EAU DECEMBER 2014

PROJECT ID: 1022-04-74
WITH: 7028-00-70

COUNTY: DUNN

16

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 (Includes Erosion Control)
Section No. 6 Standard Detail Drawings
Section No. 7 Sign Plates
~~Section No. 8 Structure Plans~~
~~Section No. 9 Computer Earthwork Data~~
Section No. 9 Cross Sections

TOTAL SHEETS = 288

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1022-04-74	WISC 2014448	1
7028-00-70	WISC 2014449	1

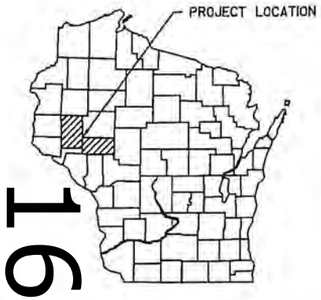
MENOMONIE-EAU CLAIRE
USH 12 / STH 29 TO STH 312
IH-94
DUNN COUNTY

STATE PROJECT NUMBER
1022-04-74

CITY OF EAU CLAIRE, NORTH CROSSING
IH-94 TO 400 FEET EAST OF USH 12
STH 312
EAU CLAIRE COUNTY

STATE PROJECT NUMBER
7028-00-70

PROJECT LOCATION



N

BEGIN PROJECT 1022-04-74
STA 163+44.27 "EB"
Y = 176164.60
X = 209553.37

EXCEPTION TO NET C/L LENGTH
STA 198+38.01 "EB" TO STA 201+62.77 "EB"
B-17-60

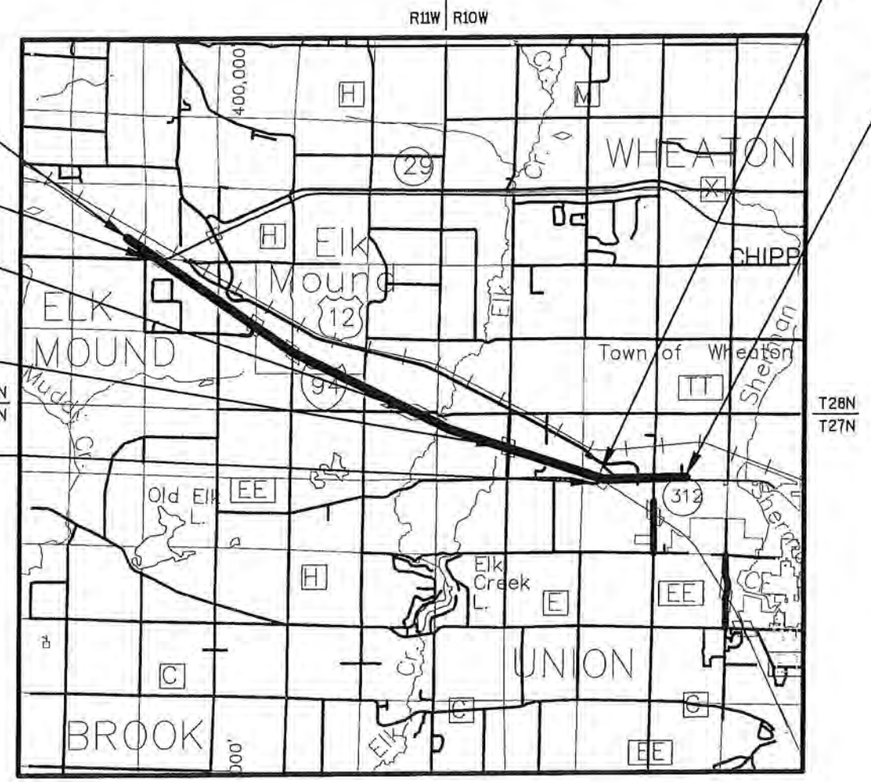
EXCEPTION TO NET C/L LENGTH
STA 416+17.15 "EB" TO STA 417+72.40 "EB"
B-17-02

EXCEPTION TO NET C/L LENGTH
STA 439+40.44 "EB" TO STA 441+11.46 "EB"
B-18-12

END PROJECT 1022-04-74
STA 556+00.00 "EB"

BEGIN PROJECT 7028-00-70
STA 100+00.00 "E"
Y = 291239.168
X = 310230.549

END PROJECT 7028-00-70
STA 190+00.00 "F"



LAYOUT
SCALE 0 1MI

TOTAL NET LENGTH OF CENTERLINE = 7.31 MI PROJECT 1022-04-74
TOTAL NET LENGTH OF CENTERLINE = 0.85 MI PROJECT 7028-00-70

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) DUNN COUNTY AND EAU CLAIRE COUNTY

DESIGN DESIGNATION	1022-04-74		DESIGN DESIGNATION	7028-00-70	
A.A.D.T.	2013	= 27600	A.A.D.T.	2013	= 14000
A.A.D.T.	(2035)	= 34900	A.A.D.T.	(2035)	= 17000
D.H.V.	(2035)	= 3839	D.H.V.		=
D.D.		= 58/42	D.D.		=
T.		= 25%	T.		= 18%
DESIGN SPEED		= 70 MPH	DESIGN SPEED		= 50 MPH
ESALS		= 38000000	ESALS		= 7913200

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (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 (395.36)
- 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

ORIGINAL PLANS PREPARED BY

SEH

WISCONSIN
GREGORY L. WEYANDT
32579
CHIPPEWA FALLS, WI
PROFESSIONAL ENGINEER

7/29/14 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	SEH
Designer	SEH
Project Manager	STACIE LAMBELLE
Regional Examiner	DANIEL OJIBWAY
Regional Supervisor	RICK SHERMO
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 8/1/14 (Signature)

E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\010101 TI.DWG

PLOT DATE : 8/1/2014 7:49 AM PLOT BY : NICK ENGH PLOT NAME :

WISDOT/CADDS SHEET 10

GENERAL NOTES

IT IS THE CONTRACTORS RESPONSIBILITY TO CALL DIGGERS HOTLINE PRIOR TO BEGINNING WORK OPERATIONS AND TO CONFIRM ALL UTILITY LOCATIONS.

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

ASPHALTIC SURFACE/HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESSES:

	PAVEMENT THICKNESS (INCH)	LOWER (INCH)	UPPER (INCH)
IH-94	4.5	2.5 (19mm E-10, PG64-28P)	2 (SMA, PG70-28*)
RAMPS & LOOPS	2		2 (E-10, PG64-28P)
STH 312	3	1.25 (9.5 OR 12.5 mm, E-10, PG64-34P)	1.75 (12.5mm E-10, PG64-34P)
PARK & RIDE LOT	2		2 (E-0.3, PG58-28)
IH-94 (DRIVING LANE SHOULDER)	4.5	2.5 (E-0.3, PG58-28)	2 (E-0.3, PG58-28)

EXISTING PIPE CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE ITS BID ON ACTUAL FIELD CONDITIONS.

PROPOSED SIGNS SHOWN ON THE PLAN ARE APPROXIMATE, ACTUAL LOCATIONS OF SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.

CURVE DATA IS BASED ON THE ARC DEFINITION.

THE EXACT LOCATIONS AND QUANTITIES OF CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL, CONCRETE PAVEMENT REPLACEMENT NON DOWELED SPECIAL AND ASPHALTIC BASE PATCHING PARTIAL DEPTH SPECIAL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

*PG 70-28 IS INCIDENTAL TO THE ITEM HMA PAVEMENT SMA SPECIAL, SPV.0195.01

ORDER OF TYPICAL SECTION AND DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PERMANENT SIGNING
TRAFFIC CONTROL

UTILITY CONTACTS

XCEL ENERGY (ELECTRIC TRANSMISSION)
PAM TAYLOR
1414 WEST HAMILTON AVENUE
PO BOX 8
EAU CLAIRE WI 54702
715-737-1306
PAMELA.L.TAYLOR@XCELENERGY.COM
FIELD CONTACT: BRUCE ZEMKE
651-241-2620
BRUCE.M.ZEMKE@XCELENERGY.COM

XCEL ENERGY (GAS)
DAWN SCHULTZ
PO BOX 8
EAU CLAIRE WI 54702
715-737-2482
DAWN.SCHULTZ@XCELENERGY.COM
FIELD CONTACT: DAN KLEIN
715-577-7729
DANIEL.J.KLEIN@XCELENERGY.COM

CENTURYLINK
MONTY PARKER
20 S WILSON AVENUE
RICE LAKE, WI 54868
715-234-5528
CENTURYLINK COMMUNICATIONS
(FORMALLY) QWEST COMMUNICATIONS
BOB SAMPSON
1310 EAST MARY STREET
OTTUMWA IA 52501
636-887-5367
FIELD CONTACT: MONTY PARKER
715-418-3266
MONTY.PARKER@CENTURYLINK.NET

MAGELLAN PIPELINE
CLAIR MADSEN
2728 PATTON ROAD
ST PAUL MN 55113
651-633-1519

WIS DOT-STATE TRAFFIC OPERATIONS
JEFF MADSON
433 W ST PAUL AVENUE STE 300
MILWAUKEE WI 53203
414-225-3723
JEFFREY.MADSON@DOT.WI.GOV

WEST WISCONSIN TELCOM COOP
TOM DAVEY
5808 OLD MILL PLAZA
EAU CLAIRE WI 54703
715-231-0504

LEVEL 3 COMMUNICATIONS
NICKEY WORTHINGTON
OSP RELOCATIONS
NETWORK PROTECTION MANAGEMENT
1025 ELDORADO BLVD
BROOMFIELD CO 80021
720-888-0336
NICKEY.WORTHINGTON@LEVEL3.COM
FIELD CONTACT: BRAD MORSETH
612-343-3257
BRAD.MORSETH@LEVE3.COM

AT&T LEGACY
BILL KOENIG
C/O JMC ENGINEERS
155 E 4TH AVENUE
CLIFTON IL 60927
815-694-3000
FIELD CONTACT: BRAD KEMPF
715-254-5238
JMC140@MYFRONTIERMAIL.COM

DUNN ENERGY COPPERATIVE
MIKE ANDRASCHKO
PO BOX 220
N5725 600TH STREET
MENOMONIE WI 54751
715-232-6240

DESIGN CONTACT

GREG WEYANDT
SEH INC.
421 FRENETTE DRIVE
CHIPPEWA FALLS WI 54729
715-720-6200

WDNR CONTACT

CHRIS WILLGER WIS DNR
1400 WEST CLAIREMONT AVENUE
EAU CLAIRE WI 54701
715-839-1609
CHRISTOPHERJ.WILLGER@WISCONSIN.GOV

WISDOT CONTACT

STACIE LAMBELE
WIS DOT NW REGION
718 W CLAIREMONT AVENUE
EAU CLAIRE WI 54701
715-833-5569
STACIE.LAMBELLE@DOT.WI.GOV

STATE PATROL

SGT. STEPHEN TAPE
NORTHWEST REGION
EAU CLAIRE POST
5005 HIGHWAY 53 SOUTH
EAU CLAIRE WI 54701
715-839-3800

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

2

N

BEGIN PROJECT 1022-04-74
STA 163+44.27 "EB"

STH 29

STH 29

STA 200+00 "EB"

CITY OF
ELK MOUND

STA 287+00 "EB"

DIVISION

STA 321+00 "EB"

USH 12

CTH H

490TH AVE

COUNTY LINE ROAD

STA 417+00 "EB"

ELK CREEK

CHIPPEWA COUNTY

EAU CLAIRE COUNTY

STA 492+00 "EB"

ELK CREEK
ROAD

TEXACO DR

CTH EE

BEGIN PROJECT 7028-00-70
STA 100+00.00 "E"

EAU CLAIRE CO SALT AND
MAINTENANCE SHED SITE

END PROJECT 7028-00-70
STA 190+00.00 "F"

STH 312

TRAUX LANE

PARK AND RIDE
LOT 18-01

END PROJECT 1022-04-74
STA 556+00.00 "EB"

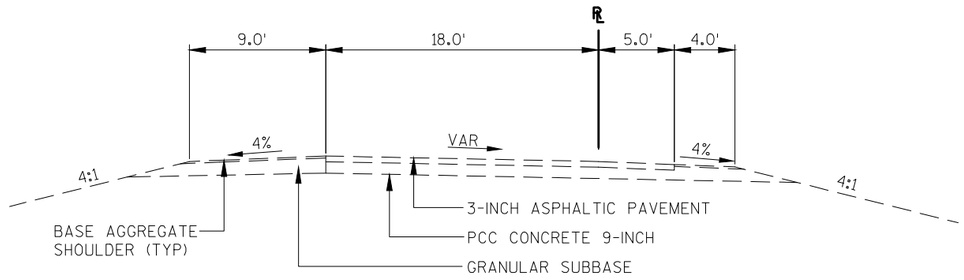
DUNN COUNTY
COORDINATE SYSTEM

EAU CLAIRE COUNTY
COORDINATE SYSTEM

STA 437+00 "EB"

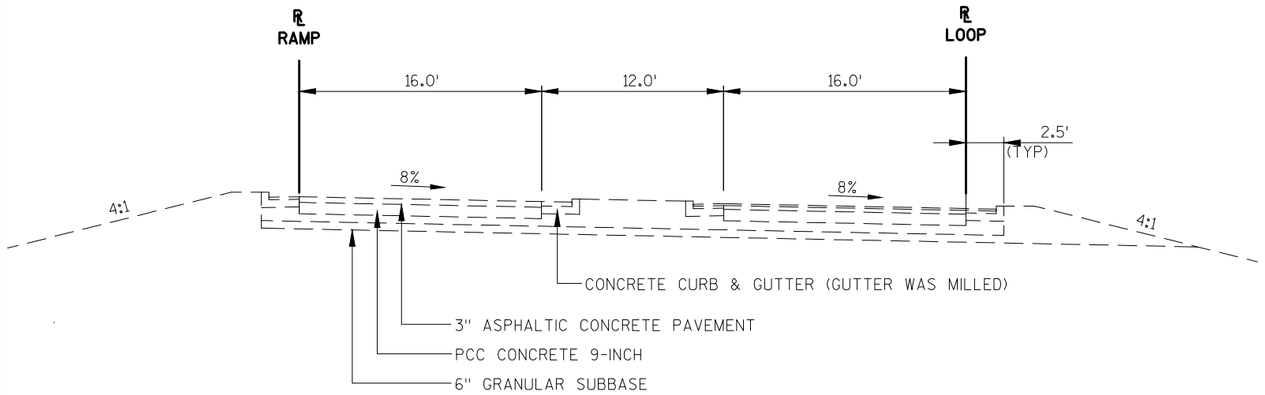
PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	PROJECT OVERVIEW	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\020201 PO.DWG
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WISDOT/CADDS SHEET 42



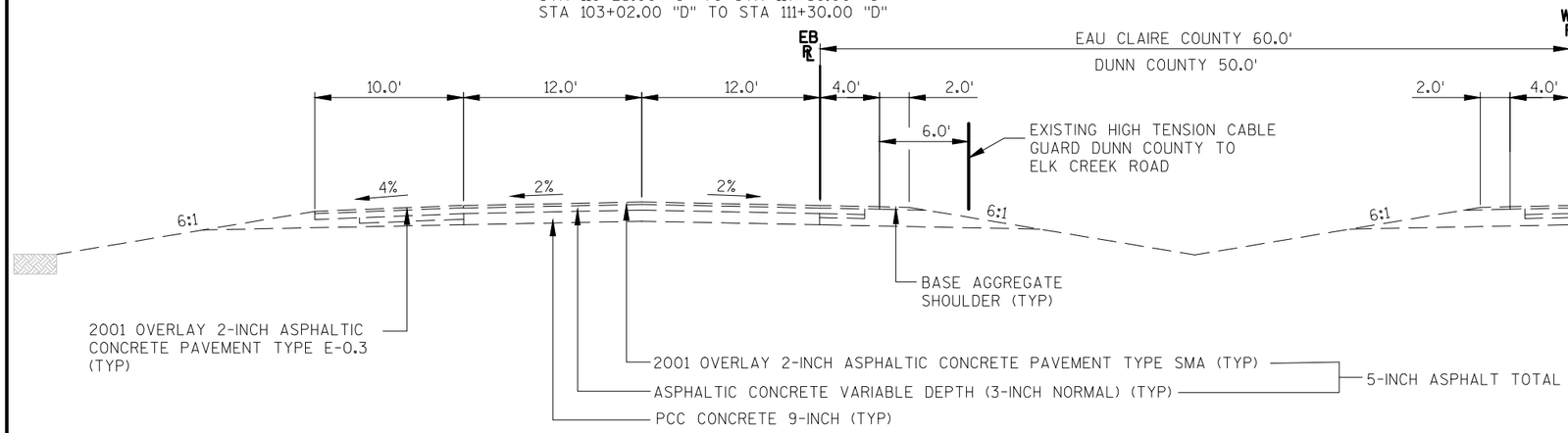
TYPICAL EXISTING RAMP SECTION

STH 29 ON RAMP TO WB IH-94
STH 29 ON RAMP TO EB IH-94
STA 100+00.00 "A" TO STA 118+00.00 "A"
STA 111+30.00 "D" TO STA 127+08.00 "D"



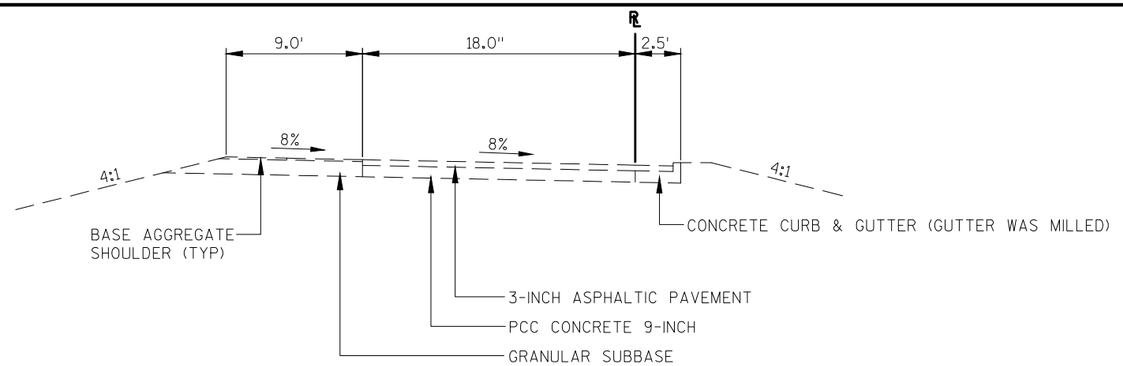
TYPICAL EXISTING SUPERELEVATED RAMP & LOOP SECTION

STH 29 INTERCHANGE
STA 118+00.00 "A" TO STA 124+90.00 "A"
STA 110+00.00 "B" TO STA 116+13.00 "B"
STA 110+25.00 "C" TO STA 117+86.00 "C"
STA 103+02.00 "D" TO STA 111+30.00 "D"



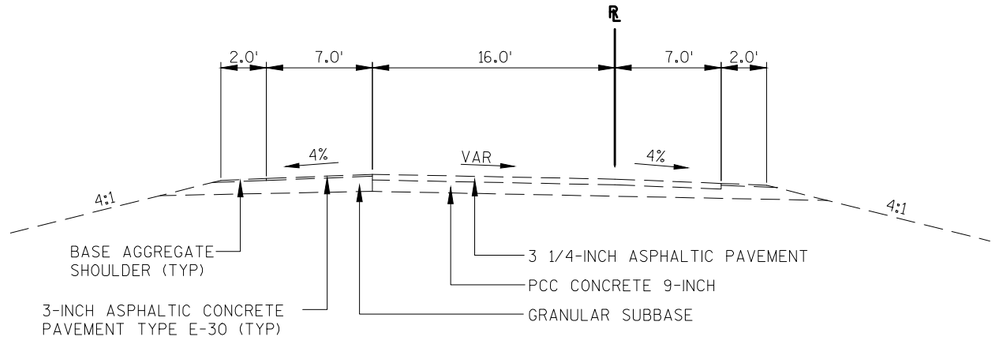
TYPICAL EXISTING SECTION

IH-94_MAINLINE
STA 163+44.27 TO STA 441+11 (ELK CREEK BRIDGE)



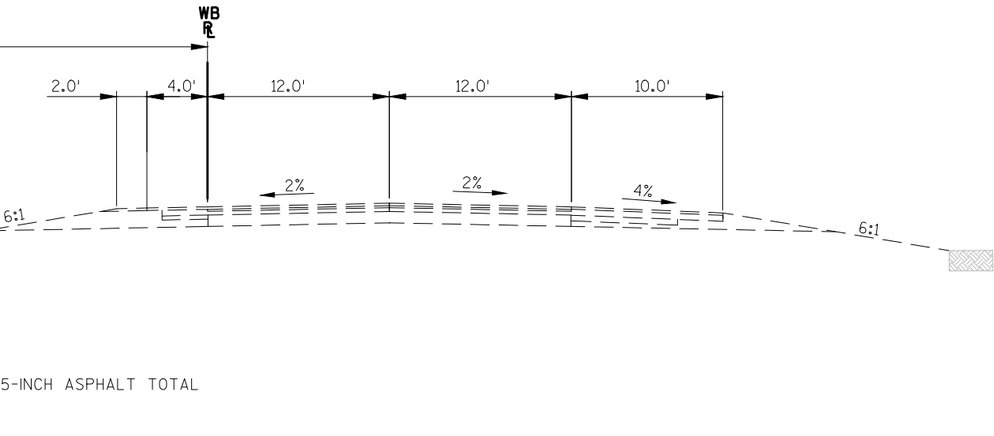
TYPICAL EXISTING SUPERELEVATED LOOP SECTION

STH 29 INTERCHANGE
STA 104+00.00 "B" TO STA 110+00.00 "B"
STA 104+00.00 "C" TO STA 110+25.00 "C"



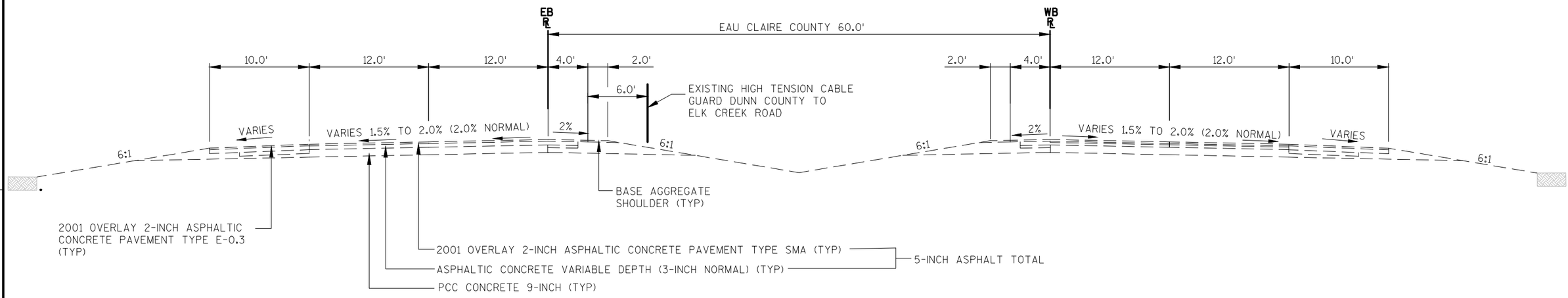
TYPICAL EXISTING RAMP SECTION

STH 312 ON RAMP TO WB IH-94
STA 100+00.00 "E" TO STA 133+29.00 "E"



PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	TYPICAL SECTION	SHEET 4	E

2

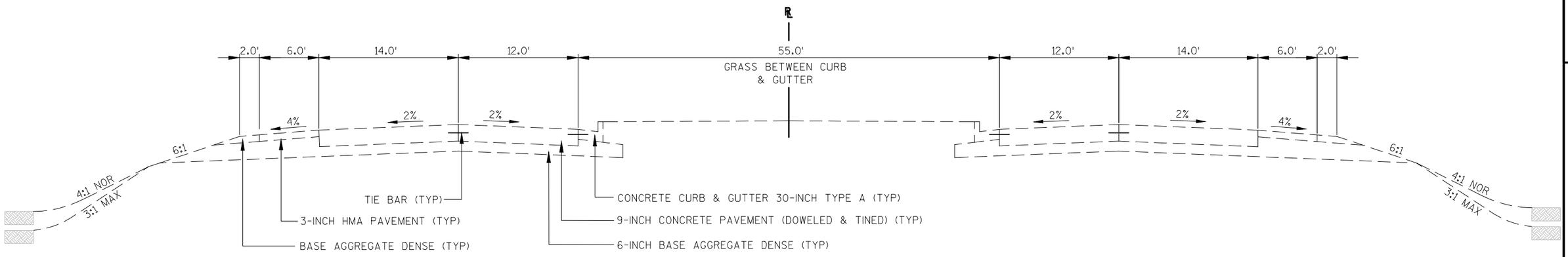


TYPICAL EXISTING SECTION

IH-94_MAINLINE

STA 441+11 (ELK CREEK BRIDGE) TO STA 556+00.00

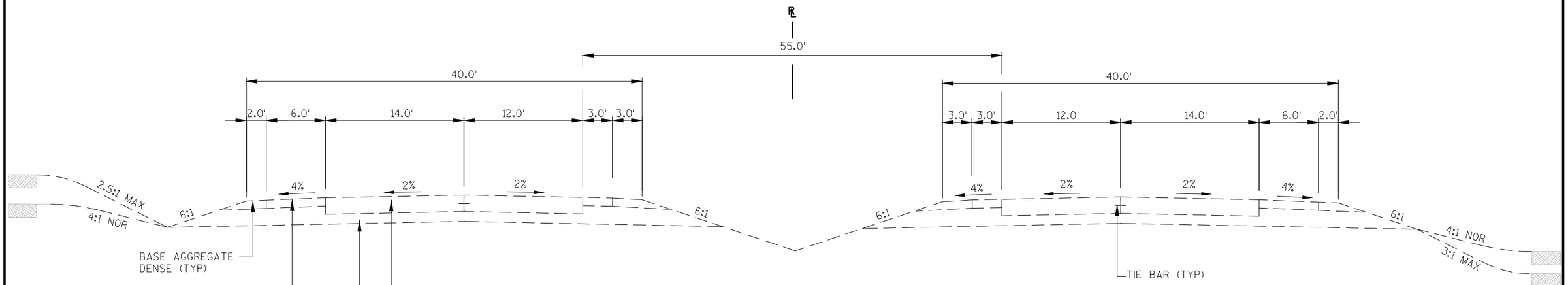
PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TYPICAL SECTION	SHEET 5	E



TYPICAL EXISTING SECTION

STH 312

STA 171+25.00 TO STA 173+21.00

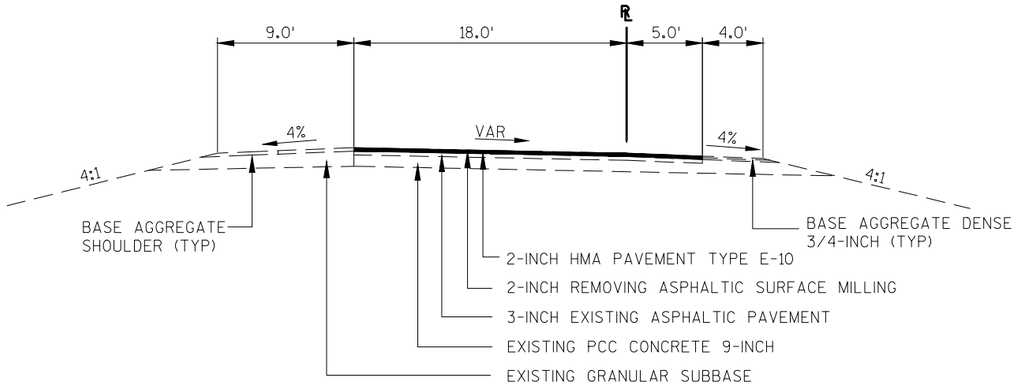


TYPICAL EXISTING SECTION

STH 312

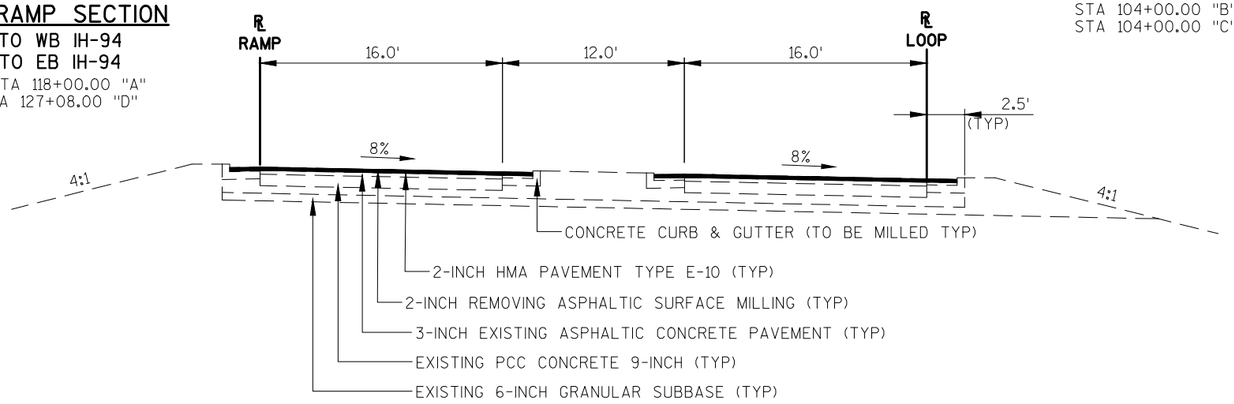
STA 173+21.00 TO STA 190+00.00

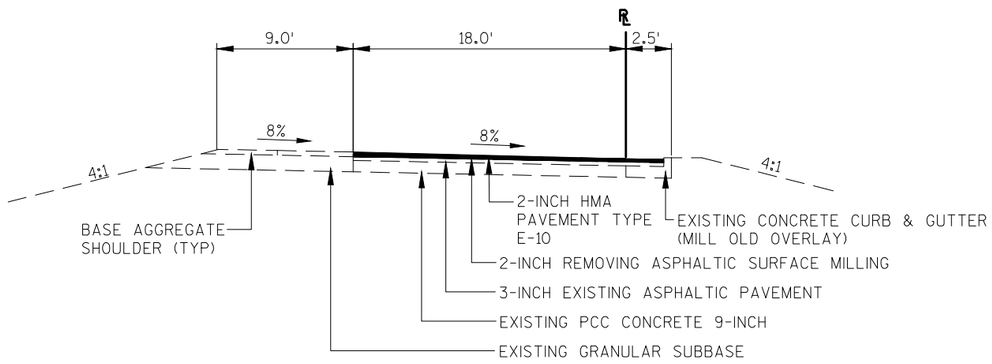
PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	TYPICAL SECTION	SHEET 6	E



TYPICAL FINISHED RAMP SECTION

STH 29 ON RAMP TO WB IH-94
STH 29 ON RAMP TO EB IH-94
STA 100+00.00 "A" TO STA 118+00.00 "A"
STA 111+30.00 "D" TO STA 127+08.00 "D"





TYPICAL FINISHED SUPERELEVATED LOOP SECTION

STH 29 INTERCHANGE
STA 104+00.00 "B" TO STA 110+00.00 "B"
STA 104+00.00 "C" TO STA 110+25.00 "C"

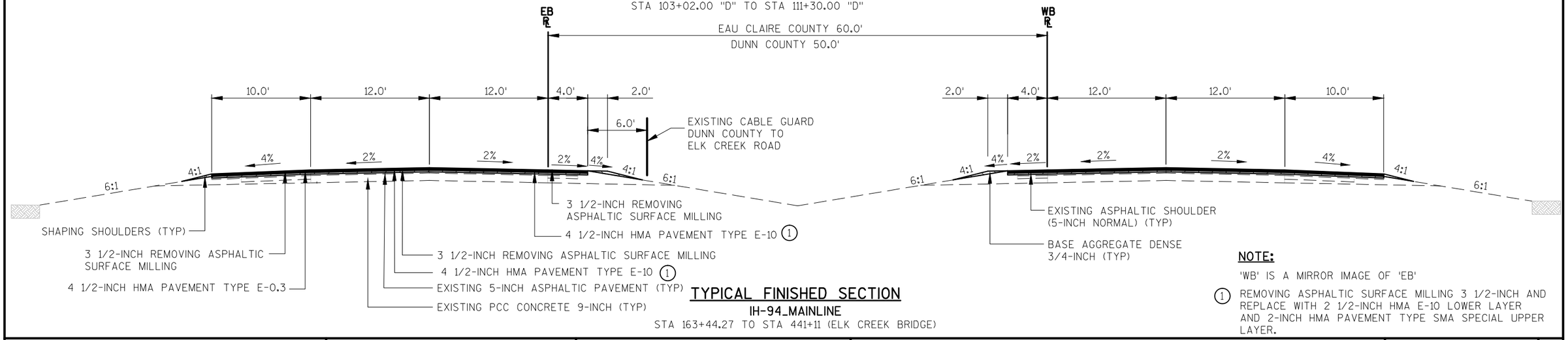
NOTE:

RAMPS AND LOOPS OPEN TO TRAFFIC. LOCATE PAVING JOINT WITHIN 1.0' OF RAMP CENTERLINE.

USE BASE AGGREGATE DENSE 3/4-INCH FOR ANY TEMPORARY RAMPS OVER CURB HEADS TO ALLOW TRAFFIC AROUND MOVING WORK ZONE.

TYPICAL FINISHED SUPERELEVATED RAMP & LOOP SECTION

STH 29 INTERCHANGE
STA 118+00.00 "A" TO STA 124+90.00 "A"
STA 110+00.00 "B" TO STA 116+13.00 "B"
STA 110+25.00 "C" TO STA 117+86.00 "C"
STA 103+02.00 "D" TO STA 111+30.00 "D"



TYPICAL FINISHED SECTION

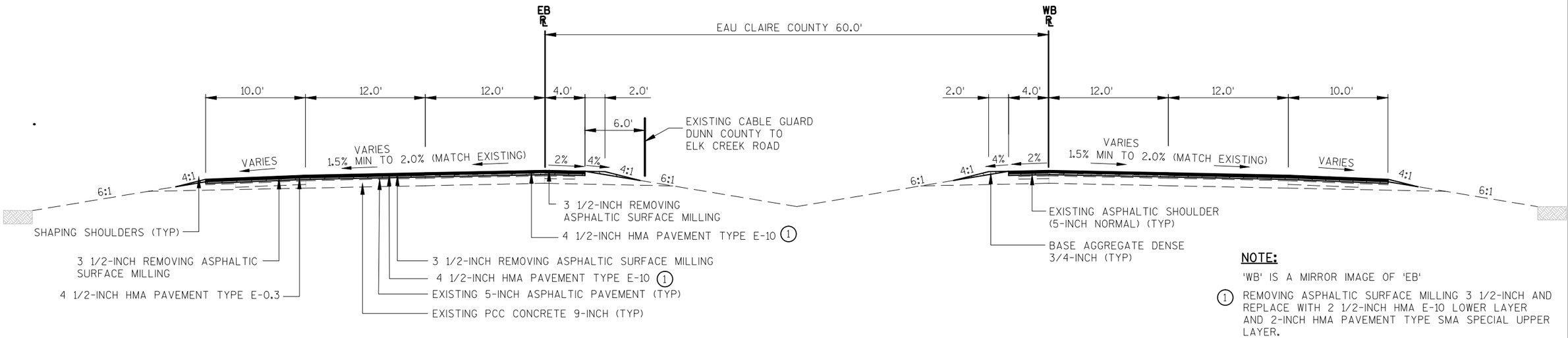
IH-94_MAINLINE
STA 163+44.27 TO STA 441+11 (ELK CREEK BRIDGE)

NOTE:

'WB' IS A MIRROR IMAGE OF 'EB'

(1) REMOVING ASPHALTIC SURFACE MILLING 3 1/2-INCH AND REPLACE WITH 2 1/2-INCH HMA E-10 LOWER LAYER AND 2-INCH HMA PAVEMENT TYPE SMA SPECIAL UPPER LAYER.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	TYPICAL SECTION	SHEET 7	E



NOTE:

'WB' IS A MIRROR IMAGE OF 'EB'

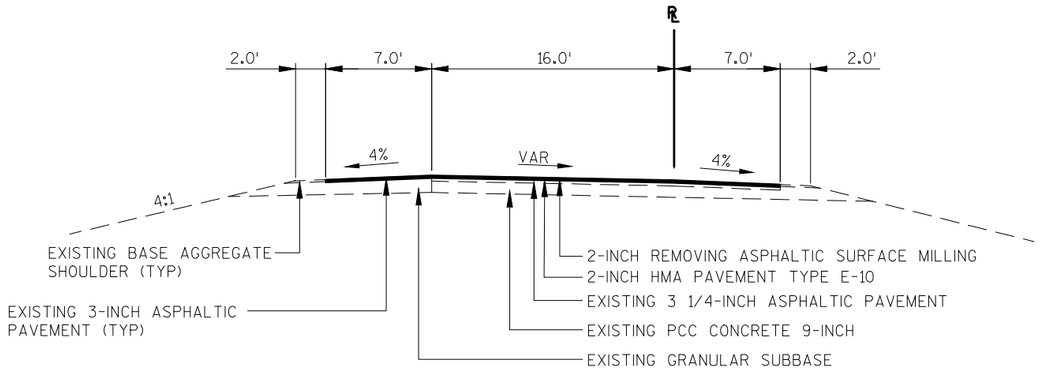
(1) REMOVING ASPHALTIC SURFACE MILLING 3 1/2-INCH AND REPLACE WITH 2 1/2-INCH HMA E-10 LOWER LAYER AND 2-INCH HMA PAVEMENT TYPE SMA SPECIAL UPPER LAYER.

TYPICAL FINISHED SECTION

IH-94_MAINLINE

STA 441+11 (ELK CREEK BRIDGE) TO STA 556+00.00

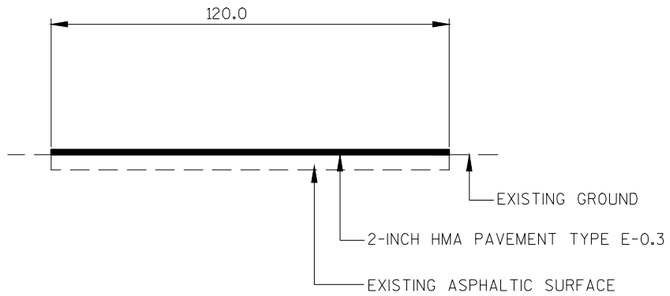
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	TYPICAL SECTION	SHEET 8	E



TYPICAL FINISHED RAMP SECTION

STH 312 ON RAMP TO WB IH-94

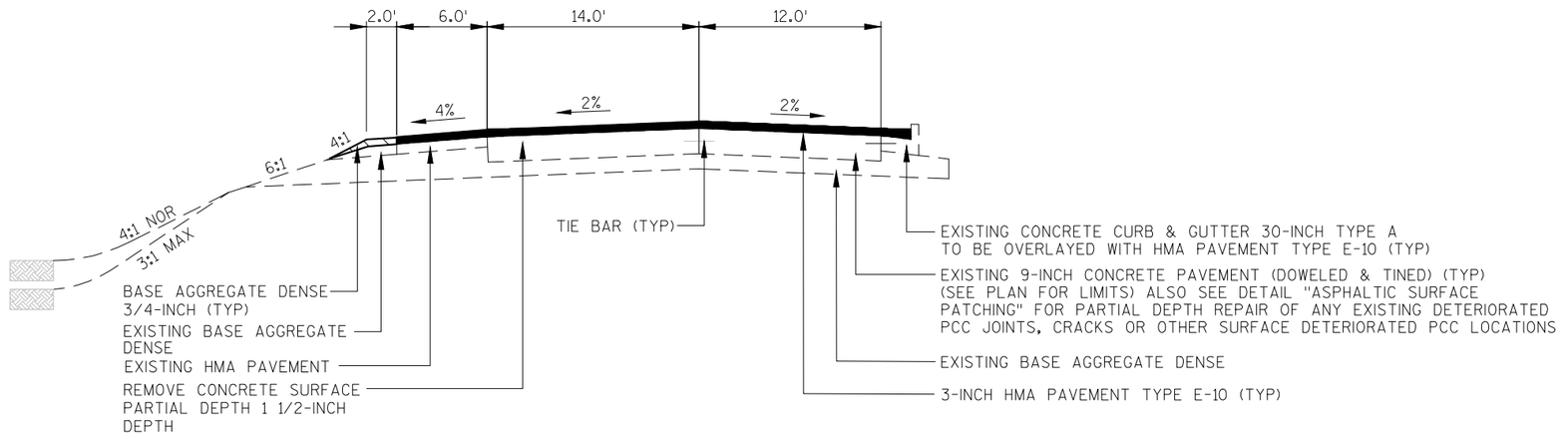
STA 100+00"E" TO STA 128+00"E"



TYPICAL FINISHED SECTION

PARK AND RIDE

LOT 18-01

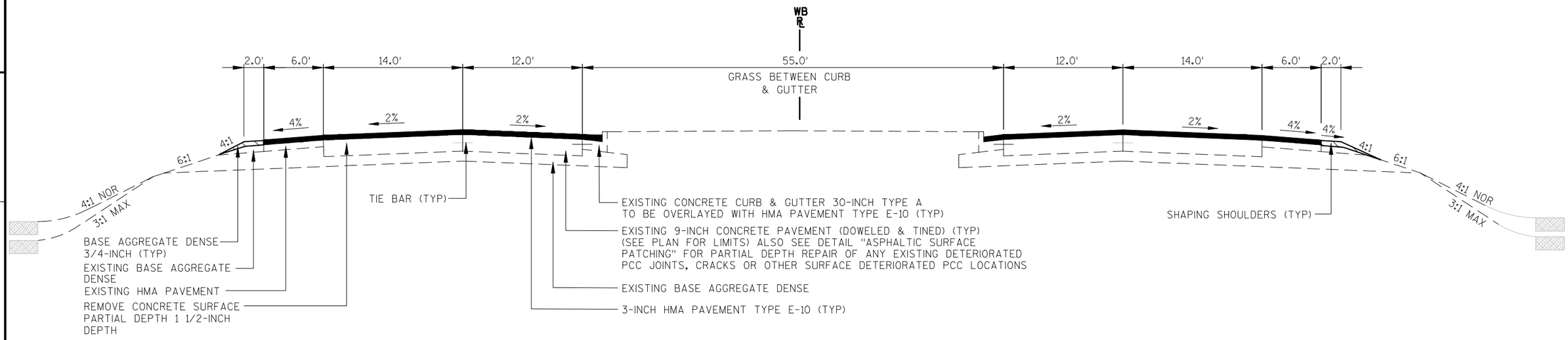


TYPICAL FINISHED SECTION

STH 312

STA 128+00"E" TO STA 133+29 "E"

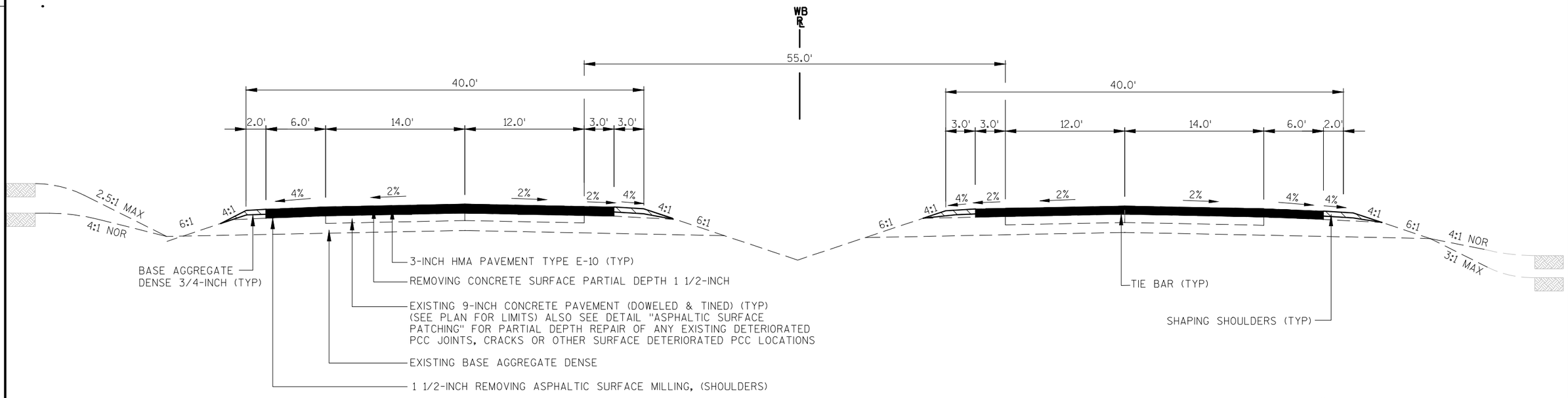
PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TYPICAL SECTION	SHEET 9	E



TYPICAL FINISHED SECTION

STH 312

STA 170+39.77 "F" TO STA 173+21.00 "F"



NOTE:

'WB' IS MIRROR IMAGE OF 'EB'

TYPICAL FINISHED SECTION

STH 312

STA 173+21.00 "F" TO STA 190+00.00 "F"

PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TYPICAL SECTION	SHEET 10	E

2

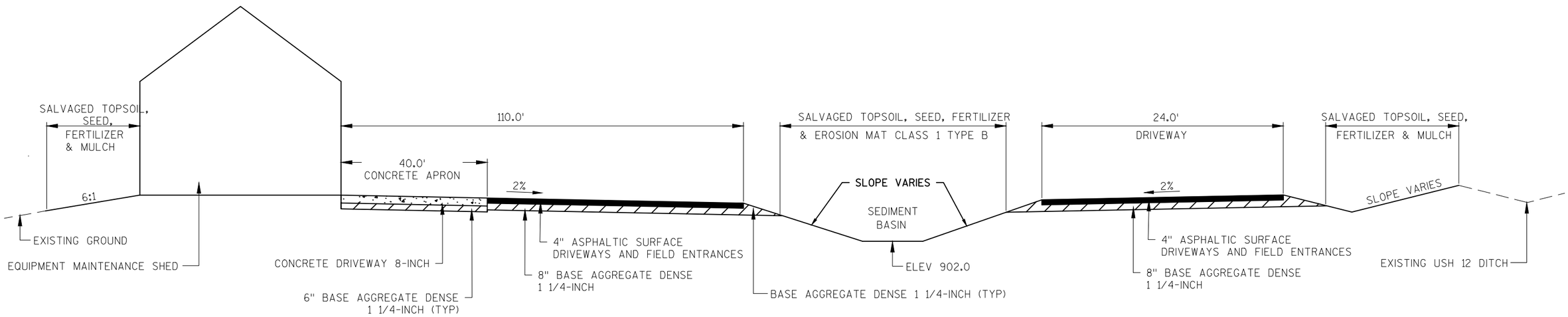
SUPERELEVATION TABLE IH-94 EB

STATION	DESCRIPTION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
0+00.00'	BEGIN ALIGNMENT	-4.00%	-2.00%	-2.00%	-4.00%
322+31.15'	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
322+31.15'	END NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
322+91.15'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
323+51.15'	BEGIN FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
323+51.15'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
342+26.31'	END FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
342+26.31'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
342+86.31'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
343+46.31'	BEGIN NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
343+46.31'	BEGIN NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
443+03.90'	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
443+03.90'	END NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
443+63.90'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
444+23.90'	BEGIN FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
444+23.90'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
460+29.72'	END FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
460+29.72'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
460+89.72'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
461+49.72'	BEGIN NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
461+49.72'	BEGIN NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
520+92.85'	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
520+92.85'	END NORMAL CROWN	-2.00%	-2.00%	-2.00%	-4.00%
521+52.85'	LEVEL CROWN	0.00%	0.00%	-2.00%	-4.00%
522+12.85'	BEGIN FULL SUPER	2.00%	2.00%	-2.00%	-4.00%
522+12.85'	REVERSE CROWN	2.00%	2.00%	-2.00%	-4.00%
556+00'	END ALIGNMENT	2.00%	2.00%	-2.00%	-4.00%

SUPERELEVATION TABLE IH-94 WB

STATION	DESCRIPTION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
0+00.00'	BEGIN ALIGNMENT	-4.00%	-2.00%	-2.00%	-4.00%
322+54.62'	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
322+54.62'	END NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
323+14.62'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
323+74.62'	BEGIN FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
323+74.62'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
342+41.45'	END FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
342+41.45'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
343+01.45'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
343+61.45'	BEGIN NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
343+61.45'	BEGIN NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
443+03.57'	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
443+03.57'	END NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
443+63.57'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
444+23.57'	BEGIN FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
444+23.57'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
460+21.62'	END FULL SUPER	-4.00%	-2.00%	2.00%	2.00%
460+21.62'	REVERSE CROWN	-4.00%	-2.00%	2.00%	2.00%
460+81.62'	LEVEL CROWN	-4.00%	-2.00%	0.00%	0.00%
461+41.62'	BEGIN NORMAL CROWN	-4.00%	-2.00%	-2.00%	-2.00%
461+41.62'	BEGIN NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
520+83.72'	END NORMAL SHOULDER	-4.00%	-2.00%	-2.00%	-4.00%
520+83.72'	END NORMAL CROWN	-2.00%	-2.00%	-2.00%	-4.00%
521+43.72'	LEVEL CROWN	0.00%	0.00%	-2.00%	-4.00%
522+03.72'	BEGIN FULL SUPER	2.00%	2.00%	-2.00%	-4.00%
522+03.72'	REVERSE CROWN	2.00%	2.00%	-2.00%	-4.00%
556+00'	END ALIGNMENT	2.00%	2.00%	-2.00%	-4.00%

2



TYPICAL SECTION

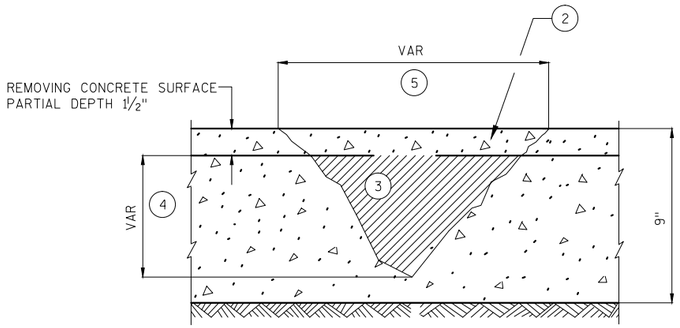
A-A *

SALT AND EQUIPMENT SHED

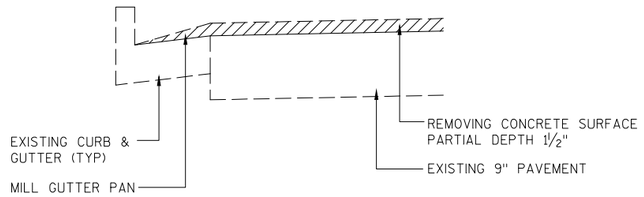
NOTE

*SEE SITE PLAN DETAIL

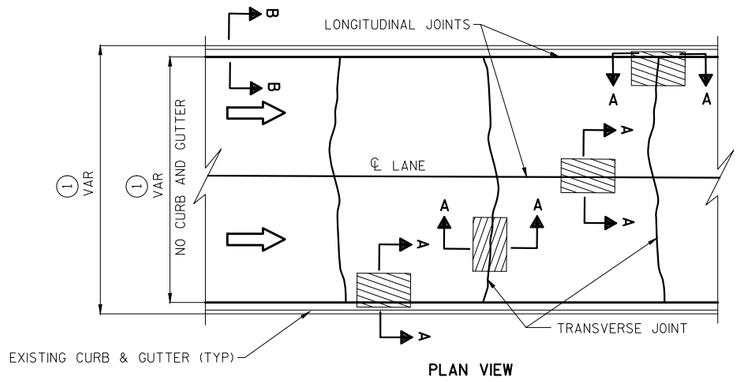
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TYPICAL SECTION	SHEET 12	E



SECTION A-A



SECTION B-B



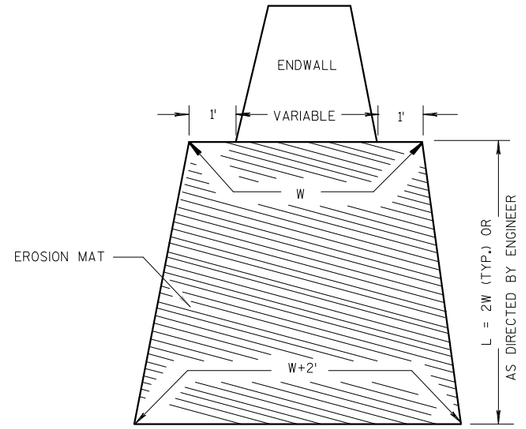
PLAN VIEW

PREPARATION OF FOUNDATION FOR ASPHALT PAVING SPECIAL

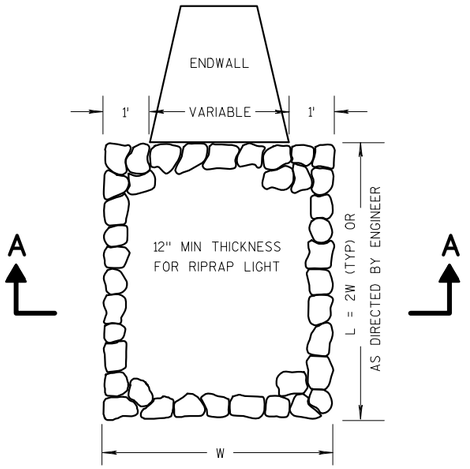
STA 170+39 "F" TO STA 190+00.00 "F" (EB)
STA 170+78.30 "F" TO STA 190+00.00 "F" (WB)

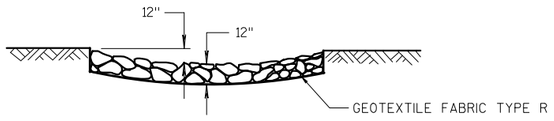
NOTES:

1. WIDTH VARIES FOR REMOVING CONCRETE PARTIAL DEPTH 1½" BETWEEN FACE OF CURB TO FACE OF CURB ALONG STH 312 EB & WB AND ALL TURN LANES AND SLOTTED TURN LANES WITHIN THE INTERSECTION. SEE PLAN FOR TYPICALS.
2. REMOVE ALL CONCRETE, ASPHALT AND ANY UNSOUND MATERIAL FROM TRANSVERSE AND LONGITUDINAL JOINTS AND RANDOM CRACKS. LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND JOINTS OR CRACKS WITHIN THE CURB AND GUTTER.
3. ASPHALTIC SURFACE PATCHING SHALL BE PLACED IN THE JOINT REPAIR AREAS. THE HMA PAVEMENT SHALL BE COMPACTED IN LIFTS UNTIL FLUSH WITH THE SURFACE OF THE CONCRETE.
4. DEPTH VARIES FROM PARTIAL TO FULL DEPTH.
5. APPROXIMATE WIDTH OF JOINTS OR CRACK REPAIR VARIES. BY THE CONTRACTOR IS RECOMMENDED TO REVIEW THE PROJECT SITE TO CONFIRM THE JOINT CONDITIONS PRIOR TO BIDDING.



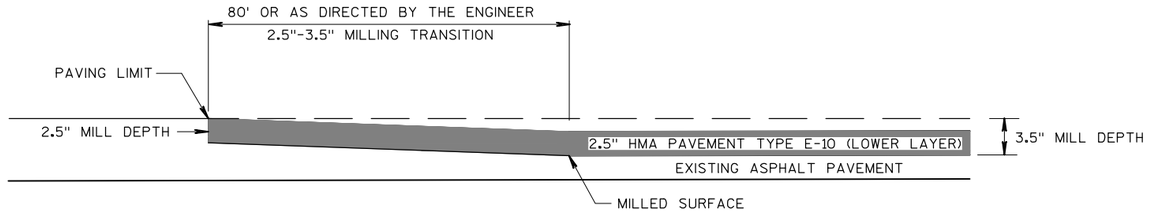
EROSION MAT TREATMENT AT CULVERTS





SECTION A-A

RIPRAP LIGHT TREATMENT AT CULVERTS

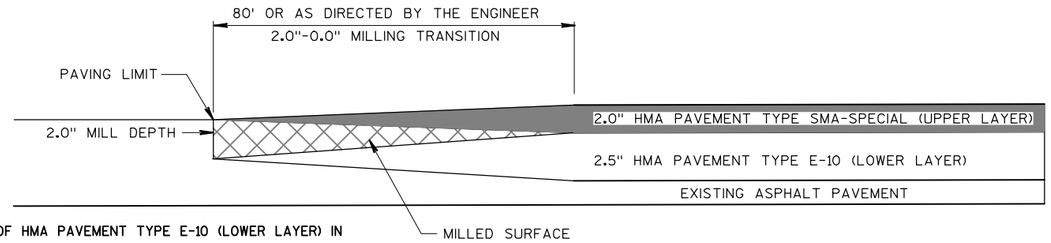


REMOVING ASPHALTIC SURFACE MILLING 2.5-INCH TO 3.5-INCH OF EXISTING SURFACE IN 80' TRANSITION AREA.
REMOVING ASPHALTIC SURFACE MILLING 3.5-INCH (TYP) OF EXISTING SURFACE FOR REMAINDER OF MAINLINE IH-94.
2.5-INCH HMA PAVEMENT TYPE E-10 (LOWER LAYER).
NOTE: FOR MAINLINE IH-94, TYPICAL WIDTH OF JOINT EXTENDS ACROSS 12' DRIVING LANE AND 16' PASSING LANE & SHOULDER. ACTUAL WIDTH SHOWN IN TABLE.

BUTT JOINT TRANSITION MAINLINE LOWER LAYER

REQUIRED AT BEGIN & END CONSTRUCTION LIMITS AND ALSO AT BRIDGES
SEE LOCATIONS LISTED IN TABLE

BUTT JOINT LOCATIONS		WIDTH (FT)
EB IH 94	WB IH 94	
163+44	163+67	38
198+38	199+37	38
201+63	202+76	38
416+17	416+50	38
417+72	418+50	38
439+40	439+50	38
441+11	441+21	38
556+00	556+00	38

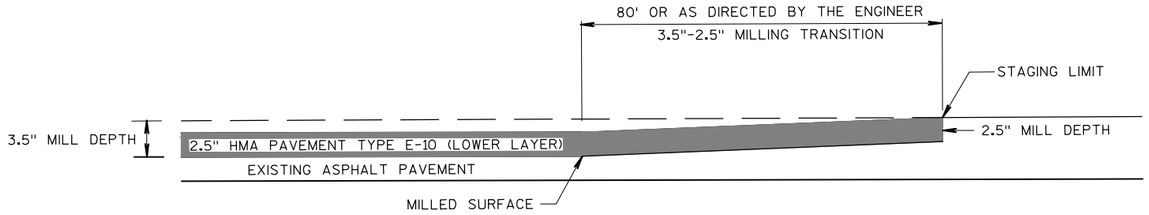


REMOVING ASPHALTIC SURFACE MILLING 2.0-INCH TO 0.0-INCH OF HMA PAVEMENT TYPE E-10 (LOWER LAYER) IN 80' TRANSITION AREA.
2.0-INCH HMA PAVEMENT TYPE SMA-SPECIAL (UPPER LAYER).
NOTE: FOR MAINLINE IH-94, TYPICAL WIDTH OF JOINT EXTENDS ACROSS 12' DRIVING LANE AND 16' PASSING LANE & SHOULDER. ACTUAL WIDTH SHOWN IN TABLE.

REMOVING ASPHALTIC SURFACE BUTT JOINT MAINLINE UPPER LAYER

REQUIRED AT BEGIN & END CONSTRUCTION LIMITS AND ALSO AT BRIDGES
SEE LOCATIONS LISTED IN TABLE

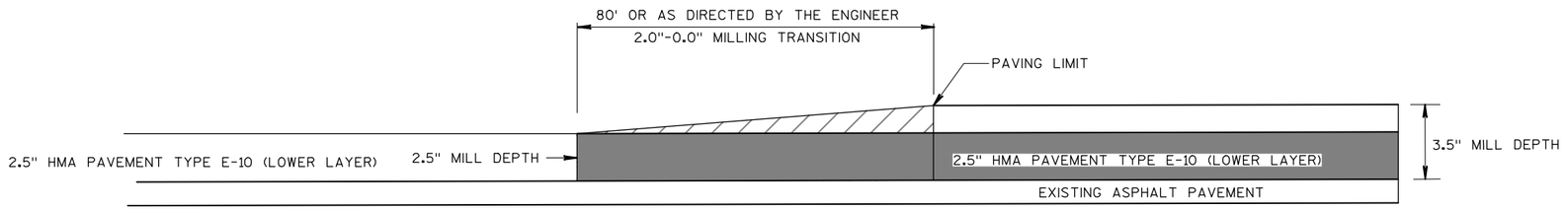
PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"



REMOVING ASPHALTIC SURFACE MILLING 3.5-INCH TO 2.5-INCH OF EXISTING SURFACE IN 80' TRANSITION AREA.
REMOVING ASPHALTIC SURFACE MILLING 3.5-INCH (TYP) OF EXISTING SURFACE FOR REMAINDER OF MAINLINE IH-94.
2.5-INCH HMA PAVEMENT TYPE E-10 (LOWER LAYER).
NOTE: TYPICAL WIDTH OF JOINT EXTENDS ACROSS 12' DRIVING LANE AND 16' PASSING LANE & SHOULDER.

TEMPORARY BUTT JOINT TRANSITION MAINLINE LOWER LAYER

REQUIRED FOR INTERMEDIATE STAGING LIMITS



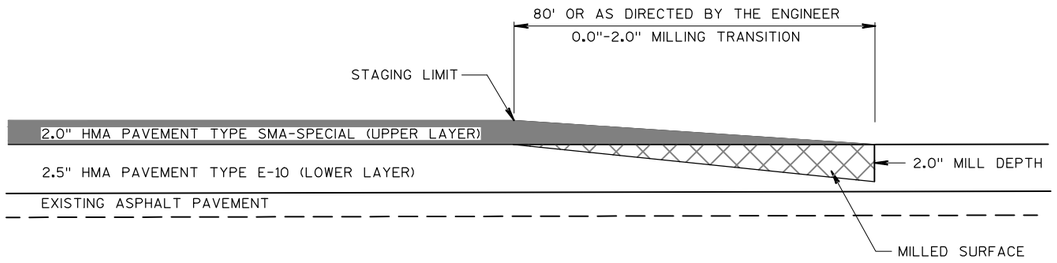
REMOVING ASPHALTIC SURFACE MILLING 2.5-INCH TO 3.5-INCH OF EXISTING SURFACE IN TRANSITION AREA.
REMOVING ASPHALTIC SURFACE MILLING 3.5-INCH (TYP) OF EXISTING SURFACE FOR REMAINDER OF MAINLINE IH-94.
2.5-INCH HMA PAVEMENT TYPE E-10 (LOWER LAYER).
NOTE: TYPICAL WIDTH OF JOINT EXTENDS ACROSS 12' DRIVING LANE AND 16' PASSING LANE & SHOULDER.

TEMPORARY BUTT JOINT MILLING TRANSITION MAINLINE LOWER LAYER

REQUIRED FOR INTERMEDIATE STAGING LIMITS

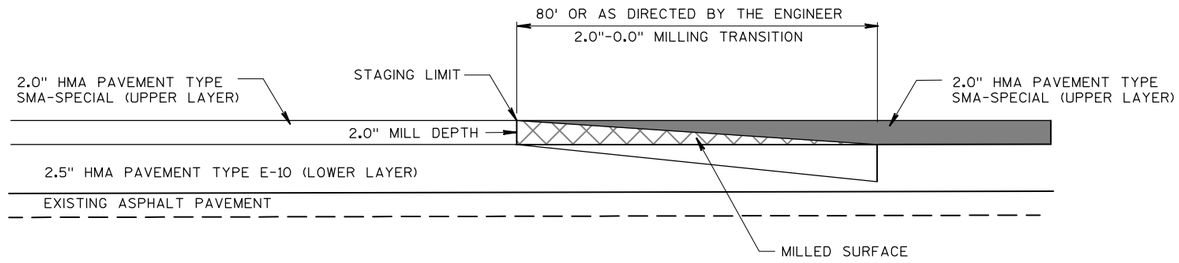
PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"

PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	PLAN: DETAILS	SHEET 15	E



REMOVING ASPHALTIC SURFACE MILLING 0.0-INCH TO 2.0-INCH OF HMA PAVEMENT TYPE E-10 (LOWER LAYER) IN TRANSITION AREA.
2.0-INCH HMA PAVEMENT TYPE SMA-SPECIAL (UPPER LAYER).
NOTE: WIDTH OF JOINT EXTENDS ACROSS 12' DRIVING LANE AND 16' PASSING LANE & SHOULDER.

PRIMARY STAGE



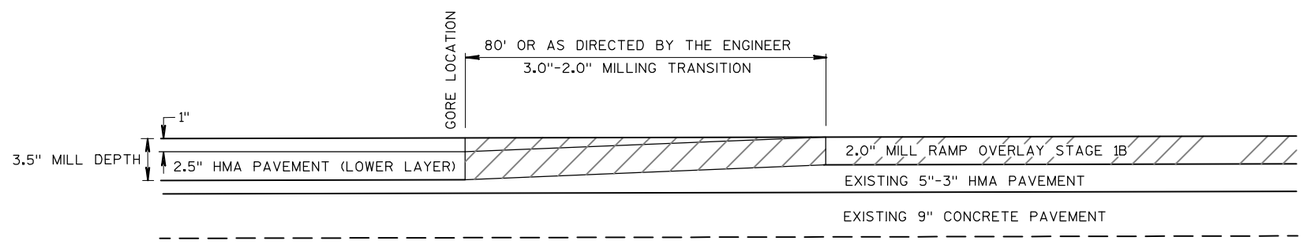
REMOVING ASPHALTIC SURFACE 2.0-INCH TO 0.0-INCH OF HMA PAVEMENT TYPE SMA-SPECIAL (UPPER LAYER) IN TRANSITION AREA.
2.0-INCH HMA PAVEMENT TYPE SMA-SPECIAL (UPPER LAYER).
NOTE: WIDTH OF JOINT EXTENDS ACROSS 12' DRIVING LANE AND 16' PASSING LANE & SHOULDER.

SECONDARY STAGE

PAID FOR AS "MILLING AND REMOVING TEMPORARY JOINTS"

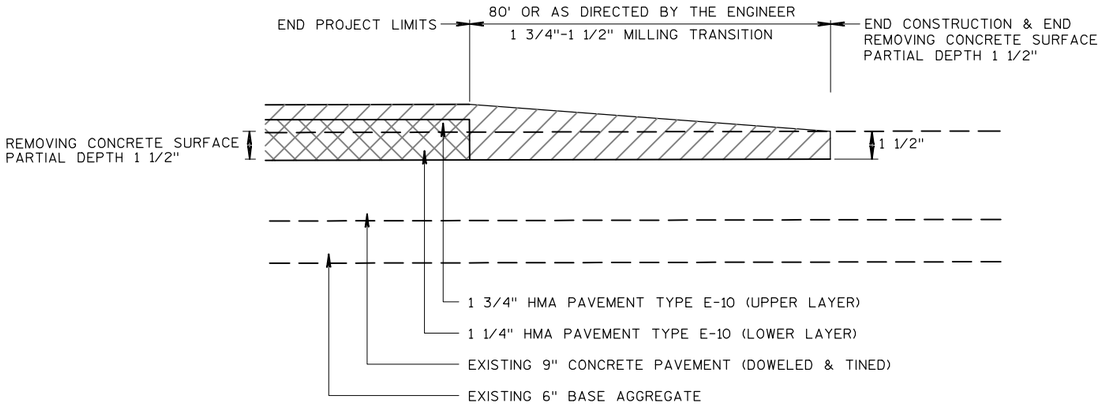
TEMPORARY BUTT JOINT TRANSITION MAINLINE UPPER LAYER

REQUIRED FOR INTERMEDIATE STAGING LIMITS DURING UPPER LAYER PAVING OPERATIONS



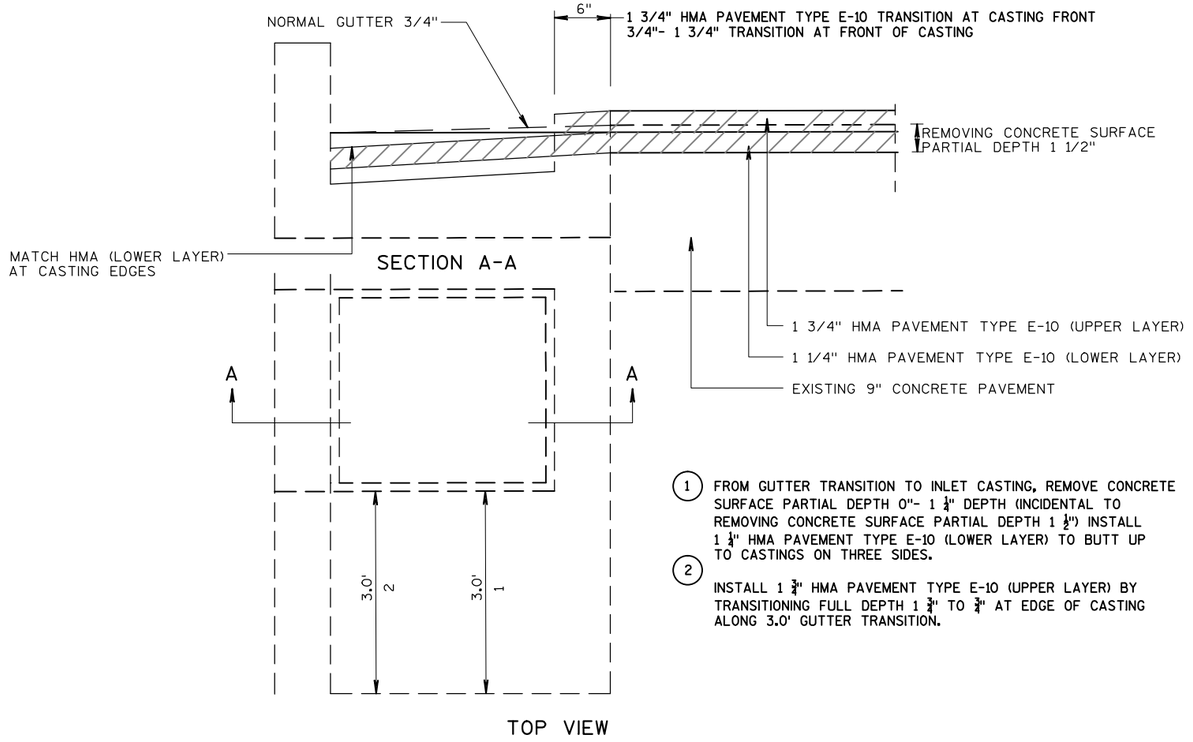
TEMPORARY BUTT JOINT TRANSITION: RAMP LOWER LAYER

STAGE 1B



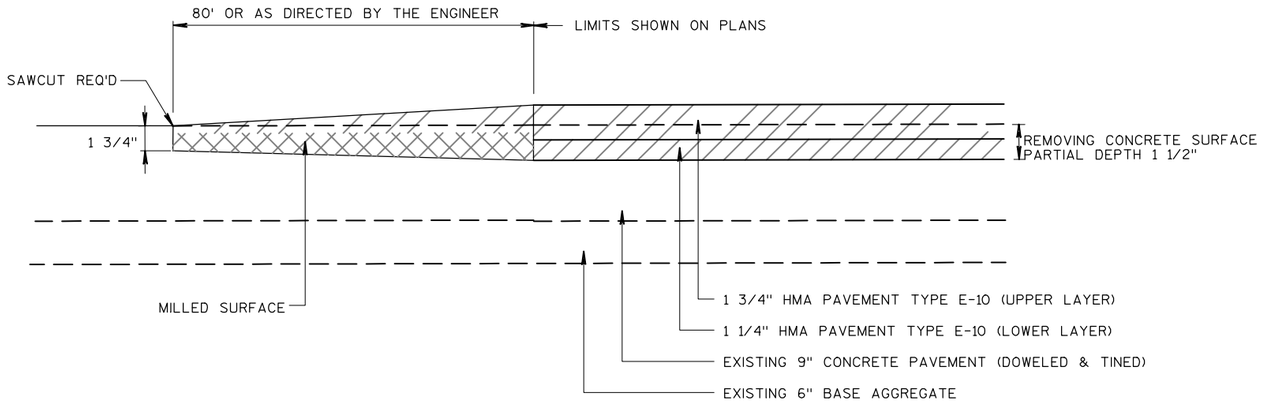
TEMPORARY BUTT JOINT TRANSITION

RAMP + LOOPS LOWER LEVEL



TOP VIEW

1. FROM GUTTER TRANSITION TO INLET CASTING, REMOVE CONCRETE SURFACE PARTIAL DEPTH 0"- 1 ¼" DEPTH (INCIDENTAL TO REMOVING CONCRETE SURFACE PARTIAL DEPTH 1 ½") INSTALL 1 ¼" HMA PAVEMENT TYPE E-10 (LOWER LAYER) TO BUTT UP TO CASTINGS ON THREE SIDES.
2. INSTALL 1 ¾" HMA PAVEMENT TYPE E-10 (UPPER LAYER) BY TRANSITIONING FULL DEPTH 1 ¾" TO ¾" AT EDGE OF CASTING ALONG 3.0' GUTTER TRANSITION.

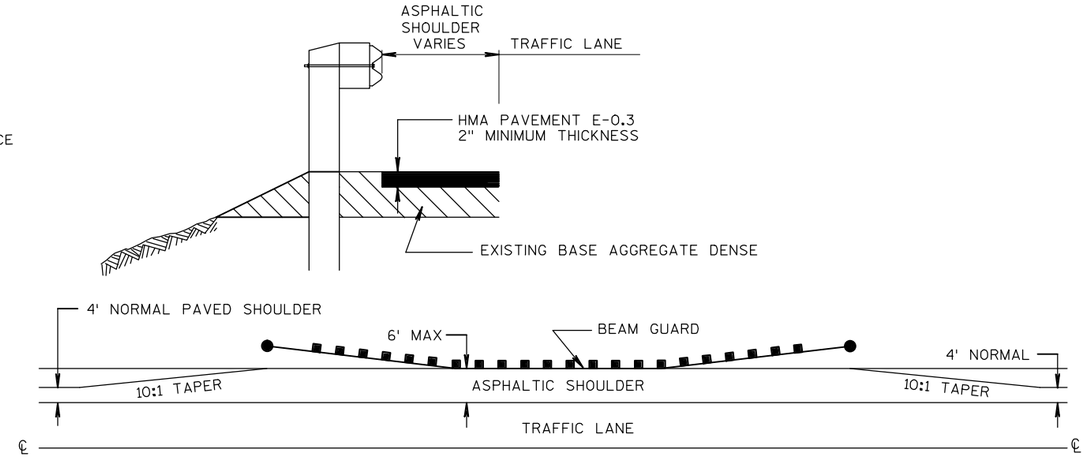


BUTT JOINT: TRANSITION TO EXISTING CONCRETE

STH 312 (MAINLINE)
USH 12 (NORTH SIDE ROAD)
TRUAX LANE (SOUTH SIDE ROAD)

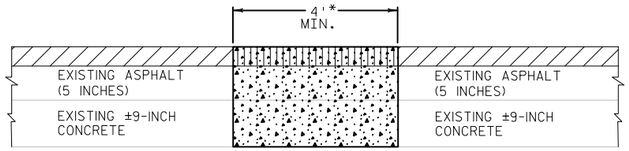
RESURFACING AT INLETS

STH 312



DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	PLAN: DETAILS	SHEET 17	E

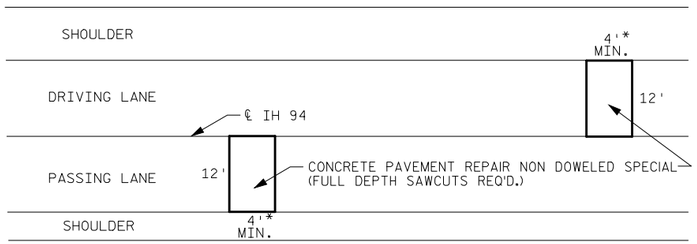


REMOVING ASPHALTIC SURFACE MILLING AND PAVE WITH HMA PAVEMENT

REMOVING CONCRETE SURFACE PARTIAL DEPTH AND PAVE WITH HMA PAVEMENT

CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL

SIDE VIEW



PLAN VIEW

* 4'-8' TYPICAL OR AS DIRECTED BY THE ENGINEER.

NOTES

DAMAGE TO EITHER EXISTING PAVEMENTS OR EXISTING SHOULDERS DURING CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL SHALL BE REPAIRED AND CONSIDERED INCIDENTAL TO THE ITEM OF CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL.

SAWING EXISTING ASPHALT OVERLAYED ON CONCRETE IS CONSIDERED INCIDENTAL TO SAWING CONCRETE.

CONSTRUCT CONCRETE PAVEMENT REPAIR PRIOR TO HMA MILL AND OVERLAY.

THICKNESS OF CONCRETE REPARI MAY VARY.

CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL DETAIL

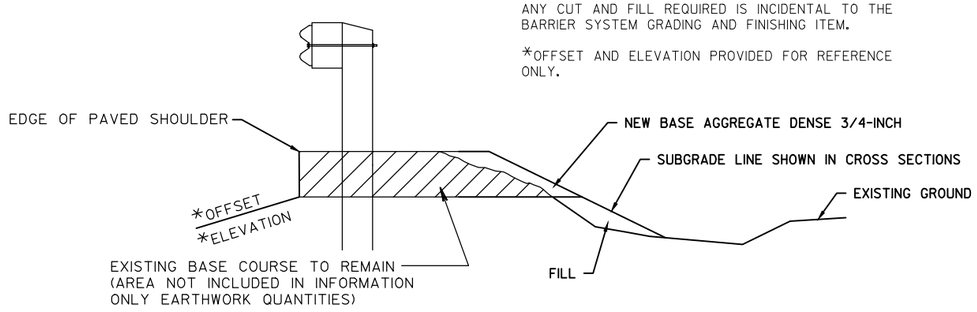
EXACT LOCATIONS DETERMINED BY THE ENGINEER.

NOTES:

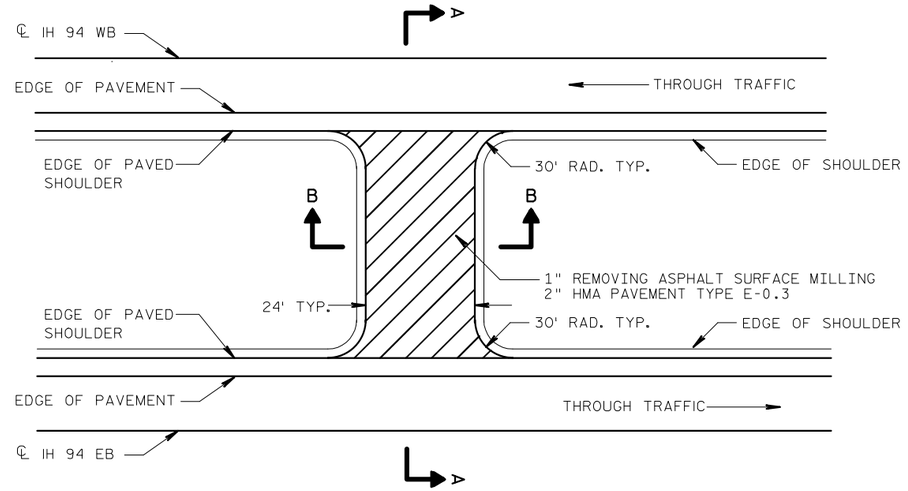
GUARDRAIL INSTALLATION LOCATION TO BE MEASURED FROM EXISTING EDGE OF PAVEMENT.

ANY CUT AND FILL REQUIRED IS INCIDENTAL TO THE BARRIER SYSTEM GRADING AND FINISHING ITEM.

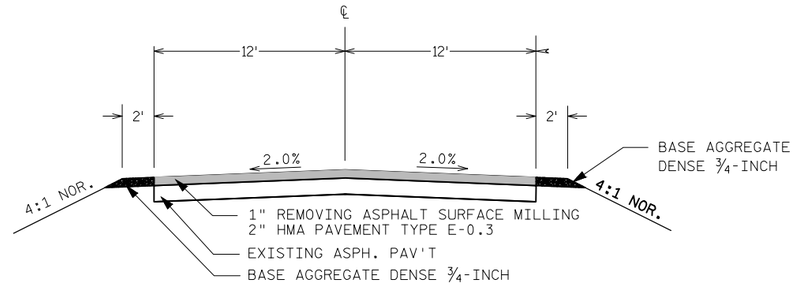
*OFFSET AND ELEVATION PROVIDED FOR REFERENCE ONLY.



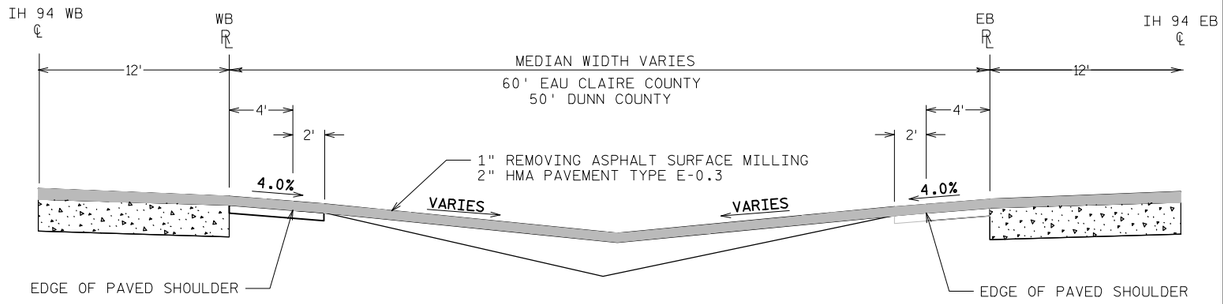
SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL



PLAN VIEW



SECTION B-B



SECTION A-A

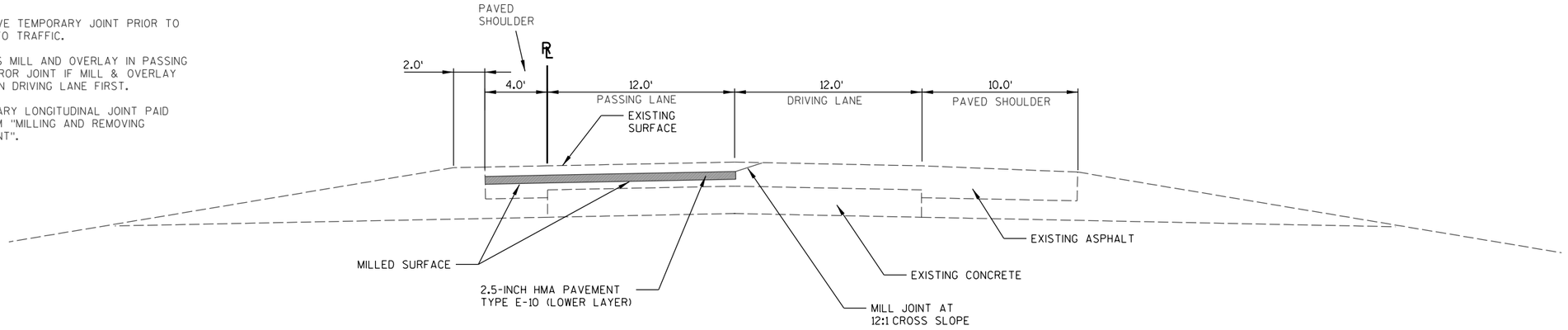
DETAIL FOR MAINTENANCE CROSSOVER

PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	PLAN: DETAILS	SHEET 18	E

NOTES:
MILL AND REMOVE TEMPORARY JOINT PRIOR TO OPENING LANE TO TRAFFIC.

DETAIL ASSUMES MILL AND OVERLAY IN PASSING LANE FIRST. MIRROR JOINT IF MILL & OVERLAY IS COMPLETED IN DRIVING LANE FIRST.

MILLED TEMPORARY LONGITUDINAL JOINT PAID FOR UNDER ITEM "MILLING AND REMOVING TEMPORARY JOINT".



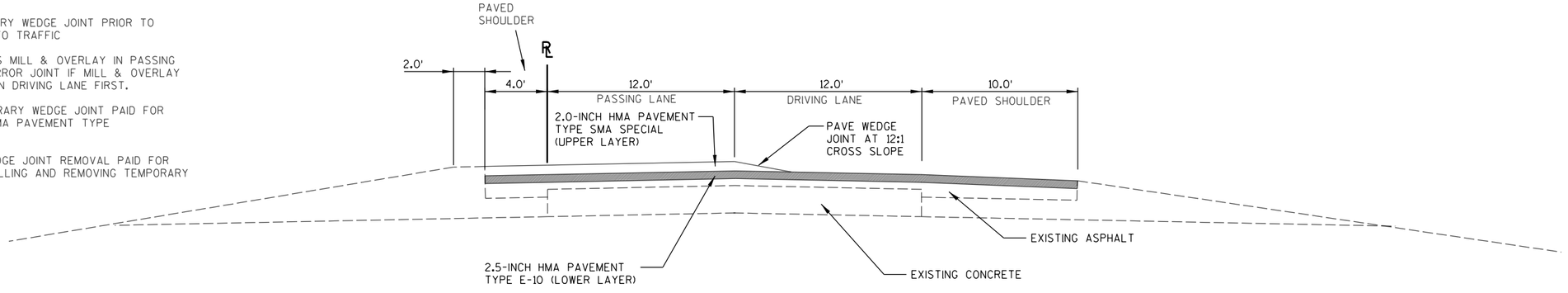
MILLED TEMPORARY LONGITUDINAL JOINT DETAIL

NOTES:
PLACE TEMPORARY WEDGE JOINT PRIOR TO OPENING LANE TO TRAFFIC

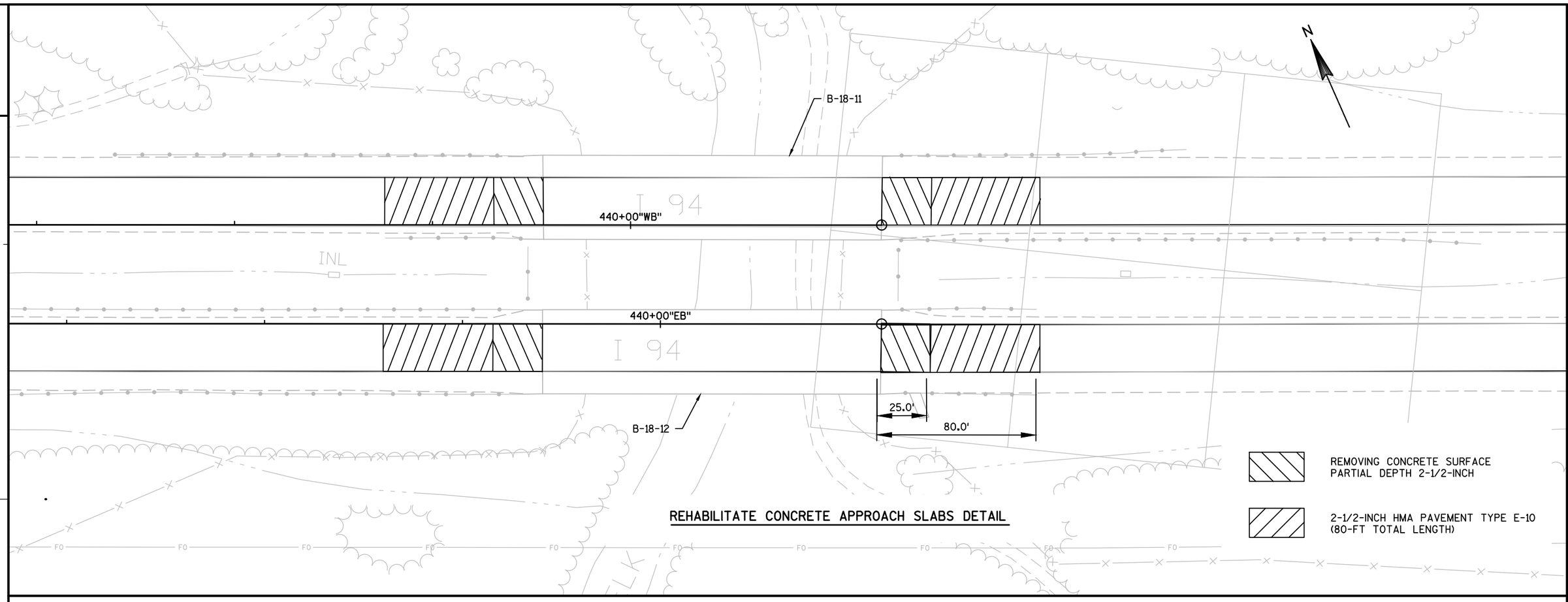
DETAIL ASSUMES MILL & OVERLAY IN PASSING LANE FIRST. MIRROR JOINT IF MILL & OVERLAY IS COMPLETED IN DRIVING LANE FIRST.

PLACING TEMPORARY WEDGE JOINT PAID FOR UNDER ITEM "HMA PAVEMENT TYPE SMA-SPECIAL"

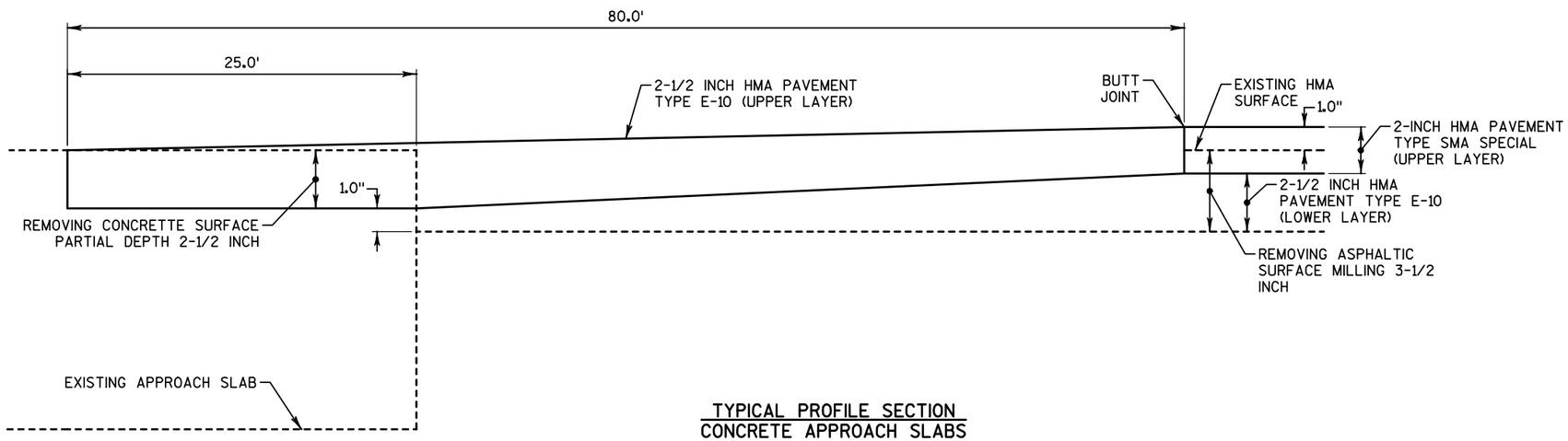
TEMPORARY WEDGE JOINT REMOVAL PAID FOR UNDER ITEM "MILLING AND REMOVING TEMPORARY JOINT"



TEMPORARY LONGITUDINAL WEDGE JOINT DETAIL



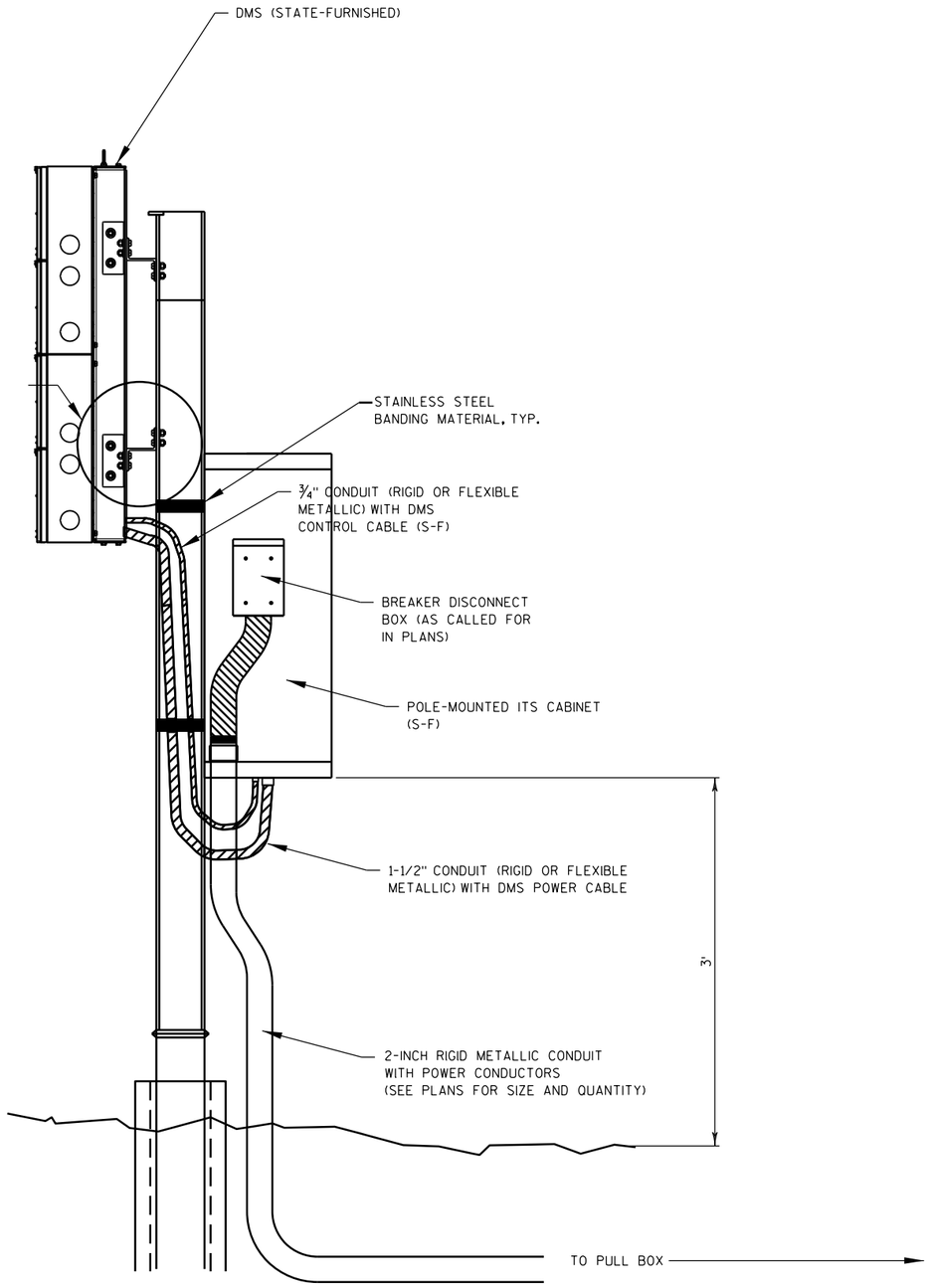
REHABILITATE CONCRETE APPROACH SLABS DETAIL

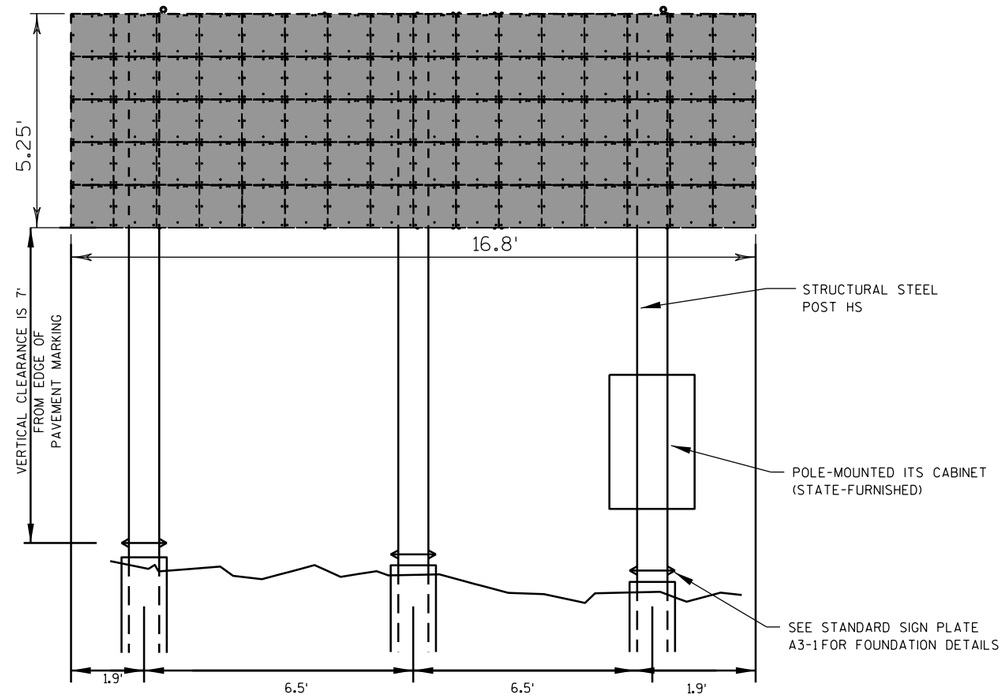


TYPICAL PROFILE SECTION
CONCRETE APPROACH SLABS

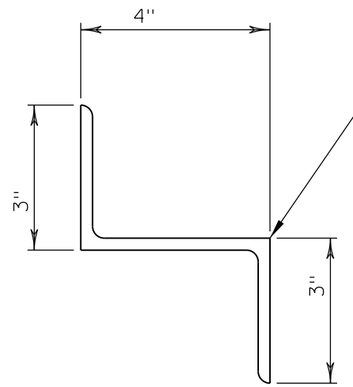
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	DETAILS	SHEET 20	E

2





DMS-18-0024: IH 94 WB AT 530TH AVE. / DIVISION ST.



TWO Z-BRACKETS ARE BOLTED TO THE REAR OF THE DISPLAY BY ADAPTIVE DISPLAY. THE VERTICAL SUPPORTS SHOWN ARE STRUCTURAL STEEL SIGN SUPPORTS. EACH Z-BRACKET IS ATTACHED TO THE SIGN ENCLOSURE USING * ½" A325 MECHANICALLY GALVANIZED STRUCTURAL GRADE HARDWARE.

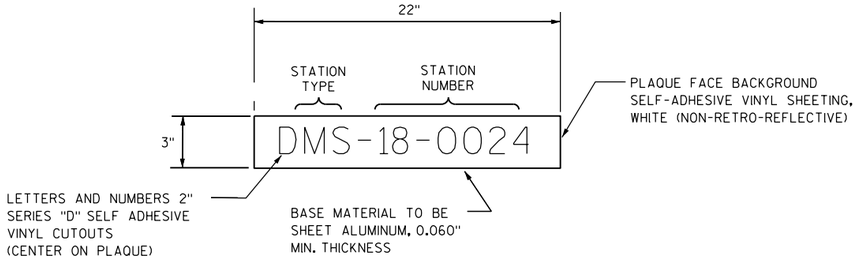
Z-BRACKETS ARE
3" X 2 11/16 " X ¼"
WEB X FLANGE X THINKNESS
ALUMINUM 6061-T6-ALLOY

DETAIL A

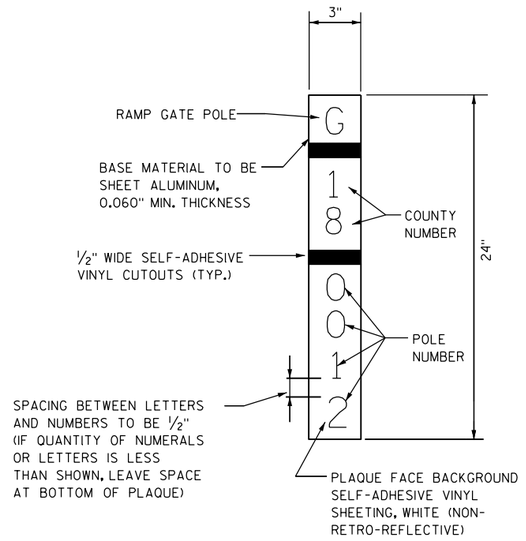
DETAIL A

PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	FTMS CONSTRUCTION DETAILS	SHEET 21	E

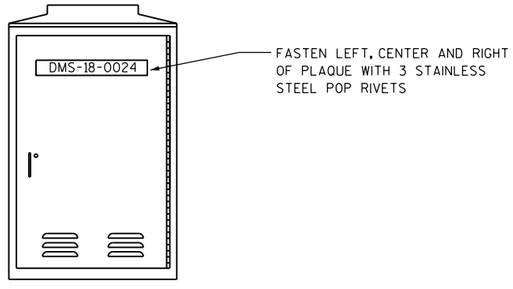
2



ITS FIELD CABINET IDENTIFICATION PLAQUE DETAIL



POLE IDENTIFICATION PLAQUE DETAIL



ITS FIELD CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)

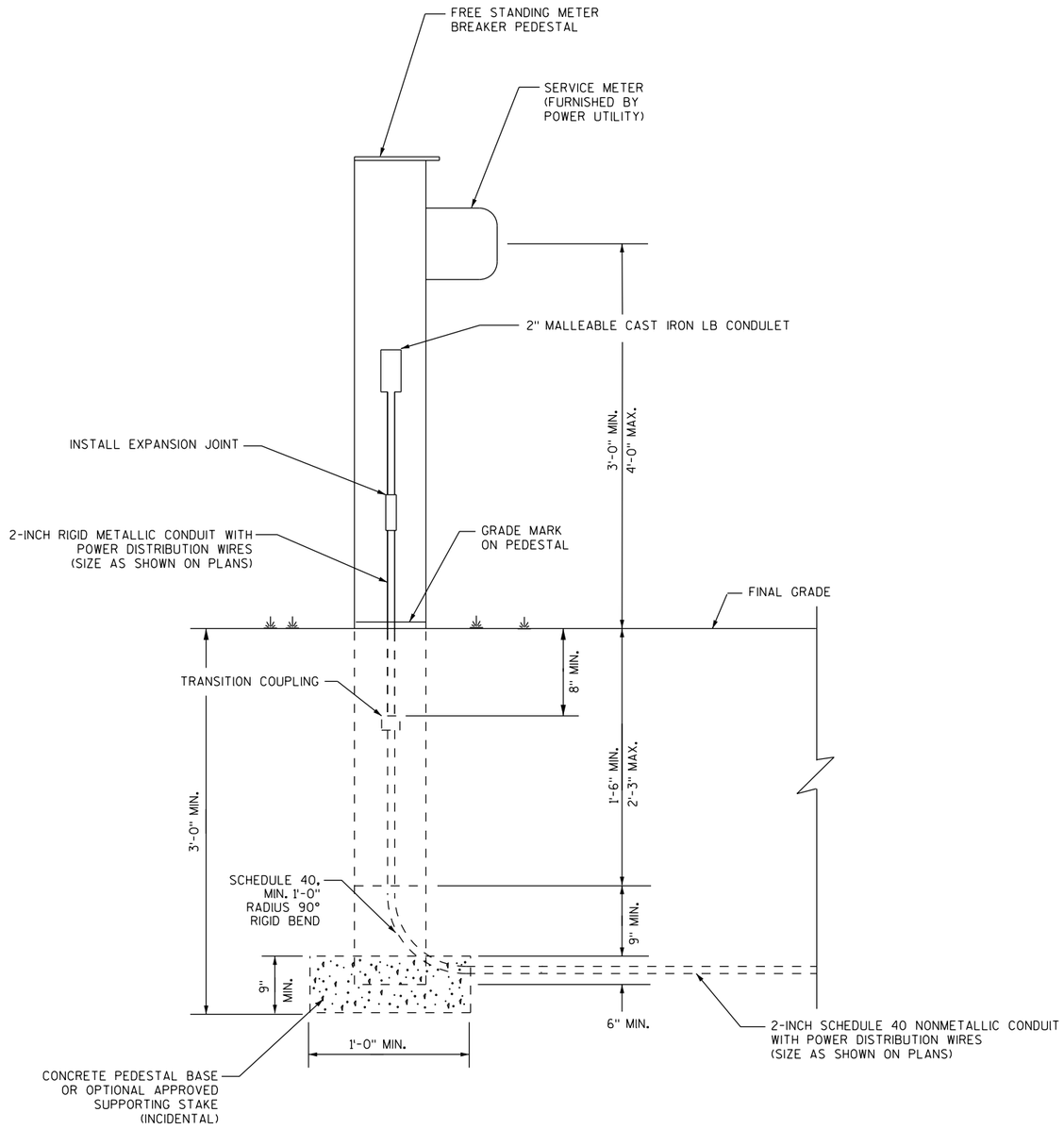
LEGEND STATION TYPE

RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

NOTES

1) TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2) FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3) FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4) COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.

2

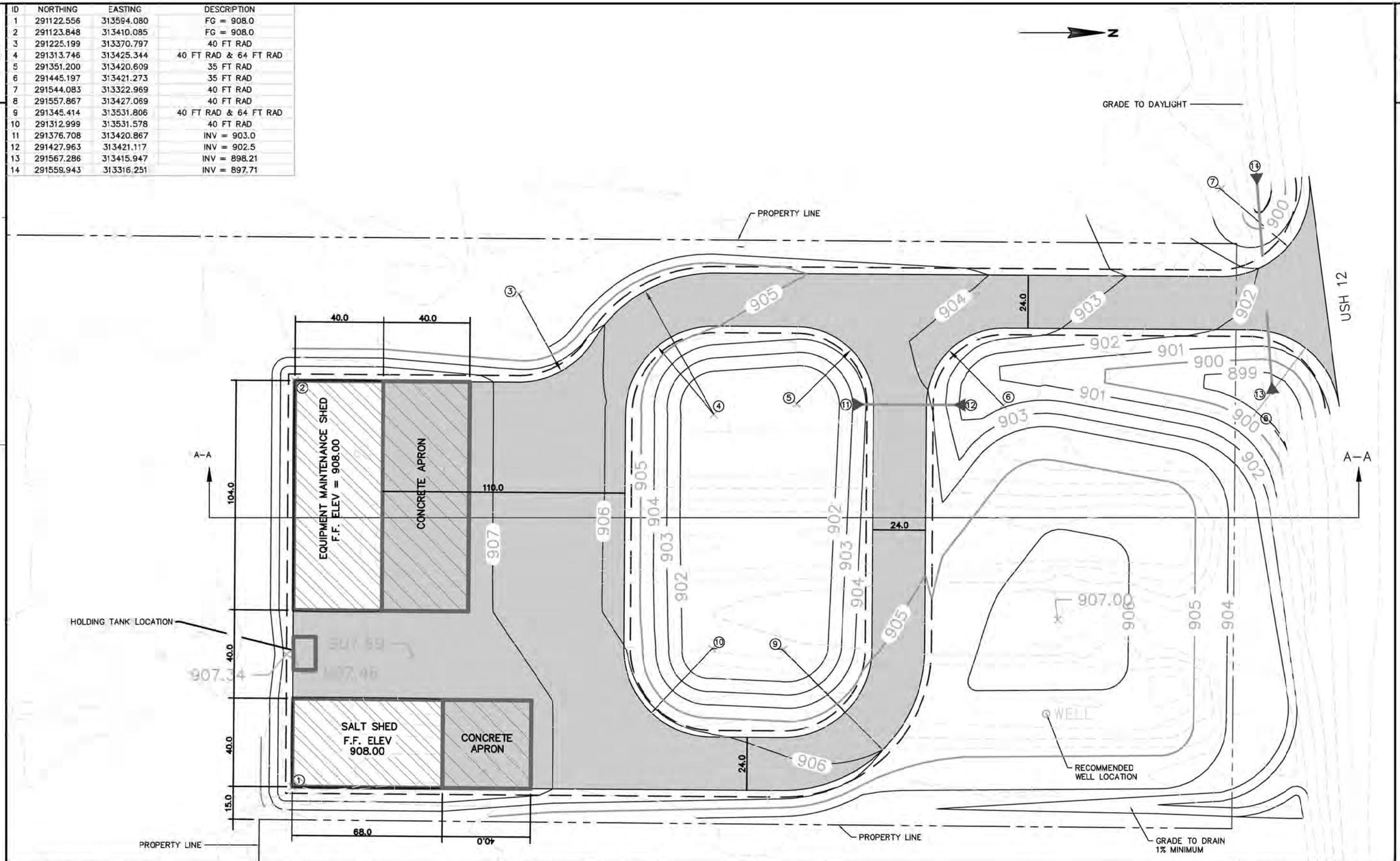


ELECTRICAL SERVICE METER BREAKER PEDESTAL

NOTES

1) MINIMUM REQUIREMENT SHOWN. ADDITIONAL BREAKERS MAY BE REQUIRED.

ID	NORTHING	EASTING	DESCRIPTION
1	291122.556	313594.080	FG = 908.0
2	291123.848	313410.085	FG = 908.0
3	291225.199	313370.797	40 FT RAD
4	291313.746	313425.344	40 FT RAD & 64 FT RAD
5	291351.200	313420.609	35 FT RAD
6	291445.197	313421.273	35 FT RAD
7	291544.083	313322.969	40 FT RAD
8	291557.867	313427.069	40 FT RAD
9	291345.414	313531.806	40 FT RAD & 64 FT RAD
10	291312.999	313531.578	40 FT RAD
11	291376.708	313420.867	INV = 903.0
12	291427.963	313421.117	INV = 902.5
13	291567.286	313415.947	INV = 898.21
14	291559.943	313316.251	INV = 897.71



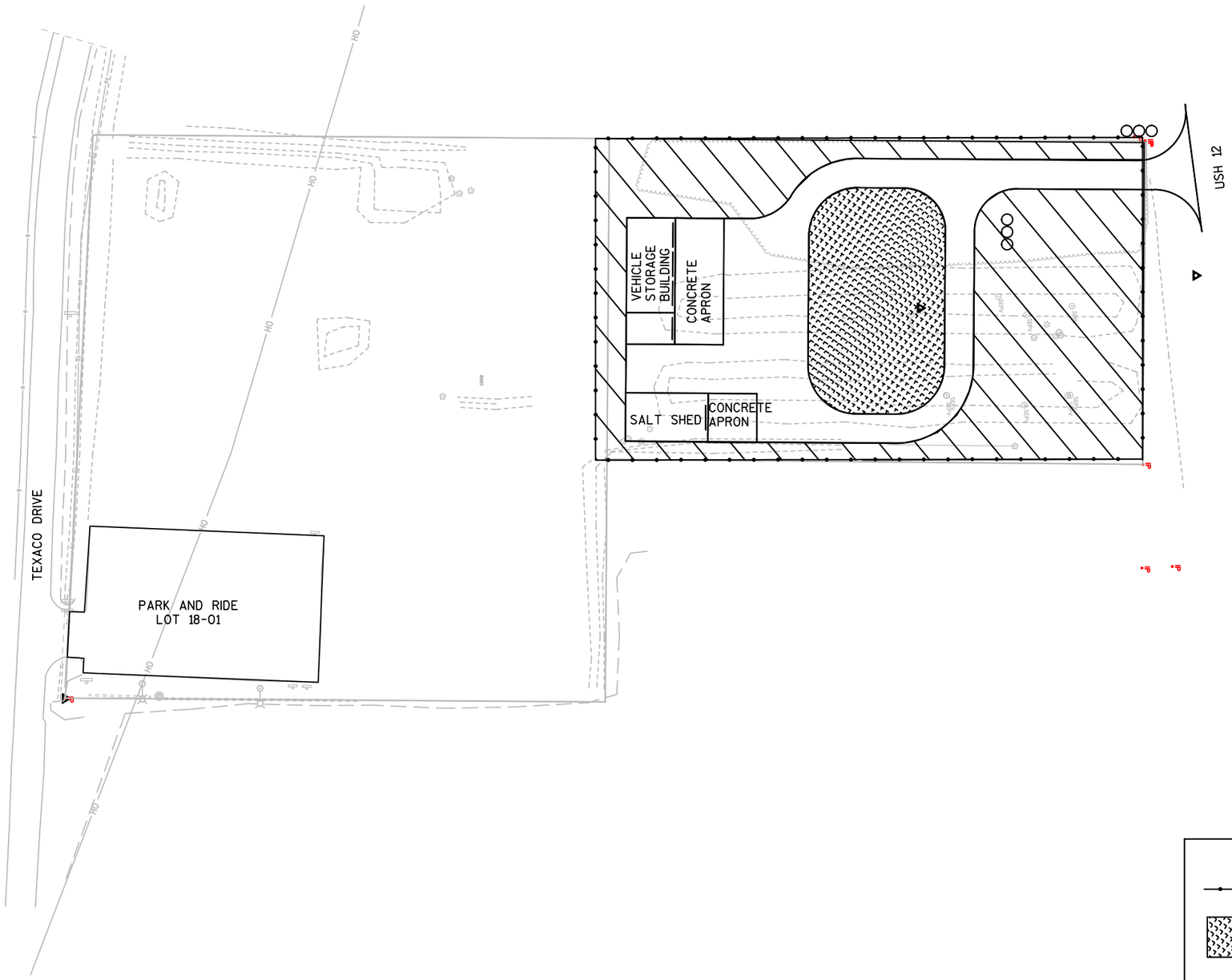
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	PLAN DETAIL	SHEET	E

FILE NAME : P:\UZW\WITNW\122716\SALT SHED\DWG\SALT SITE GRADING PLAN.DWG PLOT DATE : 7/31/2014 2:55 PM PLOT BY : ANNIE JEROME PLOT NAME :

WISDOT/CADDS SHEET 44

2

N



LEGEND

SILT FENCE

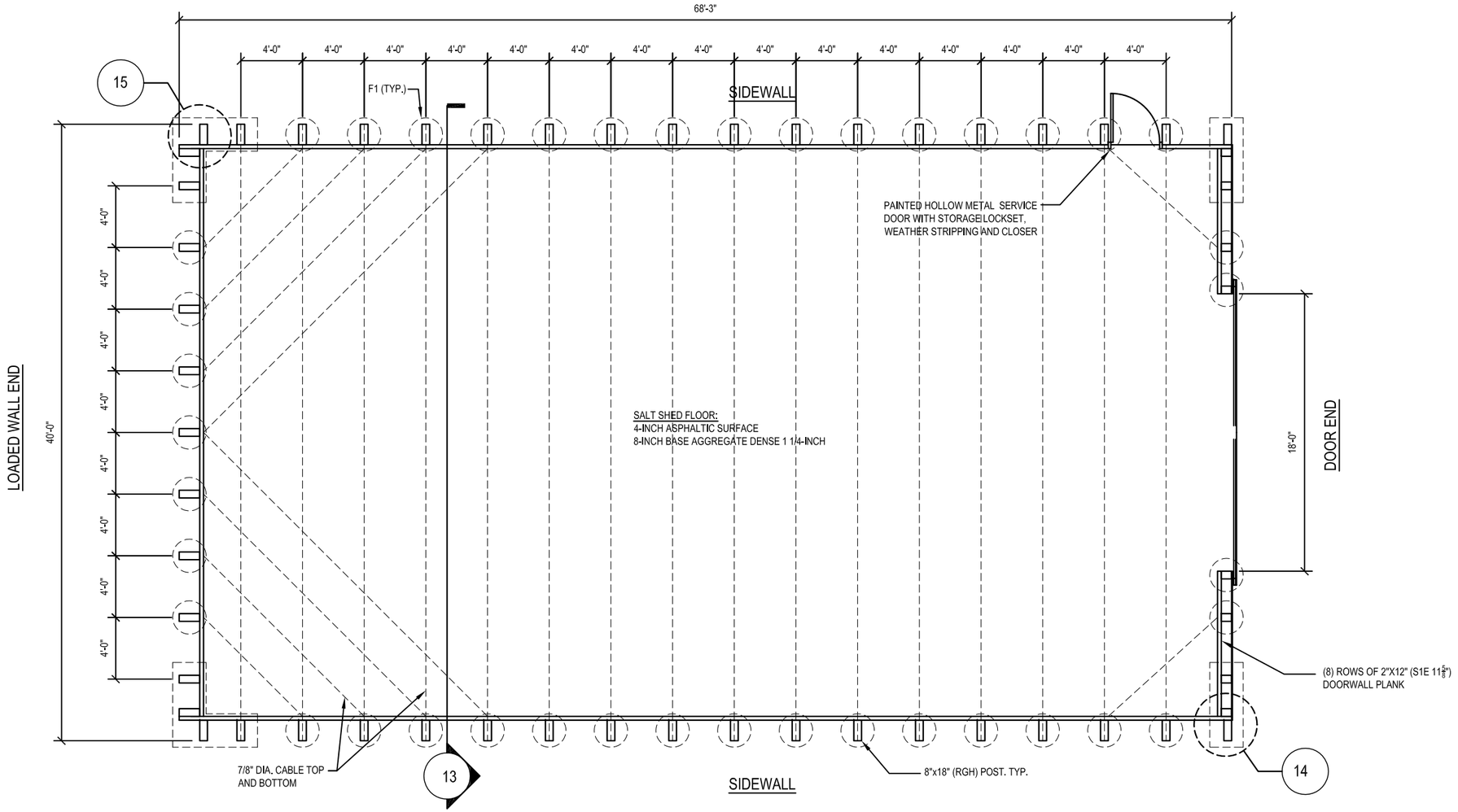
EROSION MAT CLASS I TYPE B

CULVERT PIPE CHECK
SEE CONSTRUCTION DETAIL

SALVAGED TOPSOIL WITH SEED
MIXTURE NO. 30 AND
FERTILIZER TYPE B

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	EROSION CONTROL	SHEET 25	E

2



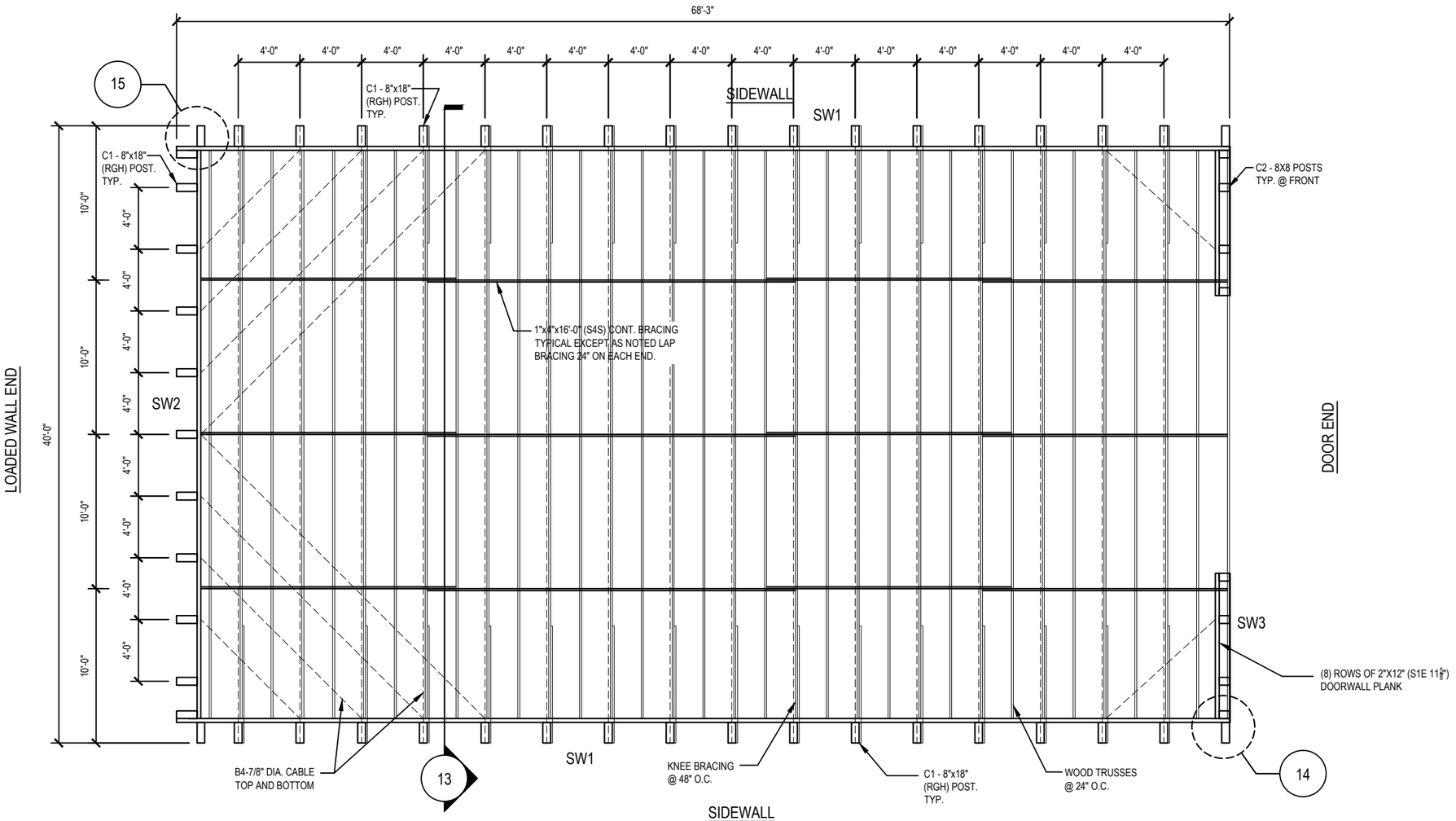
1 FOUNDATION PLAN - SALT SHED

1/8" = 1'-0"

PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	PLAN: FOUNDATION PLAN	SHEET	E

FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 10/13/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :

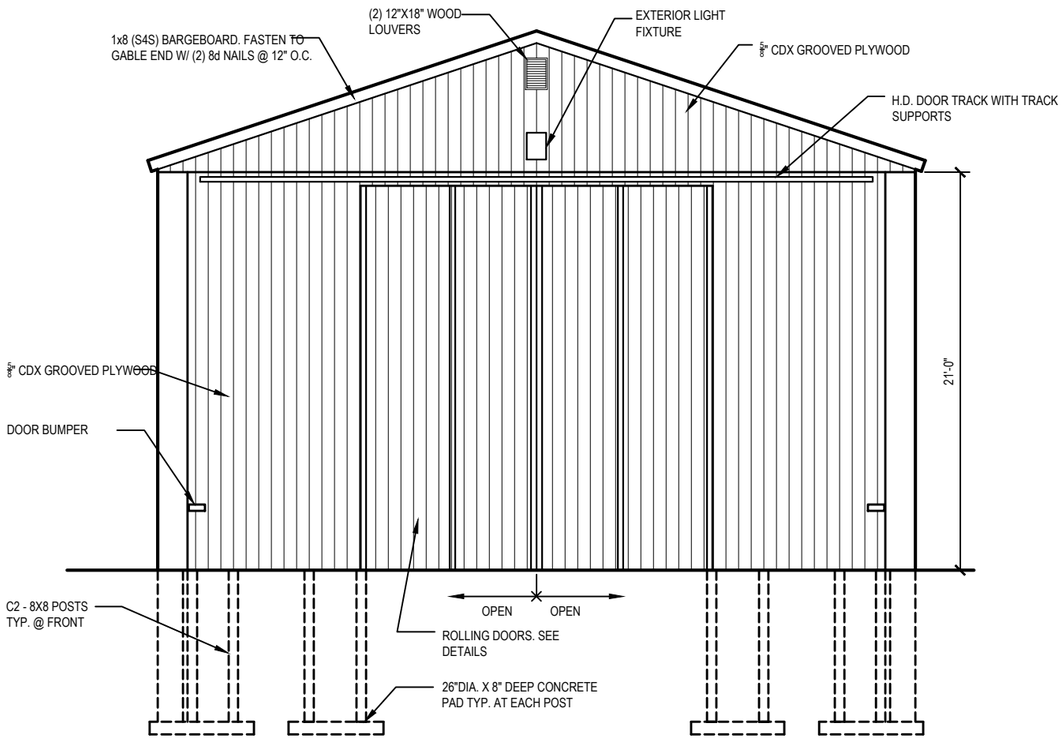
2



2 FLOOR PLAN - SALT SHED

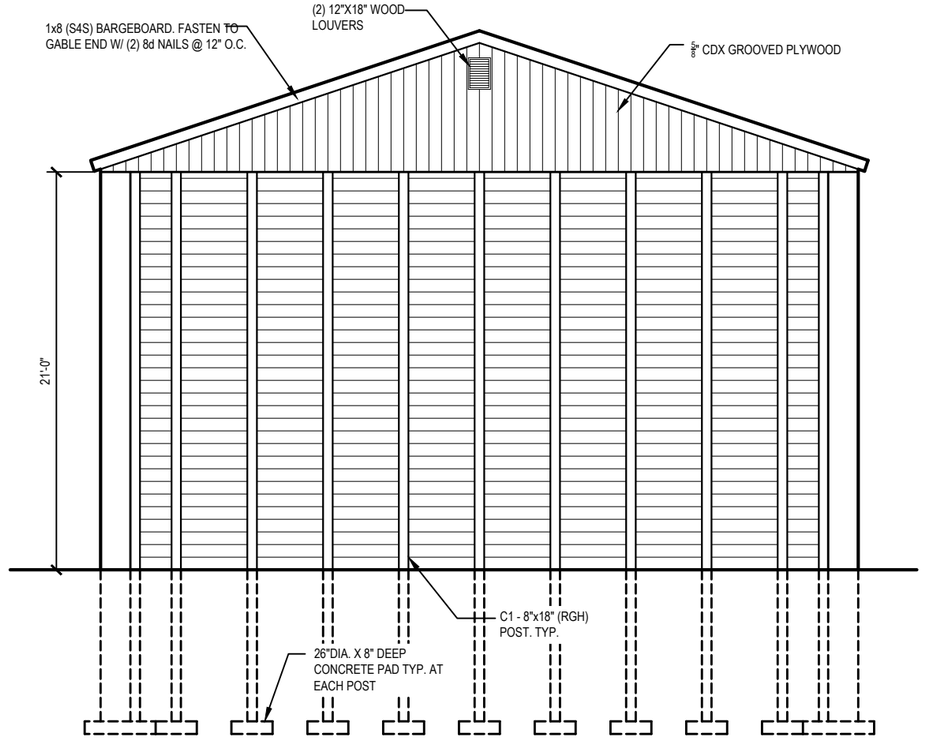
PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	PLAN: FLOOR PLAN – SALT SHED	SHEET 27	E

FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/17/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :



3 EXTERIOR ELEVATION - SALT SHED

1/8" = 1'-0"

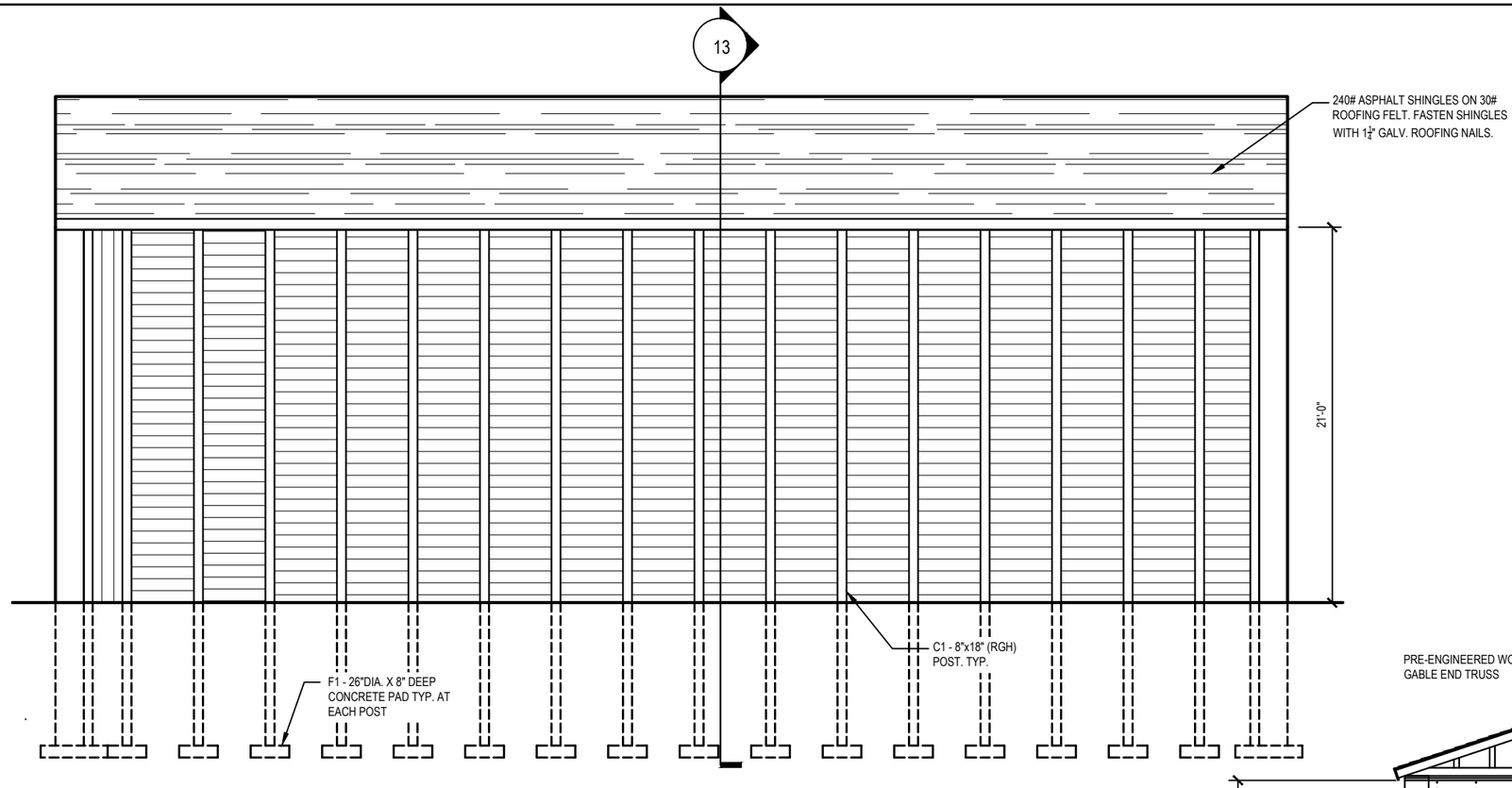


4 EXTERIOR ELEVATION - SALT SHED

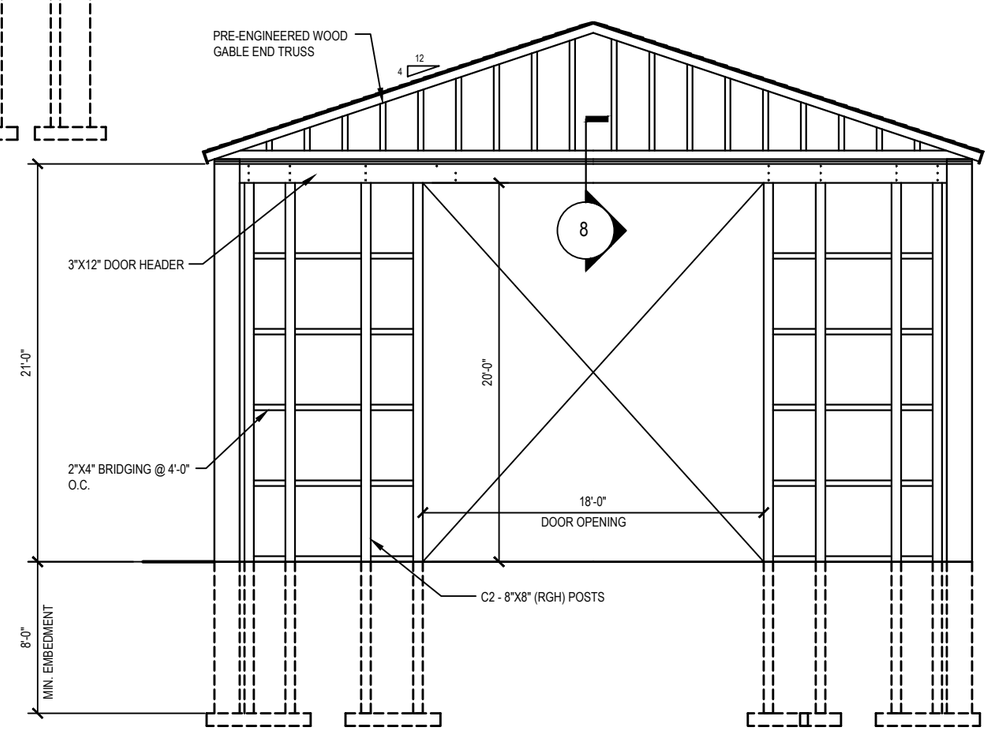
1/8" = 1'-0"

PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	PLAN: EXTERIOR ELEVATIONS – SALT SHED	SHEET 28	E

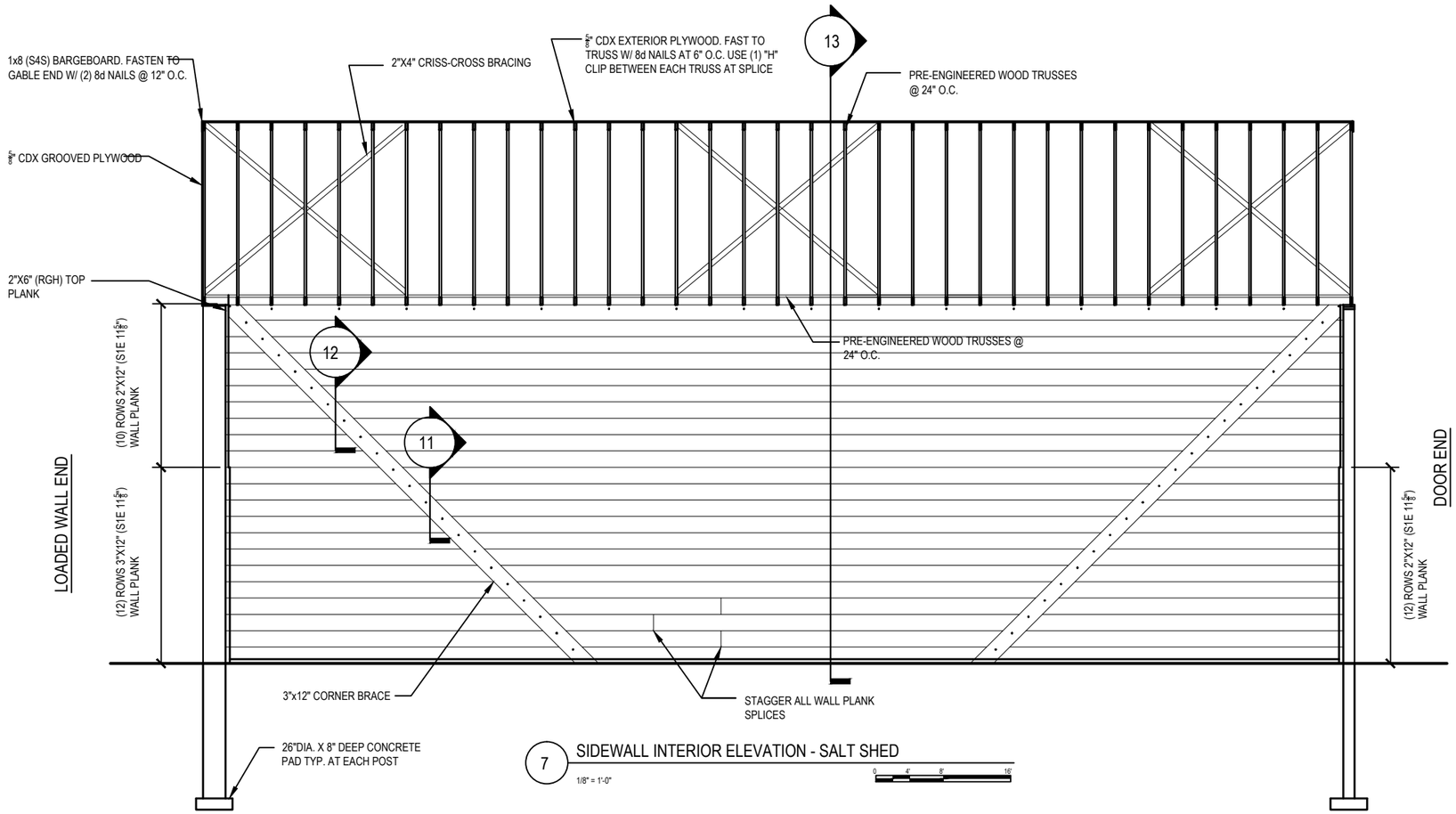
FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/17/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :



5 EXTERIOR ELEVATION - SALT SHED
1/8" = 1'-0"

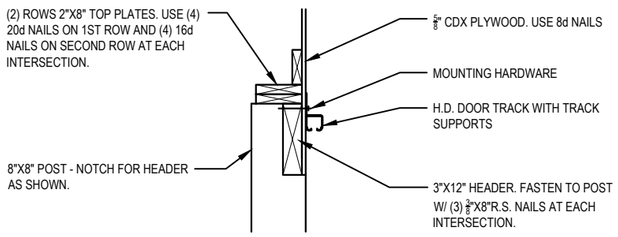


6 BUILDING SECTION - SALT SHED
1/8" = 1'-0"



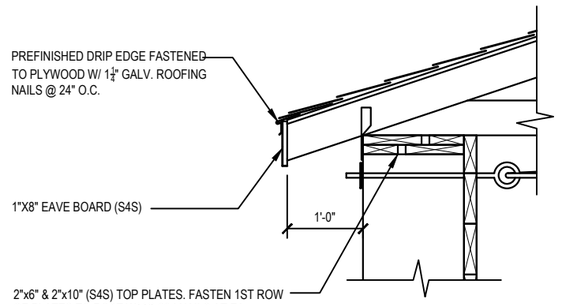
7 SIDEWALL INTERIOR ELEVATION - SALT SHED

1/8" = 1'-0"



8 DOOR HEADER DETAIL

1/2" = 1'-0"



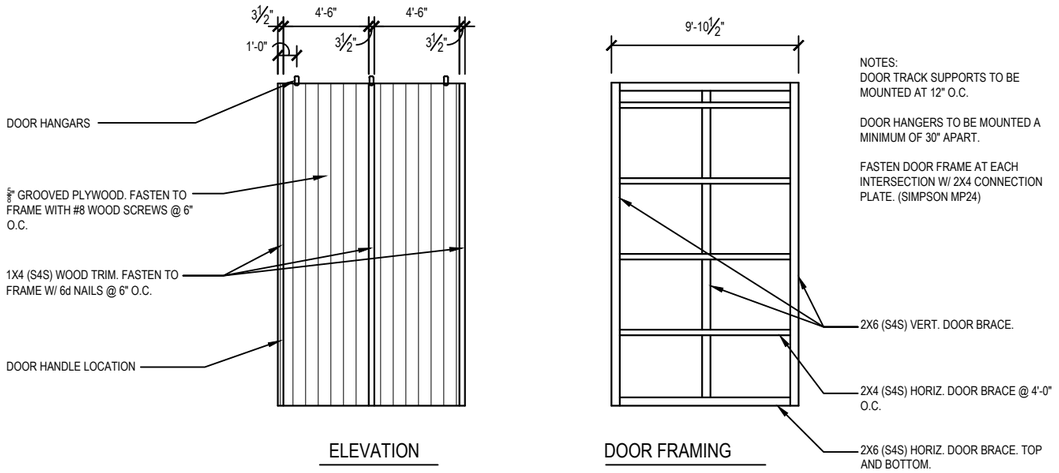
9 EAVE DETAIL

1/2" = 1'-0"

PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	PLAN: ELEVATION AND DETAILS – SALT SHED	SHEET 30	E

FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/17/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

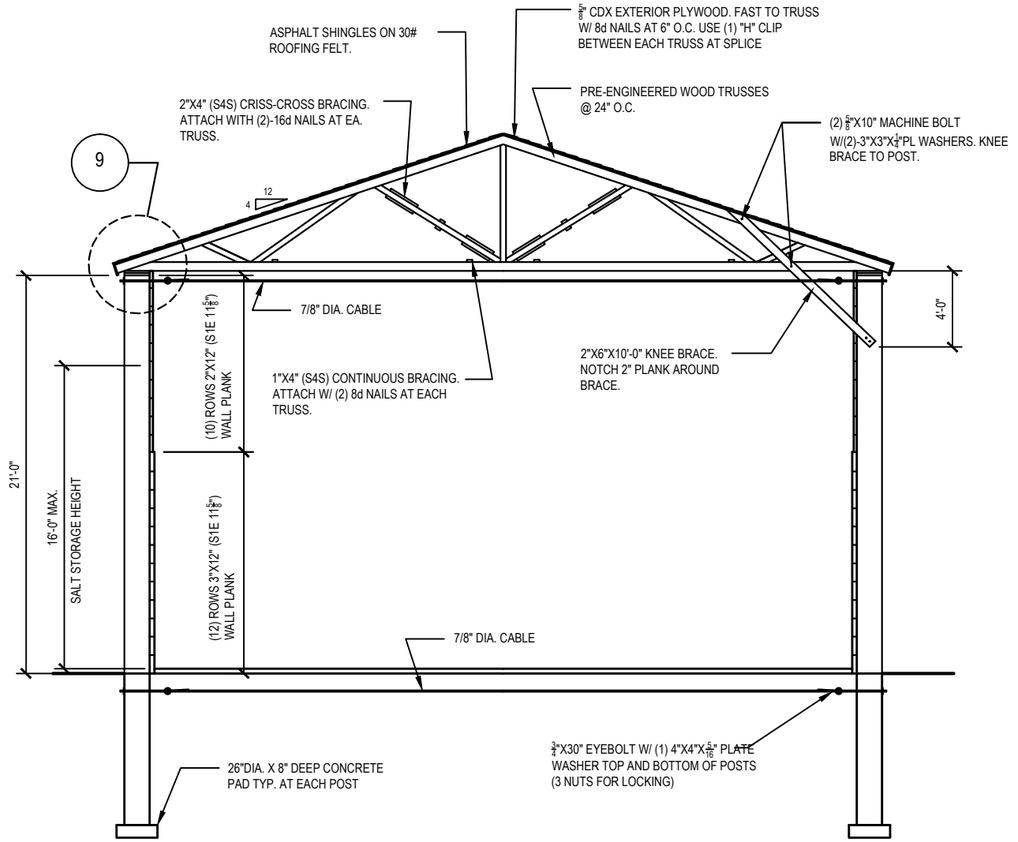


NOTES:
DOOR TRACK SUPPORTS TO BE MOUNTED AT 12" O.C.

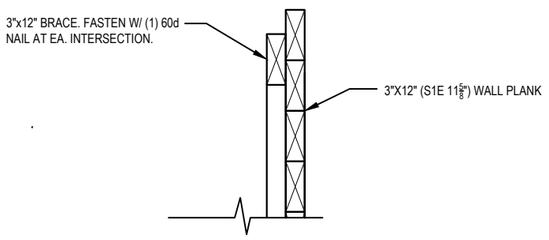
DOOR HANGERS TO BE MOUNTED A MINIMUM OF 30" APART.

FASTEN DOOR FRAME AT EACH INTERSECTION W/ 2X4 CONNECTION PLATE. (SIMPSON MP24)

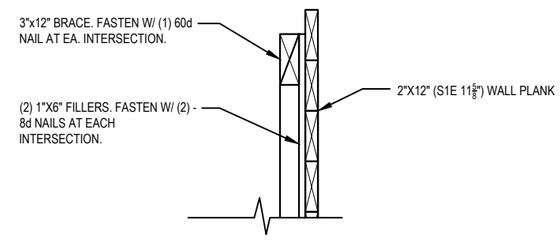
10 SLIDING DOOR DETAILS
1/8" = 1'-0"



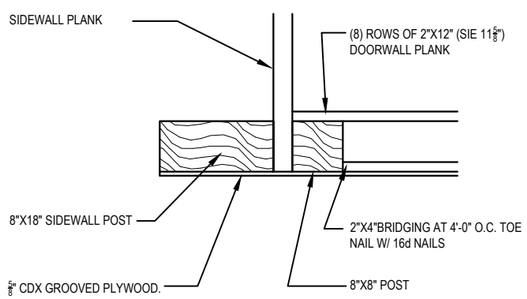
13 BUILDING SECTION - SALT SHED
1/8" = 1'-0"



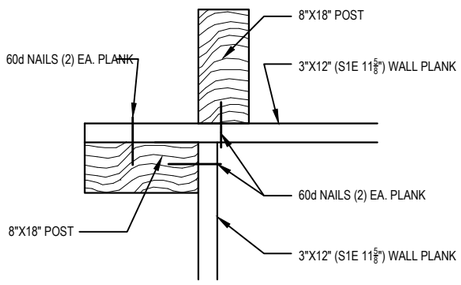
11 BRACING DETAIL
1/2" = 1'-0"



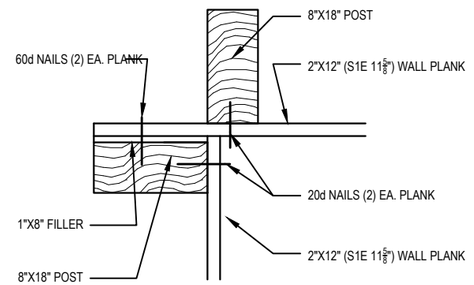
12 BRACING DETAIL
1/2" = 1'-0"



14 DOORWALL DETAIL
1/2" = 1'-0"



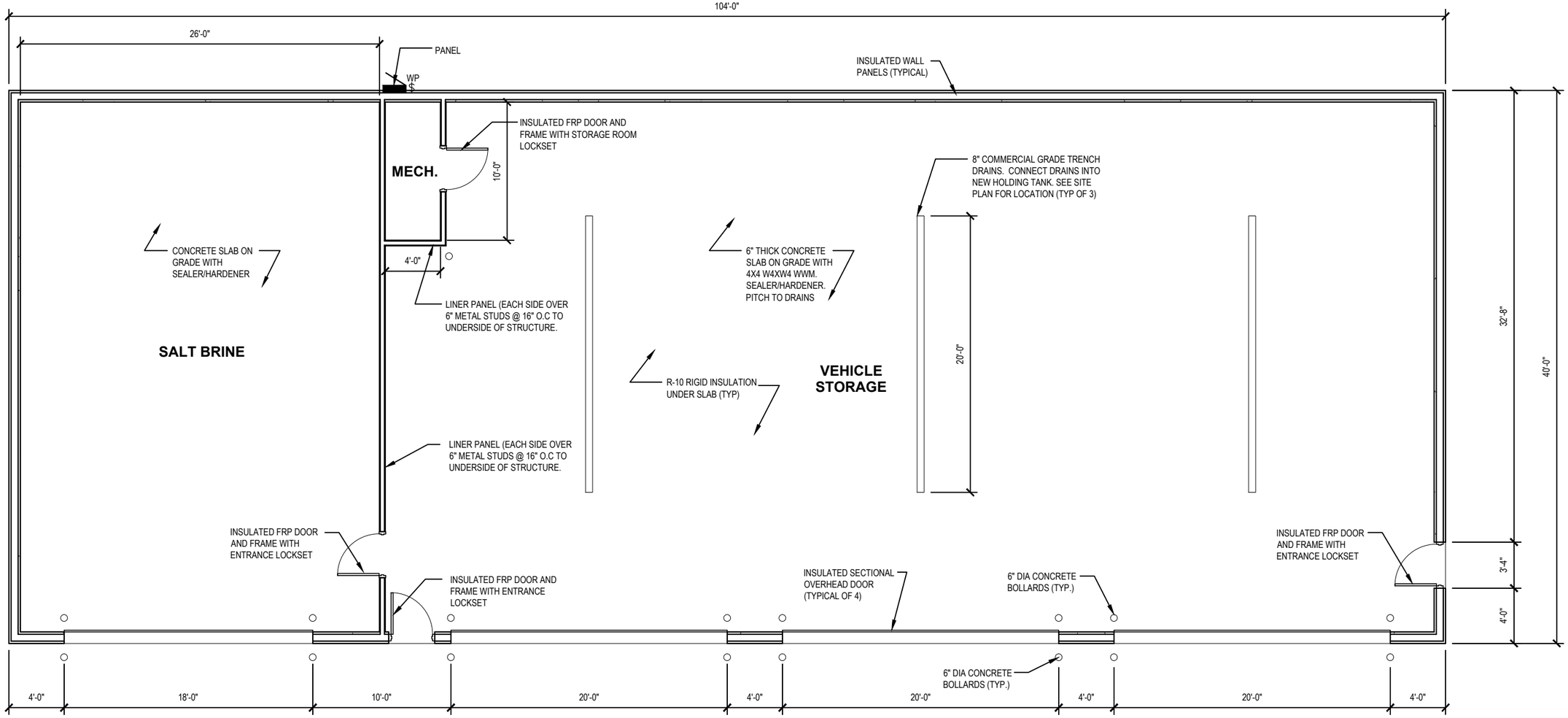
15 CORNER POST DETAIL - LOW
1/2" = 1'-0"



16 CORNER POST DETAIL - HIGH
1/2" = 1'-0"

PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	PLAN: SECTIONS AND DETAILS – SALT SHED	SHEET	E

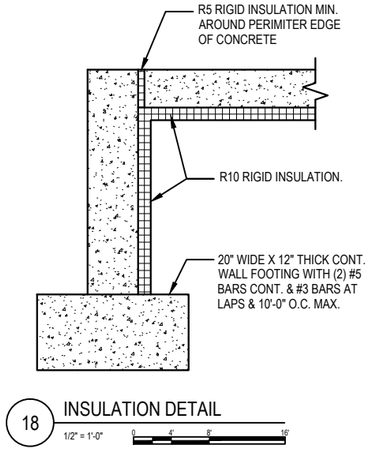
FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/17/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :



17 FLOOR PLAN - VEHICLE STORAGE BUILDING

1/8" = 1'-0"

PLAN NORTH

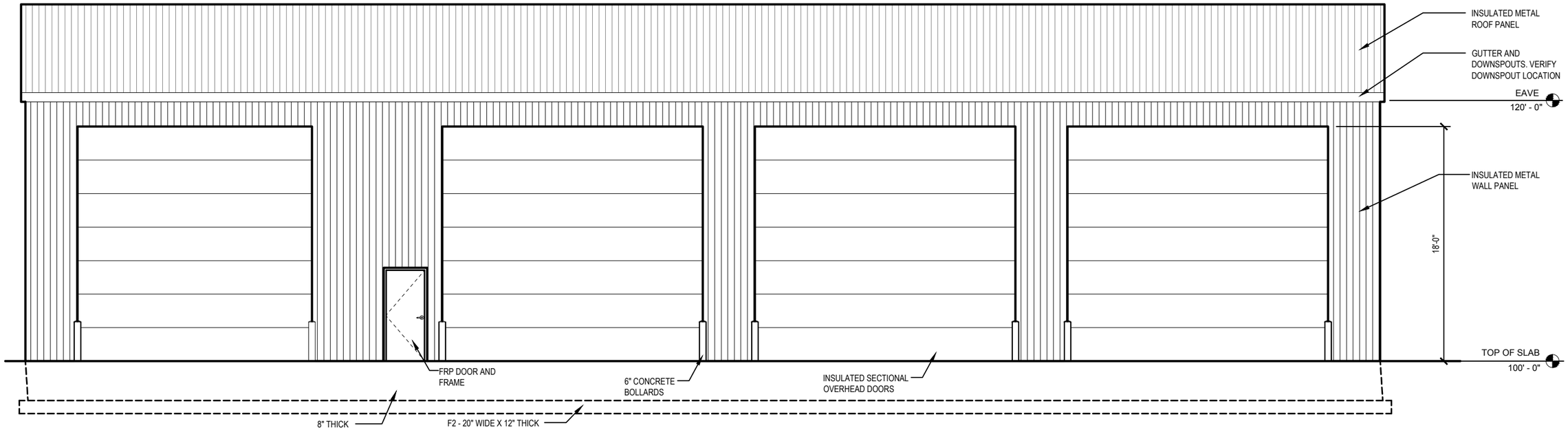


18 INSULATION DETAIL

1/2" = 1'-0"

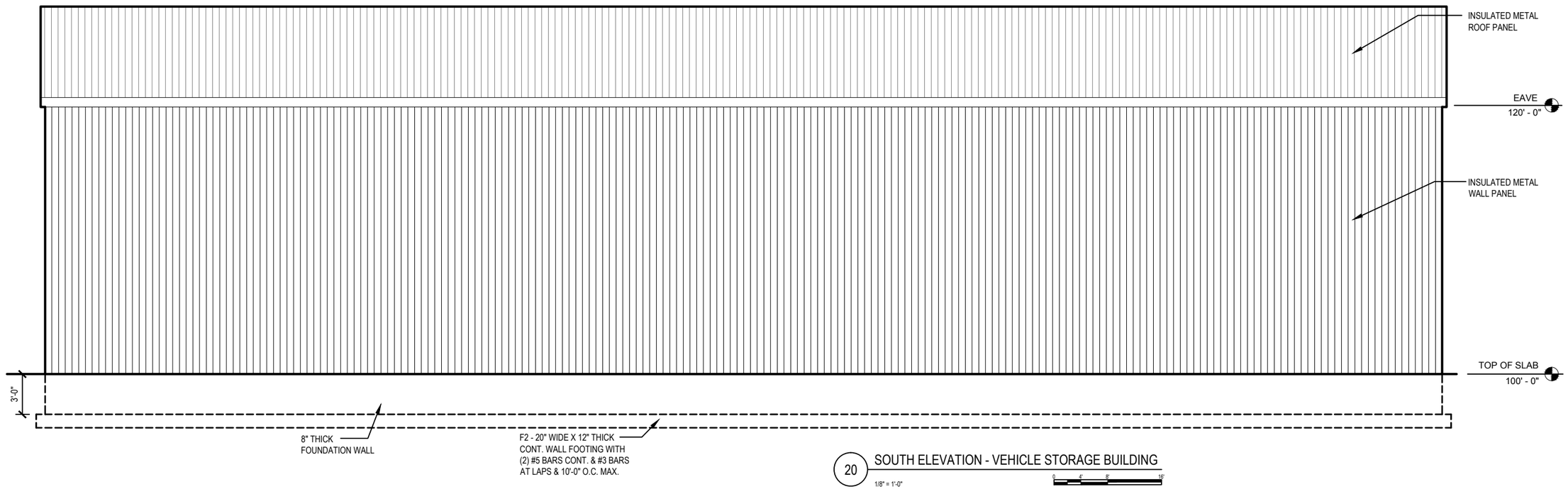
PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	FLOOR PLAN – VEHICLE STORAGE BUILDING	SHEET 32	E

FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/17/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :



19 NORTH ELEVATION - VEHICLE STORAGE BUILDING

1/8" = 1'-0"

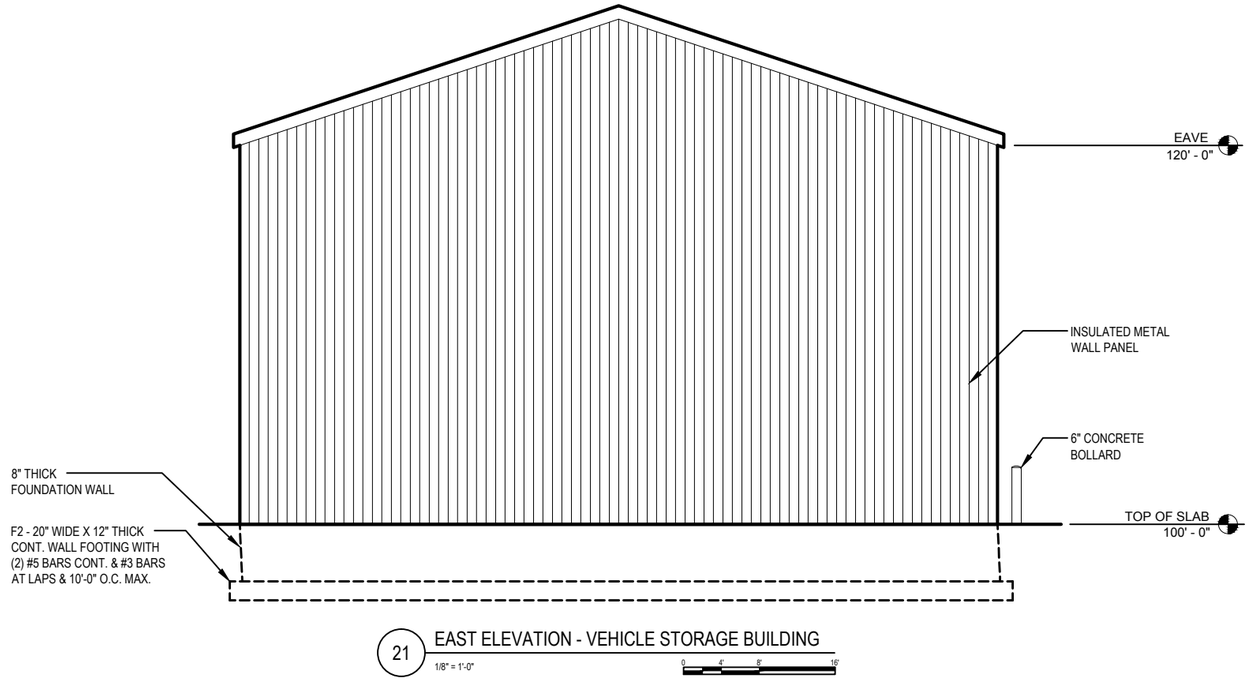


20 SOUTH ELEVATION - VEHICLE STORAGE BUILDING

1/8" = 1'-0"

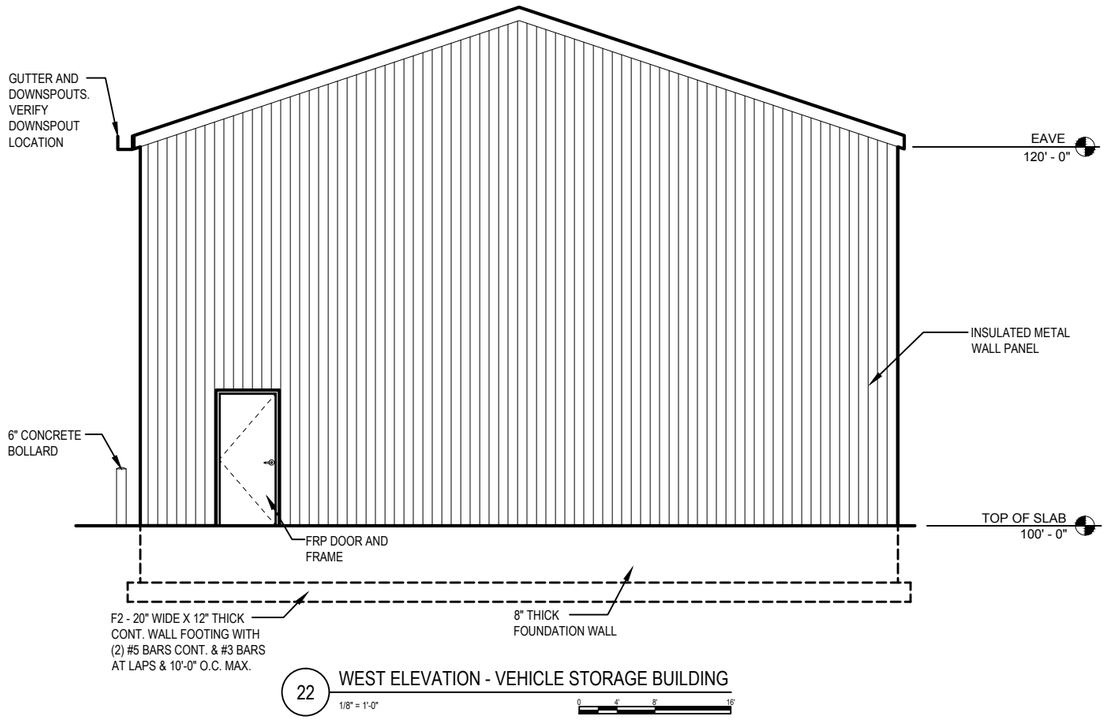
PROJECT NO: 1022-04-74	HWY: I94	COUNTY: EAU CLAIRE	EXTERIOR ELEVATIONS – VEHICLE STORAGE BUILDING	SHEET 33	E

FILE NAME : T:\FVAR\DOT SALT SHED\EAU CLAIRE DRAWINGS AND SPECS\EAU CLAIRE SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/17/2014 PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :



21 EAST ELEVATION - VEHICLE STORAGE BUILDING

1/8" = 1'-0"



22 WEST ELEVATION - VEHICLE STORAGE BUILDING

1/8" = 1'-0"

METAL BUILDING SPECIFICATIONS

1.1 QUALITY ASSURANCE

A. Manufacturer: IAS AC472 accredited.

1.2 WARRANTY

A. Metal Panel Finishes: 20 years.

B. Weathertightness for Standing-Seam Metal Roof Panels: 20 years.

1.3 METAL BUILDING SYSTEMS

A. Description:

1. Primary-Frame Type: Rigid clear span.
2. End-Wall Framing: Not expandable.
3. Eave Height: 20 feet (6.1 m).
4. Bay Spacing: As determined by manufacturer.
5. Roof Slope: 1/4 inch per 12 inches (1:48).
6. Roof System: Insulated Panels.
7. Exterior Wall System: Insulated Panels.

