GRE

JANUARY 2021

PROJECT ID: 1221-09-71
WITH: 4540-27-71

COUNTY: SHEBOYGAN

ORDER OF SHEETS

Section No. 1 Title
Section No. 2 Typical Sections and Details
Section No. 3 Estimate of Quantities
Section No. 3 Miscellaneous Quantities
~~Section No. 4 Right of Way Plat~~
Section No. 5 Plan and Profile
Section No. 6 Standard Detail Drawings
Section No. 7 Sign Plates
~~Section No. 8 Structure Plans~~
~~Section No. 9 Computer Earthwork Data~~
~~Section No. 9 Cross Sections~~

TOTAL SHEETS = 136



20

DESIGN DESIGNATION

A.A.D.T.	2017	=	29,400
A.A.D.T.	2037	=	35,700
D.H.V.		=	20,706
D.D.		=	58/42
T.		=	9.8%
DESIGN SPEED		=	70
ESALS		=	13,000,000

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MILWAUKEE - GREEN BAY RD

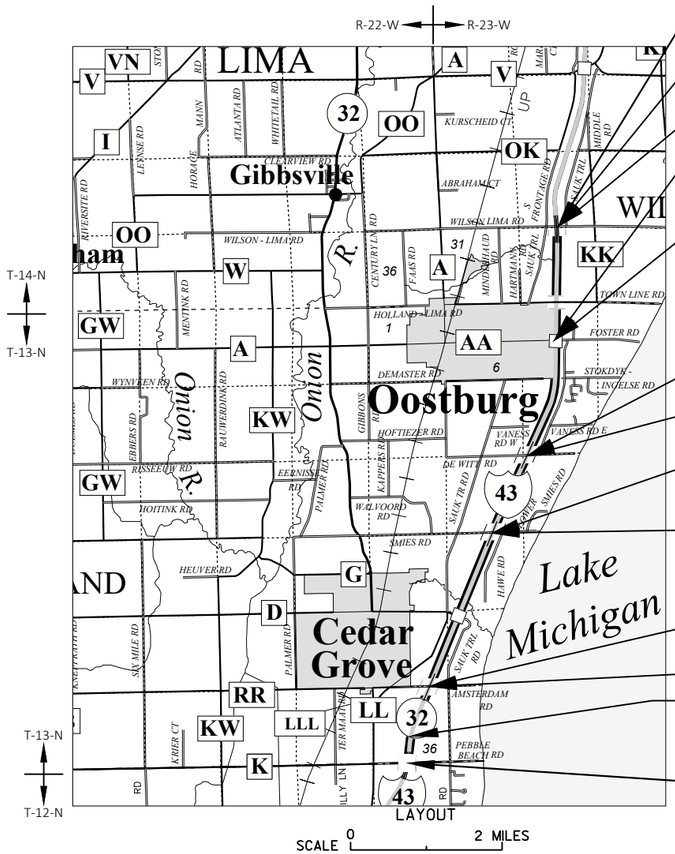
SCL - WILSON/LIMA RD

IH 43

SHEBOYGAN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1221-09-71	WISC 2021086	1

STATE PROJECT NUMBER
1221-09-71



END PROJECT 1221-09-71
STA 475+24.23 IH 43 NB R/L

EXCEPTION OF NET C/L LENGTH
STA 475+24.23 IH 43 NB R/L -
STA 476+40.23 IH 43 NB R/L
B-59-46

EXCEPTION OF NET C/L LENGTH
STA 475+29.86 IH 43 SB R/L -
STA 476+45.86 IH 43 SB R/L
B-59-45

EXCEPTION OF NET C/L LENGTH
STA 395+64.49 IH 43 NB R/L -
STA 397+23.15 IH 43 NB R/L
B-59-43

EXCEPTION OF NET C/L LENGTH
STA 395+61.98 IH 43 SB R/L -
STA 397+20.64 IH 43 SB R/L
B-59-42

EXCEPTION OF NET C/L LENGTH
STA 311+88.03 IH 43 NB R/L -
STA 313+16.59 IH 43 NB R/L
B-59-41

EXCEPTION OF NET C/L LENGTH
STA 311+42.96 IH 43 SB R/L -
STA 312+71.52 IH 43 SB R/L
B-59-40

EXCEPTION OF NET C/L LENGTH
STA 252+76.15 IH 43 NB R/L -
STA 254+02.19 IH 43 NB R/L
B-59-39

EXCEPTION OF NET C/L LENGTH
STA 252+35.45 IH 43 SB R/L -
STA 253+61.49 IH 43 SB R/L
B-59-38

EXCEPTION OF NET C/L LENGTH
STA 136+90.64 IH 43 NB R/L -
STA 138+24.20 IH 43 NB R/L
B-59-62

EXCEPTION OF NET C/L LENGTH
STA 136+51.14 IH 43 SB R/L -
STA 137+56.92 IH 43 SB R/L
B-59-63

EQUATION
STA 111+06.31 NB AH =
STA 1007+15.78 NB BK

BEGIN PROJECT 1221-09-71
STA 977+98.94 IH 43 NB R/L
Y=100,910.596
X=192,614.394

TOTAL NET LENGTH OF CENTERLINE = 7.346

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD83 (2011), NAVD88 (2012), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	PATTI NELSON
Project Manager	PAUL BRAUER
Regional Examiner	
Regional Supervisor	ROBERT WAGNER

APPROVED FOR THE DEPARTMENT

DATE: 5/1/19 Paul Brauer, P.E. (Signature)

E

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

ANY MESH MATERIAL THAT IS FOUND IN EXISTING PAVEMENT WILL BE INCIDENTAL TO THE BASE PATCHING CONCRETE. EXISTING PAVEMENT DEPTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD

ALL SHOULDER BASE PATCH LENGTHS ADJACENT TO CONTINUOUSLY REINFORCED CONCRETE REPAIRS SHALL MATCH THE REPAIR LENGTHS UNLESS OTHERWISE NOTED IN THE PLANS. INDIVIDUAL SHOULDER BASE PATCHES NOT ADJACENT TO CONTINUOUSLY REINFORCED CONCRETE REPAIRS ARE SIX (6) FEET IN LENGTH UNLESS OTHERWISE NOTED IN THE PLANS.

PERMANENT SIGNING WILL BE REPLACED TO AVOID UTILITY CONFLICTS.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH WERE DISTURBED BY CONSTRUCTION ACTIVITY.

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

PRIOR TO ORDERING DRAINAGE STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION TIN THE PLAN WITH THE ENGINEER.

MISCELLANEOUS REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWCUT AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

UTILITY CONTACTS

WE ENERGIES - ELECTRICITY
DAVID WOCHINSKI
W140 N9100 LILLY ROAD
MENOMONEE FALLS, WI 53051
(262)502-6812
DAVID.WOCHINSKI@WE-ENERGIES.COM

WE ENERGIES - GAS/PETROLEUM
ALEX DANTINNE
500 S 116TH ST
WEST ALLIS, WI 53214
(920)621-6903
ALEX.DANTINNE@WE-ENERGIES.COM

CHARTER COMMUNICATIONS -
STEVEN CRAMER
COMMUNICATION LINE
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212-4002
(414)277-4045
STEVE.CRAMER@CHARTER.COM

CENTURYLINK COMMUNICATIONS,
LLC - COMMUNICATION LINE
TED FROECHTE
11111 DORSETT RD
MARYLAND HEIGHTS, MO 63043
(414)416-5190
TED.FROECHTE@CENTURYLINK.COM

FRONTIER COMMUNICATIONS OF WI
LLC - COMMUNICATION LINE
CAL KLADE
1851 N 14TH AVE
WAUSAU, WI 54401
(715)847-1525
CAL.KLADE@FTR.COM

LEVEL 3 COMMUNICATIONS,
LLC - COMMUNICATION LINE
SASHA DEMIAN
3235 INTERTECH DR
BROOKFIELD, WI 53045
(414)908-1042
SASHA.DEMIAN@LEVEL3.COM

AT&T WISCONSIN - COMMUNICATION LINE
CHUCK BARTELT
70 E DIVISION ST
FOND DU LAC, WI 54935
(920)929-1013 (O)
(920)410-5104 (C)
CB1461@ATT.COM

ALLIANT ENERGY - ELECTRICITY
JOE KOCHAN
4421 TOWER DR
SHEBOYGAN, WI 53081
(920)459-6331 (O)
(920)948-2052 (C)
JOEKOCHAN@ALLIANTENERGY.COM

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

DNR AREA LIAISON

JAY SCHIEFELBEIN
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920)662-5472
JEREMIAH.SCHIEFELBEIN@WI.GOV

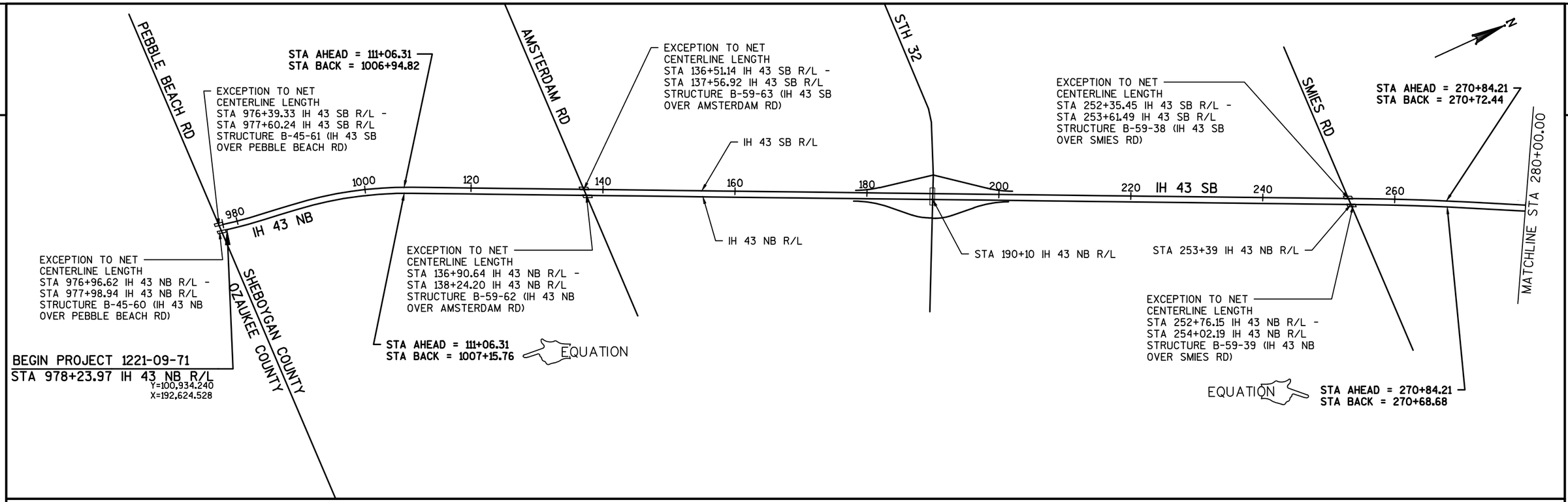
SHEBOYGAN COUNTY COMMISSIONER

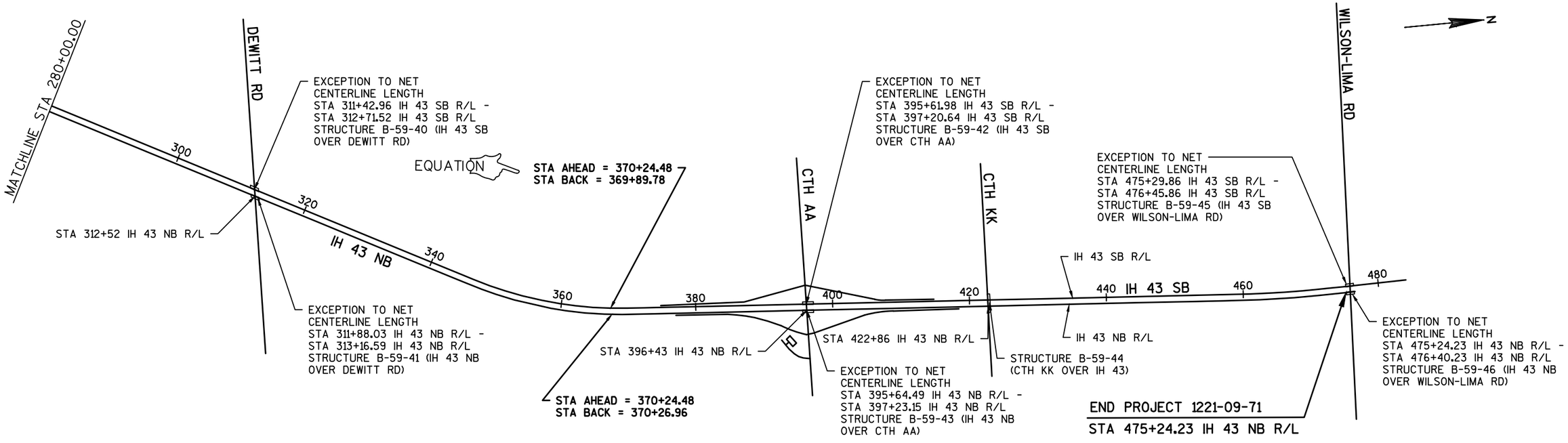
GREG SCHNELL
HIGHWAY COMMISSIONER
1211 NORTH 23RD ST
SHEBOYGAN, WI 53081
(920)459-3822
GREG.SCHNELL@SHEBOYGANCOUNTY.COM

NE REGION SURVEY COORDINATOR

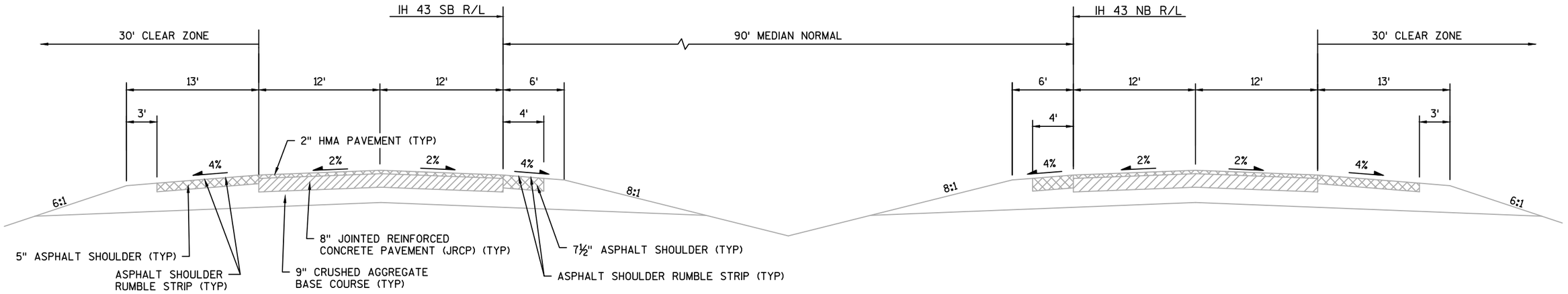
CORMAC MCINNIS, PLS
WISDOT - NE REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920)492-5638
CORMAC.MCINNIS@DOT.WI.GOV

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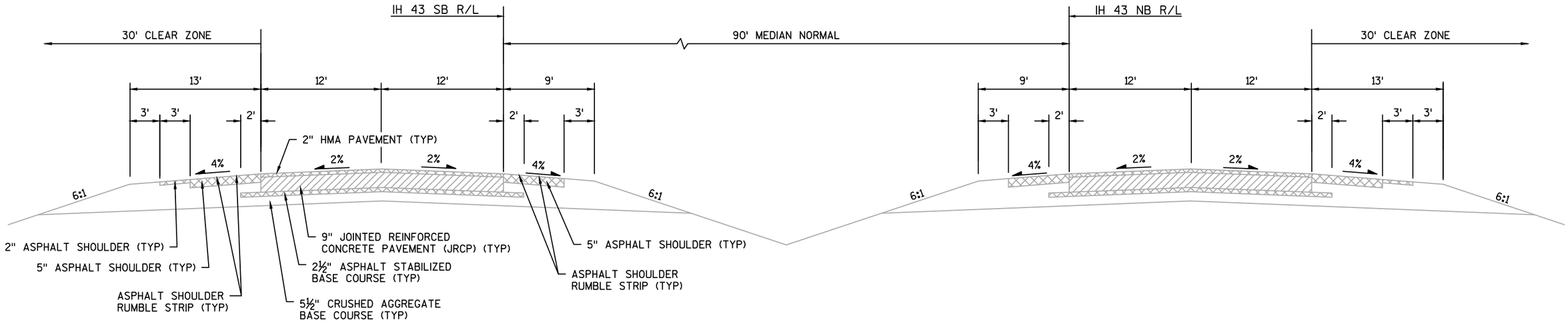


PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET 3	E



TYPICAL EXISTING CROSS SECTION FOR IH 43

STA 977+98.94 IH 43 NB TO 165+00 IH 43 NB

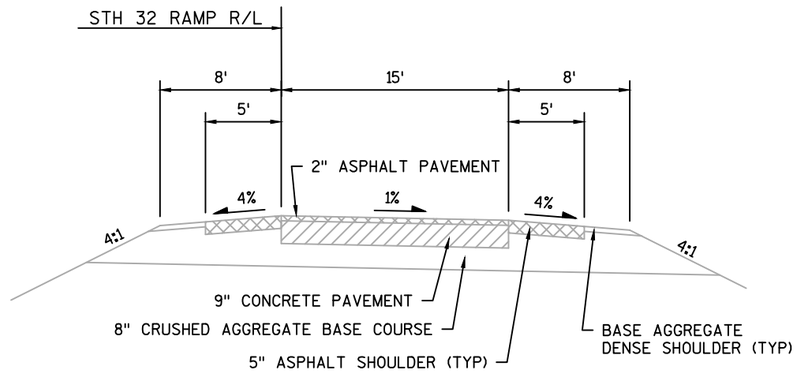


TYPICAL EXISTING CROSS SECTION FOR IH 43

STA 165+00 IH 43 NB TO 475+24.23 IH 43 NB

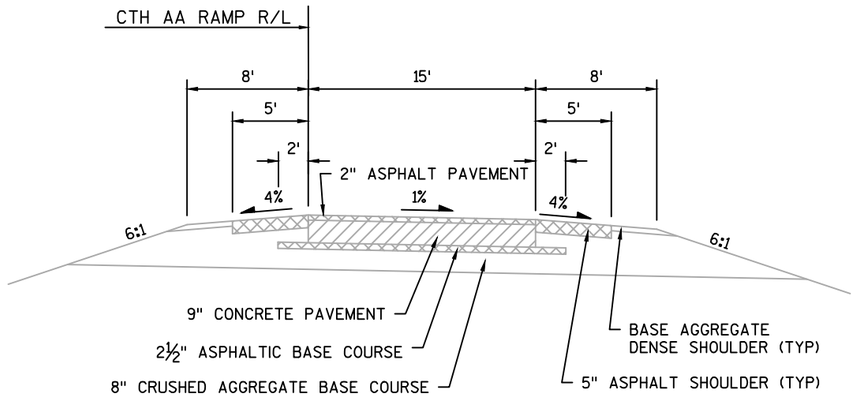
PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 4	E

2



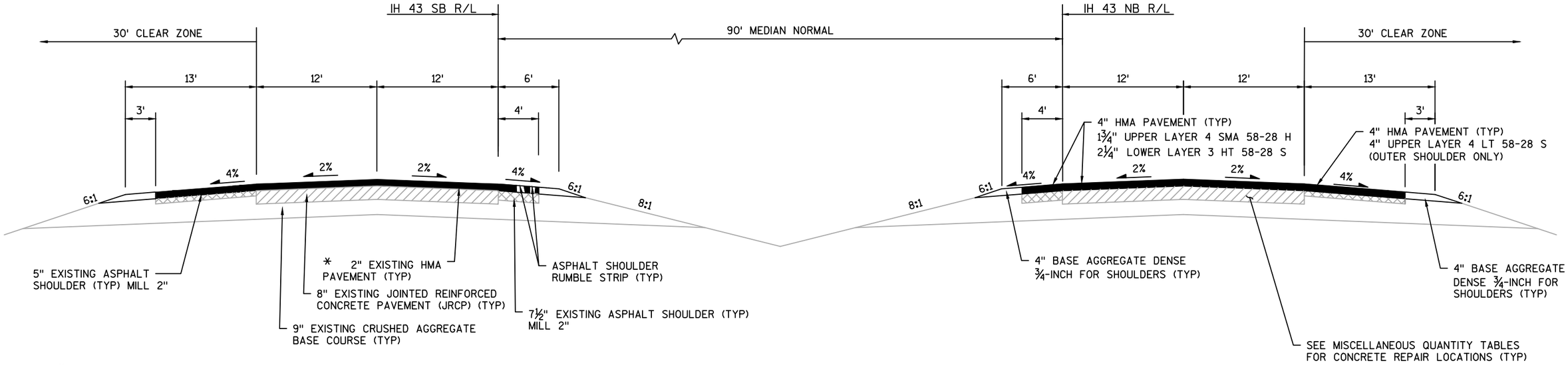
TYPICAL EXISTING CROSS SECTION FOR RAMPS AT STH 32

STA 178+20 TO 181+36 SE RAMP
STA 178+18 TO 180+20 SW RAMP
STA 199+30 TO 201+00 NE RAMP
STA 198+47 TO 200+50 NW RAMP



TYPICAL EXISTING CROSS SECTION FOR RAMPS AT CTH AA

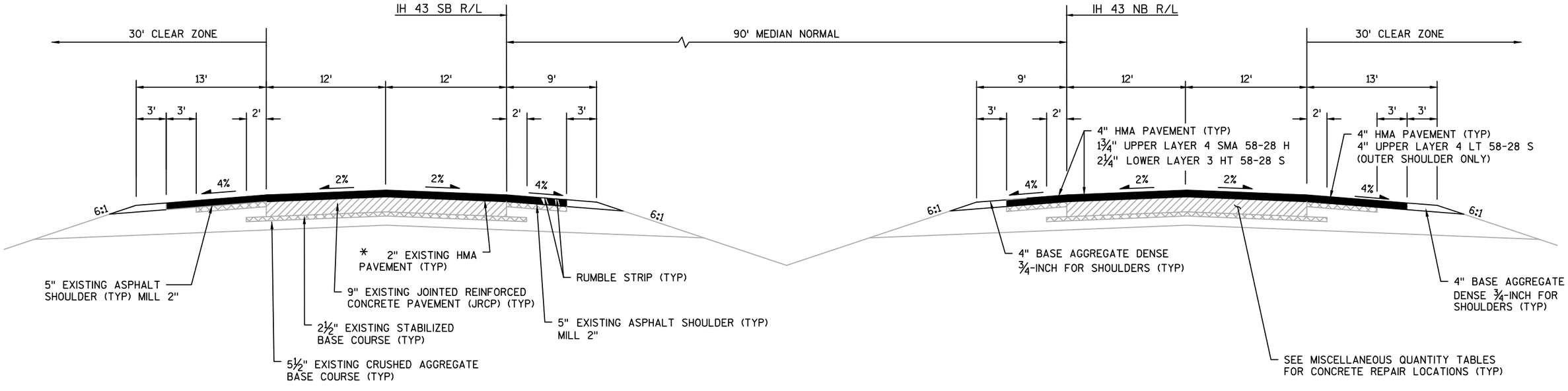
STA 385+00 TO 387+13 SE RAMP
STA 385+50 TO 387+24 SW RAMP
STA 406+44 TO 408+00 NE RAMP
STA 405+41 TO 408+00 NW RAMP



* MAINLINE EXISTING PAVEMENT SHALL BE MILLED 2" BEGINNING AT THE OUTSIDE LANE EDGE HOLDING A 0.02'/' SLOPE TO THE CENTERLINE. PAVED SHOULDERS SHALL BE MILLED A UNIFORM 2".

TYPICAL FINISHED CROSS SECTION FOR IH 43

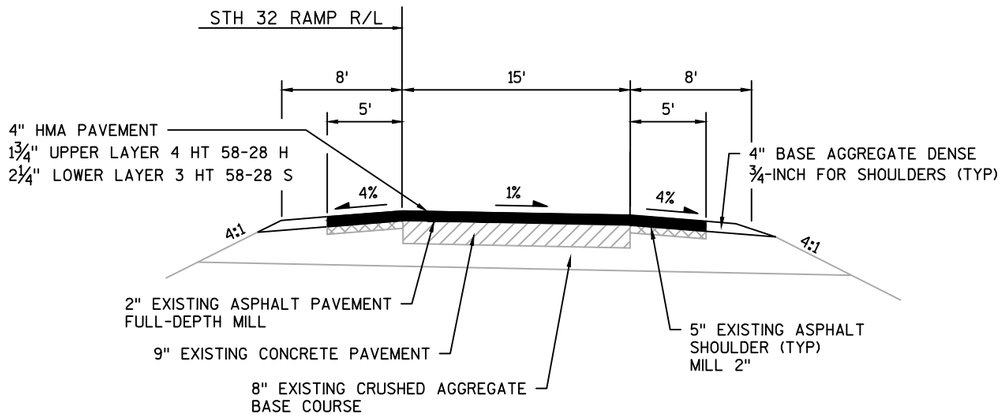
STA 977+98.94 IH 43 NB TO 165+00 IH 43 NB



* MAINLINE EXISTING PAVEMENT SHALL BE MILLED 2" BEGINNING AT THE OUTSIDE LANE EDGE HOLDING A 0.02'/' SLOPE TO THE CENTERLINE. PAVED SHOULDERS SHALL BE MILLED A UNIFORM 2".

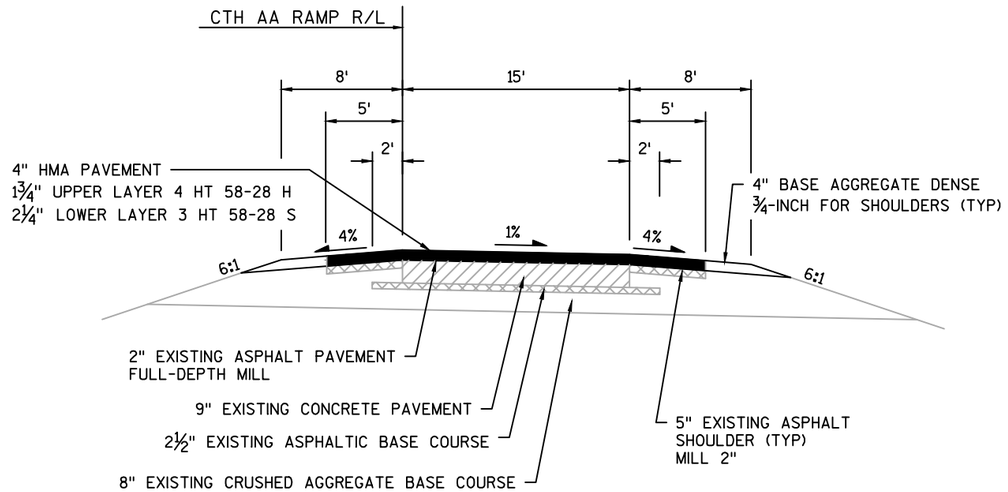
TYPICAL FINISHED CROSS SECTION FOR IH 43

STA 165+00 IH 43 NB TO 475+24.23 IH 43 NB



TYPICAL FINISHED CROSS SECTION FOR RAMPS AT STH 32

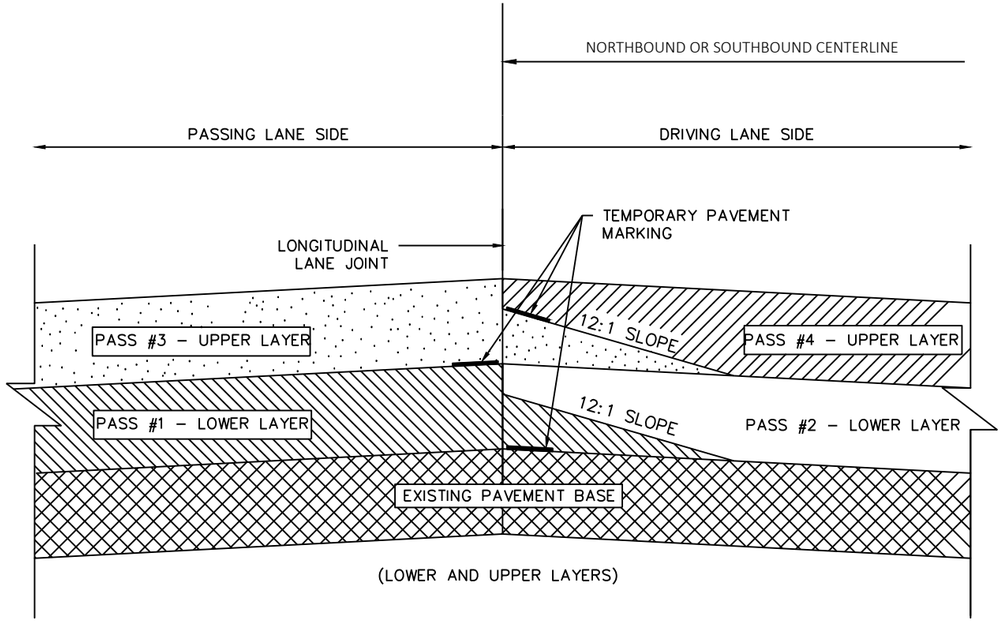
STA 178+20 TO 181+36 SE RAMP
STA 178+18 TO 180+20 SW RAMP
STA 199+30 TO 201+00 NE RAMP
STA 198+47 TO 200+50 NW RAMP



TYPICAL FINISHED CROSS SECTION FOR RAMPS AT CTH AA

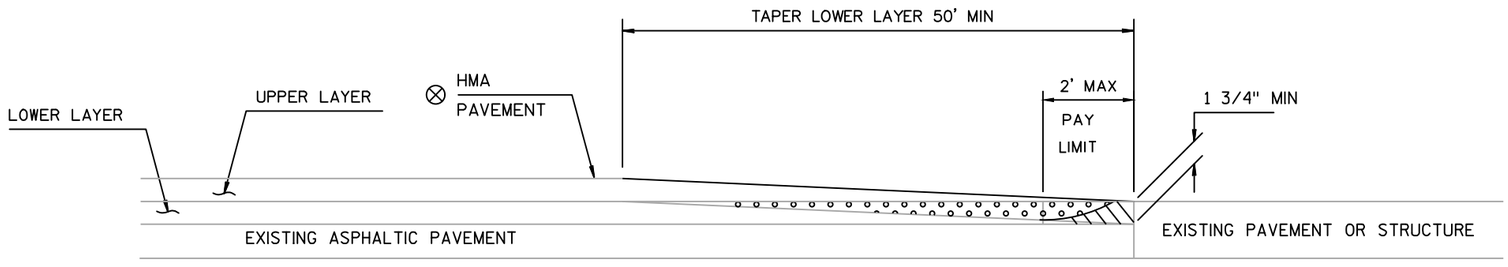
STA 385+00 TO 387+13 SE RAMP
STA 385+50 TO 387+24 SW RAMP
STA 406+44 TO 408+00 NE RAMP
STA 405+41 TO 408+00 NW RAMP

2



DETAIL OF TAPERED AND NOTCHED LONGITUDINAL JOINTS

AND PAVING LAYER ORDER TO MAINTAIN TRAFFIC



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

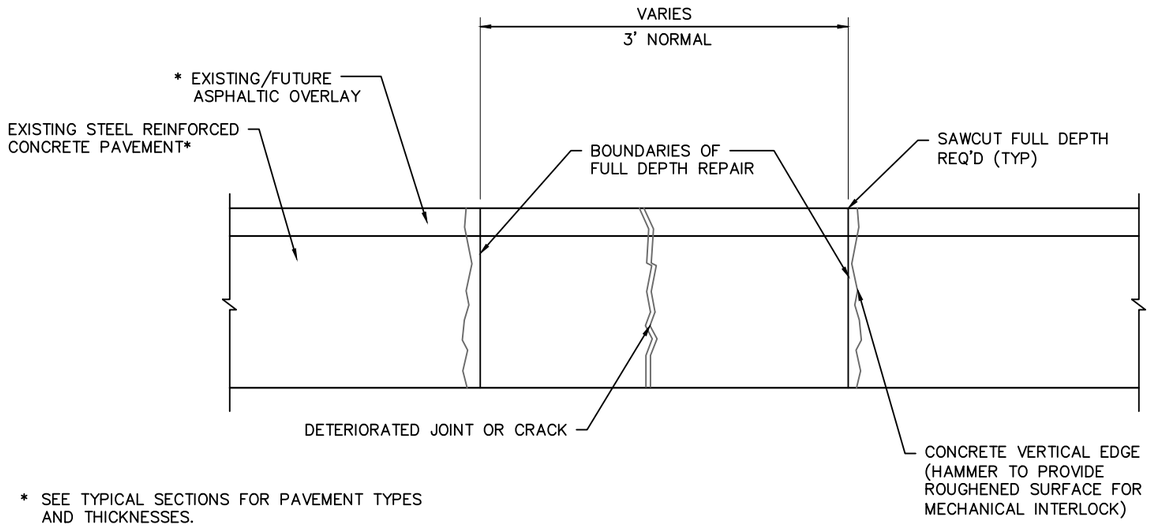
REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)

REMOVING ASPHALTIC SURFACE, BUTT JOINTS (MILLING OPTION)

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS

MAINLINE

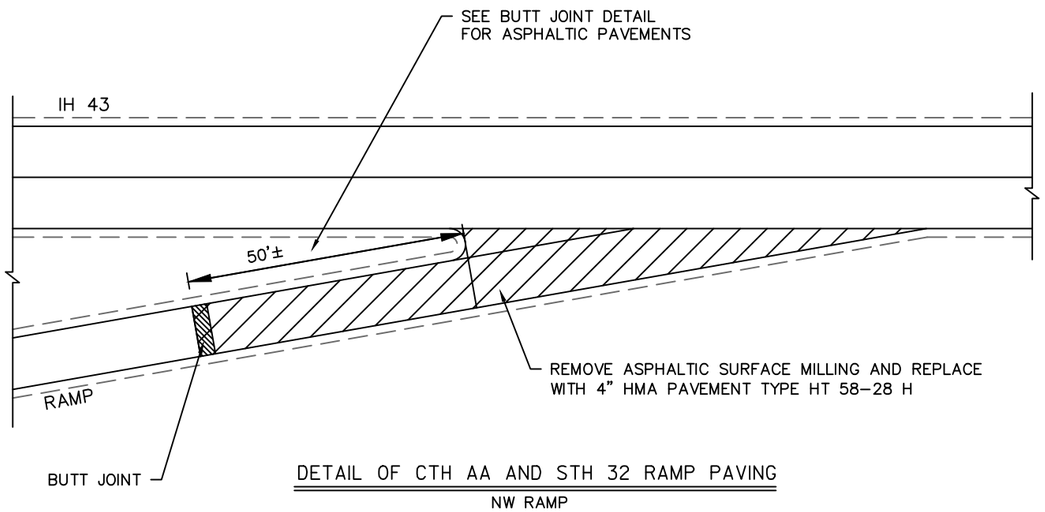
2



* SEE TYPICAL SECTIONS FOR PAVEMENT TYPES AND THICKNESSES.

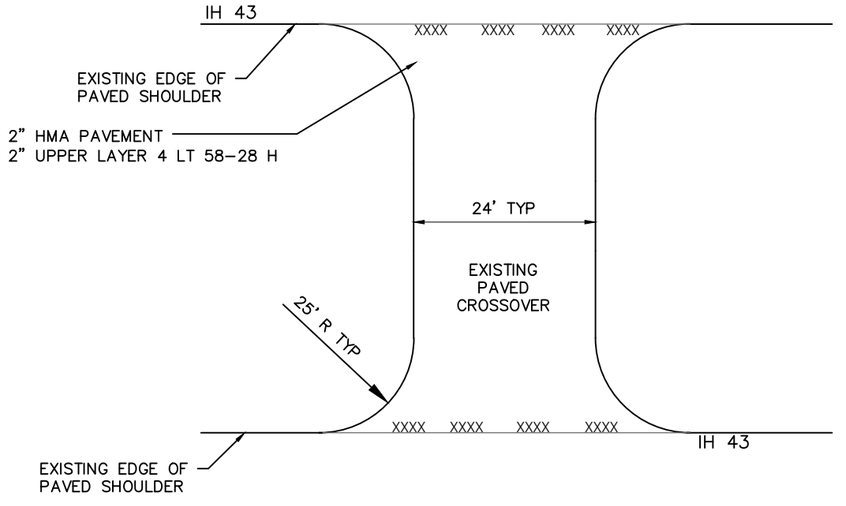
BASE PATCHING CONCRETE

SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS



DETAIL OF CTH AA AND STH 32 RAMP PAVING

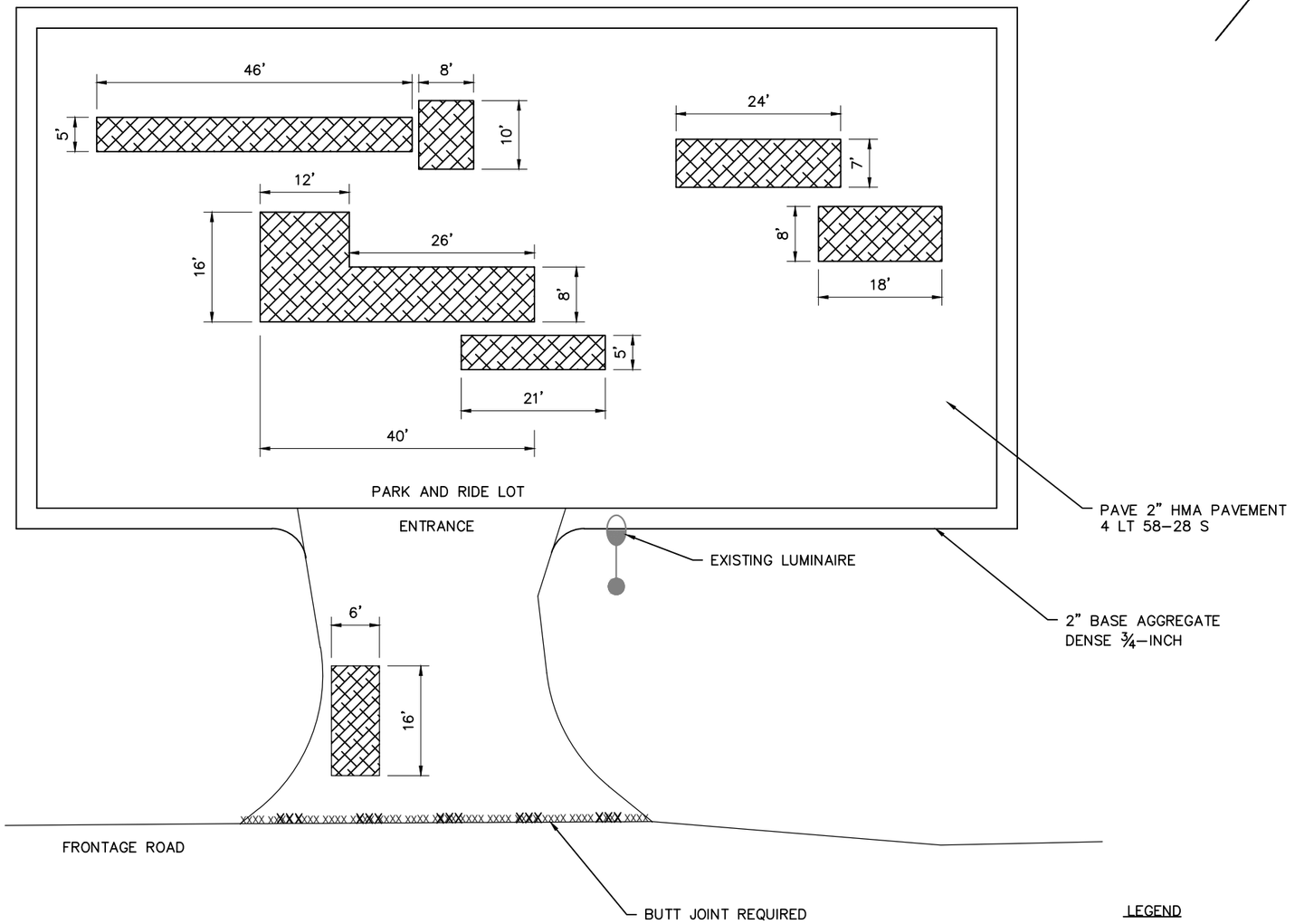
NW RAMP
NE RAMP
SE RAMP
SW RAMP



DETAIL OF IH 43 EXISTING MAINTENANCE CROSSOVER RESURFACING

STA 983+00
STA 160+00
STA 220+00
STA 286+50
STA 416+00

2



NOTES

THE AREAS OF ASPHALTIC SURFACE PATCHING WILL BE FIELD LOCATED BY THE ENGINEER. DO NOT REMOVE ASPHALTIC SURFACE WITHOUT THE CONSENT OF ENGINEER.

SEE PLAN SHEETS FOR APPROXIMATE LOCATION OF PARK AND RIDE.

LEGEND

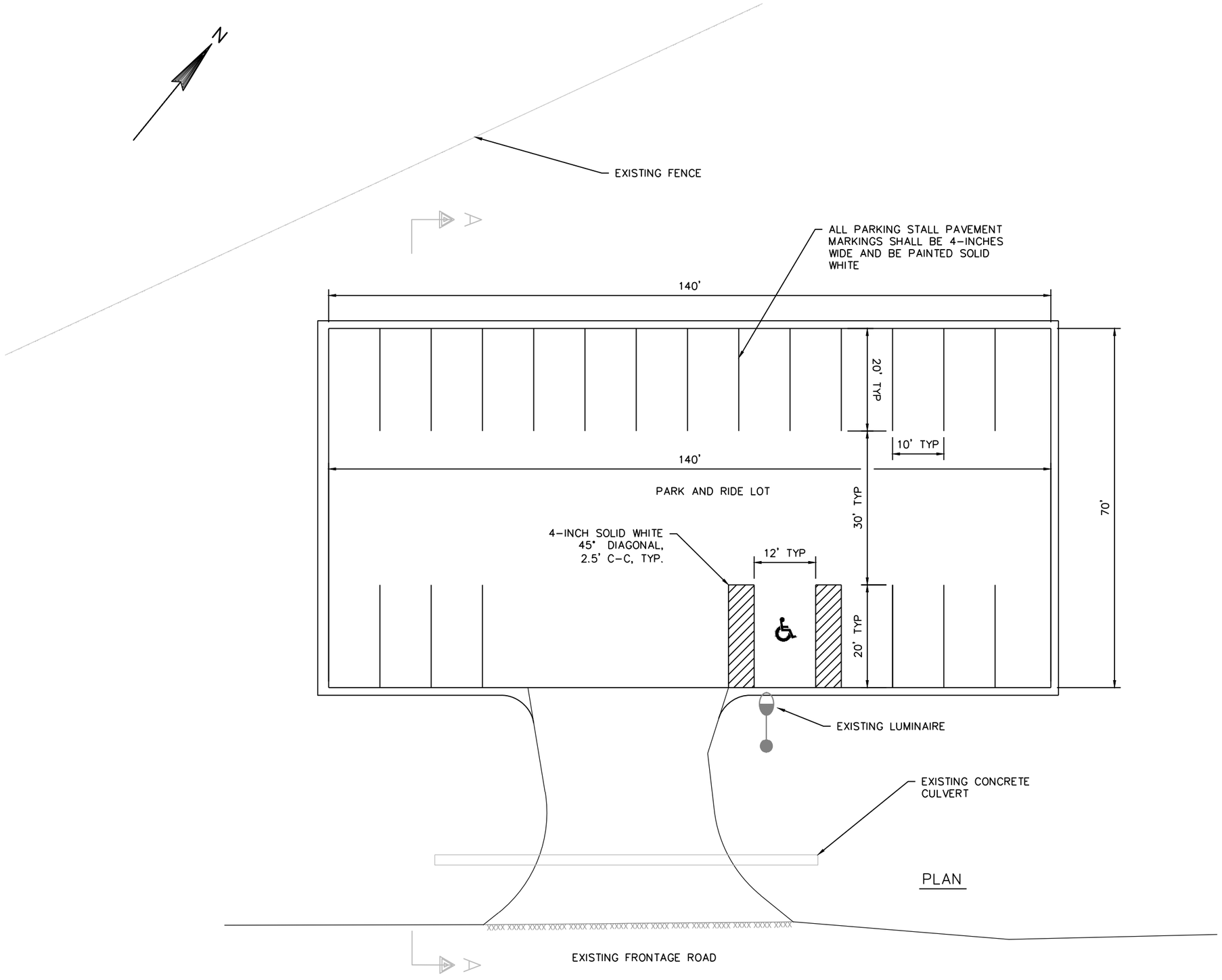
ASPHALTIC SURFACE PATCHING

XXX SAWCUT

DETAIL OF IH 43/CTH AA PARK & RIDE ASPHALTIC SURFACE PATCHING

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	CONSTRUCTION DETAILS	SHEET 10	E

2



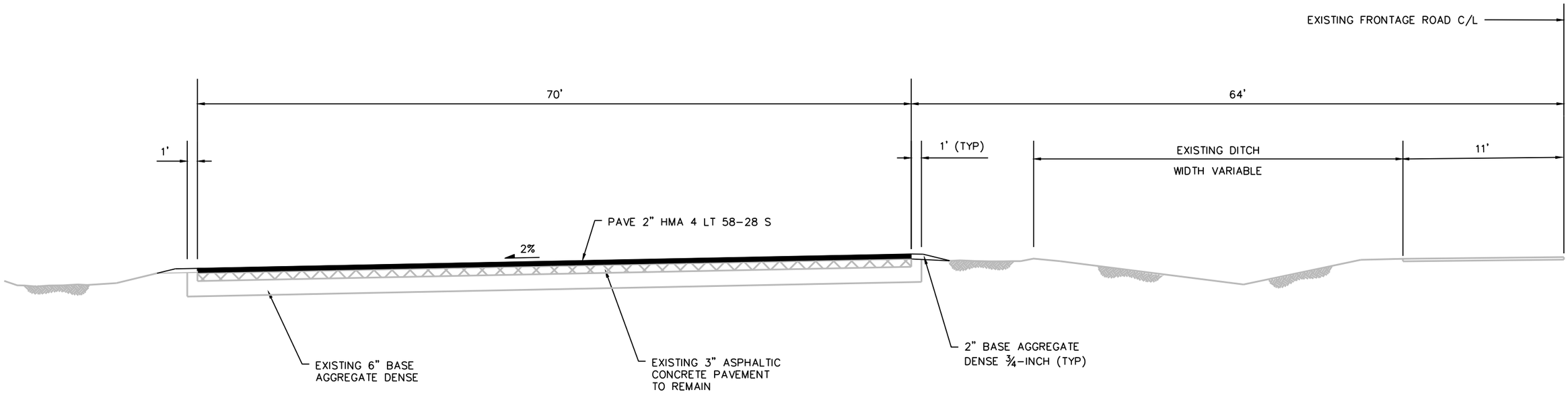
PLAN

NOTES

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN WERE TAKEN FROM AS–BUILT DRAWINGS. ACTUAL FIELD CONDITIONS MAY VARY AND SHOULD BE VERIFIED PRIOR TO THE START OF WORK.

2. CONTACT MATT HALADA, NORTHEAST REGION PARK AND RIDE COORDINATOR AT 920–492–7725, WHO WILL NOTIFY LOCAL OFFICIALS AND LAW ENFORCEMENT OF THE CLOSURE, TWO WEEKS PRIOR TO CLOSING THE PARK AND RIDE. ONE WEEK PRIOR TO CLOSING THE PARK AND RIDE PLACE A PORTABLE CHANGEABLE MESSAGE SIGN AT THE ENTRANCE NOTIFIYING TRAFFIC OF THE UPCOMING CLOSURE.

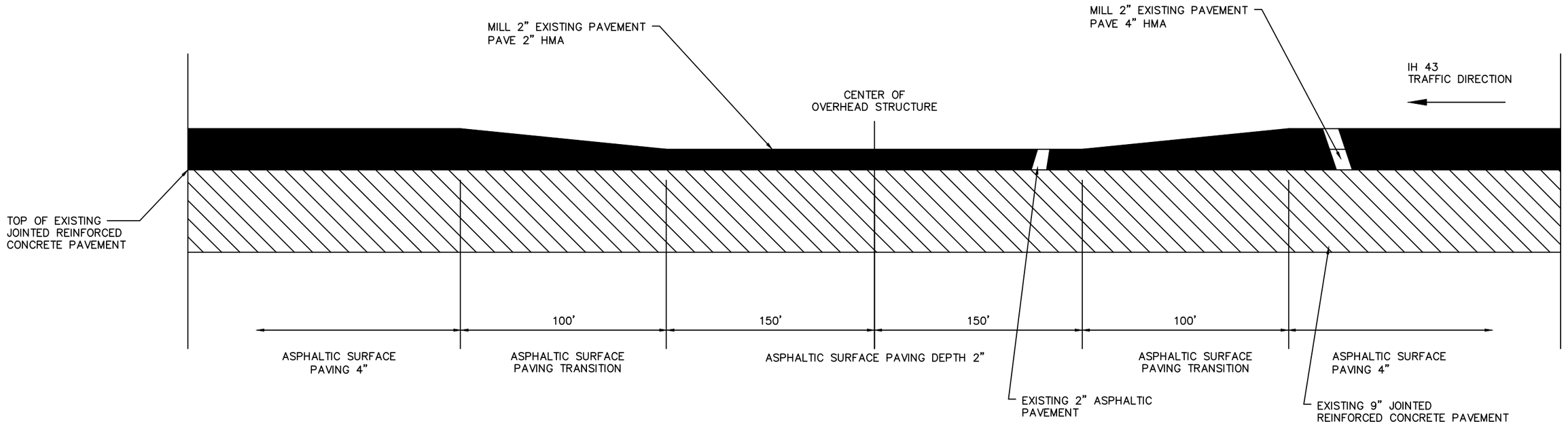
2



SECTION A-A

SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS

2



IH 43 PAVING DETAIL AT OVERHEAD STRUCTURES

B–59–44 CTH KK OVER IH 43 NB & SB

B–59–47 STH 32 OVER IH 43 NB & SB

EXISTING VERTICAL BRIDGE CLEARANCE DATA					
ROADWAY	BRIDGE	OVERPASS	CLEARANCE	EXISTING APPROXIMATE ASPHALT DEPTHS NB	SB
IH 43	B–59–0047	STH 32	16.33'	2"	2"
IH 43	B–59–0044	CTH KK	16.59'	2"	2"

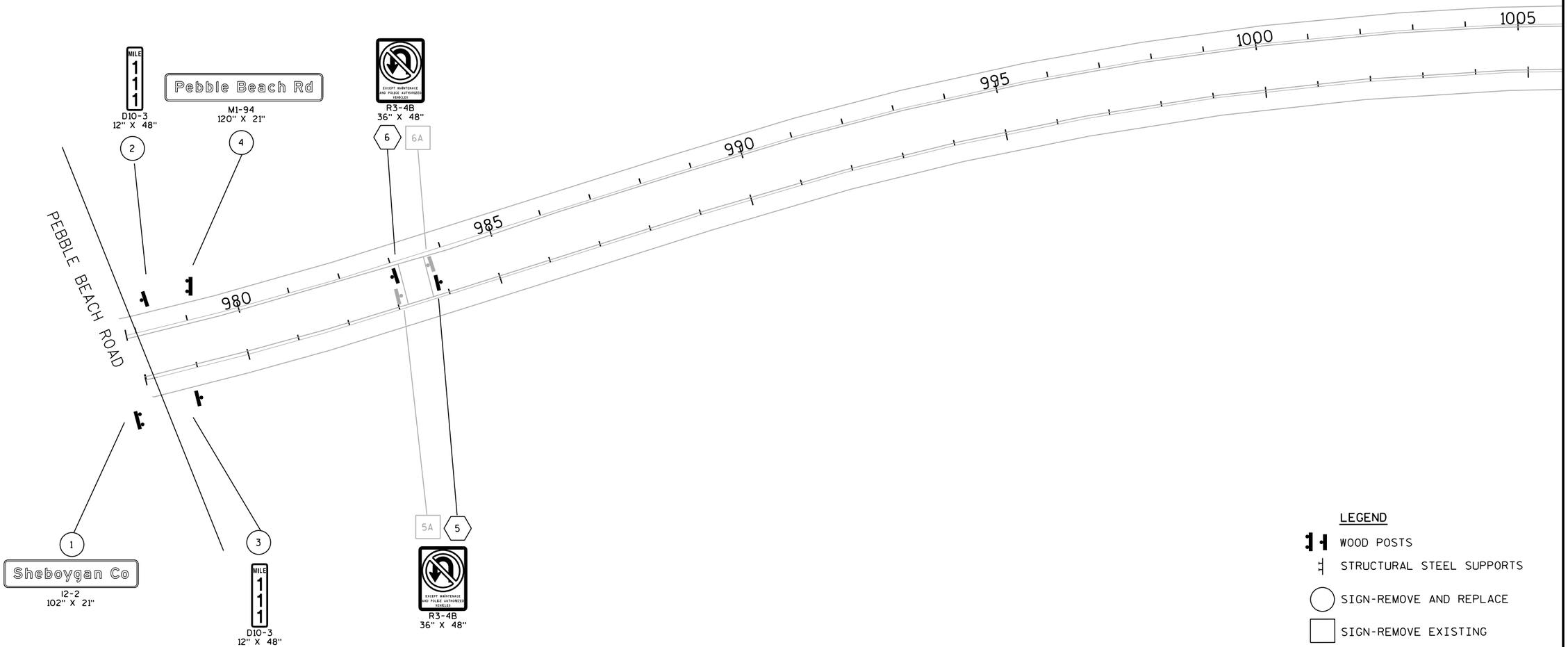
NOTE: DO NOT REDUCE THE VERTICAL CLEARANCE UNDER THESE STRUCTURES.

2

SIGNING NOTES

WHEN AN EXISTING STOP OR YIELD SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP OR YIELD SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



LEGEND

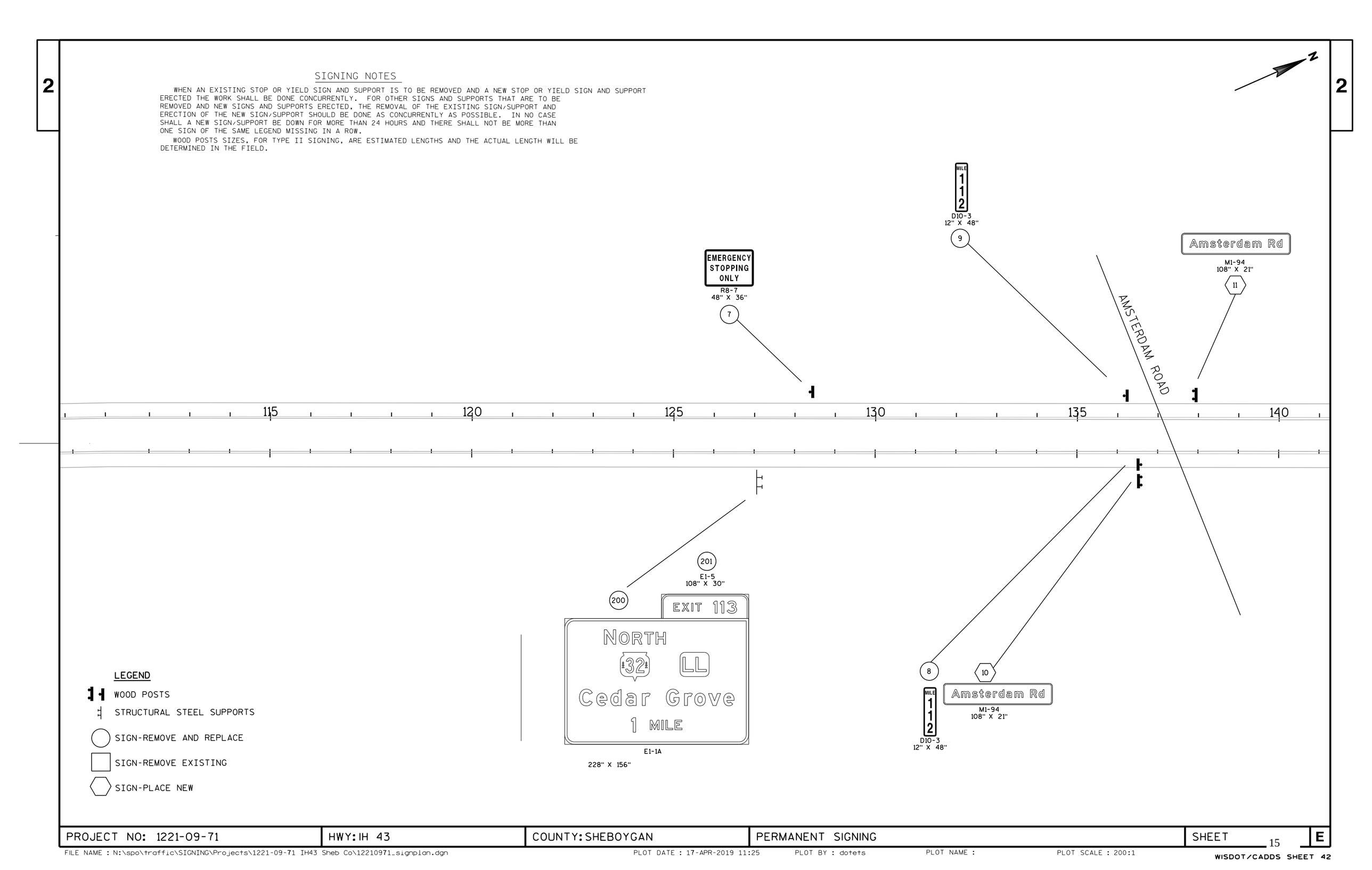
- WOOD POSTS
- STRUCTURAL STEEL SUPPORTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 14	E

SIGNING NOTES

WHEN AN EXISTING STOP OR YIELD SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP OR YIELD SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



LEGEND

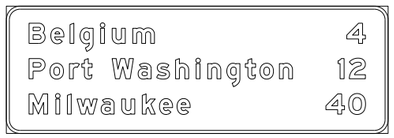
- WOOD POSTS
- STRUCTURAL STEEL SUPPORTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 15	E

SIGNING NOTES

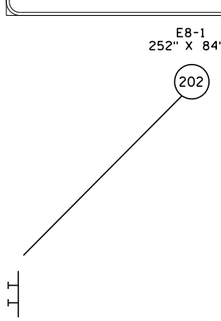
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WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.





R4-3
48" X 60"
12





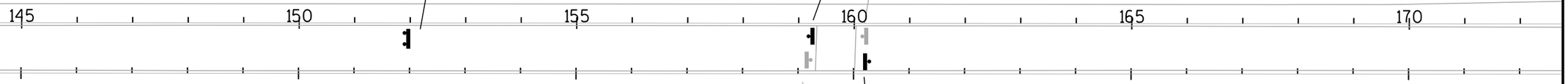
R3-4B
36" X 48"
14 14A



R2-1
48" X 60"
15



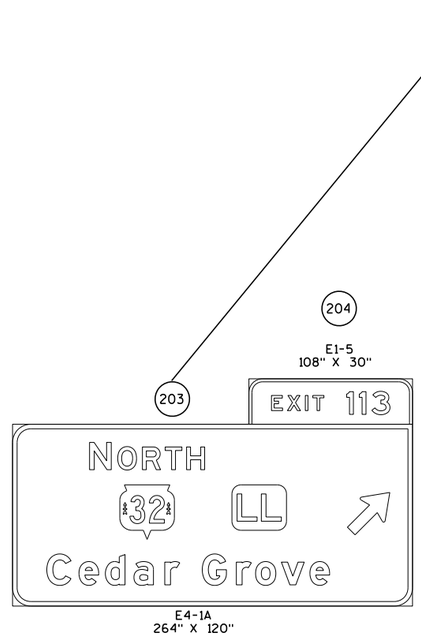
J4-3
108" X 54"
16





13A 13

R3-4B
36" X 48"



E4-1A
264" X 120"

LEGEND

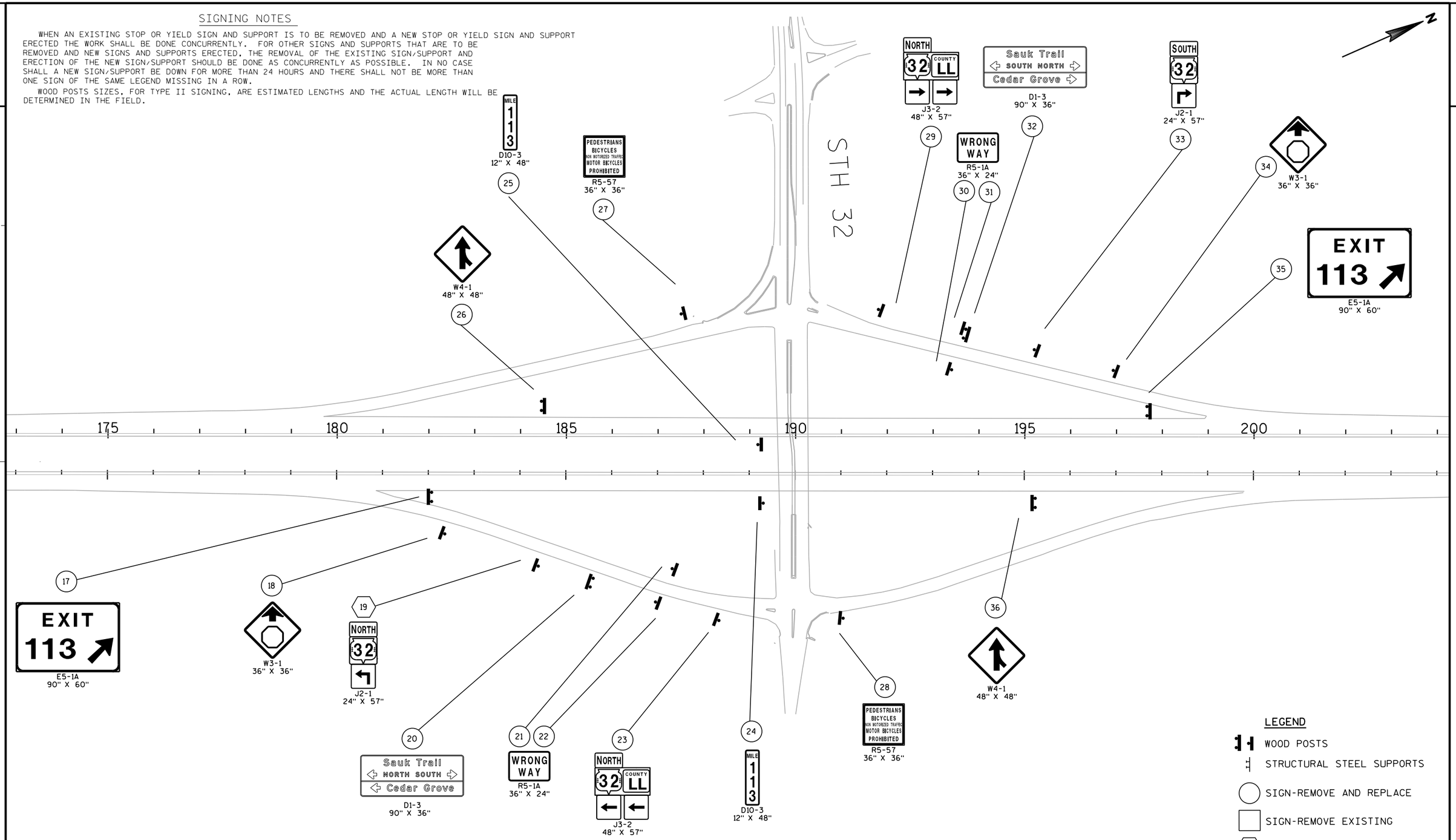
- WOOD POSTS
- STRUCTURAL STEEL SUPPORTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 16	E

SIGNING NOTES

WHEN AN EXISTING STOP OR YIELD SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP OR YIELD SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

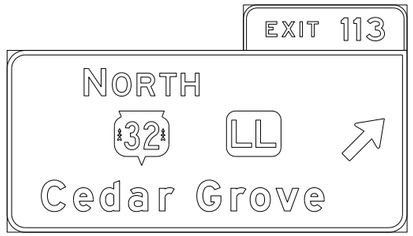
WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 17	E

206

E1-5
108" X 30"



E4-1A
264" X 120"



E3-1
156" X 78"

205

207



R3-4B
36" X 48"

37 37A

SIGNING NOTES

WHEN AN EXISTING STOP OR YIELD SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP OR YIELD SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

205 210 215 220 225 230 235

38A 38



R3-4B
36" X 48"

39



M1-93

J4-2
72" X 54"

40



R2-1
48" X 60"

207 A



E8-1
192" X 84"

41



R4-3
48" X 60"

42



R8-7
48" X 36"

LEGEND

WOOD POSTS

STRUCTURAL STEEL SUPPORTS

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

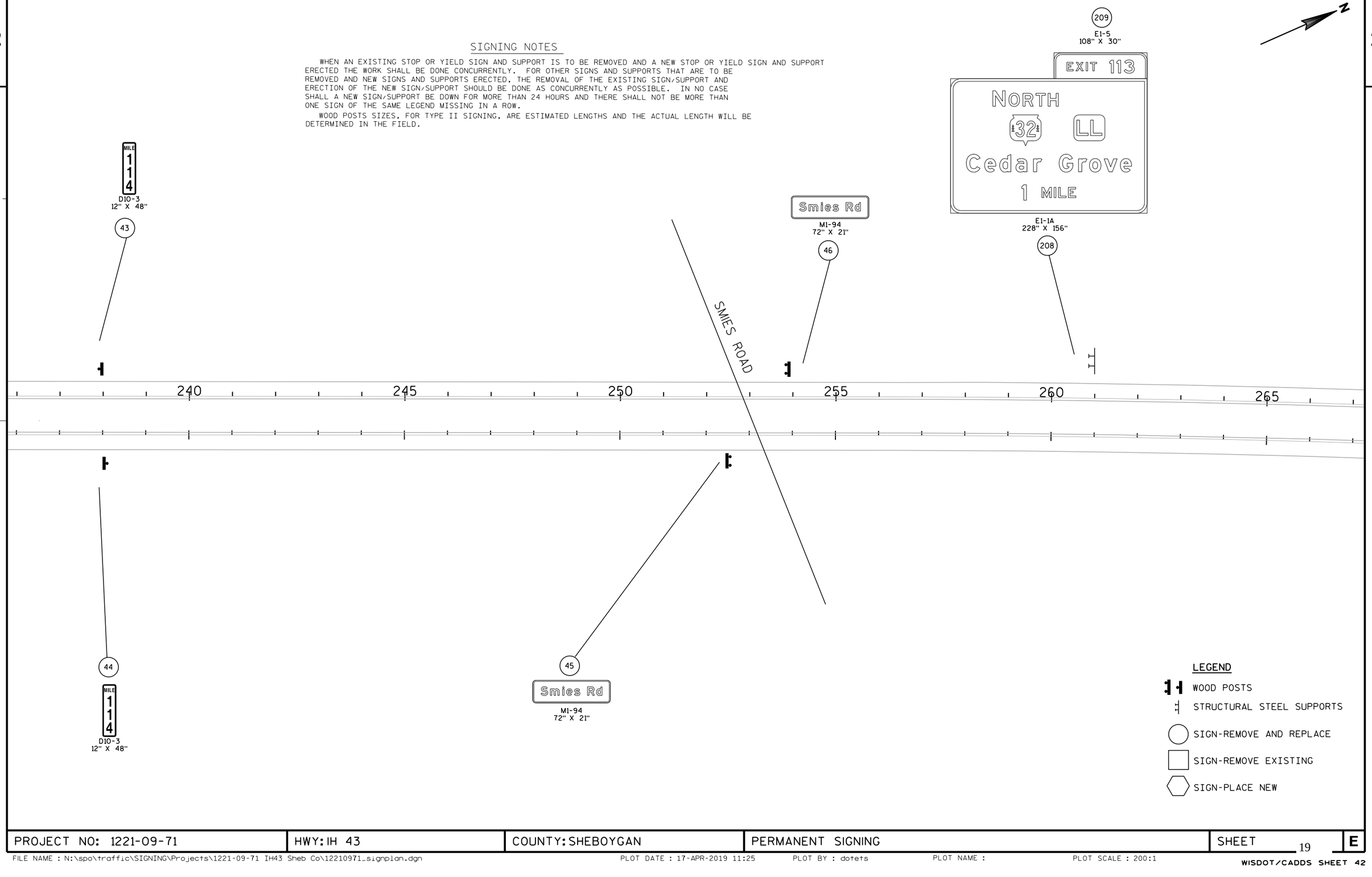
SIGN-PLACE NEW

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 18 E

SIGNING NOTES

WHEN AN EXISTING STOP OR YIELD SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP OR YIELD SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

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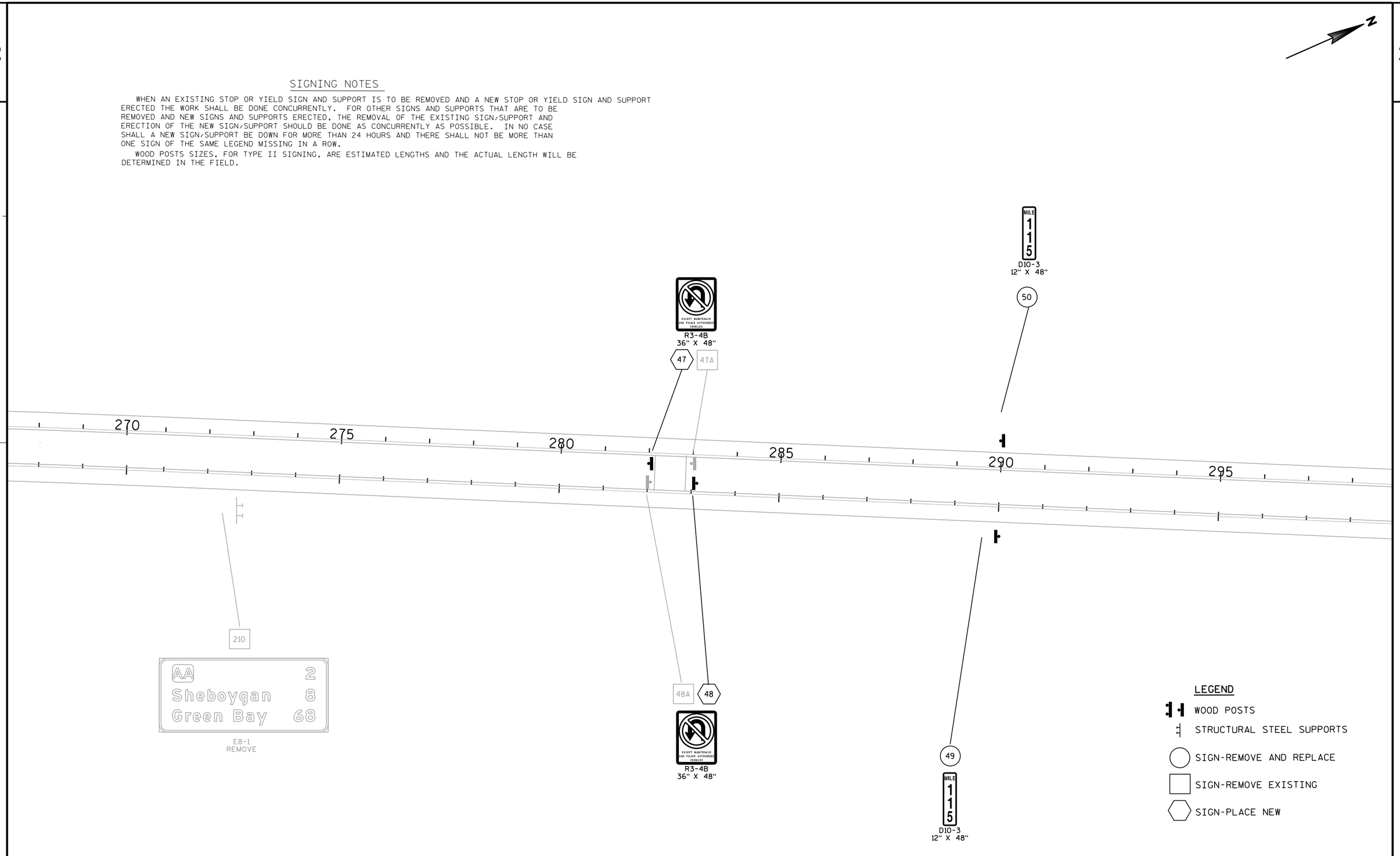


PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 19	E

SIGNING NOTES

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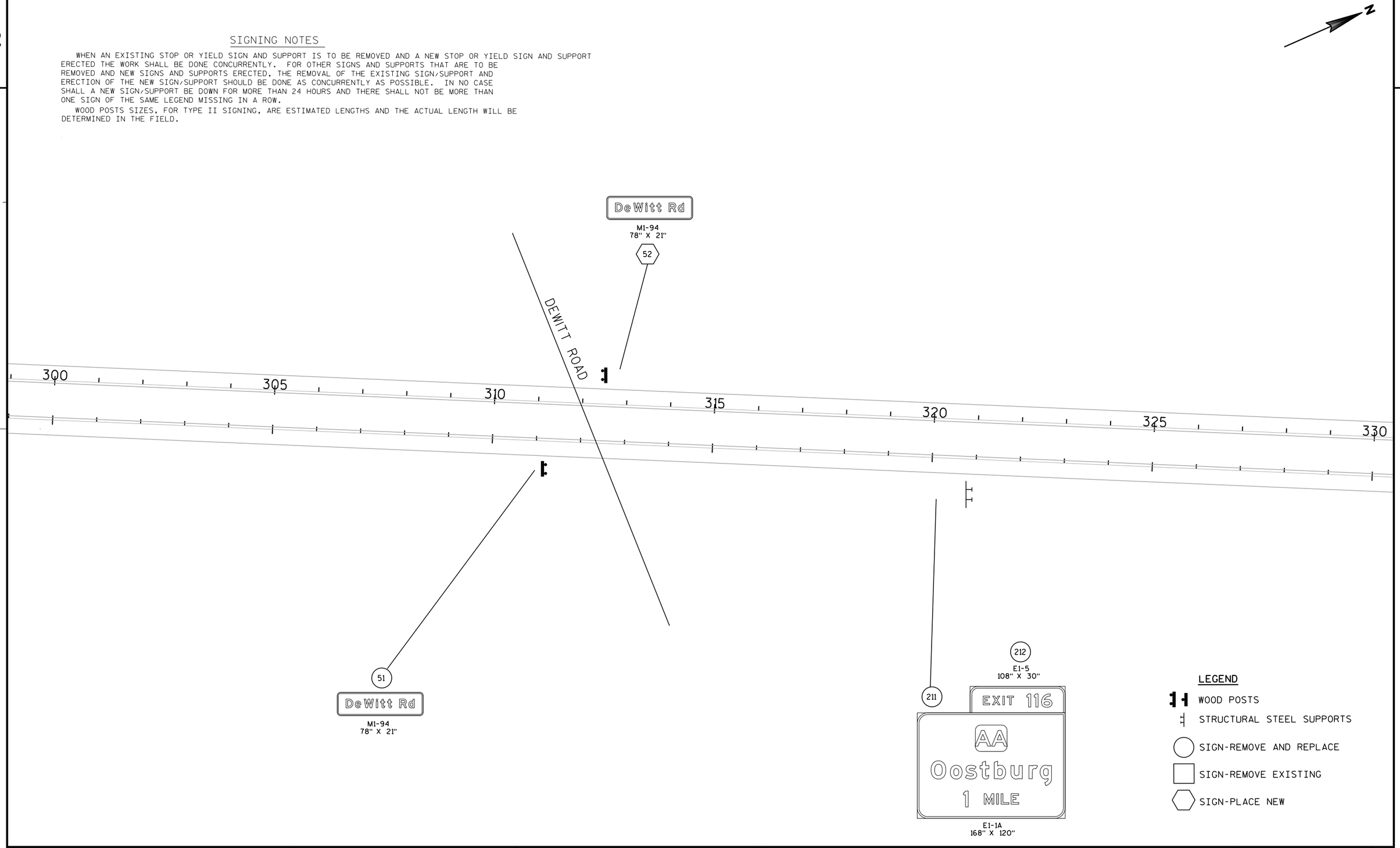


PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 20	E

SIGNING NOTES

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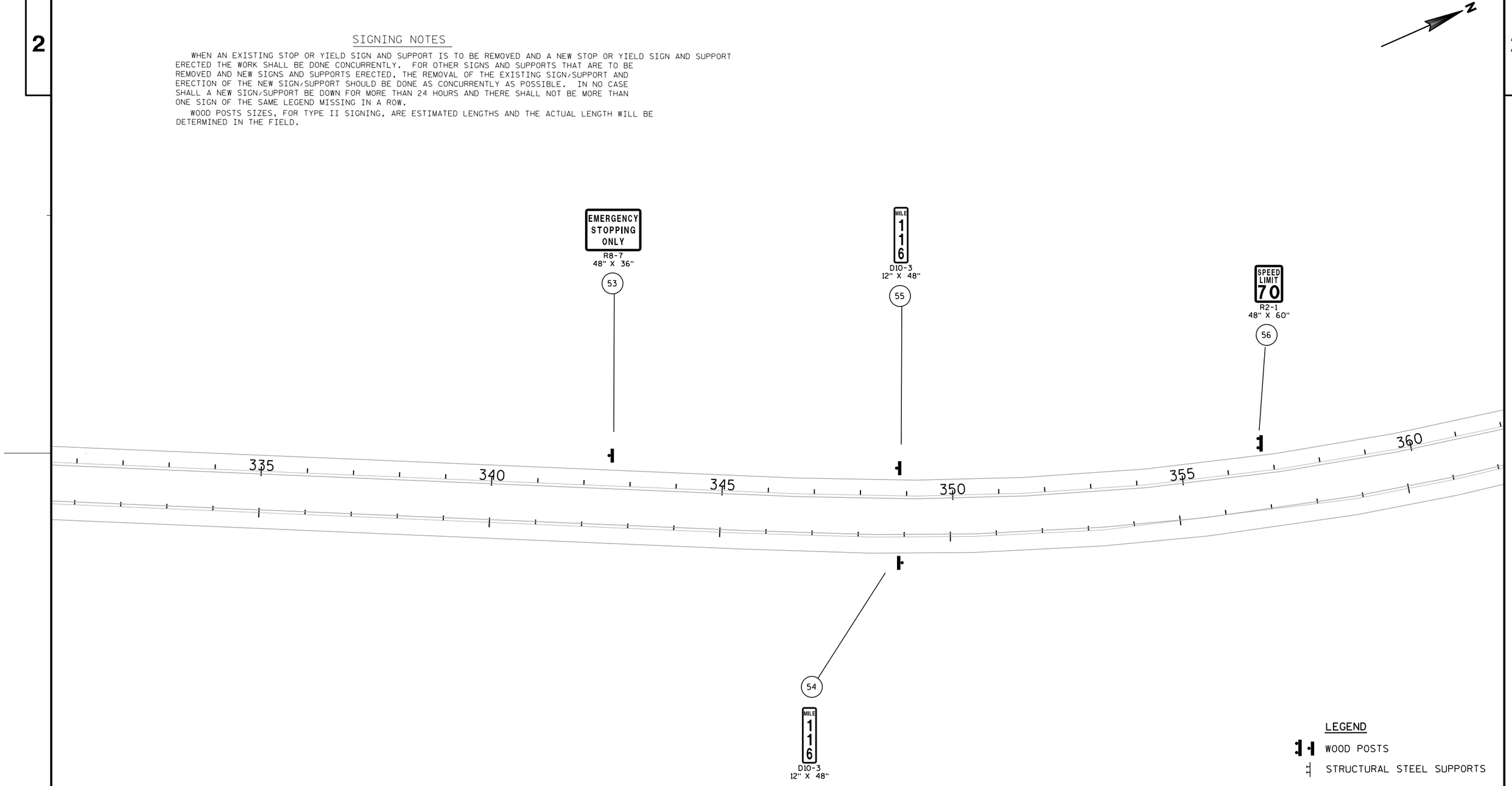
PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 21	E

2

SIGNING NOTES

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PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 22	E

SIGNING NOTES

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N

SOUTH INTERSTATE 43 LAKE MICHIGAN DRIVE MI-93
J4-2
72" X 54"
57

R3-4B
36" X 48"
58
58A

W4-1
48" X 48"
60

365 370 375 380 385 390

59A
59
R3-4B
36" X 48"

213
214
E1-5
108" X 30"
EXIT 116
AA
Oostburg
E4-1A
216" X 90"

61
EXIT
116
E5-1A
90" X 60"

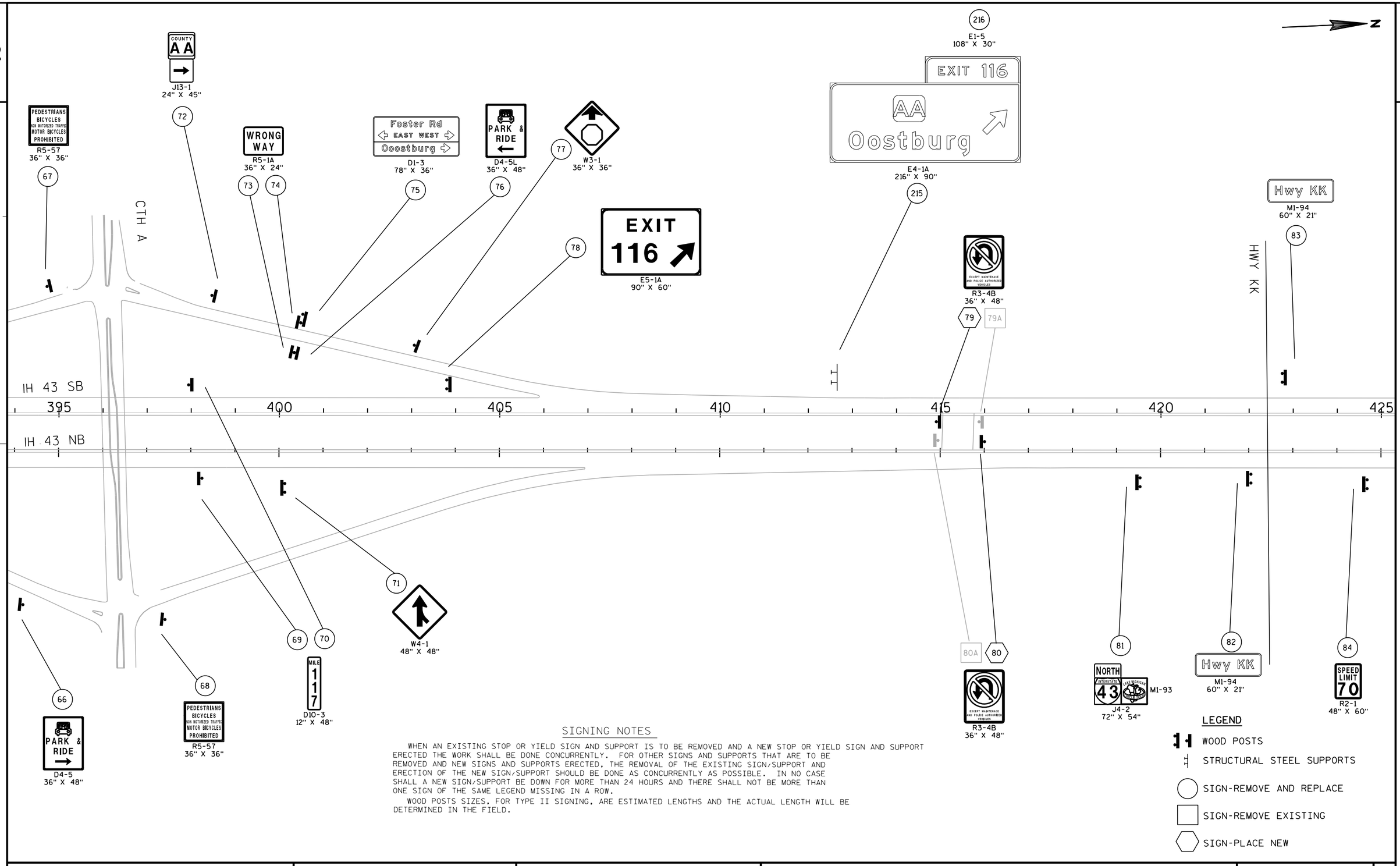
62
W3-1
36" X 36"

63
Foster Rd
WEST EAST
Oostburg
D1-3
78" X 36"

64 65
WRONG WAY
R5-1A
36" X 24"

LEGEND
- WOOD POSTS
- STRUCTURAL STEEL SUPPORTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 23	E



SIGNING NOTES

WHEN AN EXISTING STOP OR YIELD SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP OR YIELD SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

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LEGEND

- WOOD POSTS
- STRUCTURAL STEEL SUPPORTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 24	E

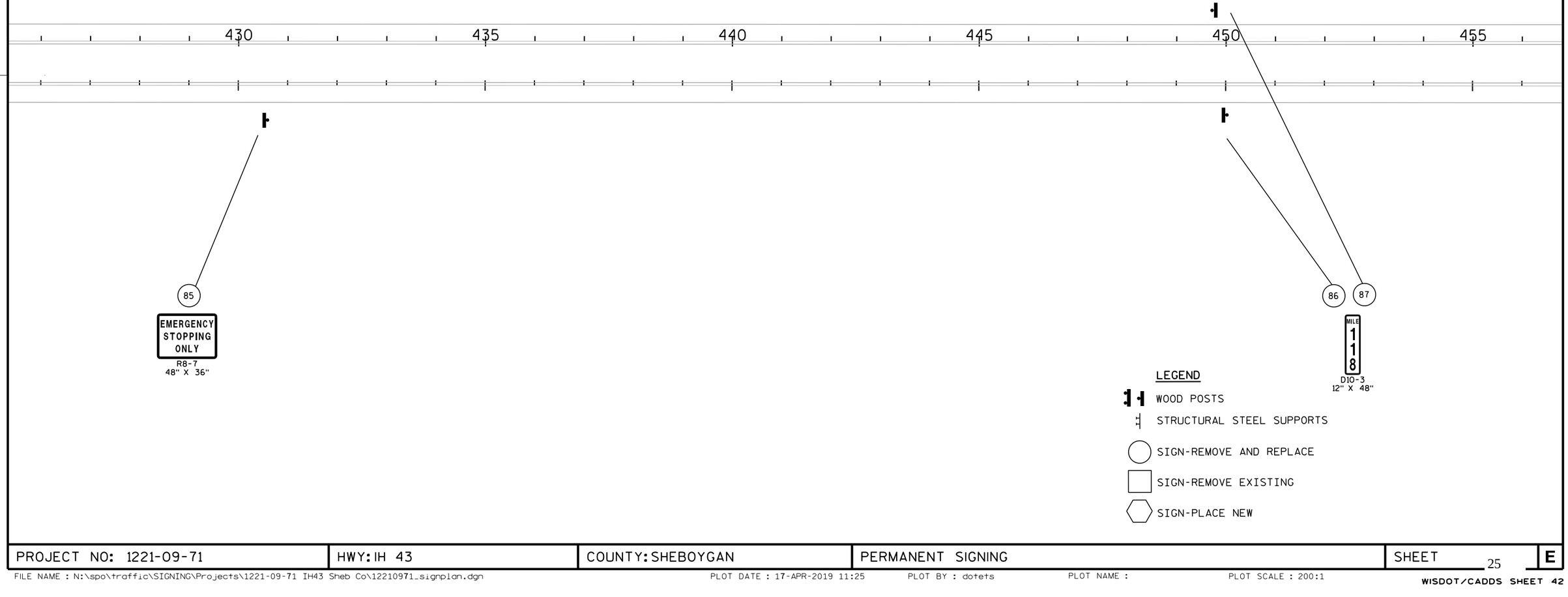
2

N

SIGNING NOTES

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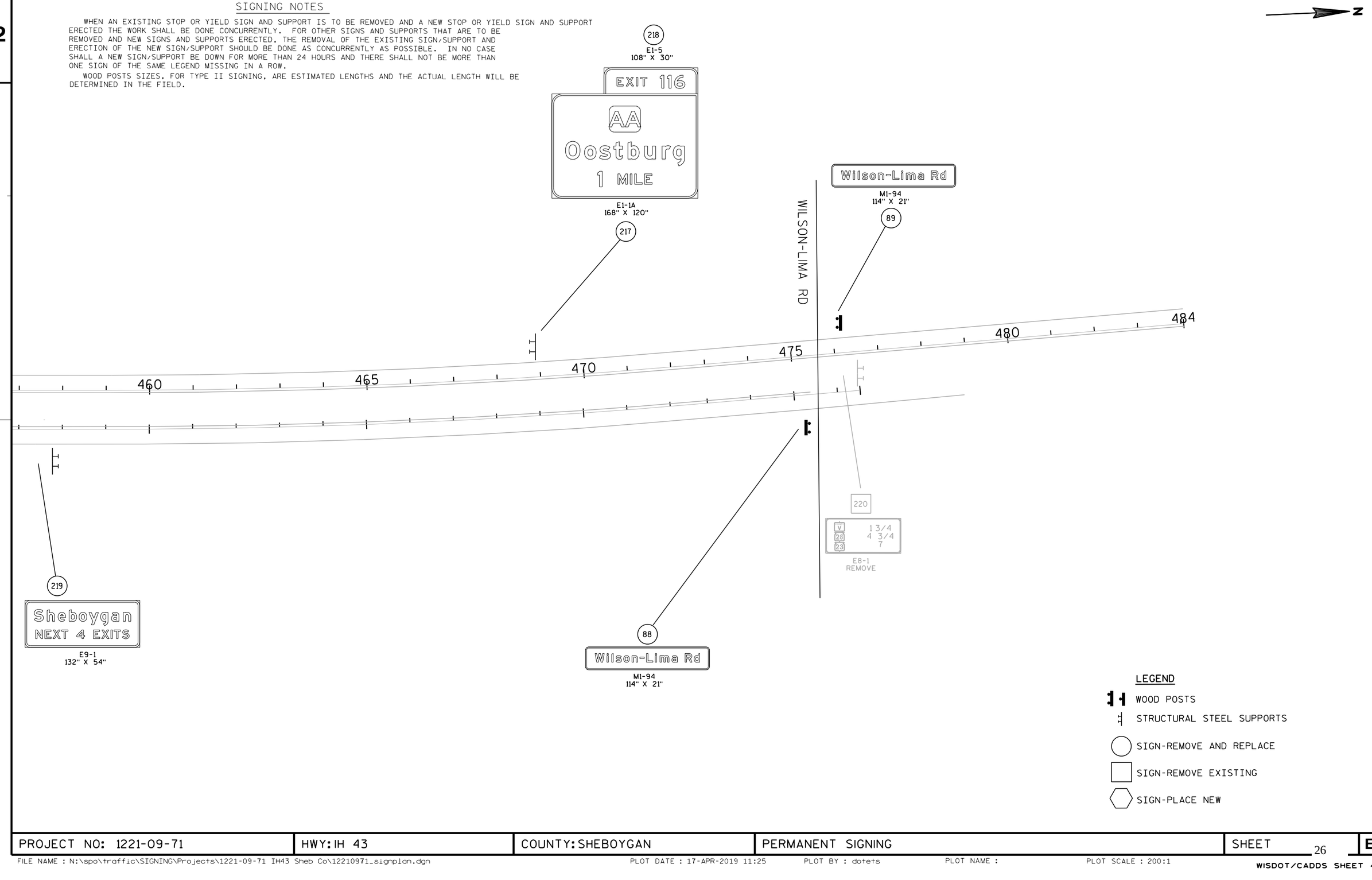
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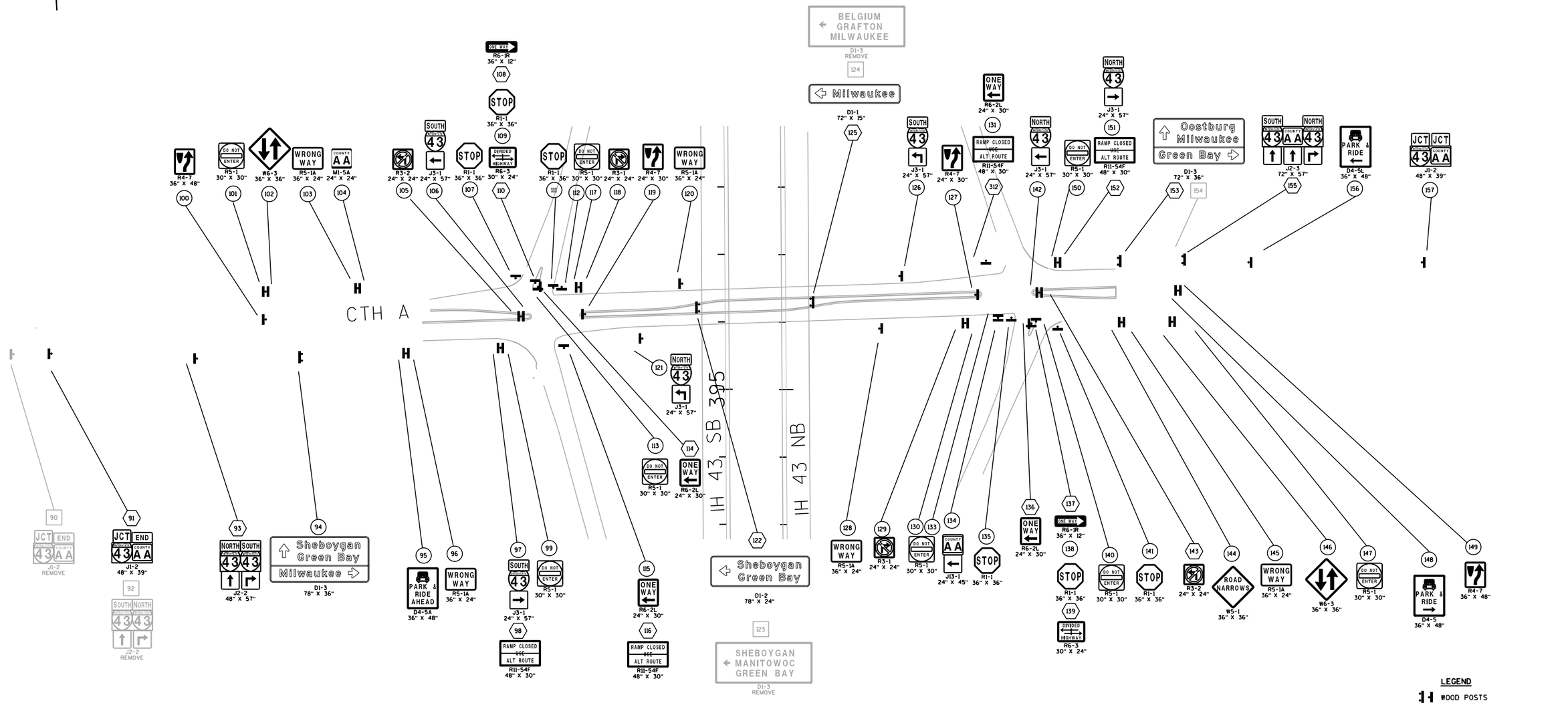
PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 26	E

N

SIGNING NOTES

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PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 27	E

1221-09-71

Line	Item	Item Description	Unit	Total	Qty
0010	204.0110	Removing Asphaltic Surface	SY	136.000	136.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	236.000	236.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	354,372.000	354,372.000
0022	204.9060.S	Removing (item description) 01. Culvert Endwalls	EACH	3.000	3.000
0026	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1221-09-71	LS	1.000	1.000
0030	213.0100	Finishing Roadway (project) 01. 1221-09-71	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,300.000	8,300.000
0040	390.0303	Base Patching Concrete	SY	1,390.000	1,390.000
0042	416.0610	Drilled Tie Bars	EACH	73.000	73.000
0044	416.0620	Drilled Dowel Bars	EACH	3,114.000	3,114.000
0046	455.0605	Tack Coat	GAL	33,622.000	33,622.000
0048	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	4.000	4.000
0050	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	4.000	4.000
0052	460.0115.S	HMA Pavement Test Strips Volumetrics	EACH	1.000	1.000
0054	460.0120.S	HMA Pavement Test Strips Density	EACH	1.000	1.000
0056	460.2000	Incentive Density HMA Pavement	DOL	24,031.000	24,031.000
0058	460.2005	Incentive Density PWL HMA Pavement	DOL	28,245.000	28,245.000
0060	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	62,092.000	62,092.000
0062	460.2010	Incentive Air Voids HMA Pavement	DOL	28,245.000	28,245.000
0066	460.5224	HMA Pavement 4 LT 58-28 S	TON	17,913.000	17,913.000
0068	460.7223	HMA Pavement 3 HT 58-28 S	TON	33,767.000	33,767.000
0070	460.7424	HMA Pavement 4 HT 58-28 H	TON	409.000	409.000
0072	460.8424	HMA Pavement 4 SMA 58-28 H	TON	24,960.000	24,960.000
0074	465.0110	Asphaltic Surface Patching	TON	110.000	110.000
0080	465.0400	Asphaltic Shoulder Rumble Strips	LF	145,605.000	145,605.000
0086	520.8700	Cleaning Culvert Pipes	EACH	6.000	6.000
0088	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	3.000	3.000
0094	531.1100	Concrete Masonry Ancillary Structures Type NS	CY	33.800	33.800
0096	531.1140	Steel Reinforcement HS Ancillary Structures Type NS	LB	5,006.000	5,006.000
0098	531.2024	Drilling Shaft 24-Inch	LF	282.000	282.000
0116	614.0400	Adjusting Steel Plate Beam Guard	LF	6,850.000	6,850.000
0118	614.0950	Replacing Guardrail Posts and Blocks	EACH	8.000	8.000
0120	614.0951	Replacing Guardrail Rail and Hardware	LF	25.000	25.000
0122	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1221-09-71	EACH	1.000	1.000
0126	619.1000	Mobilization	EACH	0.920	0.920
0128	624.0100	Water	MGAL	83.000	83.000
0130	625.0100	Topsoil	SY	40.000	40.000

1221-09-71

Line	Item	Item Description	Unit	Total	Qty
0140	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0142	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0144	628.2004	Erosion Mat Class I Type B	SY	40.000	40.000
0148	628.7005	Inlet Protection Type A	EACH	4.000	4.000
0154	629.0210	Fertilizer Type B	CWT	0.020	0.020
0156	630.0120	Seeding Mixture No. 20	LB	1.200	1.200
0160	630.0200	Seeding Temporary	LB	0.400	0.400
0164	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	56.000	56.000
0166	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	71.000	71.000
0168	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	37.000	37.000
0170	635.0200	Sign Supports Structural Steel HS	LB	18,112.000	18,112.000
0172	637.1220	Signs Type I Reflective SH	SF	2,057.000	2,057.000
0174	637.2210	Signs Type II Reflective H	SF	1,513.510	1,513.510
0176	637.2215	Signs Type II Reflective H Folding	SF	40.000	40.000
0178	637.2230	Signs Type II Reflective F	SF	127.000	127.000
0180	638.2102	Moving Signs Type II	EACH	1.000	1.000
0182	638.2601	Removing Signs Type I	EACH	13.000	13.000
0184	638.2602	Removing Signs Type II	EACH	120.000	120.000
0186	638.3000	Removing Small Sign Supports	EACH	155.000	155.000
0188	638.3100	Removing Structural Steel Sign Supports	EACH	26.000	26.000
0190	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0192	642.5001	Field Office Type B	EACH	1.000	1.000
0194	643.0300	Traffic Control Drums	DAY	30,000.000	30,000.000
0198	643.0420	Traffic Control Barricades Type III	DAY	2,028.000	2,028.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	4,056.000	4,056.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	3,000.000	3,000.000
0204	643.0800	Traffic Control Arrow Boards	DAY	240.000	240.000
0206	643.0900	Traffic Control Signs	DAY	1,444.000	1,444.000
0214	643.1050	Traffic Control Signs PCMS	DAY	119.000	119.000
0216	643.1205.S	Basic Traffic Queue Warning System	DAY	360.000	360.000
0218	643.5000	Traffic Control	EACH	0.850	0.850
0220	646.1020	Marking Line Epoxy 4-Inch	LF	17,895.000	17,895.000
0222	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	157,602.000	157,602.000
0226	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	19,700.000	19,700.000
0228	646.3020	Marking Line Epoxy 8-Inch	LF	1,232.000	1,232.000
0232	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	7,770.000	7,770.000
0234	646.5220	Marking Symbol Epoxy	EACH	1.000	1.000
0238	646.5420	Marking Aerial Enforcement Bar Epoxy	EACH	4.000	4.000
0242	646.8320	Marking Parking Stall Epoxy	LF	220.000	220.000
0246	649.0105	Temporary Marking Line Paint 4-Inch	LF	18,912.000	18,912.000

1221-09-71

Line	Item	Item Description	Unit	Total	Qty
0258	650.8000	Construction Staking Resurfacing Reference	LF	78,668.000	78,668.000
0262	650.9910	Construction Staking Supplemental Control (project) 01. 1221-09-71	LS	1.000	1.000
0268	690.0150	Sawing Asphalt	LF	1,706.000	1,706.000
0270	690.0250	Sawing Concrete	LF	3,288.000	3,288.000
0272	740.0440	Incentive IRI Ride	DOL	117,540.000	117,540.000
0274	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0276	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,320.000	1,320.000
0286	SPV.0060	Special 05. Shaping and Finishing for Law Enforcement Pad	EACH	3.000	3.000
0290	SPV.0090	Special 01. Milling and Removing Temporary Joint	LF	78,783.000	78,783.000
0292	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000	1.000

REMOVING ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMARKS
977+99	-	978+01	IH 43 NB	-	9	PEBBLE BEACH STRUCTURE
136+89	-	136+91	IH 43 NB	-	9	AMSTERDAM ROAD STRUCTURE
138+24	-	138+26	IH 43 NB	-	9	AMSTERDAM ROAD STRUCTURE
252+74	-	252+76	IH 43 NB	-	9	SMIES ROAD STRUCTURE
254+02	-	254+04	IH 43 NB	-	9	SMIES ROAD STRUCTURE
311+86	-	311+88	IH 43 NB	-	9	DEWITT ROAD STRUCTURE
313+17	-	313+19	IH 43 NB	-	9	DEWITT ROAD STRUCTURE
395+63	-	395+65	IH 43 NB	-	9	CTH AA STRUCTURE
397+23	-	397+25	IH 43 NB	-	9	CTH AA STRUCTURE
475+22	-	475+24	IH 43 NB	-	9	WILSON-LIMA ROAD STRUCTURE
977+60	-	977+62	IH 43 SB	-	9	PEBBLE BEACH STRUCTURE
136+49	-	136+51	IH 43 SB	-	9	AMSTERDAM ROAD STRUCTURE
137+85	-	137+87	IH 43 SB	-	9	AMSTERDAM ROAD STRUCTURE
252+33	-	252+35	IH 43 SB	-	9	SMIES ROAD STRUCTURE
253+62	-	253+64	IH 43 SB	-	9	SMIES ROAD STRUCTURE
311+41	-	311+43	IH 43 SB	-	9	DEWITT ROAD STRUCTURE
312+72	-	312+74	IH 43 SB	-	9	DEWITT ROAD STRUCTURE
395+60	-	395+62	IH 43 SB	-	9	CTH AA STRUCTURE
397+21	-	397+23	IH 43 SB	-	9	CTH AA STRUCTURE
475+28	-	475+30	IH 43 SB	-	9	WILSON-LIMA ROAD STRUCTURE
181+34	-	181+36	STH 32 SE RAMP	-	6	-
180+18	-	180+20	STH 32 SW RAMP	-	6	-
199+28	-	199+30	STH 32 NE RAMP	-	6	-
198+45	-	198+47	STH 32 NW RAMP	-	6	-
387+11	-	387+13	CTH AA SE RAMP	-	6	-
387+22	-	387+24	CTH AA SW RAMP	-	6	-
406+42	-	406+44	CTH AA NE RAMP	-	6	-
405+39	-	405+41	CTH AA NW RAMP	-	6	-
	-		CTH AA PARK N RIDE	136	13	CTH AA PARK AND RIDE
			TOTALS	136	236	

REMOVING ASPHALTIC SURFACE MILLING

STATION	TO	STATION	LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
978+01	-	1007+16	IH 43 NB	12,308	
111+06	-	141+00	IH 43 NB	12,640	
141+00	-	165+00	IH 43 NB	10,133	
165+00		171+00	IH 43 NB	2,667	
171+00	-	201+00	IH 43 NB	13,333	
201+00	-	231+00	IH 43 NB	13,333	
231+00	-	261+00	IH 43 NB	13,333	
261+00	-	291+00	IH 43 NB	13,333	
291+00	-	321+00	IH 43 NB	13,333	
321+00	-	351+00	IH 43 NB	13,333	
351+00		381+00	IH 43 NB	13,333	
381+00		411+00	IH 43 NB	13,333	
411+00		441+00	IH 43 NB	13,333	
441+00		473+25	IH 43 NB	14,333	
977+60	-	1006+95	IH 43 SB	12,392	
111+06	-	141+00	IH 43 SB	12,640	
141+00	-	165+00	IH 43 SB	10,133	
165+00		171+00	IH 43 SB	2,667	
171+00	-	201+00	IH 43 SB	13,333	
201+00	-	231+00	IH 43 SB	13,333	
231+00	-	261+00	IH 43 SB	13,333	
261+00	-	291+00	IH 43 SB	13,333	
291+00	-	321+00	IH 43 SB	13,333	
321+00	-	351+00	IH 43 SB	13,333	
351+00		381+00	IH 43 SB	13,333	
381+00		411+00	IH 43 SB	13,333	
411+00		441+00	IH 43 SB	13,333	
441+00		473+25	IH 43 SB	14,333	
171+83	-	181+36	STH 32 SE RAMP	1,059	
167+68	-	180+20	STH 32 SW RAMP	1,391	
199+30	-	213+81	STH 32 NE RAMP	1,612	
198+47	-	208+35	STH 32 NW RAMP	1,098	
377+10	-	387+13	CTH AA SE RAMP	1,114	
375+00	-	387+24	CTH AA SW RAMP	1,360	
406+44	-	419+00	CTH AA NE RAMP	1,396	
405+41	-	415+27	CTH AA NW RAMP	1,096	
			TOTAL	354,372	

BASE AGGREGATE DENSE 3/4-INCH

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 WATER MGAL
977+98	-	1007+16	IH 43 NB SHOULDER, LT	151	1.5
111+06	-	136+91	IH 43 NB SHOULDER, LT	134	1.3
138+24	-	165+00	IH 43 NB SHOULDER, LT	139	1.4
165+00	-	252+76	IH 43 NB SHOULDER, LT	455	4.6
254+02	-	311+88	IH 43 NB SHOULDER, LT	300	3.0
313+17	-	395+65	IH 43 NB SHOULDER, LT	428	4.3
397+23	-	475+81	IH 43 NB SHOULDER, LT	407	4.1
977+98	-	1007+16	IH 43 NB SHOULDER, RT	151	1.5
111+06	-	136+91	IH 43 NB SHOULDER, RT	134	1.3
138+24	-	171+83	IH 43 NB SHOULDER, RT	174	1.7
181+05	-	200+00	IH 43 NB SHOULDER, RT	98	1.0
212+21	-	252+76	IH 43 NB SHOULDER, RT	210	2.1
254+02	-	311+88	IH 43 NB SHOULDER, RT	300	3.0
313+17	-	395+65	IH 43 NB SHOULDER, RT	428	4.3
397+23	-	475+25	IH 43 NB SHOULDER, RT	405	4.0
977+60	-	1006+95	IH 43 SB SHOULDER, RT	152	1.5
111+06	-	136+51	IH 43 SB SHOULDER, RT	132	1.3
137+85	-	165+00	IH 43 SB SHOULDER, RT	141	1.4
165+00	-	252+35	IH 43 SB SHOULDER, RT	453	4.5
253+61	-	311+43	IH 43 SB SHOULDER, RT	300	3.0
312+72	-	395+62	IH 43 SB SHOULDER, RT	430	4.3
397+21	-	475+25	IH 43 SB SHOULDER, RT	405	4.0
977+60	-	1007+16	IH 43 SB SHOULDER, LT	153	1.5
111+06	-	136+51	IH 43 SB SHOULDER, LT	132	1.3
137+85	-	167+88	IH 43 SB SHOULDER, LT	156	1.6
180+00	-	199+06	IH 43 SB SHOULDER, LT	99	1.0
208+35	-	252+35	IH 43 SB SHOULDER, LT	228	2.3
253+61	-	311+43	IH 43 SB SHOULDER, LT	300	3.0
312+72	-	375+00	IH 43 SB SHOULDER, LT	323	3.2
387+47	-	395+62	IH 43 SB SHOULDER, LT	42	0.4
397+21	-	406+06	IH 43 SB SHOULDER, LT	46	0.5
419+00	-	475+25	IH 43 SB SHOULDER, LT	292	2.9
977+98	-	475+25	* UNDISTRIBUTED	385	3.8
			SUBTOTALS	8,082	80.8

BASE AGGREGATE DENSE 3/4-INCH

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 WATER MGAL
179+00	-	180+20	STH 32 SW RAMP	12	0.1
179+00	-	181+36	STH 32 SE RAMP	24	0.2
198+47	-	201+00	STH 32 NW RAMP	26	0.3
199+30	-	200+50	STH 32 NE RAMP	12	0.1
385+00	-	387+24	CTH AA SW RAMP	23	0.2
385+50	-	387+13	CTH AA SE RAMP	17	0.2
405+41	-	408+00	CTH AA NW RAMP	27	0.3
406+44	-	408+00	CTH AA NE RAMP	16	0.2
-	-	-	PARK & RIDE	7	0.1
999+20		IH 43 SB	LAW ENFORCEMENT PAD	9	0.1
175+00		IH 43 NB	LAW ENFORCEMENT PAD	9	0.1
243+90		IH 43 SB	LAW ENFORCEMENT PAD	9	0.1
-	-	-	MAINTENANCE CROSSOVERS	25	0.3
			SUBTOTALS	218	2.2
			TOTALS	8,300	83.0

* QUANTITY IS FOR LOW SHOULDERS ALONG PROJECT LENGTH

CALCUALTED UNDISTRIBUTED QUANTITY BASED ON 1" LOW SHOULDER AGGREGATE BEING BROUGHT UP TO DESIRED HEIGHT

3

PREPARE FOUNDATION FOR ASPHALTIC PAVING

STATION	TO	STATION	ROADWAY	211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING LS	REMARKS
978+20	-	475+24	IH 43 NB	0.5	
977+60	-	475+30	IH 43 SB	0.5	
			TOTAL	**1.0**	

CONCRETE BASE PATCHING AND SAWING SUMMARY

				REPAIR INFORMATION				390.0303	416.0610	416.0620	* 690.0250
				DRIVING		PASSING		BASE PATCHING CONCRETE	DRILLED TIE BARS	DRILLED DOWEL BARS	SAWING CONCRETE
STATION	TO	STATION	LOCATION	JOINTS	SLABS	JOINTS	SLABS	SY	EA	EA	LF
978+20	-	136+90	IH 43 NB	2	1	2	1	48	-	96	144
138+24	-	190+25	IH 43 NB	2	2	7	1	206	30	192	288
190+25	-	252+76	IH 43 NB	3	-	4	3	200	43	160	240
254+02	-	311+88	IH 43 NB	2	1	6	-	72	-	144	216
313+17	-	395+65	IH 43 NB	7	2	13	2	192	-	384	576
397+23	-	475+24	IH 43 NB	3	-	6	-	72	-	144	216
977+60	-	136+52	IH 43 SB	2	1	2	1	60	-	96	144
137+85	-	190+25	IH 43 SB	1	-	2	1	64	-	64	96
190+25	-	252+35	IH 43 SB	5	1	8	1	128	-	240	360
253+61	-	311+43	IH 43 SB	1	-	6	-	56	-	112	168
312+72	-	395+62	IH 43 SB	7	2	7	1	136	-	272	408
397+21	-	475+30	IH 43 SB	4	-	8	-	96	-	192	288
-	-	-	UNDISTRIBUTED	2	1	2	1	60	-	1018	144
			TOTALS	41	11	73	12	1,390	73	3,114	3,288

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

HMA SUMMARY

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	460.8424 HMA PAVEMENT 4 SMA 58-28 H TON
977+98	-	1007+16	IH 43 NB MAINLINE	778	1,041	-	749
111+06	-	136+91	IH 43 NB MAINLINE	689	922	-	663
138+24	-	252+76	IH 43 NB MAINLINE	3,054	4,085	-	2,939
254+02	-	311+88	IH 43 NB MAINLINE	1,543	2,064	-	1,485
313+17	-	395+65	IH 43 NB MAINLINE	2,199	2,942	-	2,117
397+23	-	475+25	IH 43 NB MAINLINE	2,081	2,783	-	2,003
977+98	-	1007+16	IH 43 NB SHOULDER, LT	130	173	-	125
111+06	-	136+91	IH 43 NB SHOULDER, LT	115	154	-	111
138+24	-	165+00	IH 43 NB SHOULDER, LT	119	159	-	114
165+00	-	252+76	IH 43 NB SHOULDER, LT	585	783	-	563
254+02	-	311+88	IH 43 NB SHOULDER, LT	386	516	-	371
313+17	-	395+65	IH 43 NB SHOULDER, LT	550	735	-	529
397+23	-	475+25	IH 43 NB SHOULDER, LT	520	696	-	501
977+60	-	1006+95	IH 43 SB MAINLINE	783	1,047	-	753
111+06	-	136+51	IH 43 SB MAINLINE	679	908	-	653
137+85	-	252+35	IH 43 SB MAINLINE	3,053	4,084	-	2,939
253+61	-	311+43	IH 43 SB MAINLINE	1,542	2,062	-	1,484
312+72	-	395+62	IH 43 SB MAINLINE	2,211	2,957	-	2,128
397+21	-	475+25	IH 43 SB MAINLINE	2,081	2,783	-	2,003
977+98	-	1007+16	IH 43 SB SHOULDER, RT	130	173	-	125
111+06	-	136+91	IH 43 SB SHOULDER, RT	115	154	-	111
138+24	-	165+00	IH 43 SB SHOULDER, RT	119	159	-	114
165+00	-	252+76	IH 43 SB SHOULDER, RT	585	522	-	563
254+02	-	311+88	IH 43 SB SHOULDER, RT	386	344	-	371
313+17	-	395+65	IH 43 SB SHOULDER, RT	550	490	-	529
397+23	-	475+25	IH 43 SB SHOULDER, RT	520	464	-	501
179+00	-	181+36	STH 32 SE RAMP	52	88	63	-
179+00	-	180+20	STH 32 SW RAMP	27	45	32	-
199+30	-	201+00	STH 32 NE RAMP	38	63	45	-
198+47	-	200+50	STH 32 NW RAMP	45	75	54	-
385+00	-	387+13	CTH AA SE RAMP	47	79	57	-
385+50	-	387+24	CTH AA SW RAMP	39	65	47	-
406+44	-	408+00	CTH AA NE RAMP	35	58	42	-
405+41	-	408+00	CTH AA NW RAMP	58	96	69	-
977+98	-	1007+16	IH 43 MAINLINE LONG. JT.	-	-	-	415
			SUBTOTAL	25,841	-	-	-
			TOTALS	-	33,767	409	24,960

HMA SUMMARY (CONT.)

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON
977+98	-	1007+16	IH 43 NB SHOULDER, RT	324	746
111+06	-	136+91	IH 43 NB SHOULDER, RT	287	661
138+24	-	171+83	IH 43 NB SHOULDER, RT	373	858
181+05	-	200+00	IH 43 NB SHOULDER, RT	211	484
212+21	-	252+76	IH 43 NB SHOULDER, RT	451	1,036
254+02	-	311+88	IH 43 NB SHOULDER, RT	643	1,479
313+17	-	377+10	IH 43 NB SHOULDER, RT	710	1,634
386+88	-	395+65	IH 43 NB SHOULDER, RT	97	224
397+23	-	407+10	IH 43 NB SHOULDER, RT	110	252
419+00	-	475+25	IH 43 NB SHOULDER, RT	625	1,438
977+60	-	1007+16	IH 43 SB SHOULDER, LT	328	755
111+06	-	136+91	IH 43 SB SHOULDER, LT	287	661
138+24	-	171+83	IH 43 SB SHOULDER, LT	373	858
181+05	-	200+00	IH 43 SB SHOULDER, LT	211	484
212+21	-	252+76	IH 43 SB SHOULDER, LT	451	1,036
254+02	-	311+88	IH 43 SB SHOULDER, LT	643	1,479
313+17	-	377+10	IH 43 SB SHOULDER, LT	710	1,634
386+88	-	395+65	IH 43 SB SHOULDER, LT	97	224
397+23	-	407+10	IH 43 SB SHOULDER, LT	110	252
419+00	-	475+25	IH 43 SB SHOULDER, LT	625	1,438
		983+00	IH 43 MEDIAN	12	30
		160+00	IH 43 MEDIAN	12	30
		220+00	IH 43 MEDIAN	12	30
		286+50	IH 43 MEDIAN	12	30
		416+00	IH 43 MEDIAN	12	30
1+00	-	2+40	CTH AA PARK AND RIDE	54	131
			SUBTOTAL	7,781	-
			TOTALS	33,622	17,913

HMA PERCENT WITHIN LIMITS (PWL) TEST STRIPS

	460.0105.S VOLUMETRICS EACH	460.0110.S DENSITY EACH
IH 43 NB LOWER LAYER	1	1
IH 43 NB UPPER LAYER	1	1
IH 43 SB LOWER LAYER	1	1
IH 43 SB UPPER LAYER	1	1
TOTALS	4	4

NOTES

4 LT 58-28 S - HMA PAVEMENT USED FOR OUTSIDE SHOULDERS

4 SMA 58-28 H - MAINLINE AND INSIDE SHOULDERS - UPPER LAYER

3 HT 58-28 S - MAINLINE , INSIDE SHOULDERS, AND RAMPS - LOWER LAYER

ASPHALTIC SURFACE PATCHING

STATION	TO	STATION	LOCATION	465.0110 TON	REMARKS
977+99	-	475+24	IH 43 NB	47	IH 43 NB BETWEEN PEBBLE BEACH ROAD AND WILSON-LIMA ROAD IH 43 NB FOR MINOR REPAIRS TO ASPHALT SHOULDERS, POT HOLES OR POP-OU
977+60	-	475+30	IH 43 SB	47	IH 43 SB BETWEEN PEBBLE BEACH ROAD AND WILSON-LIMA ROAD IH 43 SB FOR MINOR REPAIRS TO ASPHALT SHOULDERS, POT HOLES OR POP-OU
			PARK N RIDE	16	AT CTH AA
			TOTAL	110	

ASPHALTIC SHOULDER RUMBLE STRIPS

STATION	TO	STATION	LOCATION	MEDIAN SHOULDER LF	OUTSIDE SHOULDER LF	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS TOTAL LF
977+98	-	1007+16	IH 43 NB	2,918	2,918	5,836
111+06	-	136+91	IH 43 NB	2,585	2,385	4,970
138+24	-	252+76	IH 43 NB	11,452	9,109	20,561
254+02	-	311+88	IH 43 NB	5,786	5,786	11,572
313+17	-	395+65	IH 43 NB	8,248	7,270	15,518
397+23	-	475+81	IH 43 NB	7,858	6,668	14,526
977+60	-	1006+95	IH 43 SB	2,935	2,935	5,870
111+06	-	136+51	IH 43 SB	2,545	2,345	4,890
137+85	-	252+35	IH 43 SB	11,450	9,089	20,539
253+61	-	311+43	IH 43 SB	5,782	5,782	11,564
312+72	-	395+62	IH 43 SB	8,290	7,043	15,333
397+21	-	475+81	IH 43 SB	7,860	6,566	14,426
			TOTAL			145,605

HMA TEST STRIPS

LOCATION	460.0115.S HMA PAVEMENT TEST STRIP VOLUMETRICS EACH	460.0120.S HMA PAVEMENT TEST STRIP DENSITY EACH
UPPER LAYER	1	1
TOTAL	1	1

MATERIAL TRANSFER VEHICLE

LOCATION	SPV.0105.01 EACH
IH 43 SMA PAVEMENT	1
TOTAL	1

HMA INCENTIVE SUMMARY

STATION	TO	STATION	LOCATION	HMA PAVEMENT 4 LT 58-28 S 460.5224 ** TON	HMA PAVEMENT 4 LT 58-28 S 460.2000 INCENTIVE DENSITY HMA PAVEMENT TON***	HMA PAVEMENT 4 SMA 58-28 H 460.8424 ** TON	HMA PAVEMENT 4 SMA 58-28 H 460.2000 INCENTIVE DENSITY HMA PAVEMENT TON***	HMA PAVEMENT 3 HT 58-28 S * 460.7223 ** TON	460.2005 INCENTIVE DENSITY PWL TON*	460.2010 INCENTIVE AIR VOIDS PWL TON	REMARKS
977+98	-	1007+16	IH 43 NB	-	-	749	479	1,041	1,041	1,041	MAINLINE AND INSIDE SHOULDER
111+06	-	136+91	IH 43 NB	-	-	663	424	922	922	922	MAINLINE AND INSIDE SHOULDER
138+24	-	252+76	IH 43 NB	-	-	2,939	1,881	4,085	4,085	4,085	MAINLINE AND INSIDE SHOULDER
254+02	-	311+88	IH 43 NB	-	-	1,485	950	2,064	2,064	2,064	MAINLINE AND INSIDE SHOULDER
313+17	-	395+65	IH 43 NB	-	-	2,117	1,355	2,942	2,942	2,942	MAINLINE AND INSIDE SHOULDER
397+23	-	475+25	IH 43 NB	-	-	2,003	1,282	2,783	2,783	2,783	MAINLINE AND INSIDE SHOULDER
977+60	-	1006+95	IH 43 SB	-	-	753	482	1,047	1,047	1,047	MAINLINE AND INSIDE SHOULDER
111+06	-	136+51	IH 43 SB	-	-	653	418	908	908	908	MAINLINE AND INSIDE SHOULDER
137+85	-	252+35	IH 43 SB	-	-	2,939	1,881	4,084	4,084	4,084	MAINLINE AND INSIDE SHOULDER
253+61	-	311+43	IH 43 SB	-	-	1,484	950	2,062	2,062	2,062	MAINLINE AND INSIDE SHOULDER
312+72	-	395+62	IH 43 SB	-	-	2,128	1,362	2,957	2,957	2,957	MAINLINE AND INSIDE SHOULDER
397+21	-	475+25	IH 43 SB	-	-	2,003	1,282	2,783	2,783	2,783	MAINLINE AND INSIDE SHOULDER
977+98	-	1007+16	IH 43 NB	746	477	-	-	-	-	-	OUTSIDE SHOULDER
111+06	-	136+91	IH 43 NB	661	423	-	-	-	-	-	OUTSIDE SHOULDER
138+24	-	171+83	IH 43 NB	858	549	-	-	-	-	-	OUTSIDE SHOULDER
181+05	-	200+00	IH 43 NB	484	310	-	-	-	-	-	OUTSIDE SHOULDER
212+21	-	252+76	IH 43 NB	1,036	663	-	-	-	-	-	OUTSIDE SHOULDER
254+02	-	311+88	IH 43 NB	1,479	946	-	-	-	-	-	OUTSIDE SHOULDER
313+17	-	377+10	IH 43 NB	1,634	1,046	-	-	-	-	-	OUTSIDE SHOULDER
386+88	-	395+65	IH 43 NB	224	143	-	-	-	-	-	OUTSIDE SHOULDER
397+23	-	407+10	IH 43 NB	252	161	-	-	-	-	-	OUTSIDE SHOULDER
419+00	-	475+25	IH 43 NB	1,438	920	-	-	-	-	-	OUTSIDE SHOULDER
977+60	-	1007+16	IH 43 SB	755	483	-	-	-	-	-	OUTSIDE SHOULDER
111+06	-	136+91	IH 43 SB	661	423	-	-	-	-	-	OUTSIDE SHOULDER
138+24	-	171+83	IH 43 SB	858	549	-	-	-	-	-	OUTSIDE SHOULDER
181+05	-	200+00	IH 43 SB	484	310	-	-	-	-	-	OUTSIDE SHOULDER
212+21	-	252+76	IH 43 SB	1,036	663	-	-	-	-	-	OUTSIDE SHOULDER
254+02	-	311+88	IH 43 SB	1,479	946	-	-	-	-	-	OUTSIDE SHOULDER
313+17	-	377+10	IH 43 SB	1,634	1,046	-	-	-	-	-	OUTSIDE SHOULDER
386+88	-	395+65	IH 43 SB	224	143	-	-	-	-	-	OUTSIDE SHOULDER
397+23	-	407+10	IH 43 SB	252	161	-	-	-	-	-	OUTSIDE SHOULDER
419+00	-	475+25	IH 43 SB	1,438	920	-	-	-	-	-	OUTSIDE SHOULDER
			STH 32 RAMPS	-	-	-	-	271	271	271	RAMPS - LOWER LAYER
			CTH AA RAMPS	-	-	-	-	298	298	298	RAMPS - LOWER LAYER
				SUBTOTALS	11,285		12,746	TOTALS	28,245	28,245	
						TOTAL	24,031				

* Tonnage is eligible for Incentive Density PWL 460.2005 and Incentive Air Voids 460.2010.

** Tonnage shown elsewhere - for information only

*** Tonnage is eligible for QMP Density Incentive 460.2000

3

CULVERT PIPE SUMMARY

LOCATION	STATION	204.9060.S REMOVING CULVERT ENDWALLS EACH	520.8700 CLEANING CULVERT PIPES EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	MATERIAL	REMARKS
IH 43 NB	989+00	1	-	1	CPRC	-
IH 43 NB	997+00	-	1	-	CPRC	18-INCH STORM SEWER OUTFALL
IH 43 SB	168+00	1	-	1	CPRC	-
IH 43 SB	200+70	1	-	1	CPRC	-
IH 43 SB	295+65	-	1	-	CPRC	18-INCH STORM SEWER OUTFALL
IH 43 NB	308+00	-	1	-	CPRC	18-INCH STORM SEWER OUTFALL
IH 43 NB	401+50	-	1	-	CPRC	18-INCH STORM SEWER OUTFALL
IH 43 SB	412+00	-	1	-	CPRC	18-INCH STORM SEWER OUTFALL
IH 43 NB	443+40	-	1	-	CPRC	18-INCH STORM SEWER OUTFALL
	TOTALS	3	6	3		

FILE NAME : Q:\MISC QUANTITIES\1221-09-71\misc_q_border.ppt PLOT DATE : _____ PLOT BY : DOTPMN PLOT NAME : _____ PLOT SCALE : 1:1

STEEL PLATE BEAM GUARD REPAIRS AND ADJUSTMENTS

LOCATION	STRUCTURE	ROADWAY	LOCATION	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF	REMARKS
PEBBLE BEACH	B-45-61	IH 43 SB LT	N. OF BRIDGE	150	-	-	
PEBBLE BEACH	B-45-61	IH 43 SB RT	N. OF BRIDGE	200	-	-	
AMSTERDAM	B-59-62	IH 43 NB RT	S. OF BRIDGE	300	-	-	
AMSTERDAM	B-59-62	IH 43 NB LT	S. OF BRIDGE	200	-	-	
AMSTERDAM	B-59-62	IH 43 NB RT	N. OF BRIDGE	400	-	-	
AMSTERDAM	B-59-63	IH 43 SB LT	S. OF BRIDGE	300	-	-	
AMSTERDAM	B-59-63	IH 43 SB LT	N. OF BRIDGE	400	8	25	
AMSTERDAM	B-59-63	IH 43 SB RT	N. OF BRIDGE	200	-	-	
STH 32, NE RAMP	B-59-47	IH 43 NB RT	N. OF BRIDGE	300	-	-	
STH 32, NW RAMP	B-59-47	IH 43 SB LT	N. OF BRIDGE	300	-	-	
SMIES	B-59-39	IH 43 NB LT	S. OF BRIDGE	200	-	-	
SMIES	B-59-39	IH 43 NB RT	S. OF BRIDGE	200	-	-	
SMIES	B-59-38	IH 43 SB LT	S. OF BRIDGE	100	-	-	
SMIES	B-59-38	IH 43 SB RT	S. OF BRIDGE	100	-	-	
SMIES	B-59-38	IH 43 SB LT	N. OF BRIDGE	200	-	-	
SMIES	B-59-38	IH 43 SB RT	N. OF BRIDGE	200	-	-	
DEWITT	B-59-40	IH 43 SB LT	S. OF BRIDGE	200	-	-	
DEWITT	B-59-40	IH 43 SB RT	S. OF BRIDGE	200	-	-	
DEWITT	B-59-40	IH 43 SB LT	N. OF BRIDGE	100	-	-	
DEWITT	B-59-40	IH 43 NB RT	N. OF BRIDGE	100	-	-	
DEWITT	B-59-41	IH 43 SB LT	N. OF BRIDGE	200	-	-	
DEWITT	B-59-41	IH 43 SB RT	N. OF BRIDGE	200	-	-	
CTH AA	B-59-42	IH 43 NB LT	S. OF BRIDGE	200	-	-	
CTH AA	B-59-42	IH 43 NB RT	S. OF BRIDGE	200	-	-	
CTH AA	B-59-42	IH 43 NB RT	S. OF BRIDGE	100	-	-	
CTH AA	B-59-43	IH 43 SB RT	N. OF BRIDGE	200	-	-	
CTH AA	B-59-43	IH 43 SB LT	N. OF BRIDGE	200	-	-	
443+00 - 451+00	-	IH 43 NB RT	-	400	-	-	
452+00 - 458+50	-	IH 43 SB LT	-	300	-	-	
WILSON-LIMA	B-59-46	IH 43 NB LT	S. OF BRIDGE	200	-	-	
WILSON-LIMA	B-59-46	IH 43 NB RT	S. OF BRIDGE	200	-	-	
WILSON-LIMA	B-59-45	IH 43 SB LT	S. OF BRIDGE	100	-	-	
			PROJECT TOTALS	6,850	8	25	

LANDSCAPING SUMMARY

STATION	LOCATION	625.0100 TOPSOIL SY	628.2004 EROSION MAT CLASS I, TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	REMARKS
989+00	IH 43 NB	10	10	0.006	0.3	0.1	ENDWALL REPLACEMENT
997+00	IH 43 NB	10	10	0.006	0.3	0.1	ENDWALL REPLACEMENT
168+00	IH 43 SB	10	10	0.006	0.3	0.1	ENDWALL REPLACEMENT
200+70	IH 43 SB	10	10	0.006	0.3	0.1	ENDWALL REPLACEMENT
	TOTALS	40	40	0.024	1.2	0.4	

EROSION CONTROL SUMMARY

STATION	LOCATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	REMARKS
138+25	IH 43 NB	RT	1	AMSTERDAM ROAD BRIDGE
138+25	IH 43 NB	LT	1	AMSTERDAM ROAD BRIDGE
137+85	IH 43 SB	RT	1	AMSTERDAM ROAD BRIDGE
137+85	IH 43 SB	LT	1	AMSTERDAM ROAD BRIDGE
		TOTAL	4	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 SIGNS TYPE II REF. TYPE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	IH 43, S. OF PEBBLE BEACH RD	I2-2	102" X 21"	14.88	---	---	2	---	---	1	2	SEE SIGN DETAILS
2	IH 43, N. OF PEBBLE BEACH RD	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 111
3	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 111
4	"	M1-94	90" X 15"	9.38	---	---	2	---	---	1	2	SEE SIGN DETAILS
5	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
5A	"	R3-4B	---	---	---	---	---	---	---	1	1	
6	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
6A	"	R3-4B	---	---	---	---	---	---	---	1	1	
7	"	R8-7	48" X 36"	12.00	---	---	---	1	---	1	1	
8	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 112
9	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 112
10	"	M1-94	108" X 21"	15.75	---	---	2	---	---	---	---	SEE SIGN DETAILS
11	IH 43, N. OF AMSTERDAM RD	M1-94	108" X 21"	15.75	---	---	2	---	---	---	---	SEE SIGN DETAILS
12	"	R4-3	48" X 60"	20.00	---	---	---	---	2	1	2	
13	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
13A	"	R3-4B	---	---	---	---	---	---	---	1	1	
14	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
14A	"	R3-4B	---	---	---	---	---	---	---	1	1	
15	"	R2-1	48" X 60"	20.00	---	---	---	---	2	1	2	70 MPH
16	"	J4-3	108" X 54"	40.50	---	---	---	---	2	1	2	SEE PLAN SHEET
17	IH 43, STH 32 NB OFF RAMP	E5-1A	90" X 60"	37.50	---	---	---	---	2	1	2	EXIT 113
18	"	W3-1	36" X 36"	---	---	9.00	---	1	---	1	1	
19	"	J2-1	24" X 57"	9.50	---	---	---	1	---	---	---	SEE PLAN SHEET
20	"	D1-3	90" X 36"	22.50	---	---	---	2	---	1	2	SEE SIGN DETAILS
21	"	R5-1A	36" X 24"	6.00	---	---	1	---	---	1	1	
22	"	R5-1A	36" X 24"	6.00	---	---	1	---	---	1	1	
23	"	J3-2	48" X 57"	19.00	---	---	---	1	---	1	1	SEE PLAN SHEET
24	IH 43, S. OF STH 32	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 113
25	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 113
26	"	W4-1	48" X 48"	---	---	16.00	---	2	---	1	2	
27	IH 43, STH 32 SB ON RAMP	R5-57	36" X 36"	9.00	---	---	---	1	---	1	1	
28	IH 43, STH 32 NB ON RAMP	R5-57	36" X 36"	9.00	---	---	---	1	---	1	1	
29	IH 43, STH 32 SB OFF RAMP	J3-2	48" X 57"	19.00	---	---	---	1	---	1	1	SEE PLAN SHEET
30	"	R5-1A	36" X 24"	6.00	---	---	1	---	---	1	1	
31	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 32
32	"	D1-3	90" X 36"	22.50	---	---	---	2	---	1	2	
33	"	J2-1	24" X 57"	9.50	---	---	---	1	---	1	1	SEE PLAN SHEET
34	"	W3-1	36" X 36"	---	---	9.00	---	1	---	1	1	
35	"	E5-1A	90" X 60"	37.50	---	---	---	---	2	1	2	EXIT 113
	PAGE SUBTOTALS			439.25	0.00	34.00	17	19	10	31	41	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 SIGNS TYPE II REF. TYPE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
36	IH 43, N. OF STH 32	W4-1	48" X 48"	---	---	16.00	---	2	---	1	2	
37	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
37A	"	R3-4B	---	---	---	---	---	---	---	1	1	
38	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
38A	"	R3-4B	---	---	---	---	---	---	---	1	1	
39	"	J4-2	72" X 54"	27.00	---	---	---	---	2	1	2	SEE PLAN SHEET
40	"	R2-1	48" X 60"	20.00	---	---	---	---	2	1	2	70 MPH
41	"	R4-3	48" X 60"	20.00	---	---	---	---	2	1	2	
42	"	R8-7	48" X 36"	12.00	---	---	---	1	---	1	1	
43	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 114
44	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 114
45	"	M1-94	72" X 21"	10.50	---	---	2	---	---	1	2	SEE SIGN DETAILS
46	IH 43, N. OF SMIES RD	M1-94	72" X 21"	10.50	---	---	2	---	---	1	2	SEE SIGN DETAILS
47	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
47A	"	R3-4B	---	---	---	---	---	---	---	1	1	
48	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
48A	"	R3-4B	---	---	---	---	---	---	---	1	1	
49	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 115
50	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 115
51	"	M1-94	78" X 21"	11.38	---	---	2	---	---	1	2	SEE SIGN DETAILS
52	IH 43, N. OF DEWITT RD	M1-94	78" X 21"	11.38	---	---	2	---	---	---	---	SEE SIGN DETAILS
53	"	R8-7	48" X 36"	12.00	---	---	---	1	---	1	1	
54	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 116
55	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 116
56	"	R2-1	48" X 60"	20.00	---	---	---	---	2	1	2	70 MPH
57	"	J4-2	72" X 54"	27.00	---	---	---	---	2	1	2	SEE PLAN SHEET
58	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
58A	"	R3-4B	---	---	---	---	---	---	---	1	1	
59	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
59A	"	R3-4B	---	---	---	---	---	---	---	1	1	
60	"	W4-1	48" X 48"	---	---	16.00	---	2	---	1	2	
61	IH 43, CTH AA NB OFF RAMP	E5-1A	90" X 60"	37.50	---	---	---	---	2	1	2	EXIT 116
62	"	W3-1	36" X 36"	---	---	9.00	---	1	---	1	1	
63	"	D1-3	78" X 36"	19.50	---	---	---	2	---	1	2	SEE SIGN DETAILS
64	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 63
65	"	R5-1A	36" X 24"	6.00	---	---	1	---	---	1	1	
66	"	D4-5	36" X 48"	12.00	---	---	---	---	1	1	1	
67	IH 43, CTH AA SB ON RAMP	R5-57	36" X 36"	9.00	---	---	---	1	---	1	1	
68	IH 43, CTH AA NB ON RAMP	R5-57	36" X 36"	9.00	---	---	---	1	---	1	1	
69	IH 43, N. OF CTH AA	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 116
70	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 116
	PAGE SUBTOTALS			384.75	0.00	41.00	17	17	13	33	45	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 SIGNS TYPE II REF. TYPE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
71	IH 43, N. OF CTH AA	W4-1	48" X 48"	---	---	16.00	---	2	---	1	2	
72	IH 43, CTH AA SB OFF RAMP	J13-1	24" X 45"	7.50	---	---	---	1	---	1	1	SEE PLAN SHEET
73	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 76
74	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 75
75	"	D1-3	78" X 36"	19.50	---	---	---	2	---	1	2	SEE SIGN DETAILS
76	"	D4-5L	36" X 48"	12.00	---	---	---	---	1	1	1	
77	"	W3-1	36" X 36"	---	---	9.00	---	1	---	1	1	
78	"	E5-1A	90" X 60"	37.50	---	---	---	---	2	1	2	EXIT 116
79	IH 43, N. OF CTH AA	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
79A	"	R3-4B	---	---	---	---	---	---	---	1	1	
80	"	R3-4B	36" X 48"	12.00	---	---	---	1	---	---	---	
80A	"	R3-4B	---	---	---	---	---	---	---	1	1	
81	"	J4-2	72" X 54"	27.00	---	---	---	---	2	1	2	SEE PLAN SHEET
82	"	M1-94	60" X 21"	8.75	---	---	2	---	---	1	2	SEE SIGN DETAILS
83	IH 43, N. OF HWY KK	M1-94	60" X 21"	8.75	---	---	2	---	---	1	2	SEE SIGN DETAILS
84	"	R2-1	48" X 60"	20.00	---	---	---	---	2	1	2	70 MPH
85	"	R8-7	48" X 36"	12.00	---	---	---	1	---	1	1	
86	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 117
87	"	D10-3	12" X 48"	4.00	---	---	1	---	---	1	1	MILE 117
88	"	M1-94	114" X 21"	16.63	---	---	2	---	---	1	2	SEE SIGN DETAILS
89	IH 43, N. OF WILSON-LIMA RD	M1-94	114" X 21"	16.63	---	---	2	---	---	1	2	SEE SIGN DETAILS
90	CTH A	J1-2	---	---	---	---	---	---	---	1	1	
91	"	J1-2	48" X 39"	13.00	---	---	---	1	---	---	---	SEE PLAN SHEET
92	"	J2-2	---	---	---	---	---	---	---	1	1	
93	"	J2-2	48" X 57"	19.00	---	---	---	---	1	---	---	SEE PLAN SHEET
94	"	D1-3	78" X 36"	19.50	---	---	---	2	---	1	2	SEE SIGN DETAILS
95	"	D4-5A	36" X 48"	12.00	---	---	---	1	---	1	1	
96	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 95
97	"	J3-1	24" X 57"	9.50	---	---	---	---	1	1	1	SEE PLAN SHEET
98	"	R11-54F	48" X 30"	---	10.00	---	---	---	---	---	---	MOUNT BELOW SIGN 97
99	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 97
100	"	R4-7	36" X 48"	12.00	---	---	---	---	1	1	1	
101	"	R5-1	30" X 30"	6.25	---	---	---	1	---	1	1	
102	"	W6-3	36" X 36"	---	---	9.00	---	---	---	---	---	MOUNT TO BACK OF SIGN 101
103	"	R5-1A	36" X 24"	6.00	---	---	---	1	---	1	1	
104	"	M1-5A	24" X 24"	4.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 103
105	"	R3-2	24" X 24"	4.00	---	---	---	1	---	1	1	
	PAGE SUBTOTALS			347.75	10.00	34.00	10	16	10	26	36	

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 SIGNS TYPE II REF. TYPE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
106	CTH A	J3-1	24" X 57"	9.50	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 105
107	"	R1-1	36" X 36"	7.46	---	---	---	1	---	1	1	
108	"	R6-1R	36" X 12"	3.00	---	---	---	---	---	---	---	MOUNT ABOVE SIGN 109
109	"	R1-1	36" X 36"	7.46	---	---	---	---	1	1	1	
110	"	R6-3	30" X 24"	5.00	---	---	---	---	---	---	---	MOUNT BELOW SIGN 109
111	"	R1-1	36" X 36"	7.46	---	---	---	1	---	1	1	
112	"	R5-1	30" X 30"	6.25	---	---	1	---	---	1	1	
113	"	R5-1	30" X 30"	6.25	---	---	1	---	---	1	1	
114	"	R6-2L	24" X 30"	5.00	---	---	---	---	---	---	---	MOUNT BELOW SIGN 113
115	"	R6-2L	24" X 30"	5.00	---	---	---	1	---	1	1	
116	"	R11-54F	48" X 30"	---	10.00	---	---	---	---	---	---	MOUNT BELOW SIGN 115
117	"	R5-1	30" X 30"	6.25	---	---	---	1	---	1	1	
118	"	R3-1	24" X 24"	4.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 117
119	"	R4-7	24" X 30"	5.00	---	---	1	---	---	1	1	
120	"	R5-1A	36" X 24"	6.00	---	---	1	---	---	1	1	
121	"	J3-1	24" X 57"	9.50	---	---	---	1	---	1	1	SEE PLAN SHEET
122	"	D1-2	78" X 24"	13.00	---	---	2	---	---	---	---	SEE SIGN DETAILS
123	"	D1-3	---	---	---	---	---	---	---	1	2	
124	"	D1-3	---	---	---	---	---	---	---	1	2	
125	"	D1-1	72" X 15"	7.50	---	---	2	---	---	---	---	SEE SIGN DETAILS
126	"	J3-1	24" X 57"	9.50	---	---	---	1	---	1	1	
127	"	R4-7	24" X 30"	5.00	---	---	1	---	---	1	1	
128	"	R5-1A	36" X 24"	6.00	---	---	1	---	---	1	1	
129	"	R3-1	24" X 24"	4.00	---	---	---	1	---	1	1	
130	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 129
131	"	R6-2L	24" X 30"	5.00	---	---	---	1	---	1	1	
132	"	R11-54F	48" X 30"	---	10.00	---	---	---	---	---	---	MOUNT BELOW SIGN 131
133	"	R5-1	30" X 30"	6.25	---	---	---	1	---	1	1	
134	"	J13-1	24" X 45"	7.50	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 133
135	"	R1-1	36" X 36"	7.46	---	---	---	1	---	1	1	
136	"	R6-2L	24" X 30"	5.00	---	---	---	---	---	---	---	MOUNT WITH SIGN 138
137	"	R6-1R	36" X 12"	3.00	---	---	---	---	---	---	---	MOUNT ABOVE SIGN 138
138	"	R1-1	36" X 36"	7.46	---	---	---	---	1	1	1	
139	"	R6-3	30" X 24"	5.00	---	---	---	---	---	---	---	MOUNT BELOW SIGN 138
140	"	R5-1	30" X 30"	6.25	---	---	1	---	---	1	1	
	PAGE SUBTOTALS			197.30	20.00	0.00	11	10	2	21	23	

3

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 SIGNS TYPE II REF. TYPE H FOLDING S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
141	CTH A	R1-1	36" X 36"	7.46	---	---	---	1	---	1	1	
142	"	J3-1	24" X 57"	9.50	---	---	---	---	1	1	1	SEE PLAN SHEET
143	"	R3-2	24" X 24"	4.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 142
144	"	W5-1	36" X 36"	---	---	9.00	---	1	---	1	1	
145	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 144
146	"	W6-3	36" X 36"	---	---	9.00	---	1	---	1	1	
147	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 146
148	"	D4-5	36" X 48"	12.00	---	---	---	1	---	1	1	
149	"	R4-7	36" X 48"	12.00	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 148
150	"	R5-1	30" X 30"	6.25	---	---	---	---	1	1	1	
151	"	J3-1	24" X 57"	9.50	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 150
152	"	R11-54F	48" X 30"	---	10.00	---	---	---	---	---	---	MOUNT BELOW SIGN 151
153	"	D1-3	72" X 36"	18.00	---	---	---	2	---	---	---	SEE SIGN DETAILS
154	"	D1-3	---	---	---	---	---	---	---	1	2	
155	"	J2-3	72" X 57"	28.50	---	---	---	2	---	---	---	SEE PLAN SHEET
156	"	D4-5L	36" X 48"	12.00	---	---	---	1	---	1	1	
157	"	J1-2	48" X 39"	13.00	---	---	1	---	---	1	1	SEE PLAN SHEET
	PAGE SUBTOTALS			144.46	10.00	18.00	1	9	2	9	10	
	PROJECT TOTALS			**1513.51**	**40.00**	**127.00**	**56**	**71**	**37**	**120**	**155**	

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE I

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH S.F.	638.2601 REMOVING SIGNS TYPE I EACH	638.3100 REMOVING STRUCTURAL STEEL SUPPORTS EACH	TYPE/SIZE OF STEEL*	531.1100 CONCRETE MASONRY ANC. STR TYPE NS CY*	531.2024 DRILLING SHAFT 24-INCH LF*	531.1140 STEEL REINF. HS ANC. STRUCTURES TYPE NS LB*	635.0200 SIGN SUPPORTS STRUCT. STEEL HIGH-STRENGTH LB*	REMARKS
200	IH 43, S. OF AMSTERDAM RD	E1-1A	228" X 156"	247.0	1	2	3-W12X26	3.6	30.0	540	1,886	
201	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 100
202	"	E8-1	252" X 84"	147.0	1	2	3-W12X26	3.6	30.0	540	1,574	
203	"	E4-1A	264" X 120"	220.0	1	2	3-W12X26	3.6	30.0	540	1,730	
204	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 103
205	IH 43, N. OF STH 32	E4-1A	264" X 120"	220.0	1	2	3-W12X26	3.6	30.0	540	1,730	
206	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 105
207	"	E3-1	156" X 78"	84.5	1	2	2-W10X22	2.0	17.0	302	1,148	
207A		E8-1	192" X 84"	112.0			2-W12X26	2.4	20.0	360	1,396	
208	"	E1-1A	228" X 156"	247.0	1	2	3-W12X26	3.6	30.0	540	1,886	
209	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 107
210	"	E8-1	---	0.0	1	2	---	---		---	---	
211	"	E1-1A	168" X 120"	140.0	1	2	2-W12X26	2.4	20.0	360	1,552	
212	"	D1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 110
213	"	E4-1A	216" X 90"	135.0	1	2	2-W12X26	2.4	20.0	360	1,422	
214	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 112
215	IH 43, N. OF CTH AA	E4-1A	216" X 90"	135.0	1	2	2-W12X26	2.4	20.0	360	1,422	
216	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 114
217	"	E1-1A	168" X 120"	140.0	1	2	2-W12X26	2.4	20.0	360	1,552	
218	"	E1-5	108" X 30"	22.5	---	---	---	---		---	---	MOUNT TOP RIGHT OF SIGN 116
219	"	E9-1	132" X 54"	49.5	1	2	W-W8X18	1.8	15.0	204	814	
220	"	E8-1	---	---	1	2	---	---		---	---	
	PROJECT TOTALS			**2057.0**	**13**	**26**		**33.8**	**282.0**	**5006**	**18112**	

*THESE QUANTITIES ARE ESTIMATES.
ACTUAL SIZE/NUMBER/LENGTH/WEIGHT OF STEEL SUPPORTS/REINFORCEMENT/CONCRETE BASES
ARE TO BE DETERMINED BY CONTRACTOR, BASED ON SURVEY OF FIELD CONDITIONS, FINAL GRADE AND SIGN LOCATION.
SURVEY REQUIRED FOR DETERMINATION IS THE RESPONSIBILITY OF THE CONTRACTOR, INCIDENTAL TO THE CONTRACT.
FOLLOW SIGN DETAIL A-PLATES - A3-1, A3-2, A3-3, A4-1

TRAFFIC CONTROL SUMMARY

STAGE / LOCATION	APPROXIMATE SERVICE PERIOD	643.0300 DRUMS		643.0420 BARRICADES TYPE III		643.0705 WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0800 ARROW BOARDS		643.0900 SIGNS		643.1050 SIGNS PCMS		643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM		REMARKS
	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAY	
PASSING (INSIDE) LANES (LOWER LAYER)																		
SCL - WILSON-LIMA ROAD, OVERLAY, NB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	NOTE A
SCL - WILSON-LIMA ROAD, OVERLAY, SB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	
DRIVING (OUTSIDE) LANES (LOWER LAYER)																		
SCL - WILSON-LIMA ROAD, OVERLAY, NB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	NOTE A
SCL - WILSON-LIMA ROAD, OVERLAY, SB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	
PASSING (INSIDE) LANES (UPPER LAYER)																		
SCL - WILSON-LIMA ROAD, OVERLAY, NB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	NOTE A
SCL - WILSON-LIMA ROAD, OVERLAY, SB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	
DRIVING (OUTSIDE) LANES (UPPER LAYER)																		
SCL - WILSON-LIMA ROAD, OVERLAY, NB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	NOTE A
SCL - WILSON-LIMA ROAD, OVERLAY, SB	15	240	3,600	16	240	32	480	15	225	2	30	10	150	1	7	3	45	
CTH AA & IH 43 NB EXIT RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
CTH AA & IH 43 SB EXIT RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
CTH AA & IH 43 NB ENTRANCE RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
CTH AA & IH 43 SB ENTRANCE RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
								0										
STH 32 & IH 43 NB EXIT RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
STH 32 & IH 43 SB EXIT RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
STH 32 & IH 43 NB ENTRANCE RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
STH 32 & IH 43 SB ENTRANCE RAMP, OVERLAY	3	50	150	4	12	8	24	50	150	-	0	10	30	1	7	-	0	NOTE B
PARK AND RIDE AT CTH AA	4	0	0	3	12	6	24	0	0	-	0	1	4	1	7	-	0	7 DAYS BEFORE CLOSURE
PROJECT TOTALS			30,000		2,028		4,056		3,000		240		1,444		119		360	

NOTE A: PORTABLE CHANGEABLE MESSAGE SIGN TO BE LOCATED ON IH 43 1 WEEK PRIOR TO INITIAL LANE CLOSURES

NOTE B: PORTABLE CHANGEABLE MESSAGE SIGN TO BE INSTALLED 3 DAYS PRIOR TO RAMP CLOSURE AND DURING RAMP CLOSURE.

THE ITEM "SIGNS" INCLUDES SPEED LIMIT SIGNS FOR TEMPORARY SPEED LIMIT REDUCITON. THE ITEM "COVERING SIGNS" INCLUDES EXISTING SPEED LIMIT SIGNS COVERED FOR TEMPORARY SPEED LIMIT REDUCTION.

PAVEMENT MARKING SUMMARY

STATION	TO	STATION	LOCATION	646.1020 LINE EPOXY 4-INCH WHITE LF	646.1020 LINE EPOXY 4-INCH YELLOW LF	646.1040 LINE GROOVED WET REF EPOXY WHITE LF	646.1040 LINE GROOVED WET REF EPOXY YELLOW LF	646.1555 LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED LF	646.3020 LINE EPOXY 8-INCH WHITE LF	646.3555 LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH WHITE SOLID LF	646.8320 PARKING STALL EPOXY LF	646.5220 SYMBOL EPOXY EACH	REMARKS
977+99	-	1007+16	IH 43 NB	-	-	2,917	2,917	729	-	-	-	-	-
111+06	-	171+83	IH 43 NB	-	-	6,077	6,077	1,519	-	-	-	-	-
171+83	-	181+05	IH 43 NB	-	-	922	922	231	-	-	-	-	-
181+05	-	200+00	IH 43 NB	-	-	1,895	1,895	474	-	-	-	-	-
200+00	-	212+21	IH 43 NB	-	-	1,221	1,221	305	-	-	-	-	-
212+21	-	377+10	IH 43 NB	-	-	16,489	16,489	4,122	-	-	-	-	-
377+10	-	386+88	IH 43 NB	-	-	978	978	245	-	-	-	-	-
386+88	-	407+10	IH 43 NB	-	-	2,022	2,022	506	-	-	-	-	-
407+10	-	419+00	IH 43 NB	-	-	1,190	1,190	298	-	-	-	-	-
419+00	-	475+81	IH 43 NB	-	-	5,681	5,681	1,420	-	-	-	-	-
977+60	-	1006+95	IH 43 SB	-	-	2,935	2,935	734	-	-	-	-	-
111+06	-	167+68	IH 43 SB	-	-	5,662	5,662	1,415	-	-	-	-	-
167+68	-	180+00	IH 43 SB	-	-	1,232	1,232	308	-	-	-	-	-
180+00	-	199+06	IH 43 SB	-	-	1,906	1,906	477	-	-	-	-	-
199+06	-	208+35	IH 43 SB	-	-	929	929	232	-	-	-	-	-
208+35	-	375+00	IH 43 SB	-	-	16,665	16,665	4,166	-	-	-	-	-
375+00	-	387+47	IH 43 SB	-	-	1,247	1,247	312	-	-	-	-	-
387+47	-	406+06	IH 43 SB	-	-	1,859	1,859	465	-	-	-	-	-
406+06	-	419+00	IH 43 SB	-	-	1,294	1,294	324	-	-	-	-	-
419+00	-	475+81	IH 43 SB	-	-	5,681	5,681	1,420	-	-	-	-	-
178+23	-	190+00	STH 32 SE RAMP	850	850	-	-	-	85	1,350	-	-	-
178+50	-	190+00	STH 32 SW RAMP	1,040	960	-	-	-	-	1,350	-	-	-
190+00	-	205+00	STH 32 NE RAMP	940	940	-	-	-	-	920	-	-	-
190+00	-	206+00	STH 32 NW RAMP	830	830	-	-	-	105	530	-	-	-
385+57	-	396+50	CTH AA SE RAMP	960	960	-	-	-	94	600	-	-	-
385+58	-	396+50	CTH AA SW RAMP	890	890	-	-	-	-	1,270	-	-	-
396+56	-	408+95	CTH AA NE RAMP	1,015	1,015	-	-	-	-	1,230	-	-	-
396+56	-	408+96	CTH AA NW RAMP	925	925	-	-	-	105	520	-	-	-
294+70	-	304+00	STH 32	1,755	-	-	-	-	600	-	-	-	-
44+40	-	54+57	CTH AA	1,320	-	-	-	-	243	-	-	-	-
-	-	-	PARK AND RIDE CTH AA	-	-	-	-	-	-	-	220	1	HANDICAP SYMBOL
			TOTALS	10,525	7,370	78,801	78,801	19,700	1,232	7,770	220	1	
				17,895		157,602							

3

PAVEMENT MARKING AERIAL ENFORCEMENT BARS

646.5420
MARKING AERIAL
ENFORCEMENT BAR EPOXY

LOCATION	EACH	REMARKS
BETWEEN STH 32 AND SMIES ROAD	4	VASCAR
	4	

NOTE: AERIAL ENFORCEMENT BARS ARE EXISTING. MARK PRIOR TO MILLING/PAVING OPERAT
AND RESTORE IN THE SAME LOCATION PER THE APPLICABLE S.D.D.
NOTIFY THE ENGINEER AT LEAST ONE WEEK BEFORE MARKING SO THE STATE PATROL CAN
PROVIDE EXACT LOCATIONS.

