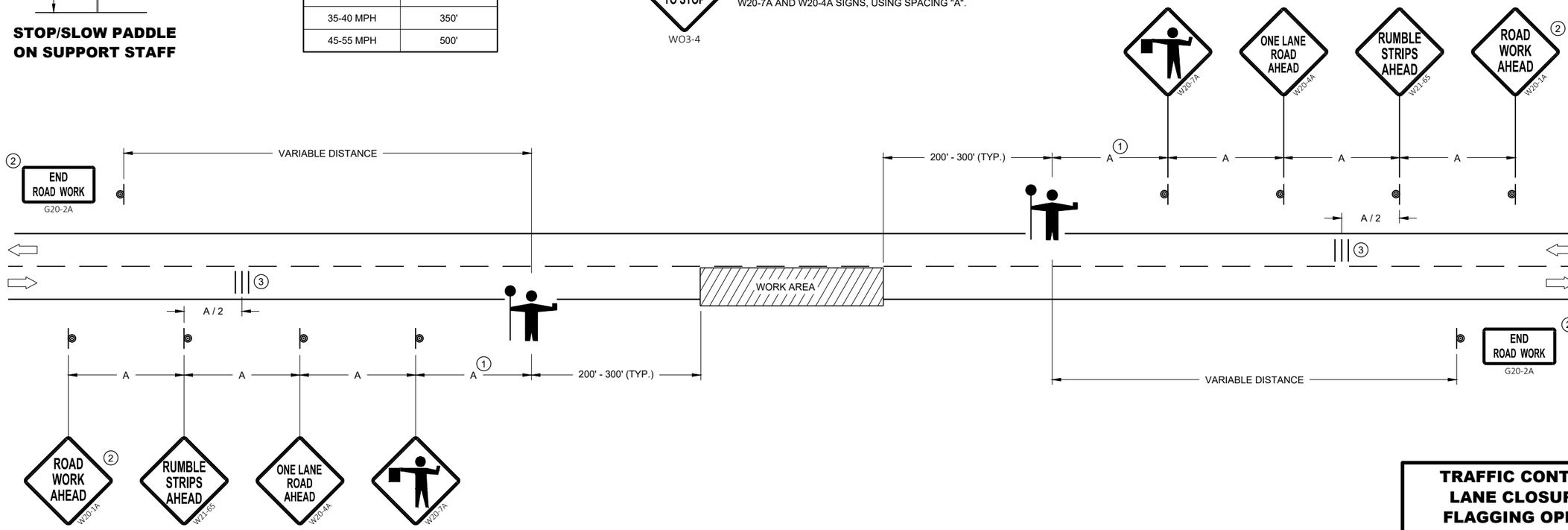
STOP/SLOW PADDLE ON SUPPORT STAFF

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

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SDD 15C12 - 09a

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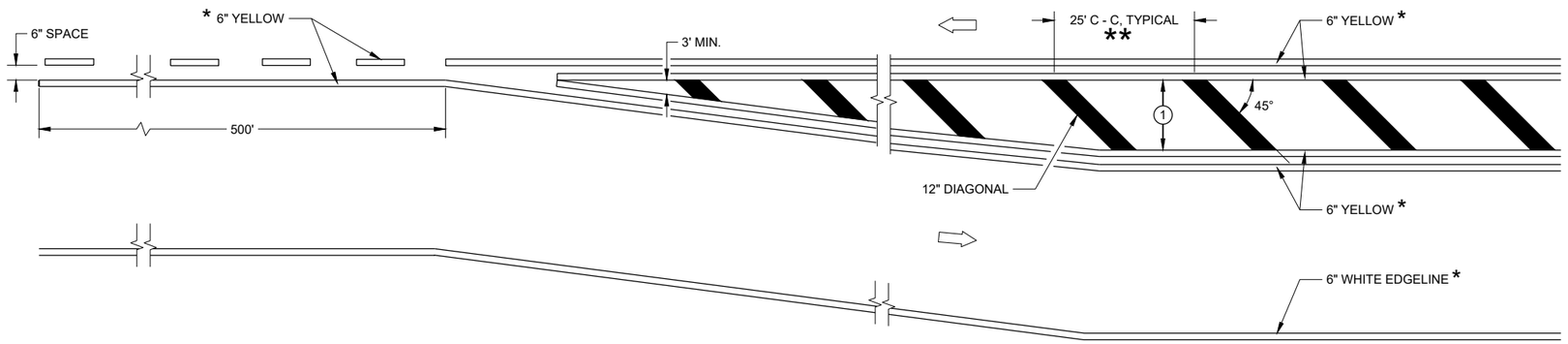
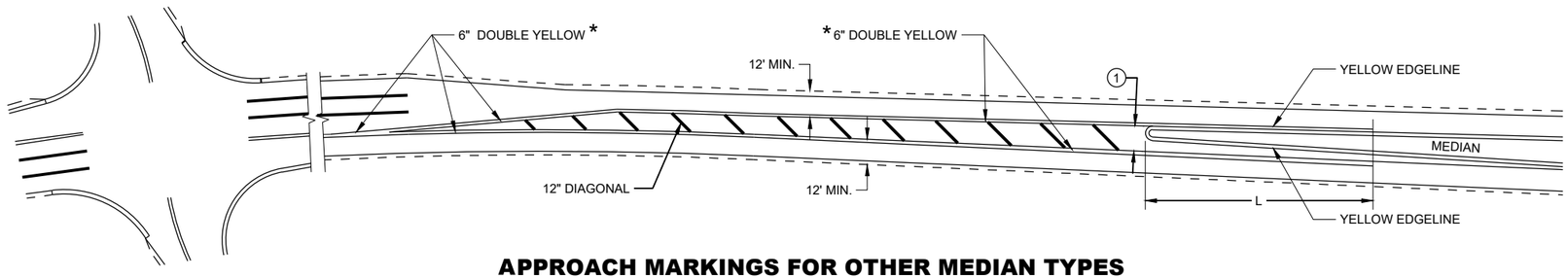
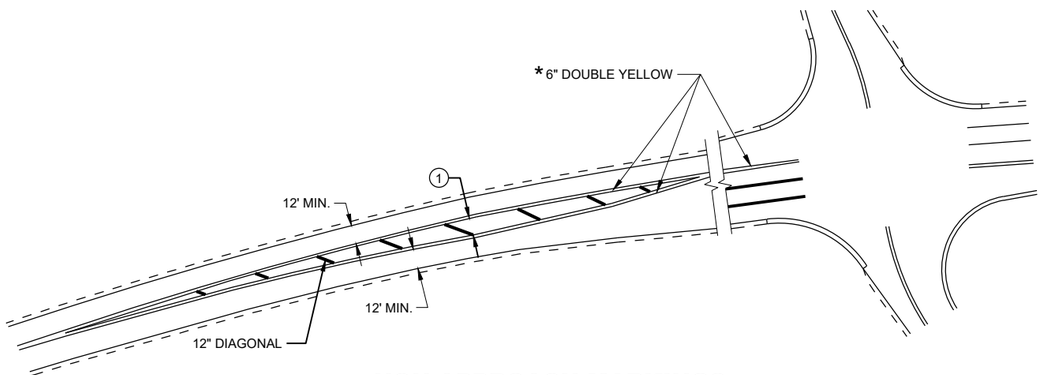
SDD 15C12 - 09a



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

⇨ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER
FHWA

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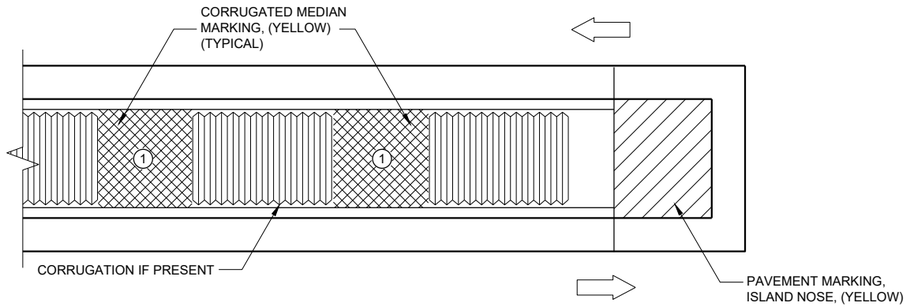
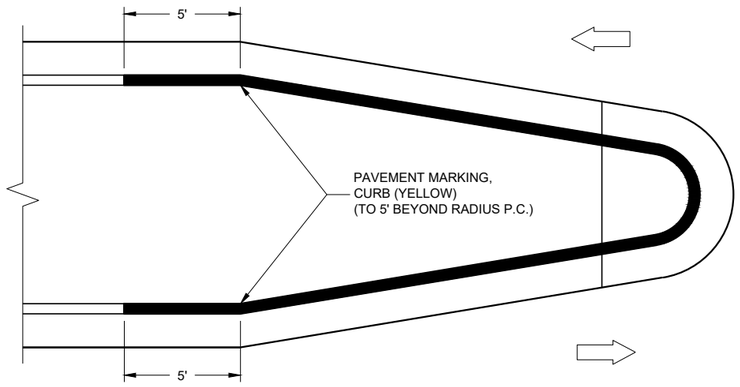
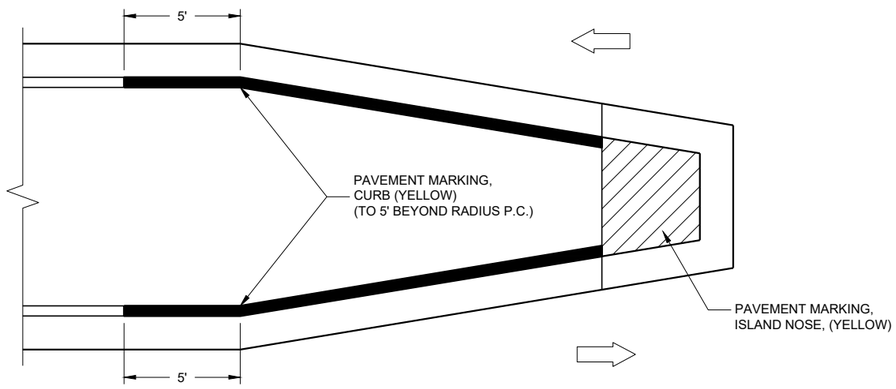


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

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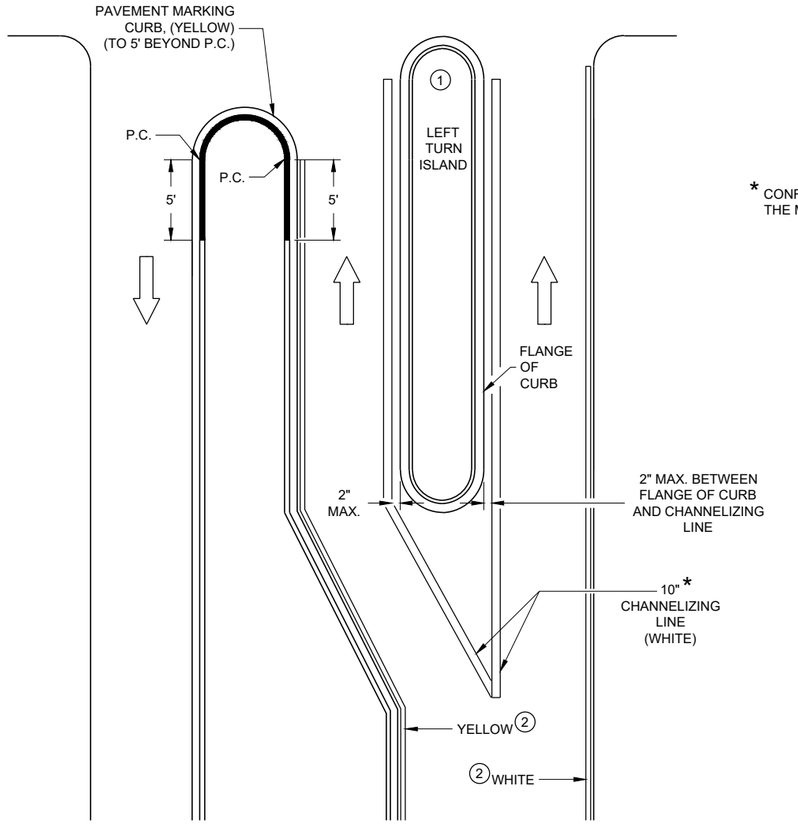
REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEFT TURN & MEDIAN ISLAND

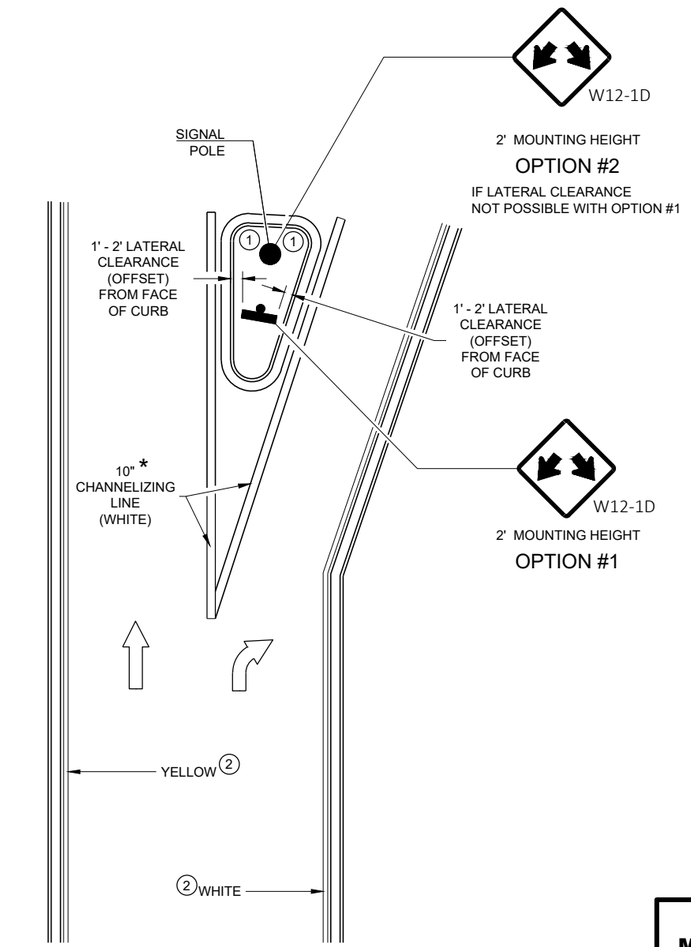
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023 — DATE

/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER

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SDD 15C18-08c

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

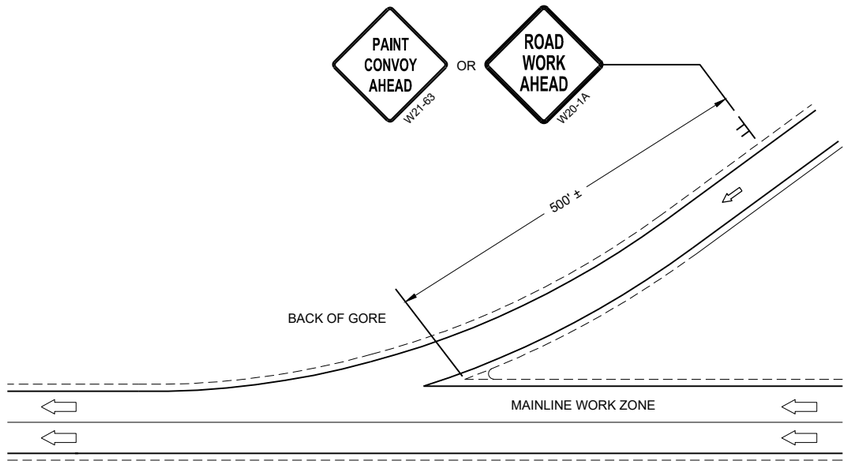
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

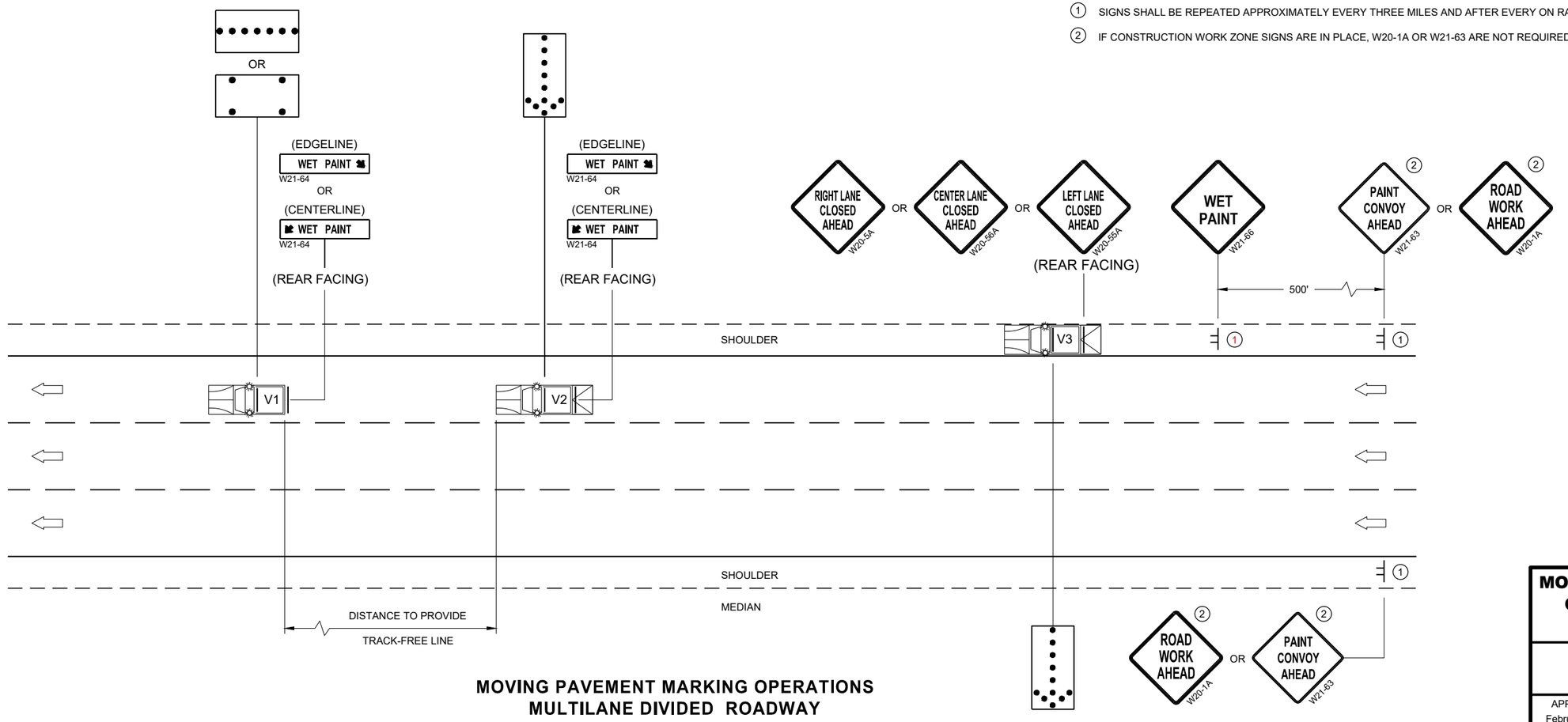
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE

/S/ Andrew [illegible]
WORK ZONE EN

FHWA

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SDD 15C19-08c

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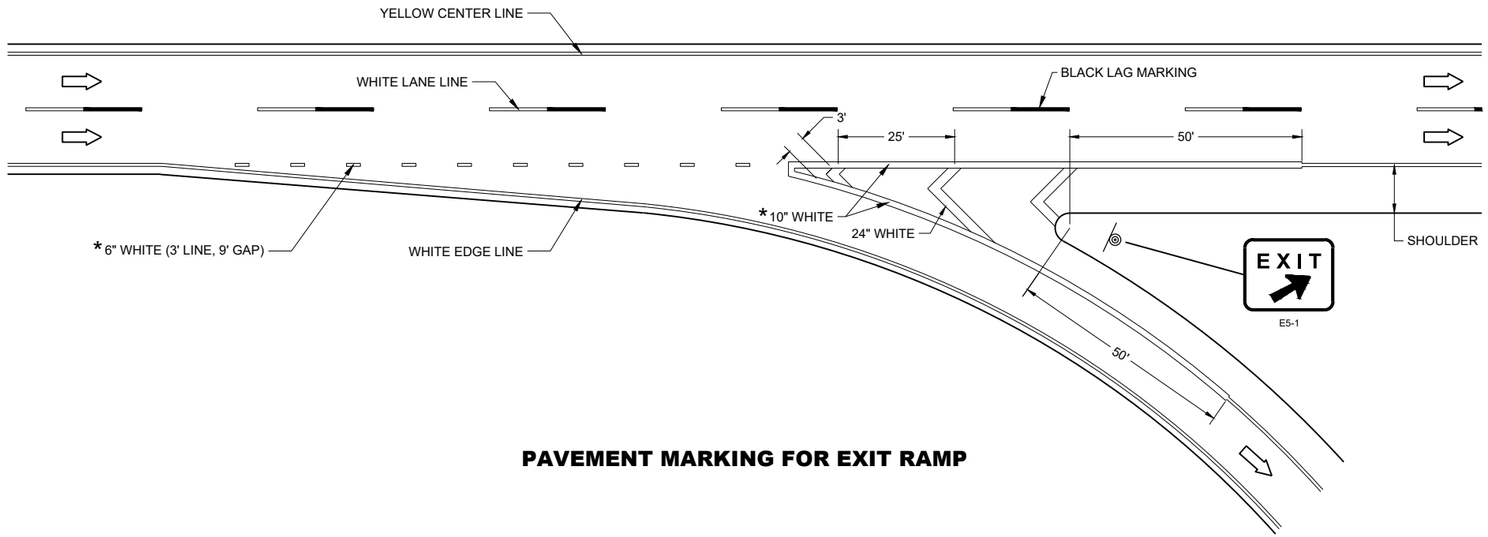
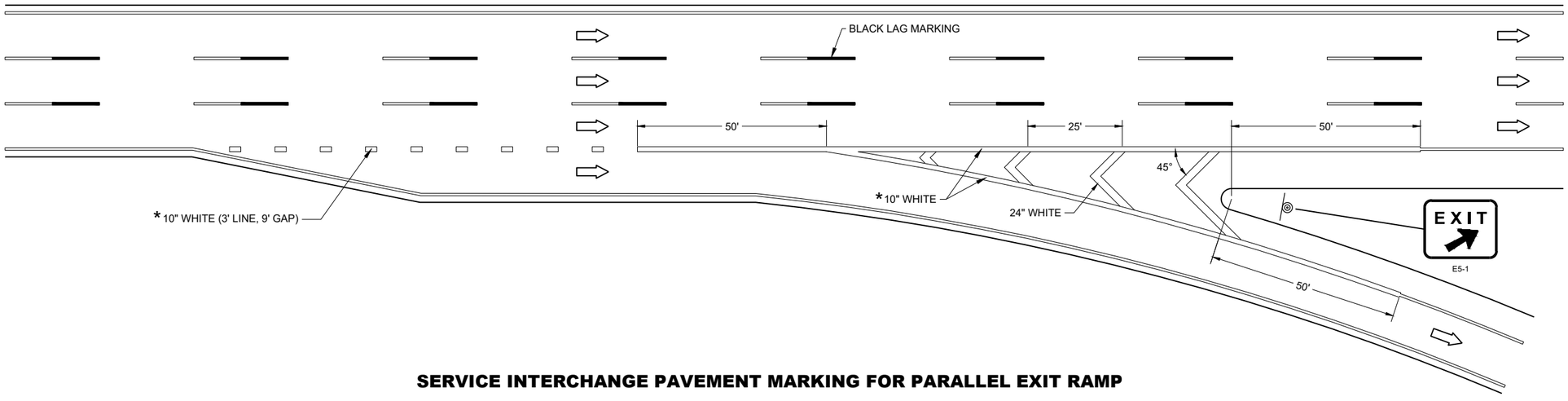


PAVEMENT MARKING FOR EXIT RAMP



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

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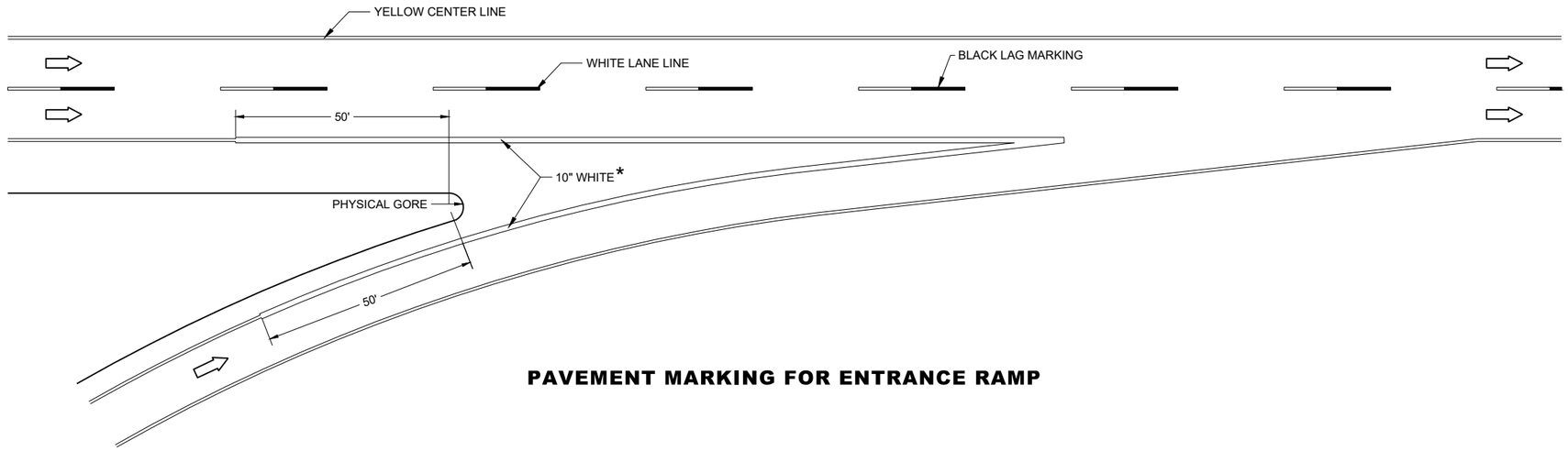
SDD 15C31-06a



PAVEMENT MARKING FOR ENTRANCE RAMP

GENERAL NOTES

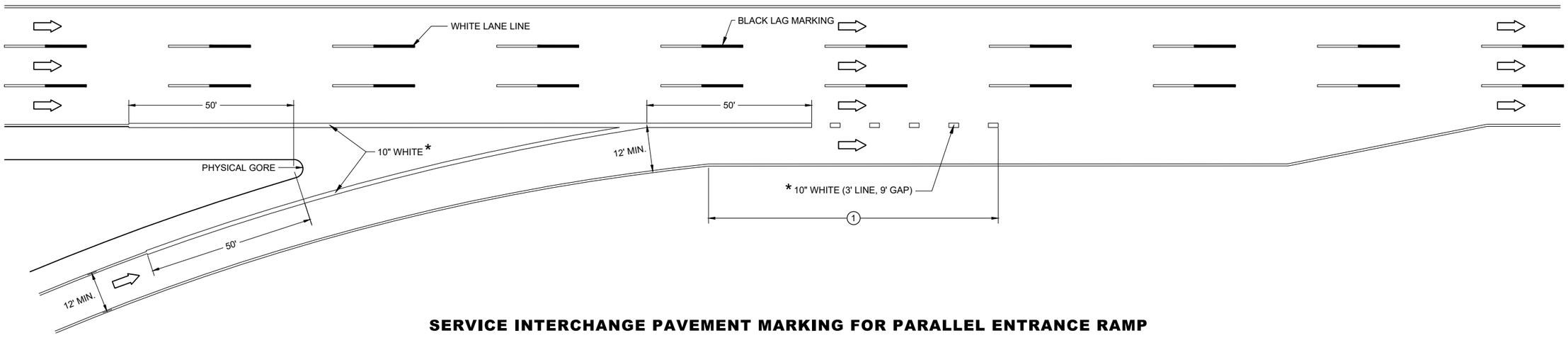
PLACE GROOVE 3 INCHES LEFT OF JOINT.

(1) ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

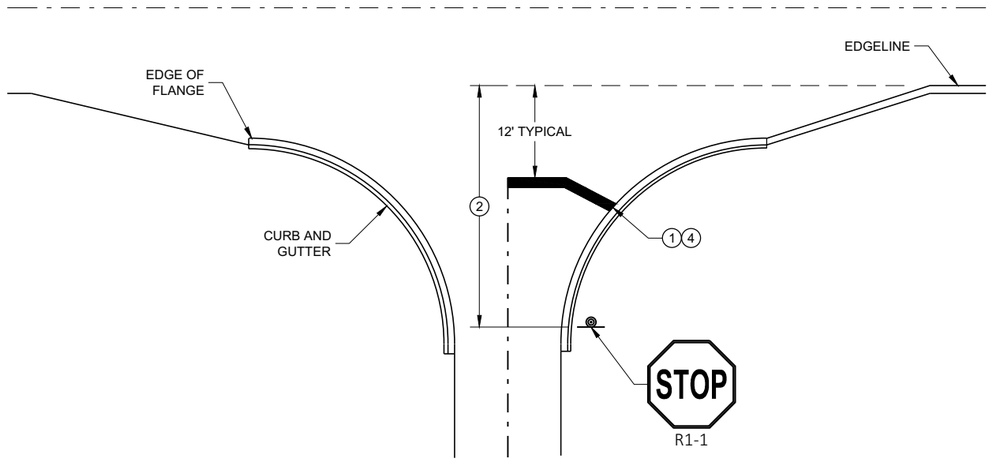
6

SDD 15C31-06c

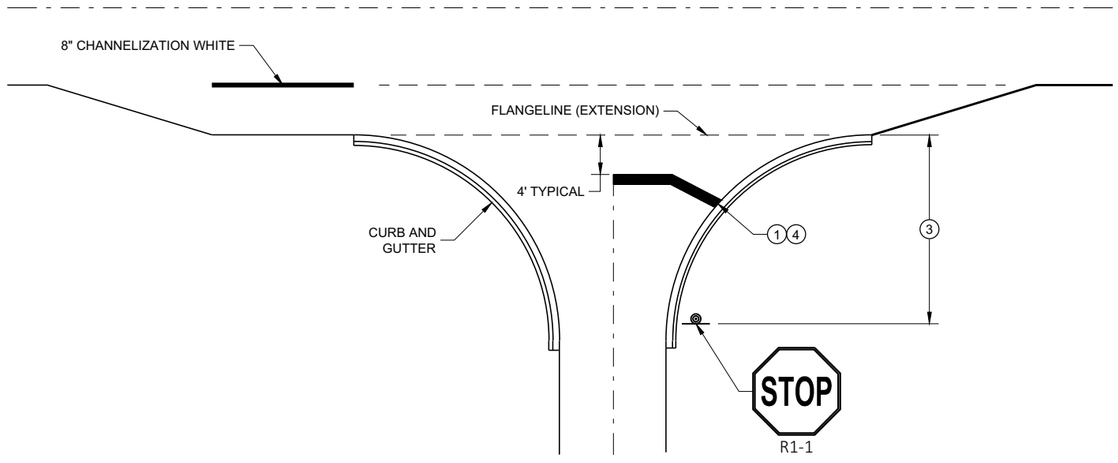
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

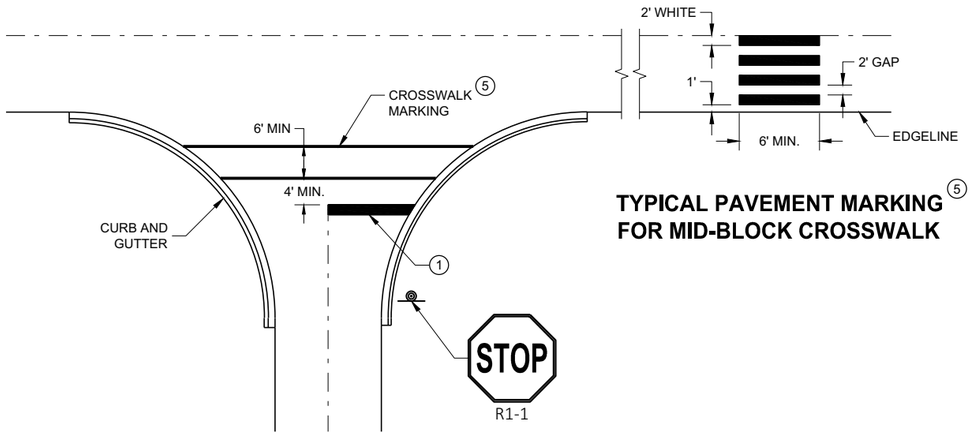
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

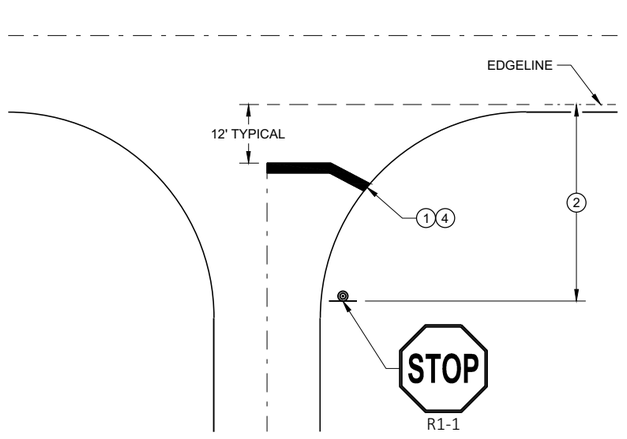


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING 5 FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

6

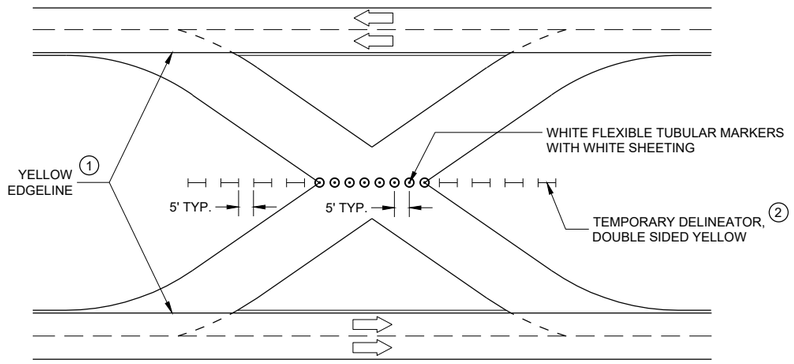
SDD 15C33 - 04

6

SDD 15C33 - 04

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DELINEATOR FLEXIBLE / TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- TYPE "A" WARNING LIGHT (FLASHING)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

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.

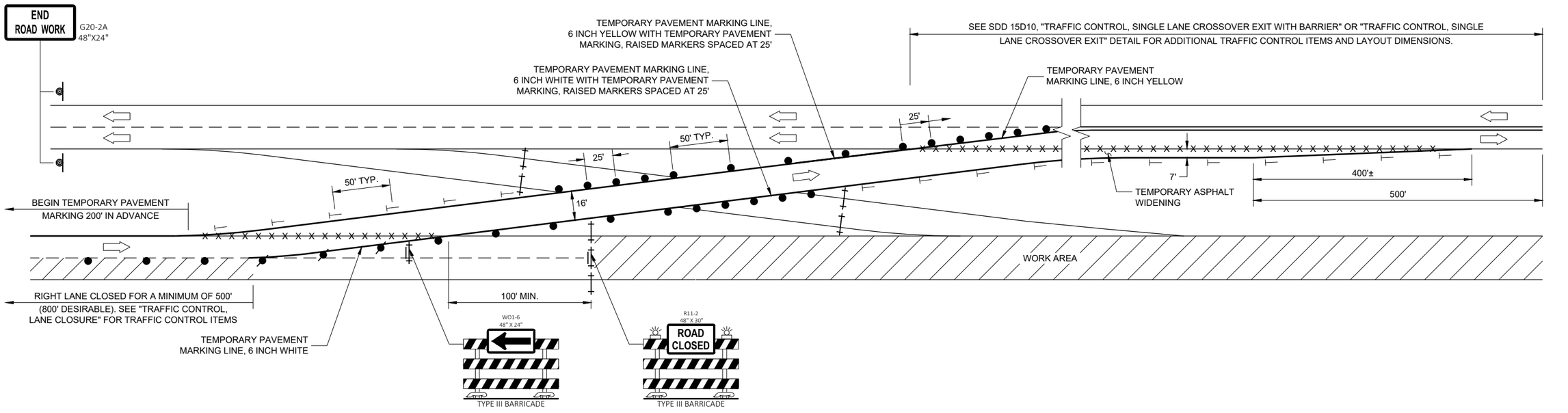
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

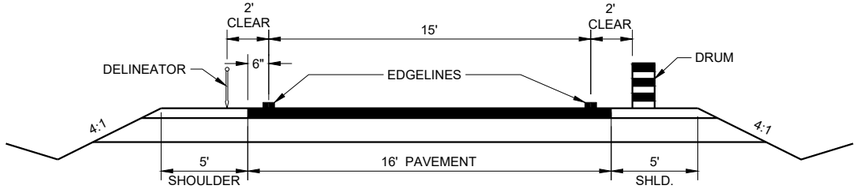
THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

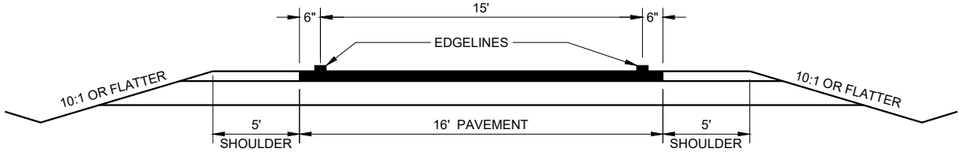
(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.





TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D11-09

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.

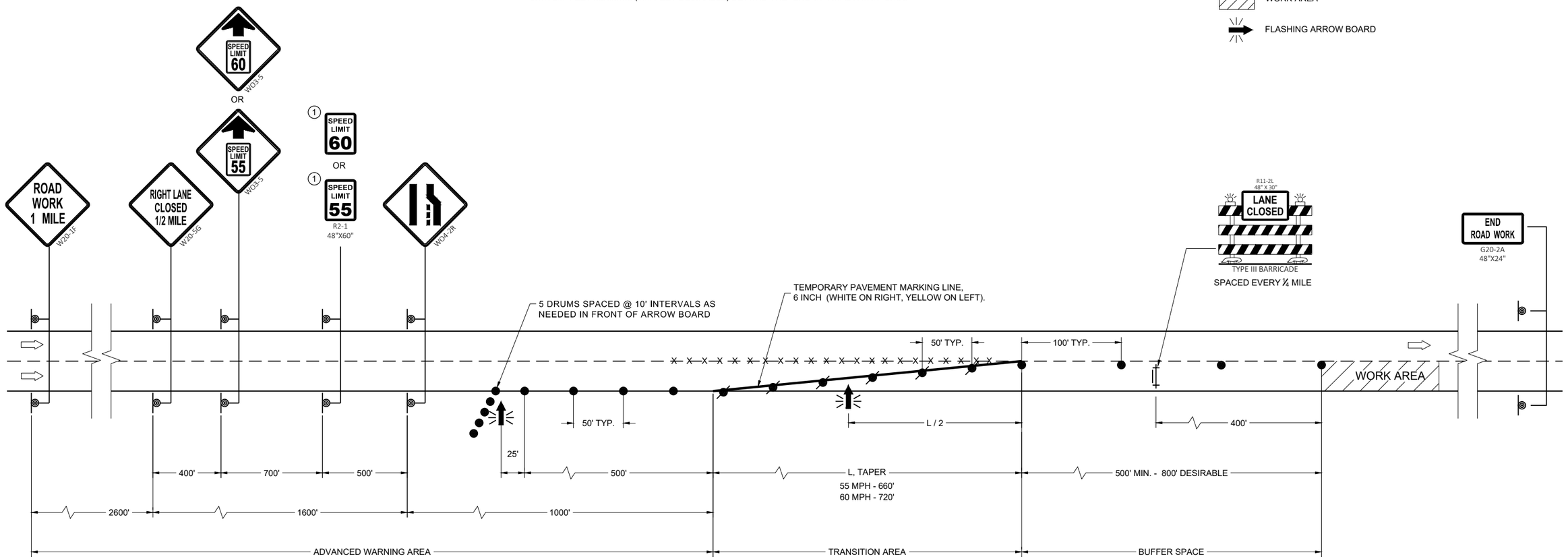
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

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
- FLASHING ARROW BOARD



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-12b

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
- FLASHING ARROW BOARD
- (S) PORTABLE TRAFFIC SENSOR (PTS)
- FBS FLASHING BEACON SIGN

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.

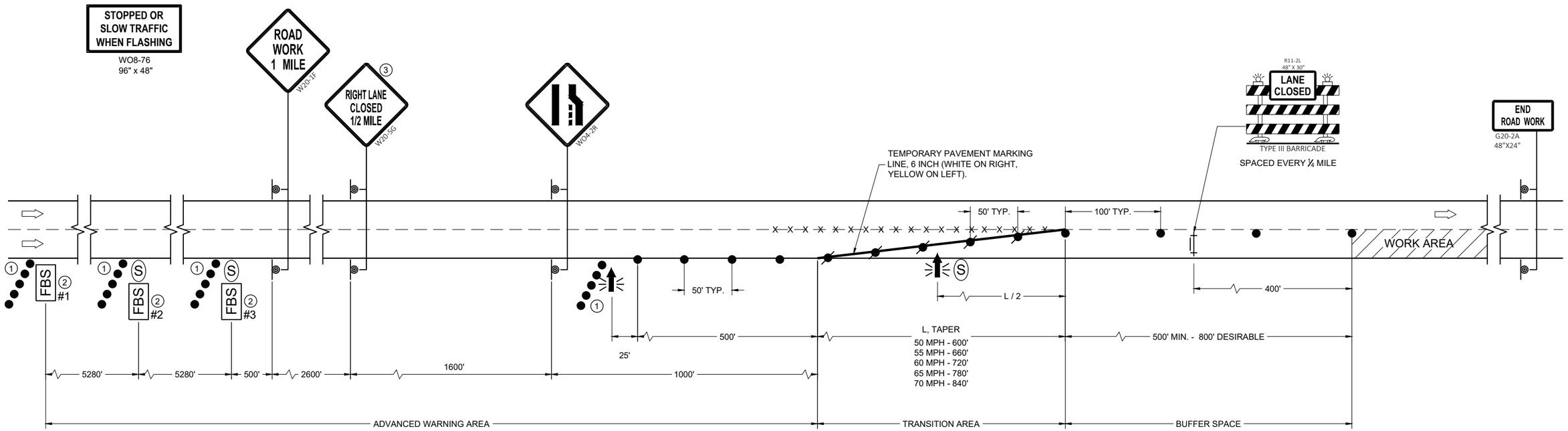
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Erin Schwark
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-12d

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
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

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.

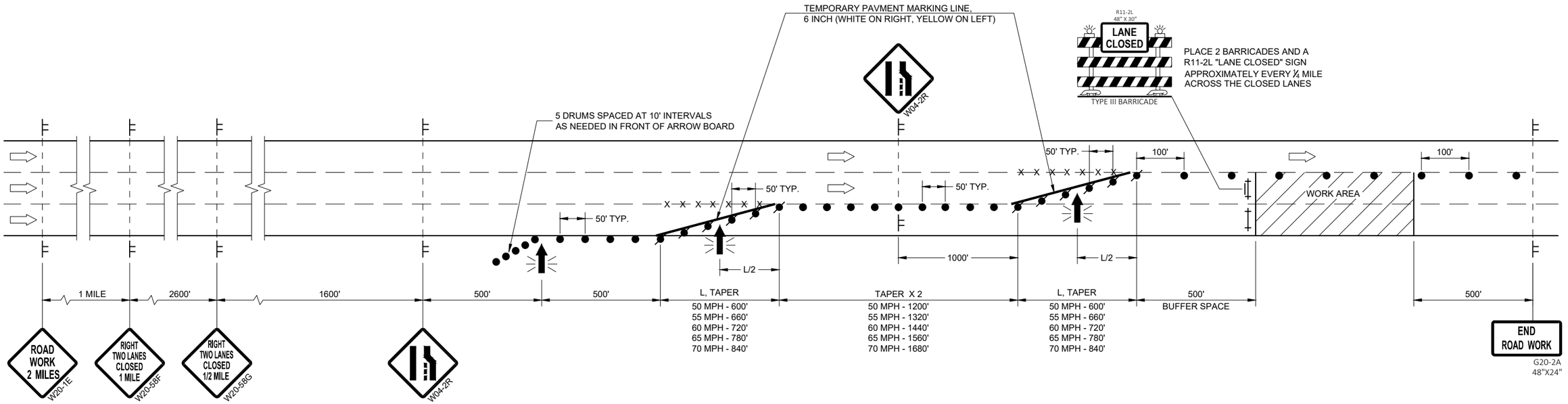
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES 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.

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.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

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SDD 15D14-06

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SDD 15D14-06

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.

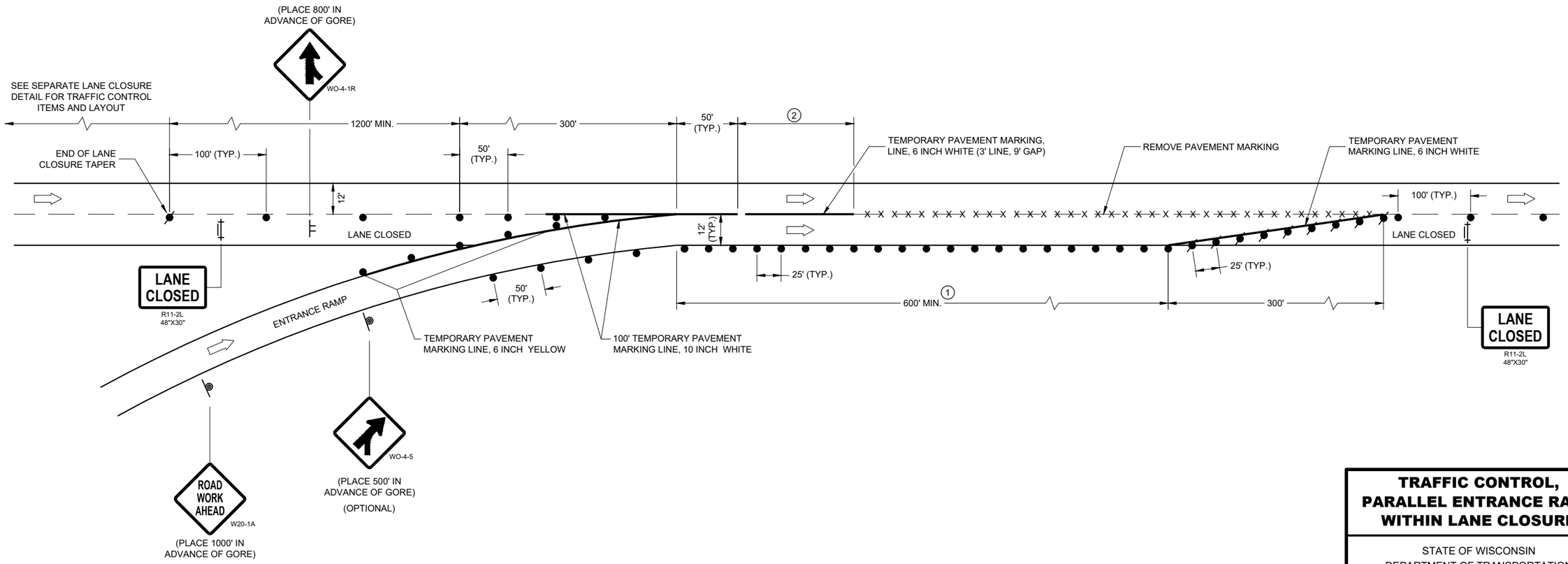
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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 ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

450

FHWA

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SDD 15D15-07a

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SDD 15D15-07a

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

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.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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.

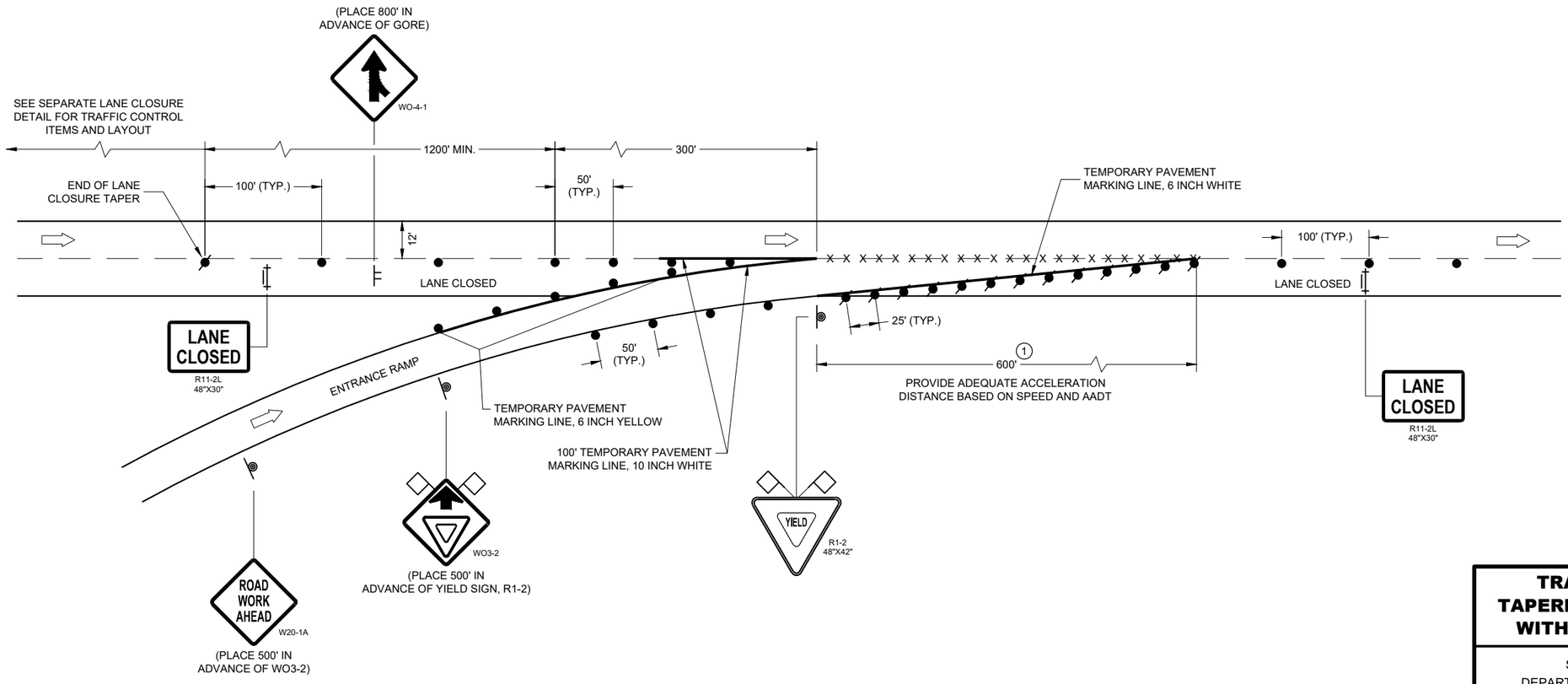
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15D15-07c

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SDD 15D15-07c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

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.

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

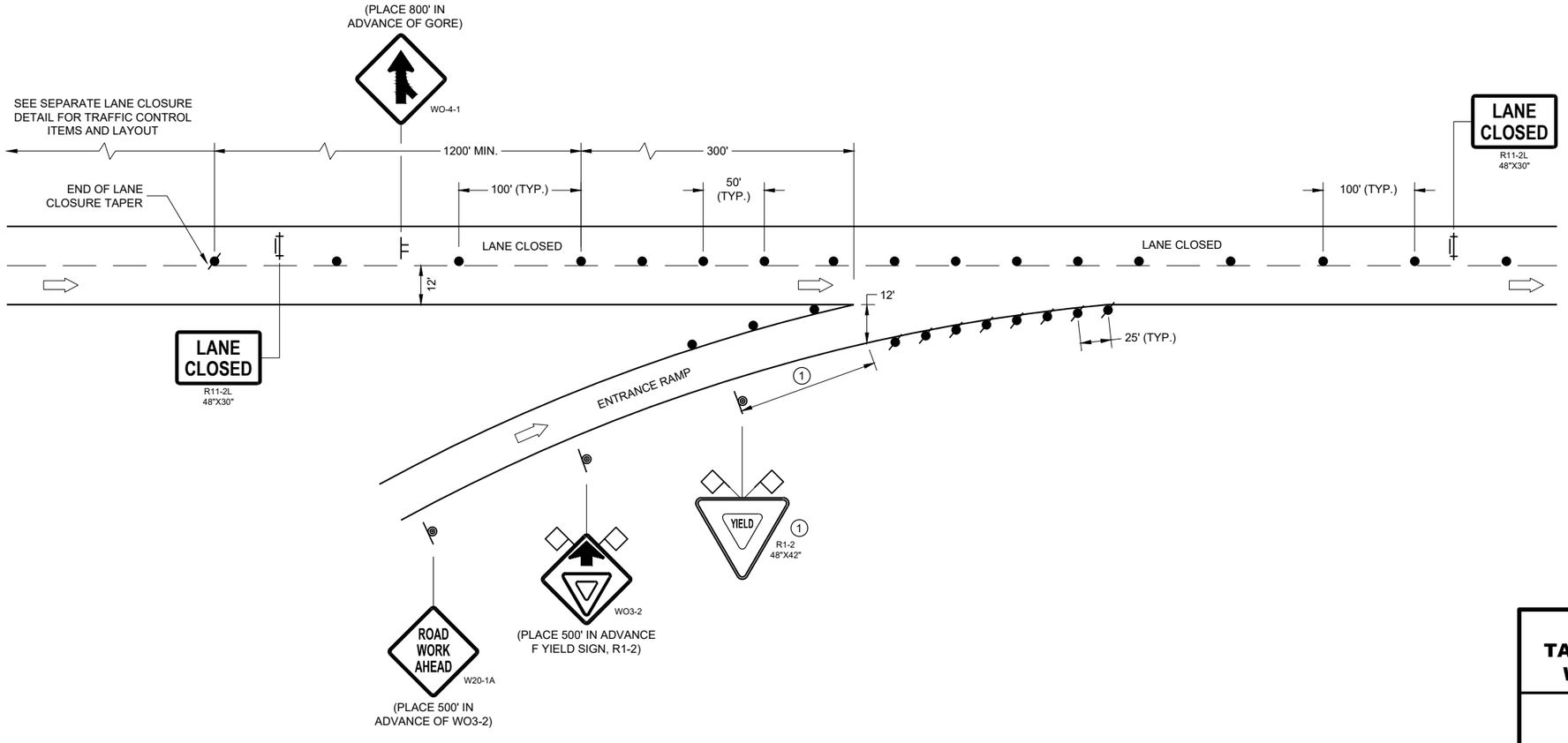
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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.

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

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15D15-07d

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.

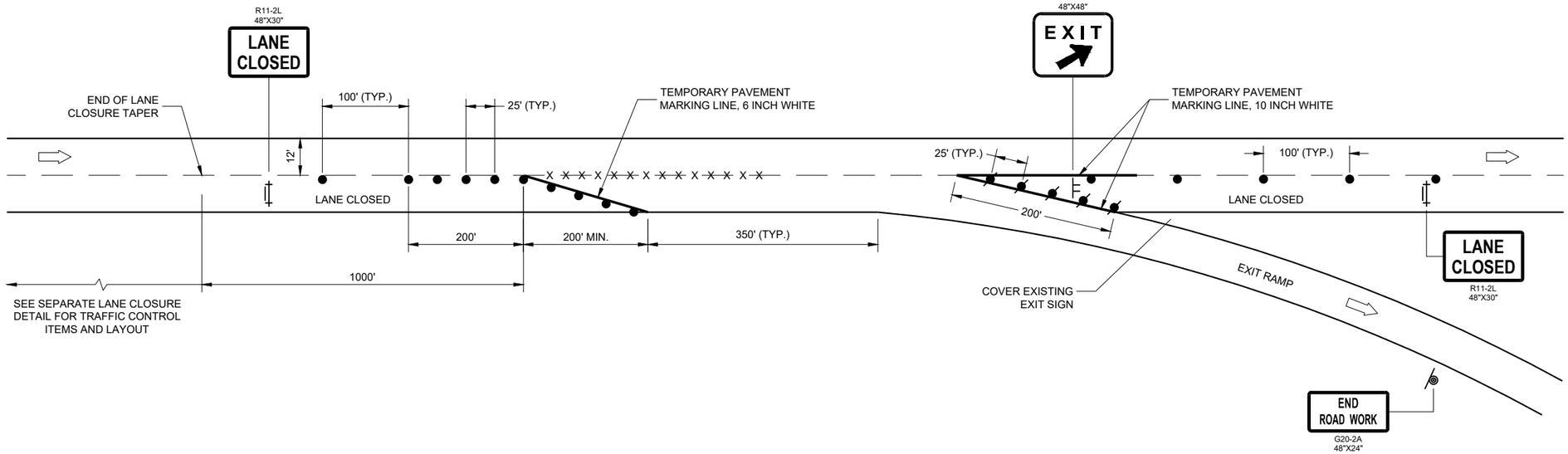
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR 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.



TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07e

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.

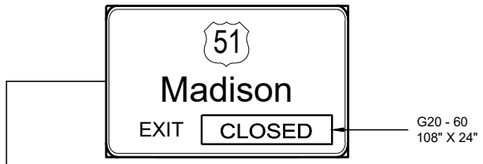
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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.

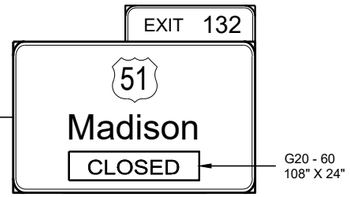
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(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.

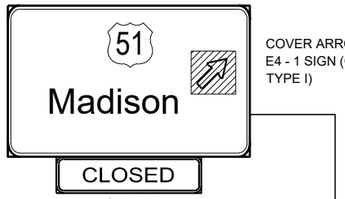
(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR

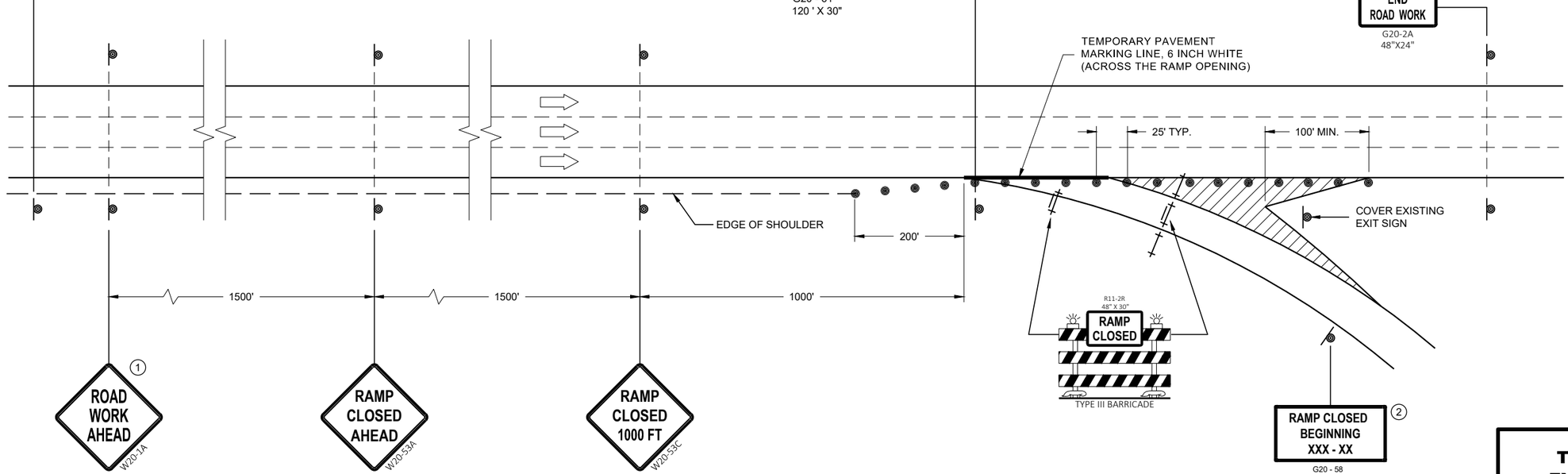


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



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
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"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.

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

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

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

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

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

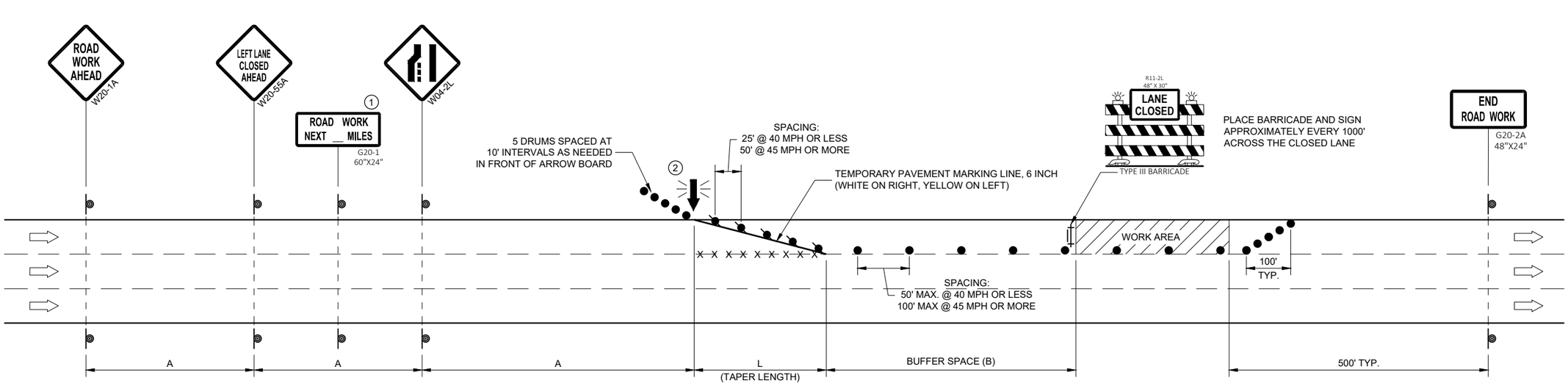
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

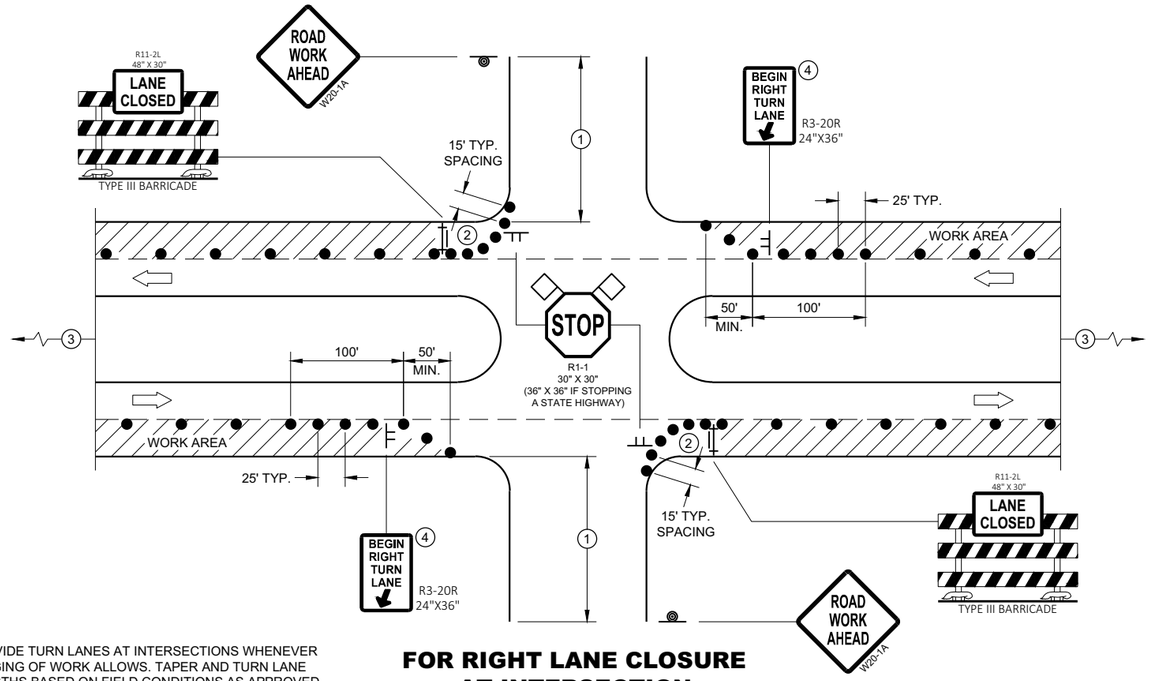
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 455

FHWA

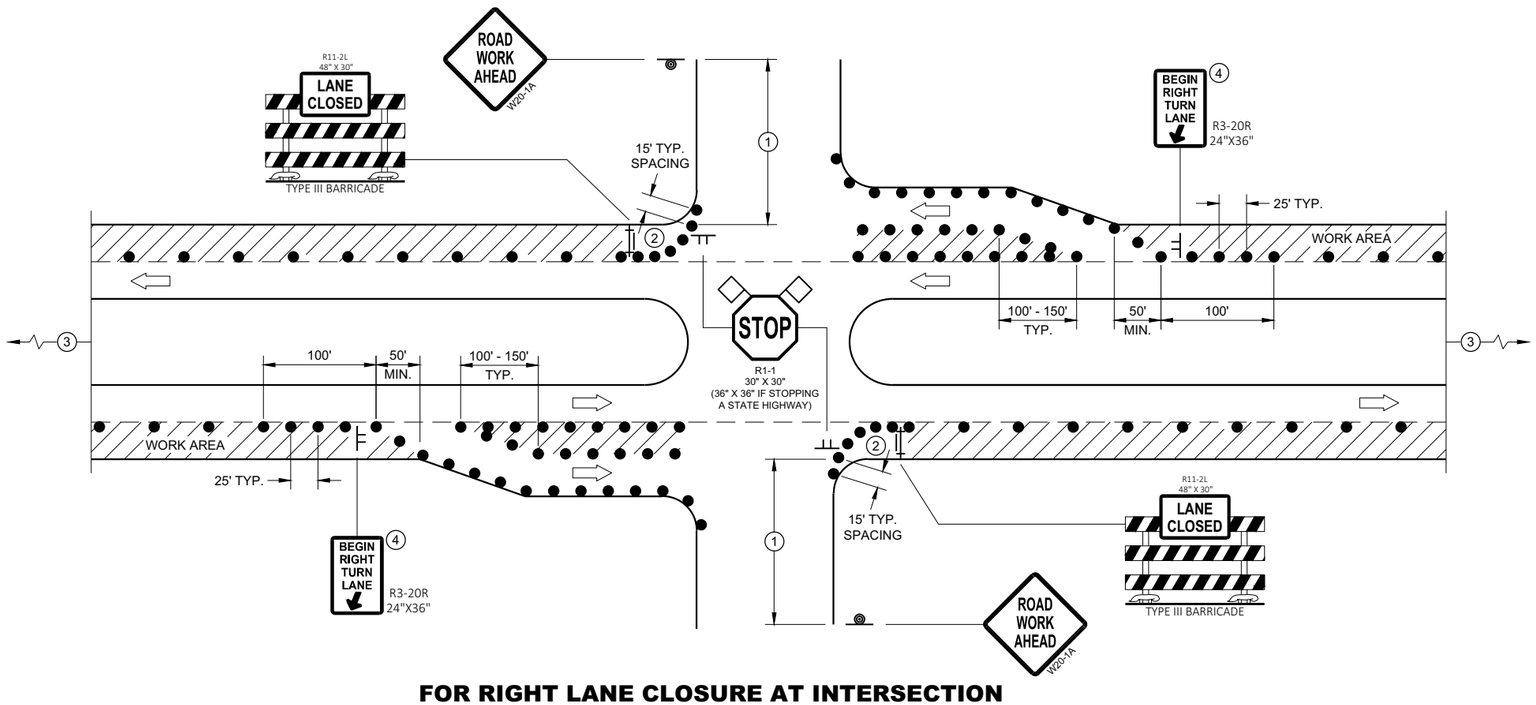
6

SDD 15D20-07a



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"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

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

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

BARRICADES 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.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

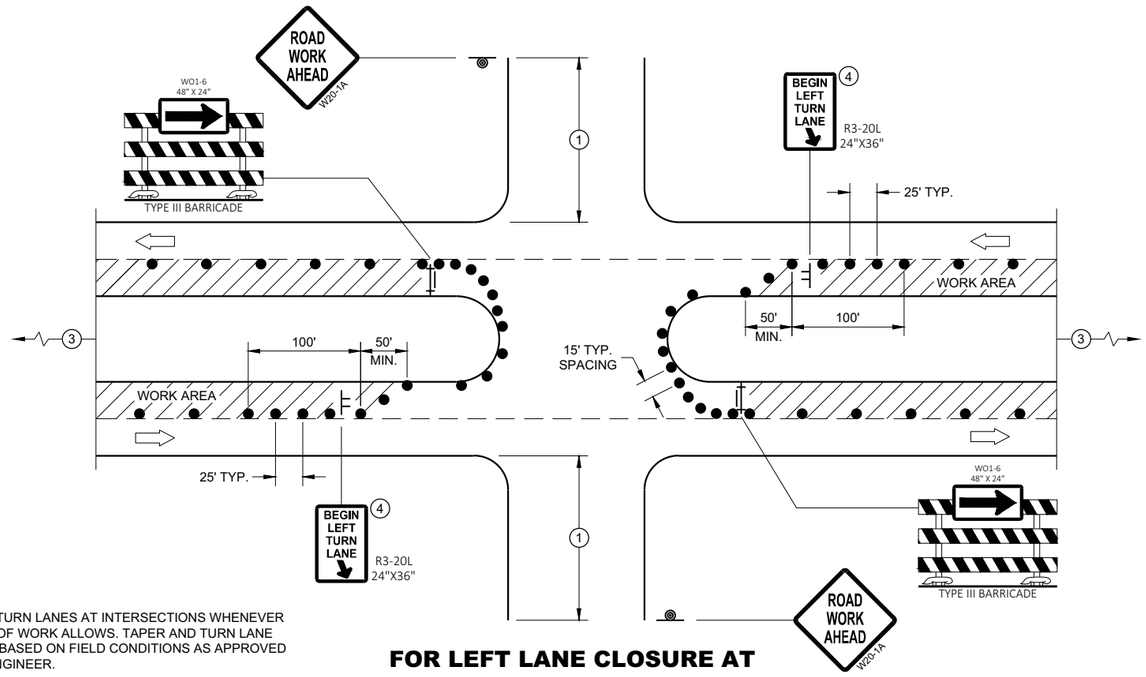
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

6

SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"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

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

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

BARRICADES 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.

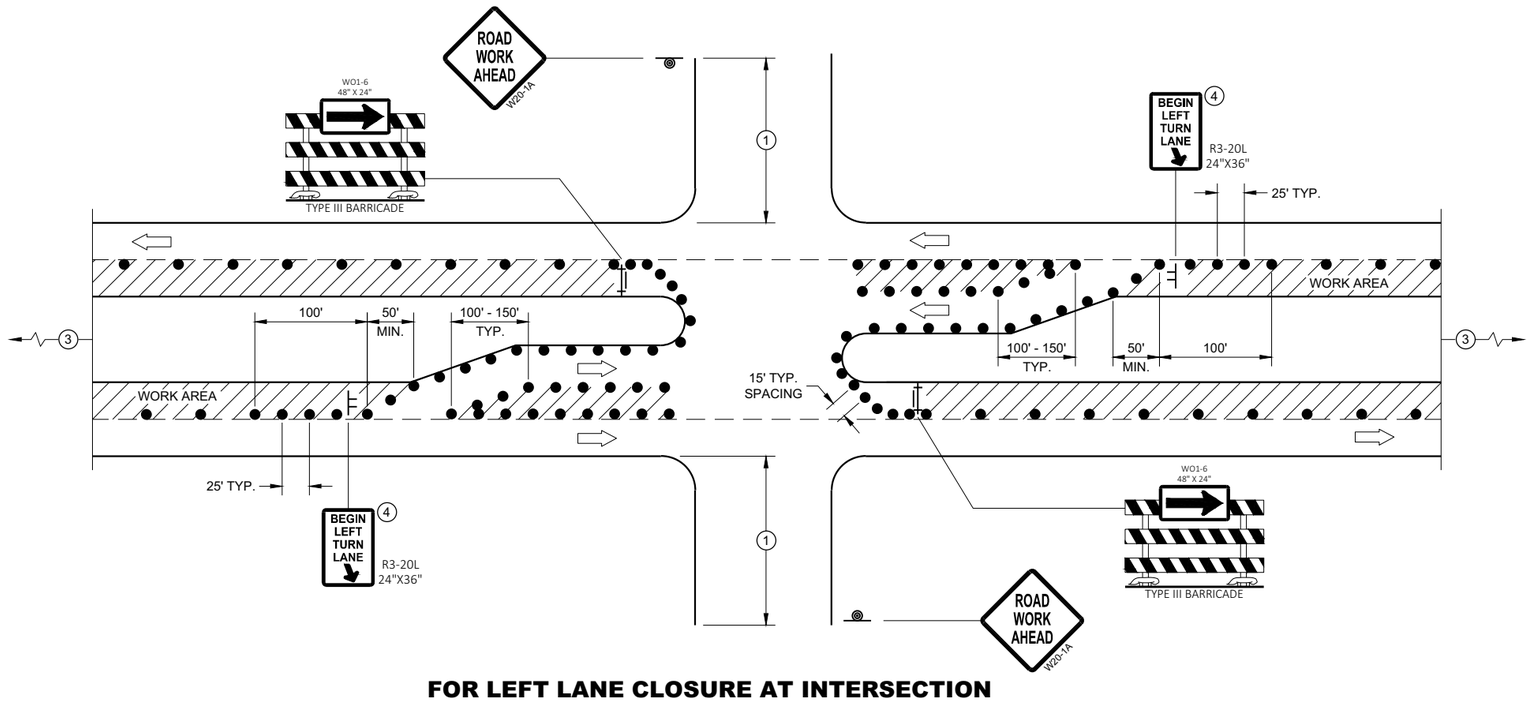
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- 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)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45 MPH, USE SDD 15D14.

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"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.

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

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.

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

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.

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

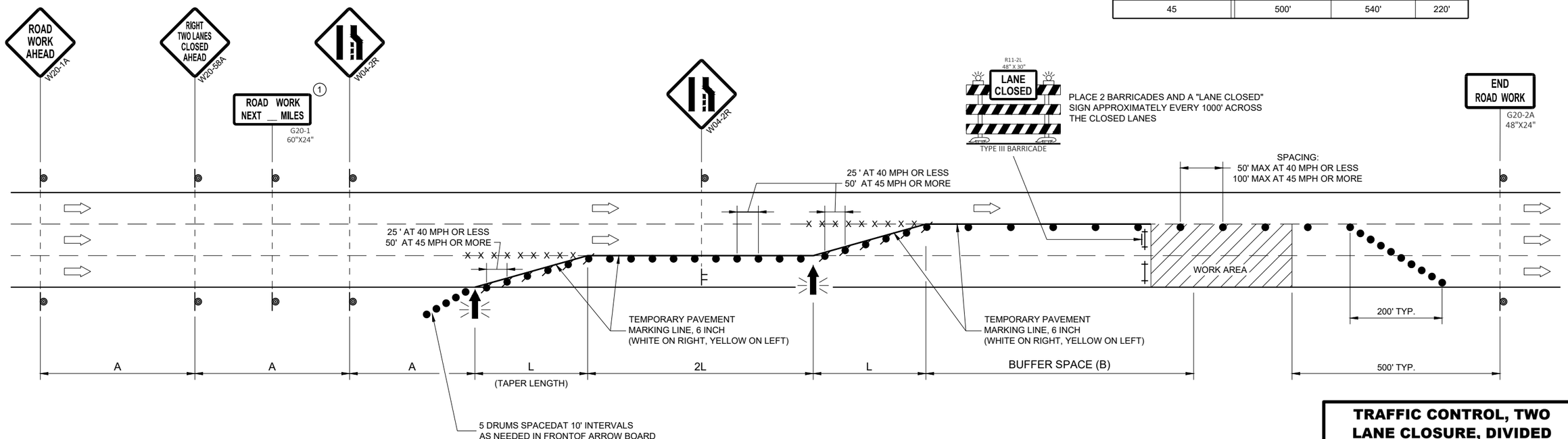
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'



TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

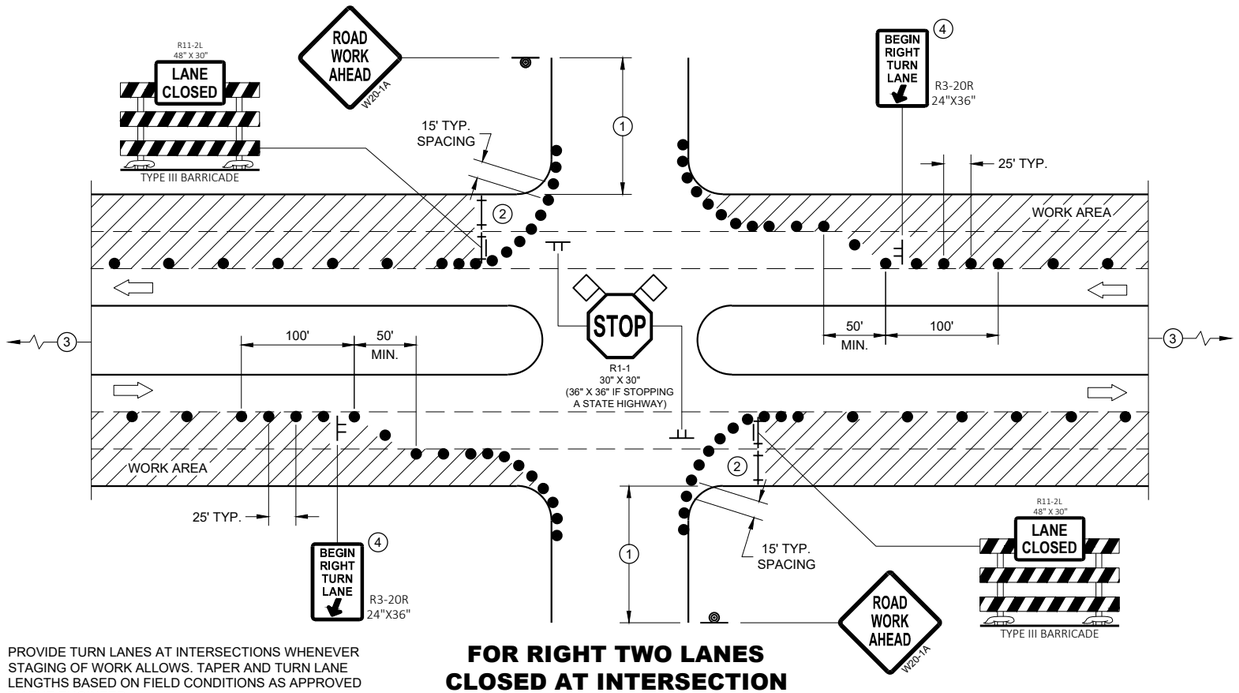
458

6

SDD 15D22-06

6

SDD 15D22-06



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT TWO LANES CLOSED AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"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

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

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

BARRICADES 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.

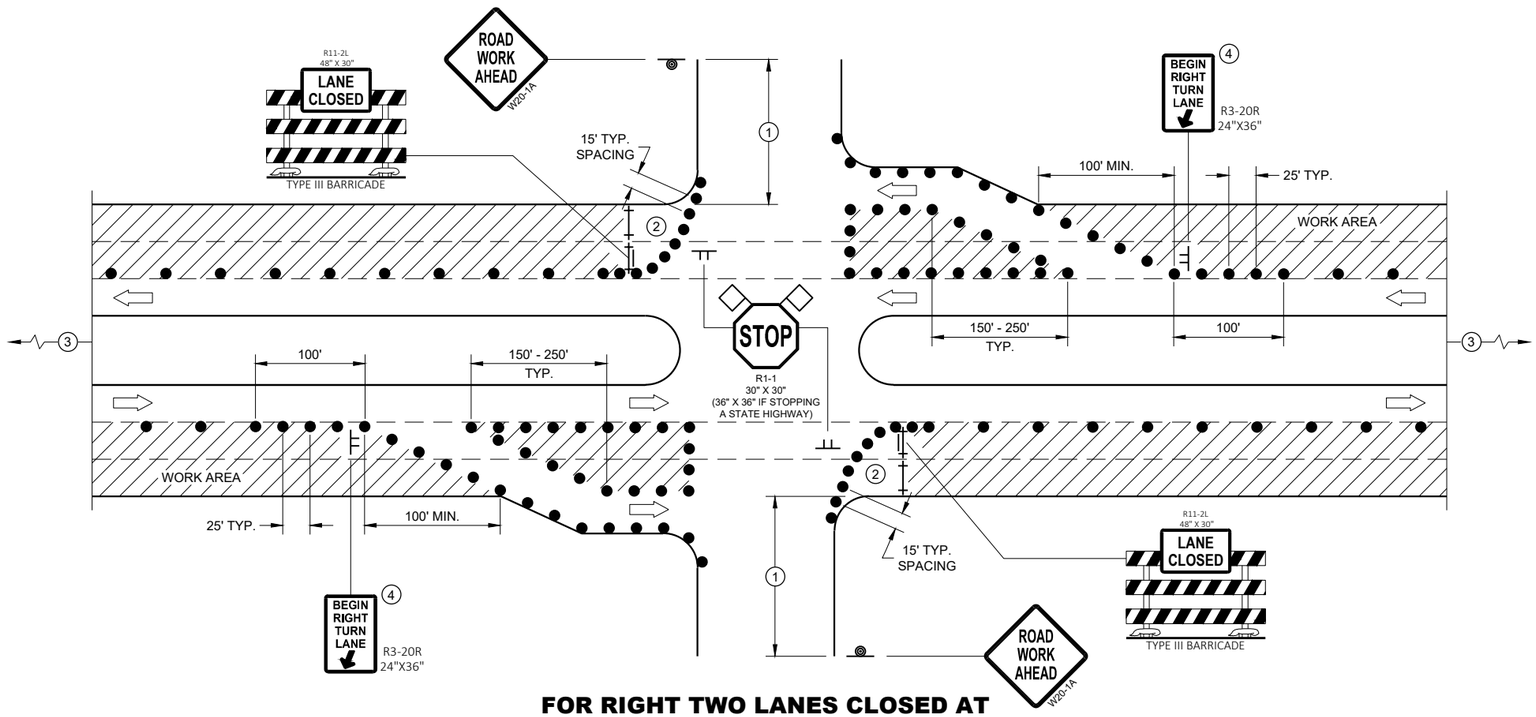
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT TWO LANES CLOSED AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN TWO RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D23 - 07a

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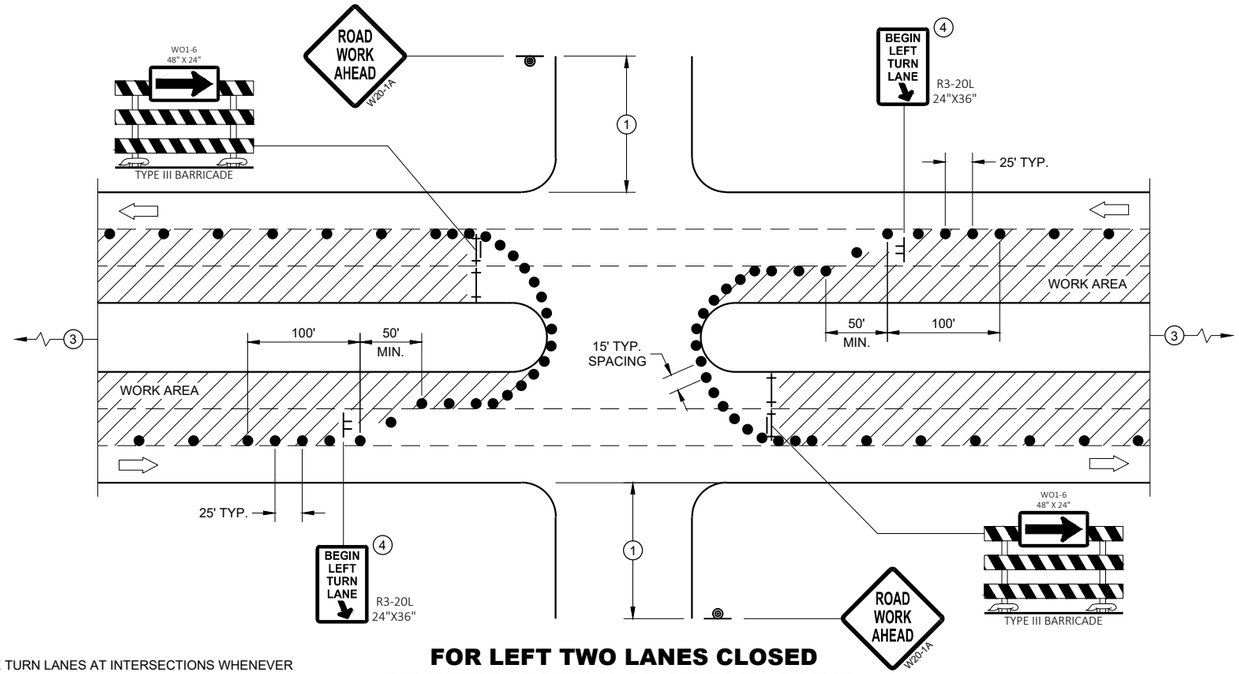
SDD 15D23 - 07a



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"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

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

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

BARRICADES 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.

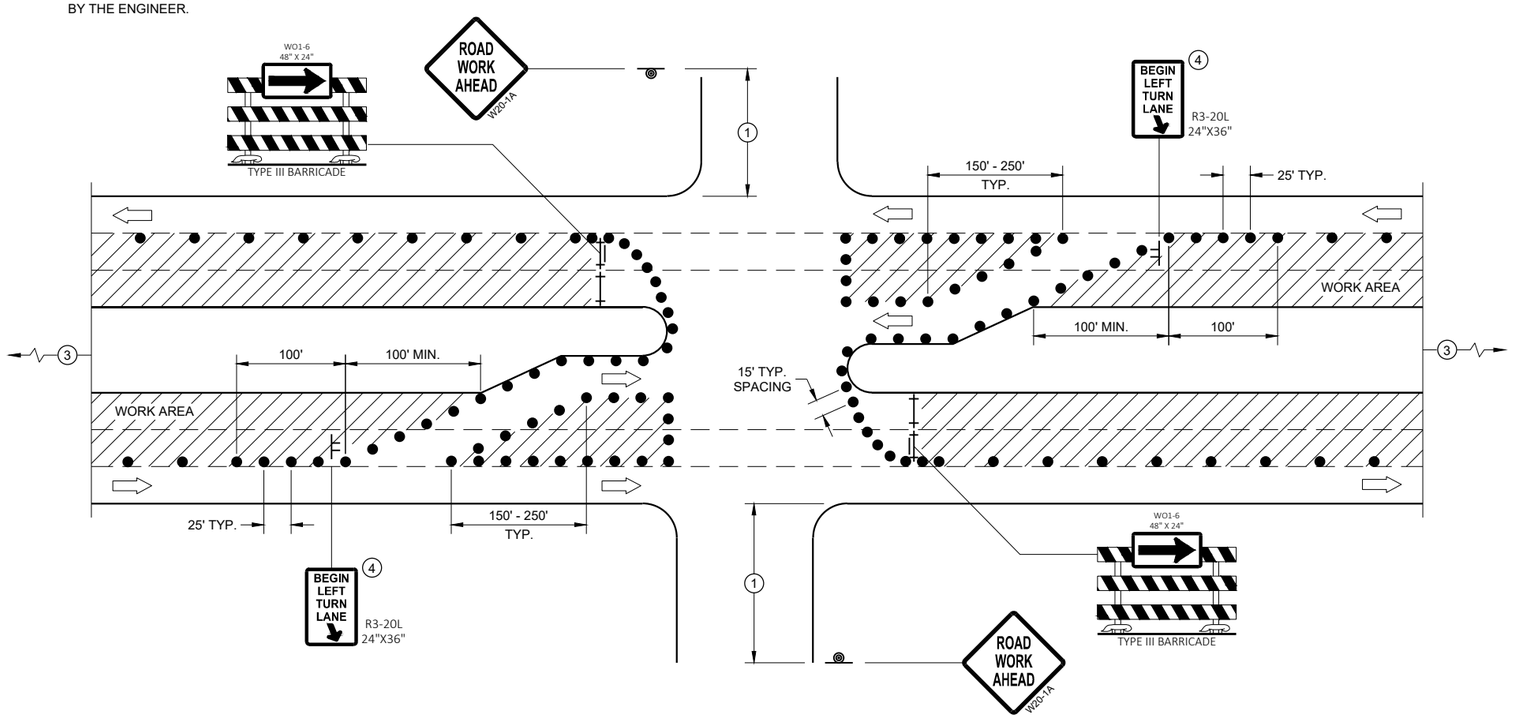
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN TWO LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 460

FHWA

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)				
	10	11	12	13	14
50	250	275	300	325	350
55	275	303	330	358	385
60	300	330	360	390	420
65	325	358	390	423	455
70	350	385	420	455	490

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) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

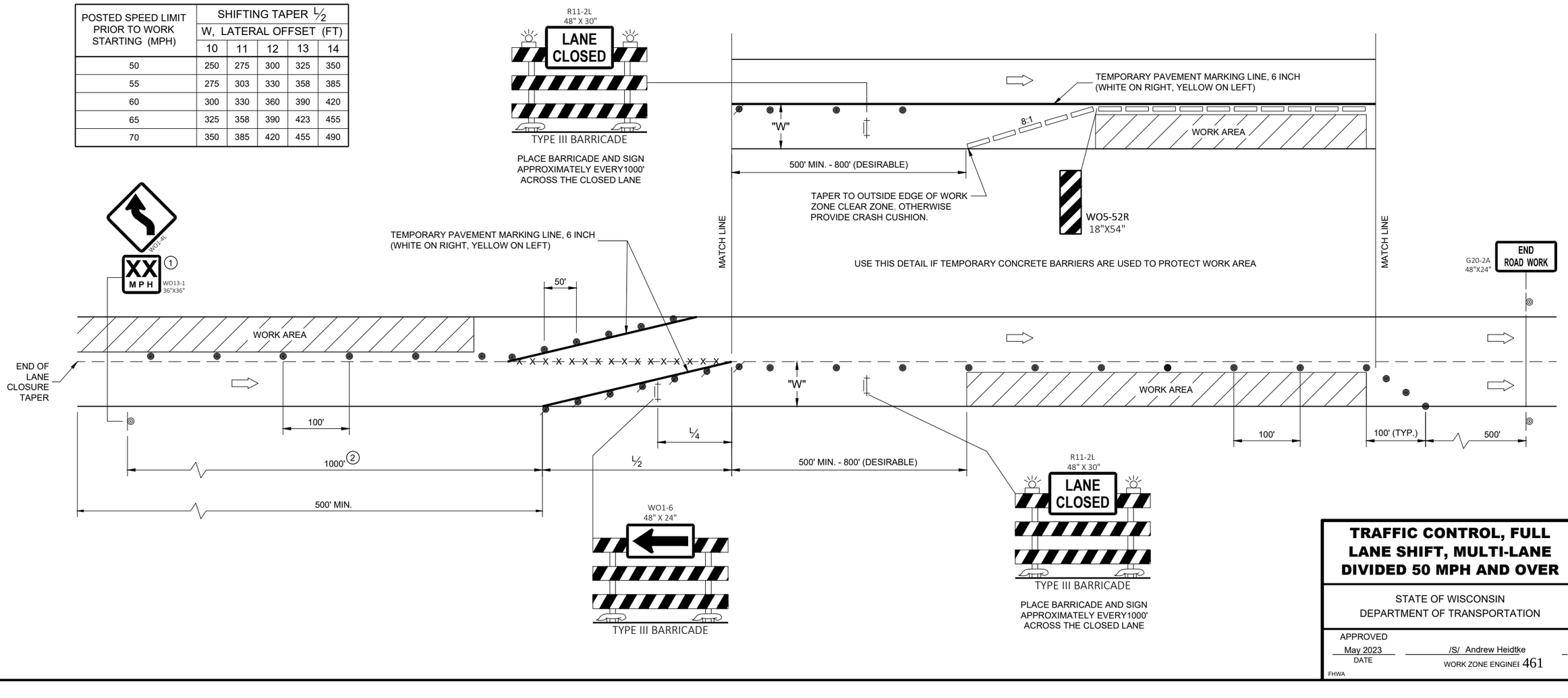
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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 ½ 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) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) IF BEGINNING OF LANE SHIFT IS 1200' OF LESS FROM THE END OF THE LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.



TRAFFIC CONTROL, FULL LANE SHIFT, MULTI-LANE DIVIDED 50 MPH AND OVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D40-05b

6

SDD 15D40-05b

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

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) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

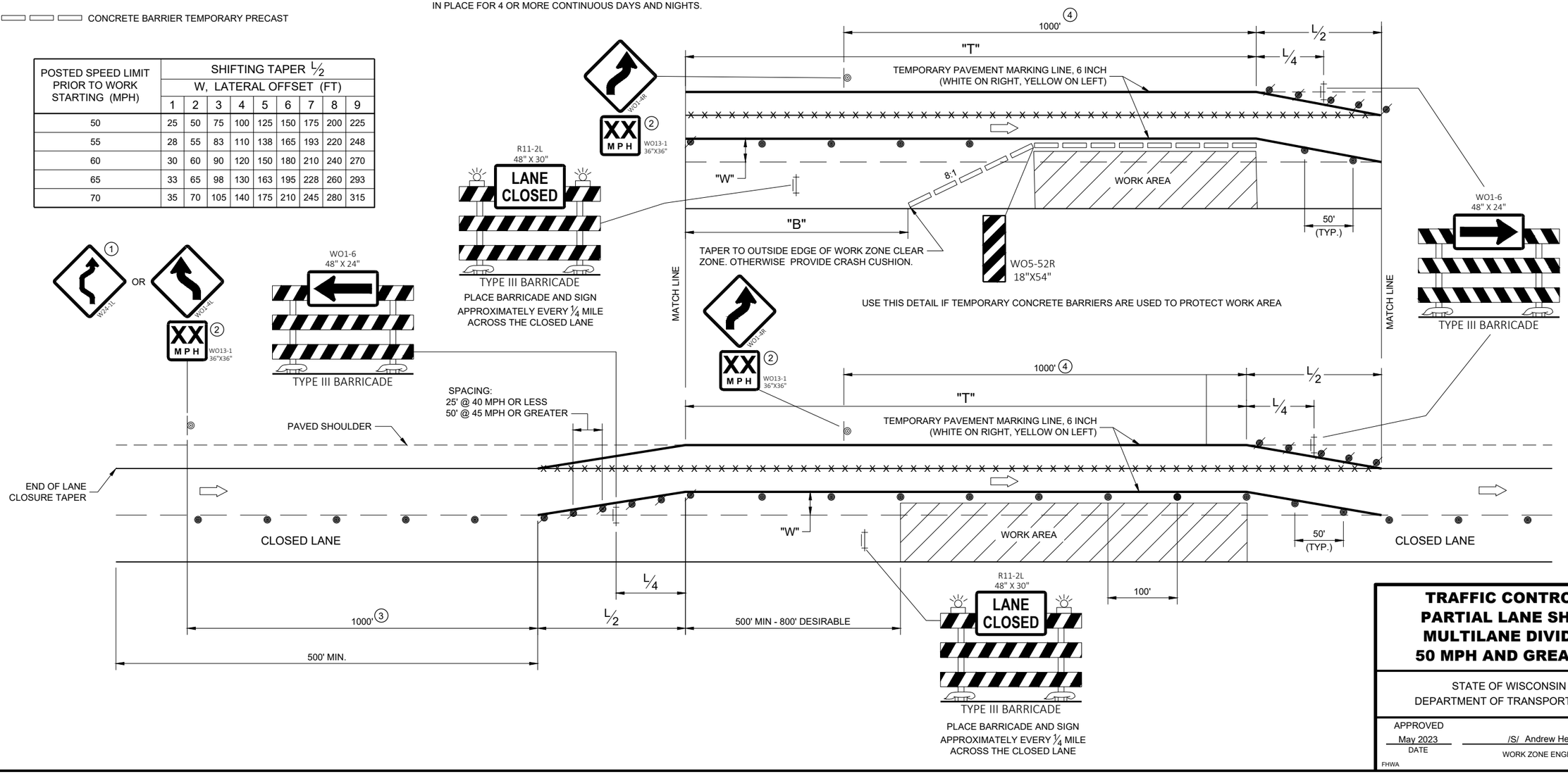
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

1. USE ONLY WHEN T<600', OMIT WO1-4R.
2. IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
3. IF THE BEGINNING OF LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.
4. IF THE BEGINNING OF THE SECOND LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF THE FIRST LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE FIRST LANE CLOSURE TAPER.



TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D40-05d

6

SDD 15D40-05d

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

CONCRETE BARRIER TEMPORARY PRECAST

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

FULL SHIFT							
L, TAPER LENGTH (FT)							
POSTED SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120

OR

LOCATED
3000 FEET BEYOND THE
"ROAD WORK 1 MILE"
(W20-1F) SIGN

R2-1
48"X60"

OR

R2-1
48"X60"

(BLACK AND WHITE)
LOCATED
700 FEET BEYOND THE
W03-5 SIGN

IF THE REGULATORY SPEED HAS BEEN REDUCED, 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 INCORPORATED A MINIMUM OF EVERY 3 MILES.

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) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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.

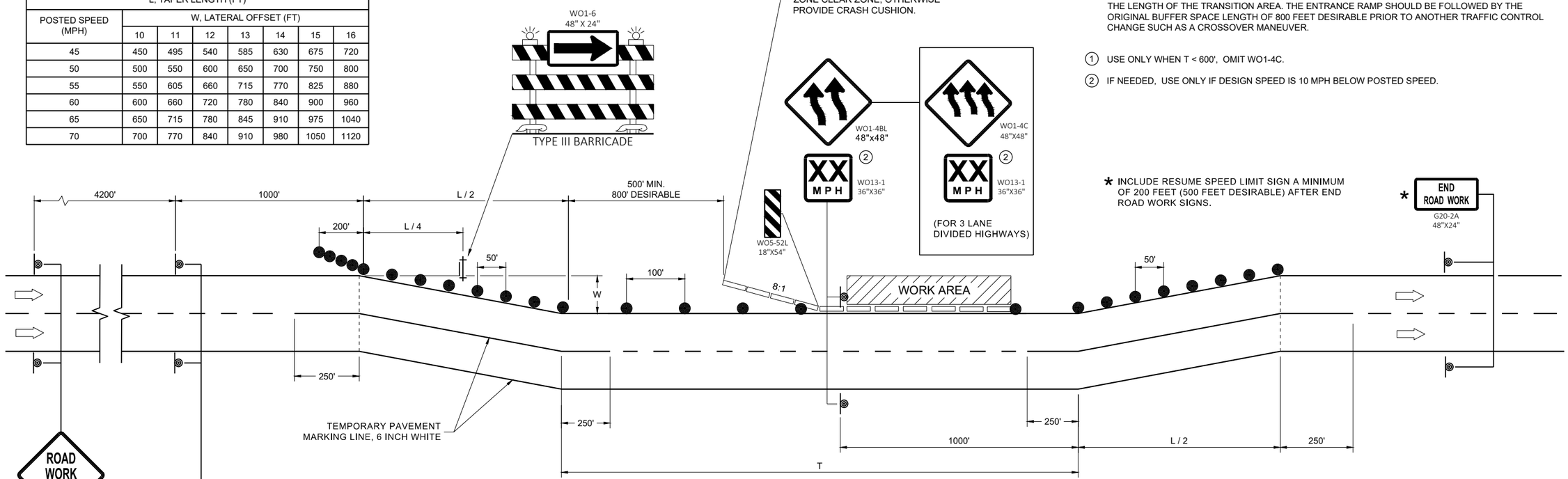
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

(1) USE ONLY WHEN T < 600', OMIT WO1-4C.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.



PARTIAL SHIFT									
POSTED SPEED PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2								
	W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
45	23	45	68	90	113	135	158	180	203
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

TRAFFIC CONTROL MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6
SDD 15D41-04a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK AREA

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
60	530'	1200'
65	570'	1410'
70	615'	1620'

LEGEND

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.

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

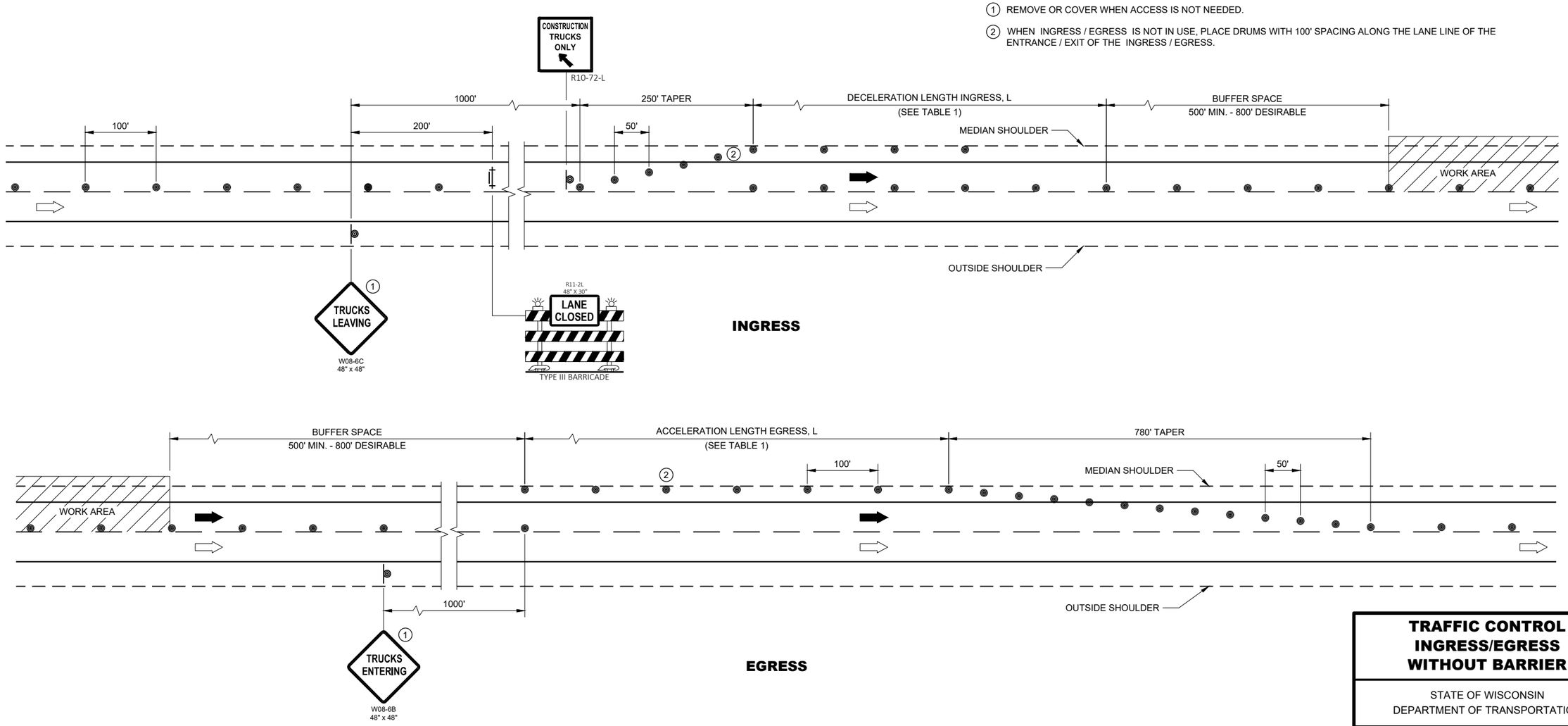
THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

(1) REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

(2) WHEN INGRESS / EGRESS IS NOT IN USE, PLACE DRUMS WITH 100' SPACING ALONG THE LANE LINE OF THE ENTRANCE / EXIT OF THE INGRESS / EGRESS.



TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15D47-03b

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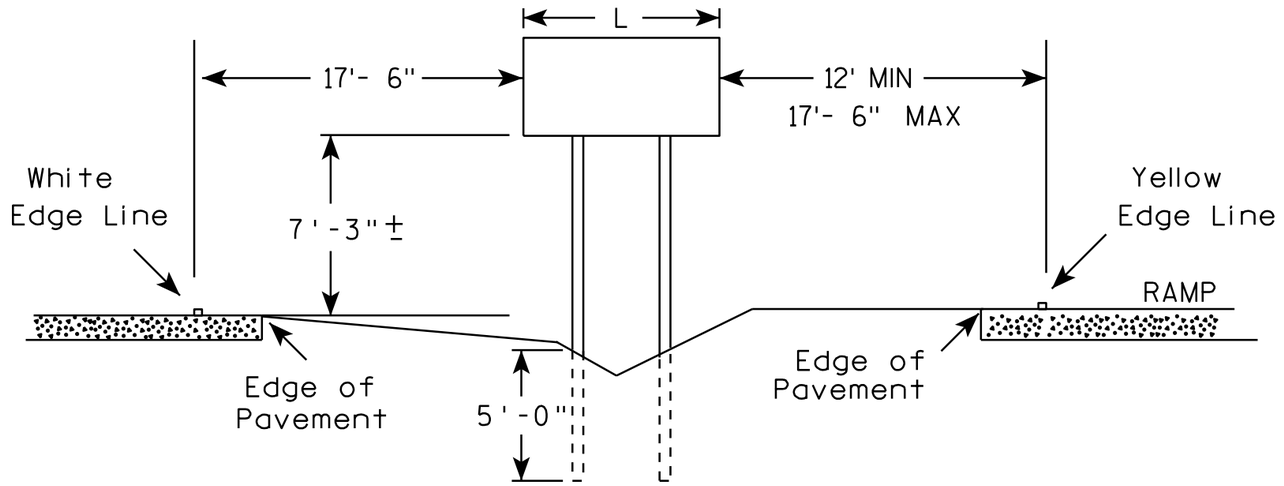
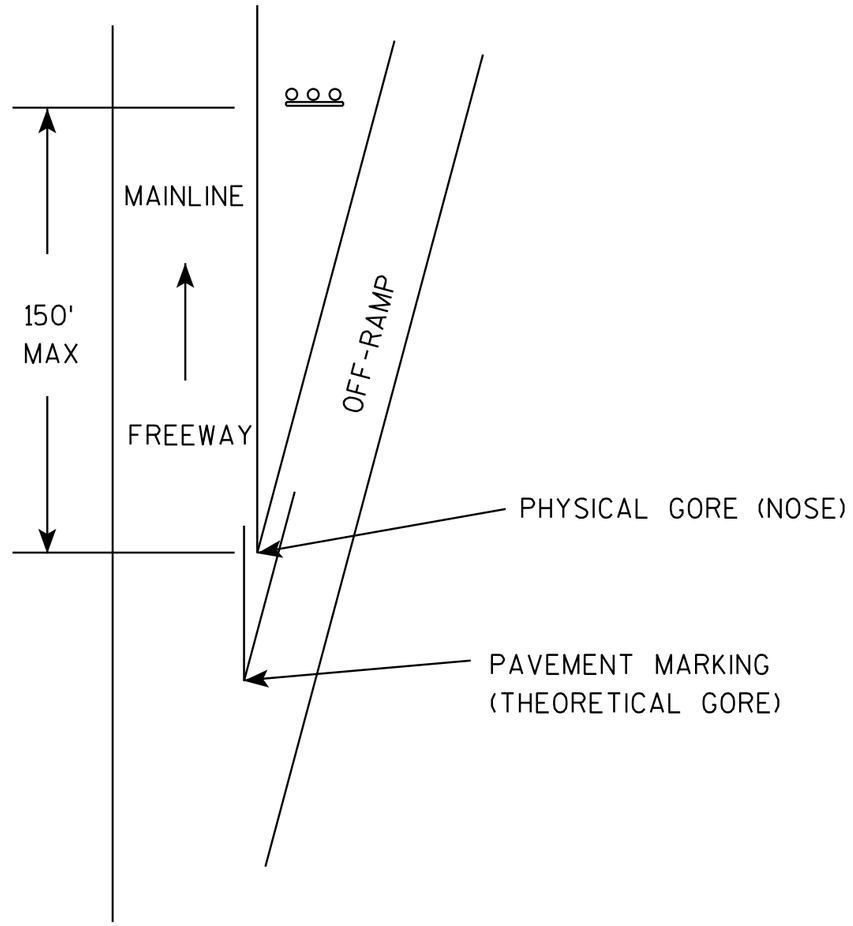
SDD 15D47-03b





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

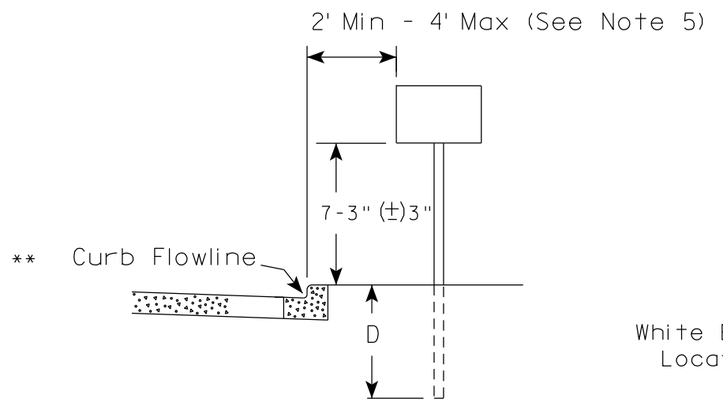
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

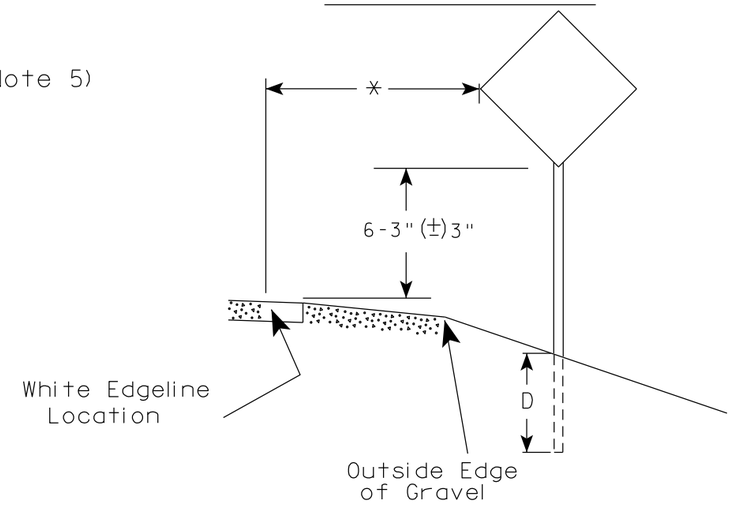
DATE 2/06/14 PLA 465 A4-2.3

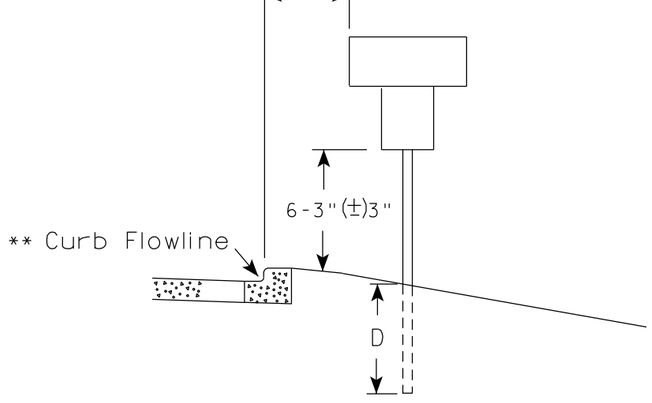
PROJECT NO: | SHEET NO: E

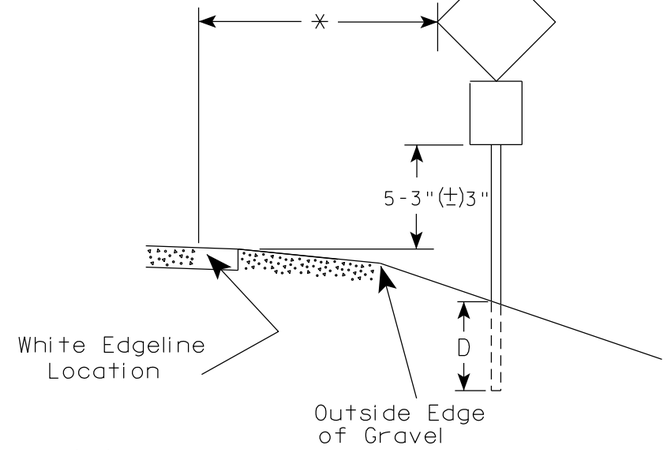
URBAN AREA



RURAL AREA (See Note 2)







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

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

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.

POST EMBEDMENT DEPTH

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

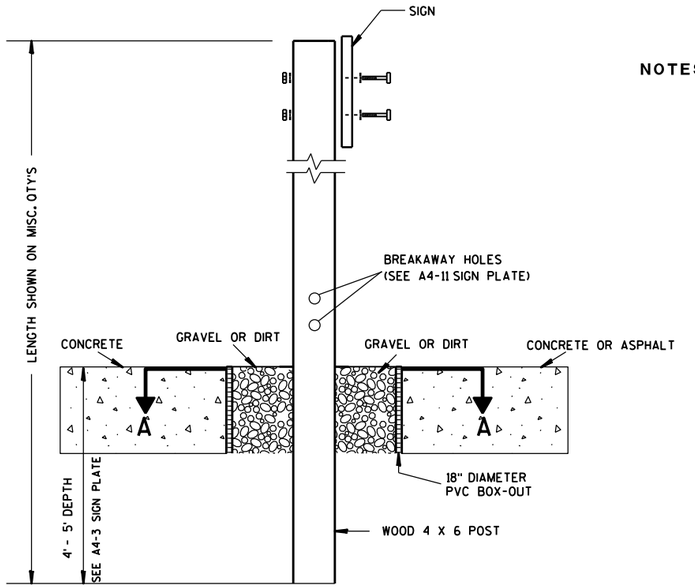
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

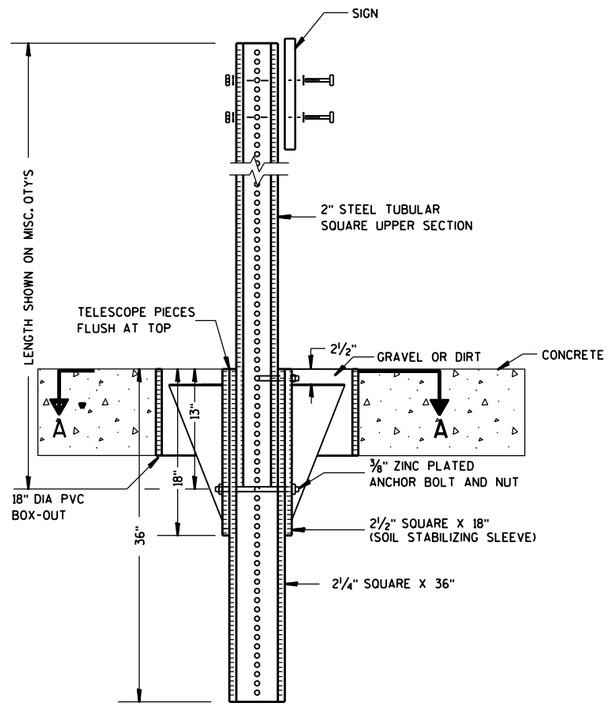
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 466	E



ELEVATION VIEW

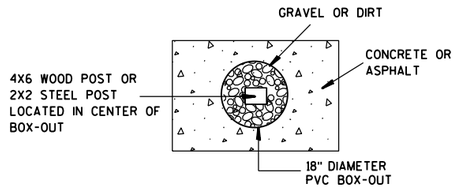
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

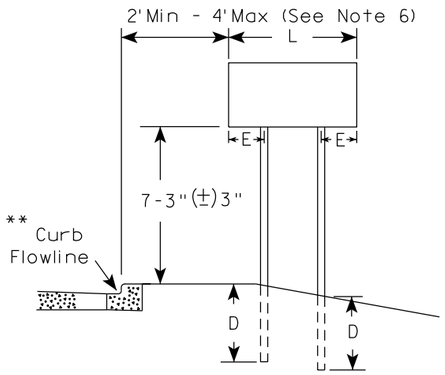
APPROVED Matthew R Rauch
for State Traffic Engineer

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

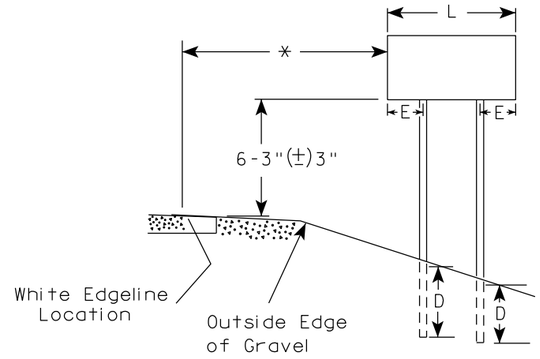
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

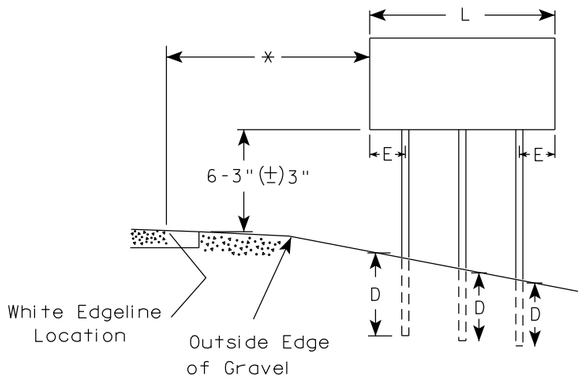
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

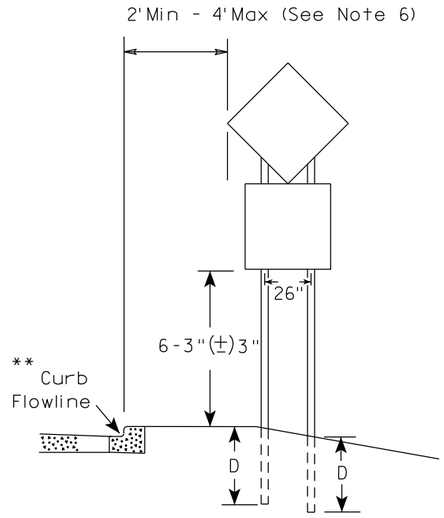
URBAN AREA



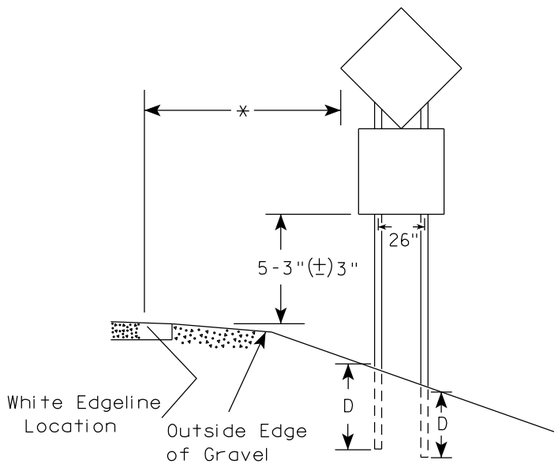
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 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'

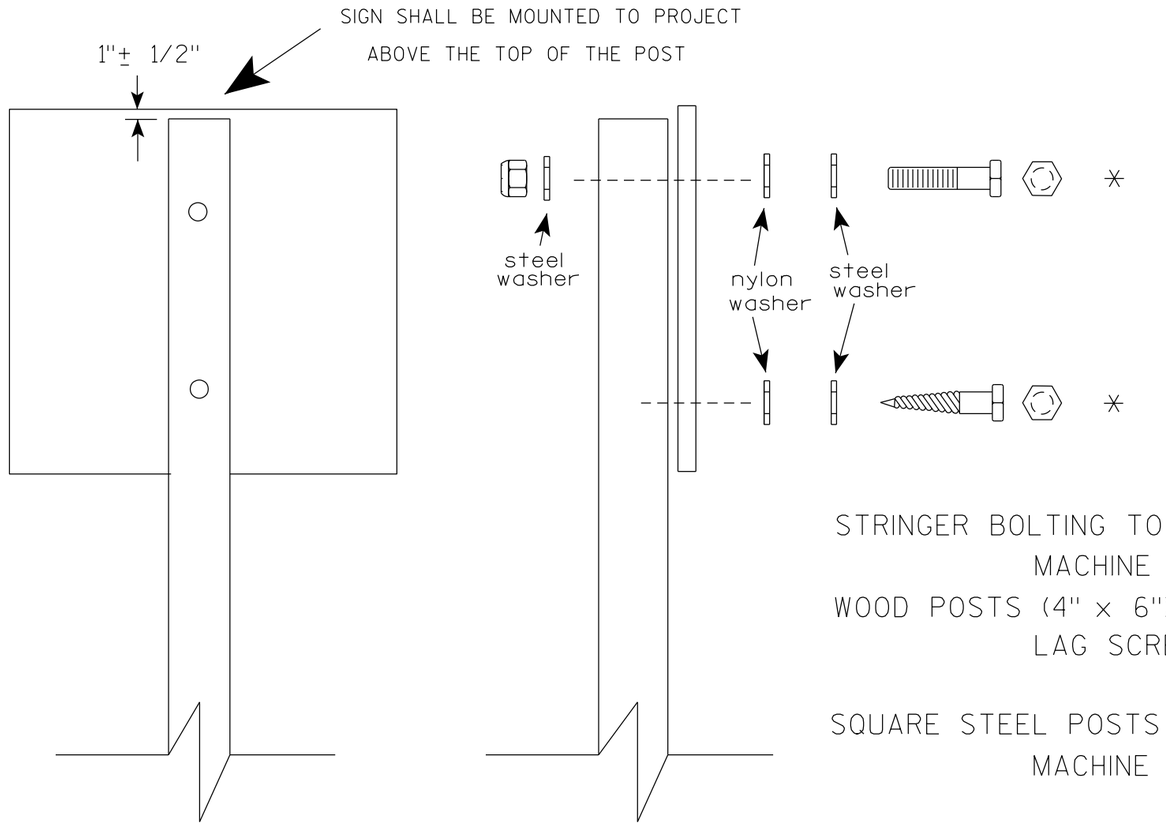
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 468	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

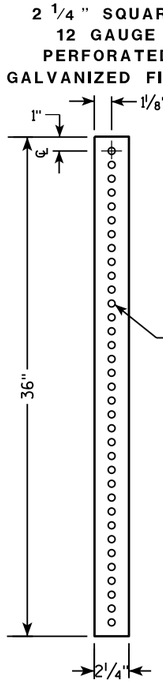
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

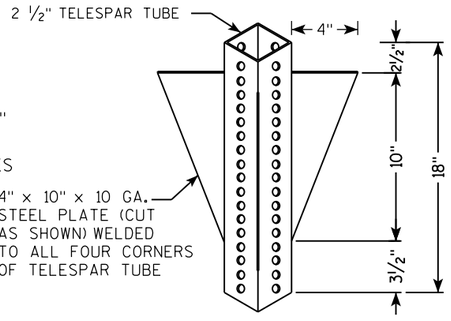
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

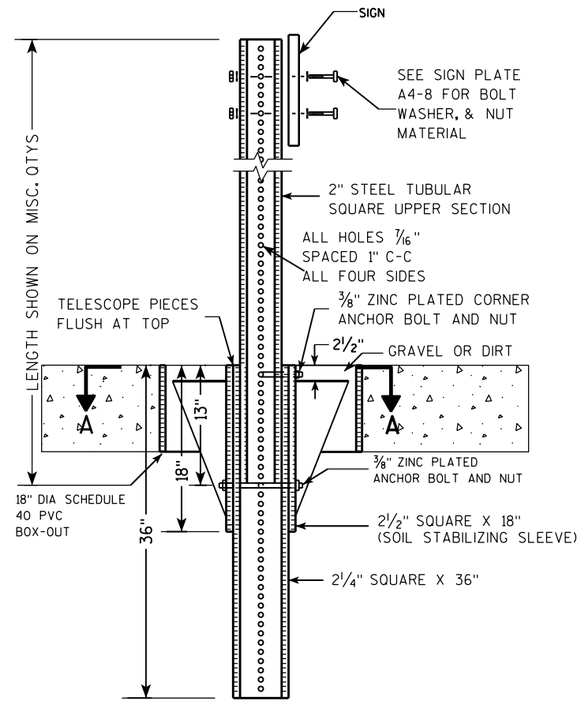
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



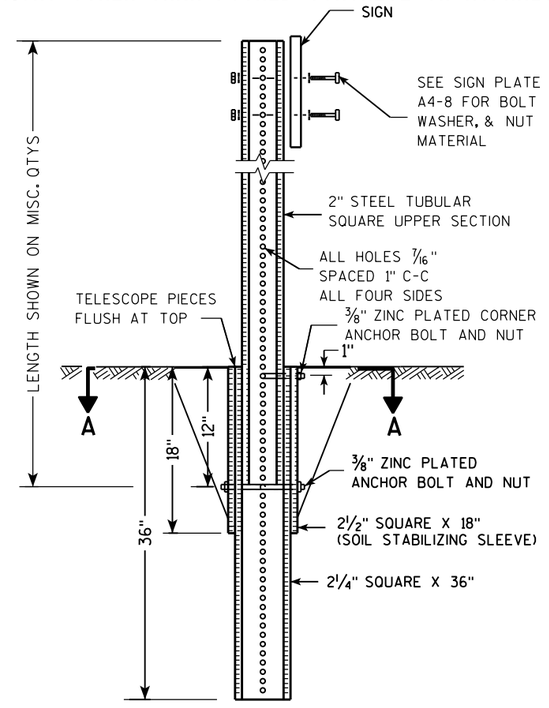
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

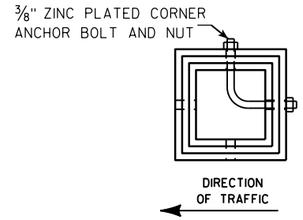


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

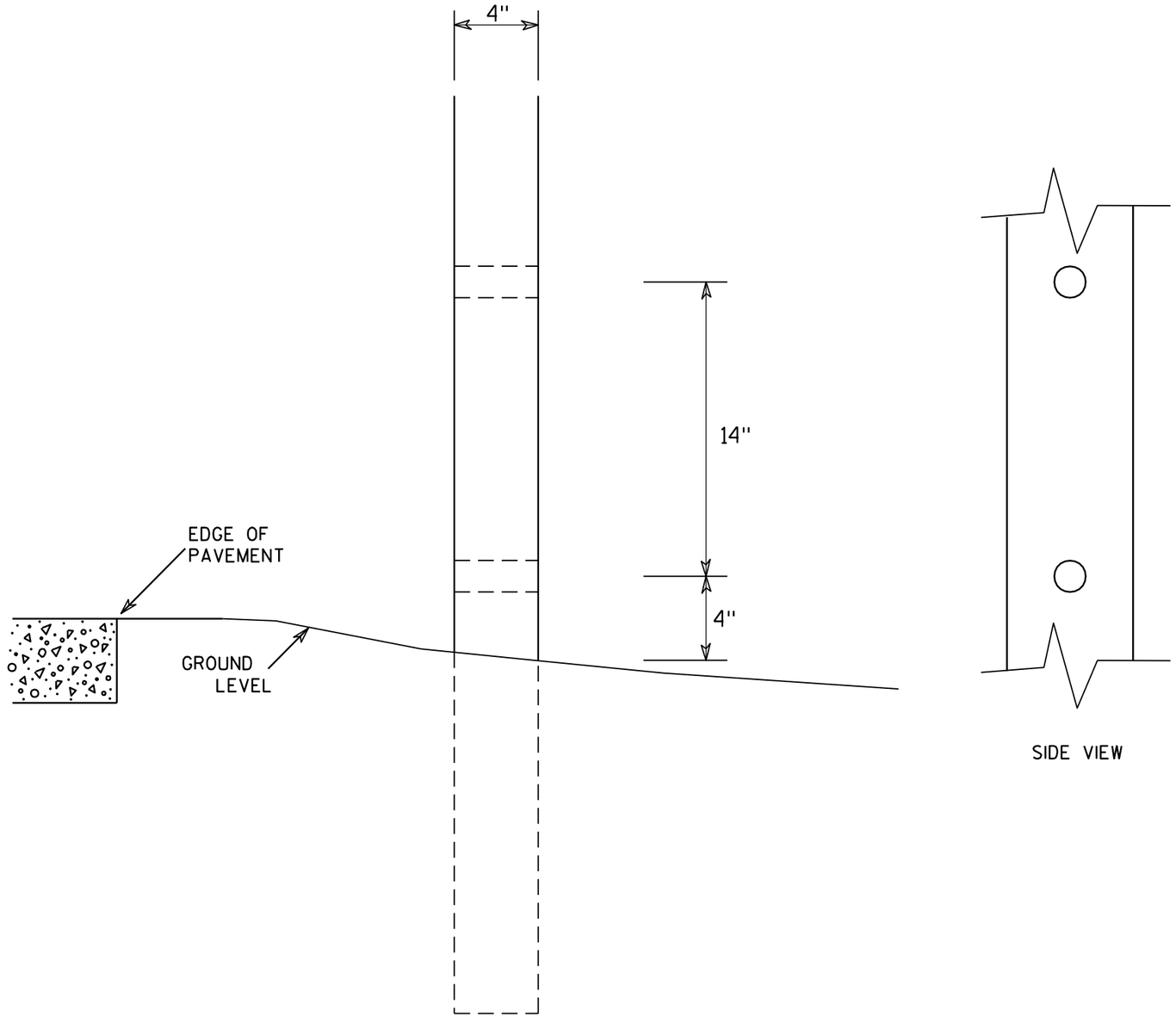
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 470 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

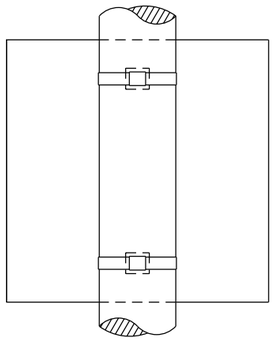
APPROVED Chester J Spang for State Traffic Engineer

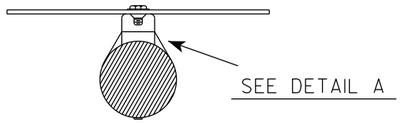
DATE 3/27/97 PLATE NO. A4-11.2

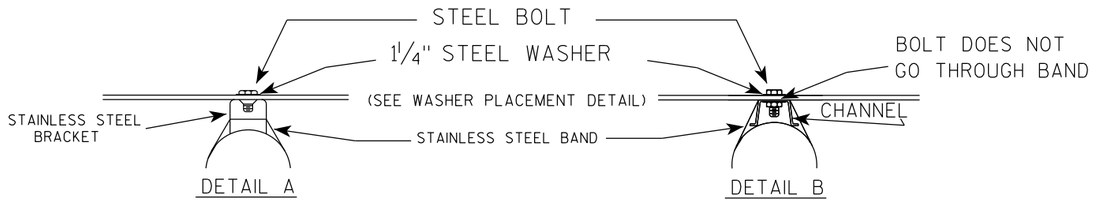
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 471	E

BANDING

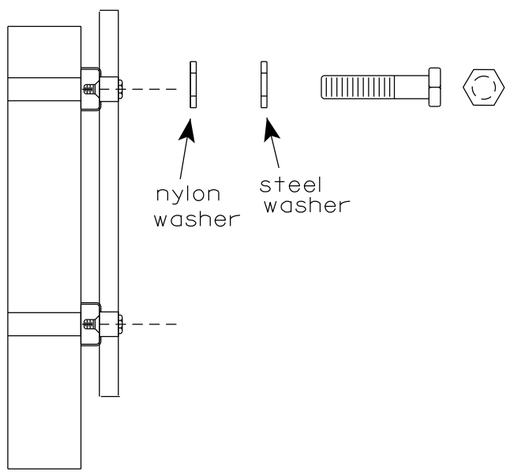
SINGLE SIGN







WASHER PLACEMENT

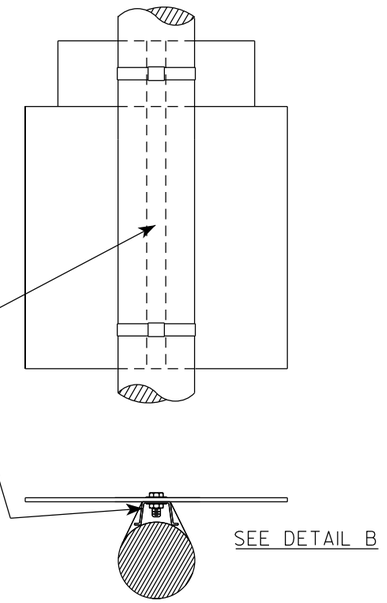


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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

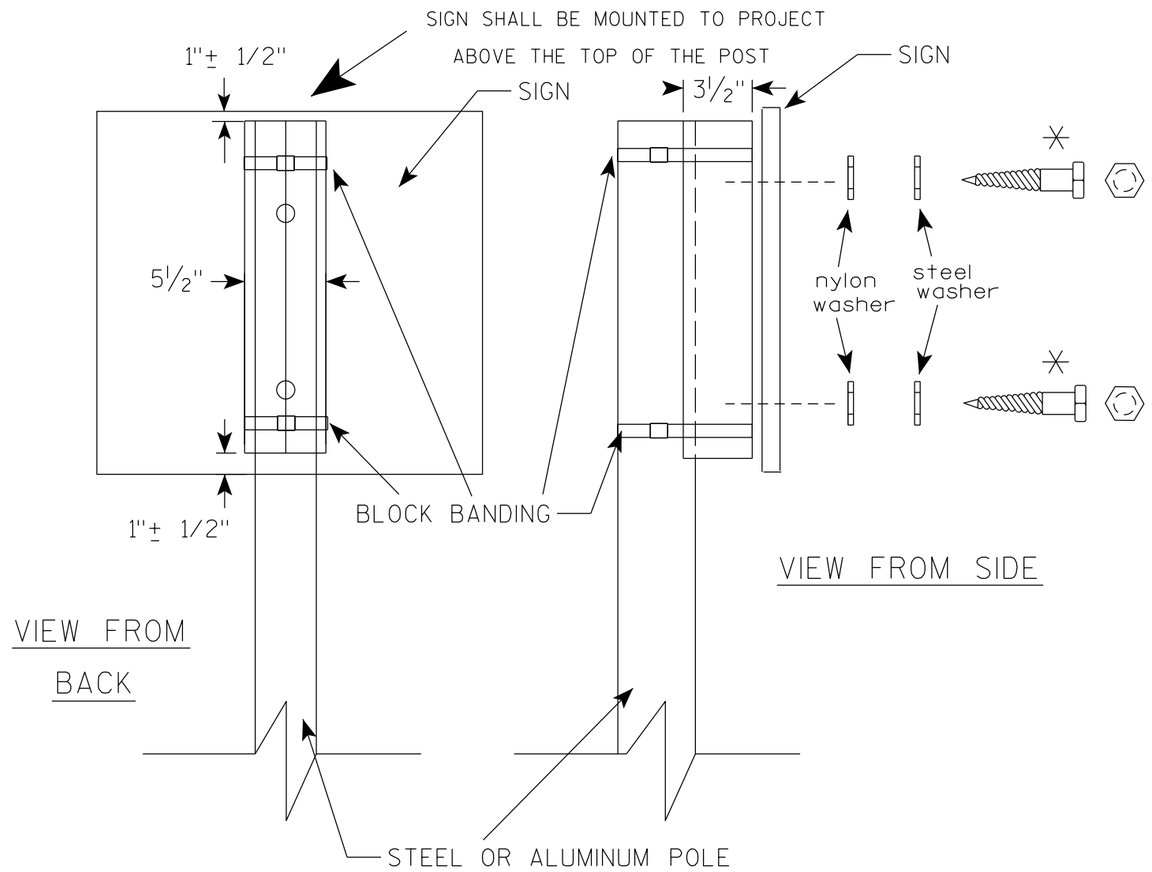
DATE 6/10/19 PLATE NO. A5-9.4

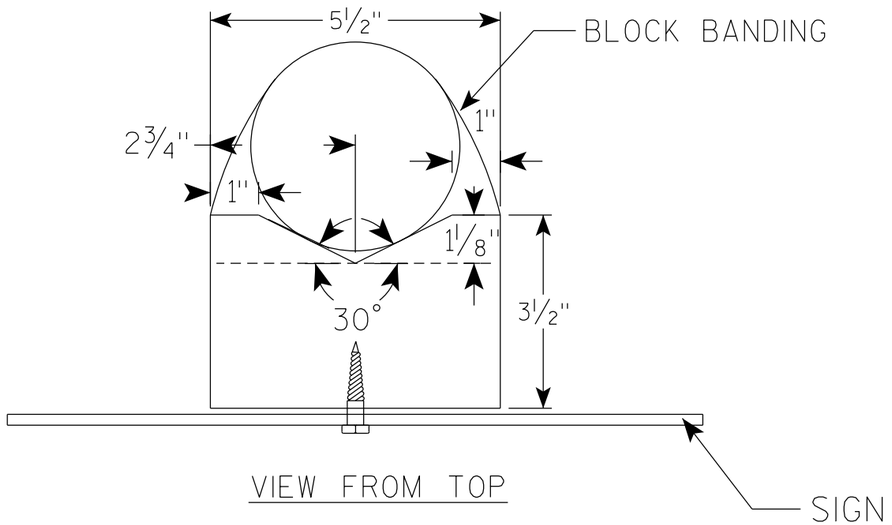
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 472	E

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)

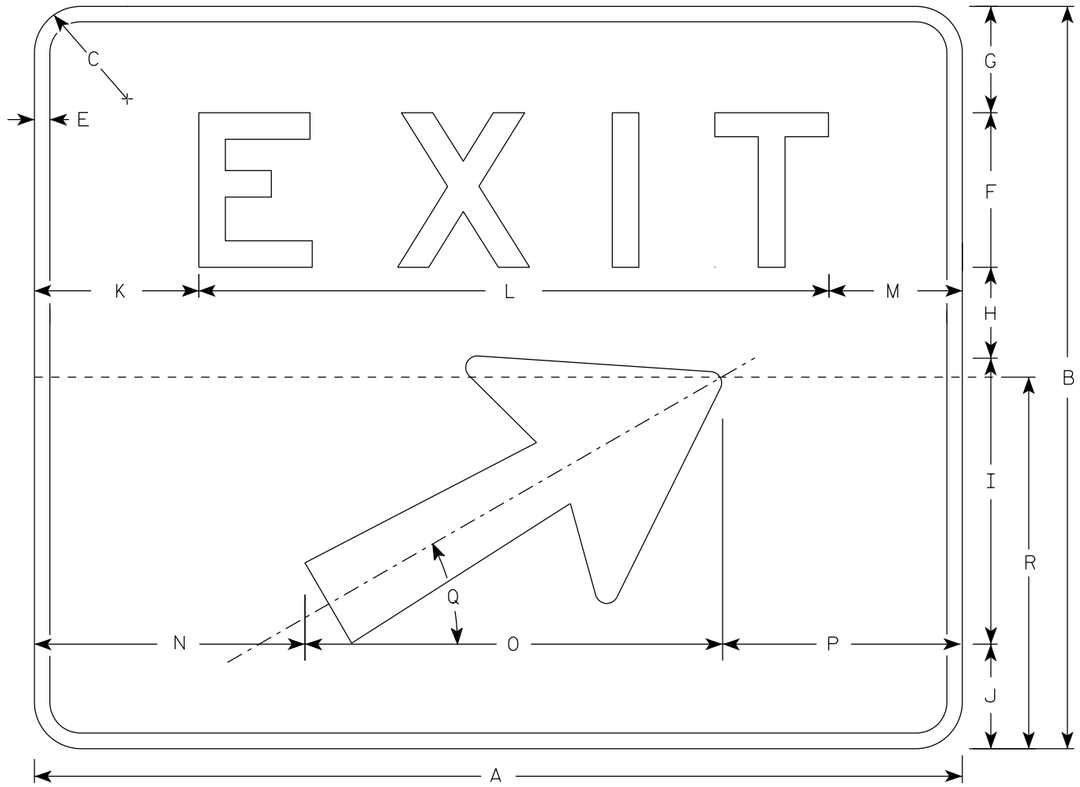
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 473 E



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Sign shall be split into two seperate pieces as shown on the detail by the dashed line (----------) for sizes 4 & 5.
5. Arrow is Type "A" from sign plate A1-1.
6. As per the Standard Spec's, this sign shall not have a vertical joint.
7. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support

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																											
2M																											
3	48	48	3		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	3		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	3		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

STANDARD SIGN

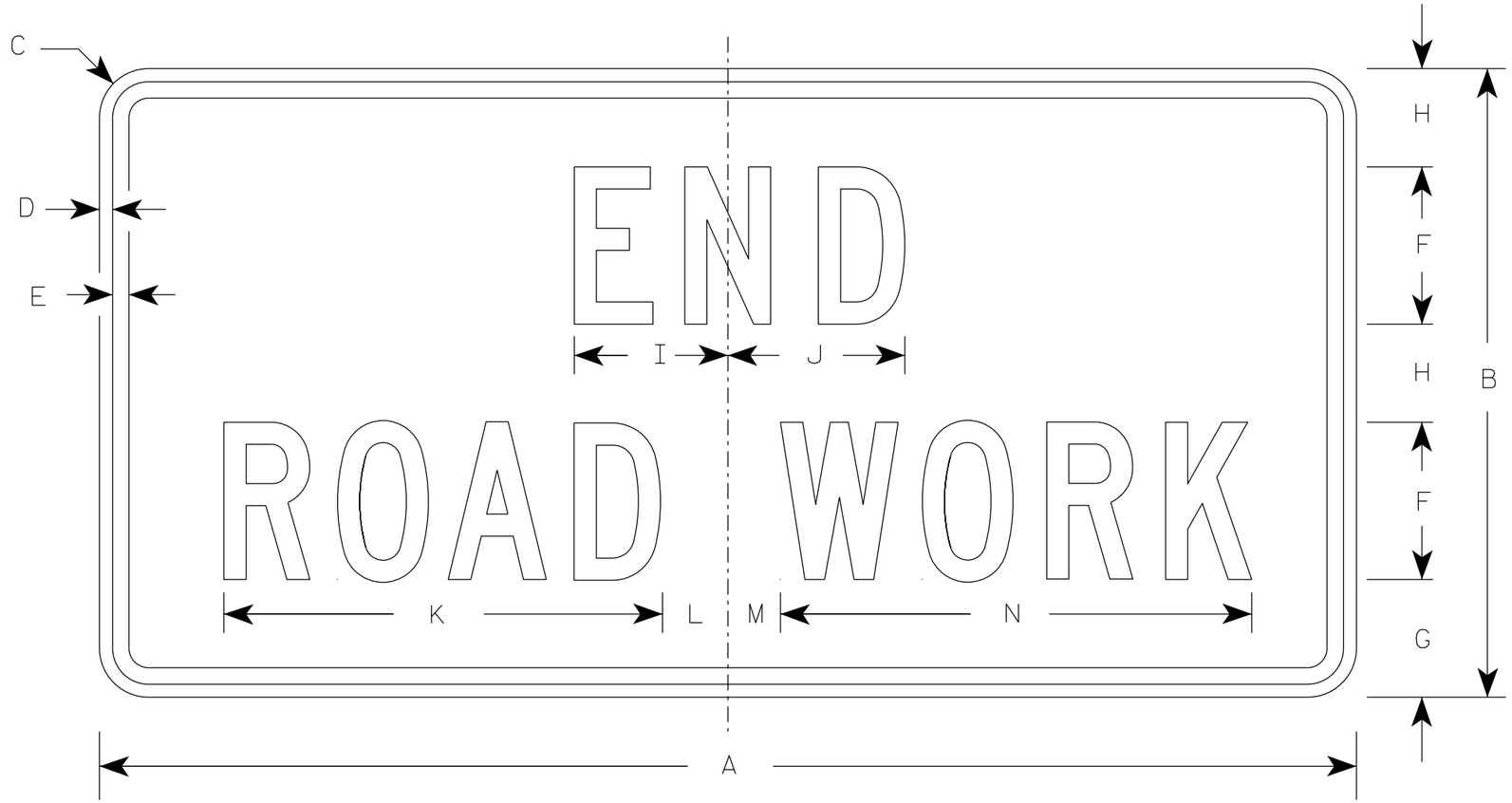
E5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. E5-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 474 | 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

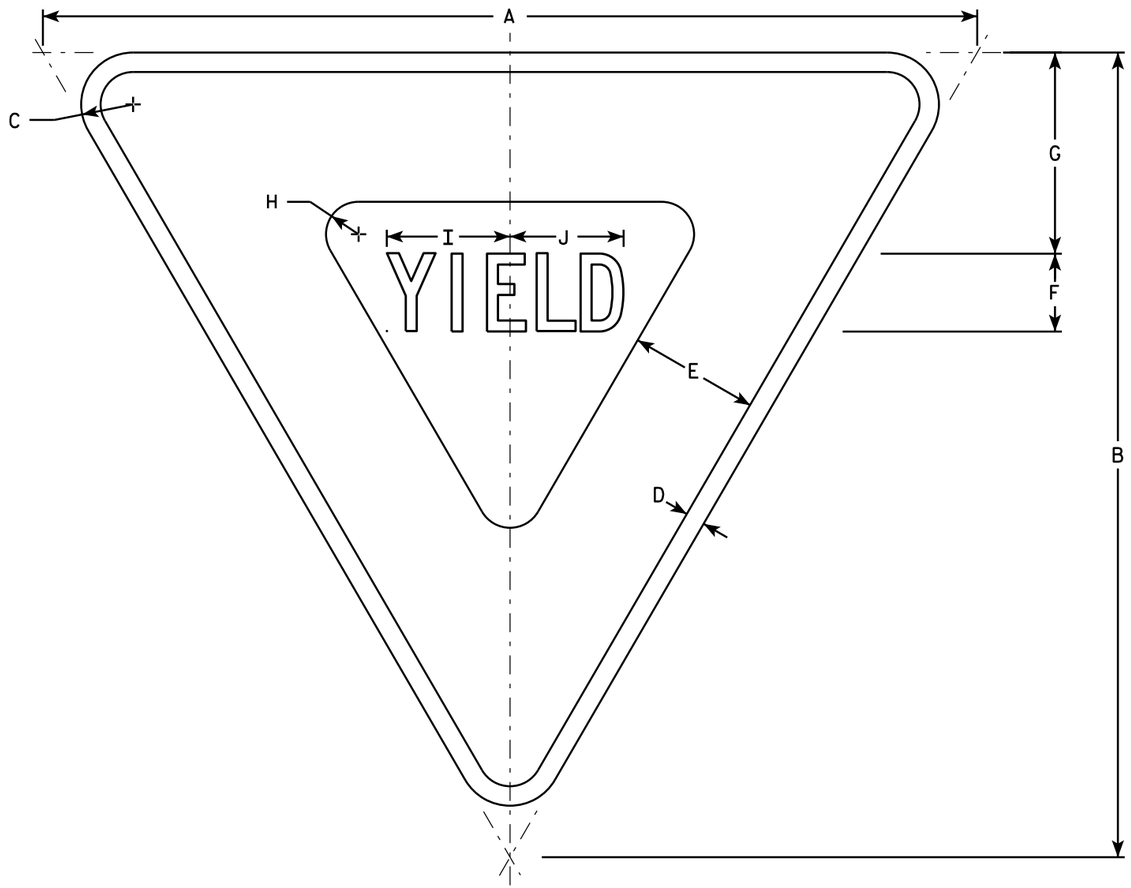
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 475 E

7

7



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

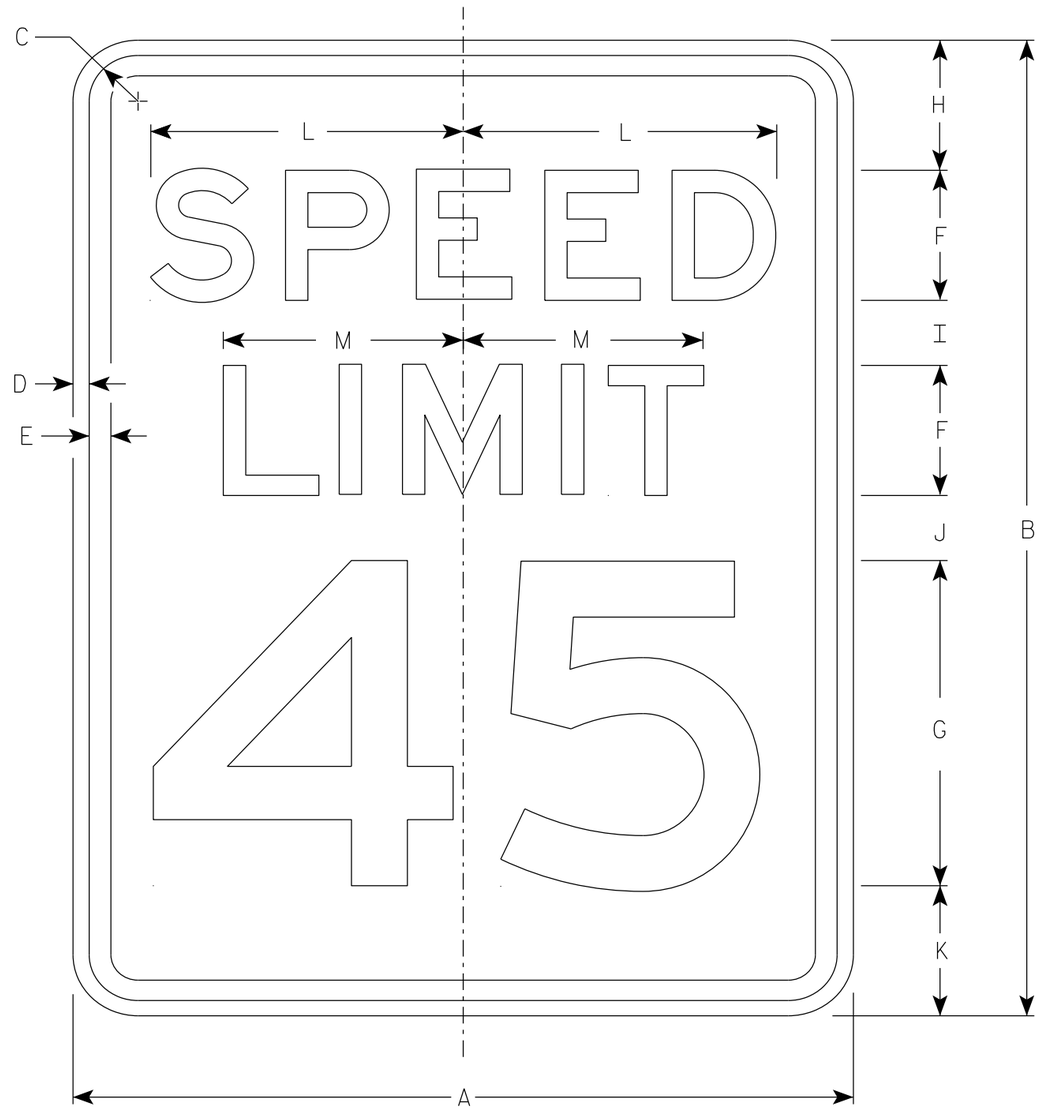
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

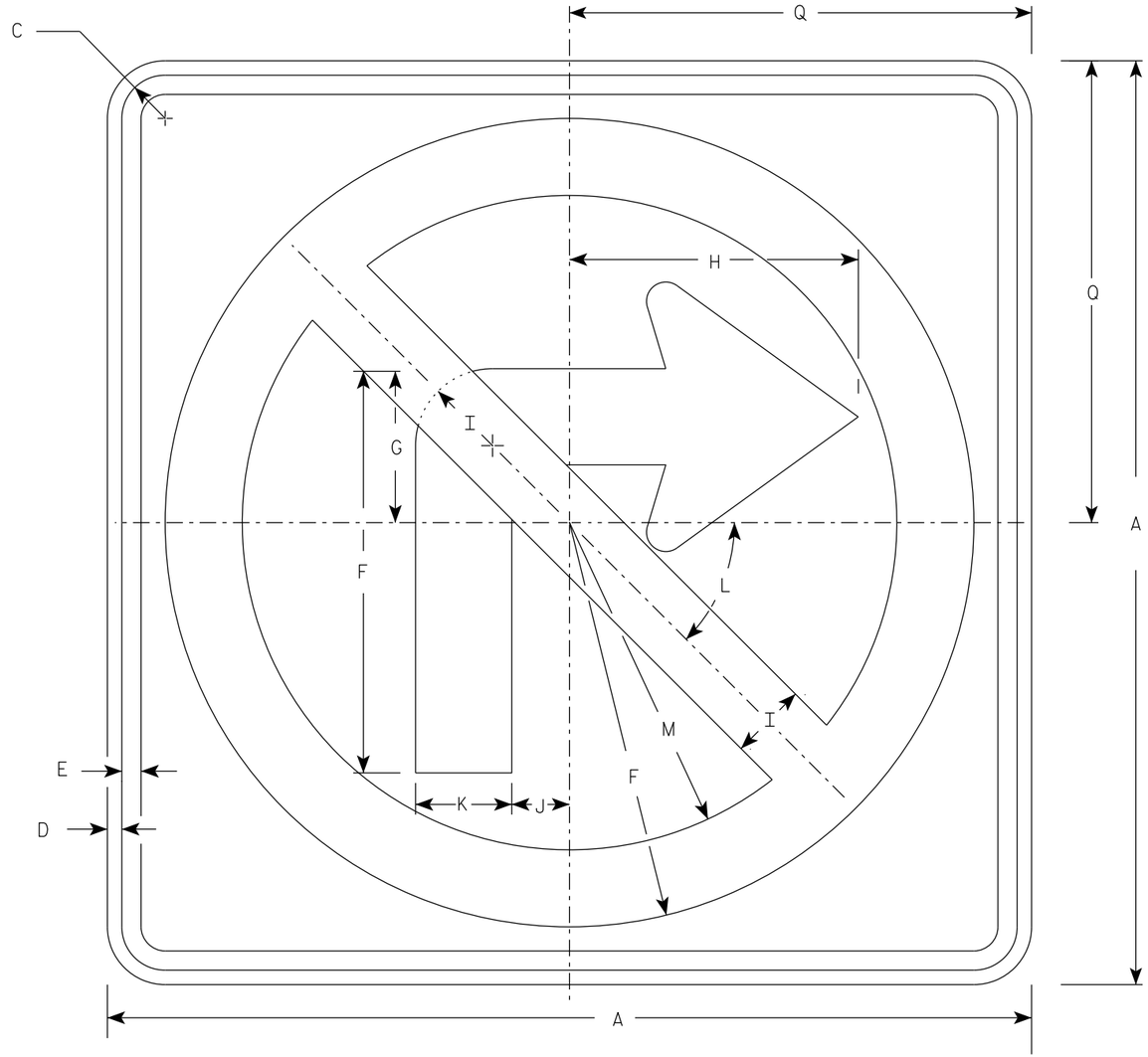
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

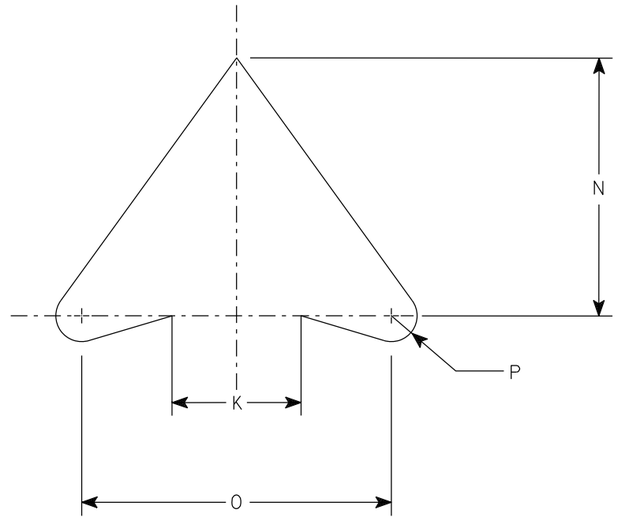
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 477 | E



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

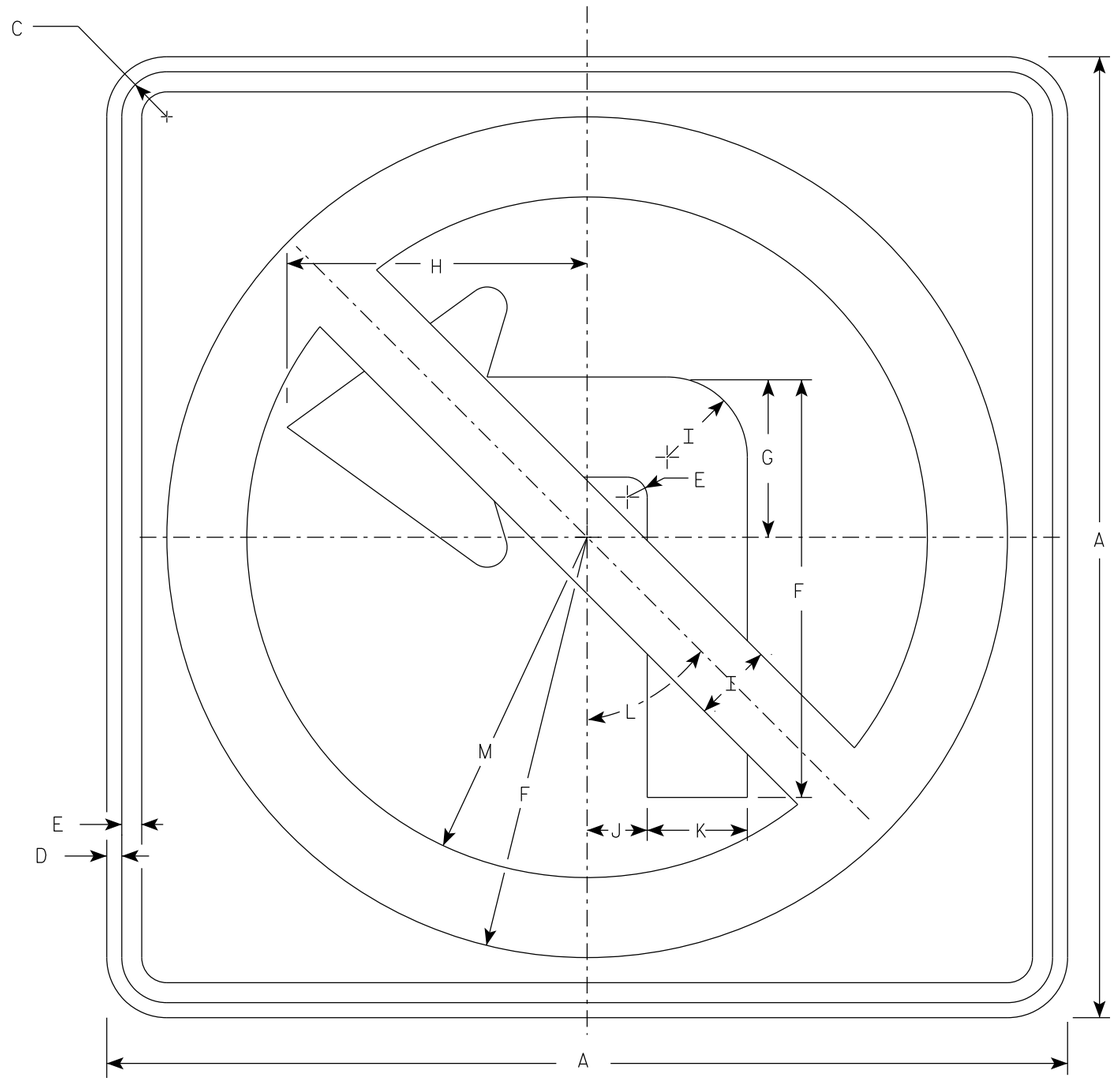
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

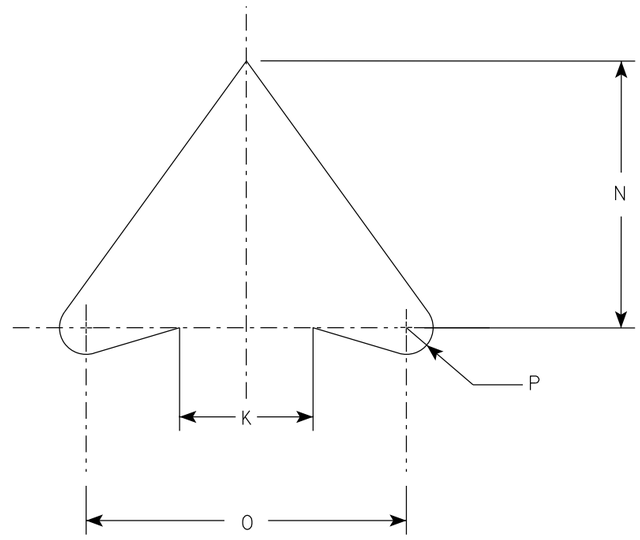
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 478 | E



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

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

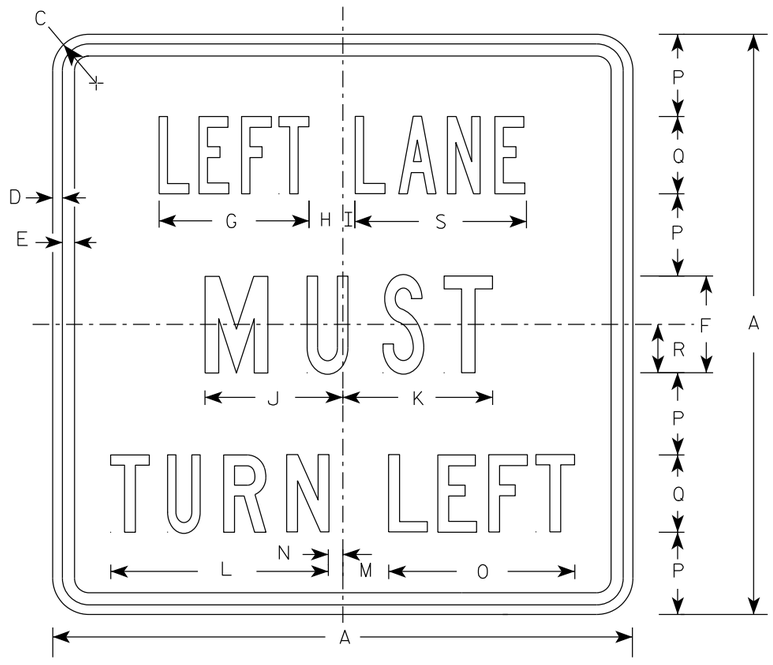
APPROVED Matthew R Rauch
for State Traffic Engineer

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

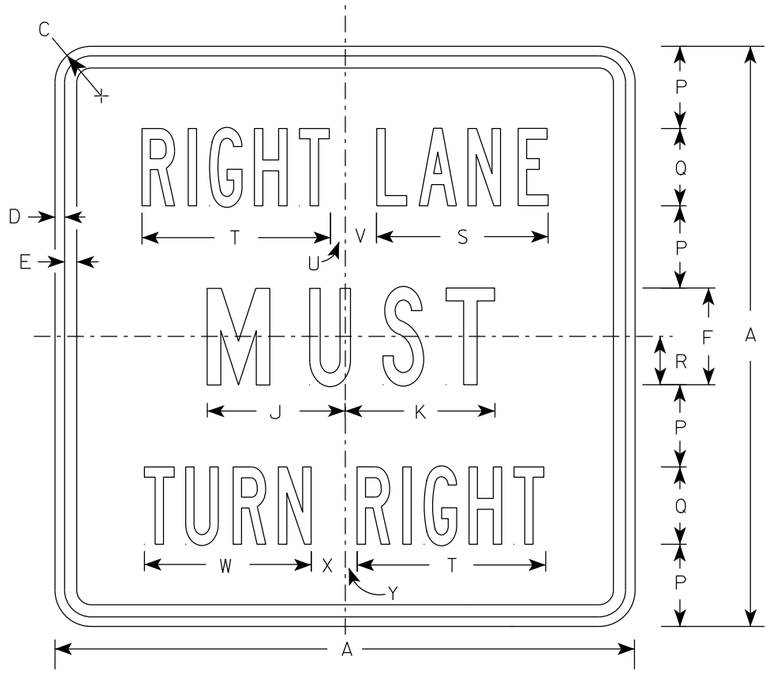
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 479	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.



R3-7L



R3-7R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		2 1/4	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

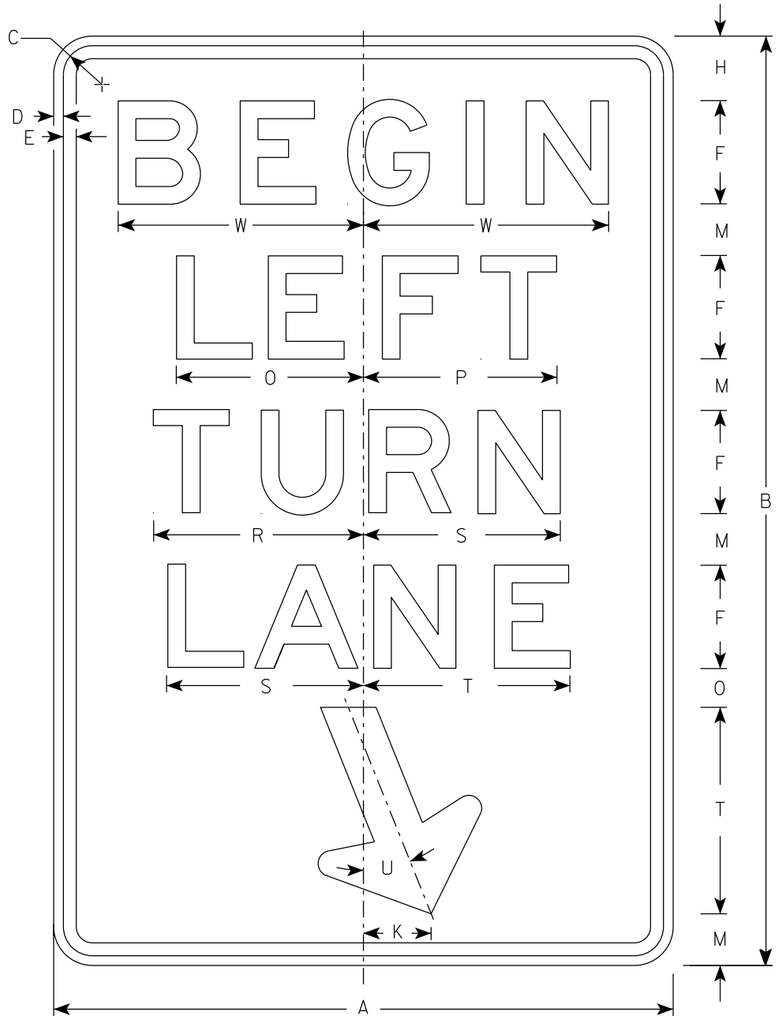
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-7.4

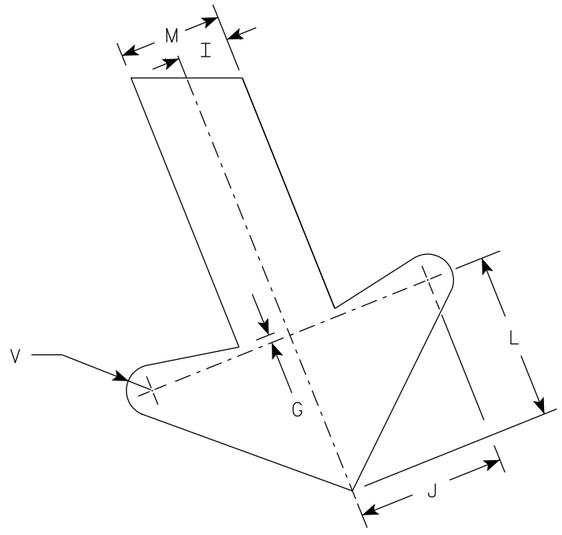
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 480 | E



R3-20L

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

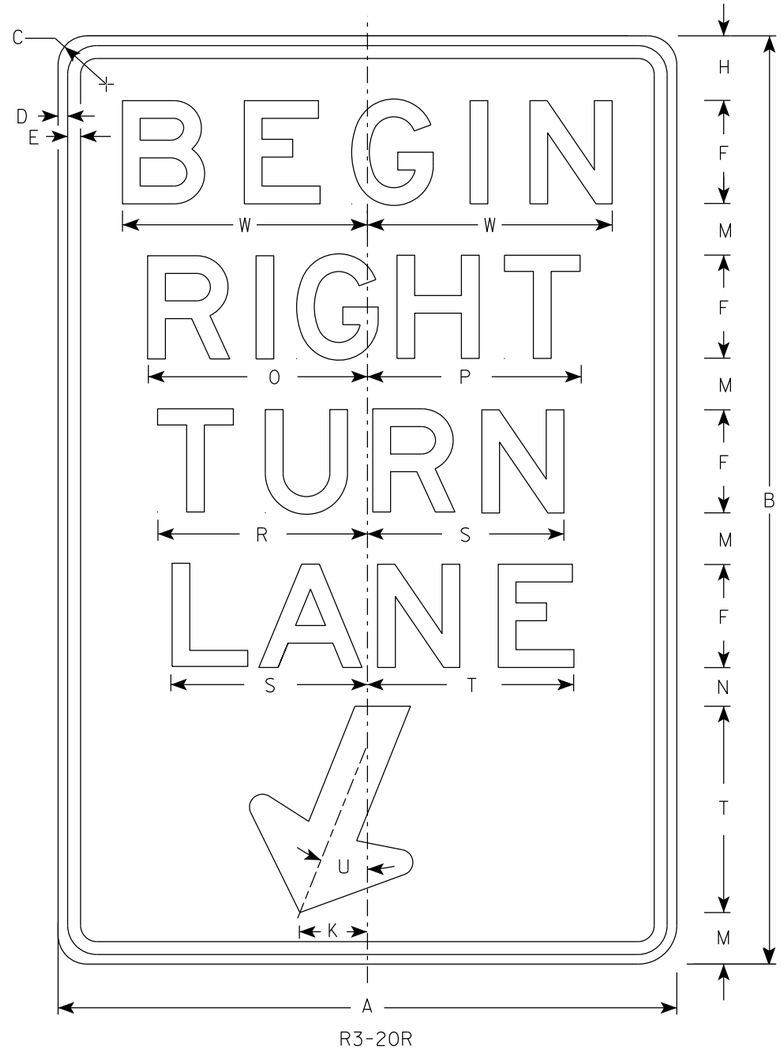
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20L.8

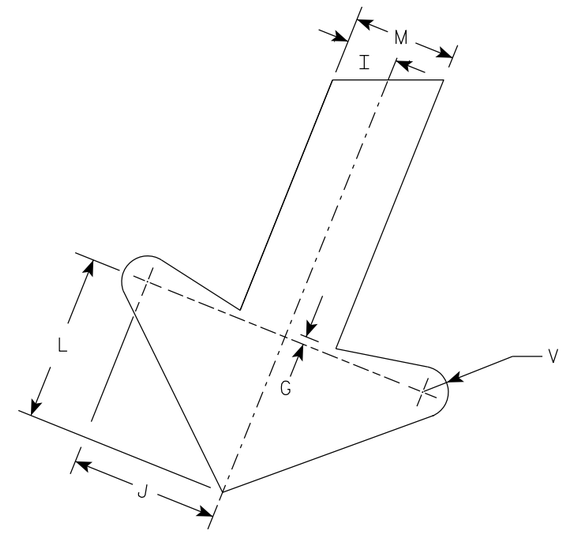
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 481 | E



R3-20R

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

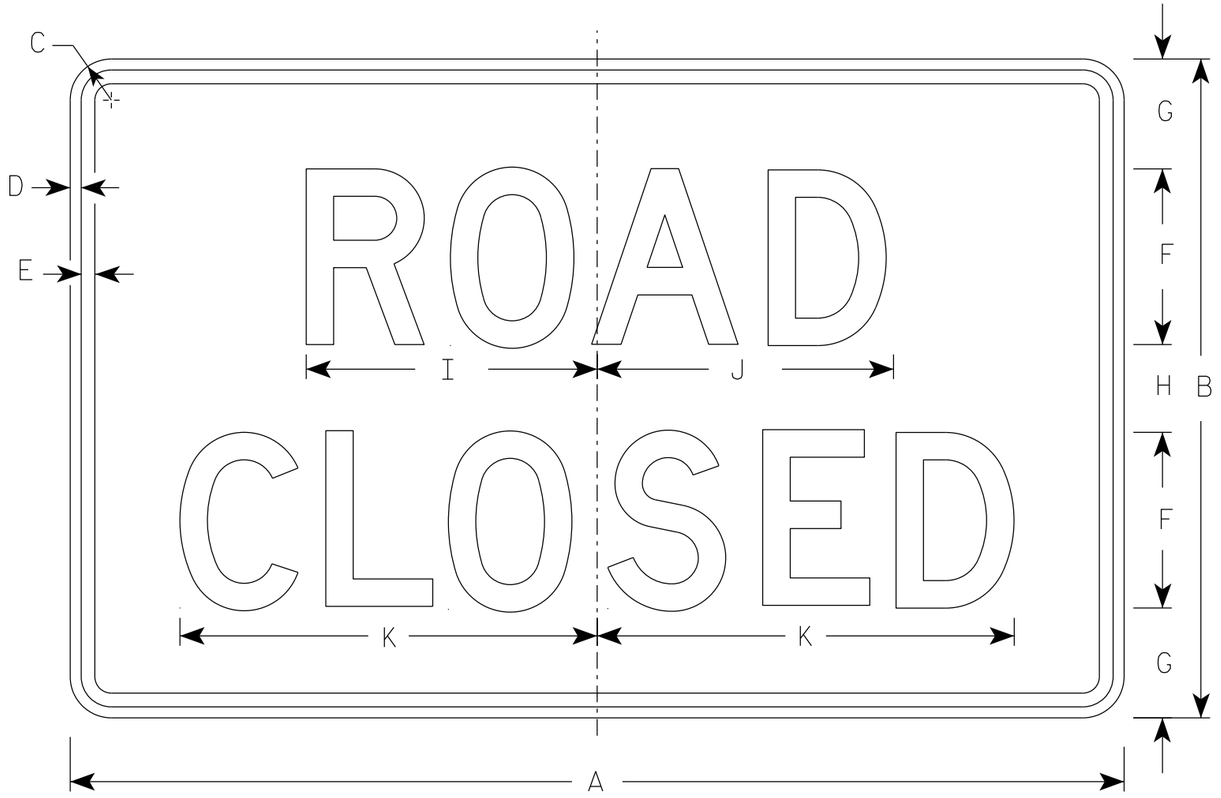
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20R.7

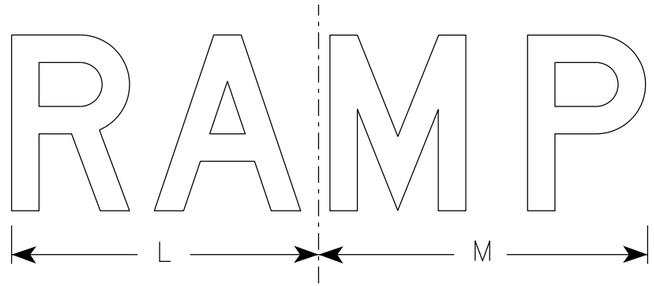
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 482 | E



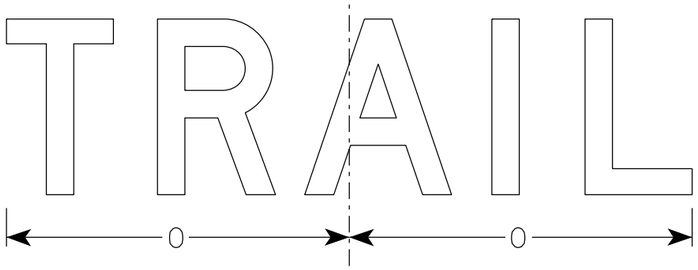
R11-2

NOTES

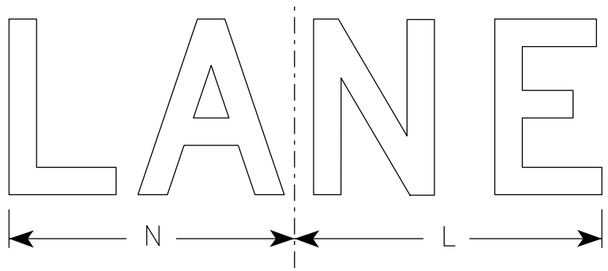
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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

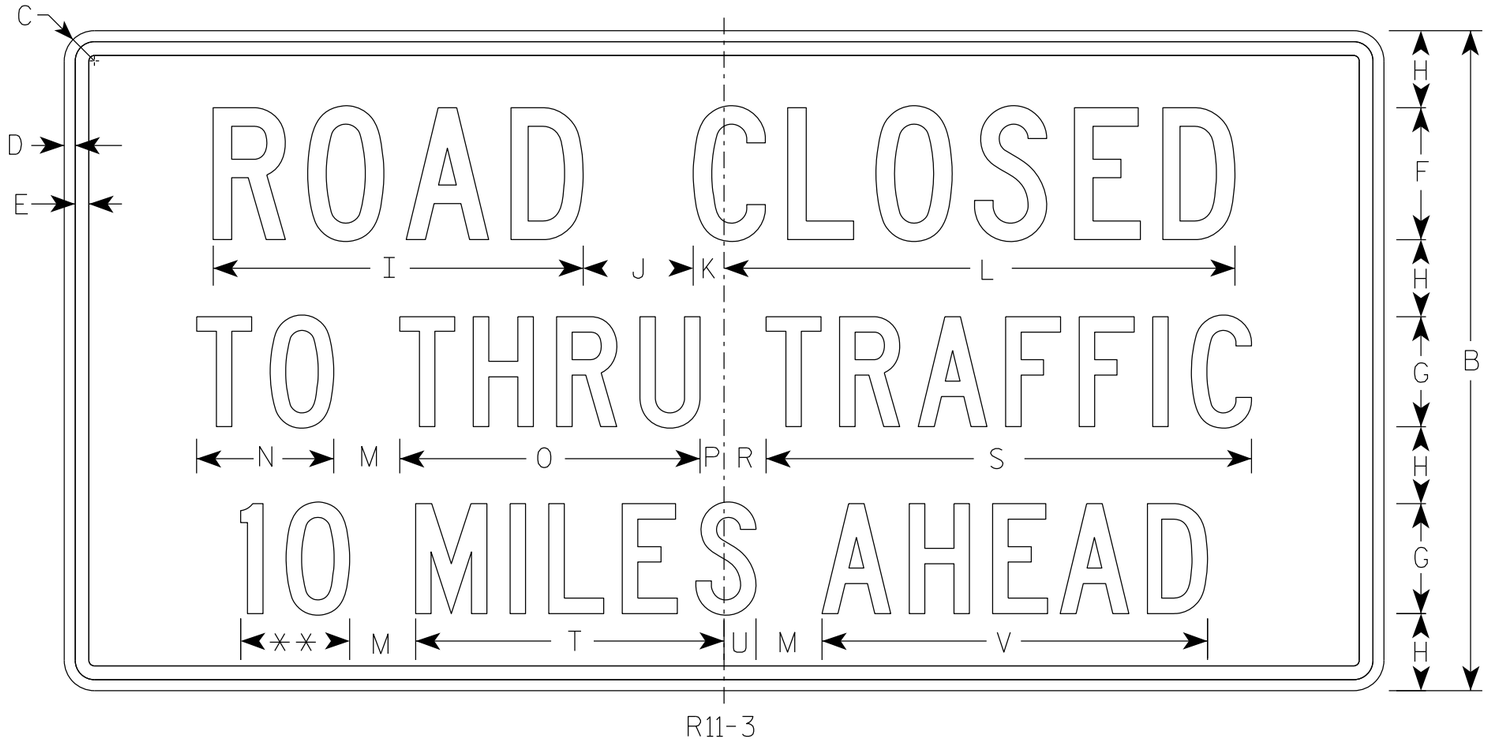
DATE 2/5/24 PLATE NO. R11-2.12

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

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 5-FEB 2024 2:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

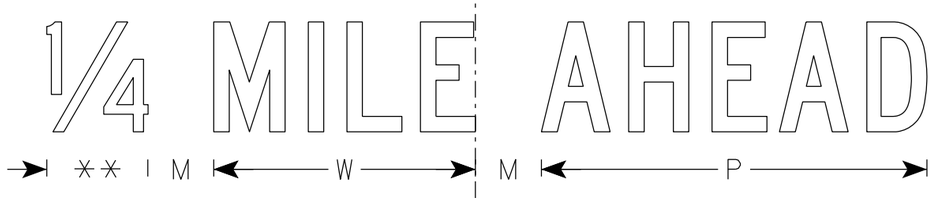
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



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	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

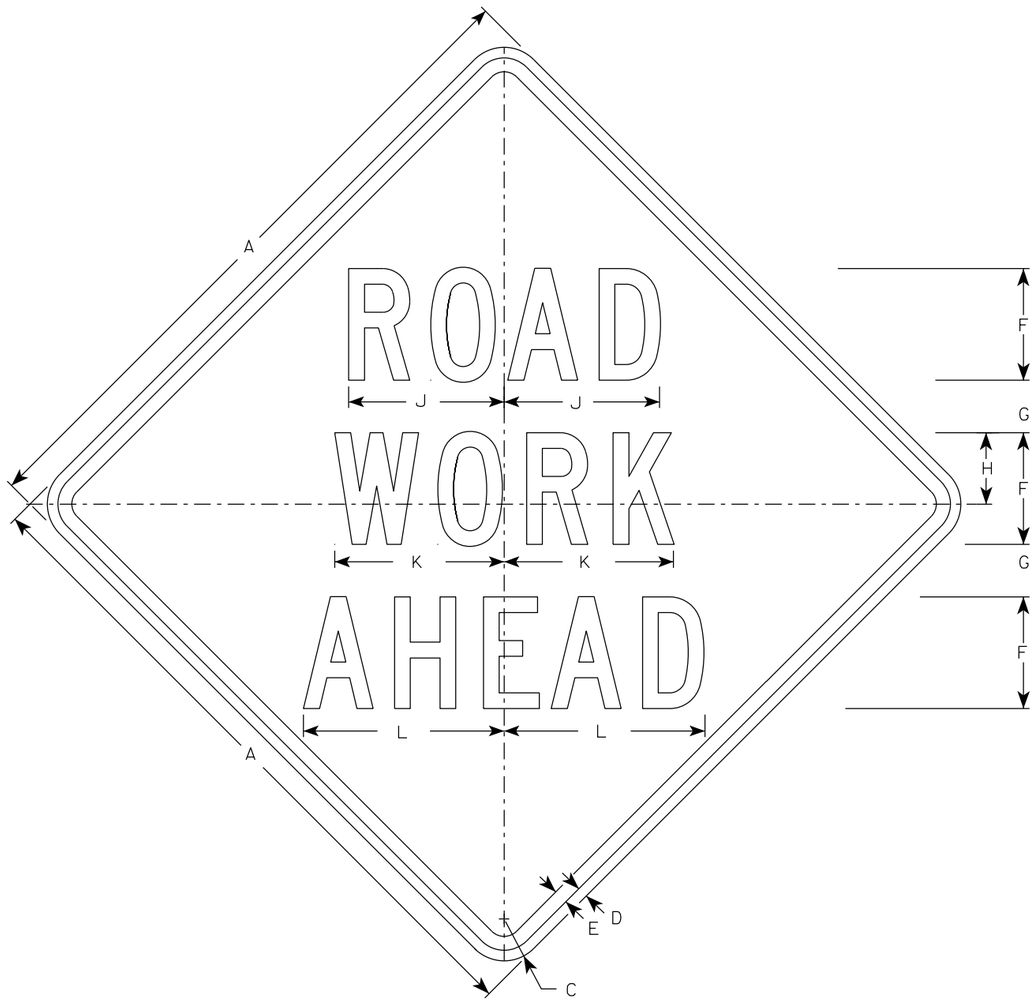
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

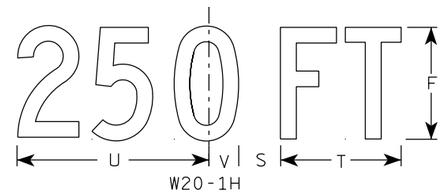
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

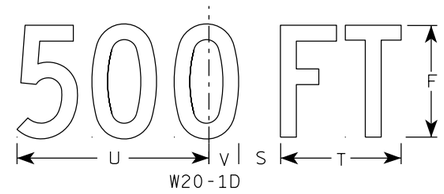
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 484	E



W20-1A



W20-1H



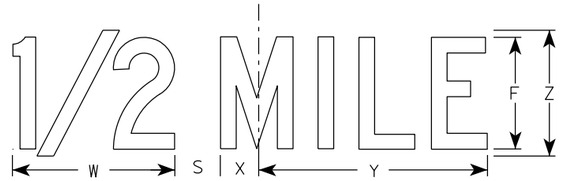
W20-1D

W20-1C

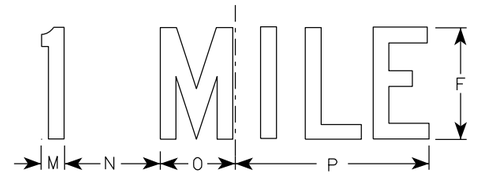
W20-1B

NOTES

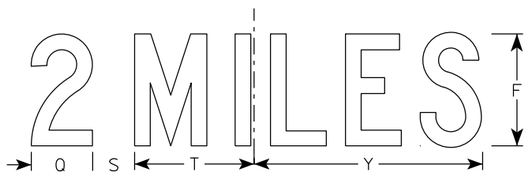
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



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

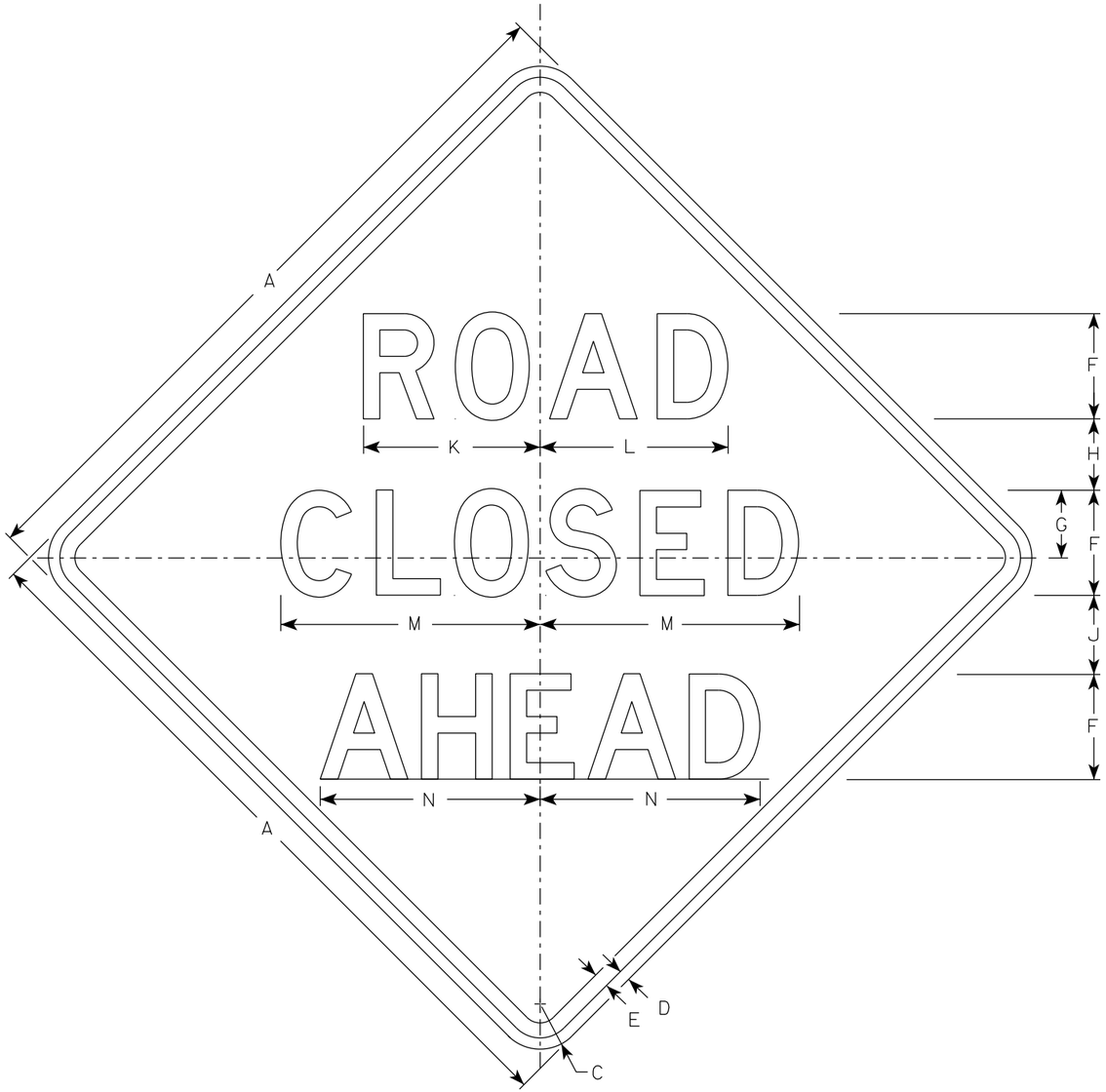
PROJECT NO:

SHEET NO: 485 E

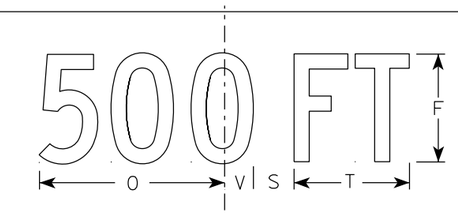
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 10-JAN 2024 11:16 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

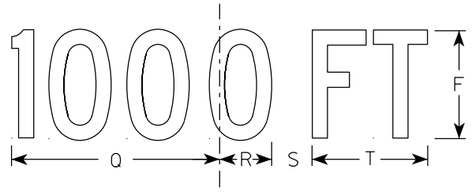
7



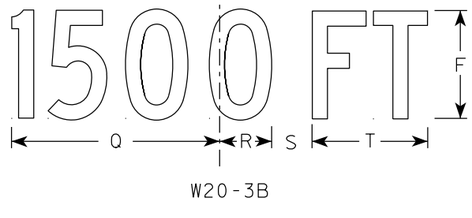
W20-3A



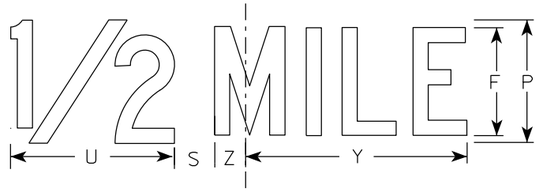
W20-3D



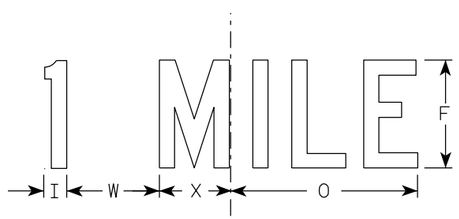
W20-3C



W20-3B



W20-3G



W20-3F

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	8 3/8	8 7/8	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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
W20-3A, B, C, D, F & G

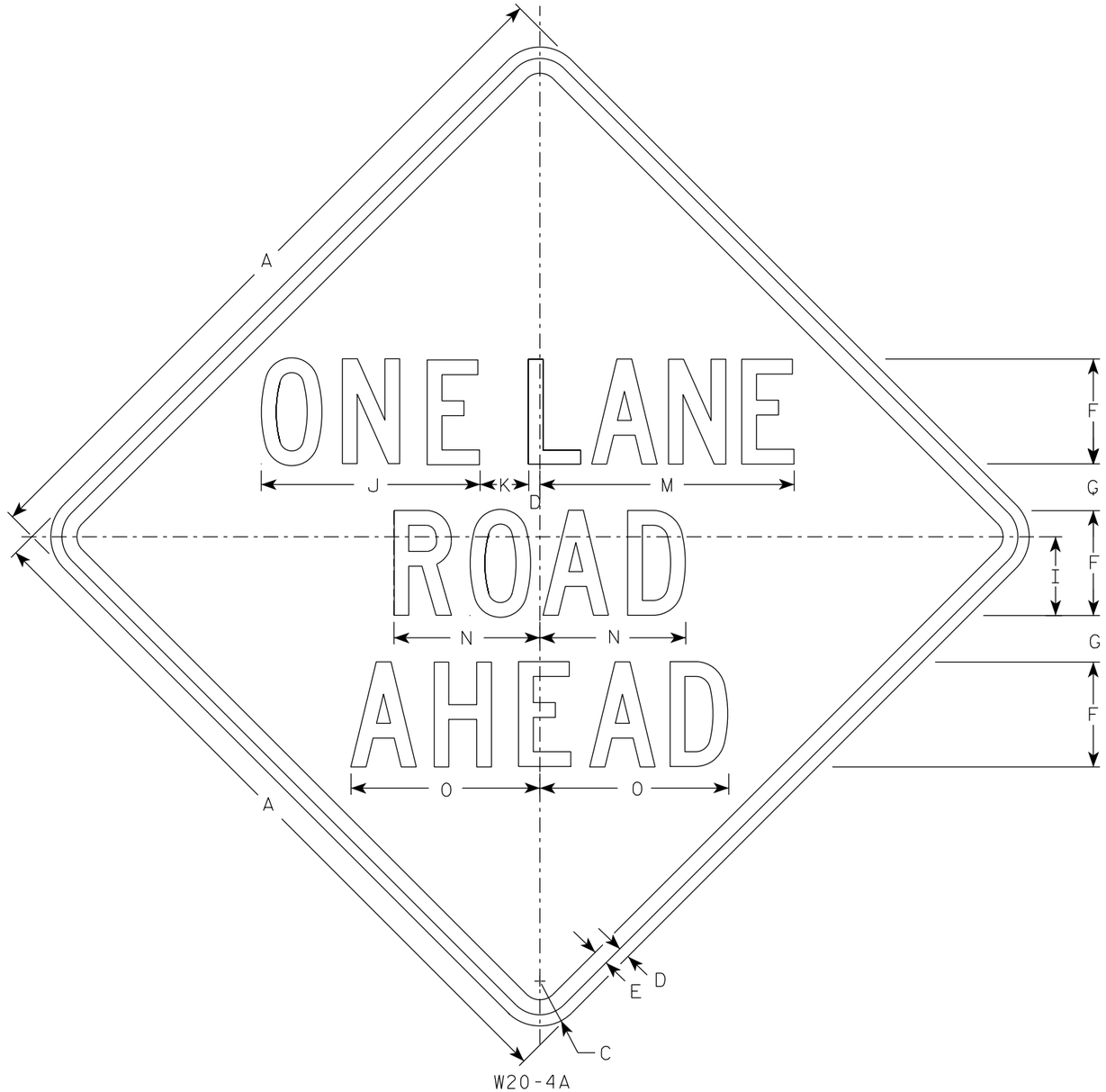
WISCONSIN DEPT OF TRANSPORTATION

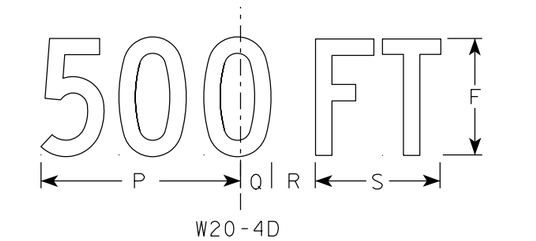
APPROVED Matthew R Rauch
for State Traffic Engineer

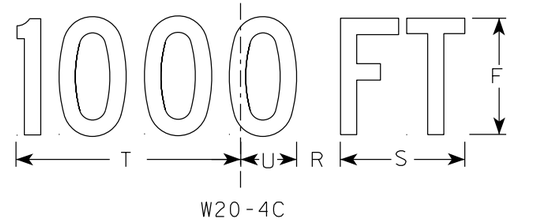
DATE 1/10/2024 PLATE NO. W20-3.8

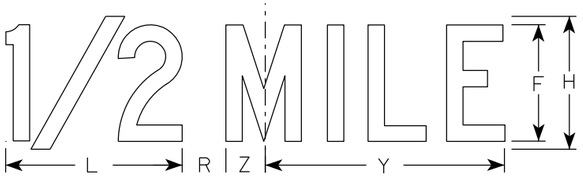
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

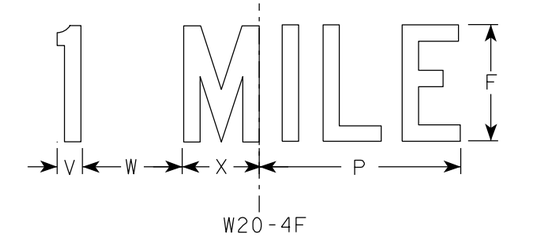
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN PLOT DATE : 10-JAN 2024 12:02 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42











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

STANDARD SIGN
W20-4A, B, C, D, F & G

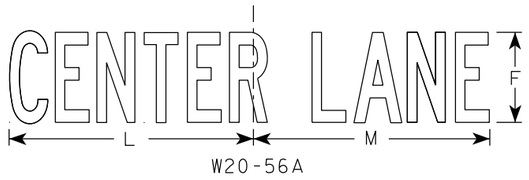
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

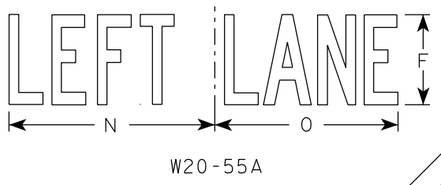
DATE 1/10/2024 PLATE NO. W20-4.10

PROJECT NO:

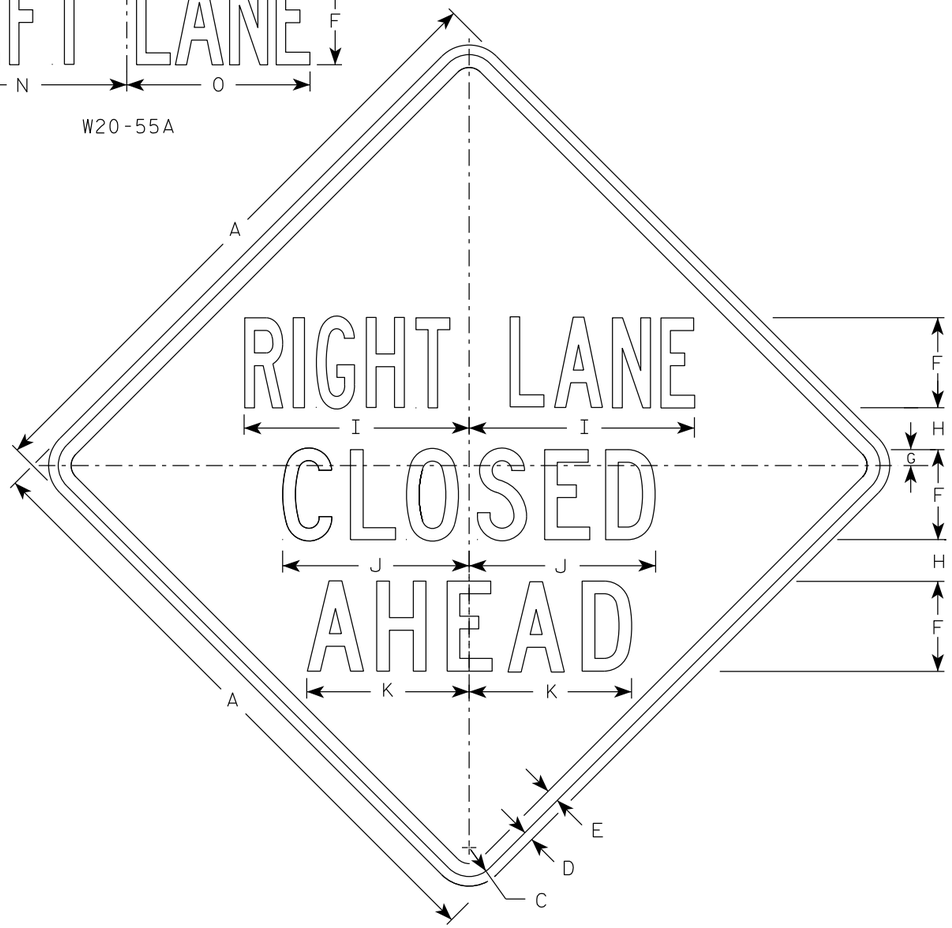
SHEET NO: 487 E



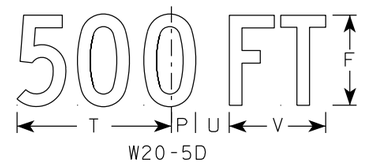
W20-56A



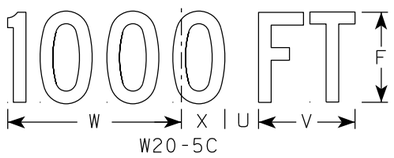
W20-55A



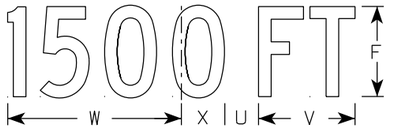
W20-5A



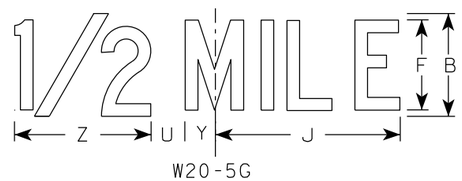
W20-5D



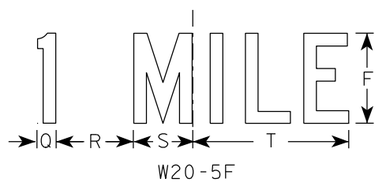
W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

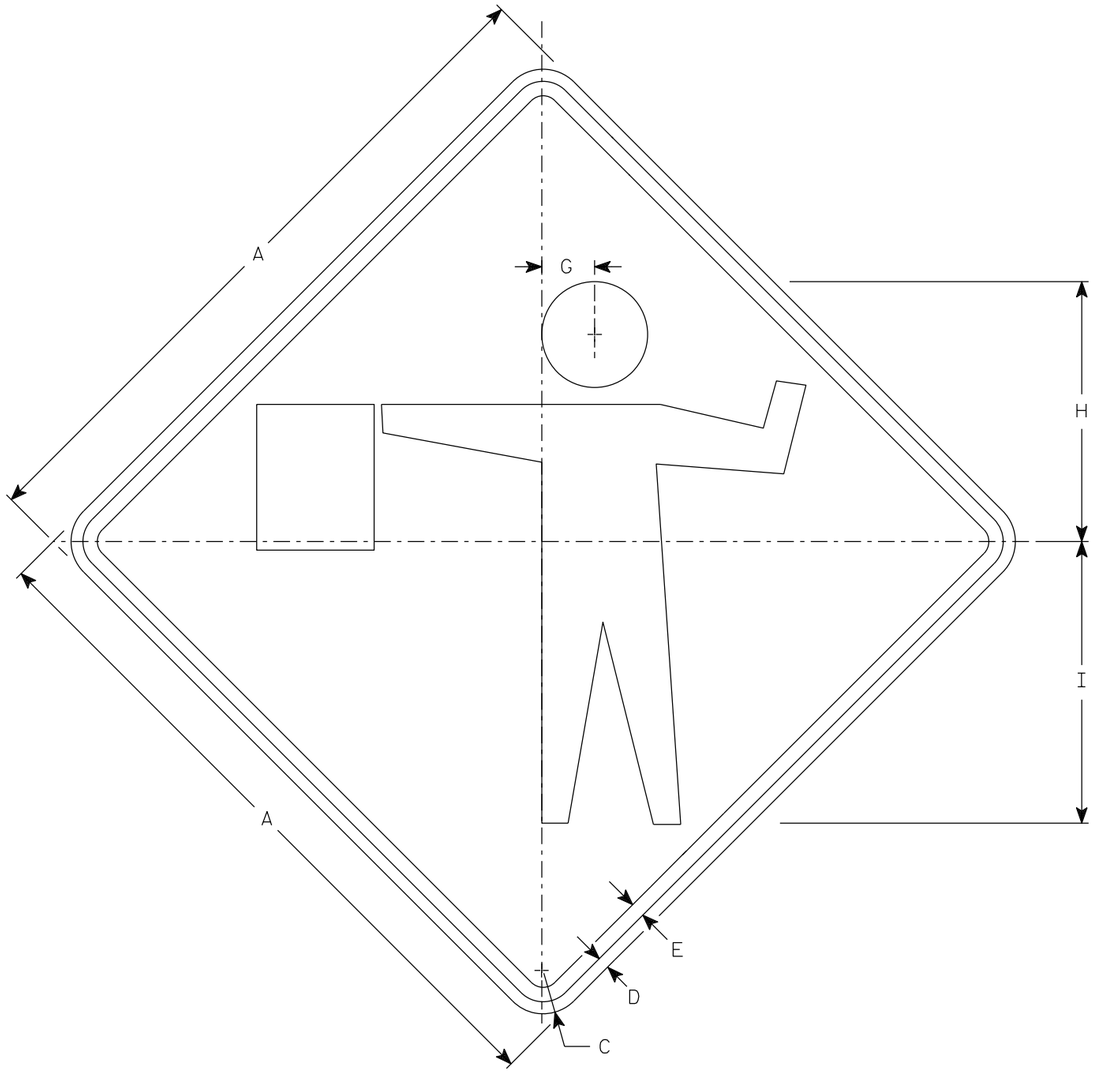
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W20-5.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 488 | E



W20-7A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.0
2S	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
2M	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
3	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
4	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
5	48		3	3/4	1		3 3/4	18	19 1/2																		16.0

STANDARD SIGN
W20-7A

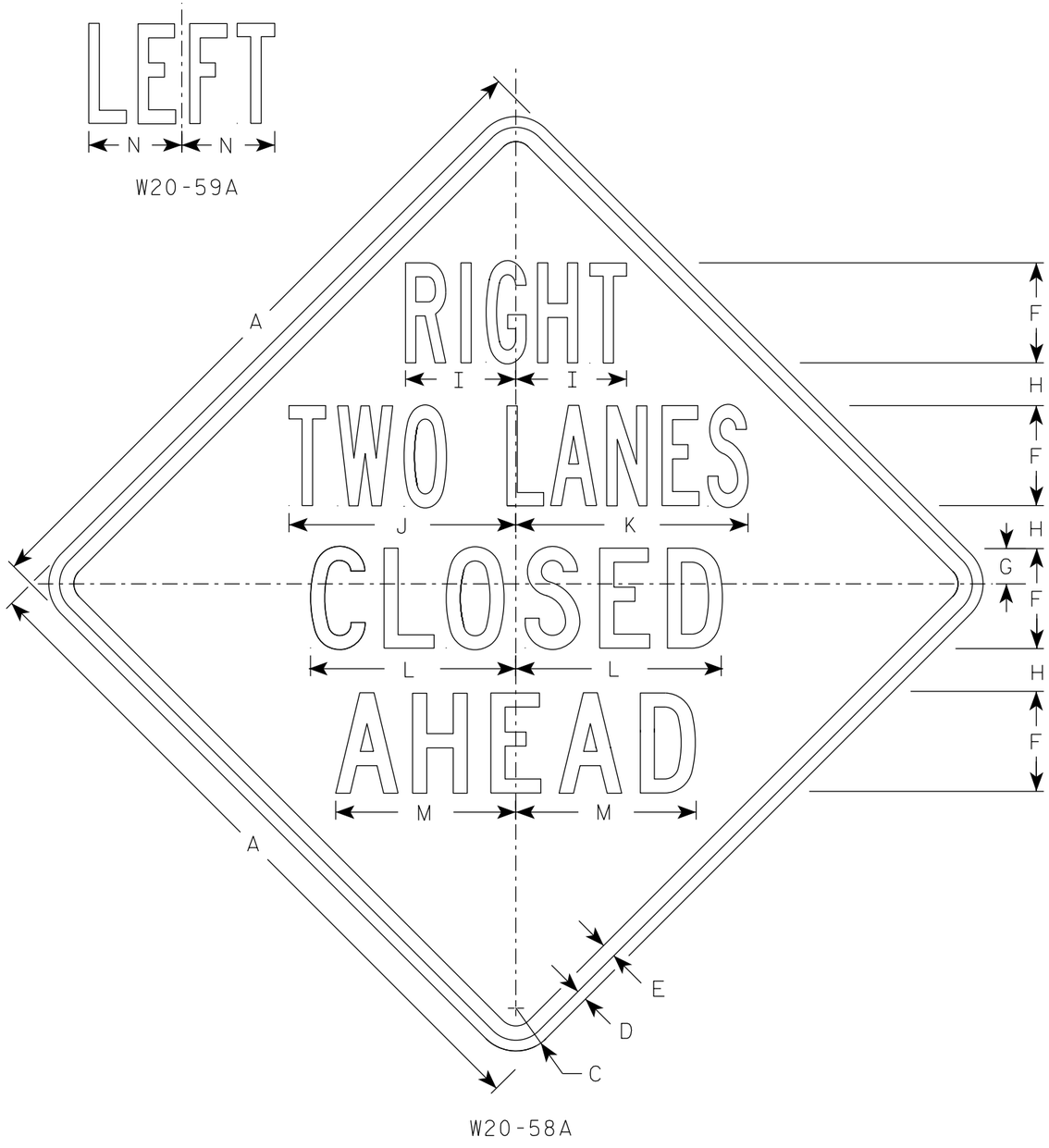
WISCONSIN DEPT OF TRANSPORTATION

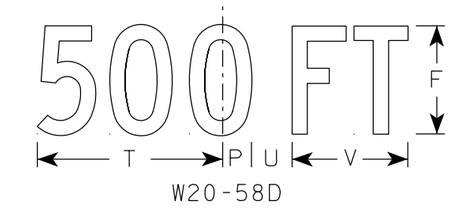
APPROVED Matthew R Rauch
for State Traffic Engineer

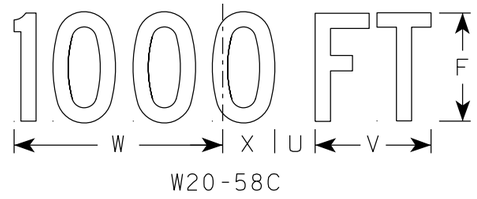
DATE 1/10/2024 PLATE NO. W20-7A.6

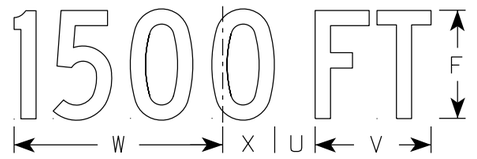
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 489 E

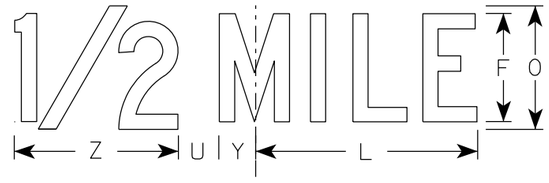
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W207.DGN PLOT DATE : 10-JAN 2024 2:15 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42











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 & 2 Series B.
   Lines 3 & 4 Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	1 7/8	2 1/4	5 7/8	11 7/8	12 1/8	10 3/4	9 1/2	4 7/8	6	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48		3	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48		3	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48		3	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48		3	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48		3	3/4	1	7	2 1/2	3	7 3/4	15 7/8	16 1/4	14 3/8	12 5/8	6 1/2	8	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-58A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

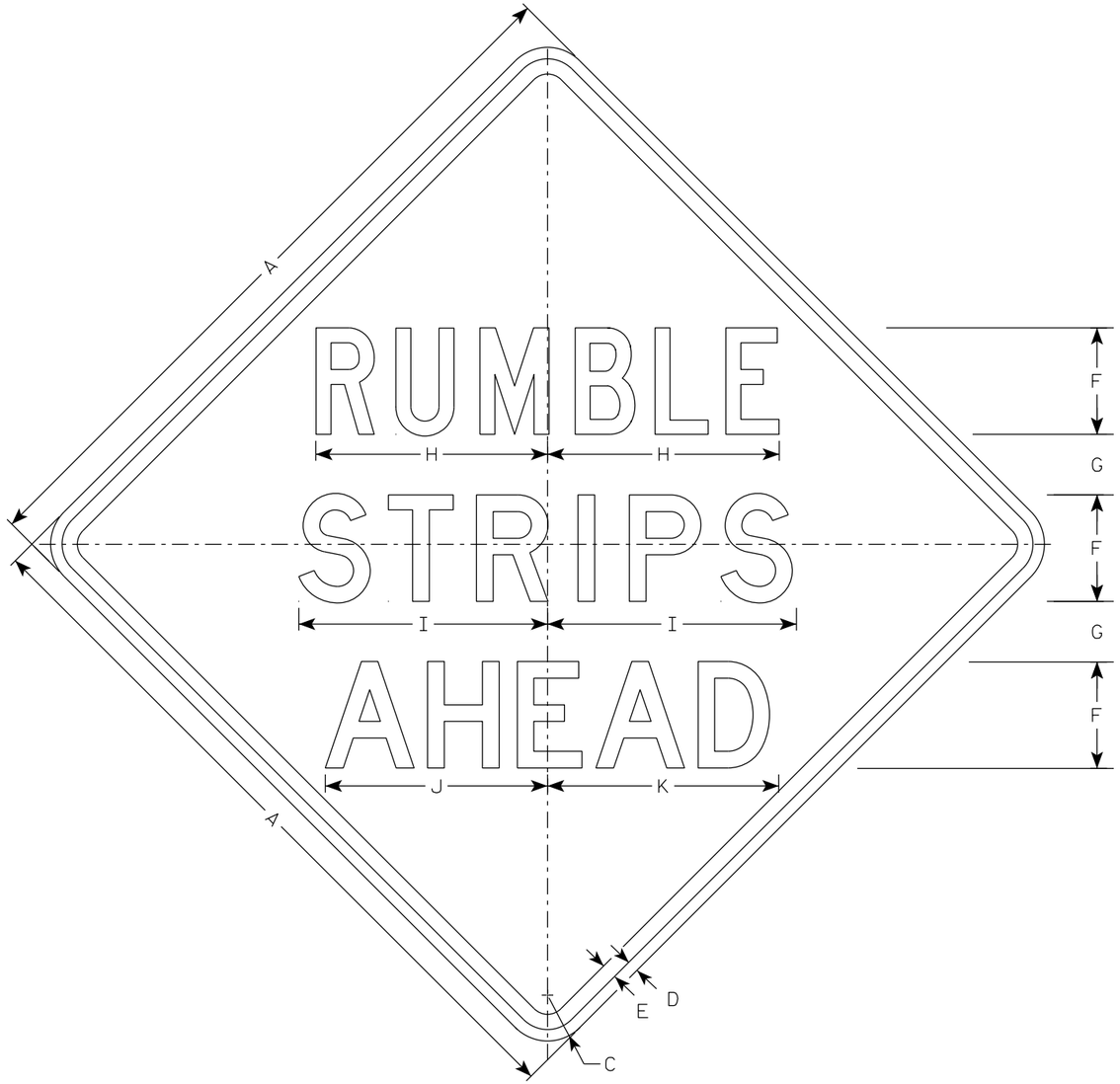
DATE 1/10/2024 PLATE NO. W20-58.5

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2058.DGN PLOT DATE : 10-JAN 2024 2:56 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7



W21-65

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 4
4. Line 1 is Series C
   Lines 2 and 3 are Series D

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 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

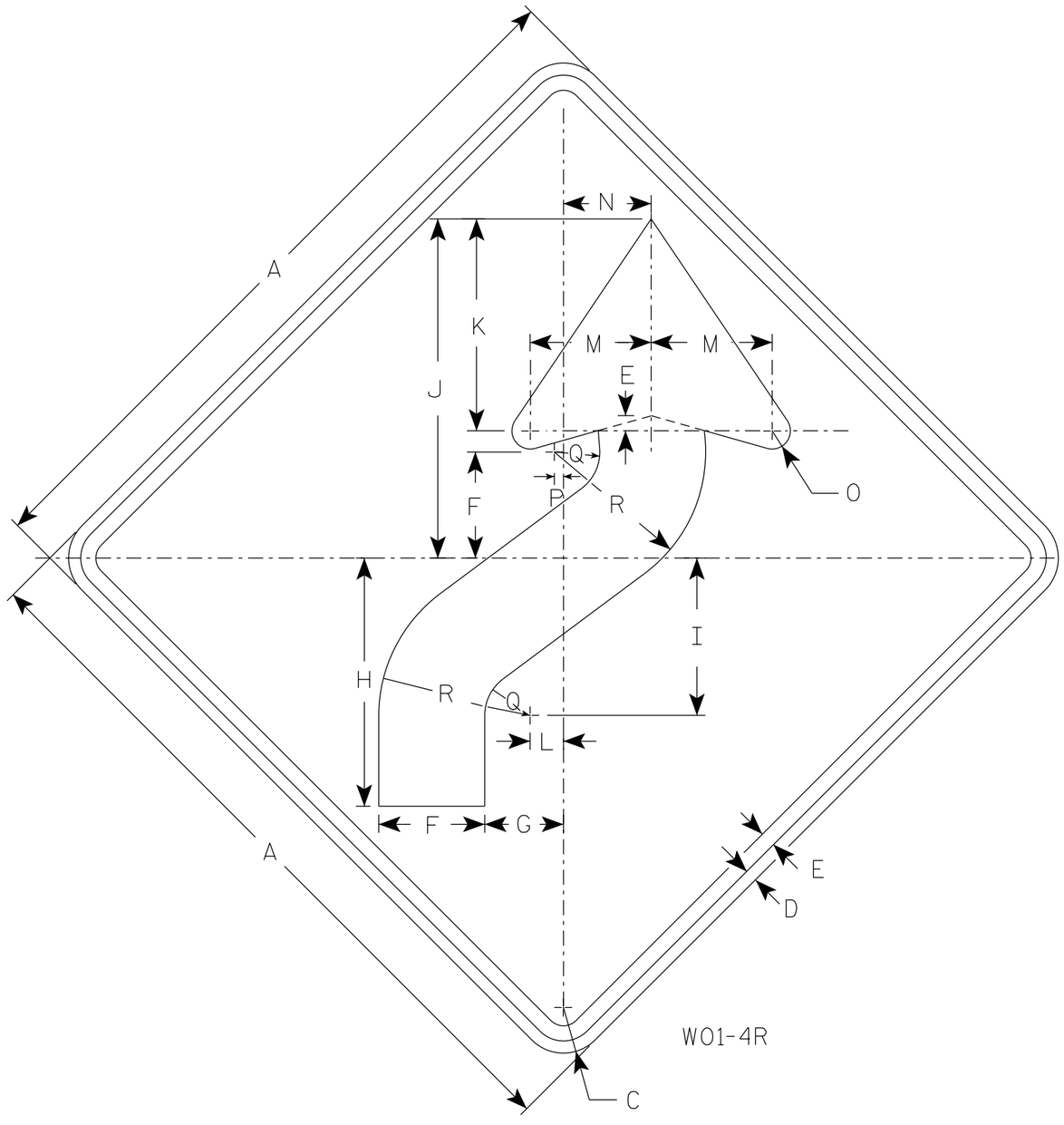
STANDARD SIGN
W21-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/17/2024 PLATE NO. W21-65.2

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



W01-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

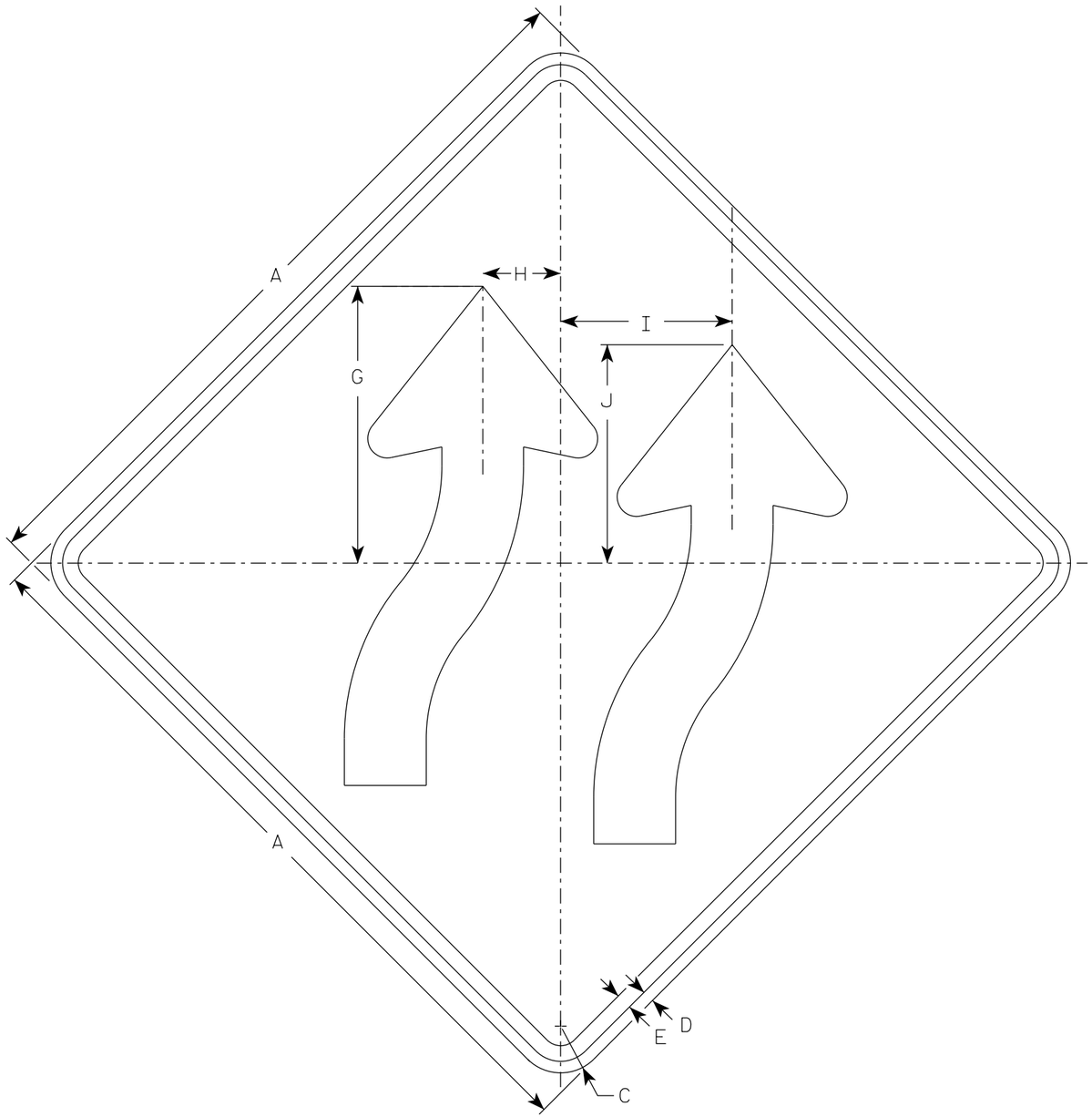
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

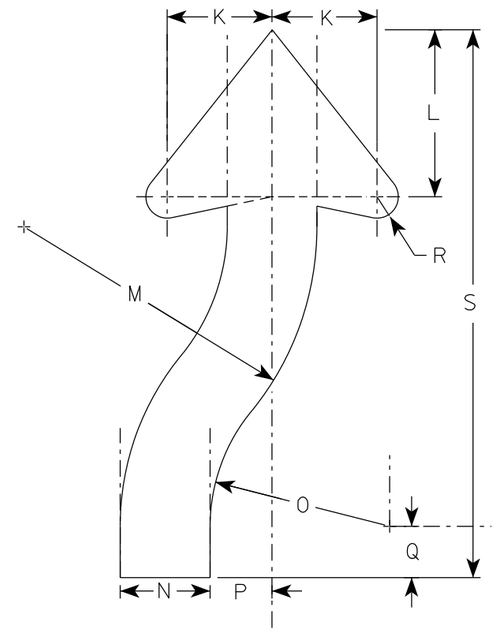
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 492 | E



W01-4BR

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4BL is the same as W014-BR exept arrows are reversed along the vertical centerline



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		3	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		3	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		3	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		3	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		3	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

STANDARD SIGN
W01-4B

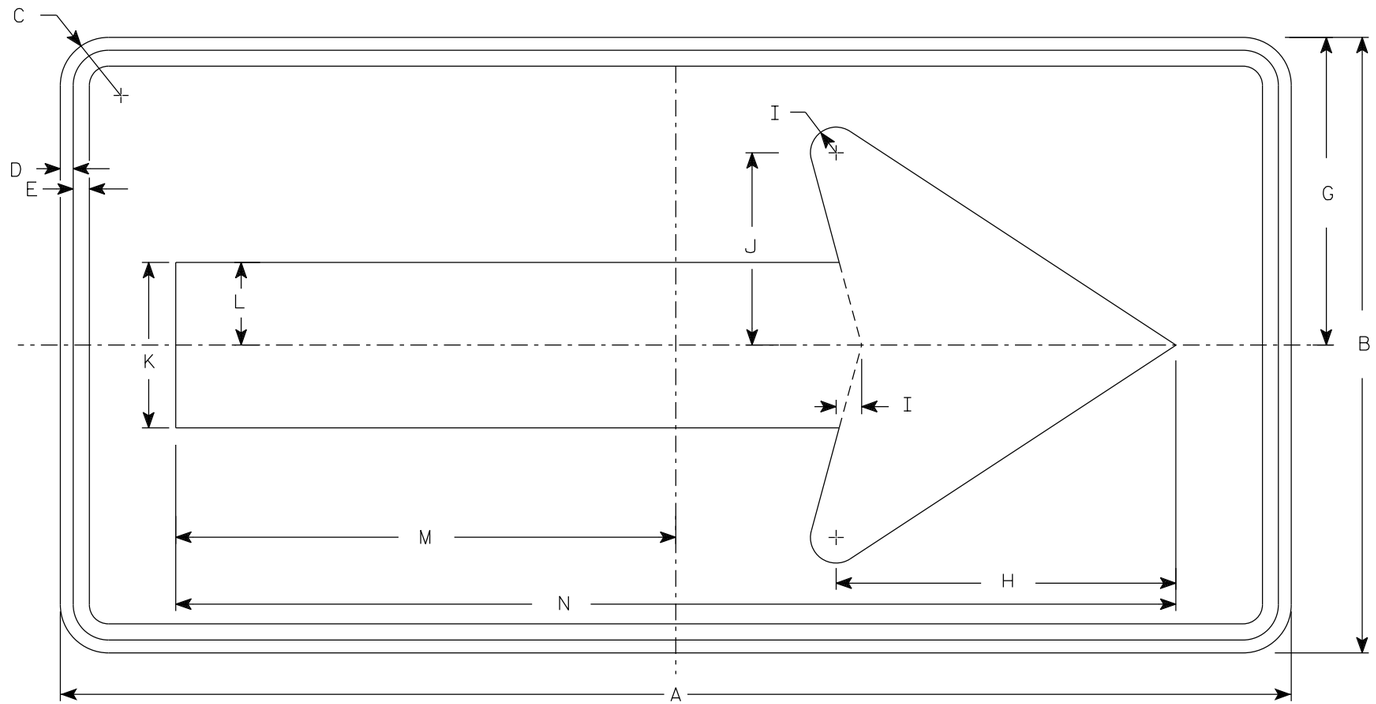
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014B.dgn PLOT DATE : 29-JAN 2024 3:41 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



WO1-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

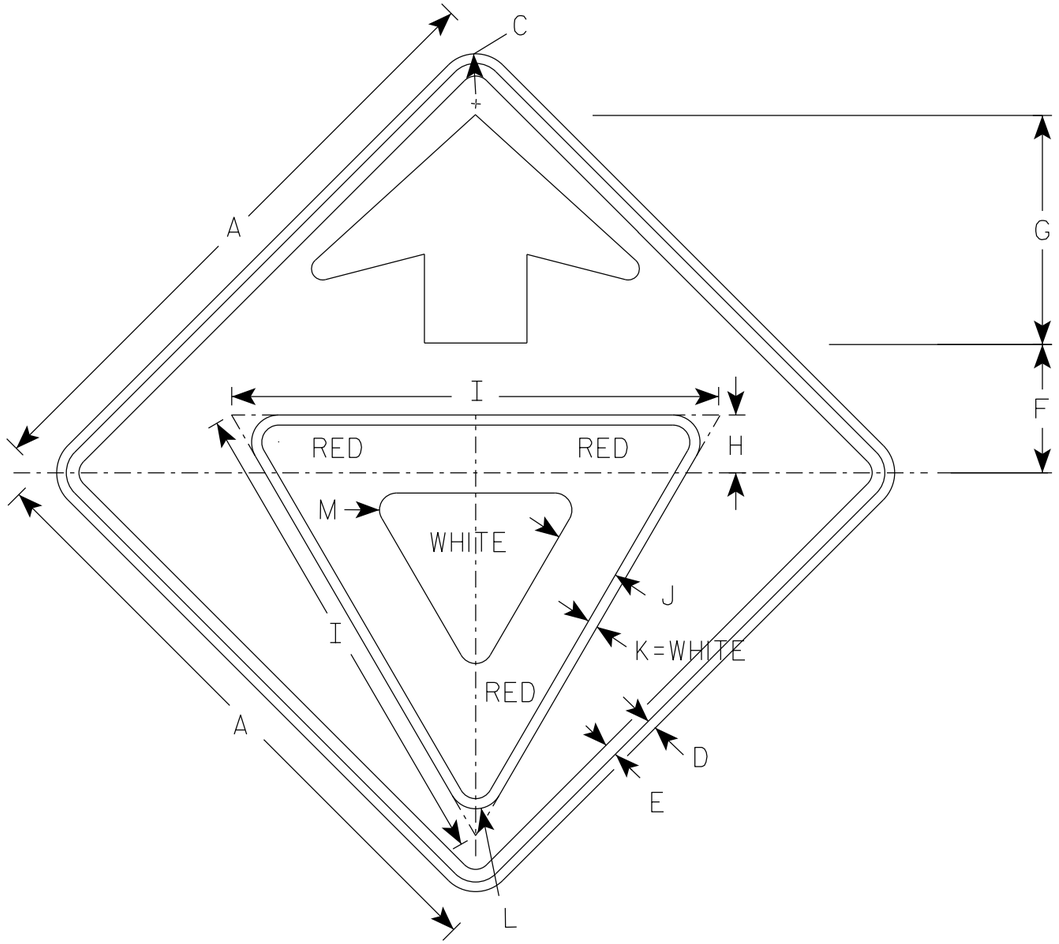
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

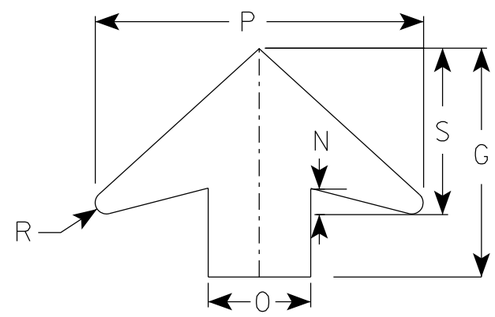
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W03-2

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

WISCONSIN DEPT OF TRANSPORTATION

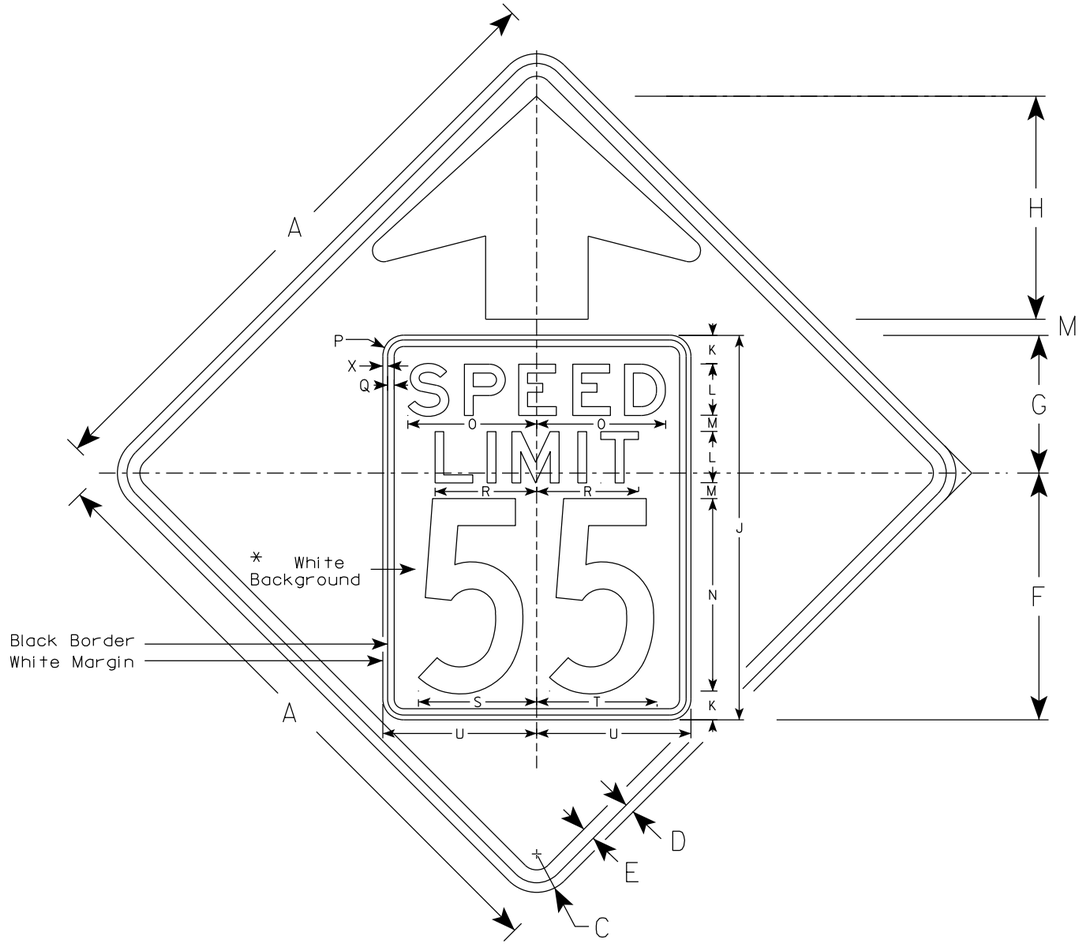
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W03-2.2

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W032.DGN
PLOT DATE : 24-JAN 2024 1:55
PLOT BY : dotc4c
WISDOT/CADDS SHEET 42

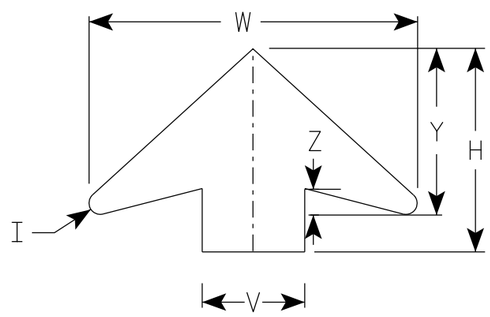


W03-5

NOTES

1. Sign is Type II - Type F Reflective
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

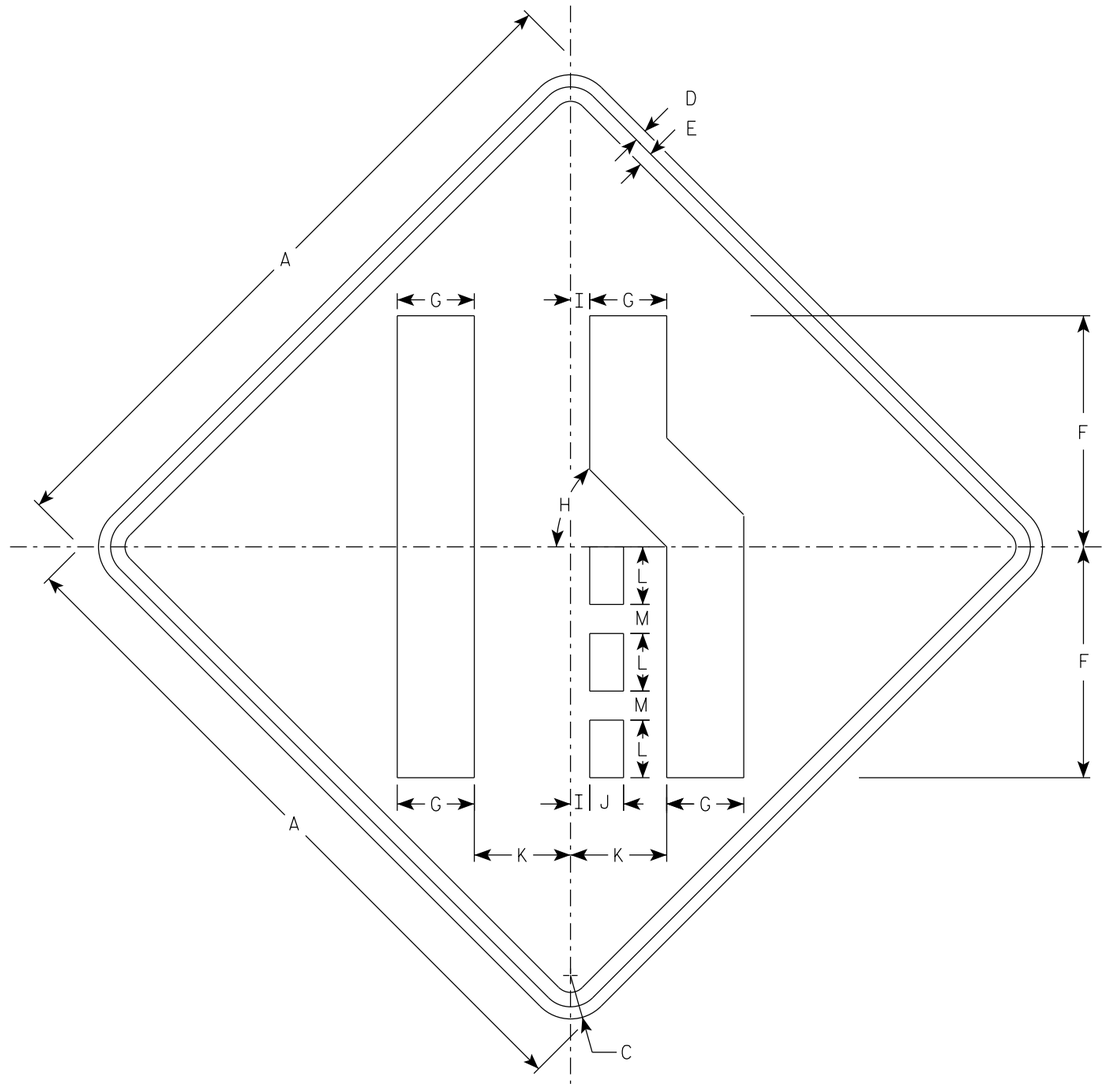
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W03-5.2

PROJECT NO:

SHEET NO: 496 E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

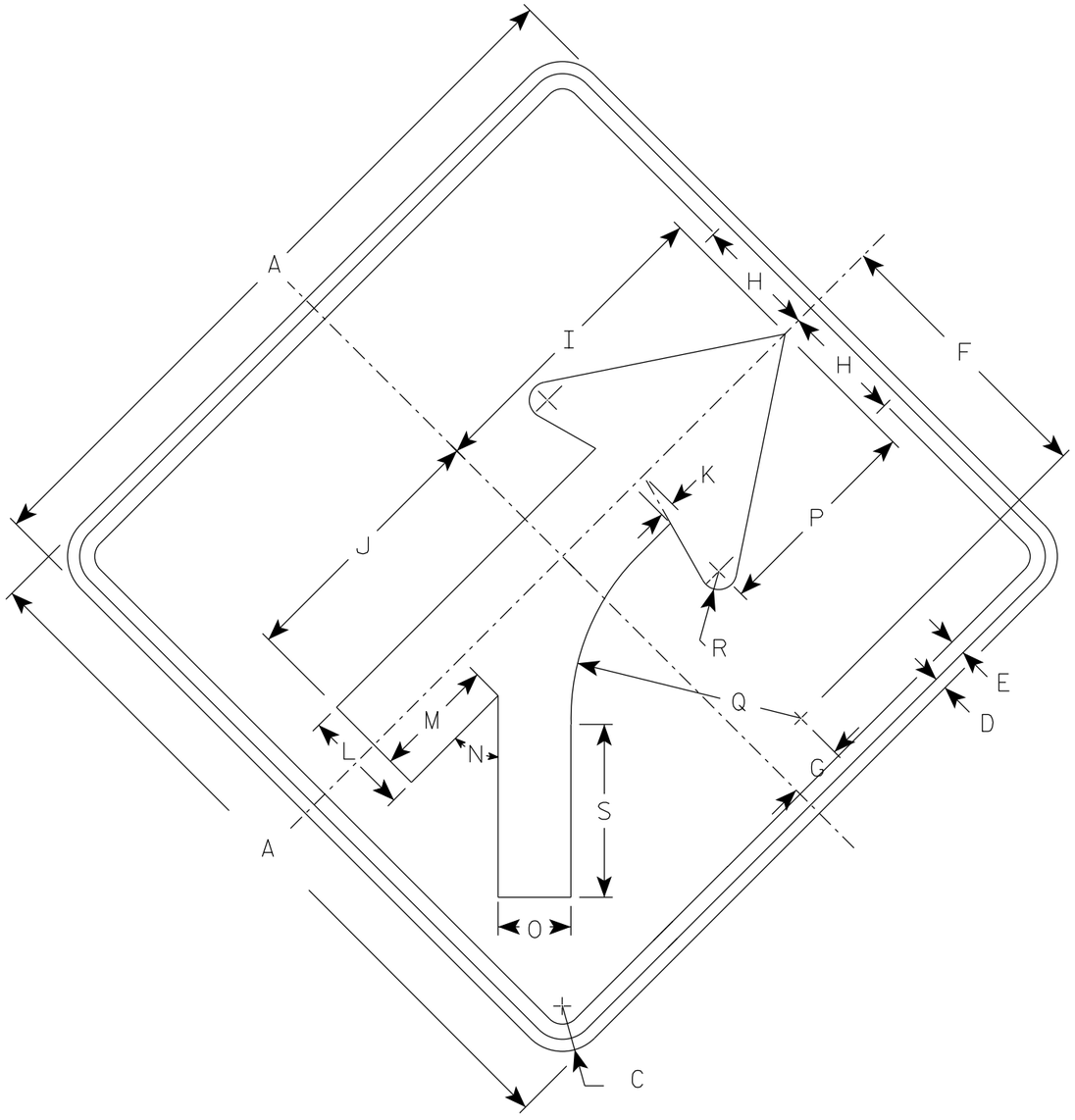
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

SHEET NO: 497 E



W04-5R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-5L is the same as W04-5R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	3/4	5 1/4	6 1/8	45°	3 5/8	10 5/8	11 3/8	7/8	8 1/2								9.0
2S	48		3	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
2M	48		3	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
3	48		3	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
4	48		3	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
5	48		3	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0

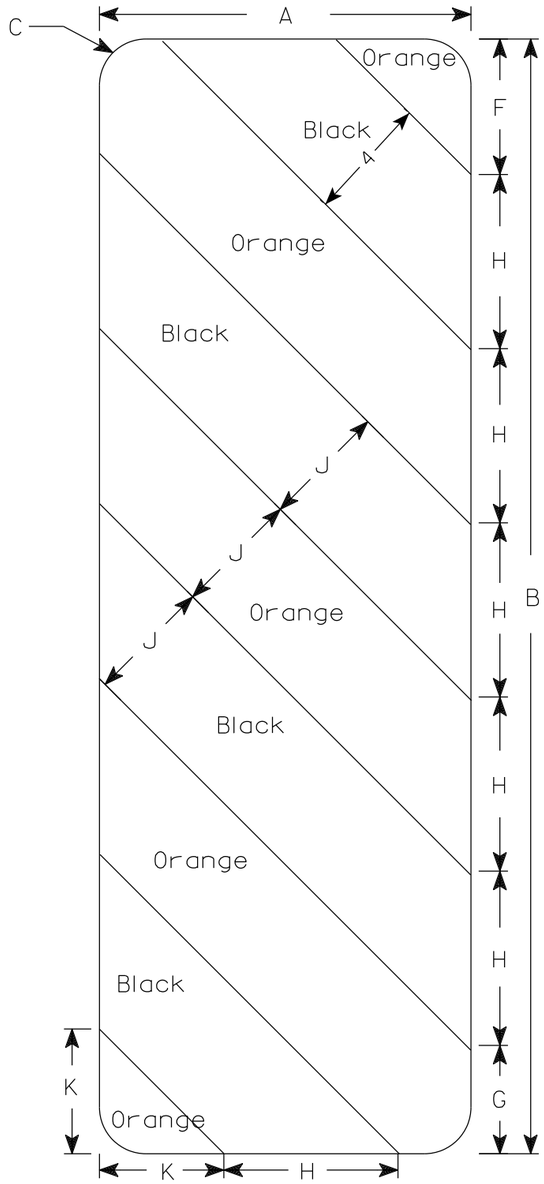
STANDARD SIGN
W04-5

WISCONSIN DEPT OF TRANSPORTATION

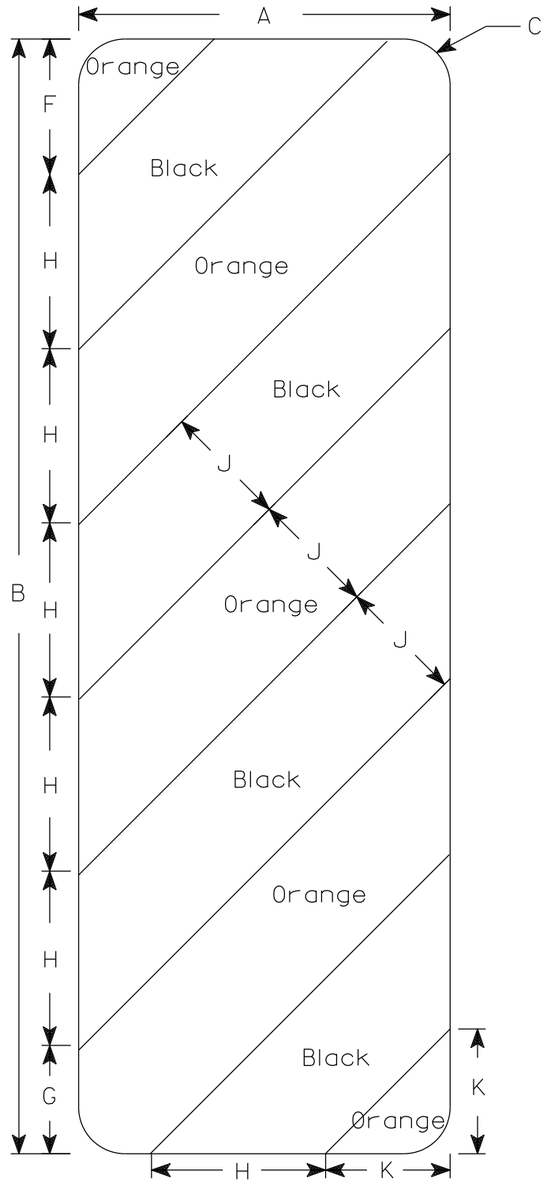
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2024 PLATE NO. W04-5.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 498 | E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
4. Alternate colors of stripes as shown.