1.4 METAL BUILDING SYSTEM PERFORMANCE

A. Engineering design of metal building systems by Contractor.

B. Foundation design for column loads by Contractor.

1.5 COMPONENTS

A. Structural-Steel Framing:

1. Frame Configuration: Single gable.
2. Exterior Column Type: Uniform depth or Tapered.
3. Rafter Type: [Uniform depth or Tapered.
4. Purlins: C- or Z-shaped sections.
5. Girts: C- or Z-shaped sections.

B. Insulated Metal Wall Panels:

1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel.
2. Profile (exterior side): Striated
3. Finish : 70% pvdf coating.
4. Insulation: R-20 min.

C. Insulated Metal Roof Panels:

1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel.
2. Profile: Standing Seam
3. Finish: 70% pvdf coating.
4. Insulation: R-30 min.

D. Sectional Overhead Doors:

1. Sectional Doors: Insulated Extra Heavy Duty
2. R Value: 17 Min.
3. Finish: Custom 70% PVDF Coating.

E. Door Operators:

1. Industrial-duty jackshaft operator for corrosive environments

F. Doors and Frames: FRP - Extra Heavy Duty

1. Expanded Polystyrene Core
2. Finish: Factory Standard Chemical Resistant

G. Door hardware:

1. Extra Heavy Duty
2. Lockset: Entrance
3. Finishes: US32D
4. Closer: Corrosion Resistant Door Closer
5. Weatherstripping and Threshold

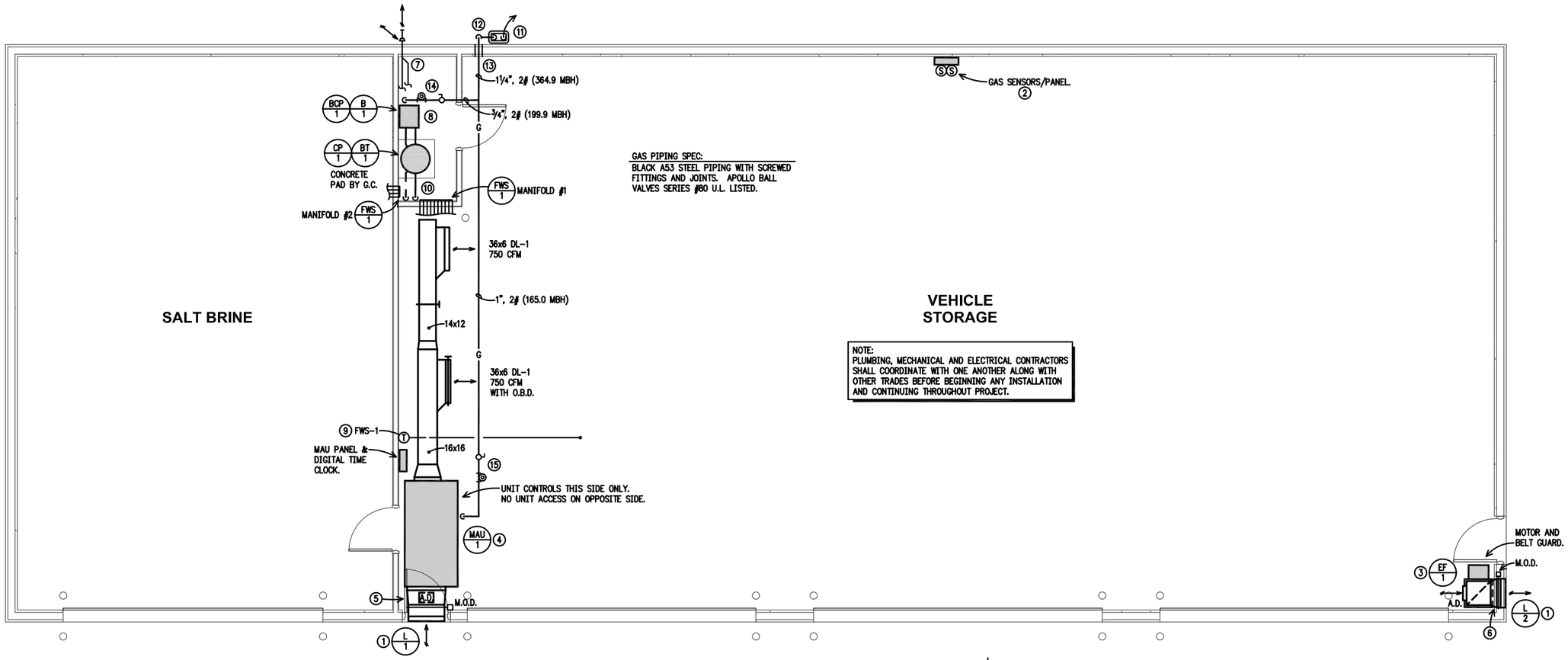
H. Accessories:

1. Flashing and trim.
2. Gutters.
3. Downspouts.
4. Roof Ventilators: Continuous or sectional-ridge type.
5. Louvers: Fixed blade.
6. Pipe flashing.

1.6 SOURCE AND FIELD QUALITY CONTROL

A. Source Quality Control: Accredited manufacturer.

B. Field Quality Control: Owner-engaged special inspector.



GAS PIPING SPEC:
BLACK A53 STEEL PIPING WITH SCREWED FITTINGS AND JOINTS. APOLLO BALL VALVES SERIES #80 U.L. LISTED.

NOTE:
PLUMBING, MECHANICAL AND ELECTRICAL CONTRACTORS SHALL COORDINATE WITH ONE ANOTHER ALONG WITH OTHER TRADES BEFORE BEGINNING ANY INSTALLATION AND CONTINUING THROUGHOUT PROJECT.

1 / M1 MECHANICAL FLOOR PLAN - VEHICLE STORAGE BUILDING

1/8" = 1'-0"

PLAN NORTH

EQUIPMENT (SEE SPECS FOR ADDITIONAL REQUIREMENTS AND APPROVED MANUFACTURERS):

MAU-1: DIRECT FIRED MAKEUP AIR UNIT EQUAL TO REZNOR RDF-1-20. 1500 CFM, 165 MBH, -20°F EAT, 80°F LAT, 1050 RPM, ¾ HP, 120/1, 2" FILTERS, DISCONNECT SWITCH AND CONTROL PANEL. 7" W.C. GAS TRAIN – COORDINATE GAS PIPING WITH MFG.

EF-1: INLINE, BELT DRIVE EXHAUST FAN EQUAL GREENHECK BSQ-140. 1500 CFM AT 0.35", 993 RPM, ½ HP, 120/1. INTERLOCK WITH MAU-1 AND GAS SENSORS.

L-1: 30x30 LOUVER EQUAL TO GREENHECK ESD-435. 1500 CFM, 3.09 SQ. FT. FREE AREA, 500 FPM MAXIMUM VELOCITY, ALUMINUM, FLANGE, 120/1 SPRING RETURN DAMPER. INTERLOCK DAMPER WITH MAU-1 OPERATION. PROVIDE AND INSTALL END SWITCH. LOUVER COLOR CHOICE BY ARCHITECT.

L-2: 24x24 LOUVER EQUAL TO GREENHECK ESD-435. 1500 CFM, 1.82 SQ. FT. FREE AREA, 825 FPM MAXIMUM VELOCITY, ALUMINUM, FLANGE, 120/1 SPRING RETURN DAMPER. INTERLOCK DAMPER WITH EF-1 OPERATION. PROVIDE AND INSTALL END SWITCH. LOUVER COLOR CHOICE BY ARCHITECT.

DL-1: DRUM LOUVER WITH ADJUSTABLE VANES AND 60° ROTATION EQUAL TO PRICE HCD1.

B-1: HIGH EFFICIENCY WALL-MOUNTED BOILER EQUAL TO LOCHINVAR KNIGHT WHN199. 199.9 MBH INPUT, 40 MBH MIN INPUT, 185 MBH OUTPUT, 95% AFUE, 120/1. FLOW SWITCH, LOW WATER CUTOFF, INTEGRAL CONTROLS TO OPERATE BOTH PUMPS AND INTEGRATE SPACE THERMOSTAT.

BCP-1: INLINE BOILER PUMP EQUAL TO GRUNDFOS UPS26-99FC, 19 GPM @ 15', 179 W, 120/1.

BT-1: 50 GALLON S.S. BUFFER TANK EQUAL TO LOCHINVAR SBT050.

CP-1: INLINE CIRC. PUMP EQUAL TO GRUNDFOS UPS26-150, 16 GPM @ 30', 370 W, 120/1.

FWS-1: FLOOR WARMING SYSTEM EQUAL TO REHAU RAUPEX 02 BARRIER BARRIER PIPE – (2) 1" BRASS MANIFOLDS WITH GAUGES, 5/8" TUBING, 310' MAX. LENGTH, 12" O.C., 125°F MAX. H.W. TEMP WITH 30% PROPYLENE GLYCOL. MANIFOLD #1: 10 CIRCUITS, 12 GPM, 1¼" BRANCH PIPING. MANIFOLD #2: 4 CIRCUITS, 4 GPM, 1" BRANCH PIPING. SEE DETAILS.

MECHANICAL NOTES:

1. MOUNT LOUVER APPROXIMATELY 16' A.F.F.
2. GAS DETECTION SYSTEM EQUAL TO TOXALERT GVU-3 WITH CO AND NO2 SENSORS.
3. MOUNT FAN IN VERTICAL POSITION APPROXIMATELY 7' A.F.F. INSTALL 16 GAUGE 20x20 DUCT FROM INTAKE END OF FAN DOWN TO 18" A.F.F. INSTALL 20x20 DISCHARGE DUCT AND TRANSITION TO FULL LOUVER SIZE.
4. HANG FROM STRUCTURE APPROXIMATELY 16' A.F.F. STRUCTURE BY G.C.
5. INSULATE DUCT WITH 2" RIGID INSULATION AS SPECIFIED.
6. INSULATE FROM LOUVER TO DUCT DROP WITH 2" RIGID INSULATION.
7. 2" PVC VENT/INTAKE PIPES FROM BOILER THRU WALL WITH CONCENTRIC TERMINATION.
8. MOUNT BOILER FROM WALL. SEE DETAILS FOR BOILER, PUMPS, BUFFER TANK AND HOT WATER PIPING.
9. THERMOSTAT WITH FLOOR SLAB SENSOR. RUN SENSOR WIRING IN CONDUIT.
10. INSULATE THE FIRST 5' OF CLOSELY SPACED TUBING IN THE SLAB WITH ½" IMCOA OR EQUAL. SEE DETAILS FOR ADDITIONAL MANIFOLD/TUBING REQUIREMENTS.
11. GAS METER, REGULATOR AND GAS SERVICE BY UTILITIES. M.C. TO COORDINATE WITH UTILITY COMPANY FOR SERVICE SET UP. PROVIDE 2 PSI DELIVERY PRESSURE TO BLDG.
12. PAINT PIPING ON EXTERIOR TO MATCH BUILDING COLOR.
13. PROVIDE WATER TIGHT PIPE SLEEVE.
14. PROVIDE 2# DOWN TO 7" W.C. GAS REGULATOR UNIT AT 10' AWAY FROM BOILER CONNECTION. VERIFY REQUIREMENTS WITH BOILER MFG. ¾" PIPING SIZE. PROVIDE DIRT LEG AND UNION CONNECTION.
15. PROVIDE 2# DOWN TO 7" W.C. GAS REGULATOR, DIRT LEG, BALL VALVE AND UNION AT CONNECTION TO MAU-1 (1" PIPE SIZE).

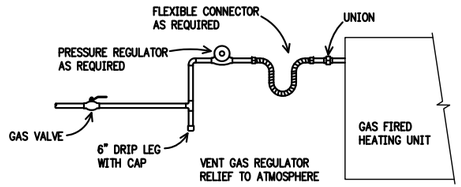
- SEAL EXTERIOR WALL OPENINGS WATER TIGHT.
- HOT WATER SYSTEM TO BE 30% PROPYLENE GLYCOL. VERIFY WITH BOILER MFG. SEE SPECS FOR ADDITIONAL REQUIREMENTS.
- LABEL GAS PIPING PER CODE.

MAU/EF CONTROL SEQUENCE:

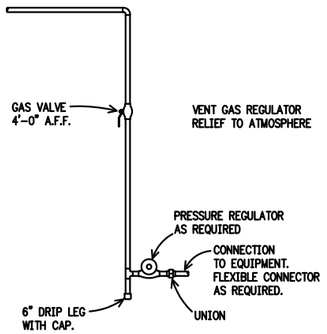
CONTROL SEQUENCE: DIGITAL TIME CLOCK SHALL INITIATE OCCUPIED/UNOCCUPIED CYCLE. DURING OCCUPIED CYCLE, L-1 & L-2 DAMPERS SHALL OPEN AND MAU-1/EF-1 SHALL OPERATE. BURNER SHALL CYCLE TO MAINTAIN 70°F DISCHARGE TEMPERATURE (ADJUSTABLE). WHEN INDEXED TO UNOCCUPIED CYCLE, DAMPERS SHALL CLOSE AND MAU & EF SHALL BE OFF. PER DSPS 364, SYSTEM SHALL OPERATE IN OCCUPIED MODE A MINIMUM OF 5 HOURS PER 24 PERIOD.

ON DETECTION OF NO2 ABOVE 1 PPM OR CO ABOVE 35 PPM, THE GAS SENSORS SHALL OVERRIDE TIME CLOCK UNOCCUPIED CYCLE AND INITIATE SYSTEM OCCUPIED CYCLE. MINIMUM RUN TIME SHALL BE 8 MINUTES. IF GAS DETECTION REMAINS ABOVE CODE LEVELS, LIGHTED ALARM INDICATOR SHALL BE ON AND AN AUDIBLE ALARM SOUNDED.

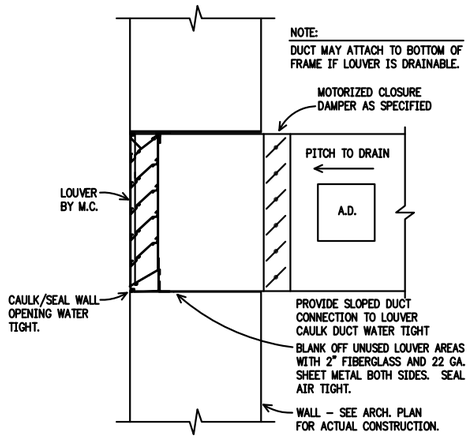
APEX Engineering
EAU CLAIRE, WISCONSIN
TELEPHONE: 715-835-7736
FAX: 715-835-3771
PROJECT NO.: 14033



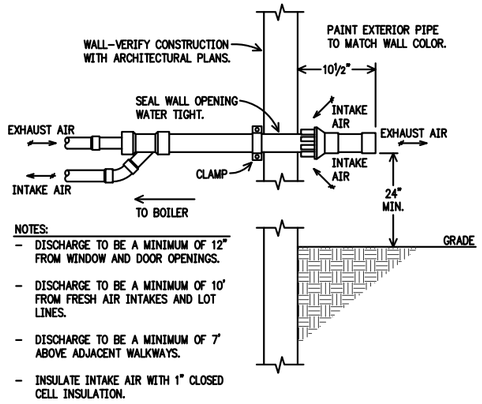
8 / M2 GAS CONNECTION DETAIL
NO SCALE — STRUCTURE MOUNTED EQUIP.



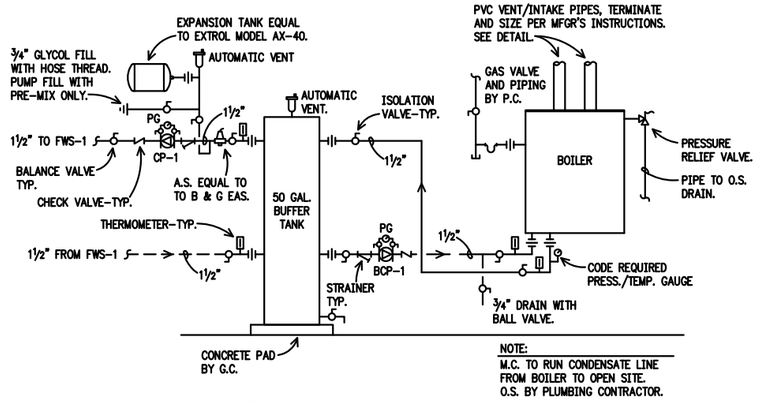
9 / M2 GAS CONNECTION DETAIL
NO SCALE — FLOOR MOUNTED EQUIPMENT



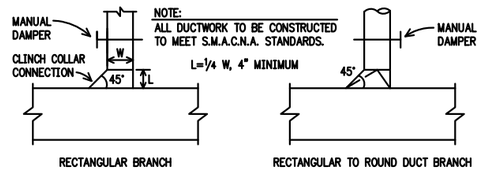
6 / M2 LOUVER CONNECTION DETAIL
NO SCALE

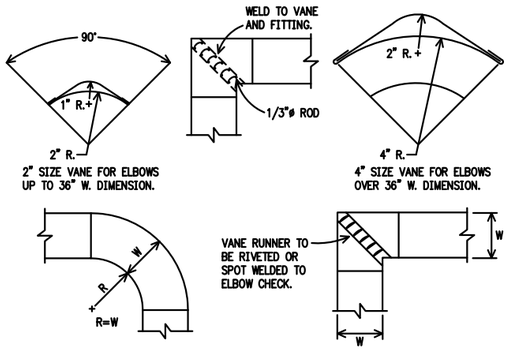


3 / M2 VENT/INTAKE TERMINATION DETAIL
NO SCALE — (BOILER/CONCENTRIC)

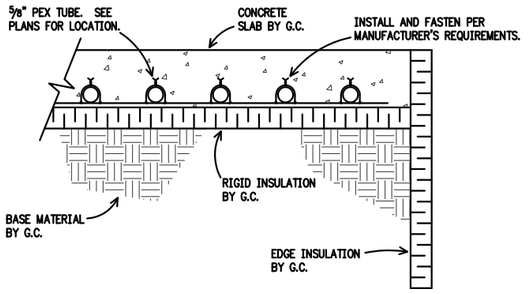


1 / M2 HOT WATER BOILER DETAIL
NO SCALE — (WITH BUFFER TANK)

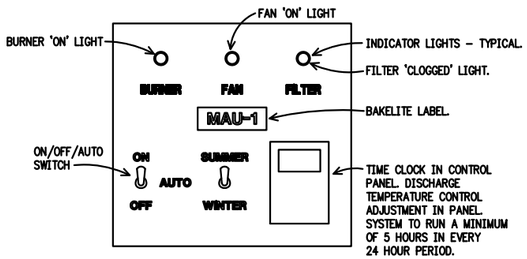




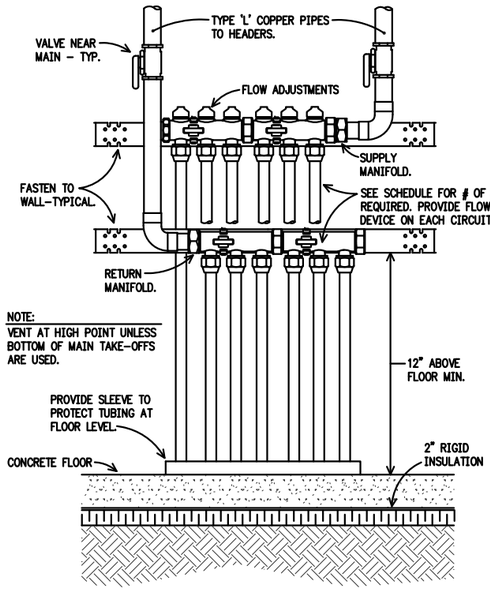
7 / M2 DUCTWORK DETAIL
NO SCALE



4 / M2 FLOOR WARMING DETAIL
NO SCALE — (HEATING TUBE INSTALLATION)

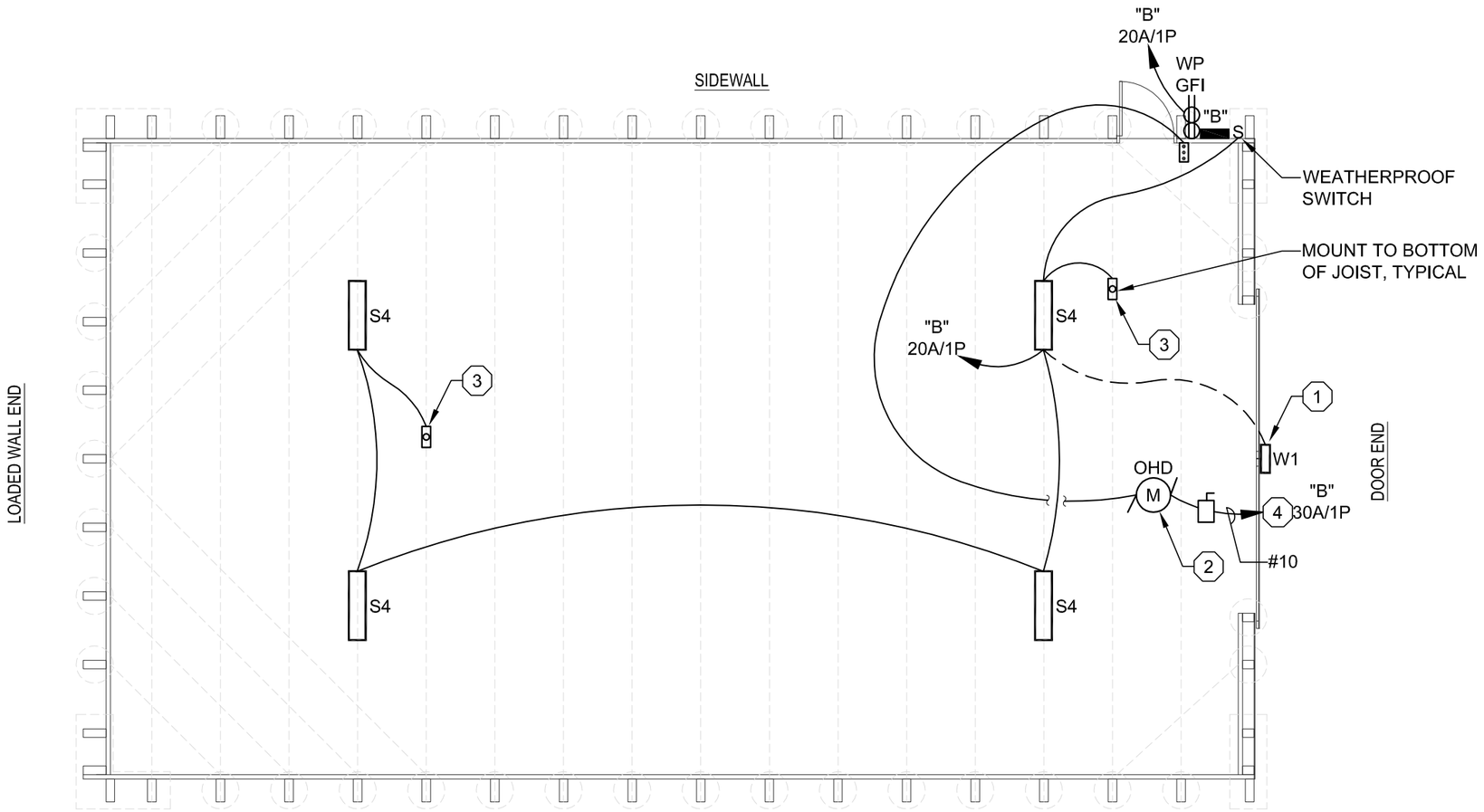


5 / M2 CONTROL PANEL DETAIL
NO SCALE — (MAU-1)



2 / M2 FLOOR WARMING SYSTEM DETAIL
NO SCALE — (MANIFOLDS)

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PROJECT NO.: 14033



SIDEWALL

1 FOUNDATION PLAN - SALT SHED ELECTRICAL

1/8" = 1'-0"

0 4' 8' 16'

GENERAL NOTES:

1. ALL CONDUIT AND BOXES TO BE CORROSION RESISTANT PVC TYPE.
2. ALL MOUNTING HARDWARE TO BE CORROSION RESISTANT.

PLAN NOTES: (X)

1. MOUNT TYPE W1 FIXTURE CENTERED BETWEEN TOP OF OVERHEAD DOOR AND EAVE.
2. OVERHEAD DOOR, E.C. TO MOUNT AT WIRE ALL CONTROLS.
3. PROVIDE CB LOW TEMPERATURE PASSIVE INFRARED OCCUPANCY SENSOR WATTSTOPPER OR EQUAL.
4. VERIFY BREAKER AND FEED REQUIRED WITH MOTOR SUPPLIED.

FIXTURE SCHEDULE

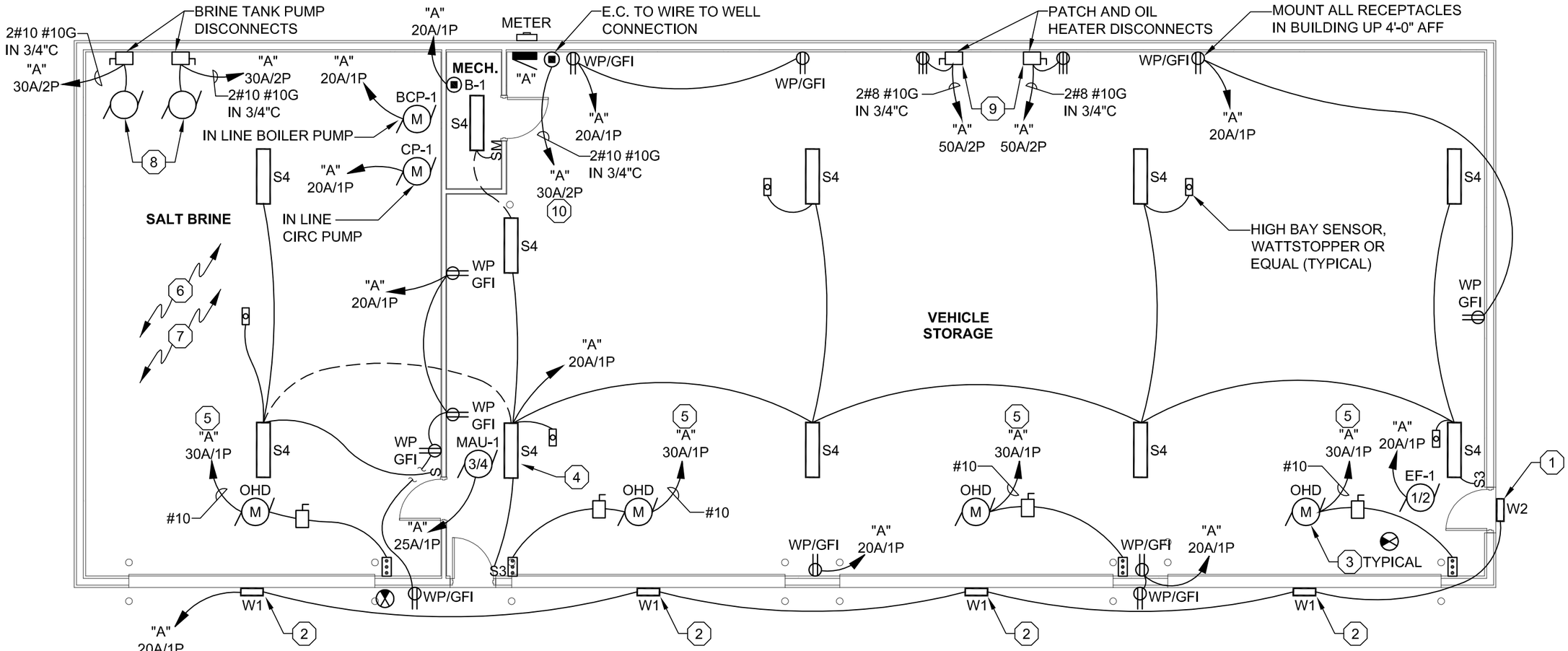
TYPE	DESCRIPTION	LAMP TYPE	LAMP QTY	MANUFACTURER	CATALOG NUMBER	NOTE
S4	1'X4' SURFACE LED (FIBERGLASS HOUSING/ROUGH SERVICE)	4100K LED		LITHONIA	VAP-39LED-ASY-MVOLT-SMB	
				SPECTRUM LIGHTING	EQUAL	
W1	EXTERIOR MOUNTED LED WALL PACK	4000K LED		LITHONIA	TWP-LED-20C70040K-T3M-MVOLT-PE-XX	1
				SPECTRUM LIGHTING	EQUAL	
W2	EXTERIOR MOUNTED LED WALL PACK	4000K LED		LITHONIA	TWR1-2-40K-MVOLT-PE	1
				SPECTRUM LIGHTING	EQUAL	
⊗	SINGLE FACE LED EXIT LIGHT	LED		LITHONIA	LQM-S-W-3-R	
				SPECTRUM LIGHTING	EQUAL	

SCHEDULE NOTES:

1. VERIFY FIXTURE COLOR WITH ARCHITECT FROM ALL STANDARD OPTIONS AVAILABLE PRIOR TO ORDERING.

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PROJECT NO: 1022-04-74	HWY: 194	COUNTY: EAU CLAIRE	FLOOR PLAN – SALT SHED LIGHTING & POWER	SHEET 37	E1


BRINE TANK PUMP DISCONNECTS
2#10 #10G IN 3/4"C
"A" 30A/2P
"A" 30A/2P
2#10 #10G IN 3/4"C
"A" 20A/1P
BCP-1
IN LINE BOILER PUMP
CP-1
"A" 20A/1P
IN LINE CIRC PUMP
"A" 20A/1P
METER
MECH.
B-1
"A"
E.C. TO WIRE TO WELL CONNECTION
WP/GFI
"A" 20A/1P
2#10 #10G IN 3/4"C
"A" 30A/2P
WP/GFI
PATCH AND OIL HEATER DISCONNECTS
2#8 #10G IN 3/4"C
"A" 50A/2P
"A" 50A/2P
2#8 #10G IN 3/4"C
MOUNT ALL RECEPTACLES IN BUILDING UP 4'-0" AFF
WP/GFI
"A" 20A/1P
SALT BRINE
S4
S4
S4
S4
HIGH BAY SENSOR, WATTSTOPPER OR EQUAL (TYPICAL)
WP GFI
VEHICLE STORAGE
WP GFI
"A" 20A/1P
"A" 20A/1P
WP GFI
MAU-1
3/4
"A" 30A/1P
#10
OHD
"A" 25A/1P
"A" 30A/1P
#10
OHD
"A" 30A/1P
#10
OHD
"A" 30A/1P
#10
OHD
EF-1
1/2
"A" 20A/1P
W2
TYPICAL
WP/GFI
"A" 20A/1P
WP/GFI
"A" 20A/1P
WP/GFI
WP/GFI
"A" 20A/1P
W1
W1
W1

ELECTRICAL SYMBOLS AND ABBREVIATIONS

THIS IS A COMPREHENSIVE SYMBOL AND ABBREVIATION LIST.
NOT ALL SYMBOLS ARE APPLICABLE TO THESE DRAWINGS.

S	SINGLE POLE SWITCH, 3=3 WAY, 4=4 WAY, P=PILOT R=RELAY, K=KEYED, I=ILLUMINATED, D=DIMMER M=MOTION SENSOR SWITCH
	DUPLEX RECEPTACLE C=CEILING MOUNTED
	DUPLEX RECEPTACLE MOUNTED AT 44" TO BOTTOM
	POWER RECEPTACLE 240V 30=30AMP 60=60AMP R = 50A RANGE OUTLET D = 30A DRYER OUTLET
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
	DOUBLE DUPLEX RECEPTACLE (RECEPTACLES MOUNTED SIDE BY SIDE)
	BLANK OUTLET FOR FUTURE DEVICES 4" DEEP BOX, SINGLE GANG RING, BLANKPLATE, 1"C. STUBBED INTO ACCESSIBLE CEILING
	EQUIPMENT CONNECTION
J	J-BOX
	HEAVY DUTY DISCONNECT F=FUSIBLE WP=WEATHERPROOF FURNISHED BY E.C.
	NON-COMBINATION STARTER
	NEW SURFACE MOUNTED PANEL. SEE PLANS.
	NEW FLUSH MOUNTED PANEL. SEE PLANS.
PC	PHOTO CONTROL
	CEILING MOUNTED FLUSH OR SURFACE
	WALL MOUNTED, FLUSH OR SURFACE
	FLUORESCENT FIXTURE
	EMERGENCY LIGHT
	EXIT LIGHT
X	REFERS TO NOTE NUMBER
XXX-XX	REFERS TO DETAIL NUMBER
	CIRCUIT HOMERUN TO 20A/1P BREAKER UNLESS SHOWN OTHERWISE ON DRAWINGS
	INDICATES CONNECTED TO SAME CIRCUIT BUT CONTROLLED SEPARATELY
	MOTOR OUTLET TERMINAL, ON ROOF MOUNTED UNITS PROVIDE WEATHER PROOF DISCONNECTS. X = HORSE POWER OR MOTOR NUMBER IF SCHEDULE IS PROVIDED.
	COMBINATION STARTER
	OCCUPANCY SENSOR

AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
C	CONDUIT
CCU	COOLING CONDENSER UNIT
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CON	CONTACTOR
CP	CONTROL PANEL
DIS	DISCONNECT
DM	DEMARC
EC	ELECTRICAL CONTRACTOR
ECB	ENCLOSED CIRCUIT BREAKER
ELEV	ELEVATION
EM	EMERGENCY
EQ	EQUIPMENT
EUH	ELECTRIC UNIT HEATER
EWH	ELECTRIC WALL HEATER
FBO	FURNISHED BY OTHERS
GUH	GAS UNIT HEATER
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
INC	INCANDESCENT
MAU	MAKEUP AIR UNIT
MOD	MOTOR OPERATED DAMPER
MTD	MOUNTED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OHD	OVERHEAD DOOR
OC	ON CENTER
PC	PHOTO CONTROL
PNL	PANELBOARD
REF	REFRIGERATOR
RTU	ROOF TOP UNIT
SS	STAINLESS STEEL
TRN	TRANSFORMER
TRS	TRANSFER SWITCH
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHER PROOF

PANEL SCHEDULE -- PANEL "A" VOLT 120/240 Ø 1 WIRE 3

BUS SIZE 200 [ ] MAIN LUGS [X] MAIN CIRCUIT BKR SIZE 200
[ ] SUB FEED LUGS SIZE ____ AMPS AIC 14,000 [X] COPPER GROUND BUS
[X] SURFACE [ ] FLUSH SQUARE D TYPE NQ

WITH THE FOLLOWING BREAKERS:

QUANTITY	POLE	AMPS	LOAD SERVED
20	1	20	GENERAL USE AND SPARES
1	1	25	HVAC
1	2	60	SALT SHED FEED
5	1	20	SPACE
4	1	30	OVERHEAD DOORS
2	2	30	BRINE MIX DISCONNECTS
2	2	50	PATCH AND OIL HEATER DISCONNECTS
1	2	30	WELL

42 CKT TUB

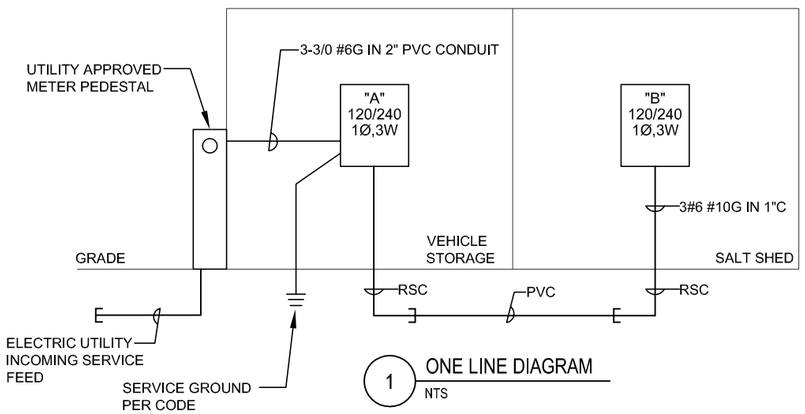
PANEL SCHEDULE -- PANEL "B" VOLT 120/240 Ø 1 WIRE 3

BUS SIZE 60 [ ] MAIN LUGS [X] MAIN CIRCUIT BKR SIZE 60
[ ] SUB FEED LUGS SIZE ____ AMPS AIC 10,000 [X] COPPER GROUND BUS
[X] SURFACE [ ] FLUSH SQUARE D TYPE NQ

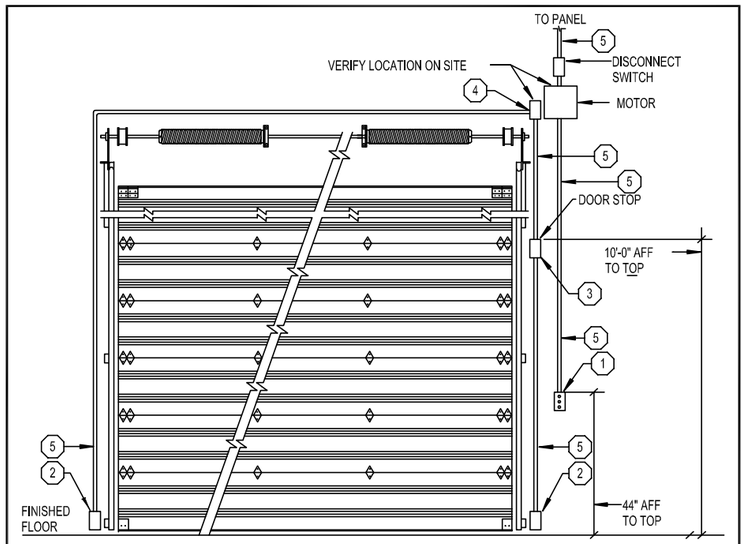
WITH THE FOLLOWING BREAKERS:

QUANTITY	POLE	AMPS	LOAD SERVED
6	1	20	GENERAL USE AND SPARES
6	1	20	SPACE

NEMA 4X



1 ONE LINE DIAGRAM
NTS



INTERIOR VIEW

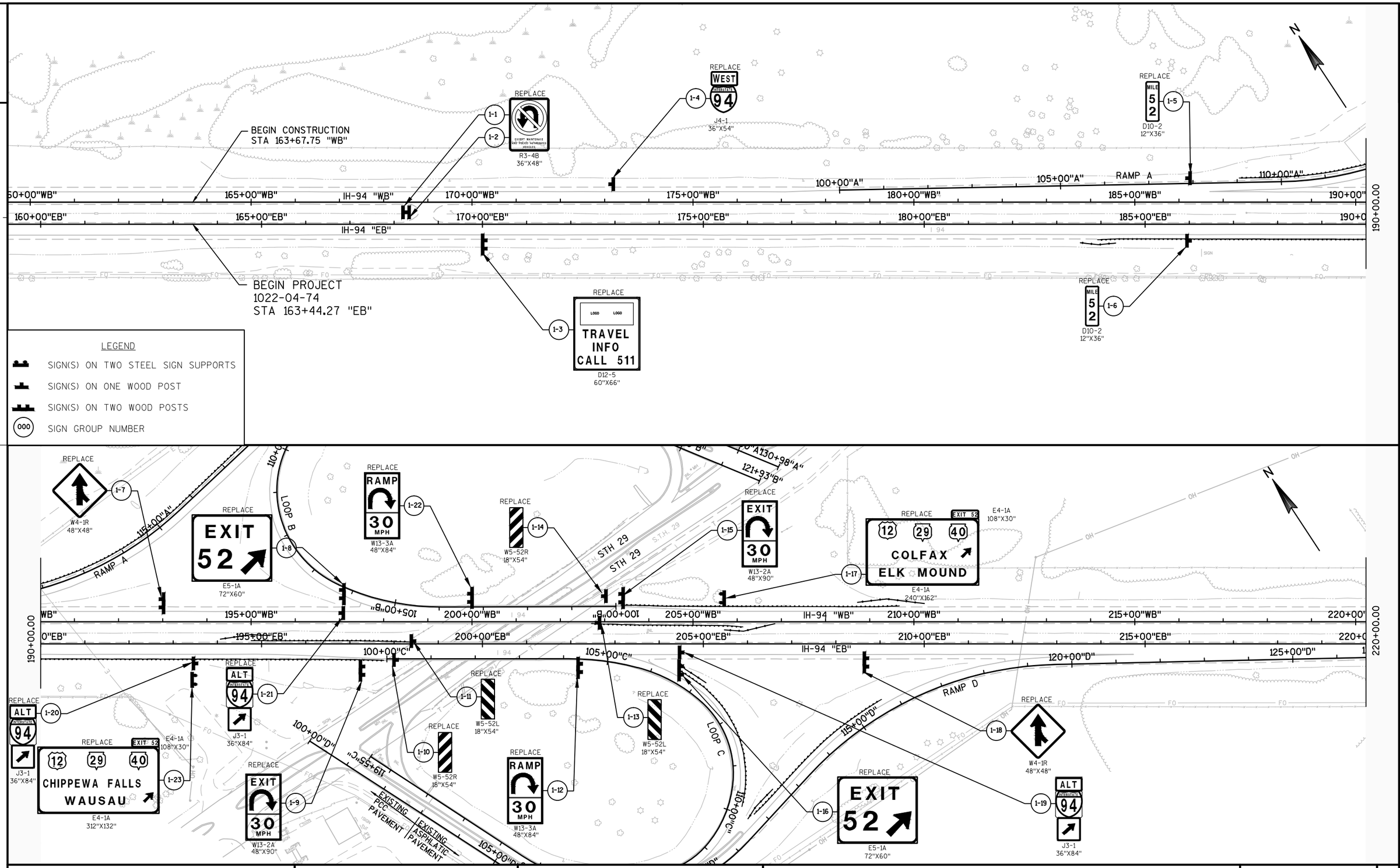
PLAN NOTES: (X)

1. 1-GANG PUSH BUTTON DOOR OPENER (FBO) FLUSH MOUNTED ON BUILDING INTERIOR.
2. PROVIDE A FLUSH 1-GANG J-BOX FOR STOP EYE, WIRING BY SUPPLIER.
3. PROVIDE A FLUSH 1-GANG J-BOX FOR STOP SWITCH, WIRING BY SUPPLIER.
4. PROVIDE A FLUSH 1-GANG J-BOX FOR CONTROL, WIRING BY SUPPLIER.
5. PROVIDE A FLUSH MOUNTED 1/2"C.

16011-20 OVERHEAD GARAGE DOOR DETAIL
NTS

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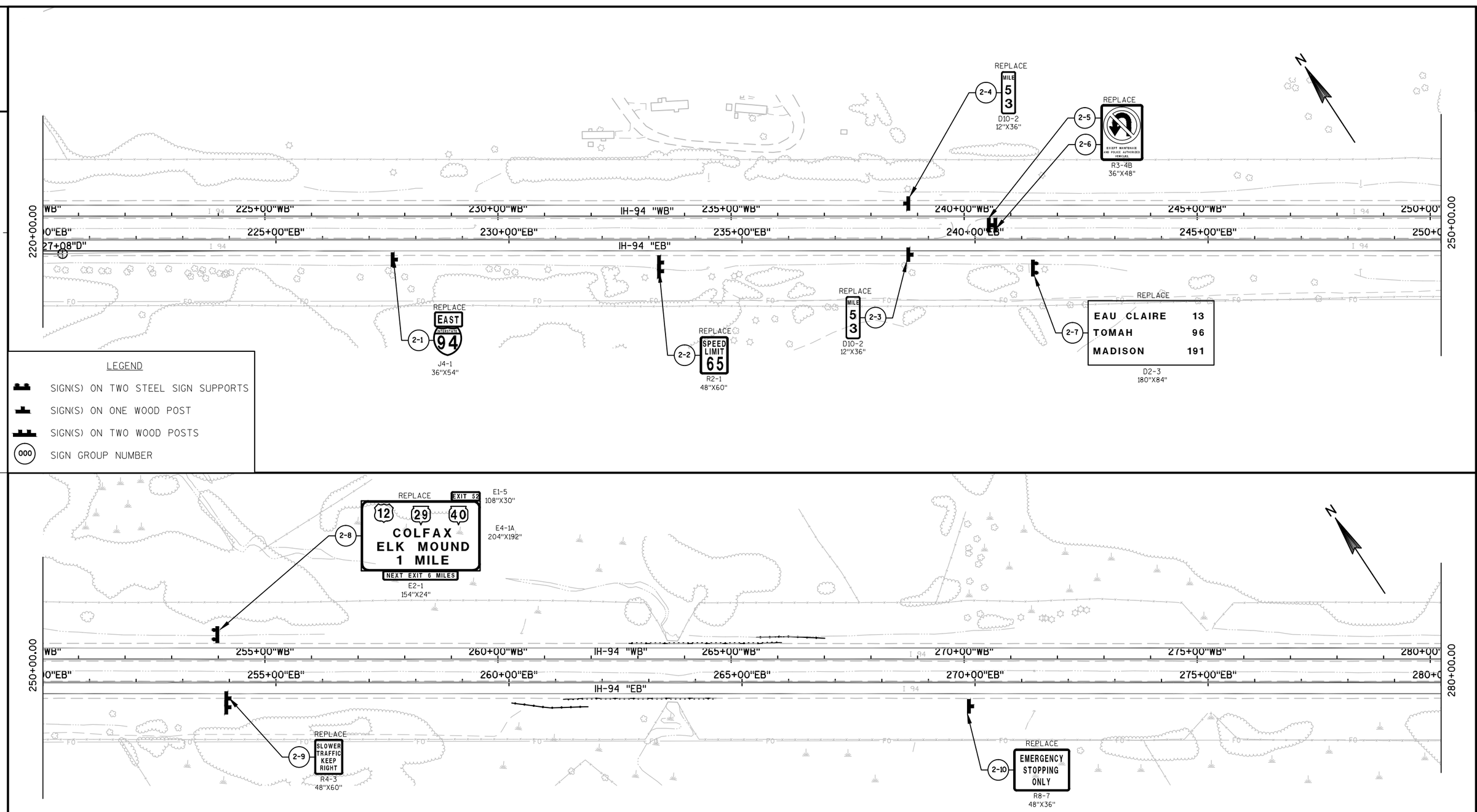
PROJECT NO: 1022-04-74	HWY: 194	COUNTY: EAU CLAIRE	SYMBOLS LIST, ONE LINE AND DETAILS	SHEET 39	E3



LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PERMANENT SIGNING	SHEET 40	E



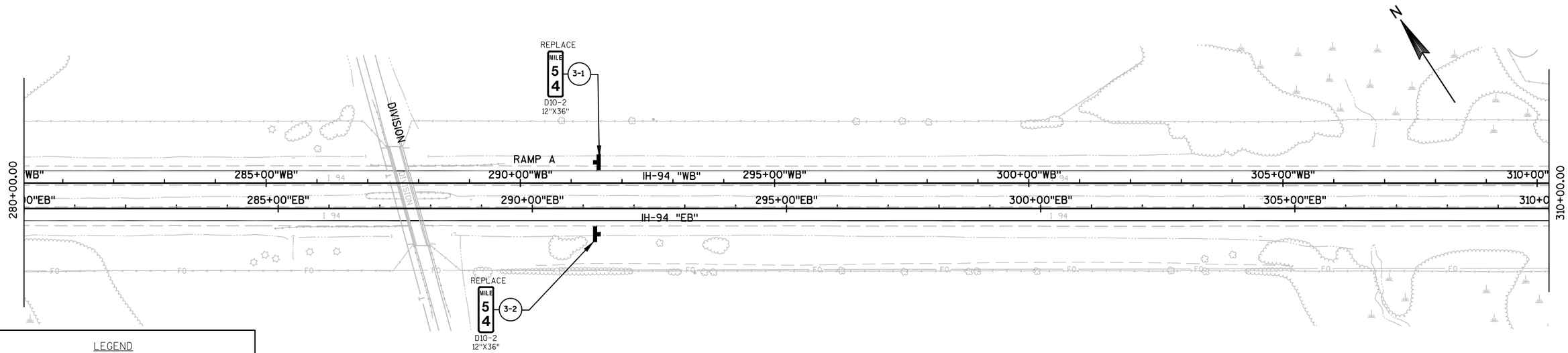
LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
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- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PERMANENT SIGNING	SHEET	E

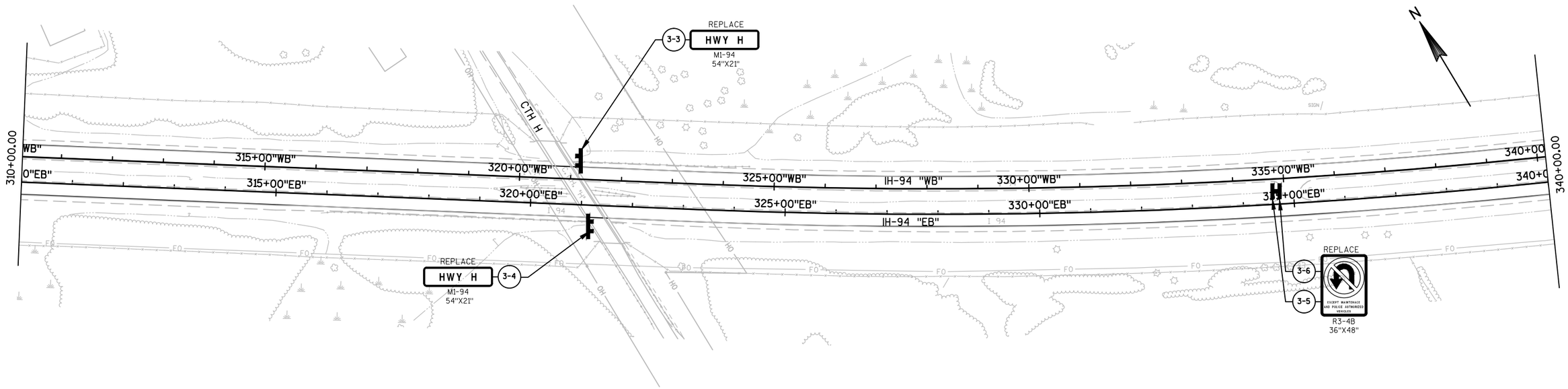
FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\023202 PS.DWG PLOT DATE : 8/6/2014 11:32 AM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



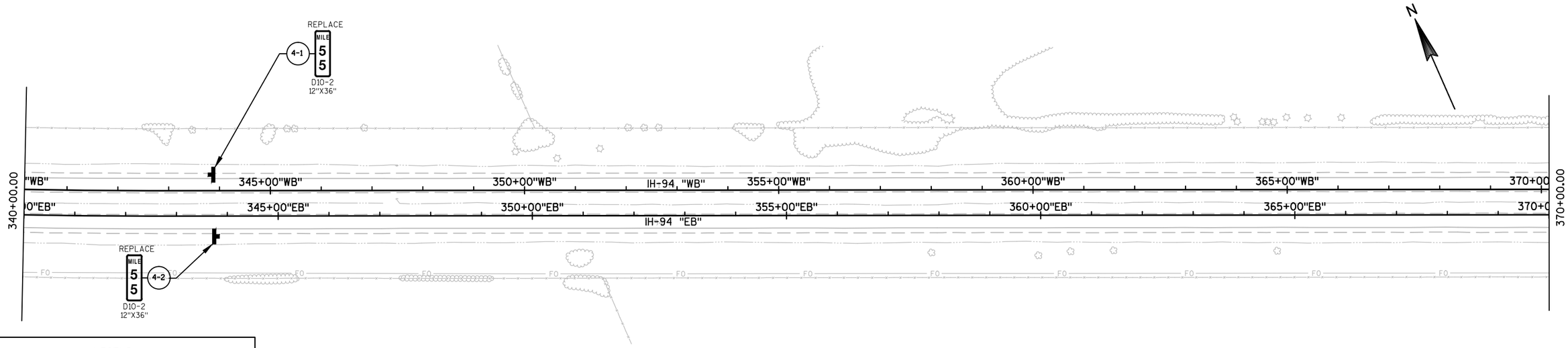
LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER



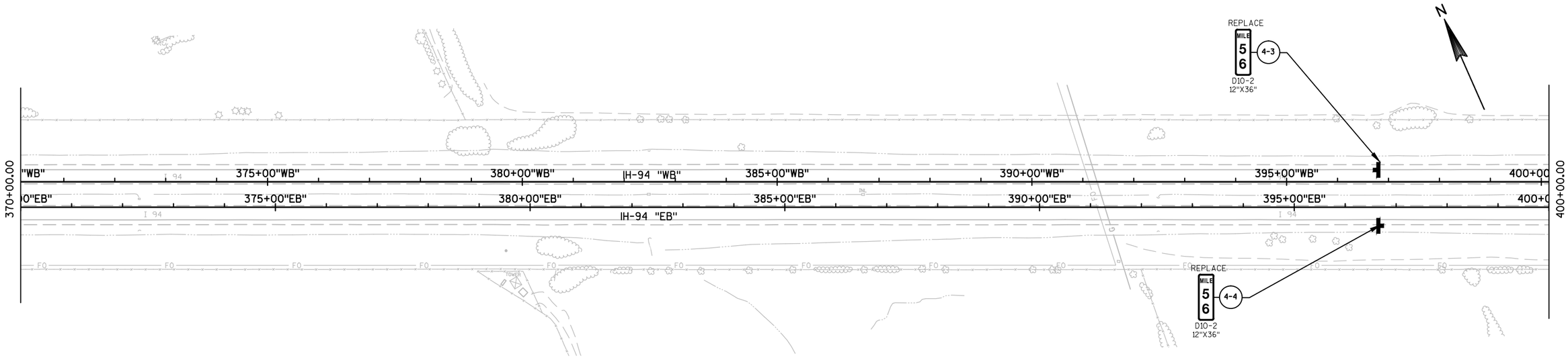
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\023203 PS.DWG PLOT DATE : 8/6/2014 11:36 AM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1 IN:200 FT



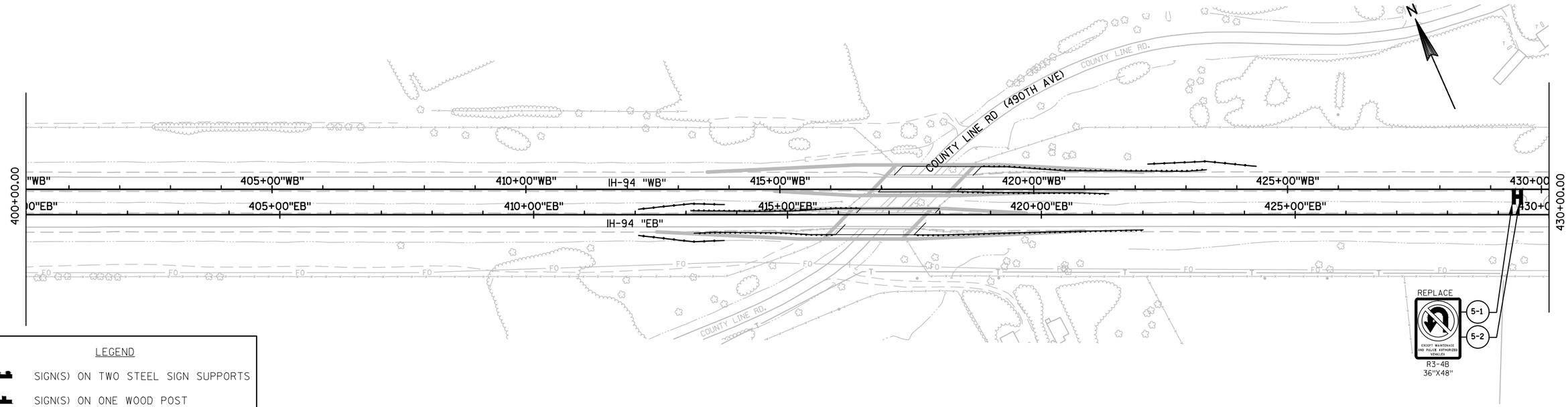
LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER



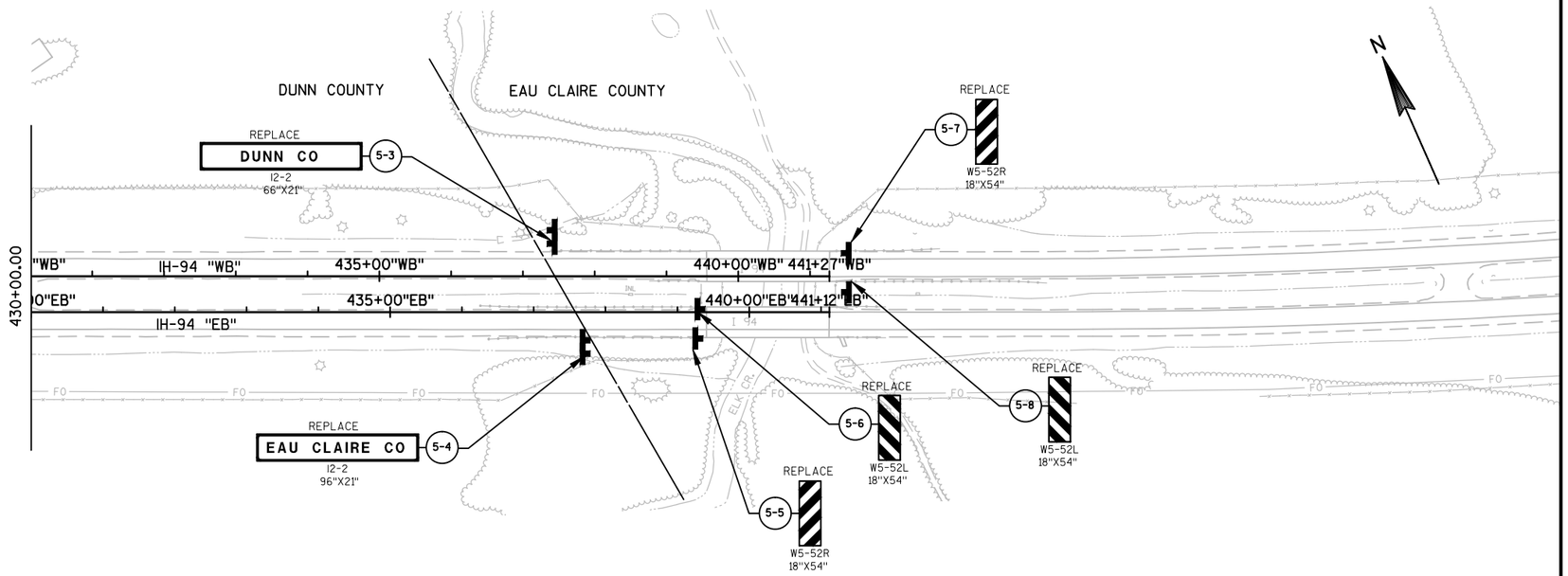
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PERMANENT SIGNING	SHEET 43	E

2



LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	PERMANENT SIGNING	SHEET 44	E

2

B-18-11

441+11"WB"

441+12"EB"

445+00"WB"

445+00"EB"

450+00"WB"

450+00"EB"

IH-94 "WB"

IH-94 "EB"

455+00"WB"

455+00"EB"

460+00"WB"

460+00"EB"

465+00"WB"

465+00"EB"

470+

470+0

470+00.00

B-18-12

ELK CR

I 94

F0

REPLACE

6-2

MILE 57

D10-2
12"X36"

REPLACE

SPEED LIMIT 65

6-1

R2-1
48"X60"

REPLACE

6-3

6-4

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES

R3-4B
36"X48"

REPLACE

6-5

MILE 57

D10-2
12"X36"

* INCLUDE ITEMS FOR "SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS"

LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- 000 SIGN GROUP NUMBER

N

470+00.00

475+00"WB"

475+00"EB"

480+00"WB"

480+00"EB"

485+00"WB"

485+00"EB"

490+00"WB"

490+00"EB"

495+00"WB"

495+00"EB"

500+

500+0

500+00.00

ELK CREEK RD

REPLACE

6-8

EMERGENCY STOPPING ONLY

R8-7
48"X36"

REPLACE

SPEED LIMIT 65

6-9

R2-1
48"X60"

REPLACE

6-6

EAU CLAIRE NEXT 4 EXITS

E9-1
144"X54"

LODGING- EXIT 59

DAYS INN

AMERICINN

KNIGHTS INN

* REPLACE

CHIPPEWA VALLEY REGIONAL AIRPORT EXIT 59

6-7

XX
204"X84"

N

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\023206 PS.DWG PLOT DATE : 8/6/2014 11:44 AM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

REPLACE
7-1 MILE 58
D10-2
12"X36"

REPLACE
7-3 SLOWER TRAFFIC KEEP RIGHT
R4-3
48"X60"

REPLACE
7-6
MENOMONIE 19
HUDSON 58
ST PAUL 74
D2-3
192"X84"

500+00.00

505+00"WB" | 510+00"WB" | 515+00"WB" | 520+00"WB" | 525+00"WB" | 530+00"WB"

505+00"EB" | 510+00"EB" | 515+00"EB" | 520+00"EB" | 525+00"EB" | 530+00"EB"

I-94 "WB"

IH-94 "EB"

530+00.00

REPLACE
7-2 MILE 58
D10-2
12"X36"

REPLACE
7-4 12 312 EE EXIT 59
EAU CLAIRE
CHIPPEWA FALLS
1 MILE
E1-1A
276"X162"

E1-5
108"X30"

REPLACE
7-5 EAST INTERSTATE 94
J4-1
36"X54"

FOOD - EXIT 59
MCDONALDS | BURGER KING
SUBWAY | CULVERS

LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- 000 SIGN GROUP NUMBER

* INCLUDE ITEMS FOR "SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS"

** SIGN REPLACED IN 2013

REPLACE
7-8 WEST INTERSTATE 94
J4-1
36"X54"

BEGIN PROJECT
7028-00-70
STA 100+00 "E"

100+00"E" | 105+00"E" | 110+00"E" | RAMP E | 115+00"E"

535+00"WB" | 540+00"WB" | 545+00"WB" | 550+00"WB" | 555+00"WB"

535+00"EB" | 540+00"EB" | 545+00"EB" | 550+00"EB" | 555+00"EB"

IH-94 "EB"

** MILE 59

END CONSTRUCTION
STA 556+00.00 "WB"

560+00"WB"

560+00"EB"

REPLACE
7-10
7-9
R3-4B
36"X48"

REPLACE
7-7 HOSPITAL EXIT 59
E10-61
144"X54"

GAS - EXIT 59
HOLIDAY

** MILE 59

END PROJECT
1022-04-74
STA 556+00.00 "EB"

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\023207 PS.DWG PLOT DATE : 10/6/2014 11:22 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:200 FT

BEGIN PROJECT
7028-00-70
STA 100+00.00 "E"

00+00"E"
545+00"WB"
545+00"EB"
105+00"E"
550+00"WB"
IH-94 "WB"
550+00"EB"
IH-94 "EB"
110+00"E"
115+00"E"
120+00"E"
RAMP E
125+00"E"
555+00"WB"
555+00"EB"
560+00"WB"
560+00"EB"
565+00"WB"
565+00"EB"
570+00"WB"
130+00"E"
131+00.00
165+00"F"

END CONSTRUCTION
STA 556+00.00 "WB"

END PROJECT
1022-04-74
STA 556+00.00 "EB"

** SIGN REPLACED IN 2013

REPLACE WEST INTERSTATE 94 8-1 J4-1 36"X54"

** PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED

** DO NOT ENTER

** WRONG WAY

** SPEED LIMIT 50

LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER
- * BAND SIGN TO STREET LIGHT/ TRAFFIC SIGNAL POLE

N

REPLACE JCT END INTERSTATE 94 312 J1-2 72"X57" 8-8

REPLACE WEST INTERSTATE 94 J2-1 36"X81" 8-7 USE RIGHT LANE M4-2OR 36"X84"

REPLACE W3-3 36"X36" 8-5

REPLACE SPEED LIMIT 50 R2-1 36"X48" 8-9

REPLACE R4-7 36"X48" 8-12

REPLACE * LEFT TURN SIGNAL R10-10-L 24"X30" 8-14

REPLACE * DO NOT ENTER R5-1 36"X36" 8-16

REPLACE * ONE WAY R6-2L 24"X30" 8-19

REPLACE WEST 12 J2-1 36"X54" 8-20

REPLACE * WRONG WAY R5-1A 42"X30" 8-21

REPLACE SPEED LIMIT 50 R2-1 48"X60" 8-22

REPLACE * STOP R1-1F 30"X30" 8-23

REPLACE * R4-7 36"X48" 8-18

REPLACE * LEFT TURN SIGNAL R10-10-L 24"X30" 8-17

REPLACE * STOP R1-1F 30"X30" 8-24

REPLACE * DO NOT ENTER R5-1 36"X36" 8-15

REPLACE * ONE WAY R6-2L 24"X30" 8-13

REPLACE H J13-1 36"X66" 8-11

REPLACE WEST EAST EAST 12 12 312 J3-3 108"X85" 8-10

REPLACE W3-3 36"X36" 8-4

REPLACE EAST 312 J4-1 36"X54" 8-2

REPLACE JCT 12 J4-1 24"X39" 8-3

REPLACE EAU CLAIRE ELK MOUND D1-2 78"X30" 8-6

LYLE LANE
TEXACO DR
USH 12
U.S.H. 12
STH 312
S.T.H. 124
TRUAX LANE
133+30"E"
175+00"F"
180+00"F"
185+00"F"
190+00"F
190+92"F"
131+00.00

END PROJECT
7028-00-70
STA 190+00 "F"

PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET 47	E

2

LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- 000 SIGN GROUP NUMBER

N

ALT 94

REPLACE JCT 12 JCT 29 JCT 40 — 9-4
J2-3
96"X87"

REPLACE PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED — 9-3
R5-57
36"X36"

END CONSTRUCTION
RAMP A
STA 124+90.76 "A"
BEGIN CONSTRUCTION
LOOP B
STA 116+13.40 "B"

REPLACE NO PARKING ON RAMP EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES — 9-1
R7-64
48"X30"

INSTALL
C)
W1-8
30"X36"

REPLACE RAMP 30 M.P.H. — 9-6
W13-3
24"x30"

EXISTING PCC PAVEMENT
EXISTING ASPHLATIC PAVEMENT

ALT 94

REPLACE WEST 12 WEST 29 — 9-7
J3-2
48"X57"

INSTALL
9-2
W3-1
36"X36"
REMOVE

STOP AHEAD

REPLACE
COLFAX
ELK MOUND
MENOMONIE — 9-5
D1-3
78"X36"

100+00"A"
180+00"WB"
180+00"EB"
IH-94 "WB"
IH-94 "EB"
105+00"A"
RAMP A
185+00"WB"
185+00"EB"
110+00"A"
115+00"A"
190+00"WB"
190+00"EB"
195+00"WB"
195+00"EB"
100+00"C"
105+00"C"
200+00"WB"
200+00"EB"
205+00"WB"
205+00"EB"
LOOP C
100+00"D"
119+55"C"
105+00"D"
110+00"C"
RAMP D
115+00
SIZE

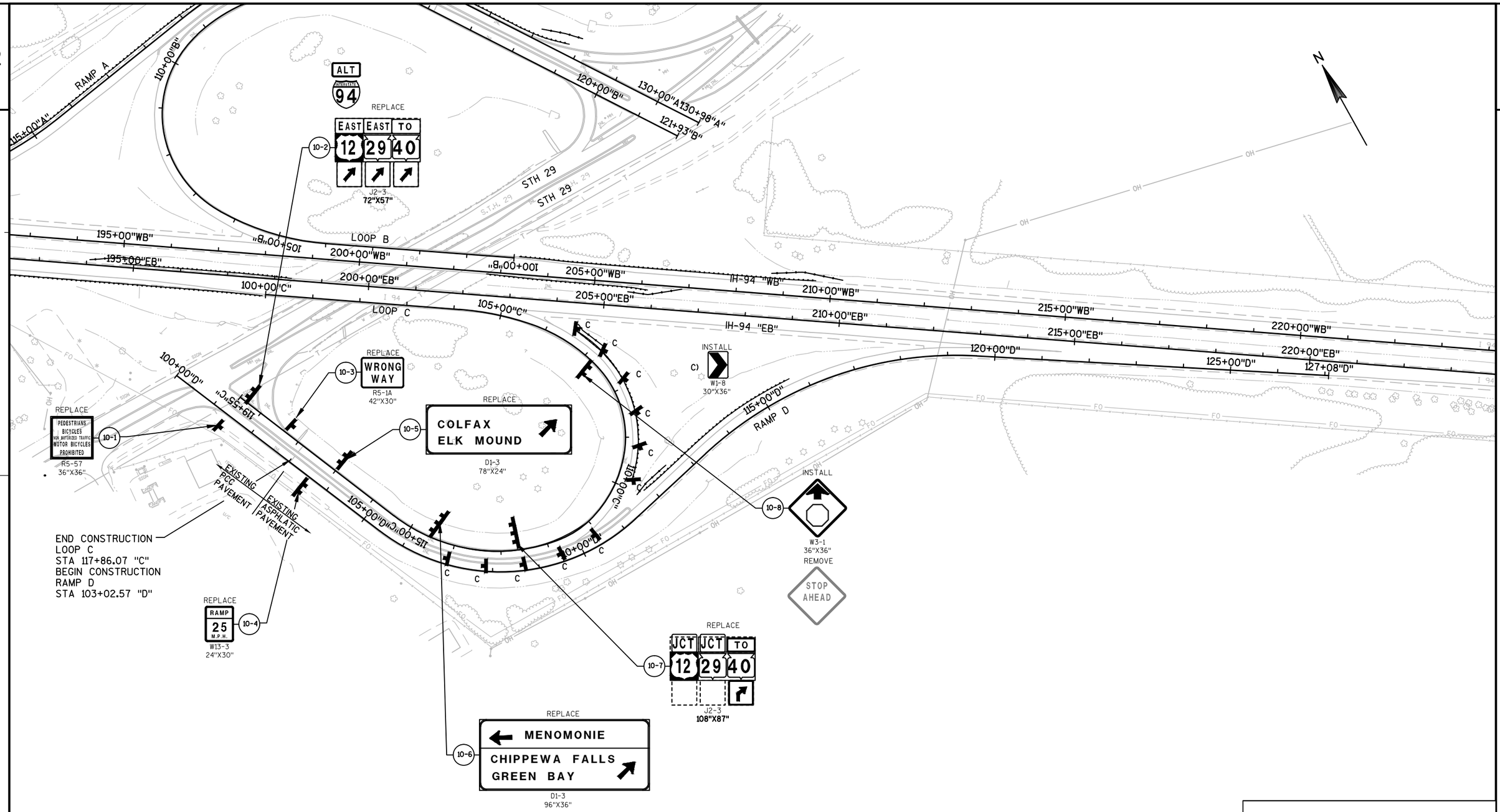
120+00"A"
110+00"B"
C
115+00"A"
LOOP B
115+00"B"
125+00"A"
120+00"B"
130+00"A"
130+98"A"
121+93"B"

END CONSTRUCTION
LOOP C
STA 117+86.07 "C"
BEGIN CONSTRUCTION
RAMP D
STA 103+02.57 "D"

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PERMANENT SIGNING	SHEET 48	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\023209 PS.DWG PLOT DATE : 8/6/2014 11:47 AM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



LEGEND

- SIGN(S) ON TWO STEEL SIGN SUPPORTS
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POSTS
- (000) SIGN GROUP NUMBER

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PERMANENT SIGNING	SHEET 49	E

LEGEND

	EXISTING	PROPOSED
FTMS CONVENTIONAL SYMBOLS		
CCTV CAMERA AND POLE		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
24X36-INCH STEEL PULL BOX		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
COMMUNICATIONS VAULT, TYPE 1		
ON-RAMP CLOSURE GATE		XX-FOOT
ON-RAMP CLOSURE GATE SOLAR POWER SYSTEM		

FTMS STANDARD ABBREVIATIONS

CB — CONTROLLER CABINET
DMS — DYNAMIC MESSAGE SIGN
PB — PULL BOX
G — RAMP GATE

FTMS GENERAL NOTES

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

2

2

N

RAMP GATE SOLAR POWER SYSTEM,
(1) TYPE 10 CONTROL CABINET BASE,
(1) PEDESTAL BASE, AND
(1) 15-FT TRAFFIC SIGNAL STANDARD

G18-12
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH BOLT CIRCLE TRANSFORMER BASE
(1) 40-FOOT SOLAR RAMP CLOSURE GATE

40-FOOT

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH RAMP GATE POWER CONDUCTORS

RAMP GATE SOLAR POWER SYSTEM,
(1) TYPE 10 CONTROL CABINET BASE,
(1) PEDESTAL BASE, AND
(1) 15-FT TRAFFIC SIGNAL STANDARD

G18-13
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH BOLT CIRCLE TRANSFORMER BASE
(1) 30-FOOT SOLAR RAMP CLOSURE GATE

30-FOOT

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH RAMP GATE POWER CONDUCTORS

RAMP GATE SOLAR POWER SYSTEM,
(1) TYPE 10 CONTROL CABINET BASE,
(1) PEDESTAL BASE, AND
(1) 15-FT TRAFFIC SIGNAL STANDARD

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH RAMP GATE POWER CONDUCTORS

G18-14
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH BOLT CIRCLE TRANSFORMER BASE
(1) 26-FOOT SOLAR RAMP CLOSURE GATE

26-FOOT

USH 12 / STH 29

IH 94 EB

IH 94 WB

PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	FTMS PLAN SHEETS	SHEET	E

FILE NAME : \\mlww400\ingrproj\60816\eau_claire\10220474\10220474_FM_05.dgn PLOT DATE : 7/11/2014 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

NOTE:
USE DISCRETION IN DETERMINING DMS OFFSET FROM 530TH AVE. OVERPASS AND PLACE SO THAT DMS IS IN OPTIMAL LOCATION RELATIVE TO EXISTING GRADE AND SLOPE.

N

IH 94 WB

IH 94 EB

530TH AVE. / DIVISION ST

HO

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

PB02

215'

30'

7.5°

(1) 2-INCH NONMETALLIC CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

MB01

PB01

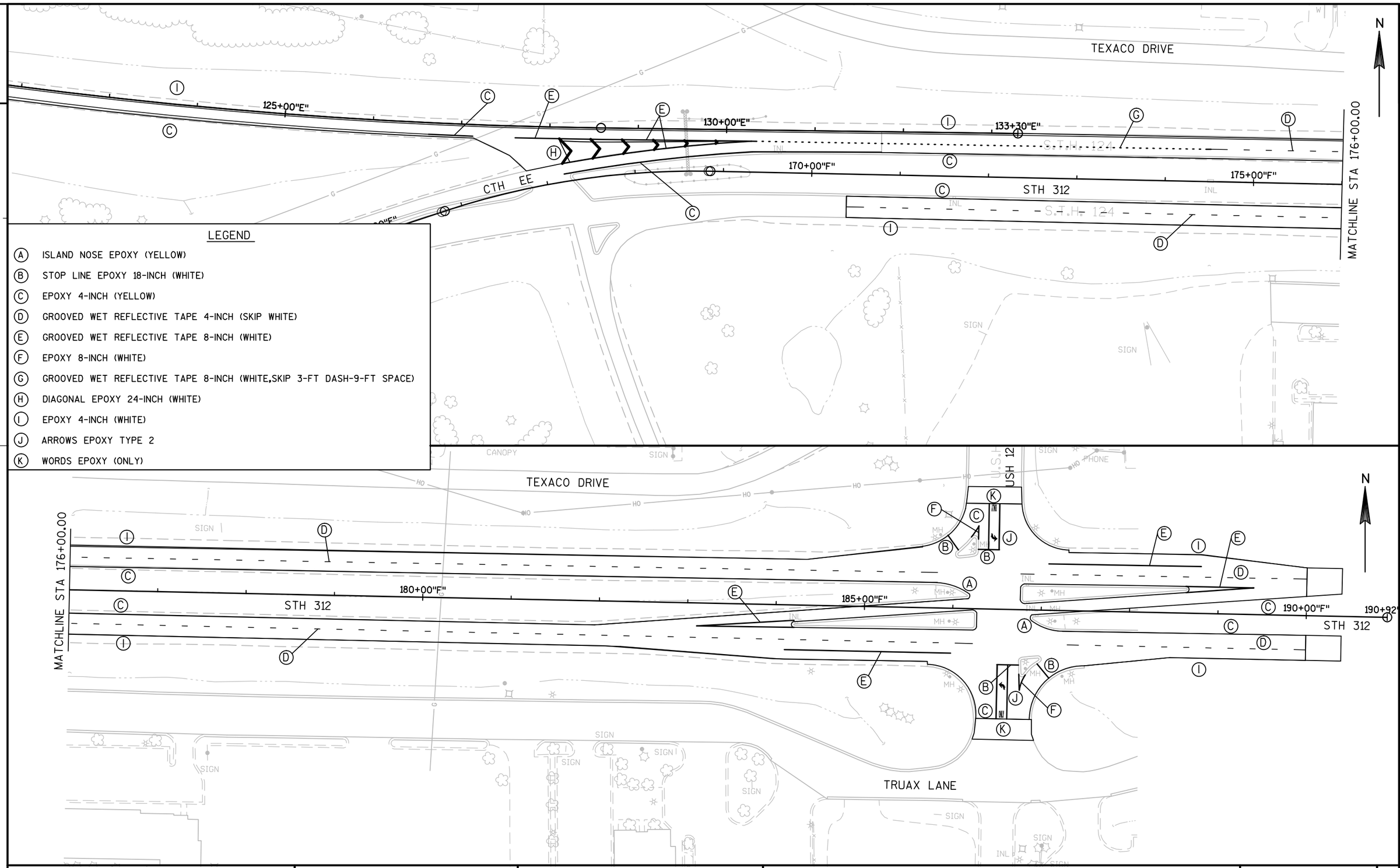
DMS-18-0024
INSTALL ON HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORTS
(1) GROUND MOUNT DMS (S-F)
(1) POLE-MOUNT CABINET (S-F)
(1) CELLULAR MODEM (S-F)
(1) BREAKER DISCONNECT BOX

EDGE OF TRAVELED WAY

PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	FTMS PLAN SHEETS	SHEET 52	E

FILE NAME : \\mlww400\ingrproj\60816\eau_claire\10220474\10220474_FM_10.dgn PLOT DATE : 7/11/2014 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

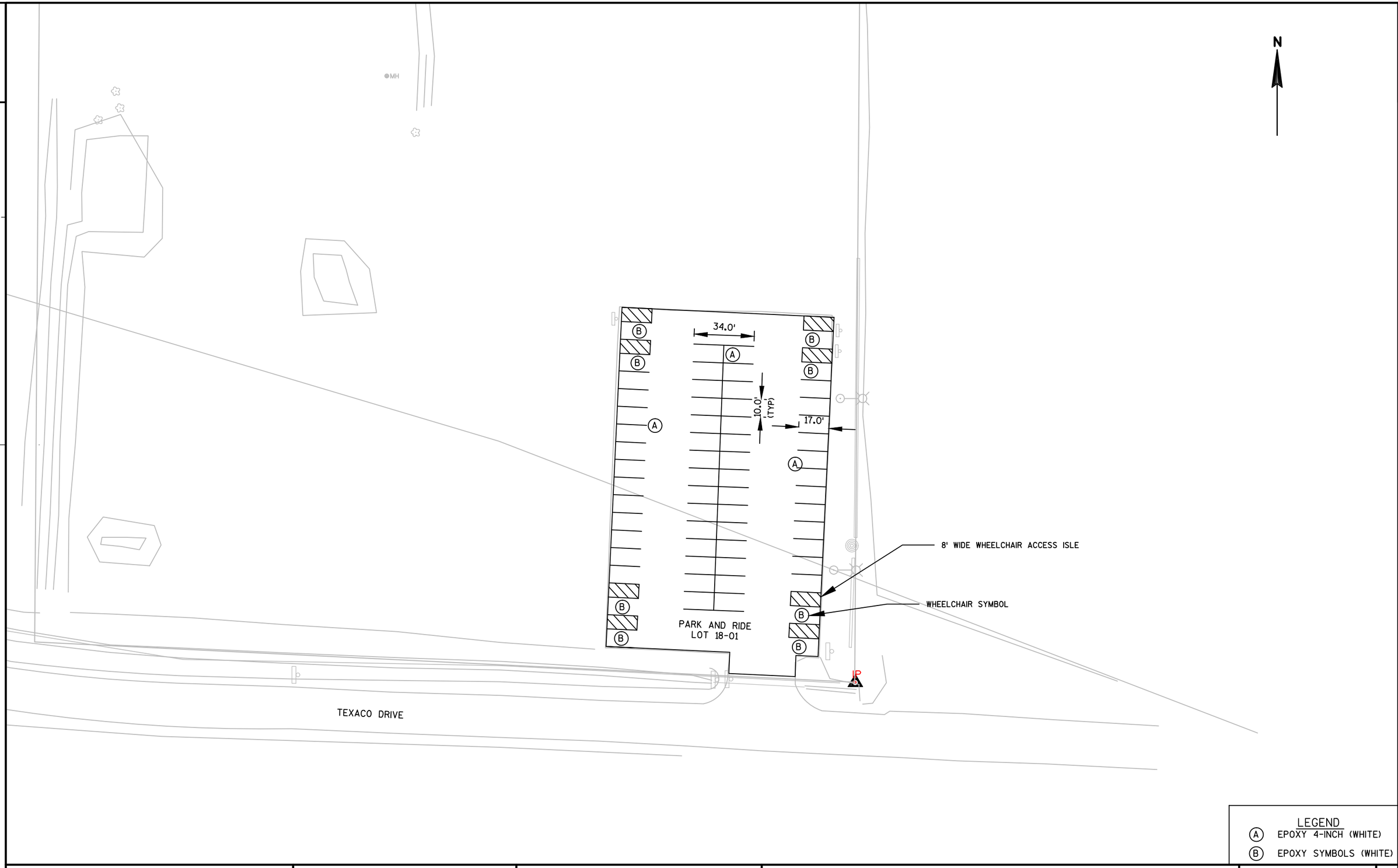


LEGEND

- (A) ISLAND NOSE EPOXY (YELLOW)
- (B) STOP LINE EPOXY 18-INCH (WHITE)
- (C) EPOXY 4-INCH (YELLOW)
- (D) GROOVED WET REFLECTIVE TAPE 4-INCH (SKIP WHITE)
- (E) GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
- (F) EPOXY 8-INCH (WHITE)
- (G) GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE,SKIP 3-FT DASH-9-FT SPACE)
- (H) DIAGONAL EPOXY 24-INCH (WHITE)
- (I) EPOXY 4-INCH (WHITE)
- (J) ARROWS EPOXY TYPE 2
- (K) WORDS EPOXY (ONLY)

PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\024501 PM.DWG PLOT DATE : 8/6/2014 11:50 AM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	PAVEMENT MARKING	SHEET 54	E

GENERAL NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIR 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.

TRAFFIC CONTROL SHOWN IS FOR LANE CLOSURES IN ONE DIRECTION AT ANY GIVEN TIME. IMPLEMENT TRAFFIC CONTROL IN BOTH DIRECTIONS IF THE LANE CLOSURES ARE IMPLEMENTED FOR BOTH DIRECTIONS.

RETURN SPEED LIMIT TO 65 MPH AND COVER SIGNS DURING NON-WORKING HOURS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACK GROUND IS ORANGE.

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

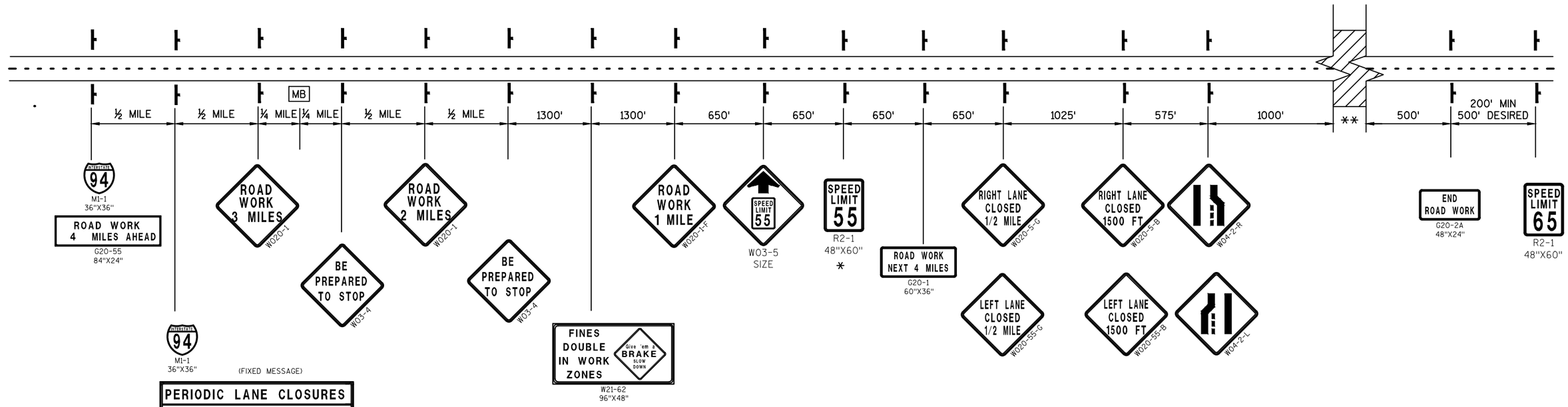
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THEN END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP, THERE SHALL BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 TO 3 MILES WITHIN THE LANE CLOSURE.

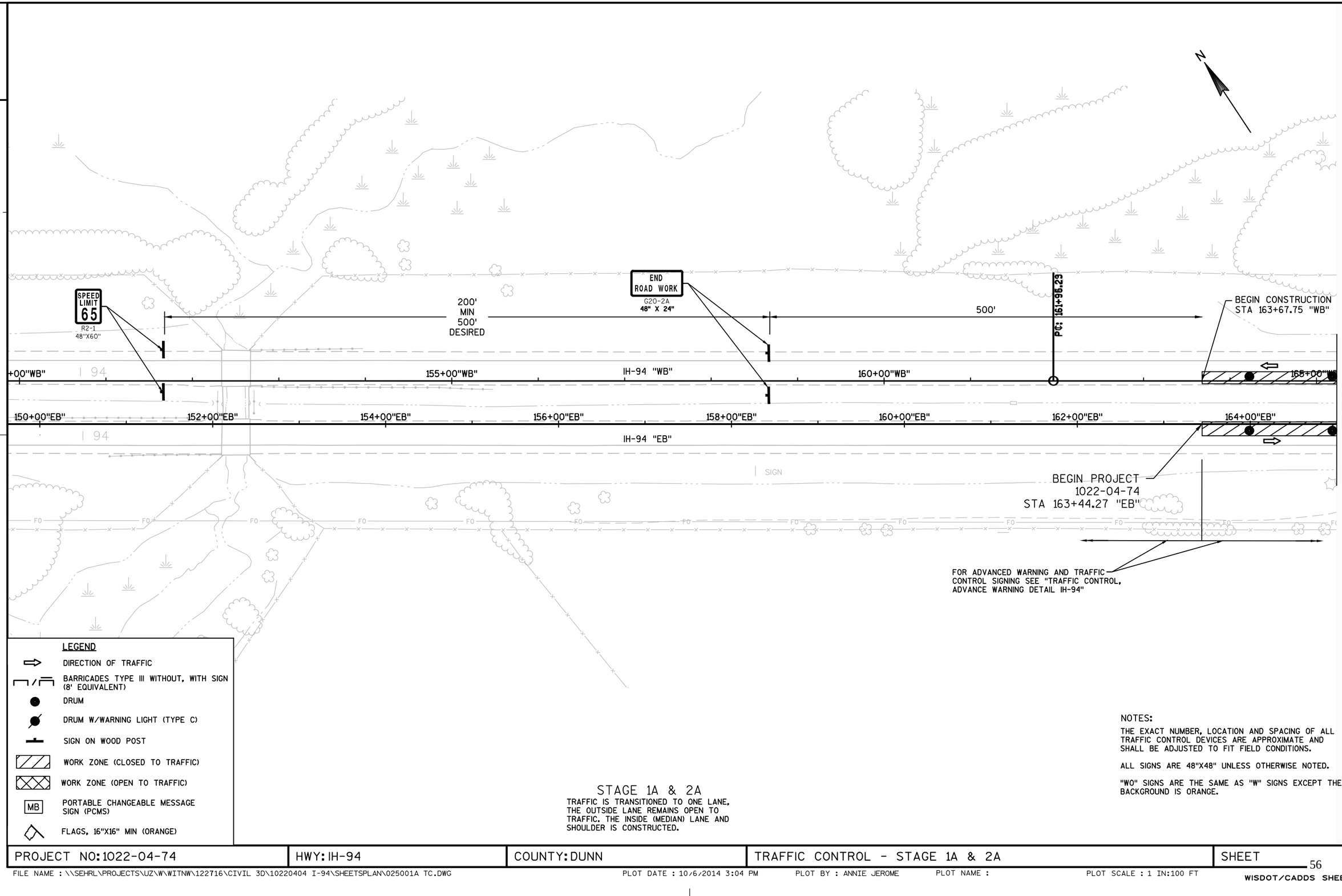
** SEE SDD 15D12-4 FOR TRAFFIC CONTROL LOCATED WITHIN THE TRANSITION AREA, BUFFER SPACE, AND WORK SPACE (WORK AREA)



TRAFFIC CONTROL ADVANCE WARNING DETAIL IH-94

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	TRAFFIC CONTROL - ALL STAGES	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025001AA TC.DWG
PLOT DATE : 7/30/2014 10:59 PM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

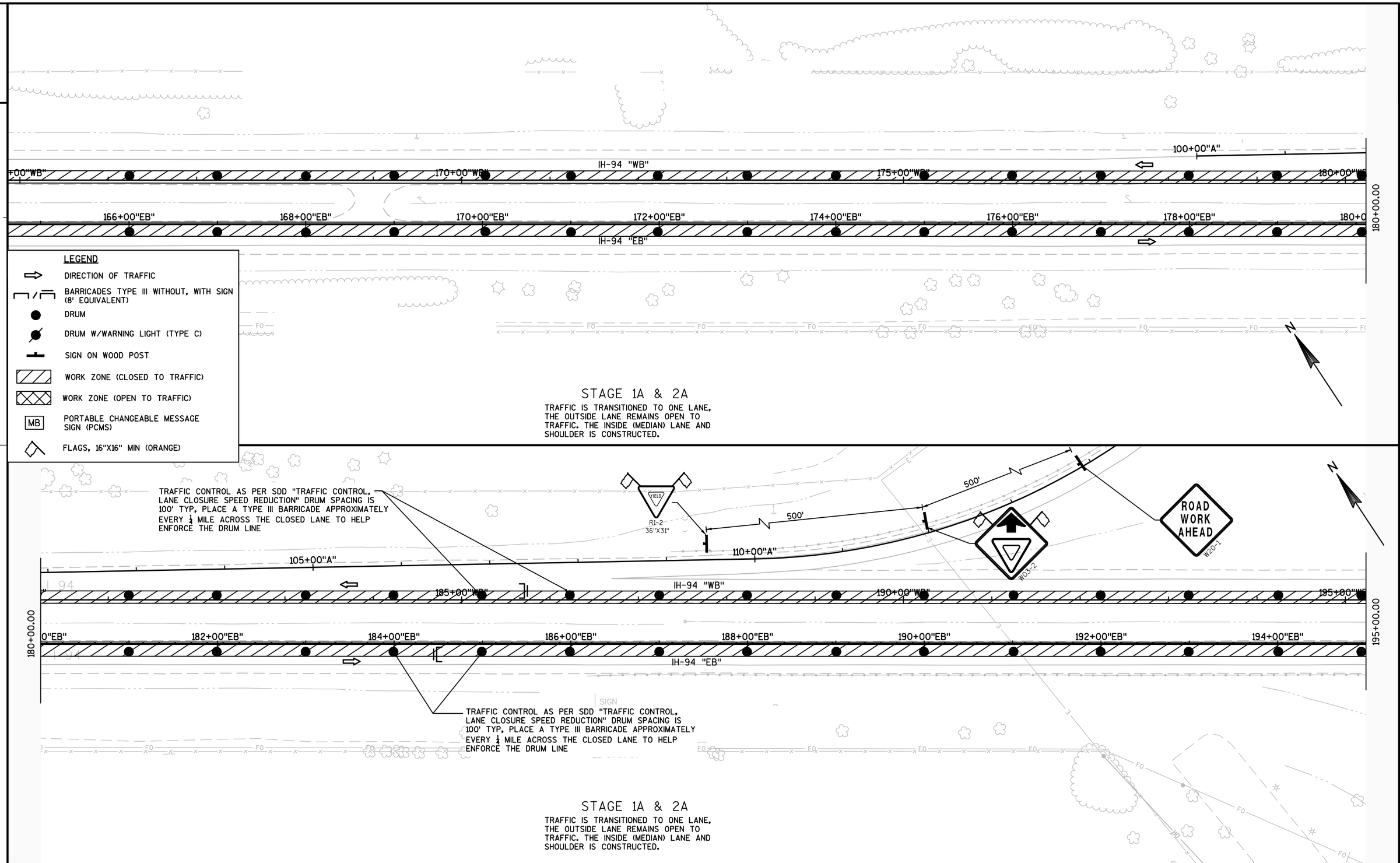
NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

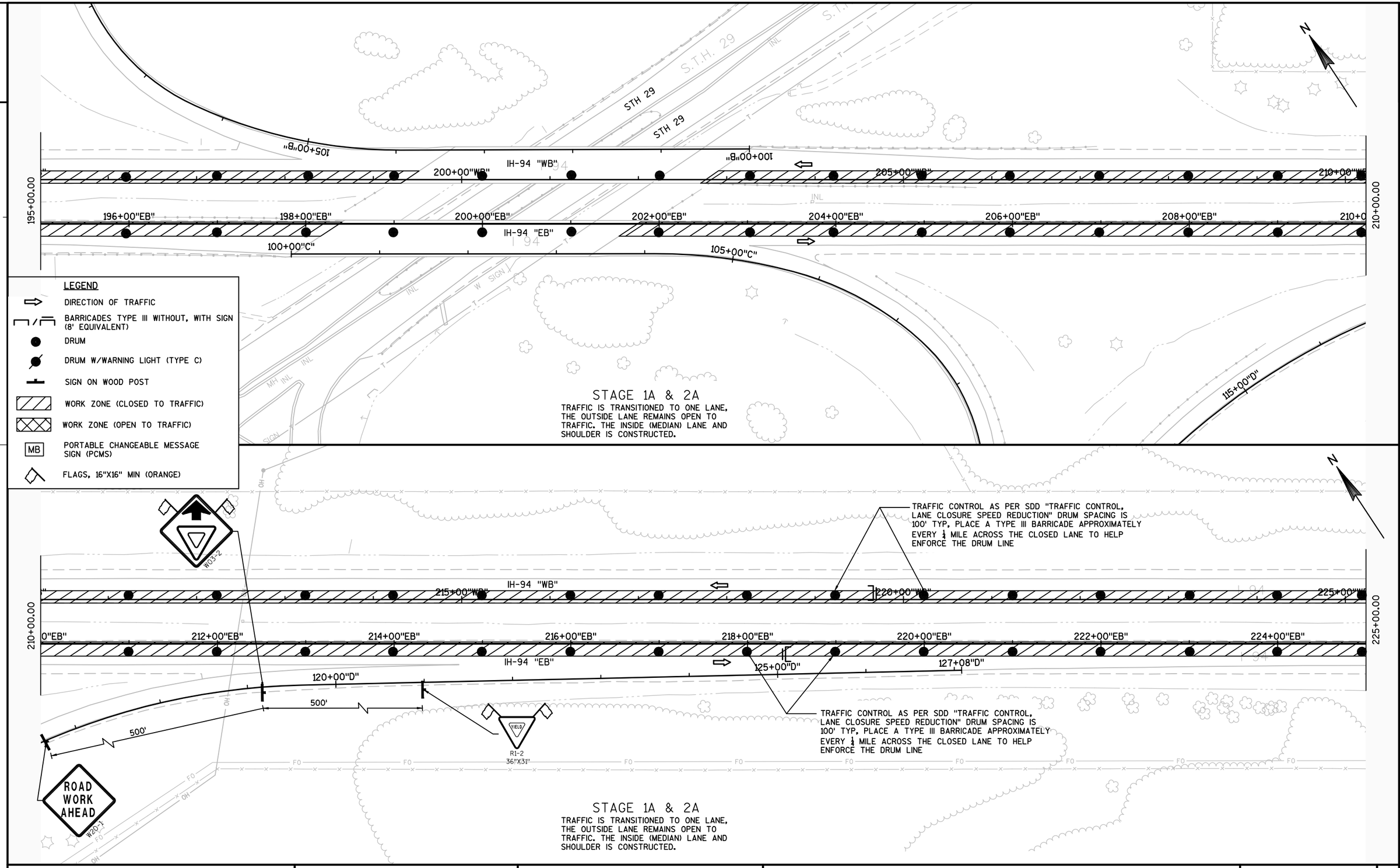
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 56	E



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 57	E

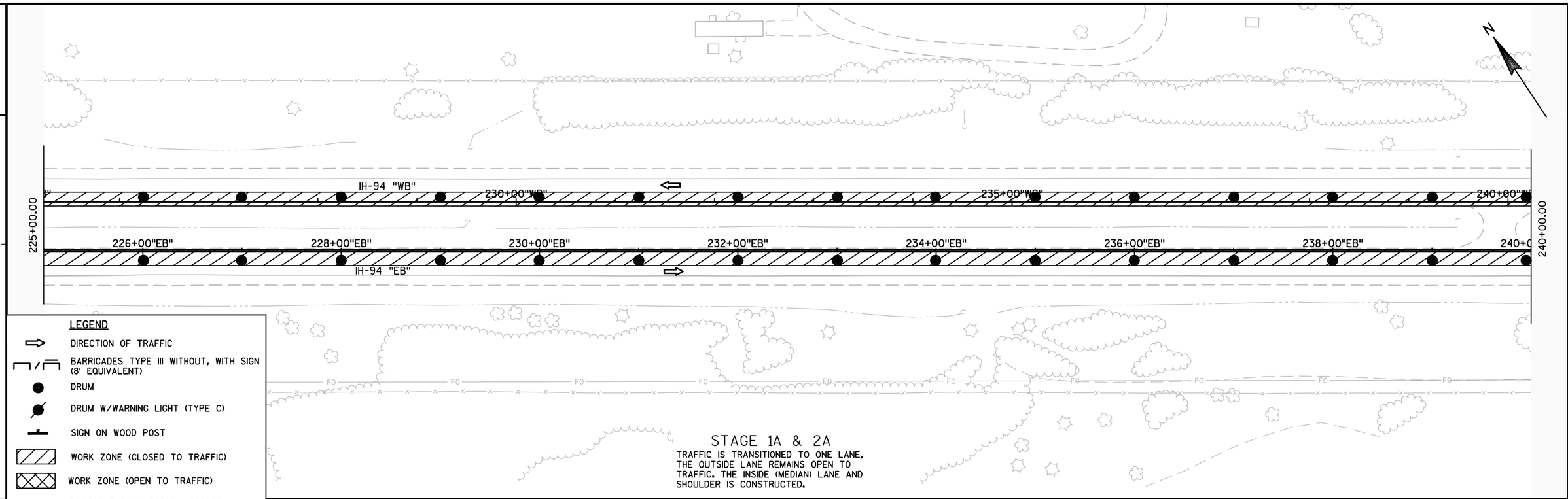
2



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025002 TC.DWG PLOT DATE : 10/6/2014 3:10 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

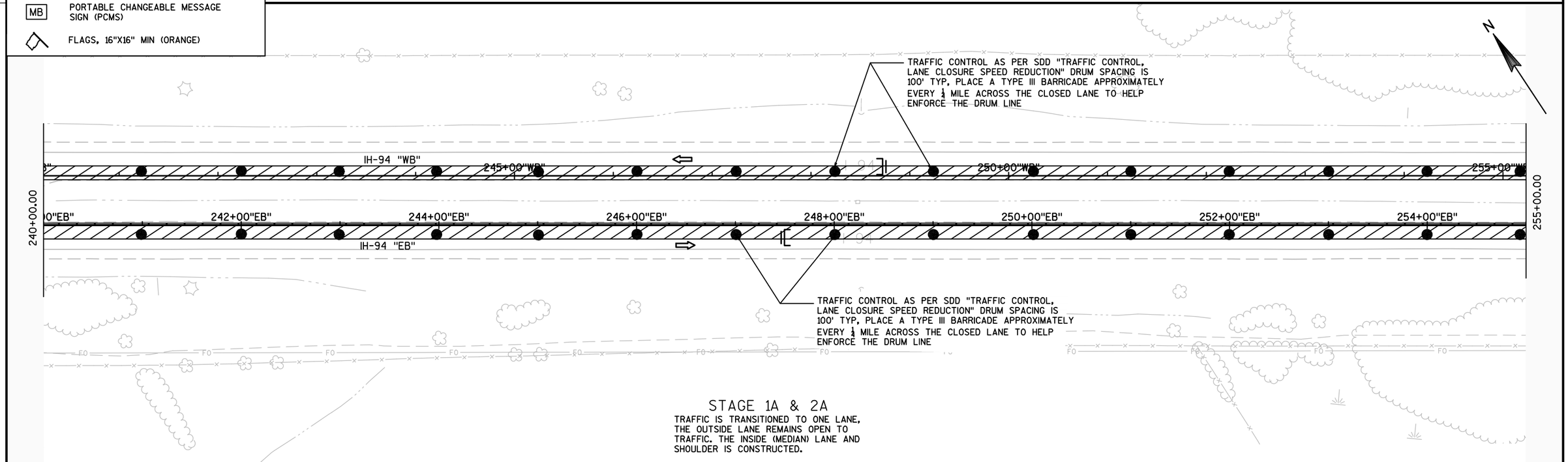


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

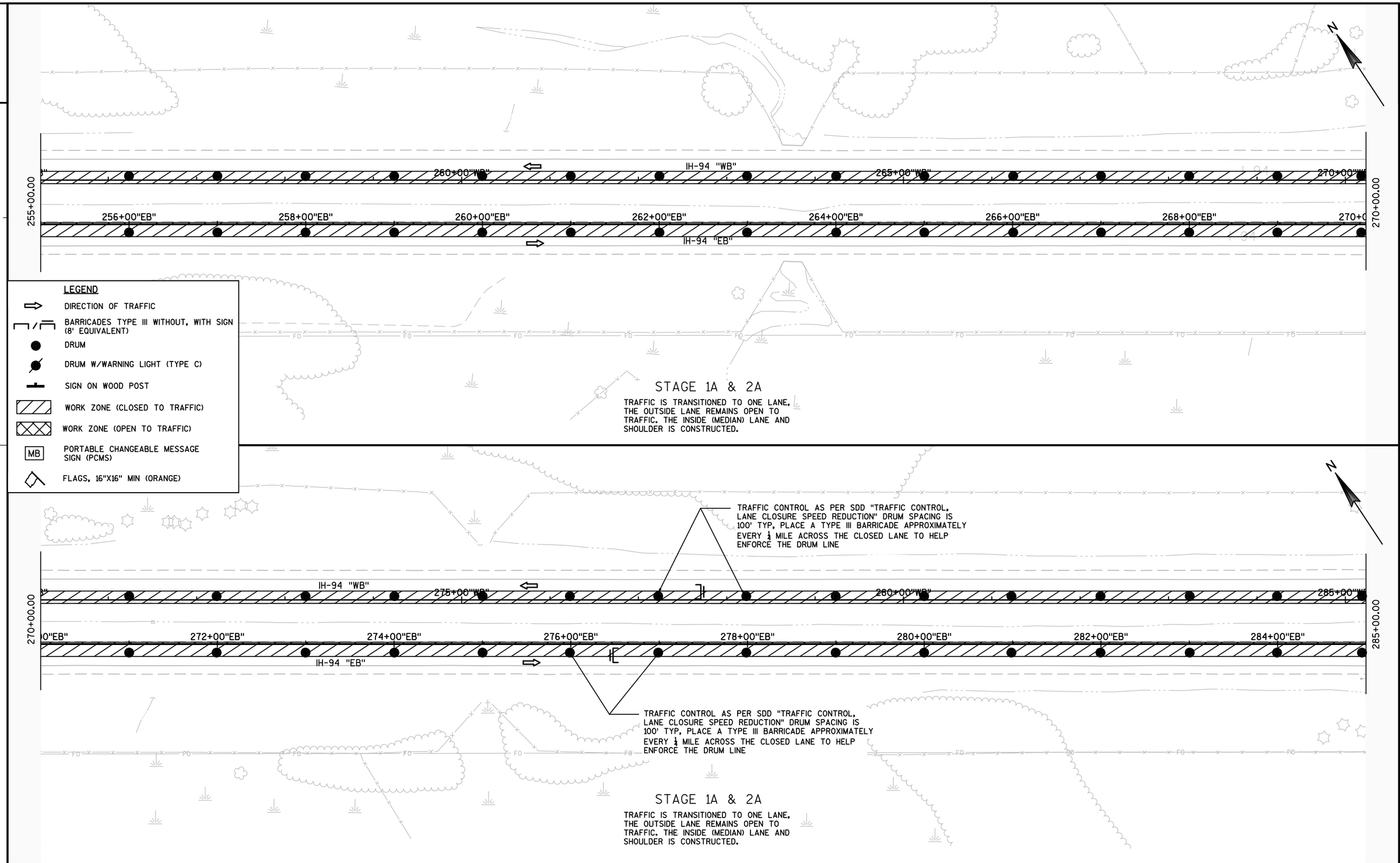


STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

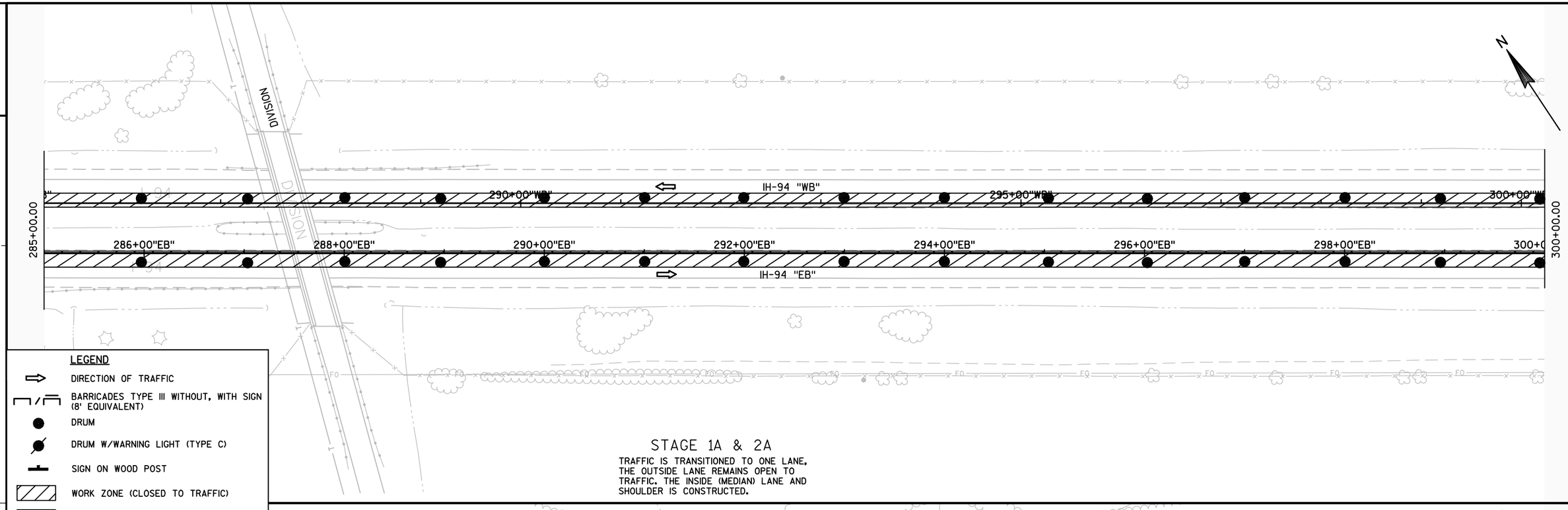
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025003 TC.DWG PLOT DATE : 10/6/2014 3:13 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

2

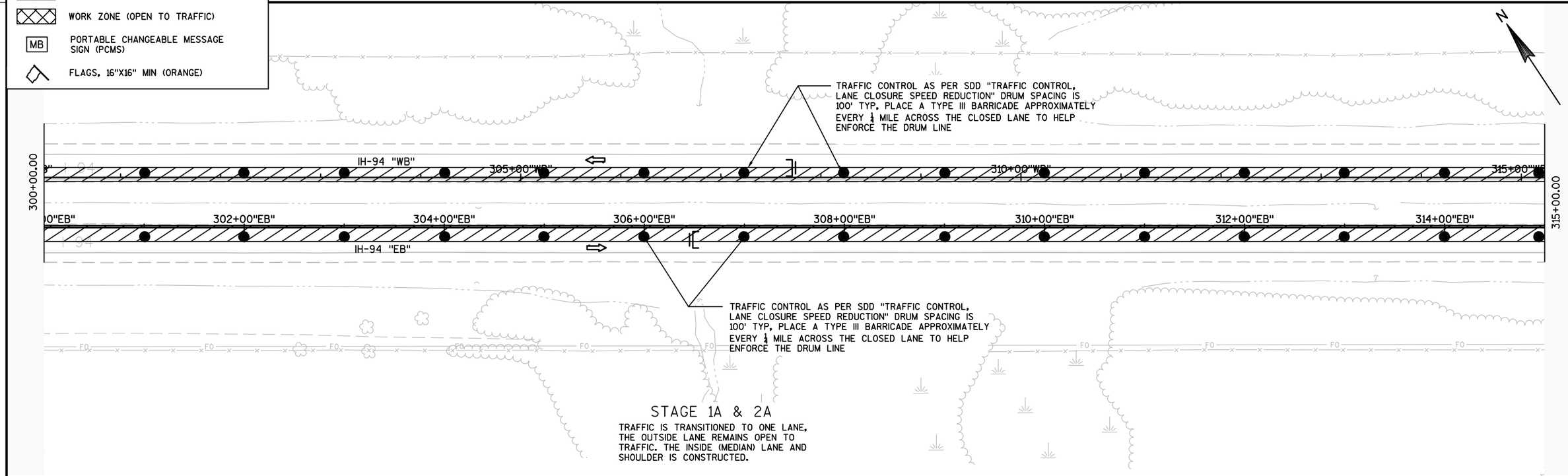


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



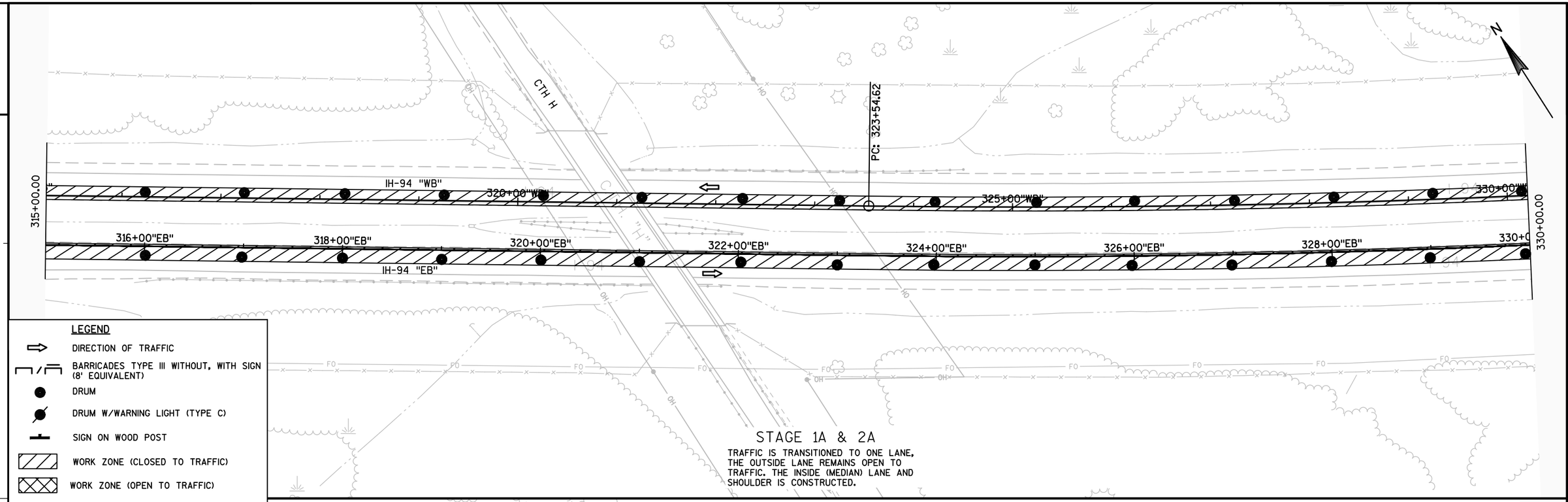
STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025005 TC.DWG PLOT DATE : 10/6/2014 3:19 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

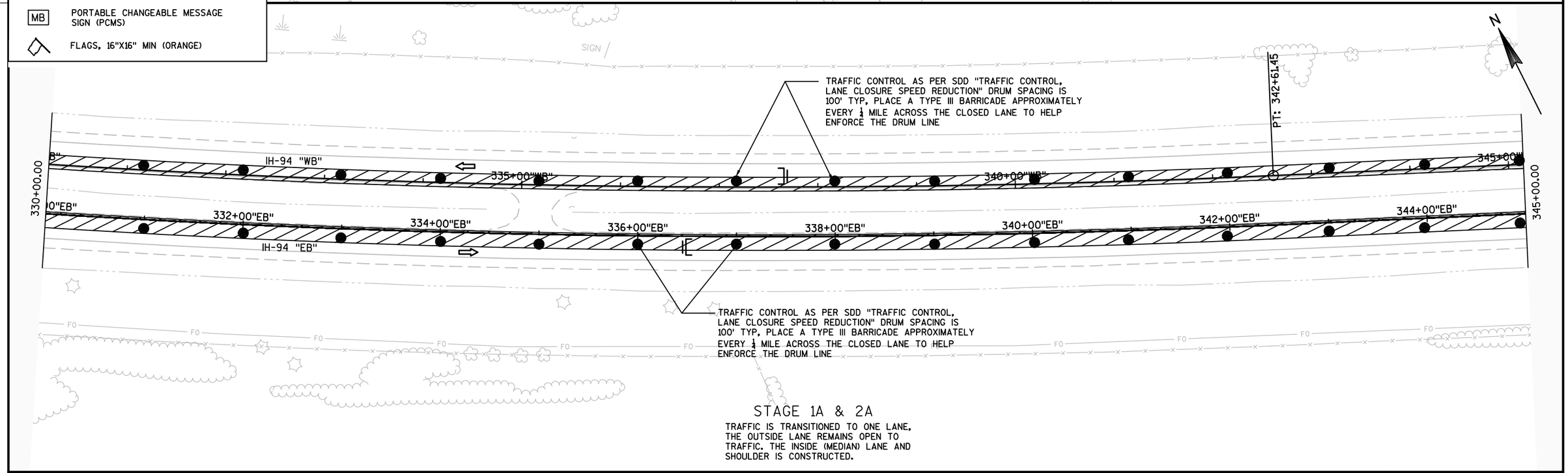


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

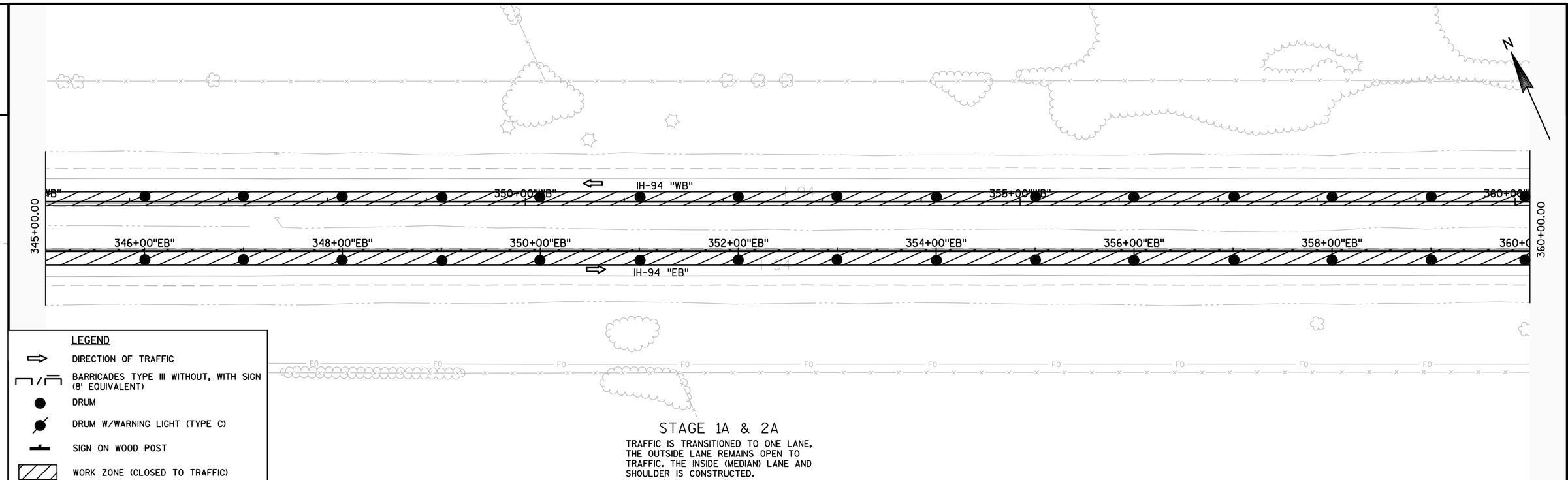
TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 62	E

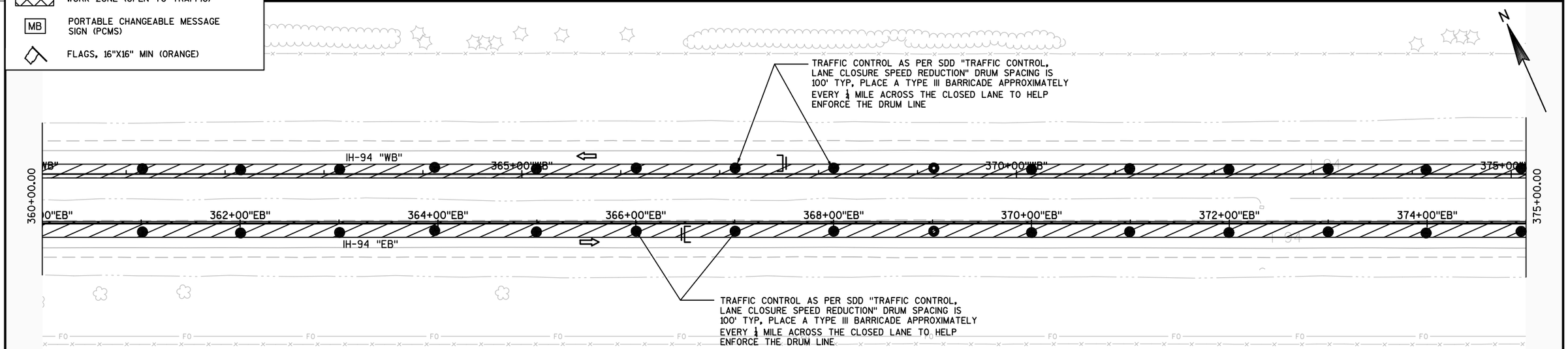


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



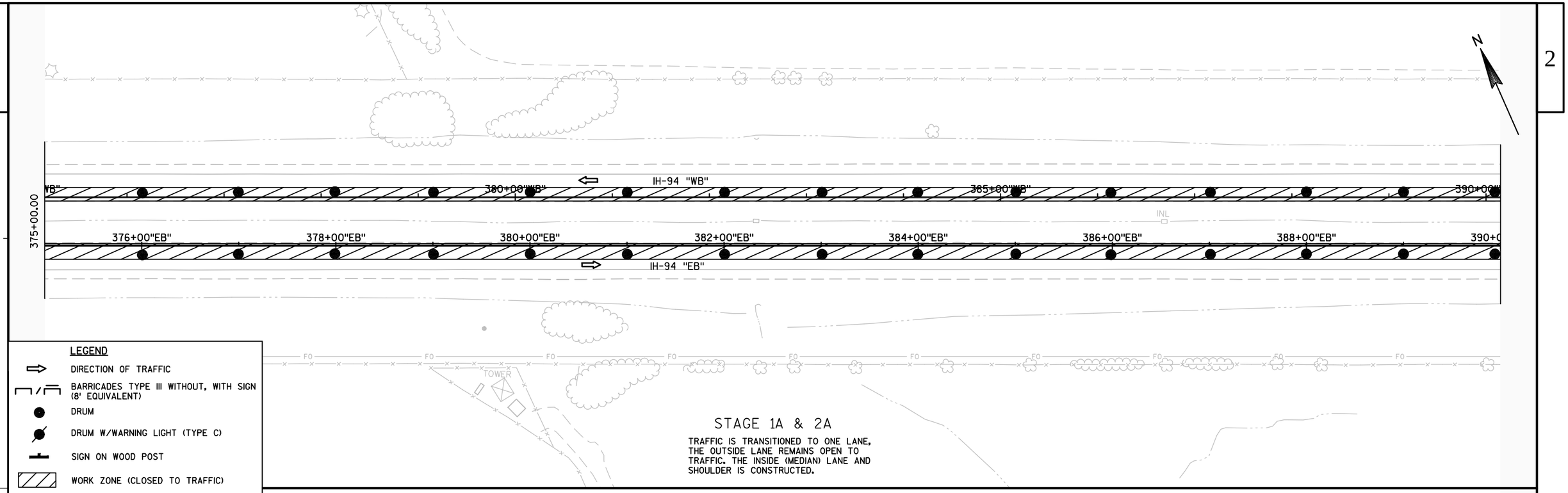
STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025007 TC.DWG PLOT DATE : 10/6/2014 3:25 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

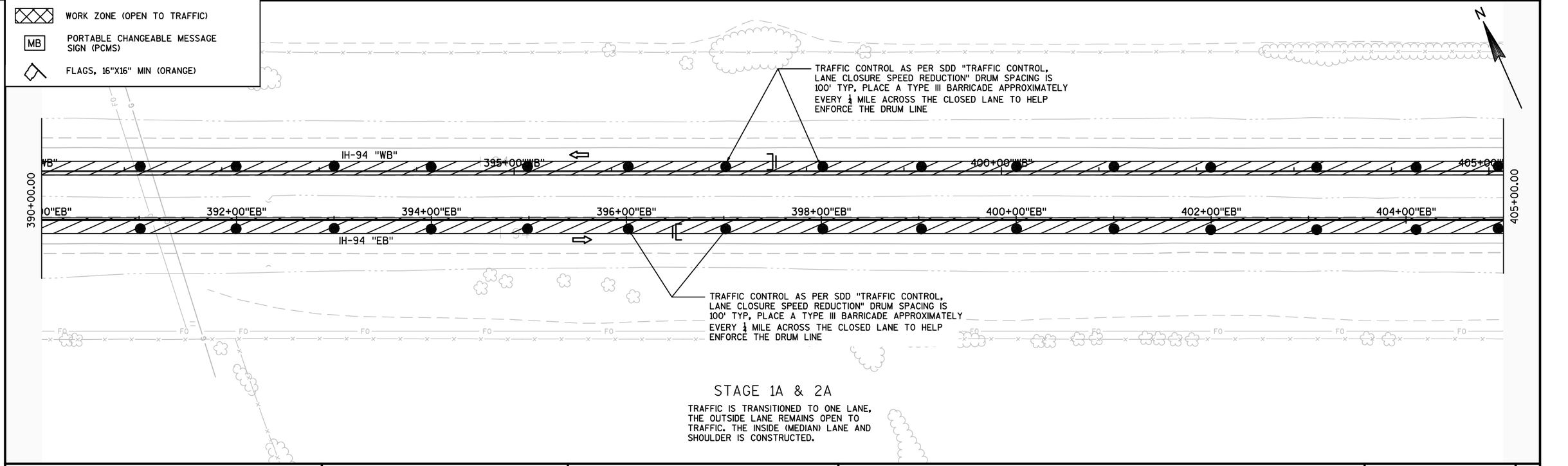


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

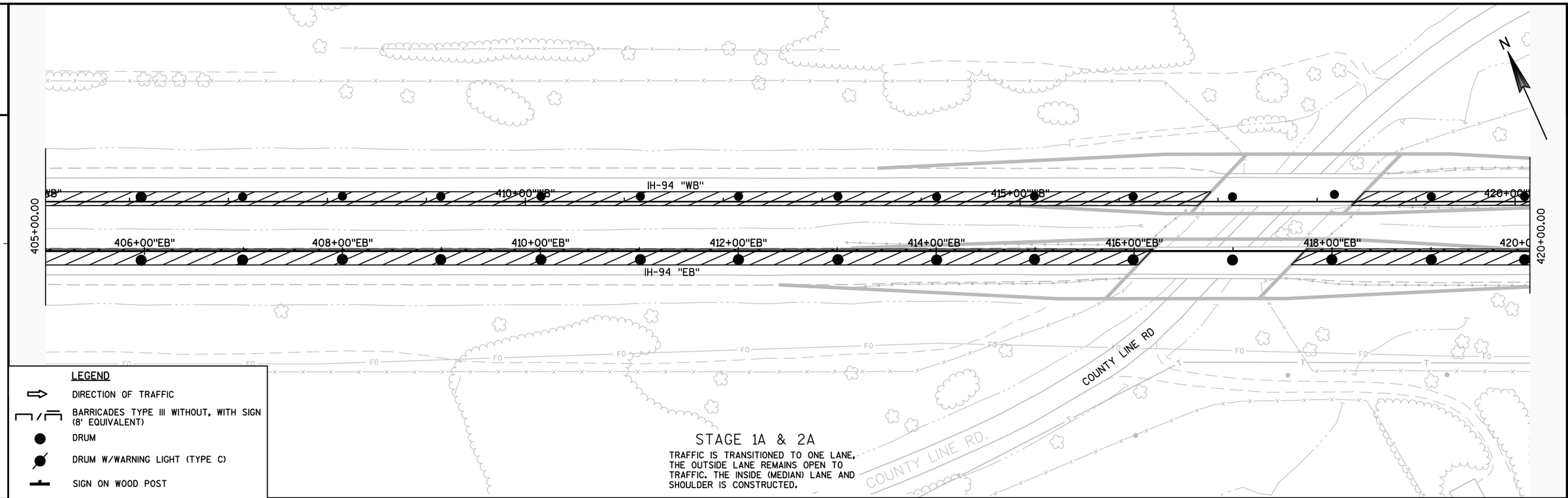
TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 64	E

2

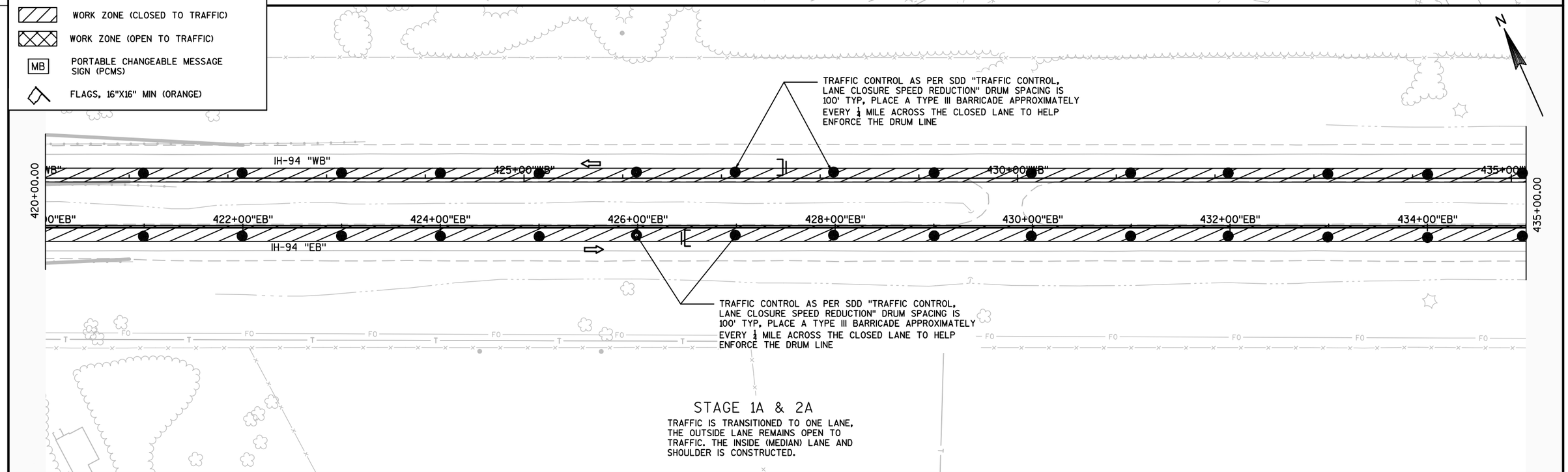


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



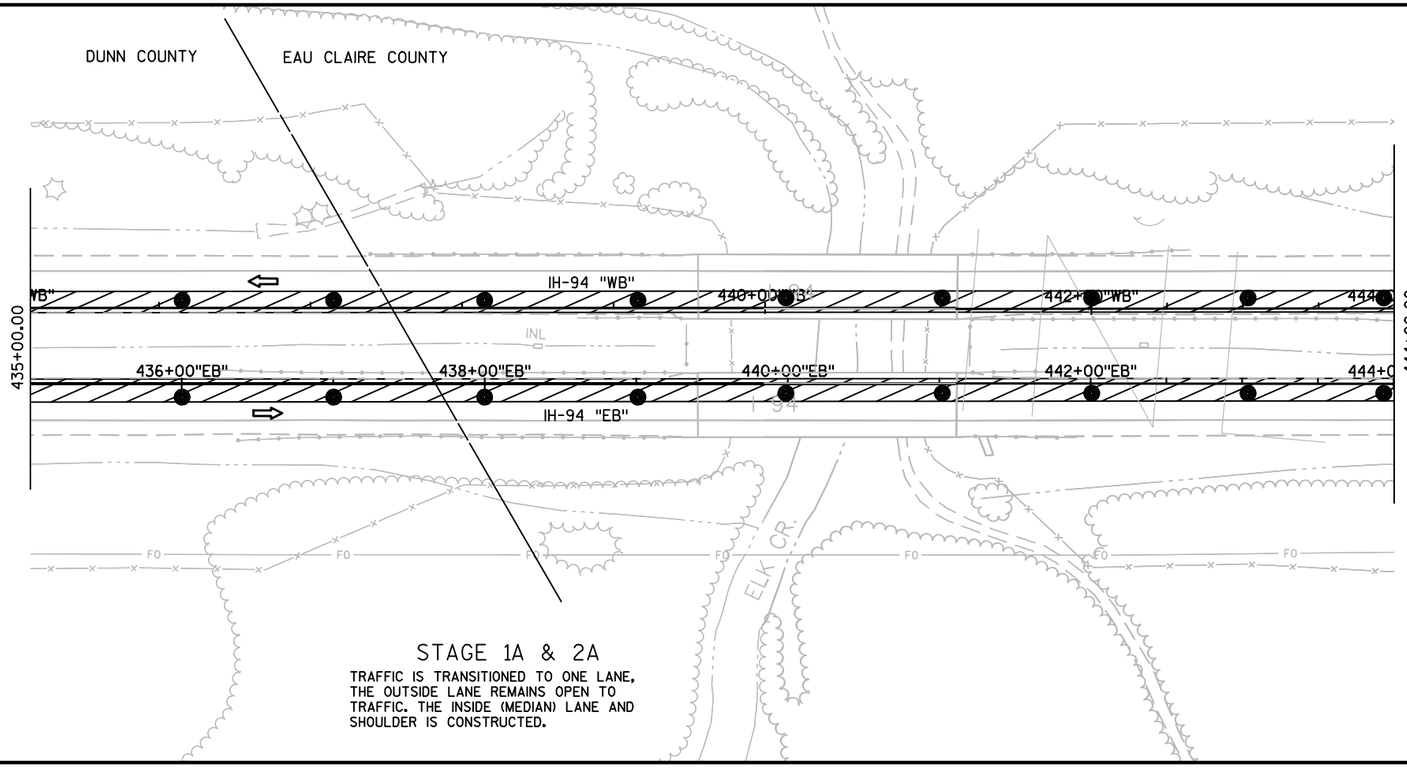
STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

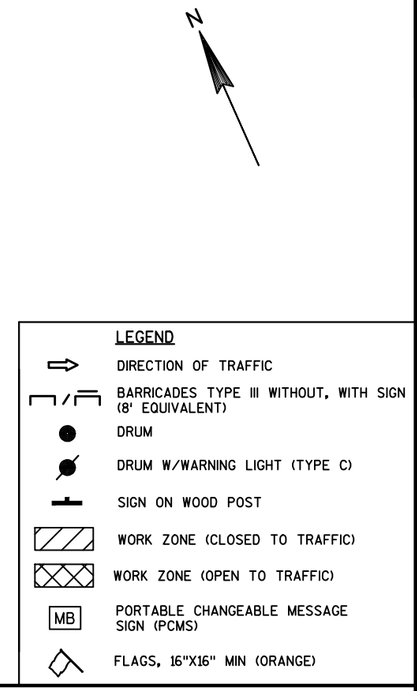
FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025009 TC.DWG PLOT DATE : 10/6/2014 3:31 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



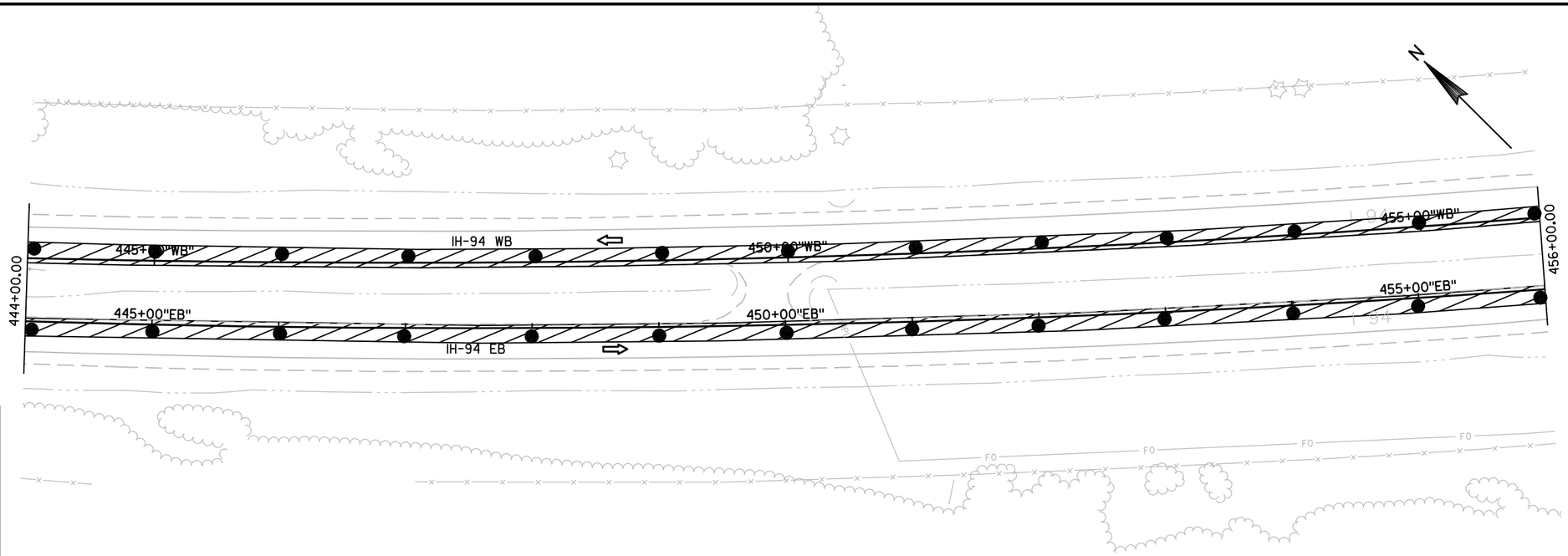
STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 66	E

2

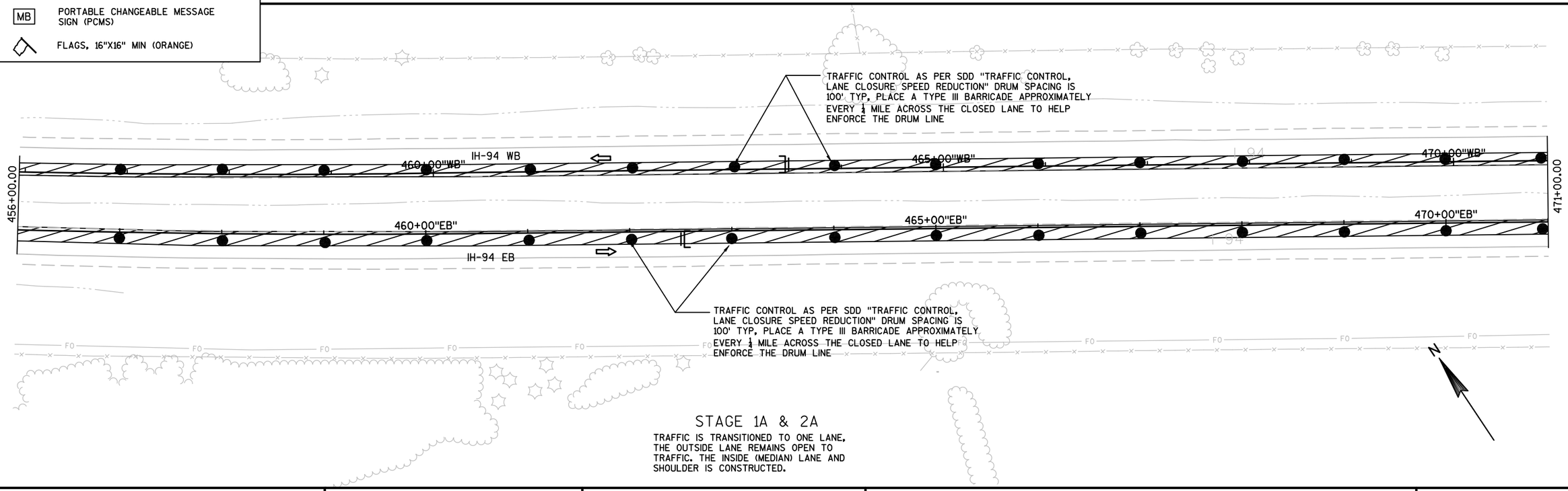


STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

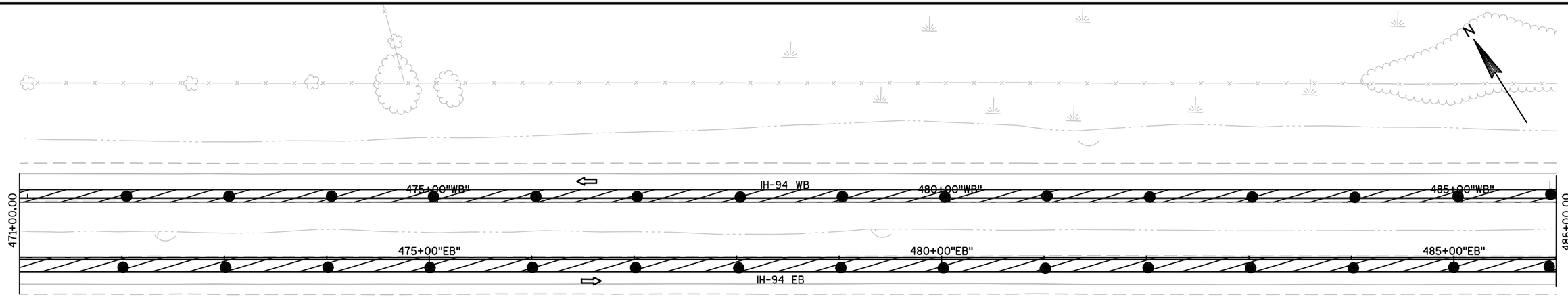


STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 67	E

2

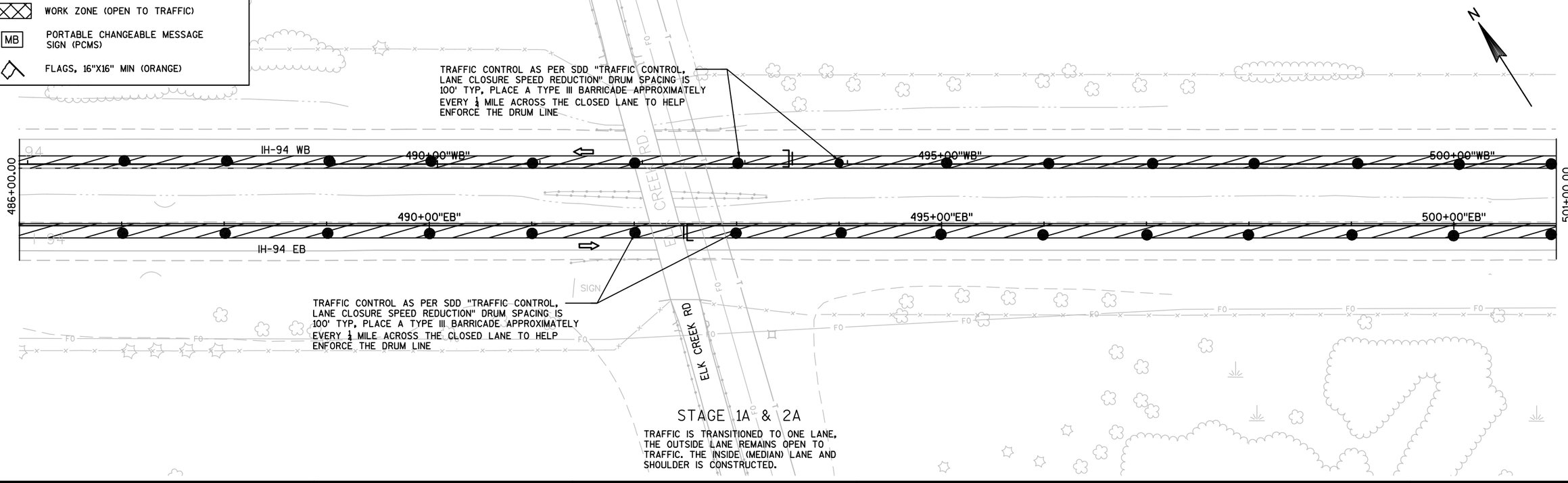


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

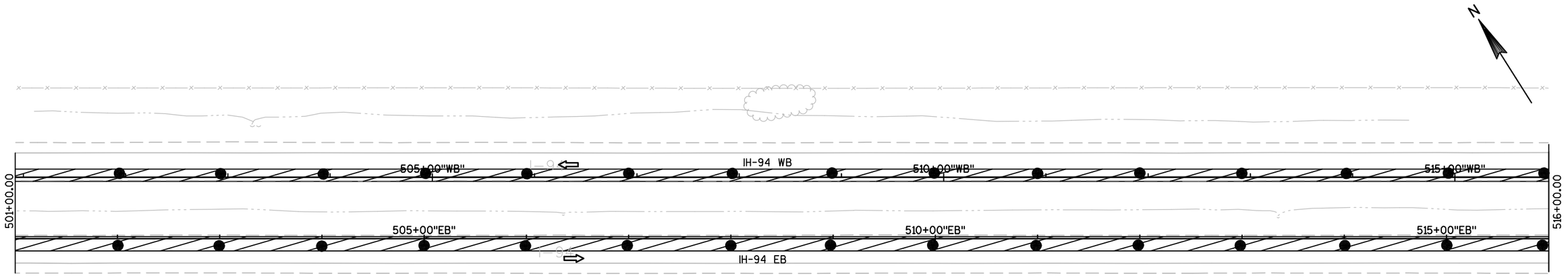


STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 68	E

2

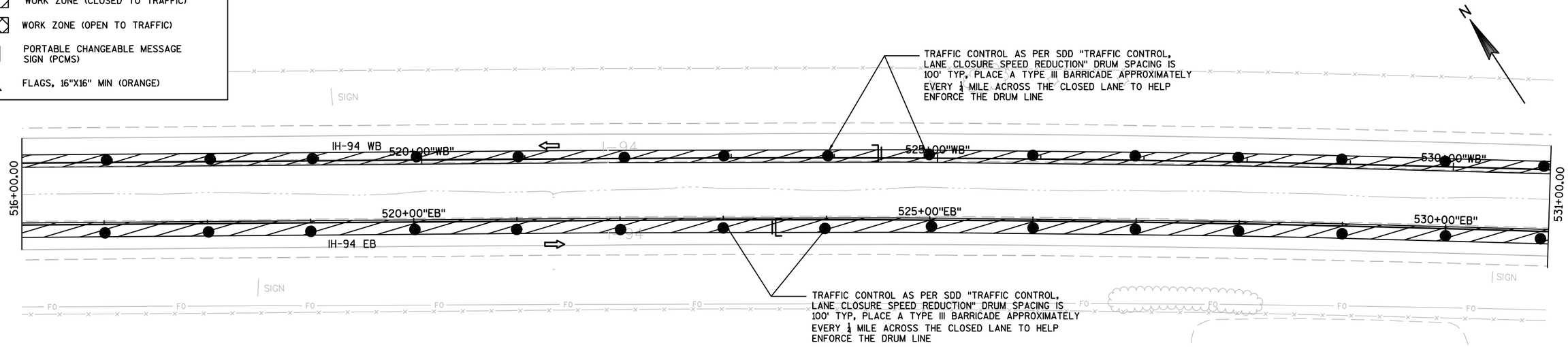


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

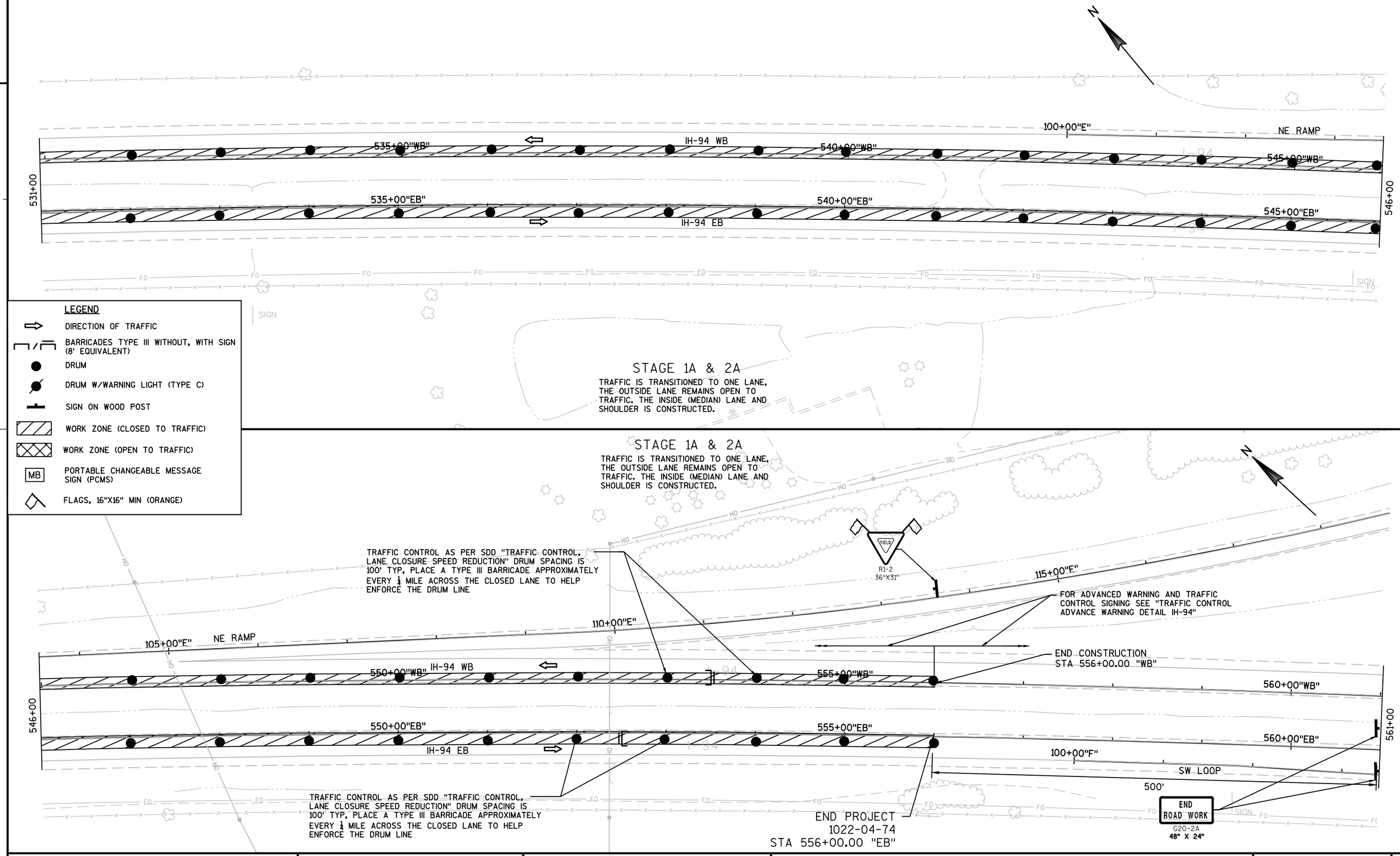


STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

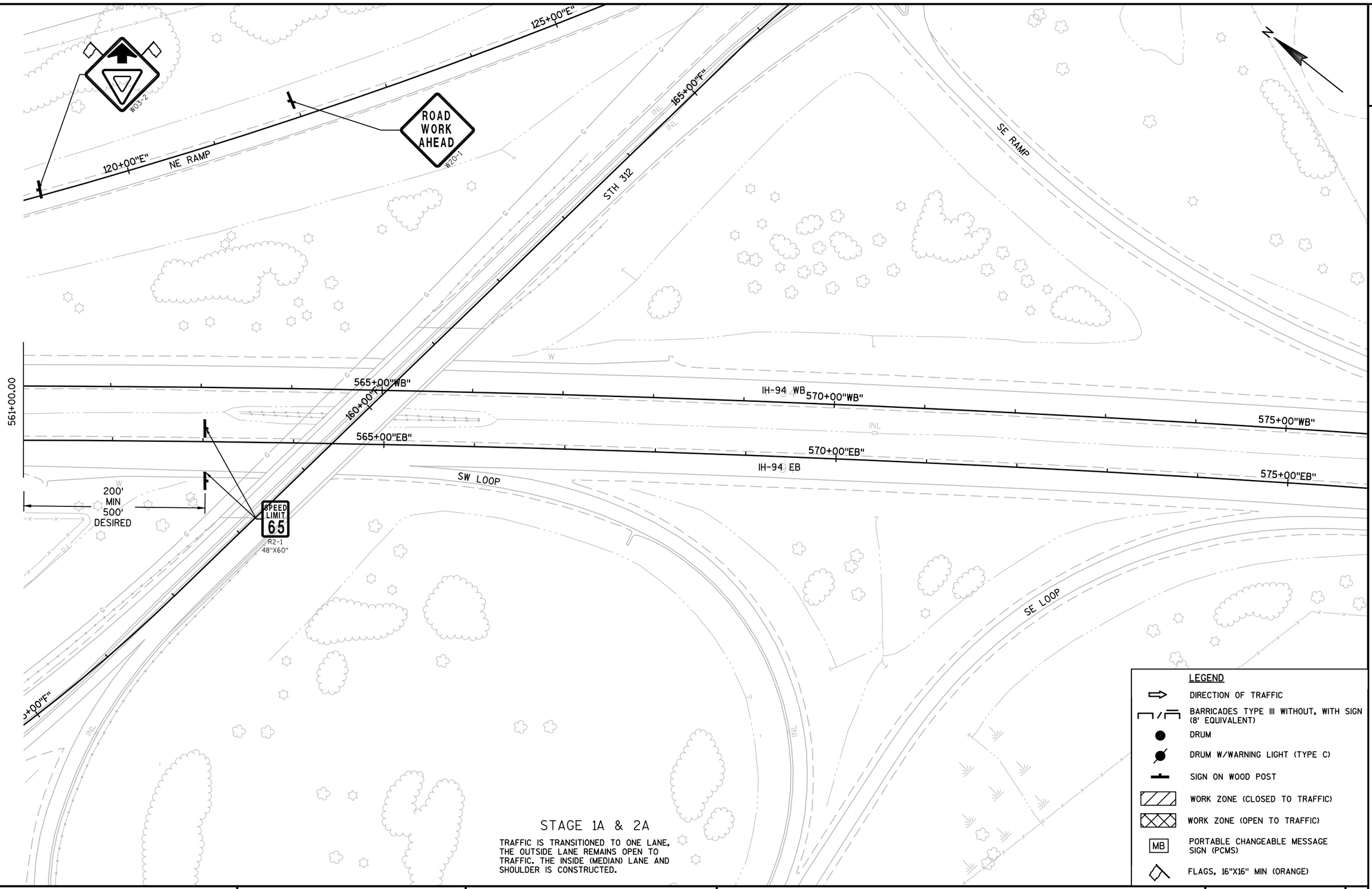
2



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025014 TC.DWG PLOT DATE : 10/6/2014 3:39 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025015 TC.DWG PLOT DATE : 10/6/2014 3:40 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

BEGIN PROJECT
7028-00-70
STA 100+00 "E"

100+00"E"

105+00"E"

RAMP E

110+00"E"

115+00.00

545+00"WB"

550+00"WB"

IH-94 "WB"

555+00"WB"

END CONSTRUCTION
STA 556+00.00 "WB"

545+00"EB"

550+00"EB"

IH-94 "EB"

555+00"EB"

END PROJECT
1022-04-74
STA 556+00.00 "EB"

R1-2
36"X31"

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

115+00.00

W03-2

ROAD WORK AHEAD
W20-1

120+00"E"

125+00"E"

RAMP E

130+00.00

560+00"WB"

560+00"EB"

165+00"E"

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74/7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

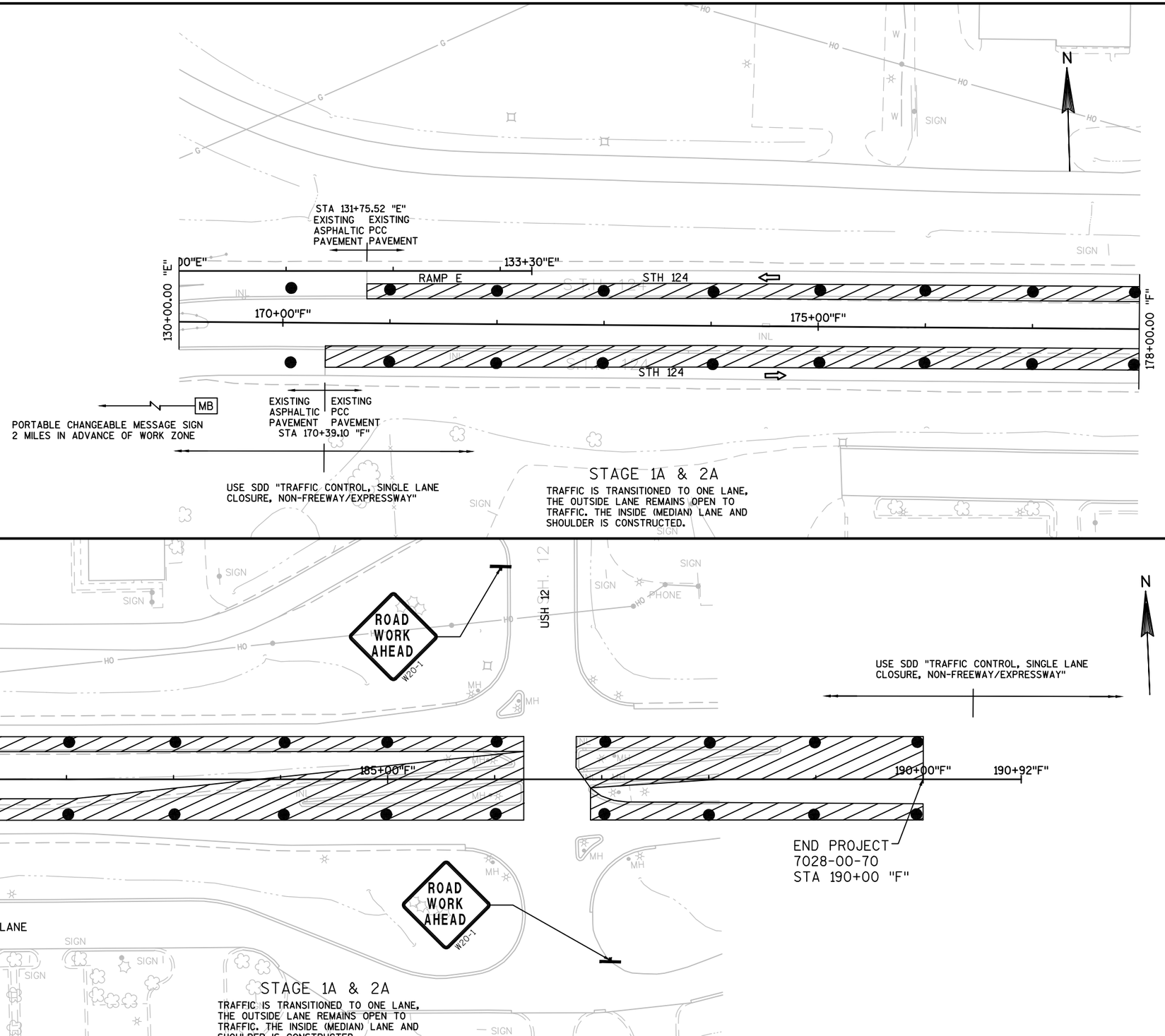
FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025016 TC.DWG PLOT DATE : 10/6/2014 3:41 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

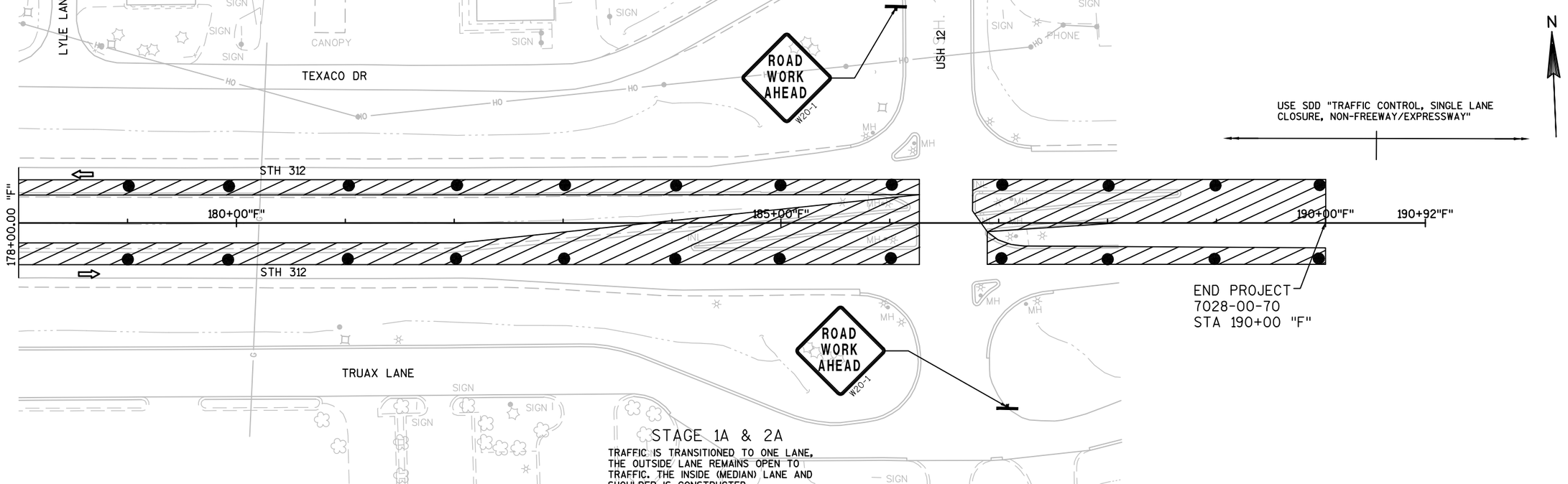
LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)



STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.