TEMPORARY MARKING LINE

649.0105
PAINT 4-INCH
WHITE DASHED

STATION	TO	STATION	LOCATION	LF	REMARKS
977+99	-	1007+16	IH 43 NB	700	TEMPORARY BETWEEN LIFTS
111+06	-	171+83	IH 43 NB	1,458	
171+83	-	181+05	IH 43 NB	221	
181+05	-	200+00	IH 43 NB	455	
200+00	-	212+21	IH 43 NB	293	
212+21	-	377+10	IH 43 NB	3,957	
377+10	-	386+88	IH 43 NB	235	
386+88	-	407+10	IH 43 NB	485	
407+10	-	419+00	IH 43 NB	286	
419+00	-	475+81	IH 43 NB	1,363	
977+60	-	1006+95	IH 43 SB	704	TEMPORARY BETWEEN LIFTS
111+06	-	167+68	IH 43 SB	1,359	
167+68	-	180+00	IH 43 SB	296	
180+00	-	199+06	IH 43 SB	457	
199+06	-	208+35	IH 43 SB	223	
208+35	-	375+00	IH 43 SB	4,000	
375+00	-	387+47	IH 43 SB	299	
387+47	-	406+06	IH 43 SB	446	
406+06	-	419+00	IH 43 SB	311	
419+00	-	475+81	IH 43 SB	1,363	
			TOTAL	18,912	

MILLING AND REMOVING TEMPORARY JOINT

SPV.0090.01
MILLING AND
REMOVING
TEMPORARY JOINT

STATION	TO	STATION	LOCATION	LF	REMARKS
977+99	-	1007+16	IH 43 NB MAINLINE	2,917	
111+06	-	171+83	IH 43 NB MAINLINE	6,077	
171+83	-	181+05	IH 43 NB MAINLINE	922	
181+05	-	200+00	IH 43 NB MAINLINE	1,895	
200+00	-	212+21	IH 43 NB MAINLINE	1,221	
212+21	-	377+10	IH 43 NB MAINLINE	16,489	
377+10	-	386+88	IH 43 NB MAINLINE	978	
386+88	-	407+10	IH 43 NB MAINLINE	2,022	
407+10	-	419+00	IH 43 NB MAINLINE	1,190	
419+00	-	475+81	IH 43 NB MAINLINE	5,681	
977+99	-	1007+16	IH 43 SB MAINLINE	2,917	
111+06	-	171+83	IH 43 SB MAINLINE	6,077	
171+83	-	181+05	IH 43 SB MAINLINE	922	
181+05	-	200+00	IH 43 SB MAINLINE	1,895	
200+00	-	212+21	IH 43 SB MAINLINE	1,221	
212+21	-	377+10	IH 43 SB MAINLINE	16,489	
377+10	-	386+88	IH 43 SB MAINLINE	978	
386+88	-	407+10	IH 43 SB MAINLINE	2,022	
407+10	-	419+00	IH 43 SB MAINLINE	1,190	
419+00	-	475+81	IH 43 SB MAINLINE	5,681	
			TOTAL	78,784	

3

SAWING ASPHALT

690.0150
SAWING
ASPHALT

STATION	LOCATION	LF	REMARKS
978+22	IH 43 NB	40	BEGIN PROJECT
136+89	IH 43 NB	40	-
138+26	IH 43 NB	40	-
395+63	IH 43 NB	40	-
397+25	IH 43 NB	40	-
475+22	IH 43 NB	40	END PROJECT
977+62	IH 43 SB	40	BEGIN PROJECT
136+49	IH 43 SB	40	-
137+87	IH 43 SB	40	-
395+60	IH 43 SB	40	-
397+23	IH 43 SB	40	-
475+28	IH 43 SB	40	END PROJECT
181+36	STH 32 SE RAMP	25	PAVING LIMITS
180+20	STH 32 SW RAMP	25	PAVING LIMITS
199+30	STH 32 NE RAMP	25	PAVING LIMITS
198+47	STH 32 NW RAMP	25	PAVING LIMITS
387+13	CTH AA SE RAMP	25	PAVING LIMITS
387+24	CTH AA SW RAMP	25	PAVING LIMITS
406+44	CTH AA NE RAMP	25	PAVING LIMITS
405+41	CTH AA NW RAMP	25	PAVING LIMITS
983+00	IH 43	96	MAINTENANCE CROSSOVER
160+00	IH 43	96	MAINTENANCE CROSSOVER
220+00	IH 43	96	MAINTENANCE CROSSOVER
286+50	IH 43	96	MAINTENANCE CROSSOVER
416+00	IH 43	96	MAINTENANCE CROSSOVER
	PARK AND RIDE, CTH AA	74	ENTRANCE LIMITS
	PARK AND RIDE, CTH AA	472	ASPHALT PATCHING
	TOTAL	1706	

CONSTRUCTION STAKING RESURFACING REFERENCE

650.9900
CONSTRUCTION
STAKING
RESURFACING REFERENCE

STATION	TO	STATION	LOCATION	LF	REMARKS
977+99	-	1007+16	IH 43 NB	2,917	
111+06	-	270+72	IH 43 NB	15,966	
270+84	-	370+12	IH 43 NB	9,928	
370+24	-	475+25	IH 43 NB	10,501	
977+60	-	1007+16	IH 43 SB	2,956	
111+06	-	270+72	IH 43 SB	15,966	
270+84	-	370+12	IH 43 SB	9,928	
370+24	-	475+30	IH 43 SB	10,506	
			TOTAL	78,668	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

650.9910
CONSTRUCTION STAKING
SUPPLEMENTAL CONTROL

STATION	TO	STATION	LOCATION	EACH
977+98	-	475+25	IH 43 NB AND SB	1
			TOTAL	1

3

3

PARK & RIDE SIGNING SUMMARY

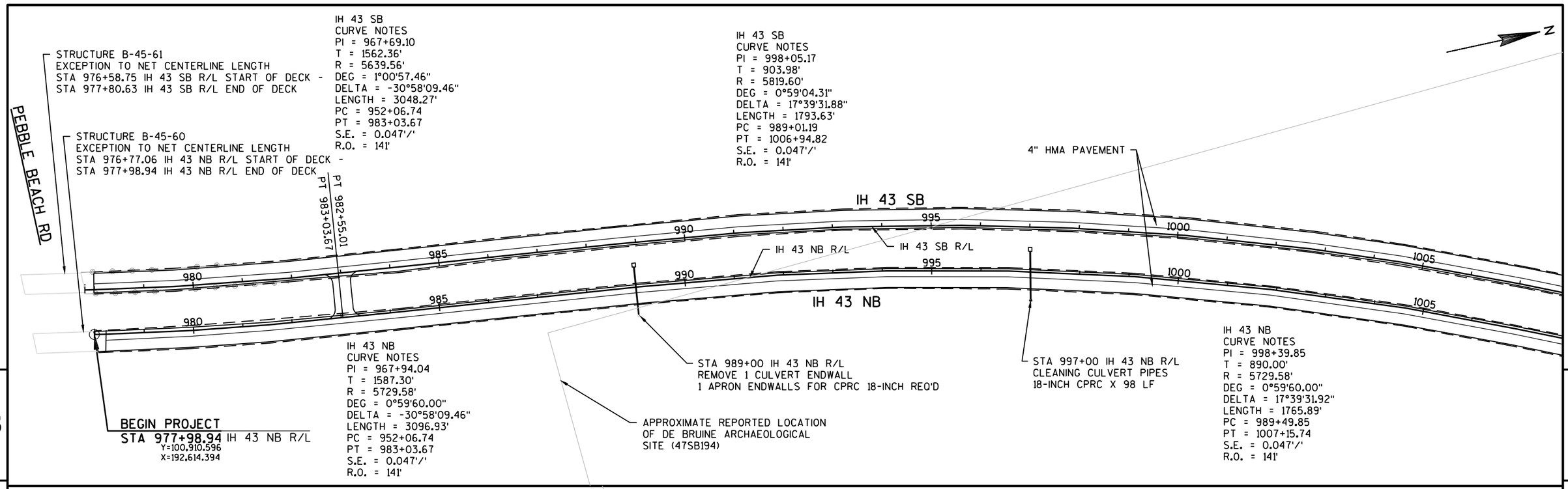
LOCATION	638.2102 MOVING SIGNS TYPE II EA	638.4000 MOVING SMALL SIGN SUPPORTS EA	REMARKS
CTH AA PARK & RIDE	1	1	HANDICAP ACCESSIBLE
TOTALS	1	1	

LAW ENFORCEMENT PADS

STATION	LOCATION	** BASE AGG. DENSE 3/4-INCH TON	SPV.0060.05 SHAPING, AND FINISHING FOR LAW ENFORCEMENT PAD, UNDERPASS EA	* FERTILIZER TYPE B CWT	* SEEDING MIXTURE #30 LB	* MULCHING SY	REMARKS
999+20	IH 43 SB	9	1	0.2	5	250	
175+00	IH 43 NB	9	1	0.2	5	250	
243+90	IH 43 NB	9	1	0.2	5	250	
	TOTALS	27	3	0.6	15.0	750	

* QUANTITIES ARE FOR INFORMATION ONLY

** QUANTITY SUMMED ELSEWHERE



PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 51	E

FILE NAME : N:\PDS\C3D\12210901\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050201-pn

PLOT DATE : 11/15/2020 7:42 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

N

STA 168+00 IH 43 SB R/L
REMOVE 1 CULVERT ENDWALL
1 APRON ENDWALLS FOR CPRC 18-INCH REQ'D

5

5

IH 43 SB

145 150 155 160 165 170

IH 43 NB R/L

IH 43 SB R/L

145 150 155 160 165 170

IH 43 NB

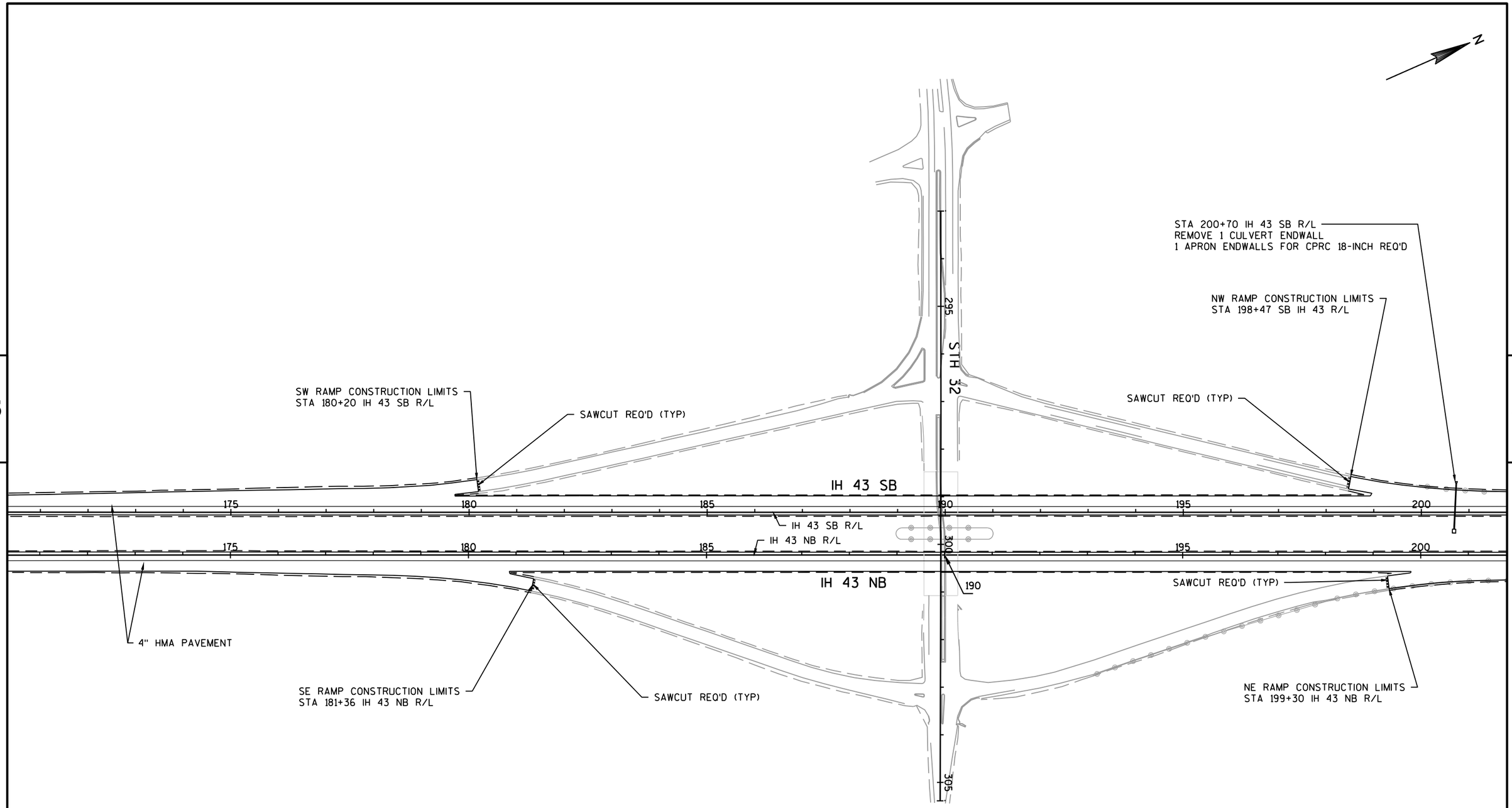
4" HMA PAVEMENT

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 52	E

FILE NAME : N:\PDS\C3D\12210901\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050202-pn

PLOT DATE : 11/15/2020 7:41 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

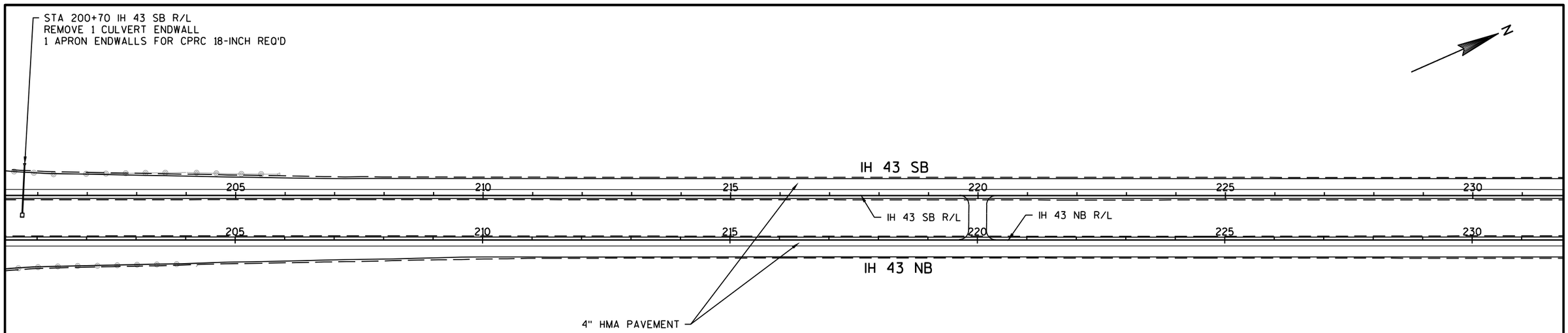


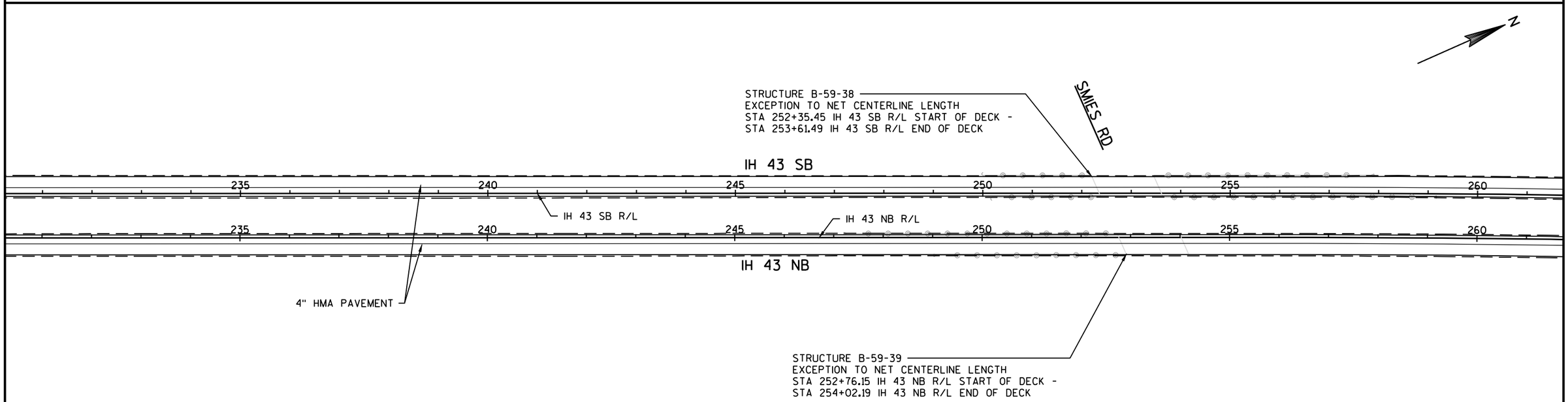
PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN SHEET	SHEET 53	E

FILE NAME : N:\PDS\C3D\12210901\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050203-pn

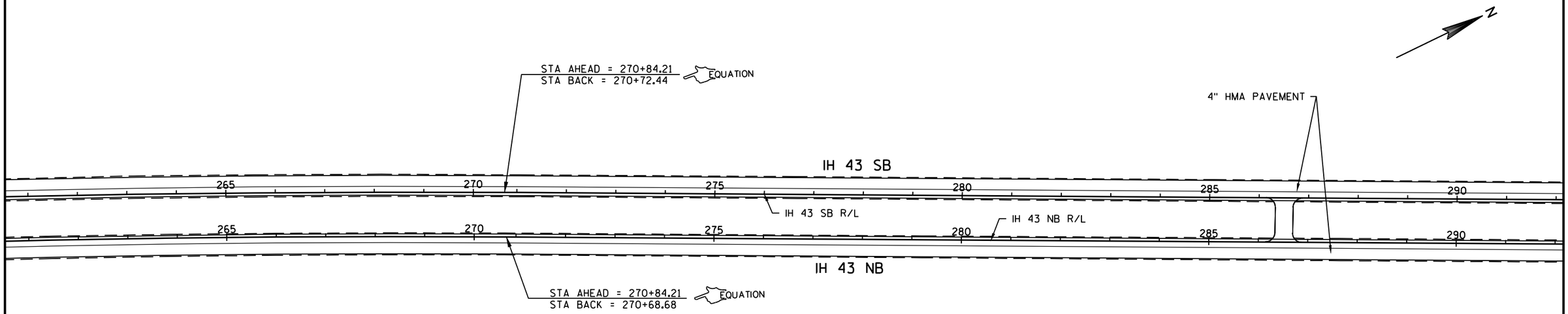
PLOT DATE : 11/15/2020 7:40 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:200 FT

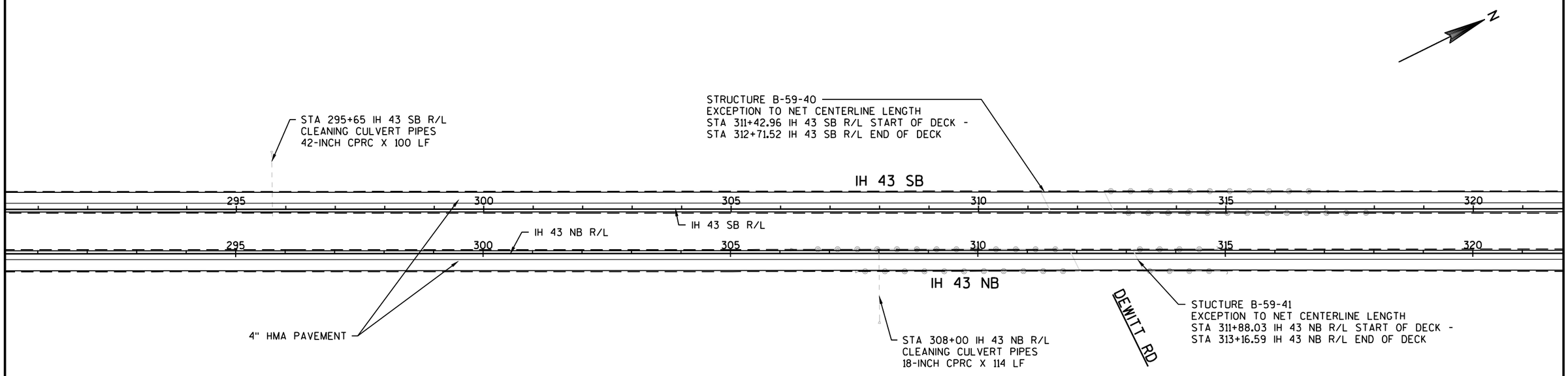
WISDOT/CADDS SHEET 44



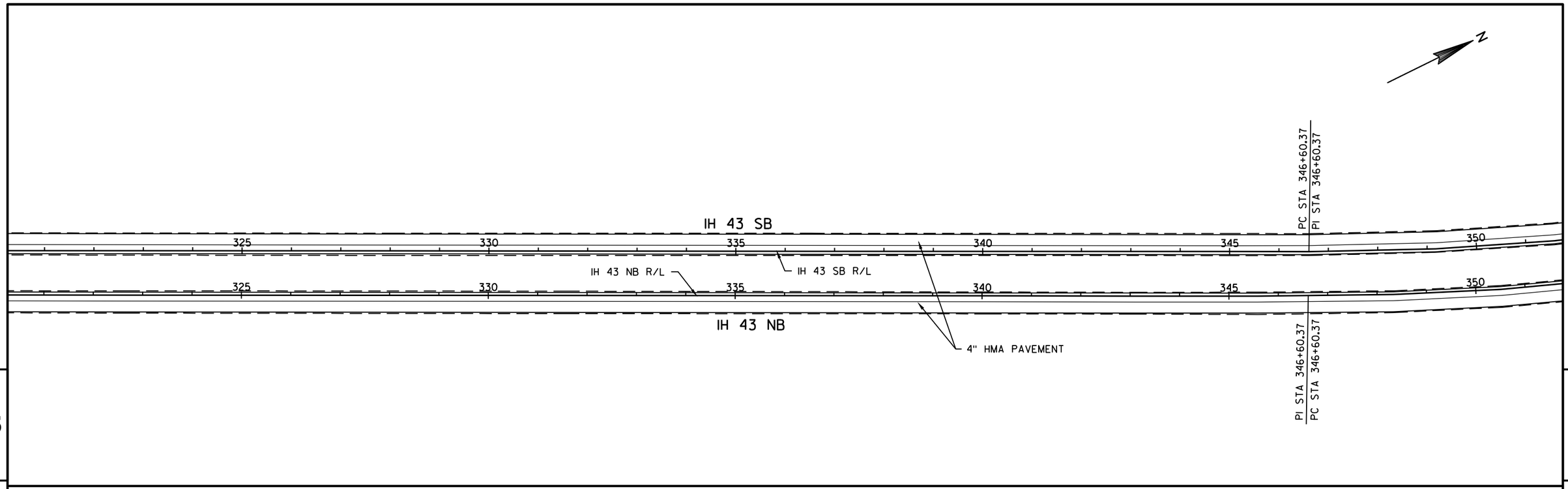


PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN SHEETS IH 43	SHEET 54	E



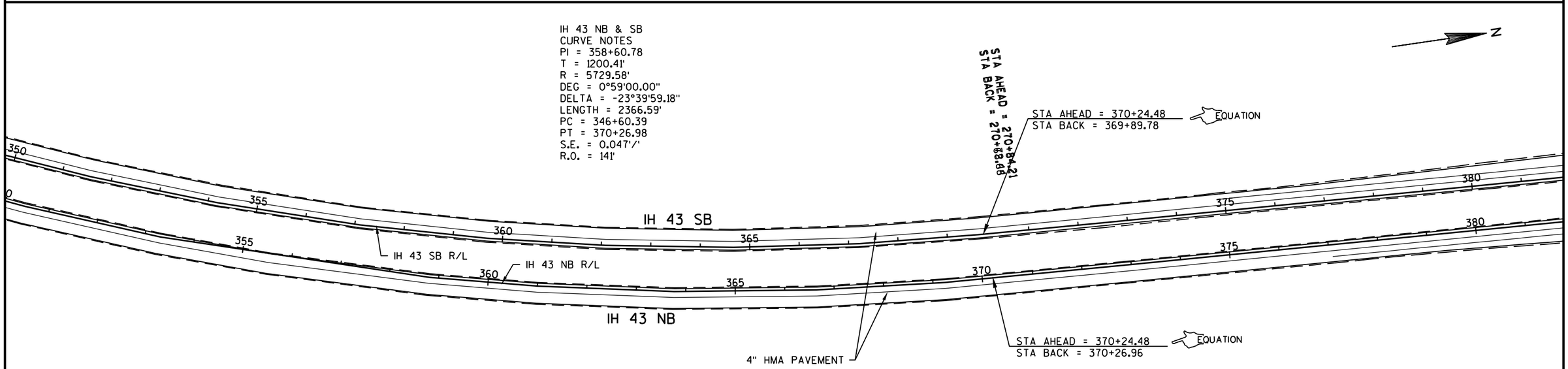


PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 55	E



5

5



PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 56	E

B-59-42
EXCEPTION TO NET CENTERLINE LENGTH
STA 395+61.98 IH 43 SB R/L START OF DECK -
STA 397+20.64 IH 43 SB R/L END OF DECK

SW RAMP CONSTRUCTION LIMITS
STA 387+24 IH 43 SB R/L

SAW CUT REQUIRED

BP: 46+20.00

N

CTH AA

SAW CUT REQUIRED

NW RAMP CONSTRUCTION LIMITS
STA 405+41 IH 43 SB R/L

IH 43 SB

385 390 395 400 405 410

IH 43 SB R/L

IH 43 NB R/L

385 390 395 400 405 410

50'

SAW CUT REQUIRED

IH 43 NB

SAW CUT REQUIRED

4" HMA PAVEMENT

B-59-43
EXCEPTION TO NET CENTERLINE LENGTH
STA 395+64.49 IH 43 NB R/L START OF DECK -
STA 397+23.15 IH 43 NB R/L END OF DECK

STA 401+50 IH 43 NB R/L
CLEANING CULVERT
18-INCH CPRC X 71 LF

NE CONSTRUCTION LIMITS
STA 406+44 IH 43 NB R/L

PARK AND RIDE
TO BE OVERLAID

EP: 54+31.40

SE RAMP CONSTRUCTION LIMITS
STA 387+13 IH 43 NB R/L

APPROXIMATE REPORTED LOCATION OF
KOEPPE ARCHAEOLOGICAL SITE (47SB103)

5

5

N

APPROXIMATE REPORTED LOCATION
OF BRUSSE ARCHAEOLOGICAL
SITE (47SB193)

STA 412+00 IH 43 SB R/L
CLEANING CULVERT
24-INCH X 126 LF

CTH KK

IH 43 SB

415 420 425 430 435 440

IH 43 SB R/L

IH 43 NB R/L

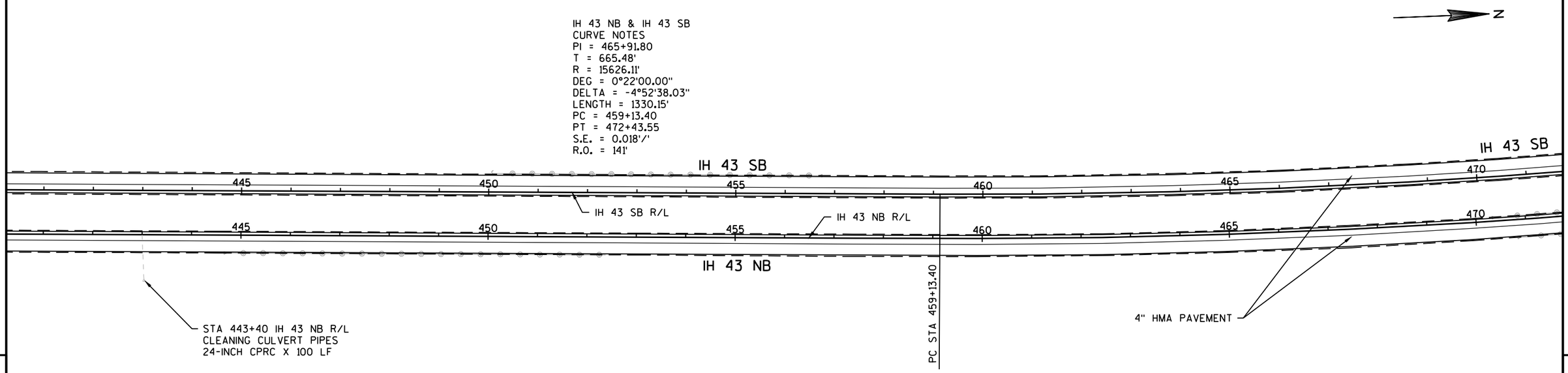
415 420 425 430 435 440

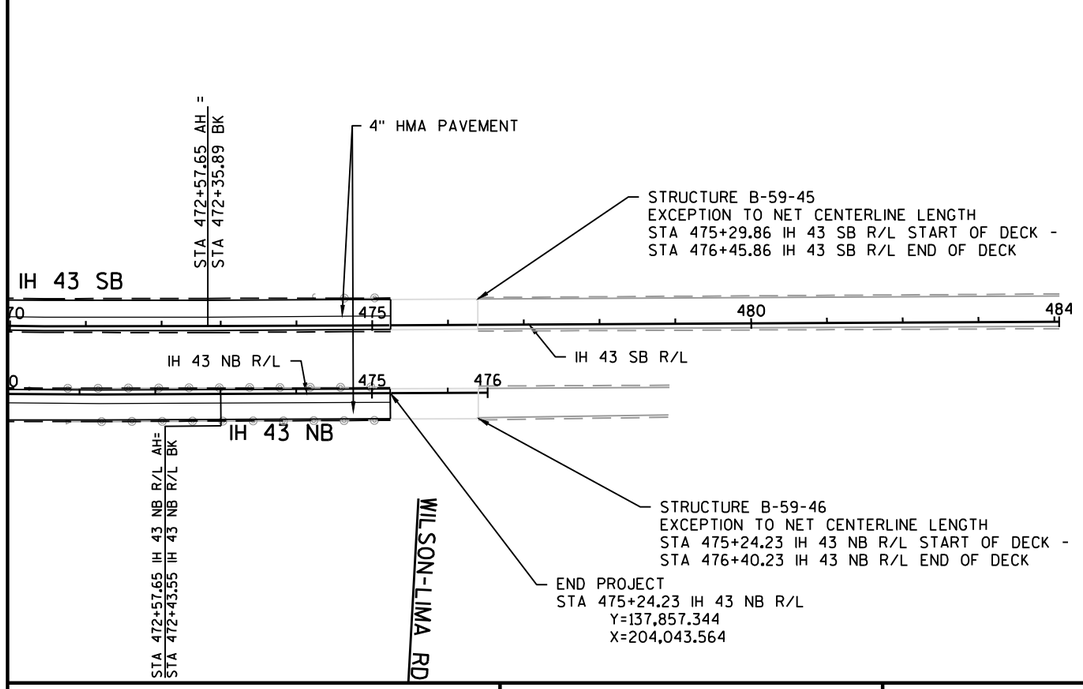
IH 43 NB

4" HMA PAVEMENT

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 57	E

IH 43 NB & IH 43 SB
CURVE NOTES
PI = 465+91.80
T = 665.48'
R = 15626.11'
DEG = 0°22'00.00"
DELTA = -4°52'38.03"
LENGTH = 1330.15'
PC = 459+13.40
PT = 472+43.55
S.E. = 0.018'/'
R.O. = 141'

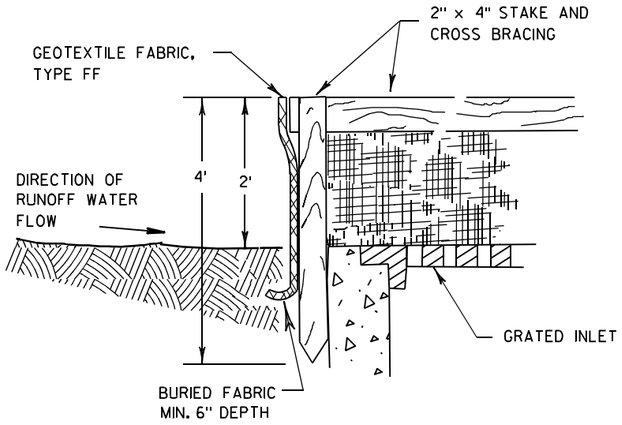


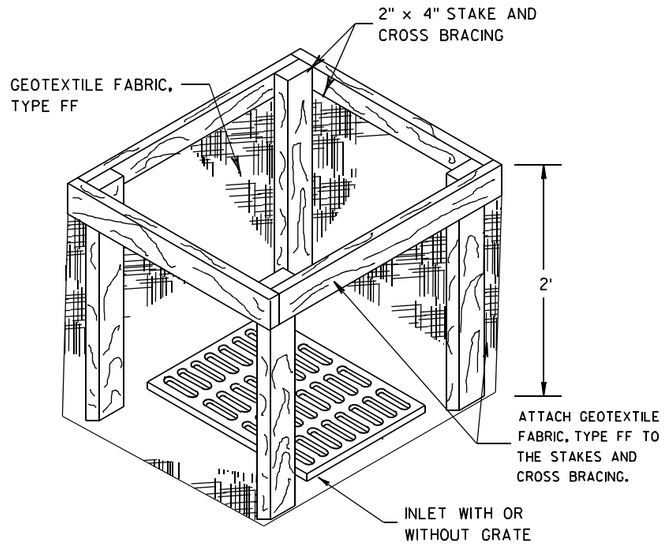


PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 58	E

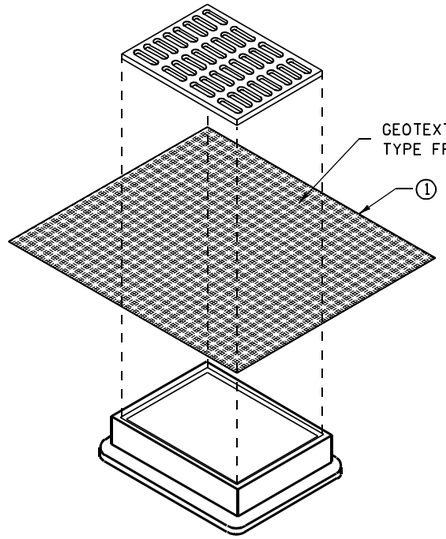
Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C19-02	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
15C02-08D	ON RAMP LANE CLOSURE
15C02-08E	OFF RAMP LANE CLOSURE
15C07-15A	PAVEMENT MARKING SYMBOLS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C14-03	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15D12-08A	TRAFFIC CONTROL, LANE CLOSURE
15D12-08B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-08D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES



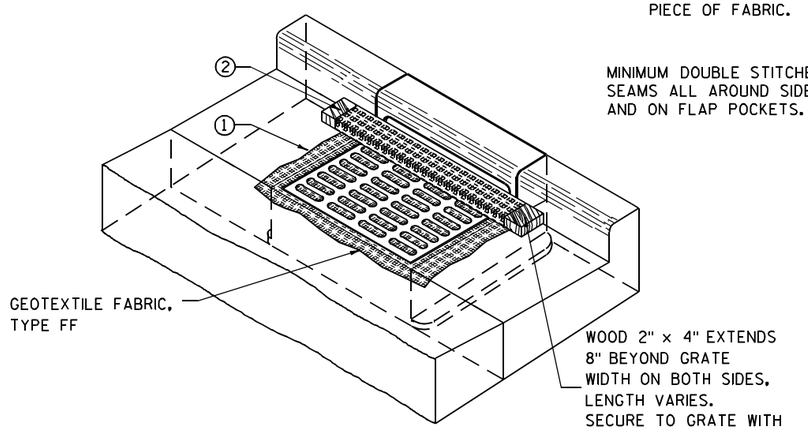


INLET PROTECTION, TYPE A

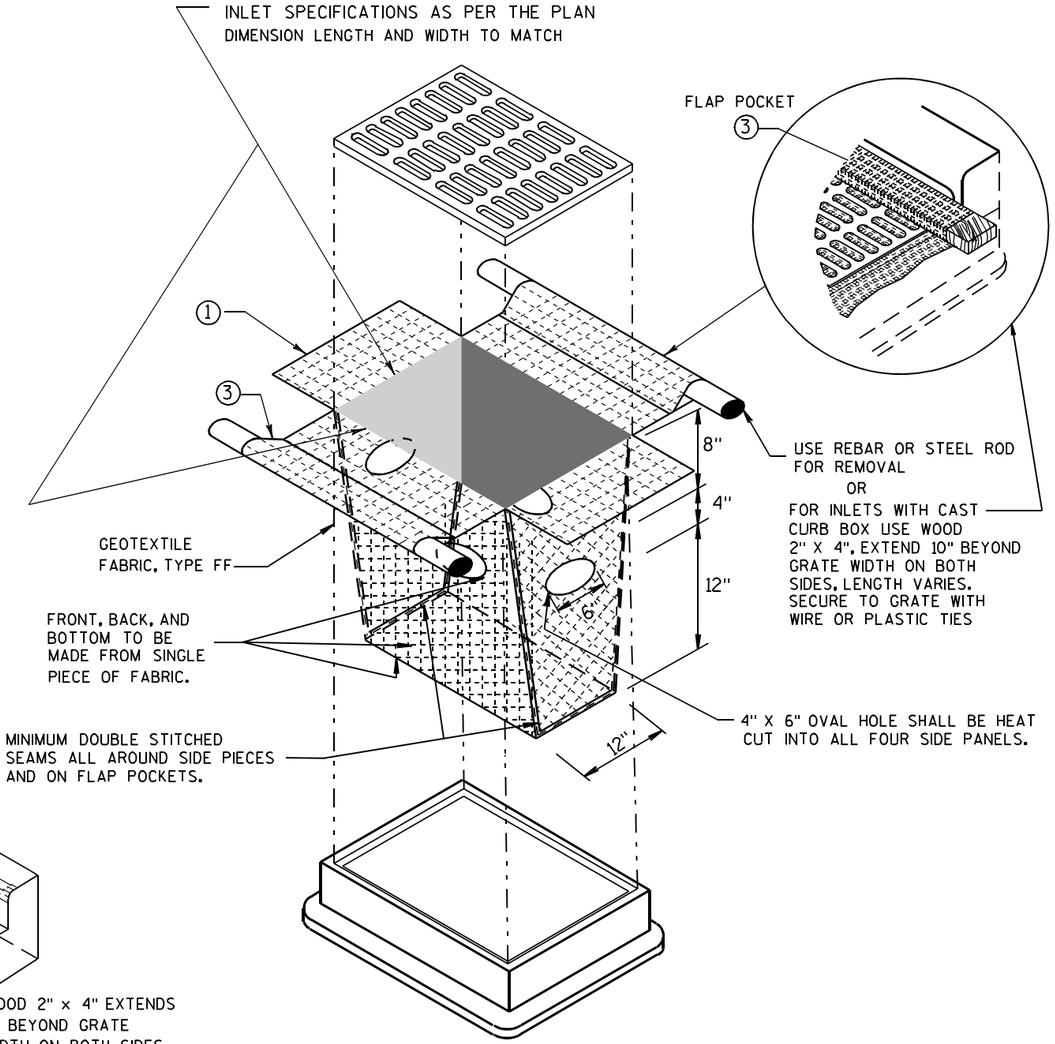


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

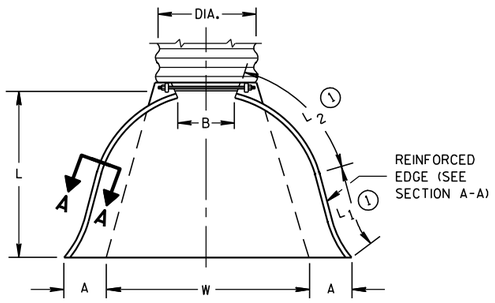
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

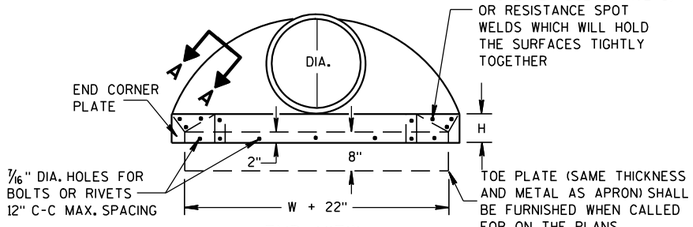
REINFORCED CONCRETE APRON ENDWALLS

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

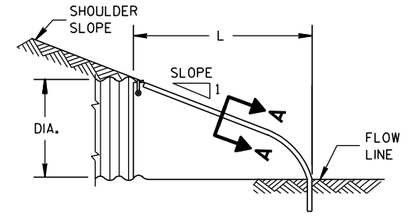
* MINIMUM
** MAXIMUM



PLAN VIEW

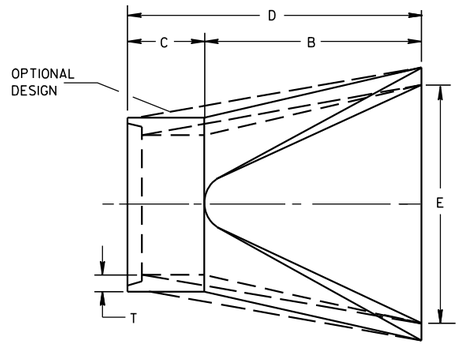


END VIEW

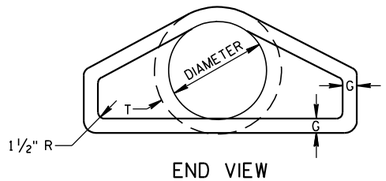


SIDE ELEVATION

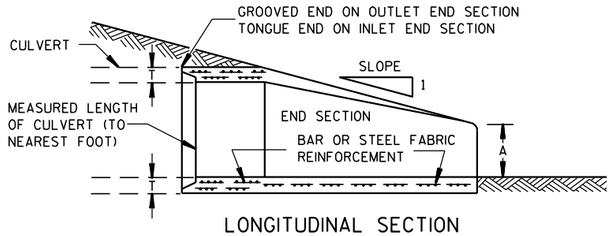
METAL ENDWALLS



PLAN

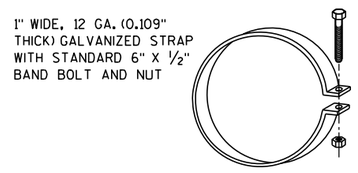


END VIEW



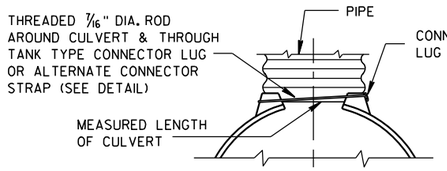
LONGITUDINAL SECTION

CONCRETE ENDWALLS

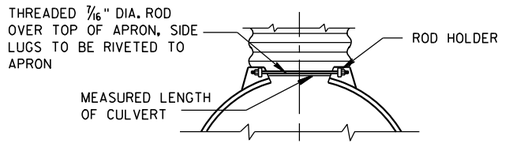


ALTERNATE FOR TYPE 1 CONNECTION

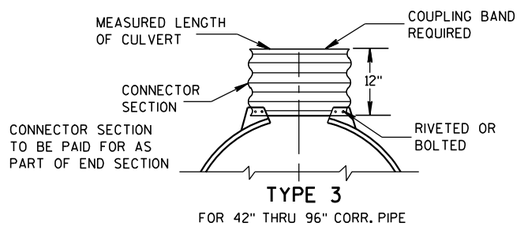
END SECTION CONNECTOR STRAP



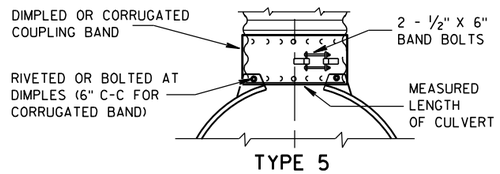
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

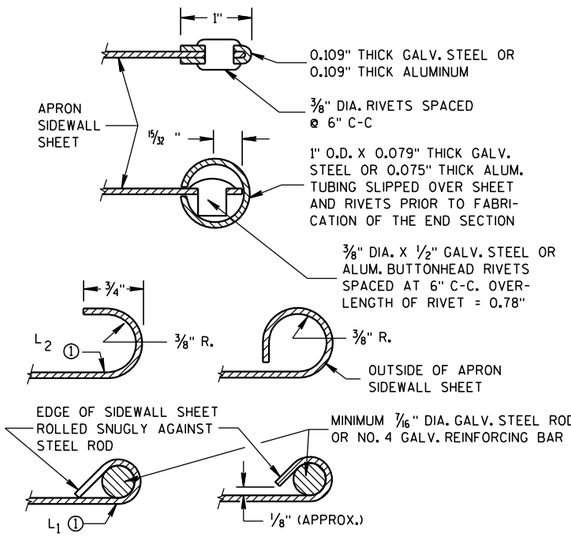
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

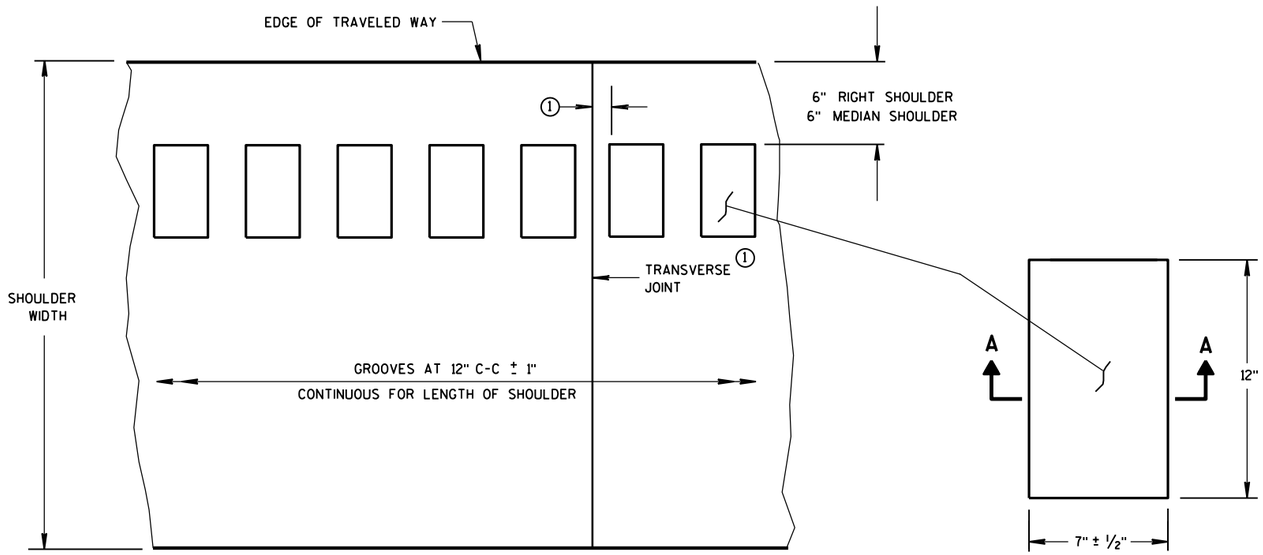
APRON ENDWALLS FOR CULVERT PIPE

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



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

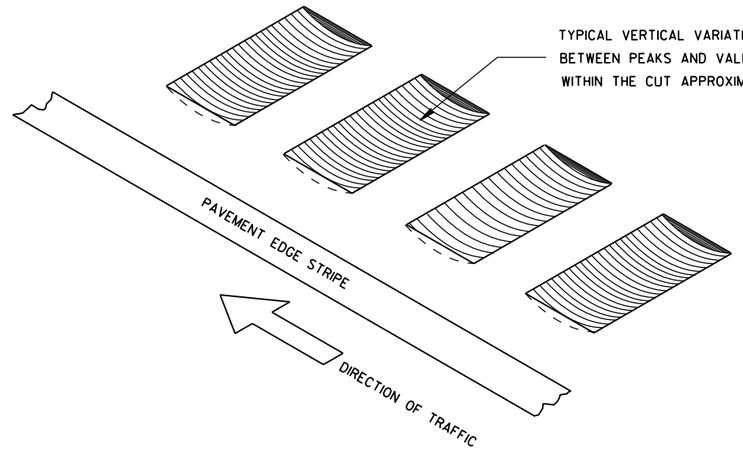
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

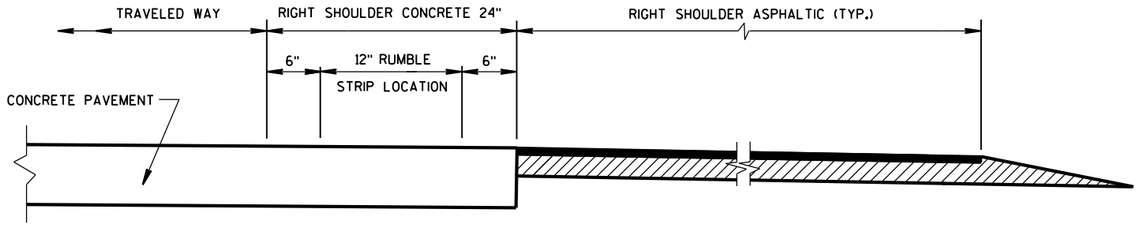
RUMBLE STRIPS ON EXPRESSWAYS

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.

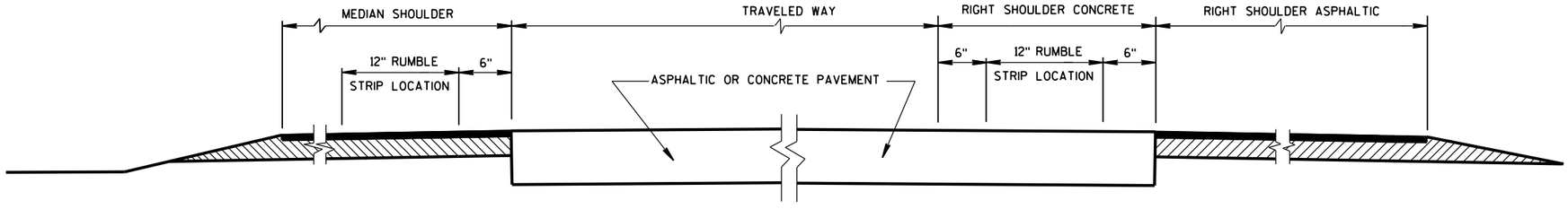
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



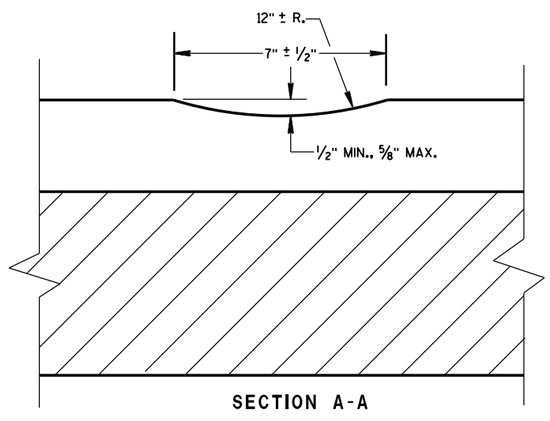
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

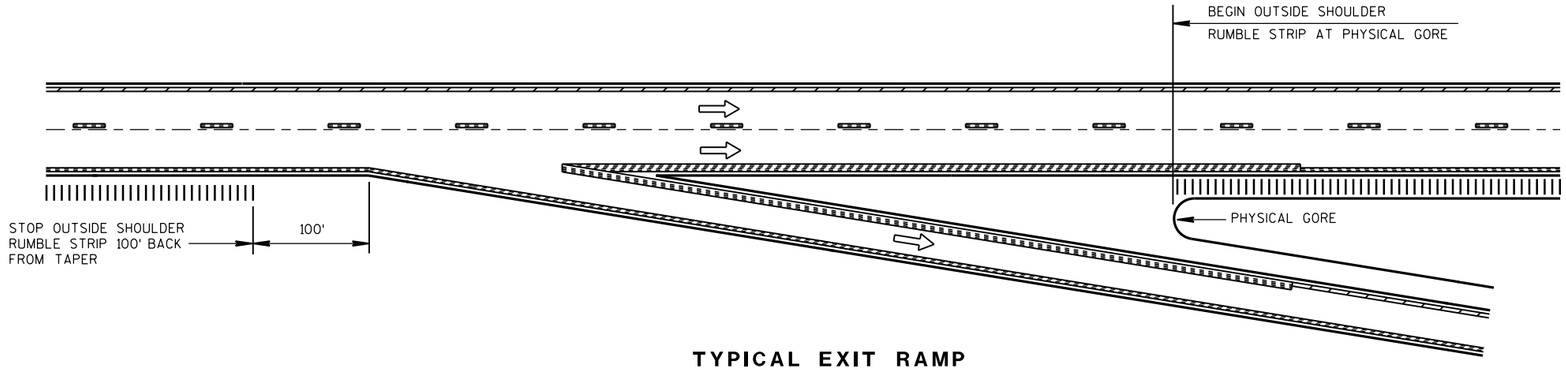
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



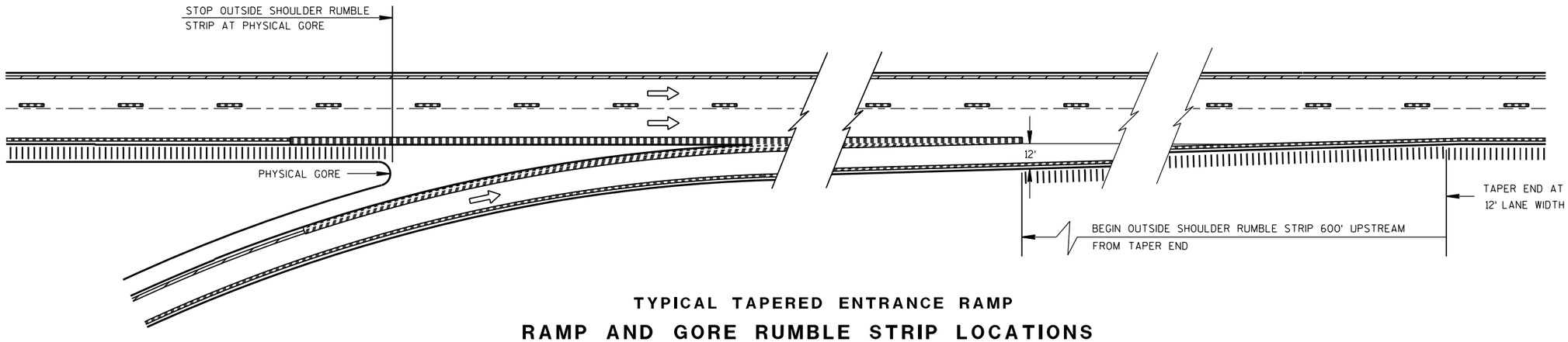
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

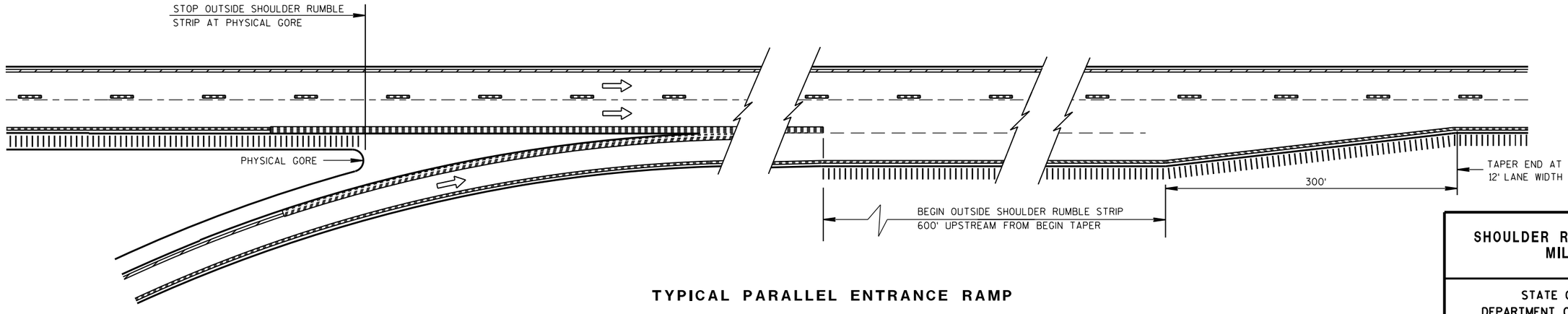
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

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S.D.D. 13 A 5-5b

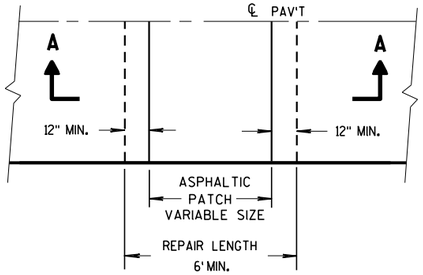
GENERAL NOTES

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

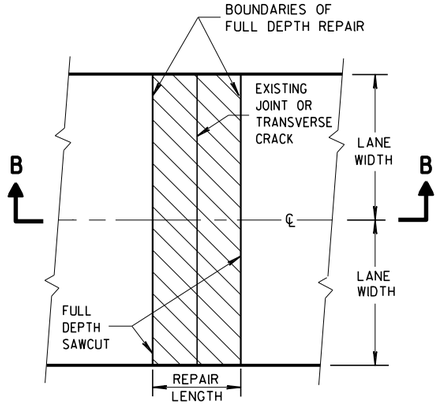
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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.

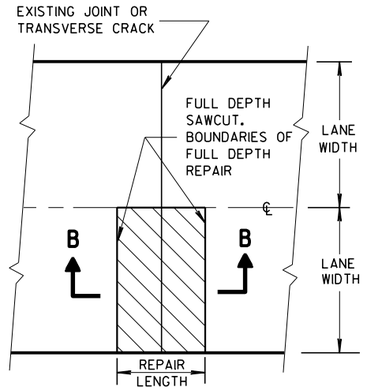
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

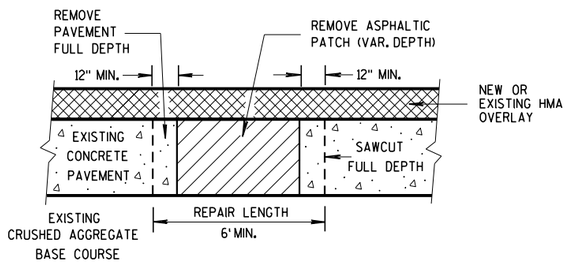


PLAN VIEW
(DOUBLE LANE REPAIR)



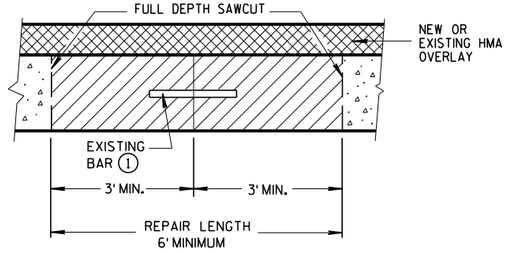
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

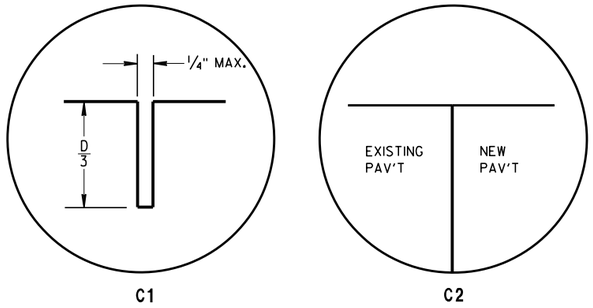
6

6

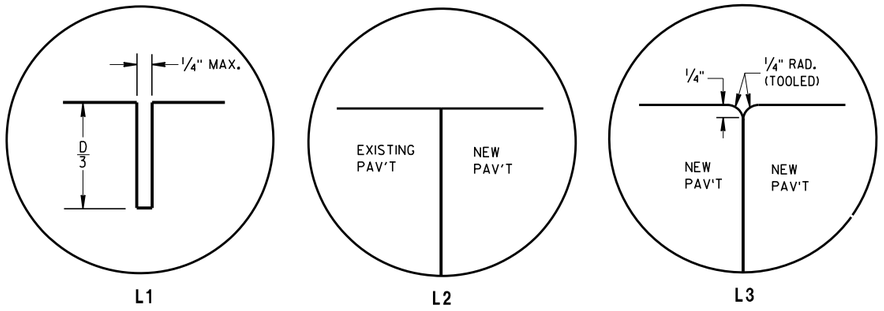
S.D.D. 13 C 14-7a

S.D.D. 13 C 14-7a

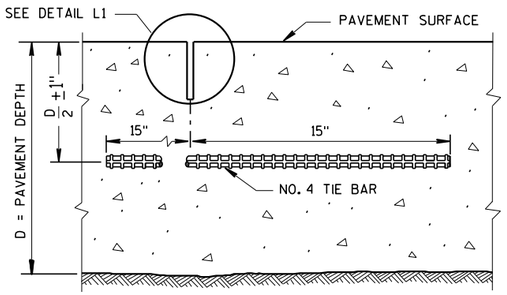
BASE PATCHING CONCRETE



TRANSVERSE JOINTS

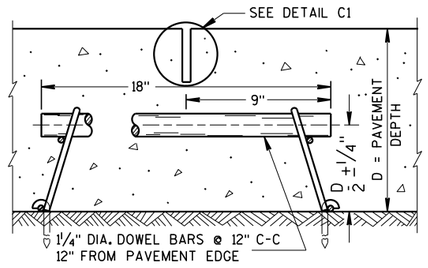


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

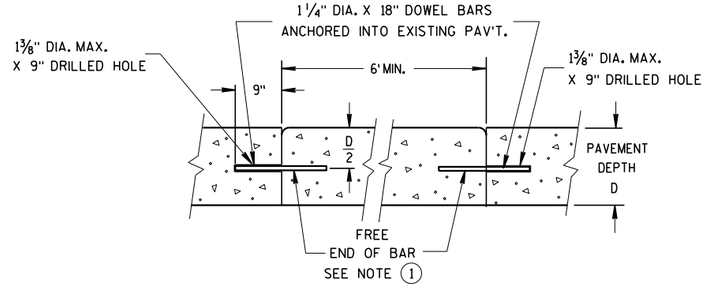
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

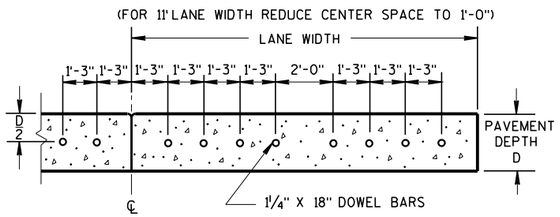
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE 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.

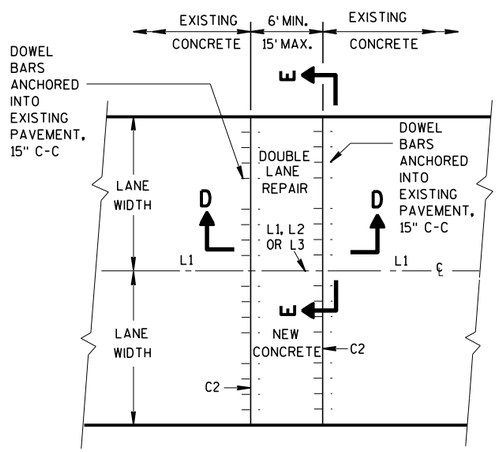


SECTION D-D



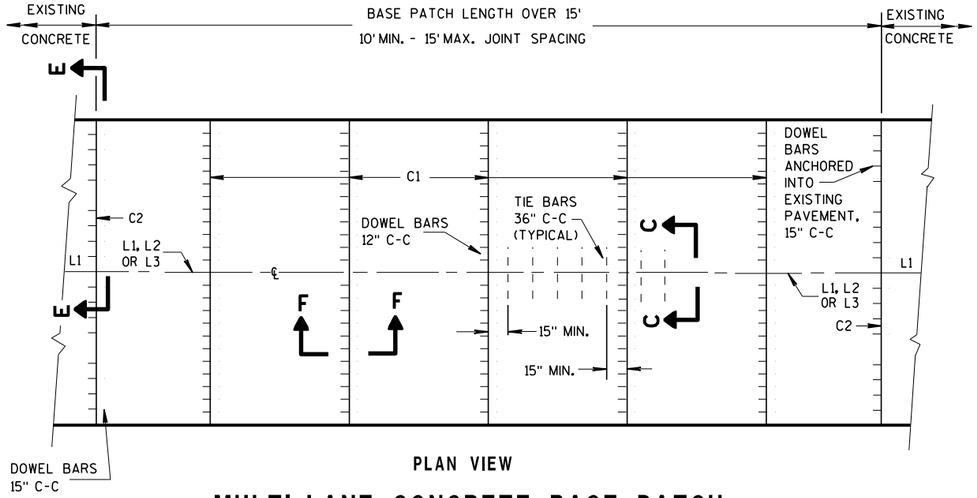
SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

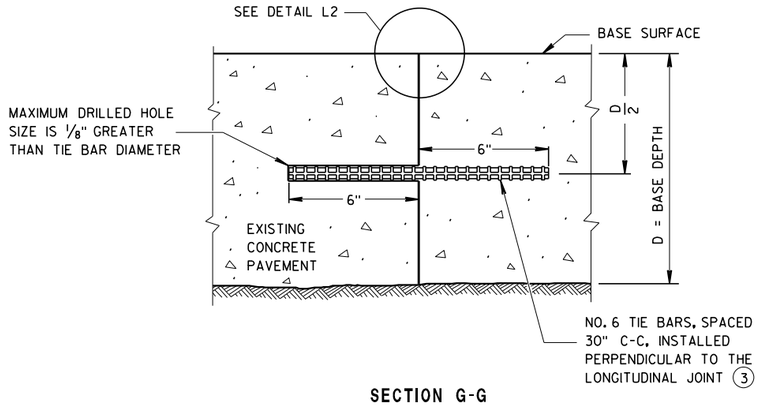
6
S.D.D. 13 C 14-7b

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

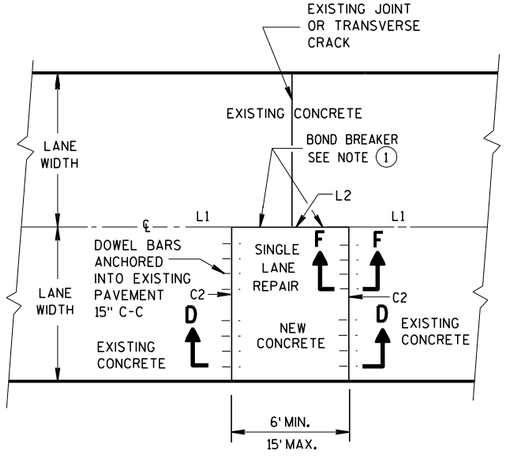
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

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



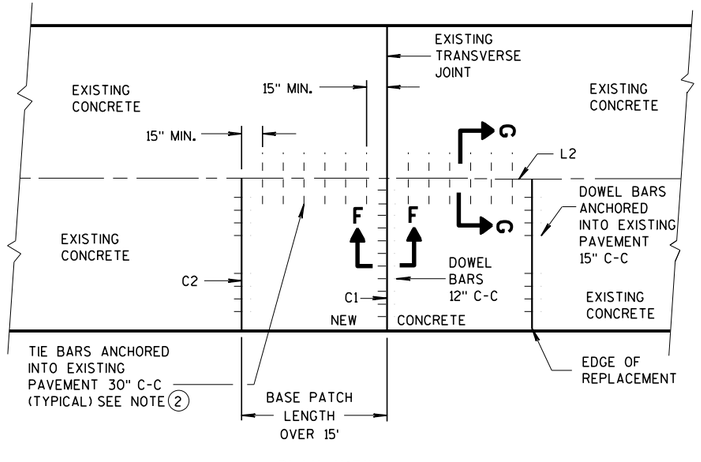
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

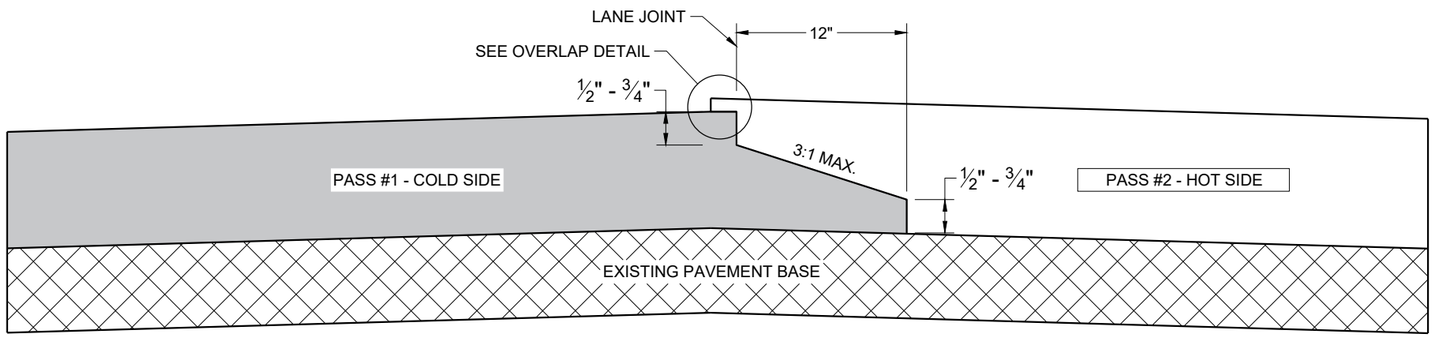
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

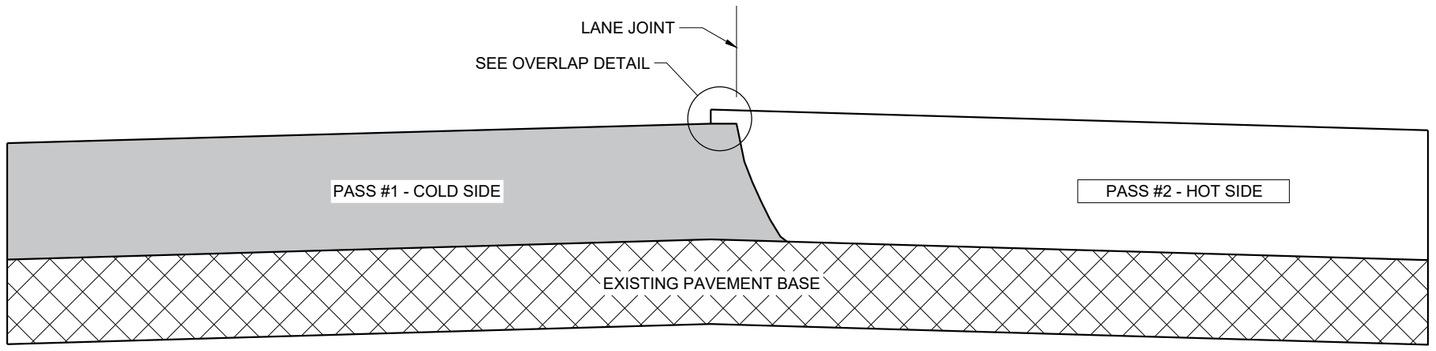
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

6

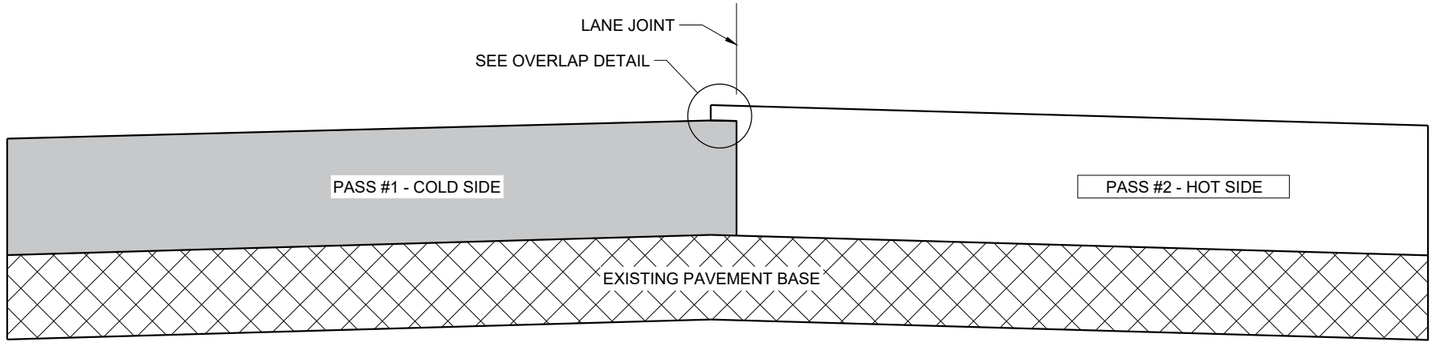
S.D.D. 13 C 14-7c



TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL LONGITUDINAL JOINT



TYPICAL PAVEMENT CROSS SECTION
OF MILLED LONGITUDINAL JOINT

GENERAL NOTES

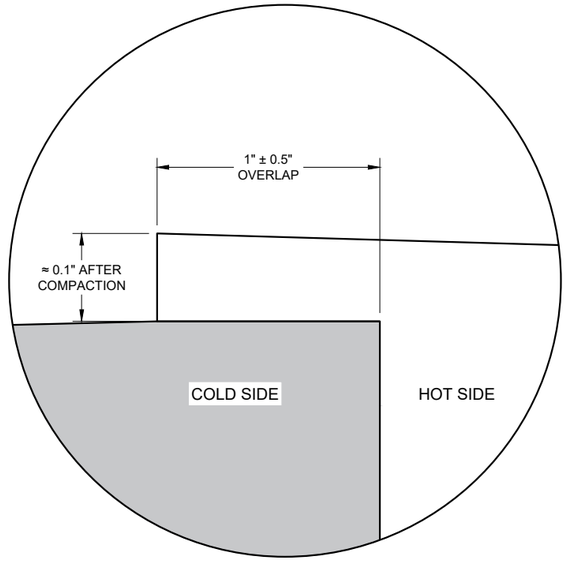
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION.