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	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

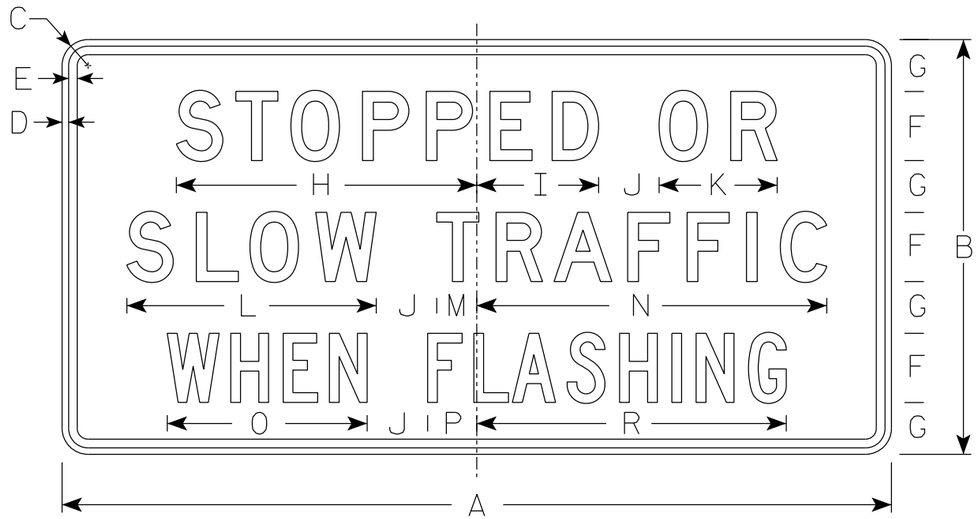
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 499 | E



W08-76

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Lines 1 and 2 are series D
   Line 3 is 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																											
2																											
3																											
4	96	48	3	3/4	1	8	6	34 3/4	14 1/8	7	13 5/8	28 7/8	4 5/8	40 1/2	23 1/8	5 3/4		35 7/8									32.0
5																											

STANDARD SIGN

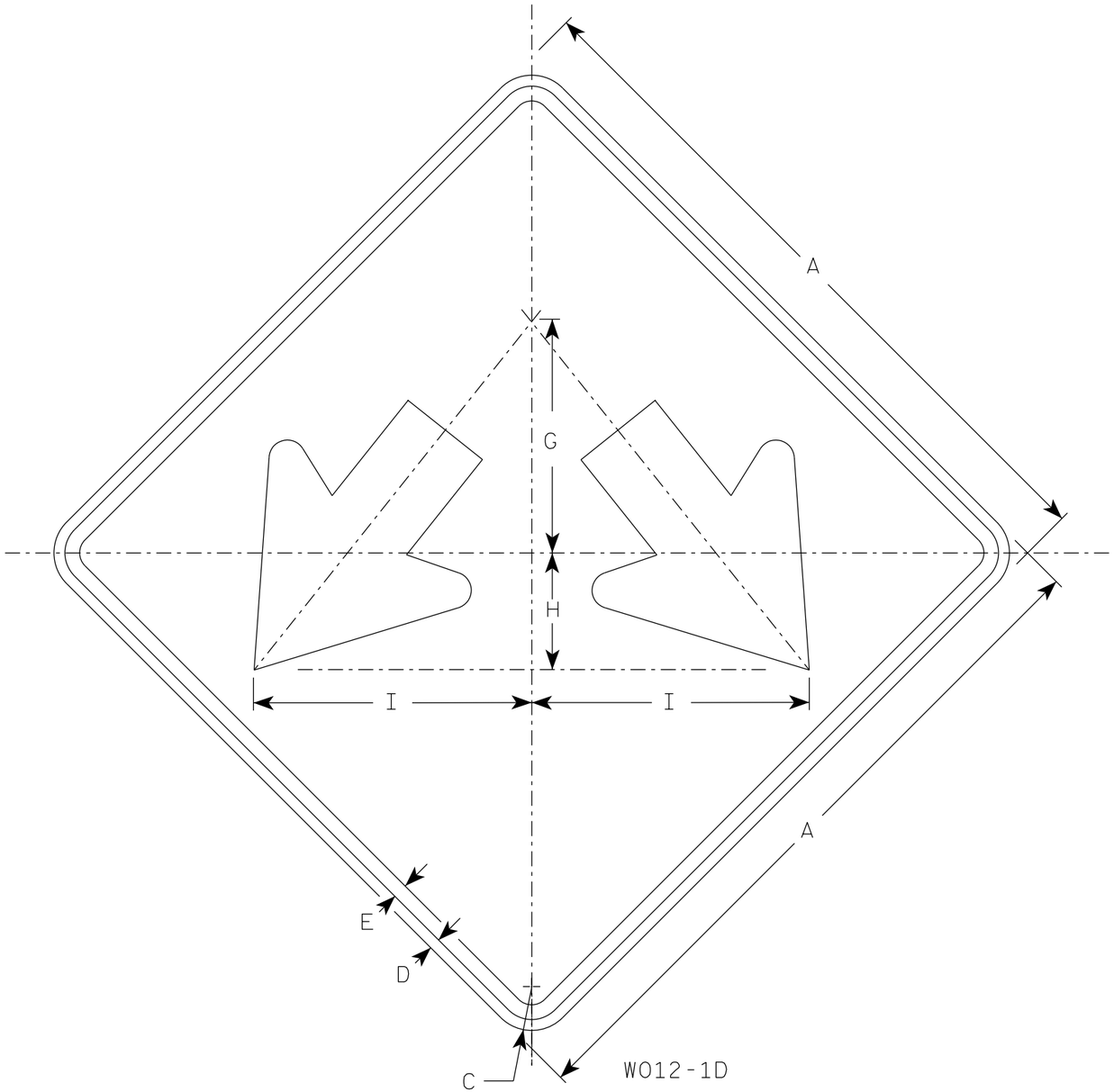
W08-76

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W08-76.3

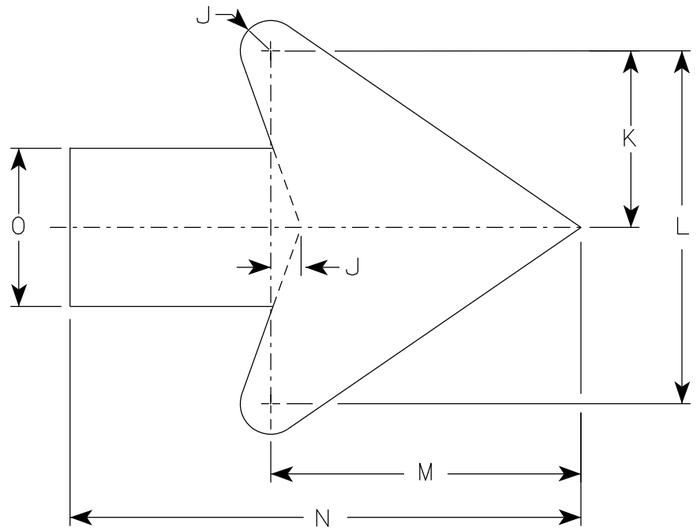
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 500 | E



W012-1D

NOTES

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



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 1/2	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/2	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/2	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 7/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		2 1/4	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		2 1/4	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W012-1D.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 501	E

STATE PROJECT NUMBER
1100-52-71

TOTAL ESTIMATED QUANTITIES

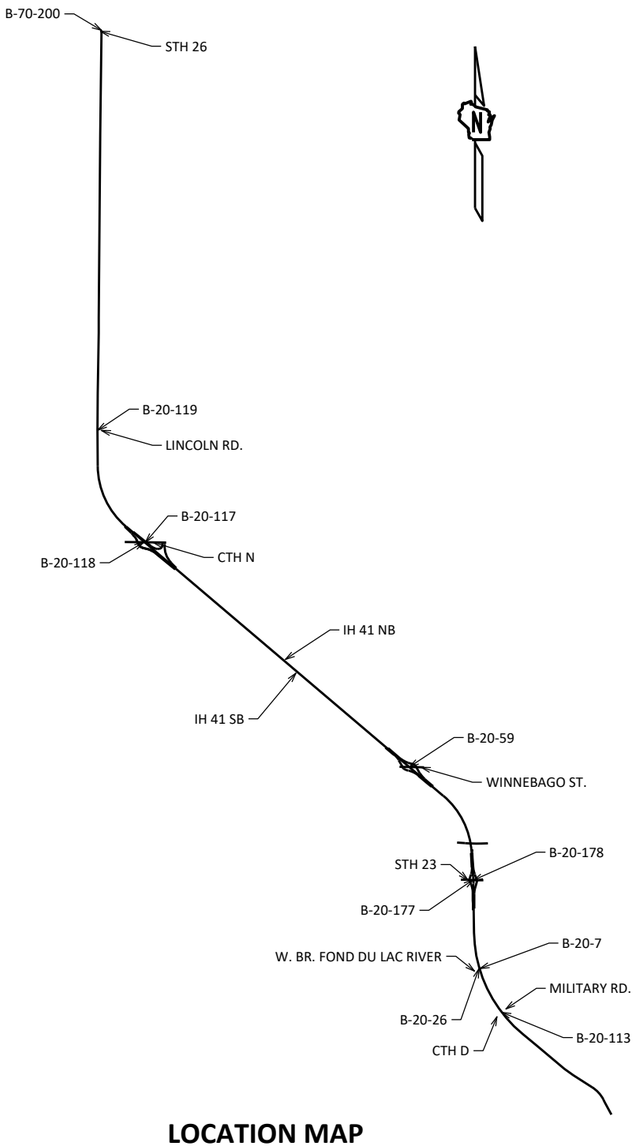
BID ITEM NO.	BID ITEMS	UNIT	B-20-7	B-20-26	B-20-59	B-20-113	B-20-117	B-20-118	B-20-119	B-20-177	B-20-178	B-70-200	TOTALS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	---	173	285	156	221	219	195	91	91	266	1,697
SPV.0090.200	BRIDGE DECK CRACK SEALING	LF	400	200	---	---	---	---	---	---	---	---	600
SPV.0090.210	JOINT SEALING	LF	---	---	---	168	216	138	---	116	132	262	1,032
SPV.0090.220	STRIP SEAL GLAND REPLACEMENT	LF	---	---	---	---	---	---	60	---	---	---	60
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	---	---	2,065	1,733	---	---	639	1,213	1,213	2,699	9,562

LIST OF DRAWINGS:

1 BRIDGE REPAIR SUMMARY
2 B-20-7/26/59/113/117 REPAIRS
3 B-20-118/119/177/178 & B-70-200 REPAIRS

SUMMARY OF CATEGORY NUMBERS

STRUCTURE ID	CATEGORY NUMBER
B-20-7	0040
B-20-26	0030
B-20-59	0090
B-20-113	0020
B-20-117	0140
B-20-118	0150
B-20-119	0160
B-20-177	0050
B-20-178	0060
B-70-200	0200



LOCATION MAP

SUMMARY OF LOCATIONS

STRUCTURE ID	COUNTY	MUNICIPALITY	LOCATION
B-20-7	FOND DU LAC	TOWN OF FOND DU LAC	IH 41 NB OVER W BRANCH FOND DU LAC RIVER
B-20-26	FOND DU LAC	TOWN OF FOND DU LAC	IH 41 SB OVER W BRANCH FOND DU LAC RIVER
B-20-59	FOND DU LAC	TOWN OF FRIENDSHIP	CTH OO (WINNEBAGO ST) OVER IH 41
B-20-113	FOND DU LAC	TOWN OF FOND DU LAC	CTH D (MILITARY ROAD) OVER IH 41
B-20-117	FOND DU LAC	TOWN OF ELDORADO	IH 41 NB OVER CTH N
B-20-118	FOND DU LAC	TOWN OF ELDORADO	IH 41 SB OVER CTH N
B-20-119	FOND DU LAC	TOWN OF ELDORADO	LINCOLN ROAD OVER IH 41
B-20-177	FOND DU LAC	TOWN OF FOND DU LAC	STH 23 EB OVER IH 41
B-20-178	FOND DU LAC	TOWN OF FOND DU LAC	STH 23 WB OVER IH 41
B-70-200	WINNEBAGO	TOWN OF NEKIMI	STH 26 OVER IH 41

STRUCTURE DESIGN CONTACTS:

BRIDGE OFFICE
AARON BONK (608) 261-0261
CONSULTANT
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN
HEATHER D. ANDERS, P.E.
33441-006
CEDARBURG, WI
09/01/2023
PROFESSIONAL ENGINEER

STRUCTURE B-20 OR 70-VARIOUS

IH-41 FOND DU LAC TO OSHKOSH BRIDGE REPAIRS

COUNTY	TOWN
FOND DU LAC/WINNEBAGO	VARIES

DESIGN SPEC.
N/A - REHABILITATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
EAJ	HDA	EAJ	HDA

BRIDGE REPAIR SUMMARY

SHEET 1 OF 3
502

I.D. DATE:

SCALE = 10800.0

8

8

STATE PROJECT NUMBER

1100-52-71

B-20-7 REPAIR SUMMARY

IH-41 NB OVER W BRANCH FOND DU LAC RIVER

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
SPV.0090.200	BRIDGE DECK CRACK SEALING	LF	400	APPLY TO AREAS OF EXISTING CRACKS; FINAL CRACK SEAL LOCATIONS AND QUANTITY TO BE DETERMINED BY THE FIELD ENGINEER

B-20-26 REPAIR SUMMARY

IH-41 SB OVER W BRANCH FOND DU LAC RIVER

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	173	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0090.200	BRIDGE DECK CRACK SEALING	LF	200	APPLY TO AREAS OF EXISTING CRACKS; FINAL CRACK SEAL LOCATIONS AND QUANTITY TO BE DETERMINED BY THE FIELD ENGINEER

B-20-59 REPAIR SUMMARY

CTH OO (WINNEBAGO ST) OVER IH-41

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	285	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	2,065	APPLY TO ENTIRE TOP SURFACE OF THE DECK

B-20-113 REPAIR SUMMARY

CTH D (MILITARY RD) OVER IH-41

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	156	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0090.210	JOINT SEALING	LF	168	SEAL THE APPROACH TO PAVING BLOCK AT EACH ABUTMENT; 84 LF PER ABUTMENT; MEASURED FROM FACE TO FACE PARAPETS
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	1,733	APPLY TO ENTIRE TOP SURFACE OF THE DECK

B-20-117 REPAIR SUMMARY

IH-41 NB OVER CTH N

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	221	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0090.210	JOINT SEALING	LF	216	SEAL THE APPROACH TO PAVING BLOCK AT EACH ABUTMENT; 112 LF SOUTH ABUTMENT; 104 LF NORTH ABUTMENT; MEASURED FROM GUTTER LINE TO GUTTER LINE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-VARIOUS

DRAWN BY EAJ | PLANS CK'D HDA

B-20-7/26/59/113/117 REPAIRS

SHEET 2
503

SCALE = 1.0

STATE PROJECT NUMBER

1100-52-71

B-20-118 REPAIR SUMMARY

IH-41 SB OVER CTH N

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	219	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0090.210	JOINT SEALING	LF	138	SEAL THE APPROACH TO PAVING BLOCK AT EACH ABUTMENT; 69 LF PER ABUTMENT; MEASURED FROM GUTTER LINE TO GUTTER LINE

B-20-119 REPAIR SUMMARY

LINCOLN RD. OVER IH 41

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	195	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0090.220	STRIP SEAL GLAND REPLACEMENT	LF	60	REPLACE THE EXISTING STRIP SEAL IN THE EXP. JT. DEVICE AT EACH ABUTMENT; 30 LF PER ABUTMENT; MEASURED FROM GUTTER LINE TO GUTTER LINE PLUS 1' EACH END
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	639	APPLY TO ENTIRE TOP SURFACE OF THE DECK

B-20-177 REPAIR SUMMARY

STH 23 EB OVER IH-41

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	91	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF PARAPET INCLUDING PARAPETS ON WINGS
SPV.0090.210	JOINT SEALING	LF	116	SEAL THE APPROACH TO PAVING BLOCK AT EACH ABUTMENT; 55 LF PER ABUTMENT; MEASURED FROM TOE OF PARAPET TO C/L MEDIAN
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	1,213	APPLY TO ENTIRE TOP SURFACE OF THE DECK

B-20-178 REPAIR SUMMARY

STH 23 WB OVER IH-41

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	91	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF PARAPET INCLUDING PARAPETS ON WINGS
SPV.0090.210	JOINT SEALING	LF	132	SEAL THE APPROACH TO PAVING BLOCK AT EACH ABUTMENT; 66 LF PER ABUTMENT; MEASURED FROM FACE OF PARAPET TO C/L MEDIAN
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	1,213	APPLY TO ENTIRE TOP SURFACE OF THE DECK

B-70-200 REPAIR SUMMARY

STH 26 OVER IH-41

BID ITEM NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	COMMENTS
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	266	APPLY TO ROADSIDE AND TOP FACES FOR FULL LENGTH OF BOTH PARAPETS INCLUDING PARAPETS ON WINGS
SPV.0090.210	JOINT SEALING	LF	262	SEAL THE EXISTING STRIP SEAL EXPANSION JOINT AT EACH ABUTMENT; 131 LF PER ABUTMENT; MEASURED FROM GUTTER LINE TO GUTTER LINE
SPV.0180.200	METHACRYLATE FLOOD SEAL	SY	2,699	APPLY TO ENTIRE TOP SURFACE OF THE DECK

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-VARIOUS & B-70-200

DRAWN BY EAJ | PLANS CK'D HDA

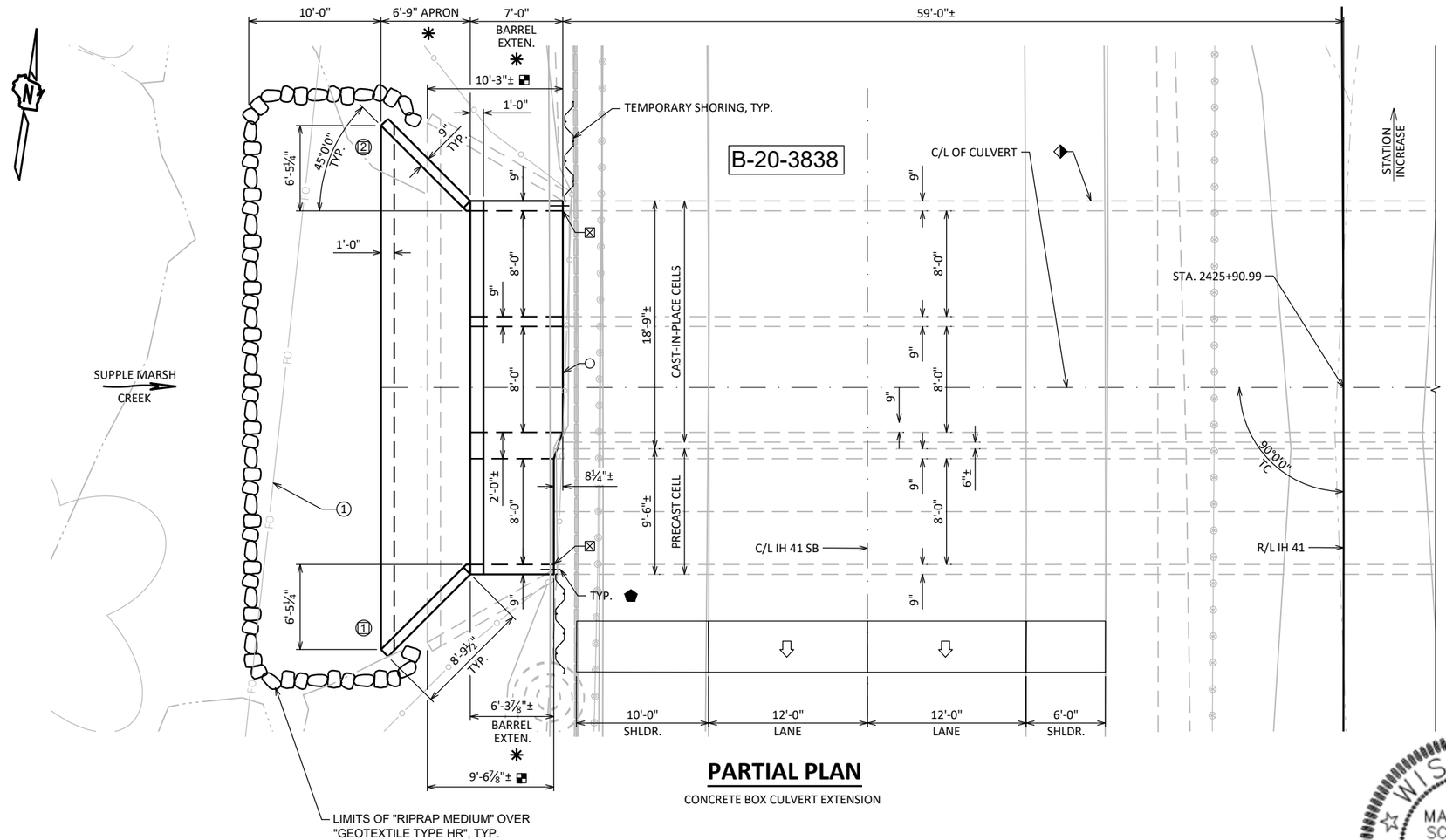
B-20-118/119/177/178 & B-70-200 REPAIRS

SHEET 3
504

SCALE = 1.0

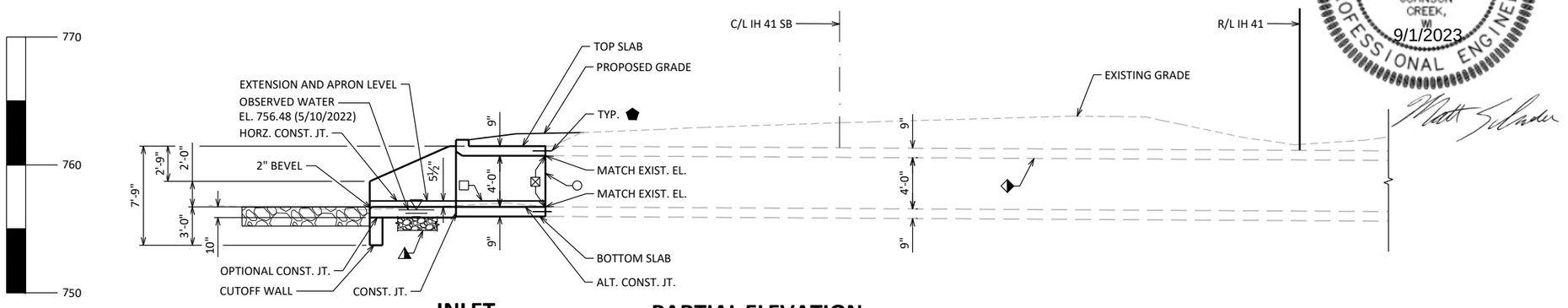
STATE PROJECT NUMBER

1100-52-71



PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION



INLET

PARTIAL ELEVATION

ALONG C/L CULVERT

LEGEND

- ⊠ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◆ EXISTING BARREL TO REMAIN IN PLACE
- ✱ BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- ▪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDER CUT 1'-0". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE UP TO CUTOFF WALL.
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓪ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC
- TC ANGLE MEASURED FROM C/L CULVERT TANGENT TO CURVE OF R/L IH 41 BASELINE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.41
OPERATING RATING FACTOR: RF = 1.83
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTH LOAD:

DESIGNED FOR A FILL HEIGHT OF 2 FEET.

LIVE LOAD-EXISTING BOX:

TAKEN FROM HSI, 2/14/2023
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)=190 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

TRAFFIC DATA

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

N/A, PROPOSED STRUCTURE EXTENSION

UTILITY NOTES

① EXISTING BURIED FIBER OPTIC LINE TO REMAIN

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SECTIONS, QUANTITIES, & NOTES
3. BOX DETAILS
4. APRON AND WING DETAILS

WISCONSIN PROFESSIONAL ENGINEER
MATTHEW S. SCHROEDER
E-42428
JOHNSON CREEK, WI
9/1/2023

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/7/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-20-3838

IH-41 OVER SUPPLE MARSH CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
FOND DU LAC	FOND DU LAC

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
BPV	HDA	BPV/FEG	HDA/MSS

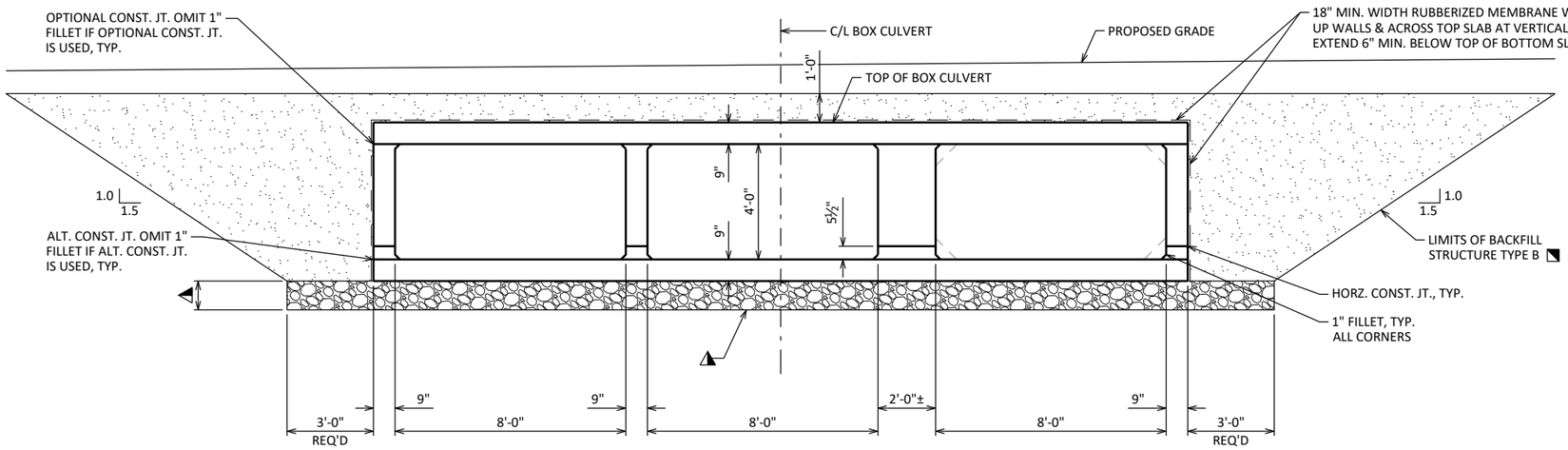
GENERAL PLAN & ELEVATION

SHEET 1 OF 4
505

I.D. DATE:

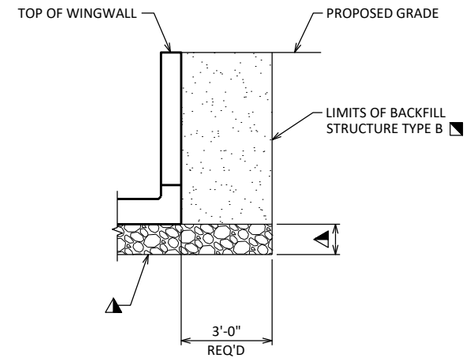
SCALE = 10.00

8 8



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220.010	REMOVING STRUCTURE B-20-3838	EACH	1
206.2001.010	EXCAVATION FOR STRUCTURES CULVERTS B-20-3838	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	84
311.0110	BREAKER RUN	TON	34
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	72
504.0100	CONCRETE MASONRY CULVERTS	CY	28
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,260
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	370
511.1200.010	TEMPORARY SHORING B-20-3838	SF	130
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11
606.0200	RIPRAP MEDIUM	CY	25
645.0105	GEOTEXTILE TYPE C	SY	59
645.0120	GEOTEXTILE TYPE HR	SY	62
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	¾"

ALL ITEMS ARE CATEGORY 0070

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-20-3838" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

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

◭ UNDER CUT 1'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-3838

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

SECTIONS, QUANTITIES, & NOTES

SHEET 2
506

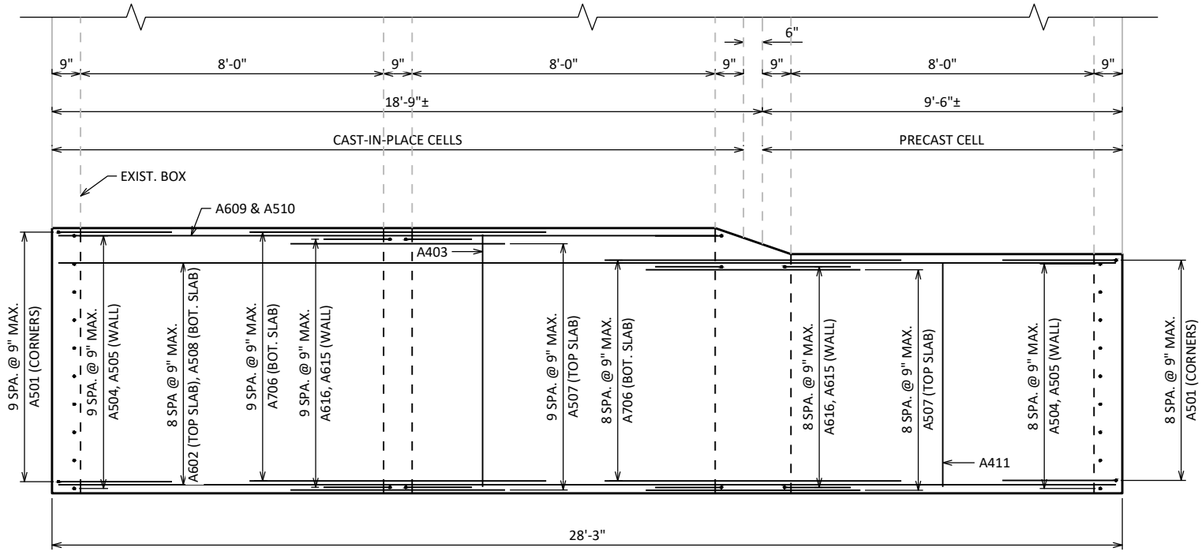
SCALE = 5.00

8

8

STATE PROJECT NUMBER

1100-52-71



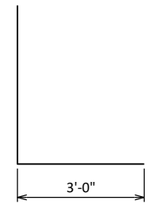
PLAN

APRON AND HEADER NOT SHOWN

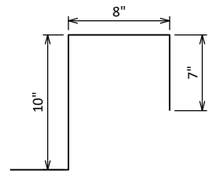
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		38	6'-4"	X		EXTERIOR CORNERS
A602		9	27'-11"			TOP SLAB TRANSVERSE
A403		58	6'-8"			SLABS AND WALLS LONGITUDINAL
A504		19	2'-6"			EXTERIOR SLAB TO WALL DOWELS
A505		19	3'-11"			EXTERIOR WALLS VERTICAL
A706		19	7'-10"			BOTTOM SLAB
A507		19	5'-8"			TOP SLAB
A508		9	27'-11"			BOTTOM SLAB TRANSVERSE
A609		1	17'-4"			TOP SLAB TRANSVERSE
A510		1	17'-4"			BOTTOM SLAB TRANSVERSE
A411		30	6'-0"			SLABS AND WALLS LONGITUDINAL
A312		39	2'-4"	X		HEADER STIRRUP
A413		2	27'-11"			HEADER TRANSVERSE
⬟ A514		72	2'-6"			JOINT DOWEL
A615		39	6'-9"	X		INTERIOR WALLS VERTICAL
A616		39	2'-7"			INTERIOR SLAB TO WALL DOWELS

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.

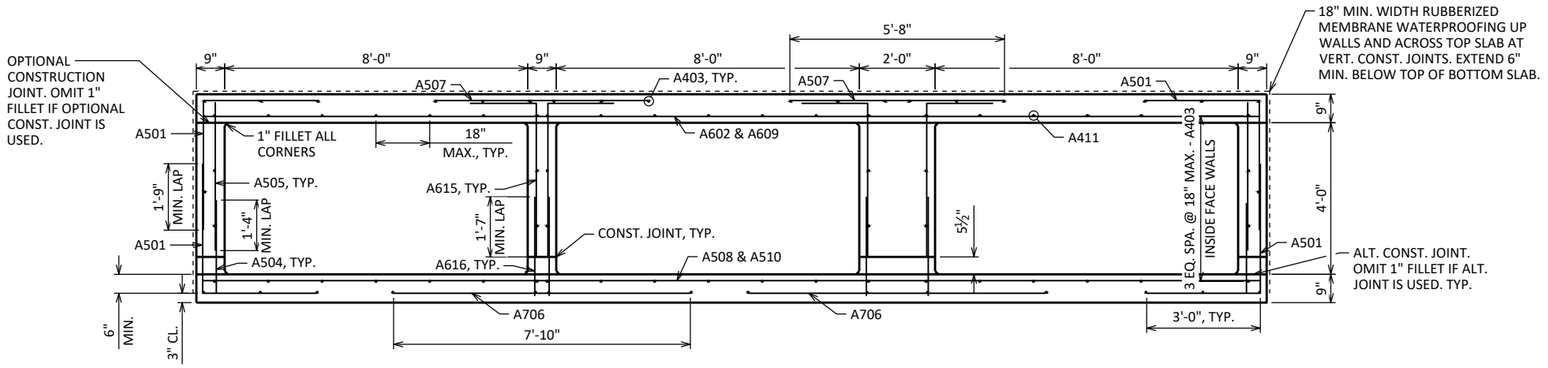


A501



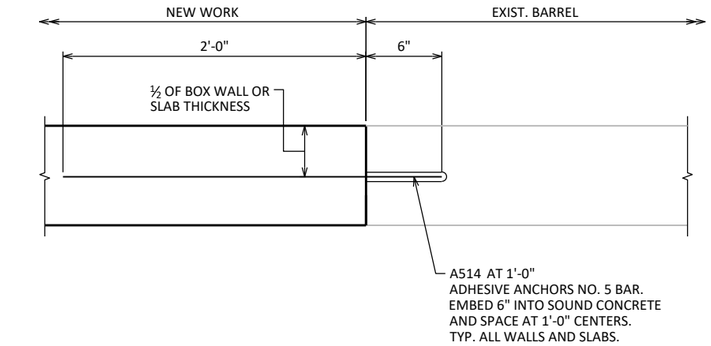
A312

A615

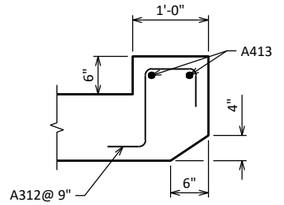


SECTION THRU BOX

LOOKING EAST



CONSTRUCTION JOINT



SECTION THRU HEADER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-3838

DRAWN BY FEG | PLANS CK'D HDA/MSS

BOX DETAILS

SHEET 3

507

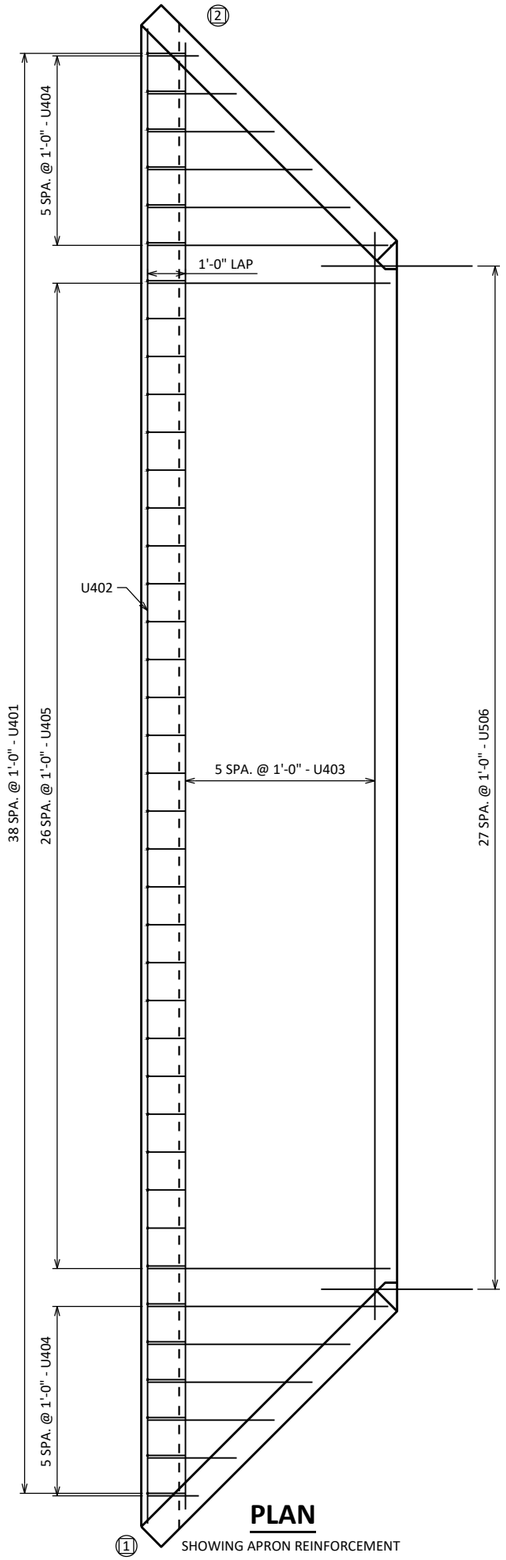
SCALE =

8

8

STATE PROJECT NUMBER

1100-52-71

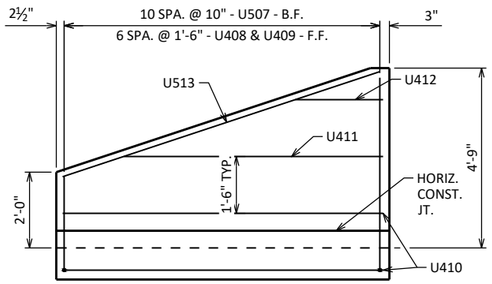


PLAN

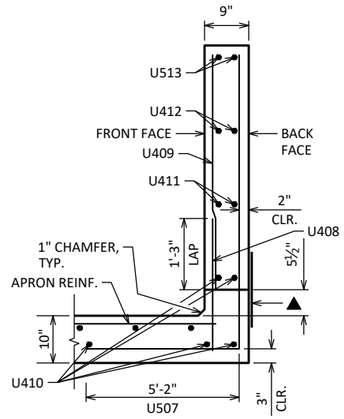
SHOWING APRON REINFORCEMENT

(X) INDICATES WING NUMBER

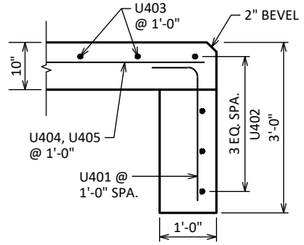
▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.



WING ELEVATION



SECTION THRU WINGS



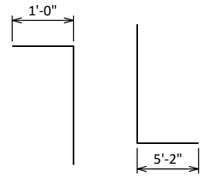
INLET

CUT-OFF WALL

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES △	LOCATION
U401		39	3'-7"	X		CUTOFF WALL VERTICAL
U402		4	39'-6"			CUTOFF WALL HORIZONTAL
U403		6	33'-9"		X	APRON TRANSVERSE
U404		12	3'-11"		X	APRON LONGITUDINAL
U405		27	6'-5"			APRON LONGITUDINAL
U506		28	4'-0"			APRON TO BARREL DOWEL
U507	X	22	8'-10"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	14	2'-4"			APRON TO WALL FRONT FACE
U409	X	14	2'-9"		X	WALL FRONT FACE VERTICAL
U410	X	10	8'-6"			WALL HORIZONTAL
U411	X	4	6'-9"			WALL HORIZONTAL
U412	X	4	2'-3"			WALL HORIZONTAL
U513	X	4	8'-11"			WALL HORIZONTAL TOP

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

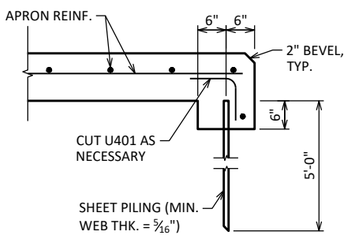


U401 **U507**

BAR SERIES TABLE

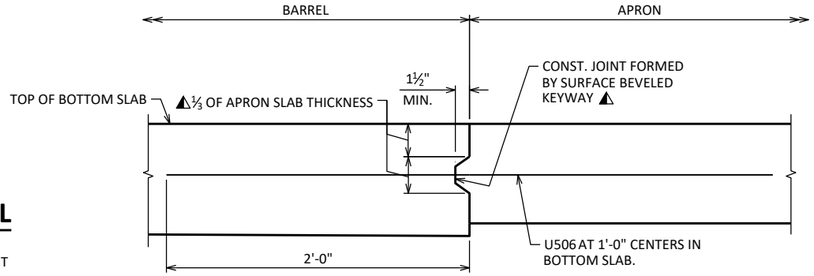
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.			LENGTH		
U403	1	SERIES OF	6	28'-9"	TO	38'-9"
U404	2	SERIES OF	6	1'-5"	TO	6'-5"
U507	2	SERIES OF	11	7'-6"	TO	10'-2"
U409	2	SERIES OF	7	1'-5"	TO	4'-1"



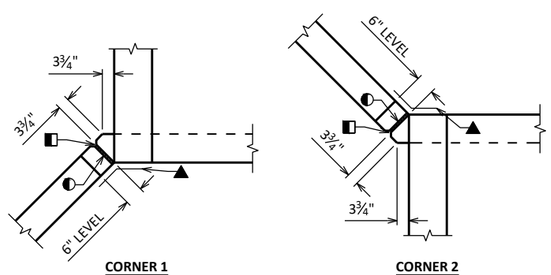
ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



APRON CONNECTION DETAIL

IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.



CORNER DETAILS

◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-3838

DRAWN BY FEG | PLANS CK'D HDA/MSS

APRON AND WING DETAILS

SHEET 4
508

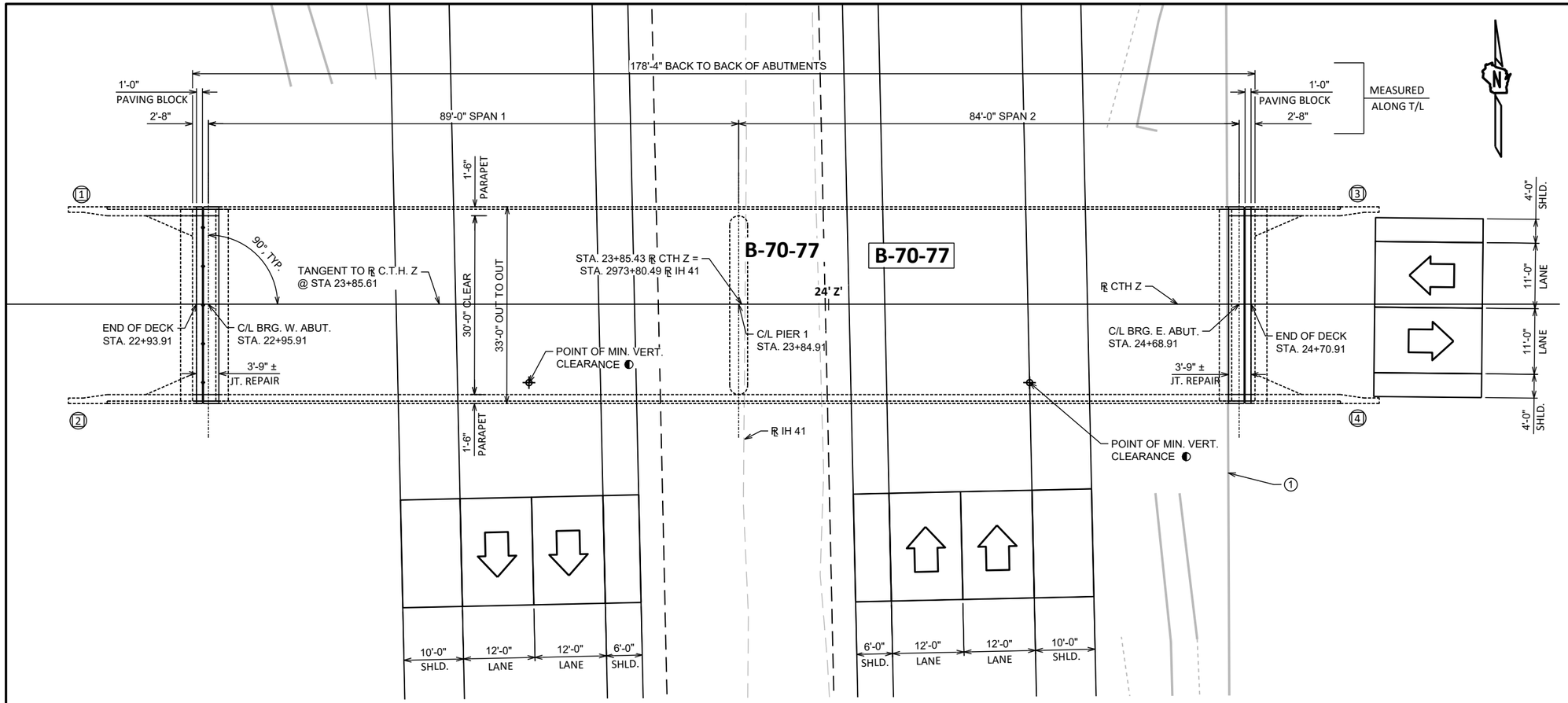
SCALE = 4.0

8

8

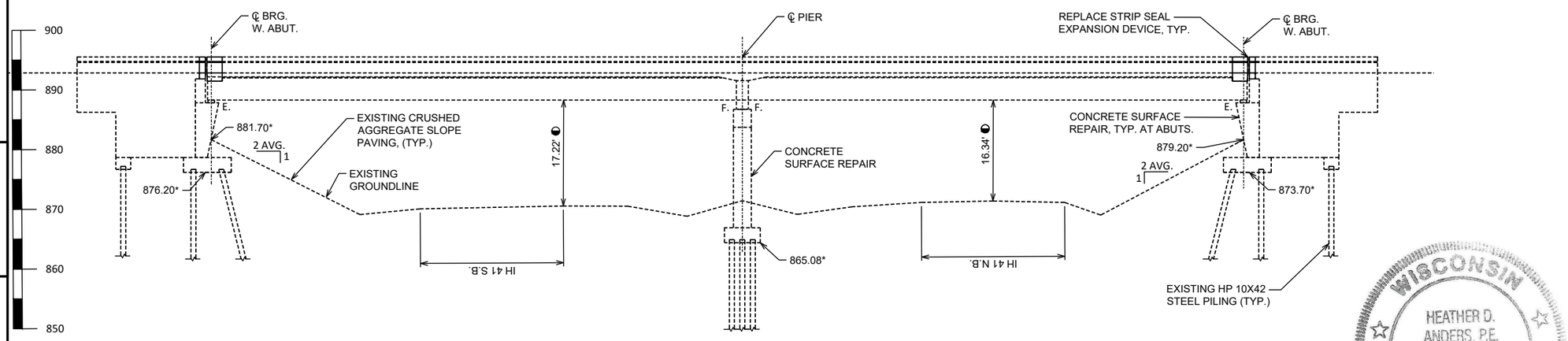
STATE PROJECT NUMBER

1100-52-71



GENERAL PLAN

REHABILITATION - 2-SPAN, 45" PRESTRESSED CONC. GIRDERS



ELEVATION

LOOKING NORTH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION & QUANTITIES
3. JOINT REPLACEMENT (1 OF 3)
4. JOINT REPLACEMENT (2 OF 3)
5. JOINT REPLACEMENT (3 OF 3)
6. PARAPET REPLACEMENT DETAILS

DESIGN DATA

LIVE LOAD:

TAKEN FROM HSI, 12/13/2022
INVENTORY RATING: HS24
OPERATING RATING: HS48
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

MATERIAL PROPERTIES
CONCRETE MASONRY:
SUPERSTRUCTURE.....f'c = 4,000 psi
ALL OTHER.....f'c = 3,500 psi
BAR STEEL REINFORCEMENT.....fy = 60,000 psi

TRAFFIC DATA

CTH Z

A.D.T = 210 (2021)
R.D.S = 50 MPH

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
R.D.S = 70 MPH

UTILITY NOTES

① EXISTING OVERHEAD LINES TO REMAIN

LEGEND

- DIRECTION OF TRAFFIC
- (X) INDICATES WING NUMBER
- LOCATION AND MINIMUM VERTICAL CLEARANCE PER HSI SYSTEM. DIMENSIONS MEASURED 6/20/2017
- * ELEVATION TAKEN FROM EXISTING 1993 PLANS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/14/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-70-77

CTH Z OVER IH 41

COUNTY	TOWN/~~CITY/VILLAGE~~
WINNEBAGO	NEKIMI

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
RJK	HDA	RJK	HDA

GENERAL PLAN & ELEVATION

SHEET 1 OF 6
509

SCALE =

I.D.

DATE:

HEATHER D. ANDERS, P.E. 33441-006 CEDARBURG, WI 09/01/2023

I:\77451\Civil3D\Design\11005200_B-70-77.dwg, 9/1/2023 10:57:27 AM, rkorinek, _DWG To PDF.pc3

STATE PROJECT NUMBER
1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

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. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UNDER THE BID ITEM "ADHESIVE ANCHORS NO. 5 BAR", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE ENTIRE TOP OF THE NEW CONCRETE AT THE NEW DECK ASSOCIATED WITH THE JOINT REPLACEMENTS AND AT DECK REPAIR LOCATIONS.

APPLY "PIGMENTED SURFACE SEALER" TO THE TOP AND INSIDE FACES OF NEW SECTIONS OF PARAPET ASSOCIATED WITH THE JOINT REPLACEMENT.

APPLY "PIGMENTED SURFACE RESEAL" TO THE TOP AND INSIDE FACES OF EXISTING PARAPETS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

NEW CONCRETE AT JOINT REPAIR IS PAID FOR AS "CONCRETE MASONRY DECK REPAIR". THIS INCLUDES THE CONCRETE TO REPLACE SECTIONS OF PARAPET WITHIN THE JOINT REPAIR LIMITS.

BEVEL EDGES OF EXPOSED CONCRETE ¾" MIN. OR MATCH EXISTING BEVELS UNLESS NOTED OTHERWISE.

"PREPARATION DECKS TYPE 1 AND TYPE 2" QUANTITIES ARE BASED ON THE BRIDGE INSPECTION REPORT AND ARE APPROXIMATE. EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. DECK PREPARATION REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

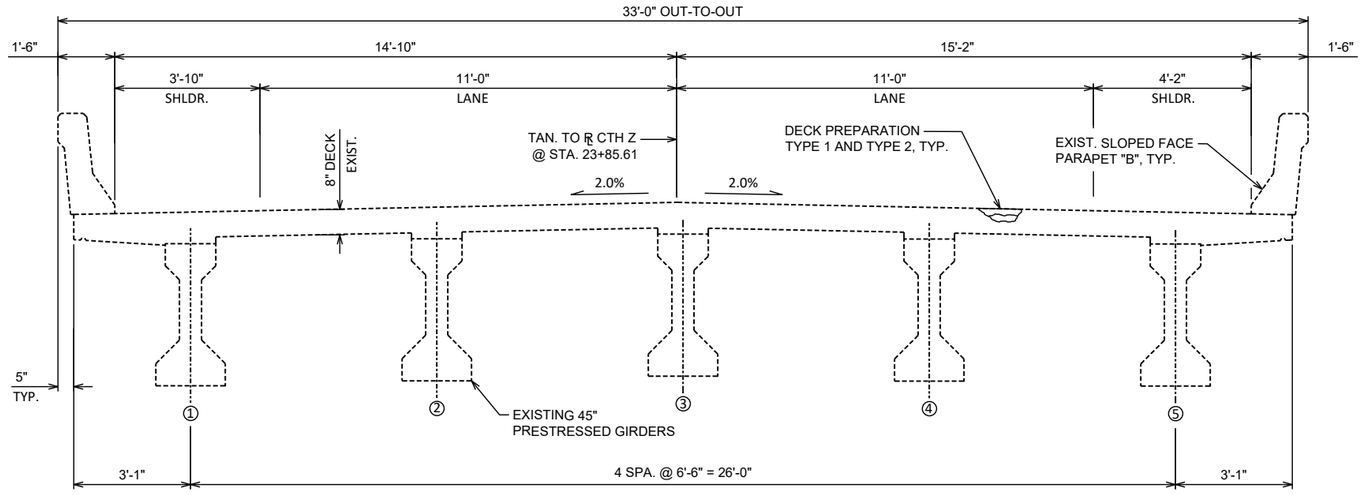
"CONCRETE SURFACE REPAIR" AREAS SHOWN IN THE QUANTITIES TABLE ARE BASED ON THE BRIDGE INSPECTION REPORT AND ARE APPROXIMATE. EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

"BRIDGE DECK CRACK SEALING" QUANTITIES ARE BASED ON THE BRIDGE INSPECTION REPORT AND ARE APPROXIMATE. EXACT AREAS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

REMOVAL OF PARAPETS AT JOINT REPAIR AREAS IS INCLUDED IN THE BID ITEM "JOINT REPAIR".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".



TYPICAL SECTION

(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
502.3101	EXPANSION DEVICE	LF	65
502.3200	PROTECTIVE SURFACE TREATMENT	SY	24
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	171
502.3210	PIGMENTED SURFACE SEALER	SY	6
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	66
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,920
509.0301	PREPARATION DECKS TYPE 1	SY	2
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	40
509.1000	JOINT REPAIR	SY	28
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	11
SPV.0090.200	BRIDGE DECK CRACK SEALING	LF	1,000

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-77

DRAWN BY	RJK	PLANS CK'D	HDA

TYPICAL SECTION & QUANTITIES

SHEET 2
510

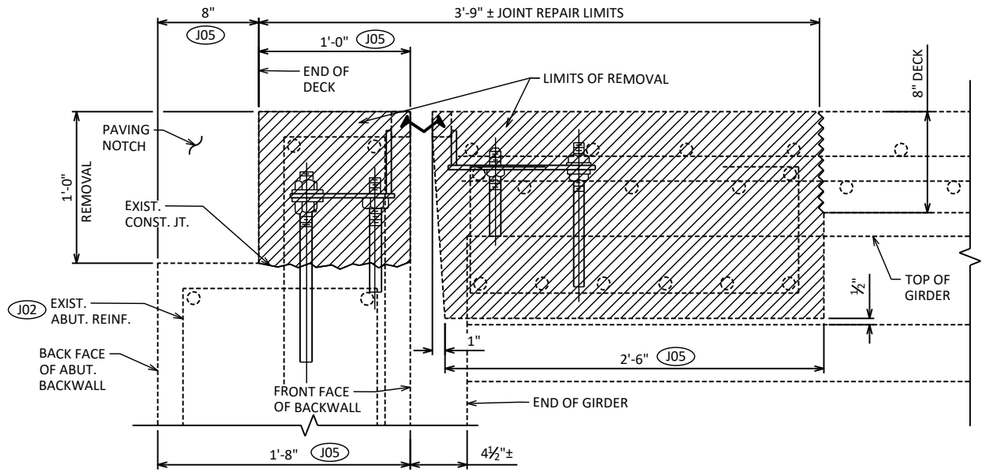
SCALE =

8

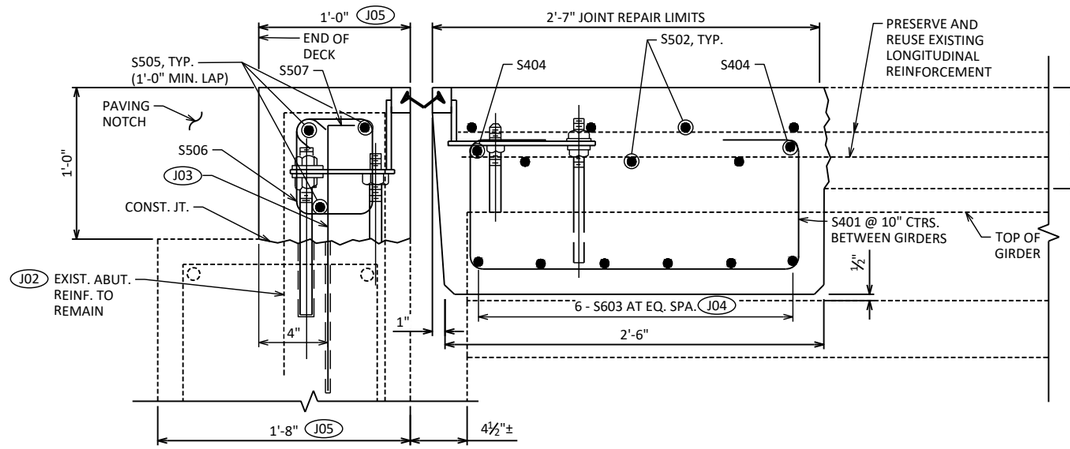
8

STATE PROJECT NUMBER

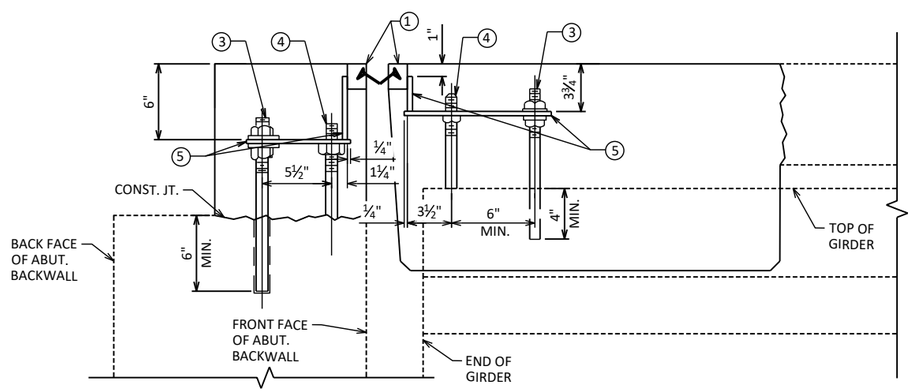
1100-52-71



EXISTING SECTION AT ABUTMENTS



PROPOSED SECTION AT ABUTMENTS (REINF. DETAILS)



PROPOSED SECTION AT ABUTMENTS (EXPANSION DEVICE COMPONENTS)

EXPANSION JOINT NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

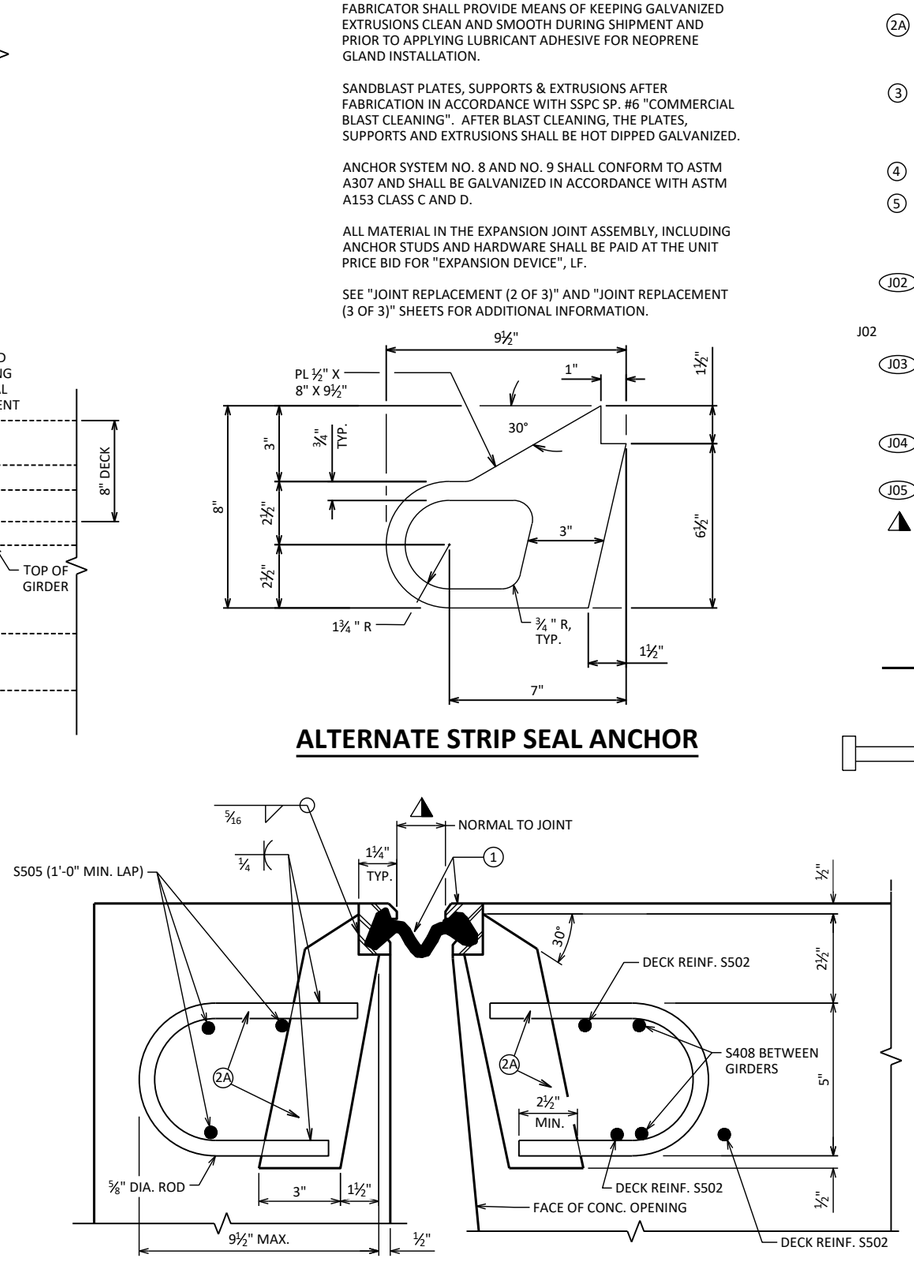
SANDBLAST PLATES, SUPPORTS & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE", LF.

SEE "JOINT REPLACEMENT (2 OF 3)" AND "JOINT REPLACEMENT (3 OF 3)" SHEETS FOR ADDITIONAL INFORMATION.

ALTERNATE STRIP SEAL ANCHOR



AT PAVING BLOCK AT DECK

SYM. ABOUT C/L JOINT UNLESS OTHERWISE SHOWN OR NOTED

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

(2) STUDS ⅝" DIA. X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLE IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" x ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 ½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

(J02) EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY (J03).

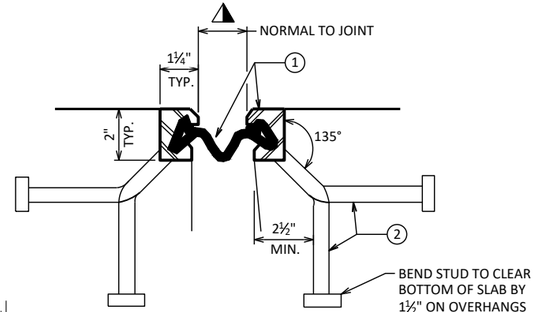
J02

(J03) ADHESIVE ANCHORS, NO. 5 BARS. EMBED A MINIMUM OF 1'-0" INTO CONCRETE. SPACE AT 1'-0" MAX. AND AVOID EXPANSION JOINT HARDWARE. TURN 10" LEG AS NECESSARY TO FIT. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

(J04) BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ OF GIRDERS.

(J05) DIMENSIONS SHOWN MATCH EXISTING PLANS.

◭ SET JOINT OPENING AT 1¾"



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-77

DRAWN BY RJK | PLANS CK'D HDA

JOINT REPLACEMENT (1 OF 3)

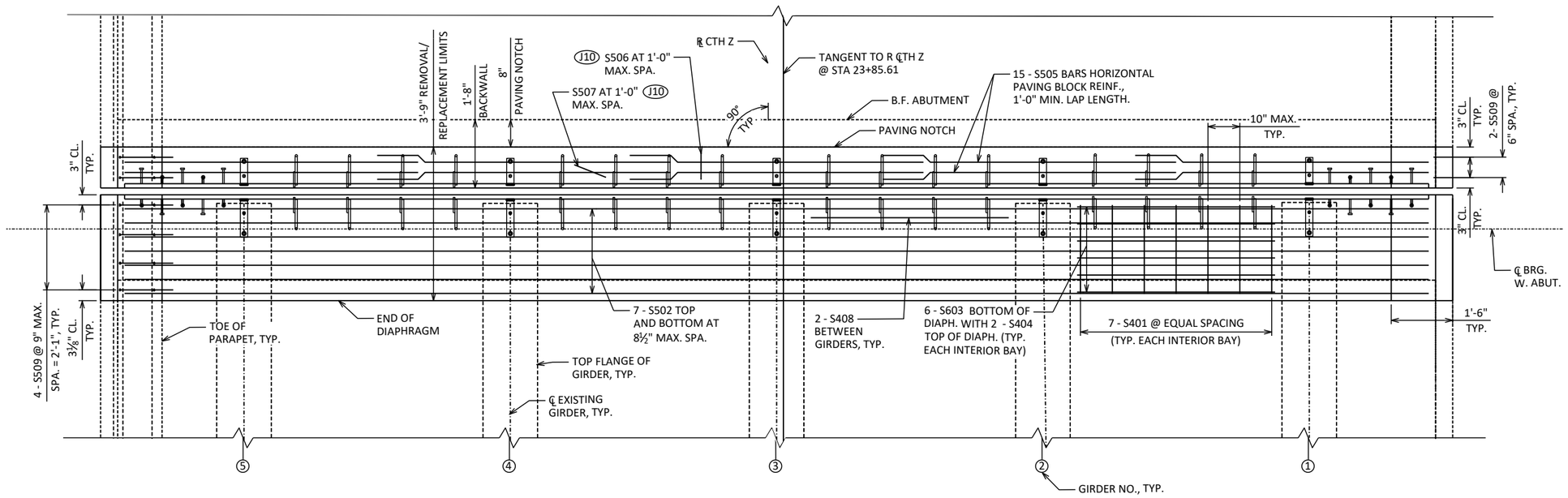
SHEET 3
511

SCALE =

8

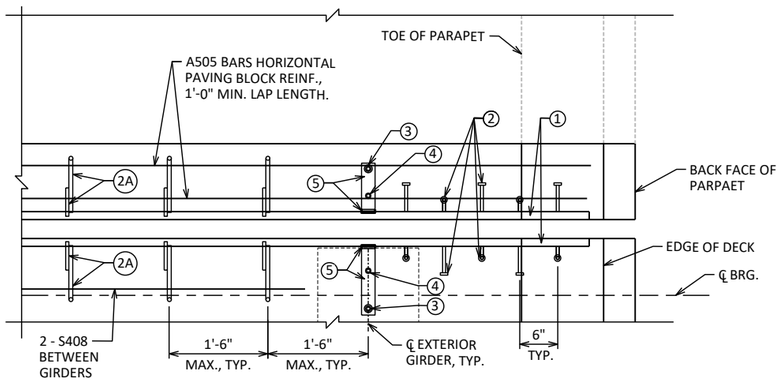
8

STATE PROJECT NUMBER
1100-52-71



PLAN AT WEST ABUTMENT EXPANSION JOINT REPLACEMENT

(EAST ABUTMENT SIMILAR)
(EXISTING REINFORCEMENT NOT SHOWN FOR CLARITY)



PART PLAN

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON C/L OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLE IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" x ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

△ SET JOINT OPENING AT 1¾".

J10 SPACE AT 1'-0" MAX. AND TO AVOID EXPANSION JOINT HARDWARE.

NOTES

BID ITEM "JOINT REPAIR" INCLUDES THE REMOVAL OF THE EXISTING JOINT, DECK, AND PAVING BLOCK AND SHALL BE MEASURED FROM THE OUTSIDE EDGE OF DECK TO OUTSIDE EDGE OF DECK.

SEE "JOINT REPLACEMENT (1 OF 3)" AND "JOINT REPLACEMENT (3 OF 3)" SHEETS FOR ADDITIONAL INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-77

DRAWN BY	RJK	PLANS CK'D	HDA

JOINT REPLACEMENT (2 OF 3)

SHEET 4
512

SCALE =

8

8

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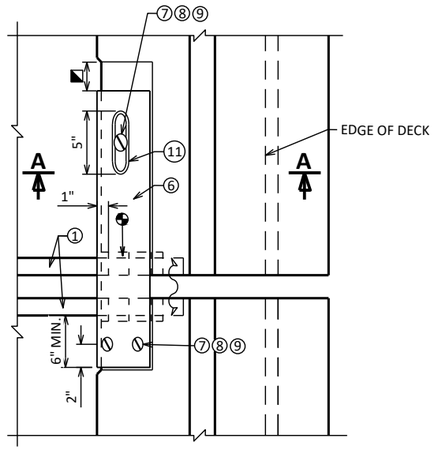
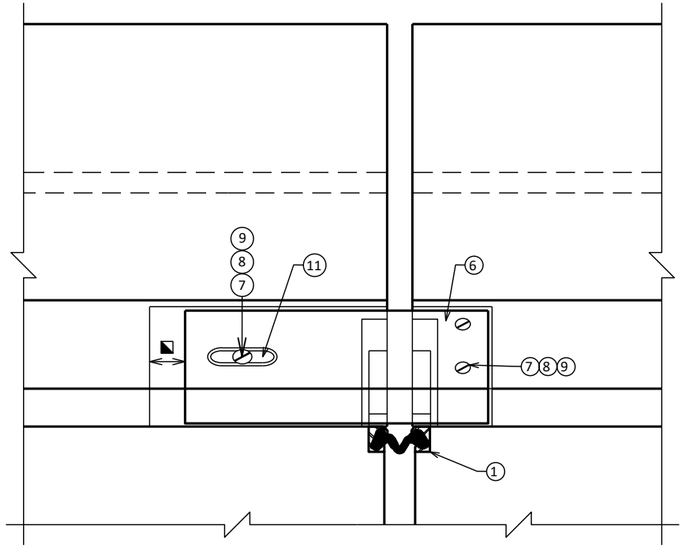
STATE PROJECT NUMBER

1100-52-71



PLAN AT PARAPET



VIEW OF PARAPET PLATES FROM ROADWAY

LEGEND

① NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

② STUDS ⅝" DIA. x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

⑥ GALVANIZED PLATE ⅜" X 10½" x 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

⑦ ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

⑧ ¾" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

⑨ ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

⑪ 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

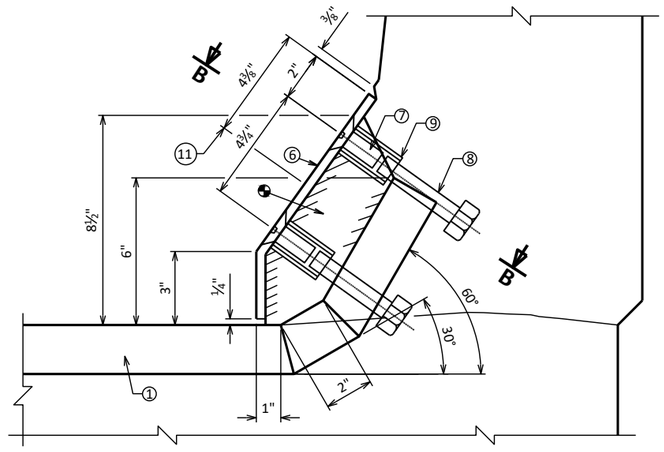
BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING

JOINT OPENING DIM. ALONG SKEW PLUS ½"

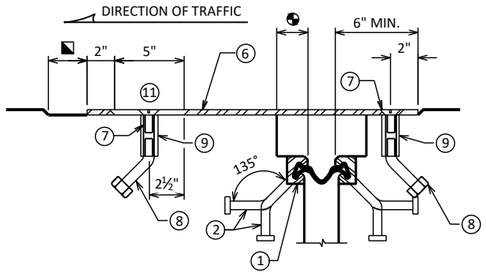
NOTES

SEE "JOINT REPLACEMENT (1 OF 3)" AND "JOINT REPLACEMENT (2 OF 3)" SHEETS FOR ADDITIONAL INFORMATION.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.



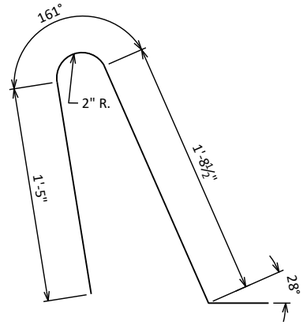
SECTION A-A



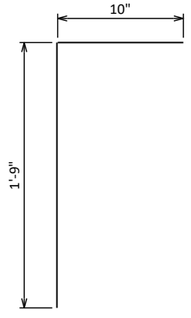
SECTION B-B

SUPERSTRUCTURE BILL OF BARS

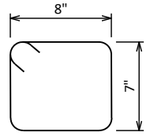
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
S401	X	56	5'-0"	X		DIAPHRAGM STIRRUPS
S502	X	14	31'-10"			DECK TRANSVERSE
S603	X	48	4'-8"			DIAPHRAGM BOTTOM
S404	X	16	4'-8"			DIAPHRAGM TOP
S505	X	30	7'-2"			PAVING BLOCK - HORIZONTAL
S506	X	66	3'-2"	X		PAVING BLOCK - STIRRUP
S507	X	66	2'-6"	X		PAVING BLOCK - ANCHOR
S408	X	16	4'-8"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS
S509	X	24	4'-3"	X		PARAPET VERTICAL



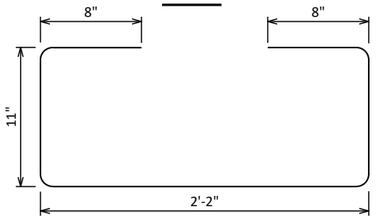
S509



S507



S506



S401

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-77

DRAWN BY RJK | PLANS CK'D HDA

JOINT REPLACEMENT (3 OF 3)

SHEET 5
513

SCALE =

8

8

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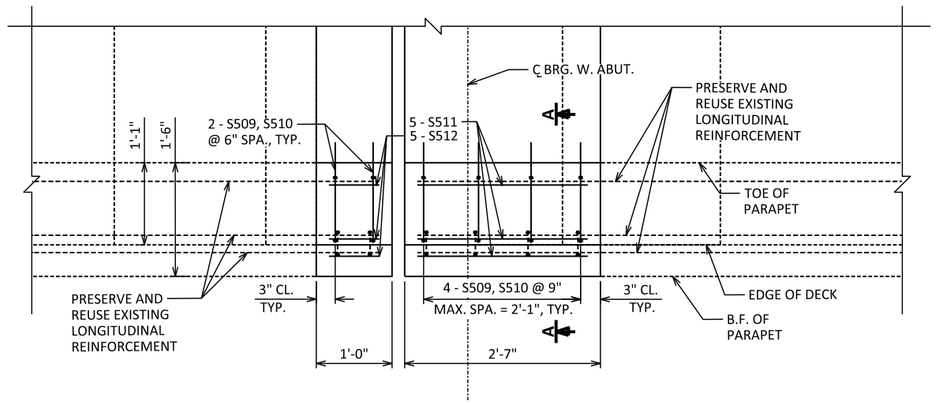
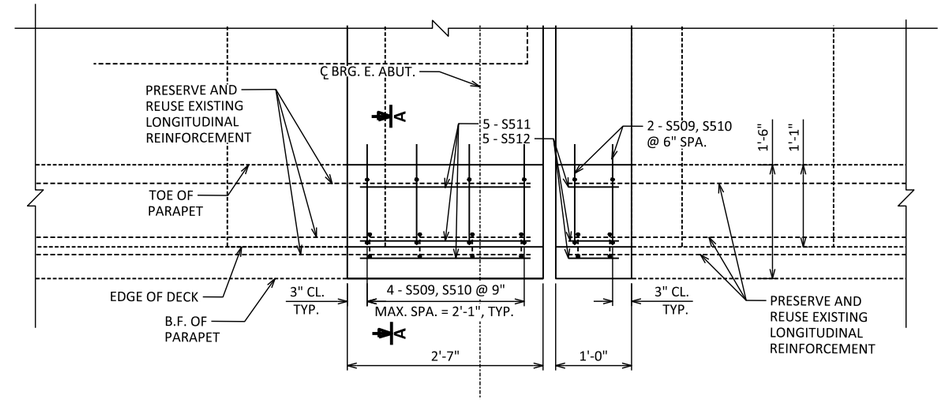
STATE PROJECT NUMBER

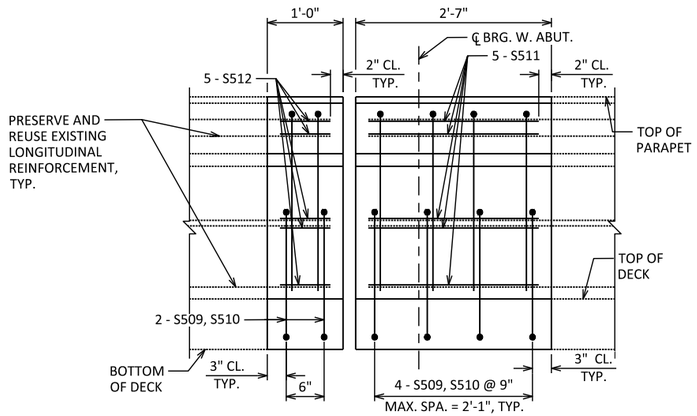
1100-52-71

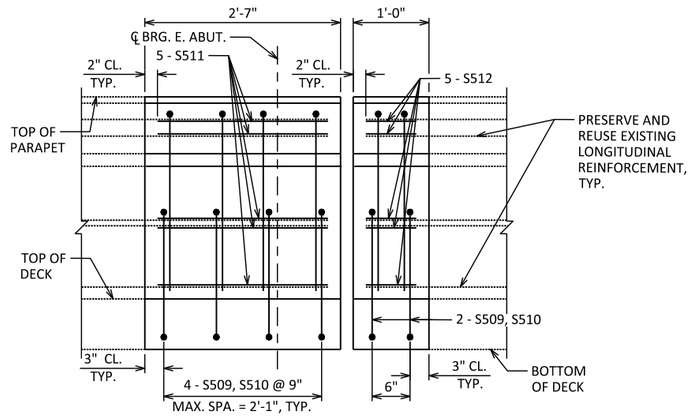




PARAPET PLAN

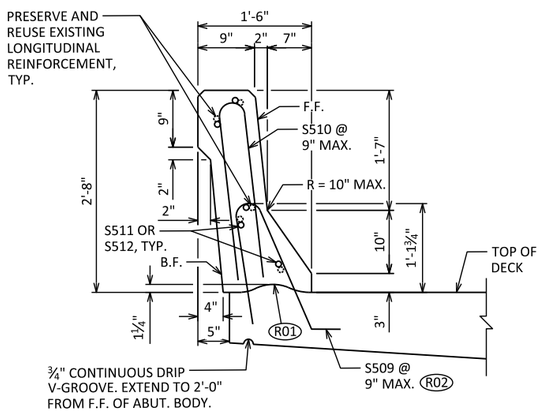
SOUTH SHOWN, NORTH SIMILAR



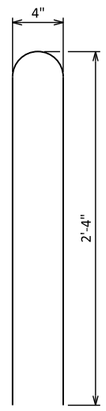


OUTSIDE PARAPET ELEVATION

SOUTH SHOWN, NORTH SIMILAR



SECTION A-A THRU PARAPET REPLACEMENT ON BRIDGE



S510

BRIDGE PARAPET BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
S510	X	24	4'-10"	X		PARAPET VERTICAL
S511	X	20	2'-3"			PARAPET HORIZONTAL
S512	X	20	8"			PARAPET HORIZONTAL

LEGEND

- (R01) CONST. JOINT - STRIKE OFF AS SHOWN.
- (R02) REFER TO EXPANSION JOINT REPLACEMENT BILL OF BARS
- F.F. FRONT FACE
- B.F. BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-77

DRAWN BY RJK | PLANS CK'D HDA

PARAPET REPLACEMENT DETAILS

SHEET 6
514

SCALE =

8

8

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STATE PROJECT NUMBER

1100-52-71

LIST OF DRAWINGS:

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITES
3. CONSTRUCTION STAGING
4. APRON SECTIONS
5. PANEL 1 REINFORCEMENT PLAN
6. PANELS 2 THRU 4 REINFORCEMENT PLAN
7. PANELS 5 THRU 8 REINFORCEMENT PLAN
8. PANELS 9 THRU 13 REINFORCEMENT PLAN
9. PANEL 14 REINFORCEMENT PLAN
10. BOX CULVERT DETAILS
11. PANELS BILL OF BARS (1 OF 2)
12. PANELS BILL OF BARS (2 OF 2)
13. INLET APRON & WING DETAILS (1 OF 2)
14. INLET APRON & WING DETAILS (2 OF 2)
15. OUTLET APRON & WING DETAILS (1 OF 2)
16. OUTLET APRON & WING DETAILS (2 OF 2)
17. SUBSURFACE EXPLORATION

DESIGN DATA

LIVE LOAD:

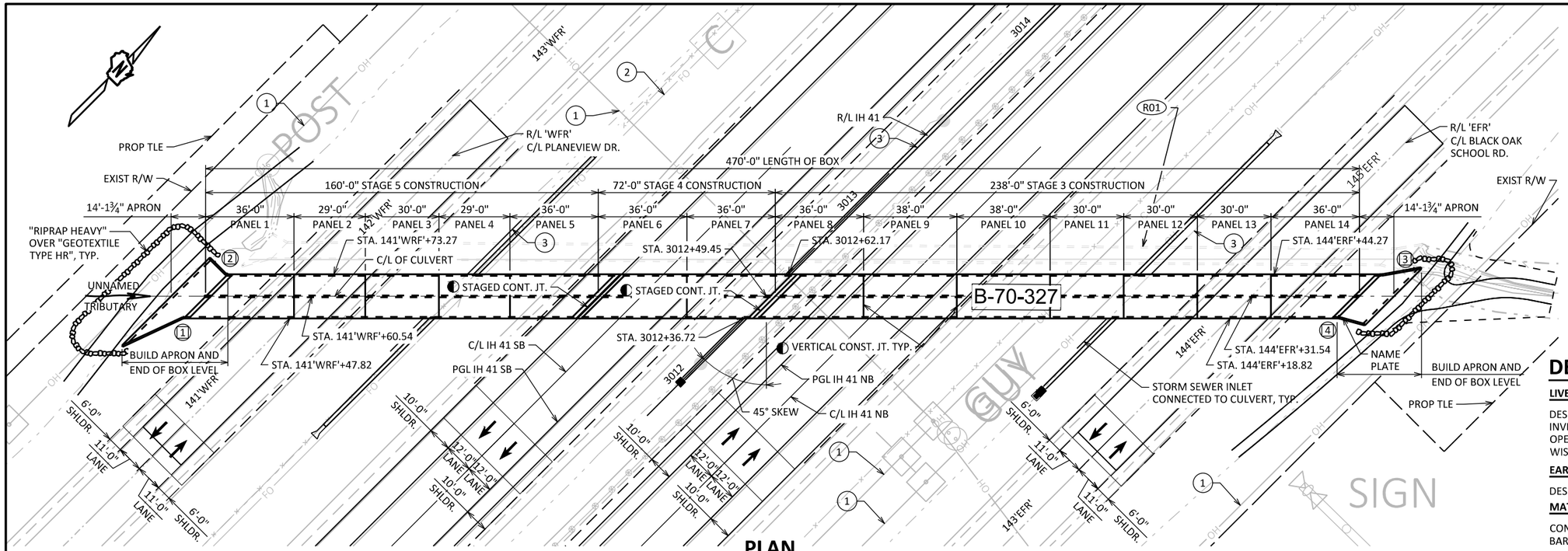
DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.25
OPERATING RATING: RF = 1.62
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

EARTHLOAD:

DESIGNED FOR 1.5 FT. TO 3.5 FT. OF FILL.

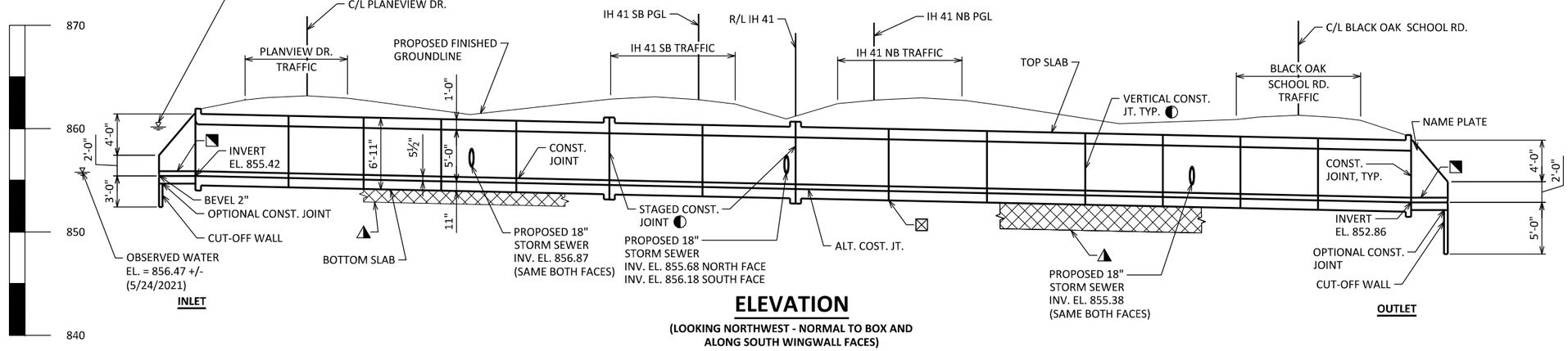
MATERIAL PROPERTIES:

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



PLAN

TWIN CELL CONCRETE BOX CULVERT
SEE "APRON SECTIONS" SHEET FOR APRON AND WINGWALL GEOMETRY



ELEVATION

(LOOKING NORTHWEST - NORMAL TO BOX AND ALONG SOUTH WINGWALL FACES)

TRAFFIC DATA

IH 41
A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 256 C.F.S.
V_{100}= 8.6 F.P.S.
HW_{100}= EL. 860.15
WATERWAY AREA = 30 SQ. FT.
DRAINAGE AREA = 0.87 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:

Q_2= 33 C.F.S.
V_2= 4.2 F.P.S.
HW_2= EL. 858.80

ABBREVIATIONS LIST

Q = FLOW
VEL. = VELOCITY
HW = HIGH WATER
DES. = DESIGN

LEGEND

- PLACE 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ON TOP SLAB AND EXTEND DOWN WALLS TO 6" BELOW THE TOP OF THE BOTTOM SLAB AT VERTICAL CONSTRUCTION JOINTS.
- PLACE 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WING.
- UNDERCUT 1'-0" (STAGES 4 & 5) OR 2'-0" (STAGE 3). EXCAVATION FOR UNDERCUT TO BE INCLUDED IN "EXCAVATION FOR STRUCTURES", PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND BETWEEN CUTOFF WALLS.
- IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.
- (X) WINGWALL NUMBER
- → DIRECTION OF TRAFFIC
- (R01) EXISTING STRUCTURE C-70-7 TO REMAIN DURING B-70-327 CONSTRUCTION. AFTER STREAM IS DIVERTED INTO B-70-327, BACKFILL STAGE 3 AND STAGE 4 CONSTRUCTION LIMITS OF EXISTING BOX WITH "BACKFILL CONTROLLED LOW STRENGTH". IN STAGE 5 CONSTRUCTION LIMITS REMOVE TOP OF SLAB OF EXISTING CULVERT AND BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

UTILITY & STORM SEWER NOTES

1. EXISTING OVERHEAD ELECTRIC LINE TO REMAIN
2. EXISTING FIBER-OPTIC TO BE RELOCATED
3. EXISTING 18" DRAIN PIPE TO BE PARTIALLY REMOVED/ABANDONED

WISCONSIN ELIZABETH A. JELINEK E-40123 MILWAUKEE WI PROFESSIONAL ENGINEER 12/15/2023

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED MJK 6/11/2024
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-70-327

IH 41 OVER UNNAMED TRIBUTARY TO WEYHURST CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
WINNEBAGO	NEKIMI

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
FEG	MSS	FEG/EAJ	MSS/HDA

GENERAL PLAN & ELEVATION

SHEET 1 OF 17
515

SCALE = 48.0

FILE NAME : I:\77451\C3D\11005271\STRC\B-70-327\SHEETS\B327_080101_GP.DWG
LAYOUT NAME - HNTB General Plan

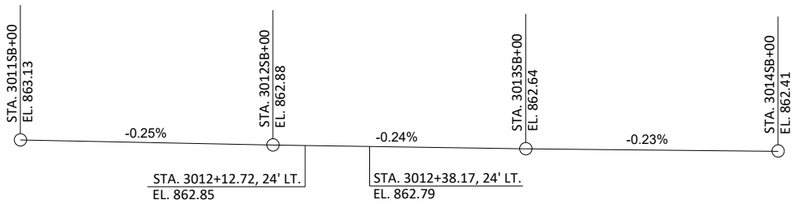
I.D.

DATE:

TOTAL ESTIMATED QUANTITIES

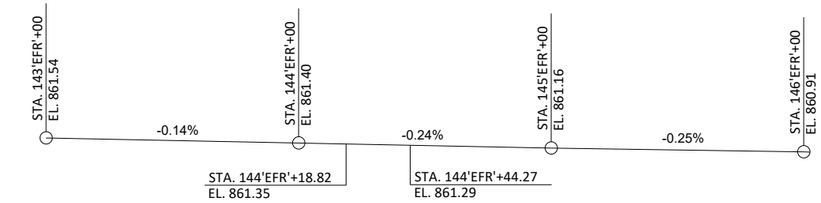
ITEM NO.	ITEM	UNIT	QUANTITY TOTAL
203.0220.013	REMOVING STRUCTURE C-70-7	EACH	1
206.2001.013	EXCAVATION FOR STRUCTURES CULVERTS B-70-327	EACH	1
209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	276
210.2500	BACKFILL STRUCTURE TYPE B	TON	5,300
311.0110	BREAKER RUN	TON	1,180
504.0100	CONCRETE MASONRY CULVERTS	CY	818
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	102,890
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,600
511.1200.013	TEMPORARY SHORING B-70-327	SF	1,250
511.2200.013	TEMPORARY SHORING LEFT IN PLACE B-70-327	SF	500
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	85
606.0300	RIPRAP HEAVY	CY	128
645.0105	GEOTEXTILE TYPE C	SY	1,350
645.0120	GEOTEXTILE TYPE HR	SY	190
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4"
	NAME PLATE	EACH	1

ALL ITEMS ARE CATEGORY 0190



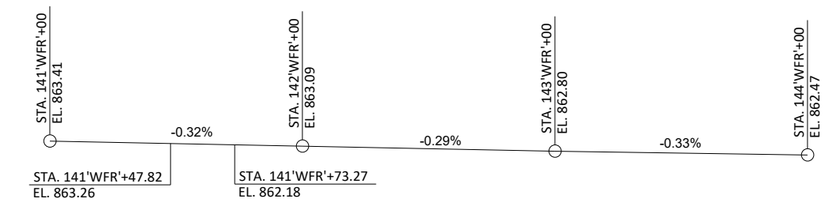
PROFILE GRADE LINE - IH 41 SB

BASED ON EXISTING ELEVATIONS



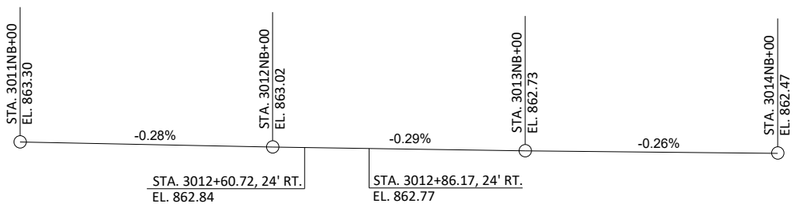
PROFILE GRADE LINE - BLACK OAK SCHOOL RD. ('EFR')

BASED ON EXISTING ELEVATIONS



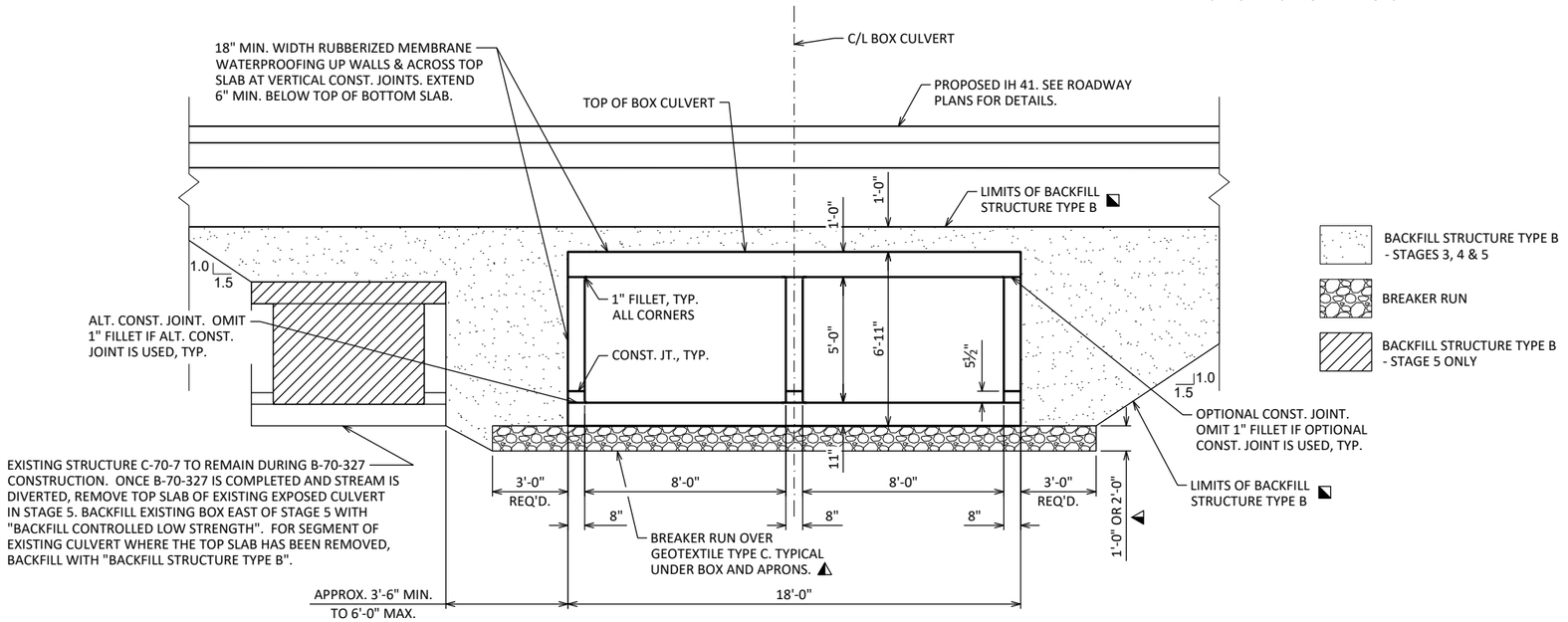
PROFILE GRADE LINE - PLANEVIEW RD. ('WFR')

BASED ON EXISTING ELEVATIONS



PROFILE GRADE LINE - IH 41 NB

BASED ON EXISTING ELEVATIONS



SECTION THRU BOX CULVERT

NORMAL TO BOX C/L
(LOOKING EAST)

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DESIGN IS IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION, 2020 WITH ALL INTERIM REVISIONS THROUGH 2016, UNLESS OTHERWISE NOTED.

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. ALL BAR STEEL REINFORCEMENT ARE ENGLISH DESIGNATION.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE REFERENCE SYSTEM (WisCRS), FOND DU LAC COUNTY, NAD83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD88 (2012).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE PROPOSED CULVERT WILL REPLACE EXISTING STRUCTURE C-70-7. EXISTING STRUCTURE C-70-7 IS A SINGLE CELL 6' X 4' CONCRETE BOX CULVERT APPROXIMATELY 453'-0" LONG.

CONSTRUCT B-70-327 IN 3 STAGES, SEE "CONSTRUCTION STAGING" SHEET ALONG WITH ROADWAY PLANS FOR MORE INFORMATION. THE EXISTING STRUCTURE C-70-7 WILL REMAIN IN SERVICE TO CARRY THE STREAM DURING CONSTRUCTION OF B-70-327. AFTER THE NEW STRUCTURE IS COMPLETE, THE CONTRACTOR SHALL DIVERT THE TRIBUTARY TO THE NEW BOX. REMOVE THE TOP SLAB OF THE EXISTING CULVERT ACCESSIBLE IN STAGE 5 (APPROX. 150' AT WEST END). BACKFILL THE WEST END OF EXISTING STRUCTURE C-70-7 WHERE THE TOP SLAB HAS BEEN REMOVED WITH "BACKFILL STRUCTURE TYPE B". BACKFILL THE EAST END OF EXISTING STRUCTURE C-70-7 WITH "BACKFILL CONTROLLED LOW STRENGTH".

BULKHEAD STORM SEWER HOLES, OTHER OPENINGS, AND ENDS OF EXISTING CULVERT AS NEEDED PRIOR TO PLACEMENT OF BACKFILL CONTROLLED LOW STRENGTH, INCIDENTAL TO BID ITEM "BACKFILL CONTROLLED LOW STRENGTH".

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-70-327" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

⚠ UNDERCUT 1'-0" (STAGES 4 & 5) OR 2'-0" (STAGE 3). EXCAVATION FOR UNDERCUT TO BE INCLUDED IN "EXCAVATION FOR STRUCTURES", PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND BETWEEN CUTOFF WALLS.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL AND ITS CORRESPONDING STANDARDS. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

CROSS SECTION & QUANTITES

SHEET 2
516

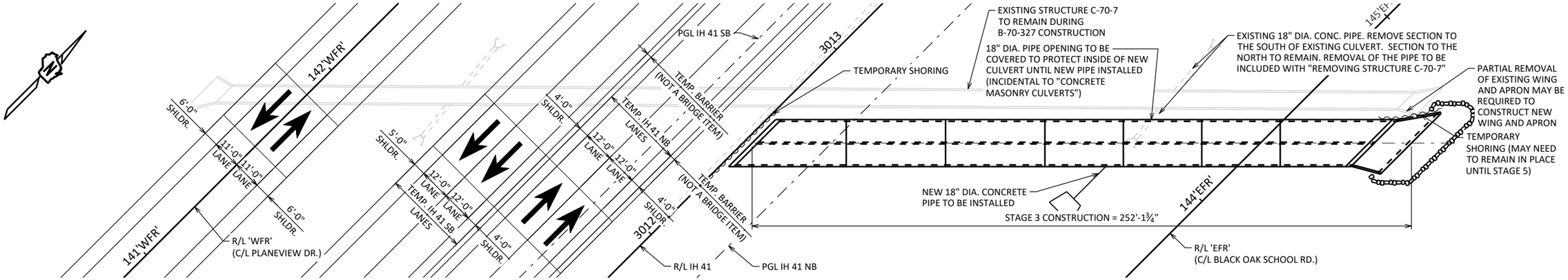
SCALE = 6.0

8

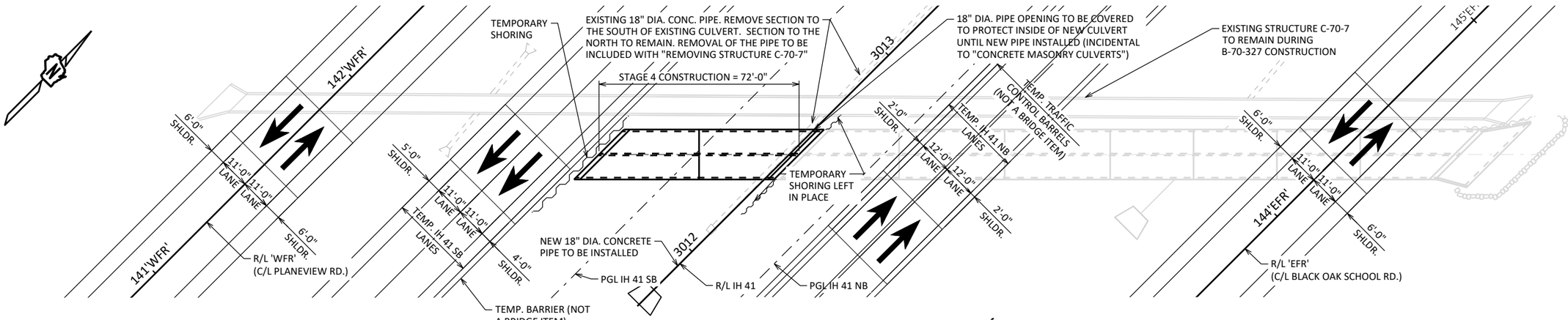
8

FILE NAME : I:\77451\C3D\11005271\STRC\B-70-327\SHEETS\B327_080102_TS.DWG
LAYOUT NAME - TYP_SEC

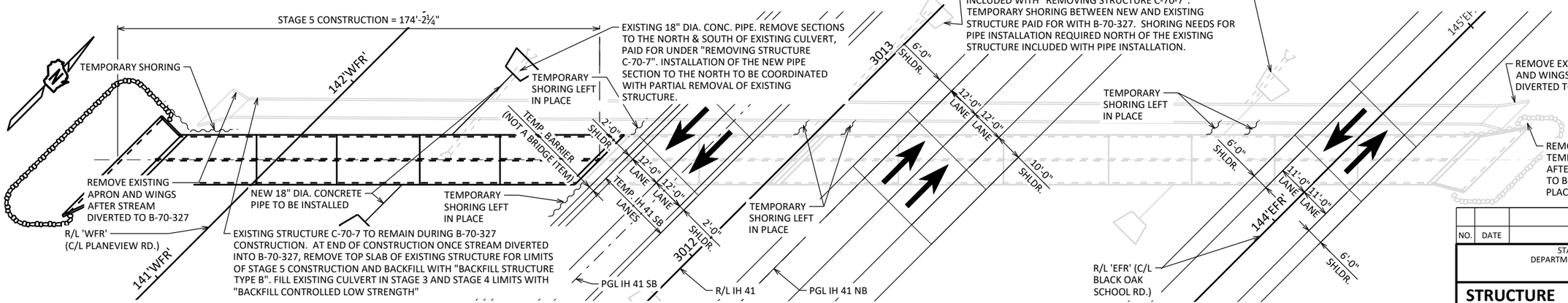
STATE PROJECT NUMBER
1100-52-71



CONSTRUCTION STAGE 3



CONSTRUCTION STAGE 4



CONSTRUCTION STAGE 5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY	FEG	PLANS CK'D	HDA

CONSTRUCTION STAGING

SHEET 3
517

SCALE = 40.0

8

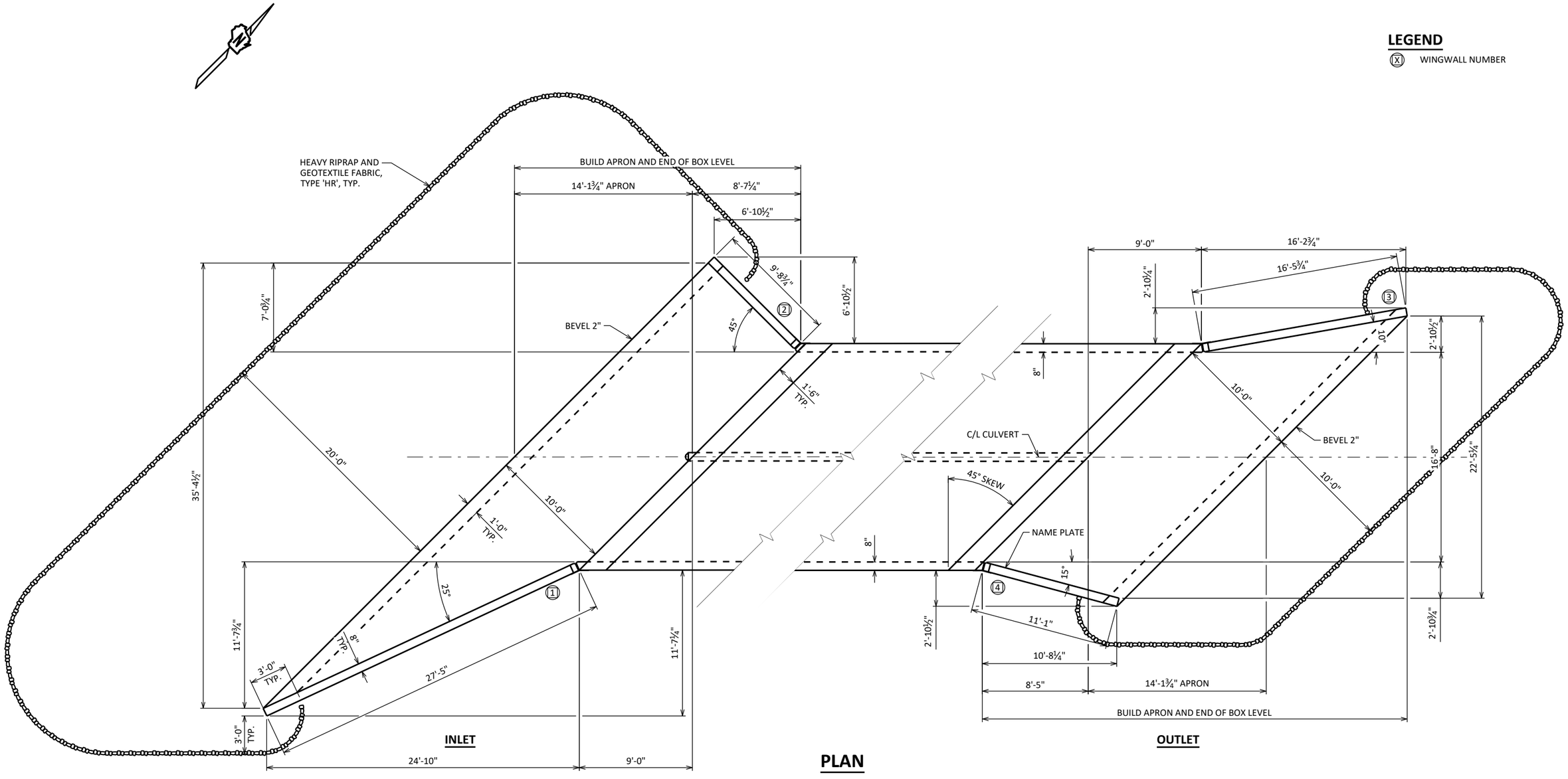
8

STATE PROJECT NUMBER

1100-52-71

LEGEND

(X) WINGWALL NUMBER



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

APRON SECTIONS

SHEET 4
518

SCALE = 8.0

8

8

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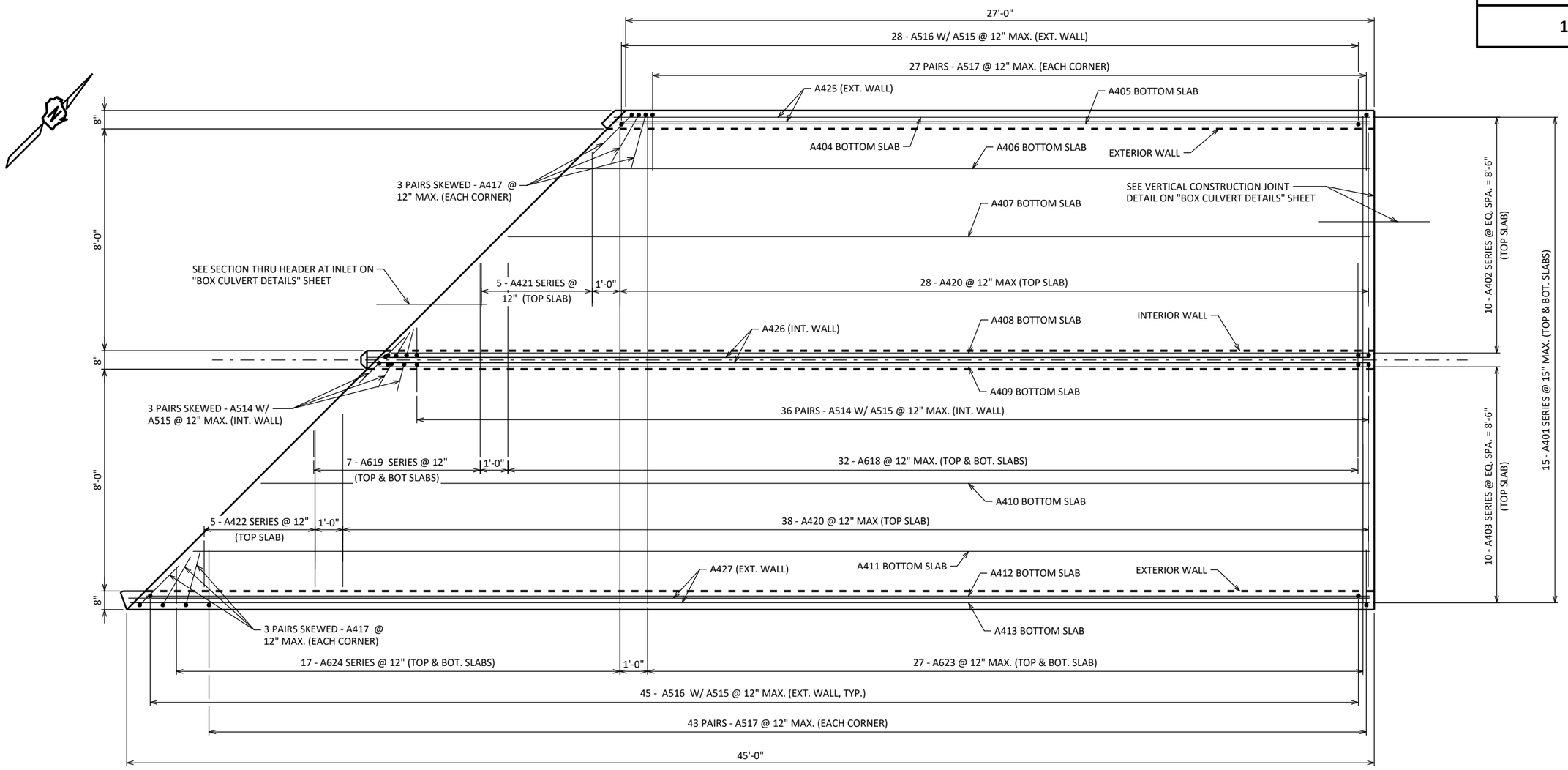
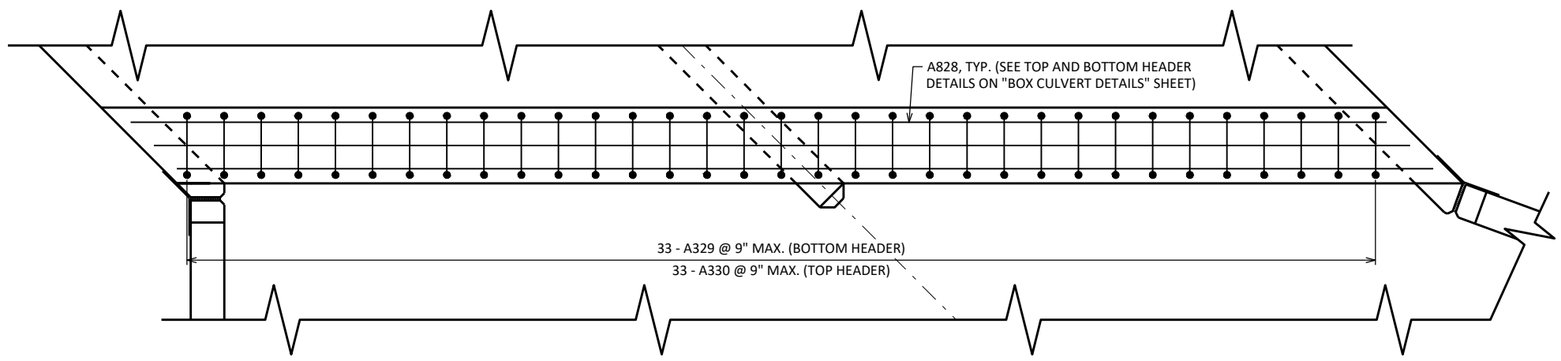
STATE PROJECT NUMBER

1100-52-71



PANEL 1

(STAGE 5)



PANEL 1 HEADER DETAIL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

PANEL 1 REINFORCEMENT PLAN

SHEET 5
519

SCALE = 4.0

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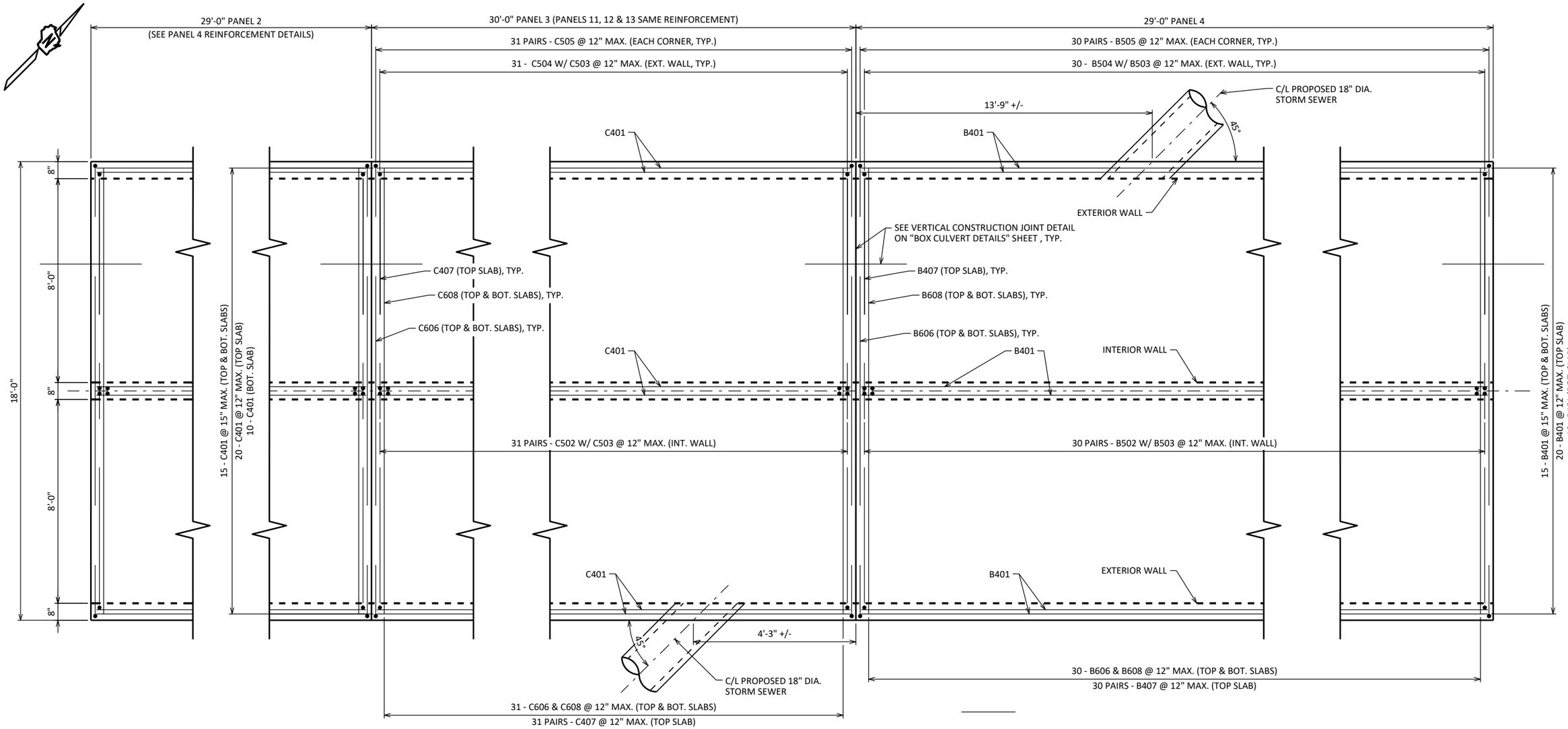
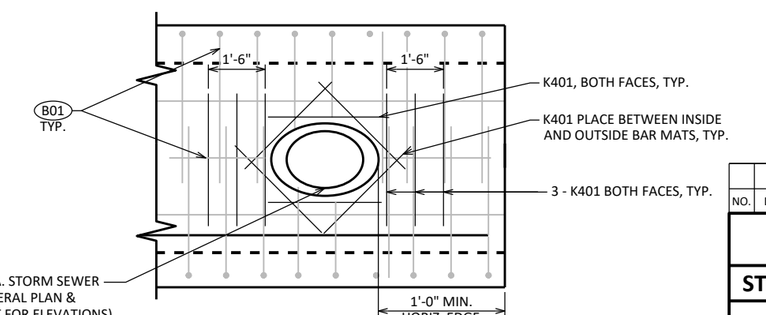


PANELS 2 THRU 4

(STAGE 5)



PARTIAL ELEVATION AT PANELS 3, 4, 7, 11 & 12 PIPE OPENING

(LOOKING AT OUTSIDE FACE OF WALL)

LEGEND

(B01) FIELD CUT REINFORCEMENT 2" CLEAR AROUND OPENINGS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

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PANELS 2 THRU 4 REINFORCEMENT PLAN

SHEET 6
520

SCALE = 4.0

8

8

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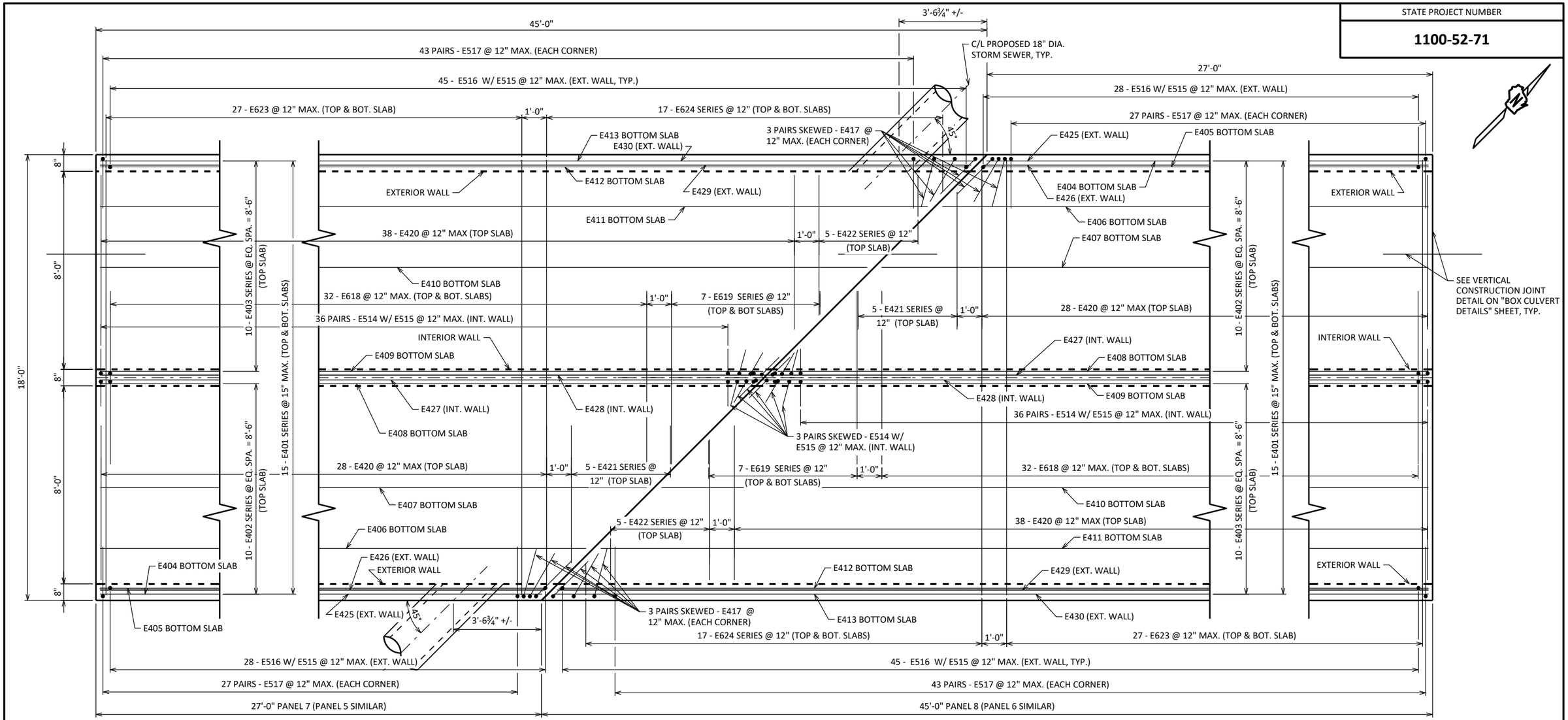
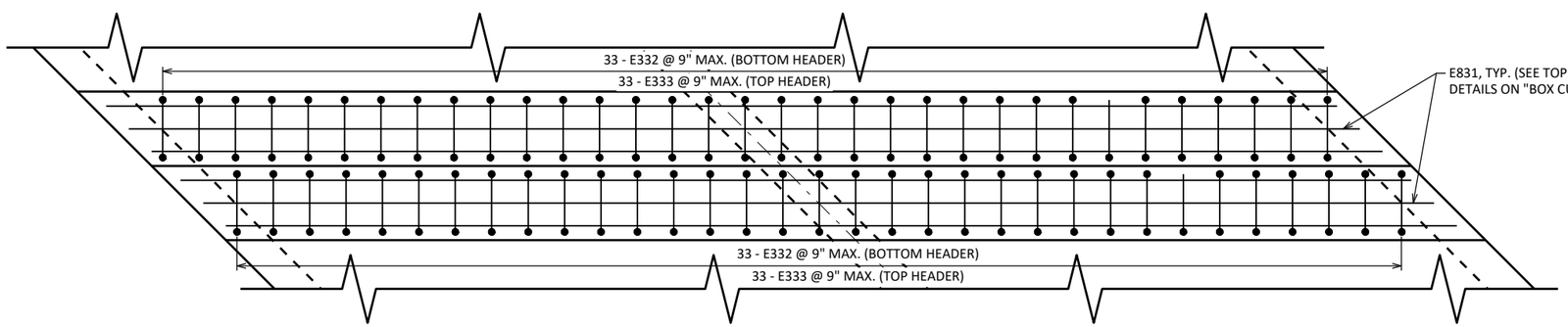


PANELS 7 & 8 (PANELS 5 & 6 SIMILAR)

(PANEL 5 STAGE 5)
(PANELS 6 & 7 STAGE 4)
(PANEL 8 STAGE 3)



PANELS 7 & 8 HEADERS DETAILS

(PANELS 5 & 6 HEADERS SIMILAR)

NOTES

SEE PIPE OPENING DETAIL ON "PANELS 2 THRU 4 REINFORCEMENT PLAN" SHEET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

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PANELS 5 THRU 8 REINFORCEMENT PLAN

SHEET 7
521

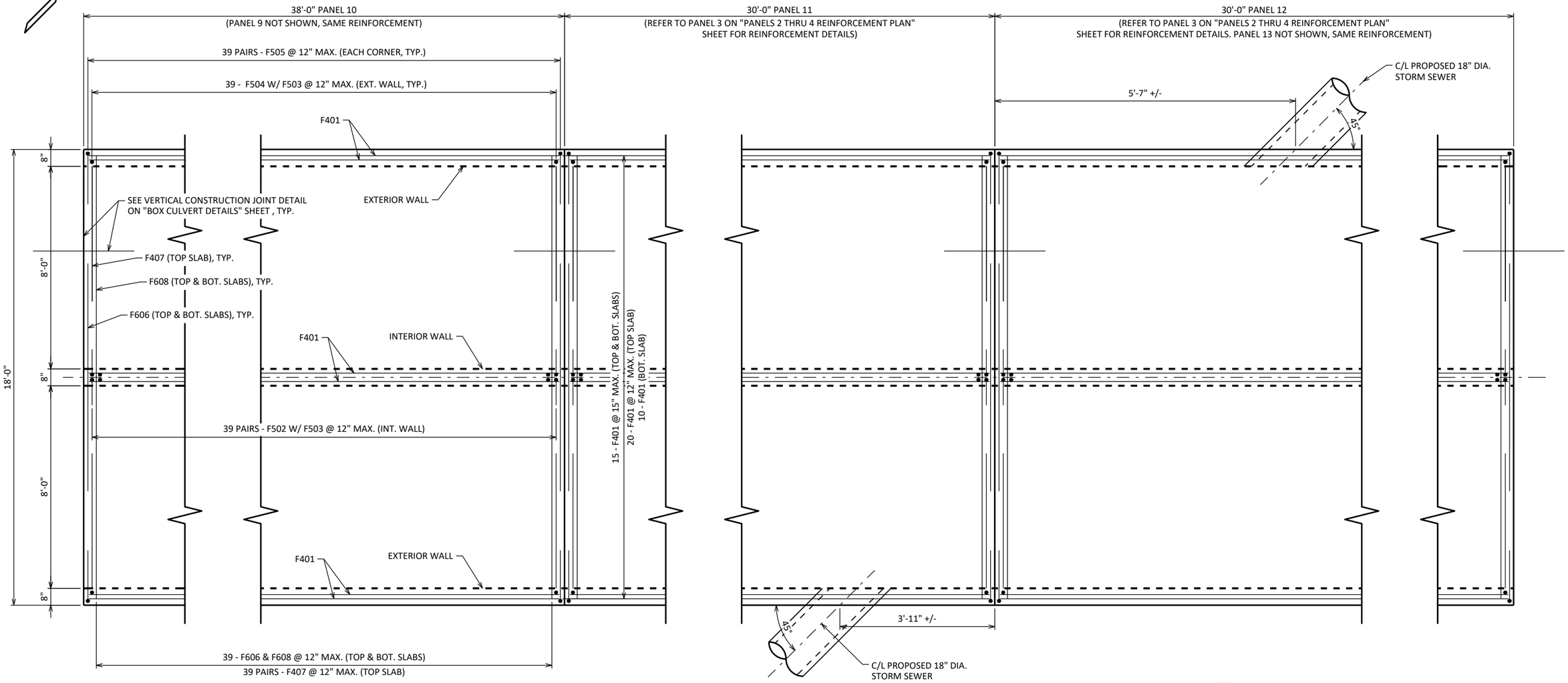
SCALE = 4.0

8

8

STATE PROJECT NUMBER

1100-52-71



PANELS 9 THRU 13

(STAGE 3)

NOTES

SEE PIPE OPENING DETAIL ON "PANELS 2 THRU 4 REINFORCEMENT PLAN" SHEET

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

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PANELS 9 THRU 13 REINFORCEMENT PLAN

SHEET 8
522

SCALE = 4.0

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STATE PROJECT NUMBER

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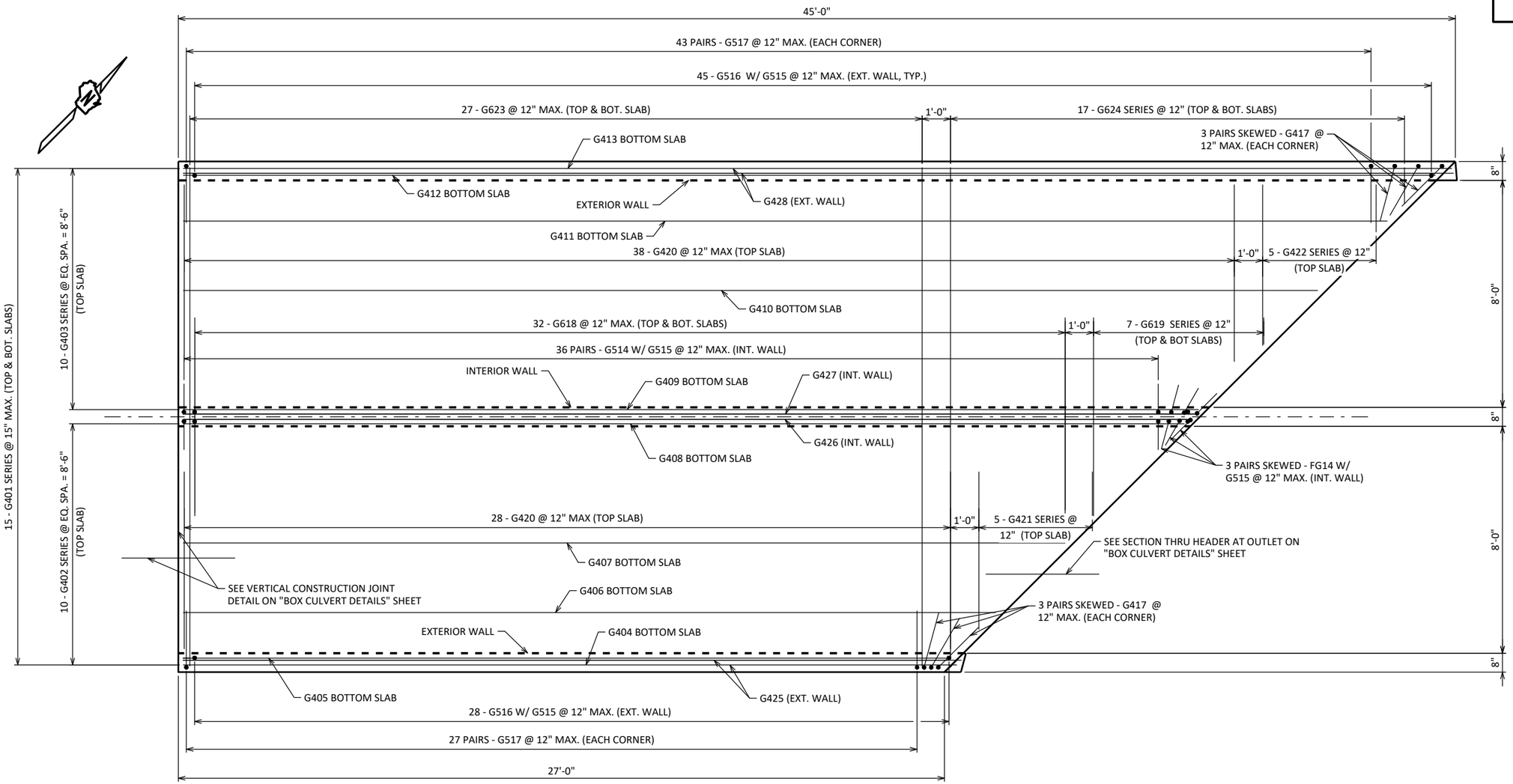
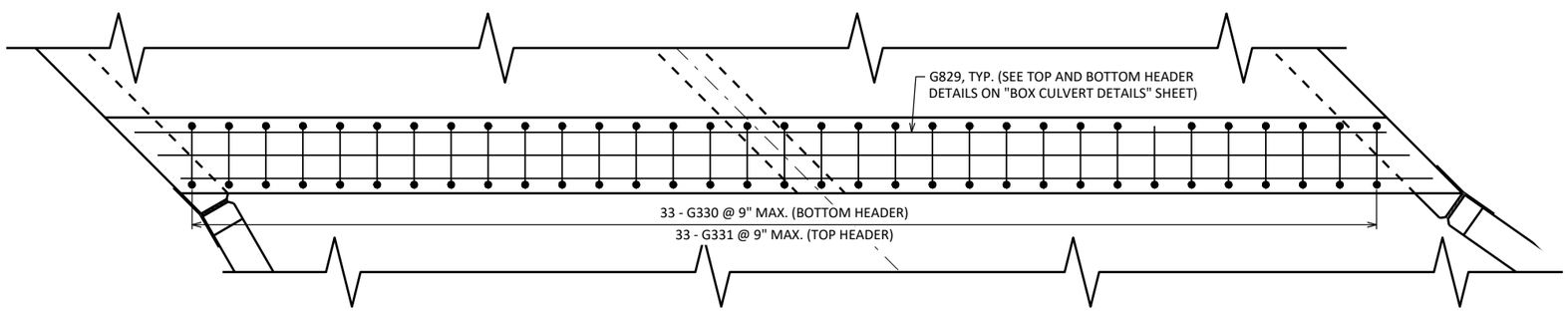


PANEL 14

(STAGE 3)



PANEL 14 HEADER DETAIL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

PANEL 14 REINFORCEMENT PLAN

SHEET 9
523

SCALE = 4.0

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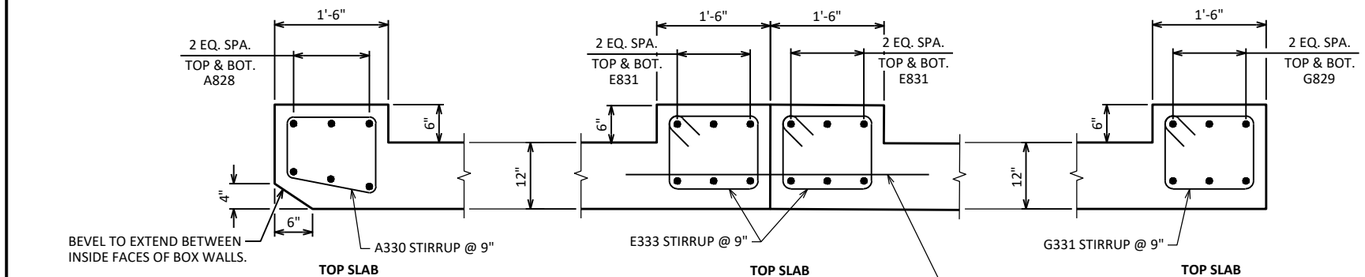
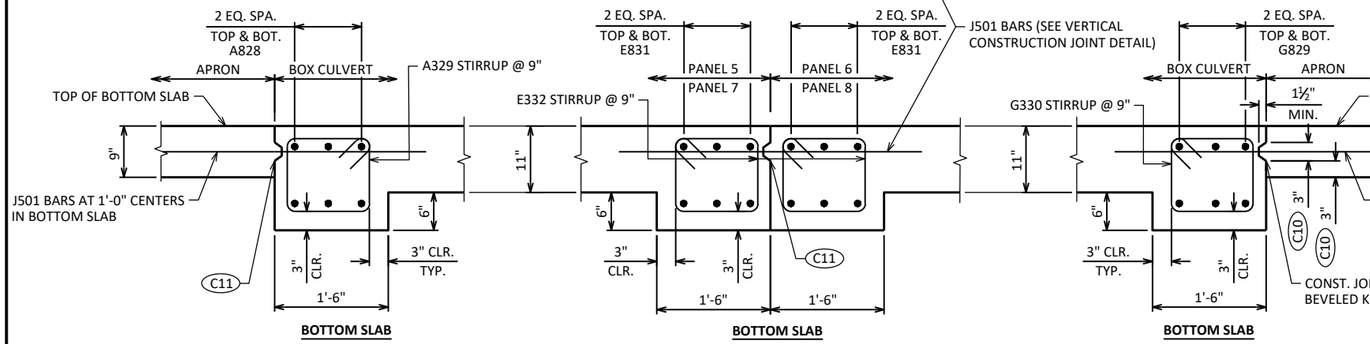


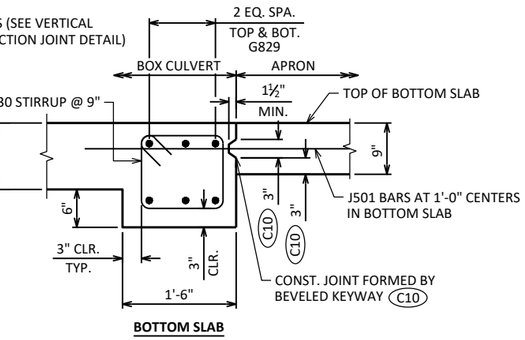


SECTION THRU HEADER

(INLET)

SECTION THRU HEADER

(AT STAGED JOINTS)



SECTION THRU HEADER

(OUTLET)

LEGEND

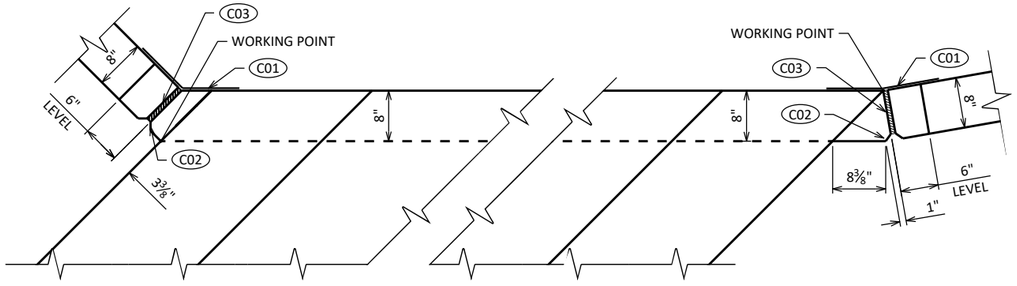
C01 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

C02 1" BEVEL TYPICAL

C03 ¾" FILLER TYPICAL. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

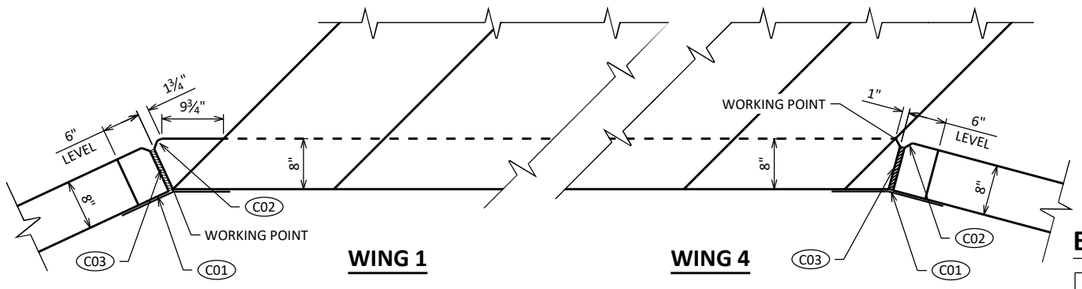
C10 IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

C11 SEE OUTLET DETAIL BOTTOM SLAB FOR ADDITIONAL INFORMATION ON CONSTRUCTION JOINT



WING 2

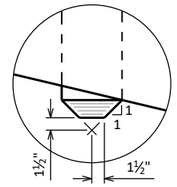
WING 3



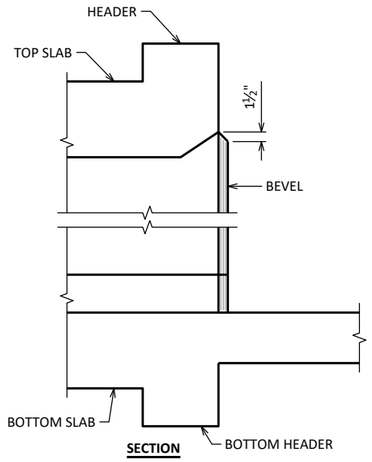
WING 1

WING 4

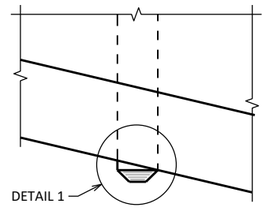
CORNER DETAILS



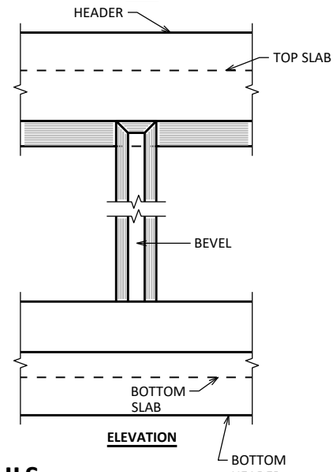
DETAIL 1



SECTION

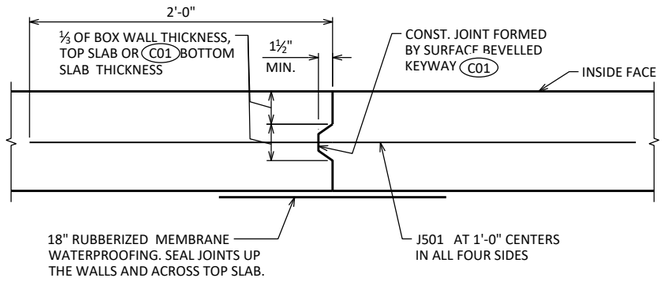


PLAN



ELEVATION

INLET NOSE DETAILS



VERTICAL CONSTRUCTION JOINT

BILL OF BARS - JOINT DOWELS

BILL OF BARS INCLUDES ALL JOINTS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
J501		700	4'-0"			CONSTRUCTION JOINT DOWEL

STATE PROJECT NUMBER

1100-52-71

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

BOX CULVERT DETAILS

SHEET 10
524

SCALE = VARIES

8

8

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STATE PROJECT NUMBER

1100-52-71

BILL OF BARS - PANEL 1

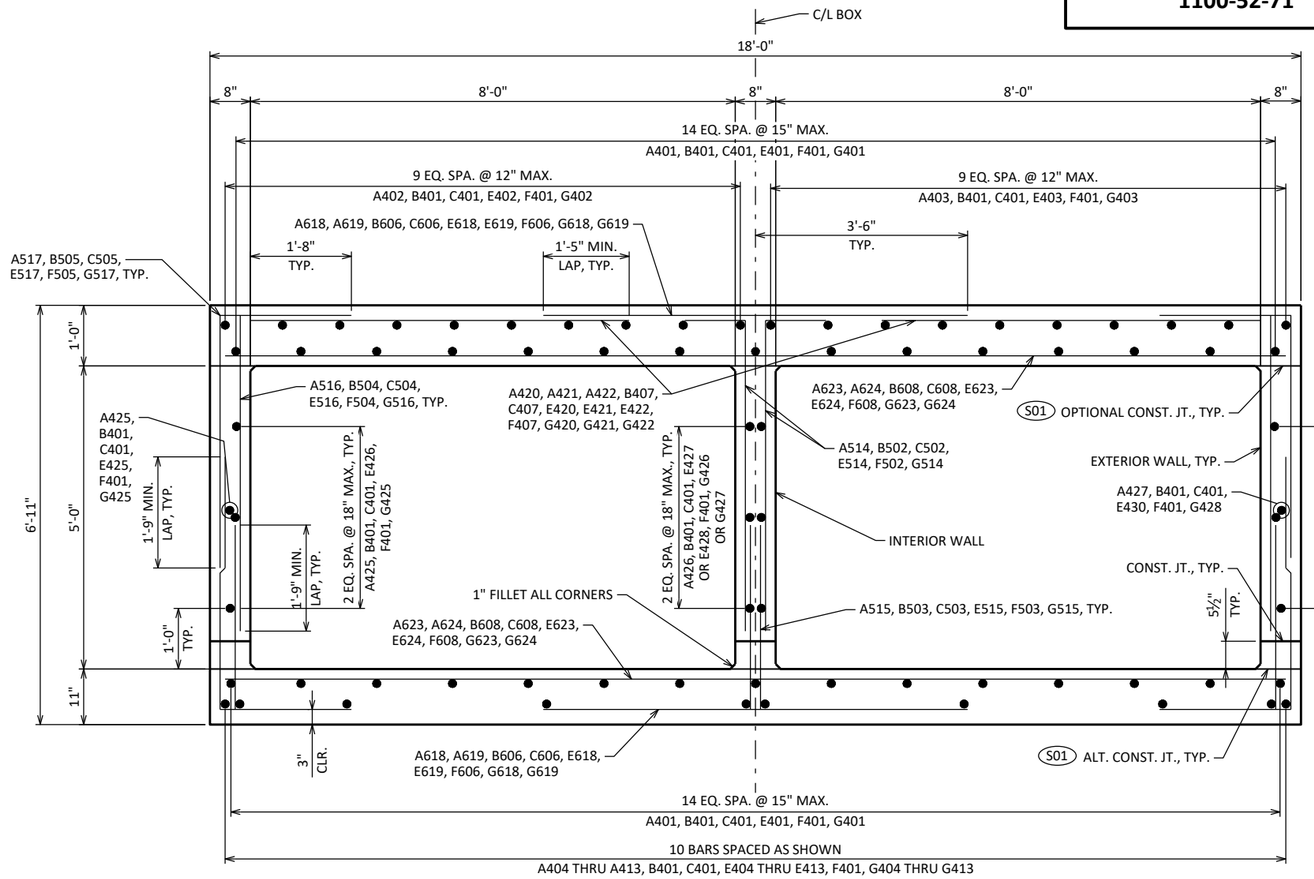
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		30	35'-6"		▲	SLABS - LONG. TOP & BOTTOM
A402		10	31'-0"		▲	SLABS - LONG. TOP
A403		10	39'-11"		▲	SLABS - LONG. TOP
A404		1	26'-10"			SLABS - LONG. BOTTOM
A405		1	27'-0"			SLABS - LONG. BOTTOM
A406		1	28'-7"			SLABS - LONG. BOTTOM
A407		1	32'-0"			SLABS - LONG. BOTTOM
A408		1	35'-3"			SLABS - LONG. BOTTOM
A409		1	35'-9"			SLABS - LONG. BOTTOM
A410		1	39'-0"			SLABS - LONG. BOTTOM
A411		1	42'-4"			SLABS - LONG. BOTTOM
A412		1	43'-10"			SLABS - LONG. BOTTOM
A413		1	44'-2"			SLABS - LONG. BOTTOM
A514		78	6'-2"	X		INTERIOR WALL - VERT.
A515		151	3'-1"			WALLS - VERTICAL -DOWEL
A516		73	5'-3"			EXTERIOR WALLS - VERT.
A517		152	6'-2"	X		CORNERS
A618		64	7'-0"			TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
A619		14	3'-11"		▲	TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
A420		66	6'-3"			TOP SLAB - EXT. FACE - TRANS.
A421		5	3'-6"		▲	TOP SLAB - EXT. FACE - TRANS.
A422		5	3'-8"		▲	TOP SLAB - EXT. FACE - TRANS.
A623		54	17'-7"			TOP & BOTTOM SLAB - INT. FACE - TRANS.
A624		34	9'-3"		▲	TOP & BOTTOM SLAB - INT. FACE - TRANS.
A425		4	27'-3"			EXTERIOR WALLS - LONG.
A426		6	36'-2"			INTERIOR WALLS - LONG.
A427		4	44'-8"			EXTERIOR WALLS - LONG.
A828		12	24'-10"			HEADER - HORIZ.
A329		33	4'-10"	X		HEADER - STIRRUP - BOTTOM SLAB
A330		33	4'-5"	X		HEADER - STIRRUP - TOP SLAB

BILL OF BARS - PANELS 2 & 4

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401		148	28'-7"			SLABS AND WALLS - LONG.
B502		120	6'-2"	X		INTERIOR WALL - VERT.
B503		240	3'-1"			WALLS - VERTICAL -DOWEL
B504		120	5'-3"			EXTERIOR WALLS - VERT.
B505		240	6'-2"	X		CORNERS
B606		120	7'-0"			TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
B407		120	6'-3"			TOP SLAB - EXT. FACE - TRANS.
B608		120	17'-7"			TOP & BOTTOM SLAB - INT. FACE - TRANS.

BILL OF BARS - PANEL 3, 11, 12 & 13

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
C401		296	29'-7"			SLABS AND WALLS - LONG.
C502		248	6'-2"	X		INTERIOR WALL - VERT.
C503		496	3'-1"			WALLS - VERTICAL -DOWEL
C504		248	5'-3"			EXTERIOR WALLS - VERT.
C505		496	6'-2"	X		CORNERS
C606		248	7'-0"			TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
C407		248	6'-3"			TOP SLAB - EXT. FACE - TRANS.
C608		248	17'-7"			TOP & BOTTOM SLAB - INT. FACE - TRANS.



LEGEND

(S01) OMIT 1" FILLET IF ALERNATIVE OR OPTIONAL CONSTRUCTION JOINT IS USED.

NOTES

JOINT DOWEL BARS ACCOUNTED FOR SEPARATELY. SEE "BOX CULVERT DETAILS" SHEET.

SEE DETAILS ON "GENERAL PLAN & ELEVATION", "CROSS SECTION & QUANTITIES", AND "BOX CULVERT DETAILS" SHEETS FOR LIMITS OF RUBBERIZED MEMBRANE WATERPROOFING.

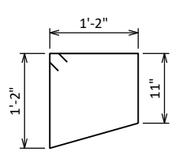
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A401	2 SERIES OF 15	26'-10" MIN. TO 44'-2" MAX.
A402	1 SERIES OF 10	26'-10" MIN. TO 35'-3" MAX.
A403	1 SERIES OF 10	35'-9" MIN. TO 44'-2" MAX.
A619	2 SERIES OF 7	11" MIN. TO 6'-11" MAX.
A421	1 SERIES OF 5	1'-6" MIN. TO 5'-6" MAX.
A422	1 SERIES OF 5	1'-8" MIN. TO 5'-8" MAX.
A624	2 SERIES OF 17	1'-3" MIN. TO 17'-3" MAX.

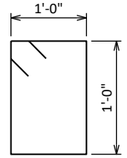
BUNDLE AND TAG EACH SERIES SEPARATELY

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

SECTION THRU CULVERT



A330



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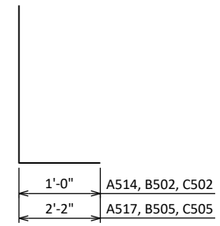


A514, A517, B502, B505, C502, C505

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

PANELS BILL OF BARS (1 OF 2)

SHEET 11
525

SCALE =

8

8

FILE NAME : I:\77451\C3D\11005271\STRC\B-70-327\SHEETS\B327_080503_DT.DWG
LAYOUT NAME - Panel_BOB1

BILL OF BARS - PANELS 5, 6, 7 & 8

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
E401		120	35'-6"		▲	SLABS - LONG. TOP
E402		40	31'-0"		▲	SLABS - LONG. TOP
E403		40	39'-11"		▲	SLABS - LONG. TOP
E404		4	26'-10"			SLABS - LONG. BOTTOM
E405		4	27'-0"			SLABS - LONG. BOTTOM
E406		4	28'-7"			SLABS - LONG. BOTTOM
E407		4	32'-0"			SLABS - LONG. BOTTOM
E408		4	35'-3"			SLABS - LONG. BOTTOM
E409		4	35'-9"			SLABS - LONG. BOTTOM
E410		4	39'-0"			SLABS - LONG. BOTTOM
E411		4	42'-4"			SLABS - LONG. BOTTOM
E412		4	43'-10"			SLABS - LONG. BOTTOM
E413		4	44'-2"			SLABS - LONG. BOTTOM
E514		312	6'-2"	X		INTERIOR WALL - VERT.
E515		604	3'-1"			WALLS - VERTICAL -DOWEL
E516		292	5'-3"			EXTERIOR WALLS - VERT.
E517		608	6'-2"	X		CORNERS
E618		256	7'-0"			TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
E619		56	3'-11"		▲	TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
E420		264	6'-3"			TOP SLAB - EXT. FACE - TRANS.
E421		20	3'-6"		▲	TOP SLAB - EXT. FACE - TRANS.
E422		20	3'-8"		▲	TOP SLAB - EXT. FACE - TRANS.
E623		216	17'-7"			TOP & BOTTOM SLAB - INT. FACE - TRANS.
E624		136	9'-3"		▲	TOP & BOTTOM SLAB - INT. FACE - TRANS.
E425		4	26'-9"			EXTERIOR WALLS - LONG.
E426		12	26'-11"			EXTERIOR WALLS - LONG.
E427		12	35'-5"			INTERIOR WALLS - LONG.
E428		12	35'-7"			INTERIOR WALLS - LONG.
E429		12	44'-1"			EXTERIOR WALLS - LONG.
E430		4	44'-3"			EXTERIOR WALLS - LONG.
E831		48	24'-10"			HEADER - HORIZ.
E332		132	4'-5"	X		HEADER - STIRRUP - BOTTOM SLAB
E333		132	5'-1"	X		HEADER - STIRRUP - TOP SLAB

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

BILL OF BARS - PANELS 9 & 10

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
F401		148	37'-7"			SLABS AND WALLS - LONG.
F502		156	6'-2"	X		INTERIOR WALL - VERT.
F503		312	3'-1"			WALLS - VERTICAL -DOWEL
F504		156	5'-3"			EXTERIOR WALLS - VERT.
F505		312	6'-2"	X		CORNERS
F606		156	7'-0"			TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
F407		156	6'-3"			TOP SLAB - EXT. FACE - TRANS.
F608		156	17'-7"			TOP & BOTTOM SLAB - INT. FACE - TRANS.

BILL OF BARS - ADDITIONAL AT OPENINGS PANELS 3, 4, 7, 11 & 12

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
K401		100	4'-0"			PANEL AT ONE PIPE OPENING

BILL OF BARS - PANEL 14

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
G401		30	35'-6"		▲	SLABS - LONG. TOP
G402		10	31'-0"		▲	SLABS - LONG. TOP
G403		10	39'-11"		▲	SLABS - LONG. TOP
G404		1	26'-10"			SLABS - LONG. BOTTOM
G405		1	27'-0"			SLABS - LONG. BOTTOM
G406		1	28'-7"			SLABS - LONG. BOTTOM
G407		1	32'-0"			SLABS - LONG. BOTTOM
G408		1	35'-3"			SLABS - LONG. BOTTOM
G409		1	35'-9"			SLABS - LONG. BOTTOM
G410		1	39'-0"			SLABS - LONG. BOTTOM
G411		1	42'-4"			SLABS - LONG. BOTTOM
G412		1	43'-10"			SLABS - LONG. BOTTOM
G413		1	44'-2"			SLABS - LONG. BOTTOM
G514		78	6'-2"	X		INTERIOR WALL - VERT.
G515		151	3'-1"			WALLS - VERTICAL -DOWEL
G516		73	5'-3"			EXTERIOR WALLS - VERT.
G517		152	6'-2"	X		CORNERS
G618		64	7'-0"			TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
G619		14	3'-11"		▲	TOP & BOTTOM SLAB - EXT. FACE - MIDDLE TRANS.
G420		66	6'-3"			TOP SLAB - EXT. FACE - TRANS.
G421		5	3'-6"		▲	TOP SLAB - EXT. FACE - TRANS.
G422		5	3'-8"		▲	TOP SLAB - EXT. FACE - TRANS.
G623		54	17'-7"			TOP & BOTTOM SLAB - INT. FACE - TRANS.
G624		34	9'-3"		▲	TOP & BOTTOM SLAB - INT. FACE - TRANS.
G425		4	27'-3"			EXTERIOR WALLS - LONG.
G426		3	35'-6"			INTERIOR WALLS - LONG.
G427		3	35'-9"			INTERIOR WALLS - LONG.
G428		4	44'-8"			EXTERIOR WALLS - LONG.
G829		12	24'-10"			HEADER - HORIZ.
G330		33	4'-5"	X		HEADER - STIRRUP - BOTTOM SLAB
G331		33	5'-1"	X		HEADER - STIRRUP - TOP SLAB

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

BAR SERIES TABLES

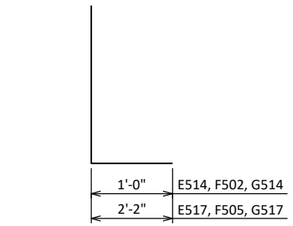
BAR MARK	NO. REQ'D	LENGTH
E401	8 SERIES OF 15	26'-10" MIN. TO 44'-2" MAX.
E402	4 SERIES OF 10	26'-10" MIN. TO 35'-3" MAX.
E403	4 SERIES OF 10	35'-9" MIN. TO 44'-2" MAX.
E619	8 SERIES OF 7	11" MIN. TO 6'-11" MAX.
E421	4 SERIES OF 5	1'-6" MIN. TO 5'-6" MAX.
E422	4 SERIES OF 5	1'-8" MIN. TO 5'-8" MAX.
E624	8 SERIES OF 17	1'-3" MIN. TO 17'-3" MAX.

BAR MARK	NO. REQ'D	LENGTH
G401	2 SERIES OF 15	26'-10" MIN. TO 44'-2" MAX.
G402	1 SERIES OF 10	26'-10" MIN. TO 35'-3" MAX.
G403	1 SERIES OF 10	35'-9" MIN. TO 44'-2" MAX.
G619	2 SERIES OF 7	11" MIN. TO 6'-11" MAX.
G421	1 SERIES OF 5	1'-6" MIN. TO 5'-6" MAX.
G422	1 SERIES OF 5	1'-8" MIN. TO 5'-8" MAX.
G624	2 SERIES OF 17	1'-3" MIN. TO 17'-3" MAX.

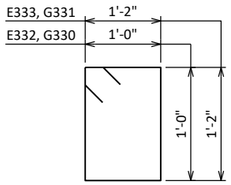
BUNDLE AND TAG EACH SERIES SEPARATELY

STATE PROJECT NUMBER

1100-52-71



E514, E517,F502, F505, G514, G517



E332, E333, G330, G331

NOTES

JOINT DOWEL BARS ACCOUNTED FOR SEPARATELY.
SEE "BOX CULVERT DETAILS" SHEET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

PANELS BILL OF BARS (2 OF 2)

SHEET 12
526

SCALE = 1.0

8

8

FILE NAME : I:\77451\C3D\11005271\STRC\B-70-327\SHEETS\B327_080503_DT.DWG
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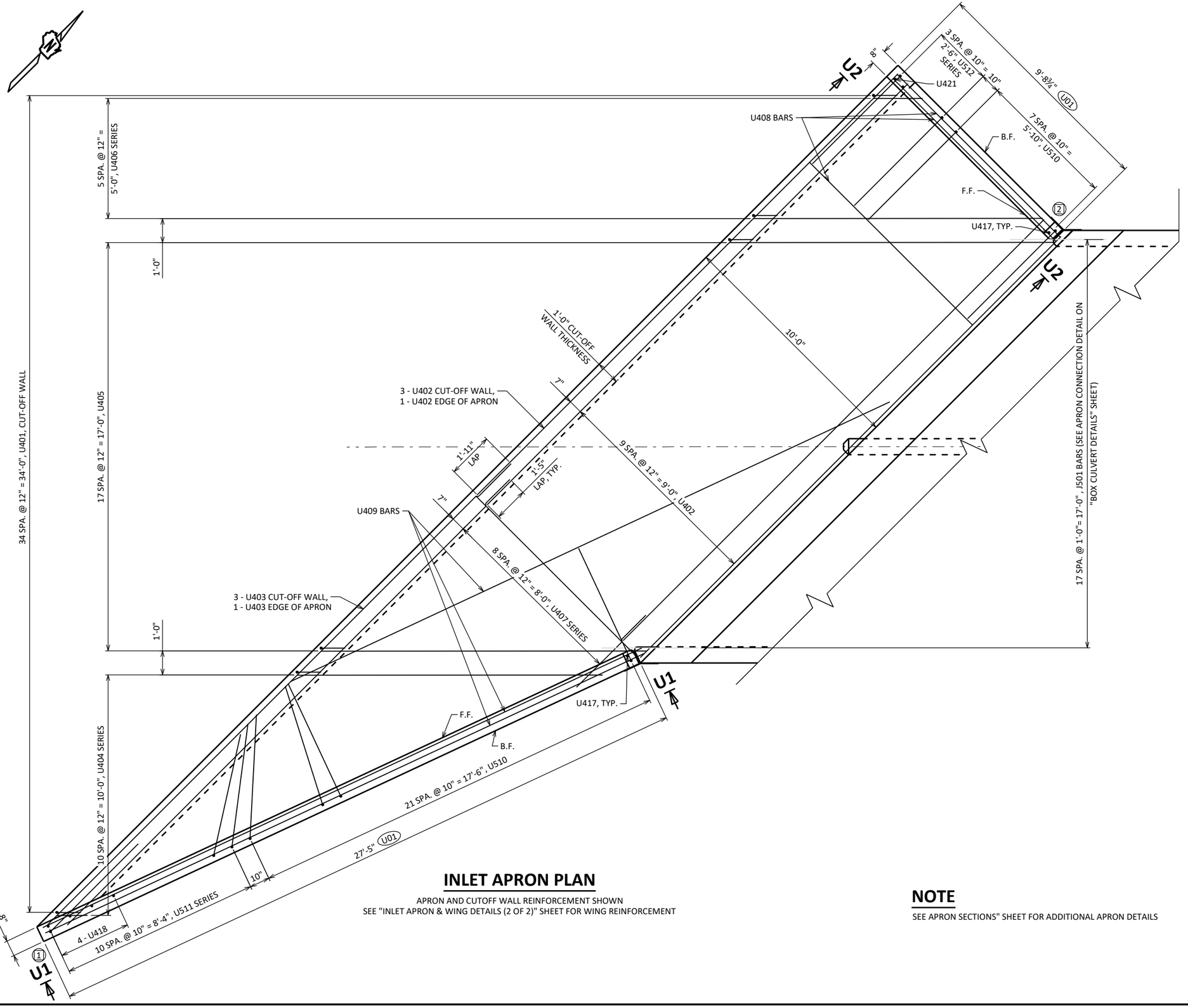
STATE PROJECT NUMBER

1100-52-71



INLET APRON PLAN

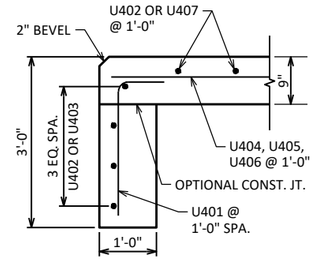
APRON AND CUTOFF WALL REINFORCEMENT SHOWN
SEE "INLET APRON & WING DETAILS (2 OF 2)" SHEET FOR WING REINFORCEMENT

NOTE

SEE APRON SECTIONS" SHEET FOR ADDITIONAL APRON DETAILS

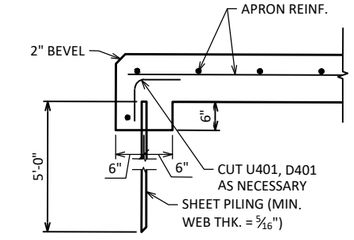
LEGEND

- (X) WINGWALL NUMBER
- (U01) WINGWALL LENGTH INCLUDES ¾" FILLER
- B.F. BACK FACE
- F.F. FRONT FACE



INLET

CUT-OFF WALL



ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

INLET APRON & WING DETAILS (1 OF 2)

SHEET 13
527

SCALE = VARIES

8

8

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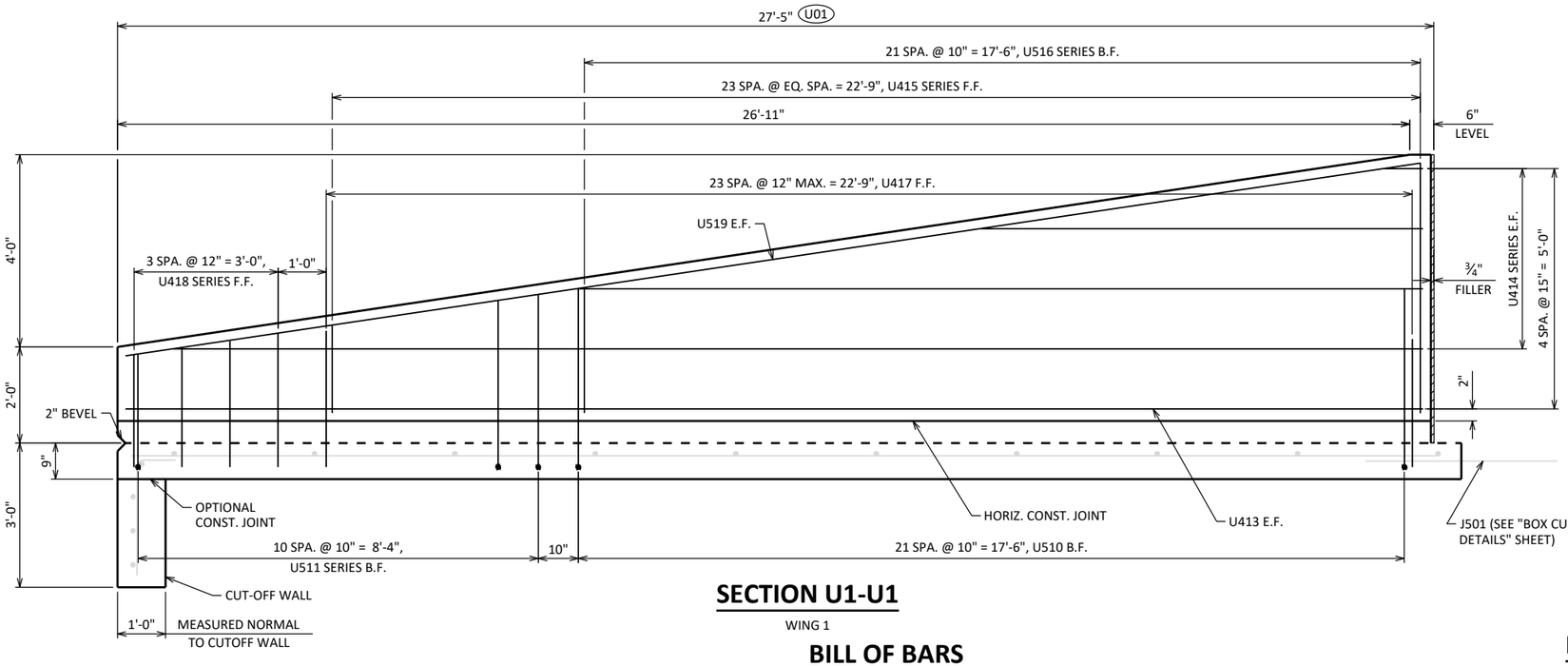
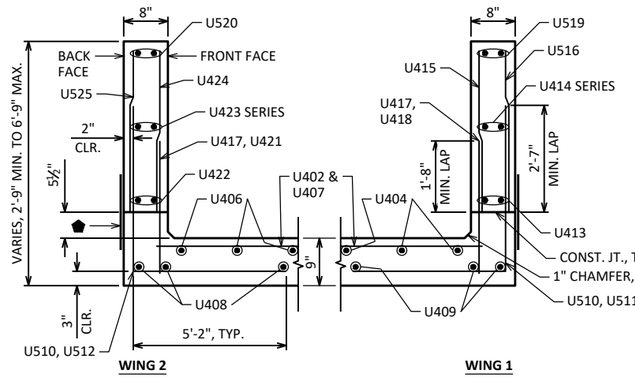
STATE PROJECT NUMBER

1100-52-71

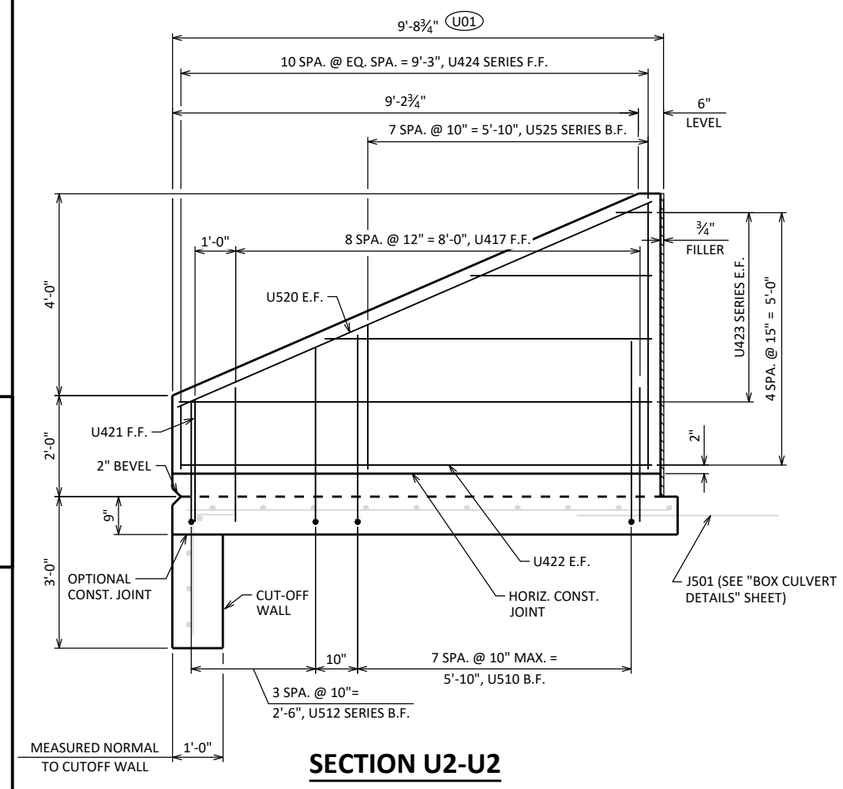


SECTION U1-U1

WING 1



SECTION THRU WINGS



SECTION U2-U2

WING 2

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
U401		35	3'-5"	X		CUT-OFF WALL
U402		14	24'-9"			CUT-OFF WALL & APRON - TRANS.
U403		4	27'-4"			CUT-OFF WALL & EDGE OF APRON
U404		11	7'-0"		▲	APRON - LONG.
U405		18	13'-6"			APRON - LONG.
U406		6	7'-0"		▲	APRON - LONG.
U407		9	15'-2"		▲	APRON - TRANS.
U408		3	9'-7"			APRON - LONG.
U409		3	27'-6"			APRON - LONG.
U510	X	30	8'-9"	X		WING 1 & 2 - VERT. B.F.
U511	X	11	7'-11"	X	▲	WING 1 - VERT. B.F.
U512	X	4	7'-11"	X	▲	WING 2 - VERT. B.F.
U413	X	2	27'-0"			WING 1 - HORIZ. F.F. & B.F.
U414	X	8	13'-4"		▲	WING 1 - HORIZ. F.F. & B.F.
U415	X	24	3'-6"		▲	WING 1 - VERT. F.F.
U516	X	22	3'-10"		▲	WING 1 - VERT. B.F.
U417	X	33	2'-10"			WING 1 & 2 - VERT. F.F.
U418	X	4	2'-6"		▲	WING 1 - VERT. F.F.
U519	X	2	27'-3"			WING 1 - HORIZ. TOP F.F. & B.F.
U520	X	2	10'-2"			WING 2 - HORIZ. TOP F.F. & B.F.
U421	X	1	2'-4"			WING 2 - HORIZ. F.F.
U422	X	2	9'-3"			WING 2 - HORIZ. F.F. & B.F.
U423	X	8	5'-0"		▲	WING 2 - HORIZ. F.F. & B.F.
U424	X	11	3'-3"		▲	WING 2 - VERT. F.F.
U525	X	8	3'-11"		▲	WING 2 - VERT. B.F.

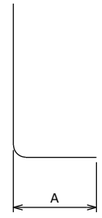
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTH.

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
U404	1 SERIES OF 11	1'-3" TO 12'-8"
U406	1 SERIES OF 6	2'-0" TO 12'-0"
U407	1 SERIES OF 9	4'-2" TO 26'-2"
U511	1 SERIES OF 11	7'-4" TO 8'-6"
U512	1 SERIES OF 4	7'-4" TO 8'-7"
U414	2 SERIES OF 4	0'-9" TO 26'-0"
U415	1 SERIES OF 24	1'-10" TO 5'-2"
U516	1 SERIES OF 22	2'-7" TO 5'-2"
U418	1 SERIES OF 4	2'-4" TO 2'-9"
U423	2 SERIES OF 4	0'-8" TO 9'-3"
U424	1 SERIES OF 11	1'-3" TO 5'-2"
U525	1 SERIES OF 8	2'-8" TO 5'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	A
U401	1'-0"
U510	5'-2"
U511	5'-2"
U512	5'-2"



LEGEND

(U01) WINGWALL LENGTH INCLUDES ¾" FILLER

⬟ 18" RUBBERIZED MEMBRANE WATERPROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

B.F. BACK FACE

F.F. FRONT FACE

E.F. EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

INLET APRON & WING DETAILS (2 OF 2)

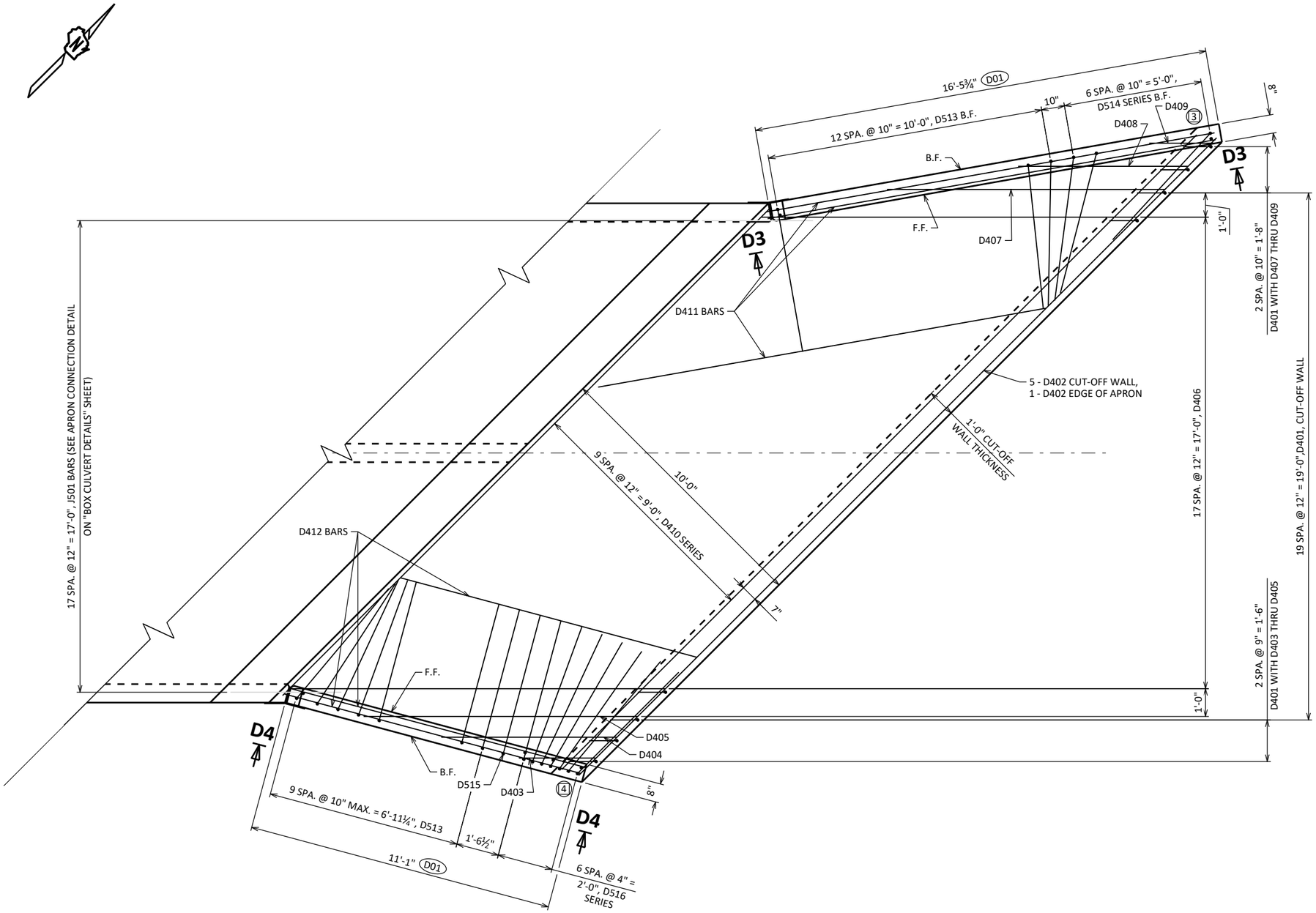
SHEET 14
528

SCALE = VARIES

8

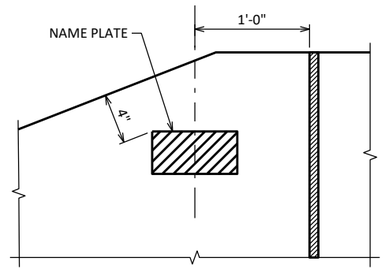
8

STATE PROJECT NUMBER
1100-52-71



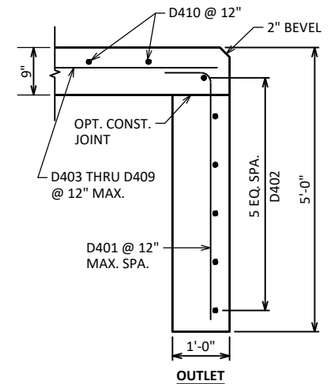
OUTLET APRON PLAN

APRON AND CUTOFF WALL REINFORCEMENT SHOWN
SEE "OUTLET APRON & WING DETAILS (2 OF 2)" SHEET FOR WING REINFORCEMENT



NAME PLATE DETAIL

WING 4



CUT-OFF WALL

LEGEND

- (X) WINGWALL NUMBER
- D01 WINGWALL LENGTH INCLUDES ¾" FILLER
- B.F. BACK FACE
- F.F. FRONT FACE

NOTES

SEE "INLET APRON & WING DETAILS (1 OF 2)" SHEET FOR ALTERNATE CUT-OFF WALL DETAILS

SEE "APRON SECTIONS" SHEET FOR ADDITIONAL APRON DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

OUTLET APRON & WING DETAILS (1 OF 2)

SHEET 15
529

SCALE = VARIES

8

8

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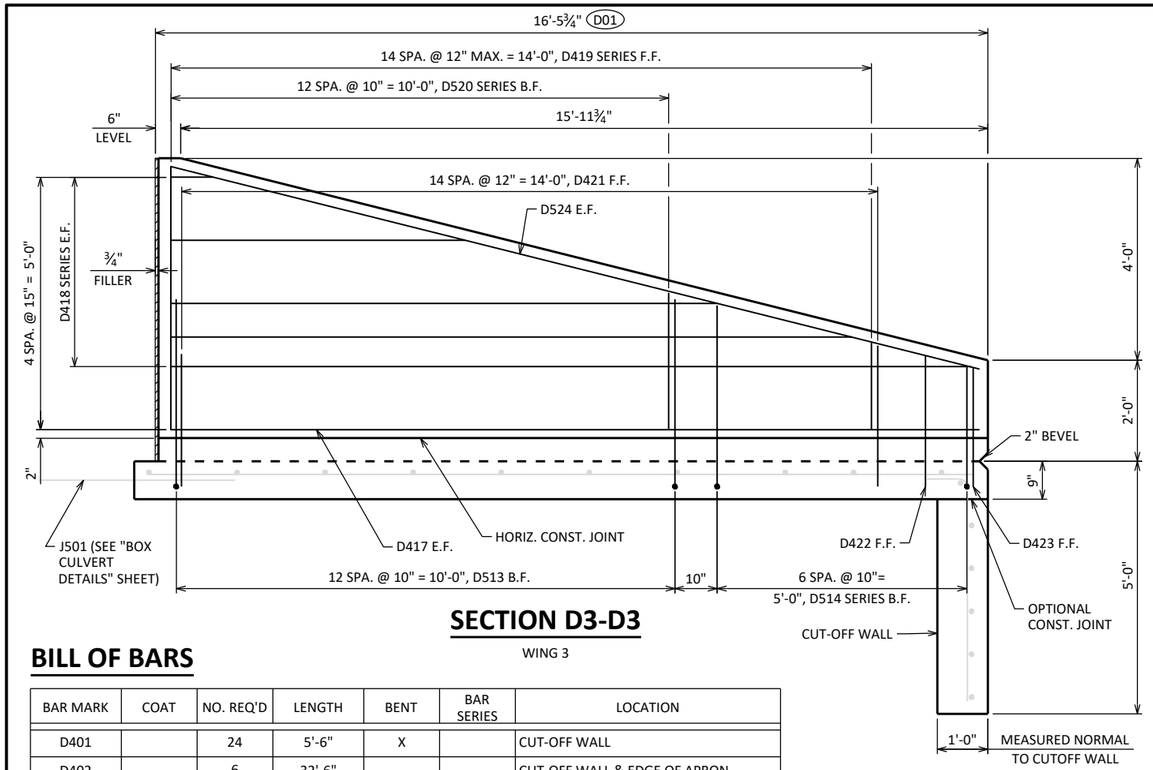
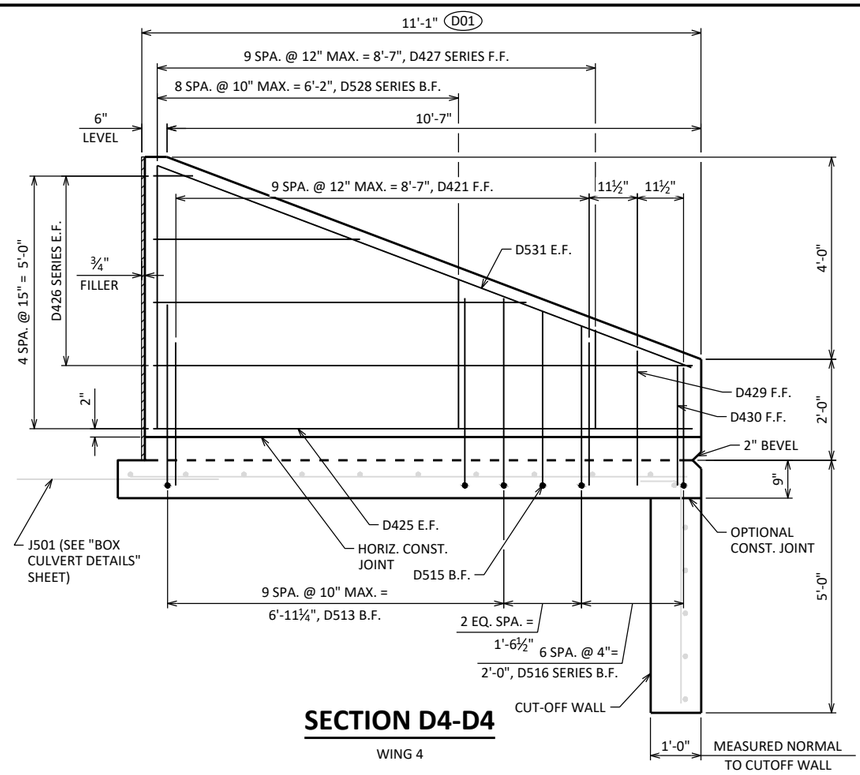


SECTION D3-D3

WING 3



SECTION D4-D4

WING 4

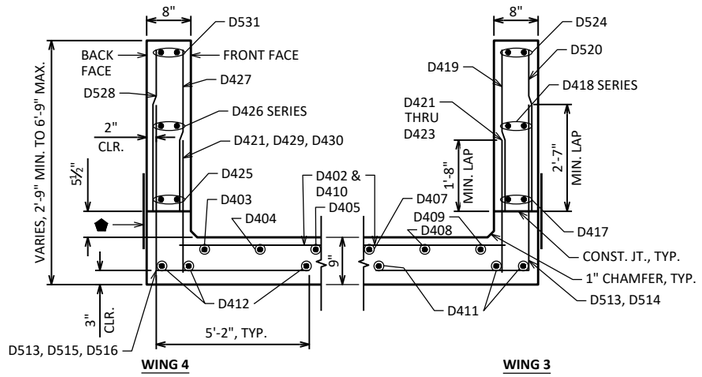
LEGEND

D01	WINGWALL LENGTH INCLUDES ¾" FILLER
⬟	18" RUBBERIZED MEMBRANE WATERPROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.
B.F.	BACK FACE
F.F.	FRONT FACE
E.F.	EACH FACE

BILL OF BARS

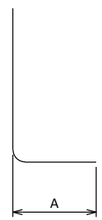
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
D401		24	5'-6"	X		CUT-OFF WALL
D402		6	32'-6"			CUT-OFF WALL & EDGE OF APRON
D403		1	2'-9"			APRON - LONG.
D404		1	6'-3"			APRON - LONG.
D405		1	9'-10"			APRON - LONG.
D406		18	13'-6"			APRON - LONG.
D407		1	10'-0"			APRON - LONG.
D408		1	6'-1"			APRON - LONG.
D409		1	2'-4"			APRON - LONG.
D410		10	28'-7"		▲	APRON - TRANS.
D411		3	16'-4"			APRON - LONG.
D412		3	11'-0"			APRON - LONG.
D513	X	23	8'-9"	X		WING 3 & 4 - VERT. B.F.
D514	X	7	8'-0"	X	▲	WING 3 - VERT. B.F.
D515	X	1	8'-5"	X		WING 4 - VERT. B.F.
D516	X	7	7'-9"	X	▲	WING 4 - VERT. B.F.
D417	X	2	16'-0"			WING 3 - HORIZ. F.F. & B.F.
D418	X	8	8'-4"		▲	WING 3 - HORIZ. F.F. & B.F.
D419	X	15	3'-5"		▲	WING 3 - VERT. F.F.
D520	X	13	3'-11"		▲	WING 3 - VERT. B.F.
D421	X	25	2'-10"			WING 3 & 4 - VERT. F.F.
D422	X	1	2'-7"			WING 3 - VERT. F.F.
D423	X	1	2'-4"			WING 3 - VERT. F.F.
D524	X	2	16'-6"			WING 3 - HORIZ. TOP F.F. & B.F.
D425	X	2	10'-8"			WING 4 - HORIZ. F.F. & B.F.
D426	X	8	5'-8"		▲	WING 4 - HORIZ. F.F. & B.F.
D427	X	10	3'-6"		▲	WING 4- VERT. F.F.
D528	X	9	4'-0"		▲	WING 4 - VERT. B.F.
D429	X	1	2'-8"			WING 4 - VERT. F.F.
D430	X	1	2'-4"			WING 4 - VERT. F.F.
D531	X	2	11'-3"			WING 4 - HORIZ. TOP F.F. & B.F.

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



SECTION THRU WINGS

BAR MARK	A
D401	1'-0"
D513	5'-2"
D514	5'-2"
D515	5'-2"
D516	5'-2"



BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
D410	1 SERIES OF 10	24'-10" TO 32'-4"
D514	1 SERIES OF 7	7'-5" TO 8'-8"
D516	1 SERIES OF 7	7'-4" TO 8'-3"
D418	2 SERIES OF 4	0'-9" TO 15'-10"
D419	1 SERIES OF 15	1'-8" TO 5'-2"
D520	1 SERIES OF 13	2'-8" TO 5'-2"
D426	2 SERIES OF 4	0'-9" TO 10'-8"
D427	1 SERIES OF 10	1'-11" TO 5'-2"
D528	1 SERIES OF 9	2'-11" TO 5'-2"

BUNDLE AND TAG EACH SERIES SEPARATELY

STATE PROJECT NUMBER

1100-52-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

OUTLET APRON & WING DETAILS (2 OF 2)

SHEET 16
530

SCALE = VARIES

8

8

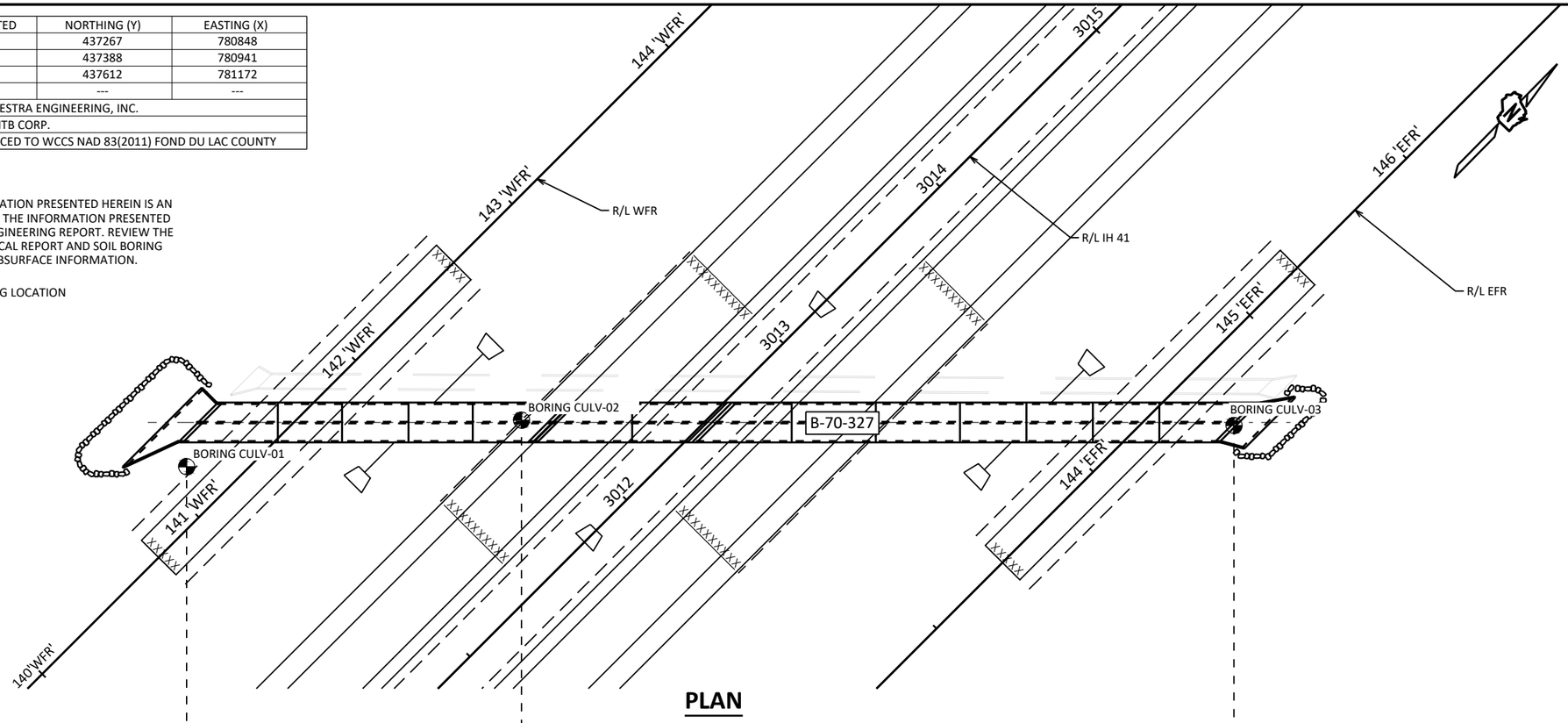
FILE NAME : I:\77451\C3D\11005271\STRC\B-70-327\SHEETS\B327_080505_DT.DWG
LAYOUT NAME - OUTLET_WING

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
CULV-01	11/10/22	437267	780848
CULV-02	11/16/22	437388	780941
CULV-03	11/10/22	437612	781172
---	---	---	---
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) FOND DU LAC COUNTY			

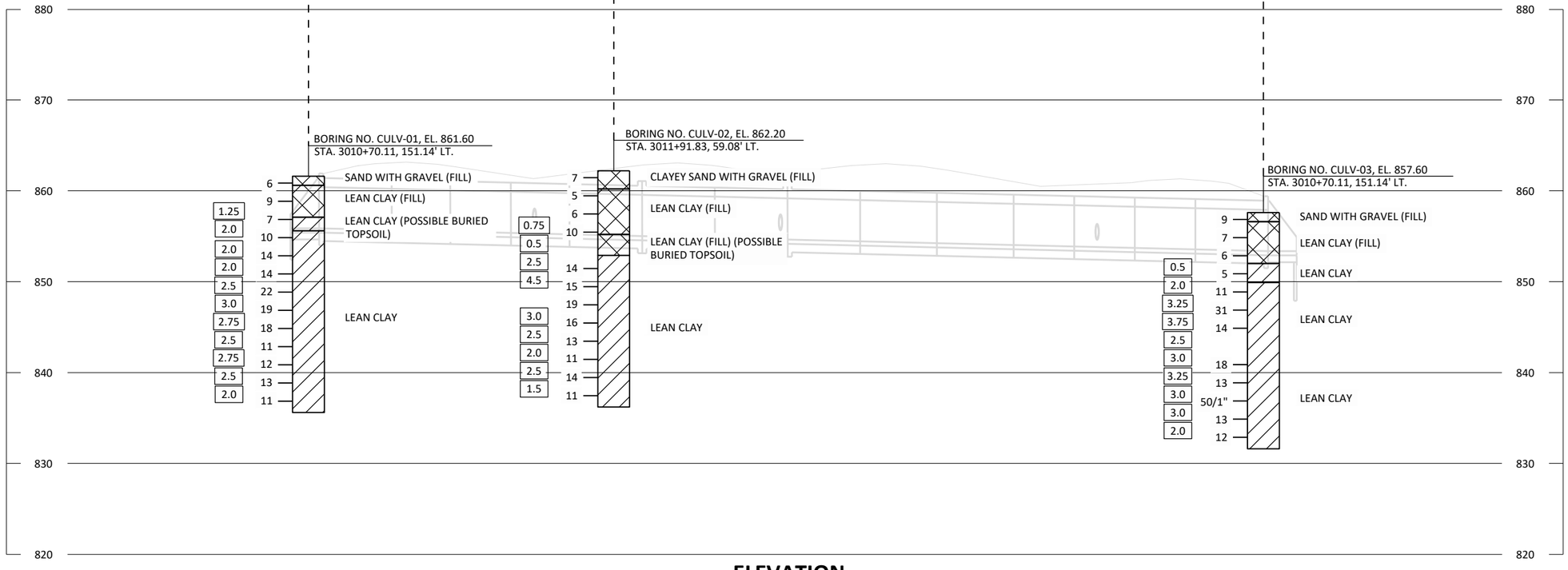
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

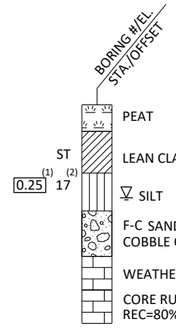
STATE PROJECT NUMBER

1100-52-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-327

DRAWN BY EAJ | PLANS CK'D HDA

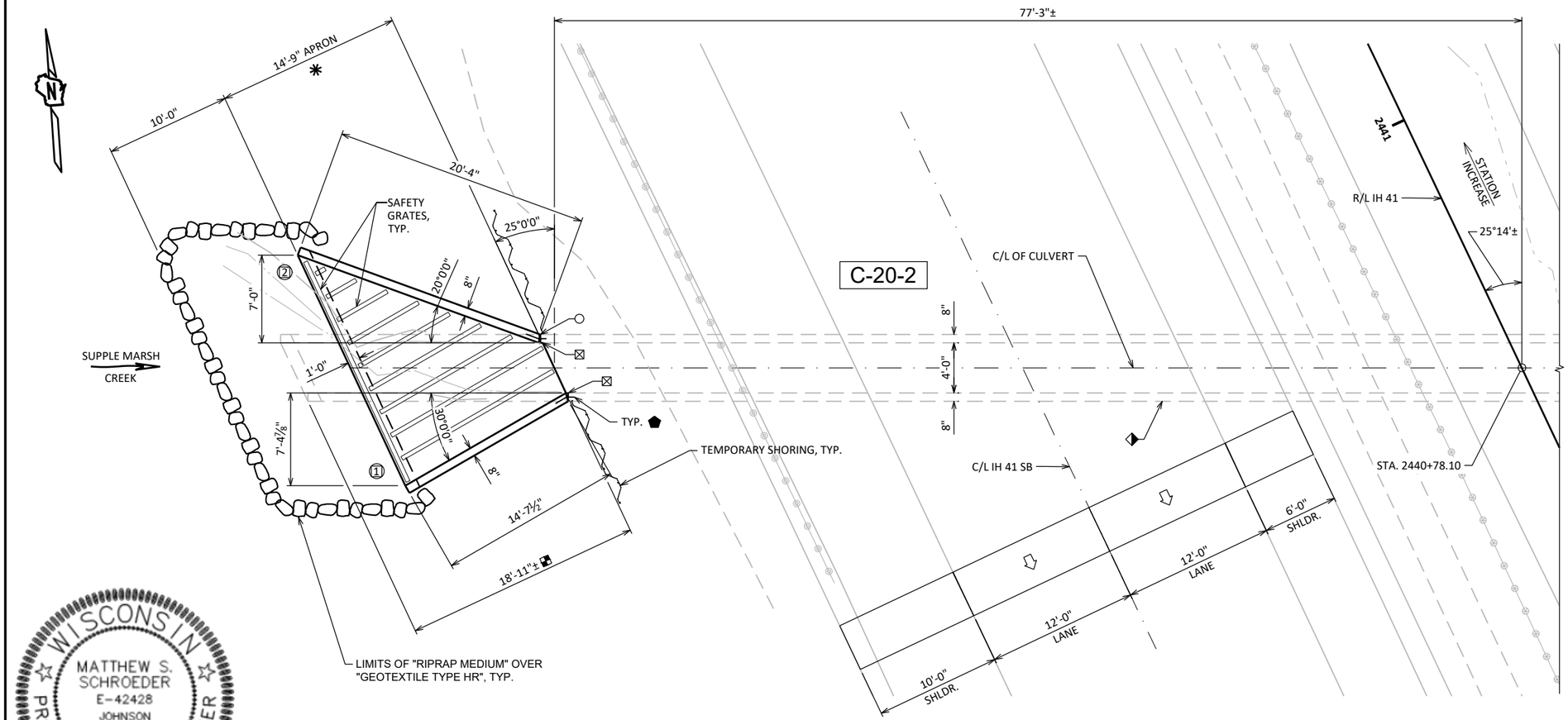
SUBSURFACE EXPLORATION

SHEET 17
531

SCALE = 60.0

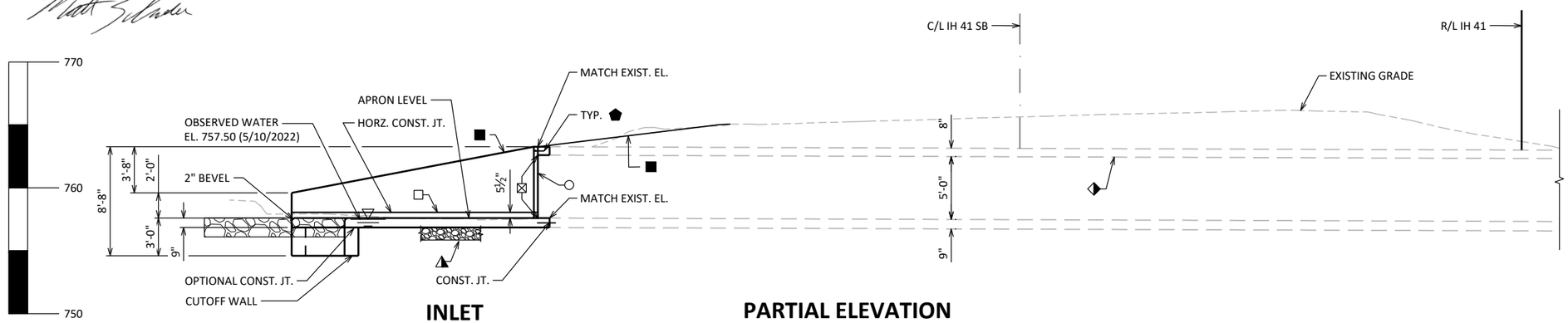
8

8



PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION



INLET

PARTIAL ELEVATION

ALONG C/L CULVERT

TRAFFIC DATA

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

N/A, PROPOSED STRUCTURE EXTENSION

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. SECTIONS, QUANTITIES, & NOTES
4. BOX DETAILS
5. APRON AND WING DETAILS INLET
6. APRON AND WING DETAILS OUTLET
7. SAFETY GRATES FOR BOX CULVERT (1 OF 2)
8. SAFETY GRATES FOR BOX CULVERT (2 OF 2)

STATE PROJECT NUMBER

1100-52-71

LEGEND

- ⊠ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◑ NAME PLATE, SEE PARTIAL PLAN FOR LOCATION
- ◆ EXISTING BARREL TO REMAIN IN PLACE
- ✱ BUILD APRON LEVEL
- ▪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDER CUT 1'-0" AT INLET AND 2'-0" AT OUTLET. EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE UP TO CUTOFF WALL
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓝ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC
- ■ GRADE THE ADJACENT EMBANKMENT SO THAT THE HEADER AND WINGWALL PROTRUDE LESS THAN 4 INCHES, AND FLUSH WHERE POSSIBLE

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.68
OPERATING RATING FACTOR: RF = 2.17
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTH LOAD:
DESIGNED FOR A FILL HEIGHT OF 3 FEET.

MATERIAL PROPERTIES:
CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

LIVE LOAD - EXISTING BOX:
RATINGS PER WISCONSIN BRIDGE MANUAL 45.8.2.1
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-20-2

IH-41 OVER SUPPLE MARSH CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
FOND DU LAC	FOND DU LAC

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
BPV	HDA	BPV/FEG	HDA/MSS

GENERAL PLAN & ELEVATION (1 OF 2)

SHEET 1 OF 8
532

SCALE = 10.00

I.D. DATE:

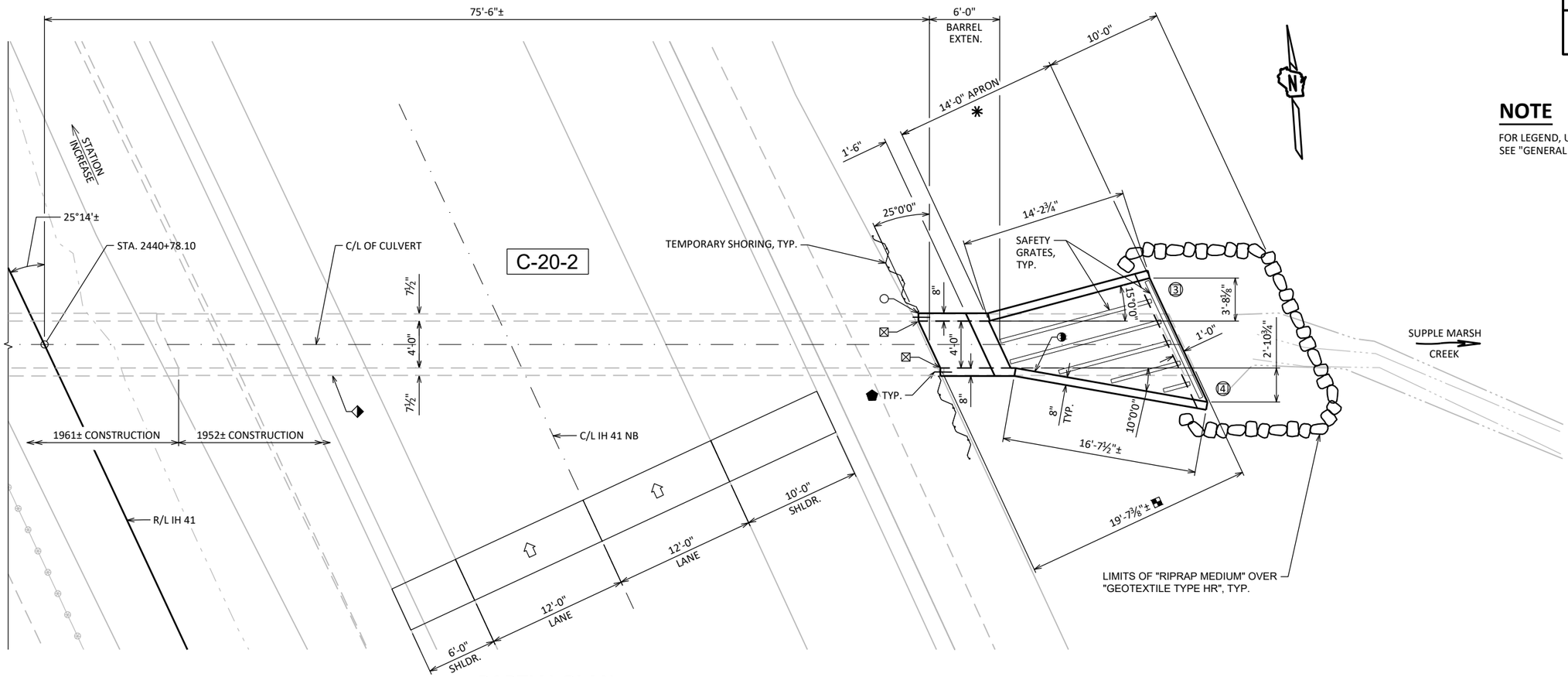
WISCONSIN
MATTHEW S. SCHROEDER
E-42428
JOHNSON CREEK, WI
PROFESSIONAL ENGINEER
9/1/2023

8

8

STATE PROJECT NUMBER

1100-52-71

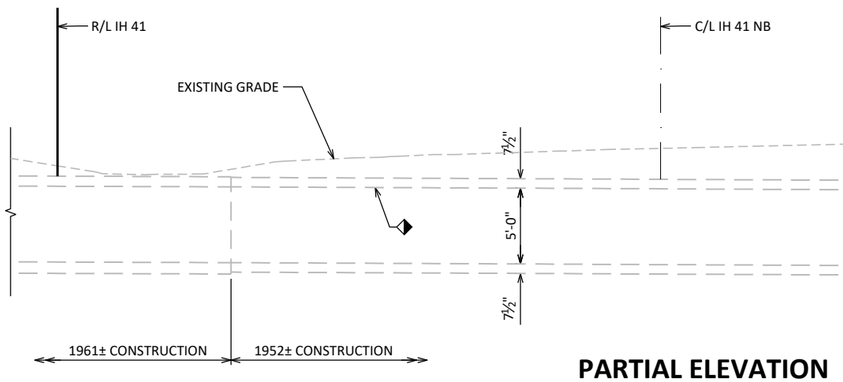


PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION

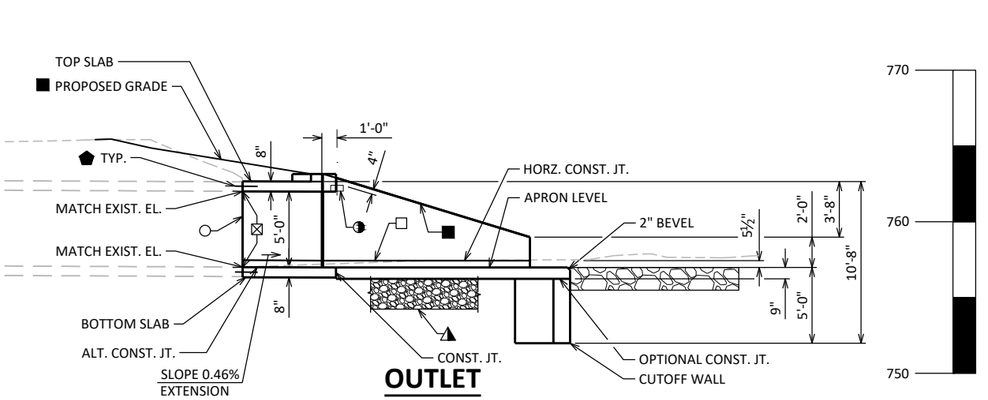
NOTE

FOR LEGEND, UTILITY NOTES, AND ADDITIONAL INFORMATION, SEE "GENERAL PLAN & ELEVATION (1 OF 2)" SHEET.



PARTIAL ELEVATION

ALONG C/L CULVERT



OUTLET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

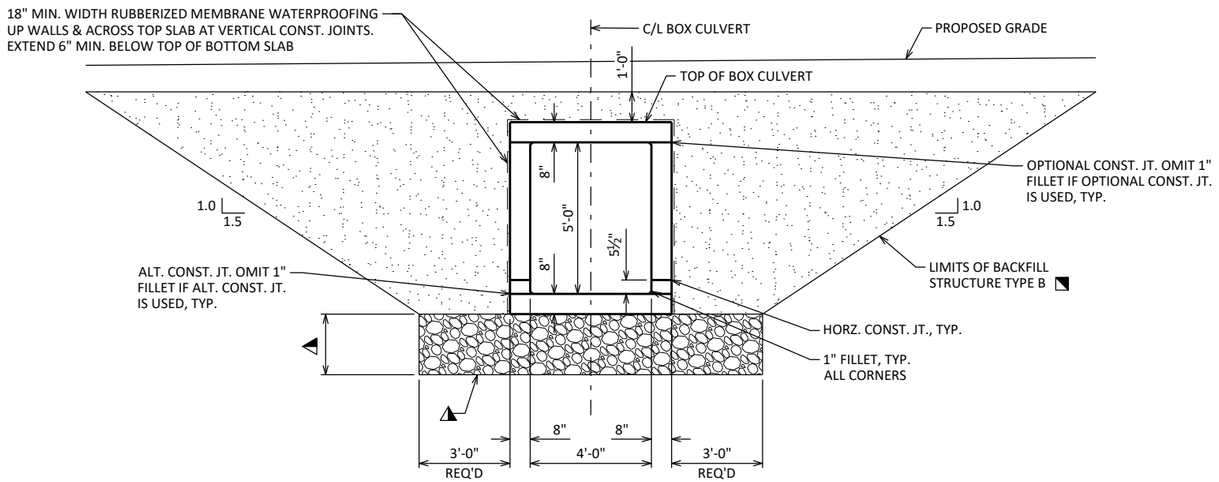
GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2
533

SCALE = 10.00

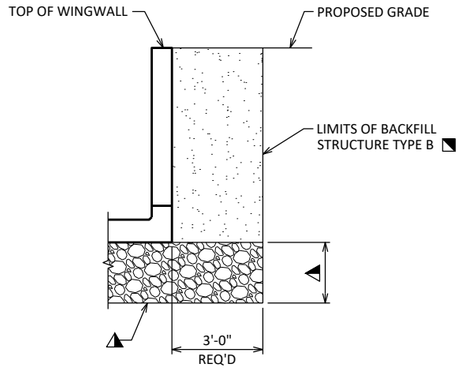
8

8



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	WEST END	EAST END	TOTALS
203.0220.014	REMOVING STRUCTURE C-20-2	EACH			1
206.2001.014	EXCAVATION FOR STRUCTURES CULVERTS C-20-2	EACH			1
210.2500	BACKFILL STRUCTURE TYPE B	TON	36	89	125
311.0110	BREAKER RUN	TON	20	38	58
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	5	22	27
504.0100	CONCRETE MASONRY CULVERTS	CY	11	12	23
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	360	880	1,240
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	760	680	1,440
511.1200.014	TEMPORARY SHORING C-20-2	SF	160	190	350
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	10	18
606.0200	RIPRAP MEDIUM	CY	14	10	24
645.0105	GEOTEXTILE TYPE C	SY	34	33	67
645.0120	GEOTEXTILE TYPE HR	SY	37	27	64
SPV.0060.200	SAFETY GRATE C-20-2 INLET	EACH	1		1
SPV.0060.201	SAFETY GRATE C-20-2 OUTLET	EACH		1	1
	NON-BID ITEMS				
	NAME PLATE	EACH			1
	PREFORMED JOINT FILLER	SIZE			¾"

ALL ITEMS ARE CATEGORY 0080

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-20-2" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

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

◭ UNDER CUT 1'-0" AT INLET AND 2'-0" AT OUTLET. EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

SECTIONS, QUANTITIES, & NOTES

SHEET 3
534

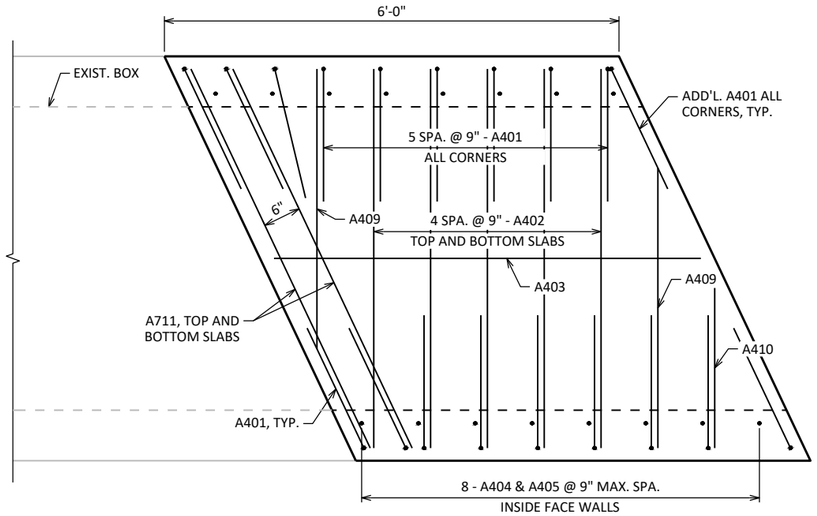
SCALE = 5.00

8

8

STATE PROJECT NUMBER

1100-52-71



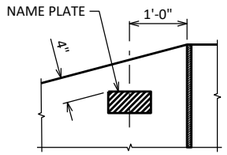
OUTLET EXTENSION PLAN

APRON AND HEADER NOT SHOWN

BILL OF BARS

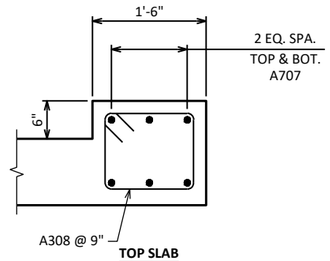
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A401		38	5'-2"	X	CORNERS
A402		10	4'-8"		SLABS TRANSVERSE
A403		26	5'-8"		SLABS AND WALLS LONGITUDINAL
A404		16	2'-2"		SLAB TO WALL DOWELS
A405		16	4'-10"		WALLS VERTICAL
⬟ A506		22	2'-6"		JOINT DOWEL
A707		12	5'-5"		HEADER TRANSVERSE
A308		18	4'-7"	X	HEADER STIRRUP
A409		4	3'-9"		SLABS TRANSVERSE
A410		2	2'-2"		SLABS TRANSVERSE
A711		4	5'-6"		SLABS TRANSVERSE

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.

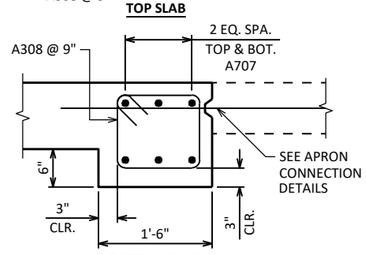


NAME PLATE DETAIL

WING 4

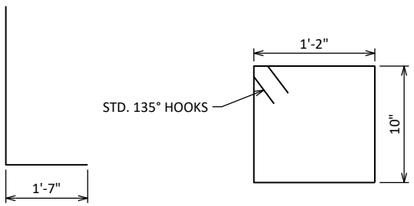


TOP SLAB



BOTTOM SLAB

SECTION THRU OUTLET HEADER

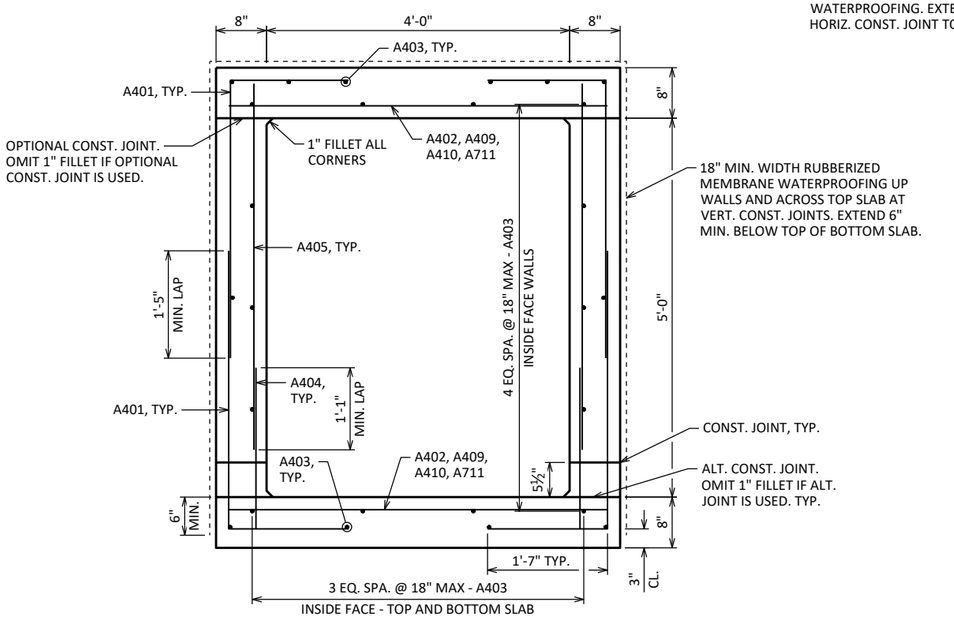


A401 **A308**

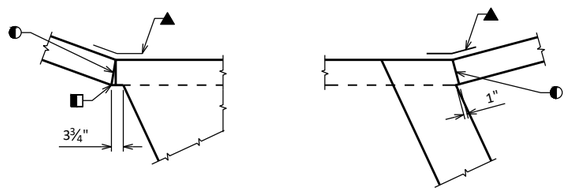
◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

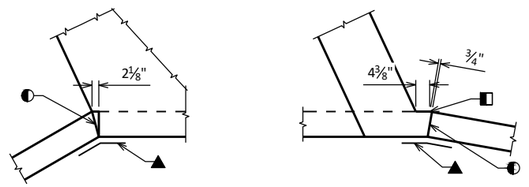
▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.



SECTION THRU BOX

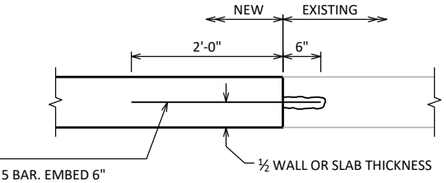


CORNER 2 **CORNER 3**



CORNER 1 **CORNER 4**

CORNER DETAILS



A506 @ 1'-0" ADHESIVE ANCHOR NO. 5 BAR. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. TYP. ALL WALLS AND SLABS.

CONSTRUCTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY FEG | PLANS CK'D HDA/MSS

BOX DETAILS

SHEET 4
535

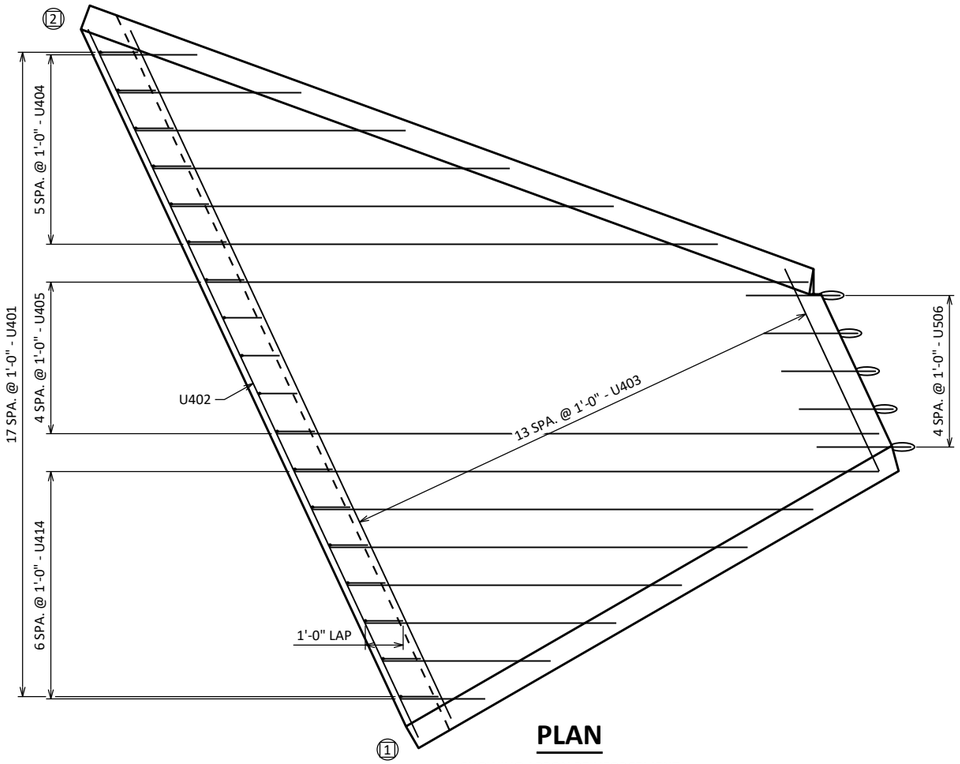
SCALE =

8

8

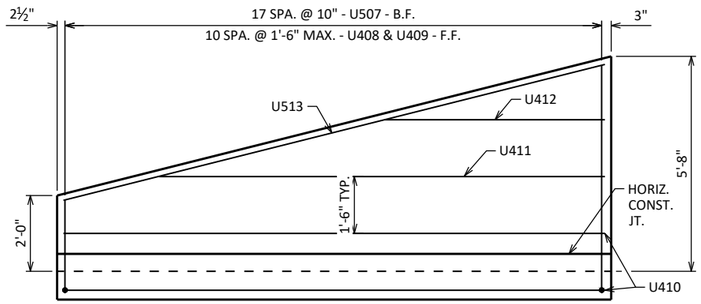
STATE PROJECT NUMBER

1100-52-71

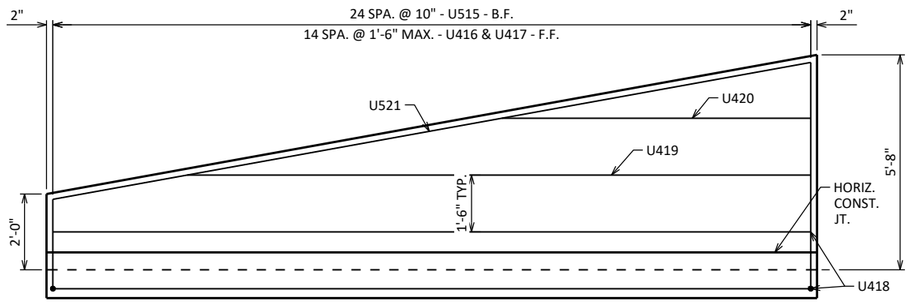


PLAN

SHOWING APRON REINFORCEMENT



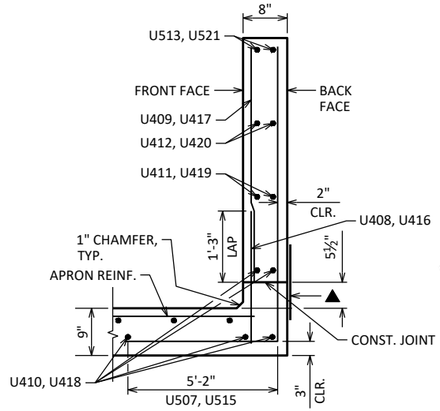
WING 1 ELEVATION



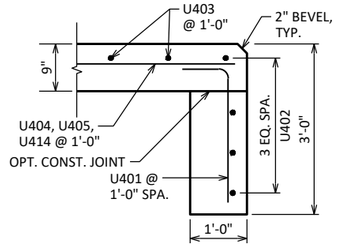
WING 2 ELEVATION

ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

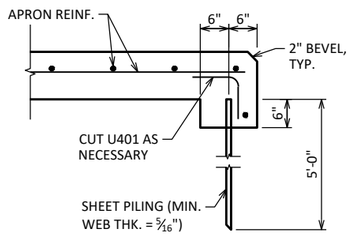


SECTION THRU WINGS



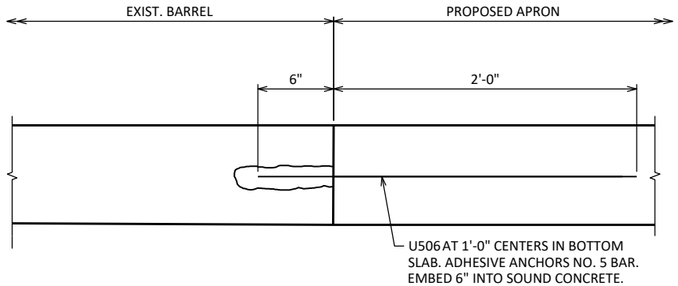
INLET

CUT-OFF WALL



ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



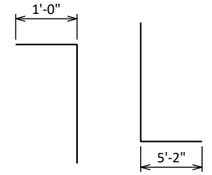
INLET APRON CONNECTION DETAIL

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR △ SERIES	LOCATION
U401		18	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	20'-8"			CUTOFF WALL HORIZONTAL
U403		14	13'-0"		X	APRON TRANSVERSE
U404		6	8'-4"		X	APRON LONGITUDINAL
U405		5	15'-11"			APRON LONGITUDINAL
⬟ U506		5	2'-6"			APRON TO BARREL DOWEL
U507	X	18	9'-3"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	11	2'-3"			APRON TO WALL FRONT FACE
U409	X	11	3'-3"		X	WALL FRONT FACE VERTICAL
U410	X	5	14'-4"			WALL HORIZONTAL
U411	X	2	11'-10"			WALL HORIZONTAL
U412	X	2	5'-10"			WALL HORIZONTAL
U513	X	2	14'-9"			WALL HORIZONTAL TOP
U414		7	8'-11"		X	APRON LONGITUDINAL
U515	X	25	9'-3"	X	X	APRON TO WALL BACK FACE VERTICAL
U416	X	15	2'-3"			APRON TO WALL FRONT FACE
U417	X	15	3'-3"		X	WALL FRONT FACE VERTICAL
U418	X	5	20'-0"			WALL HORIZONTAL
U419	X	2	16'-6"			WALL HORIZONTAL
U420	X	2	8'-2"			WALL HORIZONTAL
U521	X	2	20'-4"			WALL HORIZONTAL TOP

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

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE INLET APRON CONNECTION DETAIL.



U401 U507, U515

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.			LENGTH		
U403	1	SERIES OF	14	5'-11"	TO	20'-1"
U404	1	SERIES OF	6	2'-7"	TO	14'-0"
U507	1	SERIES OF	18	7'-5"	TO	11'-0"
U409	1	SERIES OF	11	1'-5"	TO	5'-0"
U414	1	SERIES OF	7	2'-3"	TO	15'-6"
U515	1	SERIES OF	25	7'-5"	TO	11'-0"
U417	1	SERIES OF	15	1'-5"	TO	5'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY FEG | PLANS CK'D HDA/MSS

APRON AND WING DETAILS INLET

SHEET 5
536

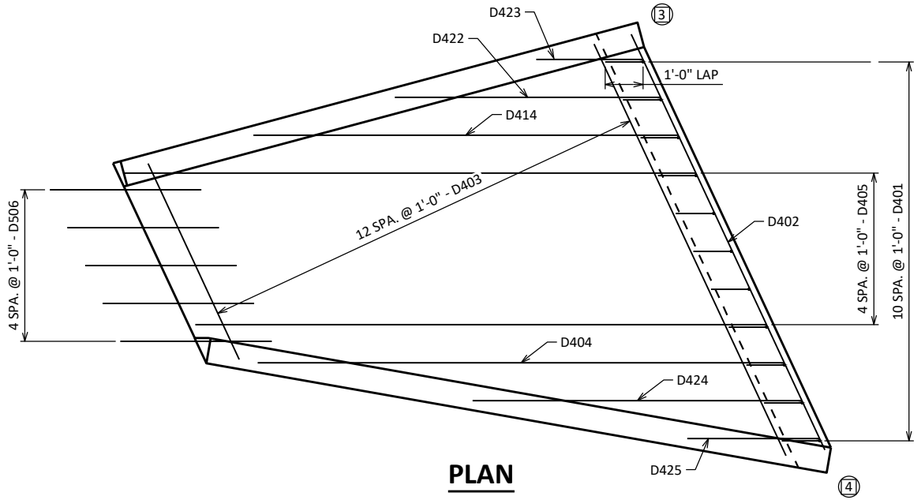
SCALE = 3.0

8

8

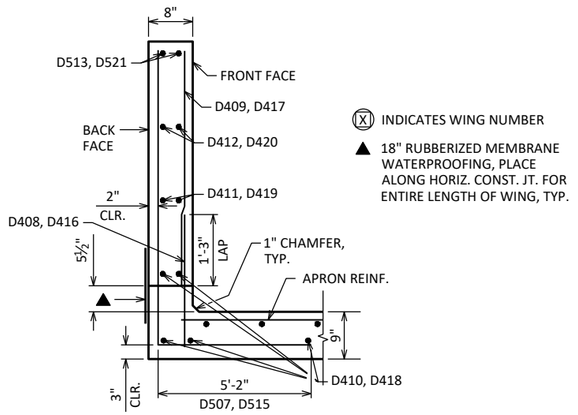
STATE PROJECT NUMBER

1100-52-71



PLAN

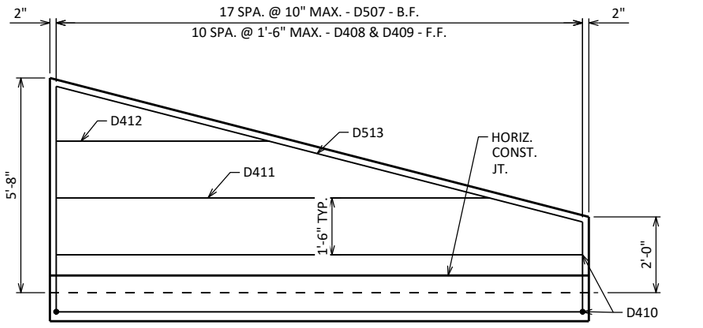
SHOWING APRON REINFORCEMENT



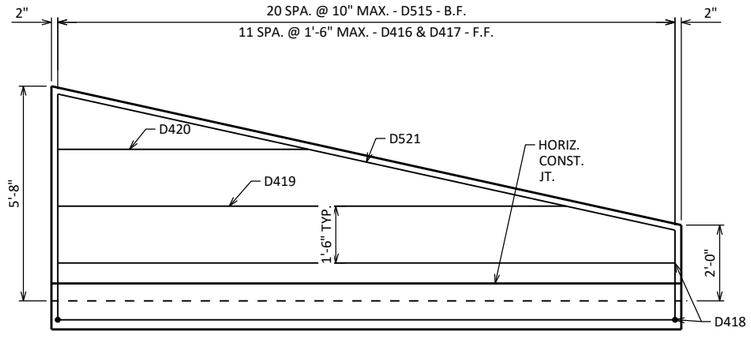
X INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

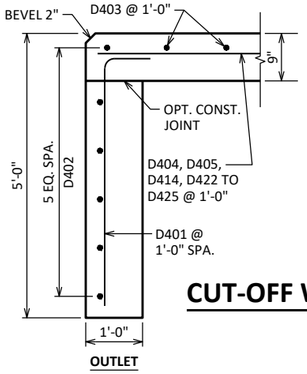
SECTION THRU WINGS



WING 3 ELEVATION

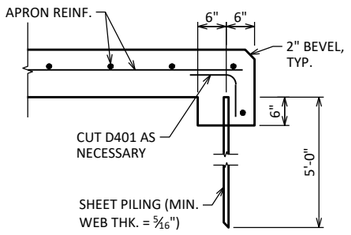


WING 4 ELEVATION



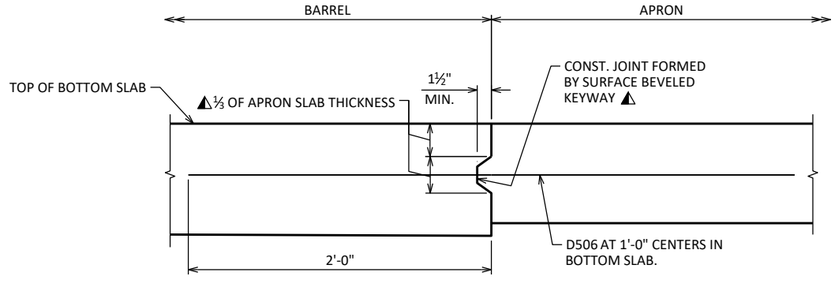
CUT-OFF WALL

OUTLET



ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



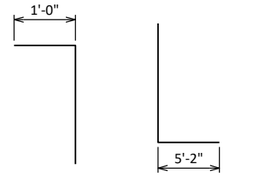
OUTLET APRON CONNECTION DETAIL

IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES △	LOCATION
D401		11	5'-6"	X		CUTOFF WALL VERTICAL
D402		6	12'-2"			CUTOFF WALL HORIZONTAL
D403		13	8'-11"		X	APRON TRANSVERSE
D404		1	13'-11"			APRON LONGITUDINAL
D405		5	15'-1"			APRON LONGITUDINAL
D506		5	4'-0"			APRON TO BARREL DOWEL
D507	X	18	9'-3"	X	X	APRON TO WALL BACK FACE VERTICAL
D408	X	11	2'-3"			APRON TO WALL FRONT FACE
D409	X	11	3'-3"		X	WALL FRONT FACE VERTICAL
D410	X	5	13'-11"			WALL HORIZONTAL
D411	X	2	11'-10"			WALL HORIZONTAL
D412	X	2	6'-8"			WALL HORIZONTAL
D513	X	2	14'-6"			WALL HORIZONTAL TOP
D414		1	11'-3"			APRON LONGITUDINAL
D515	X	21	9'-3"	X	X	APRON TO WALL BACK FACE VERTICAL
D416	X	12	2'-3"			APRON TO WALL FRONT FACE
D417	X	12	3'-3"		X	WALL FRONT FACE VERTICAL
D418	X	5	16'-4"			WALL HORIZONTAL
D419	X	2	13'-10"			WALL HORIZONTAL
D420	X	2	7'-10"			WALL HORIZONTAL
D521	X	2	16'-10"			WALL HORIZONTAL TOP
D422		1	7'-1"			APRON LONGITUDINAL
D423		1	2'-10"			APRON LONGITUDINAL
D424		1	8'-9"			APRON LONGITUDINAL
D425		1	3'-6"			APRON LONGITUDINAL

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



D401 D507, D515

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.			LENGTH		
D403	1	SERIES OF	13	5'-9"	TO	12'-0"
D507	1	SERIES OF	18	7'-5"	TO	11'-0"
D409	1	SERIES OF	11	1'-5"	TO	5'-0"
D515	1	SERIES OF	21	7'-5"	TO	11'-0"
D417	1	SERIES OF	12	1'-5"	TO	5'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY FEG | PLANS CK'D HDA/MSS

APRON AND WING DETAILS OUTLET

SHEET 6
537

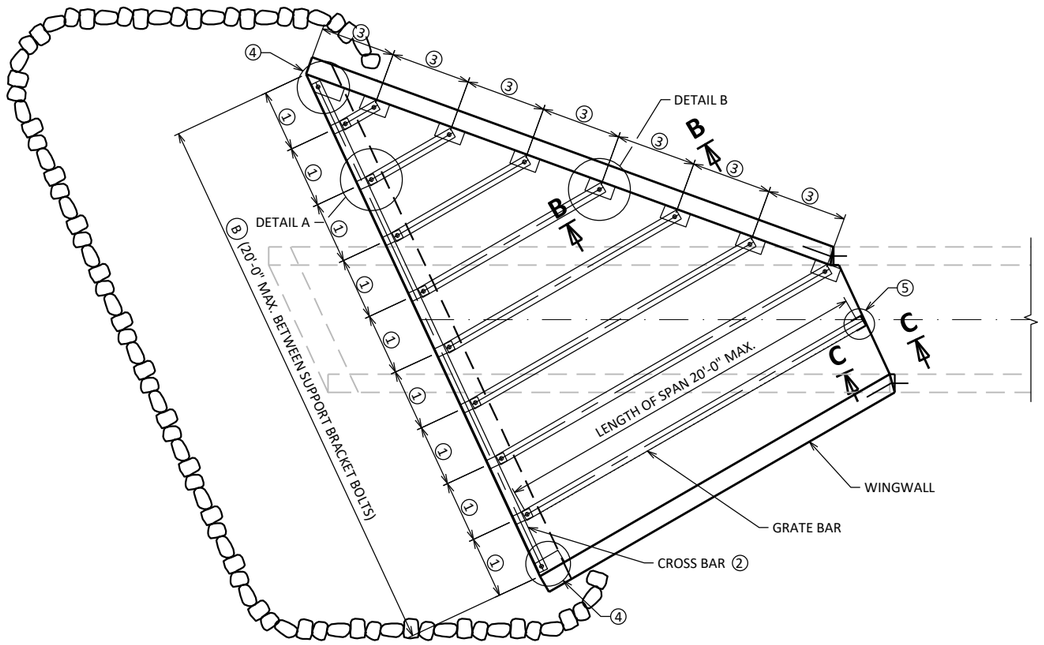
SCALE = 3.0

8

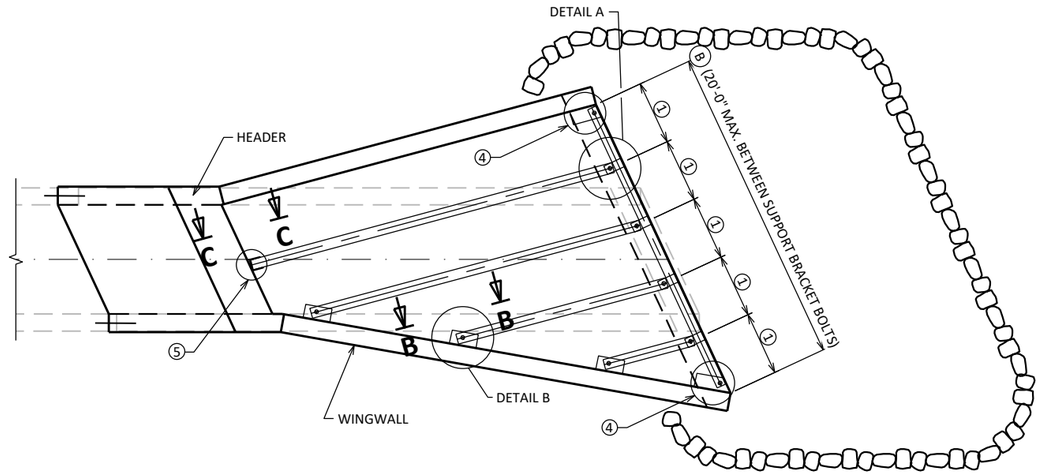
8

STATE PROJECT NUMBER

1100-52-71



INSTALLATION PLAN - C-20-2 WEST



INSTALLATION PLAN - C-20-2 EAST

USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B PIPE. GALVANIZE ASTM A123 ALL PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

INSTALL BOLTS, WASHERS, AND LOCK NUTS COMPLYING WITH STANDARD SPECIFICATION 513.2.1(5)

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH APRON OPENING.

(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

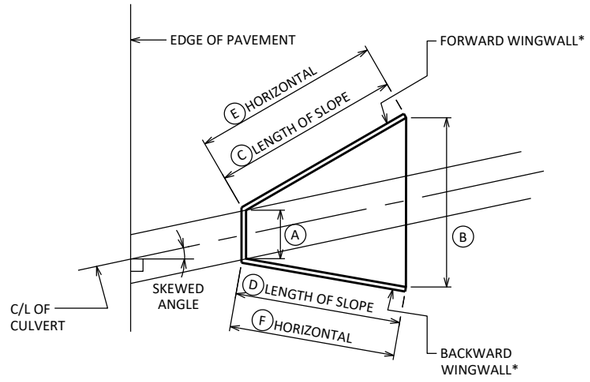
(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL.

(4) END OF WING BRACKETS AND LOCATION OF BRACKET HOLES THROUGH WING TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF 4 INCHES OF CONCRETE AND 2 INCHES OF STEEL BRACKET MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

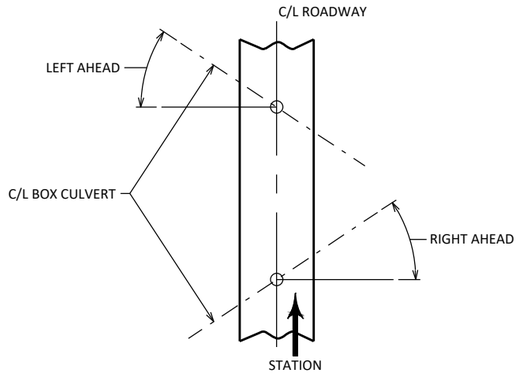
(5) PROVIDE SHIM PLATES BEHIND SUPPORT BRACKETS TO ACCOUNT FOR THE DIFFERENCE IN SKEW BETWEEN THE HEADER AND PIPE ORIENTATION. 5 DEGREE DIFFERENCE AT WEST HEADER AND 10 DEGREE DIFFERENCE AT EAST HEADER.

GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

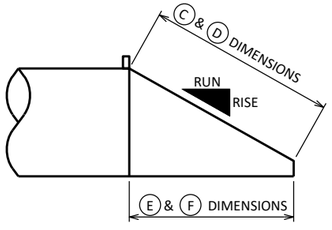


TOP VIEW

*FROM ROADWAY STATIONING



SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS

LOCATION		CULVERT SKEW ANGLE AHEAD		DIMENSIONS					
STRUCTURE NO.	SIDE	DEGREES		(A)	(B)	(C)	(D)	(E)	(F)
		LEFT	RIGHT						
C-20-0002	LT.	25		4.41	21.31	20.75	15.20	20.33	14.62
C-20-0002	RT.	25		4.41	11.66	14.83	17.14	14.23	16.62

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATES FOR BOX CULVERT (1 OF 2)

SHEET 7
538

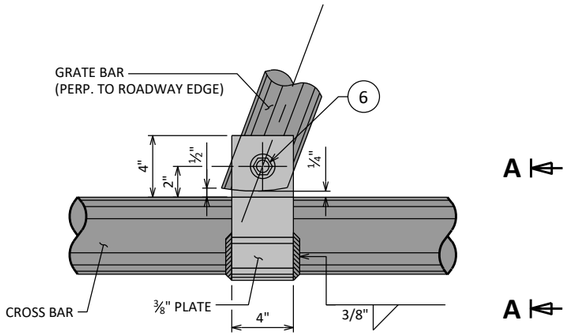
SCALE = 1" = 1'

8

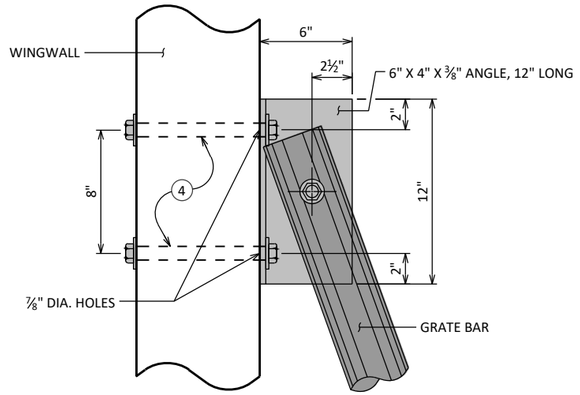
8

STATE PROJECT NUMBER

1100-52-71



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

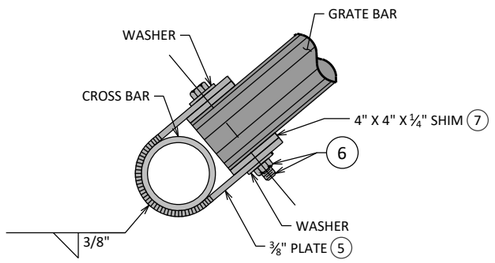
(4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

(5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

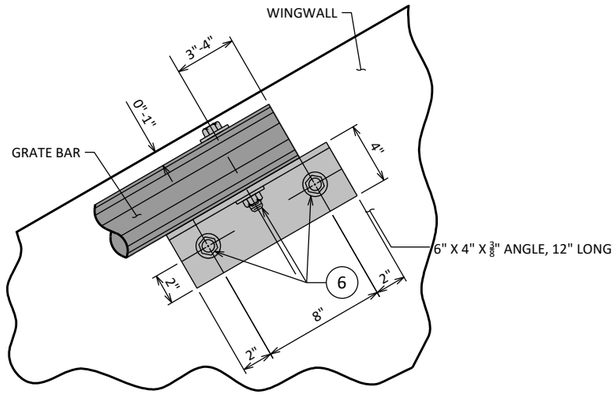
(6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

(7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

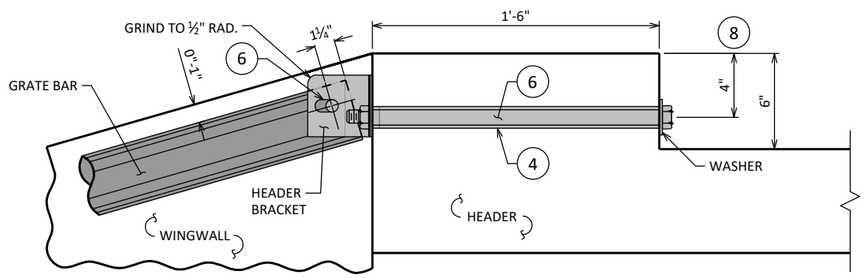
(8) LOCATE BOLT HOLE TO MISS HEADER REINFORCING.



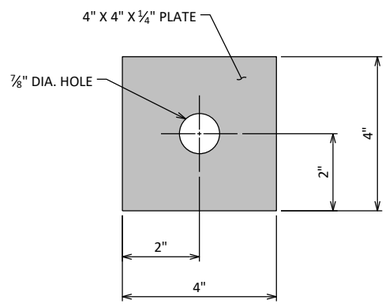
SECTION A-A



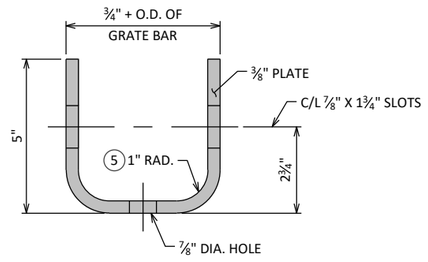
SECTION B-B



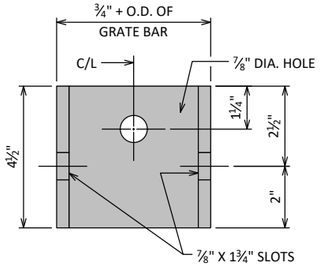
SECTION C-C



SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-2

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATES FOR BOX CULVERT (2 OF 2)

SHEET 8

539

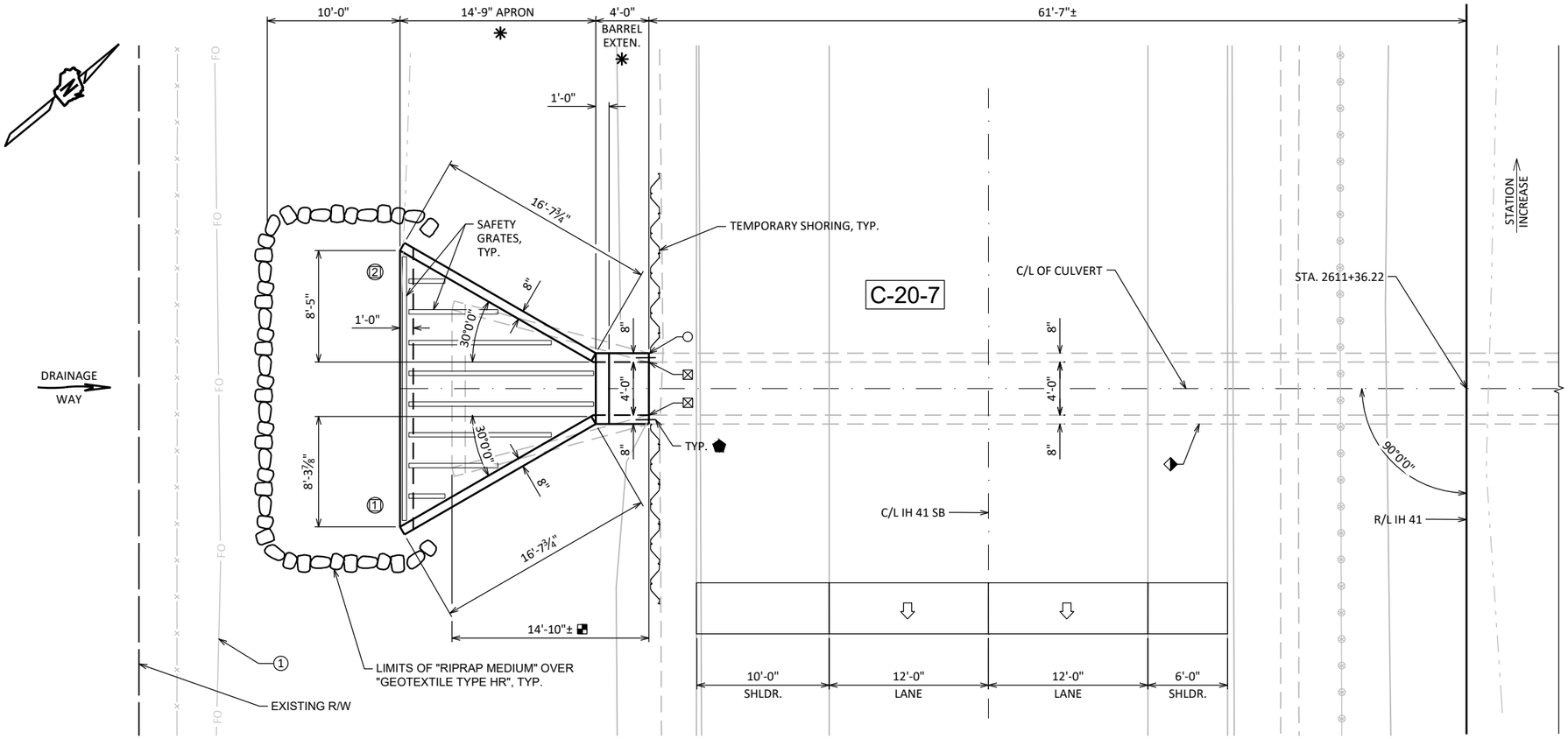
SCALE = 1" = 1'

8

8

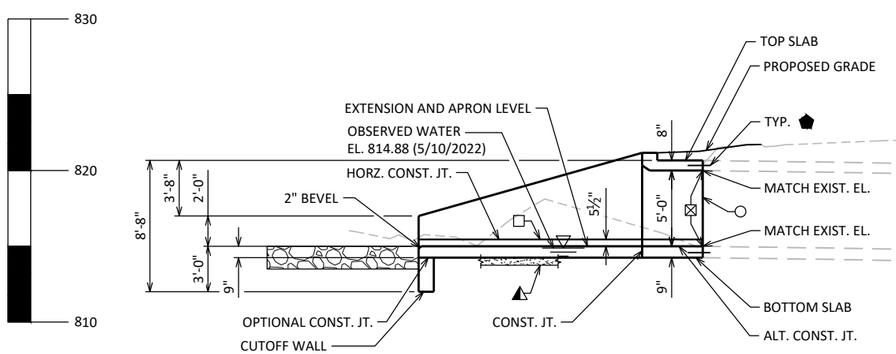
STATE PROJECT NUMBER

1100-52-71

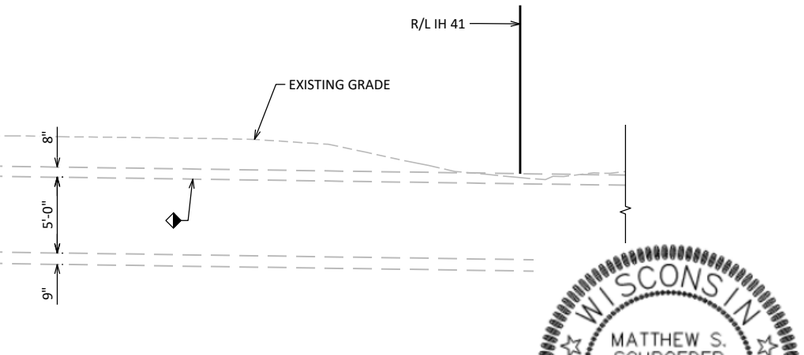


PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION



INLET



PARTIAL ELEVATION

ALONG C/L CULVERT

TRAFFIC DATA

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

N/A, PROPOSED STRUCTURE EXTENSION

UTILITY NOTES

① EXISTING BURIED FIBER OPTIC LINE TO REMAIN

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SECTIONS, QUANTITIES, & NOTES
3. BOX DETAILS
4. APRON AND WING DETAILS
5. SAFETY GRATE FOR BOX CULVERT (1 OF 2)
6. SAFETY GRATE FOR BOX CULVERT (2 OF 2)

LEGEND

- ☒ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◆ EXISTING BARREL TO REMAIN IN PLACE
- ✱ BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- ▪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDERCUT 6". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE UP TO CUTOFF WALL.
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓘ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC

DESIGN DATA

LIVE LOAD - EXTENSION:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.36
OPERATING RATING FACTOR: RF = 1.77
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTH LOAD:

DESIGNED FOR A FILL HEIGHT OF 2.5 FEET.

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

LIVE LOAD - EXISTING BOX:

RATINGS PER WISCONSIN BRIDGE MANUAL 45.8.2.1
INVENTORY RATING FACTOR: RF = 1.0
OPERATING RATING FACTOR: RF = 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN MATTHEW S. SCHROEDER E-42428 JOHNSON CREEK, WI PROFESSIONAL ENGINEER 9/1/2023

STRUCTURE C-20-7

IH-41 OVER DRAINAGE WAY

COUNTY	TOWN/~~CITY/VILLAGE~~
FOND DU LAC	ELDORADO

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
BPV	HDA	BPV/FEG	HDA/MSS

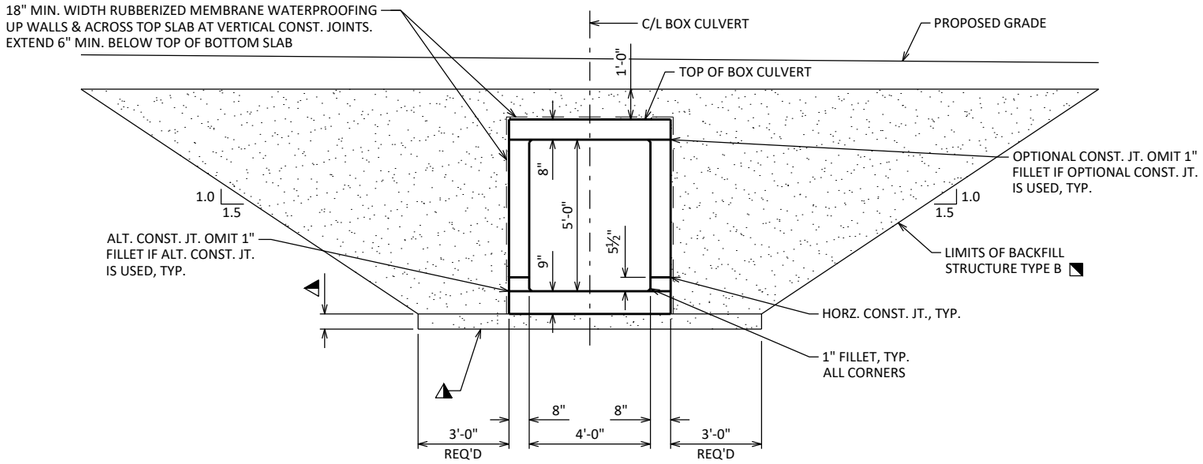
GENERAL PLAN & ELEVATION

SHEET 1 OF 6
540

SCALE = 10.00

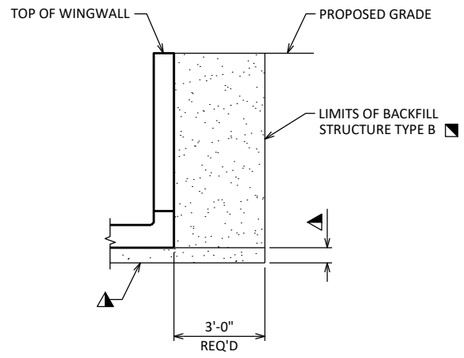
I.D. DATE:

8 8



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220.015	REMOVING STRUCTURE C-20-7	EACH	1
206.2001.015	EXCAVATION FOR STRUCTURES CULVERTS C-20-7	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	88
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	22
504.0100	CONCRETE MASONRY CULVERTS	CY	13
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	690
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	740
511.1200.015	TEMPORARY SHORING C-20-7	SF	150
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10
606.0200	RIPRAP MEDIUM	CY	14
645.0120	GEOTEXTILE TYPE HR	SY	38
SPV.0060.202	SAFETY GRATE C-20-7	EACH	1
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	¾"

ALL ITEMS ARE CATEGORY 0100

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-20-7" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

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

◭ UNDERCUT 6", EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-7

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

SECTIONS, QUANTITIES, & NOTES

SHEET 2
541

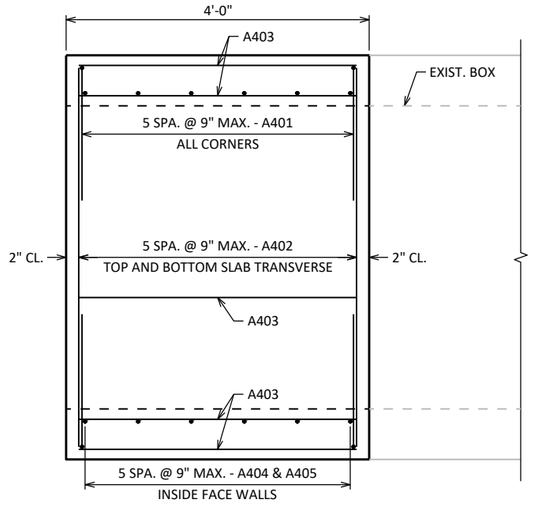
SCALE = 5.00

8

8

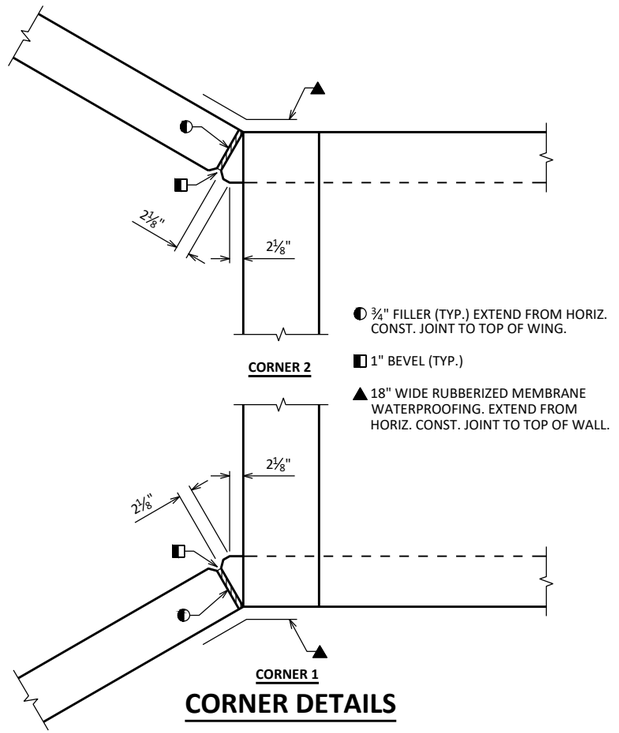
STATE PROJECT NUMBER

1100-52-71



INLET PLAN

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN



◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

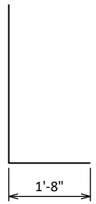
▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

CORNER DETAILS

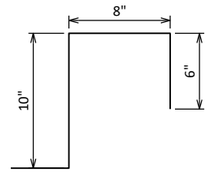
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A401		24	5'-4"	X	CORNERS
A402		12	5'-0"		SLABS TRANSVERSE
A403		28	3'-8"		SLABS AND WALLS LONGITUDINAL
A404		12	2'-3"		SLAB TO WALL DOWELS
A405		12	4'-10"		WALLS VERTICAL
⬟ A506		22	2'-6"		JOINT DOWEL
A407		2	5'-0"		HEADER TRANSVERSE
A308		8	2'-3"	X	HEADER STIRRUP

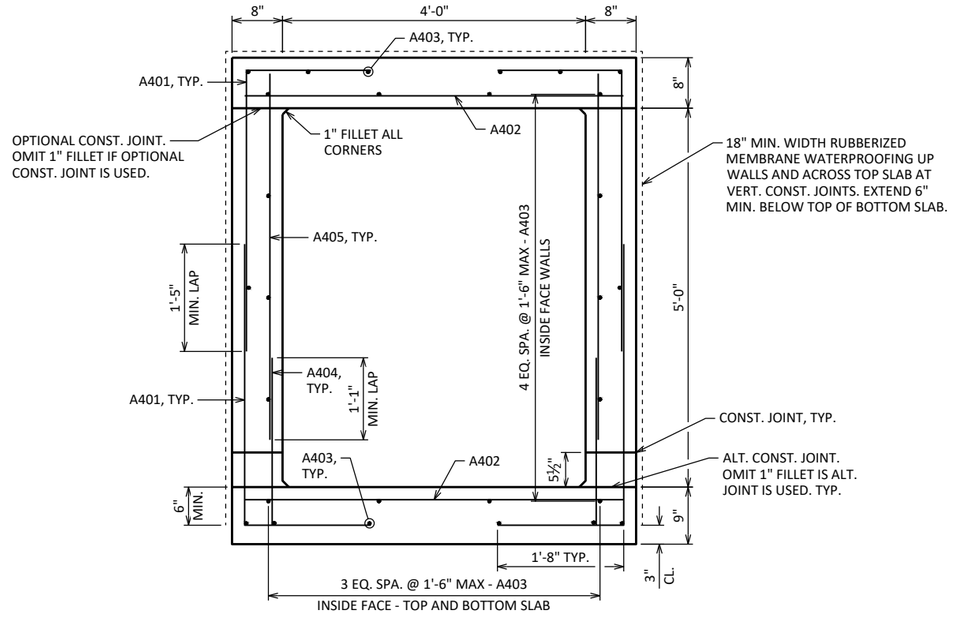
⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.



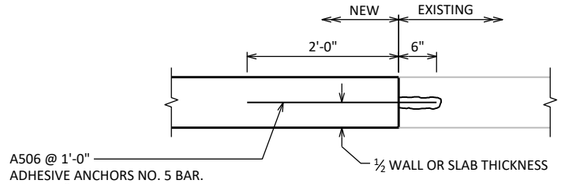
A401



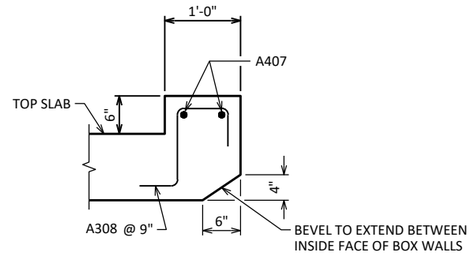
A308



SECTION THRU BOX



CONSTRUCTION JOINT



SECTION THRU HEADER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-7

DRAWN BY FEG | PLANS CK'D MSS

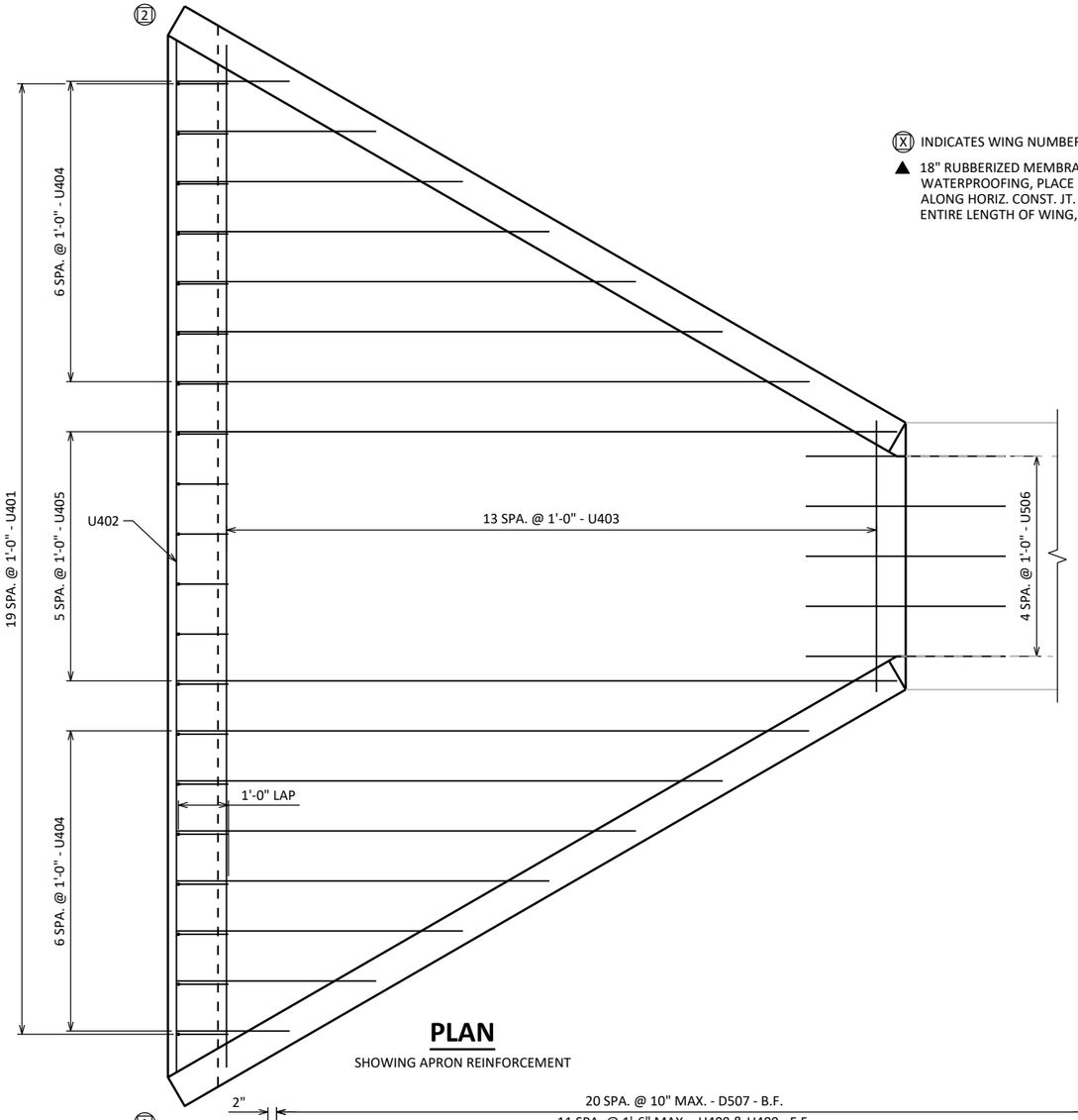
BOX DETAILS

SHEET 3
542

SCALE =

STATE PROJECT NUMBER

1100-52-71

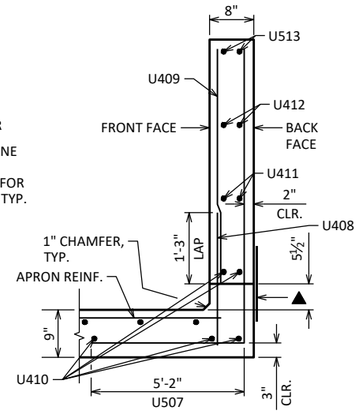


PLAN

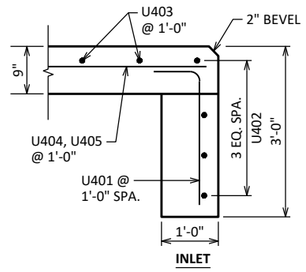
SHOWING APRON REINFORCEMENT

Ⓧ INDICATES WING NUMBER

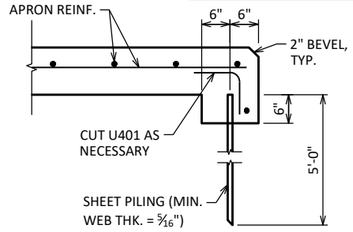
▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.



SECTION THRU WINGS

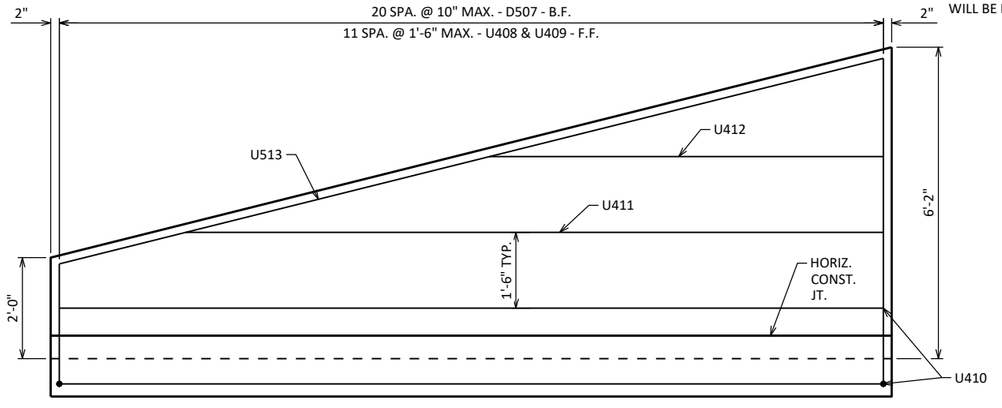


CUT-OFF WALL



ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



WING ELEVATION

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR △ SERIES	LOCATION
U401		20	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	20'-8"			CUTOFF WALL HORIZONTAL
U403		14	13'-0"		X	APRON TRANSVERSE
U404		14	7'-6"		X	APRON LONGITUDINAL
U405		6	14'-5"			APRON LONGITUDINAL
U506		5	4'-0"			APRON TO BARREL DOWEL
U507	X	42	9'-5"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	24	2'-3"			APRON TO WALL FRONT FACE
U409	X	24	3'-5"		X	WALL FRONT FACE VERTICAL
U410	X	10	16'-4"			WALL HORIZONTAL
U411	X	4	13'-10"			WALL HORIZONTAL
U412	X	4	7'-10"			WALL HORIZONTAL
U513	X	4	16'-10"			WALL HORIZONTAL TOP

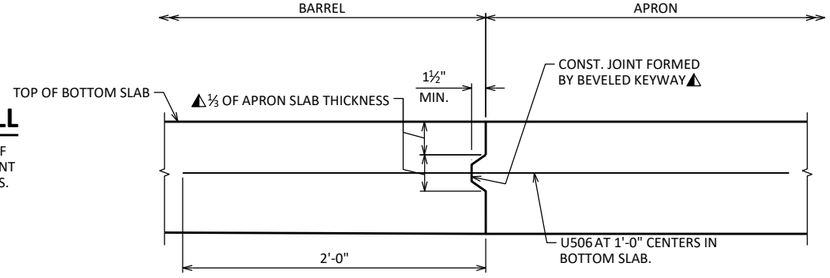
△ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 14	5'-6" TO 20'-6"
U404	2 SERIES OF 7	2'-3" TO 12'-8"
U507	2 SERIES OF 21	7'-4" TO 11'-5"
U409	2 SERIES OF 12	1'-5" TO 5'-5"

U401 **U507**



APRON CONNECTION DETAIL

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-7

DRAWN BY FEG | PLANS CK'D MSS

APRON AND WING DETAILS

SHEET 4
543

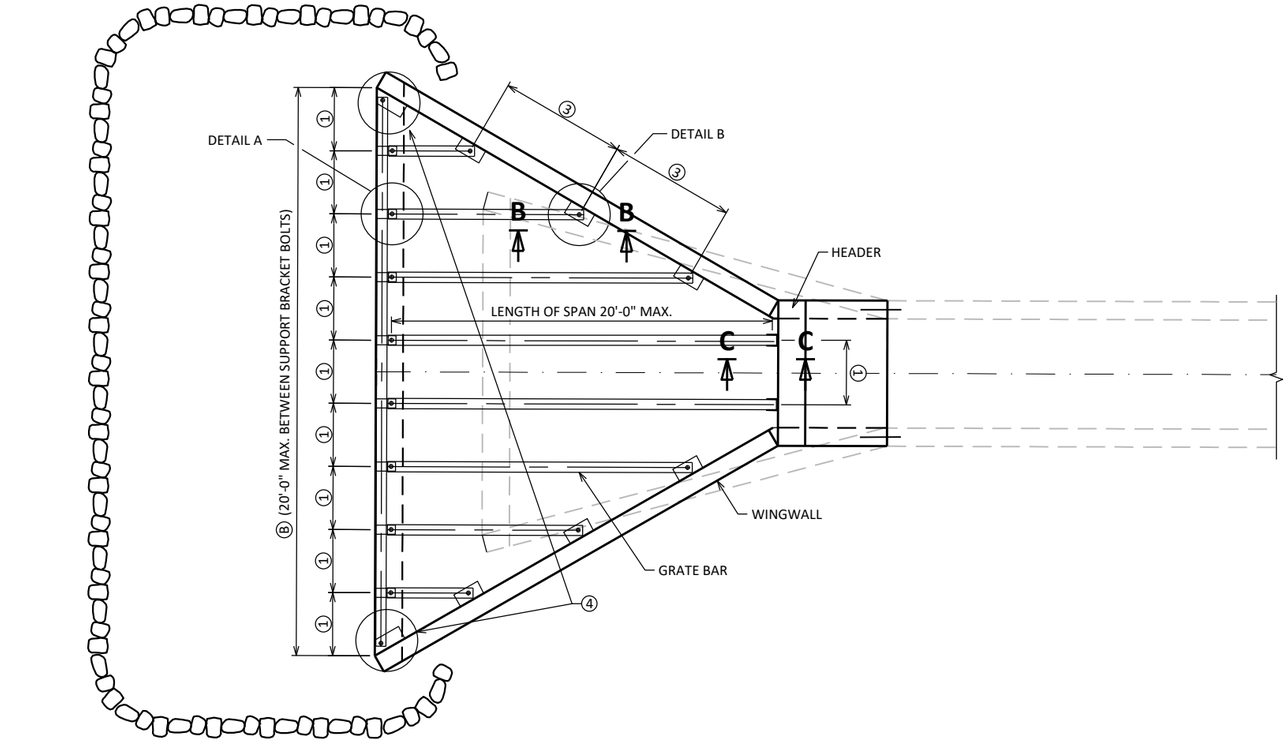
SCALE = 3.0

8

8

STATE PROJECT NUMBER

1100-52-71



INSTALLATION PLAN - C-20-7 WEST

USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B PIPE. GALVANIZE ASTM A123 ALL PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

INSTALL BOLTS, WASHERS, AND LOCK NUTS COMPLYING WITH STANDARD SPECIFICATION 513.2.1(5)

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH APRON OPENING.

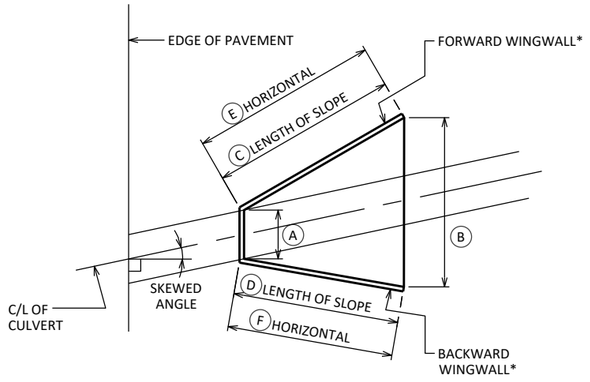
(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL.

(4) END OF WING BRACKETS AND LOCATION OF BRACKET HOLES THROUGH WING TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF 4 INCHES OF CONCRETE AND 2 INCHES OF STEEL BRACKET MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

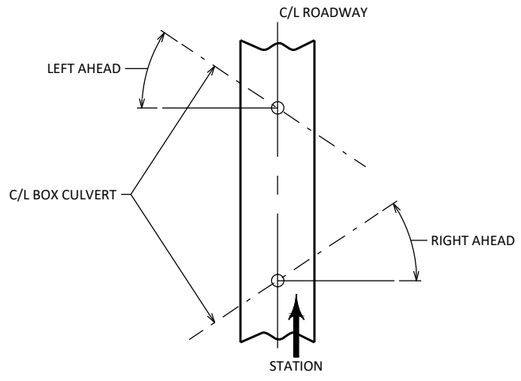
GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"



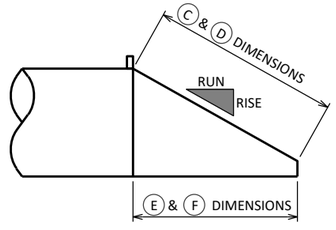
TOP VIEW

*FROM ROADWAY STATIONING

LOCATION		CULVERT SKEW ANGLE AHEAD		DIMENSIONS					
STRUCTURE NO.	SIDE	DEGREES		(A)	(B)	(C)	(D)	(E)	(F)
		LEFT	RIGHT						
C-20-0007	LT.		0	4.00	20.83	17.16	17.16	16.65	16.65



SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-7

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (1 OF 2)

SHEET 5
544

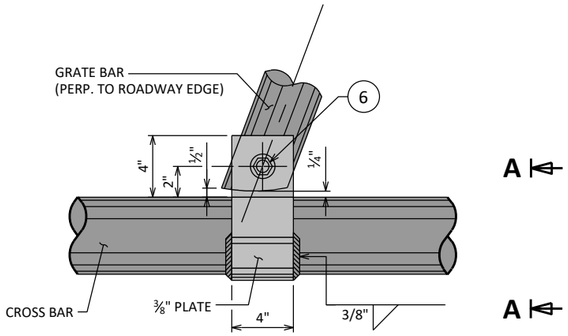
SCALE = 1" = 1'

8

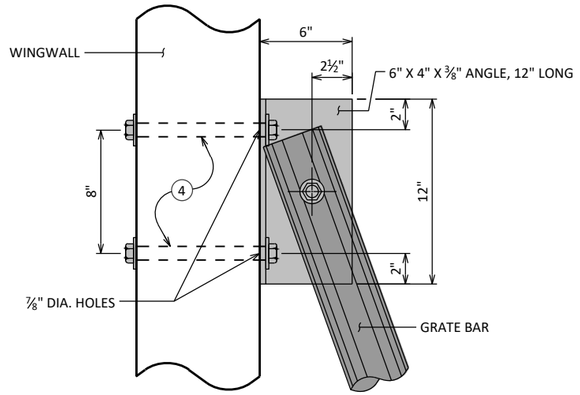
8

STATE PROJECT NUMBER

1100-52-71



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

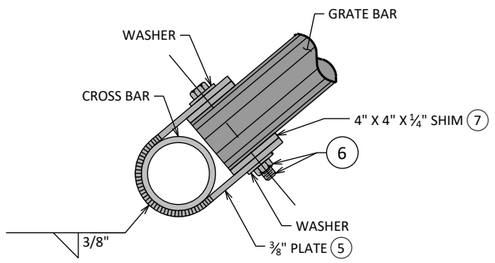
(4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

(5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

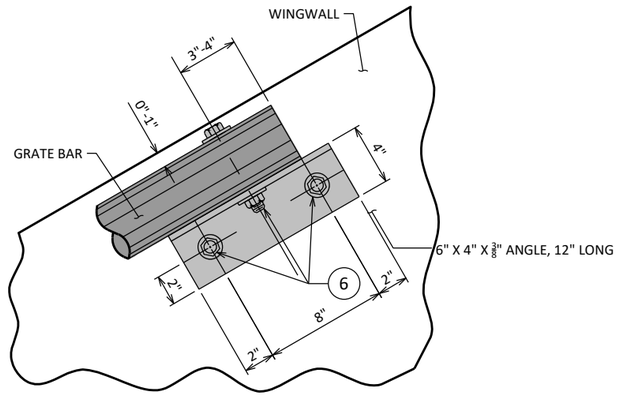
(6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

(7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

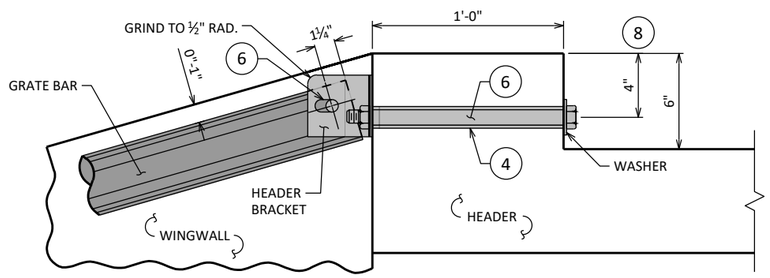
(8) LOCATE BOLT HOLE TO MISS HEADER REINFORCING.



SECTION A-A



SECTION B-B



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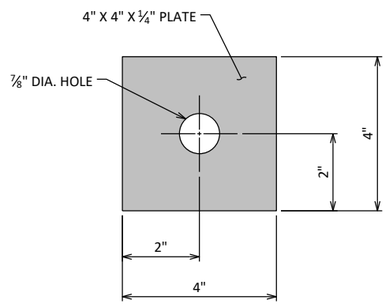
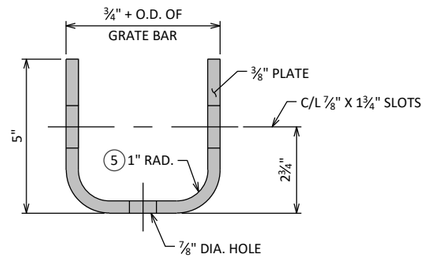
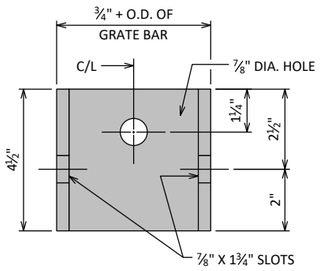


SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-7

DRAWN BY LMG | PLANS CK'D CVH/PJC

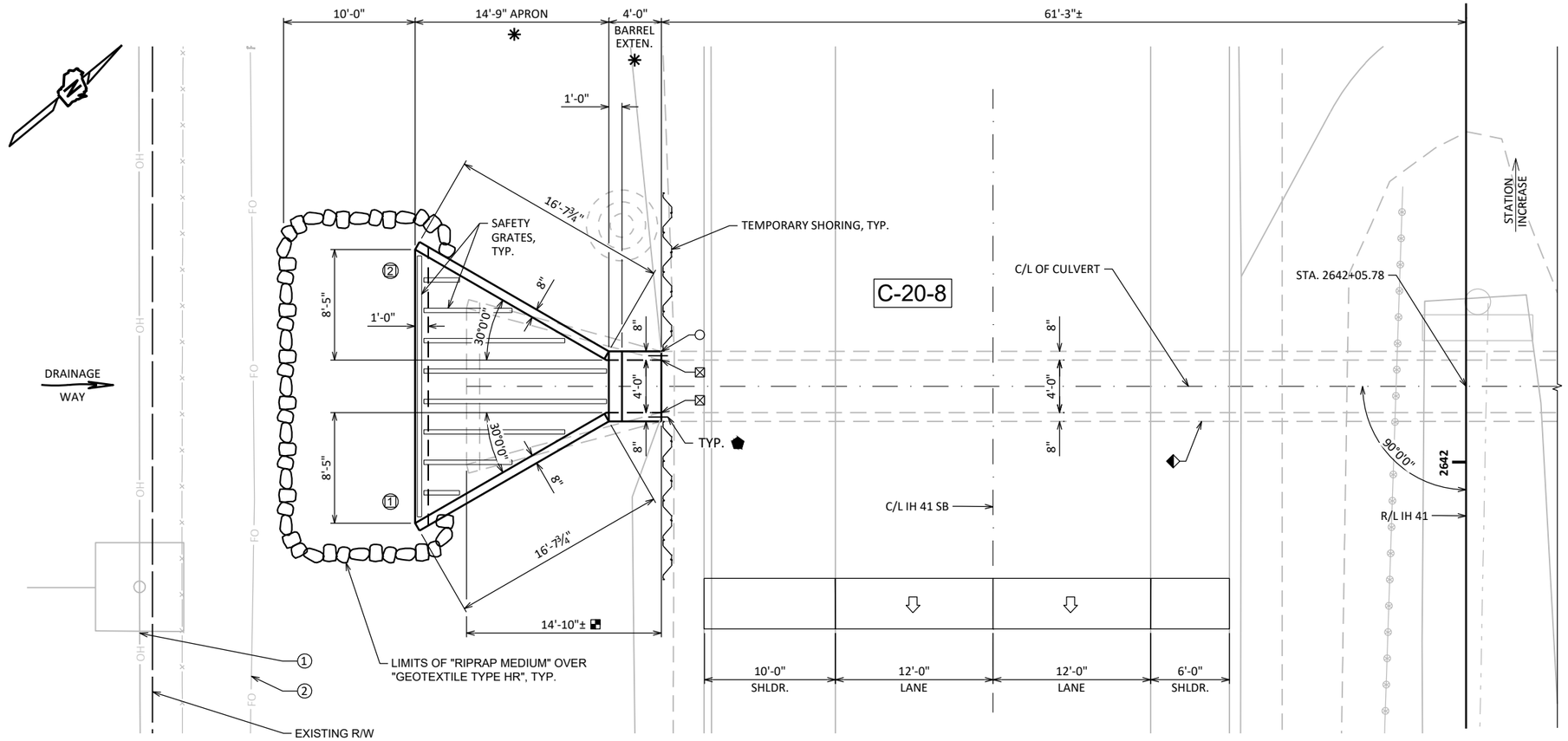
SAFETY GRATE FOR BOX CULVERT (2 OF 2)

SHEET 6
545

SCALE = 1" = 1'

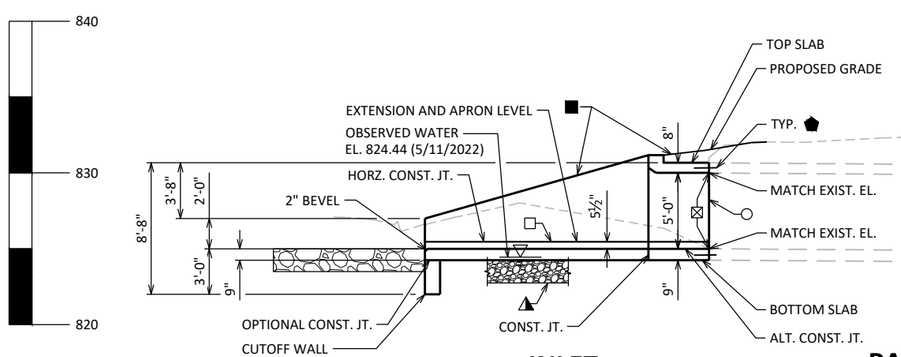
8

8

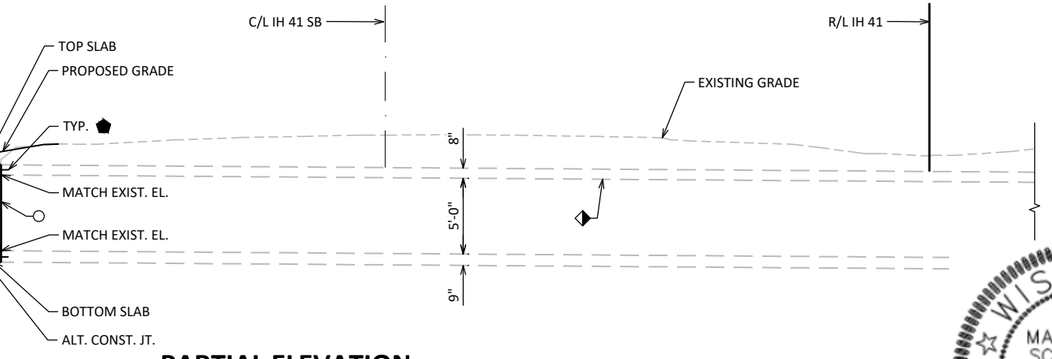


PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION



INLET



PARTIAL ELEVATION

ALONG C/L CULVERT

TRAFFIC DATA

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

N/A, PROPOSED STRUCTURE EXTENSION

UTILITY NOTES

① EXISTING OVERHEAD ELECTRIC LINE TO REMAIN

② EXISTING BURIED FIBER OPTIC LINE TO REMAIN

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. SECTIONS, QUANTITIES, & NOTES
4. BOX DETAILS
5. APRON AND WING DETAILS INLET
6. APRON AND WING DETAILS OUTLET
7. SAFETY GRATES FOR BOX CULVERT (1 OF 2)
8. SAFETY GRATES FOR BOX CULVERT (2 OF 2)

STATE PROJECT NUMBER

1100-52-71

LEGEND

- ⊠ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◑ NAME PLATE, SEE PARTIAL PLAN FOR LOCATION
- ◆ EXISTING BARREL TO REMAIN IN PLACE
- ✱ BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL BUILD APRON LEVEL AT OUTLET
- ▪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDER CUT 1'-6" AT INLET AND 3'-0" AT OUTLET. EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND UP TO CUTOFF WALL.
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓝ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC
- ■ GRADE THE ADJACENT EMBANKMENT SO THAT THE HEADER AND WINGWALL PROTRUDE LESS THAN 4 INCHES, AND FLUSH WHERE POSSIBLE.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.36
OPERATING RATING FACTOR: RF = 1.77
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTH LOAD:

DESIGNED FOR A FILL HEIGHT OF 2.5 FEET.

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

LIVE LOAD - EXISTING BOX:

RATINGS PER WISCONSIN BRIDGE MANUAL 45.8.2.1
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN MATTHEW S. SCHROEDER E-42428 JOHNSON CREEK, WI PROFESSIONAL ENGINEER 9/1/2023

STRUCTURE C-20-8

IH-41 OVER DRAINAGE WAY

COUNTY	TOWN/~~CITY/VILLAGE~~
FOND DU LAC	ELDORADO

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
BPV	HDA	BPV/FEG	HDA/MSS

GENERAL PLAN & ELEVATION (1 OF 2)

SHEET 1 OF 8
546

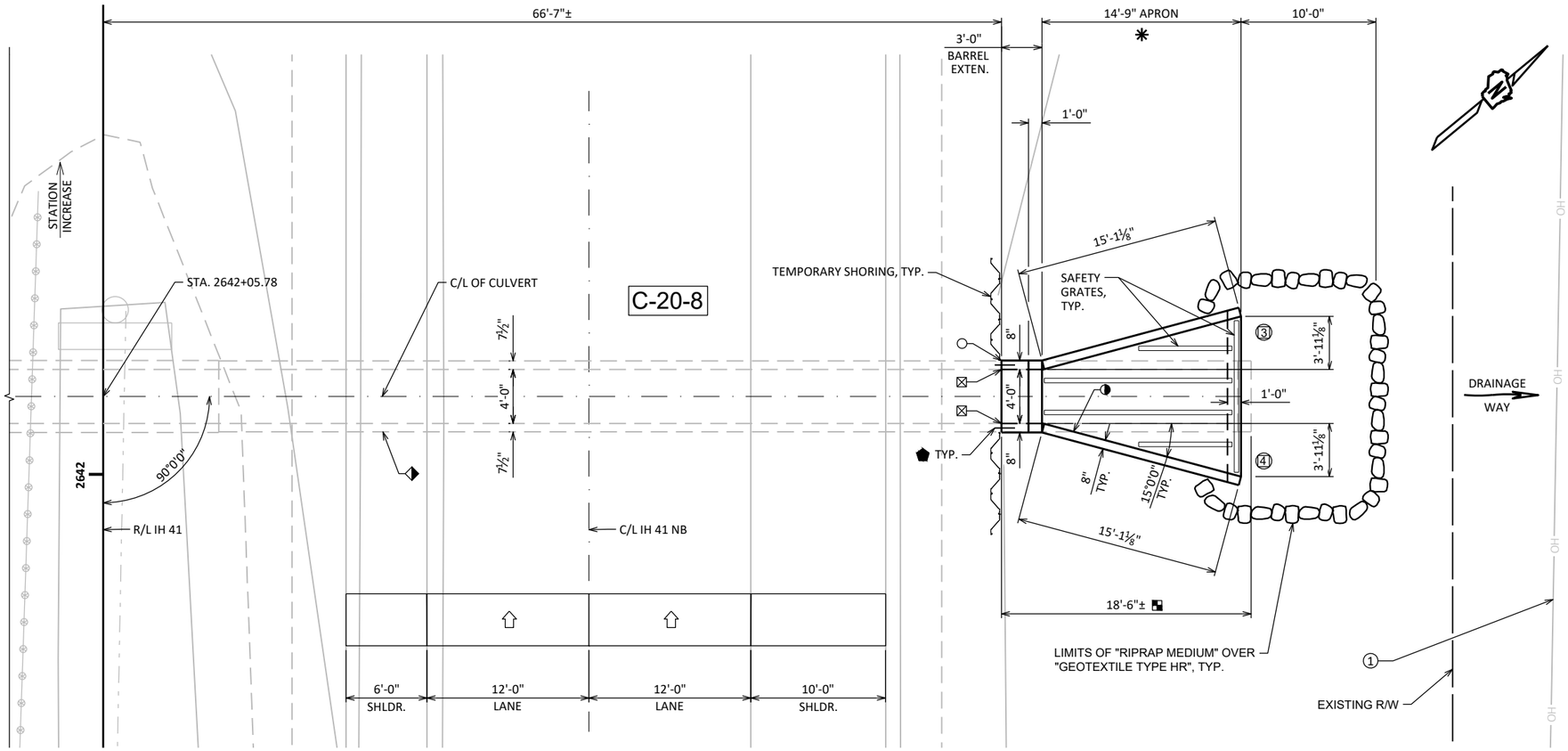
I.D. DATE:

SCALE = 10.00

8 8

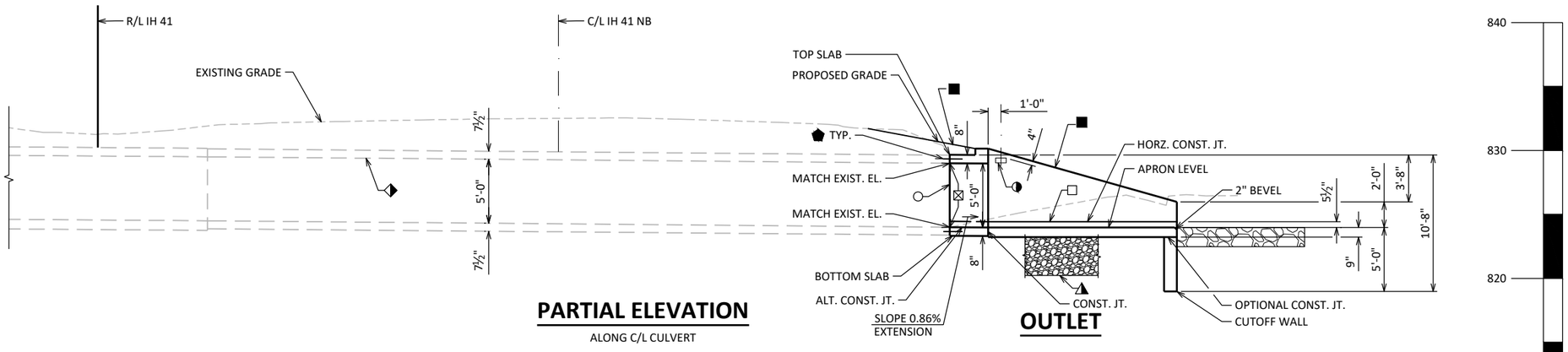
STATE PROJECT NUMBER

1100-52-71



PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION



PARTIAL ELEVATION

ALONG C/L CULVERT

OUTLET

NOTE

FOR LEGEND, UTILITY NOTES, AND ADDITIONAL INFORMATION, SEE "GENERAL PLAN & ELEVATION (1 OF 2)" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-8

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

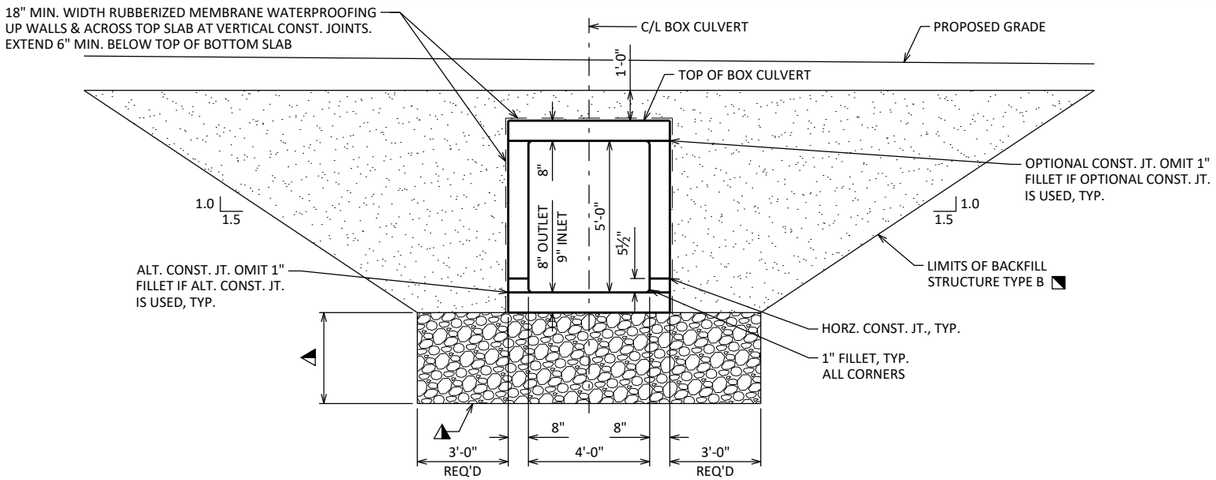
GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2
547

SCALE = 10.00

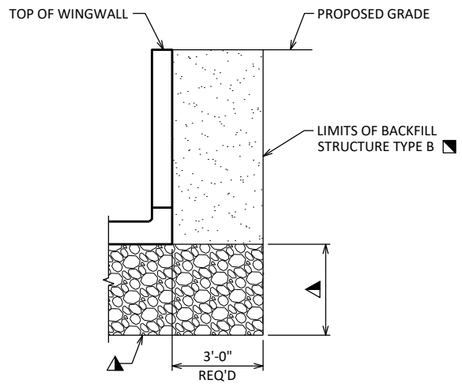
8

8



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	WEST END	EAST END	TOTALS
203.0220.016	REMOVING STRUCTURE C-20-8	EACH			1
206.2001.016	EXCAVATION FOR STRUCTURES CULVERTS C-20-8	EACH			1
210.2500	BACKFILL STRUCTURE TYPE B	TON	75	61	136
311.0110	BREAKER RUN	TON	34	51	85
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	22	22	44
504.0100	CONCRETE MASONRY CULVERTS	CY	13	11	24
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	690	550	1,240
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	740	670	1,410
511.1200.016	TEMPORARY SHORING C-20-8	SF	180	230	410
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	10	21
606.0200	RIPRAP MEDIUM	CY	15	10	25
645.0105	GEOTEXTILE TYPE C	SY	39	29	68
645.0120	GEOTEXTILE TYPE HR	SY	38	26	64
SPV.0060.203	SAFETY GRATE C-20-8 INLET	EACH	1		1
SPV.0060.204	SAFETY GRATE C-20-8 OUTLET	EACH		1	1
	NON-BID ITEMS				
	NAME PLATE	EACH			1
	PREFORMED JOINT FILLER	SIZE			¾"

ALL ITEMS ARE CATEGORY 0110

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-20-8" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

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

◭ UNDER CUT 1'-6" AT INLET AND 3'-0" AT OUTLET. EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-8

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

SECTIONS, QUANTITIES, & NOTES

SHEET 3
548

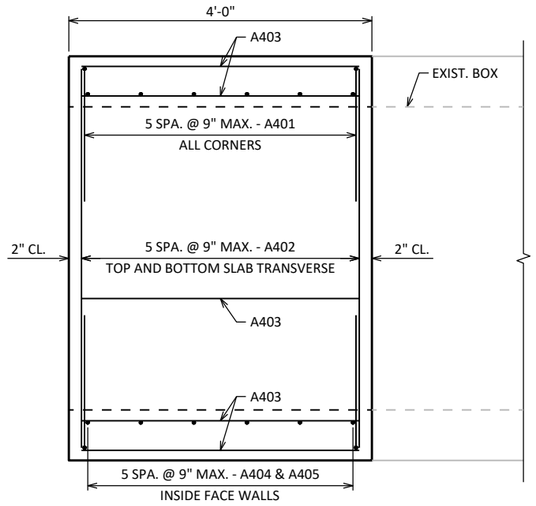
SCALE = 5.00

8

8

STATE PROJECT NUMBER

1100-52-71



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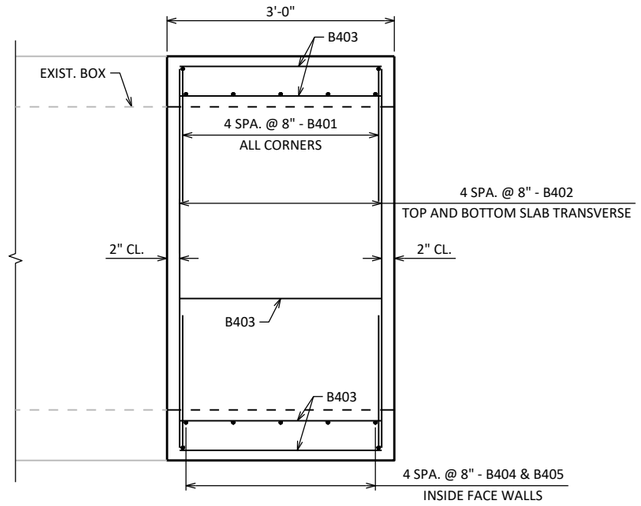
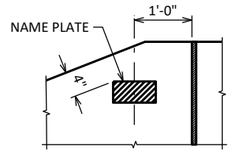


OUTLET

PLAN

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN



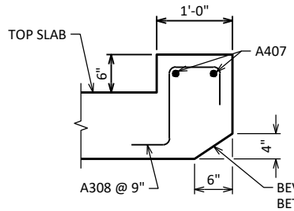
NAME PLATE DETAIL

WING 4

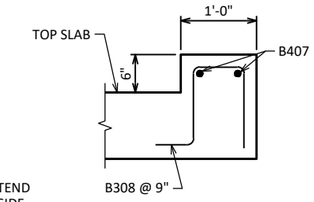
BILL OF BARS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
	A401		24	5'-3"	X	CORNERS
	A402		12	5'-0"		SLABS TRANSVERSE
	A403		28	3'-8"		SLABS AND WALLS LONGITUDINAL
	A404		12	2'-3"		SLAB TO WALL DOWELS
	A405		12	4'-10"		WALLS VERTICAL
⬟	A506		22	2'-6"		JOINT DOWEL
	A407		2	5'-0"		HEADER TRANSVERSE
	A308		8	2'-3"	X	HEADER STIRRUP
	B401		20	5'-2"	X	CORNERS
	B402		10	5'-0"		SLABS TRANSVERSE
	B403		28	2'-8"		SLABS AND WALLS LONGITUDINAL
	B404		10	2'-2"		SLAB TO WALL DOWELS
	B405		10	4'-10"		WALLS VERTICAL
⬟	B506		22	2'-6"		JOINT DOWEL
	B407		2	5'-0"		HEADER TRANSVERSE
	B308		8	2'-7"	X	HEADER STIRRUP

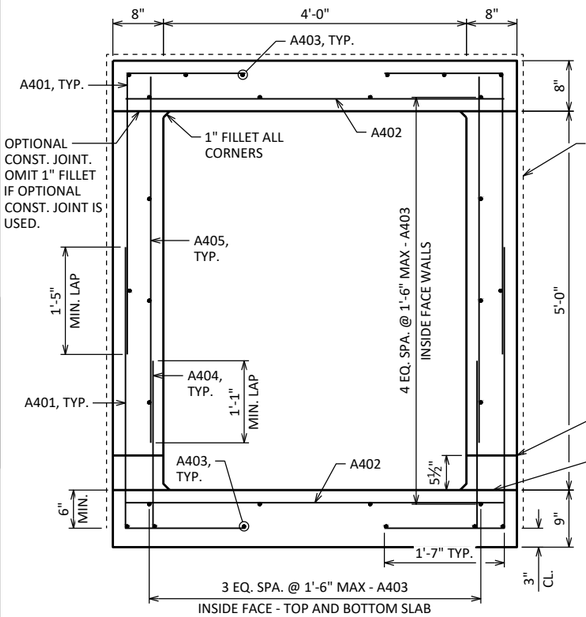
⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.



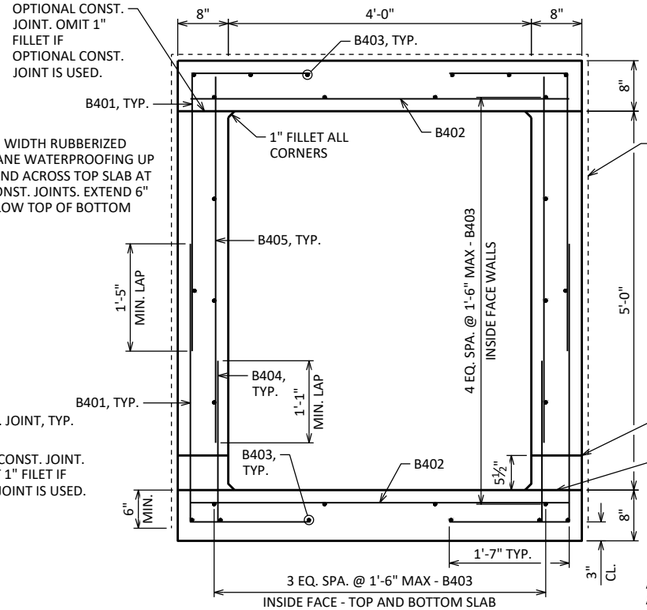
SECTION THRU HEADER INLET



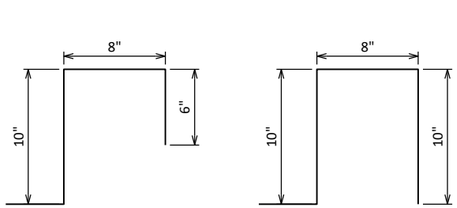
SECTION THRU HEADER OUTLET



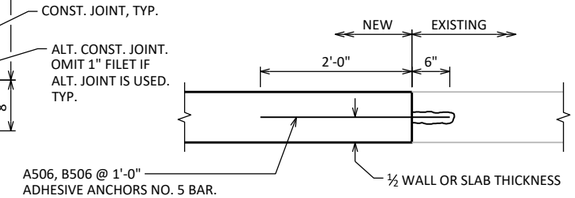
SECTION THRU BOX - INLET



SECTION THRU BOX - OUTLET



A401, B401 — A308 — B308



CONSTRUCTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-8

DRAWN BY FEG | PLANS CK'D MSS

BOX DETAILS

SHEET 4
549

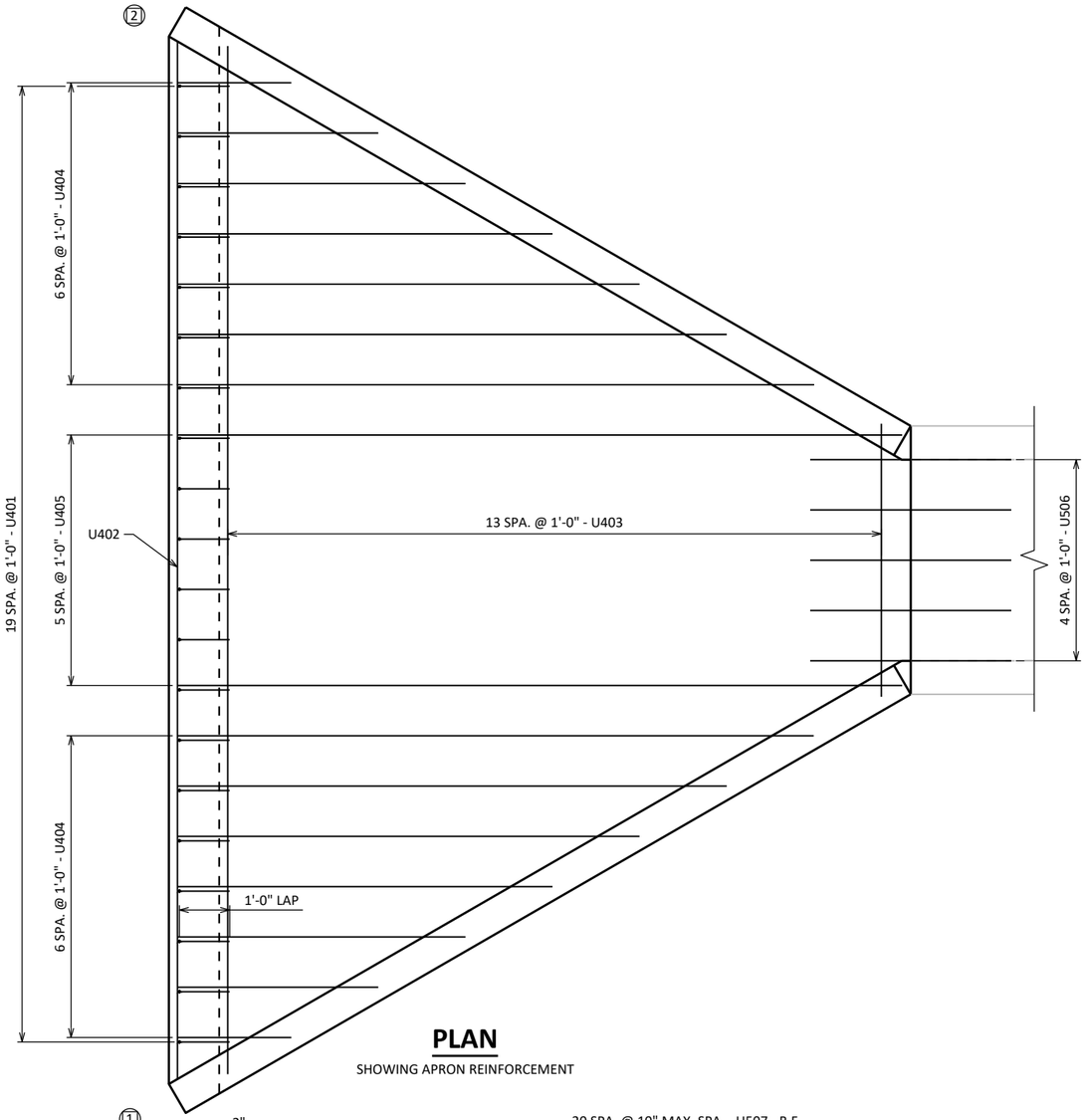
SCALE =

8

8

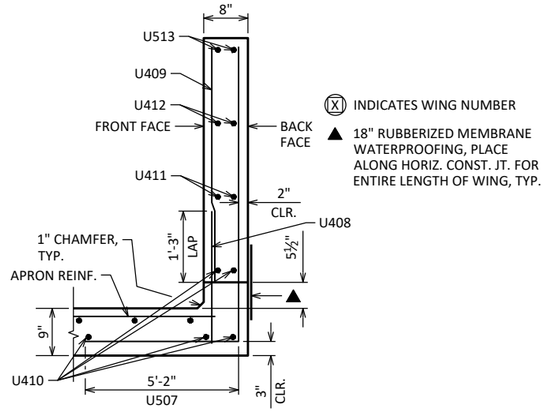
STATE PROJECT NUMBER

1100-52-71



PLAN

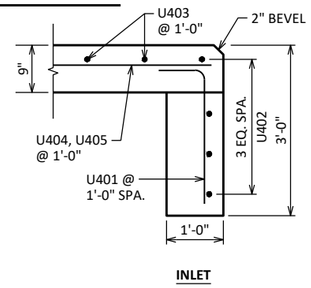
SHOWING APRON REINFORCEMENT



Ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

SECTION THRU WINGS

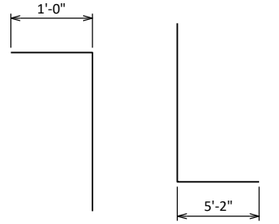


INLET

CUT-OFF WALL

ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



U401 U507

BILL OF BARS

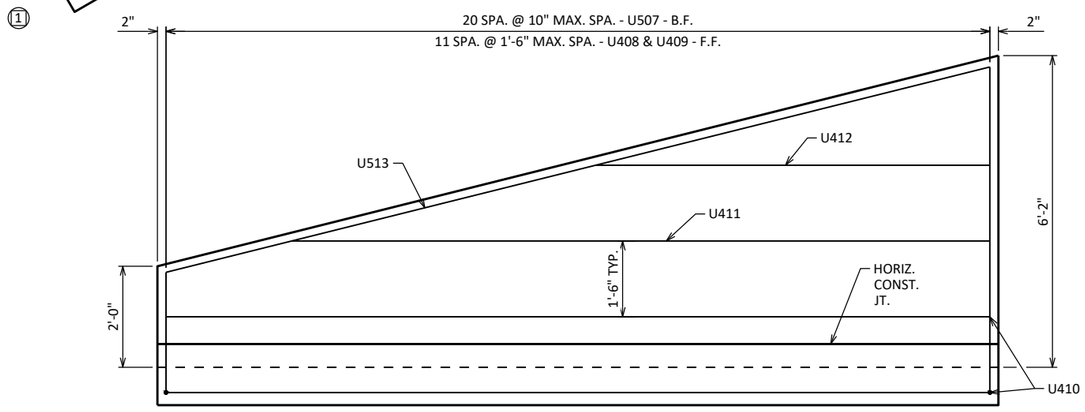
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES △	LOCATION
U401		20	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	20'-8"			CUTOFF WALL HORIZONTAL
U403		14	13'-0"		X	APRON TRANSVERSE
U404		14	7'-6"		X	APRON LONGITUDINAL
U405		6	14'-5"			APRON LONGITUDINAL
U506		5	4'-0"			APRON TO BARREL DOWEL
U507	X	42	9'-5"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	24	2'-3"			APRON TO WALL FRONT FACE
U409	X	24	3'-5"		X	WALL FRONT FACE VERTICAL
U410	X	10	16'-4"			WALL HORIZONTAL
U411	X	4	13'-10"			WALL HORIZONTAL
U412	X	4	7'-10"			WALL HORIZONTAL
U513	X	4	16'-10"			WALL HORIZONTAL TOP

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

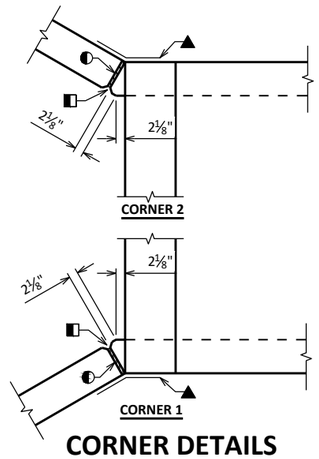
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

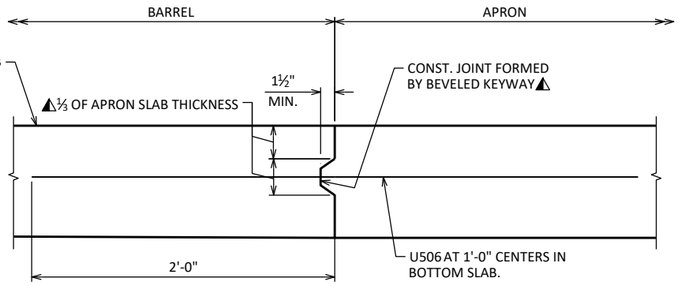
BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 14	5'-6" TO 20'-6"
U404	2 SERIES OF 7	2'-3" TO 12'-8"
U507	2 SERIES OF 21	7'-4" TO 11'-5"
U409	2 SERIES OF 12	1'-5" TO 5'-5"



WING ELEVATION



CORNER DETAILS



APRON CONNECTION DETAIL

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-8

DRAWN BY FEG | PLANS CK'D MSS

APRON AND WING DETAILS INLET

SHEET 5
550

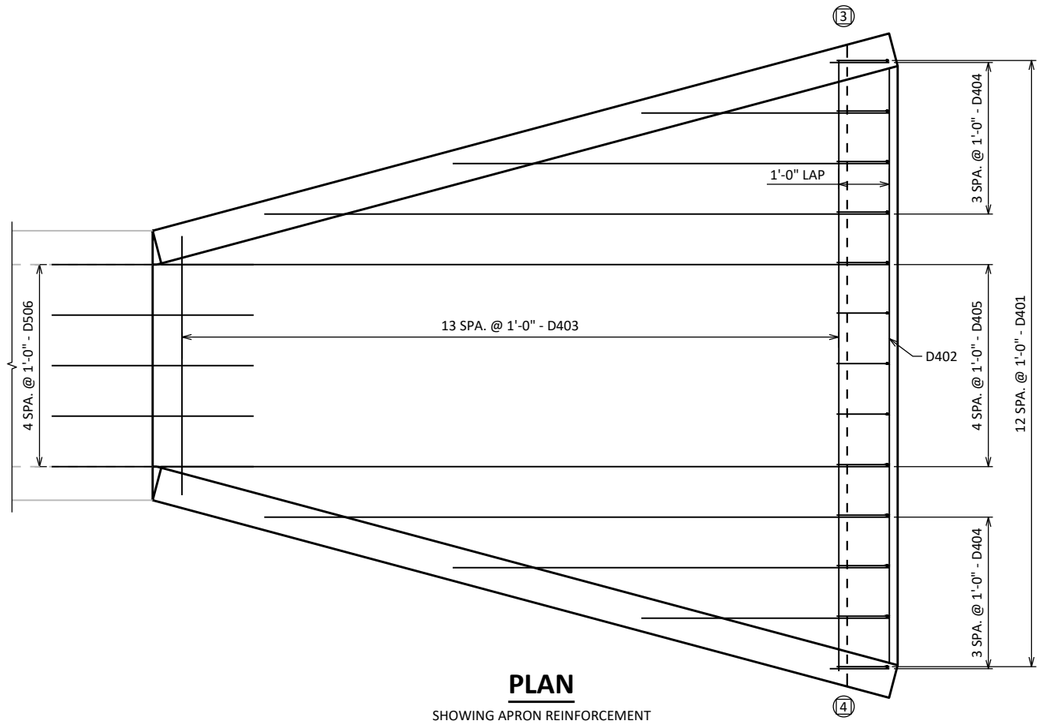
SCALE = 3.0

8

8

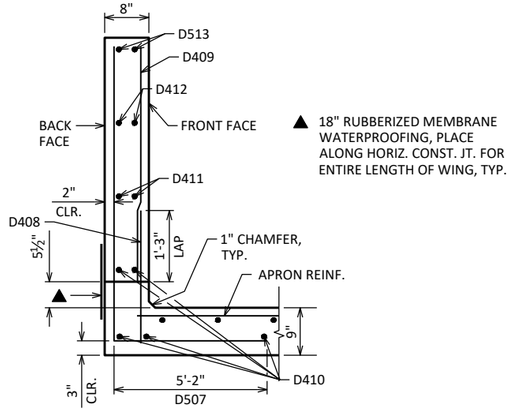
STATE PROJECT NUMBER

1100-52-71



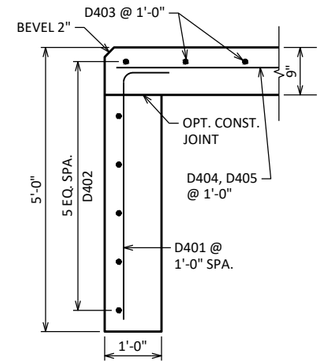
PLAN

SHOWING APRON REINFORCEMENT



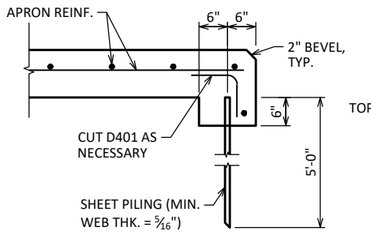
▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

SECTION THRU WINGS



OUTLET

CUT-OFF WALL



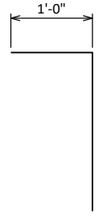
ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR △ SERIES	LOCATION
D401		13	5'-6"	X		CUTOFF WALL VERTICAL
D402		6	11'-10"			CUTOFF WALL HORIZONTAL
D403		14	8'-8"		X	APRON TRANSVERSE
D404		8	6'-10"		X	APRON LONGITUDINAL
D405		5	14'-5"			APRON LONGITUDINAL
D506		5	4'-0"			APRON TO BARREL DOWEL
D507	X	38	9'-5"	X	X	APRON TO WALL BACK FACE
D408	X	22	2'-3"			APRON TO WALL FRONT FACE
D409	X	22	3'-5"		X	WALL FRONT FACE VERTICAL
D410	X	10	14'-10"			WALL HORIZONTAL
D411	X	4	12'-3"			WALL HORIZONTAL
D412	X	4	6'-10"			WALL HORIZONTAL
D513	X	4	15'-4"			WALL HORIZONTAL TOP

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



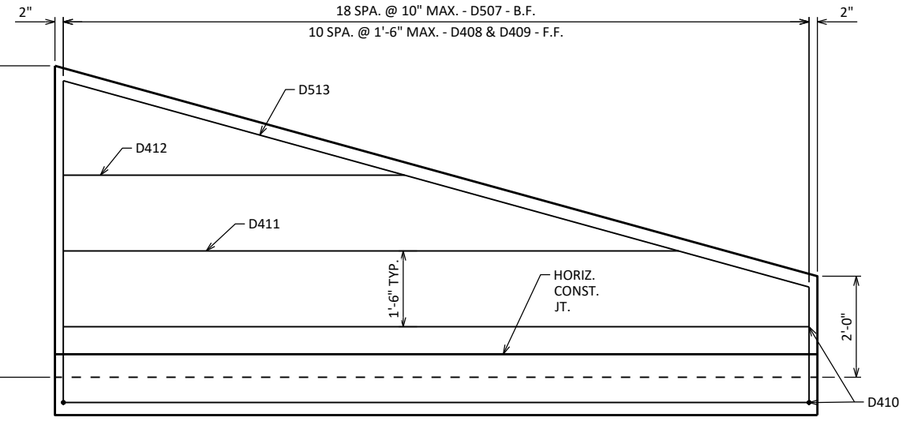
D401

D507

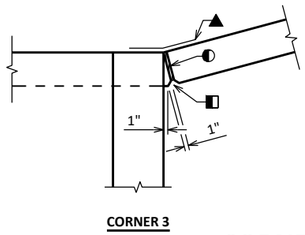
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

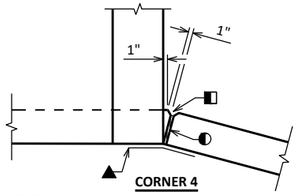
BAR MARK	NO. REQ'D.		LENGTH		
D403	1	SERIES OF 14	5'-2"	TO	12'-1"
D404	2	SERIES OF 4	1'-3"	TO	12'-5"
D507	2	SERIES OF 19	7'-4"	TO	11'-5"
D409	2	SERIES OF 11	1'-4"	TO	5'-5"



WING ELEVATION

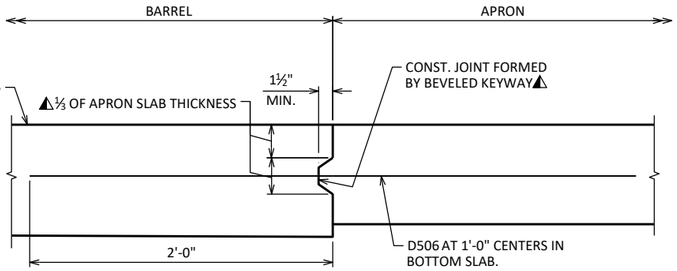


CORNER 3



CORNER 4

CORNER DETAILS



APRON CONNECTION DETAIL

△ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-8

DRAWN BY FEG | PLANS CK'D MSS

APRON AND WING DETAILS OUTLET

SHEET 6
551

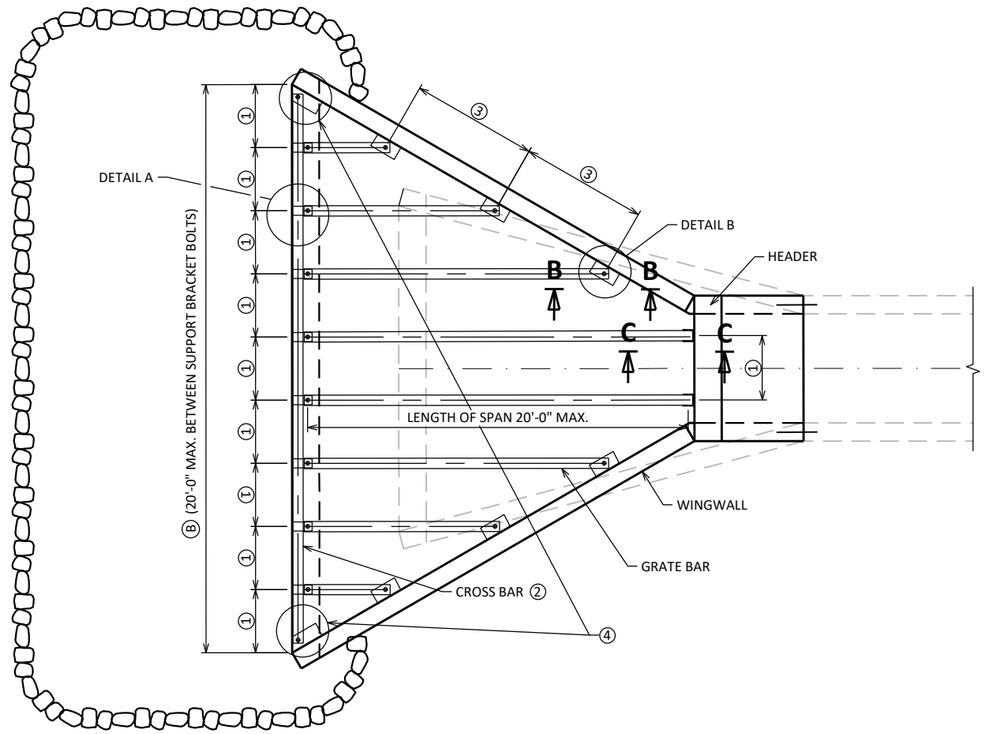
SCALE = 3.0

8

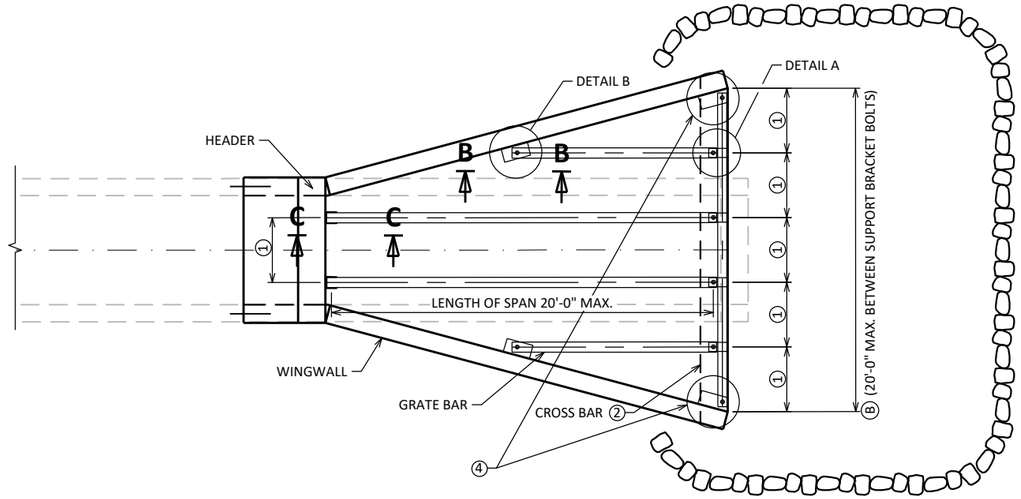
8

STATE PROJECT NUMBER

1100-52-71



INSTALLATION PLAN - C-20-8 WEST



INSTALLATION PLAN - C-20-8 EAST

USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B PIPE. GALVANIZE ASTM A123 ALL PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

INSTALL BOLTS, WASHERS, AND LOCK NUTS COMPLYING WITH STANDARD SPECIFICATION 513.2.1(5)

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH APRON OPENING.

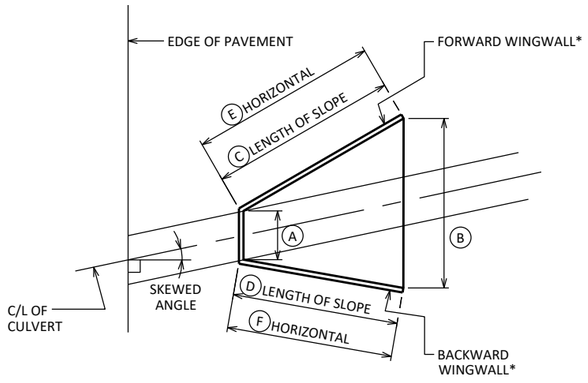
(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL.

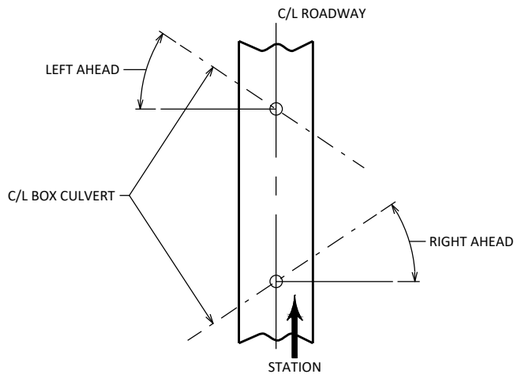
(4) END OF WING BRACKETS AND LOCATION OF BRACKET HOLES THROUGH WING TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF 4 INCHES OF CONCRETE AND 2 INCHES OF STEEL BRACKET MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

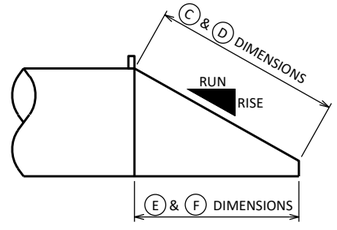


TOP VIEW

*FROM ROADWAY STATIONING



SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS

LOCATION		CULVERT SKEW ANGLE AHEAD		DIMENSIONS					
STRUCTURE NO.	SIDE	DEGREES		Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ
		LEFT	RIGHT						
C-20-0008	LT. & RT.		0	4.00	20.83	17.16	17.16	16.65	16.65
C-20-0008	LT. & RT.		0	4.00	11.86	15.66	15.66	15.09	15.09

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-8

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATES FOR BOX CULVERT (1 OF 2)

SHEET 7
552

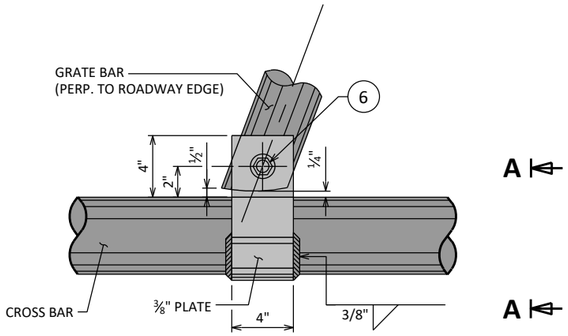
SCALE = 1"=1'

8

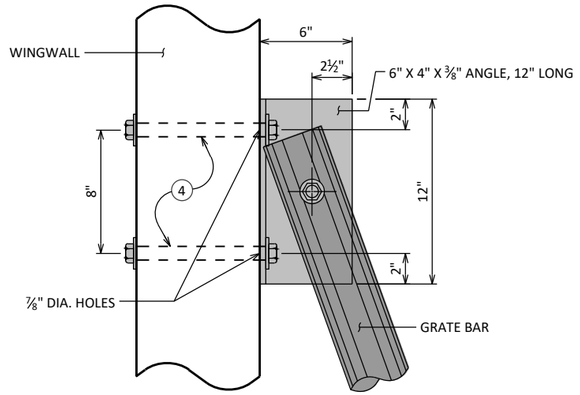
8

STATE PROJECT NUMBER

1100-52-71



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

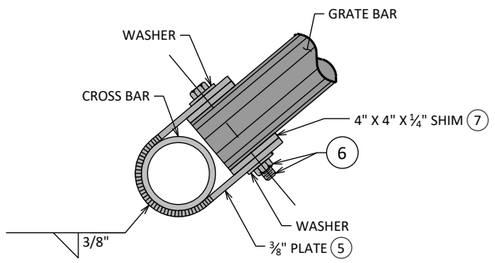
(4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

(5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

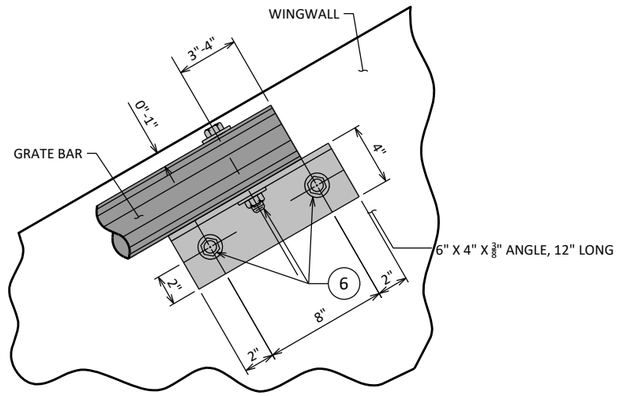
(6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

(7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

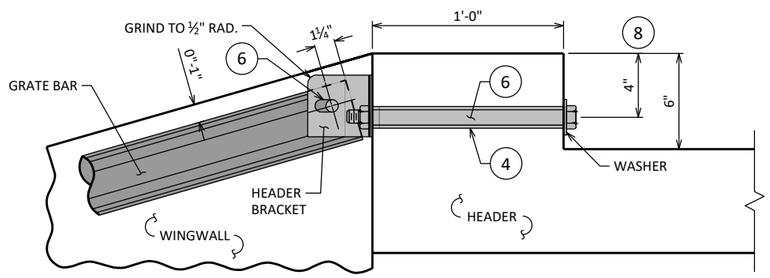
(8) LOCATE BOLT HOLE TO MISS HEADER REINFORCING.



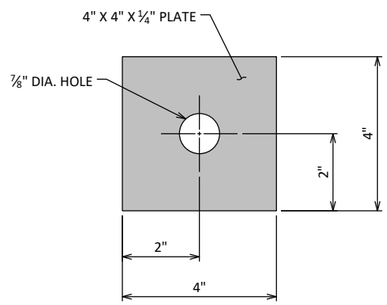
SECTION A-A



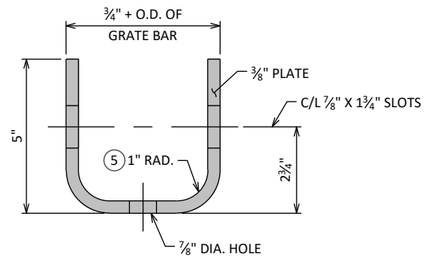
SECTION B-B



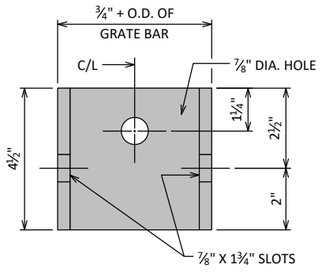
SECTION C-C



SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

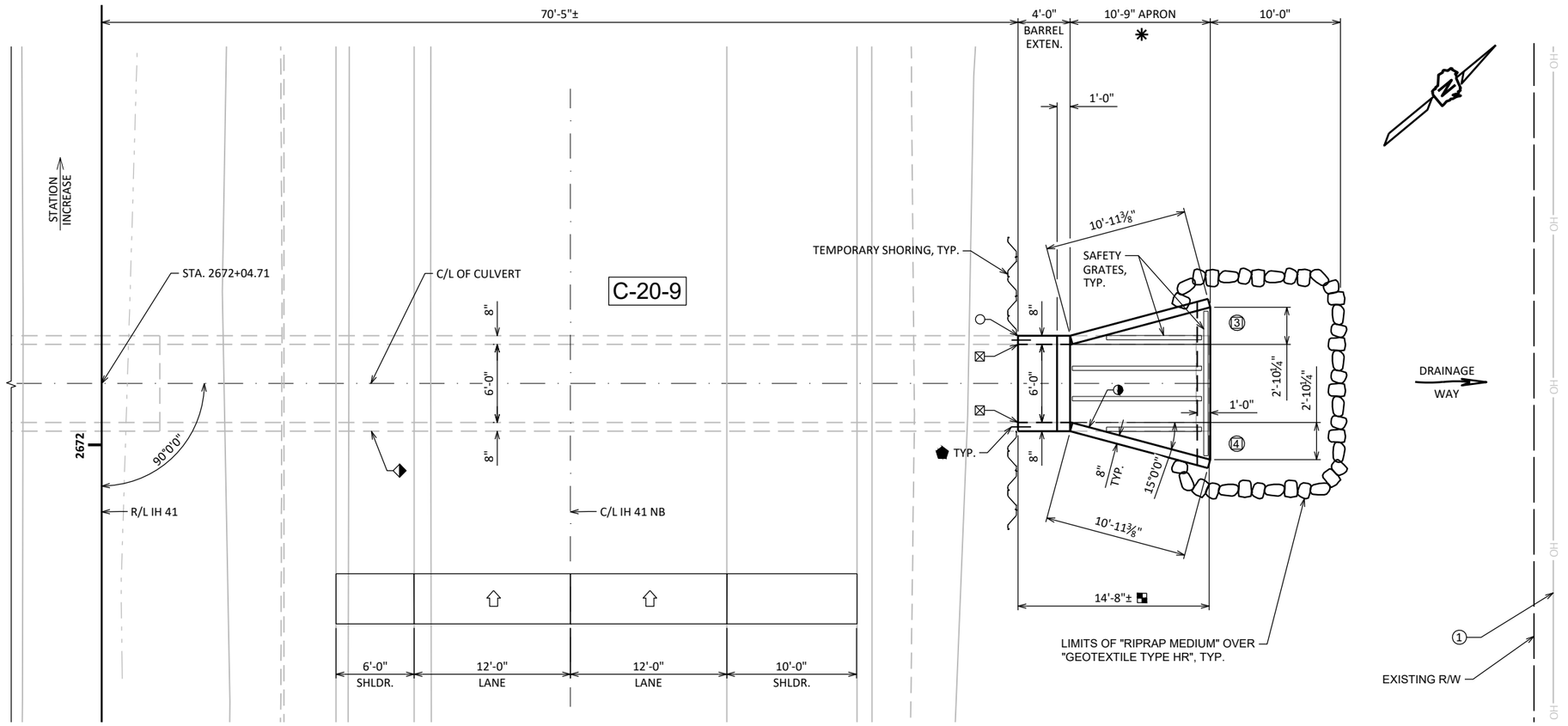
STRUCTURE C-20-8

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATES FOR BOX CULVERT (2 OF 2)

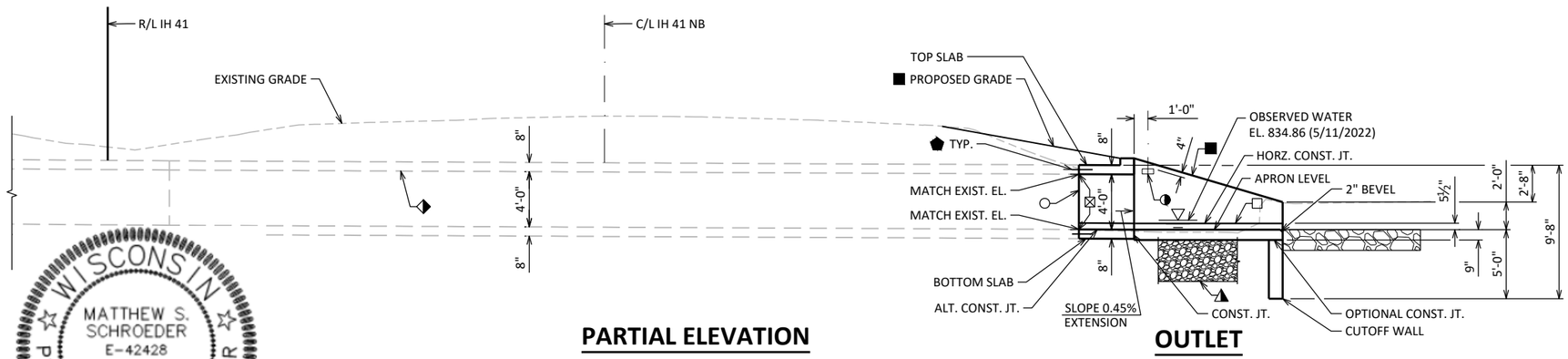
SHEET 8
553

SCALE = 1" = 1'



PARTIAL PLAN

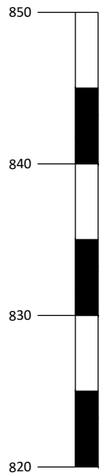
CONCRETE BOX CULVERT EXTENSION



PARTIAL ELEVATION

ALONG C/L CULVERT

OUTLET



TRAFFIC DATA

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

N/A, PROPOSED STRUCTURE EXTENSION

UTILITY NOTES

① EXISTING OVERHEAD ELECTRIC LINE TO REMAIN

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SECTIONS, QUANTITIES, & NOTES
3. BOX DETAILS
4. APRON AND WING DETAILS
5. SAFETY GRATE FOR BOX CULVERT (1 OF 2)
6. SAFETY GRATE FOR BOX CULVERT (2 OF 2)

STATE PROJECT NUMBER

1100-52-71

LEGEND

- ⊠ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◑ NAME PLATE, SEE PARTIAL PLAN FOR LOCATION
- ◆ EXISTING BARREL TO REMAIN IN PLACE
- ✱ BUILD APRON LEVEL
- ▪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◮ UNDERCUT 3'-0". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C"AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE AND UP TO CUTOFF WALL.
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓝ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC
- ■ GRADE THE ADJACENT EMBANKMENT SO THAT THE HEADER AND WINGWALL PROTUDE LESS THAN 4 INCHES, AND FLUSH WHERE POSSIBLE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.56
OPERATING RATING FACTOR: RF = 2.03
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTH LOAD:

DESIGNED FOR A FILL HEIGHT OF 3 FEET.

MATERIAL PROPERTIES:

CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

LIVE LOAD - EXISTING BOX:

RATINGS PER WISCONSIN BRIDGE MANUAL 45.8.2.1
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-20-9

IH-41 OVER DRAINAGE WAY

COUNTY	TOWN/~~CITY/VILLAGE~~
FOND DU LAC	ELDORADO

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
BPV	HDA	BPV/FEG	HDA/MSS

GENERAL PLAN & ELEVATION

SHEET 1 OF 6
554

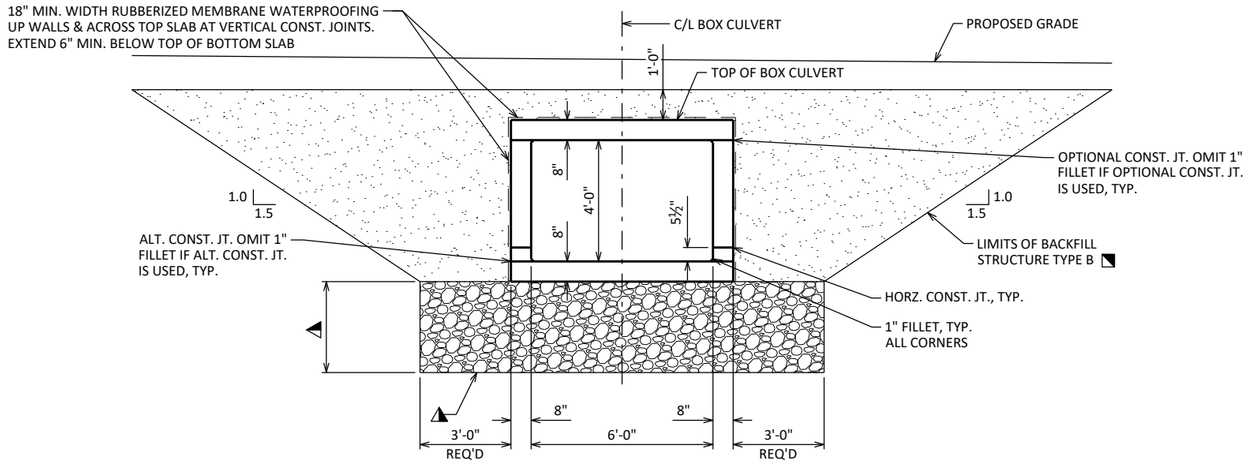
SCALE = 10.00

I.D. DATE:

WISCONSIN
MATTHEW S. SCHROEDER
E-42428
JOHNSON CREEK, WI
9/1/2023
PROFESSIONAL ENGINEER

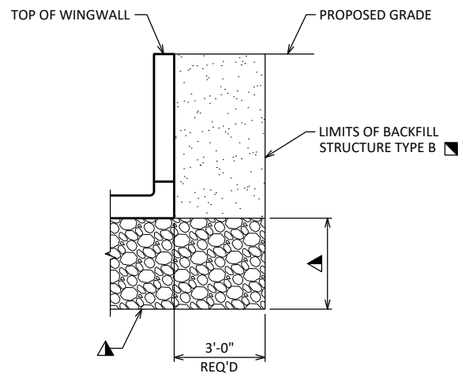
8

8



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220.017	REMOVING STRUCTURE C-20-9	EACH	1
206.2001.017	EXCAVATION FOR STRUCTURES CULVERTS C-20-9	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	52
311.0110	BREAKER RUN	TON	45
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	20
504.0100	CONCRETE MASONRY CULVERTS	CY	9
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	610
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	350
511.1200.017	TEMPORARY SHORING C-20-9	SF	190
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8
606.0200	RIPRAP MEDIUM	CY	10
645.0105	GEOTEXTILE TYPE C	SY	25
645.0120	GEOTEXTILE TYPE HR	SY	26
SPV.0060.205	SAFETY GRATE C-20-9	EACH	1
	NON-BID ITEMS		
	NAME PLATE	EACH	1
	PREFORMED JOINT FILLER	SIZE	¾"

ALL ITEMS ARE CATEGORY 0120

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-20-9" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

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

◭ UNDER CUT 3'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY WITH ANY SUBSTITUTED MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-9

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

SECTIONS, QUANTITIES, & NOTES

SHEET 2
555

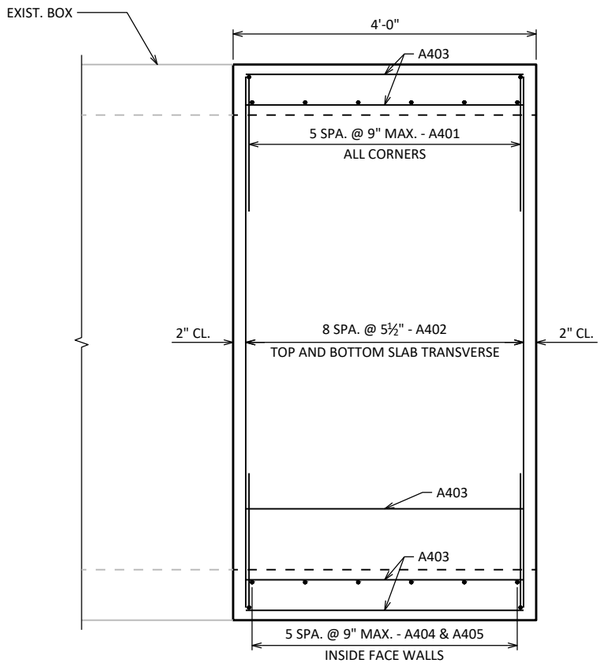
SCALE = 5.00

8

8

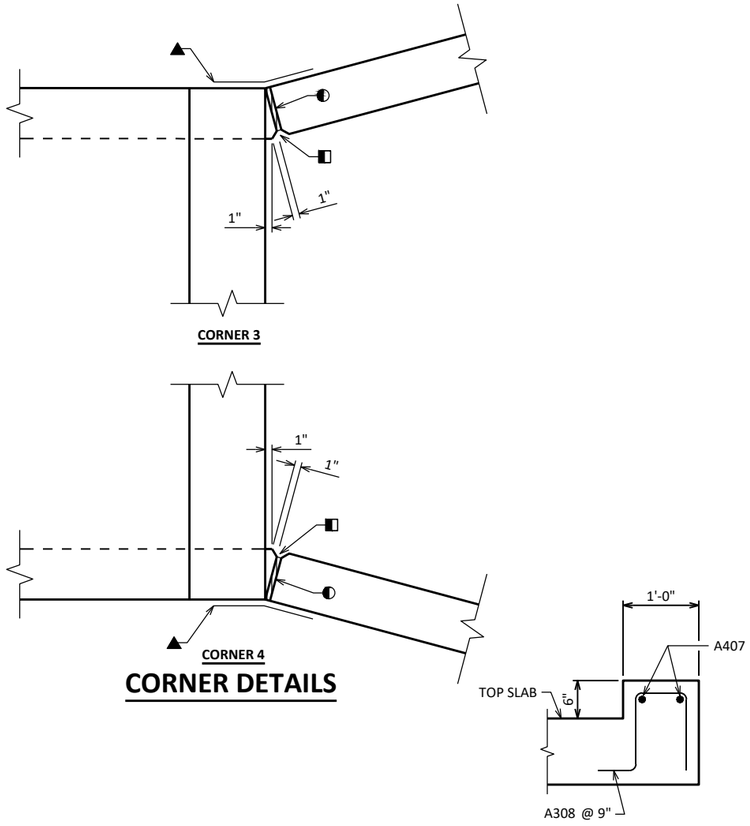
STATE PROJECT NUMBER

1100-52-71



PLAN

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN

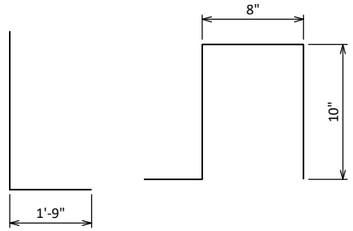


CORNER DETAILS

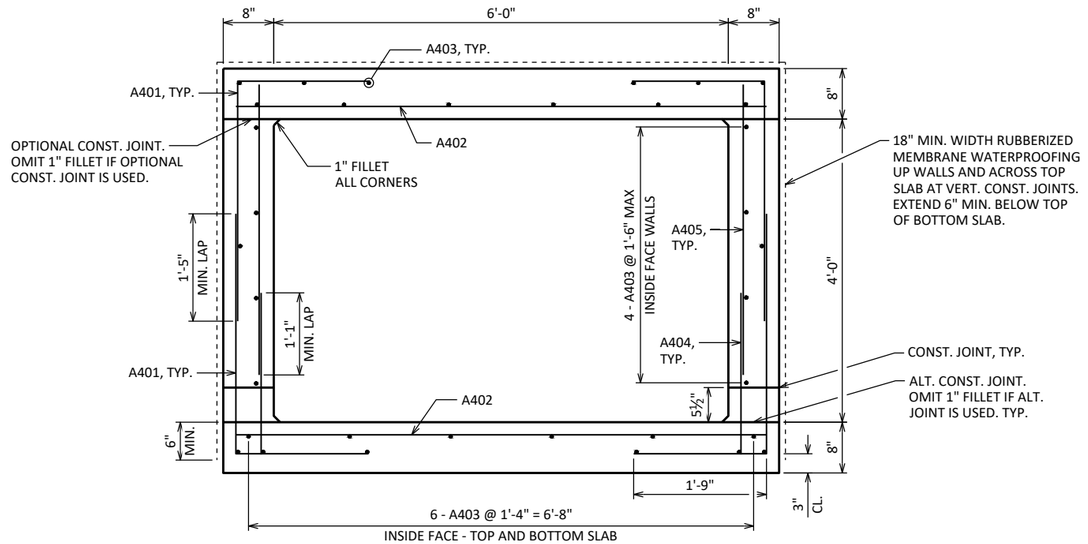
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A401		24	4'-10"	X	CORNERS
A402		18	6'-8"		SLABS TRANSVERSE
A403		34	3'-8"		SLABS AND WALLS LONGITUDINAL
A404		12	2'-2"		SLAB TO WALL DOWELS
A405		12	3'-10"		WALLS VERTICAL
⬟ A506		20	2'-6"		JOINT DOWEL
A407		2	7'-0"		HEADER TRANSVERSE
A308		11	2'-7"	X	HEADER STIRRUP

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.

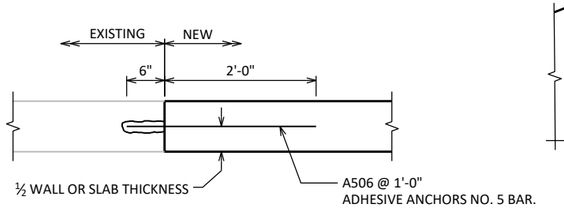


A401 **A308**

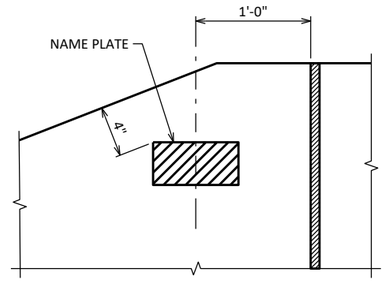


SECTION THRU BOX

SECTION THRU HEADER



CONSTRUCTION JOINT



NAME PLATE DETAIL

WING 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-9

DRAWN BY FEG | PLANS CK'D MSS

BOX DETAILS

SHEET 3
556

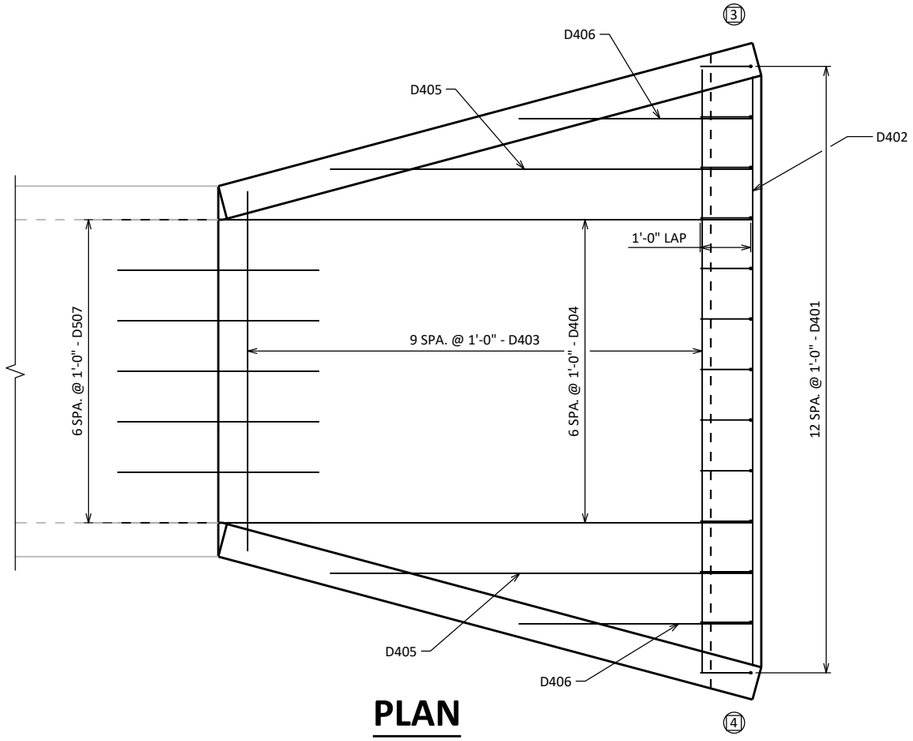
SCALE =

8

8

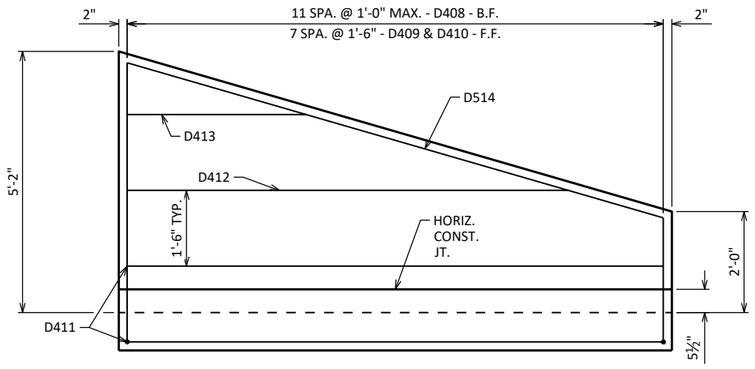
STATE PROJECT NUMBER

1100-52-71



PLAN

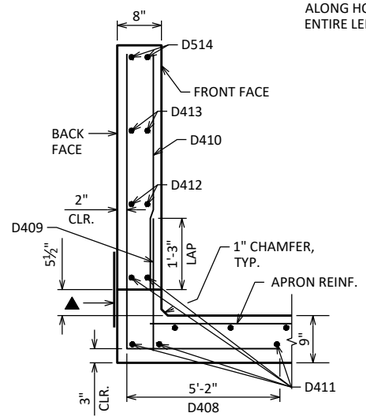
SHOWING APRON REINFORCEMENT



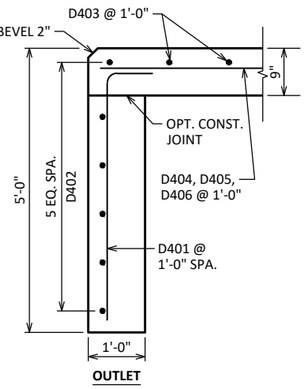
WING ELEVATION

Ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

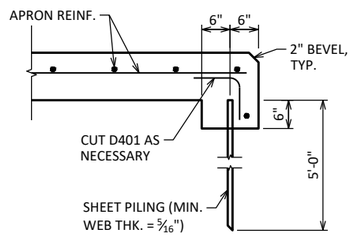


SECTION THRU WINGS



OUTLET

CUT-OFF WALL



ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

BILL OF BARS

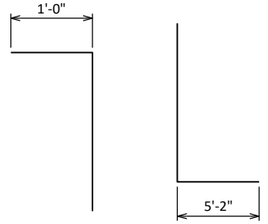
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES △	LOCATION
D401		13	5'-6"	X		CUTOFF WALL VERTICAL
D402		6	11'-8"			CUTOFF WALL HORIZONTAL
D403		10	9'-6"		X	APRON TRANSVERSE
D404		7	10'-4"			APRON LONGITUDINAL
D405		2	8'-4"			APRON LONGITUDINAL
D406		2	4'-7"			APRON LONGITUDINAL
D507		7	4'-0"			APRON TO BARREL DOWEL
D408	X	24	9'-0"	X	X	APRON TO WALL BACK FACE VERTICAL
D409	X	16	2'-4"			APRON TO WALL FRONT FACE
D410	X	16	2'-10"		X	WALL FRONT FACE VERTICAL
D411	X	10	10'-6"			WALL HORIZONTAL
D412	X	4	8'-9"			WALL HORIZONTAL
D413	X	4	3'-6"			WALL HORIZONTAL
D514	X	4	11'-0"			WALL HORIZONTAL TOP

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

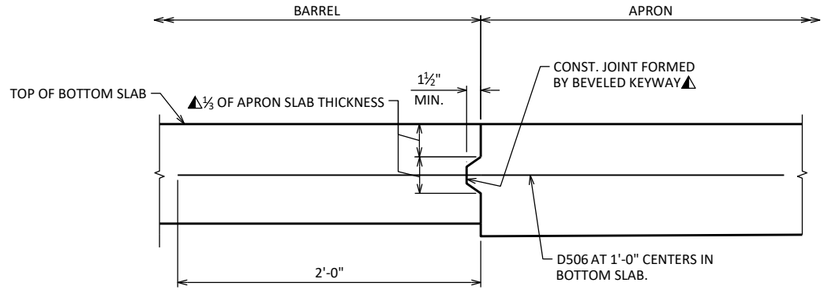
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
D403	1 SERIES OF 10	7'-1" TO 11'-11"
D408	2 SERIES OF 13	7'-5" TO 10'-6"
D410	2 SERIES OF 8	1'-4" TO 4'-4"



D401 **D408**



APRON CONNECTION DETAIL

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-9

DRAWN BY FEG | PLANS CK'D MSS

APRON AND WING DETAILS

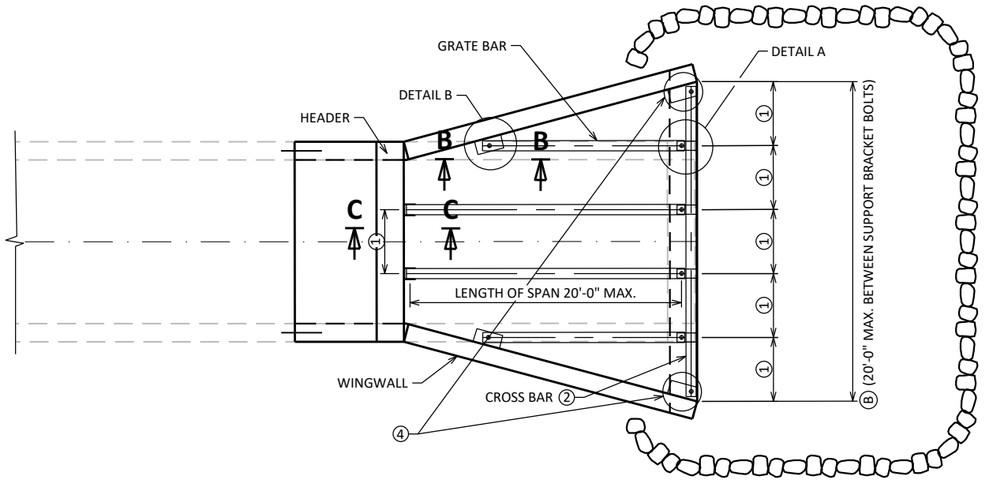
SHEET 4
557

SCALE =

8

8

STATE PROJECT NUMBER
1100-52-71



USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B PIPE. GALVANIZE ASTM A123 ALL PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

INSTALL BOLTS, WASHERS, AND LOCK NUTS COMPLYING WITH STANDARD SPECIFICATION 513.2.1(5)

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH APRON OPENING.

(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

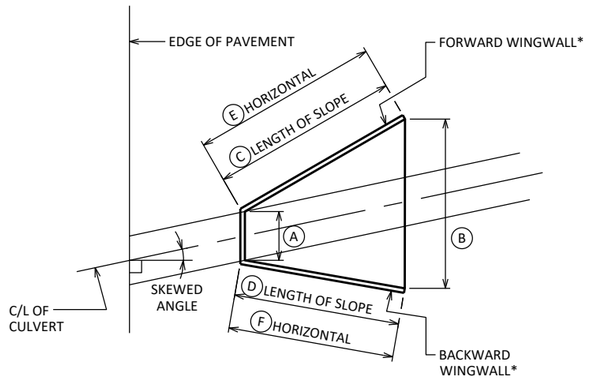
(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL.

(4) END OF WING BRACKETS AND LOCATION OF BRACKET HOLES THROUGH WING TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF 4 INCHES OF CONCRETE AND 2 INCHES OF STEEL BRACKET MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

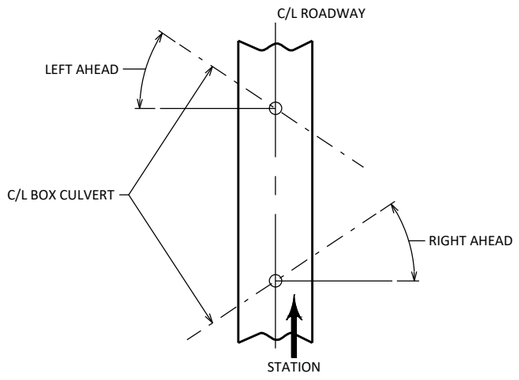
GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

INSTALLATION PLAN - C-20-9
EAST

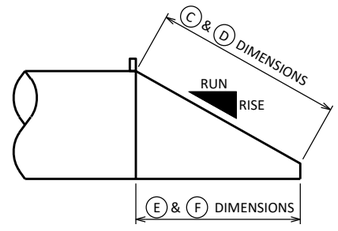


TOP VIEW

*FROM ROADWAY STATIONING



SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS

LOCATION		CULVERT SKEW ANGLE AHEAD		DIMENSIONS					
STRUCTURE NO.	SIDE	DEGREES		(A)	(B)	(C)	(D)	(E)	(F)
		LEFT	RIGHT						
C-20-0009	RT.		0	6.00	11.70	11.40	11.40	10.95	10.95

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-9

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (1 OF 2)

SHEET 5
558

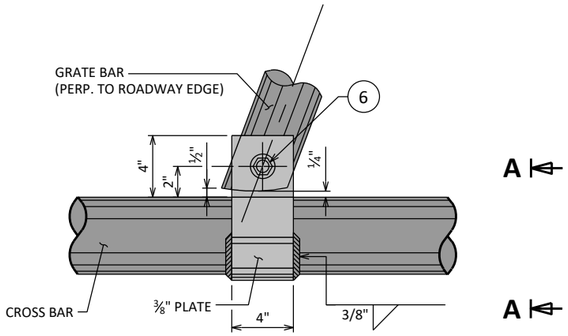
SCALE = 1" = 1'

8

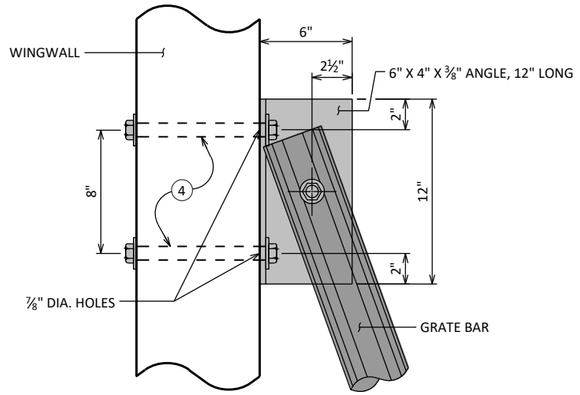
8

STATE PROJECT NUMBER

1100-52-71



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

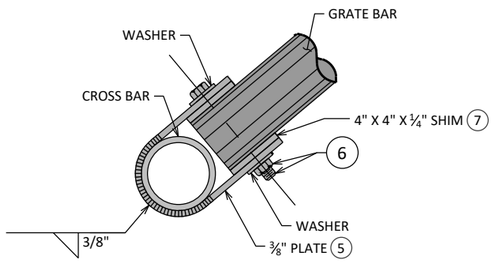
(4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

(5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

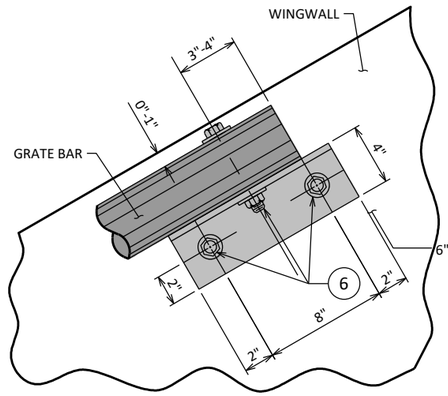
(6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

(7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

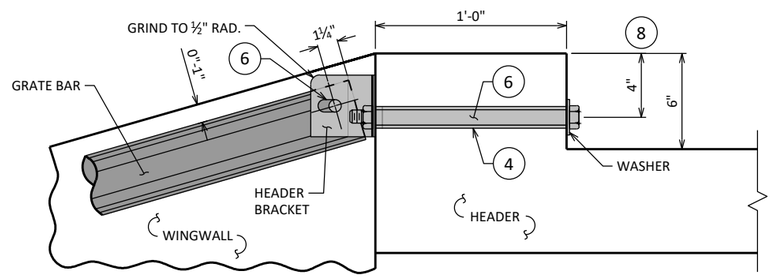
(8) LOCATE BOLT HOLE TO MISS HEADER REINFORCING.



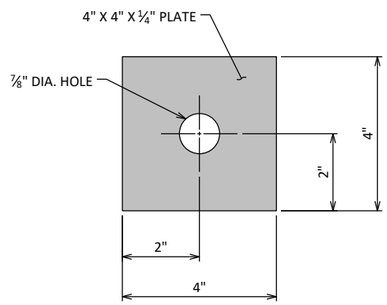
SECTION A-A



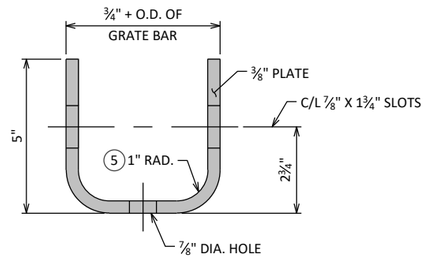
SECTION B-B



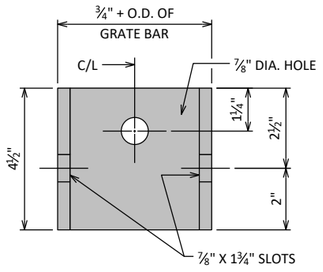
SECTION C-C



SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-9

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (2 of 2)

SHEET 6

559

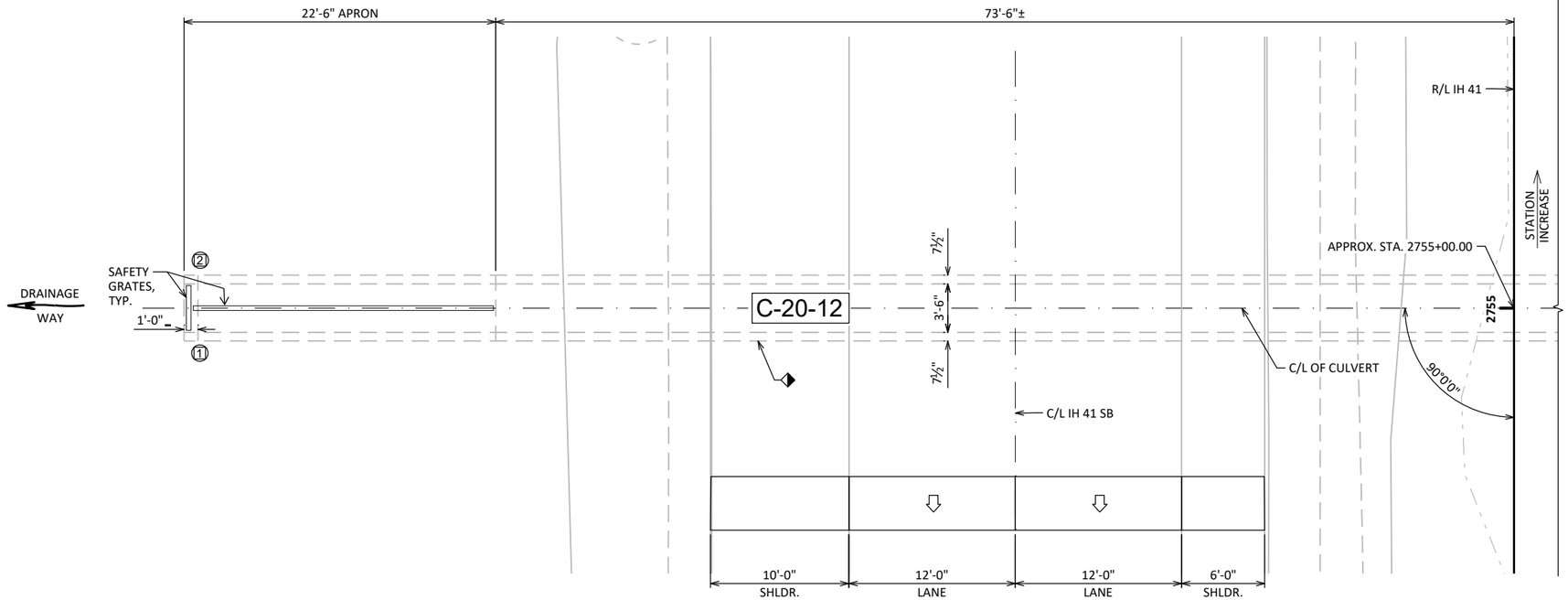
SCALE = 1" = 1'

8

8

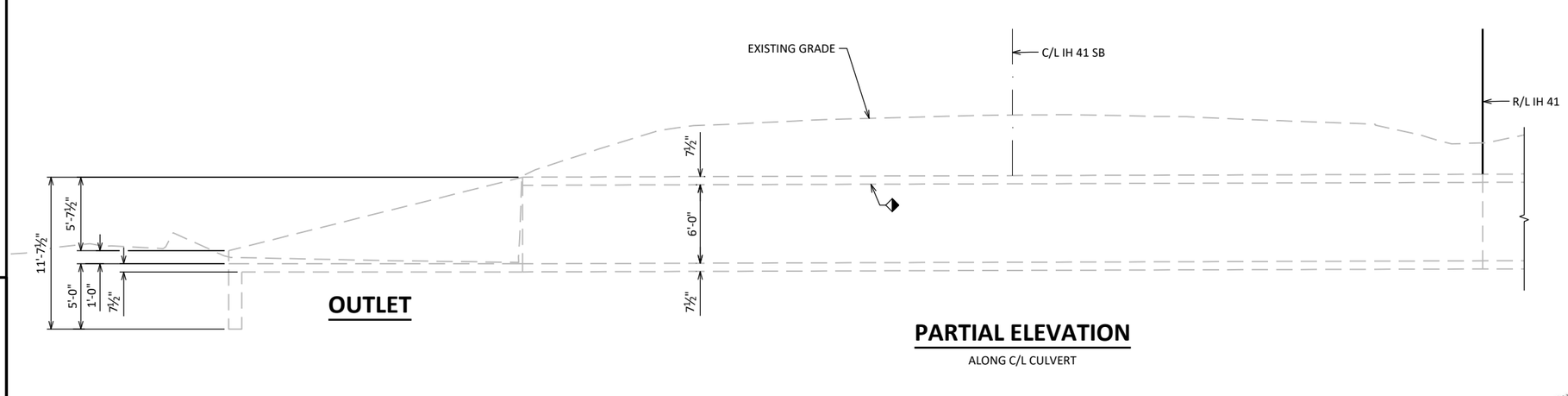
STATE PROJECT NUMBER

1100-52-71



PARTIAL PLAN

CONCRETE BOX CULVERT SAFETY GRATE



OUTLET

PARTIAL ELEVATION

ALONG C/L CULVERT

LEGEND

- EXISTING BARREL TO REMAIN IN PLACE
- WINGWALL NUMBER
- DIRECTION OF TRAFFIC

HYDRAULIC DATA

N/A, PROPOSED SAFETY GRATE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
SPV.0060.206	SAFETY GRATE C-20-12	EACH	1

ALL ITEMS ARE CATEGORY 0130

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SAFETY GRATE FOR BOX CULVERT (1 OF 2)
3. SAFETY GRATE FOR BOX CULVERT (2 OF 2)

WISCONSIN
HEATHER D. ANDERS, P.E.
30441-006
CEDARBURG, WI
09/01/2023
PROFESSIONAL ENGINEER

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-20-12

IH-41 OVER LAKE WINNEBAGO TRIBUTARY

COUNTY	TOWN/~~CITY/VILLAGE~~
FOND DU LAC	ELDORADO

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
FEG	HDA	FEG	HDA

GENERAL PLAN & ELEVATION

SHEET 1 OF 3
560

I.D.

DATE:

SCALE = 10.00

8

8

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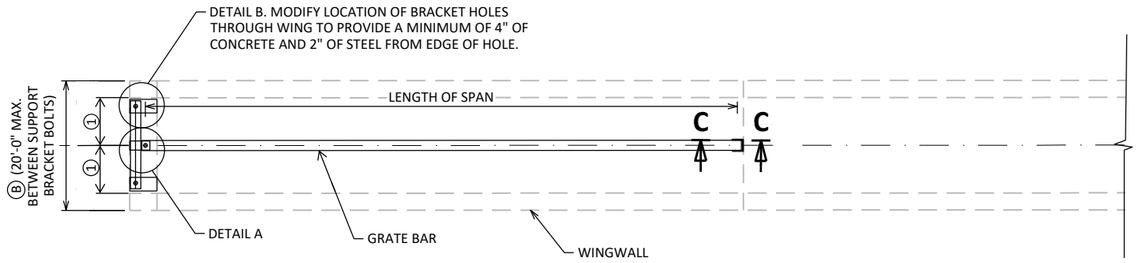
STATE PROJECT NUMBER

1100-52-71



INSTALLATION PLAN - C-20-12 WEST

USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B PIPE. GALVANIZE ASTM A123 ALL PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

INSTALL BOLTS, WASHERS, AND LOCK NUTS COMPLYING WITH STANDARD SPECIFICATION 513.2.1(5)

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH APRON OPENING.

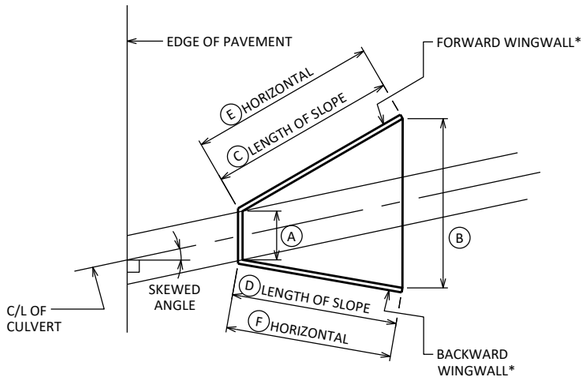
(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL.

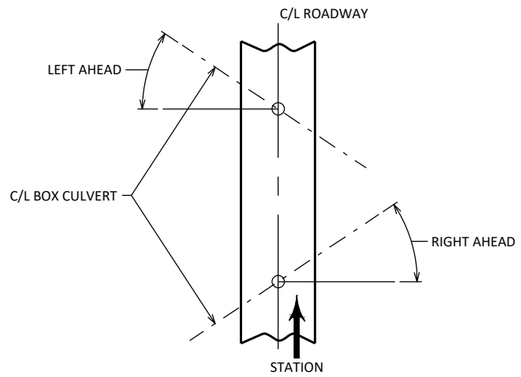
(4) END OF WING BRACKETS AND LOCATION OF BRACKET HOLES THROUGH WING TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF 4 INCHES OF CONCRETE AND 2 INCHES OF STEEL BRACKET MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

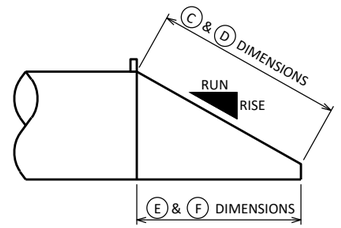


TOP VIEW

*FROM ROADWAY STATIONING



SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS

LOCATION		CULVERT SKEW ANGLE AHEAD		DIMENSIONS					
STRUCTURE NO.	SIDE	DEGREES		(A)	(B)	(C)	(D)	(E)	(F)
		LEFT	RIGHT						
C-20-0012	LT.		0	3.50	3.50	23.19	23.19	22.50	22.50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-12

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (1 OF 2)

SHEET 2
561

SCALE = 1" = 1'

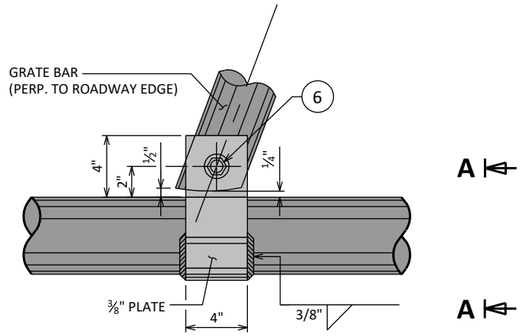
8

8

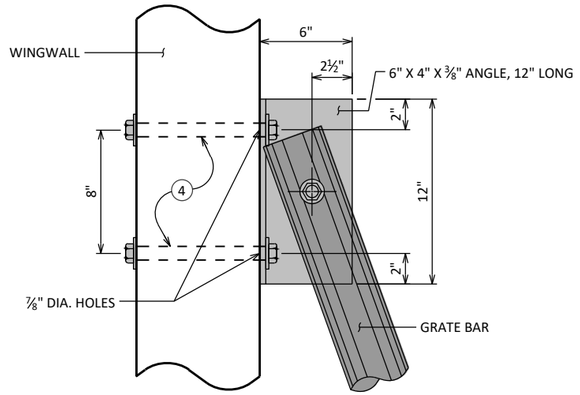
I:\77451\C3D\11005271\Strc\C-20-0012\Sheets\C-20-12_08010X_safetygrate.dwg, 8/31/2023 8:05:01 PM, WisDOT PDF.pc3

STATE PROJECT NUMBER

1100-52-71



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

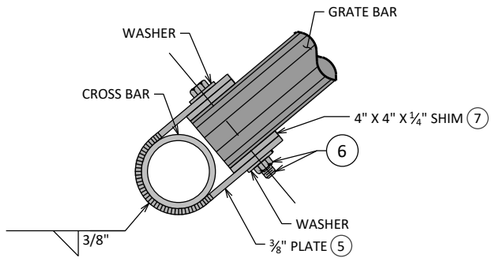
(4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

(5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

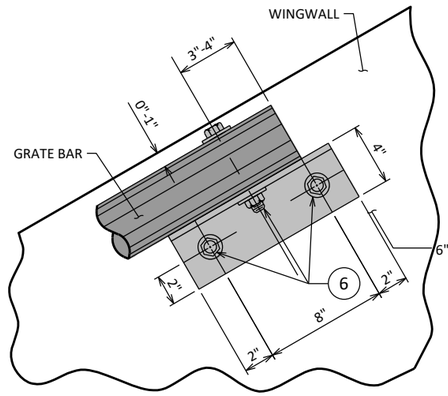
(6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

(7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

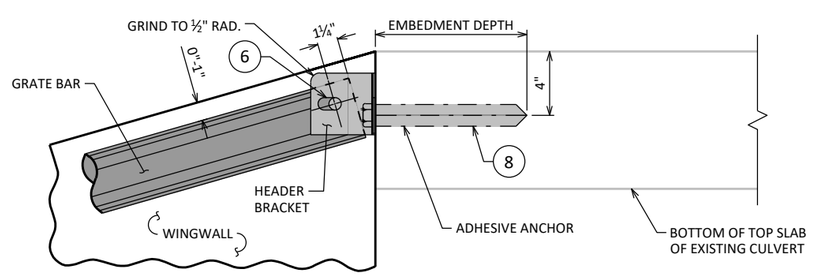
(8) ADHESIVE ANCHORS ¾-INCH. EMBED 9 INCHES IN CONCRETE. ADHESIVE ANCHOR SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS. INCLUDE THE COST OF ADHESIVE ANCHORS AS INCIDENTAL TO THE BID ITEM "SAFETY GRATE C-20-12".



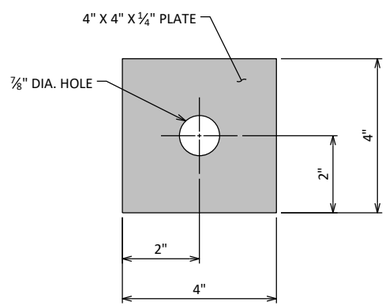
SECTION A-A



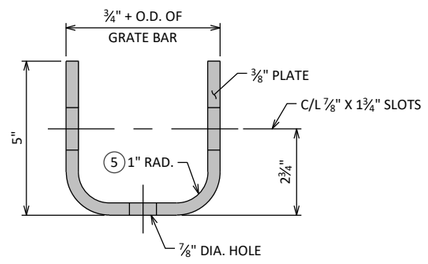
SECTION B-B



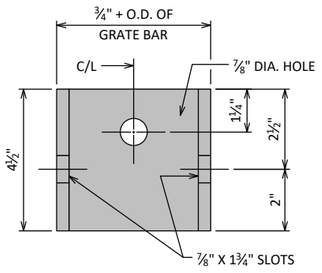
SECTION C-C



SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

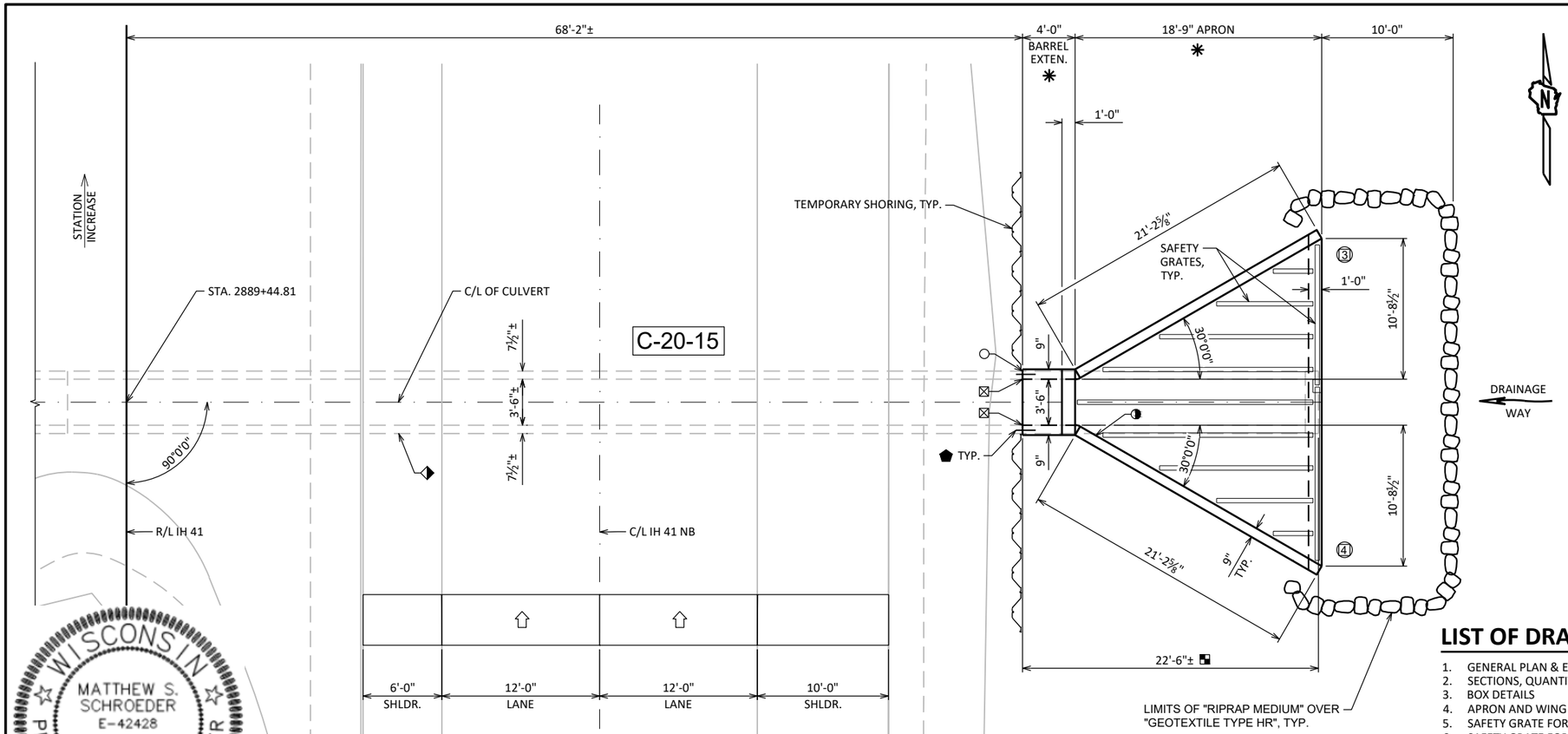
STRUCTURE C-20-12

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (2 OF 2)

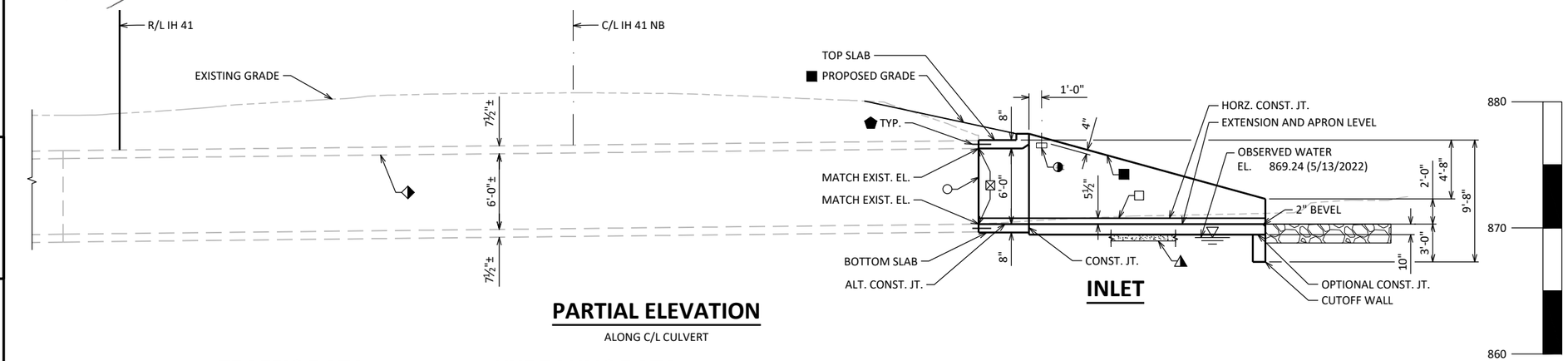
SHEET 3
562

SCALE = 1" = 1'



PARTIAL PLAN

CONCRETE BOX CULVERT EXTENSION



PARTIAL ELEVATION

ALONG C/L CULVERT

INLET

TRAFFIC DATA

IH 41

A.A.D.T. = 41,420 (2027)
A.A.D.T. = 46,680 (2047)
RDS = 70 MPH

HYDRAULIC DATA

N/A, PROPOSED STRUCTURE EXTENSION

LEGEND

- ⊠ INSIDE SURFACE TO MATCH EXISTING (TYP.)
- ◑ NAME PLATE, SEE PARTIAL PLAN FOR LOCATION
- ◆ EXISTING BARREL TO REMAIN IN PLACE
- ✱ BUILD INLET EXTENSION, APRON, AND END OF BOX LEVEL
- ▪ REMOVE EXISTING APRON AND WINGWALLS
- ⬟ ADHESIVE ANCHORS NO. 5 BARS. EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" ON CENTER
- ◭ UNDERCUT 6". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B". EXTEND 3'-0" BEYOND FOOTPRINT OF CULVERT AND WINGWALL APRONS ON EACH SIDE UP TO CUTOFF WALL.
- ○ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB
- □ 18" (MIN.) WIDE RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN THE WINGWALL
- ⓝ WINGWALL NUMBER
- ⇨ DIRECTION OF TRAFFIC
- ■ GRADE THE ADJACENT EMBANKMENT SO THAT THE HEADER AND WINGWALL PROTRUDE LESS THAN 4 INCHES, AND FLUSH WHERE POSSIBLE

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SECTIONS, QUANTITIES, & NOTES
3. BOX DETAILS
4. APRON AND WING DETAILS
5. SAFETY GRATE FOR BOX CULVERT (1 OF 3)
6. SAFETY GRATE FOR BOX CULVERT (2 OF 3)
7. SAFETY GRATE FOR BOX CULVERT (3 OF 3)

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 2.24
OPERATING RATING FACTOR: RF = 2.90
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTH LOAD:
DESIGNED FOR A FILL HEIGHT OF 4 FEET.

MATERIAL PROPERTIES:
CONCRETE MASONRY..... f'c = 3.5 KSI
BAR STEEL REINFORCEMENT..... fy = 60 KSI

LIVE LOAD - EXISTING BOX:
RATINGS PER WISCONSIN BRIDGE MANUAL 45.8.2.1
INVENTORY RATING FACTOR: RF = 1.00
OPERATING RATING FACTOR: RF = 1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
PAT CASHIN (414) 410-6729

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STATE PROJECT NUMBER
1100-52-71

STRUCTURE C-20-15

IH-41 OVER DRAINAGE WAY

COUNTY	TOWN/~~CITY/VILLAGE~~
WINNEBAGO	ELDORADO

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
BPV	HDA	BPV/FEG	HDA/MSS

GENERAL PLAN & ELEVATION

SHEET 1 OF 7
563

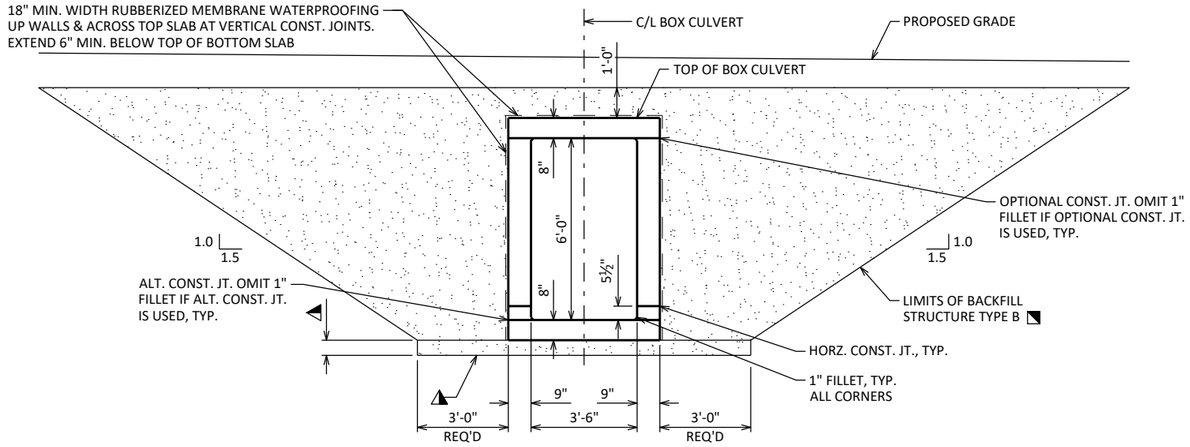
I.D. DATE:

SCALE = 10.00

WISCONSIN PROFESSIONAL ENGINEER
MATTHEW S. SCHROEDER
E-42428
JOHNSON CREEK, WI
9/1/2023

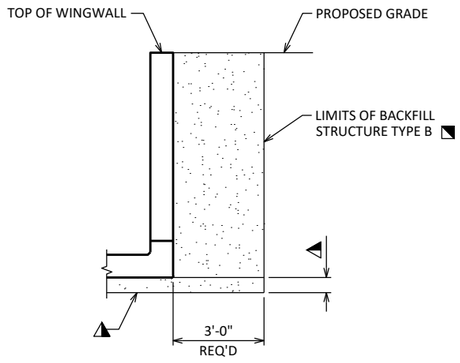
8

8



TYPICAL SECTION THRU BOX CULVERT

NORMAL TO BOX C/L



TYPICAL SECTION THRU BOX CULVERT WINGWALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220.019	REMOVING STRUCTURE C-20-15	EACH	1
206.2001.019	EXCAVATION FOR STRUCTURES CULVERTS C-20-15	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	110
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	22
504.0100	CONCRETE MASONRY CULVERTS	CY	19
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	820
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	950
511.1200.019	TEMPORARY SHORING C-20-15	SF	170
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12
606.0200	RIPRAP MEDIUM	CY	18
645.0120	GEOTEXTILE TYPE HR	SY	46
SPV.0060.207	SAFETY GRATE C-20-15	EACH	1
	NON-BID ITEMS		
	NAME PLATE	EACH	1
	PREFORMED JOINT FILLER	SIZE	¾"

ALL ITEMS ARE CATEGORY 0170

STATE PROJECT NUMBER

1100-52-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. THE UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-20-15" SHALL BE THE EXISTING GROUND LINE OR EXISTING STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALL QUANTITIES AND BID PRICES.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1952.

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

◭ UNDERCUT 6", EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE B".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-15

DRAWN BY BPV/FEG | PLANS CK'D HDA/MSS

SECTIONS, QUANTITIES, & NOTES

SHEET 2

564

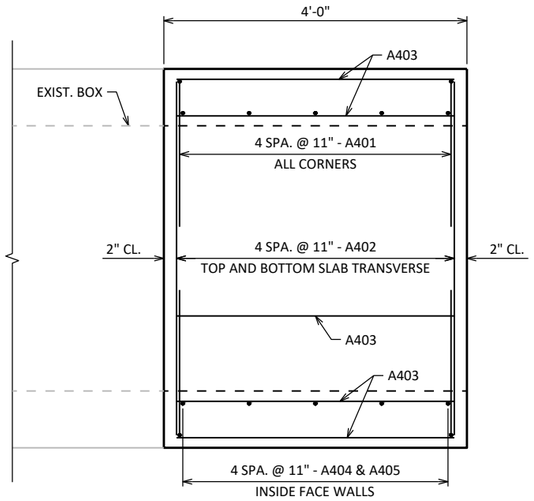
SCALE = 5.00

8

8

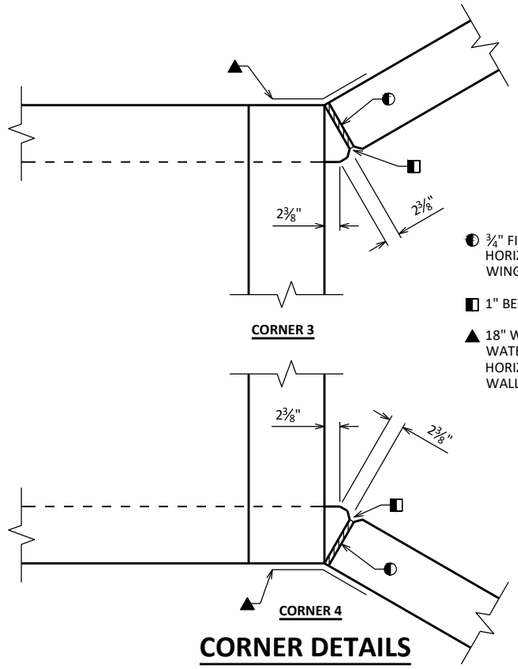
STATE PROJECT NUMBER

1100-52-71



PLAN

APRON AND HEADER NOT SHOWN
ADHESIVE ANCHORS NOT SHOWN



- ◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.
- ◧ 1" BEVEL (TYP.)
- ▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

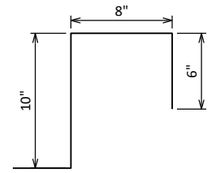
CORNER DETAILS

BILL OF BARS

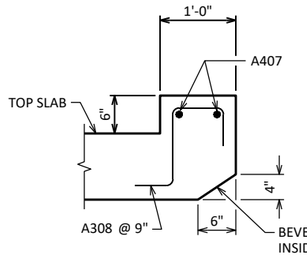
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
A401		20	6'-0"	X	CORNERS
A402		10	4'-8"		SLABS TRANSVERSE
A403		30	3'-8"		SLABS AND WALLS LONGITUDINAL
A404		10	2'-2"		SLAB TO WALL DOWELS
A405		10	5'-10"		WALLS VERTICAL
⬟ A506		22	2'-6"		JOINT DOWEL
A407		2	4'-8"		HEADER TRANSVERSE
A308		8	2'-3"	X	HEADER STIRRUP

⬟ ADHESIVE ANCHOR NO. 5 BAR. SEE CONSTRUCTION JOINT DETAIL.

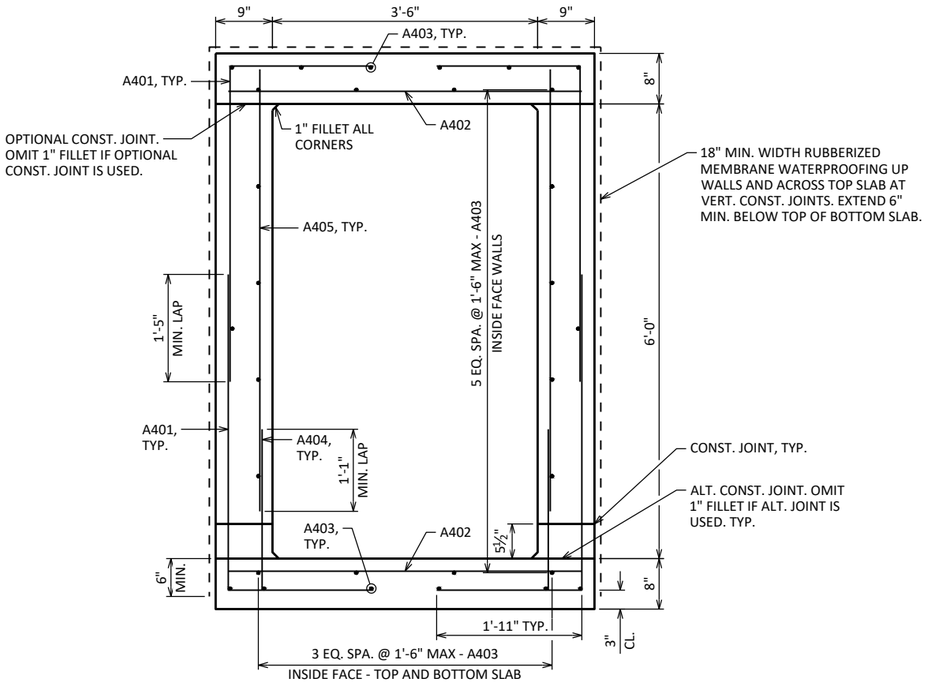
A401



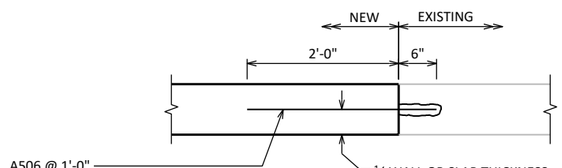
A308



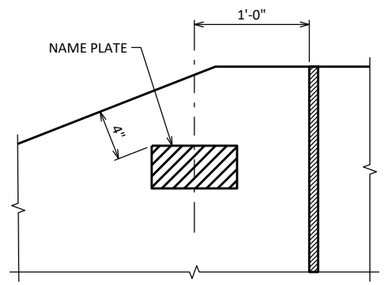
SECTION THRU HEADER



SECTION THRU BOX



CONSTRUCTION JOINT



NAME PLATE DETAIL

WING 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-15

DRAWN BY FEG | PLANS CK'D MSS

BOX DETAILS

SHEET 3
565

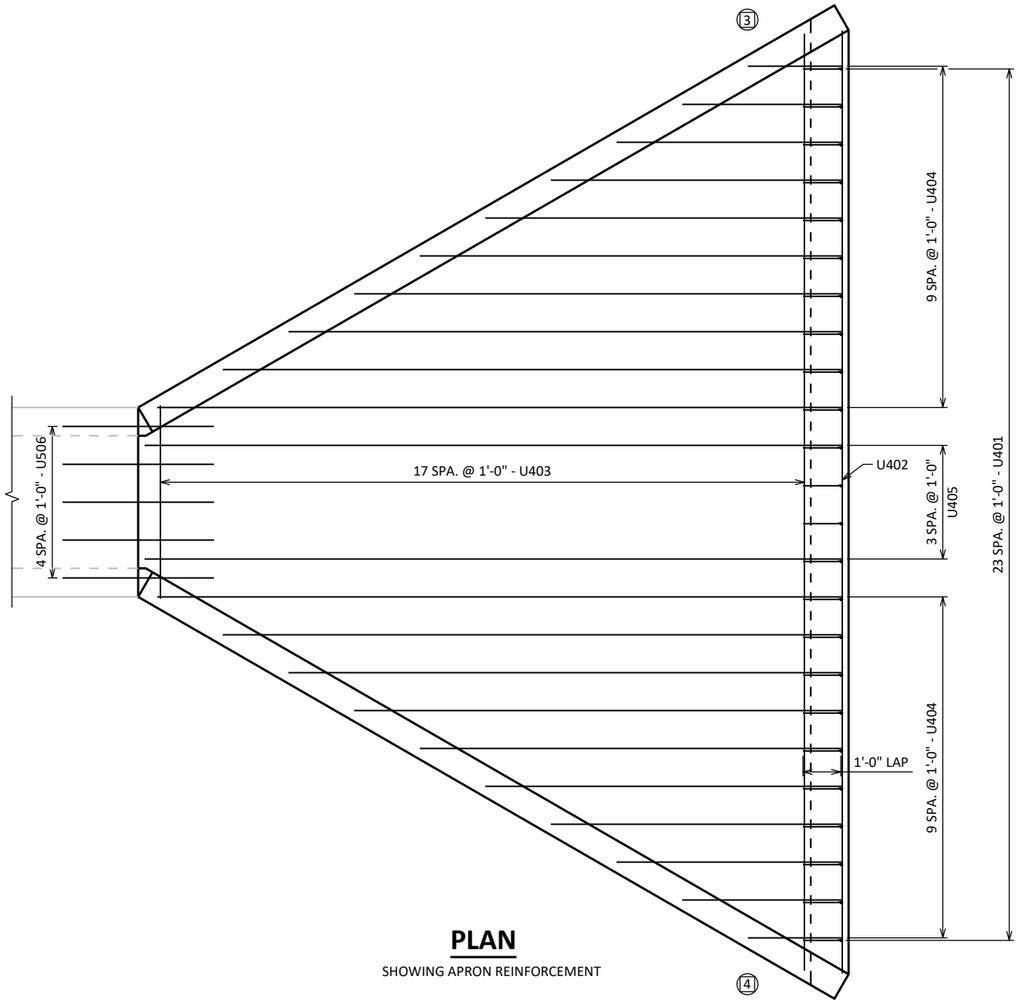
SCALE =

8

8

STATE PROJECT NUMBER

1100-52-71

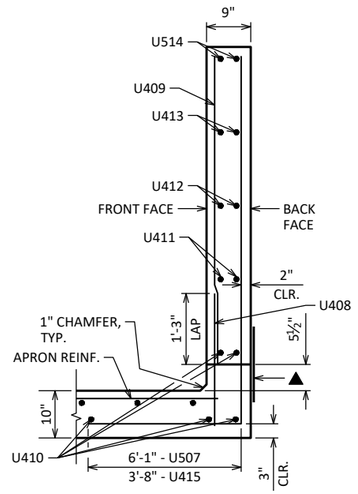


PLAN

SHOWING APRON REINFORCEMENT

ⓧ INDICATES WING NUMBER

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

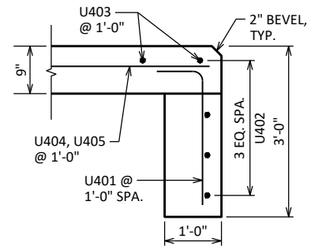


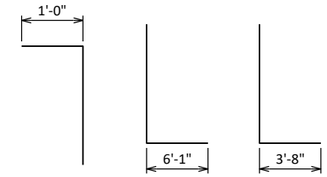
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR △ SERIES	LOCATION
U401		24	3'-6"	X		CUTOFF WALL VERTICAL
U402		4	24'-10"			CUTOFF WALL HORIZONTAL
U403		18	14'-11"		X	APRON TRANSVERSE
U404		20	10'-4"		X	APRON LONGITUDINAL
U405		4	18'-5"			APRON LONGITUDINAL
U506		5	4'-0"			APRON TO BARREL DOWEL
U507	X	32	12'-3"	X	X	APRON TO WALL BACK FACE VERTICAL
U408	X	30	2'-3"			APRON TO WALL FRONT FACE
U409	X	30	4'-0"		X	WALL FRONT FACE VERTICAL
U410	X	10	20'-11"			WALL HORIZONTAL
U411	X	4	18'-4"			WALL HORIZONTAL
U412	X	4	12'-2"			WALL HORIZONTAL
U413	X	4	6'-0"			WALL HORIZONTAL
U514	X	4	21'-6"			WALL HORIZONTAL TOP
U415	X	18	7'-2"	X	X	APRON TO WALL BACK FACE VERTICAL

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

SECTION THRU WINGS

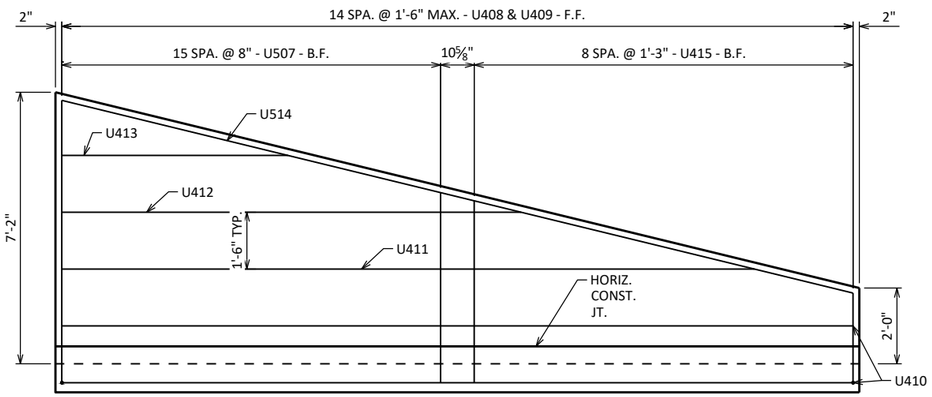




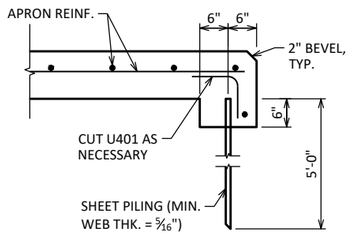
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.		LENGTH		
U403	1	SERIES OF 18	5'-1"	TO	24'-8"
U404	2	SERIES OF 10	2'-6"	TO	18'-1"
U507	2	SERIES OF 16	11'-0"	TO	13'-5"
U409	2	SERIES OF 15	1'-5"	TO	6'-6"
U415	2	SERIES OF 9	5'-11"	TO	8'-4"



WING ELEVATION

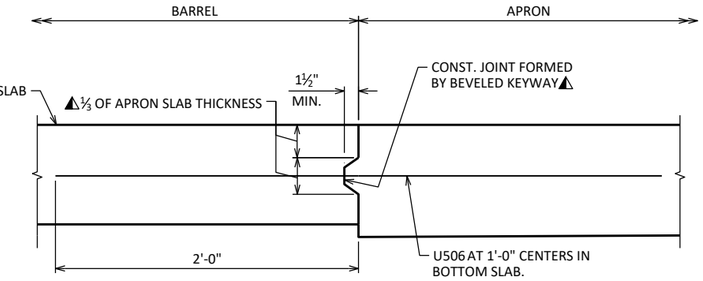


ALTERNATE CUT-OFF WALL

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

INLET

CUT-OFF WALL



APRON CONNECTION DETAIL

IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-15

DRAWN BY FEG | PLANS CK'D MSS

APRON AND WING DETAILS

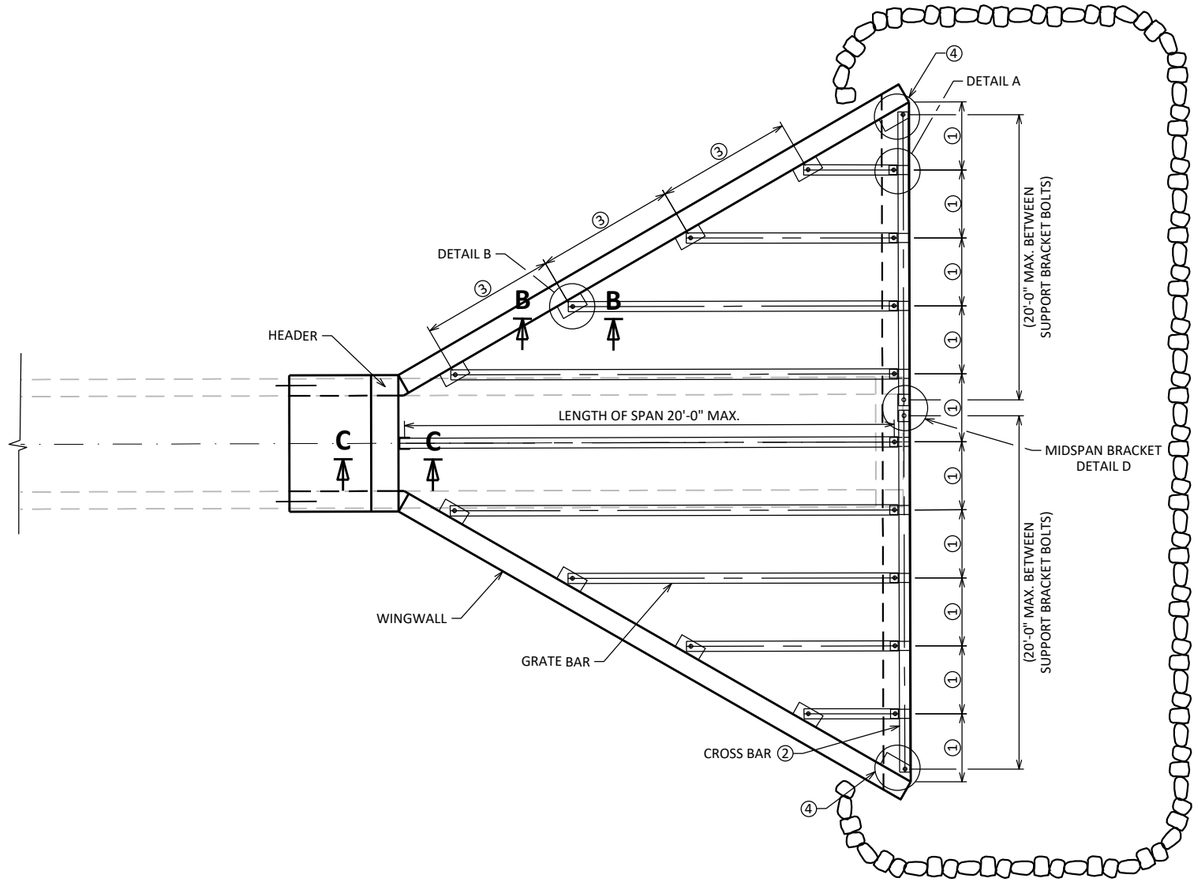
SHEET 4
566

SCALE = 4.0

8

8

STATE PROJECT NUMBER
1100-52-71



INSTALLATION PLAN - C-20-15
EAST

USE CORRECT PIPE DIAMETERS AND CORRECT DIMENSIONS. ENSURE SAFETY GRADE FITS PROPERLY INTO THE HEADWALL OPENING.

REINFORCING STEEL MAY BE ENCOUNTERED WHEN DRILLING HOLES THROUGH THE STRUCTURE WALL.

AT ALL LOCATIONS SHOWN USE BRACKETS THAT COMPLY WITH ASTM A36 AND ARE GALVANIZED PER ASTM A123.

FURNISH SCHEDULE 40 ASTM A500 GRADE B PIPE. GALVANIZE ASTM A123 ALL PIPES, FITTINGS, AND HARDWARE AFTER ALL CUTTING WELDING, DRILLING, AND FABRICATION. IN THE SHOP DRAWINGS, SHOW MEMEBERS PLANNED FOR FIELD CUTTING AND DRILLING TO PROVIDE FOR INSTALLATION TOLERANCES. REPAIR GALVANIZING OF THOSE MEMBERS ACCORDING TO ASTM A123.

INSTALL BOLTS, WASHERS, AND LOCK NUTS COMPLYING WITH STANDARD SPECIFICATION 513.2.1(5)

ANY WELDING REQUIRED SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 506.3.19.

PAYMENT FOR "SAFETY GRATE, C-20-XXXX" IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND WORK NECESSARY TO FABRICATE AND INSTALL THE GRATE SYSTEM AS REQUIRED FOR EACH APRON OPENING.

(1) EQUAL SPACES 24 INCHES MINIMUM, 30 INCHES MAXIMUM, EDGE OF WINGWALL TO CENTER OF BRACKET OR CENTER TO CENTER OF BRACKET.

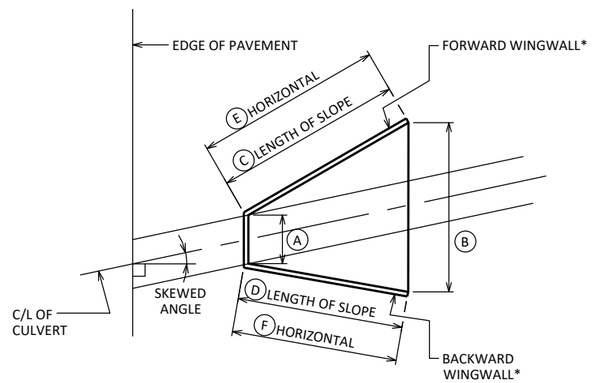
(2) CROSS DIAMETERS EQUAL TO OR GREATER THAN GRATE BAR DIAMETER.

(3) EQUAL SPACING ALONG SPAN OF WINGWALL.

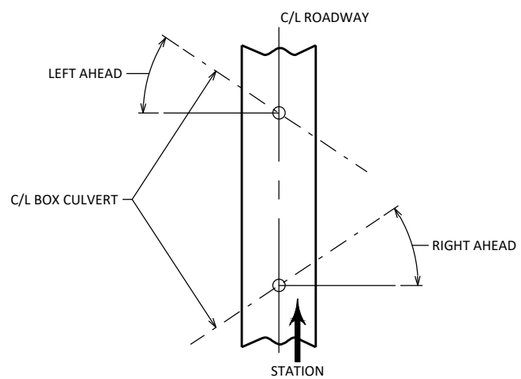
(4) END OF WING BRACKETS AND LOCATION OF BRACKET HOLES THROUGH WING TO BE MODIFIED BY FABRICATOR TO MATCH ANGLE OF WINGWALL. MINIMUM OF 4 INCHES OF CONCRETE AND 2 INCHES OF STEEL BRACKET MATERIAL MUST REMAIN SURROUNDING HOLE EDGE.

GRATE & CROSS BAR SIZE REQUIREMENTS		
LENGTH OF SPAN	NOMINAL PIPE SIZE (2)	O.D. SIZE
LESS THAN 12'	3.0"	3.5"
12' - 16'	3.5"	4.0"
GREATER THAN 16'	4.0"	4.5"

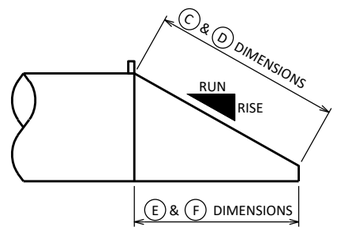
LOCATION		CULVERT SKEW ANGLE AHEAD		DIMENSIONS					
STRUCTURE NO.	SIDE	DEGREES		Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ
		LEFT	RIGHT						
C-20-0015	RT.		0	3.50	24.92	21.84	21.84	21.22	21.22



TOP VIEW
*FROM ROADWAY STATIONING



SKEW ANGLE DETERMINATION



SIDE VIEW DETAILS OF DIMENSIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-15

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (1 OF 3)

SHEET 5
567

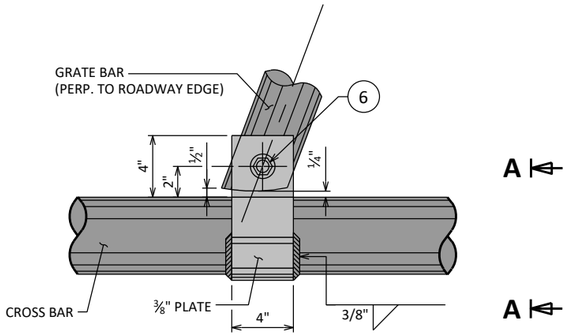
SCALE = 1" = 1'

8

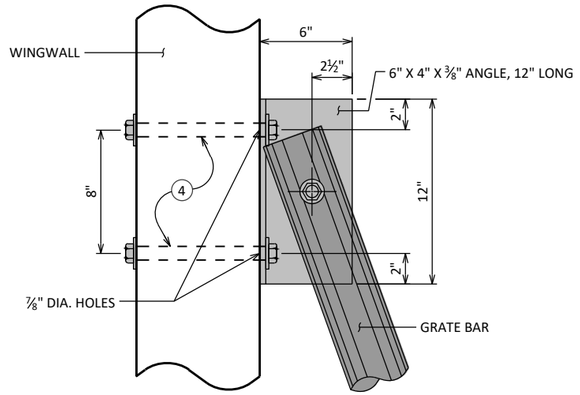
8

STATE PROJECT NUMBER

1100-52-71



DETAIL 'A' TOP VIEW



DETAIL 'B' TOP VIEW

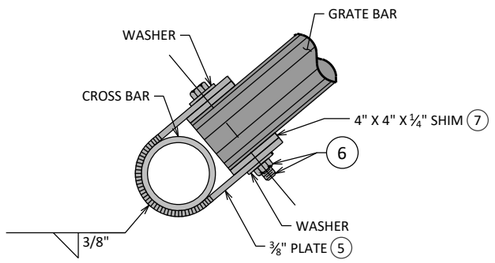
(4) DRILL ⅞ INCH DIAMETER HOLES USING EQUIPMENT DESIGNED TO CUT THROUGH CONCRETE AND REINFORCING STEEL.

(5) BEND PLATES OR STRIPS WITHOUT CRACKING MATERIAL.

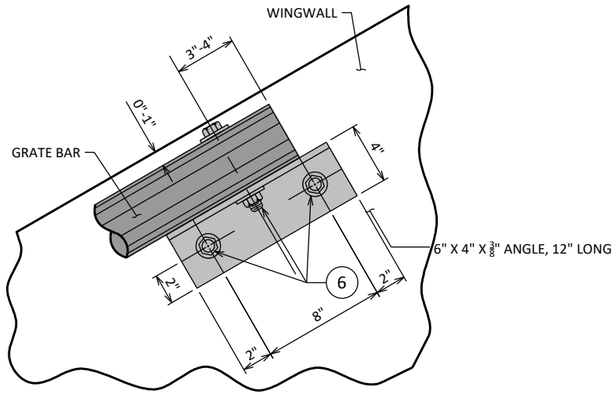
(6) ¾ INCH BOLT, LOCK NUT AND WASHERS. ALL HOLES ARE TO BE ⅞ INCH DIAMETER.

(7) SHIM THICKNESS EQUAL TO DIFFERENCE IN DIAMETERS OF GRATE BAR AND CROSS BAR.

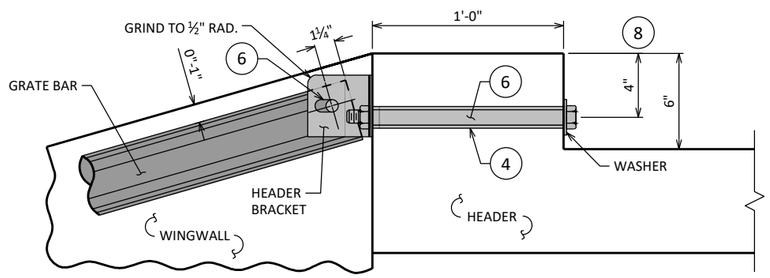
(8) LOCATE BOLT HOLE TO MISS HEADER REINFORCING.