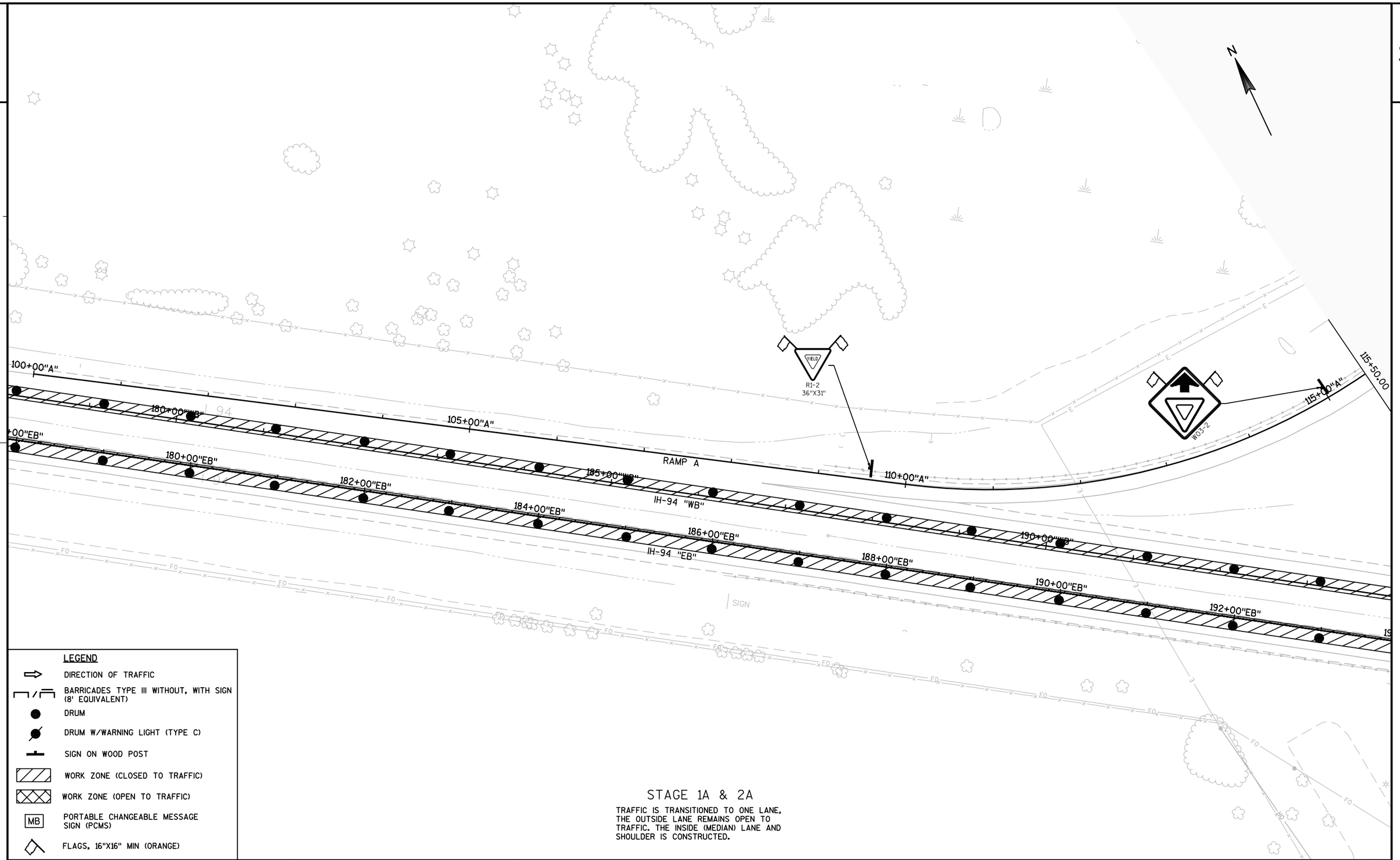
STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025017 TC.DWG PLOT DATE : 10/6/2014 3:42 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

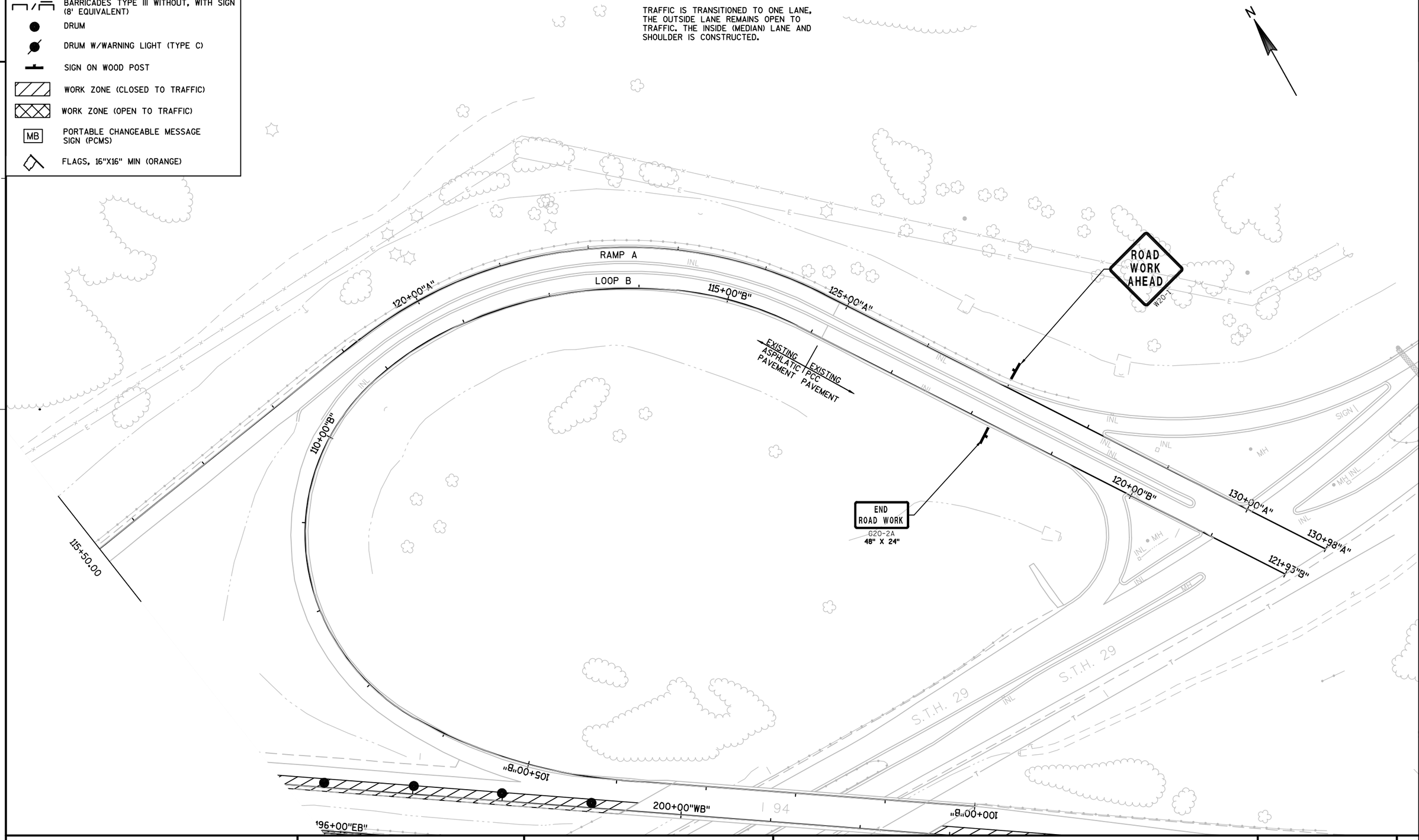
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 74	E

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

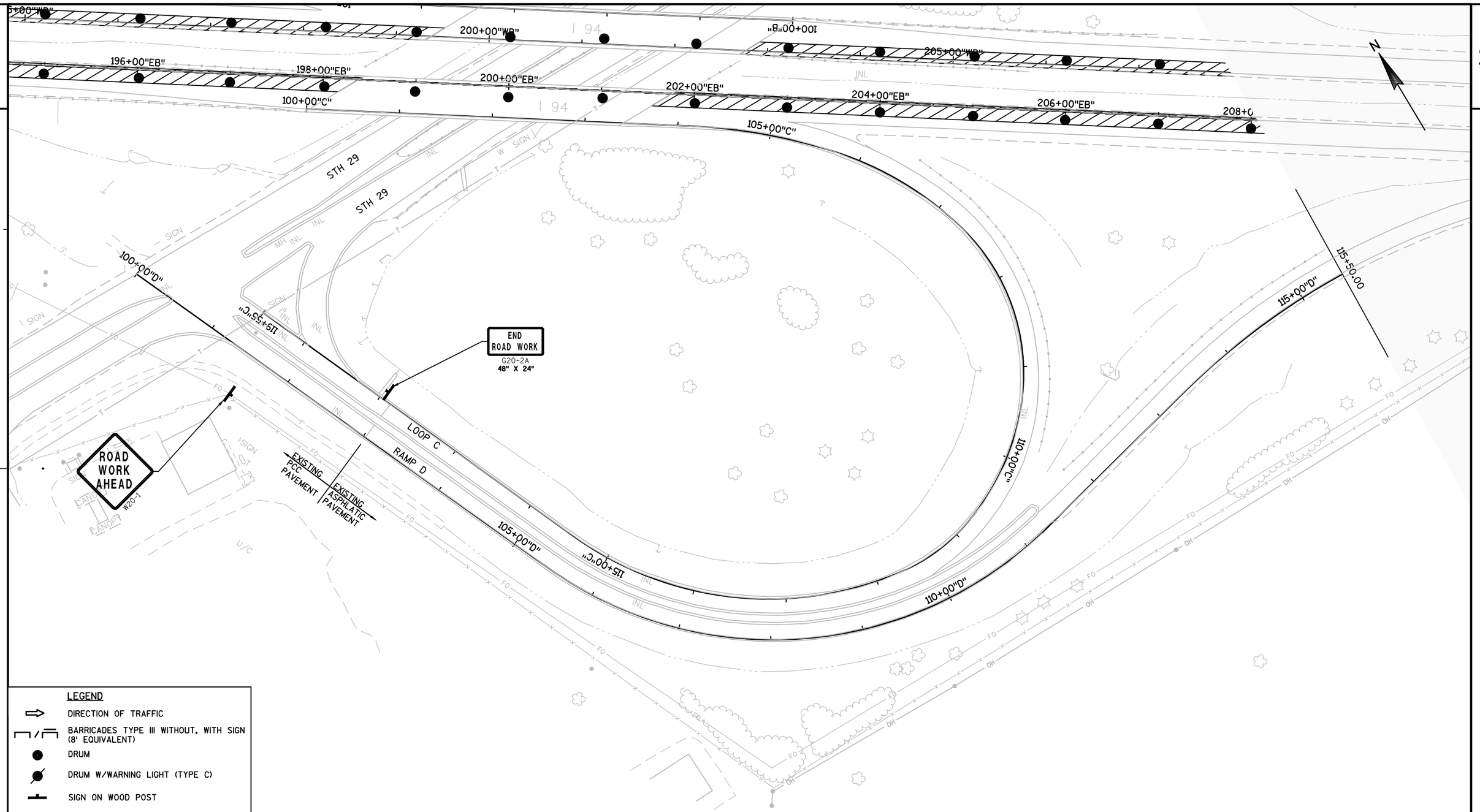


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025019 TC.DWG PLOT DATE : 10/6/2014 3:46 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

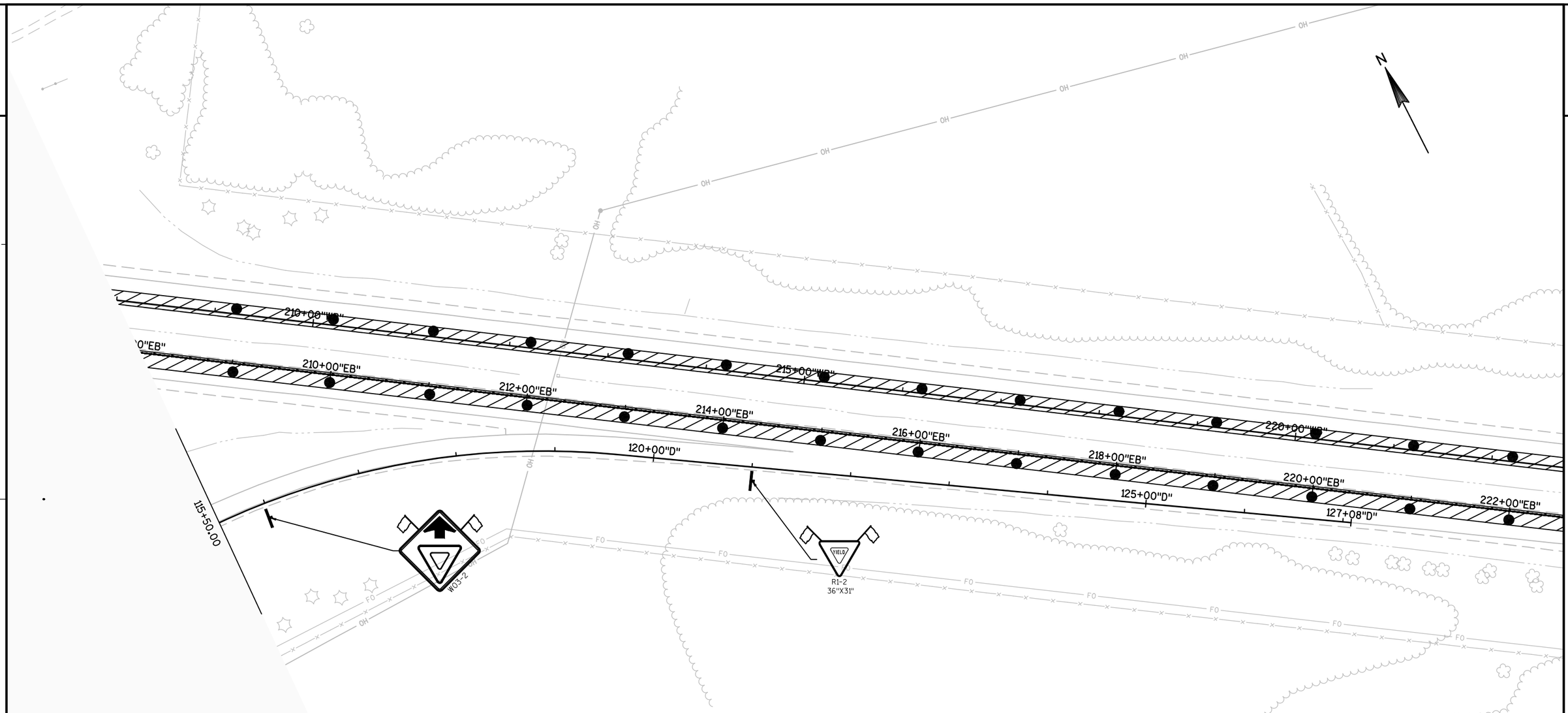
STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025020 TC.DWG PLOT DATE : 10/6/2014 3:49 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



LEGEND

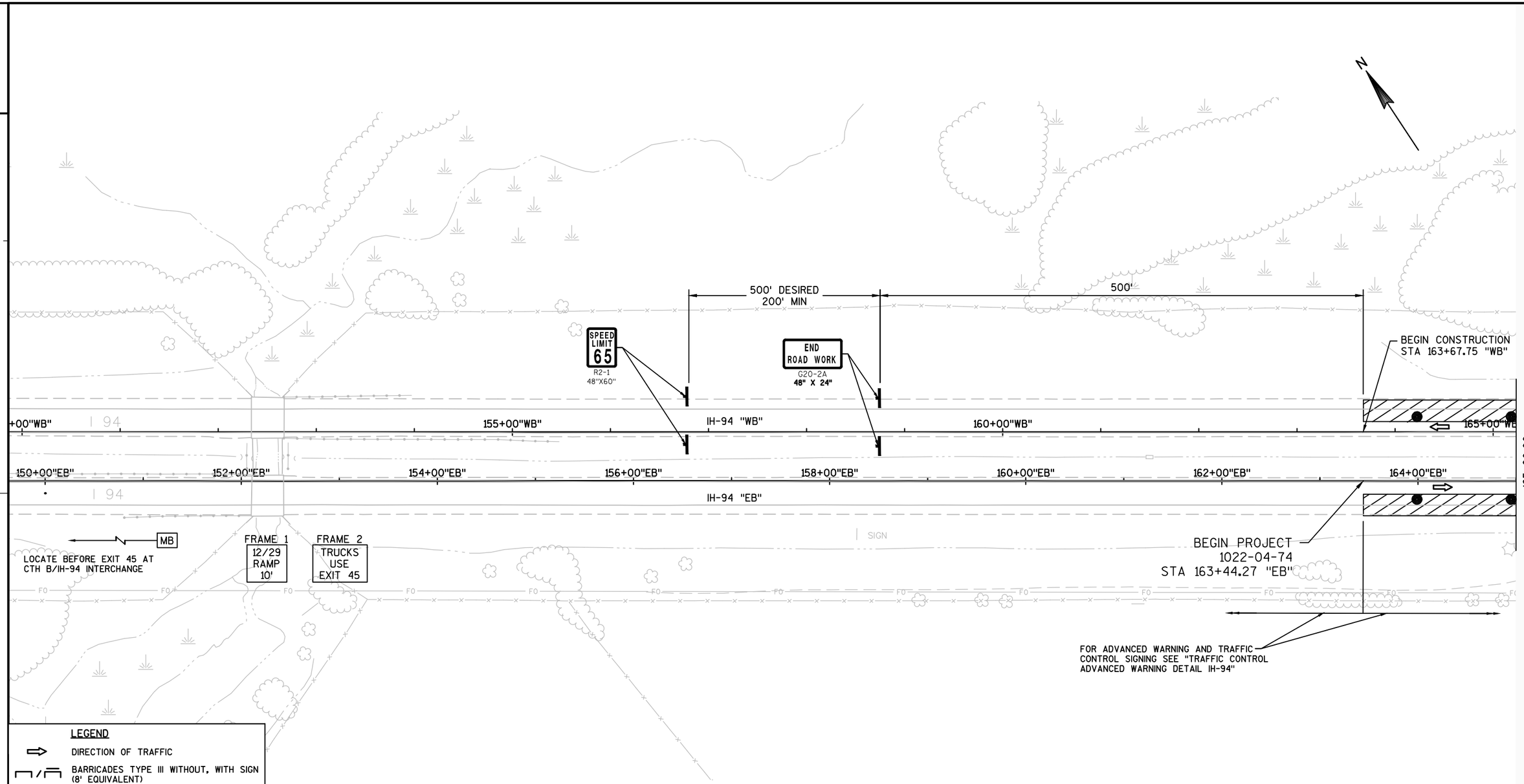
- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1A & 2A

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1A & 2A	SHEET 77	E

2



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 129 RAMPS AND STH 312 WB ON RAMP TO IH 94.

NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

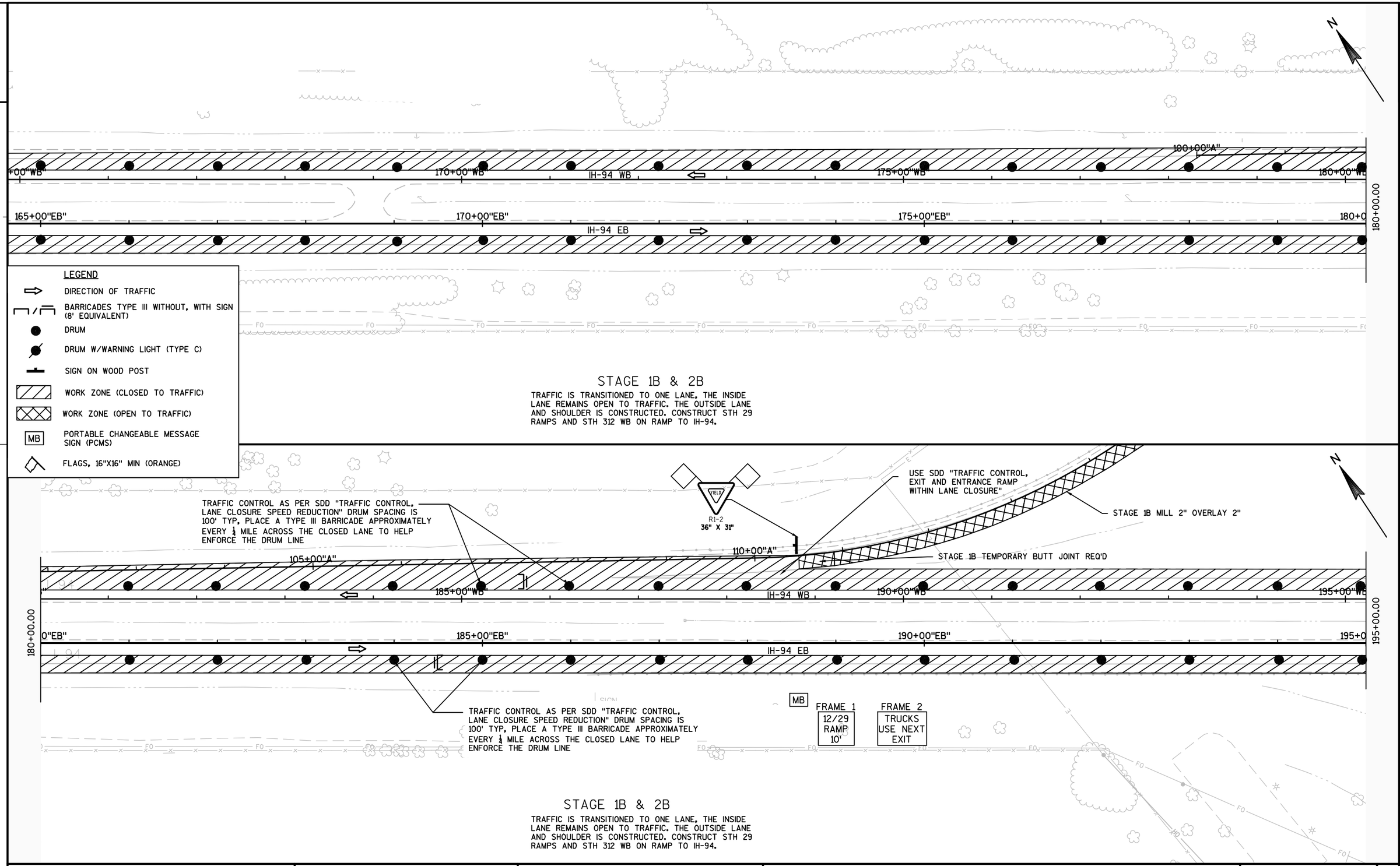
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025022A TC.DWG PLOT DATE : 10/6/2014 3:54 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 79	E

2

MAX. 10' WIDTH

W12-52
48"X48"

STH 29

USE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" AND SDD "TRAFFIC CONTROL EXIT RAMP CLOSURE" FOR 24 HOUR CLOSURE WORK

195+00.00

200+00"WB

IH-94 WB

205+00"WB

210+00"WB

200+00"EB

205+00"EB

IH-94 EB

100+00"C"

105+00"C"

USE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" AND SDD "TRAFFIC CONTROL EXIT RAMP CLOSURE" FOR 24 HOUR CLOSURE WORK

MAX. 10' WIDTH

W12-52
48"X48"

210+00.00

115+00"D"

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

MB

FRAME 1
12/29
RAMP
10'

FRAME 2
TRUCKS
USE NEXT
EXIT

TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

210+00.00

215+00"WB

IH-94 WB

220+00"WB

225+00"WB

215+00"EB

220+00"EB

IH-94 EB

120+00"D"

125+00"D"

127+08"D"

R1-2
36" X 31"

TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

USE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE"

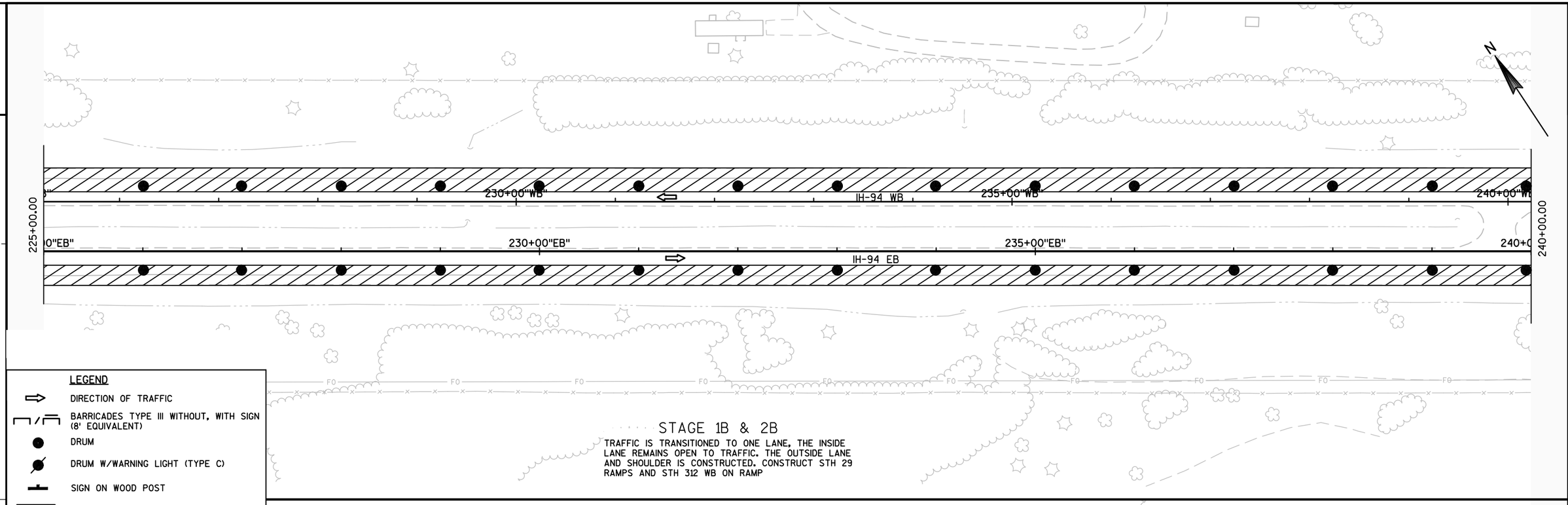
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 80	E

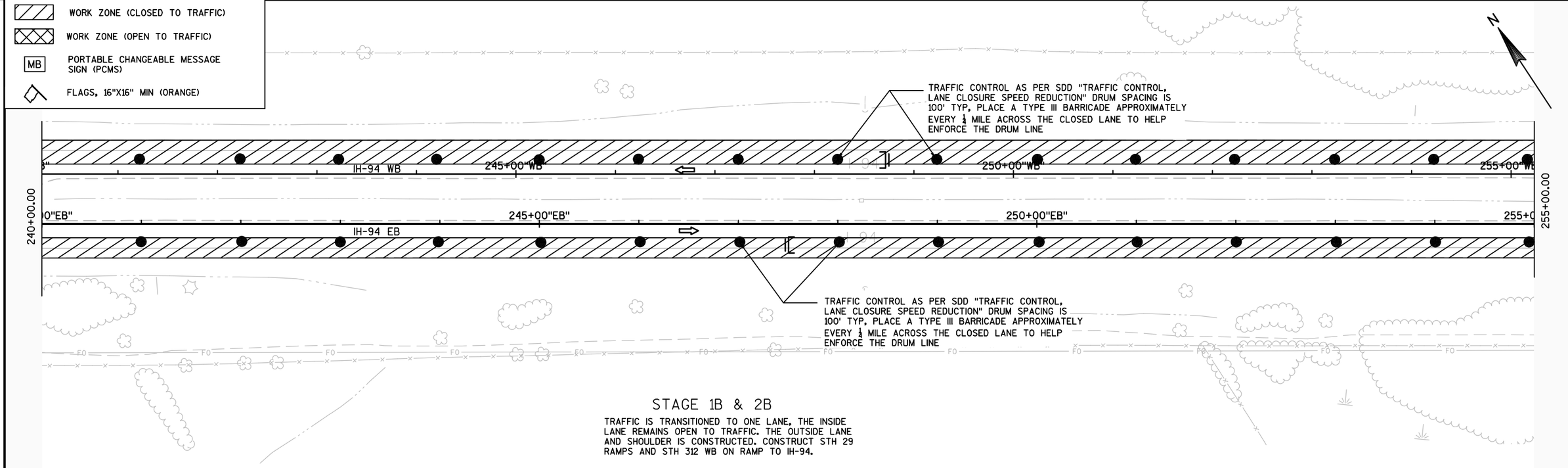
FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025023 TC.DWG PLOT DATE : 10/6/2014 4:01 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP

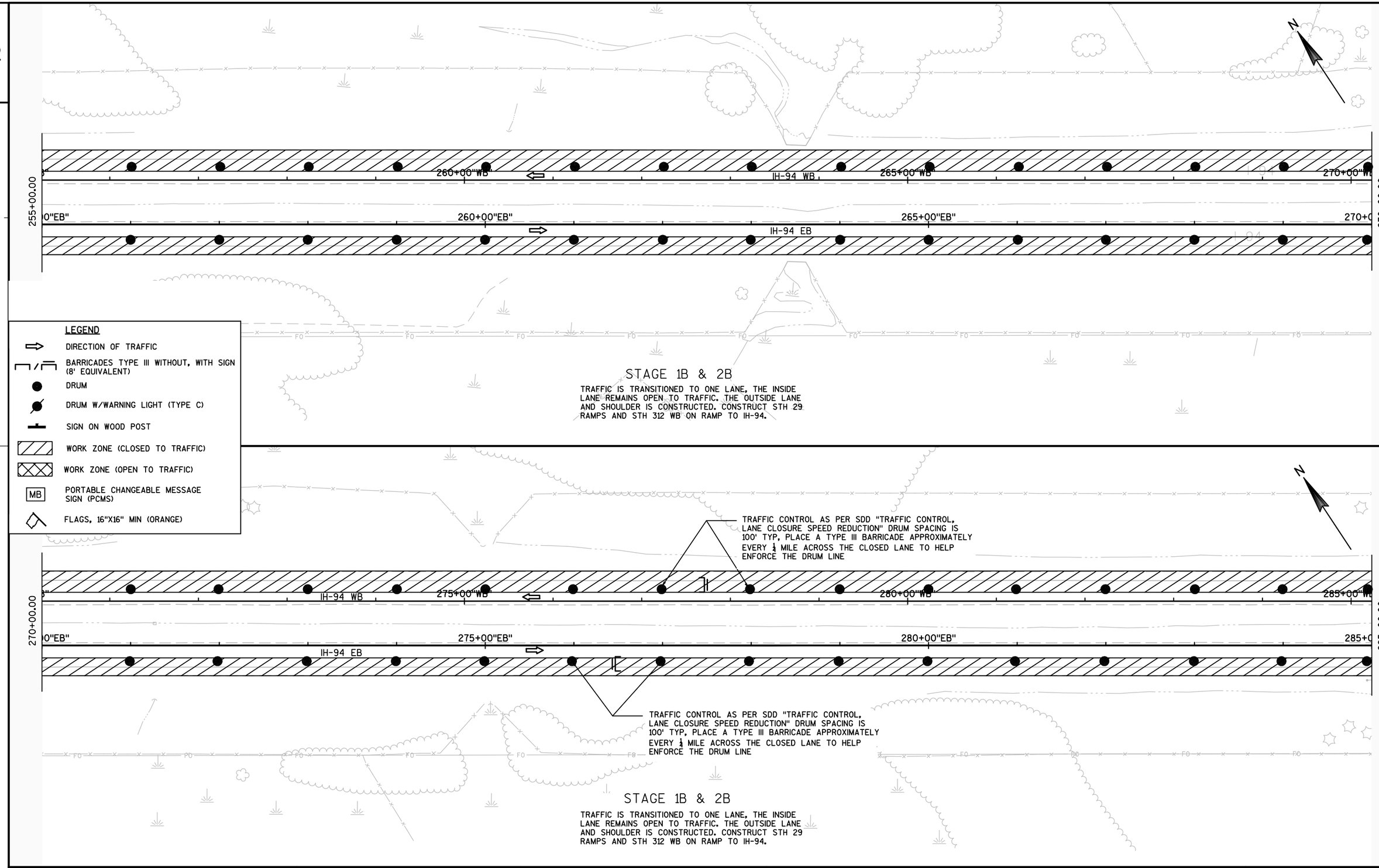


STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025024 TC.DWG PLOT DATE : 10/6/2014 4:04 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

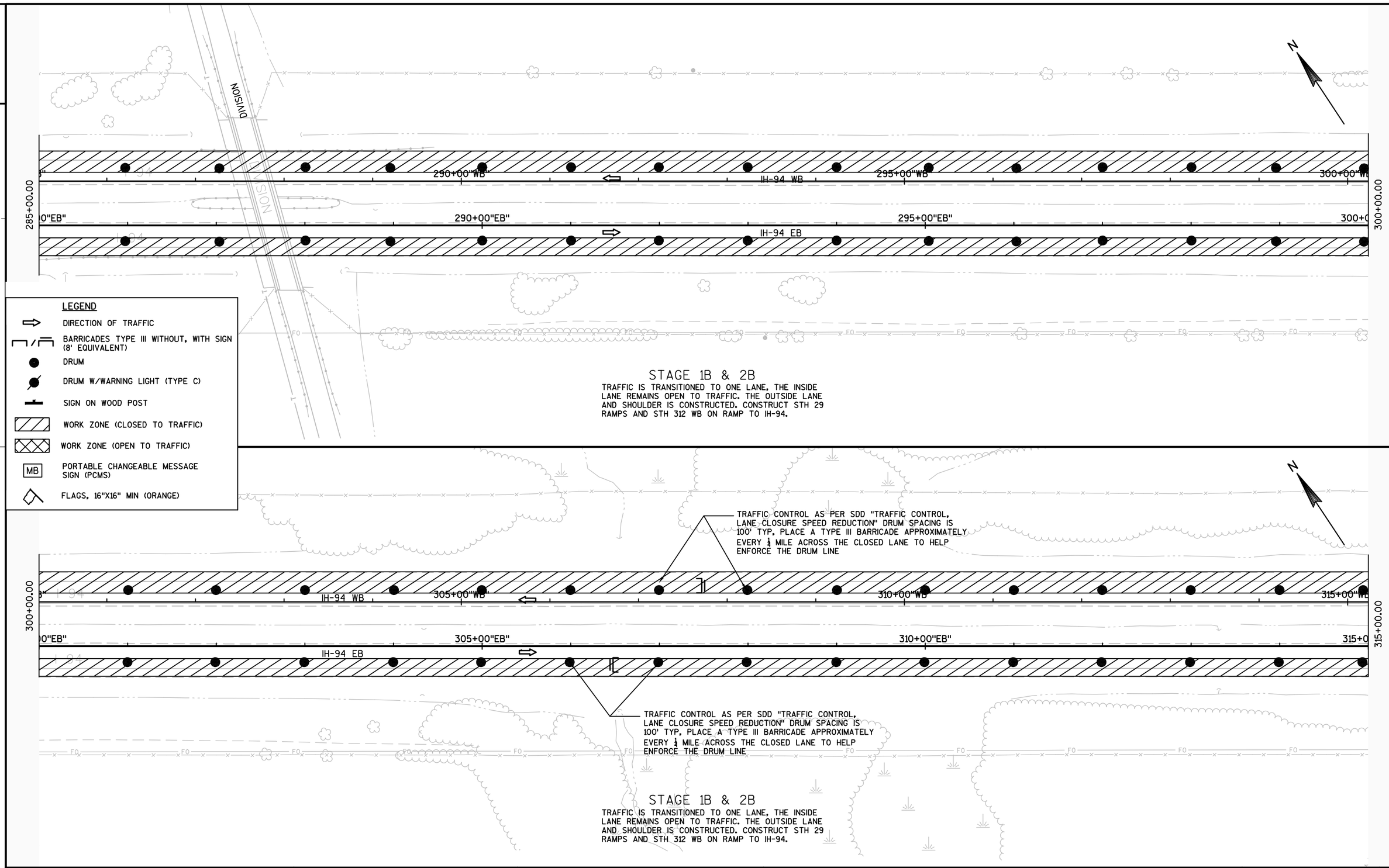
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025025 TC.DWG PLOT DATE : 10/6/2014 4:07 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

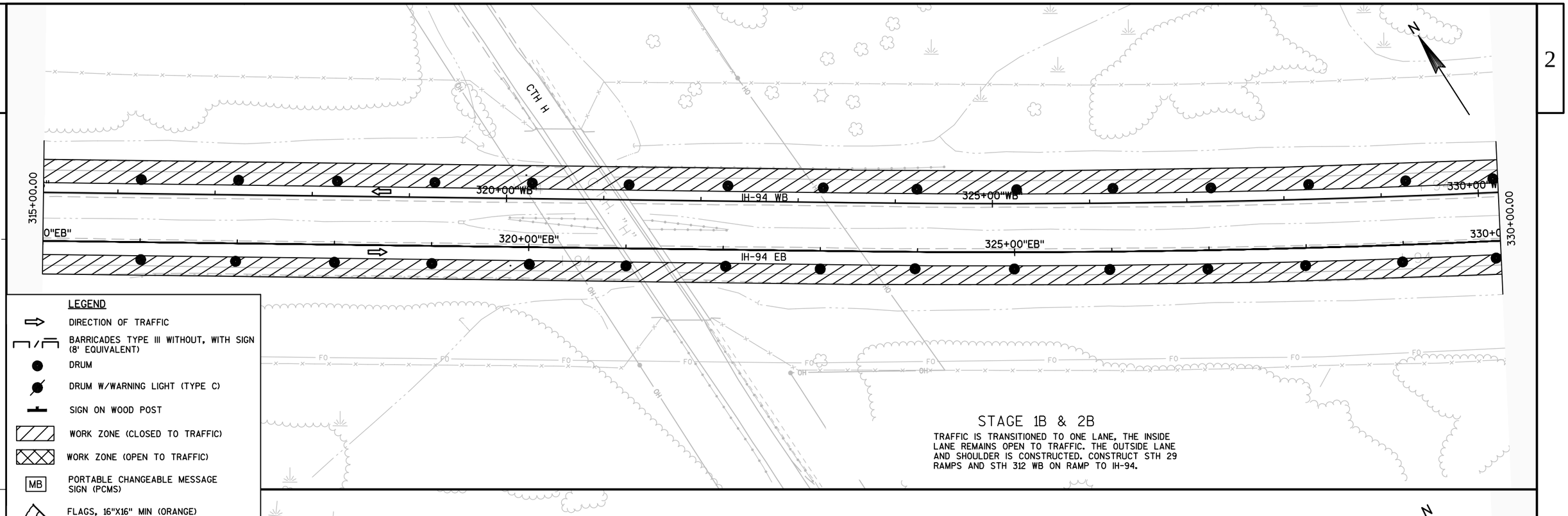
2



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

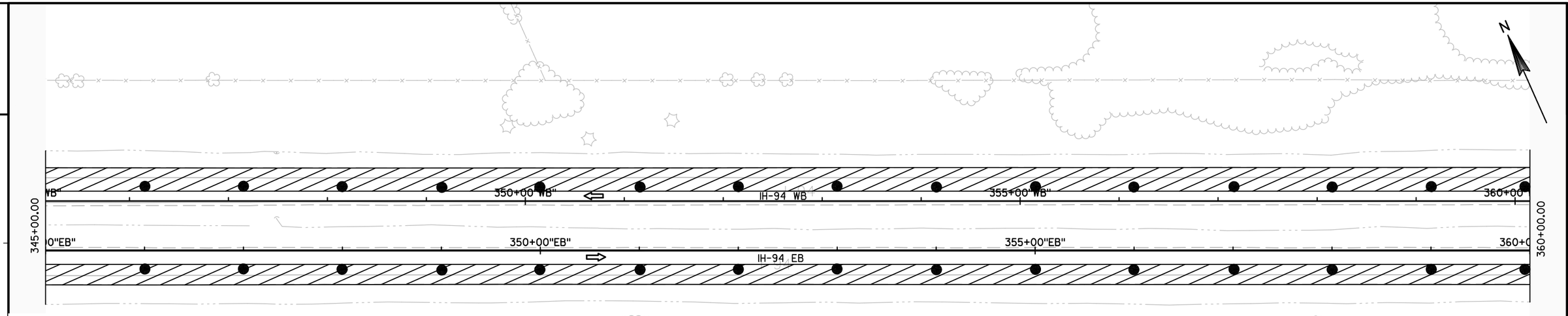
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2



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 84	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025027 TC.DWG PLOT DATE : 10/6/2014 4:13 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

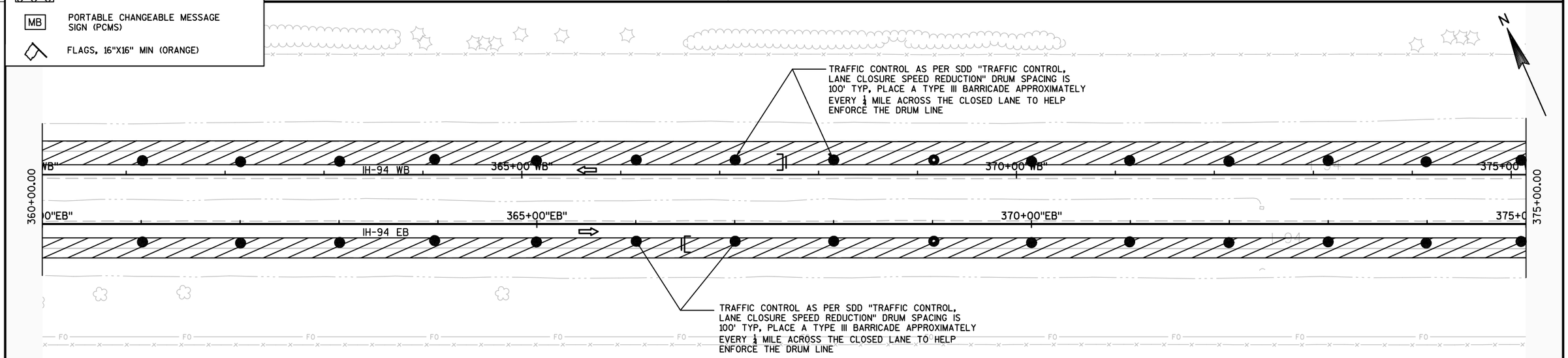


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.



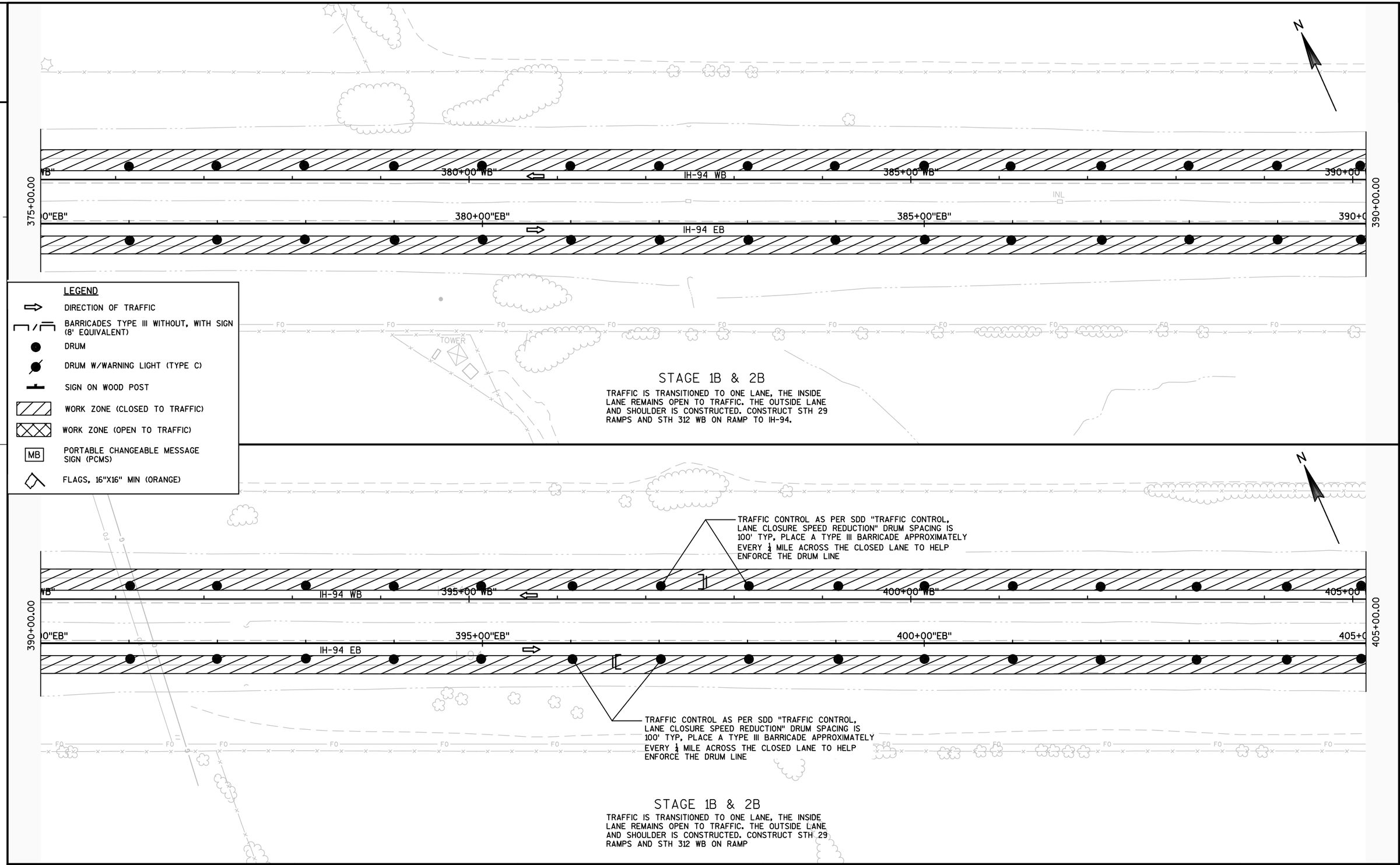
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025028 TC.DWG PLOT DATE : 10/6/2014 4:16 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

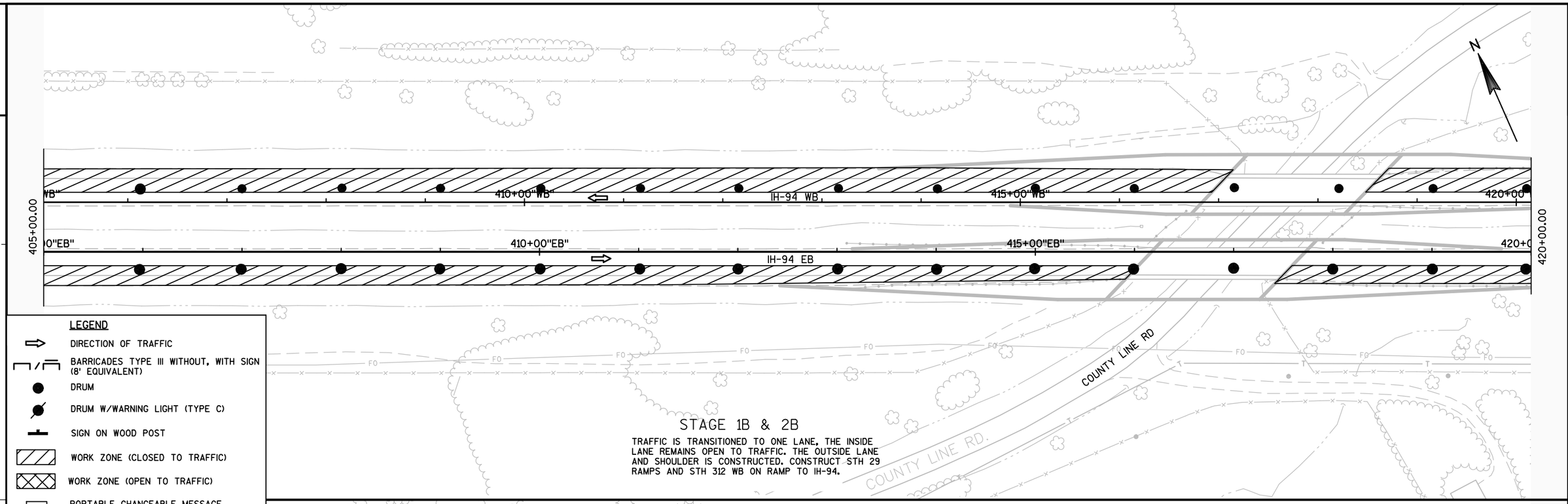
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025029 TC.DWG PLOT DATE : 10/6/2014 4:19 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

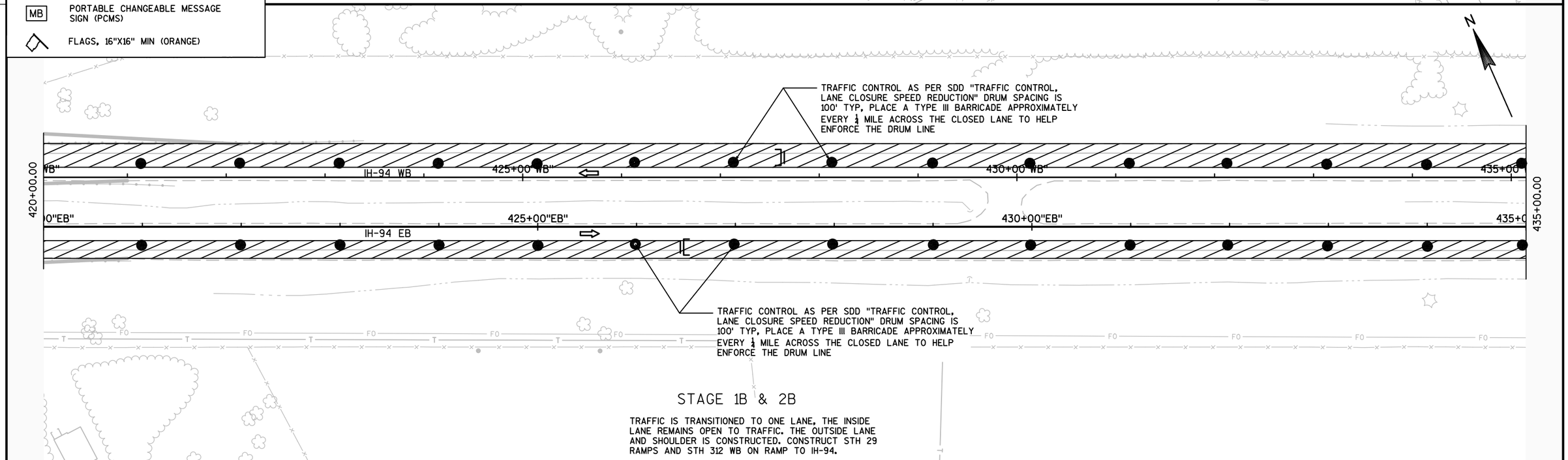


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.



TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

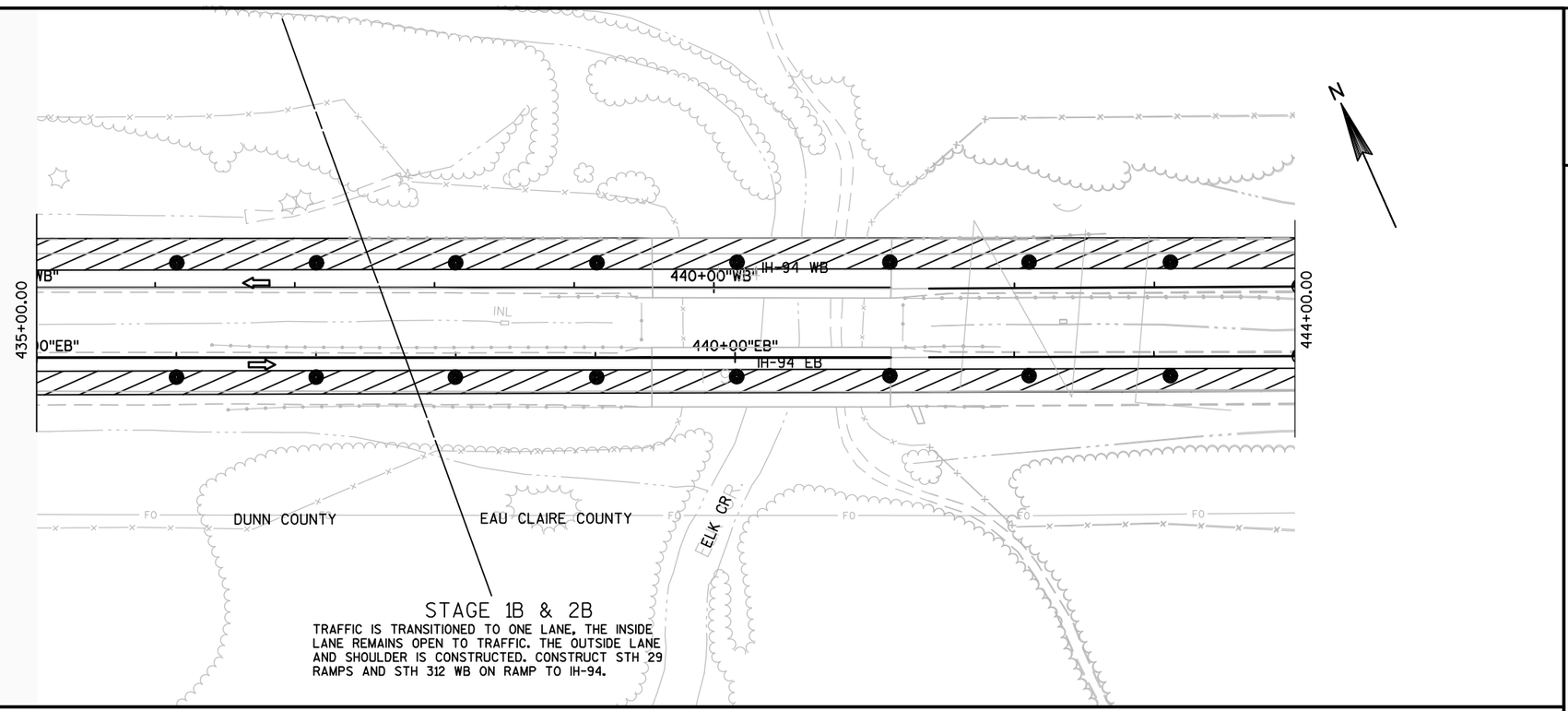
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025030 TC.DWG PLOT DATE : 10/6/2014 4:22 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

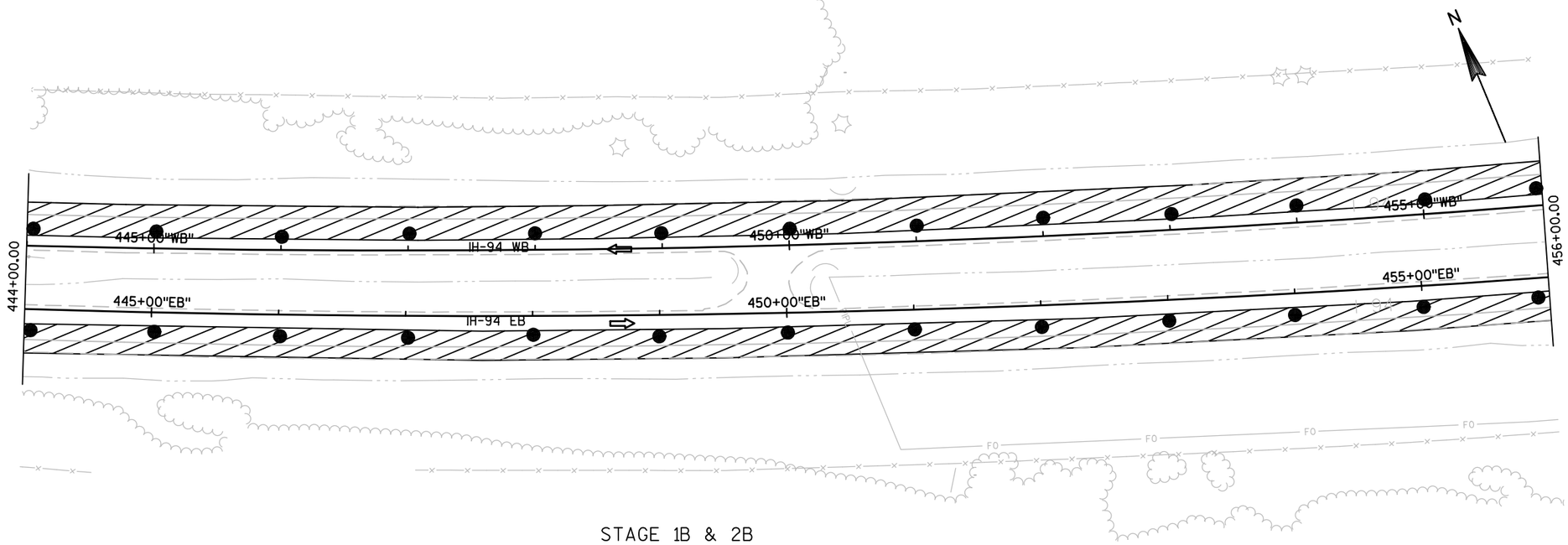
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE. THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025031 TC.DWG PLOT DATE : 10/6/2014 4:25 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

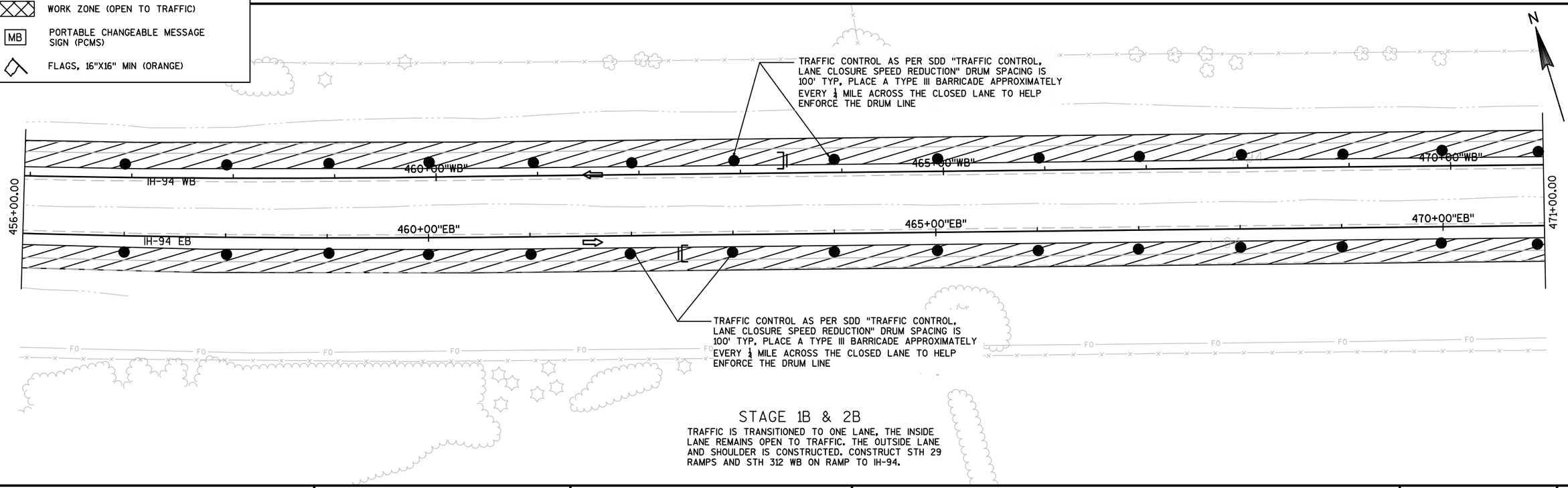


STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)



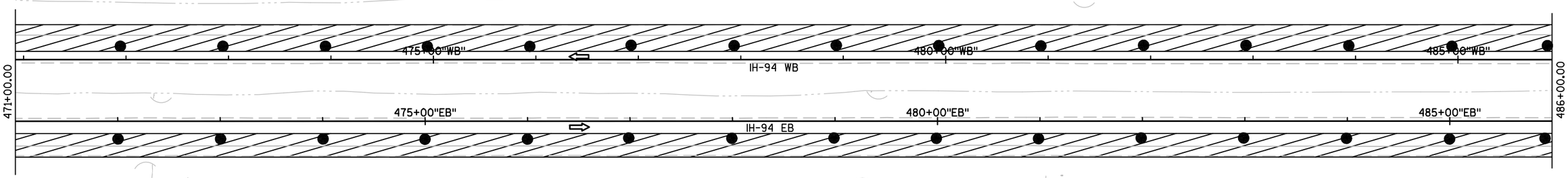
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 7028-00-00	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025032 TC.DWG PLOT DATE : 10/6/2014 4:26 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

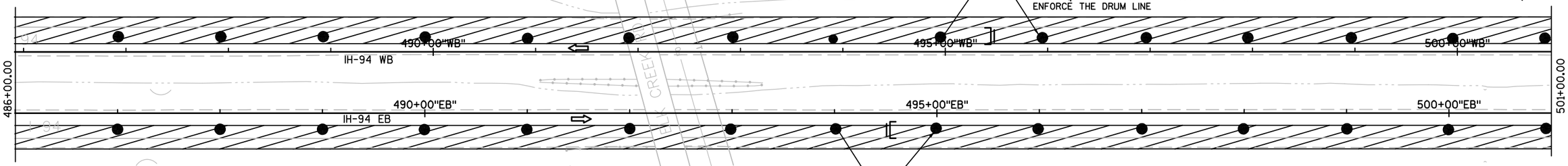


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.



TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

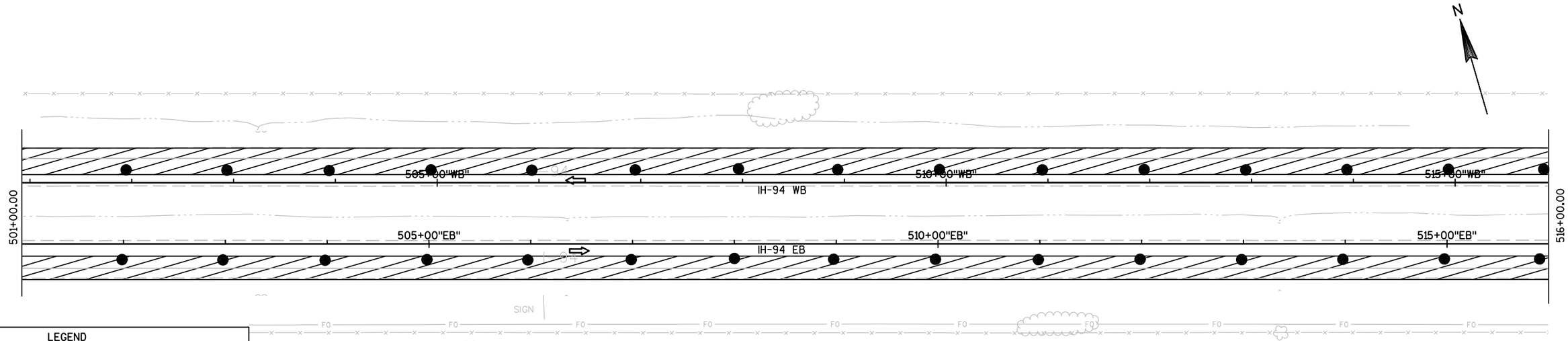
TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE SPEED REDUCTION" DRUM SPACING IS 100' TYP, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ¼ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 7028-00-00	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025033 TC.DWG PLOT DATE : 10/6/2014 4:27 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

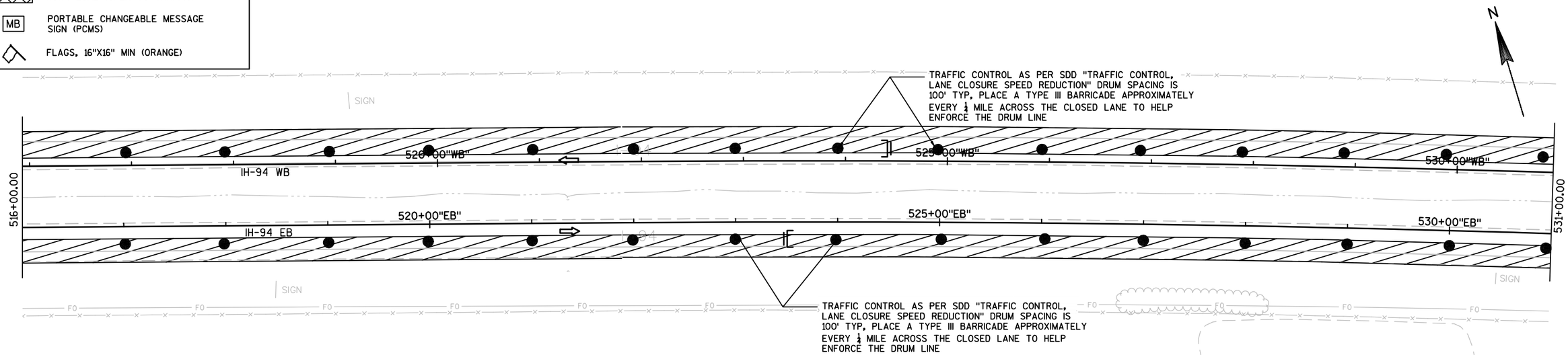


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.



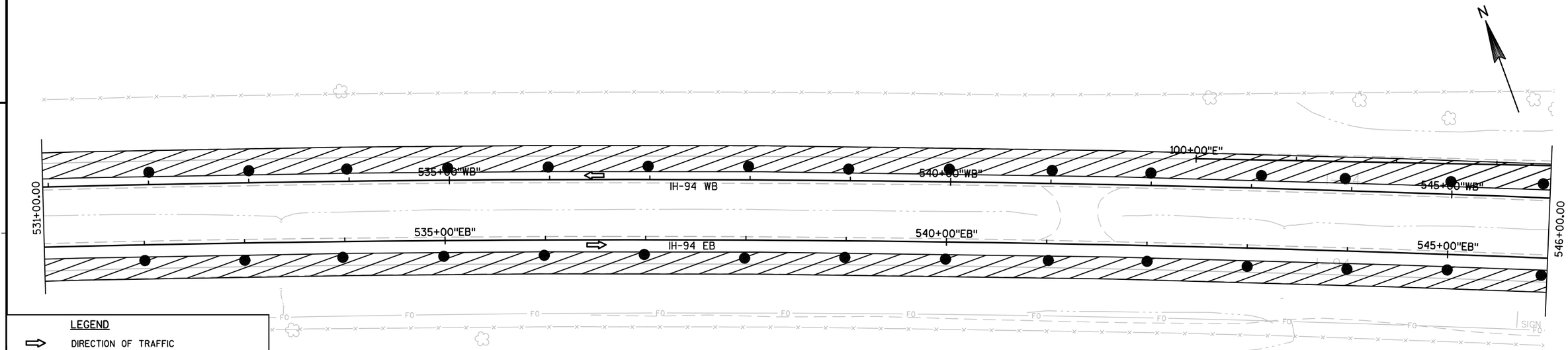
STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 7028-00-00	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025034 TC.DWG PLOT DATE : 10/6/2014 4:27 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

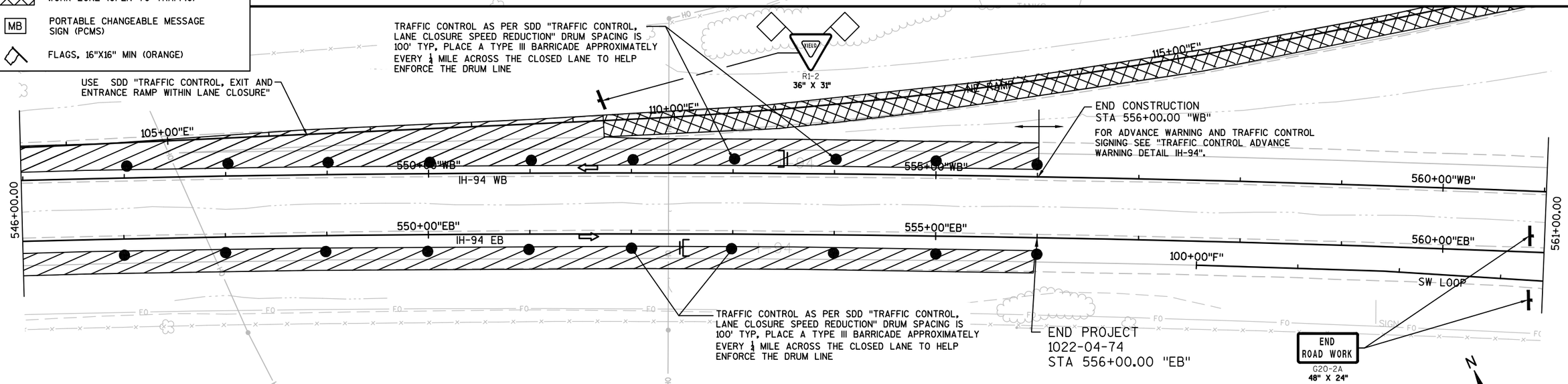


LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.



STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 7028-00-00	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 92	E

2

W03-2

120+00"F"

NE RAMP

125+00"F"

165+00"F"

STH 312

SE RAMP

N

561+00.00

565+00"WB"

160+00"F"

IH-94 WB

570+00"WB"

575+00"WB"

565+00"EB"

570+00"EB"

IH-94 EB

575+00"EB"

SW LOOP

SPEED LIMIT 65

R2-1

48"X60"

SE LOOP

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 93	E

2

BEGIN PROJECT
7028-00-70
STA 100+00 "E"

USE SDD "TRAFFIC CONTROL EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE"

100+00"E"

105+00"E"

RAMP E

110+00"E"

115+0

545+00"WB"

IH-94 "WB"

550+00"WB"

555+00"WB"

END CONSTRUCTION
STA 556+00.00 "WB"

545+00"EB"

IH-94 "EB"

550+00"EB"

555+00"EB"

100+00'

END PROJECT
1022-04-74
STA 556+00.00 "EB"

N

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

MAX. 10' WIDTH
W12-52
48"X48"

N

115+00.00

0"F"

120+00"F"

RAMP E

125+00"F"

130+

130+00.00

165+00"F"

560+00"WB"

'F"

560+00"EB"

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

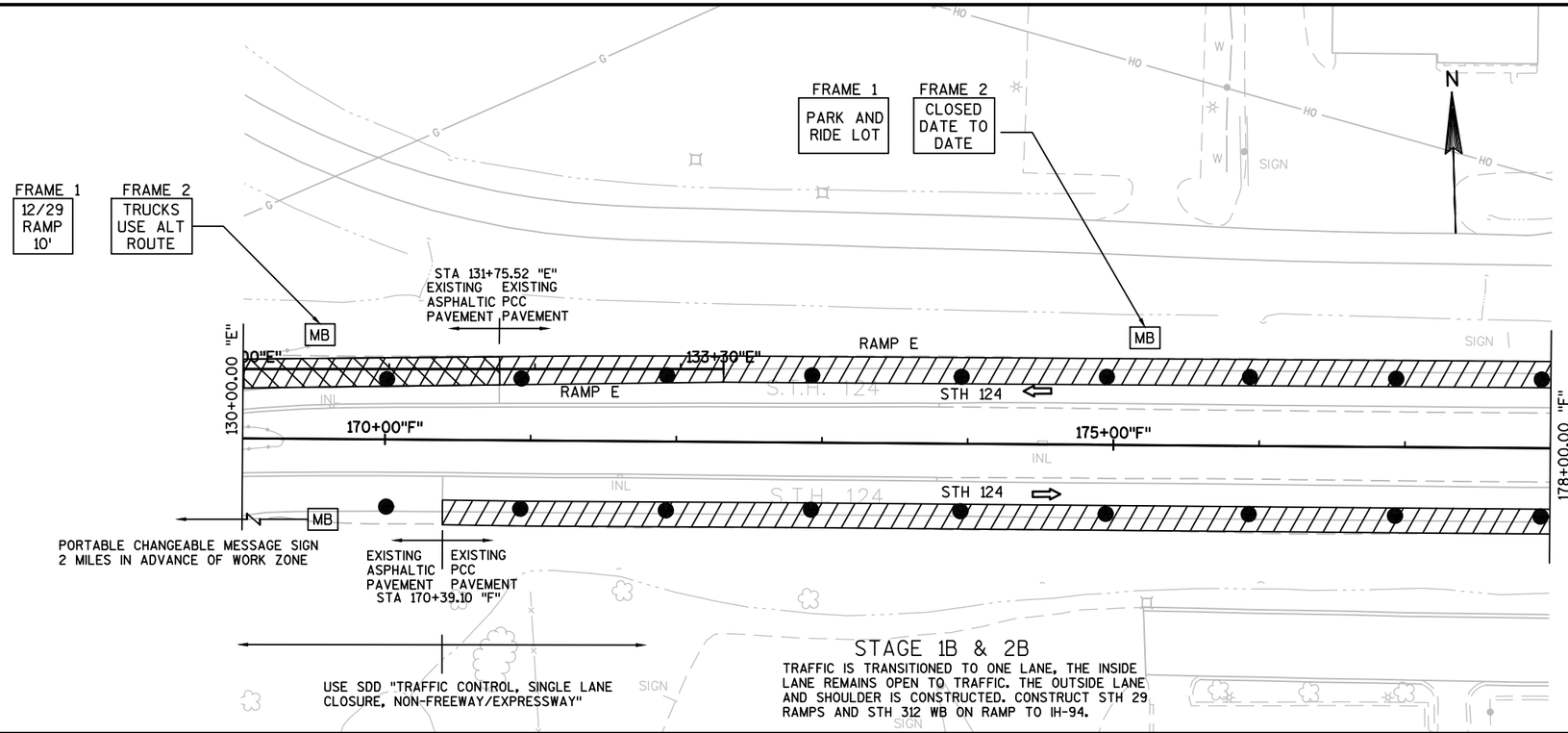
PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025037 TC.DWG PLOT DATE : 10/6/2014 4:29 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

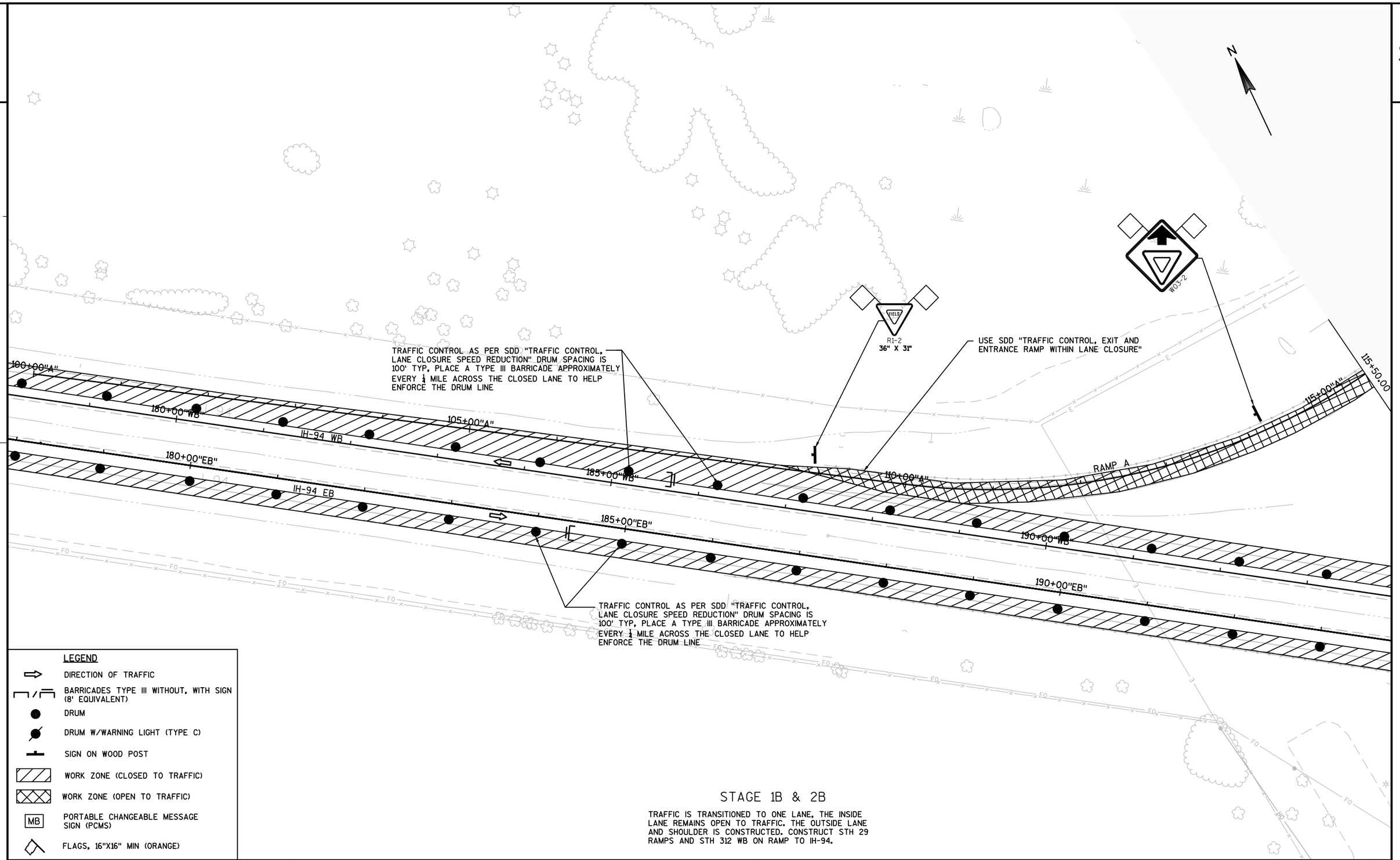


STAGE 1B & 2B
TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025038 TC.DWG
PLOT DATE : 10/6/2014 4:30 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 96	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025039 TC.DWG
PLOT DATE : 10/6/2014 4:32 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

N

RAMP A

LOOP C

120+00"A"

115+00"B"

115+50.00

101+00"B"

"B" 100+50

200+00"WB"

"B" 100+00

STA 124+90.76 "A"
EXISTING ASPHLATIC PAVEMENT / EXISTING PCC PAVEMENT

125+00"A"

EXISTING ASPHLATIC PAVEMENT / EXISTING PCC PAVEMENT
STA 116+19.40 "B"

USE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE"

ROAD WORK AHEAD
W20-1

MAX. 10' WIDTH
W12-52
48"X48"

FRAME 1
IH-94 RAMP 10'

FRAME 2
TRUCKS USE ALT ROUTE

MB

END ROAD WORK
G20-2A
48" X 24"

120+00"B"

130+00"A"

130+98"A"

121+93"B"

INL

MH

SIGN

S.T.H. 29

STH 29

STH 29

I 94

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\025040 TC.DWG PLOT DATE : 10/6/2014 4:34 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

195+00"EB"

200+00"WB"

200+00"EB"

100+00"C"

100+00"B"

205+00"WB"

205+00"EB"

105+00"C"

115+50.00

115+00"D"

100+00"D"

115+55"C"

STH 29

STH 29

I 94

I 94

N

END
ROAD WORK
G20-2A
48" X 24"

STA 117+86.06 "C"
EXISTING PCC PAVEMENT
EXISTING ASPHALTIC PAVEMENT

LOOP C

RAMP D

MAX.
10'
WIDTH
W12-52
48"X48"

MB

ROAD
WORK
AHEAD
W20-1

EXISTING PCC PAVEMENT
STA 103+02.57 "D"
EXISTING ASPHALTIC PAVEMENT

105+00"D"

115+00"D"

10'-0" OFFSET

10'-0"

FRAME 1
IH-94
RAMP
10'

FRAME 2
TRUCKS
USE ALT
ROUTE

STAGE 1B & 2B

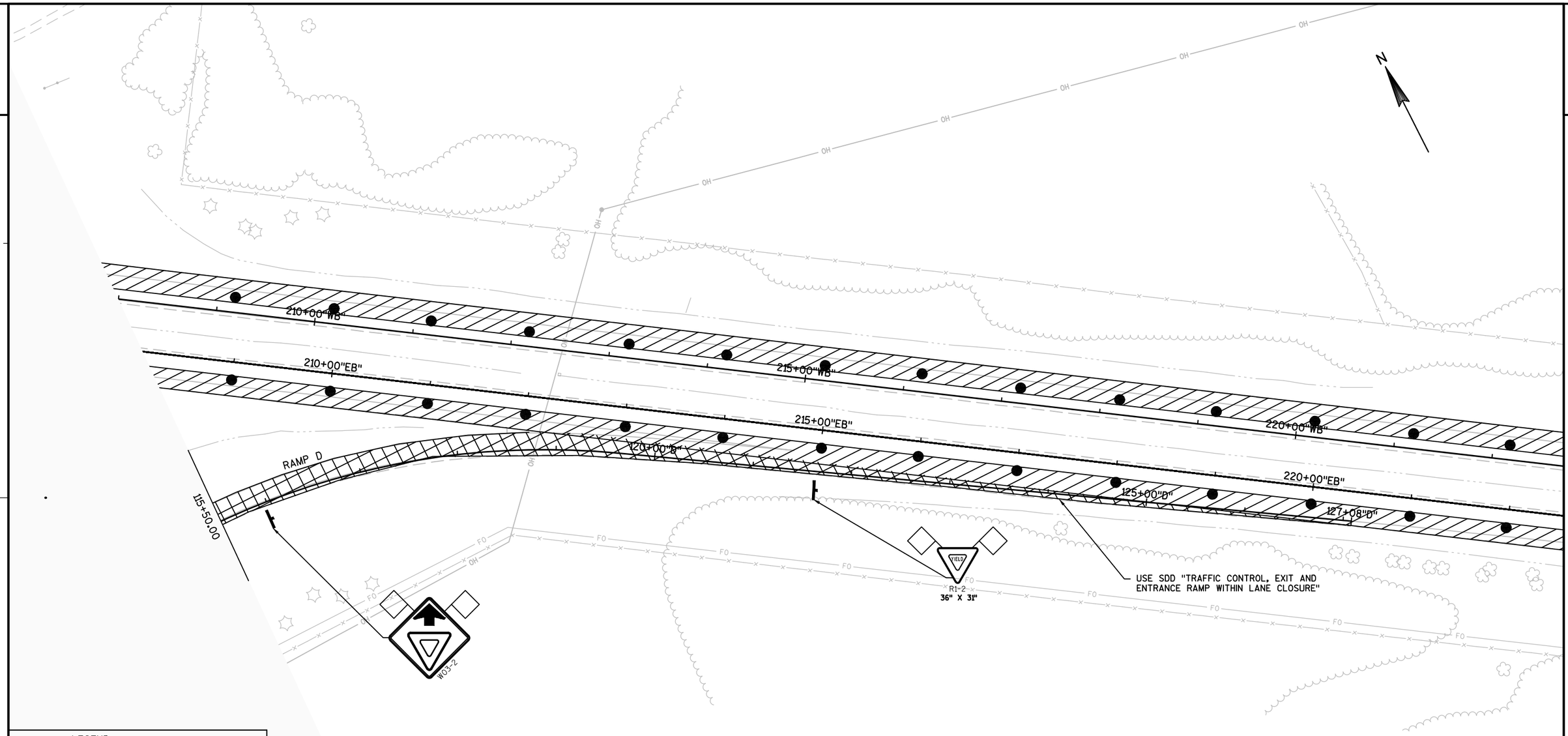
TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 98	E

2



LEGEND

- DIRECTION OF TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- DRUM
- DRUM W/WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- WORK ZONE (CLOSED TO TRAFFIC)
- WORK ZONE (OPEN TO TRAFFIC)
- MB — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- FLAGS, 16"X16" MIN (ORANGE)

STAGE 1B & 2B

TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS CONSTRUCTED. CONSTRUCT STH 29 RAMPS AND STH 312 WB ON RAMP TO IH-94.

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	TRAFFIC CONTROL - STAGE 1B & 2B	SHEET 99	E

DATE 13OCT14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1022-04-74 QUANTITY	7028-00-70 QUANTITY
0010	201.0110	CLEARING	SY	4,400.000	4,400.000	
0020	201.0210	GRUBBING	SY	4,400.000	4,400.000	
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	13.000	12.000	1.000
0040	204.0109.S	REMOVING CONCRETE SURFACE PARTIAL DEPTH	SF	150,733.000	22,200.000	128,533.000
0050	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	2,705.000	1,708.000	997.000
0060	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	366,243.000	354,078.000	12,165.000
0070	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	359.000	325.000	34.000
0080	205.0100	EXCAVATION COMMON	CY	2,795.000	2,795.000	
0090	213.0100	FINISHING ROADWAY (PROJECT) 01. 1022-04-74	EACH	1.000	1.000	
0100	213.0100	FINISHING ROADWAY (PROJECT) 02. 7028-00-70	EACH	1.000		1.000
0110	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,430.000	1,280.000	150.000
0120	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	2,956.000	2,956.000	
0130	305.0500	SHAPING SHOULDERS	STA	1,724.000	1,611.000	113.000
0140	416.0180	CONCRETE DRIVEWAY 8-INCH	SY	640.000	640.000	
0150	416.0610	DRILLED TIE BARS	EACH	200.000	200.000	
0160	440.4410.S	INCENTIVE IRI RIDE	DOL	58,480.000	58,480.000	
0170	455.0105	ASPHALTIC MATERIAL PG58-28	TON	1,290.000	1,290.000	
0180	455.0140	ASPHALTIC MATERIAL PG64-28P	TON	2,441.000	2,441.000	
0190	455.0145	ASPHALTIC MATERIAL PG64-34P	TON	125.000		125.000
0200	455.0605	TACK COAT	GAL	33,835.000	33,198.000	637.000
0210	460.1100	HMA PAVEMENT TYPE E-0.3	TON	21,480.000	21,480.000	
0220	460.1110	HMA PAVEMENT TYPE E-10	TON	42,780.000	40,711.000	2,069.000
0230	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	38,600.000	37,280.000	1,320.000
0240	465.0110	ASPHALTIC SURFACE PATCHING	TON	700.000	500.000	200.000
0250	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	1,115.000	1,115.000	
0260	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	183.000	175.000	8.000
0270	465.0400	ASPHALTIC SHOULDER RUMBLE STRIPS	LF	163,655.000	157,544.000	6,111.000
0280	520.7000	CLEANING CULVERT PIPES	EACH	16.000	13.000	3.000
0290	520.9700.S	CULVERT PIPE LINERS (SIZE) 01. 18-INCH	LF	252.000	252.000	
0300	520.9700.S	CULVERT PIPE LINERS (SIZE) 02. PIPE ARCH 49X33-INCH	LF	324.000	324.000	
0310	520.9750.S	CLEANING CULVERT PIPES FOR LINER VERIFICATION	EACH	5.000	5.000	
0320	521.1015	APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH	EACH	4.000	4.000	
0330	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	8.000	7.000	1.000
0340	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	2.000	2.000	
0350	521.1036	APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH	EACH	1.000	1.000	
0360	521.1249	APRON ENDWALLS FOR PIPE ARCH STEEL 49X33-INCH	EACH	4.000	4.000	
0370	522.0312	CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	45.000	45.000	
0380	522.0324	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	55.000	55.000	
0390	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	2.000	2.000	
0400	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	27.000	25.000	2.000
0410	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	4.000	2.000	2.000

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DATE 13OCT14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1022-04-74 QUANTITY	7028-00-70 QUANTITY
0420	606.0100	RIPRAP LIGHT	CY	25.000	20.000	5.000
0430	611.0642	INLET COVERS TYPE MS	EACH	1.000	1.000	
0440	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	29.000	29.000	
0450	614.0920	SALVAGED RAIL	LF	8,671.000	8,671.000	
0460	614.2300	MGS GUARDRAIL 3	LF	2,925.000	2,925.000	
0470	614.2330	MGS GUARDRAIL 3 K	LF	5,425.000	5,425.000	
0480	614.2500	MGS THRIE BEAM TRANSITION	LF	906.200	906.200	
0490	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	26.000	26.000	
0500	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	11.000	11.000	
0510	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1022-04-74	EACH	1.000	1.000	
0520	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 7028-00-70	EACH	1.000		1.000
0530	619.1000	MOBILIZATION	EACH	1.000	0.500	0.500
0540	625.0500	SALVAGED TOPSOIL	SY	11,575.000	11,375.000	200.000
0550	627.0200	MULCHING	SY	10,125.000	10,125.000	
0560	628.1504	SILT FENCE	LF	8,730.000	7,730.000	1,000.000
0570	628.1520	SILT FENCE MAINTENANCE	LF	8,730.000	7,730.000	1,000.000
0580	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	2.000	1.000
0590	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	6.000	4.000	2.000
0600	628.2004	EROSION MAT CLASS I TYPE B	SY	4,400.000	4,400.000	
0610	628.7015	INLET PROTECTION TYPE C	EACH	22.000	15.000	7.000
0620	628.7555	CULVERT PIPE CHECKS	EACH	32.000	28.000	4.000
0630	629.0210	FERTILIZER TYPE B	CWT	6.700	6.600	0.100
0640	630.0130	SEEDING MIXTURE NO. 30	LB	197.000	192.000	5.000
0650	633.0100	DELINEATOR POSTS STEEL	EACH	359.000	325.000	34.000
0660	633.0500	DELINEATOR REFLECTORS	EACH	413.000	367.000	46.000
0670	633.5200	MARKERS CULVERT END	EACH	30.000	28.000	2.000
0680	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	36.000	36.000	
0690	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	24.000	15.000	9.000
0700	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	59.000	52.000	7.000
0710	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	8.000	6.000	2.000
0720	635.0200	SIGN SUPPORTS STRUCTURAL STEEL HS	LB	2,593.650	2,593.650	
0730	635.0300	SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS	EACH	5.000	5.000	
0740	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	5.700	5.700	
0750	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	316.000	316.000	
0760	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	1,558.500	1,558.500	
0770	637.2210	SIGNS TYPE II REFLECTIVE H	SF	1,174.880	885.380	289.500
0780	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	18.000		18.000
0790	637.2230	SIGNS TYPE II REFLECTIVE F	SF	439.000	421.000	18.000
0800	638.2601	REMOVING SIGNS TYPE I	EACH	9.000	9.000	
0810	638.2602	REMOVING SIGNS TYPE II	EACH	89.000	69.000	20.000
0820	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	91.000	78.000	13.000
0830	638.3100	REMOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	4.000	4.000	
0840	642.5201	FIELD OFFICE TYPE C	EACH	1.000	0.500	0.500
0850	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1022-04-74	DAY	54.000	54.000	
0860	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 02. 7028-00-70	DAY	54.000		54.000
0870	643.0300	TRAFFIC CONTROL DRUMS	DAY	61,695.000	53,676.000	8,019.000
0880	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	3,402.000	3,186.000	216.000
0890	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	6,804.000	6,372.000	432.000
0900	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	3,888.000	2,322.000	1,566.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1022-04-74 QUANTITY	7028-00-70 QUANTITY
0910	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	324.000	216.000	108.000
0920	643.0900	TRAFFIC CONTROL SIGNS	DAY	7,074.000	6,291.000	783.000
0930	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	12.000	12.000	
0940	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	184.000	184.000	
0950	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	233.000	101.000	132.000
0960	645.0130	GEOTEXTILE FABRIC TYPE R	SY	620.000	500.000	120.000
0970	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	178,281.000	164,834.000	13,447.000
0980	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	178.000		178.000
0990	646.0600	REMOVING PAVEMENT MARKINGS	LF	300.000		300.000
1000	646.0790.S	REMOVING RAISED PAVEMENT MARKERS	EACH	785.000	785.000	
1010	646.0881.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH	LF	20,526.000	19,623.000	903.000
1020	646.0883.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH	LF	5,575.000	3,027.000	2,548.000
1030	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	2.000		2.000
1040	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	8.000	8.000	
1050	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	2.000		2.000
1060	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	88.000		88.000
1070	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	4.000		4.000
1080	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	1,614.000	1,614.000	
1090	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	LF	92.000		92.000
1100	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	171,411.000	171,411.000	
1110	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	2,400.000		2,400.000
1120	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	4,012.000	3,027.000	985.000
1130	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	1,300.000	1,300.000	
1140	650.5000	CONSTRUCTION STAKING BASE	LF	1,300.000	1,300.000	
1150	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	2.000	2.000	
1160	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	91,972.000	85,375.000	6,597.000
1170	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	15.000	15.000	
1180	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	285.000	285.000	
1190	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	2.000	2.000	
1200	654.0105	CONCRETE BASES TYPE 5	EACH	3.000	3.000	
1210	654.0220	CONCRETE CONTROL CABINET BASES TYPE 10	EACH	3.000	3.000	
1220	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	900.000	900.000	
1230	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. DMS-18-0024	LS	1.000	1.000	
1240	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 01. DMS-18-0024	LS	1.000	1.000	
1250	657.0100	PEDESTAL BASES	EACH	3.000	3.000	
1260	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	3.000	3.000	
1270	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	3.000	3.000	
1280	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	1.000	1.000	
1290	662.2026.S	RAMP CLOSURE GATES SOLAR 26-FT	EACH	1.000	1.000	
1300	662.2030.S	RAMP CLOSURE GATES SOLAR 30-FT	EACH	1.000	1.000	
1310	662.2040.S	RAMP CLOSURE GATES SOLAR 40-FT	EACH	1.000	1.000	
1320	662.3026.S	RAMP CLOSURE GATE ARMS STOCKPILE 26-FT	EACH	1.000	1.000	
1330	662.3030.S	RAMP CLOSURE GATE ARMS STOCKPILE 30-FT	EACH	1.000	1.000	
1340	662.3040.S	RAMP CLOSURE GATE ARMS STOCKPILE 40-FT	EACH	1.000	1.000	
1350	662.4000.S	RAMP CLOSURE GATE FLASHERS STOCKPILE	EACH	3.000	3.000	
1360	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000	

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1022-04-74 QUANTITY	7028-00-70 QUANTITY
1370	670.0200	ITS DOCUMENTATION	LS	1.000	1.000	
1380	673.0225.S	INSTALL POLE MOUNTED CABINET	EACH	1.000	1.000	
1390	690.0150	SAWING ASPHALT	LF	1,600.000	1,600.000	
1400	690.0250	SAWING CONCRETE	LF	7,000.000	7,000.000	
1410	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	2,100.000	2,100.000	
1420	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	2,400.000	2,400.000	
1430	SPV.0045	SPECIAL 01. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS	DAY	203.000	91.000	112.000
1440	SPV.0060	SPECIAL 01. INSTALL GROUND MOUNT DMS	EACH	1.000	1.000	
1450	SPV.0060	SPECIAL 02. INSTALL WIRELESS MODEM	EACH	1.000	1.000	
1460	SPV.0060	SPECIAL 03. GROUND ROD	EACH	1.000	1.000	
1470	SPV.0090	SPECIAL 01. REGRADE DITCH	LF	160.000	160.000	
1480	SPV.0090	SPECIAL 02. DITCH CLEANING	LF	160.000	160.000	
1490	SPV.0105	SPECIAL 01. MILLING AND REMOVING TEMPORARY JOINT, 1022-04-74	LS	1.000	1.000	
1500	SPV.0105	SPECIAL 02. MATERIAL TRANSFER VEHICLE, 1022-04-74	LS	1.000	1.000	
1510	SPV.0105	SPECIAL 03. SALT STORAGE BUILDING	LS	1.000	1.000	
1520	SPV.0105	SPECIAL 04. VEHICLE STORAGE BUILDING	LS	1.000	1.000	
1530	SPV.0105	SPECIAL 05. CONSTRUCTION STAKING SALT STORAGE BUILDING	LS	1.000	1.000	
1540	SPV.0105	SPECIAL 06. PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL, 1022-04-74	LS	1.000	1.000	
1550	SPV.0105	SPECIAL 07. WELL	LS	1.000	1.000	
1560	SPV.0105	SPECIAL 08. HOLDING TANK	LS	1.000	1.000	
1570	SPV.0105	SPECIAL 09. PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL, 7028-00-70	LS	1.000		1.000
1580	SPV.0105	SPECIAL 10. MILLING AND REMOVING TEMPORARY JOINT, 7028-00-70	LS	1.000		1.000
1590	SPV.0105	SPECIAL 11. MATERIAL TRANSFER VEHICLE, 7028-00-70	LS	1.000		1.000
1600	SPV.0170	SPECIAL 01. REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL	STA	893.000	859.000	34.000
1610	SPV.0180	SPECIAL 01. CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL	SY	1,480.000	1,480.000	
1620	SPV.0180	SPECIAL 02. CONCRETE PAVEMENT REPLACEMENT NON DOWELED SPECIAL	SY	740.000	740.000	
1630	SPV.0180	SPECIAL 03. ASPHALTIC BASE PATCHING PARTIAL DEPTH SPECIAL	SY	750.000	750.000	
1640	SPV.0195	SPECIAL 01. HMA PAVEMENT TYPE SMA SPECIAL	TON	27,939.000	27,939.000	
1650	SPV.0195	SPECIAL 02. SMA PAVEMENT COMPACTION ACCEPTANCE	TON	27,937.000	27,937.000	

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ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

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REMOVING CONCRETE SURFACE PARTIAL DEPTH

STA	LOCATION	204.0109.S SF
PROJECT 1022-04-74		
IH 94 WB	UNDISTRIBUTED	9900
IH 94 EB	UNDISTRIBUTED	9900
B18-12 APPROACHES		1200
B18-11 APPROACHES		1200
PROJECT SUBTOTAL		22200
PROJECT 7028-00-70		
STH 312 RAMP E		
128+00 - 131+75	LT & RT	5942
STH 312 WB		
170+78 - 173+80	LT	7852
173+80 - 190+00	LT	55884
STH 312 EB		
170+39 - 173+79	RT	8840
173+79 - 190+00	RT	55957
PROJECT SUBTOTAL		134475
ITEM TOTAL		156675

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STA	LOCATION	204.0115 SY
PROJECT 1022-04-74		
IH 94 WB		
162+88 - 163+68	LT	338
556+00 - 556+80	LT	338
IH 94 EB		
162+64 - 163+44	RT	338
556+00 - 556+80	RT	338
STH 29 RAMP A		
124+91 - 125+31	RT	89
STH 29 RAMP B		
116+13 - 116+53	LT	89
STH 29 RAMP C		
117+86 - 118+26	LT	89
STH 29 RAMP D		
102+63 - 103+03	LT	89
PROJECT SUBTOTAL		1708
PROJECT 7028-00-70		
STH 312 WB		
170+38 - 170+78	LT	107
186+14 - 186+74	LT	280
190+00 - 190+40	LT	116
STH 312 EB		
169+99 - 170+39	RT	107
186+28 - 186+89	RT	271
190+00 - 190+40	RT	116
PROJECT SUBTOTAL		997
ITEM TOTAL		2705

REMOVING ASPHALTIC SURFACE MILLING

STA	LOCATION	204.0120 SY
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	LT & RT	13858
202+94 - 416+95	LT & RT	90463
418+51 - 439+56	LT & RT	9122
411+11 - 556+00	LT & RT	60418
IH 94 EB		
163+44 - 198+19	LT & RT	14356
201+57 - 416+04	LT & RT	88924
417+60 - 439+40	LT & RT	9205
441+12 - 556+00	LT & RT	48506
STH 29 RAMP A		
100+00 - 118+00	LT & RT	4884
118+00 - 124+90	LT & RT	1533
STH 29 RAMP B		
104+00 - 110+00	LT & RT	1408
110+00 - 116+13	LT & RT	1362
STH 29 RAMP C		
104+00 - 110+25	LT & RT	1596
110+25 - 117+86	LT & RT	1691
STH 29 RAMP D		
103+02 - 111+30	LT & RT	1840
111+30 - 127+08	LT & RT	4912
PROJECT SUBTOTAL		354078
PROJECT 7028-00-70		
STH 312 RAMP E		
100+00 - 128+00	LT & RT	8472
128+00 - 131+75	LT & RT	333
STH 312 WB		
170+78 - 173+80	LT	268
173+80 - 190+00	LT	1398
STH 312 EB		
170+39 - 173+79	RT	302
173+79 - 190+00	RT	1392
PROJECT SUBTOTAL		12165
ITEM TOTAL		366243

SALVAGE RAIL

STA	LOCATION	614.0920 LF
PROJECT 1022-04-74		
IH 94 WB		
202+70 - 205+82	RT	312
203+37 - 207+19	LT	382
287+06 - 288+08	LT	102
320+46 - 321+97	LT	151
418+49 - 421+48	RT	299
418+97 - 423+39	LT	443
437+39 - 439+45	LT	207
438+76 - 439+46	RT	69
441+20 - 444+14	RT	294
441+20 - 442+65	LT	145
IH 94 EB		
186+19 - 197+77	RT	1158
196+26 - 198+36	LT	210
284+93 - 286+63	RT	170
317+80 - 320+56	RT	276
413+08 - 416+44	LT	336
413+16 - 415+95	RT	279
417+49 - 420+88	RT	339
436+25 - 439+31	LT	306
436+36 - 439+31	RT	295
441+21 - 441+90	LT	69
441+22 - 441+90	RT	67
489+90 - 491+38	RT	148
STH 29 RAMP A		
109+05 - 127+78	LT	1875
STH 29 RAMP C		
106+55 - 109+85	LT	368
STH 29 RAMP D		
111+85 - 115+48	RT	371
ITEM TOTAL		8671

REMOVING DELINEATORS AND MARKERS

STA	LOCATION	204.0180 EACH
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	LT	8
202+94 - 416+95	LT	53
418+51 - 439+56	LT	5
411+11 - 556+00	LT	34
IH 94 EB		
163+44 - 198+19	RT	10
201+57 - 416+04	RT	50
417+60 - 439+40	RT	5
441+12 - 556+00	RT	29
STH 29 RAMP A		
100+00 - 124+90	LT	26
STH 29 RAMP B		
104+00 - 116+13	LT	38
STH 29 RAMP C		
104+00 - 117+86	RT	39
STH 29 RAMP D		
103+02 - 127+08	RT	28
PROJECT SUBTOTAL		325
PROJECT 7028-00-70		
STH 312 RAMP E		
100+00 - 131+75	LT	34
PROJECT SUBTOTAL		34
ITEM TOTAL		359

SHAPING SHOULDERS

STA	LOCATION	305.0500 STA
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	LT & RT	58
202+94 - 416+95	LT & RT	425
418+51 - 439+56	LT & RT	42
411+11 - 556+00	LT & RT	278
IH 94 EB		
163+44 - 198+19	LT & RT	67
201+57 - 416+04	LT & RT	414
417+60 - 439+40	LT & RT	44
441+12 - 556+00	LT & RT	230
STH 29 RAMP A		
100+00 - 118+00	LT & RT	26
STH 29 RAMP D		
111+30 - 127+08	LT & RT	27
PROJECT SUBTOTAL		1611
PROJECT 7028-00-70		
STH 312 RAMP E		
100+00 - 128+00	LT & RT	49
128+00 - 131+75	LT & RT	4
STH 312 WB		
170+78 - 173+80	LT	3
173+80 - 190+00	LT	27
STH 312 EB		
170+39 - 173+79	RT	3
173+79 - 190+00	RT	27
PROJECT SUBTOTAL		113
ITEM TOTAL		1724

FINISHING ROADWAY (PROJECT)

STA	LOCATION	213.0100.01 1022-04-74 EACH	213.0100.02 7028-00-70 EACH
IH 94	LT & RT	1	
STH 312	LT & RT		1
ITEM TOTALS		1	1

BASE AGGREGATE DENSE 3/4-INCH

STA	LOCATION	305.0110 TON	NOTES
PROJECT 1022-04-74			
IH 94 WB	LT & RT	300	
IH 94 EB	LT & RT	300	
STH 29 RAMP A	LT & RT	150	
STH 29 RAMP B	LT & RT	150	
STH 29 RAMP C	LT & RT	150	
STH 29 RAMP D	LT & RT	150	
RAMPS & LOOPS	UNDISTRIBUTED	80	TEMP GRAVEL OVER CURB
PROJECT SUBTOTAL		1280	
PROJECT 7028-00-70			
STH 312 RAMP E	LT & RT	150	
PROJECT SUBTOTAL		150	
ITEM TOTAL		1430	

DRILLED TIE BARS

STA	LOCATION	416.0610 EACH
PROJECT 1022-04-74		
IH 94 WB	UNDISTRIBUTED	100
IH 94 EB	UNDISTRIBUTED	100
ITEM TOTAL		200

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

3

ASPHALTIC PAVEMENT ITEMS

STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0145 ASPHALTIC MATERIAL PG64-34P TON	455.0140 ASPHALTIC MATERIAL PG64-28P TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	SPV.0195.01 HMA PAVEMENT SMA SPECIAL TON	SPV.0195.02 SMA PAVEMENT COMPACTION ACCEPTANCE TON
PROJECT 1022-04-74	(CAT 0010)								
IH 94 WB									
163+68 - 199+59	LT & RT	37		94	1251	622	1564	1251	1251
202+94 - 416+95	LT & RT	355		559	7852	5912	9321	7457	7457
418+51 - 439+56	LT & RT	35		55	783	590	917	733	733
411+11 - 556+00	LT & RT	224		379	5275	3732	6311	5049	5049
444+04 - 460+50**	LT & RT			31	286		511		
521+84 - 556+00**	LT			88	664		1472		
IH 94 EB									
163+44 - 198+19	LT & RT	54		91	1258	893	1514	1211	1211
201+57 - 416+04	LT & RT	336		560	7782	5594	9342	7473	7473
323+31 - 342+46**	RT			47	400		785		
417+60 - 439+40	LT & RT	37		57	799	610	950	760	760
441+12 - 556+00	LT & RT	193		300	4212	3217	5004	4003	4003
444+04 - 460+50**	RT			40	349		661		
521+93 - 556+00**	LT & RT			12	546		205		
UNDISTRIBUTED*					1123				
STH 29 RAMP A									
100+00 - 118+00	LT & RT			33	122		547		
118+00 - 124+90	LT & RT			10	38		172		
STH 29 RAMP B									
104+00 - 110+00	LT & RT			9	35		158		
110+00 - 116+13	LT & RT			9	34		153		
STH 29 RAMP C									
104+00 - 110+25	LT & RT			11	40		179		
110+25 - 117+86	LT & RT			11	42		189		
STH 29 RAMP D									
103+02 - 111+30	LT & RT			12	46		206		
111+30 - 127+08	LT & RT			33	123		550		
PROJECT SUBTOTALS	(CAT 0010)	1271	0	2441	33060	21170	40711	27937	27937
PROJECT 1022-04-74									
PARK AND RIDE LOT	(CAT 0030)	19			138	310			
PROJECT SUBTOTALS		1290	0	2441	33198	21480	40711	27937	27937
PROJECT 7028-00-70									
STH 312 RAMP E									
100+00 - 128+00	LT & RT		26		97		433		
128+00 - 131+75	LT & RT		46		226		759		
STH 312 WB									
170+78 - 173+80	LT		12		57		192		
173+80 - 190+00	LT		14		70		235		
STH 312 EB									
170+39 - 173+79	RT		13		64		216		
173+79 - 190+00	RT		14		70		234		
UNDISTRIBUTED*					53				
PROJECT SUBTOTALS		0	125	0	637	0	2069	0	0
ITEM TOTALS		1290	125	2441	33835	21480	42780	27937	27937

*FOR ASPHALTIC SURFACE TEMPORARY
**FOR WEDGING

ASPHALTIC SURFACE PATCHING

STA	LOCATION	465.0110 TON
PROJECT 1022-04-74		
IH 94 WB	UNDISTRIBUTED	250
IH 94 EB	UNDISTRIBUTED	250
PROJECT SUBTOTAL		500
PROJECT 7028-00-70		
STH 312	UNDISTRIBUTED	200
PROJECT SUBTOTAL		200
ITEM TOTAL		700

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

STATION	LOCATION	SPV.0170.01 STA
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	CL	36
202+94 - 416+95	CL	215
418+51 - 439+56	CL	22
411+11 - 556+00	CL	145
	CL	
IH 94 EB		
163+44 - 198+19	CL	35
201+57 - 416+04	CL	215
417+60 - 439+40	CL	22
441+12 - 556+00	CL	115
STH 29 RAMP A		
100+00 - 124+90	CL	15
STH 29 RAMP B		
104+00 - 116+13	CL	11
STH 29 RAMP C		
104+00 - 117+86	CL	12
STH 29 RAMP D		
103+02 - 127+08	CL	16
PROJECT SUBTOTAL		859
PROJECT 7028-00-70		
STH 312 RAMP E		
100+00 - 131+75	CL	34
PROJECT SUBTOTAL		34
ITEM TOTAL		893

ASPHALTIC SURFACE TEMPORARY

STA	LOCATION	465.0125* TON
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	RT	5
202+94 - 416+95	RT	48
418+51 - 439+56	RT	5
411+11 - 556+00	RT	32
IH 94 EB		
163+44 - 198+19	LT	7
201+57 - 416+04	LT	47
417+60 - 439+40	LT	5
441+12 - 556+00	LT	26
PROJECT SUBTOTAL		175
PROJECT 7028-00-70		
STH 312 WB		
170+78 - 173+80	LT	1
173+80 - 190+00	LT	3
STH 312 EB		
170+39 - 173+79	RT	1
173+79 - 190+00	RT	3
PROJECT SUBTOTAL		8
ITEM TOTAL		183

*QUANTITY ESTIMATED ASSUMING ONLY THE INDIVIDUAL RUMBLE STRIP GROOVES WILL BE FILLED.

ASPHALTIC SHOULDER RUMBLE STRIP

STA	LOCATION	465.0400 LF
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	LT & RT	5900
202+94 - 416+95	LT & RT	42584
418+51 - 439+56	LT & RT	4209
411+11 - 556+00	LT & RT	28516
IH 94 EB		
163+44 - 198+19	LT & RT	6645
201+57 - 416+04	LT & RT	42353
417+60 - 439+40	LT & RT	4360
441+12 - 556+00	LT & RT	22977
PROJECT SUBTOTAL		157544
PROJECT 7028-00-70		
STH 312 WB		
170+78 - 173+80	LT	302
173+80 - 190+00	LT	2738
STH 312 EB		
170+39 - 173+79	RT	340
173+79 - 190+00	RT	2731
PROJECT SUBTOTAL		6111
ITEM TOTAL		163655

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

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3

CULVERT PIPE

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	520.7000 CLEANING CULVERT PIPES EACH	520.9700.S.01 CULVERT PIPE LINERS (18-INCH)* LF	520.9700.S.02 CULVERT PIPE LINERS (PIPE ARCH 49X33-INCH)* LF	520.9750.S CLEANING CULVERT PIPES FOR LINER VERIFICATION EACH	521.1015 APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH EACH	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH EACH	521.1036 APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH EACH	521.1249 APRON ENDWALLS FOR PIPE ARCH STEEL 49X33-INCH 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	611.0642 INLET COVERS TYPE MS EACH	633.5200 MARKERS CULVERT END EACH	SPV.0090.01 REGRADE DITCH LF	SPV.0090.02 DITCH CLEANING LF
PROJECT 1022-04-74																	
IH 94																	
169+50	LT		1									2					
177+51	LT		1									2					
188+51	LT & RT		1									1				10	10
203+63	RT															10	10
229+54	LT							1									
234+52	LT & RT		1														
239+51	LT		1				1										
248+27	LT & RT		1												1	30	30
260+48	LT & RT		1				1										
271+32	LT & RT		1												2		
275+03	LT & RT														2		
285+29	LT & RT		1												2	30	30
304+35	LT							1									
306+56	LT & RT		1														
313+32	LT							1									
319+29	LT & RT		1												2		
321+66	RT														1	30	30
320+22	LT								2						2		
335+34	LT			92		1		2							2		
347+34	LT						2								2		
382+32	LT & RT									1				1	2		
392+32	LT & RT			68		1						1			2		
416+08	LT														2	20	20
429+38	LT							1									
438+37	LT & RT			92		1		1									
450+40	LT	1										2					
472+35	LT & RT	1										2					
479+38	LT & RT	2										2					
500+36	LT & RT	1										2					
503+30	LT & RT				162	1					2						
503+36	LT & RT				162	1					2						
506+36	LT & RT	2										2					
513+36	LT & RT	2	1									2					
521+35	LT & RT											2			2		
533+35	LT & RT	2										2					
543+35	LT & RT	1	1									2					
552+38	RT											1					
STH 29 RAMP D																	
118+91	LT & RT															30	30
PROJECT SUBTOTALS		12	13	252	324	5	4	7	2	1	4	25	0	1	24	160	160
PROJECT 7028-00-70																	
STH 312 RAMP E																	
113+97	LT & RT	1											2				
131+22	LT & RT		1									1					
STH 312																	
170+22	LT & RT							1				1					
174+52	LT & RT		1												1		
176+00	LT														1		
187+19	LT & RT		1														
PROJECT SUBTOTALS		1	3	0	0	0	0	1	0	0	0	2	2	0	2	0	0
ITEM TOTALS		13	16	252	324	5	4	8	2	1	4	27	2	1	26	160	160

*CONTRACTOR TO FIELD VERIFY PIPE SIZES PRIOR TO ORDERING PIPES.

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

3

GUARDRAIL ITEMS

STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
PROJECT 1022-04-74							
IH 94 WB							
202+88.29 - 203+27.69	RT	1			39.4		
203+27.69 - 205+77.69	RT			250			
205+77.69 - 206+30.83	RT					1	
203+47.22 - 203+86.62	LT	1			39.4		
203+86.62 - 209+36.62	LT			550			
209+36.62 - 209+89.73	LT					1	
262+83.53 - 265+58.53	LT	1		275			1
265+58.53 - 266+11.63	LT					1	
288+64.30 - 289+03.70	LT	1			39.4		
289+03.70 - 290+03.70	LT		100				
290+03.70 - 290+56.78	LT					1	
321+49.84 - 321+89.24	LT	1			39.4		
321+89.24 - 323+14.23	LT		125				
323+14.23 - 323+67.56	LT					1	
418+48.97 - 418+88.37	RT	1			39.4		
418+88.37 - 420+63.21	RT			175			
420+63.21 - 421+16.29	RT					1	
418+97.05 - 419+36.45	LT	1			39.4		
419+36.45 - 422+86.45	LT			350			
422+86.45 - 423+39.58	LT					1	
438+66.00 - 439+16.00	RT	1		50			1
439+16.00 - 439+55.40	RT				39.4		
437+40.00 - 439+15.00	LT	1		175			1
439+15.00 - 439+54.40	LT				39.4		
441+11.00 - 441+50.40	LT	1			39.4		
441+50.40 - 442+25.40	LT			75			
442+25.40 - 442+78.53	LT					1	
441+11.00 - 441+50.40	RT	1			39.4		
441+50.40 - 443+75.40	RT			225			
443+75.40 - 444+28.53	RT					1	
492+95.61 - 493+35.01	LT	1			39.4		
493+35.01 - 494+47.51	LT			113			
494+47.51 - 495+00.59	LT					1	
503+17.88 - 503+67.88	LT	1	50				1
503+67.88 - 504+21.00	LT					1	
ITEM SUBTOTALS		13	275	2238	433.4	11	4

GUARDRAIL ITEMS CONT.

STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
PROJECT 1022-04-74							
IH 94 EB							
184+01.93 - 184+55.06	RT	1				1	
184+55.06 - 197+55.06	RT			1300			
197+55.06 - 197+94.48	RT				39.4		
194+85.98 - 195+39.11	LT	1				1	
195+39.11 - 198+14.11	LT			275			
198+14.11 - 198+53.52	LT				39.4		
261+16.81 - 261+69.94	RT	1				1	
261+69.94 - 264+44.94	RT			275			1
284+76.49 - 285+29.62	RT	1				1	
285+29.62 - 286+29.62	RT		100				
286+29.62 - 286+69.01	RT				39.4		
318+36.35 - 318+89.43	RT	1				1	
318+89.43 - 320+14.44	RT		125				
320+14.44 - 320+53.83	RT				39.4		
413+01.79 - 413+54.91	LT	1				1	
413+54.91 - 416+04.91	LT			250			
416+04.91 - 416+44.31	LT				39.4		
413+52.07 - 414+05.19	RT	1				1	
414+05.19 - 415+55.19	RT			150			
415+55.19 - 415+94.59	RT				39.4		
417+64.00 - 418+03.40	RT	1			39.4		
418+03.40 - 421+03.40	RT			300			1
436+47.48 - 437+00.60	RT	1				1	
437+00.60 - 439+00.60	RT			200			
439+00.60 - 439+40.00	RT				39.4		
436+22.48 - 436+75.60	LT	1				1	
436+75.60 - 439+00.60	LT			225			
439+00.60 - 439+40.00	LT				39.4		
441+12.00 - 441+51.40	LT	1			39.4		
441+51.40 - 442+01.40	LT			50			1
441+12.00 - 441+51.40	RT	1			39.4		
441+51.40 - 442+01.40	RT			50			1
489+34.91 - 489+87.98	RT	1				1	
489+87.98 - 491+00.48	RT			113			
491+00.48 - 491+39.88	RT				39.4		
502+56.00 - 503+09.13	RT					1	
503+09.13 - 503+59.13	RT		50				1
STH 29 RAMP A							
109+00.04 - 127+25.04	LT	1	1825				1
127+25.04 - 127+78.14	LT					1	
STH 29 RAMP C							
106+54.80 - 107+07.93	LT	1				1	
107+07.93 - 109+32.93	LT		225				
109+32.93 - 109+86.00	LT					1	
STH 29 RAMP D							
111+85.15 - 112+38.28	LT	1				1	
112+38.28 - 115+63.25	LT		325				1
ITEM SUBTOTALS		16	2650	3188	472.8	15	7
ITEM TOTALS		29	2925	5425	906.2	26	11

MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT)

STATION	LOCATION	618.0100.01 1022-04-74 EACH	618.0100.02 7028-00-70 EACH
IH 94	LT & RT	1	
STH 312	LT & RT		1
ITEM TOTALS		1	1

MOBILIZATION

STATION	619.1000 EACH
PROJECT 1022-04-74	
IH 94	0.5
PROJECT 7028-00-70	
STH 312	0.5
ITEM TOTAL	1

MOBILIZATIONS EROSION CONTROL

STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
PROJECT 1022-04-74		
IH 94 EB	1	2
IH 94 WB	1	2
PROJECT SUBTOTALS	2	4
PROJECT 7028-00-70		
STH 312	1	2
PROJECT SUBTOTALS	1	2
ITEM TOTALS	3	6

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

3

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504* SILT FENCE LF	628.1520* SILT FENCE MAINTENANCE LF	628.2004* EROSION MAT CLASS I TYPE B SY	628.7015 INLET PROTECTION TYPE C EACH	625.0500 SALVAGED TOPSOIL SY	630.0130 SEED MIX NO 30 LBS	629.0210 FERTILIZER TYPE B CWT	628.7555 CULVERT PIPE CHECKS EACH	606.0100 RIPRAP LIGHT CY	645.0130 GEOTEXTILE FABRIC TYPE R SY
PROJECT 1022-04-74											
IH 94 WB	LT & RT	1000	1000	1000							
IH 94 EB	LT & RT	1000	1000	1000							
CULVERT PIPE REPAIR WORK						1250	10	0.20	25	20	500
STH 29 RAMP A											
123+19	RT				4						
STH 29 RAMP B											
110+76	RT				3						
STH 29 RAMP C											
109+52	RT				4						
114+54	RT				3						
STH 29 RAMP D											
106+47	LT				1						
FOR BEAMGUARD WORK ON IH-94											
IH 94 WB											
202+88.29 - 203+27.69	RT	160	160								
203+47.22 - 203+86.62	LT	210	210								
262+83.53 - 265+58.53	LT	190	190								
288+64.30 - 289+03.70	LT	180	180								
321+49.84 - 321+89.24	LT	180	180								
418+48.97 - 418+88.37	RT	120	120								
418+97.05 - 419+36.45	LT	120	120								
438+66.00 - 439+16.00	RT	120	120								
437+40.00 - 439+15.00	LT	130	130								
441+11.00 - 441+50.40	LT	100	100								
441+11.00 - 441+50.40	RT	100	100								
492+95.61 - 493+35.01	LT	100	100								
503+17.88 - 503+67.88	LT	150	150								
IH 94 EB											
182+00-185+00	RT	150	150								
194+85.98 - 195+39.11	LT	120	120								
261+16.81 - 261+69.94	RT	130	130								
284+76.49 - 285+29.62	RT	160	160								
318+36.35 - 318+89.43	RT	180	180								
413+01.79 - 413+54.91	LT	150	150								
413+52.07 - 414+05.19	RT	150	150								
417+64.00 - 418+03.40	RT	150	150								
436+47.48 - 437+00.60	RT	120	120								
436+22.48 - 436+75.60	LT	120	120								
441+12.00 - 441+51.40	LT	120	120								
441+12.00 - 441+51.40	RT	120	120								
489+34.91 - 489+87.98	RT	120	120								
502+56.00 - 503+09.13	RT	150	150								
STH 29 RAMP A											
127+00-129+00	LT	200	200								
STH 29 RAMP C											
106+54.80 - 107+07.93	LT	150	150								
STH 29 RAMP D											
111+85.15 - 112+38.28	LT	80	80								
PROJECT SUBTOTALS		6230	6230	2000	15	1250	10	0.20	25	20	500
PROJECT 7028-00-70											
STH 312	LT & RT	1000	1000		7						
CULVERT PIPE REPAIR WORK						200	5	0.10	4	5	120
PROJECT SUBTOTALS		1000	1000	0	7	200	5	0.10	4	5	120
ITEM TOTALS		7230	7230	2000	22	1450	15	0	29	25	620

*ITEMS LOCATED ELSEWHERE IN THE PLANS

BARRIER SYSTEM ITEMS - FOR INFORMATION ONLY

Quantities shown elsewhere in the plans

STATION	LOCATION	FILL CY	SALVAGED TOPSOIL SY	FERTILIZER TYPE B CWT	SEEDING MIX NO. 30 LB	MULCHING SY
PROJECT 1022-04-74						
IH 94 WB						
202+88.29 - 203+27.69	RT	32	95	0.06	2	95
203+47.22 - 203+86.62	LT	50	135	0.09	3	135
262+83.53 - 265+58.53	LT	40	120	0.08	2	120
288+64.30 - 289+03.70	LT	40	120	0.08	2	120
321+49.84 - 321+89.24	LT	50	155	0.10	3	155
418+48.97 - 418+88.37	RT	27	80	0.05	2	80
418+97.05 - 419+36.45	LT	27	80	0.05	2	80
438+66.00 - 439+16.00	RT	5	50	0.03	1	50
437+40.00 - 439+15.00	LT	5	50	0.03	1	50
441+11.00 - 441+50.40	LT	5	50	0.03	1	50
441+11.00 - 441+50.40	RT	5	50	0.03	1	50
492+95.61 - 493+35.01	LT	68	200	0.13	4	200
503+17.88 - 503+67.88	LT	57	190	0.13	4	190
IH 94 EB						
184+01.93 - 184+55.06	RT	30	92	0.06	2	92
194+85.98 - 195+39.11	LT	19	59	0.04	1	59
261+16.81 - 261+69.94	RT	27	80	0.05	2	80
284+76.49 - 285+29.62	RT	48	144	0.10	3	144
318+36.35 - 318+89.43	RT	78	235	0.16	5	235
413+01.79 - 413+54.91	LT	5	50	0.03	1	50
413+52.07 - 414+05.19	RT	27	80	0.05	2	80
417+64.00 - 418+03.40	RT	27	80	0.05	2	80
436+47.48 - 437+00.60	RT	5	50	0.03	1	50
436+22.48 - 436+75.60	LT	30	80	0.05	2	80
441+12.00 - 441+51.40	LT	5	50	0.03	1	50
441+12.00 - 441+51.40	RT	5	50	0.03	1	50
489+34.91 - 489+87.98	RT	62	187	0.12	4	187
502+56.00 - 503+09.13	RT	53	160	0.11	3	160
STH 29 RAMP A						
109+00.04 - 127+25.04	LT	17	50	0.03	1	50
STH 29 RAMP C						
106+54.80 - 107+07.93	LT	5	50	0.03	1	50
STH 29 RAMP D						
111+85.15 - 112+38.28	LT	5	50	0.03	1	50
ITEM TOTALS		859	2922	1.9	58	2922

3

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

PERMANENT SIGNING

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS EACH	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH
PROJECT 1022-04-74																			
1-1	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1							1	1
1-2	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00												1	
1-3	D12-5	TRAVEL INFO CALL 511	60 X 66			27.50					2							1	2
1-4	J4-1	WEST INTERSTATE 94	36 X 54			13.50			1		1							1	1
1-5	D10-2	MILE 52	12 X 36			3.00				1								1	1
1-6	D10-2	MILE 52	12 X 36			3.00				1								1	1
1-7	W4-1R	THRU TRAFFIC MERGE LEFT	48 X 48					16.00			2							1	1
1-8	E5-1A	EXIT 52 RIGHT ARROW	72 X 60			30.00					2							1	2
1-9	W13-2A	EXIT SPEED 30MPH/ CURVE ARROW	48 X 90					30.00			2							1	2
1-10	W5-52R	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
1-11	W5-52L	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
1-12	W13-2A	EXIT SPEED 30MPH/ CURVE ARROW	48 X 90					30.00				2						1	2
1-13	W5-52R	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
1-14	W5-52L	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
1-15	W13-2A	EXIT SPEED 30MPH/ CURVE ARROW	48 X 90					30.00				2						1	2
1-16	E5-1A	EXIT 52 RIGHT ARROW	72 X 60			30.00						2						1	2
1-17	E4-1A	COLFAX / ELK MOUND	204 X 162	1	242.5											1			
1-18	W4-1R	THRU TRAFFIC MERGE LEFT	48 X 48					16.00			2							1	1
1-19	J3-1	ALT 94	36 X 84			21.00					1							1	1
1-20	J3-1	ALT 94	36 X 84			21.00					1							1	1
1-21	J3-1	ALT 94	36 X 84			21.00					1							1	1
1-22	W13-2A	EXIT SPEED 30MPH/ CURVE ARROW	48 X 90					30.00			2							1	2
1-23	E4-1A	CHIPPEWA FALLS / WAUSAU	312 X 132		286.00											1			
2-1	J4-1	EAST INTERSTATE 94	36 X 54			13.50					1							1	1
2-2	R2-1	SPEED LIMIT 65	48 X 60			20.00					2							1	2
2-3	D10-2	MILE 53	12 X 36			3.00				1								1	1
2-4	D10-2	MILE 53	12 X 36			3.00				1								1	1
2-5	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1							1	1
2-6	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00												1	
2-7	D2-3	EAU CLAIRE / TOMAH / MADISON	180 X 84	1	105.0											1			
2-8	E4-1A	COLFAX / ELK MOUND / 1 MILE	204 X 192	1	272.0											1			
2-9	R4-3	SLOWER TRAFFIC KEEP RIGHT	48 X 60			20.00					2							1	2
2-10	R8-7	EMERGENCY STOPPING ONLY	48 X 36			12.00				1								1	1
3-1	D10-2	MILE 54	12 X 36			3.00			1									1	1
3-2	D10-2	MILE 54	12 X 36			3.00			1									1	1
3-3	M1-94	HWY H	54 X 21			7.88			2									1	1
3-4	M1-94	HWY H	54 X 21			7.88			2									1	1
3-5	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1							1	1
3-6	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00												1	
4-1	D10-2	MILE 55	12 X 36			3.00			1									1	1
4-2	D10-2	MILE 55	12 X 36			3.00			1									1	1
4-3	D10-2	MILE 56	12 X 36			3.00			1									1	1
4-4	D10-2	MILE 56	12 X 36			3.00			1									1	1
5-1	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1							1	1
5-2	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00												1	
5-3	I2-2	DUNN COUNTY	66 X 21			9.63			2									1	1
5-4	I2-3	EAU CLAIRE COUNTY	96 X 21			14.00			1									1	1
5-5	W5-52R	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
5-6	W5-52L	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
5-7	W5-52R	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
5-8	W5-52L	CLEARANCE STRIPER	18 X 54					6.75			1							1	1
6-1	R2-1	SPEED LIMIT 65	48 X 60			20.00					2							1	2
6-2	D10-2	MILE 57	12 X 36			3.00				1								1	1
6-3	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1							1	1
6-4	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00												1	
6-5	D10-2	MILE 57	12 X 36			3.00				1								1	1
6-6	E9-1	EAU CLAIRE NEXT 4 EXITS	144 X 54		54.0											1			
6-7	XX	CHIPPEWA VALLEY AIRPORT	204 X 84		119.0								730	1.6	98	1			2
6-8	R8-7	EMERGENCY STOPPING ONLY	48 X 36			12.00				2								1	2
6-9	R2-1	SPEED LIMIT 65	48 X 60			20.00					2							1	1
SHEET SUBTOTALS				3	1078.50	476.88		206.00	14	9	38	6	730	2	98	6	54	60	2

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

PERMANENT SIGNING CONT.