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 02

SDD 13C19 - 02

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

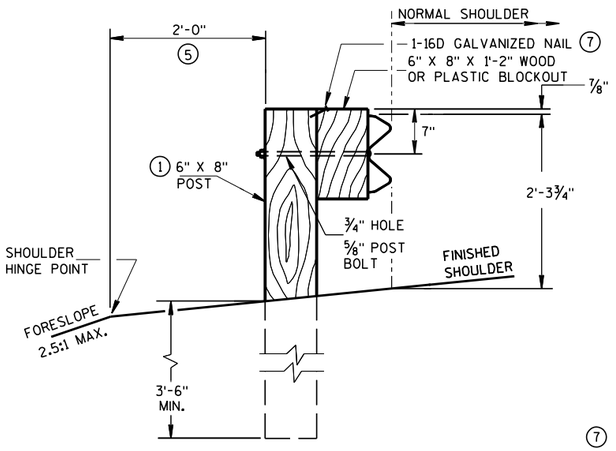
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

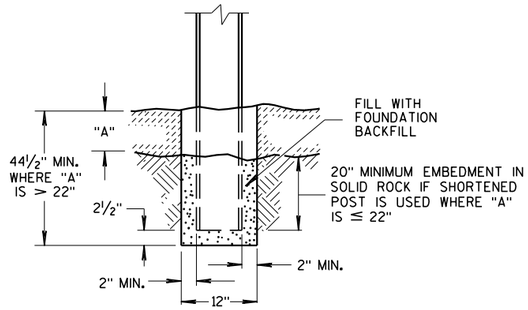
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

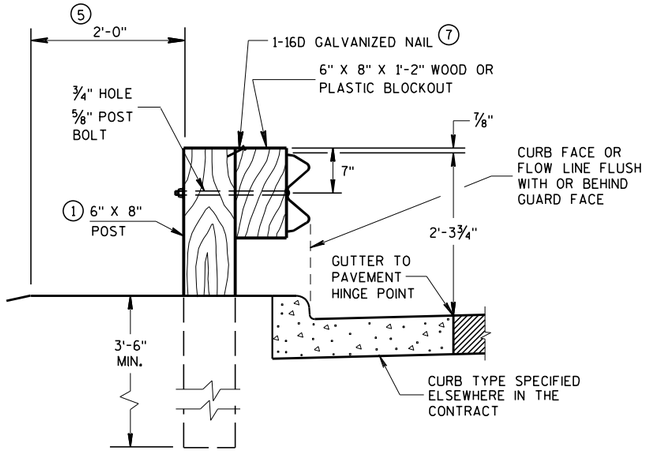
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



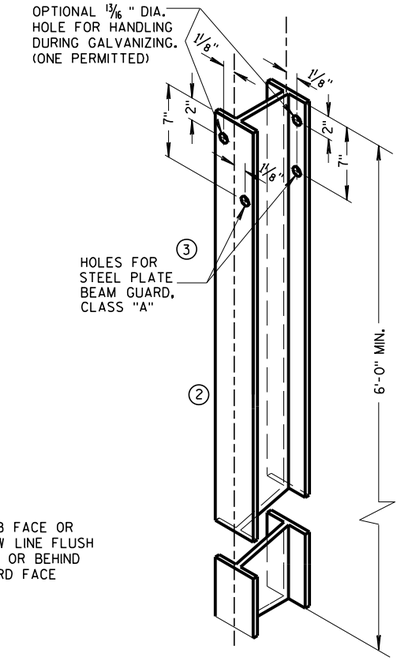
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

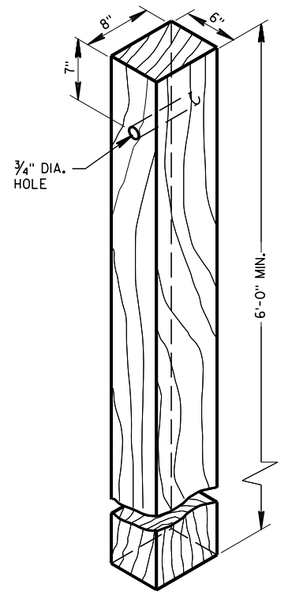


END VIEW
LOCATED ALONG A CURBED ROADWAY

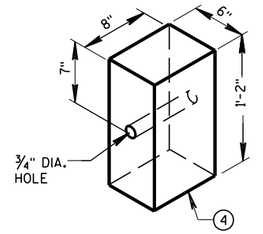


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

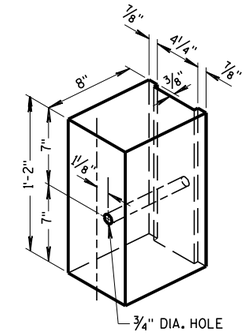
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



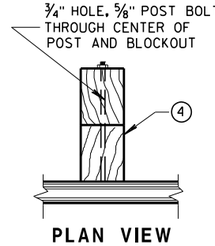
WOOD POST
(6"X8") NOMINAL



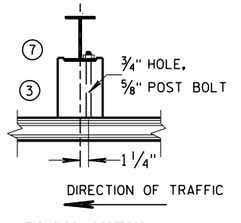
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



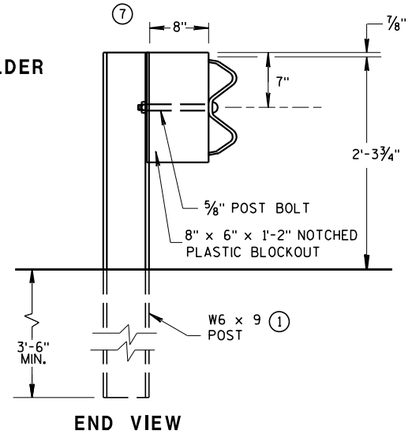
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



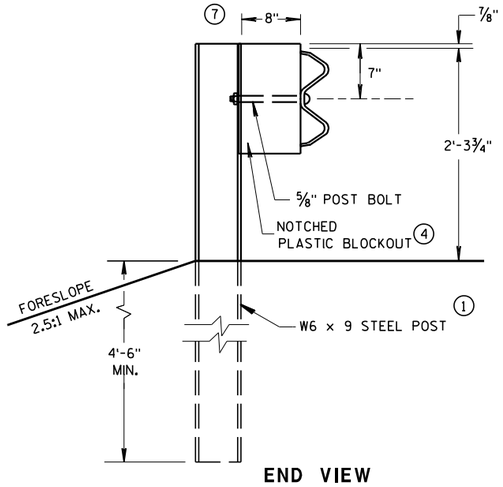
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



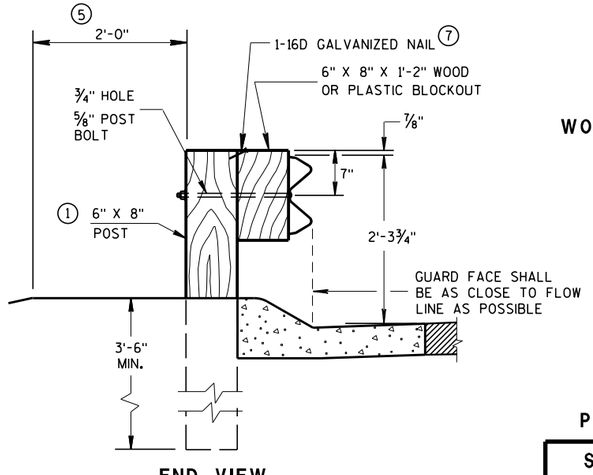
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



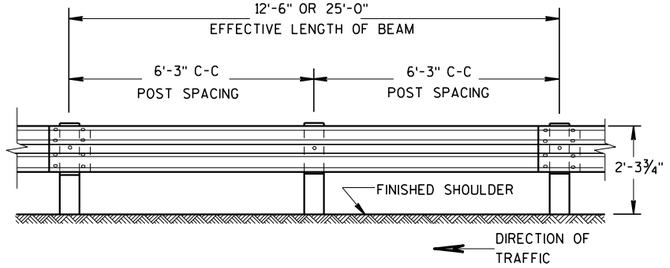
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

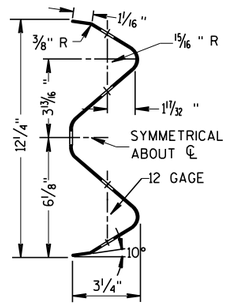
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

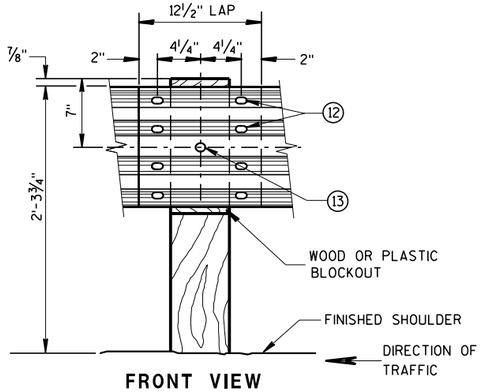


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

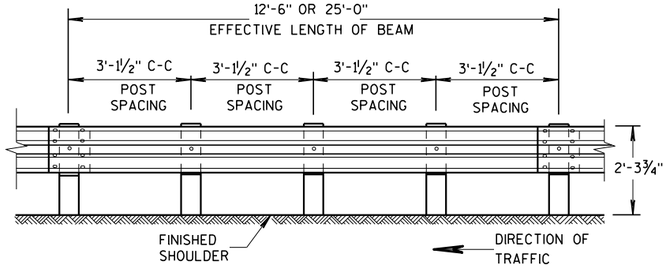
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

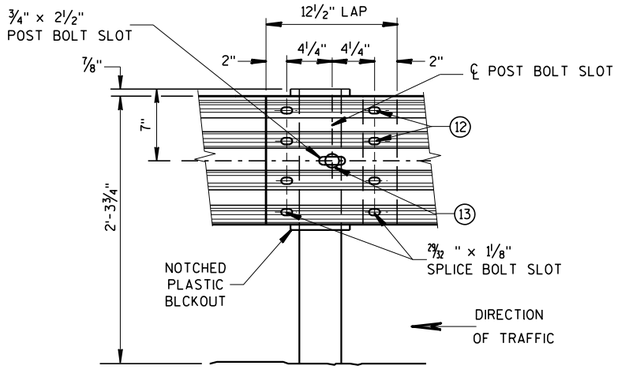
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



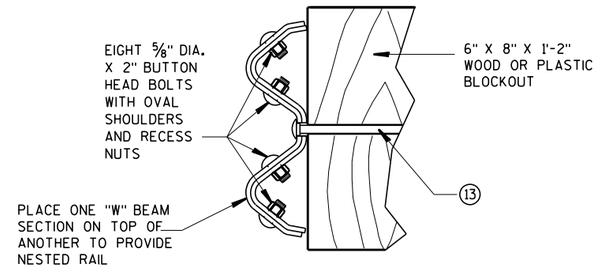
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

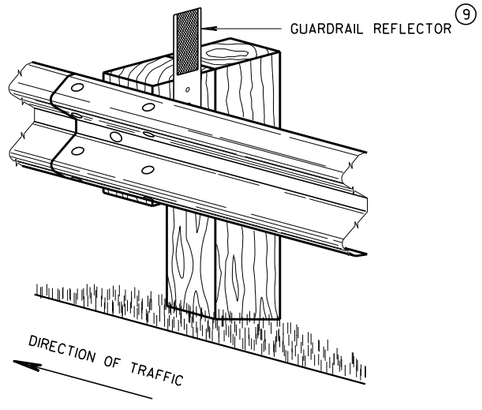


NESTED W BEAM (NW)

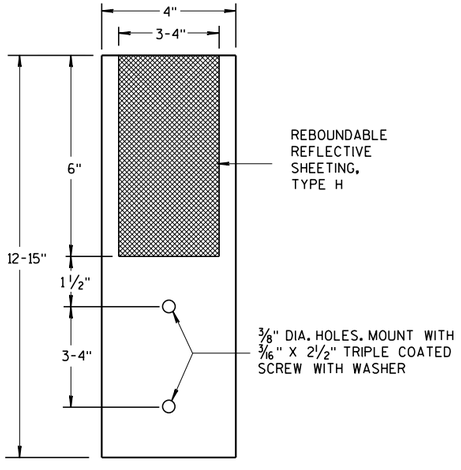
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

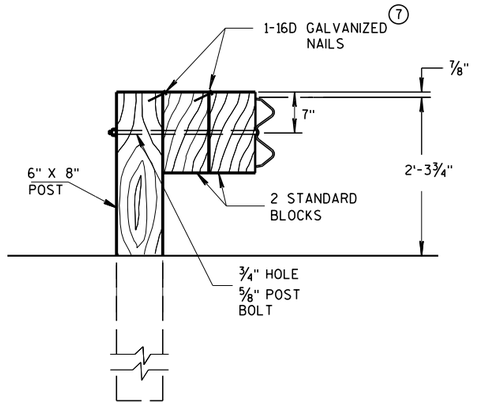
STATE OF WISCO 69
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

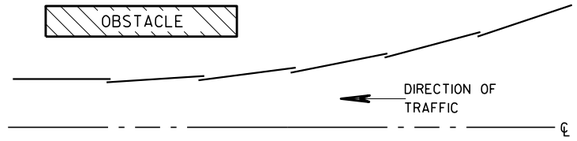
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S.D.D. 14 B 15-11b

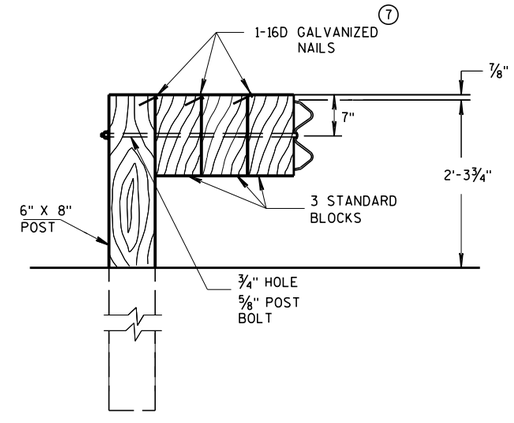


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

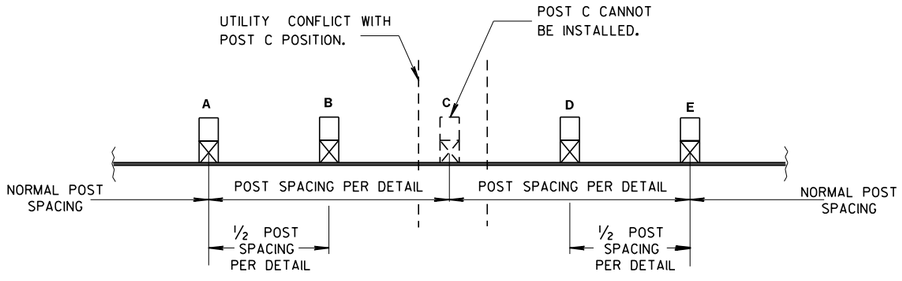


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

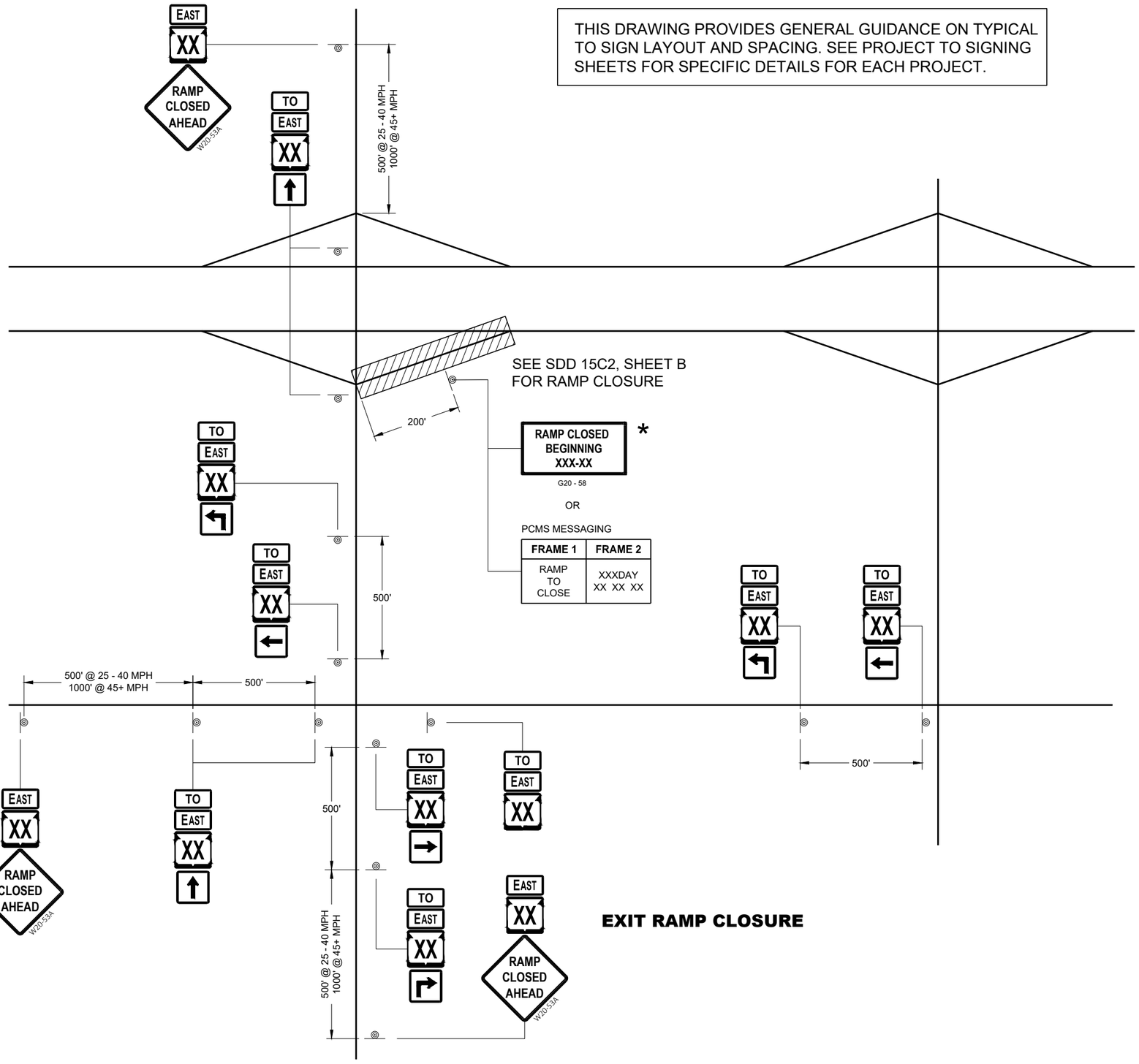
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6
S.D.D. 14 B 15-11c



EXIT RAMP CLOSURE

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

LEGEND

◎ SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

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

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER

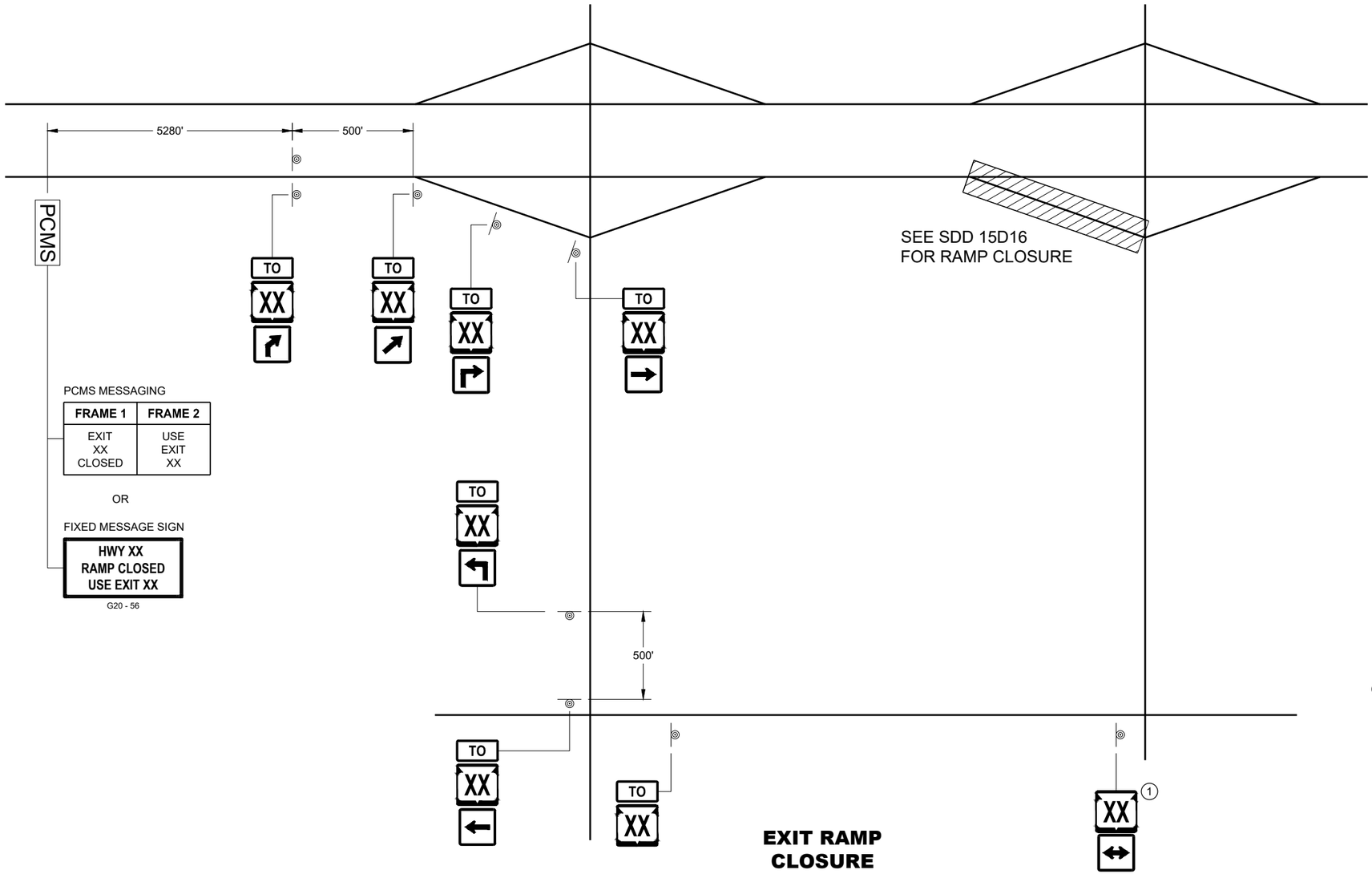
FHWA

SDD 15C02 - 08d

6

SDD 15C02 - 08d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEE

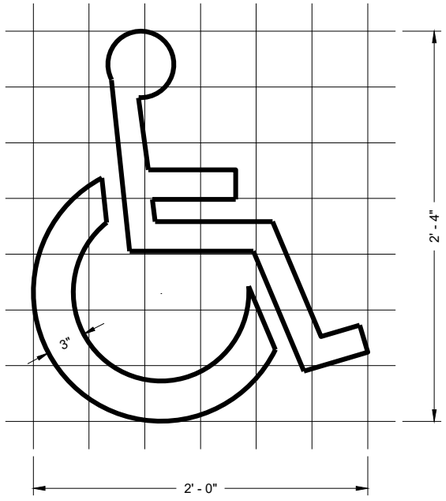
FHWA

SDD 15C02 - 08e

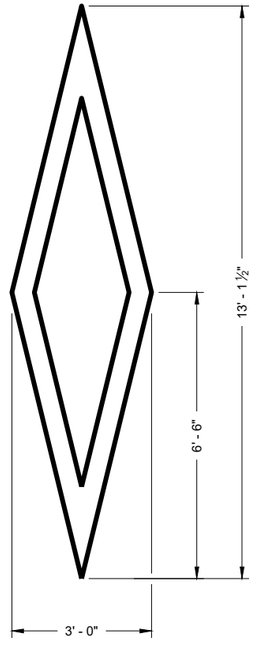
SDD 15C02 - 08e

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.



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

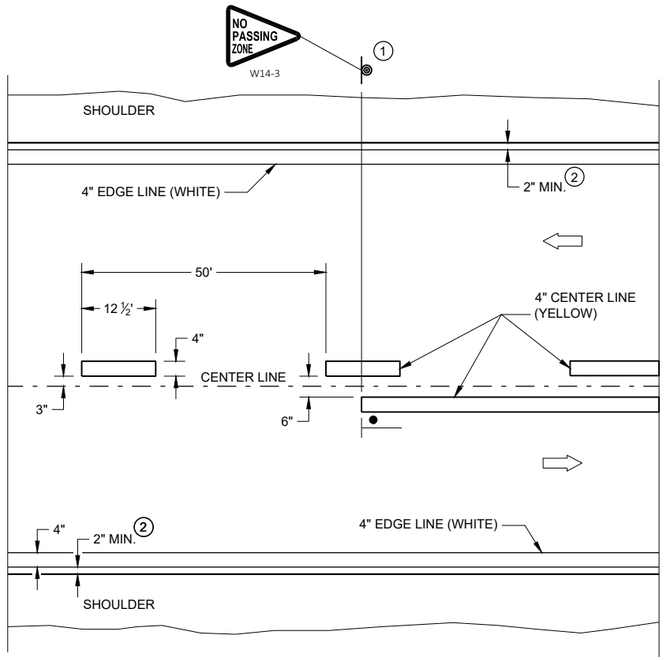
PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

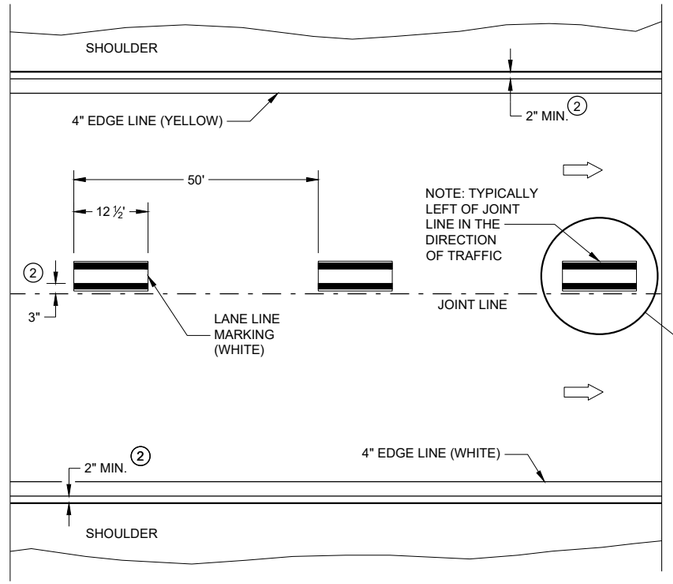
APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

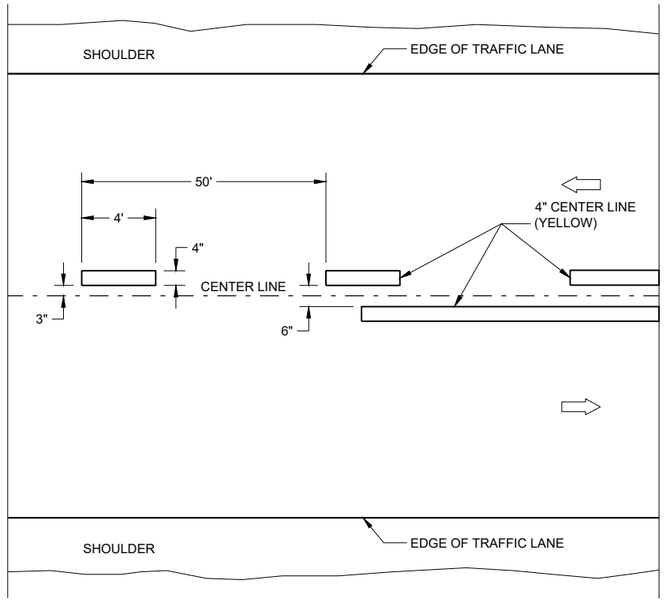


TWO WAY TRAFFIC

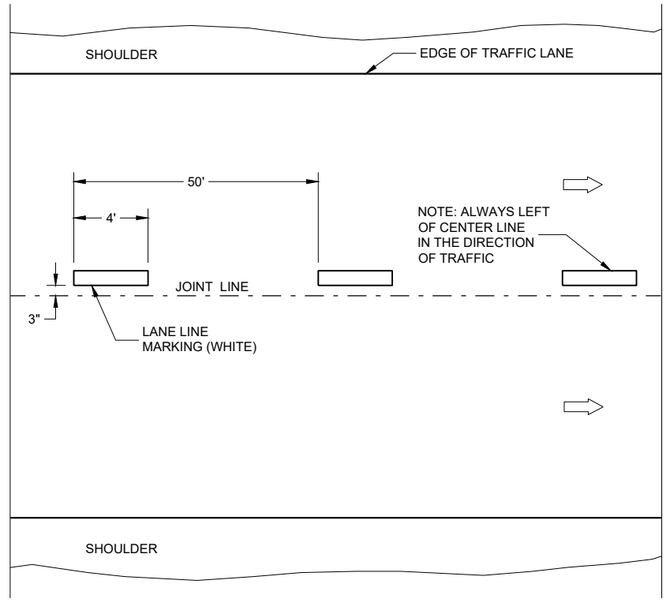


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

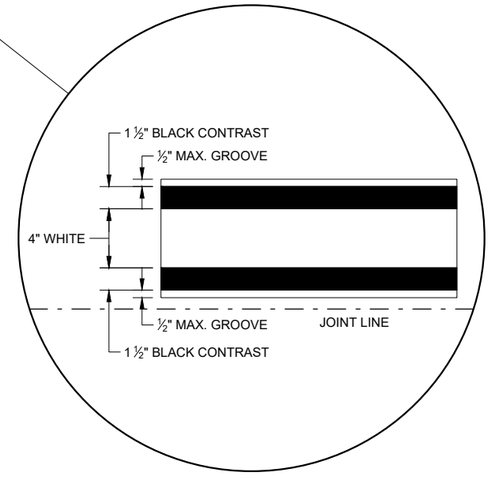
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

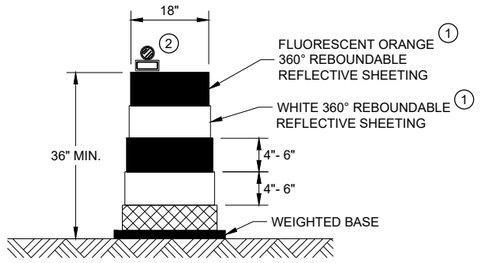
FHWA

SDD 15C08 - 20a

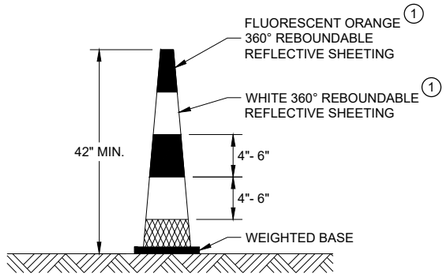
SDD 15C08 - 20a

GENERAL NOTES

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

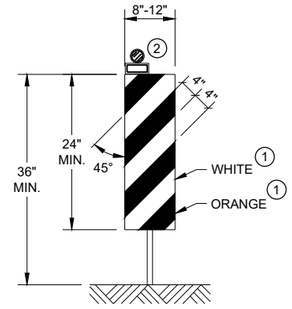


DRUM



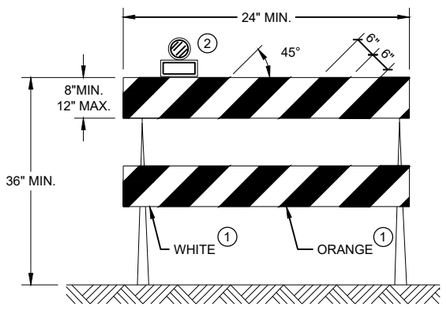
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



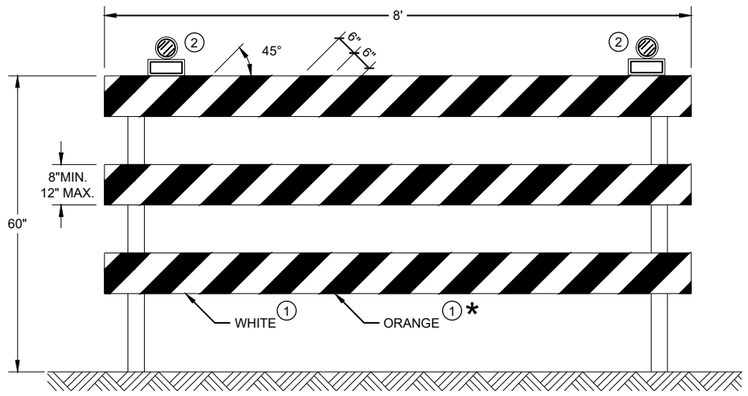
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 07b

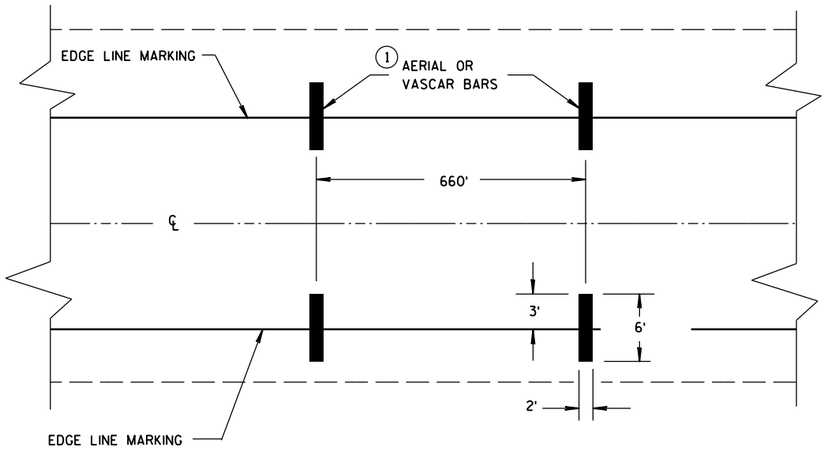
6

SDD 15C11 - 07b

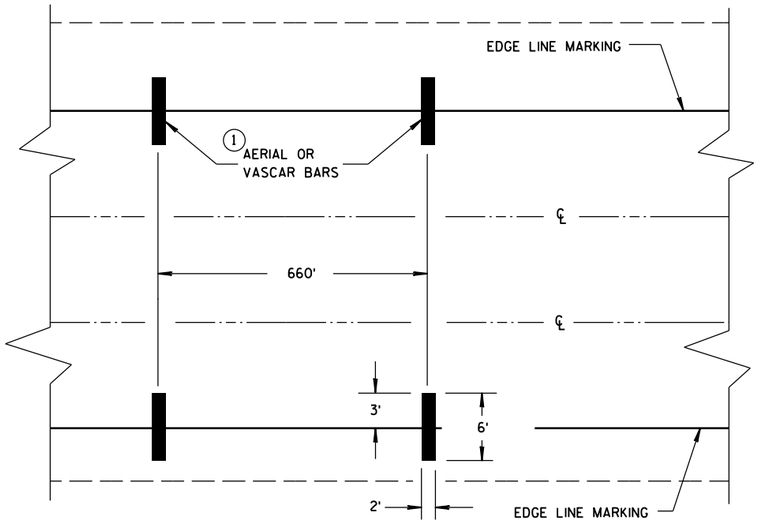
GENERAL NOTES

(1) PLACE TWO TO FIVE AERIAL OR VASCAR BARS AT 660 FOOT SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

6

S.D.D. 15 C 14-3

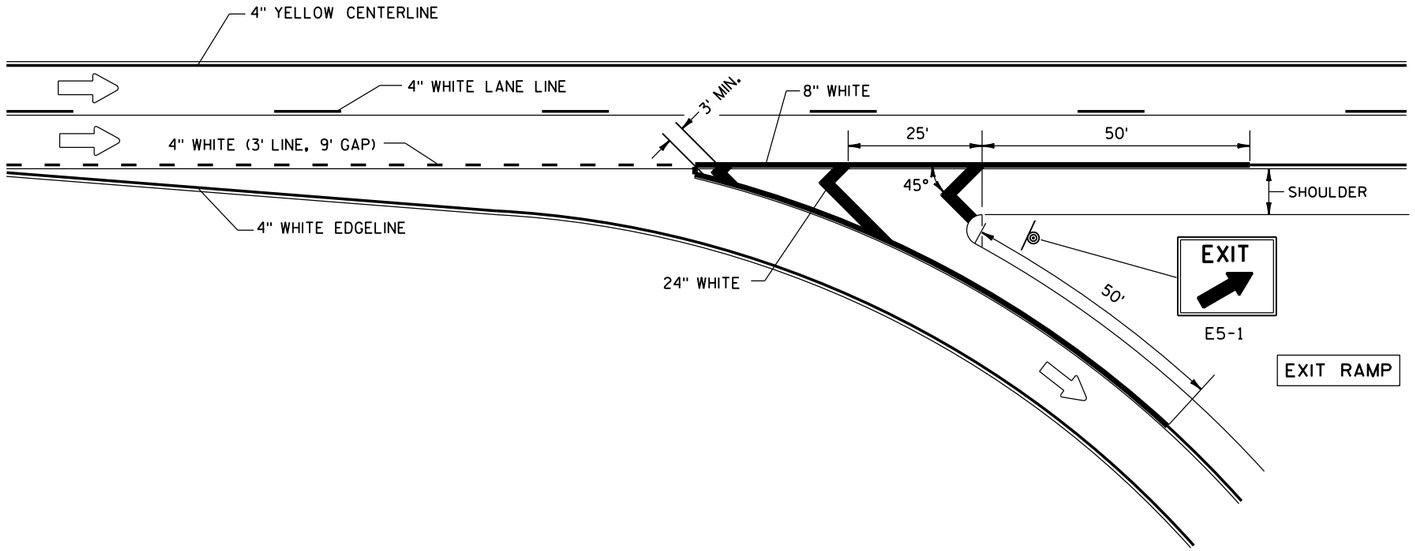
AERIAL ENFORCEMENT BARS
PAVEMENT MARKING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 C 14-3



PAVEMENT MARKING FOR EXIT RAMP

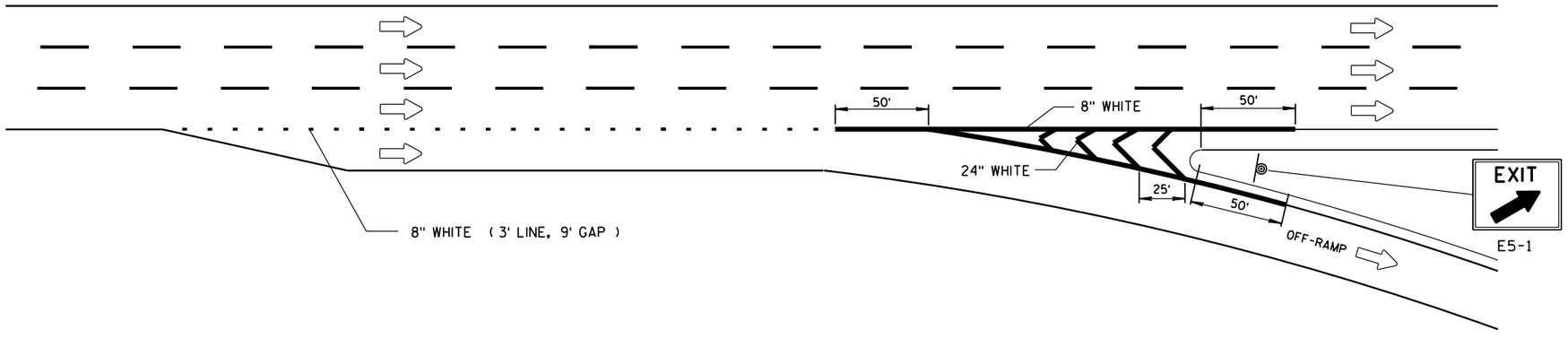
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

6

S.D.D. 15 C 31-3a

PAVEMENT MARKING (RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 31-3a

GENERAL NOTES

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

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

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

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

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

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

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

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

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

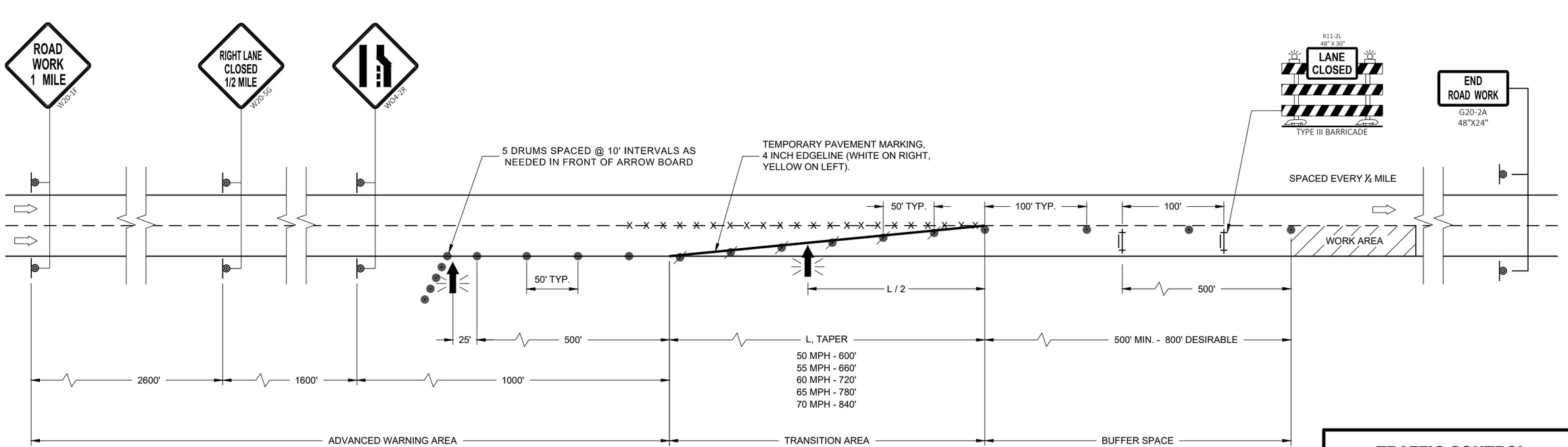
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

LEGEND

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



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D12 - 08a
SDD 15D12 - 08a

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

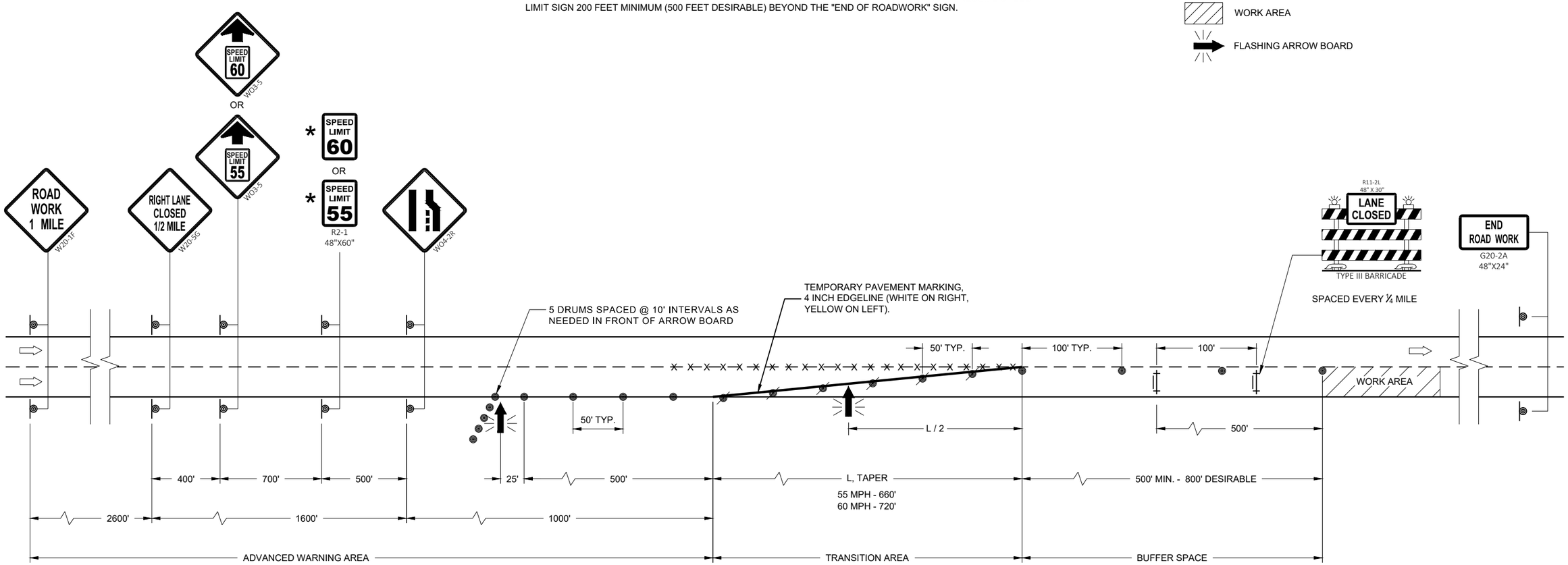
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

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

LEGEND

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D12 - 08b

6
SDD 15D12 - 08b

LEGEND

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

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W8-76
60x36

GENERAL NOTES

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

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

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

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

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

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

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

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

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

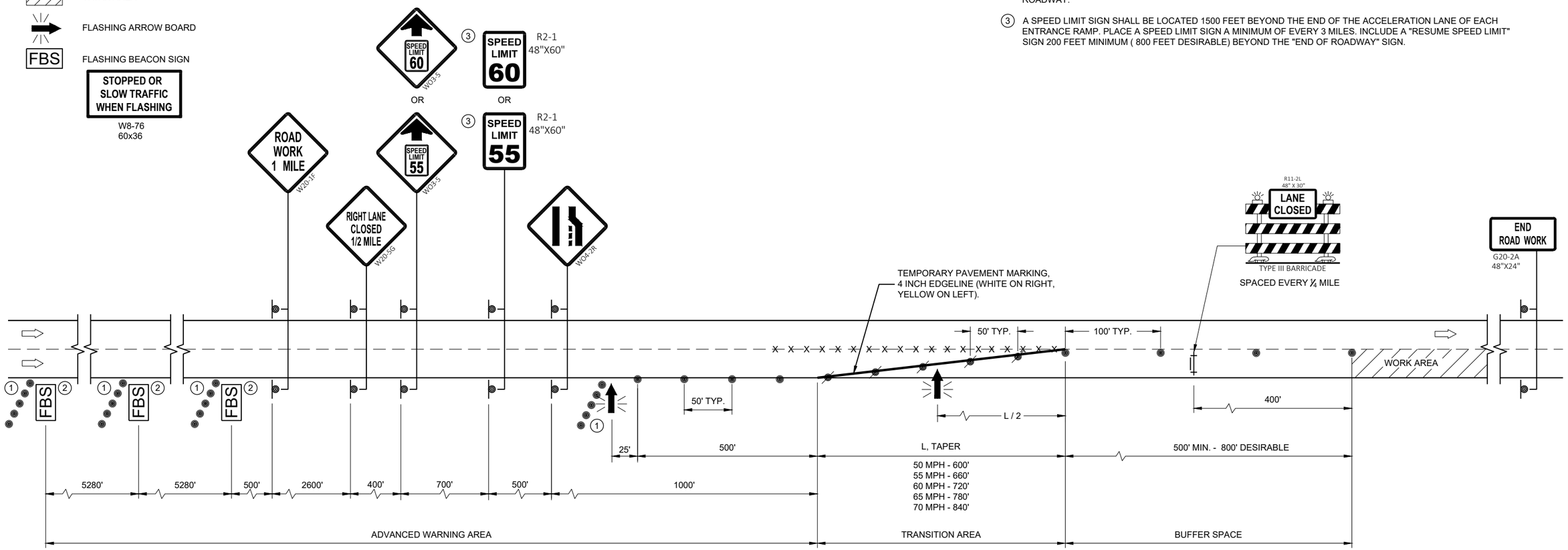
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE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

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

(1) 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.

(2) IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.

(3) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE "END OF ROADWAY" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D12 - 08d

SDD 15D12 - 08d

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

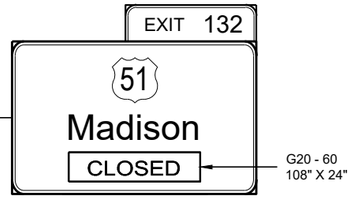
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

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

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



OR

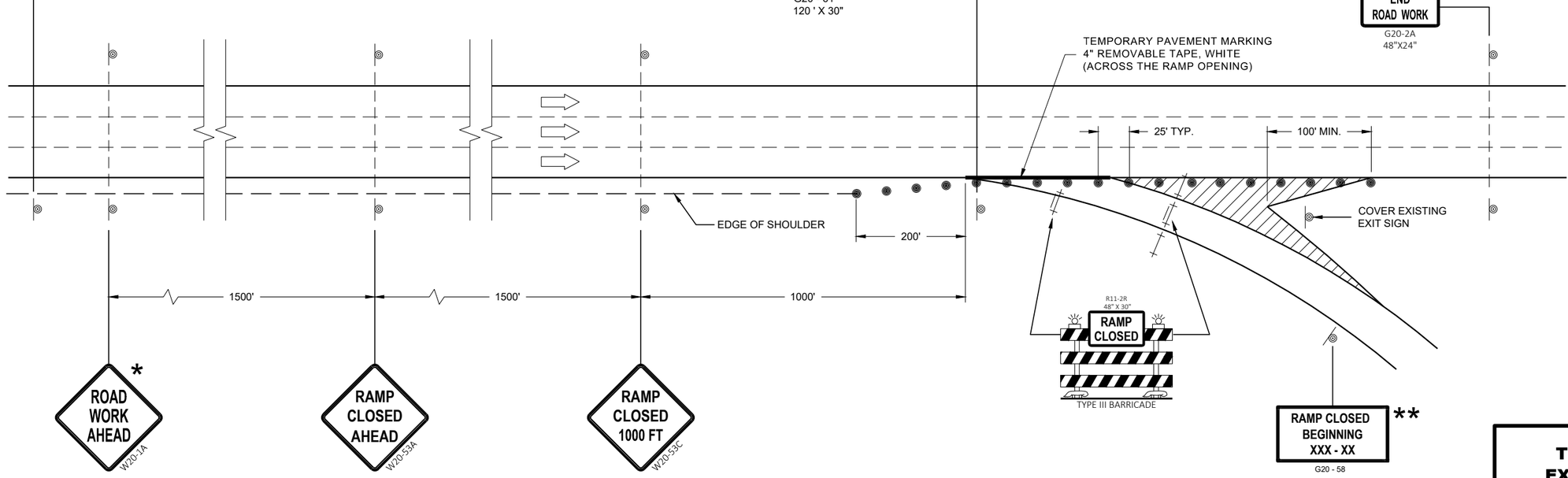


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



G20 - 61
120 ' X 30"

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



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

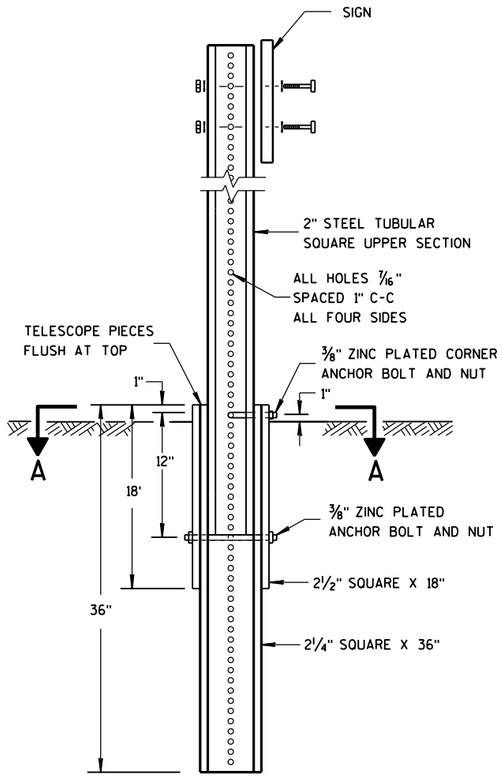
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

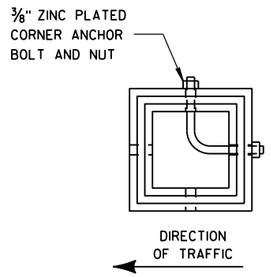
SDD 15D16 - 04

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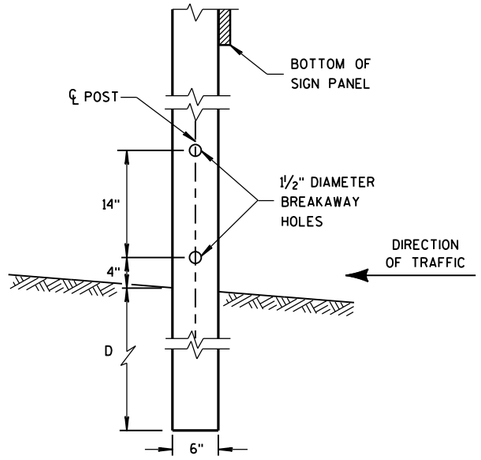
SDD 15D16 - 04



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



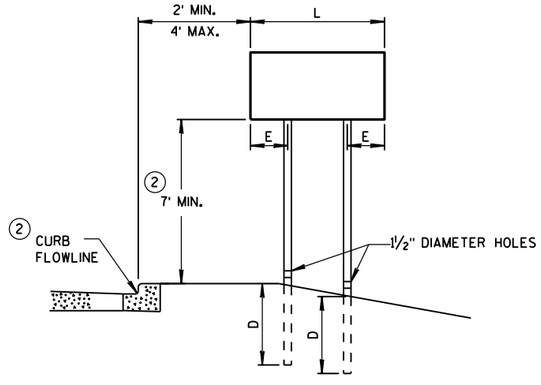
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

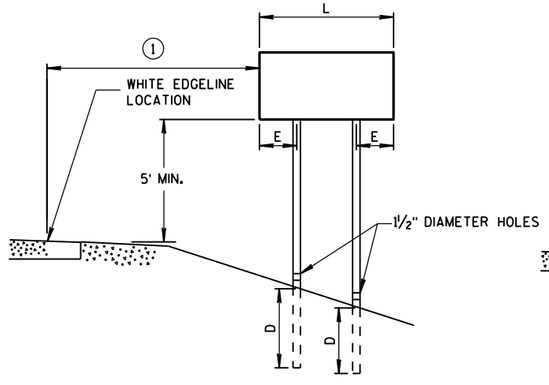
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

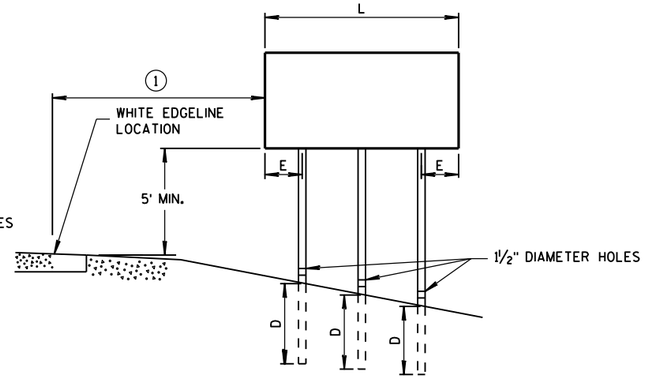
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

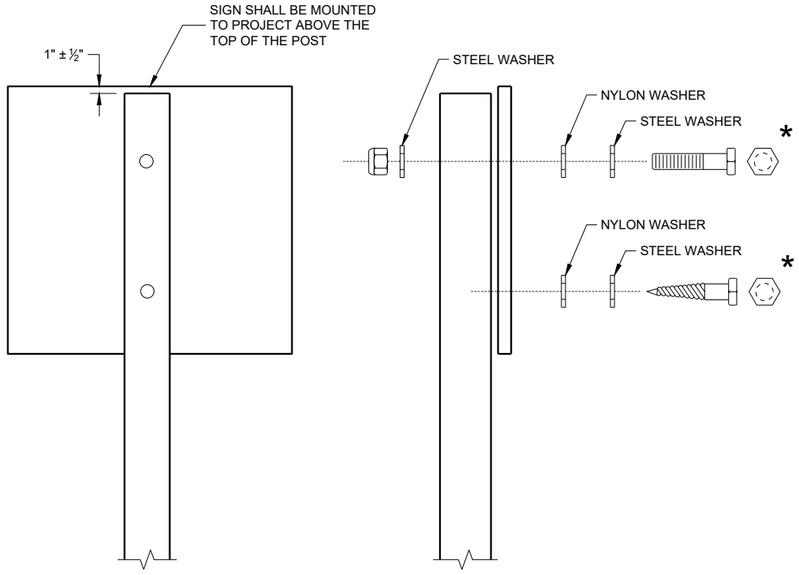
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



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 POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

SDD 15D38 - 02b

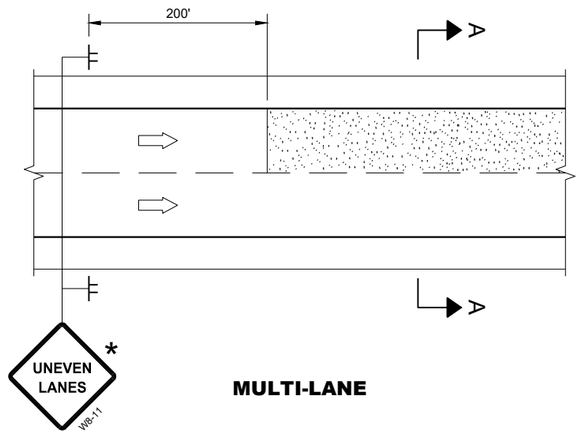
SDD 15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

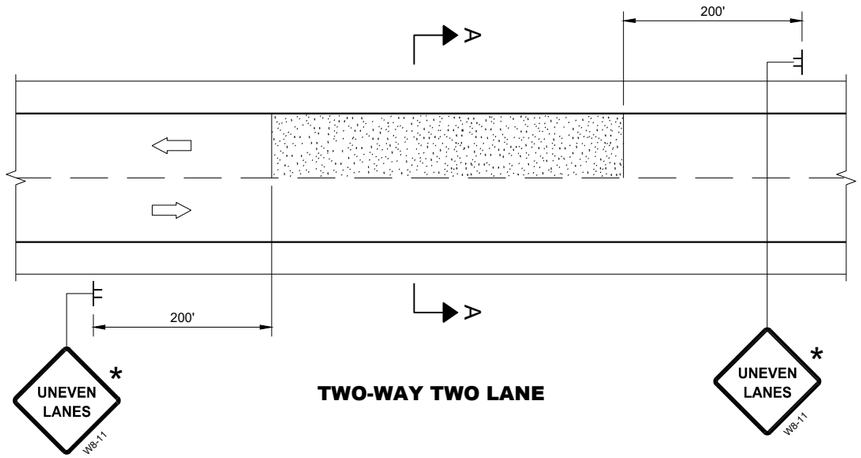
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

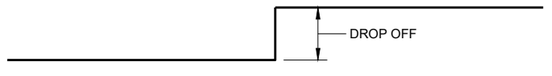
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

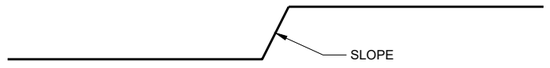
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

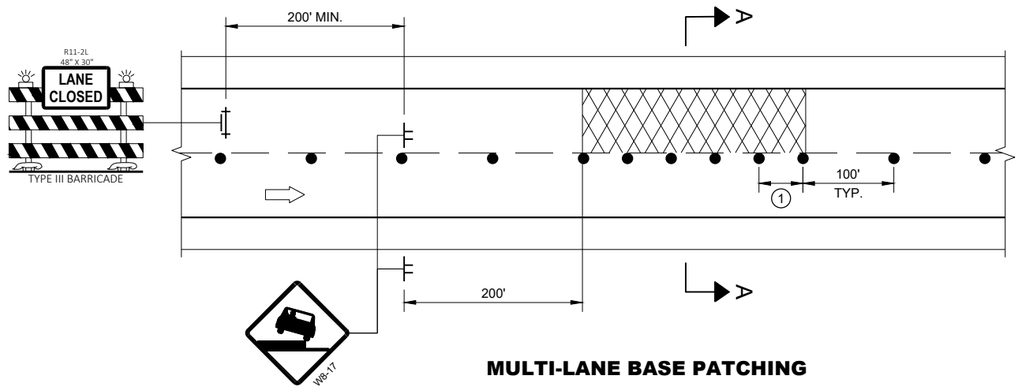


SECTION A - A

OR

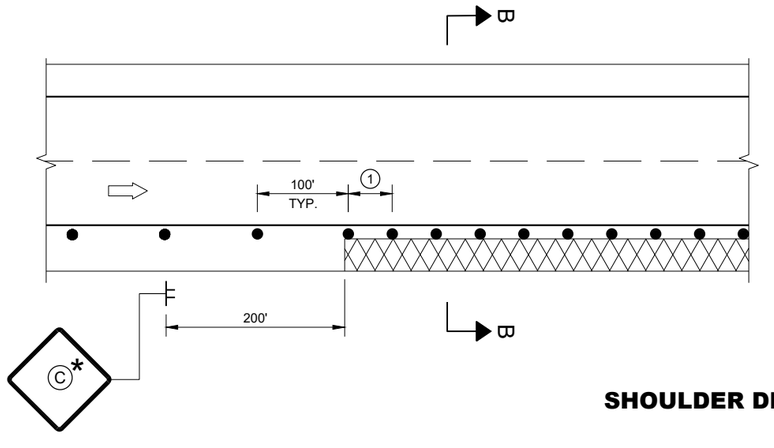


SECTION A - A

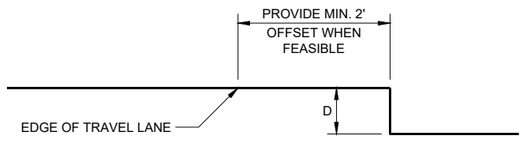


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

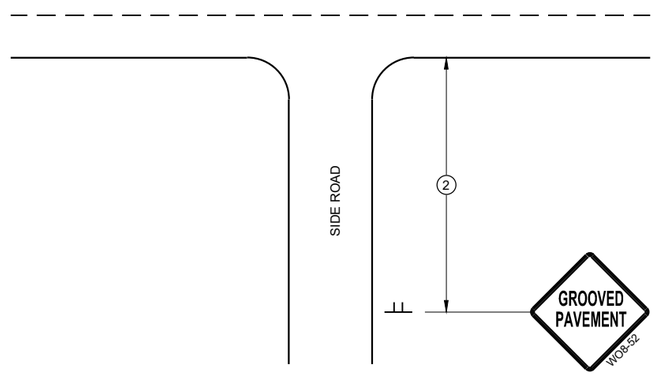
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

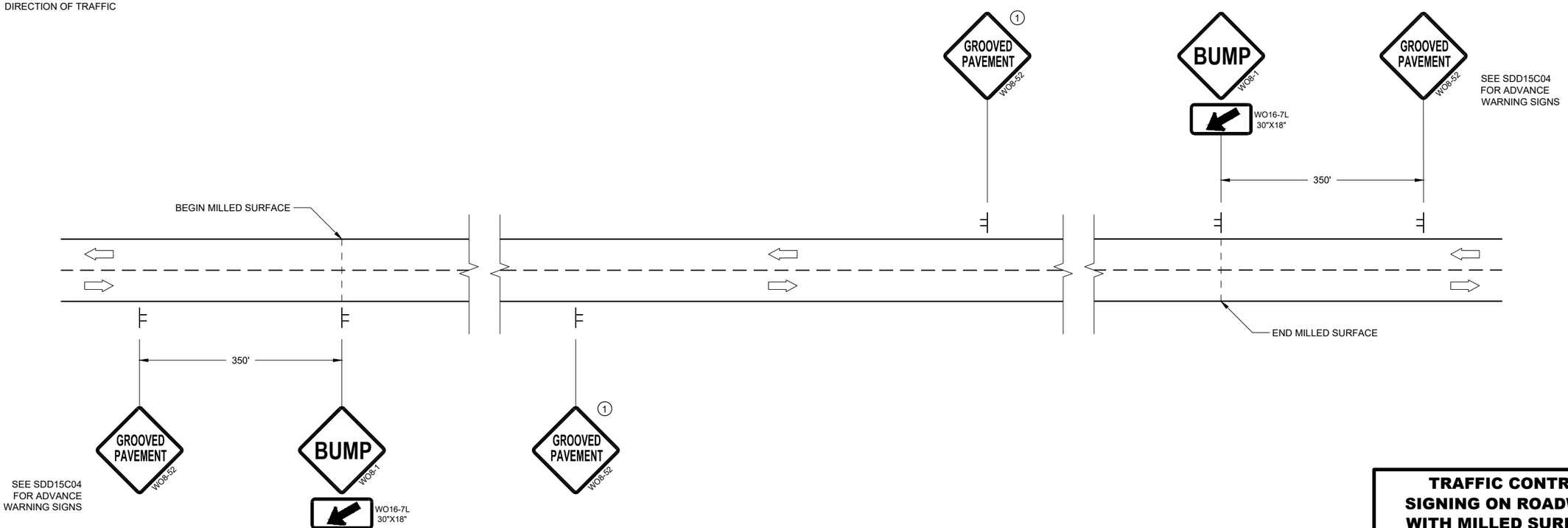
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

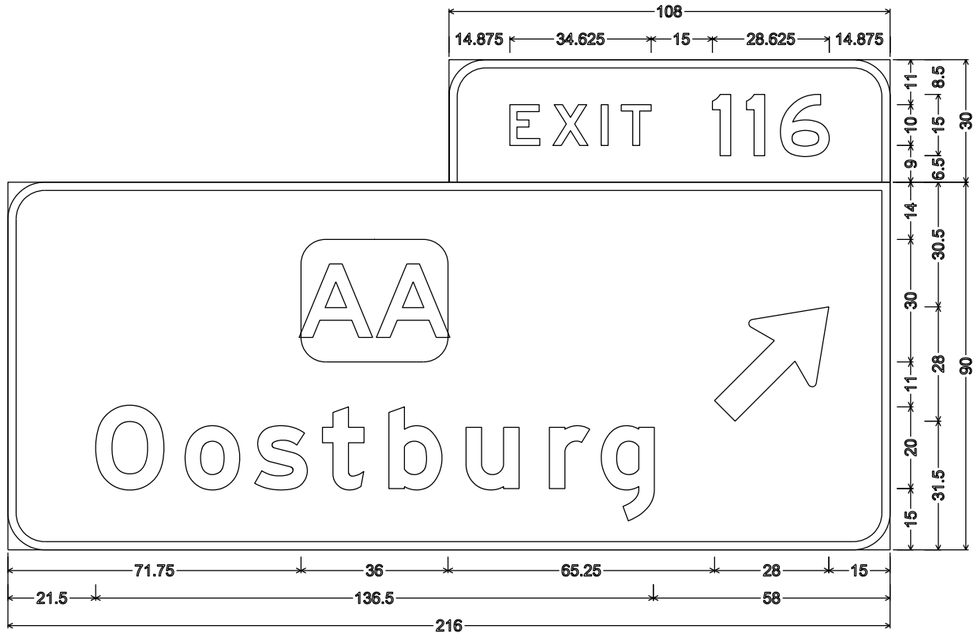
FHWA

SDD 15D44 - 02

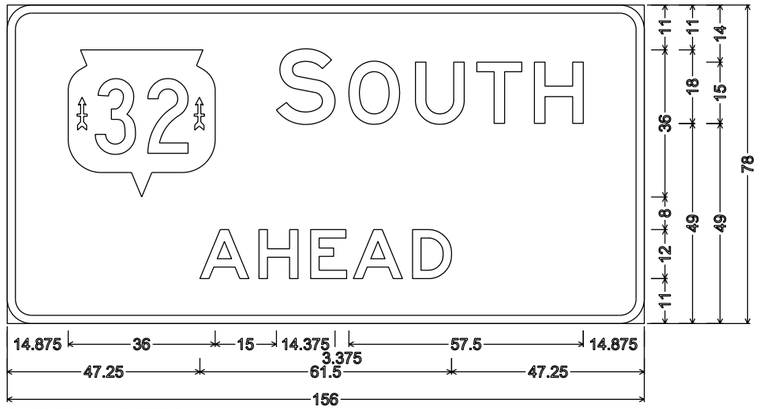
SDD 15D44 - 02

NOTES

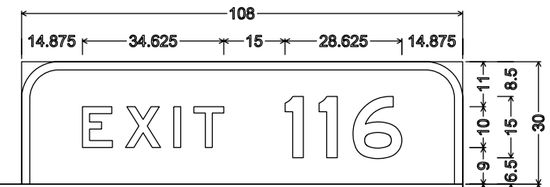
1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted

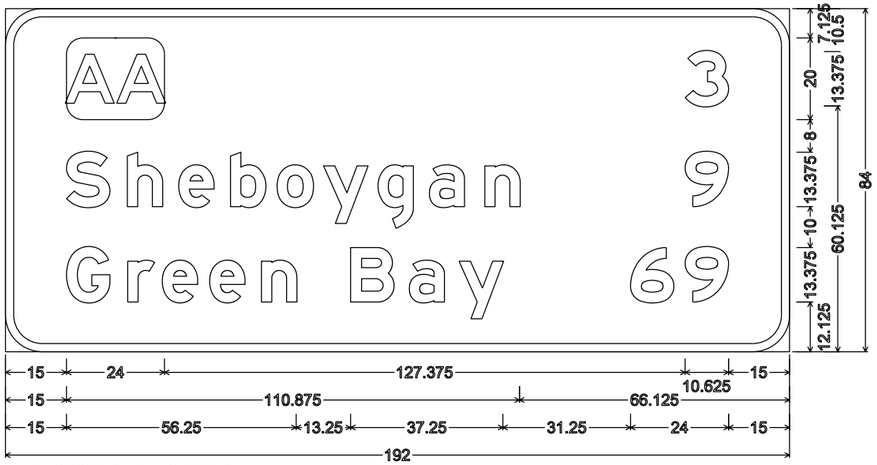


E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 9.000" Radius, 2.000" Border

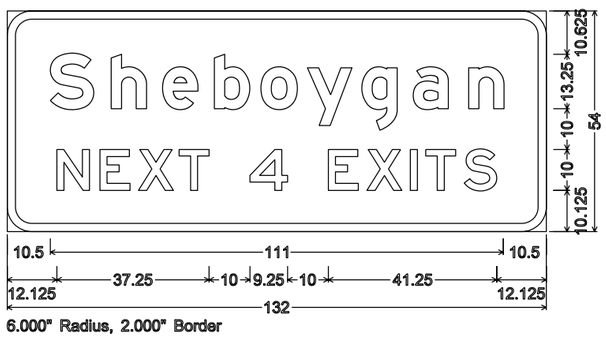


6.000" Radius, 2.000" Border

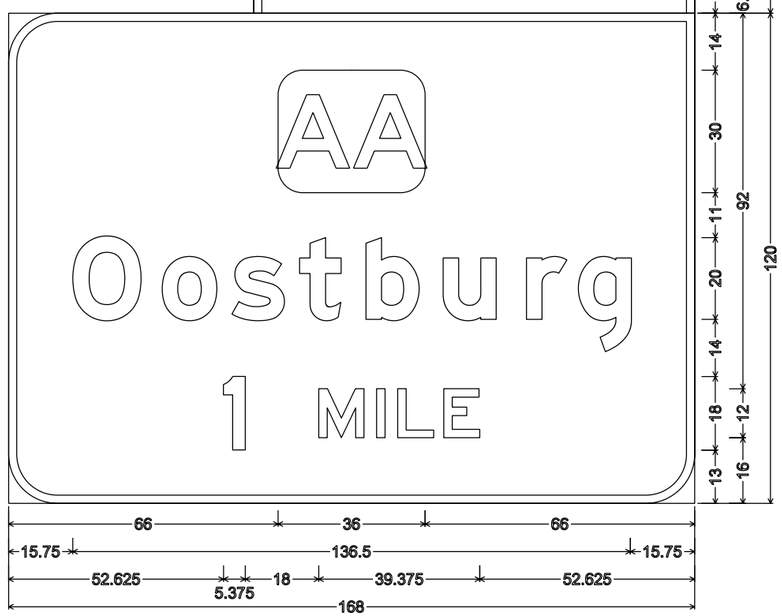




D2-3 ; 9.000" Radius, 2.000" Border



6.000" Radius, 2.000" Border



E1-5P ; 9.000" Radius, 2.000" Border
E1-1A ; 12.000" Radius, 2.000" Border

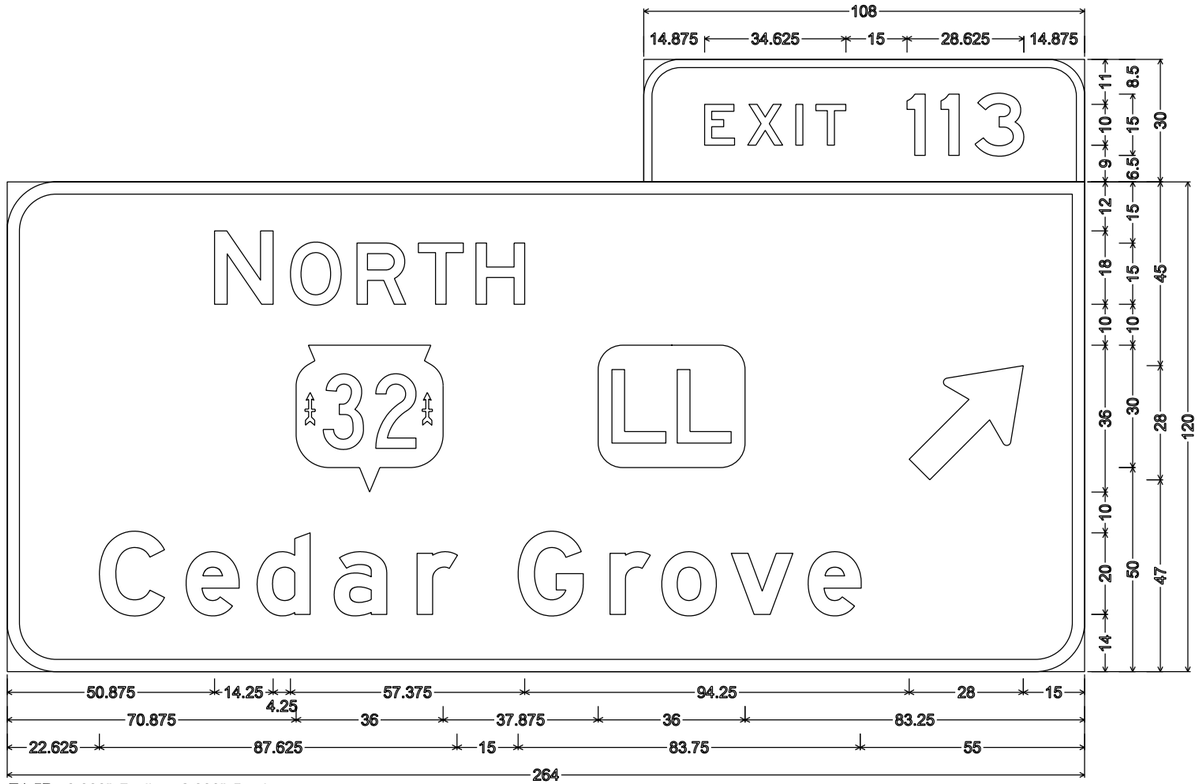
7

7

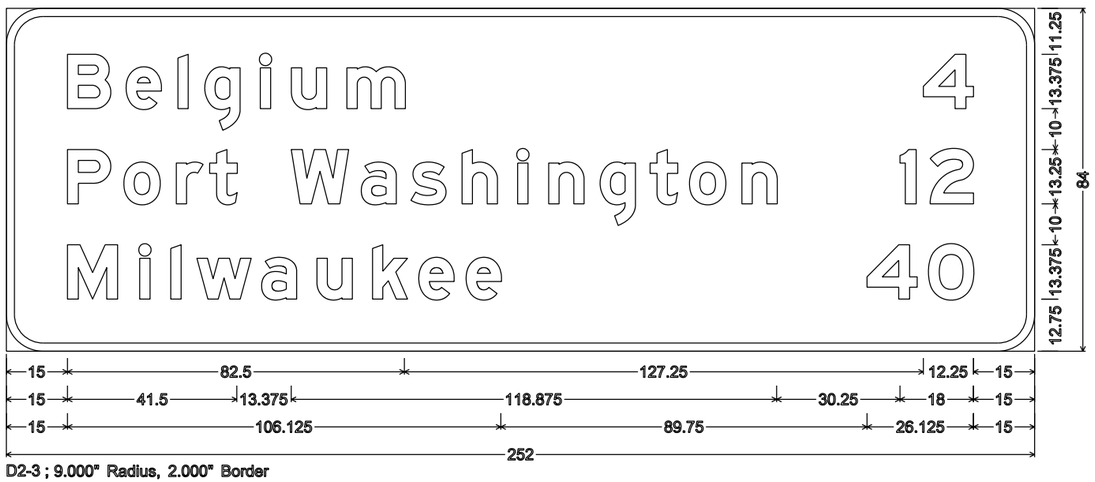
PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET NO: 86	E