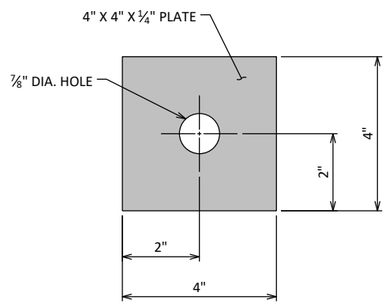
SECTION A-A



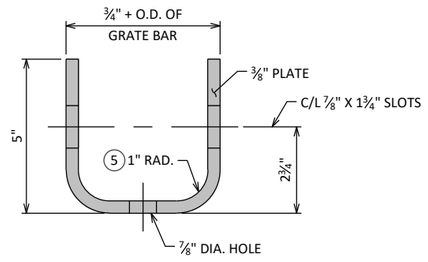
SECTION B-B



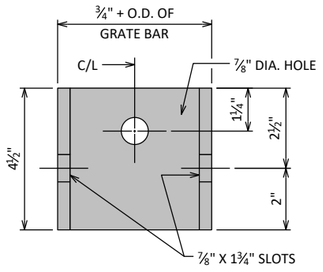
SECTION C-C



SHIM DETAIL



HEADWALL BRACKET TOP VIEW



HEADWALL BRACKET FRONT VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-15

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (2 of 3)

SHEET 6

568

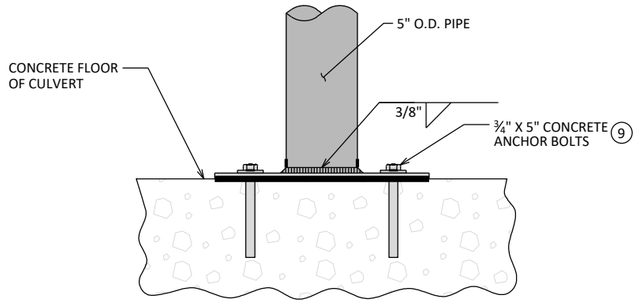
SCALE = 1" = 1'

8

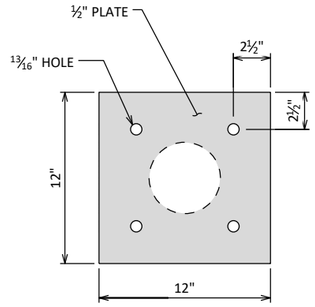
8

STATE PROJECT NUMBER

1100-52-71

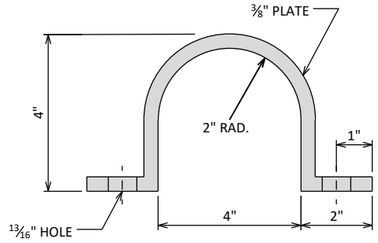


BOTTOM SUPPORT ON CULVERT FLOOR

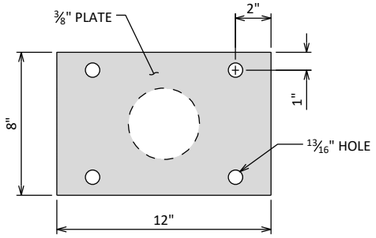


BOTTOM SUPPORT PLATE TOP VIEW

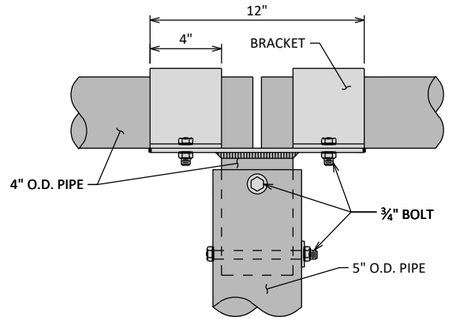
(9) ADHESIVE ANCHORS ¾-INCH. EMBED 5 INCHES IN CONCRETE. ADHESIVE ANCHOR SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS. INCLUDE THE COST OF ADHESIVE ANCHORS AS INCIDENTAL TO THE BID ITEM "SAFETY GRATE C-20-15"



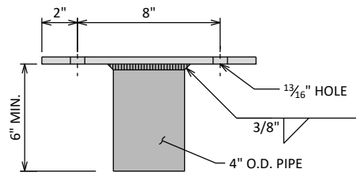
BRACKET END VIEW



TOP VIEW



CROSS BAR SUPPORT ASSEMBLY SIDE VIEW



SIDE VIEW SUPPORT PLATE

DETAIL 'D'

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-20-15

DRAWN BY LMG | PLANS CK'D CVH/PJC

SAFETY GRATE FOR BOX CULVERT (3 of 3)

SHEET 7
569

SCALE = 1" = 1'

DIVISION 1 - SB WIDENING

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
2995+78.69	299578.69	0.00	1.97	0.04	0	0	0	0	0
2996+00.00	299600.00	21.31	5.02	0.00	3	0	3	0	3
2996+50.00	299650.00	50.00	4.64	0.05	9	0	12	0	12
2997+00.00	299700.00	50.00	4.92	0.21	9	0	21	0	21
2997+05.02	299705.02	5.02	4.98	0.24	1	0	22	0	22
2997+50.00	299750.00	44.98	5.39	0.41	9	1	31	1	30
2998+00.00	299800.00	50.00	5.60	0.72	10	1	41	3	39
2998+50.00	299850.00	50.00	6.66	1.43	11	2	52	5	47
2999+00.00	299900.00	50.00	6.58	2.17	12	3	64	9	55
2999+50.00	299950.00	50.00	6.34	4.39	12	6	76	16	60
3000+00.00	300000.00	50.00	5.67	7.56	11	11	87	30	57
3000+50.00	300050.00	50.00	5.50	14.39	10	20	97	55	42
3001+00.00	300100.00	50.00	5.47	14.85	10	27	107	89	18
3001+50.00	300150.00	50.00	5.23	14.40	10	27	117	123	-6
3002+00.00	300200.00	50.00	5.33	14.39	10	27	127	156	-29
3002+50.00	300250.00	50.00	5.54	16.23	10	28	137	191	-54
3003+00.00	300300.00	50.00	5.76	19.40	10	33	147	233	-86
3003+50.00	300350.00	50.00	5.80	18.61	11	35	158	276	-118
3004+00.00	300400.00	50.00	5.67	16.74	11	33	169	318	-149
3004+50.00	300450.00	50.00	5.46	17.00	10	31	179	356	-177
3005+00.00	300500.00	50.00	5.25	20.26	10	35	189	400	-211
3005+50.00	300550.00	50.00	5.77	20.88	10	38	199	448	-249
3006+00.00	300600.00	50.00	6.26	23.66	11	41	210	499	-289
3006+50.00	300650.00	50.00	6.34	24.74	12	45	222	555	-333
3007+00.00	300700.00	50.00	6.12	25.90	12	47	234	614	-380
3007+50.00	300750.00	50.00	5.84	26.85	11	49	245	675	-430
3007+78.88	300778.88	28.88	5.64	30.76	6	31	251	714	-463
3008+00.00	300800.00	21.12	5.46	34.23	4	25	255	745	-490
3008+50.00	300850.00	50.00	5.37	42.99	10	71	265	834	-569
3009+00.00	300900.00	50.00	5.49	37.12	10	74	275	926	-651
3009+50.00	300950.00	50.00	5.54	38.28	10	70	285	1,014	-729
3010+00.00	301000.00	50.00	5.64	42.09	10	74	295	1,106	-811
3010+50.00	301050.00	50.00	5.73	43.51	11	79	306	1,205	-899
3011+00.00	301100.00	50.00	5.50	45.55	10	82	316	1,308	-992
3011+50.00	301150.00	50.00	4.68	41.44	9	81	325	1,409	-1,084
3012+00.00	301200.00	50.00	12.10	0.79	16	39	341	1,458	-1,117
3012+50.00	301250.00	50.00	5.89	35.91	17	34	358	1,500	-1,142
3013+00.00	301300.00	50.00	5.29	32.92	10	64	368	1,580	-1,212
3013+50.00	301350.00	50.00	5.04	34.65	10	63	378	1,659	-1,281
3014+00.00	301400.00	50.00	5.30	32.43	10	62	388	1,736	-1,348

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

9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 570	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 1 - SB WIDENING

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3014+50.00	301450.00	50.00	5.87	28.73	10	57	398	1,808	-1,410
3015+00.00	301500.00	50.00	5.64	24.95	11	50	409	1,870	-1,461
3015+50.00	301550.00	50.00	5.33	19.76	10	41	419	1,921	-1,502
3016+00.00	301600.00	50.00	5.39	18.66	10	36	429	1,966	-1,537
3016+50.00	301650.00	50.00	5.56	17.87	10	34	439	2,009	-1,570
3017+00.00	301700.00	50.00	5.85	12.39	11	28	450	2,044	-1,594
3017+50.00	301750.00	50.00	5.91	10.32	11	21	461	2,070	-1,609
3018+00.00	301800.00	50.00	6.13	9.47	11	18	472	2,093	-1,621
3018+50.00	301850.00	50.00	6.47	6.26	12	15	484	2,111	-1,627
3019+00.00	301900.00	50.00	6.68	3.08	12	9	496	2,123	-1,627
3019+50.00	301950.00	50.00	11.67	0.04	17	3	513	2,126	-1,613
3020+00.00	302000.00	50.00	17.04	0.45	27	0	540	2,126	-1,586
3020+50.00	302050.00	50.00	8.48	0.58	24	1	564	2,128	-1,564
3021+00.00	302100.00	50.00	12.58	1.27	20	2	584	2,130	-1,546
3021+50.00	302150.00	50.00	15.62	1.10	26	2	610	2,133	-1,523
3022+00.00	302200.00	50.00	12.88	3.32	26	4	636	2,138	-1,502
3022+50.00	302250.00	50.00	9.25	9.19	20	12	656	2,153	-1,497
3023+00.00	302300.00	50.00	7.18	15.37	15	23	671	2,181	-1,510
3023+50.00	302350.00	50.00	6.18	19.31	12	32	683	2,221	-1,538
3024+00.00	302400.00	50.00	5.55	22.99	11	39	694	2,270	-1,576
3024+50.00	302450.00	50.00	5.34	25.40	10	45	704	2,326	-1,622
3025+00.00	302500.00	50.00	5.89	23.90	10	46	714	2,384	-1,670
3025+50.00	302550.00	50.00	5.48	23.03	11	43	725	2,438	-1,713
3026+00.00	302600.00	50.00	5.35	21.73	10	41	735	2,489	-1,754
3026+50.00	302650.00	50.00	5.27	24.41	10	43	745	2,543	-1,798
3027+00.00	302700.00	50.00	5.37	28.38	10	49	755	2,604	-1,849
3027+50.00	302750.00	50.00	5.53	32.91	10	57	765	2,675	-1,910
3028+00.00	302800.00	50.00	5.24	35.87	10	64	775	2,755	-1,980
3028+50.00	302850.00	50.00	4.80	45.15	9	75	784	2,849	-2,065
3029+00.00	302900.00	50.00	5.24	44.48	9	83	793	2,953	-2,160
3029+50.00	302950.00	50.00	5.55	35.71	10	74	803	3,045	-2,242
3030+00.00	303000.00	50.00	5.44	34.89	10	65	813	3,126	-2,313
3030+50.00	303050.00	50.00	5.25	39.49	10	69	823	3,213	-2,390
3031+00.00	303100.00	50.00	4.74	40.17	9	74	832	3,305	-2,473
3031+50.00	303150.00	50.00	4.69	57.32	9	90	841	3,418	-2,577
3032+00.00	303200.00	50.00	5.05	39.28	9	89	850	3,529	-2,679
3032+50.00	303250.00	50.00	4.86	42.24	9	75	859	3,623	-2,764
3033+00.00	303300.00	50.00	5.08	32.57	9	69	868	3,709	-2,841
3033+50.00	303350.00	50.00	5.13	24.58	9	53	877	3,775	-2,898
3034+00.00	303400.00	50.00	5.43	16.74	10	38	887	3,823	-2,936

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

9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 571	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 1 - SB WIDENING

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3034+50.00	303450.00	50.00	6.71	14.20	11	29	898	3,859	-2,961
3035+00.00	303500.00	50.00	6.81	17.03	13	29	911	3,895	-2,984
3035+50.00	303550.00	50.00	5.54	25.12	11	39	922	3,944	-3,022
3036+00.00	303600.00	50.00	4.79	32.11	10	53	932	4,010	-3,078
3036+50.00	303650.00	50.00	5.19	37.19	9	64	941	4,090	-3,149
3037+00.00	303700.00	50.00	5.12	45.18	10	76	951	4,185	-3,234
3037+50.00	303750.00	50.00	5.12	59.58	9	97	960	4,306	-3,346
3038+00.00	303800.00	50.00	5.30	52.02	10	103	970	4,435	-3,465
3038+50.00	303850.00	50.00	5.24	46.48	10	91	980	4,549	-3,569
3039+00.00	303900.00	50.00	5.26	44.68	10	84	990	4,654	-3,664
3039+50.00	303950.00	50.00	5.30	43.15	10	81	1,000	4,755	-3,755
3040+00.00	304000.00	50.00	5.35	41.24	10	78	1,010	4,853	-3,843
3040+50.00	304050.00	50.00	5.46	38.42	10	74	1,020	4,945	-3,925
3041+00.00	304100.00	50.00	5.49	31.99	10	65	1,030	5,026	-3,996
3041+37.08	304137.08	37.08	5.32	26.58	7	40	1,037	5,076	-4,039
3041+50.00	304150.00	12.92	5.38	24.90	3	12	1,040	5,091	-4,051
3042+00.00	304200.00	50.00	6.07	17.96	11	40	1,051	5,141	-4,090
3042+50.00	304250.00	50.00	6.49	13.98	12	30	1,063	5,179	-4,116
3043+00.00	304300.00	50.00	5.78	12.67	11	25	1,074	5,210	-4,136
3043+50.00	304350.00	50.00	5.59	12.03	11	23	1,085	5,239	-4,154
3044+00.00	304400.00	50.00	5.64	13.67	10	24	1,095	5,269	-4,174
3044+50.00	304450.00	50.00	5.02	22.28	10	33	1,105	5,310	-4,205
3045+00.00	304500.00	50.00	5.46	11.36	10	31	1,115	5,349	-4,234
3045+50.00	304550.00	50.00	6.26	6.94	11	17	1,126	5,370	-4,244
3046+00.00	304600.00	50.00	6.30	6.05	12	12	1,138	5,385	-4,247
3046+50.00	304650.00	50.00	6.50	6.32	12	11	1,150	5,399	-4,249
3047+00.00	304700.00	50.00	6.89	0.00	12	6	1,162	5,406	-4,244
3047+50.00	304750.00	50.00	6.42	0.00	12	0	1,174	5,406	-4,232
3048+00.00	304800.00	50.00	5.79	0.59	11	1	1,185	5,408	-4,223
3048+47.96	304847.96	47.96	1.77	0.37	7	1	1,192	5,409	-4,217

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

9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 572	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 1 - MEDIAN CROSSOVER

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
2997+05.02	299705.02	0.00	7.61	0.00	0	0	0	0	0
2997+50.00	299750.00	44.98	10.71	0.00	15	0	15	0	15
2998+00.00	299800.00	50.00	11.36	0.17	20	0	35	0	35
2998+50.00	299850.00	50.00	11.59	1.07	21	1	56	1	55
2999+00.00	299900.00	50.00	11.40	2.48	21	3	77	5	72
2999+50.00	299950.00	50.00	10.98	4.40	21	6	98	13	86
3000+00.00	300000.00	50.00	11.19	4.85	21	9	119	24	95
3000+50.00	300050.00	50.00	11.45	5.02	21	9	140	35	105
3001+00.00	300100.00	50.00	11.88	4.70	22	9	162	46	116
3001+50.00	300150.00	50.00	13.87	3.90	24	8	186	56	130
3002+00.00	300200.00	50.00	21.59	2.86	33	6	219	64	155
3002+50.00	300250.00	50.00	22.89	2.59	41	5	260	70	190
3003+00.00	300300.00	50.00	18.57	2.72	38	5	298	76	222
3003+50.00	300350.00	50.00	15.09	2.71	31	5	329	83	247
3004+00.00	300400.00	50.00	12.66	2.50	26	5	355	89	266
3004+50.00	300450.00	50.00	11.50	2.78	22	5	377	95	282
3005+00.00	300500.00	50.00	11.07	3.11	21	5	398	101	297
3005+50.00	300550.00	50.00	10.80	3.20	20	6	418	109	309
3006+00.00	300600.00	50.00	10.08	3.49	19	6	437	116	321
3006+50.00	300650.00	50.00	9.57	3.07	18	6	455	124	331
3007+00.00	300700.00	50.00	9.69	1.76	18	4	473	129	344
3007+50.00	300750.00	50.00	9.93	0.72	18	2	491	131	360
3007+78.88	300778.88	28.88	9.90	0.09	11	0	502	131	371
3008+00.00	300800.00	21.12	9.88	0.04	8	0	510	131	379
3008+50.00	300850.00	50.00	9.77	0.02	18	0	528	131	397
3009+00.00	300900.00	50.00	9.65	0.00	18	0	546	131	415
3009+50.00	300950.00	50.00	9.50	0.00	18	0	564	131	433
3010+00.00	301000.00	50.00	9.46	0.00	18	0	582	131	451
3010+50.00	301050.00	50.00	9.52	0.00	18	0	600	131	469
3011+00.00	301100.00	50.00	9.62	0.00	18	0	618	131	487
3011+50.00	301150.00	50.00	9.78	0.01	18	0	636	131	505
3012+00.00	301200.00	50.00	9.95	0.03	18	0	654	131	523
3012+50.00	301250.00	50.00	9.54	0.00	18	0	672	131	541
3013+00.00	301300.00	50.00	10.20	0.00	18	0	690	131	559
3013+50.00	301350.00	50.00	9.28	0.92	18	1	708	133	576
3014+00.00	301400.00	50.00	9.52	0.15	17	1	725	134	591
3014+50.00	301450.00	50.00	9.43	0.00	18	0	743	134	609
3015+00.00	301500.00	50.00	8.78	0.00	17	0	760	134	626
3015+50.00	301550.00	50.00	8.67	0.00	16	0	776	134	642
3016+00.00	301600.00	50.00	8.86	0.00	16	0	792	134	658

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

9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 573	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 1 - MEDIAN CROSSOVER

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3016+50.00	301650.00	50.00	8.27	0.00	16	0	808	134	674
3017+00.00	301700.00	50.00	8.06	0.00	15	0	823	134	689
3017+50.00	301750.00	50.00	8.16	0.00	15	0	838	134	704
3018+00.00	301800.00	50.00	8.12	0.00	15	0	853	134	719
3018+50.00	301850.00	50.00	8.14	0.00	15	0	868	134	734
3019+00.00	301900.00	50.00	7.91	0.00	15	0	883	134	749
3019+50.00	301950.00	50.00	8.45	0.00	15	0	898	134	764
3020+00.00	302000.00	50.00	8.47	0.00	16	0	914	134	780
3020+50.00	302050.00	50.00	8.52	0.00	16	0	930	134	796
3021+00.00	302100.00	50.00	8.97	0.00	16	0	946	134	812
3021+50.00	302150.00	50.00	14.33	0.00	22	0	968	134	834
3022+00.00	302200.00	50.00	8.72	0.00	21	0	989	134	855
3022+50.00	302250.00	50.00	8.40	0.00	16	0	1,005	134	871
3023+00.00	302300.00	50.00	8.11	0.00	15	0	1,020	134	886
3023+50.00	302350.00	50.00	7.48	0.00	14	0	1,034	134	900
3024+00.00	302400.00	50.00	8.15	0.00	14	0	1,048	134	914
3024+50.00	302450.00	50.00	9.10	0.00	16	0	1,064	134	930
3025+00.00	302500.00	50.00	8.12	0.00	16	0	1,080	134	946
3025+50.00	302550.00	50.00	8.93	0.00	16	0	1,096	134	962
3026+00.00	302600.00	50.00	9.98	0.00	18	0	1,114	134	980
3026+50.00	302650.00	50.00	10.08	0.00	19	0	1,133	134	999
3027+00.00	302700.00	50.00	9.91	0.00	19	0	1,152	134	1,018
3027+50.00	302750.00	50.00	8.96	0.00	17	0	1,169	134	1,035
3028+00.00	302800.00	50.00	8.66	0.00	16	0	1,185	134	1,051
3028+50.00	302850.00	50.00	8.15	0.00	16	0	1,201	134	1,067
3029+00.00	302900.00	50.00	8.20	0.00	15	0	1,216	134	1,082
3029+50.00	302950.00	50.00	8.58	0.00	16	0	1,232	134	1,098
3030+00.00	303000.00	50.00	8.82	0.00	16	0	1,248	134	1,114
3030+50.00	303050.00	50.00	9.32	0.00	17	0	1,265	134	1,131
3031+00.00	303100.00	50.00	9.68	0.00	18	0	1,283	134	1,149
3031+50.00	303150.00	50.00	8.60	0.89	17	1	1,300	135	1,165
3032+00.00	303200.00	50.00	9.64	0.00	17	1	1,317	136	1,181
3032+50.00	303250.00	50.00	9.48	0.00	18	0	1,335	136	1,199
3033+00.00	303300.00	50.00	9.17	0.00	17	0	1,352	136	1,216
3033+50.00	303350.00	50.00	9.13	0.00	17	0	1,369	136	1,233
3034+00.00	303400.00	50.00	8.64	0.00	16	0	1,385	136	1,249
3034+50.00	303450.00	50.00	8.27	0.00	16	0	1,401	136	1,265
3035+00.00	303500.00	50.00	7.83	0.00	15	0	1,416	136	1,280
3035+50.00	303550.00	50.00	8.75	0.00	15	0	1,431	136	1,295
3036+00.00	303600.00	50.00	8.63	0.00	16	0	1,447	136	1,311

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

9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 574	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 1 - MEDIAN CROSSOVER

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3036+50.00	303650.00	50.00	8.59	0.00	16	0	1,463	136	1,327
3037+00.00	303700.00	50.00	8.49	0.00	16	0	1,479	136	1,343
3037+50.00	303750.00	50.00	9.18	0.00	16	0	1,495	136	1,359
3038+00.00	303800.00	50.00	8.76	0.00	17	0	1,512	136	1,376
3038+50.00	303850.00	50.00	9.50	0.00	17	0	1,529	136	1,393
3039+00.00	303900.00	50.00	8.85	0.00	17	0	1,546	136	1,410
3039+50.00	303950.00	50.00	8.69	0.00	16	0	1,562	136	1,426
3040+00.00	304000.00	50.00	8.52	0.00	16	0	1,578	136	1,442
3040+50.00	304050.00	50.00	8.47	0.00	16	0	1,594	136	1,458
3041+00.00	304100.00	50.00	8.66	0.00	16	0	1,610	136	1,474
3041+37.08	304137.08	37.08	9.06	0.00	12	0	1,622	136	1,486
3041+50.00	304150.00	12.92	9.34	0.00	4	0	1,626	136	1,490
3042+00.00	304200.00	50.00	10.35	0.00	18	0	1,644	136	1,508
3042+50.00	304250.00	50.00	11.20	0.00	20	0	1,664	136	1,528
3043+00.00	304300.00	50.00	12.37	0.00	22	0	1,686	136	1,550
3043+50.00	304350.00	50.00	14.71	0.00	25	0	1,711	136	1,575
3044+00.00	304400.00	50.00	18.32	0.00	31	0	1,742	136	1,606
3044+50.00	304450.00	50.00	24.51	0.00	40	0	1,782	136	1,646
3045+00.00	304500.00	50.00	29.07	0.00	50	0	1,832	136	1,696
3045+50.00	304550.00	50.00	22.24	0.00	48	0	1,880	136	1,744
3046+00.00	304600.00	50.00	16.25	0.40	36	0	1,916	136	1,780
3046+50.00	304650.00	50.00	20.75	2.91	34	3	1,950	140	1,810
3047+00.00	304700.00	50.00	20.88	3.27	39	6	1,989	148	1,842
3047+50.00	304750.00	50.00	15.01	7.76	33	10	2,022	160	1,862
3048+00.00	304800.00	50.00	11.62	9.57	25	16	2,047	180	1,867
3048+47.96	304847.96	47.96	10.40	8.98	20	16	2,067	200	1,867
3048+50.00	304850.00	2.04	10.37	9.01	1	1	2,068	201	1,867
3049+00.00	304900.00	50.00	10.01	8.15	19	16	2,087	221	1,866
3049+50.00	304950.00	50.00	9.97	7.07	19	14	2,106	239	1,867
3050+00.00	305000.00	50.00	10.29	5.42	19	12	2,125	254	1,871
3050+50.00	305050.00	50.00	10.77	2.90	20	8	2,145	264	1,881
3051+00.00	305100.00	50.00	11.17	0.36	20	3	2,165	268	1,898
3051+50.00	305150.00	50.00	10.11	0.00	20	0	2,185	268	1,918
3051+89.10	305189.10	39.10	6.17	0.00	12	0	2,197	268	1,930

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

DIVISION 2 - IH 41 NB PIPE CROSSINGS

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3012+12.26	301212.26	0.00	144.56	0.00	0	0	0	0	0
3012+50.00	301250.00	37.74	151.96	0.00	207	0	207	0	207
3013+00.00	301300.00	50.00	153.65	0.00	283	0	490	0	490
3013+50.00	301350.00	50.00	147.96	0.00	279	0	769	0	769
3013+71.62	301371.62	21.62	145.74	0.00	118	0	887	0	887
3013+71.72	301371.72	0.10	0.00	0.00	0	0	887	0	887
3031+30.66	303130.66	1758.94	0.00	0.00	0	0	887	0	887
3031+30.76	303130.76	0.10	146.61	0.00	0	0	887	0	887
3031+50.00	303150.00	19.24	144.82	0.04	104	0	991	0	991
3031+99.42	303199.42	49.42	143.31	0.70	264	1	1,255	1	1,254
3031+99.52	303199.52	0.10	0.00	0.00	0	0	1,255	1	1,254
3037+27.40	303727.40	527.88	0.00	0.00	0	0	1,255	1	1,254
3037+27.50	303727.50	0.10	153.26	0.00	0	0	1,255	1	1,254
3037+50.00	303750.00	22.50	154.03	0.06	128	0	1,383	1	1,382
3037+89.50	303789.50	39.50	150.85	0.59	223	0	1,606	1	1,605

DIVISION 2 - IH 41 SB PIPE CROSSINGS

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3011+40.12	301140.12	0.00	139.83	0.00	0	0	0	0	0
3011+50.00	301150.00	9.88	141.28	0.00	51	0	51	0	51
3012+00.00	301200.00	50.00	147.76	0.00	268	0	319	0	319
3012+50.00	301250.00	50.00	155.29	0.00	281	0	600	0	600
3012+99.49	301299.49	49.49	150.68	0.00	280	0	880	0	880
3012+99.59	301299.59	0.10	0.00	0.00	0	0	880	0	880
3031+30.66	303130.66	1831.07	0.00	0.00	0	0	880	0	880
3031+30.76	303130.76	0.10	138.89	0.00	0	0	880	0	880
3031+50.00	303150.00	19.24	136.01	0.79	98	0	978	0	978
3031+99.42	303199.42	49.42	0.00	0.00	124	1	1,102	1	1,101
3031+99.52	303199.52	0.10	0.00	0.00	0	0	1,102	1	1,101
3037+27.40	303727.40	527.88	0.00	0.00	0	0	1,102	1	1,101
3037+27.50	303727.50	0.10	141.66	0.00	0	0	1,102	1	1,101
3037+50.00	303750.00	22.50	155.48	0.00	124	0	1,226	1	1,225
3037+89.50	303789.50	39.50	148.41	0.02	222	0	1,448	1	1,447

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

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DIVISION 2 - EAST FRONTAGE - BLACK OAK SCHOOL RD

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
143+42.15	14342.15	0.00	48.42	0.12	0	0	0	0	0
143+50.00	14350.00	7.85	48.42	0.17	14	0	14	0	14
144+00.00	14400.00	50.00	51.76	0.33	93	0	107	0	107
144+50.00	14450.00	50.00	54.76	0.00	99	0	206	0	206
145+00.00	14500.00	50.00	43.33	8.29	91	8	297	10	287
145+30.48	14530.48	30.48	46.21	1.21	51	5	348	16	332
145+30.58	14530.58	0.10	0.00	0.00	0	0	348	16	332
165+94.90	16594.90	2064.32	0.00	0.00	0	0	348	16	332
165+95.00	16595.00	0.10	53.91	3.43	0	0	348	16	332
166+00.00	16600.00	5.00	53.99	3.34	10	1	358	18	341
166+50.00	16650.00	50.00	51.47	18.22	98	20	456	43	414
167+00.00	16700.00	50.00	47.41	4.24	92	21	548	69	479
167+00.17	16700.17	0.17	47.41	4.25	0	0	548	69	479

DIVISION 2 - WEST FRONTAGE - PLANEVIEW DR

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
140+74.35	14074.35	0.00	50.27	5.83	0	0	0	0	0
141+00.00	14100.00	25.65	56.22	19.27	51	12	51	15	36
141+50.00	14150.00	50.00	57.30	50.49	105	65	156	96	60
142+00.00	14200.00	50.00	50.12	6.89	99	53	255	163	93
142+50.00	14250.00	50.00	43.59	1.53	87	8	342	173	170
142+62.68	14262.68	12.68	42.77	1.02	20	1	362	174	188
142+62.78	14262.78	0.10	0.00	0.00	0	0	362	174	188
161+55.50	16155.50	1892.72	0.00	0.00	0	0	362	174	188
161+55.60	16155.60	0.10	54.79	0.54	0	0	362	174	188
162+00.00	16200.00	44.40	54.65	6.58	90	6	452	181	271
162+50.00	16250.00	50.00	56.62	0.00	103	6	555	189	366
162+53.60	16253.60	3.60	56.58	0.00	8	0	563	189	374
162+53.70	16253.70	0.10	0.00	0.00	0	0	563	189	374
167+23.72	16723.72	470.02	0.00	0.00	0	0	563	189	374
167+23.82	16723.82	0.10	52.71	0.28	0	0	563	189	374
167+50.00	16750.00	26.18	52.39	1.56	51	1	614	190	424
168+00.00	16800.00	50.00	50.07	4.14	95	5	709	196	513
168+39.20	16839.20	39.20	50.04	3.79	73	6	782	204	578

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

DIVISION 3 - SB WIDENING REMOVAL

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
2995+78.69	299578.69	0.00	0.00	0.18	0	0	0	0	0
2996+00.00	299600.00	21.31	0.12	0.87	0	0	0	0	0
2997+00.00	299700.00	100.00	3.50	0.00	7	2	7	3	5
2998+00.00	299800.00	100.00	9.40	0.00	24	0	31	3	29
2999+00.00	299900.00	100.00	16.65	0.00	48	0	79	3	77
3000+00.00	300000.00	100.00	24.90	0.00	77	0	156	3	154
3001+00.00	300100.00	100.00	32.75	0.00	107	0	263	3	261
3002+00.00	300200.00	100.00	40.90	0.00	136	0	399	3	397
3003+00.00	300300.00	100.00	47.32	0.01	163	0	562	3	560
3004+00.00	300400.00	100.00	51.50	0.00	183	0	745	3	743
3005+00.00	300500.00	100.00	54.41	0.00	196	0	941	3	939
3006+00.00	300600.00	100.00	56.48	0.00	205	0	1,146	3	1,144
3007+00.00	300700.00	100.00	58.30	0.00	213	0	1,359	3	1,357
3008+00.00	300800.00	100.00	59.32	0.04	218	0	1,577	3	1,575
3009+00.00	300900.00	100.00	60.43	0.07	222	0	1,799	3	1,797
3010+00.00	301000.00	100.00	61.71	0.06	226	0	2,025	3	2,023
3011+00.00	301100.00	100.00	37.98	7.88	185	15	2,210	21	2,189
3012+00.00	301200.00	100.00	11.44	3.68	92	21	2,302	48	2,255
3013+00.00	301300.00	100.00	61.12	0.00	134	7	2,436	56	2,380
3014+00.00	301400.00	100.00	54.88	0.28	215	1	2,651	58	2,594
3015+00.00	301500.00	100.00	47.72	0.24	190	1	2,841	59	2,782
3016+00.00	301600.00	100.00	41.87	0.36	166	1	3,007	60	2,947
3017+00.00	301700.00	100.00	35.99	0.54	144	2	3,151	63	3,089
3018+00.00	301800.00	100.00	30.66	0.72	123	2	3,274	65	3,209
3019+00.00	301900.00	100.00	25.60	1.04	104	3	3,378	69	3,309
3020+00.00	302000.00	100.00	21.38	0.61	87	3	3,465	73	3,393
3021+00.00	302100.00	100.00	23.64	0.40	83	2	3,548	75	3,473
3022+00.00	302200.00	100.00	29.68	0.18	99	1	3,647	76	3,571
3023+00.00	302300.00	100.00	35.30	1.49	120	3	3,767	80	3,687
3024+00.00	302400.00	100.00	40.70	1.78	141	6	3,908	88	3,821
3025+00.00	302500.00	100.00	45.73	1.43	160	6	4,068	95	3,973
3026+00.00	302600.00	100.00	50.03	1.27	177	5	4,245	101	4,144
3027+00.00	302700.00	100.00	54.10	0.71	193	4	4,438	106	4,332
3028+00.00	302800.00	100.00	57.84	0.88	207	3	4,645	110	4,535
3029+00.00	302900.00	100.00	61.02	0.93	220	3	4,865	114	4,751
3030+00.00	303000.00	100.00	64.55	0.27	233	2	5,098	116	4,982
3031+00.00	303100.00	100.00	66.35	0.00	242	1	5,340	118	5,223
3032+00.00	303200.00	100.00	66.08	0.07	245	0	5,585	118	5,468
3033+00.00	303300.00	100.00	63.55	0.28	240	1	5,825	119	5,706
3034+00.00	303400.00	100.00	58.34	0.00	226	1	6,051	120	5,931

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

DIVISION 3 - SB WIDENING REMOVAL

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3035+00.00	303500.00	100.00	54.71	0.00	209	0	6,260	120	6,140
3036+00.00	303600.00	100.00	61.77	0.00	216	0	6,476	120	6,356
3037+00.00	303700.00	100.00	67.42	0.00	239	0	6,715	120	6,595
3038+00.00	303800.00	100.00	69.09	0.10	253	0	6,968	120	6,848
3039+00.00	303900.00	100.00	66.90	0.03	252	0	7,220	120	7,100
3040+00.00	304000.00	100.00	63.68	0.06	242	0	7,462	120	7,342
3041+00.00	304100.00	100.00	59.67	0.00	228	0	7,690	120	7,570
3042+00.00	304200.00	100.00	52.59	0.00	208	0	7,898	120	7,778
3043+00.00	304300.00	100.00	44.25	0.00	179	0	8,077	120	7,957
3044+00.00	304400.00	100.00	34.17	0.00	145	0	8,222	120	8,102
3045+00.00	304500.00	100.00	23.21	0.05	106	0	8,328	120	8,208
3046+00.00	304600.00	100.00	15.92	0.00	72	0	8,400	120	8,280
3047+00.00	304700.00	100.00	4.43	0.03	38	0	8,438	120	8,318
3048+00.00	304800.00	100.00	0.64	0.90	9	2	8,447	123	8,325
3048+47.96	304847.96	47.96	0.00	0.09	1	1	8,448	124	8,324

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

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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 579	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 3 - MEDIAN CROSSOVER REMOVAL

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
2997+05.02	299705.02	0.00	0.17	0.00	0	0	0	0	0
2998+00.00	299800.00	94.98	3.75	0.00	7	0	7	0	7
2999+00.00	299900.00	100.00	11.49	0.15	28	0	35	0	35
3000+00.00	300000.00	100.00	19.96	0.01	58	0	93	0	93
3001+00.00	300100.00	100.00	27.34	0.18	88	0	181	0	181
3002+00.00	300200.00	100.00	30.03	0.00	106	0	287	0	287
3003+00.00	300300.00	100.00	28.19	0.37	108	1	395	1	394
3004+00.00	300400.00	100.00	23.03	0.00	95	1	490	3	488
3005+00.00	300500.00	100.00	16.95	0.00	74	0	564	3	562
3006+00.00	300600.00	100.00	9.76	0.10	49	0	613	3	611
3007+00.00	300700.00	100.00	3.14	0.38	24	1	637	4	633
3008+00.00	300800.00	100.00	0.56	1.43	7	3	644	8	637
3009+00.00	300900.00	100.00	0.56	0.55	2	4	646	13	634
3010+00.00	301000.00	100.00	0.56	0.28	2	2	648	15	633
3011+00.00	301100.00	100.00	0.56	0.50	2	1	650	16	634
3012+00.00	301200.00	100.00	0.56	0.90	2	3	652	20	632
3013+00.00	301300.00	100.00	0.56	3.78	2	9	654	31	623
3014+00.00	301400.00	100.00	0.56	1.51	2	10	656	44	612
3015+00.00	301500.00	100.00	0.00	0.00	1	3	657	48	610
3016+00.00	301600.00	100.00	0.00	0.00	0	0	657	48	610
3017+00.00	301700.00	100.00	0.00	0.00	0	0	657	48	610
3018+00.00	301800.00	100.00	0.00	0.00	0	0	657	48	610
3019+00.00	301900.00	100.00	0.00	0.00	0	0	657	48	610
3020+00.00	302000.00	100.00	0.00	0.00	0	0	657	48	610
3021+00.00	302100.00	100.00	0.00	0.00	0	0	657	48	610
3022+00.00	302200.00	100.00	0.00	0.00	0	0	657	48	610
3023+00.00	302300.00	100.00	0.00	0.00	0	0	657	48	610
3024+00.00	302400.00	100.00	0.00	0.00	0	0	657	48	610
3025+00.00	302500.00	100.00	0.00	0.00	0	0	657	48	610
3026+00.00	302600.00	100.00	0.00	0.00	0	0	657	48	610
3027+00.00	302700.00	100.00	0.00	0.00	0	0	657	48	610
3028+00.00	302800.00	100.00	0.00	0.00	0	0	657	48	610
3029+00.00	302900.00	100.00	0.00	0.00	0	0	657	48	610
3030+00.00	303000.00	100.00	0.00	0.00	0	0	657	48	610
3031+00.00	303100.00	100.00	0.00	0.00	0	0	657	48	610
3032+00.00	303200.00	100.00	0.00	0.00	0	0	657	48	610
3033+00.00	303300.00	100.00	0.00	0.00	0	0	657	48	610
3034+00.00	303400.00	100.00	0.00	0.00	0	0	657	48	610
3035+00.00	303500.00	100.00	0.00	0.00	0	0	657	48	610
3036+00.00	303600.00	100.00	0.00	0.00	0	0	657	48	610

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

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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 580	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1

DIVISION 3 - MEDIAN CROSSOVER REMOVAL

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 2	NOTE 1		
3037+00.00	303700.00	100.00	0.00	0.00	0	0	657	48	610
3038+00.00	303800.00	100.00	0.00	0.00	0	0	657	48	610
3039+00.00	303900.00	100.00	0.00	0.00	0	0	657	48	610
3040+00.00	304000.00	100.00	0.00	0.00	0	0	657	48	610
3041+00.00	304100.00	100.00	0.00	0.00	0	0	657	48	610
3042+00.00	304200.00	100.00	2.29	0.00	4	0	661	48	614
3043+00.00	304300.00	100.00	6.35	0.00	16	0	677	48	630
3044+00.00	304400.00	100.00	8.18	0.01	27	0	704	48	657
3045+00.00	304500.00	100.00	9.02	0.00	32	0	736	48	689
3046+00.00	304600.00	100.00	27.56	0.03	68	0	804	48	757
3047+00.00	304700.00	100.00	33.77	0.00	114	0	918	48	871
3048+00.00	304800.00	100.00	30.84	0.73	120	1	1,038	49	989
3049+00.00	304900.00	100.00	23.12	0.24	100	2	1,138	51	1,087
3050+00.00	305000.00	100.00	14.13	0.14	69	1	1,207	53	1,155
3051+00.00	305100.00	100.00	3.84	0.03	33	0	1,240	53	1,188
3051+89.10	305189.10	89.10	0.19	0.00	7	0	1,247	53	1,195

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

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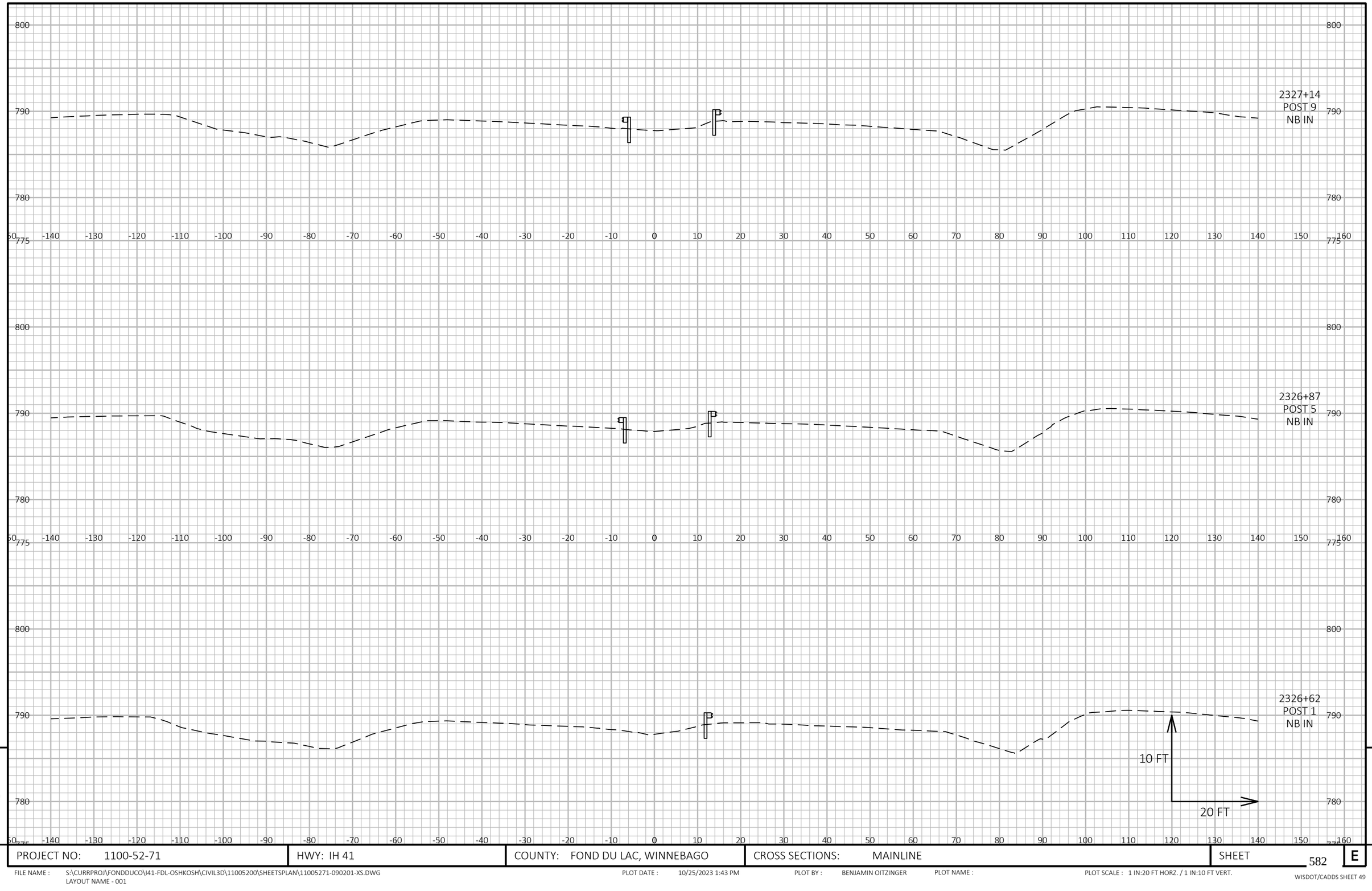
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	EARTHWORK DATA	SHEET 581	E

FILE NAME : 090101-ew.ppt PLOT DATE: 11/1/2023 9:50 AM PLOT BY : gaajs PLOT SCALE : 1:1



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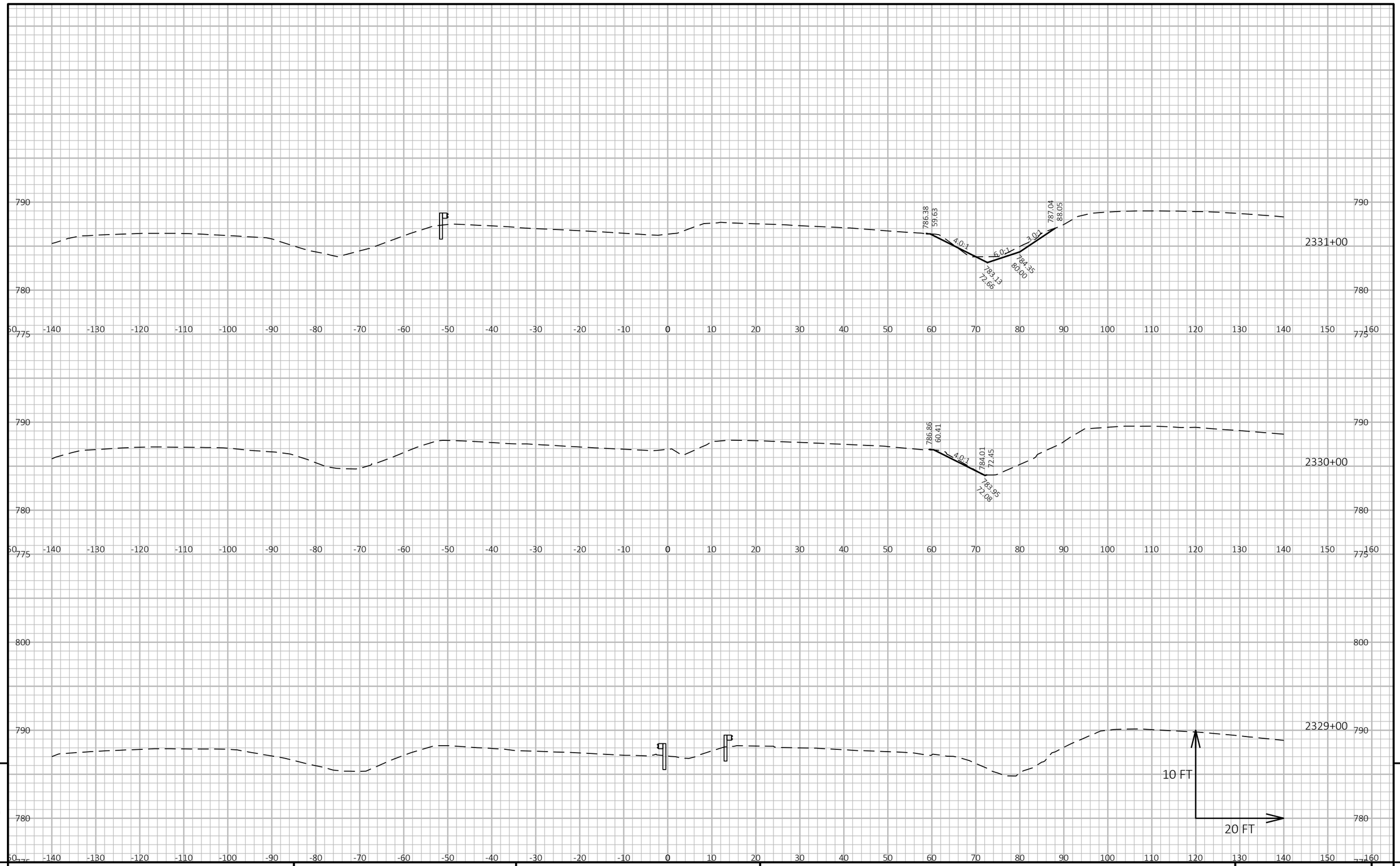
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 582	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 001

PLOT DATE : 10/25/2023 1:43 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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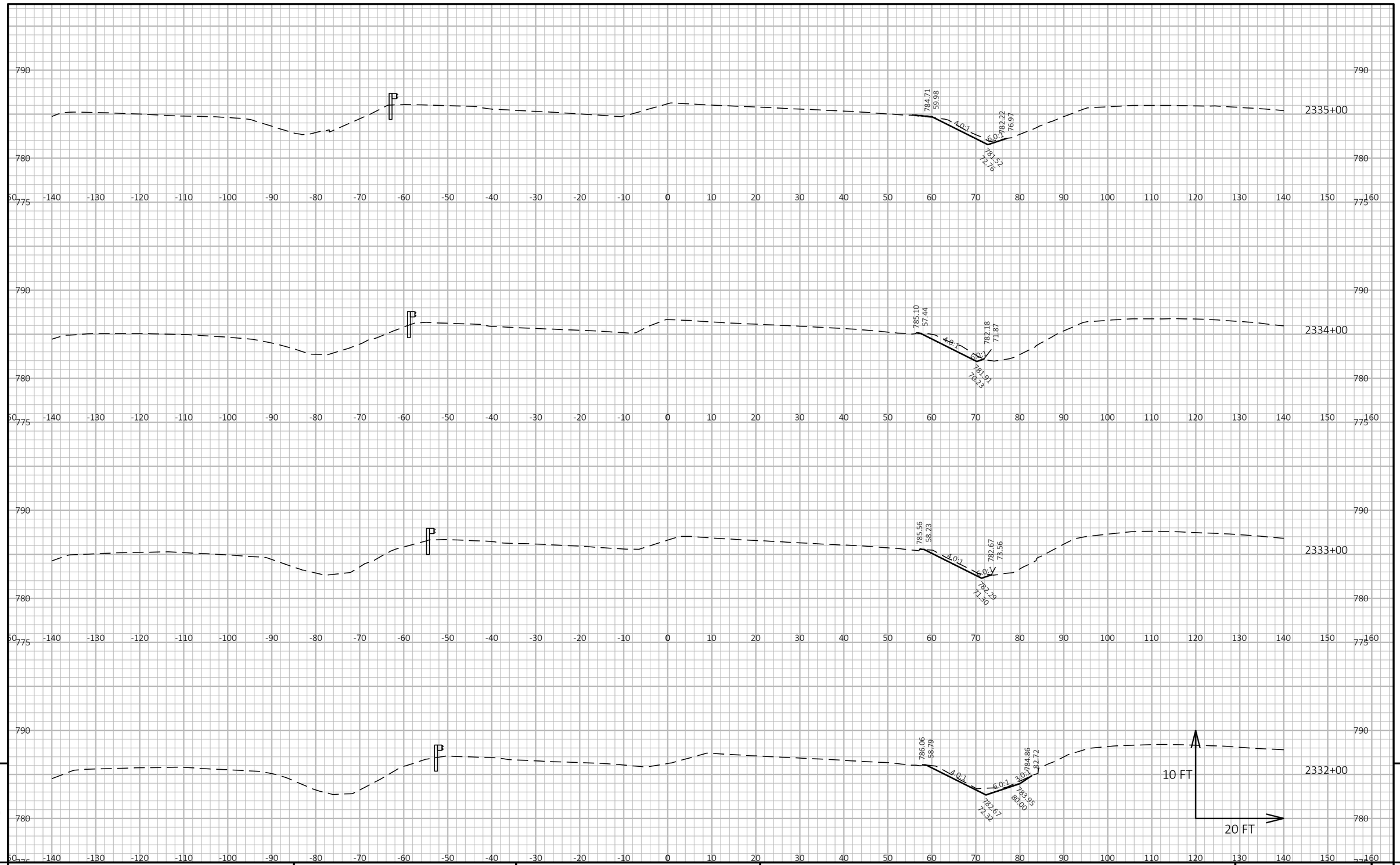
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 583	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 002

PLOT DATE : 10/25/2023 1:43 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 584	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 003

PLOT DATE : 10/25/2023 1:43 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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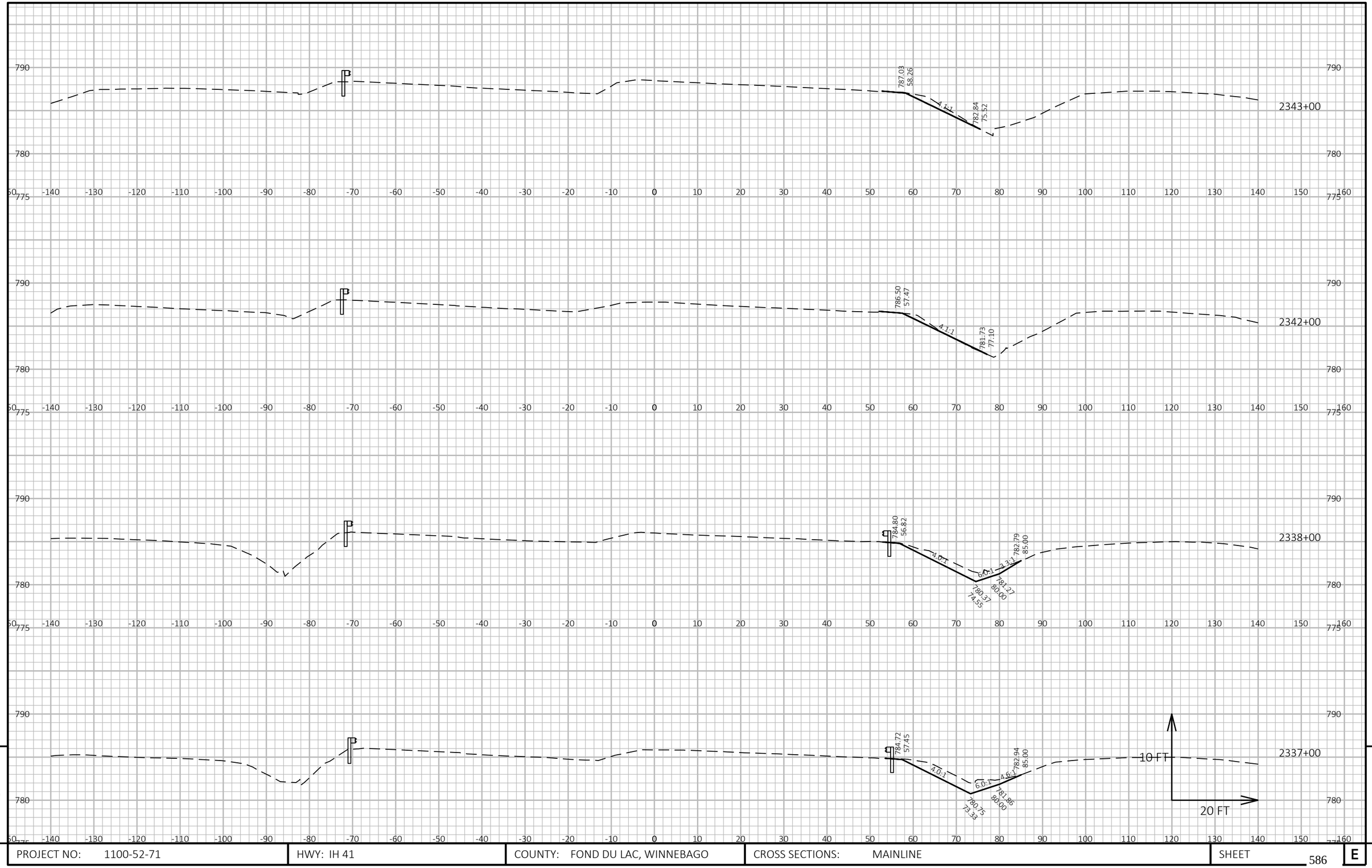
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 585	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 004

PLOT DATE : 10/25/2023 1:44 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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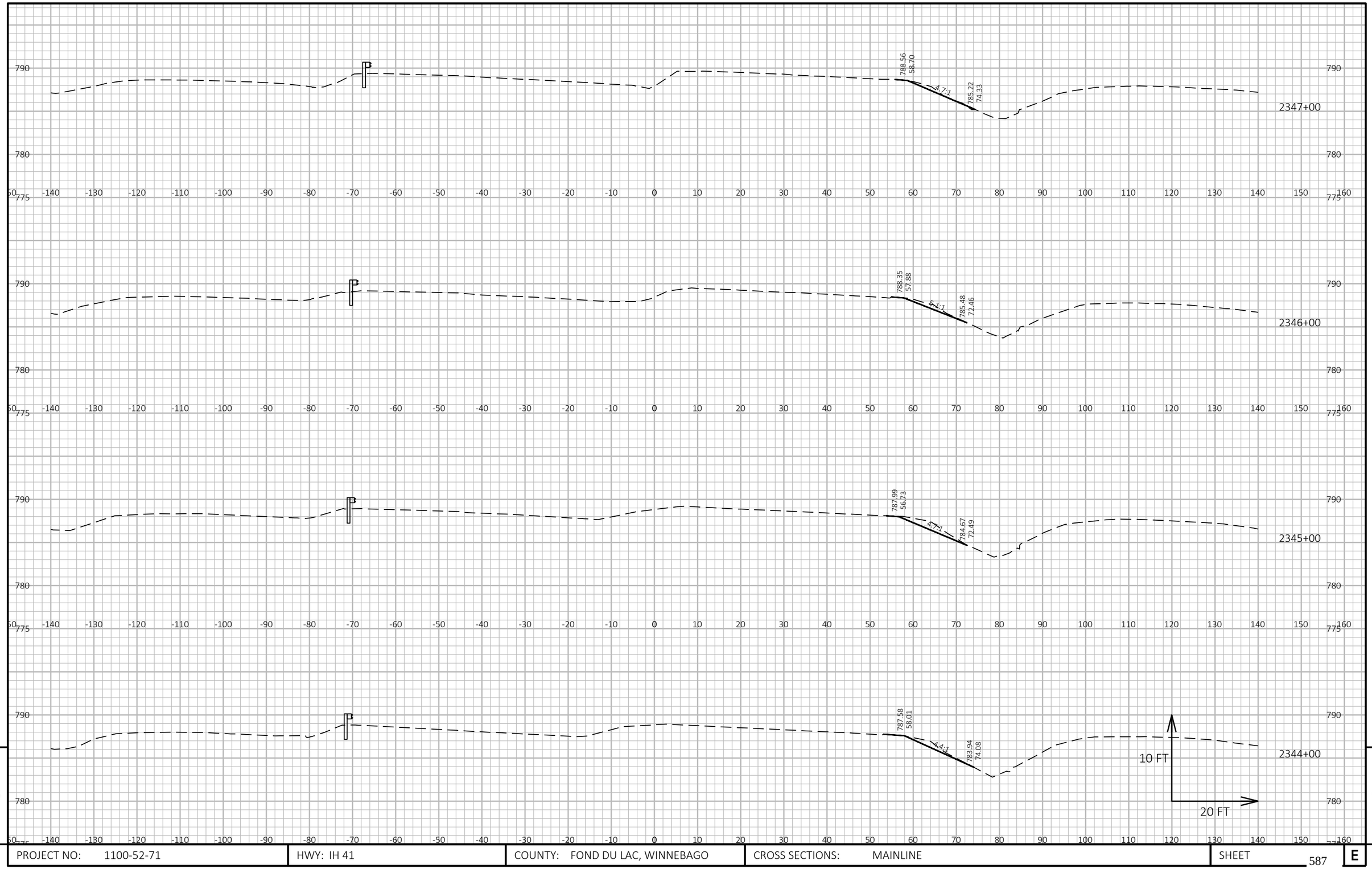
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 586	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 005

PLOT DATE : 10/25/2023 1:44 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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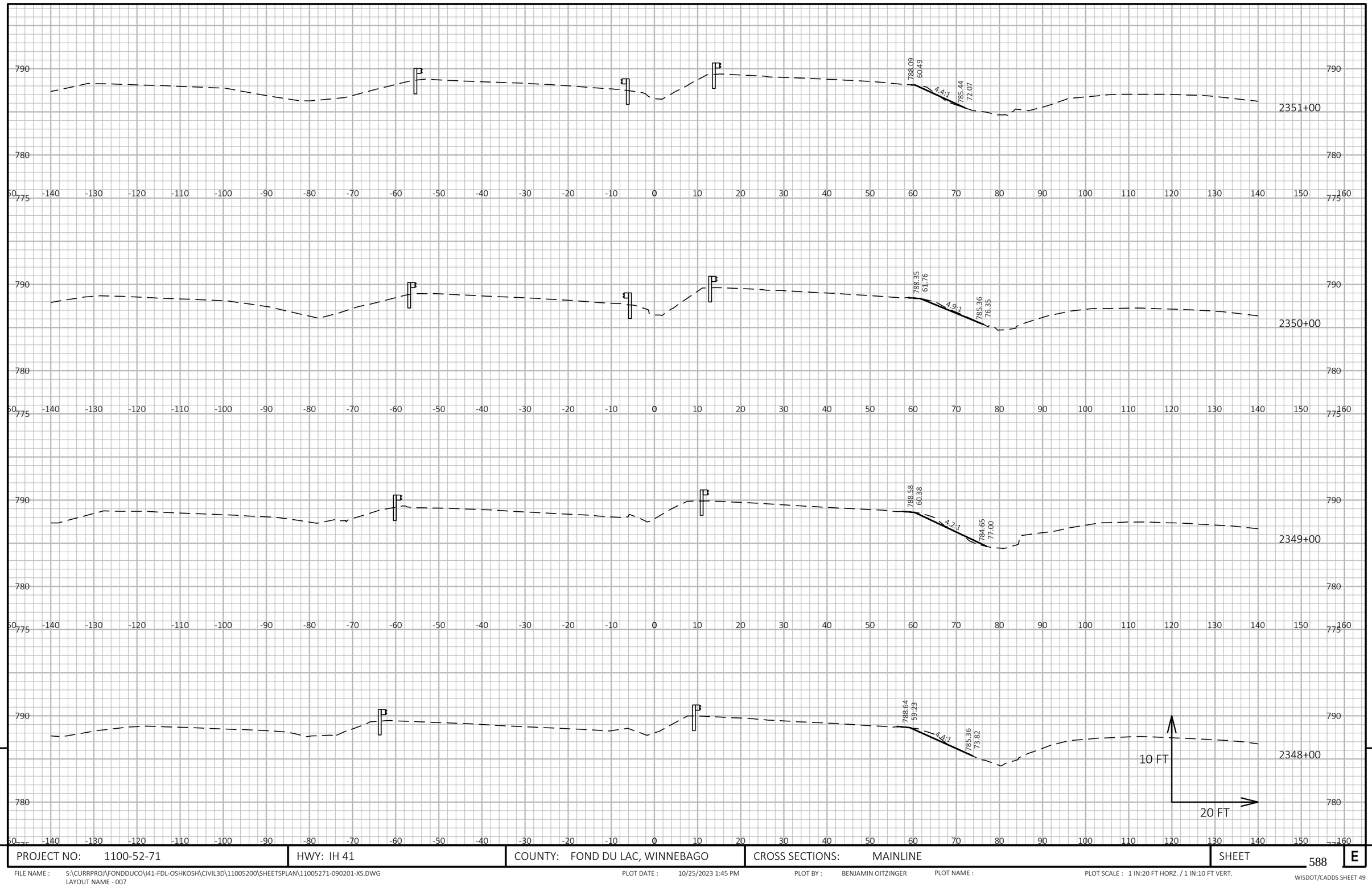
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 587	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 006

PLOT DATE : 10/25/2023 1:45 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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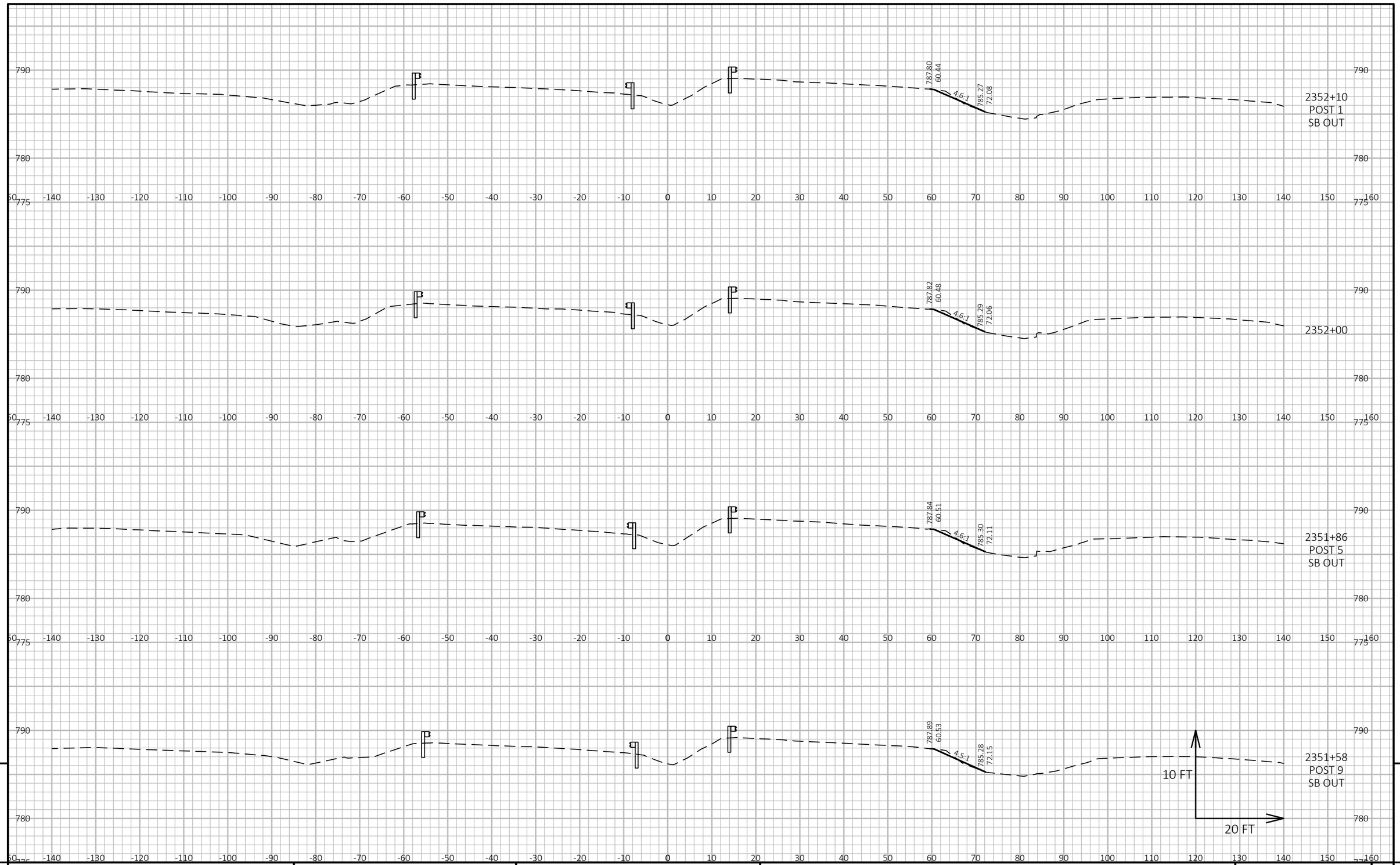
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 588	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 007

PLOT DATE : 10/25/2023 1:45 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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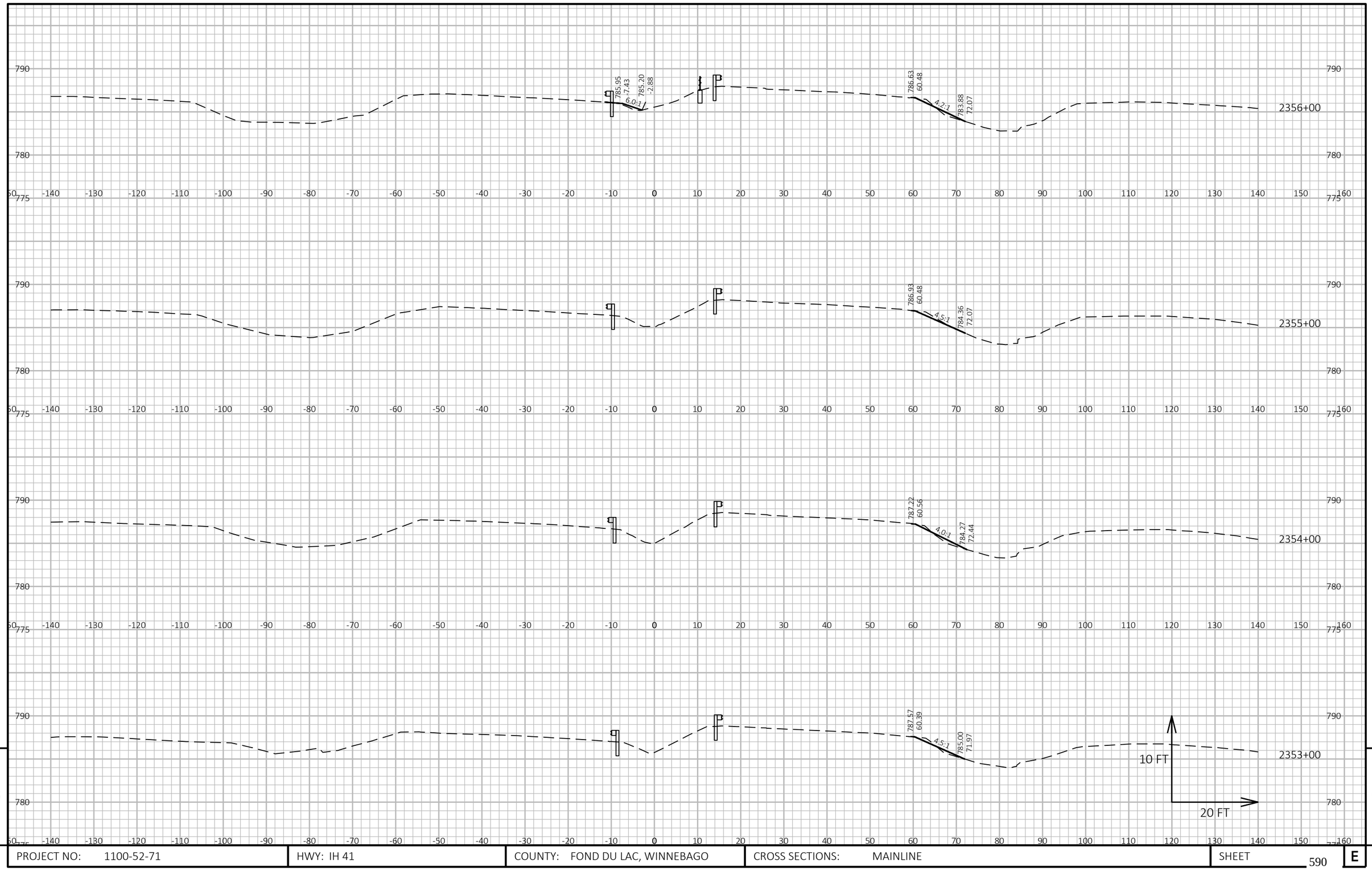
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 589	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 008

PLOT DATE : 10/25/2023 1:46 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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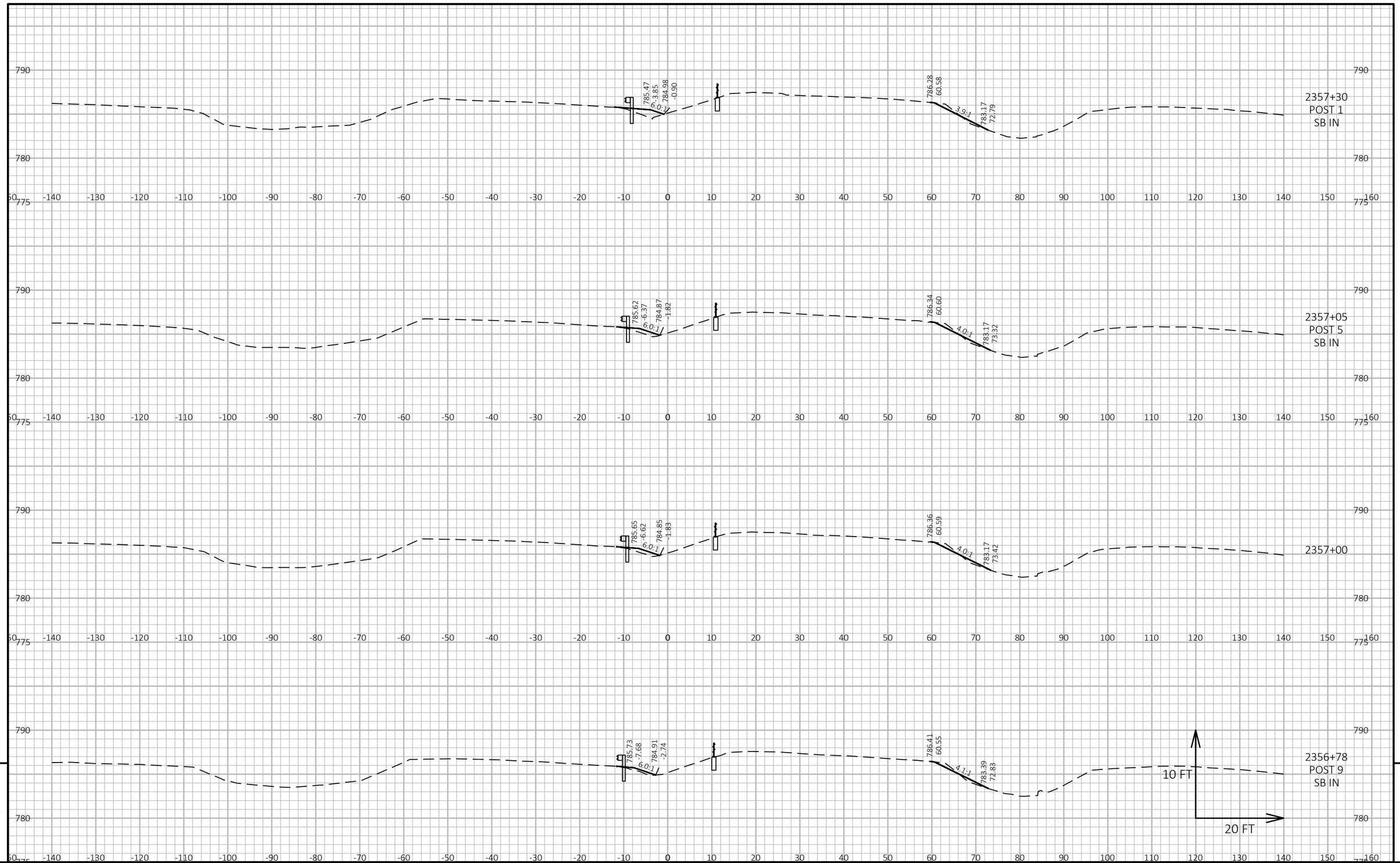
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 590	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 009

PLOT DATE : 10/25/2023 1:46 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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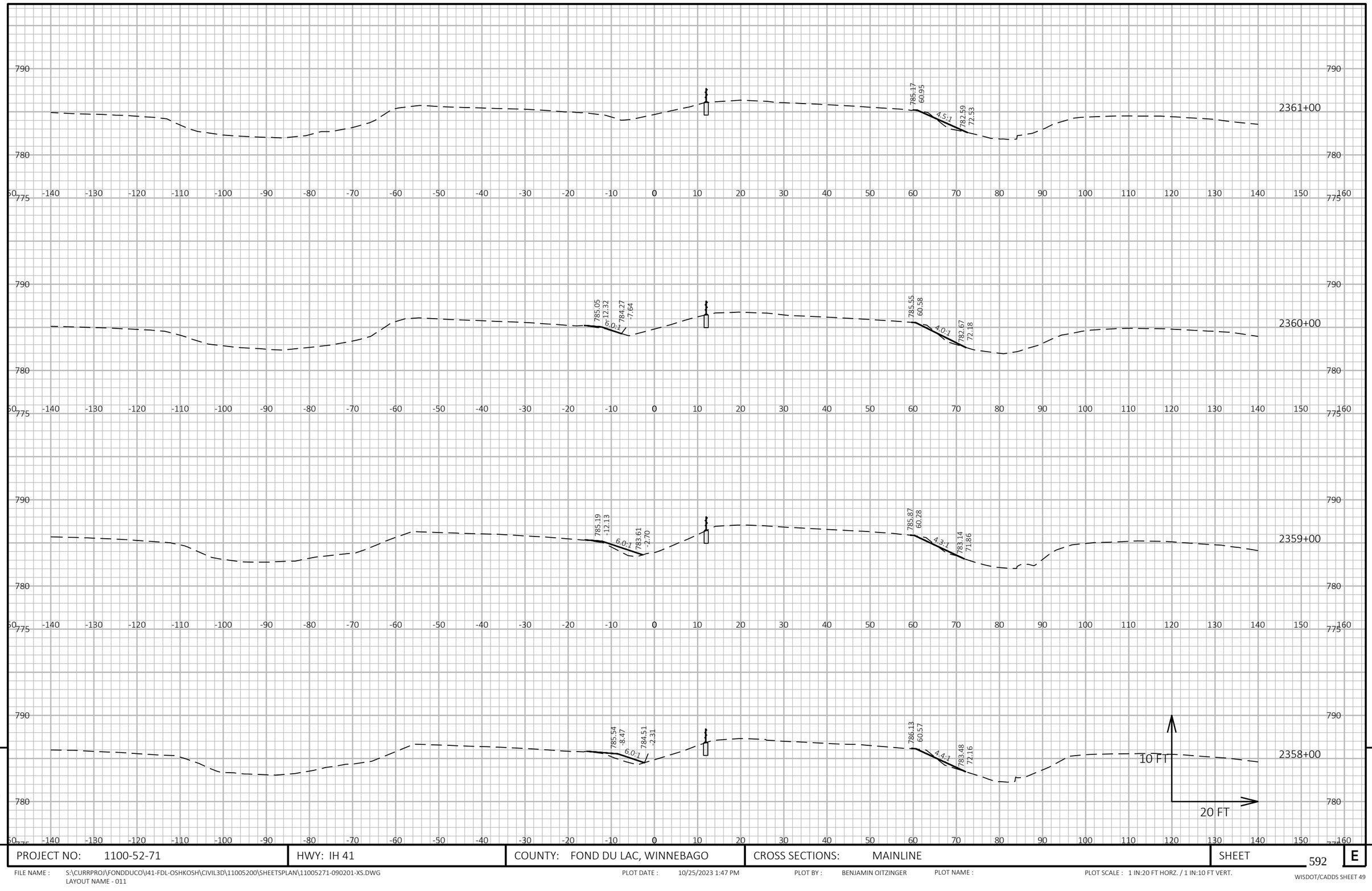
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 591	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 010

PLOT DATE : 10/25/2023 1:47 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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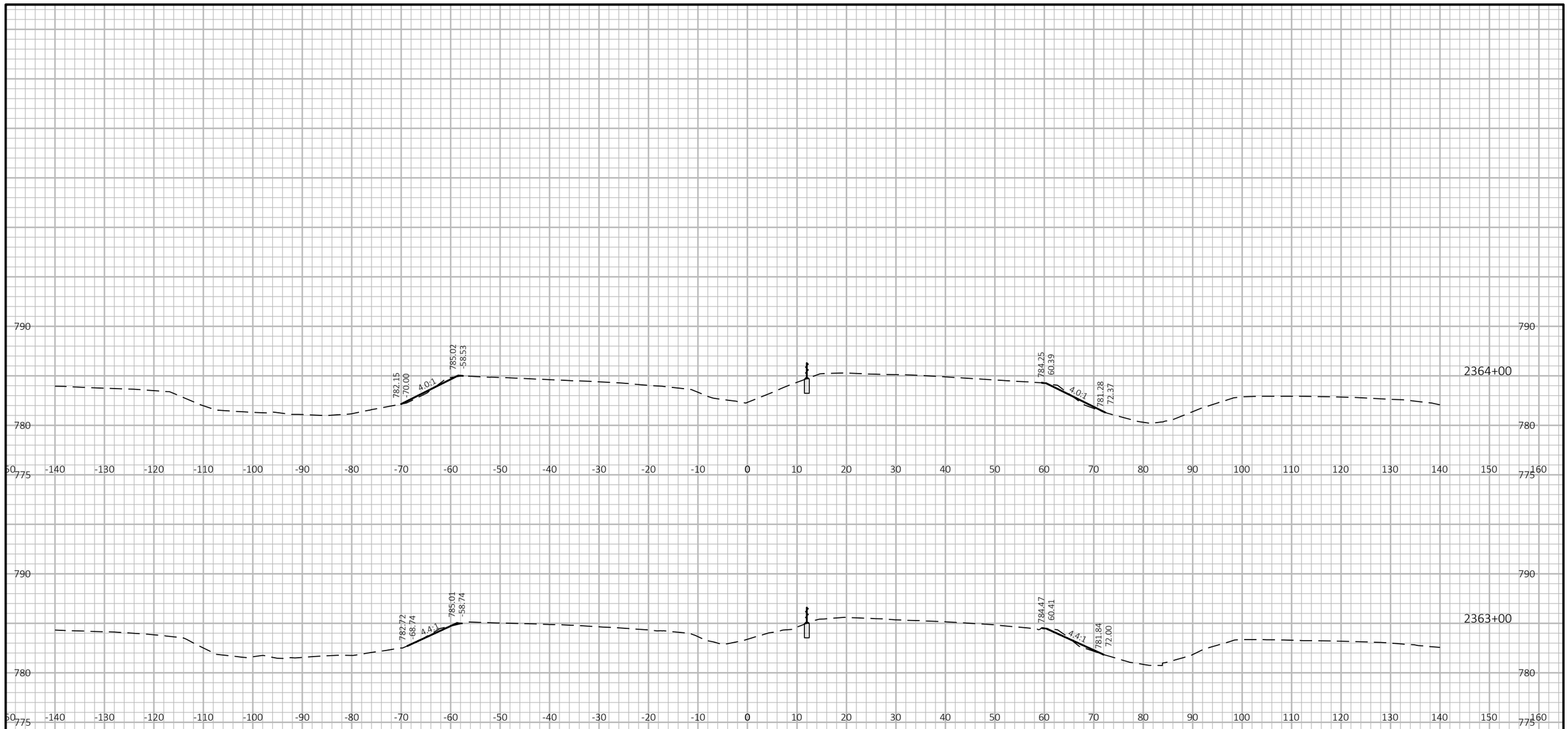
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 592	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 011

PLOT DATE : 10/25/2023 1:47 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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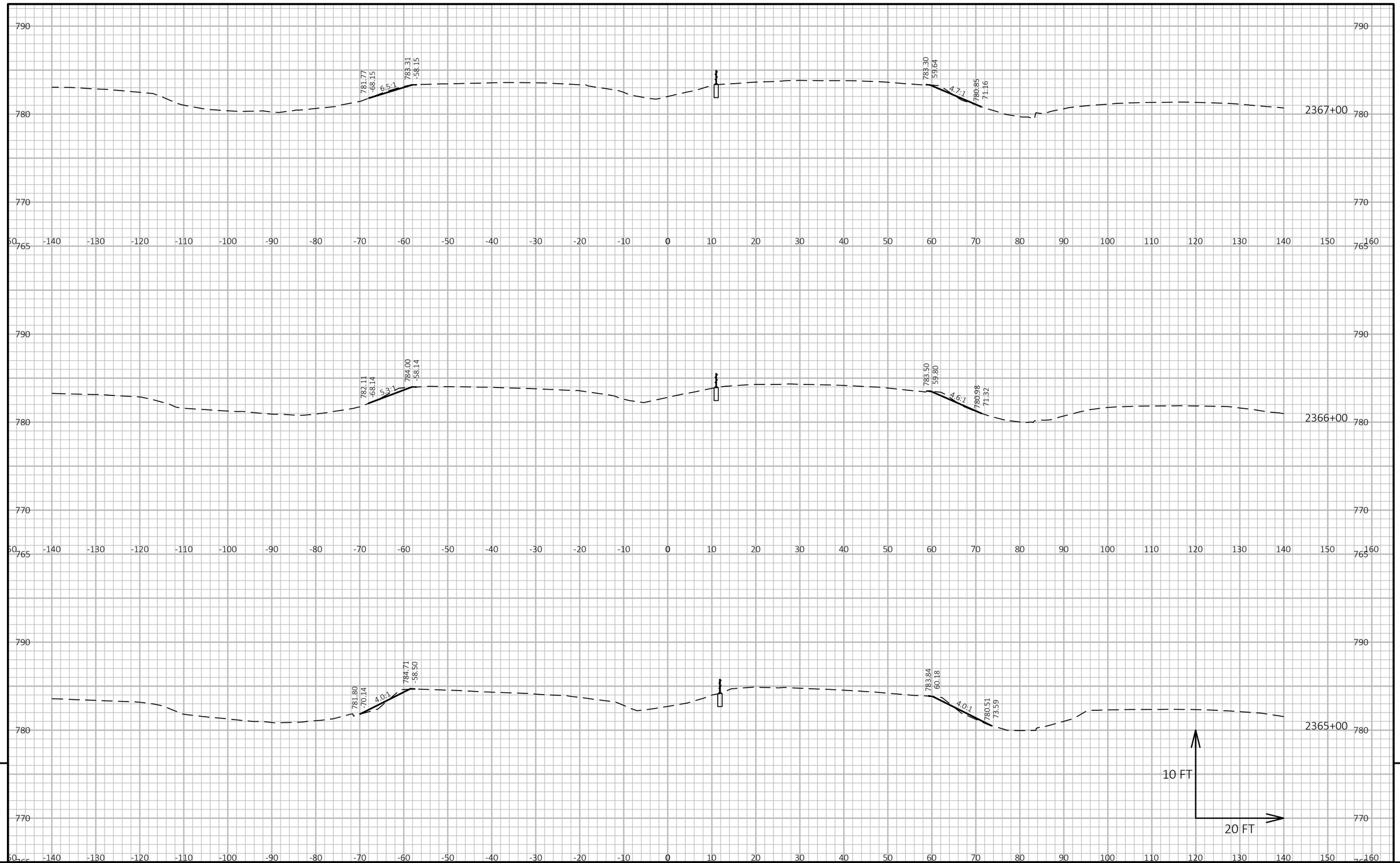
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 593	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 012

PLOT DATE : 10/25/2023 1:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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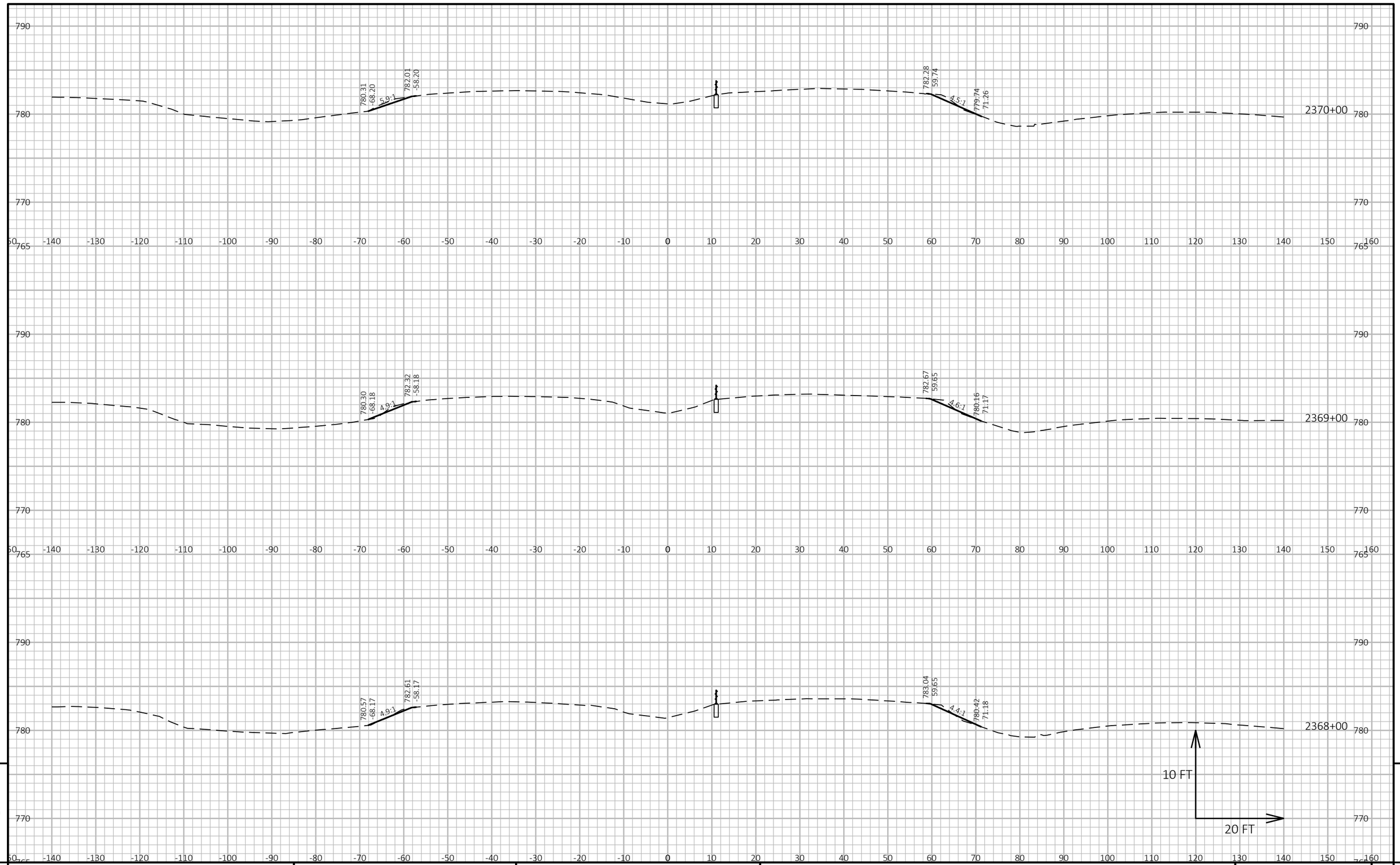
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 594	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 013

PLOT DATE : 10/25/2023 1:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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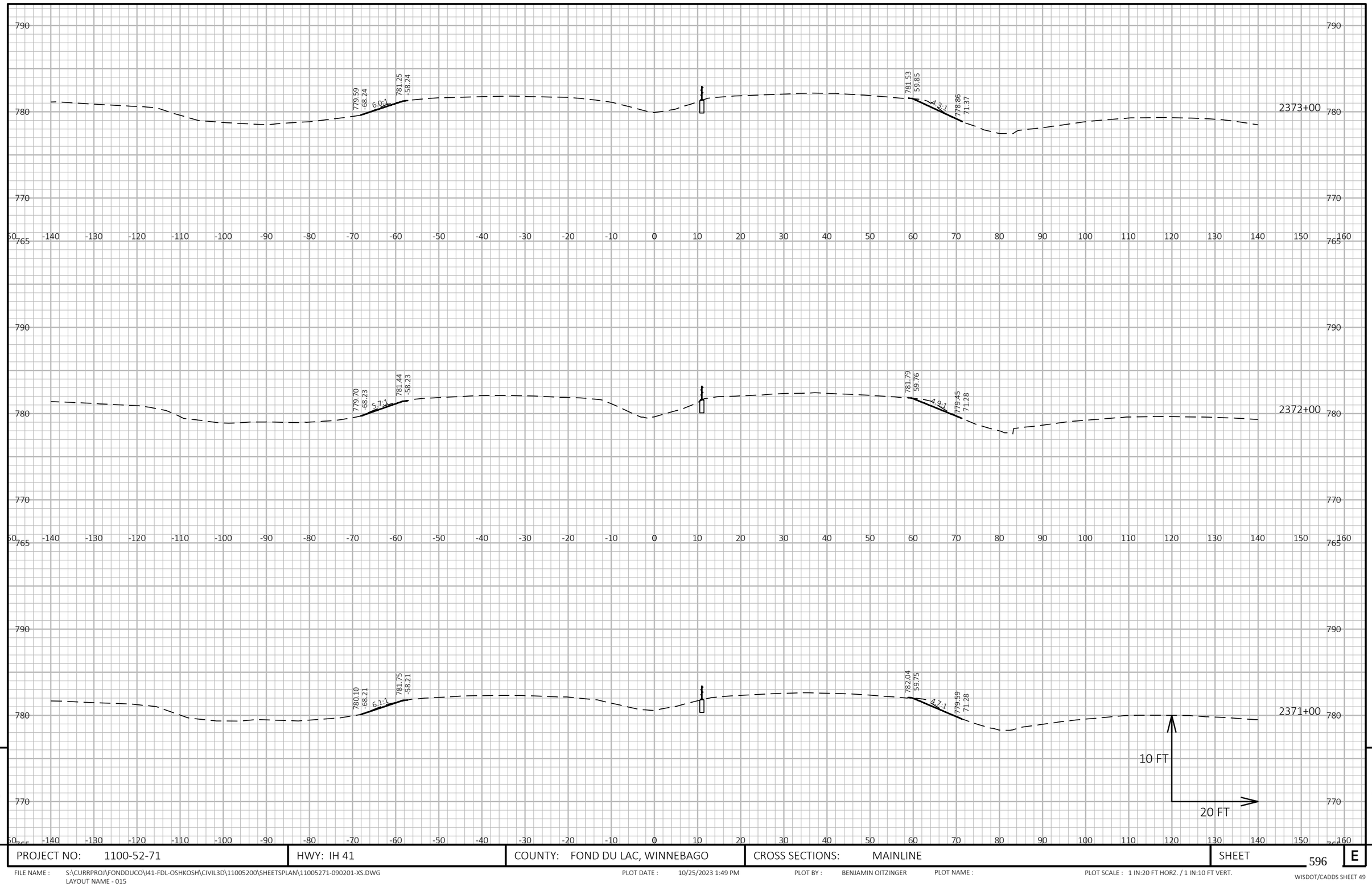
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 595	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 014

PLOT DATE : 10/25/2023 1:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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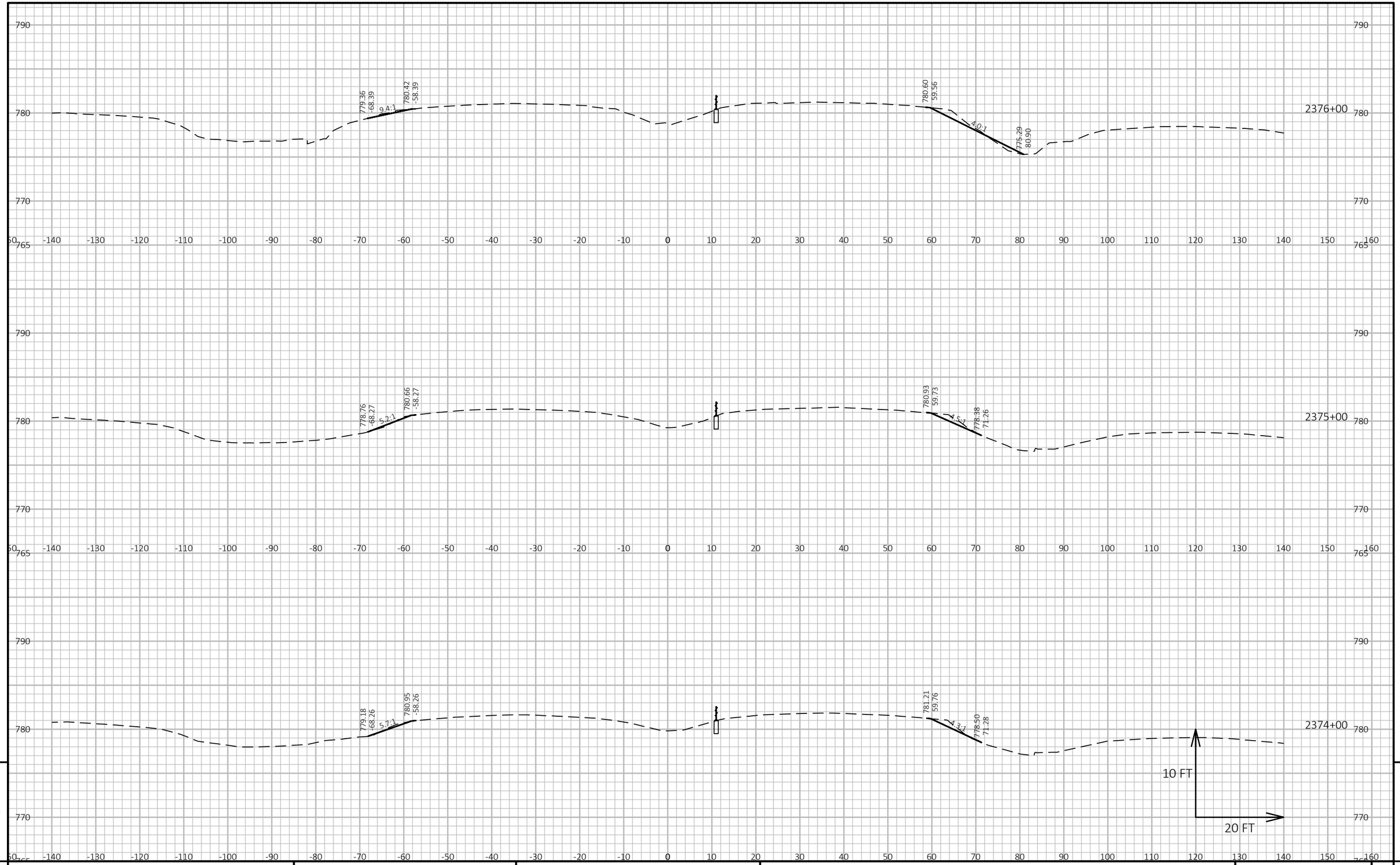
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 596	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 015

PLOT DATE : 10/25/2023 1:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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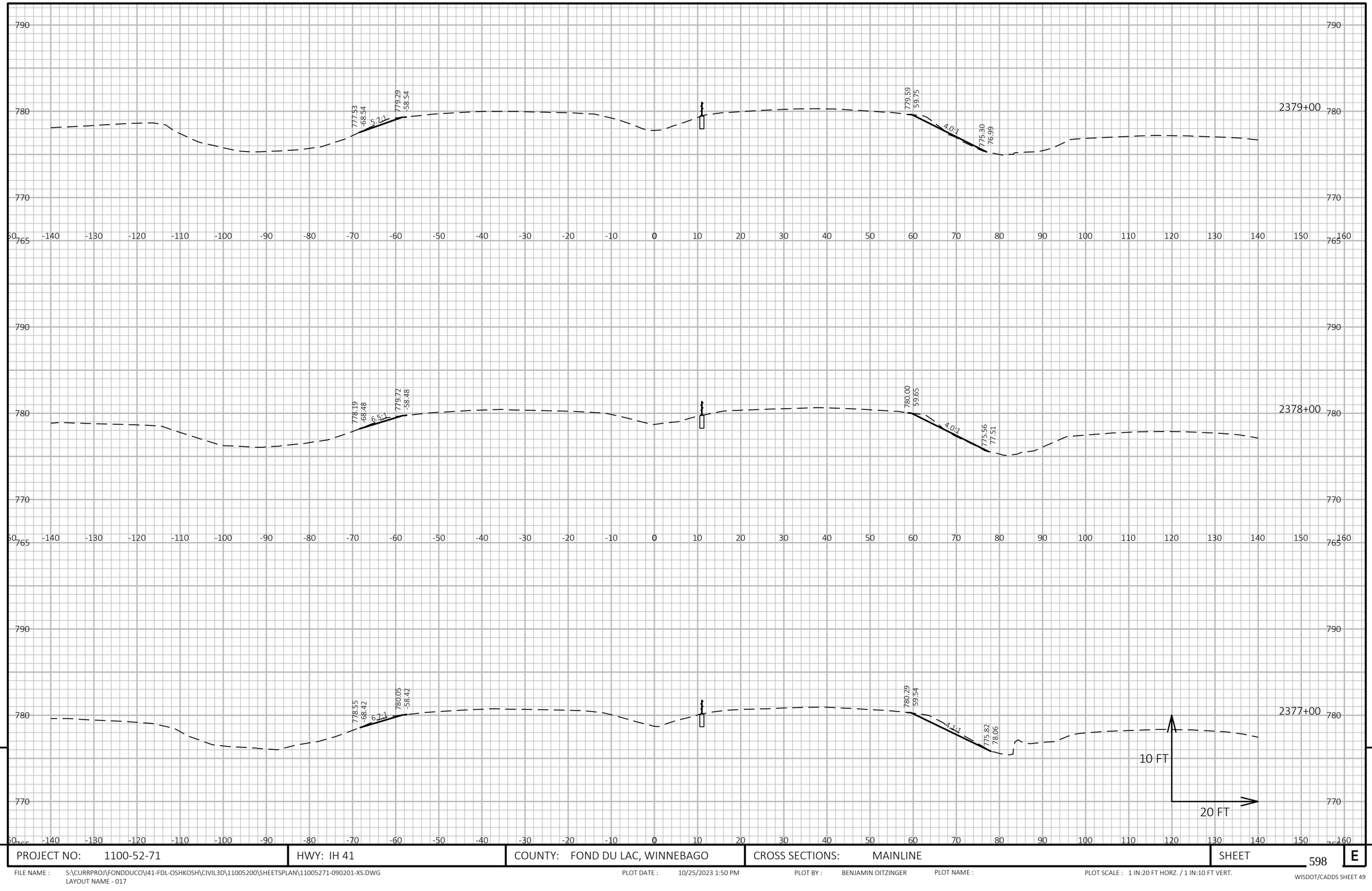
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 597	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 016

PLOT DATE : 10/25/2023 1:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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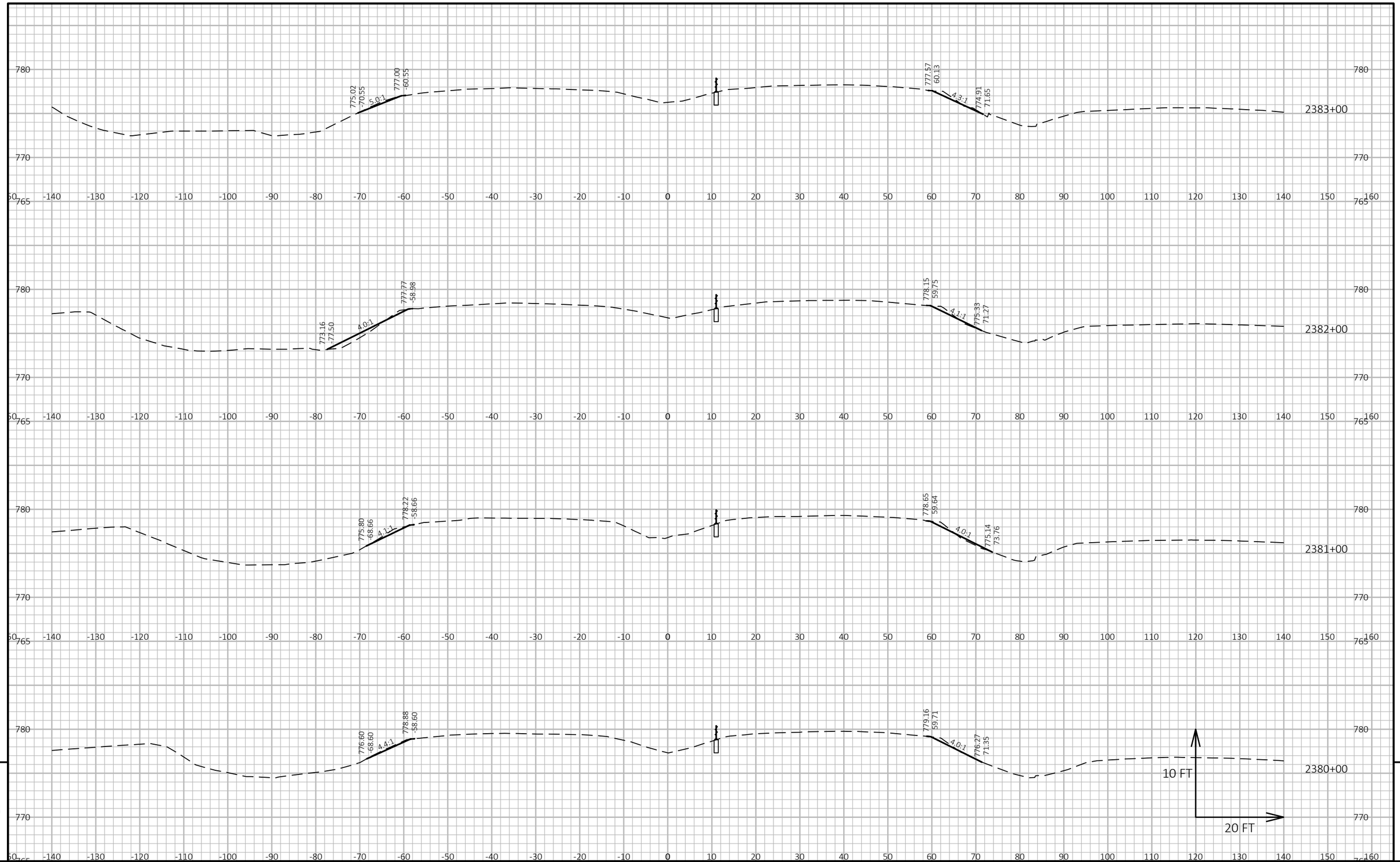
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 598	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 017

PLOT DATE : 10/25/2023 1:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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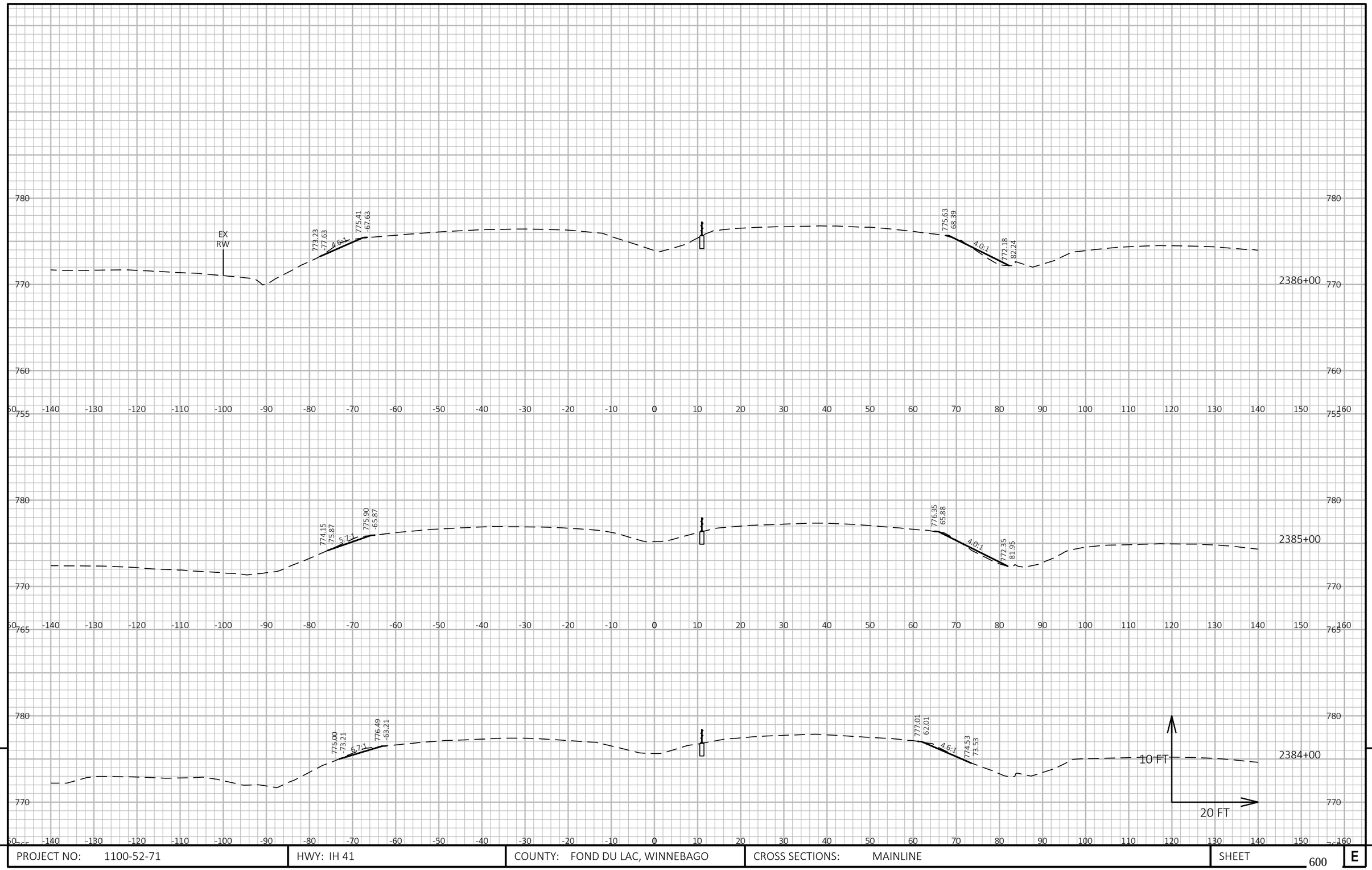
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 599	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 018

PLOT DATE : 10/25/2023 1:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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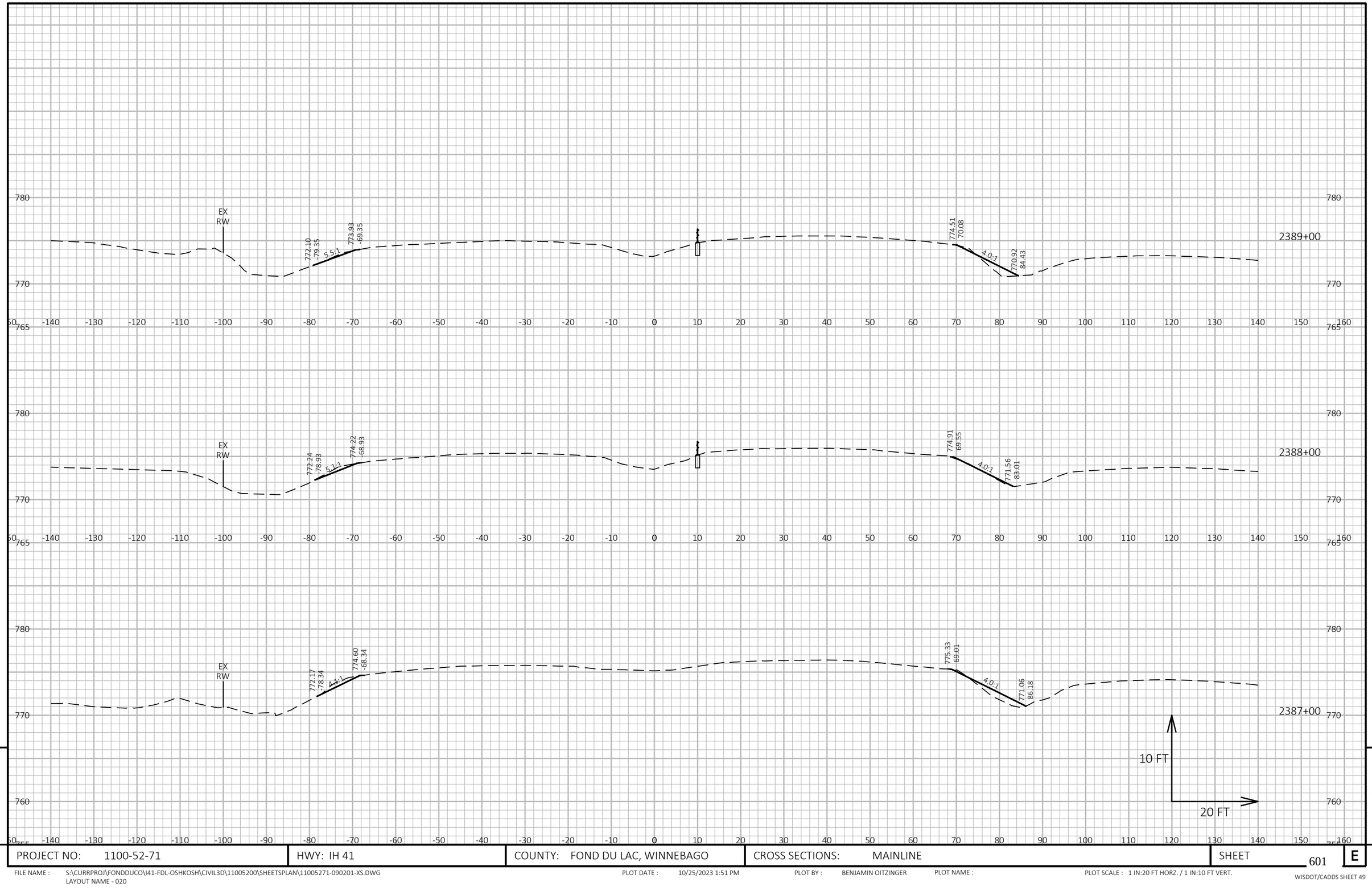
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 600	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 019

PLOT DATE : 10/25/2023 1:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

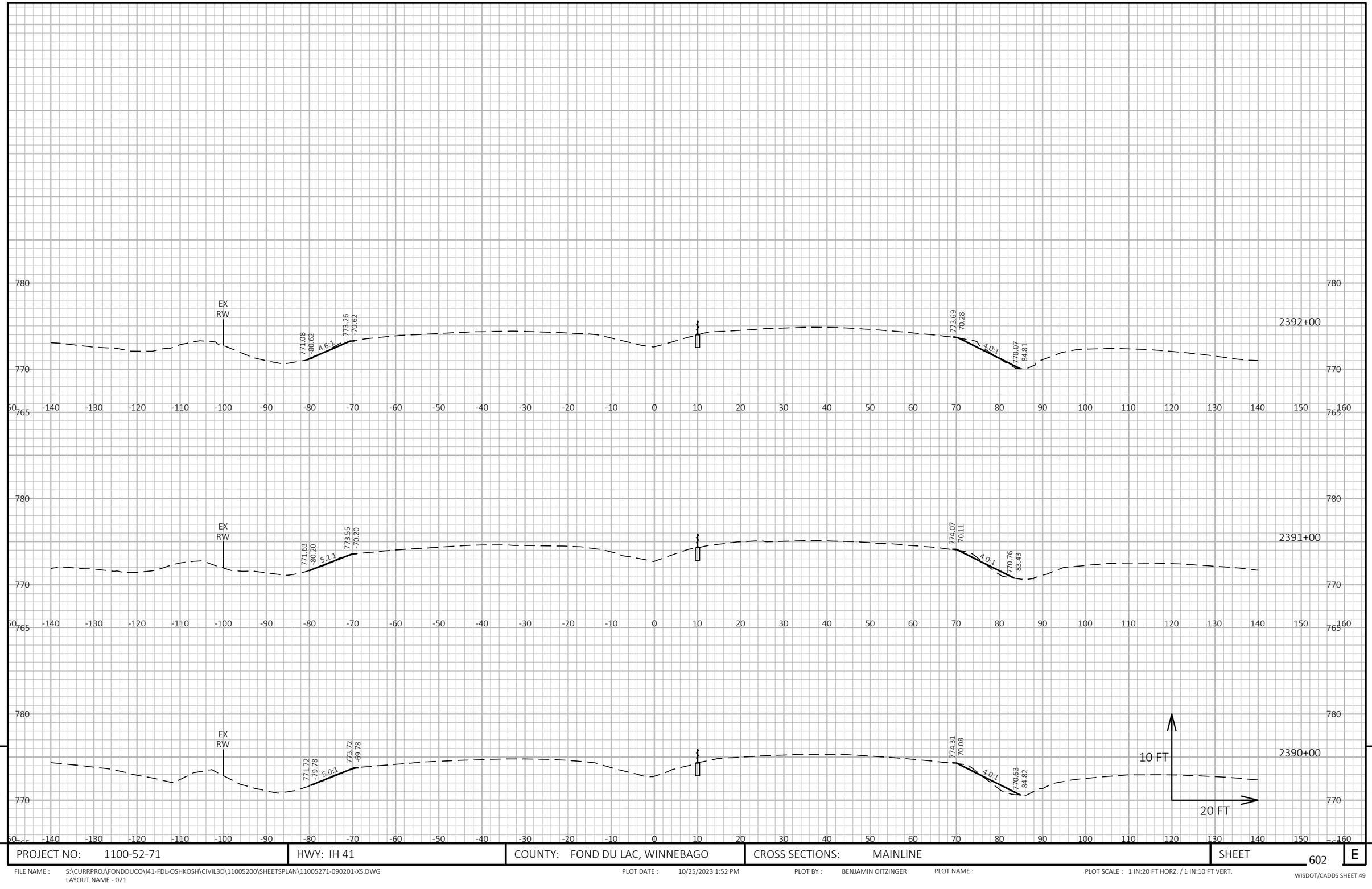


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 601 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 020

PLOT DATE : 10/25/2023 1:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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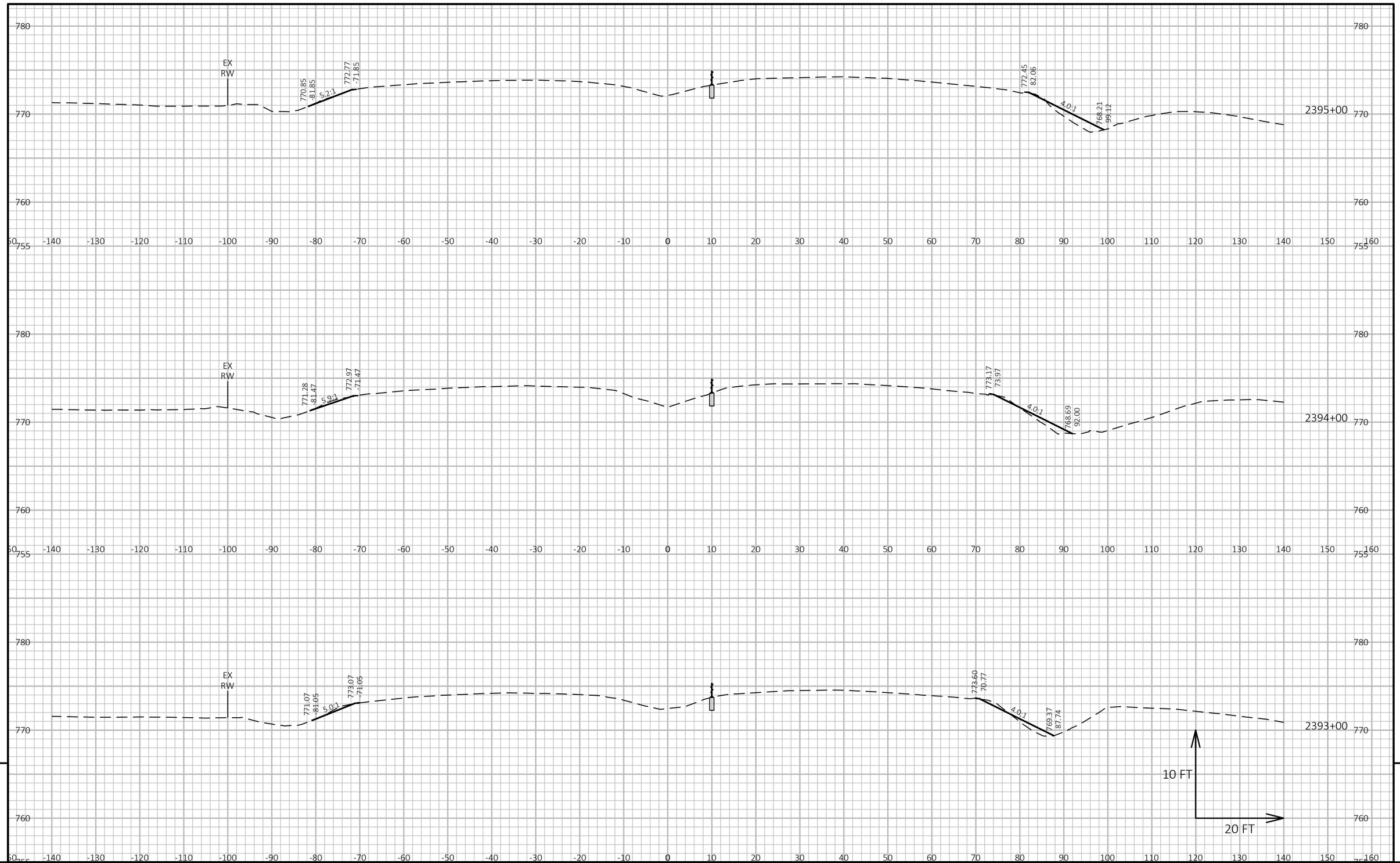
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 602	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 021

PLOT DATE : 10/25/2023 1:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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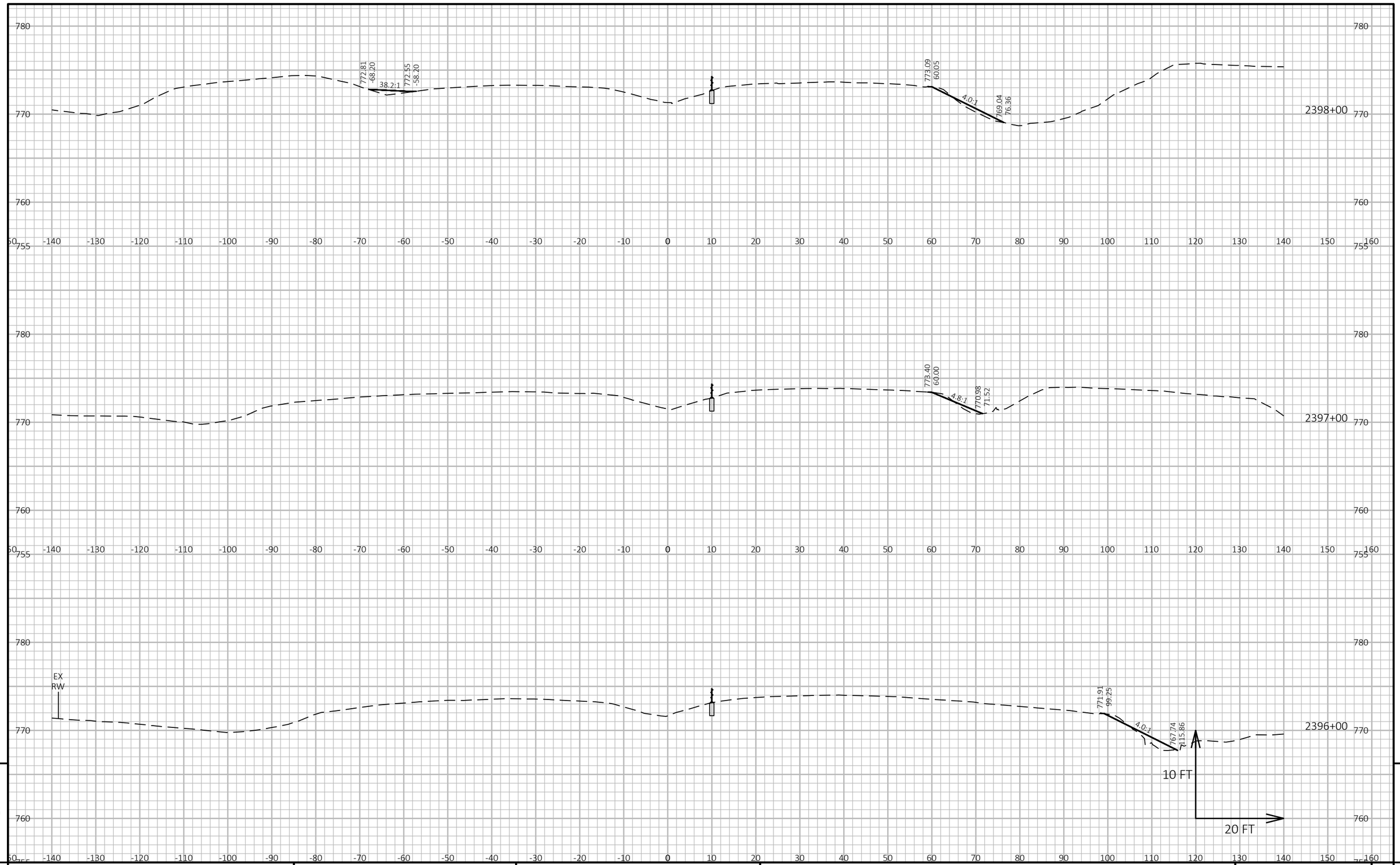
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 603	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 022

PLOT DATE : 10/25/2023 1:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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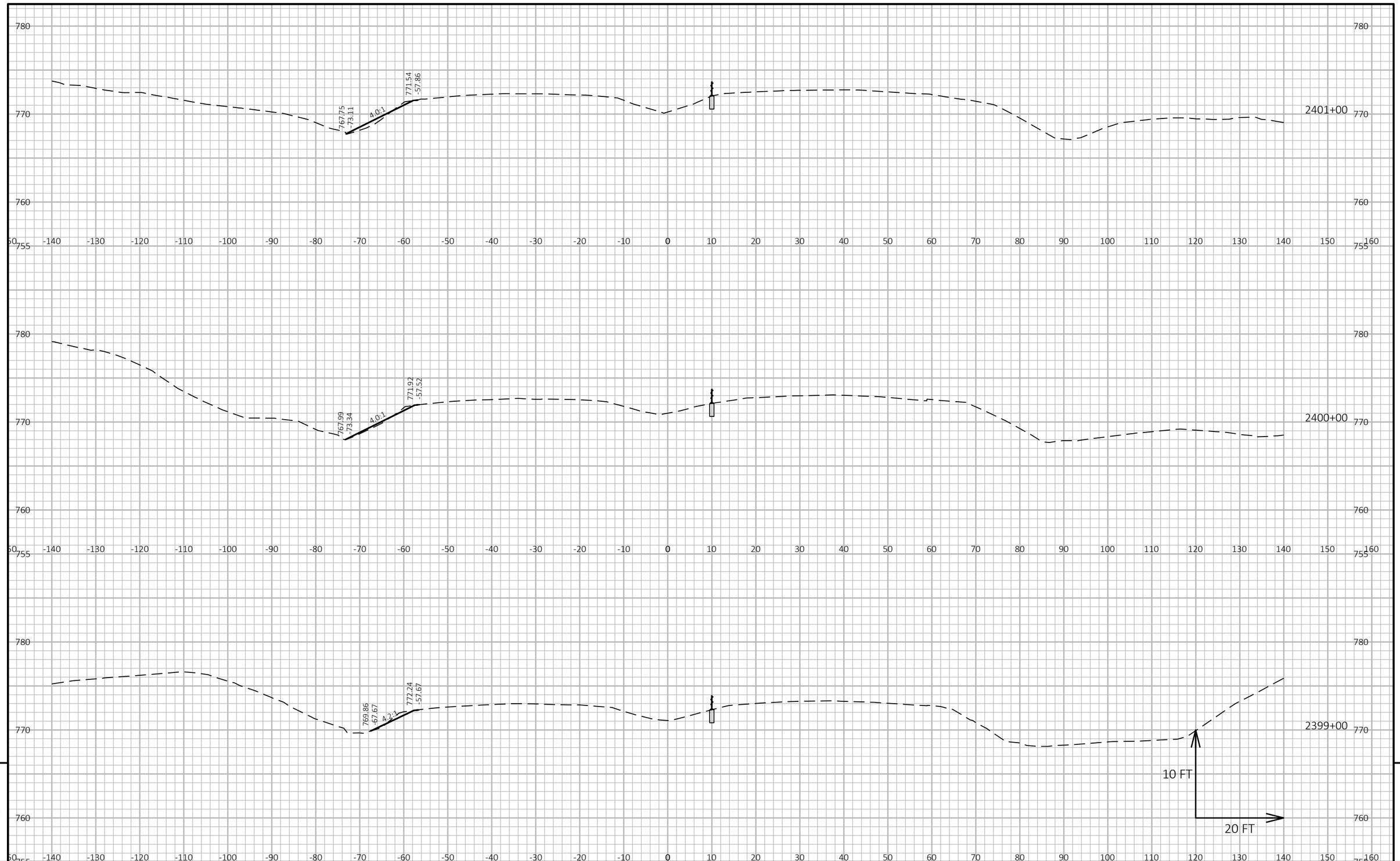
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 604	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 023

PLOT DATE : 10/25/2023 1:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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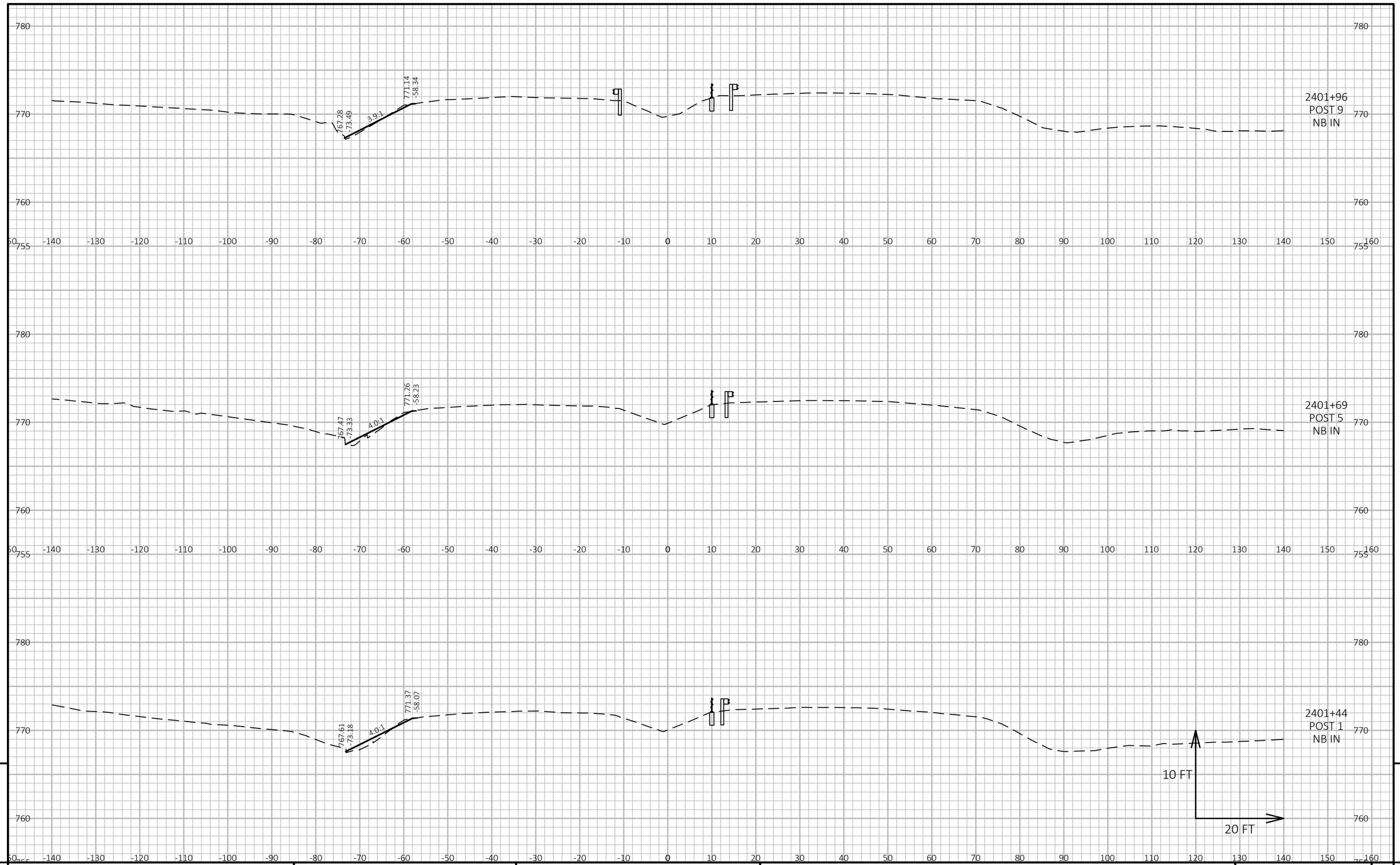
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 605	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 024

PLOT DATE : 10/25/2023 1:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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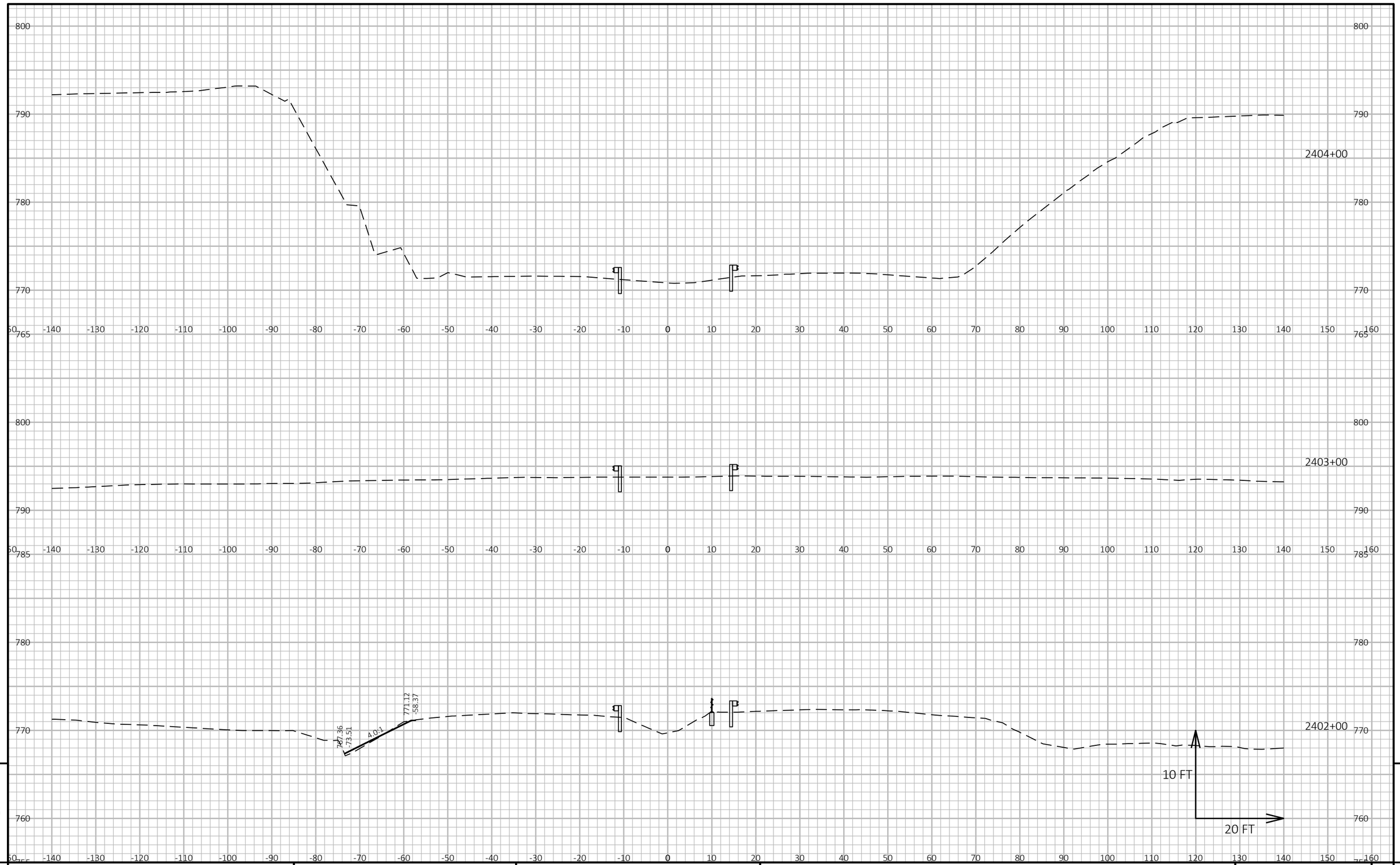
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 606	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 025

PLOT DATE : 10/25/2023 1:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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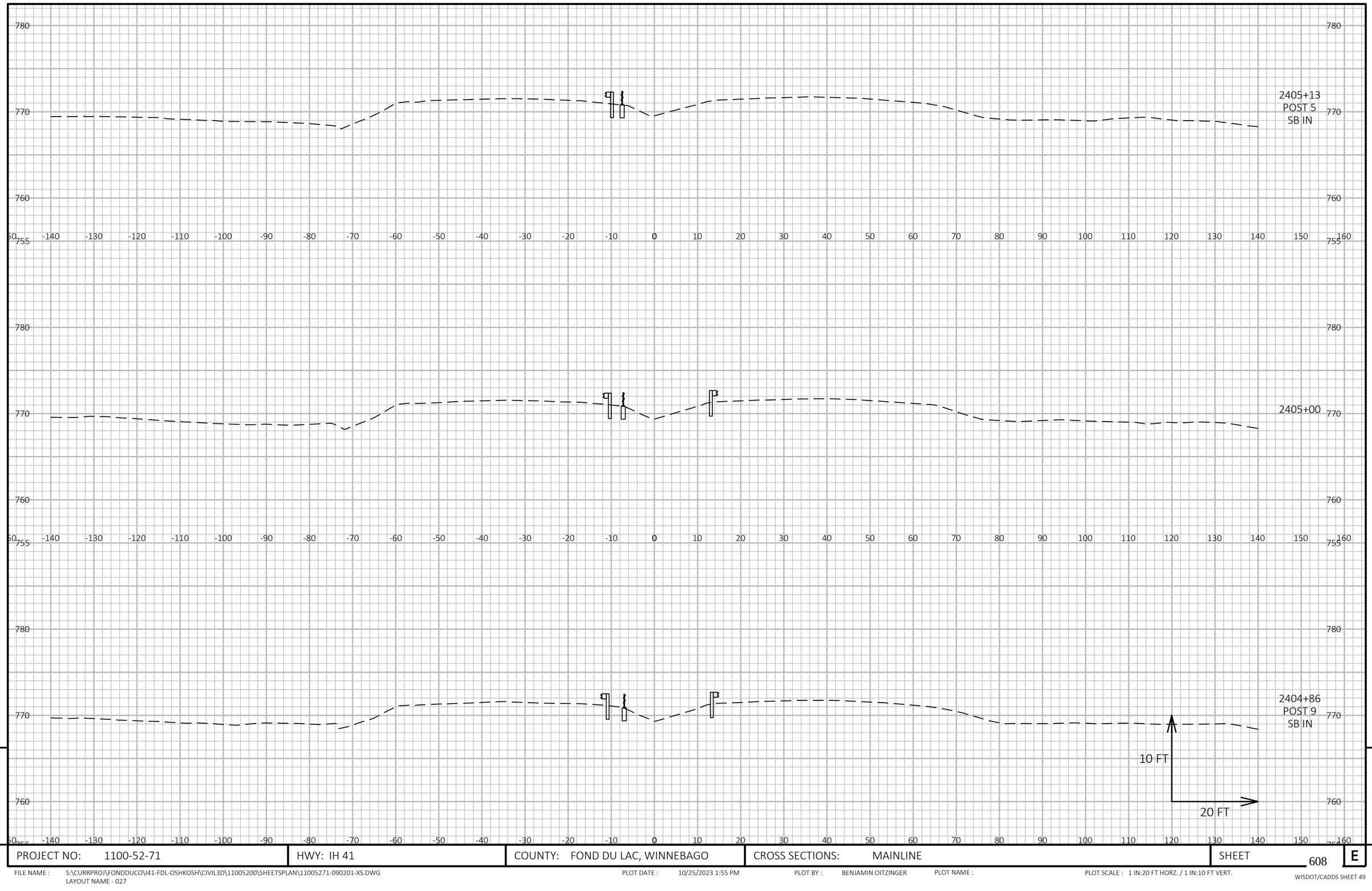
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 607	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 026

PLOT DATE : 10/25/2023 1:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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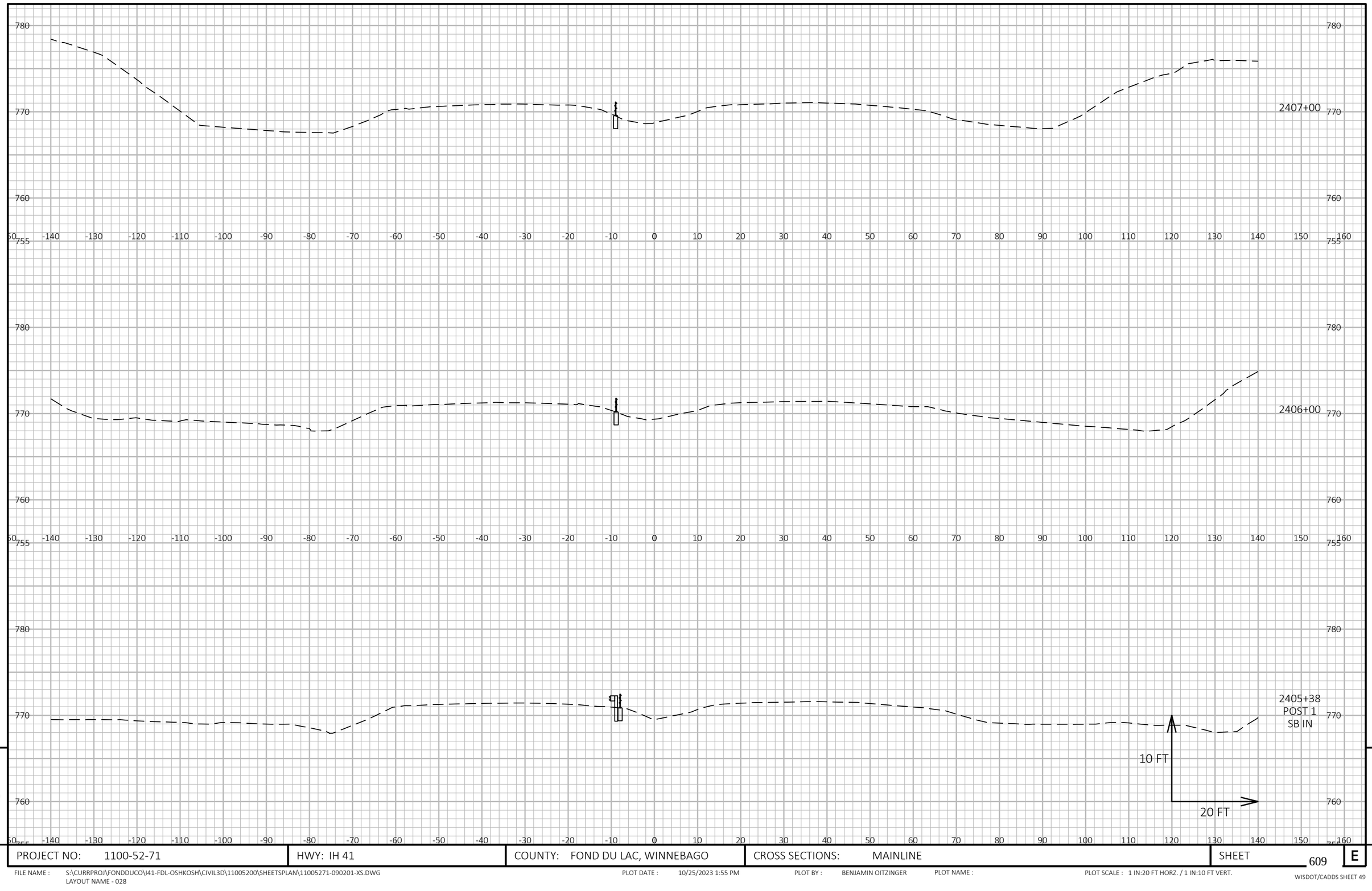
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 608	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 027

PLOT DATE : 10/25/2023 1:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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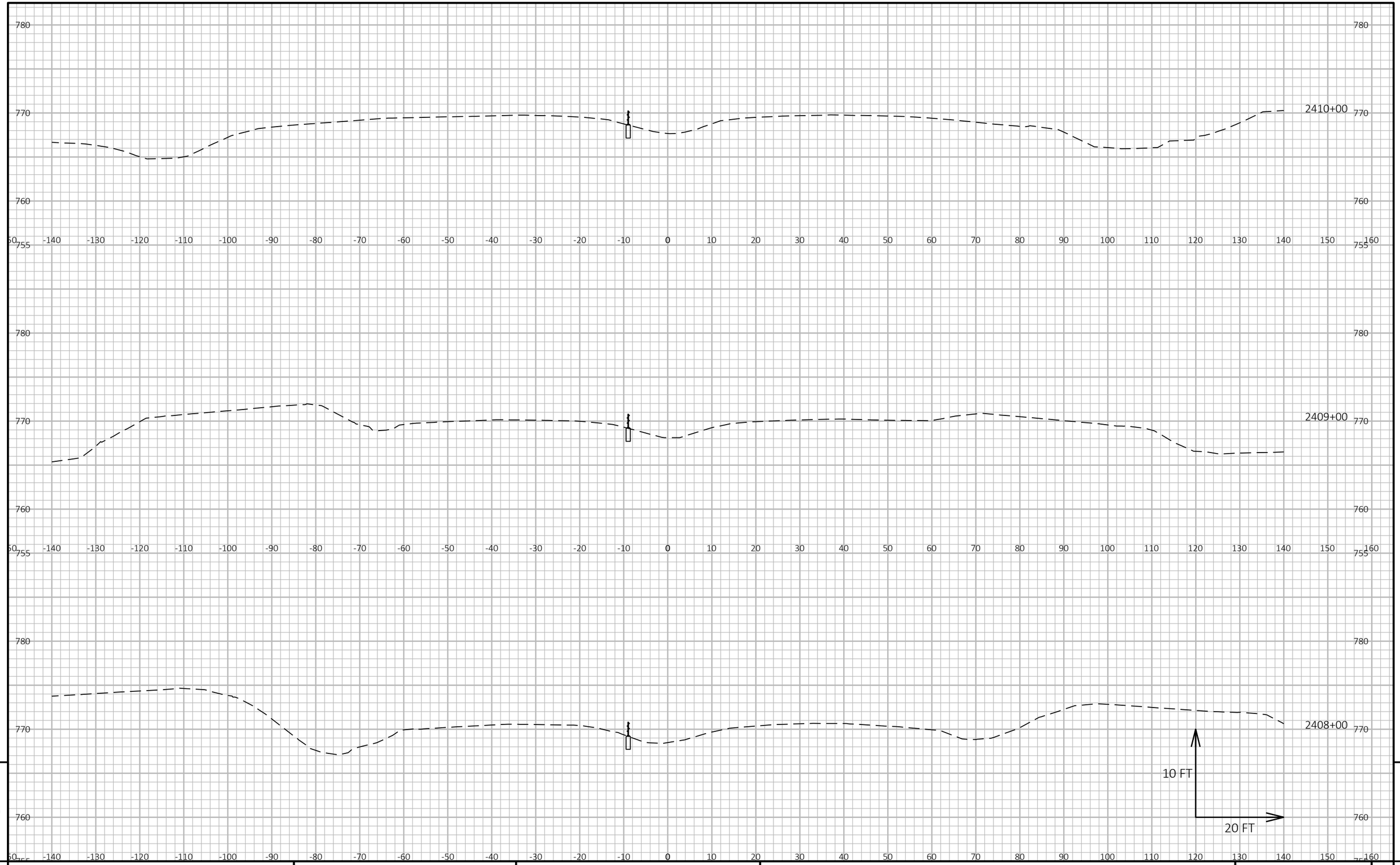
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 609	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 028

PLOT DATE : 10/25/2023 1:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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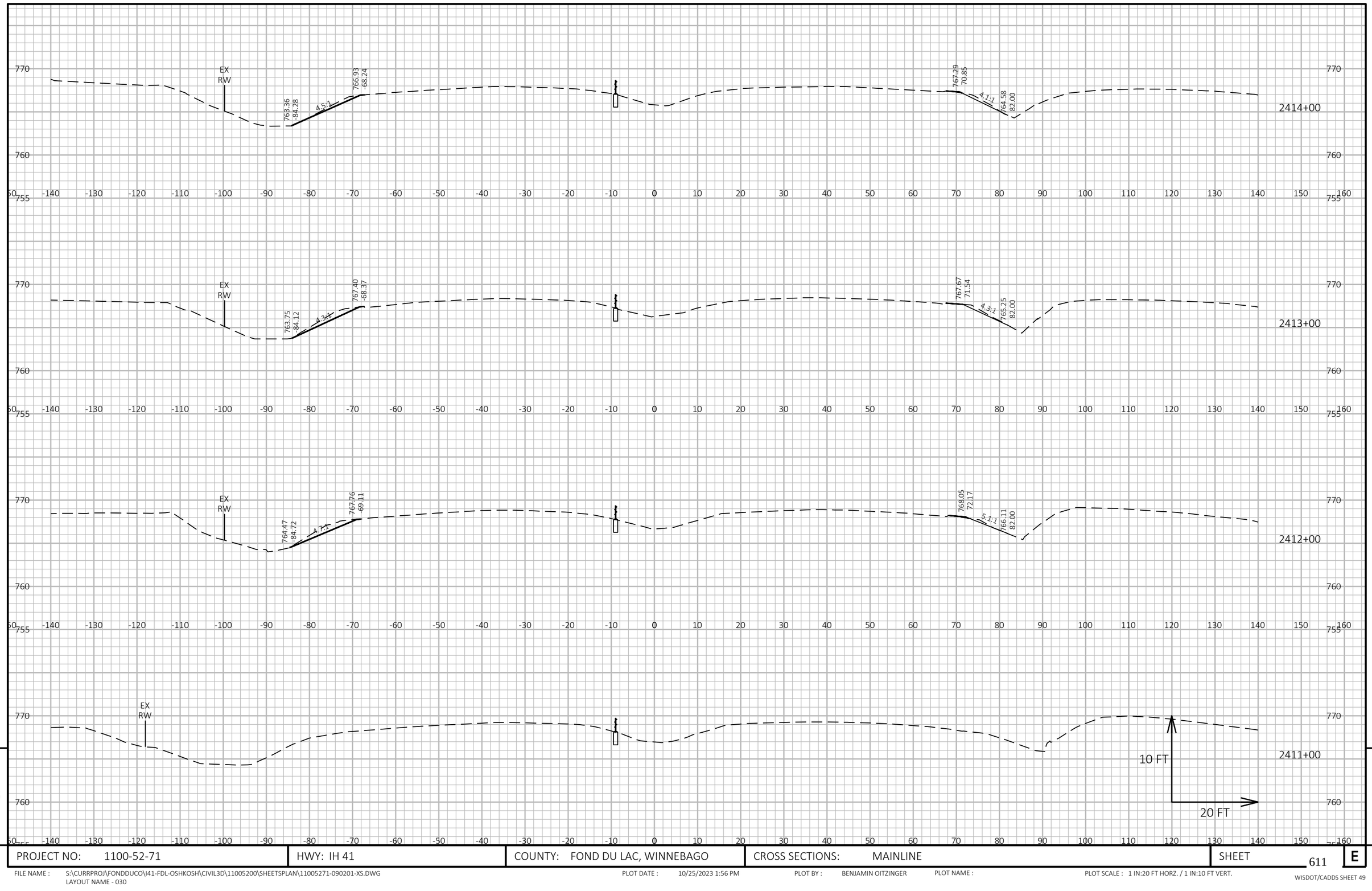
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 610	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 029

PLOT DATE : 10/25/2023 1:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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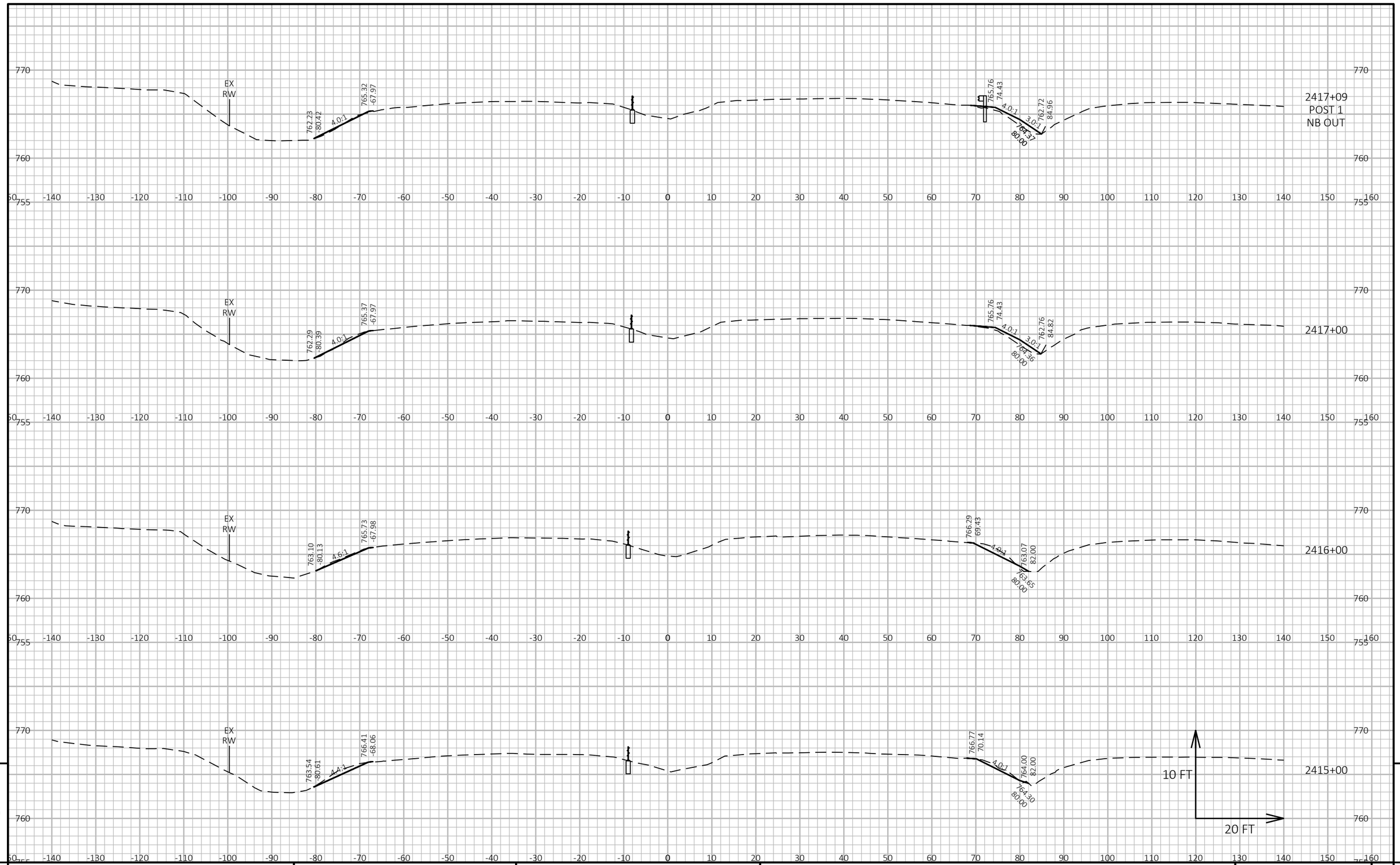
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 611	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 030

PLOT DATE : 10/25/2023 1:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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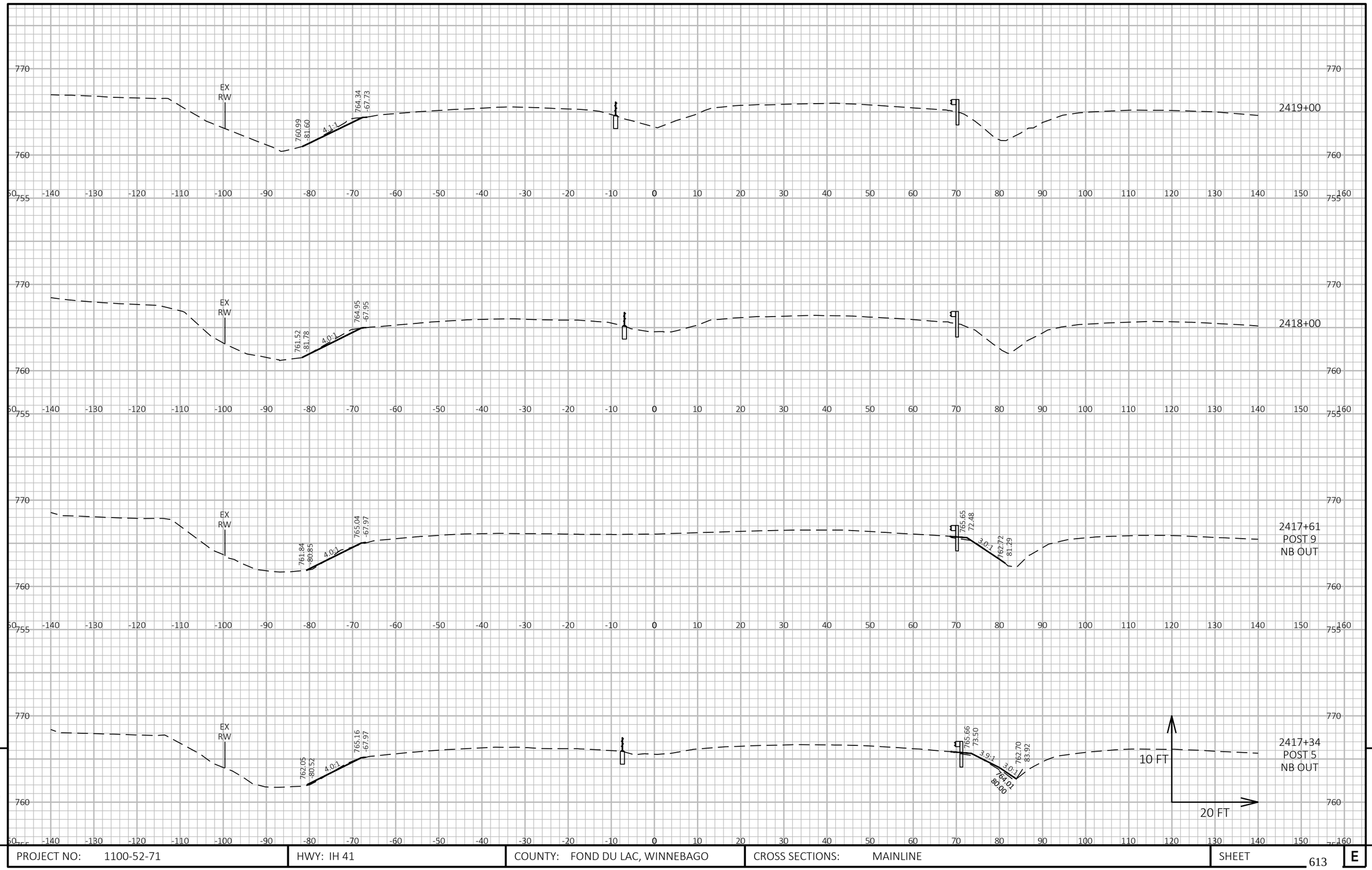
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 612	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 031

PLOT DATE : 10/25/2023 1:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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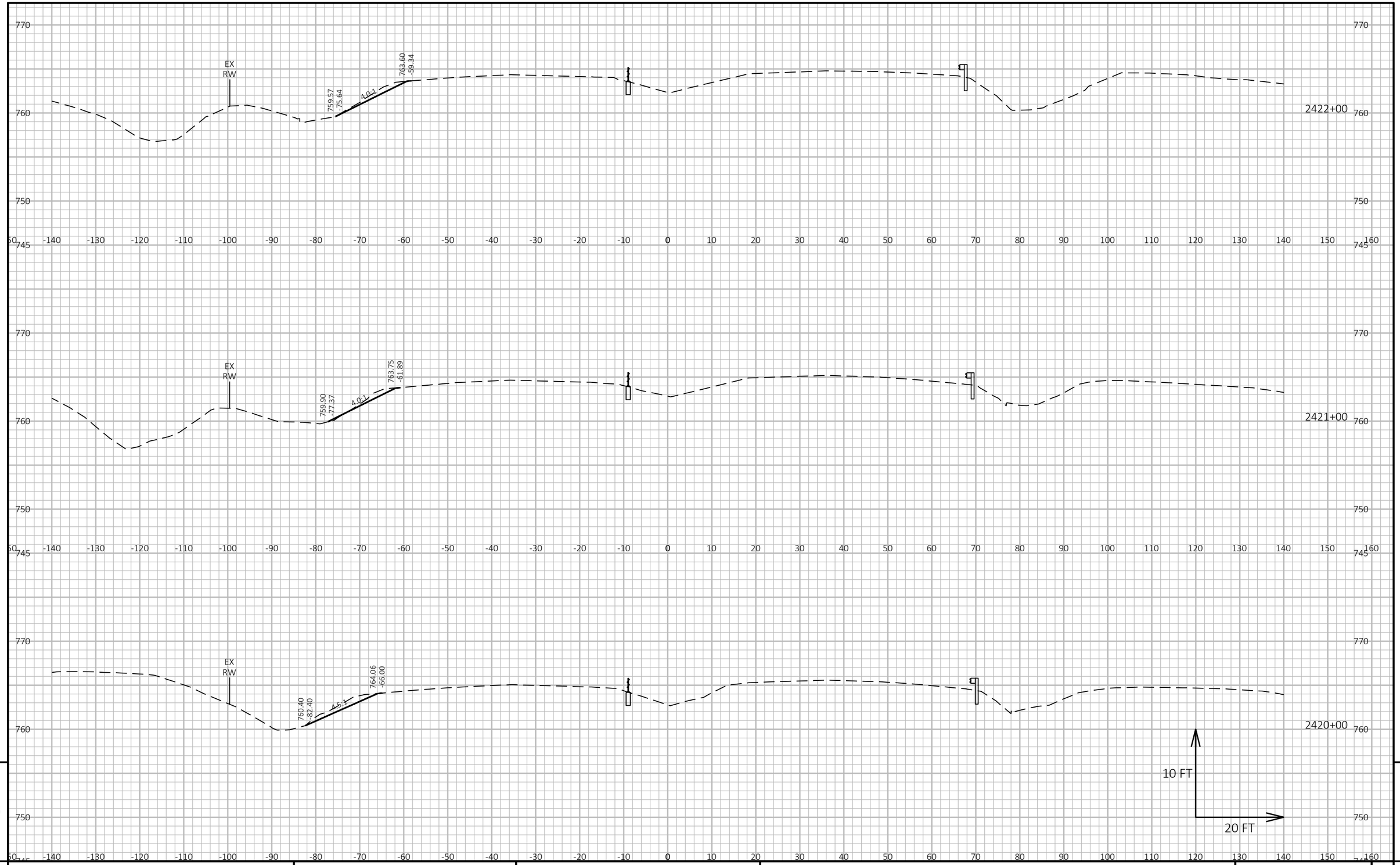
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 613	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 032
PLOT DATE : 10/25/2023 1:57 PM
PLOT BY : BENJAMIN OITZINGER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

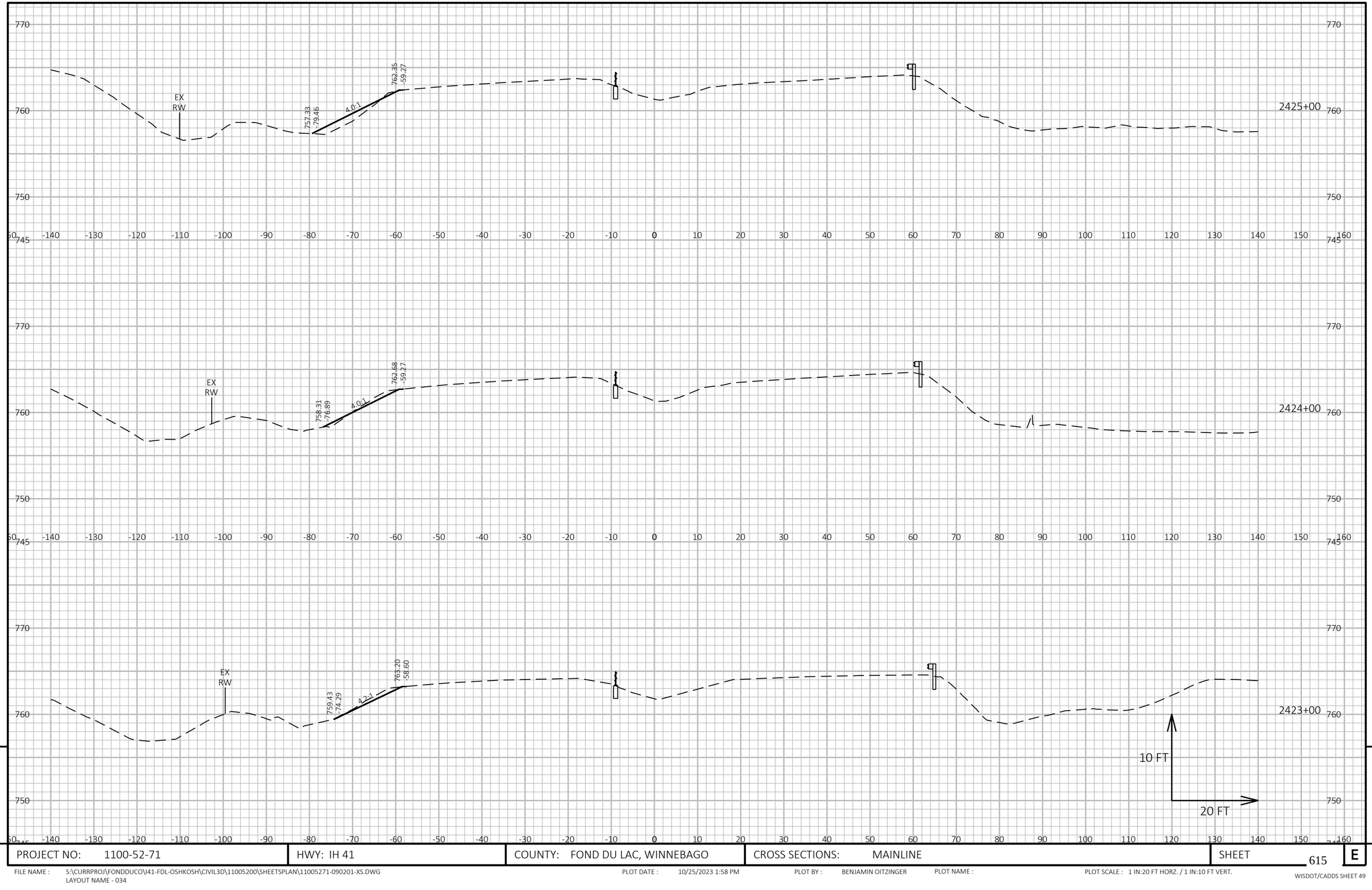


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 614 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 033

PLOT DATE : 10/25/2023 1:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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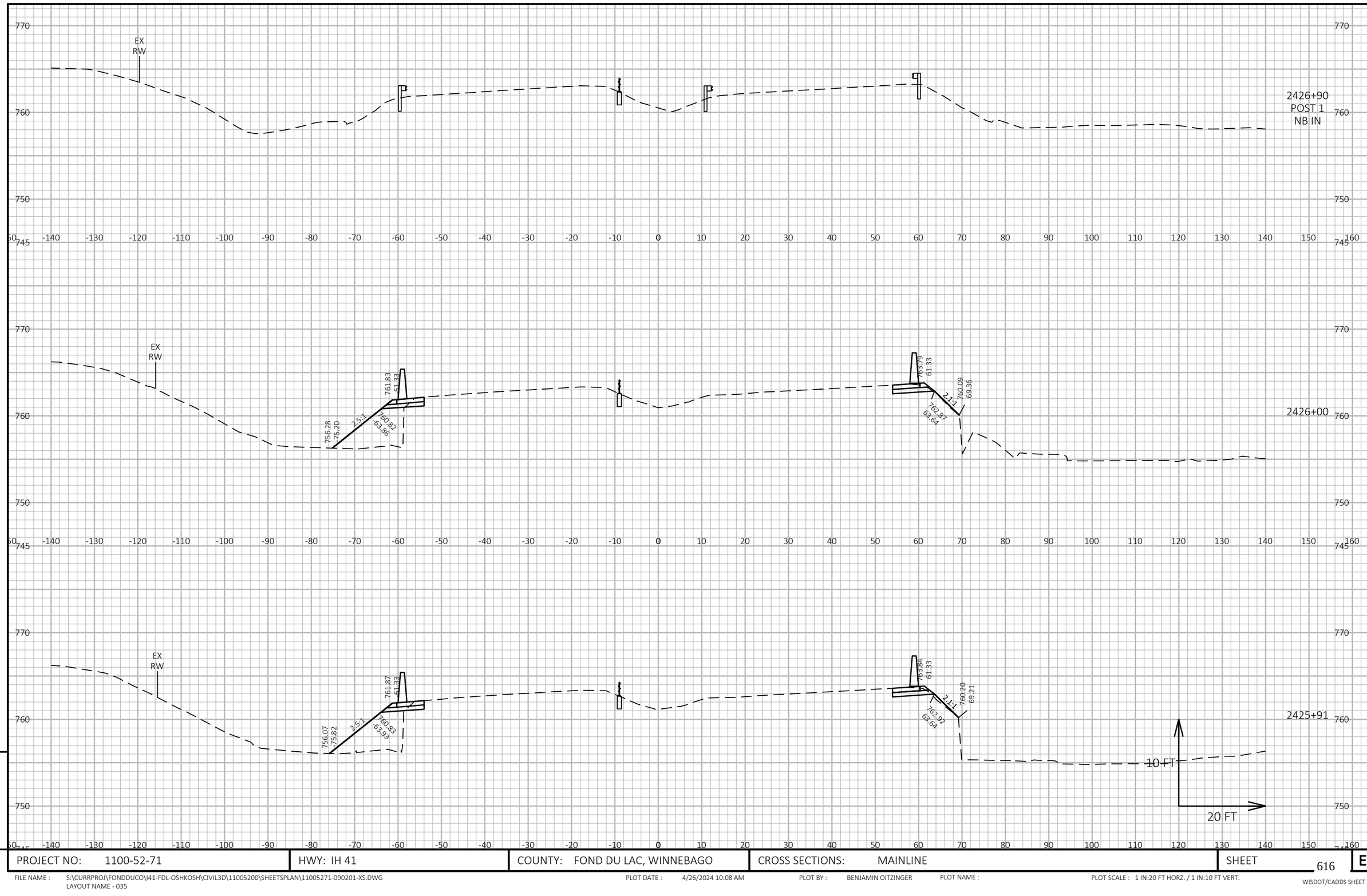
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 615	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 034

PLOT DATE : 10/25/2023 1:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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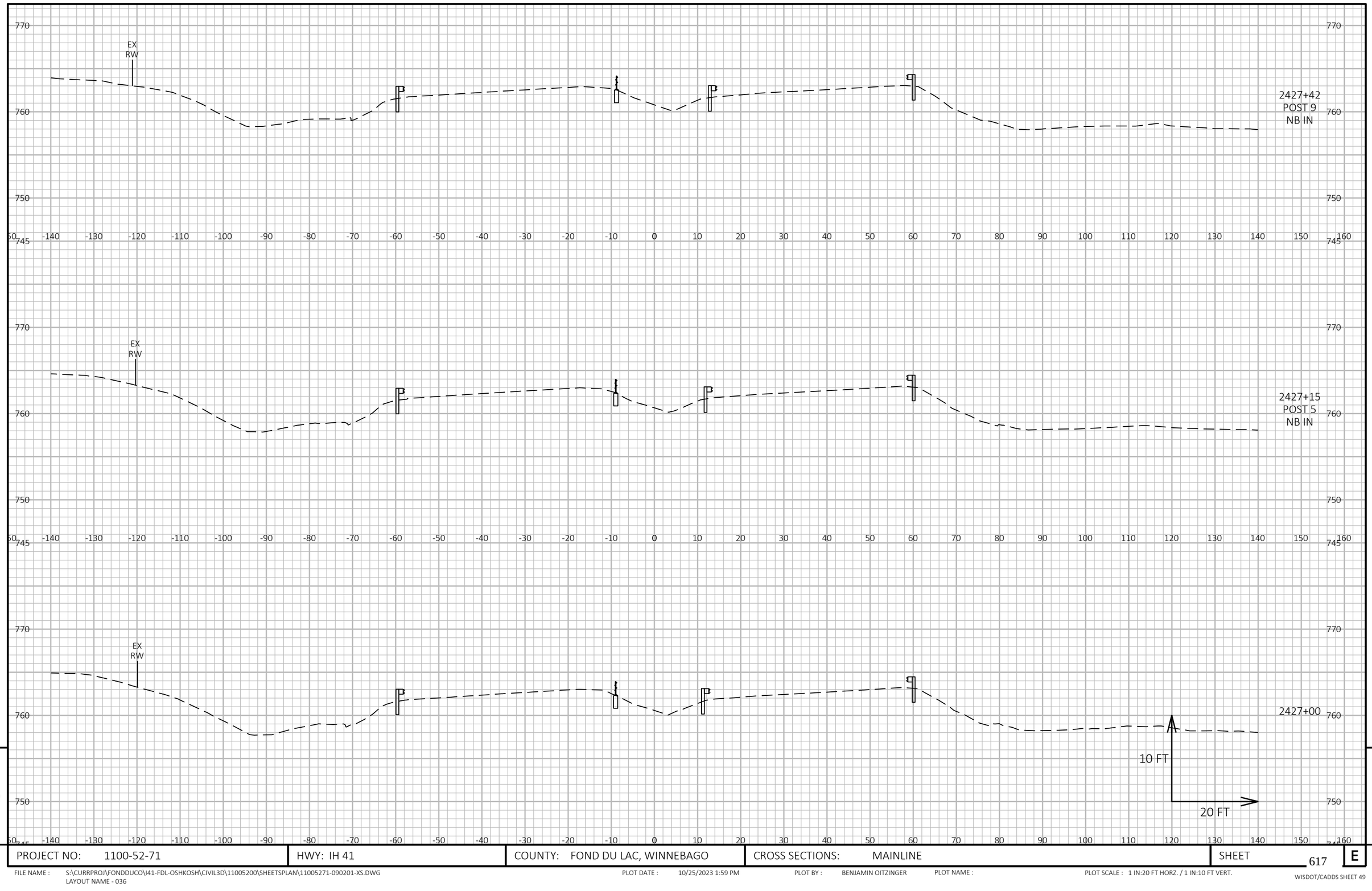
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 616	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 035

PLOT DATE : 4/26/2024 10:08 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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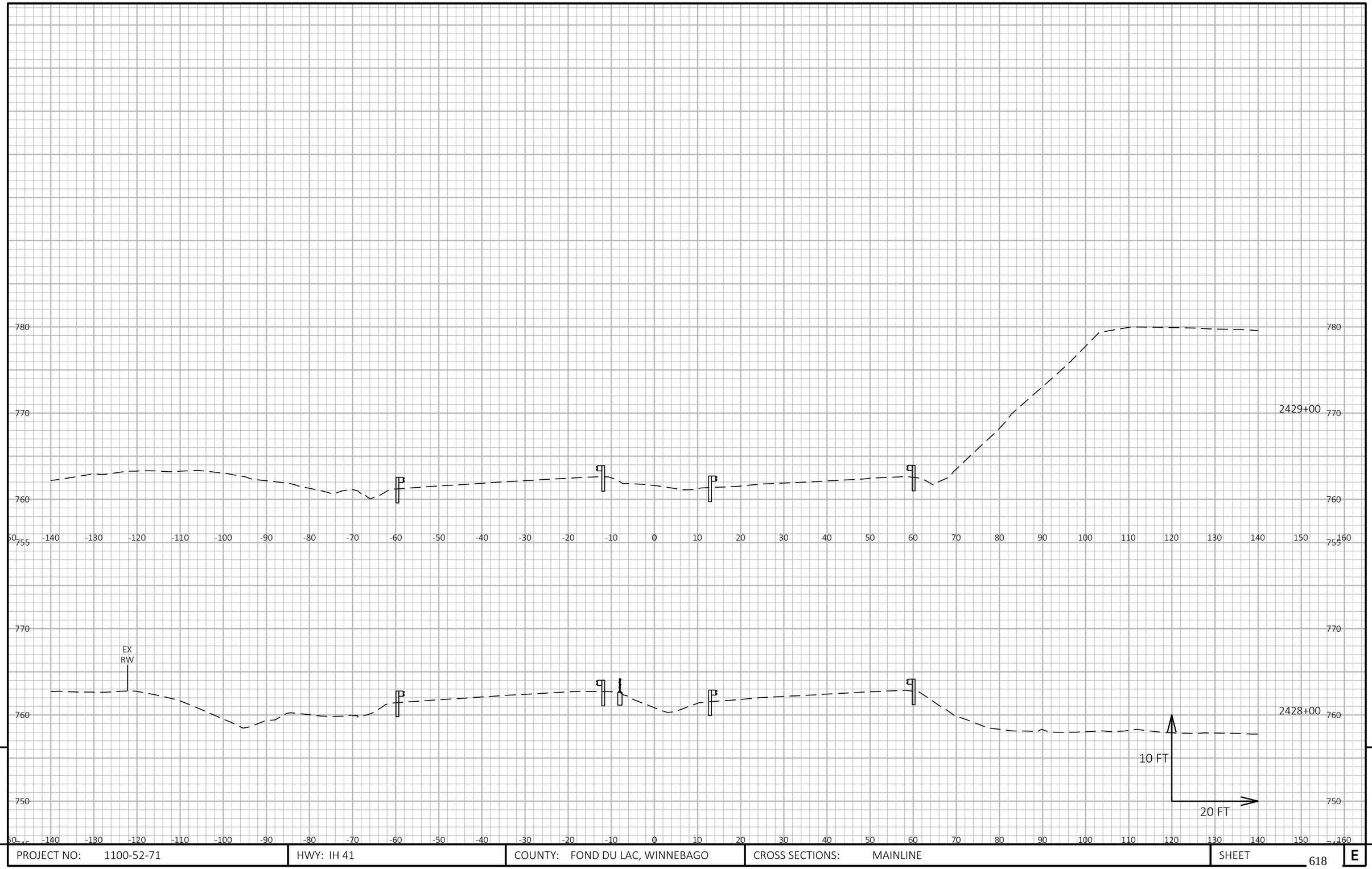
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 617	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 036

PLOT DATE : 10/25/2023 1:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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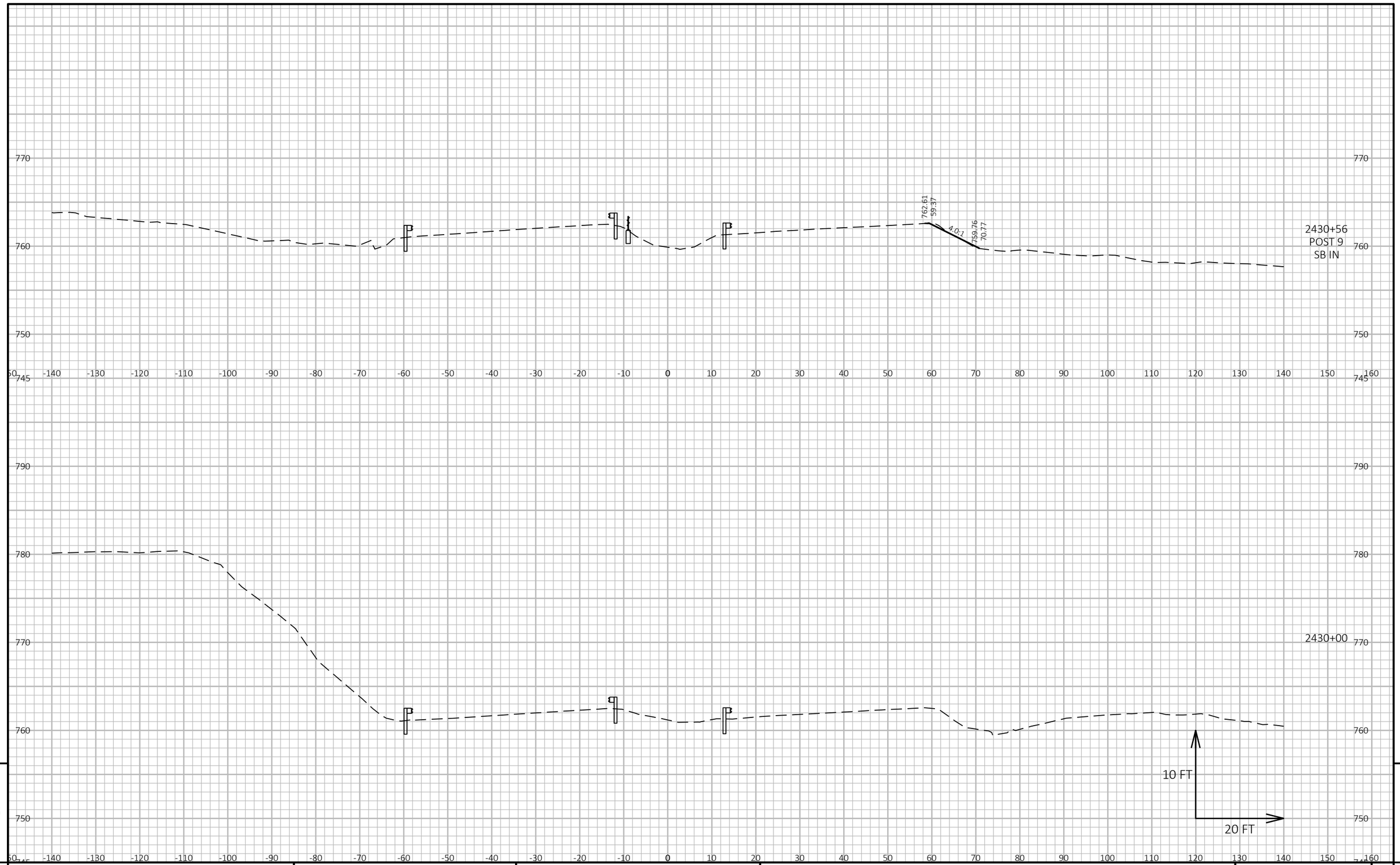
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 618	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 037

PLOT DATE : 10/25/2023 1:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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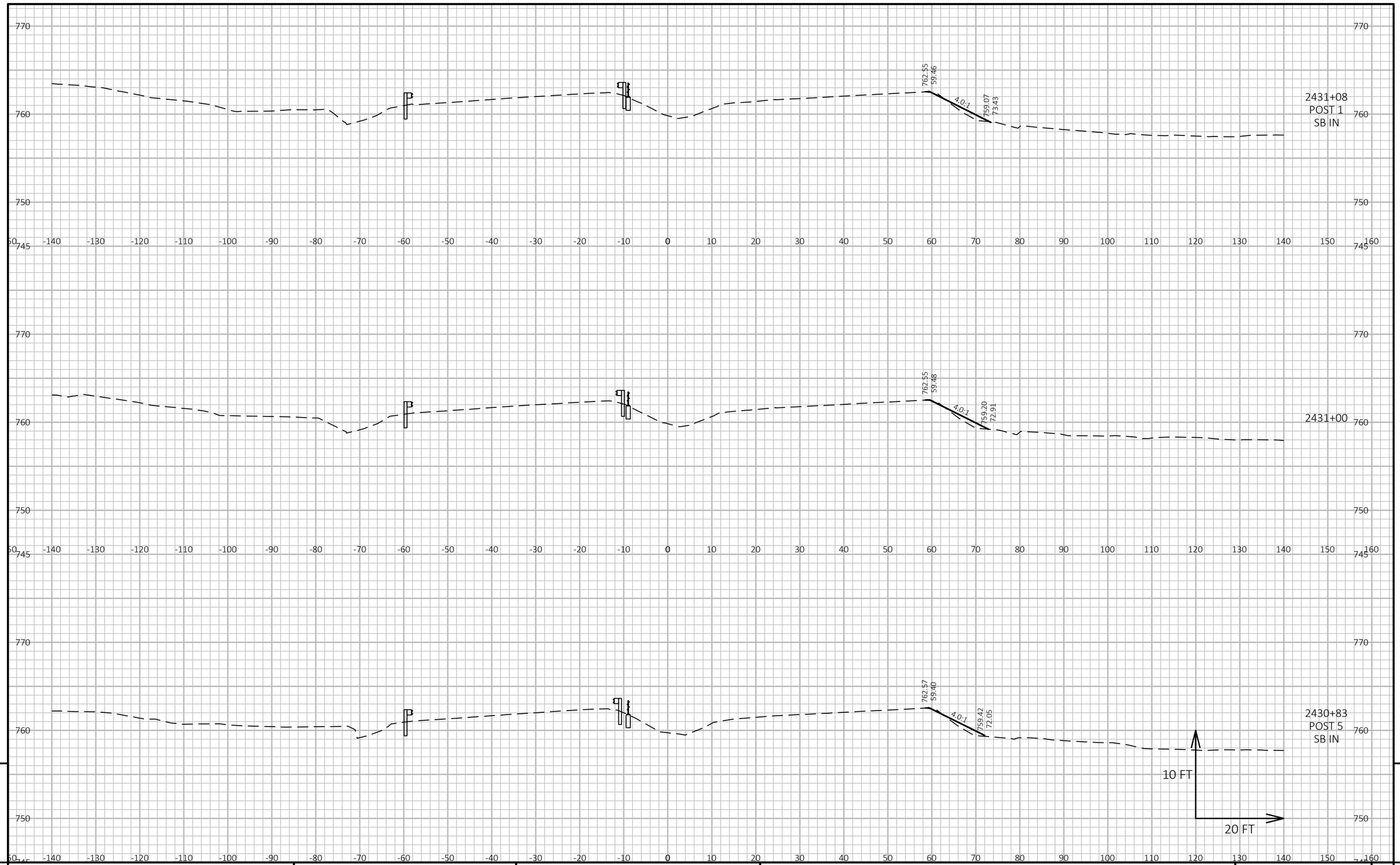
PROJECT NO: 1100-52-71 | HWY: IH 41 | COUNTY: FOND DU LAC, WINNEBAGO | CROSS SECTIONS: MAINLINE | SHEET 619 | E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 038

PLOT DATE : 10/25/2023 2:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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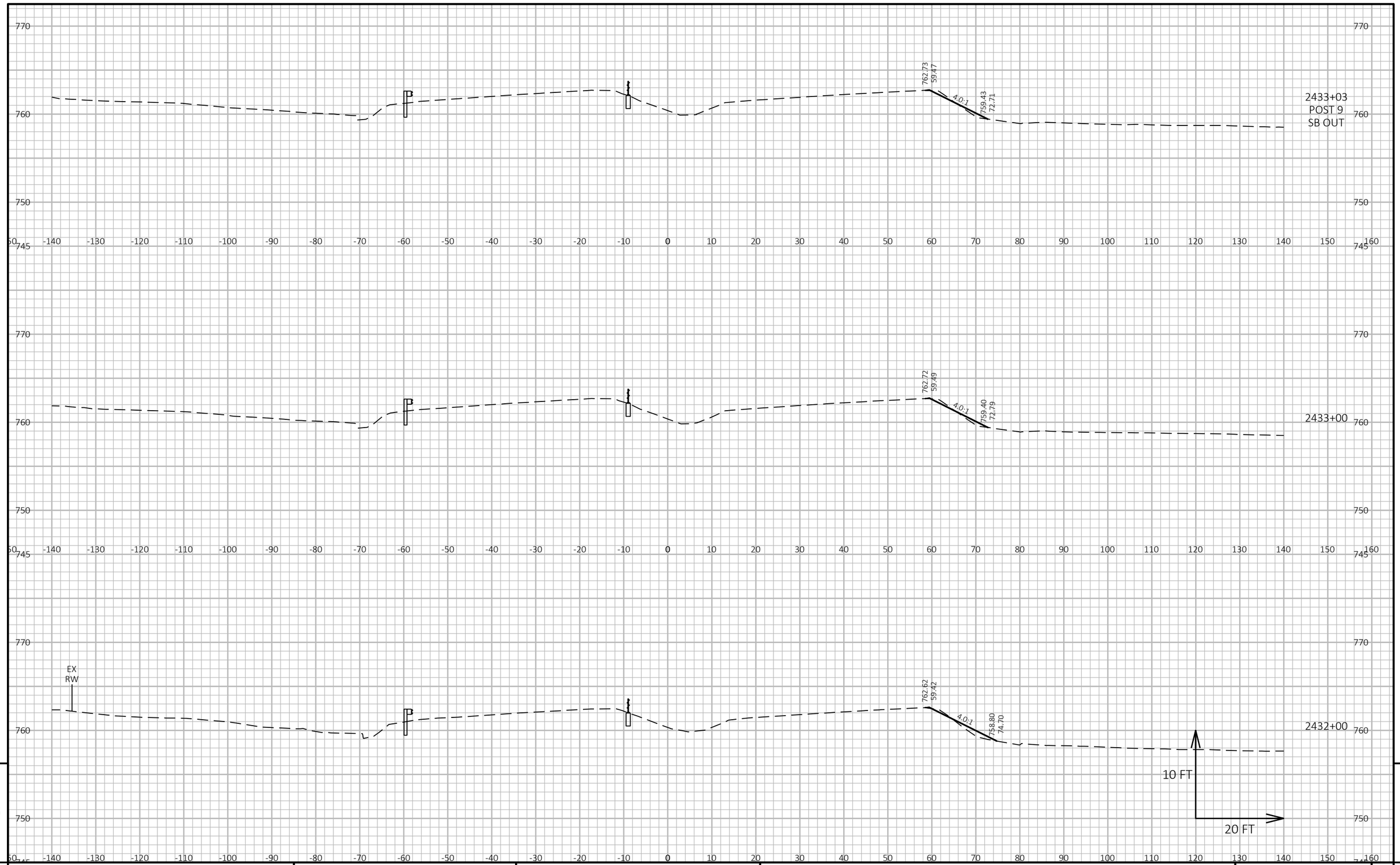
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 620	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 039

PLOT DATE : 10/25/2023 2:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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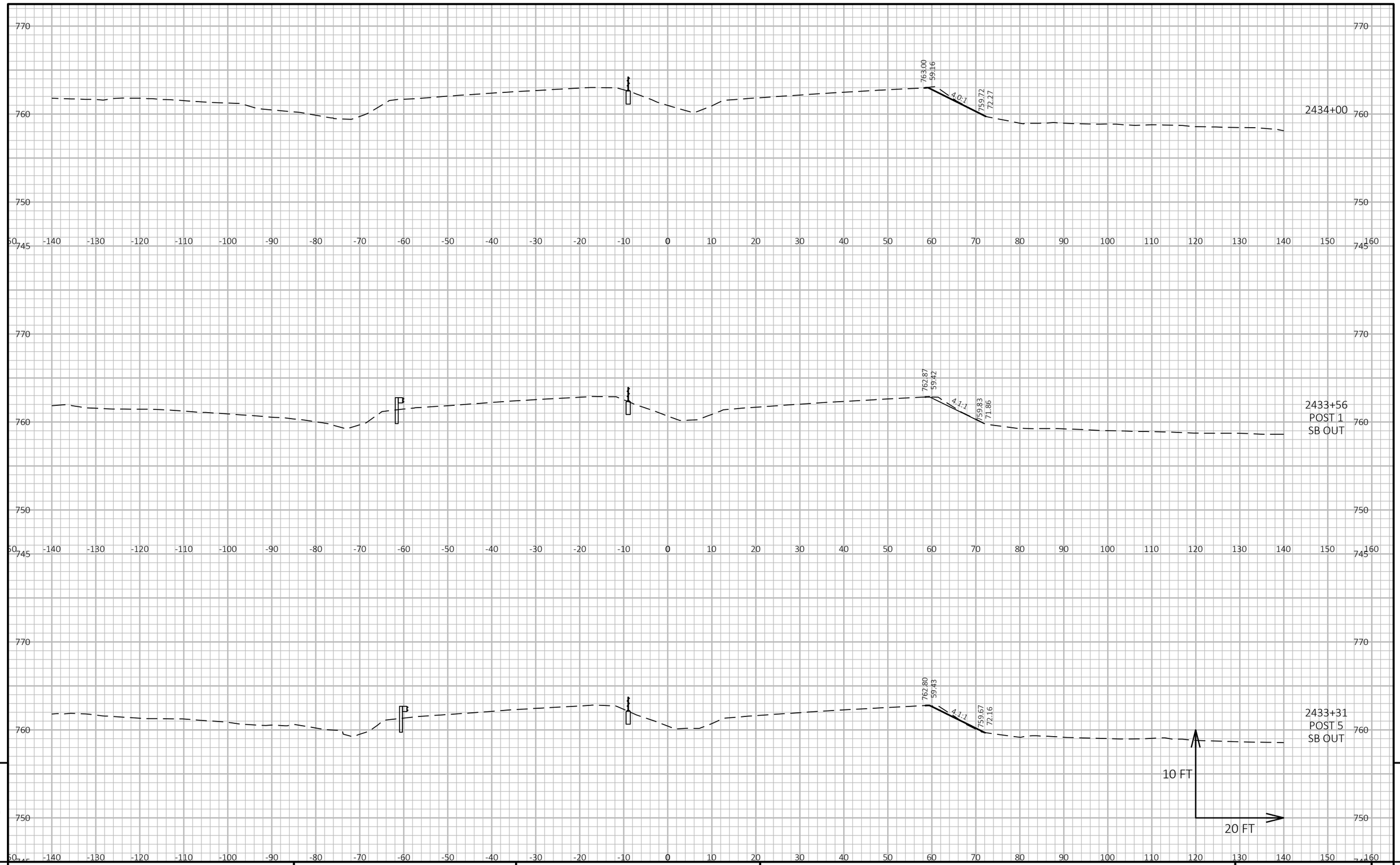
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 621	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 040

PLOT DATE : 10/25/2023 2:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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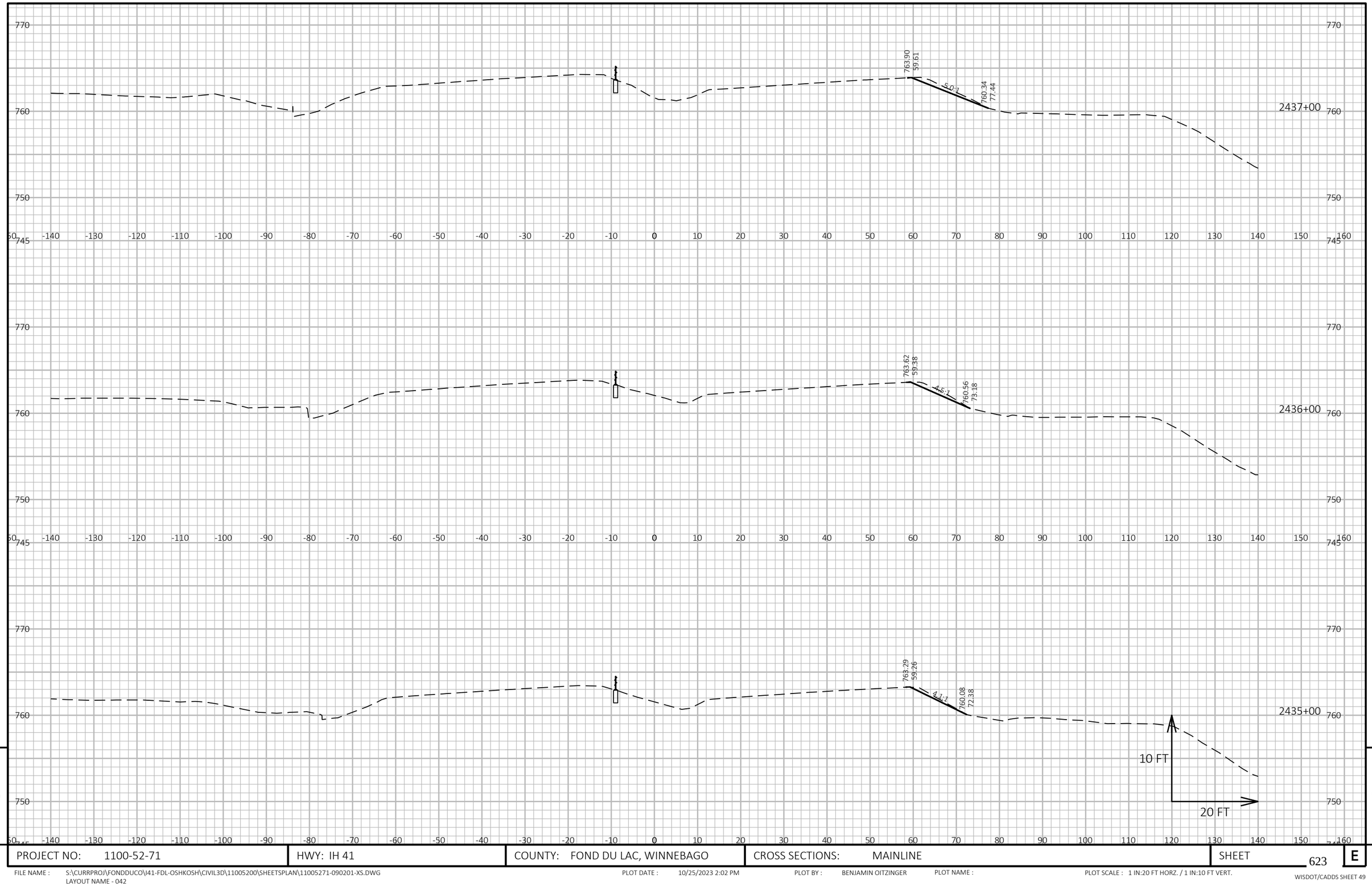
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 622	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 041

PLOT DATE : 10/25/2023 2:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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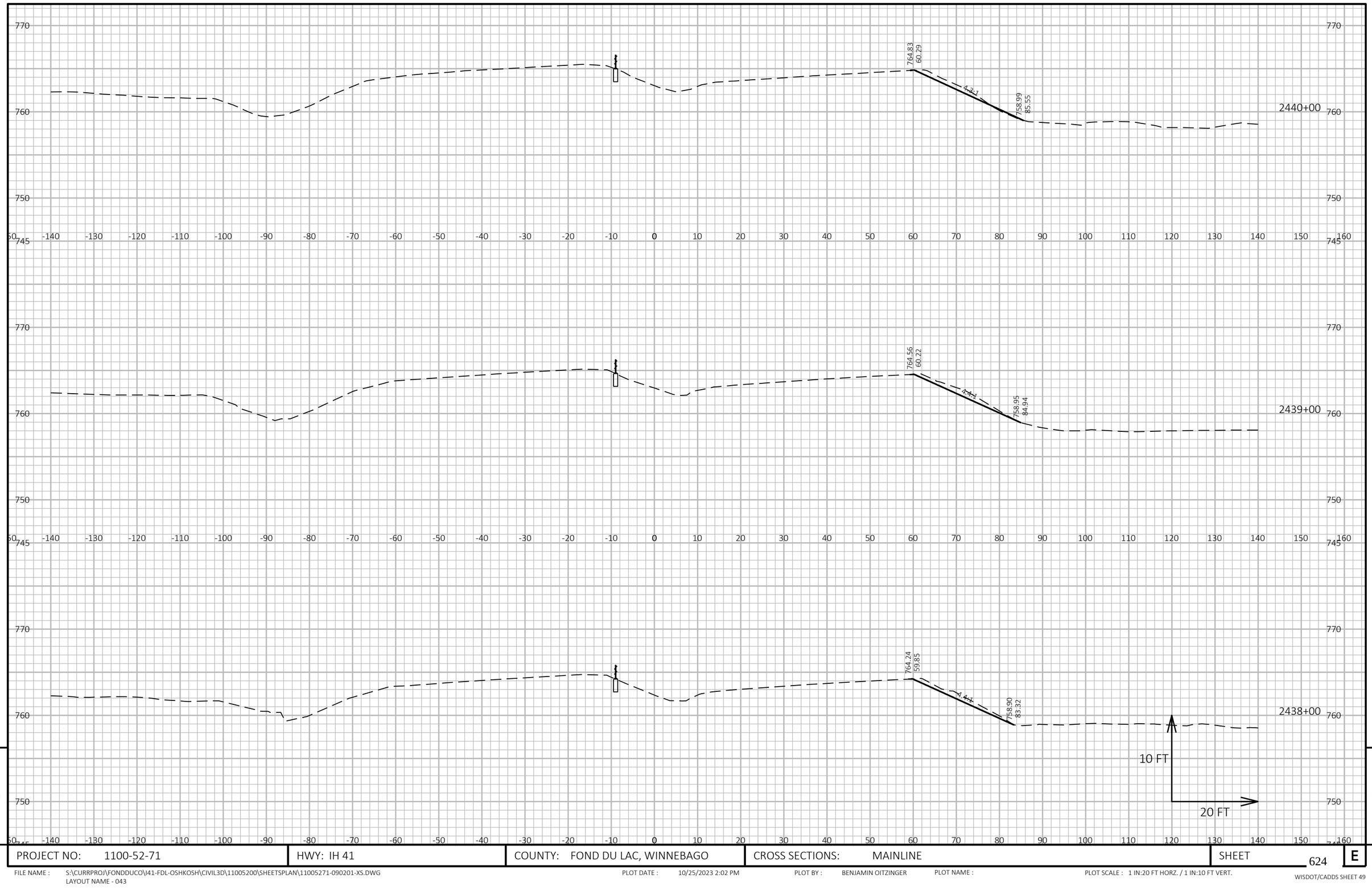
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 623	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 042

PLOT DATE : 10/25/2023 2:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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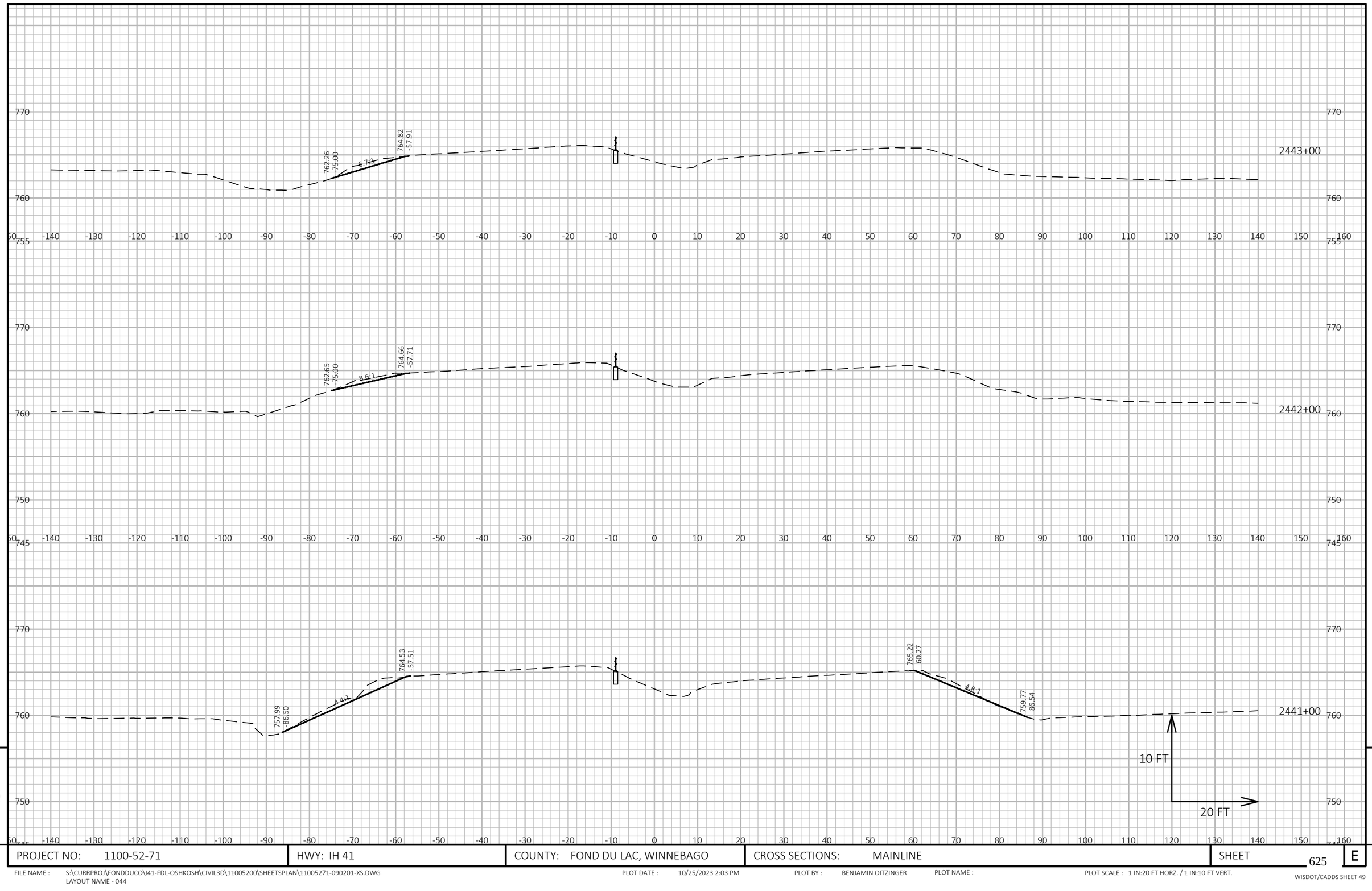
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 624	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 043

PLOT DATE : 10/25/2023 2:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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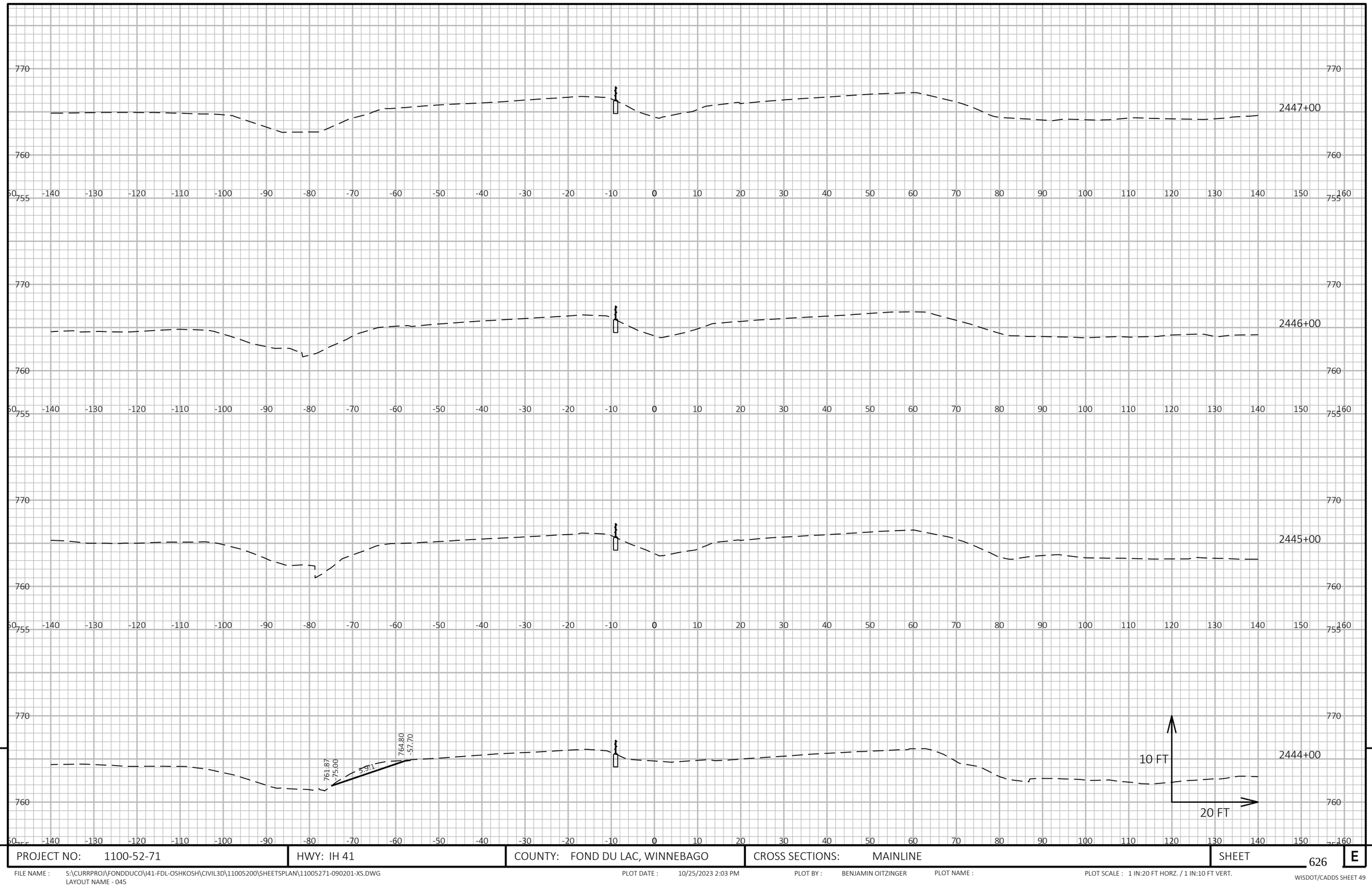
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 625	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 044

PLOT DATE : 10/25/2023 2:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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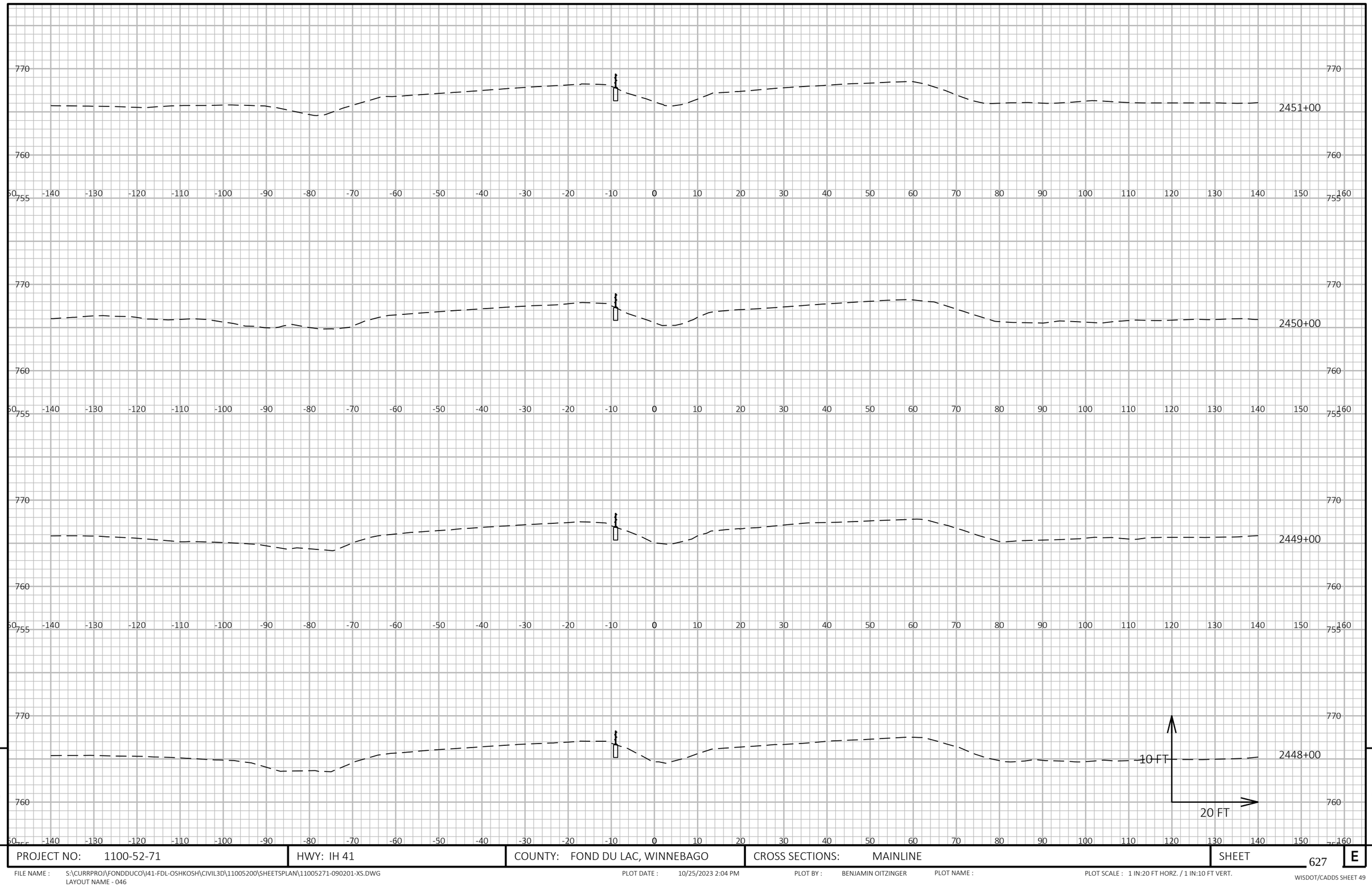
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 626	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 045

PLOT DATE : 10/25/2023 2:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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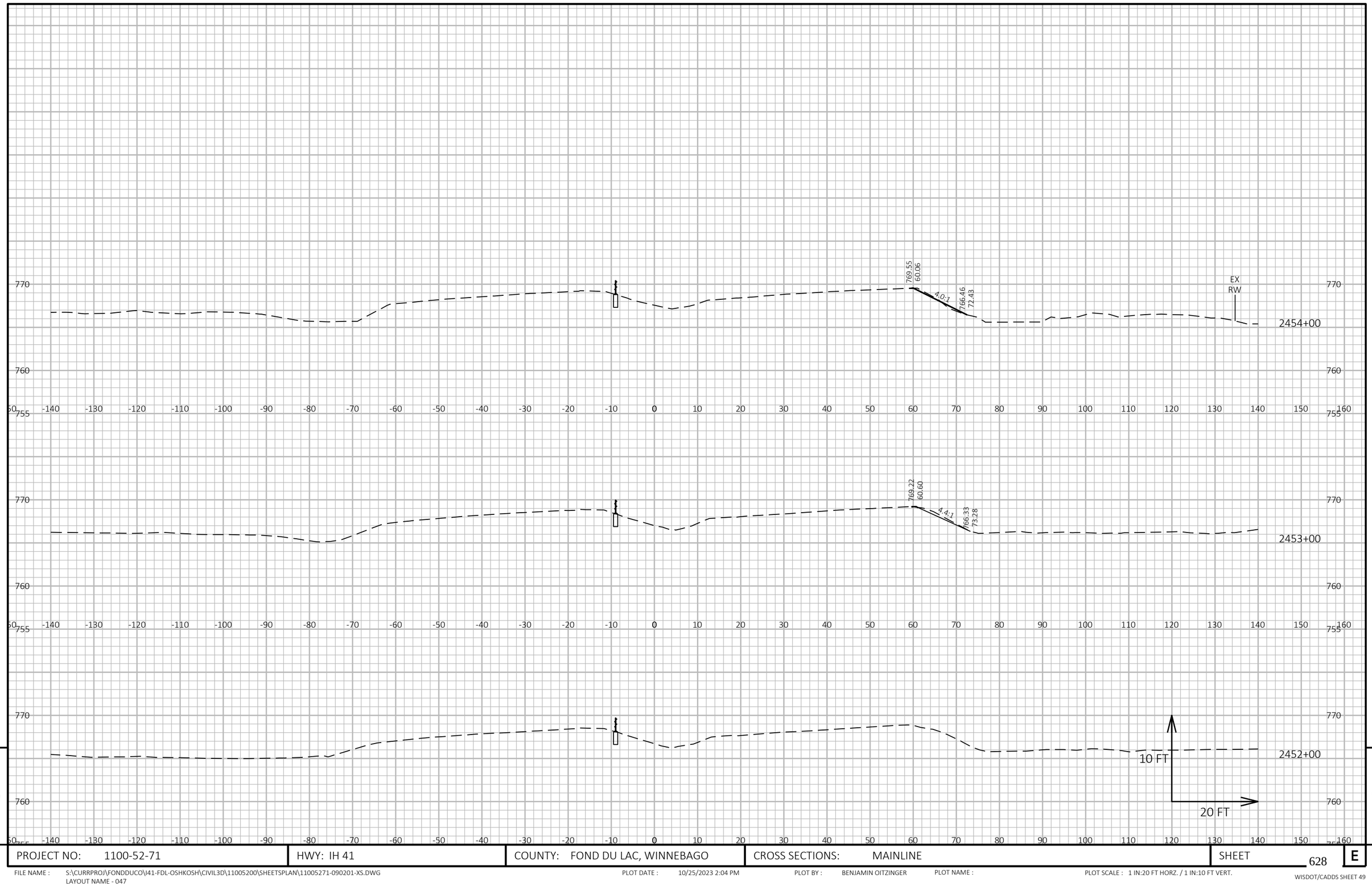
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 627	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 046

PLOT DATE : 10/25/2023 2:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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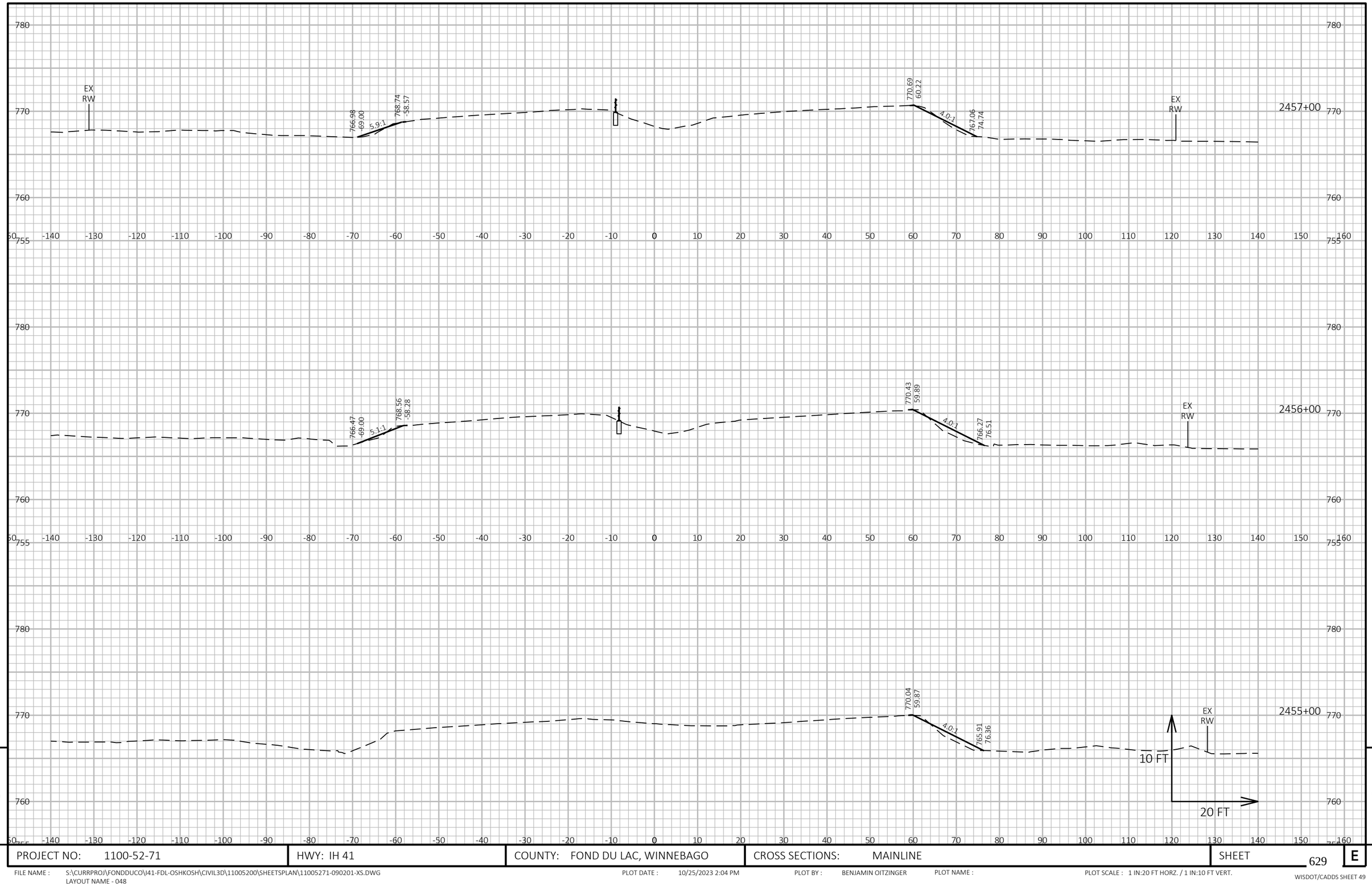
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 628	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 047

PLOT DATE : 10/25/2023 2:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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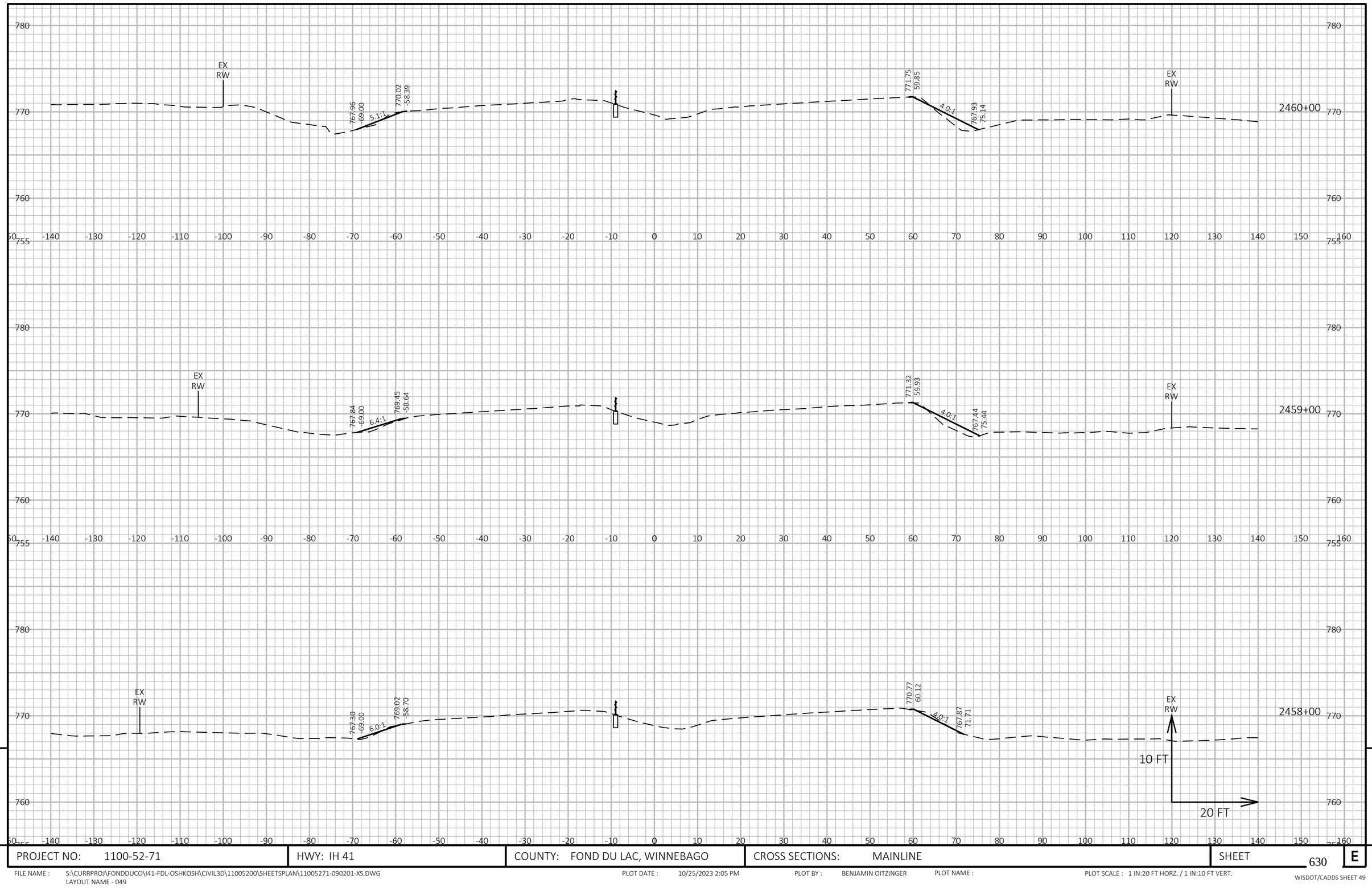
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 629	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 048

PLOT DATE : 10/25/2023 2:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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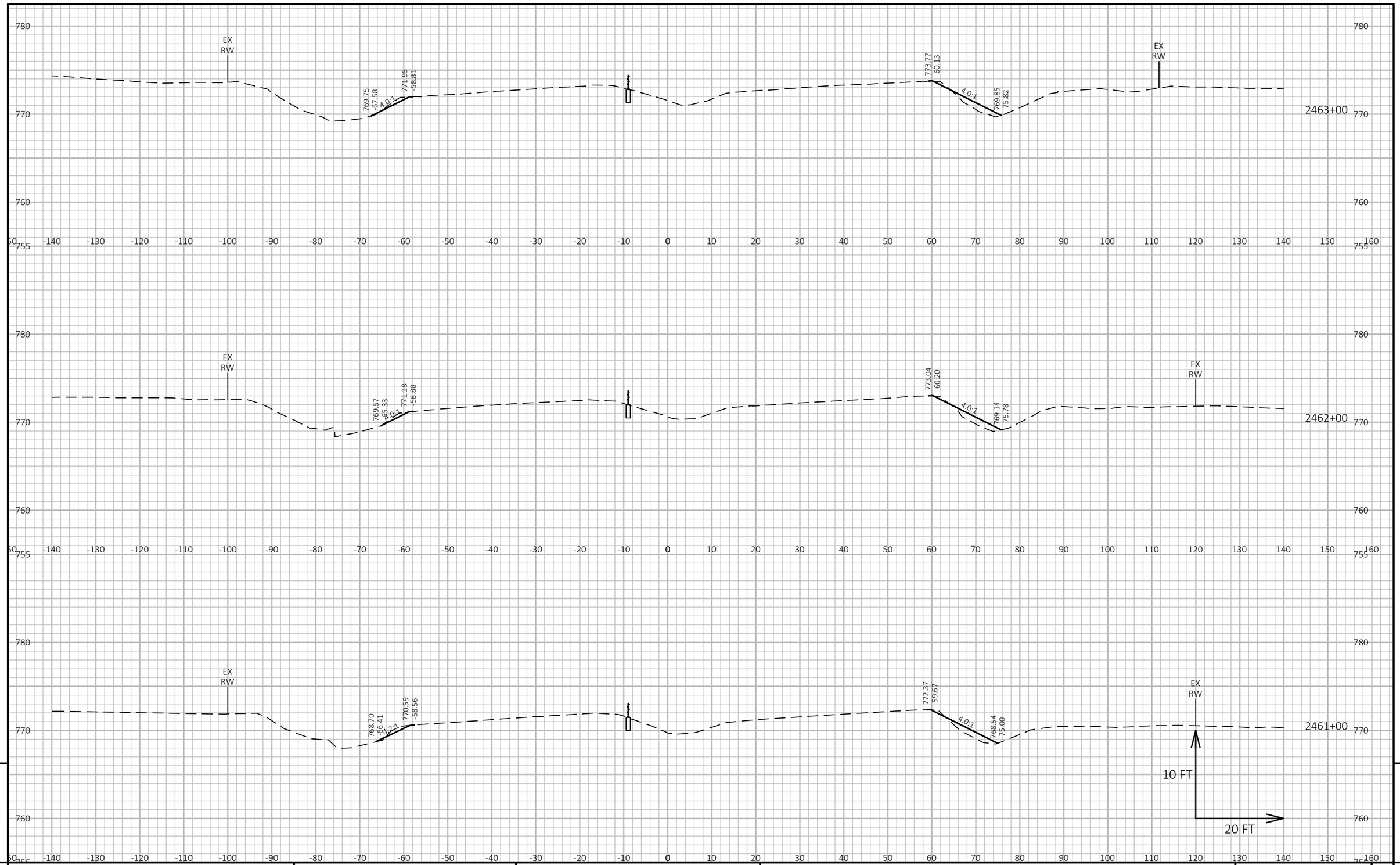
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 630	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 049

PLOT DATE : 10/25/2023 2:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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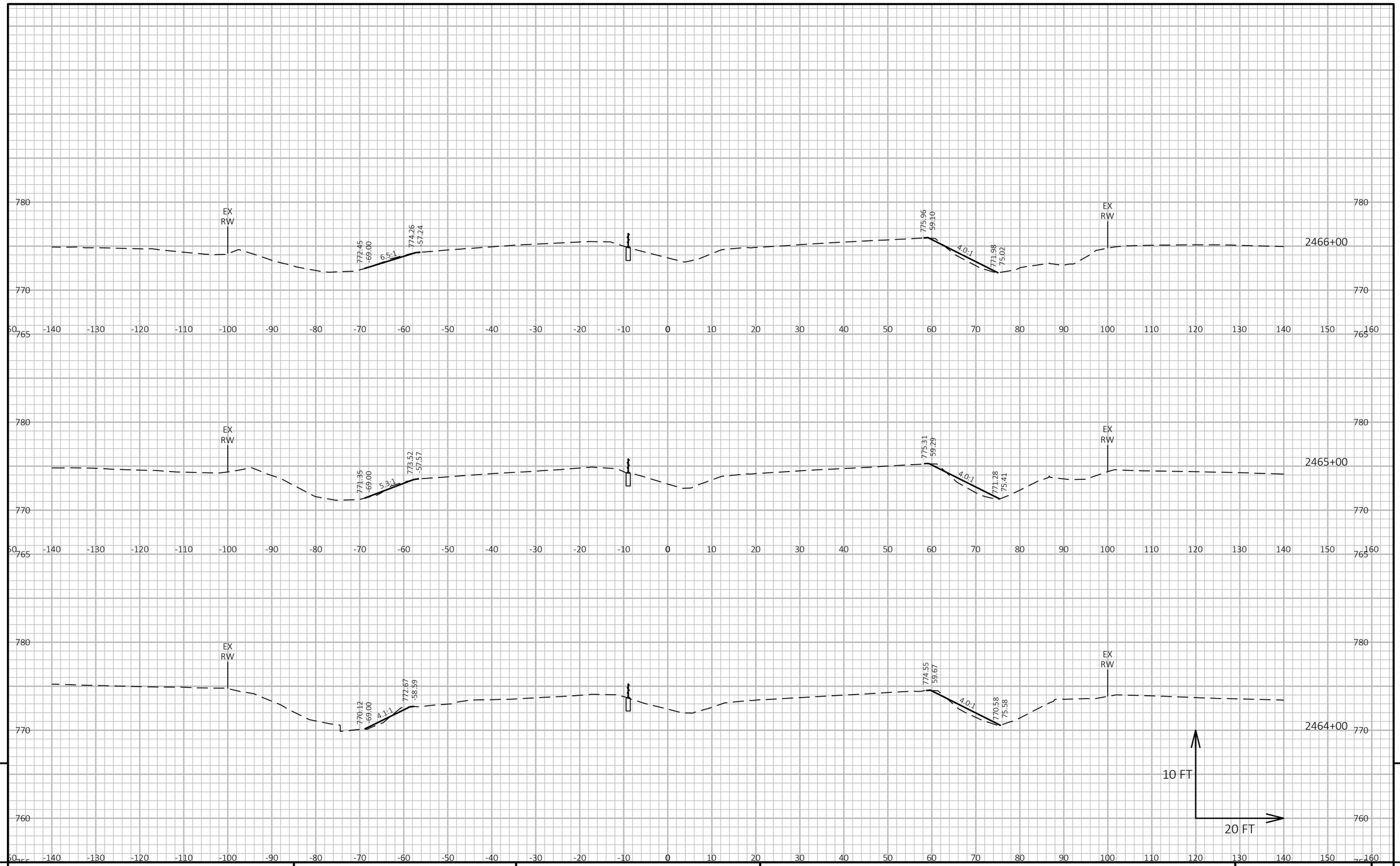
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 631	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 050

PLOT DATE : 10/25/2023 2:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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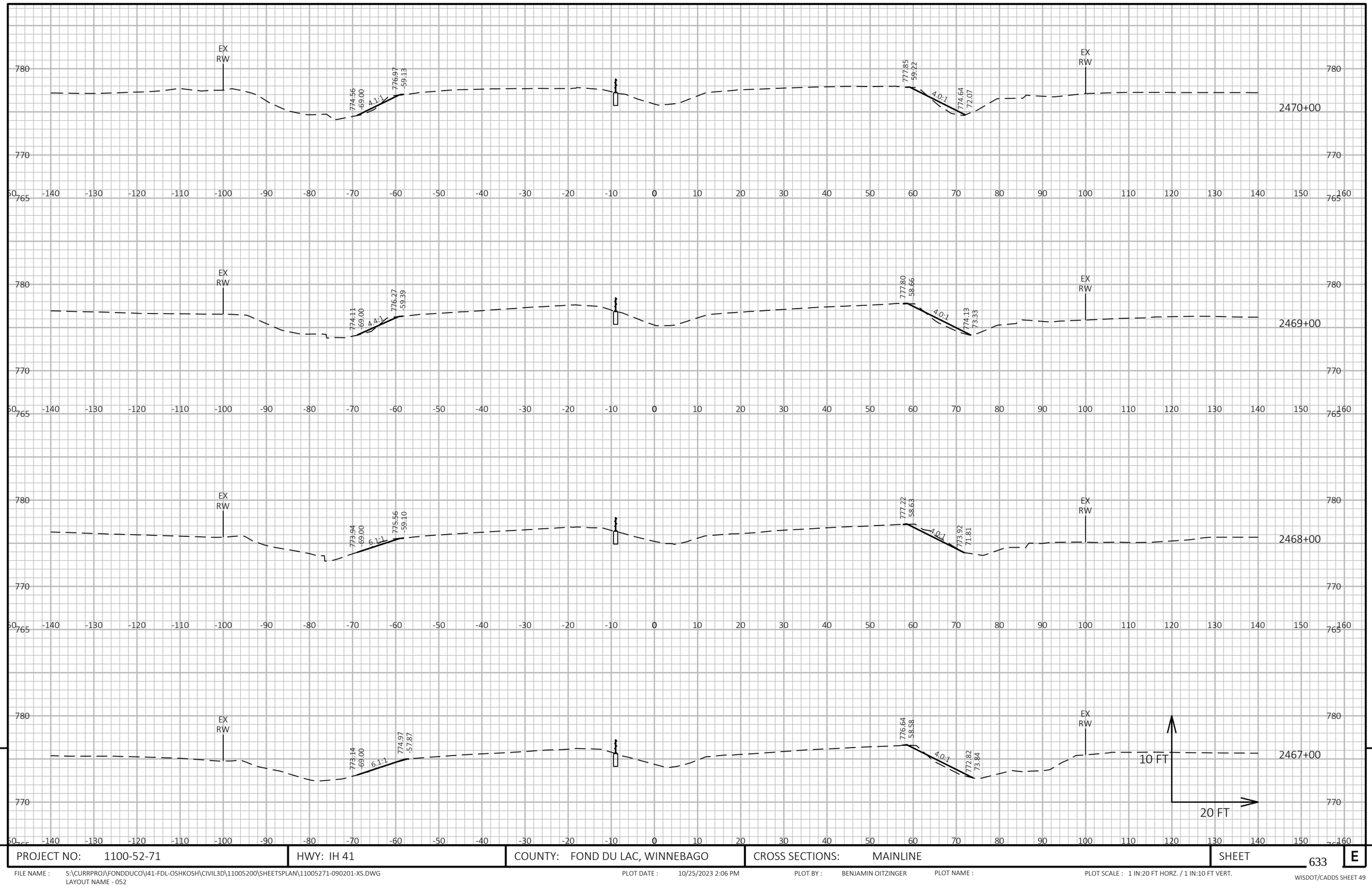
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 632	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 051

PLOT DATE : 10/25/2023 2:06 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 633	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 052

PLOT DATE : 10/25/2023 2:06 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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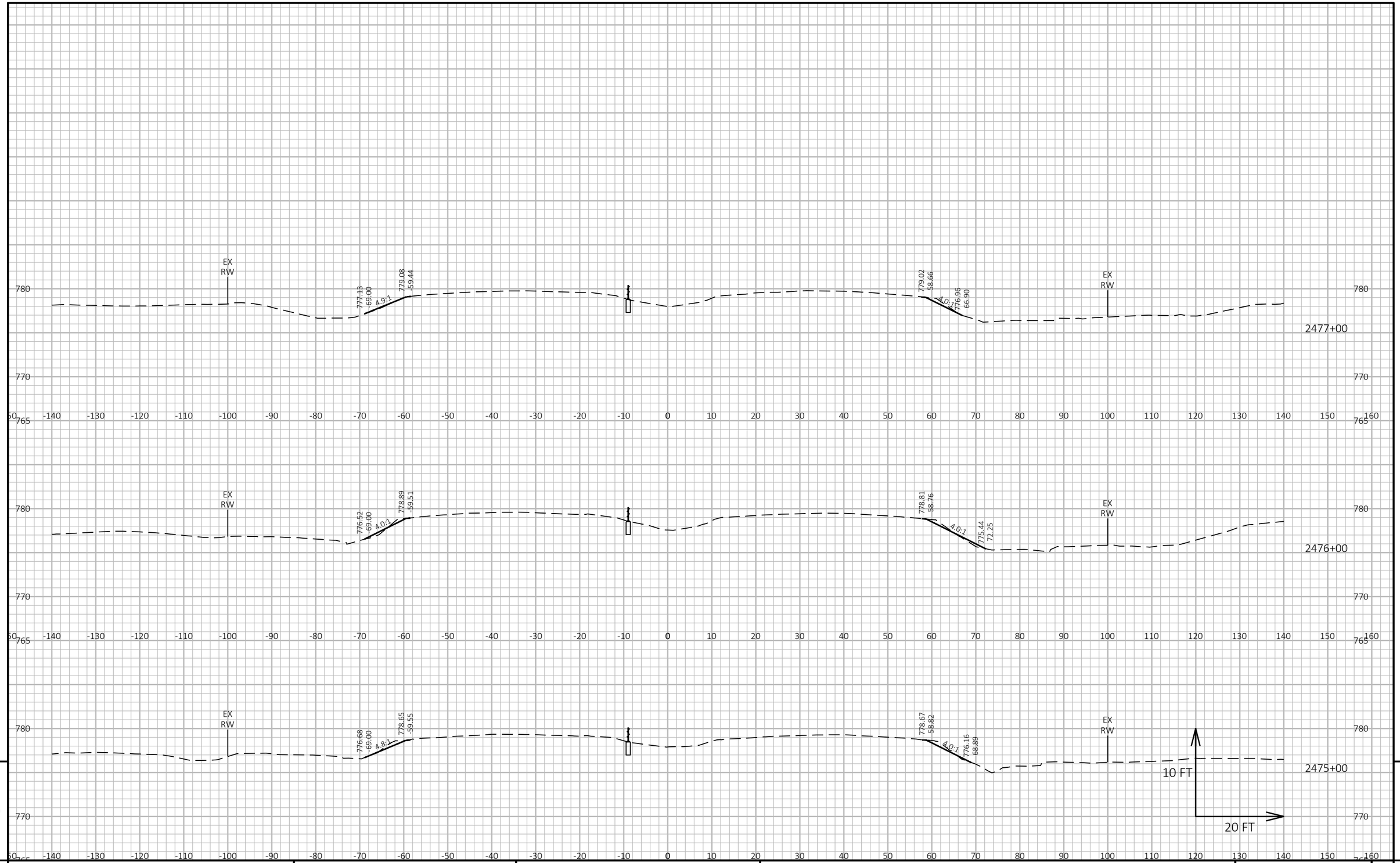
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 634	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 053

PLOT DATE : 10/25/2023 2:07 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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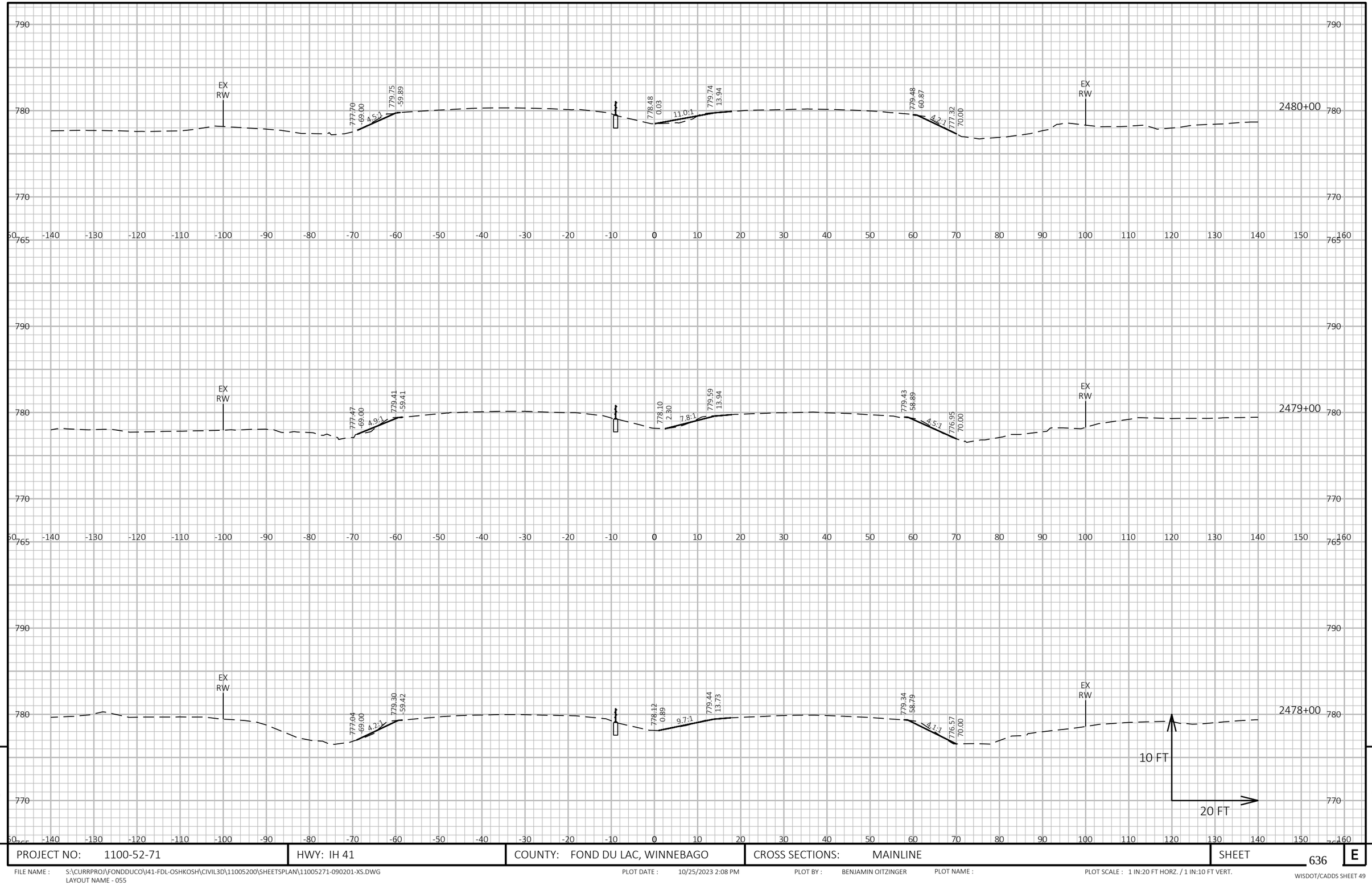
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 635	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 054

PLOT DATE : 10/25/2023 2:07 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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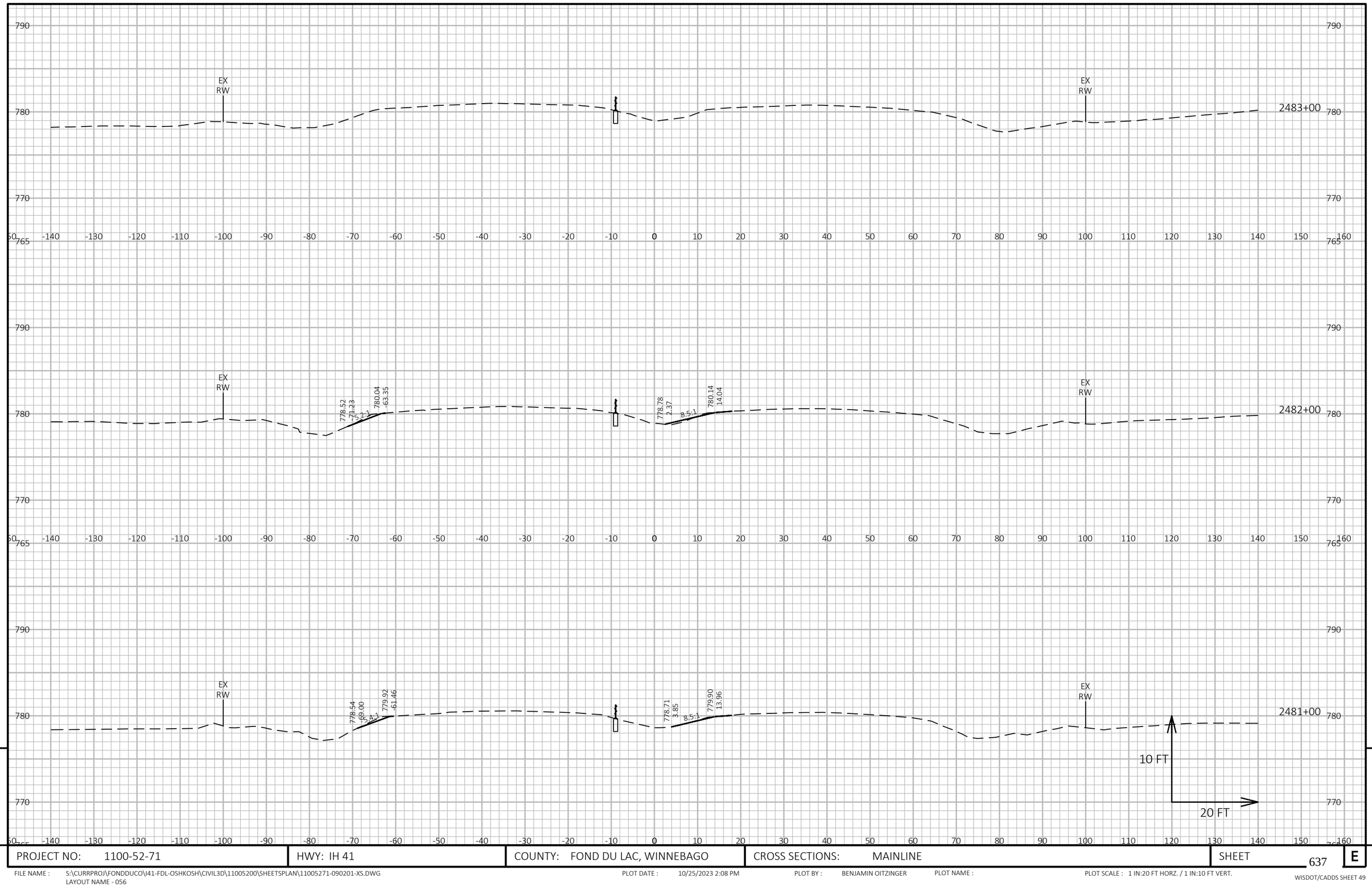
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 636	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 055

PLOT DATE : 10/25/2023 2:08 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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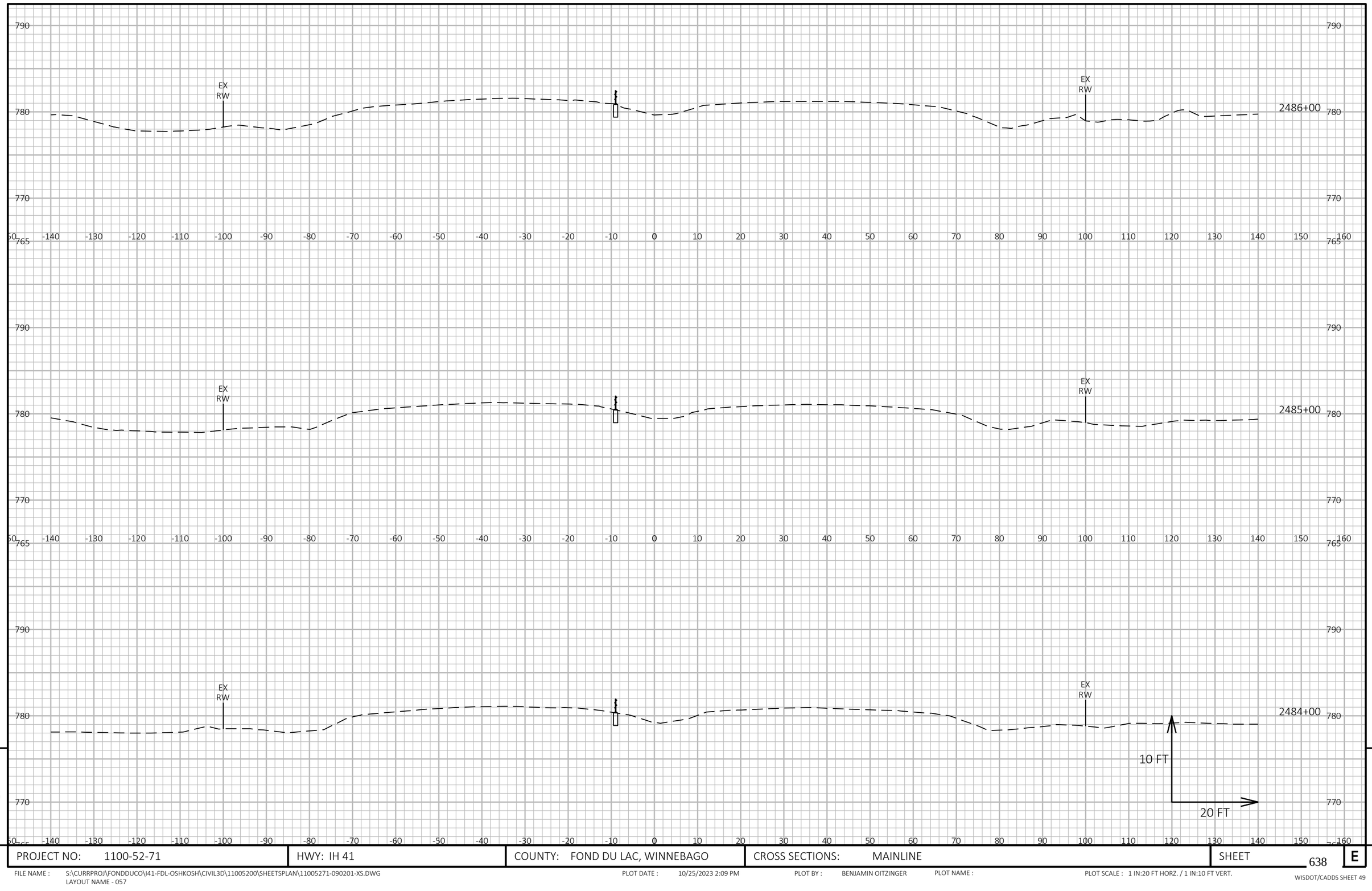
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 637	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 056

PLOT DATE : 10/25/2023 2:08 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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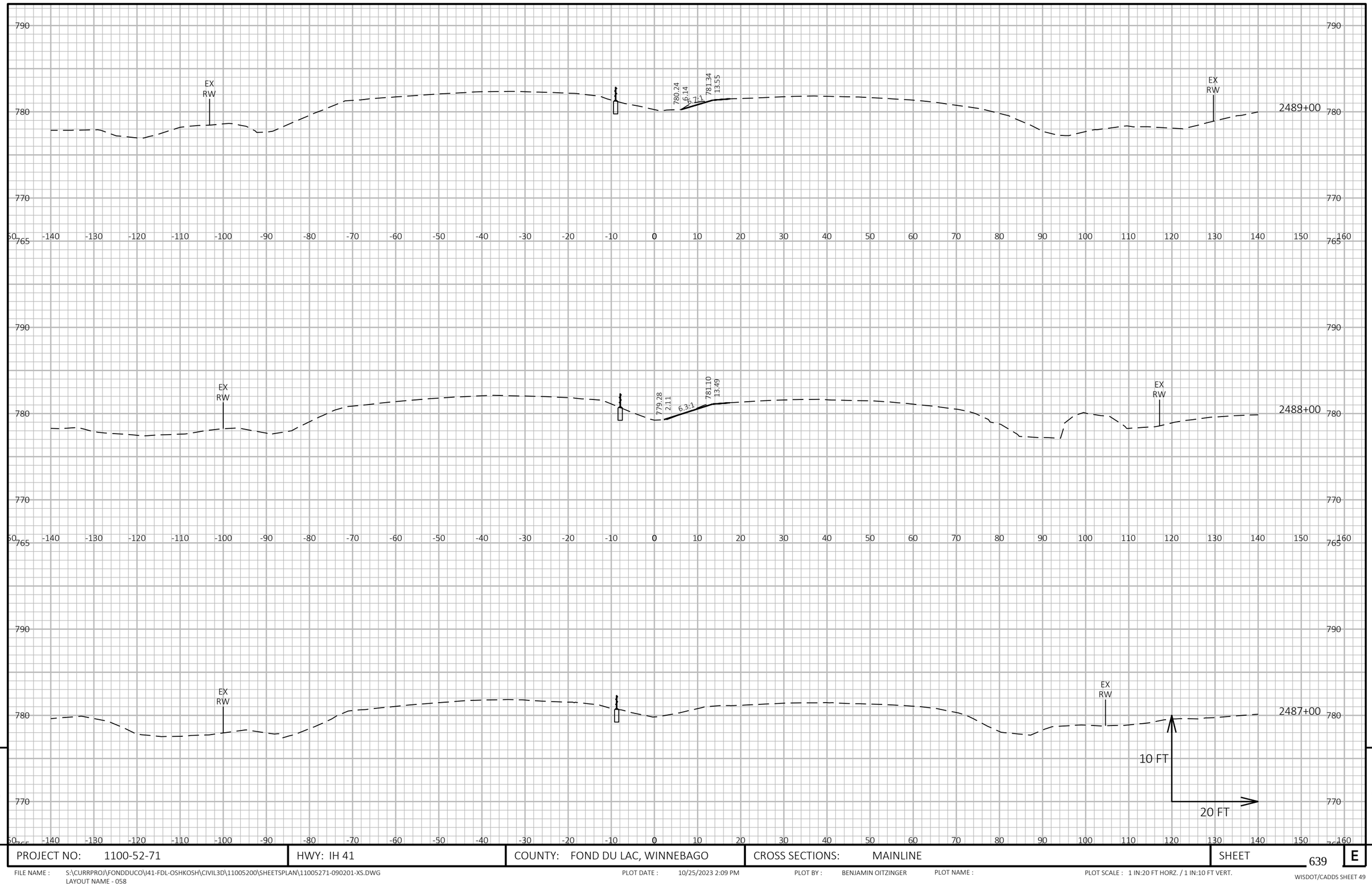
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 638	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 057

PLOT DATE : 10/25/2023 2:09 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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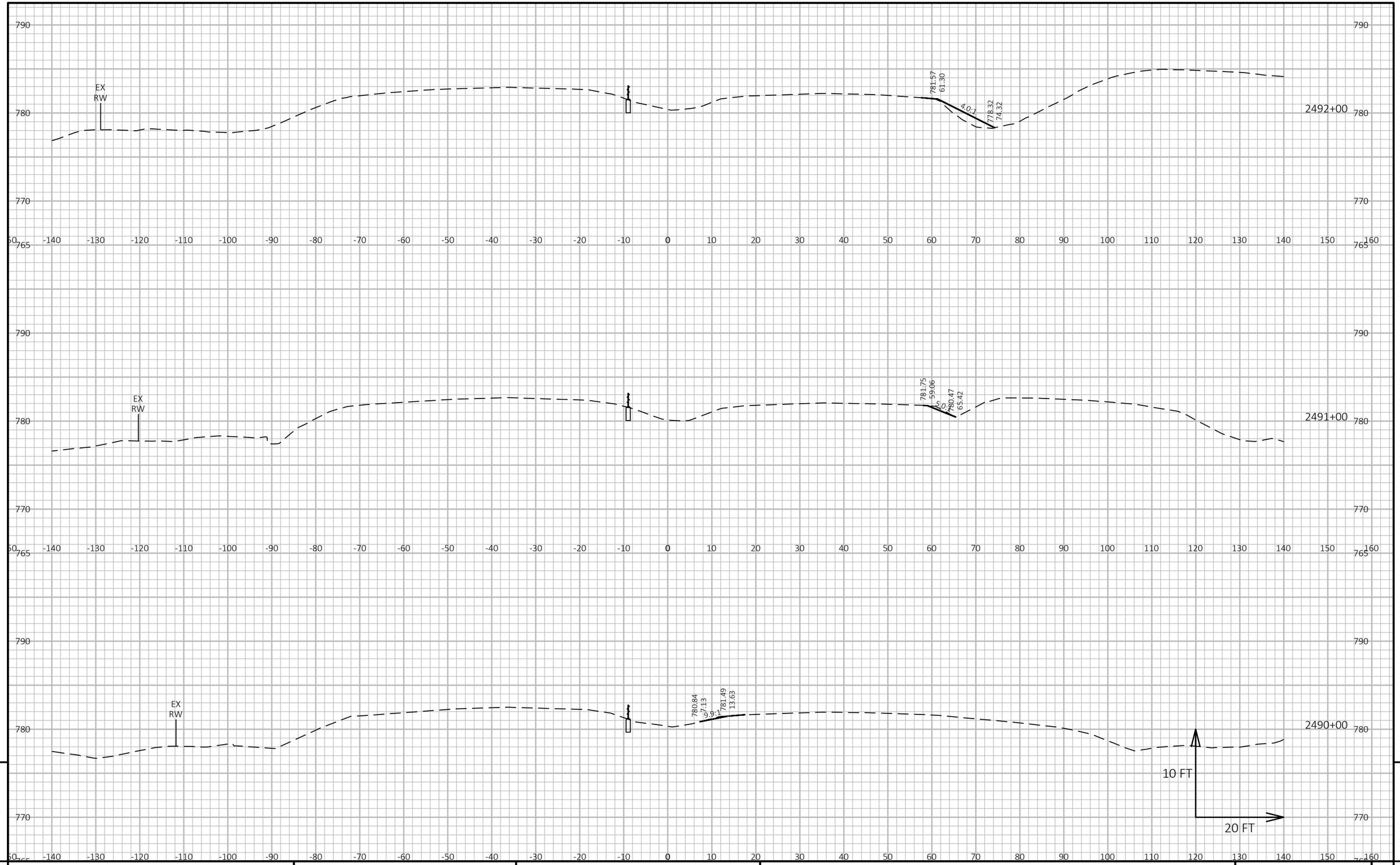
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 639	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 058

PLOT DATE : 10/25/2023 2:09 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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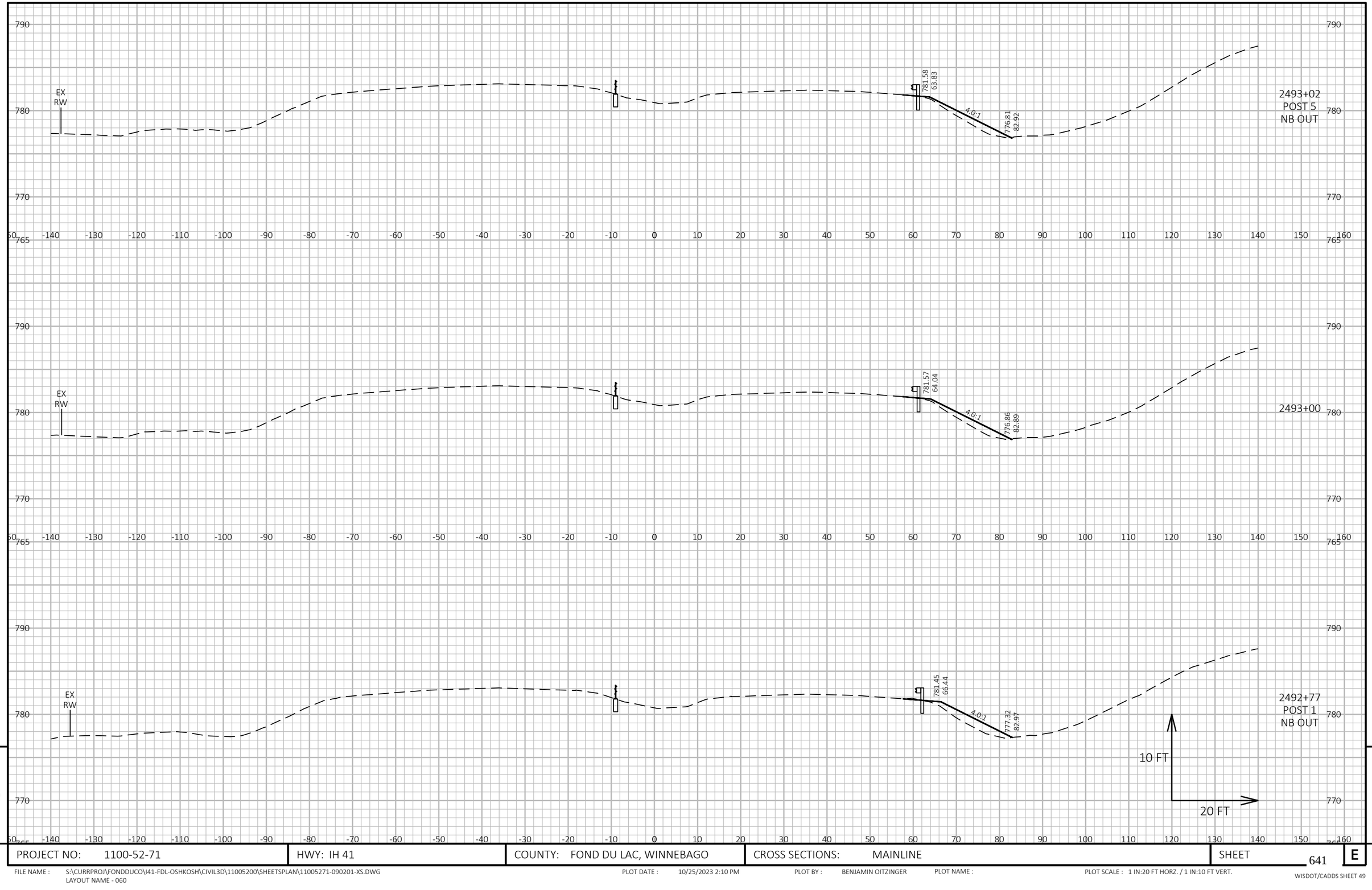
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 640	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 059

PLOT DATE : 10/25/2023 2:10 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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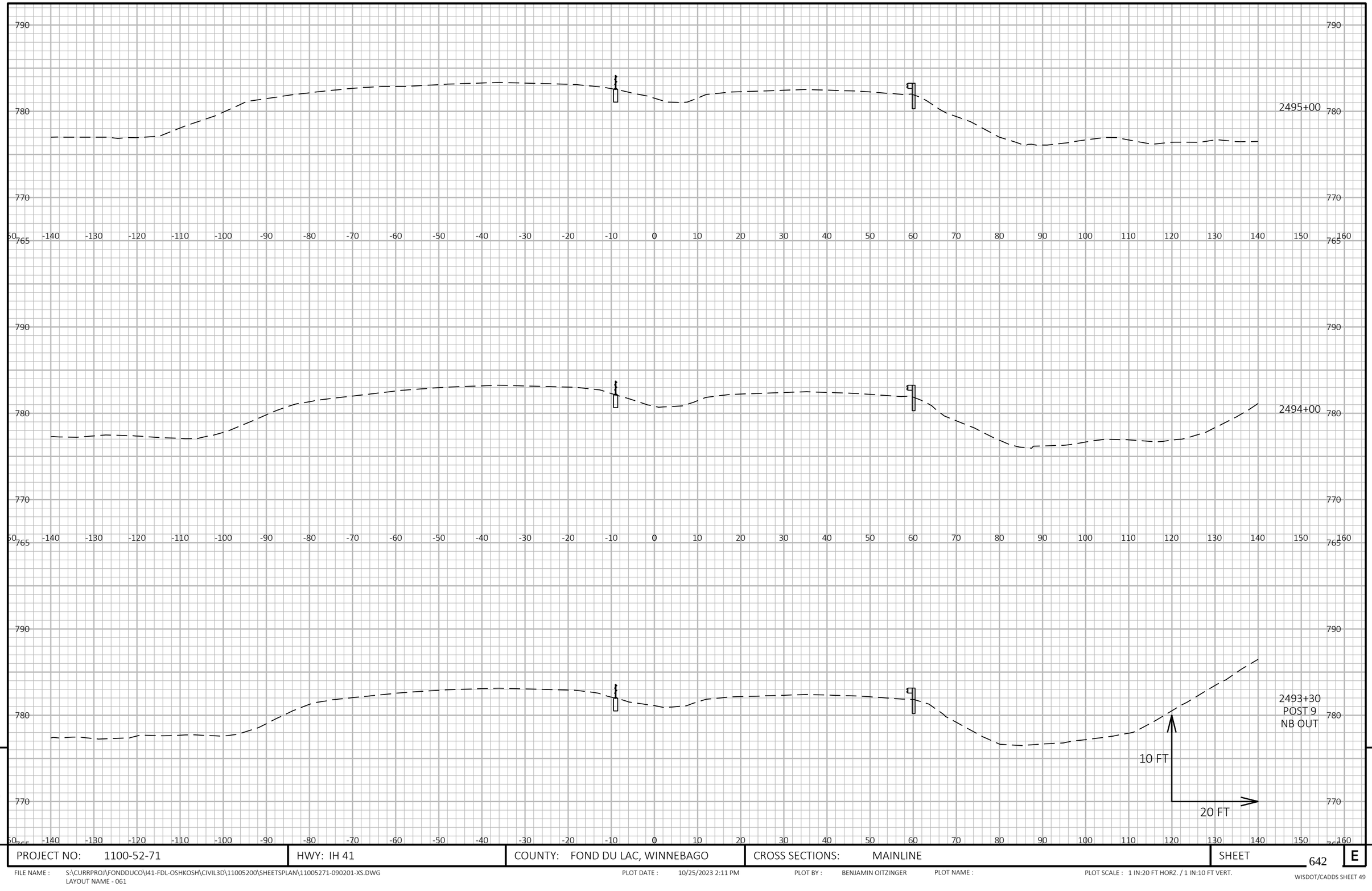
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 641	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 060