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS EACH	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH
PROJECT 1022-04-74 CONT																			
7-1	D10-2	MILE 58	12 X 36			3.00				1							1	1	
7-2	D10-3	MILE 58	12 X 36			3.00				1							1	1	
7-3	R4-3	SLOWER TRAFFIC KEEP RIGHT	48 X 60			20.00					2						1	2	
7-4	E1-1A	EAU CLAIRE / CHIPPEWA / 1 MILE	276 X 162	1	368.0											1			
7-5	J4-1	EAST INTERSTATE 94	36 X 54			13.50					1						1	1	
7-6	D2-3	MENOMONIE / HUDSON / ST PAUL	192 X 84	1	112.0											1			
7-7	E10-61	HOSPITAL	144 X 54			54.00							488	1.2	68	1			2
7-8	J4-1	WEST INTERSTATE 94	36 X 54			13.50					1						1	1	
7-9	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1						1	1	
7-10	R3-4B	NO U-TURN SYMBOL (W/R3-4A)	36 X 48			12.00					1						1		
8-1	J4-1	WEST IH-94	36 X 54			13.50					1						1	1	
C	W1-8	CHEVERON (11 TOTAL)	30 X 36					82.50	11										
9-1	R7-64	NO PARING ON RAMP	48 X 30			10.00				1									
9-2	W3-1	STOP AHEAD	48 X 48					16.00			2						1	2	
9-3	R5-57	PEDESRIANS ETC, PROHIBITED	36 X 36			9.00				1							1	1	
9-4	J21-3	JCT 12/29/40	96 X 87			58.00													
9-5	D1-3	COLFAX / ELK MOUND / MENOMONIE	78 X 36			19.50													
9-6	W13-3	RAMP SPEED 30 MPH	24 X 30					5.00			2						1	2	
9-7	J3-2	WEST 12/29	48 X 57			19.00													
C	W1-8	CHEVERON (11 TOTAL)	30 X 36					82.50	11										
10-1	R5-57	PEDESRIANS ETC, PROHIBITED	36 X 36			9.00				1							1	1	
10-2	J2-3	EAST 12/29 TO 40	72 X 57			28.50													
10-3	R5-1A	WRONG WAY	42 X 30			8.75				1							1	1	
10-4	W13-3	RAMP SPEED 30 MPH	48 X 60					20.00			2						1	2	
10-5	D1-3	COLFAX / ELK MOUND / MENOMONIE	78 X 24			13.00													
10-6	D1-3	MENOMONIE / CHIPPEWA / GB	96 X 36			24.00													
10-7	J2-3	JCT 12/29 TO 40	108 X 87			65.25													
10-8	W3-1	STOP AHEAD	36 X 36					9.00			1						1	1	
PROJECT SUBTOTALS				5	1558.50	885.38		421.00	36	15	52	6	1218	3	166	9	69	78	4
PROJECT 7028-00-70																			
8-2	J4-1	EAST STH 312	36 X 54			13.50					1						1	1	
8-3	J1-1	JCT USH 12	24 X 39			6.50				1							1	1	
8-4	W3-3	TRAFFIC SIGNALS AHEAD	36 X 36					9.00		1							1	1	
8-5	W3-3	TRAFFIC SIGNALS AHEAD	36 X 36					9.00		1							1	1	
8-6	D1-2	EAU CLAIRE / ELK MOUND	78 X 30			16.25													
8-7	J2-1	WEST INTERSTATE 94 ADVANCE ARROW RIGHT BENT	36 X 84			21.00						1					1	1	
	M4-20R	USE RIGHT LANE	36 X 36			9.00													
8-8	J1-2	JCT 94 / END 312	72 X 57			28.50													
8-9	R2-1	SPEED LIMIT 50	36 X 48			12.00					1						1	1	
8-10	J3-3	WEST 12 / EAST 12/312	108 X 85			63.75													
8-11	J13-1	HOSPITAL AHEAD ARROW	36 X 66			16.50					1						1	1	
8-12	R4-7	KEEP RIGHT	36 X 48			12.00					1						1		
8-13	R6-2L	ONE WAY LEFT	24 X 30			5.00				1							1	1	
8-14	R10-10	LEFT TURN SIGNAL	24 X 30			5.00				1							1		
8-15	R5-1	DO NOT ENTER	36 X 36			9.00				1							1	1	
8-16	R5-1	DO NOT ENTER	36 X 36			9.00				1							1	1	
8-17	R10-10	LEFT TURN SIGNAL	24 X 30			5.00					1						1		
8-18	R4-7	KEEP RIGHT	36 X 48			12.00				1							1		
8-19	R6-2L	ONE WAY LEFT	24 X 30			5.00											1	1	
8-20	J2-1	WEST USH 12	36 X 54			13.50						1					1	1	
		RT ARROW	30 X 30			6.25					1								
8-21	R5-1A	WRONG WAY	42 X 30			8.75					1						1		
8-22	R2-1	SPEED LIMIT 50	36 X 48			12.00				1							1	1	
8-23	R1-1F	STOP SIGN (FOLDING)	36 X 36				9.00										1		
8-24	R1-1F	STOP SIGN (FOLDING)	36 X 36				9.00										1		
PROJECT SUBTOTALS				0	0	289.50	18.00	18.00	0	9	7	2	0	0	0	0	20	13	0
ITEM TOTALS				5	1558.50	1174.88	18.00	439.00	36	24	59	8	1218	3	166	9	89	91	4

ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

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FIELD OFFICE TYPE C

STATION	642.5201 EACH
PROJECT 1022-04-74	
IH 94	0.5
PROJECT 7028-00-70	
STH 312	0.5
ITEM TOTAL	1

CONSTRUCTION STAKING RESURFACING REFERENCE

STATION	LOCATION	650.8000 LF
PROJECT 1022-04-74		
IH 94 WB		
163+68 - 199+59	LT	3591
202+94 - 416+95	LT	21401
418+51 - 439+56	LT	2105
411+11 - 556+00	LT	14489
	LT	
IH 94 EB		
163+44 - 198+19	RT	3475
201+57 - 416+04	RT	21447
417+60 - 439+40	RT	2180
441+12 - 556+00	RT	11488
STH 29 RAMP A		
100+00 - 124+90	RT	1412
STH 29 RAMP B		
104+00 - 116+13	LT	1040
STH 29 RAMP C		
104+00 - 117+86	LT	1197
STH 29 RAMP D		
103+02 - 127+08	LT	1550
PROJECT SUBTOTAL		85375
PROJECT 7028-00-70		
STH 312 RAMP E		
100+00 - 131+75	RT	3387
STH 312 WB		
170+78 - 190+00	LT	1585
STH 312 EB		
170+39 - 173+79	RT	1625
PROJECT SUBTOTAL		6597
ITEM TOTAL		91972

TRAFFIC CONTROL

STATION	LOCATION	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0800 ARROW BOARDS DAY	643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.0920 FIXED MESSAGE SF	643.1050 SIGNS PCMS DAY	SPV.0045.01 PCMS CELLULAR COMMUNICAITONS DAY	STAGE
PROJECT 1022-04-74												
IH 94												
At Exit 45 CTH B INTERCHANGE										14	14	1B & 2B
46+20 - 165+00	LT & RT	999	27	54	351	54	567		46	32	27	1A & 2A
46+20 - 165+00	LT & RT	999	27	54	351	54	567		46			1B & 2B
165+00 - 195+00	LT & RT	1620	108	216			108					1A & 2A
165+00 - 195+00	LT & RT	1593	108	216			135					1B & 2B
195+00 - 225+00	LT & RT	1674	108	216			108					1A & 2A
195+00 - 225+00	LT & RT	1296	135	270			162					1B & 2B
225+00 - 255+00	LT & RT	1620	108	216			162					1A & 2A
225+00 - 255+00	LT & RT	1620	108	216			162					1B & 2B
255+00 - 285+00	LT & RT	1620	135	270			135					1A & 2A
255+00 - 285+00	LT & RT	1620	108	216			108					1B & 2B
285+00 - 315+00	LT & RT	1620	108	216			108					1A & 2A
285+00 - 315+00	LT & RT	1620	135	270			135					1B & 2B
315+00 - 345+00	LT & RT	1620	135	270			135					1A & 2A
315+00 - 345+00	LT & RT	1620	135	270			135					1B & 2B
345+00 - 375+00	LT & RT	1620	108	216			162					1A & 2A
345+00 - 375+00	LT & RT	1620	108	216			108					1B & 2B
375+00 - 405+00	LT & RT	1620	135	270			135					1A & 2A
375+00 - 405+00	LT & RT	1620	108	216			162					1B & 2B
405+00 - 435+00	LT & RT	1620	108	216			108					1A & 2A
405+00 - 435+00	LT & RT	1620	135	270			135					1B & 2B
435+00 - 441+00	LT & RT	270	27	54			27					1A & 2A
435+00 - 441+00	LT & RT	324	27	54			27					1B & 2B
441+00 - 471+00	LT & RT	1674	135	270			135					1A & 2A
441+00 - 471+00	LT & RT	1674	108	216			108					1B & 2B
471+00 - 501+00	LT & RT	1620	108	216			108					1A & 2A
471+00 - 501+00	LT & RT	1620	108	216			108					1B & 2B
501+00 - 531+00	LT & RT	1620	135	270			162					1A & 2A
501+00 - 531+00	LT & RT	1620	135	270			162					1B & 2B
531+00 - 561+00	LT & RT	1485	108	216			162					1A & 2A
531+00 - 561+00	LT & RT	1350	108	216			189					1B & 2B
561+00 - 673+10	LT & RT	756			351	54	486		46	32	27	1A & 2A
561+00 - 673+10	LT & RT	756			351	54	486		46			1B & 2B
COVERING 65 MPH SIGNS								12				
STH 29 RAMP A												
100+00 - 124+90	LT						108					1A & 2A
100+00 - 124+90	LT & RT	1944			270		81			4	4	1B & 2B
STH 29 RAMP B												
104+00 - 116+13	RT						54					1A & 2A
104+00 - 116+13	LT & RT	1836			243		54			4	4	1B & 2B
STH 29 RAMP C												
104+00 - 117+86	RT						54					1A & 2A
104+00 - 117+86	LT & RT	1944			162		54			4	4	1B & 2B
STH 29 RAMP D												
103+02 - 127+08	RT						108					1A & 2A
103+02 - 127+08	LT & RT	2322			243		81			4	4	1B & 2B
PARK & RIDE LOT (CAT 0030)										7	7	
PROJECT SUBTOTALS		53676	3186	6372	2322	216	6291	12	184	101	91	
PROJECT 7028-00-70												
STH 312												
56+00 - 304+40	LT & RT	2538	108	216	648	54	324			64	54	1A & 2A
56+00 - 304+40	LT & RT	2484	108	216	648	54	324			64	54	1B & 2B
STH 312 RAMP E												
100+00 - 131+75	LT						81			4	4	1A & 2A
100+00 - 131+75	LT & RT	2997			270		54					1B & 2B
PROJECT SUBTOTALS		8019	216	432	1566	108	783	0	0	132	112	
ITEM TOTALS		61695	3402	6804	3888	324	7074	12	184	233	203	

TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT)

STATION	LOCATION	643.0200.01 1022-04-74 DAY	643.0200.02 7028-00-70 DAY
IH 94 1022-04-74	LT & RT	54	
STH 312 7028-00-70	LT & RT		54
ITEM TOTALS		54	54

SAWING

STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF	REMARKS
PROJECT 1022-04-74				
IH 94 WB	LT & RT	800	3500	PCC REPAIR
IH 94 EB	LT & RT	800	3500	PCC REPAIR
ITEM TOTALS		1600	7000	

DELINEATORS

STA	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH
PROJECT 1022-04-74			
IH 94 WB			
163+68 - 199+59	LT	8	8
202+94 - 416+95	LT	53	53
418+51 - 439+56	LT	5	5
411+11 - 556+00	LT	34	34
IH 94 EB			
163+44 - 198+19	RT	10	10
201+57 - 416+04	RT	50	50
417+60 - 439+40	RT	5	5
441+12 - 556+00	RT	29	29
STH 29 RAMP A			
100+00 - 124+90	LT	26	38
STH 29 RAMP B			
104+00 - 116+13	LT	38	46
STH 29 RAMP C			
104+00 - 117+86	RT	39	47
STH 29 RAMP D			
103+02 - 127+08	RT	28	42
PROJECT SUBTOTALS		325	367
PROJECT 7028-00-70			
STH 312 RAMP E			
100+00 - 131+75	LT	34	46
PROJECT SUBTOTALS		34	46
ITEM TOTALS		359	413

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ALL CATEGORIES 0010
UNLESS SPECIFIED OTHERWISE

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PAVEMENT MARKING

STATION	LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0881.S GROOVED WET REFLECTIVE TAPE 4-INCH LF	646.0883.S GROOVED WET REFLECTIVE TAPE 8-INCH LF	646.0126 EPOXY 8-INCH WHITE LF	646.0600 REMOVING PAVEMENT MARKING LF	646.0790.S REMOVING RAISED PAVEMENT MARKERS EACH	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0356 WORDS EPOXY EACH	647.0256 SYMBOLS EPOXY EACH	647.0566 STOP LINE EPOXY 18-INCH LF	647.0606 ISLAND NOSE EPOXY EACH	647.0656 PARKING STALL EPOXY LF	647.0746 DIAGONAL EPOXY 24-INCH LF	649.0200 TEMPORARY REFLECTIVE PAINT 4-INCH LF	649.0701 TEMPORARY 8-INCH LF	649.0400 TEMPORARY REMOVABLE TAPE 4-INCH LF
PROJECT 1022-04-74																		
IH 94 WB																		
163+68 - 199+54	LT/RT/CL	2202	3586	897	483			36								6685	483	
199+54 - 416+95	LT/RT/CL	21270	21741	5435				217								48446		
416+95 - 439+56	LT/RT/CL	2261	2261	565				23								5087		
439+56 - 556+00	LT/RT/CL	10580	11644	2911	532			116								25135	532	
IH 94 EB																		
163+44 - 198+19	LT/RT/CL	3231	3475	869				35								7575		
198+19 - 416+06	LT/RT/CL	19762	21787	5447	765			218								46996	765	
416+06 - 439+41	LT/RT/CL	2335	2335	584				23								5254		
439+41 - 556+00	LT/RT/CL	11659	11659	2915				117								26233		
STH 29 RAMP A																		
100+00 - 124+90	LT & RT	2490	1343		311												311	
STH 29 RAMP B																		
104+00 - 116+13	LT & RT	1471	991		172												172	
STH 29 RAMP C																		
104+00 - 117+86	LT & RT	1672	1149		167												167	
STH 29 RAMP D																		
103+02 - 127+08	LT & RT	3024	906		597												597	
PARK AND RIDE LOT	(CAT 0030)										8			1614				
PROJECT SUBTOTALS		164834		19623	3027	0	0	785	0		8	0	0	1614	0	171411	3027	0
PROJECT 7028-00-70																		
STH 312 RAMP E																		
100+00 - 131+75	LT & RT	3443	1761		985										92		985	
STH 312 EB																		
170+39 - 190+00	LT/RT/CL	1935	1825	454	483		150						2					1200
STH 312 WB																		
170+78 - 190+00	LT/RT/CL	1908	1977	449	468		150						2					1200
CHEVRON LAYOUT AT GORE					612													
127"E"-171"F"			370															
TRUAX LANE			124			98			1	1		44						
USH 12			104			80			1	1		44						
PROJECT SUBTOTALS		13447		903	2548	178	300	0	2	2	0	88	4	0	92	0	985	2400
ITEM TOTALS		178281		20526	5575	178	300	785	2	2	8	88	4	1614	92	171411	4012	2400

MILLING AND REMOVING TEMPORARY JOINT

STATION	LOCATION	SPV.0105.01 LS	SPV.0105.10 LS
IH 94 1022-04-74	LT & RT	1	
STH 312 7028-00-7	LT & RT		1
ITEM TOTAL		1	1

MATERIAL TRANSFER VEHICLE

STATION	LOCATION	SPV.0105.02 LS	SPV.0105.11 LS
IH 94 1022-04-74	LT & RT	1	
STH 312 7028-00-7	LT & RT		1
ITEM TOTAL		1	1

PREPARE FOUNDATION FOR ASPHALTIC PAVEMENT SPECIAL

STATION	LOCATION	SPV.0105.06 1022-04-74 LS	SPV.0105.09 7028-00-70 LS
IH 94	LT & RT	1	
STH 312	LT & RT		1
ITEM TOTALS		1	1

CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL

STATION	LOCATION	SPV.0180.01 SY	REMARKS
PROJECT 1022-04-74			
IH 94 WB			
163+67 - 556+00	LT & RT	740	
IH 94 EB			
163+44 - 556+00	LT & RT	740	
ITEM TOTAL		1480	

CONCRETE PAVEMENT REPLACEMENT NON DOWELED SPECIAL

STATION	LOCATION	SPV.0180.02 SY	REMARKS
PROJECT 1022-04-74			
IH 94 WB			
163+67 - 556+00	LT & RT	370	
IH 94 EB			
163+44 - 556+00	LT & RT	370	
ITEM TOTAL		740	

ASPHALTIC BASE PATCHING PARTIAL DEPTH SPECIAL

STATION	LOCATION	SPV.0180.03 SY	REMARKS
PROJECT 1022-04-74			
IH 94 WB	LT & RT	375	
IH 94 EB	LT & RT	375	
ITEM TOTAL		750	

ALL ITEMS ON THIS SHEET ARE FOR CAT 0020.
OTHER QUANTITIES LISTED ELSEWHERE IN THE PLANS

CLEARING & GRUBBING

LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
TREES ON SALT SHED LOT	4400	4400
ITEM TOTALS	4400	4400

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

LOCATION	465.0120 TON
SALT SHED PROJECT AREA	1115
ITEM TOTAL	1115

CULVERT PIPES

STATION	522.0312 CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	633.5200 MARKERS CULVERT END EACH	REMARKS
DRIVEWAY		55		2	2	
SEDIMENT BASIN	45		2		2	
ITEM TOTALS	45	55	2	2	4	

BASE AGGREGATE DENSE 1 1/4-INCH

LOCATION	305.0120 TON
SALT SHED PROJECT AREA	2670
UNDISTRIBUTED	286
ITEM TOTAL	2956

TURF ESTABLISHMENT

LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB
SLOPE GRADING	5900	5900	3.71	106
SEDIMENT BASIN	2200	2200	1.39	40
UNDISTRIBUTED	2025	2025	1.3	36
ITEM TOTALS	10125	10125	6.4	182

CONSTRUCTION STAKING

LOCATION		650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 PIPE CULVERTS EACH	SPV.0105.05 SALT STORAGE BUILDING LS
W DWY TO EQUIPMENT SHED	LT	850	850		
E DWY TO SALT SHED	RT	450	450		
DRIVEWAY				1	
SEDIMENT BASIN				1	
BUILDINGS					1
ITEM TOTALS		1300	1300	2	1

CONCRETE DRIVEWAY 8-INCH

LOCATION	416.0180 SY
IN FRONT OF SALT SHED	462
IN FRONT OF EQUIPMENT SHED	178
ITEM TOTAL	640

EROSION CONTROL ITEMS

LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7555 CULVERT PIPE CHECKS EACH	628.2004 EROSION MAT CLASS I TYPE B SY	REMARKS
SITE PROPERTY LINE	1400	1400		2200	
CULVERT PIPE			2		PIPE INLET
UNDISTRIBUTED	100	100	1	200	
ITEM TOTALS	1500	1500	3	2400	

SALT SHED SPECIALS

LOCATION	SPV.0105.03 SALT STORAGE BUILDING LS	SPV.0105.04 VEHICLE STORAGE BUILDING LS	SPV.0105.07 WELL LS	SPV.0105.08 HOLDING TANK LS
SALT SHED PROJECT AREA	1	1	1	1
ITEM TOTALS	1	1	1	1

EARTHWORK DATA SUMMARY TABLE

DIVISION	STAGE	CATEGORY CODE	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT	AVAILABLE MATERIAL (2)	UNEXPANDED FILL	EXPANDED FILL (3) FACTOR 1.30	MASS ORDINATE +/- (4)	DIVISION WASTE	208.0100 DIVISION BORROW	COMMENT
1	1	0020	Salt Shed Site	SALT SHED PROJECT AREA	2795	2795	363	472	2323	2323	0	
	STAGE 1 SUBTOTAL				2795	2795	363	472	2323	2323	0	
DIVISION 1 SUBTOTAL					2795	2795	363	472	2323	2323	0	
ITEM TOTALS					2795	2795	363	472	2323	2323	0	
					TOTAL COMMON EXC	2795	CY					

1) COMMON EXCAVATION IS THE SUM OF THE CUT, ITEM NUMBER 205.0100.
2) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) EXPANDED FILL. FACTOR = 1.3
4) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE STAGE. PLUS QUANTITY INDICATES EXCESS OF MATERIAL WITHIN THE STAGE AND IS CATEGORIZED AT DIVISION WASTE. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE STAGE AND IS CATEGORIZED AS DIVISION BORROW, ITEM NUMBER 208.0100.

FTMS POWER

CATEGORY 0040

ITEM I.D.	LOCATION	MB I.D.	NUMBER OF WIRES	WIRE LINEAR DISTANCE FROM CABINET TO METER BREAKER PEDESTAL	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL DMS-18-0024 LS	656.0500.01 ELECTRICAL SERIVCE BREAKER DISCONNECT BOX DMS-18-0024 LS
DMS-18-0024	IH 94 WB AT 530TH AVE.	MB01	3	300	900	1	1
			TOTAL		900	1	1

FTMS PULL BOXES

CATEGORY 0040

ITEM ID	LOCATION	653.0135 PULL BOXES STEEL 24 x 36-INCH EACH
PB01	IH 94 AT 530TH AVE.	1
PB02	IH 94 AT 530TH AVE.	1
	TOTAL	2

FTMS CONDUIT

CATEGORY 0040

FROM	TO	LINEAR DISTANCE	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF
MB01	PB01	20	--	20
PB01	PB02	265	--	265
PB02	DMS-18-0024	10	15	--
	TOTAL		15	285

FTMS CABINETS

CATEGORY 0040

ITEM I.D.	LOCATION	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	673.0225.S INSTALL POLE-MOUNTED CABINET EACH	SPV.0060.02 INSTALL WIRELESS MODEM EACH	SPV.0060.03 GROUND ROD EACH
DMS-18-0024	IH 94 AT 530TH AVE.	1	1	1	1
	TOTAL	1	1	1	1

FTMS DYNAMIC MESSAGE SIGNS

CATEGORY 0040

ITEM I.D.	LOCATION	STEEL POST TYPE	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	SPV.0060.01 INSTALL GROUND MOUNT DMS EACH	INFO ONLY - POST LENGTHS TO BE VERIFIED BY CONTRACTOR POST NO. 1 LENGTH FT	POST NO. 2 LENGTH FT	POST NO. 3 LENGTH FT	SIGN OFFSET DISTANCE FT
DMS-18-0024	IH 94 WB AT 530TH AVE.	C	1375.65	2.7	150	1	15.10	14.70	13.85	30
	TOTAL		1375.65	2.7	150	1				

FTMS LUMP SUM MISCELLANEOUS QUANTITIES

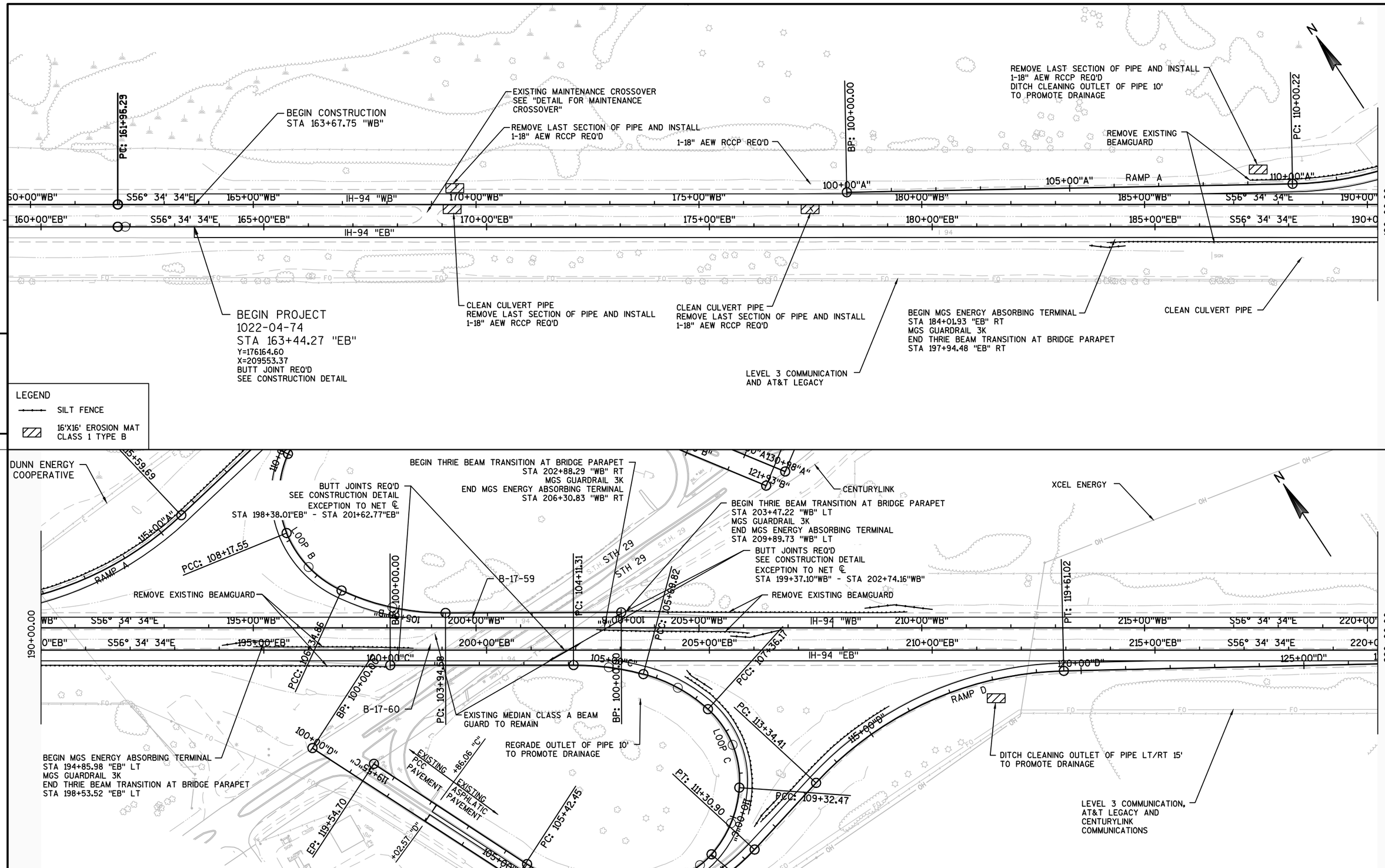
CATEGORY 0040

ROAD	LOCATION	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS
IH 94	PROJECT	1	1
TOTAL		1	1

ON-RAMP CLOSURE GATES

CATEGORY 0040

ITEM ID.	LOCATION	654.0105 CONCRETE BASES TYPE 5 EACH	654.0220 CONCRETE CONTROL CABINET BASE TYPE 10 EACH	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	662.2026.S RAMP CLOSURE GATE SOLAR 26-FT EACH	662.2030.S RAMP CLOSURE GATE SOLAR 30-FT EACH	662.2040.S RAMP CLOSURE GATE SOLAR 40-FT EACH	662.3026.S RAMP CLOSURE GATE ARMS STOCKPILE 26-FT EACH	662.3030.S RAMP CLOSURE GATE ARMS STOCKPILE 30-FT EACH	662.3040.S RAMP CLOSURE GATE ARMS STOCKPILE 40-FT EACH	662.4000.S RAMP CLOSURE GATE FLASHERS STOCKPILE EACH
G18-13	IH 94 AT US 12 / WIS 29 (EB TO WB ON-RAMP)	1	1	1	1	1	--	1	--	--	1	--	1
G18-14	IH 94 AT US 12 / WIS 29 (WB TO WB ON-RAMP)	1	1	1	1	1	1	--	--	1	--	--	1
G18-12	IH 94 AT US 12 / WIS 29 (EB ON-RAMP)	1	1	1	1	1	--	--	1	--	--	1	1
	TOTAL	3	3	3	3	3	1	1	1	1	1	1	3



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PLAN	SHEET 115	E

1- 18" AEW CP REQ'D

CLEAN CULVERT PIPE

CLEAN CULVERT PIPE
1- 15" AEW CP REQ'D

N

EP: 127+08.33

220+00.00

225+00"WB" S56° 34' 34"E 230+00"WB" IH-94 "WB" 235+00"WB" 240+00"WB" 245+00"WB" S56° 34' 34"E

225+00"EB" S56° 34' 34"E 230+00"EB" 235+00"EB" 240+00"EB" 245+00"EB" S56° 34' 34"E

27+08"D"

IH-94 "EB"

250+00.00

DITCH CLEANING OUTLET OF PIPE
LT/RT 15' TO PROMOTE DRAINAGE
REPLACE MARKERS CULVERT END RT
CLEAN CULVERT PIPE

EXISTING MAINTENANCE CROSSOVER
SEE "DETAIL FOR MAINTENANCE
CROSSOVER"

LEVEL 3 COMMUNICATION,
AT&T LEGACY, AND
CENTURYLINK COMMUNICATIONS

LEGEND

SILT FENCE

16'X16' EROSION MAT
CLASS 1 TYPE B

BEGIN MGS ENERGY ABSORBING TERMINAL
STA 266+11.63 "WB" LT
MGS GUARDRAIL 3K (11) SECTIONS
END MGS TERMINAL TYPE 2
STA 262+83.53 "WB" LT
SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS)
GUARDRAIL" FOR DETAILS ON SPANNING THE
BOX CULVERT.

N

CLEAN CULVERT PIPE
1- 15" AEW CP REQ'D

250+00.00

S56° 34' 34"E 255+00"WB" 260+00"WB" IH-94 "WB" 265+00"WB" 270+00"WB" 275+00"WB" S56° 34' 34"E

S56° 34' 34"E 255+00"EB" 260+00"EB" 265+00"EB" 270+00"EB" 275+00"EB" S56° 34' 34"E

IH-94 "EB"

280+00.00

BEGIN MGS ENERGY ABSORBING TERMINAL
STA 261+16.81 "EB" RT
MGS GUARDRAIL 3K (11) SECTIONS
END MGS TERMINAL TYPE 2
STA 264+44.91 "EB" RT
SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL"
FOR DETAILS ON SPANNING THE BOX CULVERT.

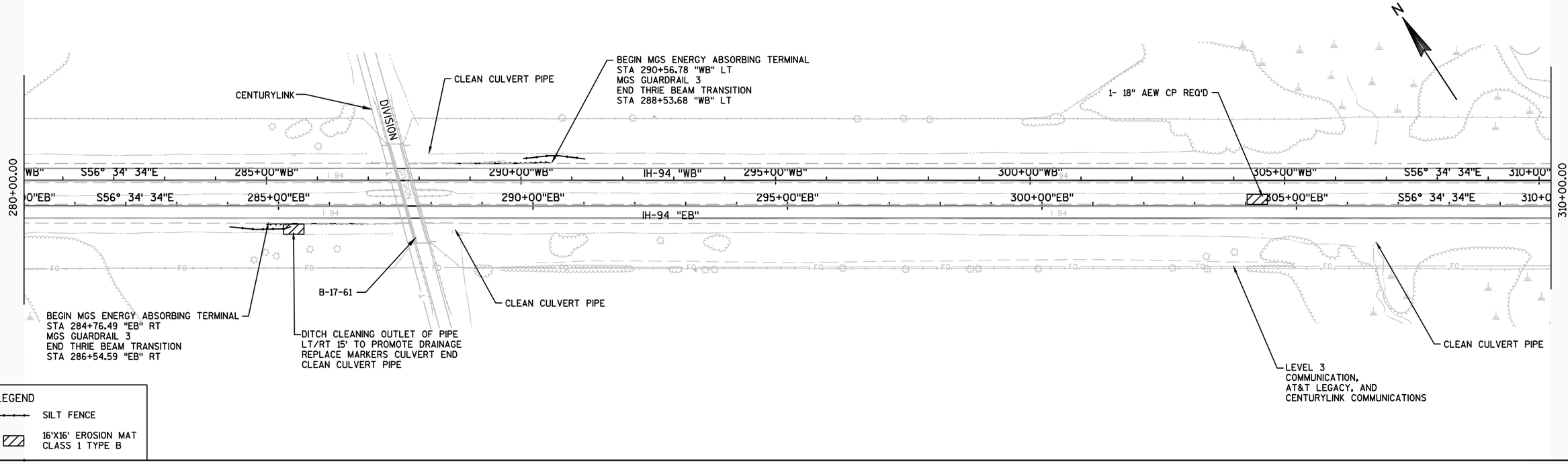
REPLACE MARKERS CULVERT END
CLEAN CULVERT PIPE

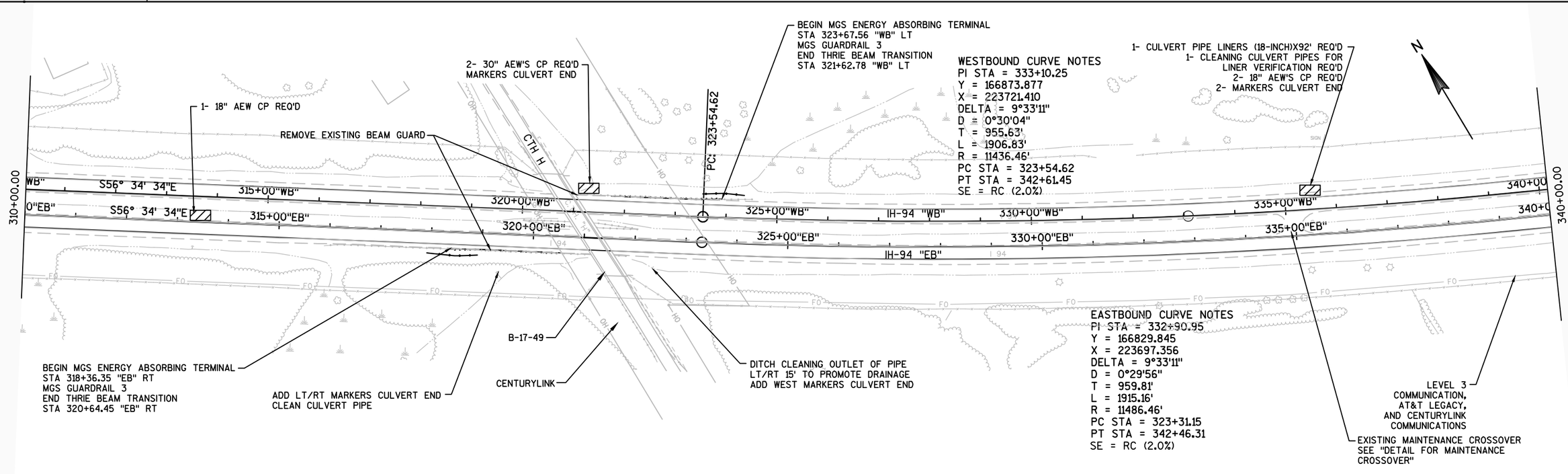
REPLACE MARKERS CULVERT END

LEVEL 3
COMMUNICATION,
AT&T LEGACY,
AND CENTURYLINK COMMUNICATIONS

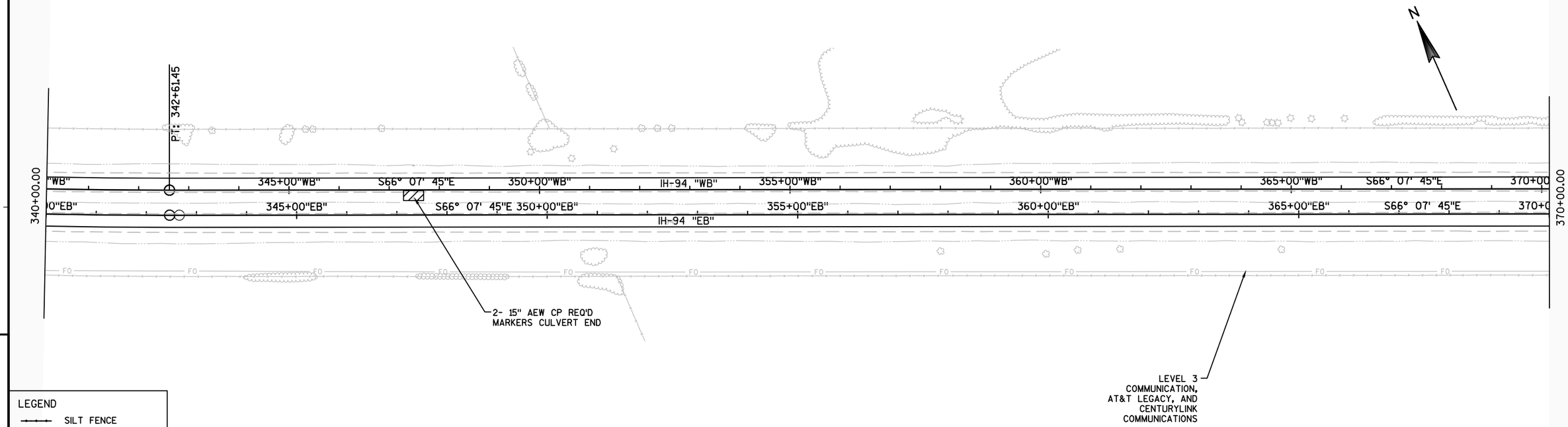
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PLAN	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\050202 PN.DWG PLOT DATE : 8/6/2014 12:11 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PLAN	SHEET 117	E



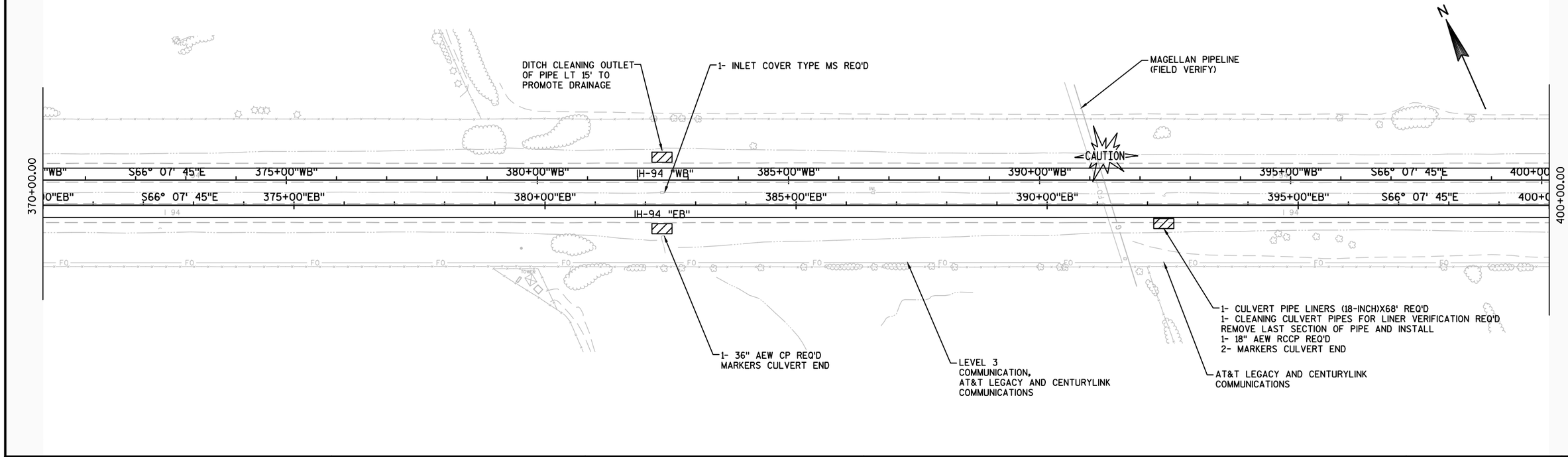
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LEGEND

SILT FENCE

16'X16' EROSION MAT
CLASS 1 TYPE B

5

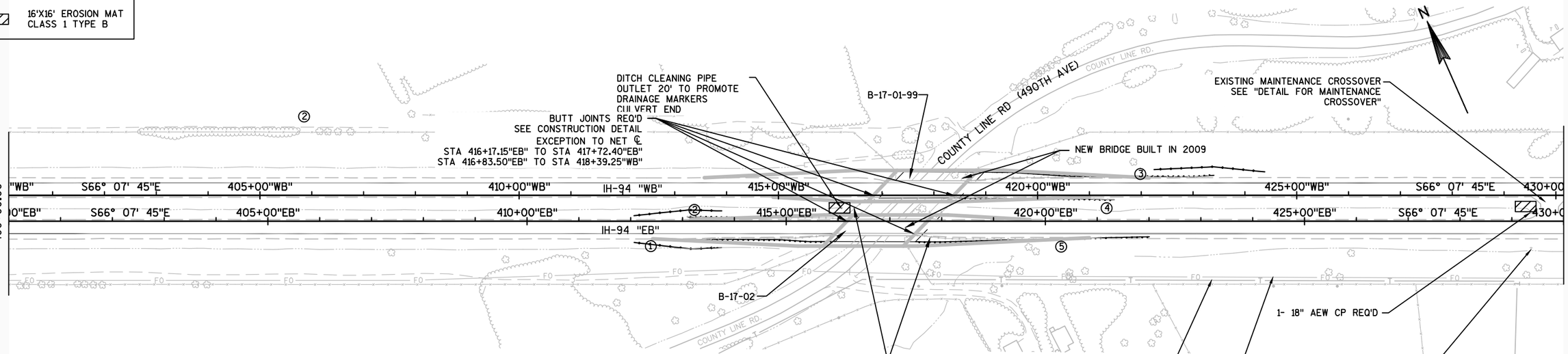


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PLAN	SHEET	E

LEGEND

SILT FENCE

16'X16' EROSION MAT CLASS 1 TYPE B



① BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 415+94 "EB" RT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 413+51 "EB" RT

② BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 416+44 "EB" LT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 413+01 "EB" RT

③ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 418+97 "WB" LT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 423+40 "WB" LT

④ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 418+49 "WB" RT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 421+17 "WB" RT

⑤ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 417+64 "EB" RT
MGS GUARDRAIL 3K
END MGS TERMINAL TYPE 2
STA 421+03 "EB" RT

NOTE:
STRUCTURE B-17-02 AND B-17-01-99 PLAN GEOMETRICS ARE APPROXIMATE BASED ON AS-BUILT DATA. FILED VERIFY

① BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 439+40 "EB" RT
MGS GUARDRAIL 3K (8) SECTIONS
END MGS ENERGY ABSORBING TERMINAL
STA 436+47 "EB" RT

② BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 439+40 "EB" LT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 436+22 "EB" LT

③ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 439+56 "WB" RT
MGS GUARDRAIL 3K
END MGS TERMINAL TYPE 2
STA 438+66 "WB" RT

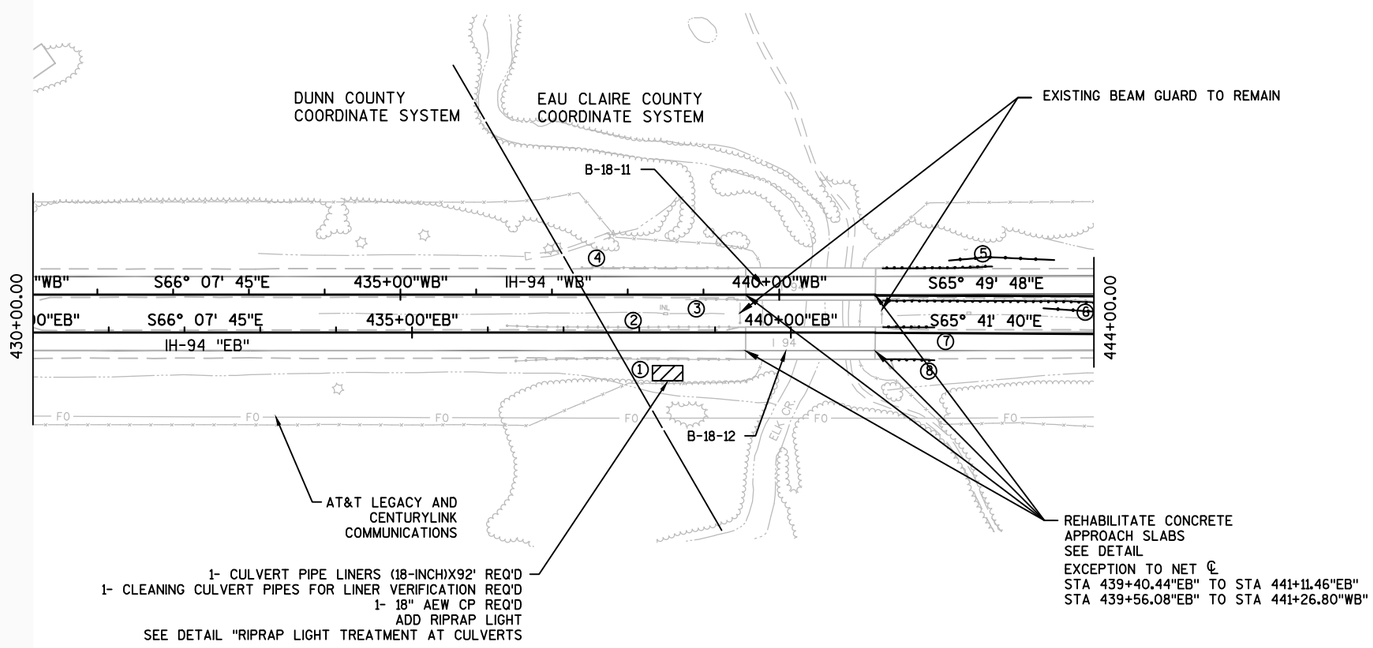
④ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 439+55 "WB" LT
MGS GUARDRAIL 3K
END MGS TERMINAL TYPE 2
STA 437+40 "WB" LT

⑤ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 441+11 "WB" LT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 442+78 "WB" LT

⑥ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 441+11 "WB" RT
MGS GUARDRAIL 3K
END MGS ENERGY ABSORBING TERMINAL
STA 444+28 "WB" RT

⑦ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 441+12 "EB" LT
MGS GUARDRAIL 3K
END MGS TERMINAL TYPE 2
STA 442+51 "EB" LT

⑧ BEGIN THRIE BEAM TRANSITION AT BRIDGE PARAPET
STA 441+12 "EB" RT
MGS GUARDRAIL 3K
END MGS TERMINAL TYPE 2
STA 442+51 "EB" RT



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN/EAU CLAIRE	PLAN	SHEET	E

1- 18" AEW RCCP REQ'D LT
REMOVE LAST PIPE SECTION IN
MEDIAN AND INSTALL
1- 18" AEW RCCP REQ'D MEDIAN
REPLACE 1 PIPE SECTION IN MEDIAN

WESTBOUND CURVE NOTES
PI STA = 452+24.01
Y = 293810.671
X = 301581.820
DELTA = 8°15'09"
D = 0°30'14"
T = 820.44'
L = 1638.05'
R = 11372.72'
PC STA = 444+03.57
PT STA = 460+41.62
SE= RC (2.0%)

PC: 444+03.57

PT: 460+41.62

48"E

"E

472+00.00

445+00"WB"

445+00"EB"

450+00"WB"

450+00"EB"

455+00"WB"

455+00"EB"

IH-94 "WB"

IH-94 "EB"

460+00"WB"

460+00"EB"

S73° 48' 50"E

S73° 48' 50"E

465+00"WB"

465+00"EB"

470+00"WB"

470+00"EB"

472+00.00

PC: 444+03.90

PT: 460+49.72

EASTBOUND CURVE NOTES
PI STA = 452+28.19
Y = 293759.909
X = 301563.059
DELTA = 8°07'10"
D = 0°29'36"
T = 824.29'
L = 1645.82'
R = 11613.93'
PC STA = 444+03.90
PT STA = 460+49.72
SE= RC (2.0%)

EXISTING MAINTENANCE CROSSOVER
SEE "DETAIL FOR MAINTENANCE
CROSSOVER"

AT&T LEGACY AND
CENTURYLINK
COMMUNICATIONS

LEGEND
SILT FENCE
16'X16' EROSION MAT
CLASS 1 TYPE B

WEST WISCONSIN
TELECOM CO-OP

CENTURYLINK

ELK CREEK RD

B-18-14

REMOVE LAST SECTION OF PIPE AND INSTALL
1- 18" AEW RCCP REQ'D

BEGIN MGS ENERGY ABSORBING TERMINAL
STA 495+00.59 "WB" LT
MGS GUARDRAIL 3K
END TRHIE BEAM TRANSITION
STA 492+95.61 "WB" LT

REMOVE LAST SECTION OF PIPE AND INSTALL
1- 18"X8' RCCP CL III REQ'D
1- 18" AEW RCCP REQ'D

IH-94 "WB"

475+00"WB"

S73° 48' 50"E

480+00"WB"

485+00"WB"

490+00"WB"

495+00"WB"

S73° 48' 50"E

500+00"WB"

472+00.00

475+00"EB"

S73° 48' 50"E

480+00"EB"

485+00"EB"

490+00"EB"

495+00"EB"

S73° 48' 50"E

500+00"EB"

IH-94 "EB"

502+00.00

1- 18" AEW RCCP REQ'D

REMOVE ONE PIPE SECTION
(EACH END) AND INSTALL
2- 18" AEW'S RCCP REQ'D

BEGIN MGS ENERGY ABSORBING TERMINAL
STA 489+34.91 "EB" RT
MGS GUARDRAIL 3K
END THRIE BEAM TRANSITION
STA 491+39.88 "EB" RT

REMOVE LAST SECTION OF
PIPE AND INSTALL
1- 18" AEW RCCP REQ'D

AT&T LEGACY AND
CENTURYLINK
COMMUNICATIONS

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	PLAN	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\050206 PN.DWG
PLOT DATE : 8/6/2014 12:28 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

BEGIN MGS ENERGY ABSORBING TERMINAL
STA 504+21.00 "WB" LT
MGS GUARDRAIL 3
END MGS TERMINAL TYPE 2
STA 503+17.88 "WB" LT

PC: 521+84.75

IH-94 "WB"

505+00"WB" S73° 48' 50"E 510+00"WB" 515+00"WB" S73° 48' 50"E 520+00"WB" 525+00"WB" 530+00"WB"

502+00.00

505+00"EB" S73° 48' 50"E 510+00"EB" 515+00"EB" S73° 48' 50"E 520+00"EB" 525+00"EB" 530+00"EB"

532+00.00

IH-94 "EB"

PC: 521+92.85

BEGIN MGS ENERGY ABSORBING TERMINAL
STA 502+56.00 "EB" RT
MGS GUARDRAIL 3
END MGS TERMINAL TYPE 2
STA 503+59.13 "EB" RT

REMOVE LAST SECTION OF
PIPE (BOTH ENDS) AND INSTALL
2- 18" AEW'S RCCP REQ'D

REMOVE LAST SECTION OF
PIPE (BOTH ENDS) AND INSTALL
2- 18" AEW'S RCCP REQ'D
CLEAN CULVERT PIPE

AT&T LEGACY AND
CENTURYLINK
COMMUNICATIONS

2- CULVERT PIPE LINERS (PIPE ARCH 49X33-INCH)X162' REQ'D
2- CLEANING CULVERT PIPES FOR LINER VERIFICATION REQ'D
4- PIPE ARCH STEEL 49X33-INCH AEW'S REQ'D

REPLACE MARKERS CULVERT END
REMOVE LAST SECTION OF PIPE
AND INSTALL (BOTH ENDS)
2- 18" AEW'S RCCP REQ'D

LEGEND
SILT FENCE
16'X16' EROSION MAT
CLASS 1 TYPE B

BEGIN PROJECT
7028-00-70
STA 100+00.00 "E"

BP: 100+00.00

XCEL ENERGY

PC: 109+36.66

PCC: 113+33.49

PCC: 120+

120+00"E

IH-94 "WB"

100+00"E 105+00"E 110+00"E RAMP E 115+00"E

535+00"WB" 540+00"WB" 545+00"WB" 550+00"WB" 555+00"WB" 560+00"WB"

532+00.00

535+00"EB" 540+00"EB" 545+00"EB" 550+00"EB" 555+00"EB" 560+00"EB"

IH-94 "EB"

PT: 157+04.94

END CONSTRUCTION
STA 556+00.00 "WB"

REMOVE LAST SECTION OF PIPE
AND INSTALL (BOTH ENDS)
2- 18" AEW'S RCCP REQ'D

REMOVE AND REPLACE ONE
PIPE SECTION (MEDIAN SIDE)
2- 18" AEW'S RCCP REQ'D
CLEAN CULVERT PIPE

EXISTING MAINTENANCE CROSSOVER
SEE "DETAIL FOR MAINTENANCE
CROSSOVER"

EASTBOUND CURVE NOTES
PI STA = 555+72.34
Y = 290875.640
X = 311499.832
DELTA = 16°47'23"
D = 0°15'01"
T = 3379.48'
L = 6710.53'
R = 22900.00'
PC STA = 521+92.85
PT STA = 589+03.38
SE= N/C

WESTBOUND CURVE NOTES
PI STA = 555+73.09
Y = 290930.793
X = 311525.061
DELTA = 16°47'23"
D = 0°14'58"
T = 3388.34'
L = 6728.12'
R = 22960.00'
PC STA = 521+84.75
PT STA = 589+12.86
SE= N/C

REMOVE LAST SECTION OF
PIPE AND INSTALL
1- 18" AEW RCCP REQ'D

STATE TRAFFIC
OPERATIONS, AT&T
LEGACY AND
CENTURYLINK
COMMUNICATIONS

END PROJECT
1022-04-74
STA 556+00.00 "EB"
MATCH EXISTING
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

155+00"F"

CTH EE

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	PLAN	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\050207 PN.DWG PLOT DATE : 8/6/2014 12:28 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

BEGIN PROJECT
7028-00-70
STA 100+00 "E"

BP: 100+00.00

REMOVE LAST SECTION OF PIPE
(BOTH ENDS) AND INSTALL
2- 24" AEW'S RCCP REQ'D

PC: 109+36.66

PCC: 113+33.49

PCC: 120+11.07

MATCH EXISTING
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

PT: 128+57.78

PT: 168+85.24

PC: 165+79.70

100+00"E"
105+00"E"
110+00"E"
115+00"E"
120+00"E"
125+00"E"
130+00"E"
131+00.00 "E"

545+00"WB"
545+00"EB"
550+00"WB"
IH-94 "WB"
550+00"EB"
IH-94 "EB"
555+00"WB"
555+00"EB"
560+00"WB"
560+00"EB"
565+00"WB"
565+00"EB"
570+00"WB"

RAMP E

END CONSTRUCTION
STA 556+00.00 "WB"

END PROJECT
1022-04-74
STA 556+00.00 "EB"
MATCH EXISTING
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

PT: 157+04.94

STATE TRAFFIC OPERATIONS
& AT&T LEGACY

XCEL ENERGY
(FIELD VERIFY LOCATION)

CAUTION

CTH EE

165+00"F"

STH 312 CURVE NOTES
PI STA = 167+33.96
Y = 290510.168
X = 312954.374
DELTA = 19°27'05"
D = 6°21'58"
T = 154.25'
L = 305.54'
R = 900.00'
PC STA = 165+79.70
PT STA = 168+85.24
SE = 6.0%

LEGEND
SILT FENCE
16'X16' EROSION MAT
CLASS 1 TYPE B
INLET PROTECTION TYPE C

N

REMOVE LAST SECTION OF PIPE
AND INSTALL
1- 18" AEW RCCP REQ'D RT
CLEAN CULVERT PIPE

XCEL ENERGY

EXISTING
ASPHALTIC
PAVEMENT

+78.30 "F"

EXISTING
PCC
PAVEMENT

EP: 133+29.55

STA 133+29.55 "E" =
STA 172+33.19 "F"

MARKERS CULVERT END
MEDIAN

MARKERS CULVERT END LT

LYLE LANE

USH 12

TEXACO DR

133+00"E"

131+00.00 "E"

S.T.H. 124

STH 312

175+00"F"

180+00"F"

185+00"F"

190+00"F"

190+82"F"

XCEL ENERGY
(FIELD VERIFY LOCATION)

CAUTION

BUT JOINT REQ'D
SEE DETAIL

+14.69

EP: 190+91.66

+39.10 "F"

EXISTING
PCC
PAVEMENT

EXISTING
ASPHALTIC
PAVEMENT

REMOVE LAST SECTION OF PIPE
AND INSTALL
1- 18" AEW RCCP REQ'D RT
CLEAN CULVERT PIPE

CLEAN CULVERT PIPE

TRUAX LANE

+24.78

S SERVICE RD

CLEAN CULVERT PIPE

END PROJECT
7028-00-70
STA 190+00.00 "F"

LEGEND

BUTT JOINT: STH 312
SEE DETAIL

N

PROJECT NO: 7028-00-70	HWY: IH-94	COUNTY: EAU CLAIRE	PLAN	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\050208 PN.DWG
PLOT DATE : 8/6/2014 12:29 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

RAMP A
PI STA = 122+28.15
Y = 174895.066
X = 212858.073
DELTA = 65°47'43"
D = 11°48'49"
T = 313.73'
L = 556.95'
R = 485.00'
PC STA = 119+14.42
PT STA = 124+71.37
SE = 6.0%

LOOP B
PI STA = 111+34.12
Y = 174807.717
X = 212600.742
DELTA = 18°54'38"
D = 16°29'33"
T = 57.86'
L = 114.66'
R = 347.40'
PC STA = 110+76.27
PT STA = 111+90.93
SE = 9.0%

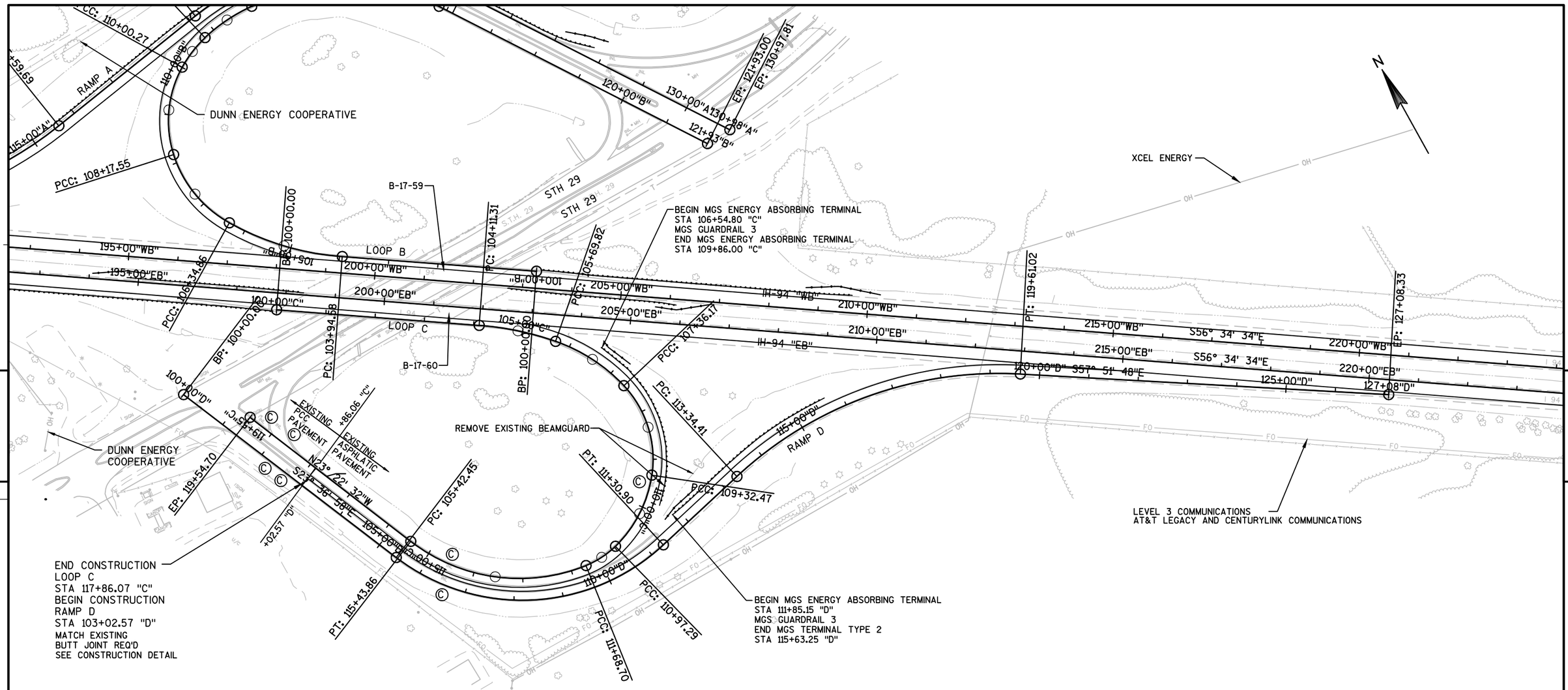
N

BP: 100+00.00
100+00"A"
S56° 34' 34"E
180+00"WB"
IH-94 "WB"
S56° 34' 34"E
180+00"EB"
IH-94 "EB"
S57° 39' 38"E
105+00"A"
RAMP A
185+00"WB"
185+00"EB"
190+00"WB"
190+00"EB"
S56° 34' 34"E
195+00"WB"
S56° 34' 34"E
195+00"EB"
110+00"A"
PC: 110+00.22
REMOVE EXISTING BEAMGUARD
115+00"A"
PT: 115+59.69
PCC: 110+00.27
PC: 119+14.42
PCC: 110+76.27
120+00"A"
PCC: 111+90.93
LOOP B
115+00"B"
PCC: 114+42.03
PT: 115+88.83
+90.76 "A"
124+71.37
END CONSTRUCTION
RAMP A
STA 124+90.76 "A"
BEGIN CONSTRUCTION
LOOP B
STA 116+13.40 "B"
MATCH EXISTING
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL
125+00"A"
S34° 02' 36"E
S33° 59' 12"E
EXISTING ASPHALTIC PAVEMENT
EXISTING PCC PAVEMENT
+13.40 "B"
120+00"B"
130+00"A"
130+38"A"
EP: 121+93.00
EP: 130+97.81
121+93"B"
BEGIN MGS ENERGY ABSORBING TERMINAL
STA 127+78.14 "A"
MGS GUARDRAIL 3
END MGS TERMINAL TYPE 2
STA 109+00.04 "A"
PCC: 108+17.55
BP: 100+00.00
"B"
105+00"B"
B-17-59
PC: 104+11.31
PC: 105+69.82
200+00"WB"
200+00"EB"
100+00"C"
PCC: 106+34.86
PC: 103+94.58
B-17-60
LOOP C
105+00"C"
BP: 100+00.00
205+00"WB"
205+00"EB"
PCC: 107+36.17
PC: 113+34.41
RAMP D
115+00
100+00"D"
"C"
119+54.70
EP: 119+54.70
+02.57 "D"
EXISTING PCC PAVEMENT
+85.06 "C"
EXISTING ASPHALTIC PAVEMENT
PC: 105+42.45
PT: 111+30.90
109+00"D"
PCC: 109+32.47
DUNN ENERGY COOPERATIVE
LEVEL 3 COMMUNICATIONS
AT&T LEGACY AND CENTURYLINK COMMUNICATIONS

LEGEND
- SILT FENCE
- 16'X16' EROSION MAT CLASS 1 TYPE B
- © INLET PROTECTION TYPE C

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PLAN	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\050209 PN.DWG
PLOT DATE : 8/6/2014 12:32 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



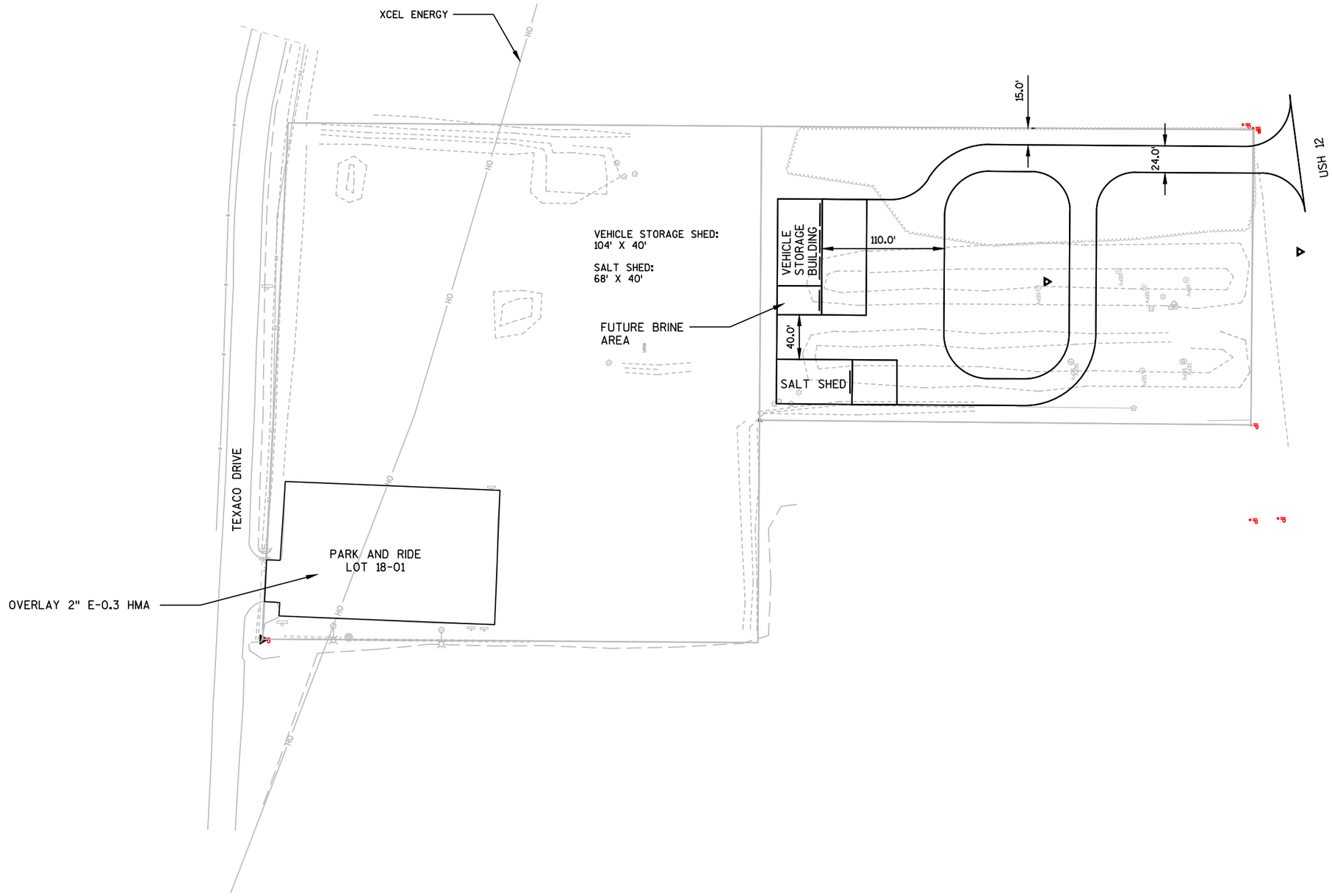
LOOP C	
PI STA	113+75.28
Y	173510.423
X	212497.655
DELTA	59°38'51"
D	15°53'57"
T	206.58'
L	375.16'
R	360.37'
PC STA	111+68.70
PT STA	115+43.86
SE	9.0%

RAMP D	
PI STA	108+96.60
Y	173361.249
X	212516.196
DELTA	80°16'34"
D	13°38'31"
T	354.15'
L	588.45'
R	420.00'
PC STA	105+42.45
PT STA	111+30.90
SE	6.0%

LEGEND

- SILT FENCE
- 16'X16' EROSION MAT CLASS 1 TYPE B
- © INLET PROTECTION TYPE C

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	PLAN	SHEET 124	E



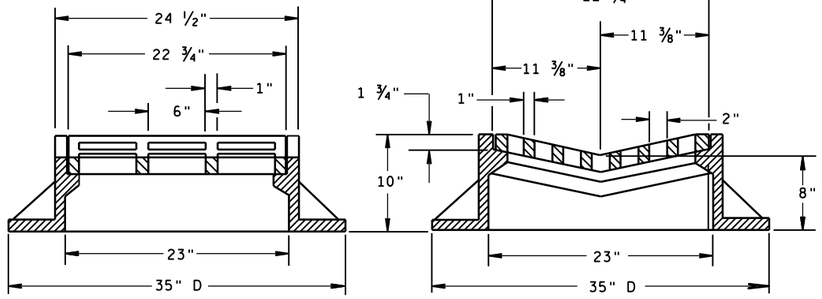
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	SALT SHED	SHEET	E

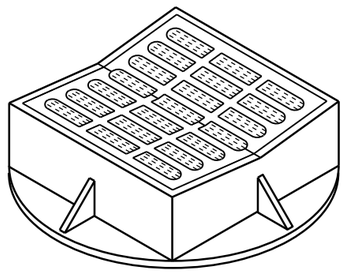
FILE NAME : P:\UZ\W\WITNW\122716\SALT SHED\CIVIL 3D\050201 PN.DWG PLOT DATE : 7/31/2014 12:53 AM PLOT BY : VANCE POWERS PLOT NAME : PLOT SCALE : 1:100_XREF

Standard Detail Drawing List

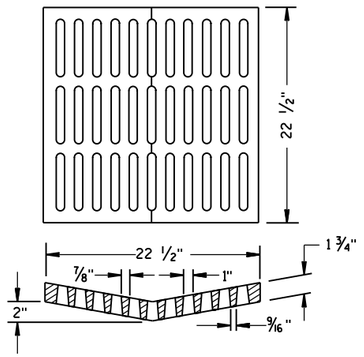
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-08	CONDUIT UNDER PAVED HIGHWAYS
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-09	CONCRETE CONTROL CABINET BASES
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C08-02	CONCRETE PAVEMENT PARTIAL DEPTH REPAIR
13C09-11A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-04	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D34-01A	RAMP GATE SOLAR POWER
15D34-01B	RAMP GATE SOLAR POWER
15D34-01C	RAMP GATE SOLAR POWER
15D34-01D	RAMP GATE SOLAR POWER

6



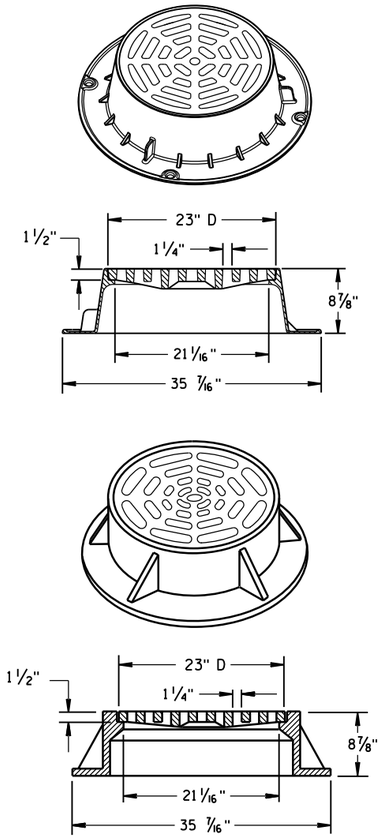


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

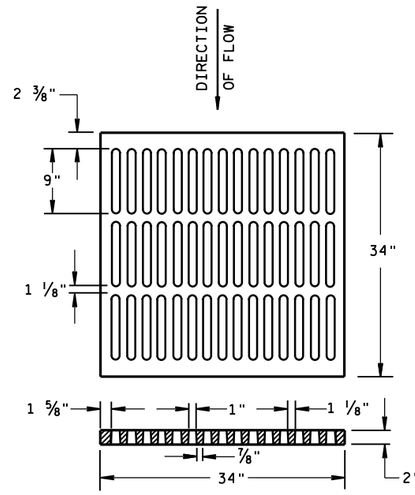
NOTE: EITHER CASTING IS ACCEPTABLE

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.

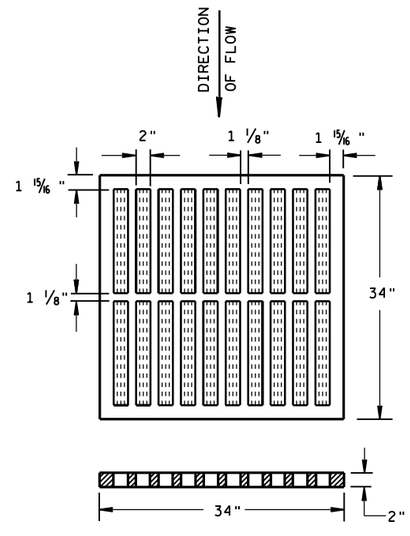
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



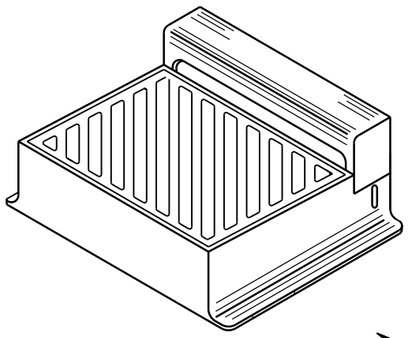
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

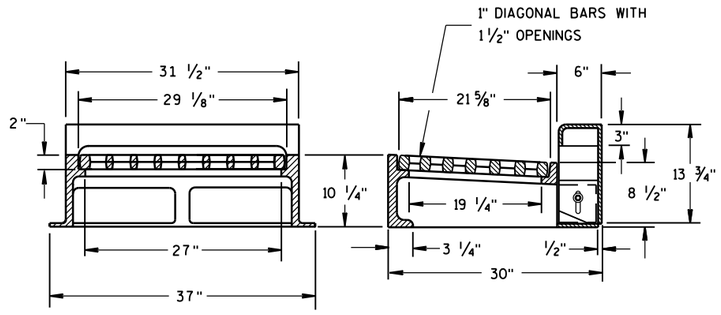


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

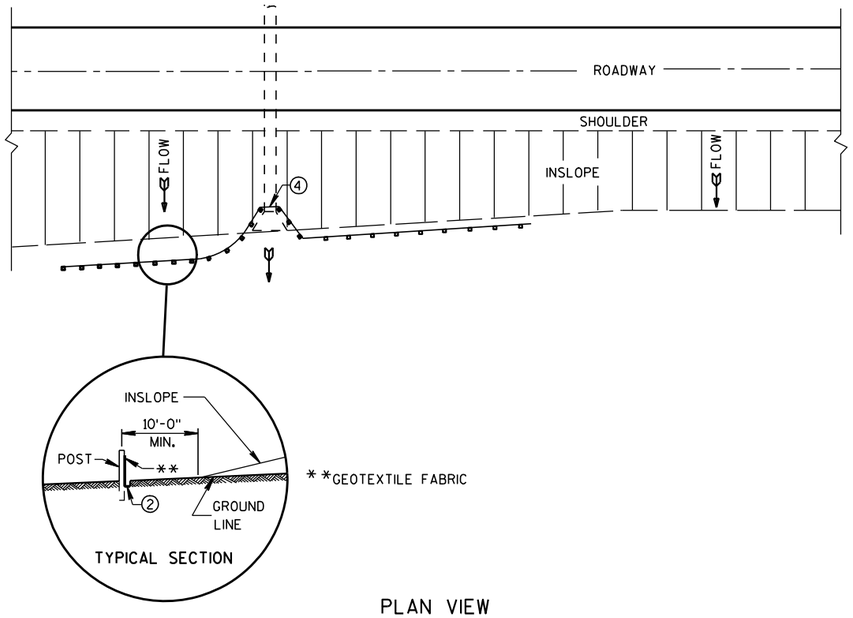
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

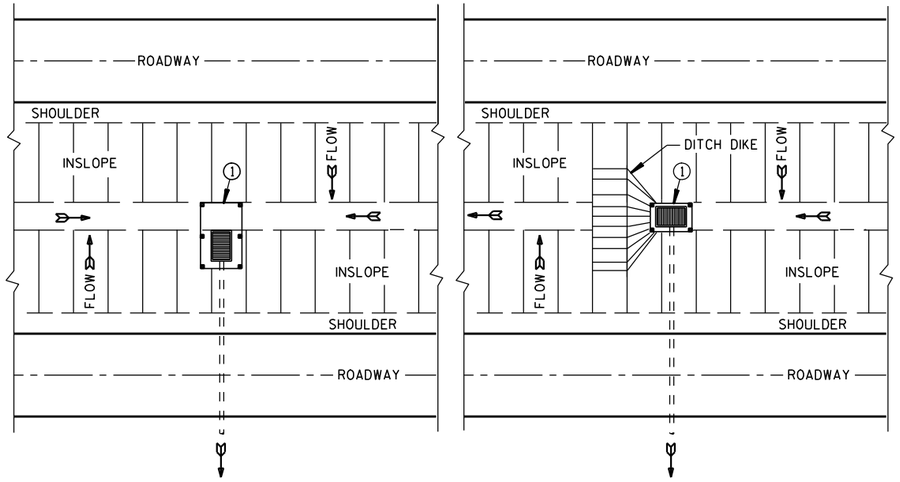
6

S.D.D. 8 A 5-19b



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

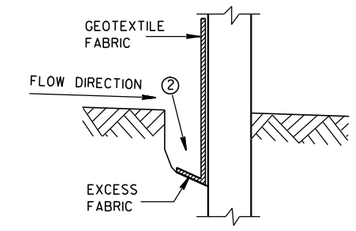
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

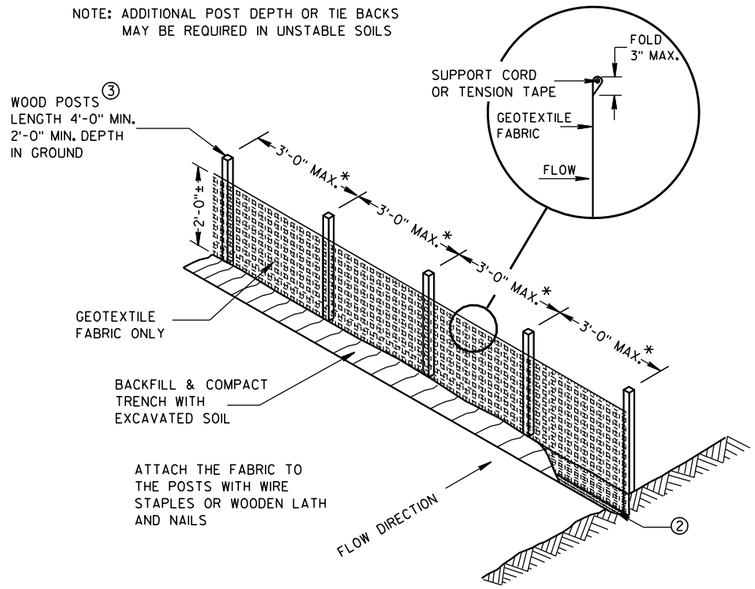
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

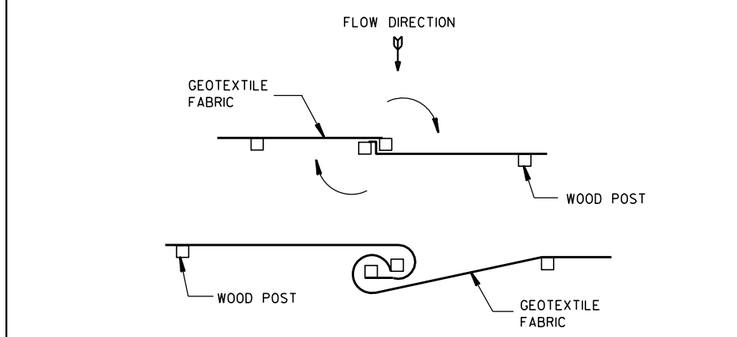
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



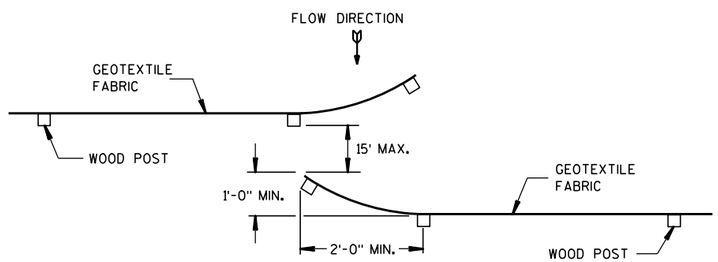
TRENCH DETAIL



SILT FENCE

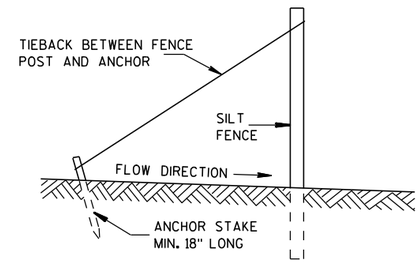


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

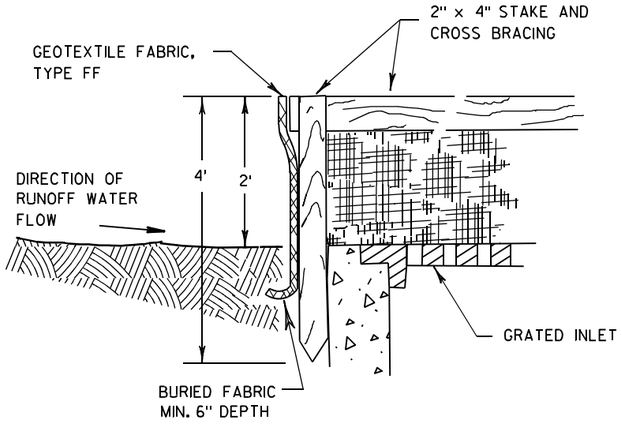
(WHEN REQUIRED BY THE ENGINEER)

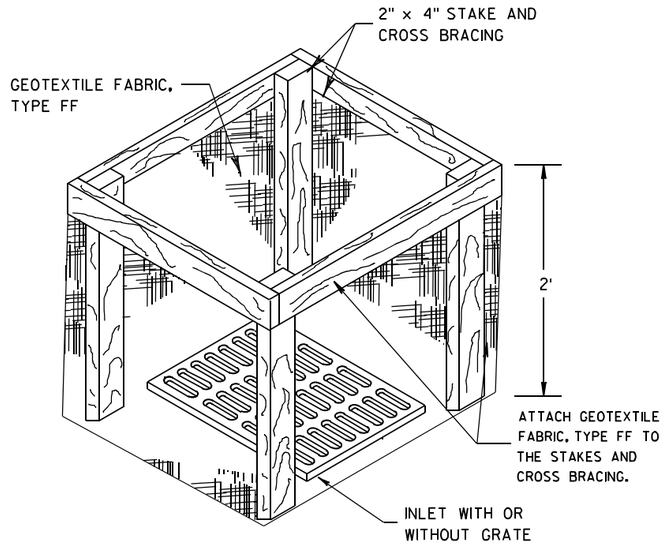
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

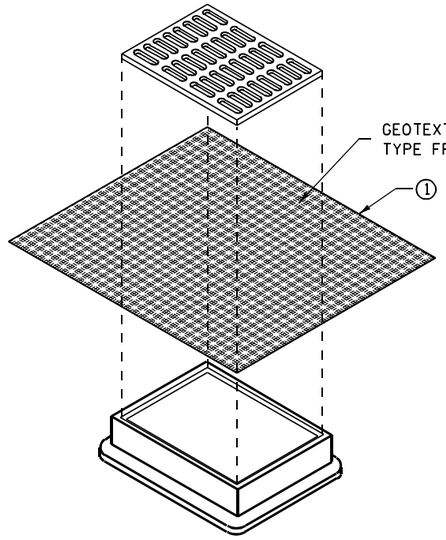
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 9-6



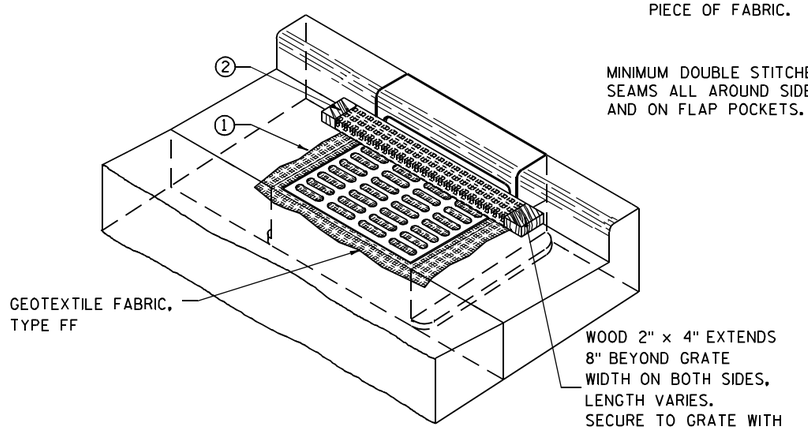


INLET PROTECTION, TYPE A

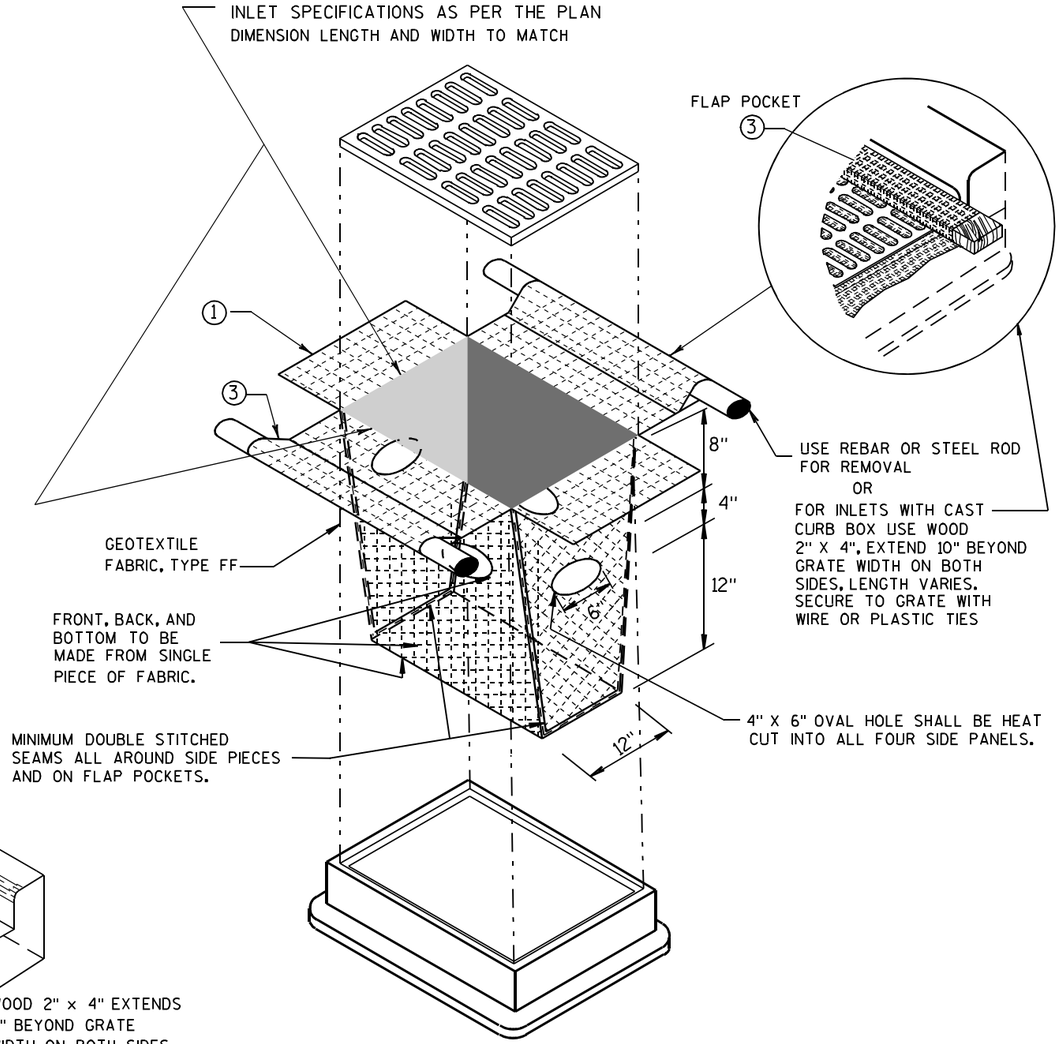


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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

METAL APRON ENDWALLS

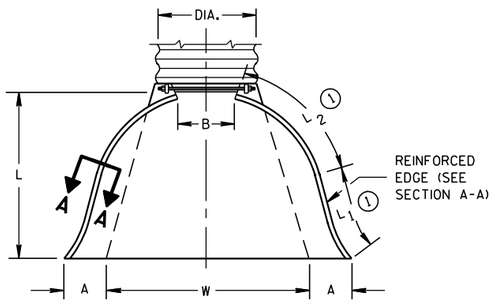
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

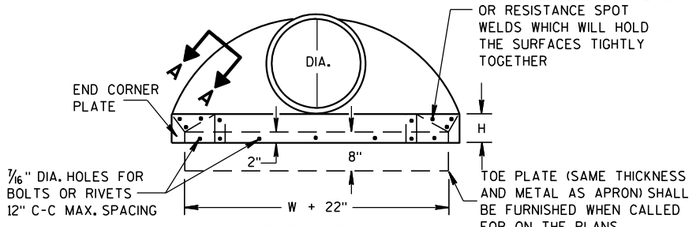
REINFORCED CONCRETE APRON ENDWALLS

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

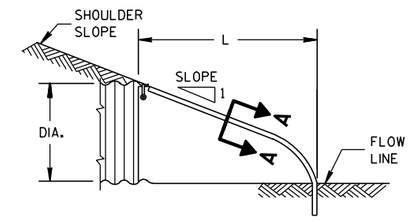
*MINIMUM
**MAXIMUM



PLAN VIEW

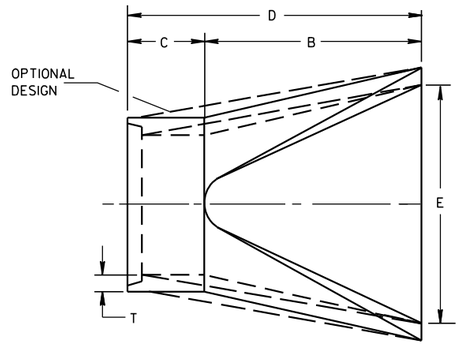


END VIEW

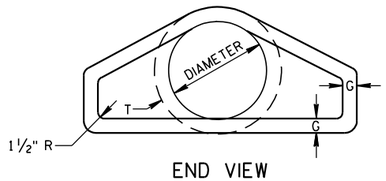


SIDE ELEVATION

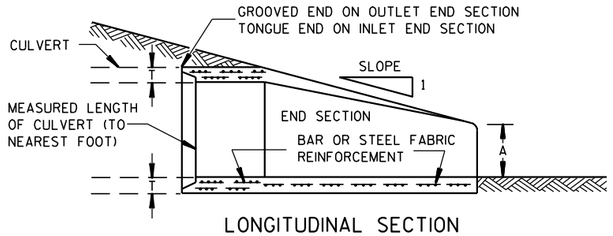
METAL ENDWALLS



PLAN

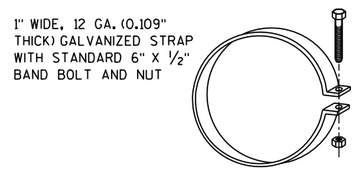


END VIEW



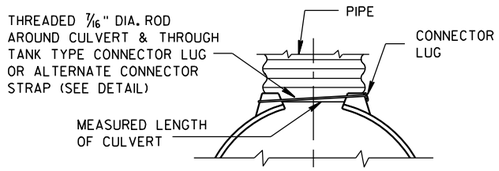
LONGITUDINAL SECTION

CONCRETE ENDWALLS

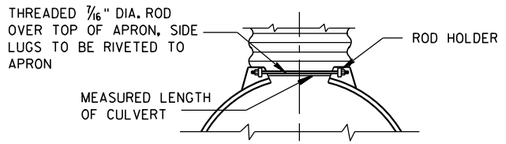


ALTERNATE FOR TYPE 1 CONNECTION

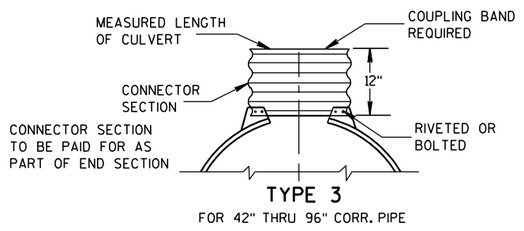
END SECTION CONNECTOR STRAP



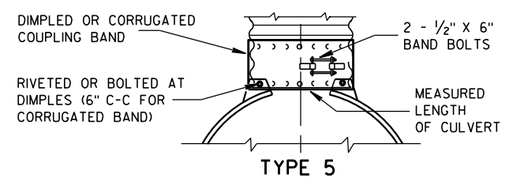
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

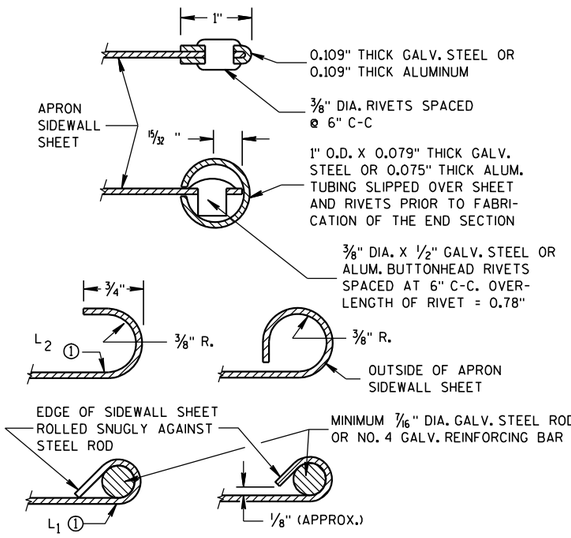
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

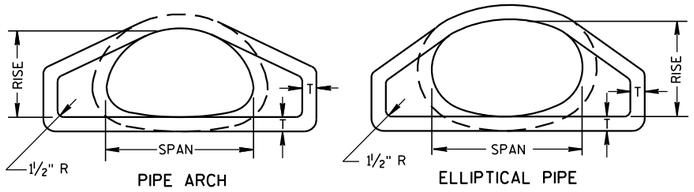
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

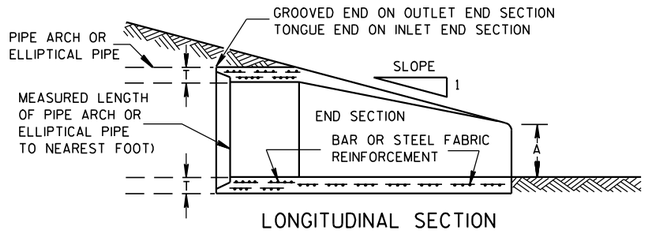
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

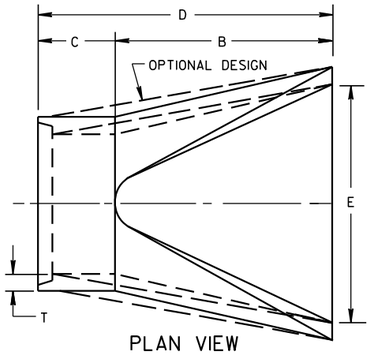
6
S.D.D. 8 F 1-11



END VIEW

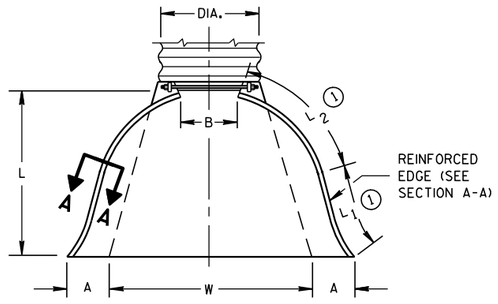


LONGITUDINAL SECTION

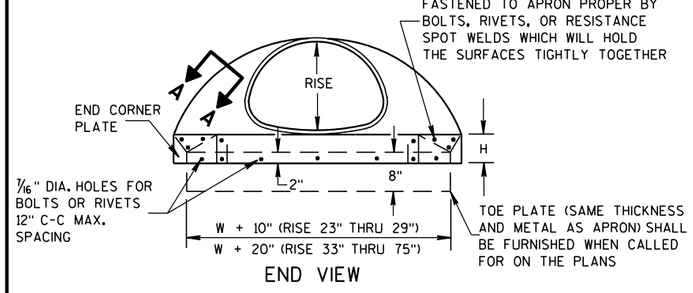


PLAN VIEW

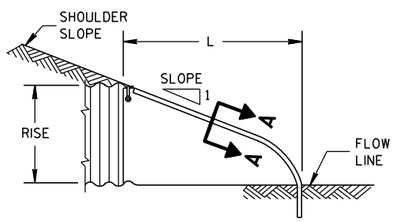
CONCRETE ENDWALLS



PLAN VIEW

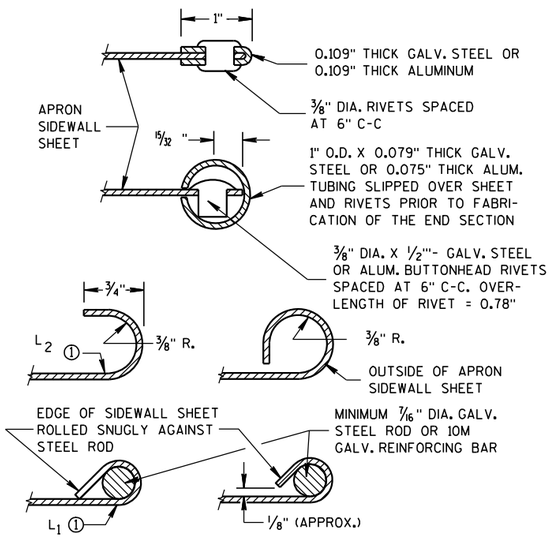


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

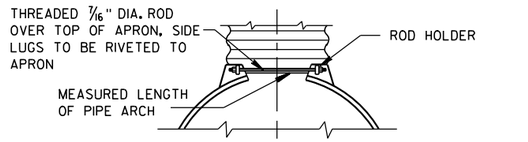
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

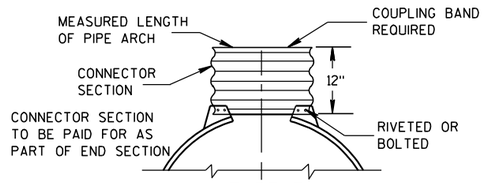
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



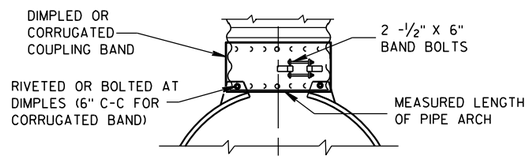
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

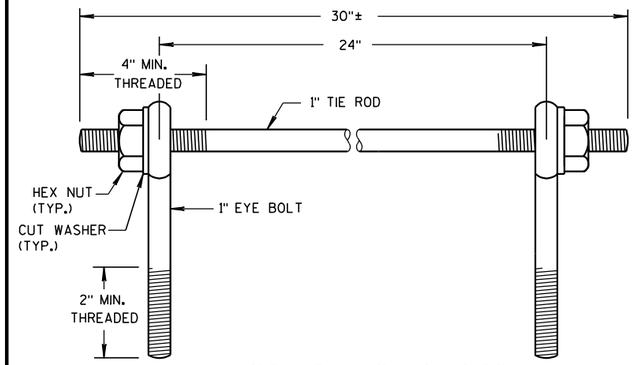
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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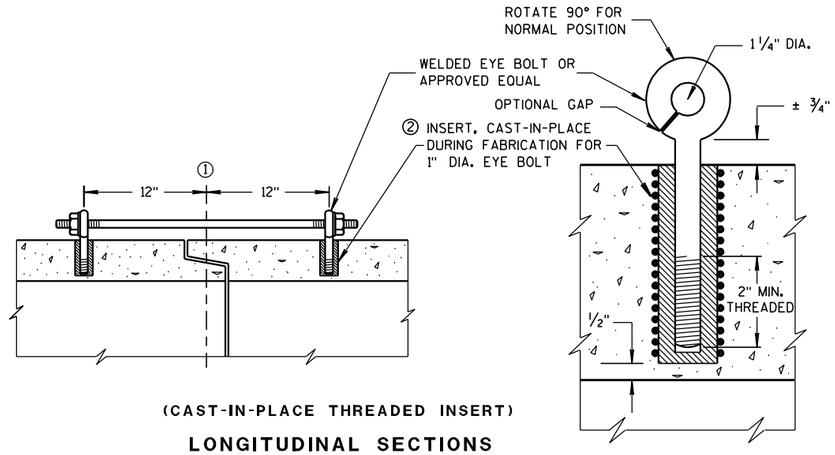
S.D.D. 8 F 2-1

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S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

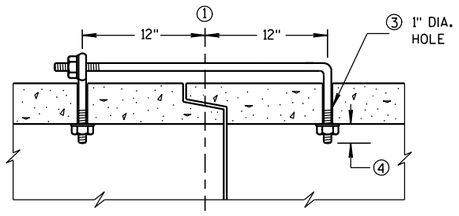
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

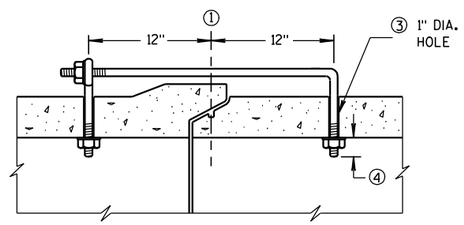
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

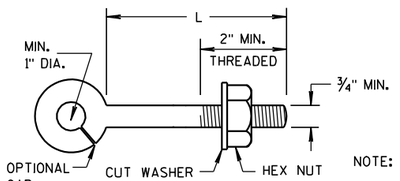


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

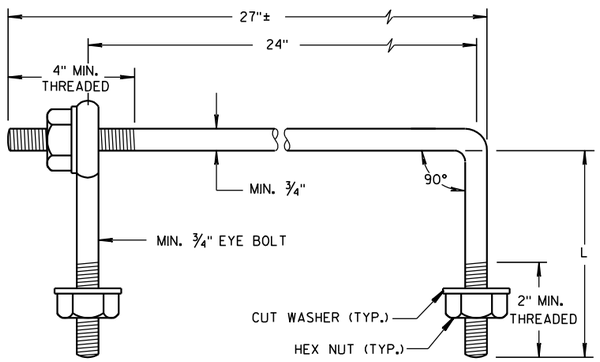
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

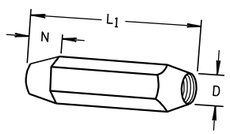
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

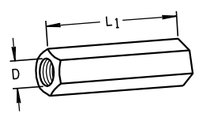
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



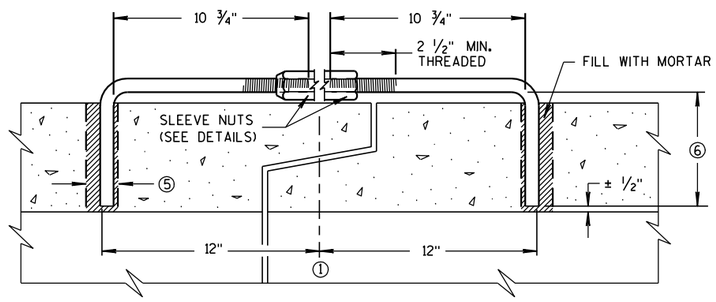
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PLAIN

RIGHT AND LEFT THREADS

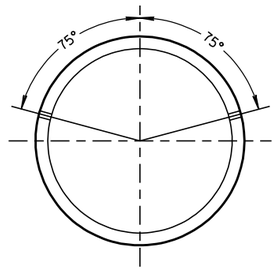
SLEEVE NUTS



LONGITUDINAL SECTION

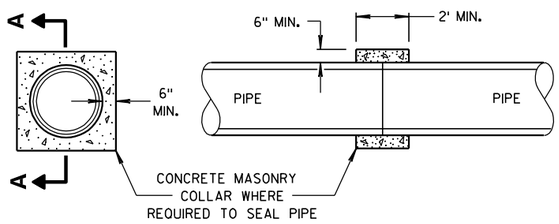
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

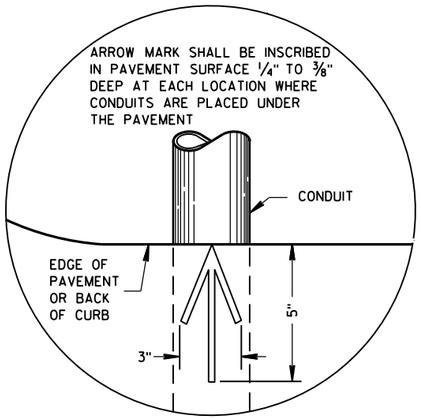
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

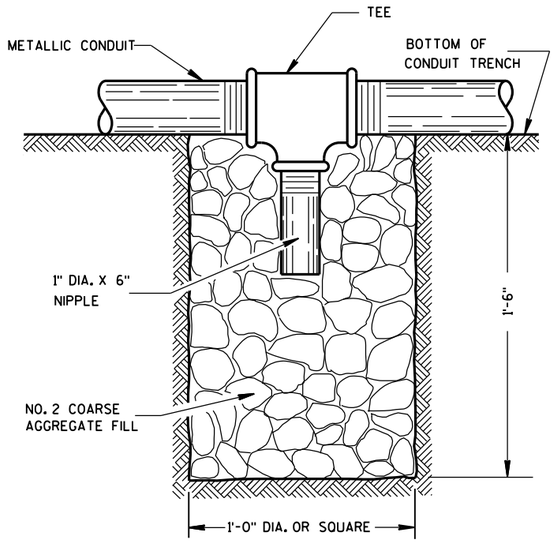
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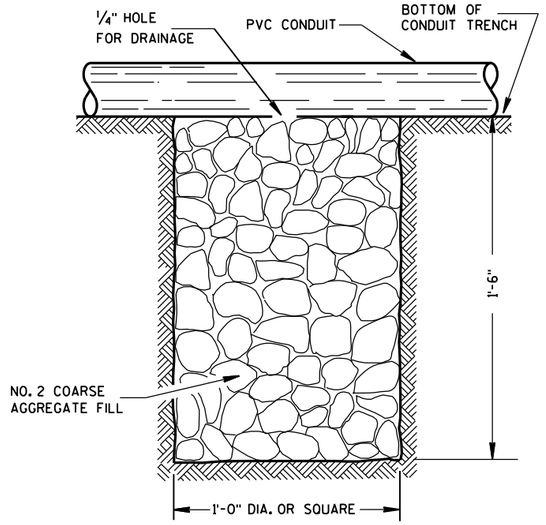
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

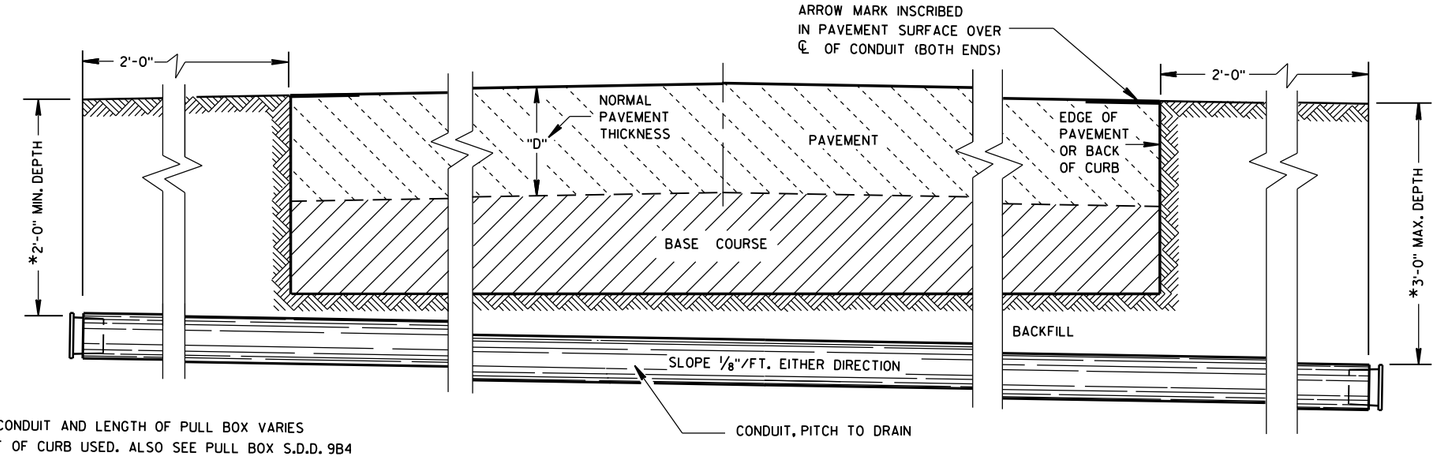
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT UNDER PAVED HIGHWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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S.D.D. 9 B 2-8

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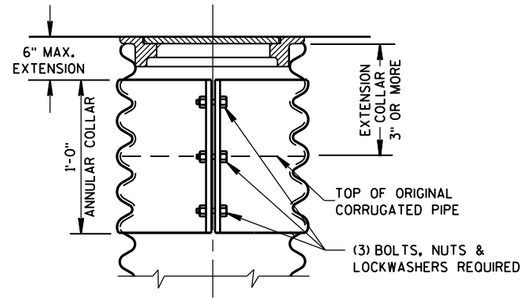
S.D.D. 9 B 2-8

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

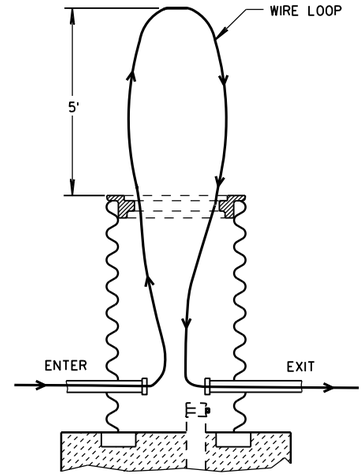
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

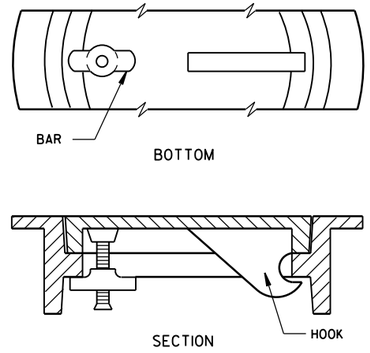
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

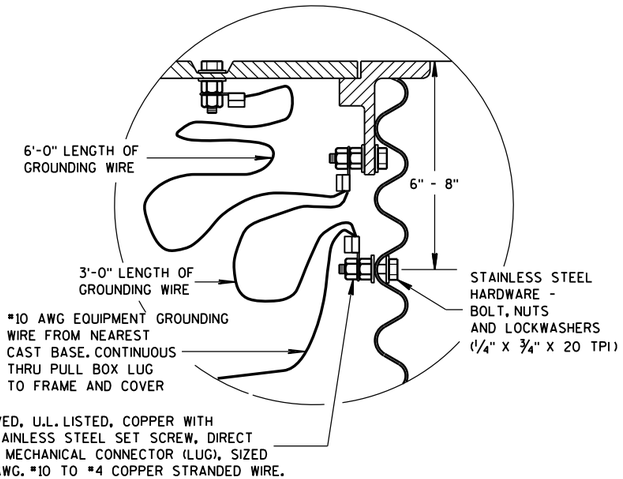


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

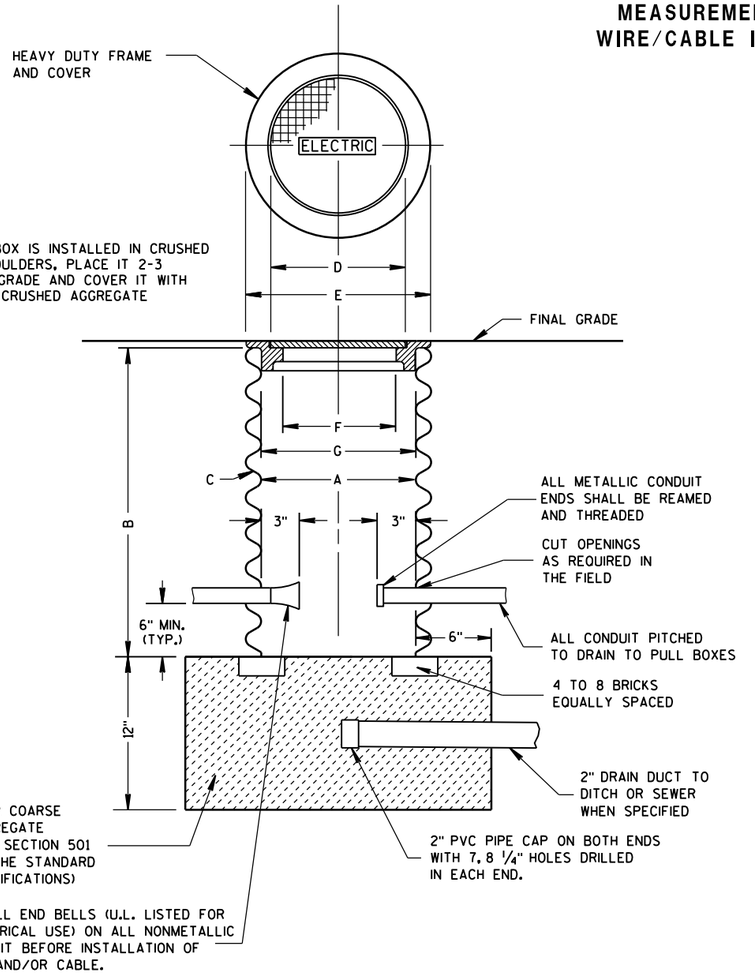


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

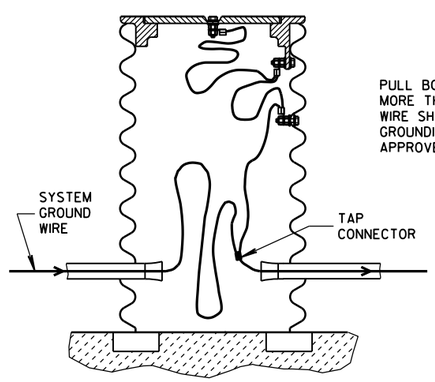
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

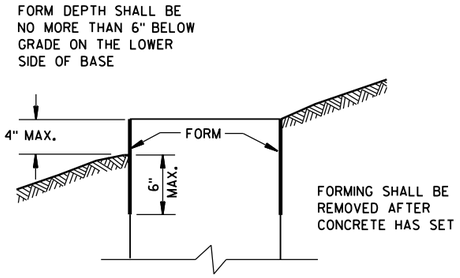
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

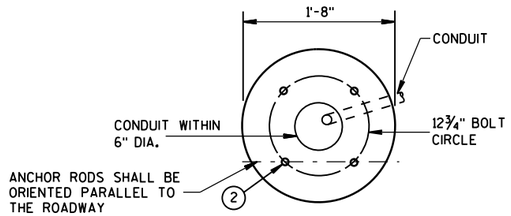
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

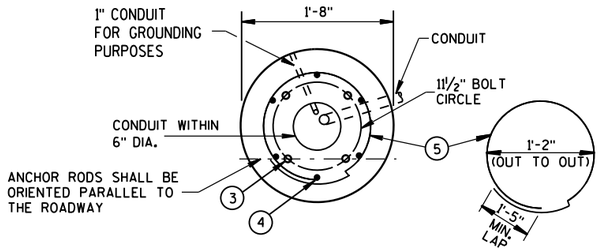
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

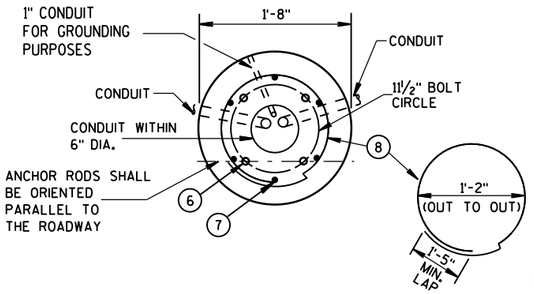
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

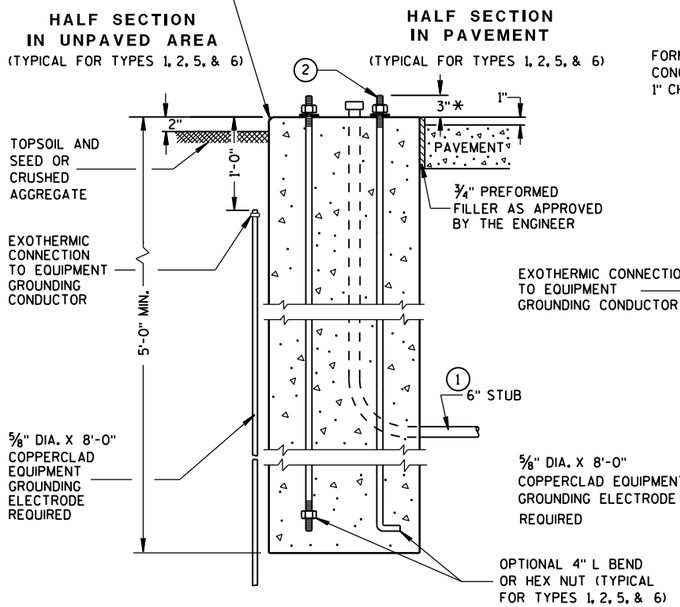






HALF SECTION IN UNPAVED AREA

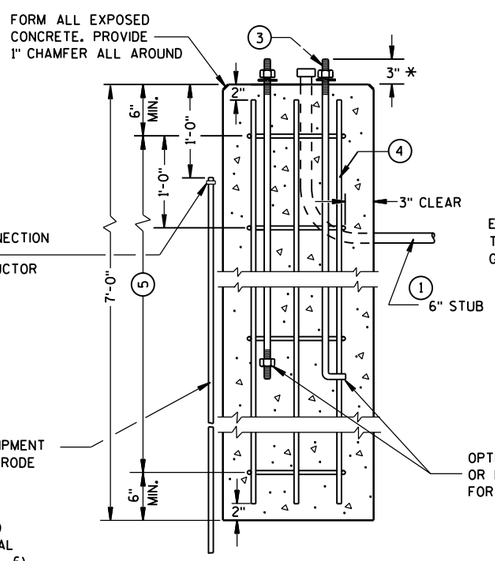
(TYPICAL FOR TYPES 1, 2, 5, & 6)



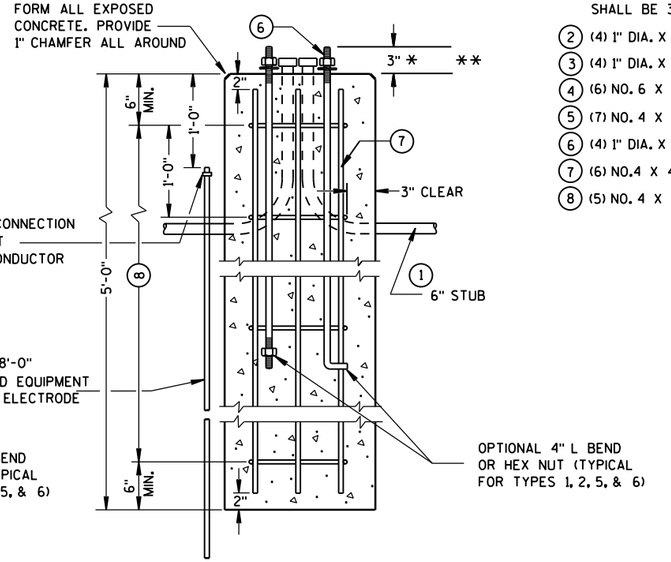
HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)

TYPE 2



TYPE 5 & 6



CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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 CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

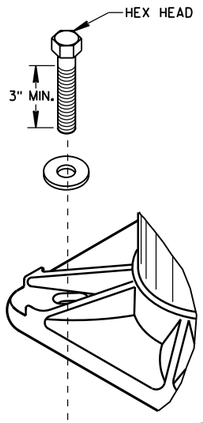
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

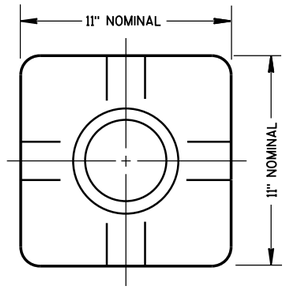
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

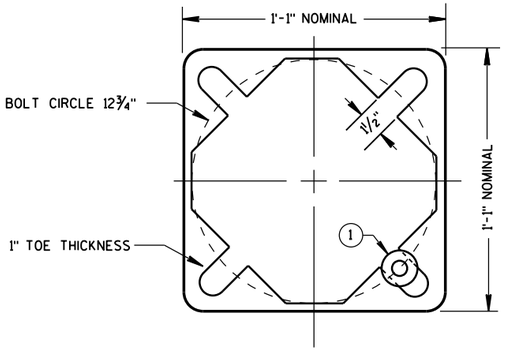
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

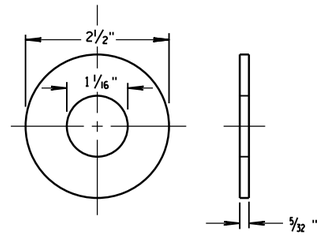




TOP VIEW
(PEDESTAL BASE)

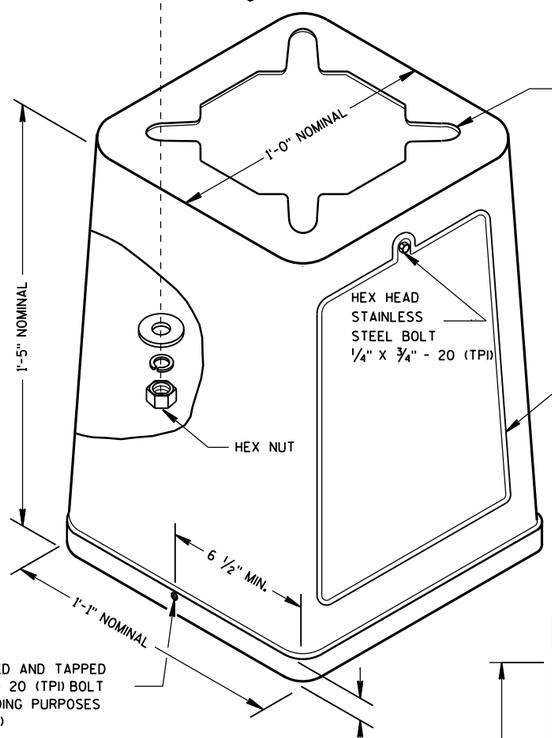


BOTTOM VIEW
(PEDESTAL BASE)

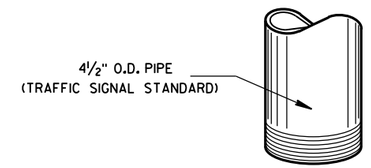


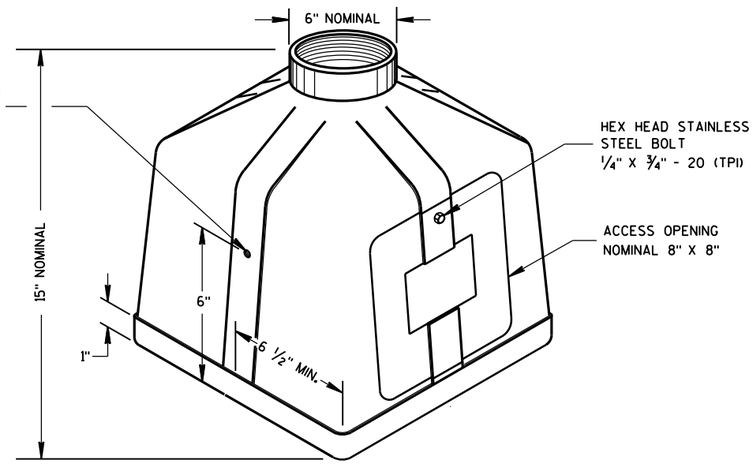
ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)



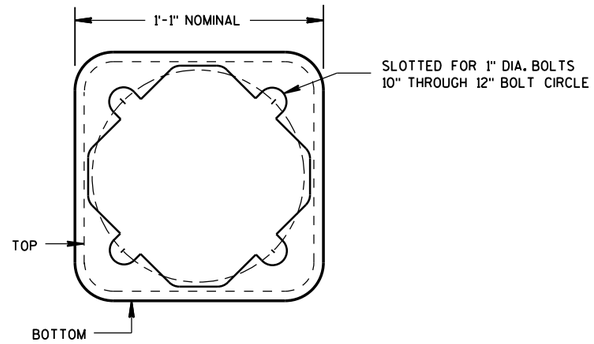
ISOMETRIC VIEW



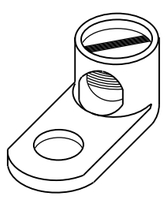


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

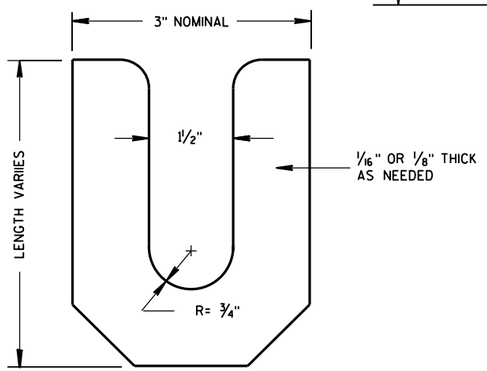


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

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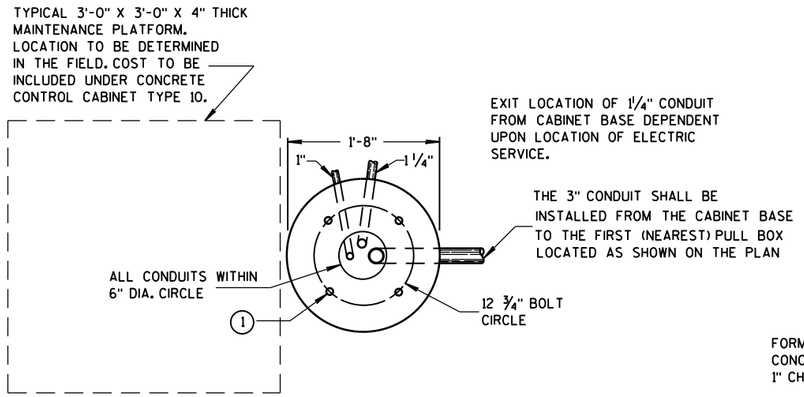
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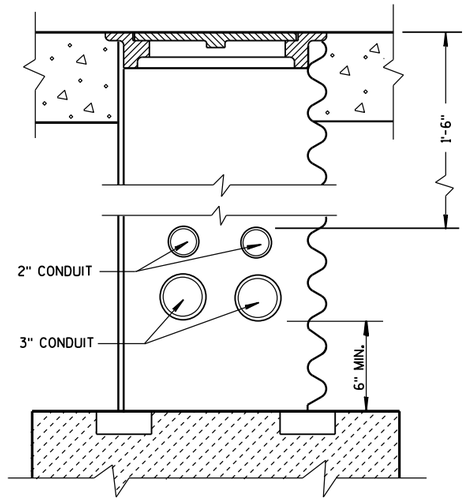
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S.D.D. 9 C 3-4

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

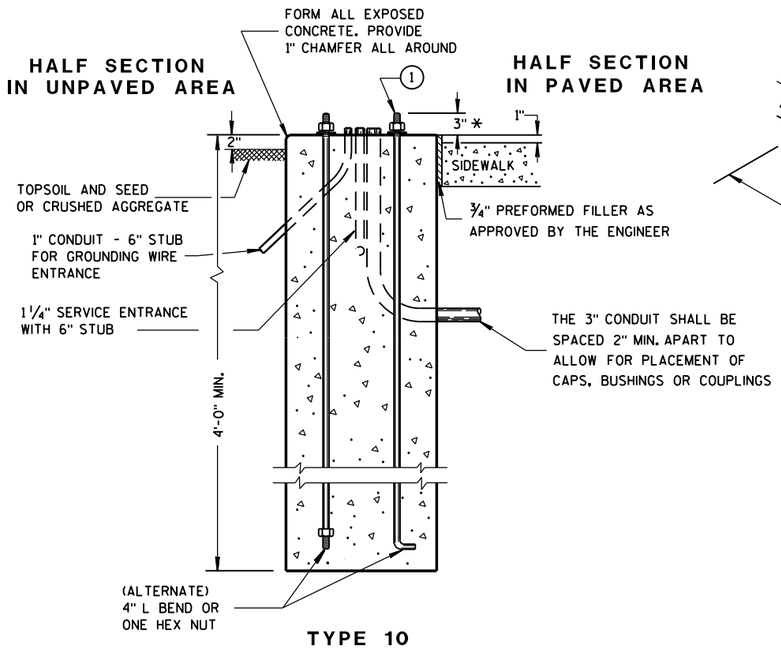
* INCLUDES MAINTENANCE PLATFORM.



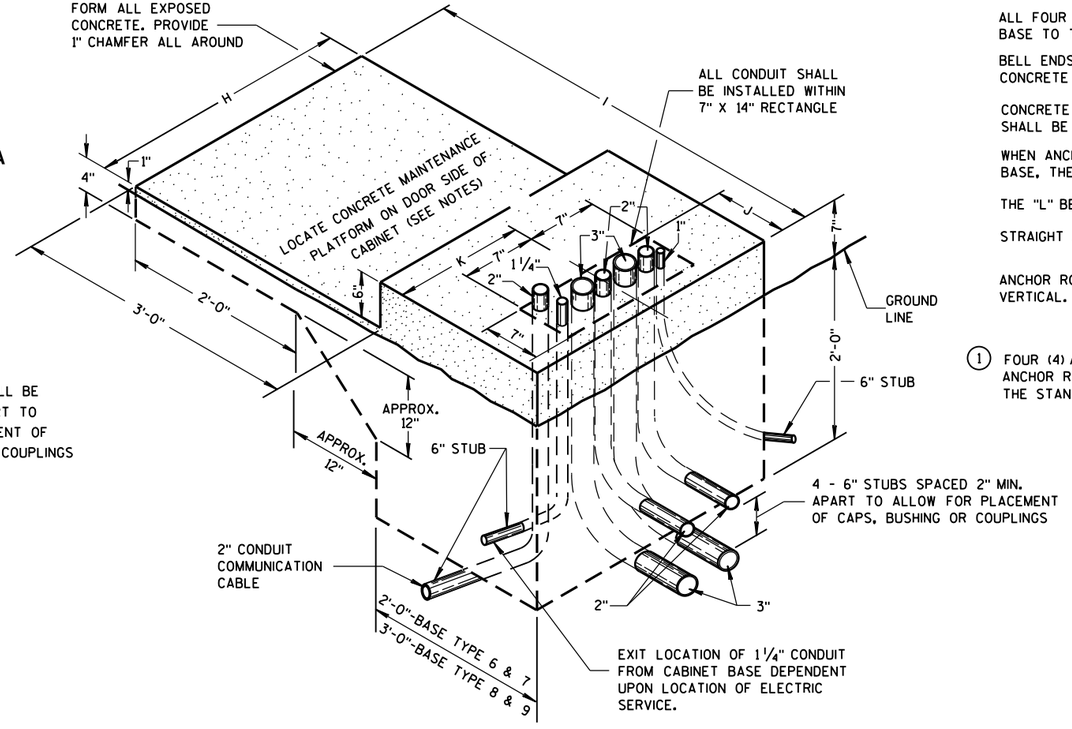


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

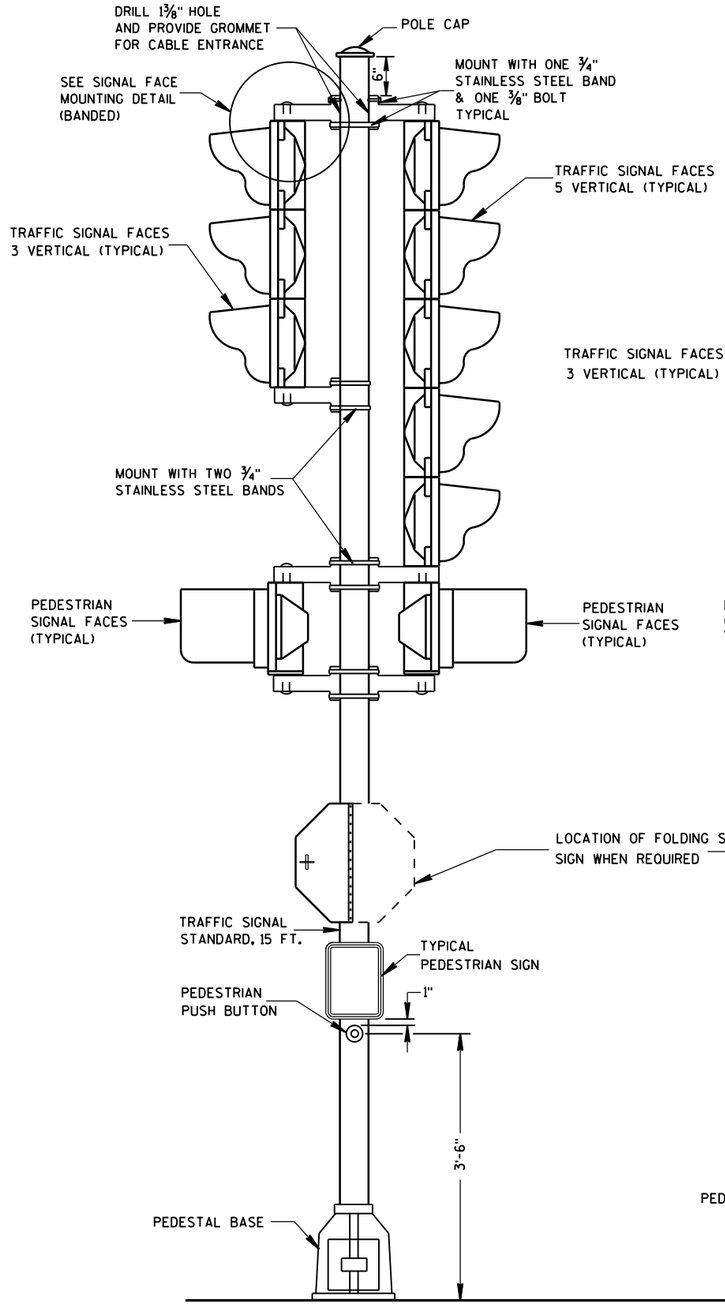
CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

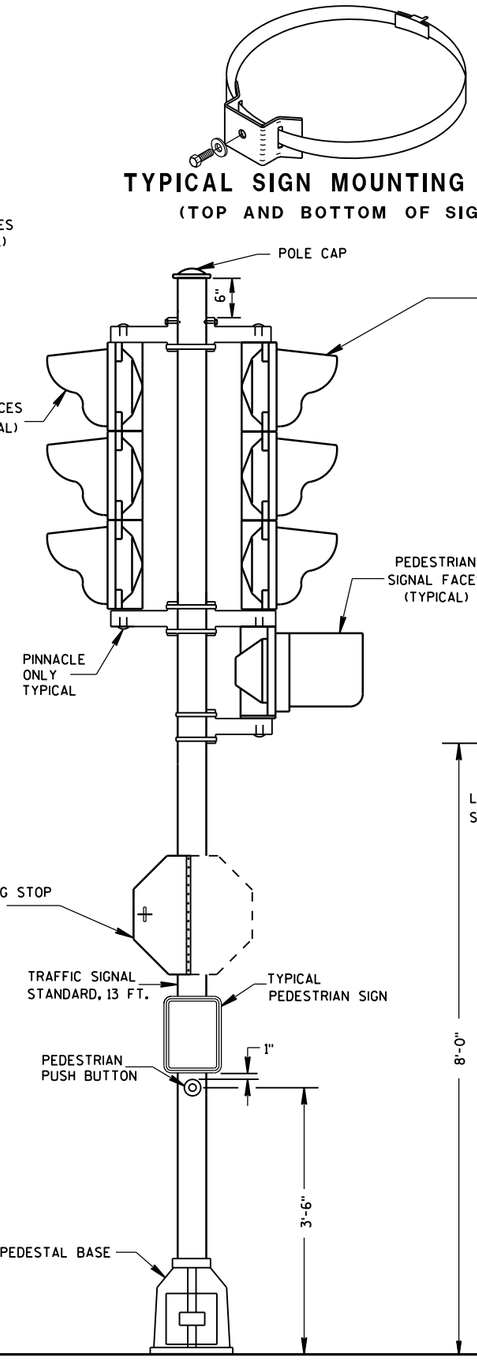
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S.D.D. 9 C 5-9

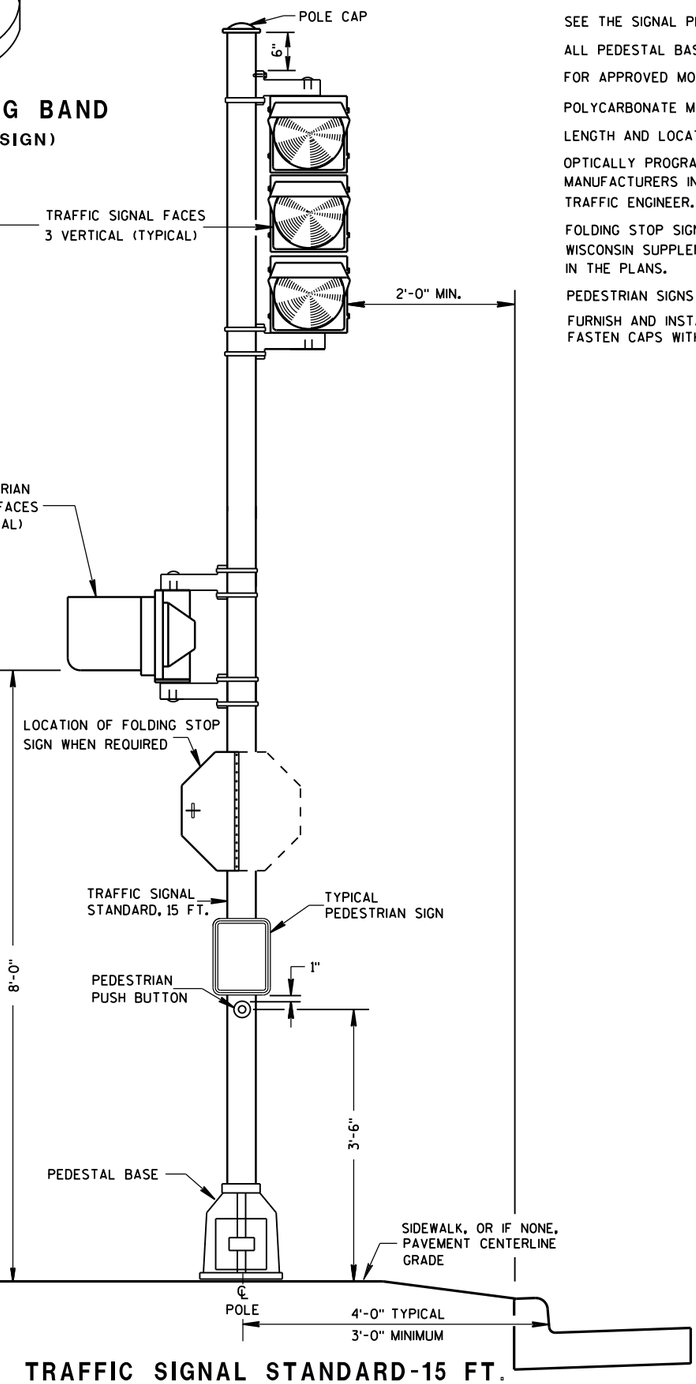


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

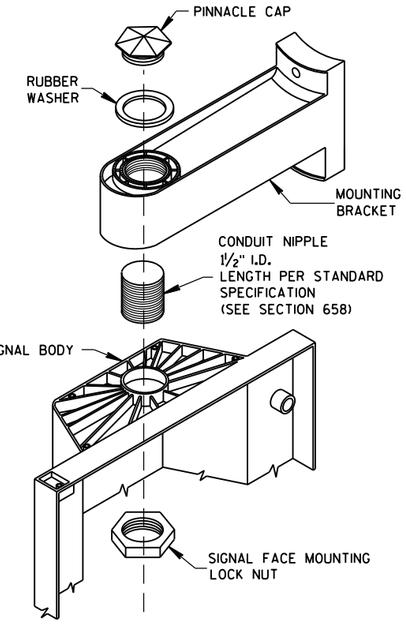
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

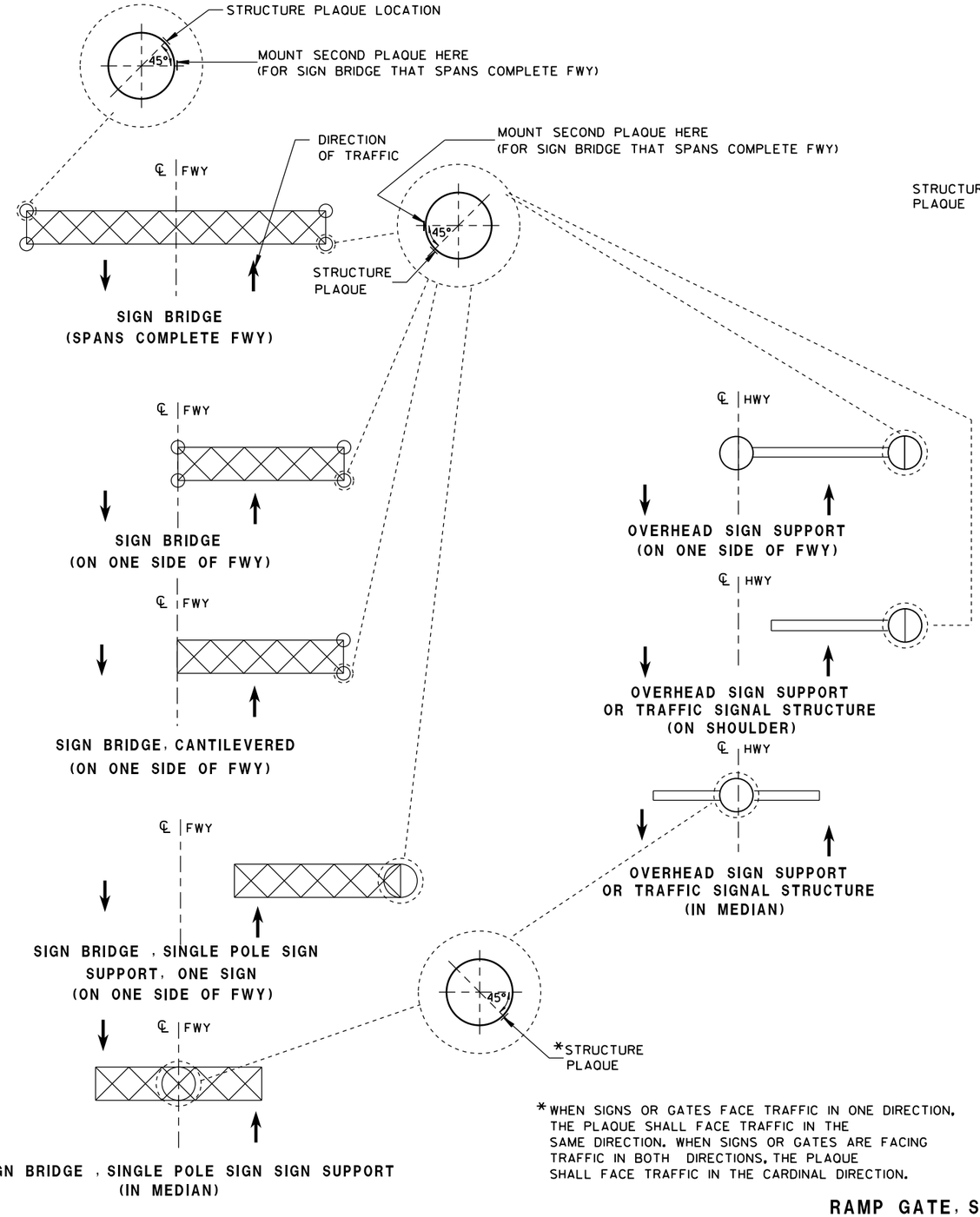
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

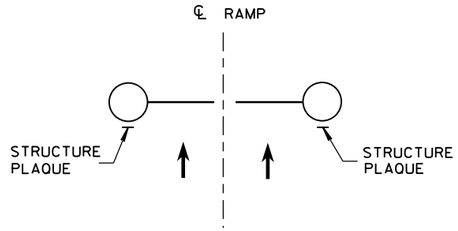
6

S.D.D. 9 E 6-5

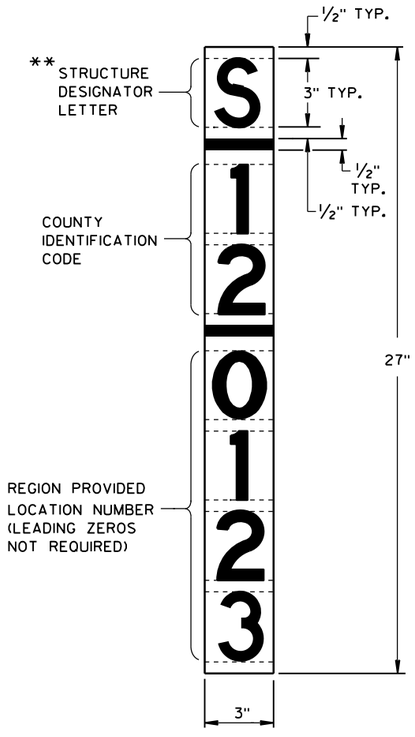


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

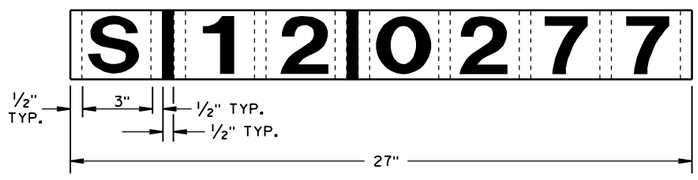
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

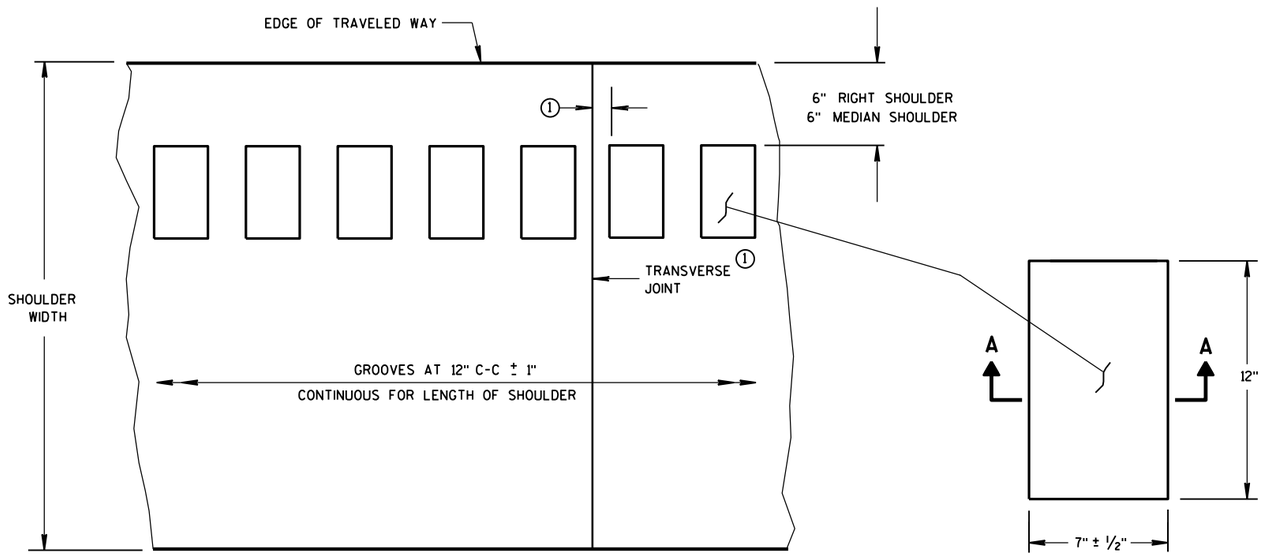
FHWA

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S.D.D. 12 A 4-3

6

S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

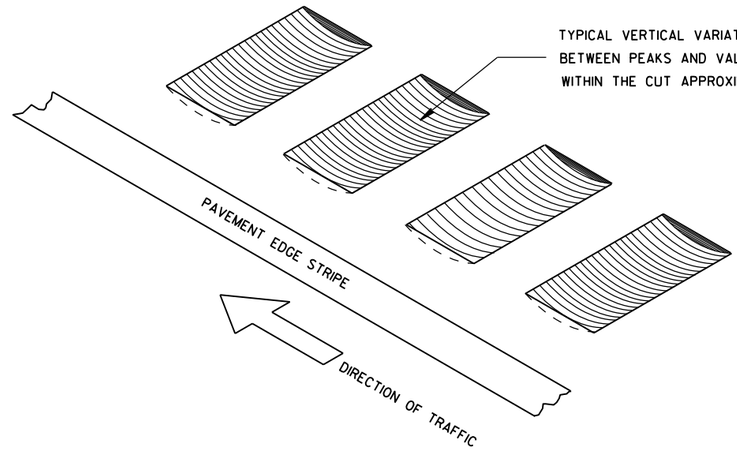
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

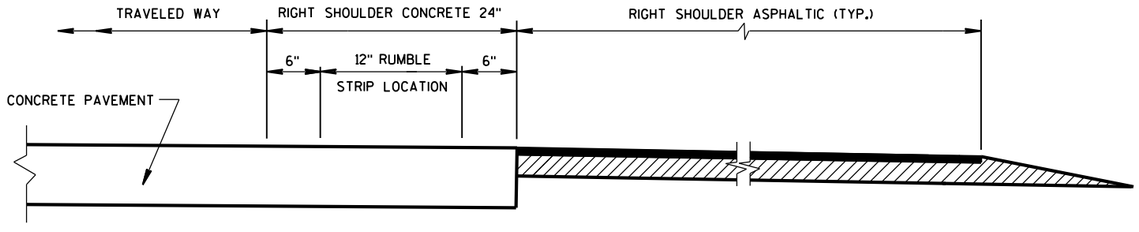
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

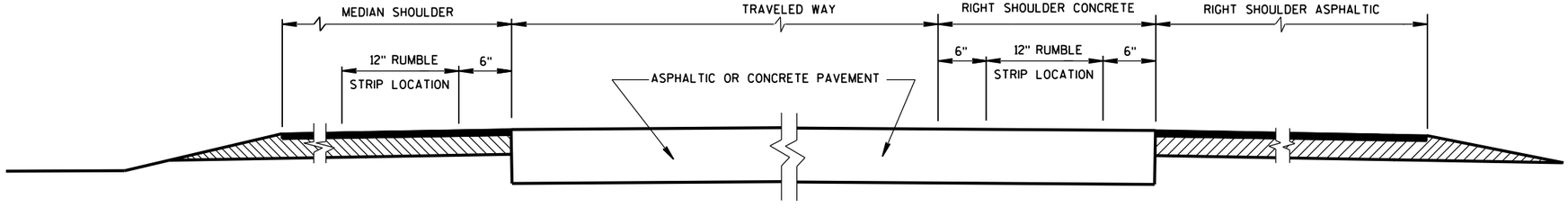
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



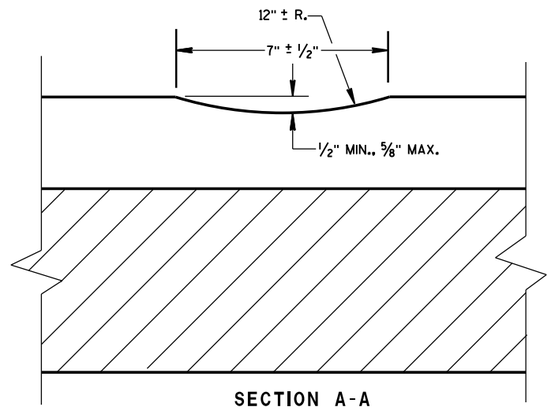
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

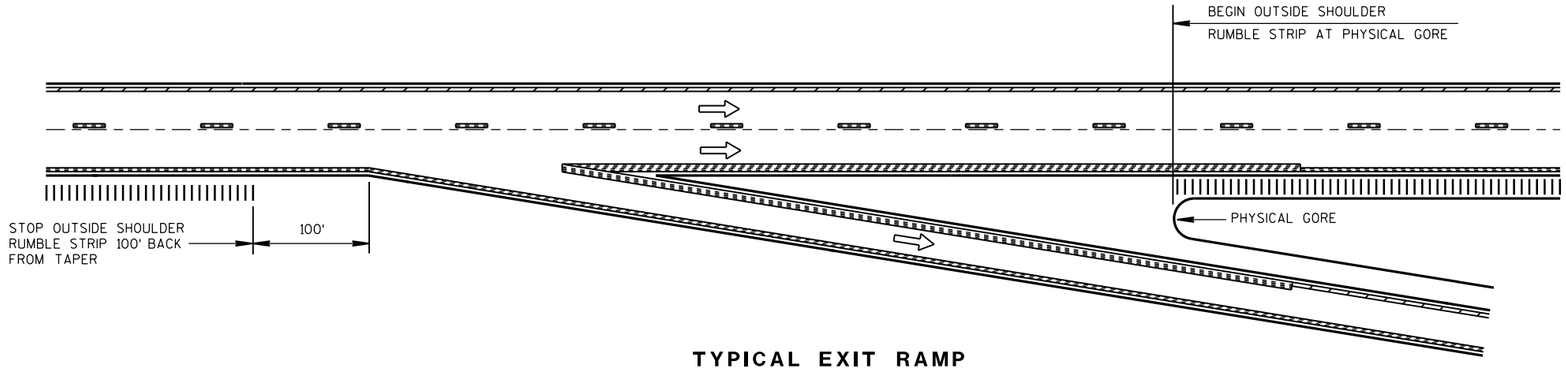
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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S.D.D. 13 A 5-5a



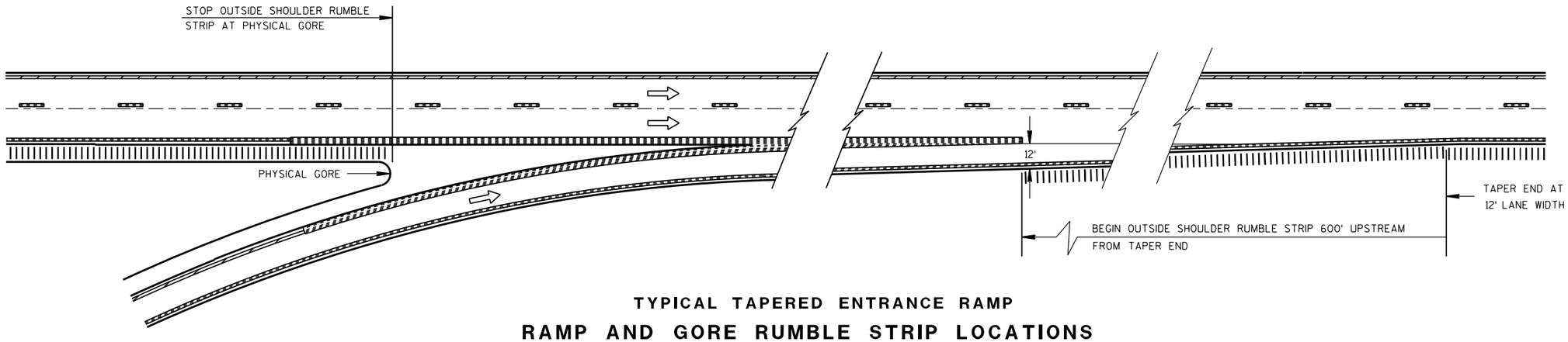
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

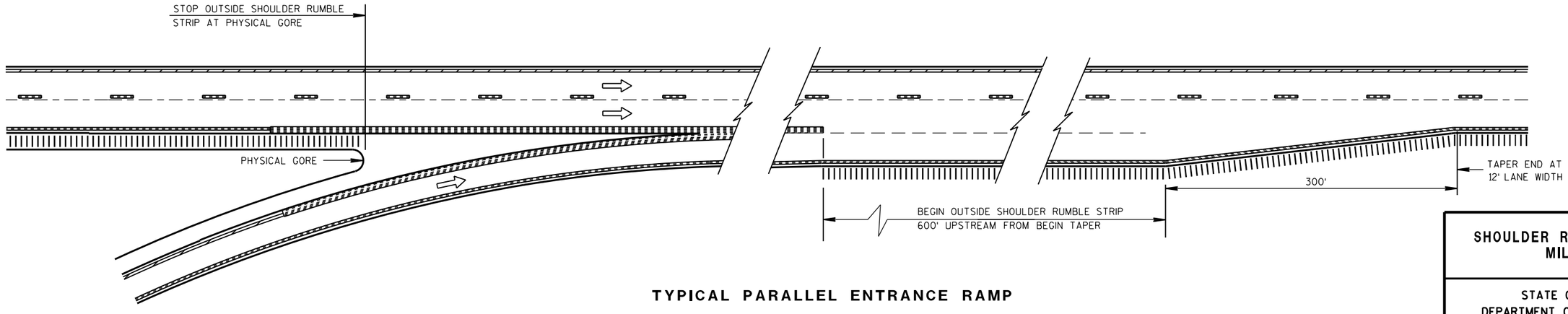
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

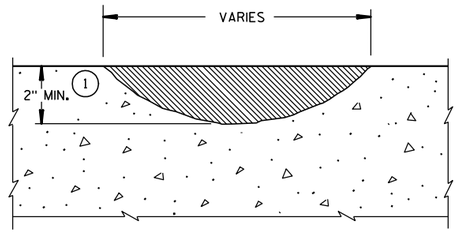
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

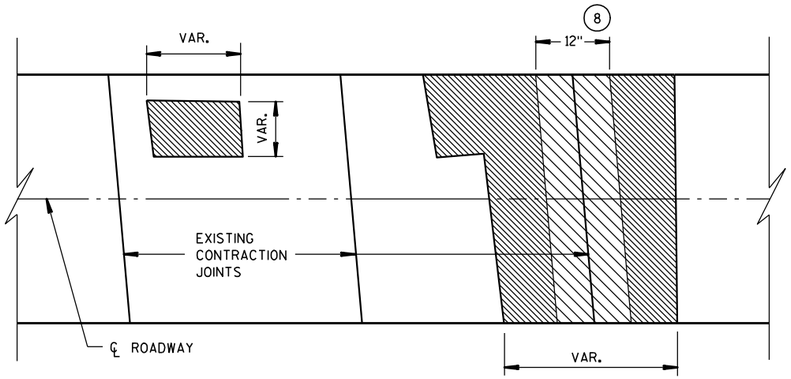
APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 13 A 5-5b

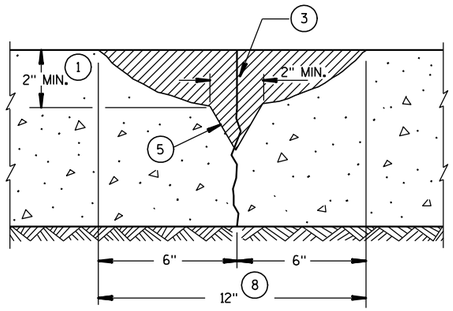


PROFILE VIEW

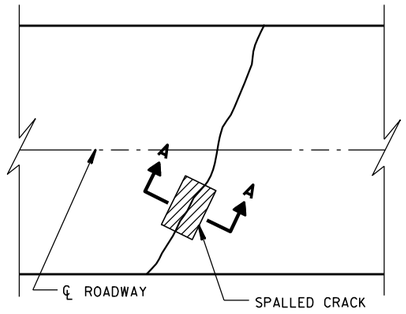


PLAN VIEW

SURFACE REPAIR



SECTION A-A

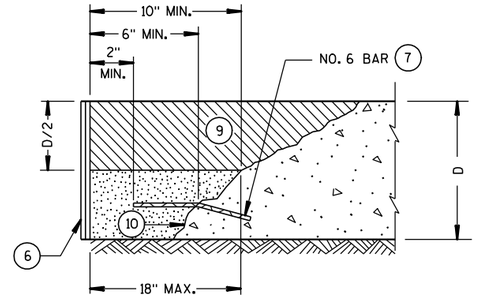


PLAN VIEW

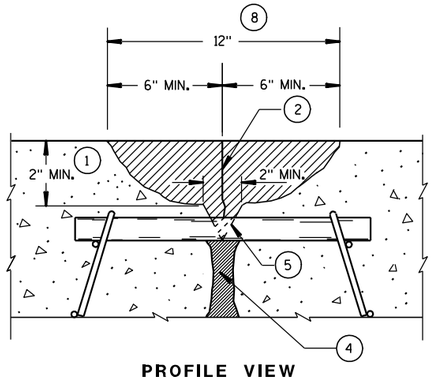
CRACK REPAIR

GENERAL NOTES

1. REMOVE ALL CONCRETE, TO LIMITS SHOWN, TO A MAXIMUM OF ½ THE PAVEMENT DEPTH OR TOP OF DOWELS.
2. IF REPAIR IS DEEPER THAN ANTICIPATED SAWCUT, COMPRESSION RELIEF MATERIAL MUST BE USED. THE THICKNESS OF COMPRESSION RELIEF MATERIAL MUST BE EQUAL TO OR GREATER THAN THE WIDTH OF THE JOINT OR CRACK (1/4"). THIS MATERIAL SHOULD EXTEND FULL DEPTH OF THE REPAIR.
3. COMPRESSION RELIEF MATERIAL MUST BE USED. THE THICKNESS OF COMPRESSION RELIEF MATERIAL MUST BE EQUAL TO OR GREATER THAN THE WIDTH OF THE JOINT OR CRACK (1/4"). THIS MATERIAL SHOULD EXTEND FULL DEPTH OF THE REPAIR.
4. CLEAN, DRY SAND WHEN NECESSARY.
5. REMOVE UNSOUND MATERIAL BY CHIPPING AT 1:1 SLOPE.
6. ¼" MINIMUM PREFORMED JOINT FILLER IF ADJACENT TO CONCRETE. EDGING REQUIRED. FULLY FORMED EDGE IF ADJACENT TO SHOULDER.
7. PAVEMENT TIES AS SHOWN. ALL EMBEDMENTS 6" MINIMUM AND INSTALLED WITH GROUT.
8. OVER 12" (NOMINAL WIDTH) WILL BE PAID AS SURFACE REPAIR.
9. PAID AS JOINT OR CRACK REPAIR.
10. FULL-DEPTH ADJUSTMENT SHALL BE CHIPPED TO BOTTOM OF PCC PAVEMENT AT 1:1 SLOPE.
11. BEYOND 18" WILL BE PAID AS SURFACE REPAIR.