NOTES

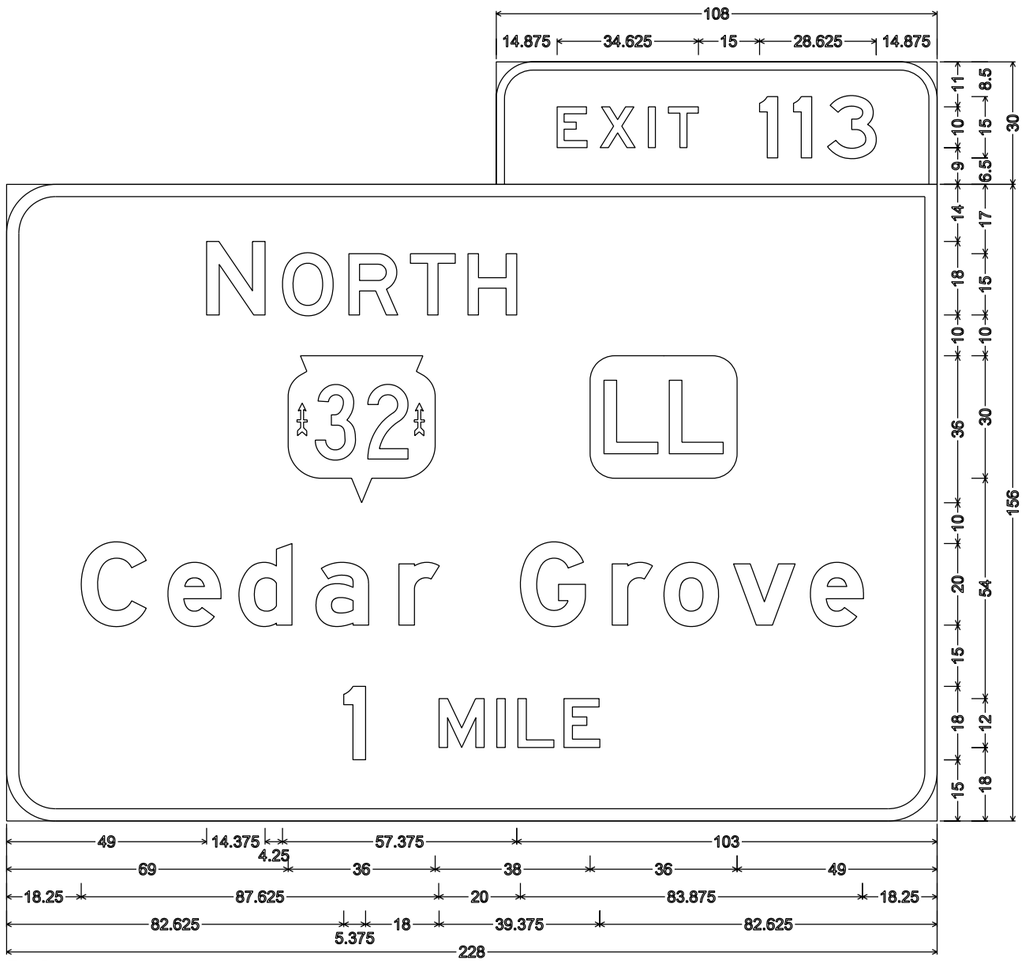
1. All Signs Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



E1-5P ; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border



D2-3 ; 9.000" Radius, 2.000" Border



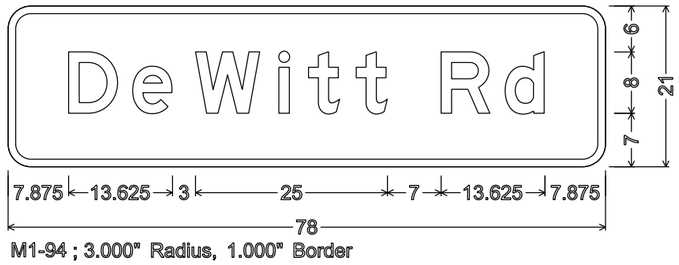
E1-5P ; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

7

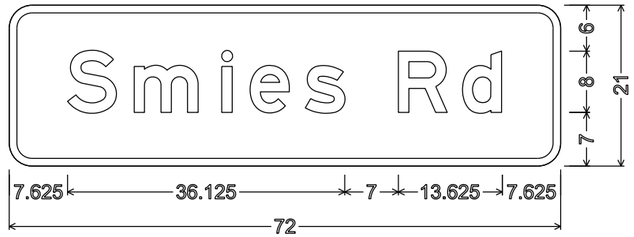
7

NOTES

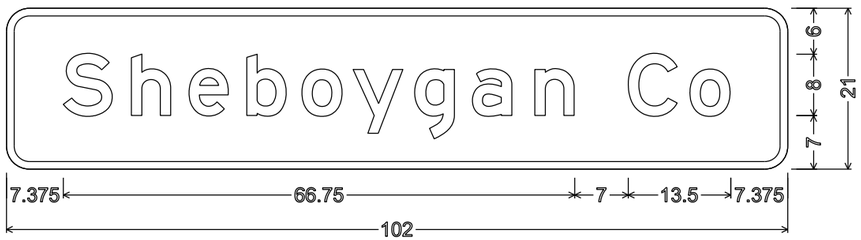
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



M1-94 ; 3.000" Radius, 1.000" Border



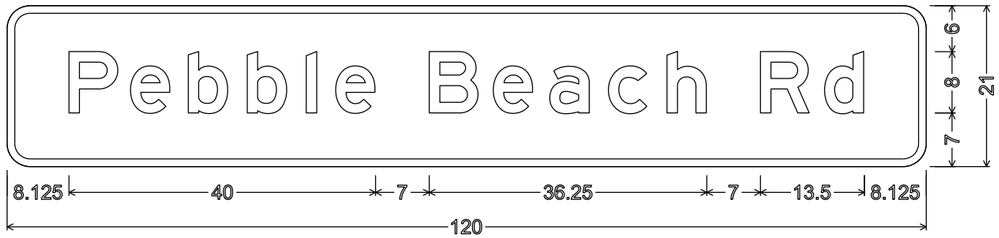
M1-94 ; 3.000" Radius, 1.000" Border



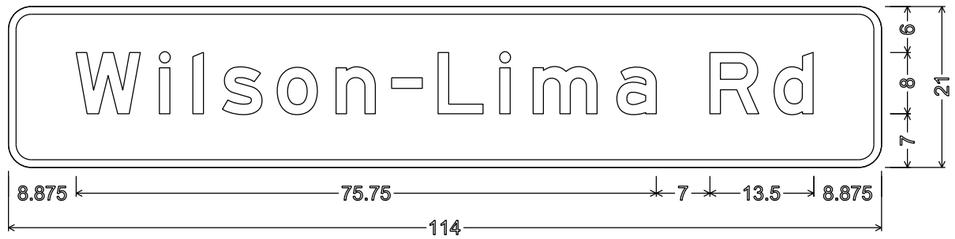
I2-2 ; 3.000" Radius, 1.000" Border



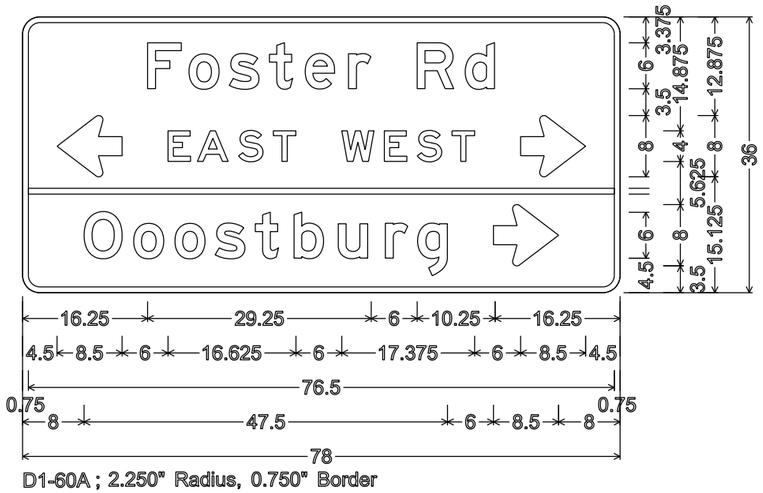
M1-94 ; 3.000" Radius, 1.000" Border



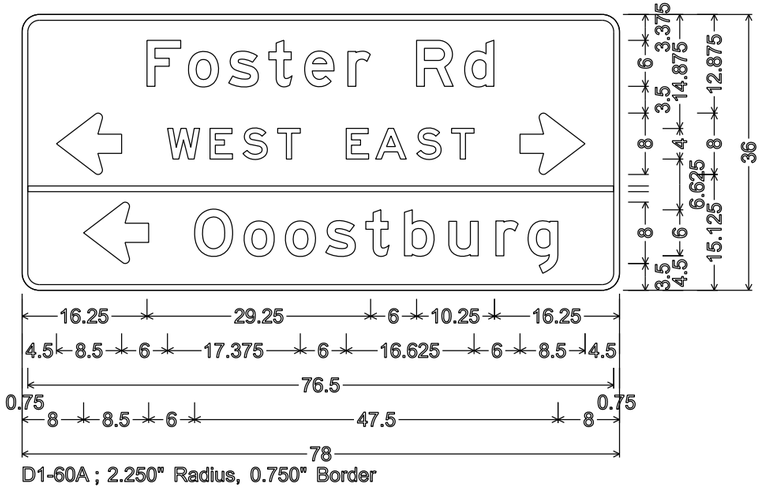
M1-94 ; 3.000" Radius, 1.000" Border



M1-94 ; 3.000" Radius, 1.000" Border



D1-60A ; 2.250" Radius, 0.750" Border



D1-60A ; 2.250" Radius, 0.750" Border

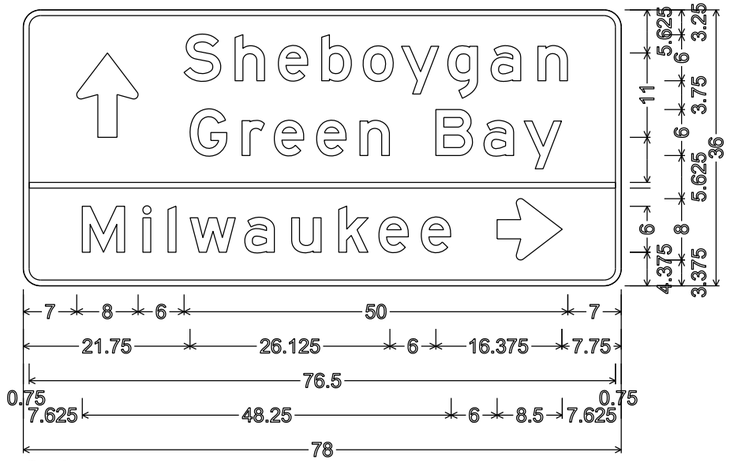
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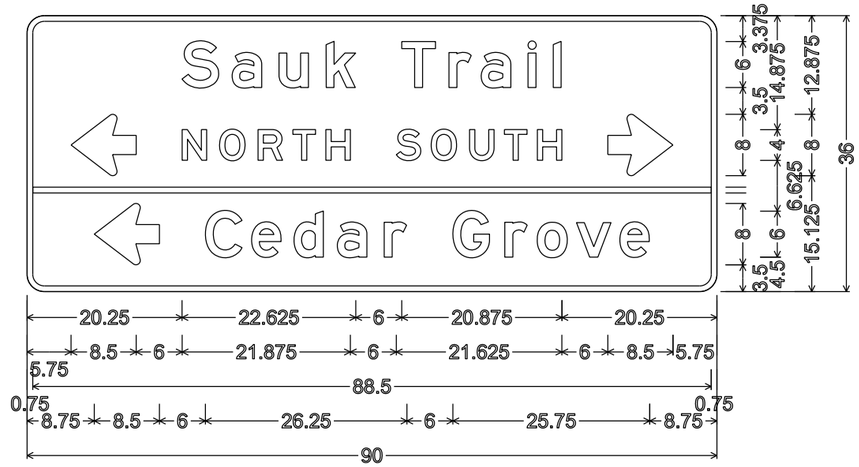
PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET NO: 88	E

NOTES

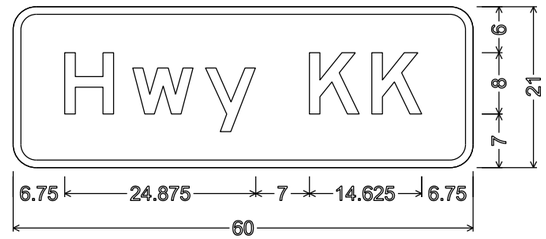
1. All Signs Type II - Type H Reflective
2. Color:
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   Message - White
3. Message Series - E



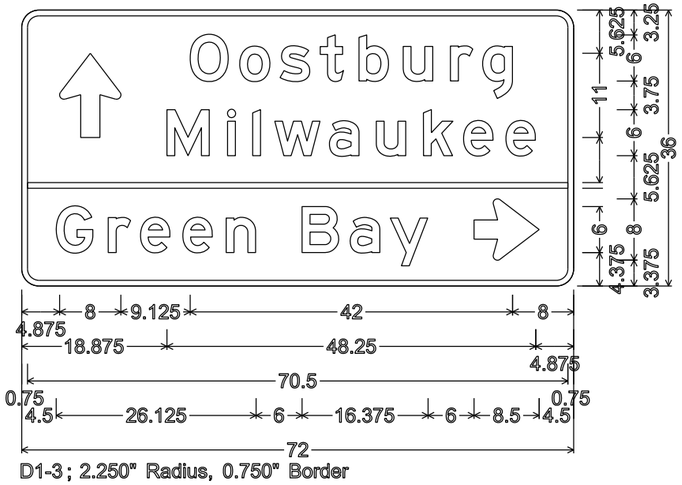
D1-3 ; 2.250" Radius, 0.750" Border



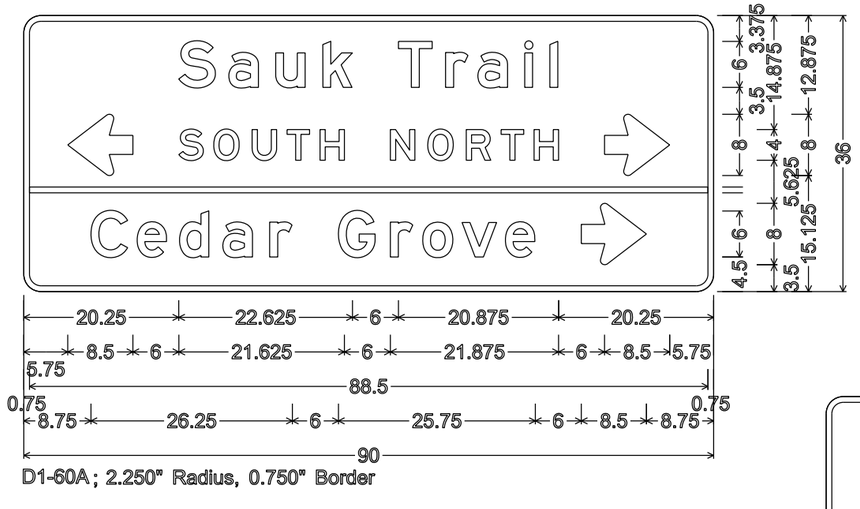
D1-60A ; 2.250" Radius, 0.750" Border



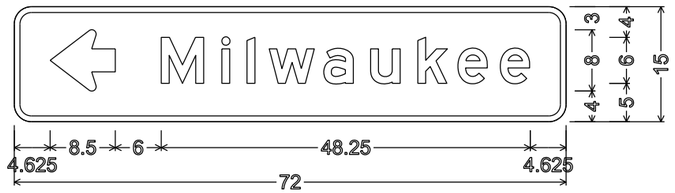
M1-94 ; 3.000" Radius, 1.000" Border



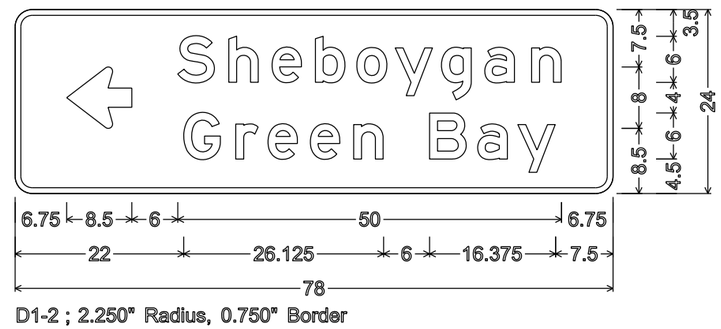
D1-3 ; 2.250" Radius, 0.750" Border



D1-60A ; 2.250" Radius, 0.750" Border



D1-1 ; 2.250" Radius, 0.750" Border

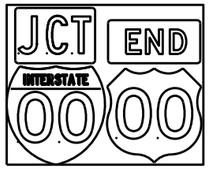


D1-2 ; 2.250" Radius, 0.750" Border

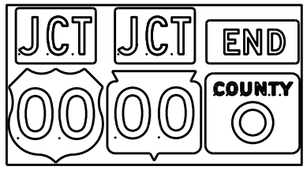
TYPICAL ASSEMBLIES



J1-1



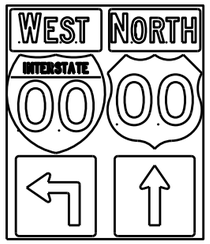
J1-2



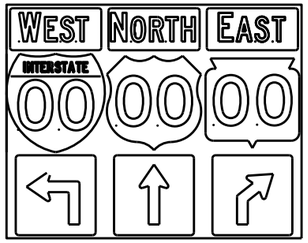
J1-3



J2-1



J2-2

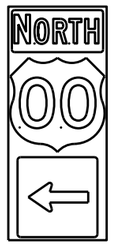


J2-3

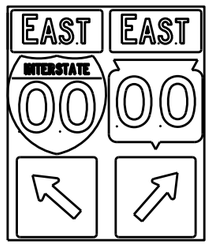


JV

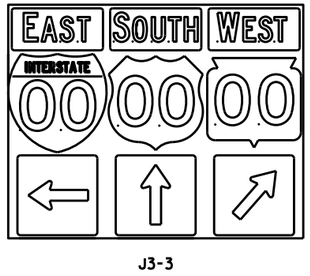
(Typical Vertical J-Assembly
See Note 10 and 11)



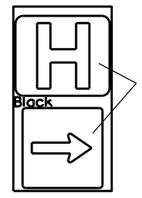
J3-1



J3-2



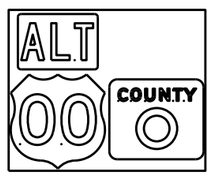
J3-3



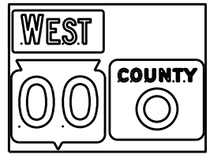
JH-1



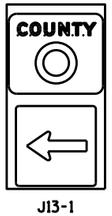
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

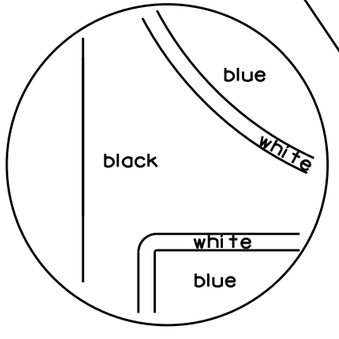


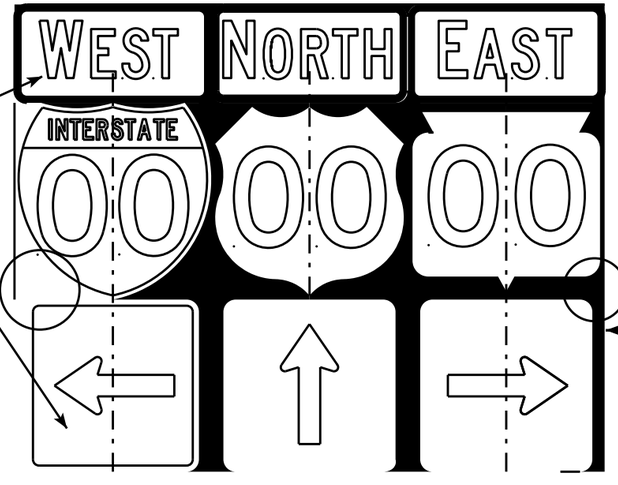
J23-1

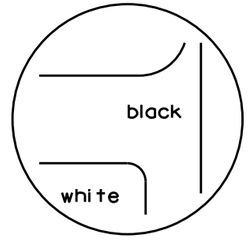


J22-1

[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

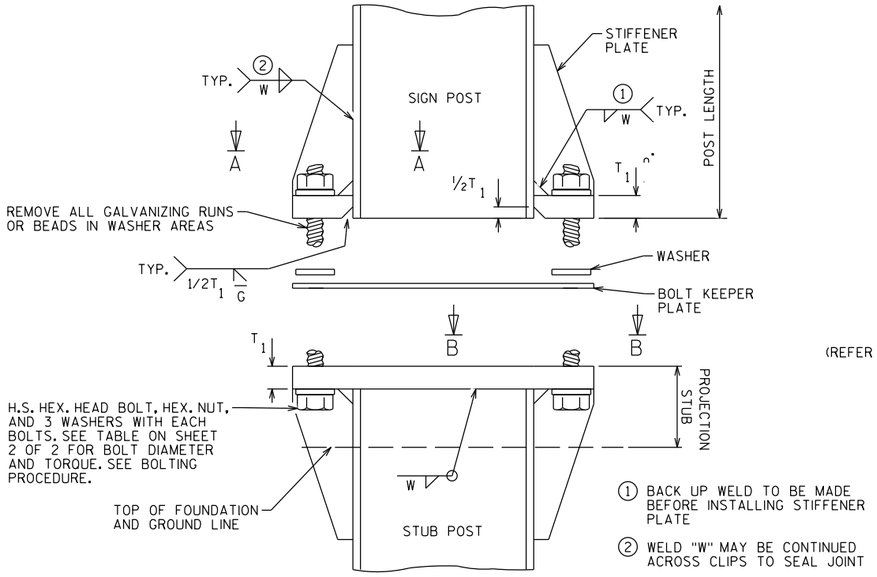
APPROVED Matthew R Rauch
for State Traffic Engineer

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 :

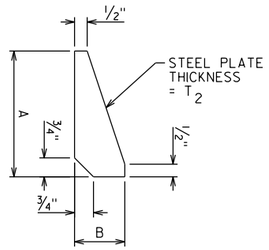
WISDOT/CADDS SHEET 42



① BACK UP WELD TO BE MADE BEFORE INSTALLING STIFFENER PLATE

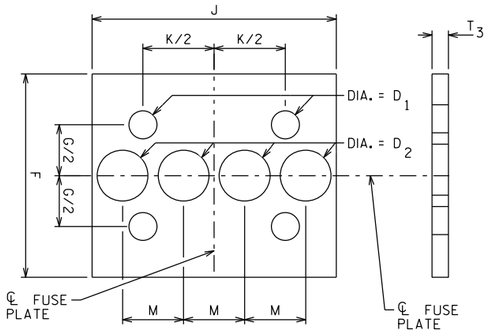
② WELD "W" MAY BE CONTINUED ACROSS CLIPS TO SEAL JOINT

SIGN POST & STUB POST ELEVATION



STIFFENER PLATE DETAIL

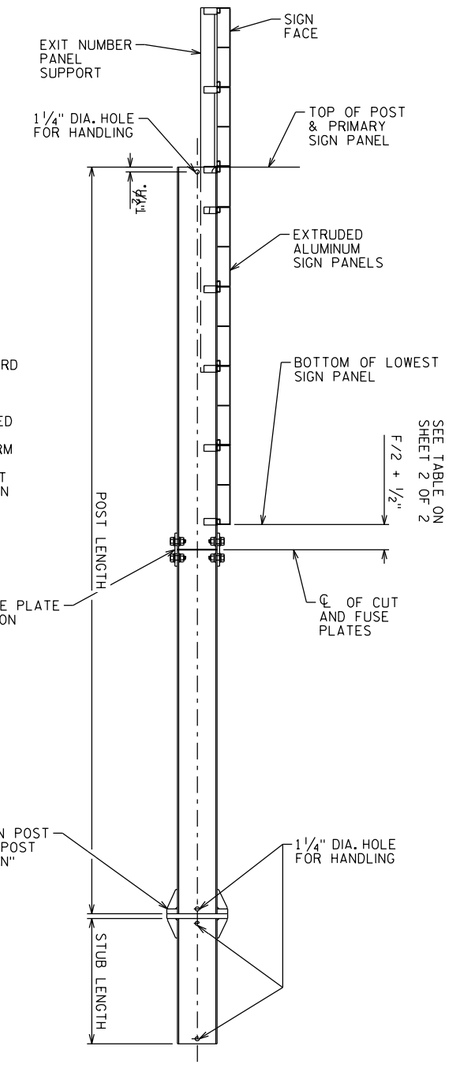
(REFER TO TABLE ON SHEET 2 OF 2 FOR DIMENSIONS)



PERFORATED FUSE PLATE DETAIL

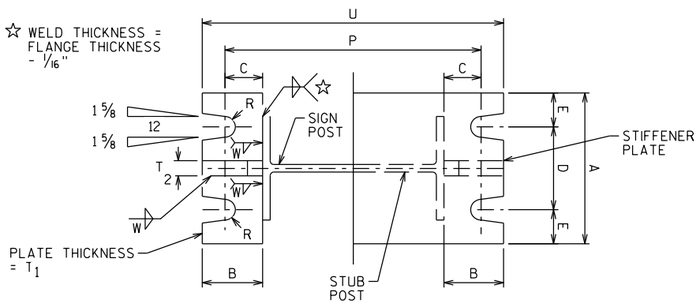
USE H.S. HEX HEAD BOLTS, HEX HEAD NUT AND FLAT WASHER UNDER NUT. INSTALL BOLTS PER THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 506.3.12.3.

ALL HOLES SHALL BE DRILLED, SUB-PUNCHED AND REAMED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER, FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36. ASTM A572 GRADE 50 OR ASTM A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. MILL TEST REPORTS SHALL BE SUBMITTED FOR FUSE PLATES. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.



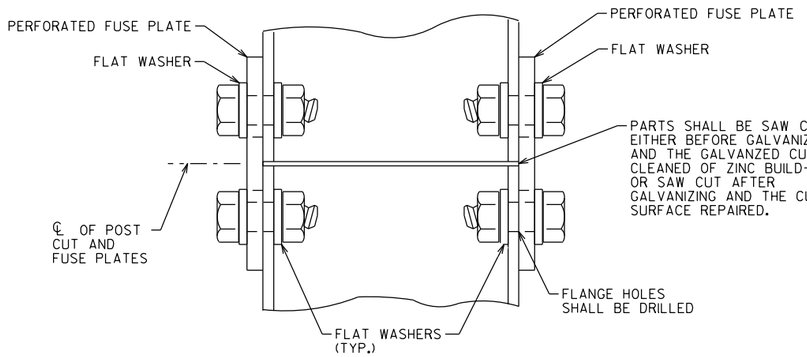
POST DETAIL

☆ WELD THICKNESS = FLANGE THICKNESS - 1/16"

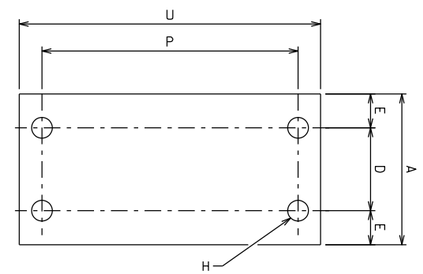


SECTION A-A

SECTION B-B



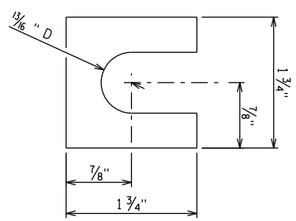
FUSE PLATE CONNECTION DETAIL



H = BOLT DIA. + 1/8"

BOLT KEEPER PLATE DETAIL

30 GA GALVANIZED SHEET STEEL



SHIM DETAIL

FURNISH TWO .012"± THICK AND TWO .032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B36.

BOLTING PROCEDURE FOR BASE CONNECTION

1. ASSEMBLE SIGN POST, BOLT KEEPER PLATE, AND STUB POST WITH BOLTS AND THREE FLAT WASHERS PER BOLT AS SHOWN.
2. SHIM AS REQUIRED 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 A 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS.
5. LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PERSCRIBED TORQUE. (SEE TABLE FOR PERSCRIBED TORQUE). DO NOT OVER-TIGHTEN.
6. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 1 OF 2

SHEET A3-1.20

91

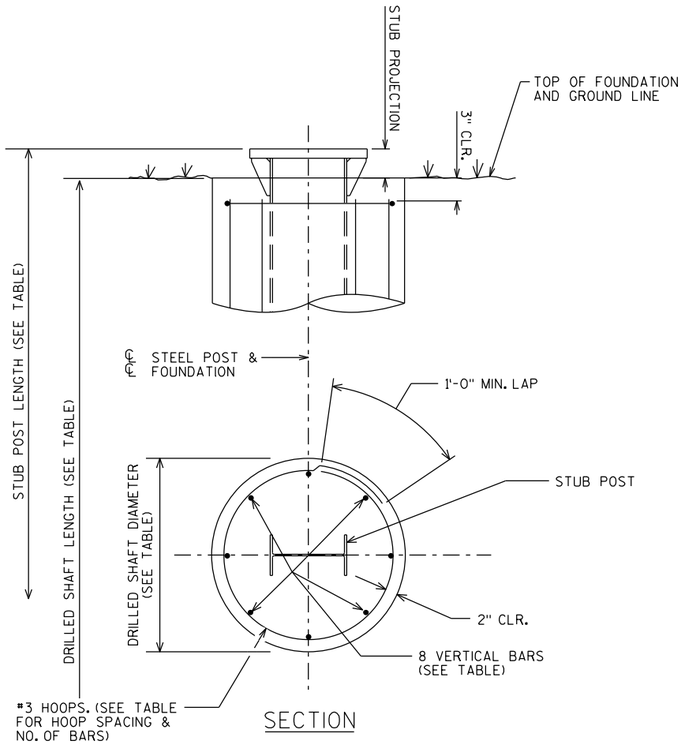
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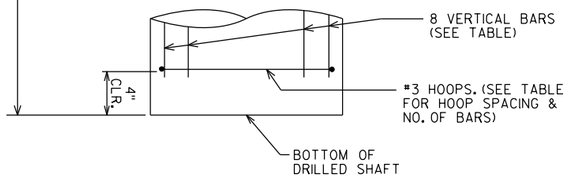
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PLOT DATE : 3-MAR-2020

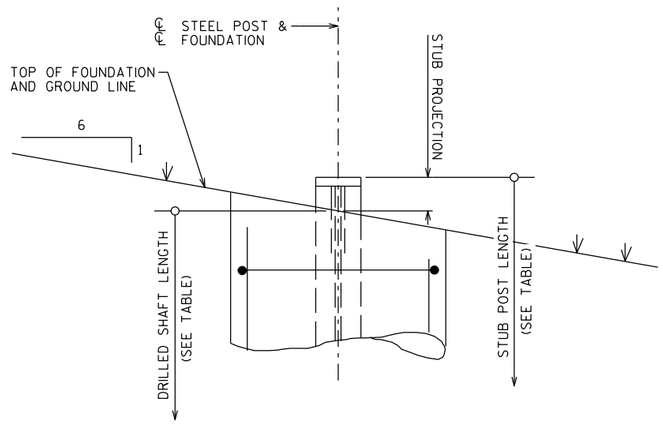
PLOT BY : dotc4c



SECTION



FOUNDATION DETAIL



SHAFT PLACEMENT

FOUNDATION DATA TABLE

POST SHAPE	STUB LENGTH	STUB PROJECTION	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH	VERTICAL BARS		HOOPS		CONCRETE VOLUME ◆	TOTAL REINF. WEIGHT ◆
					SIZE	LENGTH	MAX SPA.	NO.		
W6X15	2'-6"	3"	24"	6'-6"	#5	5'-11"	10"	9	0.8 CY	71 LB
W8X18	2'-6"	3"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W8X21	3'-0"	2½"	24"	8'-0"	#6	7'-5"	12"	9	1.0 CY	110 LB
W10X22	3'-0"	2½"	24"	8'-6"	#7	7'-11"	12"	9	1.0 CY	151 LB
W12X26	3'-0"	2½"	24"	10'-0"	#7	9'-5"	12"	11	1.2 CY	180 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

POST SHAPE	WEIGHT PER FOOT	BASE CONNECTION DATA: BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	BOLT KEEPER PLATE DATA: P	U	PERFORATED FUSE PLATE DATA: F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	V ◪
W6X15	15 LB	⅝" DIA. X 4" 36 TO 38 FT-LB	5"	2"	1¼"	2¾"	1⅛"	1¼"	½"	¼"	11/32"	8½"	10"	5"	2½"	6"	3½"	1½"	11/16"	1¼"	⅜"	⅝"	2.4	2	73.0 LB
W8X18	18 LB											10⅝"	12⅛"	5"	2½"	5¼"	2¾"	1¼"	11/16"	1 1/16"	⅜"	⅝"	2.0	2	83.0 LB
W8X21	21 LB	¾" DIA. X 4¾" 62 TO 63 FT-LB	6"	2¼"	1⅜"	3½"	1¼"	1½"	¾"	5/16"	13/32"	11"	12¾"	5½"	2½"	5¼"	2¾"	1¼"	13/16"	1"	½"	¾"	3.1	2¼"	124.0 LB
W10X22	22 LB											12⅞"	14⅝"	6"	3"	5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾"	3.9	2¼"	134.0 LB
W12X26	26 LB											15"	16¾"	6"	3"	6½"	3½"	1⅝"	13/16"	1 5/16"	½"	¾"	4.5	2¼"	152.0 LB

◪ TOTAL STRUCTURAL CARBON STEEL WEIGHT FOR ONE POST = V + (POST LENGTH X POST WEIGHT PER FOOT)

"V" INCLUDES STUB POST, BASE PLATES, STIFFENER PLATES, PERFORATED FUSE PLATES, BOLTS, NUTS, AND WASHERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

MATERIALS SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506, UNLESS NOTED OTHERWISE.

FABRICATION SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506.

ALL POST, POST STUBS & ATTACHMENTS SHALL BE ASTM A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.

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.

FOUNDATION MATERIAL PROPERTIES

CONCRETE MASONRY	F'C = 3,500 P.S.I.
BAR STEEL REINFORCEMENT (UNCOATED), GRADE 60	FY = 60,000 P.S.I.

DESIGN DATA

DESIGN CONFORMS TO AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 1ST EDITION 2015 (WITH 2017 & 2018 INTERIM REVISIONS).

DEAD LOADS (DL):

- STEEL POST SELF WEIGHT
- SIGN PANEL WEIGHT = 3 PSF

WIND LOADS (WL):

WIND LOADS WERE APPLIED TO THE PROJECTED AREAS OF THE SIGN PANELS AND THE STEEL SIGN POSTS.

- BASIC WIND SPEED = 76 MPH
- MEAN RECURRANCE INTERVAL (MRI) = 10 YEARS
- HEIGHT & EXPOSURE FACTOR = 1.00
- DIRECTIONALITY FACTOR = 0.85
- GUST EFFECT FACTOR = 1.14

WIND LOAD CASES:

- WL CASE 1: 1.0 X NORMAL WIND
- WL CASE 2: 1.0 X TRANSVERSE WIND
- WL CASE 3: 0.75 X NORMAL WIND + 0.75 X TRANSVERSE WIND

LOAD COMBINATIONS:

LOAD COMBINATION	TYPE	DL FACTOR	WL FACTOR
STRENGTH I	GRAVITY	1.25	-
EXTREME I	WIND	1.10	1.0
		0.9	1.0
SERVICE I	DEFLECTION	1.0	1.0

FOUNDATION DESIGN DATA

THE FOUNDATION DESIGN ASSUMED COHESIONLESS SOILS (LOOSE SAND) ABOVE THE WATER TABLE WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 115 PCF
- ANGLE OF INTERNAL FRICTION = 24 DEGREES
- SOIL MODULUS PARAMETER = 25 LB/IN3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

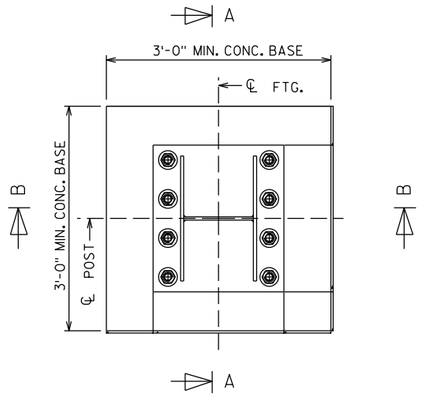
DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 2 OF 2

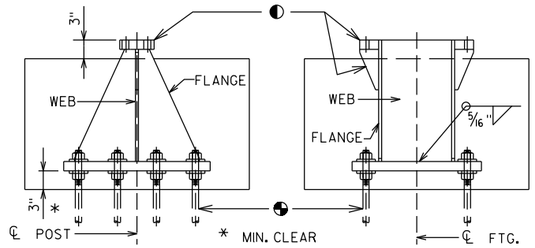
SHEET A3-1.20

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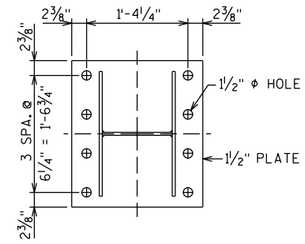
STUB AND ADHESIVE ANCHOR DETAILS



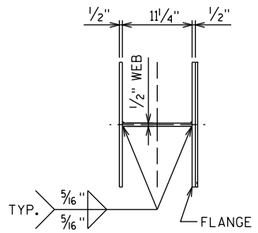
STUB SECTION



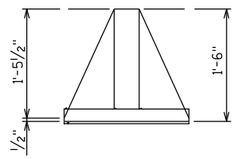
SECTION A-A SECTION B-B



BASE PLATE



STUB



FLANGE

◐ SEE BASE CONNECTION DETAILS ON "CONNECTIONS & FOUNDATION DETAILS" SHEETS.

◔ ADHESIVE ANCHORS 1¼-INCHES. ALLOWABLE PULL OUT CAPACITY = 15 KIPS. EMBED 1'-3" INTO ROCK.

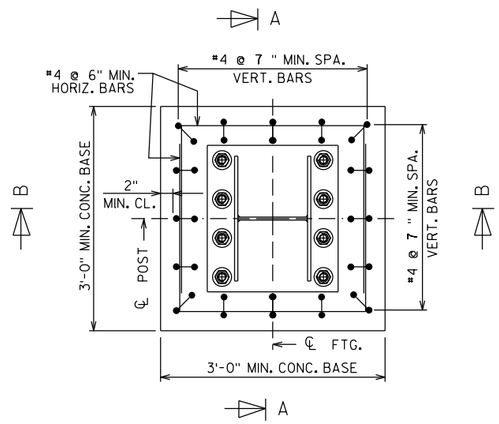
GENERAL NOTES:

QUANTITIES PER BASE:
REINFORCING STEEL = 62 LB
CONCRETE = 0.6 CY
STRUCTURAL STEEL = 335 LB

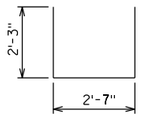
ALL MATERIALS, EXCEPT FOR ANCHOR ROD, NUTS, AND WASHERS, SHALL BE ASTM A709 GRADE 50. ALL MATERIALS TO BE GALVANIZED AFTER FABRICATION.

IF ROCK IS ENCOUNTERED PRIOR TO REACHING THE MINIMUM DRILLED SHAFT EMBEDMENT DEPTH DEFINED ON THE FOUNDATION DATA TABLE OF THE "CONNECTIONS & FOUNDATION DETAILS 2 OF 2" SHEET, THE CONTRACTOR SHALL INSTALL A TEST ADHESIVE ANCHOR AND DETERMINE THE PULL-OUT CAPACITY. IF THE FIELD TEST RESULTS IN A PULL-OUT CAPACITY GREATER THAN OR EQUAL TO 15 KIPS, THE CONTRACTOR MAY INSTALL THE ALTERNATE CONCRETE BASE AND BREAK-WAY STUB PER THE DETAILS ON THIS SHEET.

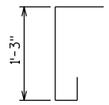
CONCRETE BASE DETAILS



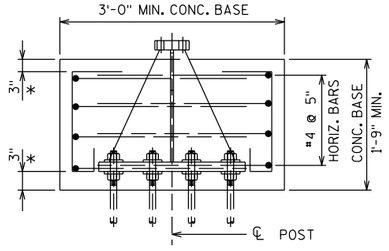
CONCRETE BASE PLAN



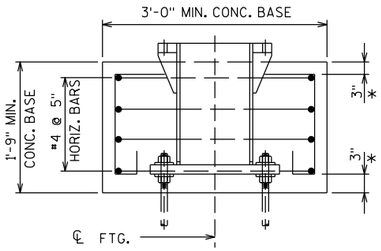
HORIZONTAL BAR
8 BARS @ 6'-11" LENGTH



VERTICAL BARS
16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A-A



SECTION B-B

* MIN. CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

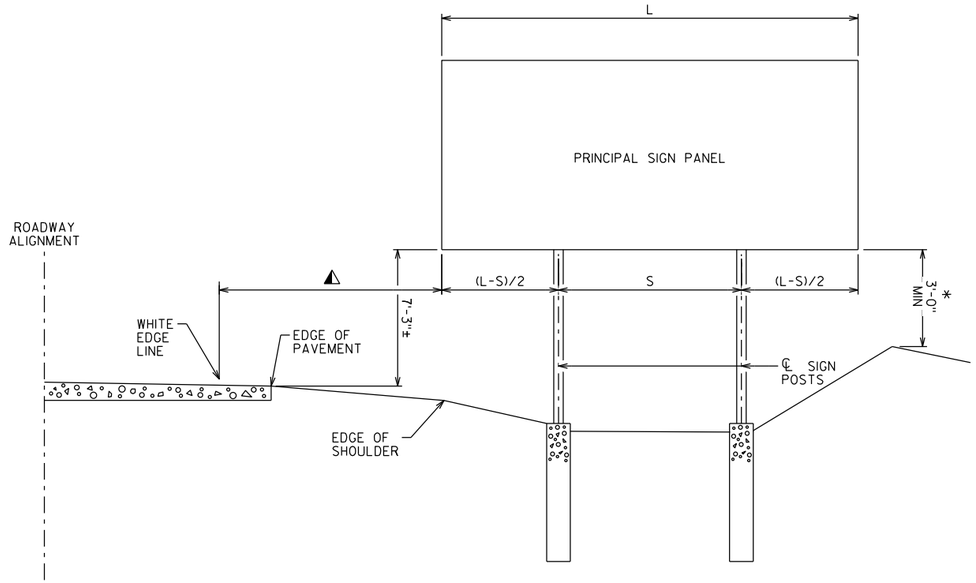
STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

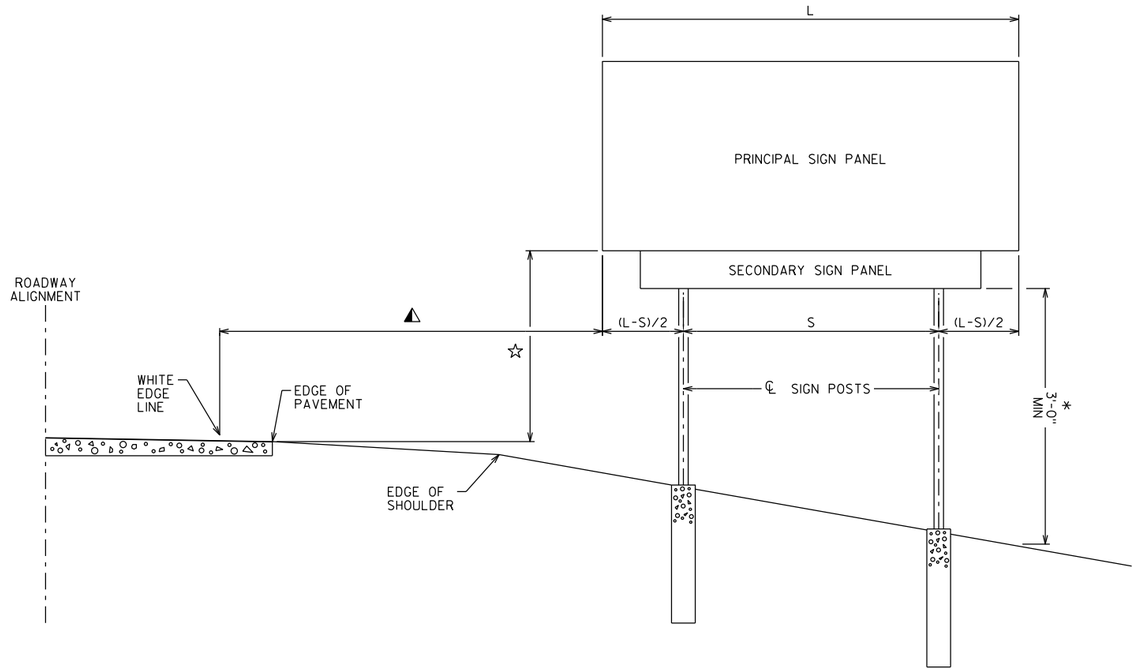
ALTERNATE BREAK-AWAY BASE ON ROCK

SHEET A3-1M.2

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INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

⚠ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

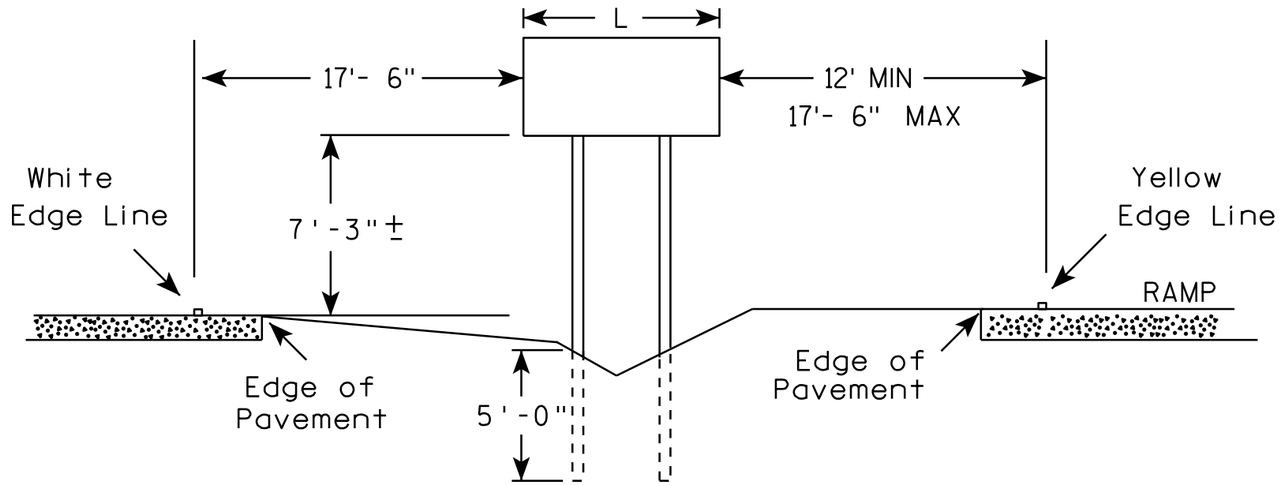
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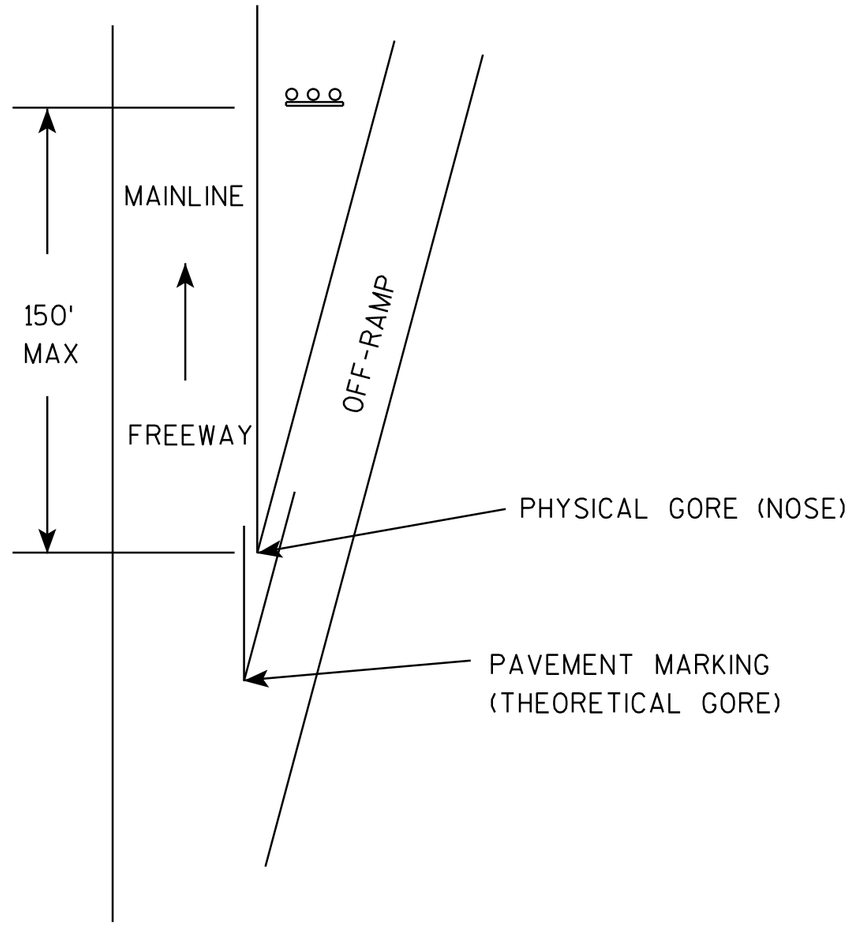
TYPICAL TYPE I SIGN INSTALLATION

SHEET A4-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A41.DGN PLOT DATE : 25-MAR 2020 11:01 PLOT BY : mscj9h
WISDOT/CADDS SHEET 42





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.

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

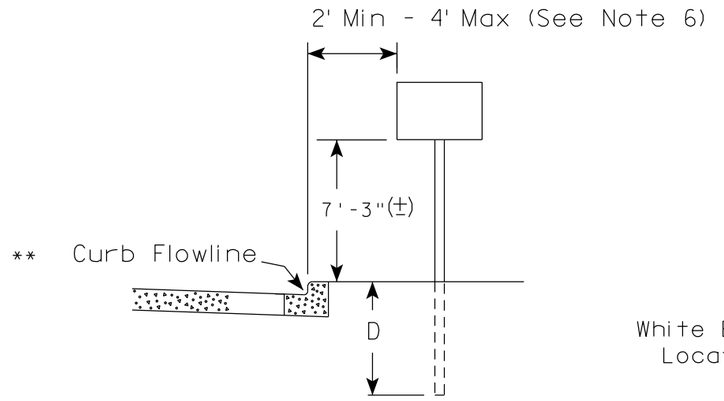
DATE 2/06/14 PLATE 95 A4-2.3

7

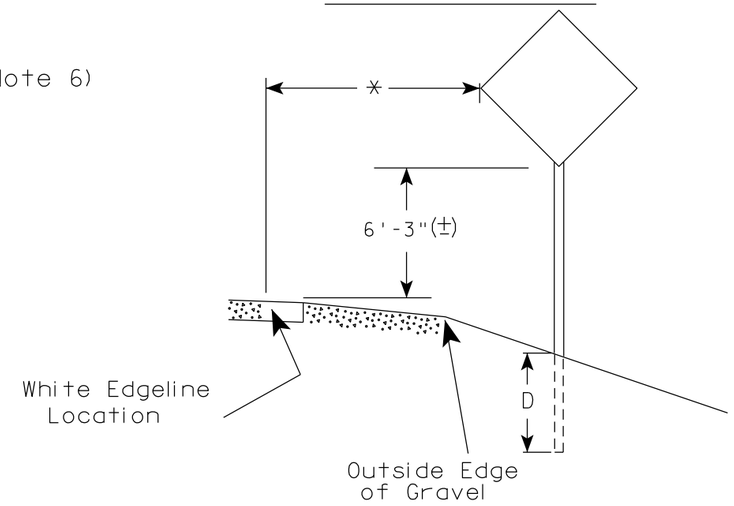
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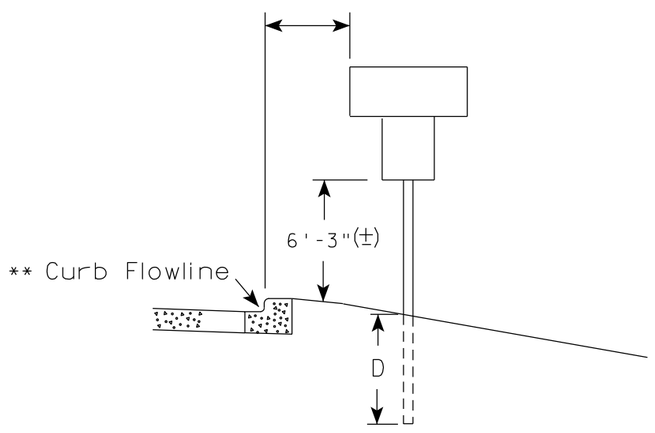
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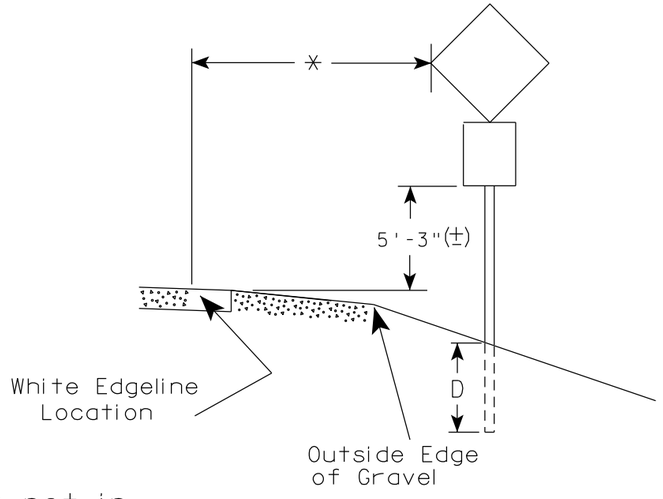
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

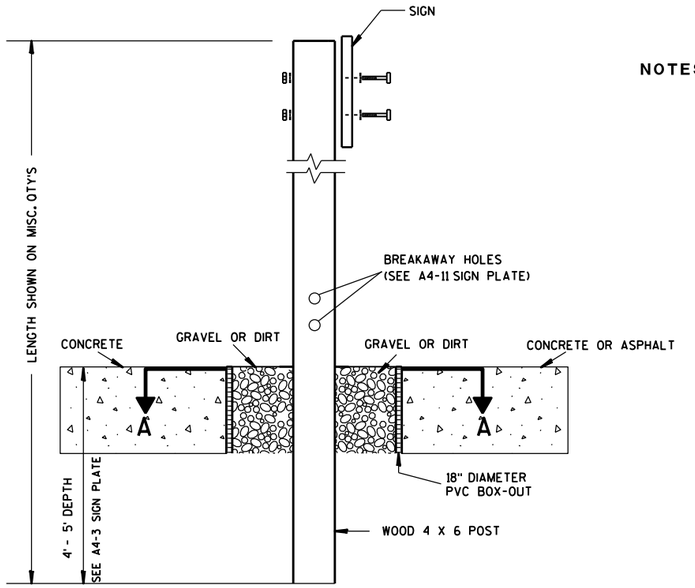
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

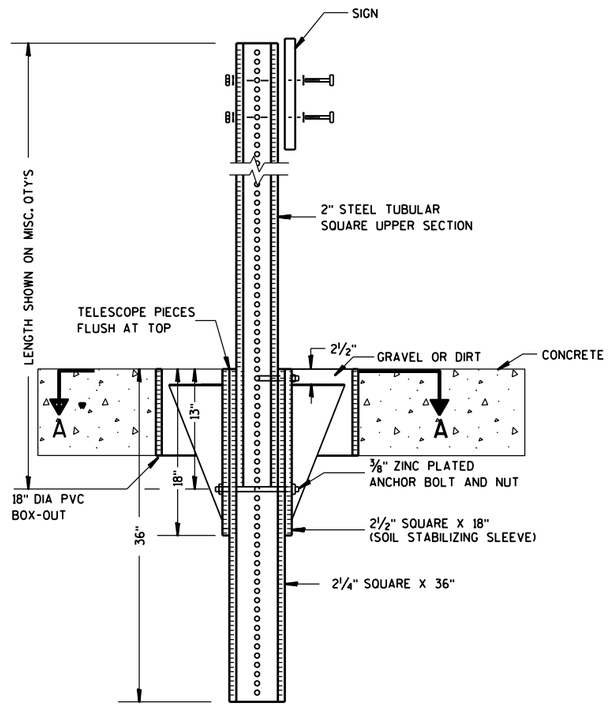
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E



ELEVATION VIEW

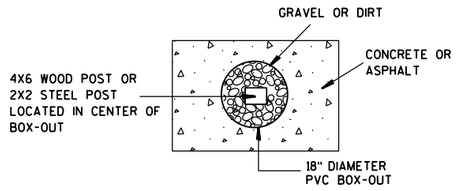
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

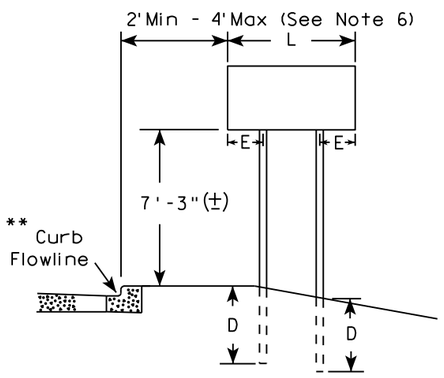
APPROVED Matthew R Rauch
for State Traffic Engineer

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

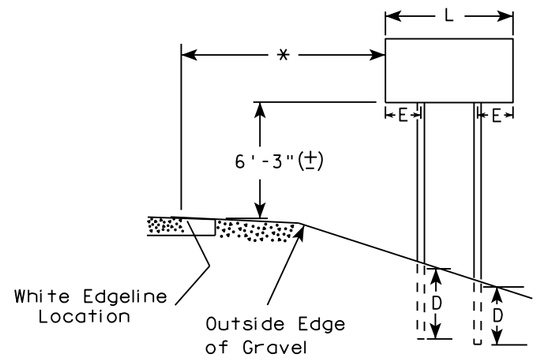
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

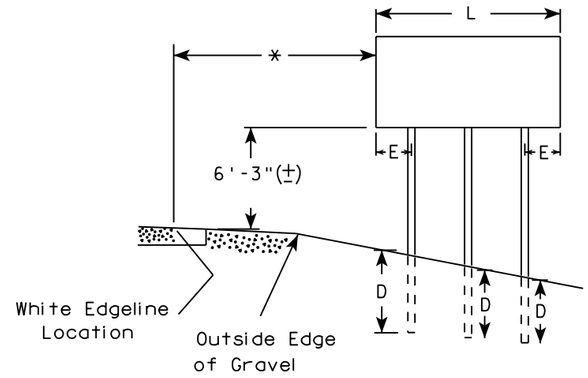
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

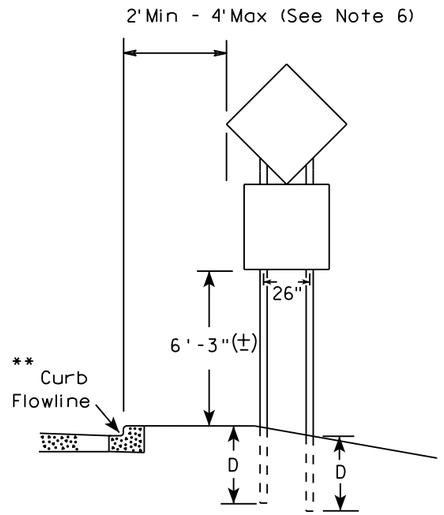
URBAN AREA



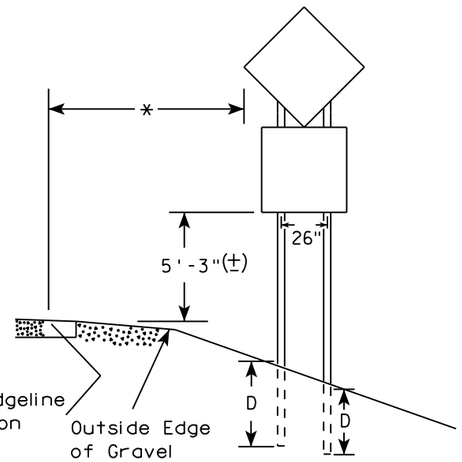
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

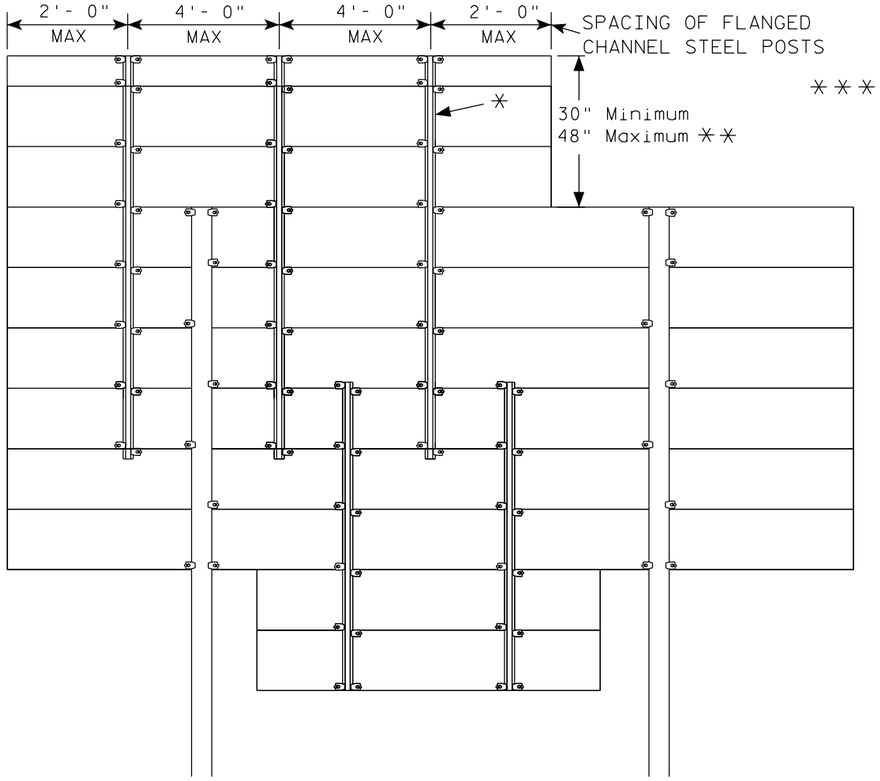
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E

GROUND MOUNTED SIGN



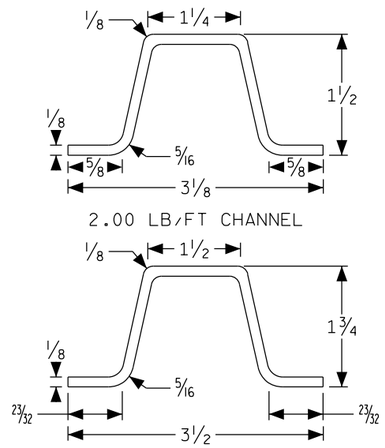
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=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 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

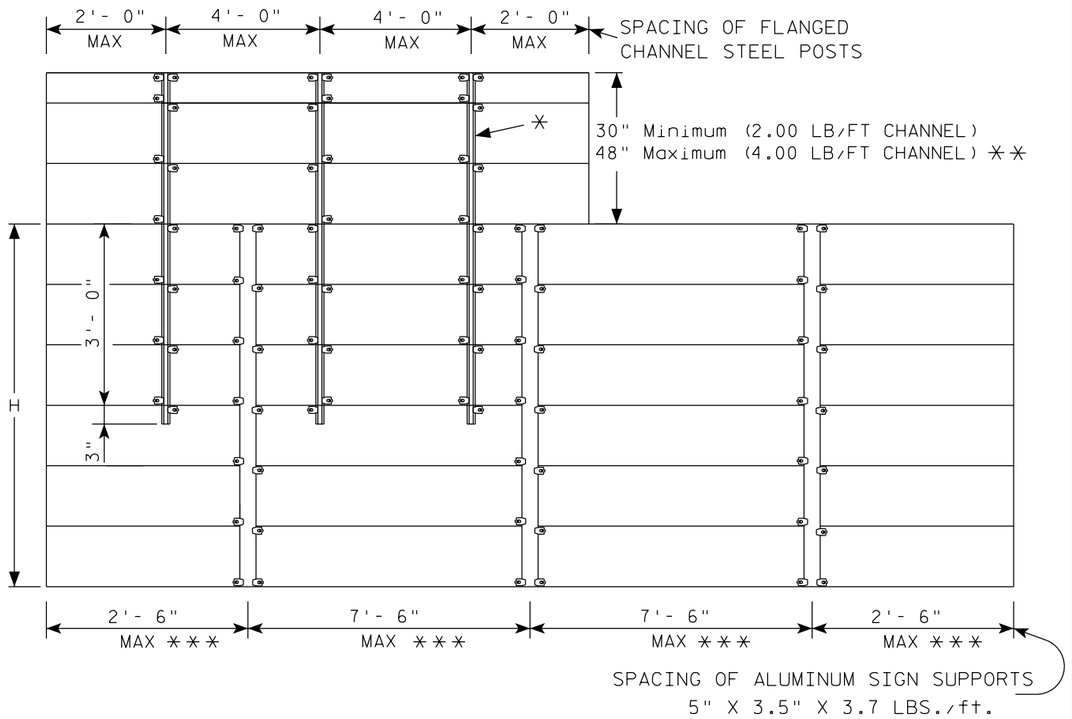
NOT TO SCALE



2.00 LB/FT CHANNEL

4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



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

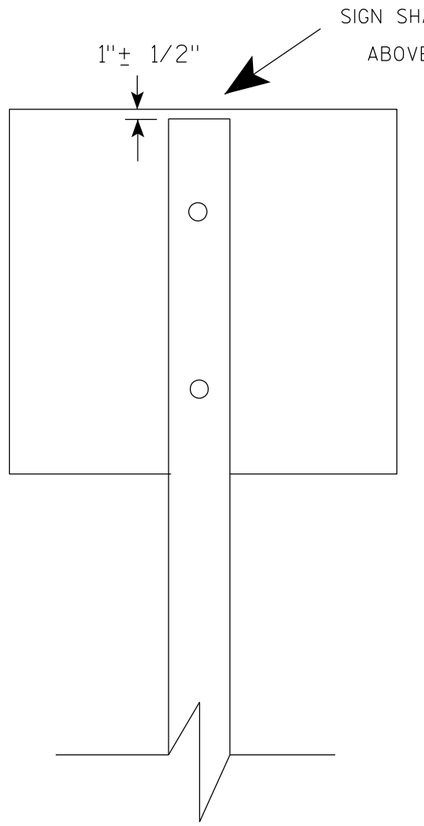
   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER 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.