PLOT DATE : 10/25/2023 2:10 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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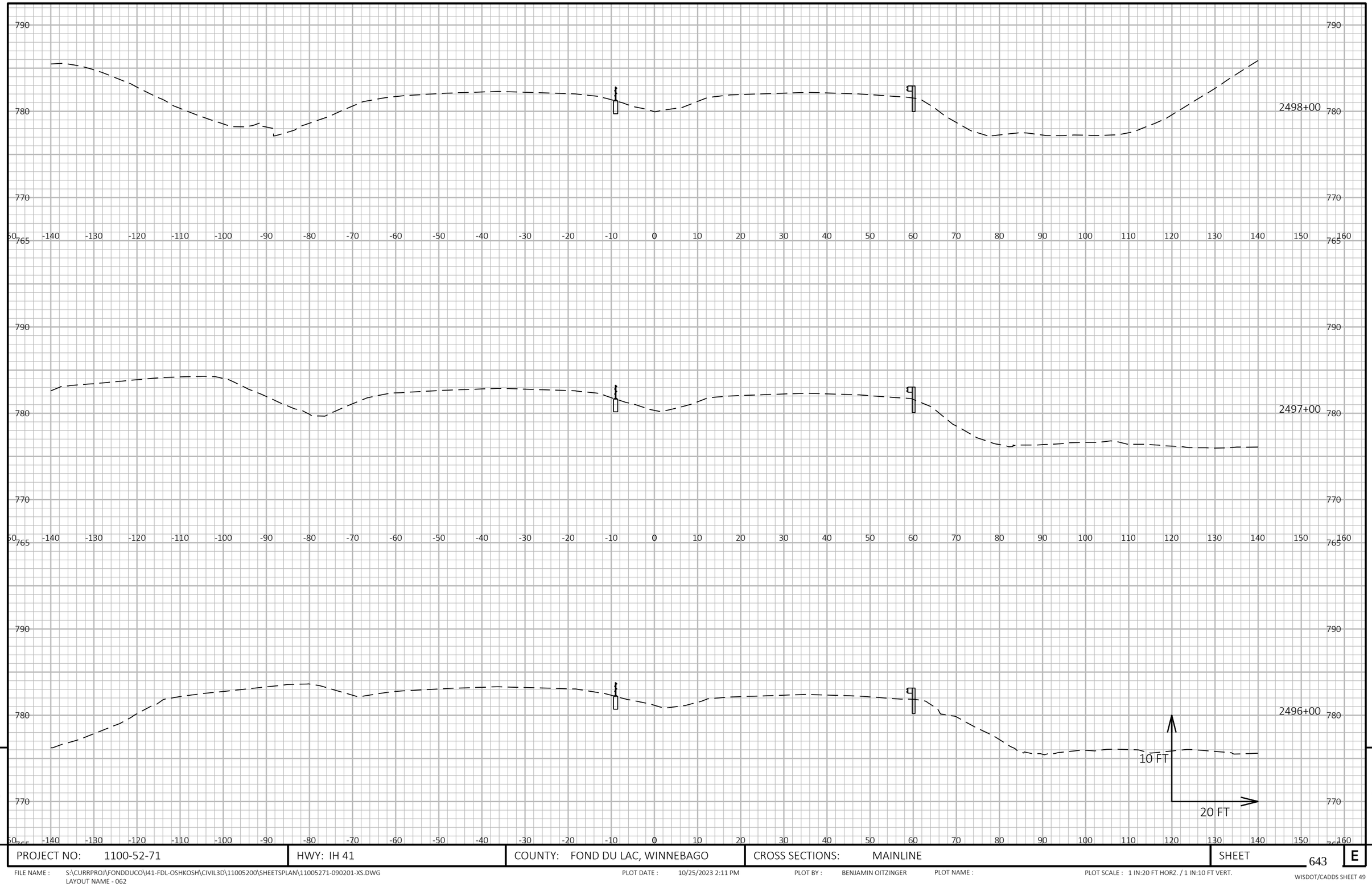
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 642	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 061

PLOT DATE : 10/25/2023 2:11 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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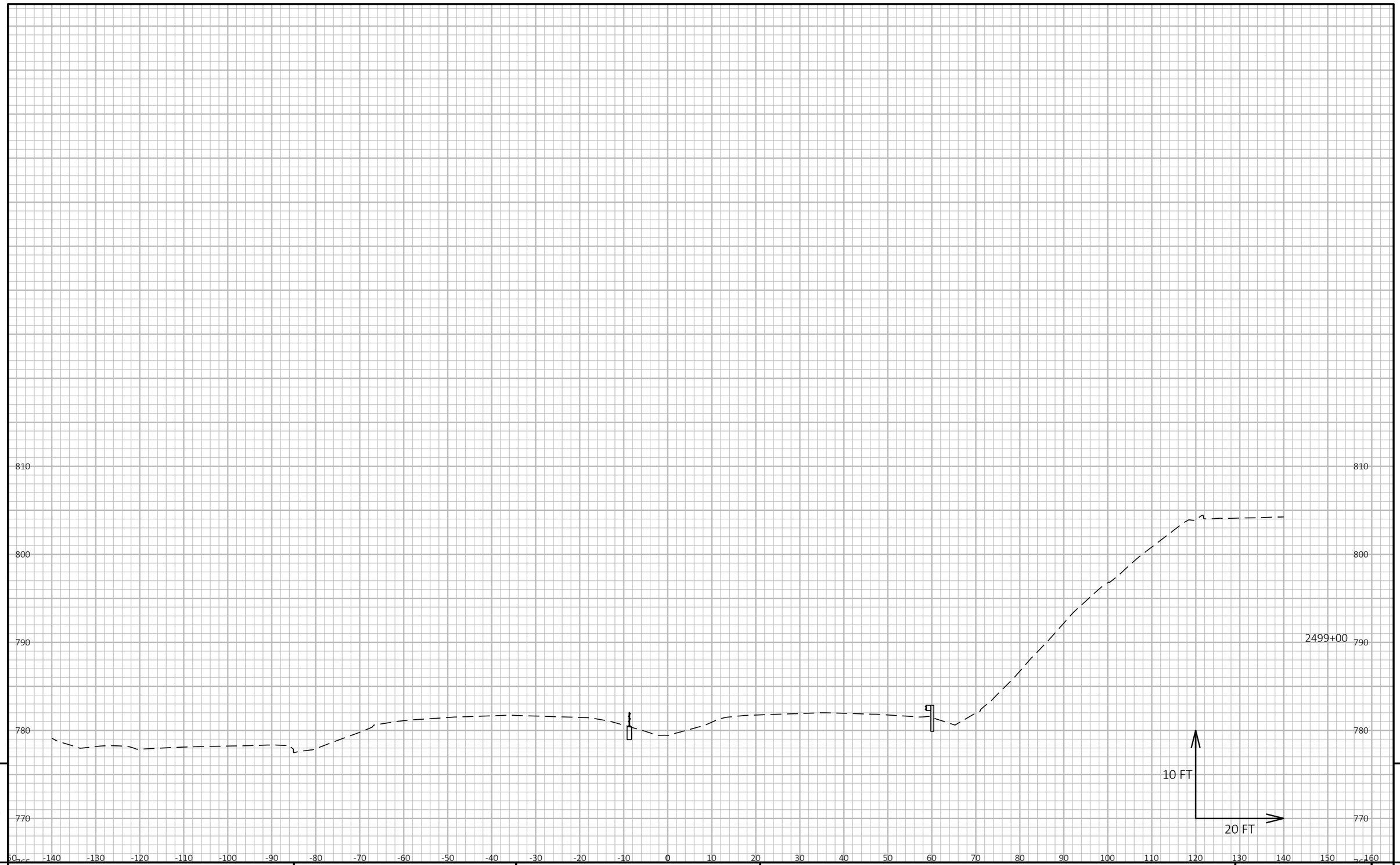
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 643	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 062

PLOT DATE : 10/25/2023 2:11 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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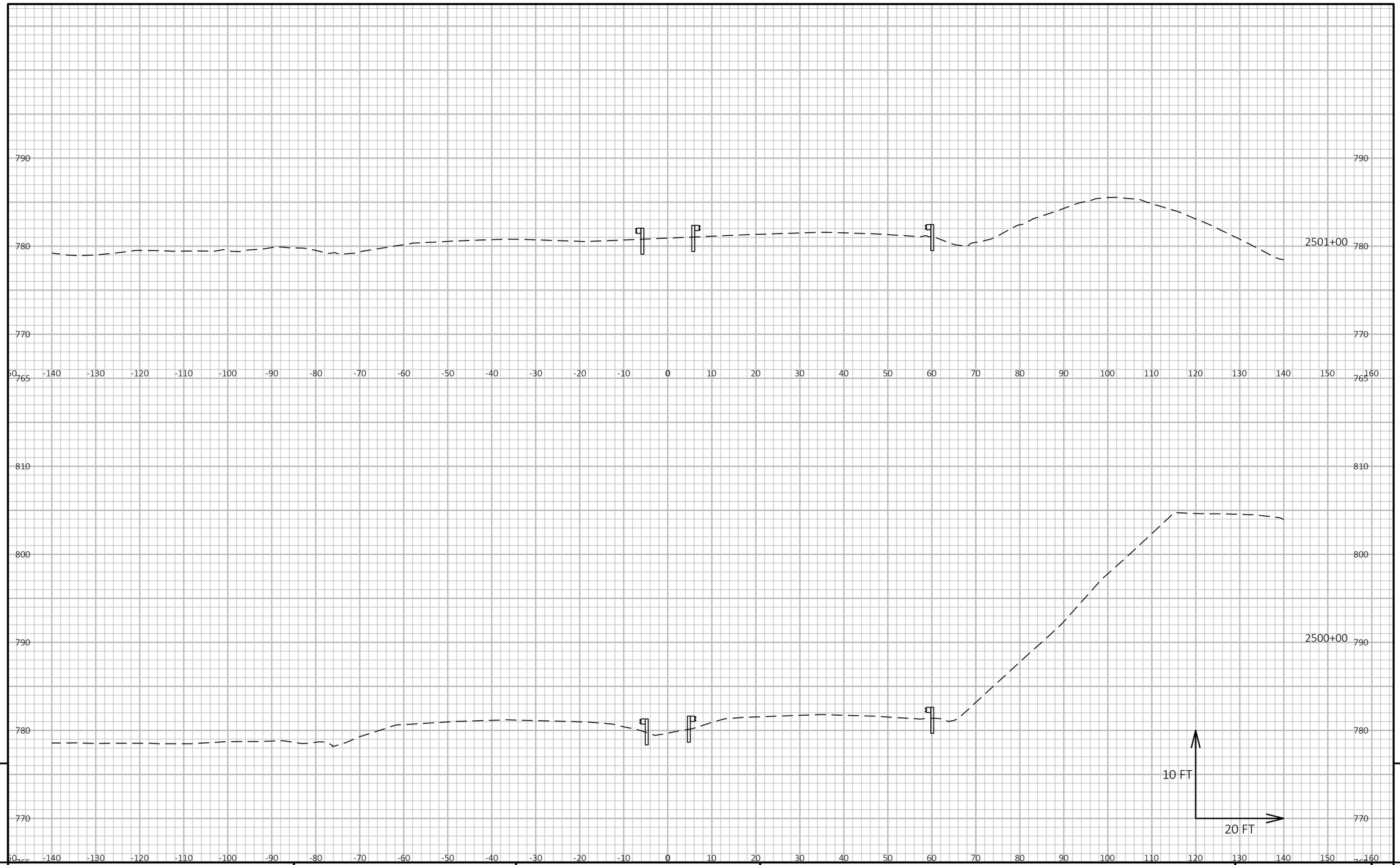
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 644	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 063

PLOT DATE : 10/25/2023 2:12 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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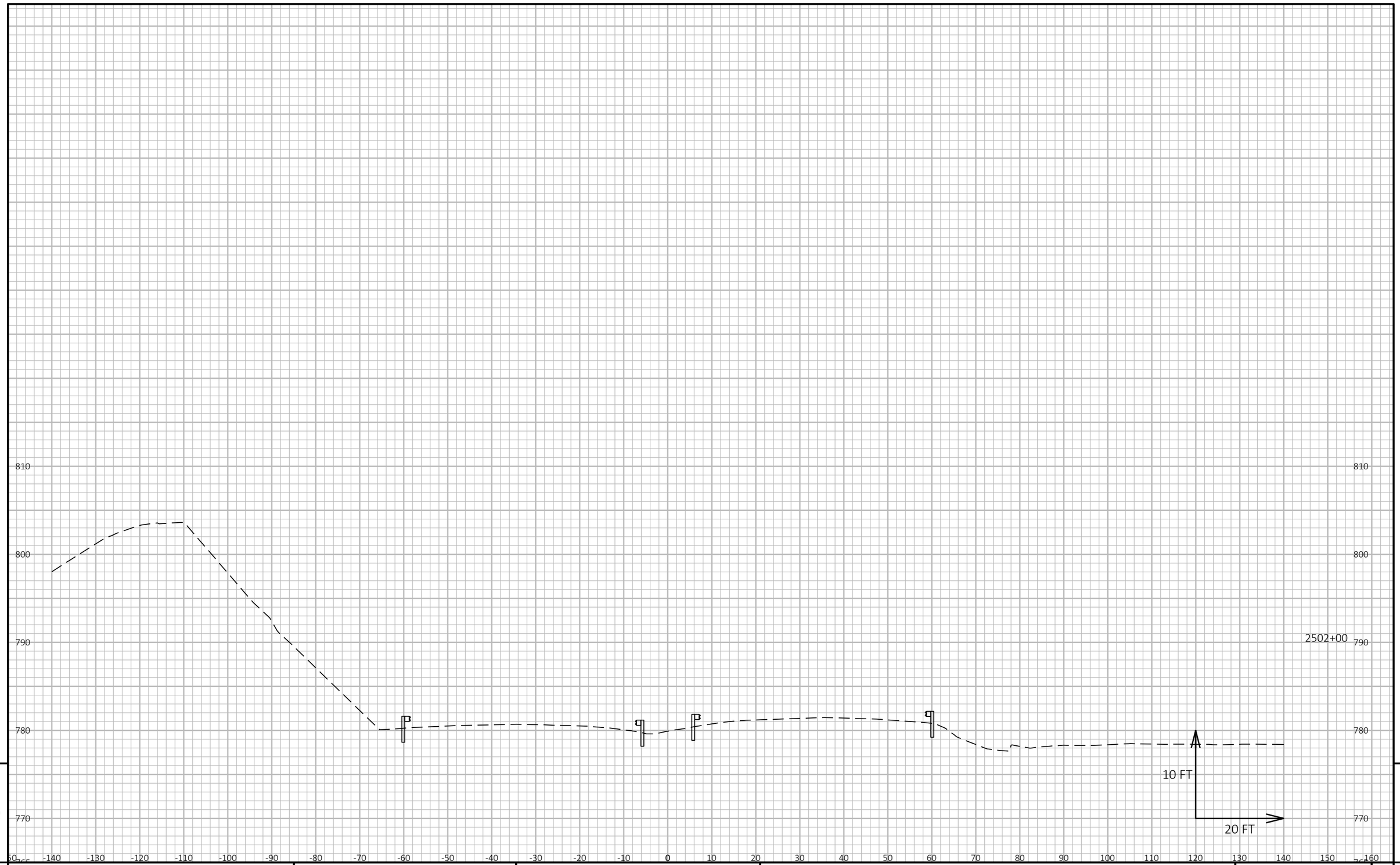
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 645	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 064

PLOT DATE : 10/25/2023 2:12 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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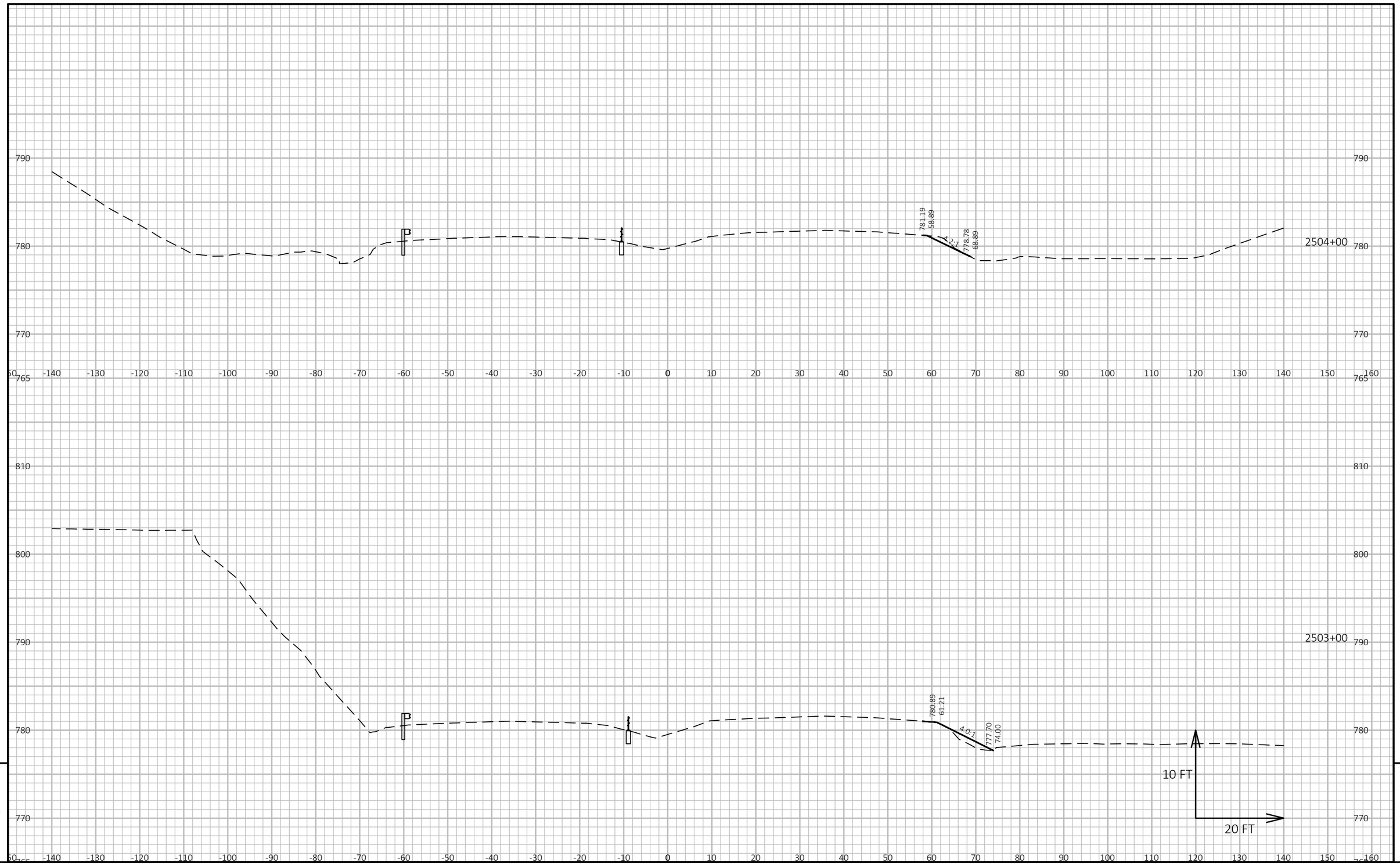
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 646	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 065

PLOT DATE : 10/25/2023 2:12 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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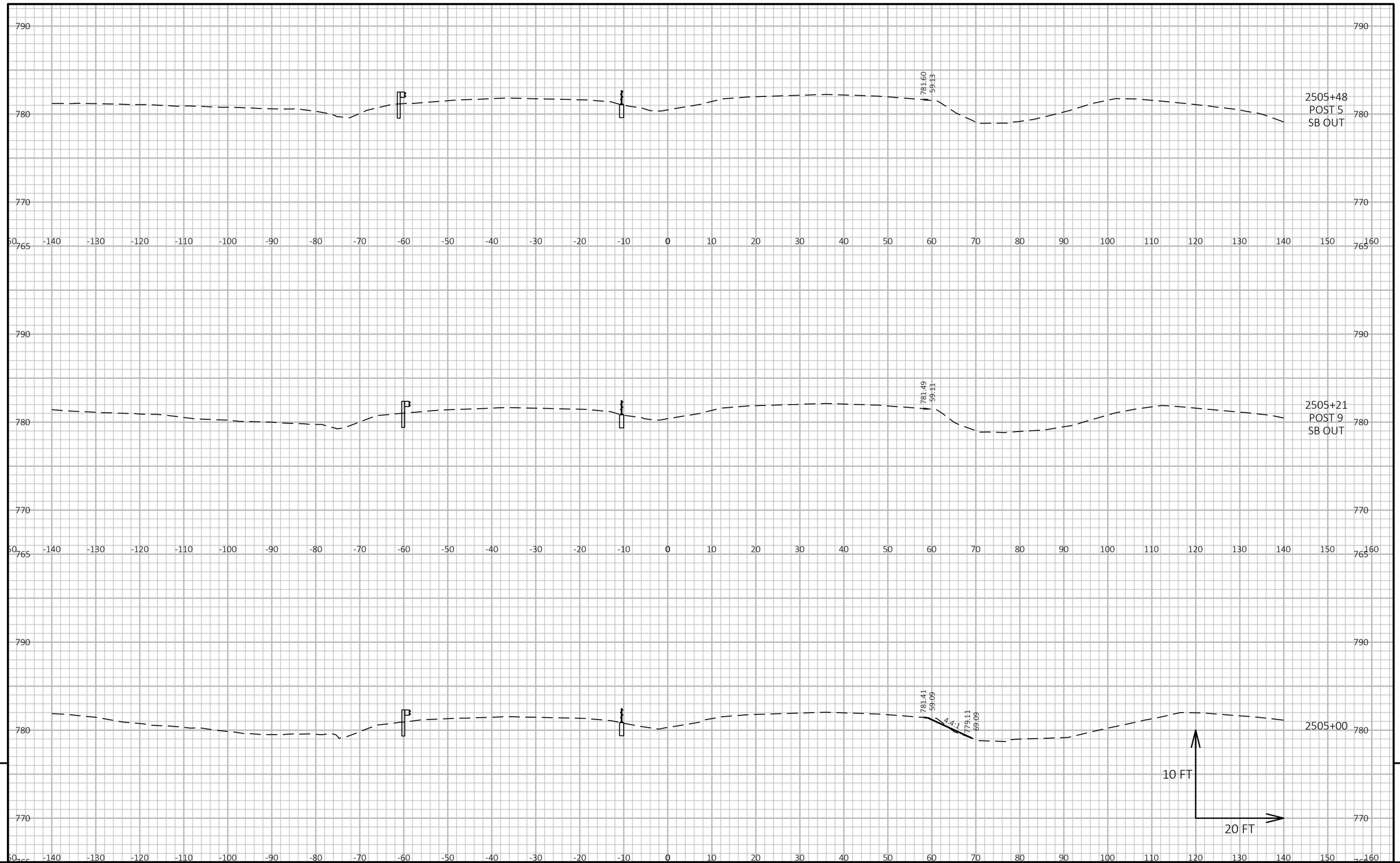
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 647	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 066

PLOT DATE : 10/25/2023 2:13 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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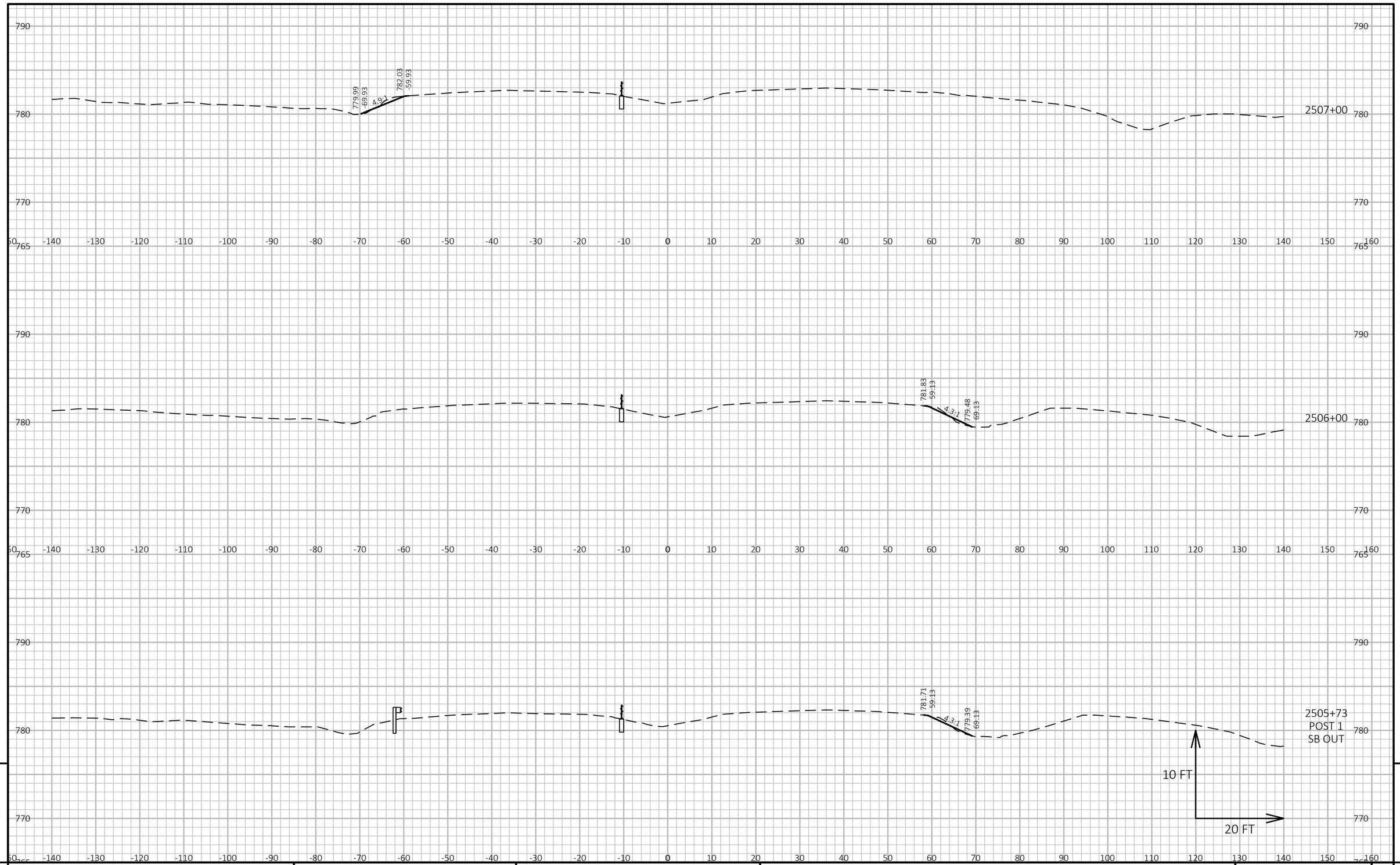
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 648	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 067

PLOT DATE : 10/25/2023 2:13 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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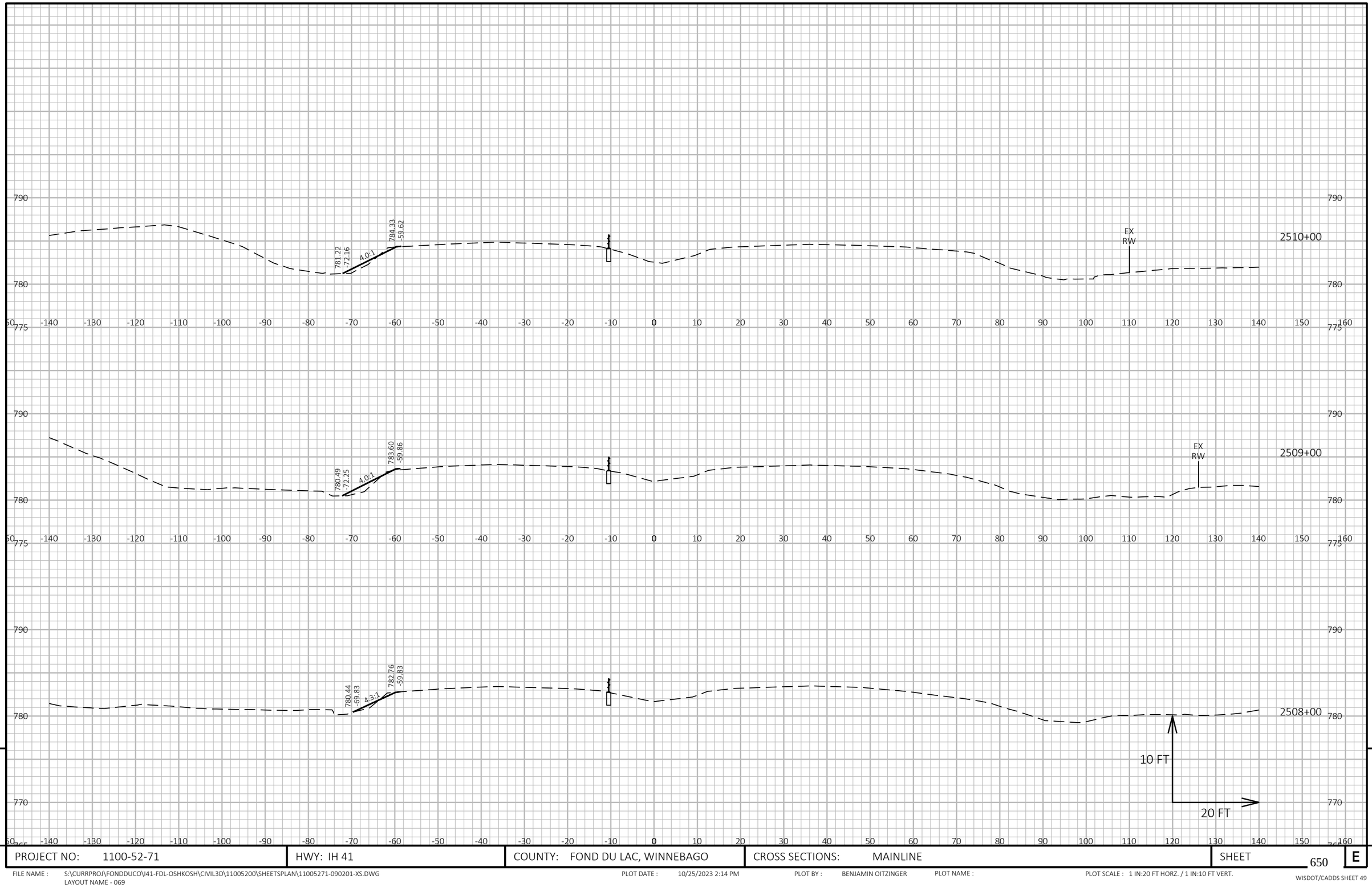
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 649	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 068

PLOT DATE : 10/25/2023 2:14 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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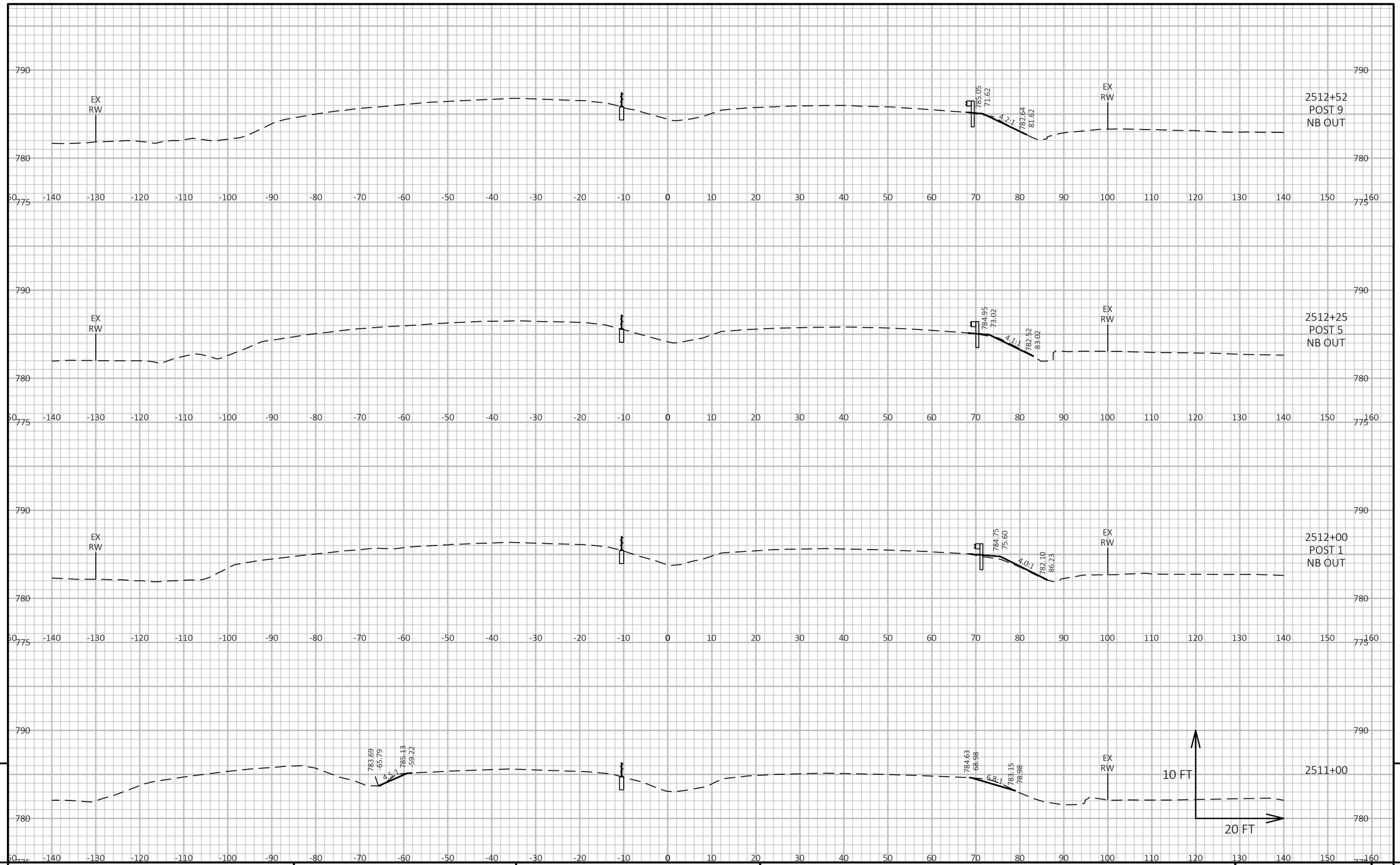
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 650	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 069

PLOT DATE : 10/25/2023 2:14 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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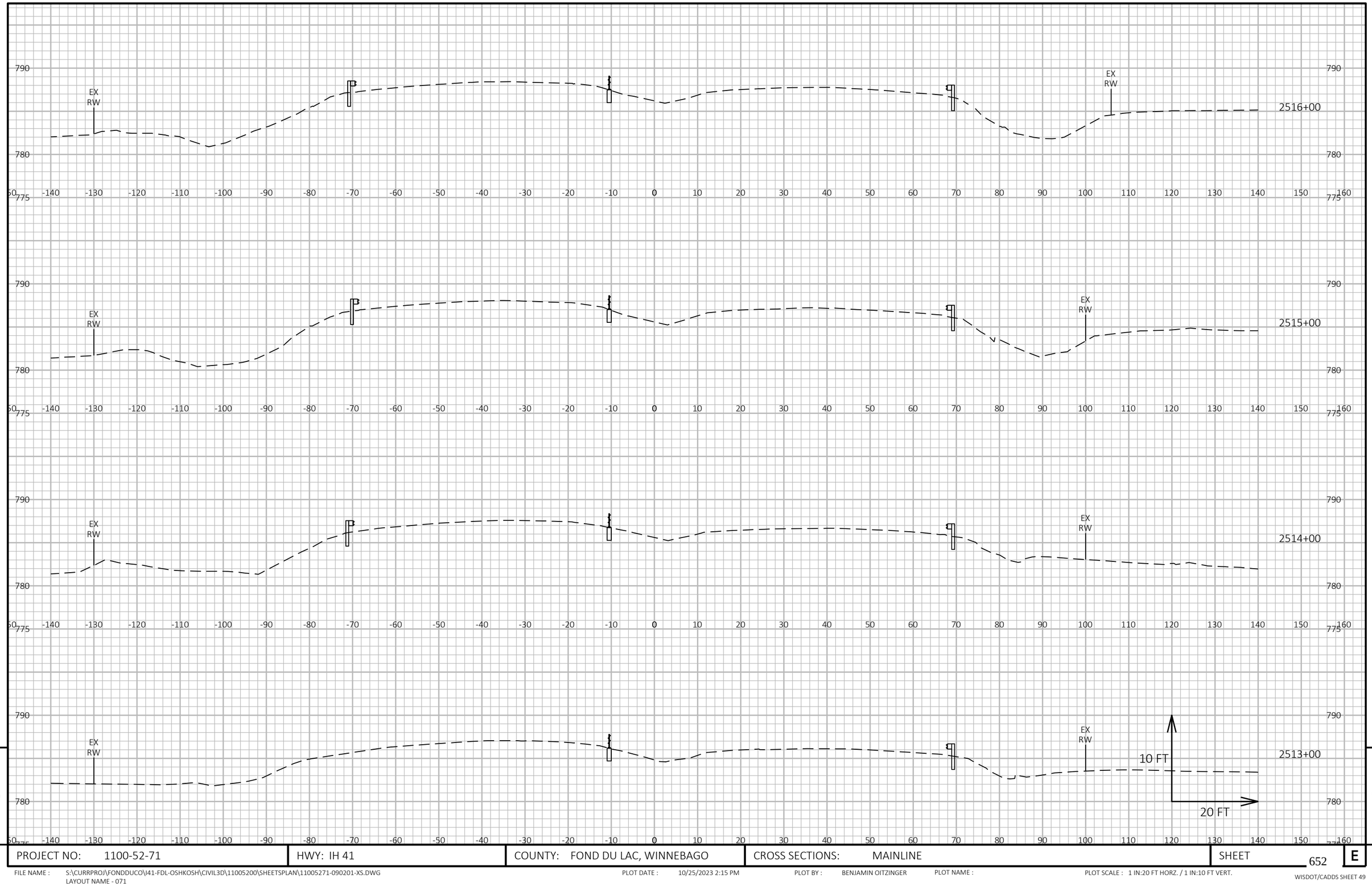
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 651	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 070

PLOT DATE : 10/25/2023 2:15 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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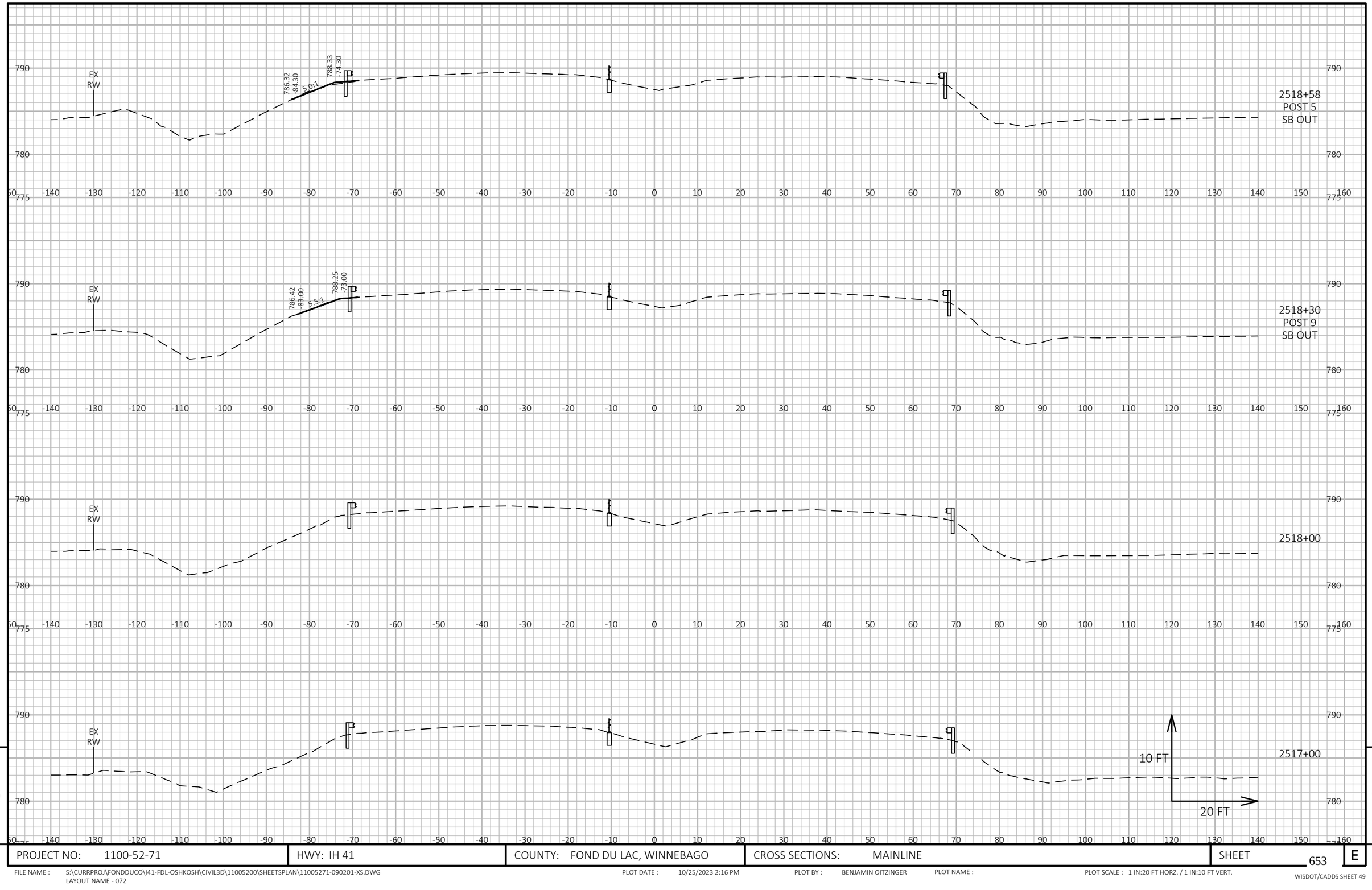
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 652	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 071

PLOT DATE : 10/25/2023 2:15 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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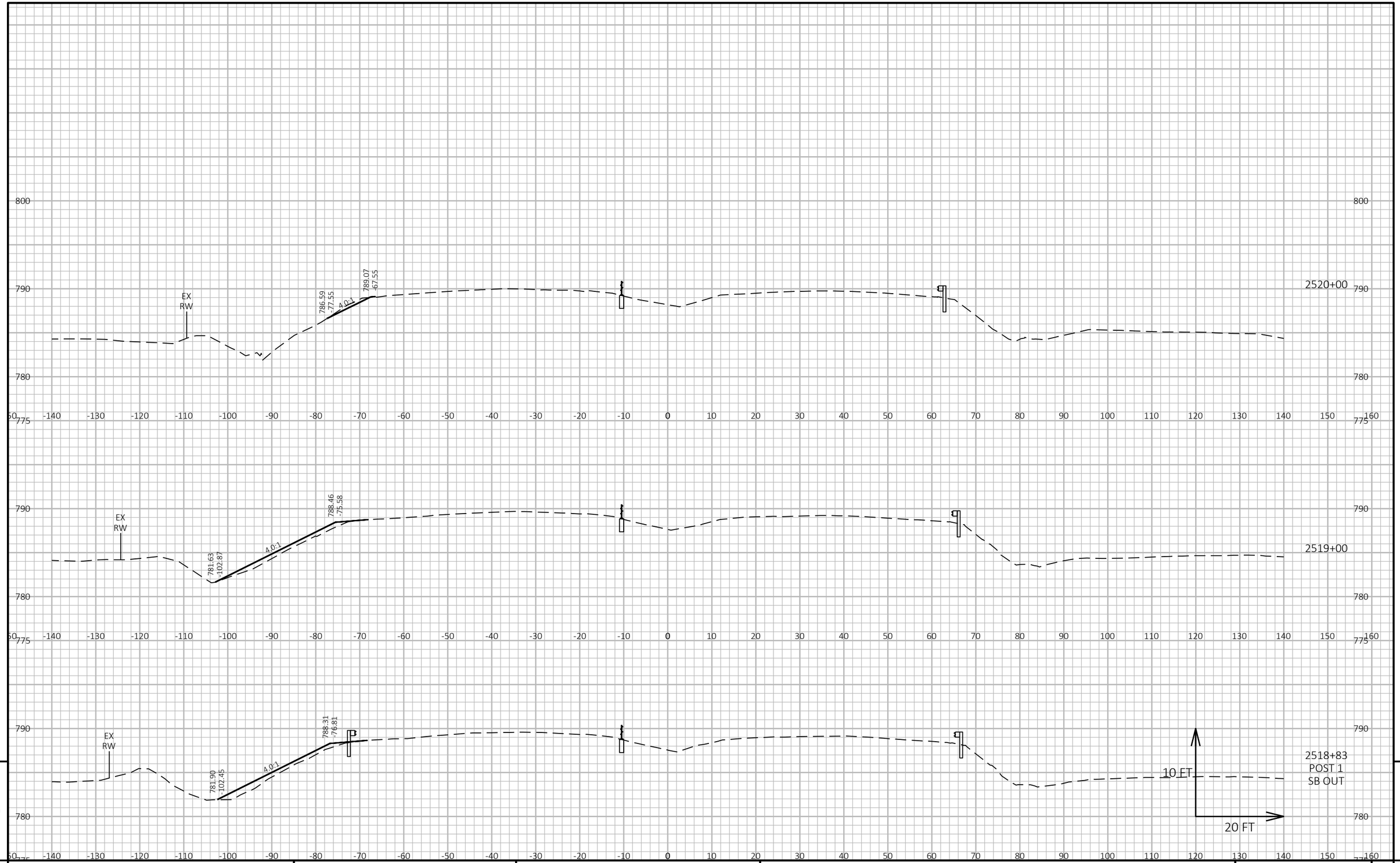
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 653	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 072

PLOT DATE : 10/25/2023 2:16 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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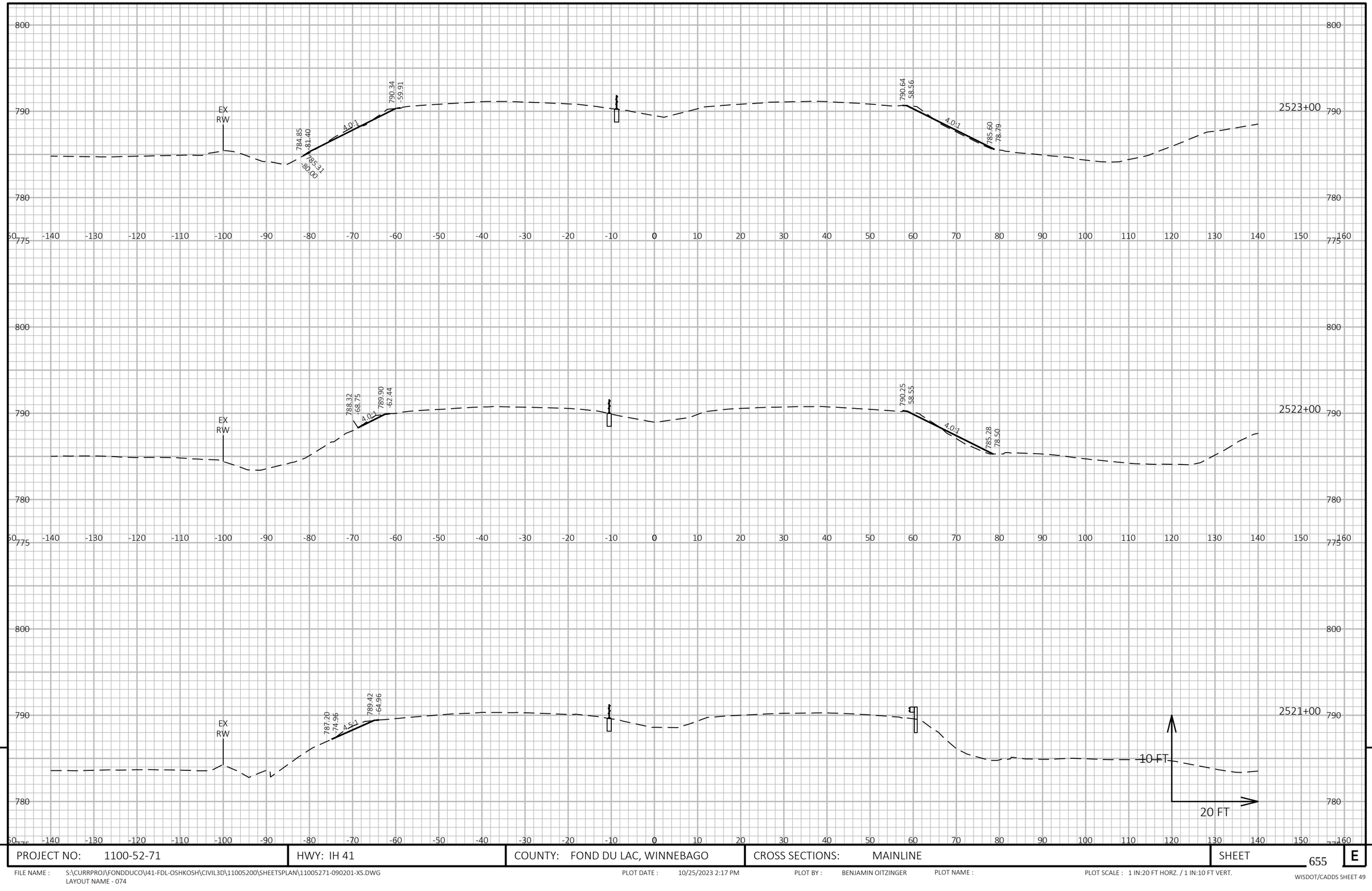
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 654	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 073

PLOT DATE : 10/25/2023 2:16 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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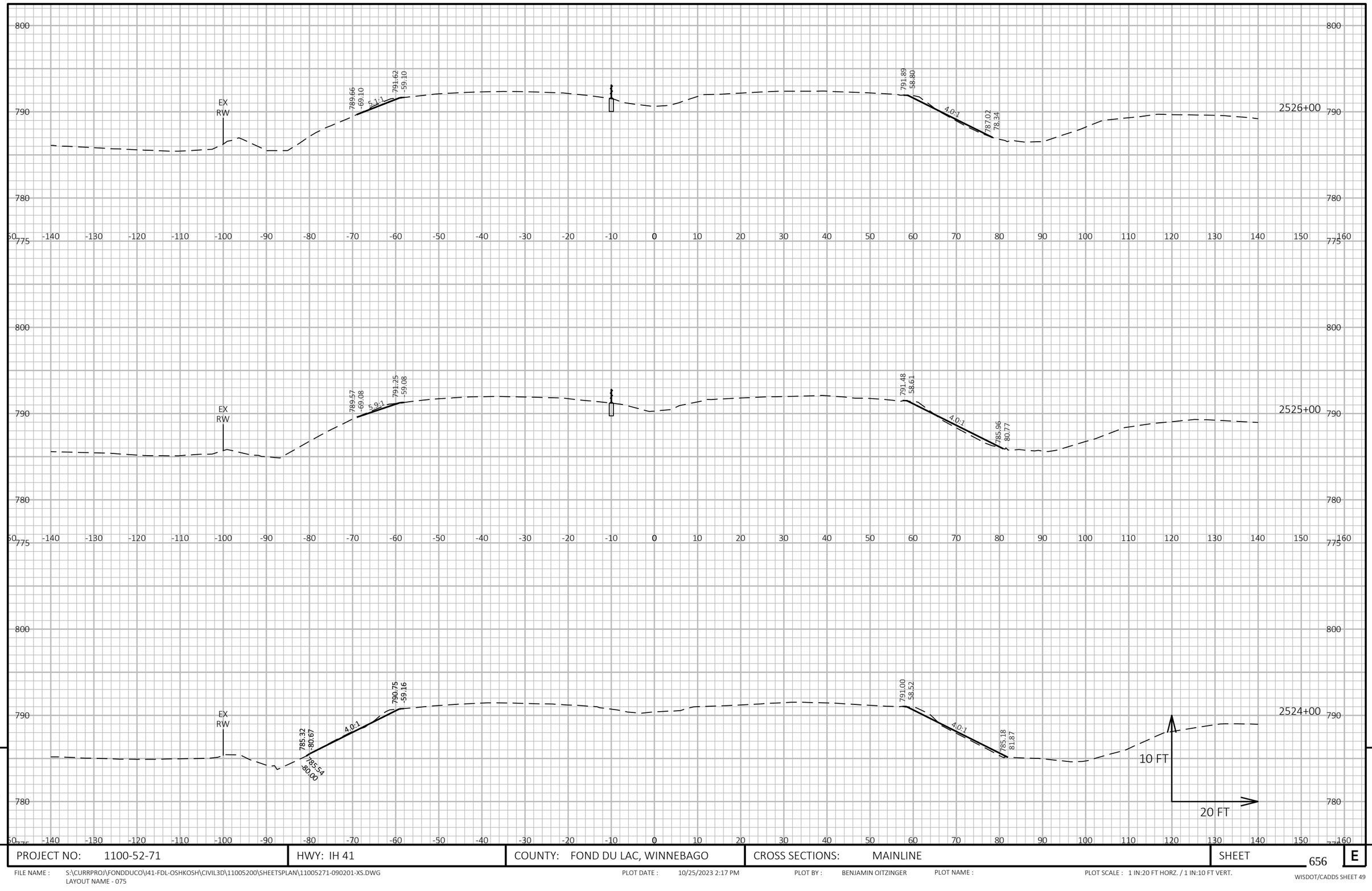
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 655	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 074

PLOT DATE : 10/25/2023 2:17 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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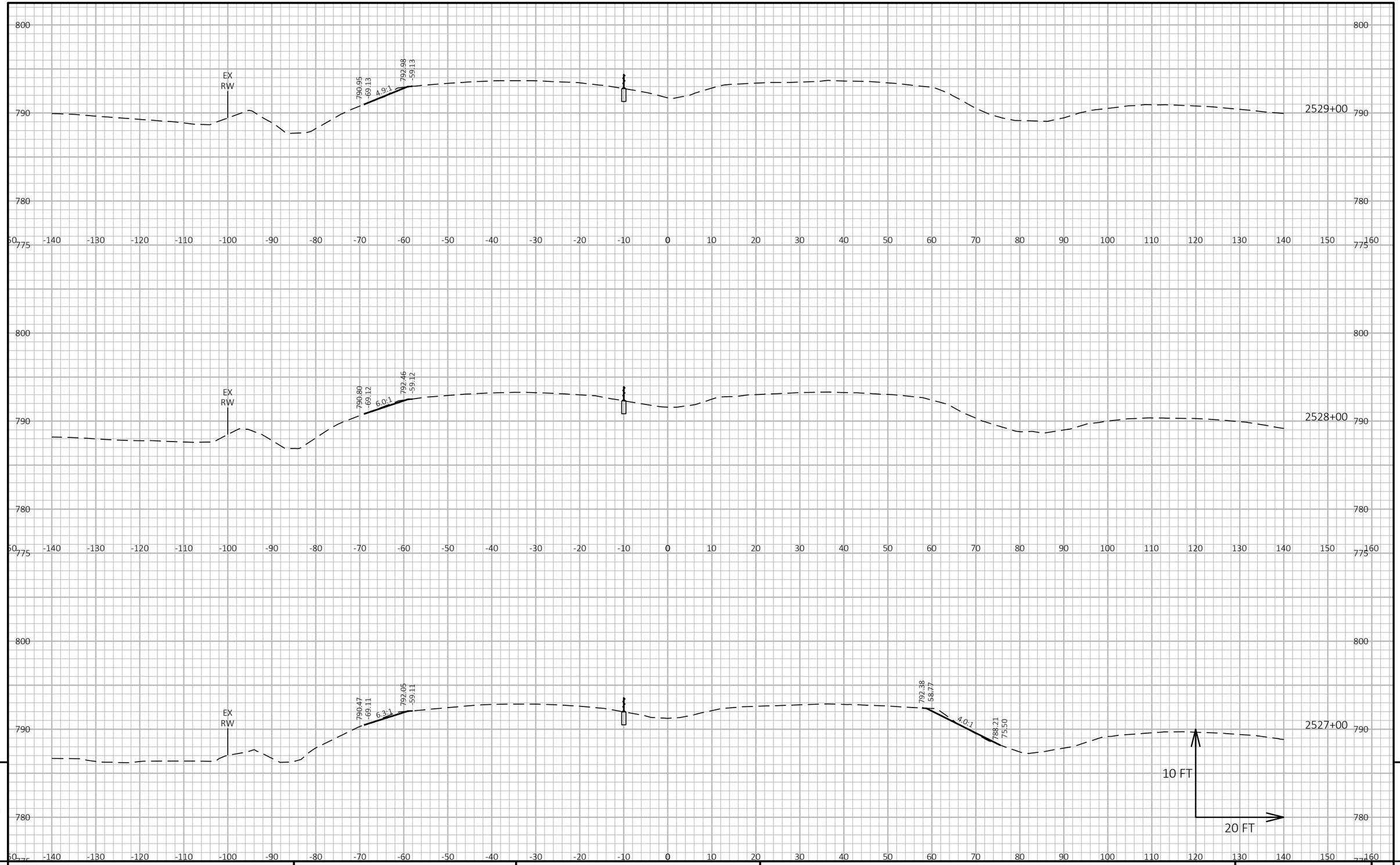
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 656	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 075

PLOT DATE : 10/25/2023 2:17 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

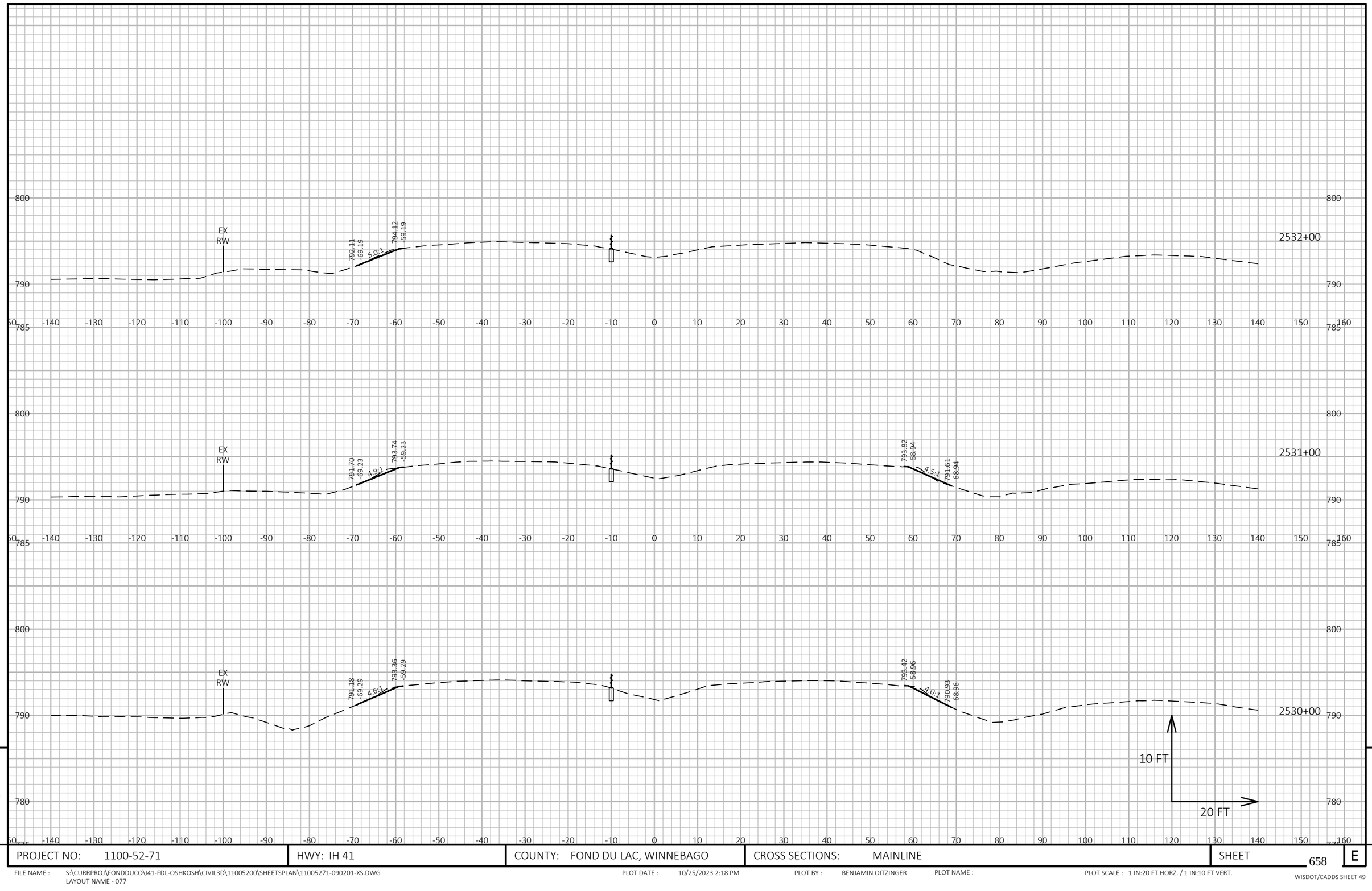


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 657 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 076

PLOT DATE : 10/25/2023 2:18 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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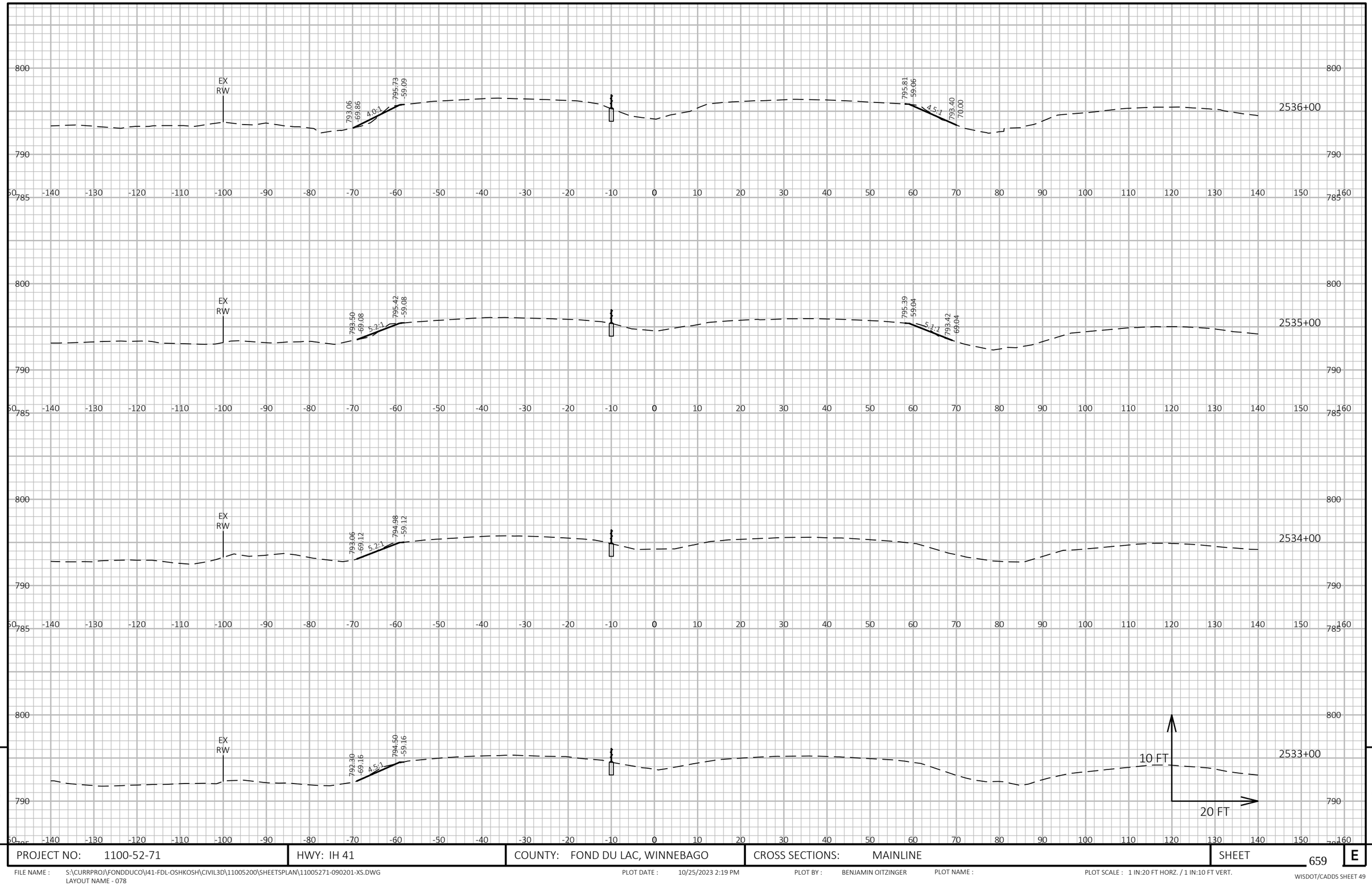
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 658	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 077

PLOT DATE : 10/25/2023 2:18 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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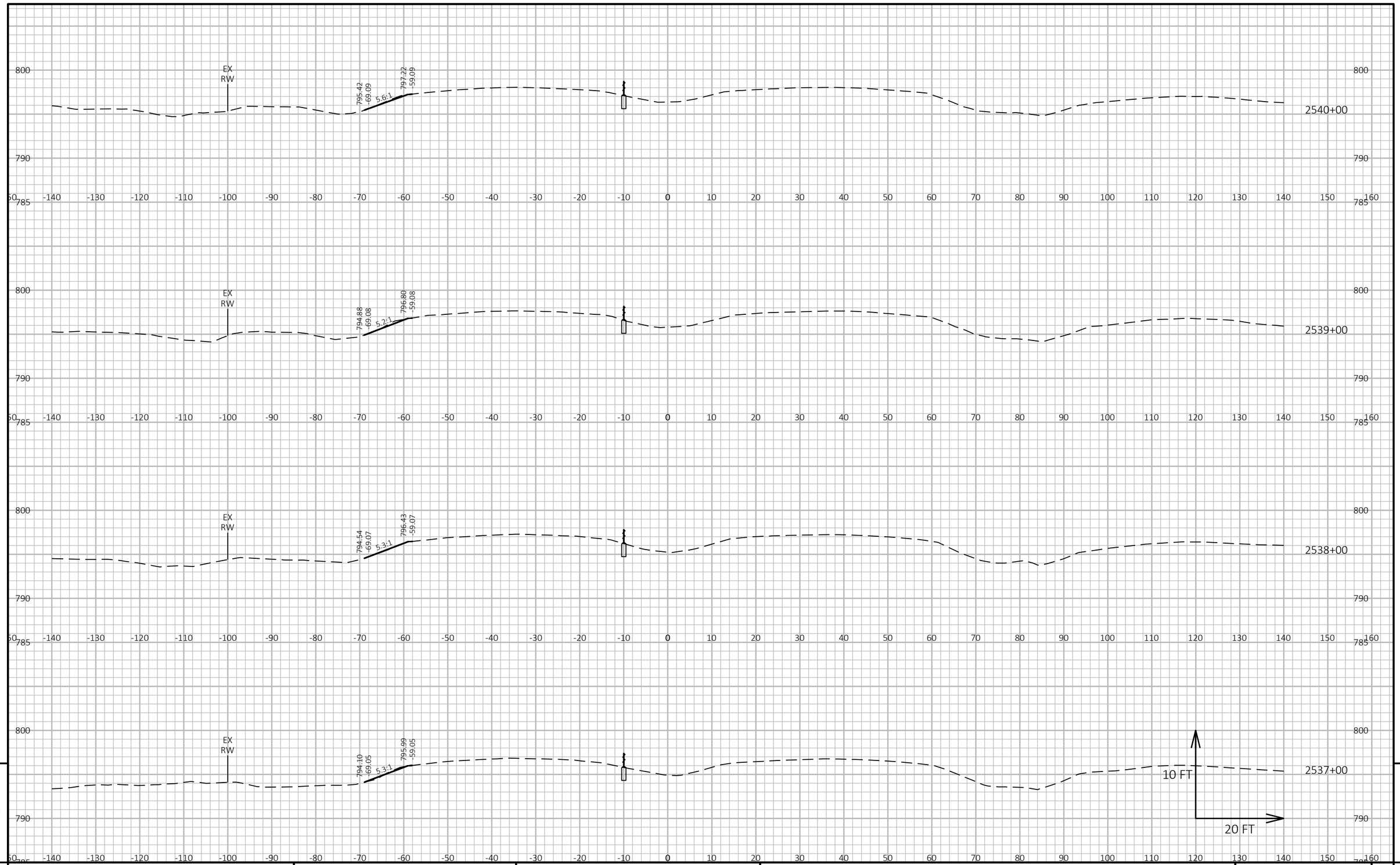
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 659	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 078

PLOT DATE : 10/25/2023 2:19 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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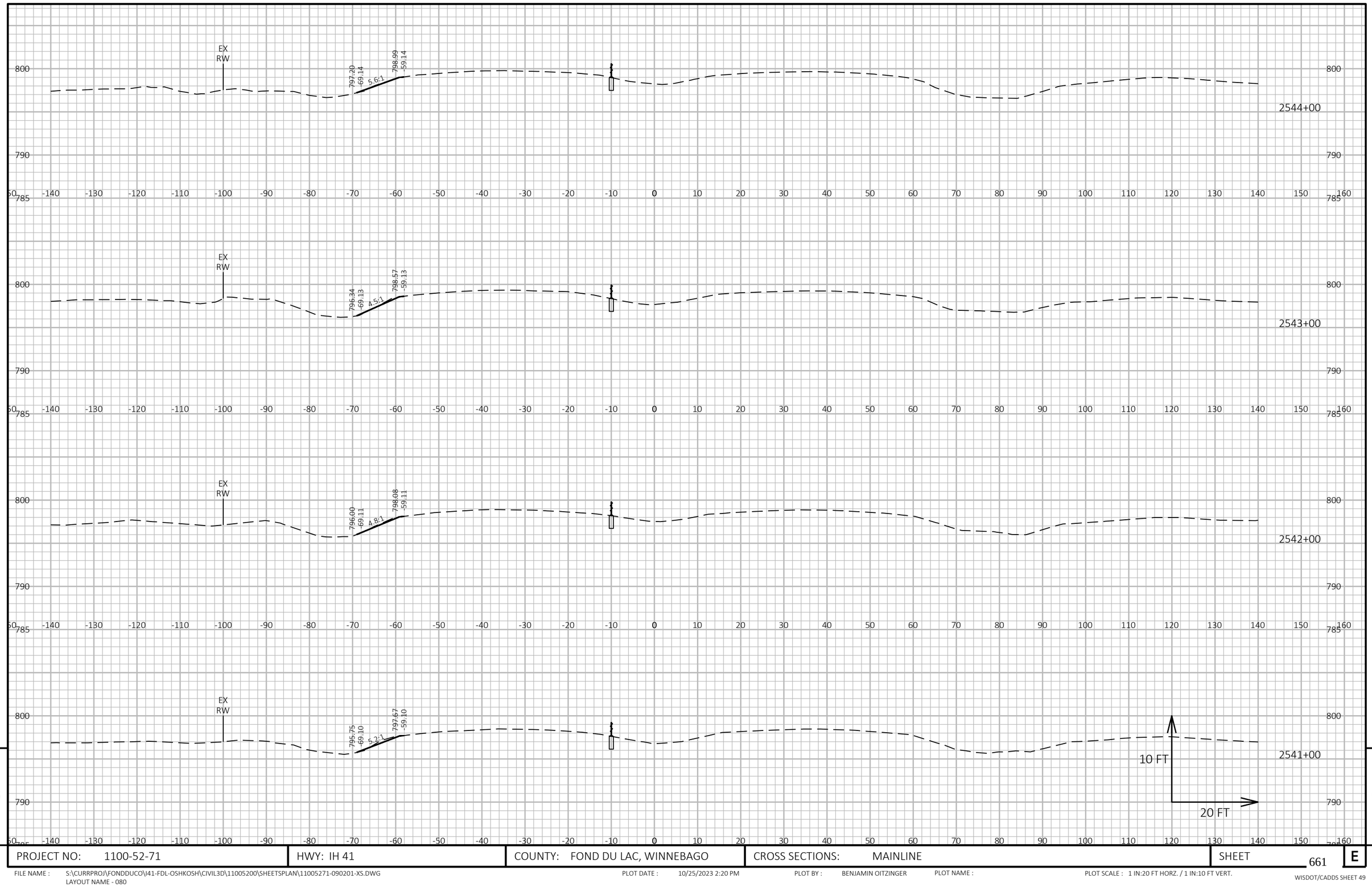
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 660	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 079

PLOT DATE : 10/25/2023 2:19 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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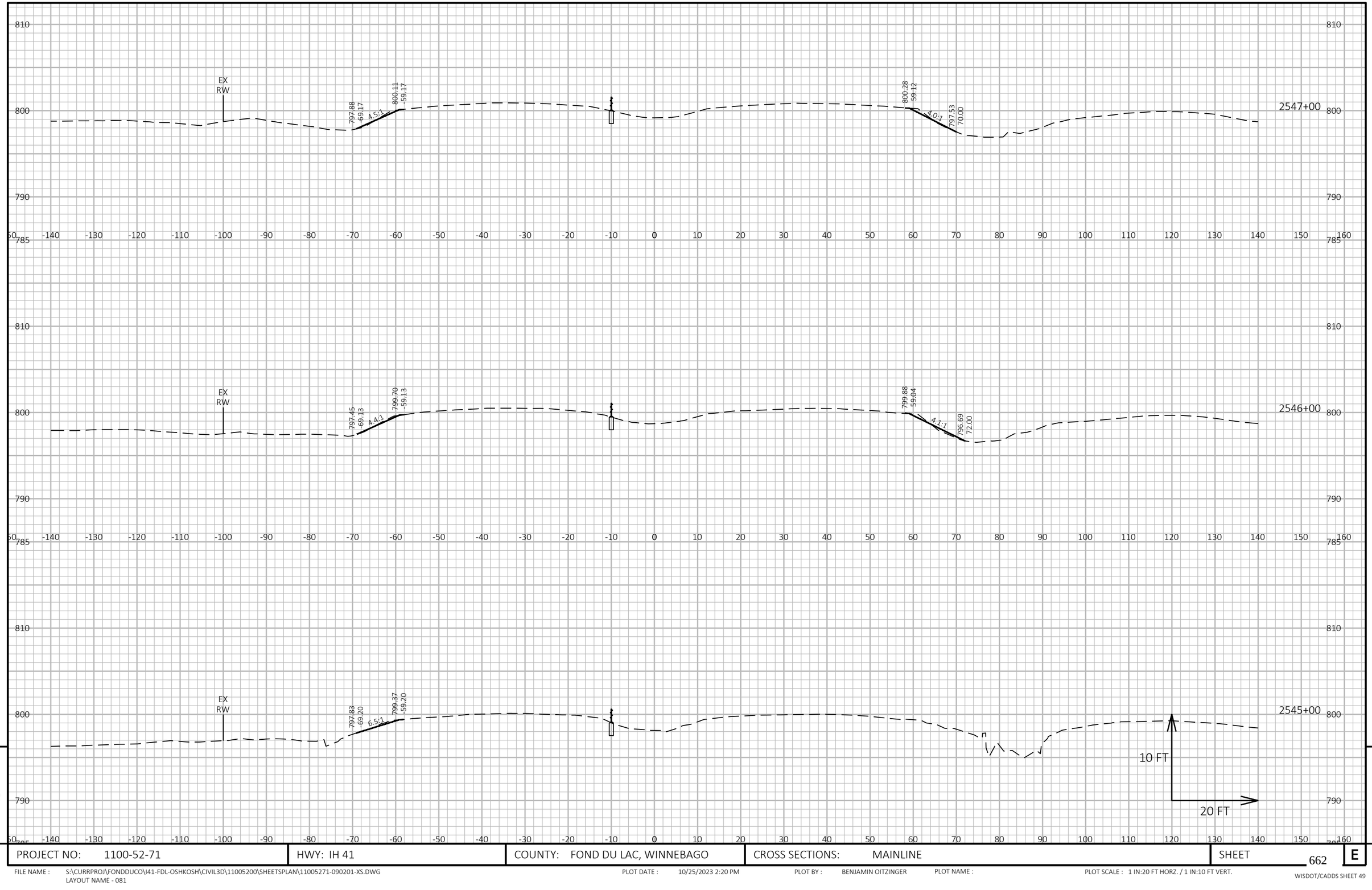
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 661	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 080

PLOT DATE : 10/25/2023 2:20 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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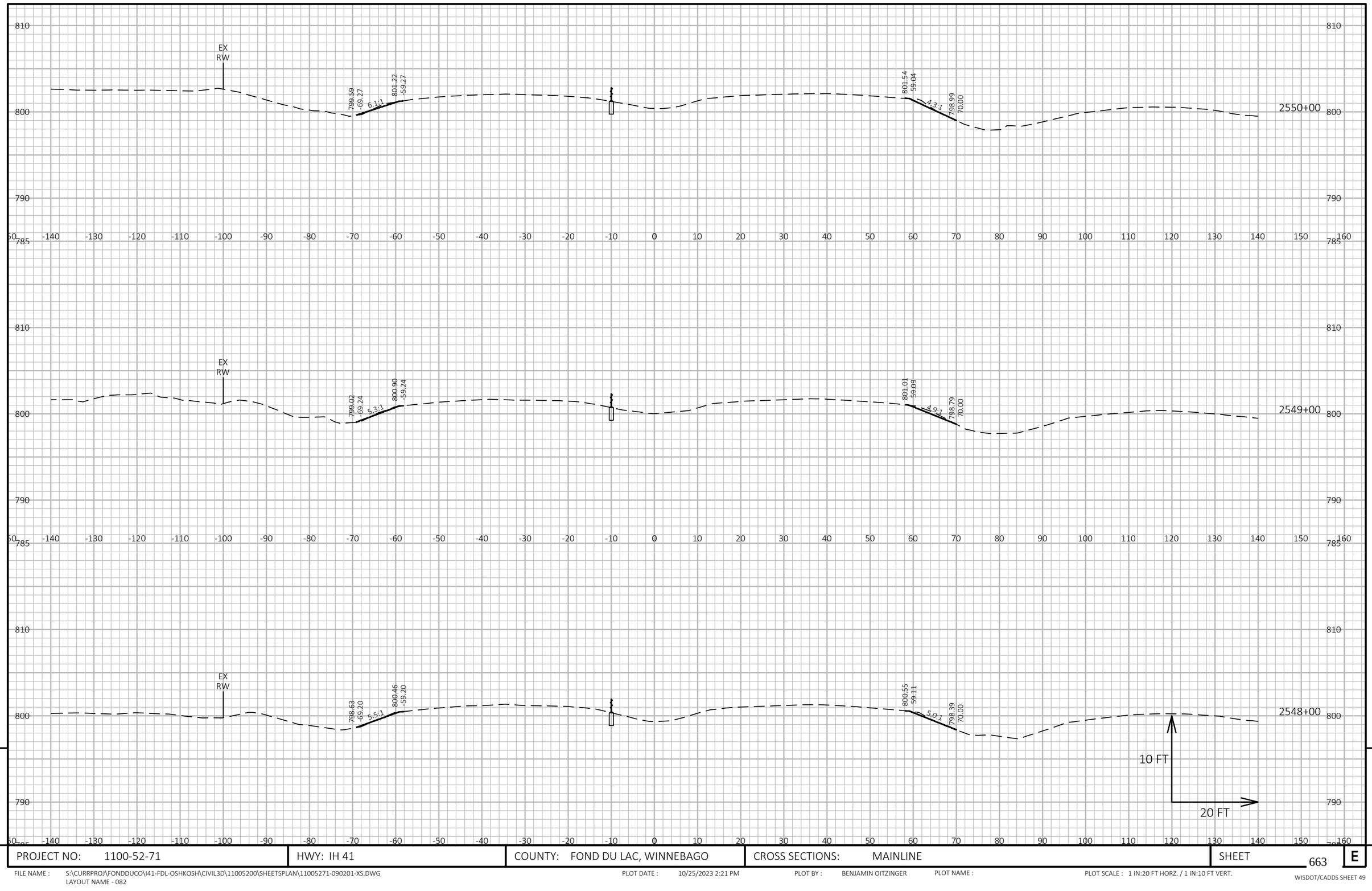
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 662	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 081

PLOT DATE : 10/25/2023 2:20 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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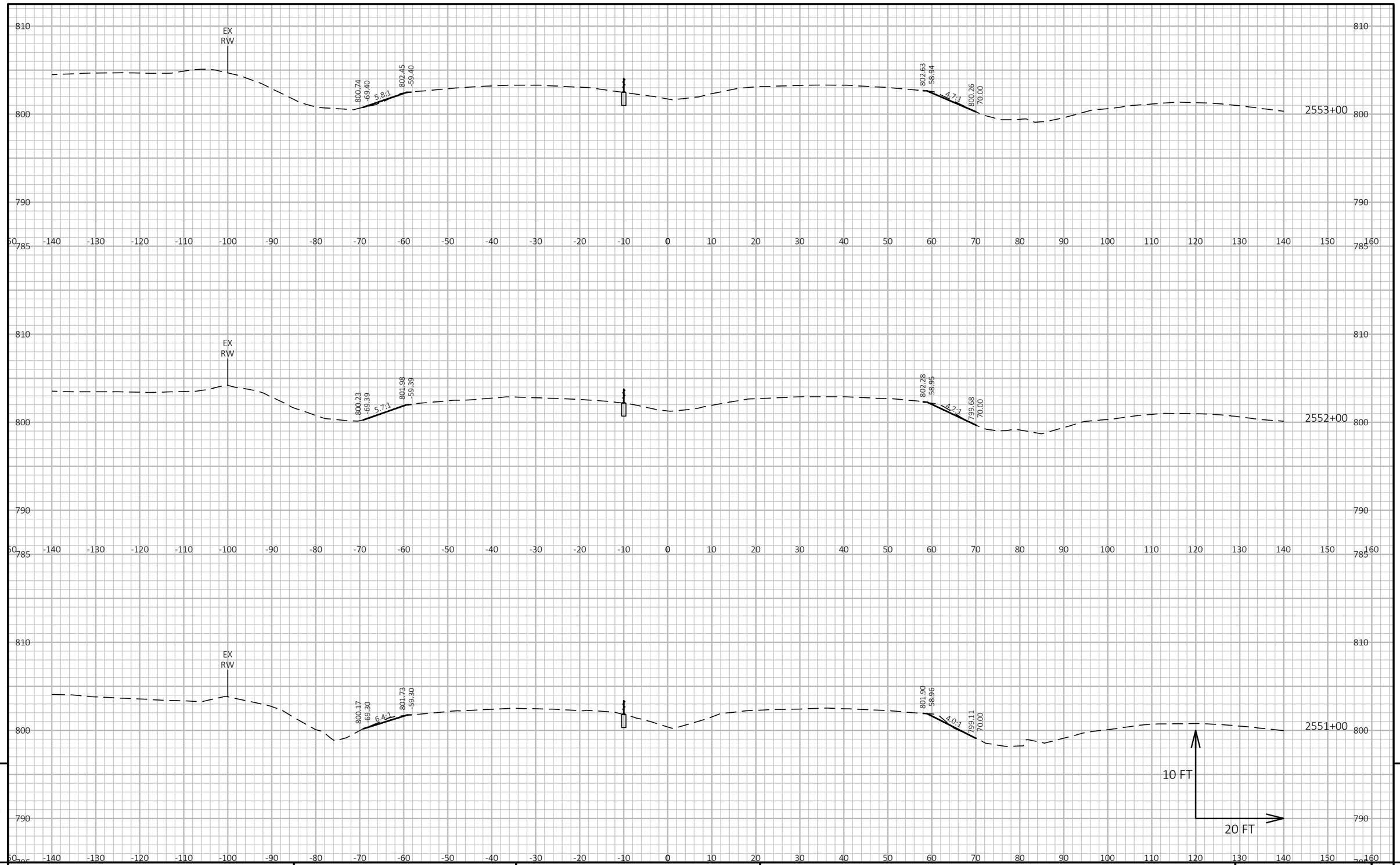
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 663	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 082

PLOT DATE : 10/25/2023 2:21 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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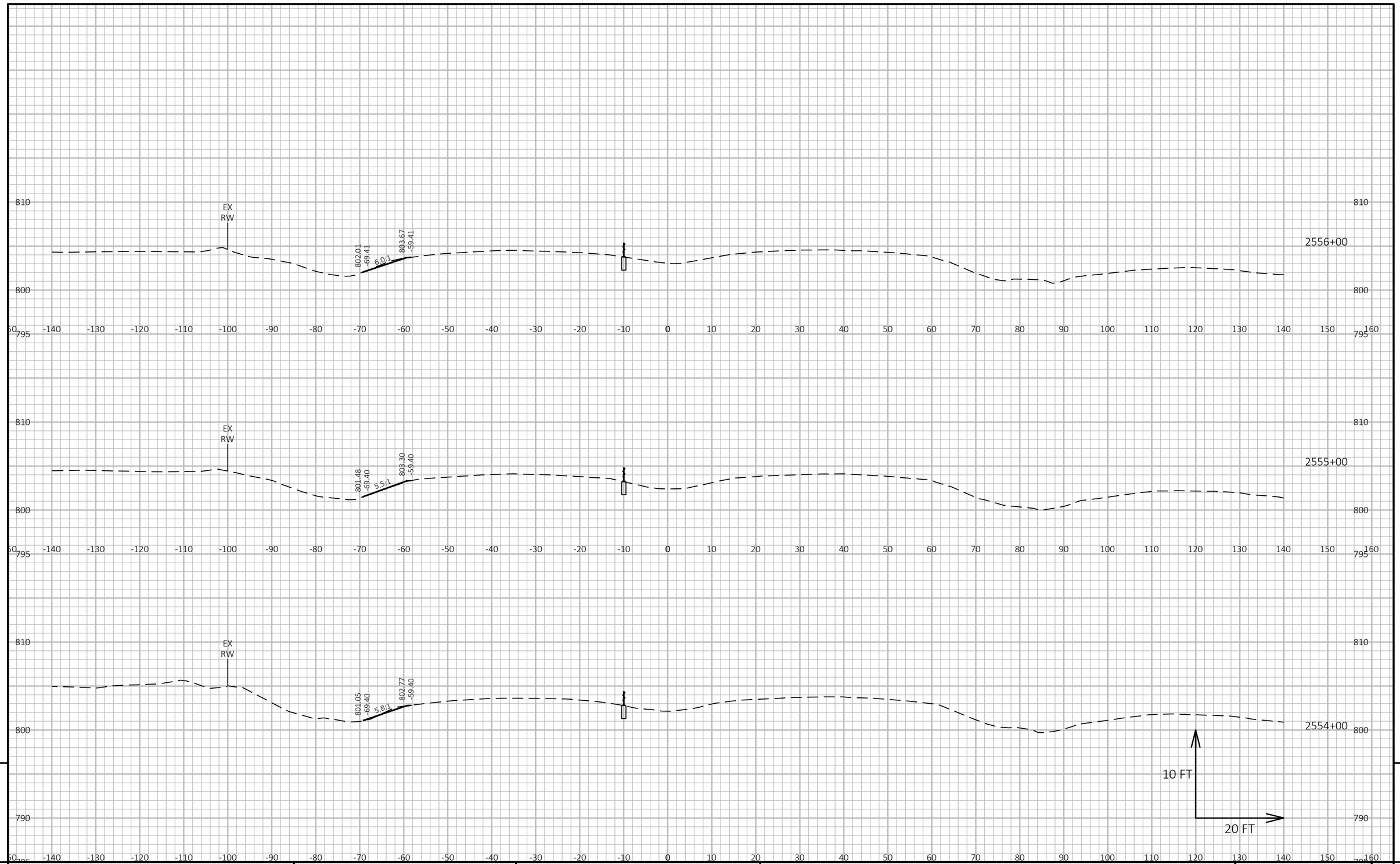
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 664	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 083

PLOT DATE : 10/25/2023 2:21 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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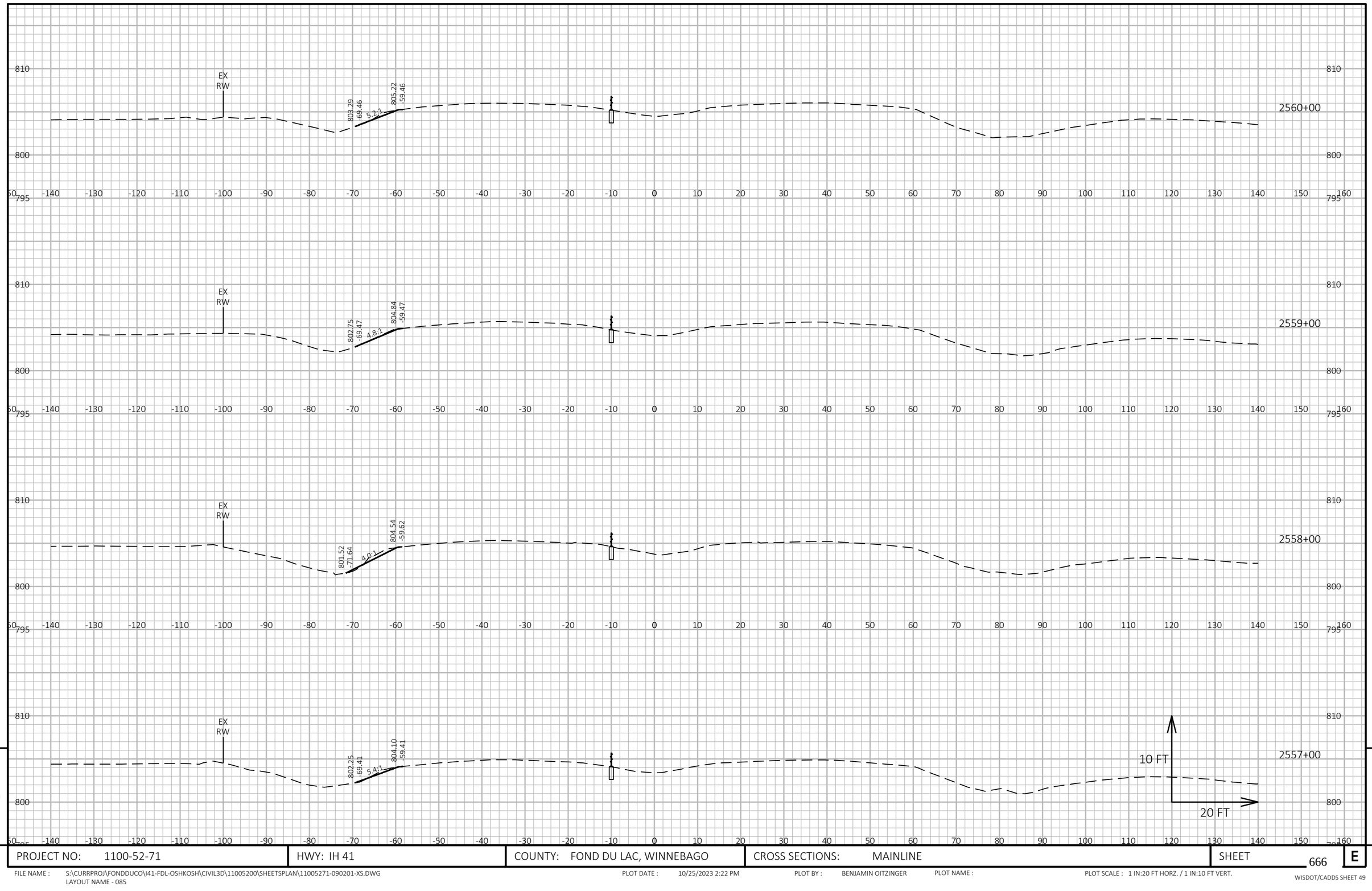
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 665	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 084

PLOT DATE : 10/25/2023 2:22 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 666	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 085

PLOT DATE : 10/25/2023 2:22 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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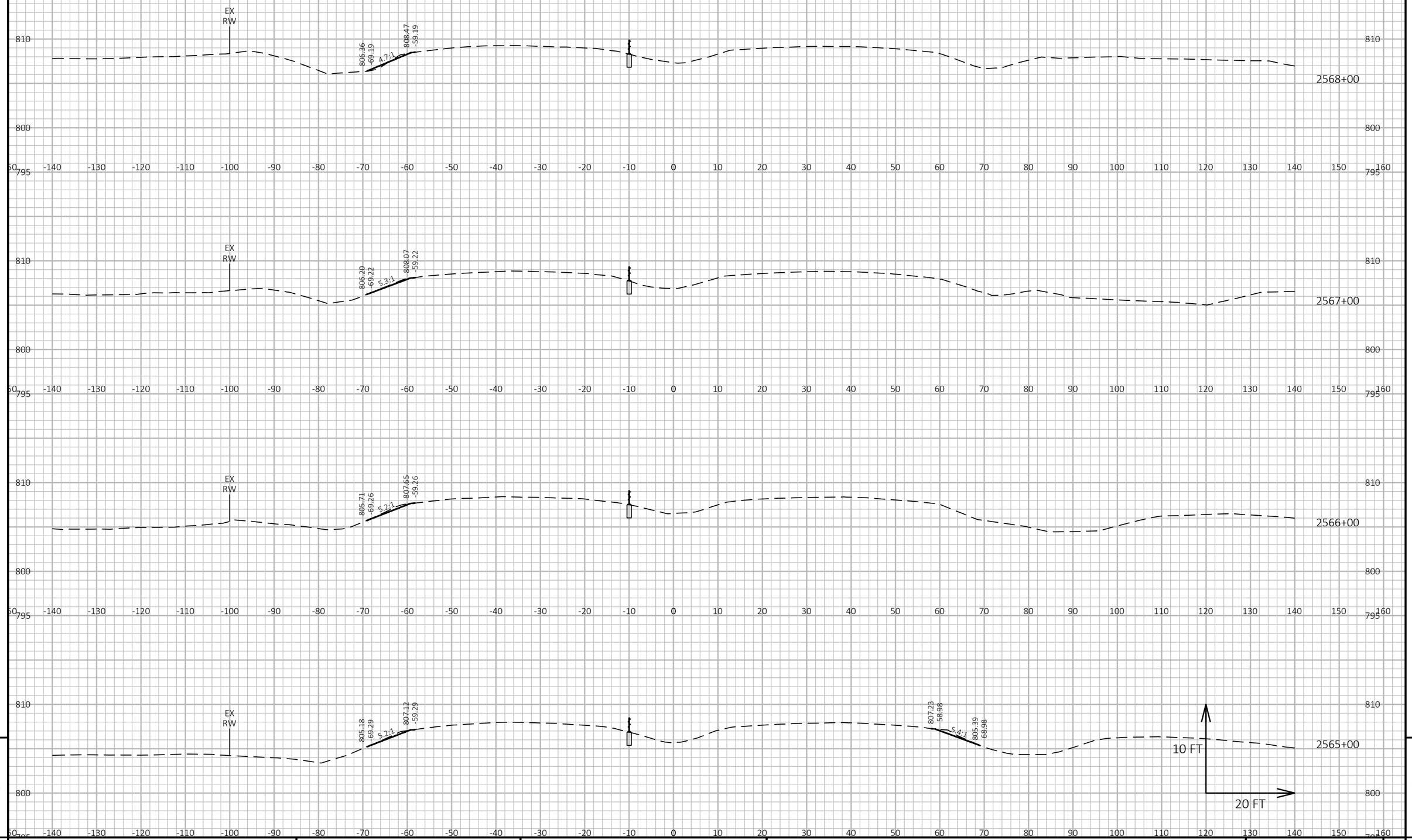
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 667	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 086

PLOT DATE : 10/25/2023 2:23 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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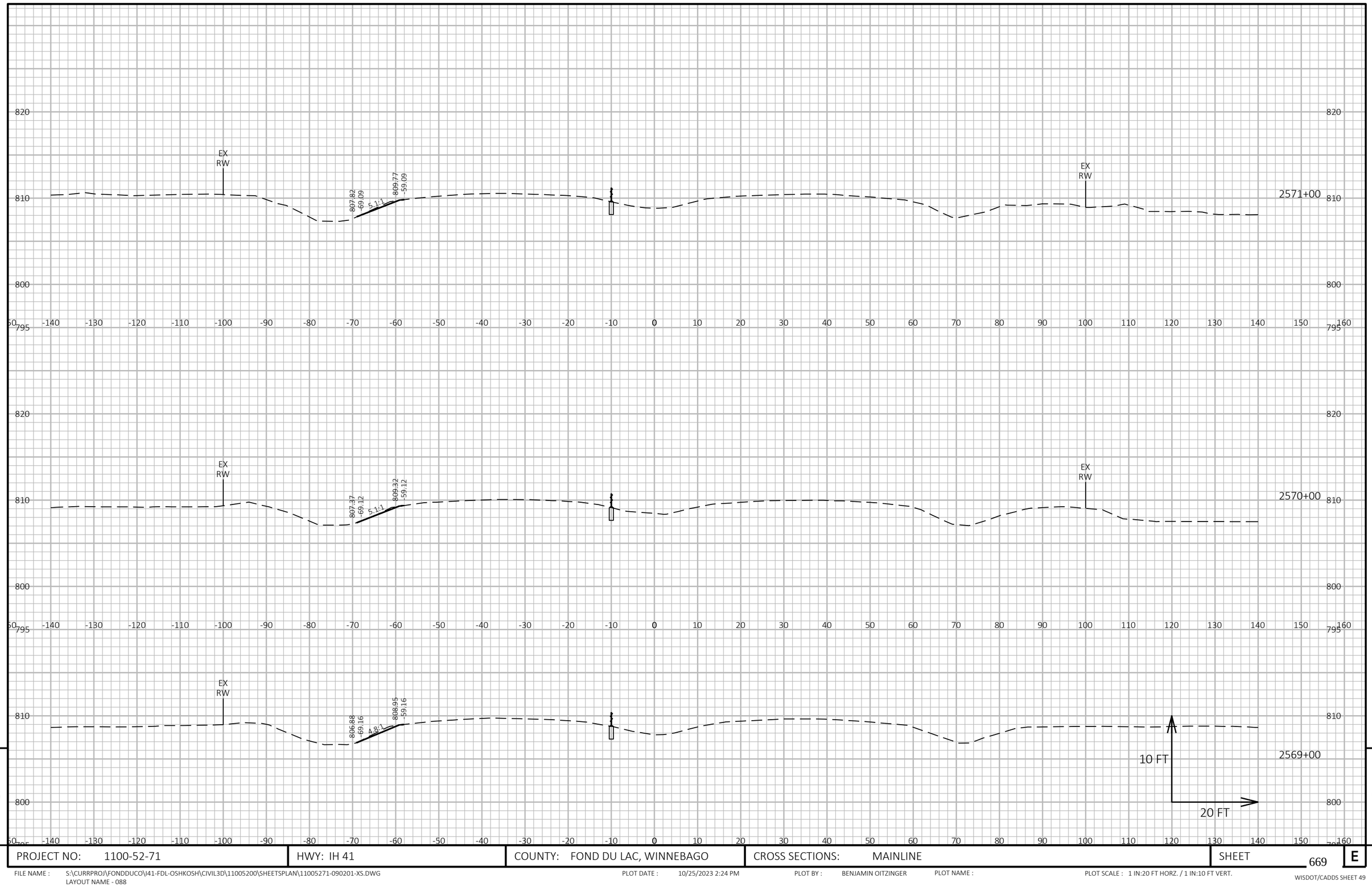
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 668	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 087

PLOT DATE : 10/25/2023 2:23 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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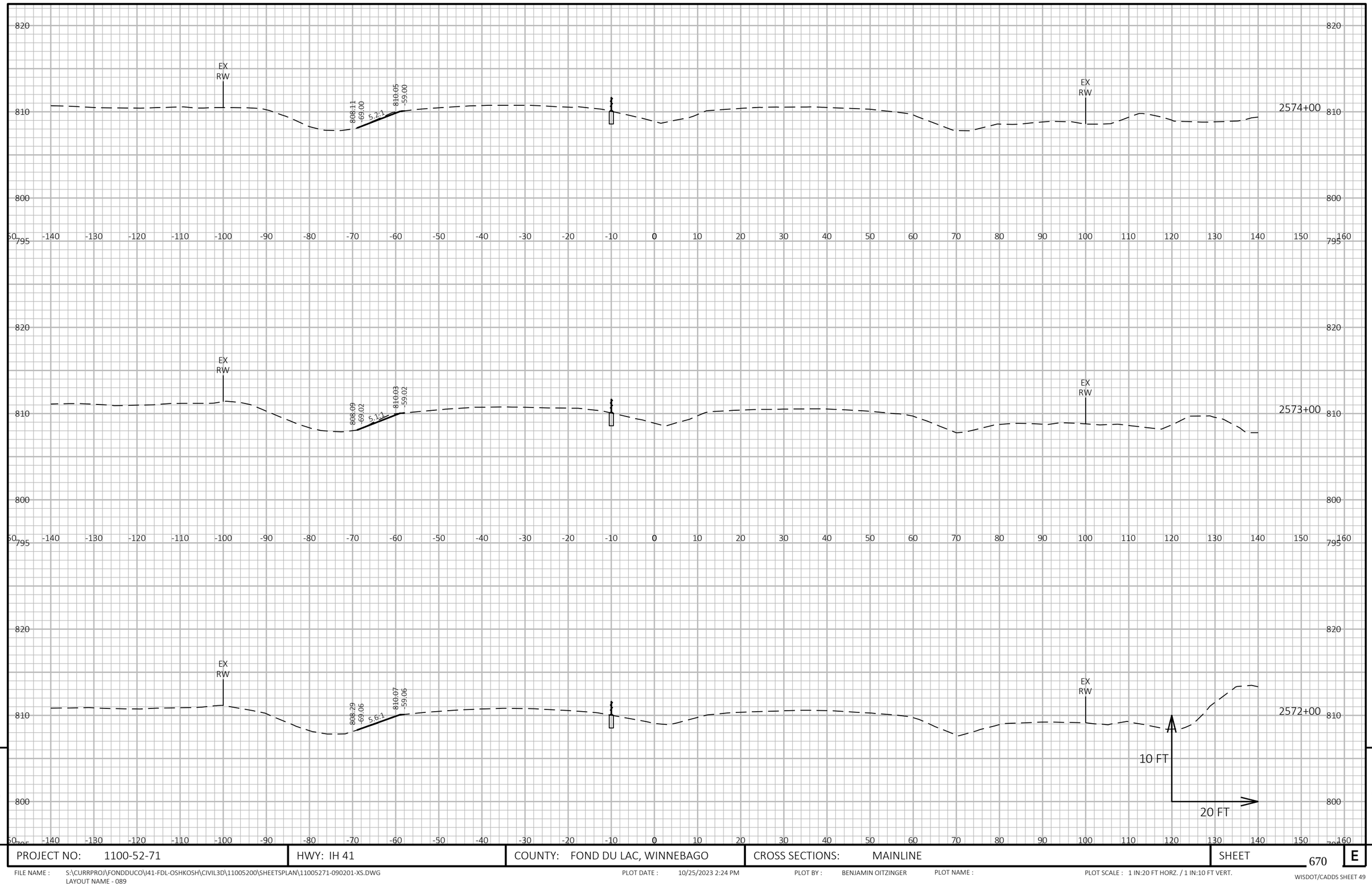
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 669	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 088

PLOT DATE : 10/25/2023 2:24 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 670	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 089

PLOT DATE : 10/25/2023 2:24 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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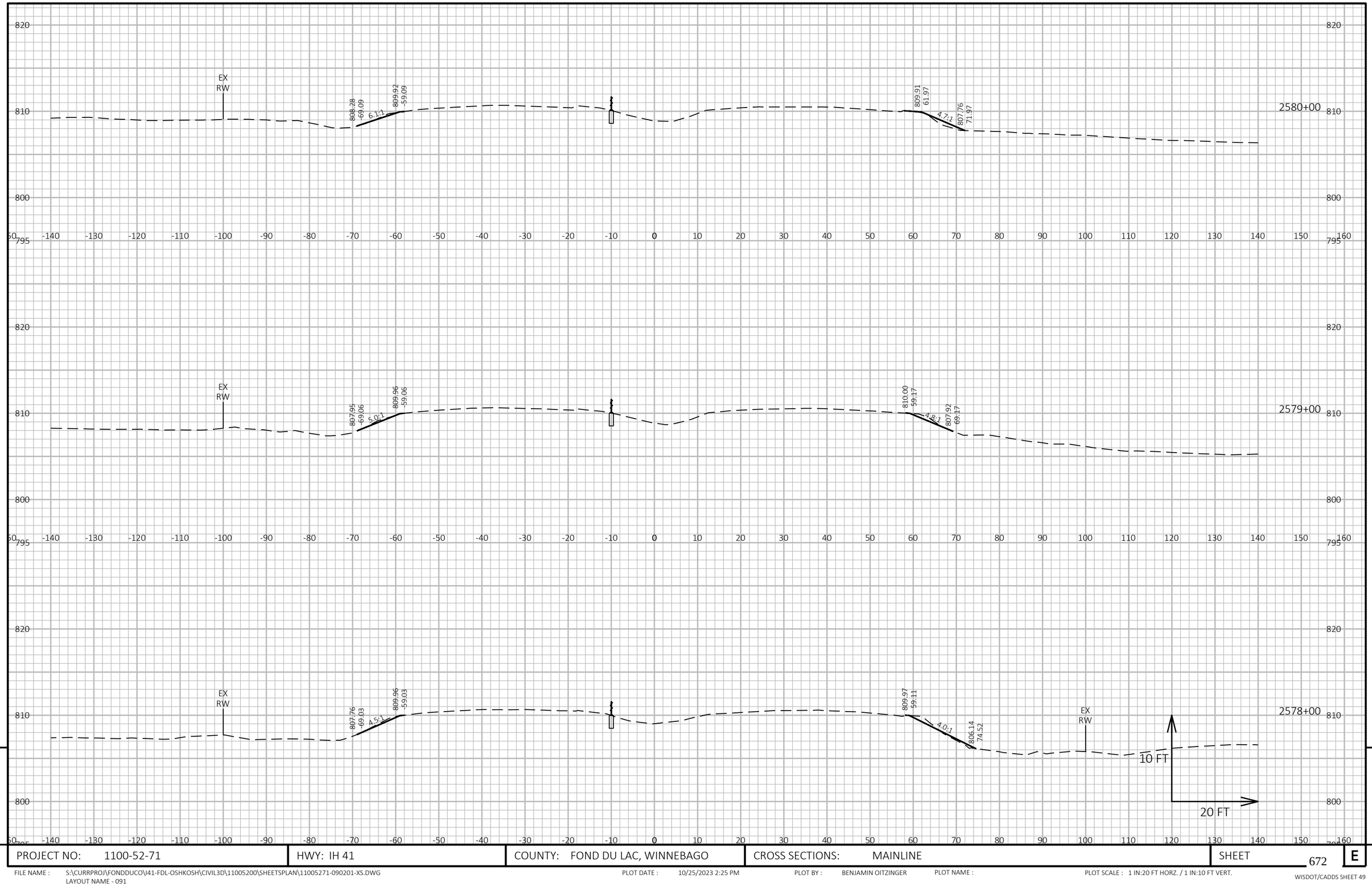
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 671	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 090

PLOT DATE : 10/25/2023 2:25 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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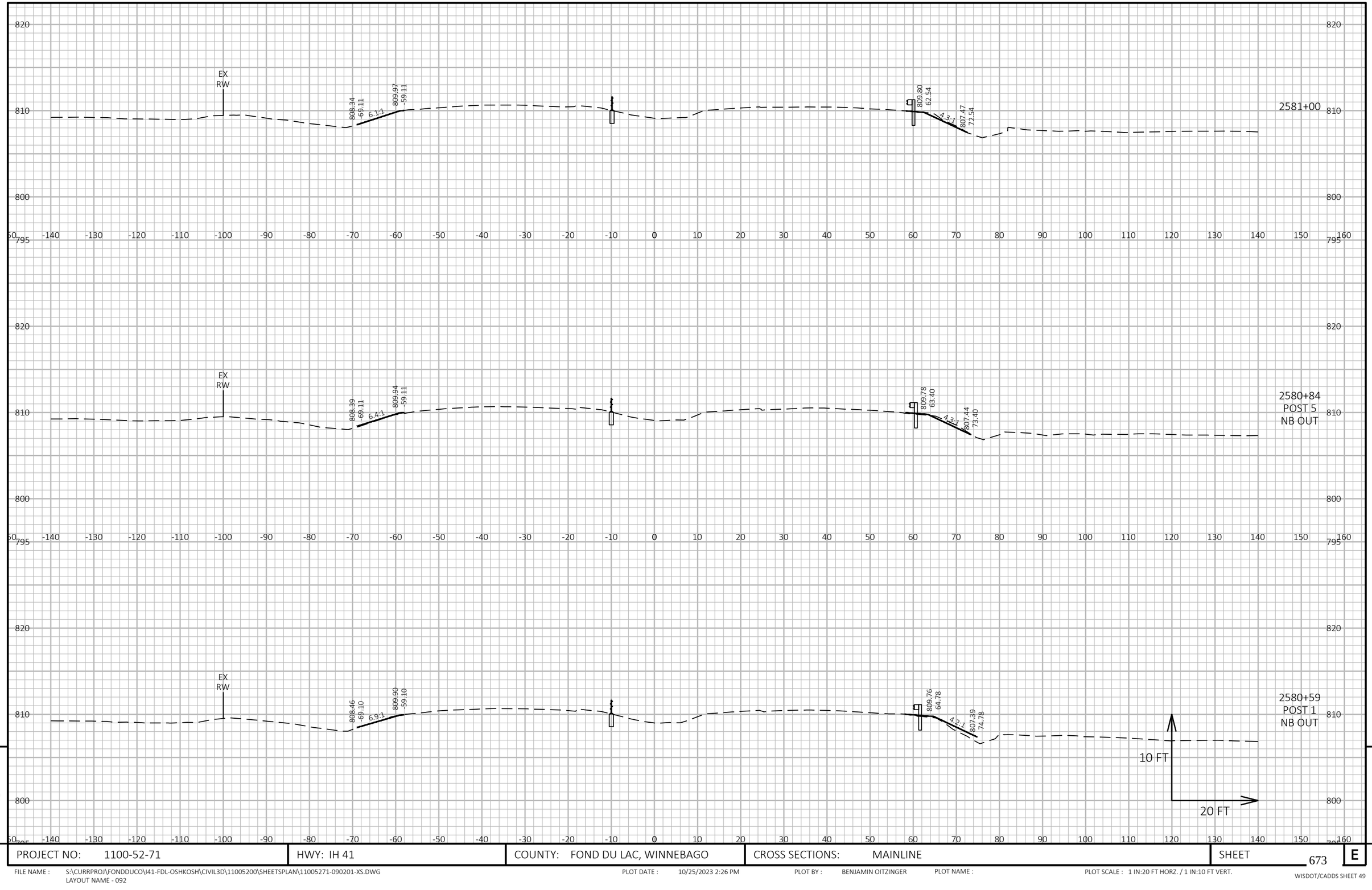
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 672	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 091

PLOT DATE : 10/25/2023 2:25 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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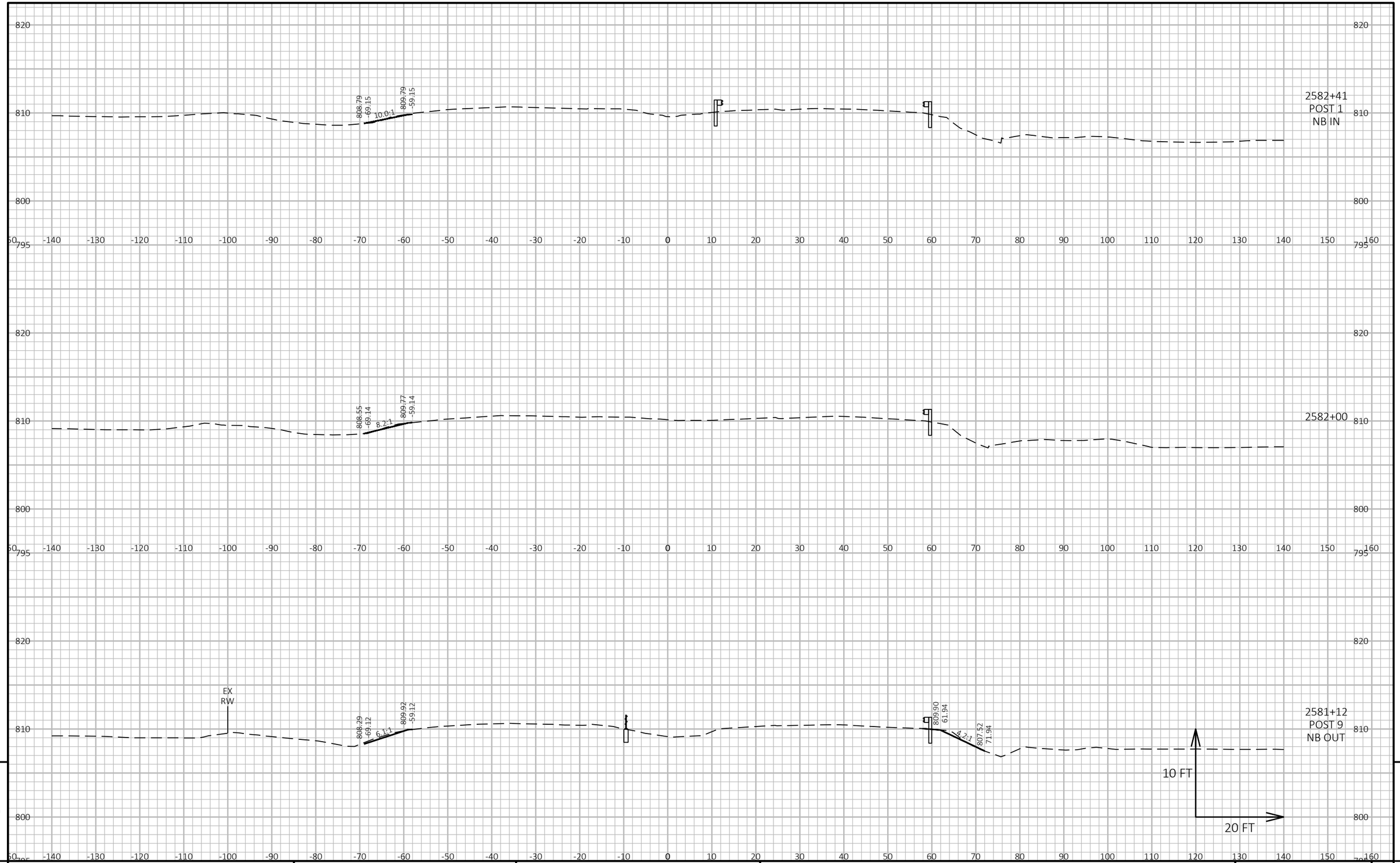
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 673	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 092

PLOT DATE : 10/25/2023 2:26 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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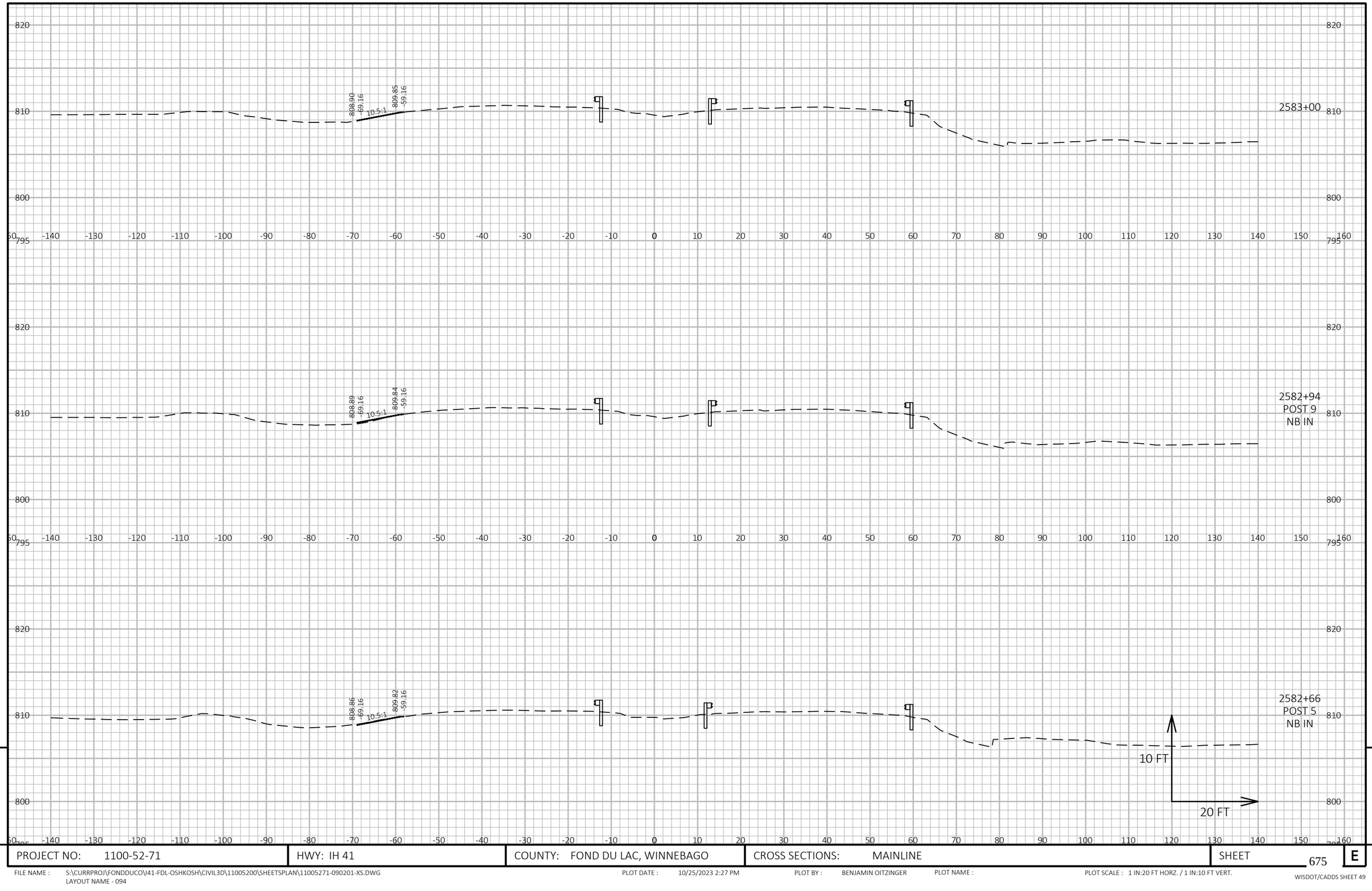
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 674	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 093

PLOT DATE : 10/25/2023 2:26 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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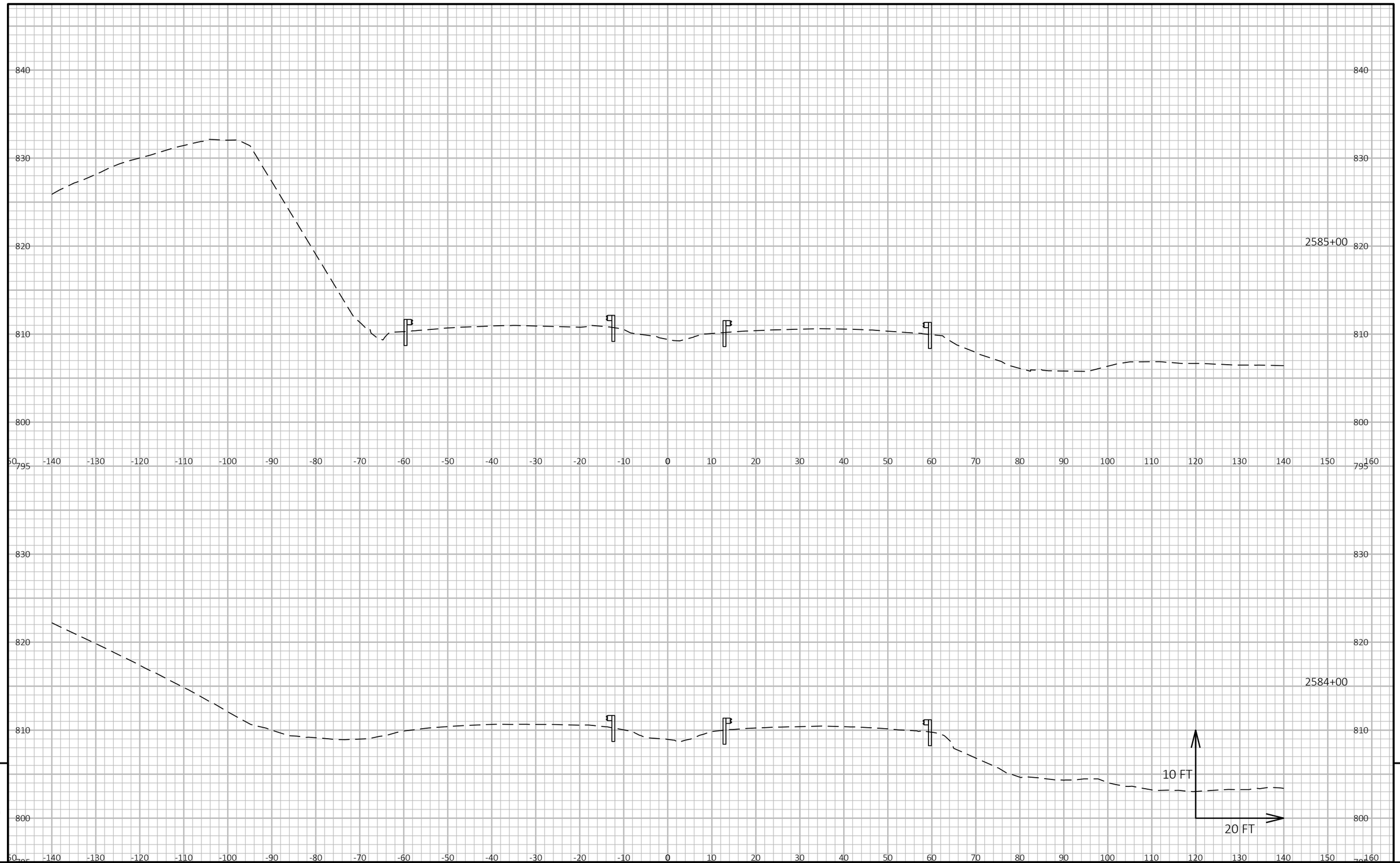
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 675	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 094

PLOT DATE : 10/25/2023 2:27 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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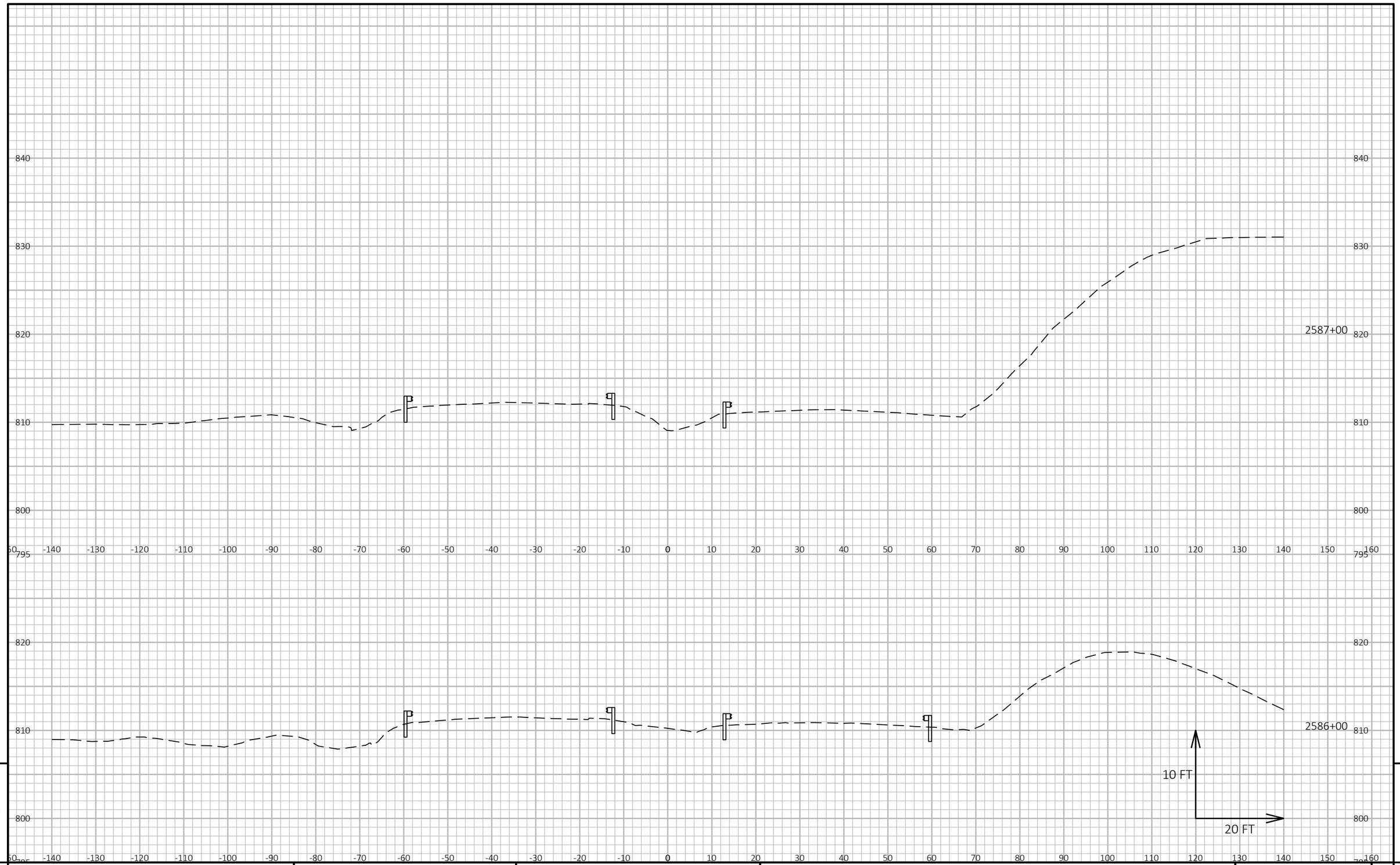
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 676	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 095

PLOT DATE : 10/25/2023 2:27 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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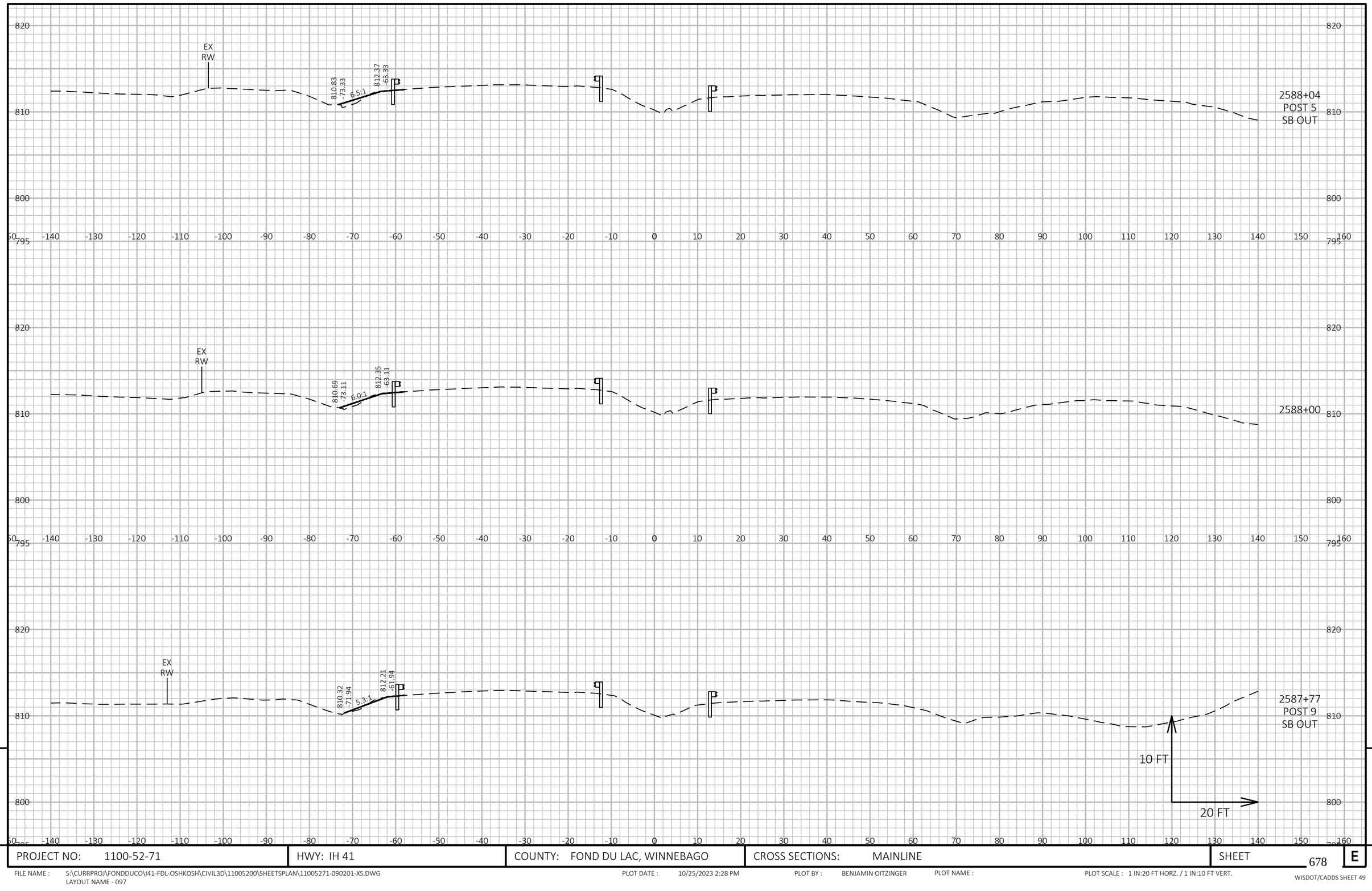
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 677	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 096

PLOT DATE : 10/25/2023 2:28 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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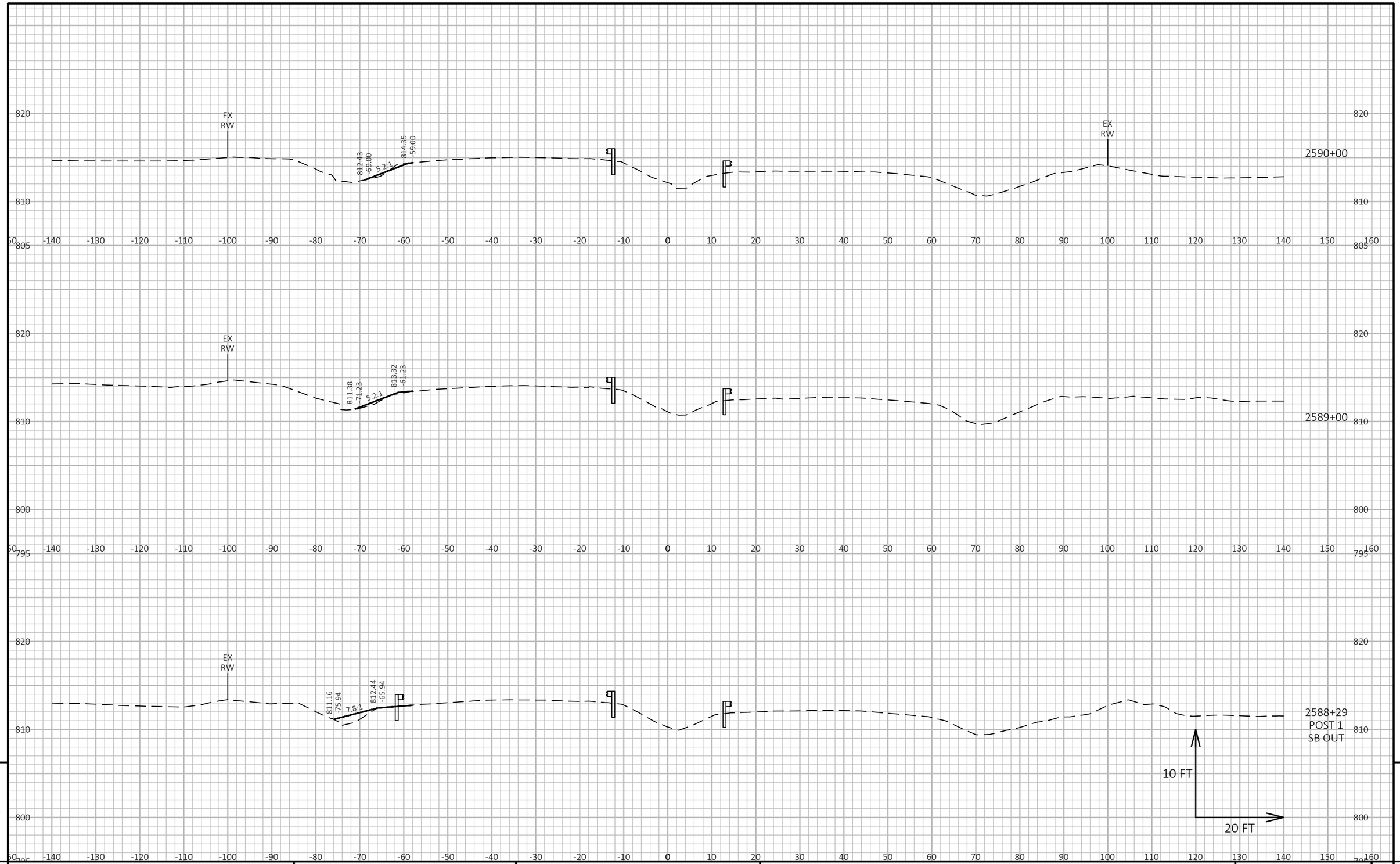
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 678	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 097

PLOT DATE : 10/25/2023 2:28 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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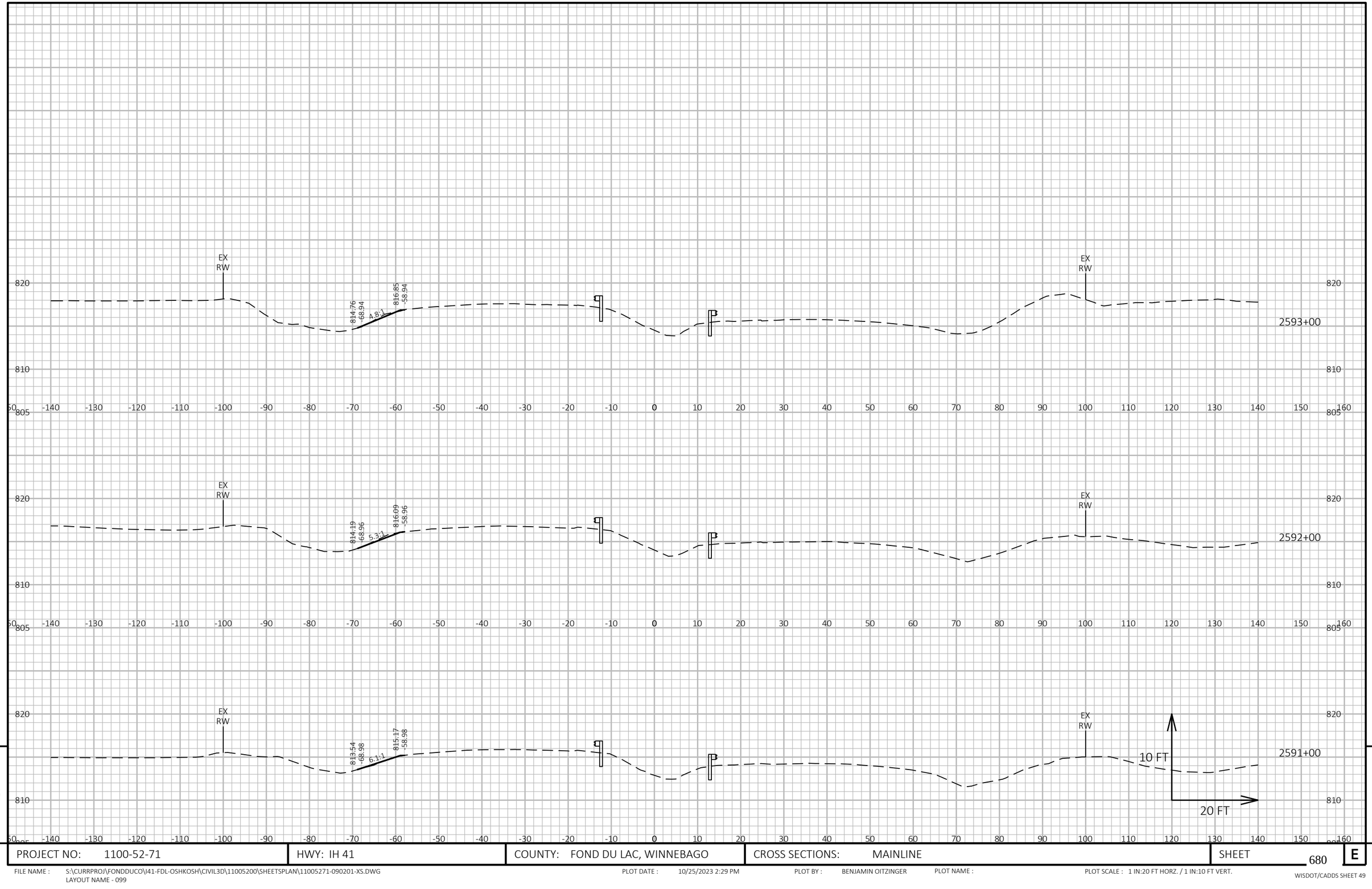
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 679	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 098

PLOT DATE : 10/25/2023 2:29 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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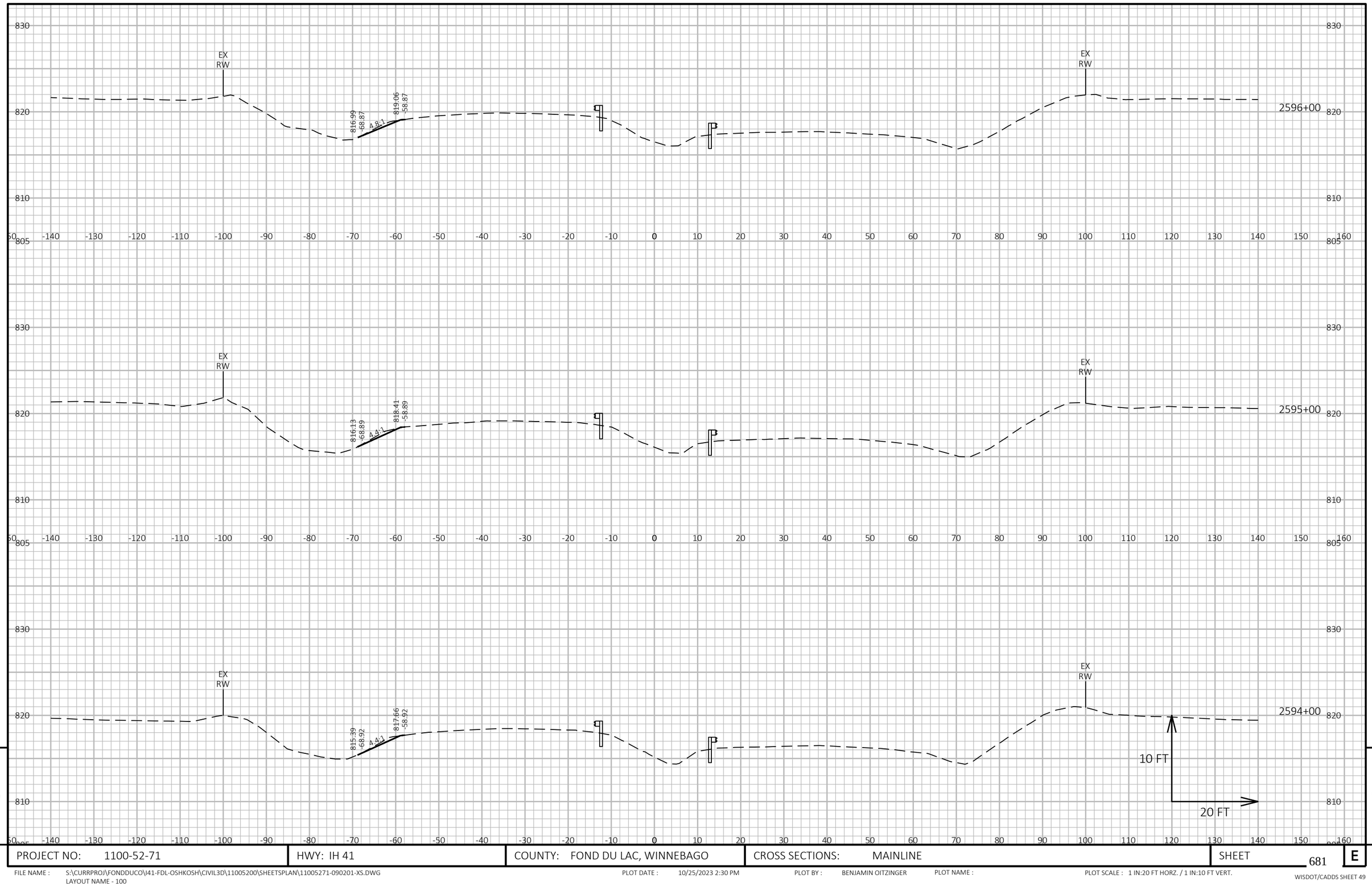
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 680	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 099

PLOT DATE : 10/25/2023 2:29 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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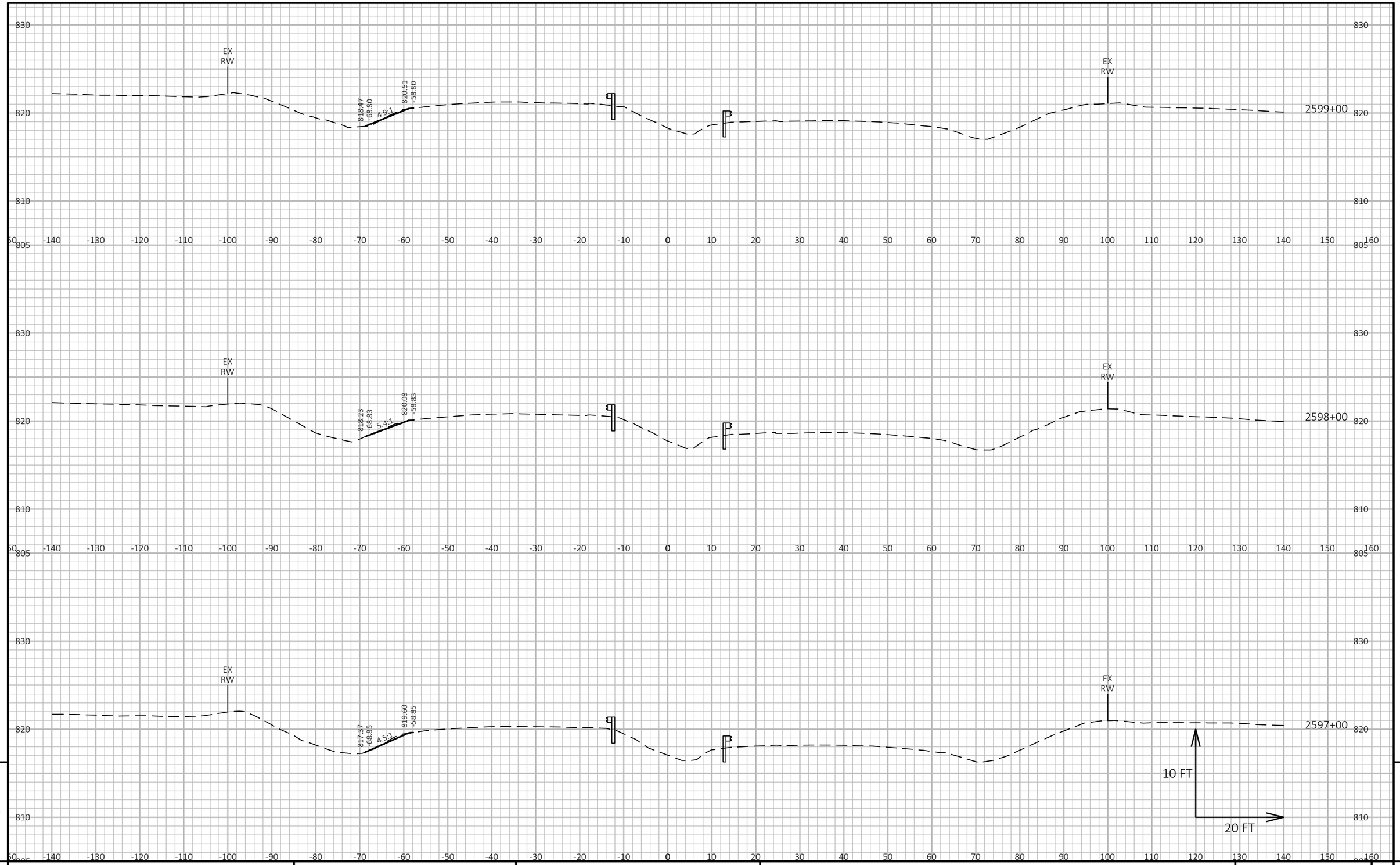
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 681	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 100

PLOT DATE : 10/25/2023 2:30 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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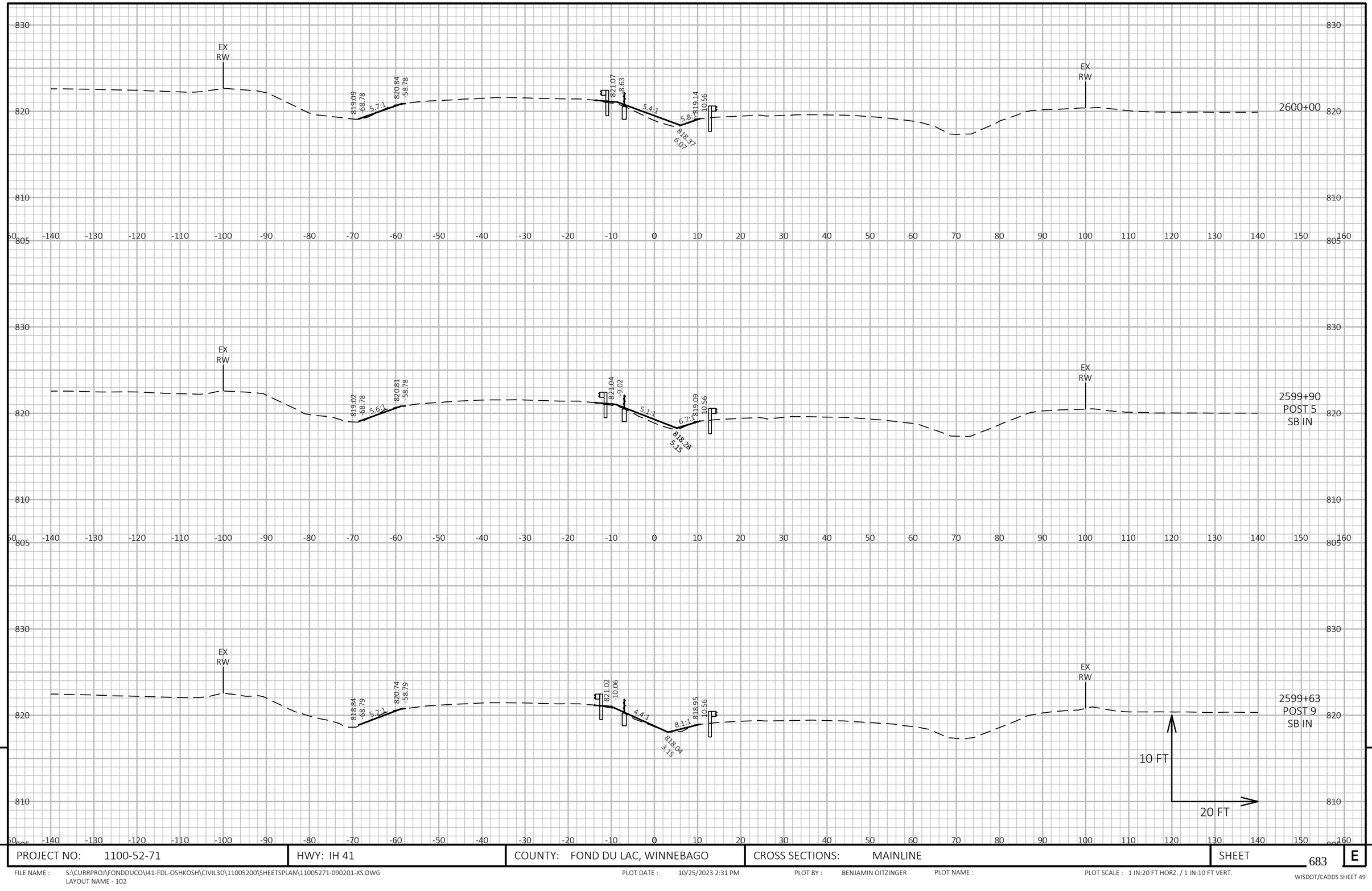
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 682	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 101

PLOT DATE : 10/25/2023 2:30 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 683	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 102

PLOT DATE : 10/25/2023 2:31 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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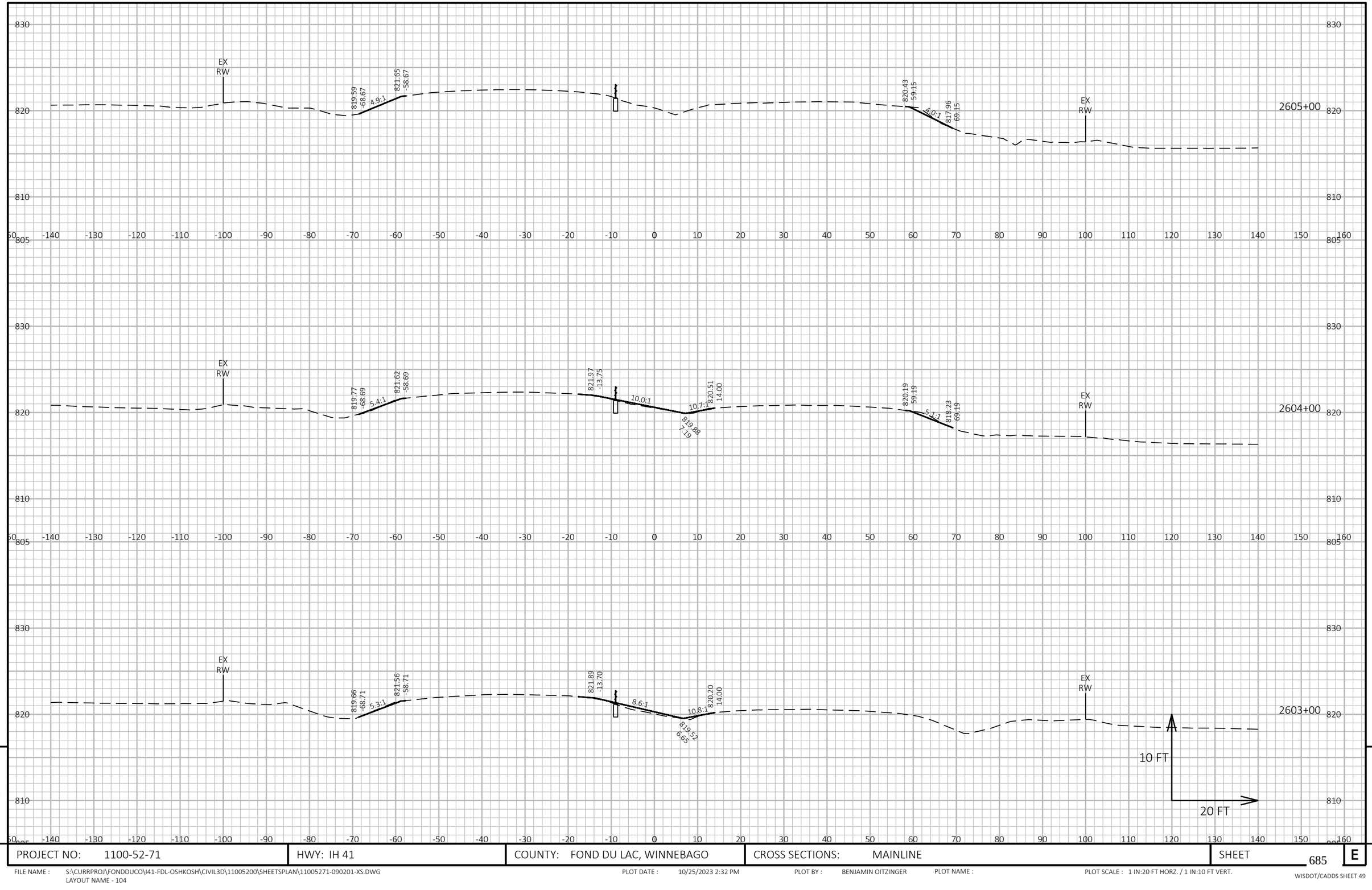
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 684	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 103

PLOT DATE : 10/25/2023 2:31 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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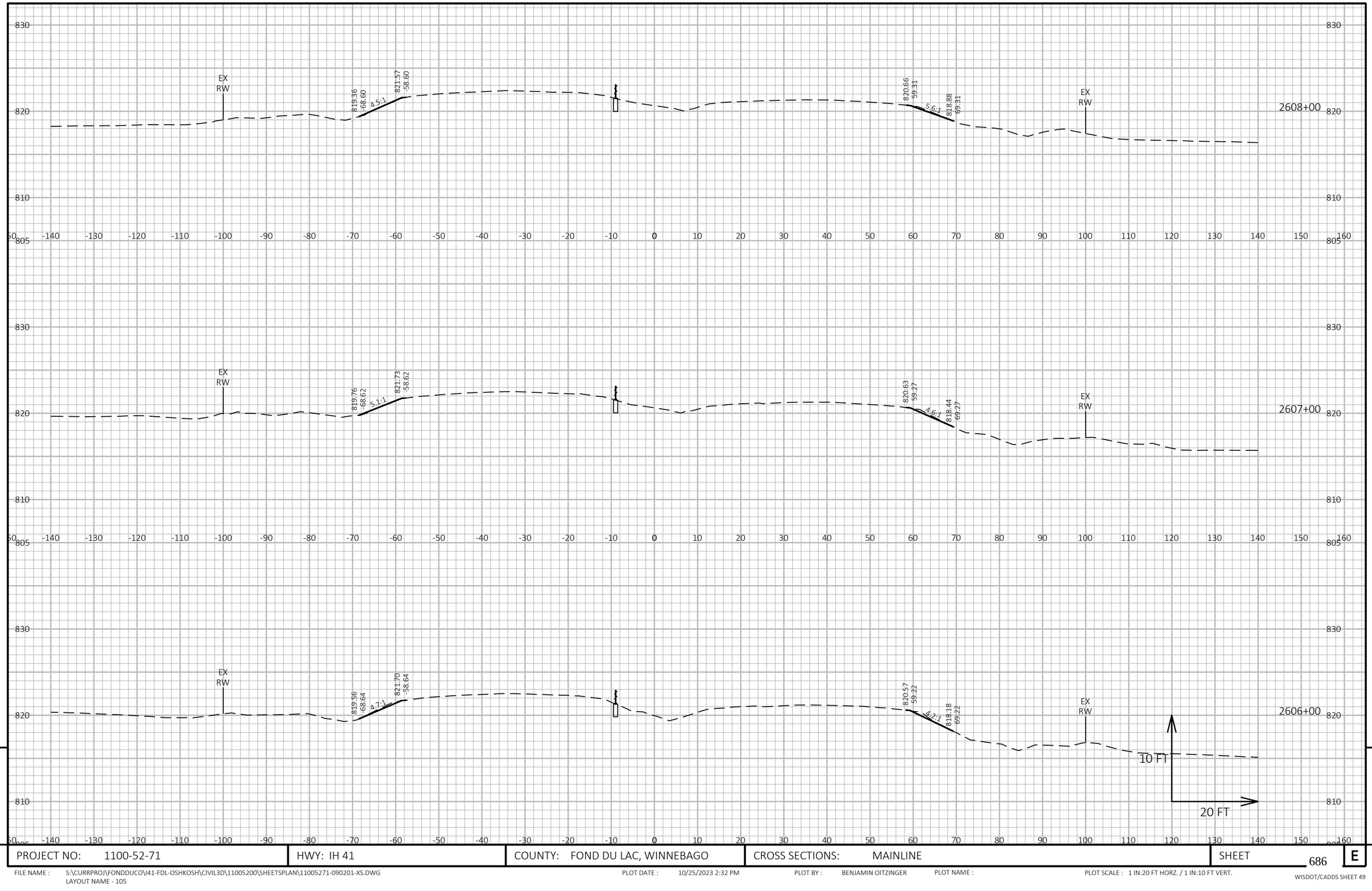
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 685	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 104

PLOT DATE : 10/25/2023 2:32 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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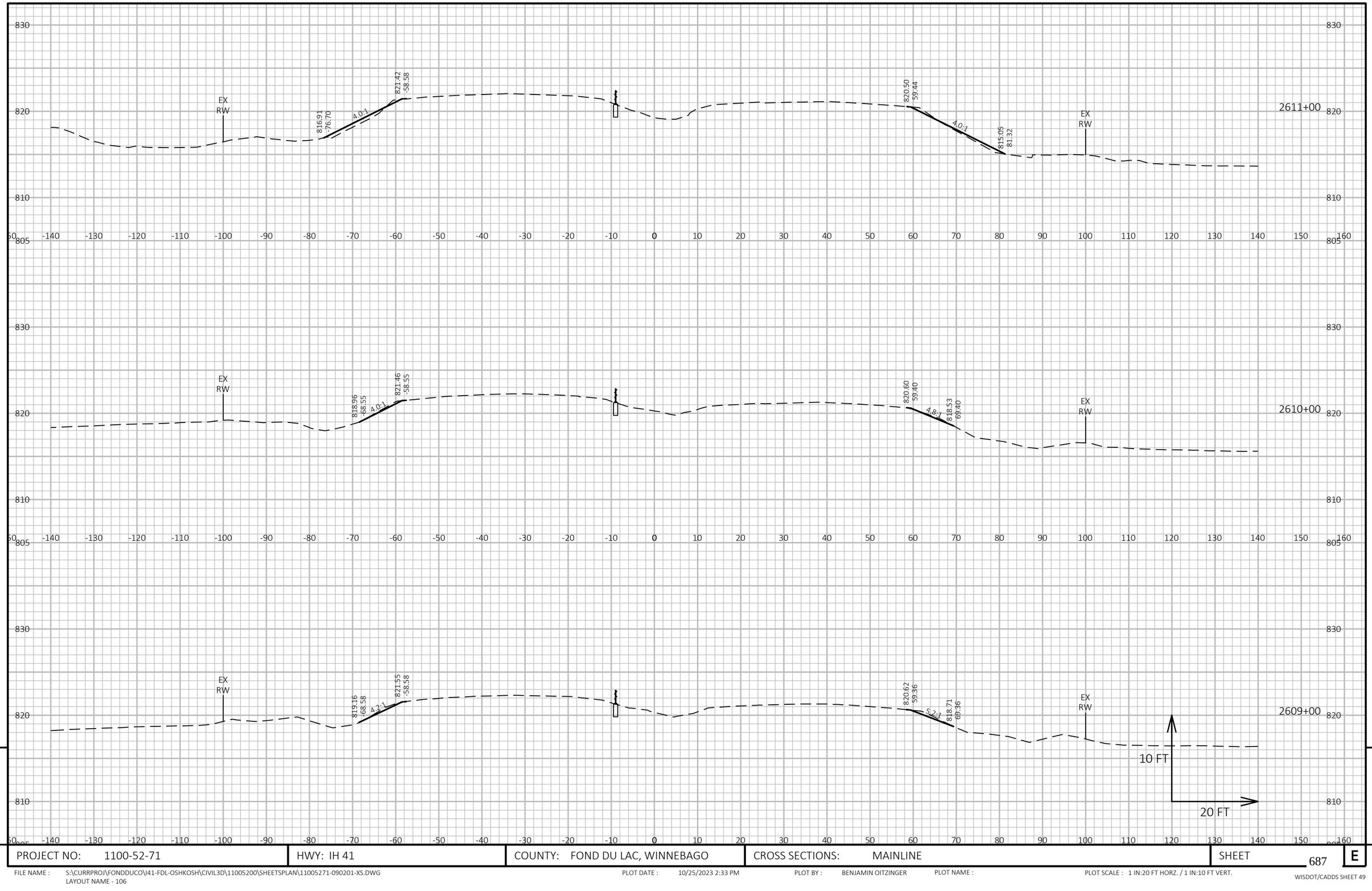
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 686	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 105

PLOT DATE : 10/25/2023 2:32 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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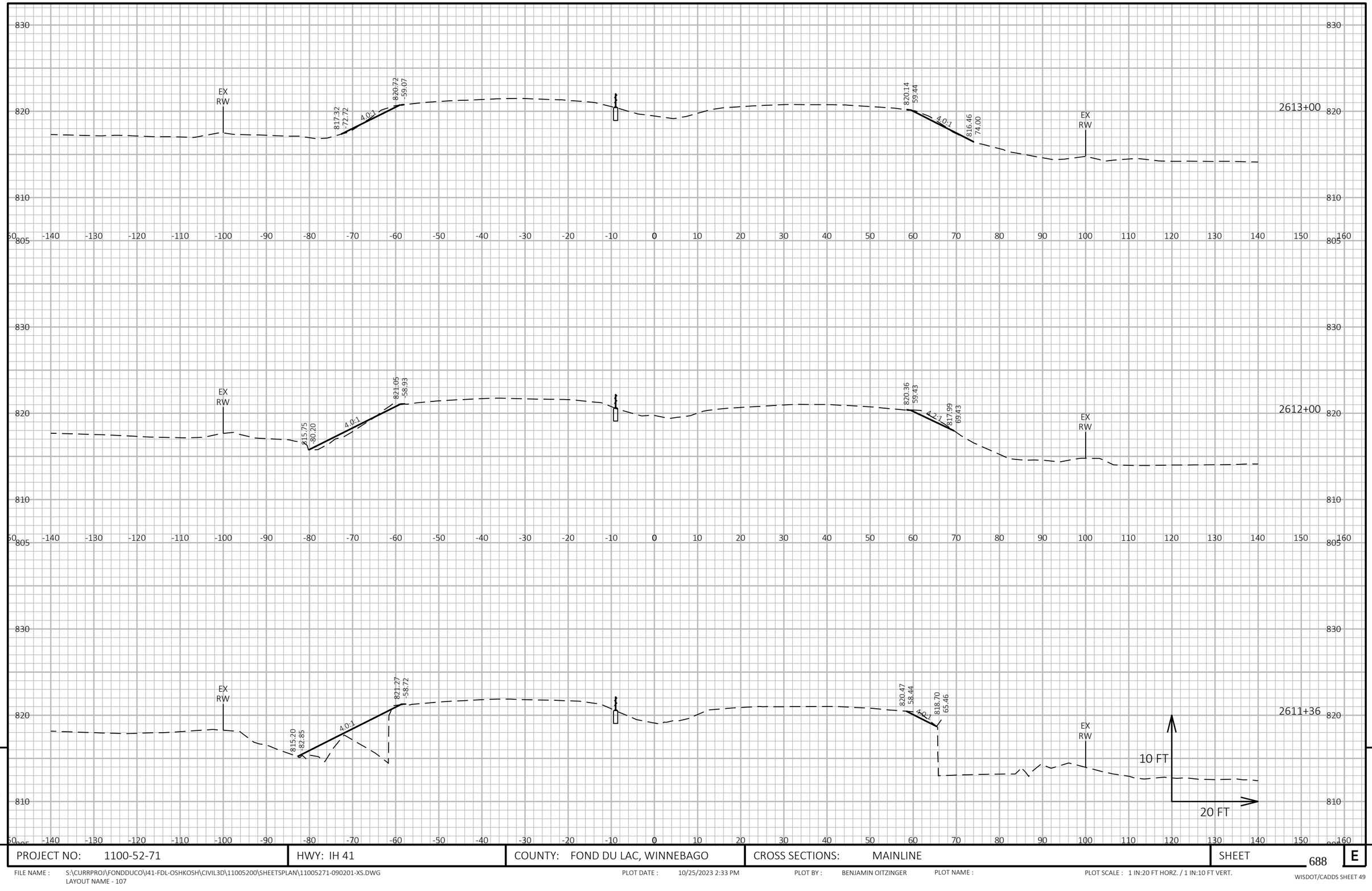
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 687	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 106

PLOT DATE : 10/25/2023 2:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

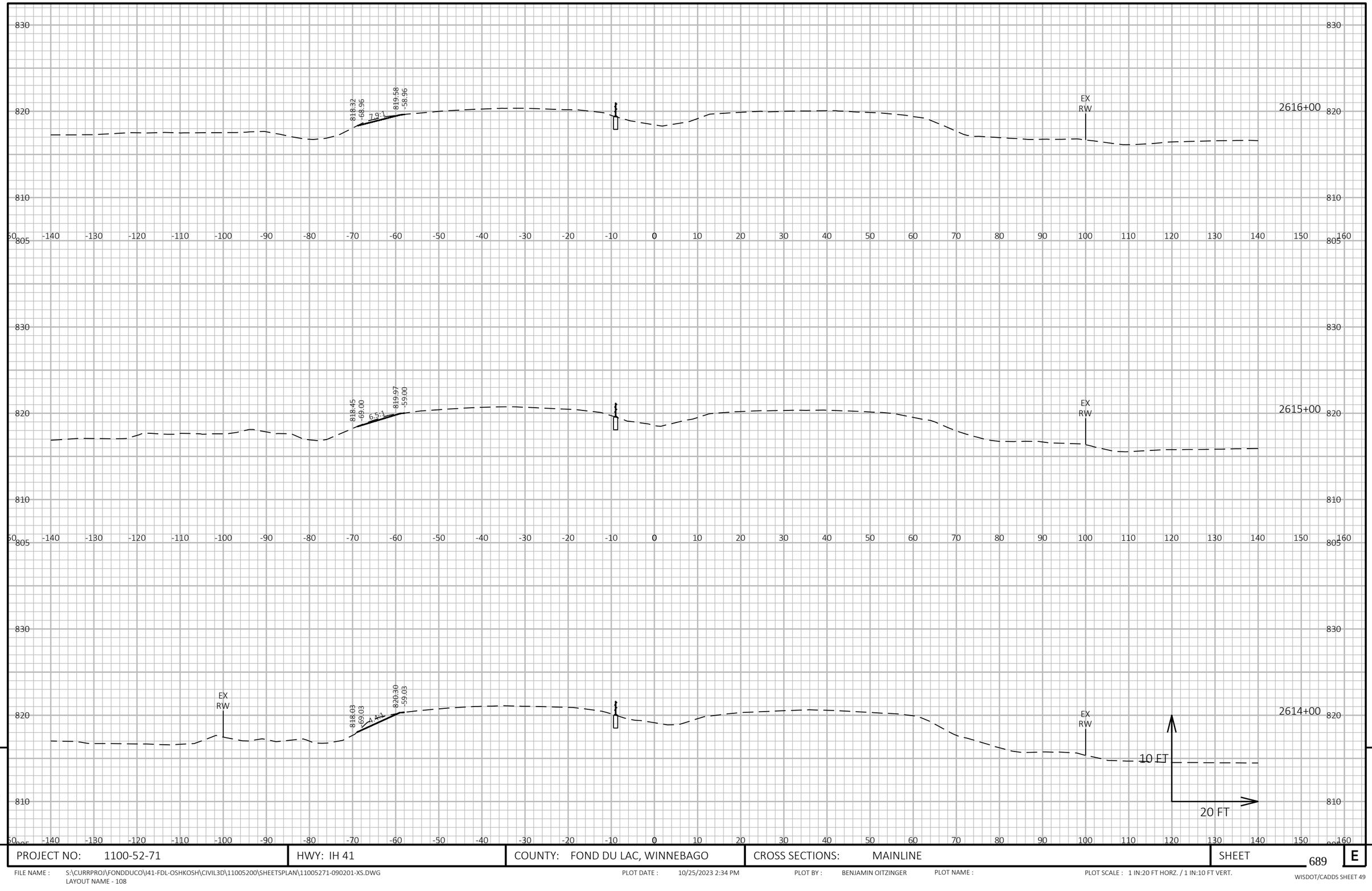


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 688 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 107

PLOT DATE : 10/25/2023 2:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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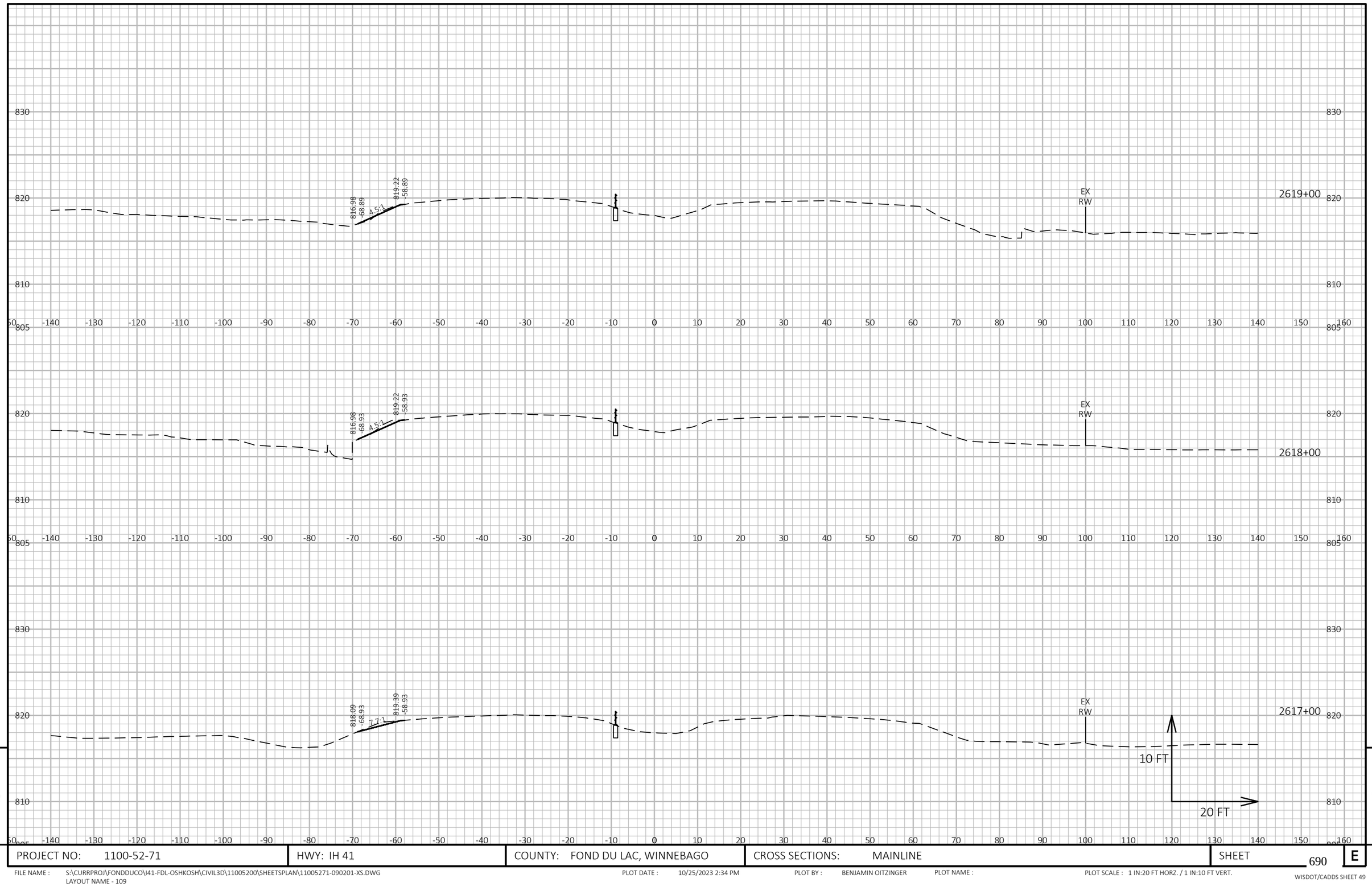
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 689	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 108

PLOT DATE : 10/25/2023 2:34 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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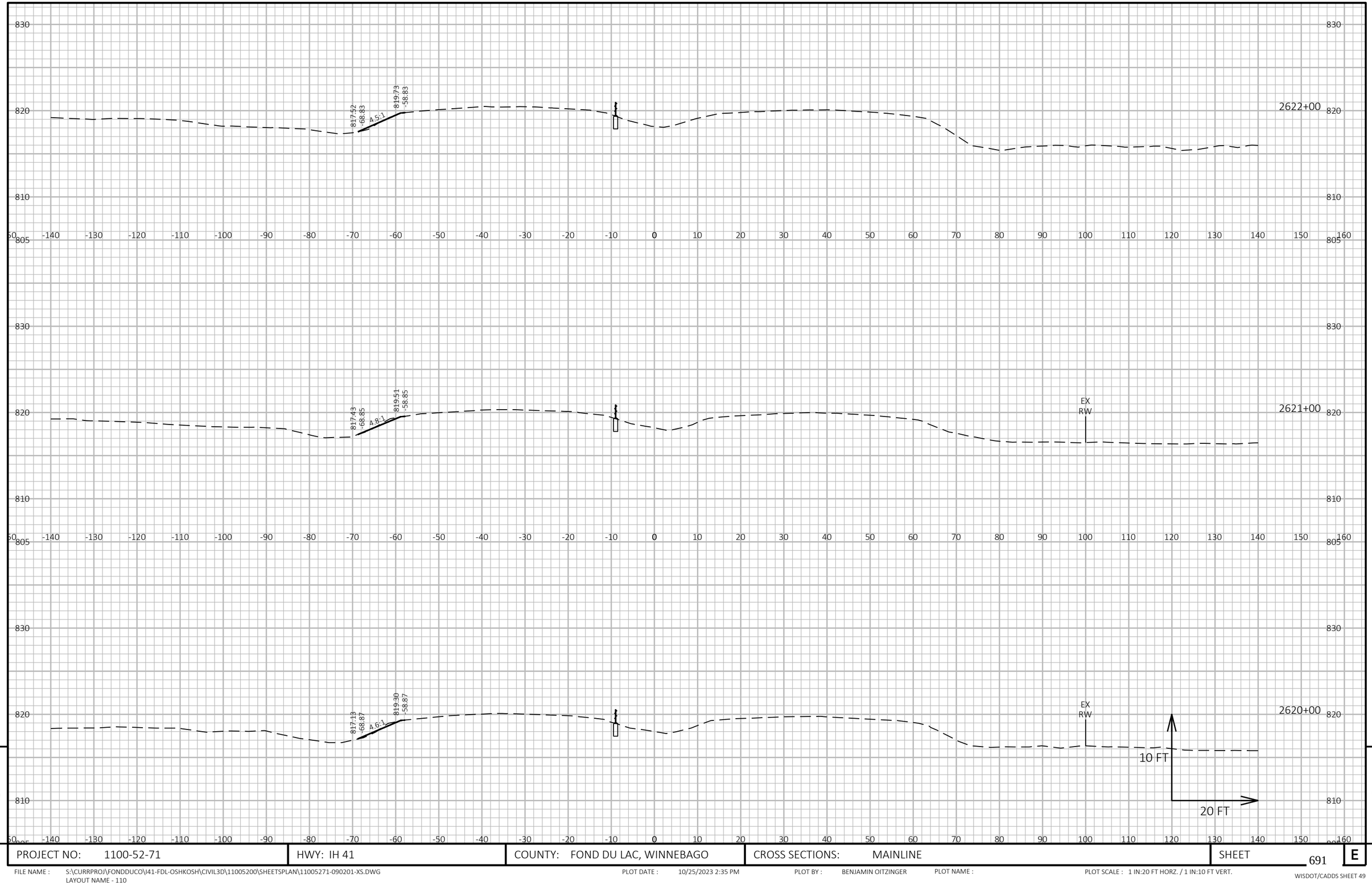
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 690	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 109

PLOT DATE : 10/25/2023 2:34 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 691	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 110

PLOT DATE : 10/25/2023 2:35 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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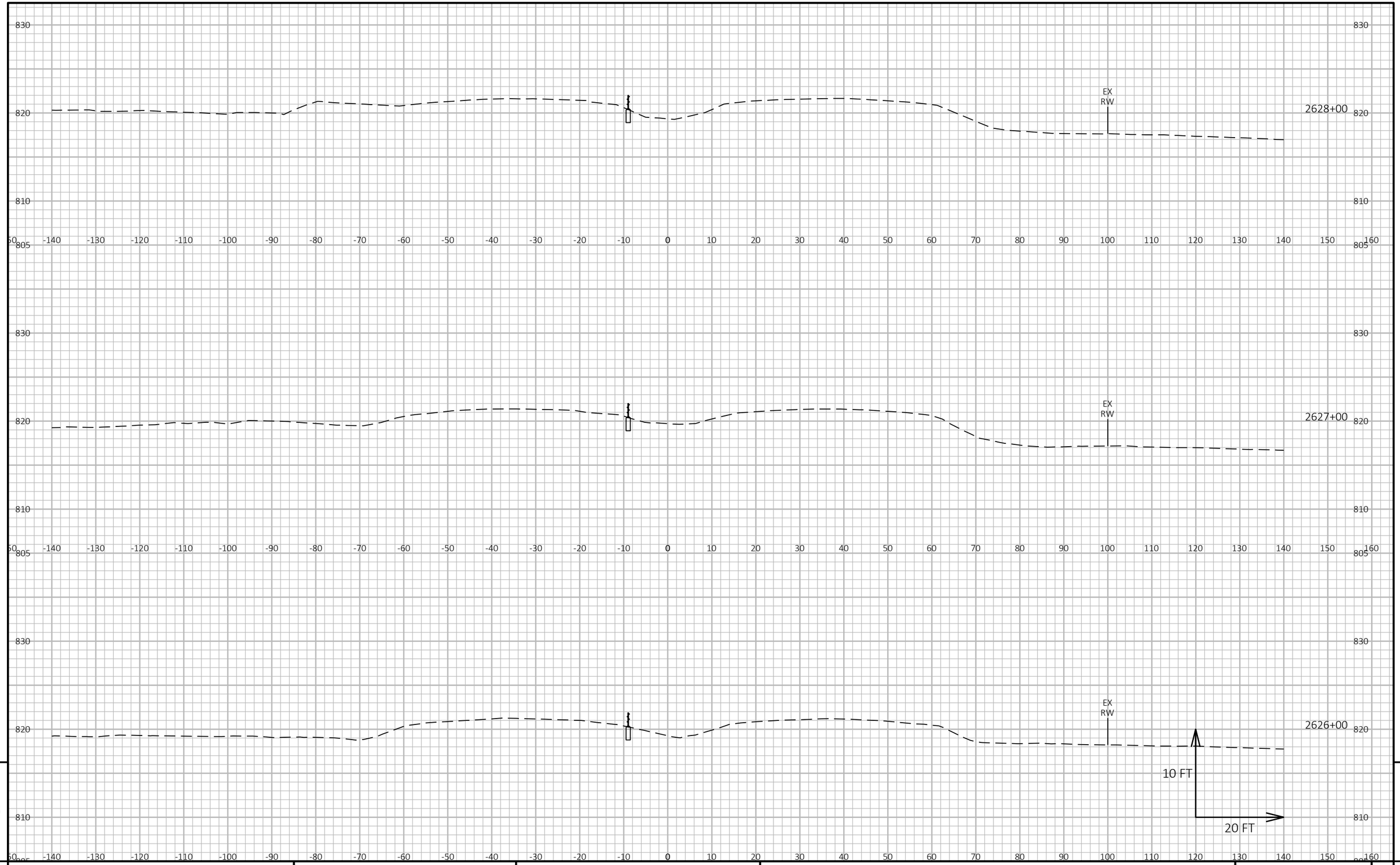
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 692	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 111

PLOT DATE : 10/25/2023 2:35 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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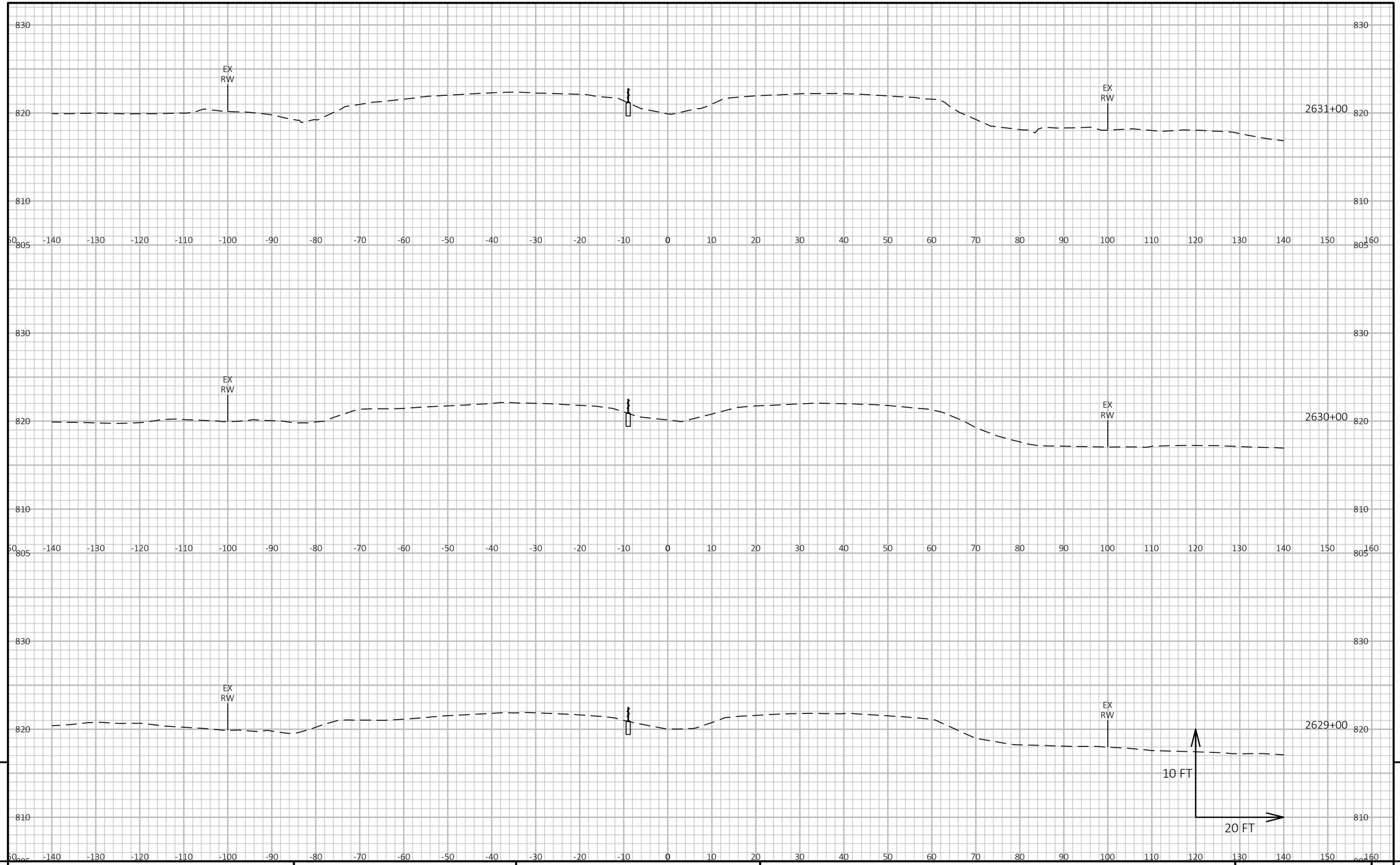
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 693	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 112

PLOT DATE : 10/25/2023 2:36 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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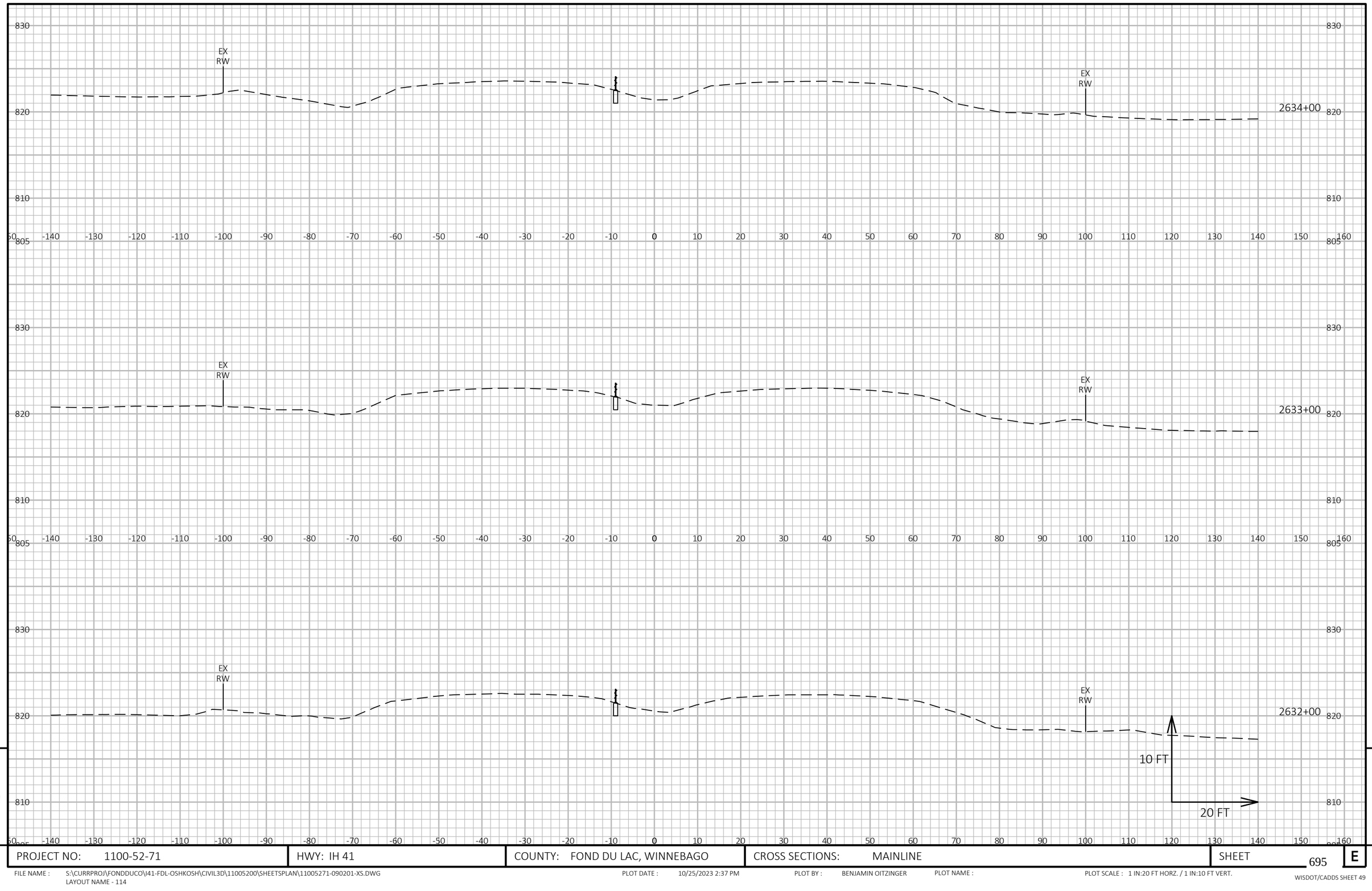
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 694	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 113

PLOT DATE : 10/25/2023 2:36 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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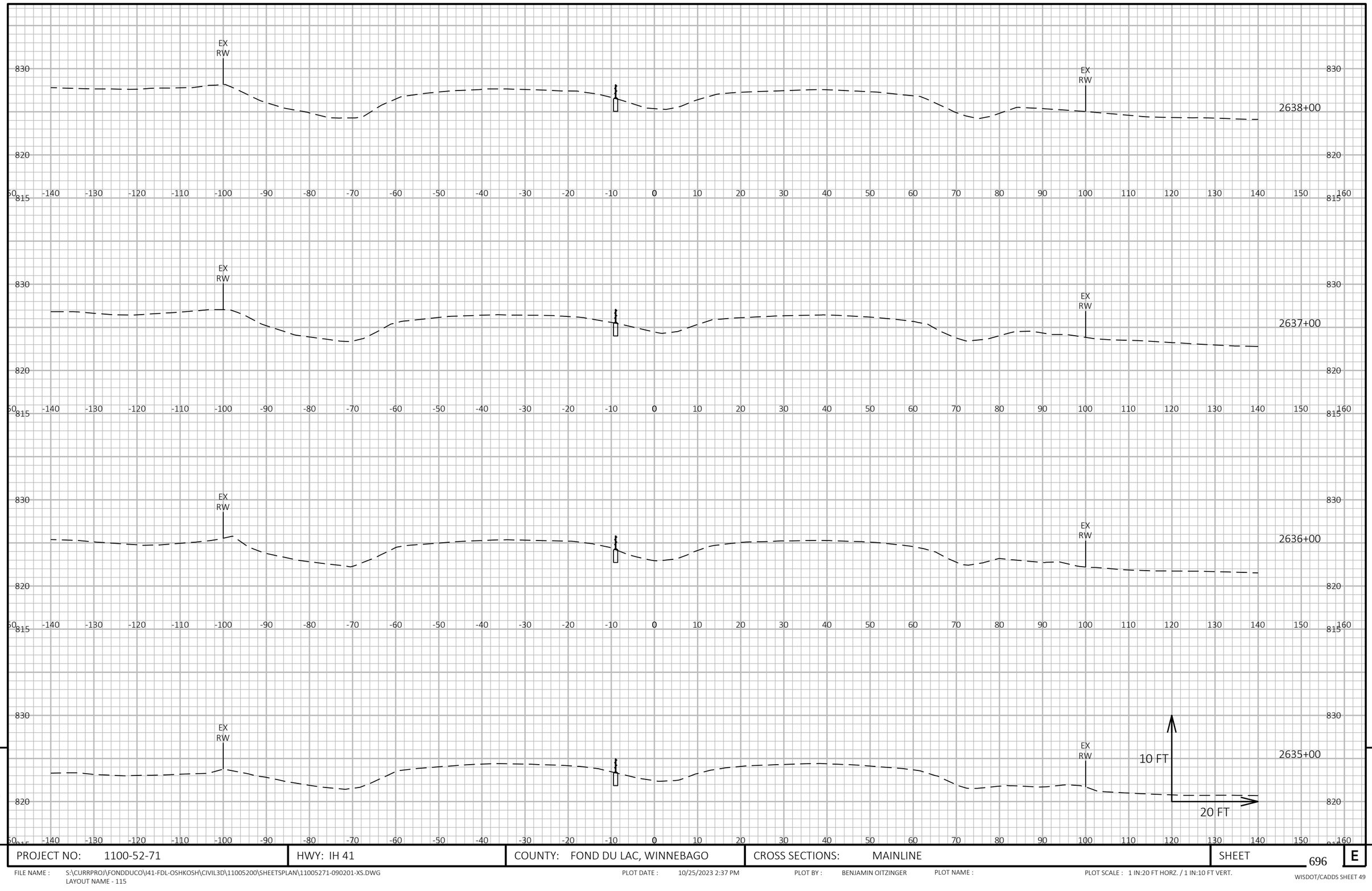
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 695	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 114

PLOT DATE : 10/25/2023 2:37 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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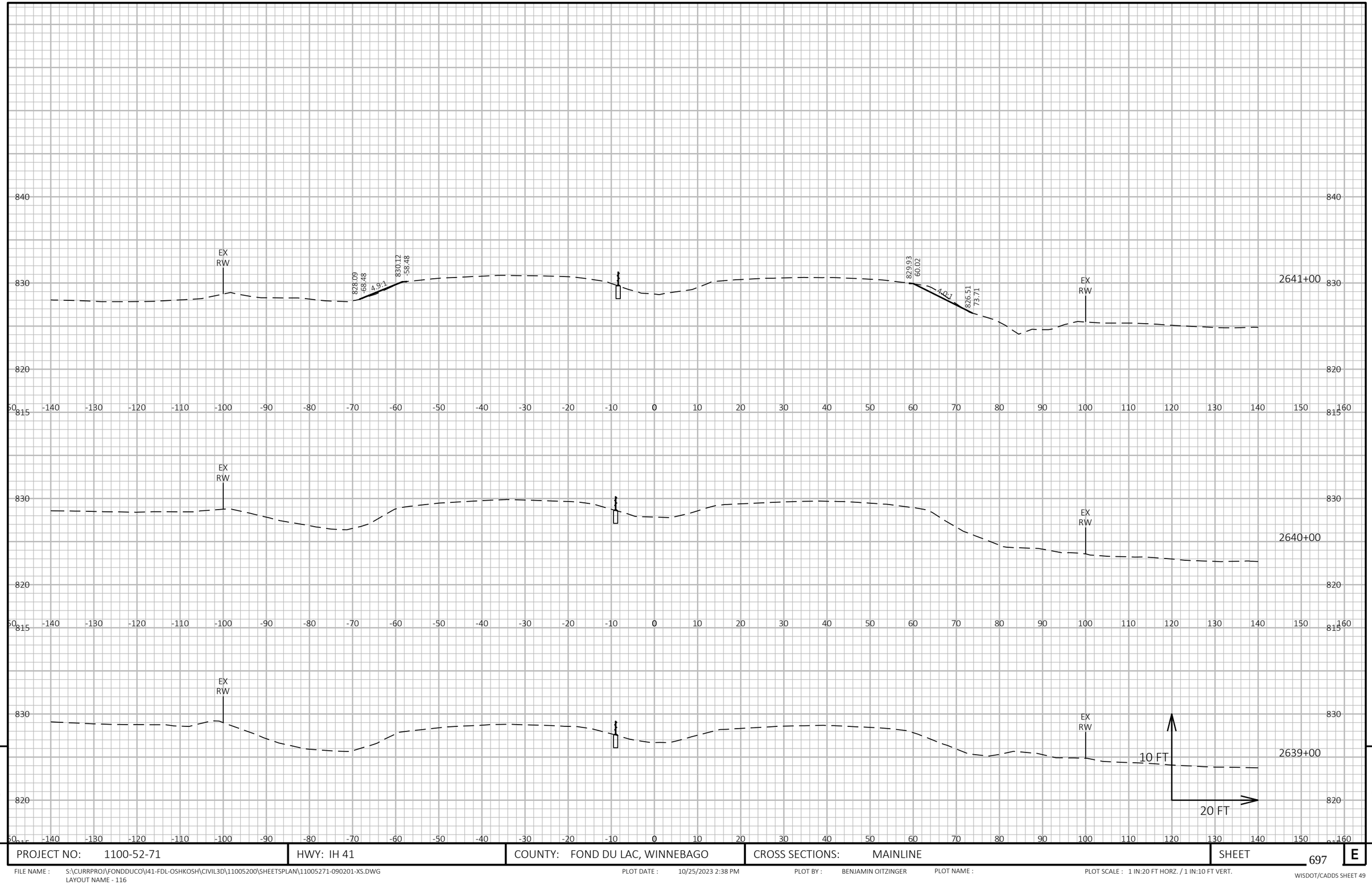
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 696	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 115

PLOT DATE : 10/25/2023 2:37 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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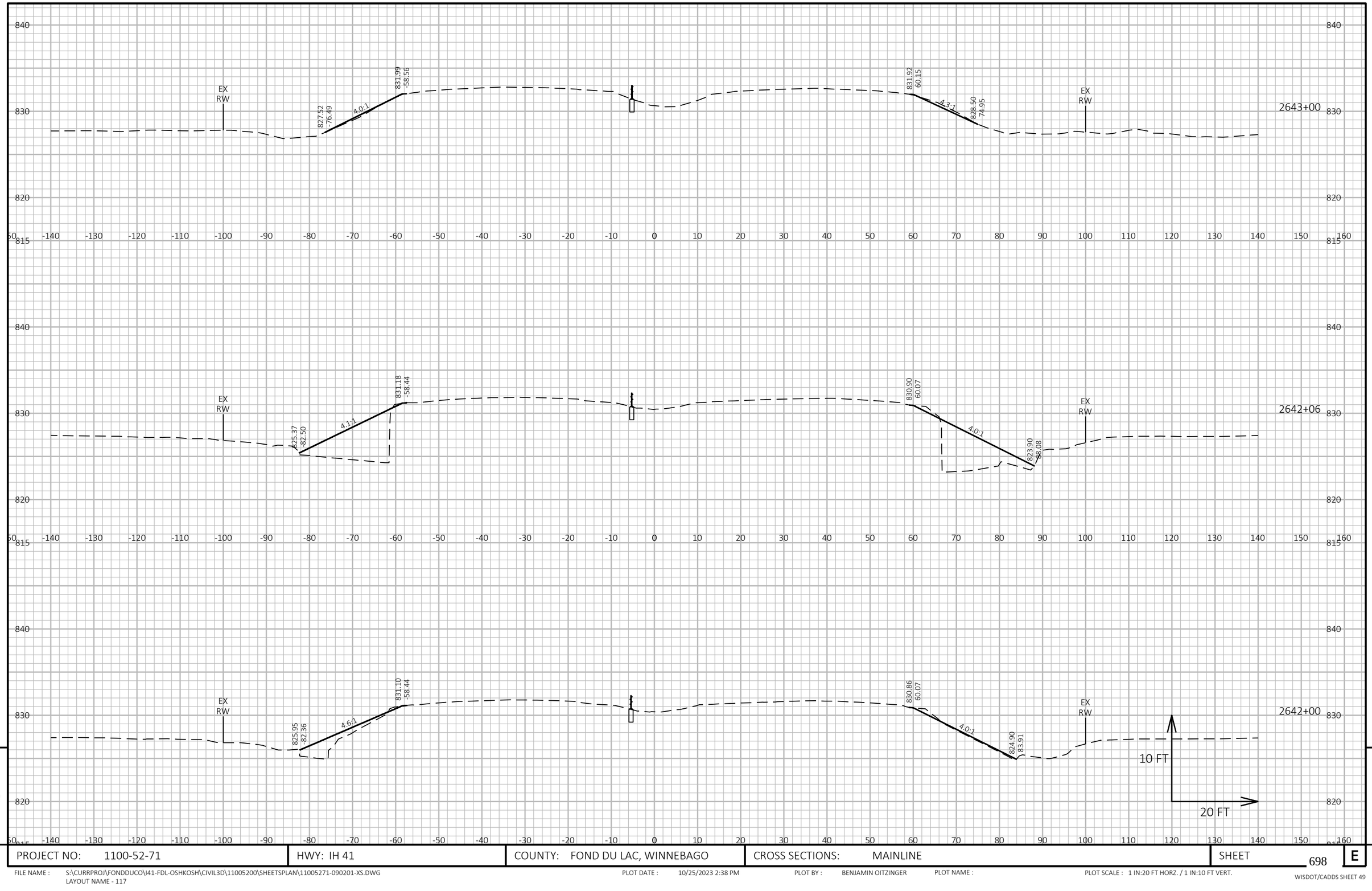
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 697	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 116

PLOT DATE : 10/25/2023 2:38 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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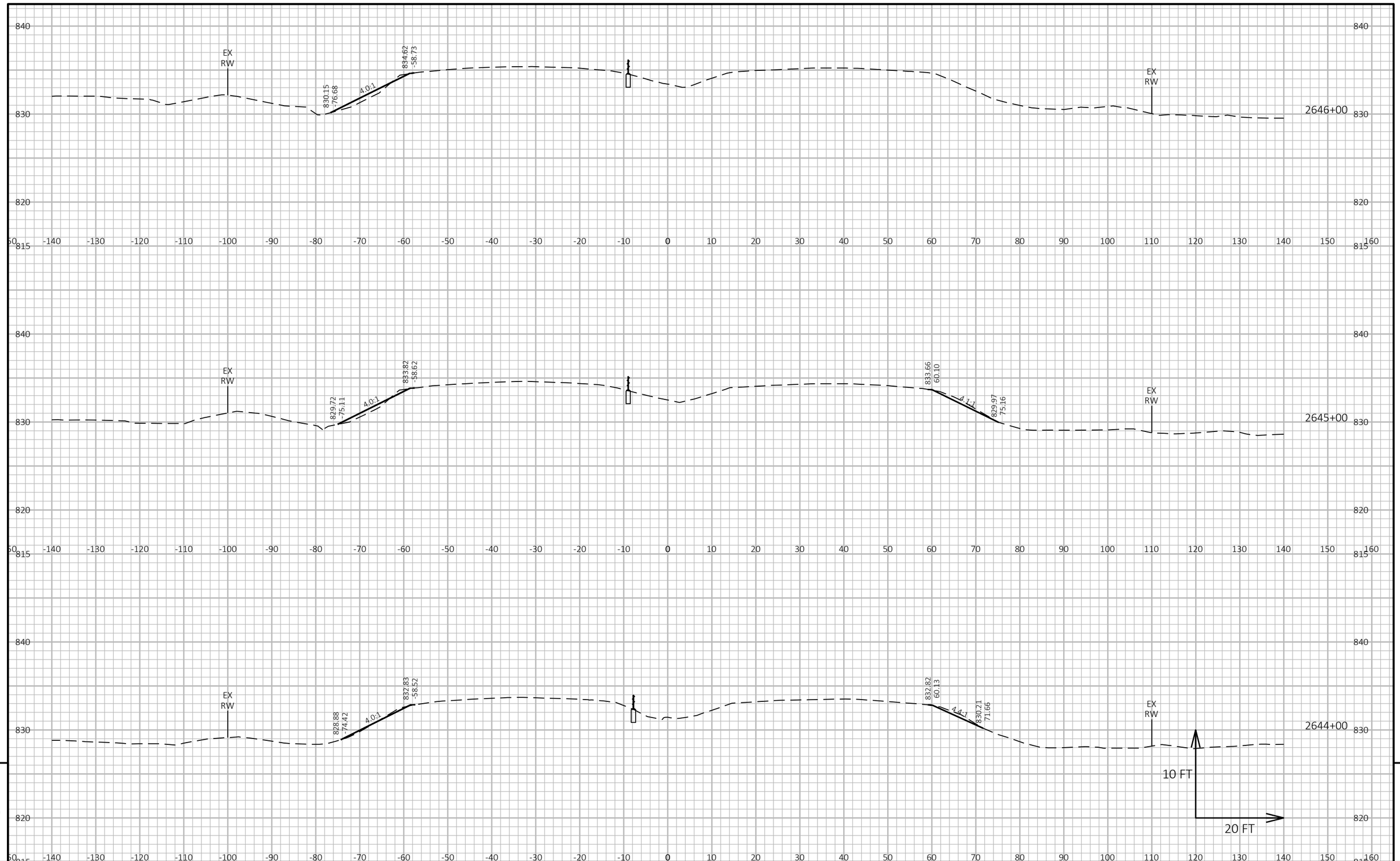
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 698	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 117

PLOT DATE : 10/25/2023 2:38 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

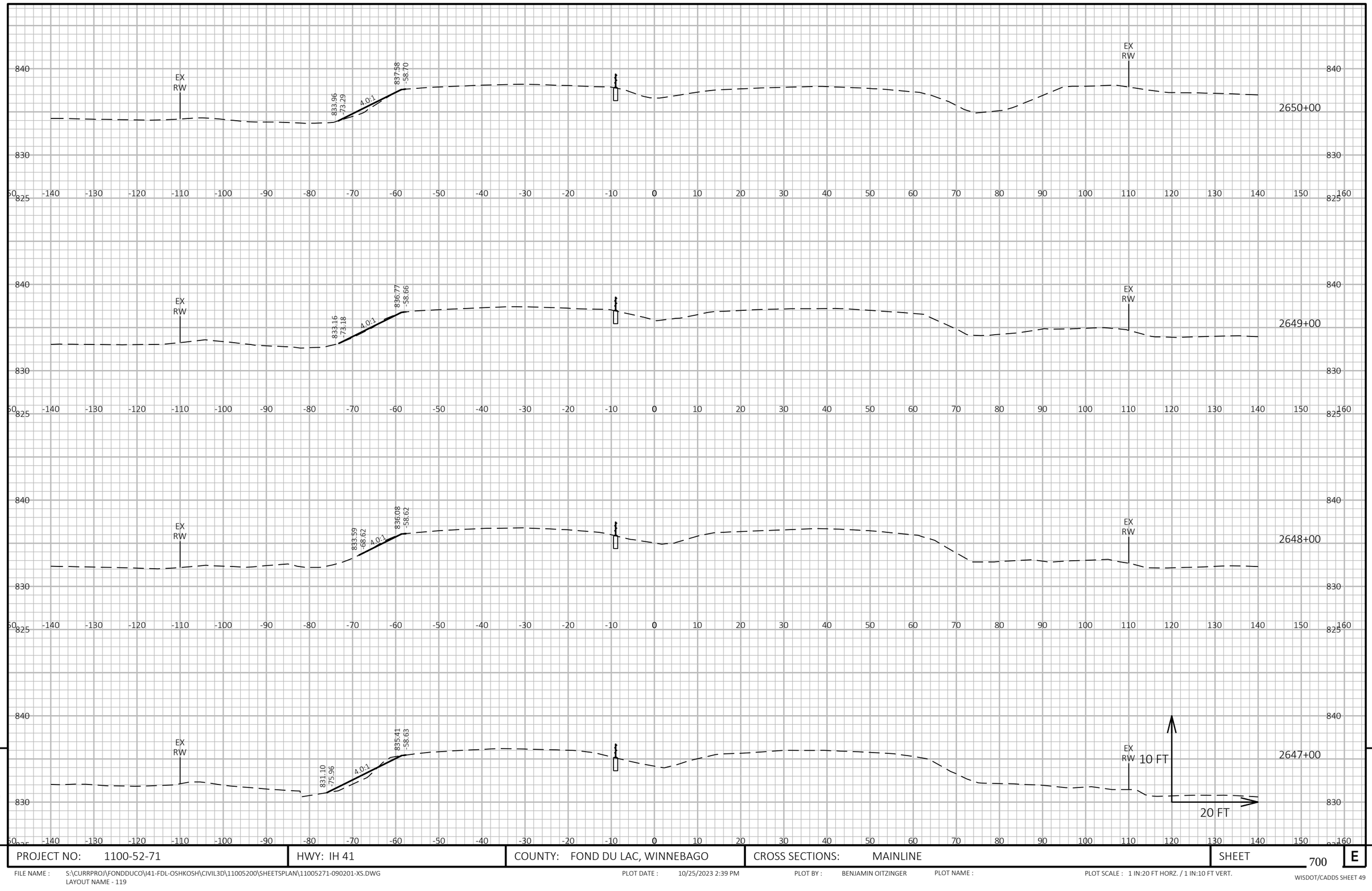


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 699	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 118

PLOT DATE : 10/25/2023 2:39 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



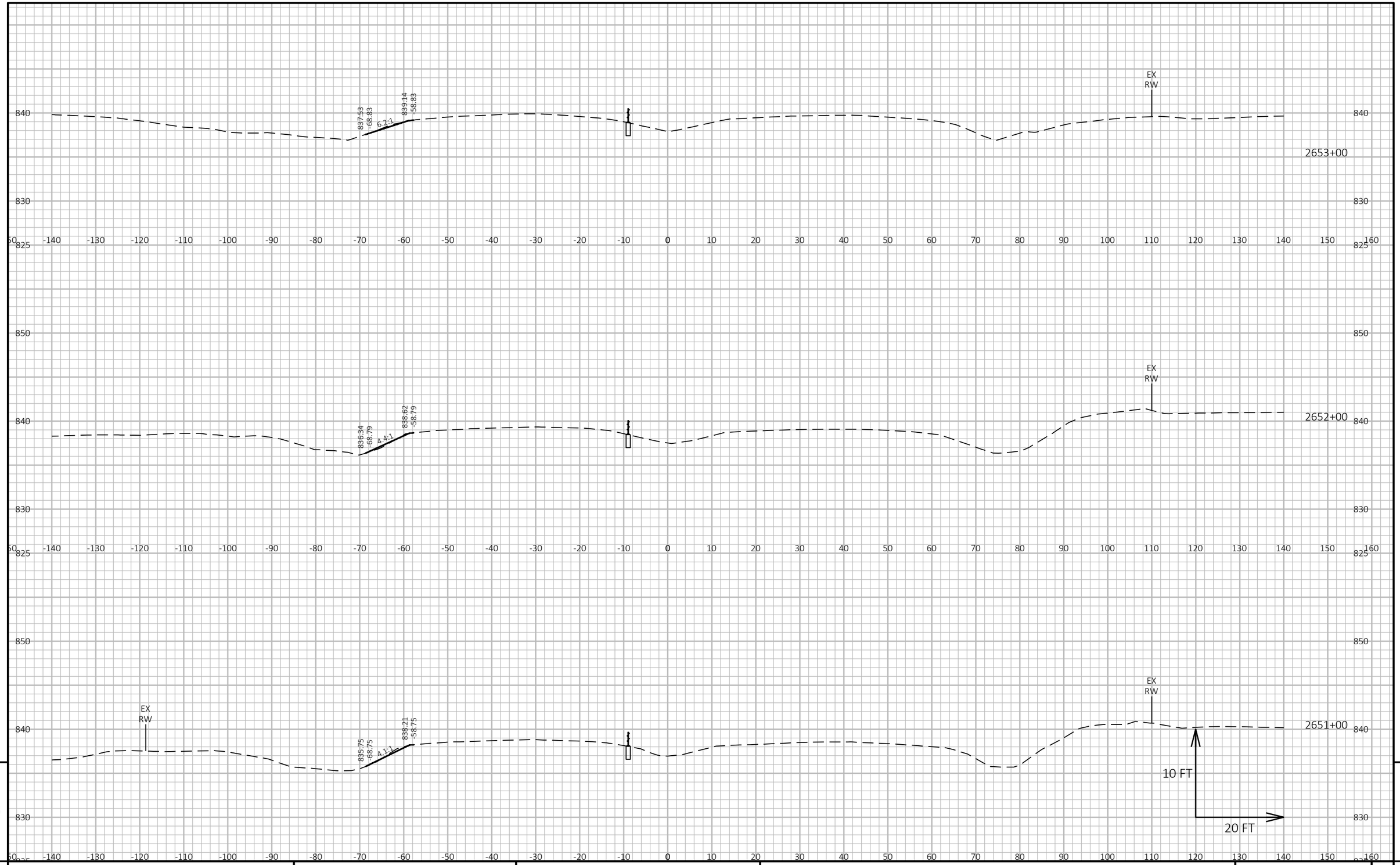
9 9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 700	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 119

PLOT DATE : 10/25/2023 2:39 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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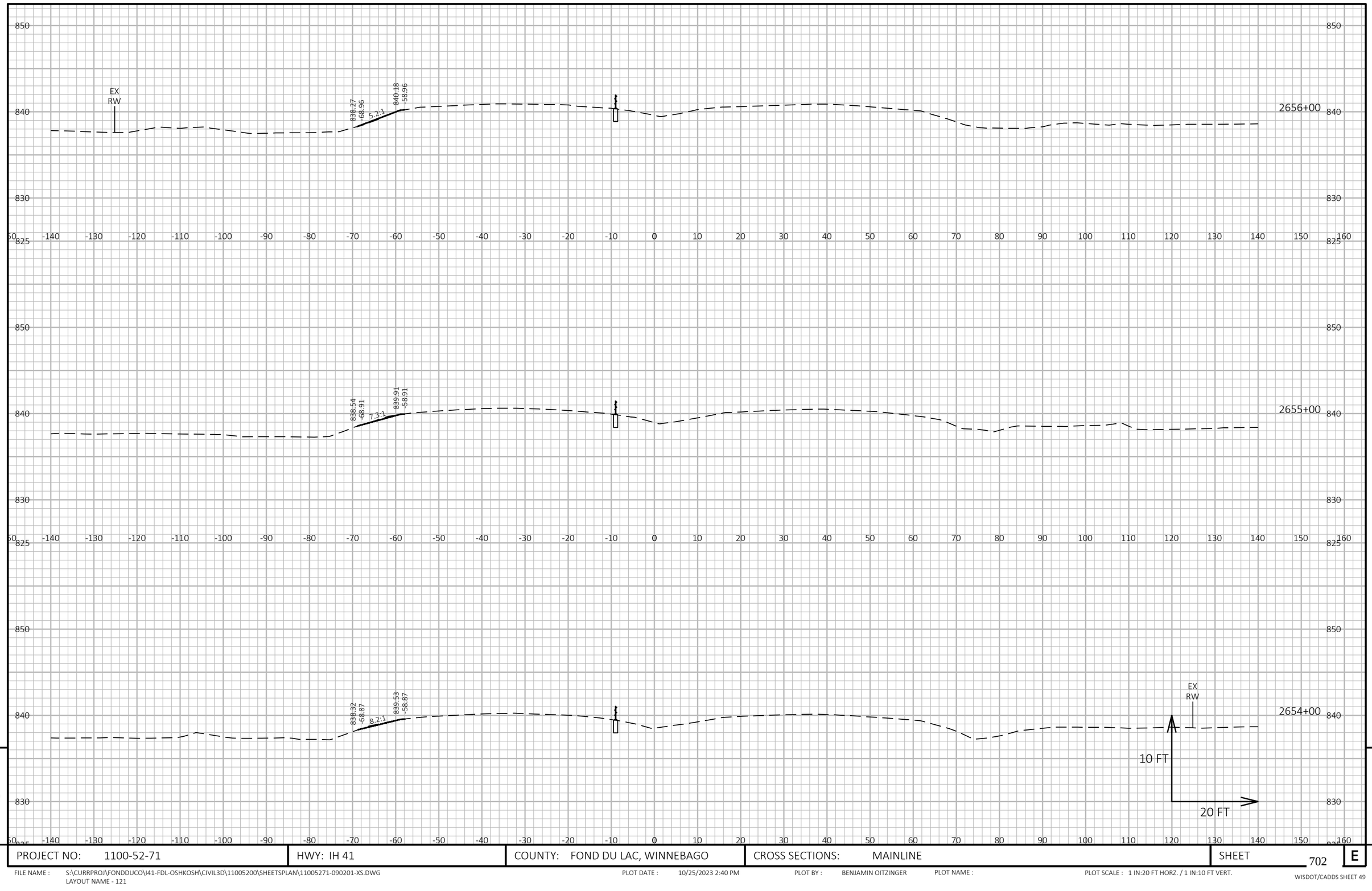
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 701	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 120

PLOT DATE : 10/25/2023 2:39 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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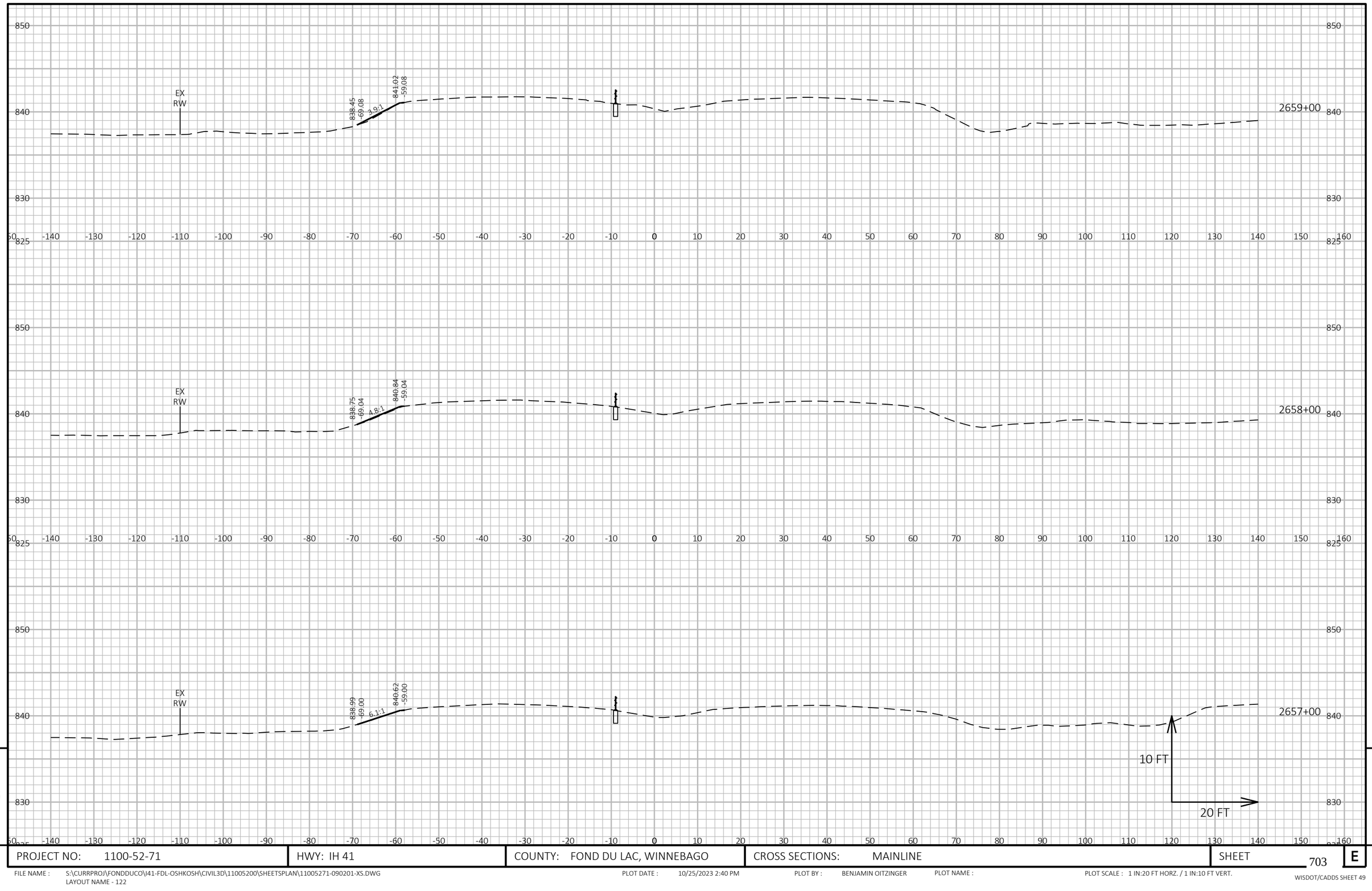
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 702	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 121

PLOT DATE : 10/25/2023 2:40 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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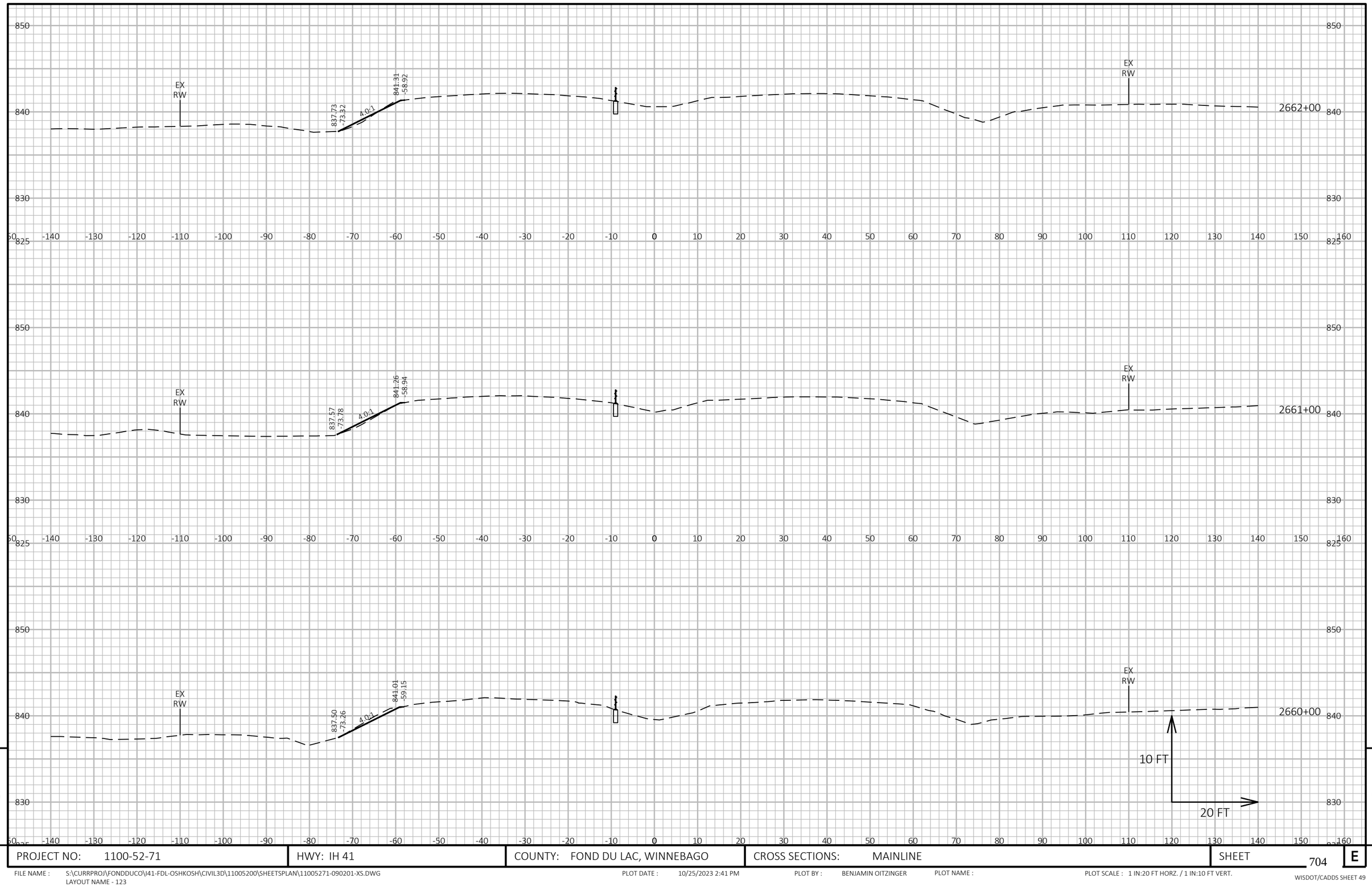
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 703	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 122

PLOT DATE : 10/25/2023 2:40 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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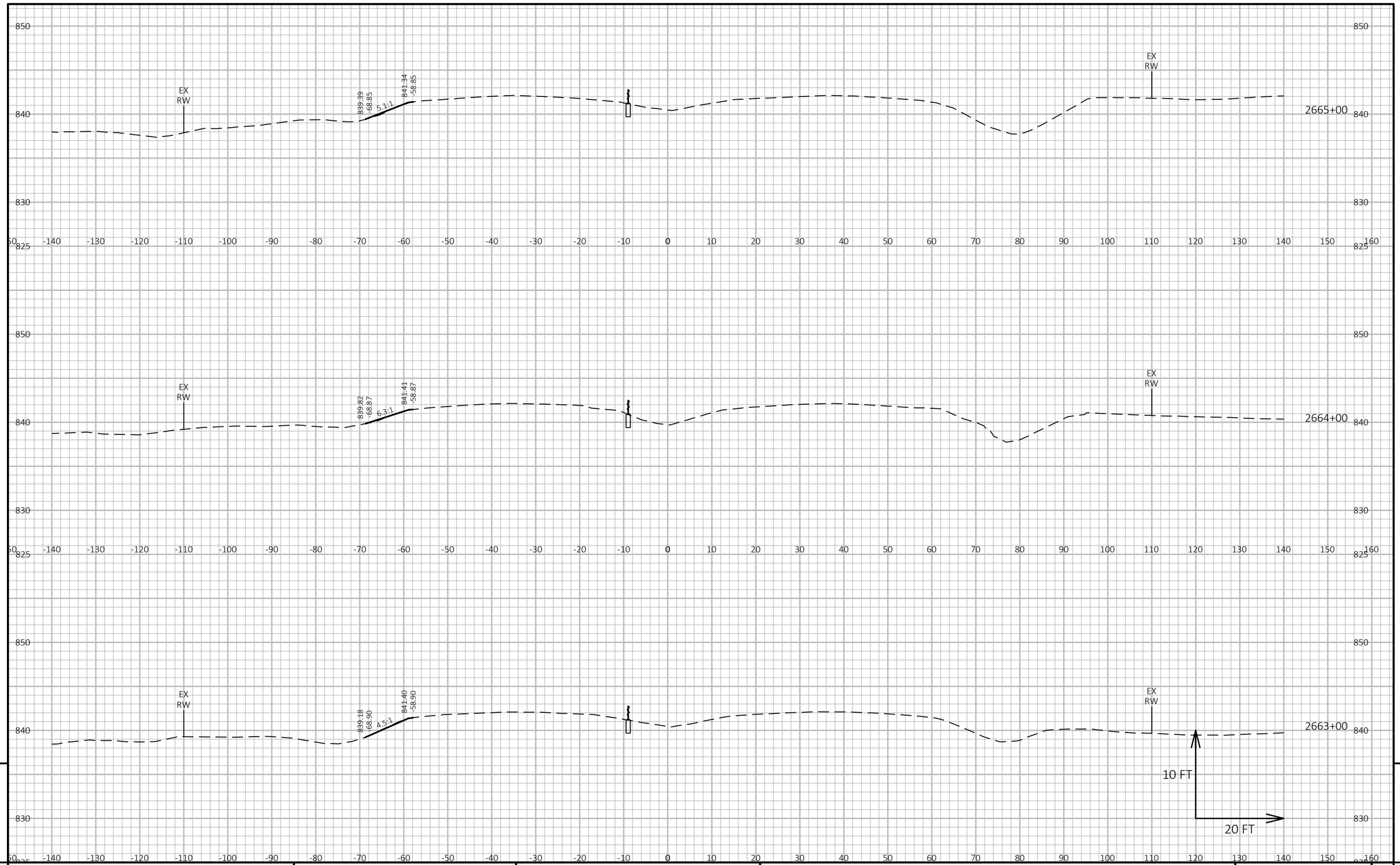
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 704	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 123

PLOT DATE : 10/25/2023 2:41 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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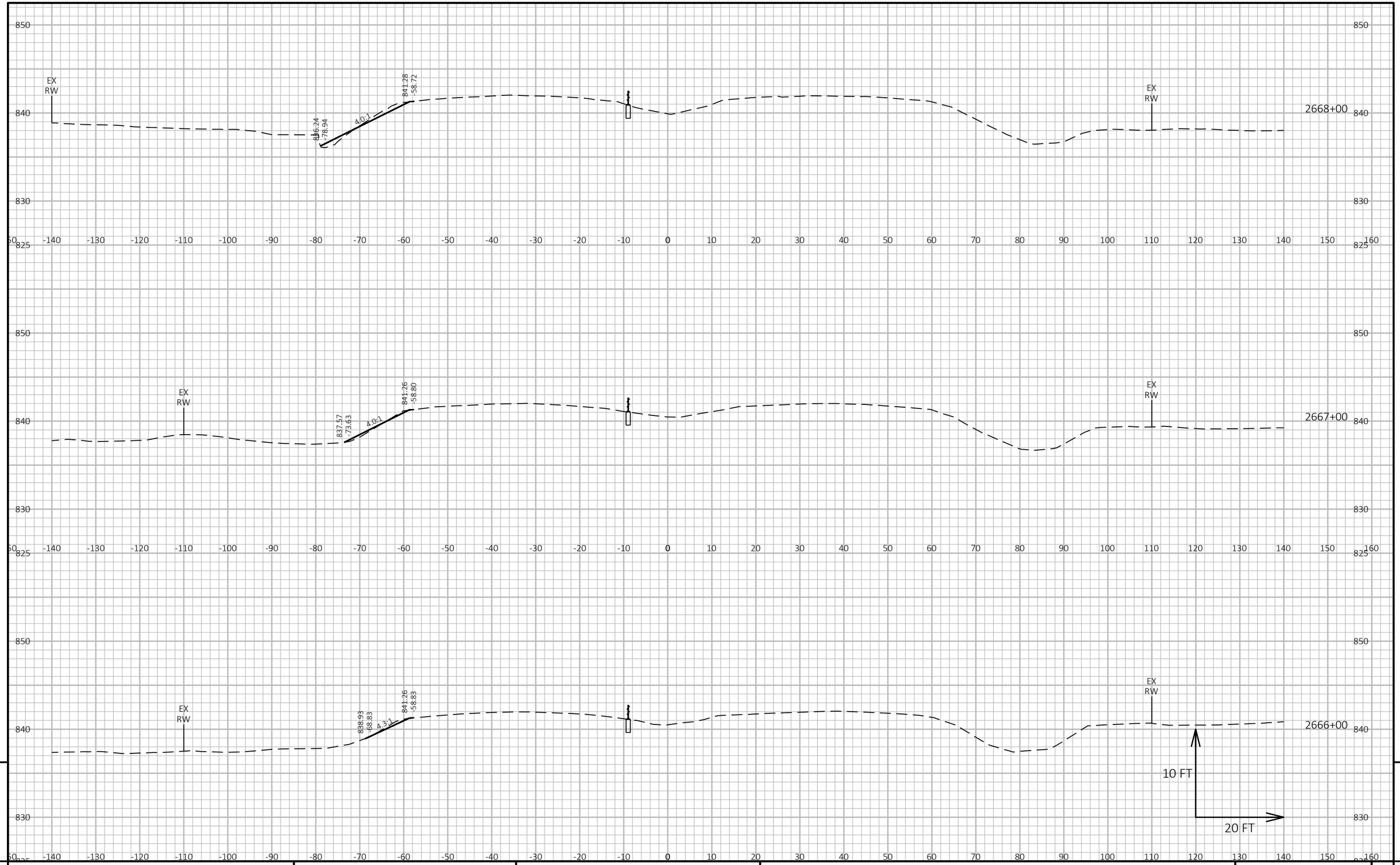
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 705	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 124

PLOT DATE : 10/25/2023 2:41 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

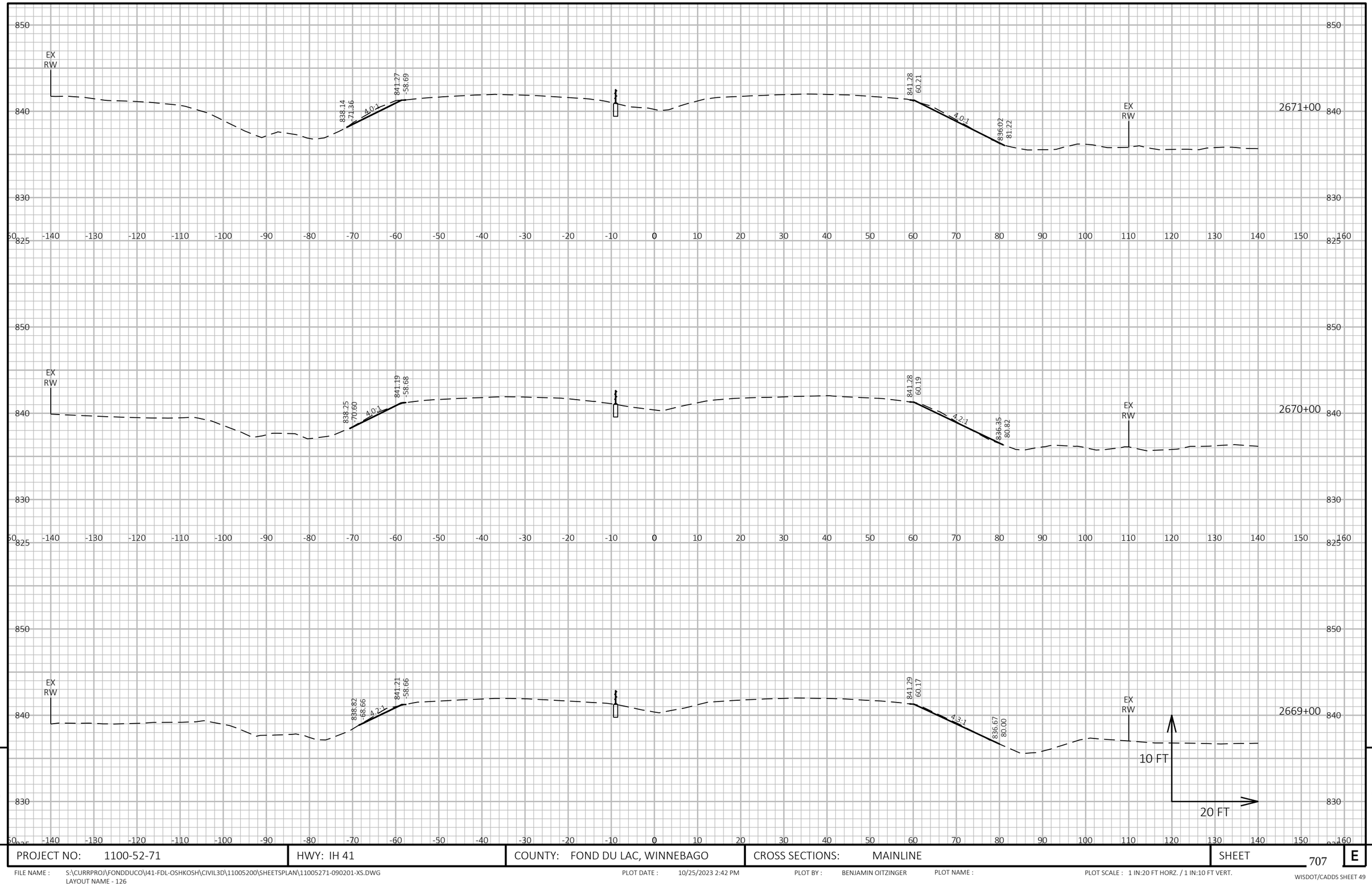


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 706 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 125