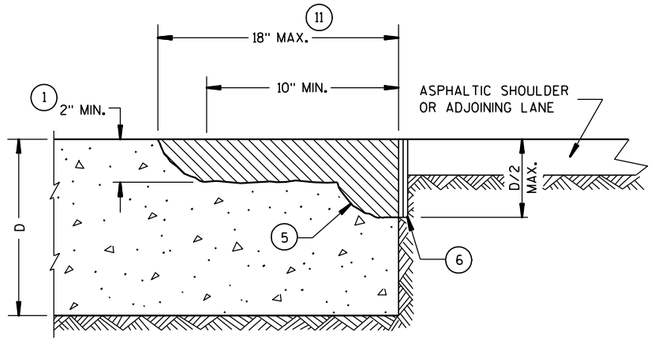


PROFILE VIEW

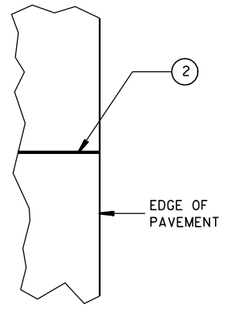


PROFILE VIEW

JOINT REPAIR

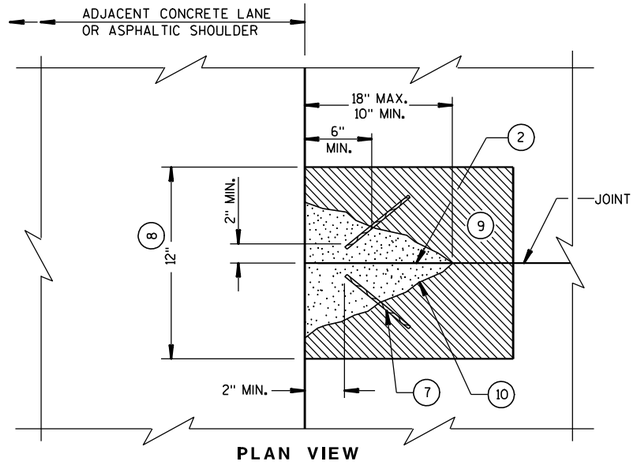


PROFILE VIEW



PLAN VIEW

EDGE REPAIR



PLAN VIEW

FULL DEPTH REPAIR ADJUSTMENT

CONCRETE PAVEMENT PARTIAL DEPTH REPAIR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/21/03 DATE
/S/ Bill Ducker PAVEMENT ENGR
FHWA

6

S.D.D. 13 C 8-2

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S.D.D. 13 C 8-2

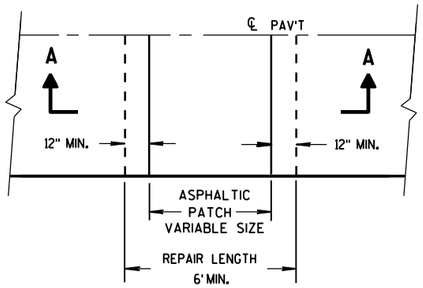
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

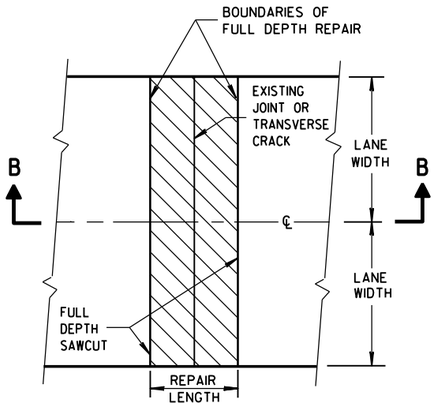
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

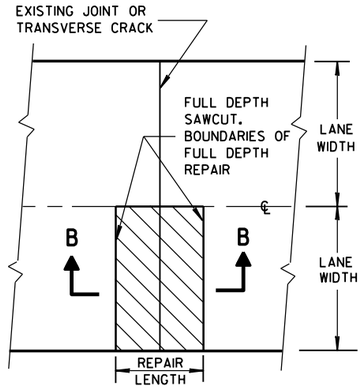
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



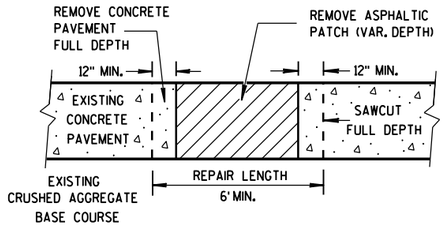
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

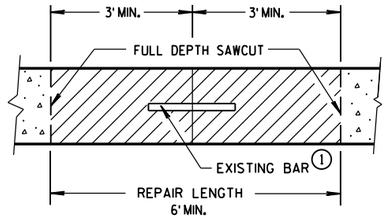
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

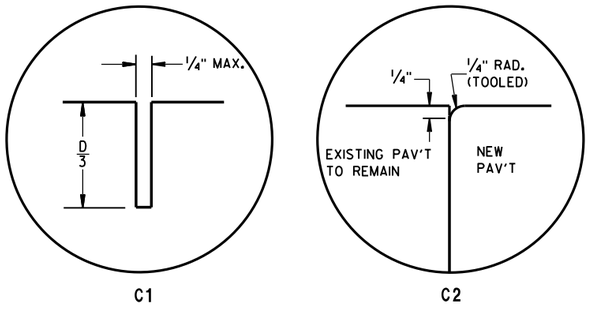
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 13 C 9-11a

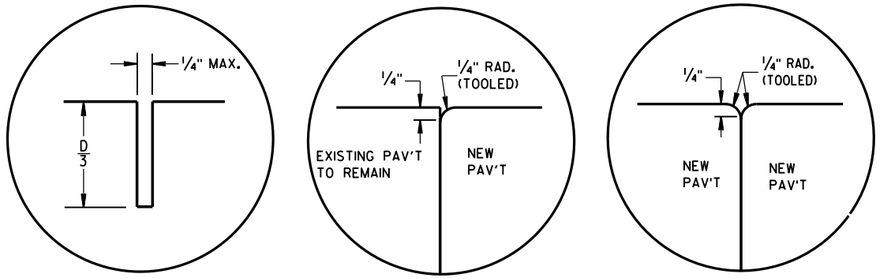


C1 C2

TRANSVERSE JOINTS

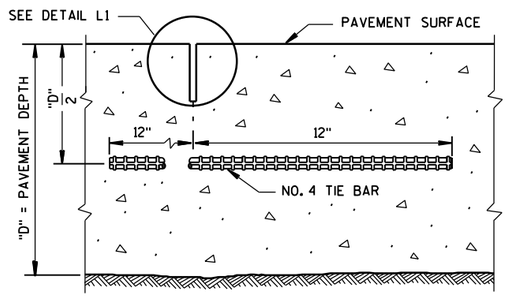
TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

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

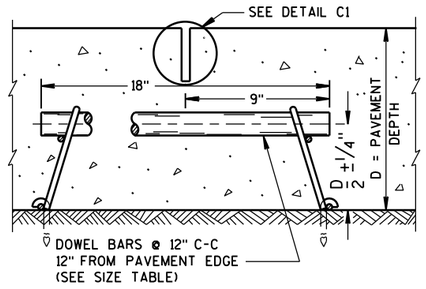
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

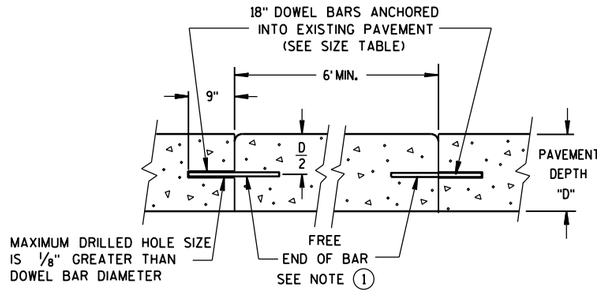
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

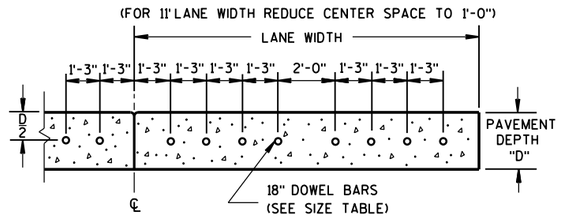


SECTION F-F

CONTRACTION JOINT



SECTION D-D

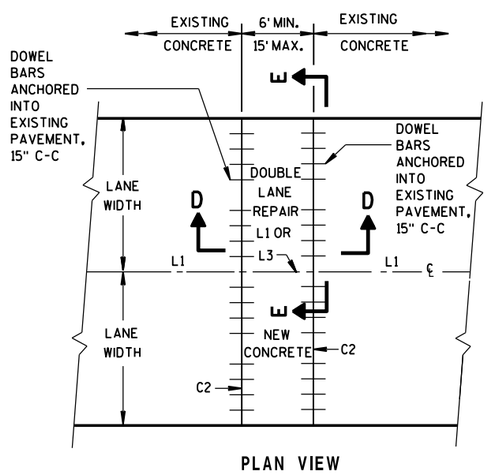


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

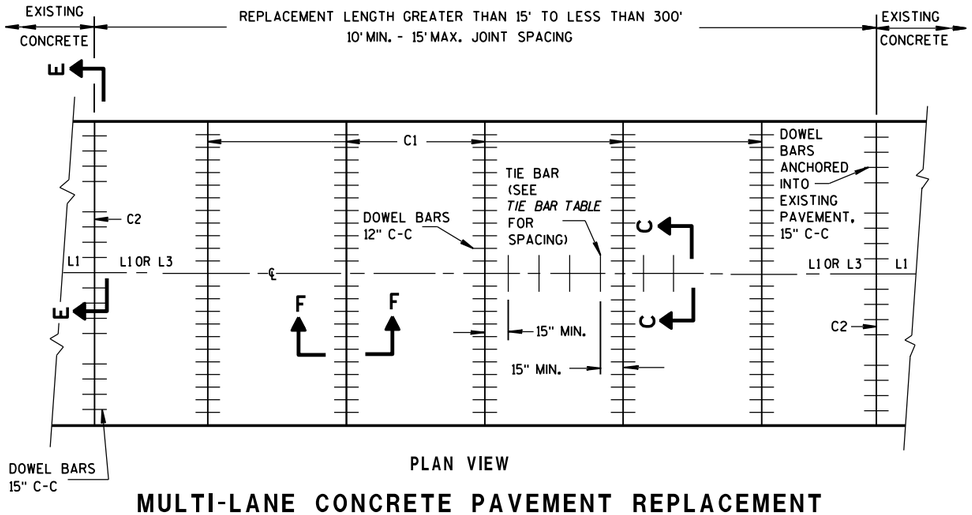
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6",6 1/2"	NONE	12'
7",7 1/2"	1"	14'
8",8 1/2"	1 1/4"	15'
9",9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

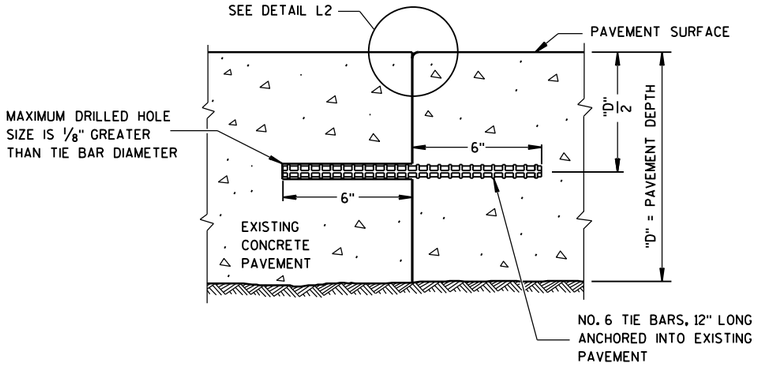
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 9-11b



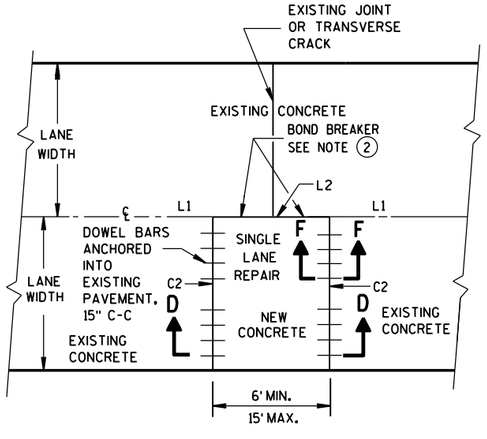
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

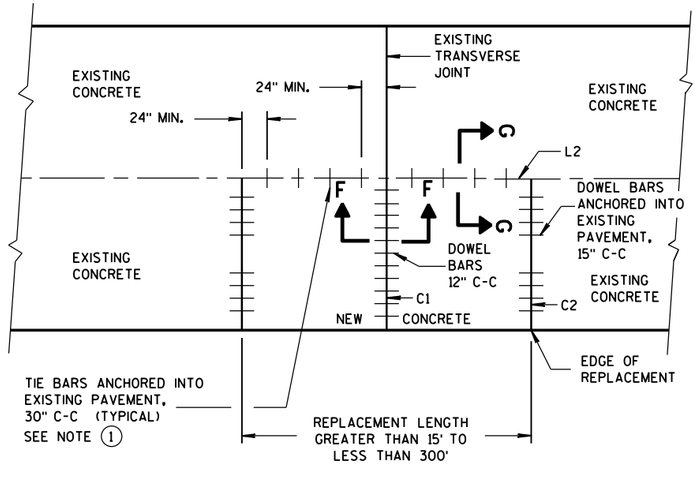
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE
FHWA

6

S.D.D. 13 C 9-11c

GENERAL NOTES

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

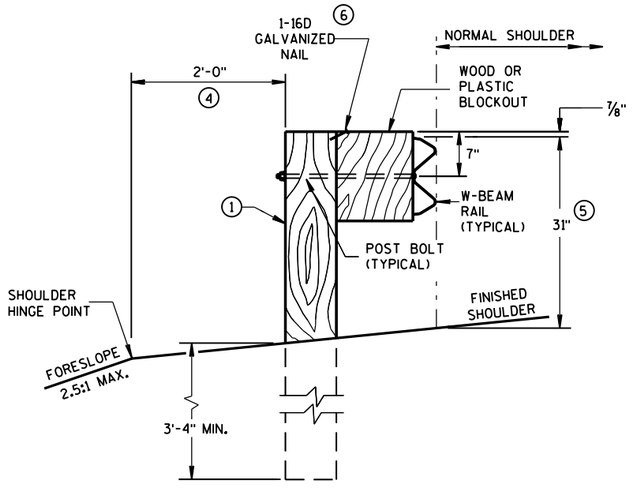
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

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

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

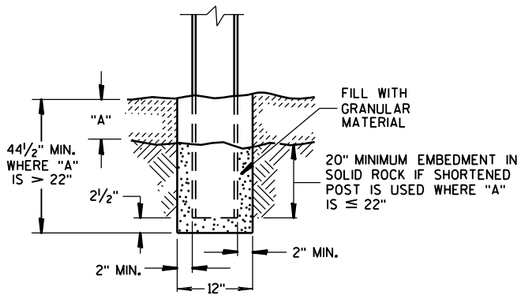
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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



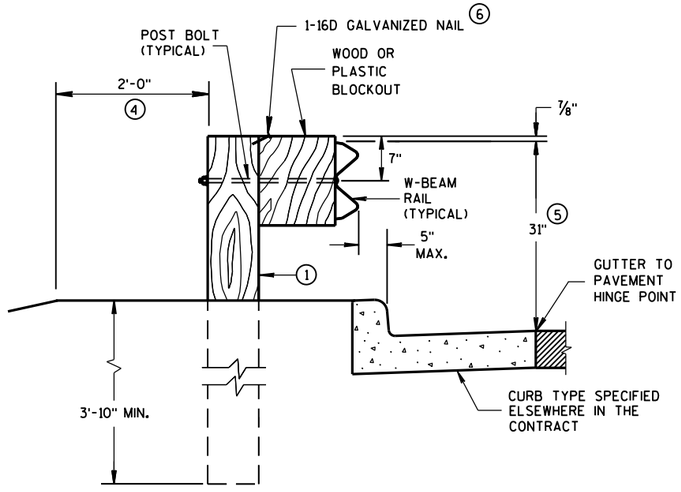
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



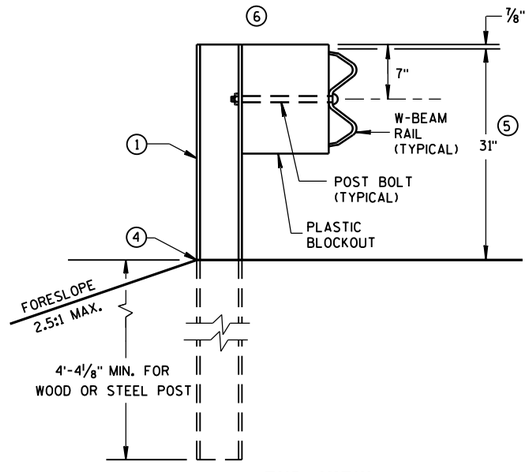
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



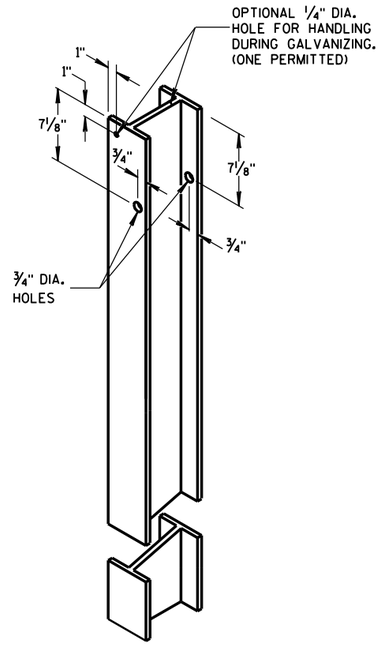
END VIEW

LOCATED ALONG A CURBED ROADWAY

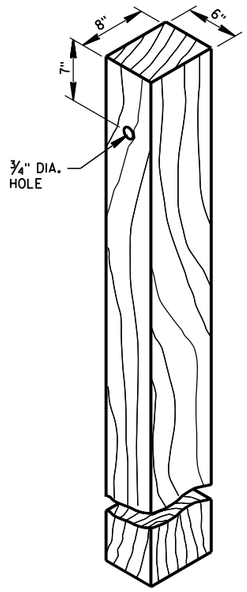


END VIEW

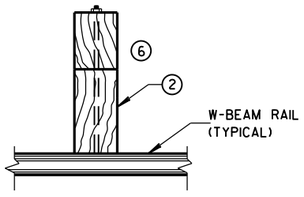
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



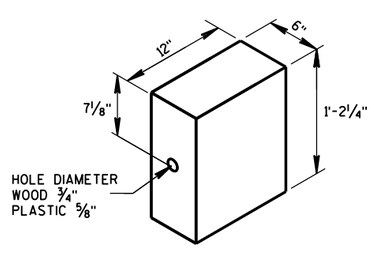
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



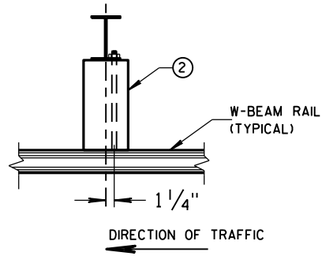
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

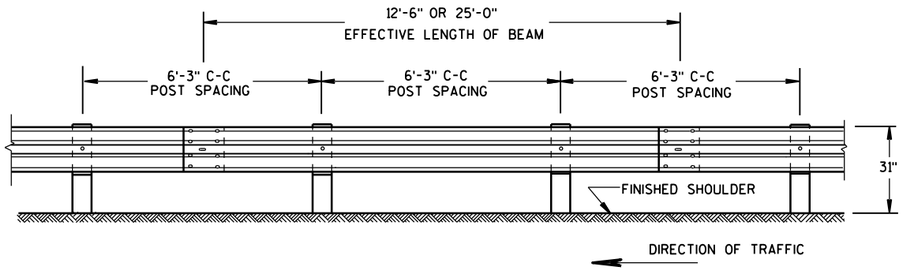


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

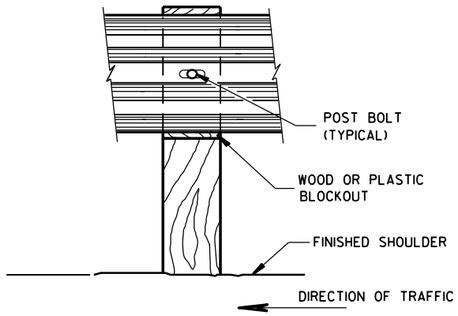
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 42-3a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

GENERAL NOTES

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

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

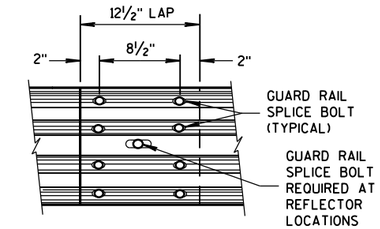
(9) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

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

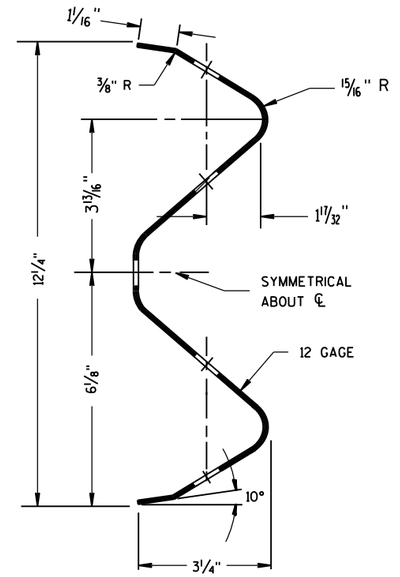
(11) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

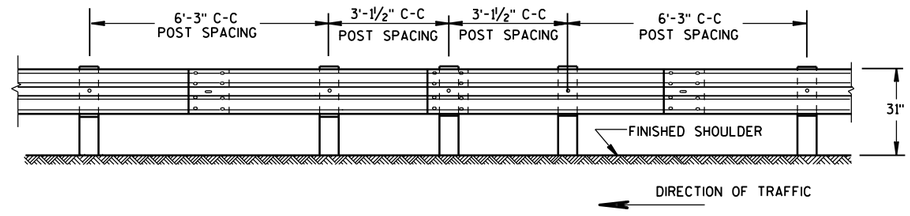
GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



FRONT VIEW
MID-SPAN BEAM SPLICE

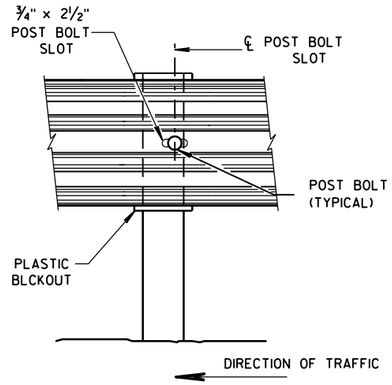


SECTION THRU W-BEAM RAIL



FRONT VIEW

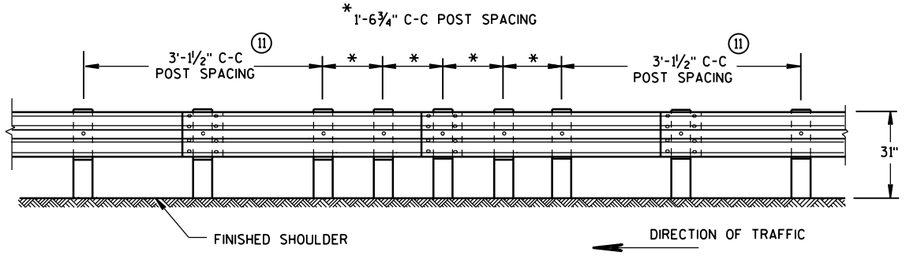
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



FRONT VIEW AT STEEL POST

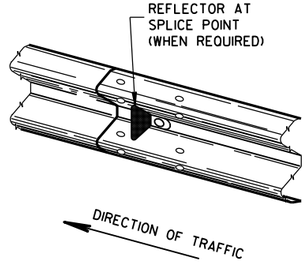
REFLECTOR SPACING (8)

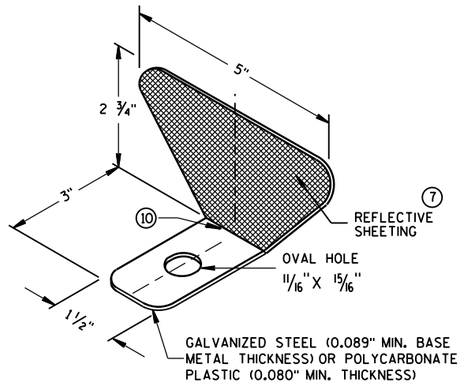
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	



FRONT VIEW

QUARTER POST SPACING (QS)



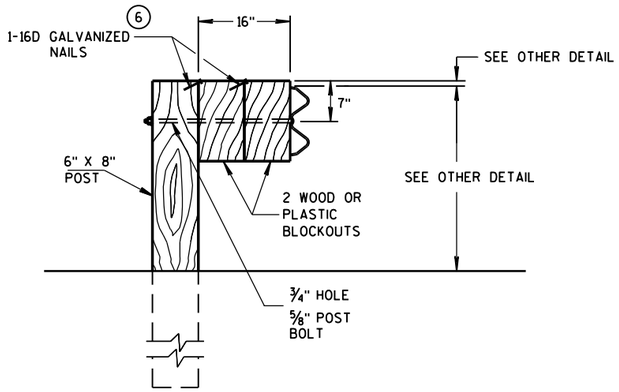


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

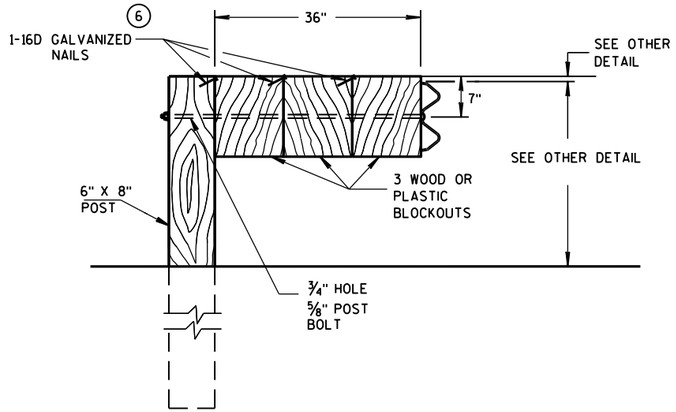
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

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

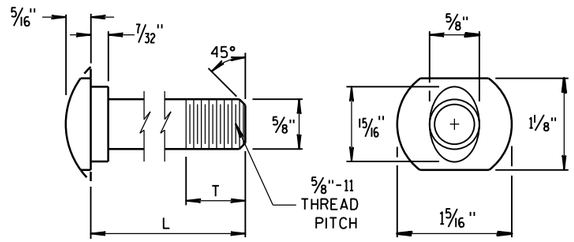


DETAIL FOR 36" BLOCKOUT DEPTH

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

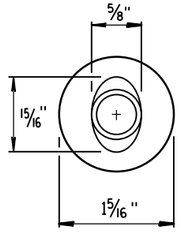
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

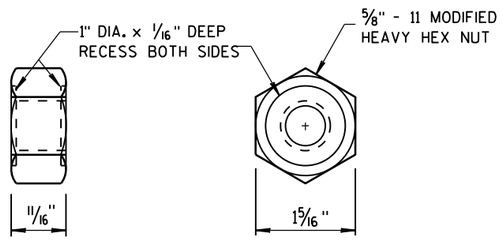


POST BOLT TABLE

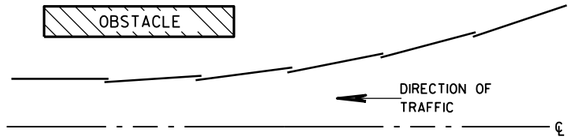
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

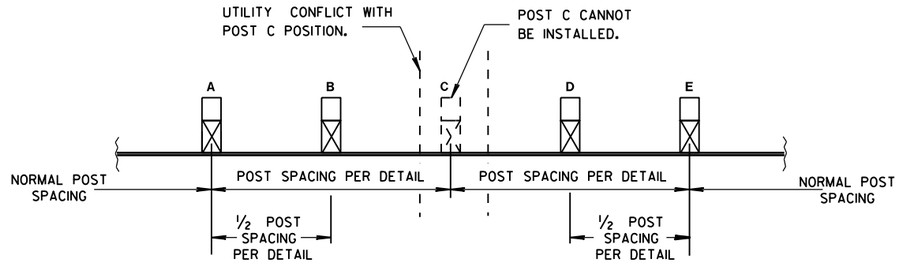


POST BOLT AND RECESS NUT

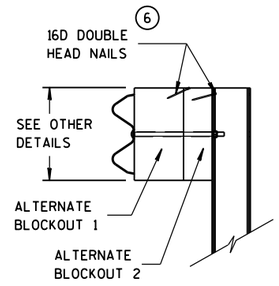


PLAN VIEW

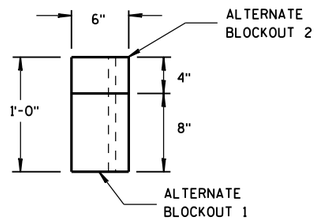
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 14 B 42-3c

GENERAL NOTES

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

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

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

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

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

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

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

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

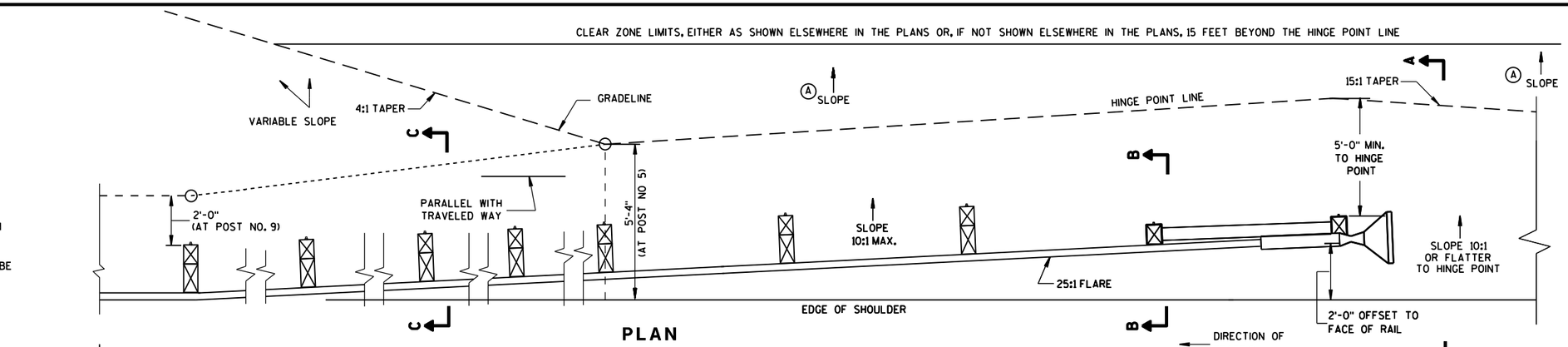
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

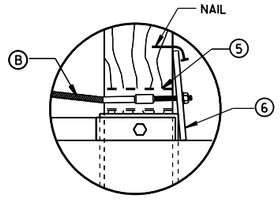
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

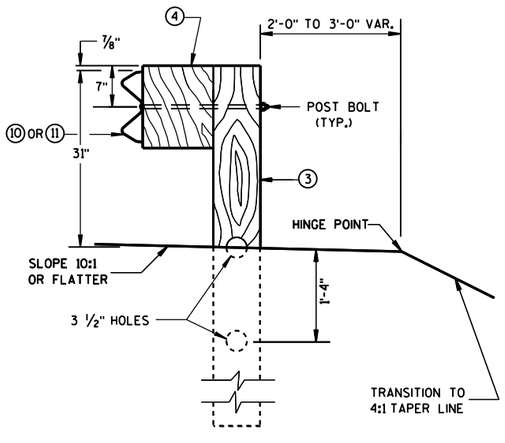
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

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

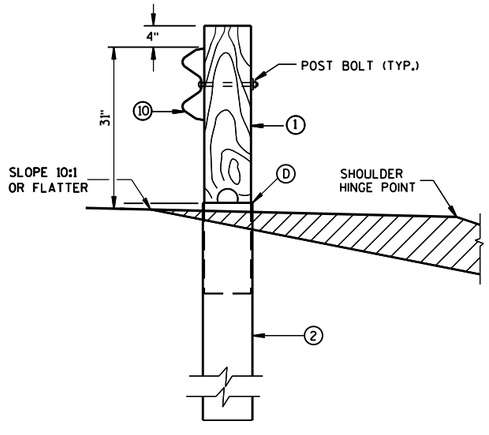


ELEVATION

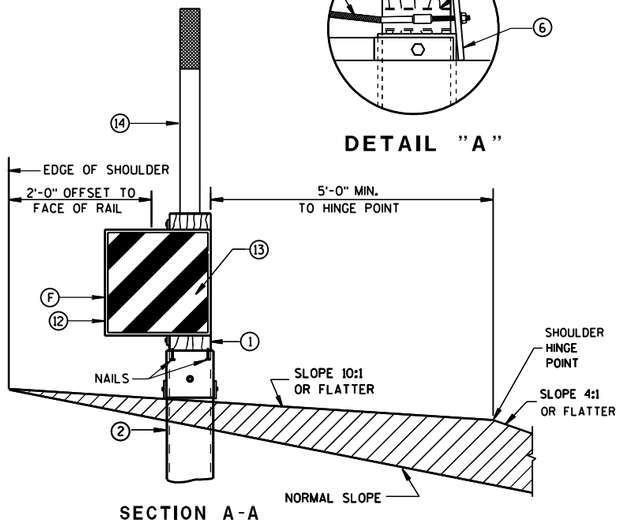




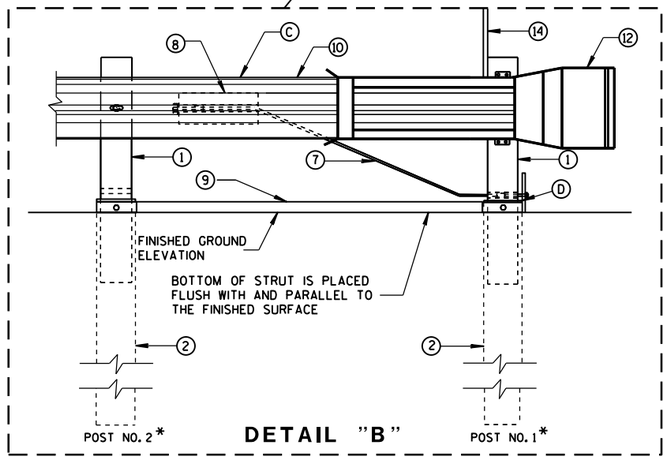
SECTION C-C
TYPICAL AT POST NOS. 3-9



SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



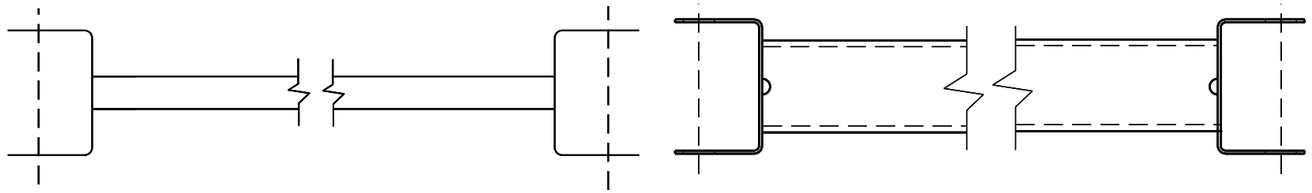
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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

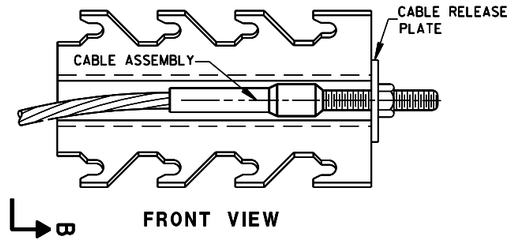
6



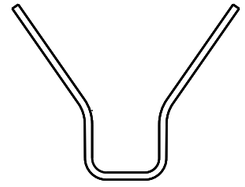
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

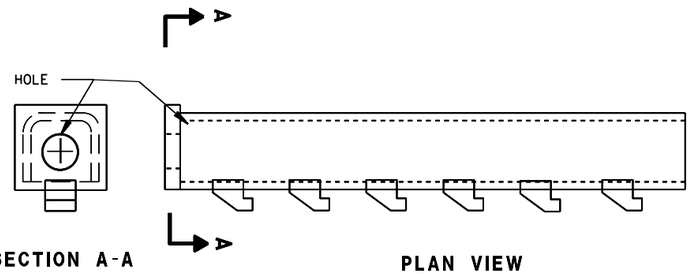
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR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



FRONT VIEW



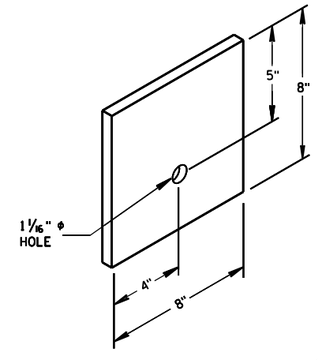
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



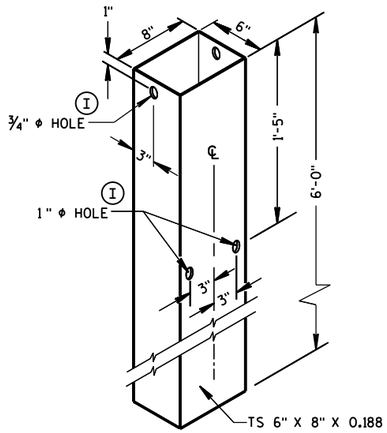
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

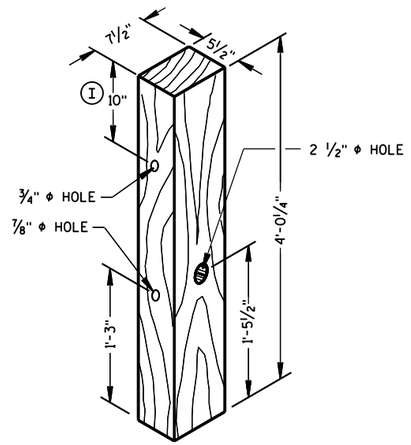
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

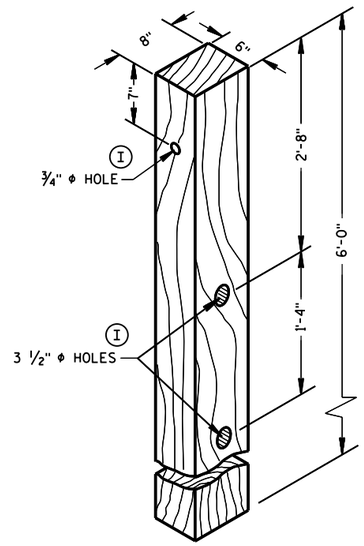


FOUNDATION TUBE (2)



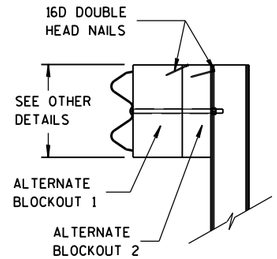
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

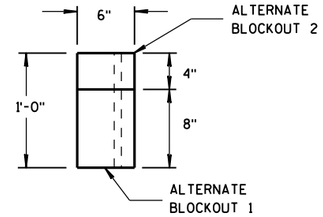


POSTS NUMBER 3-9

WOOD CRT POST (3)

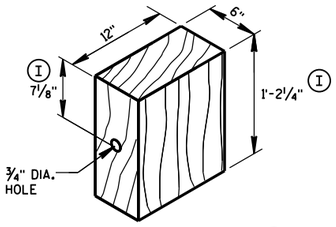


SIDE VIEW



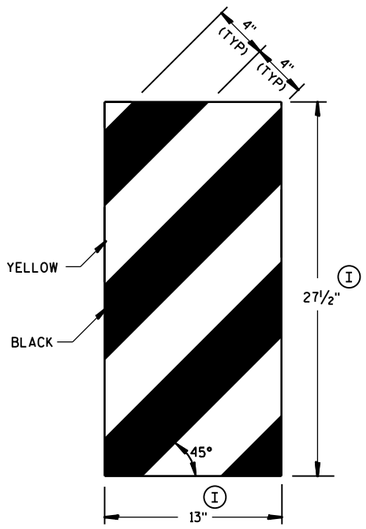
TOP VIEW

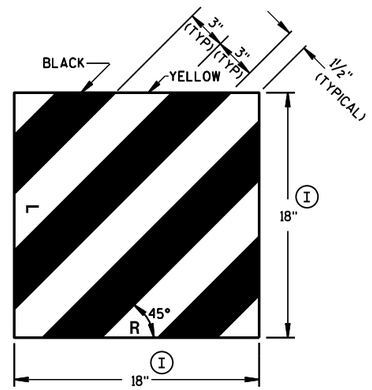
ALTERNATE WOOD BLOCKOUT DETAIL



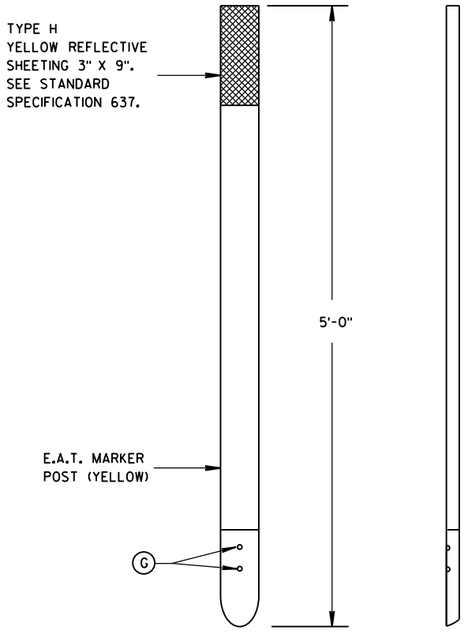
WOOD BLOCKOUT (4)

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





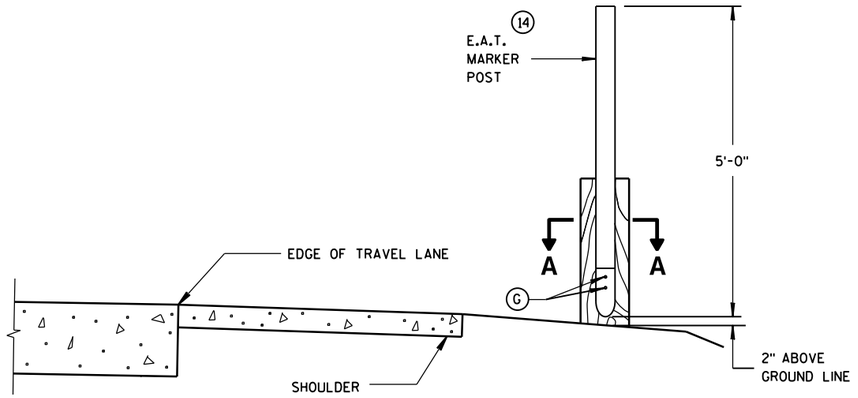
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

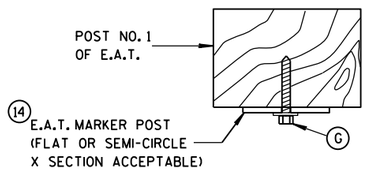
SIDE VIEW

E.A.T. MARKER POST (14)



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

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



SECTION A-A

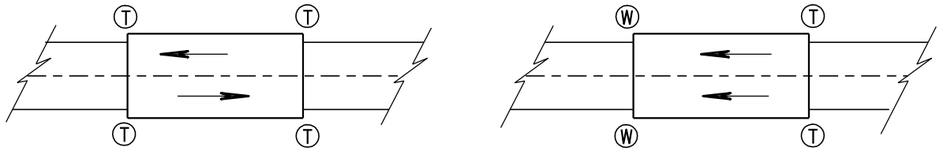
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

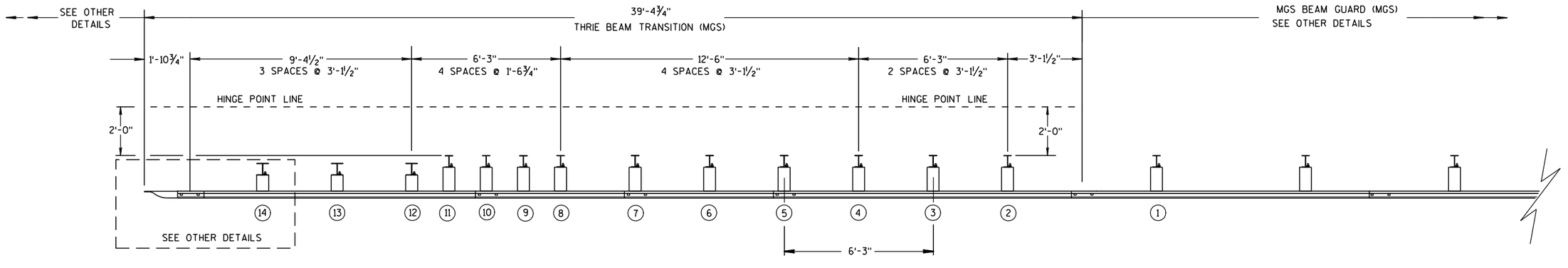
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

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

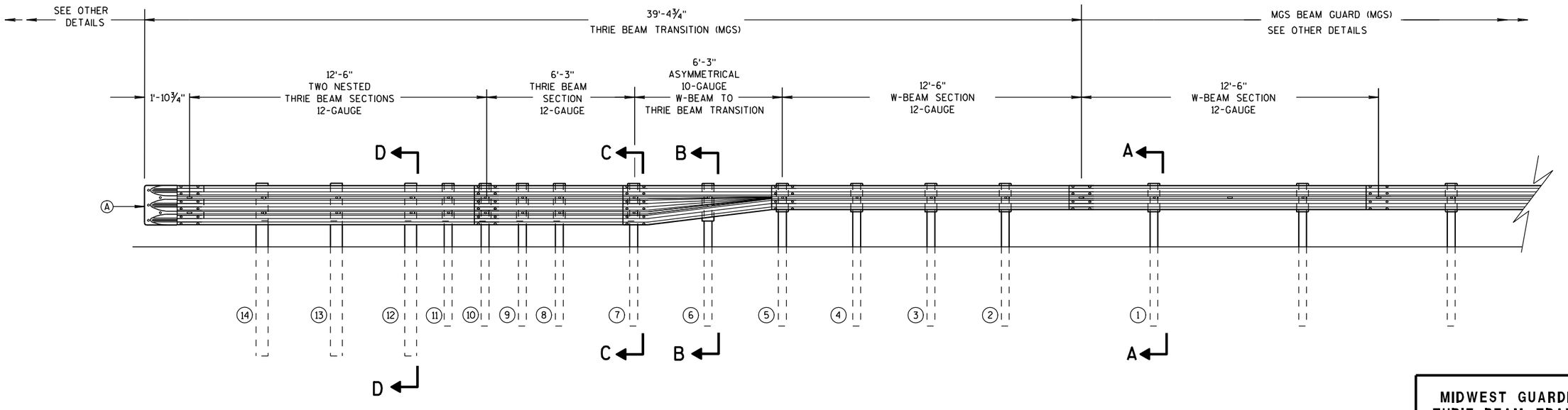
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

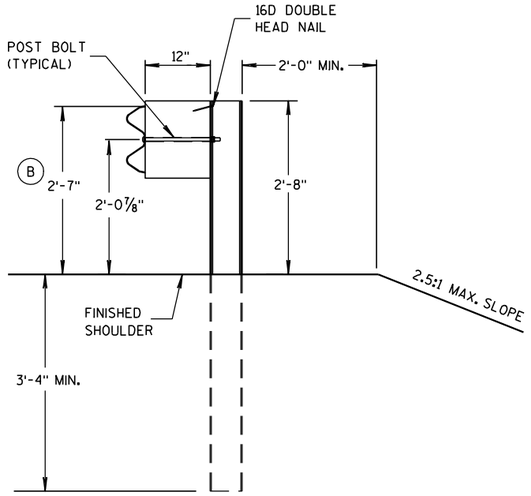
S.D.D. 14 B 45-3a

6

S.D.D. 14 B 45-3a

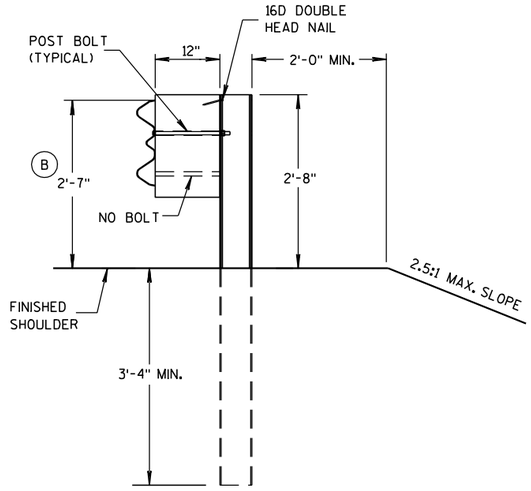
GENERAL NOTES

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



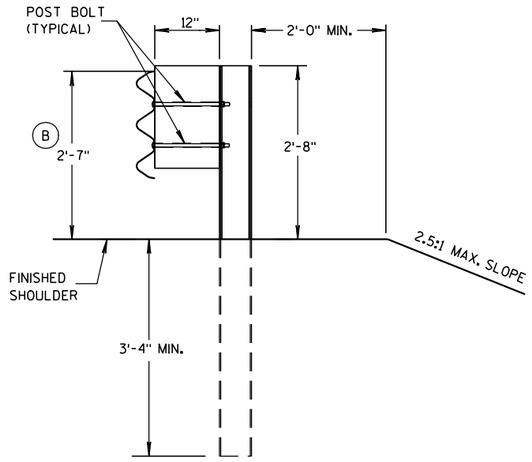
SECTION A-A

POSTS 1-5



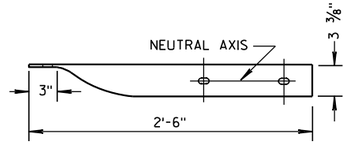
SECTION B-B

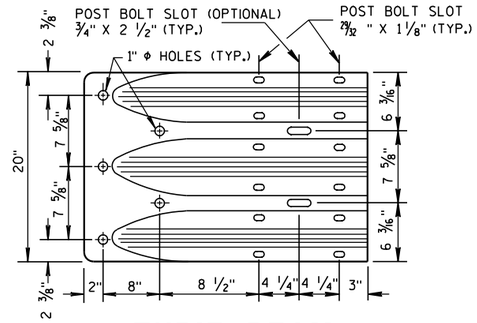
POST 6



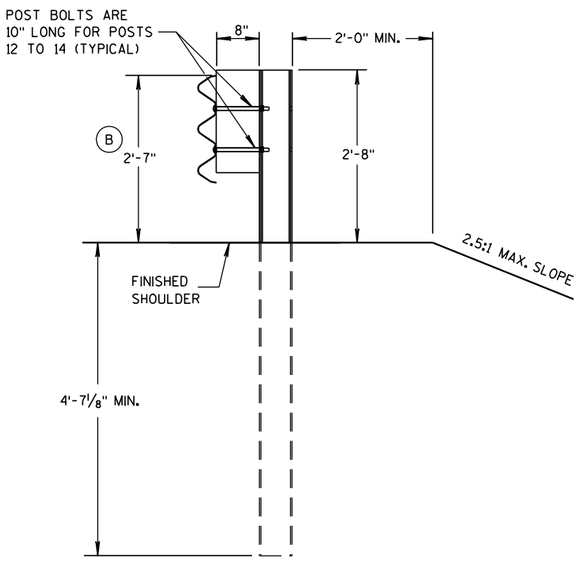
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

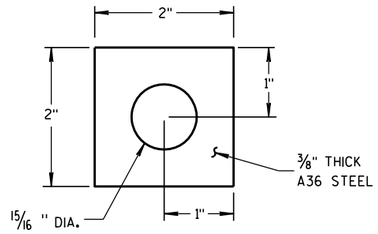
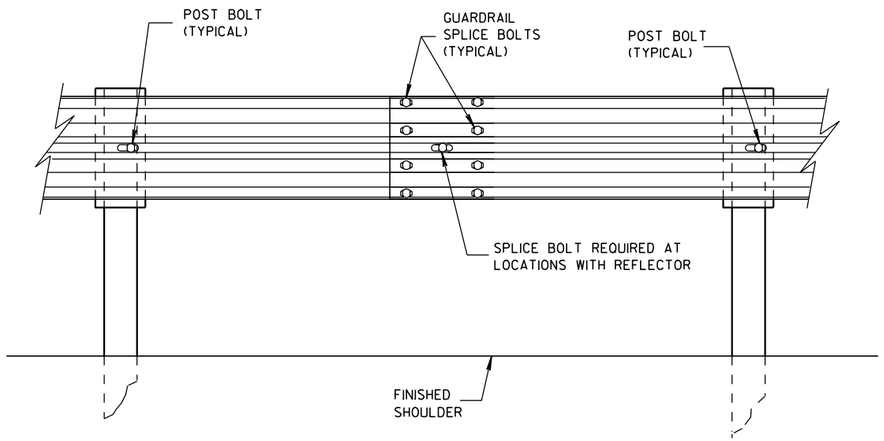
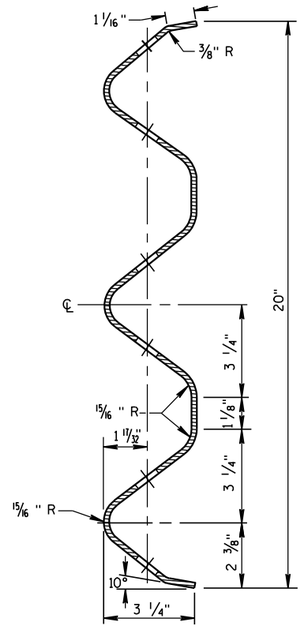


PLATE WASHER DETAIL



SPLICE DETAIL



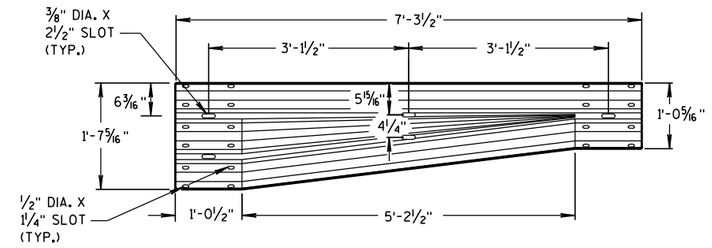
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

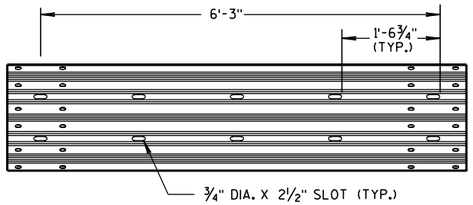
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

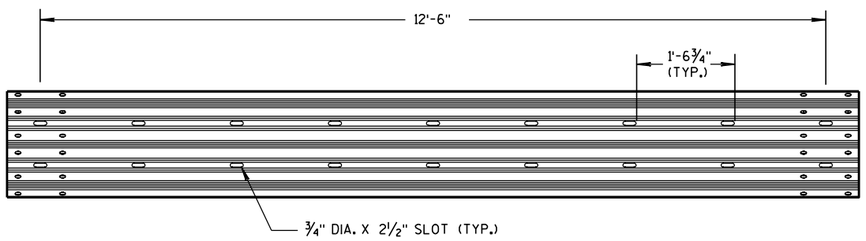
S.D.D. 14 B 45-3b



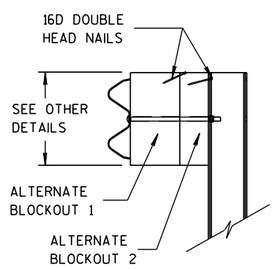
W-BEAM TO THRIE BEAM TRANSITION SECTION



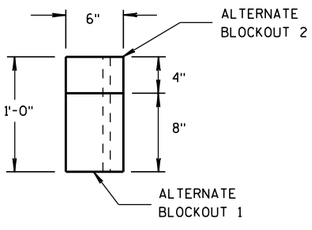
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

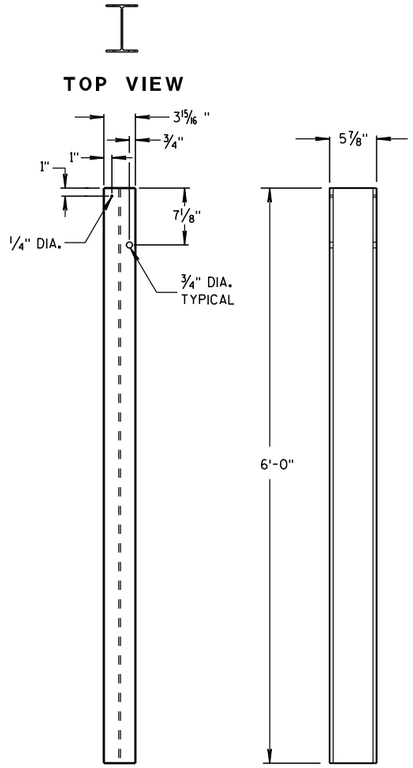


SIDE VIEW

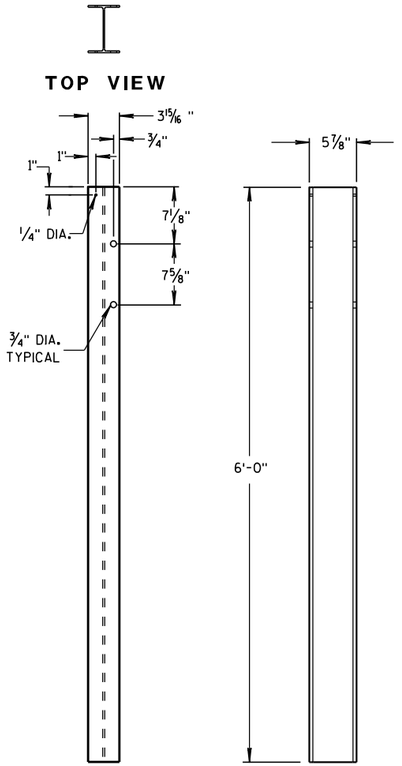


TOP VIEW

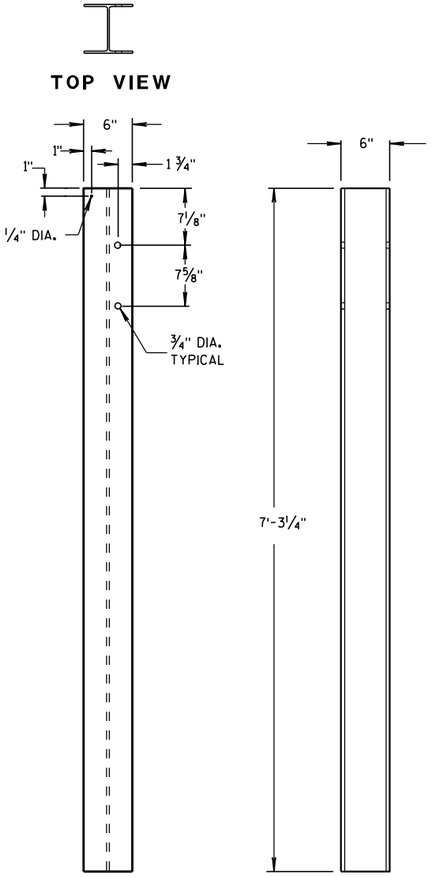
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

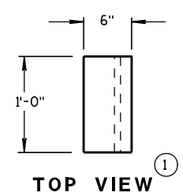


STEEL POSTS 6-11

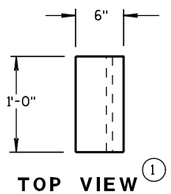


STEEL POSTS 12-14

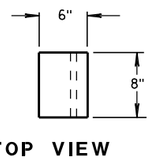
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



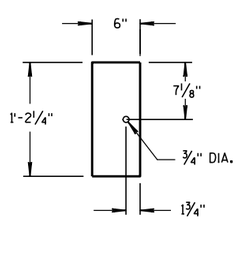
TOP VIEW (1)



TOP VIEW (1)

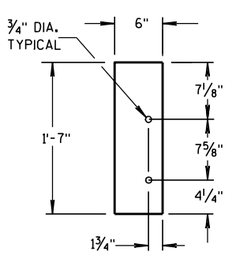


TOP VIEW



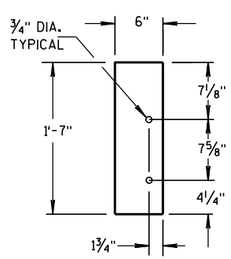
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

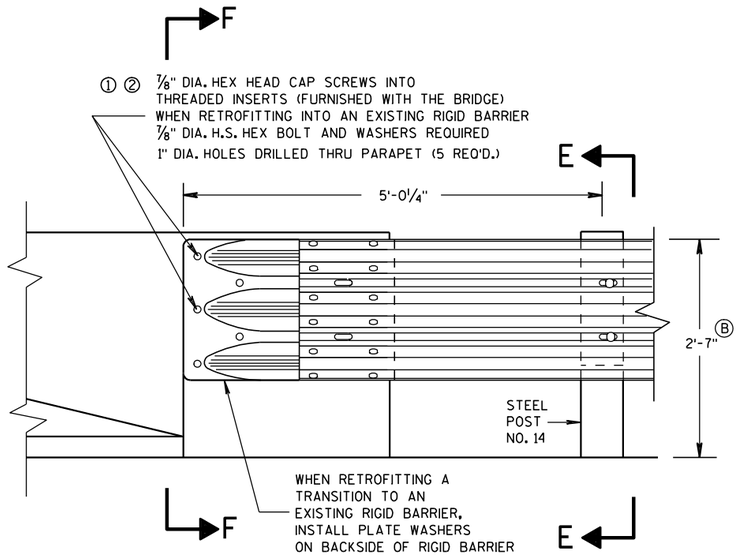
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

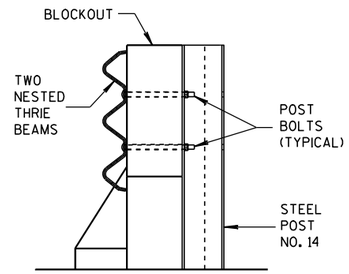
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

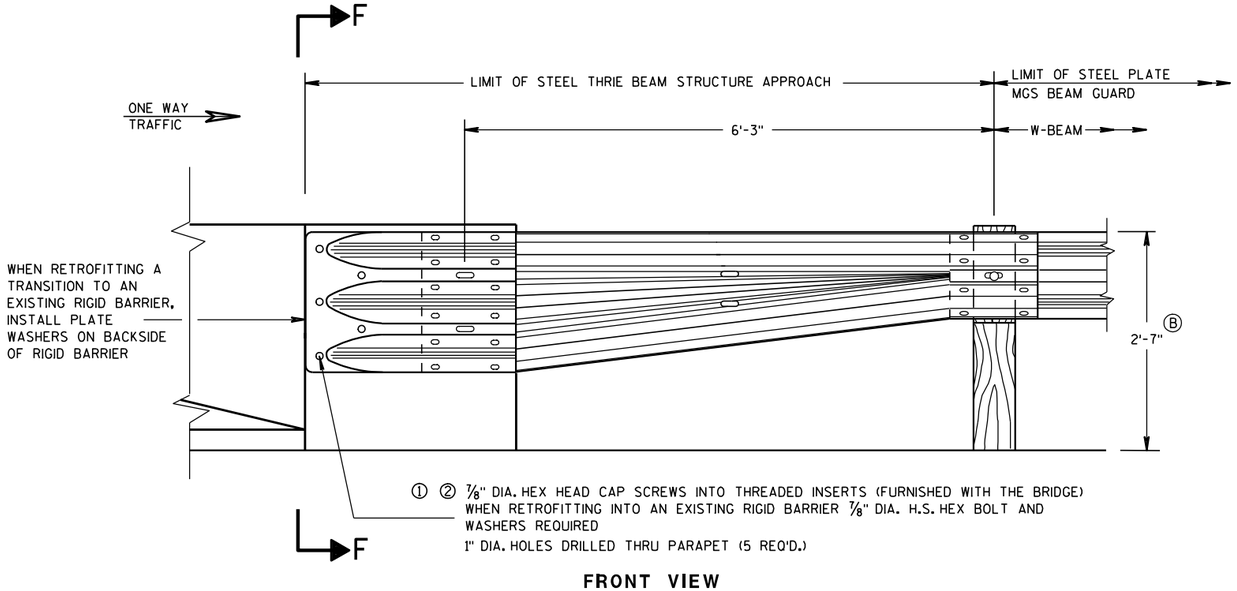
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② 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 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

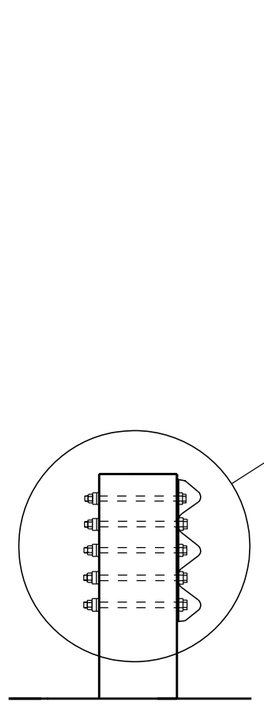
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

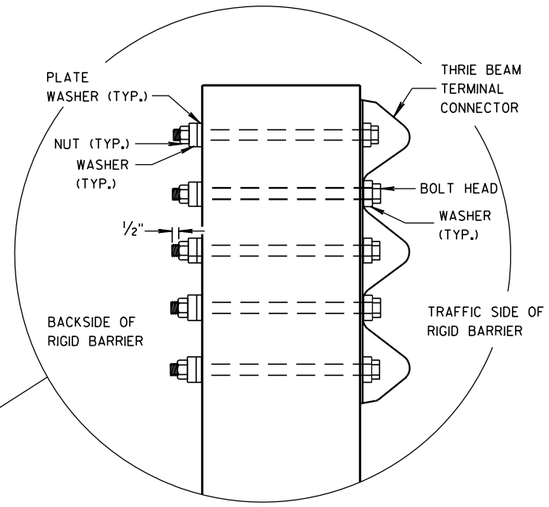
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F



W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

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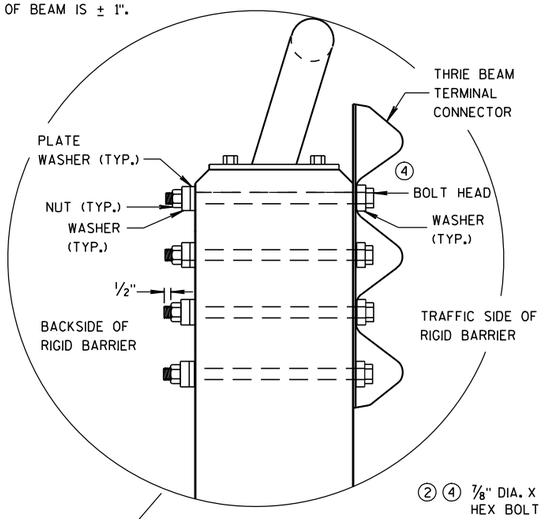
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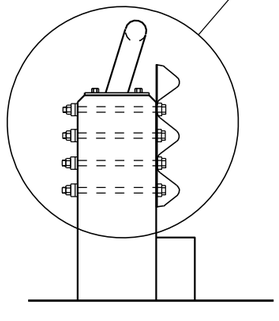
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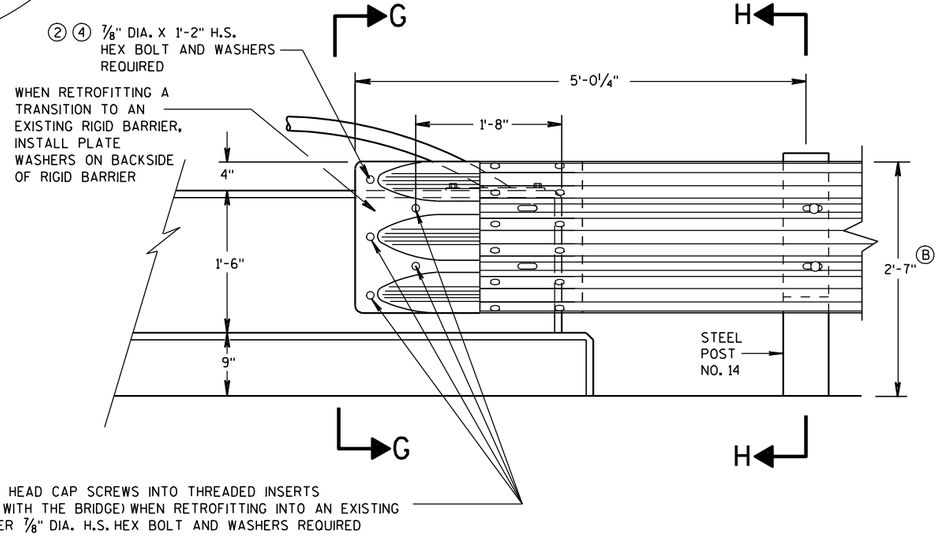
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

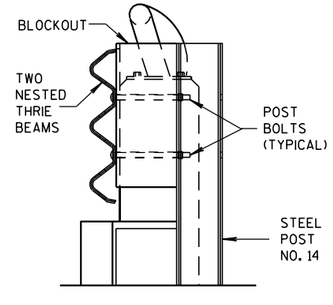




SECTION G-G

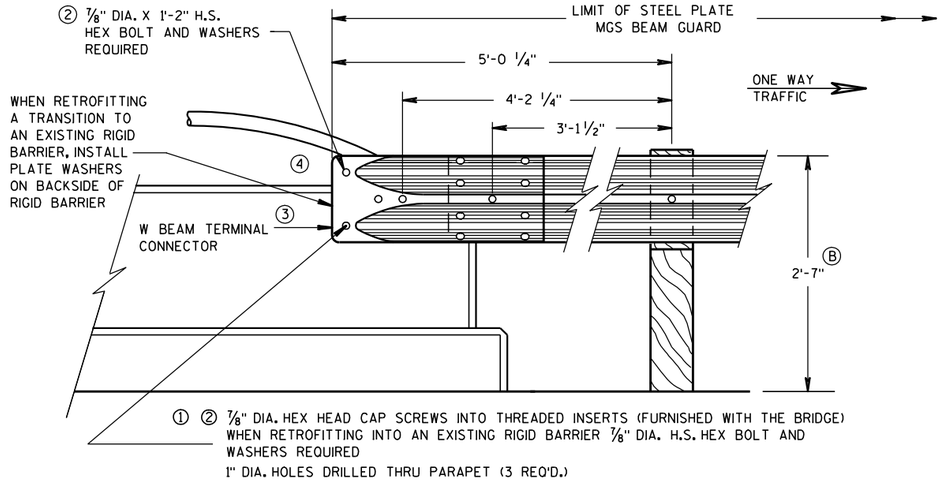


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

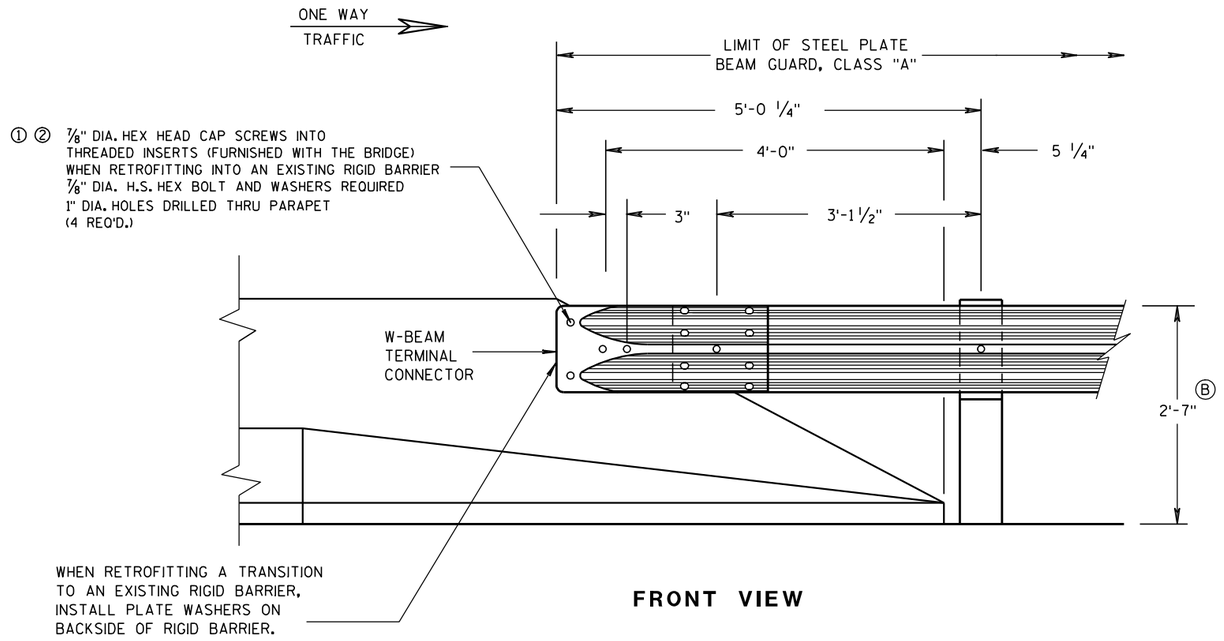
FHWA

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S.D.D. 14 B 45-3e

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S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

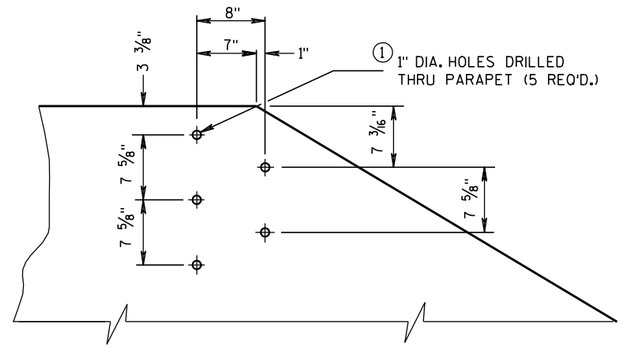
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

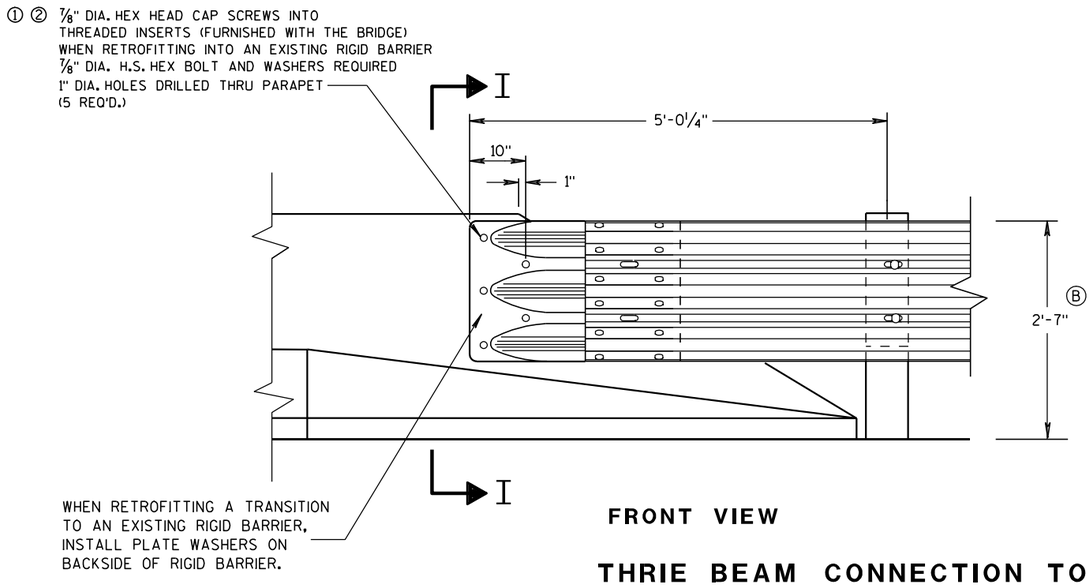
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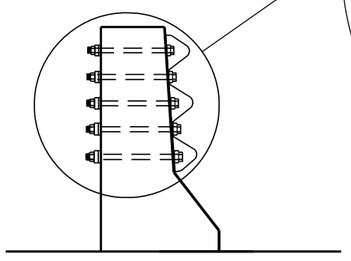
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



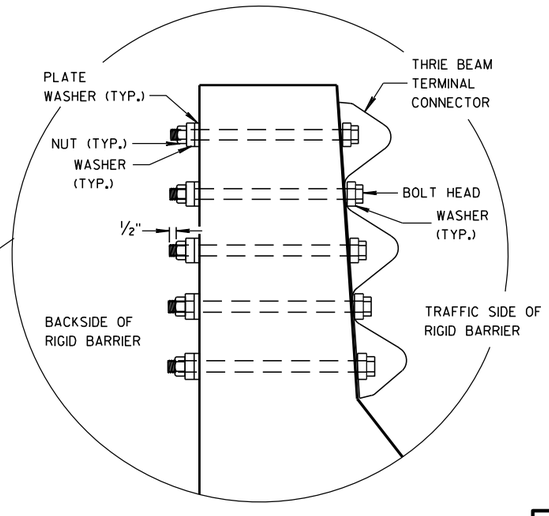
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



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

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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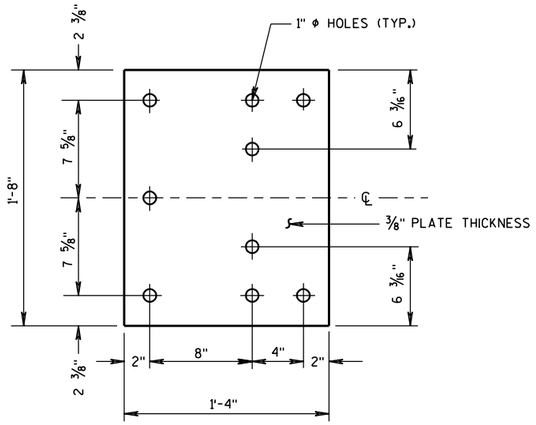
FHWA

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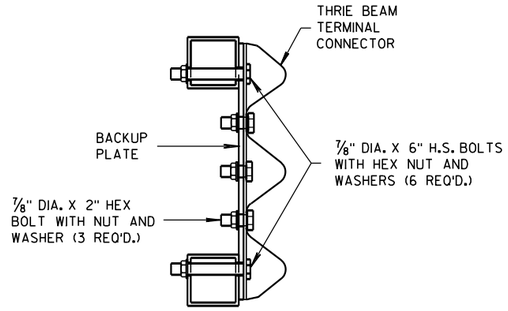
S.D.D. 14 B 45-3f

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S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

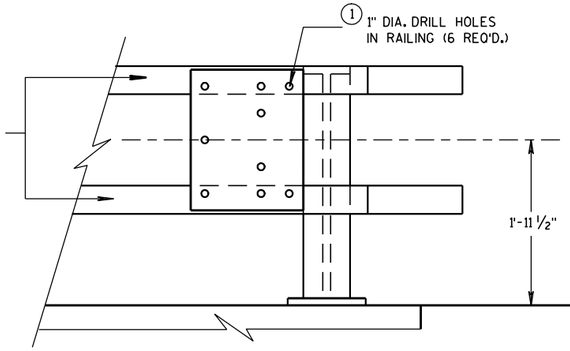


SECTION J-J

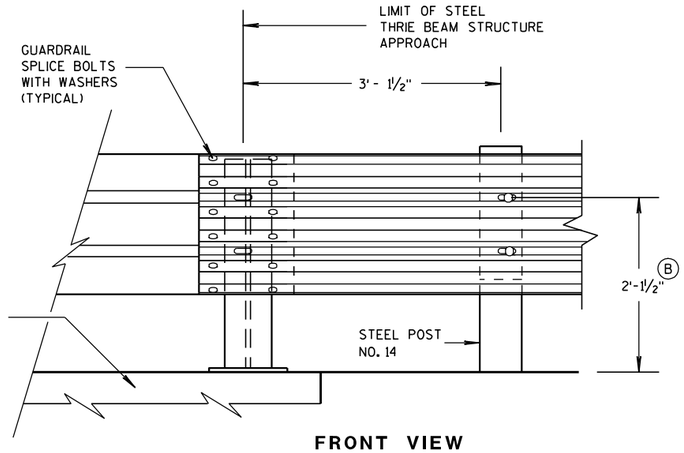
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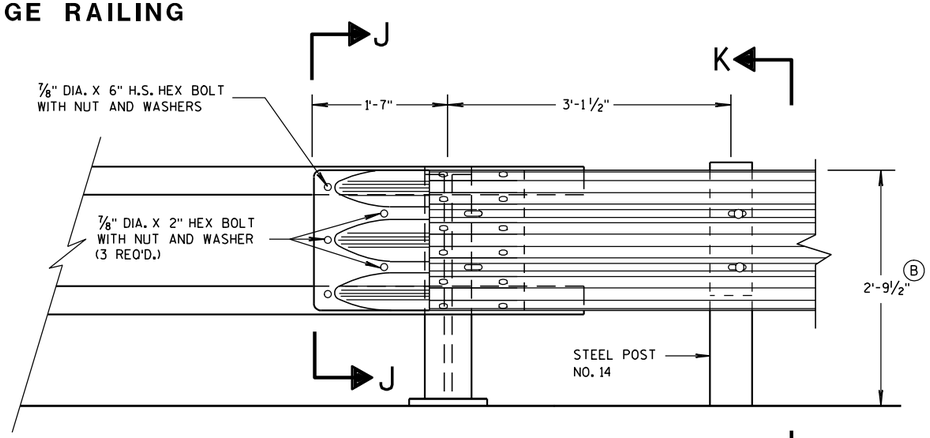


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

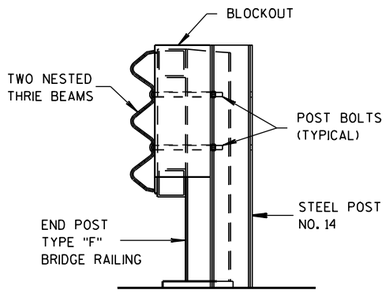


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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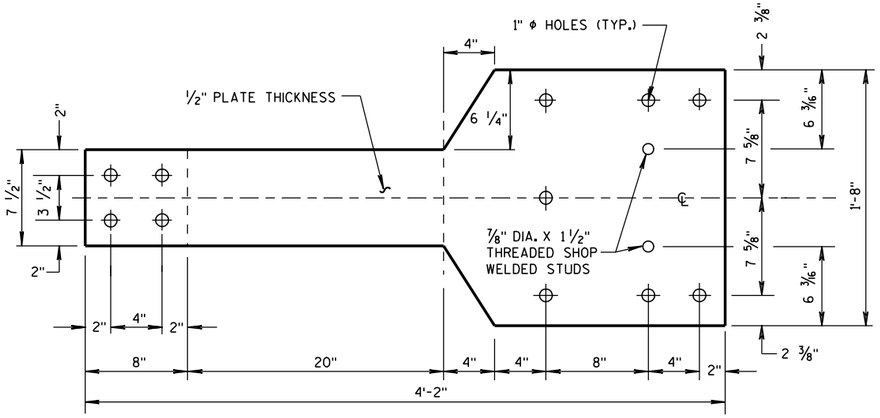
S.D.D. 14 B 45-3g

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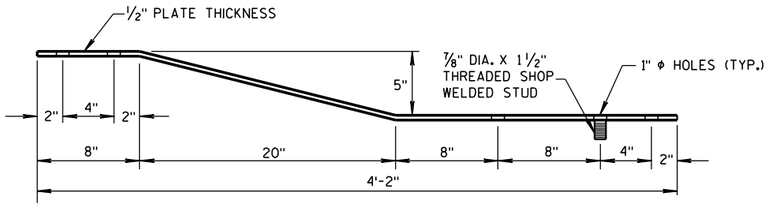
S.D.D. 14 B 45-3g

GENERAL NOTES

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

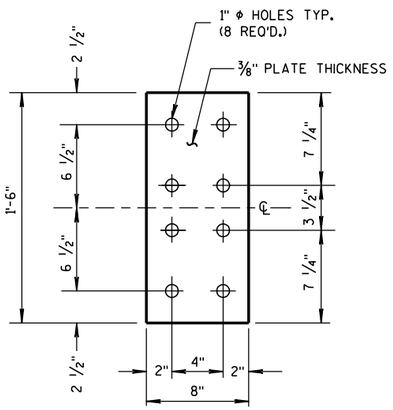


FRONT VIEW



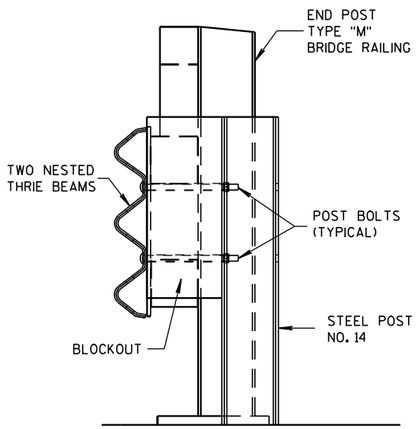
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

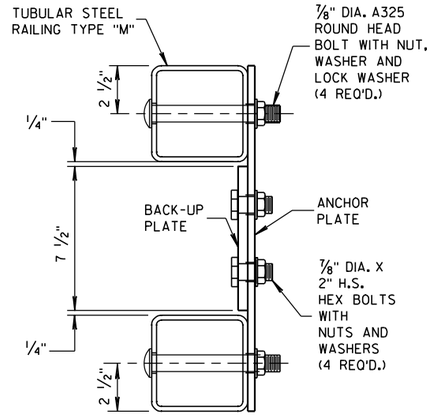


FRONT VIEW

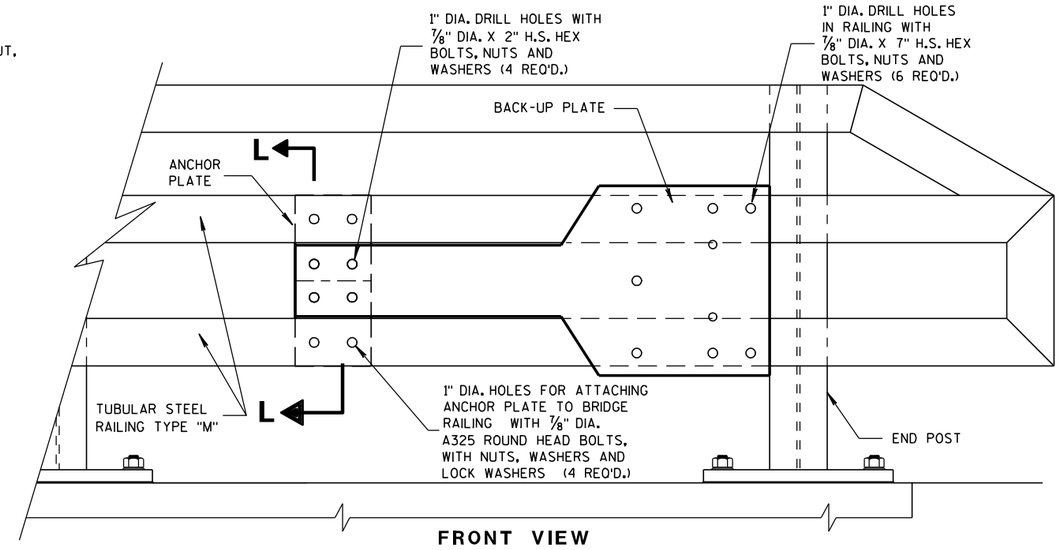
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

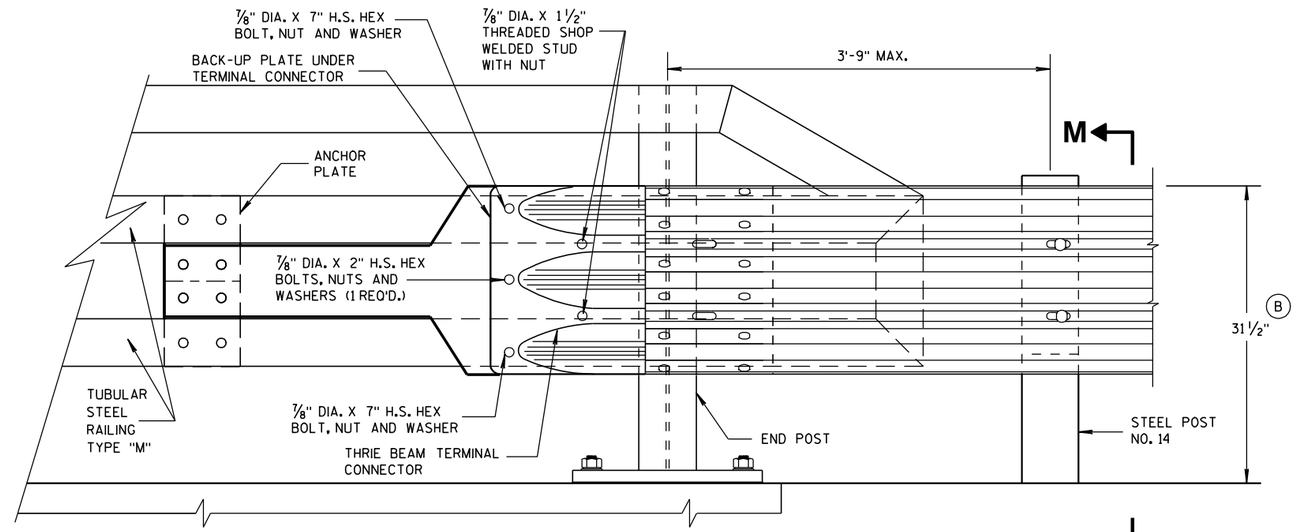


SECTION L-L

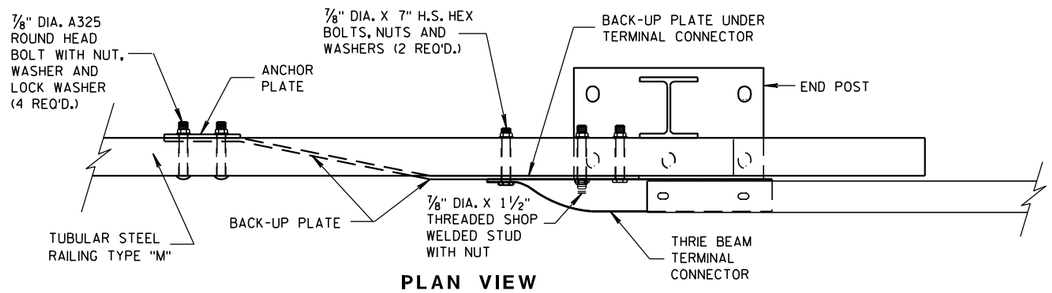


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA ENT

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S.D. 14 B 45-3h

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S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

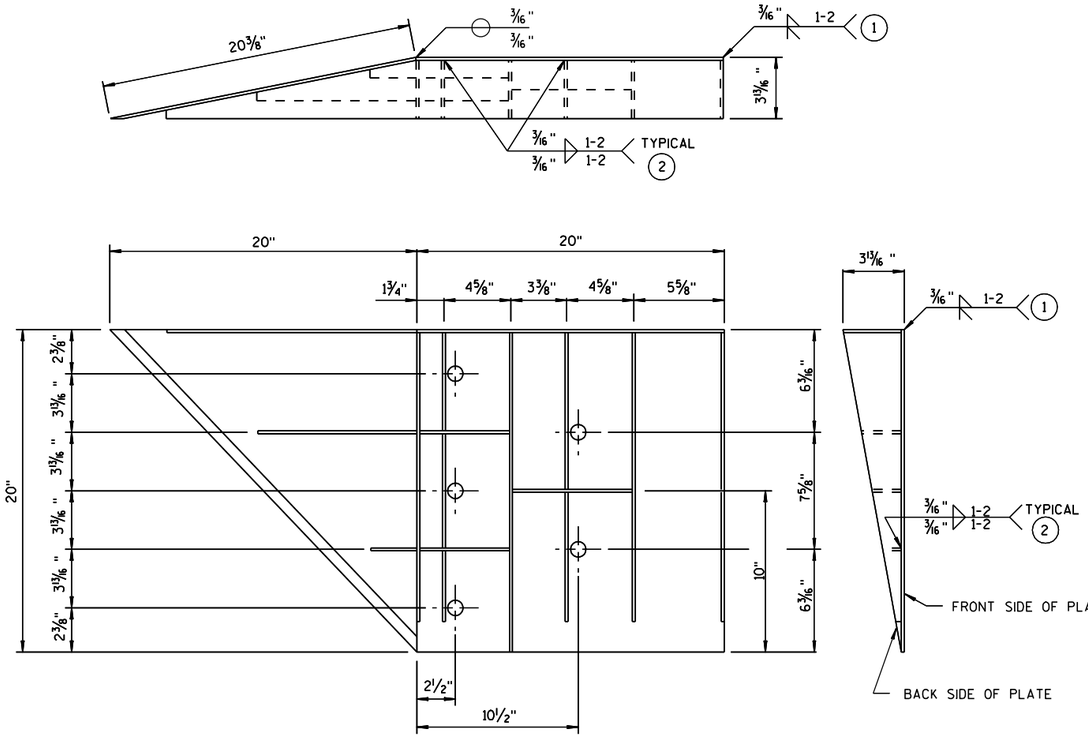
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

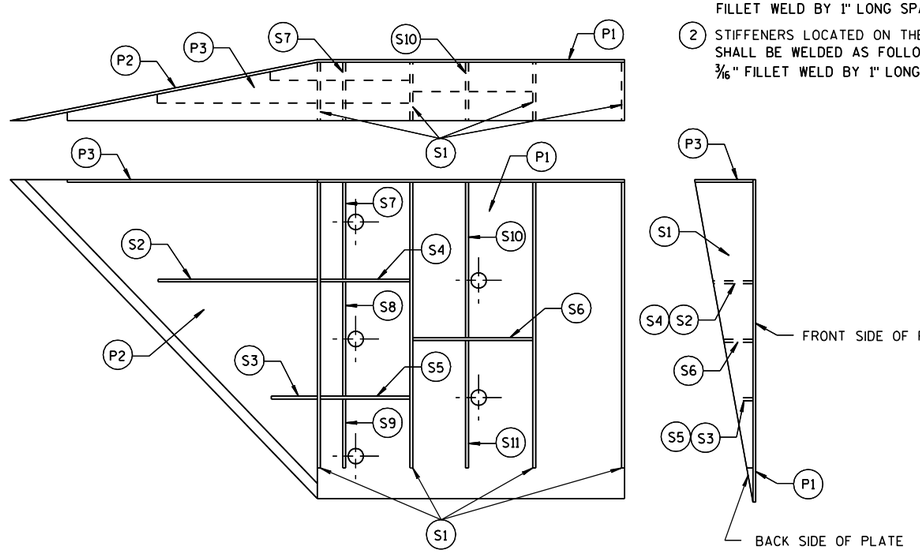


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H ____
ROADWAY STANDARDS ENGINEER

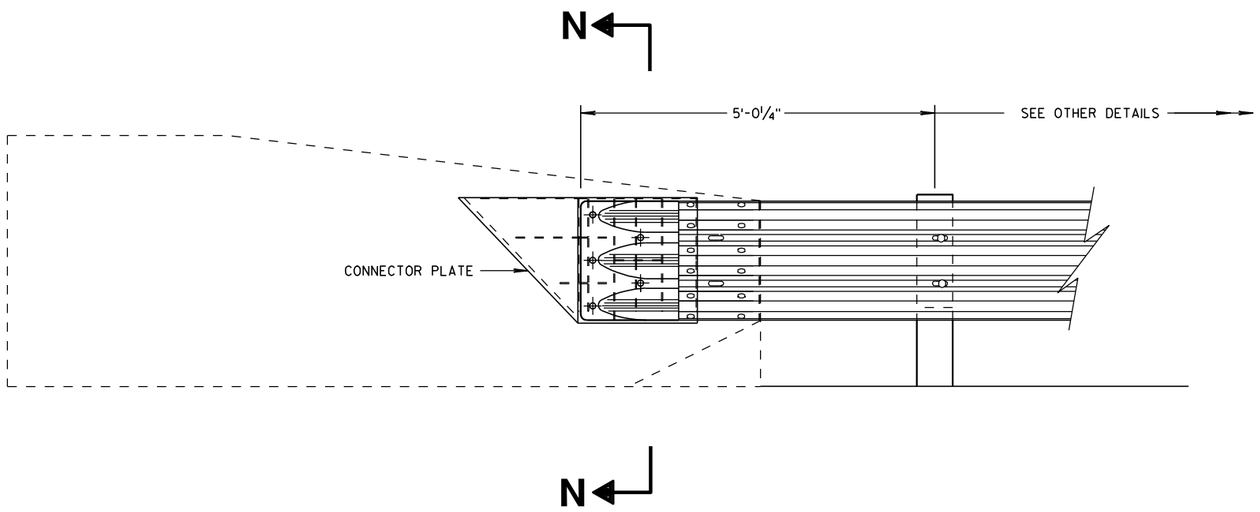
FHWA

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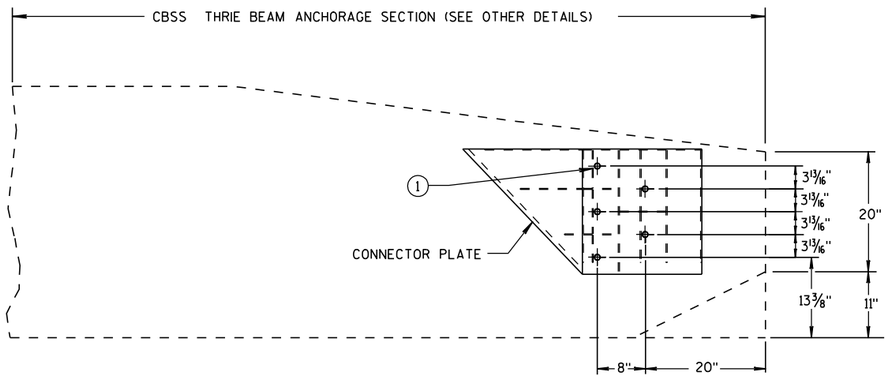
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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

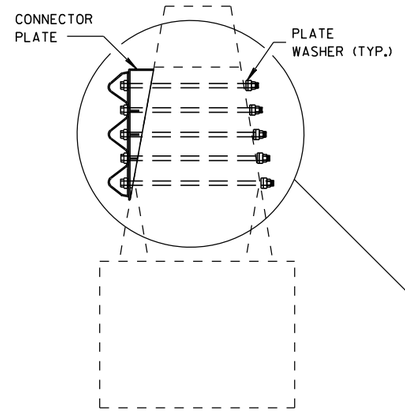


SINGLE SLOPE CONNECTION PLATE PLACEMENT

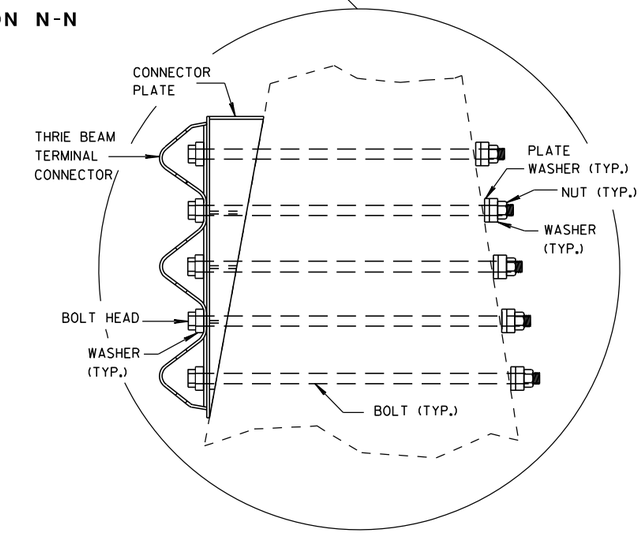
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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

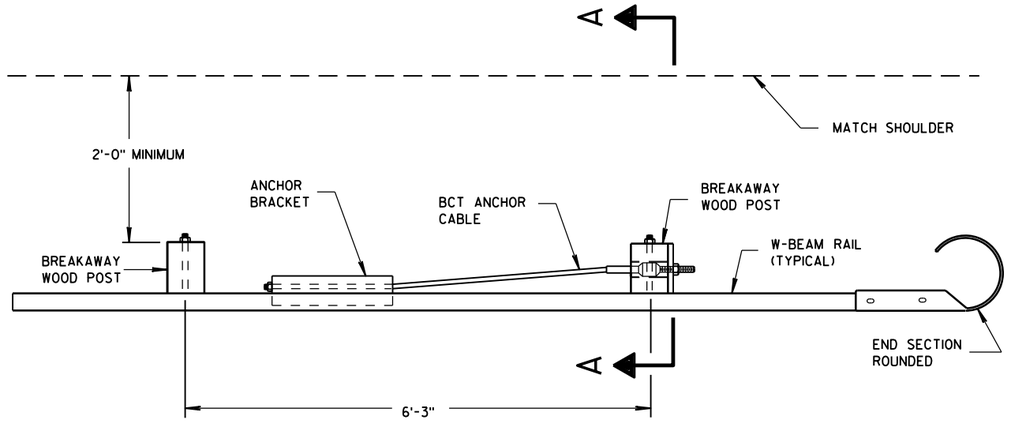
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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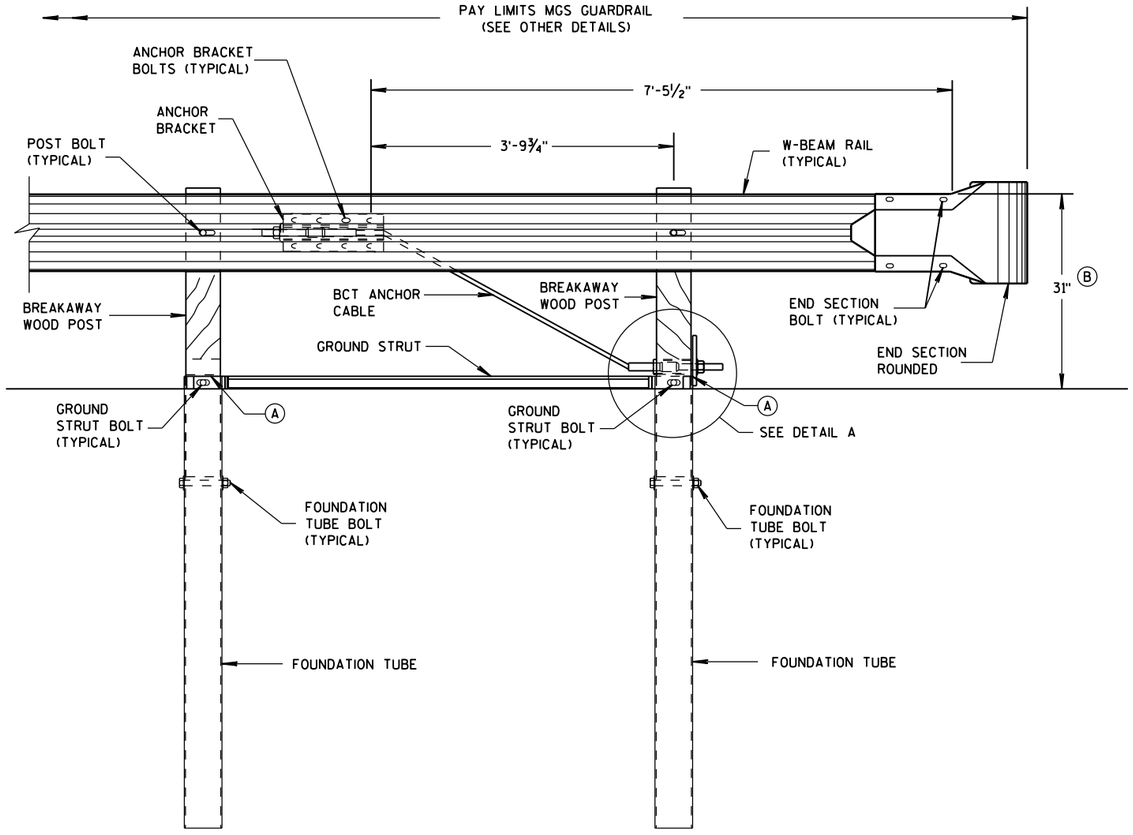
S.D.D. 14 B 45-3j

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S.D.D. 14 B 45-3j

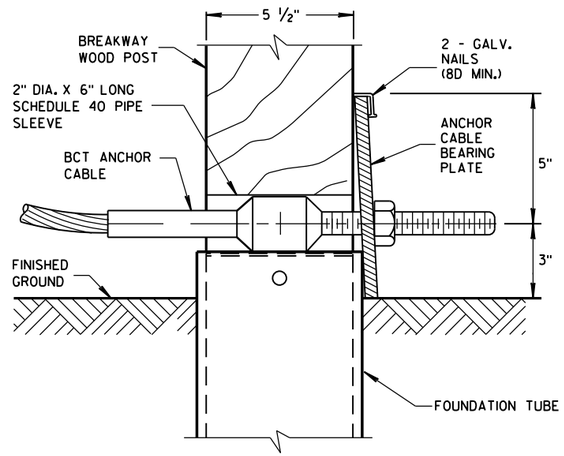


PLAN VIEW



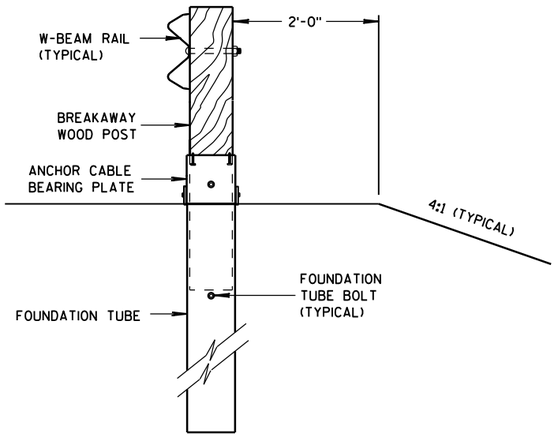
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

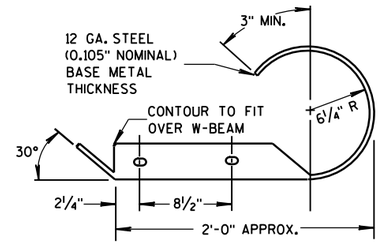
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

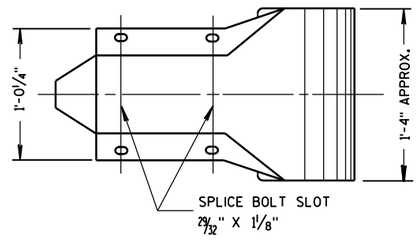
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



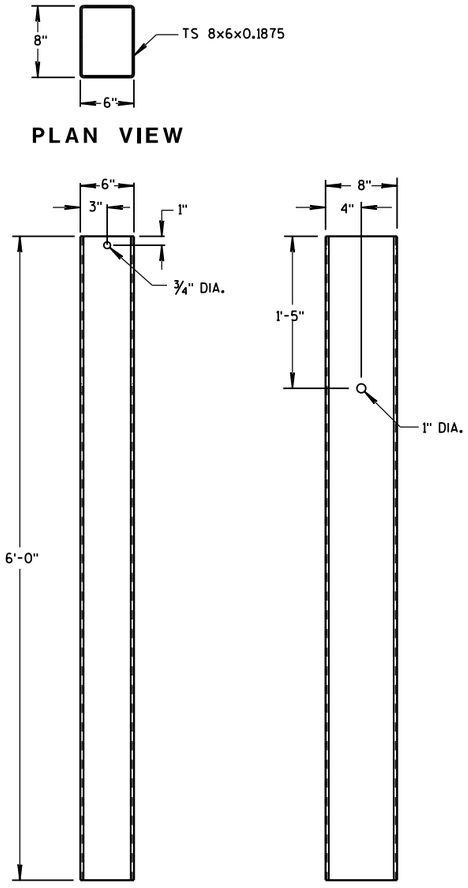
FRONT VIEW

W BEAM END SECTION ROUNDED

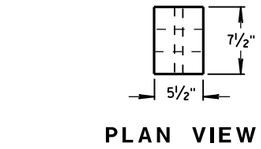
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

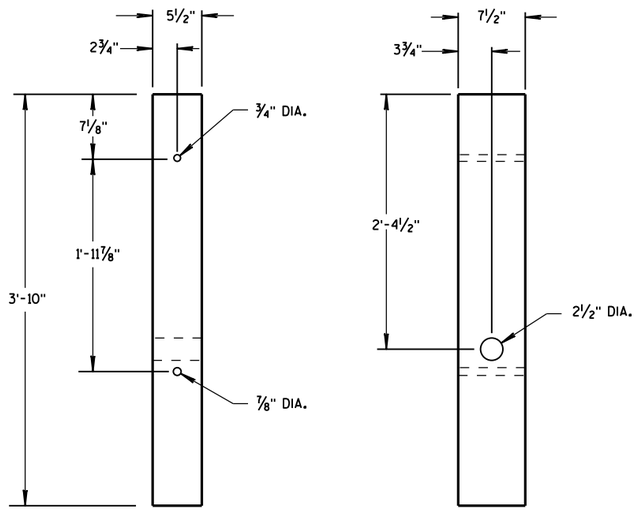
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 14 B 47-2a



FOUNDATION TUBE



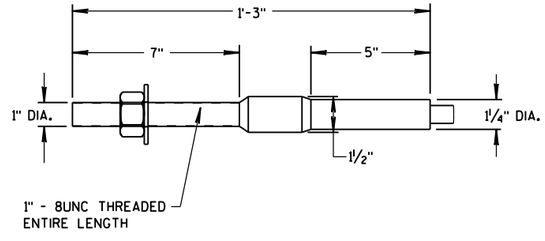


BREAKAWAY WOOD POST

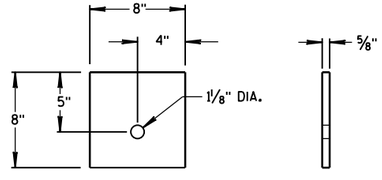
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



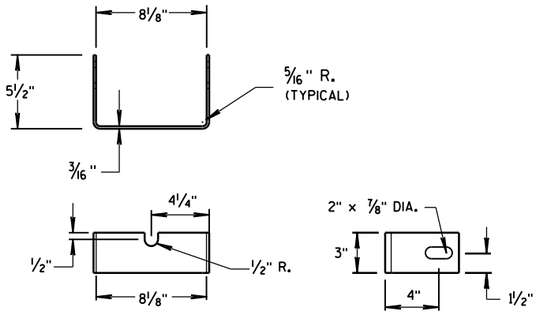
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

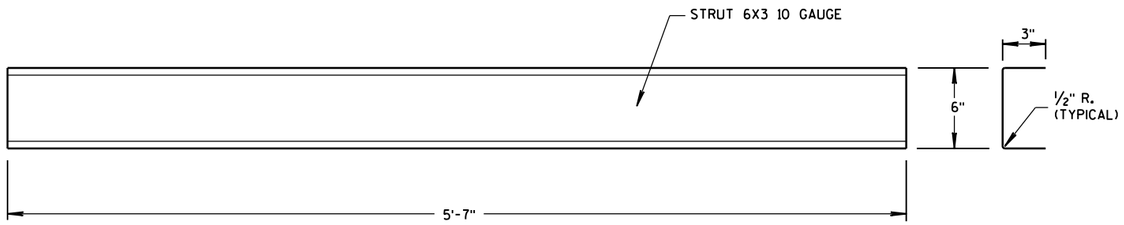
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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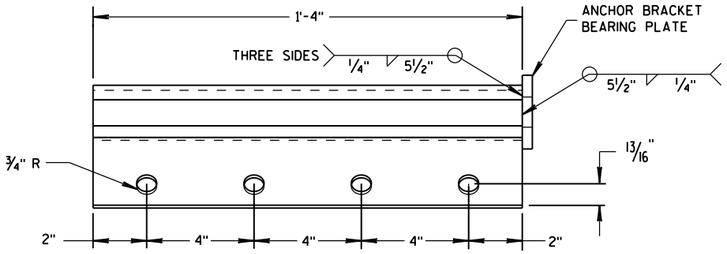
S.D.D. 14 B 47-2b

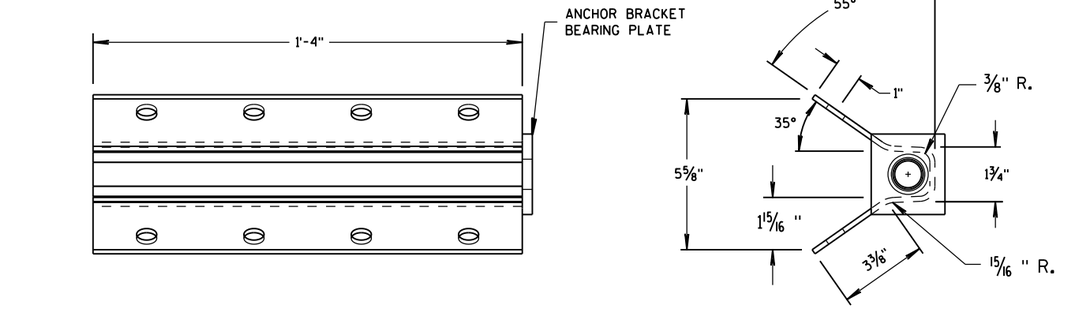


YOKE DETAIL

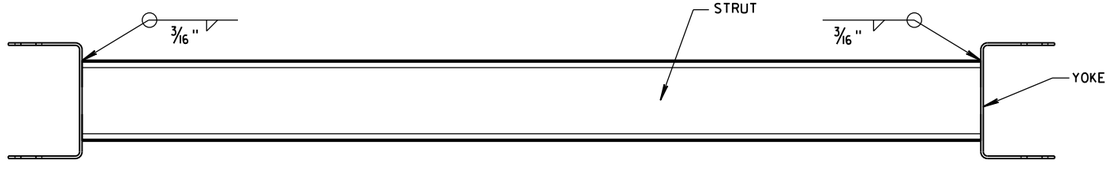


STRUT DETAIL

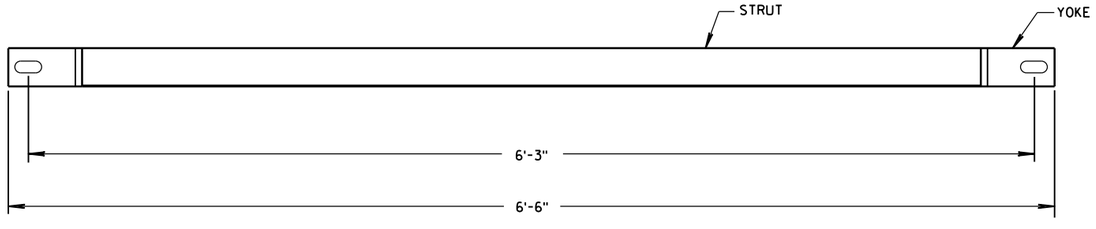




ANCHOR BRACKET

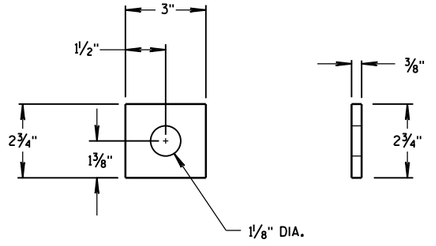


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

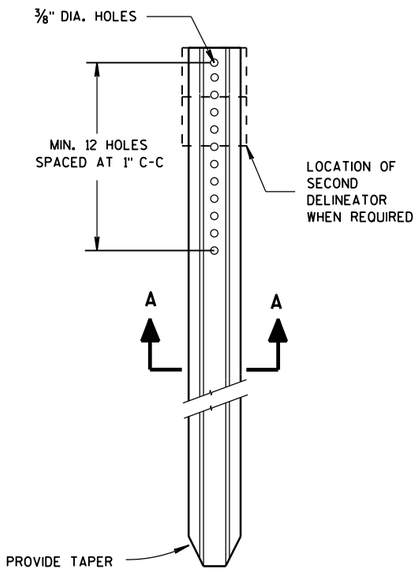
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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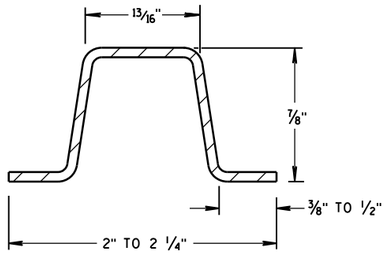
S.D.D. 14 B 47-2c

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S.D.D. 14 B 47-2c

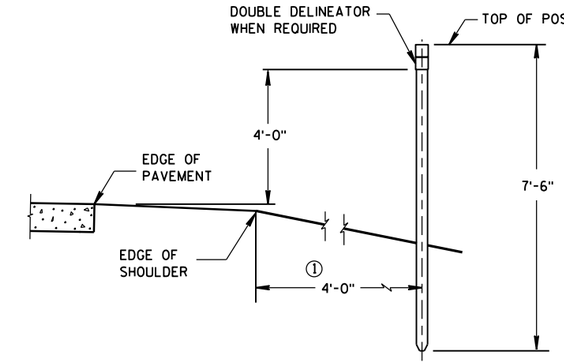


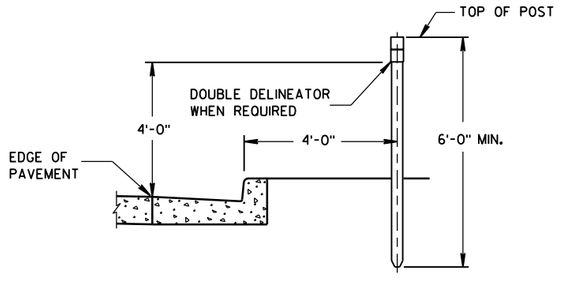
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



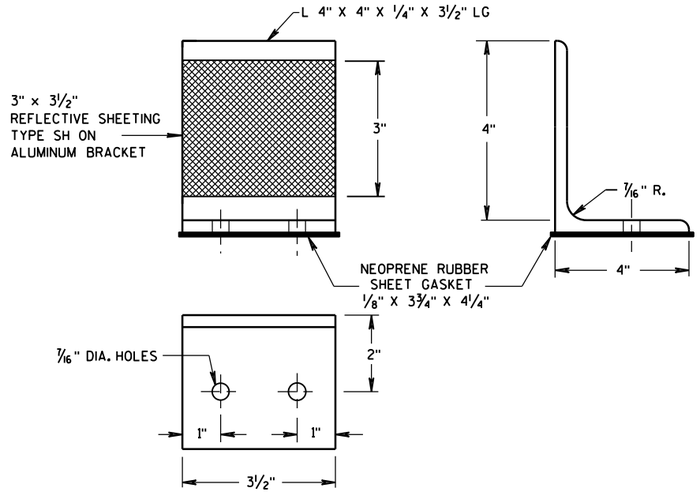


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

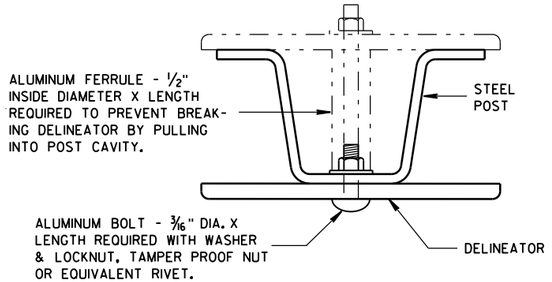
GENERAL NOTES

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

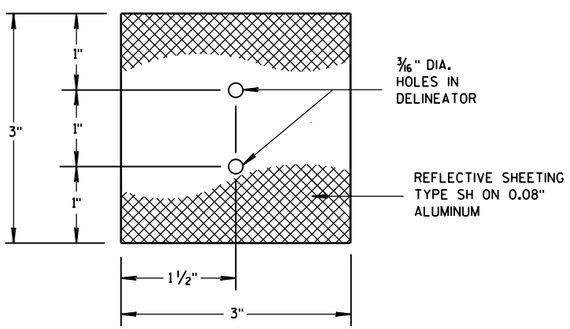
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



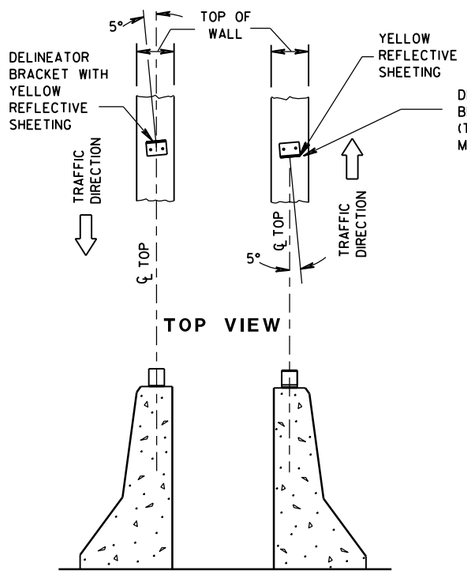
DELINEATOR BRACKET



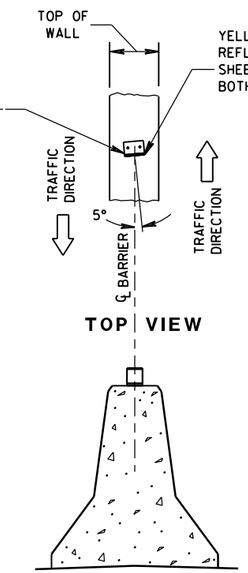
MOUNTING DETAIL FOR DELINEATOR



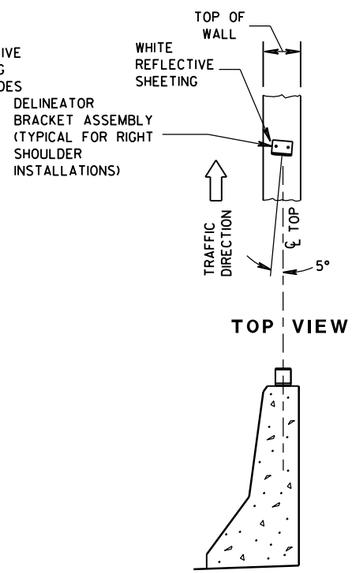
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

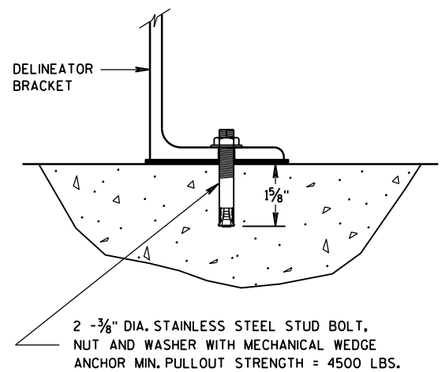


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

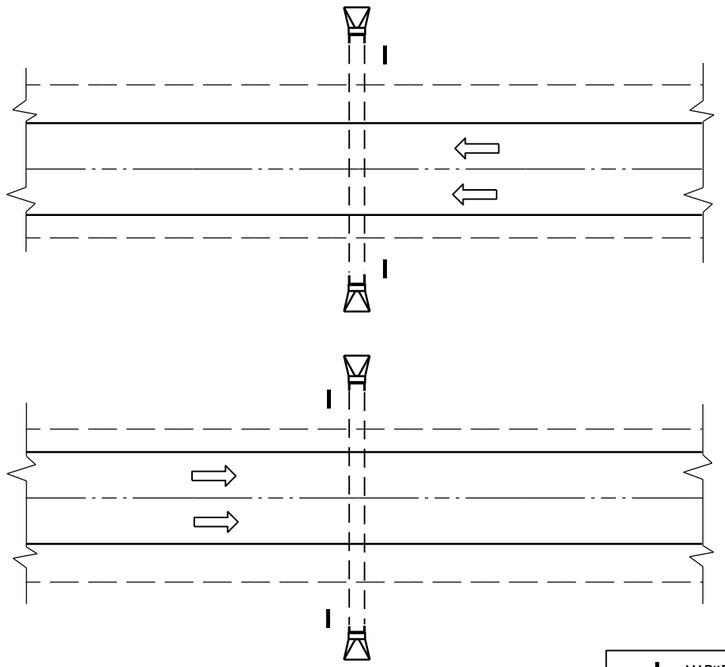
APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 A 2-8

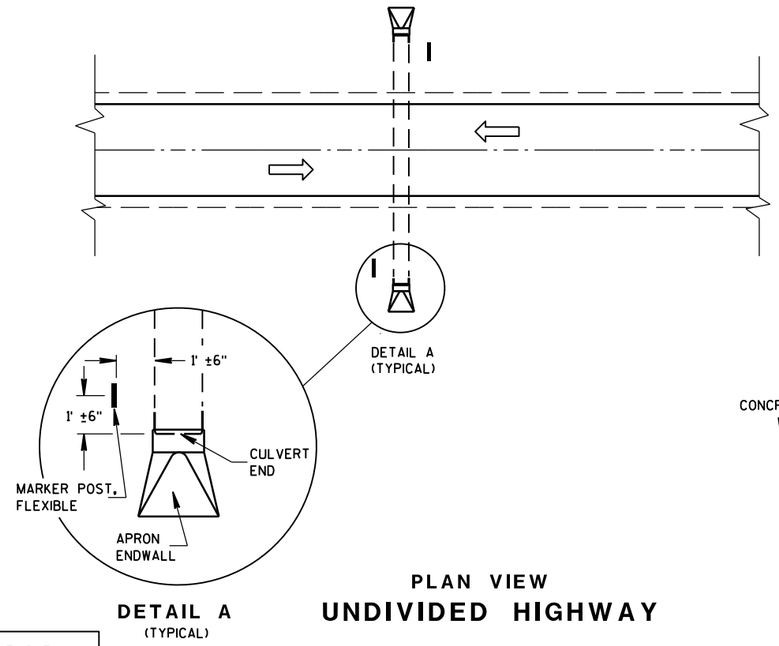
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S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

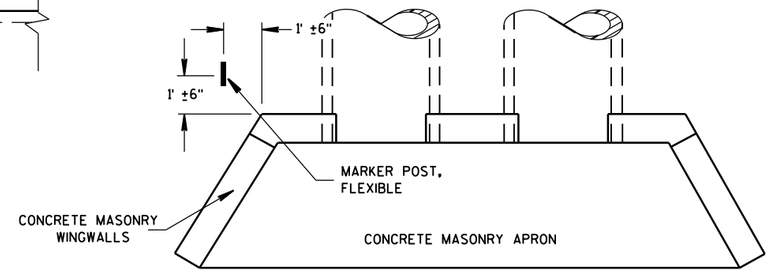
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

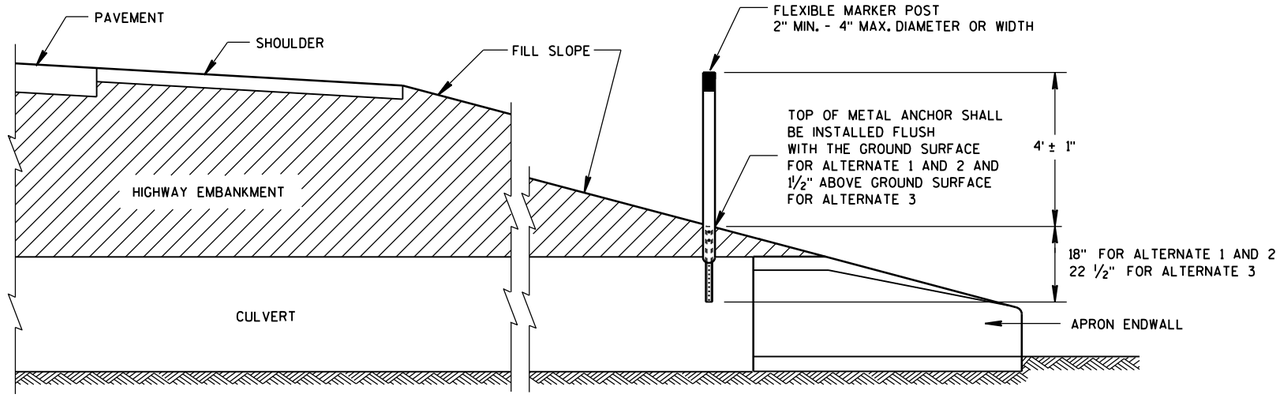
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

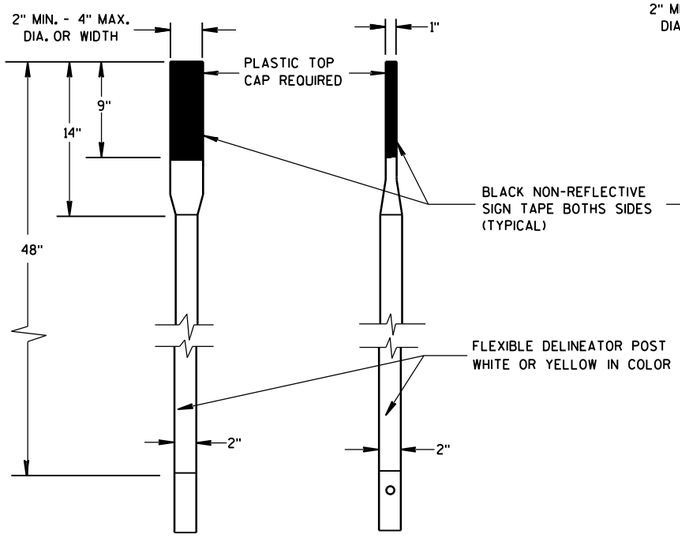
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

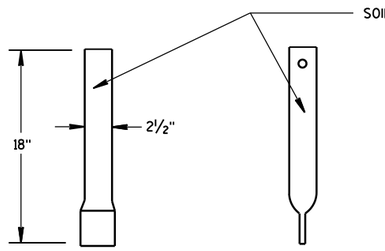
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S.D.D. 15 A 3-2a

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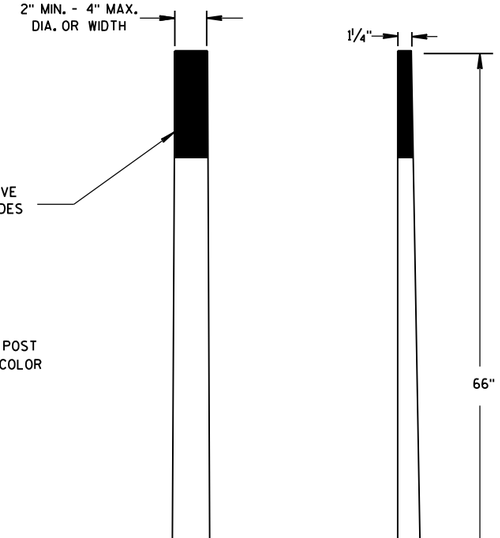
S.D.D. 15 A 3-2a





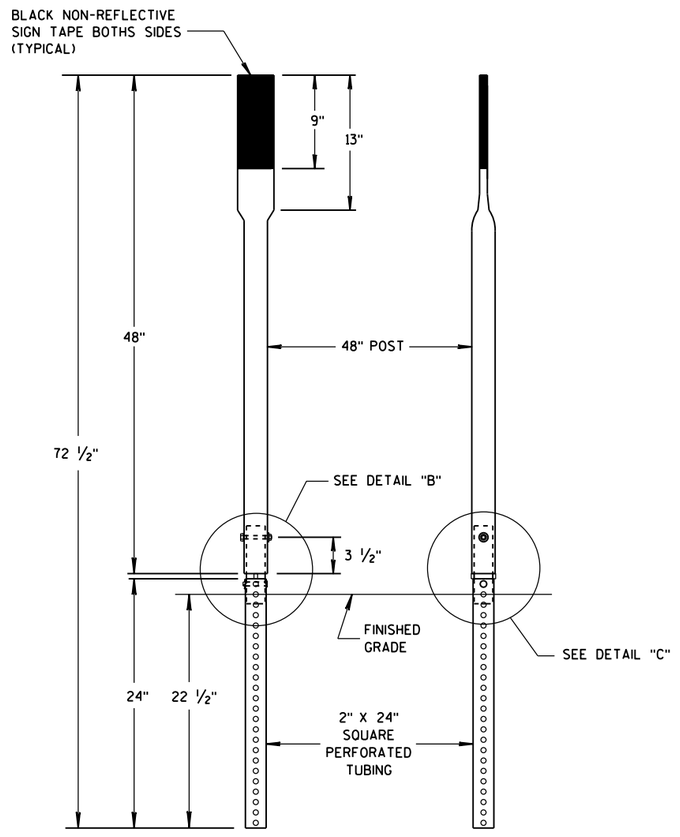
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

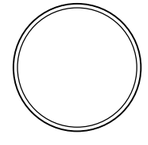
ALTERNATE 2



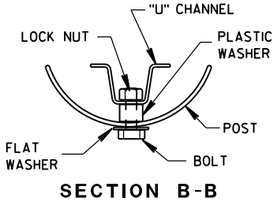
FRONT VIEW SIDE VIEW

ALTERNATE 3

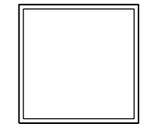
FLEXIBLE MARKER POSTS



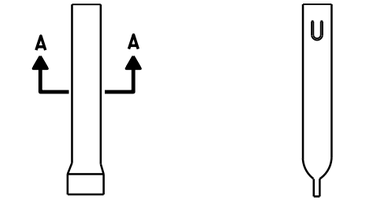
SECTION A-A



SECTION B-B

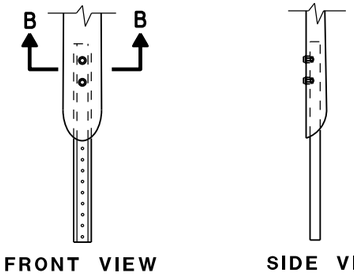


SECTION C-C



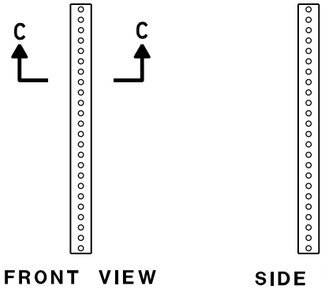
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

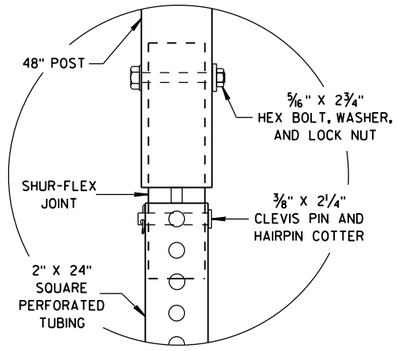
ALTERNATE 2



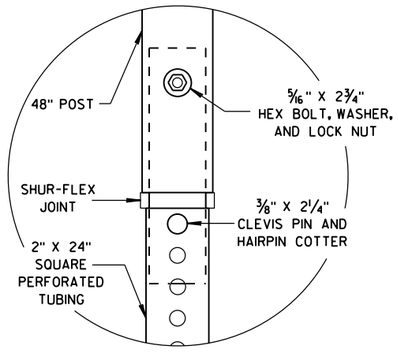
FRONT VIEW SIDE VIEW

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

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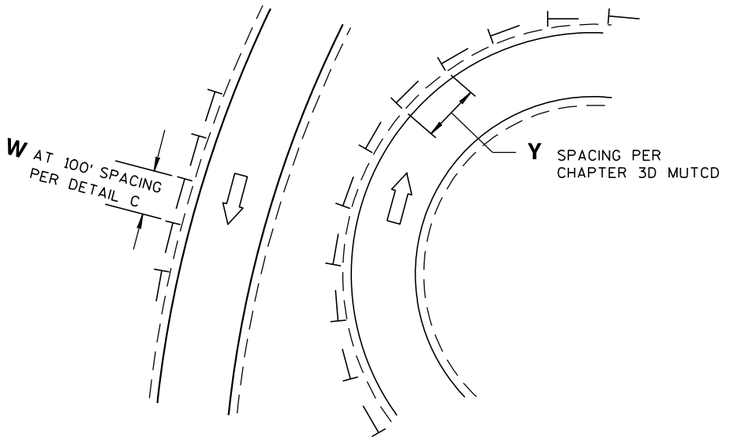
S.D.D. 15 A 3-2b

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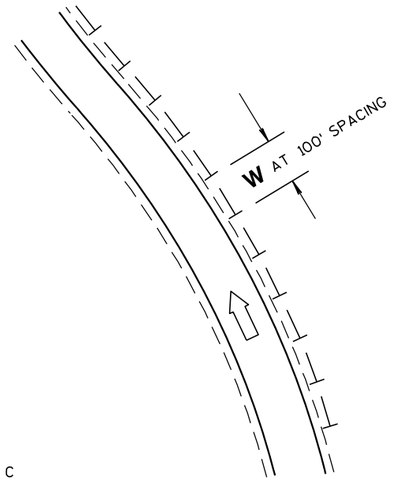
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



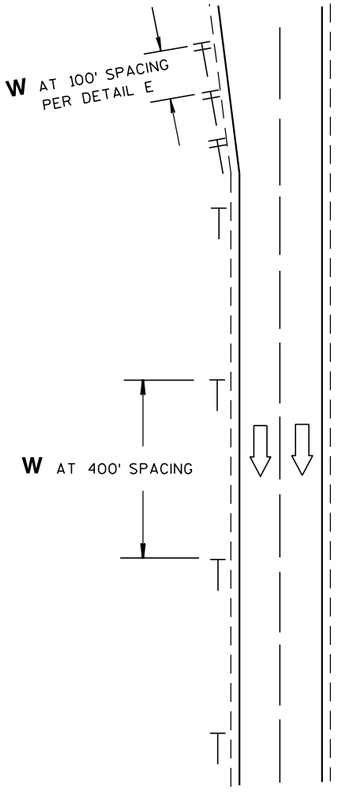
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



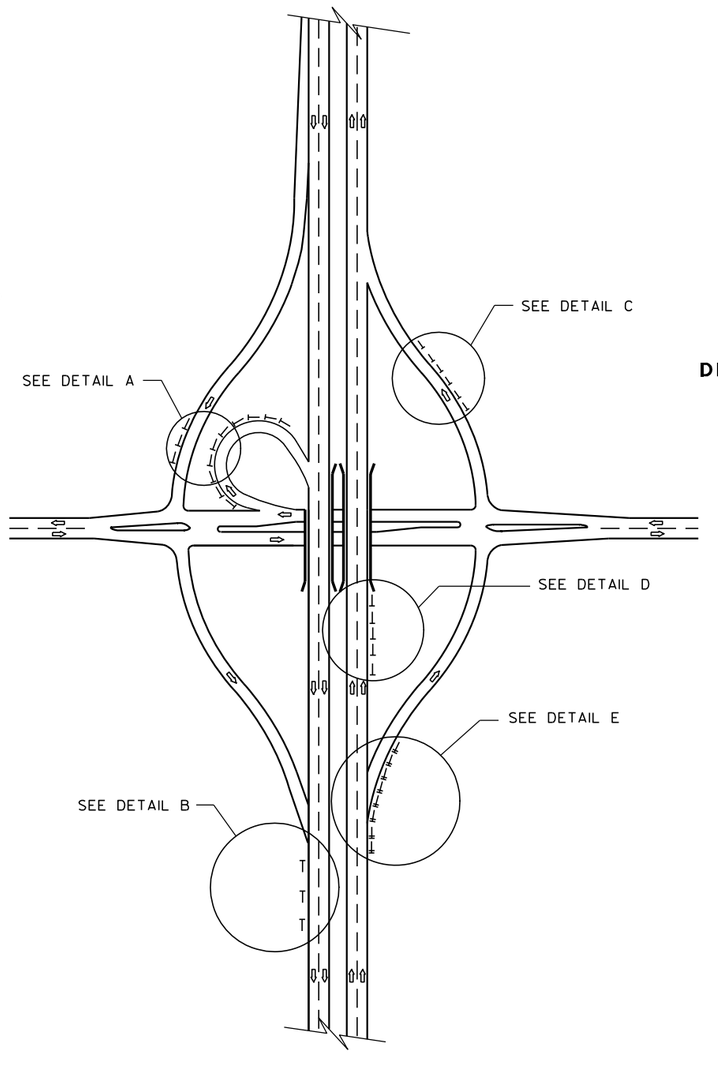
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

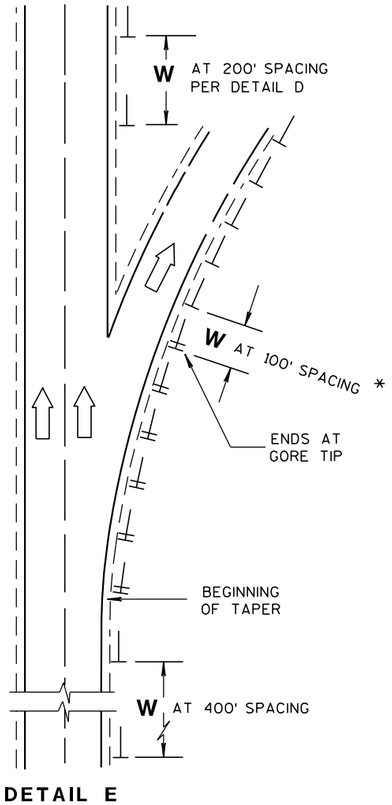
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



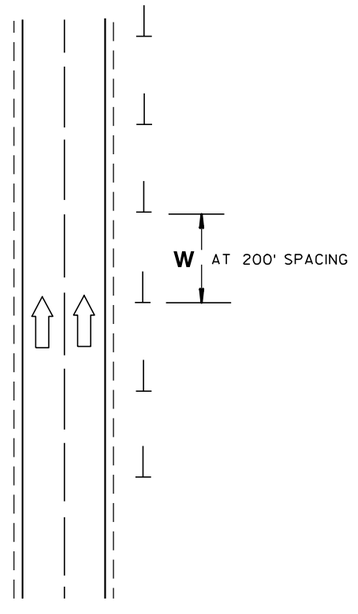
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 6-2

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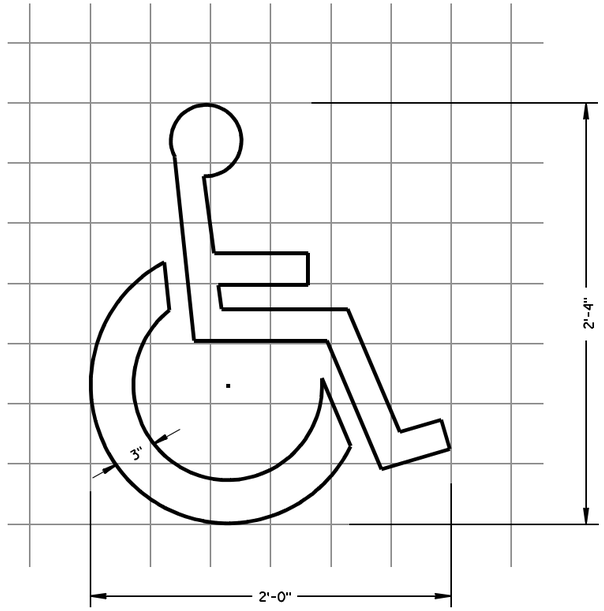
S.D.D. 15 A 6-2

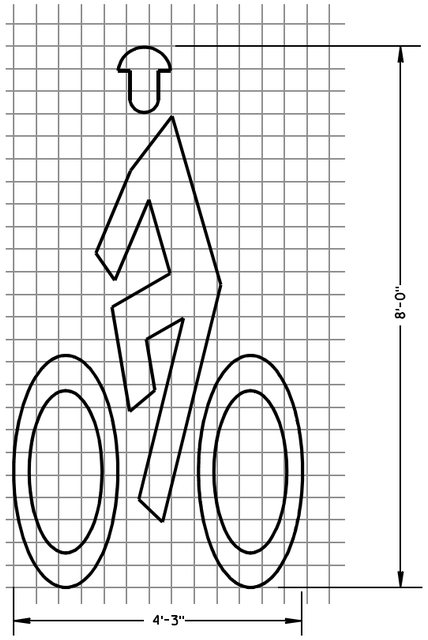
GENERAL NOTES

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.