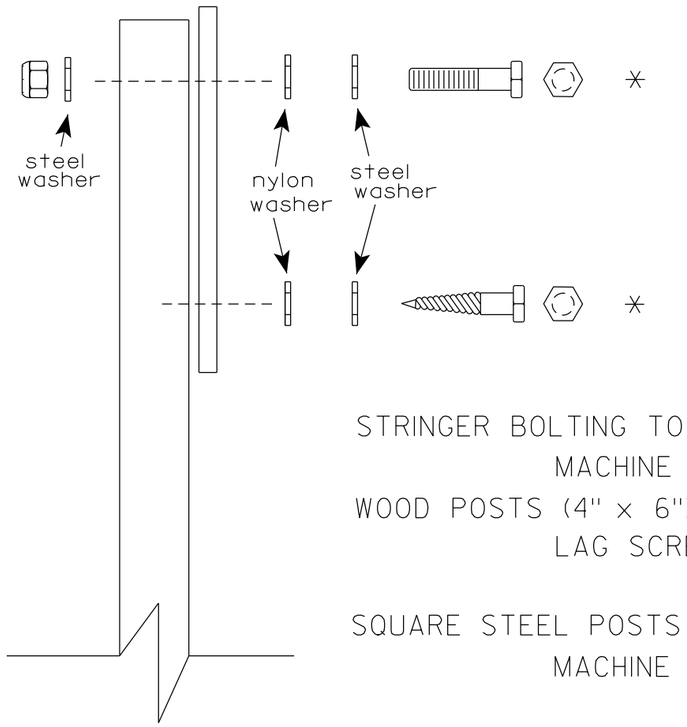
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-6.12





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

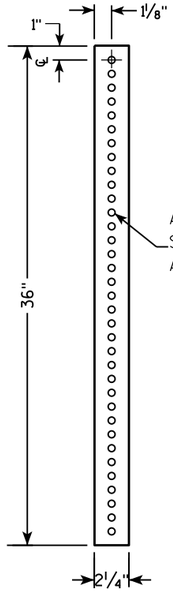
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

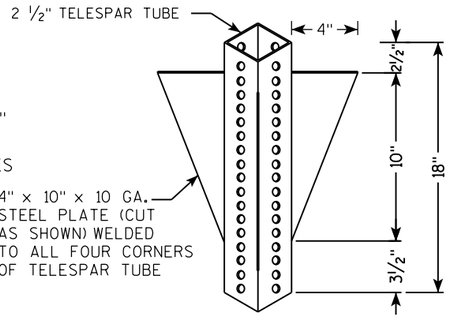
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

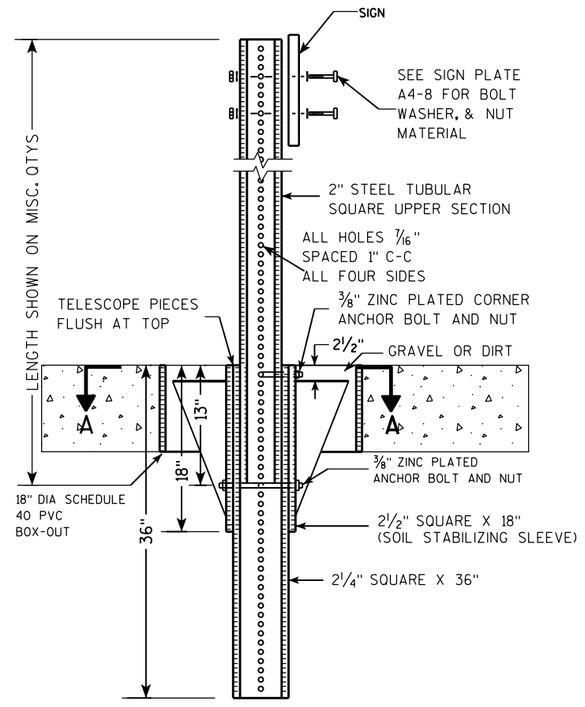
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



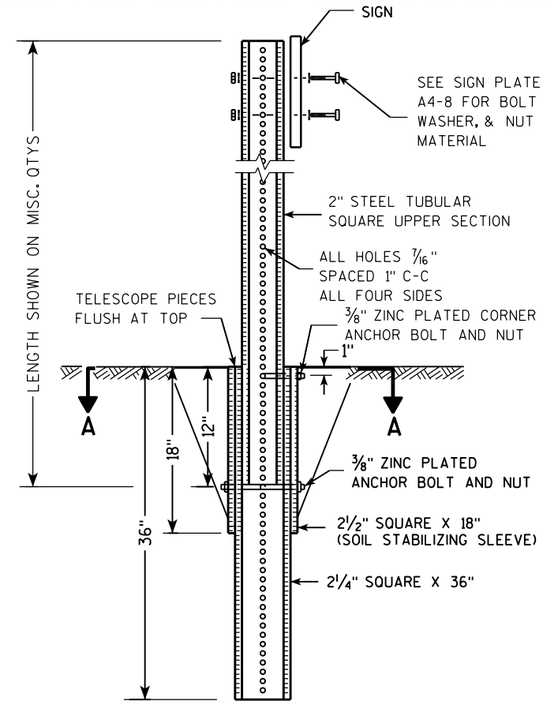
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

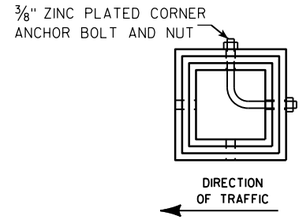


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

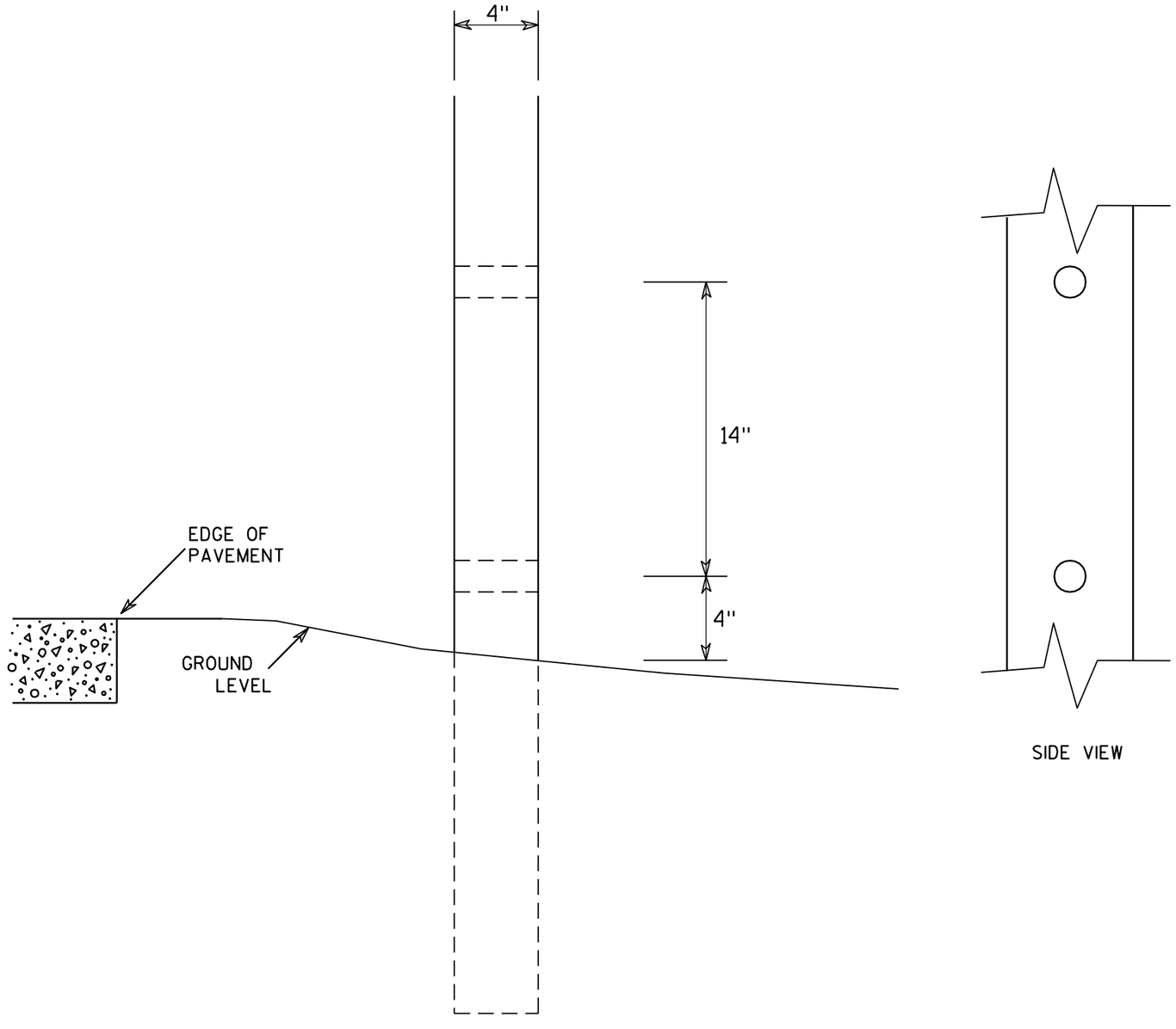
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

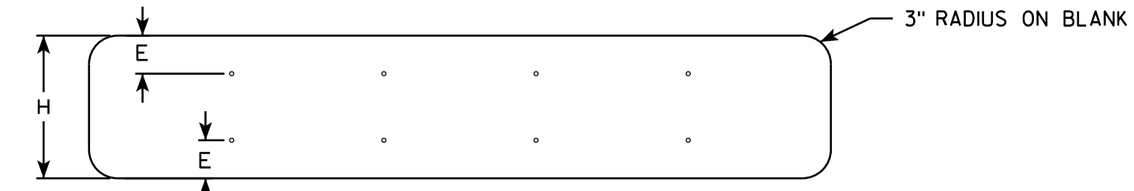
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

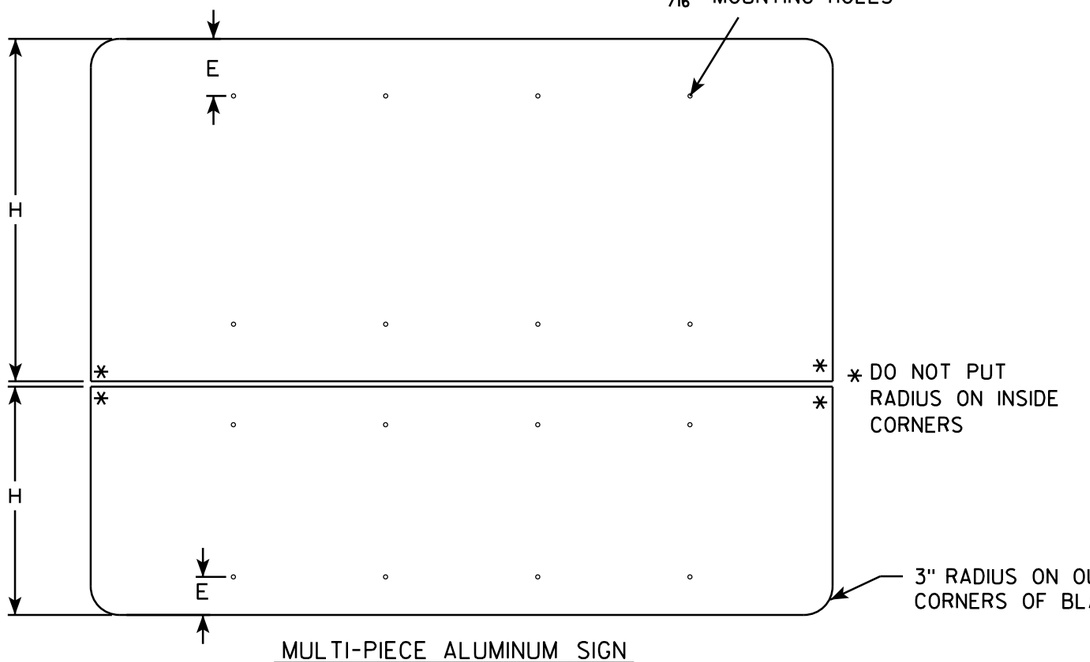
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E



SINGLE PIECE ALUMINUM SIGN

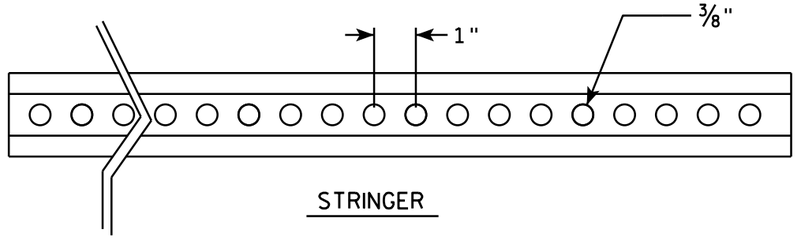


MULTI-PIECE ALUMINUM SIGN

GENERAL NOTES

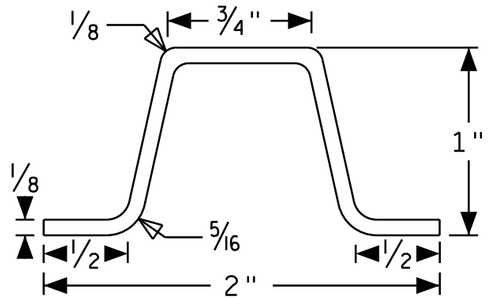
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

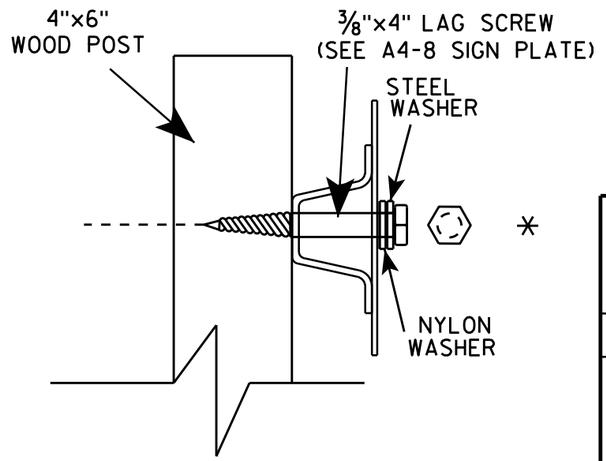


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

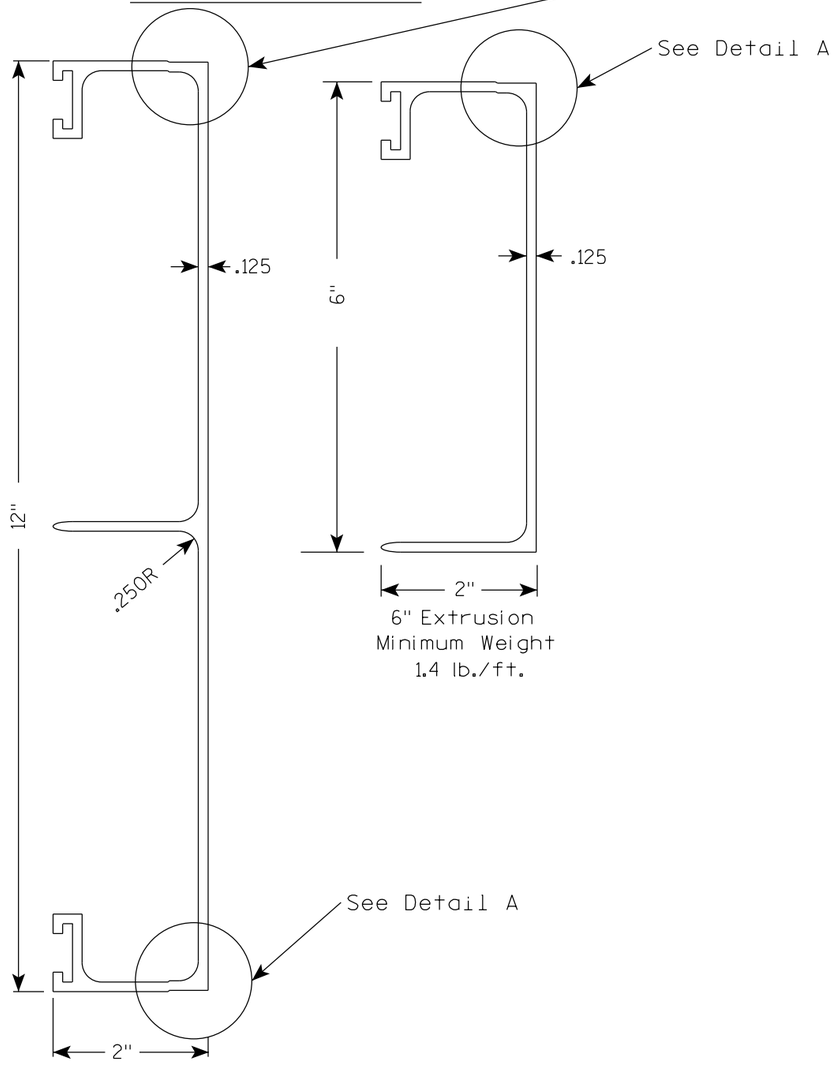
for State Traffic Engineer

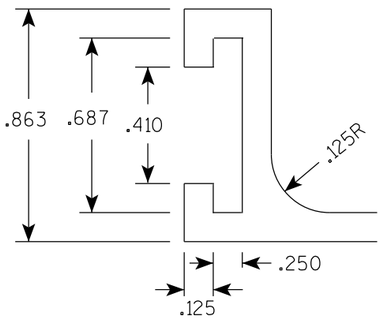
DATE 4/26/16 PLATE NO A4-18.1

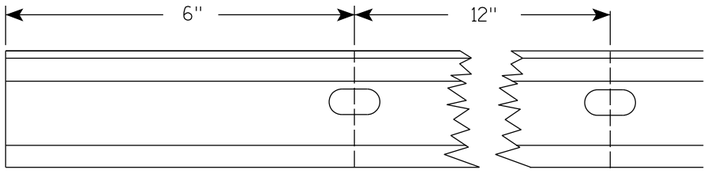
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







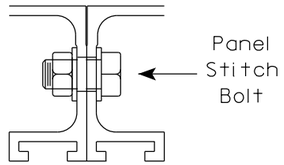
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

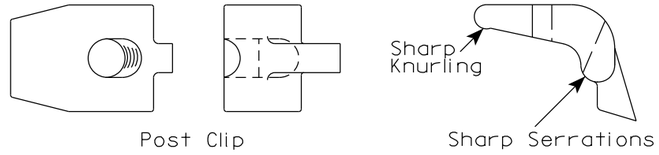
The hardware includes:

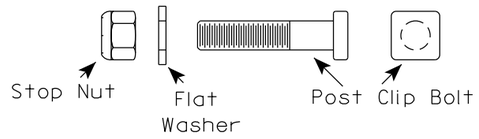
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

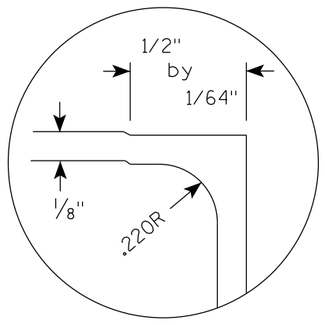
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





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.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

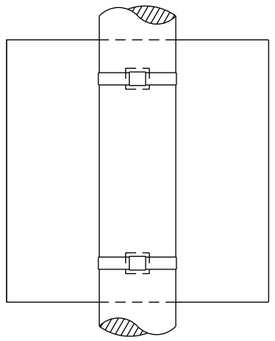
DATE 1/07/20 PLATE NO. A5-2.10

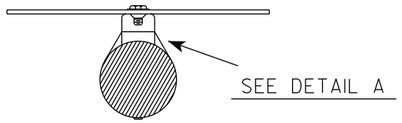
PROJECT NO:

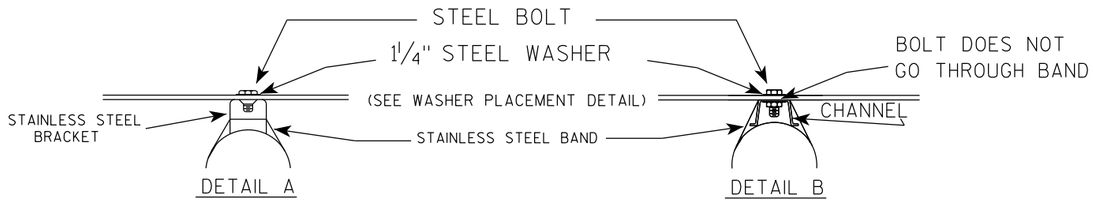
SHEET NO: 104 E

BANDING

SINGLE SIGN



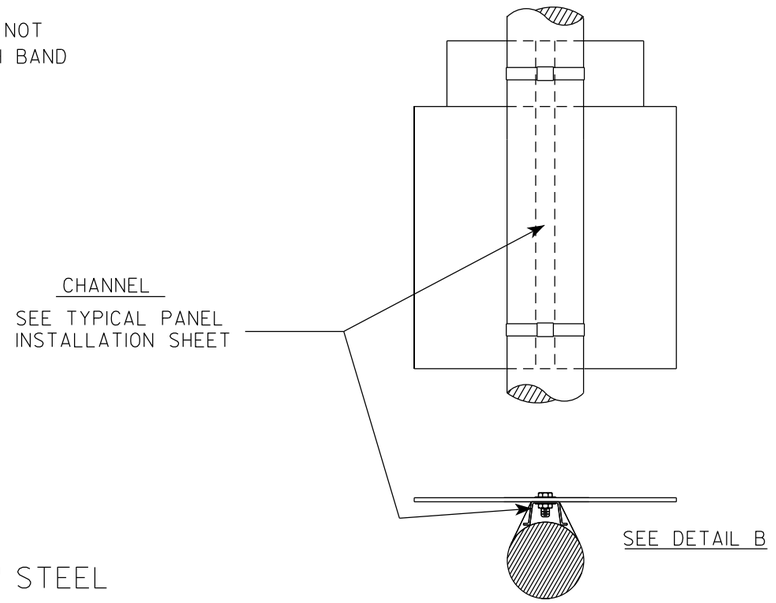




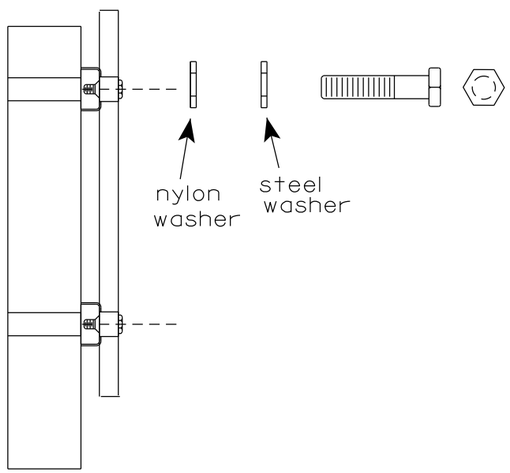
GENERAL NOTES

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

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

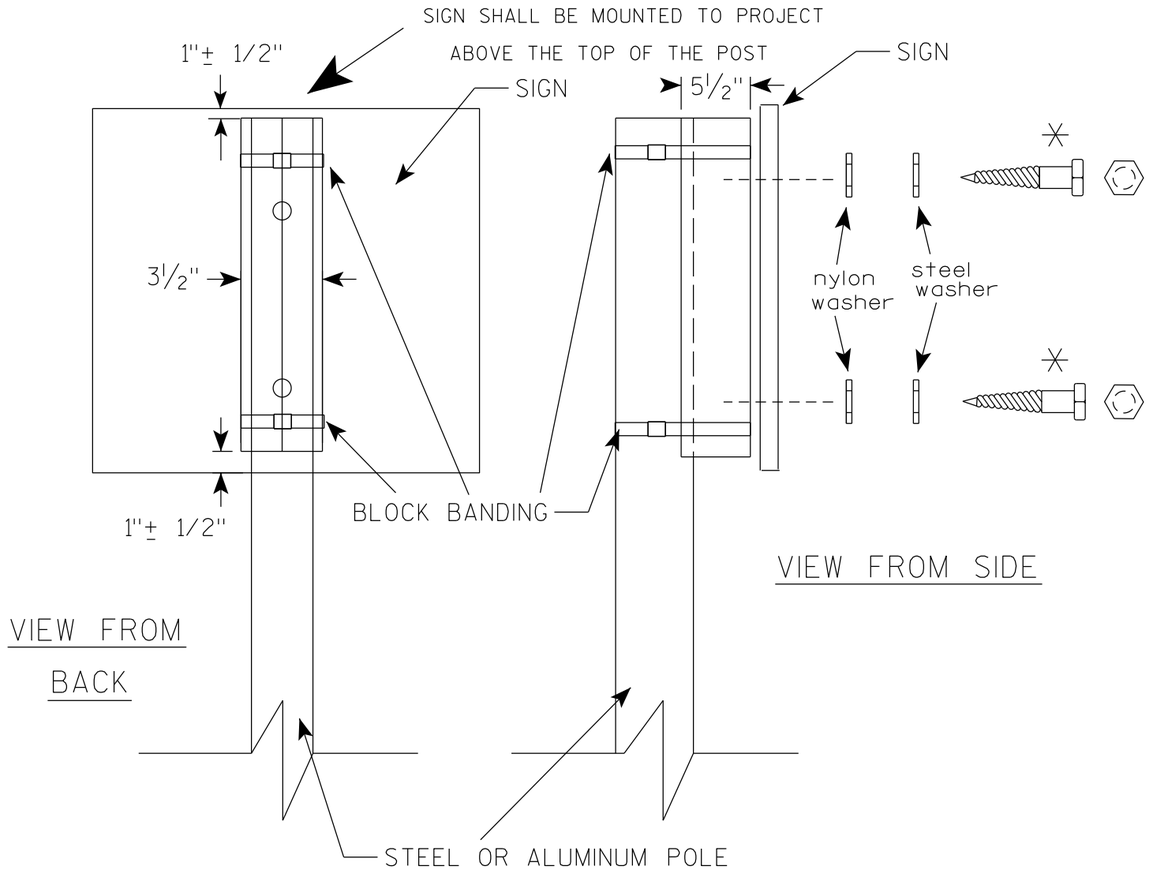
STANDARD SIGN
SIGN BANDING DETAILS

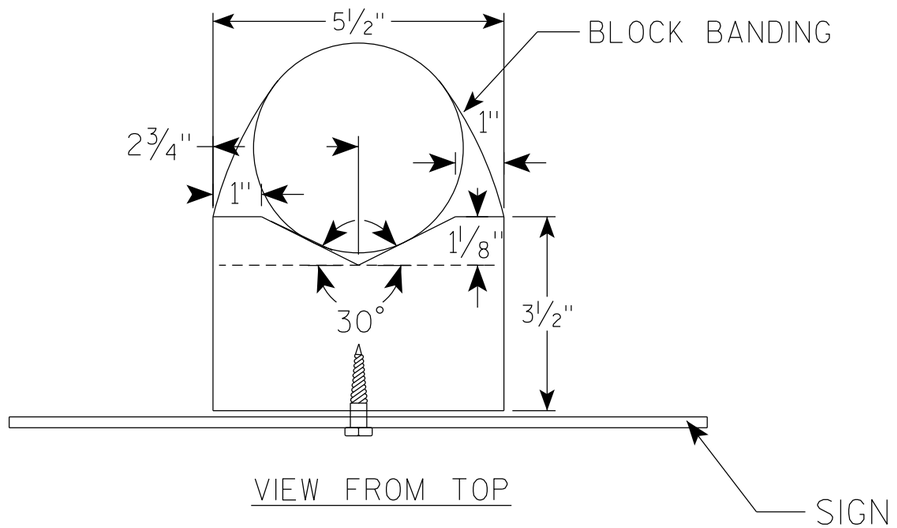
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	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
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

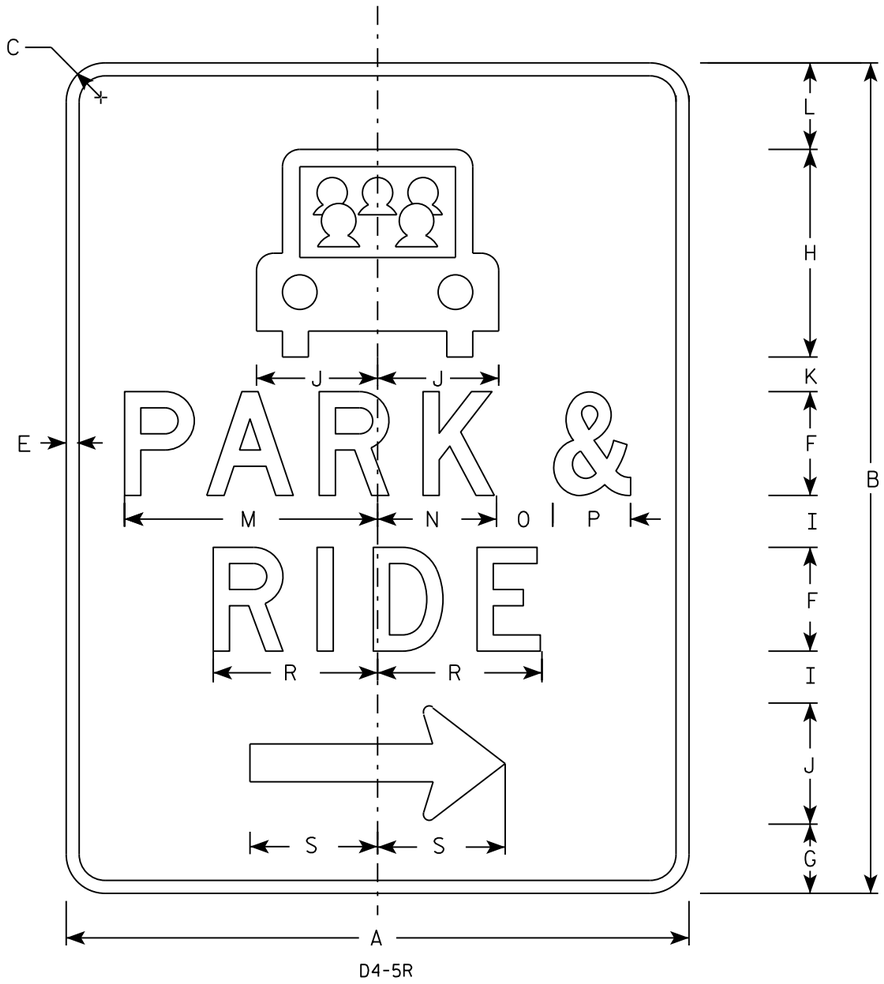
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

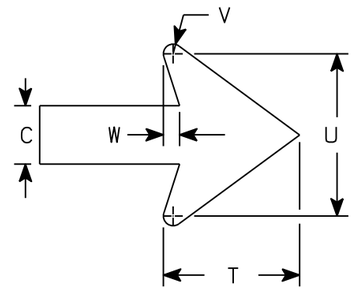
PROJECT NO:				SHEET NO: 106	E



D4-5R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - D
4. The D4-5L is the same as a D4-5R except the arrow 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																											
2	30	36	1 3/8		5/8	5	3 1/8	9	2	5	1 5/8	3 1/4	11 3/4	5 1/2	2 3/4	3 3/4		8	6 1/8	4	4 3/8	3/8	1/2				7.50
3	36	48	2 1/4		3/4	6	4	12	3	7	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	7 1/2	5 1/4	6 1/4	3/8	5/8				12.0
4																											
5																											

STANDARD SIGN
D4-5 L&R

WISCONSIN DEPT OF TRANSPORTATION

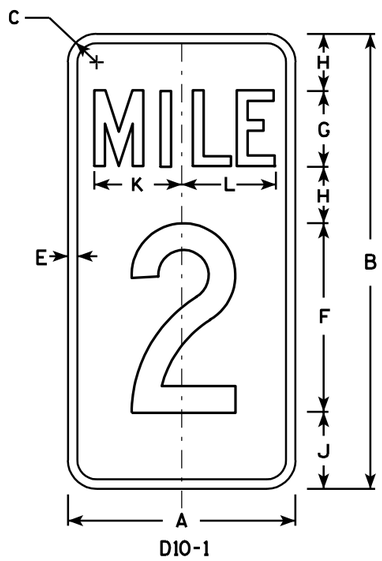
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/7/18 PLATE 107 D4-5.3

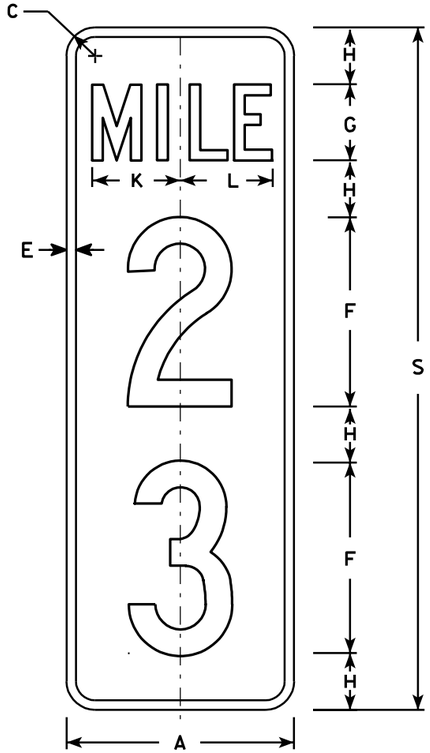
PROJECT NO:

SHEET NO: E

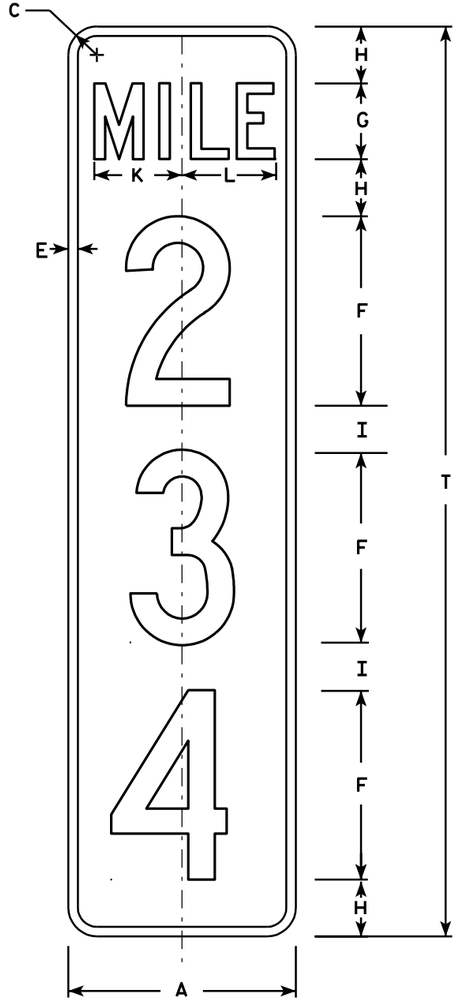
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\D45.DGN PLOT DATE : 07-MAY-2018 10:18 PLOT BY : $$ plotuser $$



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

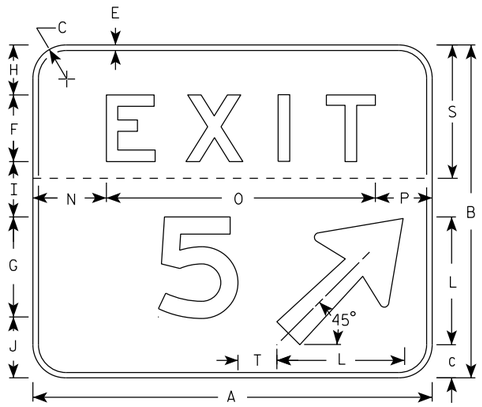
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for Director, Office of Traffic

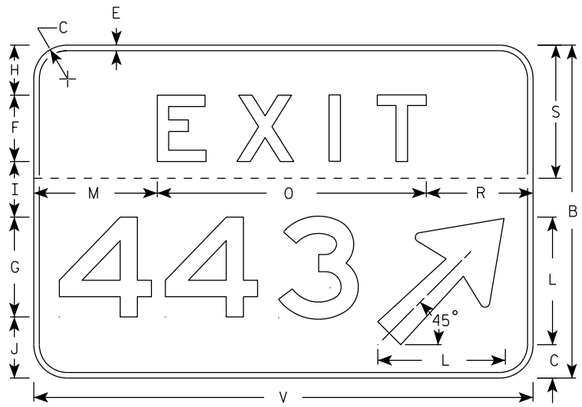
DATE 1/16/02 PLATE NO. D10-3.2

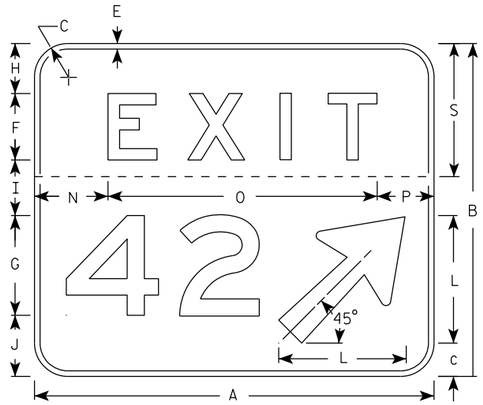
PROJECT NO:

SHEET NO: 108 E



NOTE: T diminision shall be measured from the back of the number to the front of the arrow





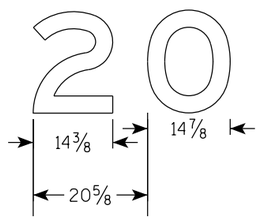
NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Corners may be square or rounded but the corners shall be rounded when base material is metal.
5. Sign 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

EXAMPLE FOR USING SPACING CHART



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

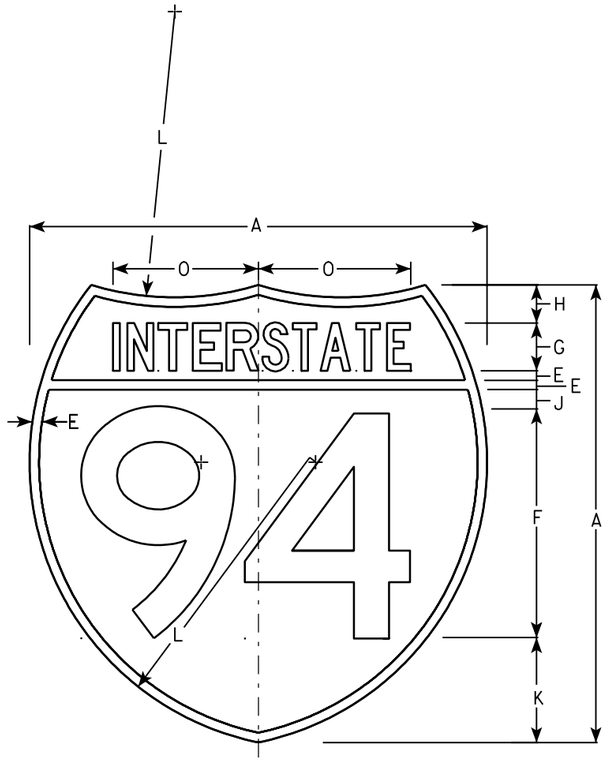
STANDARD SIGN E5-1A

WISCONSIN DEPT OF TRANSPORTATION

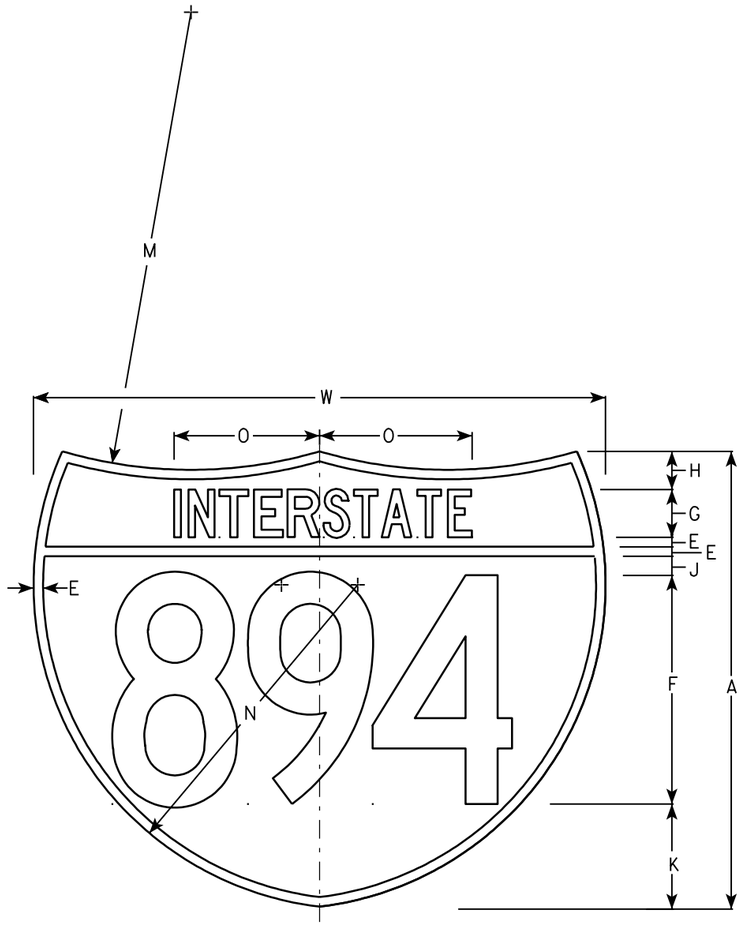
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. E5-1A.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

7

7

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

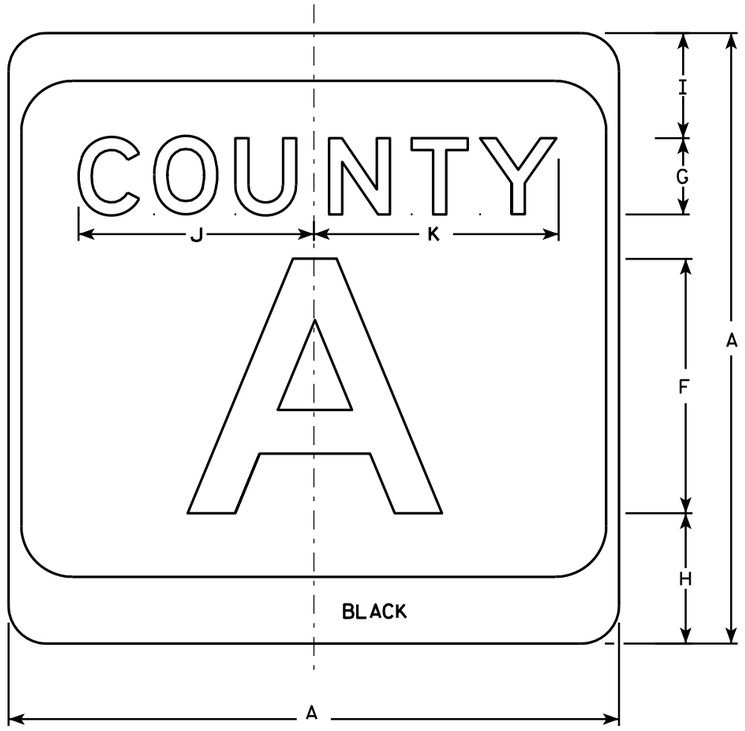
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

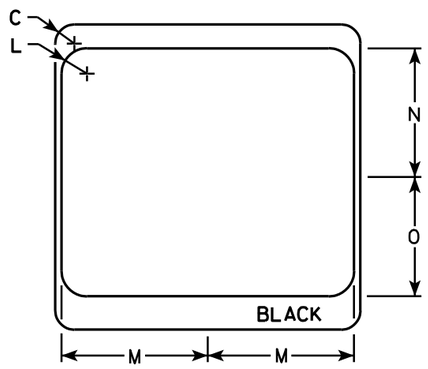
APPROVED Matthew R Rauch
for State Traffic Engineer

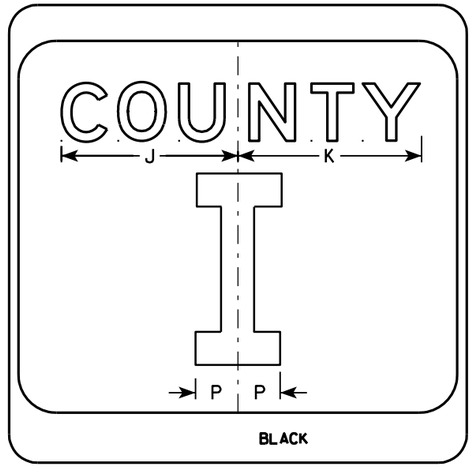
DATE 08/23/05 PLATE NO. M1-1.8

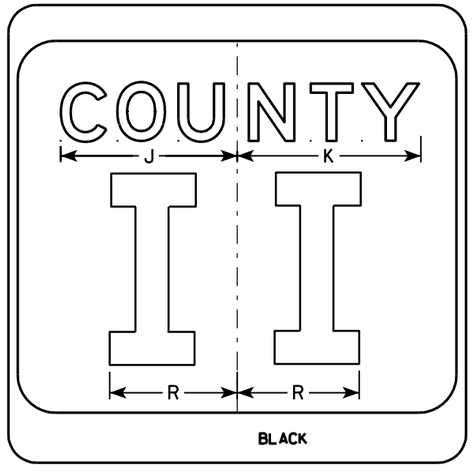
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   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. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

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 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

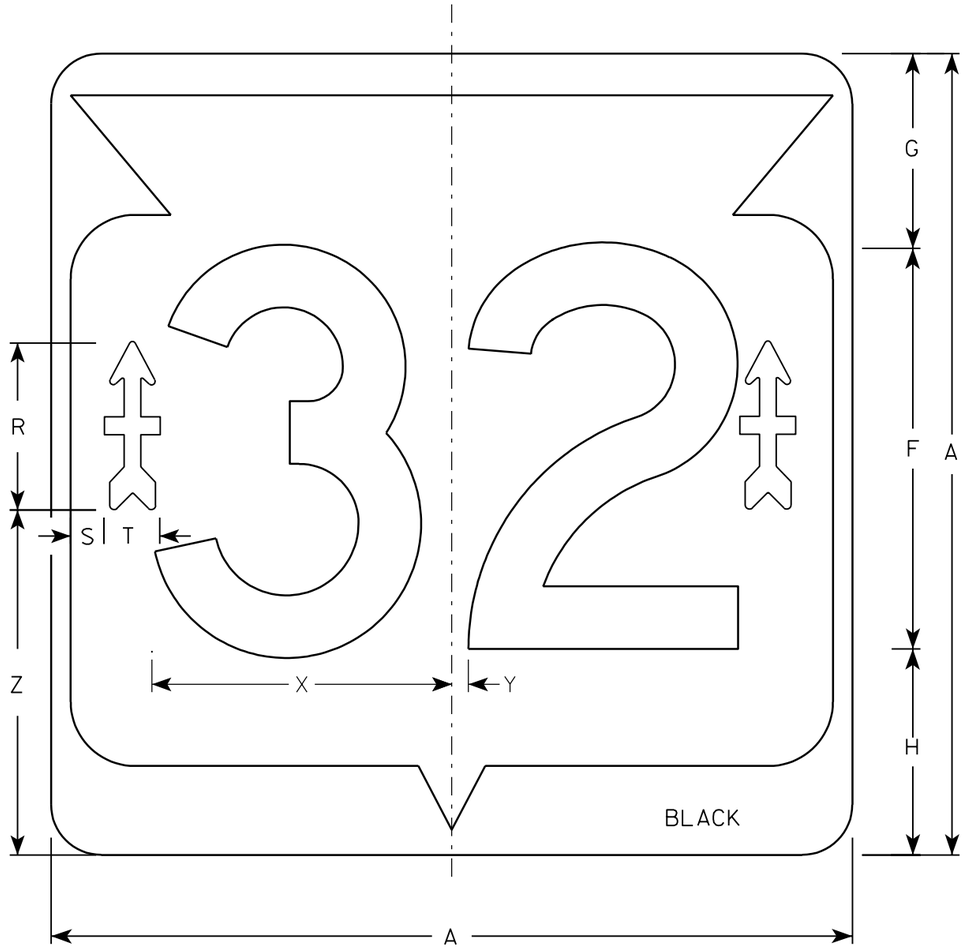
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

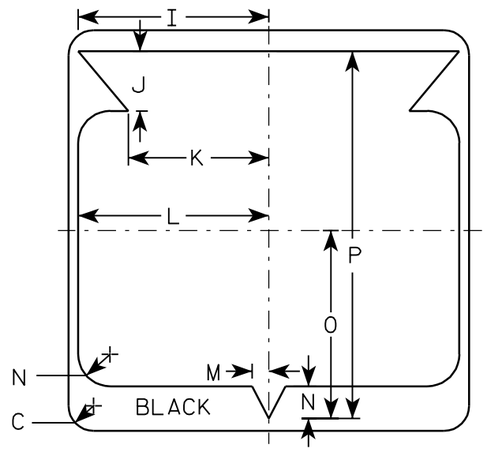
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111	E



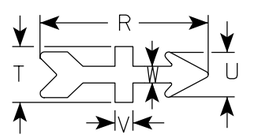
M1-6B

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black
   Message - Black
   Arrow - Type H Reflective Red
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.



32nd DIVISION ARROW
ACTUAL SIZE



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 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 112 | 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 - Green
   Message - White - Graphics - White
   Circle Tour Message is Green
3. Message Series - Special
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.	Area m2
1																												
2	24			1 1/8	1/2																						4.0	.36
3																												
4	36			1 5/8	3/4																						9.0	.81
5																												

STANDARD SIGN
M1-93

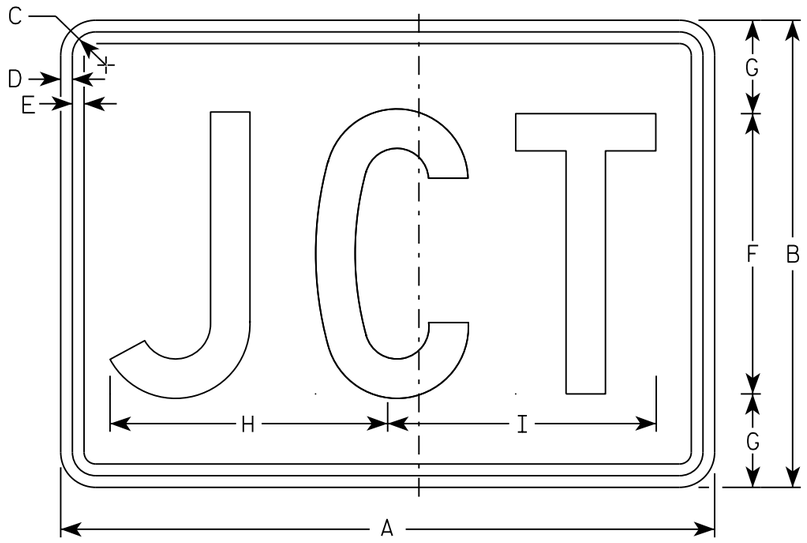
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

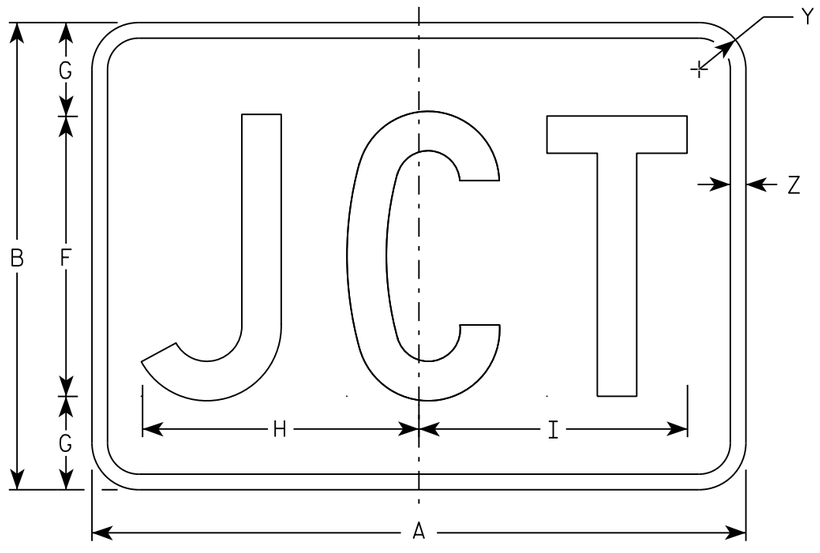
DATE 11/5/15 PLATE NO. M1-93.2

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M193.DGN PLOT DATE : 01-DEC-2015 18:00 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

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
   MP2-1 Background - White
   Message - Blue
   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

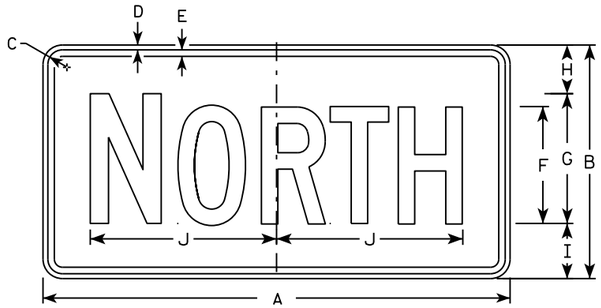
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

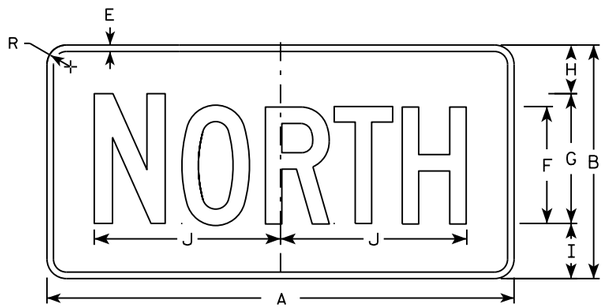
DATE 10/15/15 PLATE 114 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



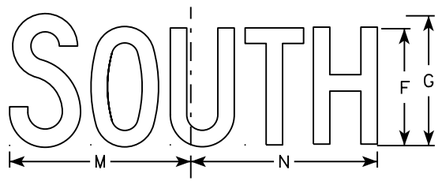
MB3-1
MK3-1
MN3-1



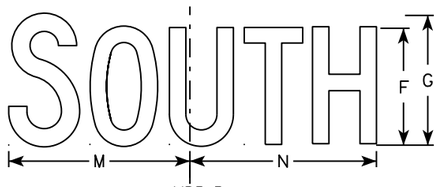
M3-2
MM3-2
MP3-2



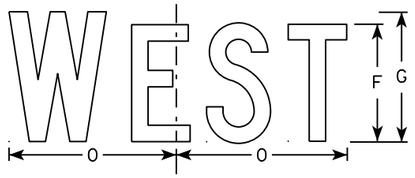
MB3-2
MK3-2
MN3-2



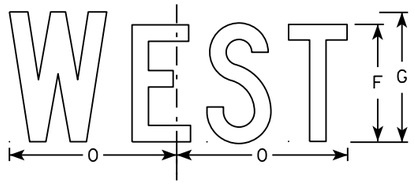
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

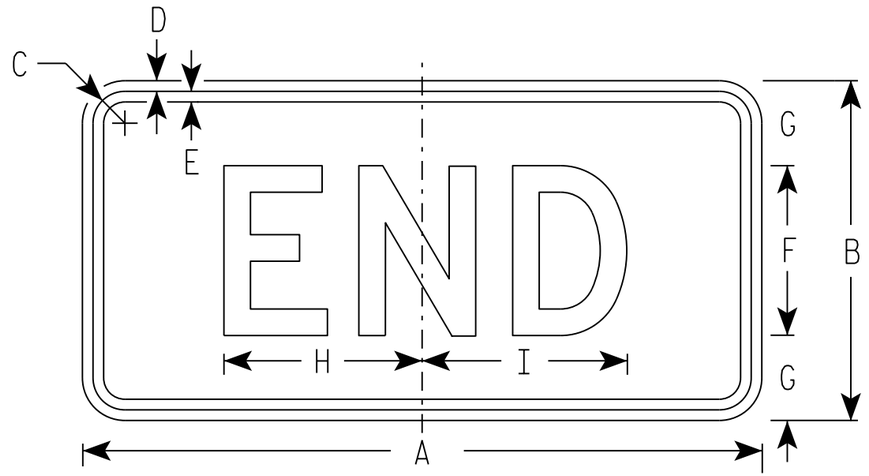
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

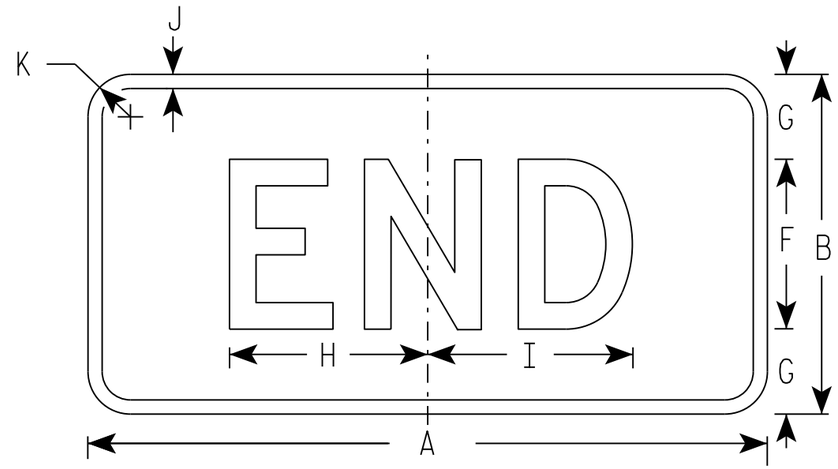
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

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

   MP4-6 Background - White
   Message - Blue

   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

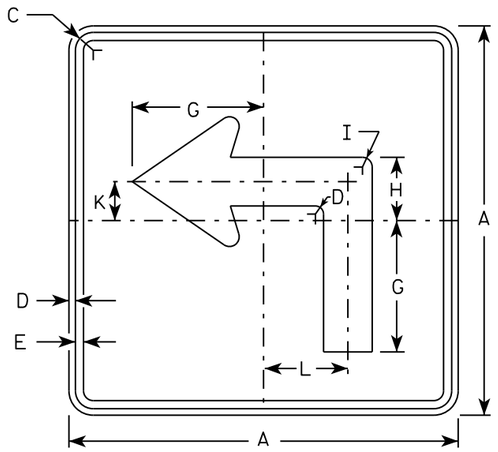
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

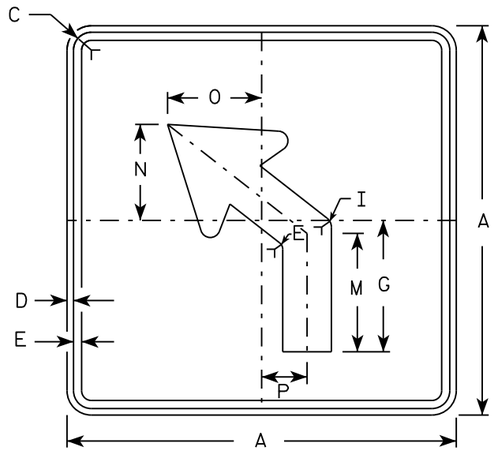
DATE 10/15/15 PLATE 116 '14-7.9

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

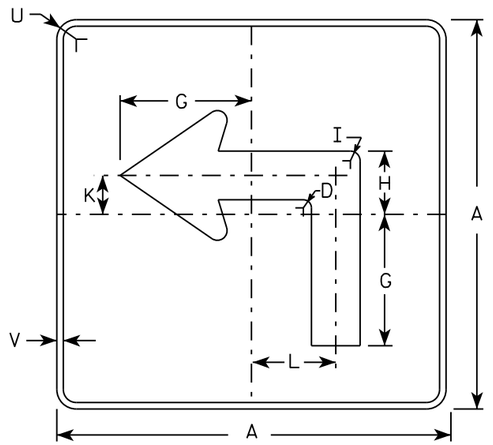
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M46.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



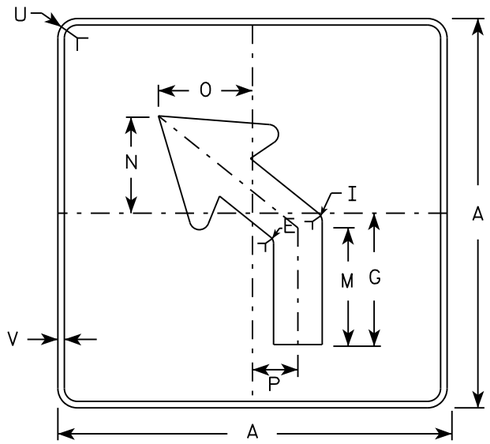
M5-1L
MM5-1L
MO5-1L
MP5-1L



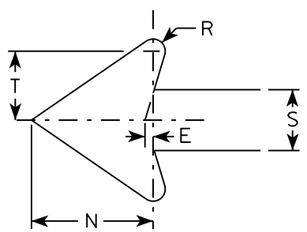
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

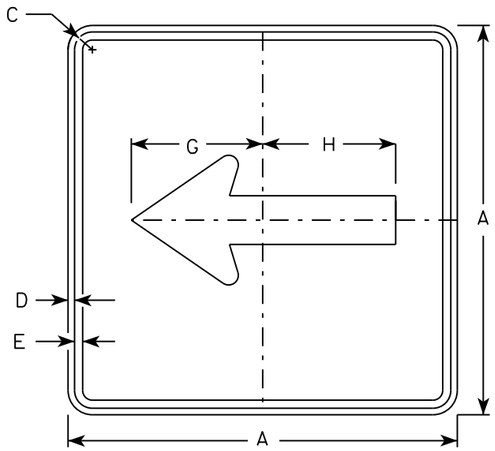
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

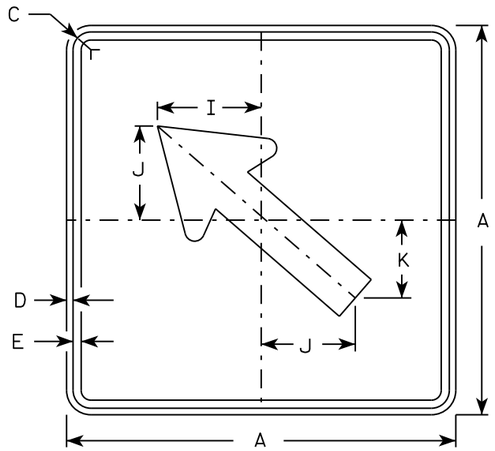
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



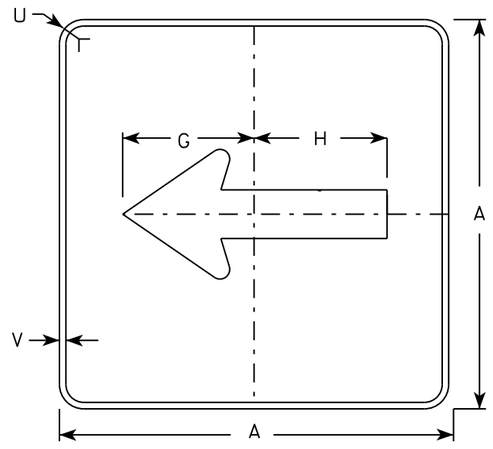
M6-1
MM6-1
MO6-1
MP6-1



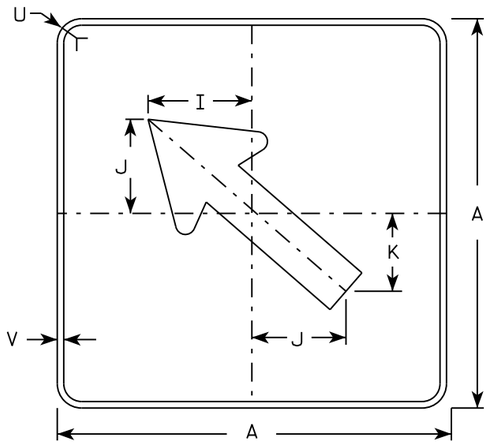
M6-2
MM6-2
MO6-2
MP6-2

NOTES

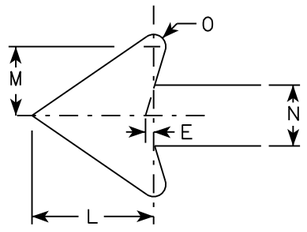
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

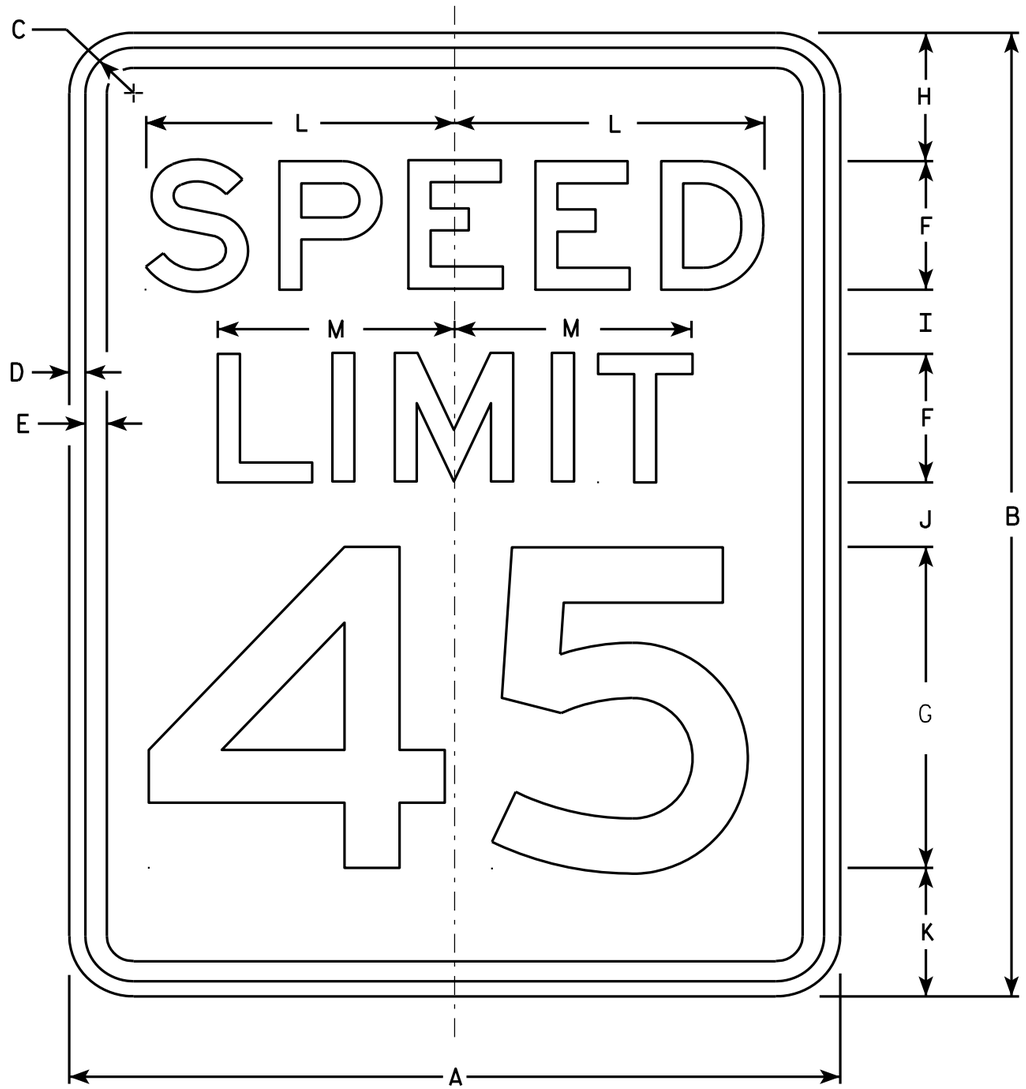
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 118 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

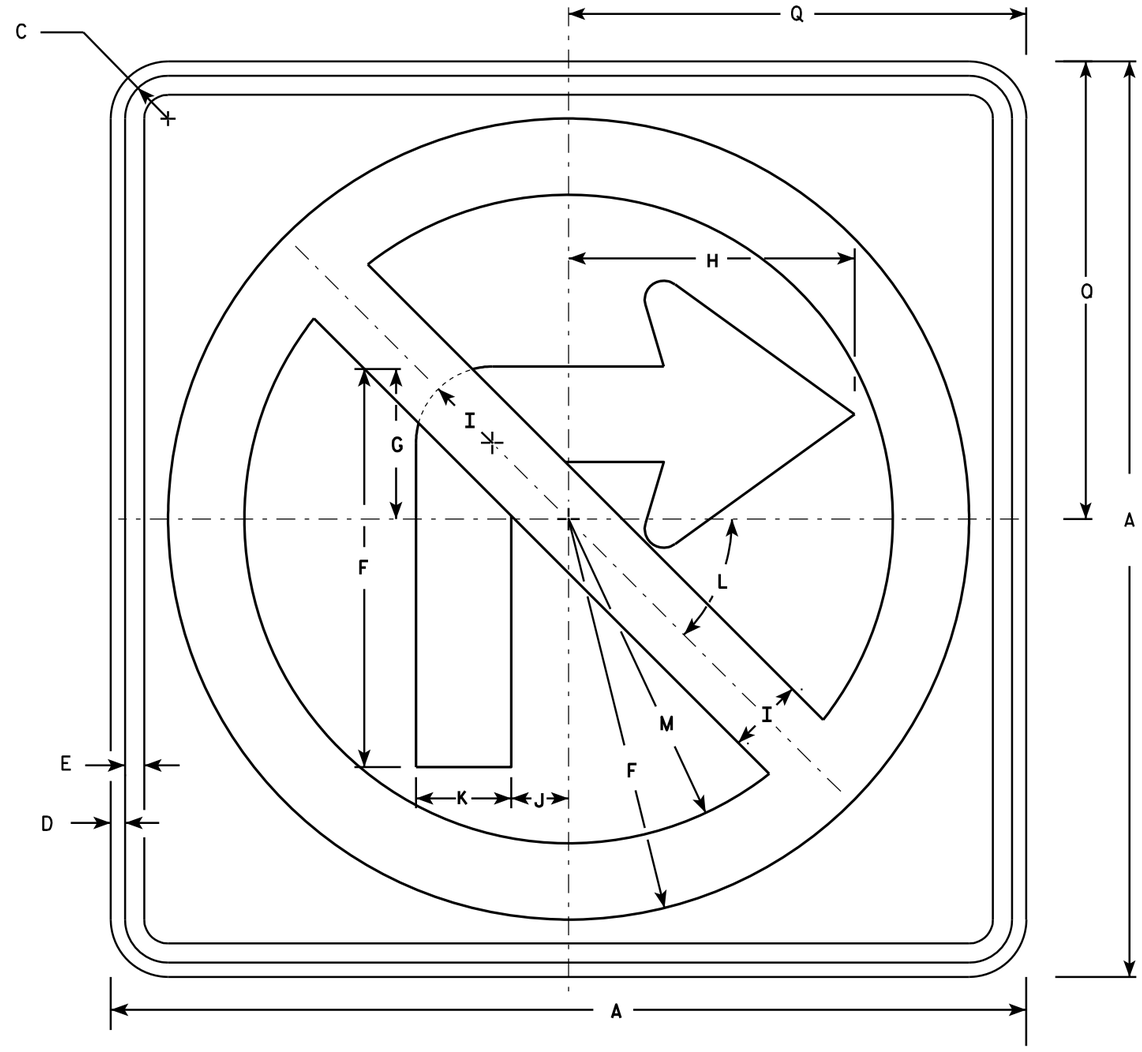
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

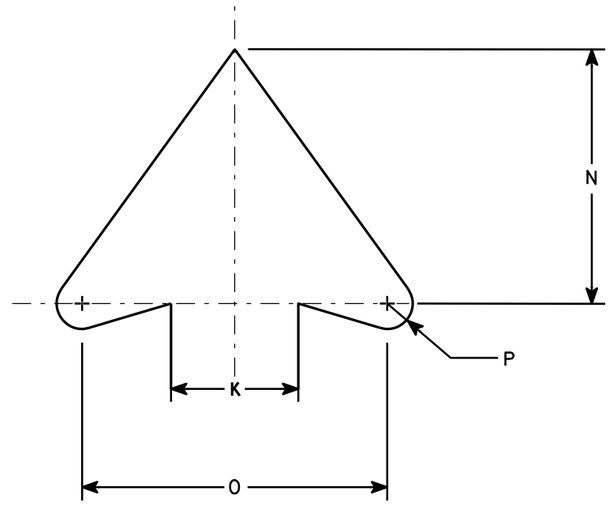
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 119 | E



R3-1

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 - 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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

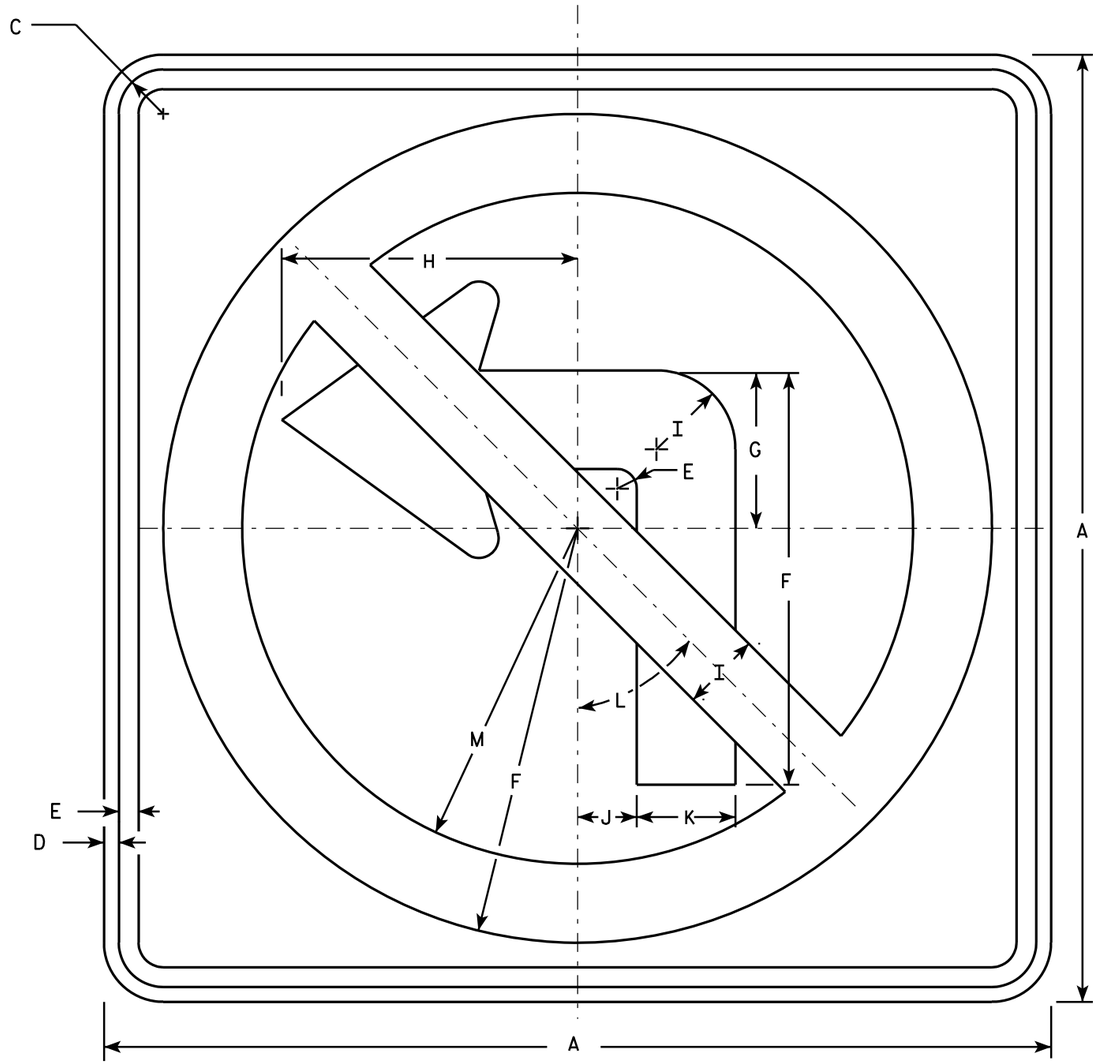
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

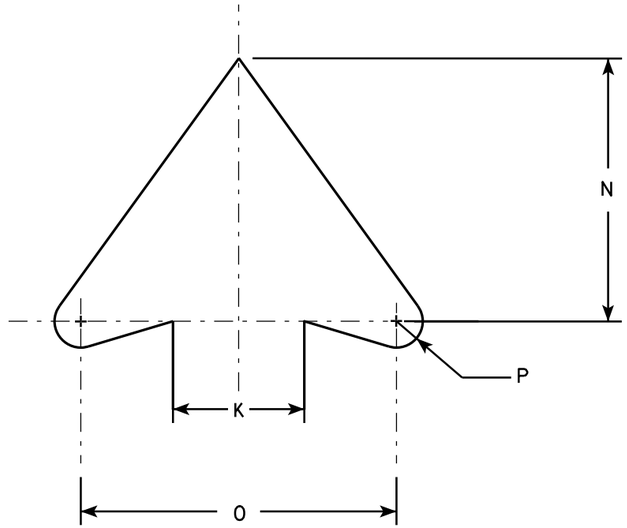
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E



R3-2

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

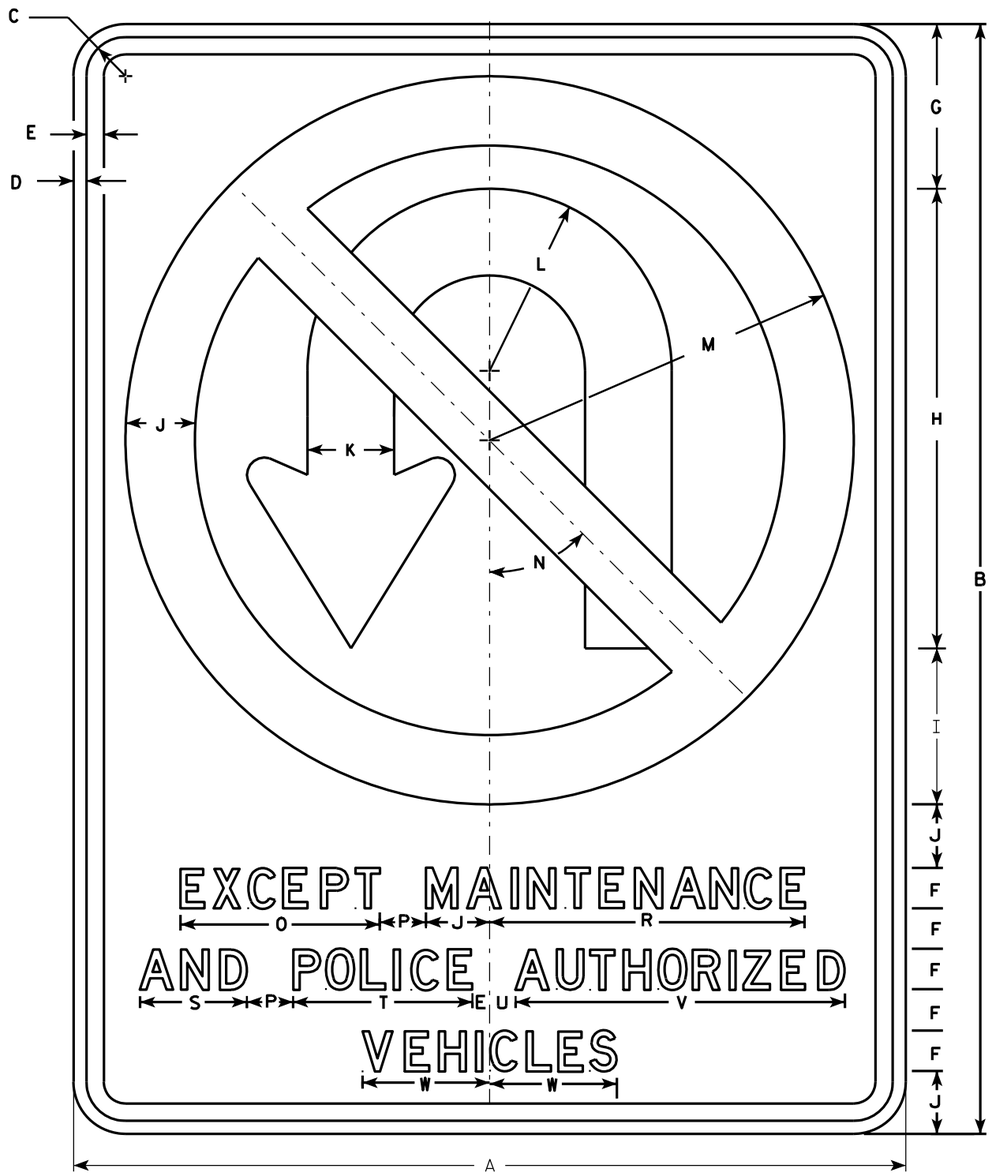
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

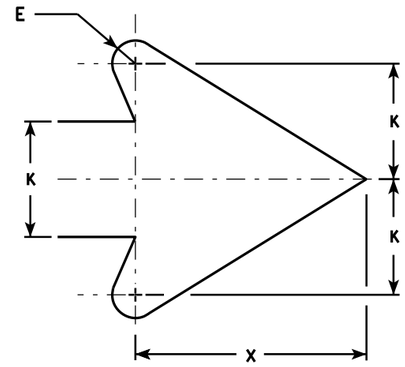
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 121	E



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

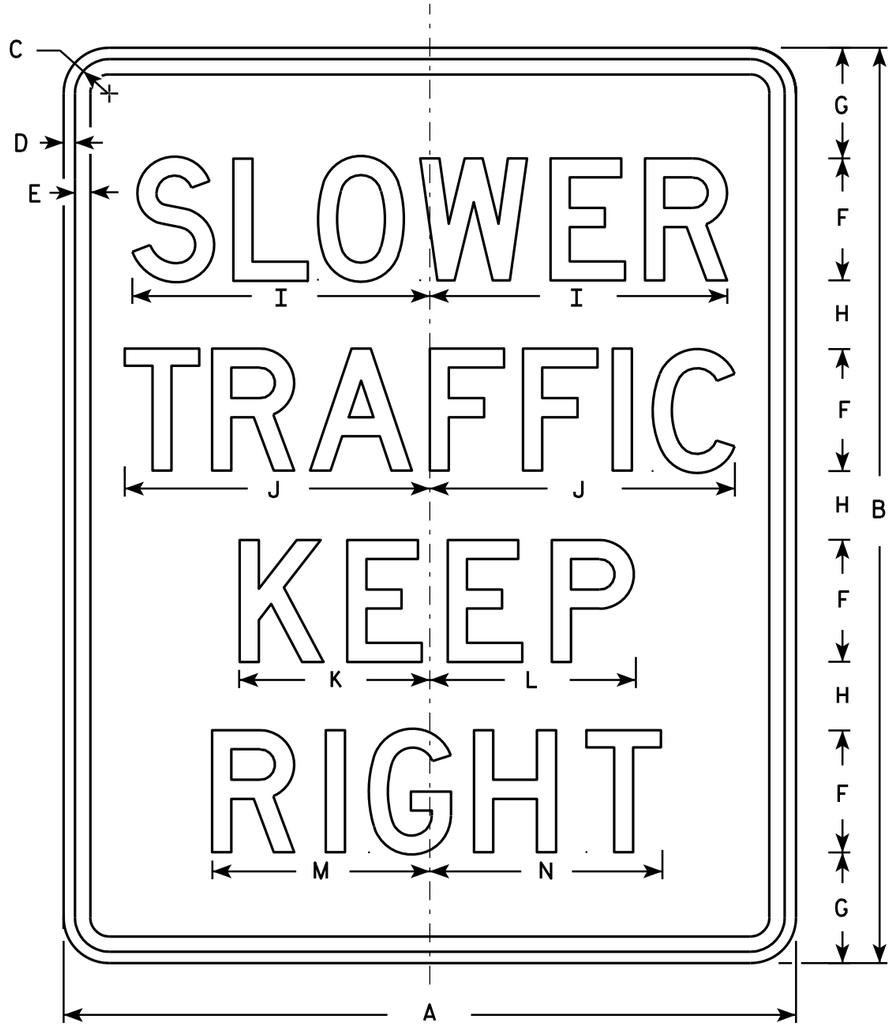
STANDARD SIGN
R3-4B

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: 122	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:

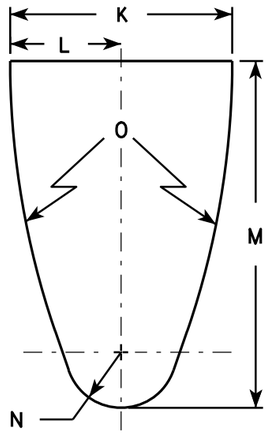
SHEET NO: 123 E

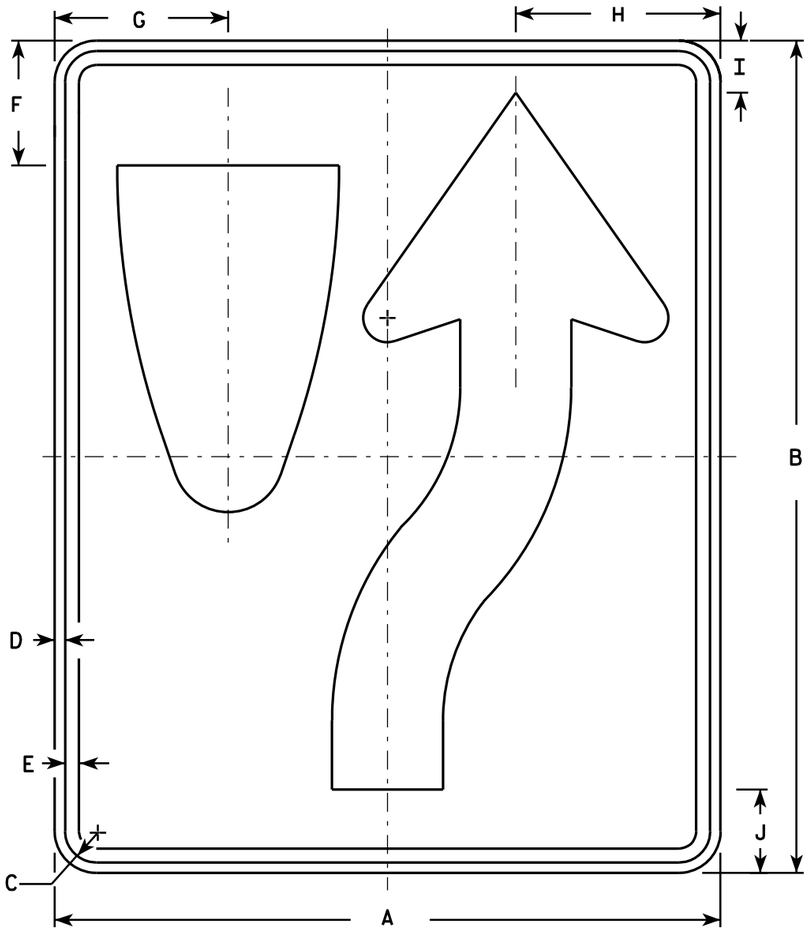
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7