PLOT DATE : 10/25/2023 2:42 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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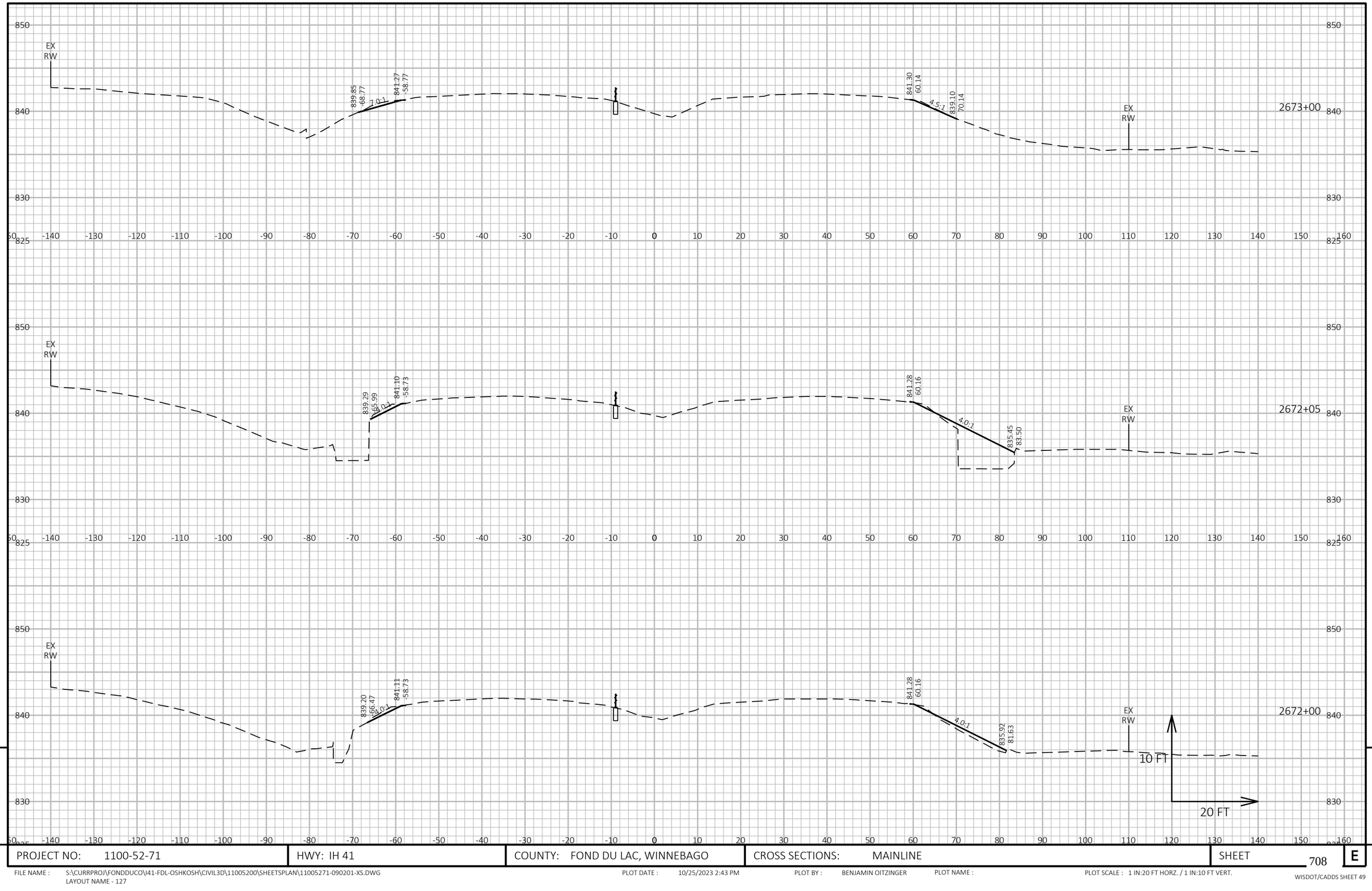
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 707	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 126

PLOT DATE : 10/25/2023 2:42 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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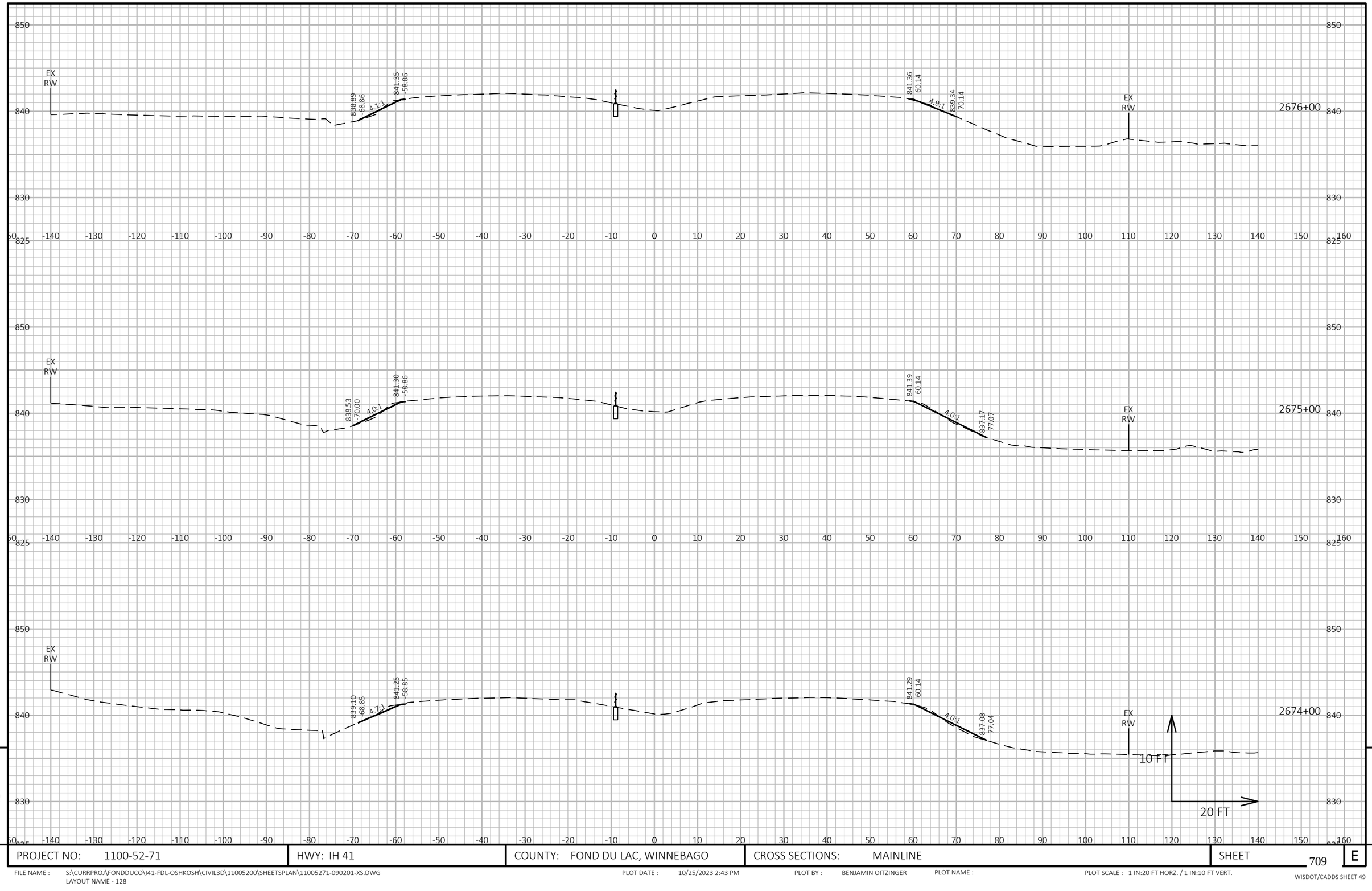
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 708 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 127

PLOT DATE : 10/25/2023 2:43 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 709	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 128

PLOT DATE : 10/25/2023 2:43 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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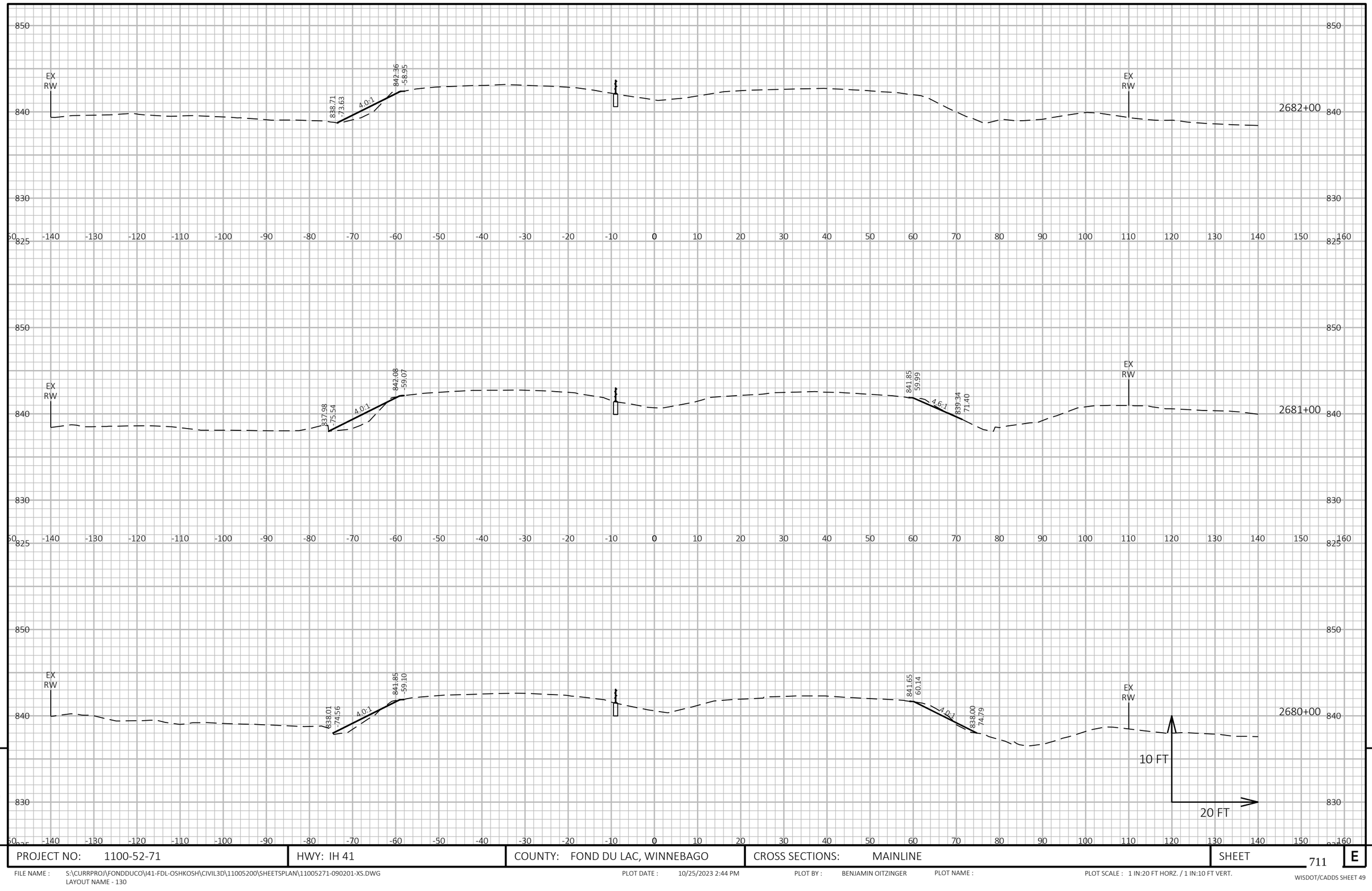
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 710	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 129

PLOT DATE : 10/25/2023 2:44 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

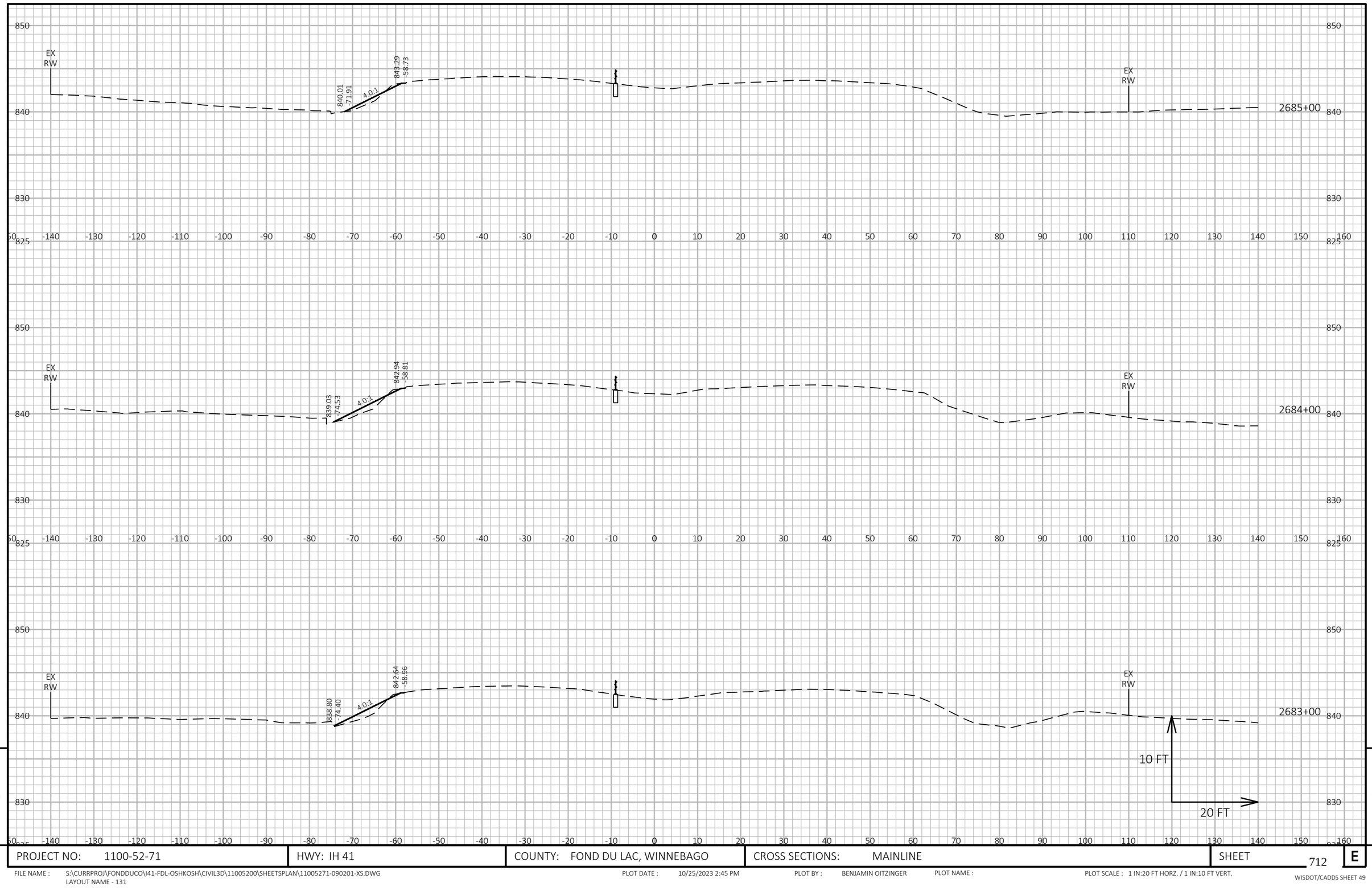


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 711 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 130

PLOT DATE : 10/25/2023 2:44 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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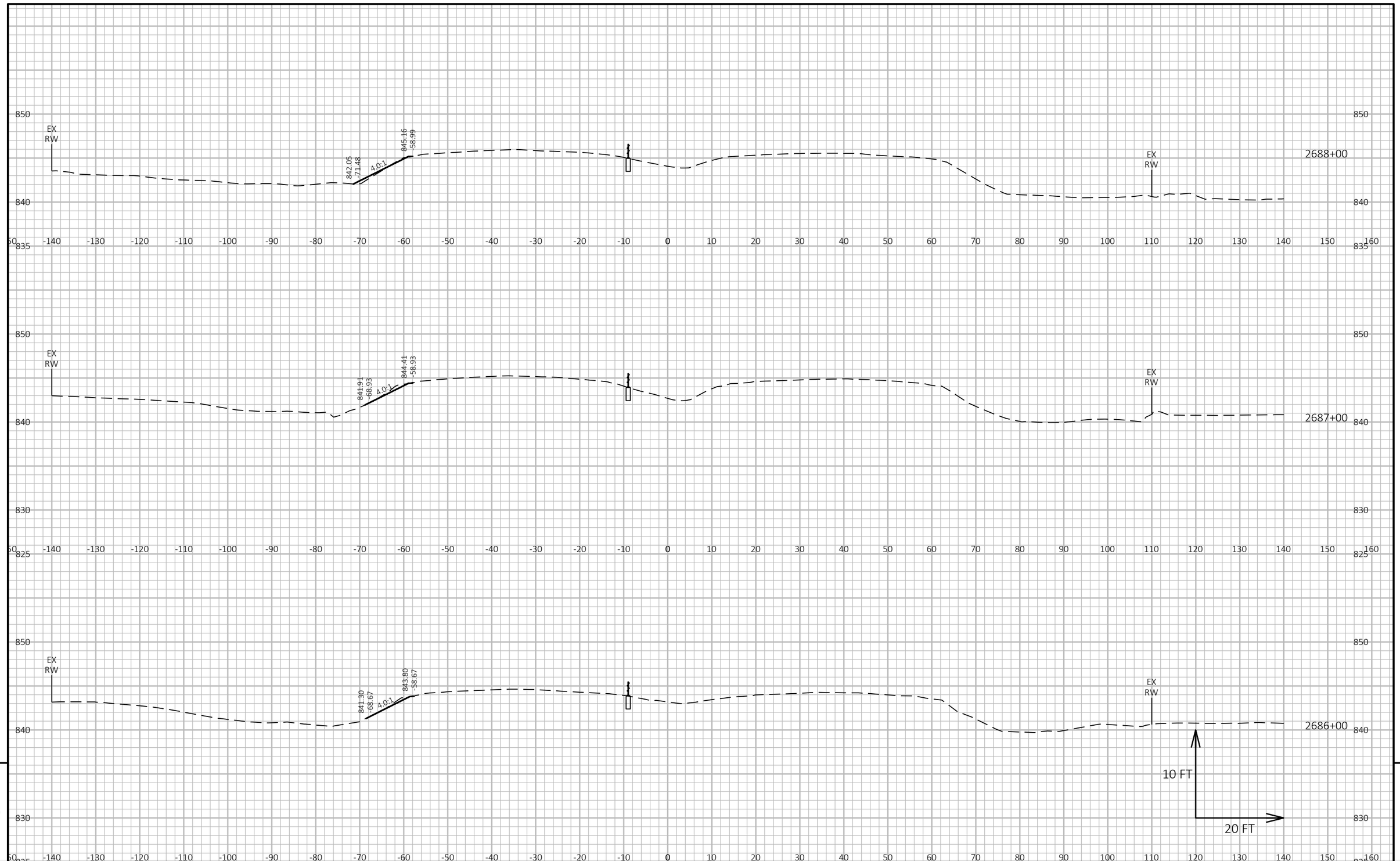
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 712	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 131

PLOT DATE : 10/25/2023 2:45 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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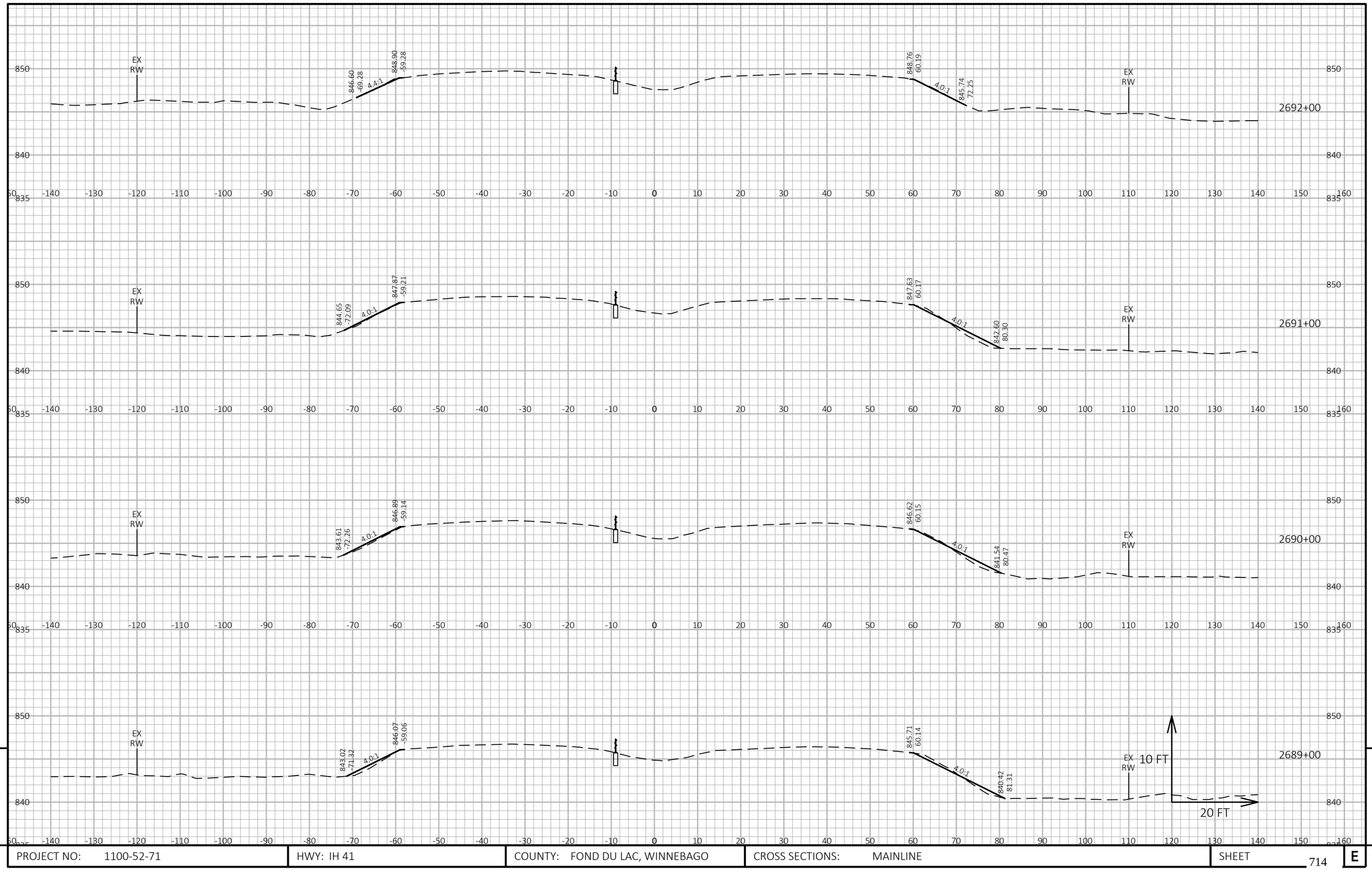
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 713	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 132

PLOT DATE : 10/25/2023 2:45 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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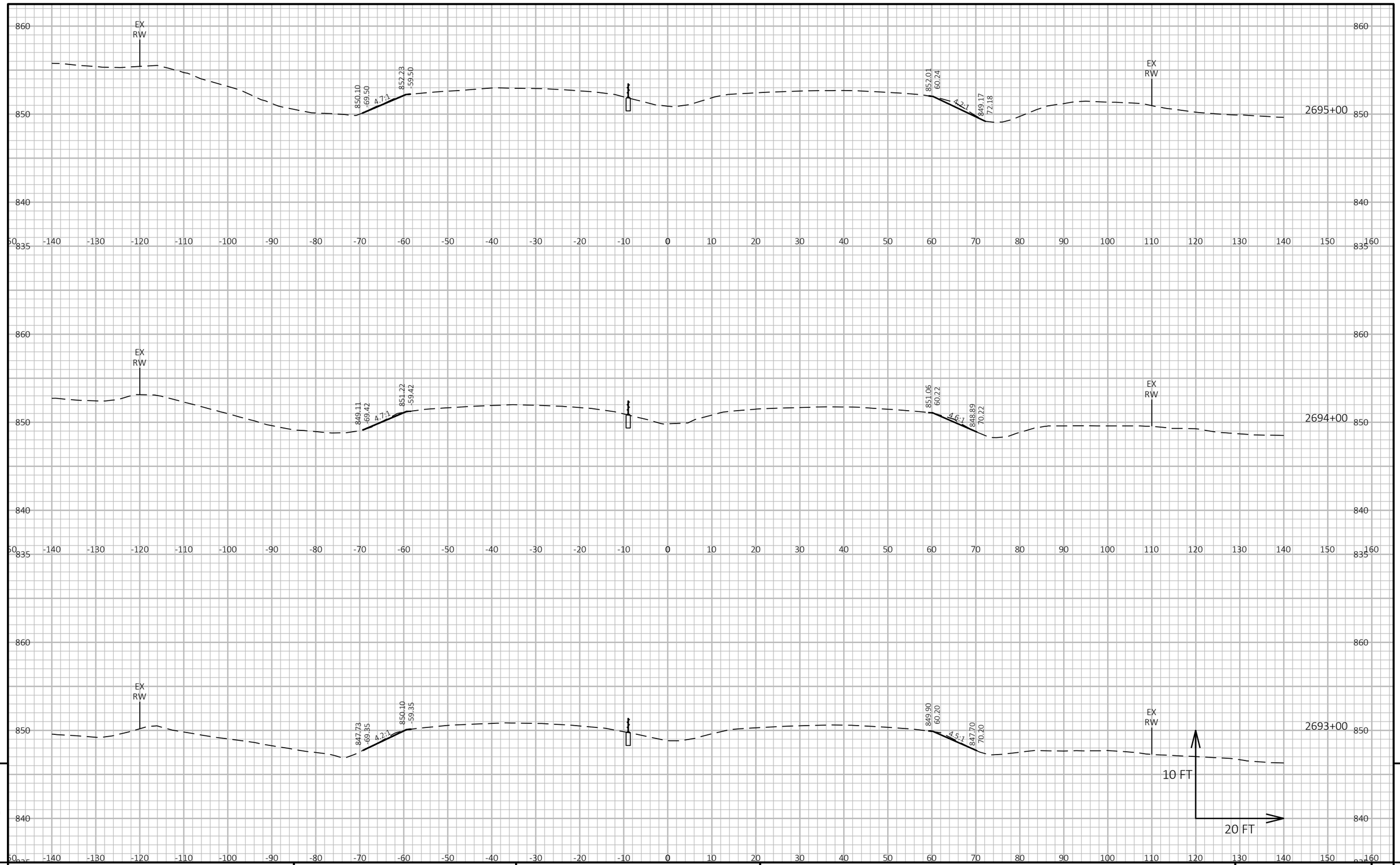
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 714	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 133

PLOT DATE : 10/25/2023 2:46 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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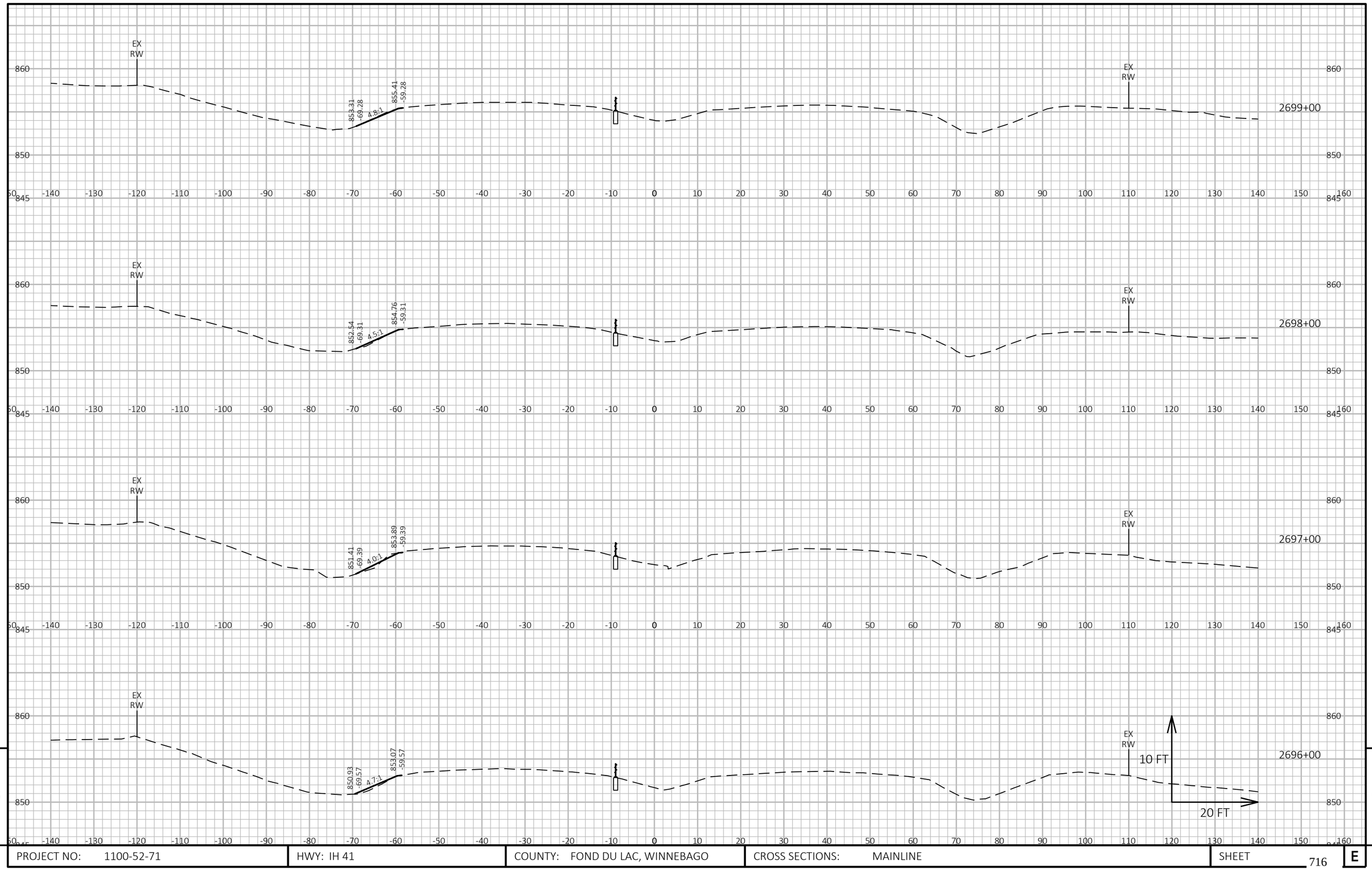
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 715	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 134

PLOT DATE : 10/25/2023 2:46 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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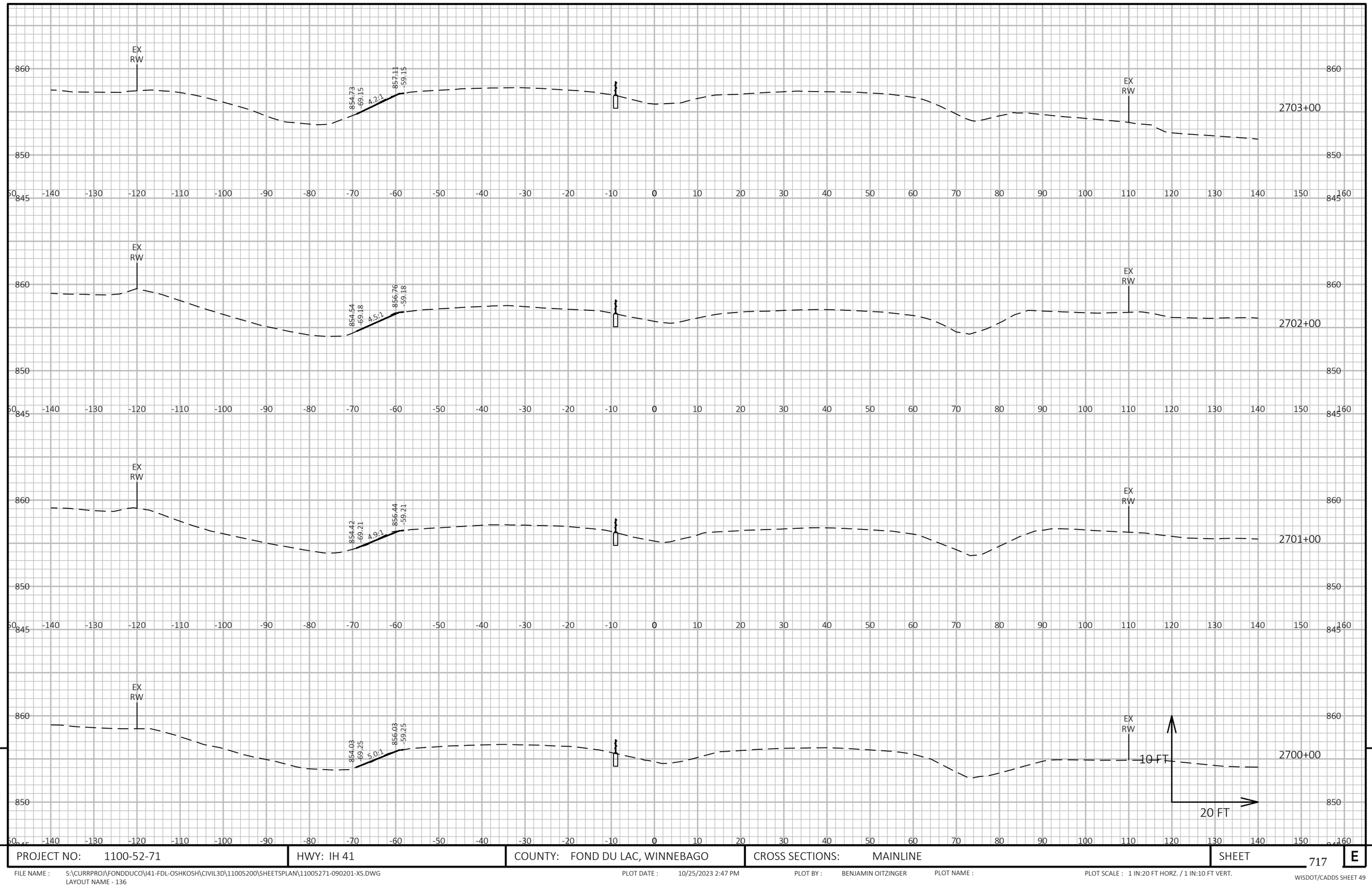
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 716	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 135

PLOT DATE : 10/25/2023 2:47 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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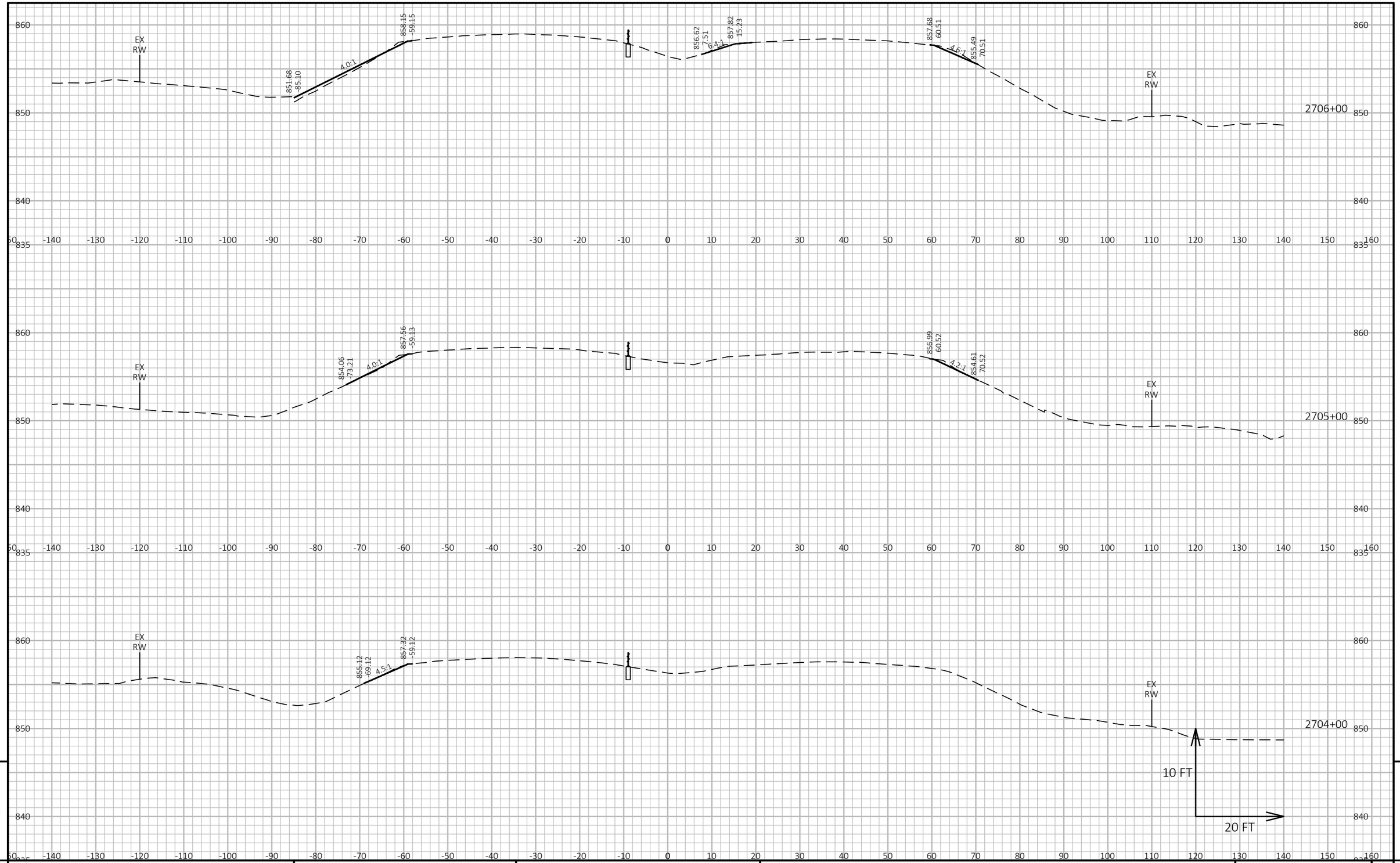
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 717	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 136

PLOT DATE : 10/25/2023 2:47 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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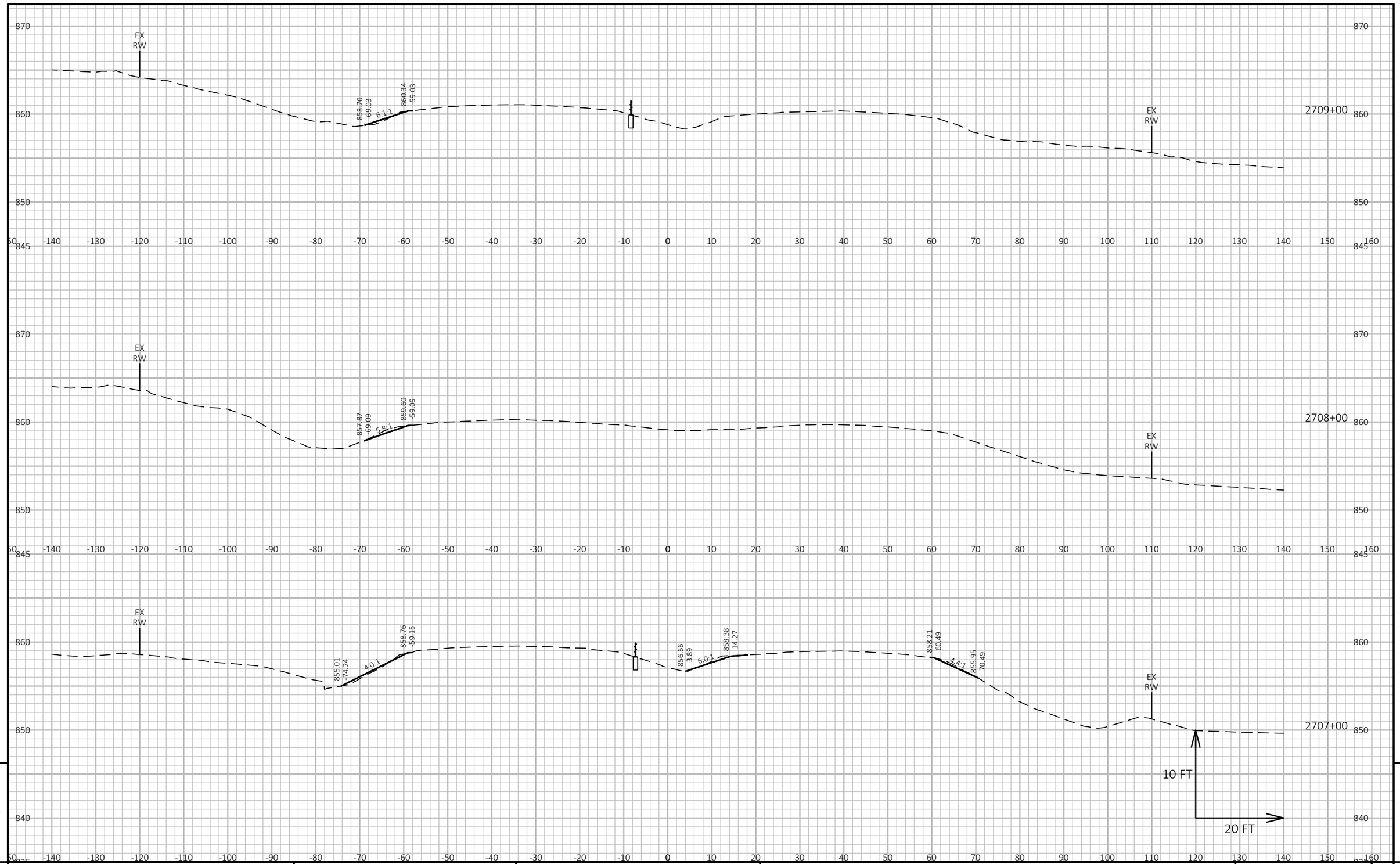
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 718	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 137

PLOT DATE : 10/25/2023 2:47 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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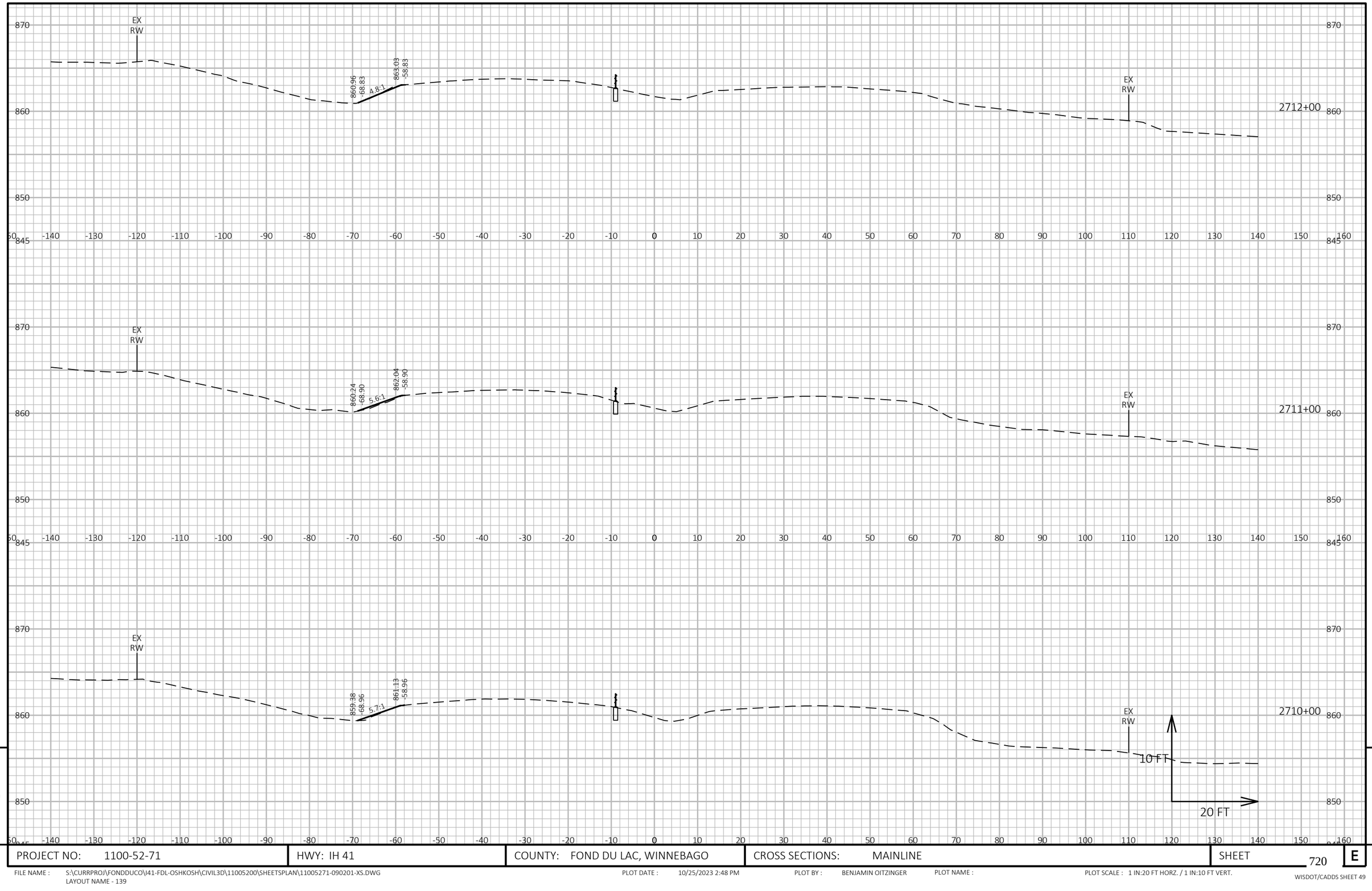
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 719	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 138

PLOT DATE : 10/25/2023 2:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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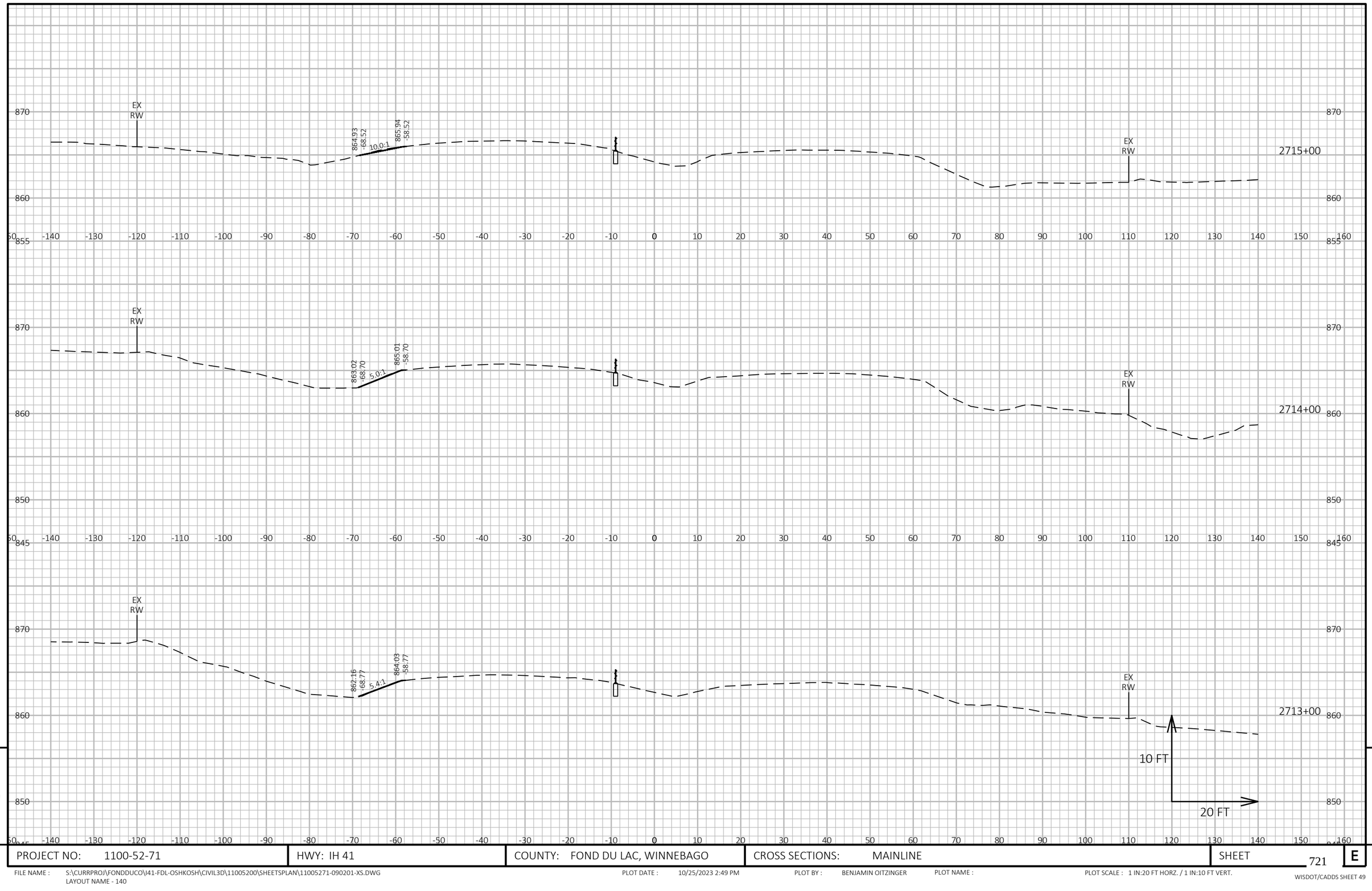
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 720	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 139

PLOT DATE : 10/25/2023 2:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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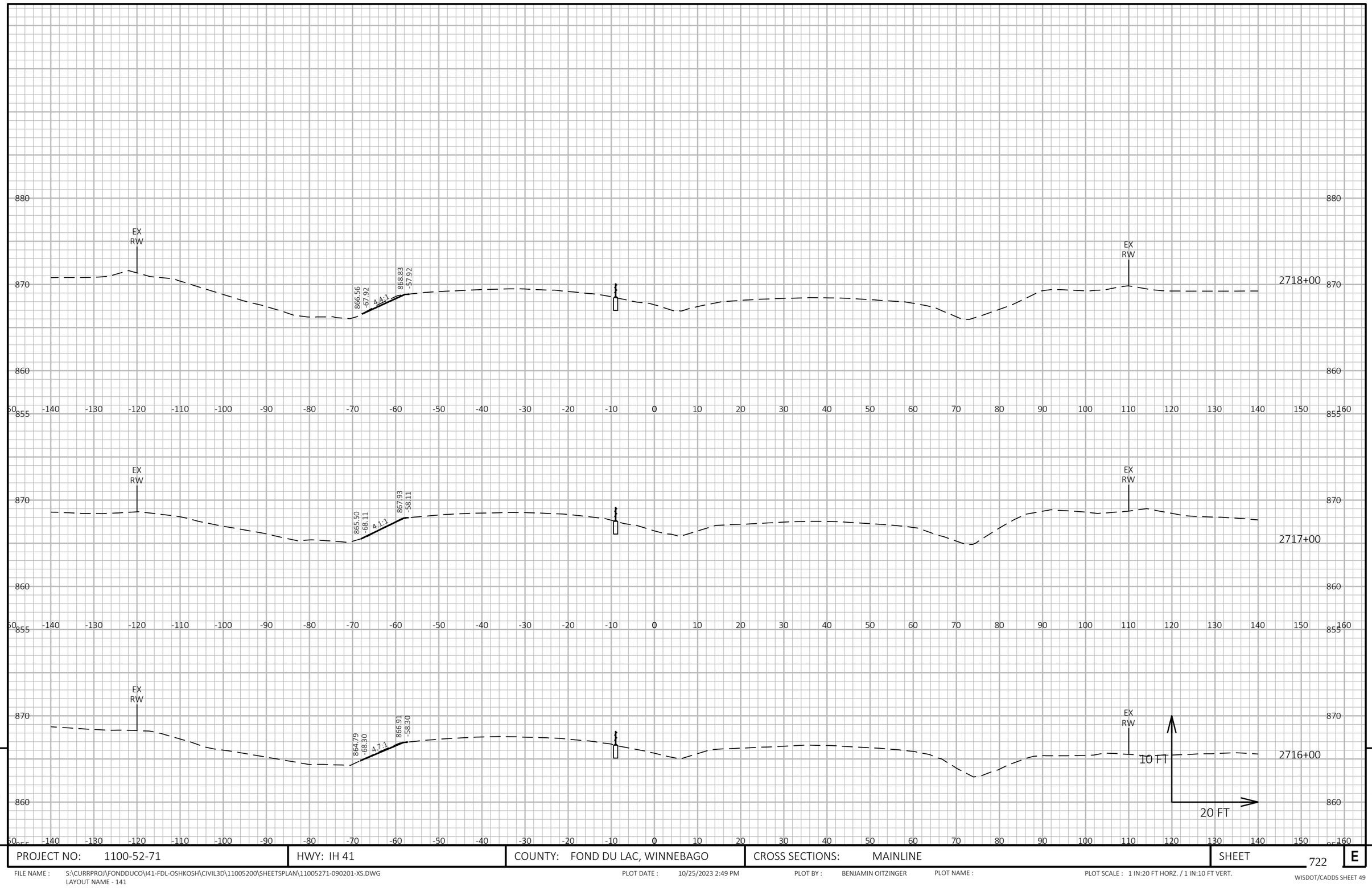
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 721	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 140

PLOT DATE : 10/25/2023 2:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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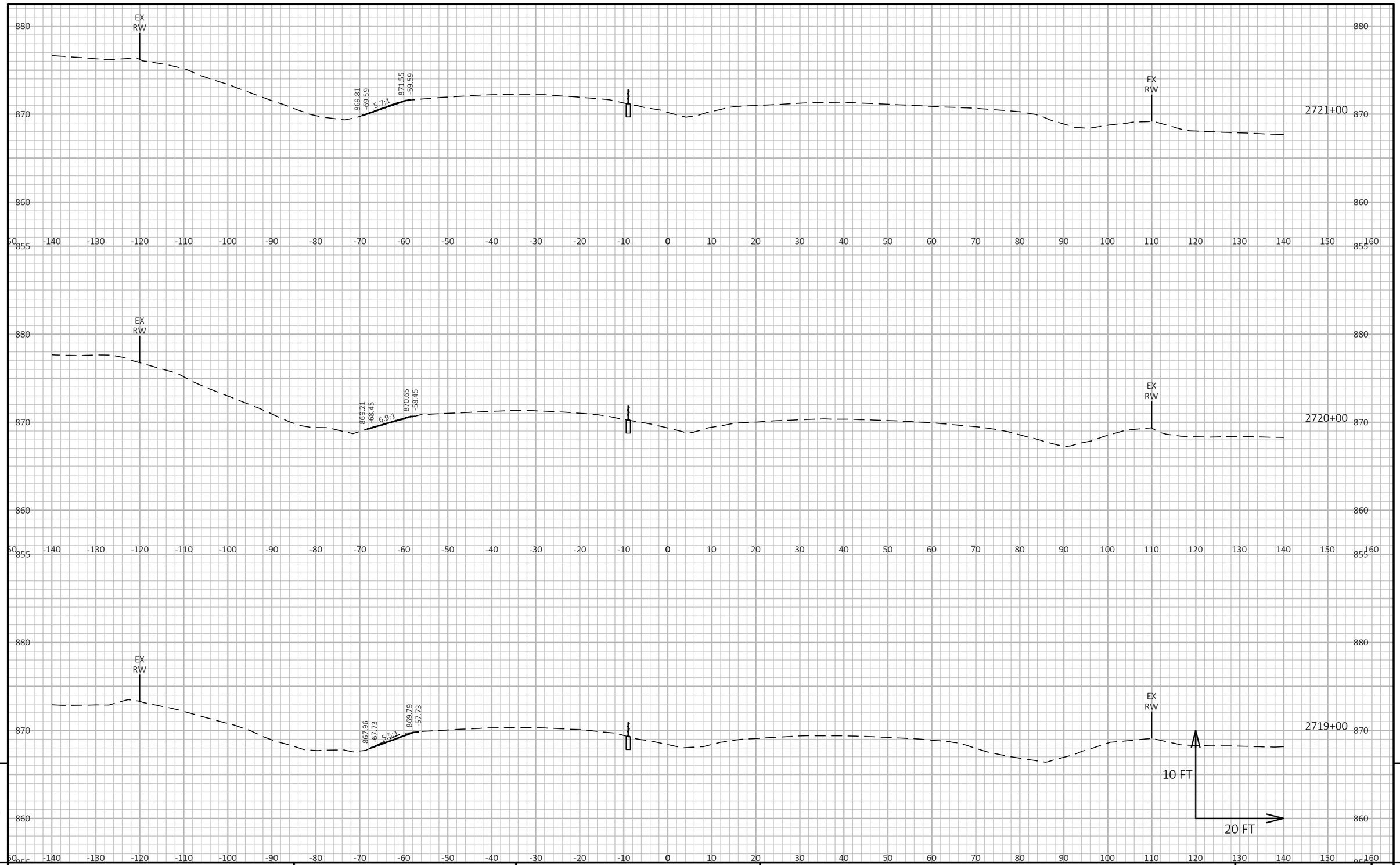
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 722	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 141

PLOT DATE : 10/25/2023 2:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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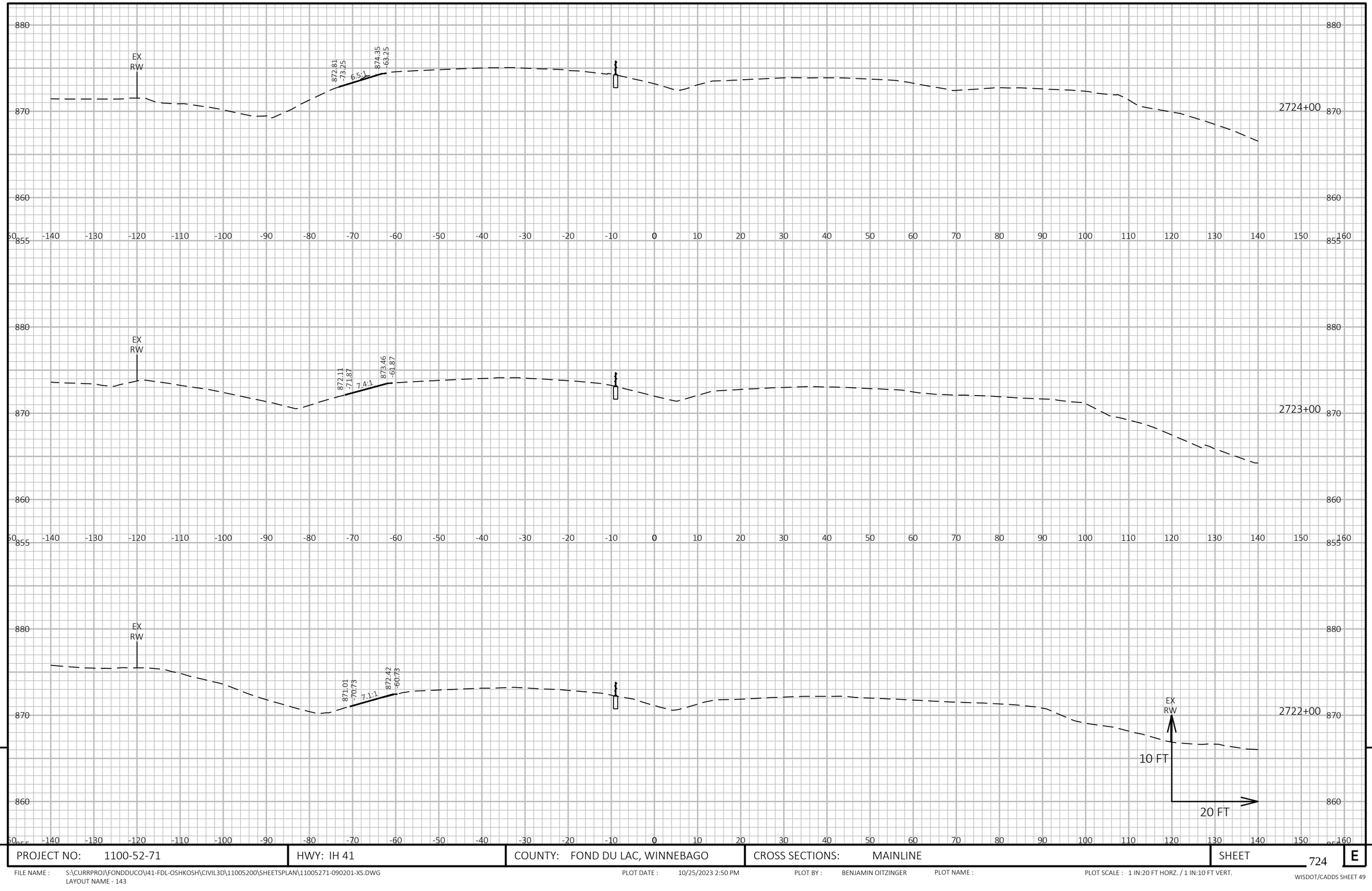
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 723	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 142

PLOT DATE : 10/25/2023 2:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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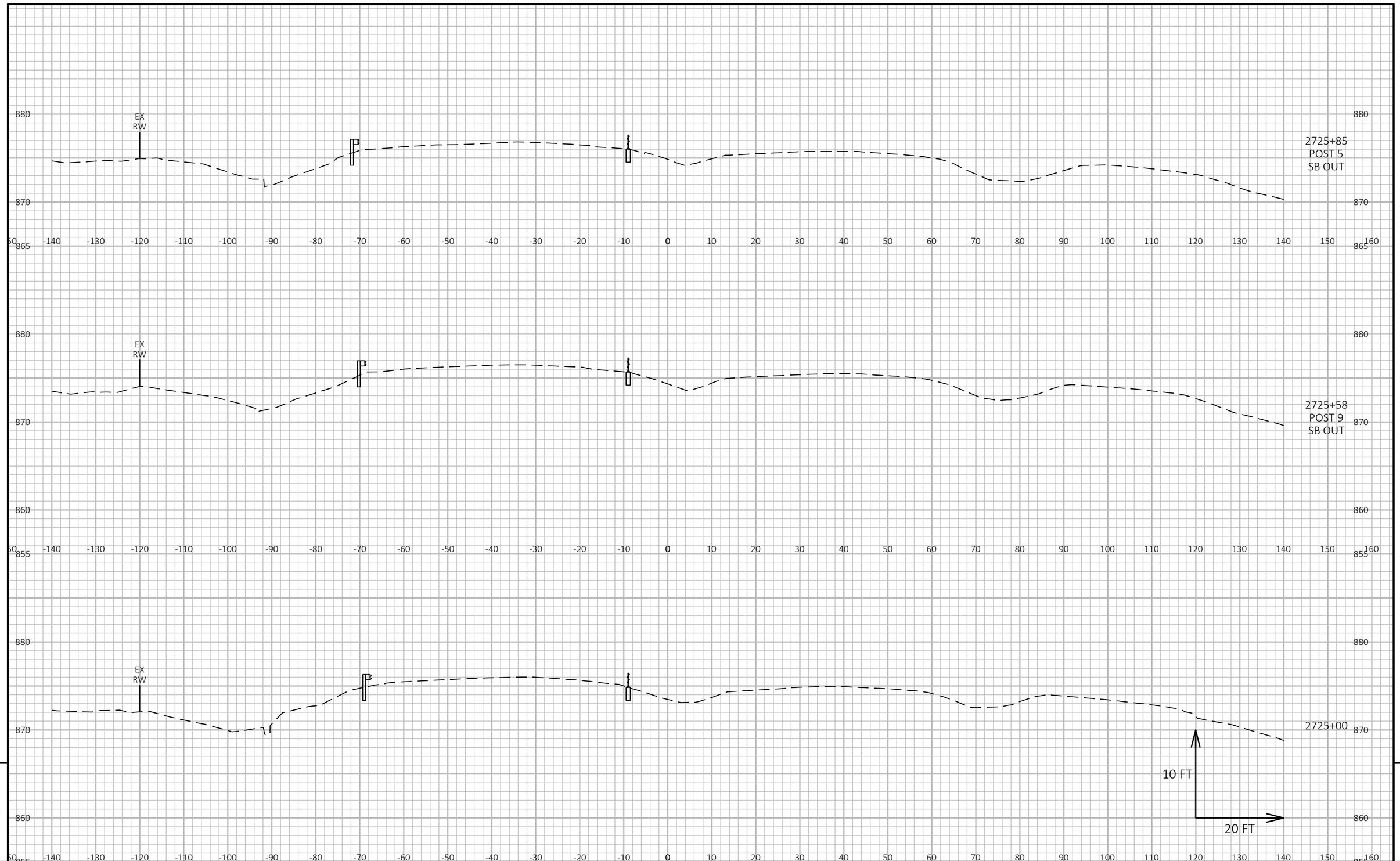
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 724	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 143

PLOT DATE : 10/25/2023 2:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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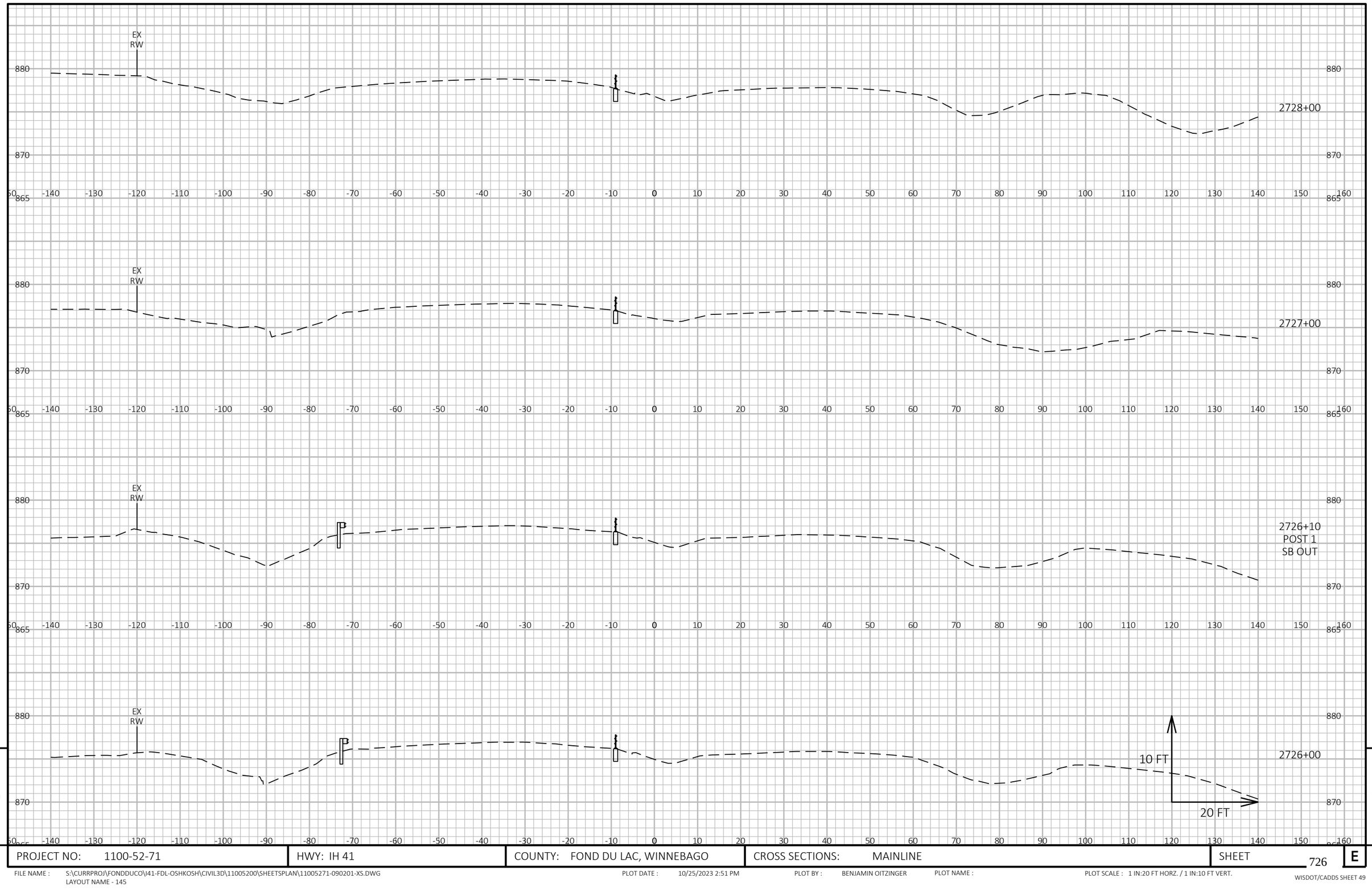
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 725	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 144

PLOT DATE : 10/25/2023 2:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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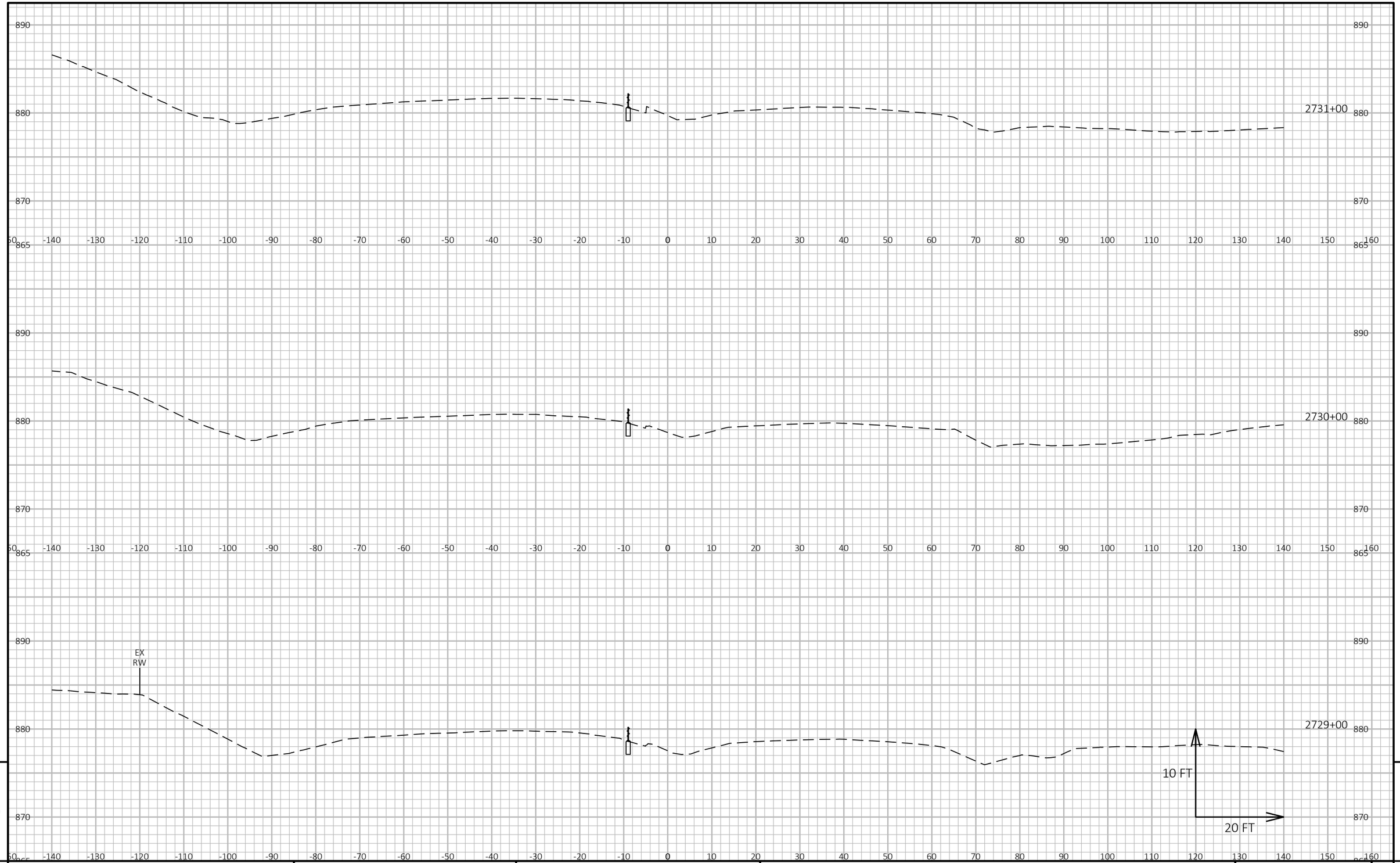
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 726	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 145

PLOT DATE : 10/25/2023 2:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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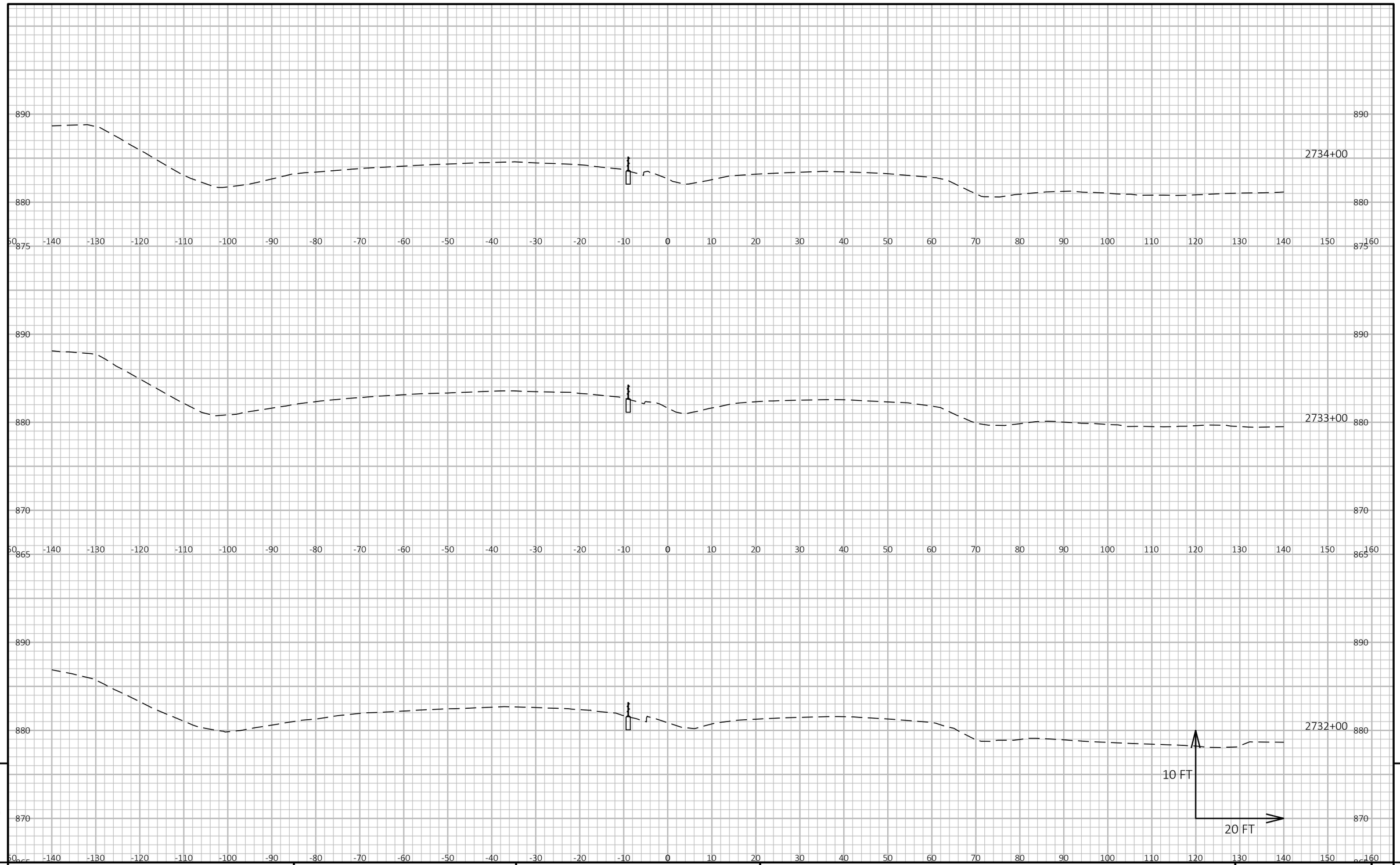
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 727	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 146

PLOT DATE : 10/25/2023 2:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

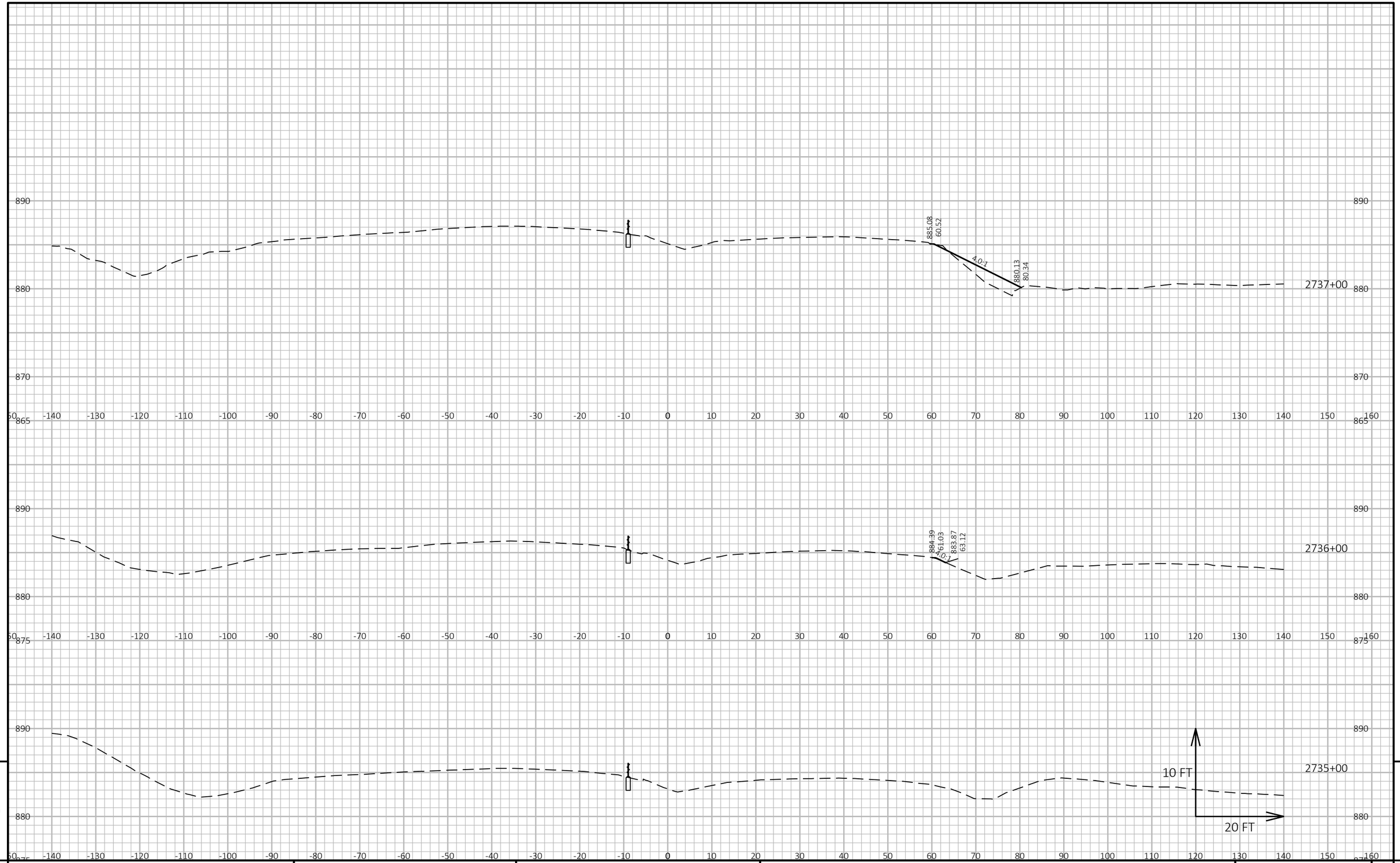


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 728	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 147

PLOT DATE : 10/25/2023 2:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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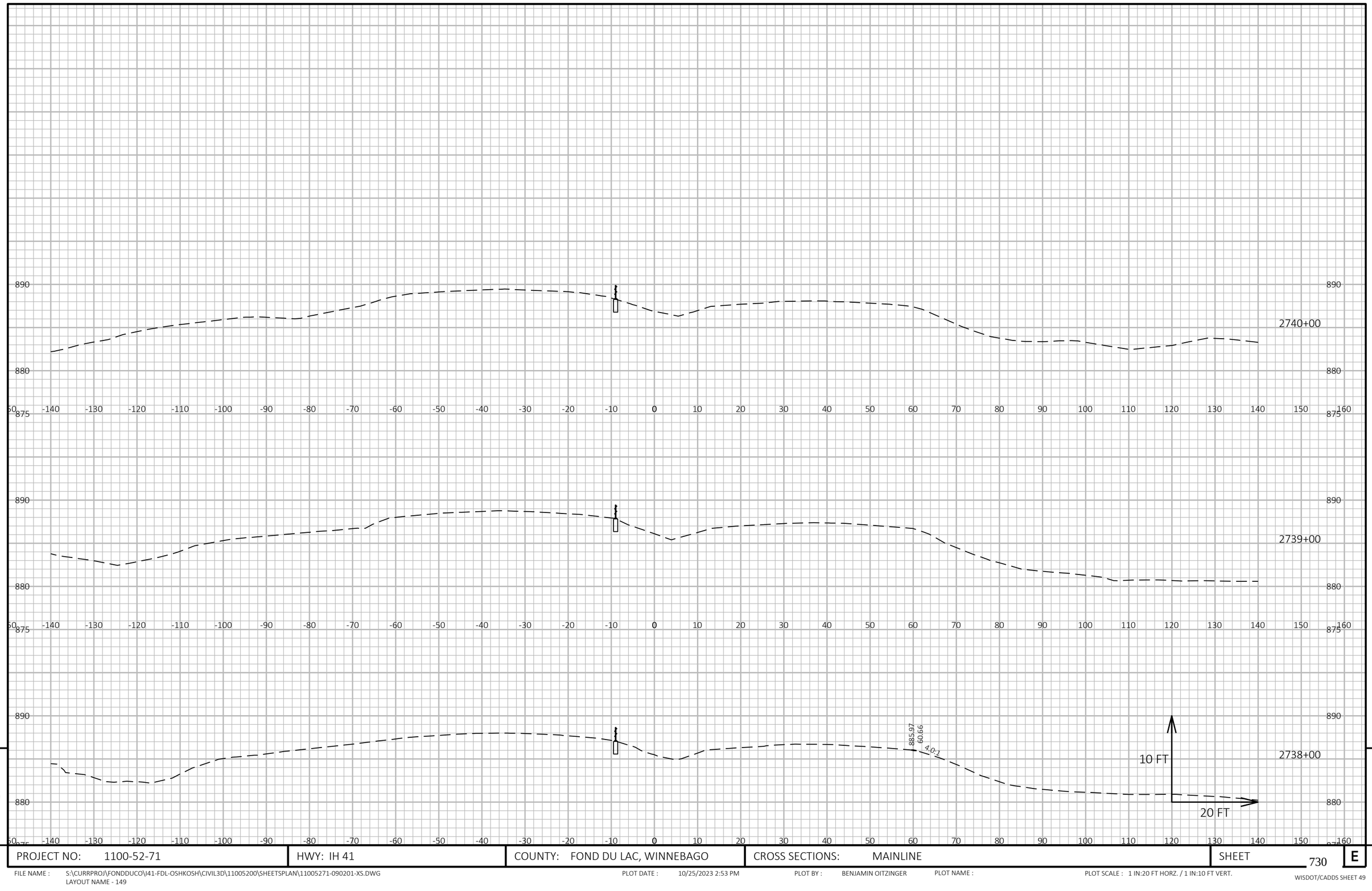
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 729	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 148

PLOT DATE : 10/25/2023 2:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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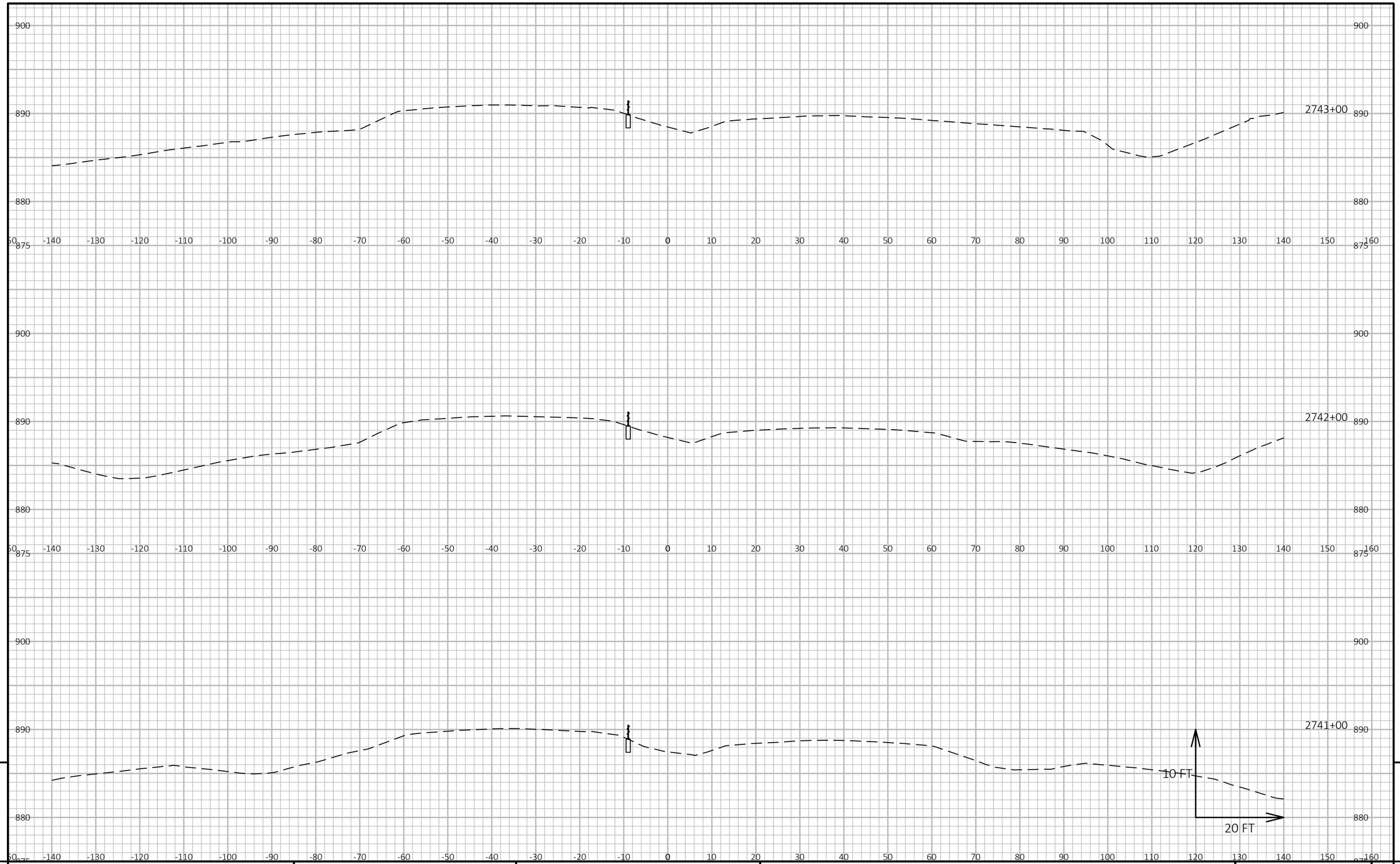
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 730	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 149

PLOT DATE : 10/25/2023 2:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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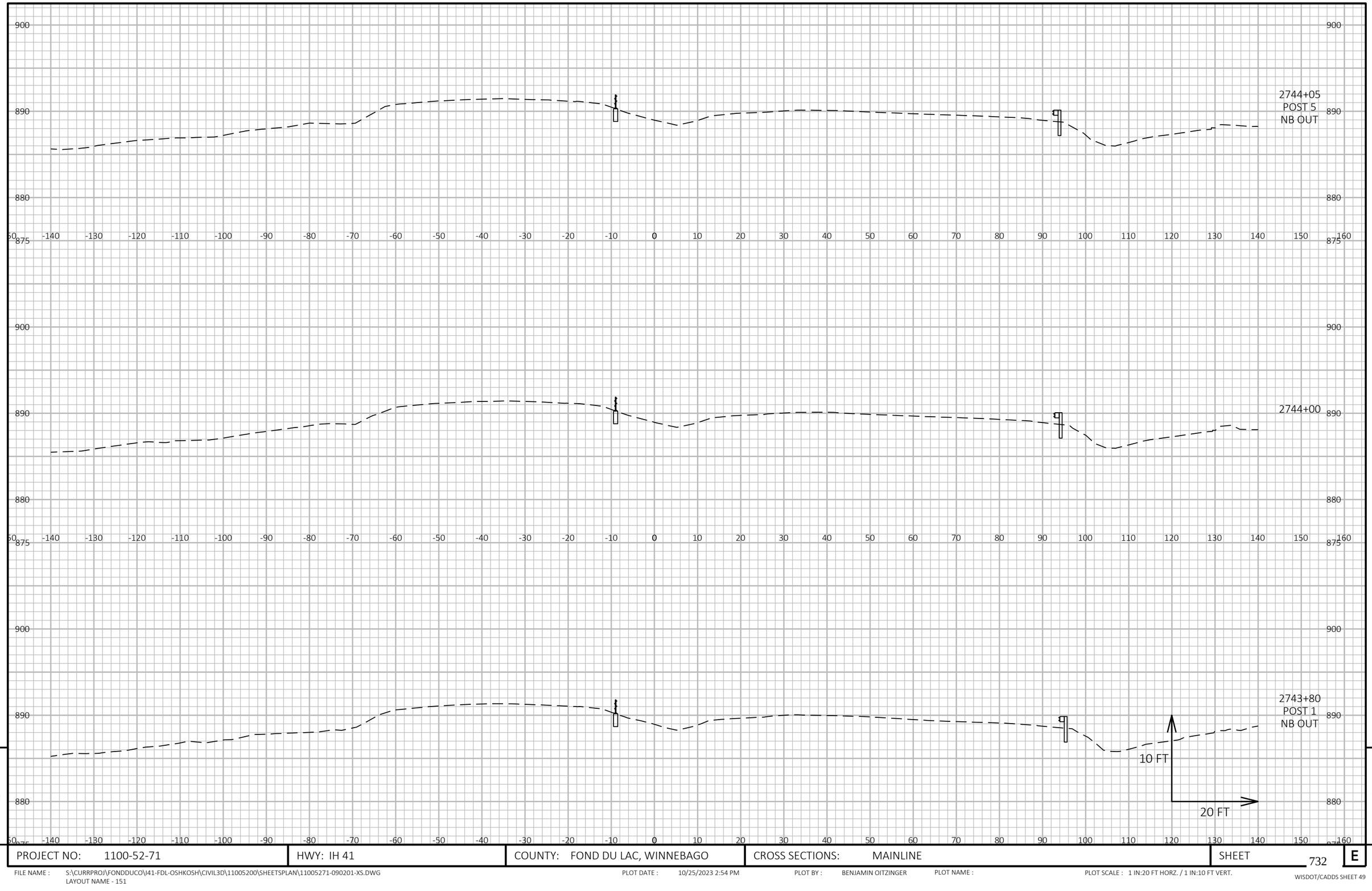
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 731	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 150

PLOT DATE : 10/25/2023 2:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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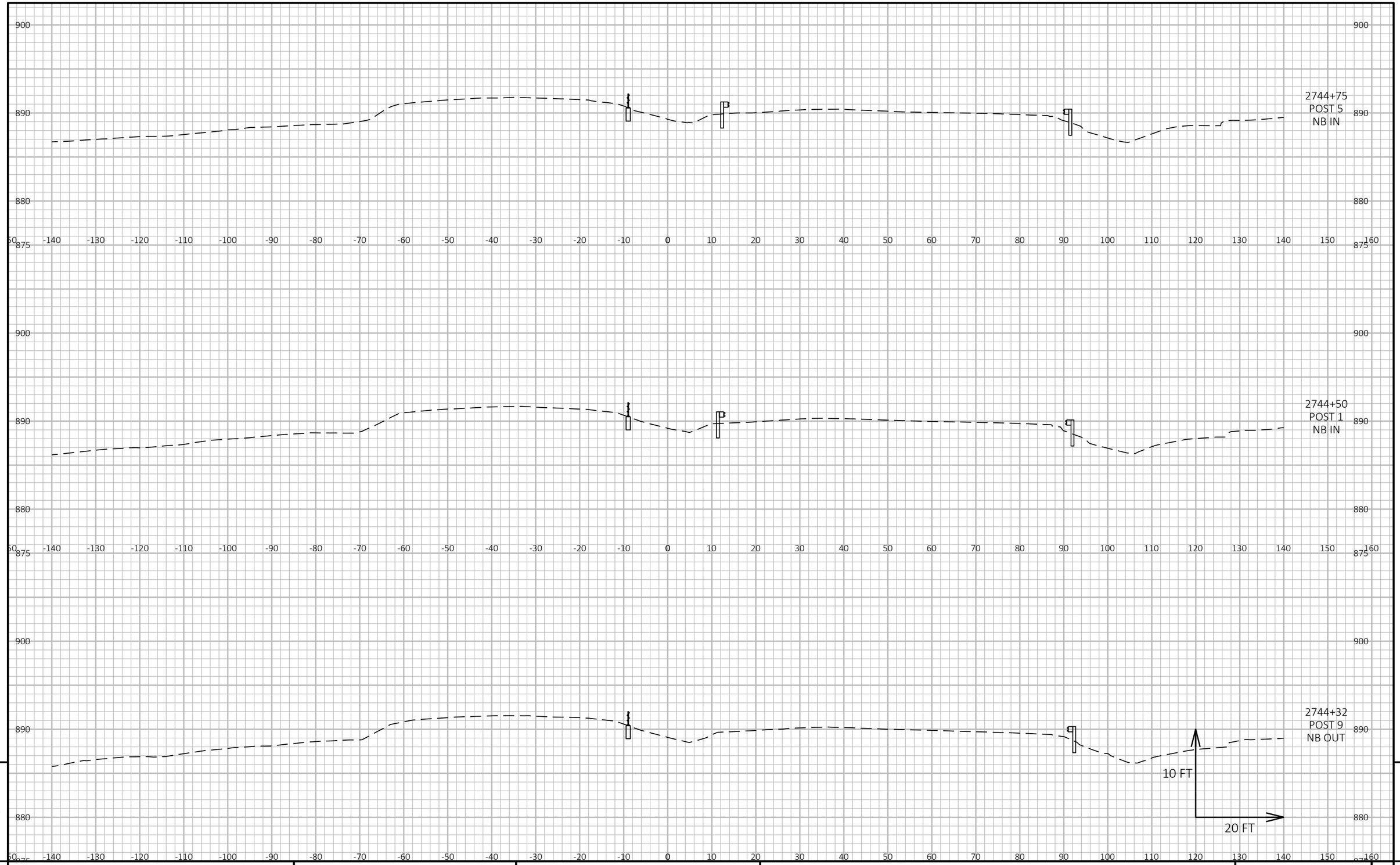
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 732	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 151

PLOT DATE : 10/25/2023 2:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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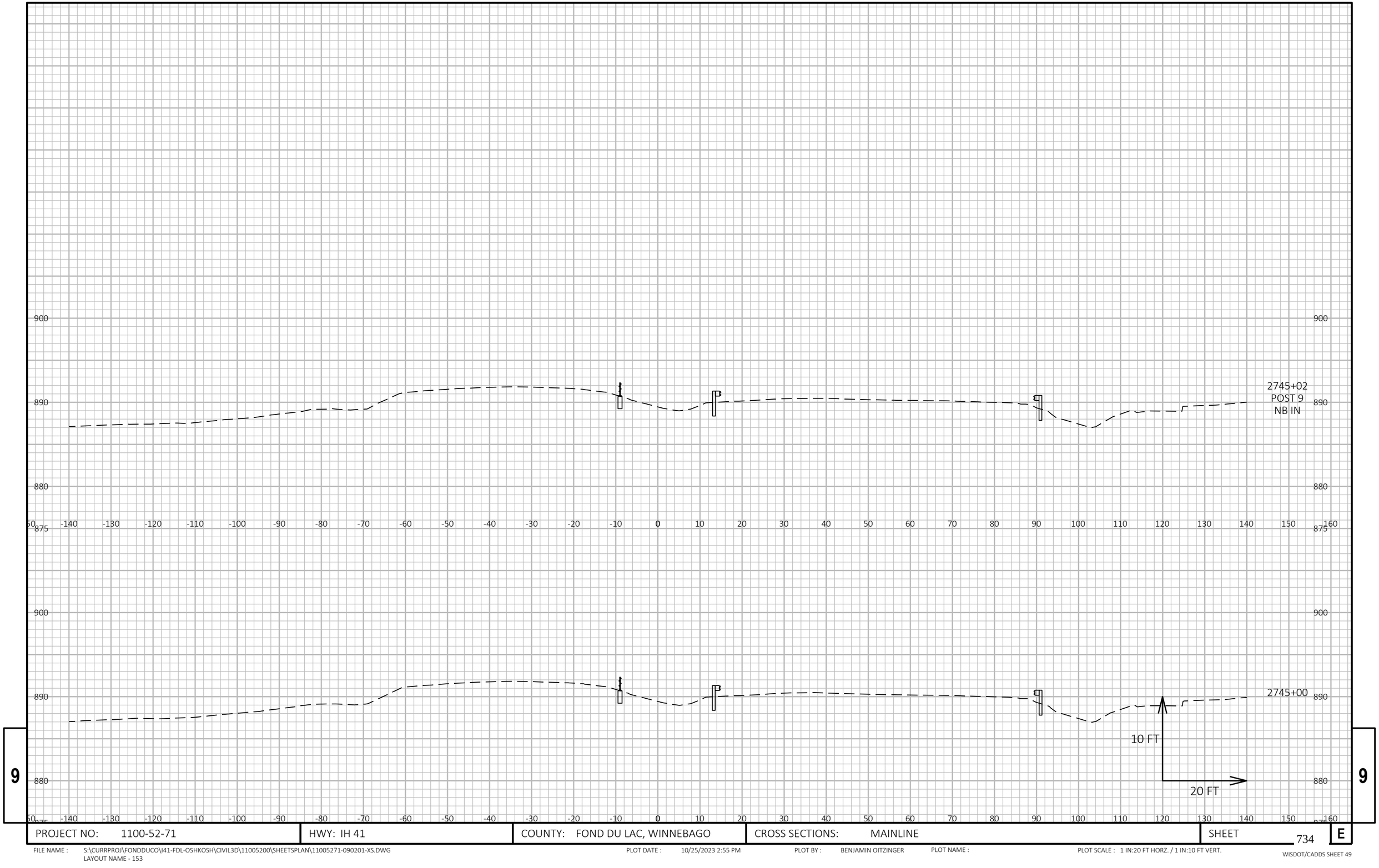
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 733	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 152

PLOT DATE : 10/25/2023 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 734	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 153

PLOT DATE : 10/25/2023 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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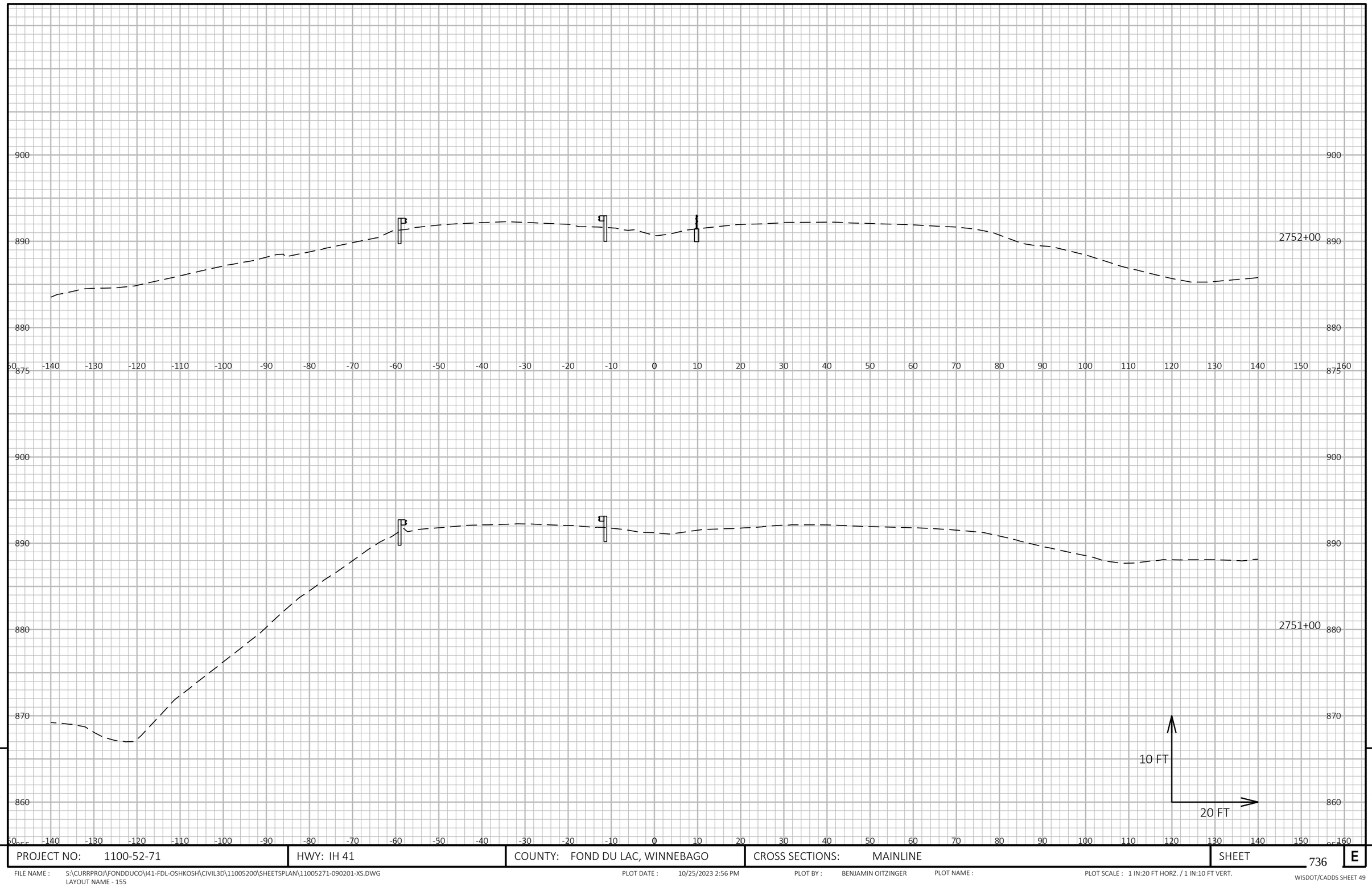
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 735	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 154

PLOT DATE : 10/25/2023 2:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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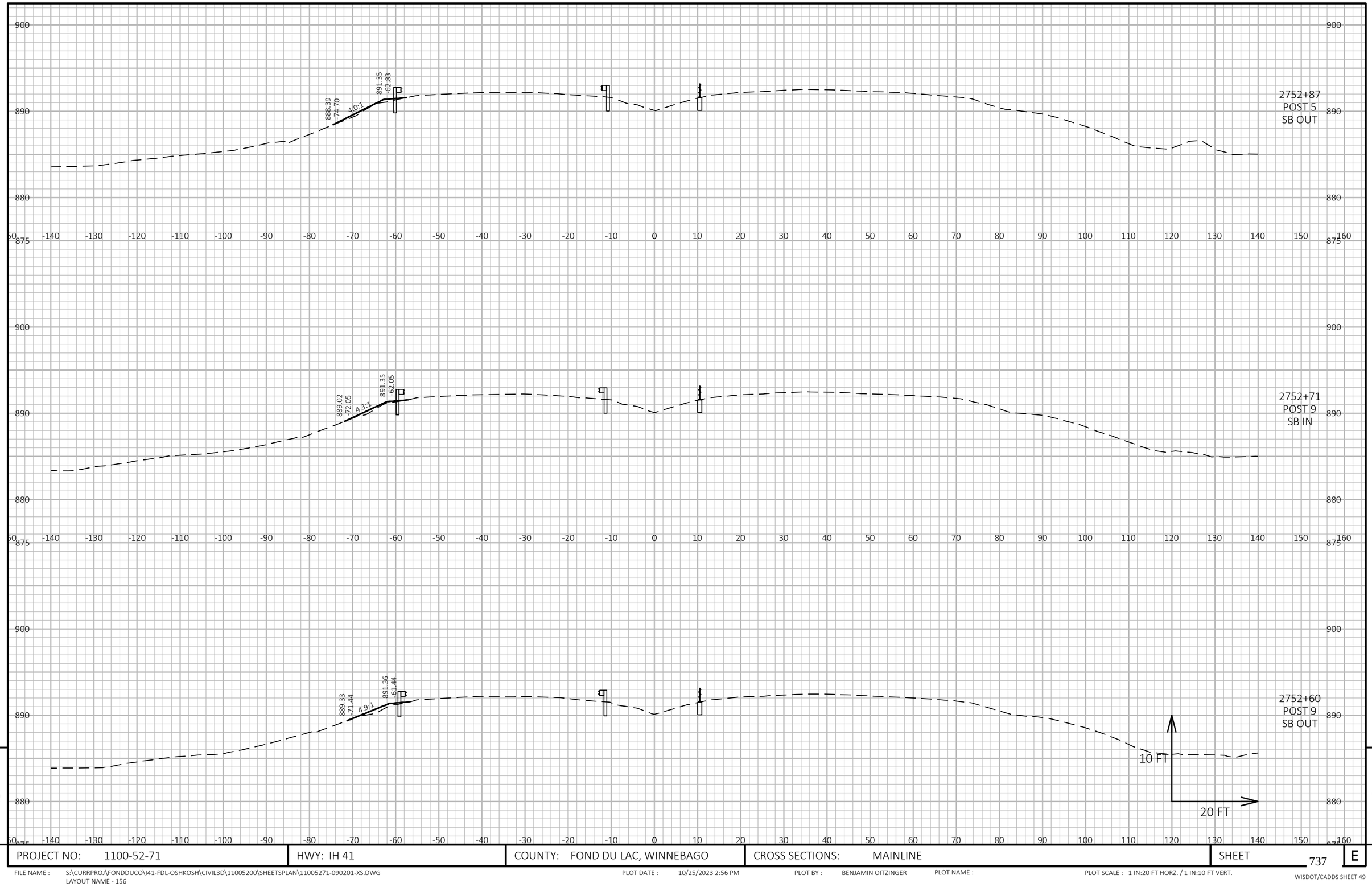
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 736	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 155

PLOT DATE : 10/25/2023 2:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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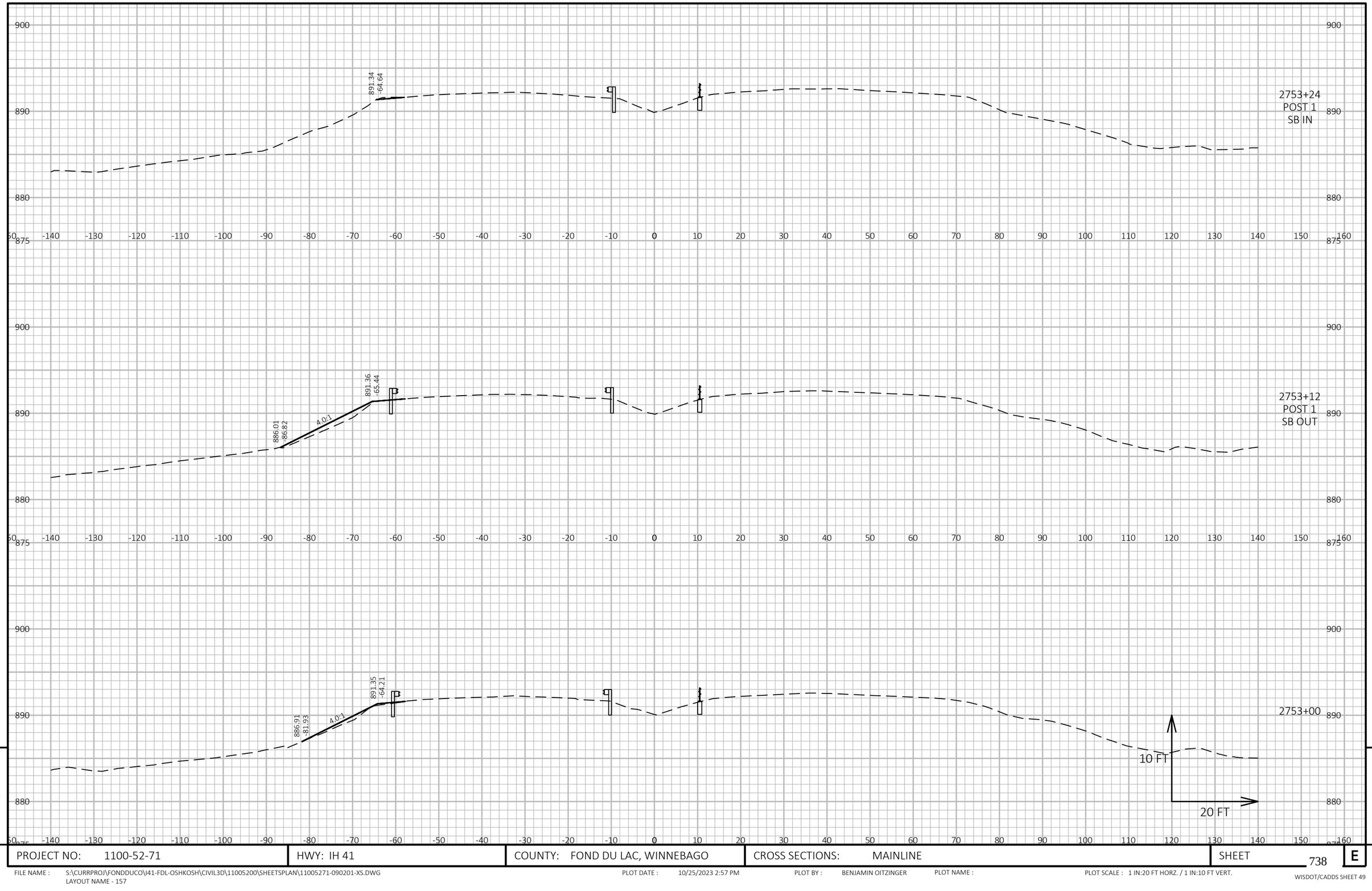
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 737 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 156

PLOT DATE : 10/25/2023 2:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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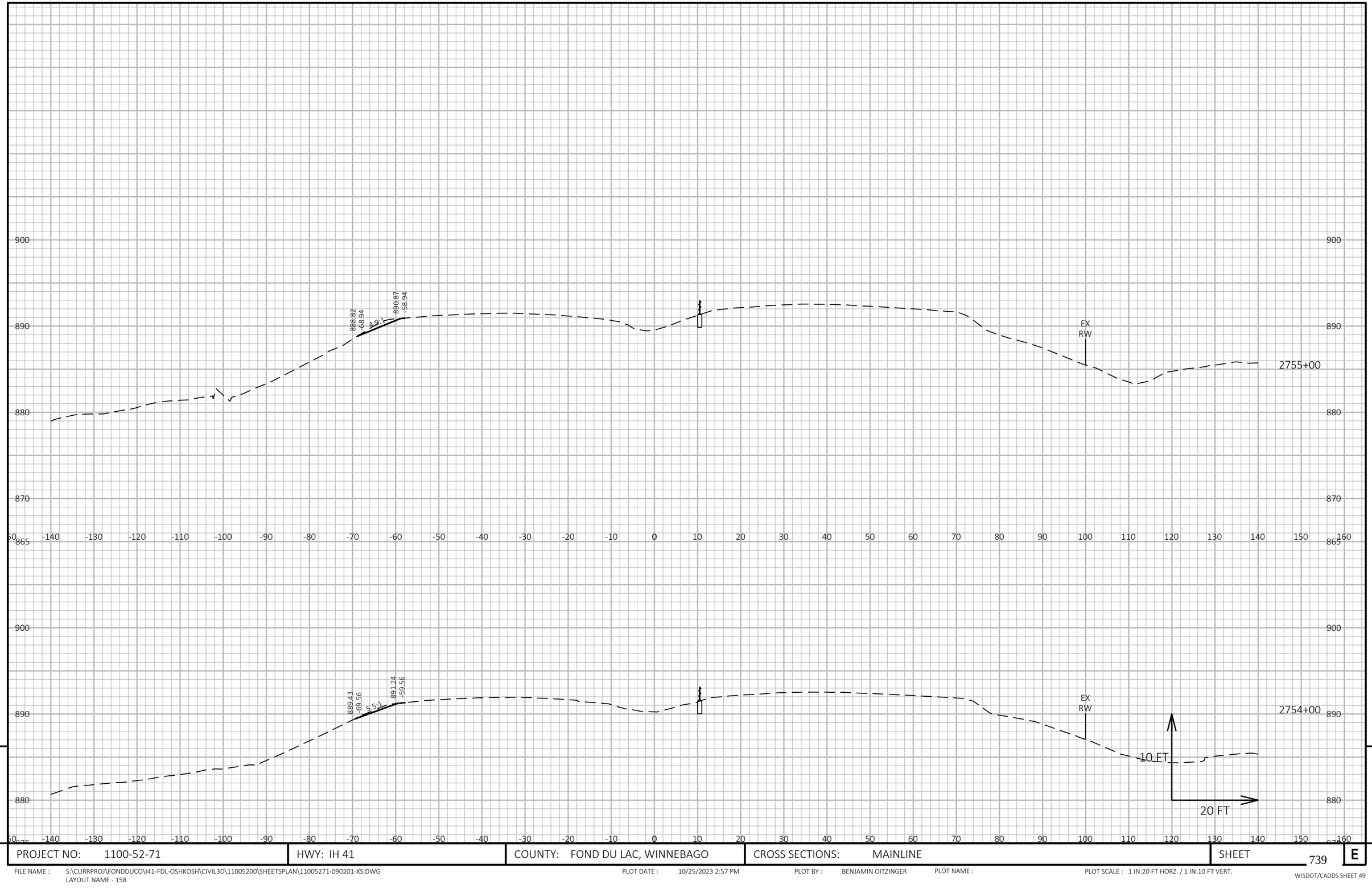
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 738	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 157

PLOT DATE : 10/25/2023 2:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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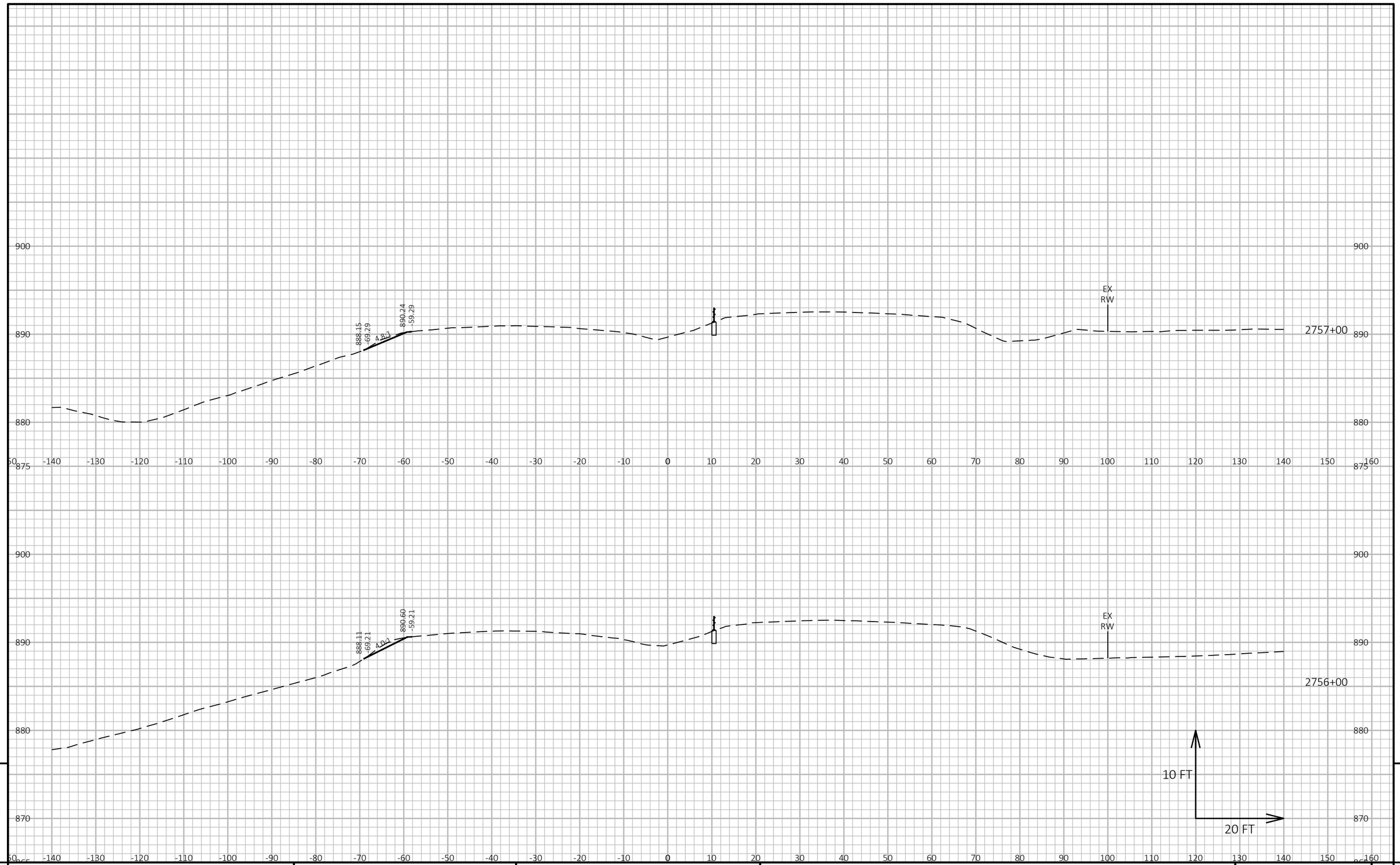
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 739	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 158

PLOT DATE : 10/25/2023 2:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



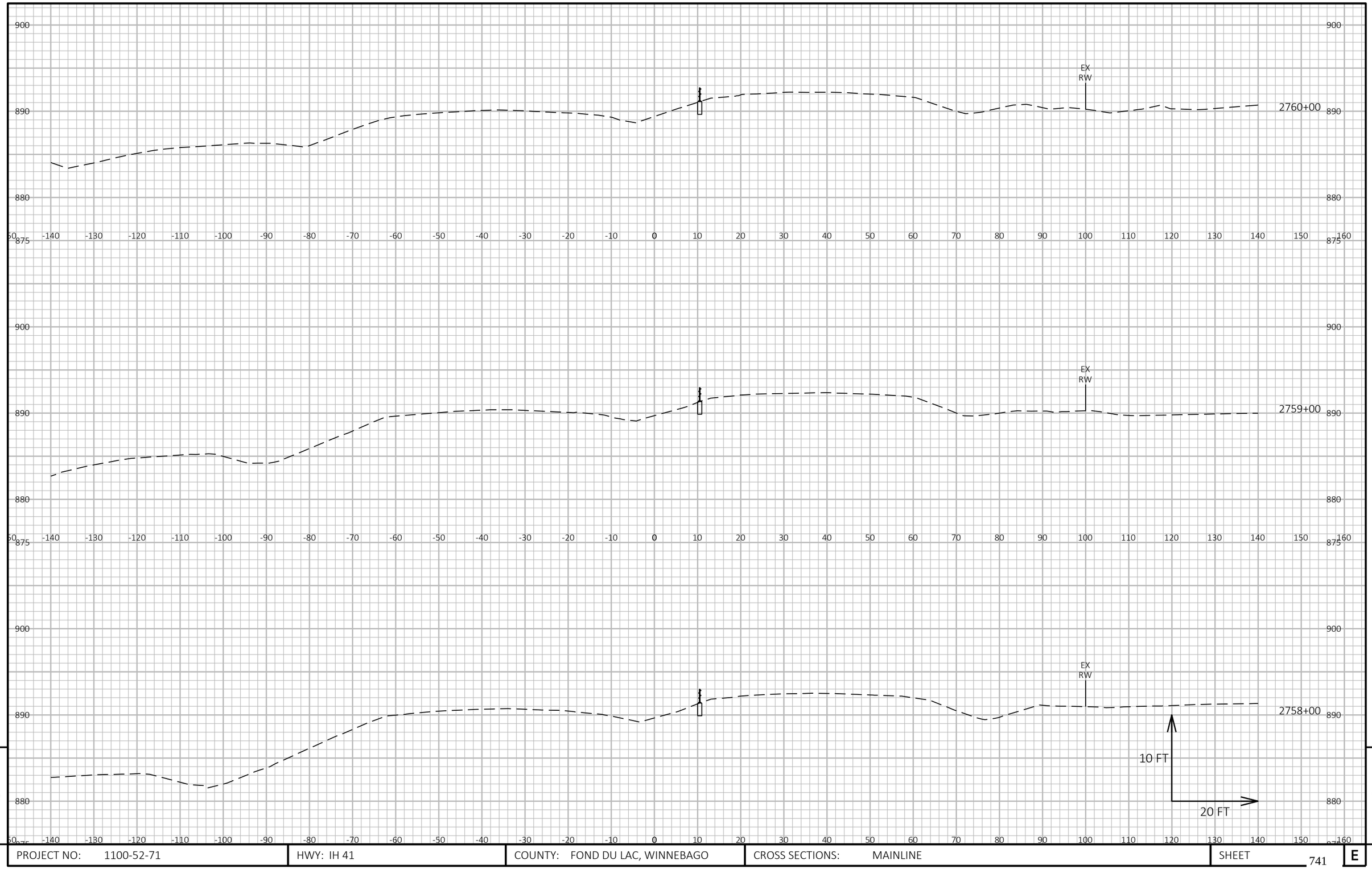
9 9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 740	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 159

PLOT DATE : 10/25/2023 2:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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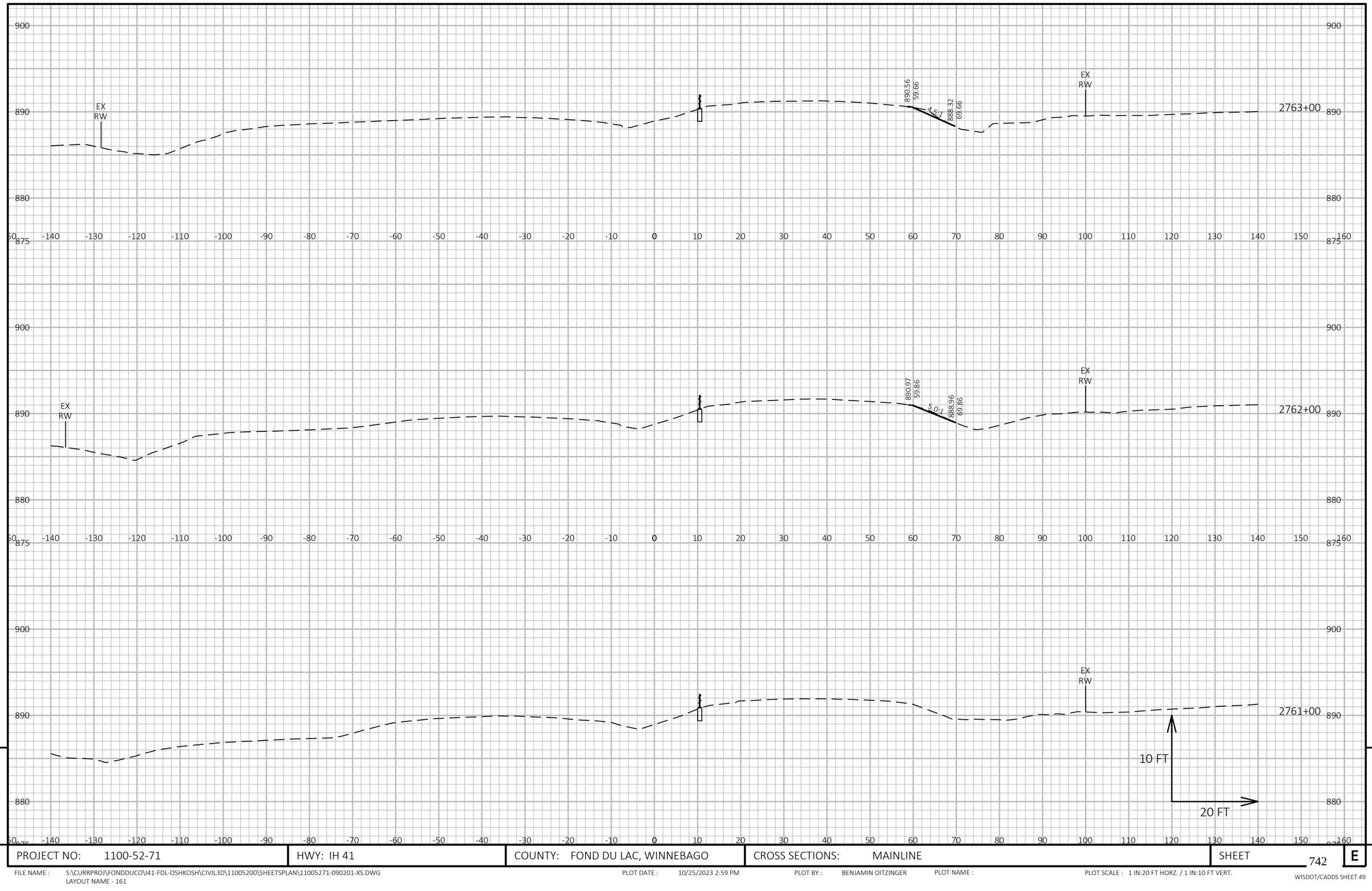
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 741	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 160

PLOT DATE : 10/25/2023 2:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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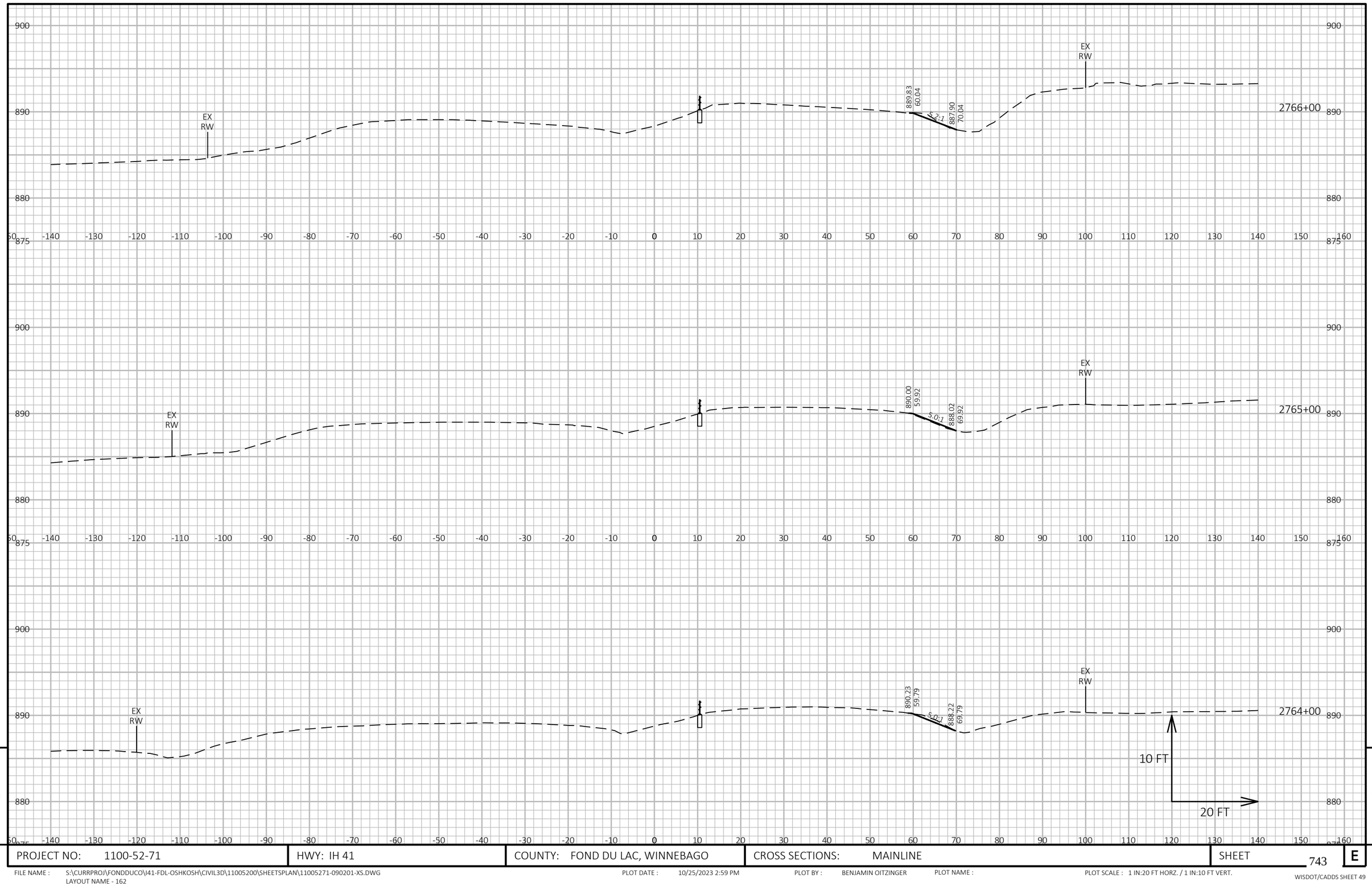
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 742	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 161

PLOT DATE : 10/25/2023 2:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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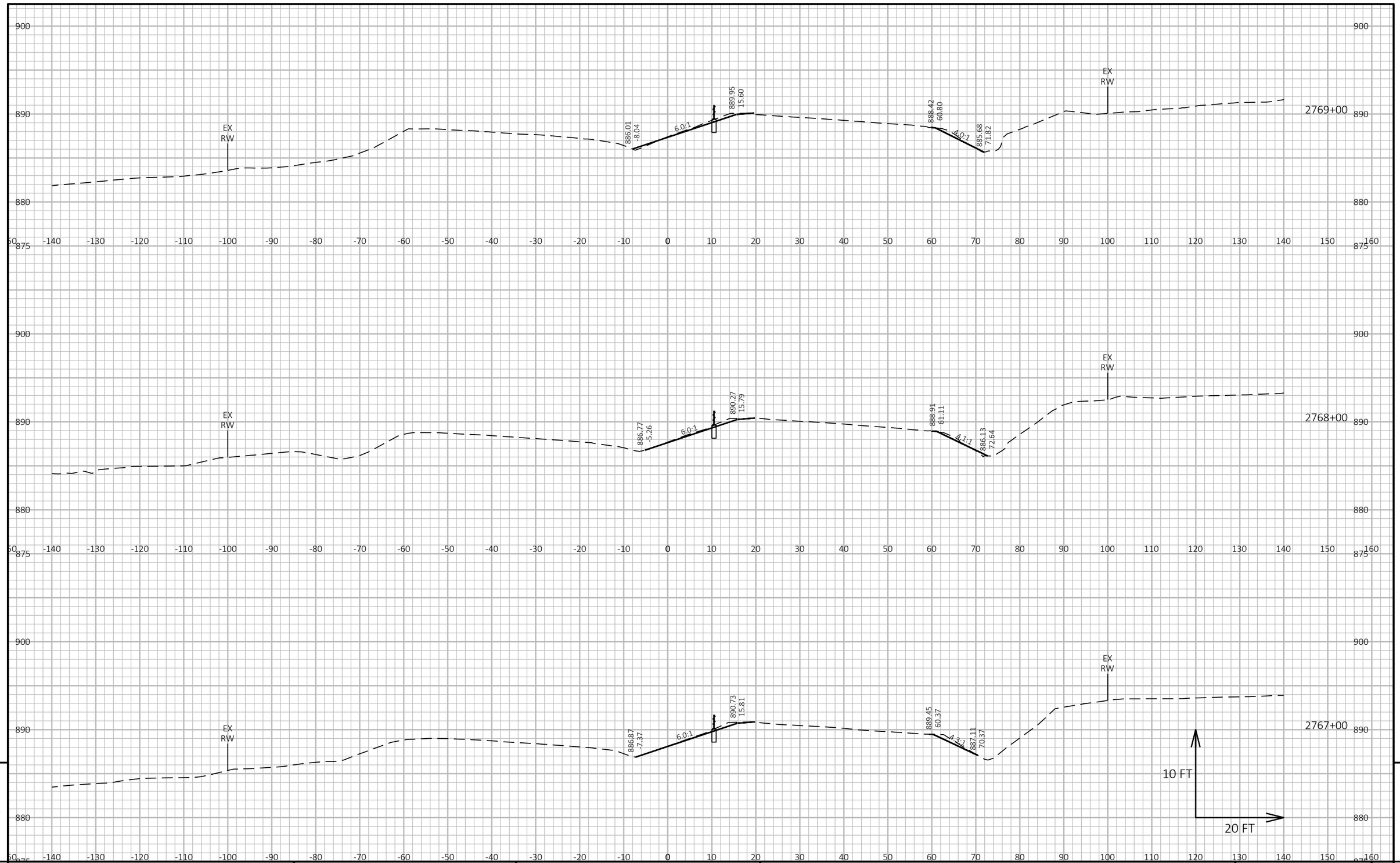
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 743	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 162

PLOT DATE : 10/25/2023 2:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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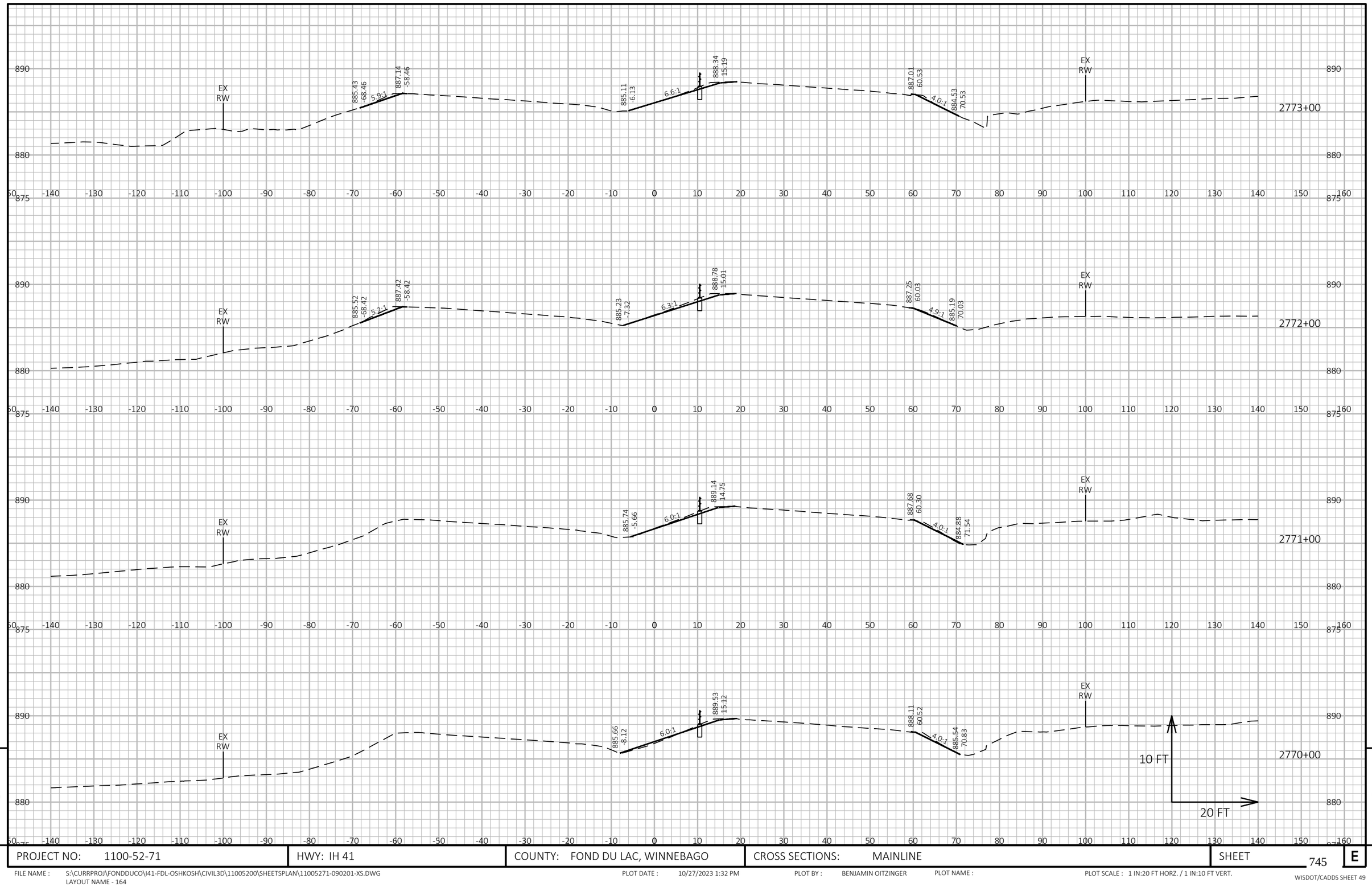
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 744	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 163

PLOT DATE : 10/25/2023 3:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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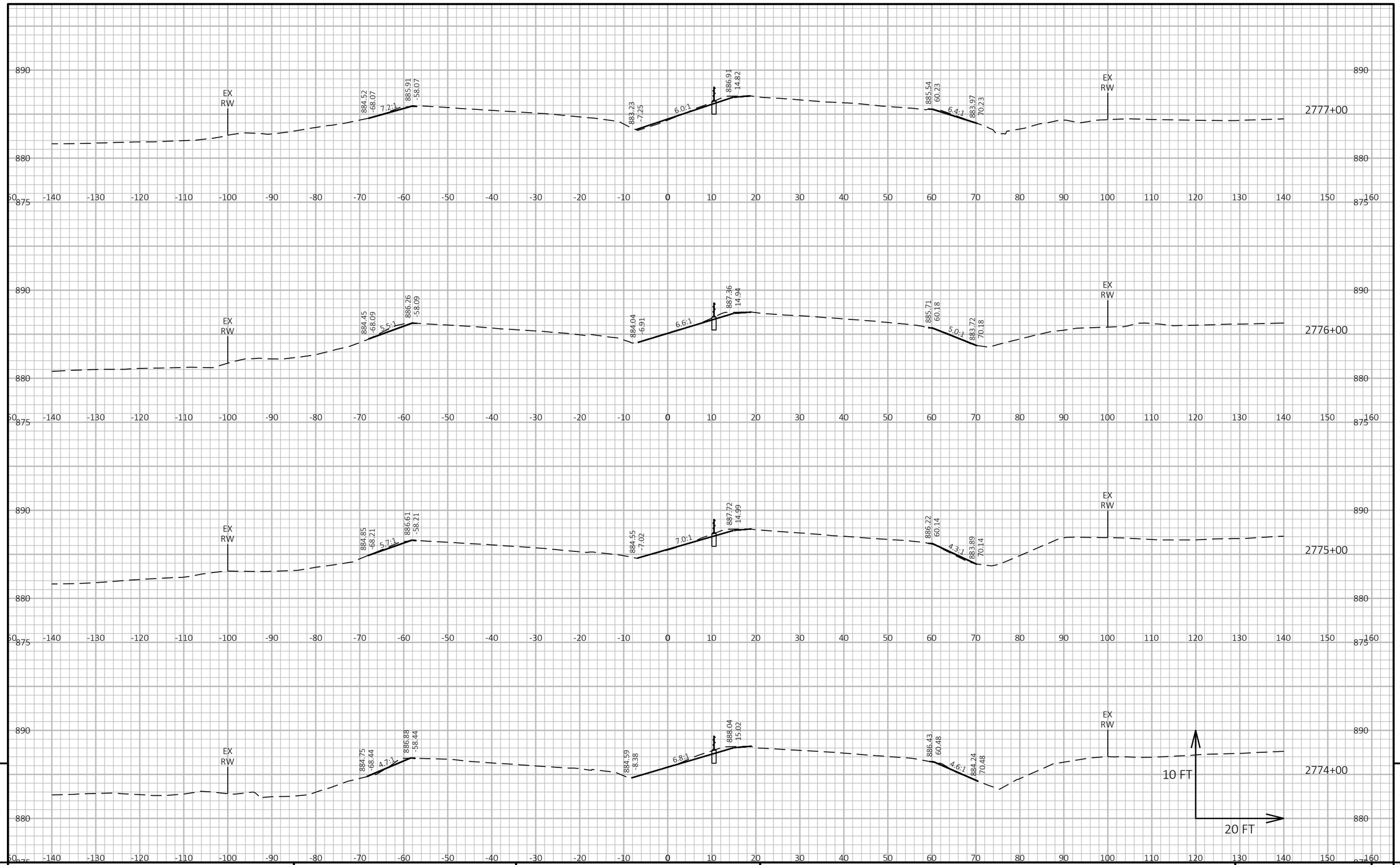
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 745	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 164

PLOT DATE : 10/27/2023 1:32 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



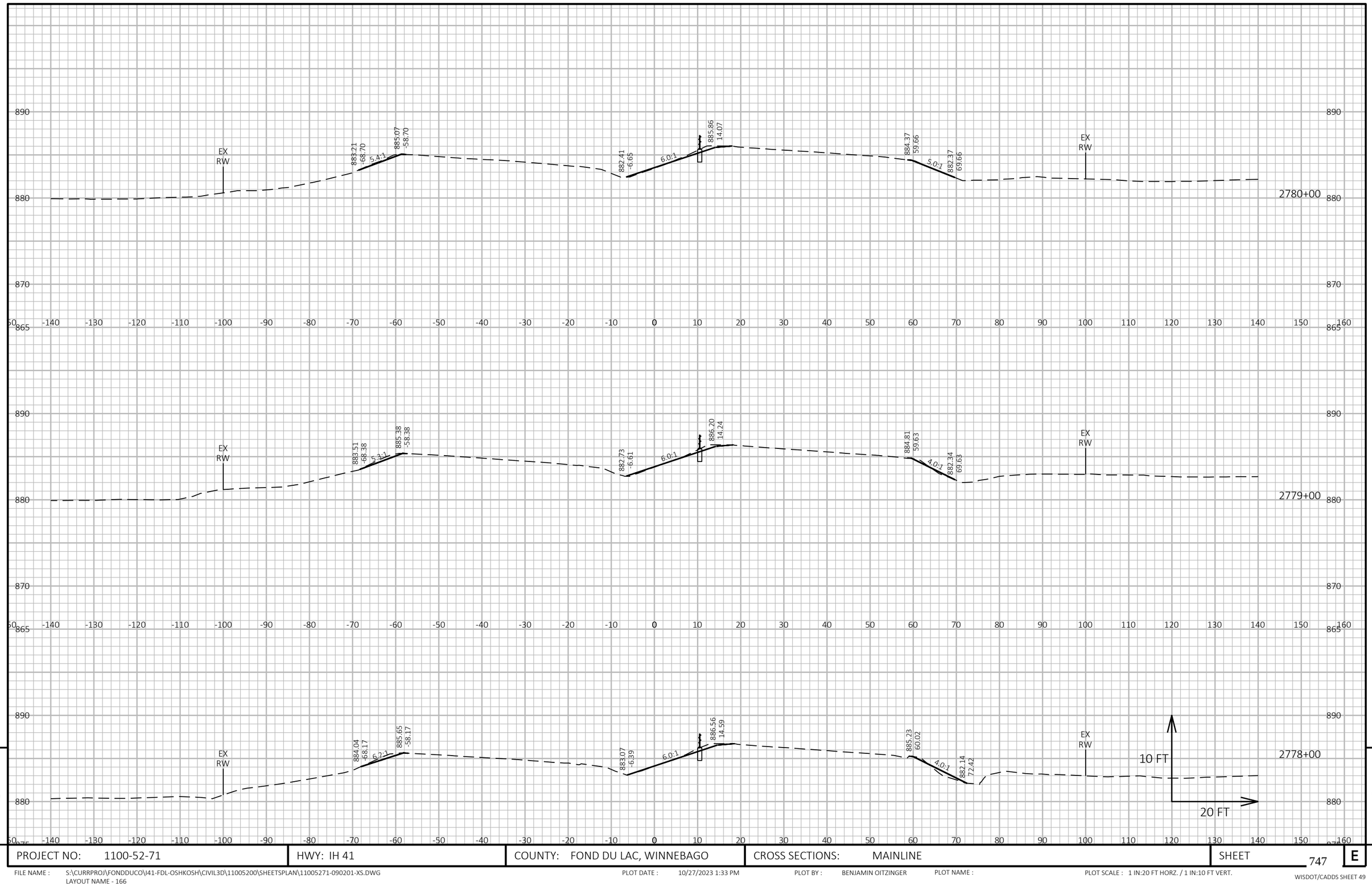
9 9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 746	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 165

PLOT DATE : 10/27/2023 1:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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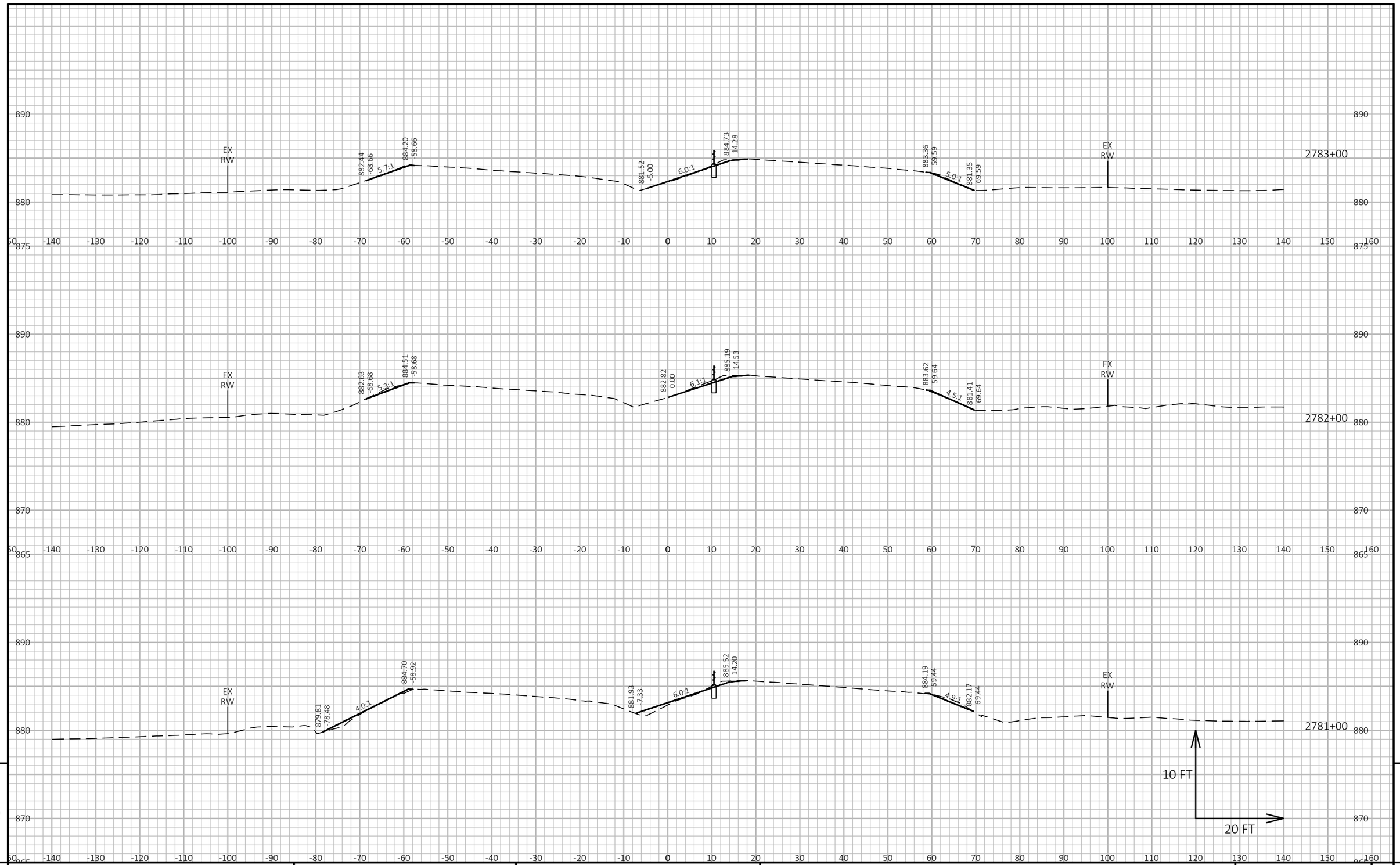
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 747	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 166

PLOT DATE : 10/27/2023 1:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 748	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 167

PLOT DATE : 10/27/2023 1:34 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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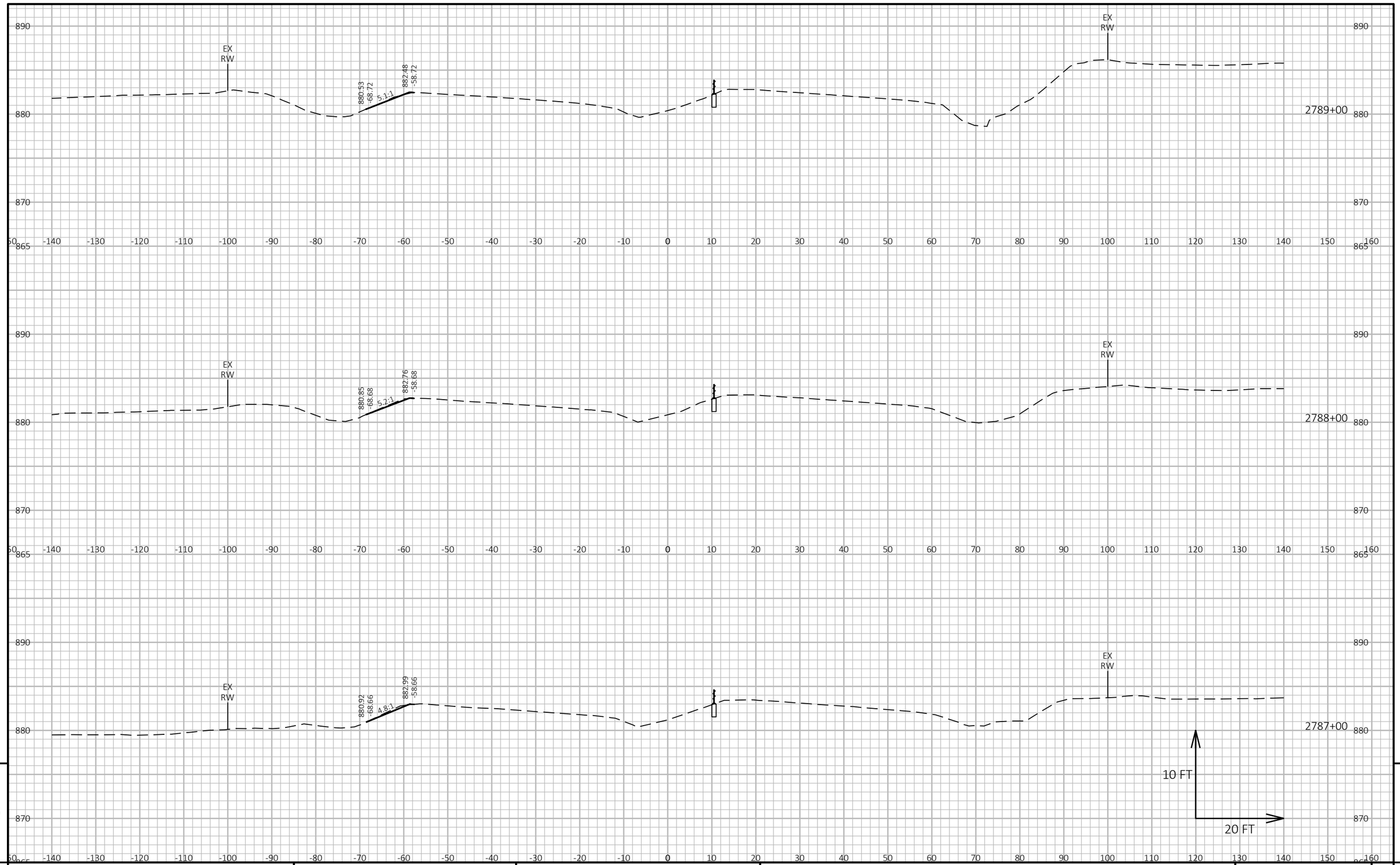
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 749	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 168

PLOT DATE : 10/25/2023 3:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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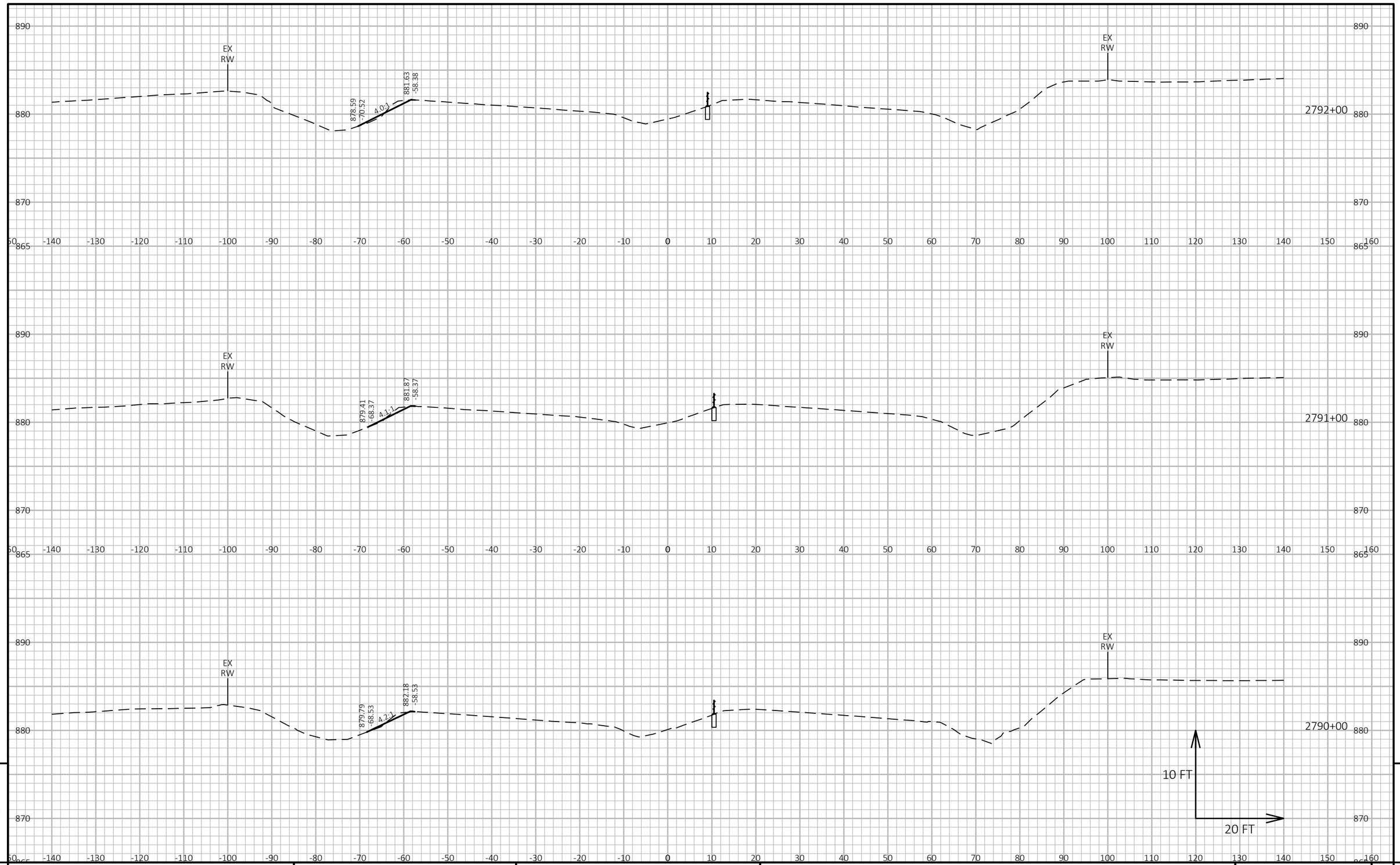
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 750	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 169

PLOT DATE : 10/25/2023 3:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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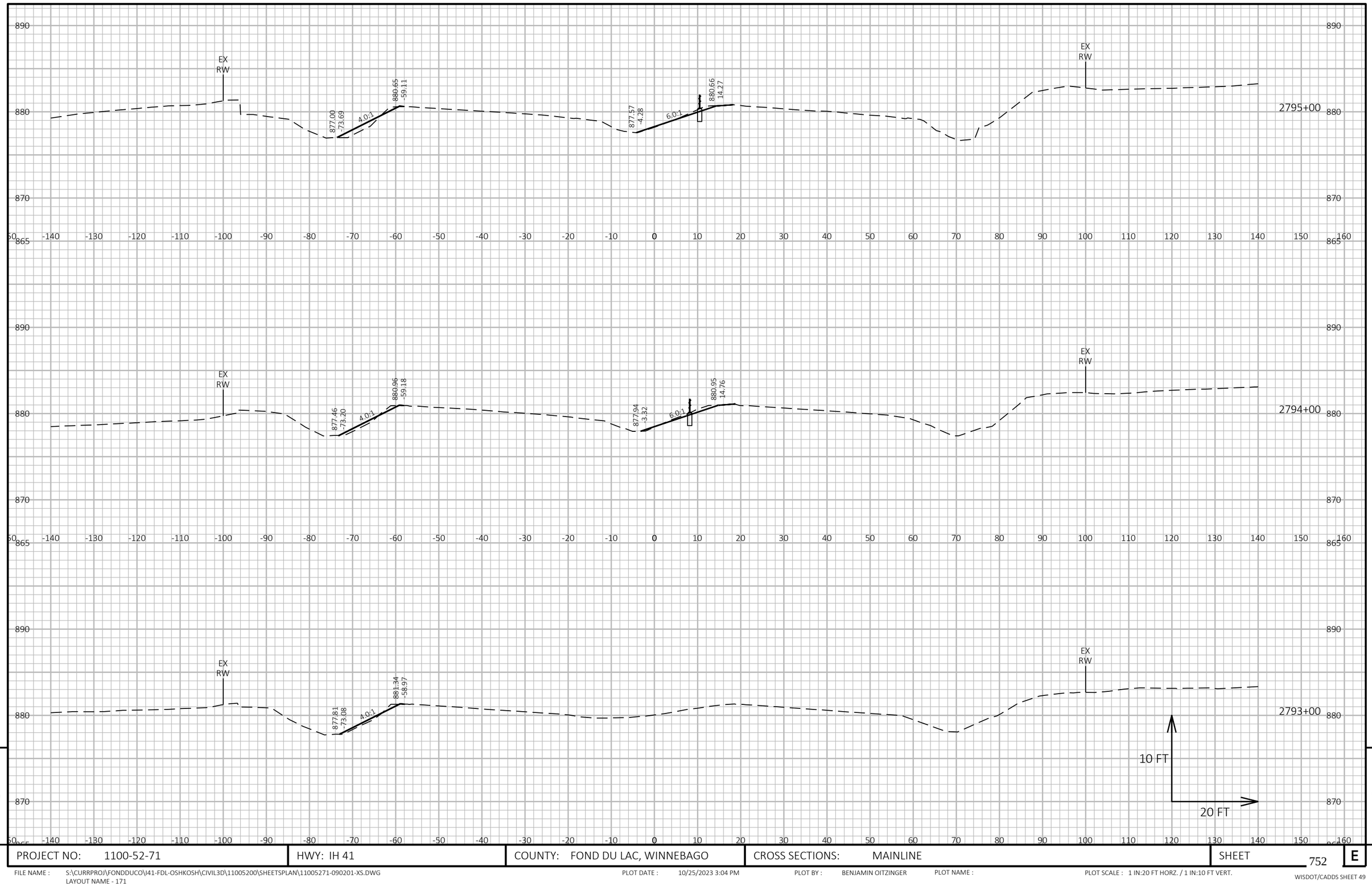
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 751	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 170

PLOT DATE : 10/25/2023 3:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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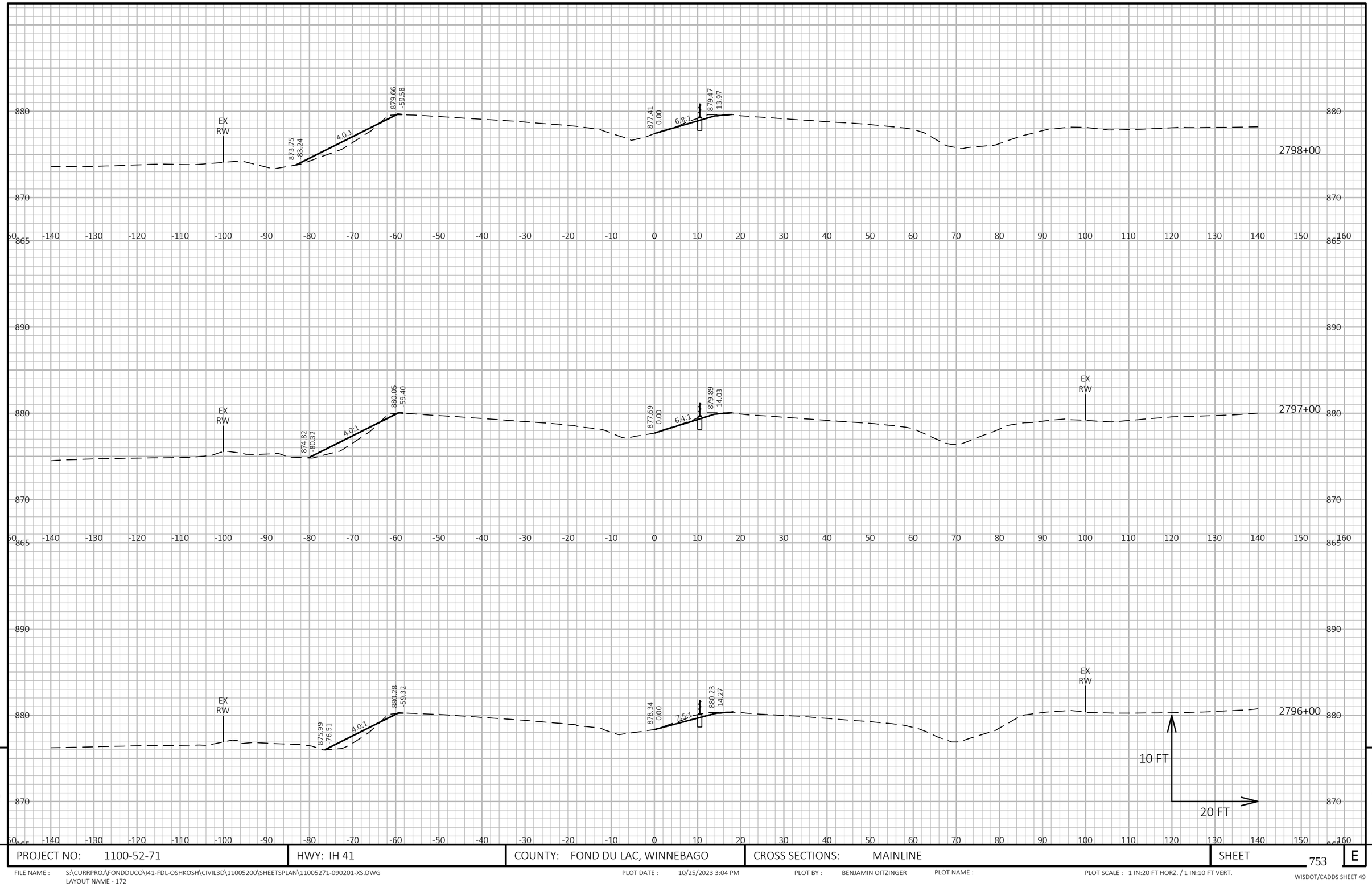
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 752	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 171

PLOT DATE : 10/25/2023 3:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



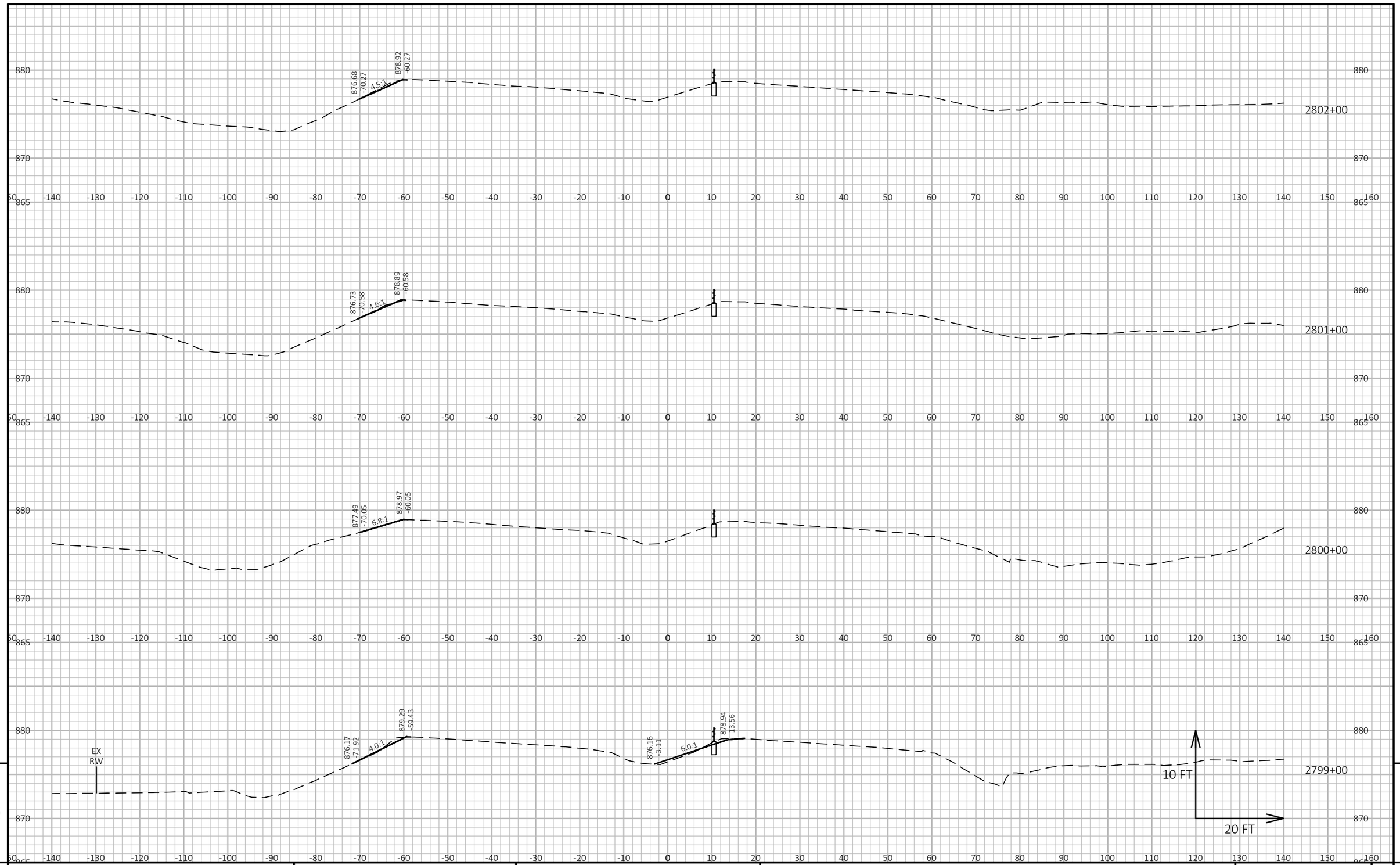
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 753	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 172

PLOT DATE : 10/25/2023 3:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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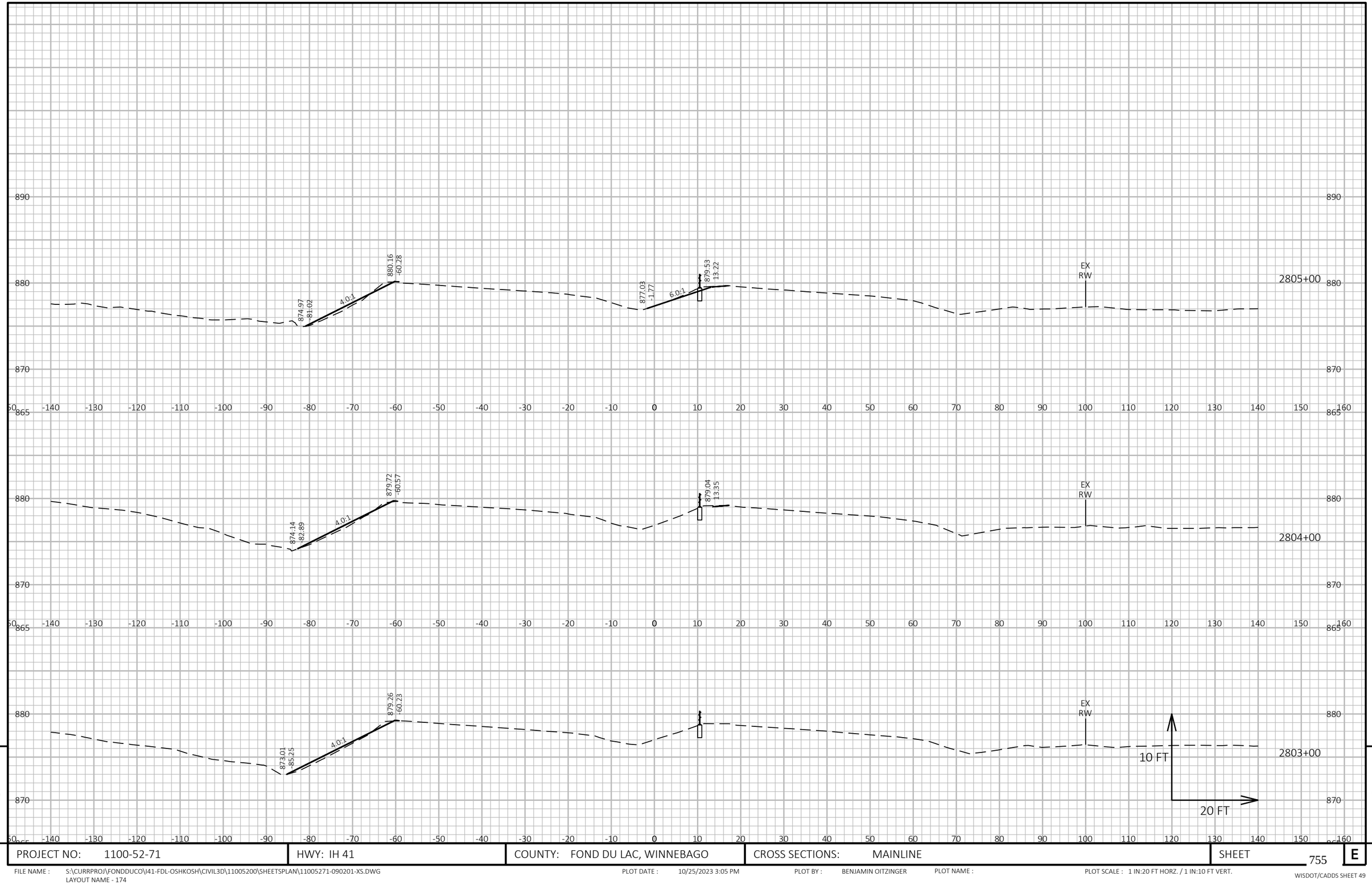
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 754	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 173

PLOT DATE : 10/25/2023 3:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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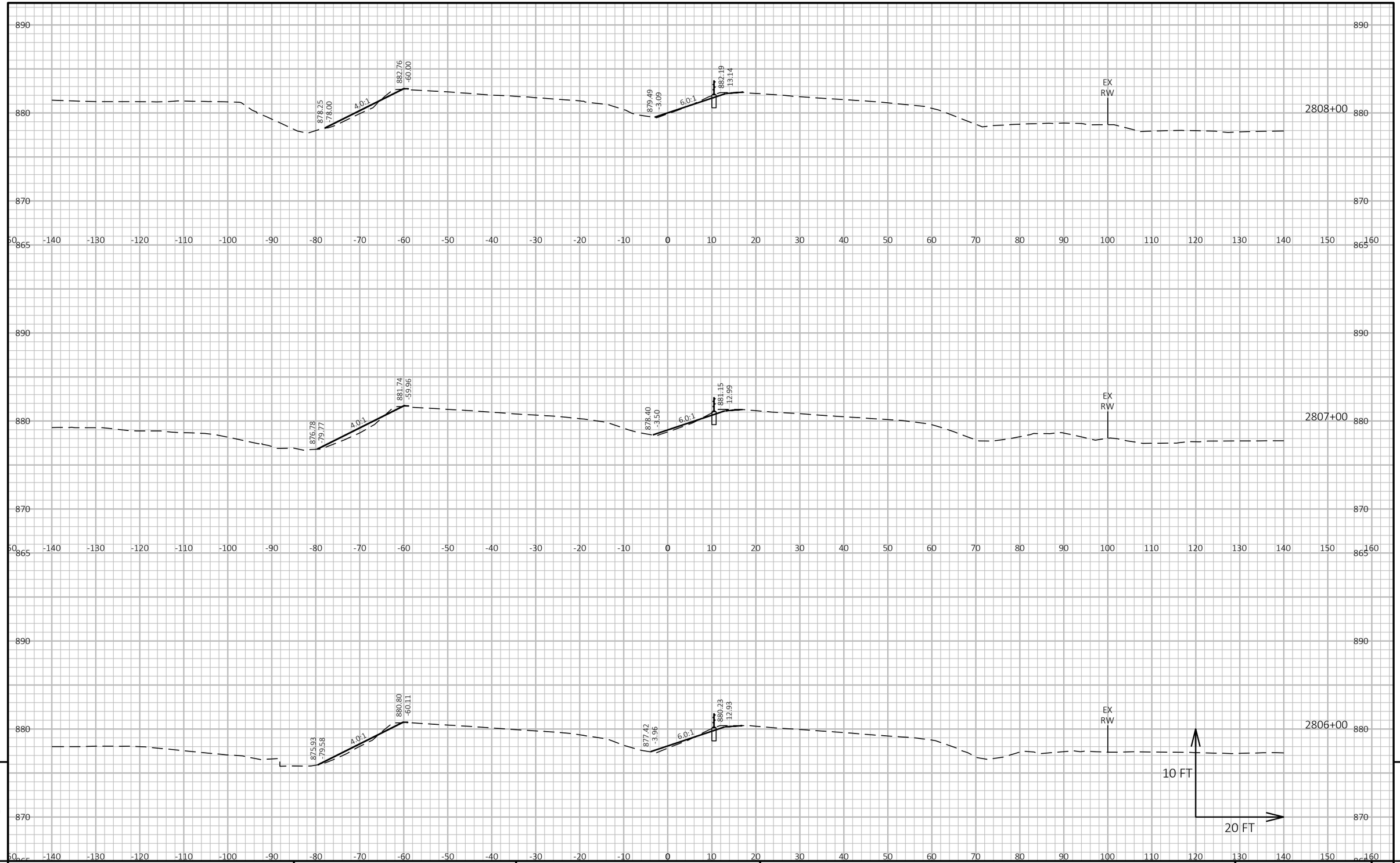
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 755	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 174

PLOT DATE : 10/25/2023 3:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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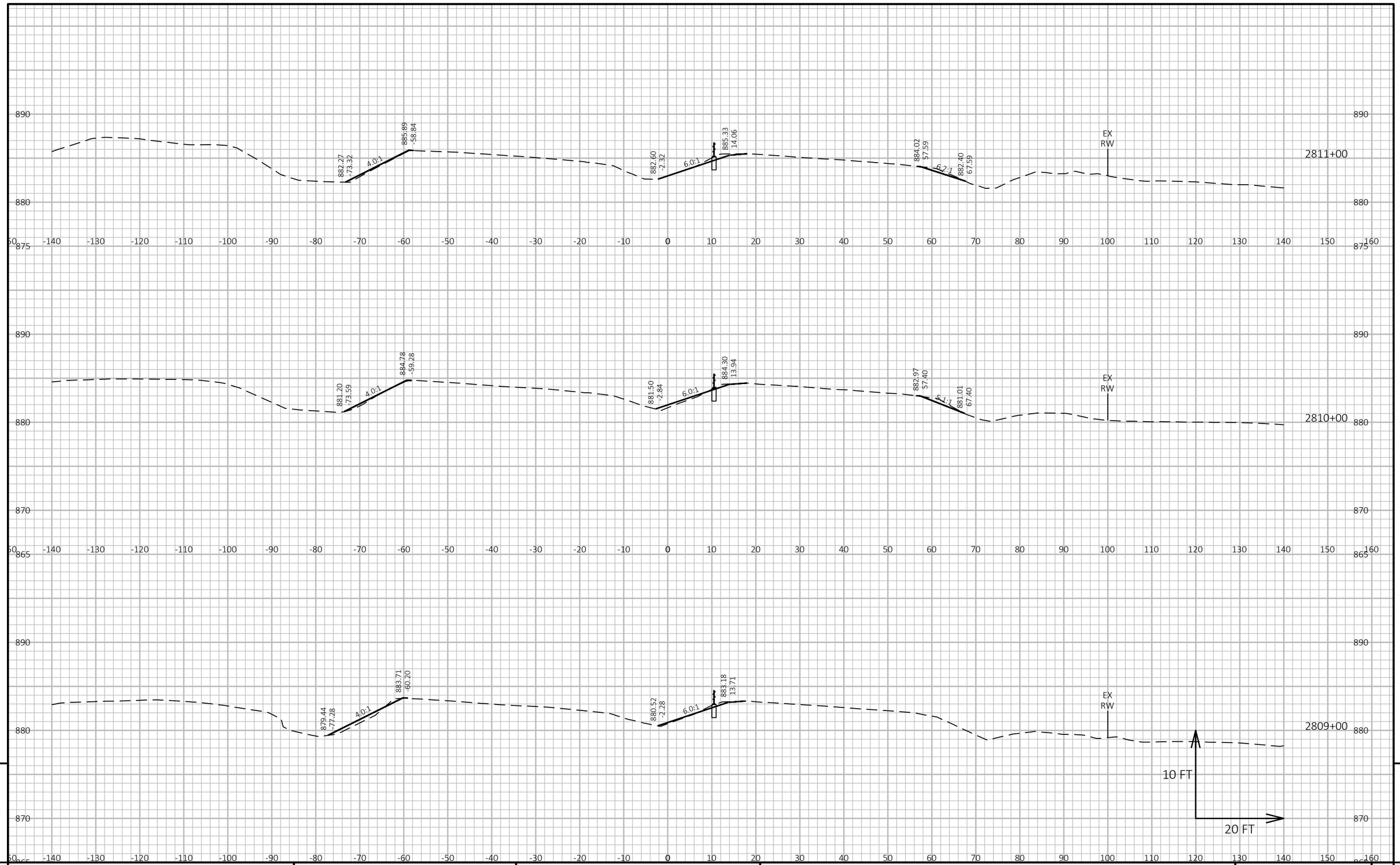
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 756	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 175

PLOT DATE : 10/25/2023 3:06 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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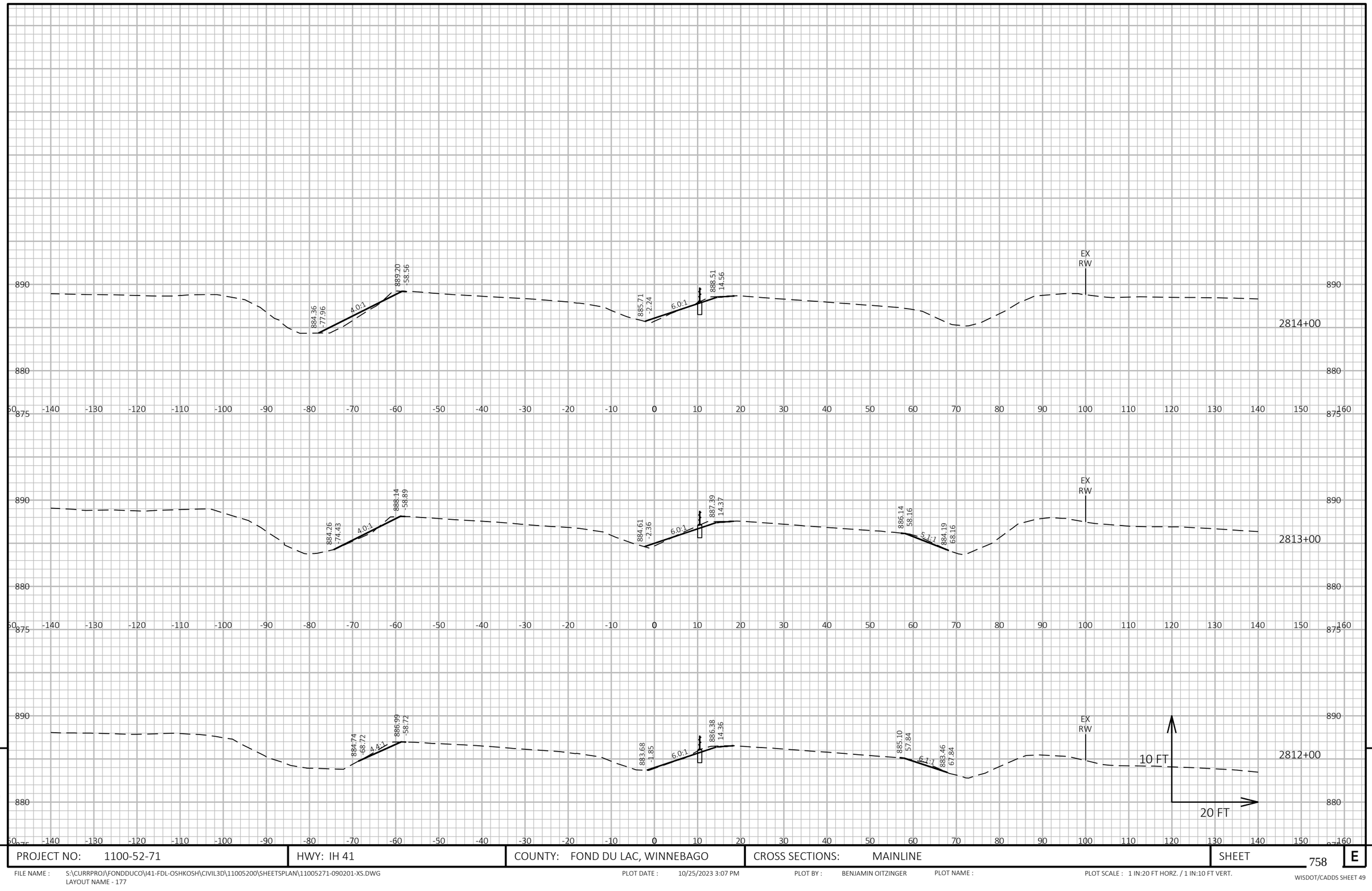
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 757	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 176

PLOT DATE : 10/25/2023 3:06 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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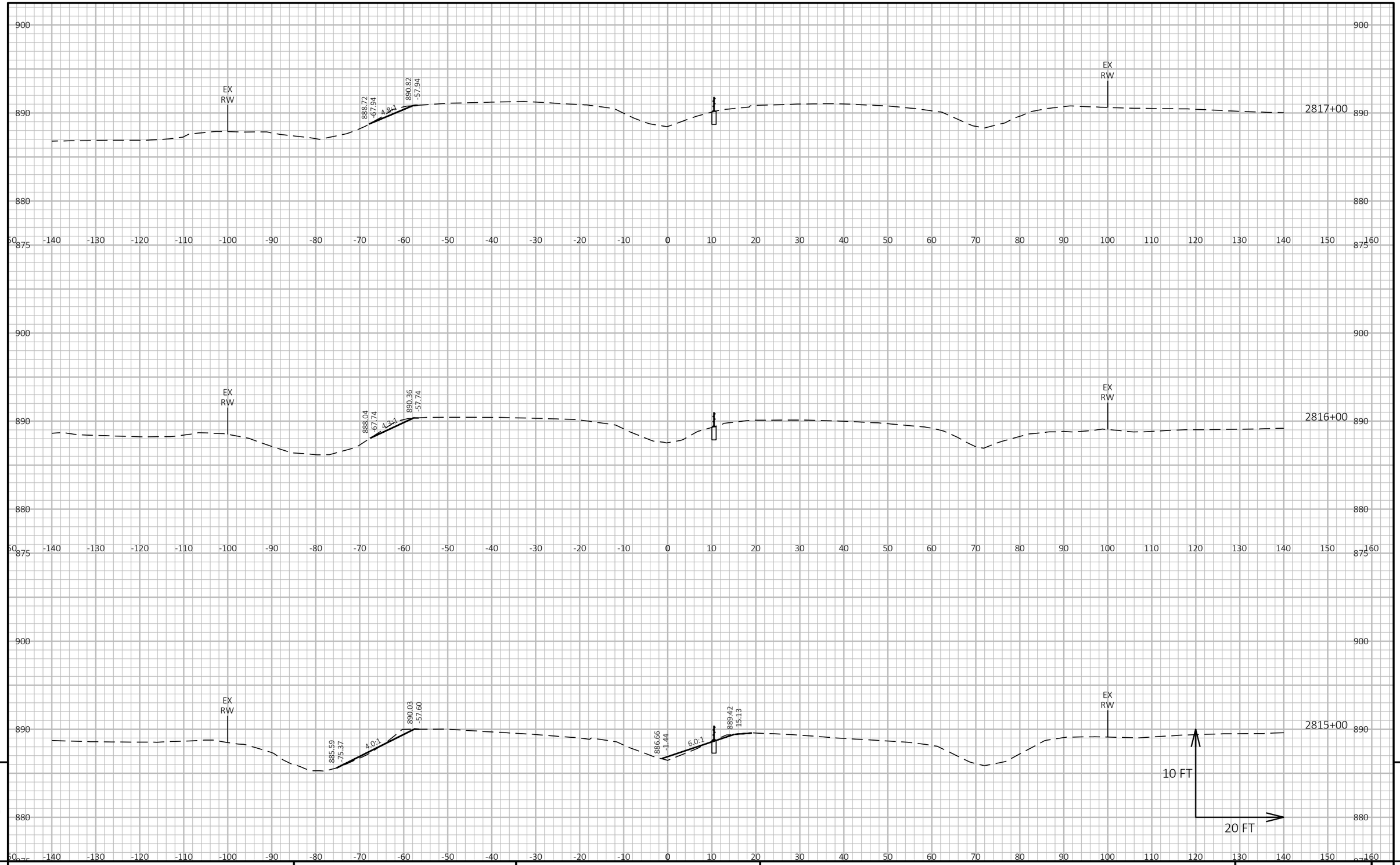
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 758	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 177

PLOT DATE : 10/25/2023 3:07 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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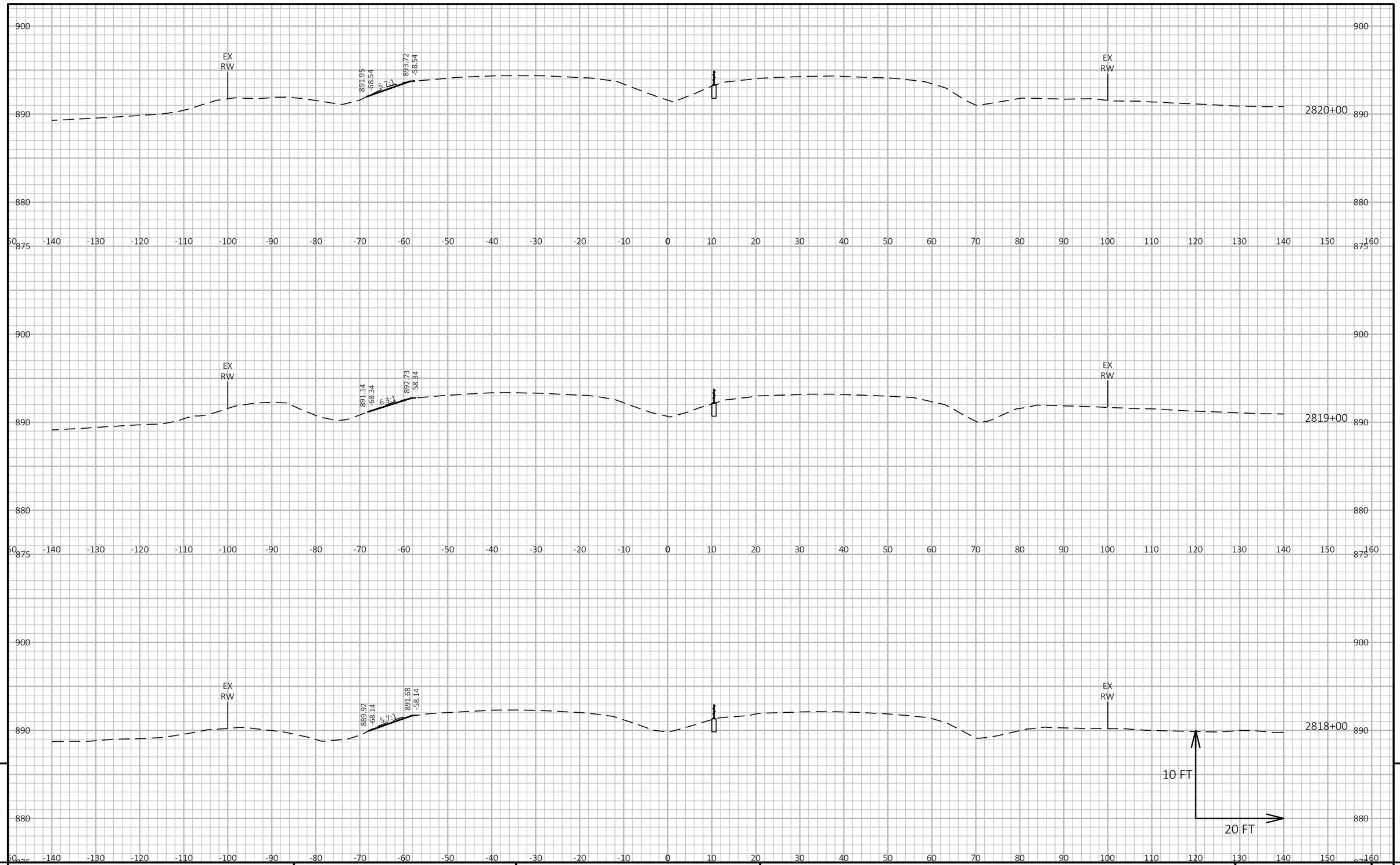
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 759	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 178
PLOT DATE : 10/25/2023 3:07 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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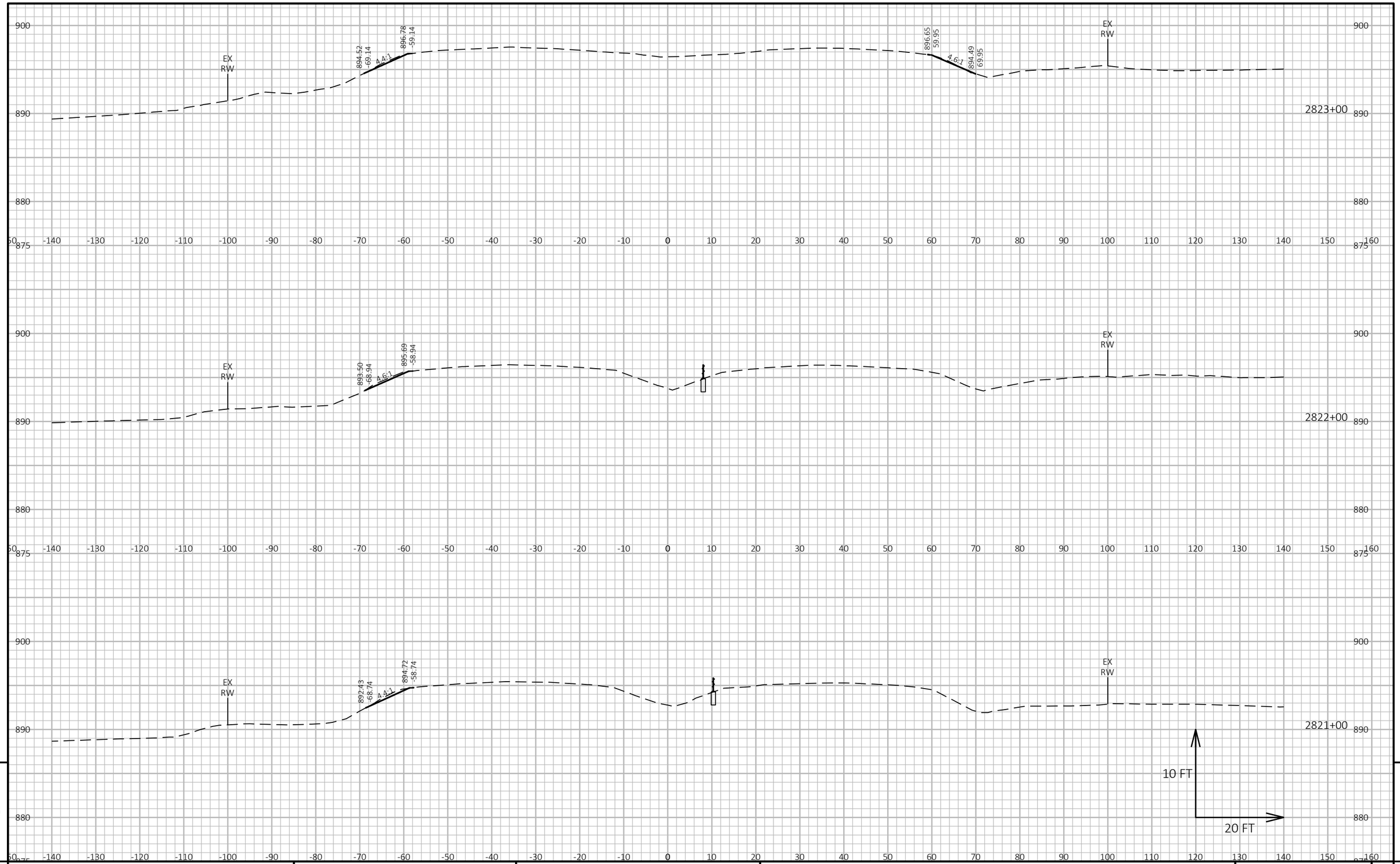
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 760	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 179

PLOT DATE : 10/25/2023 3:08 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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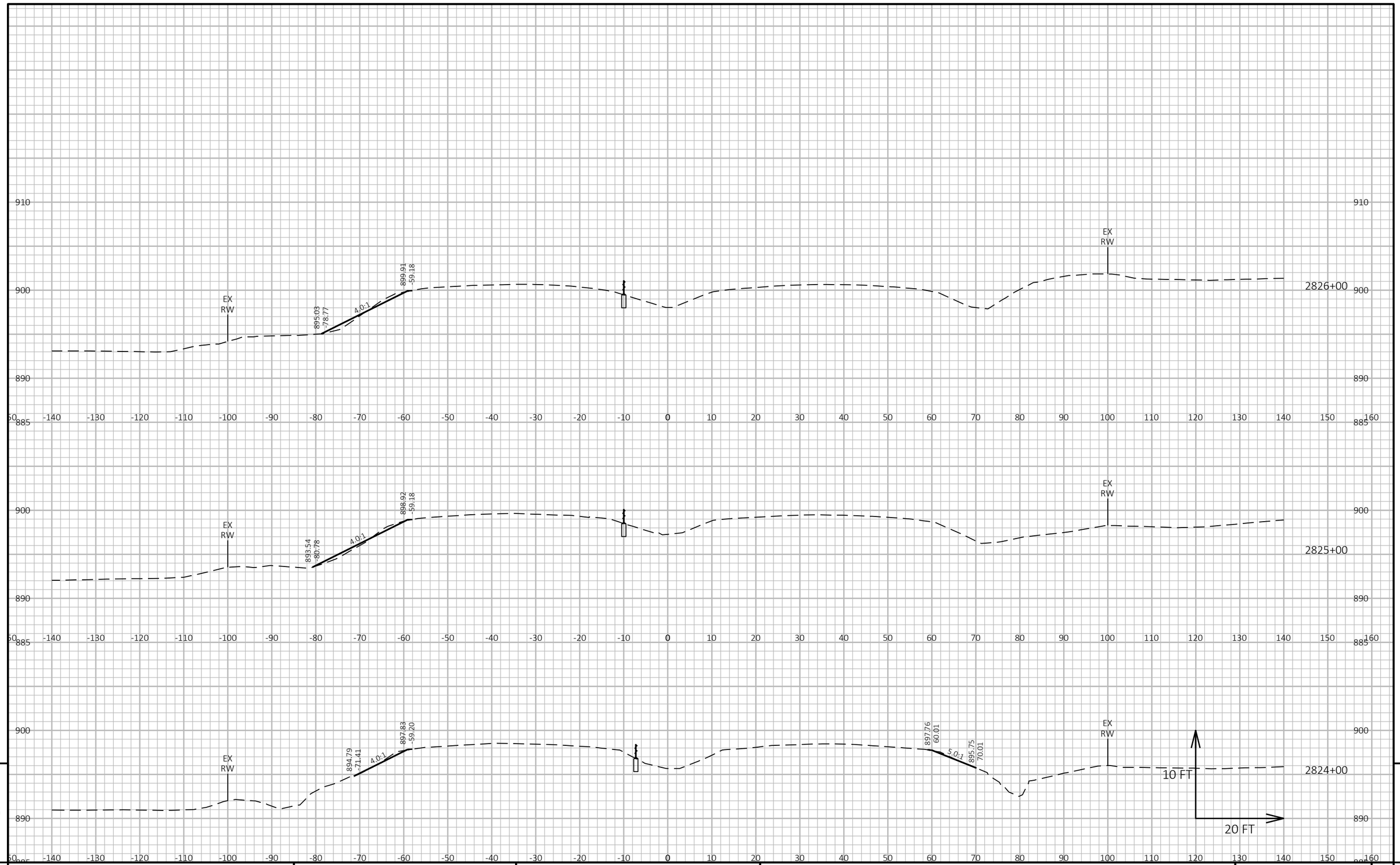
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 761	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 180

PLOT DATE : 10/25/2023 3:08 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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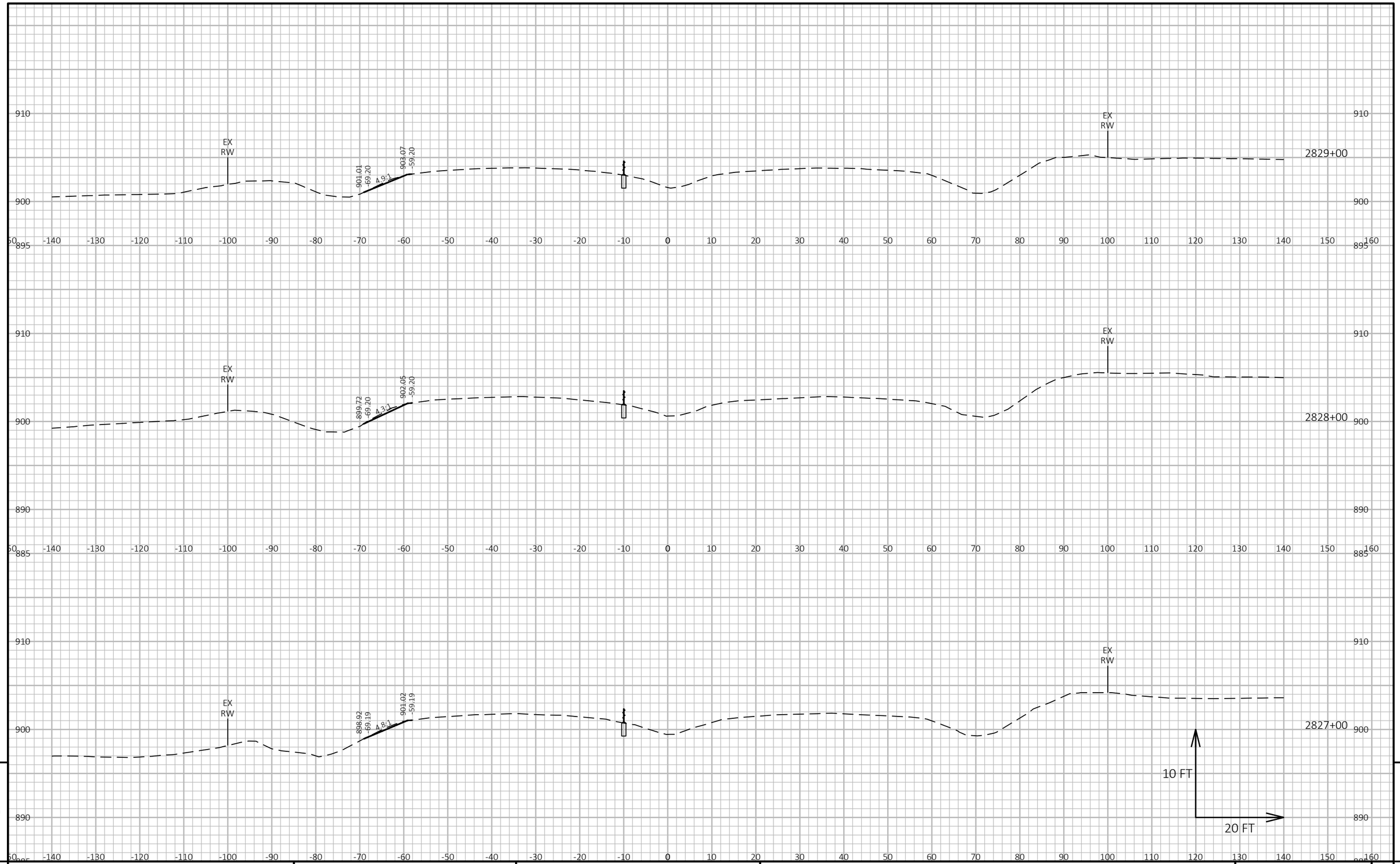
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 762	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 181

PLOT DATE : 10/25/2023 3:09 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

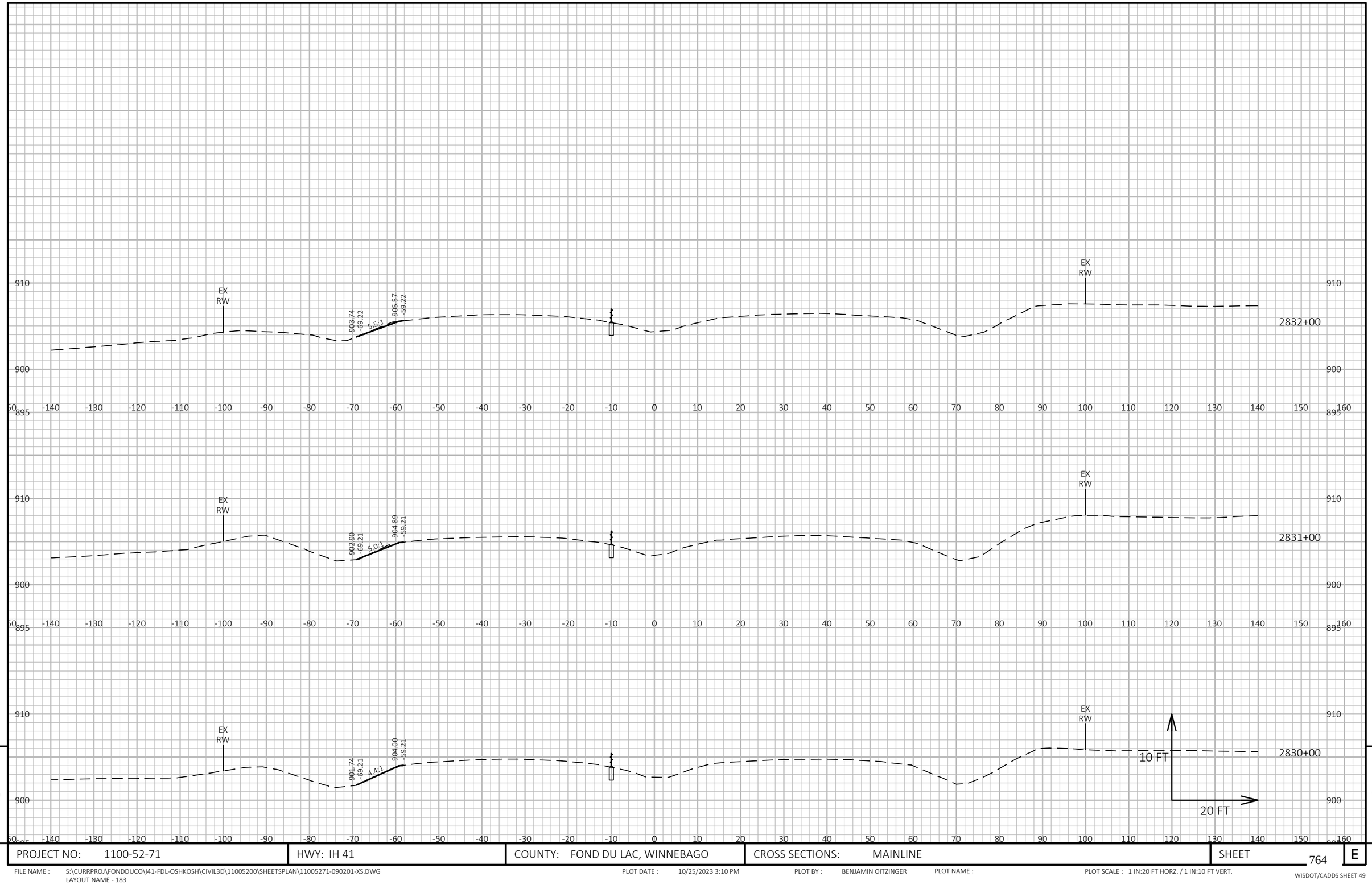
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 763	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 182

PLOT DATE : 10/25/2023 3:09 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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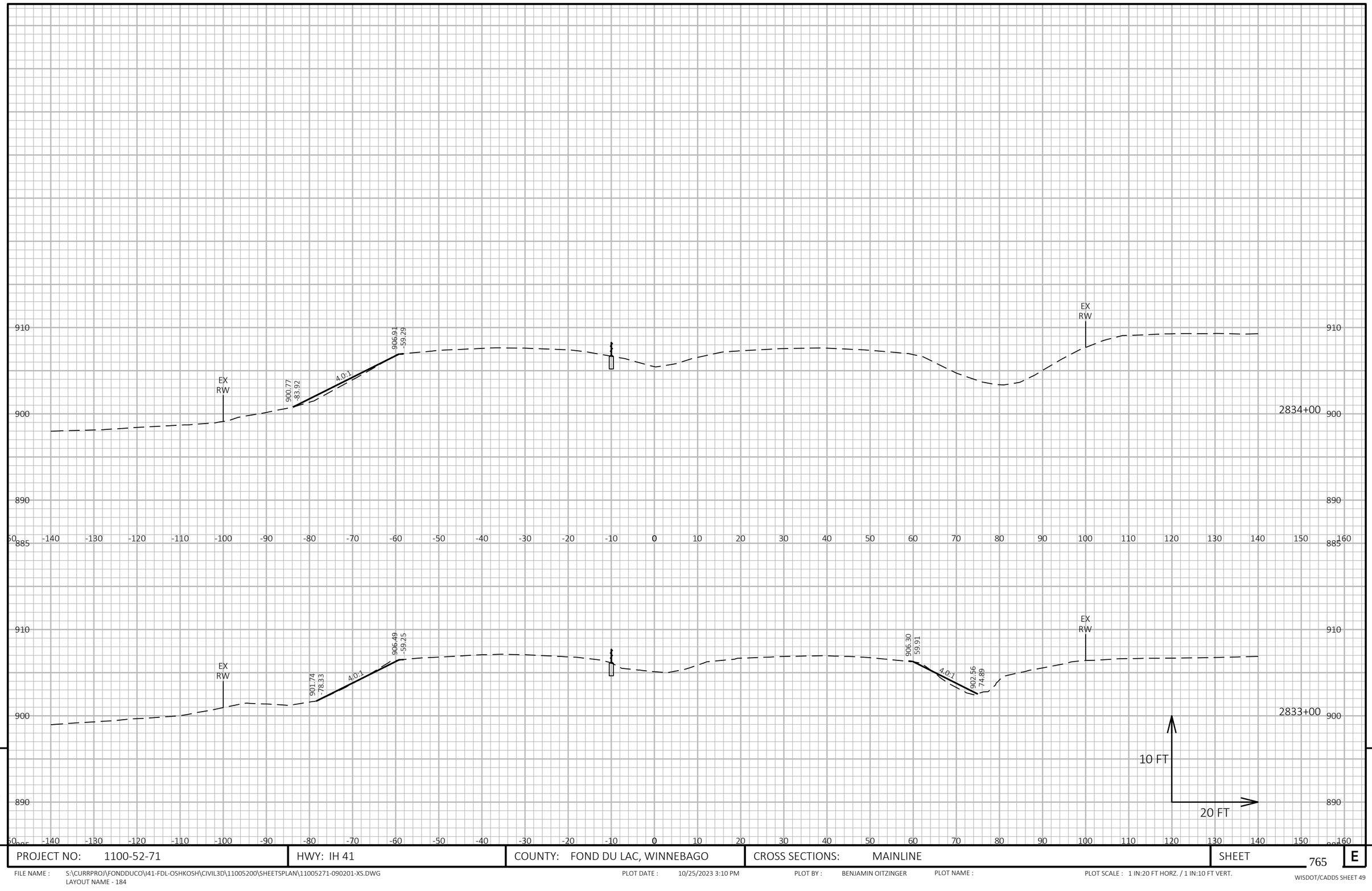
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 764	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 183

PLOT DATE : 10/25/2023 3:10 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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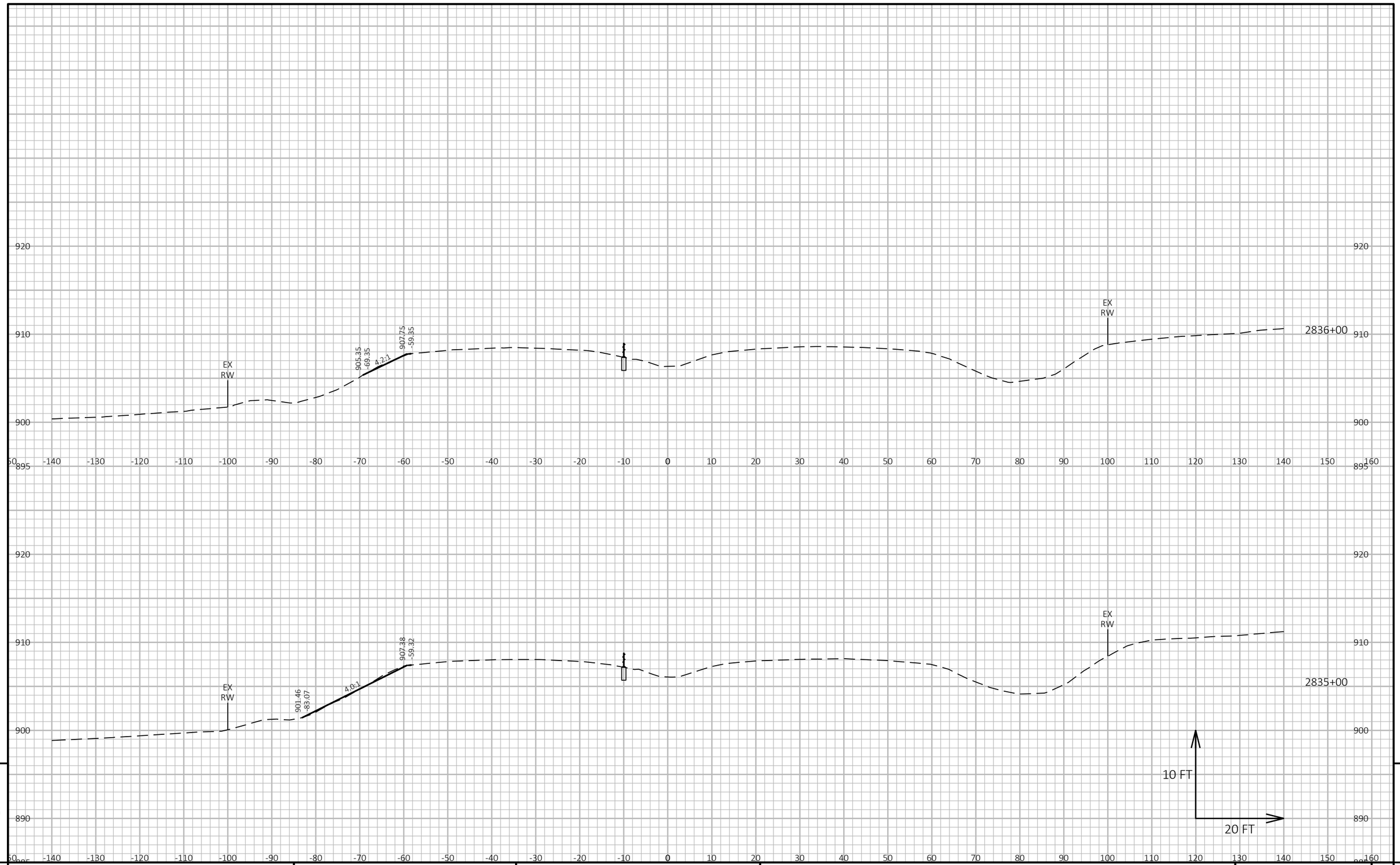
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 765	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 184

PLOT DATE : 10/25/2023 3:10 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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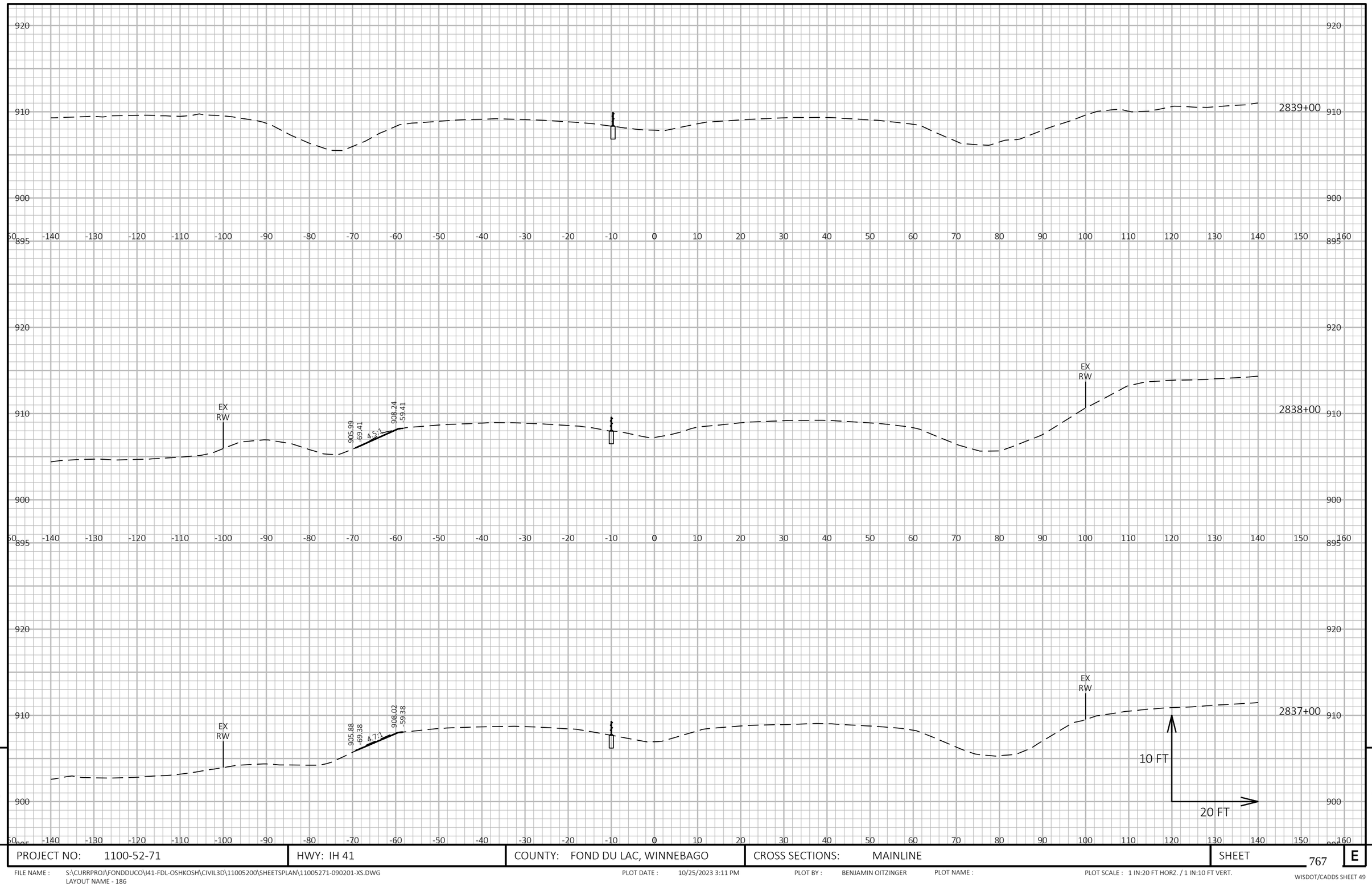
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 766	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 185

PLOT DATE : 10/25/2023 3:11 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

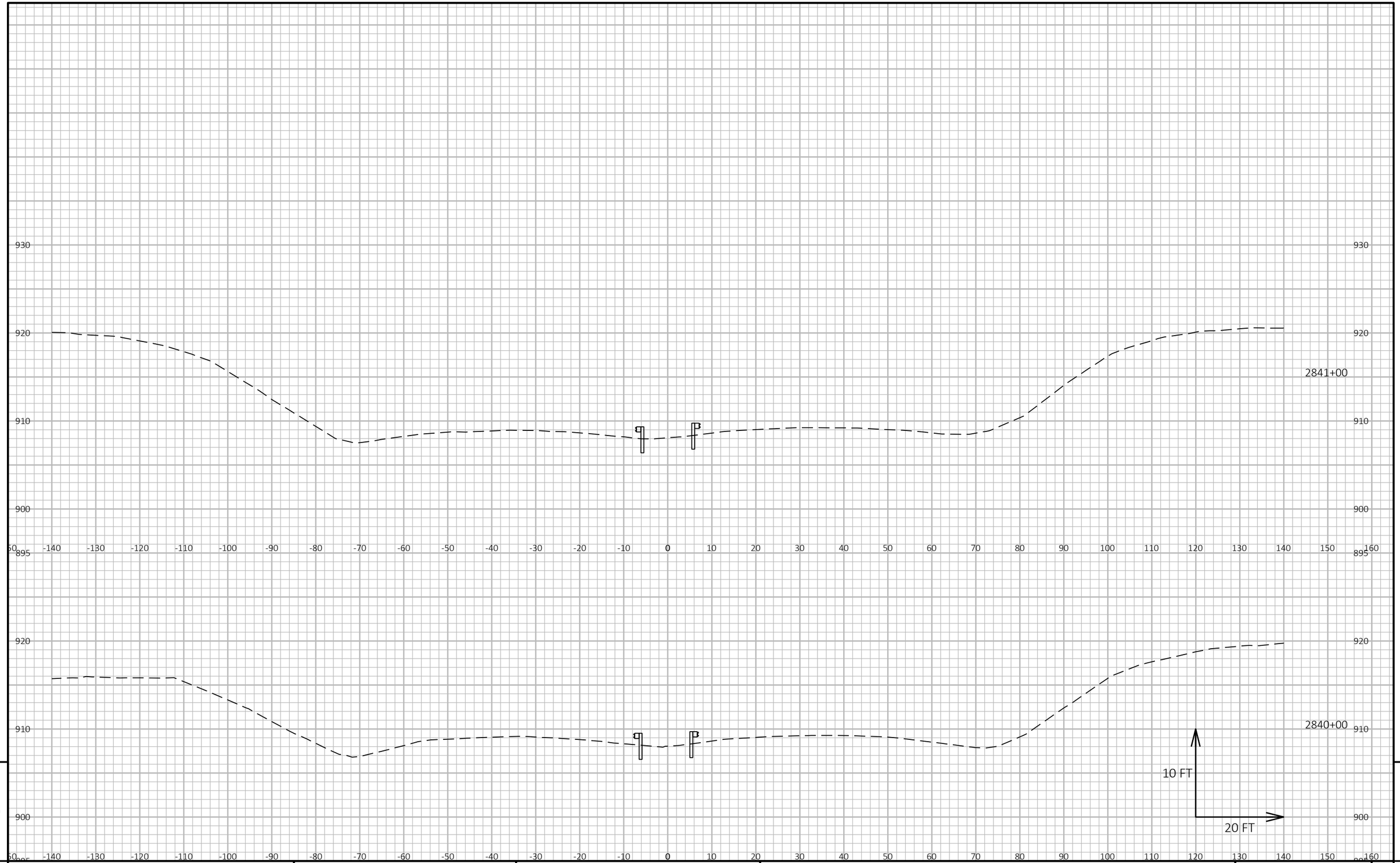


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 767	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 186

PLOT DATE : 10/25/2023 3:11 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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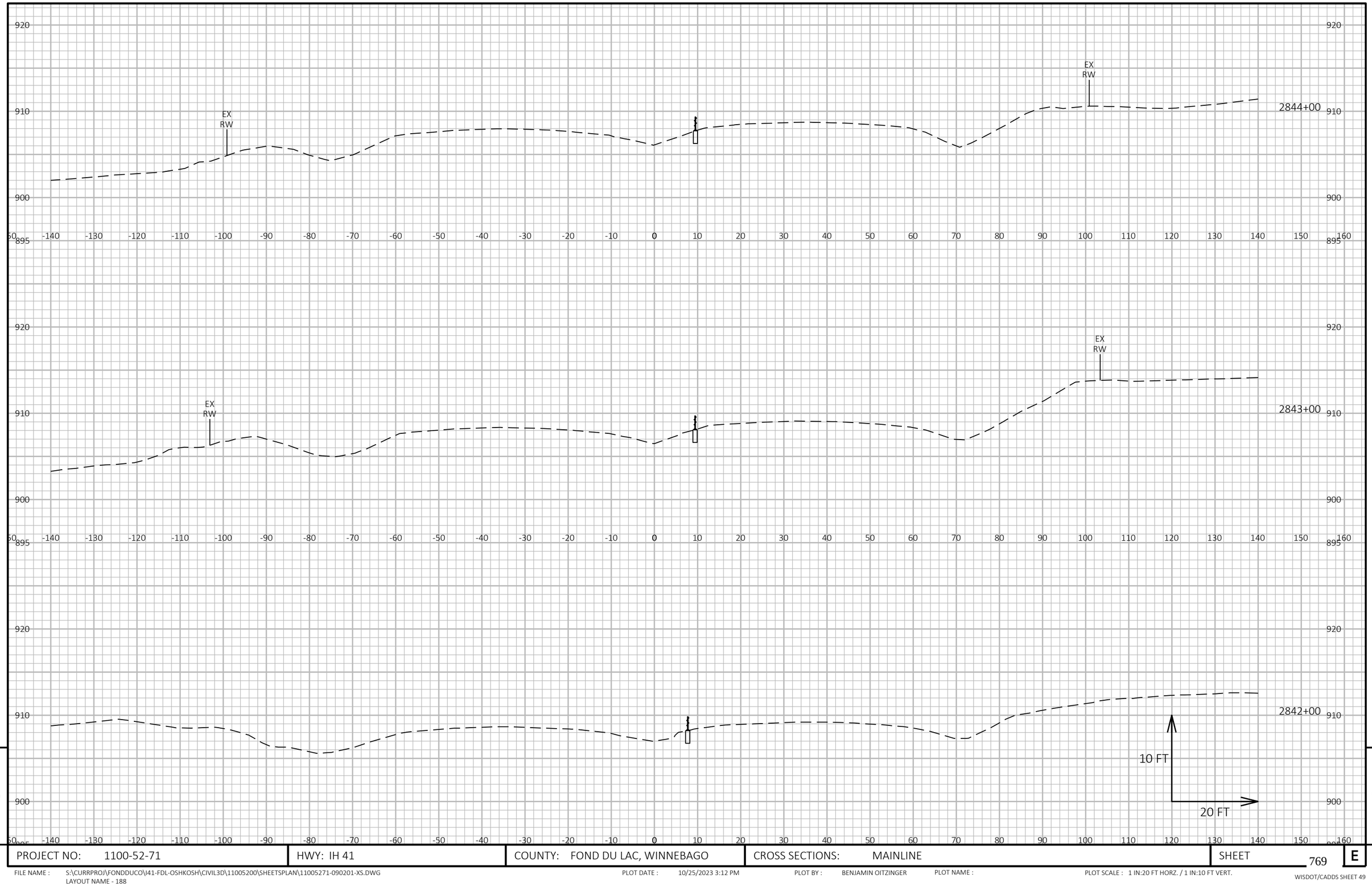
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 768	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 187

PLOT DATE : 10/25/2023 3:12 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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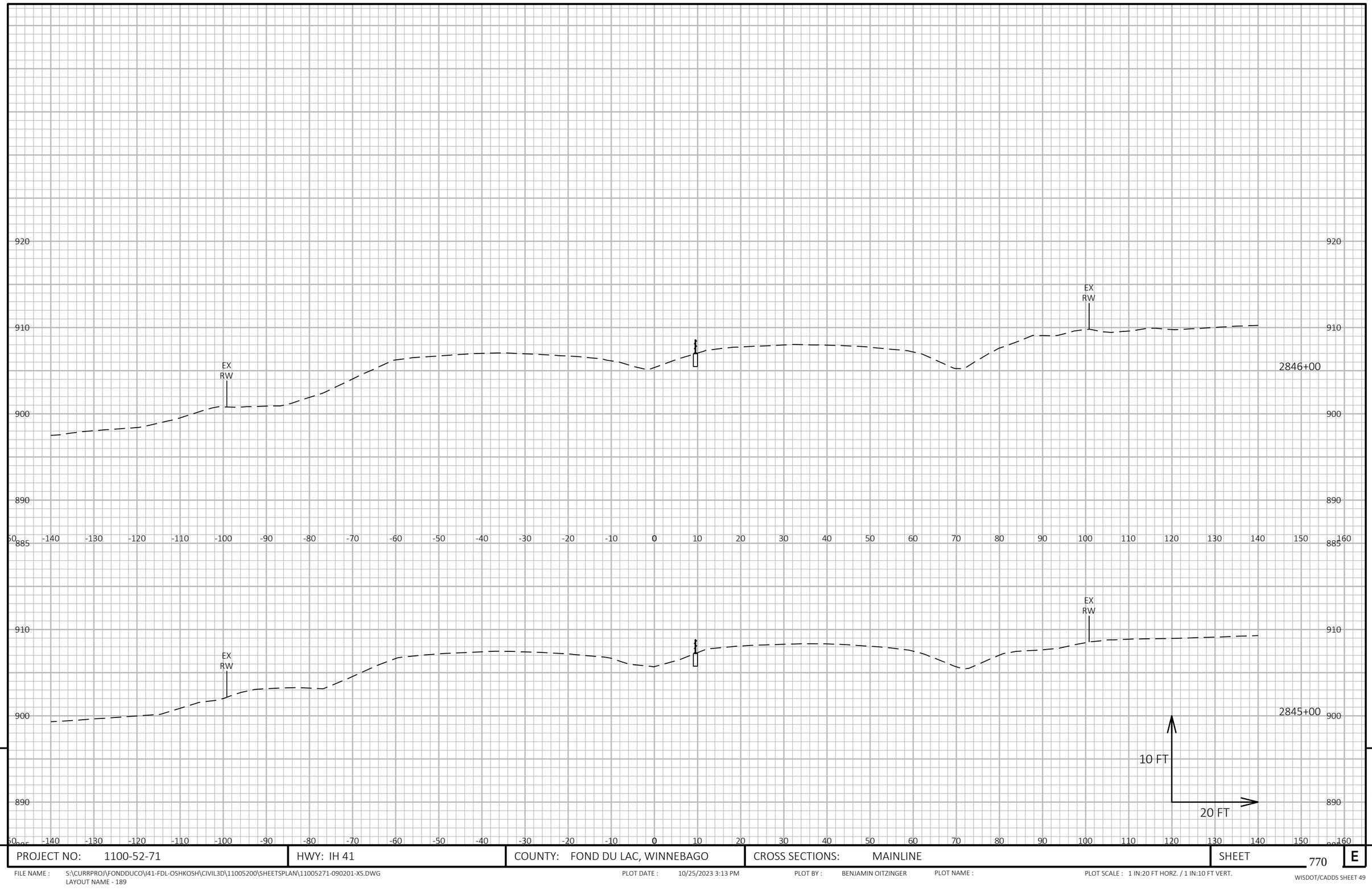
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 769	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 188

PLOT DATE : 10/25/2023 3:12 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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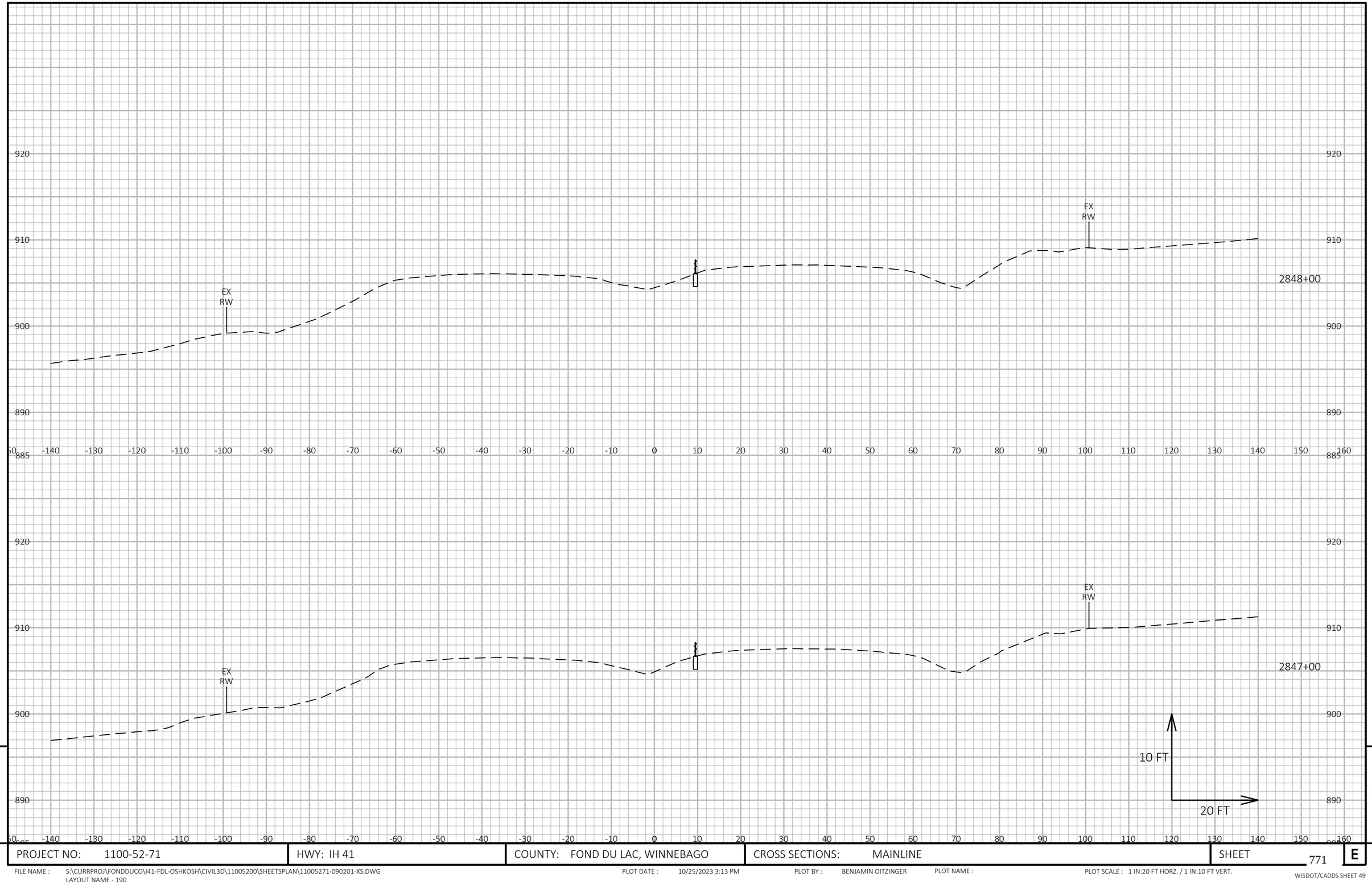
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 770	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 189