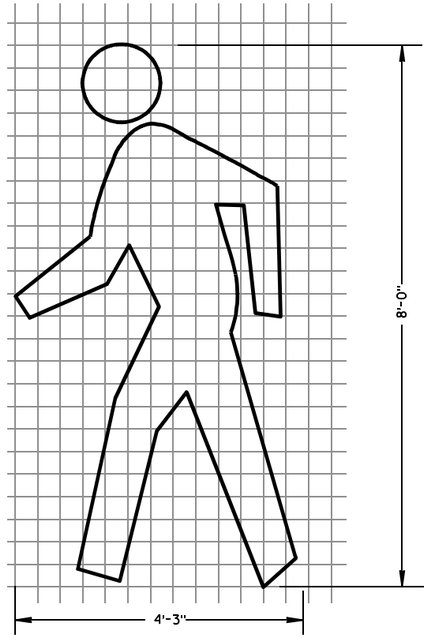
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A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

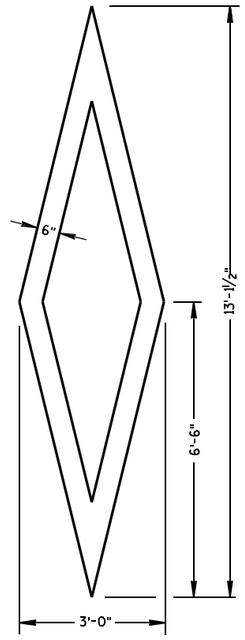




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

6

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S.D.D. 15 C 7-12a

S.D.D. 15 C 7-12a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

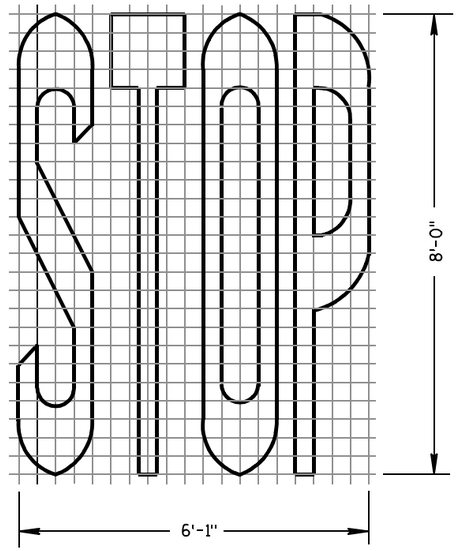
/S/ Thomas N Nathan STATE TRAFFIC ENGINEER

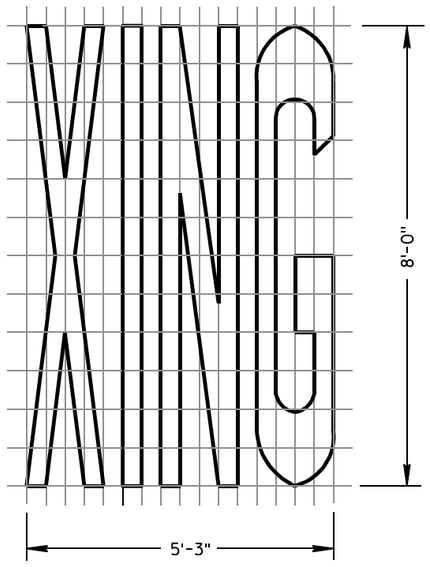
FHWA

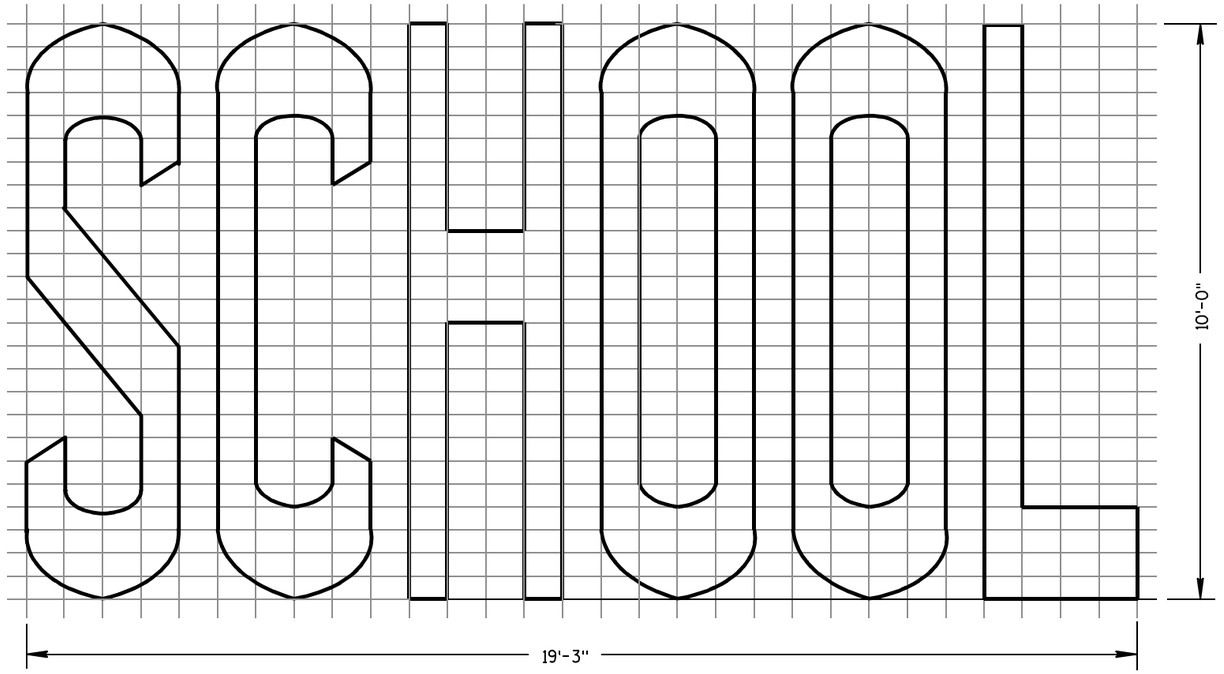
GENERAL NOTES

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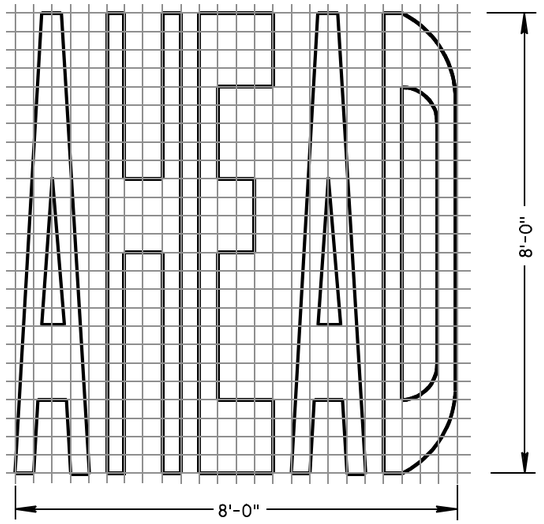
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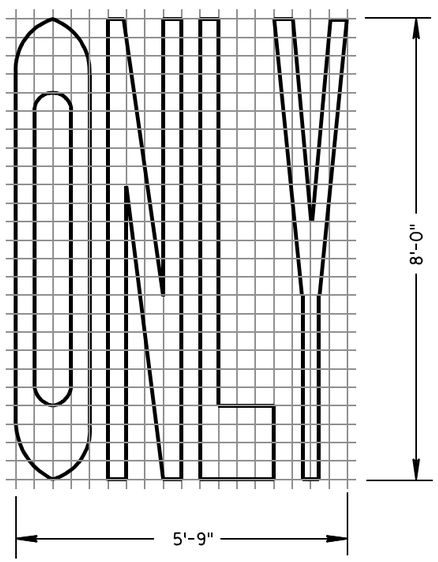


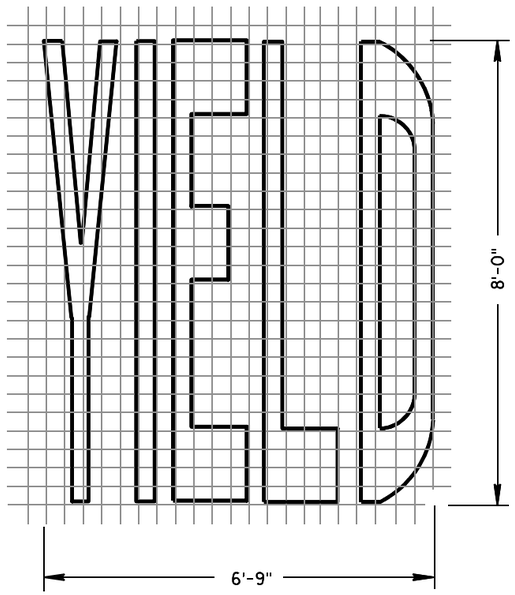


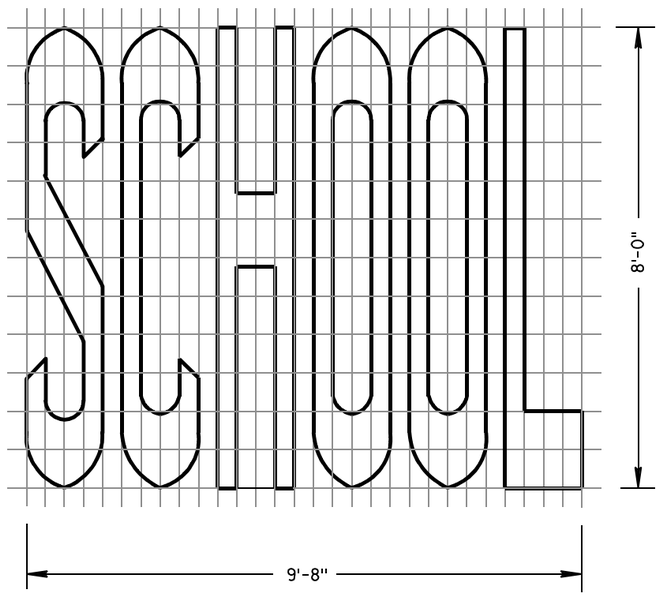


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

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S.D.D. 15 C 7-12b

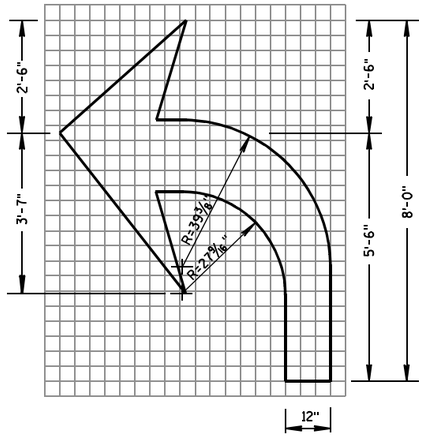
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S.D.D. 15 C 7-12b

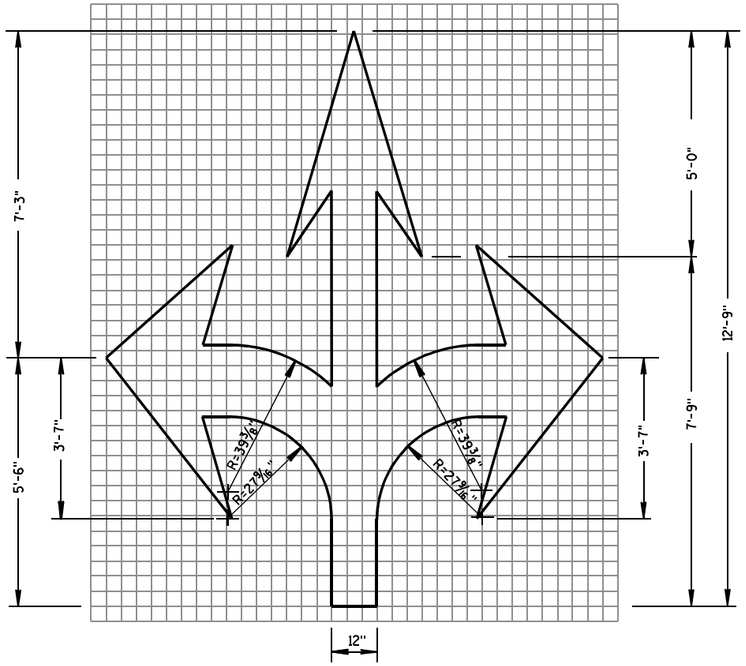
GENERAL NOTES

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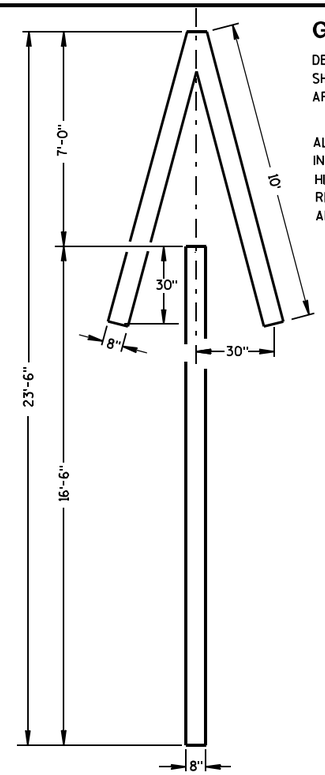
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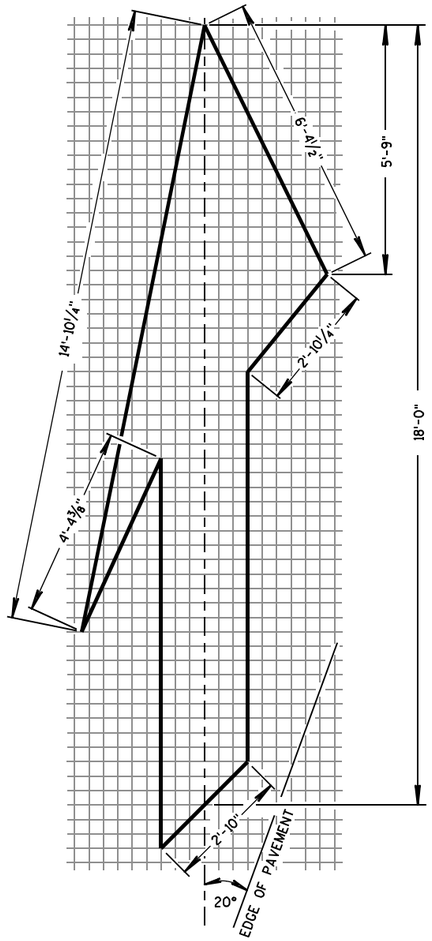
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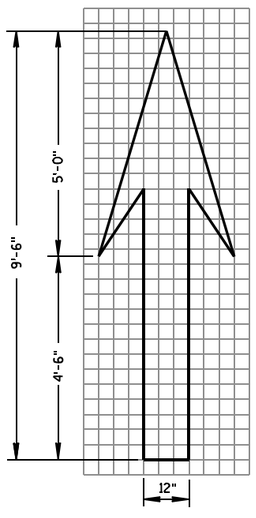
TYPE 6



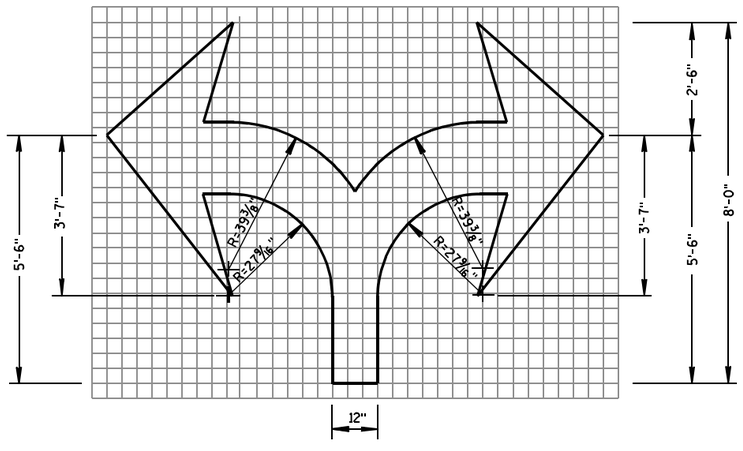
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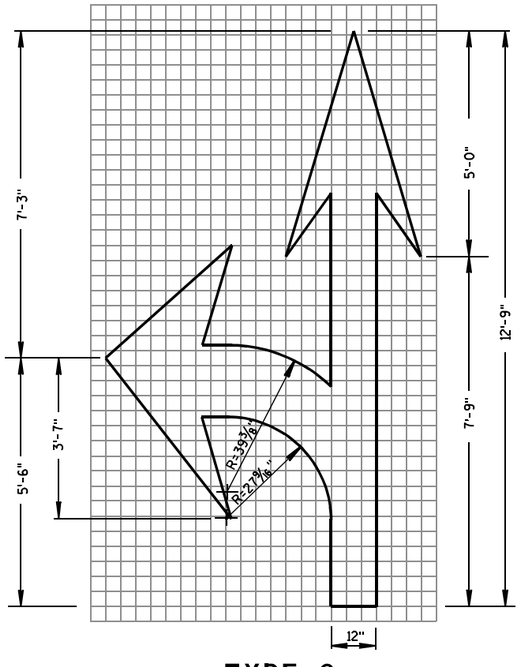
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

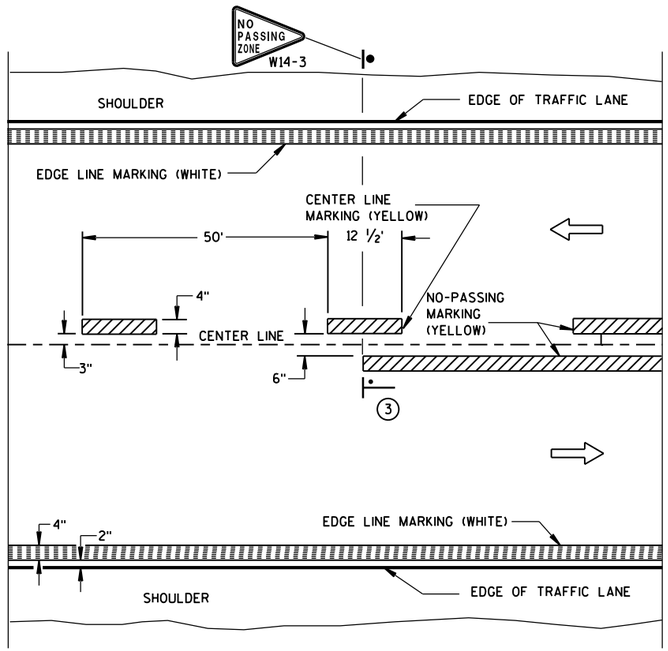
FHWA

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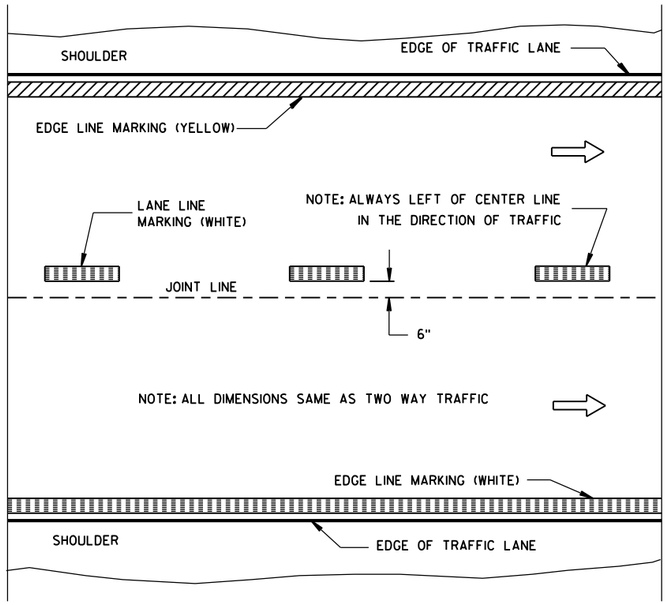
S.D.D. 15 C 7-12c

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S.D.D. 15 C 7-12c

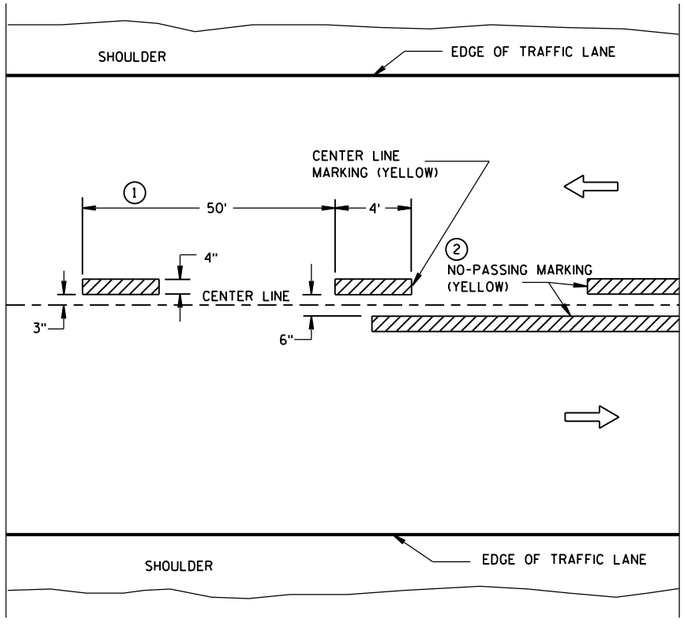


TWO WAY TRAFFIC

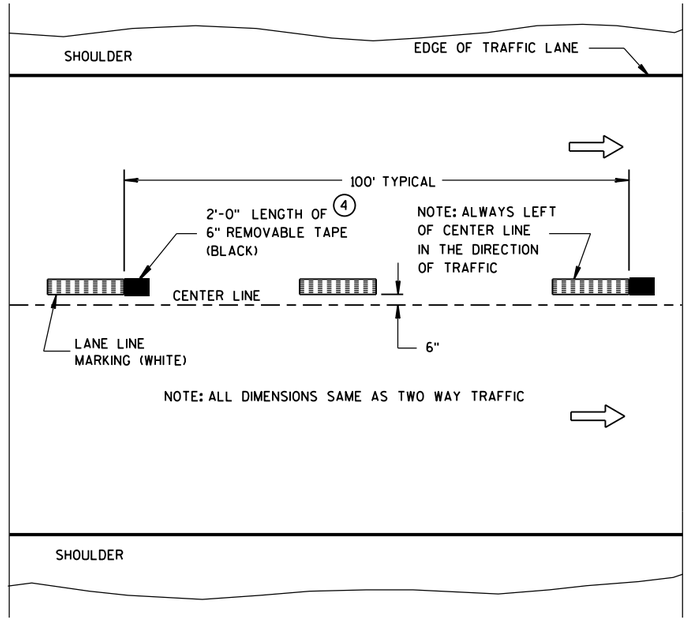


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

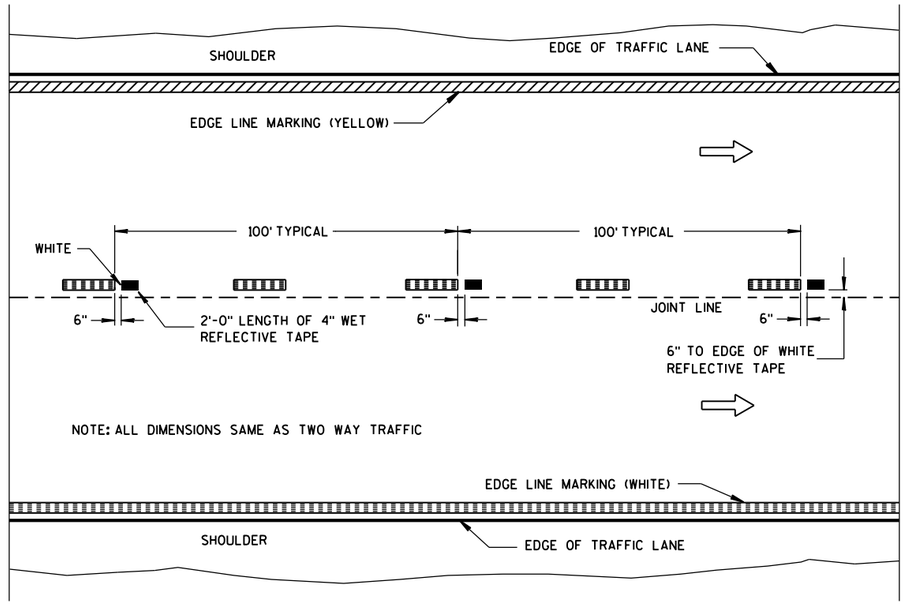
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

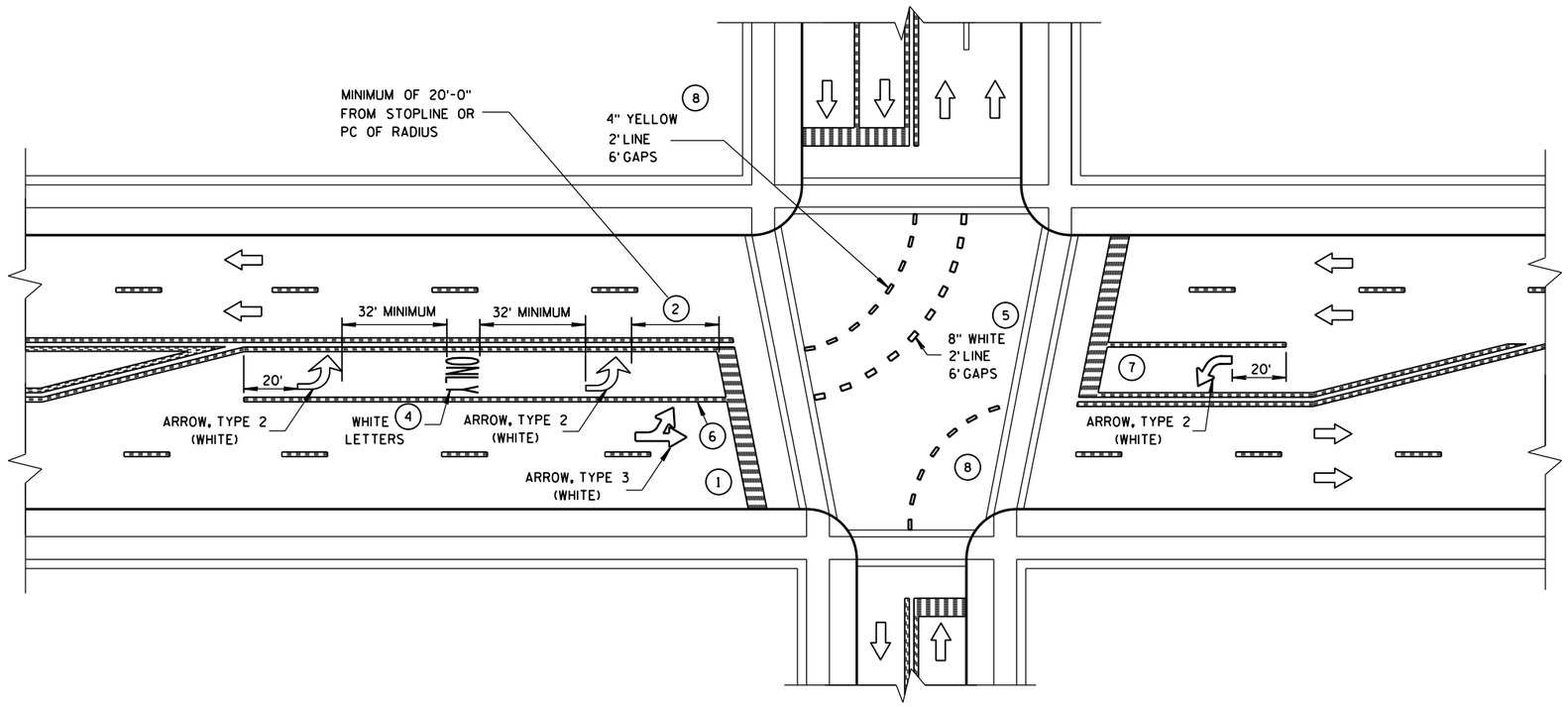
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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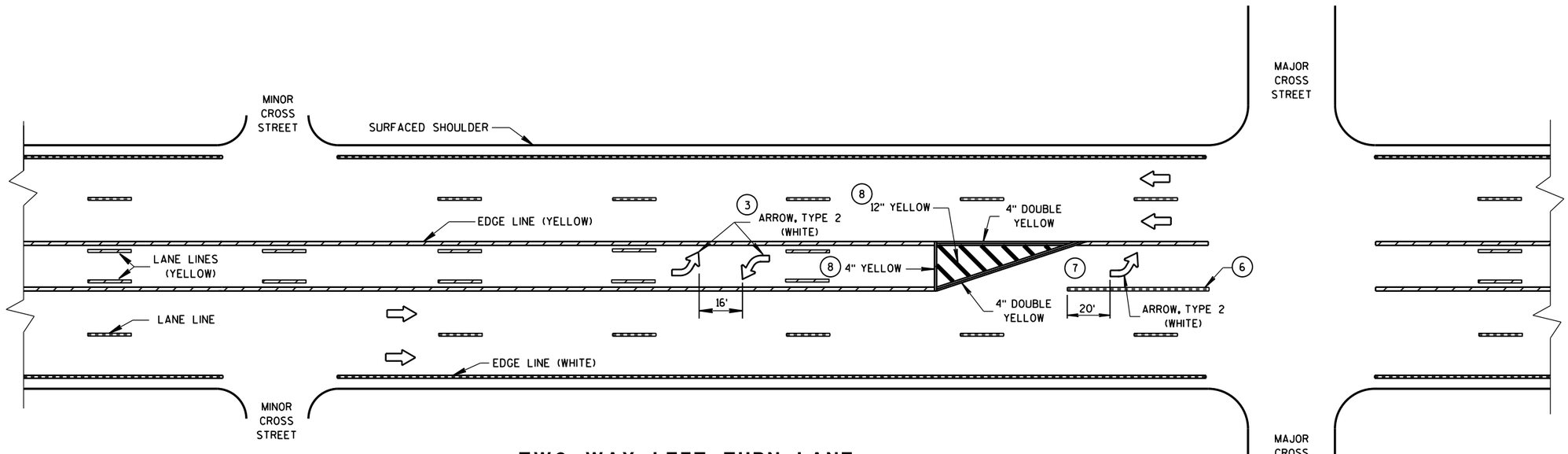
S.D.D. 15 C 8-16a



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



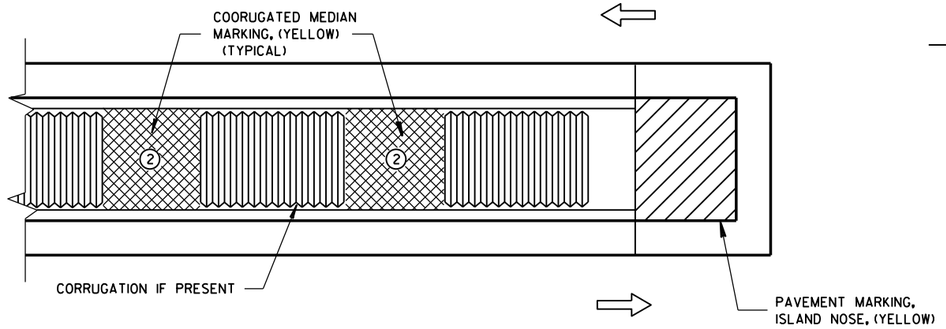
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

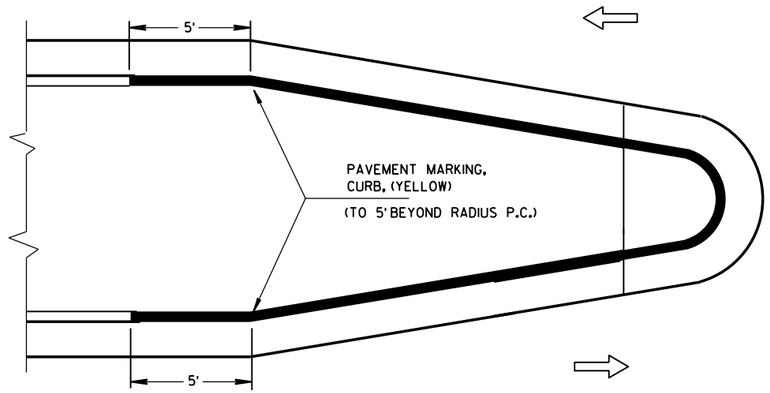
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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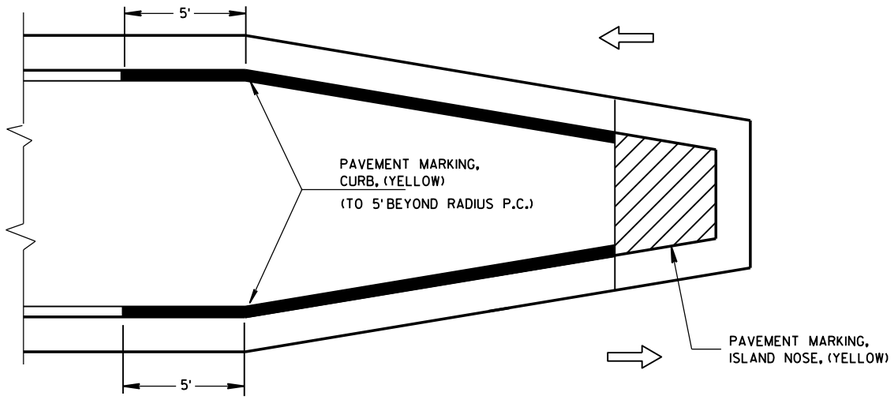
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

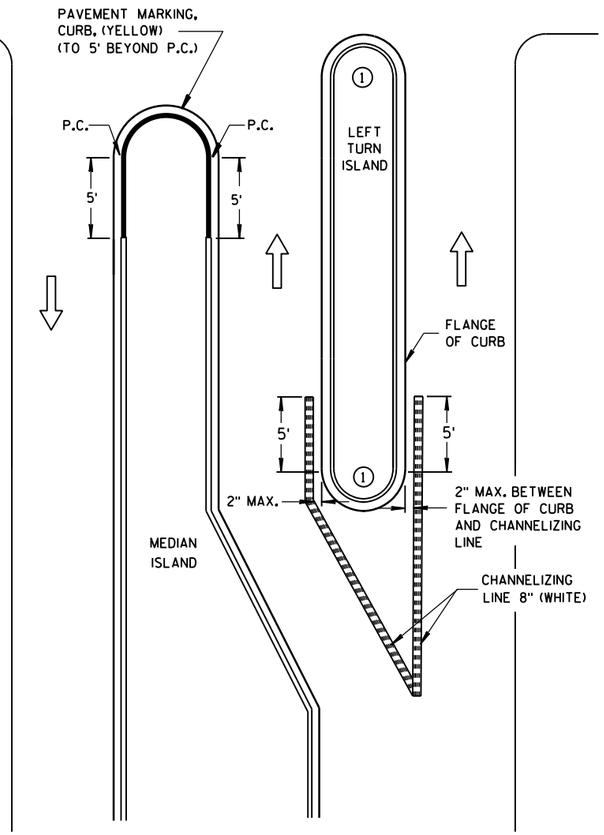


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

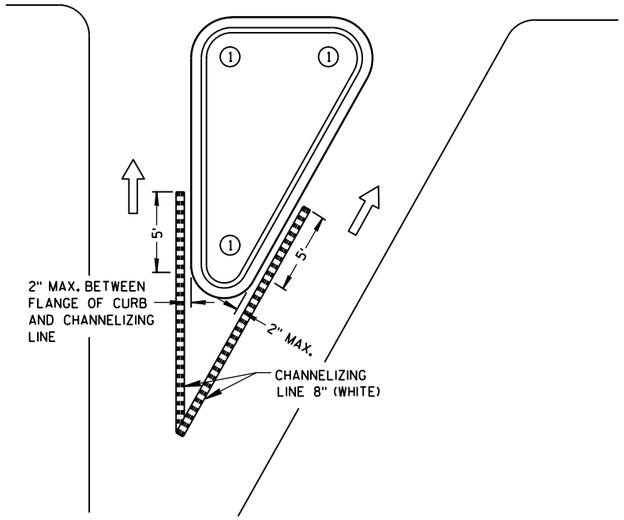


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. 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 AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

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

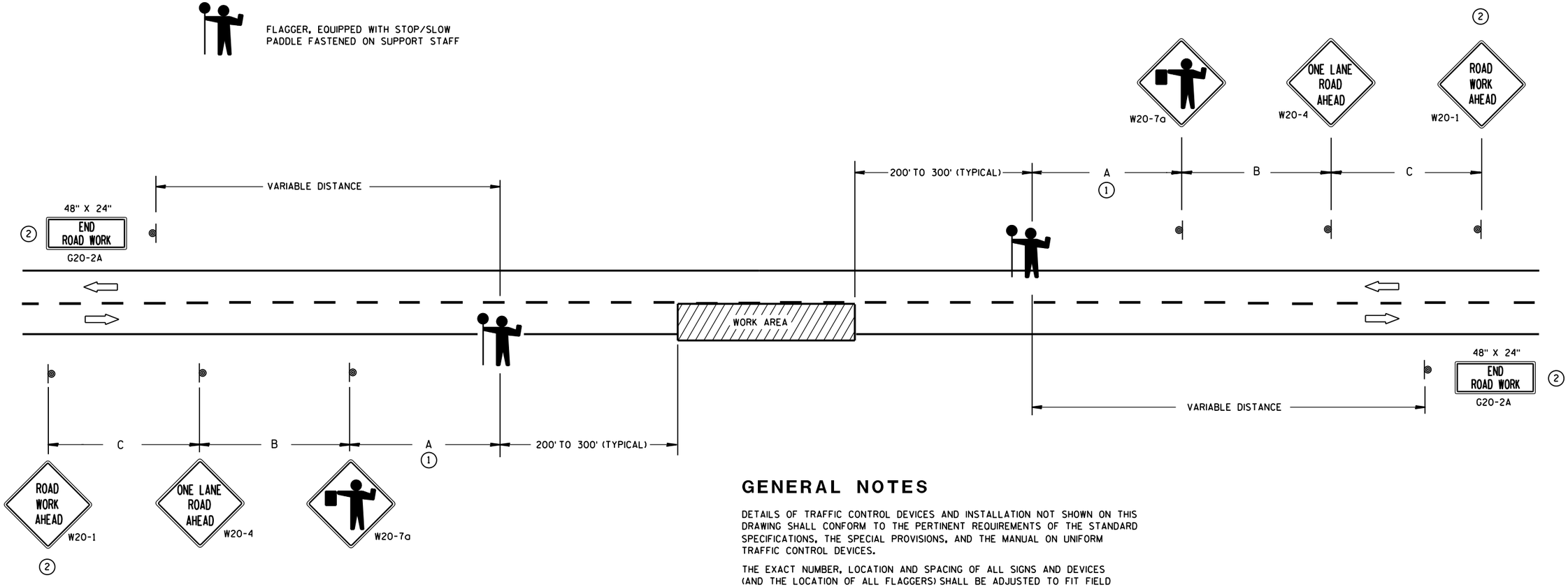
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT 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.

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.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE 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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

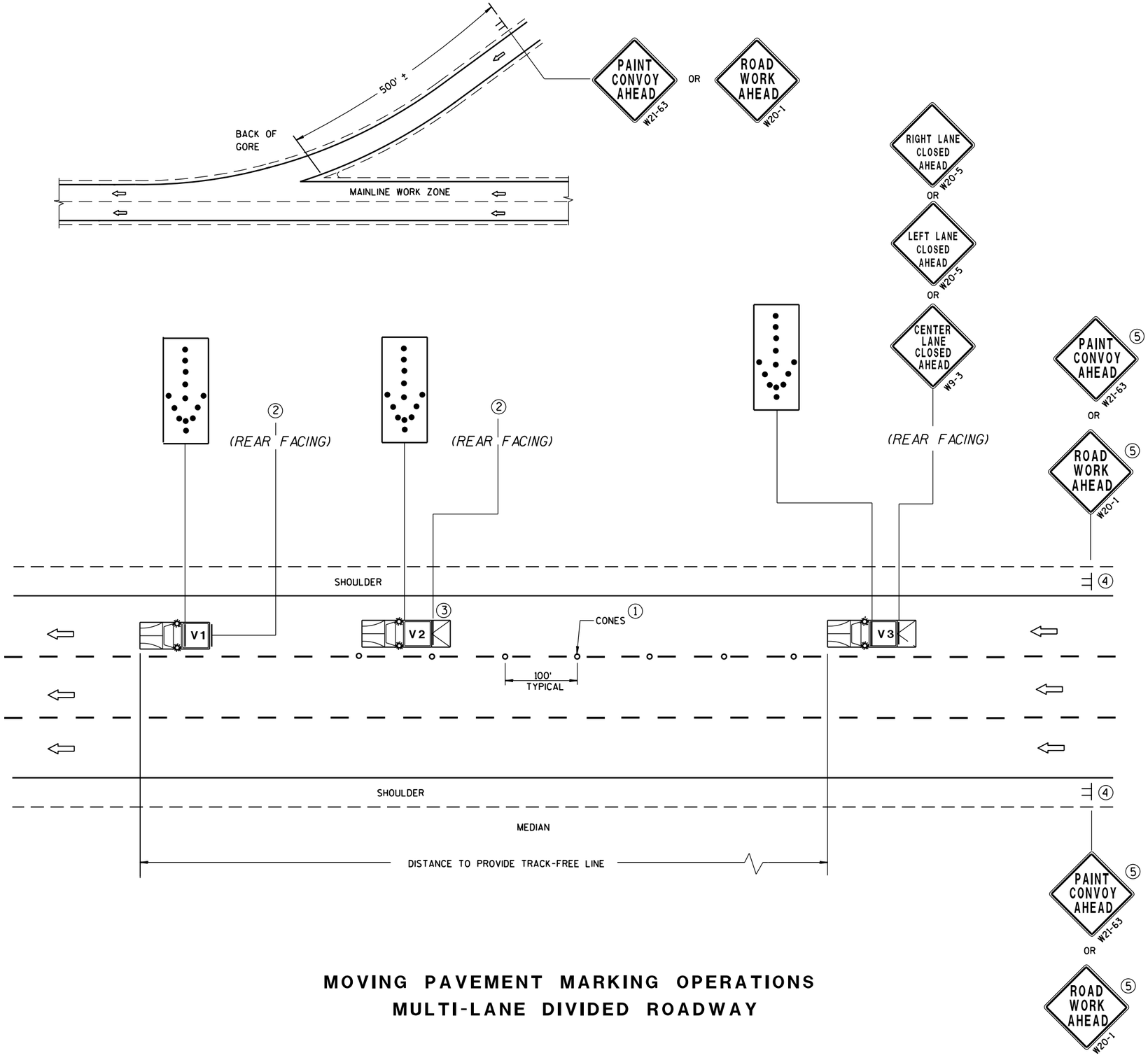
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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S.D.D. 15 C 12-4



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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 OR 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.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013 DATE

/S/ Travis Feltes STATE TRAFFIC EN

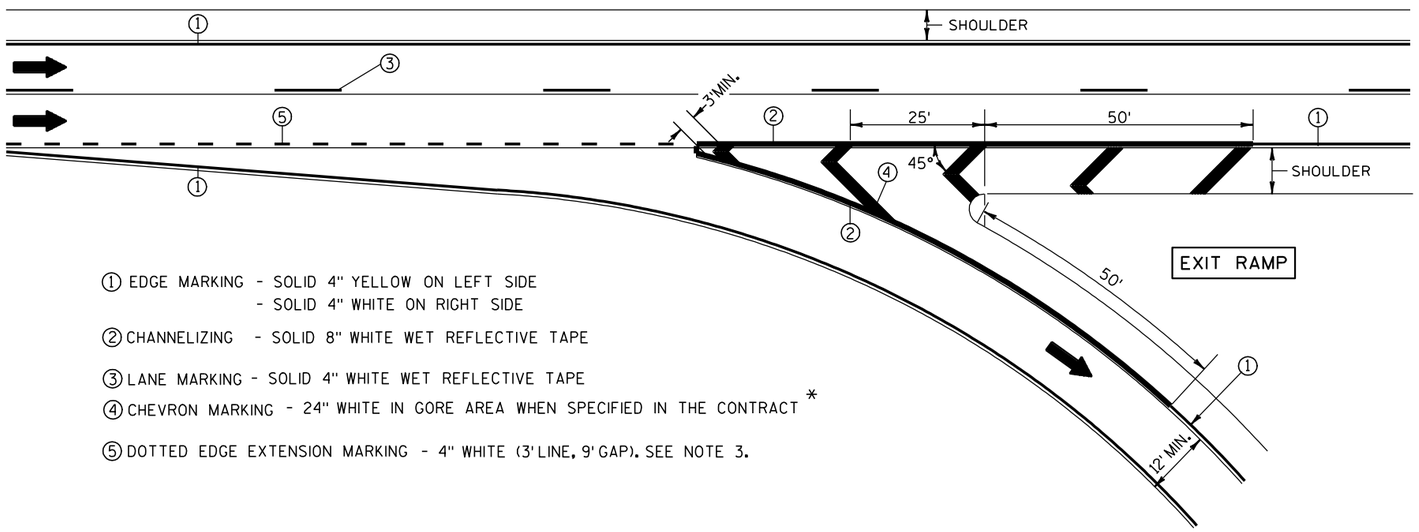
FHWA

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S.D.D. 15 C 19-2c

6

S.D.D. 15 C 19-2c



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

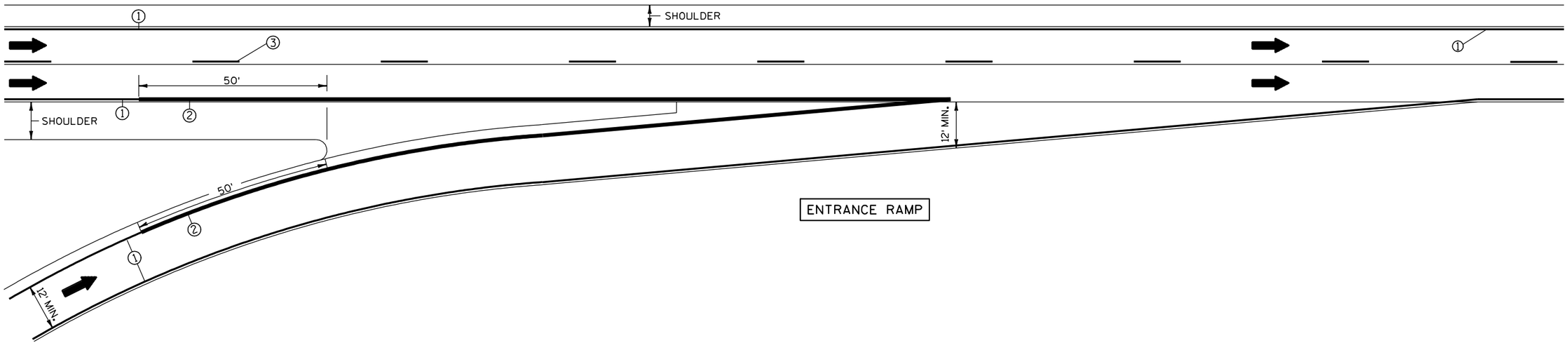
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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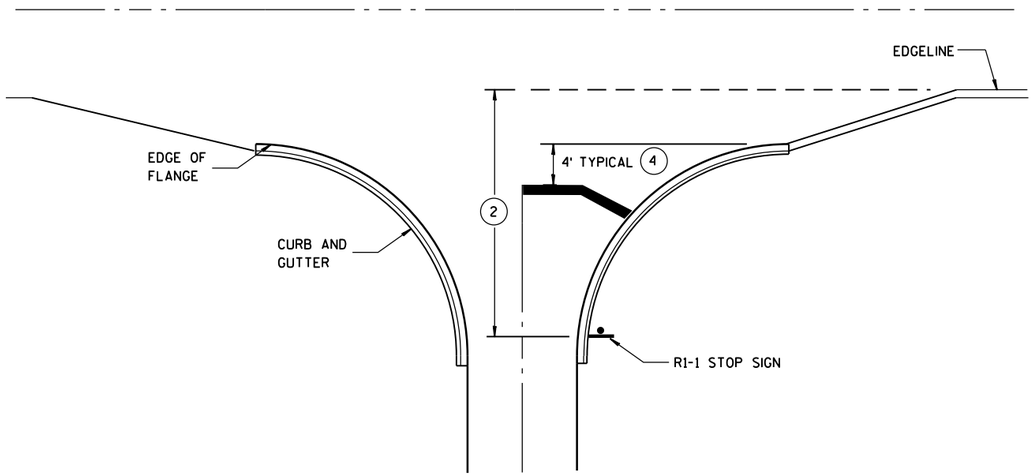
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S.D.D. 15 C 31-1a

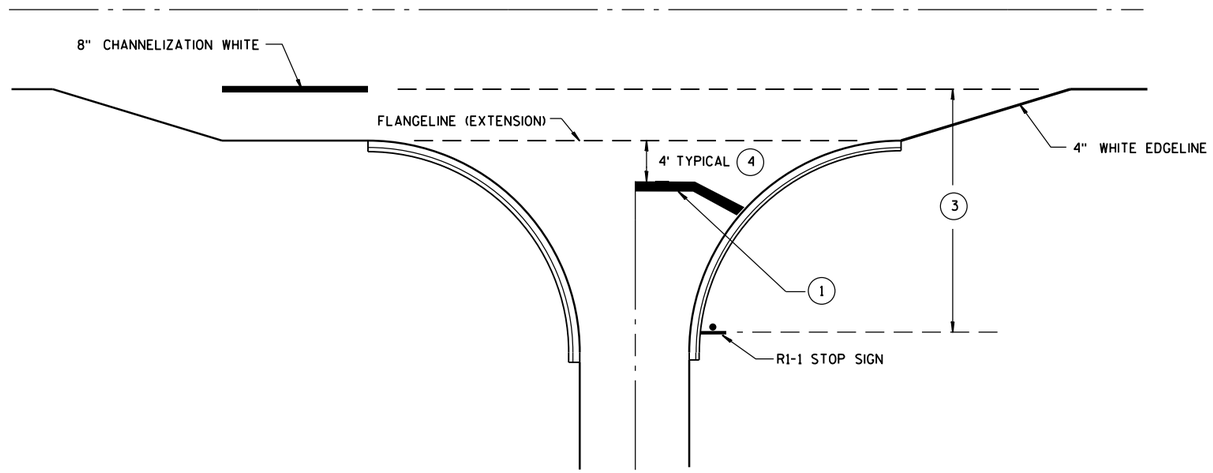
S.D.D. 15 C 31-1a

PAVEMENT MARKING (RAMPS AND GORES)

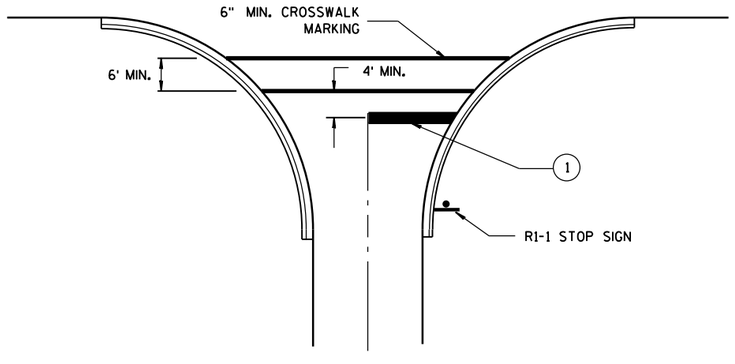
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



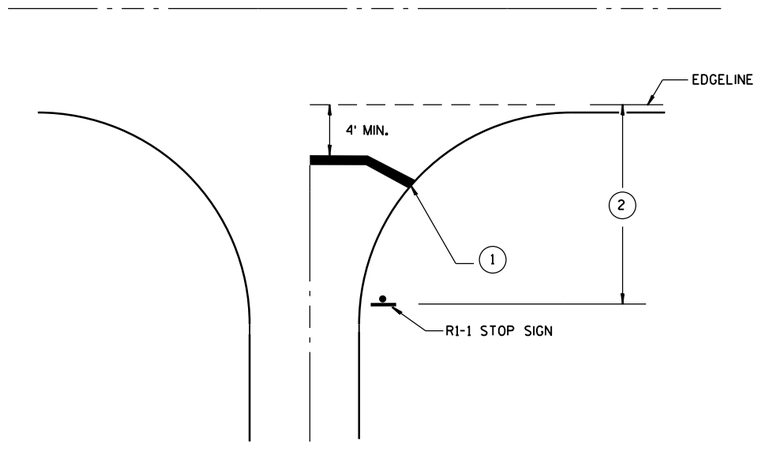
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

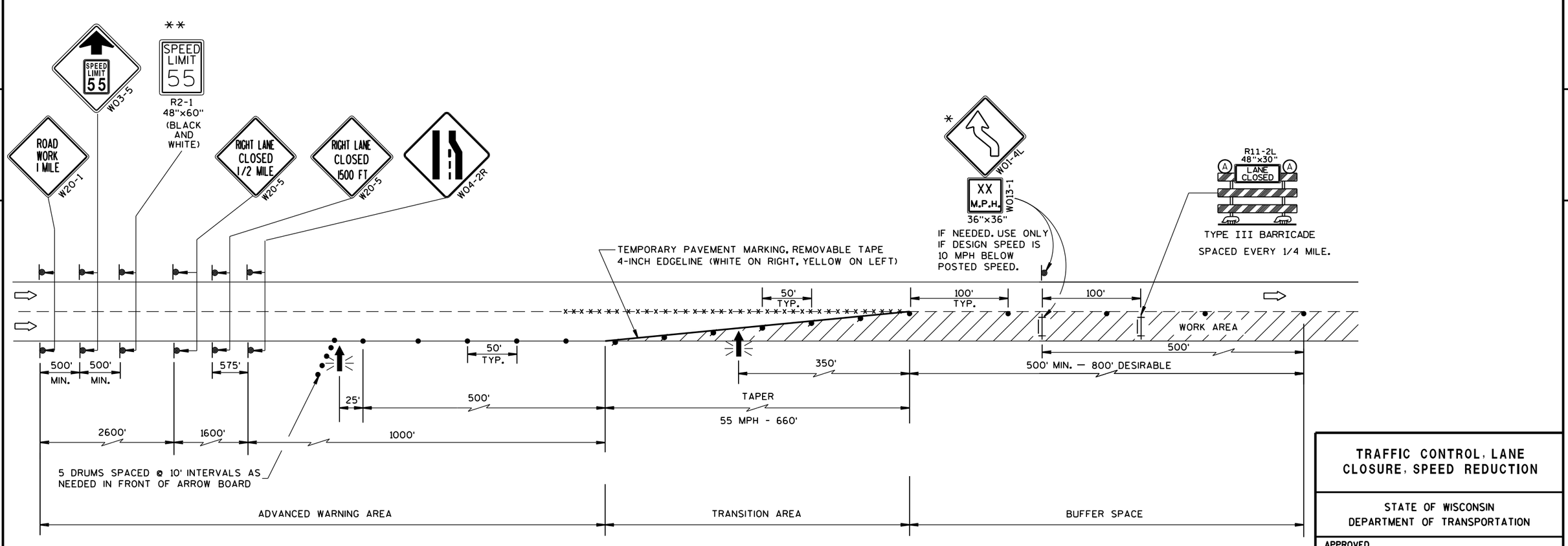
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

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

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

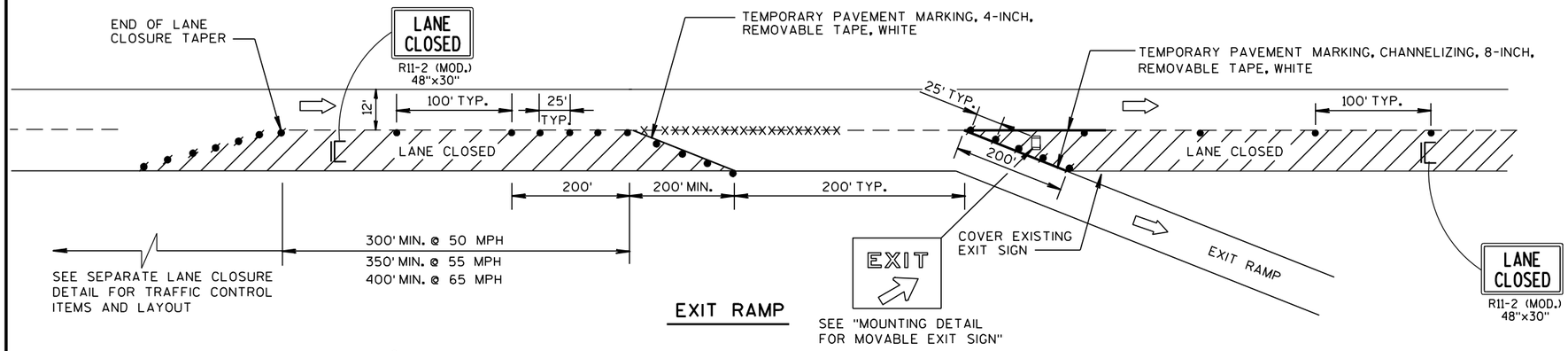
APPROVED
3-2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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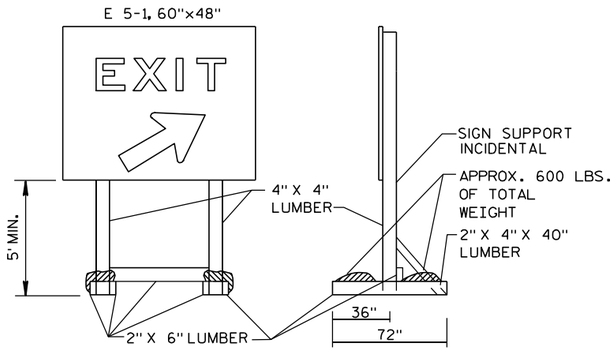
S.D.D. 15 D 12-4

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S.D.D. 15 D 12-4

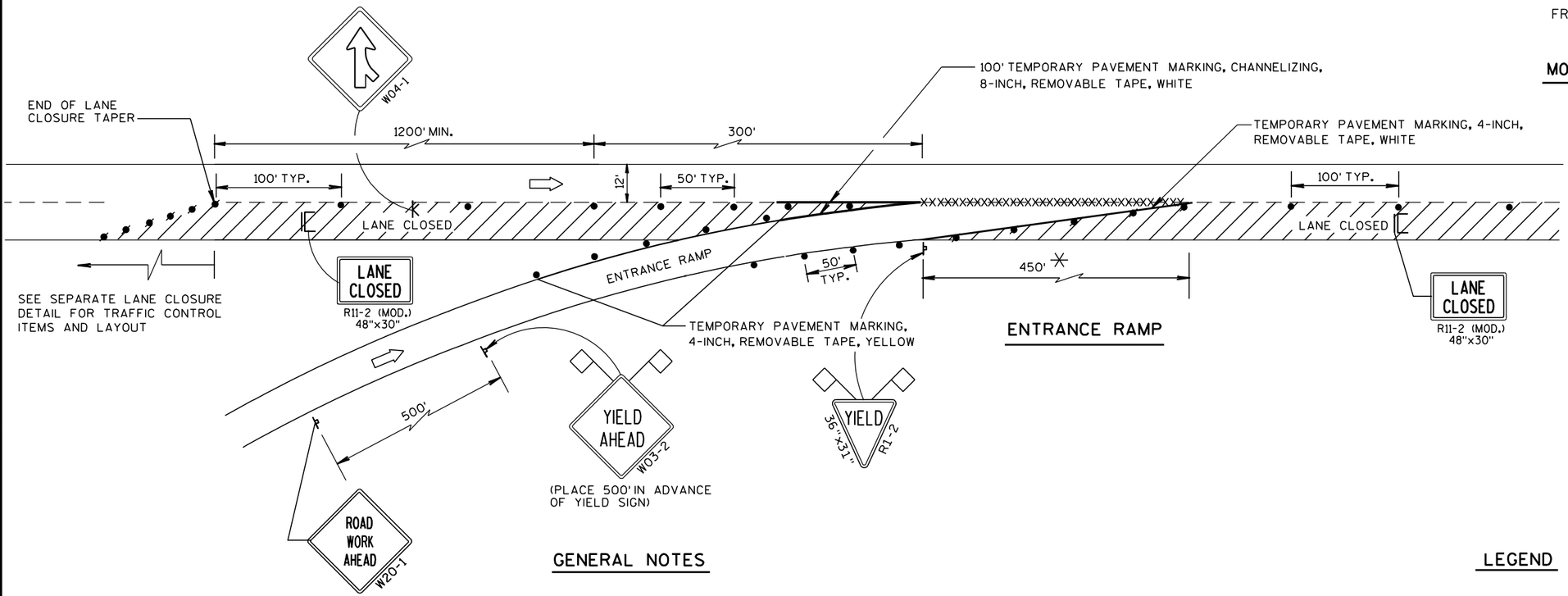


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

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

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

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

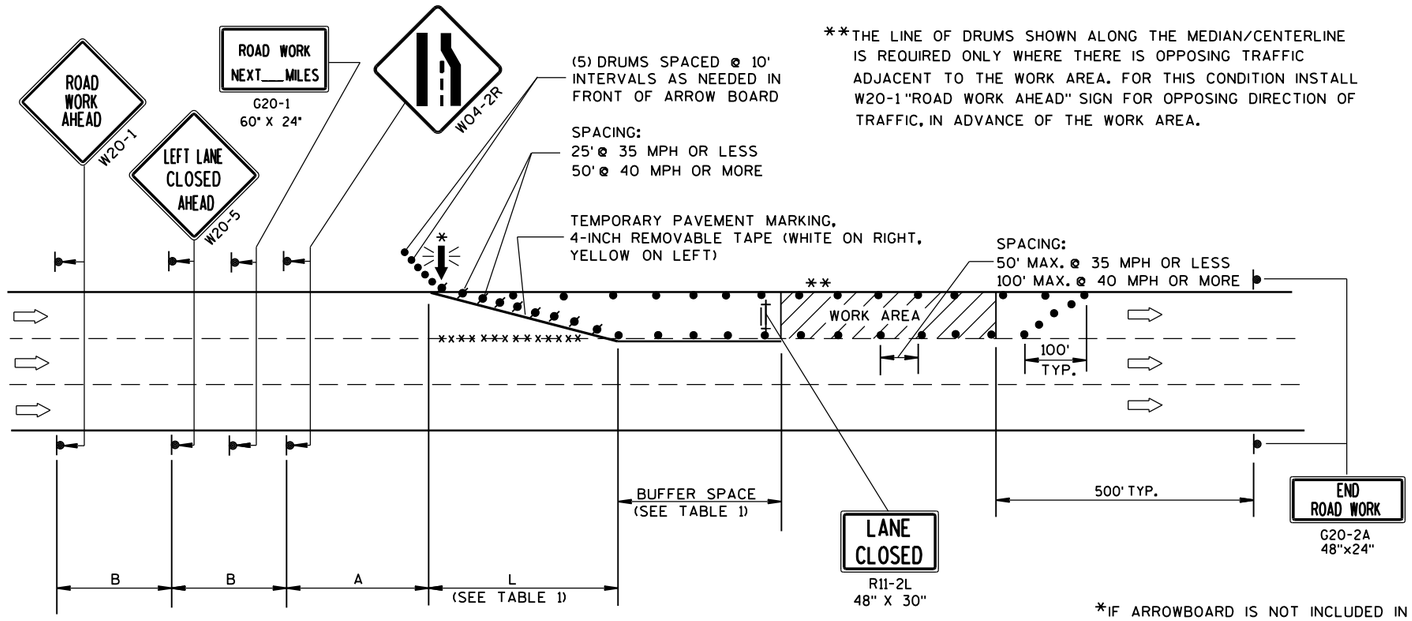
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000
DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 15-1



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

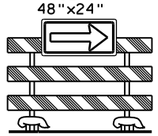


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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.

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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 DISTRICT TRAFFIC UNIT.

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, 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.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

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

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 20-2

LEGEND

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

GENERAL NOTES

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

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

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

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

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

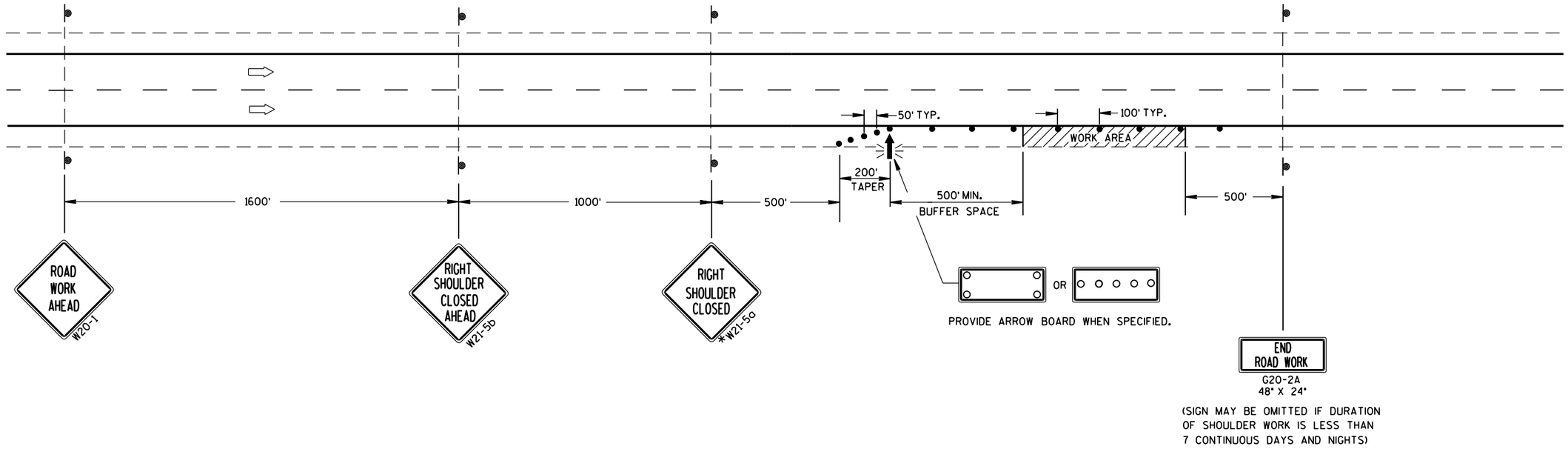
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

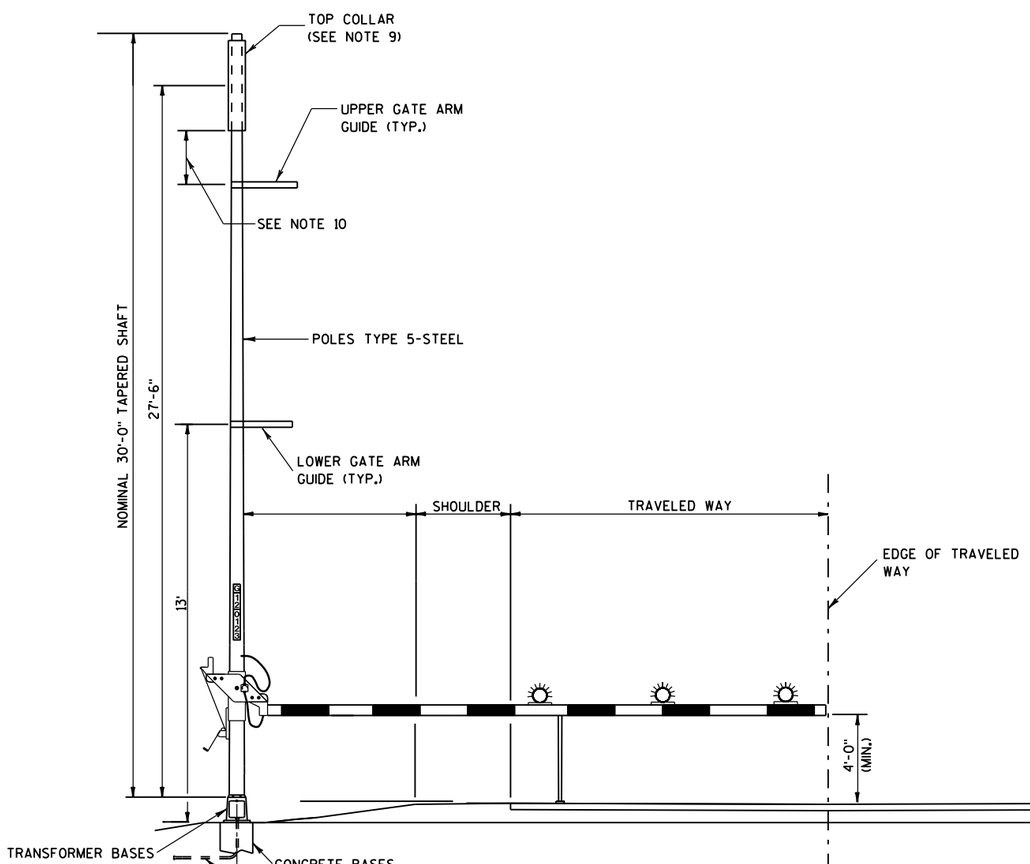
8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

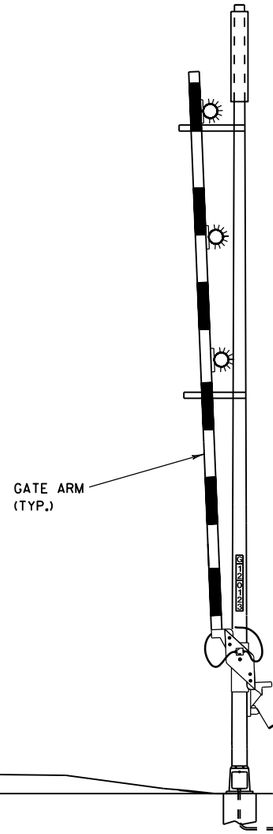
FHWA

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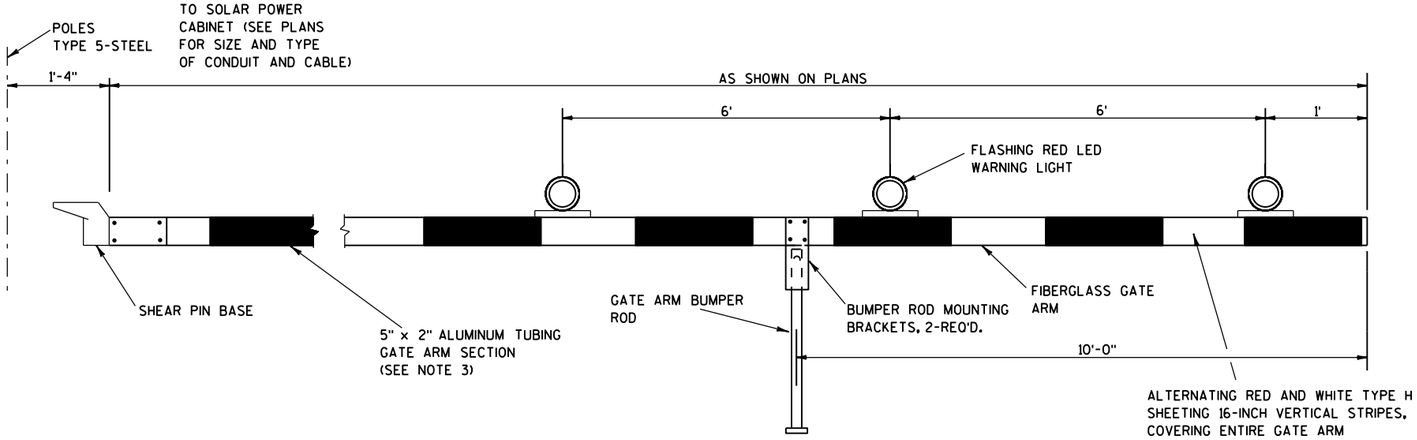
S.D.D. 15 D 27-2



TYPICAL LOWERED POSITION

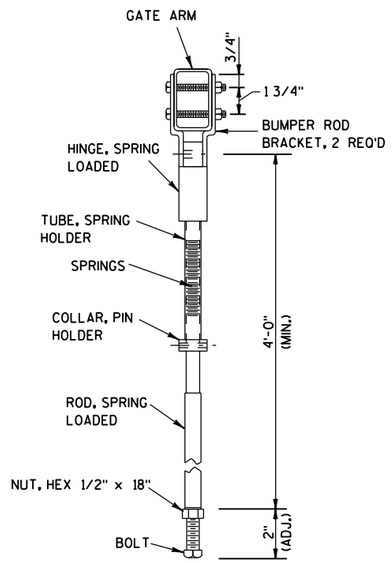


TYPICAL RAISED POSITION

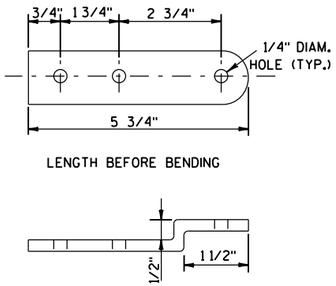


GATE DETAIL

(SOLAR POWER OPTION)



GATE ARM BUMPER ROD DETAIL



BUMPER ROD MOUNTING
BRACKET DETAIL

GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.

RAMP GATE
SOLAR POWER

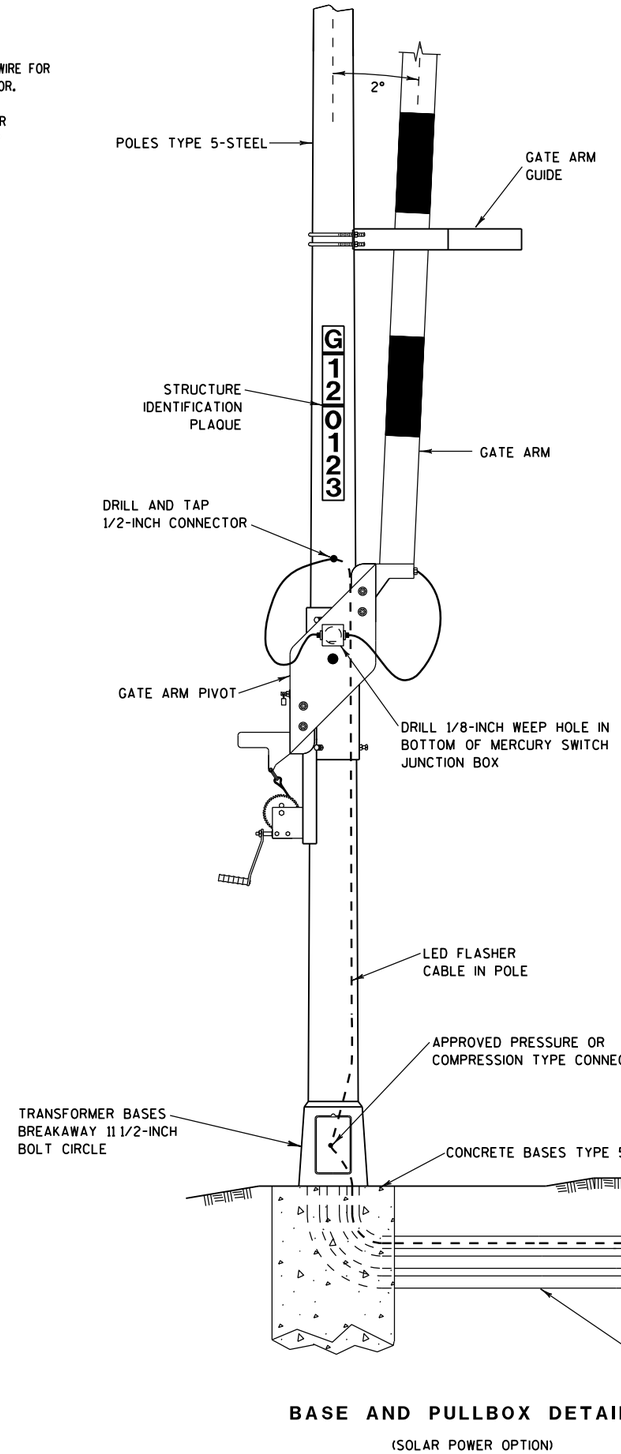
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 34-1a

WIRING NOTES

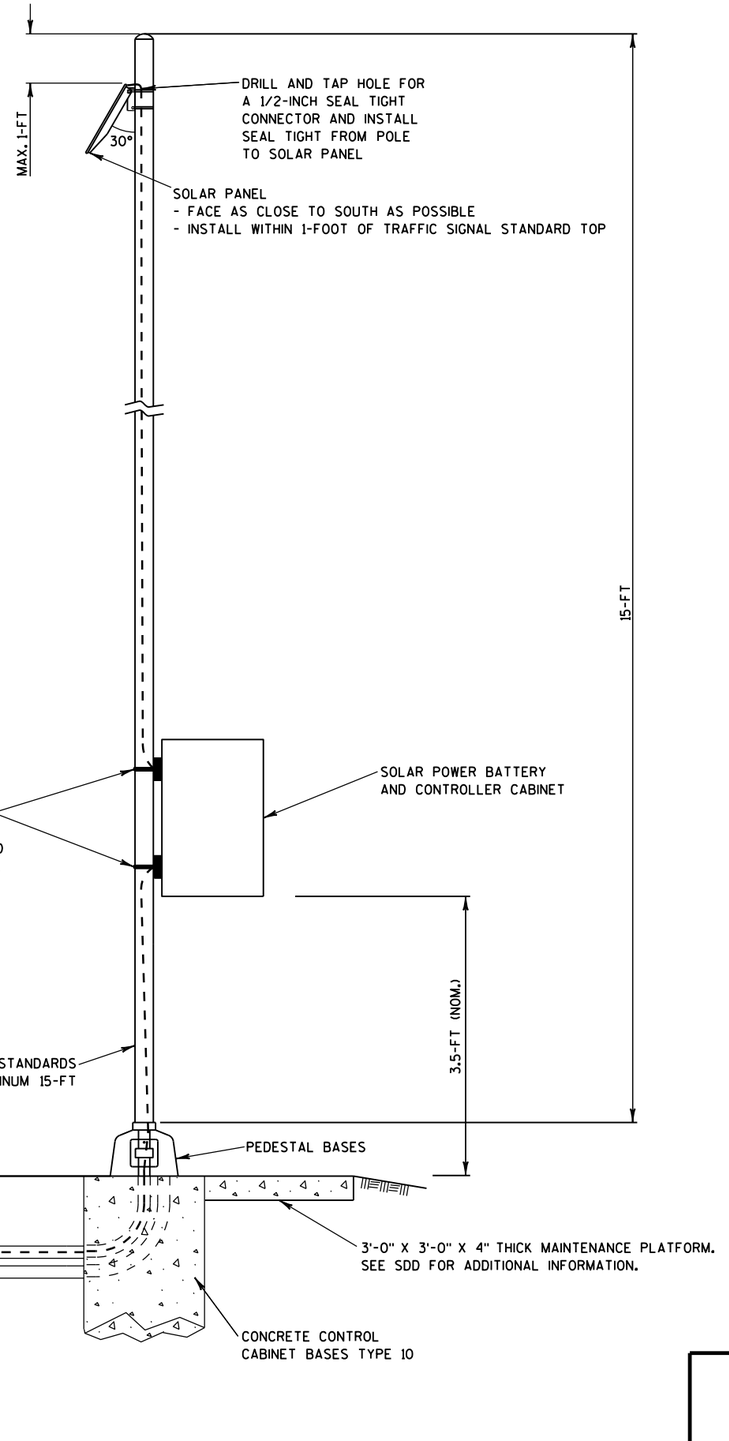
1. WIRING FROM SOLAR PANEL TO CABINET SHALL BE BLUE #10 XLP WIRE FOR POSITIVE CONDUCTOR AND WHITE #10 XLP FOR NEGATIVE CONDUCTOR.

2. WIRING FROM CABINET TO GATE ARM SHALL BE WHITE #10 XLP FOR COMMON, RED #10 XLP FOR FLASHER CIRCUIT 1, AND BLUE #10 XLP FOR FLASHER CIRCUIT 2.



BASE AND PULLBOX DETAIL

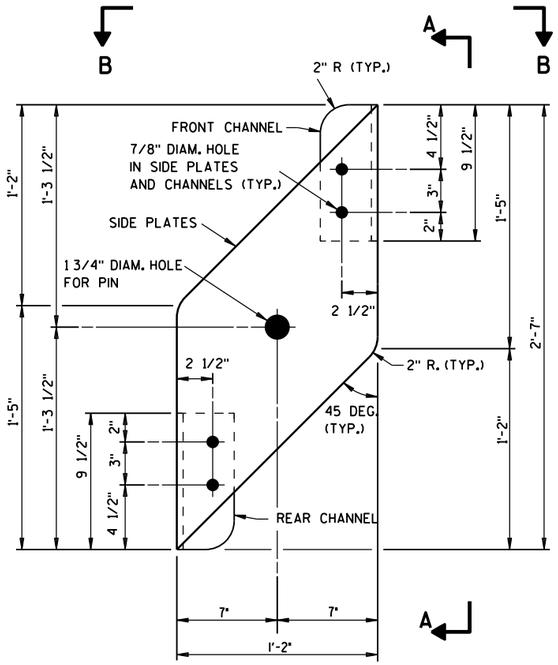
(SOLAR POWER OPTION)



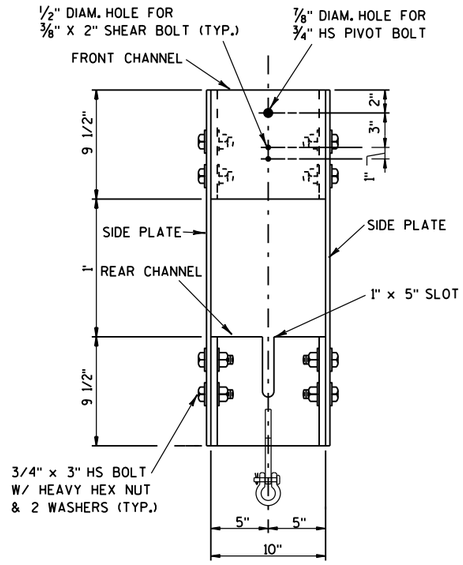
RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

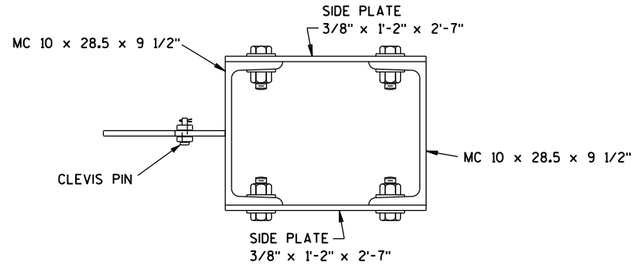
6
S.D.D. 15 D 34-1b



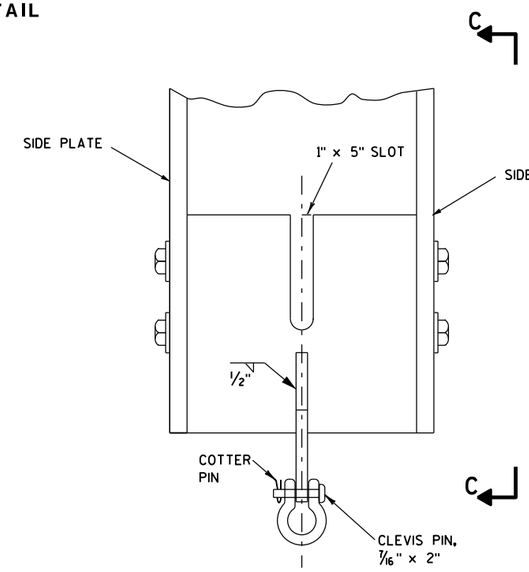
SIDE PLATE DETAIL



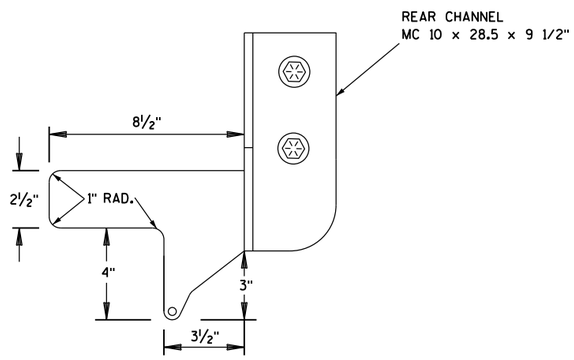
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 34-1c

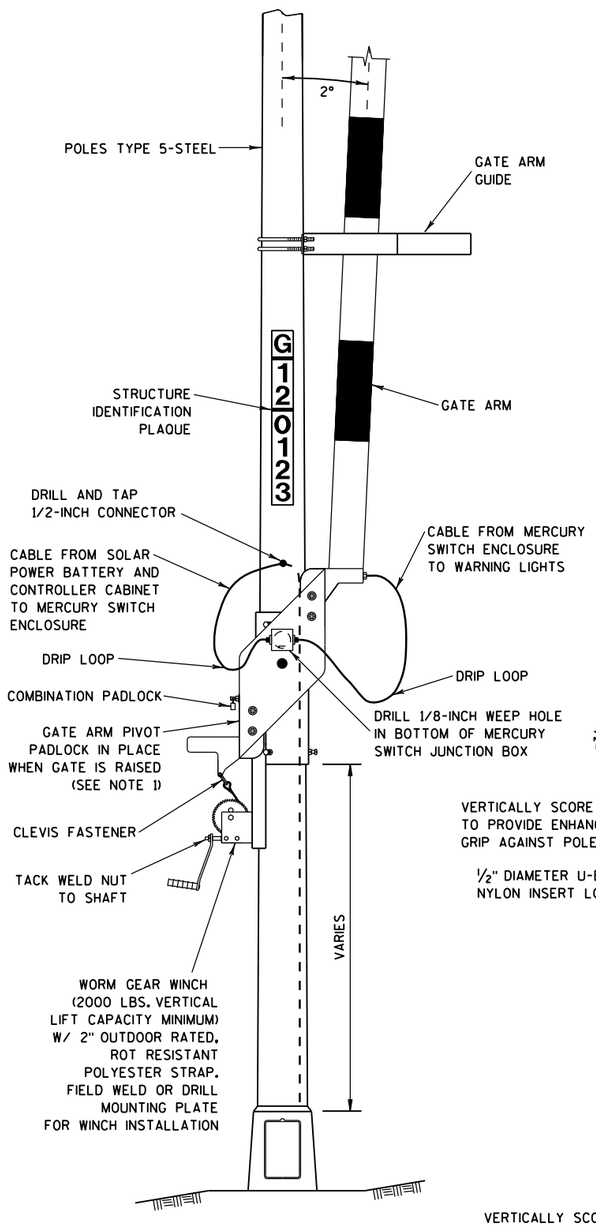
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL AND PADLOCKED IN PLACE.

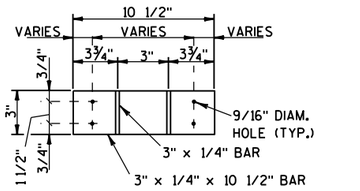
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL AND PADLOCKED INTO PLACE.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

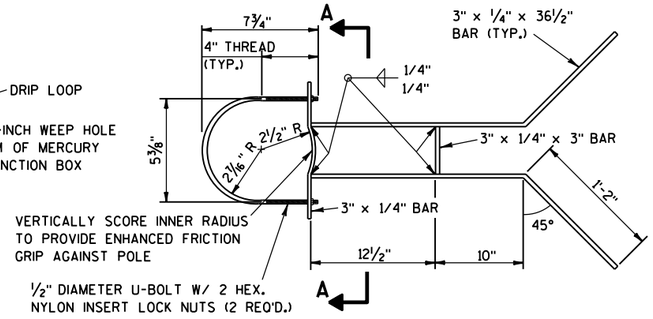
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF 1/2" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



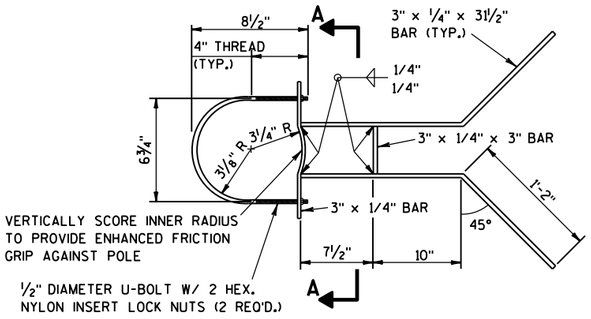
GATE PIVOT ASSEMBLY



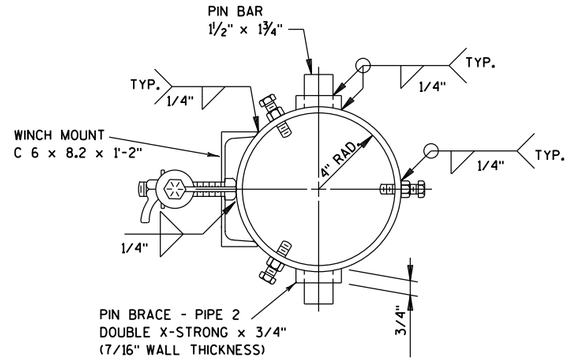
SECTION A-A
U-BOLTS NOT SHOWN



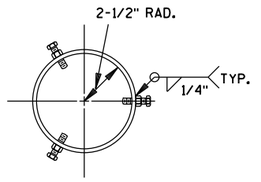
UPPER GATE ARM GUIDE DETAIL



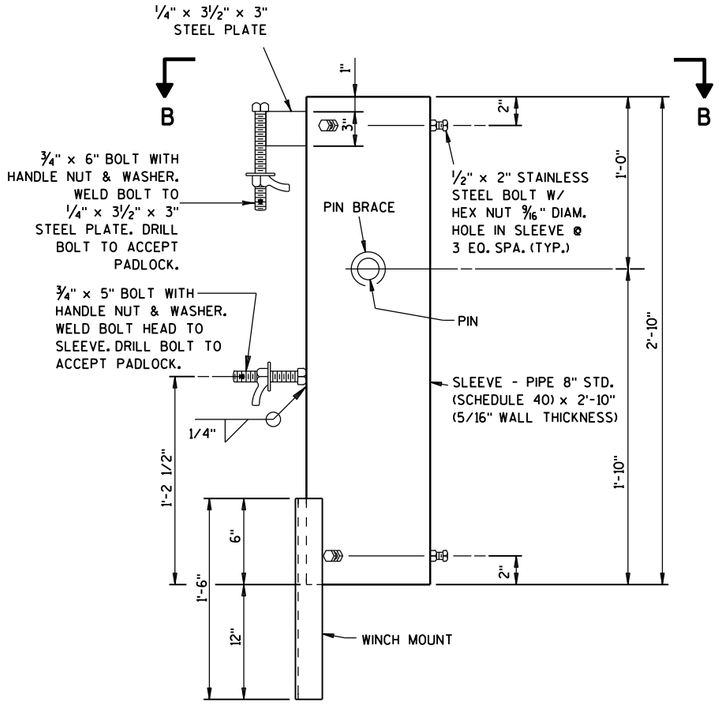
LOWER GATE ARM GUIDE DETAIL



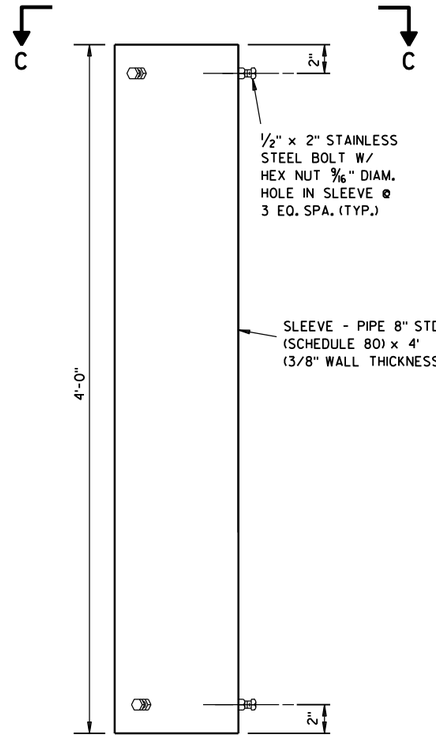
SECTION B-B



SECTION C-C



PIVOT SLEEVE DETAIL



TOP COLLAR

RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE
/S/ Bill Wondrachek
STATE TRAFFIC I
MANAGEMENT EN
FHWA

6

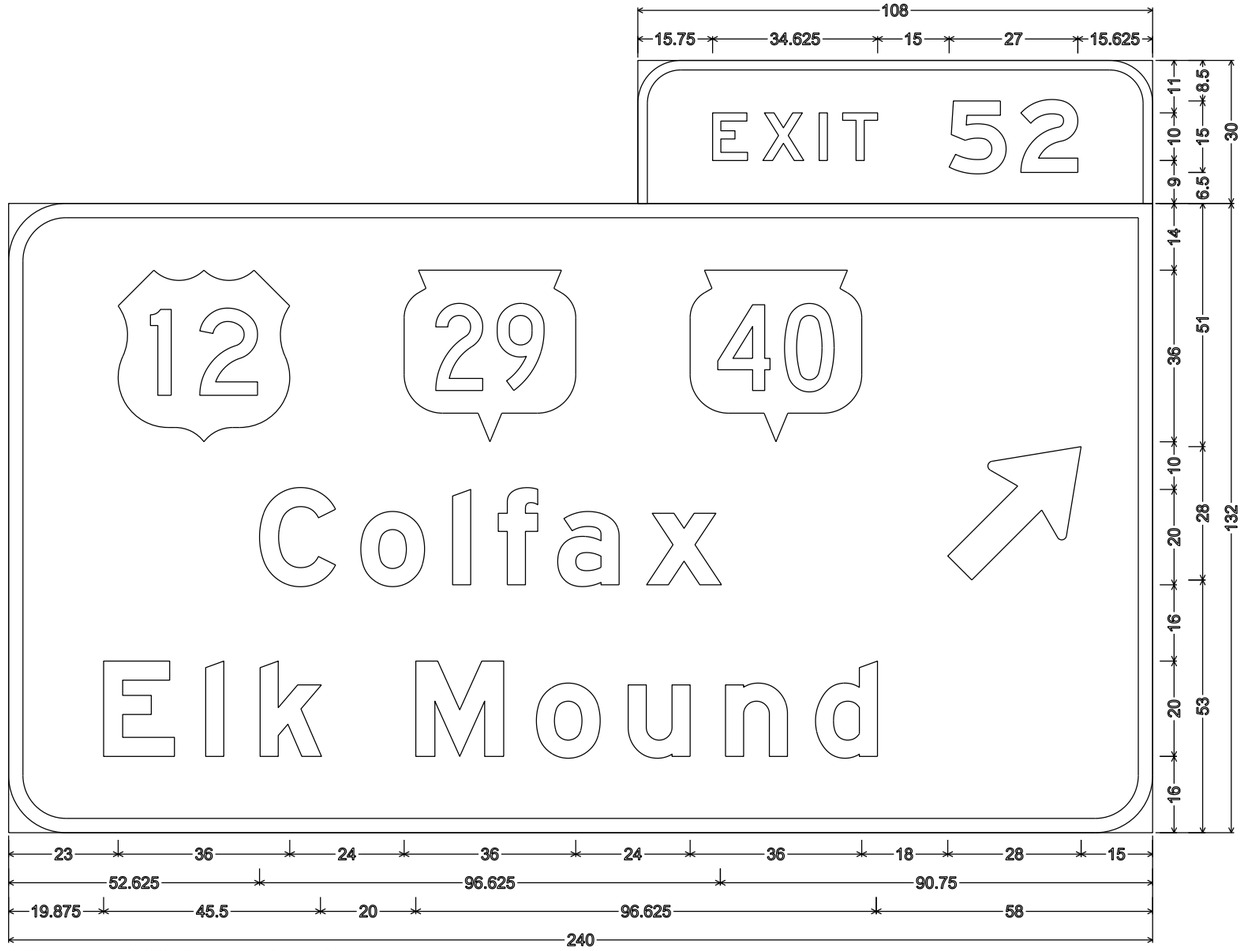
S.D.D. 15 D 34-1d

6

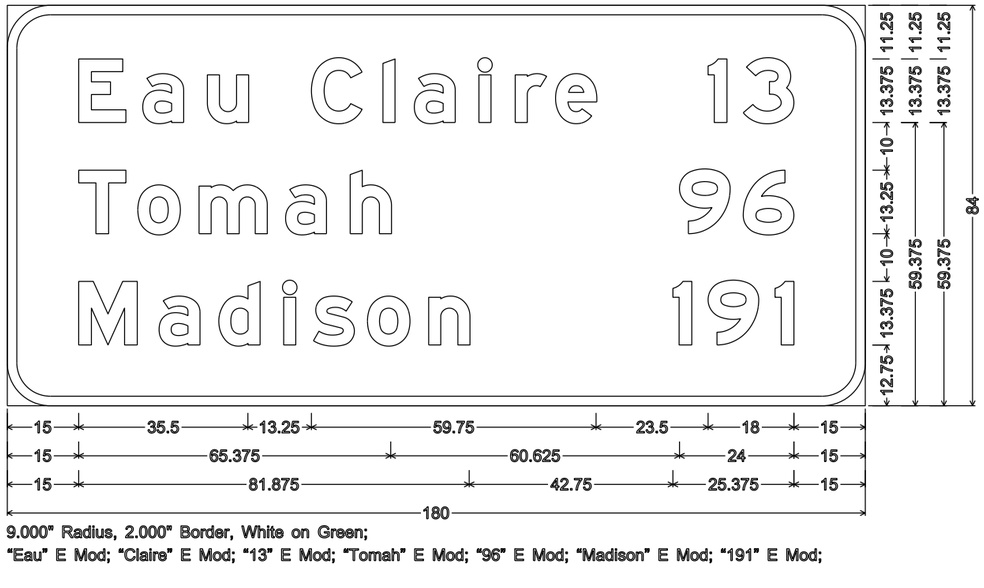
S.D.D. 15 D 34-1d

NOTES

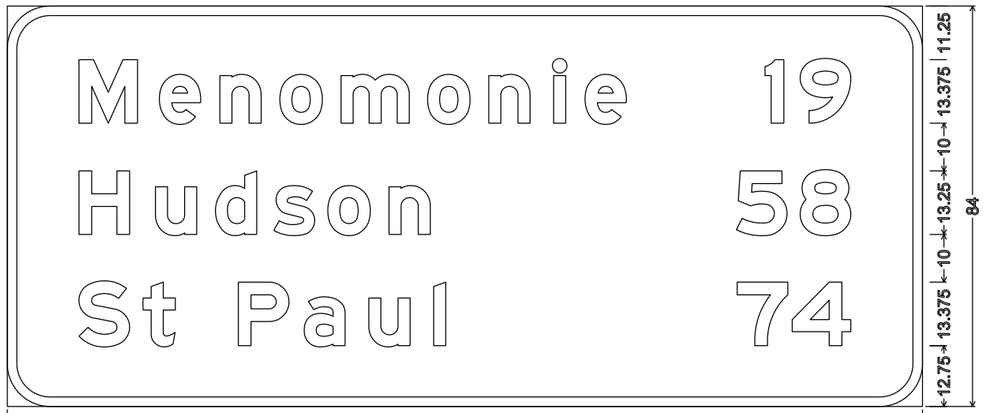
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "52" E Mod;
12.000" Radius, 3.000" Border, White on Green;
State Highway 29 M1-56; State Highway 40 M1-56; "Colfax" E Mod; "Elk" E Mod; "Mound" E Mod; Standard Arrow Custom 36.000" X 22.500" 45°;



9.000" Radius, 2.000" Border, White on Green;
"Eau" E Mod; "Claire" E Mod; "13" E Mod; "Tomah" E Mod; "96" E Mod; "Madison" E Mod; "191" E Mod;



9.000" Radius, 2.000" Border, White on Green;
"Menomonie" E Mod; "19" E Mod; "Hudson" E Mod; "58" E Mod; "St" E Mod; "Paul" E Mod; "74" E Mod;

7

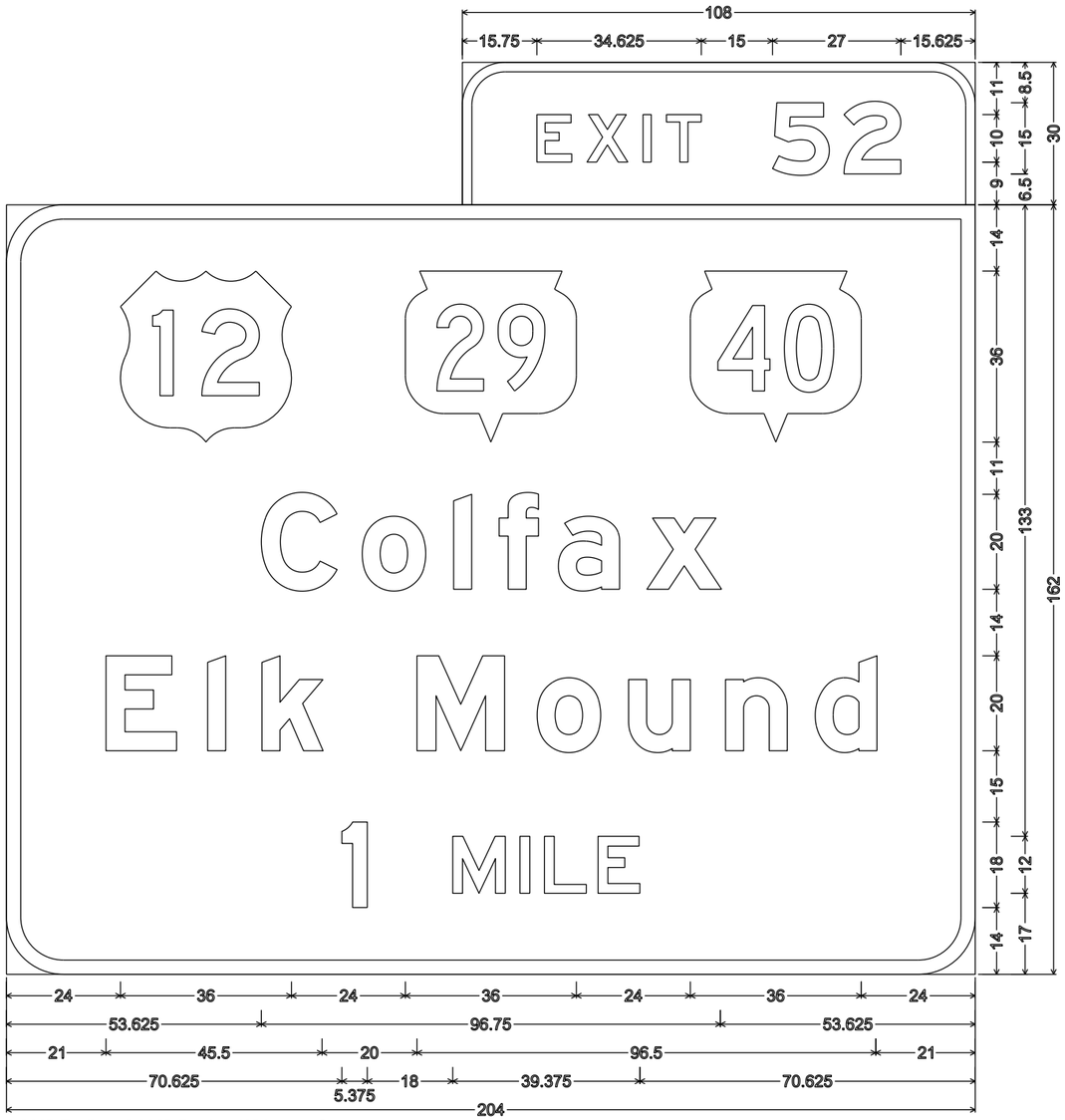
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PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

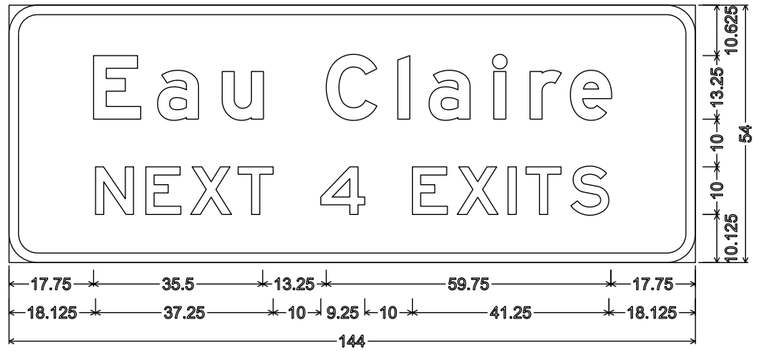
FILE NAME : C:\CAEfiles\Projects\tr_d6\6171d514.dgn PLOT DATE : 22-MAY-2014 14:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 31.785326:1.000000
WISDOT/CADDS SHEET 42

NOTES

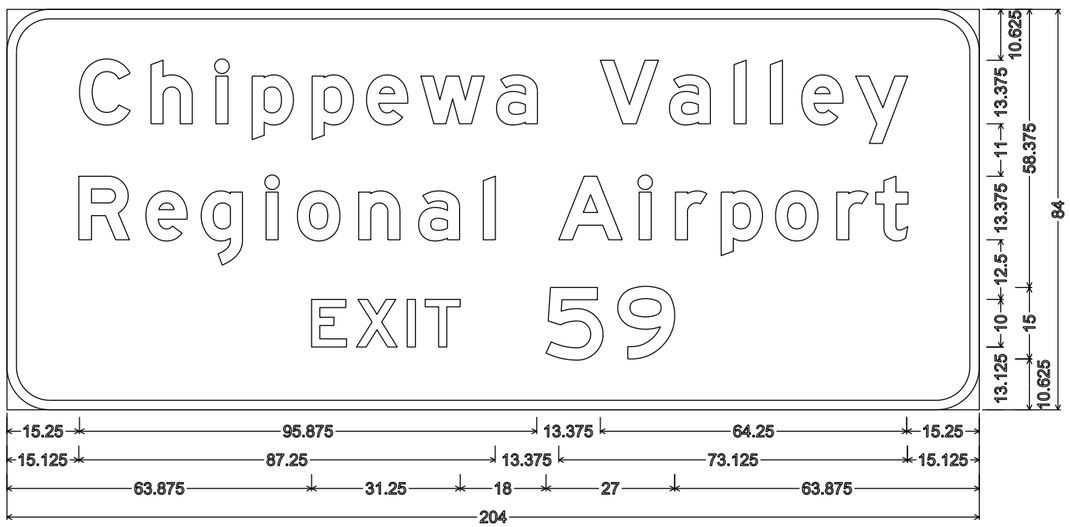
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "52" E Mod;
12.000" Radius, 3.000" Border, White on Green;
State Highway 29 M1-56; State Highway 40 M1-56; "Colfax" E Mod; "Elk" E Mod; "Mound" E Mod; "1" E; "MILE" E;



6.000" Radius, 2.000" Border, White on Green;
"Eau" E Mod; "Claire" E Mod; "NEXT" E; "4" E; "EXITS" E;



9.000" Radius, 2.000" Border, White on Green;
"Chippewa" E Mod; "Valley" E Mod; "Regional" E Mod; "Airport" E Mod; "EXIT" E; "59" E;

7

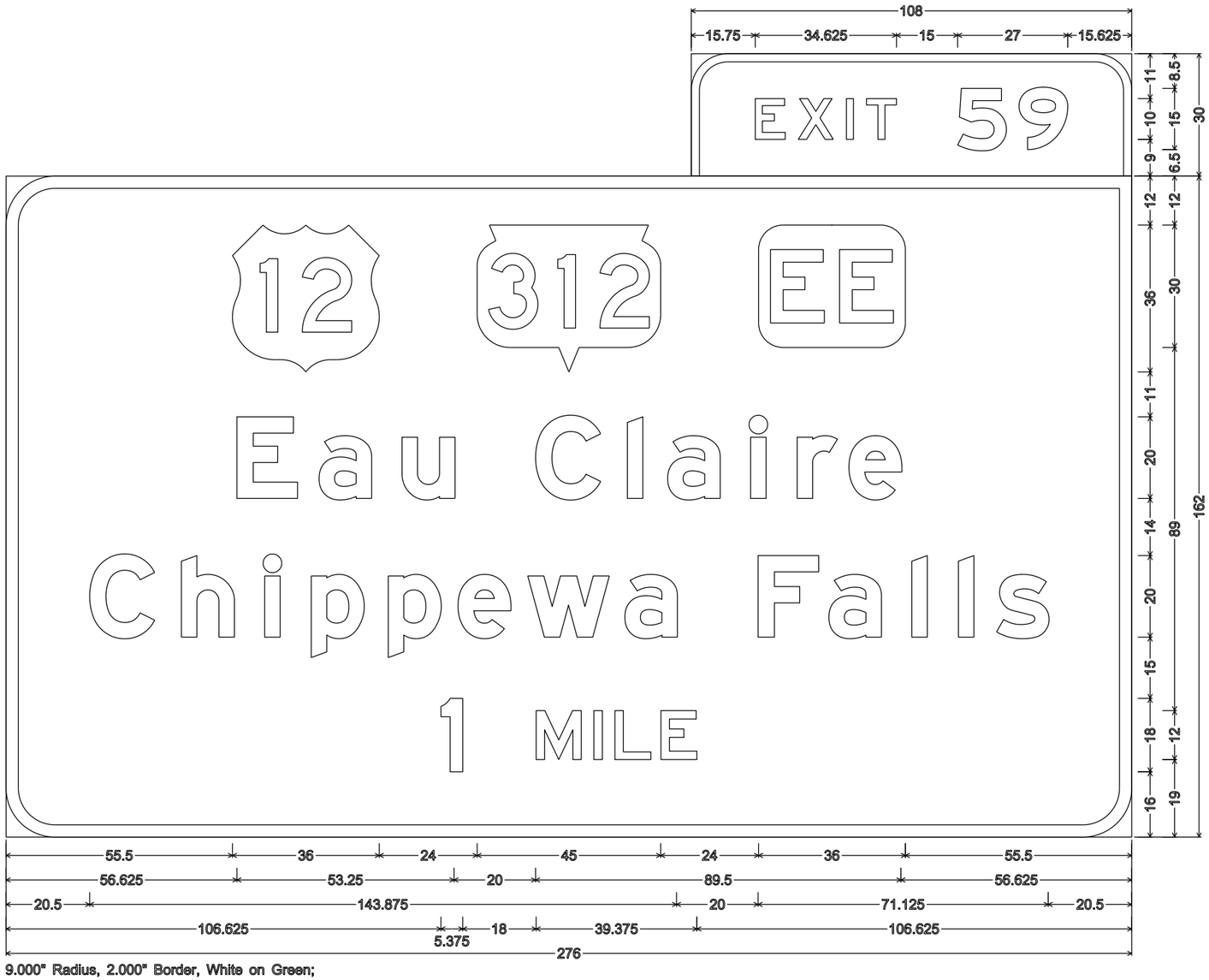
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PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d6\6171d514.dgn PLOT DATE : 22-MAY-2014 14:11 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 31.785326:1.000000
WISDOT/CADDS SHEET 42

NOTES

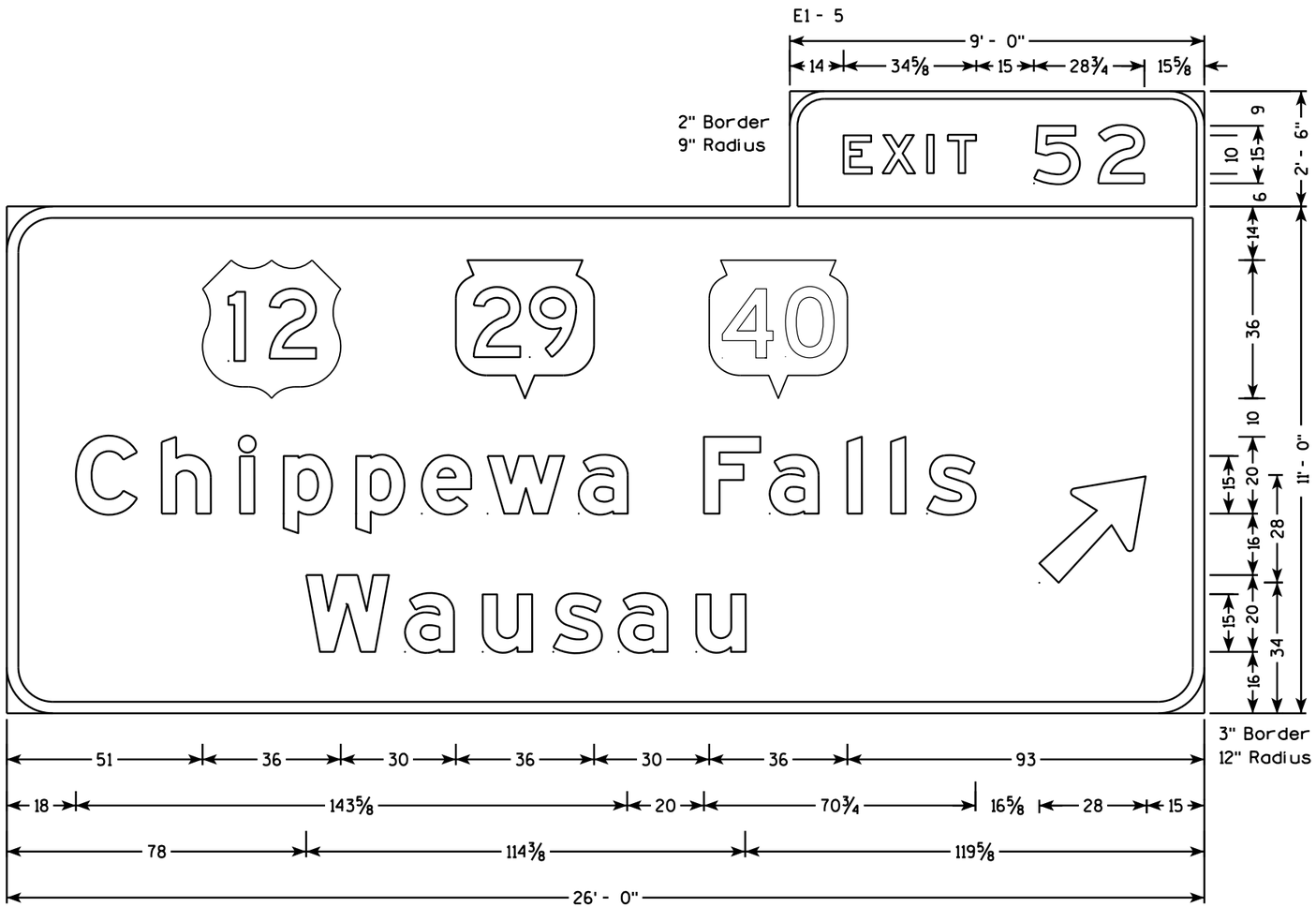
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted

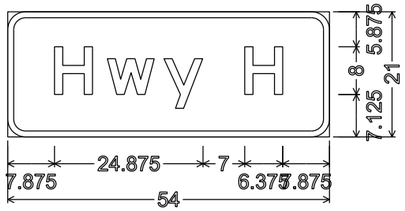


9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "59" E Mod;
12.000" Radius, 3.000" Border, White on Green;
State Highway 312 M1-56A; Square County EE M1-55-2; "Eau" E Mod; "Claire" E Mod; "Chippewa" E Mod; "Falls" E Mod; "1" E; "MILE" E;

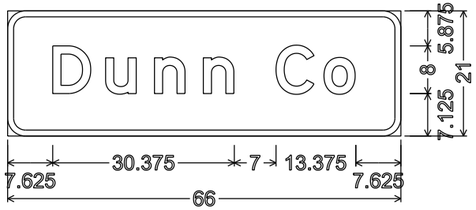
NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all cap Words are Series E





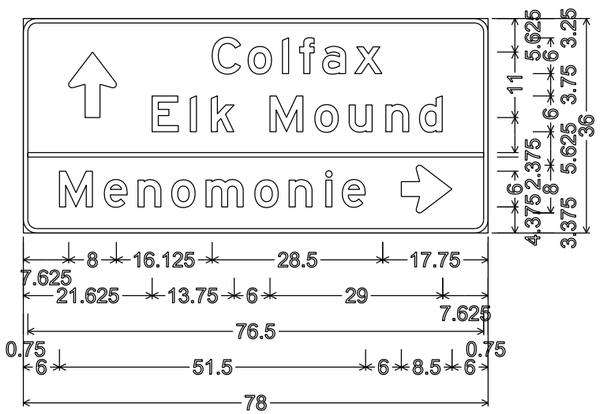
3.000" Radius, 1.000" Border



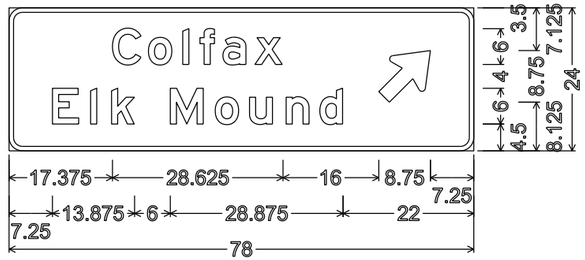
3.000" Radius, 1.000" Border



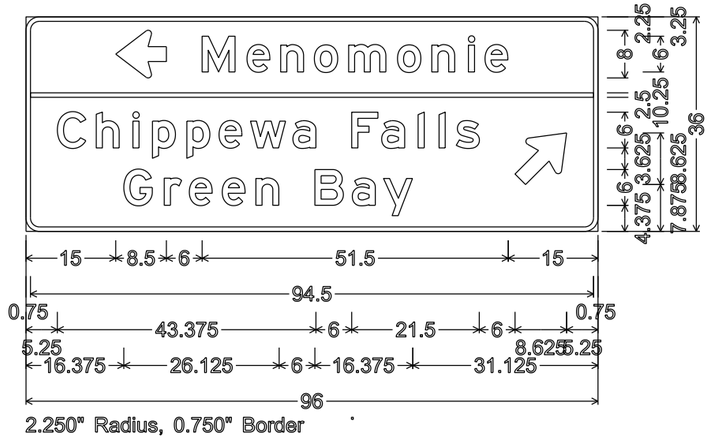
3.000" Radius, 1.000" Border



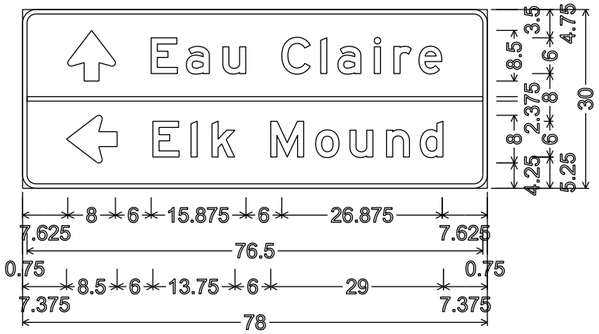
2.250" Radius, 0.750" Border



2.250" Radius, 0.750" Border



2.250" Radius, 0.750" Border



2.250" Radius, 0.750" Border

NOTES

1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E

7

7

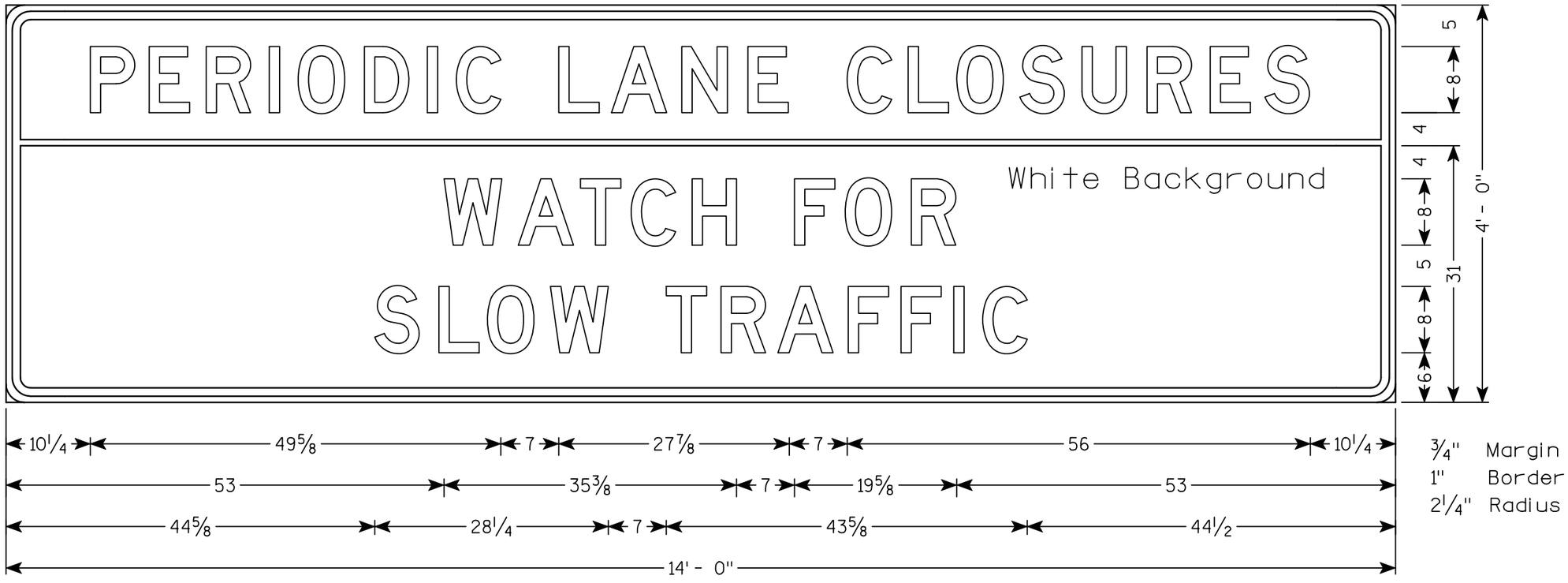
PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d6\6171d514.dgn PLOT DATE : 22-MAY-2014 14:11 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 25.428261:1.000000

WISDOT/CADDS SHEET 42

NOTES

1. All Signs Type II - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange except as noted
   Message - Black
3. Message Series - D

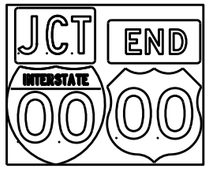


PROJECT NO: 1022-04-74	HWY: IH 94	COUNTY: EAU CLAIRE	TEMPORARY SIGNING	SHEET 192	E

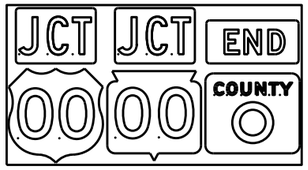
TYPICAL ASSEMBLIES



J1-1



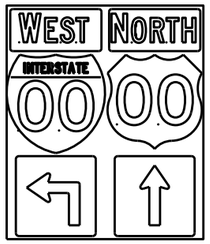
J1-2



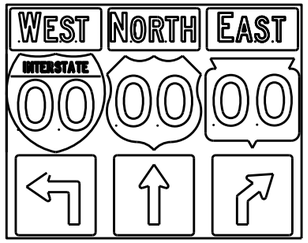
J1-3



J2-1



J2-2

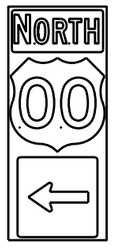


J2-3

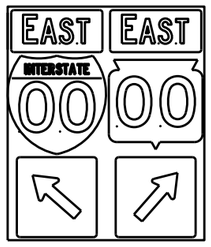


JV

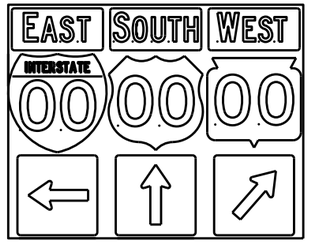
(Typical Vertical J-Assembly
See Note 10 and 11)



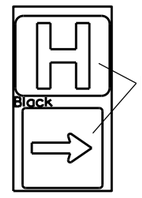
J3-1



J3-2



J3-3

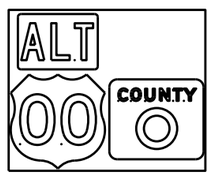


Blue Background

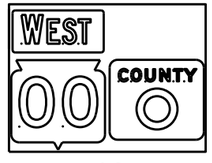
JH-1



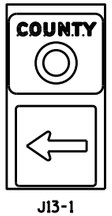
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

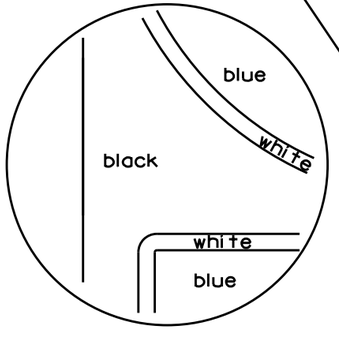


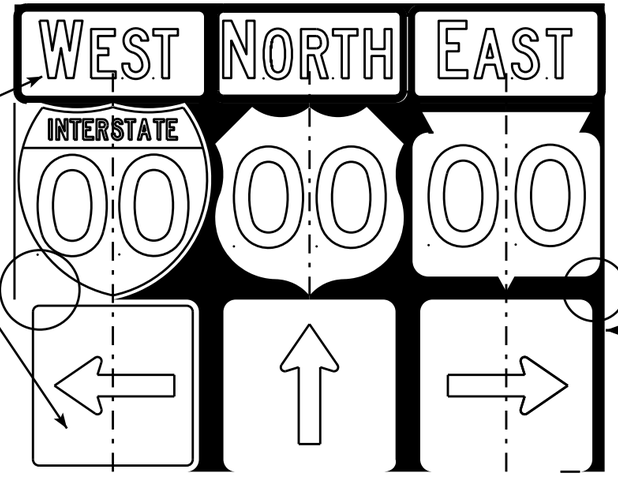
J23-1

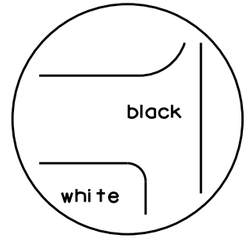


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

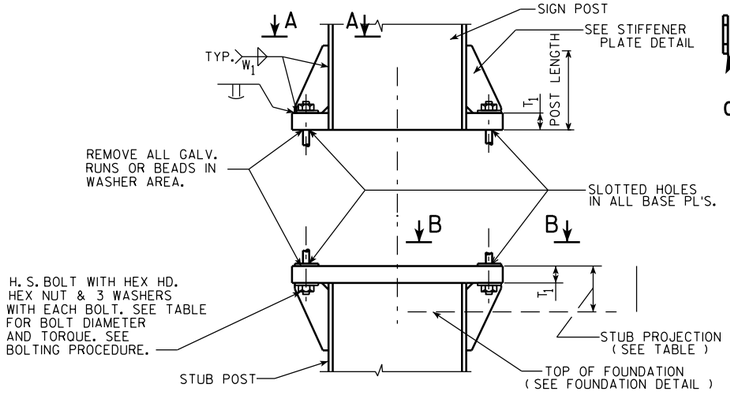
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

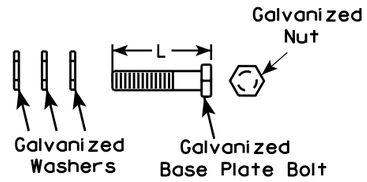
DATE 2/06/14 PL A2-1S.8

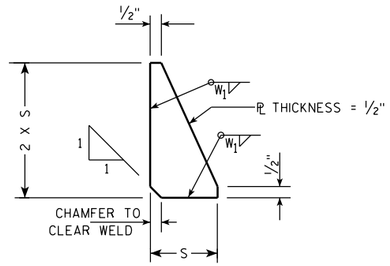
PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42



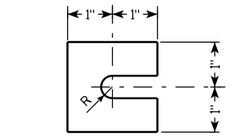
SIGN POST AND STUB POST ELEVATION





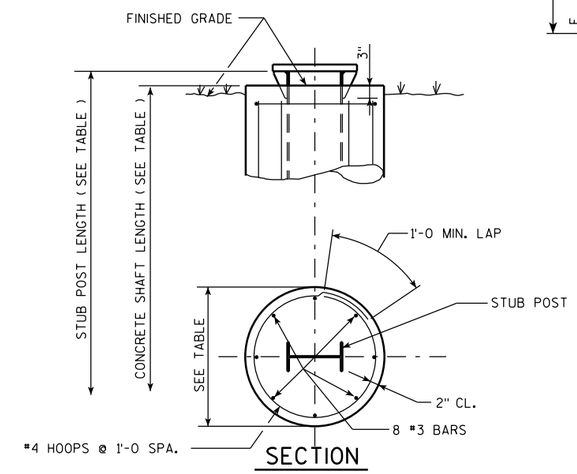
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

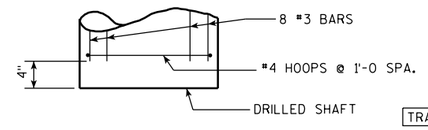


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

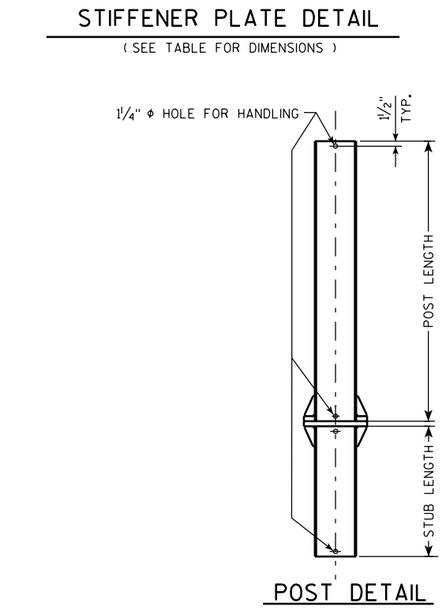
SHIM DETAIL



SECTION



FOUNDATION DETAIL



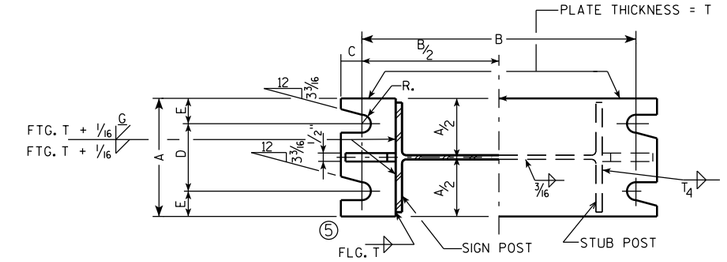
POST DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

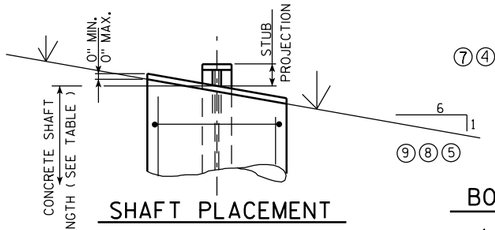
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

⑦



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140 [4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

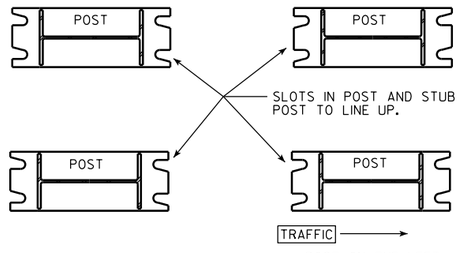
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



POST SLOT ORIENTATION ⑦

L	X	TYPE	DIMENSION / POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
3 ¾	④	A	W10"X12.0 #/FT.	¾" ϕ @ 75#-FT.	5¼"	1'-0⅜	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 ϕ	5'-0	76.0# ④
4 ¾	④	B	W12"X16.0 #/FT.	⅞" ϕ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1¼"	¼"	5/16"	15/32"	3"	5'-6	3"	2'-0 ϕ	7'-0	146.5# ④
5		C	W12"X19.0 #/FT.	⅞" ϕ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1½"	5/16"	5/16"	15/32"	3"	6'-0	3"	2'-0 ϕ	7'-6	182.1#
5		D	W12"X22.0 #/FT.	⅞" ϕ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1½"	⅜"	5/16"	15/32"	3"	6'-6	3"	2'-0 ϕ	8'-0	210.5#
5	③	E	W12"X26.0 #/FT.	1" ϕ @ 90#-FT.	7"	1'-4¼	1¼"	4"	1½"	1½"	⅜"	5/16"	11/32"	3"	7'-0	3"	2'-0 ϕ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO. A3-1.15

⑩	1-21-14	LUBRICATION OF BASE BOLTS
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1
NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

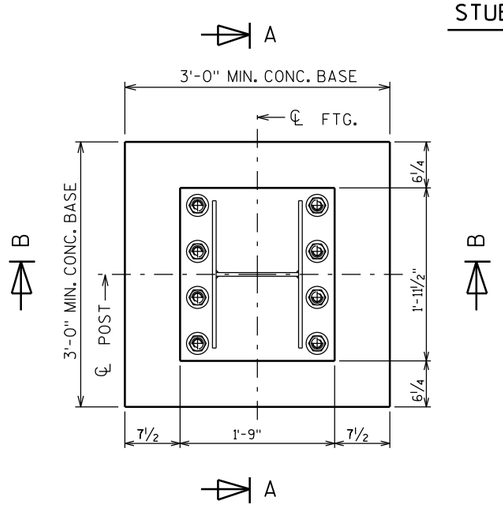
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS SHEET 194

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

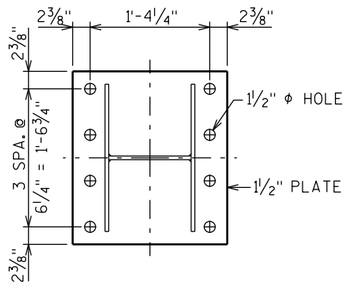
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WISDOT/CADDS SHEET 42

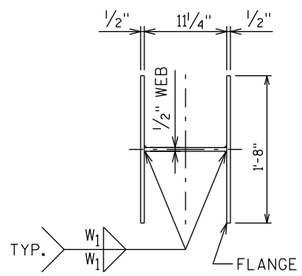
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



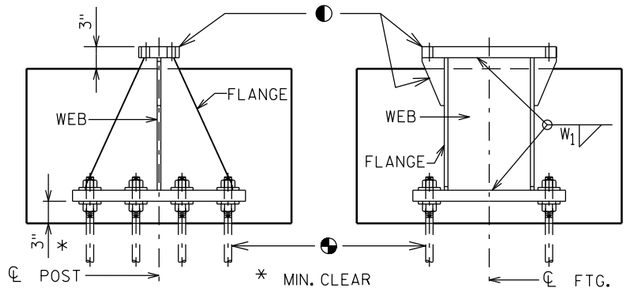
BASE PLATE



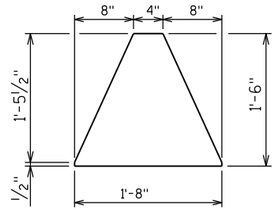
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



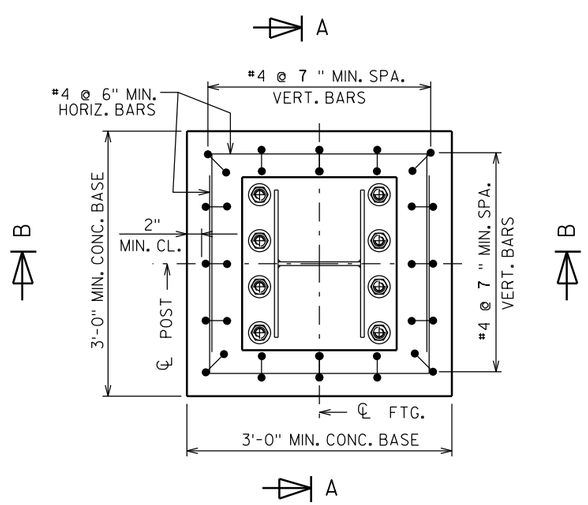
FLANGE

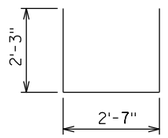
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

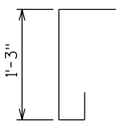
CONCRETE BASE SECTION





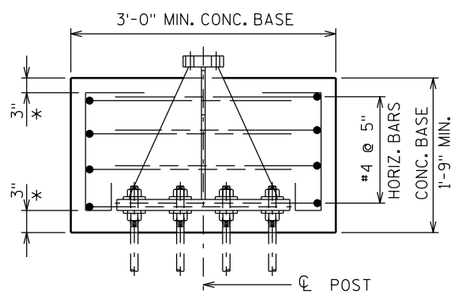
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



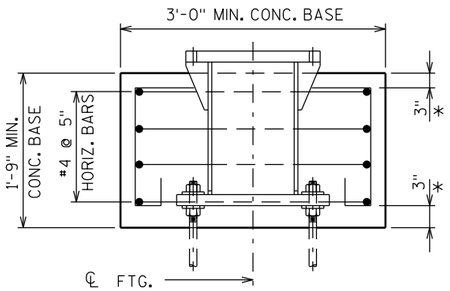
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

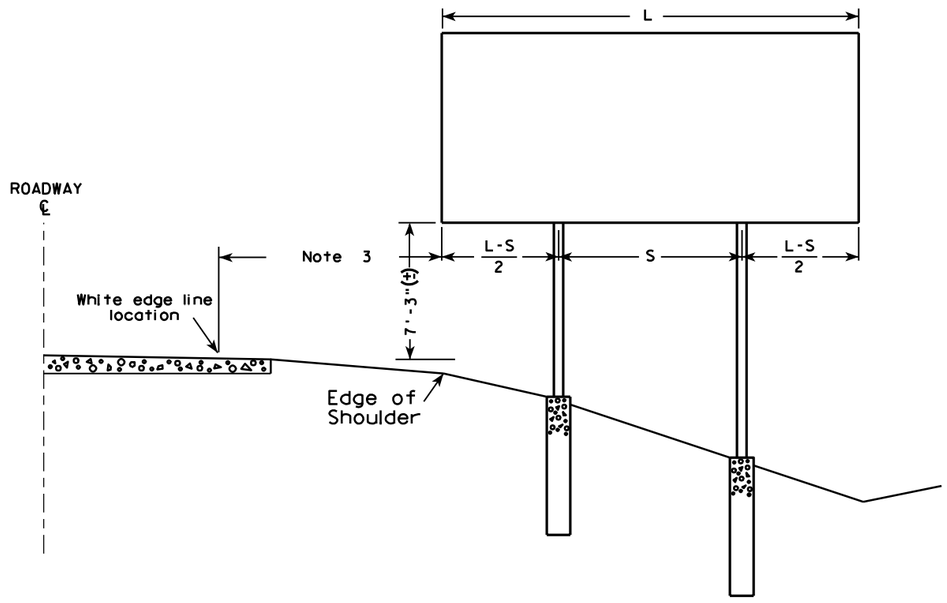
WISCONSIN DEPT OF TRANSPORTATION

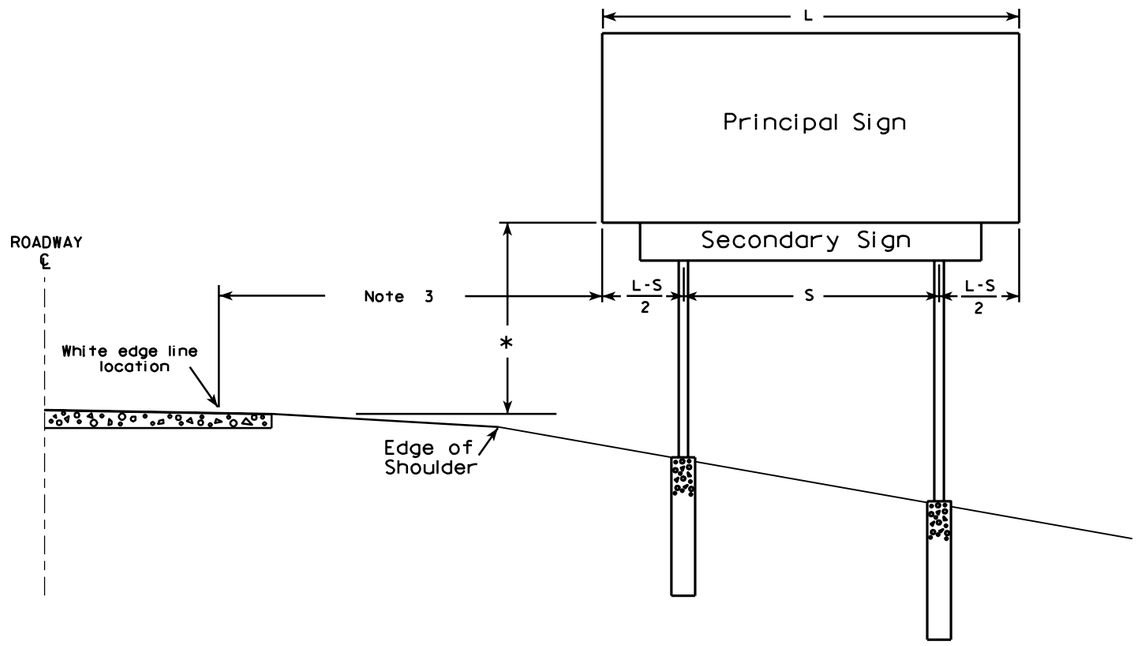
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000 WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

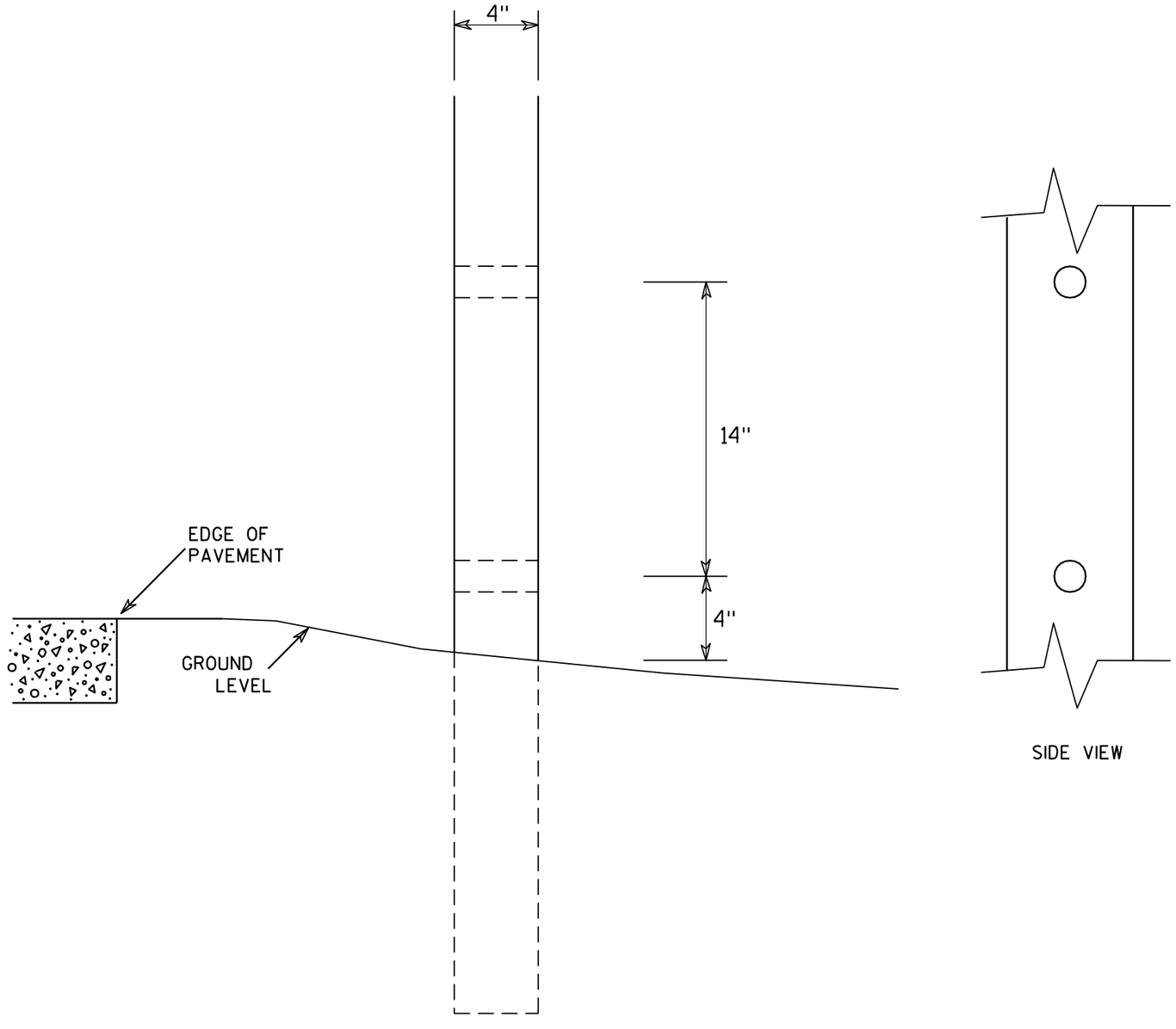
TYPICAL INSTALLATION
OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 196	E



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

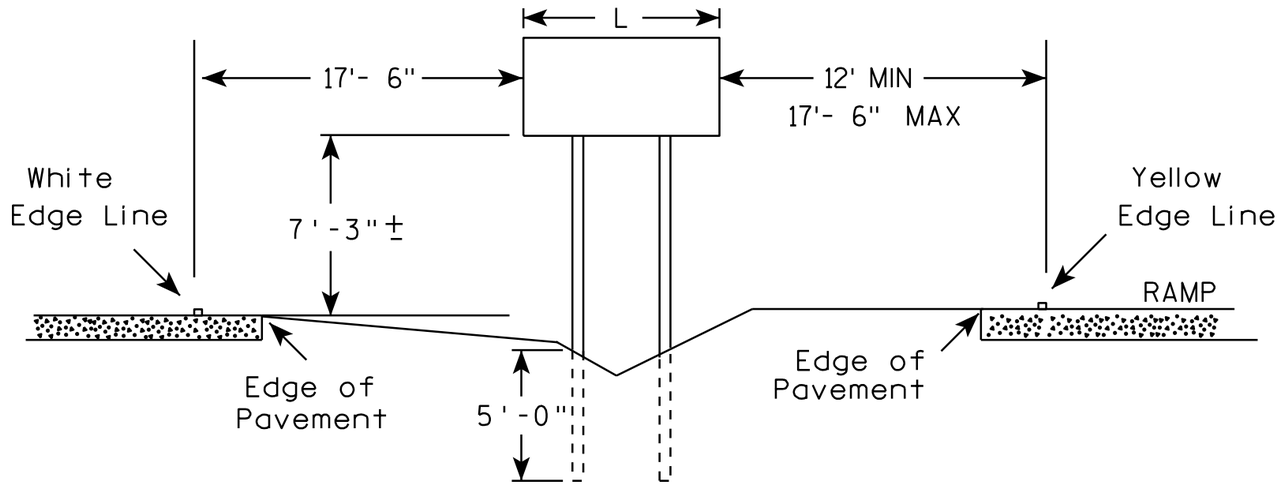
4 X 6 WOOD POST MODIFICATIONS

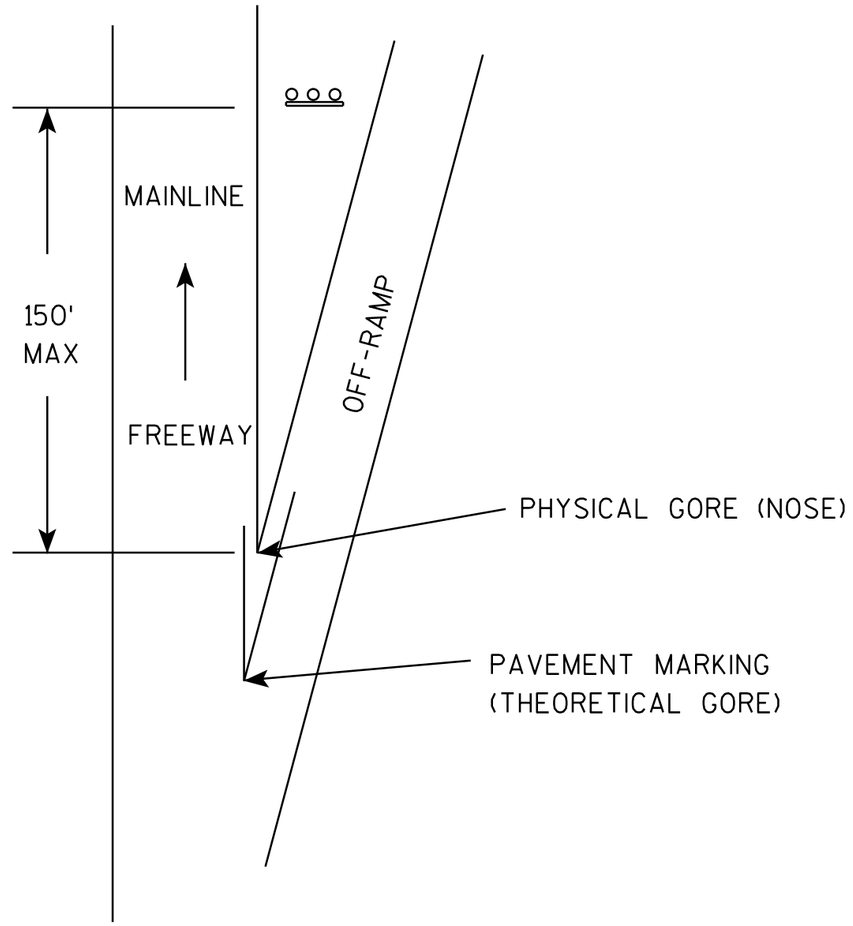
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E





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

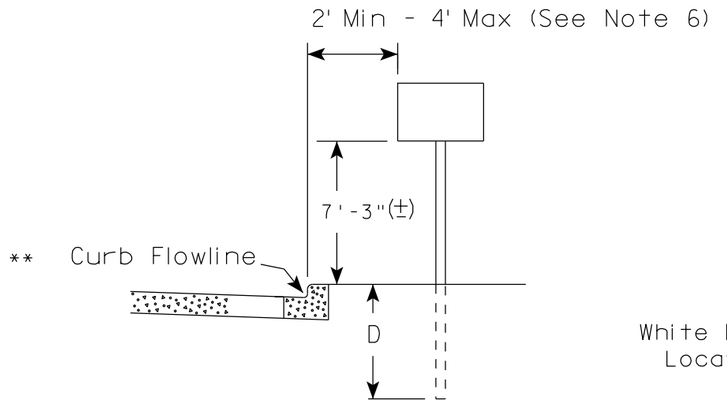
DATE 2/06/14 PLA A4-2.3

PROJECT NO: | SHEET NO: E

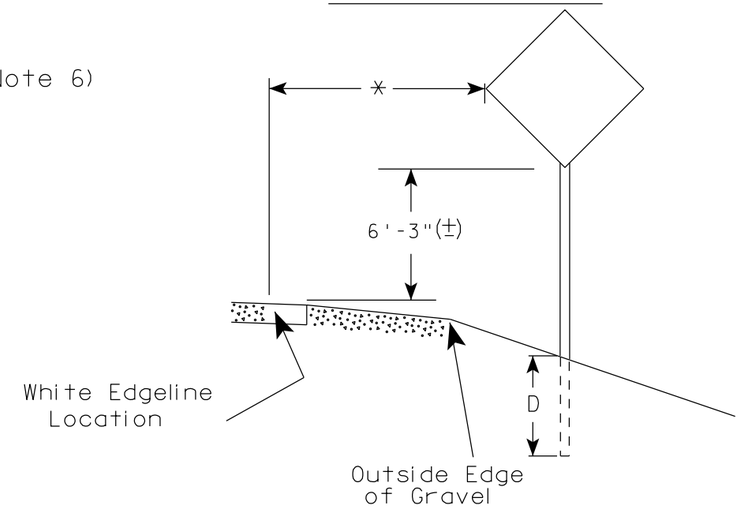
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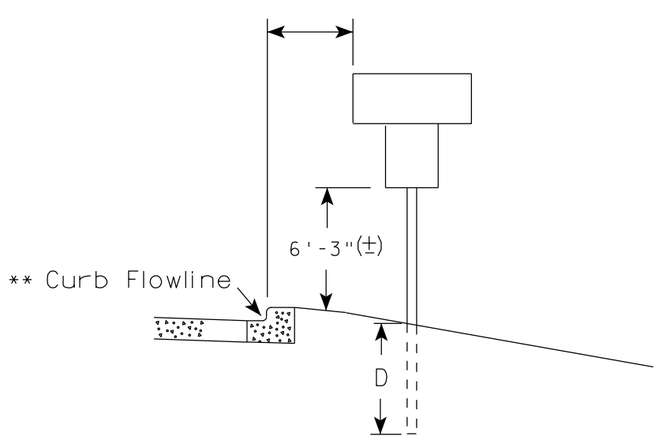
WISDOT/CADDS SHEET 42

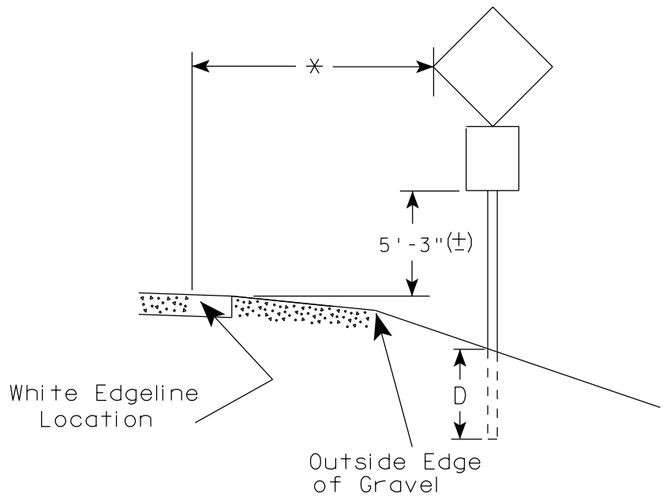
URBAN AREA



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, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

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

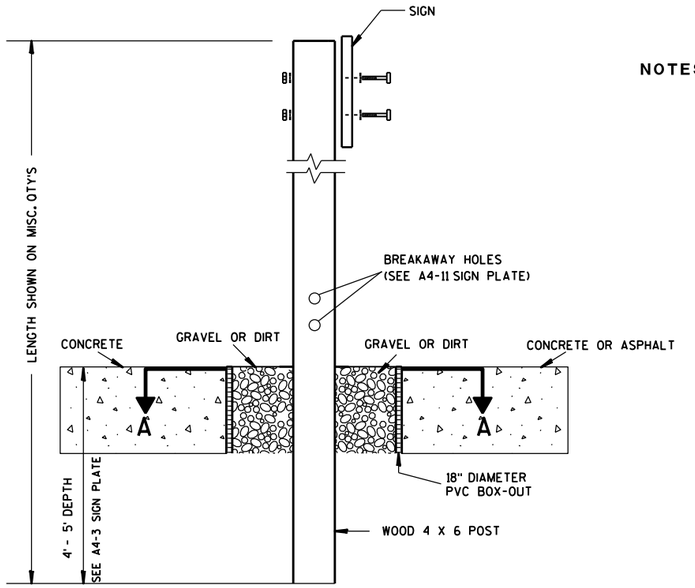
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

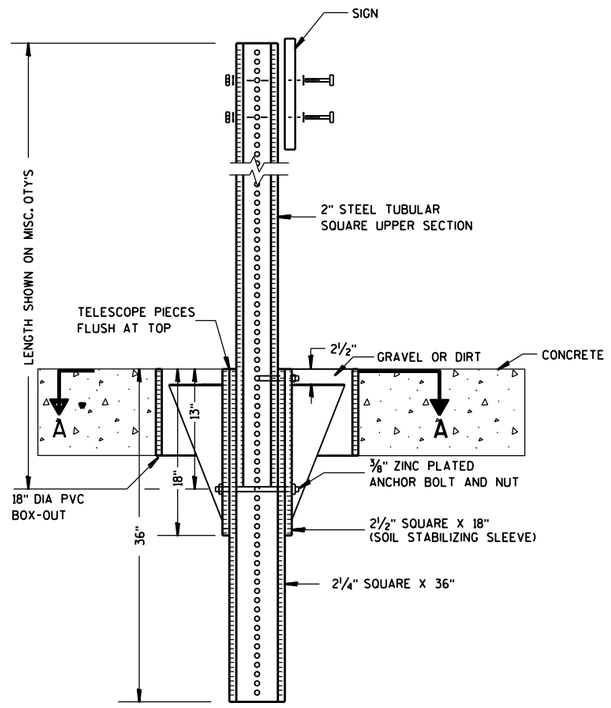
7



ELEVATION VIEW

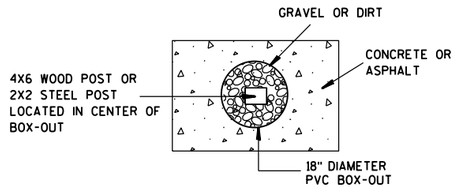
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

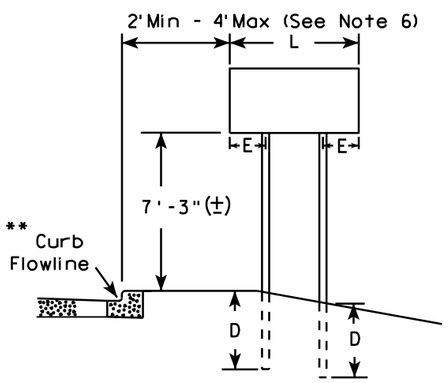
APPROVED Matthew R Rauch
for State Traffic Engineer

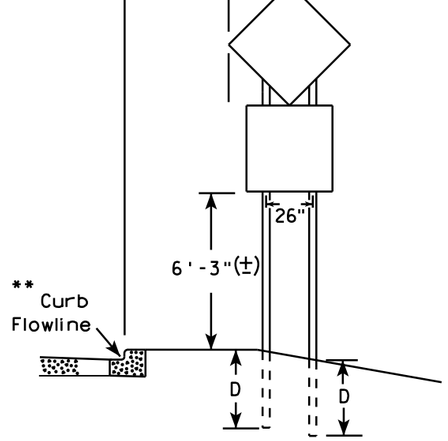
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

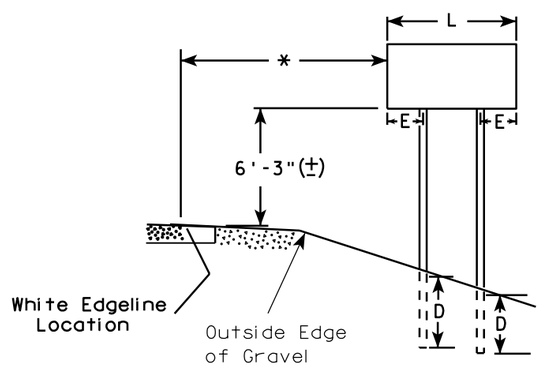
URBAN AREA

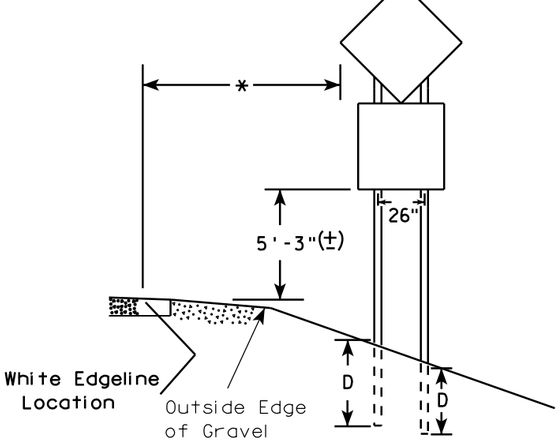




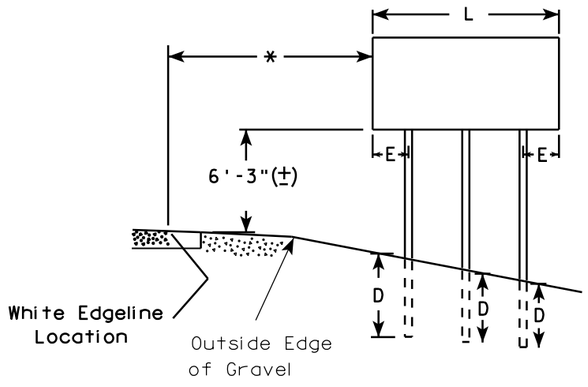
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

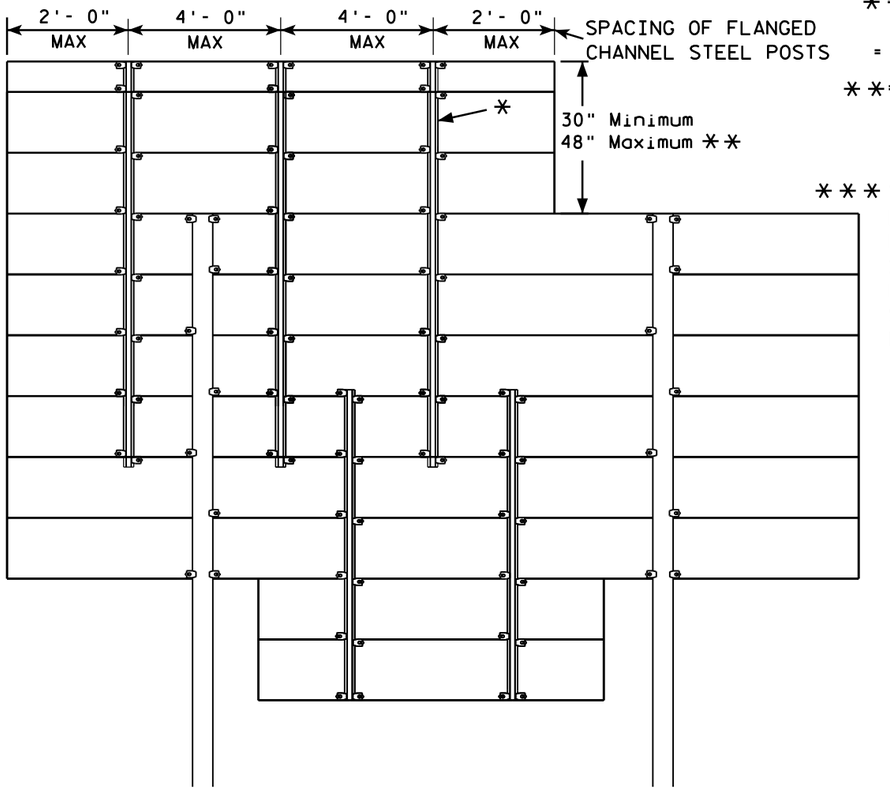
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/29/14 PLATE NO. A4-4 13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

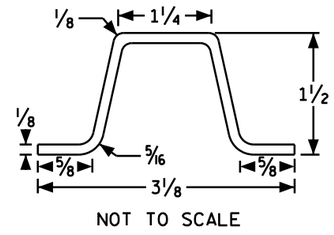


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

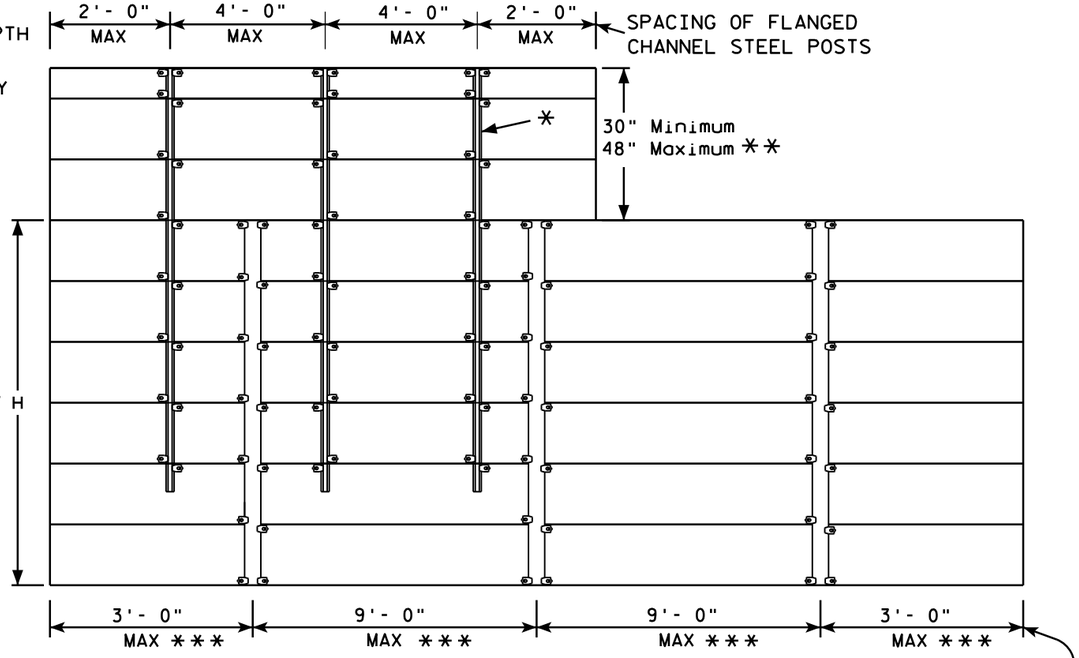
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS
5" X 3.5" X 3.7 LBS./ft.

GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

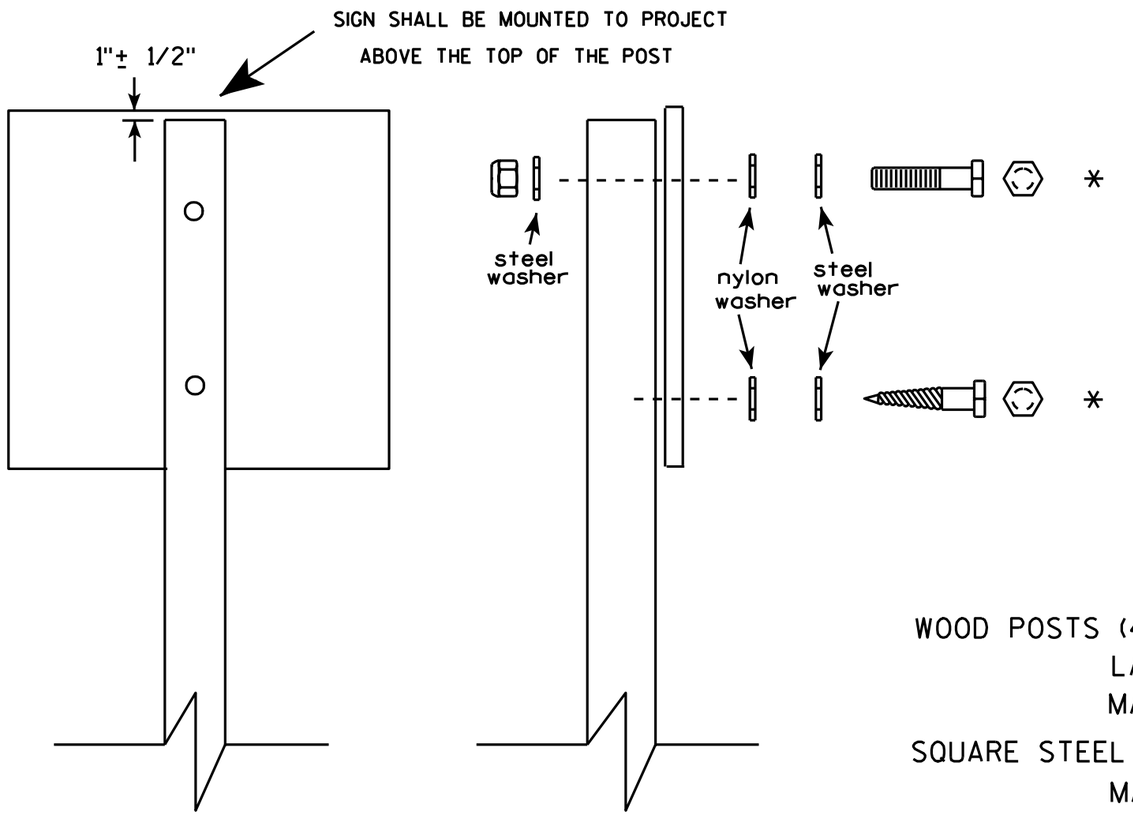
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 202 A4-6.12

PROJECT NO:				SHEET NO:	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

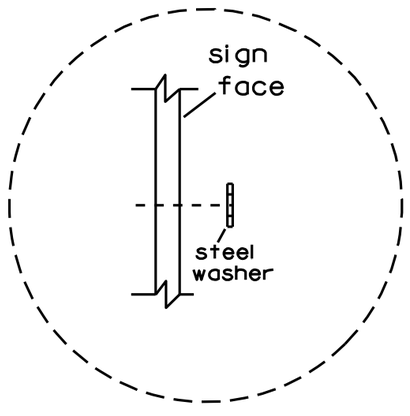
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10 PLATE NO. A4-8.7

7

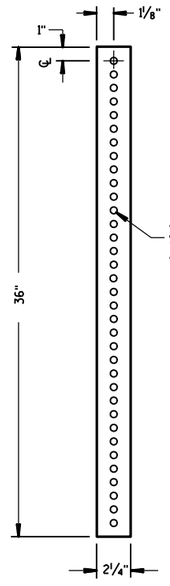
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PROJECT NO:

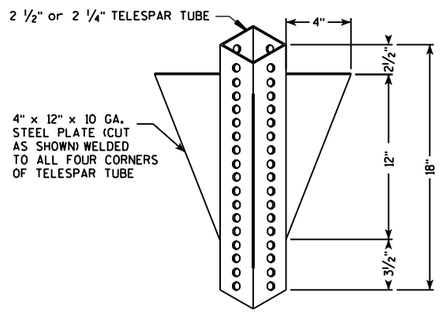
SHEET NO: 203 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

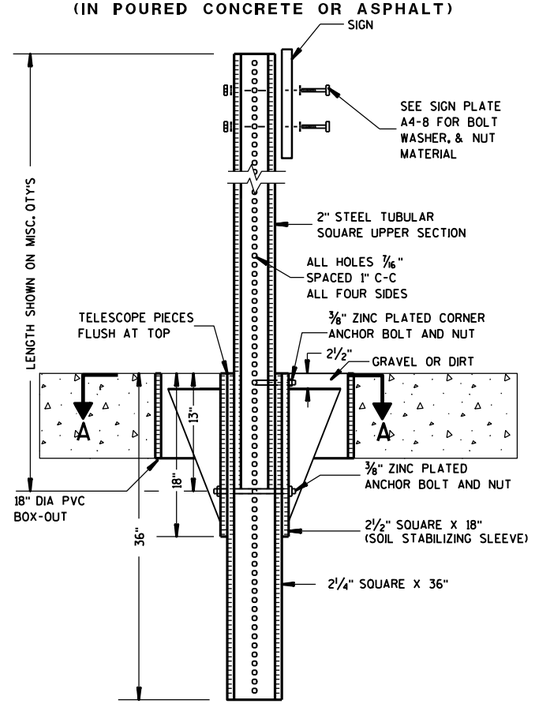
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



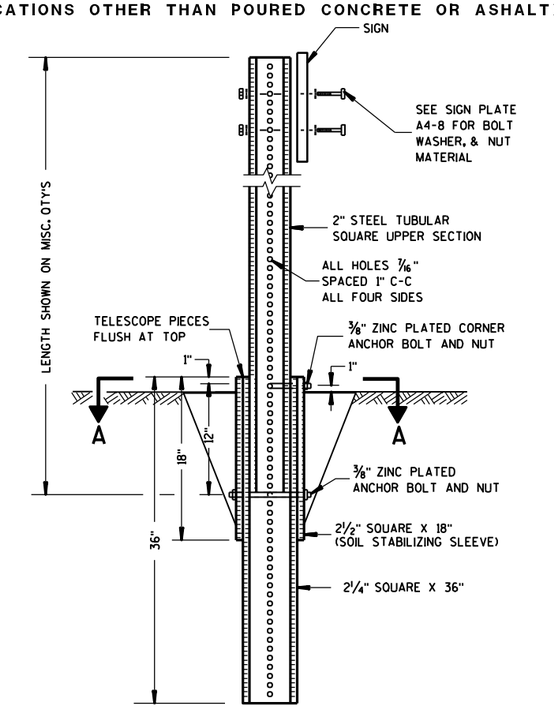
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

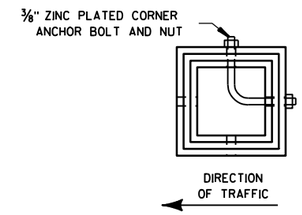


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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).

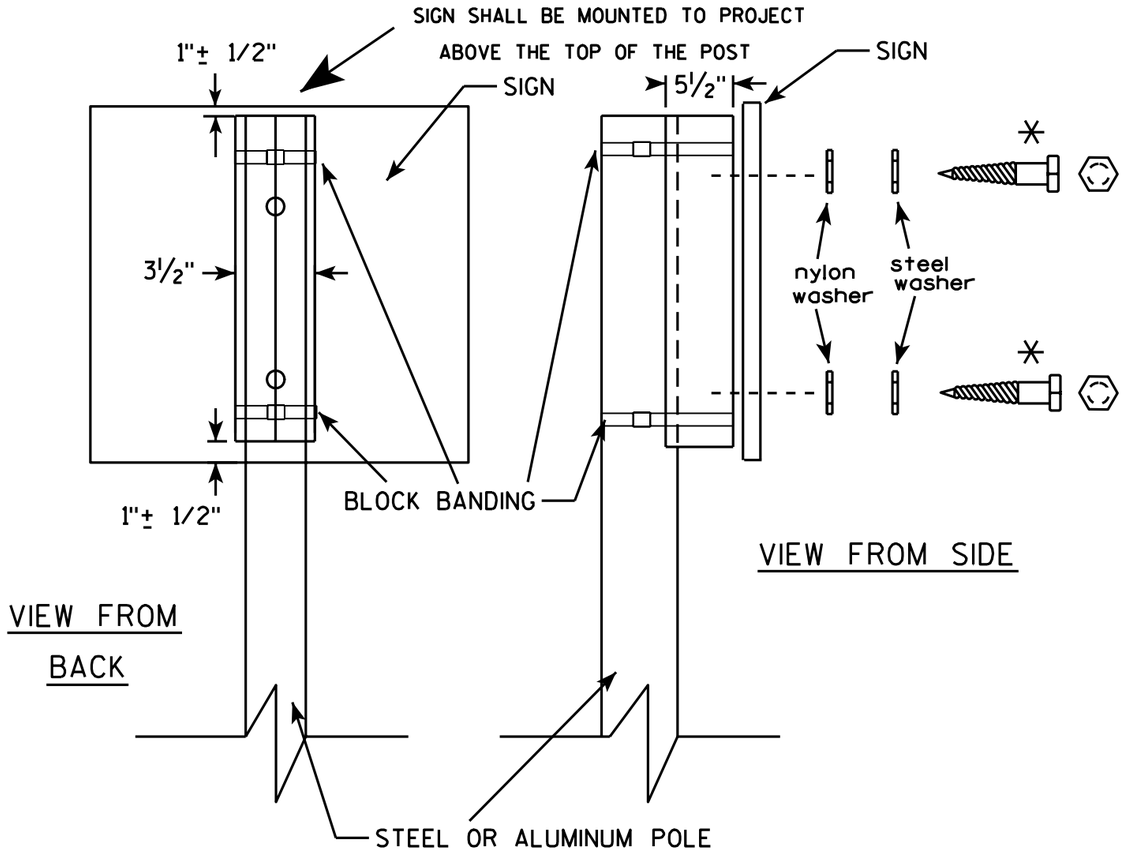
TUBULAR STEEL SIGN POST A4-9

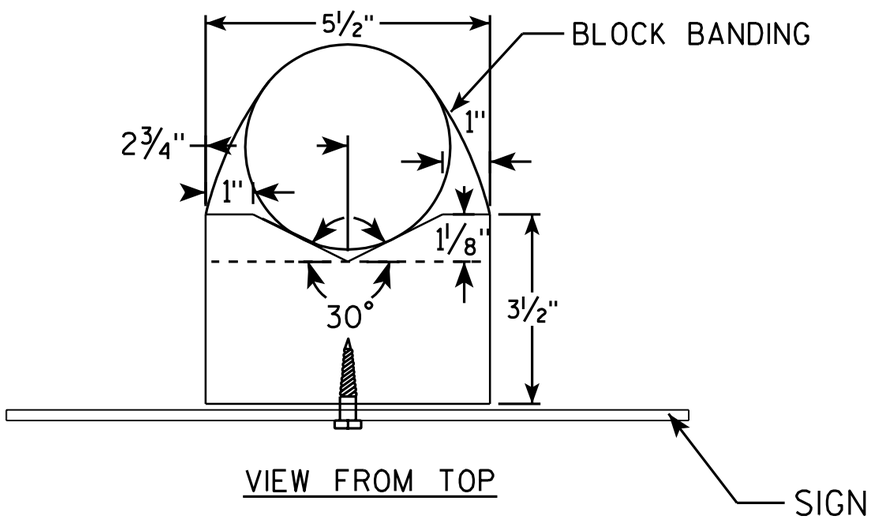
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

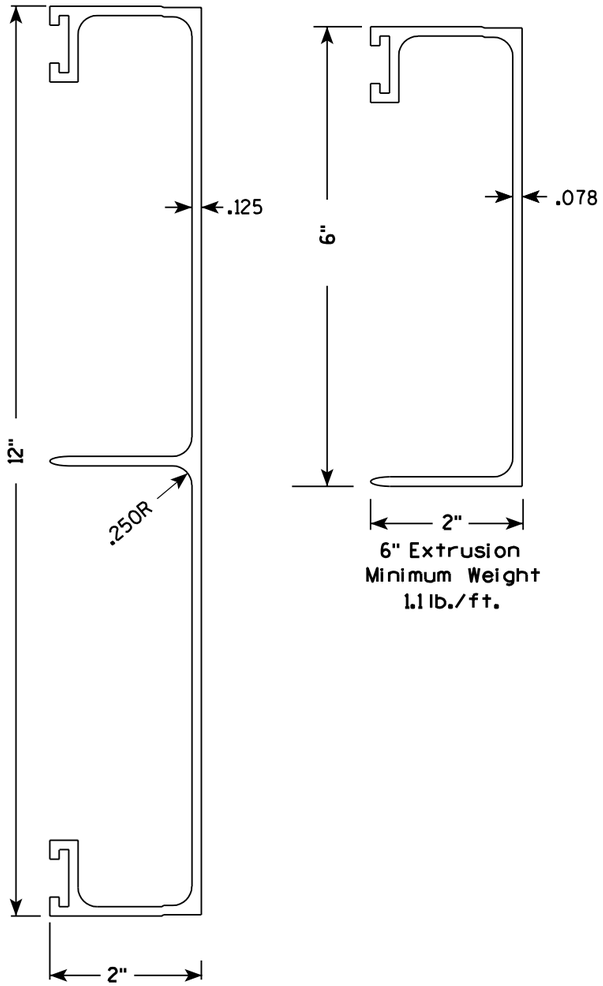
APPROVED Matthew R Rauch
for State Traffic Engineer

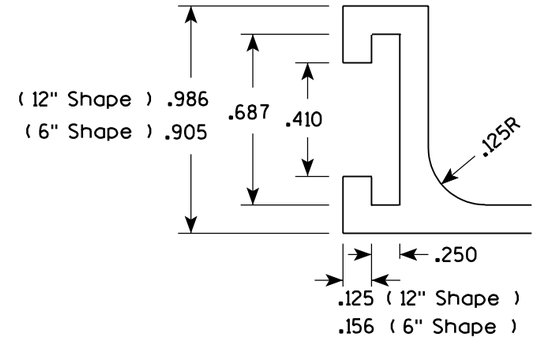
DATE 7/12/07 PLATE NO. A5-10.1

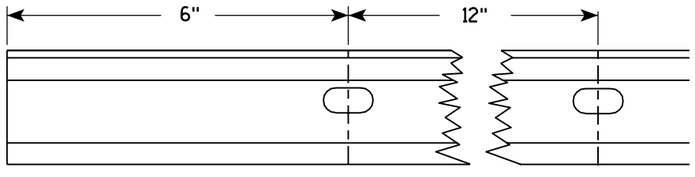
PROJECT NO:

SHEET NO: 205 E

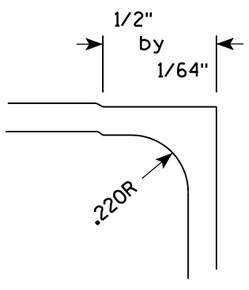
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

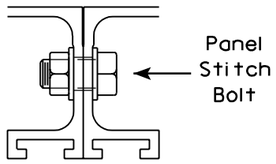


Hardware

STITCH BOLT, WASHER & NUT

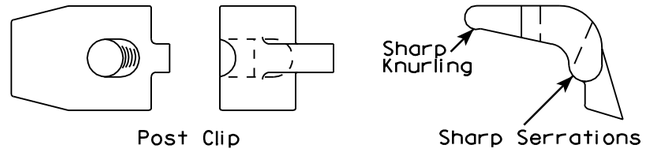
The hardware includes:

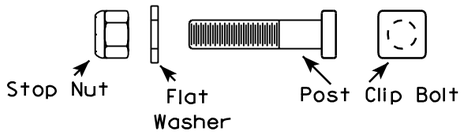
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

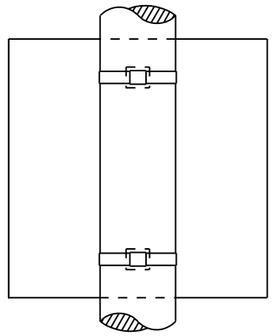
WISCONSIN DEPT OF TRANSPORTATION

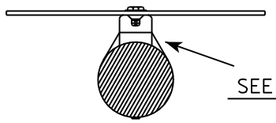
APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

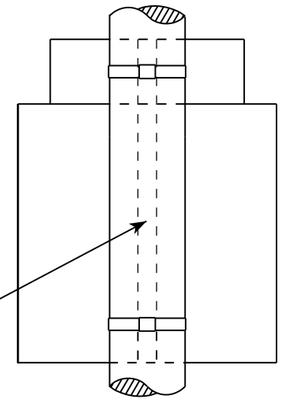
BANDING

SINGLE SIGN



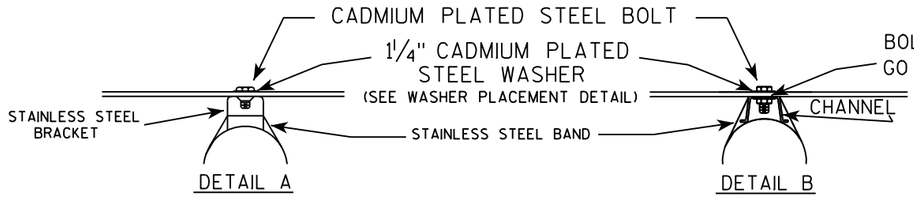


"J" ASSEMBLY

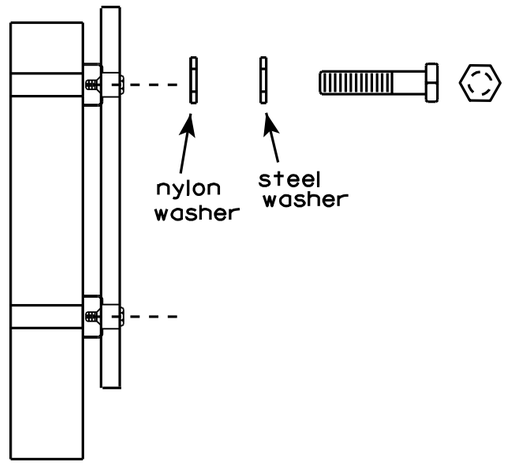


CHANNEL
SEE TYPICAL PANEL INSTALLATION SHEET





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.

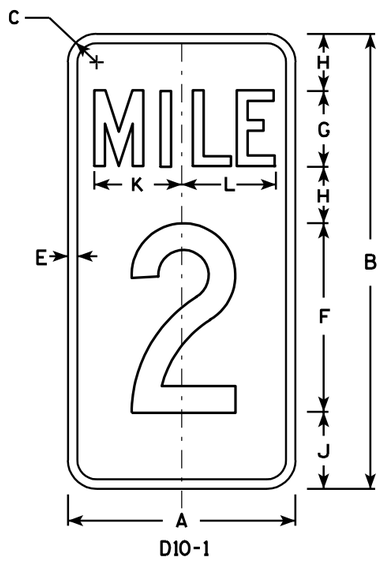
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

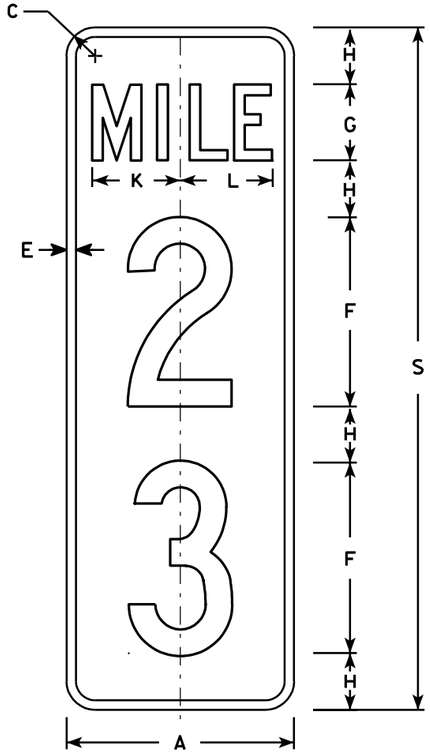
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

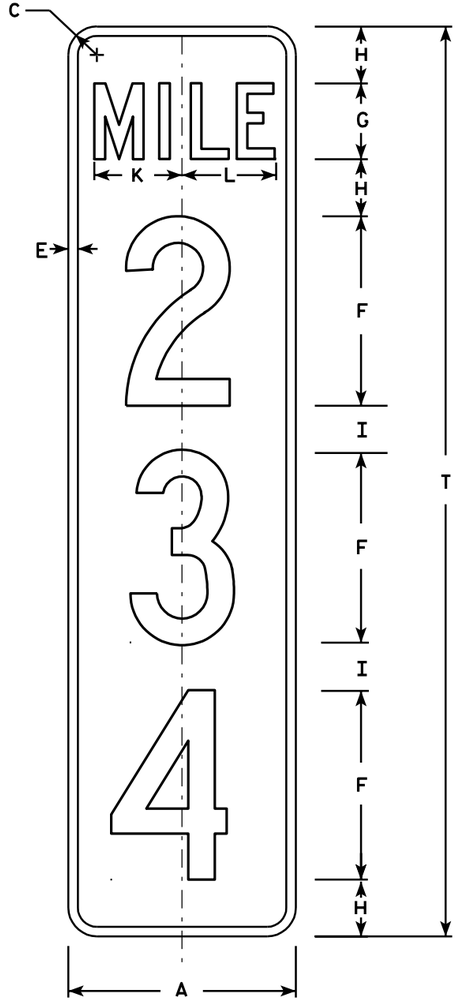
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 207	E



D10-1



D10-2



D10-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
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. Optically adjust numerals about the centerline of the sign to achieve proper balance.

Metric equivalent for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3																										
4	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						
5	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN
D10-1 , D10-2 & D10-3

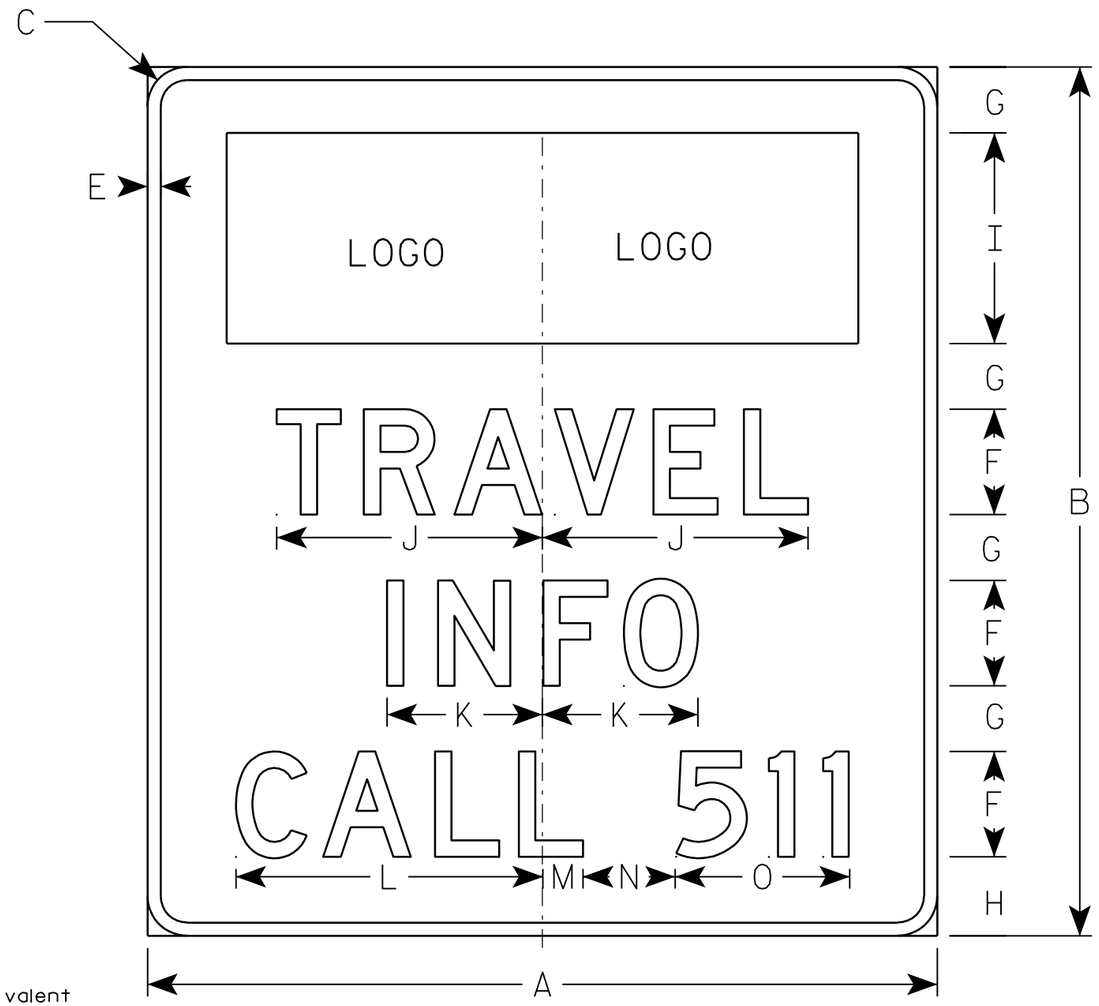
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for Director, Office of Traffic

DATE 1/16/02 PLATE NO. D10-3.2

PROJECT NO:

SHEET NO: 208 E



D12-5

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
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.

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 1650 mm
3	
4	
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.	Area m2
1																												
2	60	66	2 1/4		1	8	5	6	16	20 1/4	11 7/8	23 3/8	3 1/8	7	13 1/4												27.5	2.48
3																												
4																												
5																												

STANDARD SIGN
D12-5

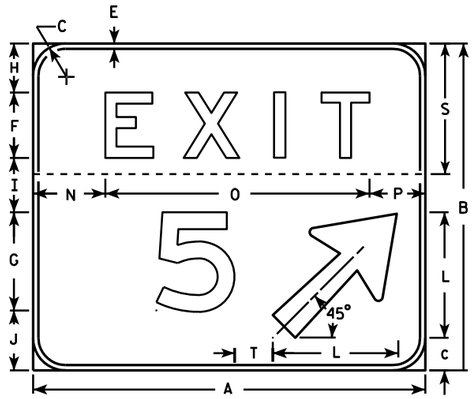
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

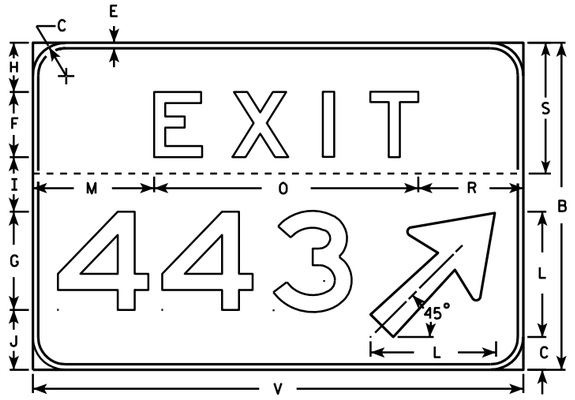
DATE 12/5/08 PLATE NO. D12-5.2

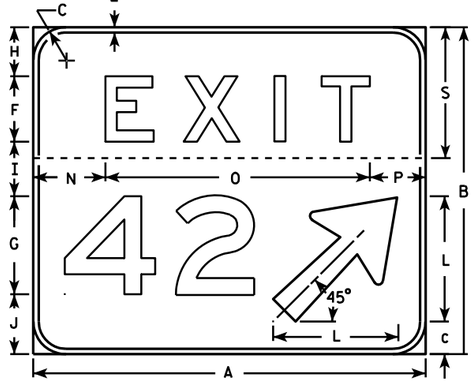
PROJECT NO:

SHEET NO: 209 E

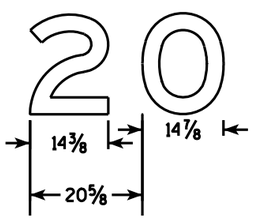


NOTE: T diminision shall be measured from the back of the number to the front of the arrow





EXAMPLE FOR USING SPACING CHART



NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

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
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

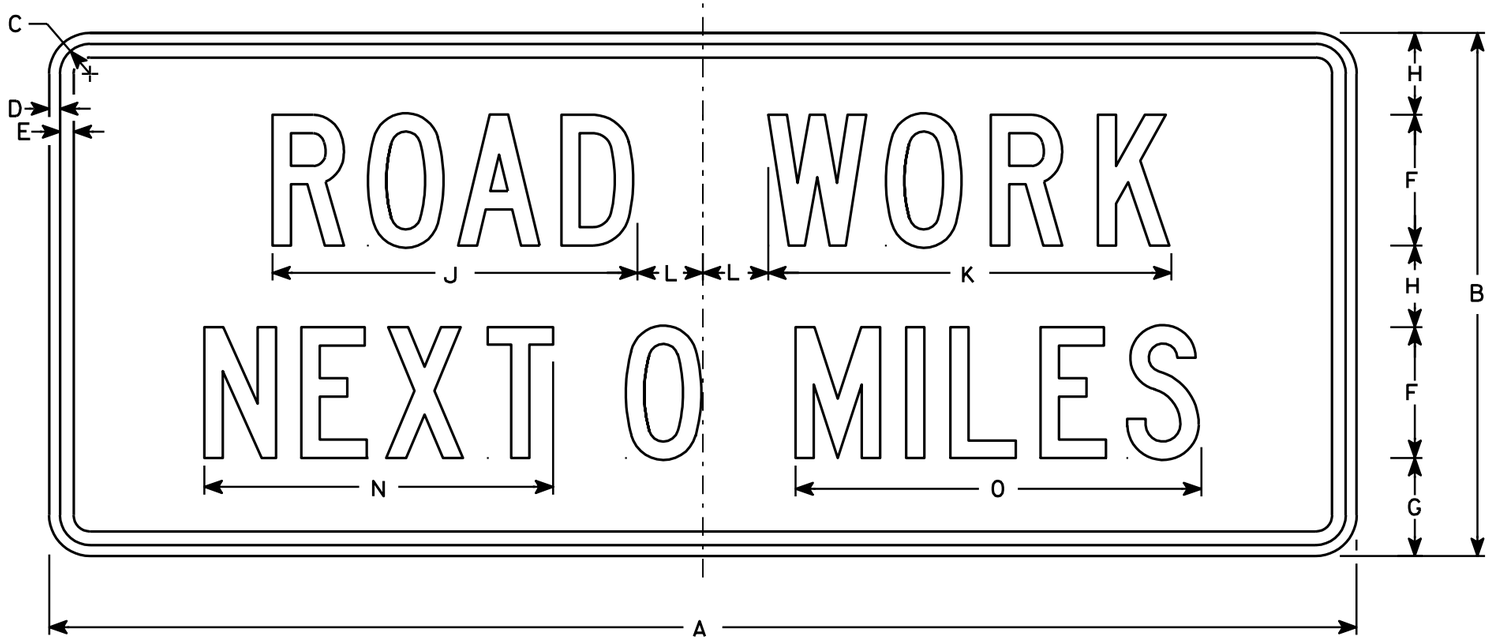
STANDARD SIGN
E5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 210 | E



G20-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
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.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

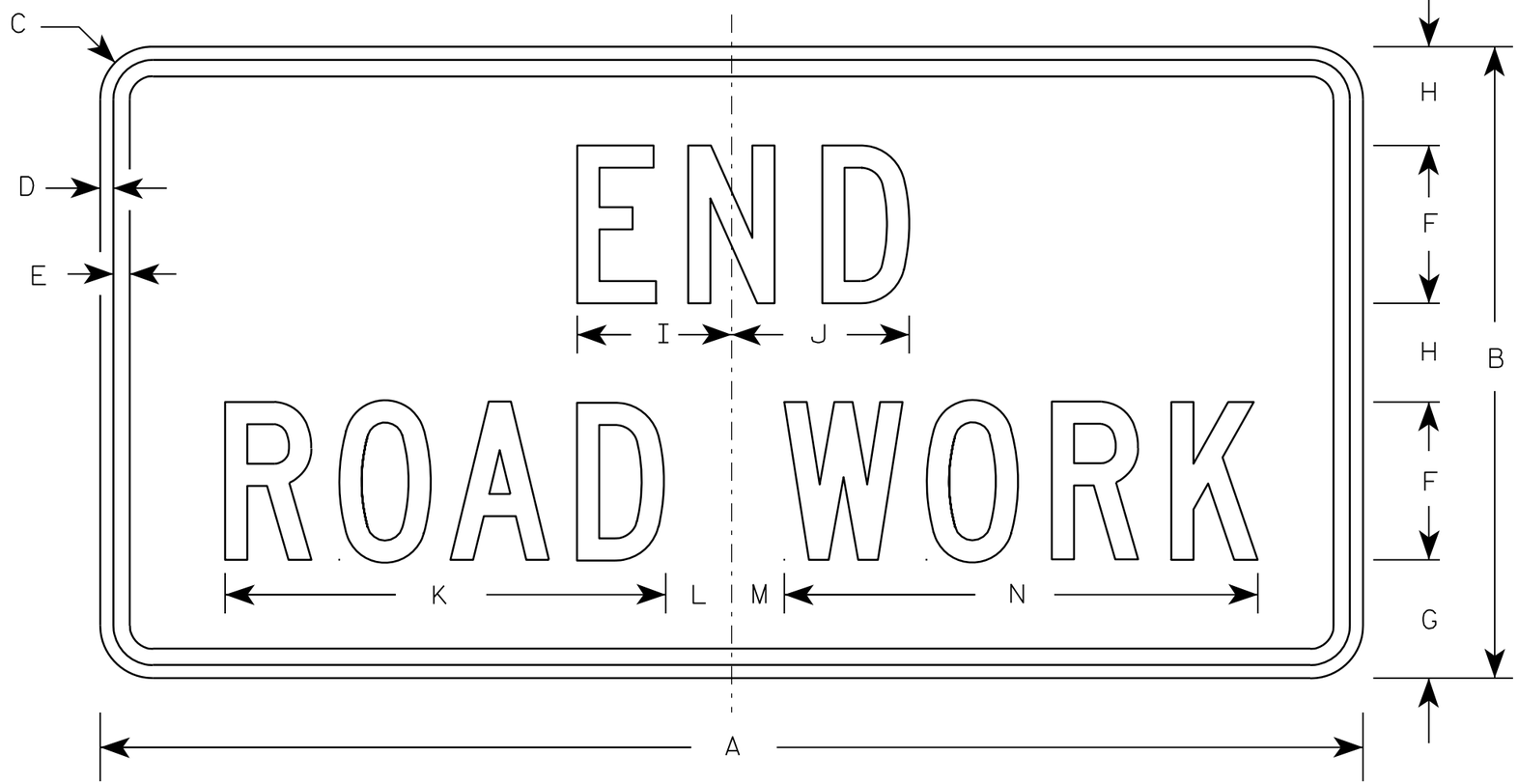
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 211	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
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.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	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	0.41
2	48	24	1 1/2	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	0.72
3	48	24	1 1/2	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	0.72
4	48	24	1 1/2	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	0.72
5	48	24	1 1/2	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	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

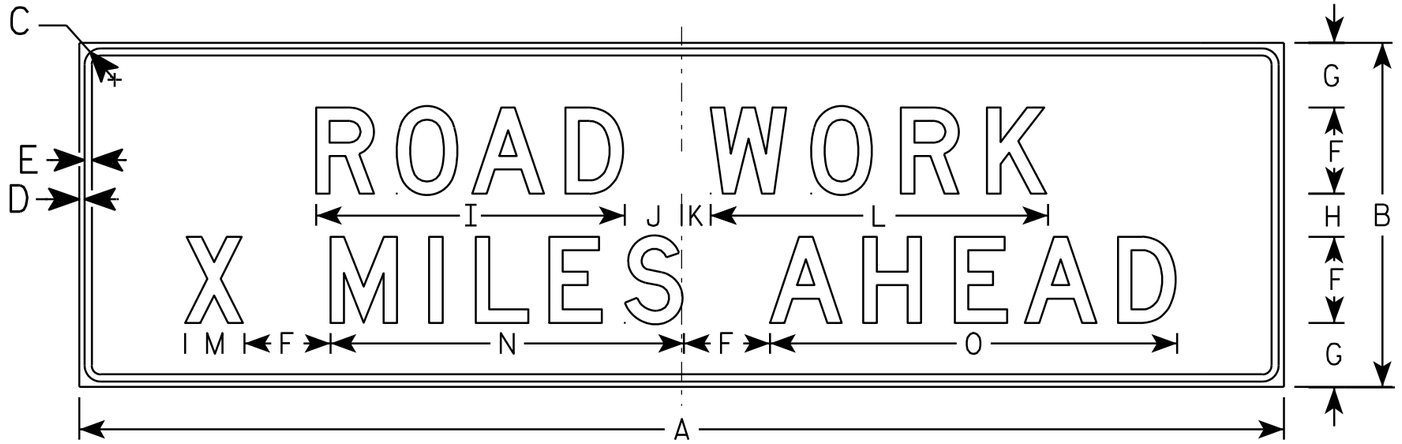
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 212	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-55

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	2550 mm X 900 mm
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.	Area m2
1																												
2																												
3																												
4	84	24	1 1/8	3/8	1/2	6	4 1/2	3	21 1/2	4	2	23 1/2	4 1/8	24 5/8	28 3/8												25.5	2.30
5																												

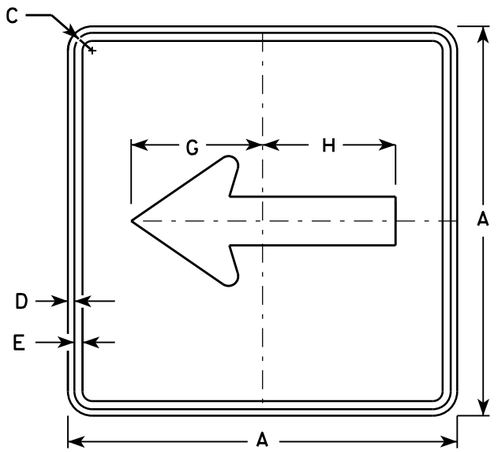
STANDARD SIGN
G20-55

WISCONSIN DEPT OF TRANSPORTATION

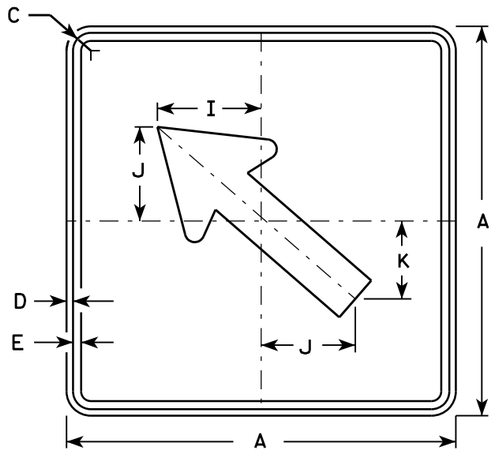
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-55.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 213	E



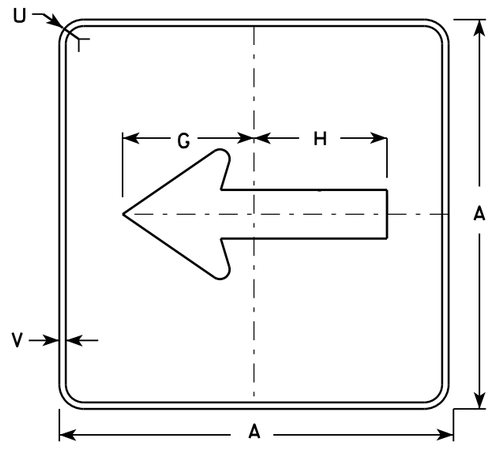
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



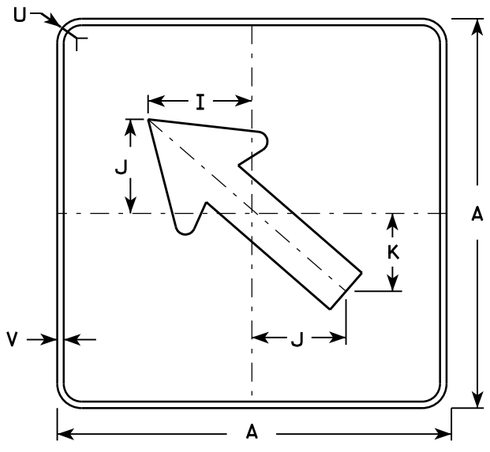
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

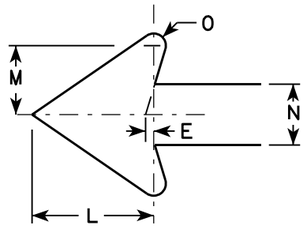
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

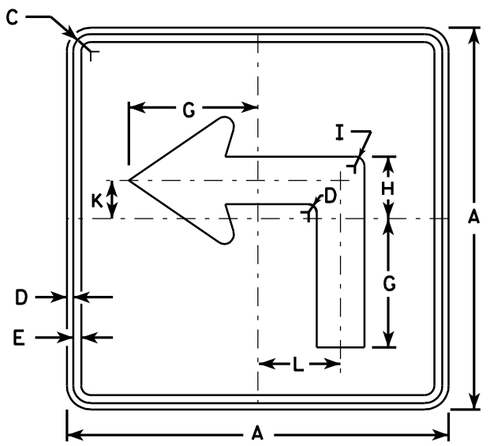
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

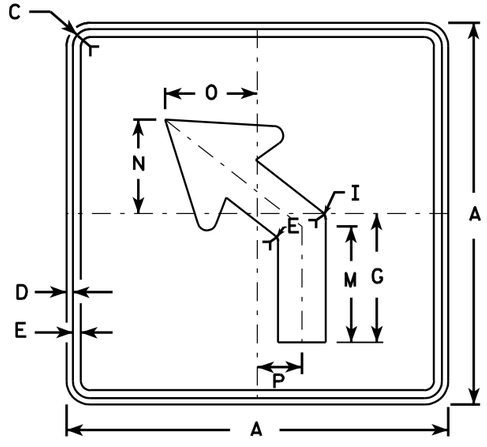
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 214 M6-1.14

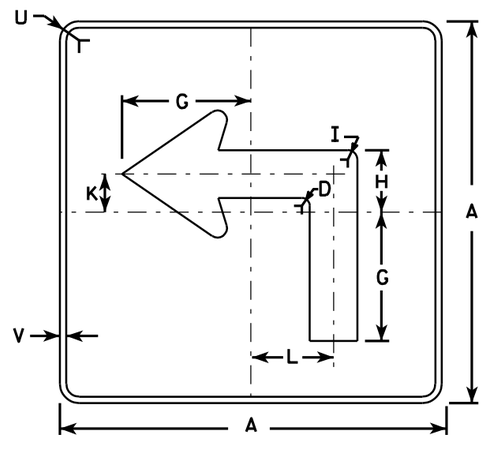
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



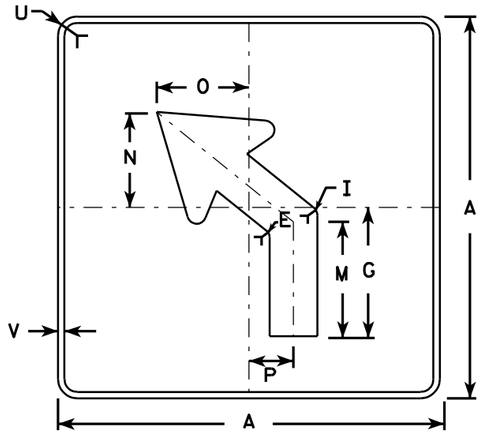
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



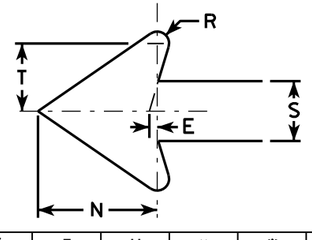
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

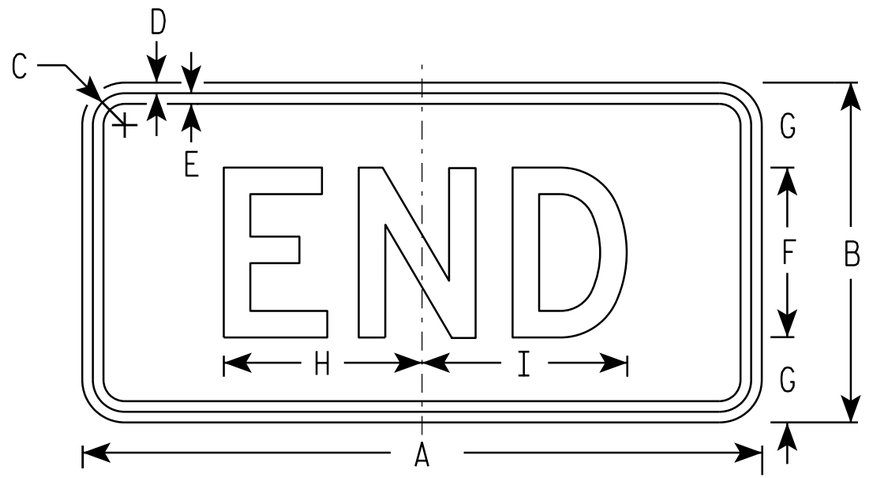
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

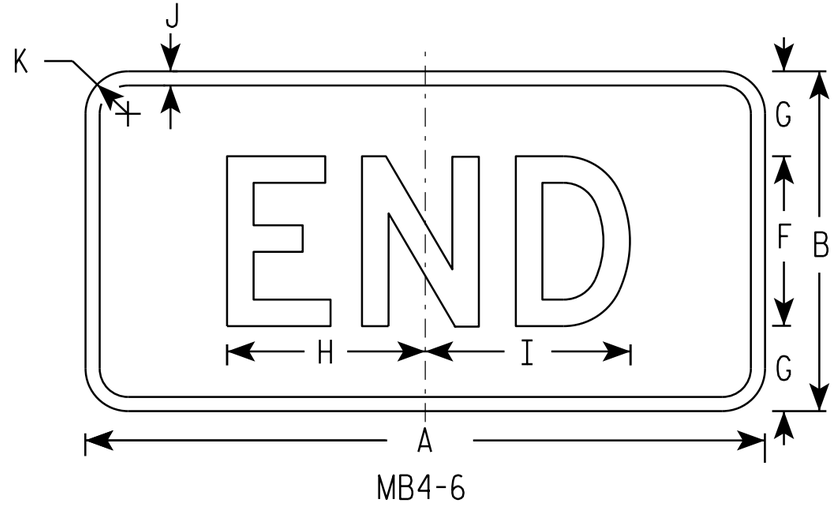
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 215 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000
WISDOT/CADDS SHEET 42



M4-6
MK4-6
MM4-6
MN4-6
MR4-6



MB4-6

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-6 Background - White
   Message - Black

   MB4-6 Background - Blue
   Message - White

   MK4-6 Background - Green
   Message - White

   MM4-6 Background - White
   Message - Green

   MN4-6 Background - Brown
   Message - White

   MR4-6 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

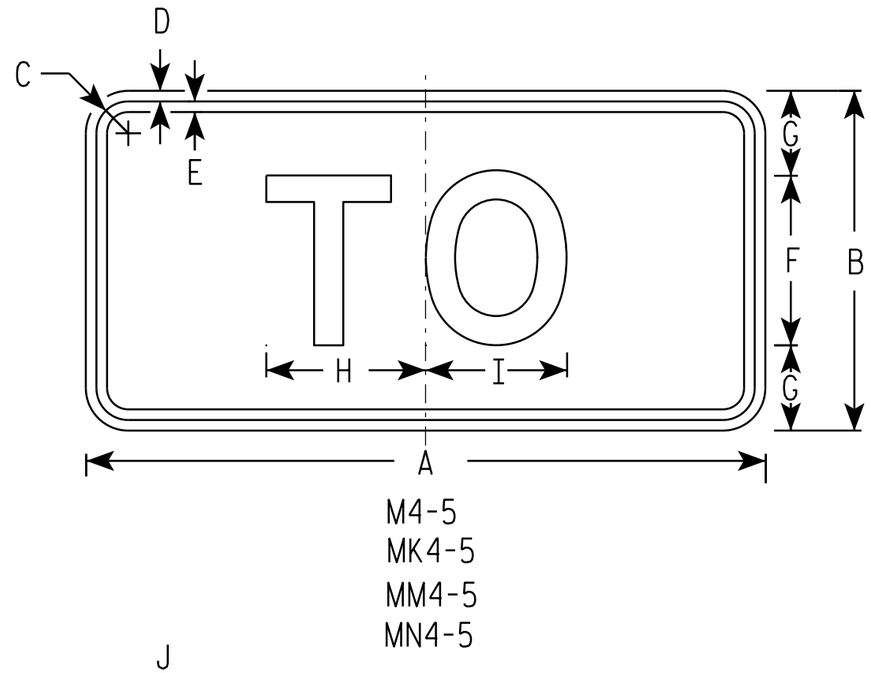
STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

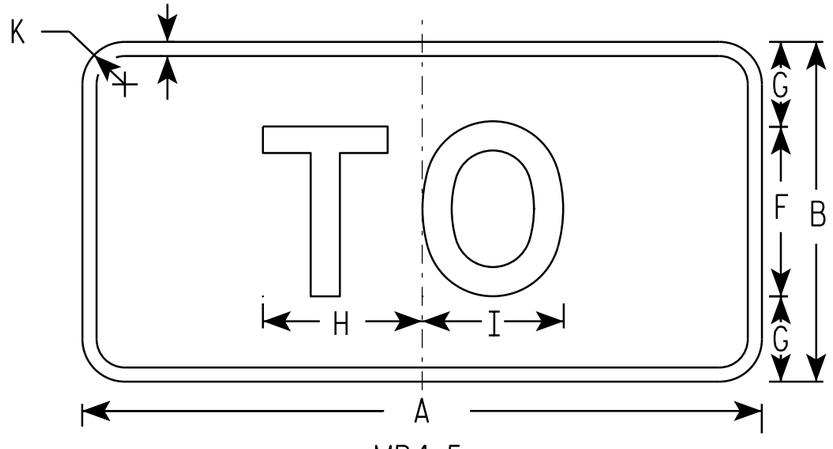
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 216 '14-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

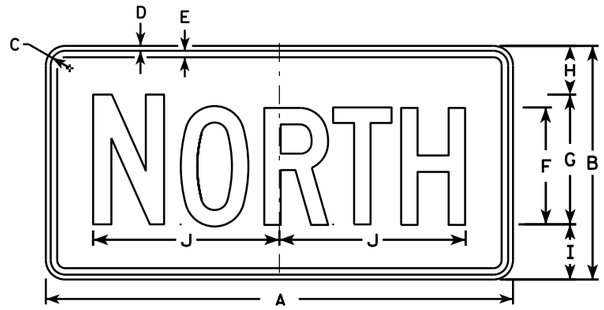
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

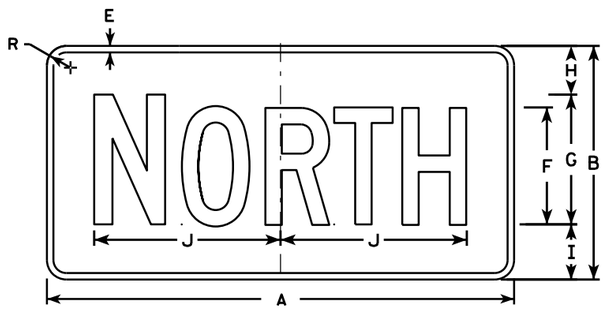
DATE 6/30/14 PLATE M4-5.7

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 30-JUN-2014 12:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.351066:1.000000
WISDOT/CADDS SHEET 42



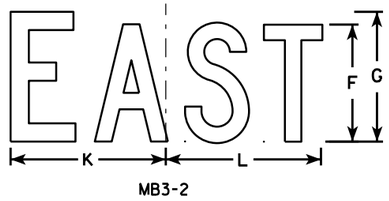
M3-1
MK3-1
MM3-1
MN3-1



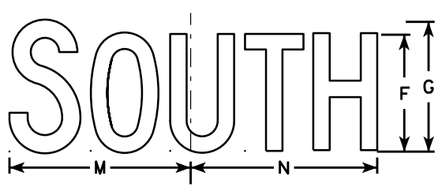
MB3-1



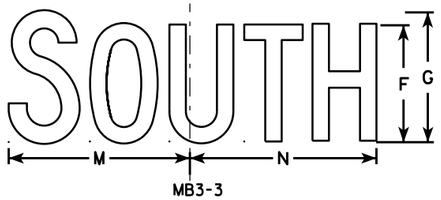
M3-2
MK3-2
MM3-2
MN3-2



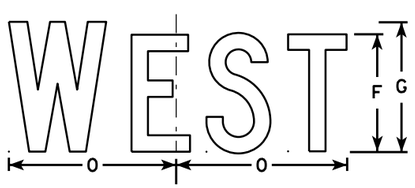
MB3-2



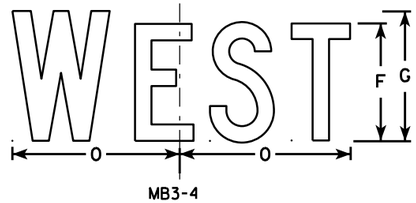
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

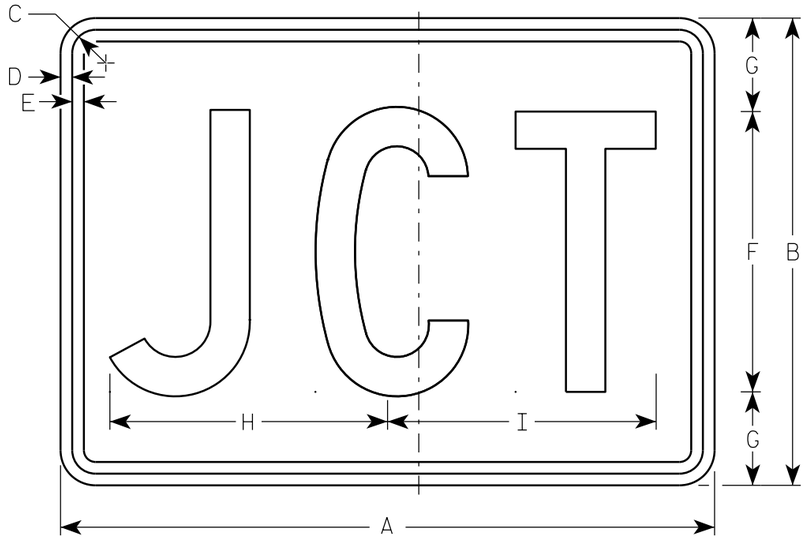
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

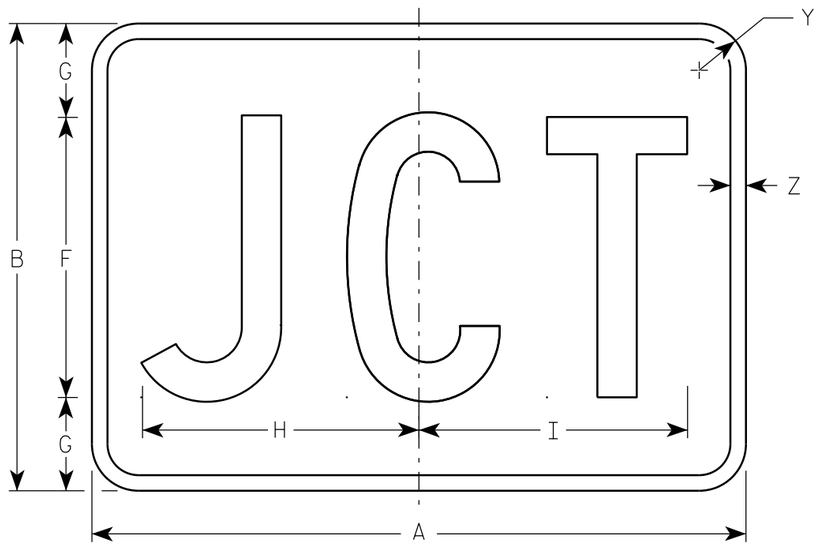
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

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



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

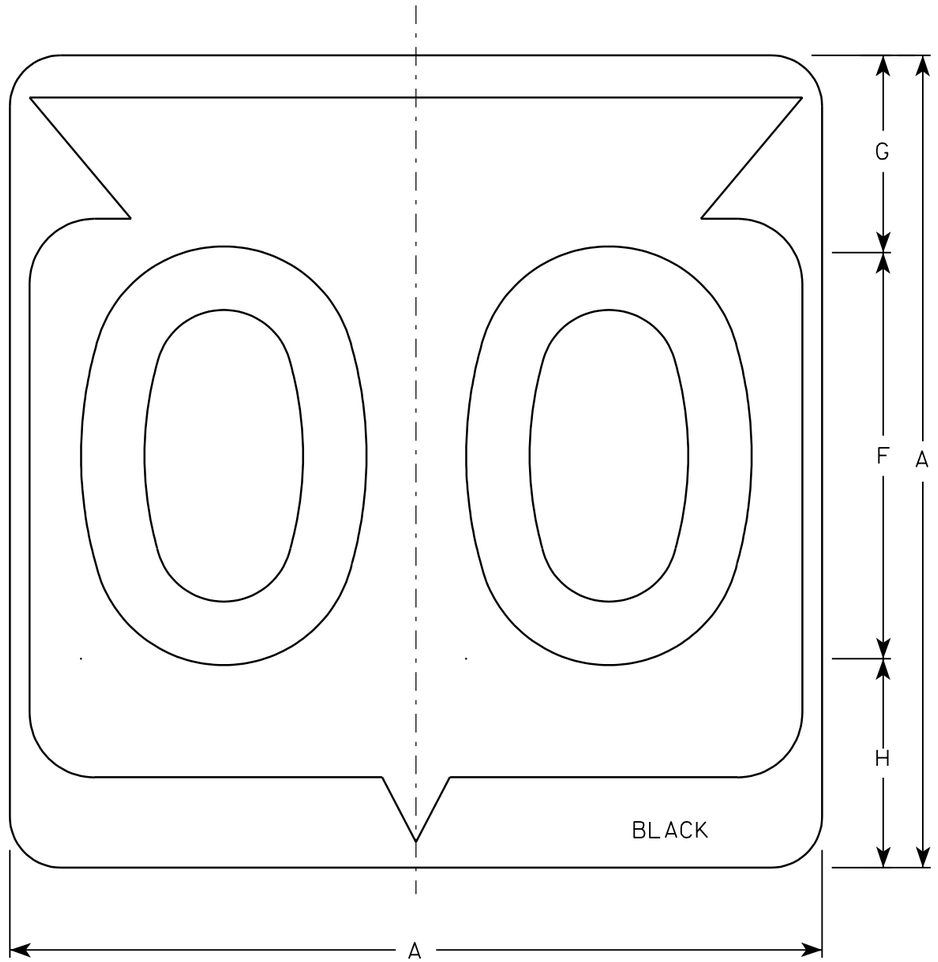
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 219 12-1.11

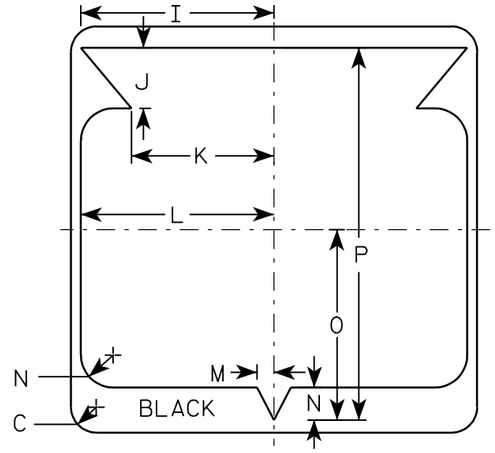
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

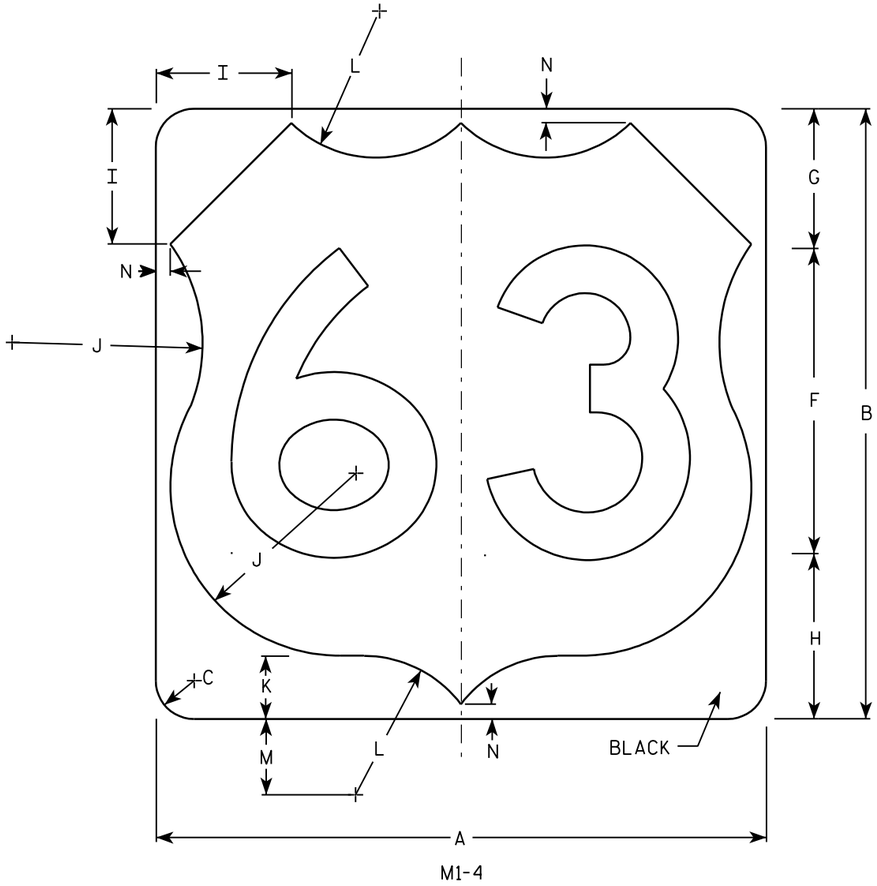
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

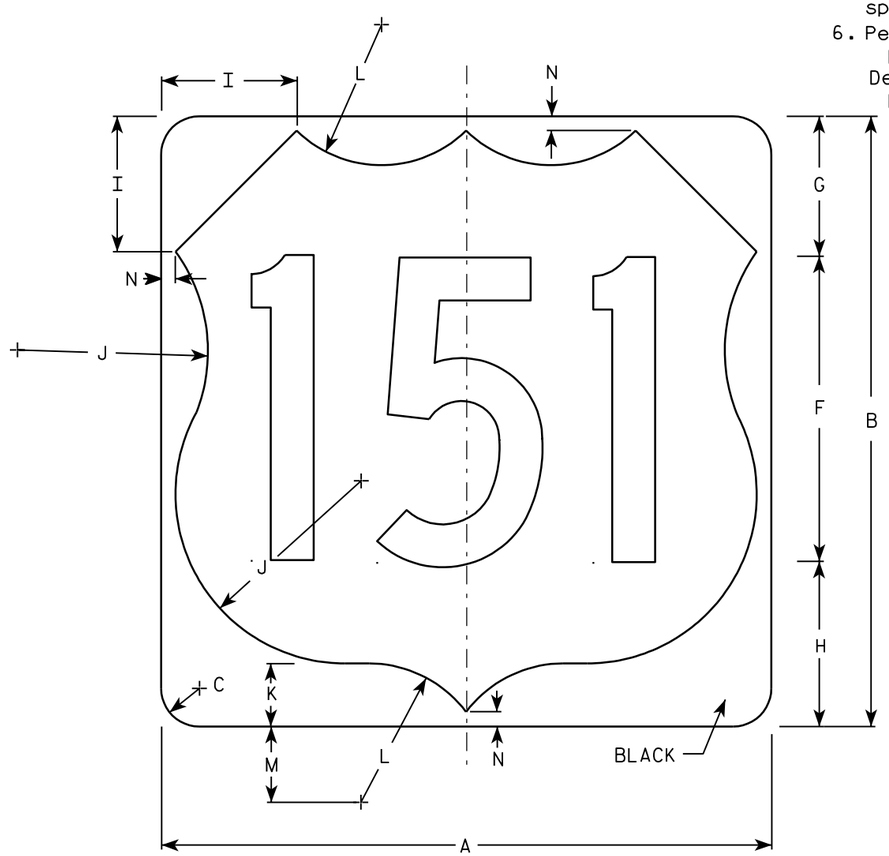
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

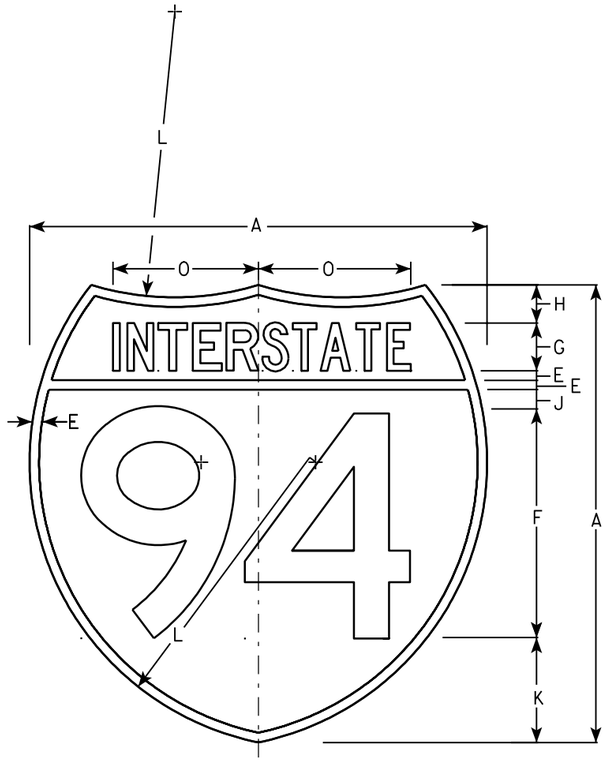
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

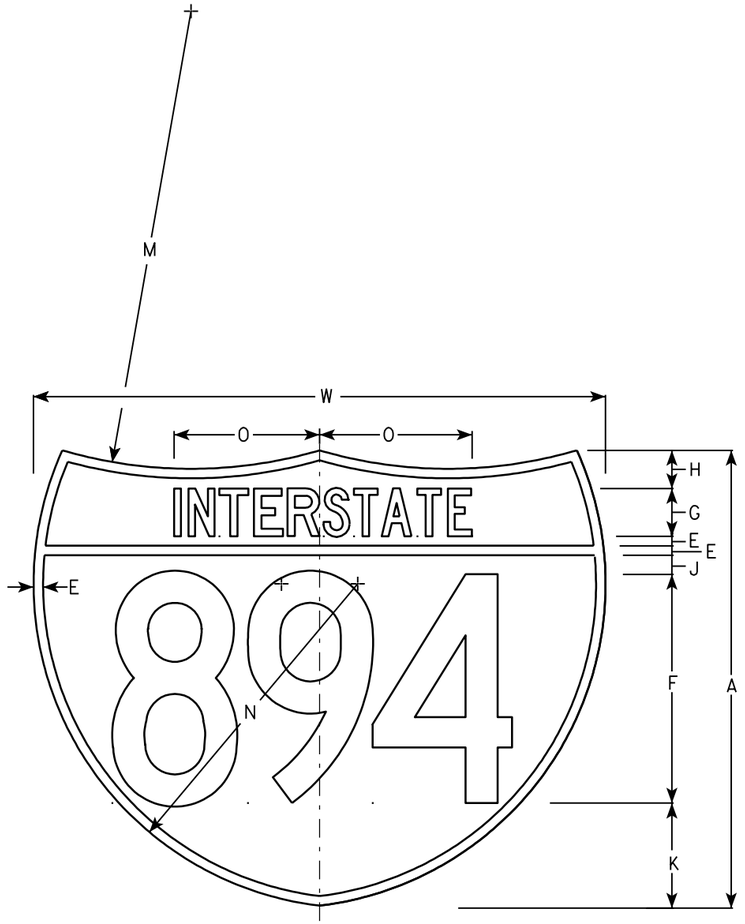
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 221	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

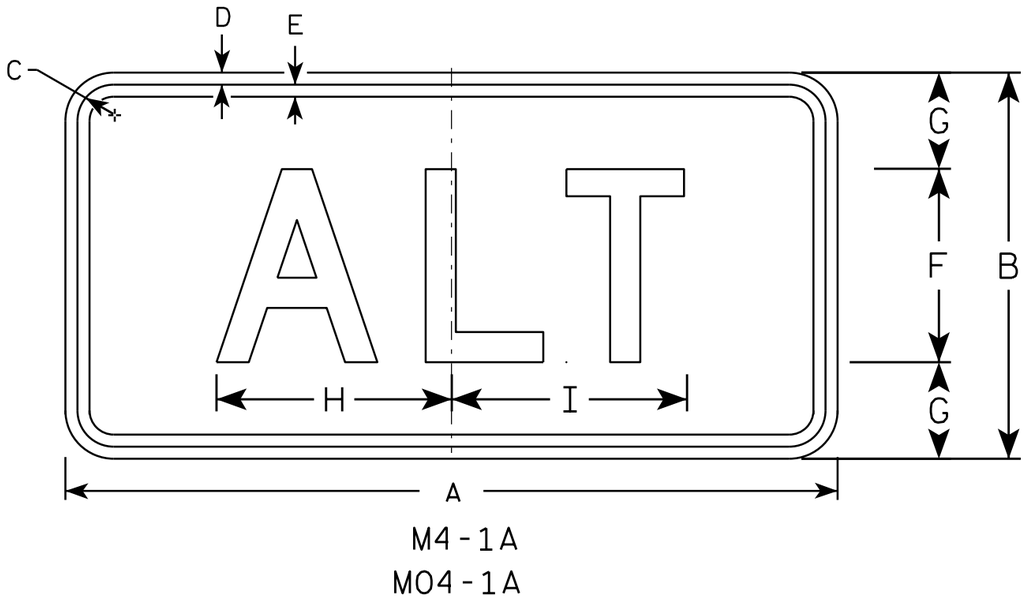
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

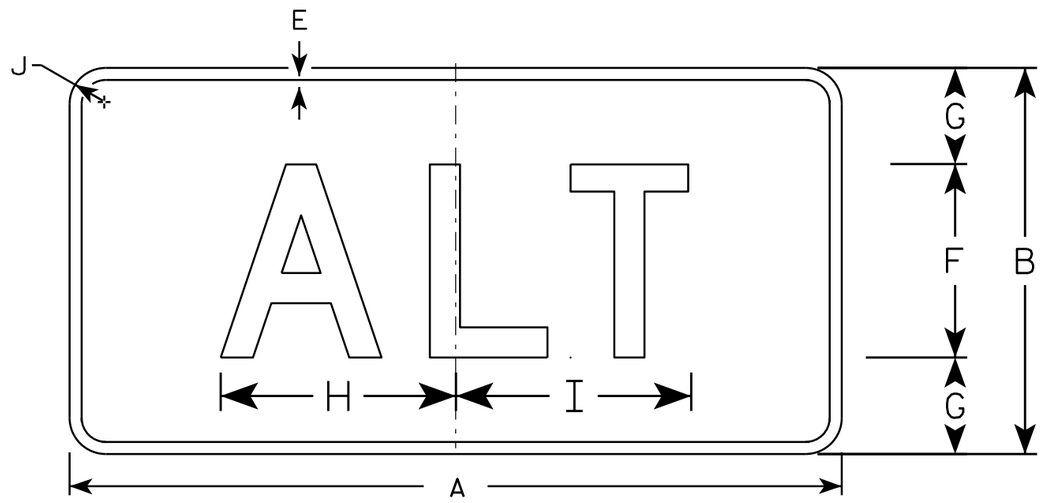
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 222	E



M4-1A
M04-1A

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
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. M4-1A Background - White
   Message - Black
   MB4-1A Background - Blue
   Message - White
   M04-1A Background - Orange - Type F
   Message - Black



MB4-1A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7 1/4	7 3/8	1 1/8																	2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	11	11 1/8	1 1/8																	4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	11	11 1/8	1 1/8																	4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	11	11 1/8	1 1/8																	4.5

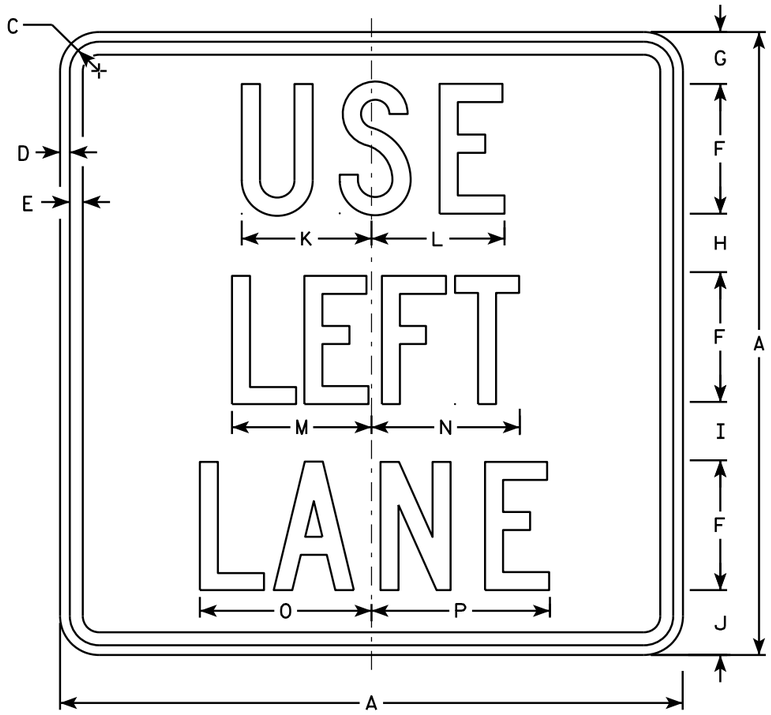
STANDARD SIGN
M4-1A

WISCONSIN DEPT OF TRANSPORTATION

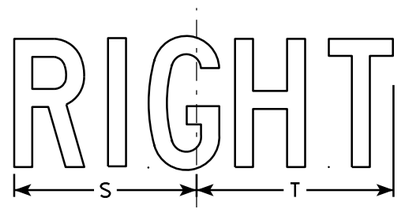
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 223 M4-1A.3

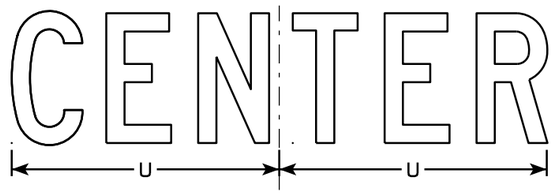
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-20L
MB4-20L
MK4-20L
MM4-20L
MN4-20L
M04-20L
MP4-20L
MR4-20L



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4						4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8						9.0
4																											
5																											

STANDARD SIGN
M4-20

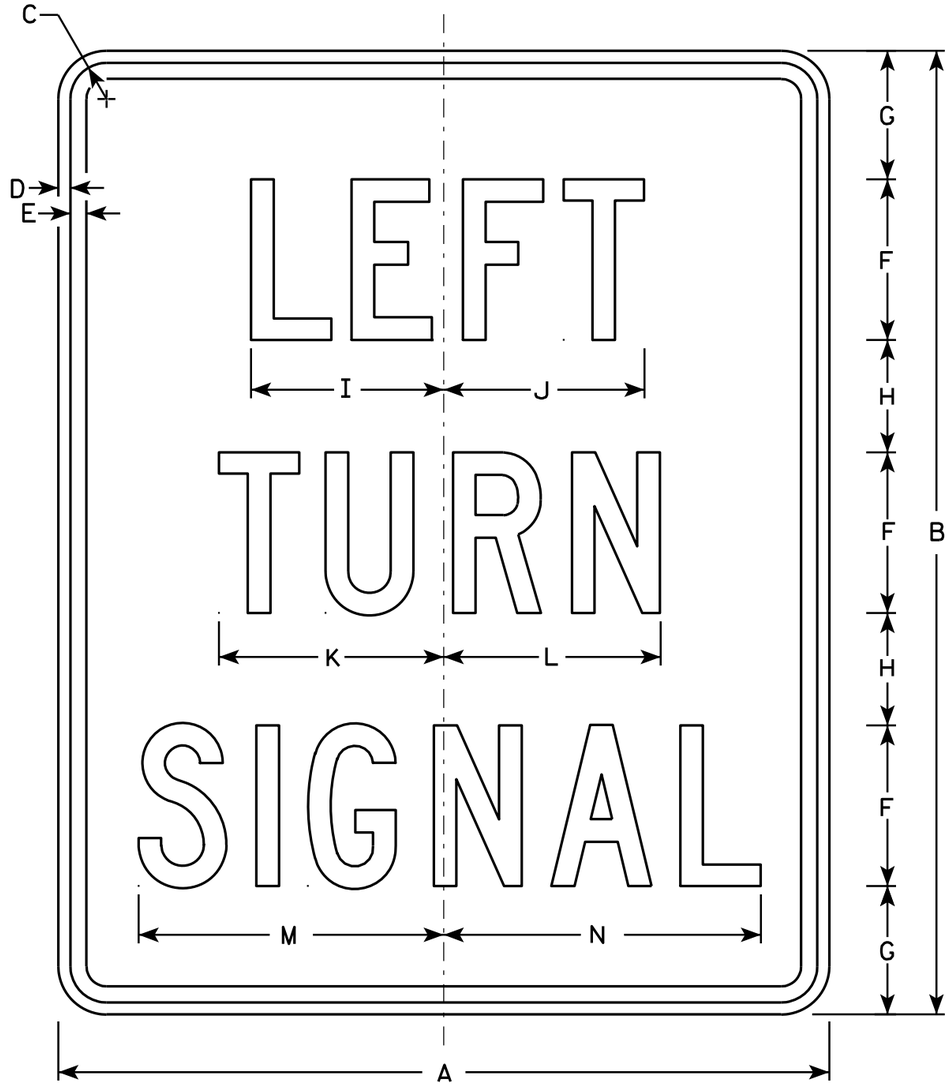
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/26/14 PLATE NO M4-20.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

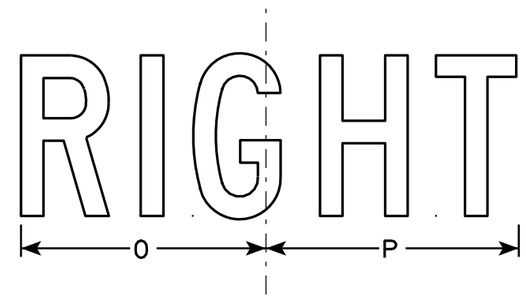
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 03-JUL-2014 15:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



R10-10L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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. R10-10R is identical to R10-10L except RIGHT replaces LEFT.



R10-10R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8											5.0
2M	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8											5.0
3																											
4																											
5																											

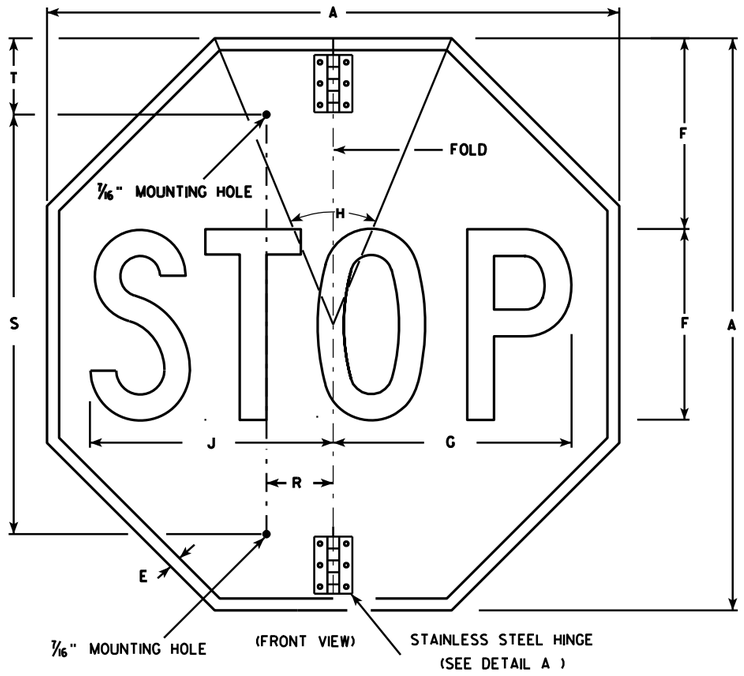
STANDARD SIGN
R10-10

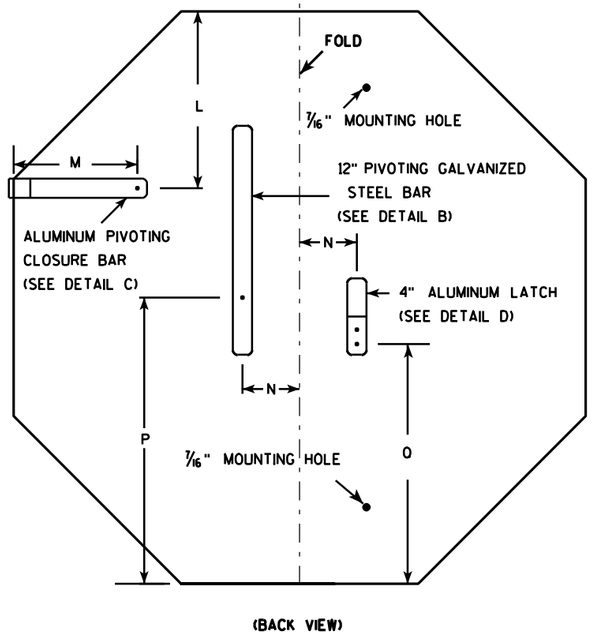
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-10.6

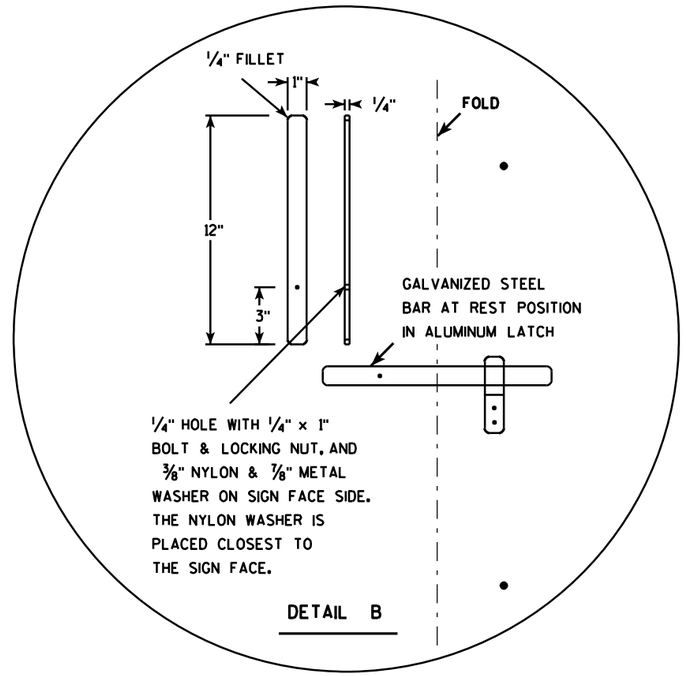
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 225	E

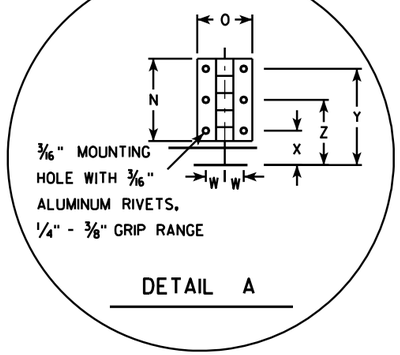


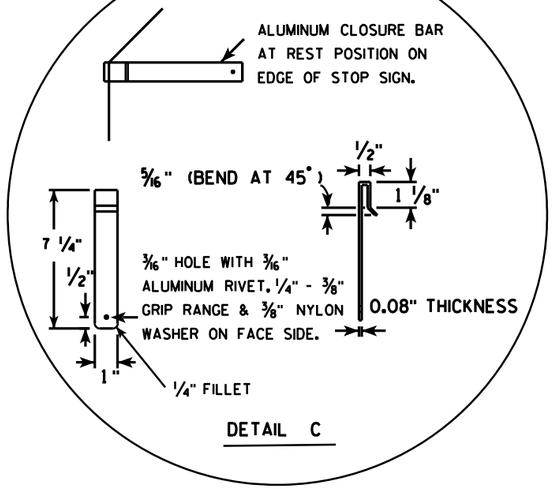


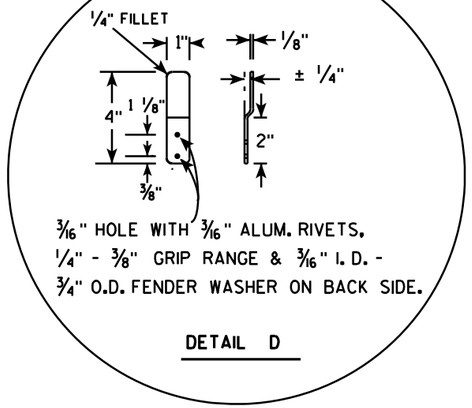
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

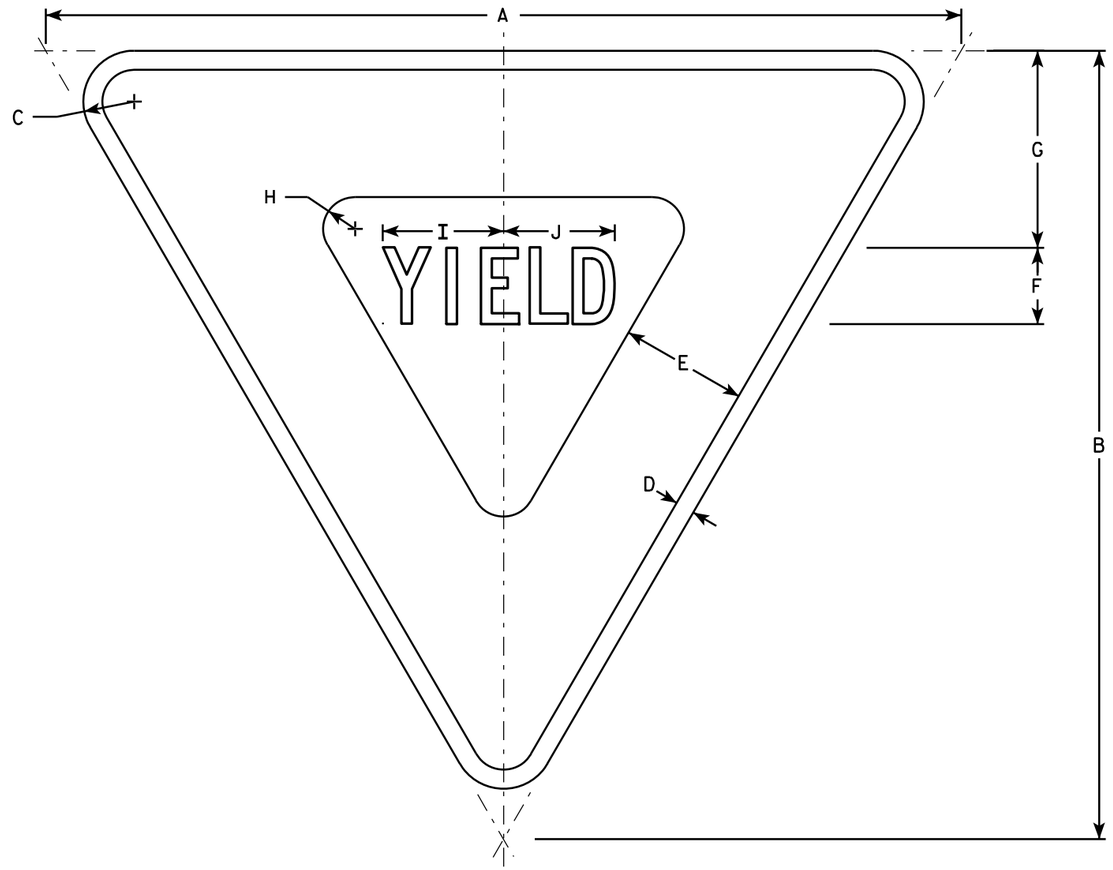
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 226 | E



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	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
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

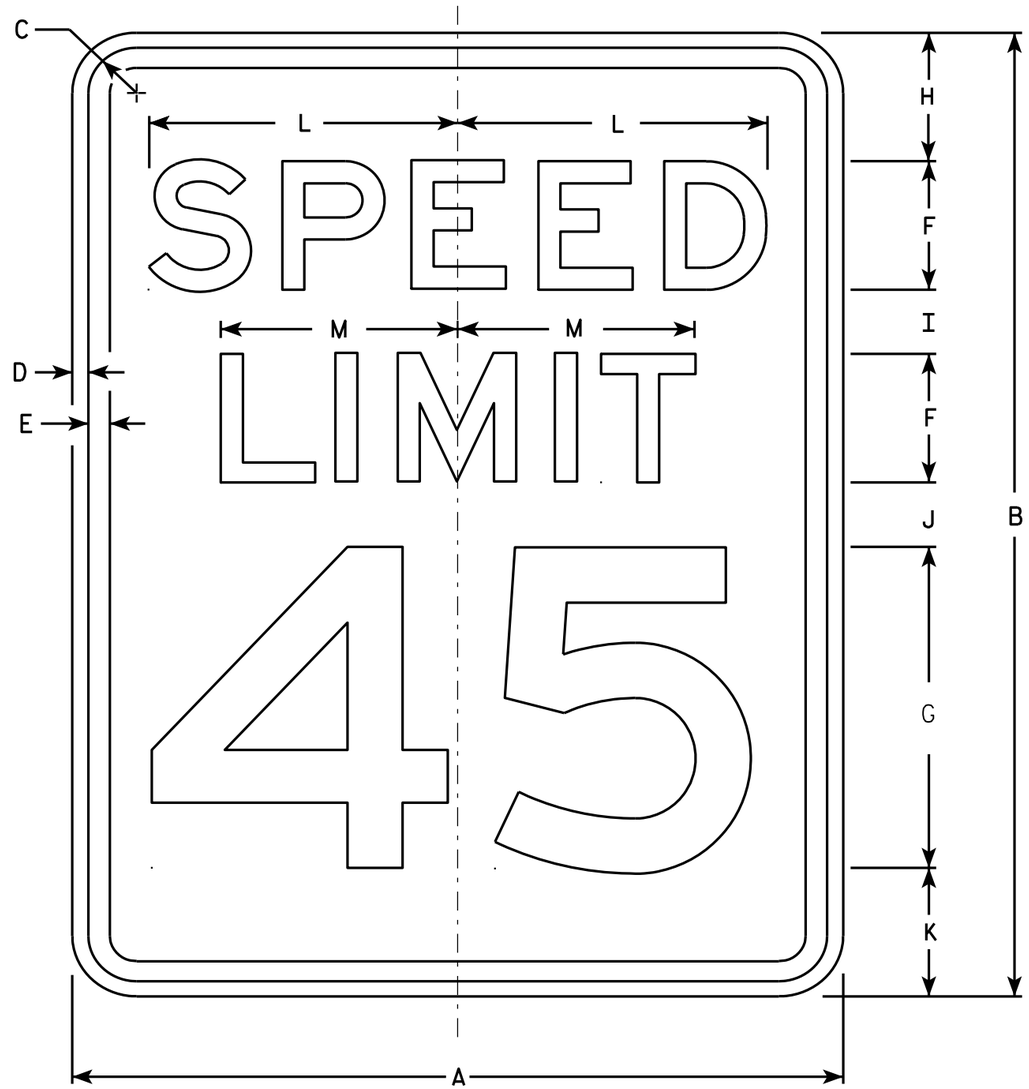
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 227 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R12.DGN PLOT DATE : 02-NOV-2010 10:38 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

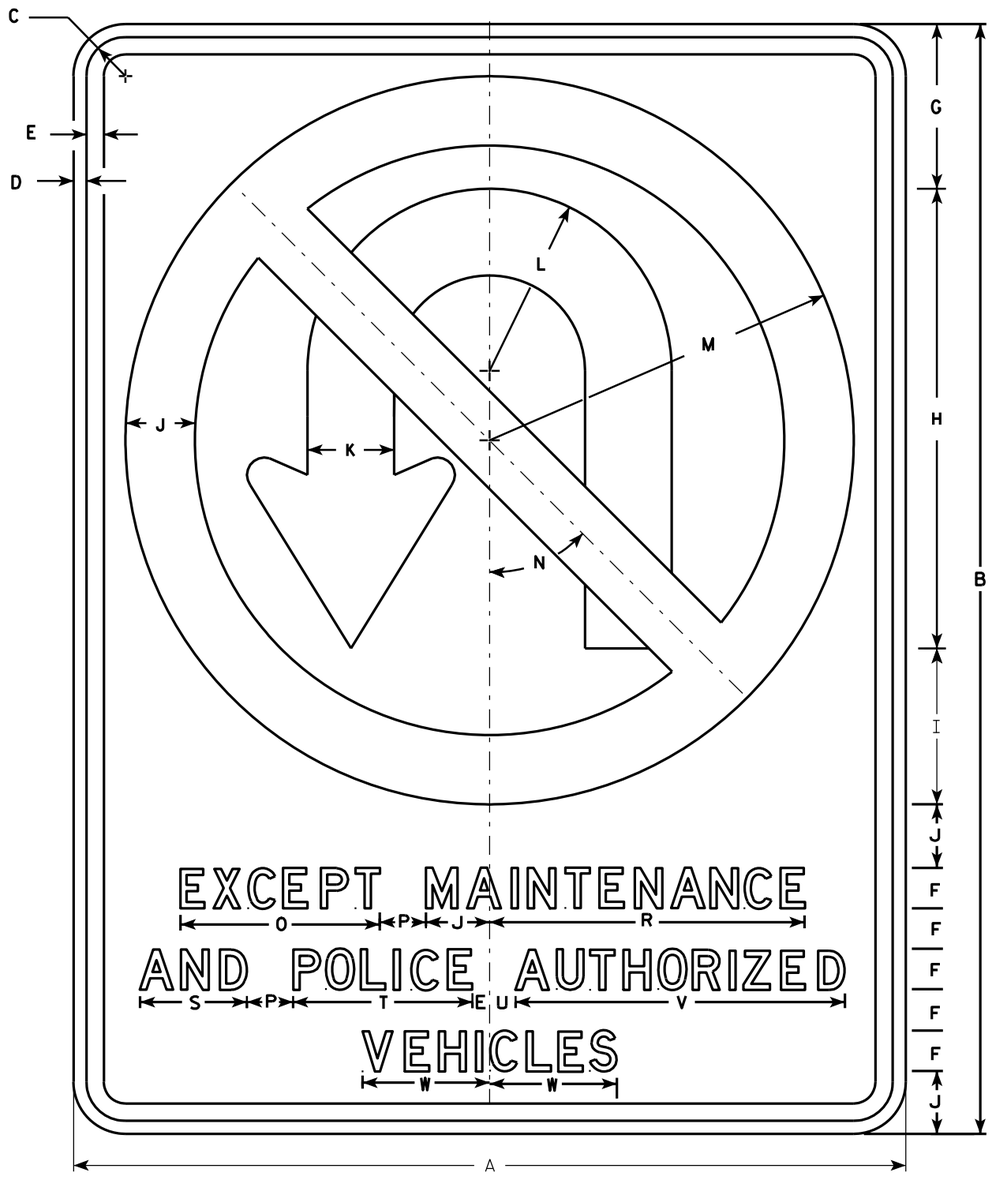
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

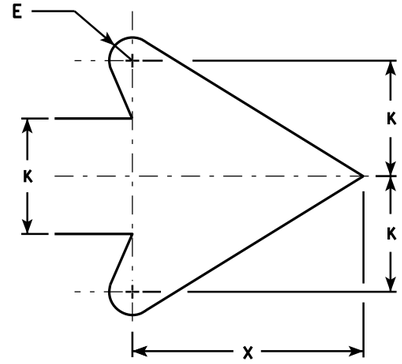
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 228 | E



R3-4B

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 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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																											
2S																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

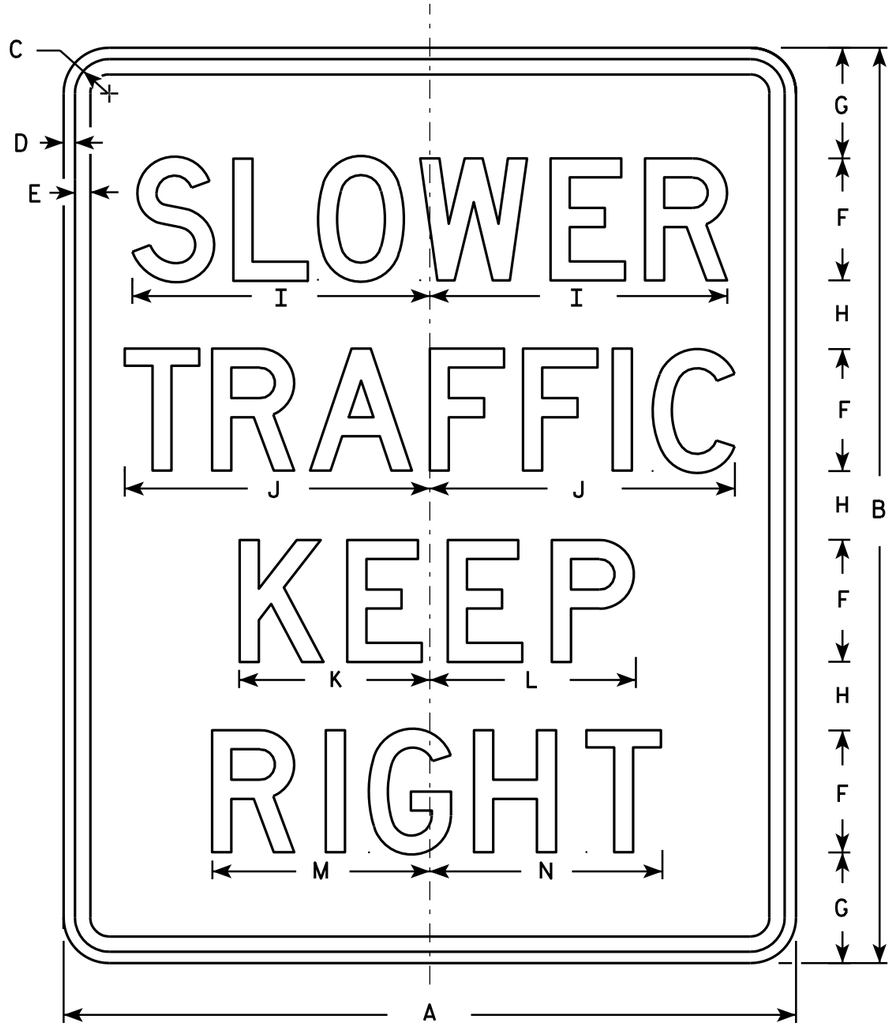
STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 229	E



R4-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

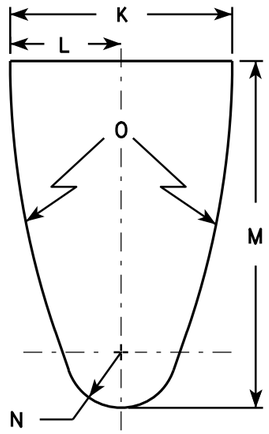
SHEET NO: 230 E

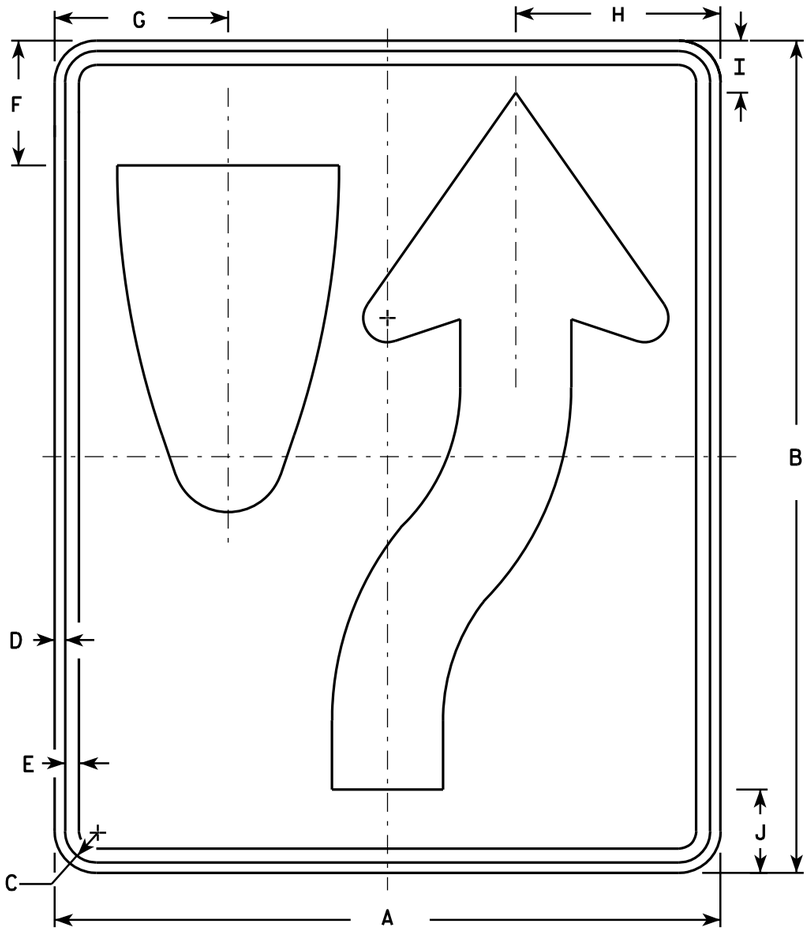
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7

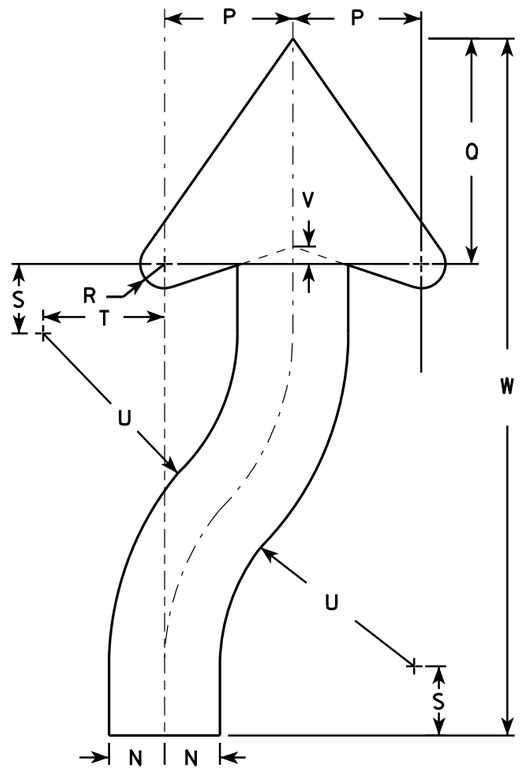




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

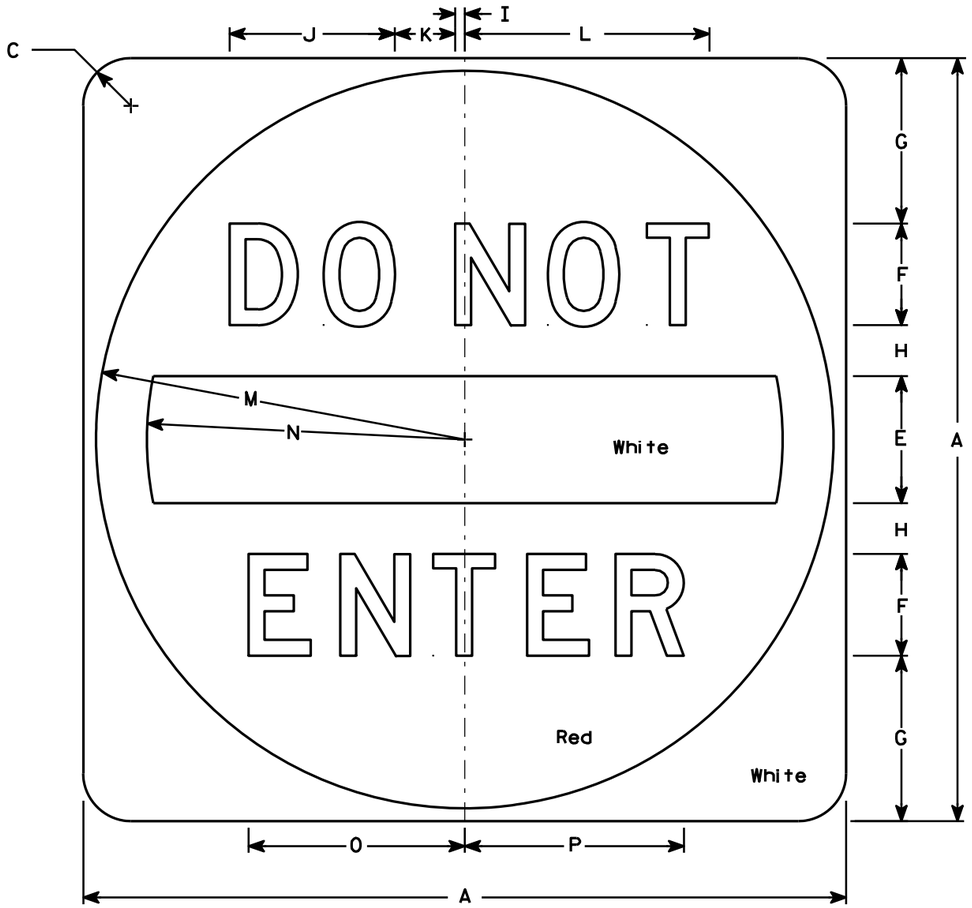
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 231	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors 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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

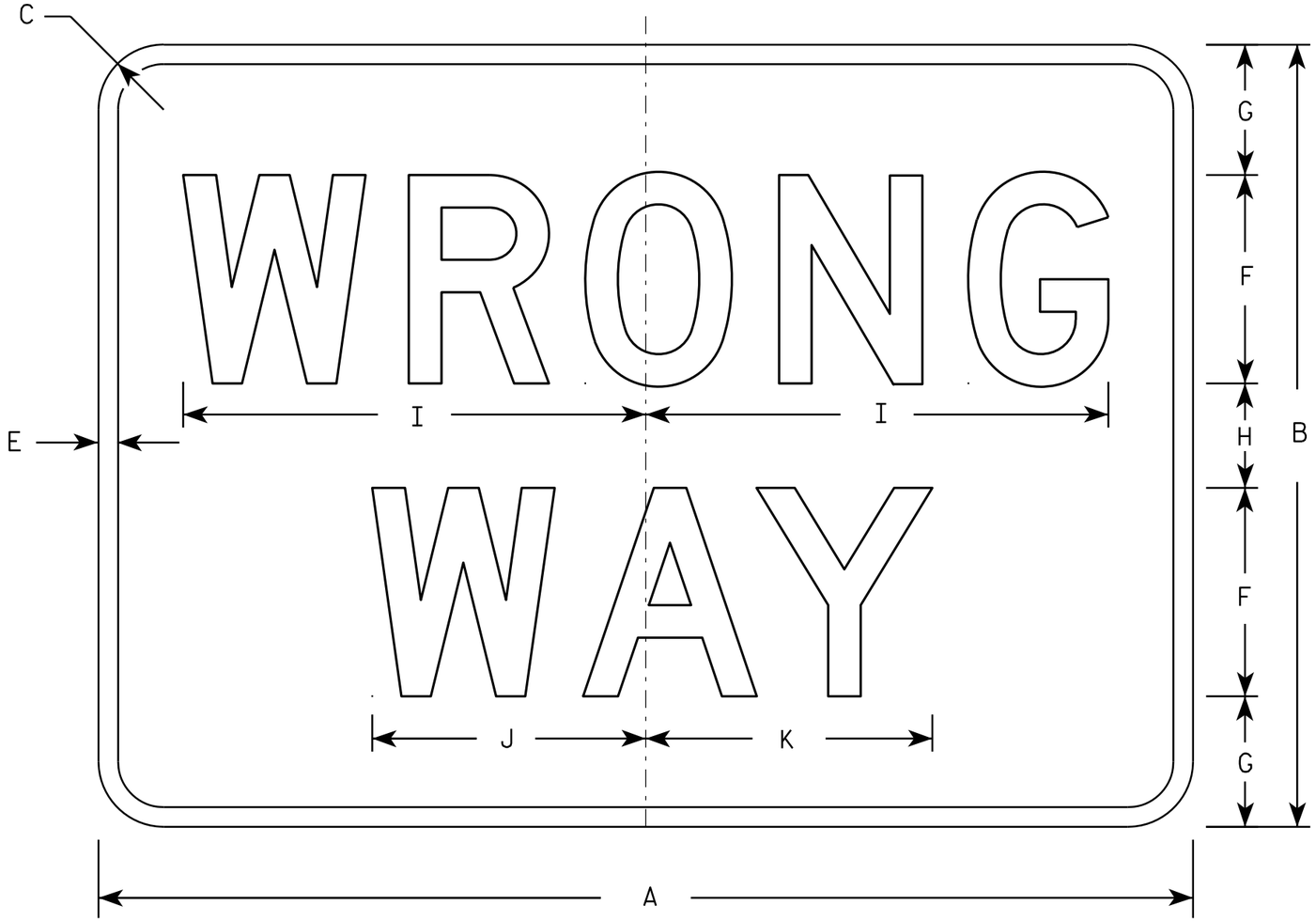
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 232 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 233	E



R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

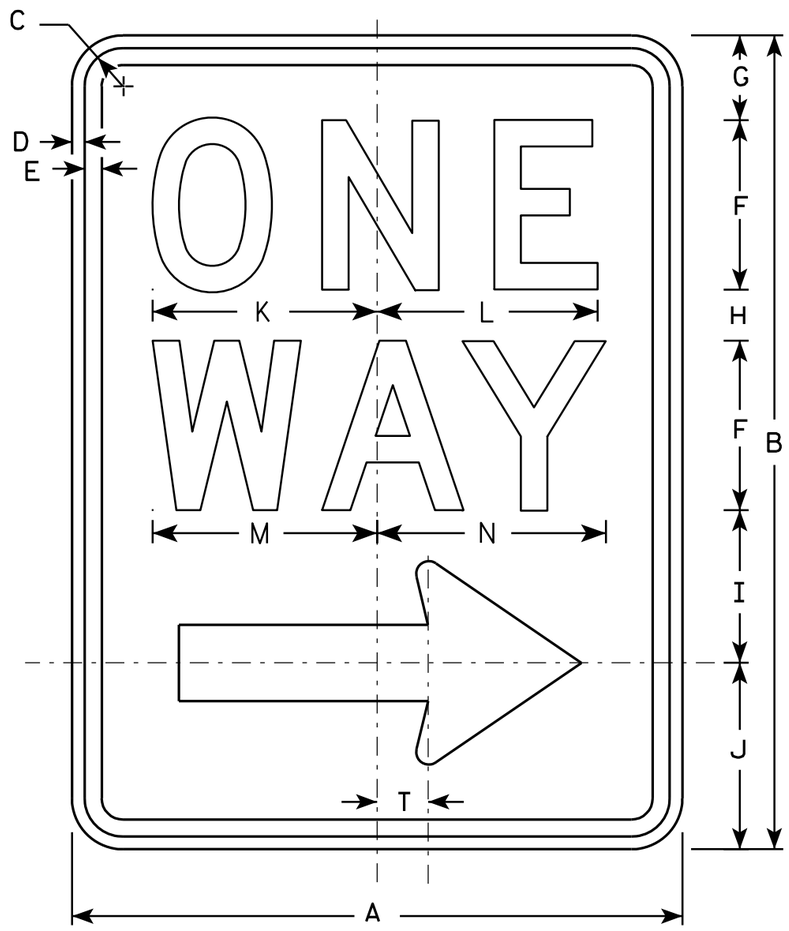
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 234 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R557.DGN PLOT DATE : 29-MAR-2011 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

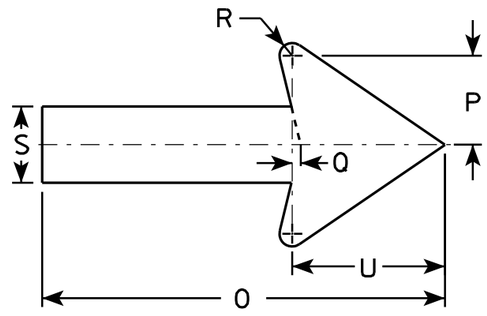
7



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

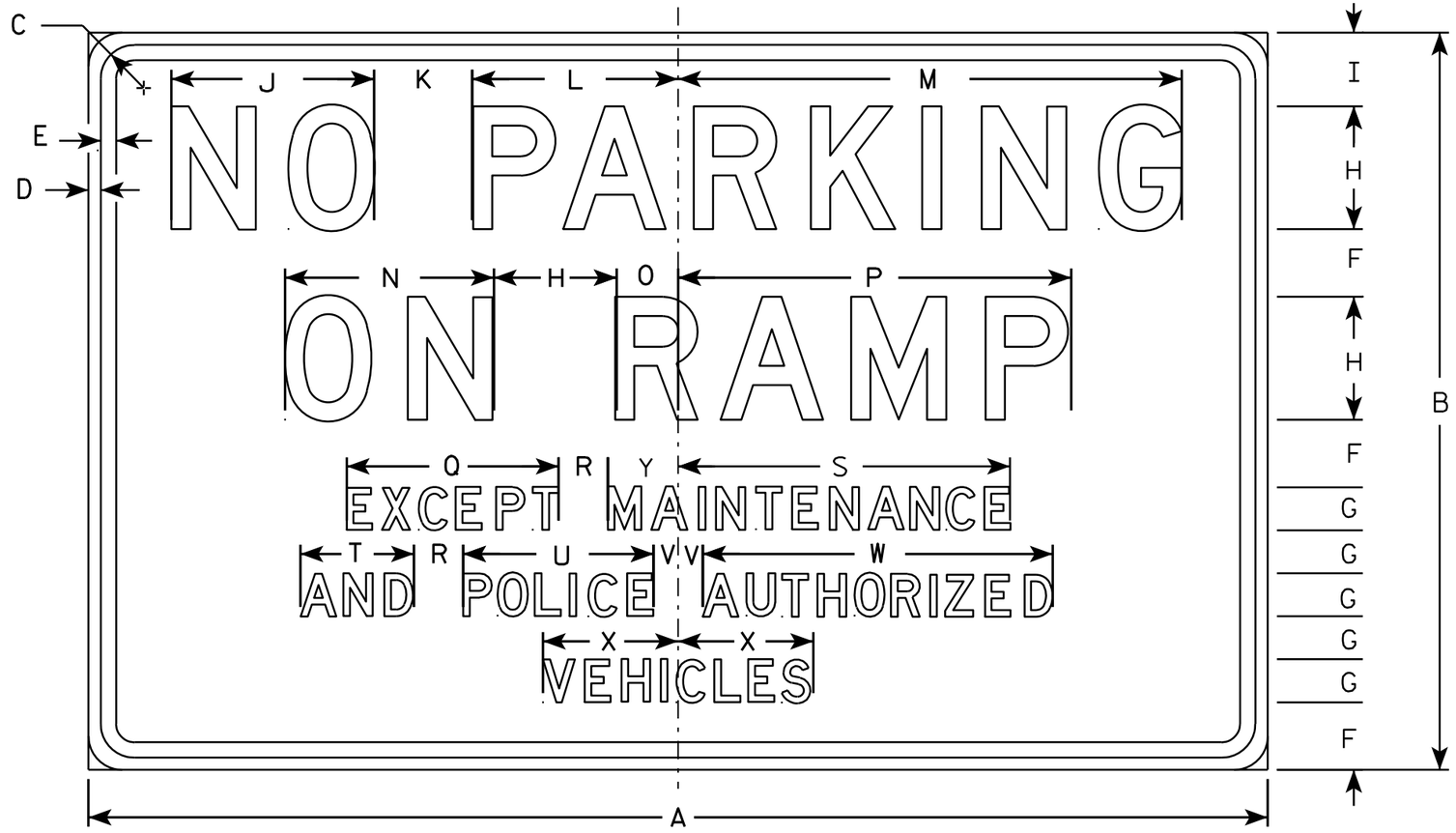
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 235	E



R7-64

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 - Lines 1& 2 and Border are RED
   Lines 3, 4, & 5 are BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3	48	30	1 3/8	1/2	5/8	2 3/4	1 3/4	5	3	8 1/4	4	8 3/8	20 1/2	8 1/2	2 1/2	16	8 5/8	2	13 5/8	4 5/8	7 3/4	1	14 1/4	5 1/2			10.0
4																											
5																											

STANDARD SIGN
R7-64

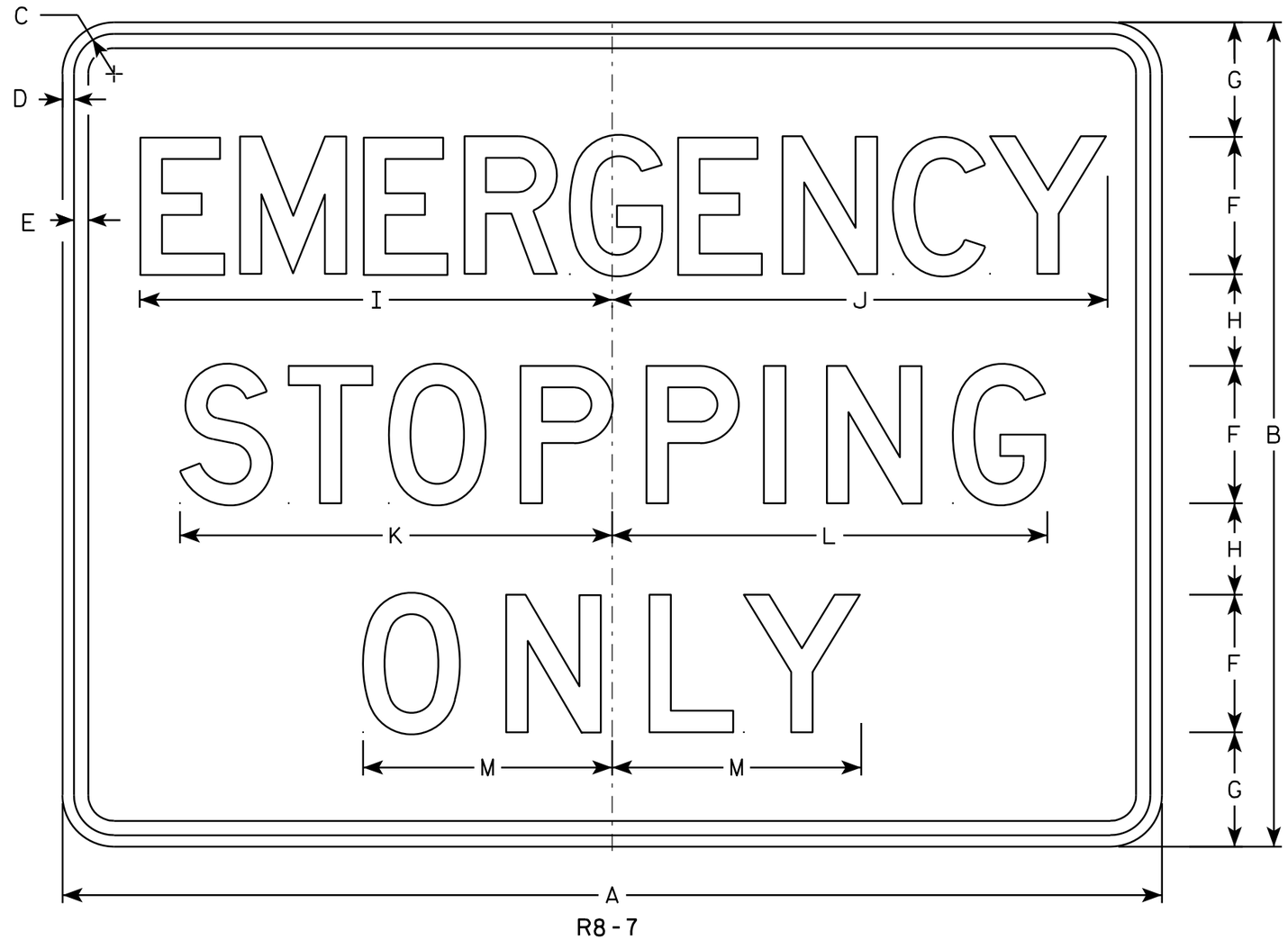
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-64.3

PROJECT NO:

SHEET NO: 236 E



R8 - 7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

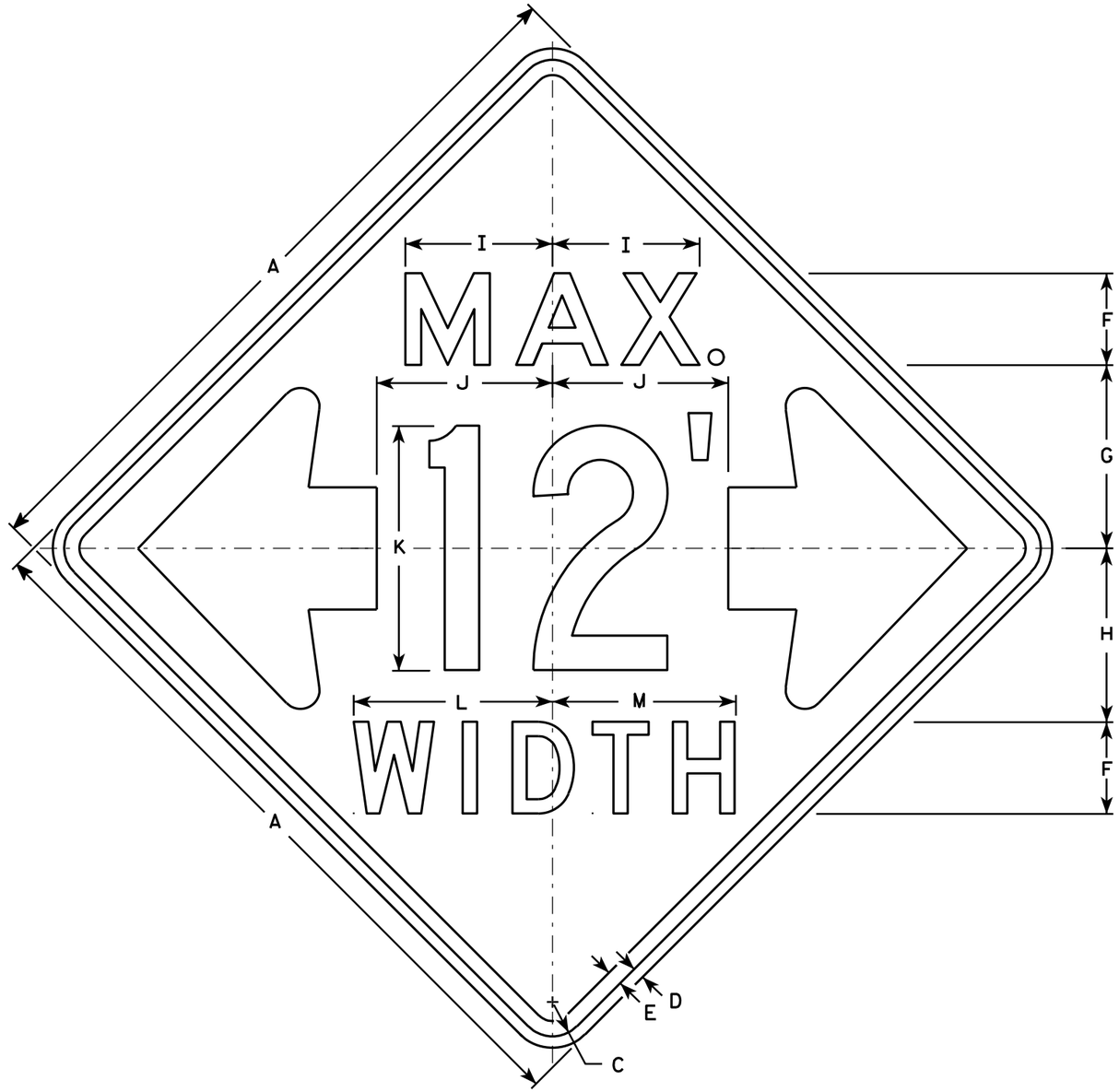
STANDARD SIGN
R8 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

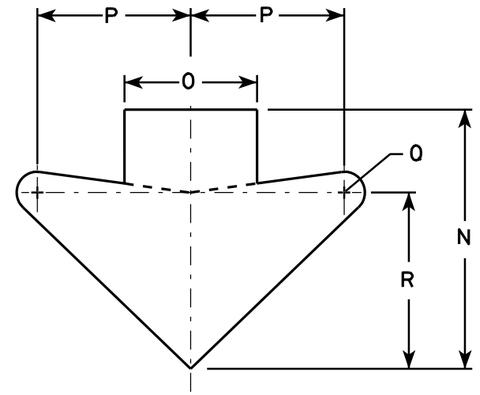
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 237 | E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

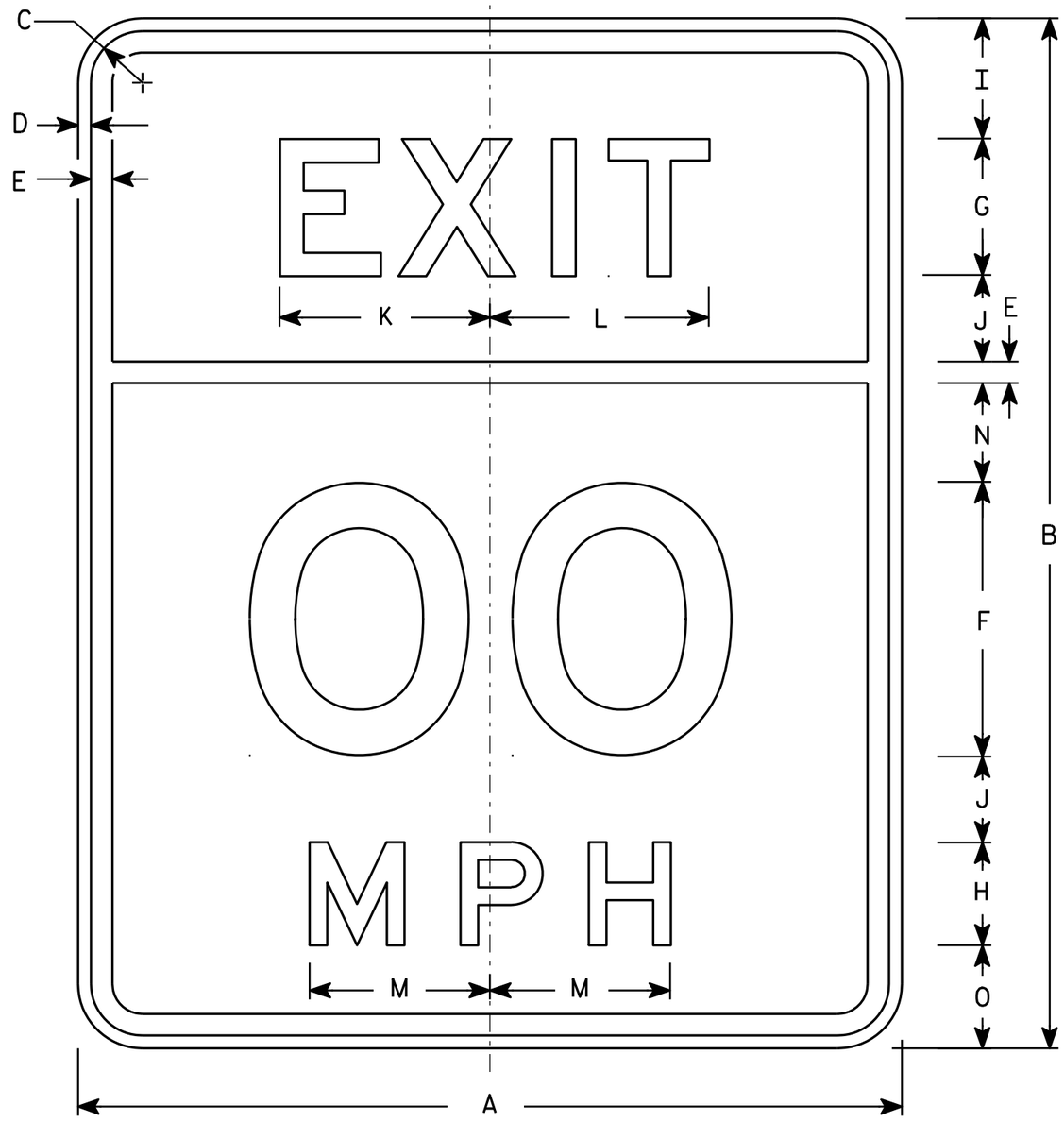
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 238 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



W13-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline 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																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

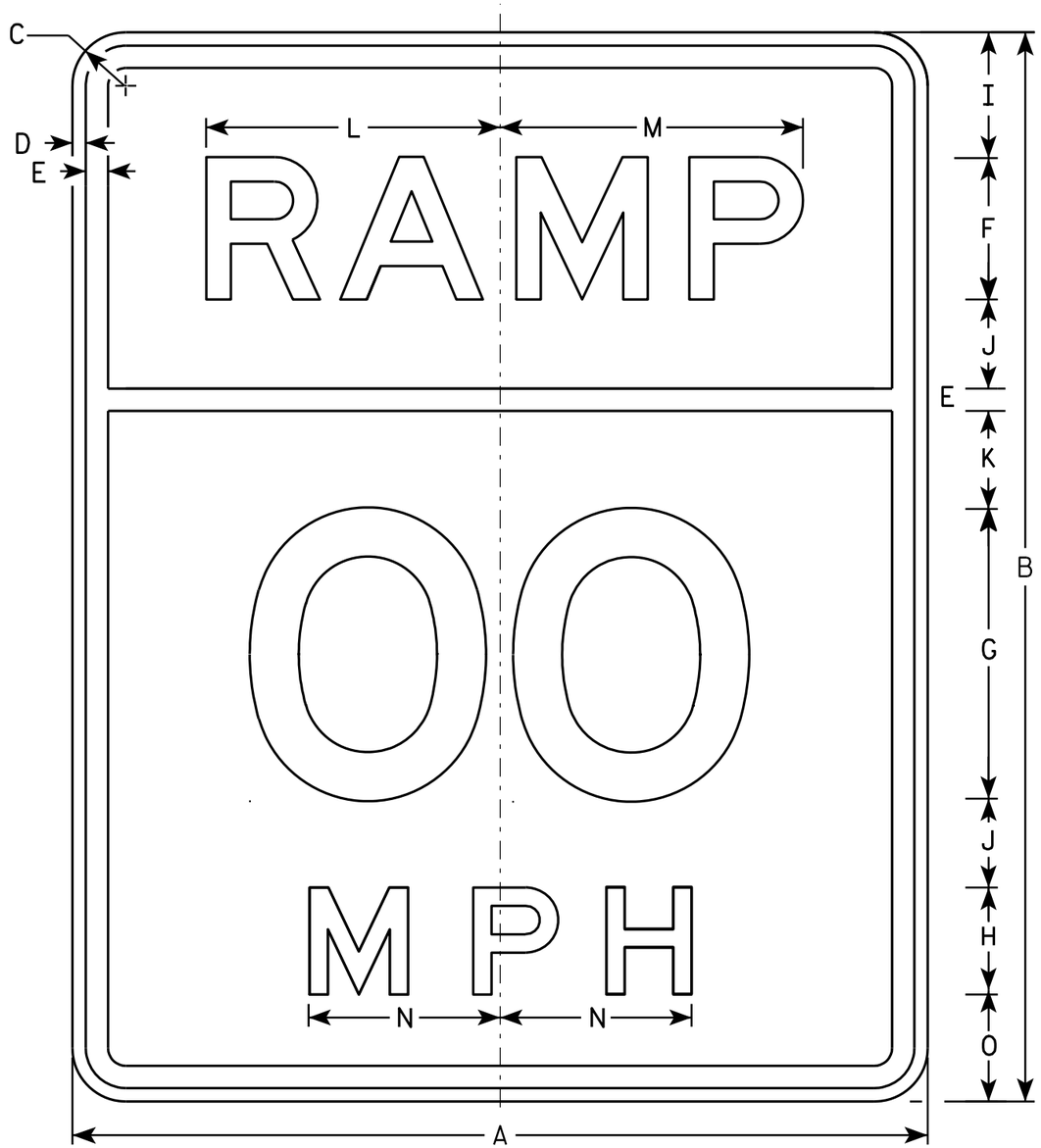
STANDARD SIGN
W13-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 239 | E



W13-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline 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	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

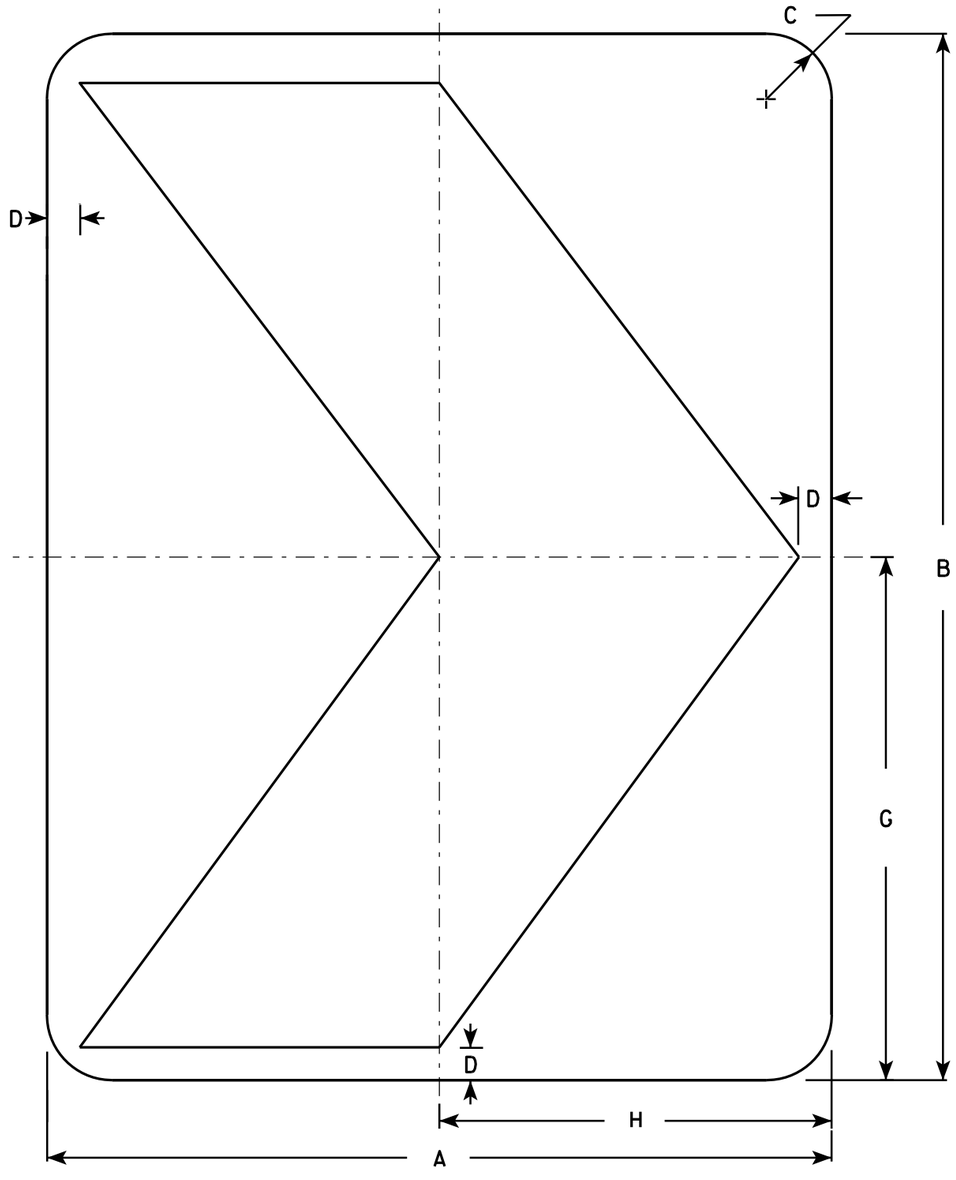
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 240 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

W1-8

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	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

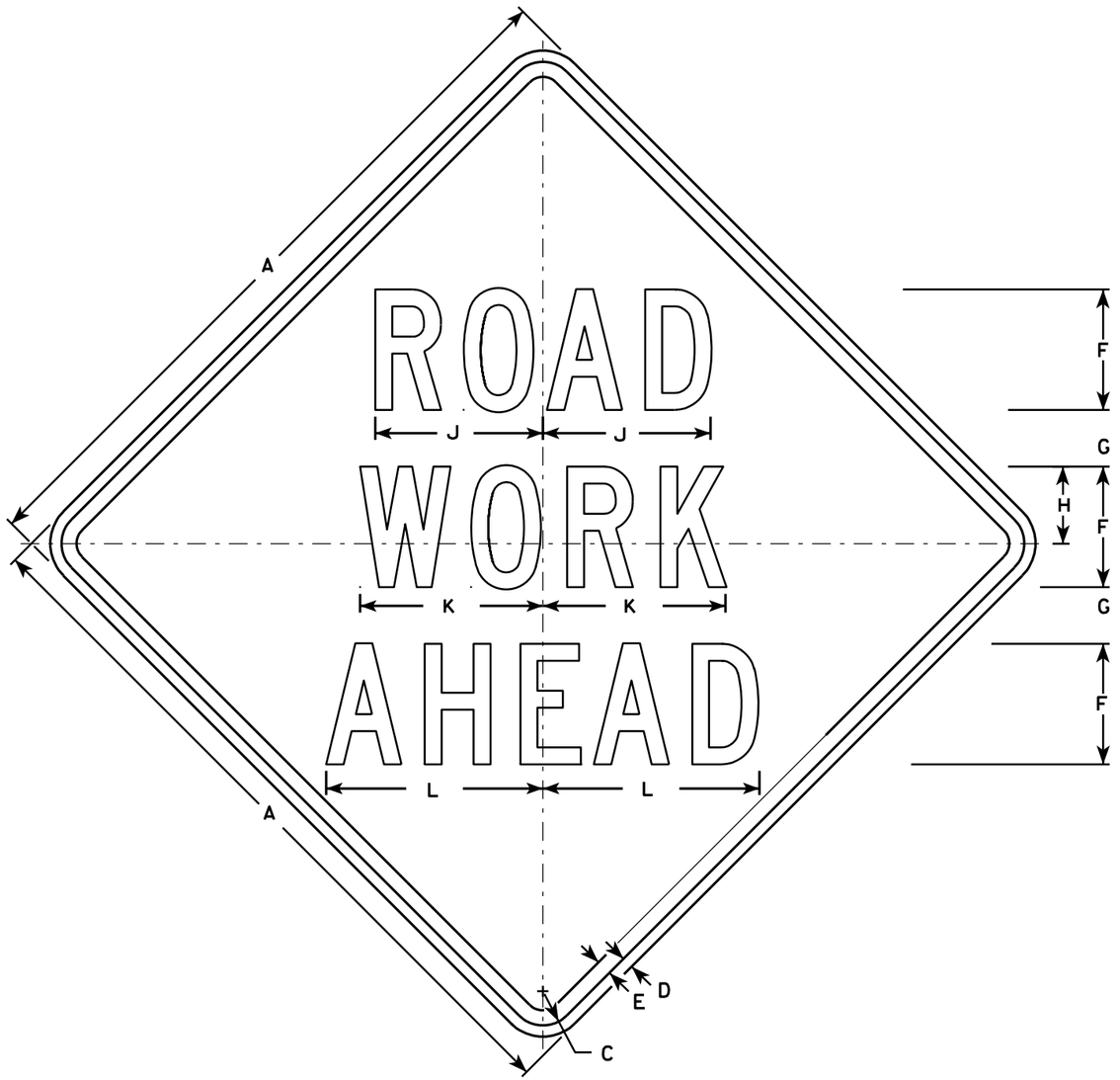
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

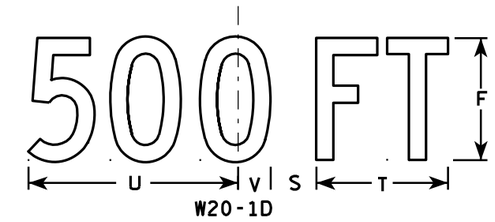
DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

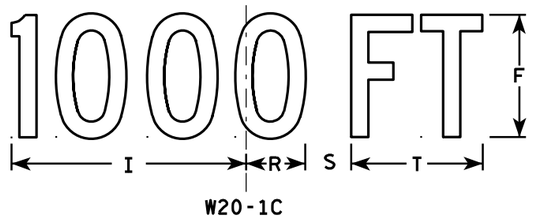
SHEET NO: 241 E



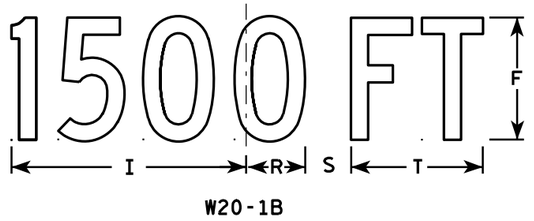
W20-1A



W20-1D



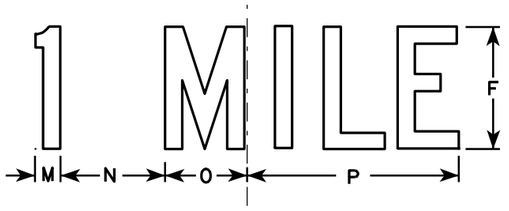
W20-1C



W20-1B



W20-1G



W20-1F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	1 7/8	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-1.9

PROJECT NO:

SHEET NO: 242 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W201.DGN PLOT DATE : 18-MAR-2011 09:56 PLOT BY : mscj9h

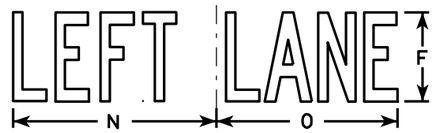
WISDOT/CADDS SHEET 42

7

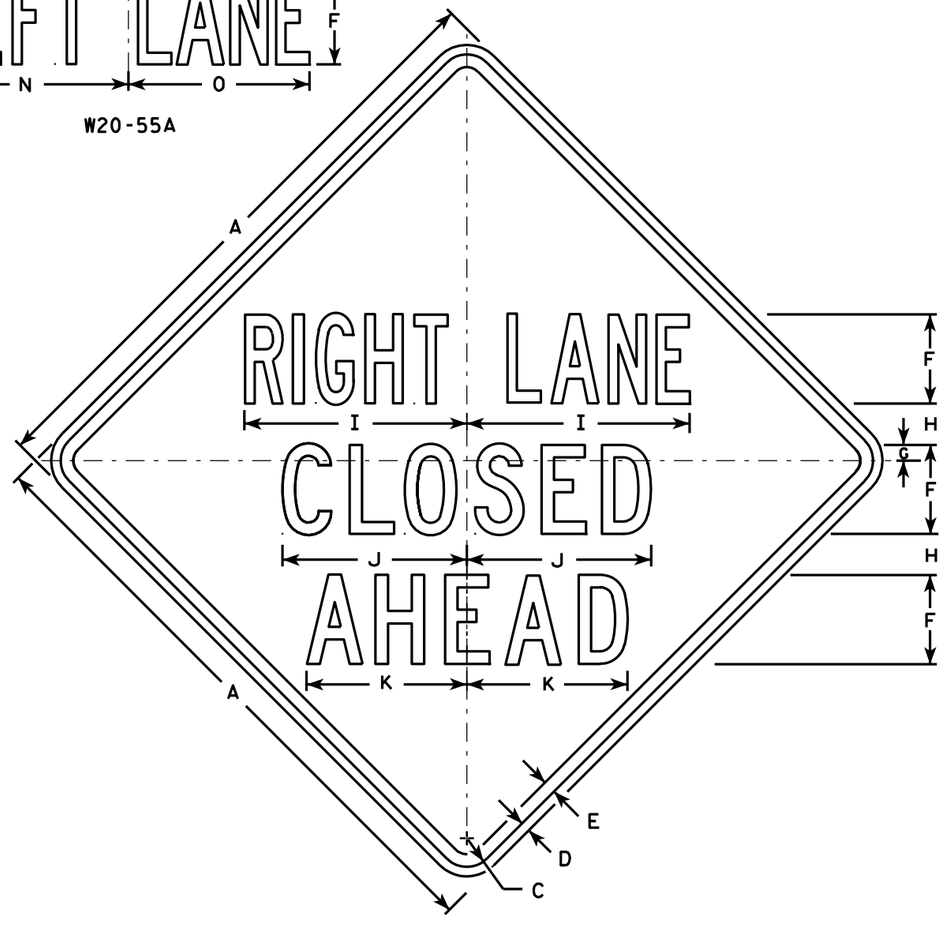
7



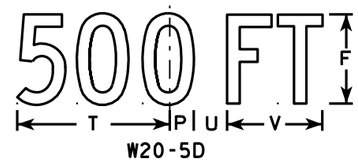
W20-56A



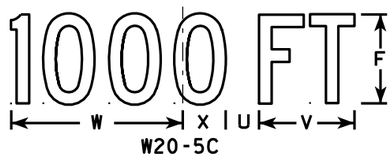
W20-55A



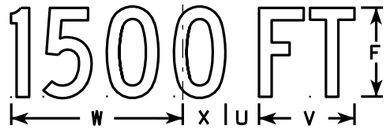
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

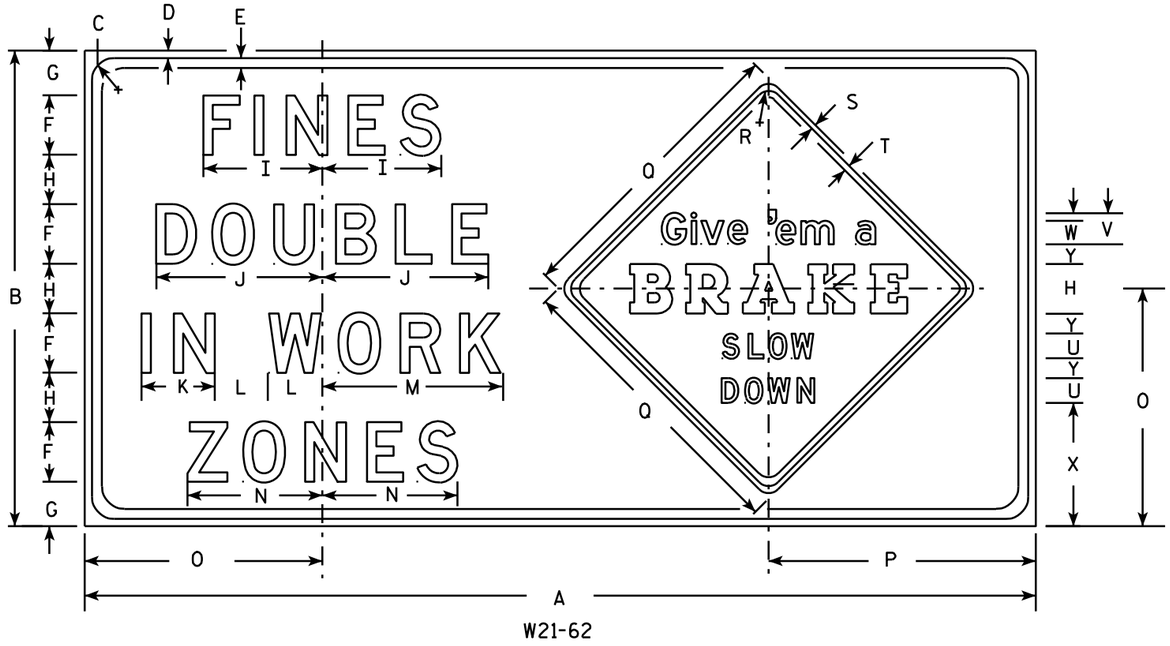
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 243 | E

7

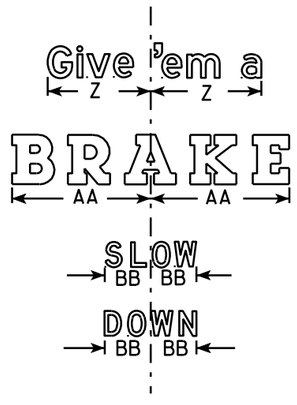
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-62

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 - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.