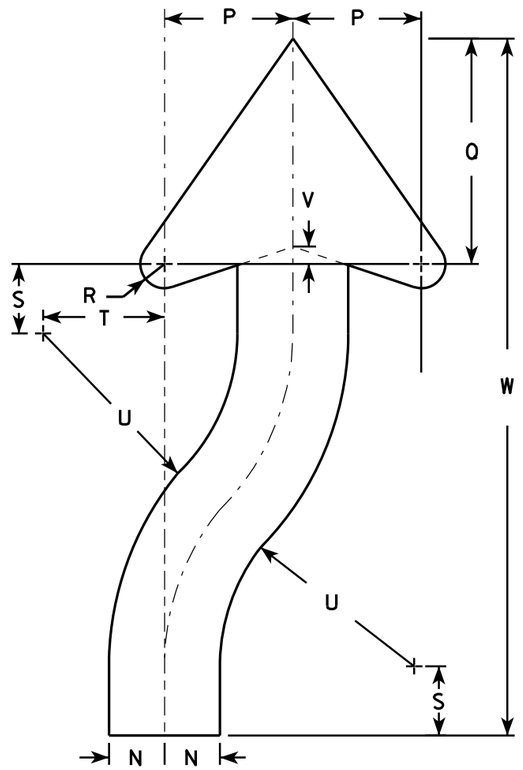




R4-7

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

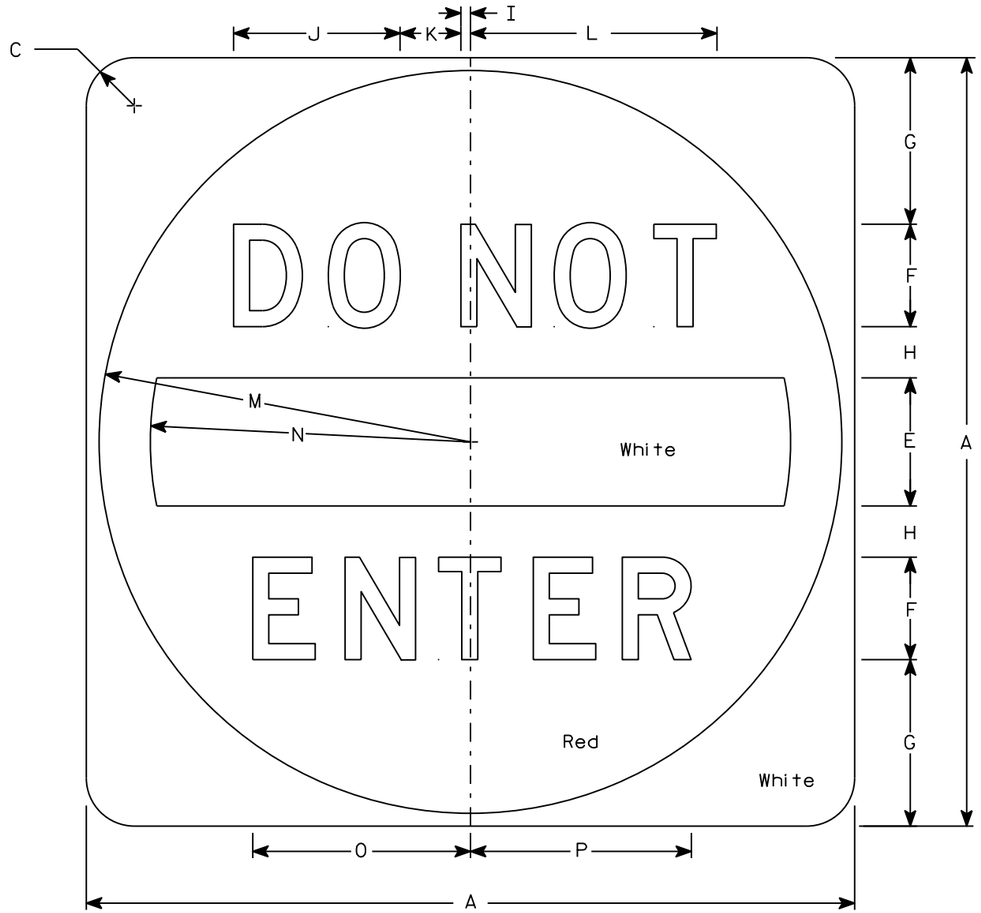
STANDARD SIGN
R4-7 & R4-8

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: 124	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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											6.25
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

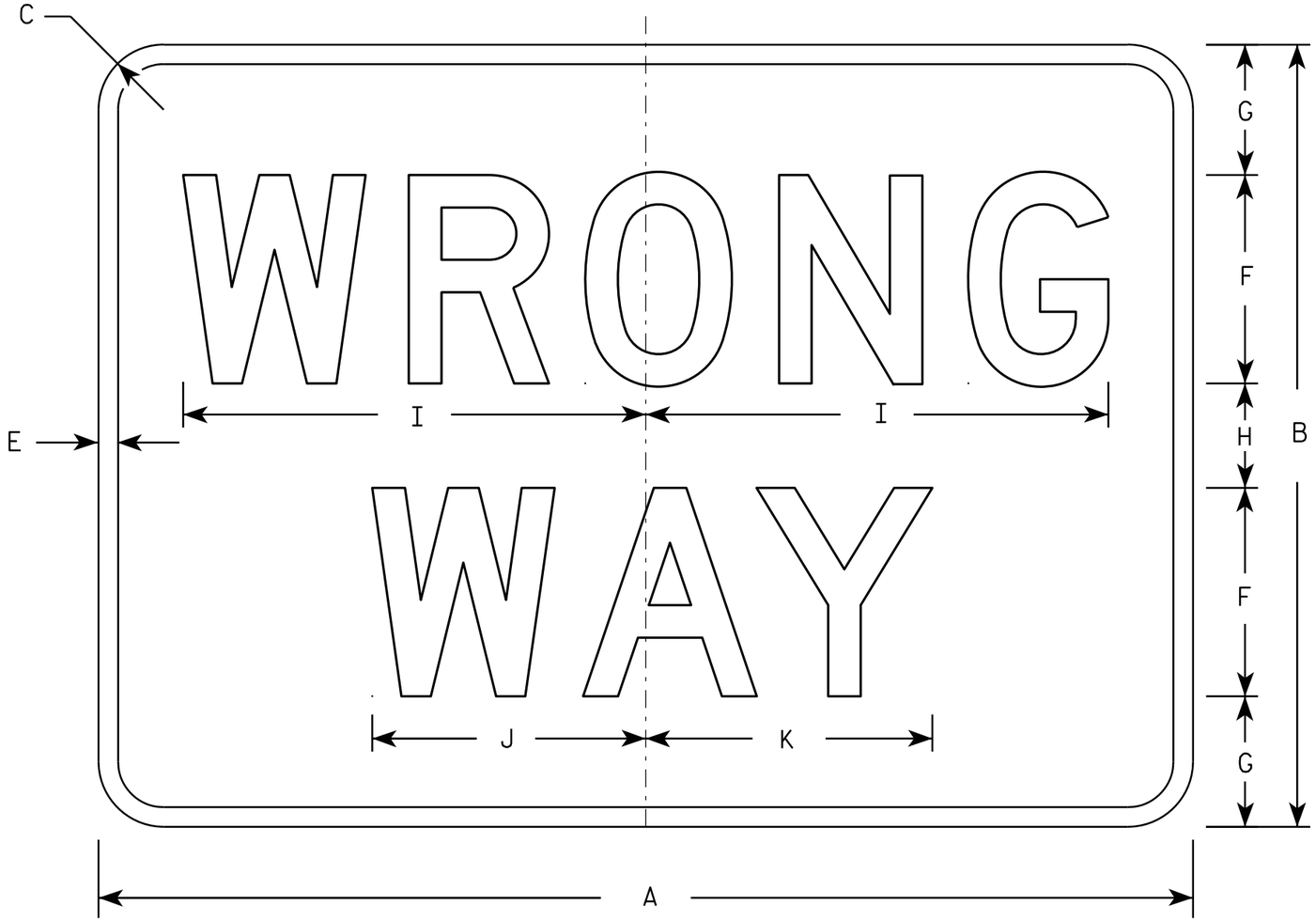
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 125 | 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: 126 | 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

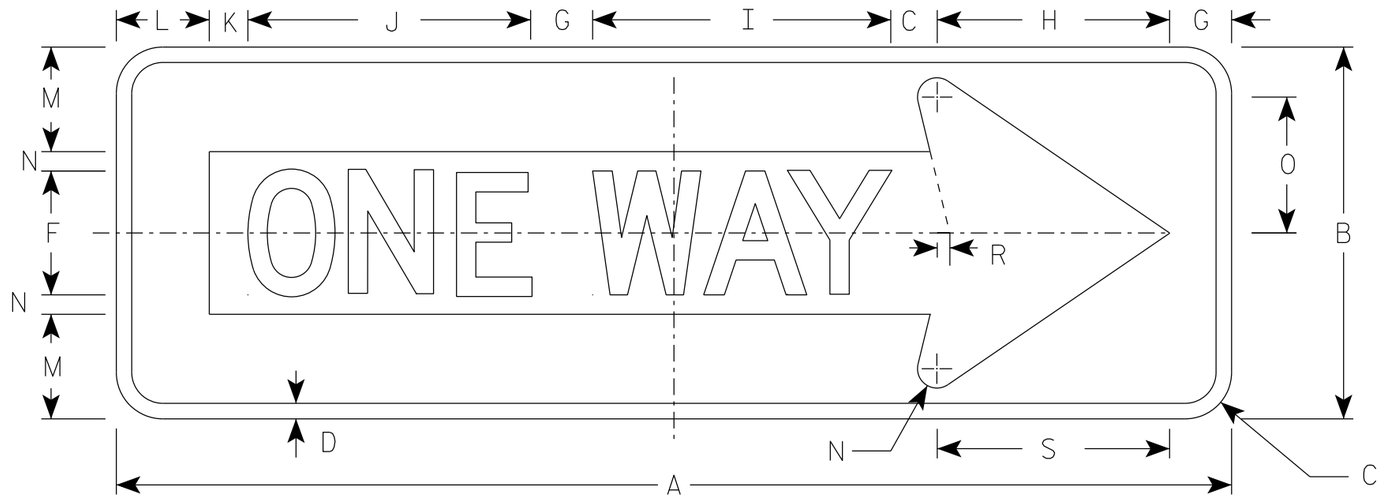
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

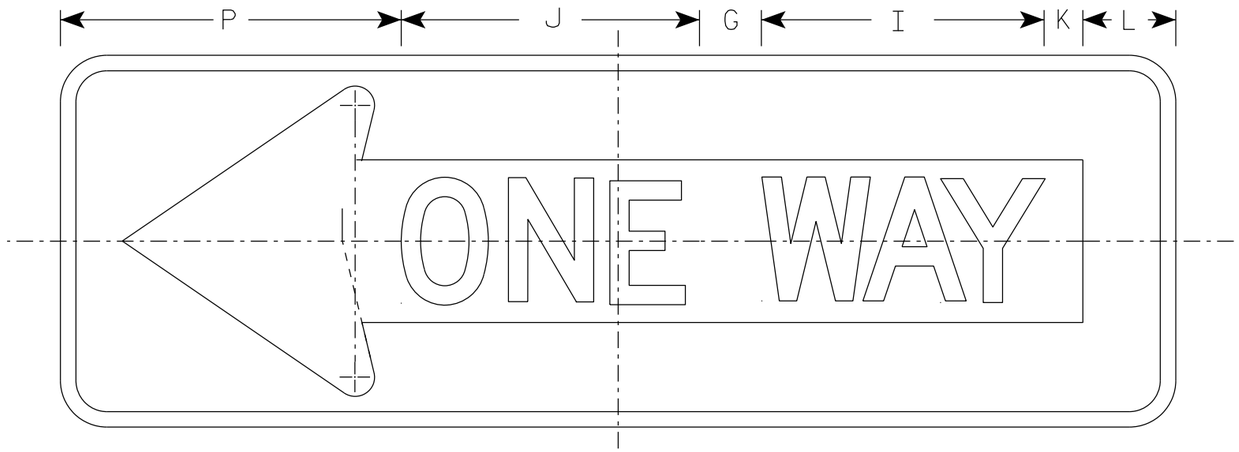
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 127 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1L

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	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

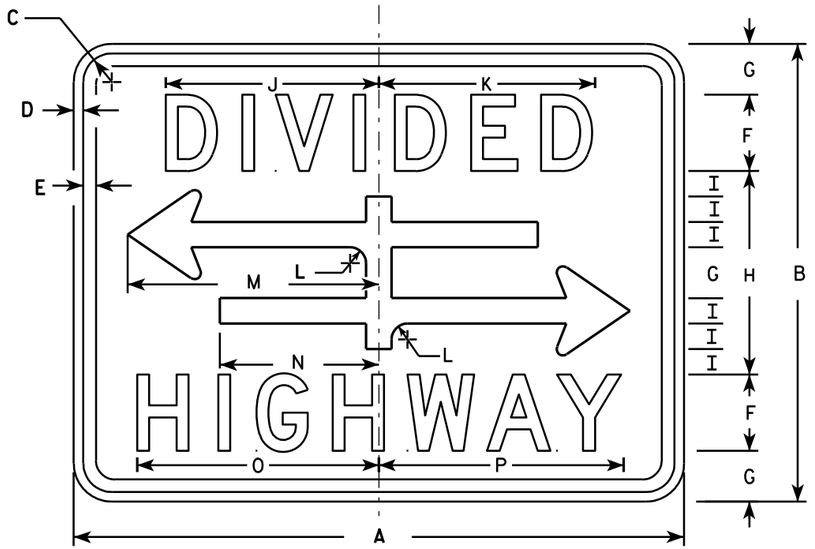
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

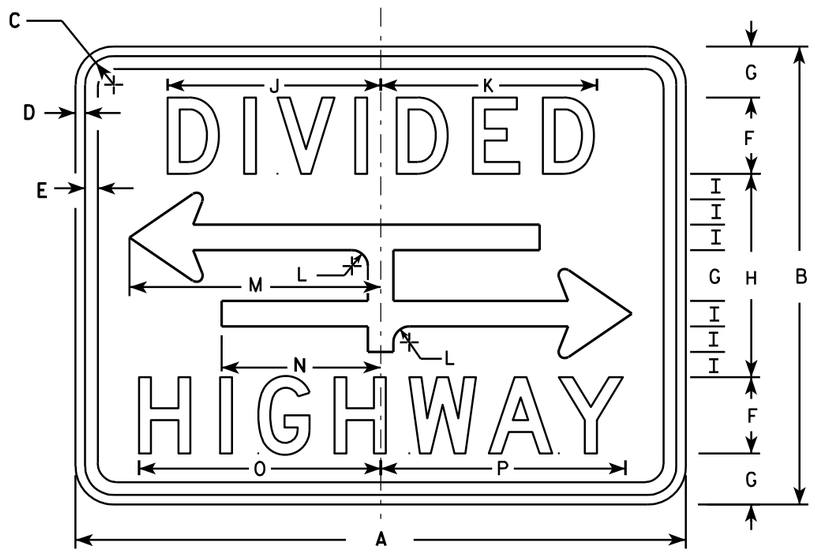
SHEET NO: 128 E



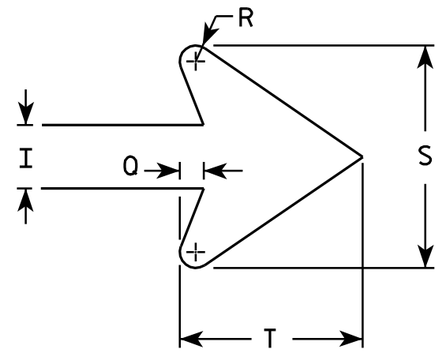
R6-3

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.



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

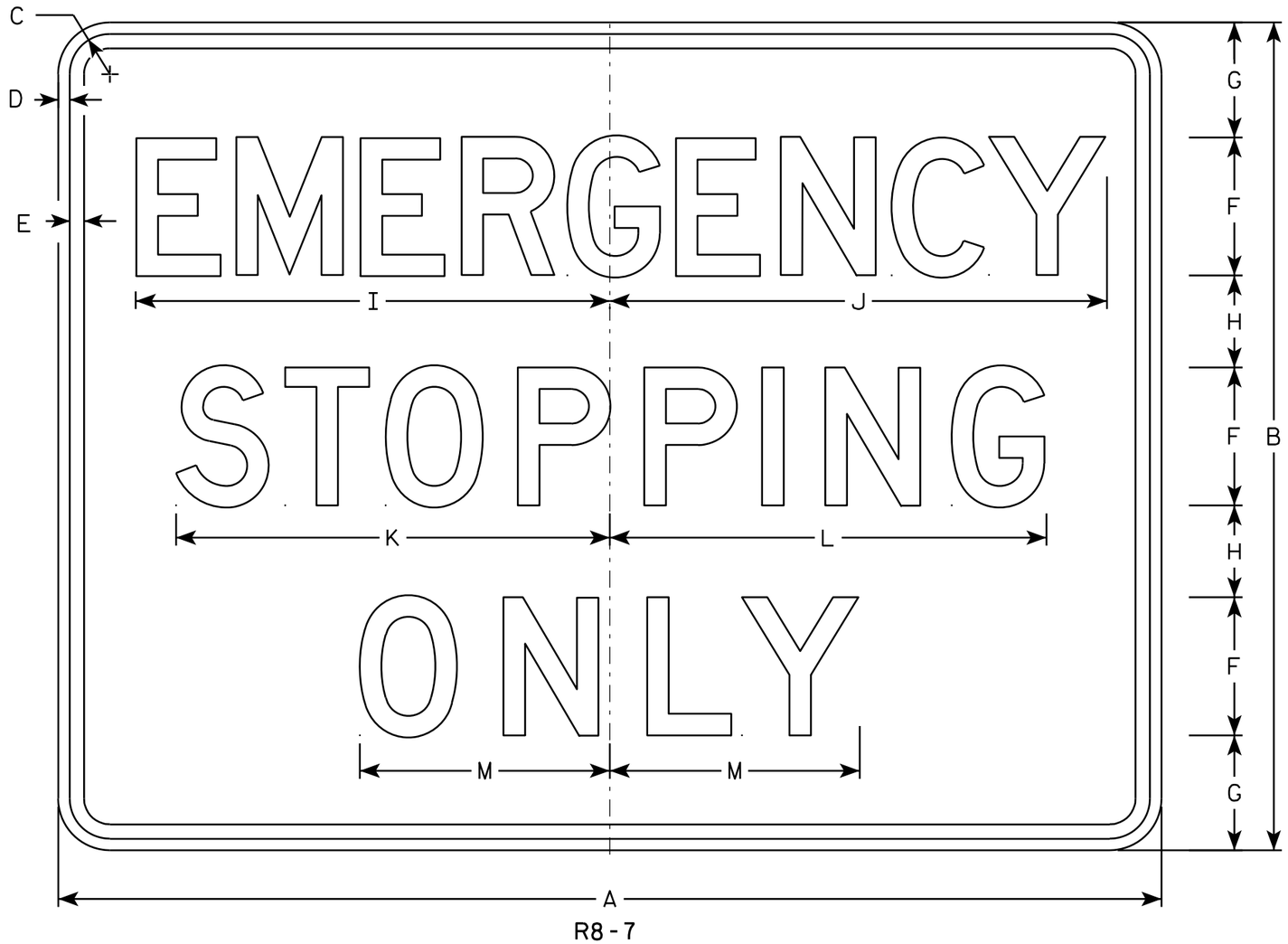
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 129 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

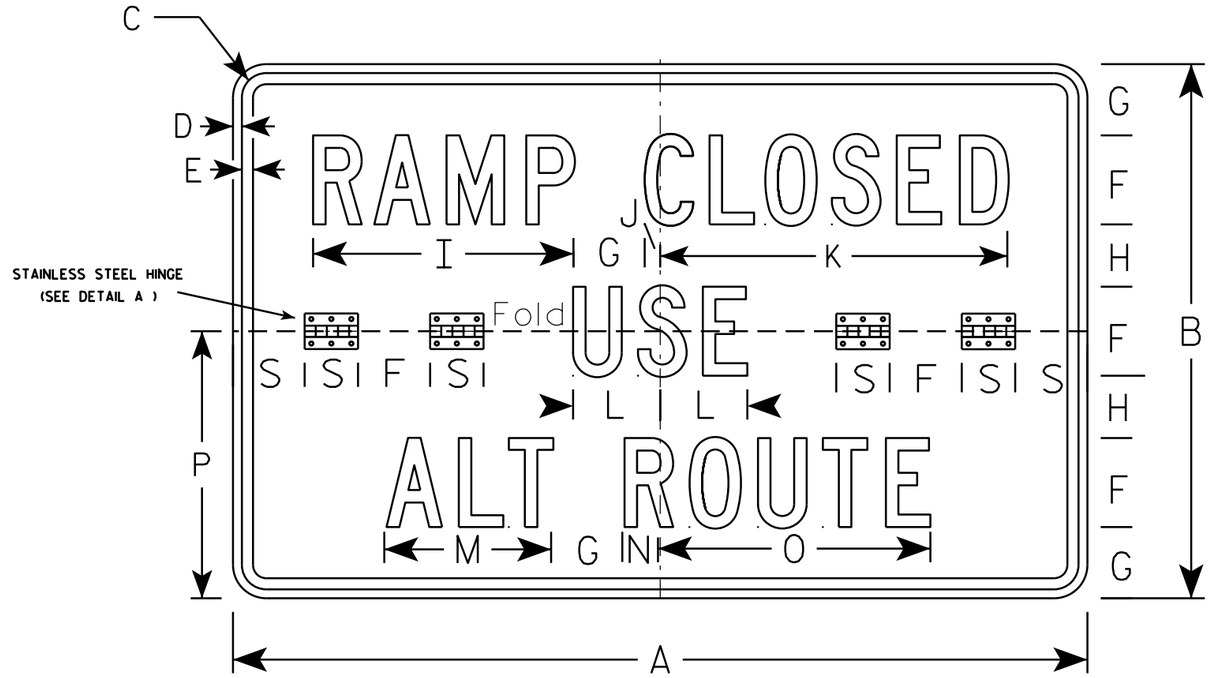
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

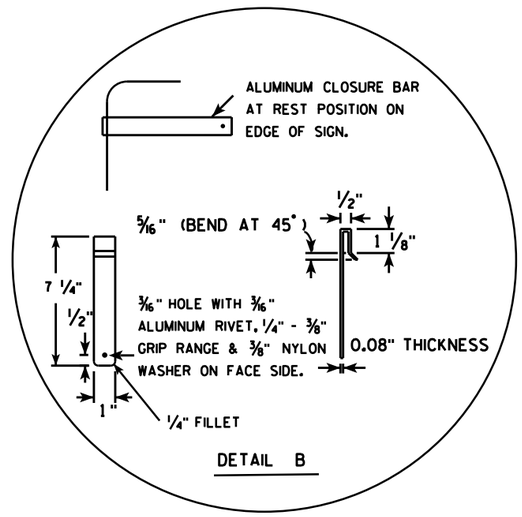
DATE 3/31/2011 PLATE NO. R8-7.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 130 | E



R11-54F

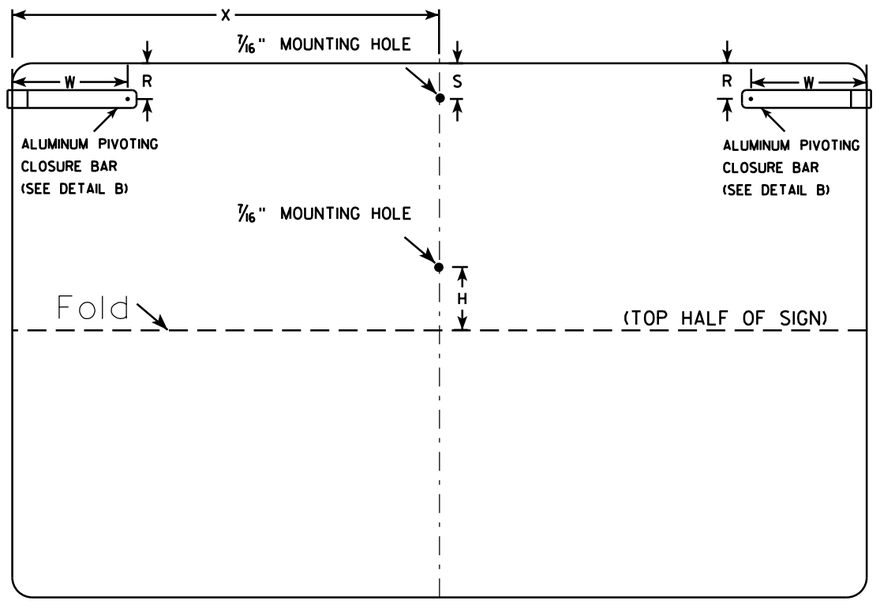
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum, corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Refer to plate A5-3A for sign blank layout.



(BACK VIEW)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

STANDARD SIGN
R11-54F

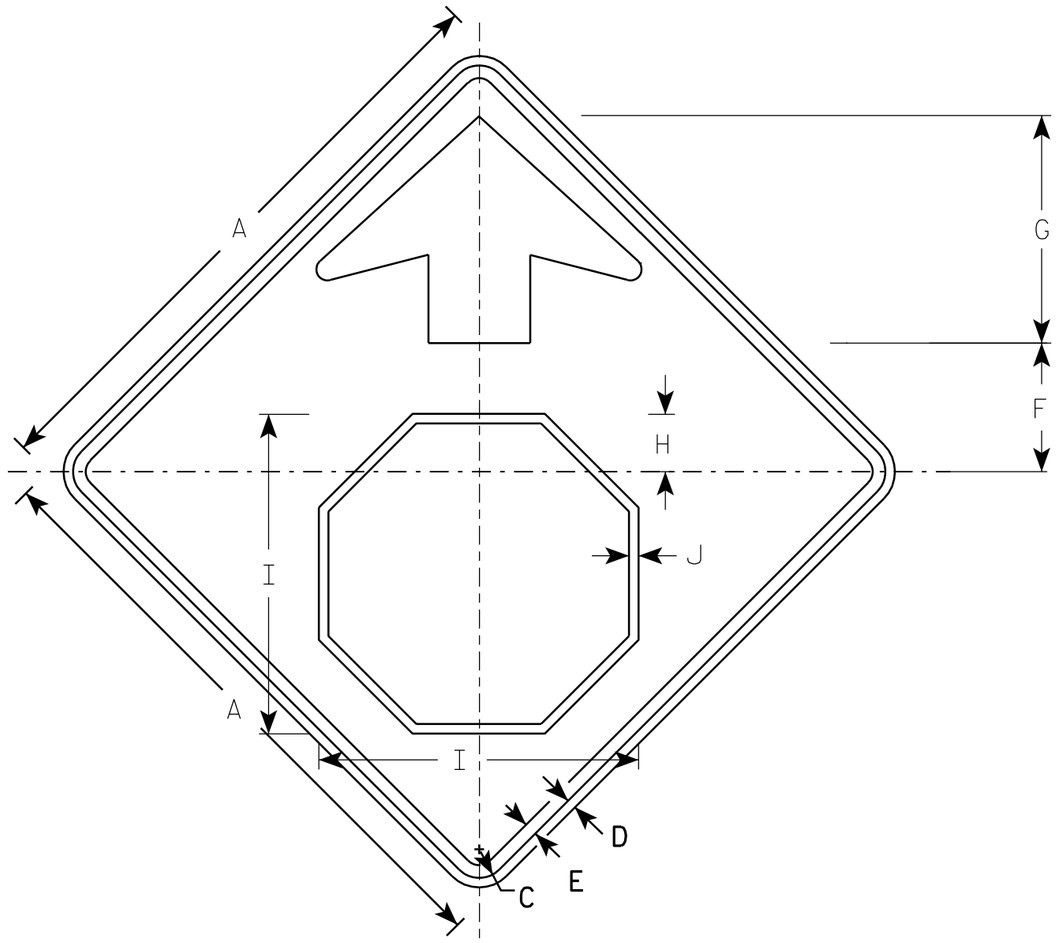
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE NO. R11-54F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

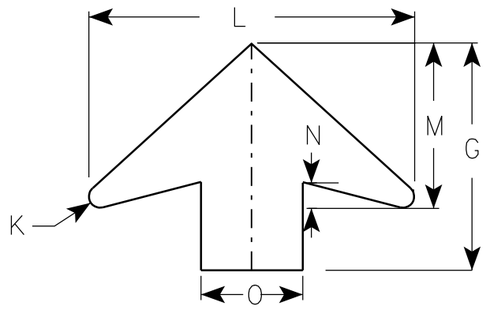
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R1154F.DGN PLOT DATE : 28-MAY-2014 14:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.511110:1.000000 WISDOT/CADDS SHEET 42



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

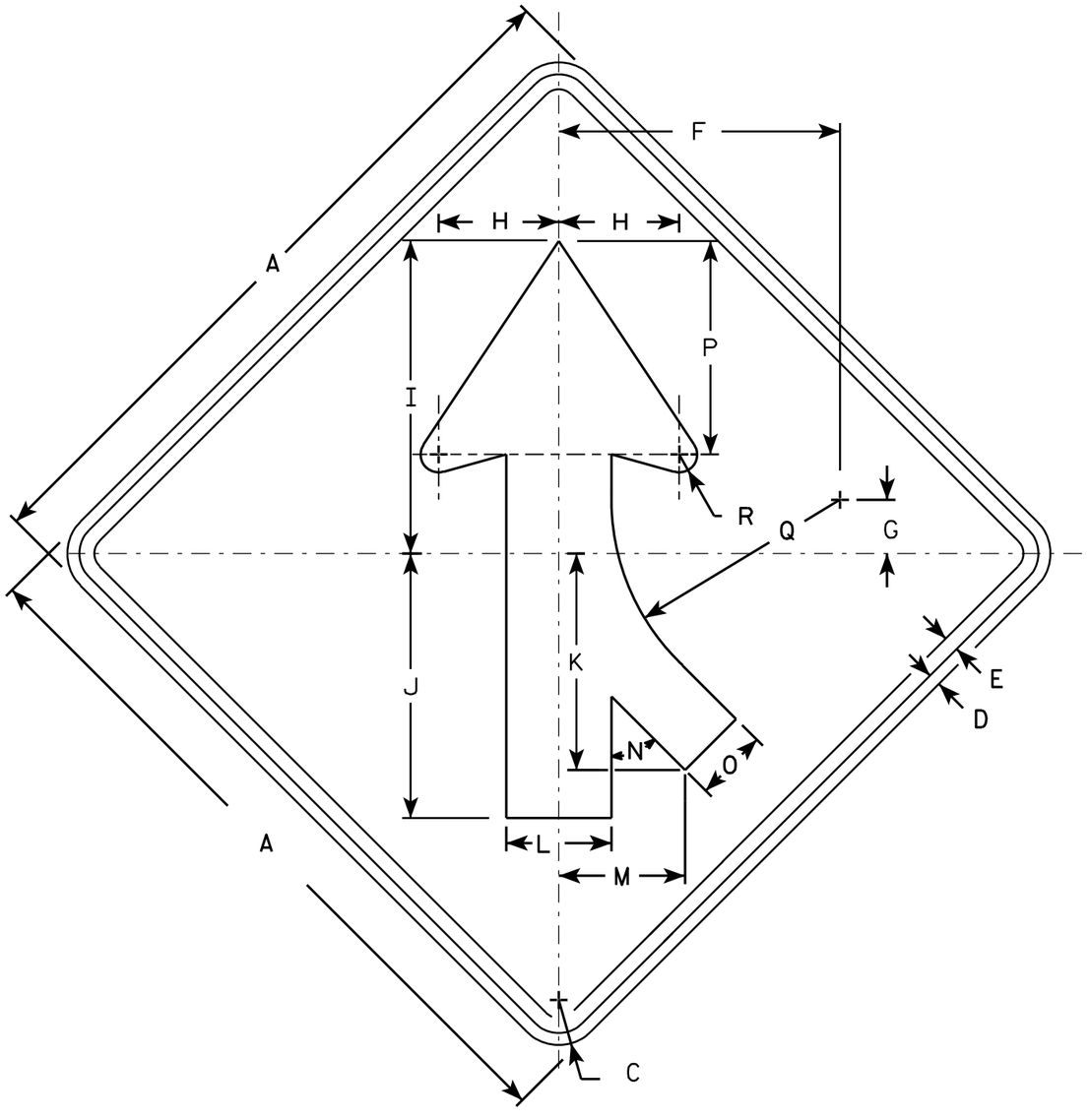
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 132 E



W4-1 R

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.

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	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

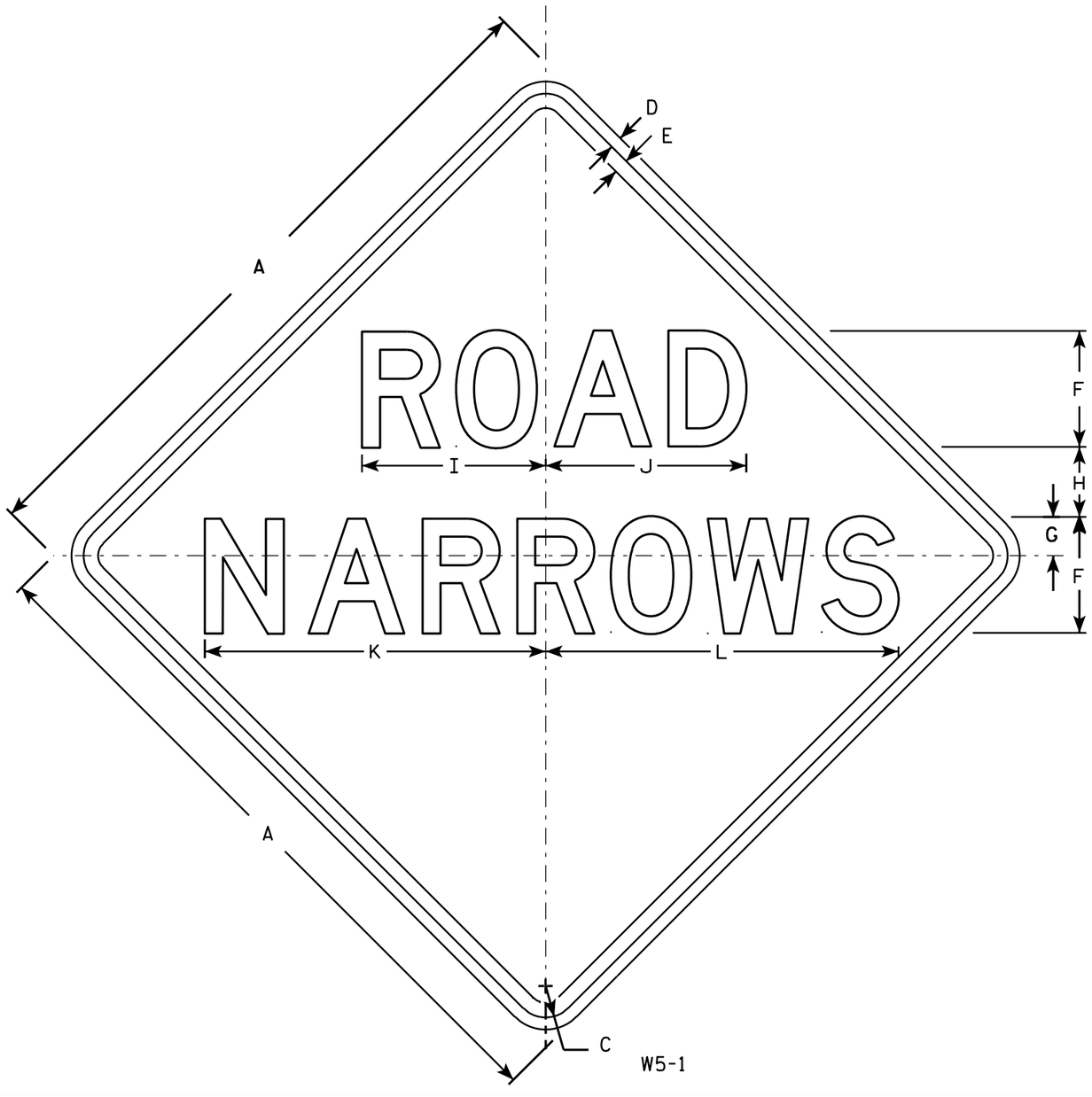
STANDARD SIGN
W4-1

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: 133	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. 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		1 3/8	1/2	5/8	5	1 3/4	3	7 7/8	8 5/8	14 3/4	15 1/8															6.25
2S	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
2M	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
3																											
4	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
5																											

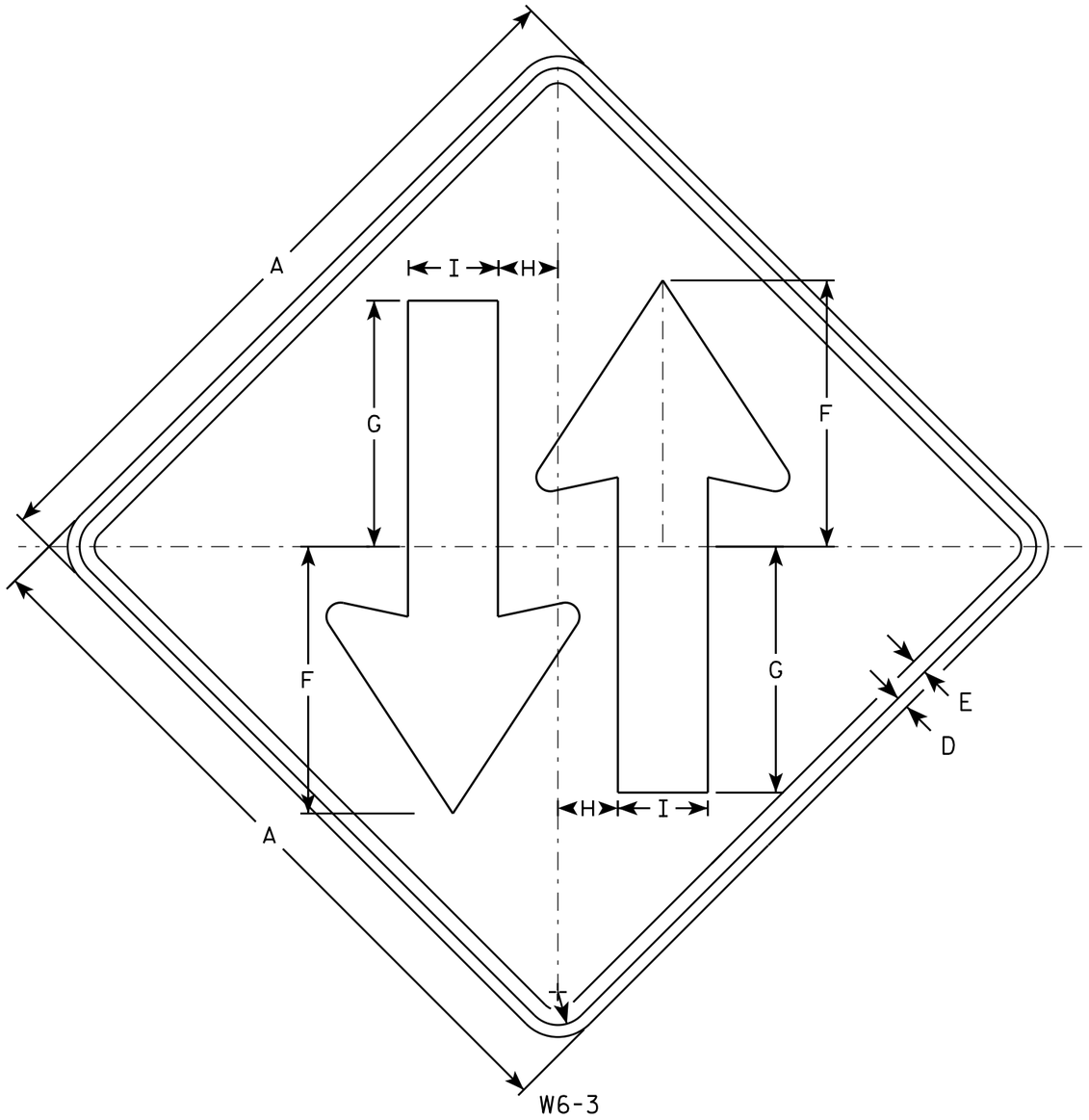
STANDARD SIGN
W5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-1.8

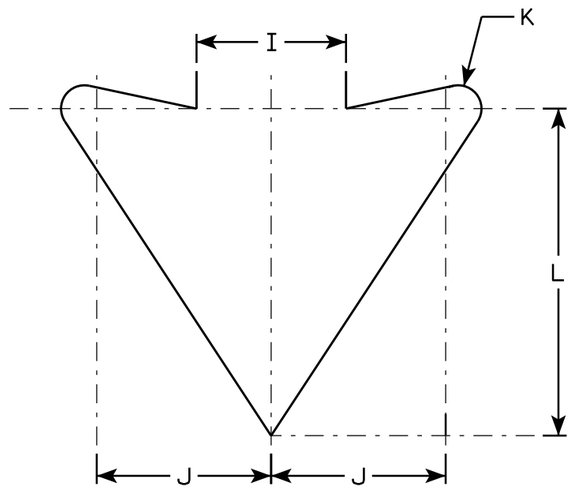
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 134 | E



W6-3

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. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

GRE JANUARY 2021

PROJECT ID: 4540-27-71

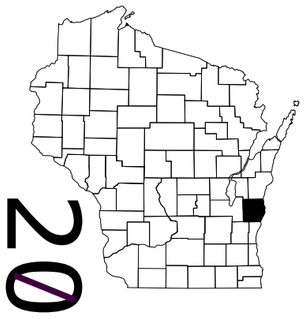
WITH: 1221-09-71

COUNTY: SHEBOYGAN

ORDER OF SHEETS

Section No. 1 Title
Section No. 2 Typical Sections and Details
Section No. 3 Estimate of Quantities
Section No. 3 Miscellaneous Quantities
Section No. 4 Right of Way Plat
Section No. 5 Plan and Profile
Section No. 6 Standard Detail Drawings
Section No. 7 Sign Plates
~~Section No. 8 Structure Plans~~
~~Section No. 9 Computer Earthwork Data~~
Section No. 9 Cross Sections

TOTAL SHEETS = 116



N

DESIGN DESIGNATION

A.A.D.T.	2017	=	4,400
A.A.D.T.	2037	=	6,300
D.H.V.		=	3,780
D.D.		=	60/40
T.		=	6.9%
DESIGN SPEED		=	VARIES FROM 30 - 55 MPH
ESALS		=	1,400,000 CONCRETE

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

PORT WASHINGTON - CEDAR GROVE

IH 43 - CTH D

STH 32

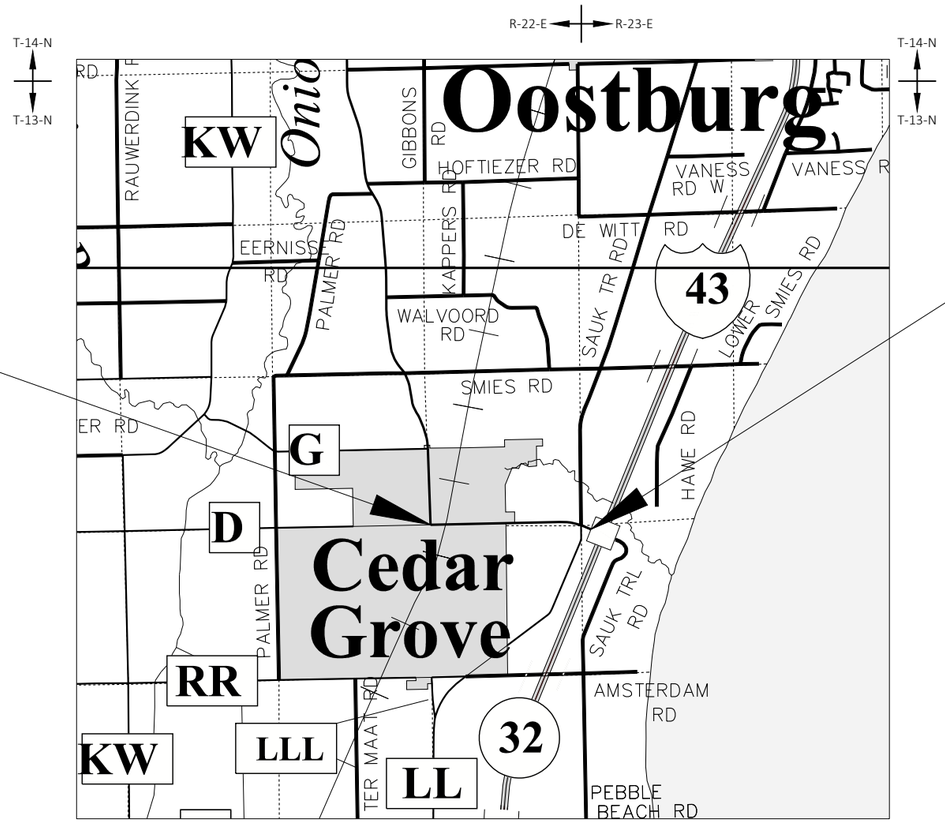
SHEBOYGAN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4540-27-71	WISC 2021091	1

STATE PROJECT NUMBER
4540-27-71

BEGIN PROJECT 4540-27-71
STA 241+78.00
Y= 111,458.374
X= 190,735.548

END PROJECT 4540-27-71
STA 294+70.00
Y= 111,152.048
X= 195,930.053



LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 1.02

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SURVEYOR
Designer	PATTI NELSON
Project Manager	PAUL BRAUER
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	ROBERT WAGNER

APPROVED FOR THE DEPARTMENT

DATE: _____ Paul Brauer, P.E. (Signature)

E

2

GENERAL NOTES

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

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

ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE UNLESS OTHERWISE NOTED IN THE MISCELLANEOUS QUANTITIES.

UTILITY CONTACTS

STEVEN CRAMER
CHARTER COMMUNICATIONS
COMMUNICATION LINE
1320 N DR MARTIN LUTHER
KING JR DR
MILWAUKEE, WI 53212-4002
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WIS.ENGINEERING@CHARTER.COM
STEVE.CRAMER@CHARTER.COM

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JHOITINK@CEDARGROVEWI.COM

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CAL KLADE
FRONTIER COMMUNICATIONS OF WI LLC
COMMUNICATION LINE
1851 N 14TH AVE
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DAVID WOCHINSKI
WE ENERGIES - ELECTRICITY
W140 N9100 LILLY ROAD
MENOMONEE FALLS, WI 53051
(262)502-6812
DAVID.WOCHINSKI@WEENERGIES.COM

RUNOFF COEFFICIENT TABLE

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

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

DNR AREA LIAISON

JAY SCHIEFELBEIN
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
920-662-5472
JEREMIAH.SCHIEFELBEIN@WI.GOV

SHEBOYGAN COUNTY COMMISSIONER

GREG SCHNELL
HIGHWAY COMMISSIONER
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SHEBOYGAN, WI 53081
920-459-3822
GREG.SCHNELL@SHEBOYGANCOUNTY.COM

NE REGION SURVEY COORDINATOR

CORMAC MCINNIS, PLS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920)492-5638
CORMAC.MCINNIS@DOT.WI.GOV

UNION PACIFIC RAILROAD CONTACTS

UNION PACIFIC RAILROAD
1400 DOUGLAS STREET
OMAHA, NE 68179
(402)544-5000 OR
(888)870-8777

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

2

BEGIN PROJECT 4540-27-71
STA 241+78

UNION PACIFIC RAILROAD

INTER-URBAN TRAIL

EXISTING 7' X 7' X 84.5' BOX CULVERT

N

STH 32

BM702

BM700

BM602

BM701

240

245

250

255

260

265

INL

COMMERCE ST.

RECONSTRUCT

RESURFACE

STA 482+03
END SAUK TRAIL ROAD

SAUK TRAIL ROAD

N

END PROJECT 4540-27-71
STA 294+70

IH 43 SB OFF-RAMP

IH 43 SB

IH 43 NB

STH 32

270

275

280

285

290

295

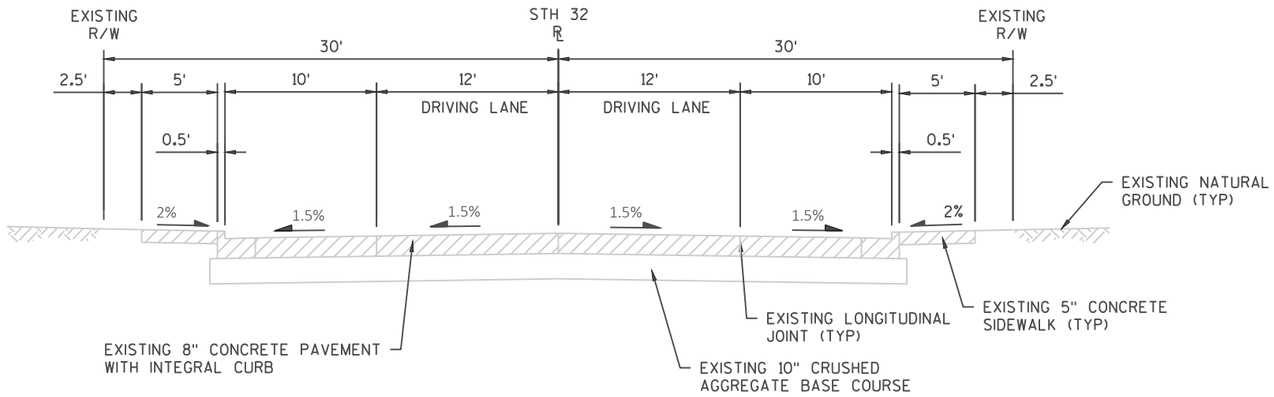
CTH LL

RESURFACE

STA 479+58
BEGIN CTH LL

IH 43 SB ON-RAMP

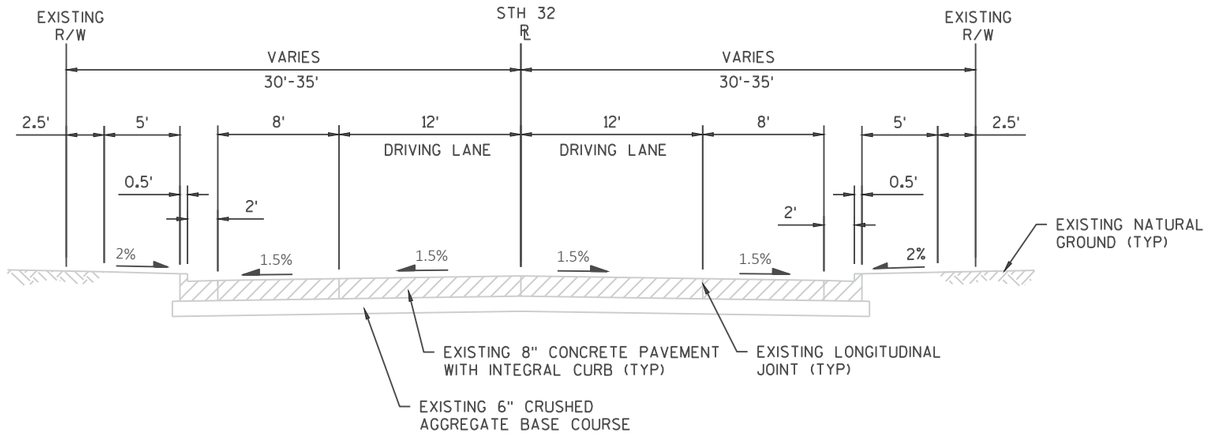
PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION STH 32

STA 241+78 TO STA 243+49.65

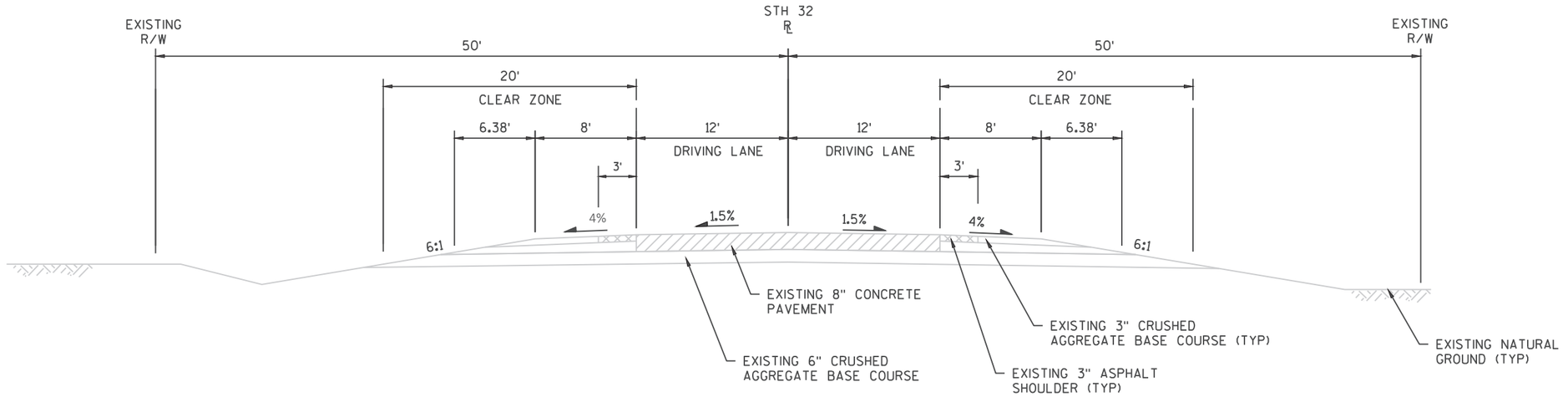
NOTE:
RR CROSSING STA 243+49.65 - STA 243+62.41



EXISTING TYPICAL SECTION STH 32

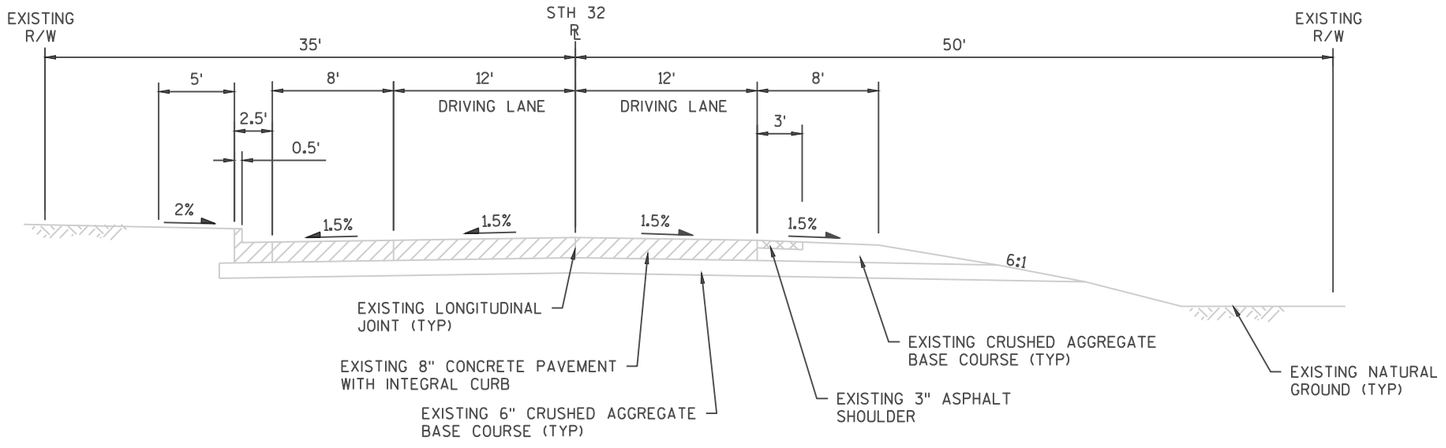
STA 243+62.41 TO STA 254+59

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 4	E



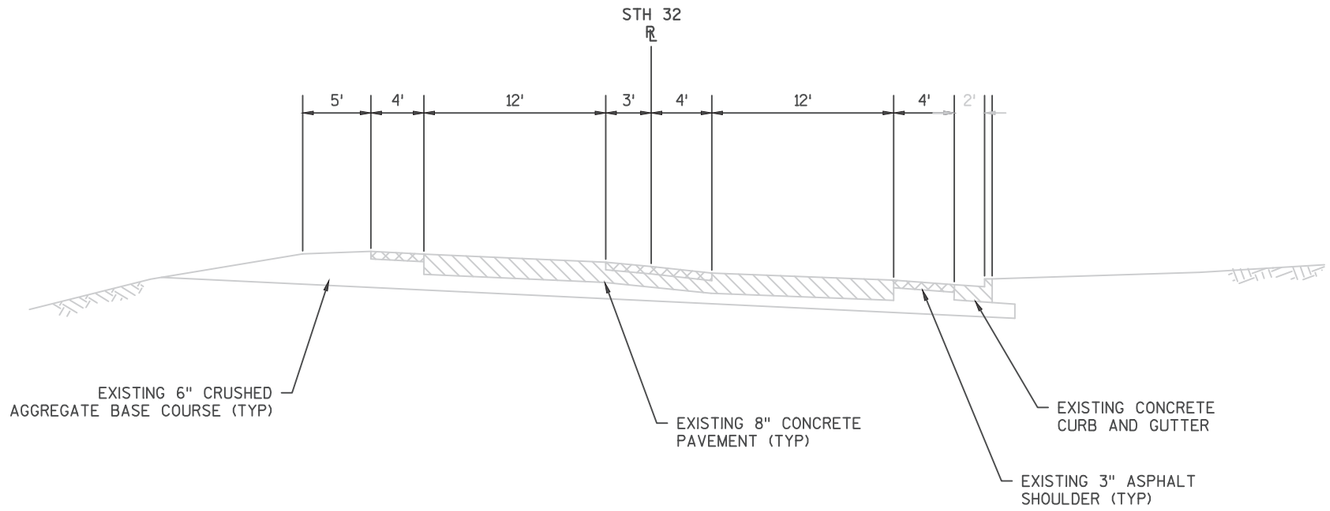
EXISTING TYPICAL SECTION STH 32

STA 254+59 TO STA 261+00
STA 264+05 TO STA 281+50



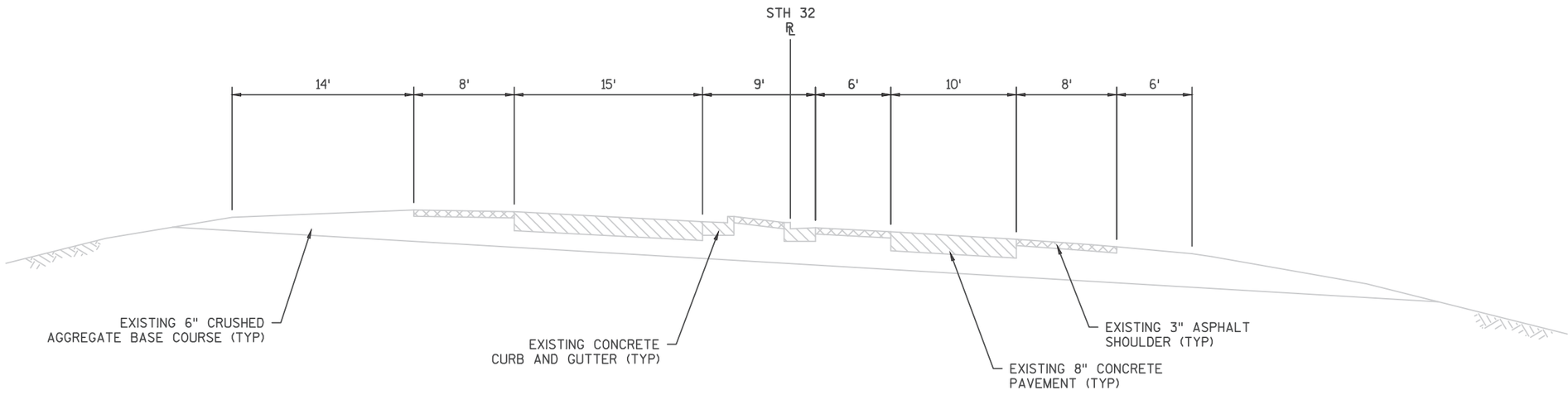
EXISTING TYPICAL SECTION STH 32

STA 261+00 TO STA 264+05



EXISTING TYPICAL SECTION STH 32

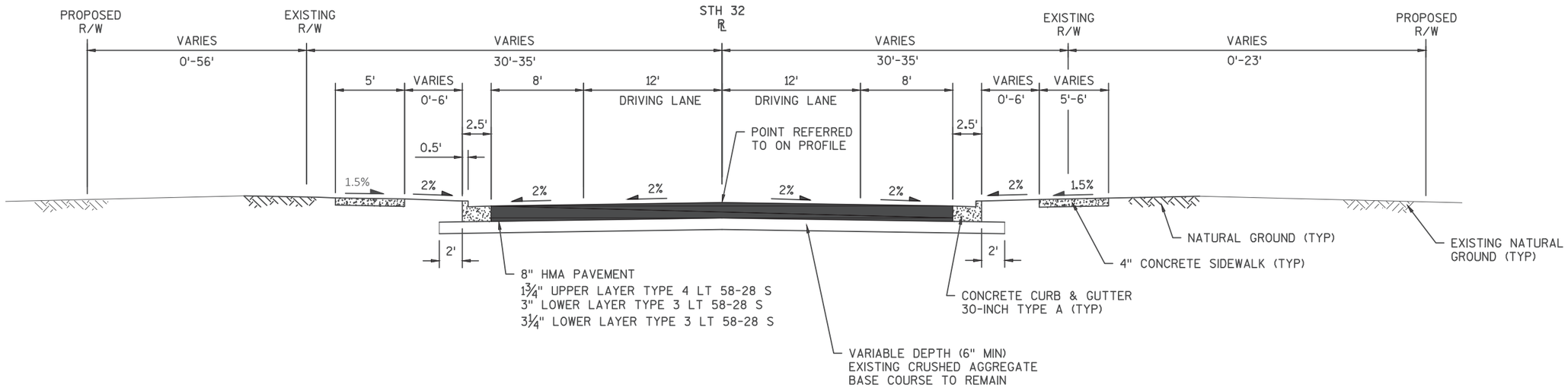
STA 285+00 - STA 288+10



EXISTING TYPICAL SECTION STH 32

STA 288+10 - STA 294+70

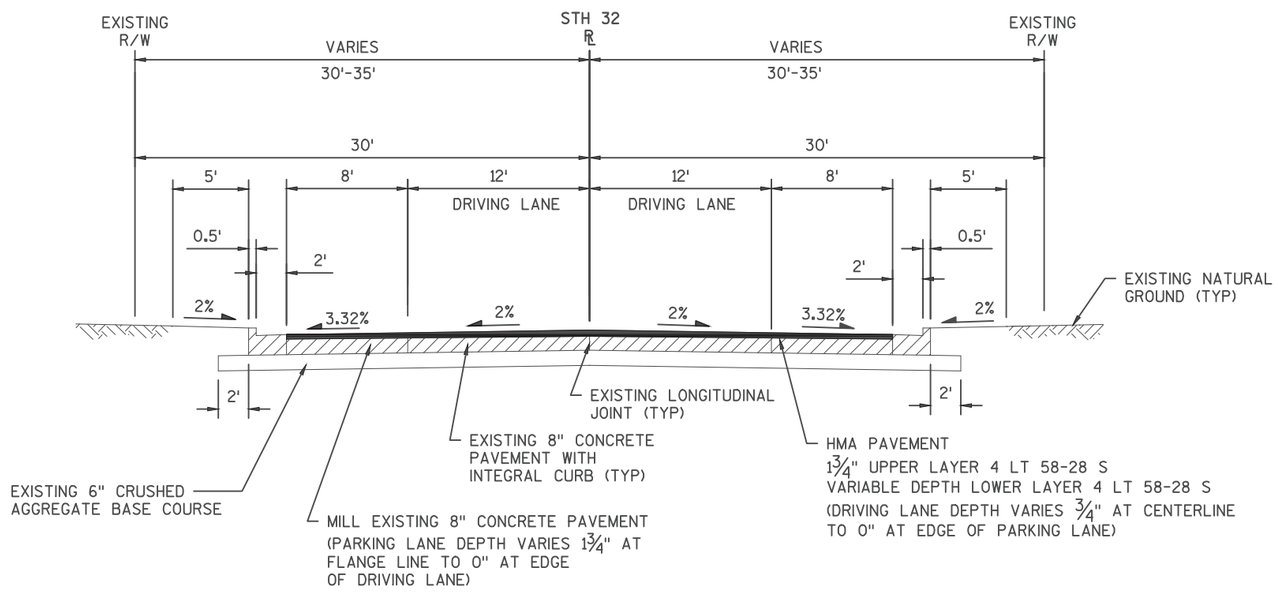
PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGOAN	TYPICAL SECTIONS	SHEET 6	E



NOTE:
RR CROSSING STA 243+49.65 - STA 243+62.41

FINISHED TYPICAL SECTION STH 32

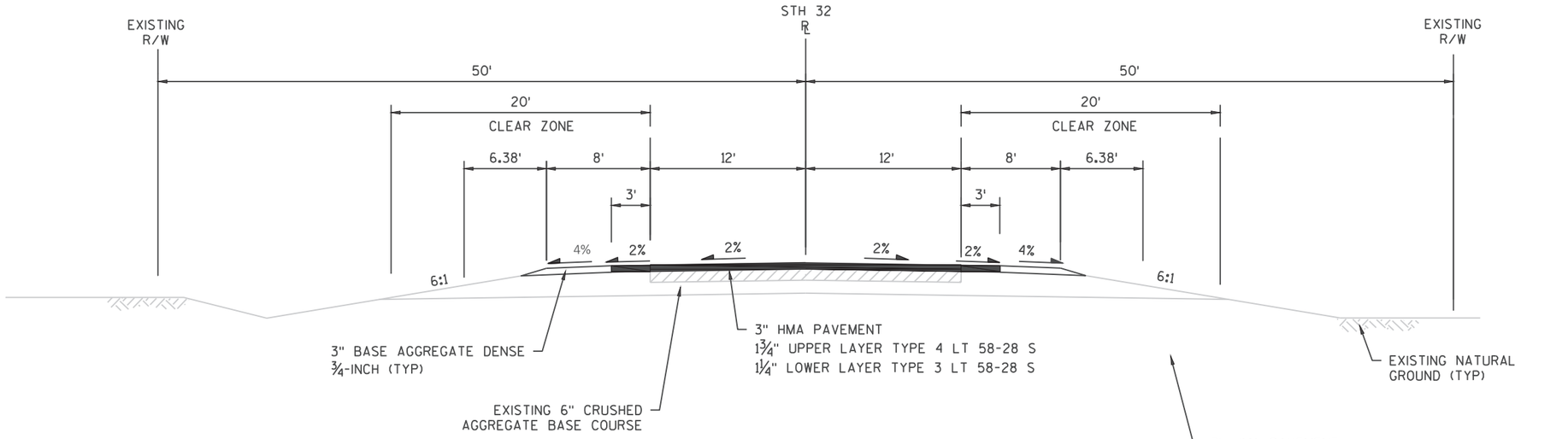
STA 241+78 TO STA 243+49.65
STA 243+62.41 TO STA 246+87



FINISHED TYPICAL SECTION STH 32

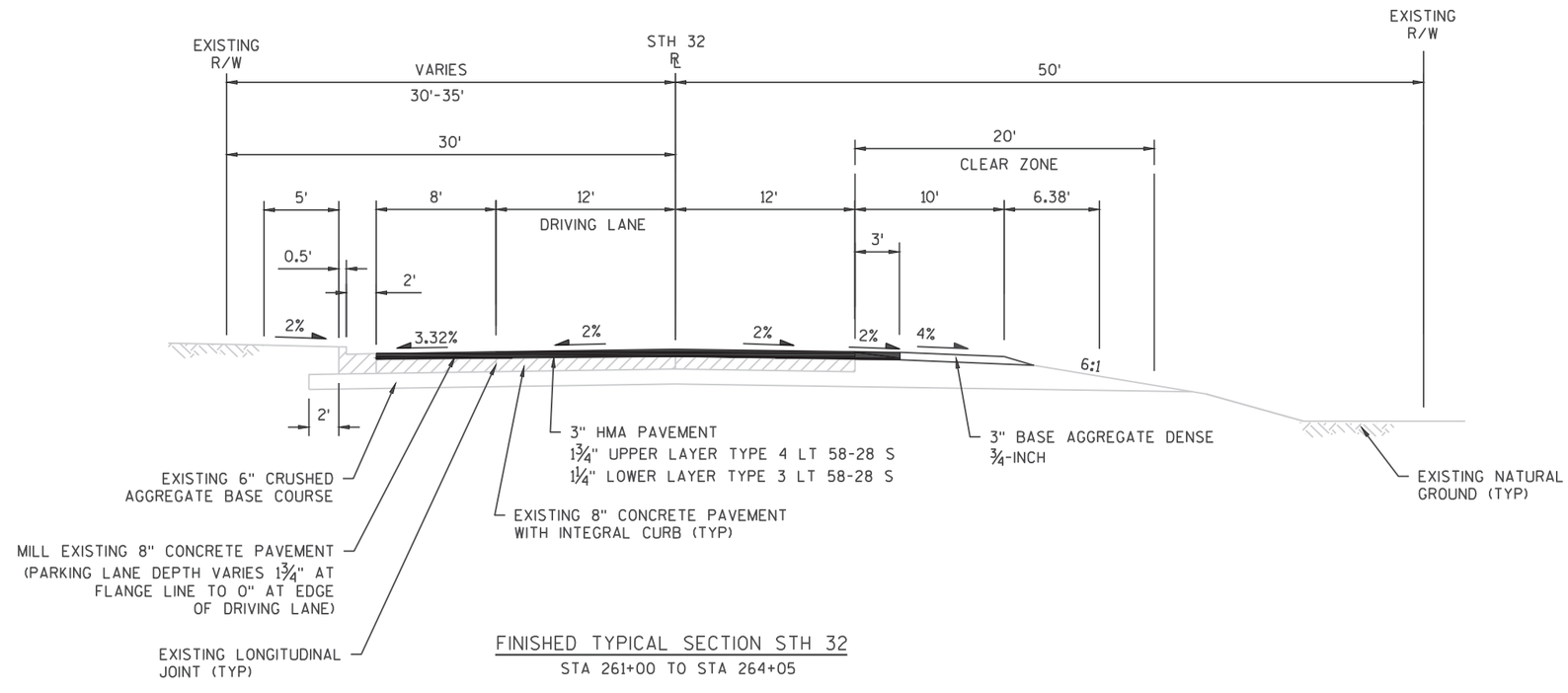
STA 246+87 TO STA 254+59

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 7	E



FINISHED TYPICAL SECTION STH 32

STA 254+59 TO STA 261+00
STA 264+05 TO STA 281+50

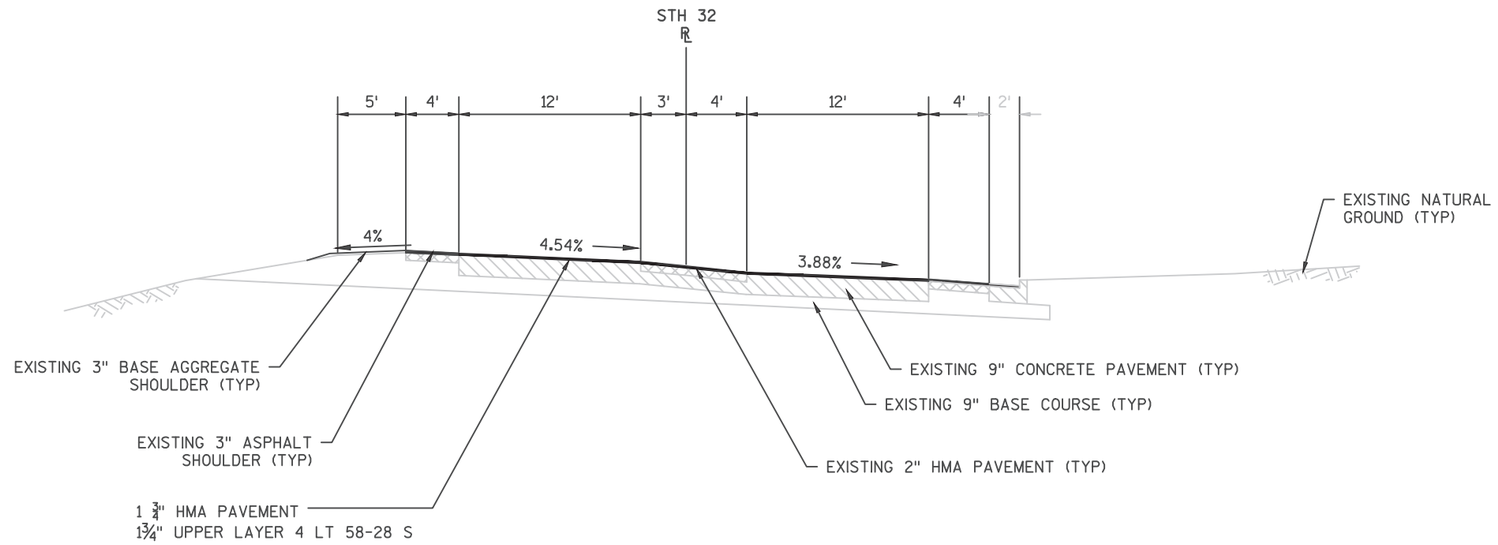


FINISHED TYPICAL SECTION STH 32

STA 261+00 TO STA 264+05

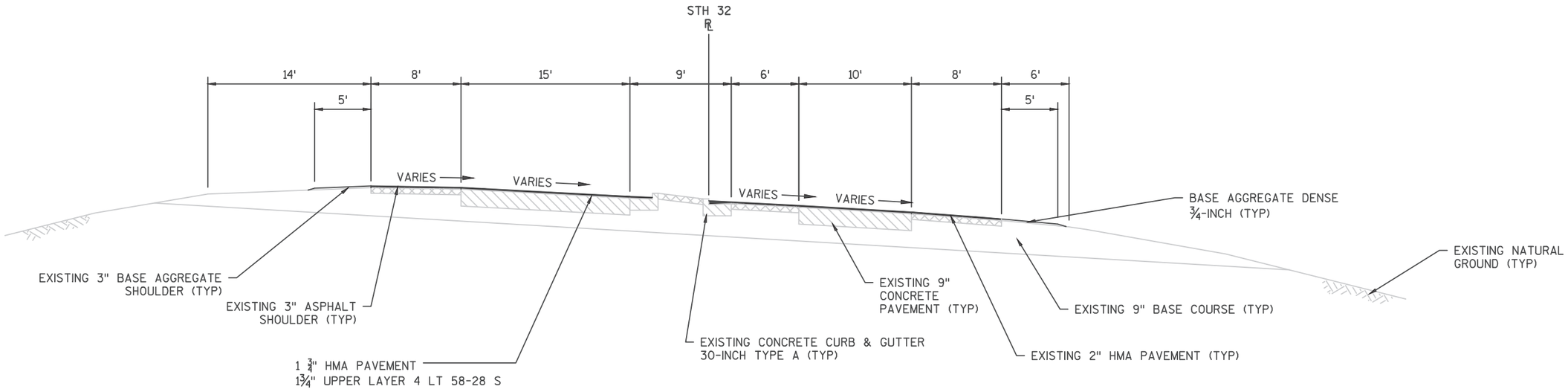
PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : \\GRE31FP1\N3PUBLIC\PDS\C3D\45402700\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020305-ts
PLOT DATE : 5/20/2020 8:14 AM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT



FINISHED TYPICAL SECTION STH 32

STA 285+00 - STA 288+10



FINISHED TYPICAL SECTION STH 32

STA 288+10 - STA 294+70

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN: TYPICAL SECTIONS	SHEET 9	E

STH 32

STA. 246+51.1
22.09' RT
681.55

CURB RAMP
DETECTABLE WARNING
FIELD (YELLOW)

STA. 246+46.10
29.19' RT
681.85

STA. 246+60.9
28.90' RT
680.88

6.70%

3.0%

3.0%

3.0%

STA. 246+50.68
34.20' RT
681.92

STA. 246+50.68
34.20' RT
681.92

COMMERCE ST

NOTE: STATIONING & OFFSETS ARE REFERENCED
TO STH 32 REFERENCE LINE

COMMERCE STREET – SOUTHWEST

MODIFIED TYPE 2 RAMP

10'

EXISTING ASPHALTIC
CONCRETE PAVEMENT

STA. 246+64
681.31

STA. 246+74
681.10

6.0%

CONCRETE SIDEWALK
4–INCH

10.10%

CONCRETE CURB AND
GUTTER 30–INCH TYPE A

6'

2.5'

STA. 246+61
680.75

STA. 246+64
680.67

STA. 246+74
680.42

CURB RAMP
DETECTABLE WARNING
FIELD (YELLOW)

STA. 246+76
680.36

STH 32

NOTE: STATIONING & OFFSETS ARE REFERENCED
TO STH 32 REFERENCE LINE

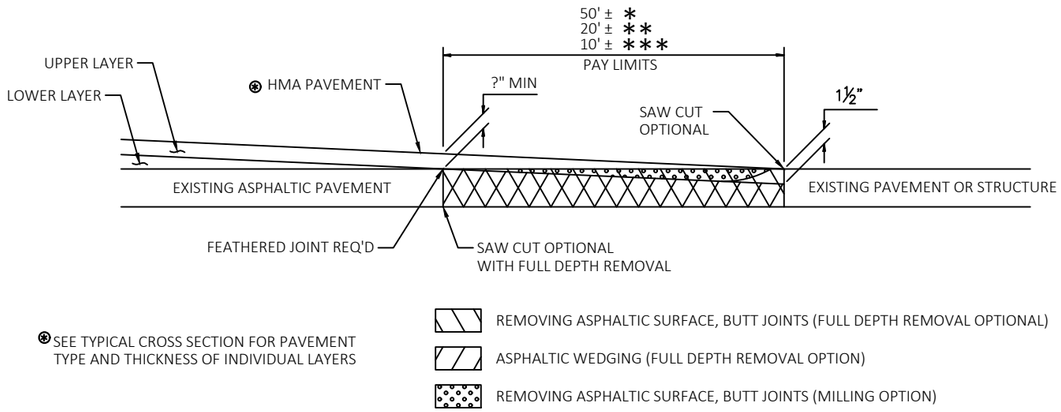
STH 32 – INTER–URBAN TRAIL

MODIFIED TYPE 2 RAMP

2

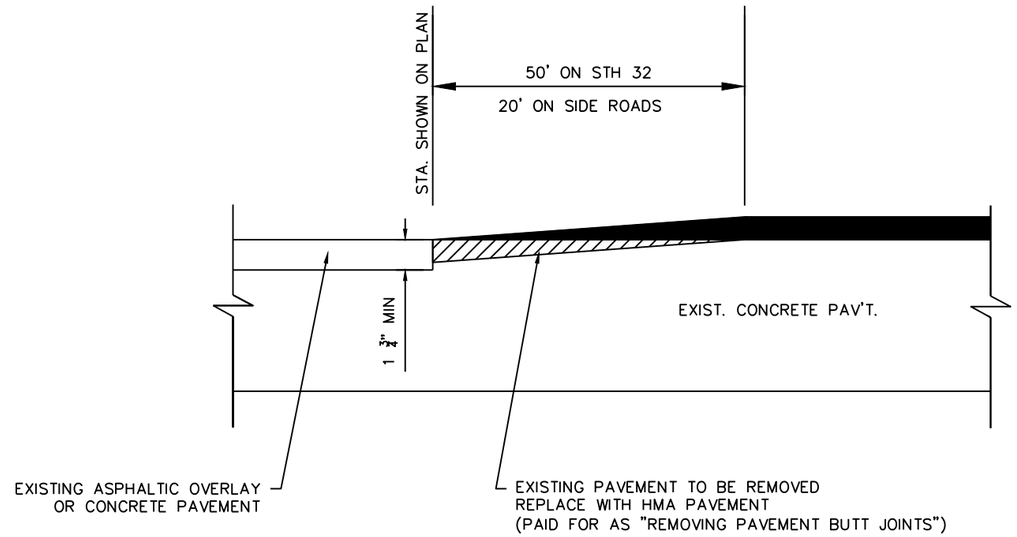
PROJECT NO: 4540–27–71	HWY: STH 32	COUNTY: SHEBOYGAN	CURB RAMP DETAIL – COMMERCE STREET	SHEET 10 E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\021001–CD.DWG PLOT DATE : 11/5/2020 10:43 AM PLOT BY : NELSON, PATTI M PLOT NAME : _____ PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

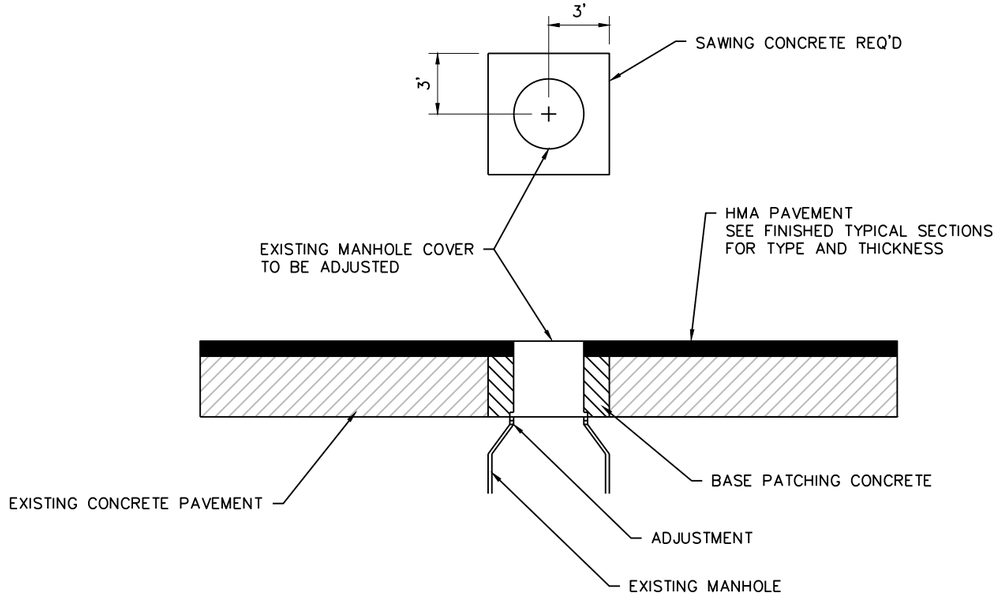


BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS

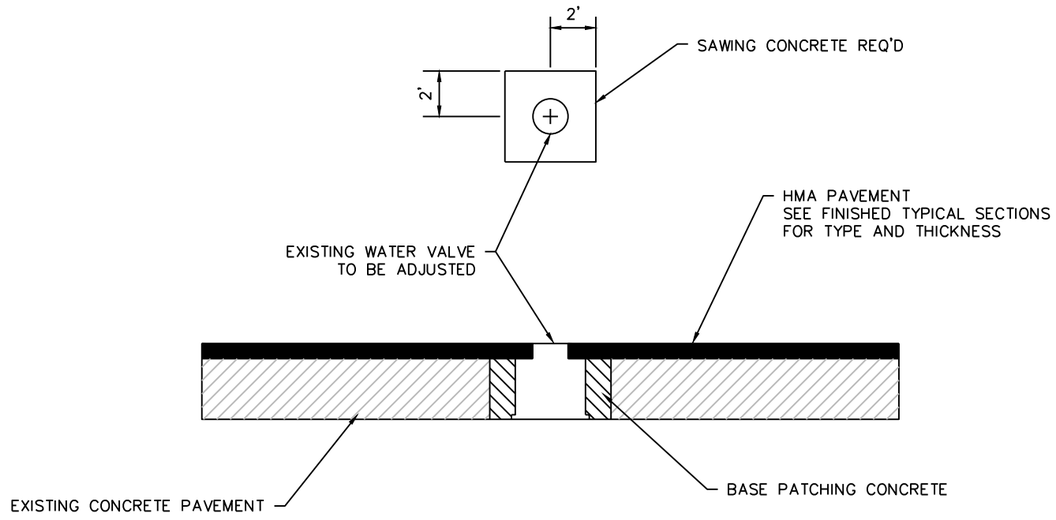
* MAINLINE
** SIDE ROADS
*** PRIVATE ENTRANCES



BUTT JOINT DETAIL FOR CONCRETE PAVEMENTS



ADJUSTING MANHOLE COVERS IN RESURFACING AREAS



ADJUSTING WATER VALVES IN RESURFACING AREAS

2

N

UNION PACIFIC RAILROAD

RAILROAD CROSSING SURFACE - CONCRETE PANELS

XXXX XXXX XXXX

⊕ BM700

685.96 686.30 686.79 687.36 688.04 688.61 688.98 689.55 689.55 688.68 688.13 687.39

686.12 686.46 686.95 687.52 688.20 688.77 689.14 688.84 688.29

STH 32 R/L

241+78 242+00 687.76 243+00 689.01 689.55 689.55 244+00 689.08 688.53

686.12 686.46 686.95 687.52 688.20 688.77 689.14 688.84 688.29

685.96 686.30 686.79 687.36 688.04 688.61 688.98 689.55 689.55 689.03 688.68 688.13 687.39

XXXX XXXX

SIGN

XXXX

HMA PAVEMENT
4 LT 58-28 S

CONCRETE SIDEWALK, TYP

NO.	STATION	DESCRIPTION	ELEV.
701	241+10	CHISELED SQUARE LOCATED ON THE WEST LIGHT POLE BASE IN FRONT OF THE BANK	689.10
602	246+38	RR SPIKE IN PPOL 6 2952 LOCATED ON THE EAST SIDE OF THE ENTRANCE TO SHEAR IMAGINATION AND THE WEST SIDE OF THE TRAIL	682.95

SAWCUT REQUIRED XXXX XXXX

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS.