PLOT DATE : 10/25/2023 3:13 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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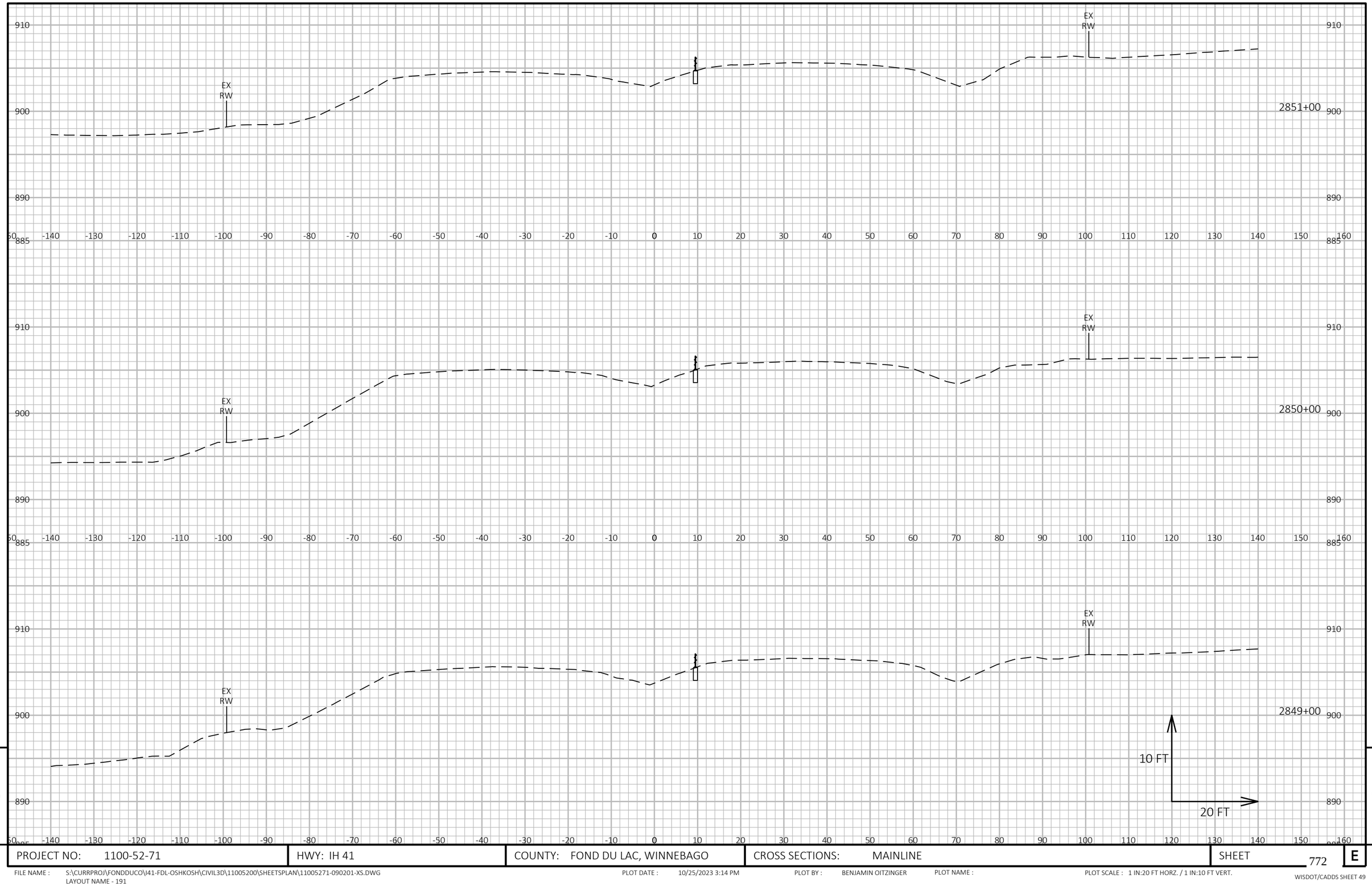
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 771	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 190

PLOT DATE : 10/25/2023 3:13 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 772	E

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FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 191

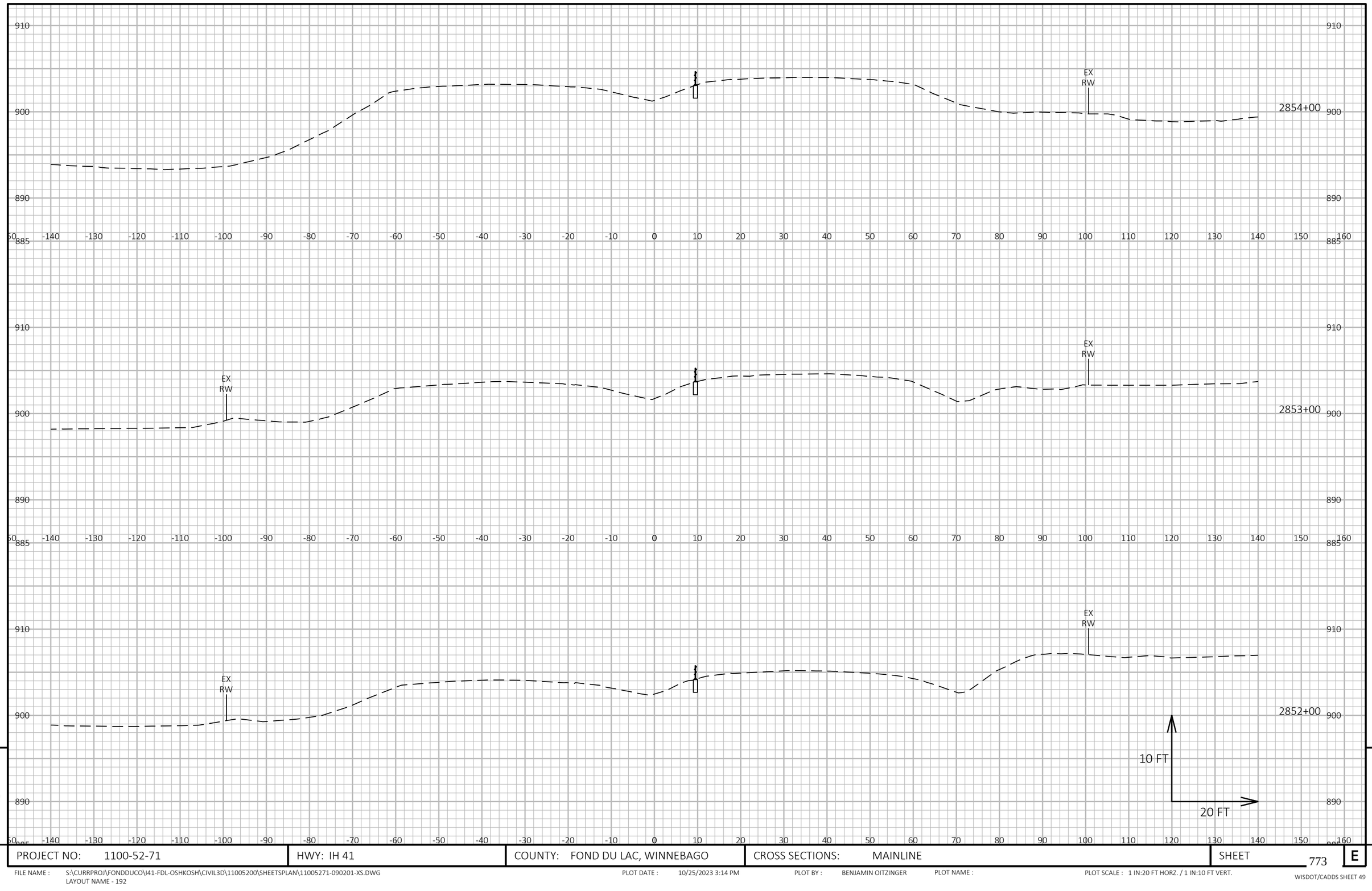
PLOT DATE : 10/25/2023 3:14 PM

PLOT BY : BENJAMIN OITZINGER

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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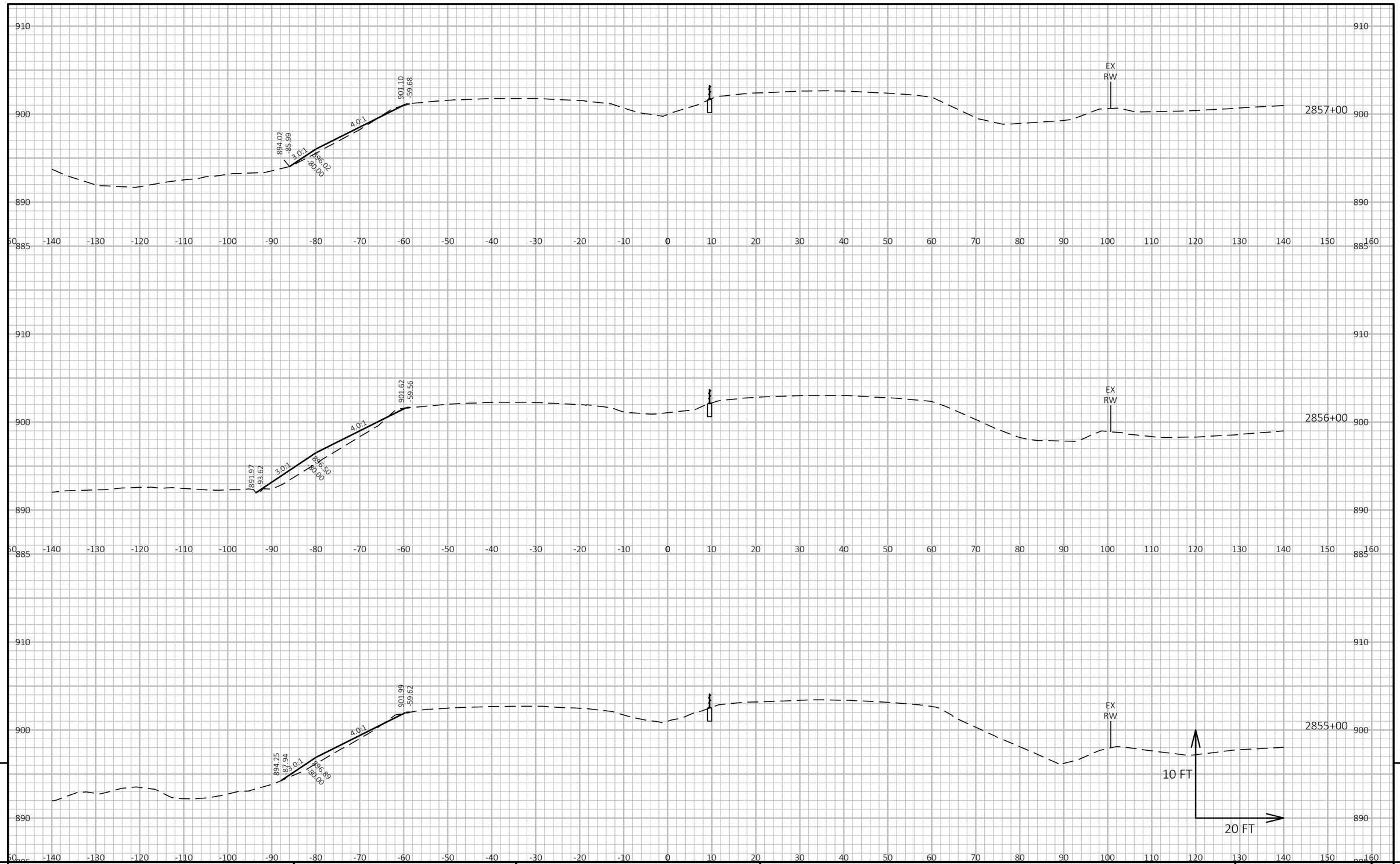
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 773	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 192

PLOT DATE : 10/25/2023 3:14 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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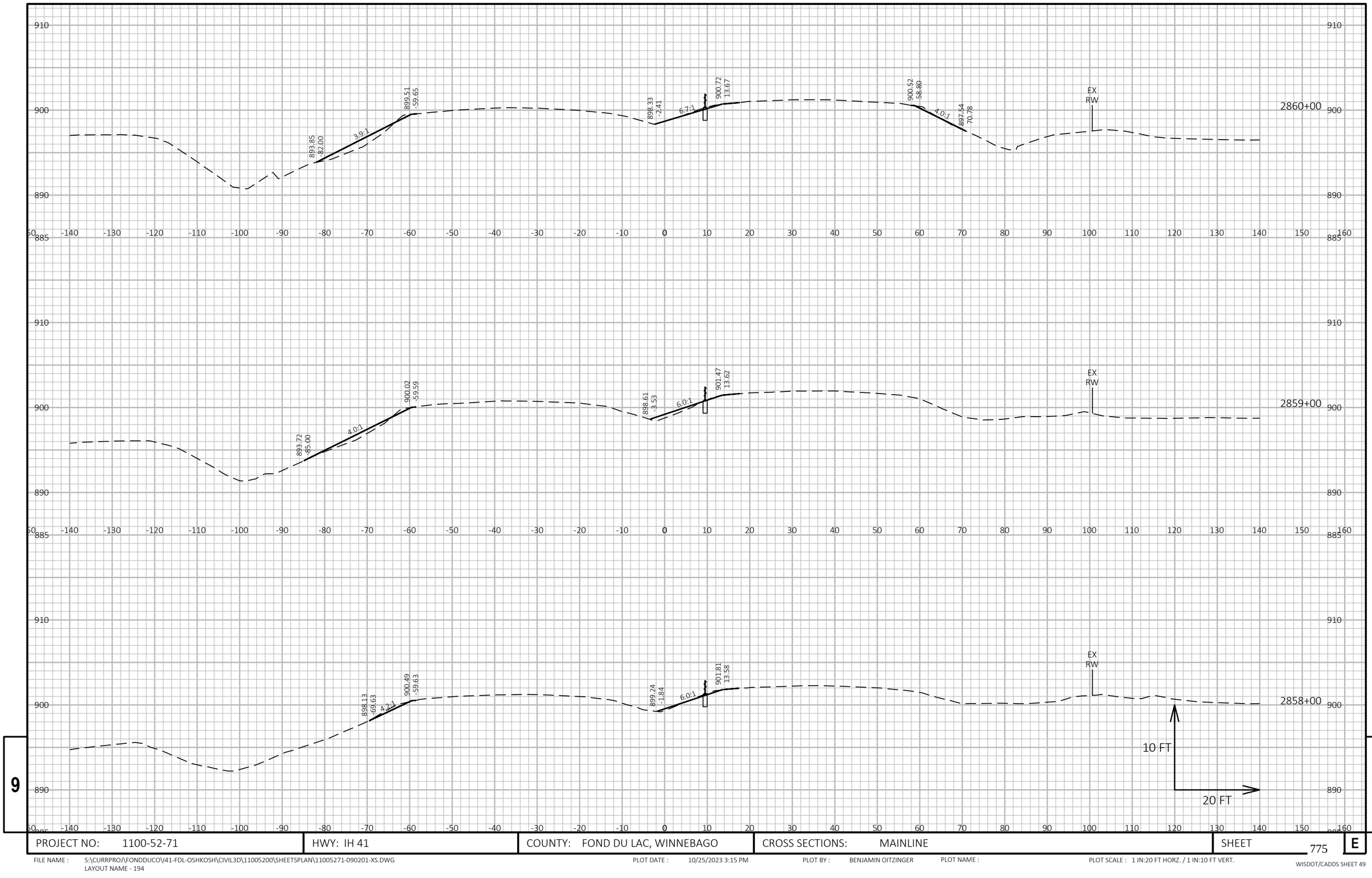
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 774	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 193

PLOT DATE : 10/25/2023 3:14 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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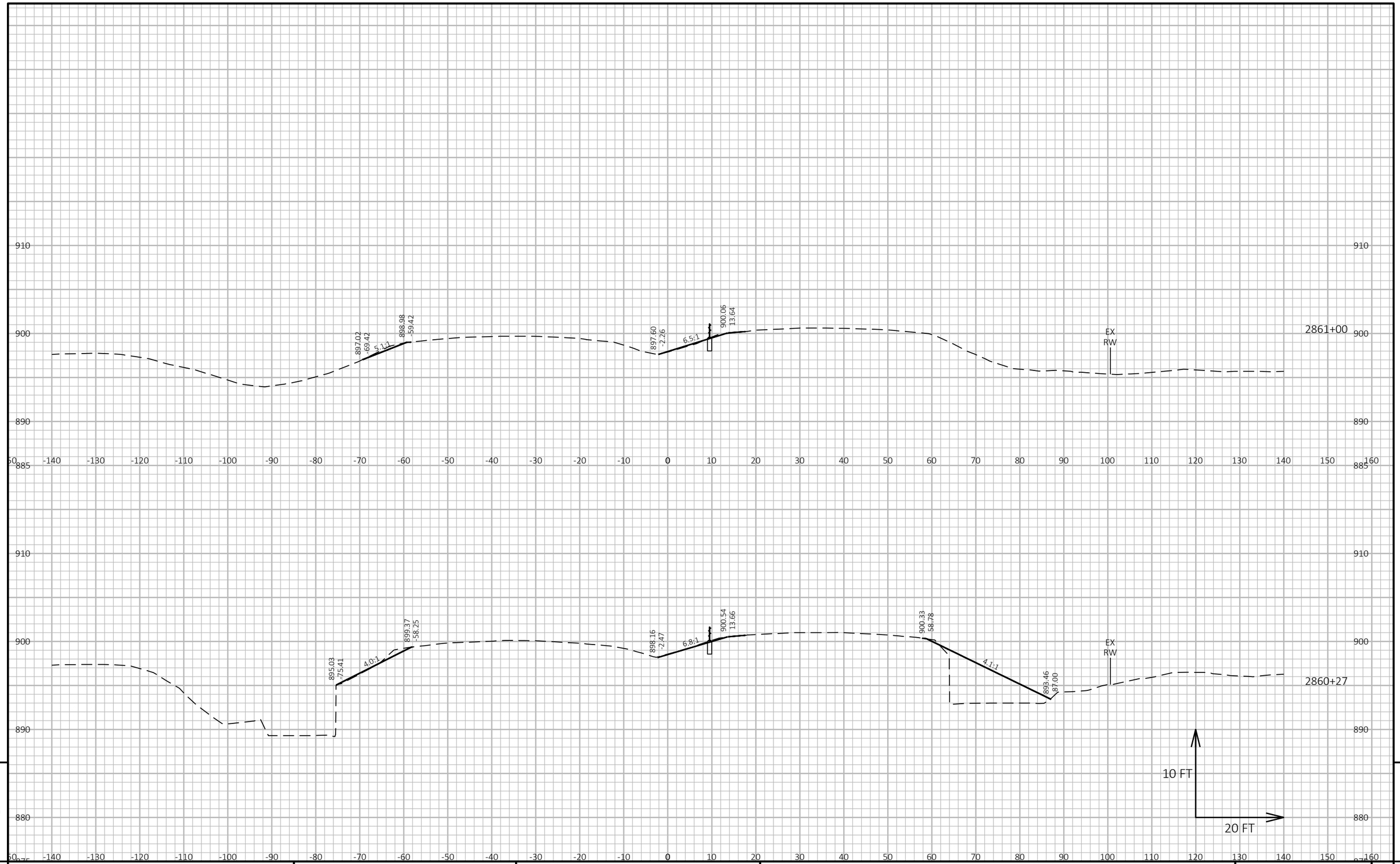
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 775	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 194

PLOT DATE : 10/25/2023 3:15 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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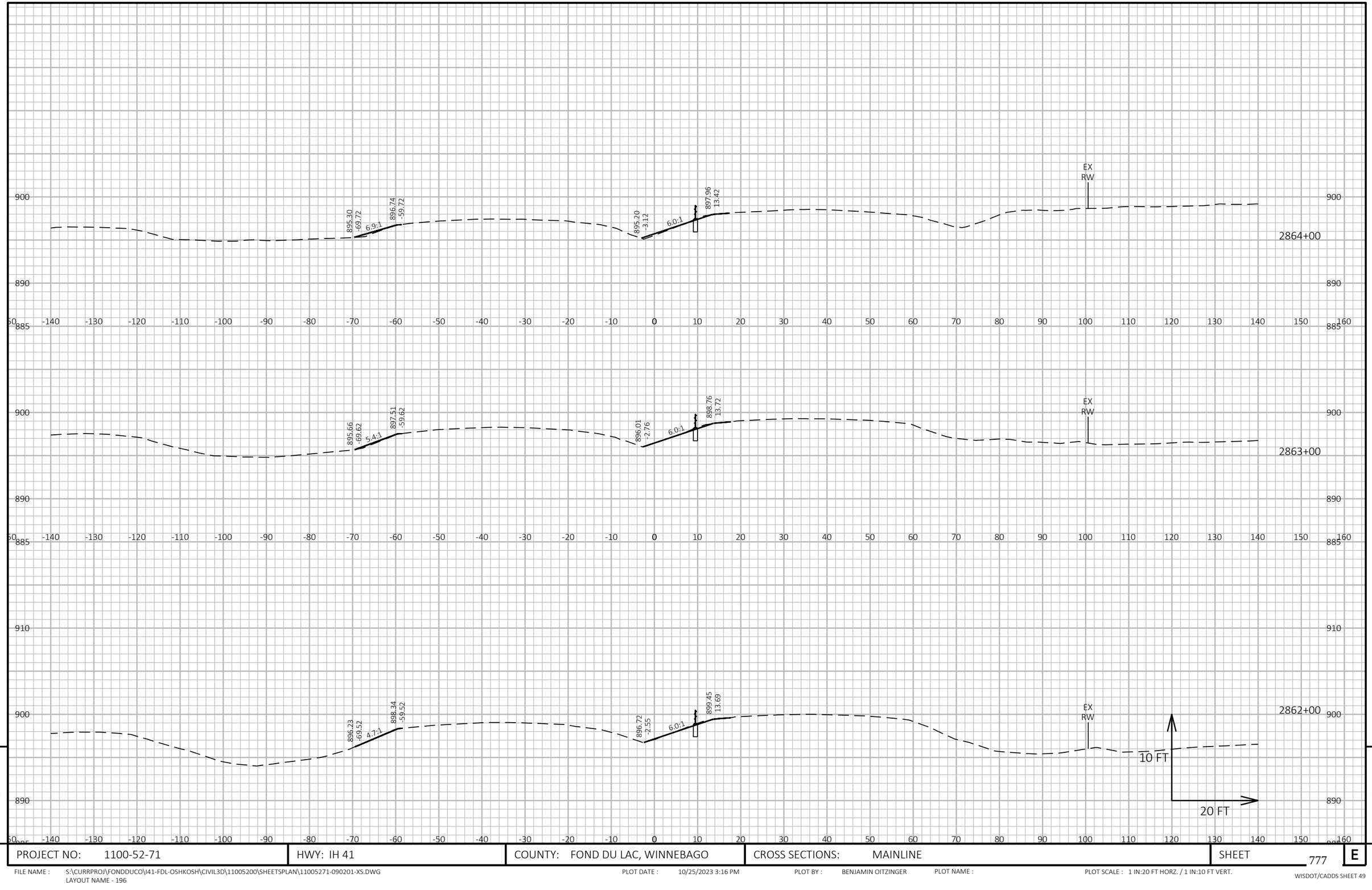
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 776	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 195

PLOT DATE : 10/25/2023 3:15 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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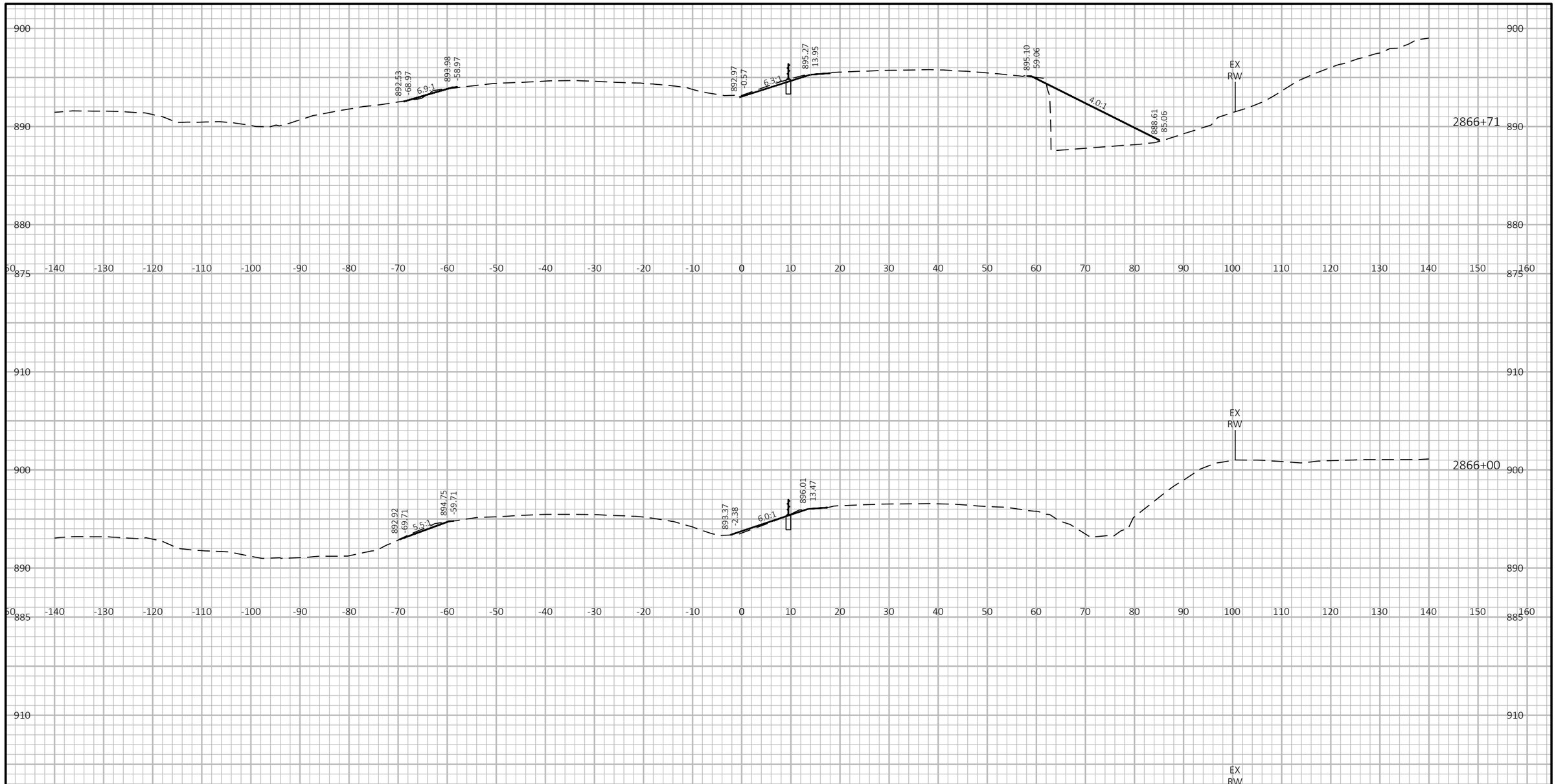
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 777	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 196

PLOT DATE : 10/25/2023 3:16 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

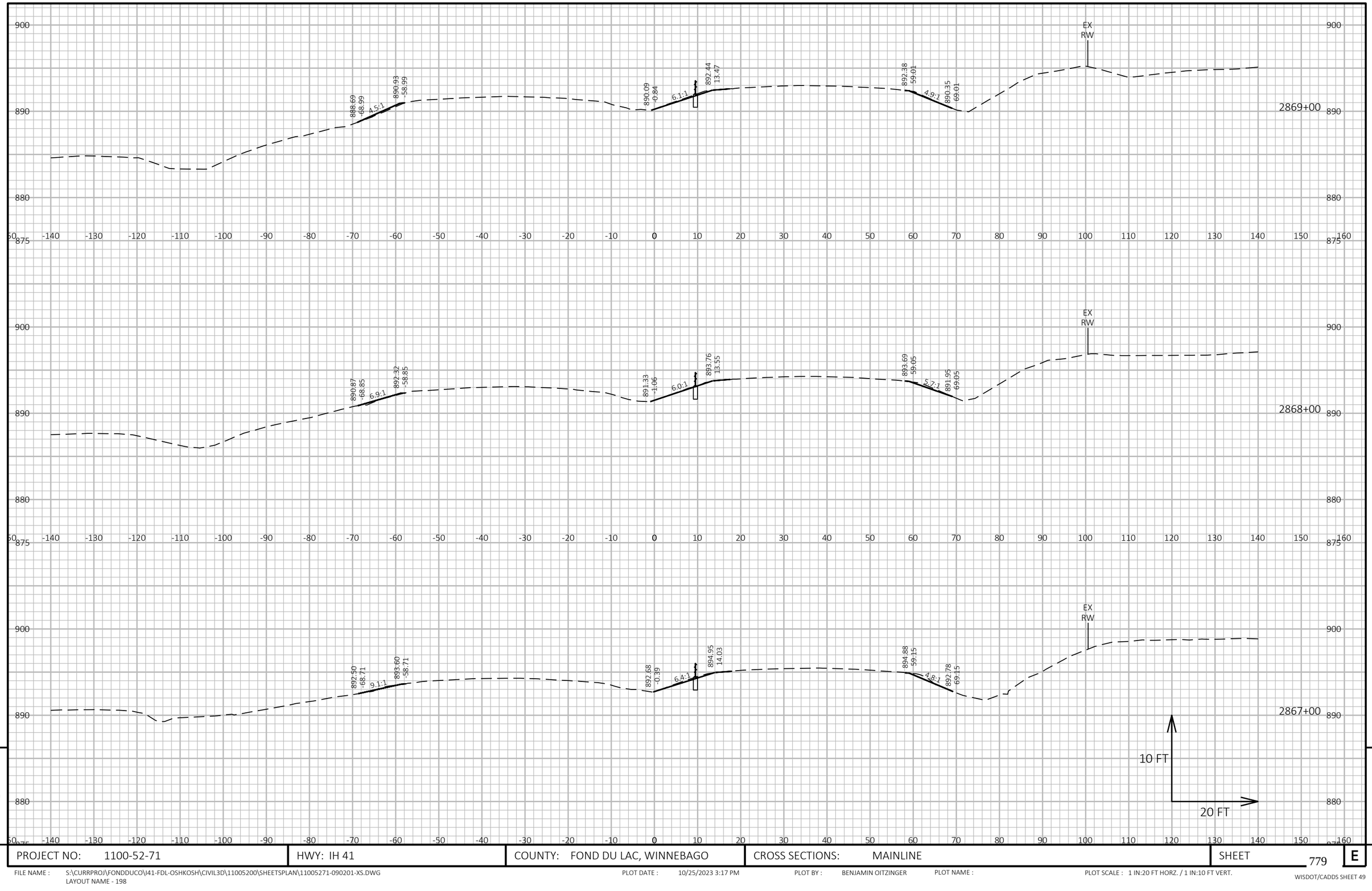


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 778	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 197

PLOT DATE : 10/25/2023 3:16 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

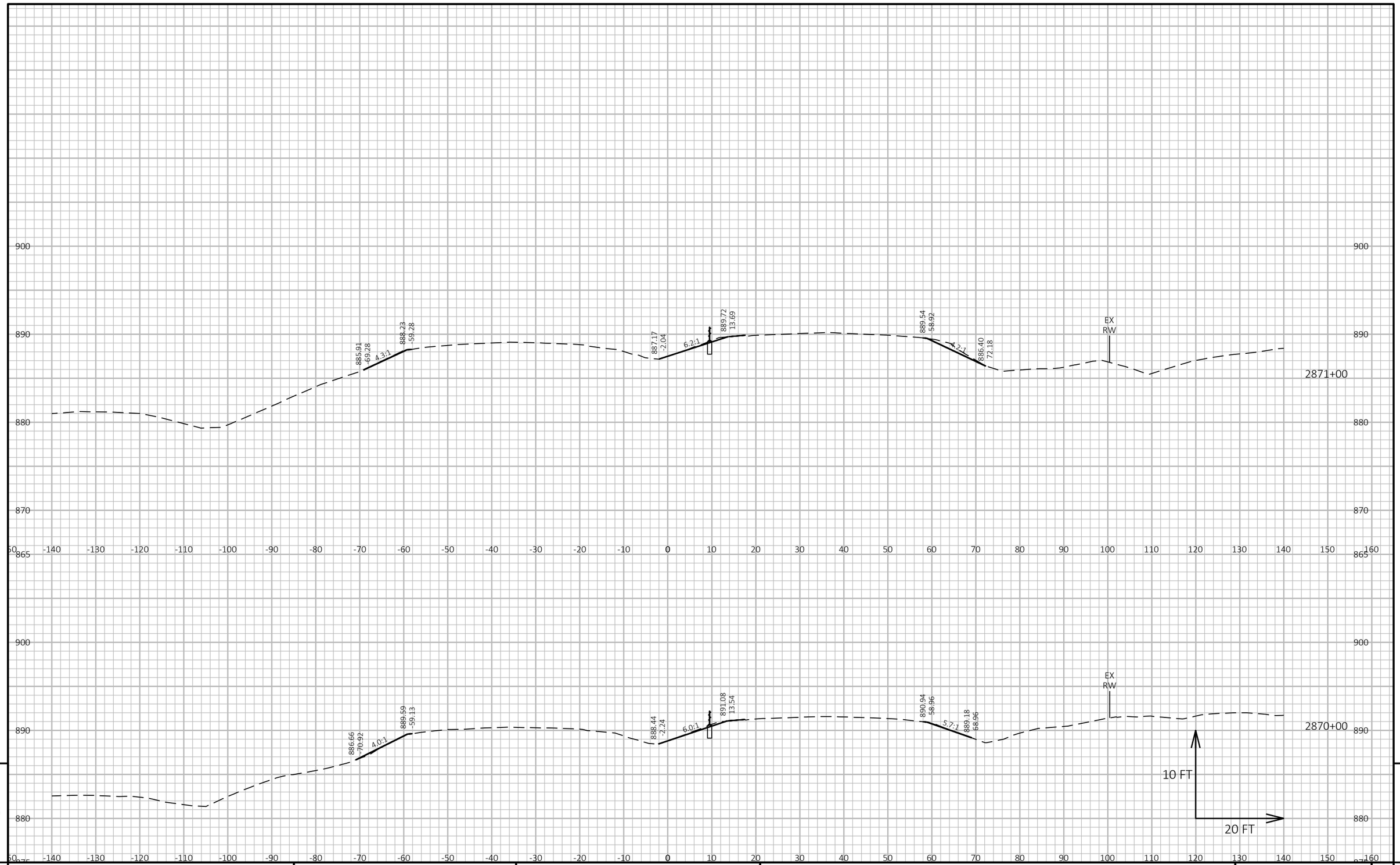


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 779 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 198

PLOT DATE : 10/25/2023 3:17 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 780	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 199

PLOT DATE : 10/25/2023 3:17 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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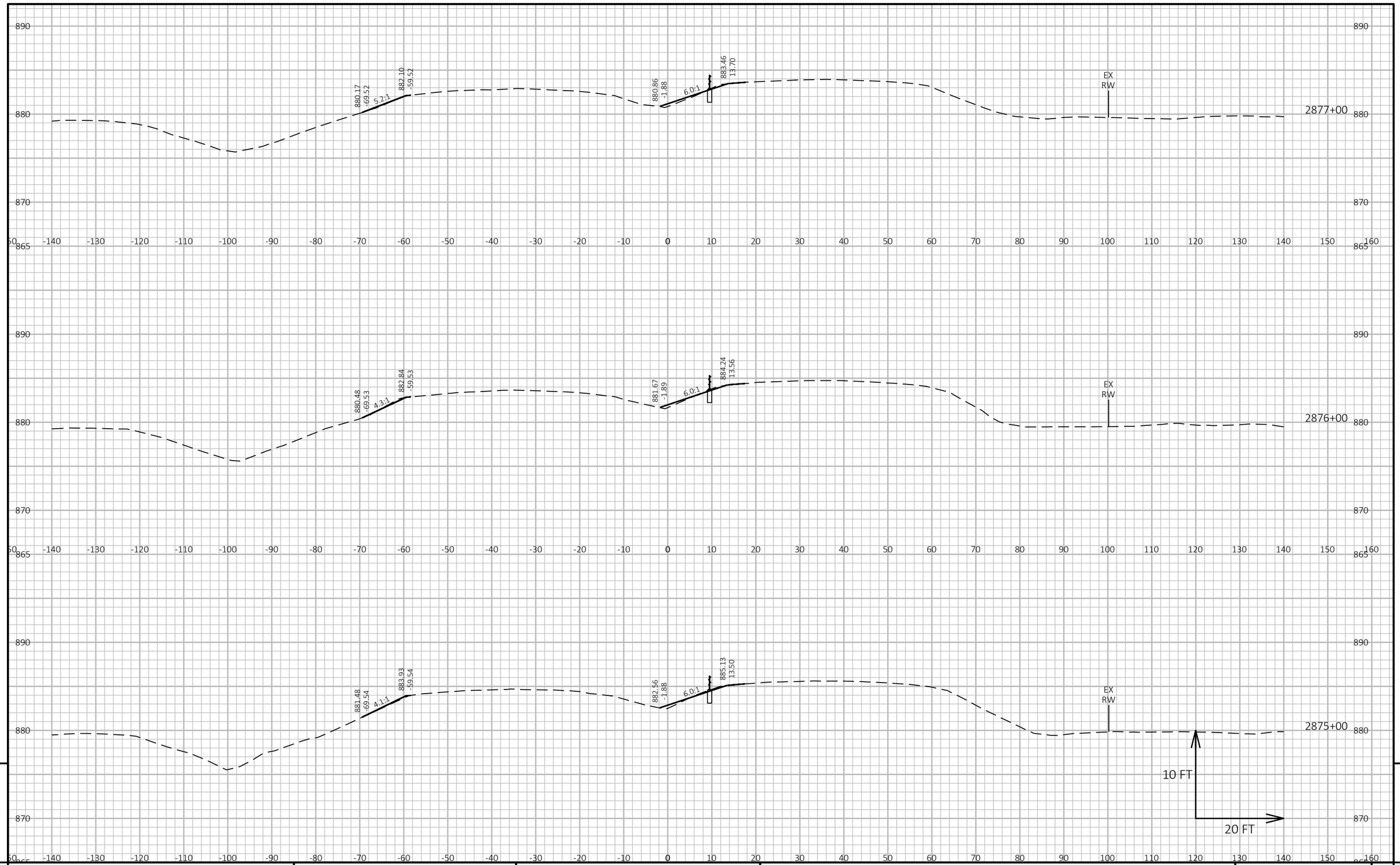
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 781	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 200

PLOT DATE : 10/25/2023 3:18 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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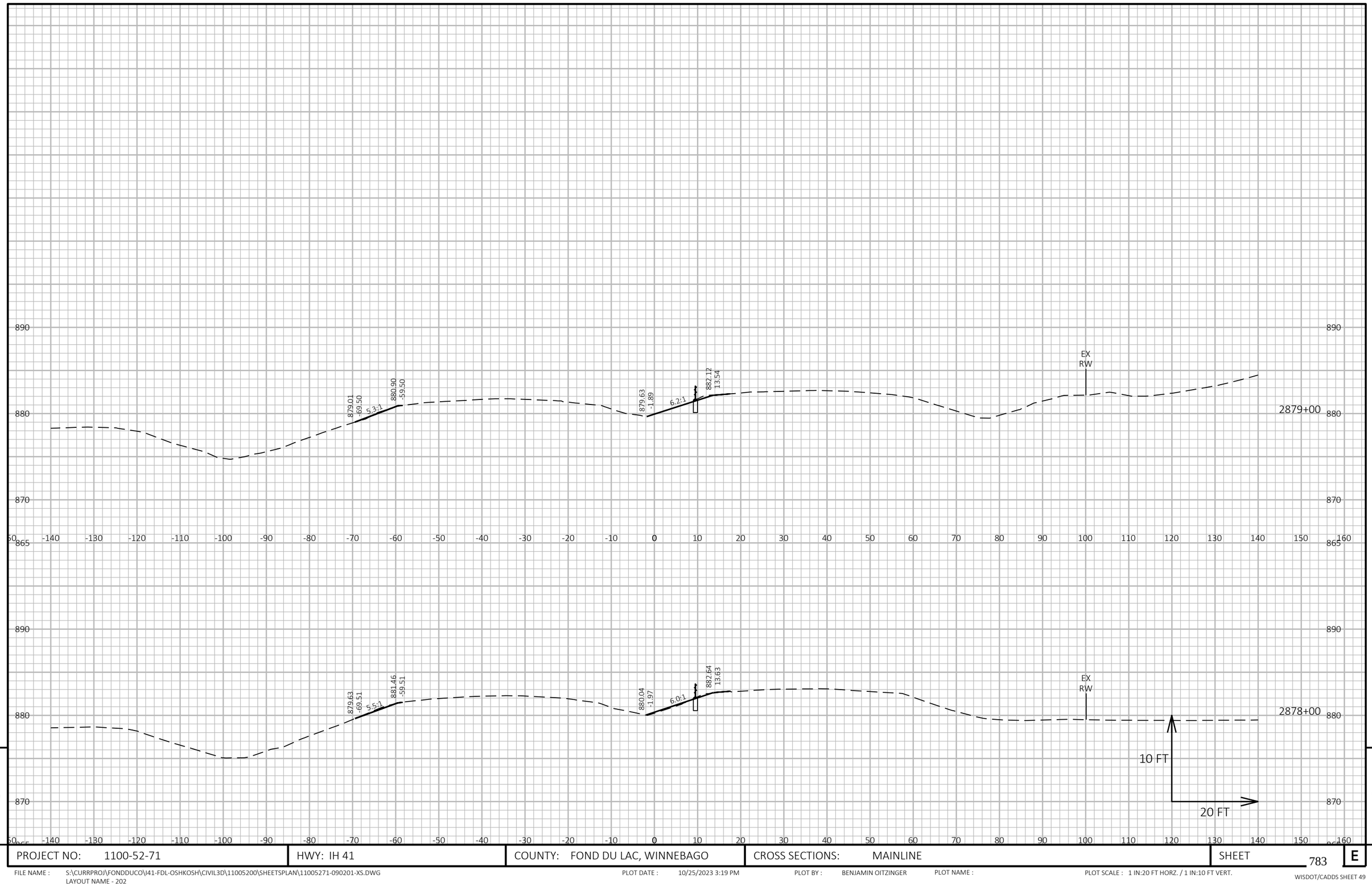
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 782	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 201

PLOT DATE : 10/25/2023 3:18 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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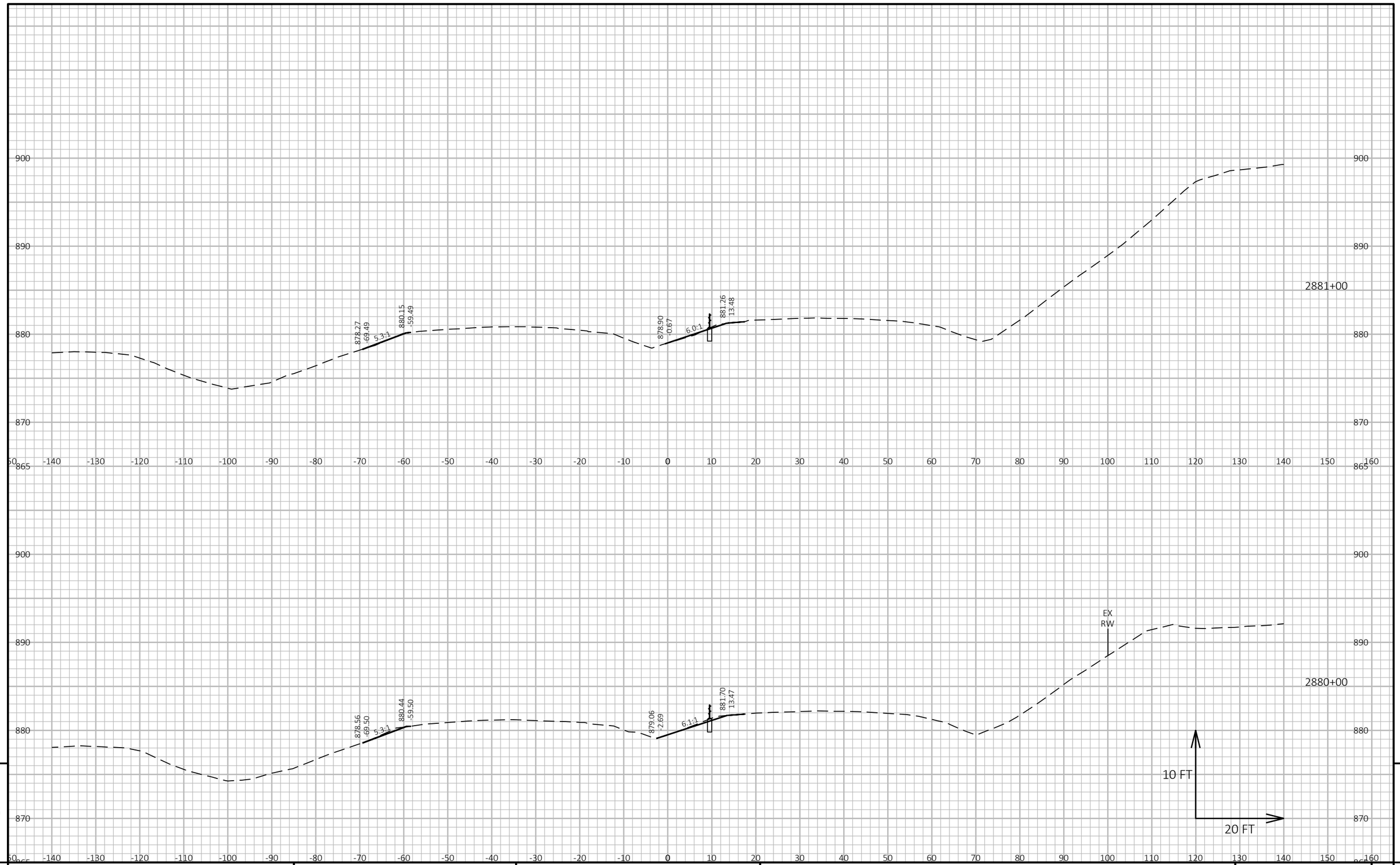
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 783	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 202

PLOT DATE : 10/25/2023 3:19 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

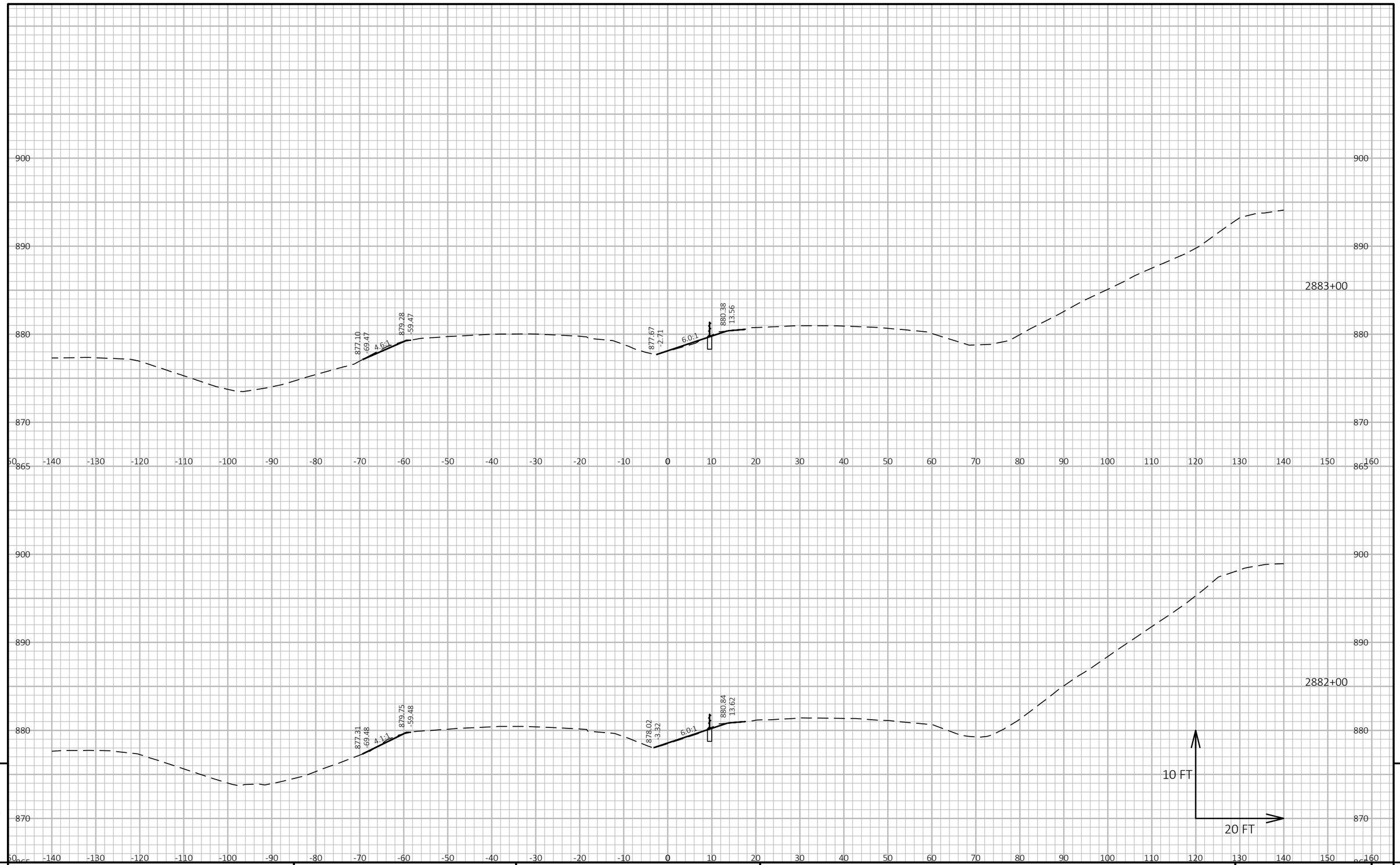


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 784	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 203

PLOT DATE : 10/25/2023 3:19 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

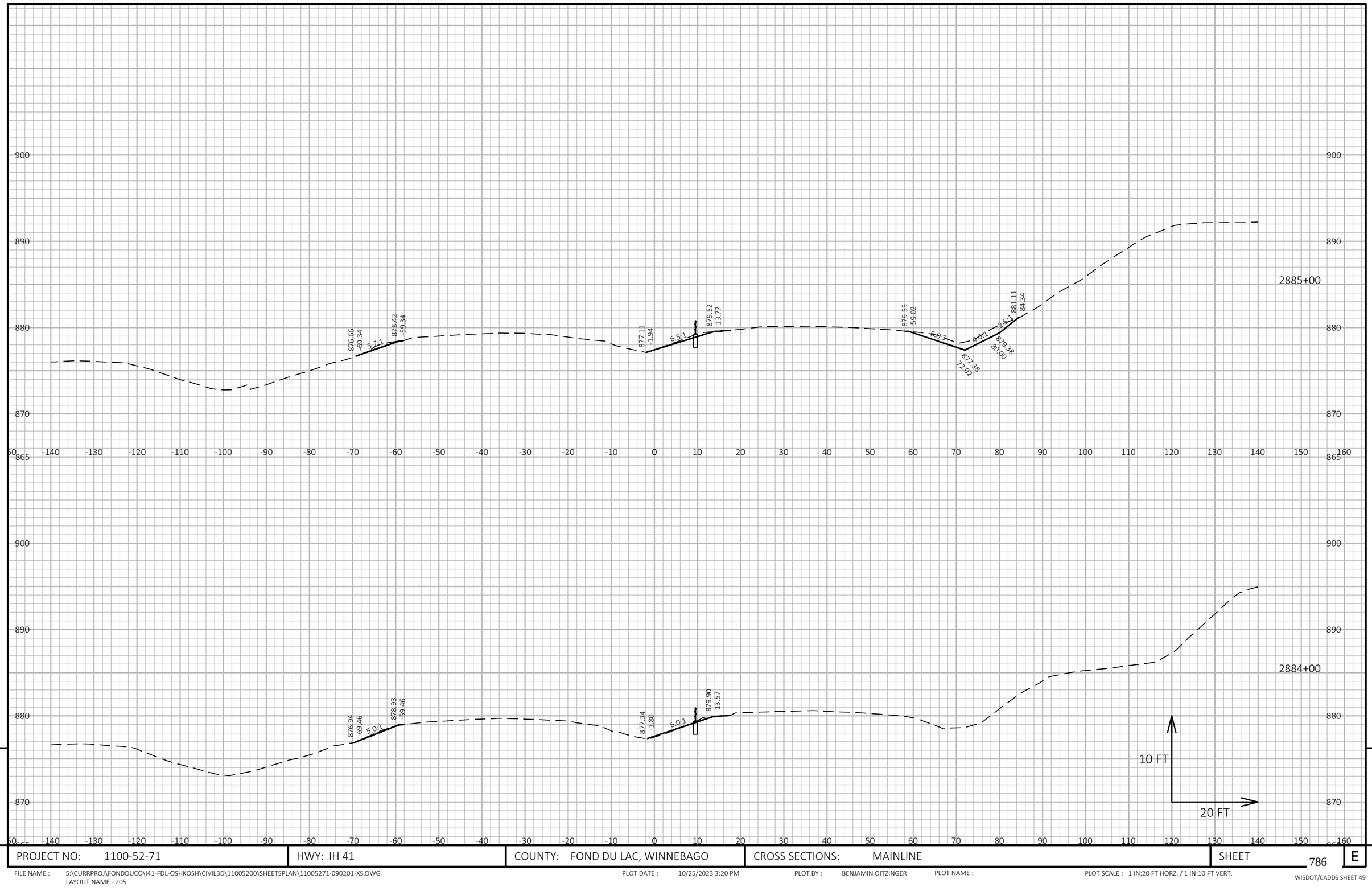


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 785	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 204

PLOT DATE : 10/25/2023 3:20 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

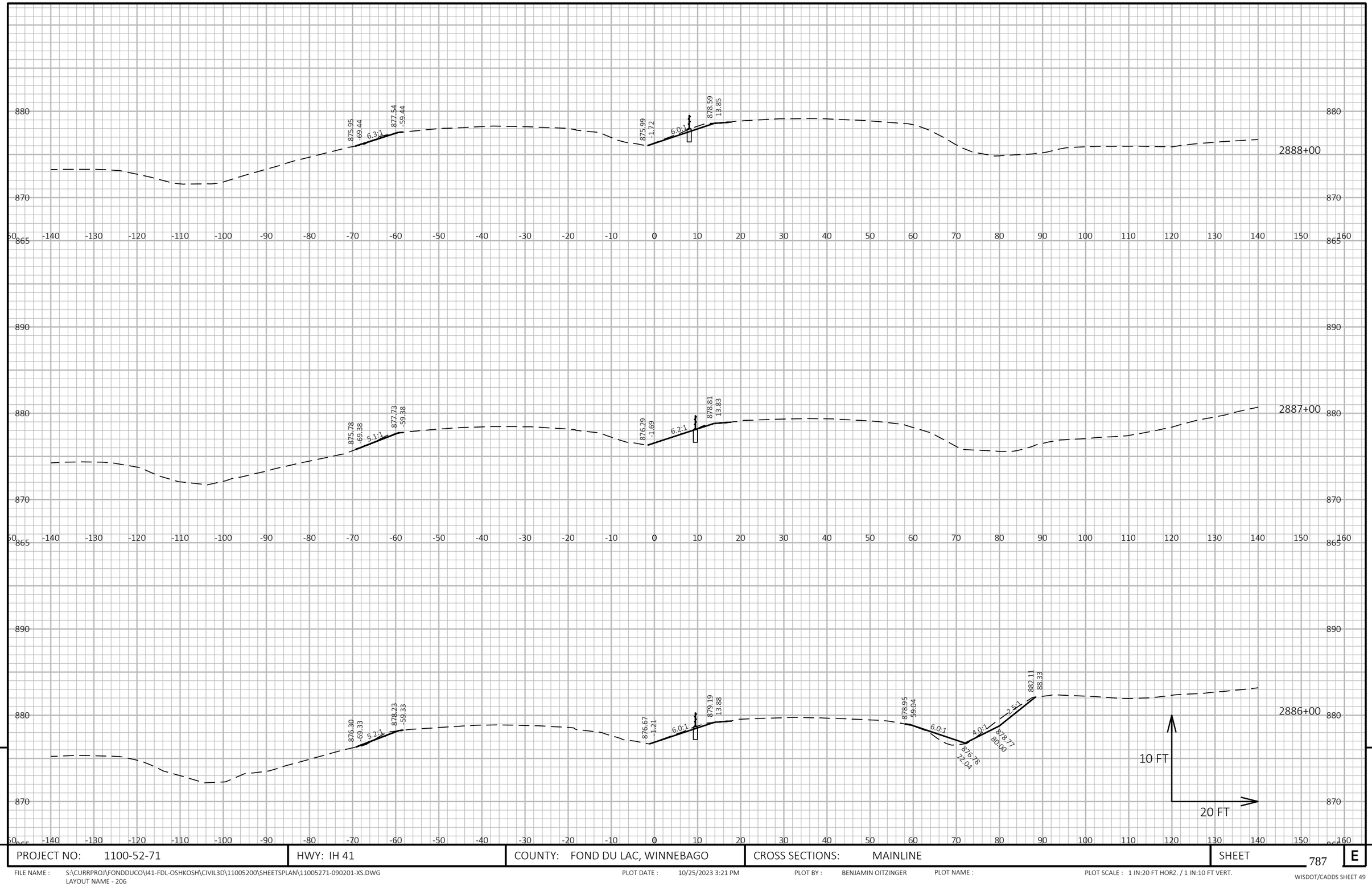


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 786	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 205

PLOT DATE : 10/25/2023 3:20 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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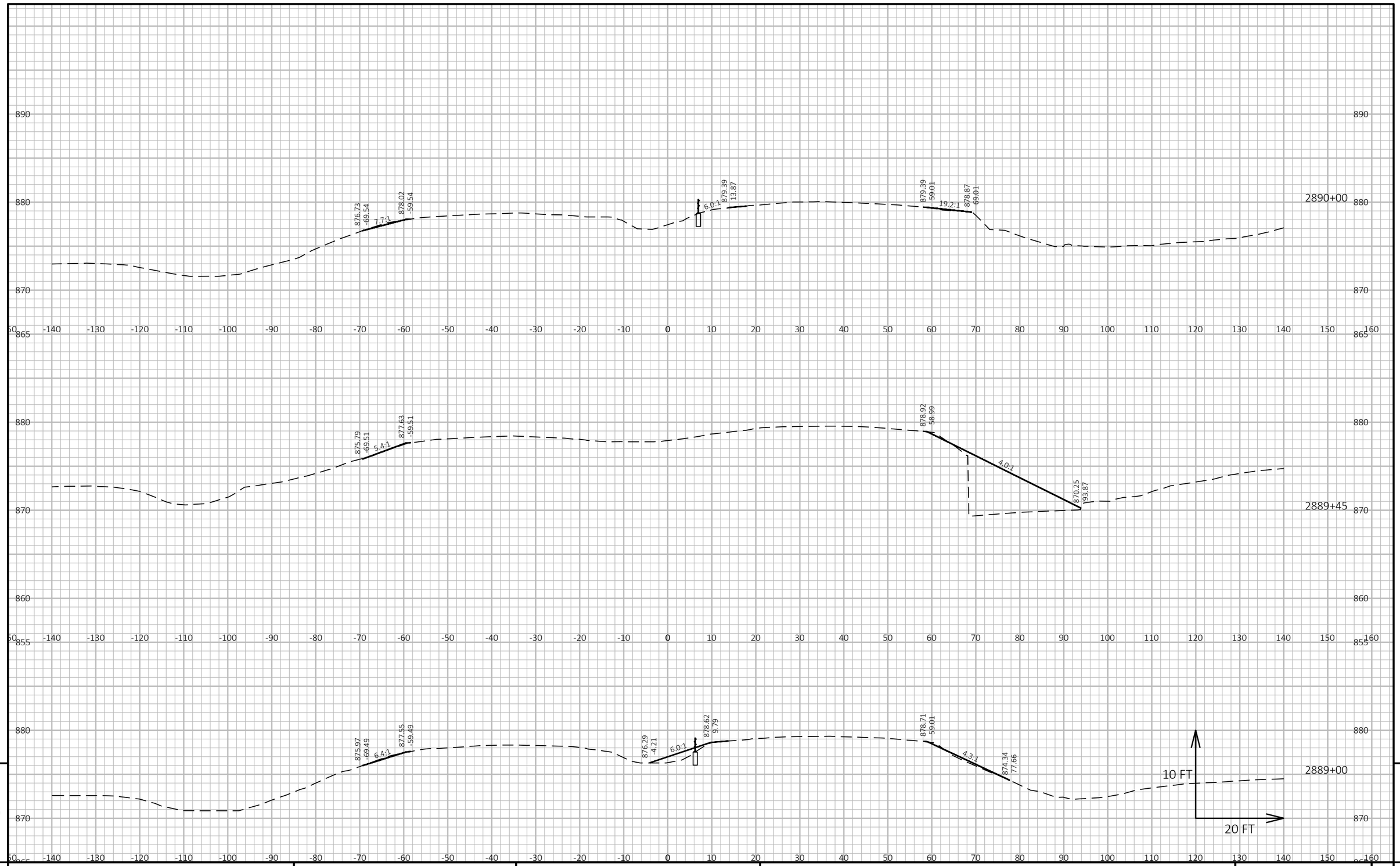
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 787	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 206

PLOT DATE : 10/25/2023 3:21 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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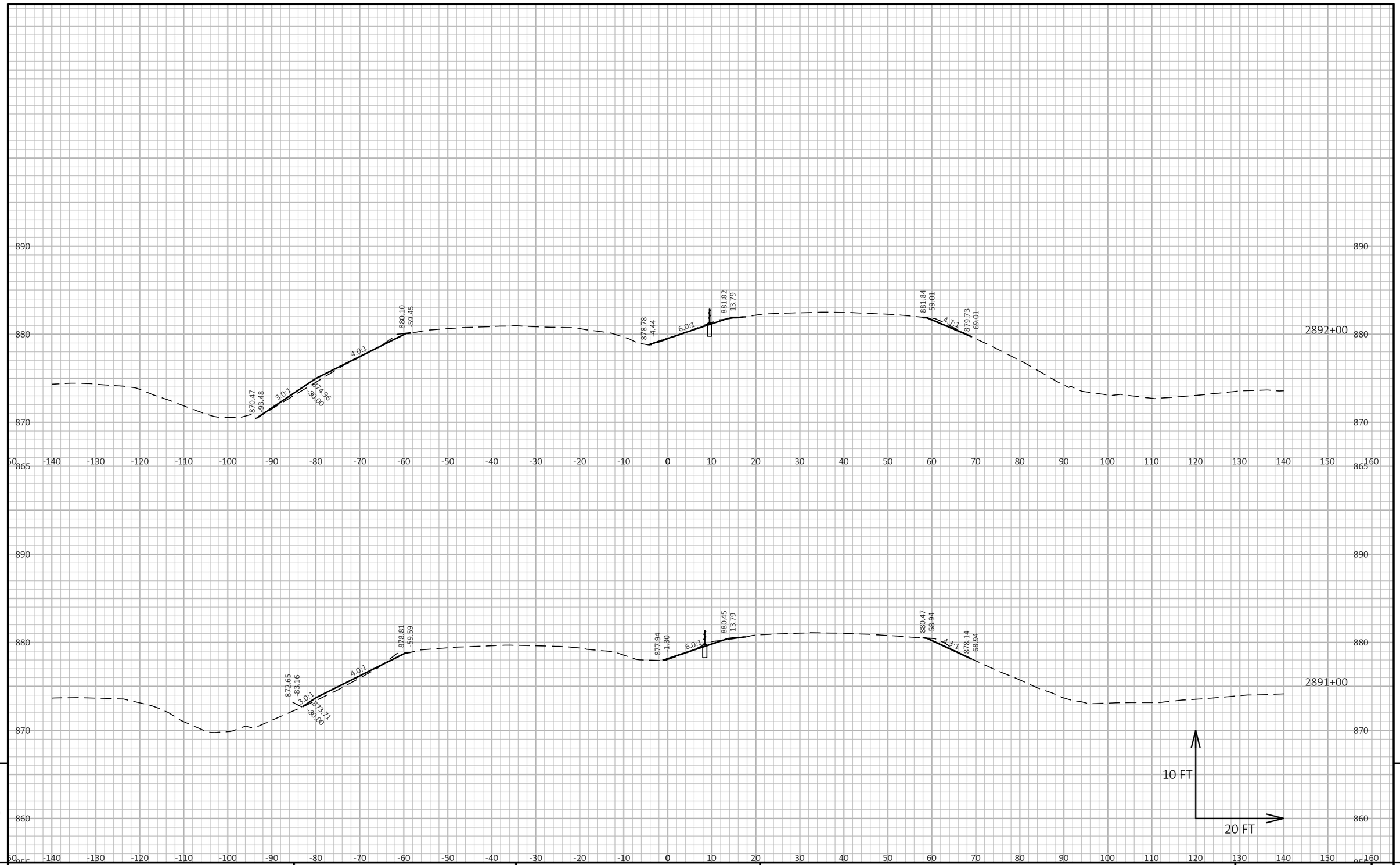
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 788	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 207

PLOT DATE : 10/25/2023 3:21 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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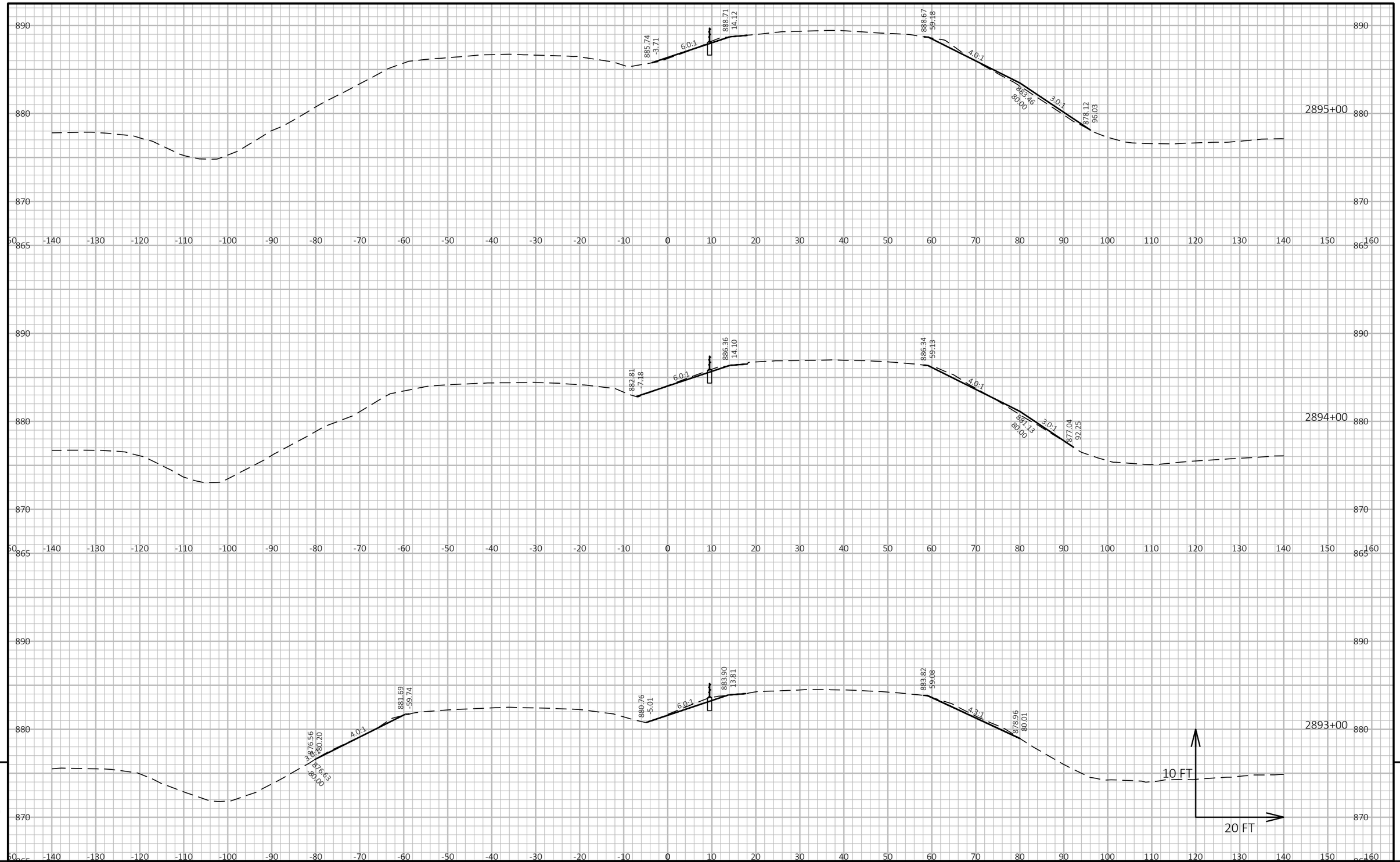
PROJECT NO: 1100-52-71 | HWY: IH 41 | COUNTY: FOND DU LAC, WINNEBAGO | CROSS SECTIONS: MAINLINE | SHEET 789 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 208

PLOT DATE : 10/25/2023 3:22 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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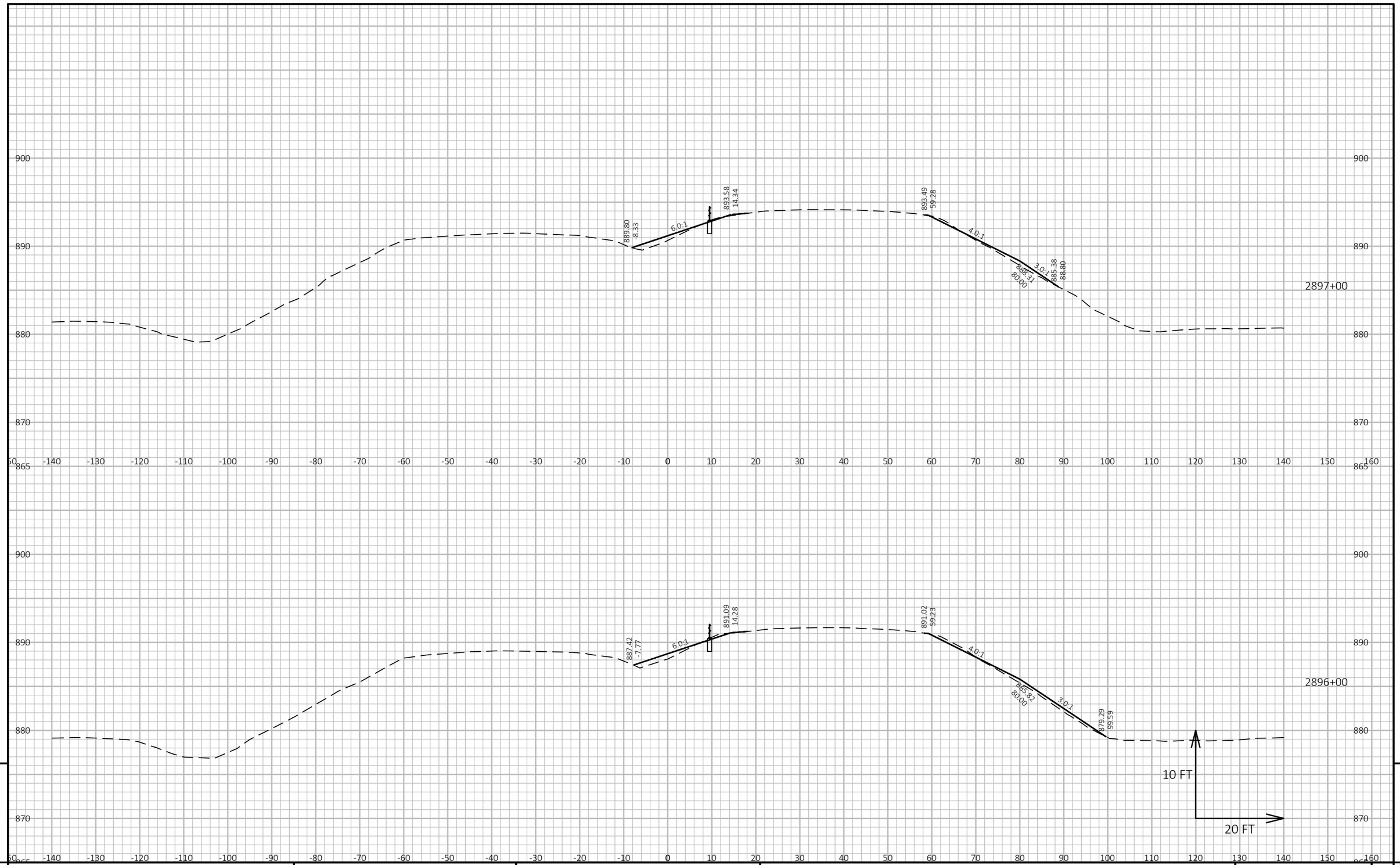
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 790	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 209

PLOT DATE : 10/25/2023 3:22 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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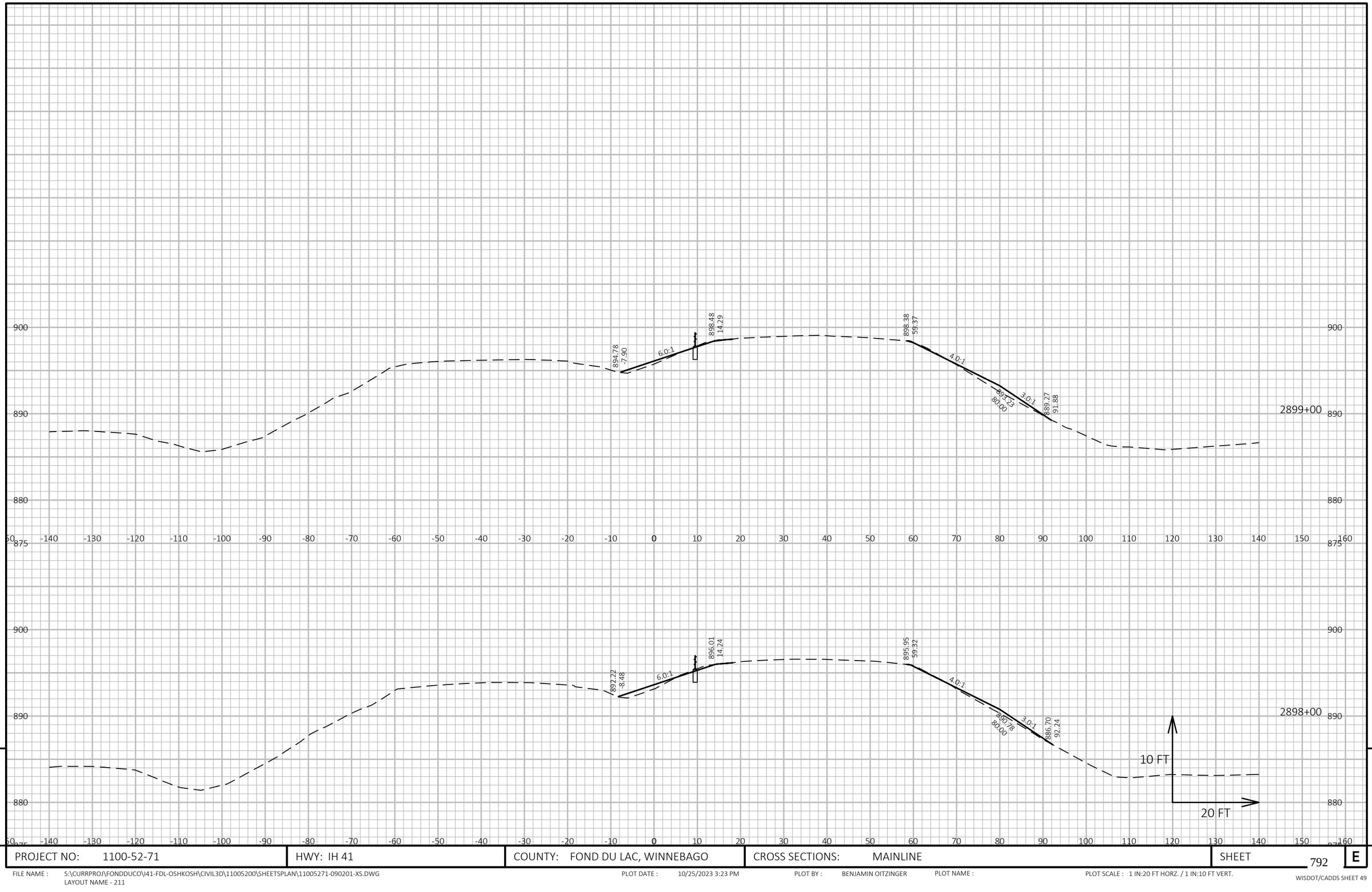
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 791	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 210

PLOT DATE : 10/25/2023 3:23 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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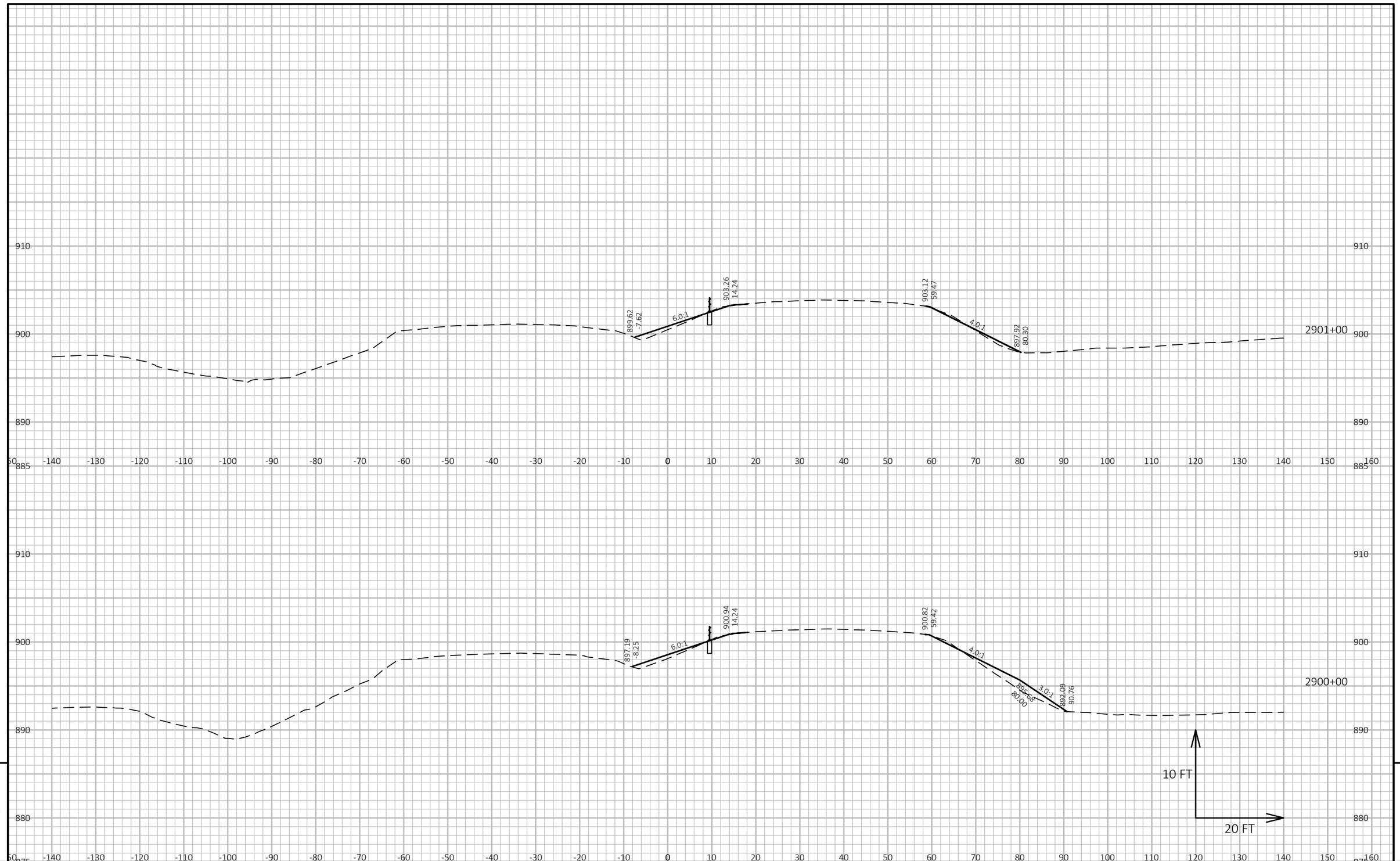
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 792	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 211

PLOT DATE : 10/25/2023 3:23 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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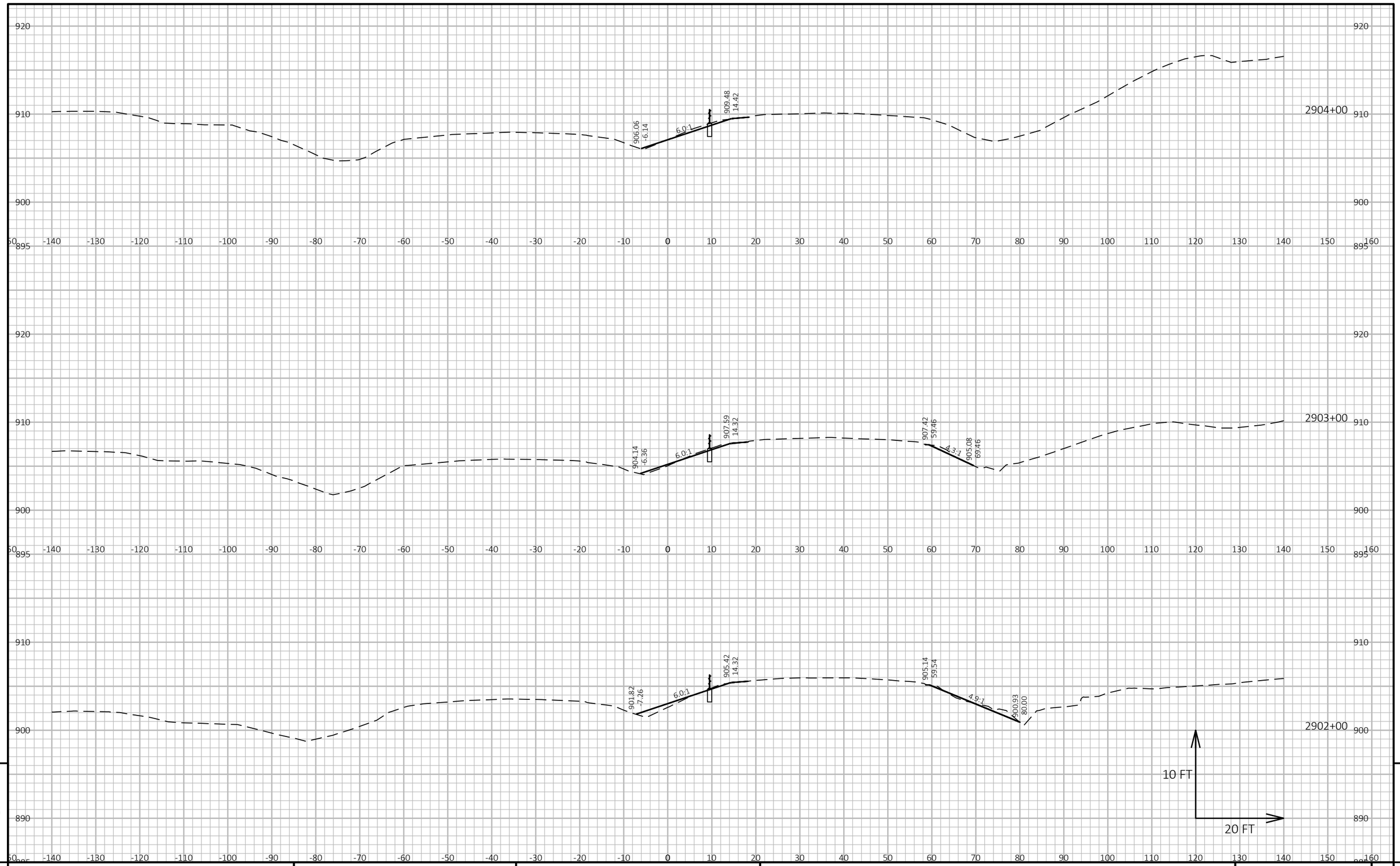
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 793	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 212

PLOT DATE : 10/25/2023 3:24 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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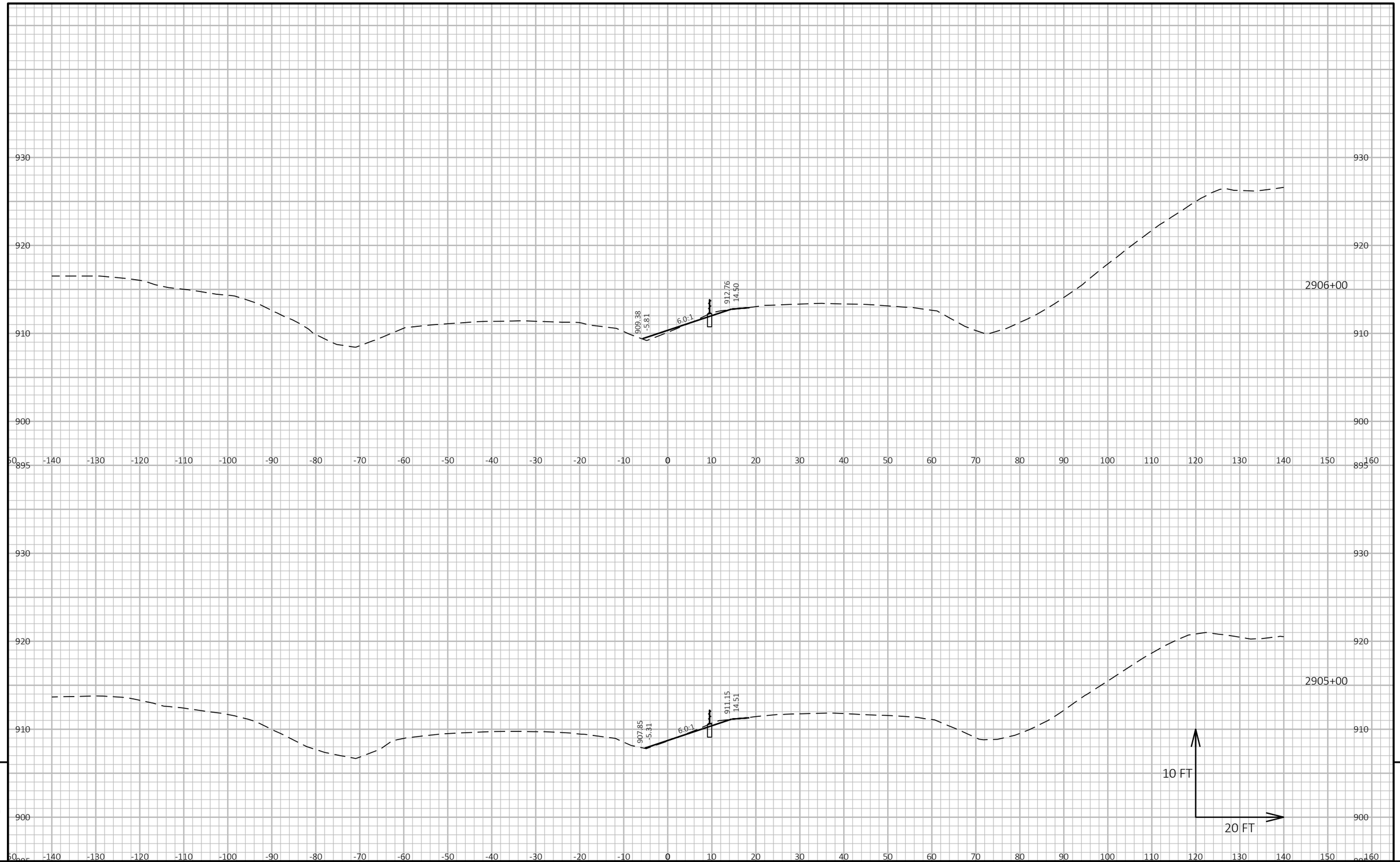
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 794	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 213

PLOT DATE : 10/25/2023 3:24 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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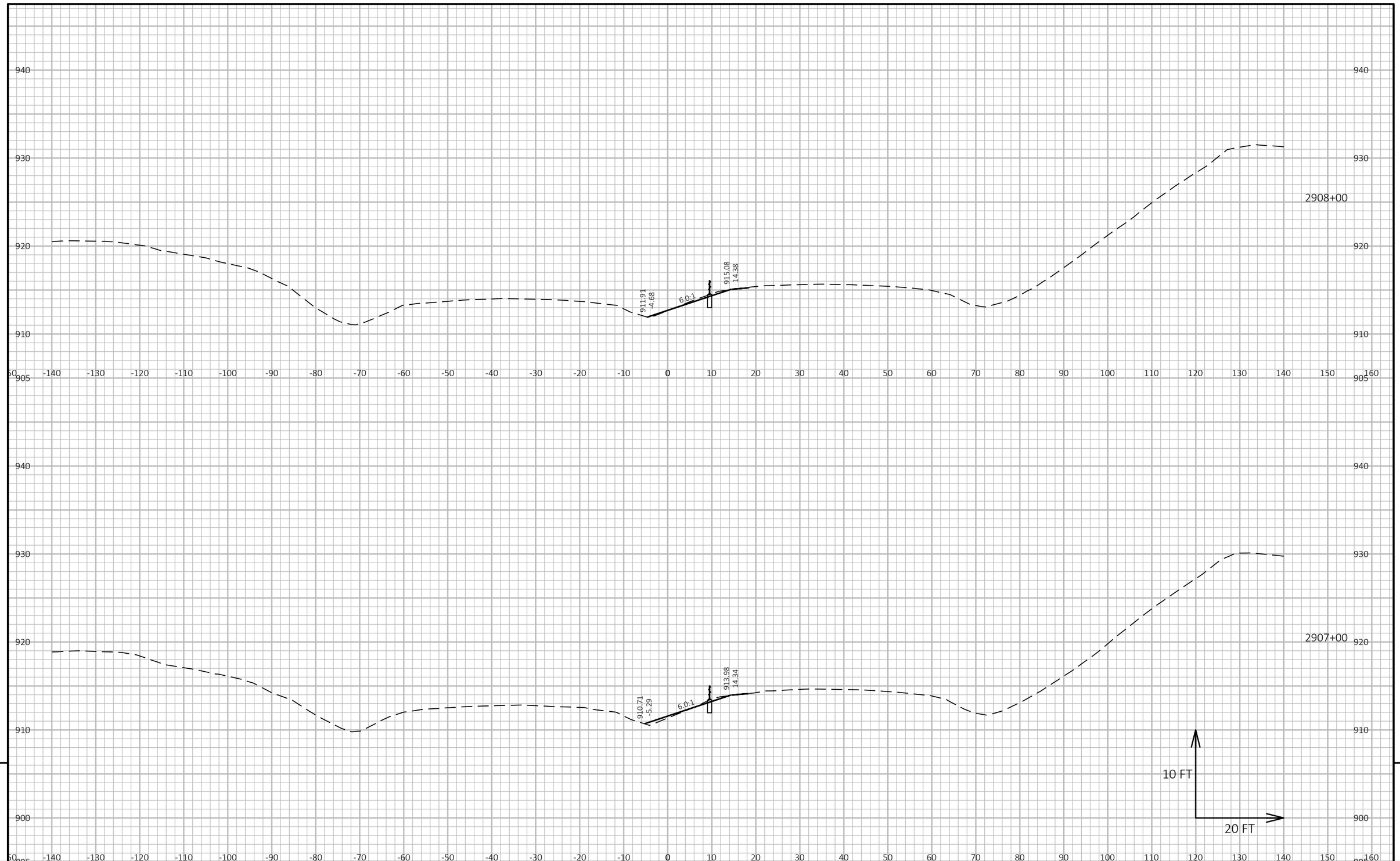
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 795	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 214

PLOT DATE : 10/25/2023 3:25 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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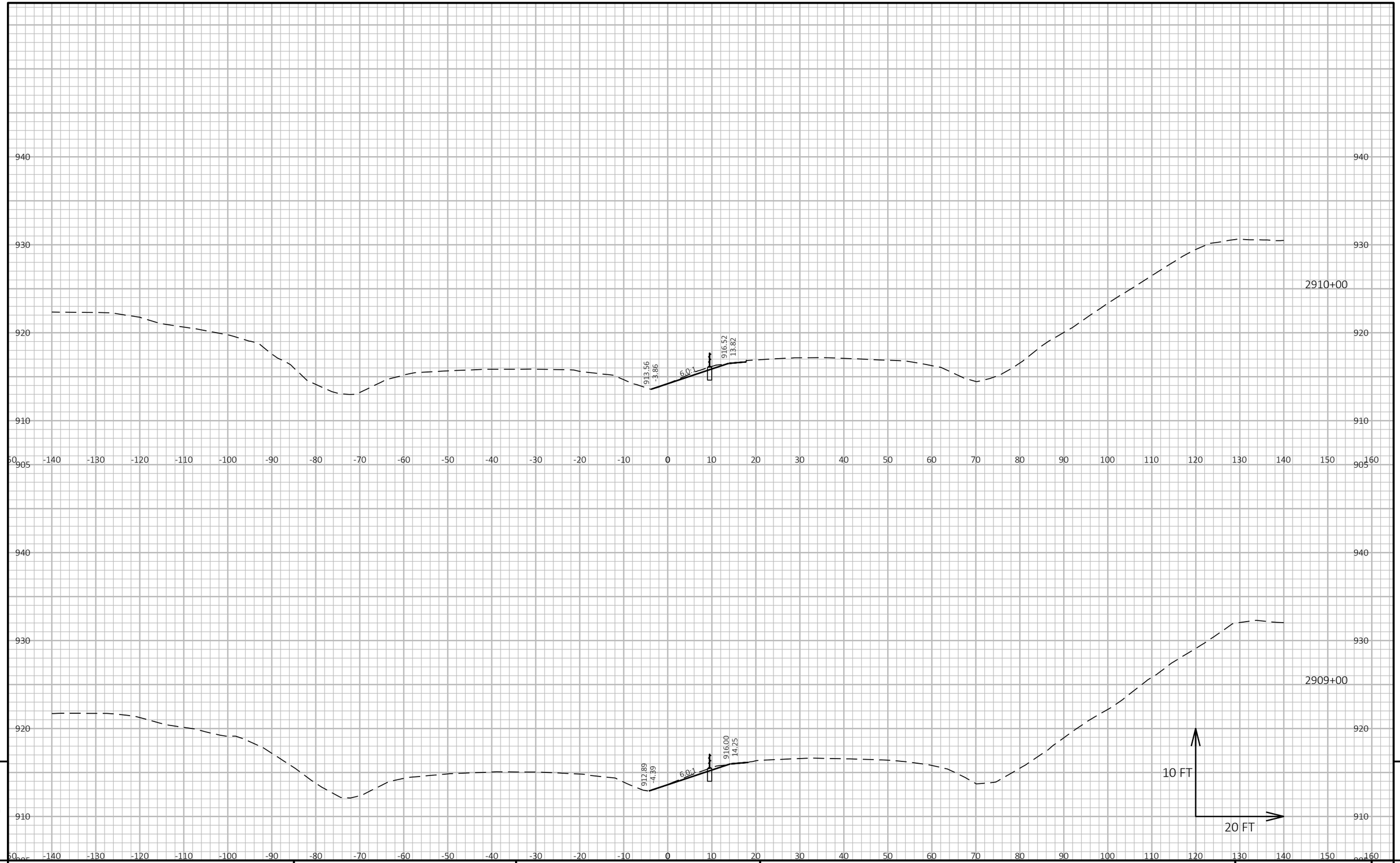
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 796	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 215

PLOT DATE : 10/25/2023 3:25 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 797	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 216

PLOT DATE : 10/25/2023 3:25 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

930
920
910
905
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

2913+00

930
920
910
905
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

2912+00

930
920
910
905
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

2911+00

914.12
3.15
6.3:1
916.86
14.02

10 FT
20 FT

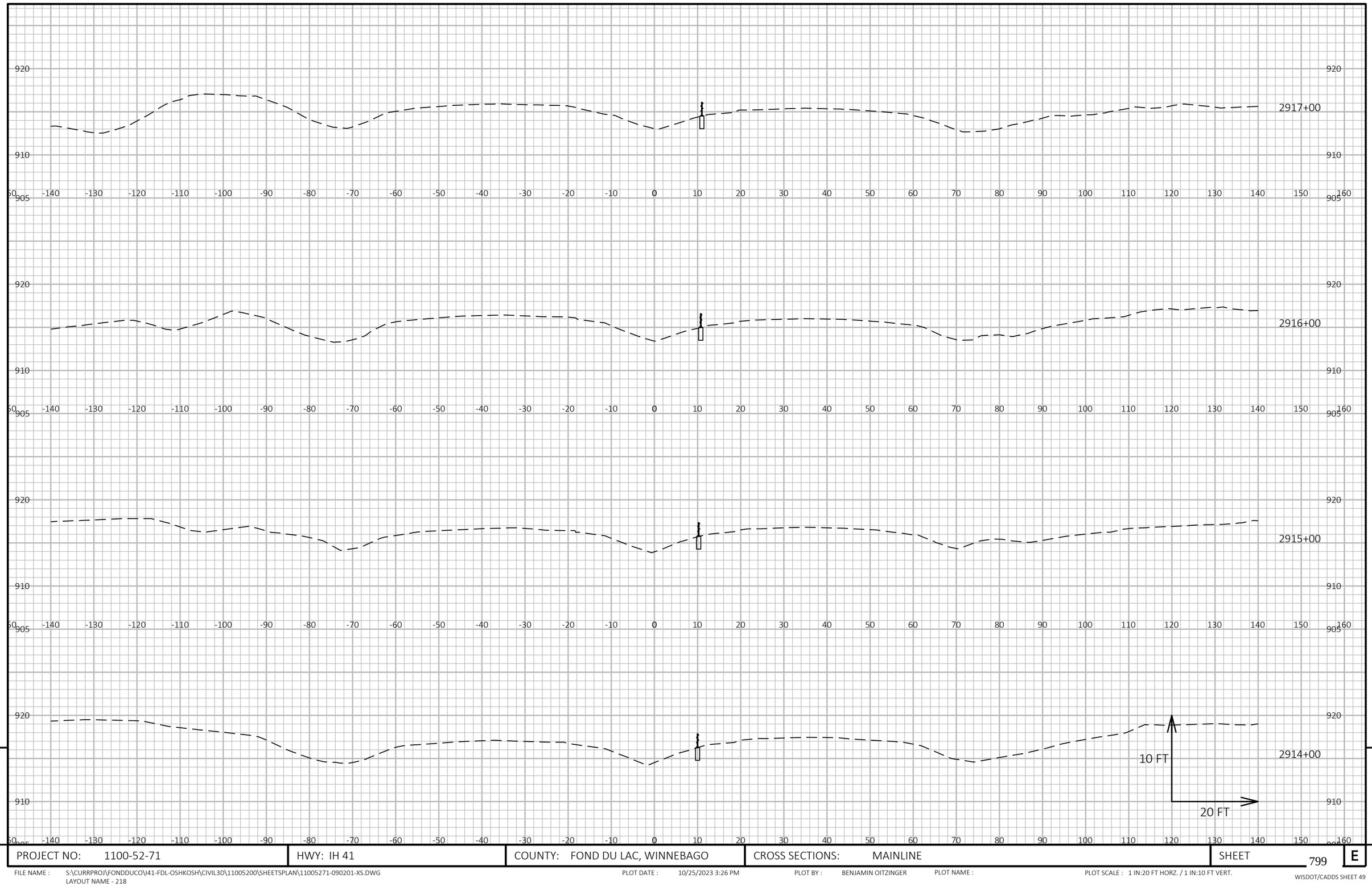
9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 798	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 217

PLOT DATE : 10/25/2023 3:26 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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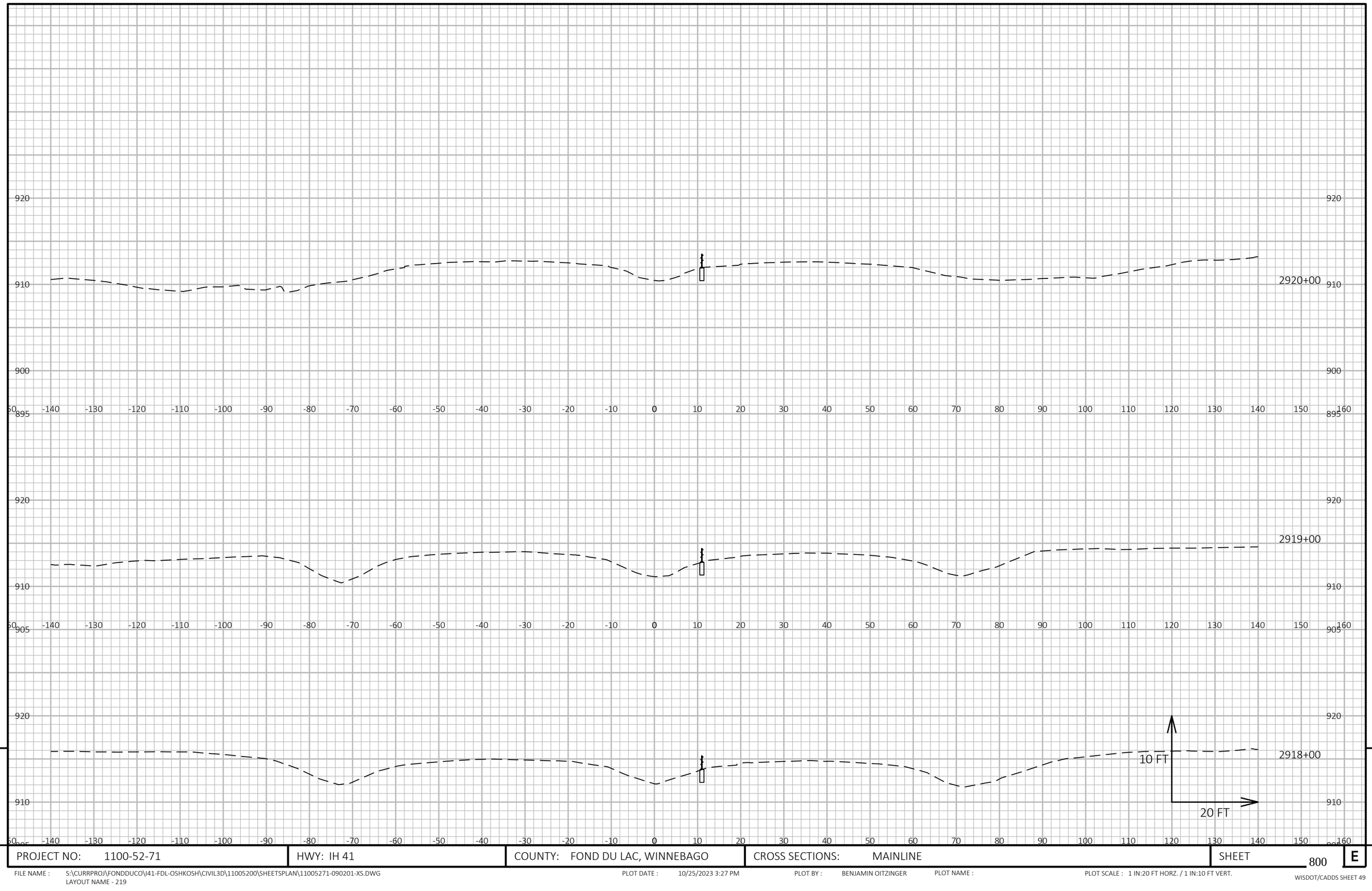
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 799	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 218

PLOT DATE : 10/25/2023 3:26 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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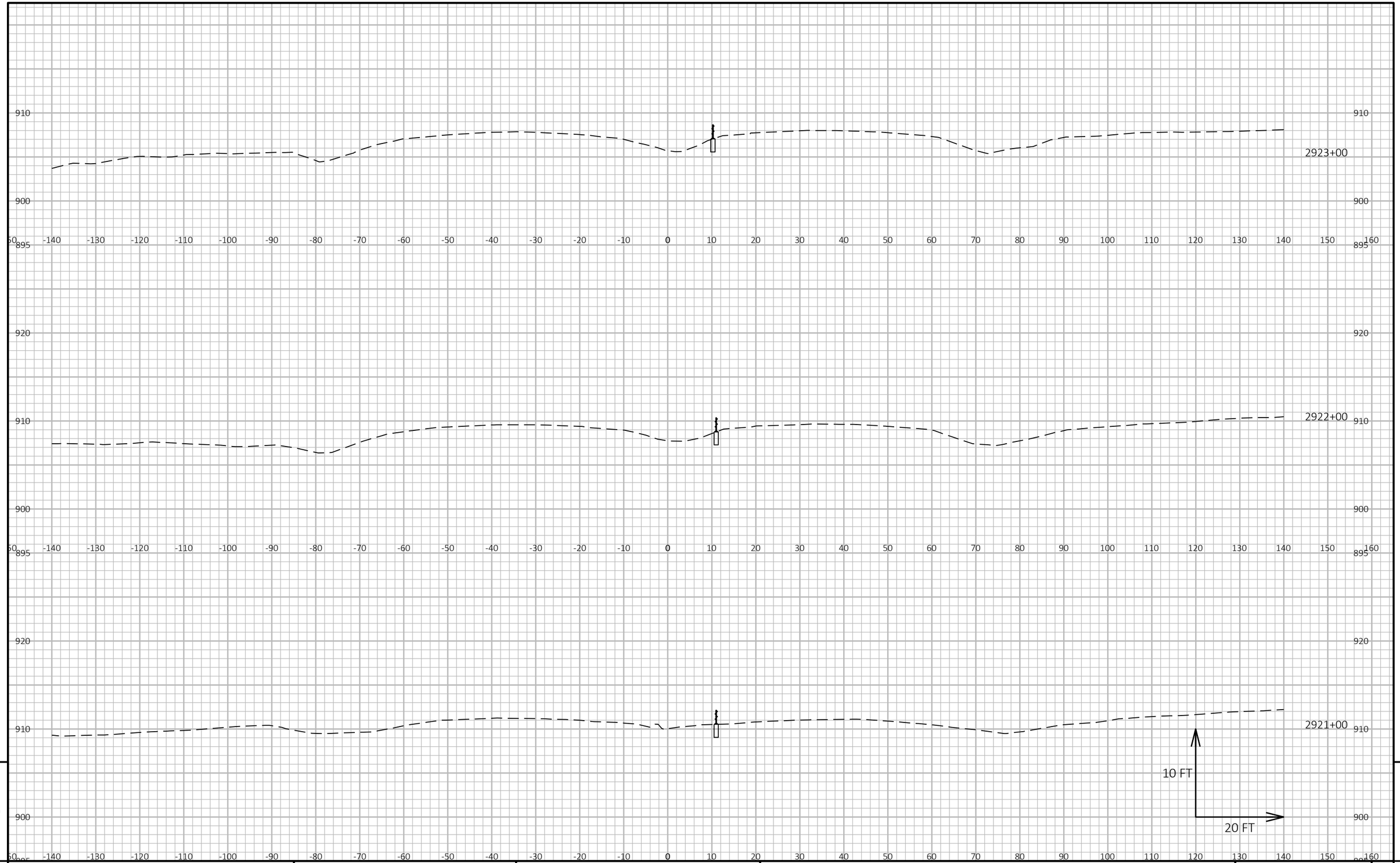
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 800	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090201-XS.DWG
LAYOUT NAME - 219

PLOT DATE : 10/25/2023 3:27 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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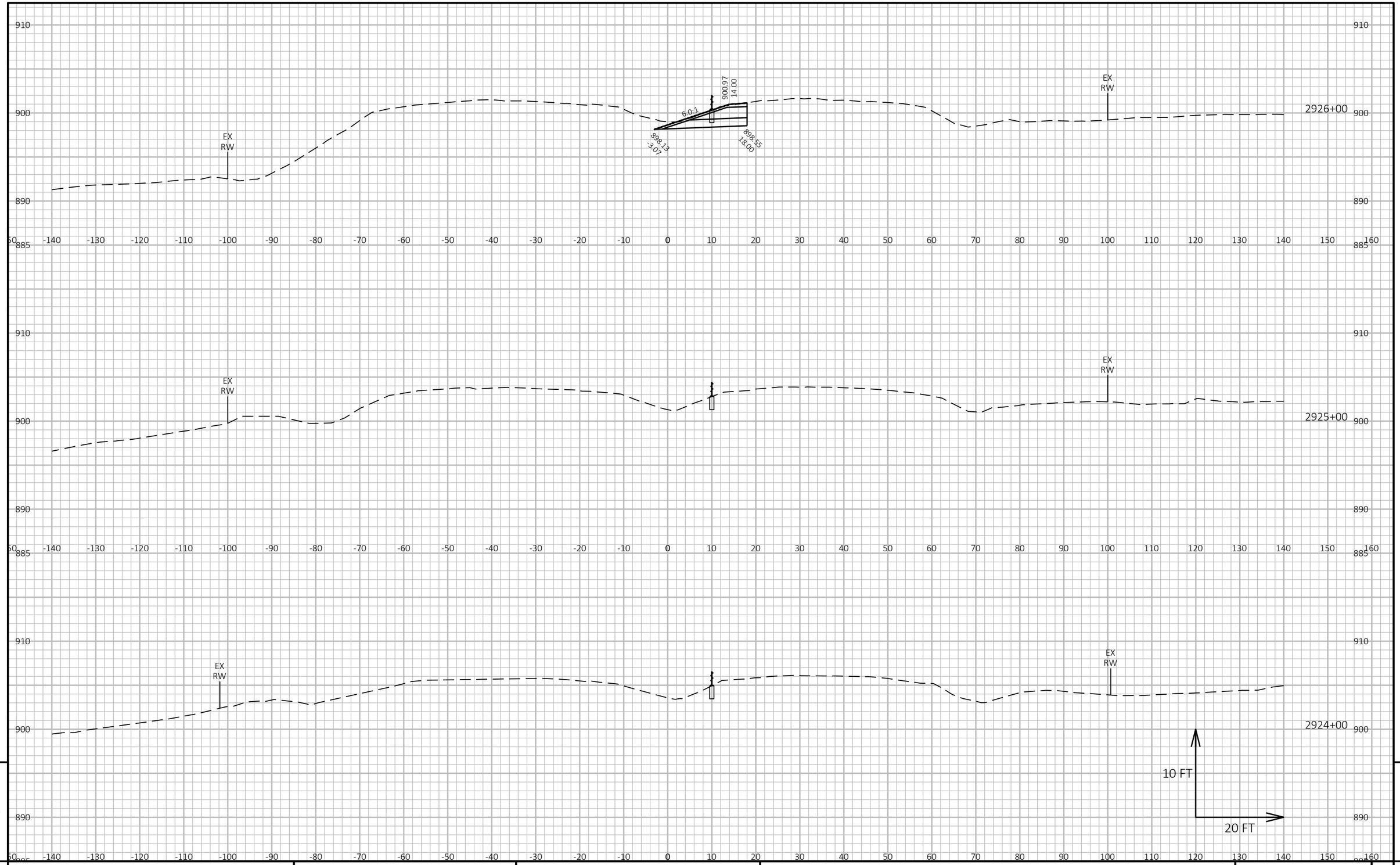
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 801	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 001

PLOT DATE : 10/26/2023 4:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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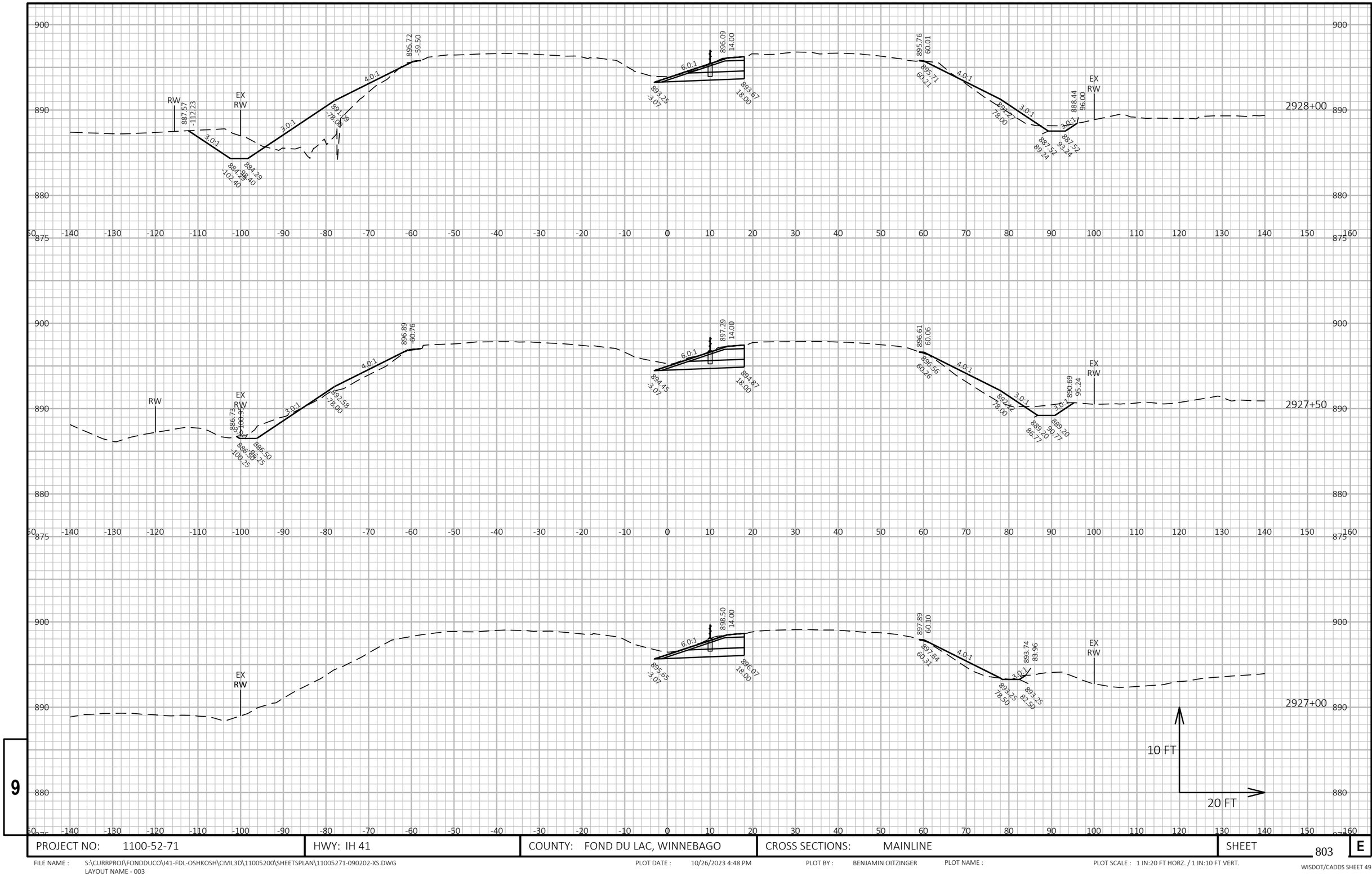
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 802	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 002

PLOT DATE : 10/26/2023 4:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

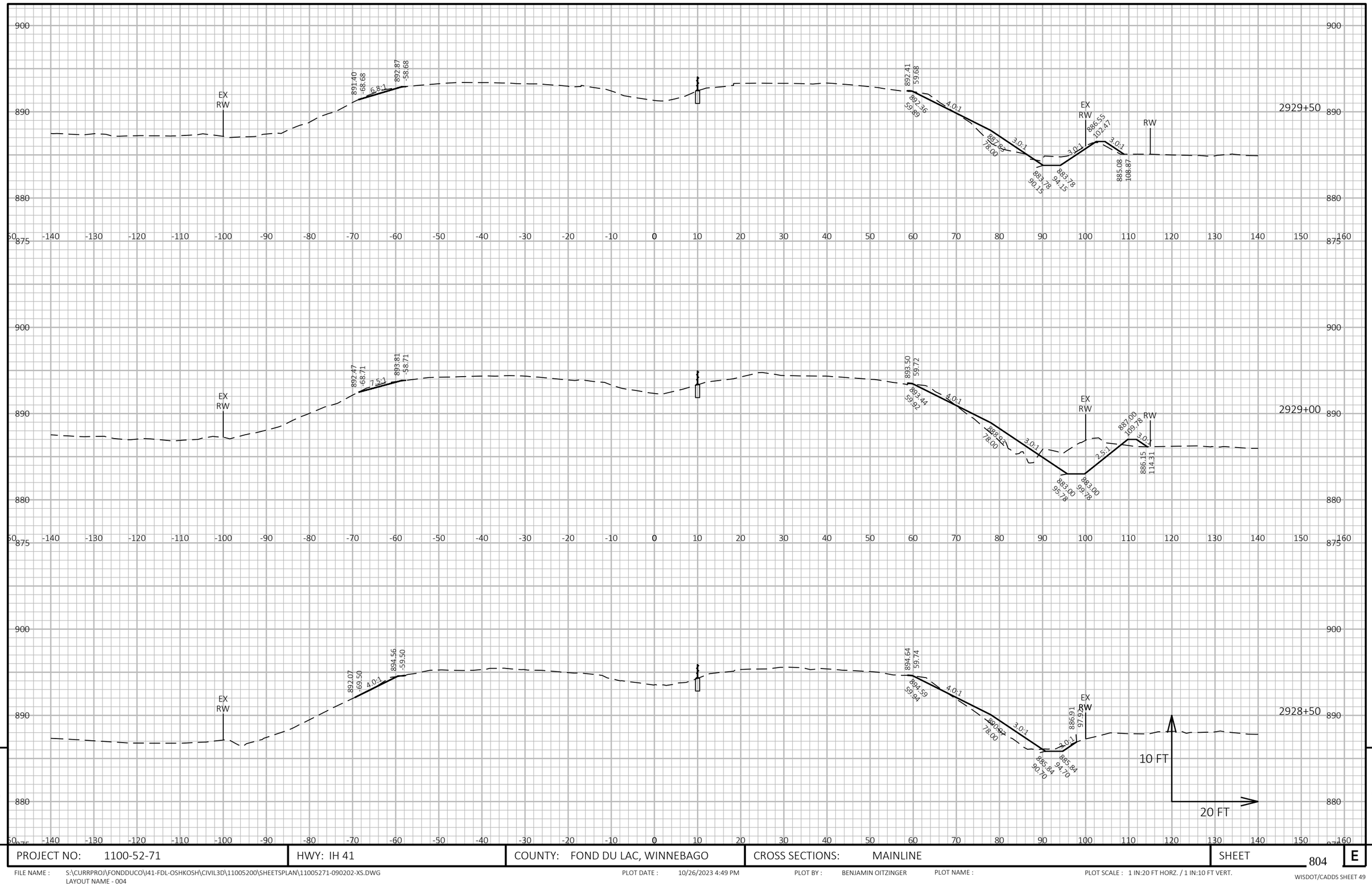


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 803 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 003

PLOT DATE : 10/26/2023 4:48 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

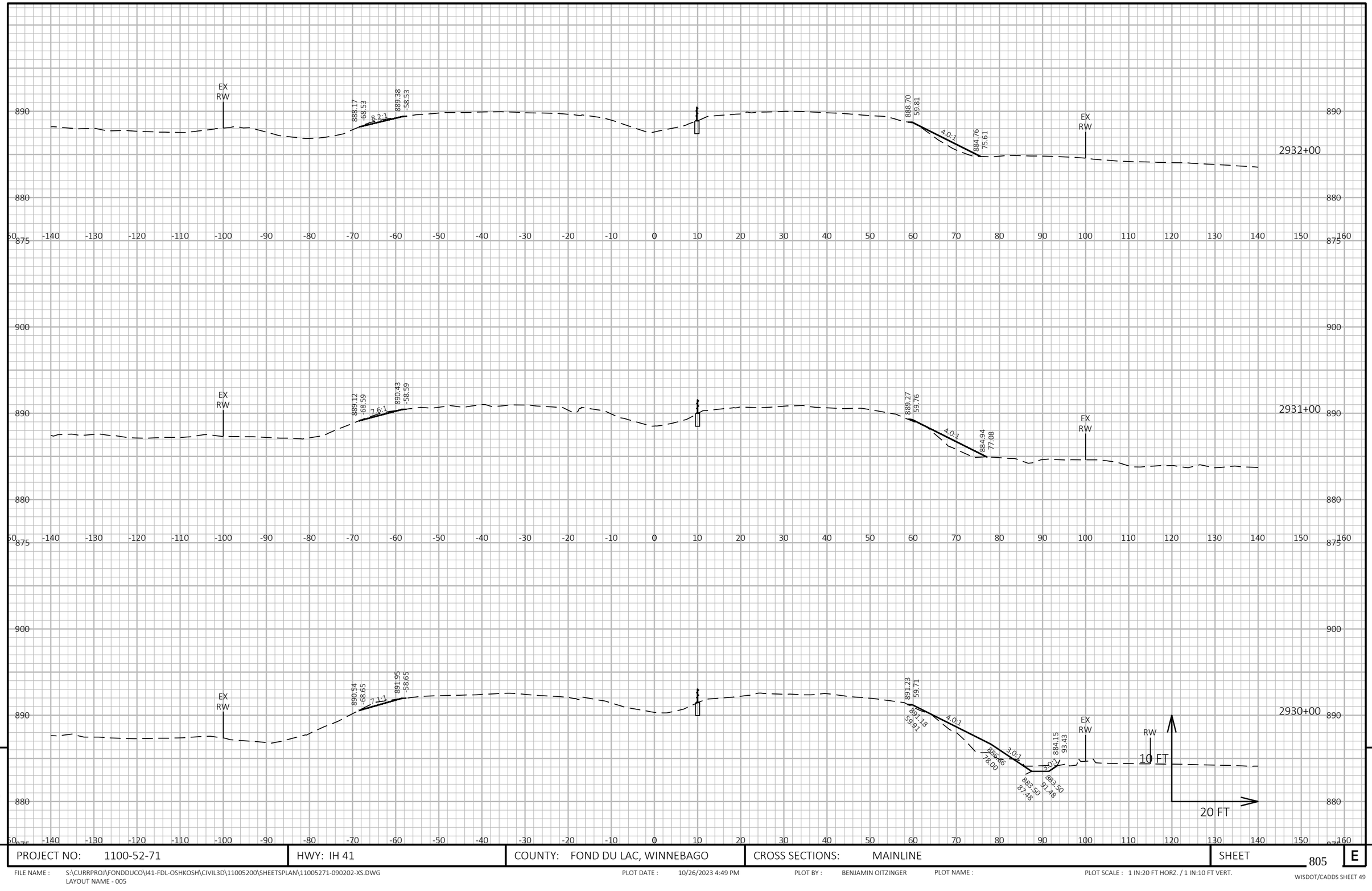


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 804	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 004

PLOT DATE : 10/26/2023 4:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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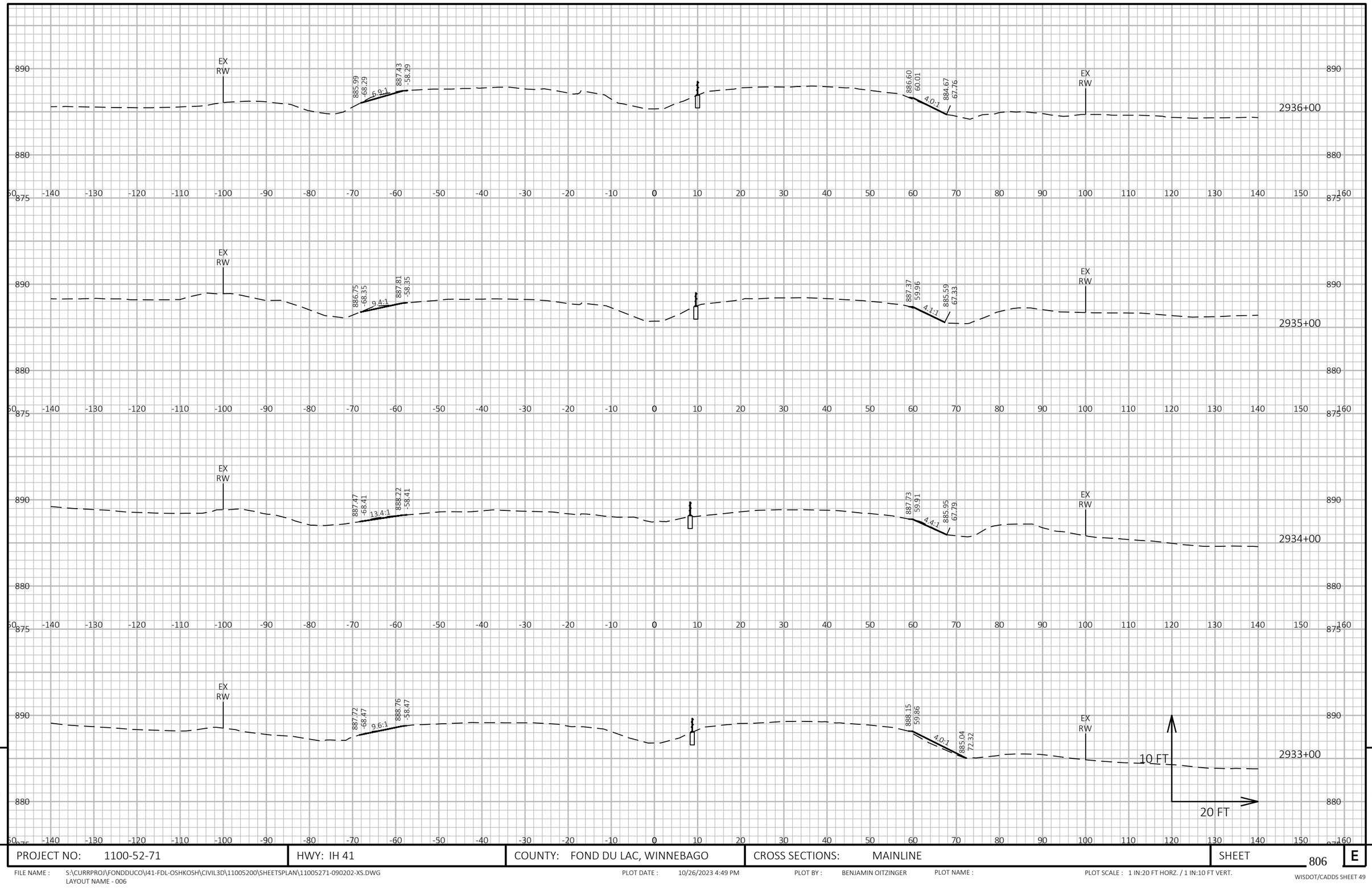
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 805	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 005

PLOT DATE : 10/26/2023 4:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

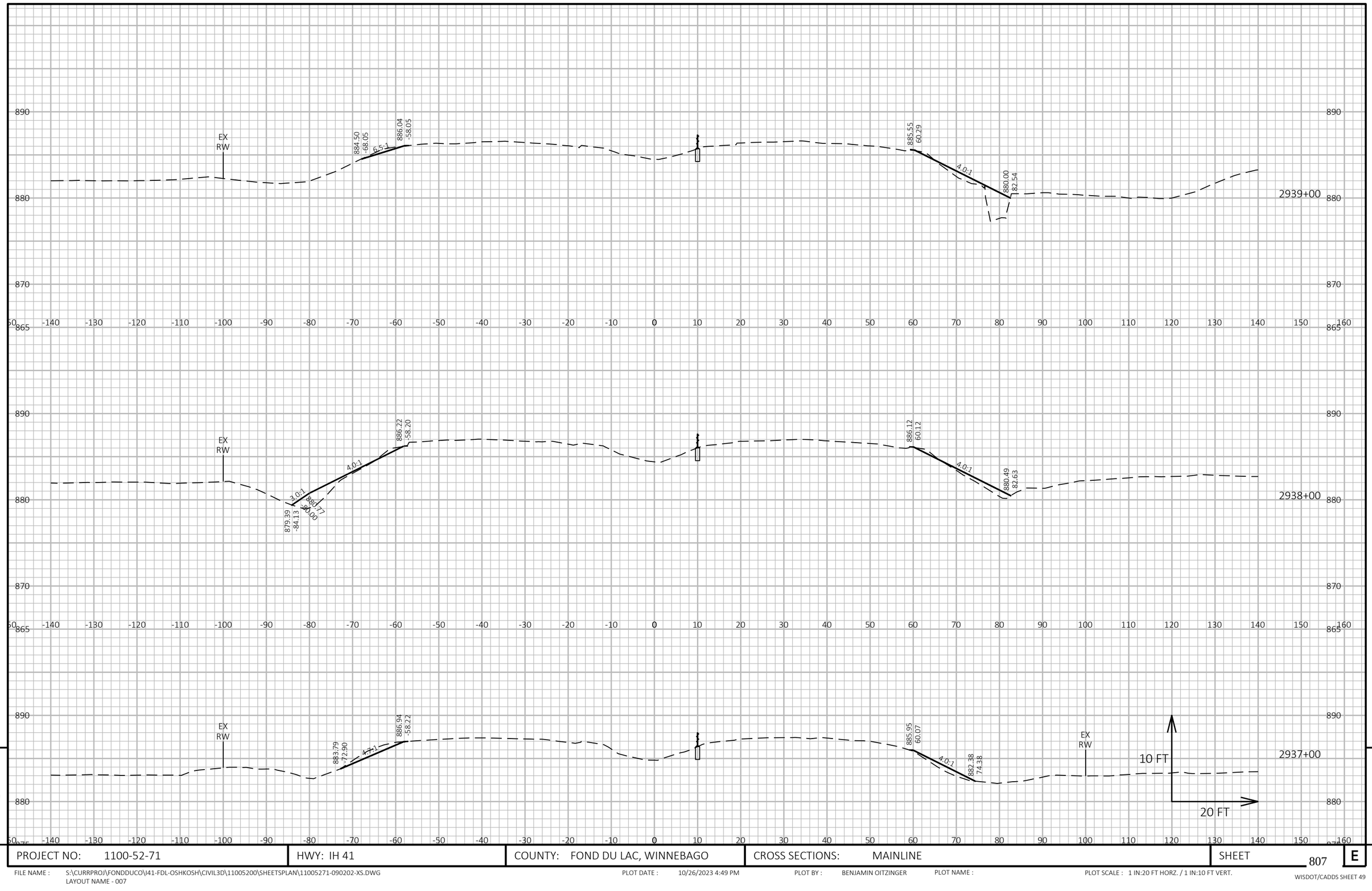


9 9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 806 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 006

PLOT DATE : 10/26/2023 4:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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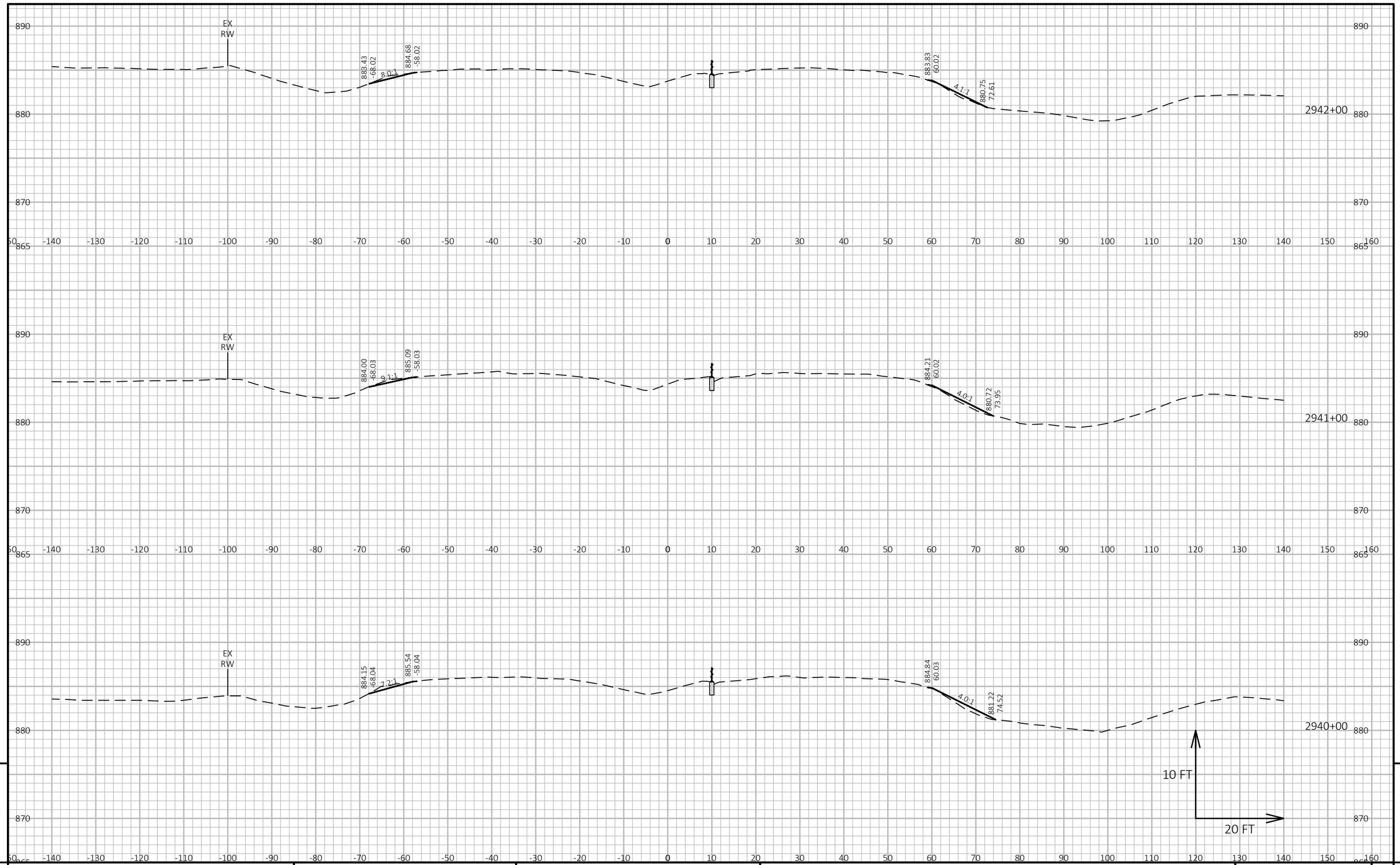
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 807	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 007

PLOT DATE : 10/26/2023 4:49 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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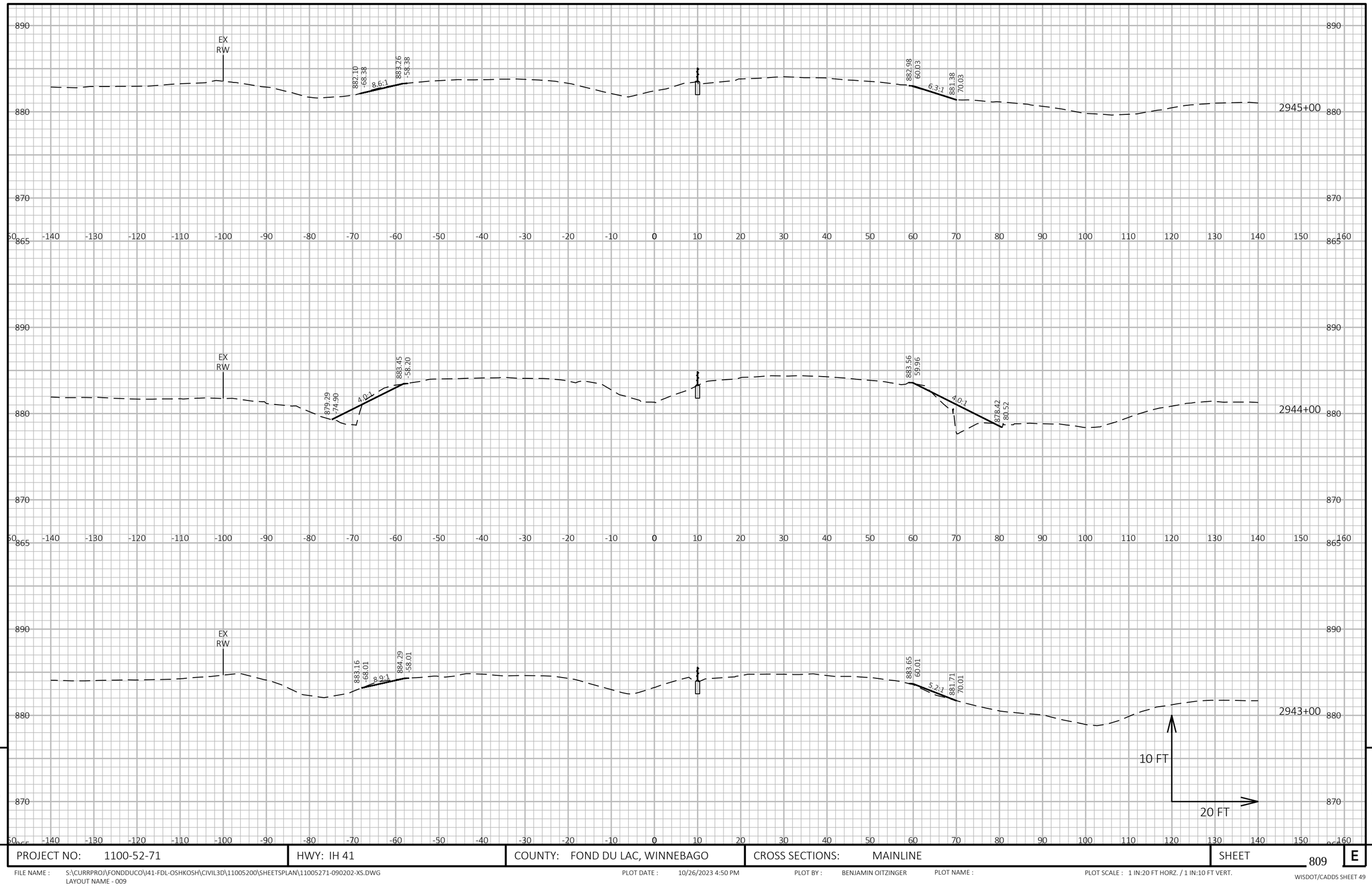
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 808	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 008

PLOT DATE : 10/26/2023 4:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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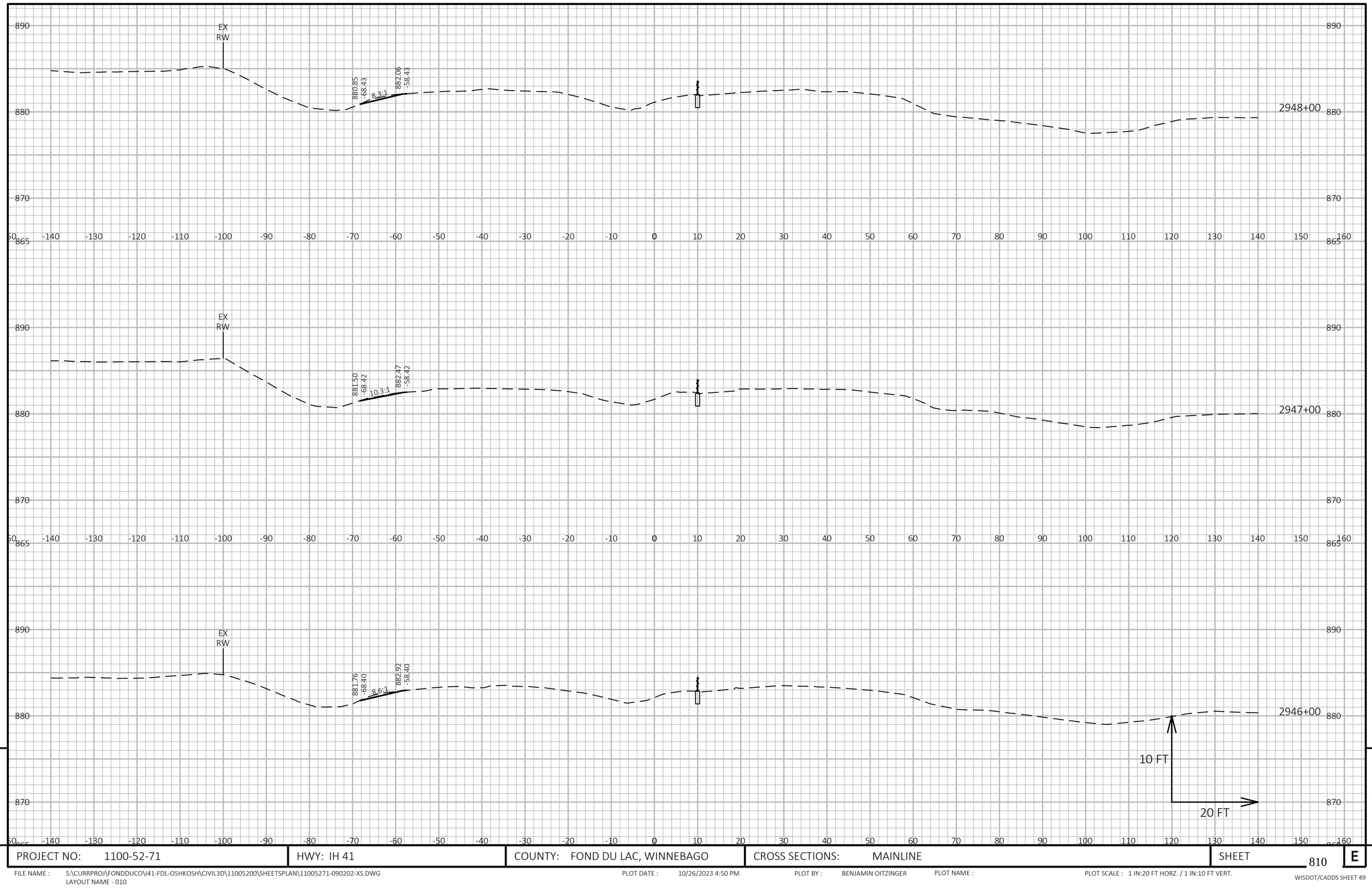
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 809	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 009

PLOT DATE : 10/26/2023 4:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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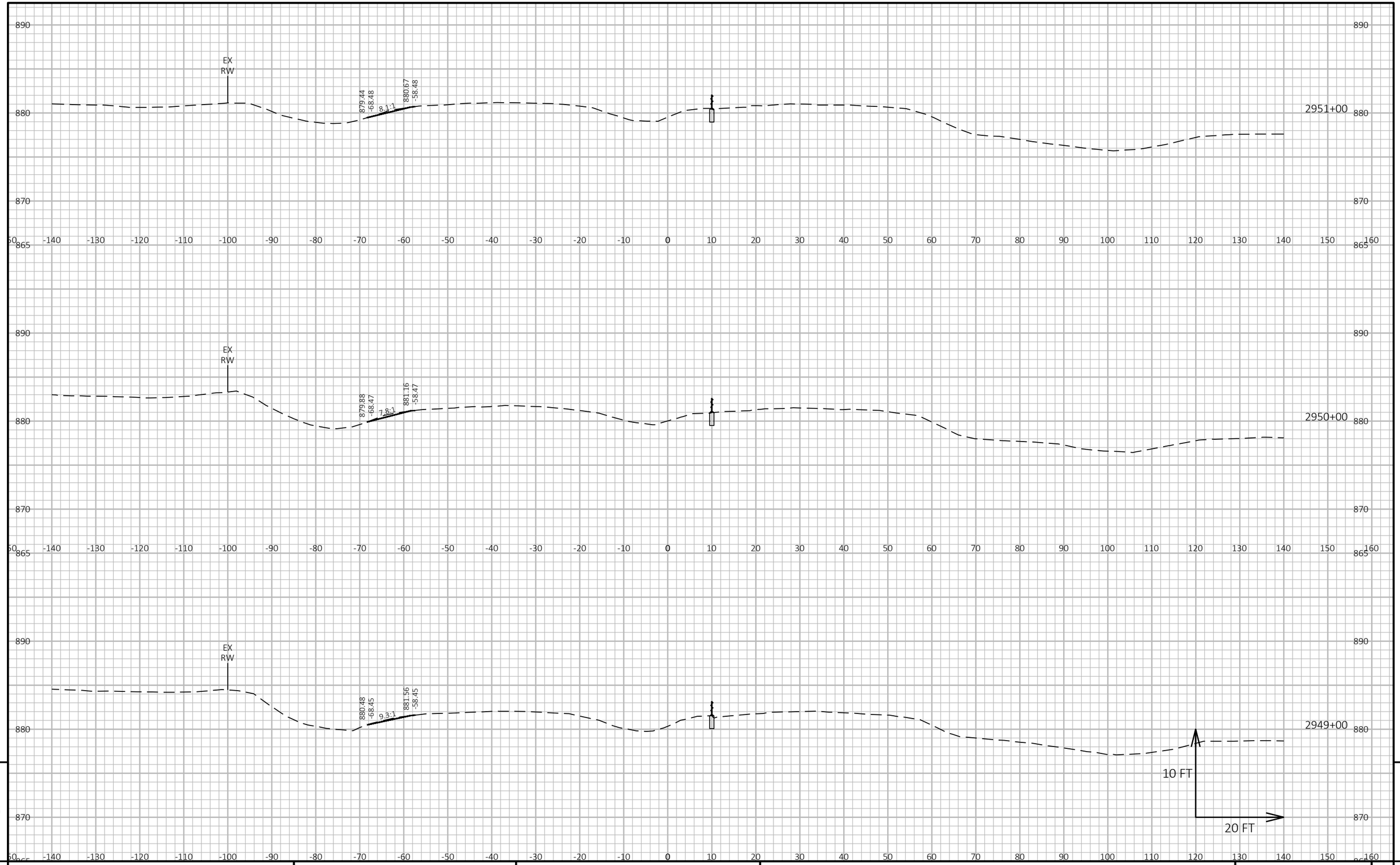
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 810	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 010

PLOT DATE : 10/26/2023 4:50 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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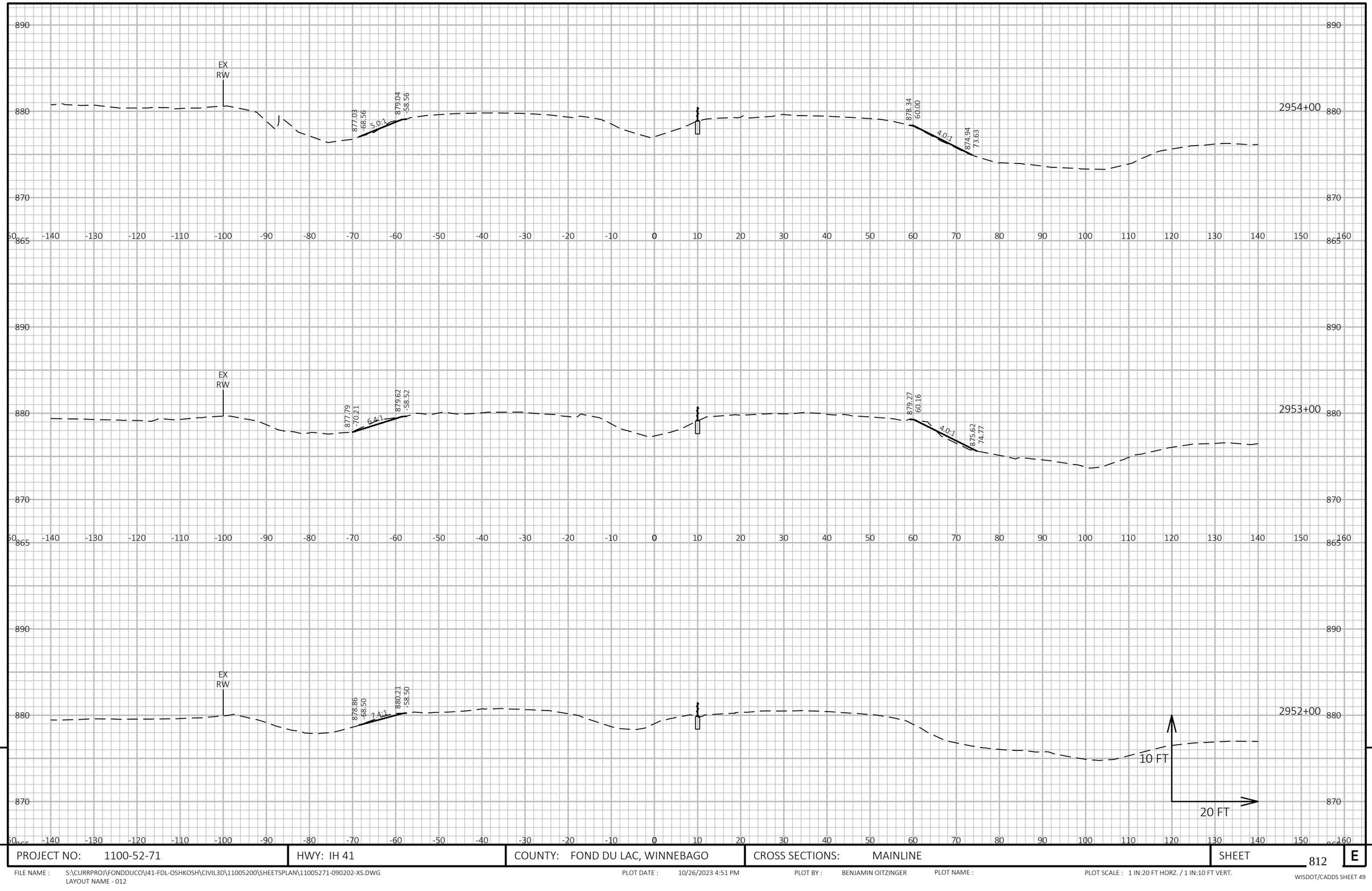
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 811	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 011

PLOT DATE : 10/26/2023 4:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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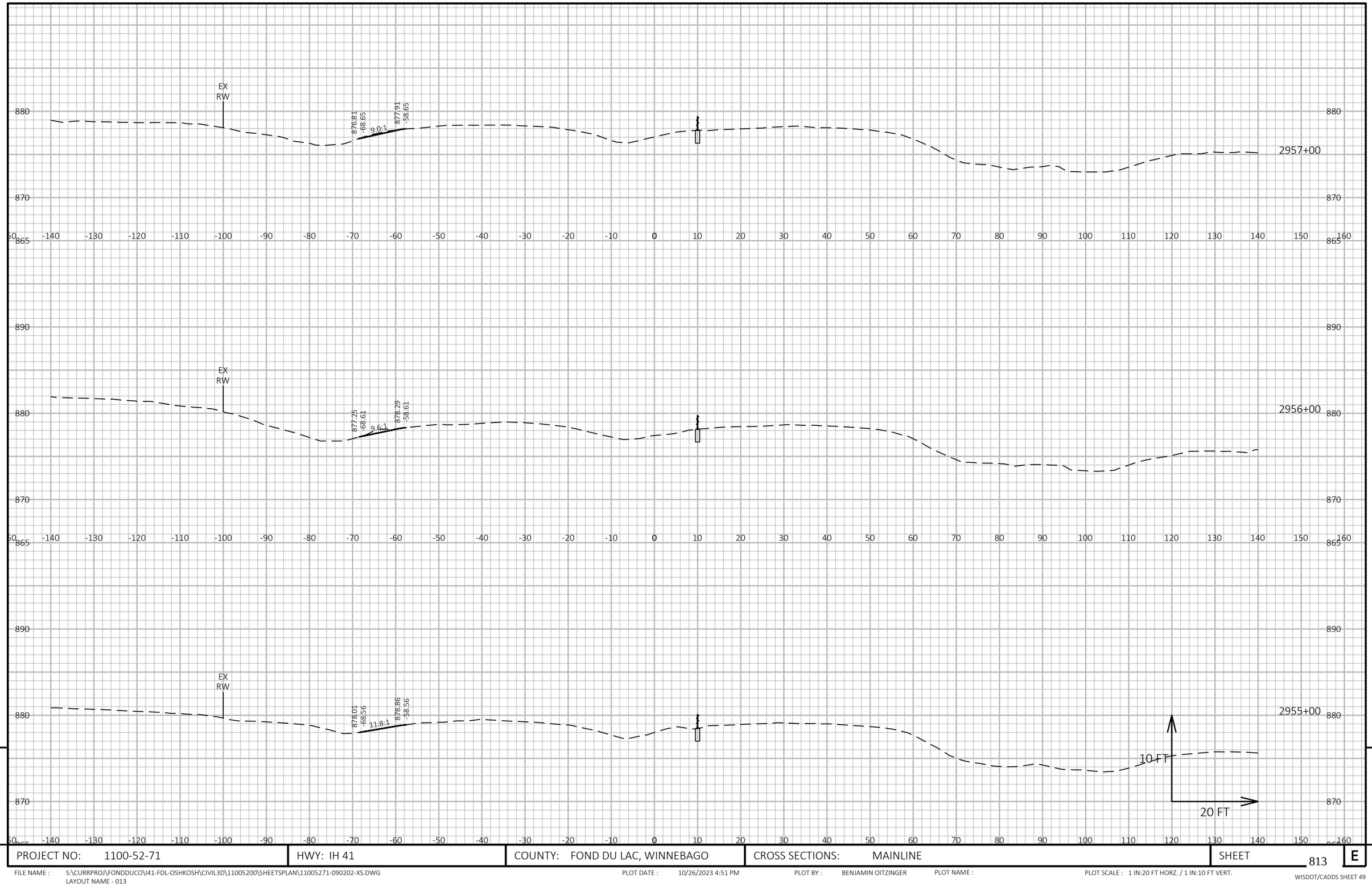
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 812	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 012

PLOT DATE : 10/26/2023 4:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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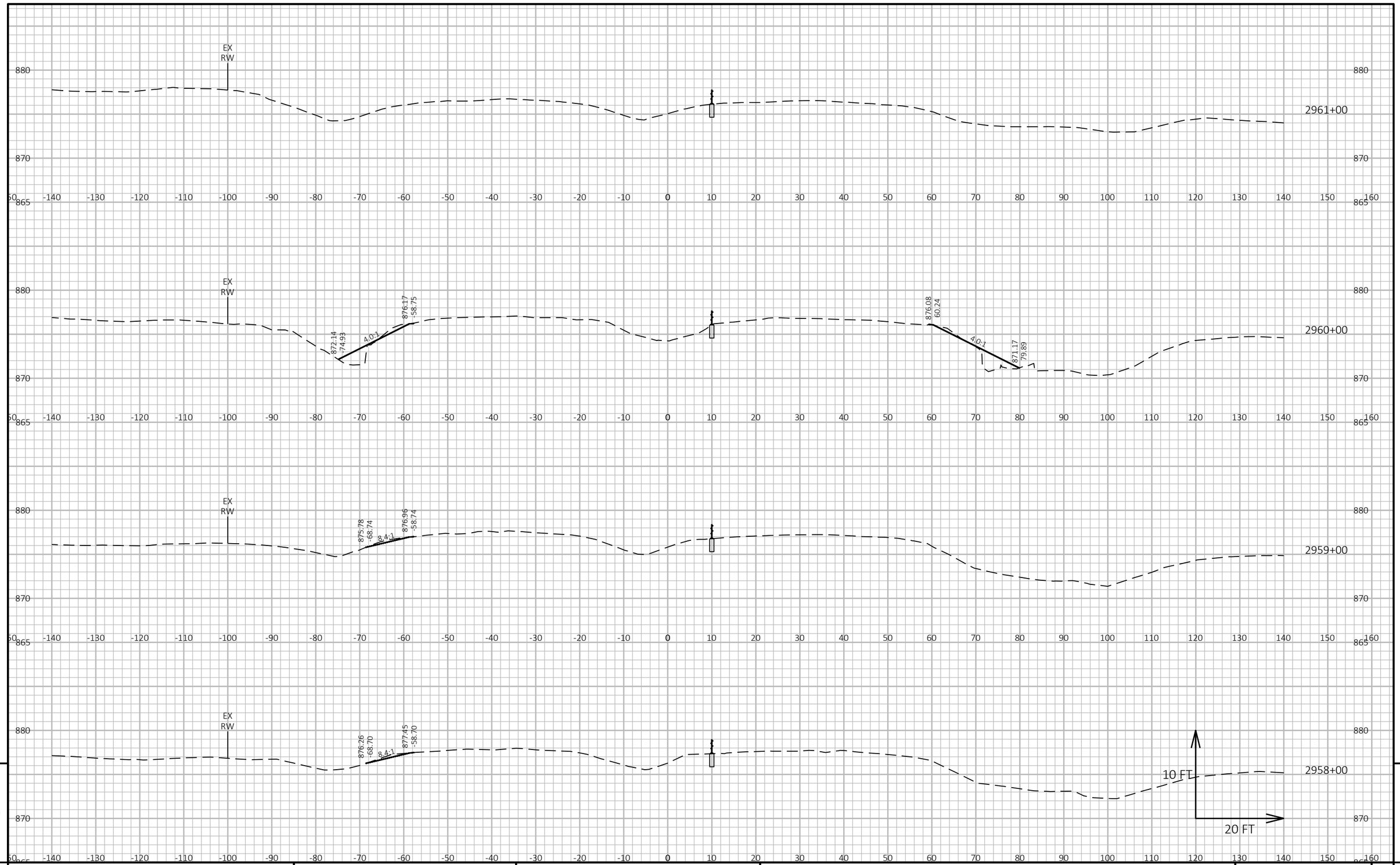
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 813	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 013

PLOT DATE : 10/26/2023 4:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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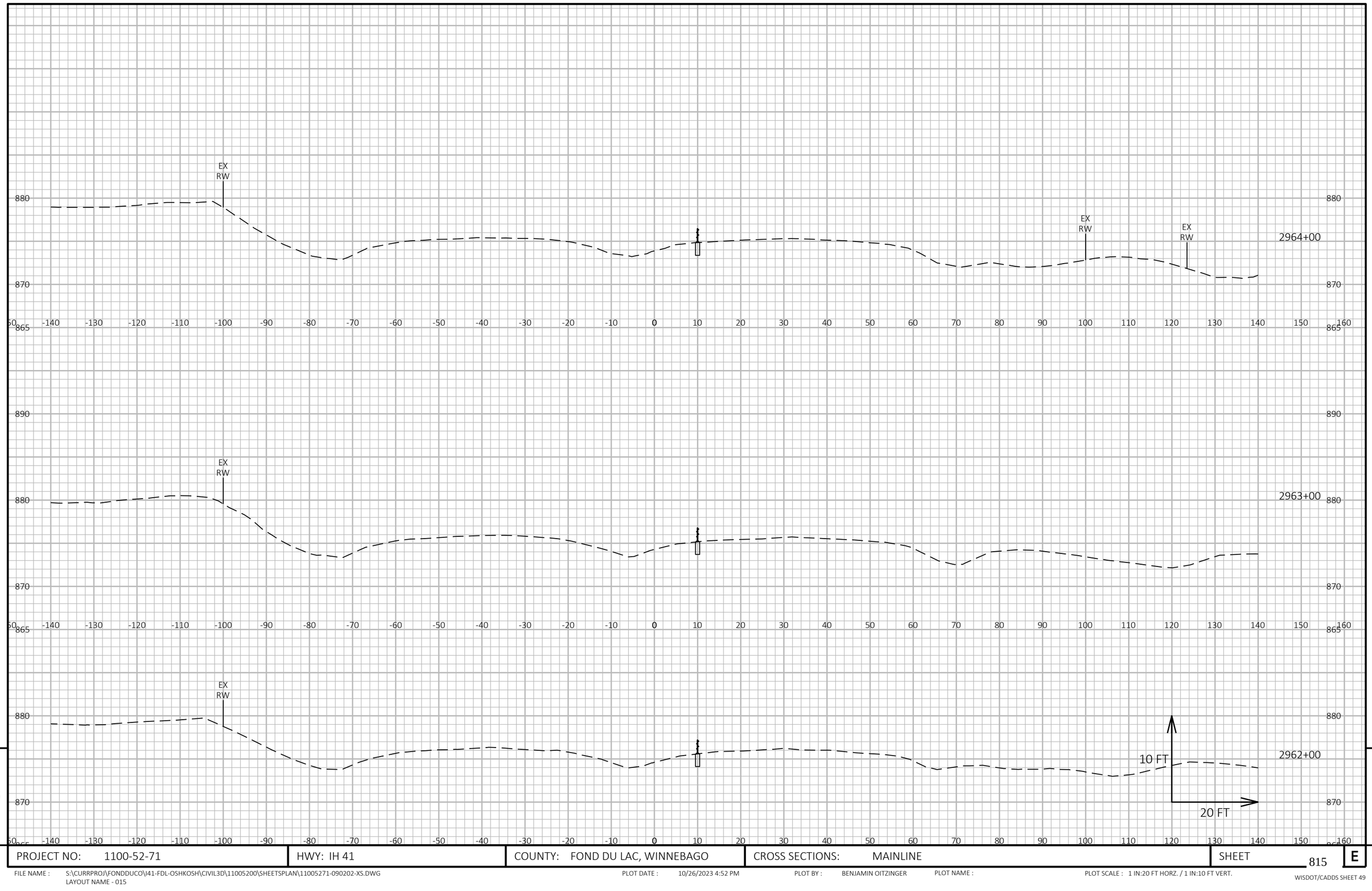
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 814	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 014

PLOT DATE : 10/26/2023 4:51 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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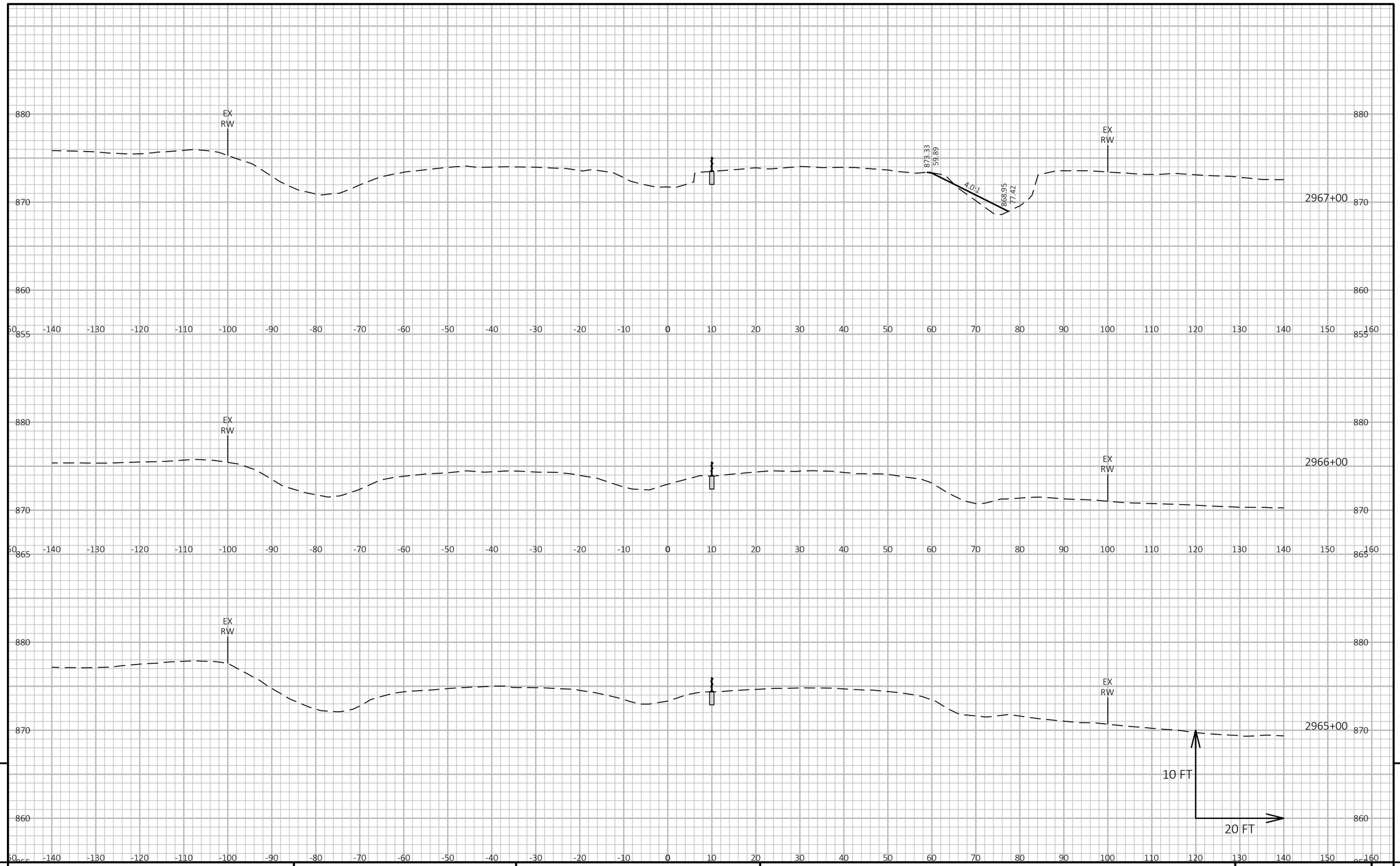
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 815	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 015

PLOT DATE : 10/26/2023 4:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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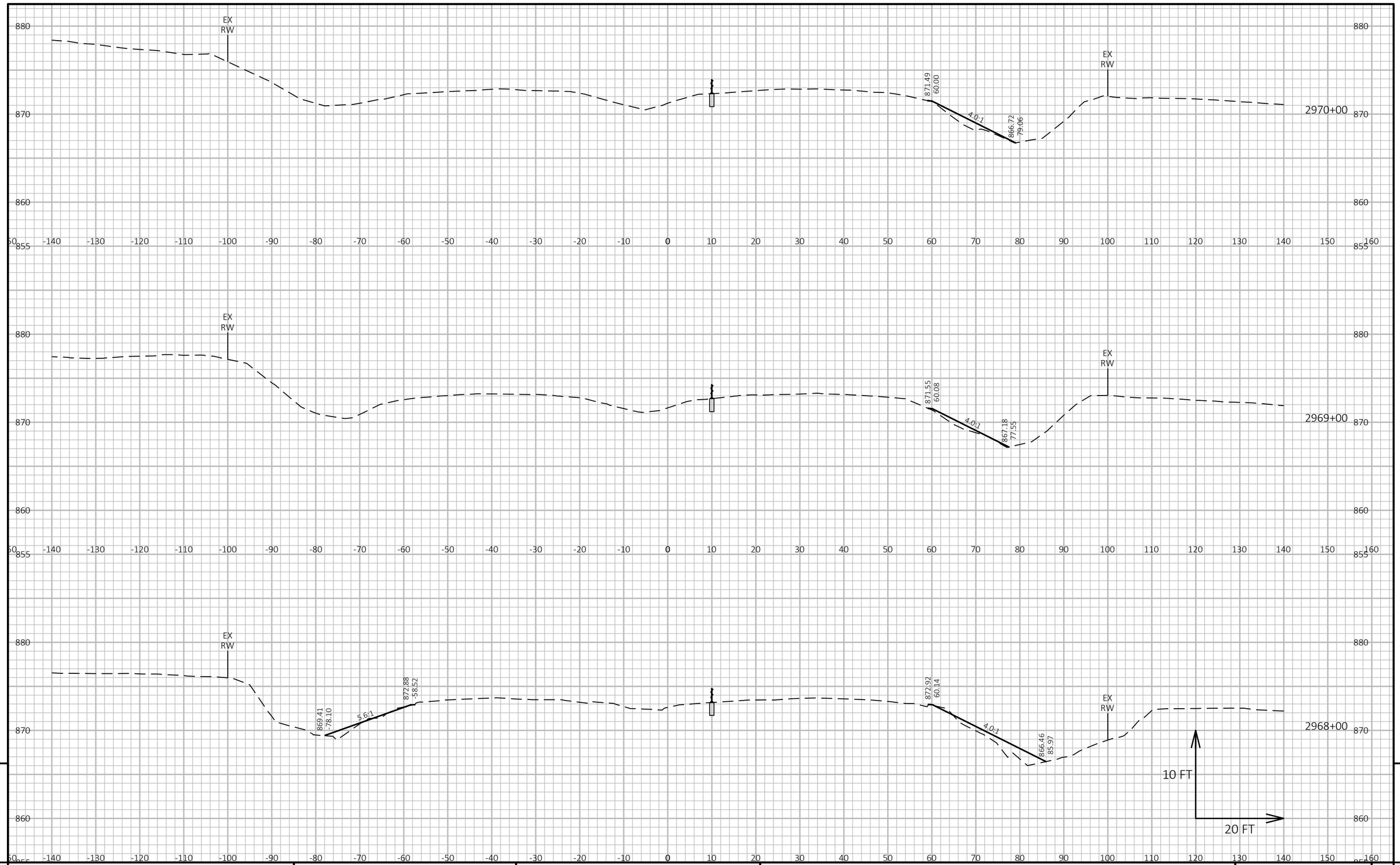
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 816	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 016

PLOT DATE : 10/26/2023 4:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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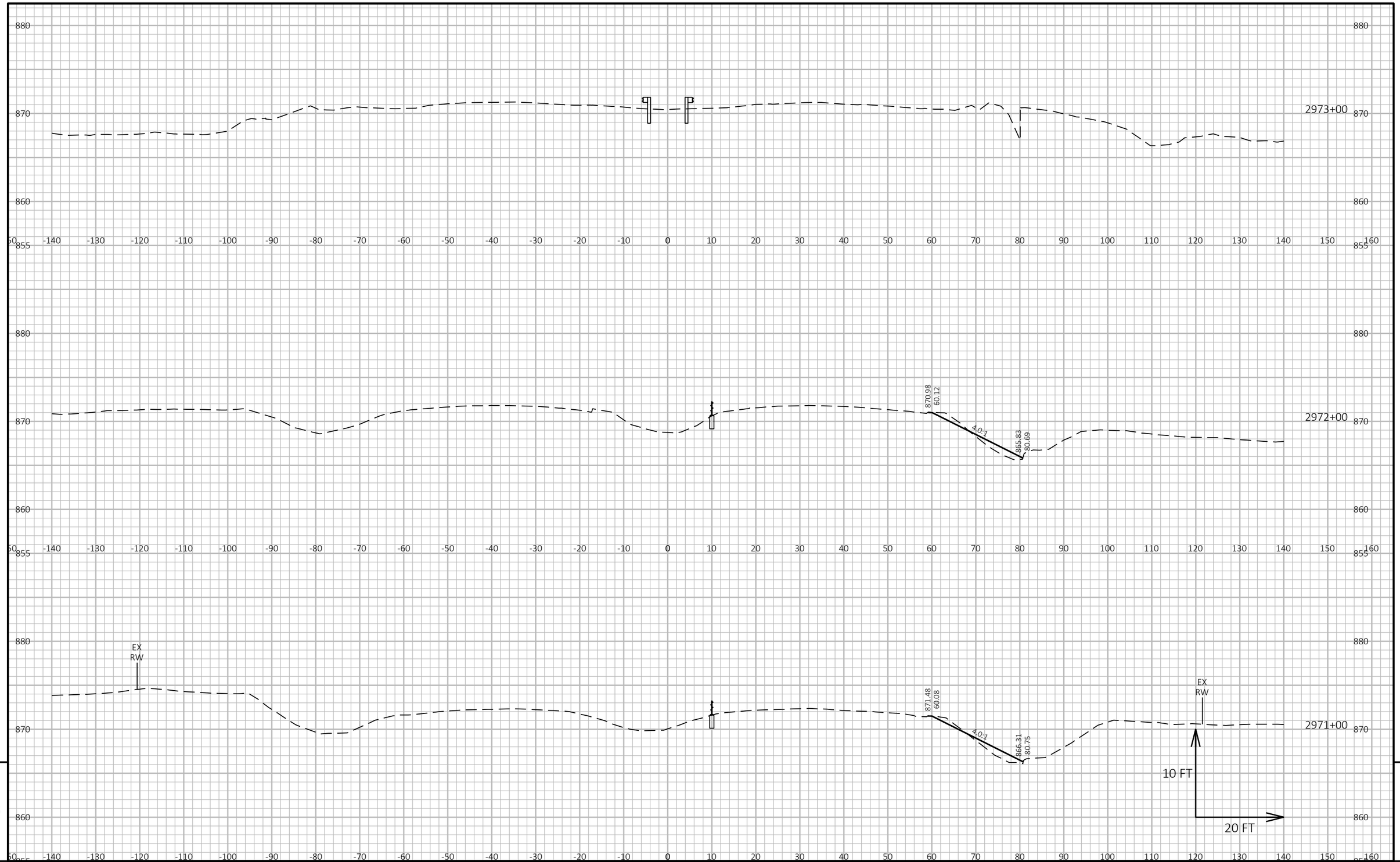
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 817	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 017

PLOT DATE : 10/26/2023 4:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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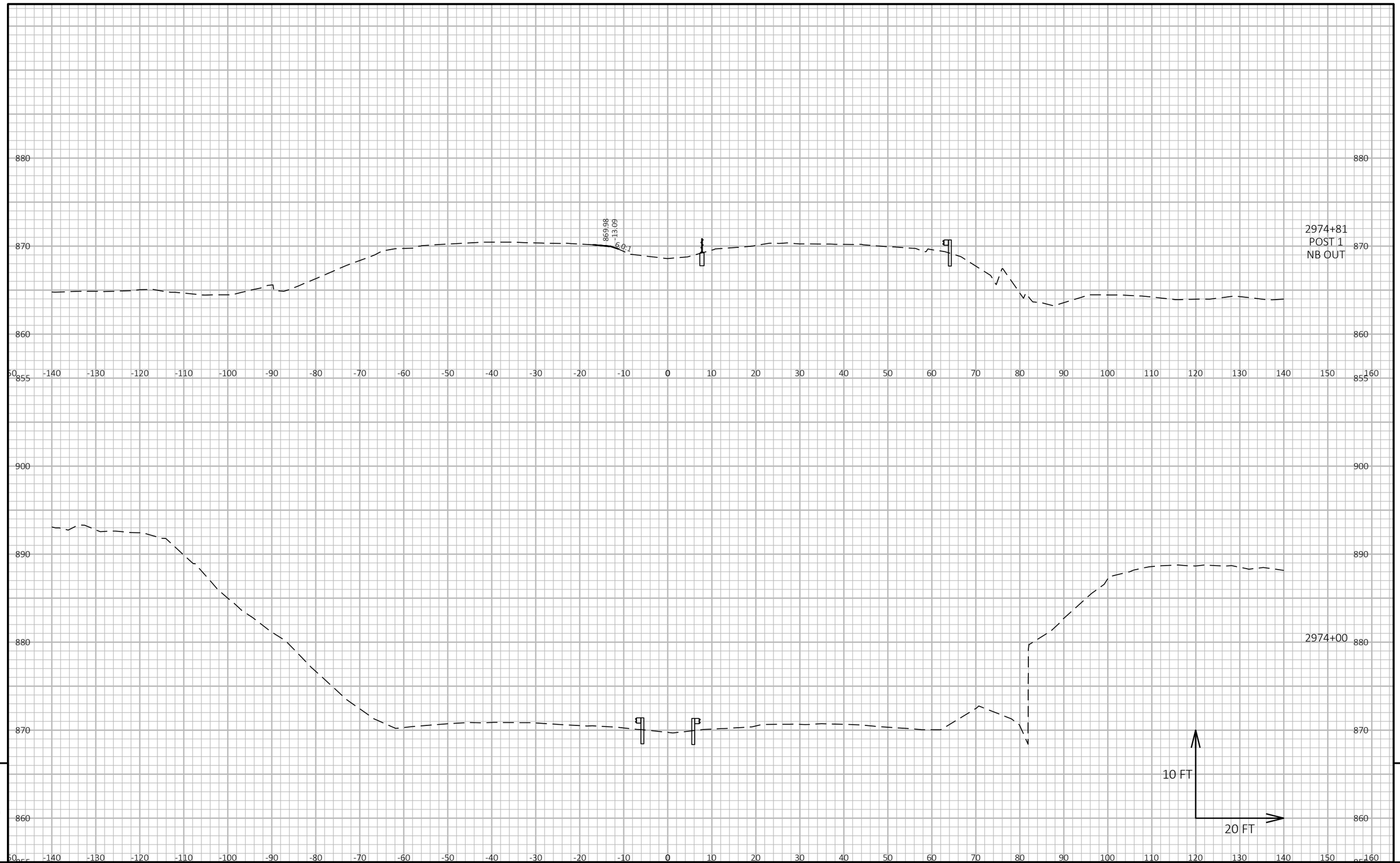
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 818	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 018

PLOT DATE : 10/26/2023 4:52 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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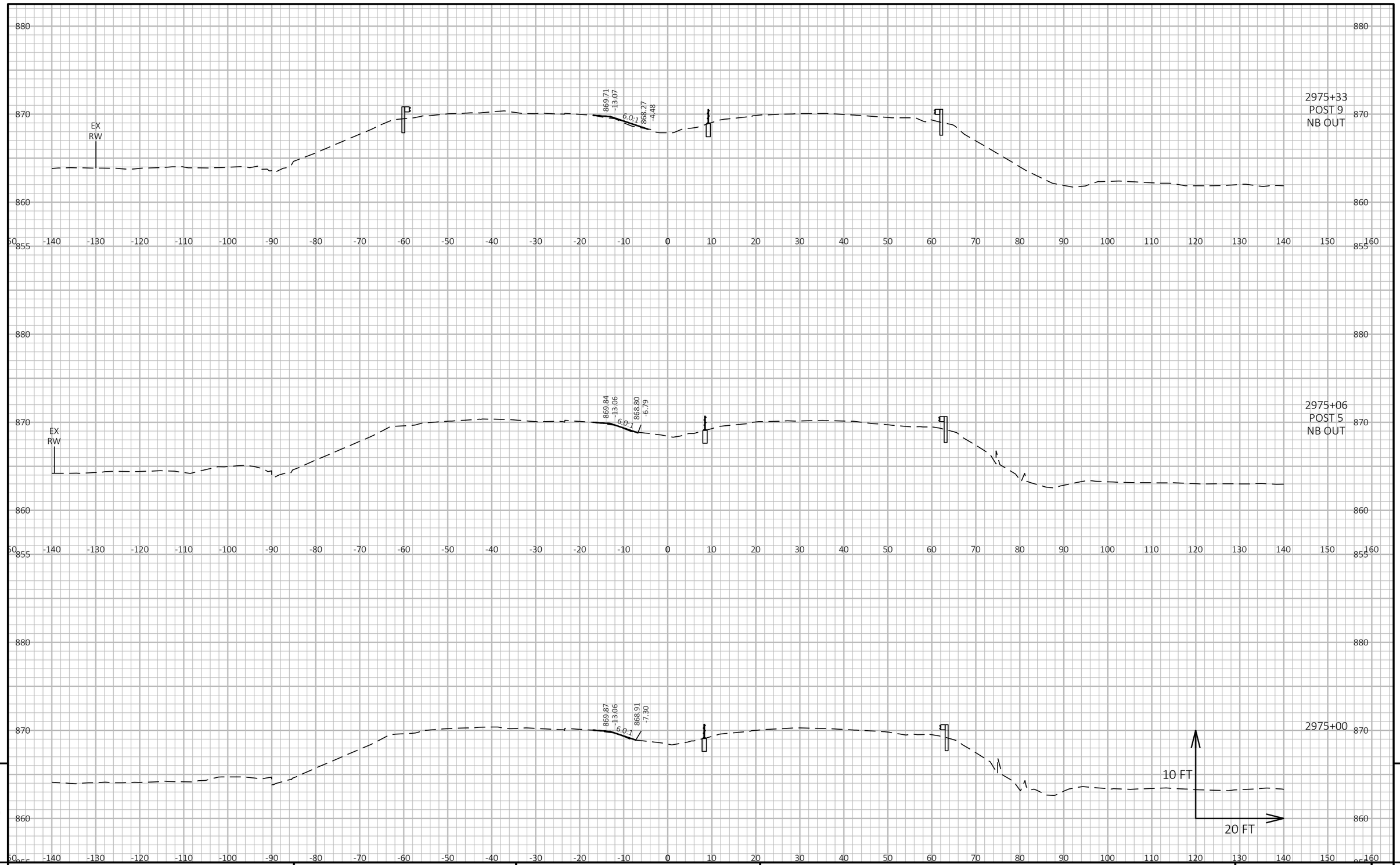
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 819	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 019

PLOT DATE : 10/26/2023 4:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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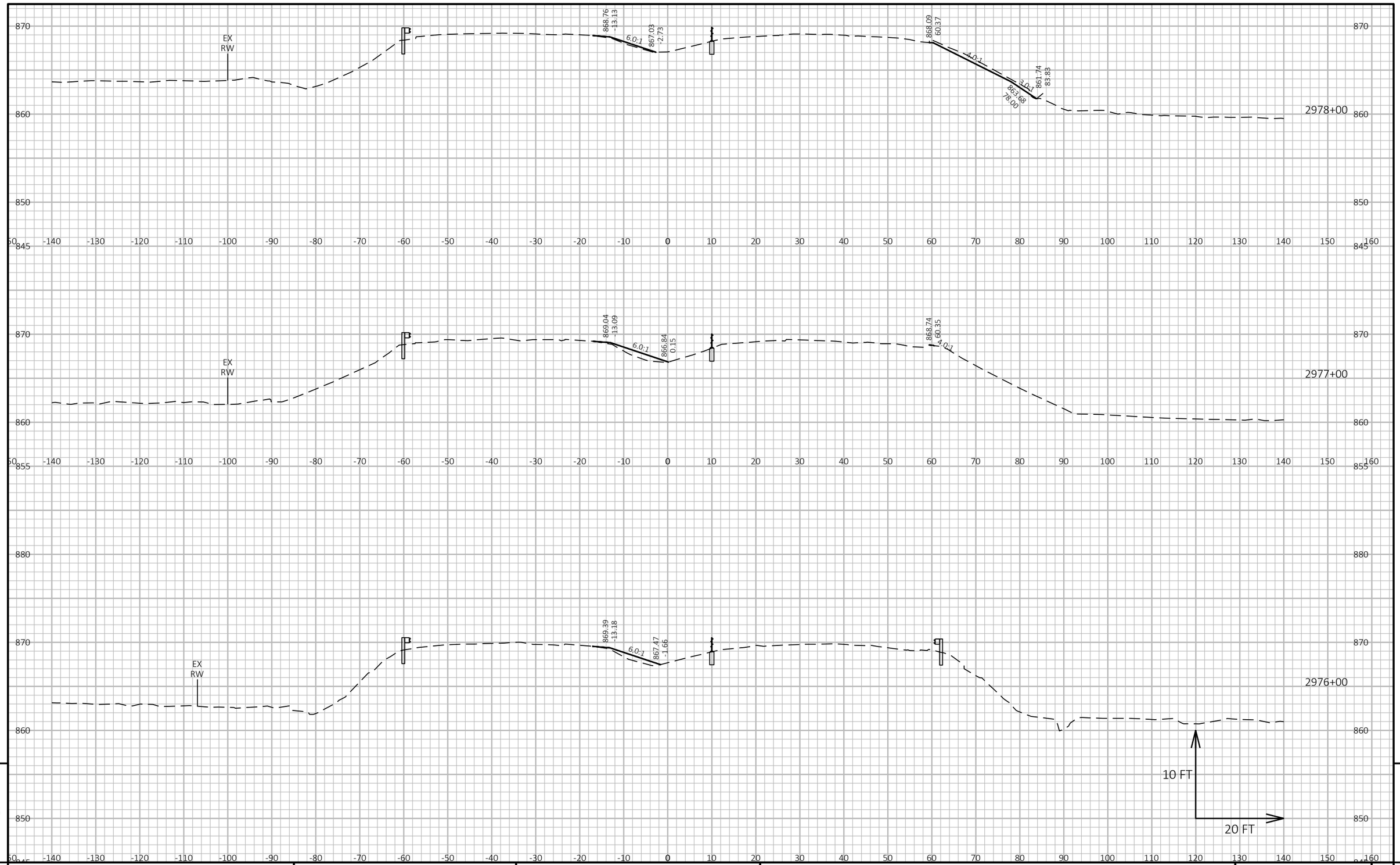
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 820	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 020

PLOT DATE : 10/26/2023 4:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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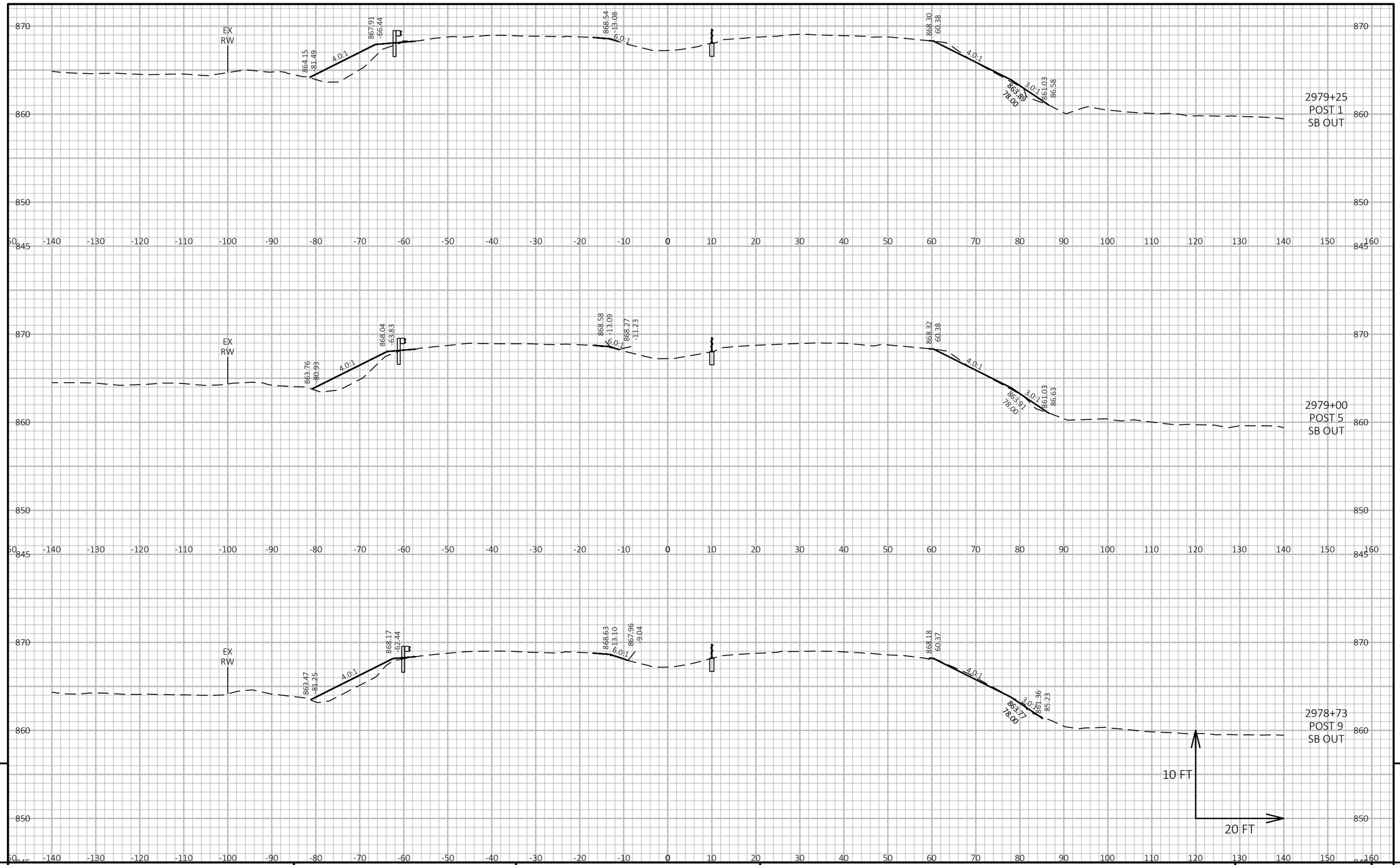
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 821	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 021

PLOT DATE : 10/26/2023 4:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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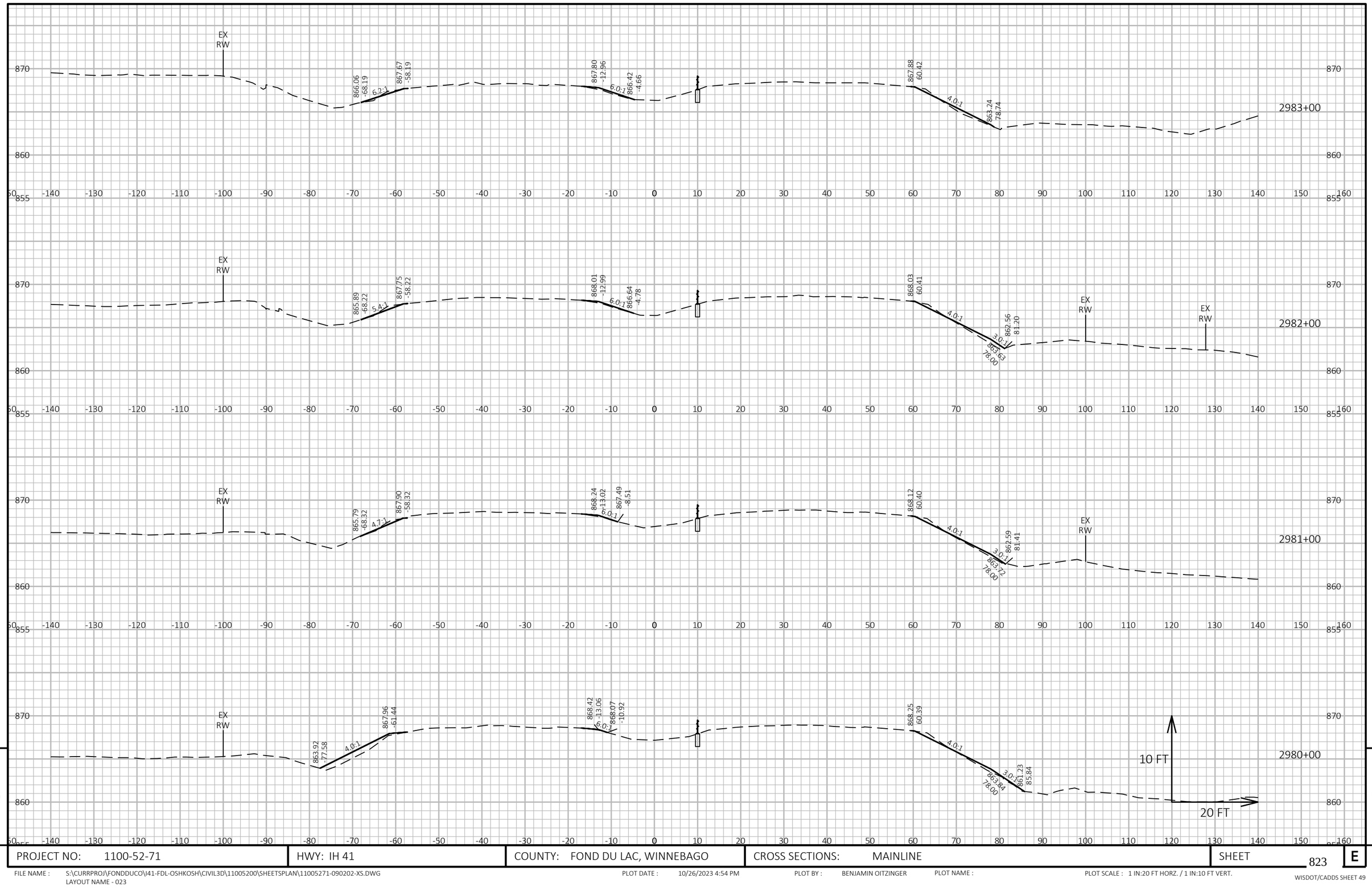
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 822	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 022

PLOT DATE : 10/26/2023 4:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

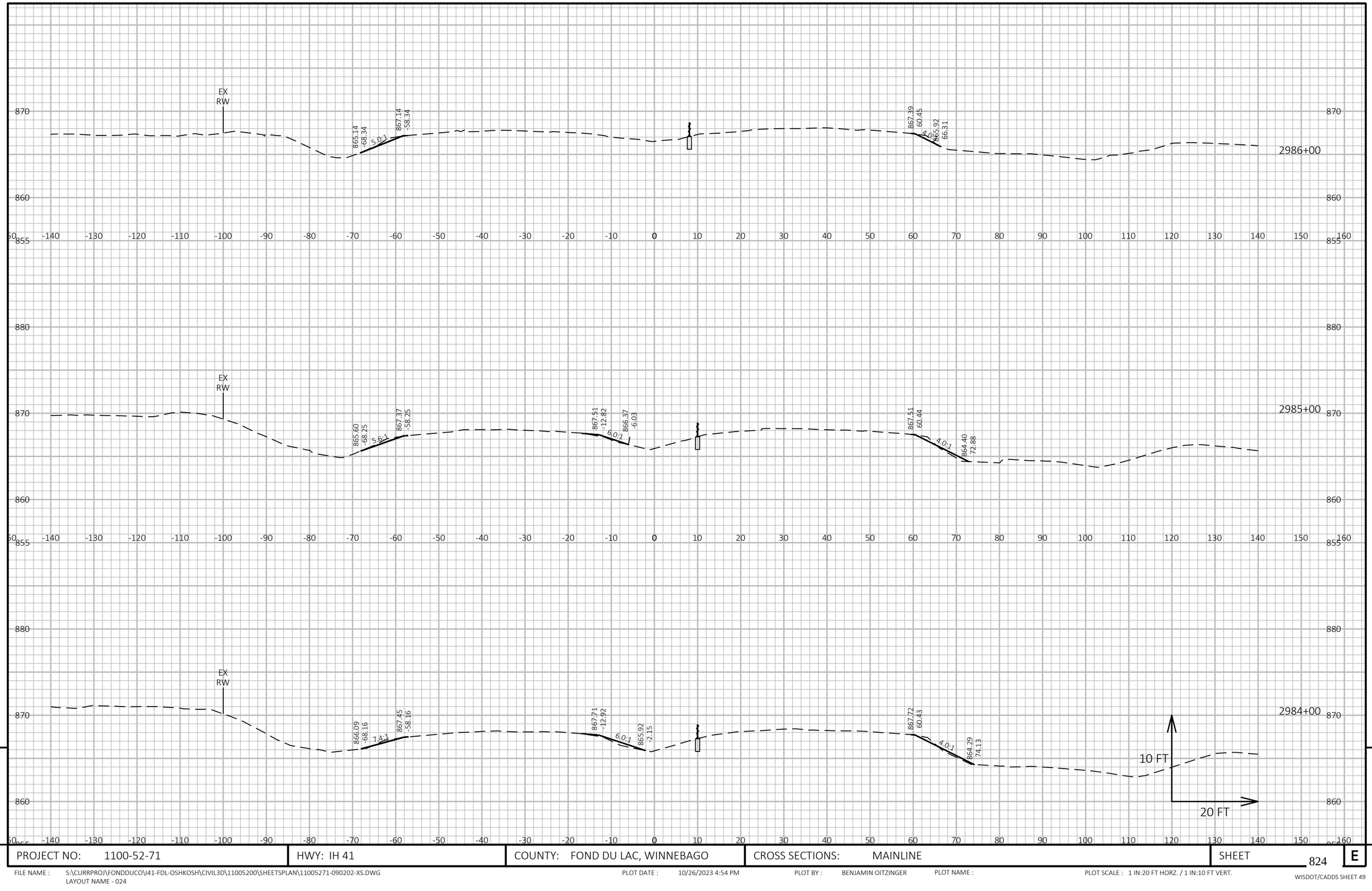


9 9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 823	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 023

PLOT DATE : 10/26/2023 4:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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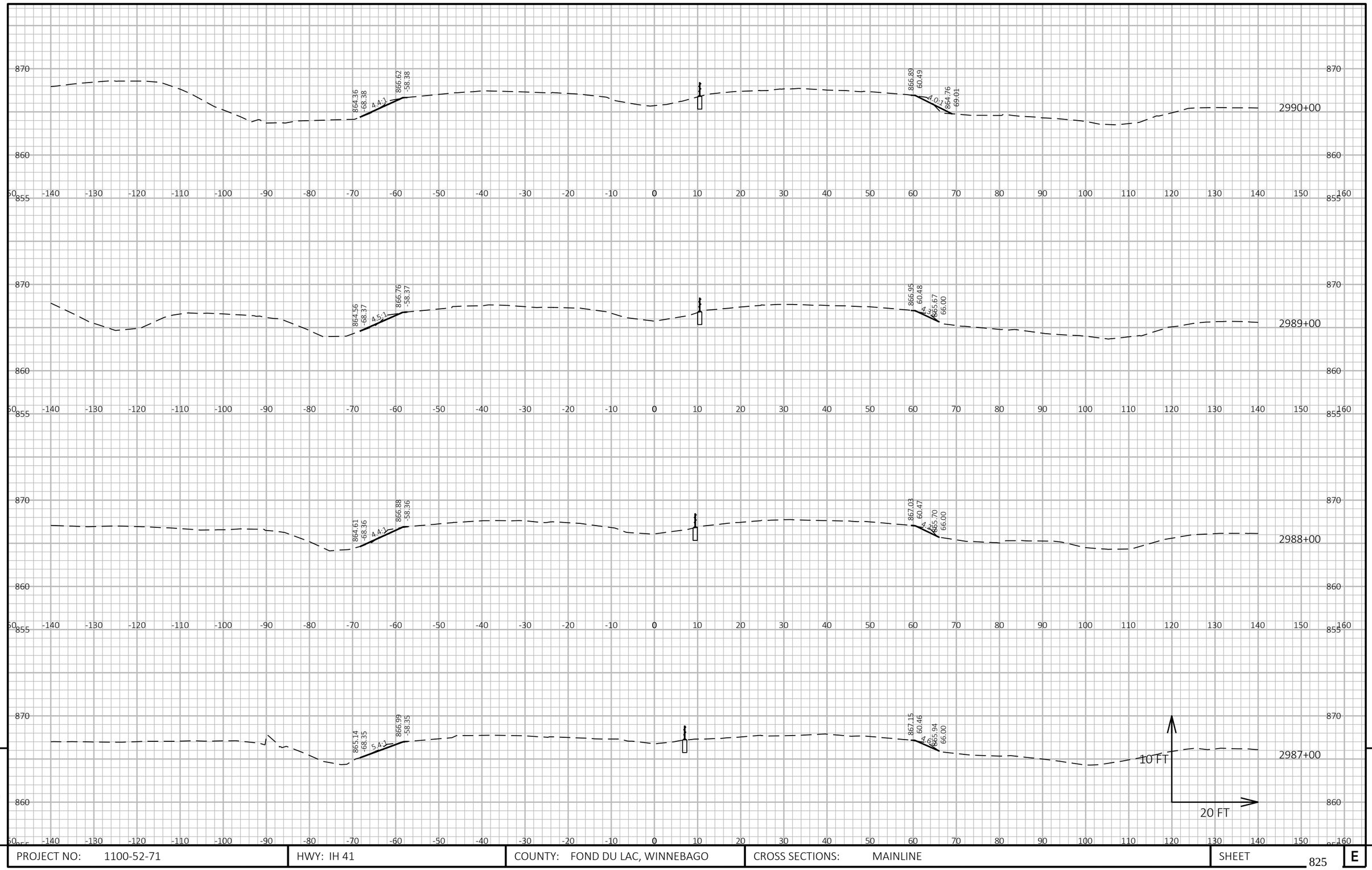
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 824	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 024

PLOT DATE : 10/26/2023 4:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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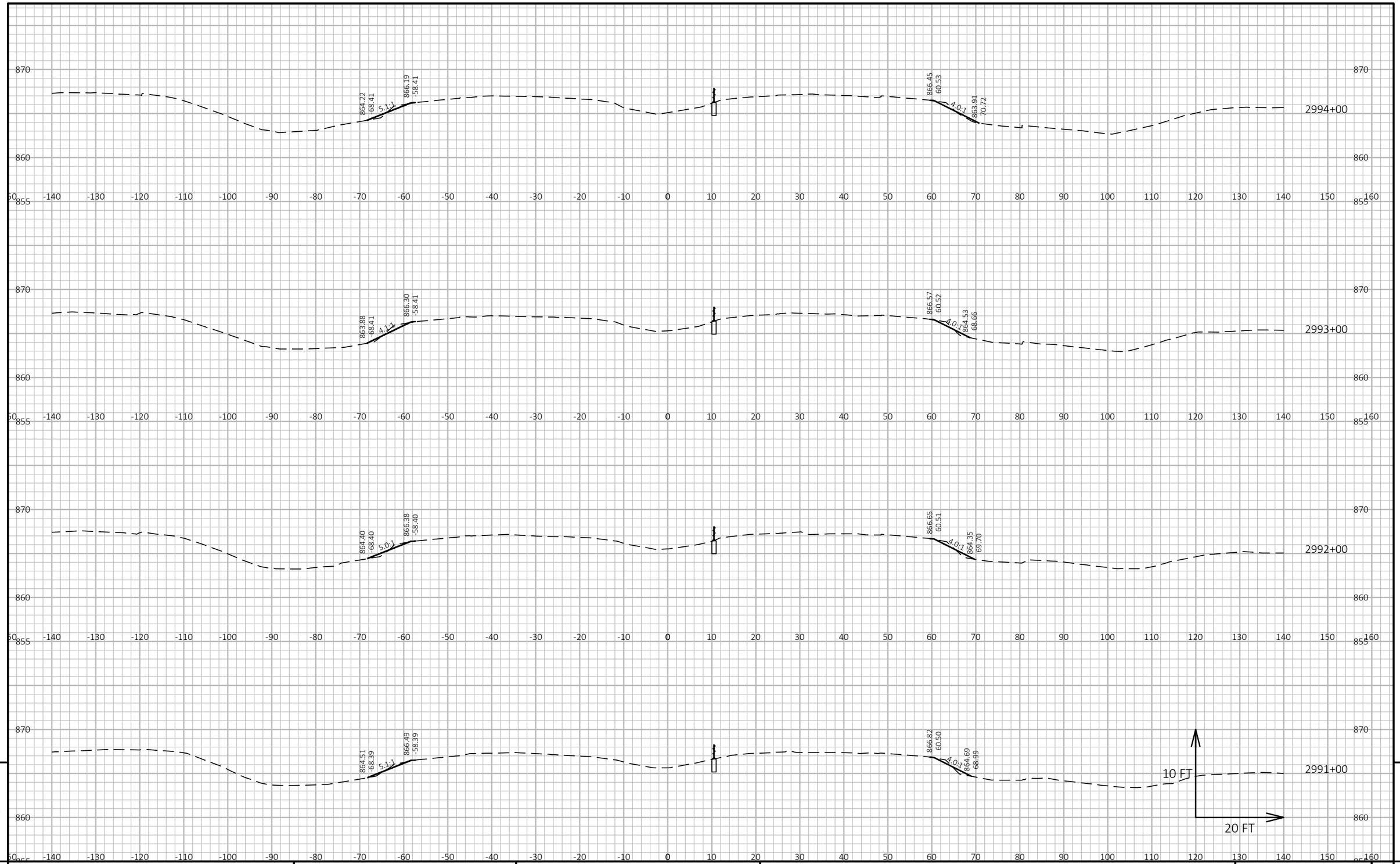
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 825	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 025

PLOT DATE : 10/26/2023 4:54 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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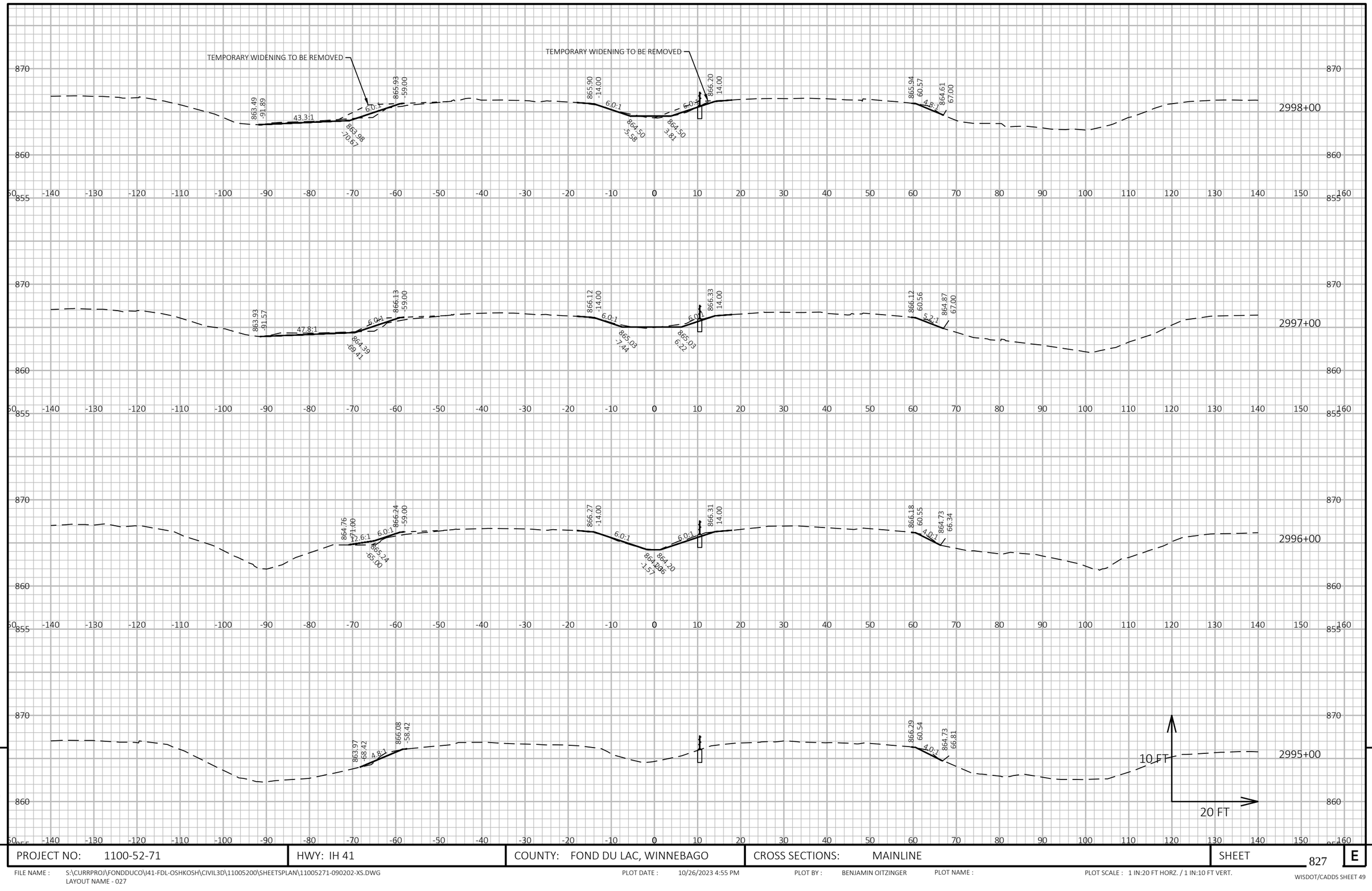
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 826	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 026

PLOT DATE : 10/26/2023 4:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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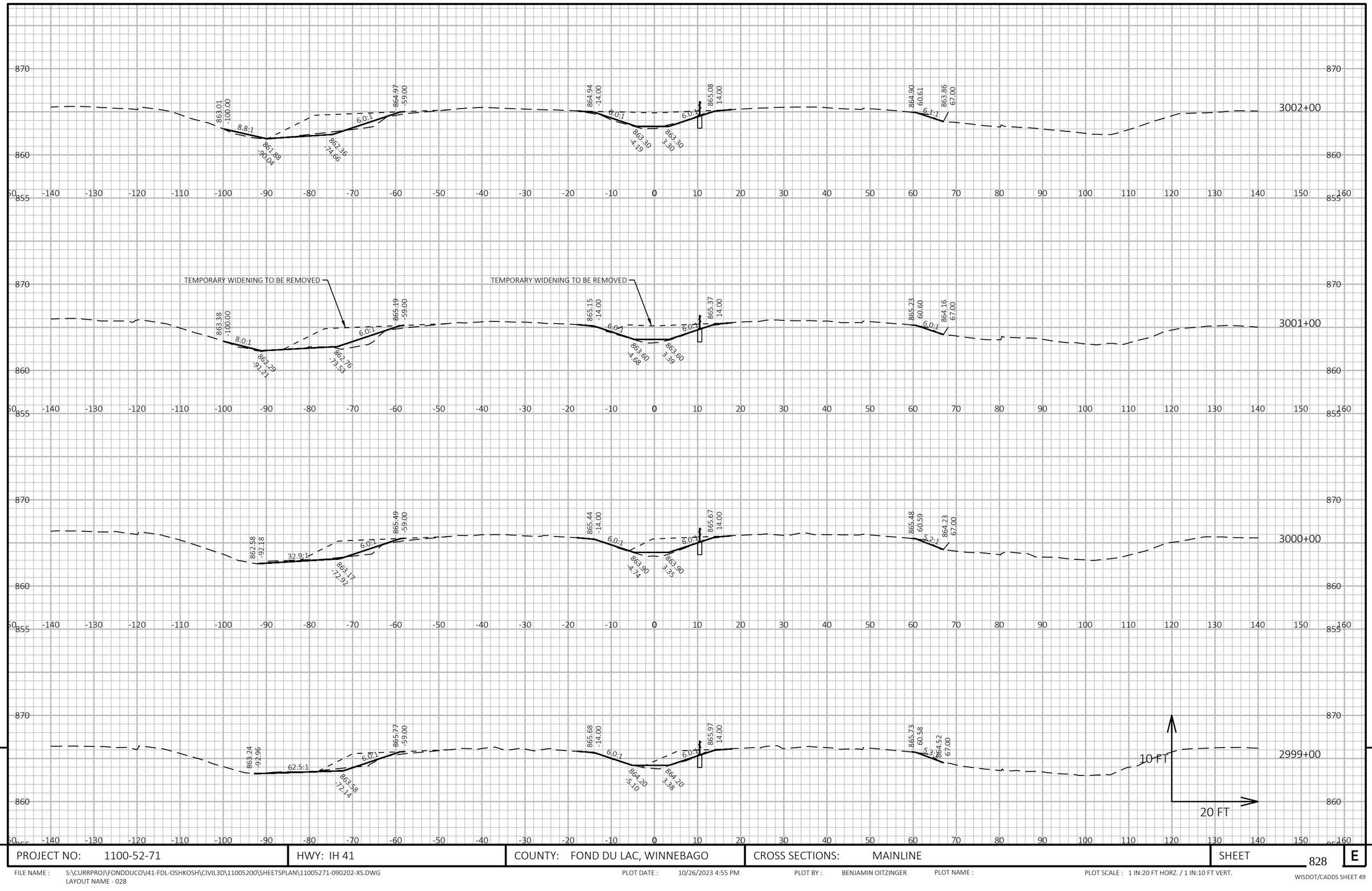
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 827	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 027

PLOT DATE : 10/26/2023 4:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 828	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 028

PLOT DATE : 10/26/2023 4:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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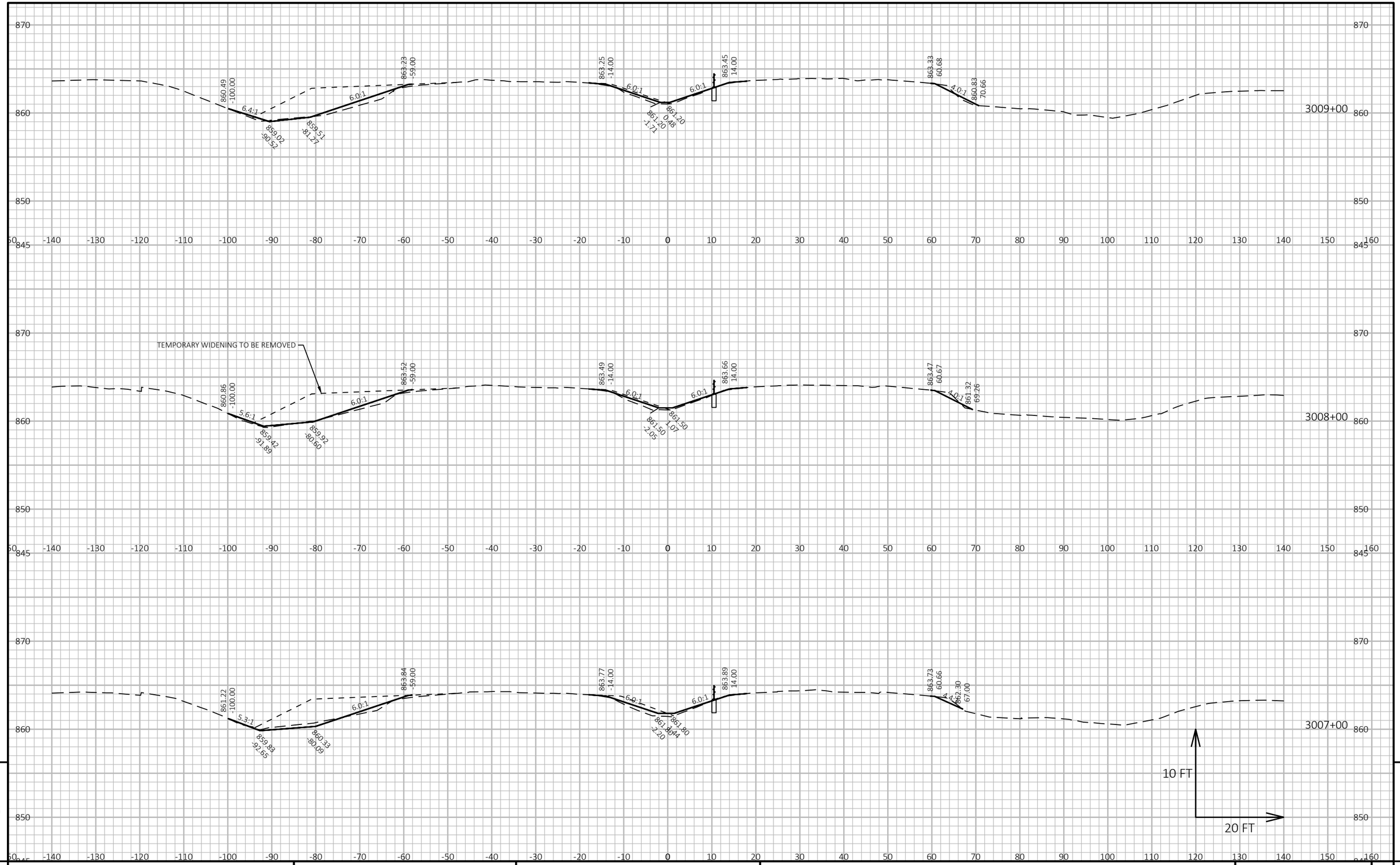
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 829	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 029

PLOT DATE : 10/26/2023 4:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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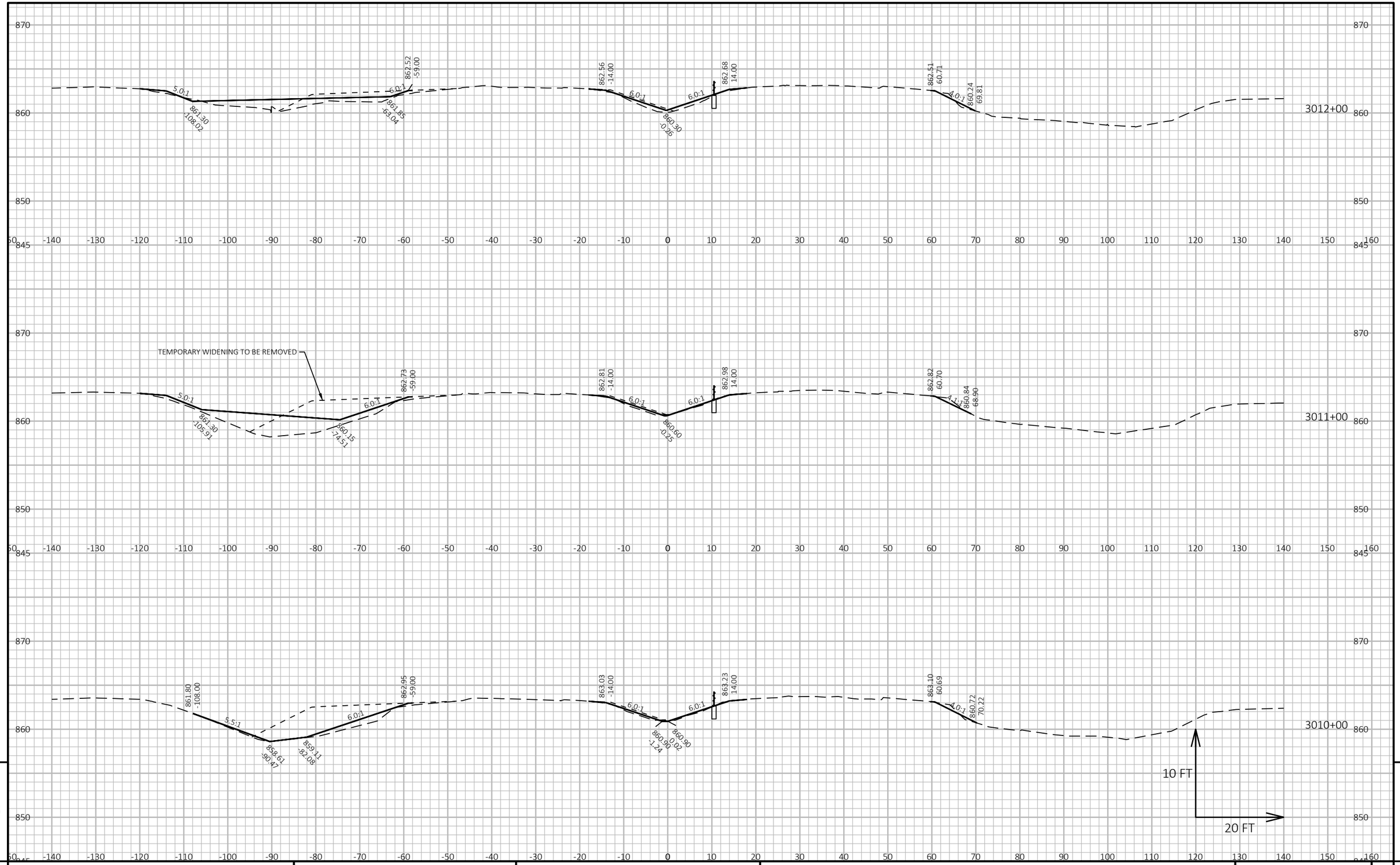
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 830	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 030

PLOT DATE : 10/26/2023 4:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

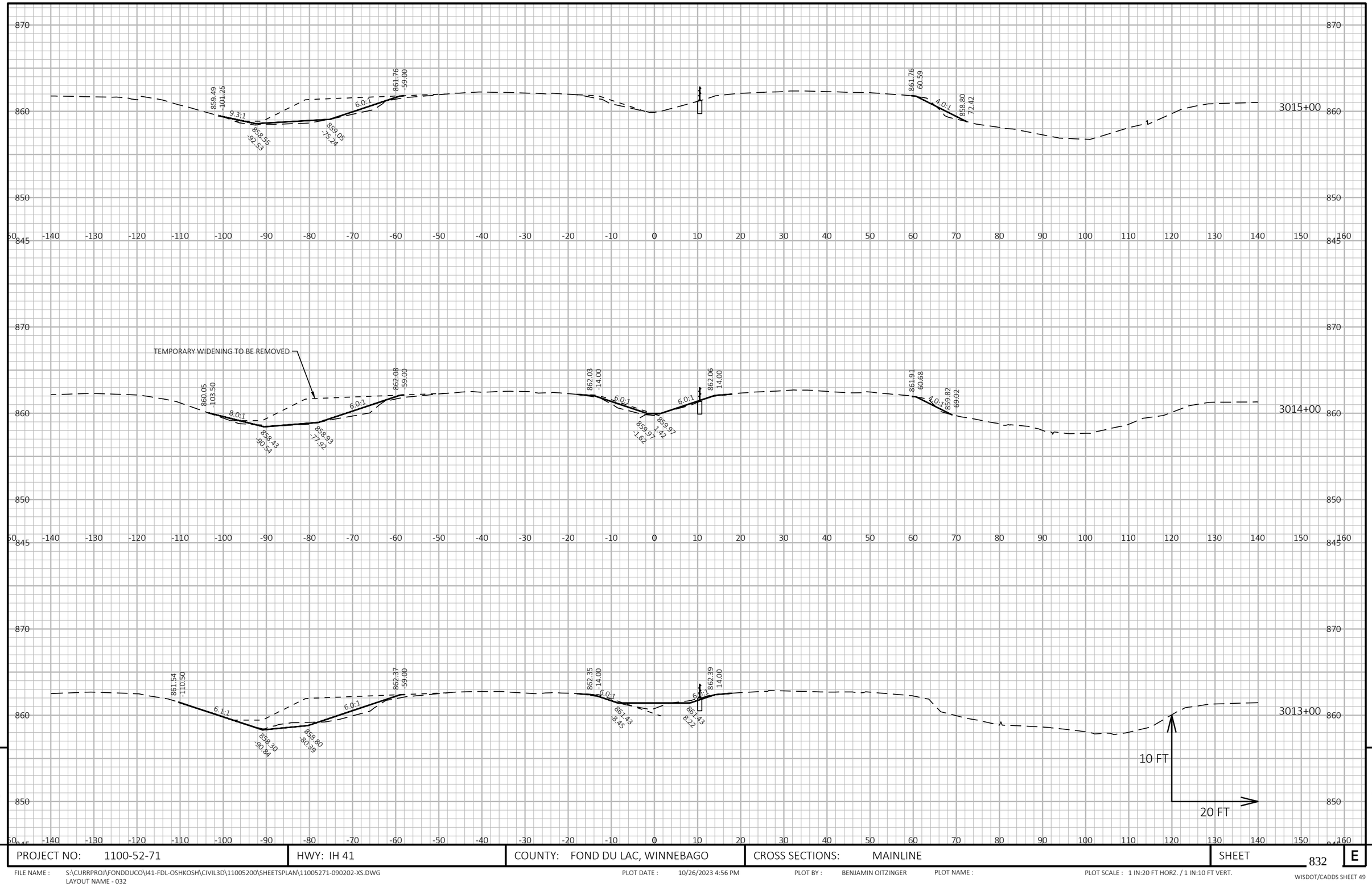


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 831 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 031

PLOT DATE : 10/27/2023 2:47 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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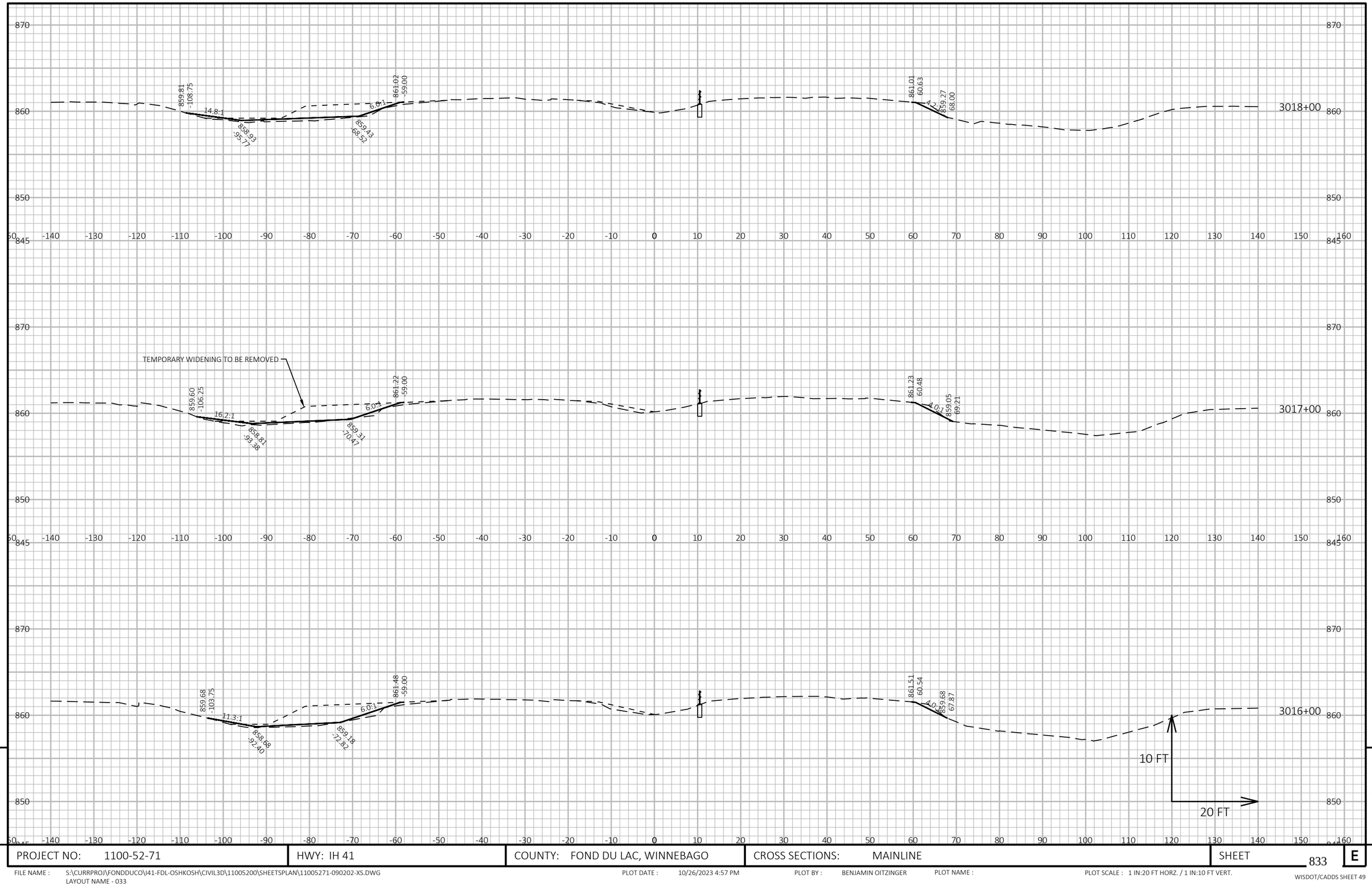
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 832	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 032

PLOT DATE : 10/26/2023 4:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

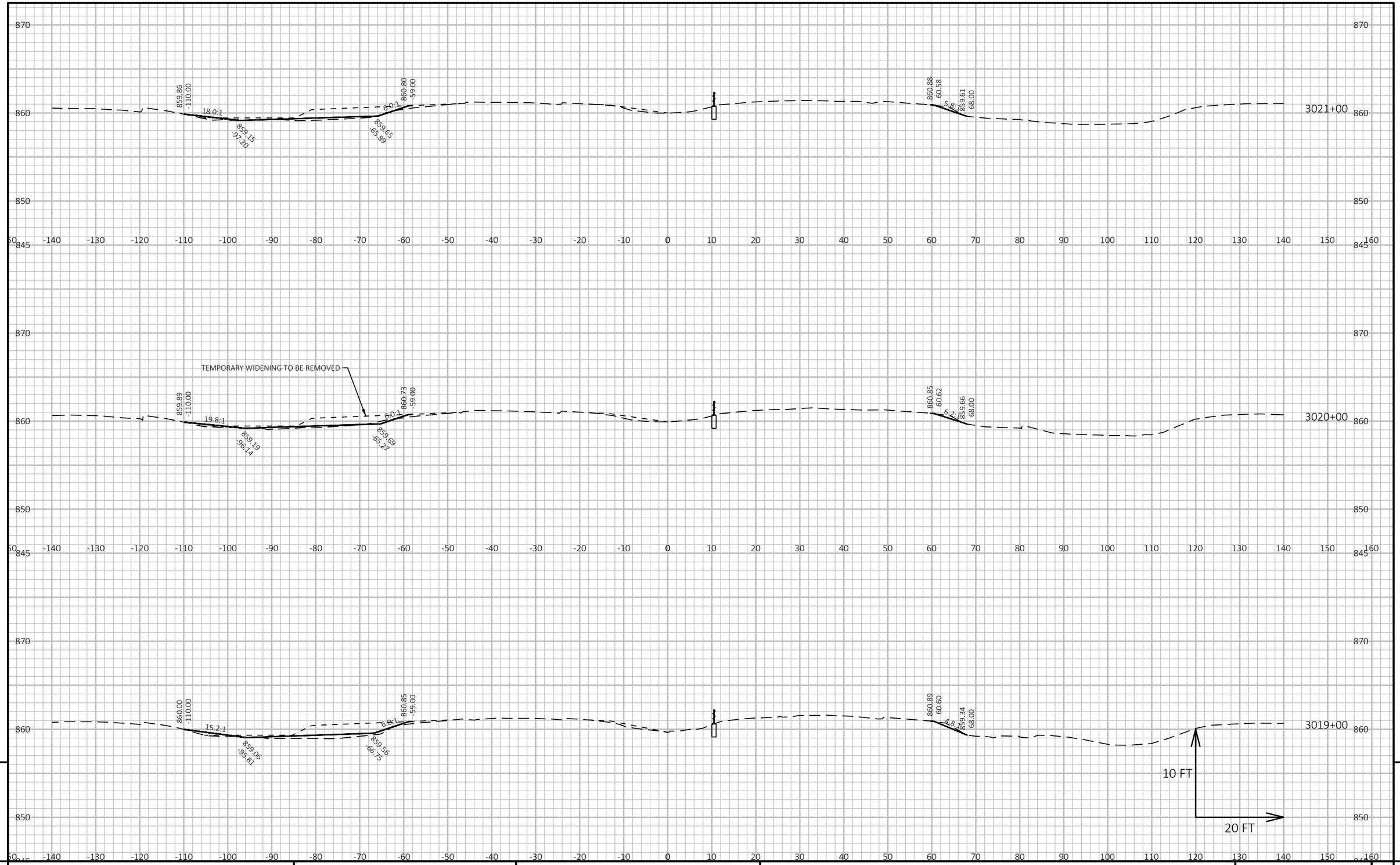


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 833	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 033

PLOT DATE : 10/26/2023 4:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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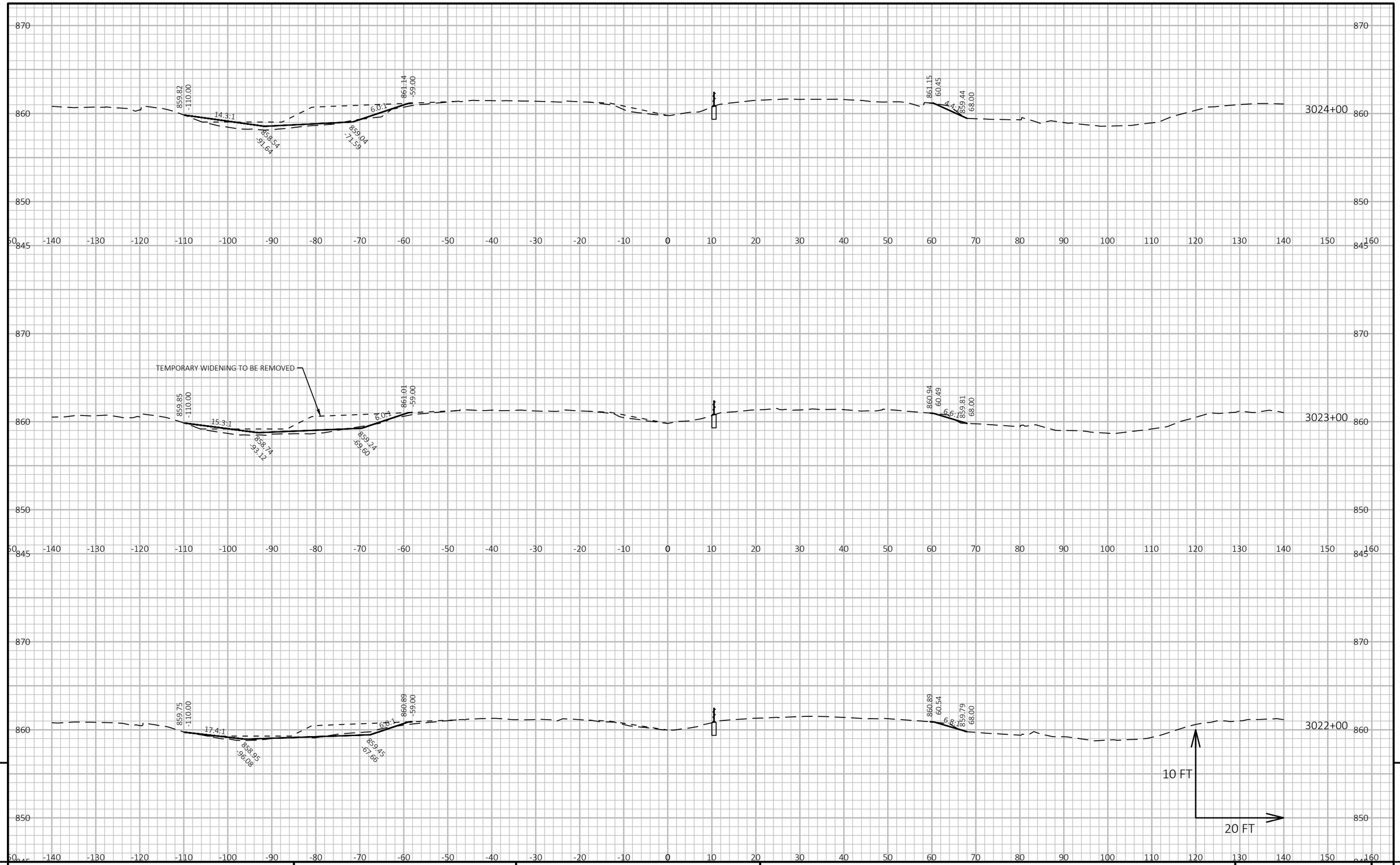
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 834	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 034