W21-62P

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	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

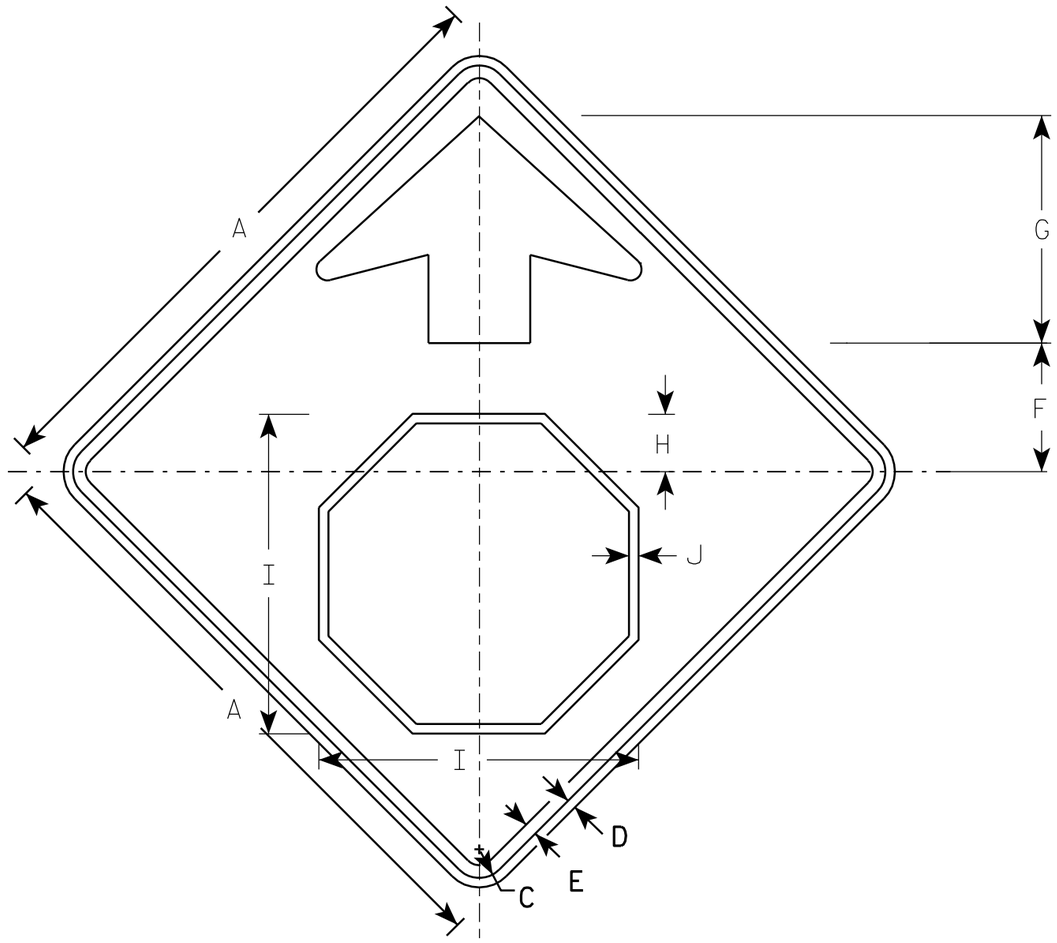
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

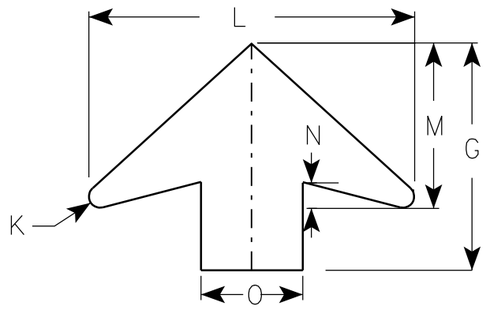
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 244 | E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

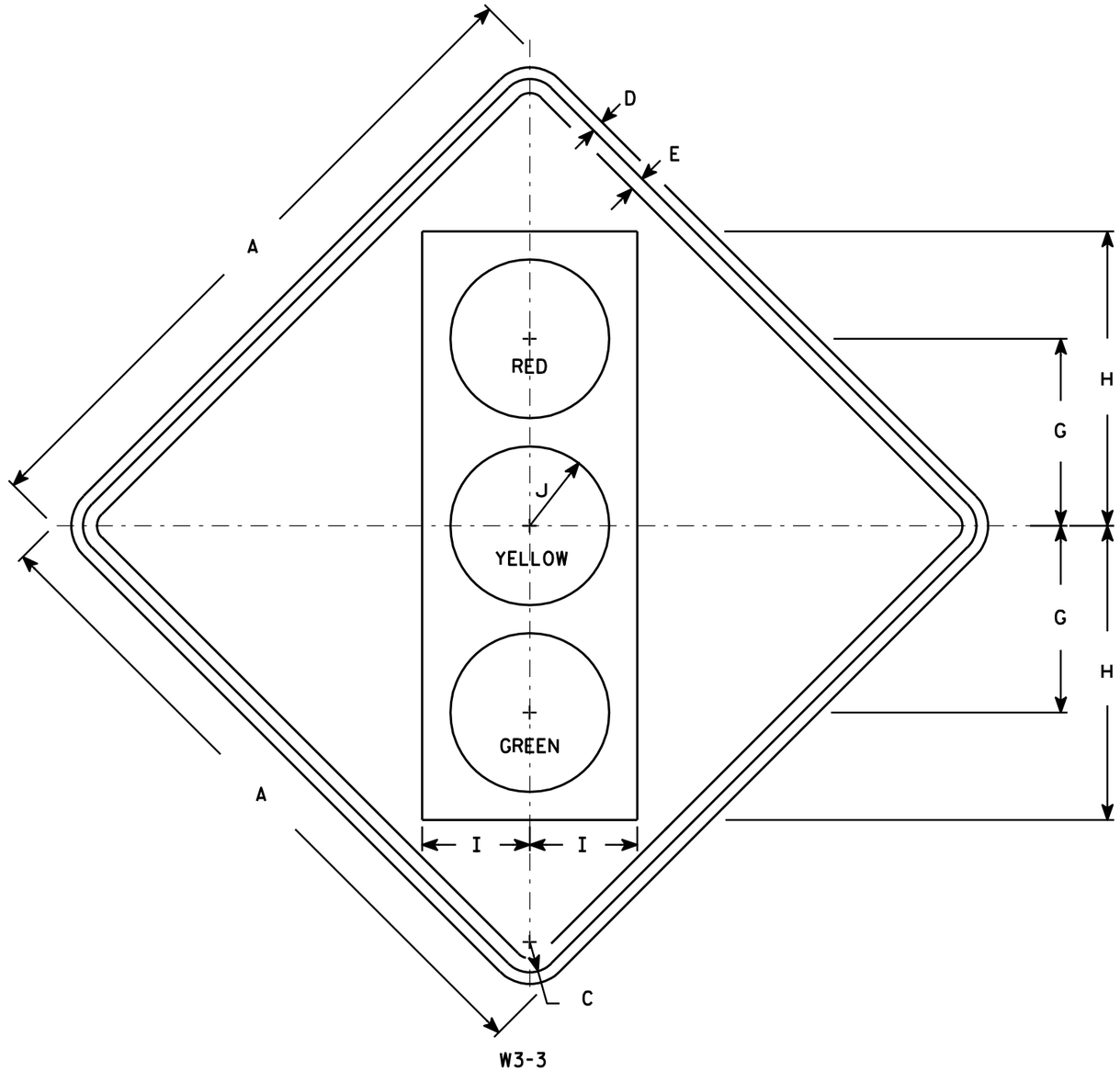
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 245 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

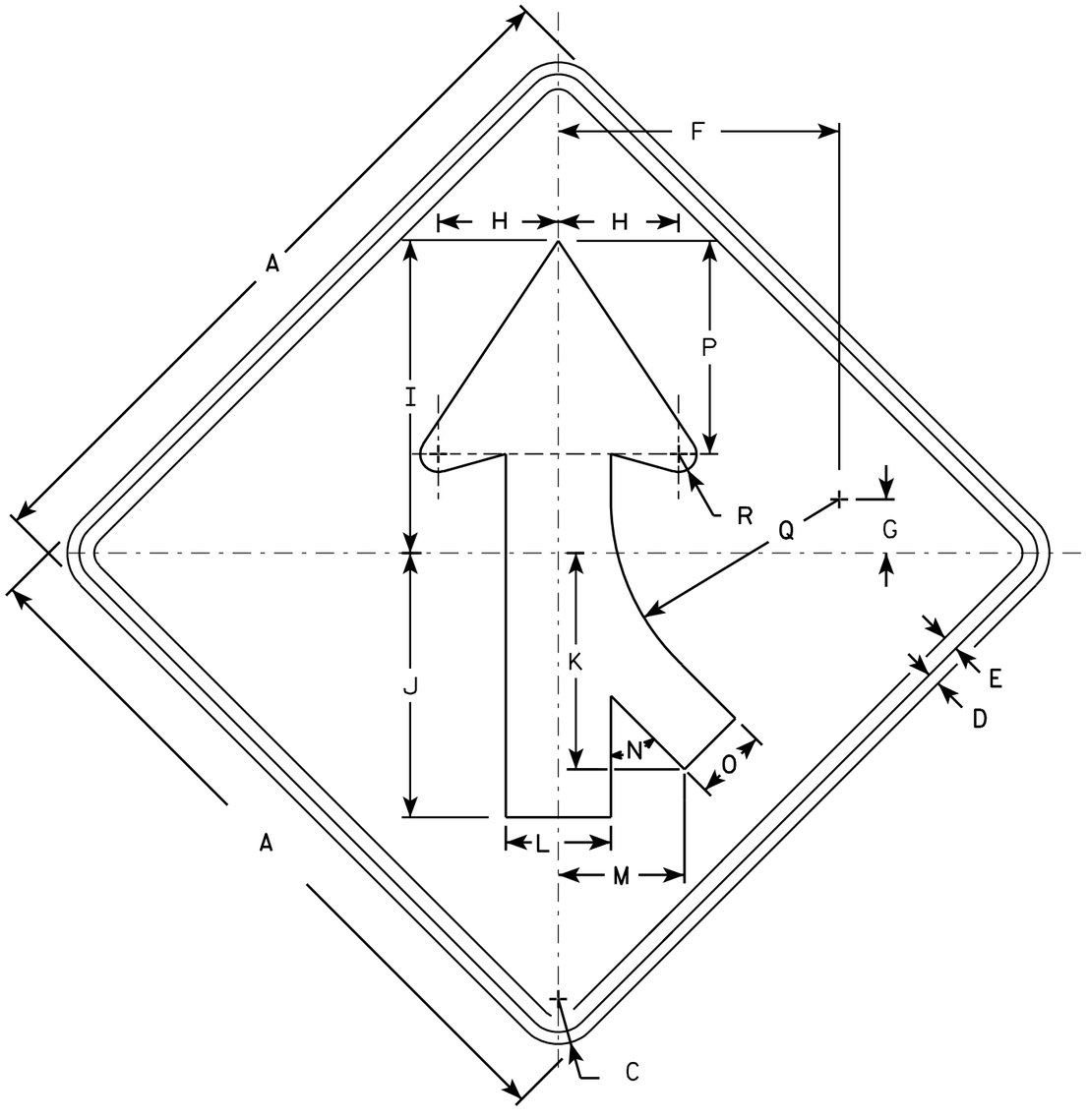
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 246 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



W4-1 R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

STANDARD SIGN
W4-1

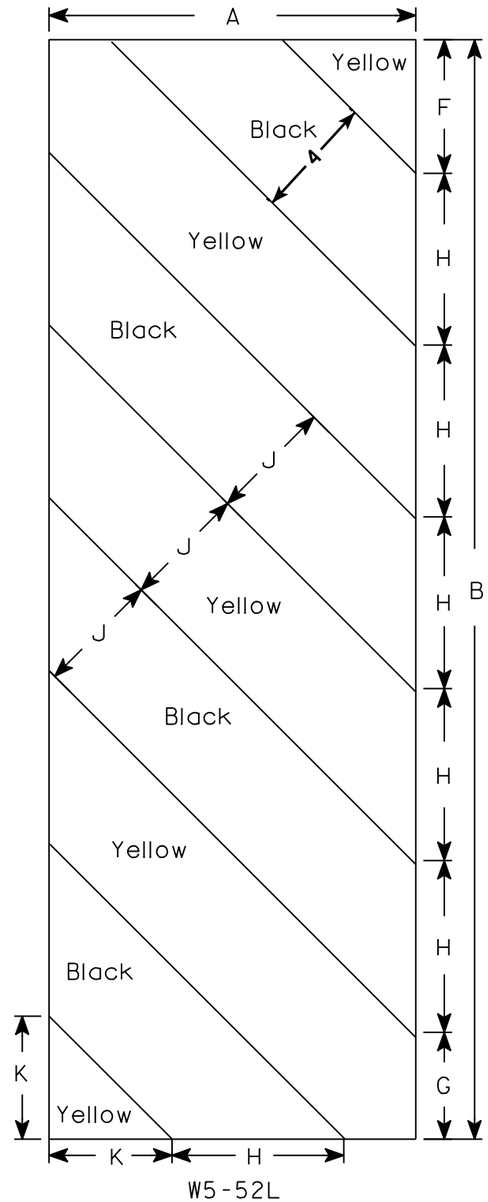
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rausch for State Traffic Engineer

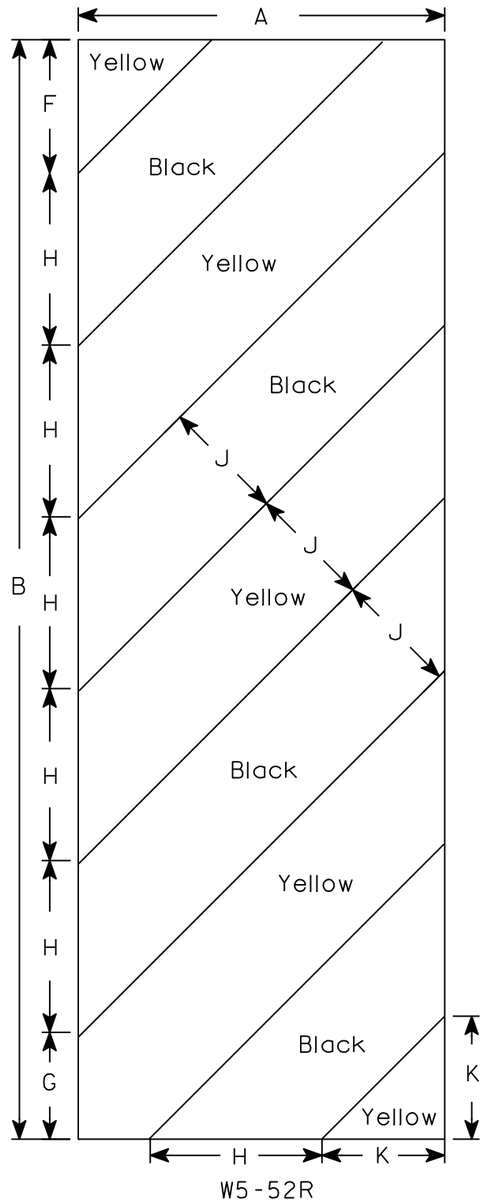
DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 247 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W41.DGN PLOT DATE : 12-MAR-2013 11:06 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.202372:1.000000
WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
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				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

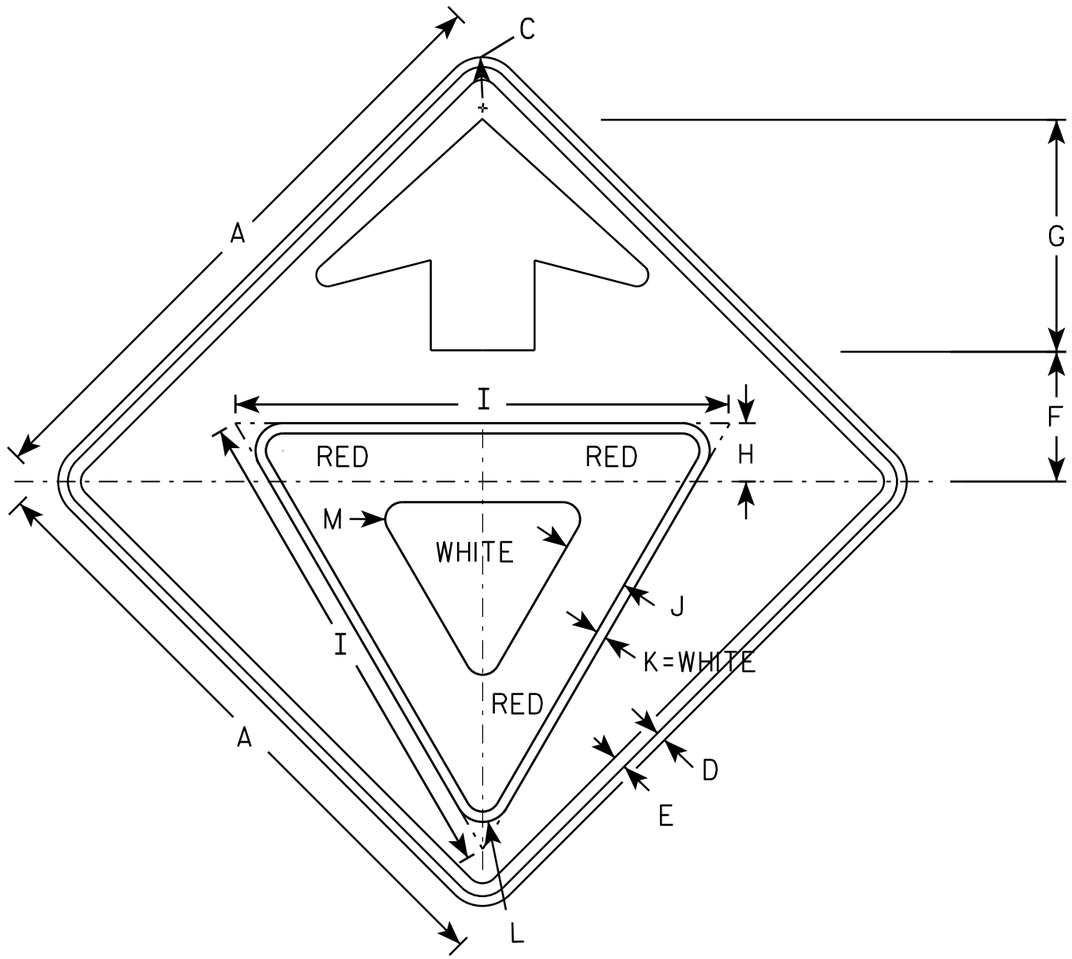
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

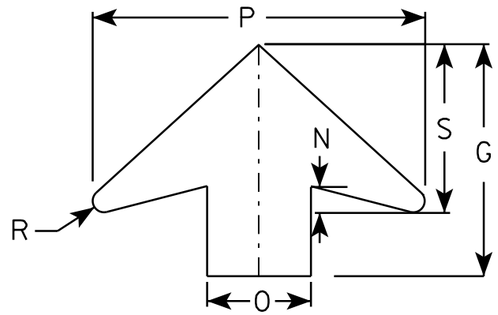
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 248	E



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

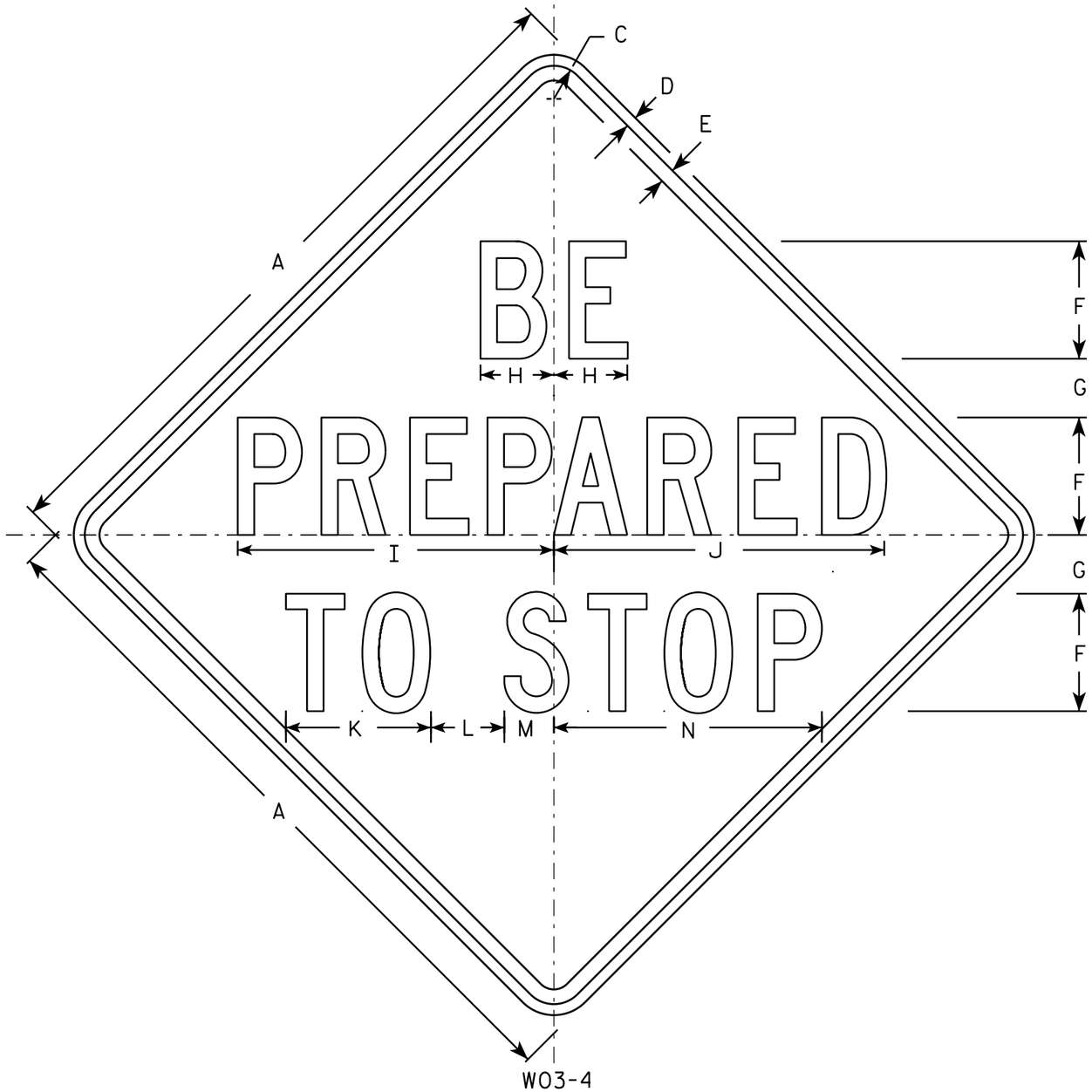
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2S	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
2M	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
3	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN
W03-4

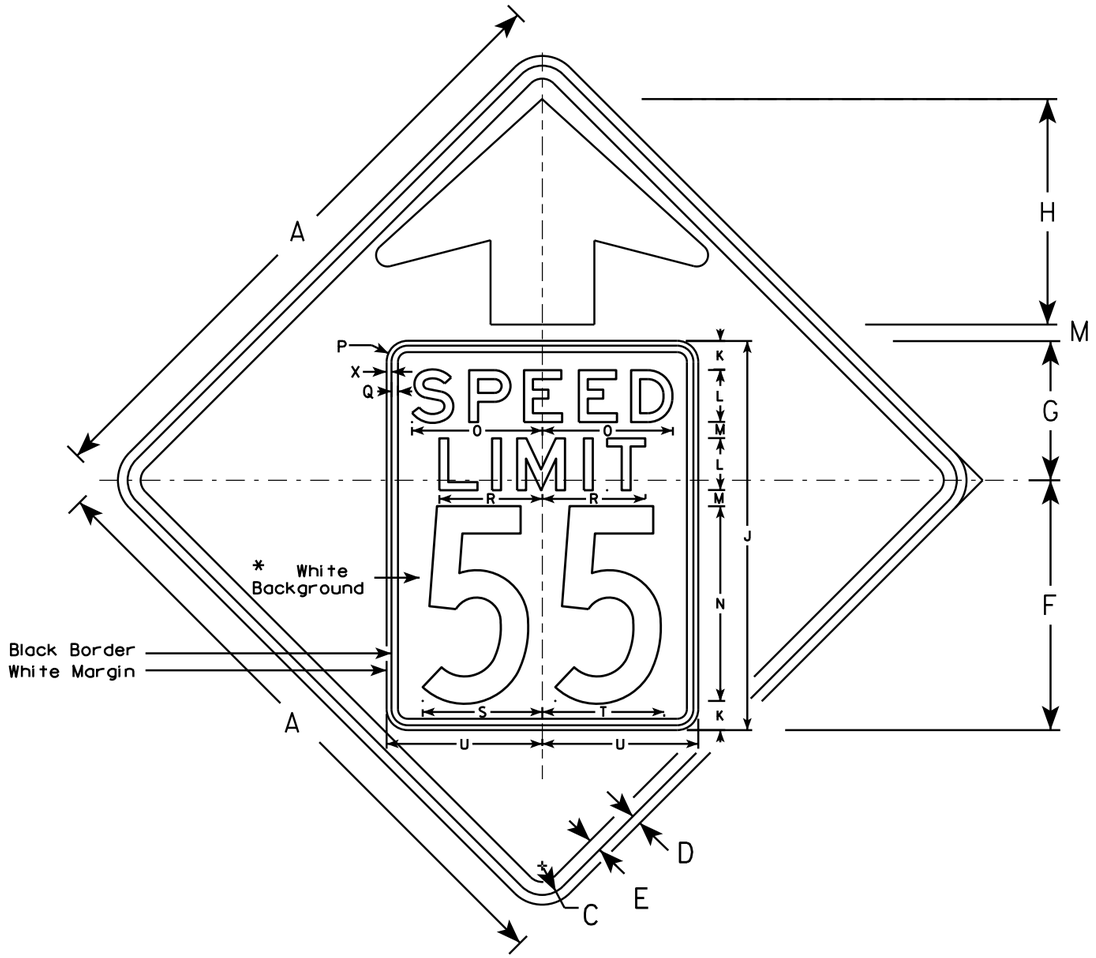
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/02/13 PLATE NO. W03-4.1

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W034.DGN PLOT DATE : 02-DEC-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.999518:1.000000
WISDOT/CADDS SHEET 42

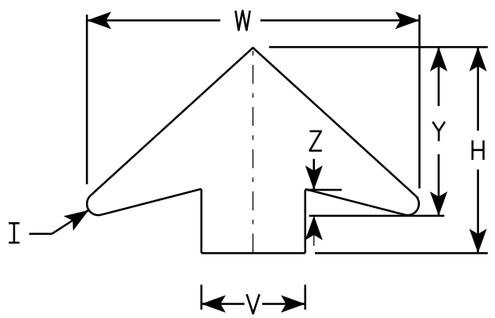


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

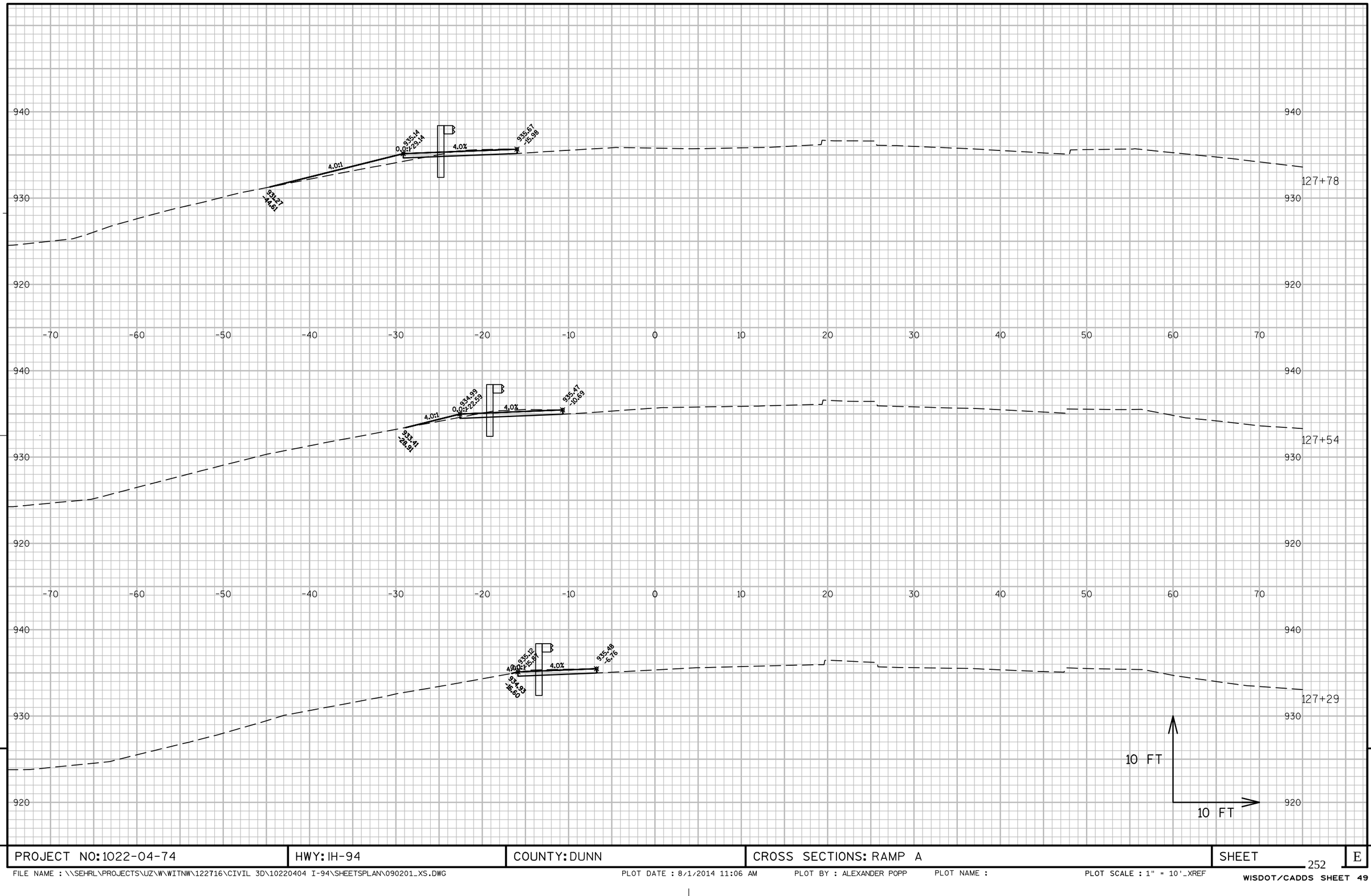
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



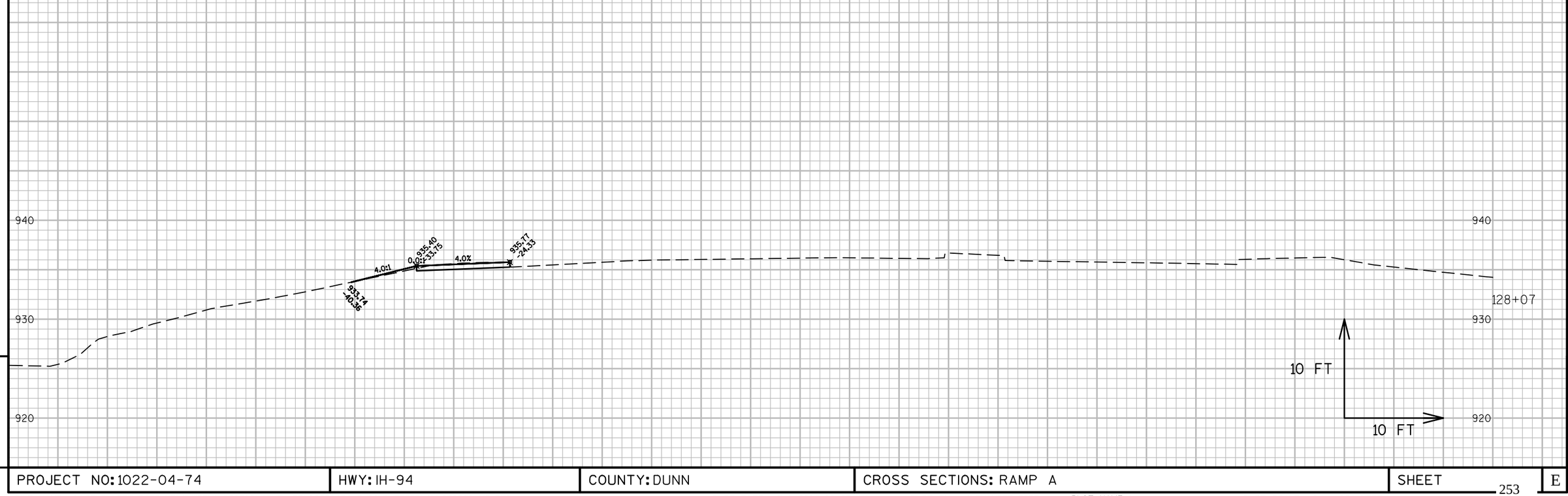
9

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: RAMP A	SHEET 252	E

9

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:06 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



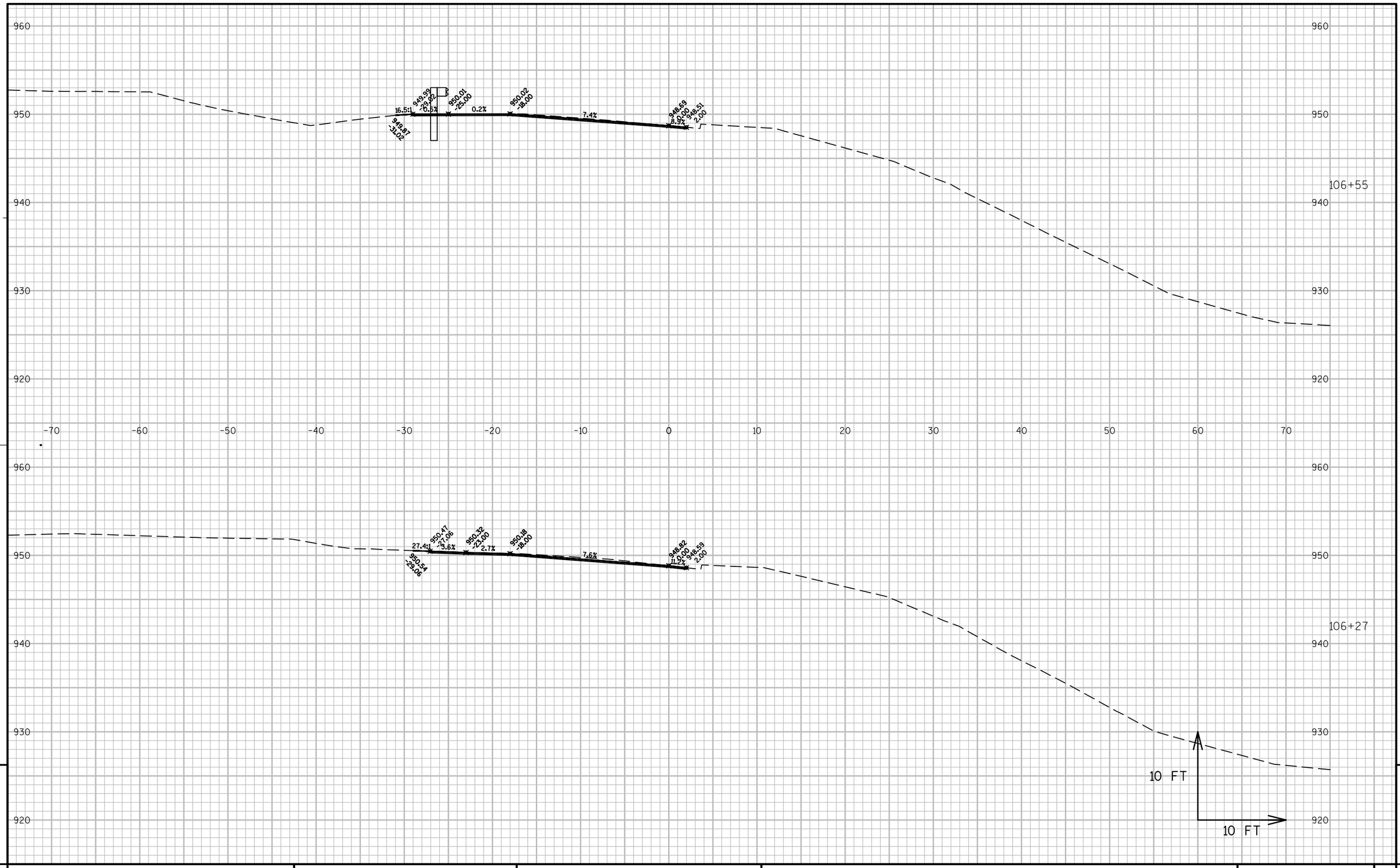
9

9

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: RAMP A	SHEET 253	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:07 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

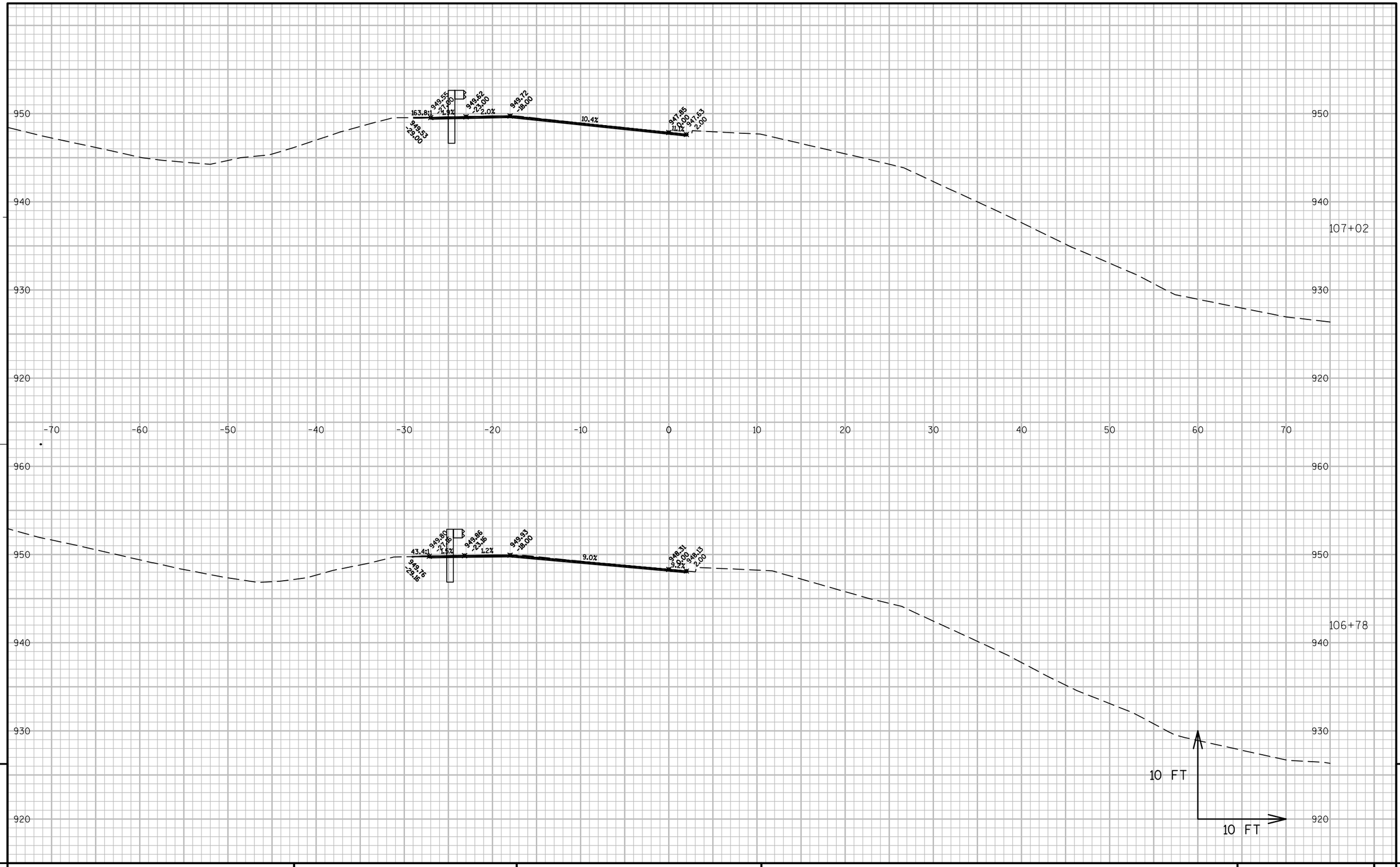
WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: LOOP C	SHEET 254	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:07 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

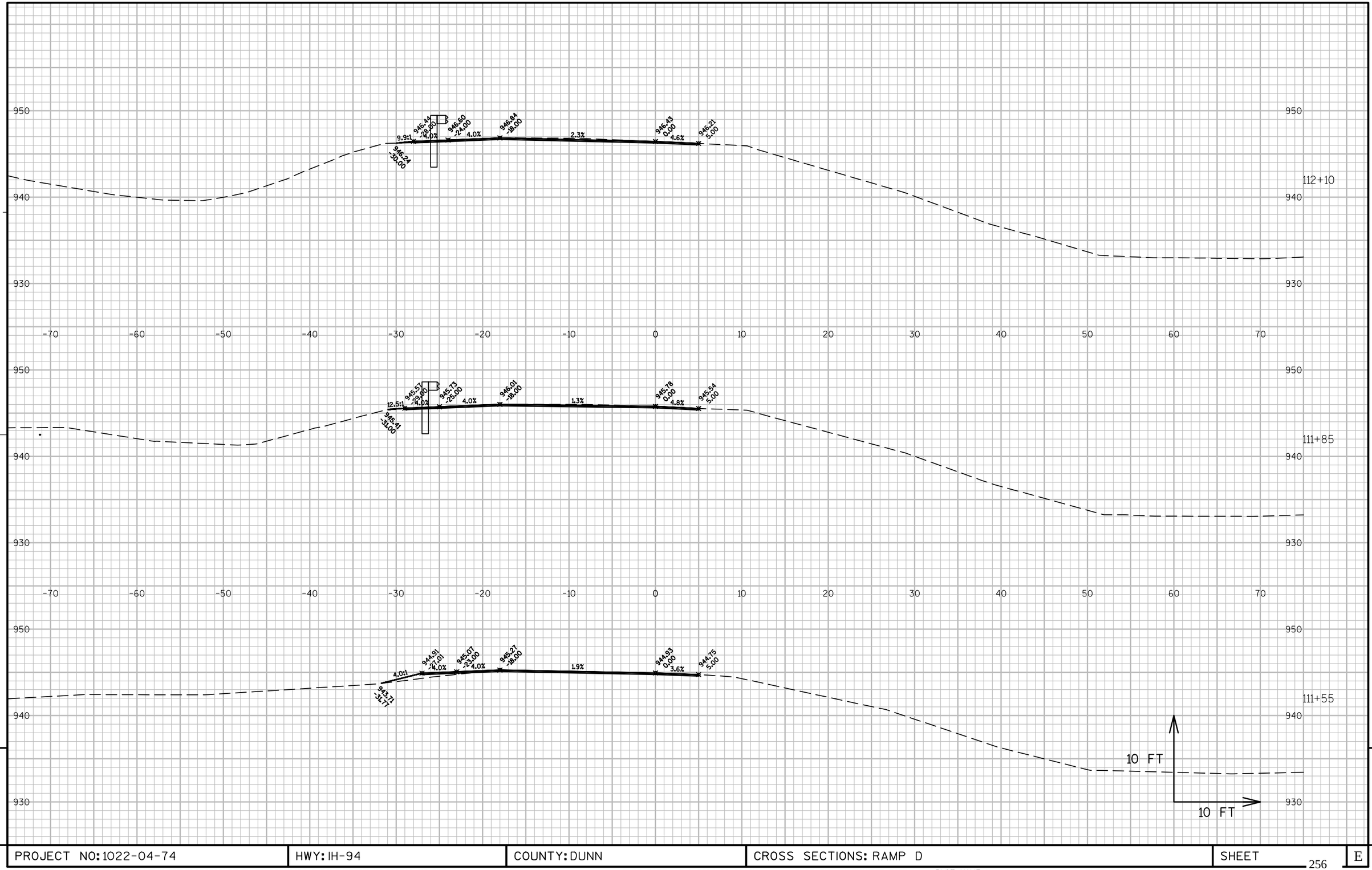
WISDOT/CADDS SHEET 49



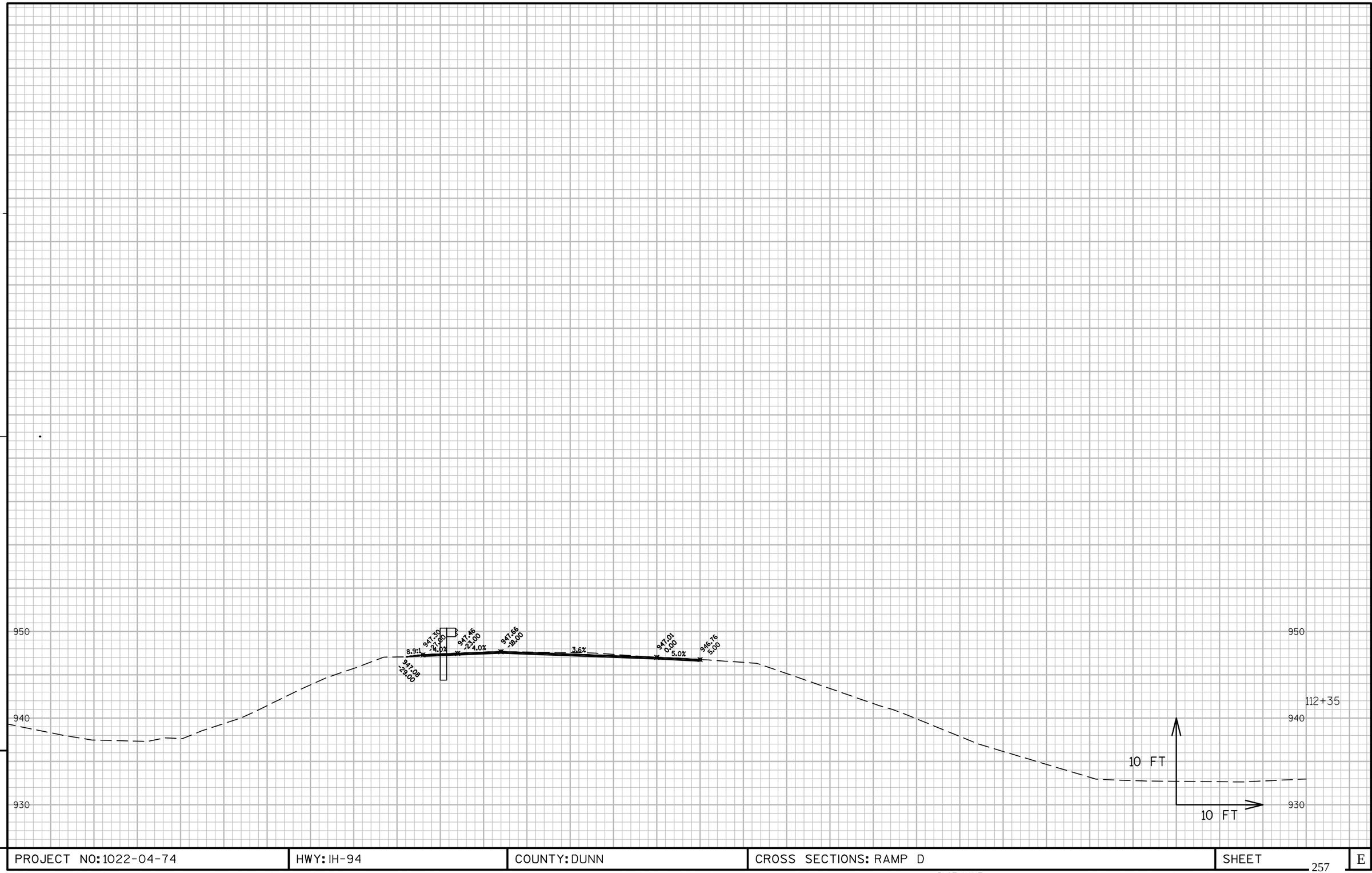
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: LOOP C	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:08 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

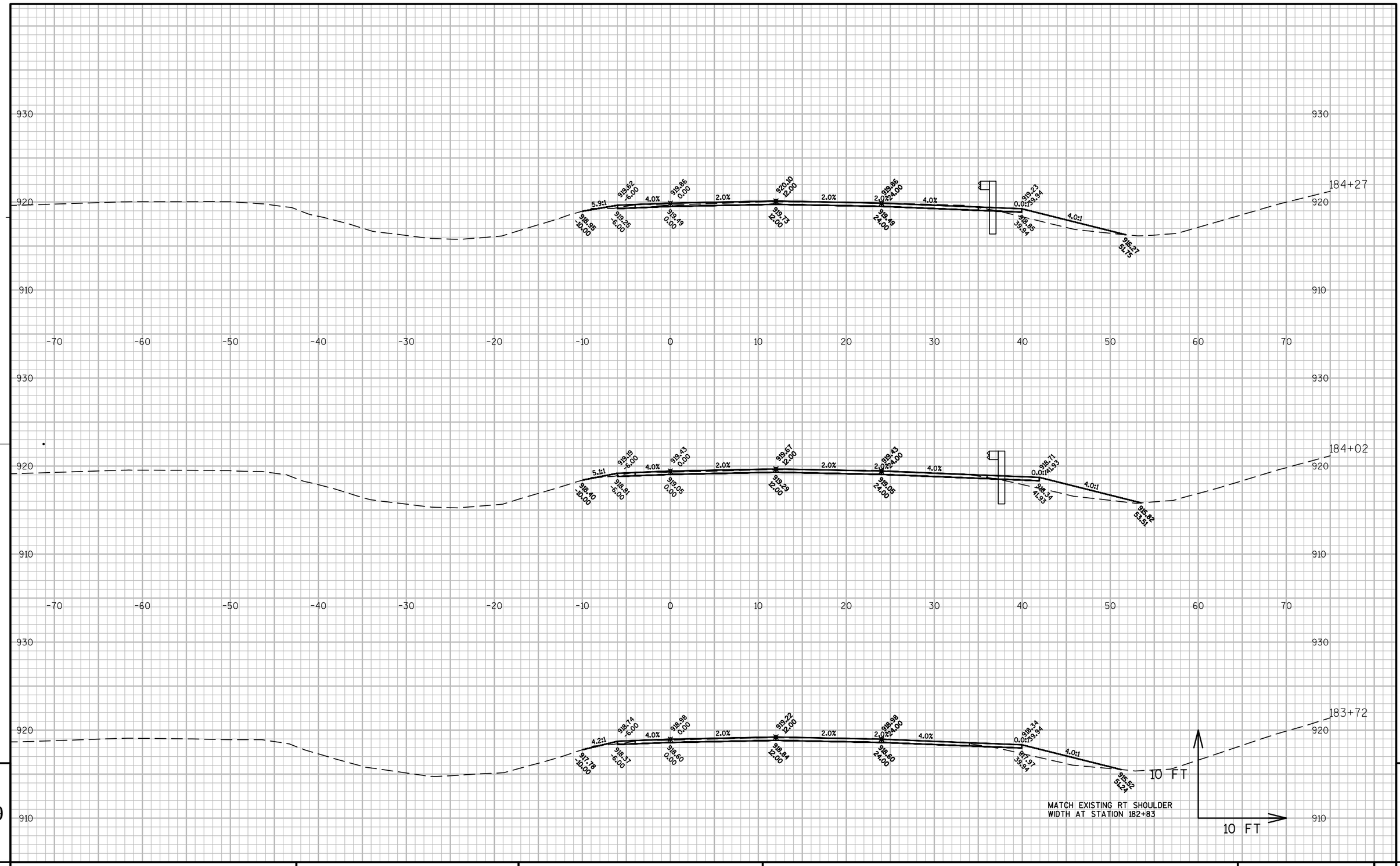
WISDOT/CADDS SHEET 49



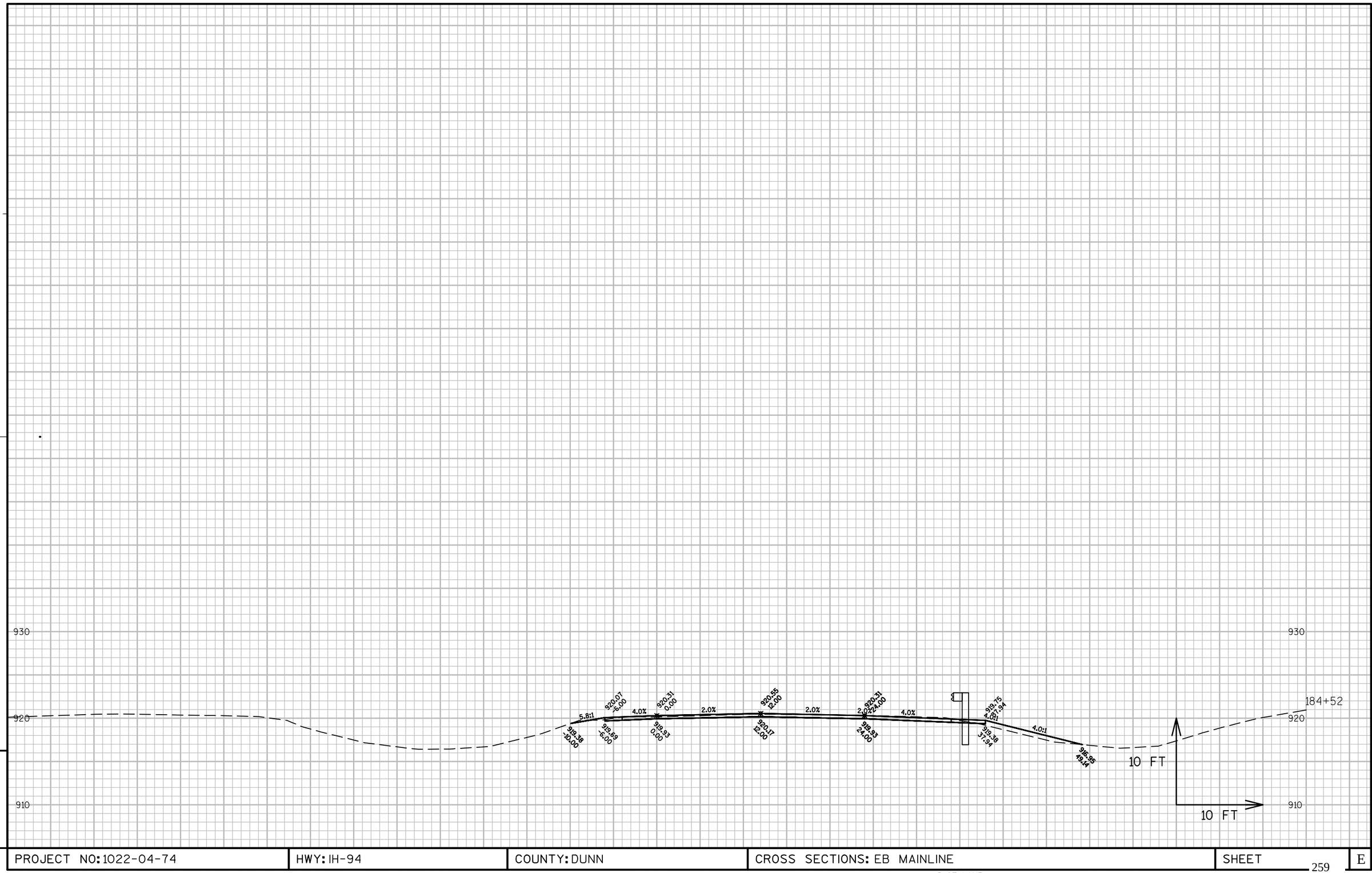
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: RAMP D	SHEET	E



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: RAMP D	SHEET 257	E

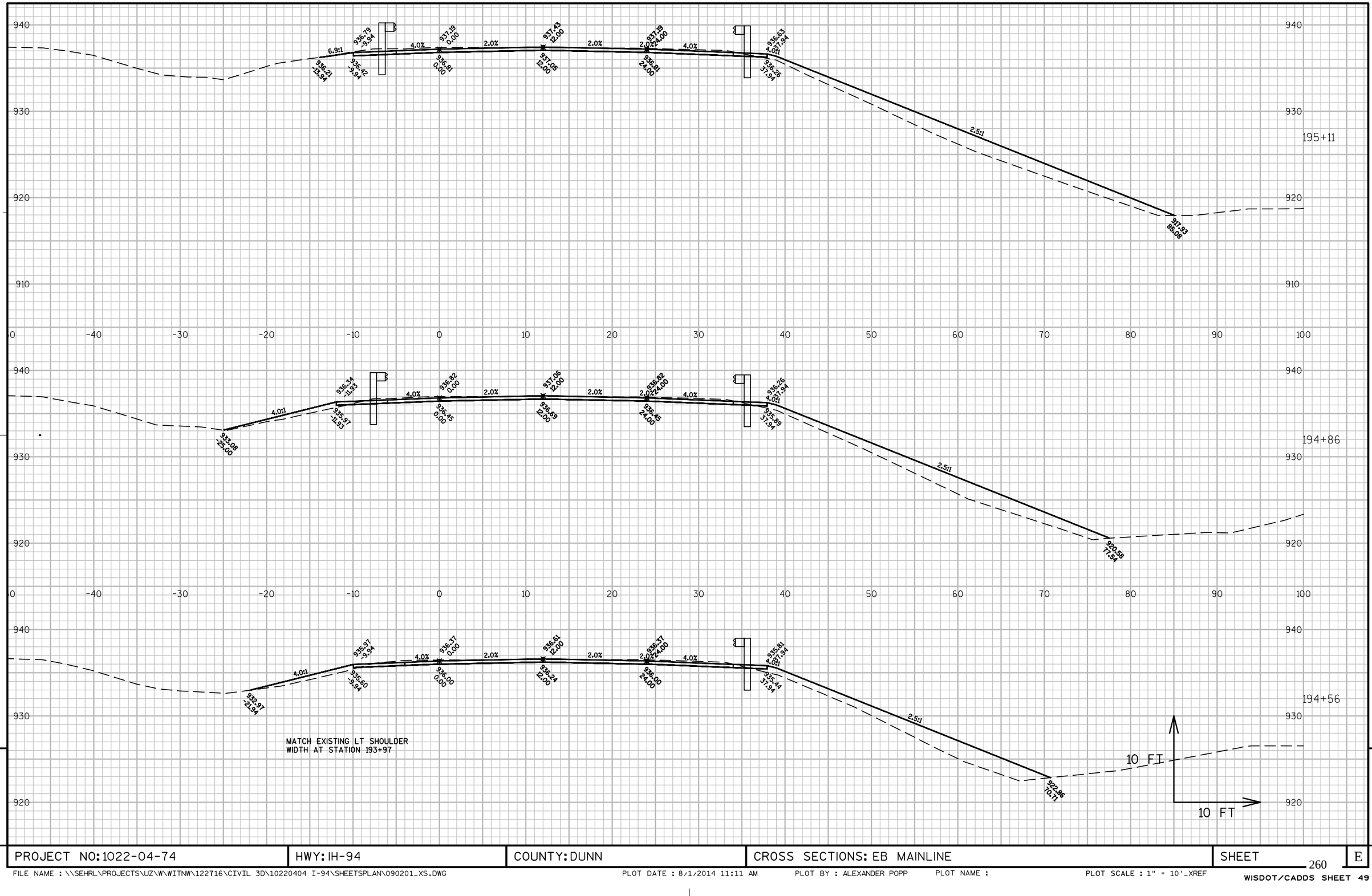


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:10 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF



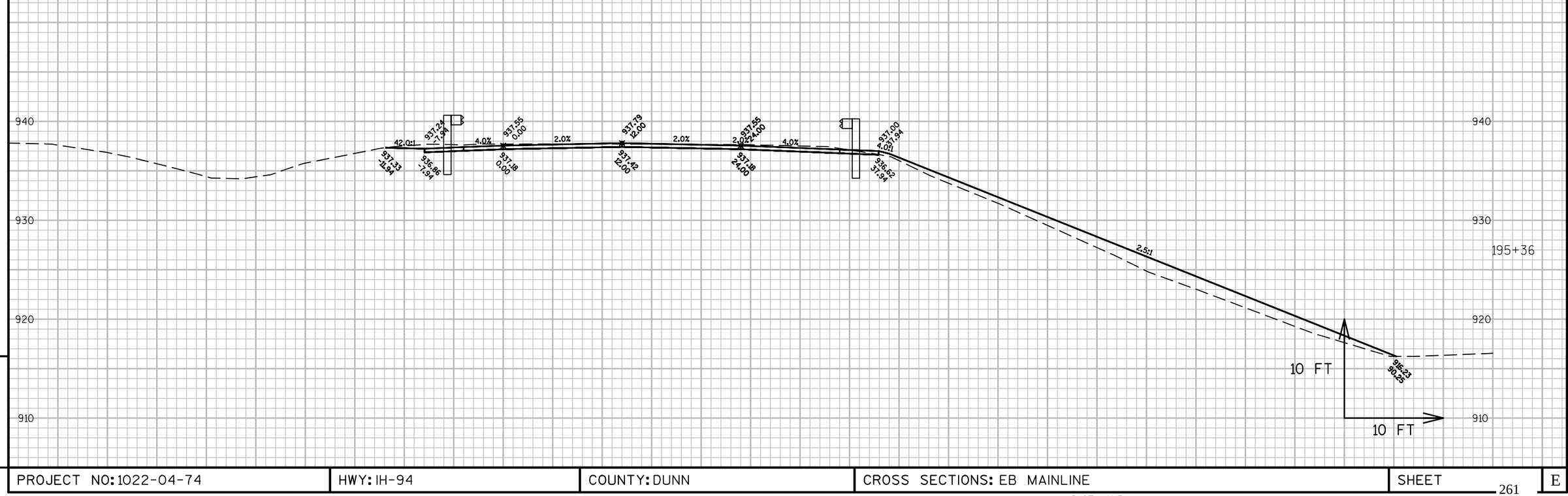
9

9

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

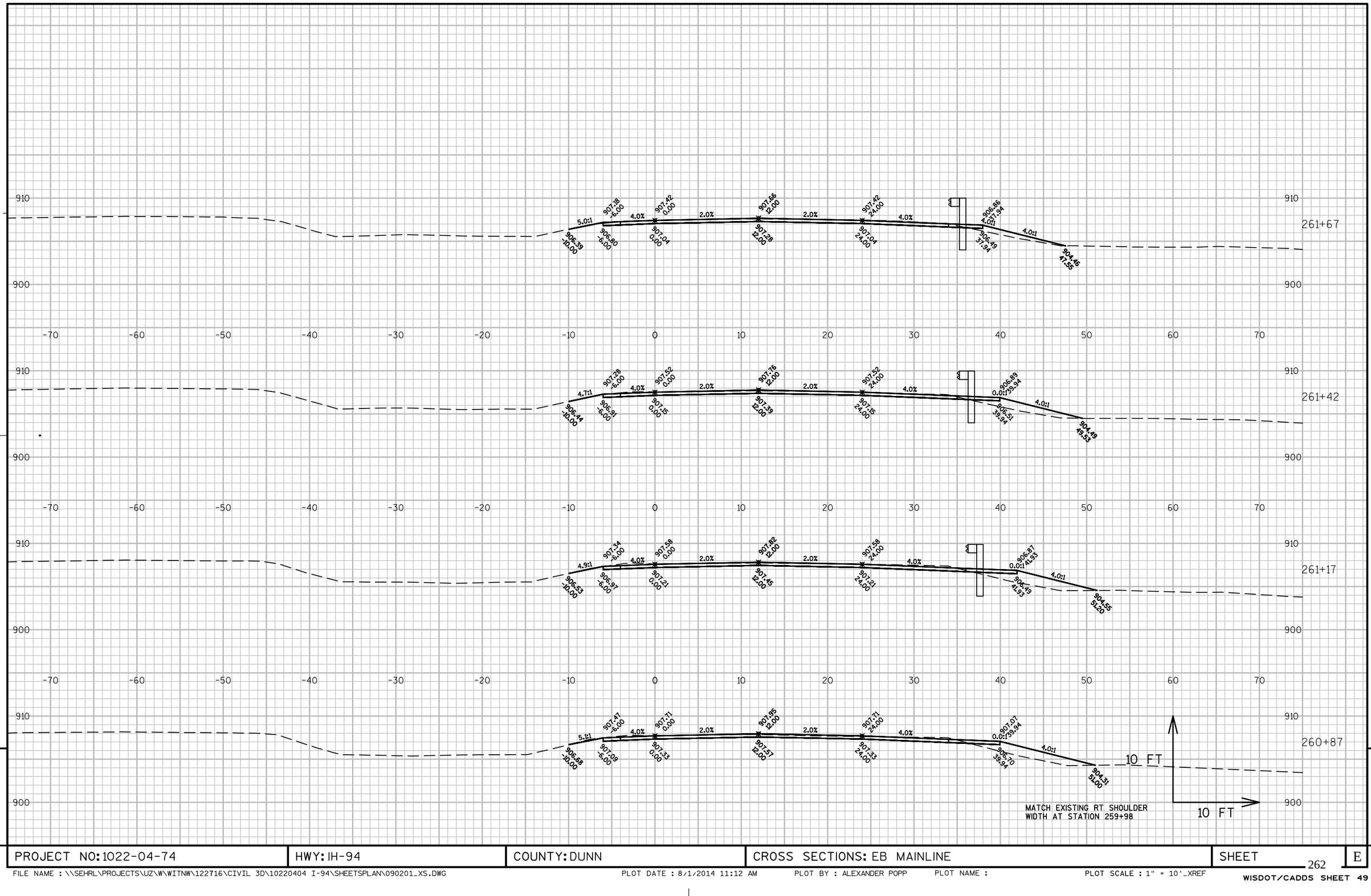
FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:11 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



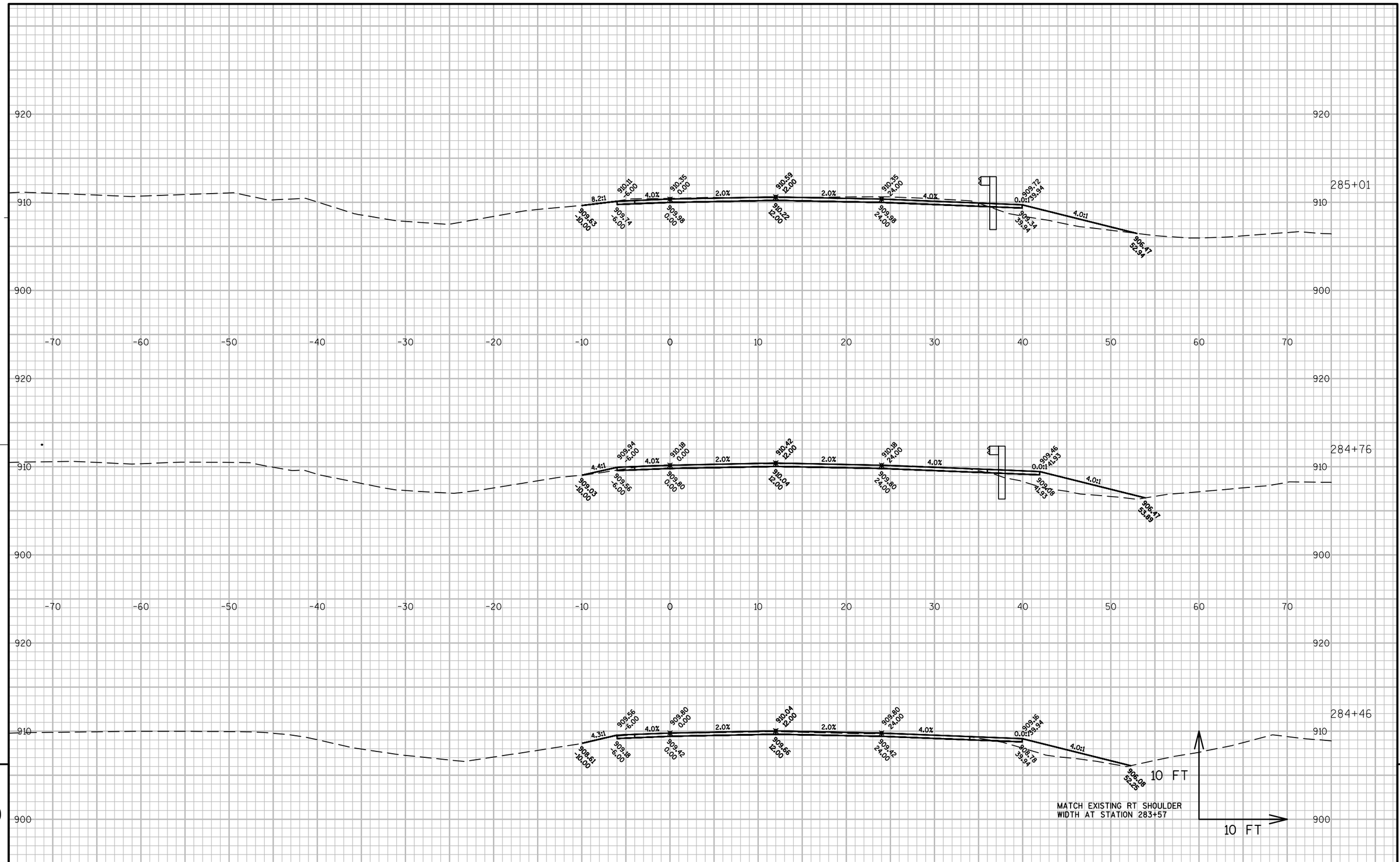
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:11 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF



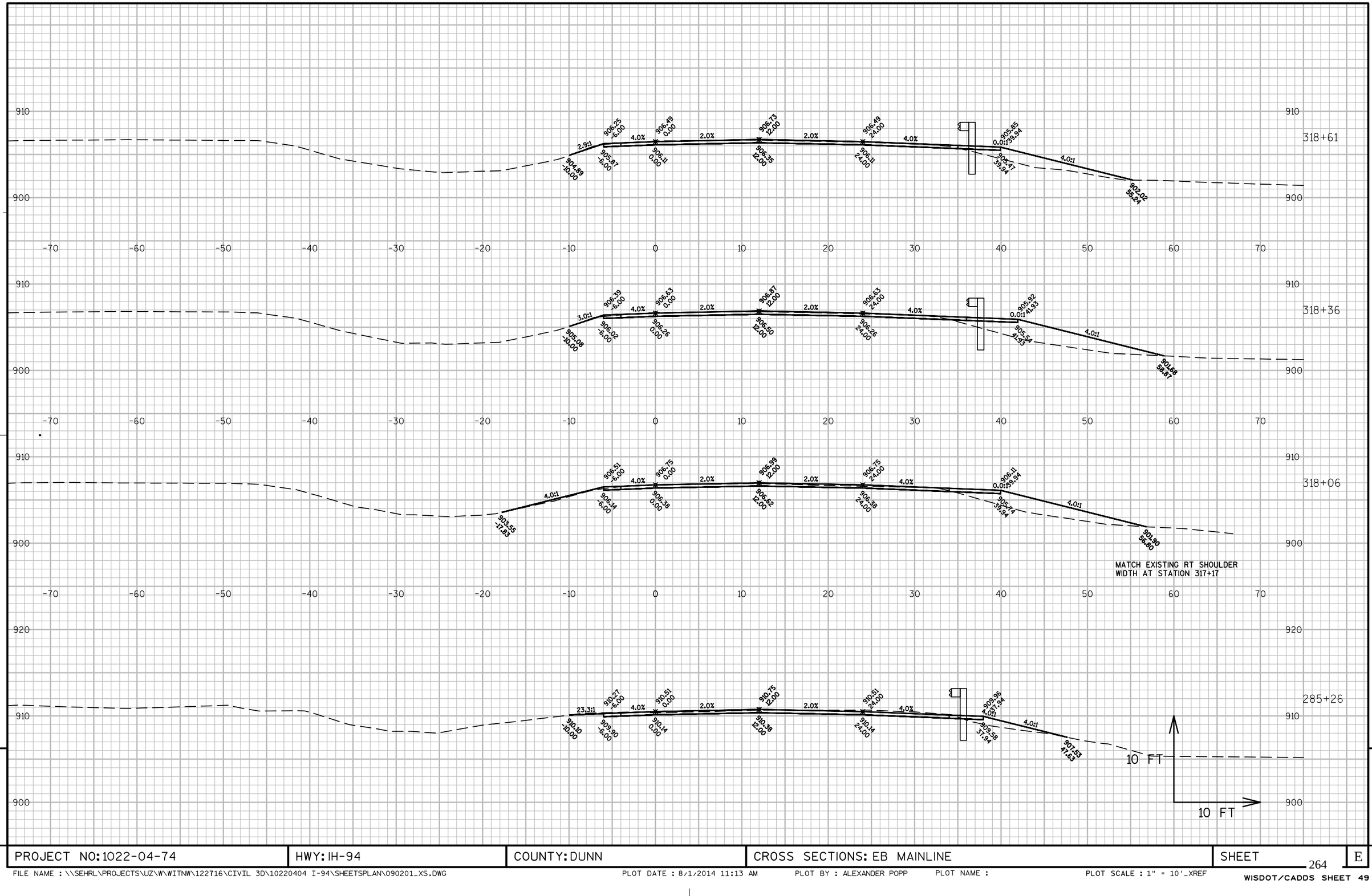
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:12 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49

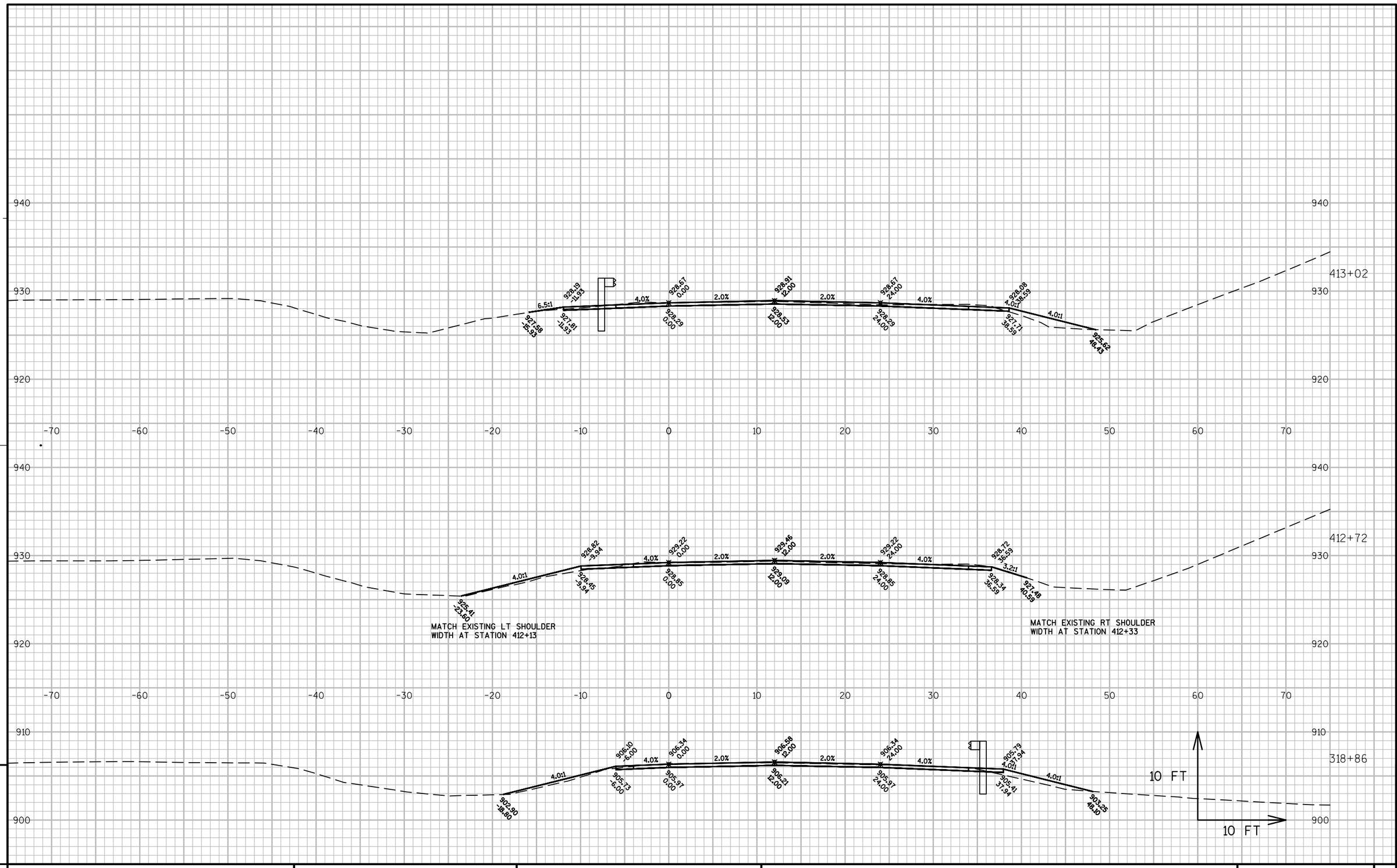


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

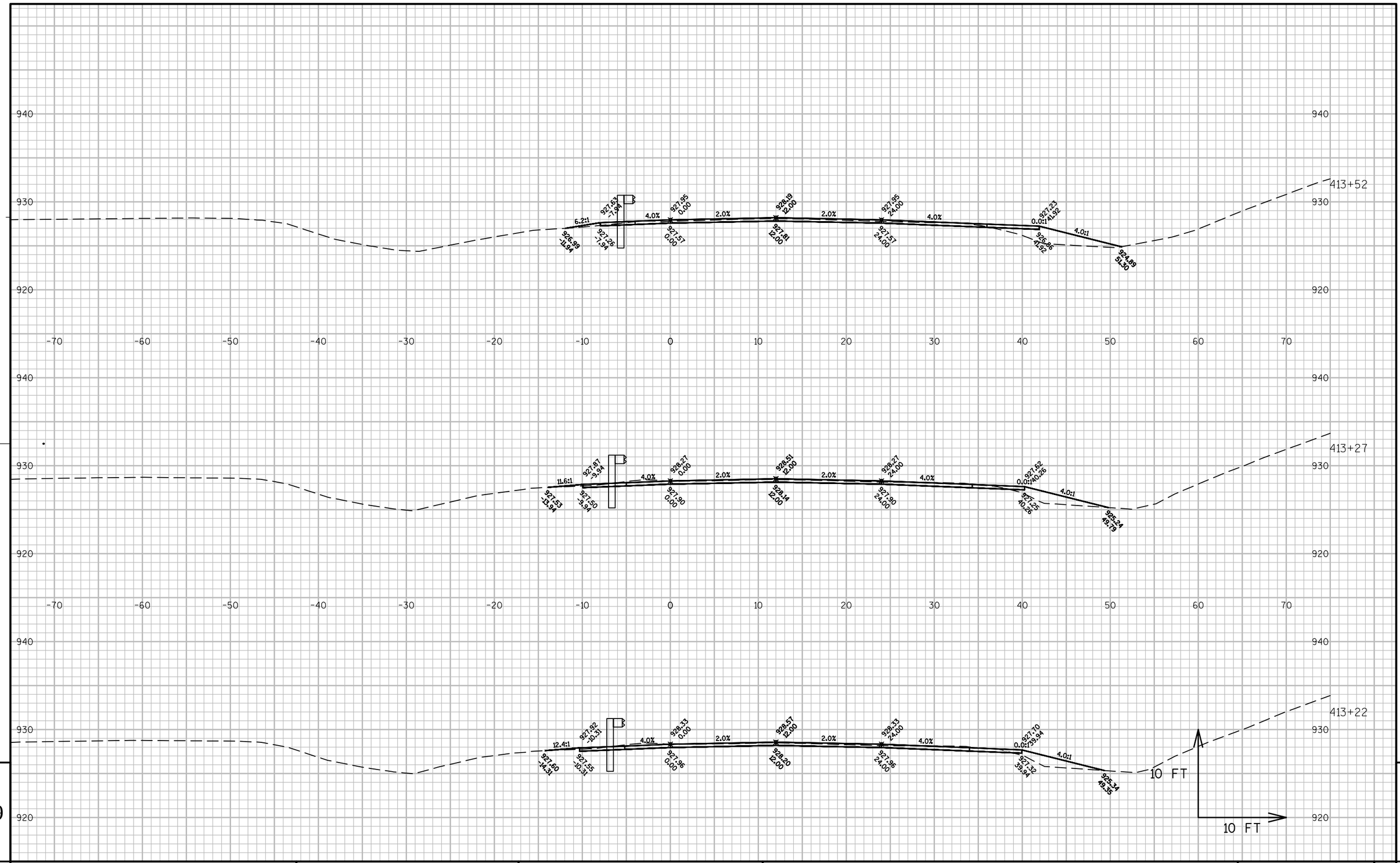
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PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET 264	E

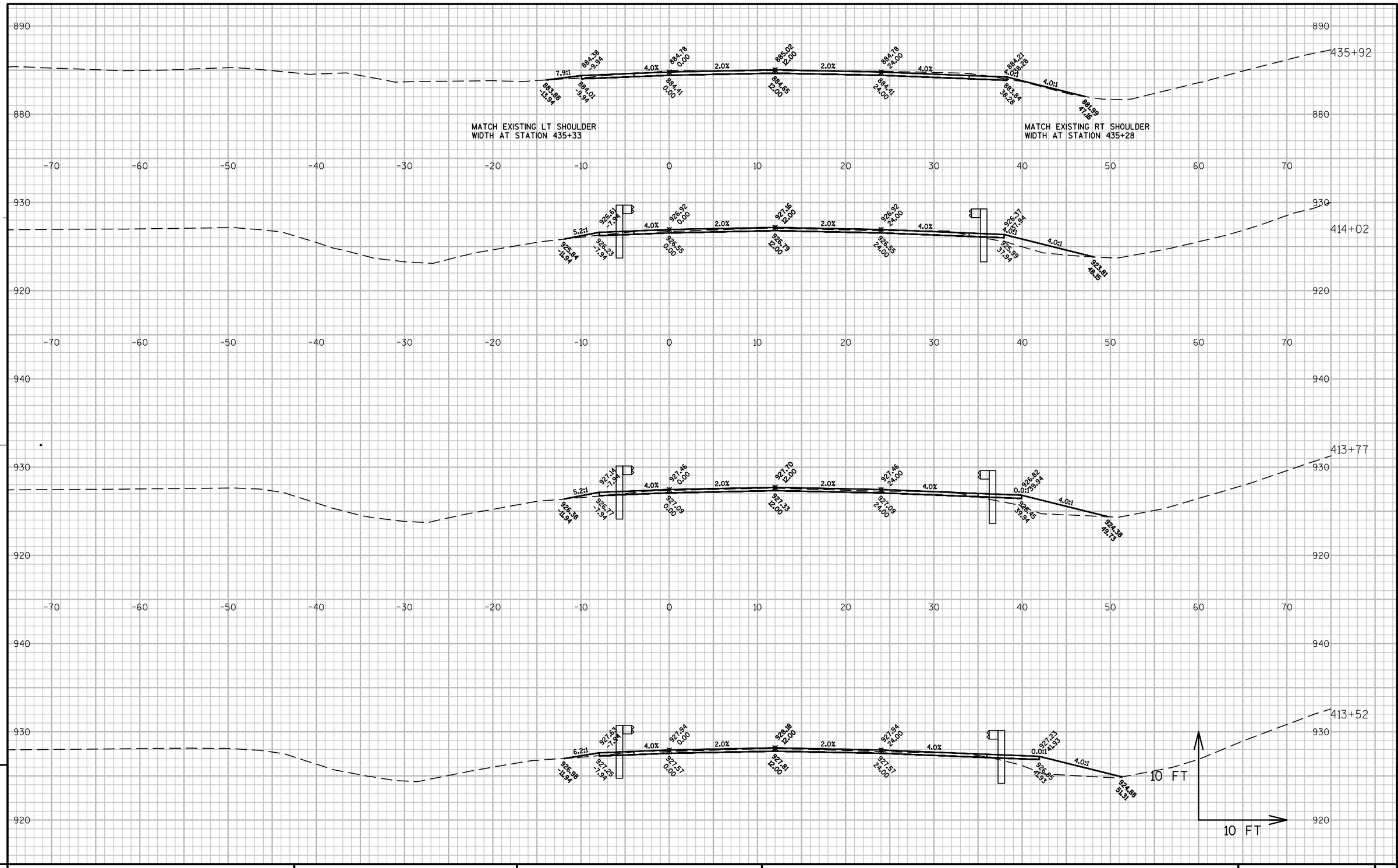


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

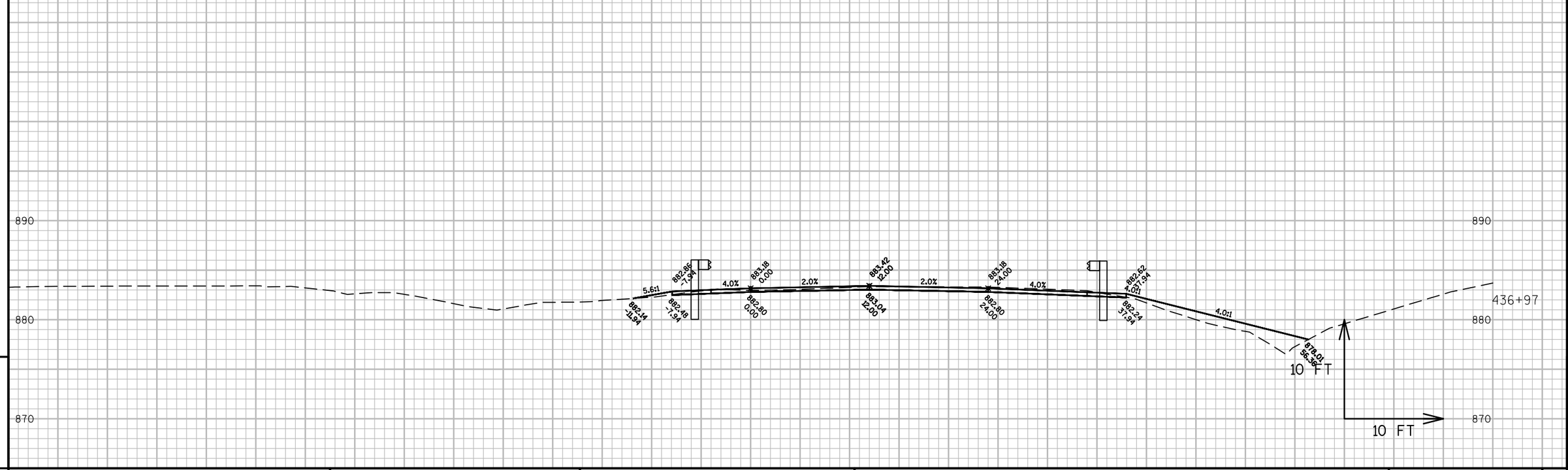
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PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:15 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

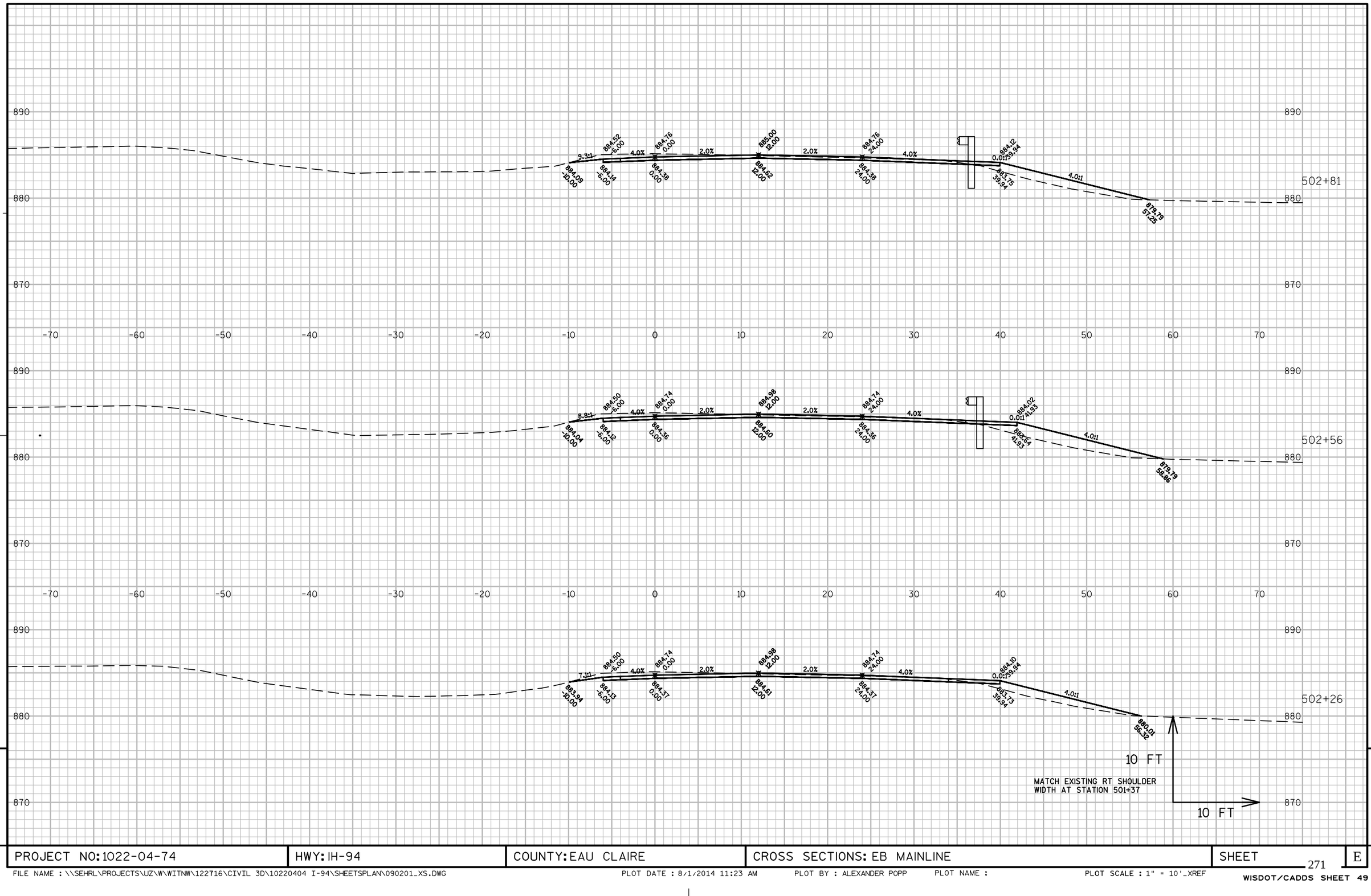


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:16 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

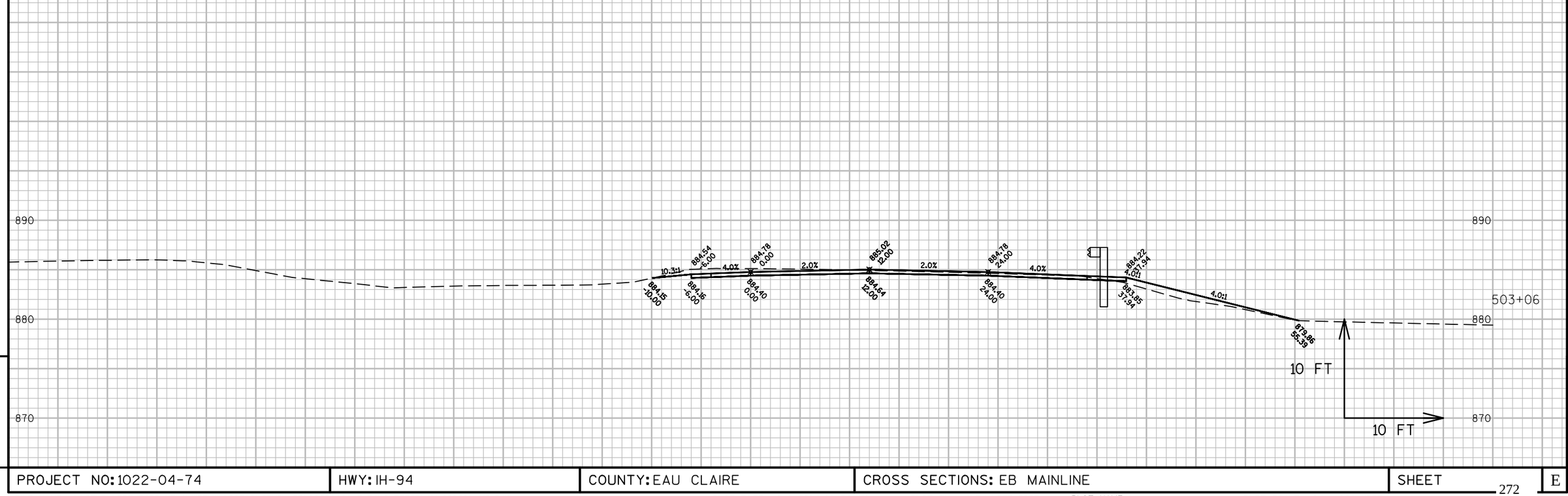
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:23 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF



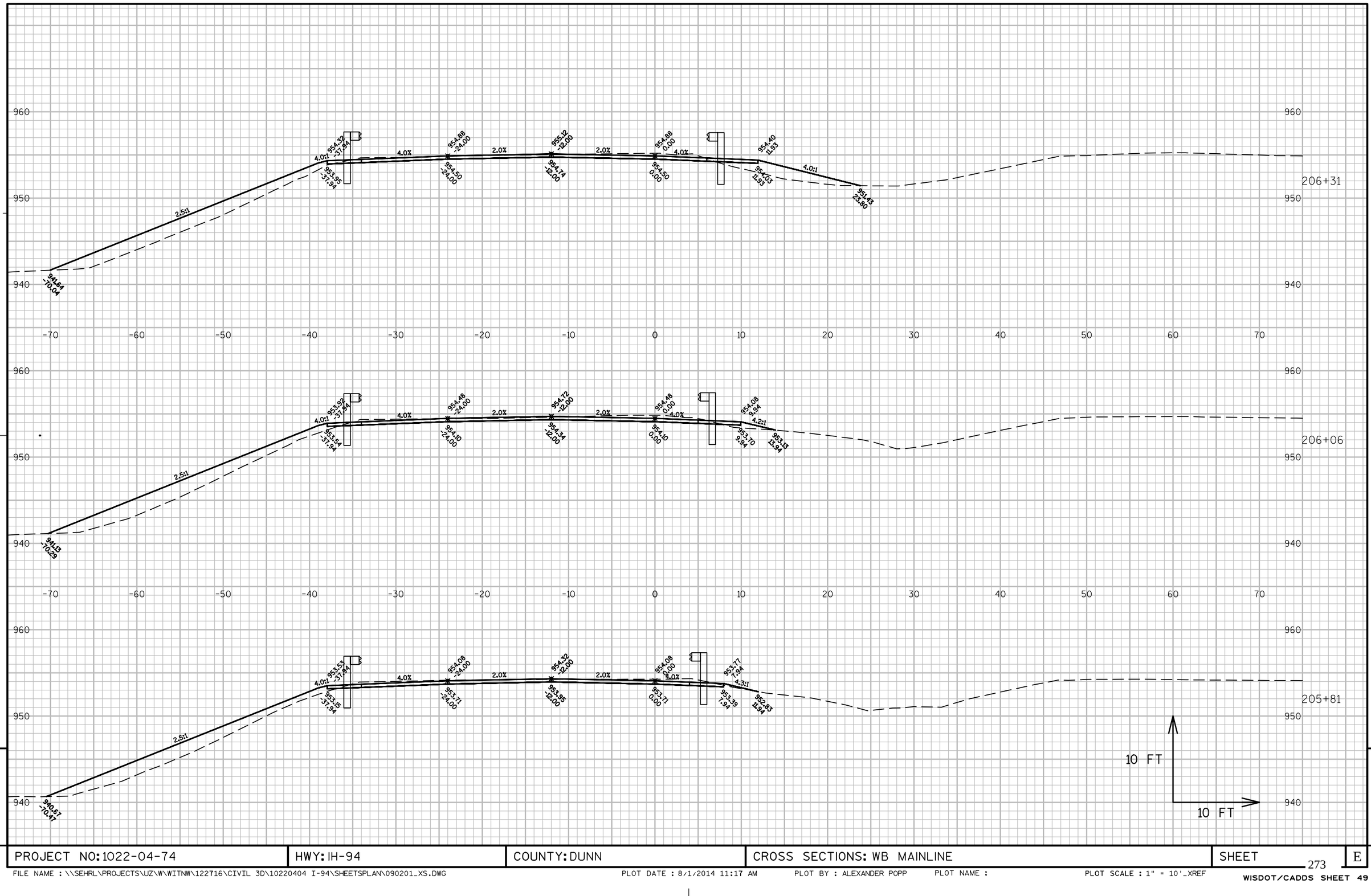
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: EB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:23 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: EB MAINLINE	SHEET	E

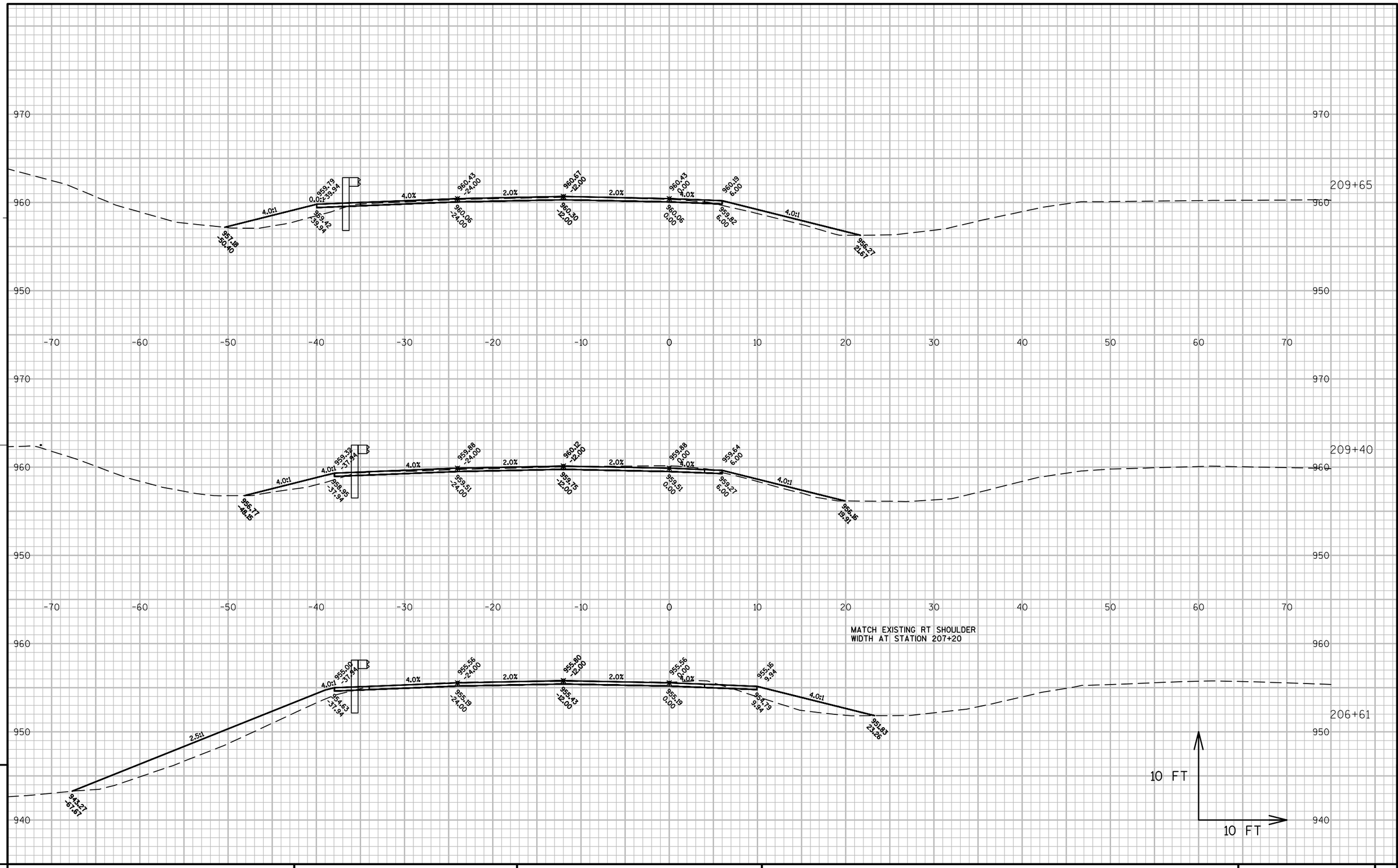
FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:24 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET 273	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:17 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

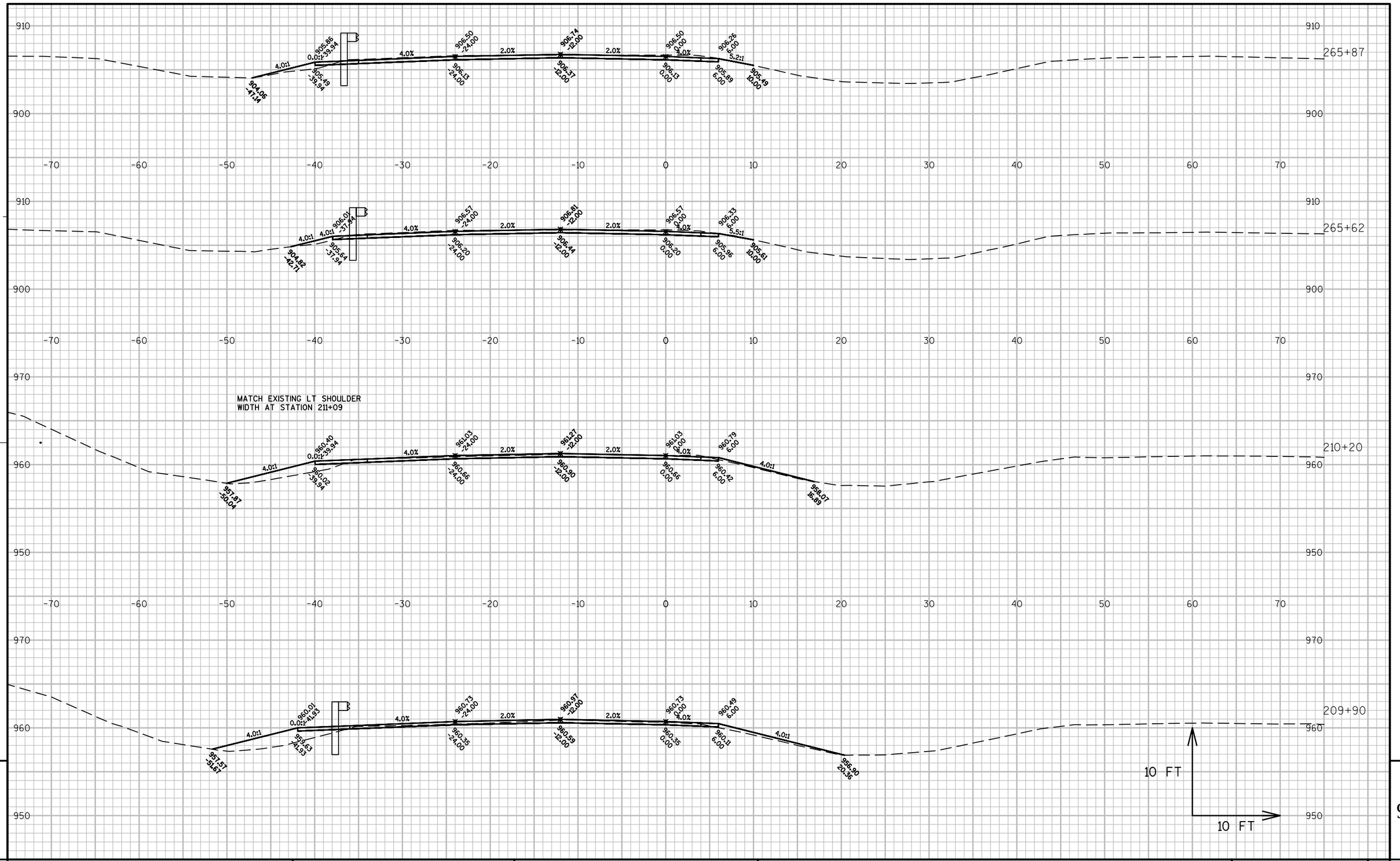
WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET 274	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:17 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

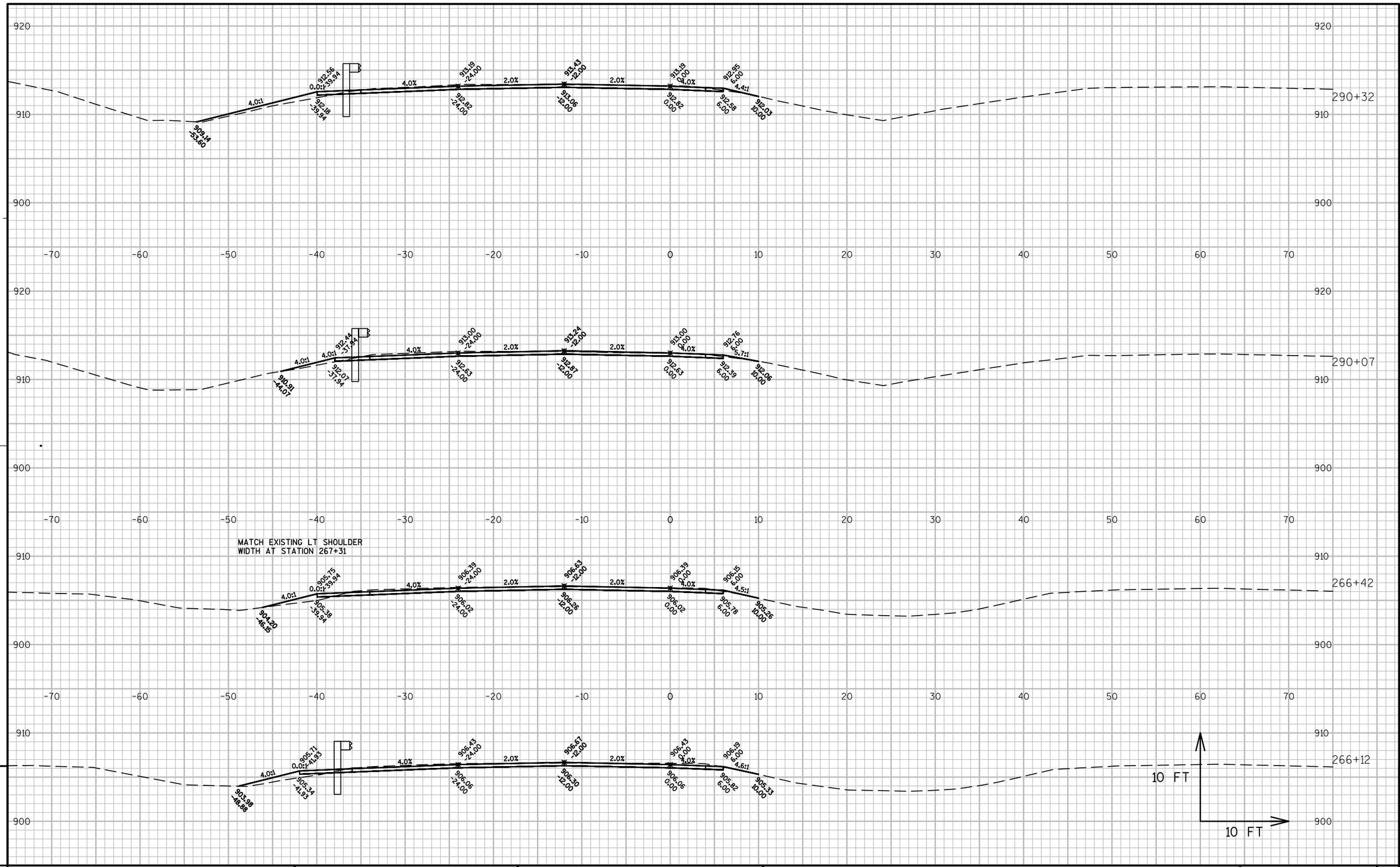
WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET 275	E

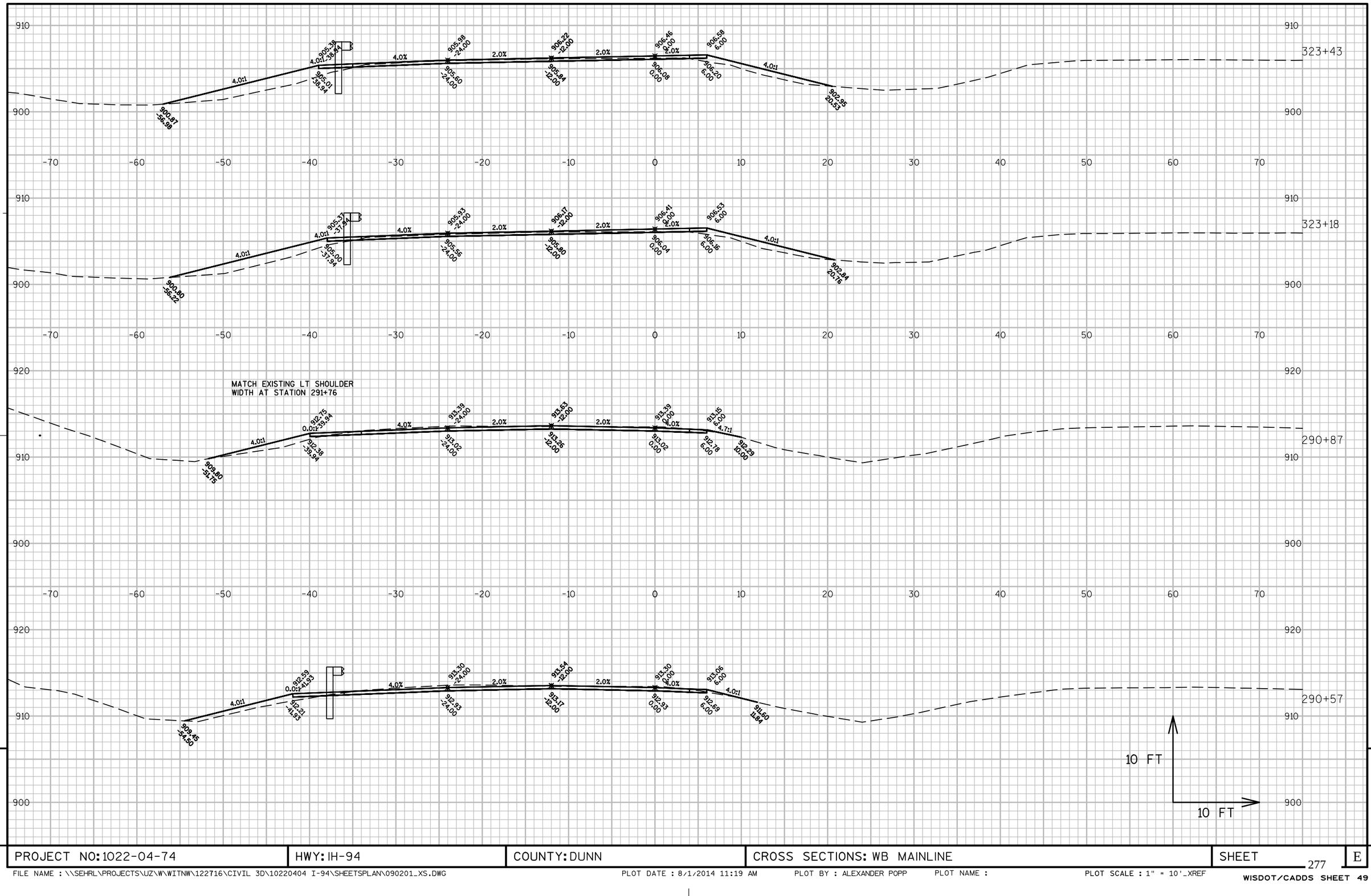
FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:18 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:18 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF



9

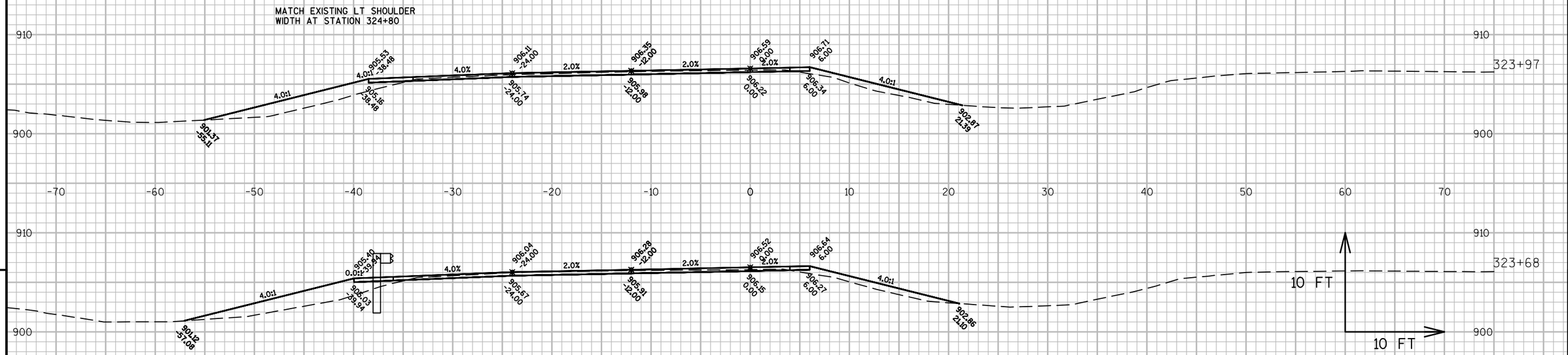
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PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET 277	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:19 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

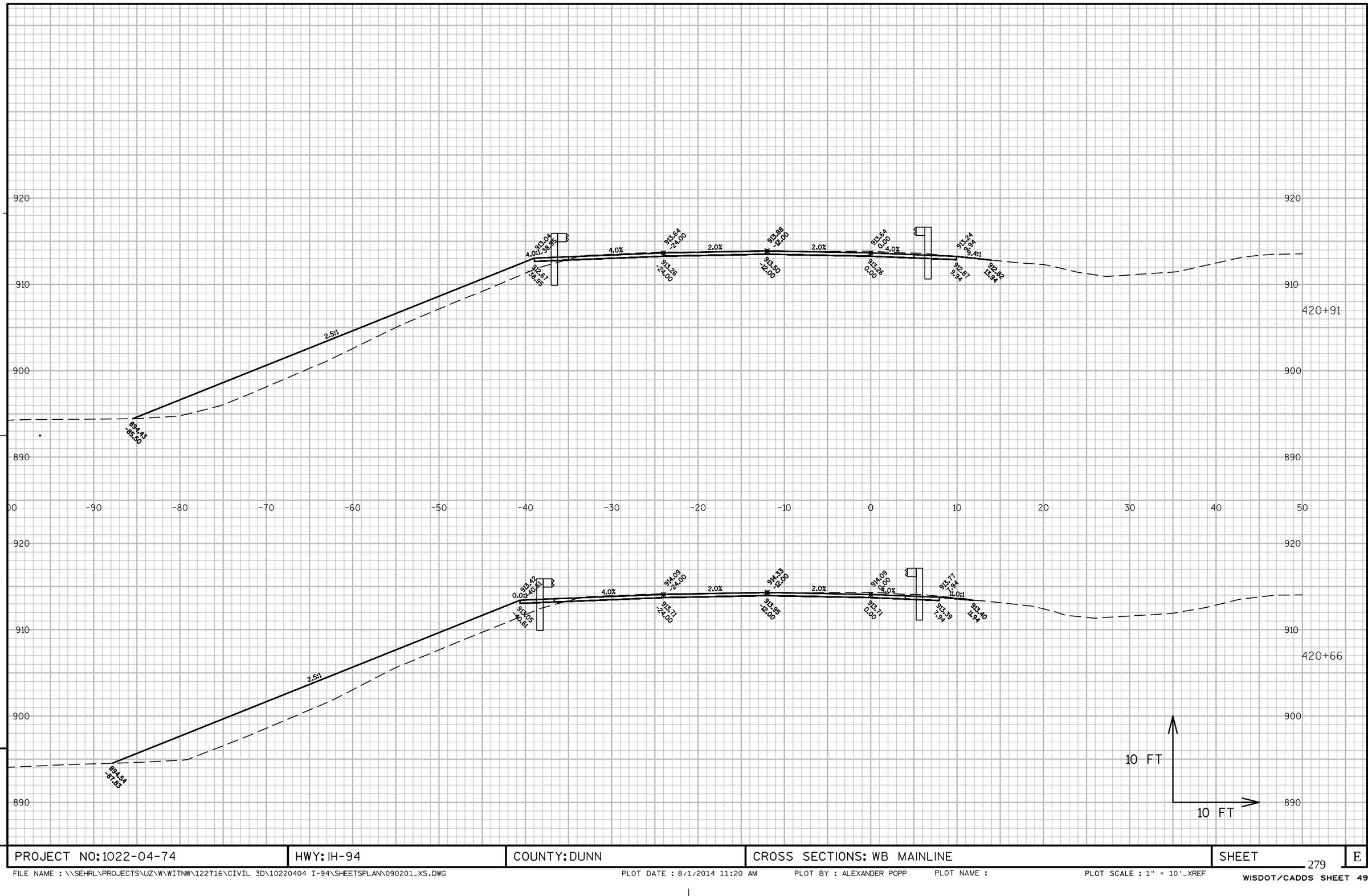
WISDOT/CADDS SHEET 49

MATCH EXISTING LT SHOULDER
WIDTH AT STATION 324+80



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET	E

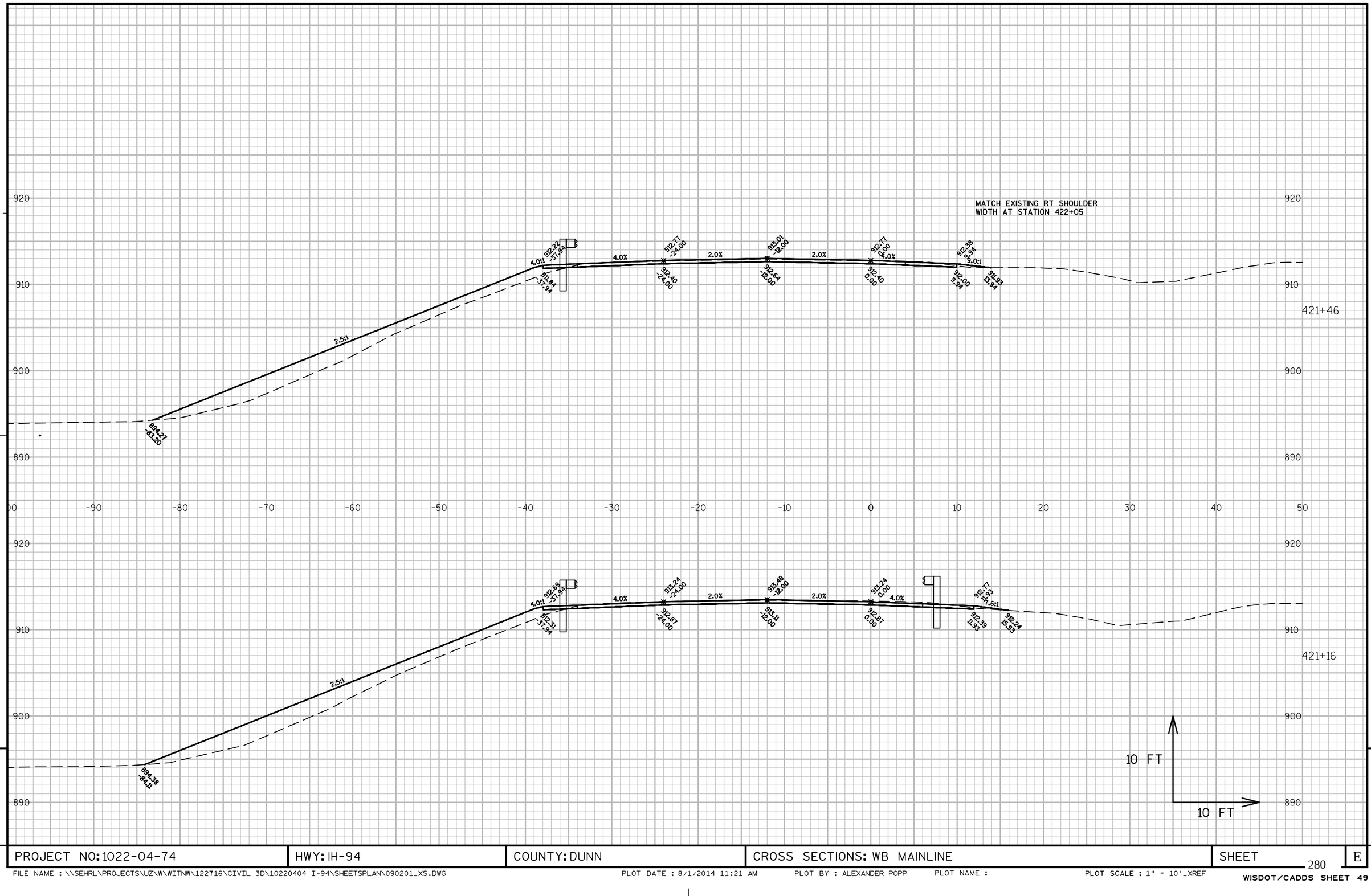
FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:20 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



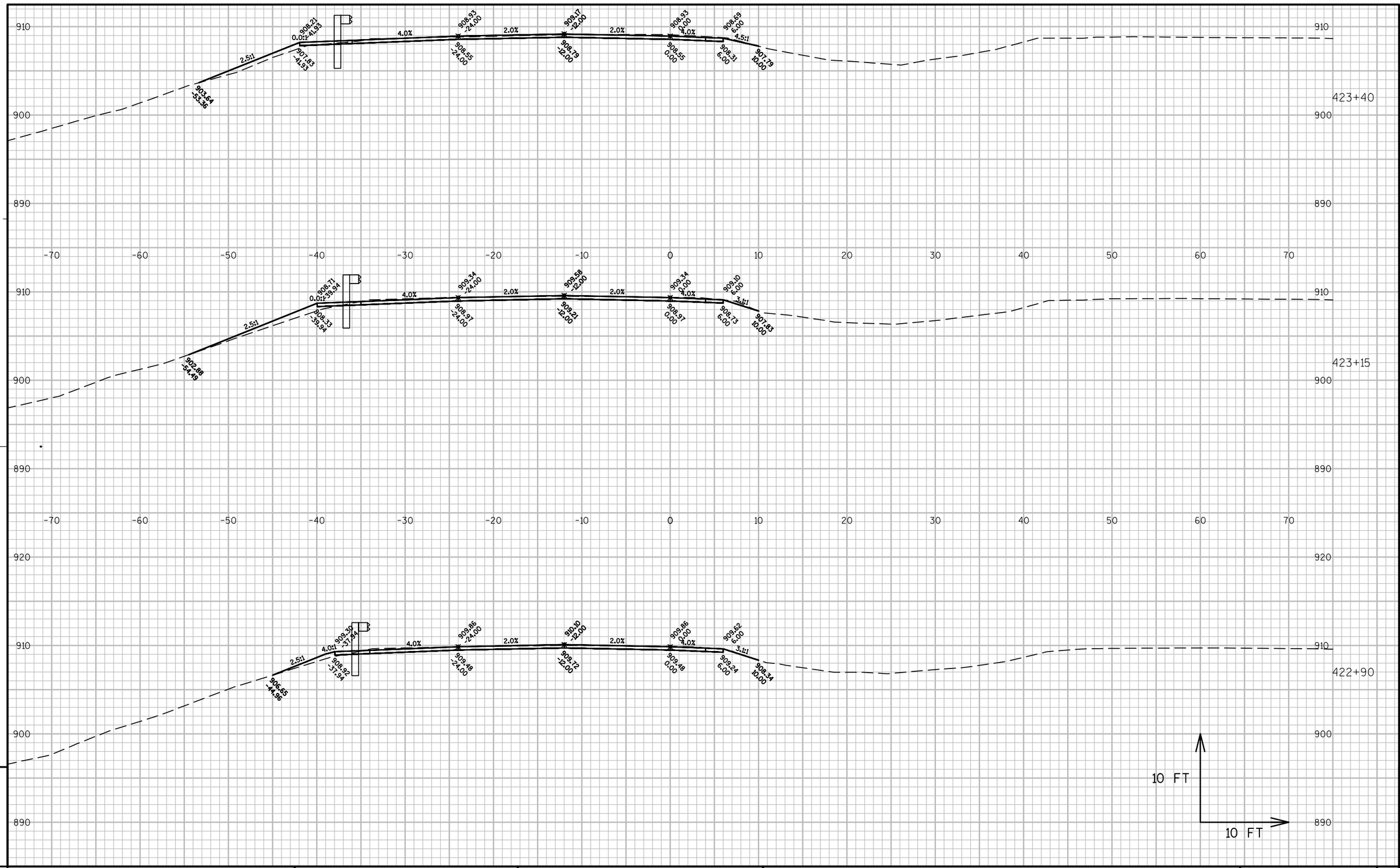
PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET 279	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:20 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

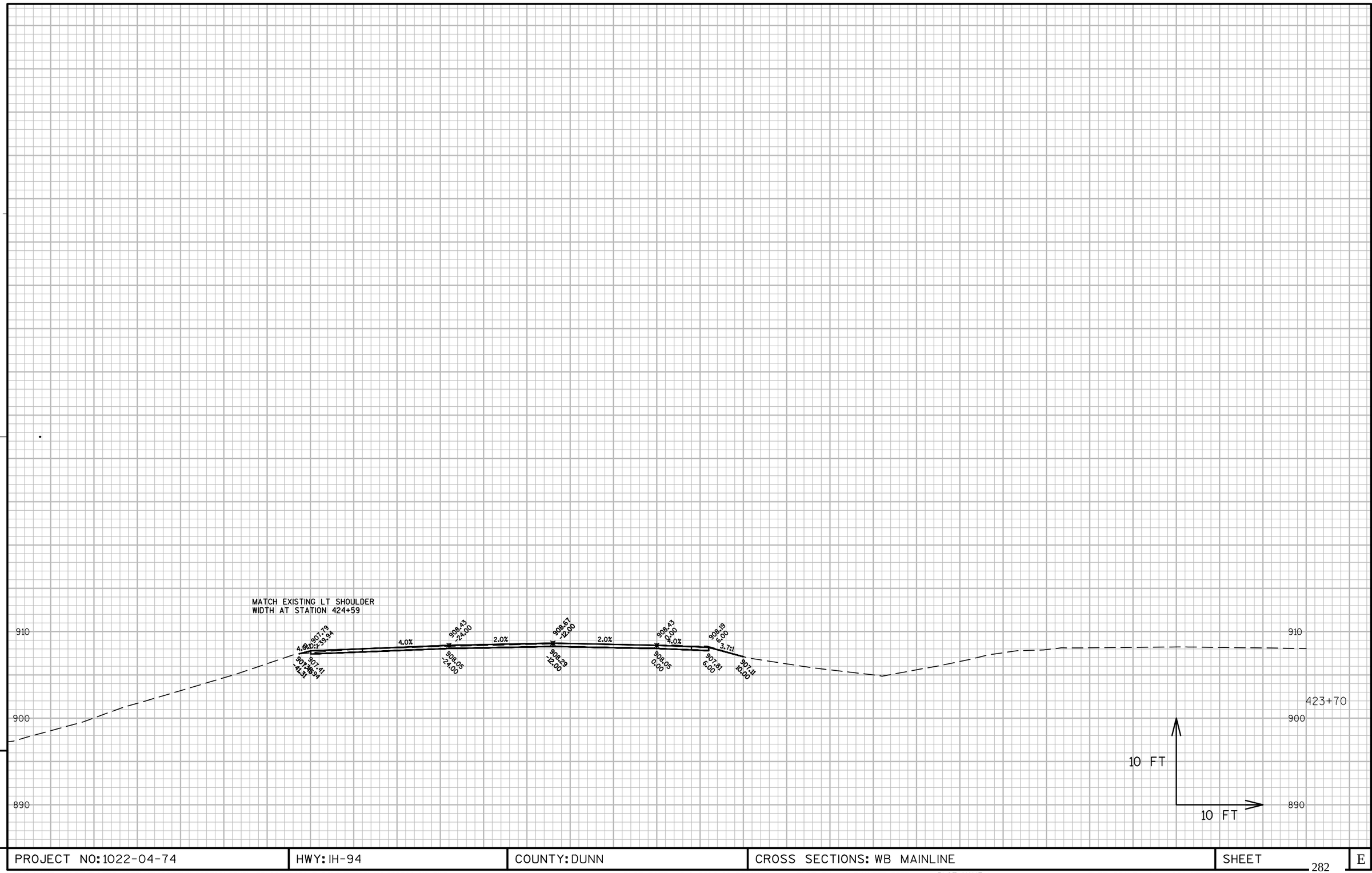


PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET 280	E



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:21 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

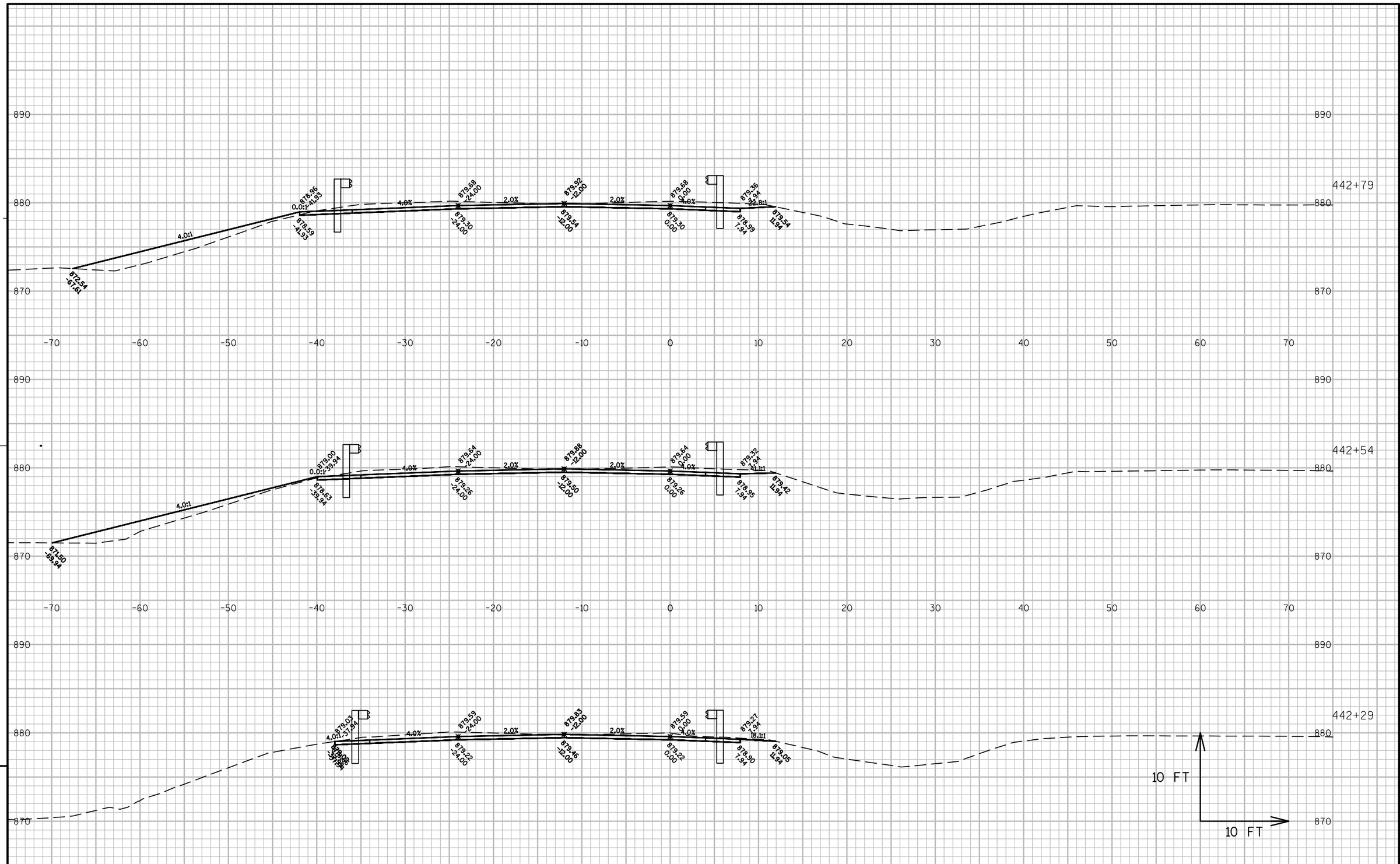


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PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: DUNN	CROSS SECTIONS: WB MAINLINE	SHEET	E

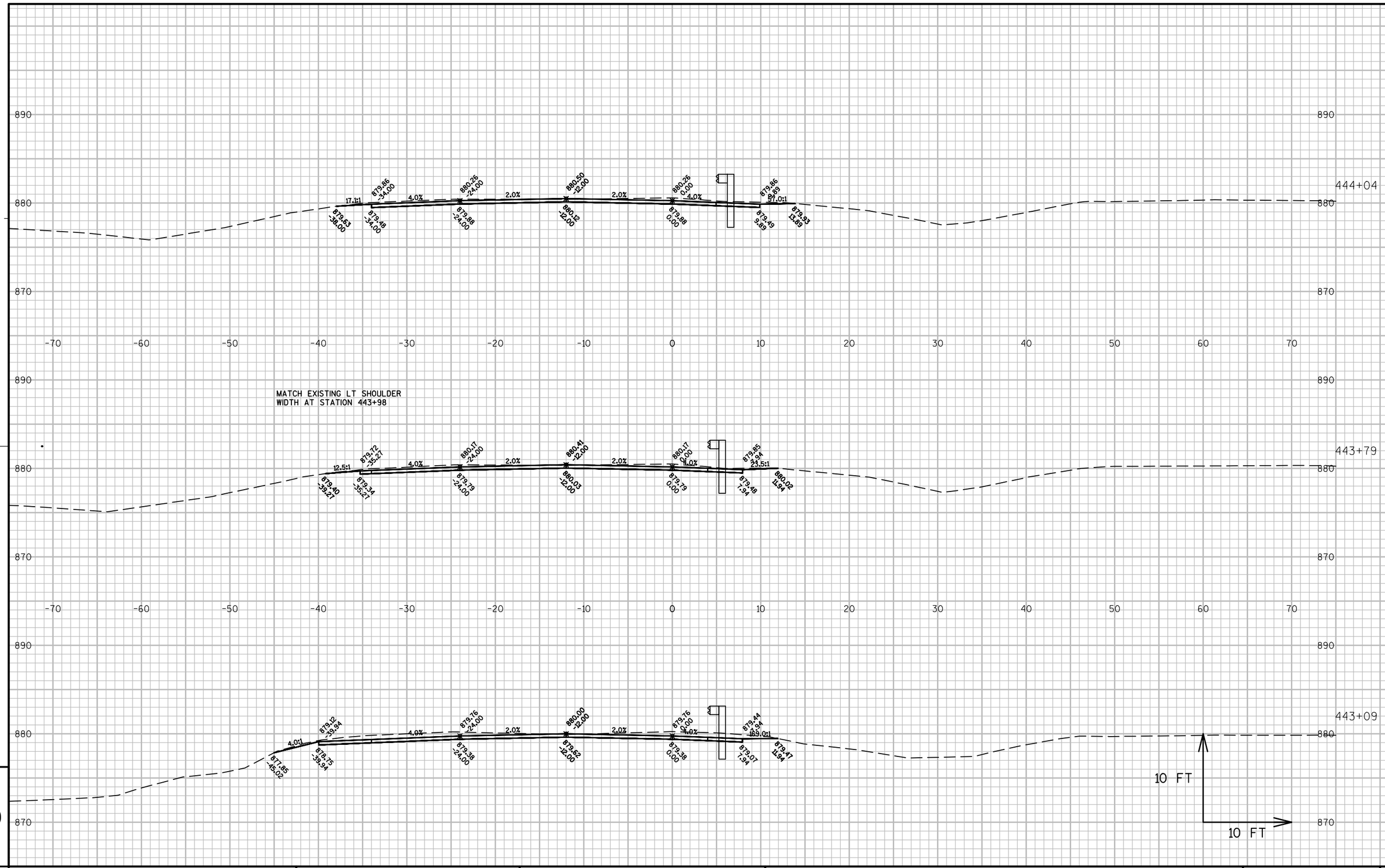
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FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:22 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: WB MAINLINE	SHEET	E

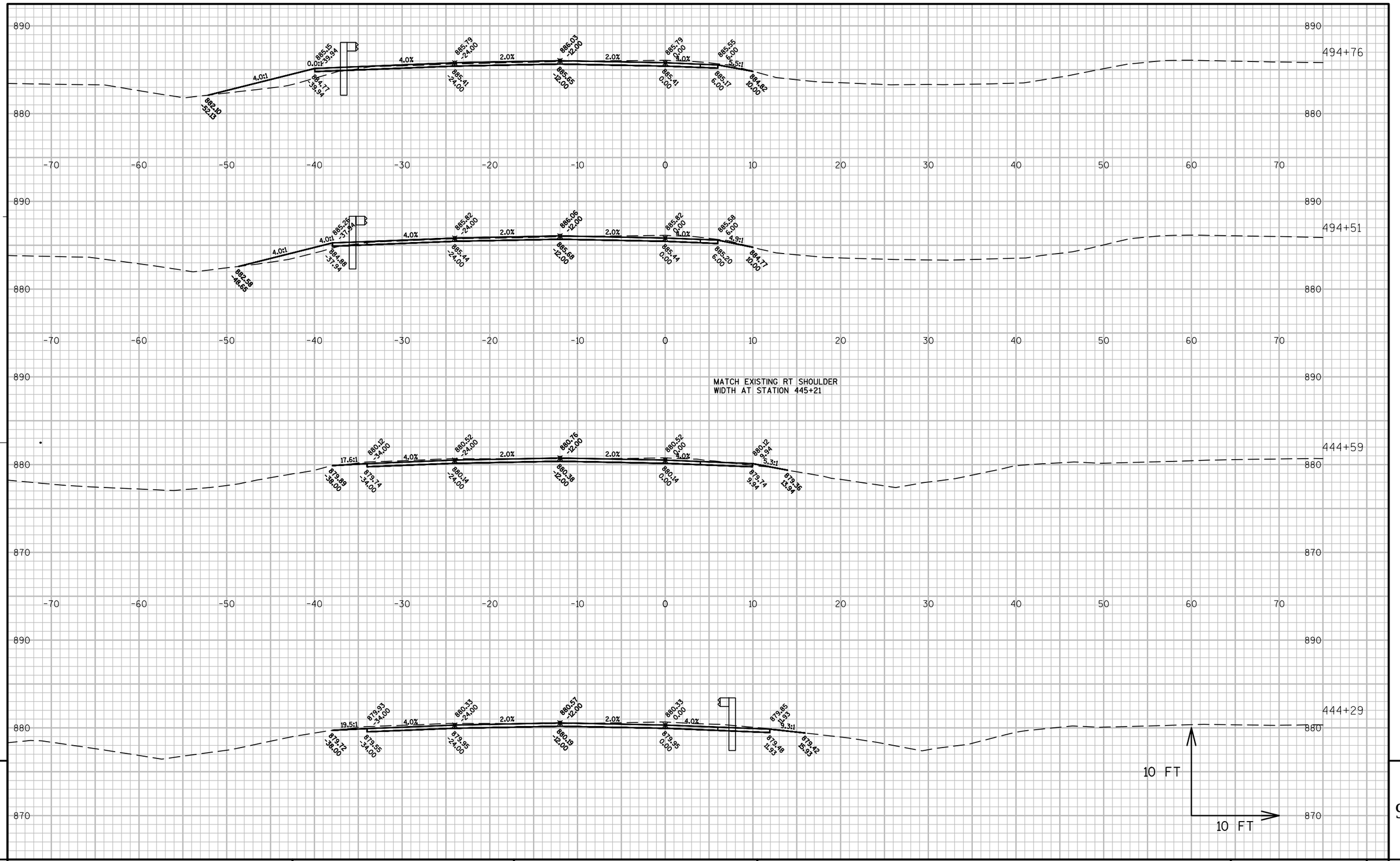
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PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: WB MAINLINE	SHEET 284	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:25 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

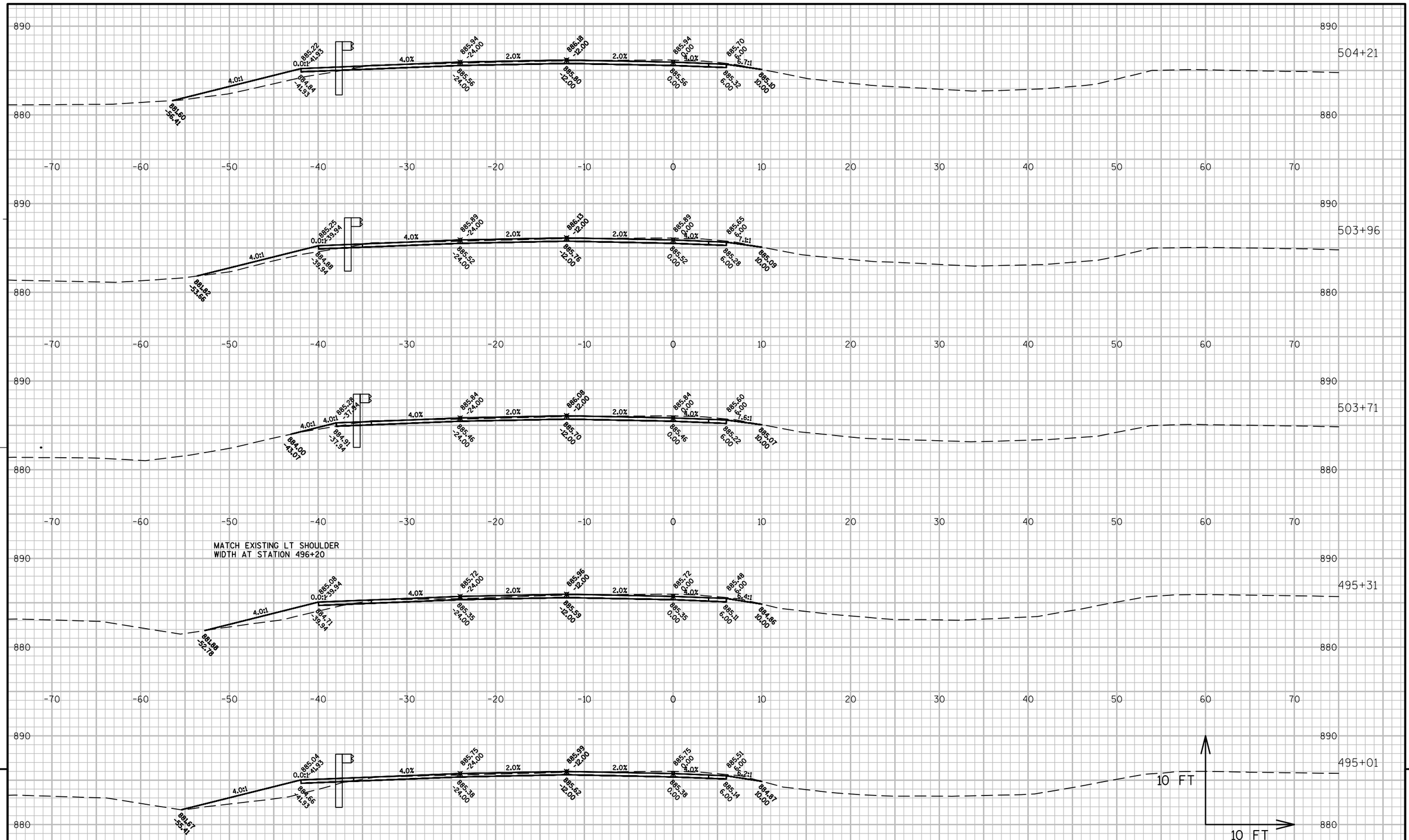
WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: WB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:25 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

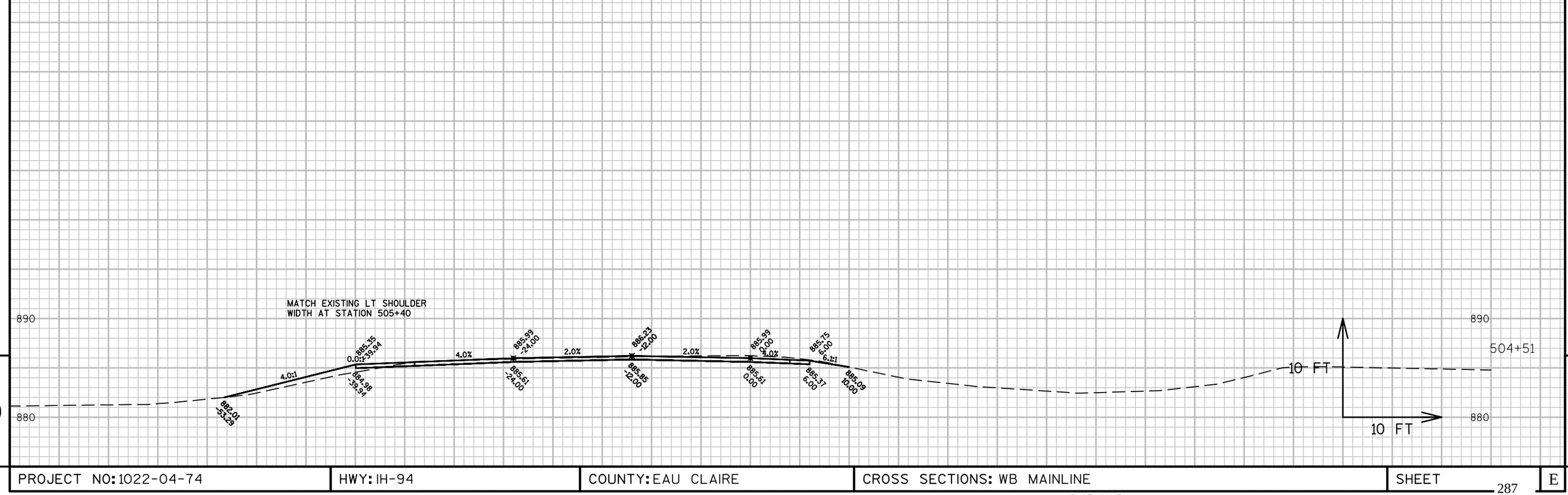
WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: WB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:26 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1022-04-74	HWY: IH-94	COUNTY: EAU CLAIRE	CROSS SECTIONS: WB MAINLINE	SHEET	E

FILE NAME : \\SEHRL\PROJECTS\UZ\W\WITNW\122716\CIVIL 3D\10220404 I-94\SHEETSPLAN\090201_XS.DWG PLOT DATE : 8/1/2014 11:27 AM PLOT BY : ALEXANDER POPP PLOT NAME : PLOT SCALE : 1" = 10'_XREF

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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