PLOT DATE : 10/26/2023 4:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

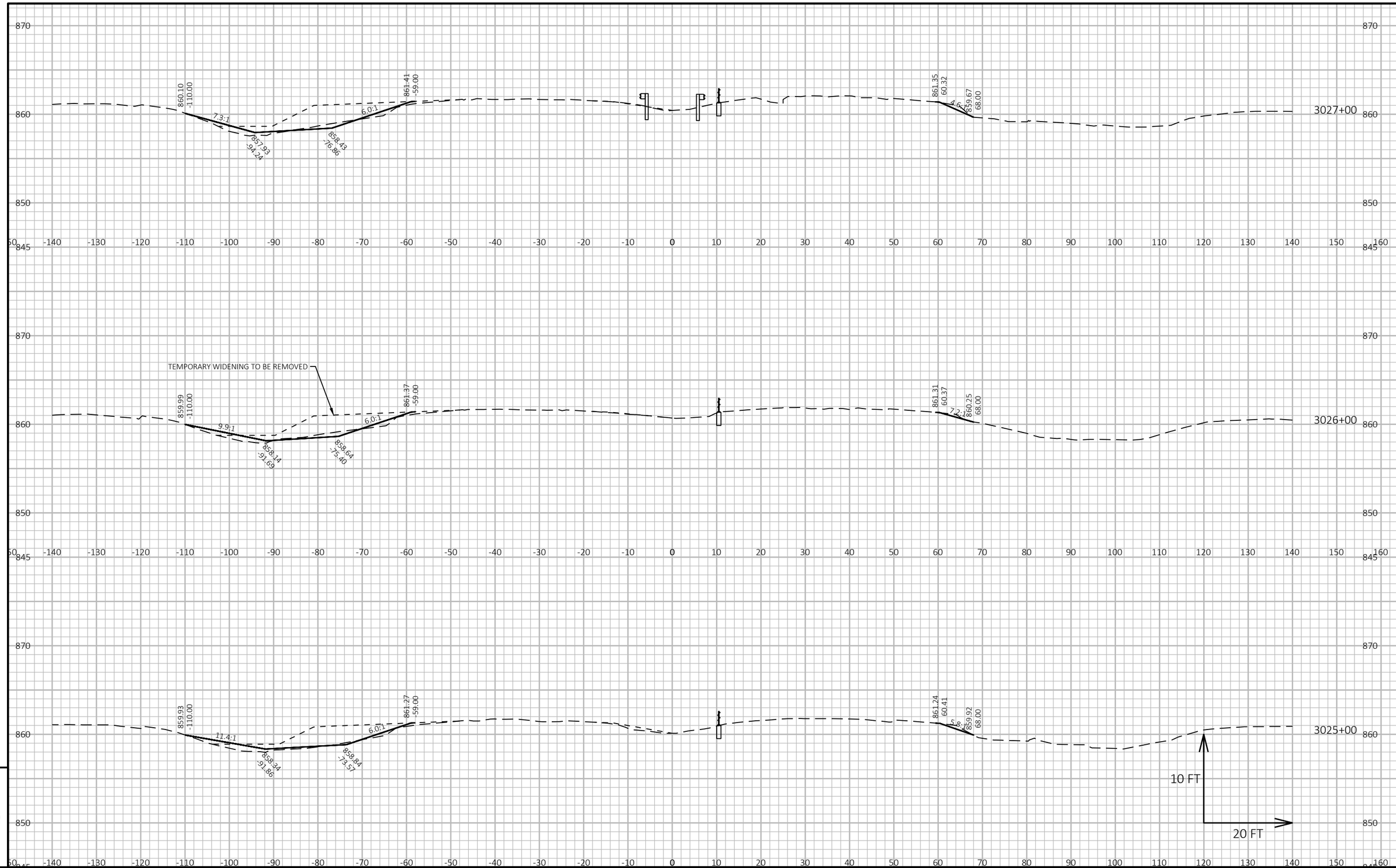


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 835	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 035

PLOT DATE : 10/26/2023 4:57 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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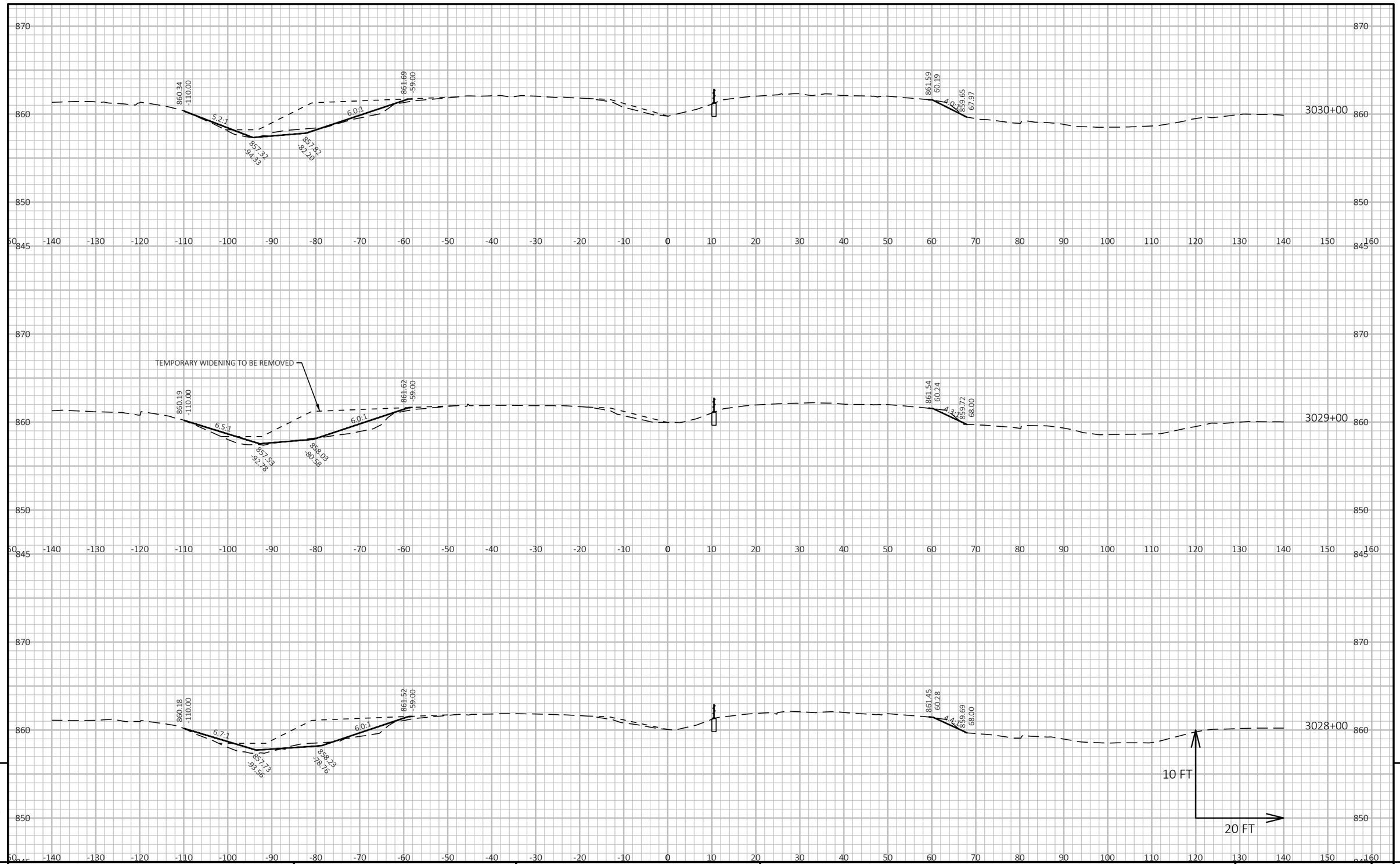
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 836	E

9

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 036

PLOT DATE : 10/26/2023 4:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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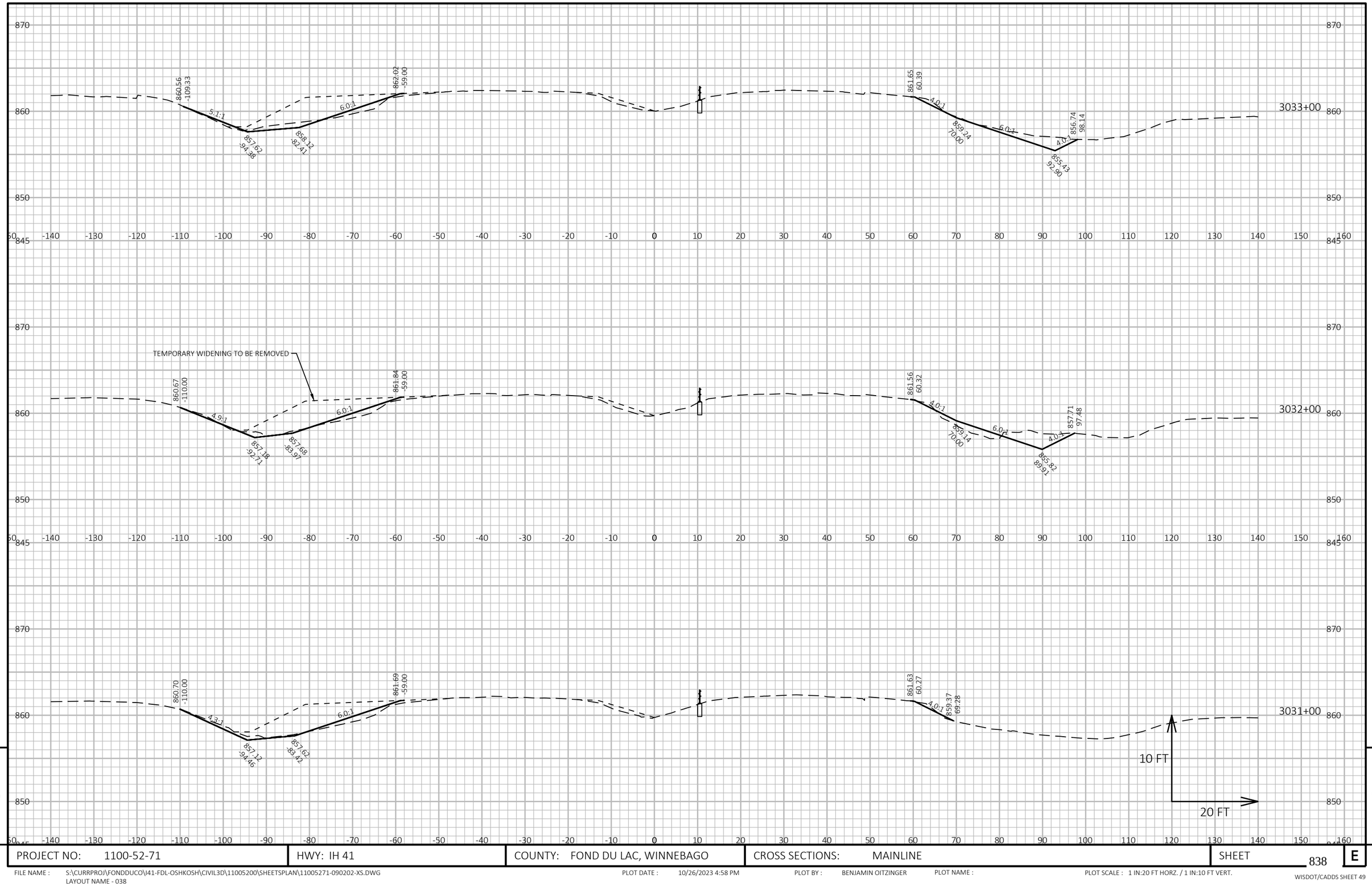
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 837	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 037

PLOT DATE : 10/26/2023 4:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



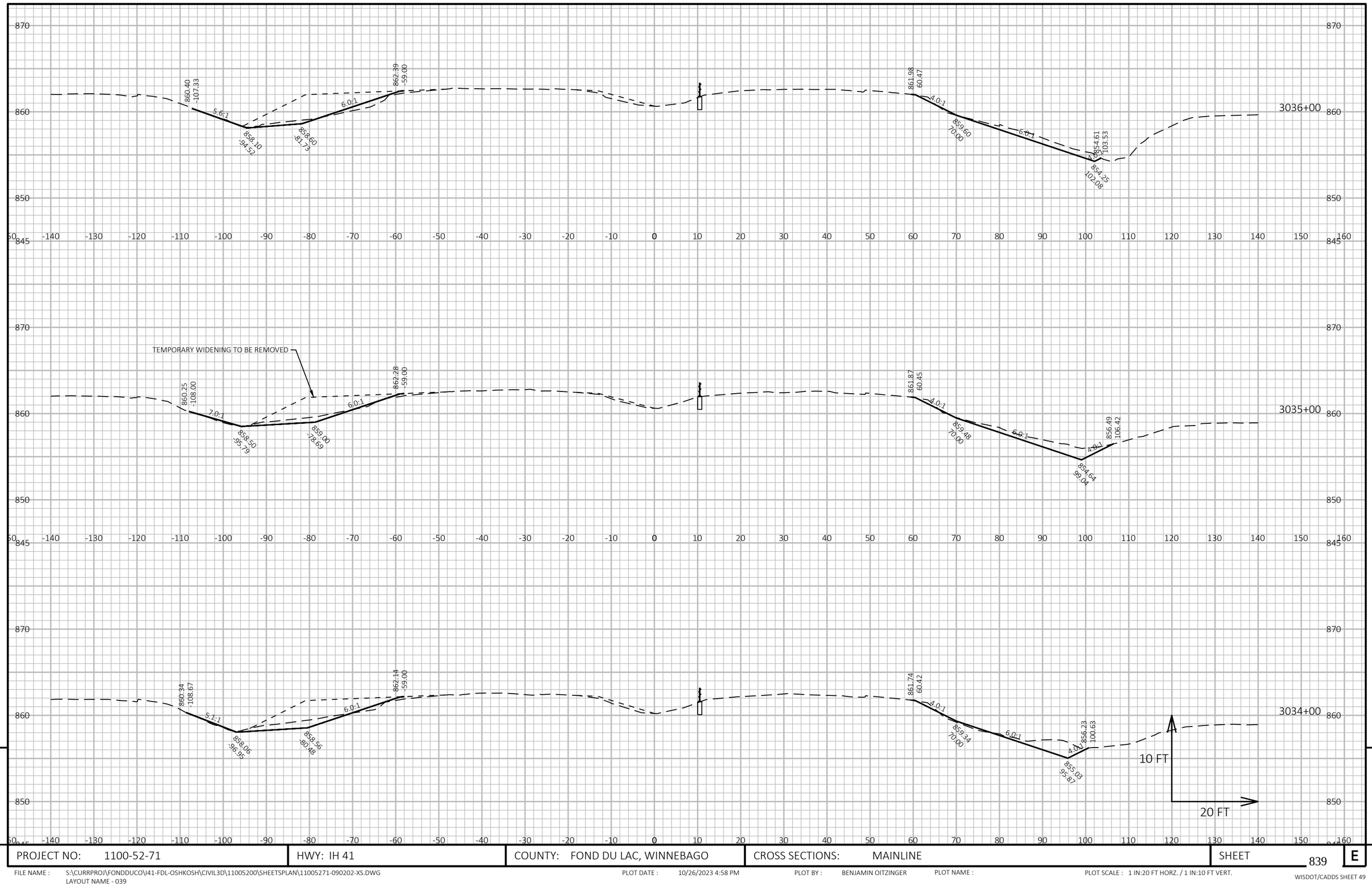
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 838	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 038

PLOT DATE : 10/26/2023 4:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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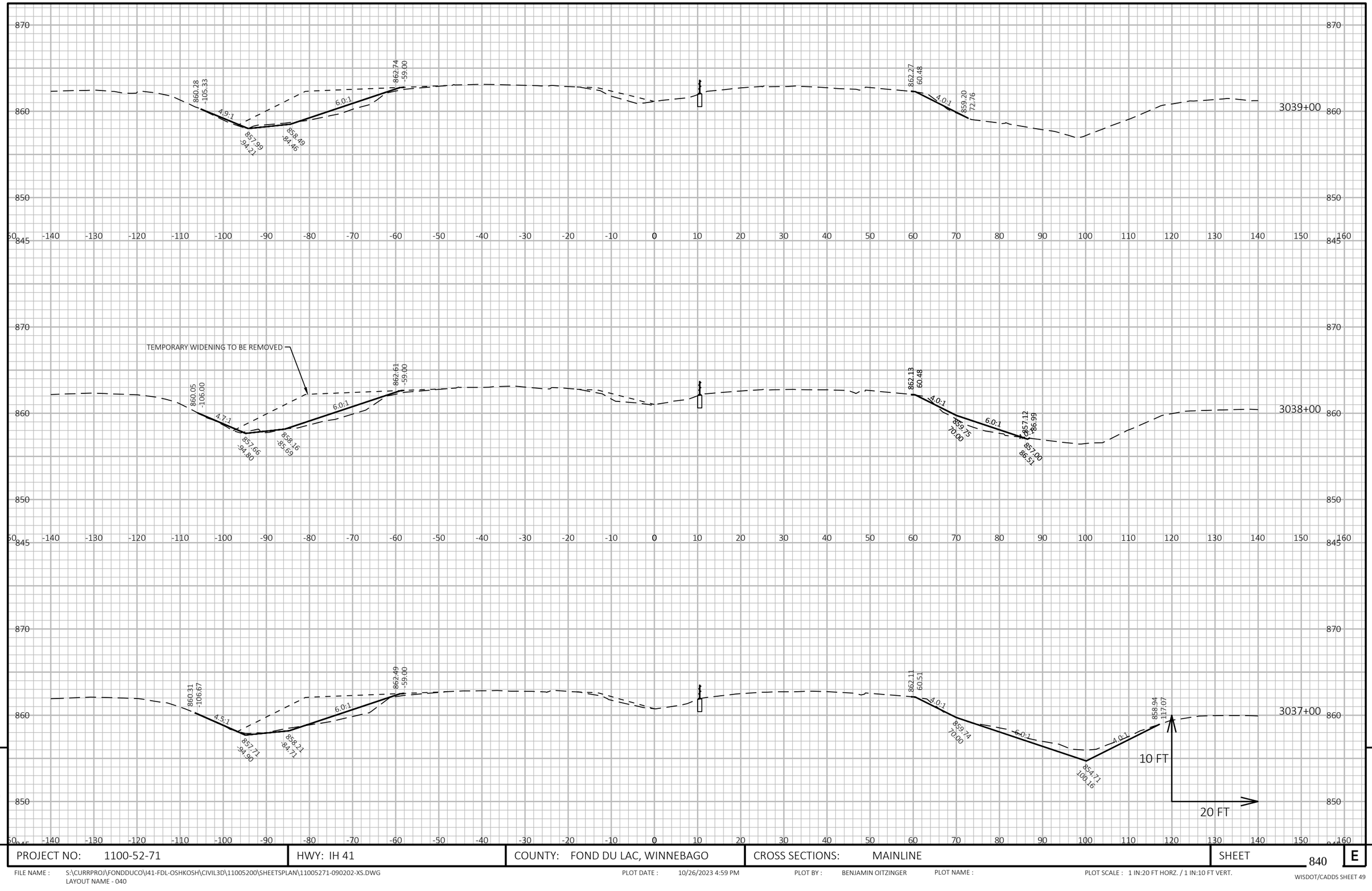
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 839	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 039

PLOT DATE : 10/26/2023 4:58 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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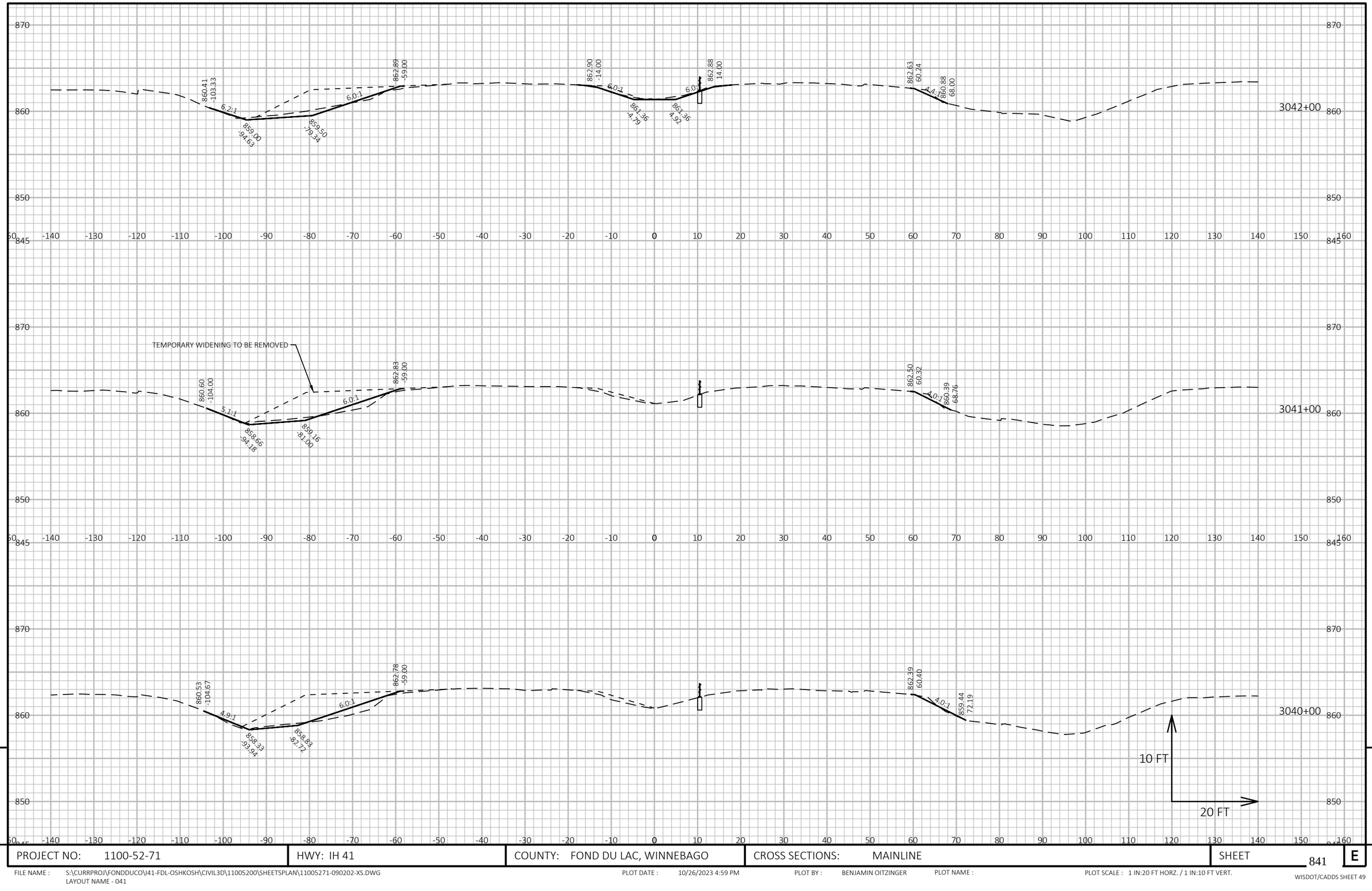
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 840	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 040

PLOT DATE : 10/26/2023 4:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 841	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 041

PLOT DATE : 10/26/2023 4:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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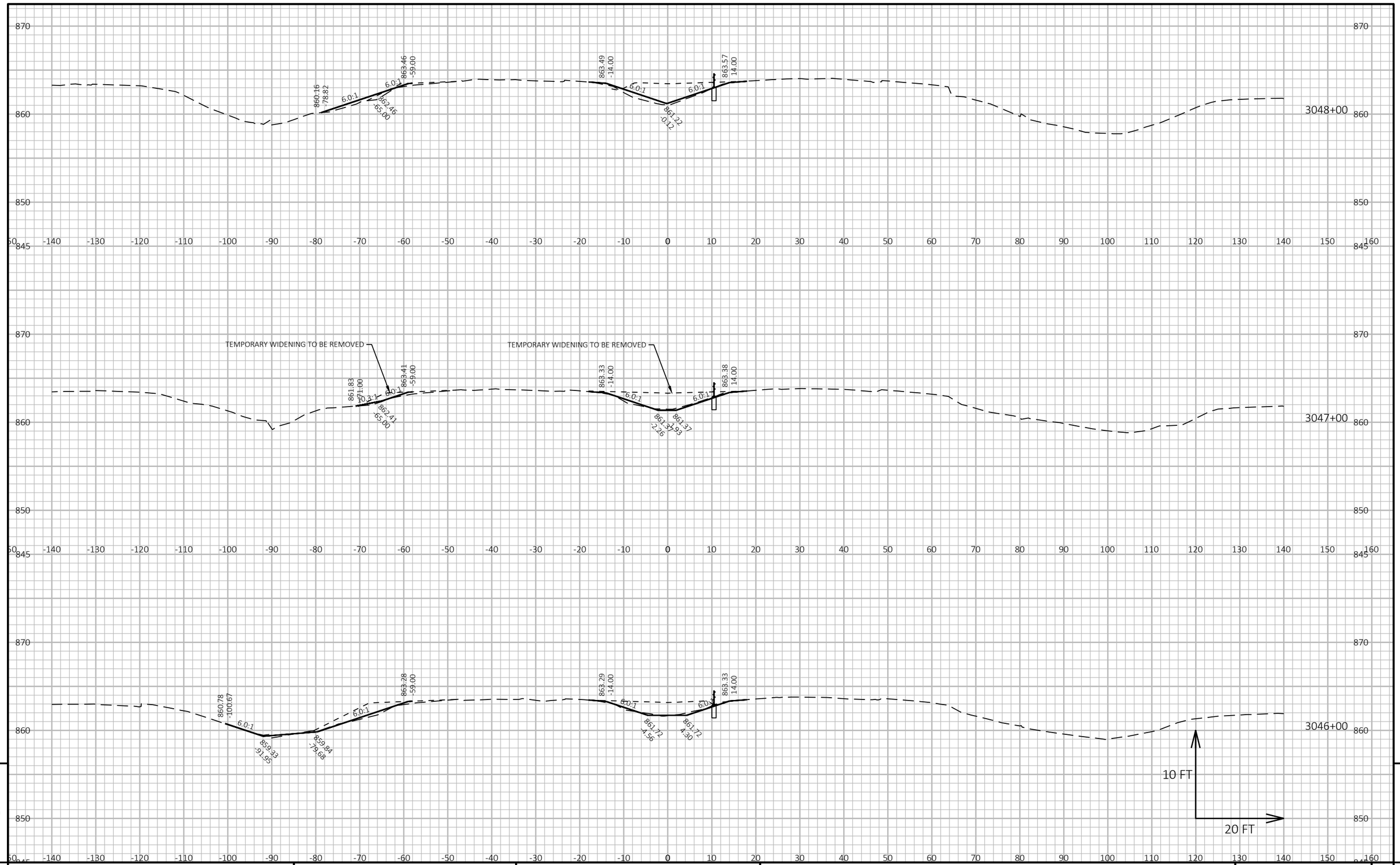
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 842	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 042

PLOT DATE : 10/26/2023 4:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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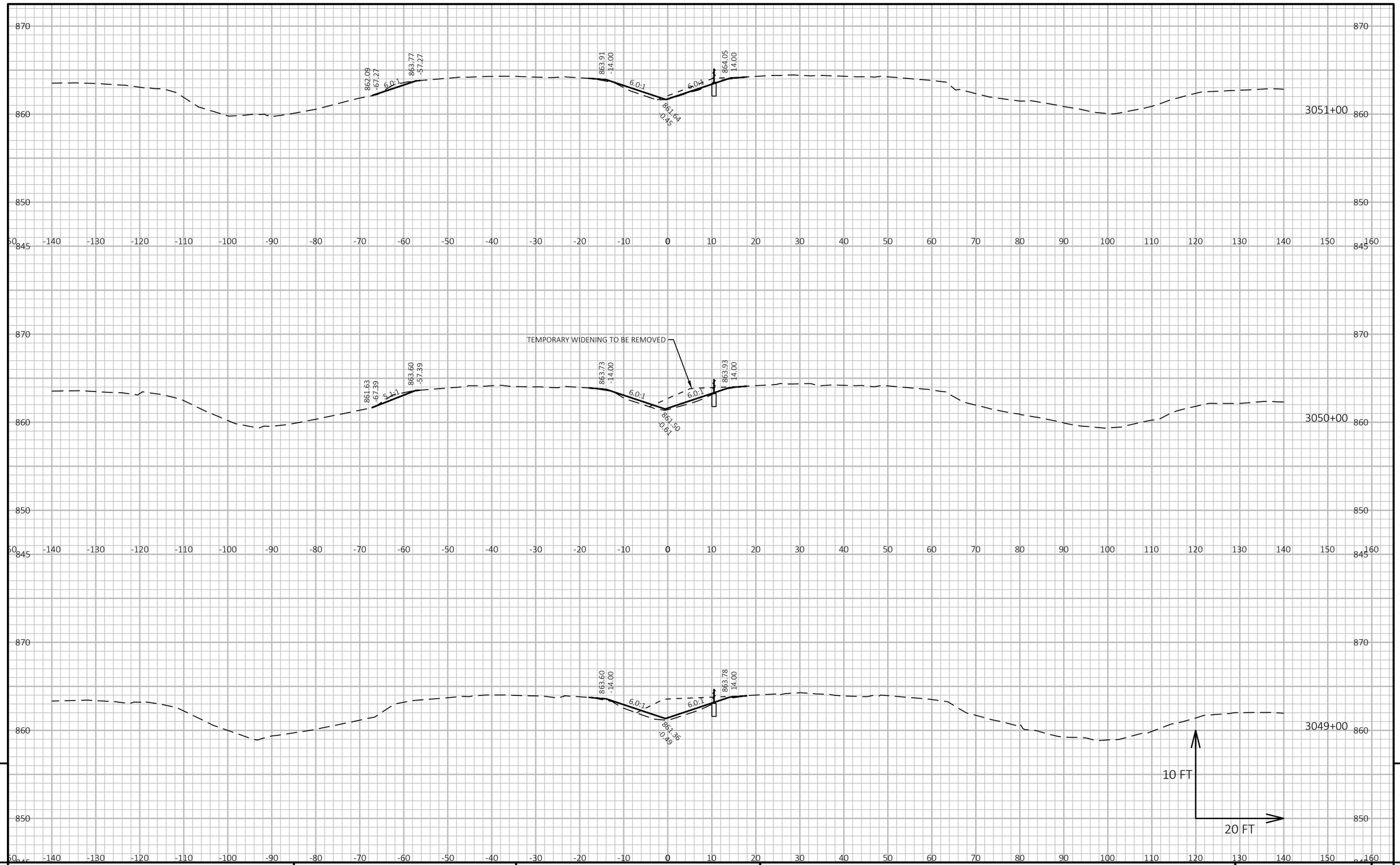
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 843	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 043

PLOT DATE : 10/26/2023 4:59 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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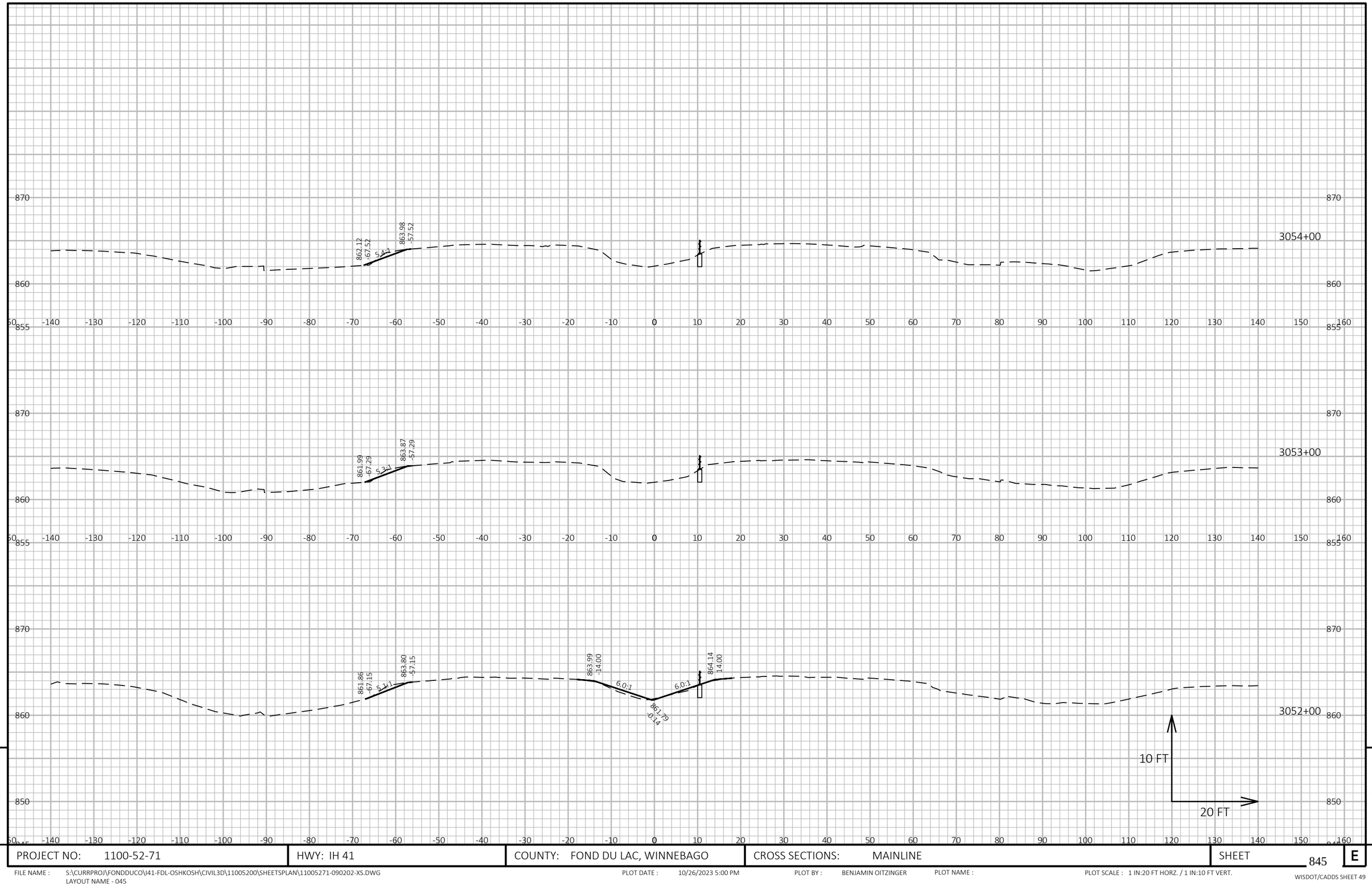
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 844	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 044

PLOT DATE : 10/26/2023 5:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

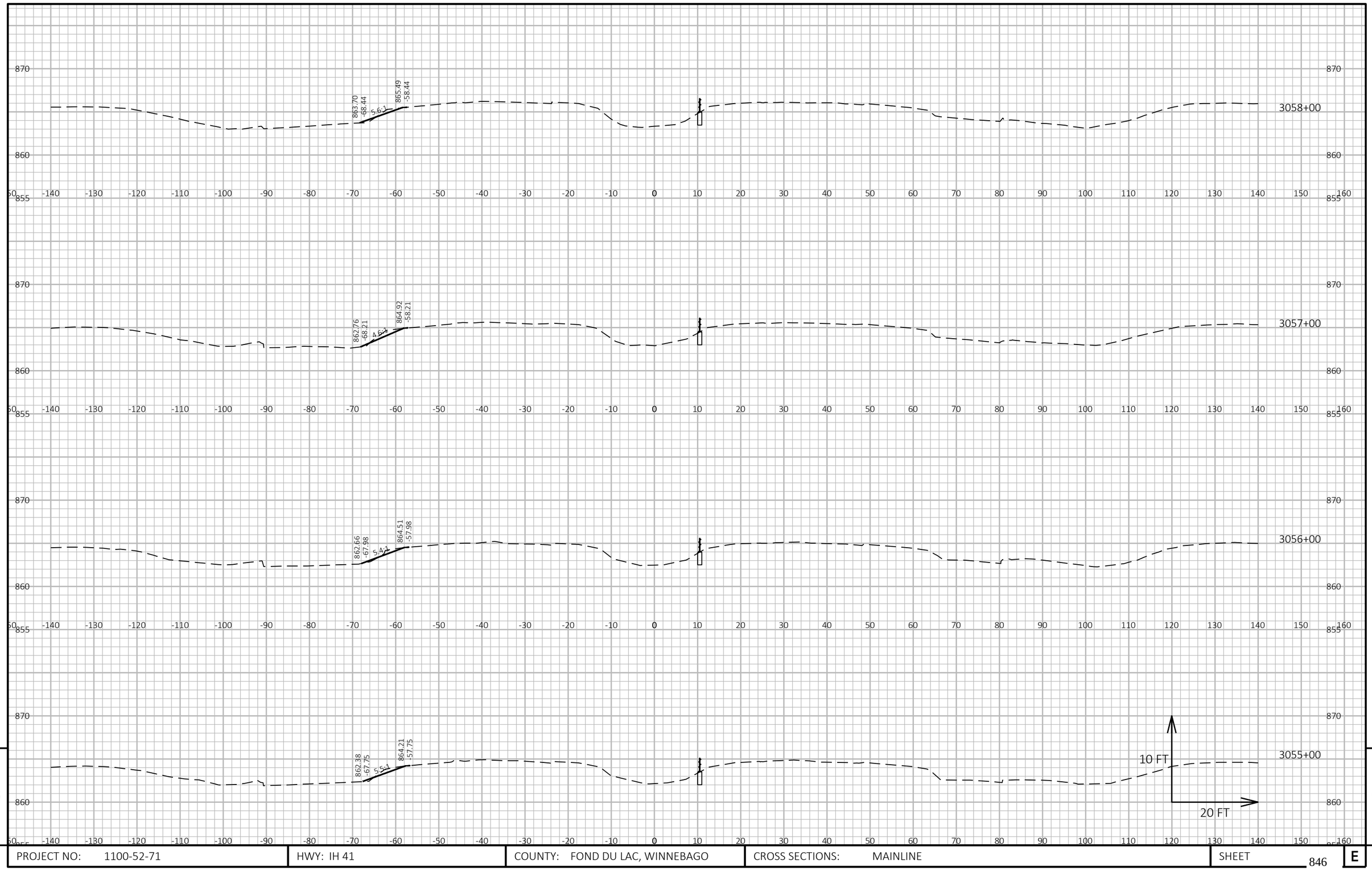


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 845	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 045

PLOT DATE : 10/26/2023 5:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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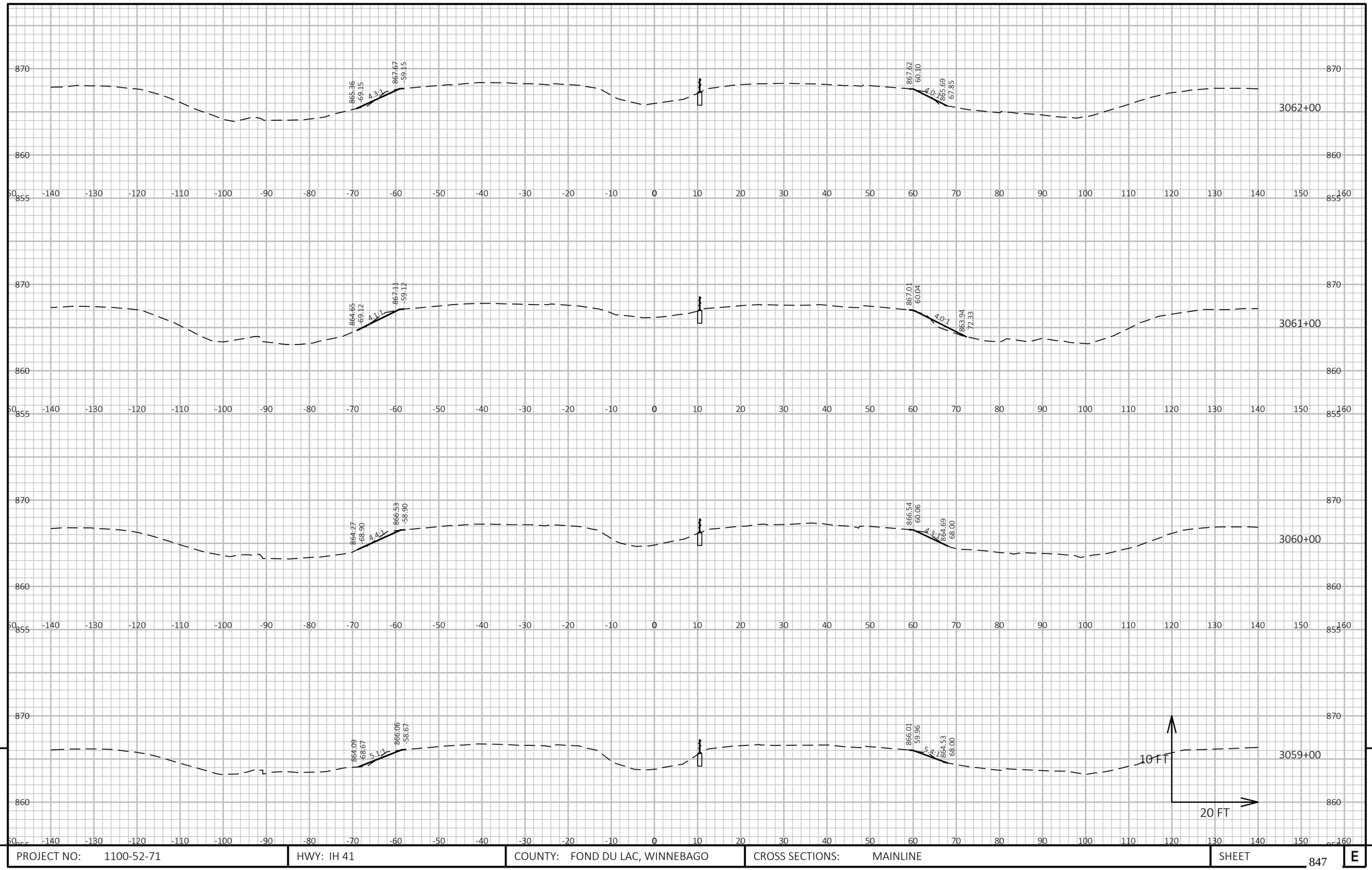
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 846	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 046

PLOT DATE : 10/26/2023 5:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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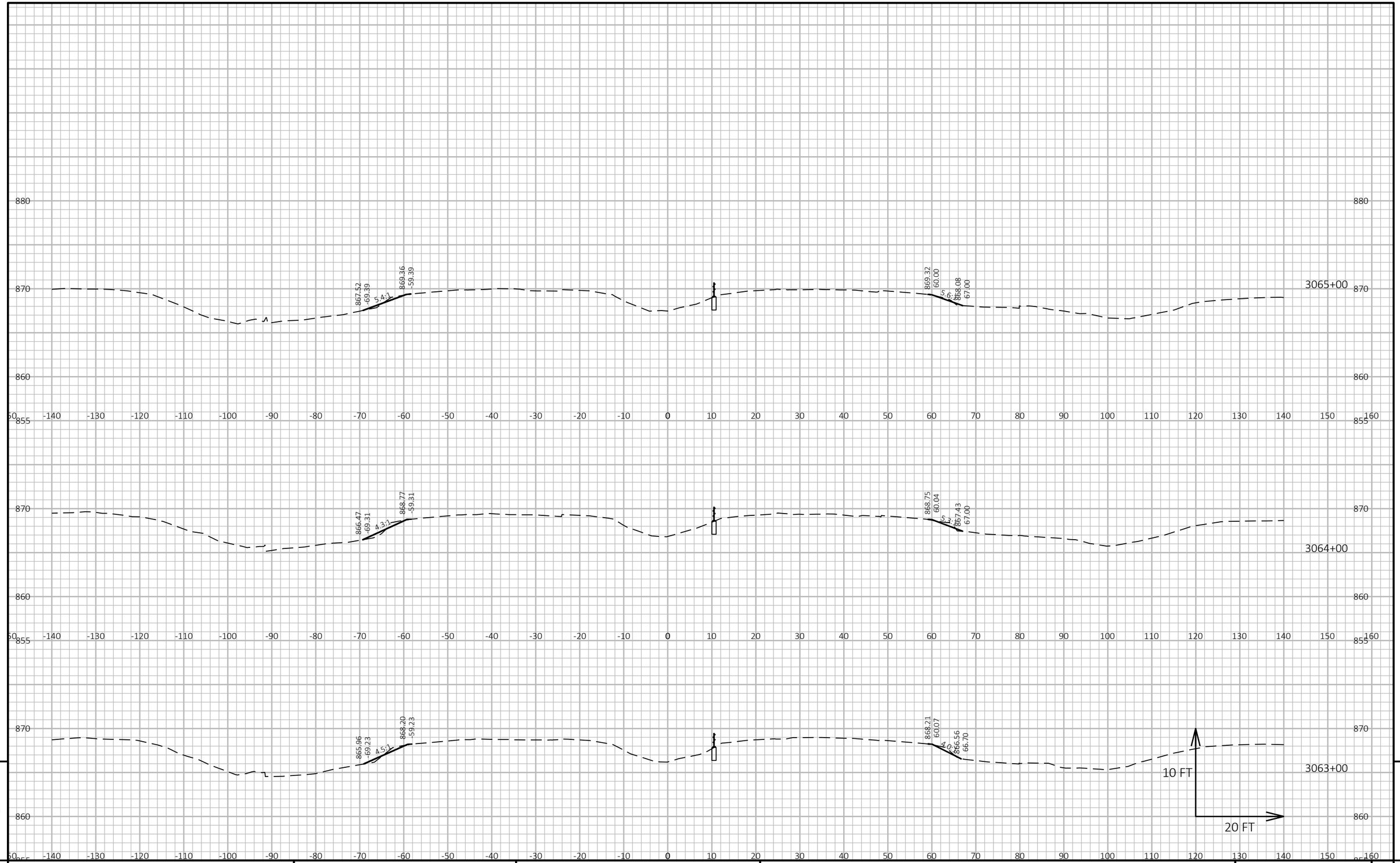
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 847	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 047

PLOT DATE : 10/26/2023 5:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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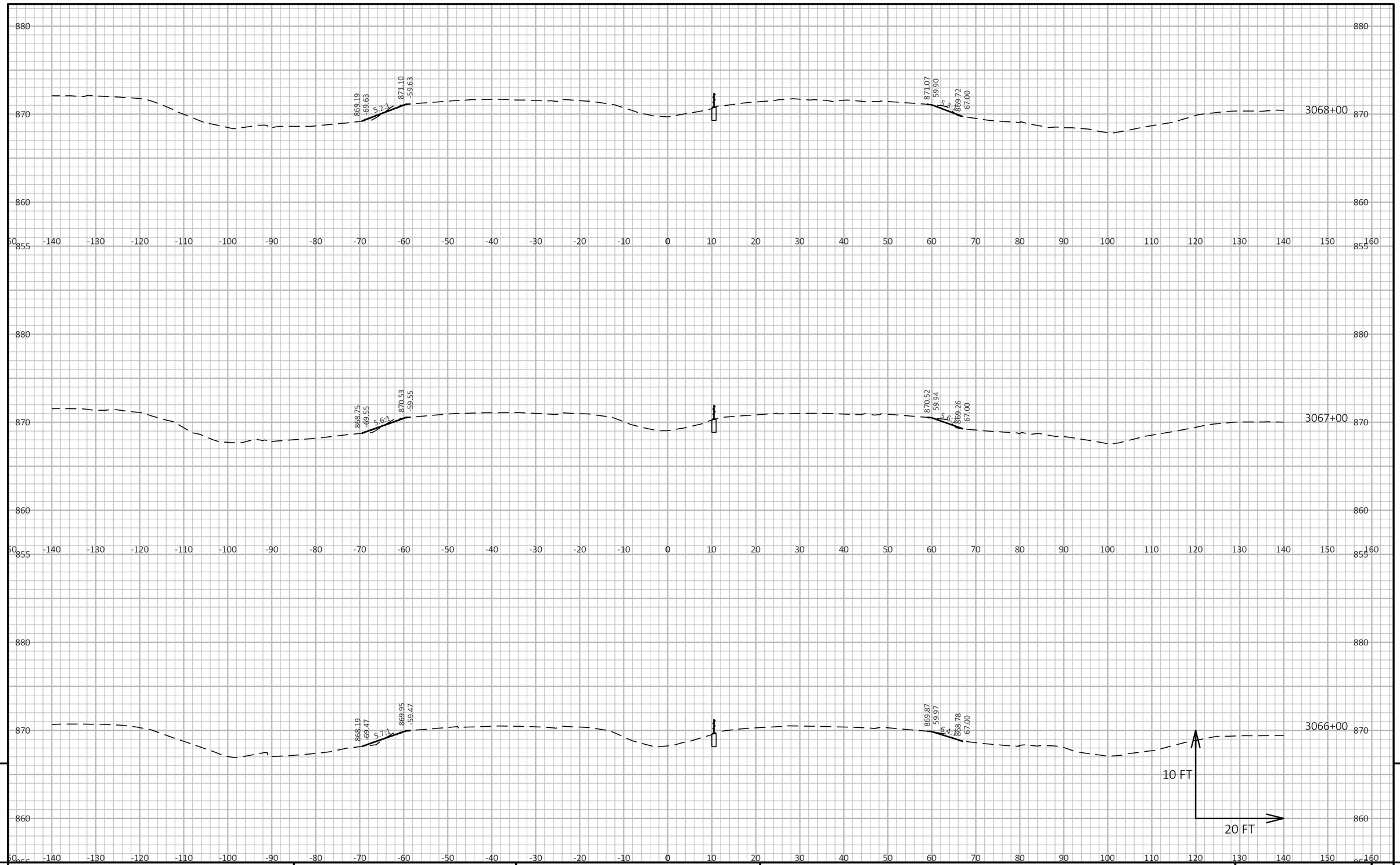
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 848	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 048

PLOT DATE : 10/26/2023 5:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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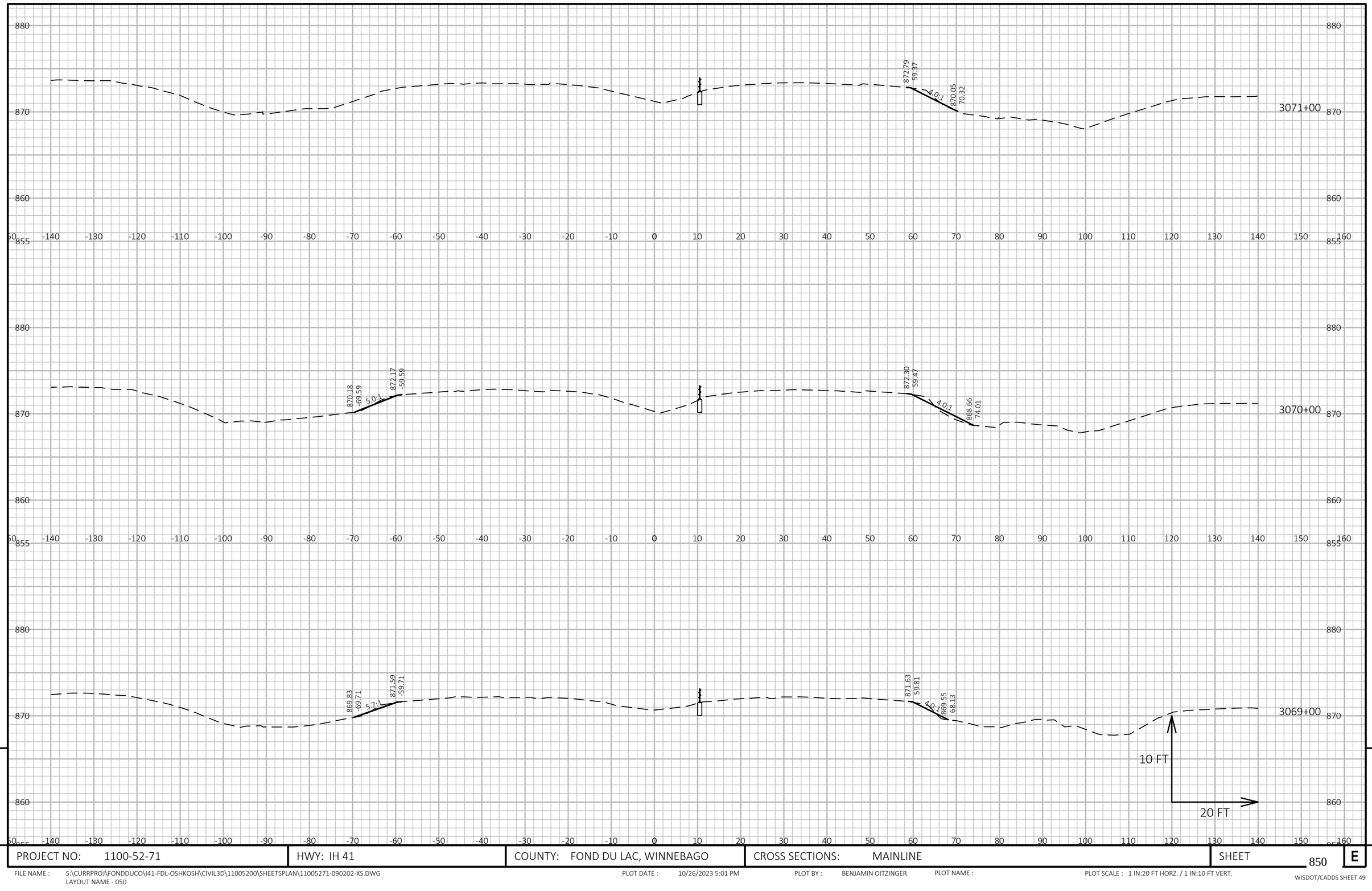
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 849	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 049

PLOT DATE : 10/26/2023 5:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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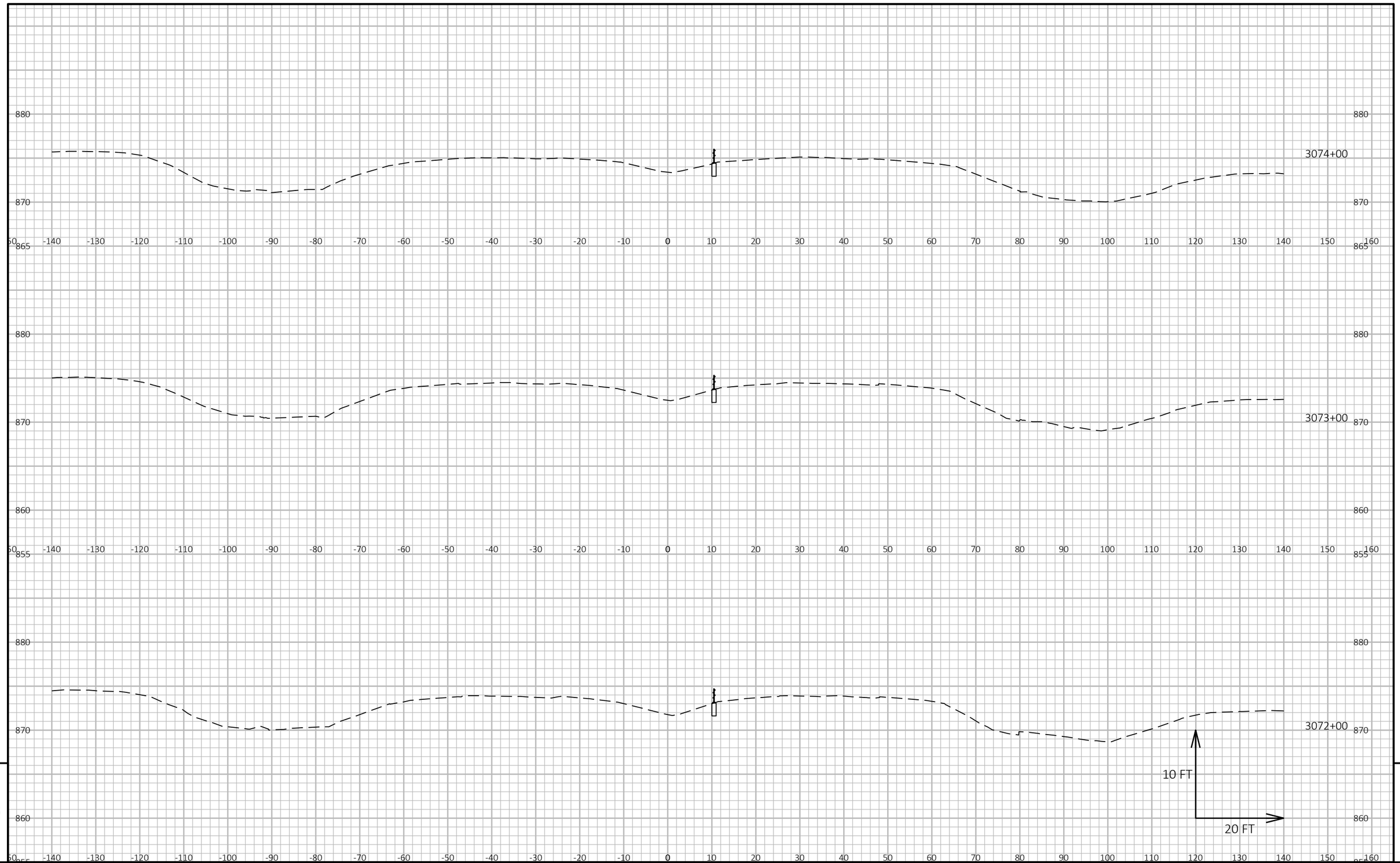
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 850	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 050

PLOT DATE : 10/26/2023 5:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

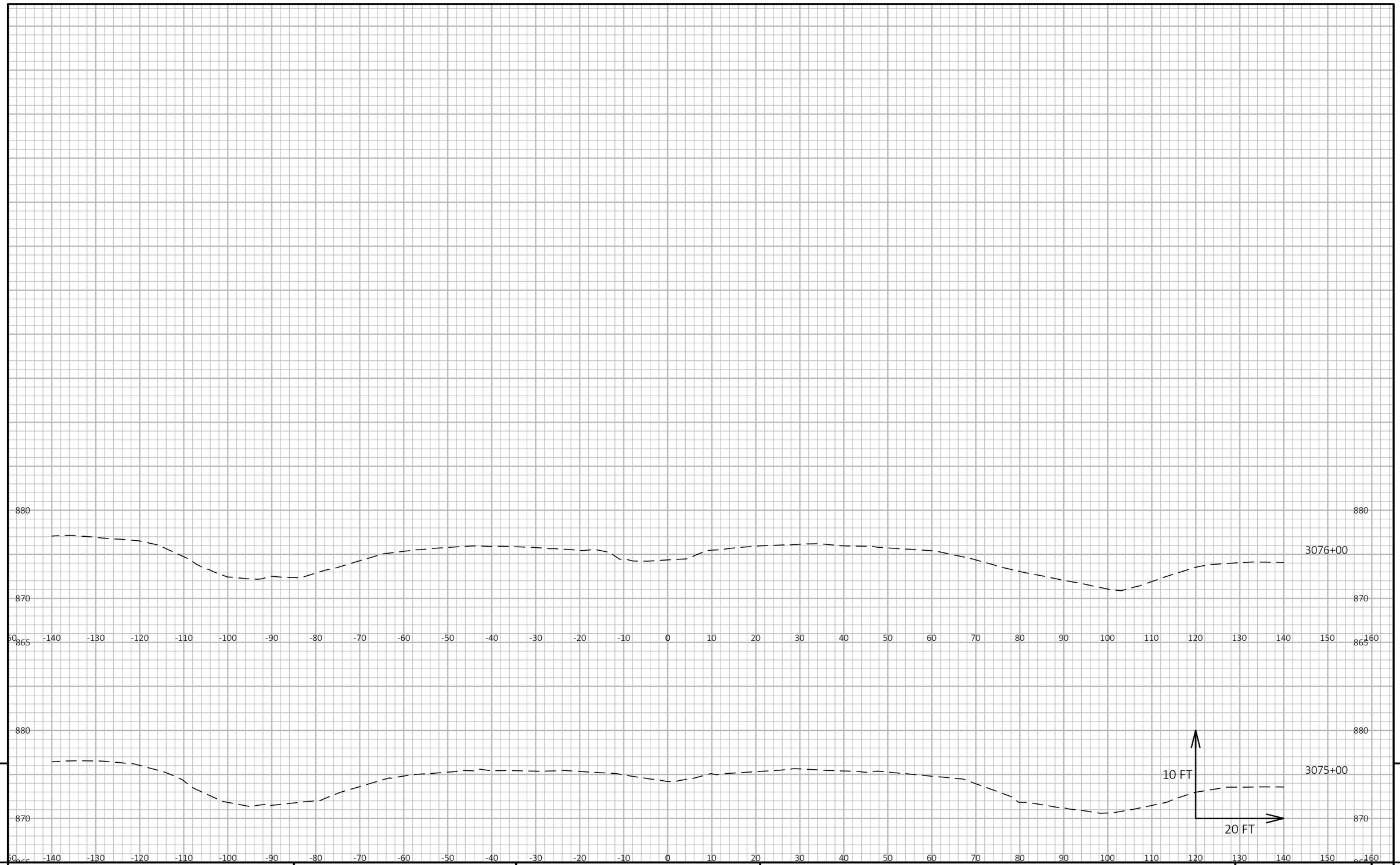


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 851	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 051

PLOT DATE : 10/26/2023 5:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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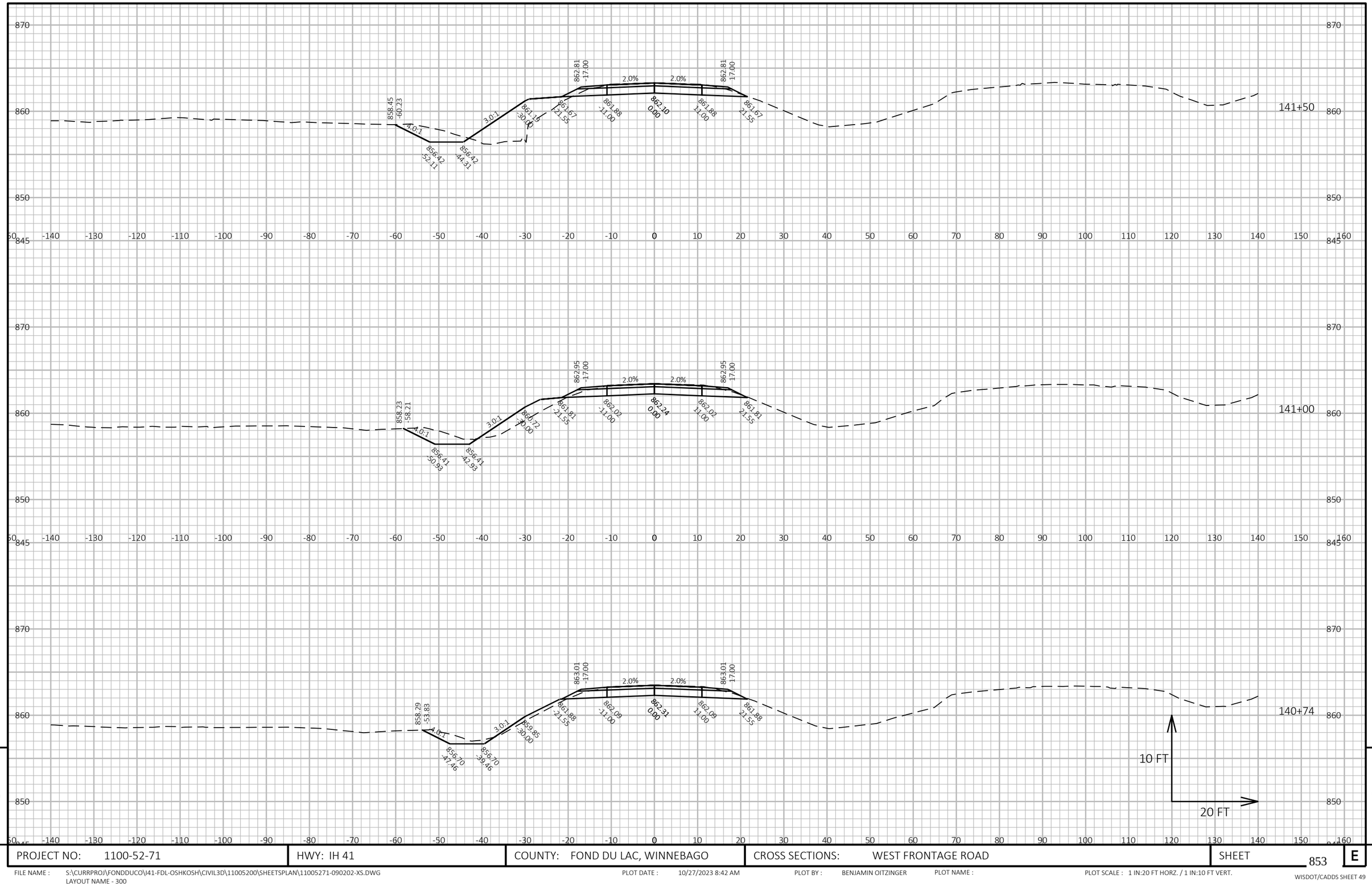
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: MAINLINE	SHEET 852	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 052

PLOT DATE : 10/26/2023 5:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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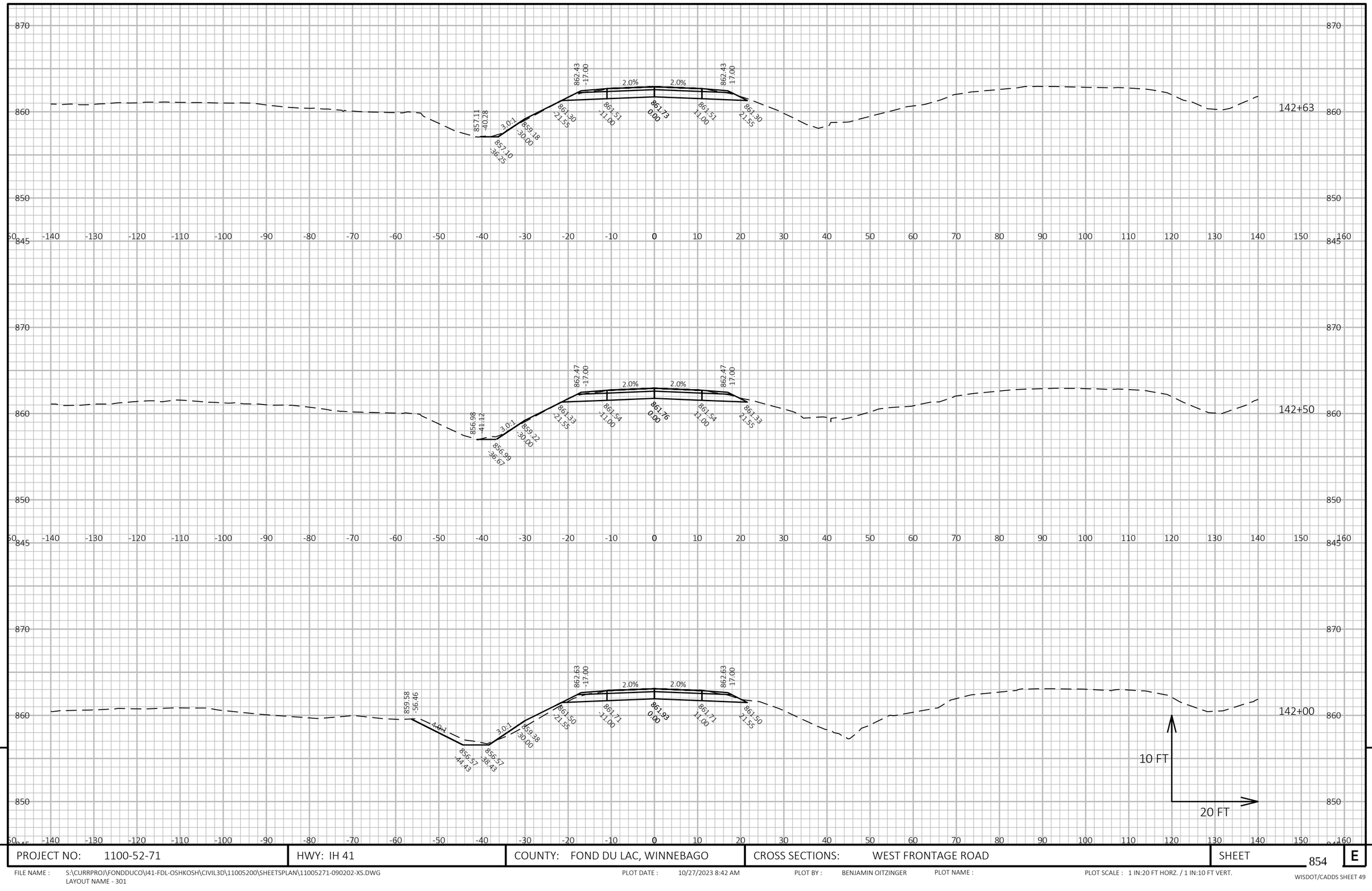
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: WEST FRONTAGE ROAD	SHEET 853	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 300

PLOT DATE : 10/27/2023 8:42 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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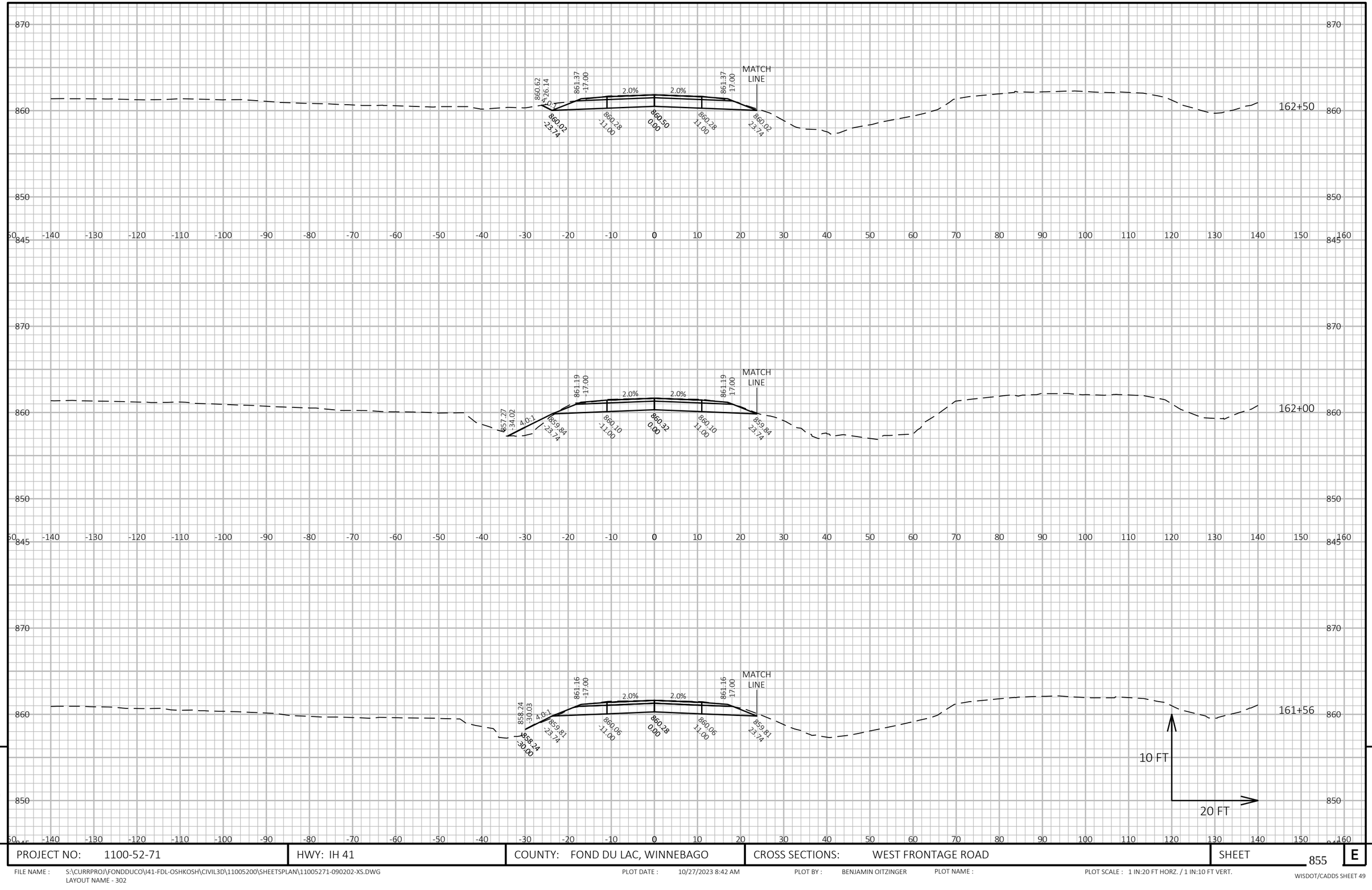
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: WEST FRONTAGE ROAD	SHEET 854 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 301

PLOT DATE : 10/27/2023 8:42 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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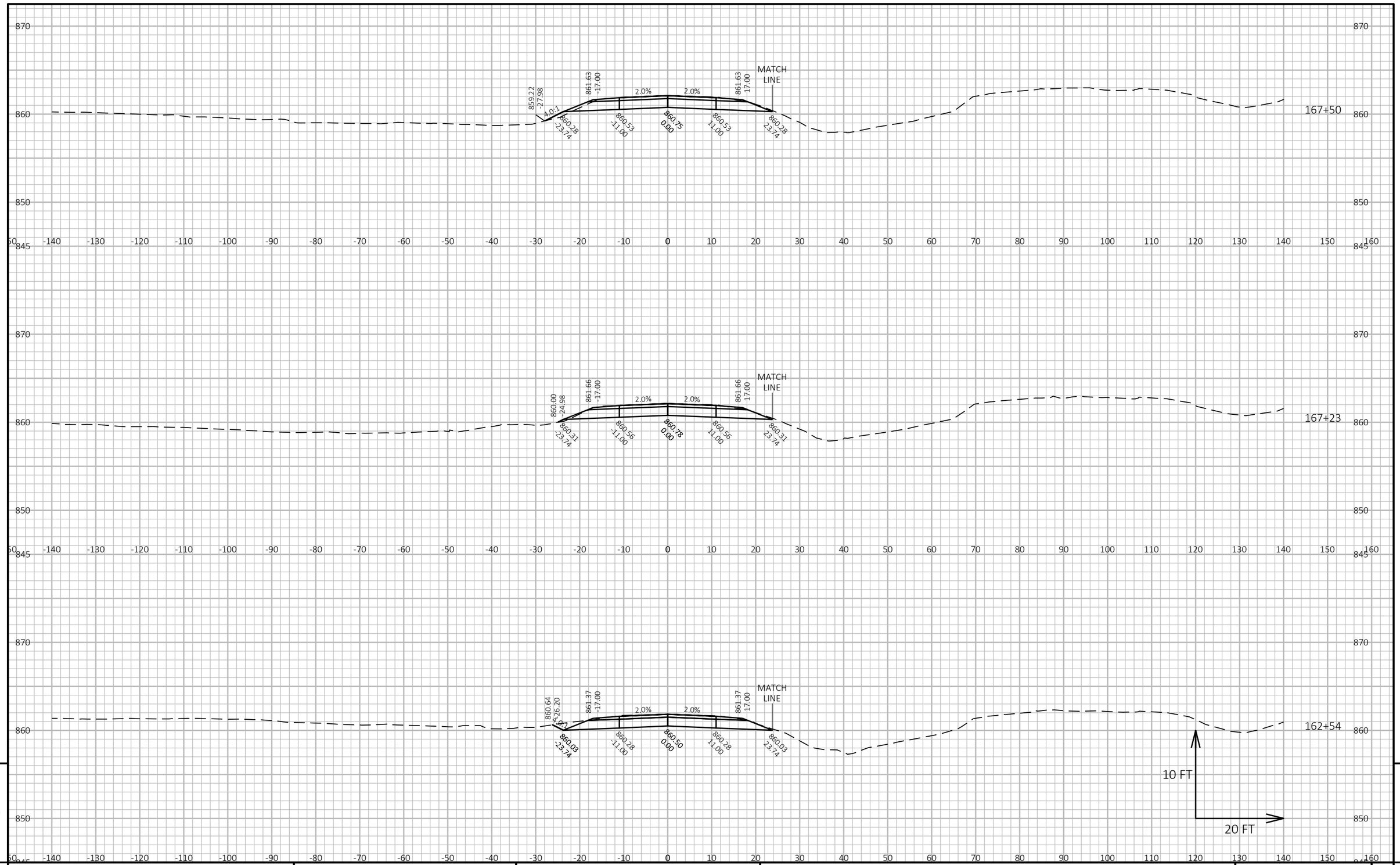
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: WEST FRONTAGE ROAD	SHEET 855	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 302

PLOT DATE : 10/27/2023 8:42 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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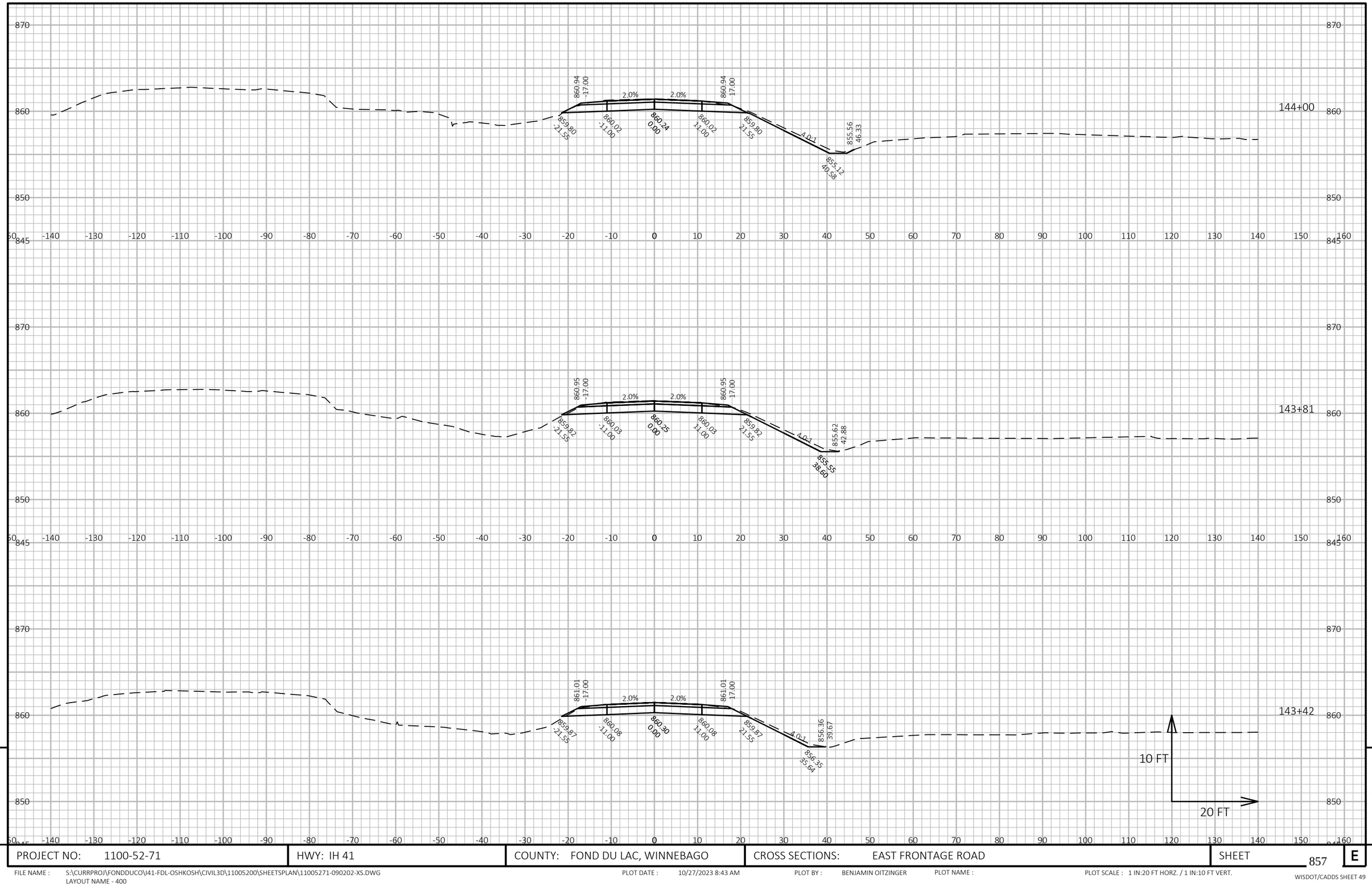
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: WEST FRONTAGE ROAD	SHEET 856	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 303

PLOT DATE : 10/27/2023 8:43 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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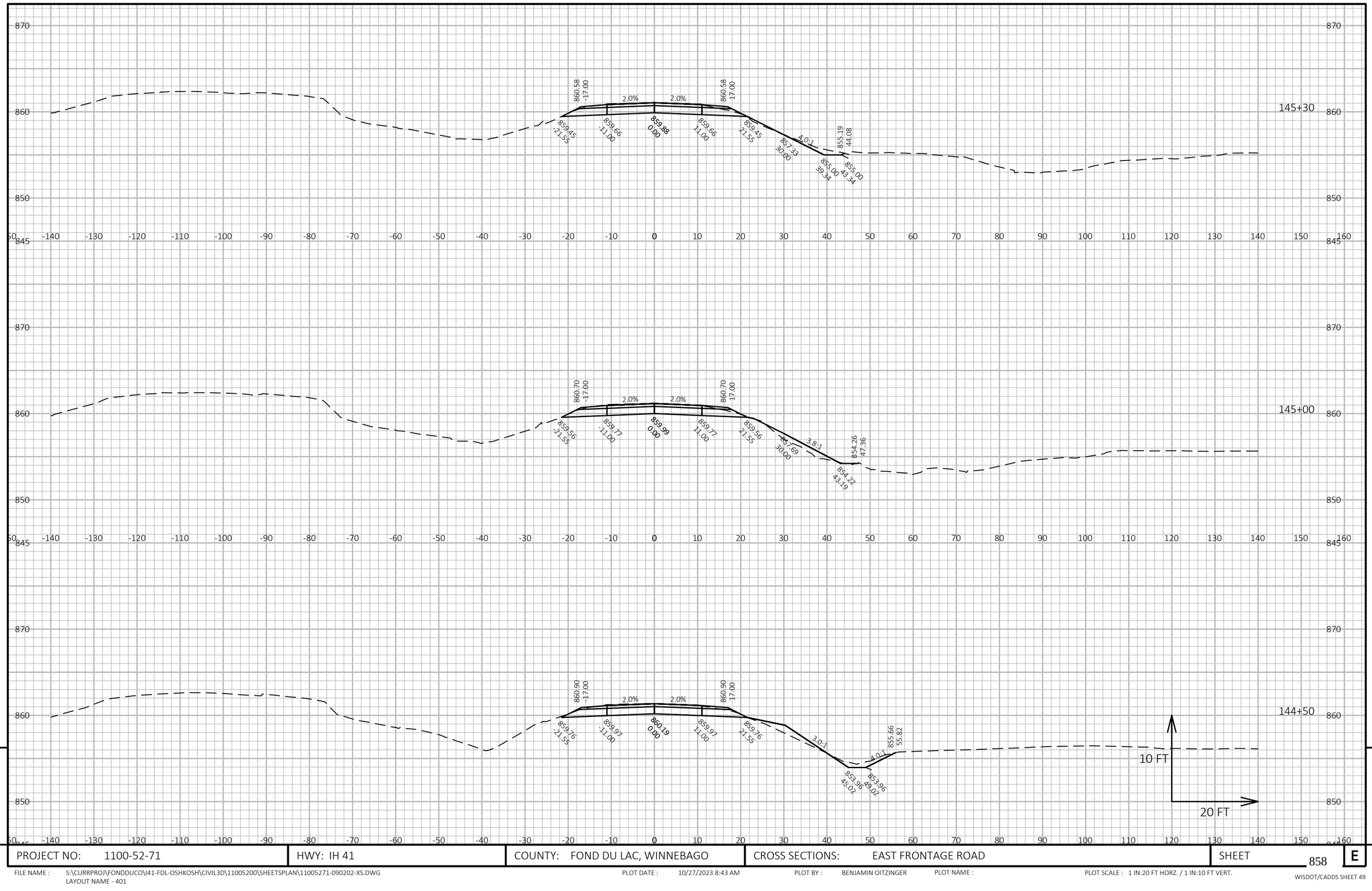
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: EAST FRONTAGE ROAD	SHEET 857	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 400

PLOT DATE : 10/27/2023 8:43 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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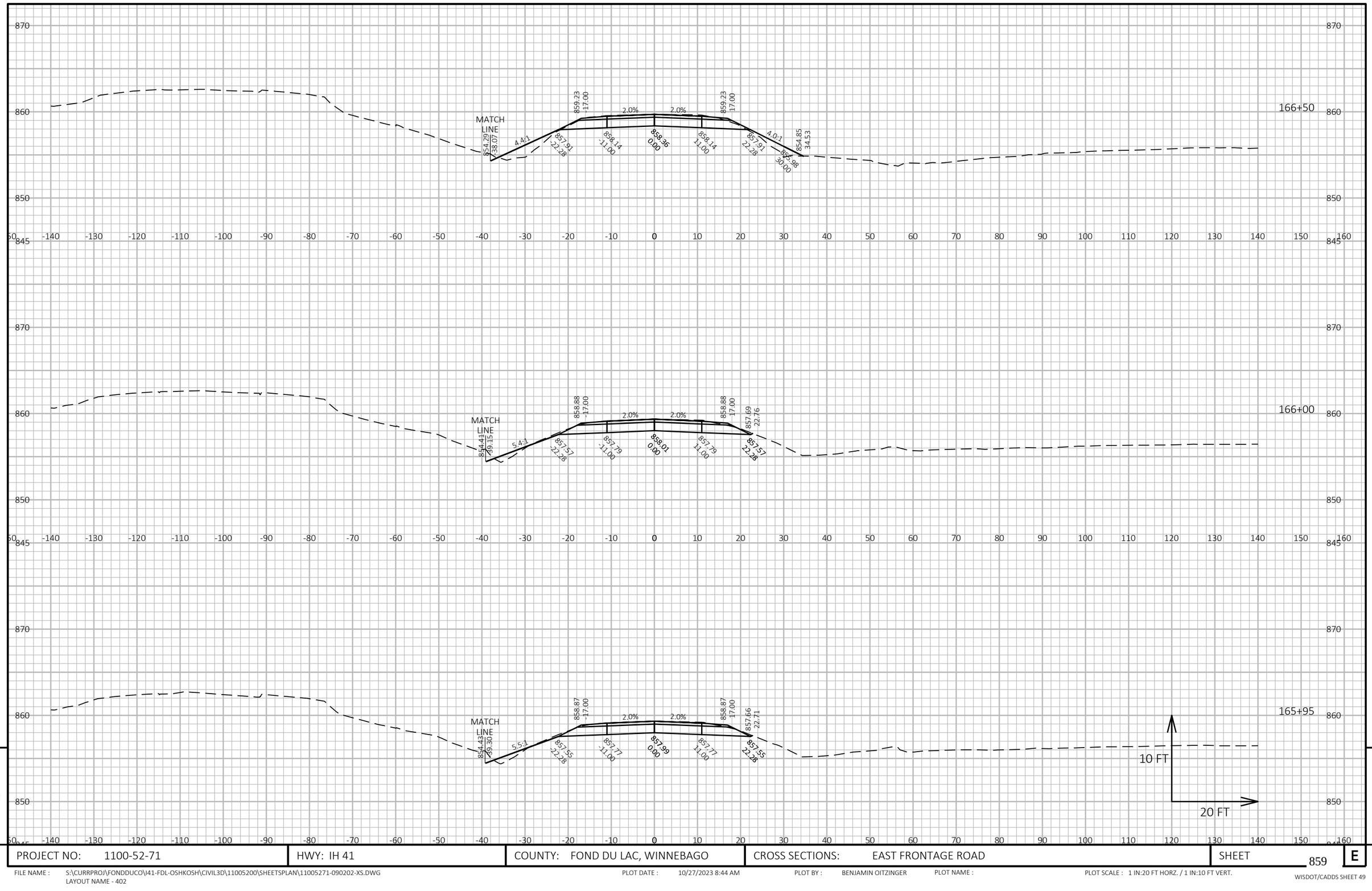
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: EAST FRONTAGE ROAD	SHEET 858 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 401

PLOT DATE : 10/27/2023 8:43 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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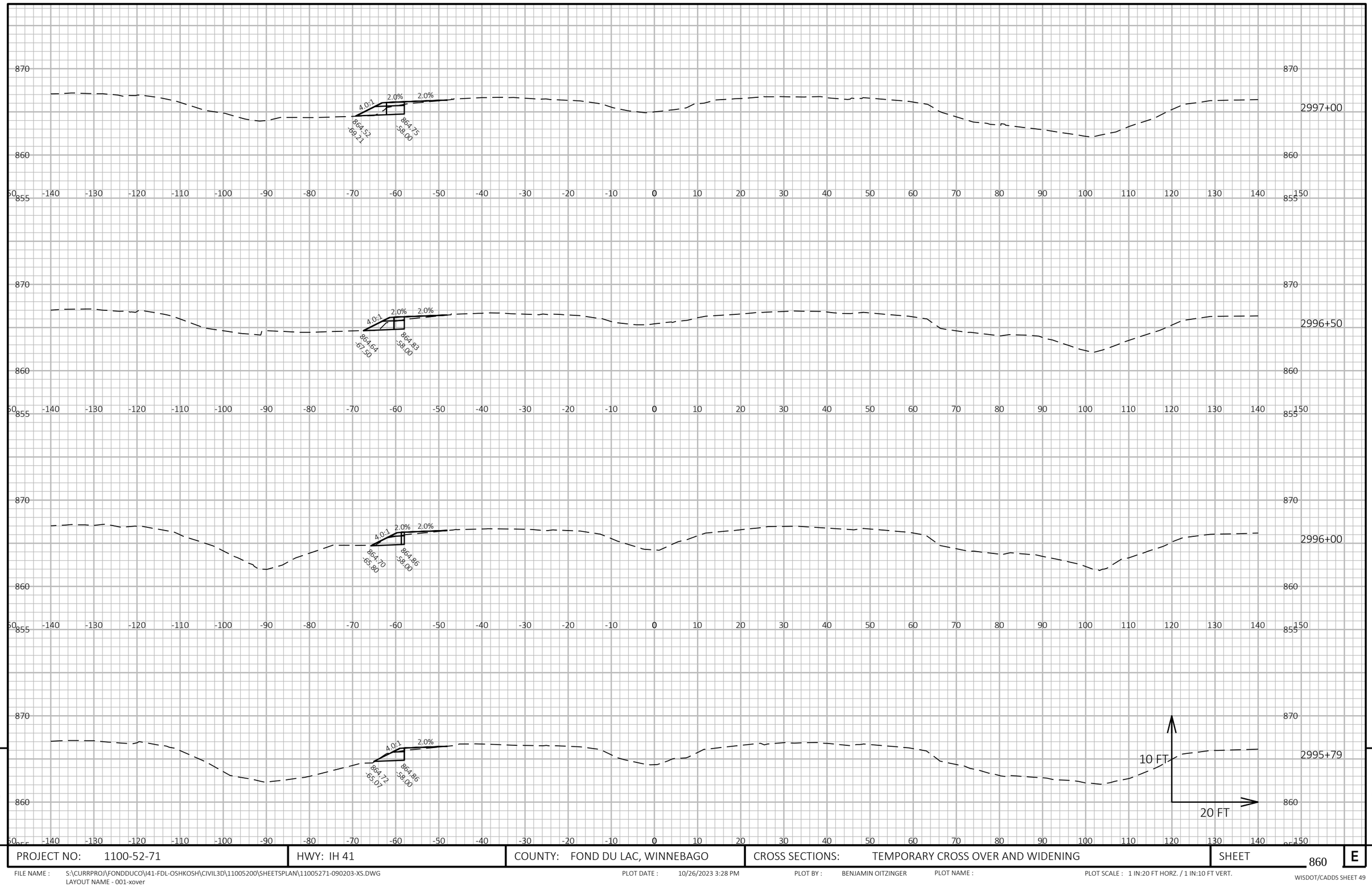
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: EAST FRONTAGE ROAD	SHEET 859	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090202-XS.DWG
LAYOUT NAME - 402

PLOT DATE : 10/27/2023 8:44 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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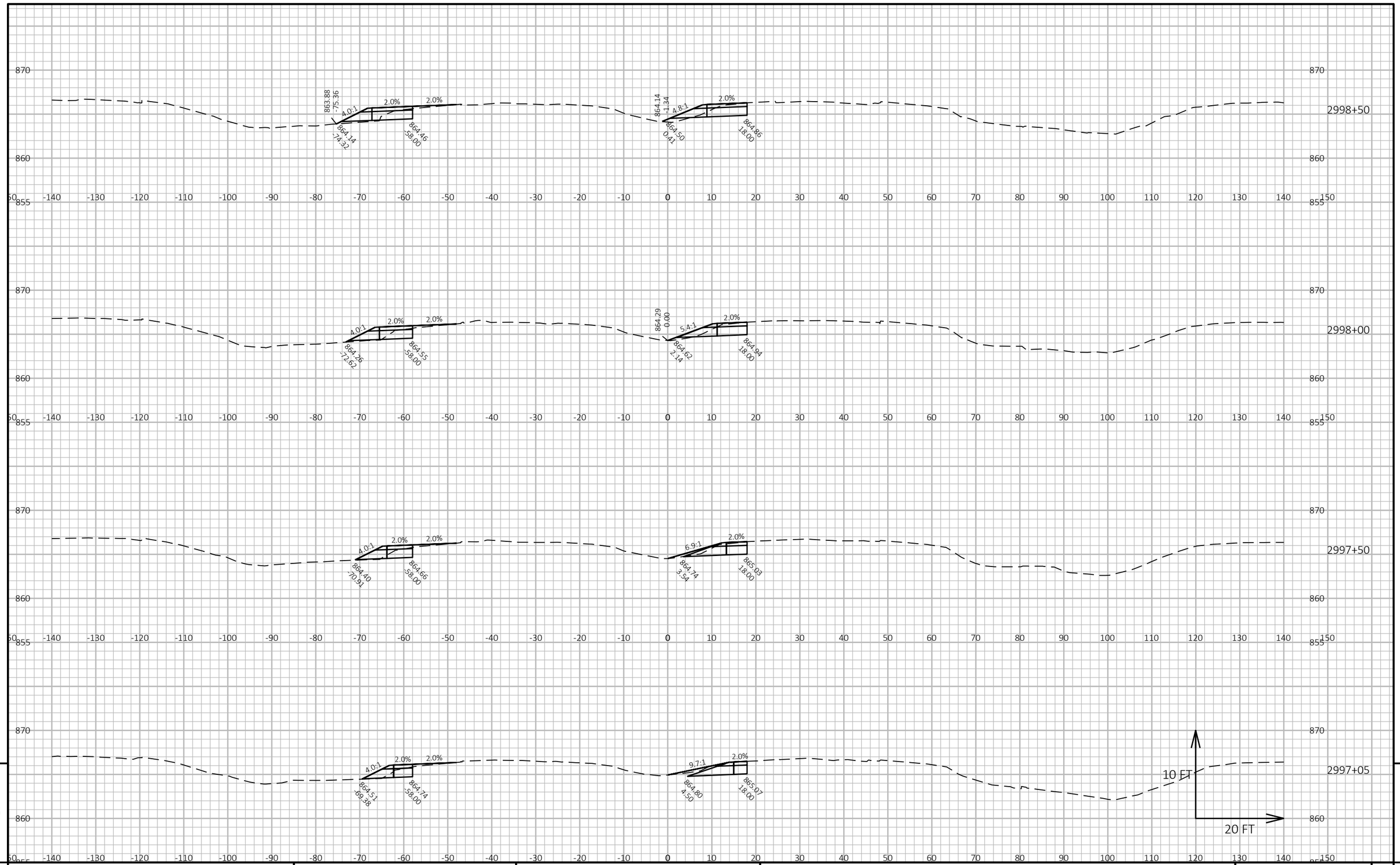
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 860	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 001-xover

PLOT DATE : 10/26/2023 3:28 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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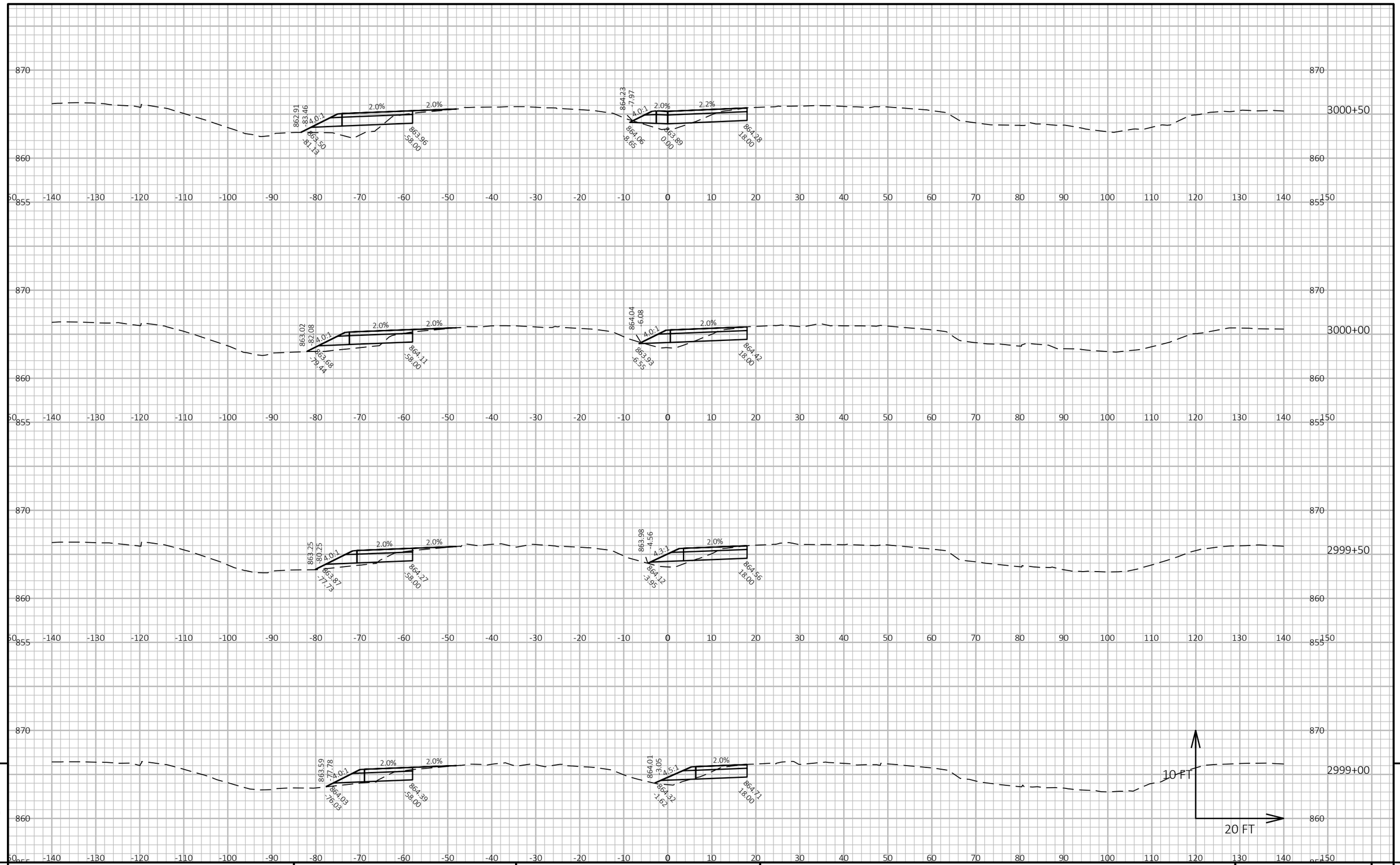
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 861	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 002-xover

PLOT DATE : 10/26/2023 3:28 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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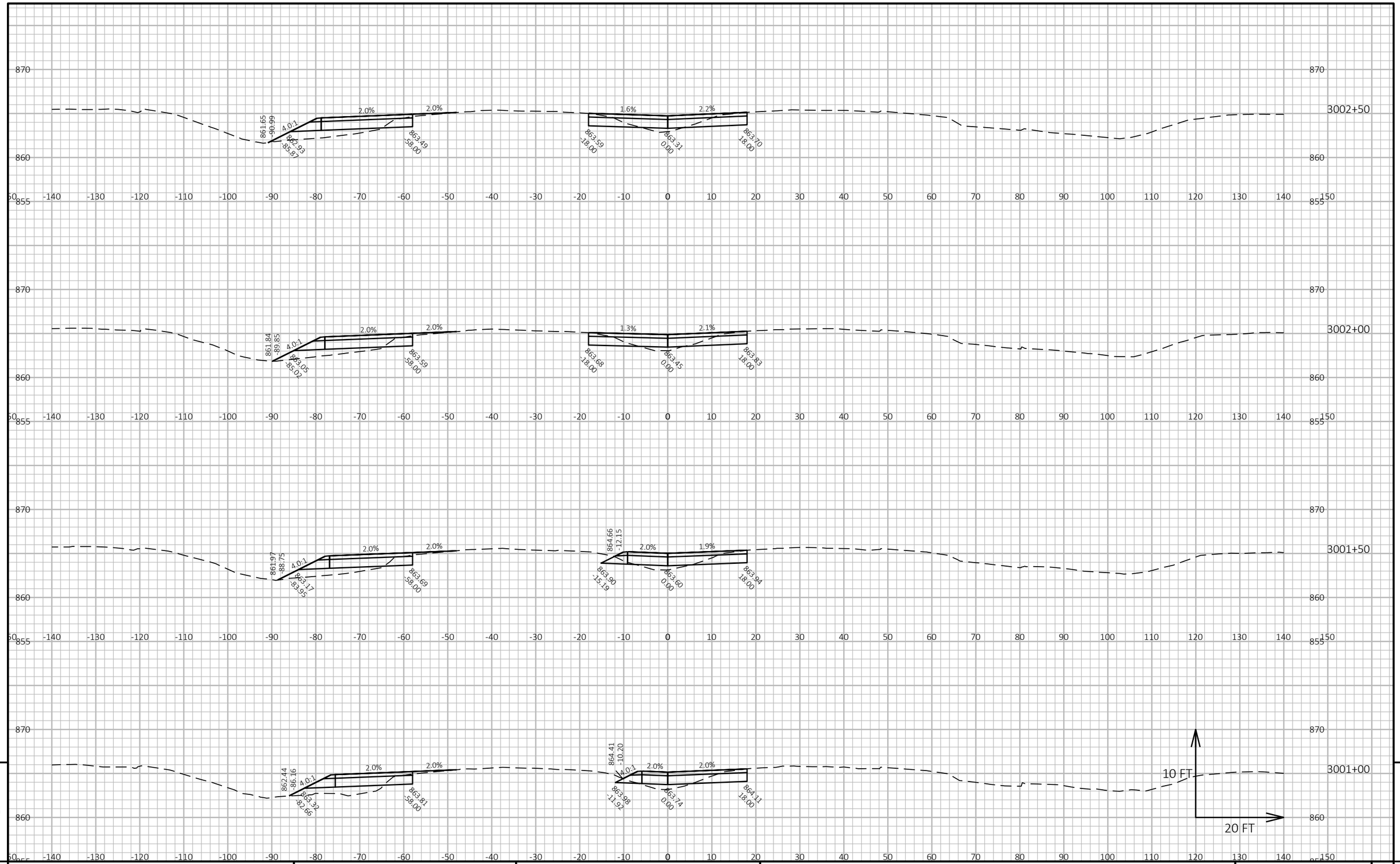
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 862	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 003-xover

PLOT DATE : 10/26/2023 3:29 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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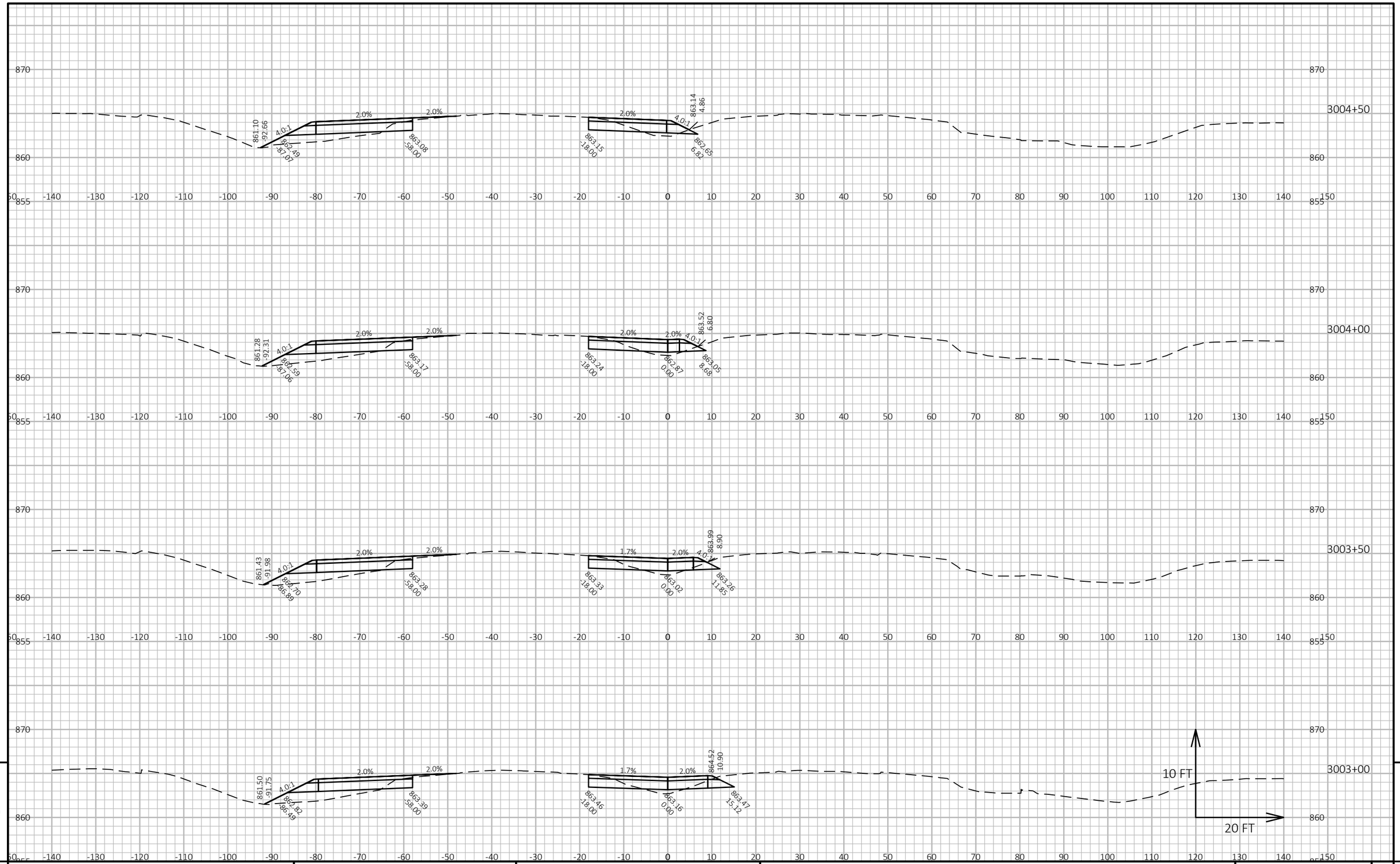
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 863	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 004-xover

PLOT DATE : 10/26/2023 3:29 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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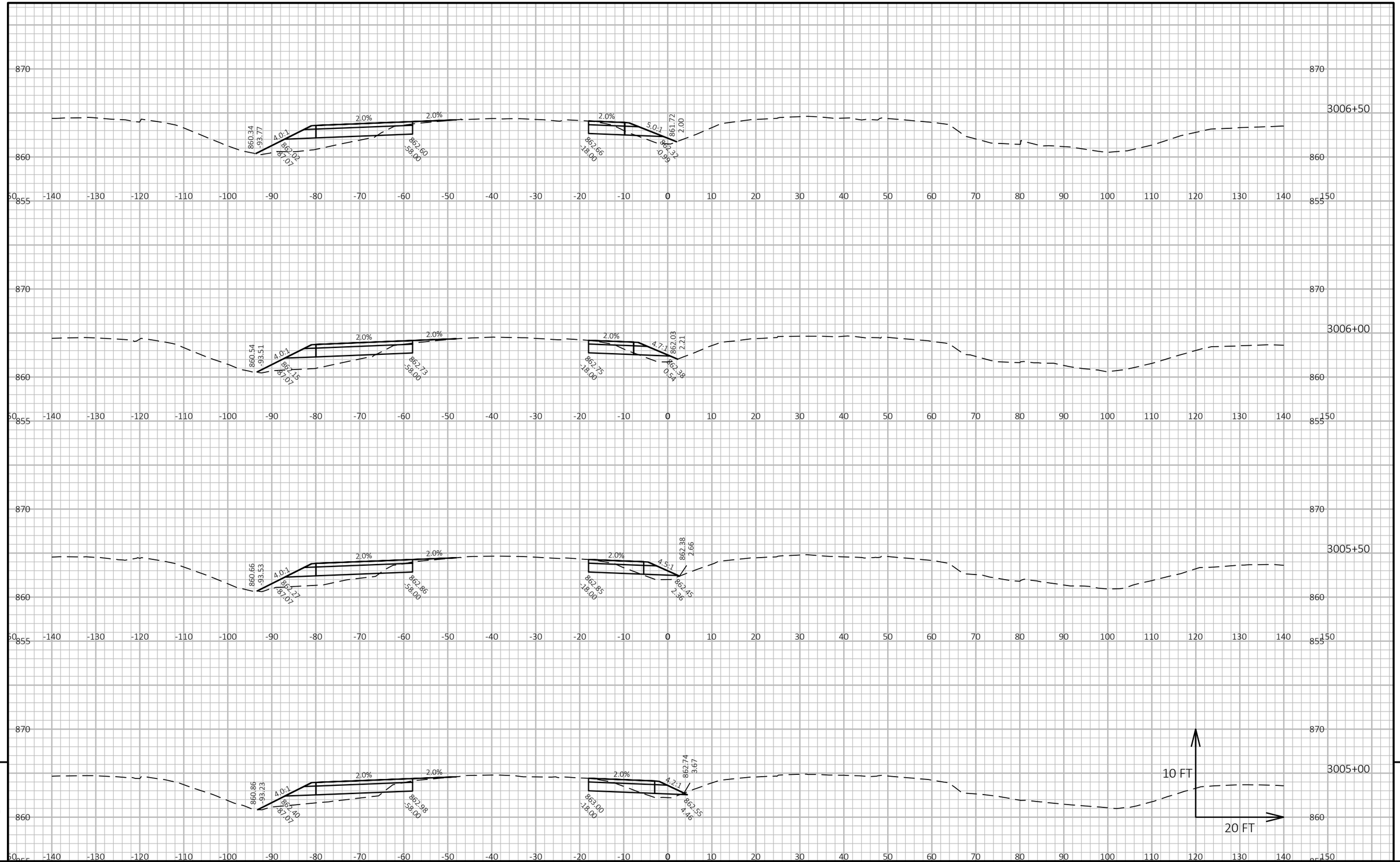
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 864	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 005-xover

PLOT DATE : 10/26/2023 3:29 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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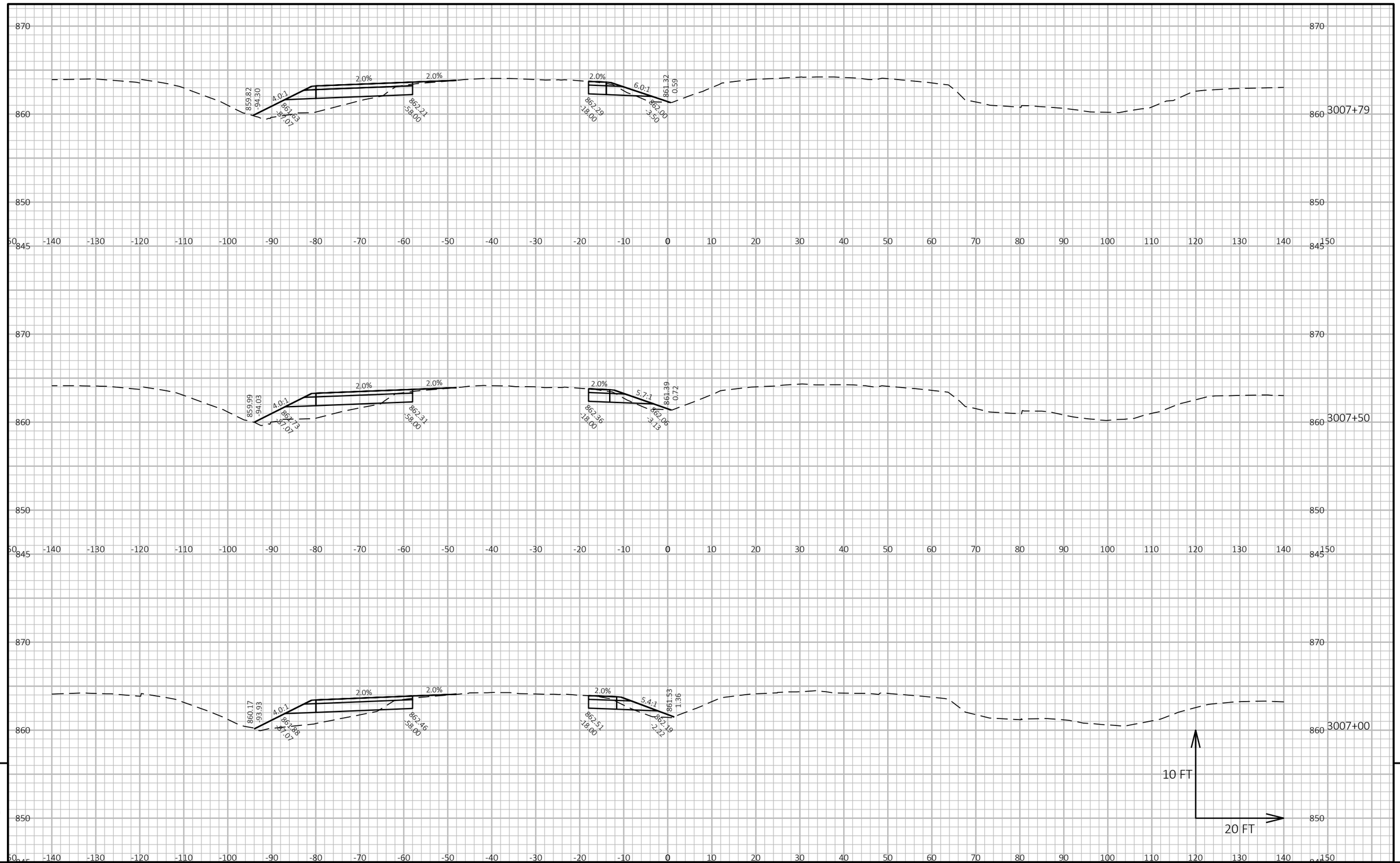
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 865	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 006-xover

PLOT DATE : 10/26/2023 3:30 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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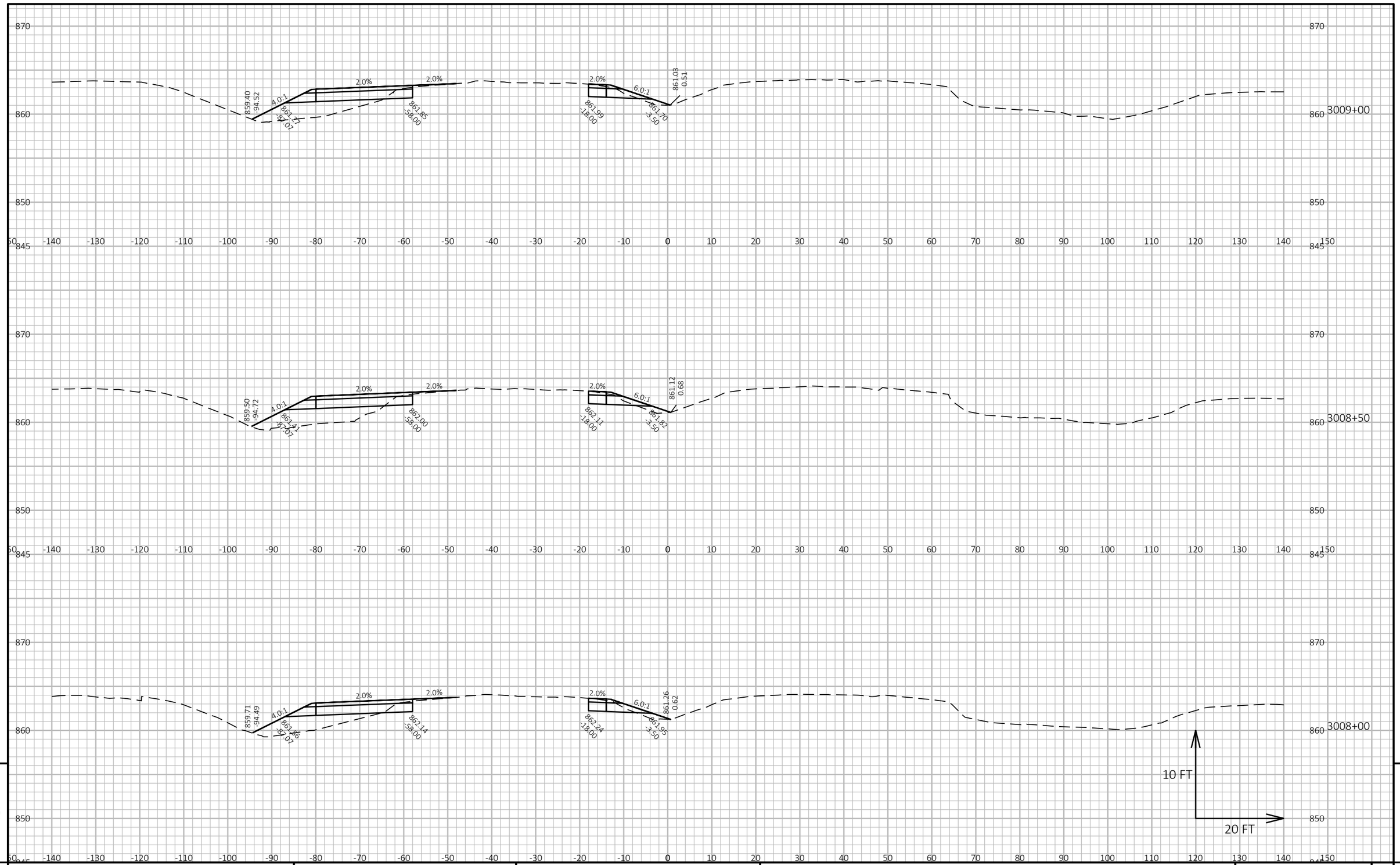
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 866	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 007-xover

PLOT DATE : 10/26/2023 3:30 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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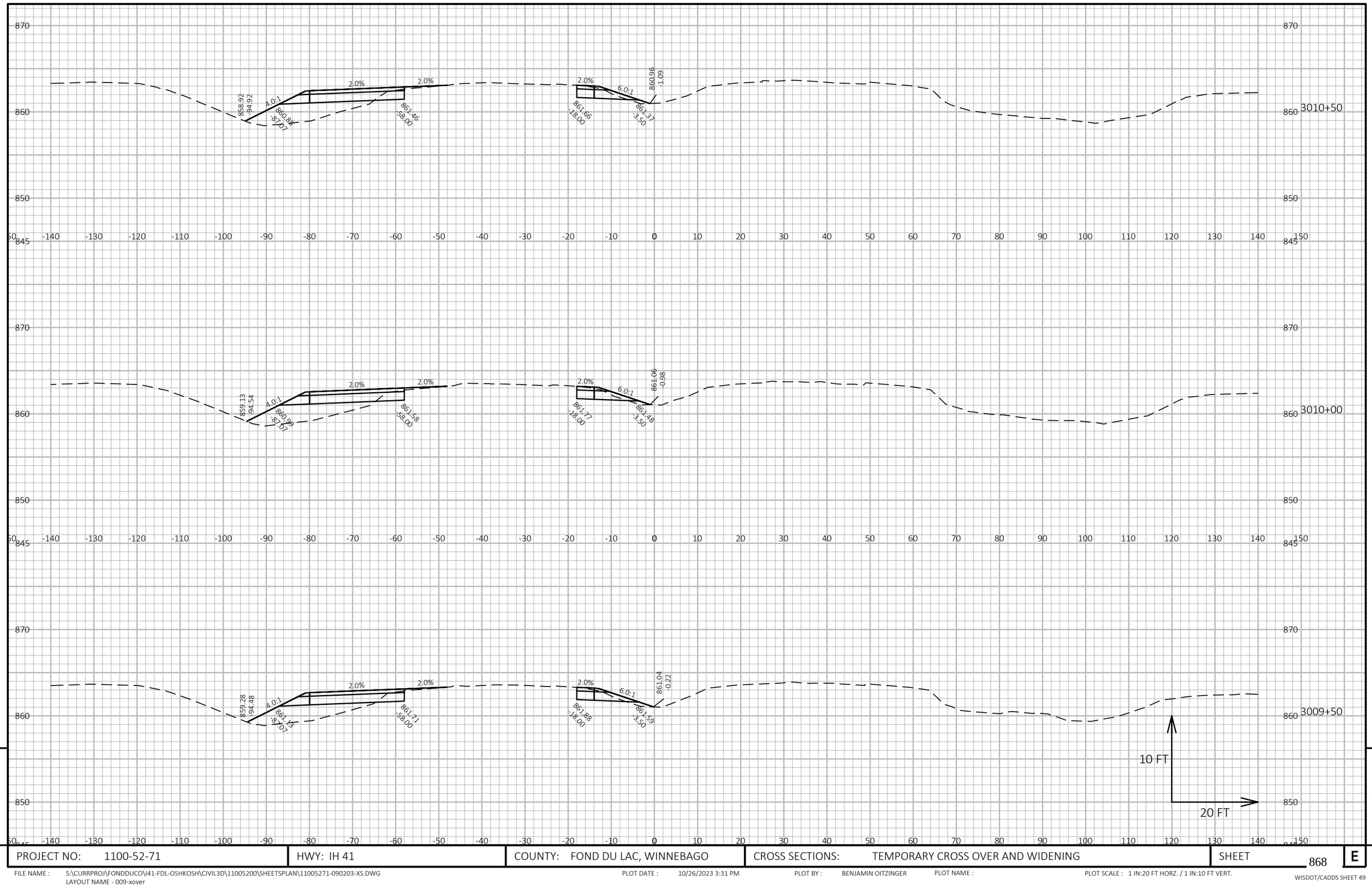
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 867	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 008-xover

PLOT DATE : 10/26/2023 3:30 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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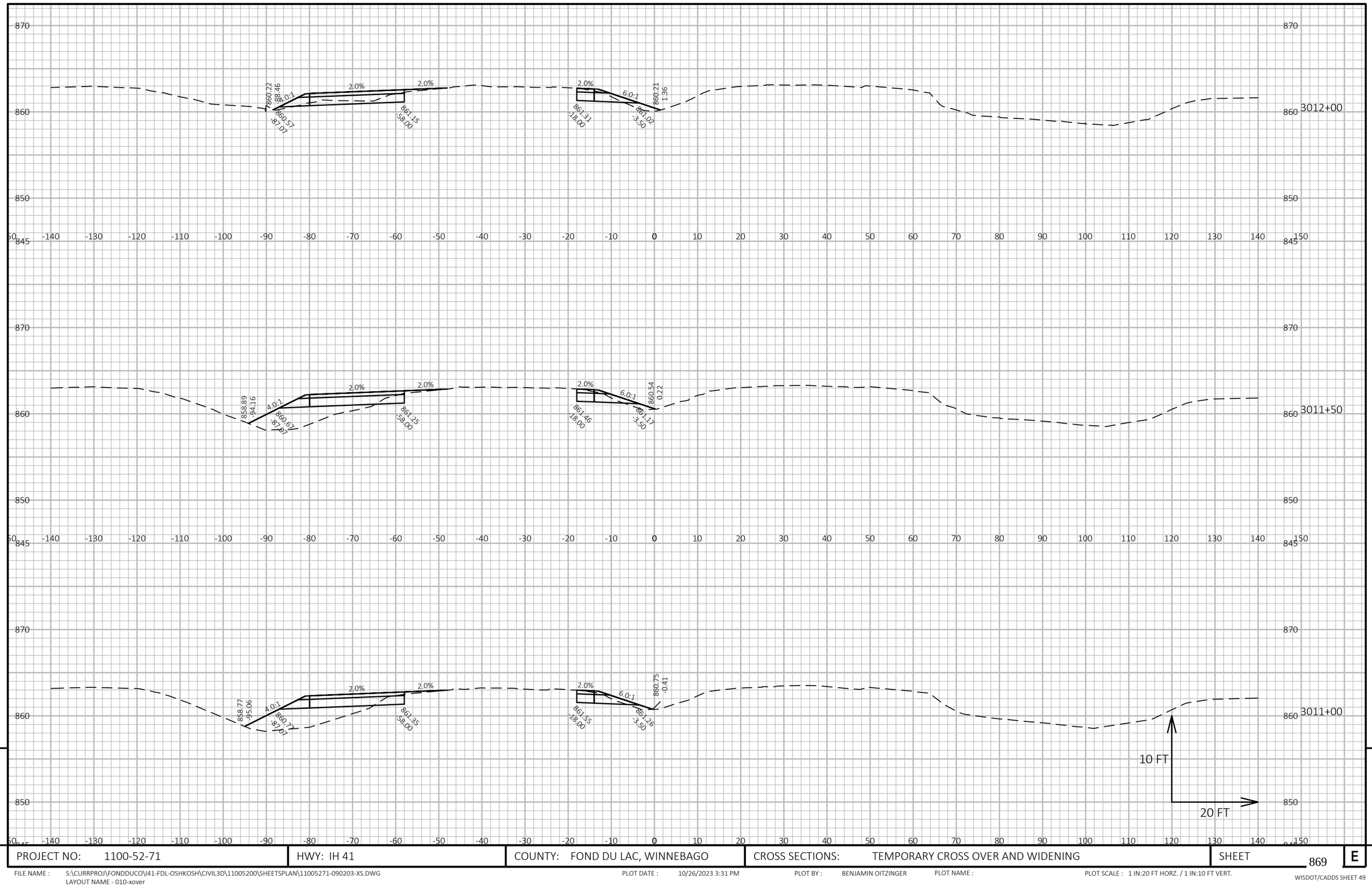
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 868	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 009-xover

PLOT DATE : 10/26/2023 3:31 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

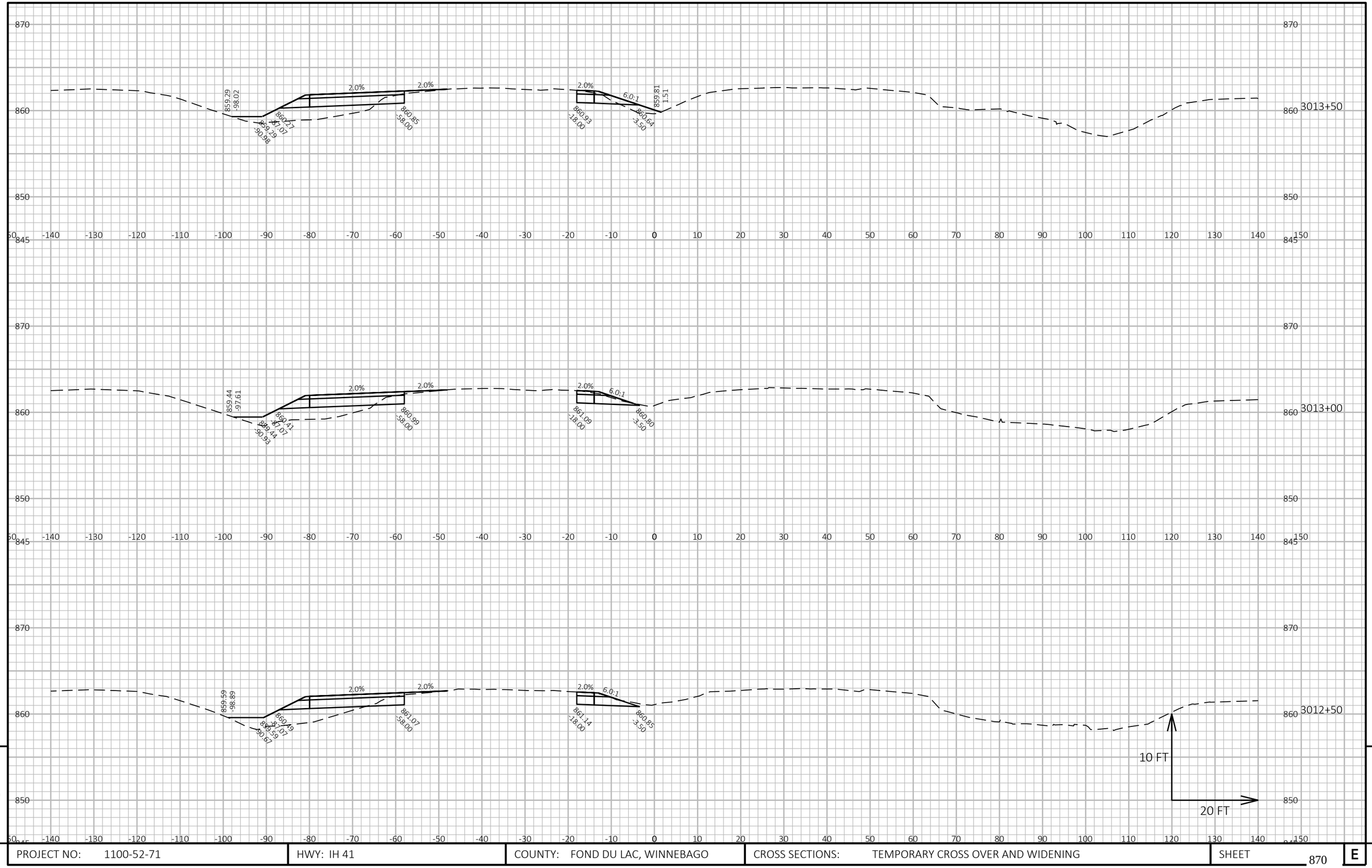


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 869 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 010-xover

PLOT DATE : 10/26/2023 3:31 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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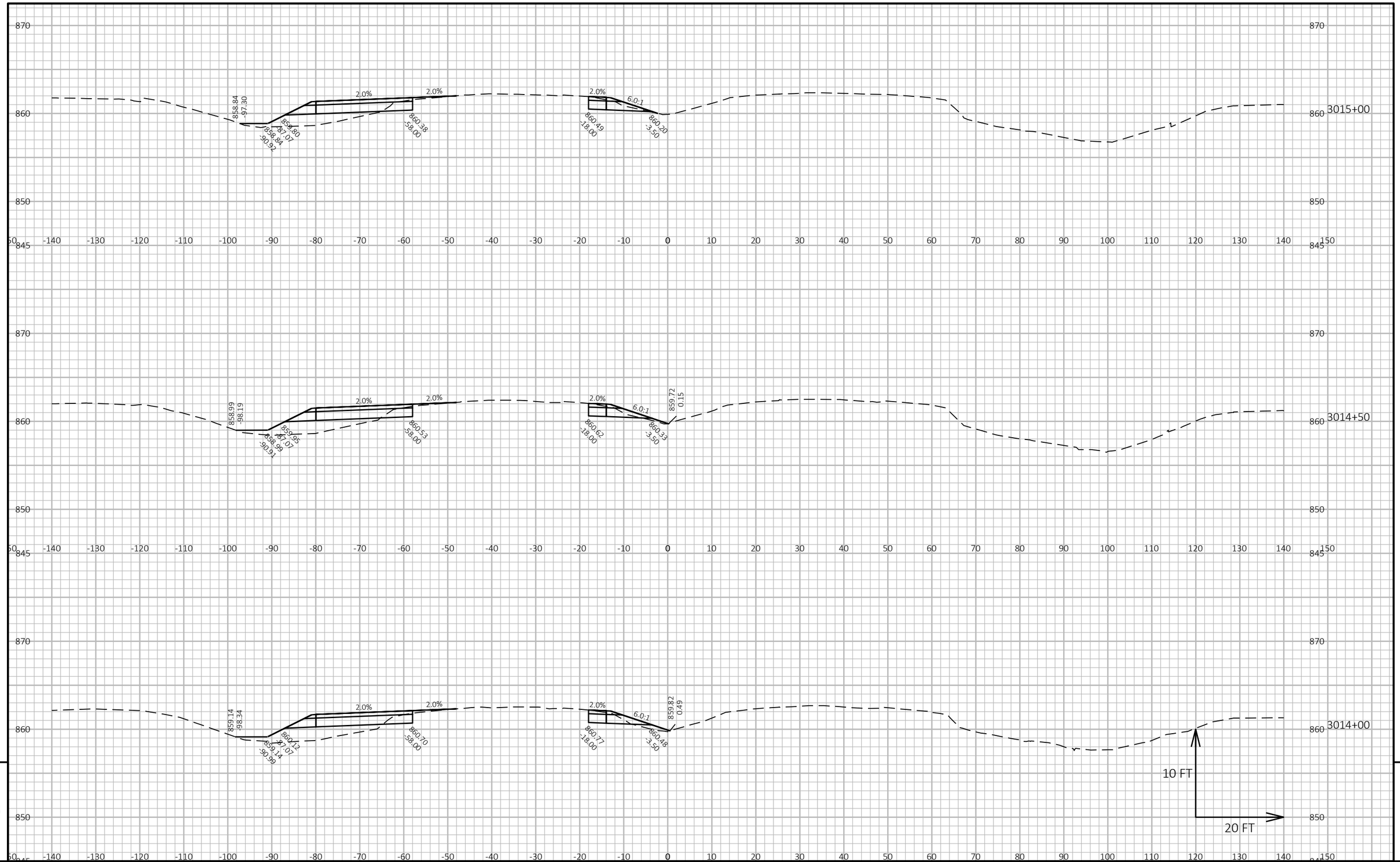
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 870	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 011-xover

PLOT DATE : 10/26/2023 3:31 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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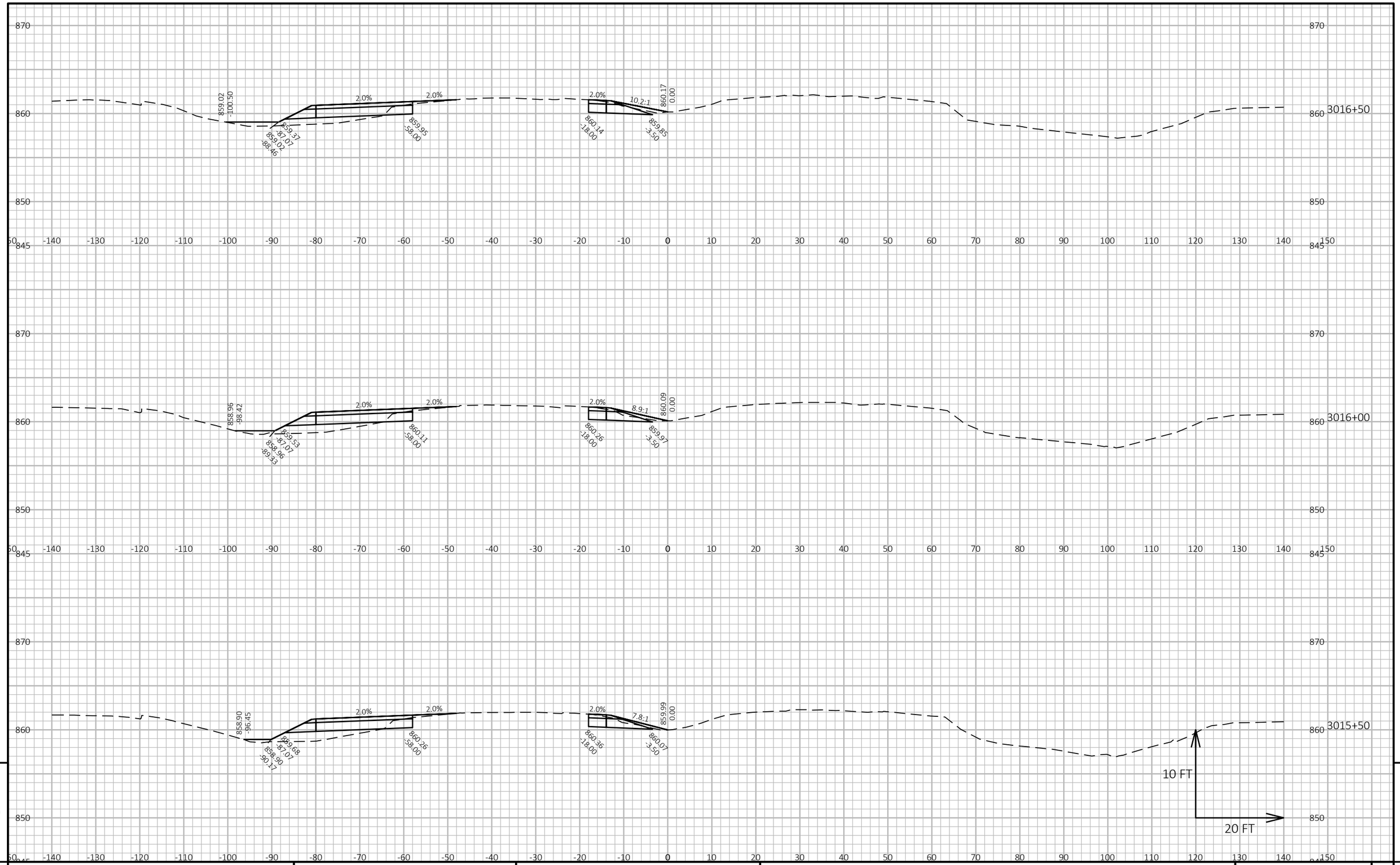
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 871	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 012-xover

PLOT DATE : 10/26/2023 3:32 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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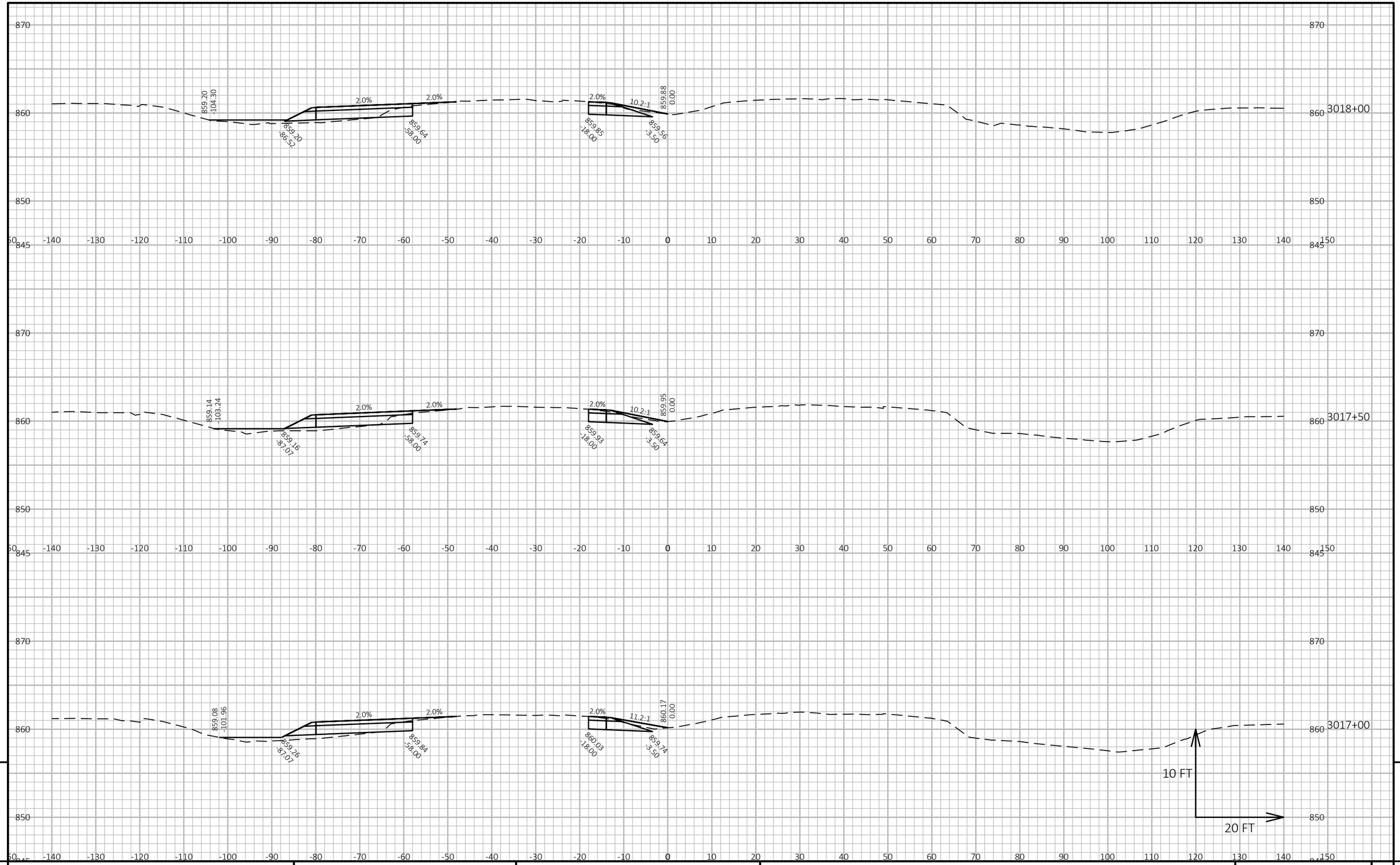
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 872	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 013-xover

PLOT DATE : 10/26/2023 3:32 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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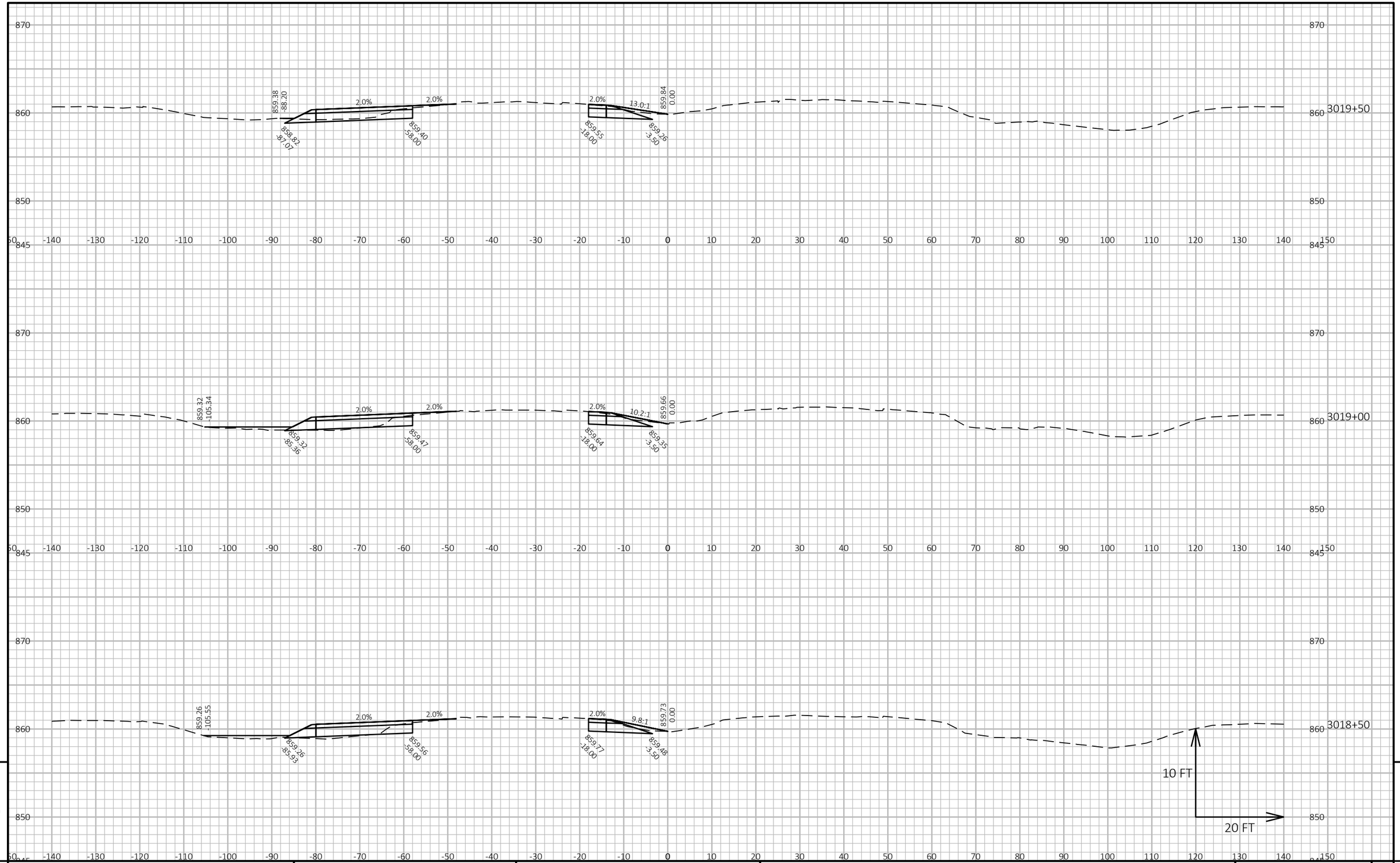
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 873	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 014-xover

PLOT DATE : 10/26/2023 3:32 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

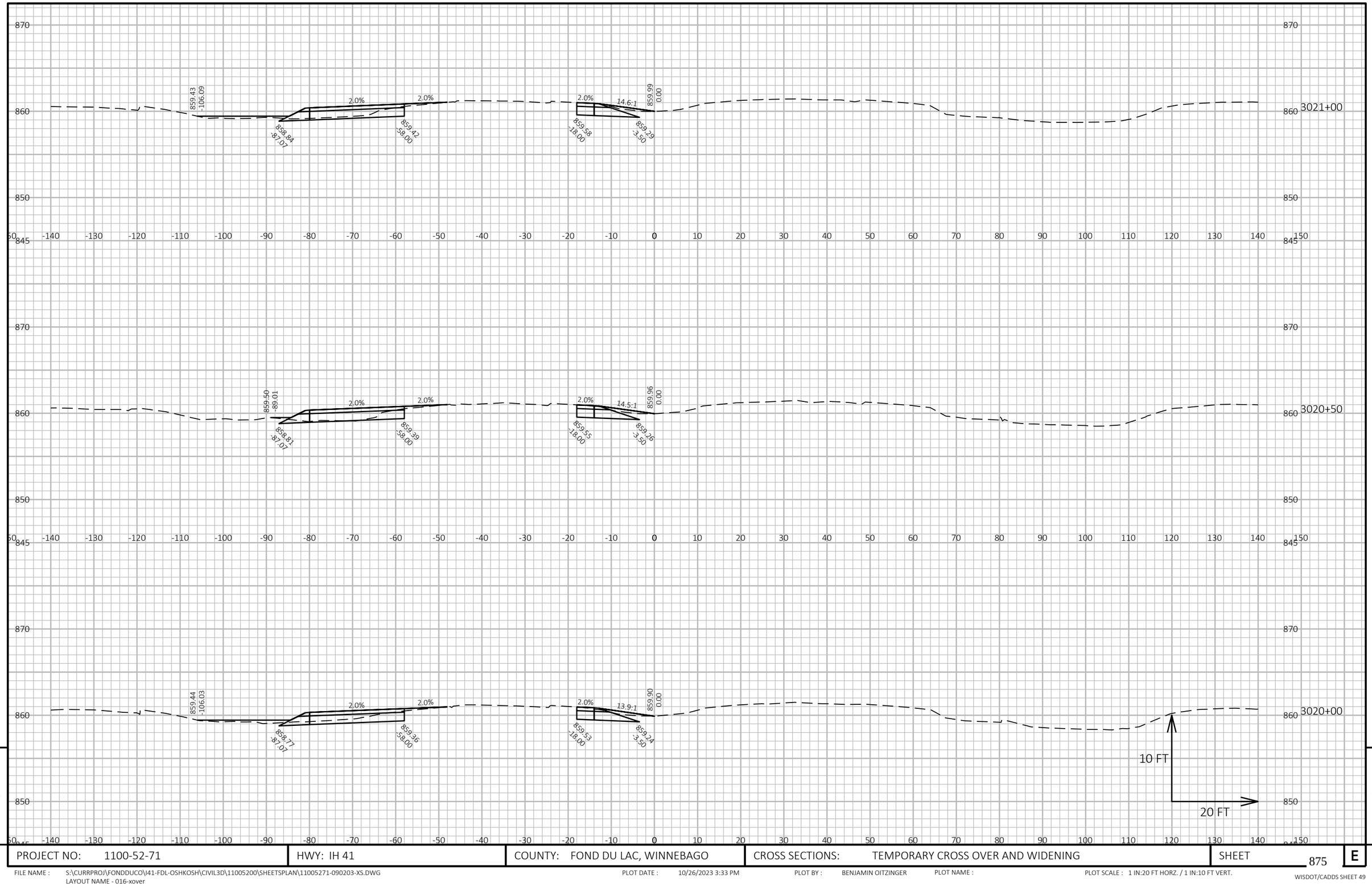


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 874	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 015-xover

PLOT DATE : 10/26/2023 3:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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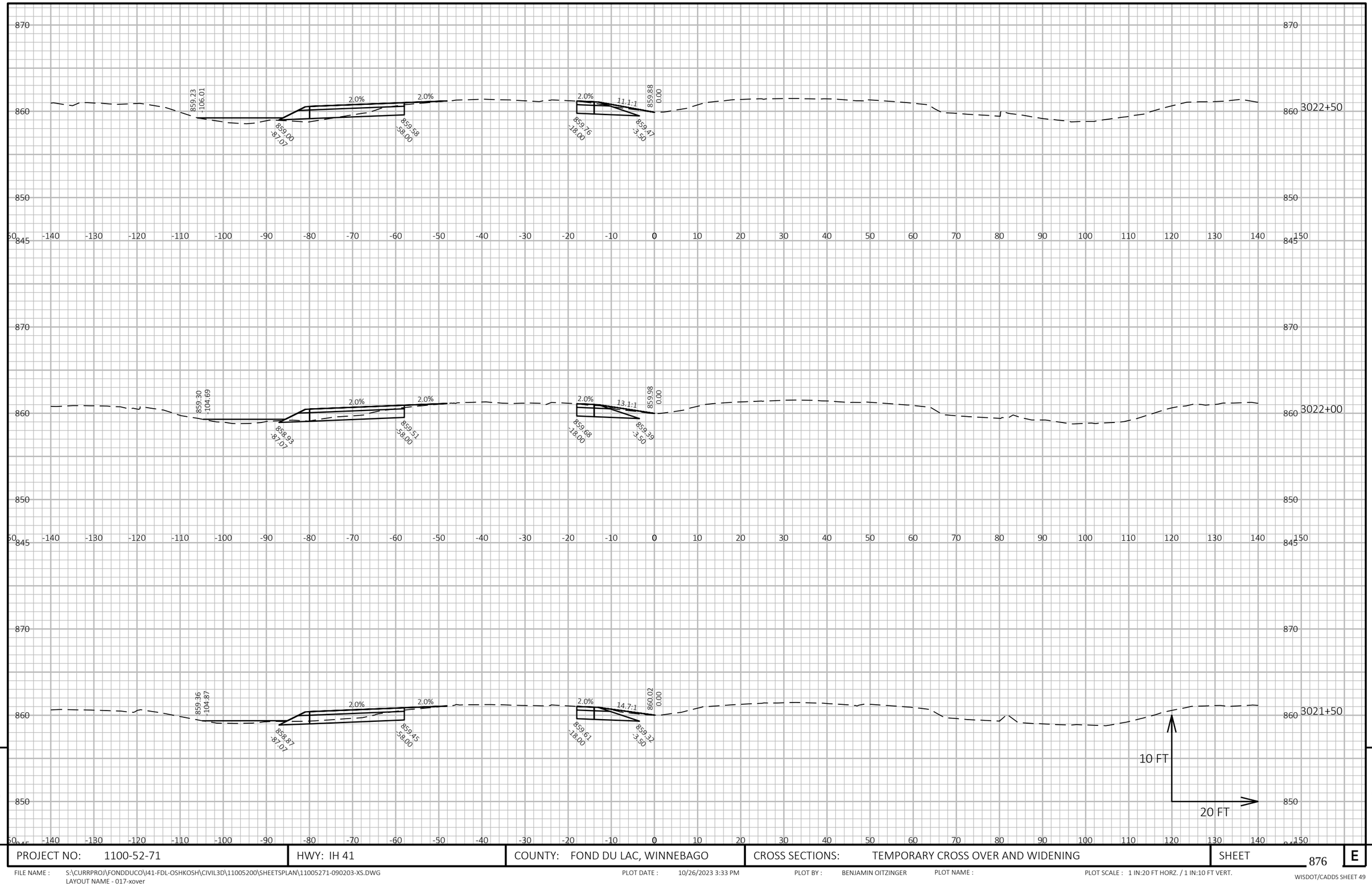
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 875	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 016-xover

PLOT DATE : 10/26/2023 3:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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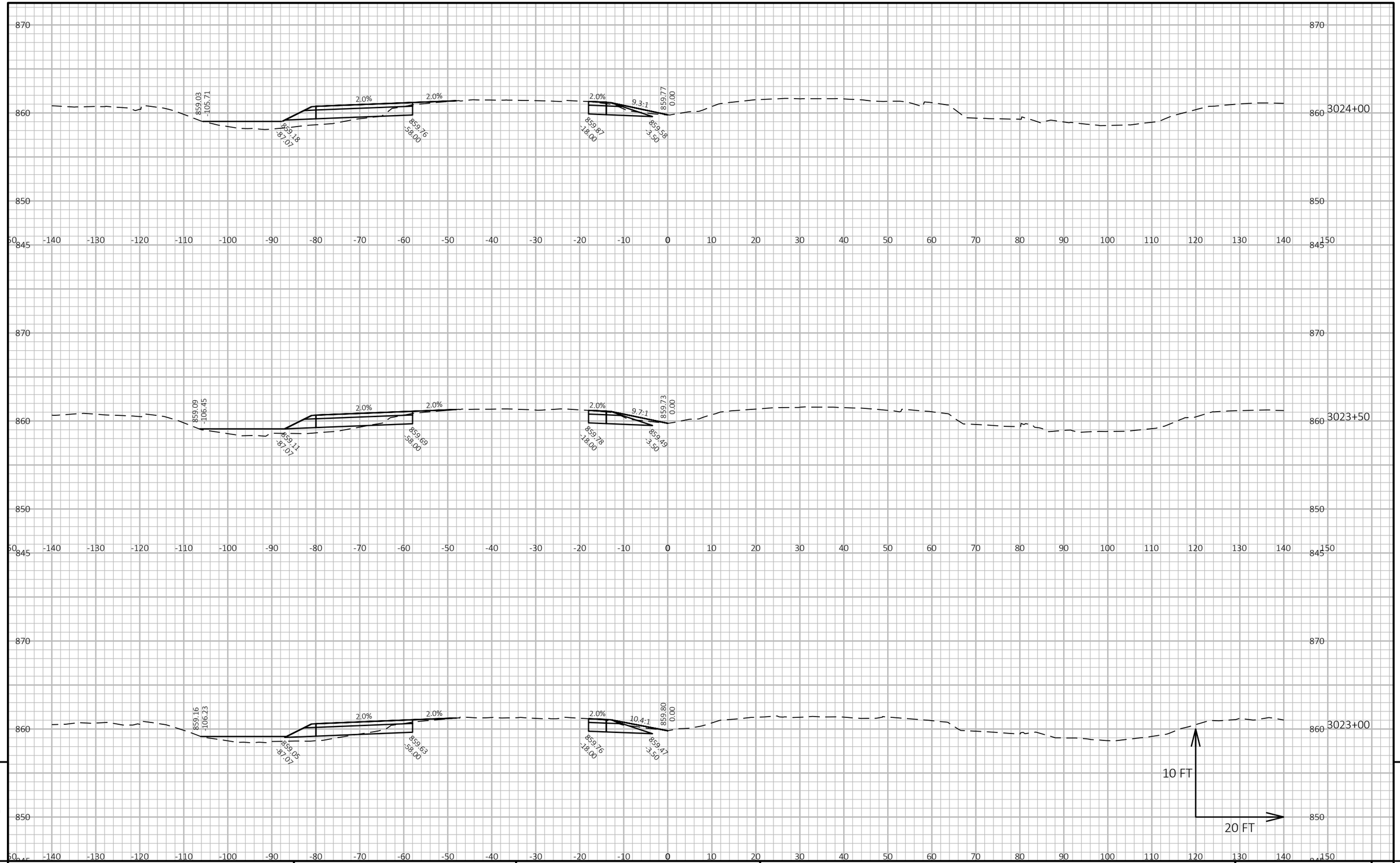
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 876	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 017-xover

PLOT DATE : 10/26/2023 3:33 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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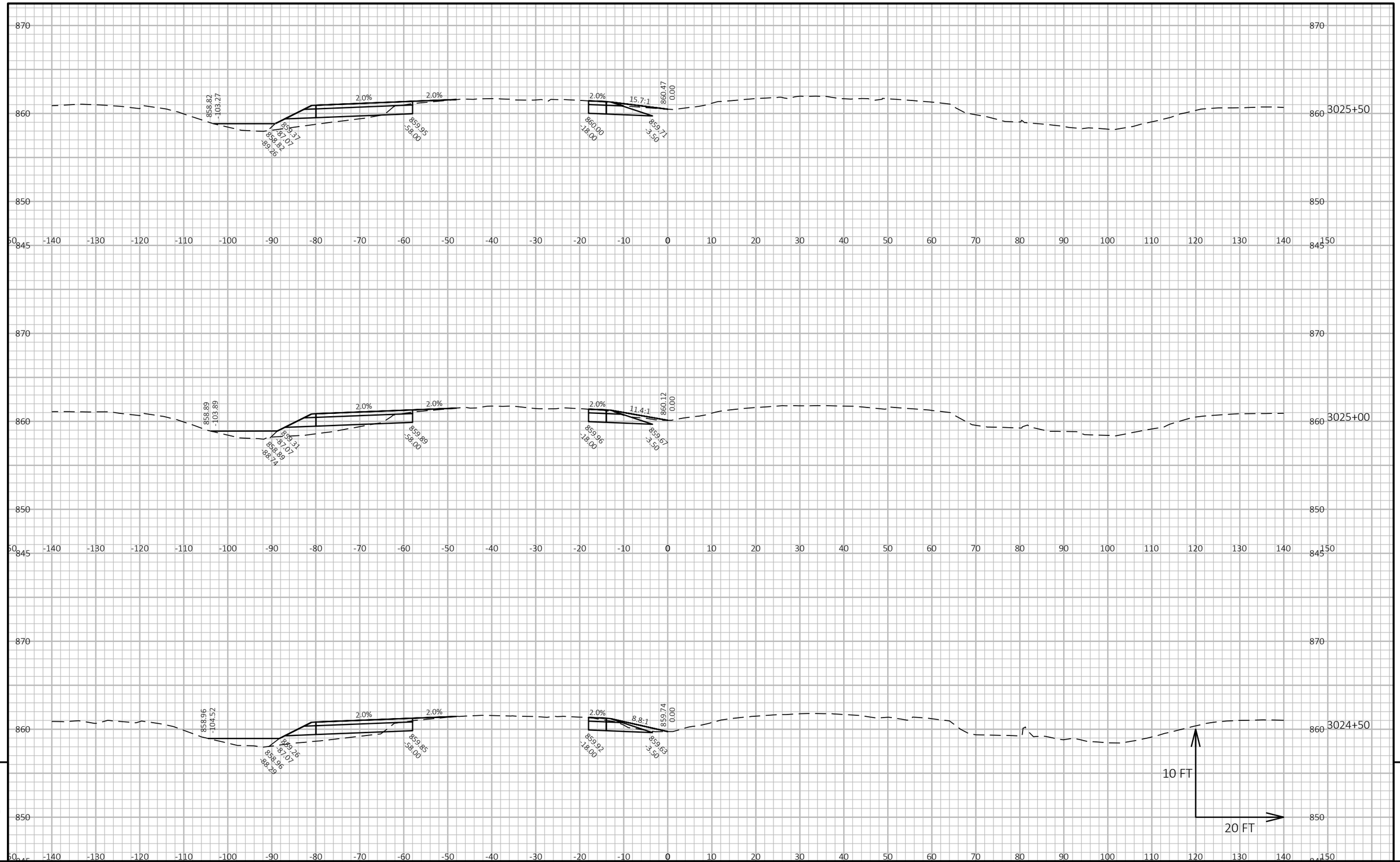
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 877	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 018-xover

PLOT DATE : 10/26/2023 3:34 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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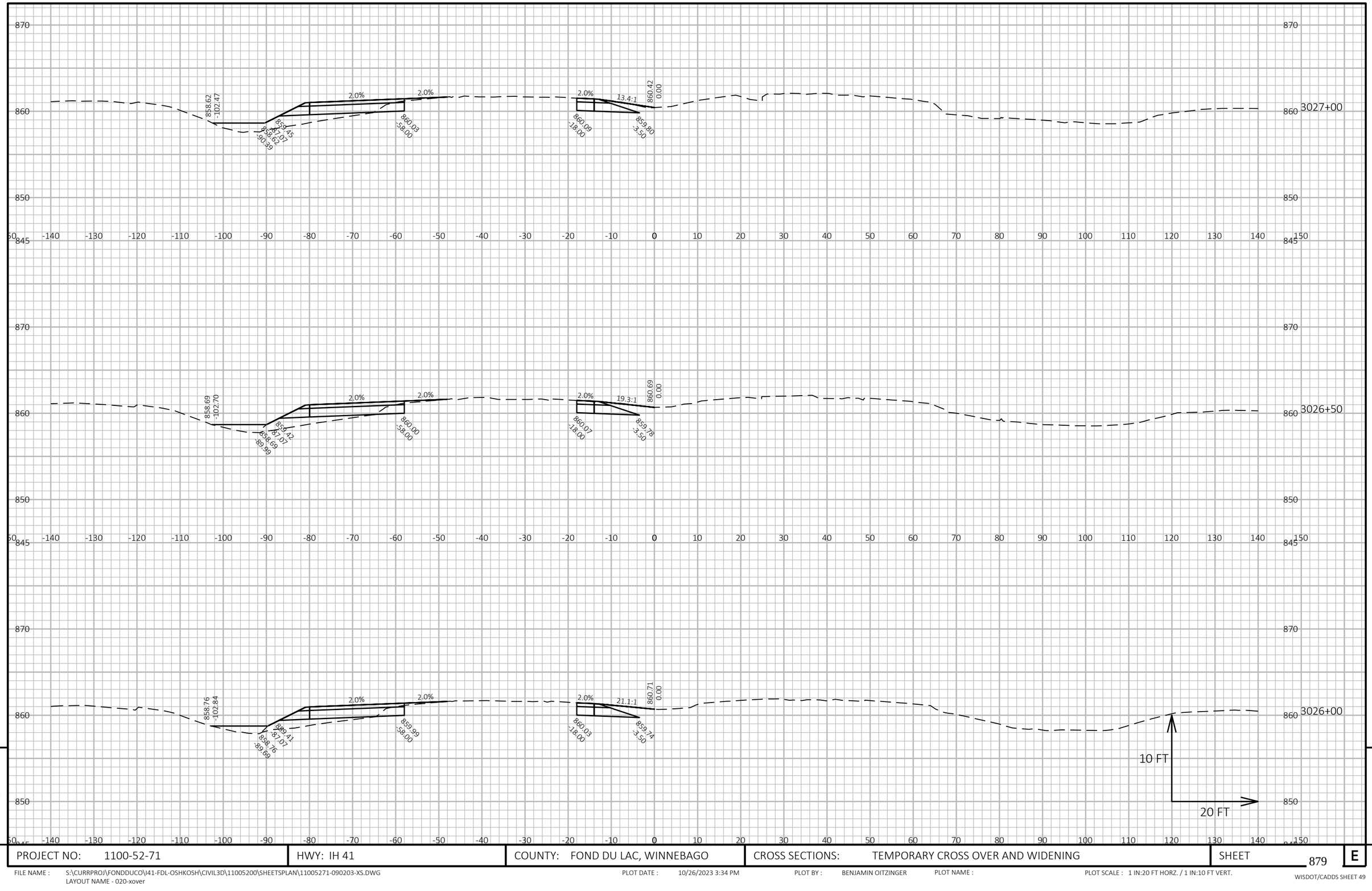
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 878	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 019-xover

PLOT DATE : 10/26/2023 3:34 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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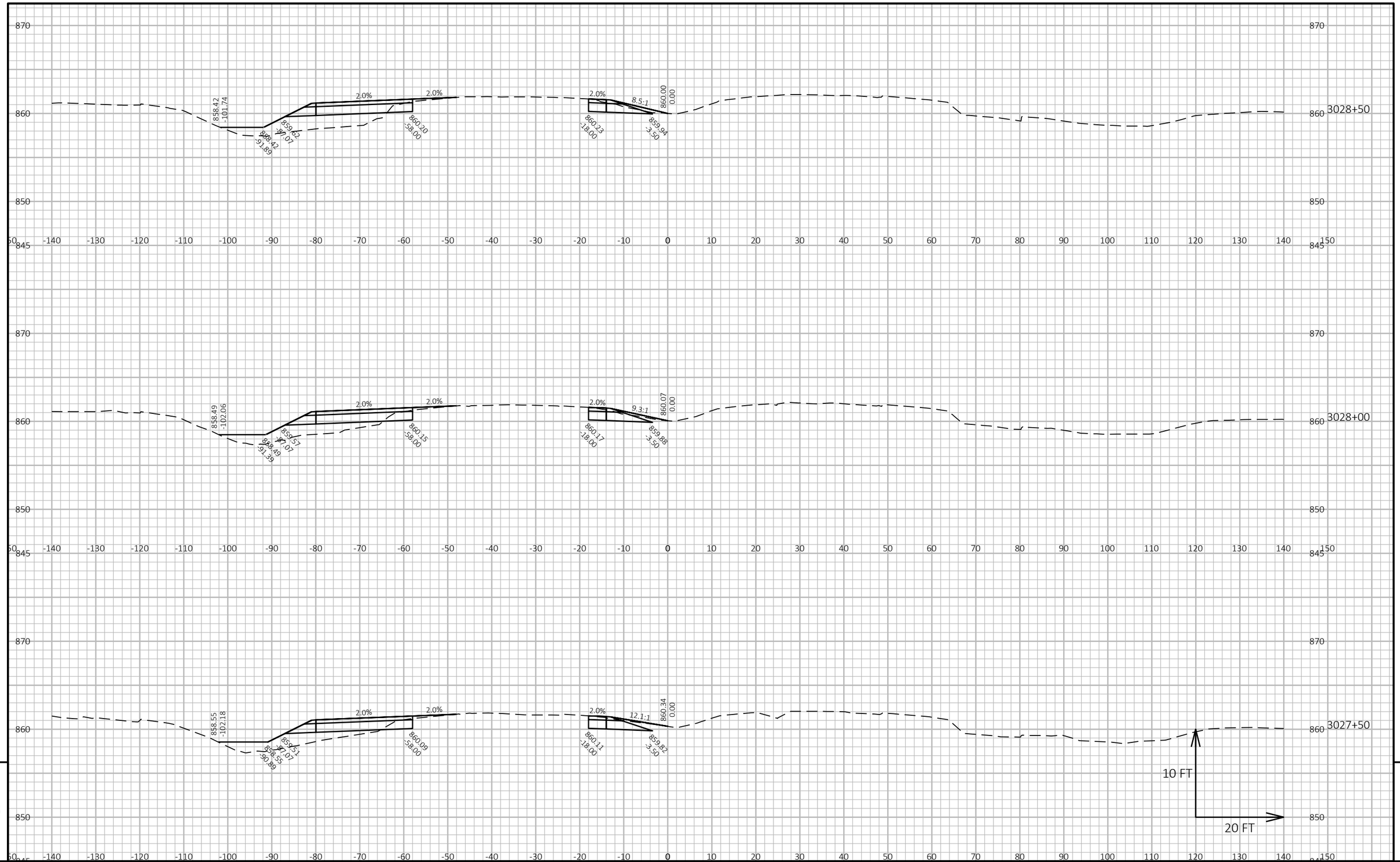
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 879	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 020-xover

PLOT DATE : 10/26/2023 3:34 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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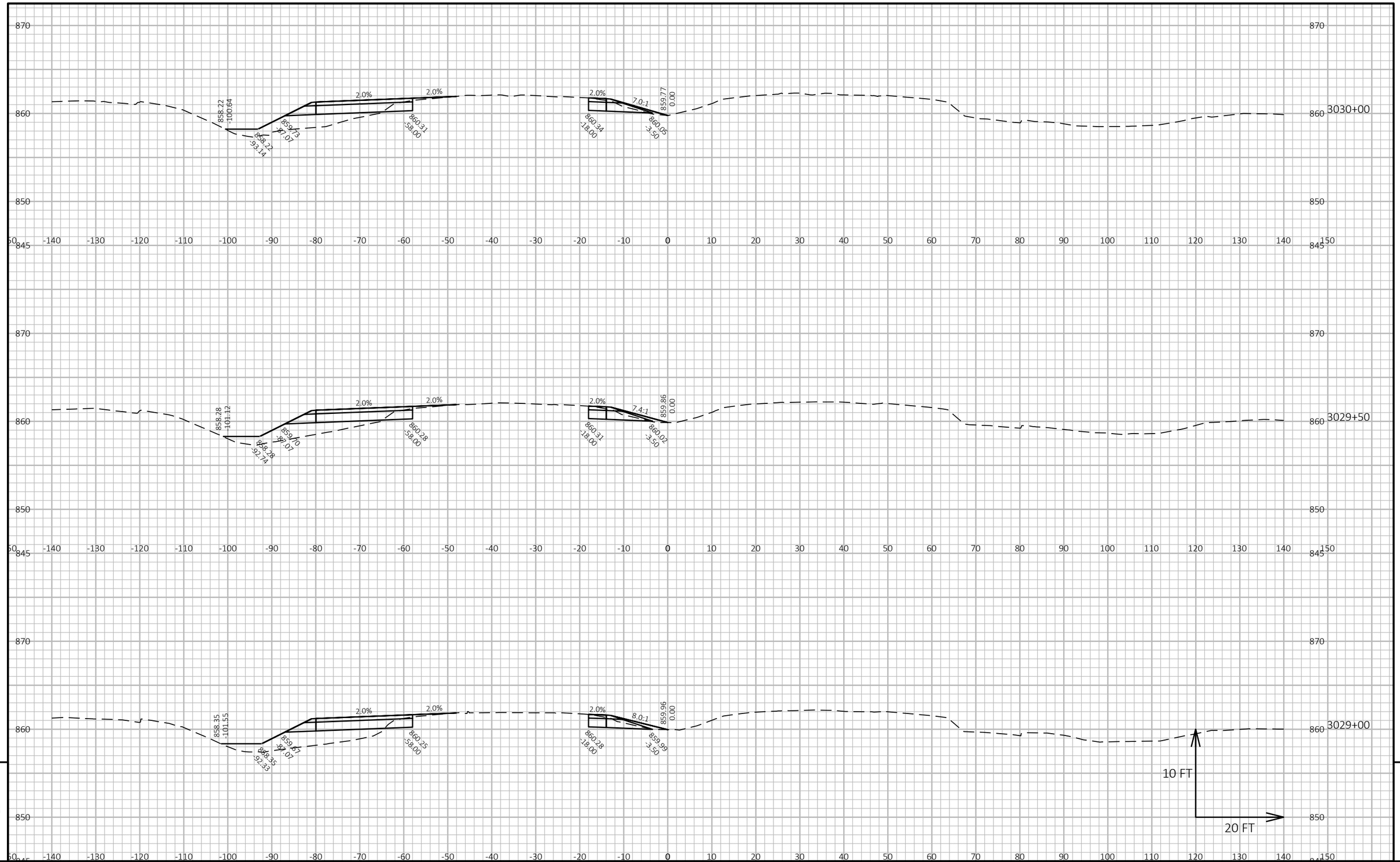
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 880	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 021-xover

PLOT DATE : 10/26/2023 3:35 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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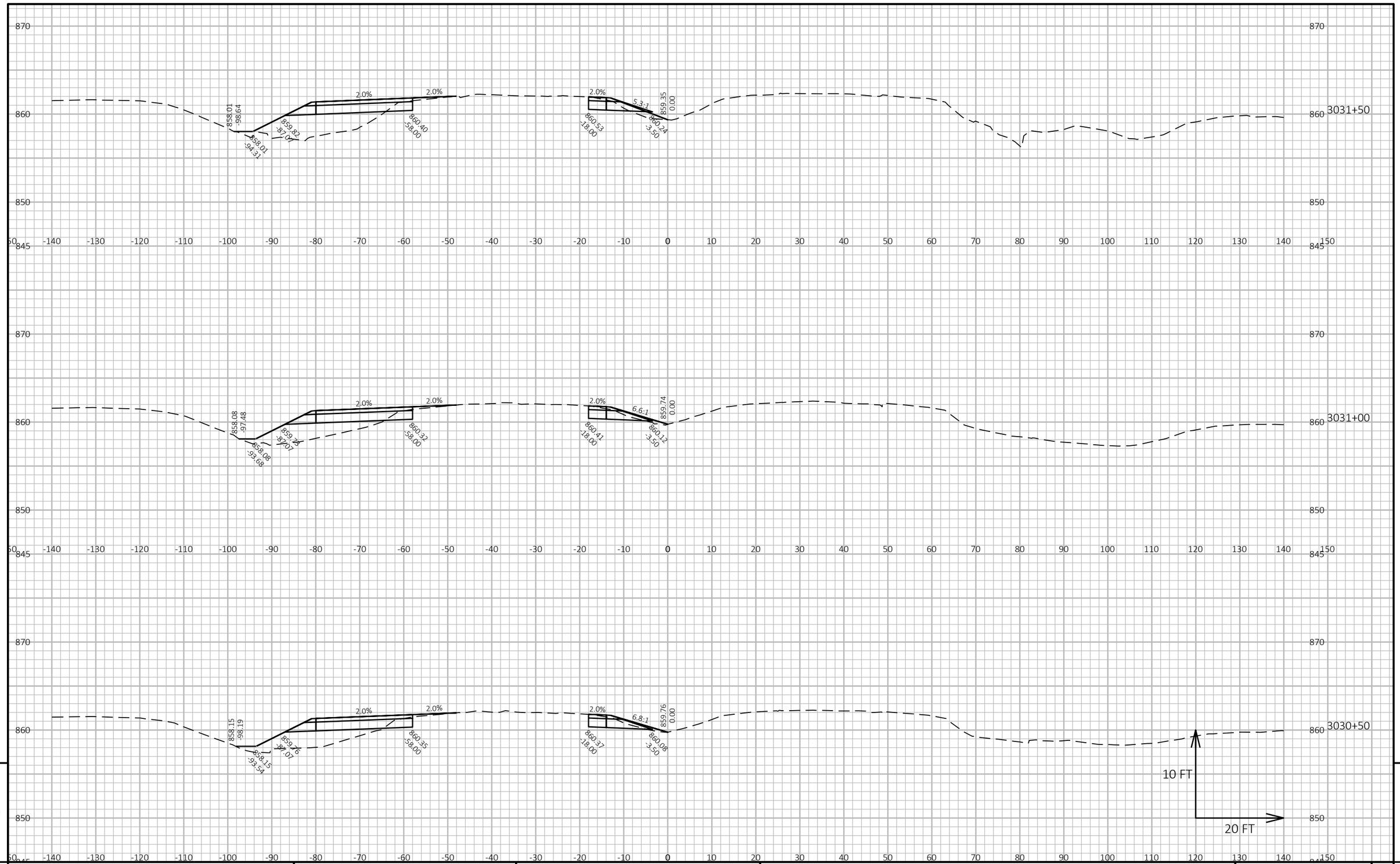
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 881	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 022-xover

PLOT DATE : 10/26/2023 3:35 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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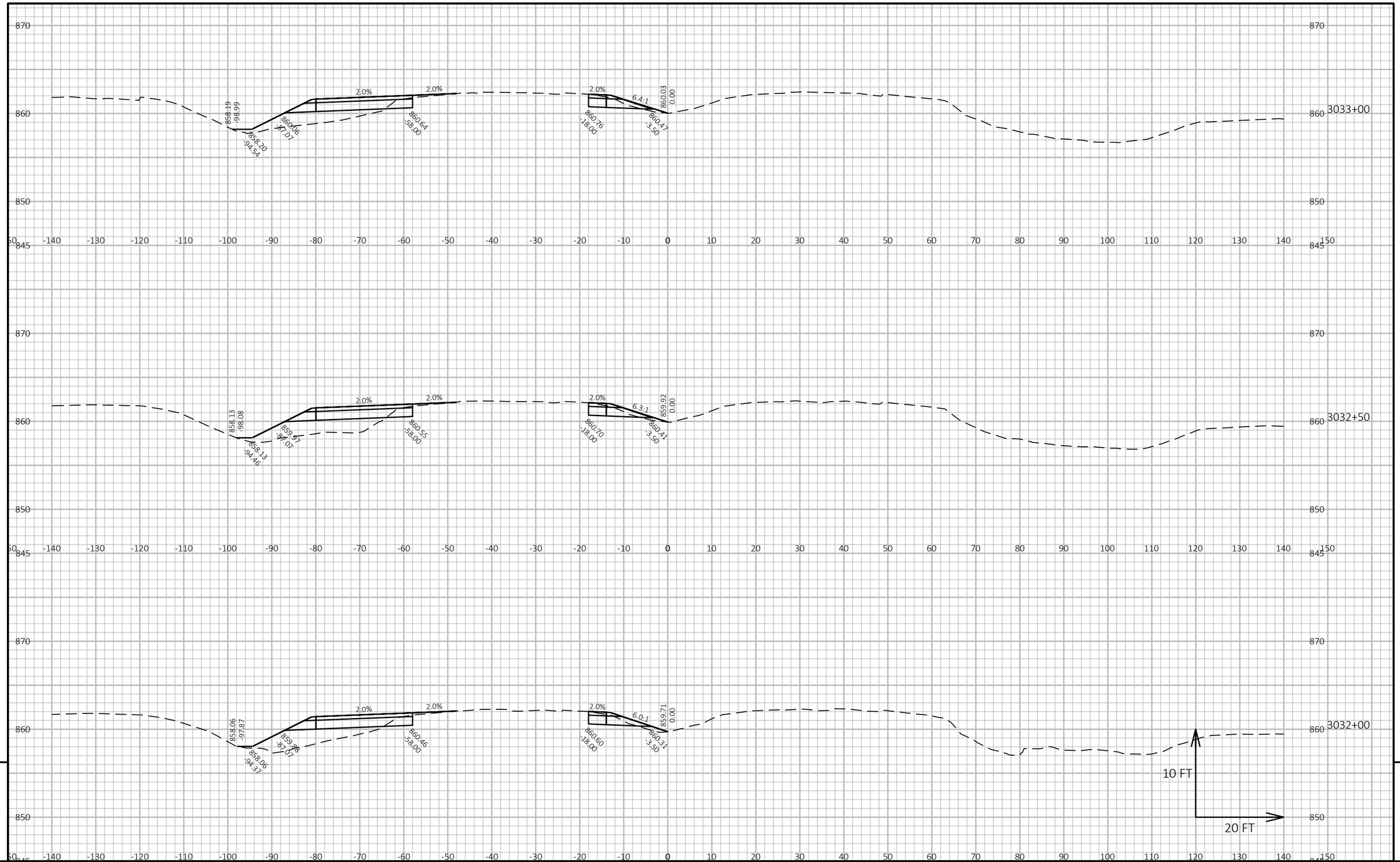
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 882	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 023-xover

PLOT DATE : 10/26/2023 3:35 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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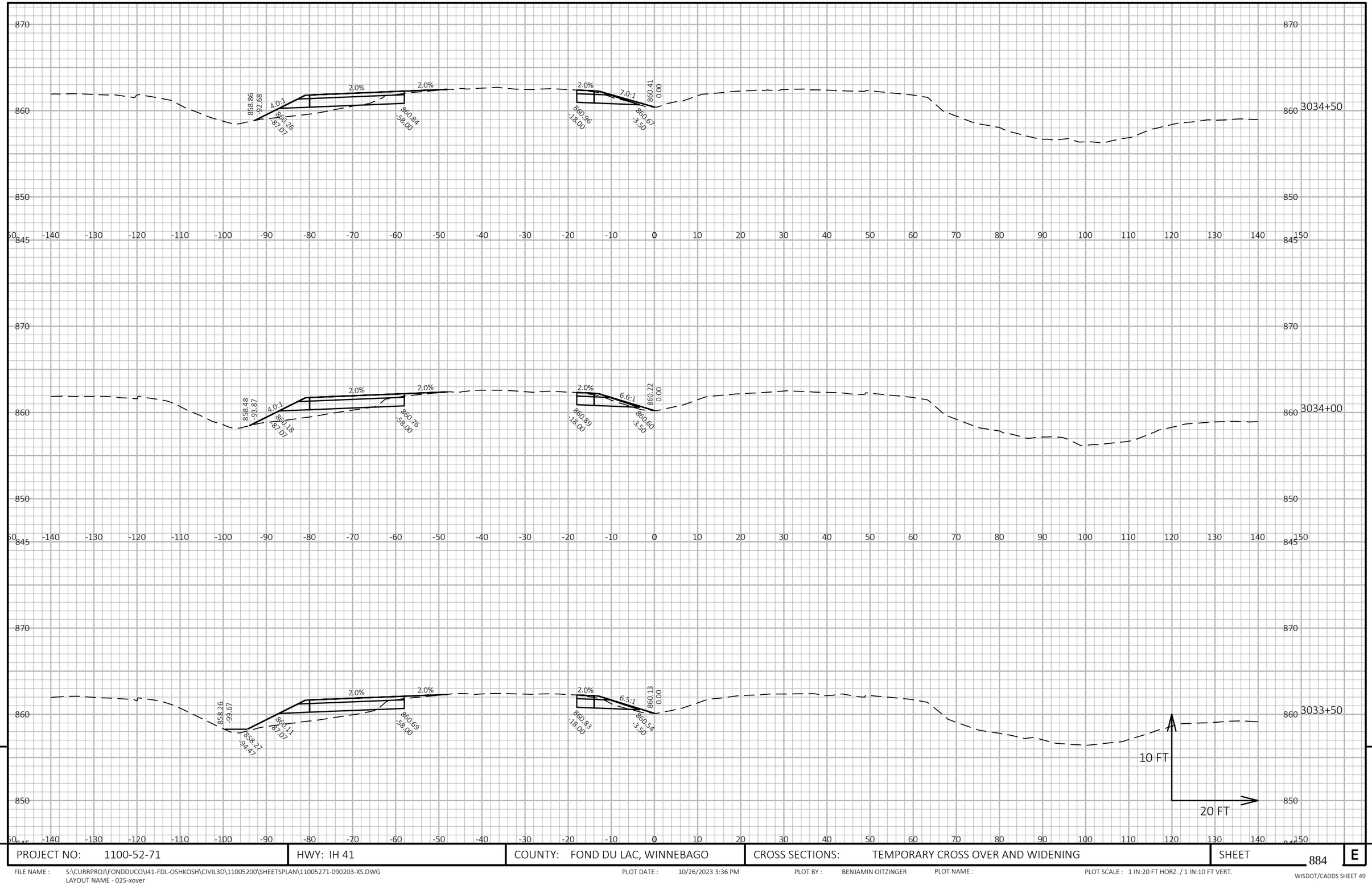
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 883	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 024-xover

PLOT DATE : 10/26/2023 3:36 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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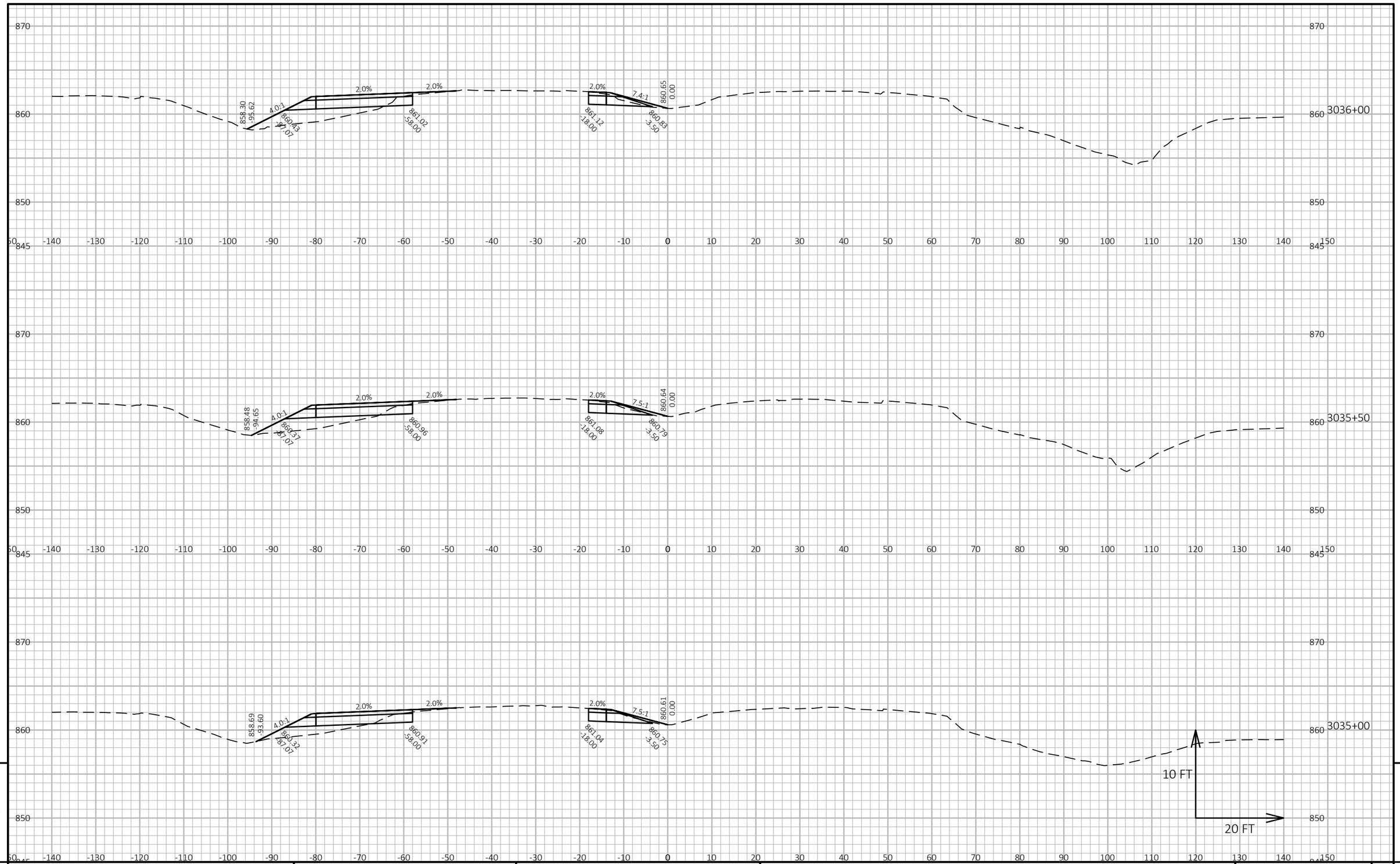
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 884	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 025-xover

PLOT DATE : 10/26/2023 3:36 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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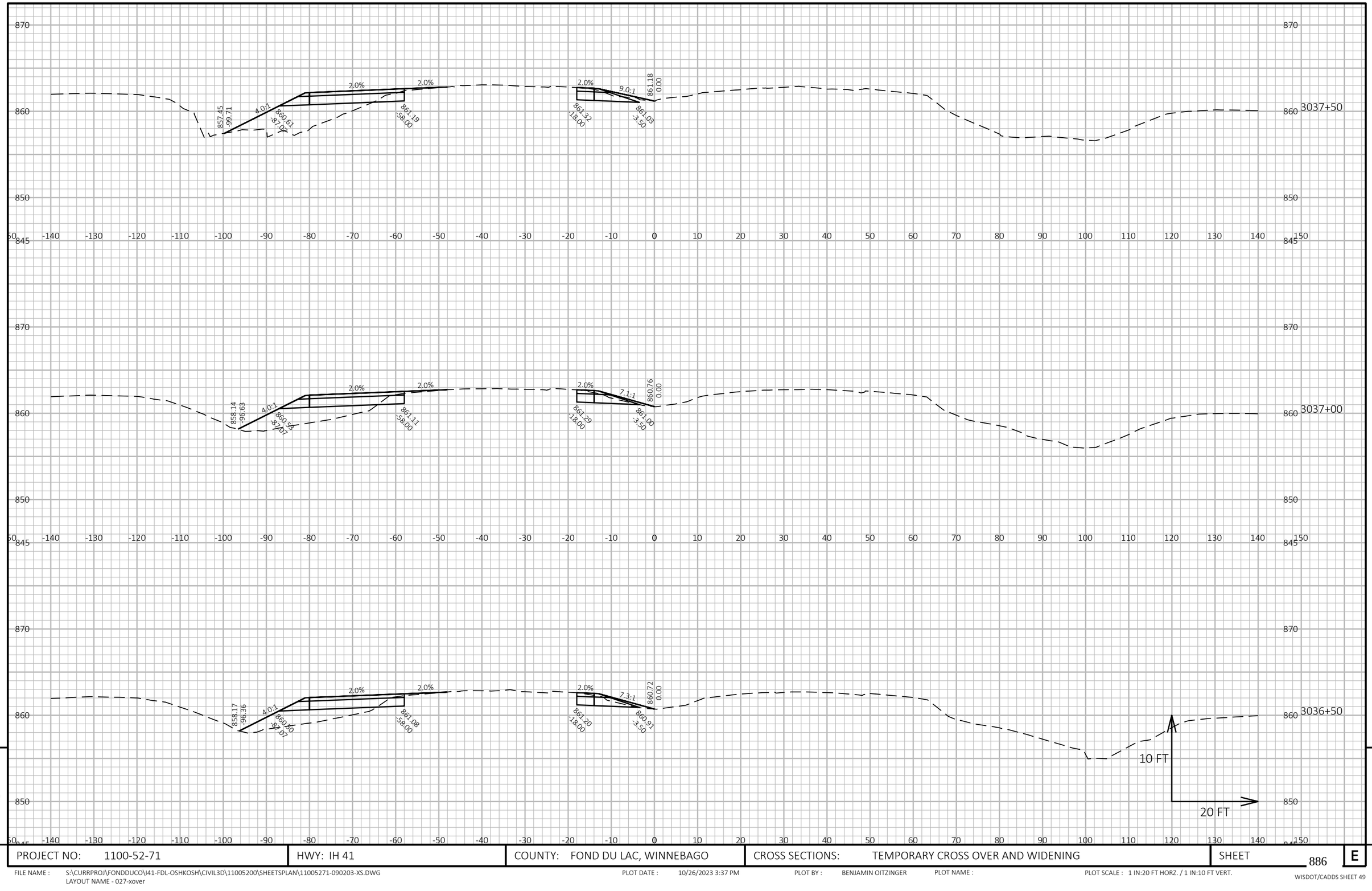
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 885	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 026-xover

PLOT DATE : 10/26/2023 3:36 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

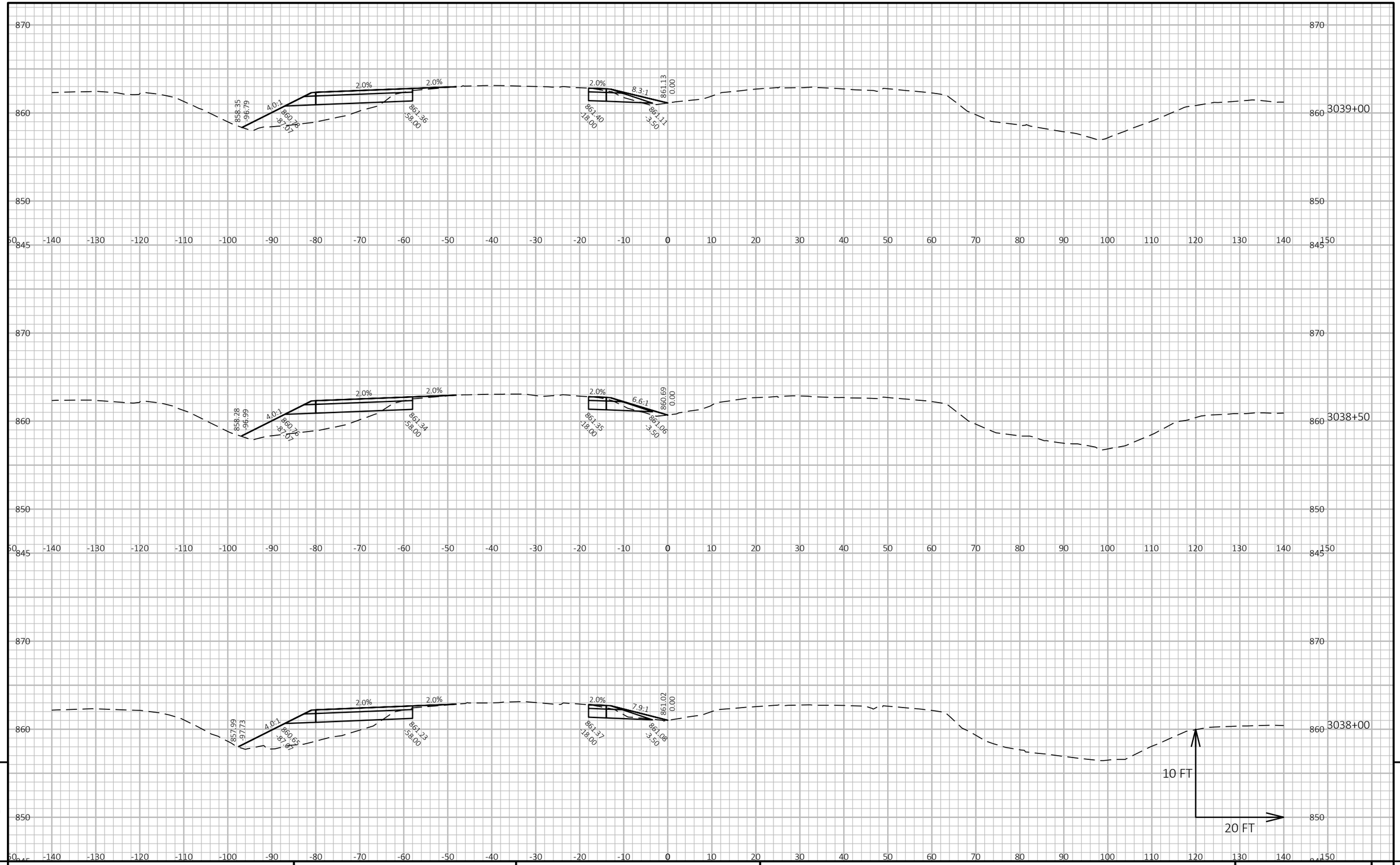


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 886 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 027-xover

PLOT DATE : 10/26/2023 3:37 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

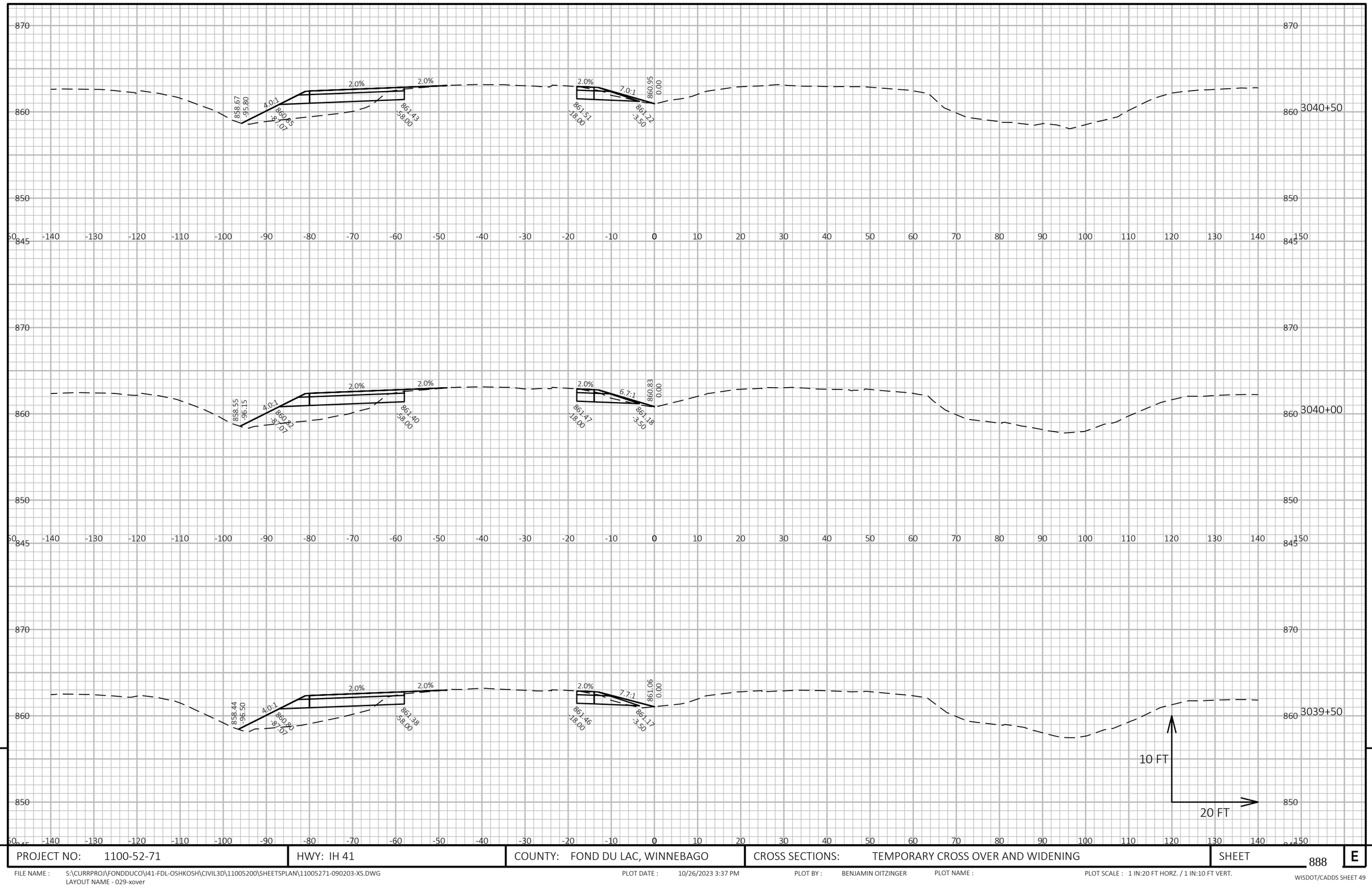


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 887 E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 028-xover

PLOT DATE : 10/26/2023 3:37 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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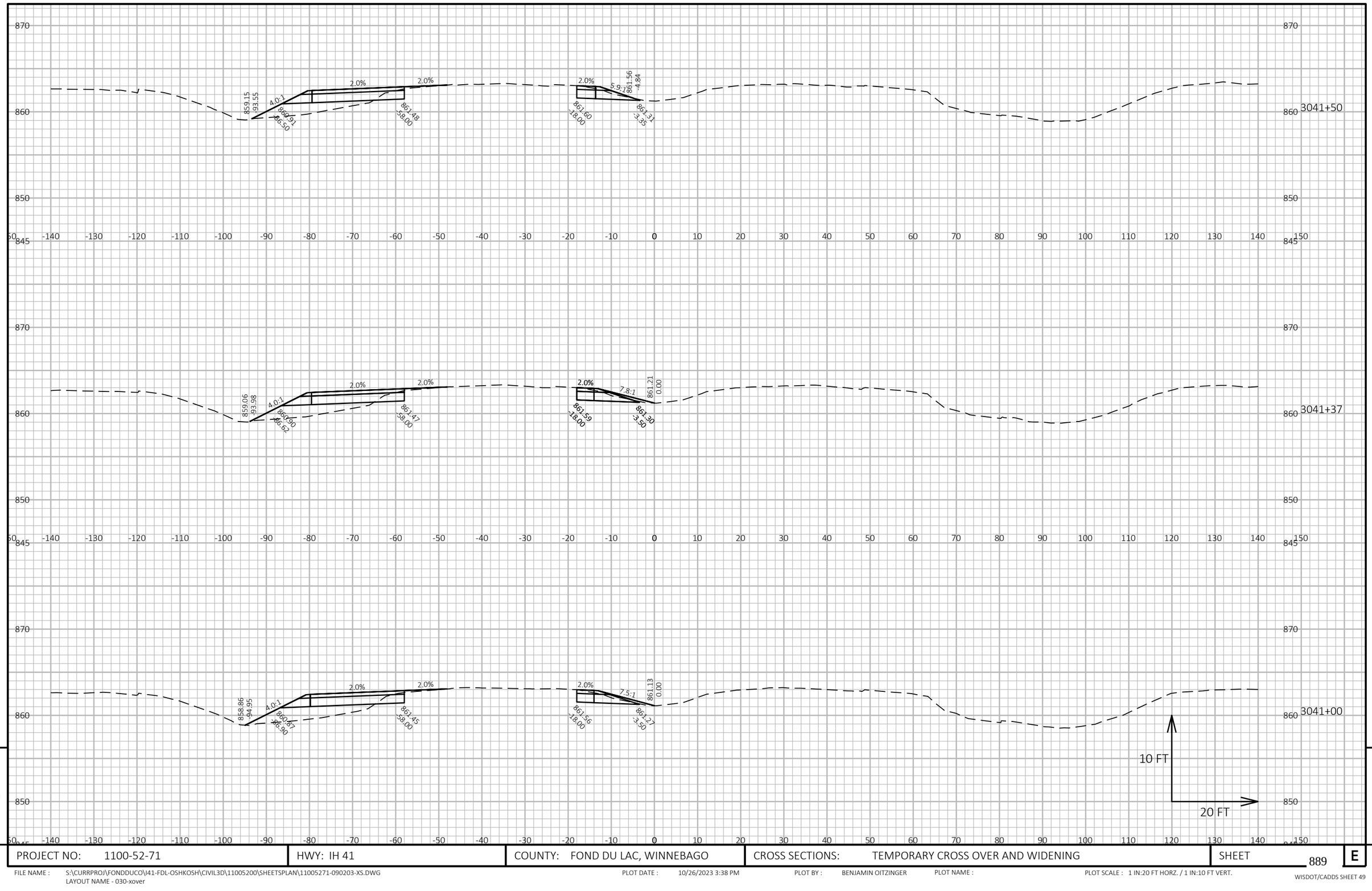
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 888	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 029-xover

PLOT DATE : 10/26/2023 3:37 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

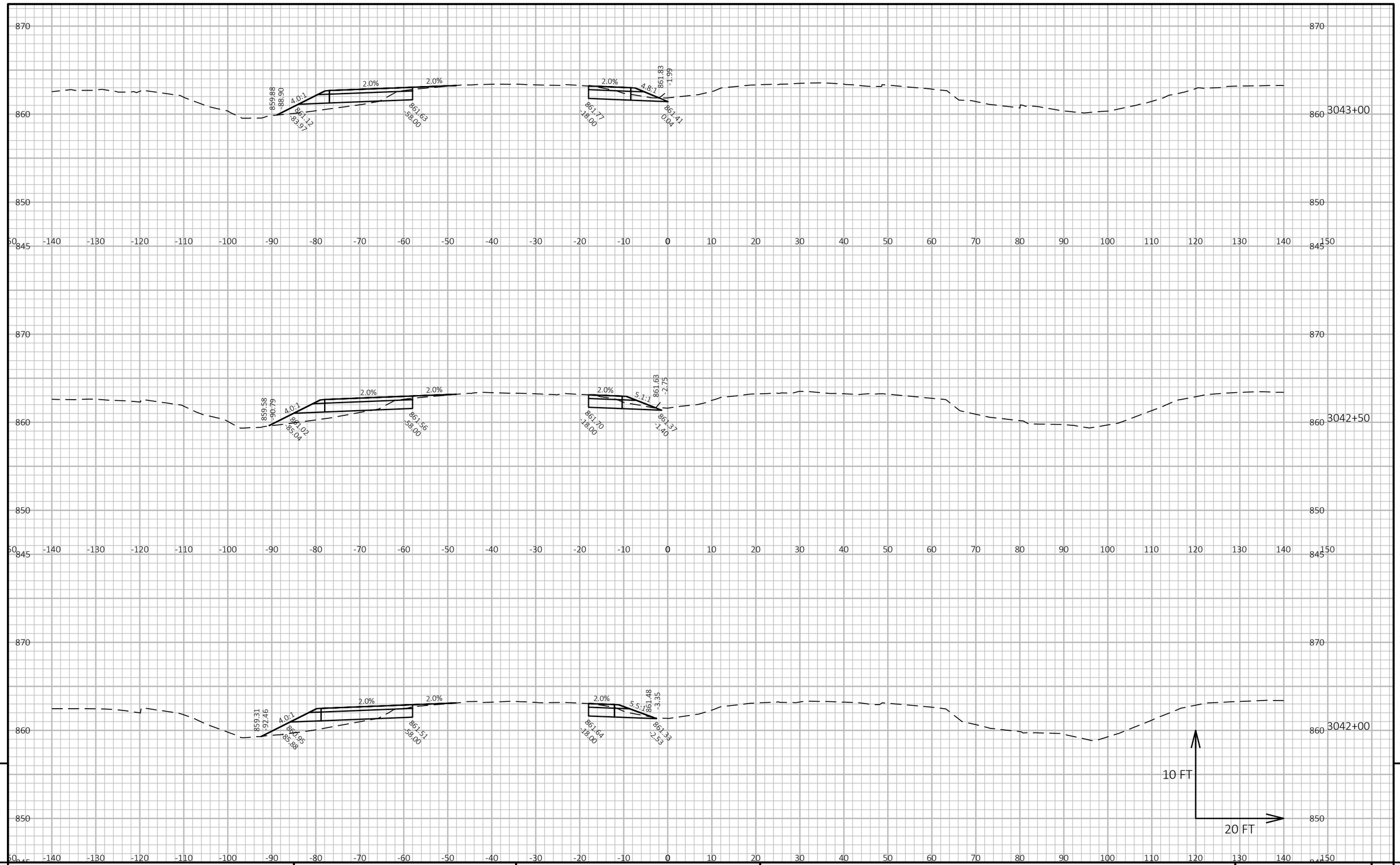


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 889	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 030-xover

PLOT DATE : 10/26/2023 3:38 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

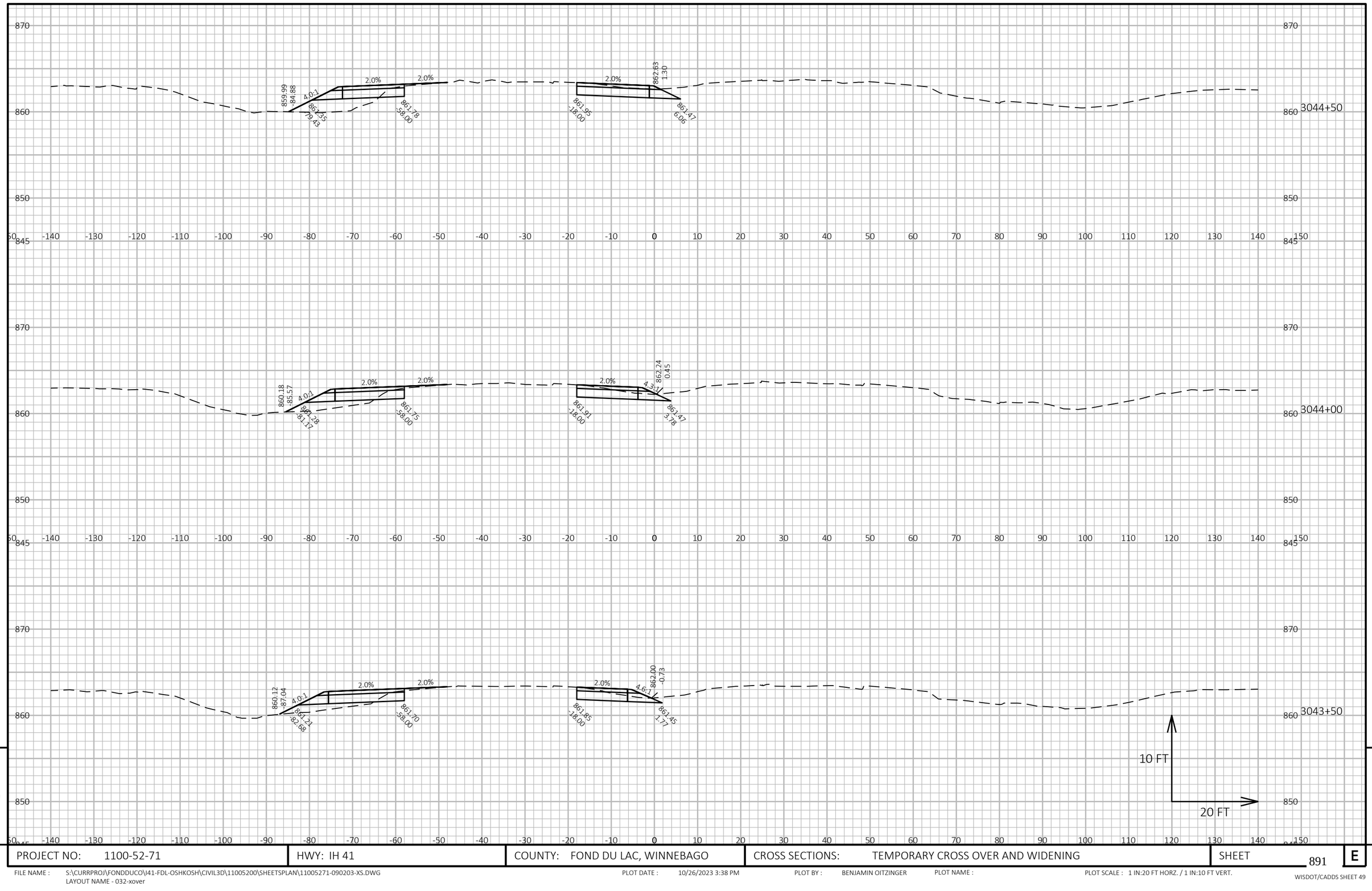


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 890	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 031-xover

PLOT DATE : 10/26/2023 3:38 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

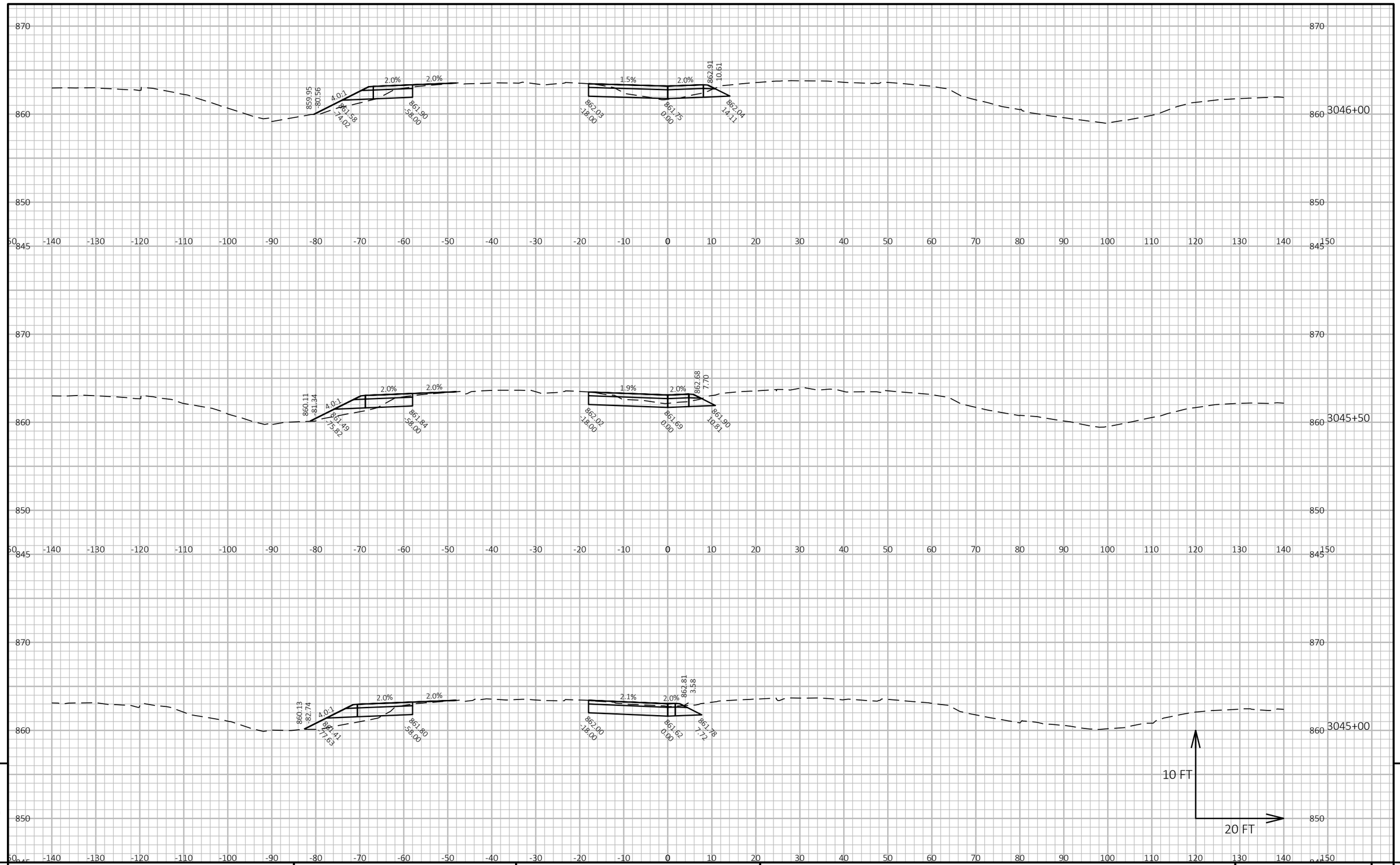


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 891	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 032-xover

PLOT DATE : 10/26/2023 3:38 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

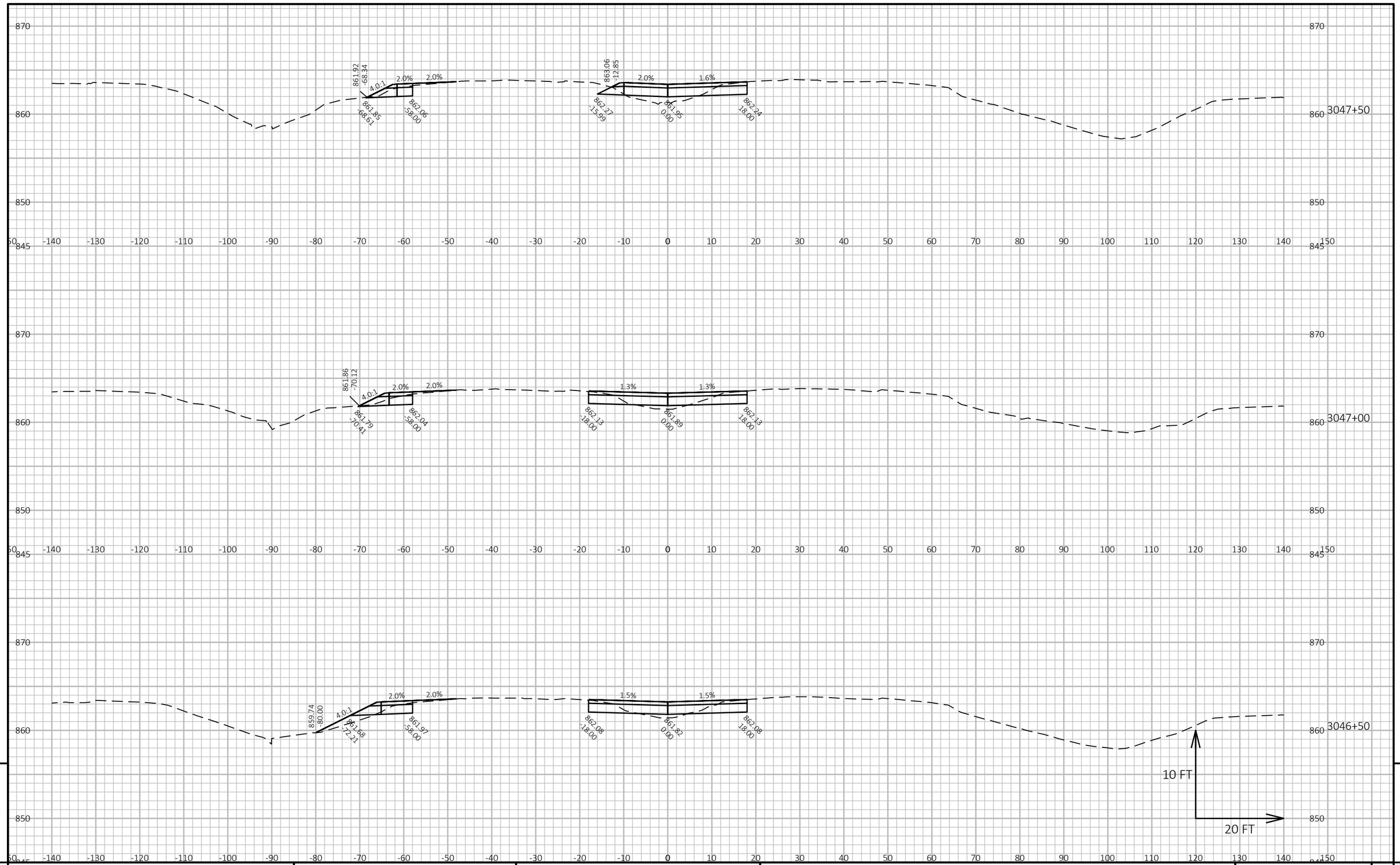


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 892	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 033-xover

PLOT DATE : 10/26/2023 3:39 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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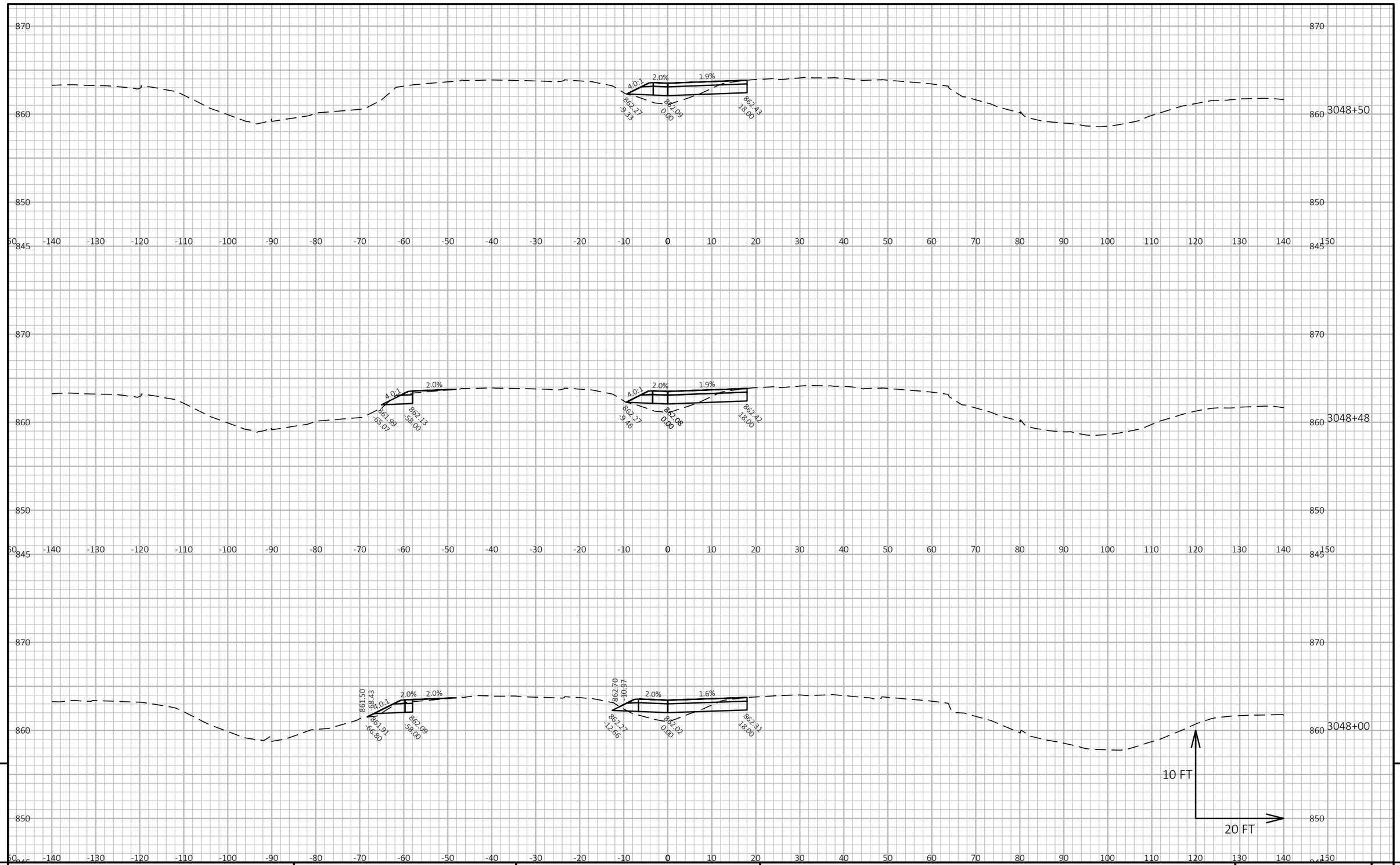
PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 893	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 034-xover

PLOT DATE : 10/26/2023 3:39 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

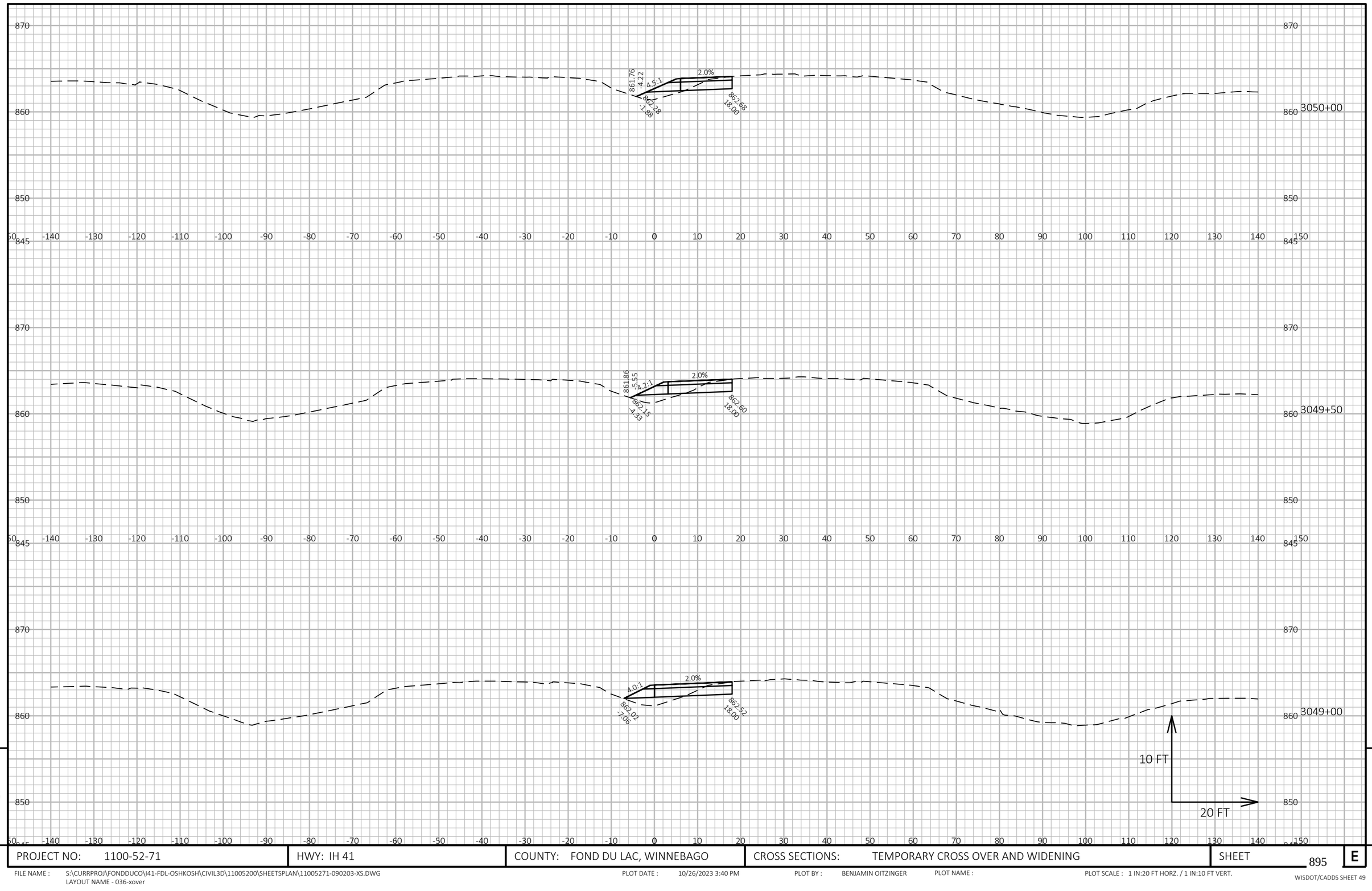


PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 894	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 035-xover

PLOT DATE : 10/26/2023 3:39 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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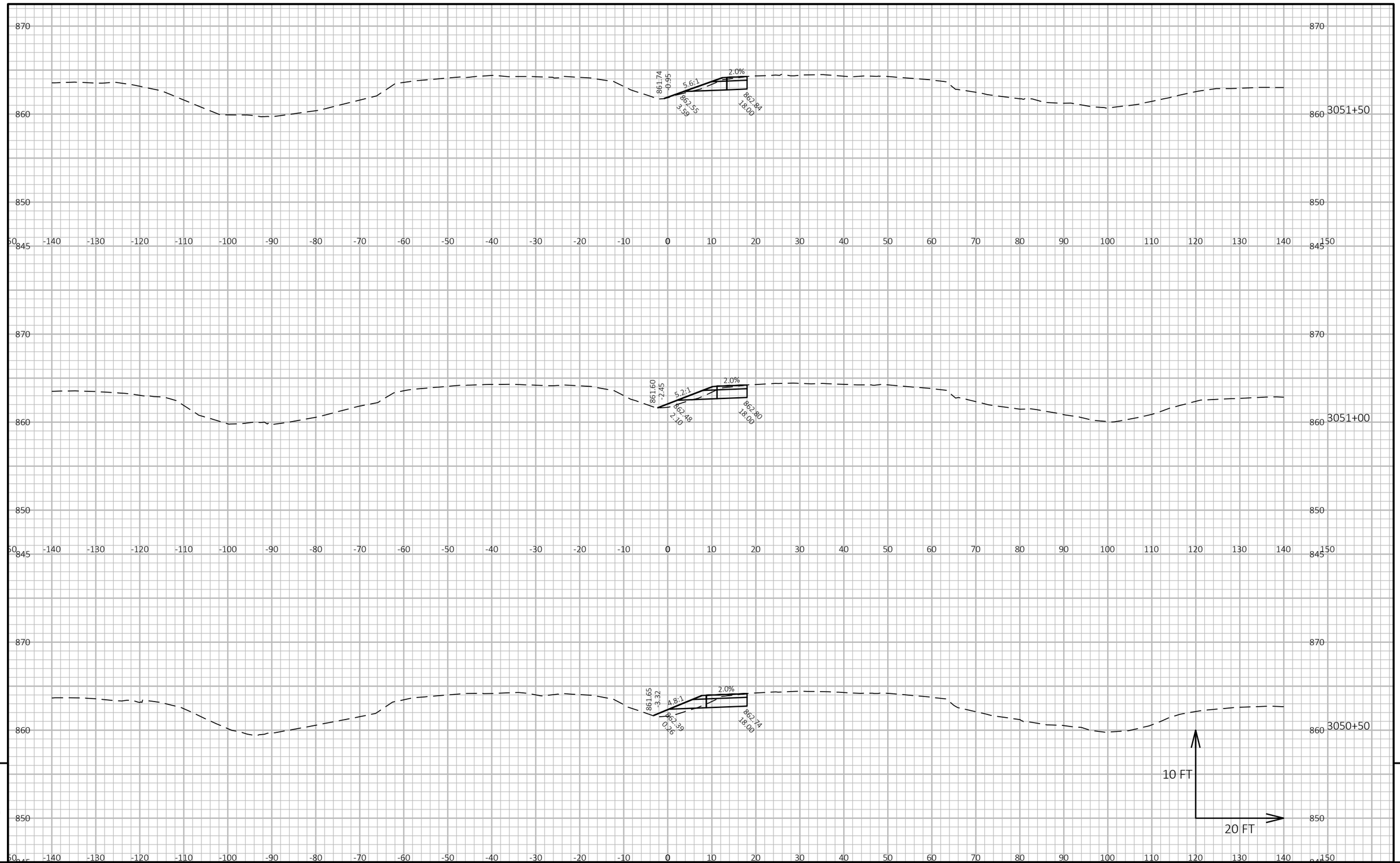
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 895	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 036-xover

PLOT DATE : 10/26/2023 3:40 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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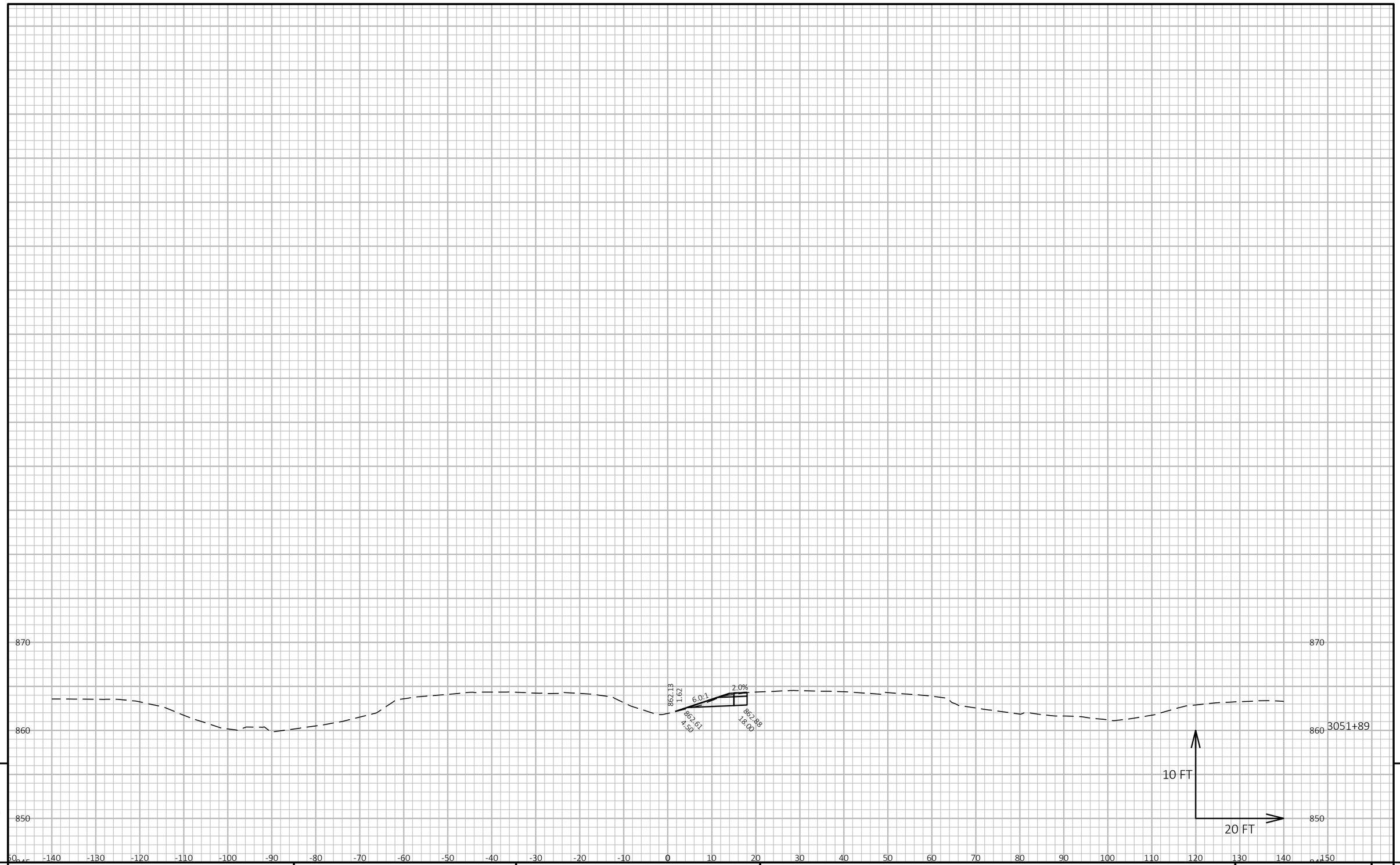
9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 896	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 037-xover

PLOT DATE : 10/26/2023 3:40 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1100-52-71	HWY: IH 41	COUNTY: FOND DU LAC, WINNEBAGO	CROSS SECTIONS: TEMPORARY CROSS OVER AND WIDENING	SHEET 897	E

FILE NAME : S:\CURRPROJ\FONDDUCO\I41-FDL-OSHKOSH\CIVIL3D\11005200\SHEETSPLAN\11005271-090203-XS.DWG
LAYOUT NAME - 038-xover

PLOT DATE : 10/26/2023 3:40 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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