THE CONTRACTOR IS TO TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET 12	E

2

2

N

NO.	STATION	DESCRIPTION	ELEV.
701	241+10	CHISELED SQUARE LOCATED ON THE WEST LIGHT POLE BASE IN FRONT OF THE BANK	689.10
602	246+38	RR SPIKE IN PPOL 6 2952 LOCATED ON THE EAST SIDE OF THE ENTRANCE TO SHEAR IMAGINATION AND THE WEST SIDE OF THE TRAIL	682.95

SAWCUT REQUIRED XXXX XXXX

XXXX XXXX

BM602

.39 686.50 685.60 684.85 684.10 683.34 682.57 681.80 681.03 680.39 680.10

686.66 685.76 685.01 684.26 683.50 682.73 681.96 681.19

STH 32 R/L

.53 245+00 684.5 246+00 681.43 680.50 247+00

686.00 682.97

686.66 685.76 685.01 684.26 683.50 682.73 681.96 681.19

.39 686.50 685.60 684.85 684.10 683.34 682.57 681.80

680.88

XXXX

XXXX

XXXX

SIGN

680.18 XXXX

680.21 XXXX

SIGN

COMMERCE ST

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS.

THE CONTRACTOR IS TO TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

IN

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET 13	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSOTHER\ELEVATIONS_RECONSTRUCT.DWG
LAYOUT NAME - 05010 (6)

PLOT DATE : 9/28/2020 7:51 AM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

N

+78 686.41
242+00 686.76
+50 687.83
243+00 689.01
+33 689.75
+88 689.33
245+00 686.35
+50 689
243+88 689.25
245+00 686.28
+78 686.34
242+00 686.68
+50 687.74
+00 688.98
+33 689.65

242+00
243+00
244+00

+78 686.33
242+00 686.68
+50 687.77
243+00 689.05
+00 689.30
+50 688
+78 686.42
242+00 686.72
+50 687.84
243+00 689.14
+41 689.05
+57 689.05
+51 689.14
+00 689.38

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	SIDEWALK ELEVATIONS	SHEET 14	E

2

N

INTER-URBAN TRAIL

TLE

EXISTING
RIGHT OF WAY

245+00
686.35

+50
684.81

246+00
683.17

+64
681.31

245+00
686.28

+50
684.71

246+00
683.09

+62
681.89

245+00

246+00

247+00

245+00
686.28

+50
684.71

246+00
683.21

+46
681.85

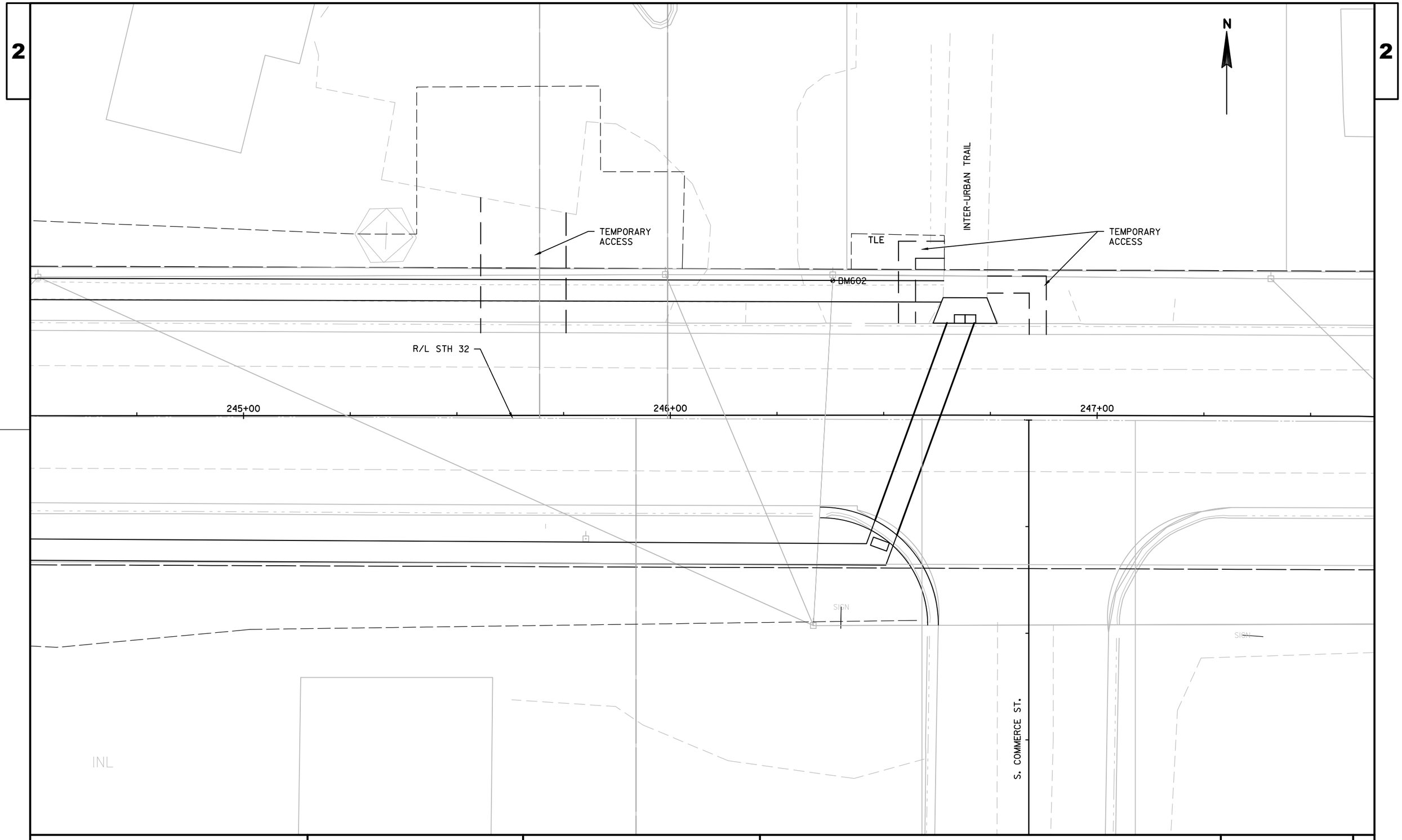
245+00
686.35

+50
684.81

246+00
683.28

+50
681.92

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	SIDEWALK ELEVATIONS	SHEET 15	E



PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL	SHEET 16	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSOTHER\TRAIL_DETAIL2.DWG
LAYOUT NAME - 050107-PP
PLOT DATE : 9/28/2020 9:52 AM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

2

N

EXISTING STORM SEWER 24" CONC.

EXISTING R/W

1.0 4 FT MANHOLE STA 244+43, 13' LT

STH 32 R/L

SS MH 513

SS MH 516

SS MH 512

SAN MH 292

SAN MH 298

SAN MH 299

INL 508

SS MH 510

INL 511

INL 200

WV 294

WV 296

WV 301

WV 304

WV 307

INL 151

INL 150

INL 160

EXISTING R/W

COMMERCE ST R/L

INL

242+00 243+00 244+00 245+00 246+00 247+00

9+00

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	STORM SEWER	SHEET 17	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSOTHER\SS-JUN25.DWG
LAYOUT NAME - 022501

PLOT DATE : 7/14/2020 1:01 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 41

2

N

EXISTING R/W

EXISTING CULVERT
NO WORK REQUIRED

R/L STH 32

STH 32 R/L

INL 506

GUY

SSMH 507

WV

WV 315

IMH

WW

248+00

249+00

250+00

251+00

252+00

253+00

INL 508

SAN MH 319

MH

SAN MH 322

MH

OH

G

SS

W

T

EXISTING R/W

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	STORM SEWER	SHEET 18	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSOTHER\SS-JUN25.DWG
LAYOUT NAME - 022502

PLOT DATE : 7/14/2020 1:01 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

EXISTING R/W

R/L STH 32

STH 32 R/L

H20 MH 500

SAN MH 326

MH

WV

254+00

255+00

256+00

257+00

258+00

259+00

EXISTING R/W

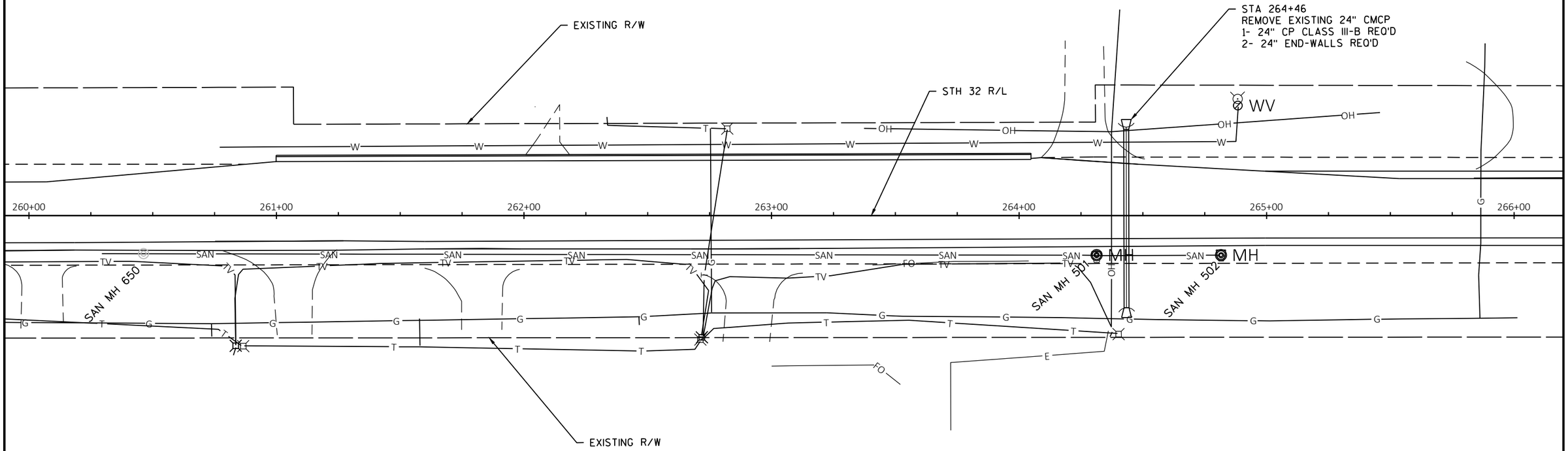
PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	STORM SEWER	SHEET 19	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSOTHER\SS-JUN25.DWG
LAYOUT NAME - 022503

PLOT DATE : 7/14/2020 1:02 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 41

2

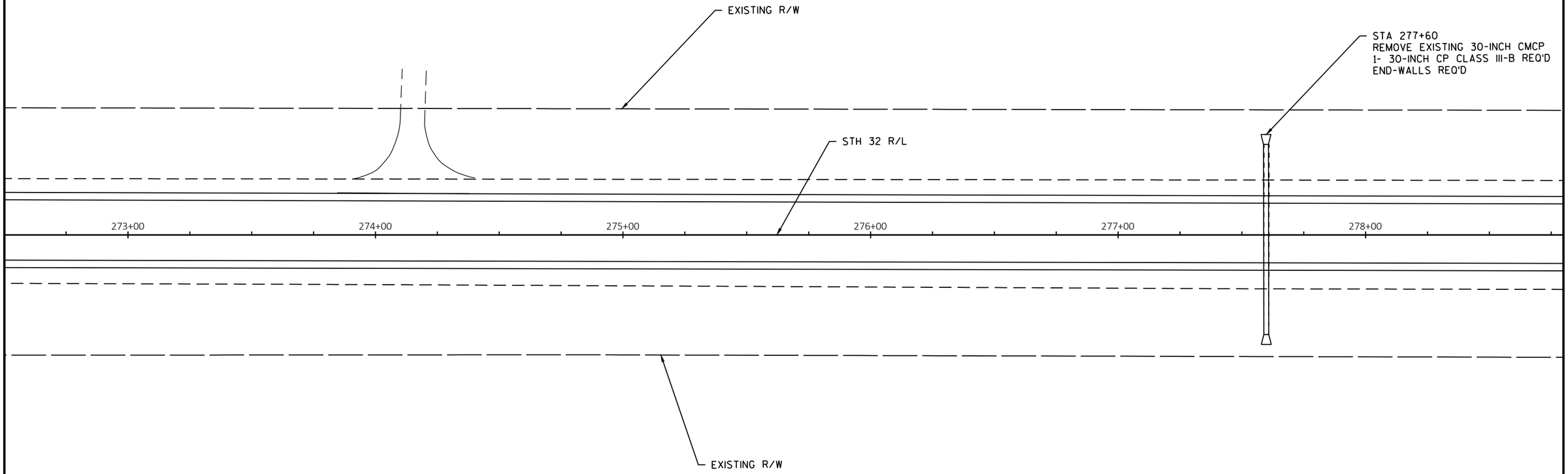


PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	STORM SEWER	SHEET 20	E

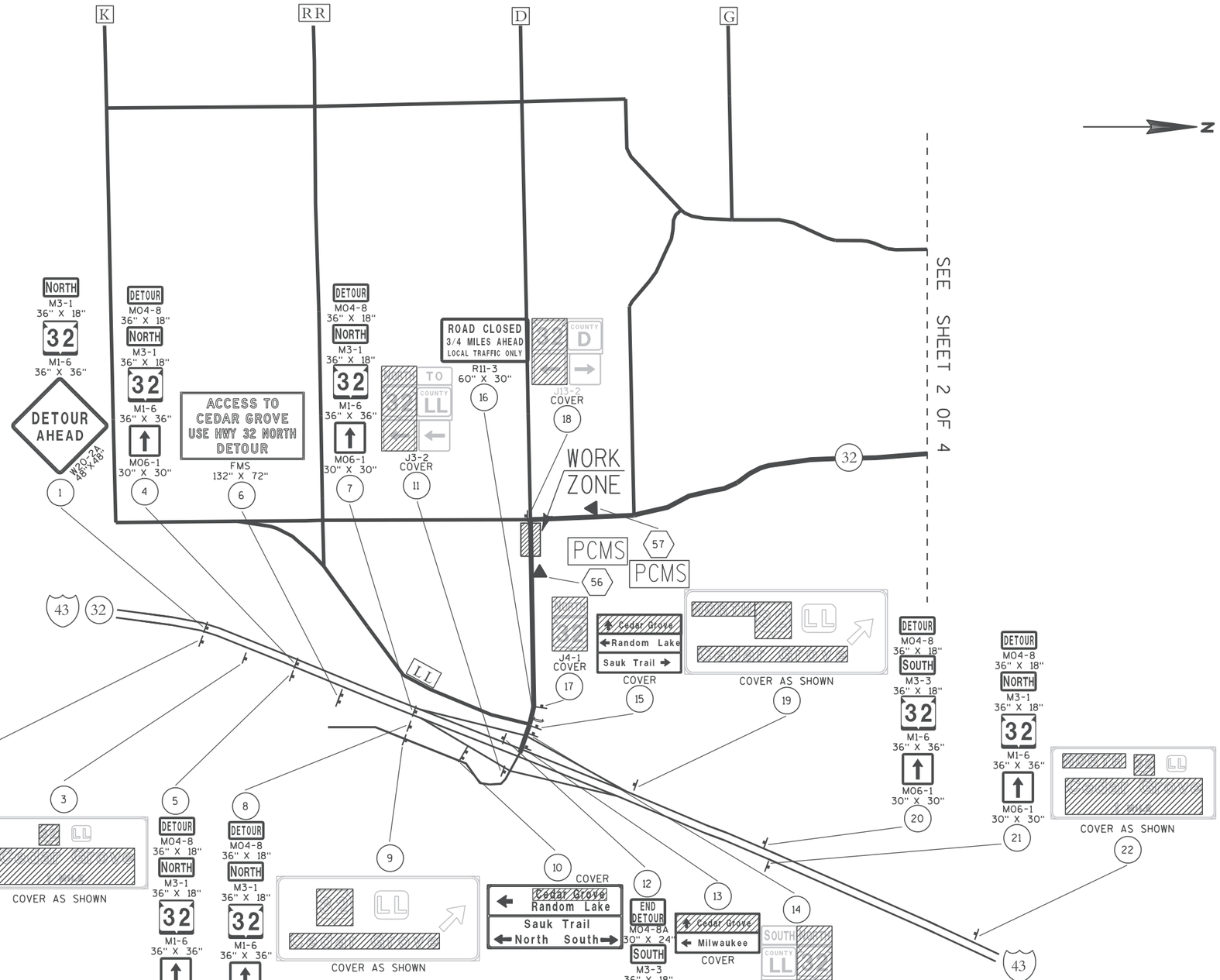
FILE NAME : N:\PDS\C3D\45402700\SHEETSOTHER\SS-JUN25.DWG
LAYOUT NAME - 022504

PLOT DATE : 11/18/2020 7:36 AM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	STORM SEWER	SHEET 21	E



LEGEND

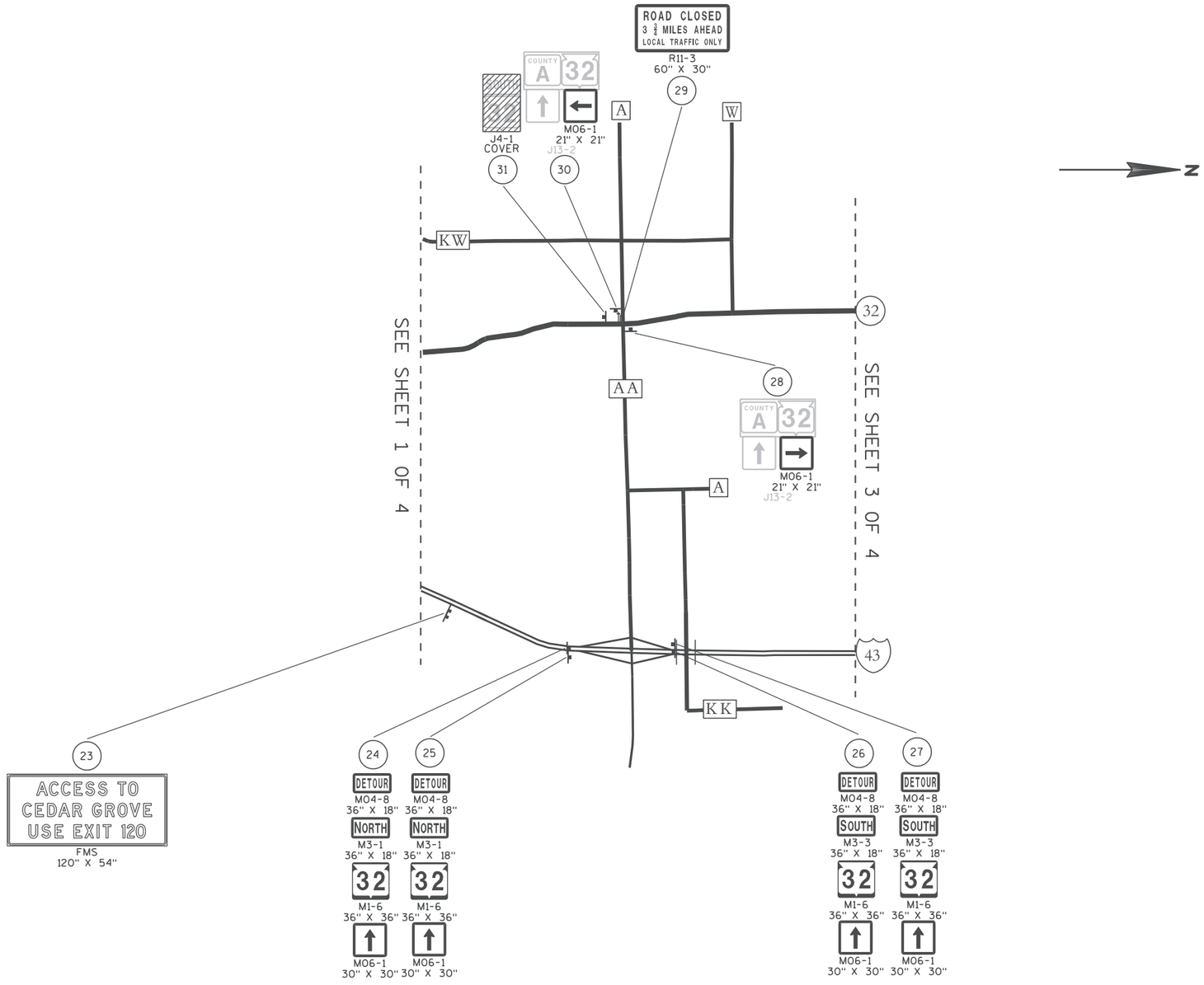
- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- FMS (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 1 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET 22	E

2



LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- FMS (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

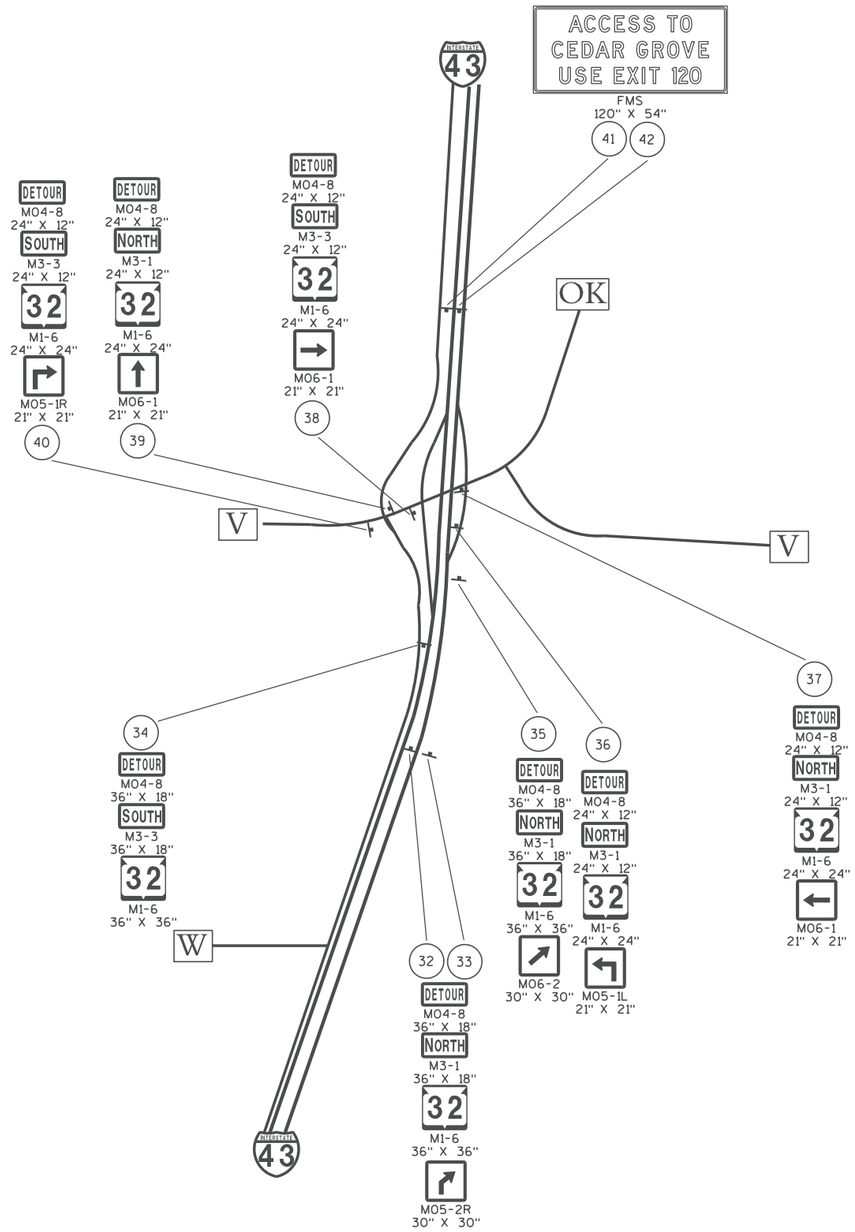
SHEET 2 OF 4

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET 23	E

2

N



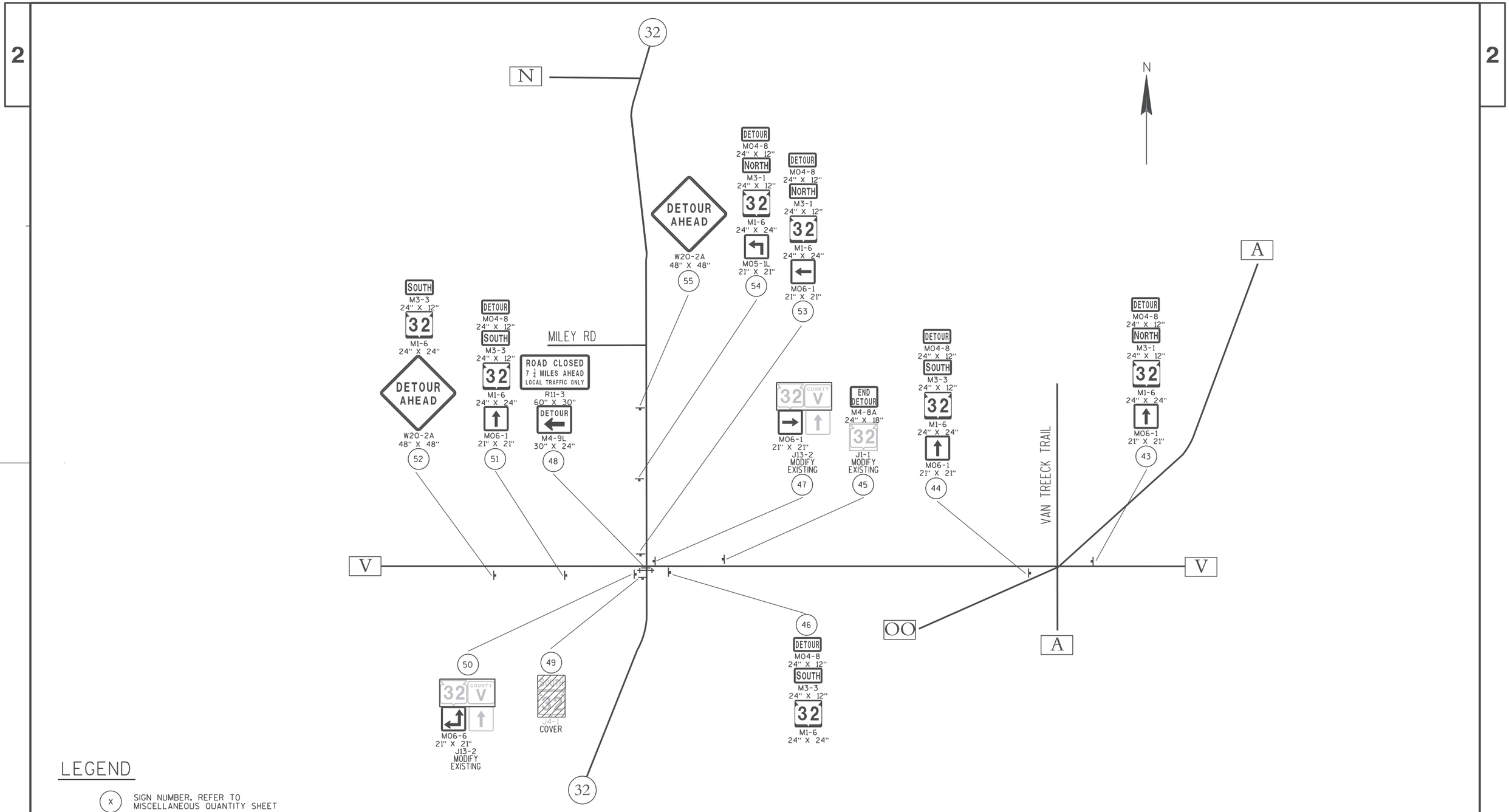
LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- FMS (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 3 OF 4

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET 24	E



LEGEND

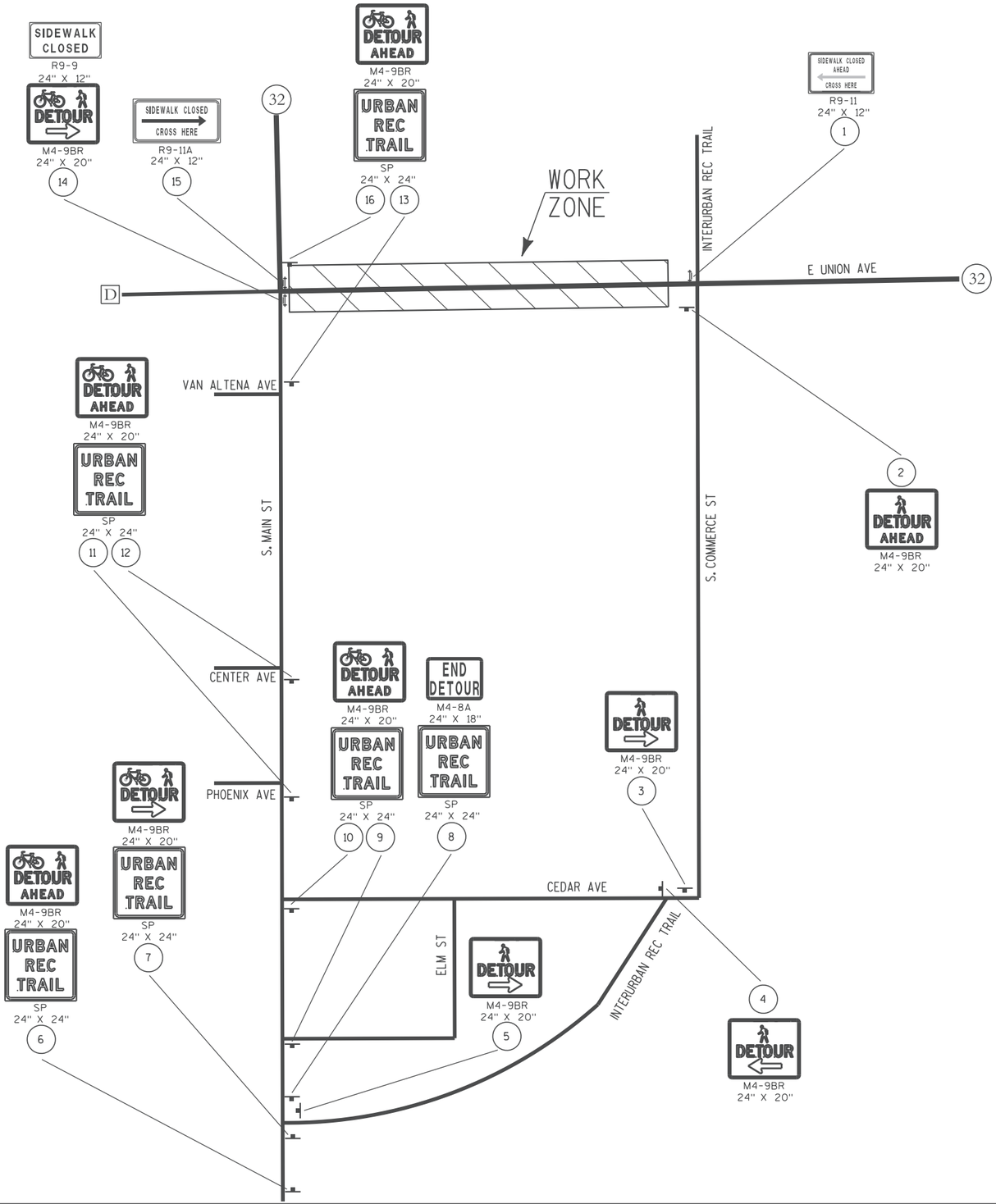
- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 4 OF 4

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Sheboygan County\STH 32\Cedar Grove\027004_dt.dgn PLOT DATE : 12-JUN-2019 14:19 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42



LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- SIGN MOUNTED ON TYPE II BARRICADE
- POST MOUNTED SIGN
- (X) CHANGEABLE PORTABLE MESSAGE BOARD

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PEDESTRIAN/BICYCLE DETOUR PLAN	SHEET 26	E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Sheboygan County\STH 32\Cedar Grove\Ped Detour\027001_dt.DGN PLOT DATE : 22-MAY-2017 16:46 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

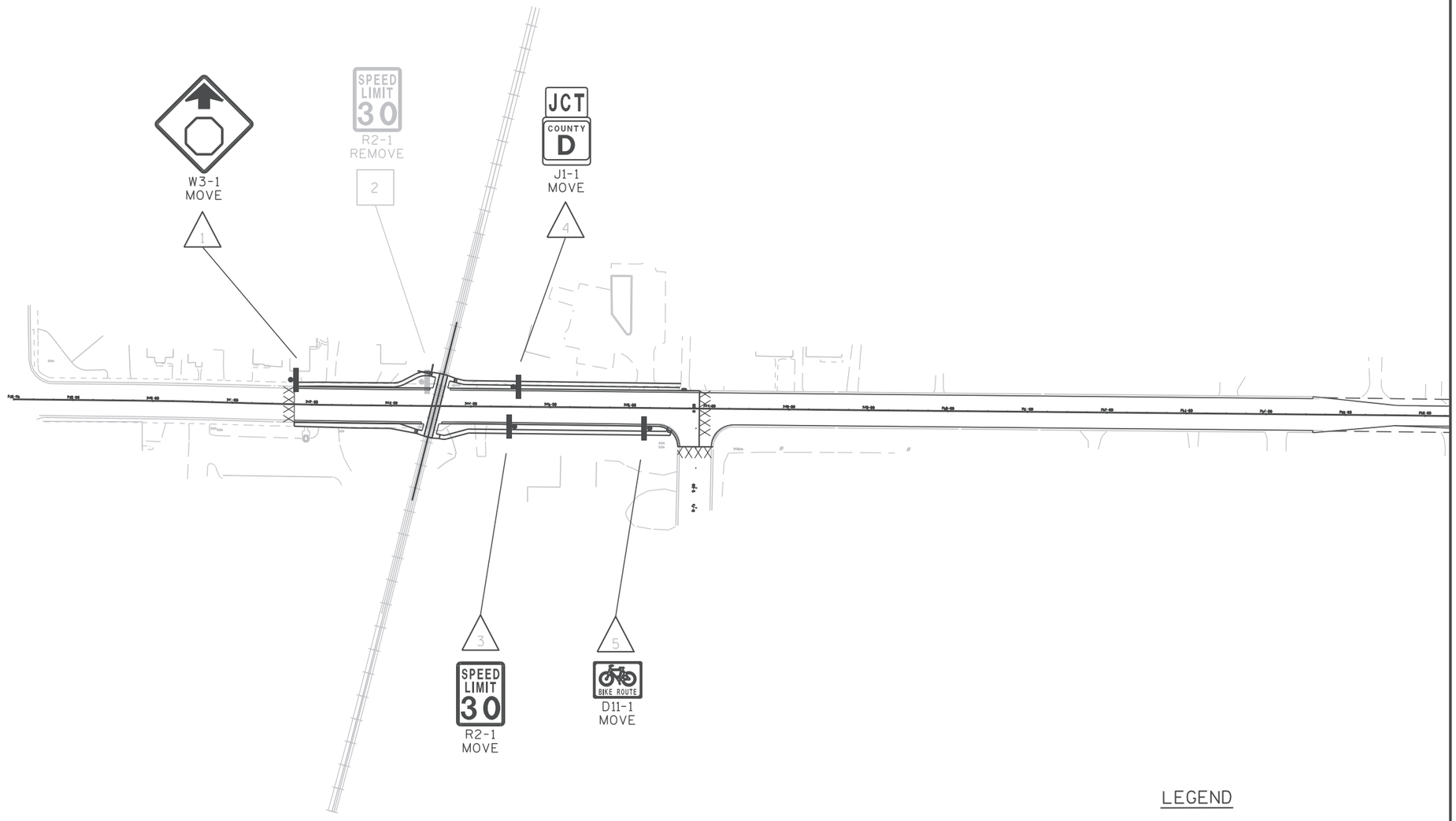
2

SIGNING NOTES

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

MOVED SIGNS SHALL BE PLACED IN EXISTING LOCATION AFTER FINAL CONSTRUCTION.

N



LEGEND

WOOD POSTS

SIGN-MOVE AND REINSTALL

SIGN-REMOVE EXISTING

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 27	E

4540-27-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0004	204.0100	Removing Concrete Pavement	SY	2,262.000	2,262.000
0006	204.0105	Removing Pavement Butt Joints	SY	214.000	214.000
0008	204.0109.S	Removing Concrete Surface Partial Depth	SF	15,672.000	15,672.000
0010	204.0110	Removing Asphaltic Surface	SY	16.000	16.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	122.000	122.000
0016	204.0150	Removing Curb & Gutter	LF	999.000	999.000
0018	204.0155	Removing Concrete Sidewalk	SY	291.000	291.000
0020	204.0210	Removing Manholes	EACH	1.000	1.000
0024	205.0100	Excavation Common	CY	650.000	650.000
0028	211.0100	Prepare Foundation for Asphaltic Paving (project) 02. 4540-27-71	LS	1.000	1.000
0032	213.0100	Finishing Roadway (project) 02. 4540-27-71	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	650.000	650.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	867.000	867.000
0038	305.0500	Shaping Shoulders	STA	77.000	77.000
0040	390.0303	Base Patching Concrete	SY	183.000	183.000
0042	416.0610	Drilled Tie Bars	EACH	681.000	681.000
0044	416.0620	Drilled Dowel Bars	EACH	160.000	160.000
0046	455.0605	Tack Coat	GAL	1,543.000	1,543.000
0056	460.2000	Incentive Density HMA Pavement	DOL	2,550.000	2,550.000
0064	460.5223	HMA Pavement 3 LT 58-28 S	TON	2,061.000	2,061.000
0066	460.5224	HMA Pavement 4 LT 58-28 S	TON	2,009.000	2,009.000
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	21.000	21.000
0078	465.0125	Asphaltic Surface Temporary	TON	5.000	5.000
0082	520.3524	Culvert Pipe Class III-B 24-Inch	LF	72.000	72.000
0084	520.3530	Culvert Pipe Class III-B 30-Inch	LF	76.000	76.000
0086	520.8700	Cleaning Culvert Pipes	EACH	1.000	1.000
0090	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0092	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000
0100	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	999.000	999.000
0102	602.0405	Concrete Sidewalk 4-Inch	SF	4,725.000	4,725.000
0104	602.0415	Concrete Sidewalk 6-Inch	SF	545.000	545.000
0106	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	70.000	70.000
0108	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0110	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0112	611.8110	Adjusting Manhole Covers	EACH	12.000	12.000
0114	611.8115	Adjusting Inlet Covers	EACH	7.000	7.000

4540-27-71

Line	Item	Item Description	Unit	Total	Qty
0124	618.0100	Maintenance And Repair of Haul Roads (project) 02. 4540-27-71	EACH	1.000	1.000
0126	619.1000	Mobilization	EACH	0.080	0.080
0128	624.0100	Water	MGAL	15.000	15.000
0132	625.0500	Salvaged Topsoil	SY	269.000	269.000
0134	627.0200	Mulching	SY	269.000	269.000
0136	628.1504	Silt Fence	LF	1,518.000	1,518.000
0138	628.1520	Silt Fence Maintenance	LF	1,518.000	1,518.000
0140	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0142	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0146	628.2006	Erosion Mat Urban Class I Type A	SY	269.000	269.000
0148	628.7005	Inlet Protection Type A	EACH	12.000	12.000
0150	628.7015	Inlet Protection Type C	EACH	14.000	14.000
0152	628.7555	Culvert Pipe Checks	EACH	1.000	1.000
0154	629.0210	Fertilizer Type B	CWT	0.169	0.169
0158	630.0140	Seeding Mixture No. 40	LB	5.000	5.000
0160	630.0200	Seeding Temporary	LB	7.000	7.000
0162	630.0500	Seed Water	MGAL	3.000	3.000
0166	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0180	638.2102	Moving Signs Type II	EACH	4.000	4.000
0184	638.2602	Removing Signs Type II	EACH	1.000	1.000
0186	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0190	638.4000	Moving Small Sign Supports	EACH	4.000	4.000
0194	643.0300	Traffic Control Drums	DAY	1,400.000	1,400.000
0196	643.0410	Traffic Control Barricades Type II	DAY	84.000	84.000
0198	643.0420	Traffic Control Barricades Type III	DAY	708.000	708.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	798.000	798.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	1,320.000	1,320.000
0206	643.0900	Traffic Control Signs	DAY	2,784.000	2,784.000
0208	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0210	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0212	643.1000	Traffic Control Signs Fixed Message	SF	280.290	280.290
0214	643.1050	Traffic Control Signs PCMS	DAY	68.000	68.000
0218	643.5000	Traffic Control	EACH	0.150	0.150
0220	646.1020	Marking Line Epoxy 4-Inch	LF	16,668.000	16,668.000
0224	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	6,262.000	6,262.000
0226	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	1,566.000	1,566.000
0230	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	6,262.000	6,262.000
0236	646.5320	Marking Railroad Crossings Epoxy	EACH	2.000	2.000
0240	646.8120	Marking Curb Epoxy	LF	75.000	75.000

4540-27-71

Line	Item	Item Description	Unit	Total	Qty
0244	648.0100	Locating No-Passing Zones	MI	1.020	1.020
0246	649.0105	Temporary Marking Line Paint 4-Inch	LF	321.000	321.000
0248	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0250	650.4500	Construction Staking Subgrade	LF	509.000	509.000
0252	650.5000	Construction Staking Base	LF	509.000	509.000
0254	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	999.000	999.000
0256	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0258	650.8000	Construction Staking Resurfacing Reference	LF	4,783.000	4,783.000
0260	650.9000	Construction Staking Curb Ramps	EACH	2.000	2.000
0264	650.9910	Construction Staking Supplemental Control (project) 02. 4540-27-71	LS	1.000	1.000
0266	650.9920	Construction Staking Slope Stakes	LF	1,018.000	1,018.000
0268	690.0150	Sawing Asphalt	LF	85.000	85.000
0270	690.0250	Sawing Concrete	LF	718.000	718.000
0272	740.0440	Incentive IRI Ride	DOL	8,080.000	8,080.000
0274	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0276	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0278	SPV.0060	Special 01. Salvaging and Reinstalling Internal Chimney Seal	EACH	4.000	4.000
0280	SPV.0060	Special 02. Adjusting Water Valve Boxes	EACH	6.000	6.000
0282	SPV.0060	Special 03. Internal Chimney Seal	EACH	4.000	4.000
0284	SPV.0060	Special 04. Adjusting Fire Hydrant	EACH	1.000	1.000
0288	SPV.0060	Special 06. Inlet Extension Ring	EACH	1.000	1.000

3

REMOVING BUTT JOINTS

STATION	TO	STATION	LOCATION	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMARKS
	-		COMMERCE ST	53	-	-
	479+58		CTH LL	-	67	-
	482+02		SAUK TRAIL ROAD	-	56	-
293+70	-	294+20	STH 32 WB	161	-	END PROJECT
294+20	-	294+70	STH 32 EB	0	-	END PROJECT
			PROJECT 4540-27-71 TOTAL	214	122	

REMOVING CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY	* 690.0250 SAWING CONCRETE LF	REMARKS
241+78	-	243+23	STH 32	LT	81	10	
241+82	-	241+87	STH 32	LT	-	5	
241+78	-	243+45	STH 32	RT	93	10	
241+91	-	241+95	STH 32	RT	-	4	
242+07	-	242+33	STH 32	RT	-	26	
244+00	-	246+65	STH 32	LT	118	8	
246+07	-	246+33	STH 32	LT	-	26	
			PROJECT 4540-27-71 TOTALS		291	89	

* ADDITIONAL QUANTIITES LISTED ELSEWHERE

BASE PATCHING

STATION	TO	STATION	ROADWAY	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	690.0150 * SAWING ASPHALT LF	390.0303 BASE PATCHING CONCRETE SY	416.0610 * DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	690.0250 * SAWING CONCRETE LF	REMARKS
241+78	-	246+87	STH 32	2,262	-	-	-	-	-	80	RECONSTRUCTION
-	-	-	STH 32	-	-	-	-	-	-	-	
241+78	-	246+87	STH 32	-	-	-	-	-	-	-	MANHOLE COVER ADJUSTMENTS
241+78	-	246+87	STH 32	-	-	-	-	-	-	-	WATER VALVE ADJUSTMENTS
							-	-	-		
242+80	-	264+70	STH 32	-	7	57	-	-	-	-	STORM SEWER REPAIR - IN ASPHALT SHOULDER
251+03	-	251+27	STH 32	-	-	-	21	38	-	64	-
271+00	-	-	STH 32	-	-	-	16	38	16	48	-
273+50	-	-	STH 32	-	-	-	16	38	16	48	-
273+80	-	285+98	STH 32	-	-	-	16	38	16	48	-
274+30	-	-	STH 32	-	-	-	16	38	16	48	-
275+90	-	-	STH 32	-	-	-	16	38	16	48	-
282+30	-	286+94	STH 32	-	-	-	16	38	16	48	-
286+94	-	294+70	STH 32	-	-	-	16	38	16	48	-
UNDISTRIBUTED			STH 32	-	-	-	48	38	48	-	-
			PROJECT 4540-27-71 TOTALS	2,262	7	57	181	346	160	480	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

3

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE
			CUT (2)	EBS EXCAVATION (3)						
DIVISION 1								Factor 1.15		
	STA 241+78 - STA 243+50	STH 32	192	0	33	159	136	156	2	
	STA 243+60 - STA 246+87	STH 32	459	0	78	381	147	169	212	
		STH 32								
DIVISION 1 SUBTOTAL			650	0	111	539	283	325	214	
GRAND TOTAL			650	0	111	539	283	325	214	0
TOTAL COMMON EXC			650							

Notes:

(1) COMMON EXCAVATATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED /UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT-SALVAGED/UNUSABLE PAVEMENT MATERIAL

(13) EXPANDED FILL FACTOR = 1.15

DEPENDING ON SELECTIONS: EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.
MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING CONCRETE SURFACE PARTIAL DEPTH

STATION	TO	STATION	LOCATION	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF	REMARKS
246+87	-	254+59	STH 32	12,352	--
261+00	-	264+05	STH 32	2,440	LT ONLY
246+50	-	247+05	STH 32	880	COMMERCE ST - (RT)
		PROJECT 4540-27-71 TOTAL		15,672	

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	OFFSET	204.0150 REMOVING CURB & GUTTER LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	416.0610 * DRILLED TIE BARS EACH	690.0250 * SAWING CONCRETE LF	REMARKS
0010	241+78	-	246+56	STH 32	RT	478	478	159	10	
0010	241+78	-	246+87	STH 32	LT	509	509	170	10	
0010	249+01	-	252+29	STH 32	RT	12	12	6	41	AT INLETS
				CATEGORY 0010 TOTALS		999	999	335	61	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

PREPARE FOUNDATION FOR ASPHALTIC PAVING

STATION	TO	STATION	LOCATION	211.0100 LS
246+87	-	294+70	STH 32	1
		PROJECT 4540-27-71 TOTAL		1

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

3

BASE AGGREGATE ITEMS

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL	REMARKS
241+78	-	246+87	STH 32	-	867	-	8.7	-
254+59	-	261+00	STH 32	104	-	13	1.0	-
261+00	-	264+05	STH 32	25	-	3	0.2	-
264+05	-	281+50	STH 32	283	-	35	2.8	-
281+50	-	294+70	STH 32	214	-	26	2.1	-
241+78	-	294+70	UNDISTRIBUTED	13	-	-	0.1	-
245+56	-	245+76	STH 32 LT	12	-	-	-	TEMPORARY ACCESS
		PROJECT 4540-27-71 TOTALS		650	867	77	15	

HMA PAVEMENT SUMMARY

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
241+78	-	246+87	STH 32	317	800	218	-	5	IN RECONSTRUCT SECTION
246+87	-	254+59	STH 32	240	-	365	-	-	IN URBAN SECTION
241+78	-	286+00	STH 32	13	-	-	21	-	DRIVEWAYS
254+59	-	261+00	STH 32	150	168	206	-	-	
261+00	-	264+05	STH 32	71	80	98	-	-	
264+05	-	281+50	STH 32	407	458	728	-	-	
281+50	-	294+70	STH 32	308	462	395	-	-	
9+51	-	9+79	COMMERCE ST	5	13	-	-	-	
18+75	-	19+60	CTH LL	16	40	-	-	-	
30+36	-	31+20	SAUK TRAIL ROAD	16	39	-	-	-	
		PROJECT 4540-27-71 TOTALS		1,543	2,061	2,009	21	5	

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

3

CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	OFFSET	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	REMARKS
241+78	-	243+60	STH 32	LT	910	-	-	-
241+78	-	243+40	STH 32	RT	810	-	-	S/W TAPERS FROM 5' TO 6' TO 5'
243+70	-	246+65	STH 32	LT	1475	-	-	-
243+50	-	246+56	STH 32	RT	1530	-	-	S/W TAPERS FROM 5' TO 6' TO 5'
243+43	-	243+48	STH 32	LT	-	-	10	RAILROAD TRACK
243+74	-	243+79	STH 32	LT	-	-	10	RAILROAD TRACK
243+29	-	243+34	STH 32	RT	-	-	10	RAILROAD TRACK
243+60	-	243+65	STH 32	RT	-	-	10	RAILROAD TRACK
246+49	-	246+54	STH 32	RT	-	-	-	END OF SIDEWALK SOUTH OF STH 32
241+78	-	246+87	STH 32	LT & RT	-	495	-	DRIVEWAYS
-			STH 32	RT	-	25	10	COMMERCE STREET
	246+70		STH 32	LT	-	25	20	INTER-URBAN TRAIL
PROJECT 4540-27-71 TOTALS					4725	545	70	

STORM SEWER SUMMARY

STRUCTURE NO.	STATION	LOCATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0210 REMOVING MANHOLES EACH	520.3524 CULVERT PIPE CLASS III-B 24-INCH LF	520.3530 CULVERT PIPE CLASS III-B 30-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.0530 MANHOLE COVERS TYPE J EACH	TOP OF STRUCTURE	EXIT FLOWLINE ELEVATION	DEPTH FEET	REMARKS
SSMH 512	244+45	STH 32	13' LT	-	1	-	-	-	-	1	1	687.96	680.51	7.45	
-	264+46	STH 32	-	1	-	72	-	2	-	-	-	-	-	-	72' LONG
-	277+60	STH 32	-	1	-	-	76	-	2	-	-	-	-	-	76' LONG
PROJECT 4540-27-71 TOTALS				2	1	72	76	2	2	1	1				

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

3

TOPSOIL, FERTILIZER, SEEDING, AND EROSION MAT

STATION	TO	STATION	LOCATION	OFFSET	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
241+78	-	243+50	STH 32	LT & RT	96	96	96	0.0602	1.7	2.6	1.1
243+75	-	246+87	STH 32	LT & RT	173	173	173	0.1092	3.1	4.7	1.9
PROJECT 4540-27-71 TOTALS					269	269	269	0.169	4.8	7.3	3.0

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	REMARKS
241+78	-	246+87	STH 32	1018	1018	
UNDISTRIBUTED			STH 32	500	500	
PROJECT 4540-27-71 TOTALS				1518	1518	

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL

STATION	LOCATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	REMARKS
241+50	STH 32	LT	-	1	-	INL6151
241+54	STH 32	LT	-	1	-	INL6150
241+54	STH 32	RT	-	1	-	INL6060
242+80	STH 32	RT	1	-	-	SAN MH 292
243+29	STH 32	LT	1	-	-	SSMH 516
243+85	STH 32	LT	1	-	1	SSMH 513
244+43	STH 32	LT	1	-	-	SSMH 512
246+42	STH 32	LT	1		-	SSMH 510
246+43?	STH 32	LT	-	1	-	INL509
246+36	STH 32	RT	-	1	-	INL511
246+84	STH 32	RT	1	-	-	MANHOLE - COMMERCE ST
248+58	STH 32	LT	-	1	-	INL506
248+58	STH 32	LT	1		-	SSMH 507
248+58	STH 32	RT	-	1	-	INL508
250+15	STH 32	LT	-	1	-	INL504A1
250+18	STH 32	RT	-	1	-	INL505A1
251+20	STH 32	LT	-	1	-	INL503
251+17	STH 32	RT	-	1	-	INL502
252+28	STH 32	RT	1		-	SAN MH 322
256+28	STH 32	RT	1	-	-	SAN MH 326
256+70	STH 32	LT	1	-	-	H2O MH 500
264+30	STH 32	RT	1	-	-	SAN MH 501
264+70	STH 32	RT	1	-	-	SAN MH 502
290+57	STH 32	MEDIAN	-	1	-	
290+57	STH 32	MEDIAN	-	2	-	
PROJECT 4540-27-71 TOTALS			12	14	1	

MOBILIZATIONS EROSION CONTROL

STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	REMARKS
UNDISTRIBUTED	STH 32	4	3	
PROJECT 4540-27-71 TOTALS		4	3	

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NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

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ADJUSTING MANHOLE AND INLET COVERS

CATEGORY	MANHOLE OR INLET	STATION	DISTANCE FT	OFFSET	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	520.8700 CLEANING CULVERT PIPES EACH	611.8110 ADJUSTING MANHOLE COVER EACH	611.8115 ADJUSTING INLET COVER EACH	690.0150 * SAWING ASPHALT LF	690.0250 * SAWING CONCRETE LF	SPV.0060.01 SALVAGING AND REINSTALLING INTERNAL CHIMNEY SEAL EACH	SPV.0060.03 INTERNAL CHIMNEY SEAL EACH	SPV.0060.06 INLET EXTENSION RING EACH	REMARKS
0020	SAN MH 292	242+80	7	RT	STH 32	-	-	1	-	-	-	1	-	-	WITHIN RECONSTRUCT LIMITS
0010	SS MH 516	243+28	13	LT	STH 32	-	-	1	-	-	-	-	-	-	WITHIN RECONSTRUCT LIMITS
0010	SS MH 513	243+80	38	LT	STH 32	-	-	1	-	-	-	-	-	-	-
0010	SS MH 512	244+43	14	LT	STH 32	-	-	-	-	-	-	-	-	-	WITHIN RECONSTRUCT LIMITS
0020	SAN MH 298	244+54	41	RT	STH 32	-	-	-	-	-	-	1	-	-	WITHIN GRASS
0010	SS MH510	246+42	14	LT	STH 32	-	-	1	1	-	-	-	-	-	WITHIN RECONSTRUCT LIMITS
0010	INL 511	246+35	22	RT	STH 32	-	-	-	1	-	-	-	-	-	WITHIN RECONSTRUCT LIMITS
0010	INL 509	246+44	22	LT	STH 32	-	-	-	1	-	-	-	-	-	WITHIN RECONSTRUCT LIMITS
0020	SAN MH 299	246+84	35	RT	STH 32	-	-	1	-	-	-	1	-	-	WITHIN RECONSTRUCT LIMITS
0010	INL 506	248+60	22	LT	STH 32	-	-	-	1	-	-	-	-	-	WITHIN RESURFACE LIMITS
0010	SS MH 507	248+60	14	LT	STH 32	-	-	1	-	-	-	-	-	-	WITHIN RESURFACE LIMITS
0010	INL 508	248+60	22	RT	STH 32	-	-	-	1	-	-	-	-	-	WITHIN RESURFACE LIMITS
0020	SAN MH 319	249+01	19	RT	STH 32	-	-	1	-	-	20	1	-	-	MH ADJACENT TO CURB
0020	SAN MH 322	252+29	19	RT	STH 32	-	-	1	-	-	20	-	1	-	MH ADJACENT TO CURB
0020	SAN MH 326	256+30	17	RT	STH 32	1	-	1	-	4	-	-	1	-	WITHIN GRAVEL AND ASPHALT SHOULDER
0020	H20 MH 500	256+70	17	LT	STH 32	2	-	-	-	6	-	-	-	-	WITHIN GRAVEL AND ASPHALT SHOULDER
0020	SAN MH 650	260+45	14	RT	STH 32	2	-	1	-	6	-	-	-	-	-
0020	SAN MH 501	264+30	17	RT	STH 32	2	-	1	-	6	-	-	1	-	WITHIN GRAVEL AND ASPHALT SHOULDER
0020	SAN MH 502	264+70	17	RT	STH 32	2	-	1	-	6	-	-	1	-	WITHIN GRAVEL AND ASPHALT SHOULDER
0010	INL 200	9+50	21	LT	STH 32	-	-	-	1	-	-	-	-	-	COMMERCE STREET
0010	INL 601	290+60	10	LT	STH 32	-	1	-	1	-	-	-	-	1	IN CURB AND GUTTER - MEDIAN
					0010 TOTALS	0	1	4	7	0	0	0	0	1	
					0020 TOTALS	9	0	8	0	28	40	4	4	0	

* - ADDITIONAL QUANTITIES ELSEWHERE

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 20 DAYS	643.0900 * SIGNS DAYS	643.0420 * BARRICADES TYPE III DAYS	643.0705 * WARNING LIGHTS TYPE A DAYS	643.1000 * SIGNS FIXED MESSAGE SF	643.1050 * SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	I-43/STH 32, PLACE 1.2 MILES PRIOR TO STH 32/CTH LL EXIT IN MEDIAN	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	W 20-2A	48"X48"	1	20	20								
2	I-43/STH 32, PLACE 1.2 MILES PRIOR TO STH 32/CTH LL EXIT RIGHT SIDE	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	W 20-2A	48"X48"	1	14	20								
3	I-43/STH 32, COVER EXISTING TYPE I ADVANCED SIGN AS SHOWN										1	1		COVER AS SHOWN
4	I-43/STH 32, PLACE 3/4 MILE PRIOR TO STH 32/CTH LL EXIT IN MEDIAN	MO 4-8	36"X18"	1	14	20								
	"	M 3-1	36"X18"	1	14	20								
	"	M 1-6	36"X36"	1	14	20								32
	"	MO 6-1	30"X30"	1	14	20								AHEAD
5	I-43/STH 32, PLACE 3/4 MILE PRIOR TO STH 32/CTH LL EXIT RIGHT SIDE	MO 4-8	36"X18"	1	14	20								
	"	M 3-1	36"X18"	1	14	20								
	"	M 1-6	36"X36"	1	14	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
6	I-43/STH 32, PLACE 1/2 MILE PRIOR TO STH 32/CTH LL EXIT RIGHT SIDE	FMS							66					SEE SIGN DETAIL
7	I-43/STH 32, PLACE IN MEDIAN ACROSS FROM TYPE I AT-GORE SIGN	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
8	I-43/STH 32, PLACE ADJACENT TO TYPE I AT-GORE SIGN	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								
	"	MO 6-1	30"X30"	1	20	20								
9	I-43/STH 32, COVER EXISTING TYPE I AT-GORE SIGN AS SHOWN										1	1		COVER AS SHOWN
10	I-43 OFF-RAMP TO STH 32/CTH LL, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "CEDAR GROVE"
11	I-43 OFF-RAMP TO STH 32/CTH LL, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "NORTH 32 LT"
12	I-43, MOUNT IMMEDIATELY AFTER STH 32 STRUCTURE	MO 4-8A	30"X24"	1	20	20								
	"	M 3-3	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
13	STH 32/CTH LL, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "CEDAR GROVE"
14	STH 32/CTH LL, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "NORTH 32 AH"
15	STH 32, W. OF CTH LL, COVER EXISTING D1-3 AS SHOWN										1		1	COVER "CEDAR GROVE"
16	STH 32, PLACE JUST W. OF CTH LL INTERSECTION ON SHOULDER	R 11-3	60"X30"	1	20	20	14	28						3/4 MILES
17	STH 32, W. OF CTH LL, COVER EXISTING J4-1 AS SHOWN										1		1	COVER "NORTH 32"
18	STH 32, AT CTH D INTERSECTION, COVER EXISTING TYPE II AS SHOWN										1		1	COVER "32 LT"
19	I-43, COVER EXISTING TYPE I AT-GORE SIGN AS SHOWN										1	1		COVER AS SHOWN
20	I-43, PLACE 1/4 MILE PRIOR TO NORTH STH 32/CTH LL EXIT	MO 4-8	36"X18"	1	20	20								
	"	M 3-3	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
21	I-43, MOUNT TO RIGHT OF EXISTING J4-2 REASSURANCE SIGN	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
	PAGE SUBTOTALS			34		680	14	28	66	0		3	7	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 20 DAYS	643.0900 * SIGNS DAYS	643.0420 * BARRICADES TYPE III DAYS	643.0705 * WARNING LIGHTS TYPE A DAYS	643.1000 * SIGNS FIXED MESSAGE SF	643.1050 * SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
22	I-43, COVER EXISTING TYPE I ADVANCED SIGN AS SHOWN										1	1		COVER AS SHOWN
23	I-43, PLACE 1/2 MILE PRIOR TO CTH AA EXIT RIGHT SIDE	FMS	120"X54"						45					SEE SIGN DETAIL
24	I-43, S. OF CTH AA, PLACE 1000' S. OF CTH AA OFF-RAMP IN MEDIAN	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
25	I-43, S. OF CTH AA, PLACE 1000' S. OF CTH AA OFF-RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
26	I-43, N. OF CTH AA, PLACE 1000' N. OF CTH AA OFF-RAMP IN MEDIAN	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
27	I-43, N. OF CTH AA, PLACE 1000' N. OF CTH AA OFF-RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 6-1	30"X30"	1	20	20								AHEAD
28	CTH AA, E. OF STH 32, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-1	21"X21"	1	20	20								RIGHT
29	STH 32, AT CTH AA, PLACE ON RIGHT SHOULDER IN SW QUADRANT OF INTERSECTION	R 11-3	60"X30"	1	20	20	20	40						3 3/4 MILES AHEAD
30	CTH A, W. OF STH 32, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-1	21"X21"	1	20	20								LEFT
31	STH 32, S. OF CTH AA, COVER EXISTING J4-1 SIGN AS SHOWN										1		1	COVER ENTIRE SIGN
32	I-43, S. OF CTH V, PLACE 1/4 MILE S. OF CTH V OFF-RAMP IN MEDIAN	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 5-2R	30"X30"	1	20	20								
33	I-43, S. OF CTH V, PLACE 1/4 MILE S. OF CTH V OFF-RAMP ON RIGHT SHOULDER	MO 4-8	36"X18"	1	20	20								
	"	M 3-1	36"X18"	1	20	20								
	"	M 1-6	36"X36"	1	20	20								32
	"	MO 5-2R	30"X30"	1	20	14								
34	I-43, S. OF CTH V, PLACE RIGHT OF EXISTING J4-1 SIGN	MO 4-8	36"X18"	1	20	14								
	"	M 3-3	36"X18"	1	20	14								
	"	M 1-6	36"X36"	1	20	14								32
35	I-43, S. OF CTH V, PLACE LEFT OF EXISTING TYPE I GROUND MOUNT SIGN	MO 4-8	36"X18"	1	20	14								
	"	M 3-1	36"X18"	1	20	14								
	"	M 1-6	36"X36"	1	20	14								32
	"	MO 6-2	30"X30"	1	20	14								TILT RIGHT
36	I-43 OFF-RAMP TO CTH V, PLACE 750' PRIOR TO CTH V RAMP INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-1	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 5-1L	21"X21"	1	20	14								
37	I-43 OFF-RAMP TO CTH V, PLACE LEFT OF EXISITNG R5-1 SIGN	MO 4-8	24"X12"	1	20	14								
	"	M 3-1	24"X12"	1	20	15								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								LEFT
	PAGE SUBTOTALS			42		745	20	40	45	0		1	1	

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PLAN SHEET PRODUCED

BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 20 DAYS	643.0900 * SIGNS DAYS	643.0420 * BARRICADES TYPE III DAYS	643.0705 * WARNING LIGHTS TYPE A DAYS	643.1000 * SIGNS FIXED MESSAGE SF	643.1050 * SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
38	CTH V, W. OF I-43, PLACE RIGHT OF EXISTING J3-1 SIGN W. OF I-43 SB RAMP	MO 4-8	24"X12"	1	20	14								
	"	M 3-3	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								RIGHT
39	CTH V, E. OF W. FRONTAGE RD, PLACE 150' PRIOR TO FRONTAGE RD INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-1	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								AHEAD
40	CTH V, W. OF W. FRONTAGE RD, PLACE 150' PRIOR TO FRONTAGE RD INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-3	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								
	"	MO 5-1R	21"X21"	1	20	14								
41	I-43, N. OF CTH V, PLACE 1000' N. OF CTH V OFF-RAMP ON RIGHT SHOULDER	FMS	120"X54"	1	20	14			45					SEE SIGN DETAIL SHEET
42	I-43, N. OF CTH V, PLACE 1000' N. OF CTH V OFF-RAMP IN MEDIAN	FMS	120"X54"	1	20	14			45					SEE SIGN DETAIL SHEET
43	CTH V, E. OF CTH A/CTH OO, PLACE 150' E. OF CTH A/CTH OO INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-1	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								AHEAD
44	CTH V, E. OF CTH A/CTH OO, PLACE 150' E. OF CTH A/CTH OO INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-3	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								AHEAD
45	CTH V, E. OF STH 32, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	20	14								
46	CTH V, E. OF STH 32, PLACE 150' E. OF STH 32 INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-3	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
47	CTH V, E. OF STH 32, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-1	21"X21"	1	20	14								RIGHT
48	STH 32, AT CTH V, PLACE ON RIGHT SHOULDER IN SW QUADRANT OF INTERSECTION	R 11-3	60"X30"	1	20	14	14	28						7 1/4 MILES AHEAD
	"	M 4-9L	30"X24"	1	20	14								
49	STH 32, S. OF CTH V, COVER EXISTING J4-1 SIGN AS SHOWN										1		1	COVER ENTIRE SIGN
50	CTH V, W. OF STH 32, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-6	21"X21"	1	20	14								
51	CTH V, W. OF STH 32, PLACE 750' W. OF STH 32 INTERSECTION	MO 4-8	24"X12"	1	20	13								
	"	M 3-3	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								AHEAD
52	CTH V, W. OF STH 32, PLACE 1500' W. OF STH 32 INTERSECTION	M 3-3	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	W 20-2A	48"X48"	1	20	14								
53	STH 32, N. OF CTH V, PLACE RIGHT OF EXISTING J3-1 SIGN	MO 4-8	24"X12"	1	20	14								
	"	M 3-1	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 6-1	21"X21"	1	20	14								LEFT
54	STH 32, N. OF CTH V, PLACE 750' N. OF CTH V INTERSECTION	MO 4-8	24"X12"	1	20	14								
	"	M 3-1	24"X12"	1	20	14								
	"	M 1-6	24"X24"	1	20	14								32
	"	MO 5-1L	21"X21"	1	20	14								
55	STH 32, N. OF CTH V, PLACE 1500' N. OF CTH V INTERSECTION	W 20-2A	48"X48"	1	20	14								
56	MAIN ST, S. OF STH 32, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION			1						7				PLACE IN ADVANCE OF CLOSURE
57	STH 32, N. OF CTH D, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION			1						7				PLACE IN ADVANCE OF CLOSURE
	PAGE SUBTOTALS			48		643	14	28	90	14		0	1	
	PROJECT TOTALS			**124**		**2,068**	**48**	**96**	**201**	**14**		**4**	**9**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 14 DAYS	643.0900 * SIGNS DAYS	643.0410 * BARRICADES TYPE II DAYS	643.0705 * WARNING LIGHTS TYPE A DAYS	643.1000 * SIGNS FIXED MESSAGE SF	REMARKS
	PEDESTRIAN/BICYCLE DETOUR									
1	STH 32, W. OF S COMMERCE ST, PLACE ON SIDEWALK	R 9-11	24"X12"	1	14	14	28	14		
2	S. COMMERCE ST, S. OF STH 32, PLACE 50' S. OF STH 32	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
3	S. COMMERCE ST, AT CEDAR AVE, PLACE 50' PRIOR TO CEDAR AVE	M 4-9BR MOD	24"X20"	1	14				3.33	RIGHT ARROW
4	CEDAR AVE, AT URBAN TRAIL CROSSING, PLACE PRIOR TO TRAIL CROSSING	M 4-9BR MOD	24"X20"	1	14				3.33	LEFT ARROW
5	URBAN TRAIL CROSSING, AT S MAIN ST, PLACE PRIOR TO S MAIN ST SIDEWALK	M 4-9BR MOD	24"X20"	1	14				3.33	RIGHT ARROW
6	S. MAIN ST, S. OF URBAN TRAIL CROSSING, PLACE 200' S. OF URBAN TRAIL	M 4-9BR MOD	24"X20"	1	14				3.33	
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
7	S. MAIN ST, S. OF URBAN TRAIL CROSSING, PLACE AT URBAN TRAIL IN NE QUADRANT	M 4-9BR MOD	24"X20"	1	14				3.33	RIGHT ARROW
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
8	S. MAIN ST, N. OF URBAN TRAIL CROSSING, PLACE 50' N. OF URBAN TRAIL	M 4-8A	24"X20"	1	14	14				
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
9	S. MAIN ST, S. OF ELM ST, PLACE 50' S. OF ELM ST	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
10	S. MAIN ST, S. OF CEDAR AVE, PLACE 50' S. OF CEDAR AVE	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
11	S. MAIN ST, S. OF PHOENIX AVE, PLACE 50' S. OF PHOENIX AVE	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
12	S. MAIN ST, S. OF CENTER AVE, PLACE 50' S. OF CENTER AVE	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
13	S. MAIN ST, N. OF VAN ALTENA AVE, PLACE 50' N. OF VAN ALTENA AVE	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
14	STH 32, AT S. MAIN ST INTERSECTION, PLACE ON NORTH SIDEWALK	R 9-9	24"X12"	1	14	14	28	14		
	"	M 4-9BR MOD	24"X20"	1	14				3.33	RIGHT ARROW
15	STH 32, AT S. MAIN ST INTERSECTION, PLACE ON SOUTH SIDEWALK	R 9-11A	24"X12"	1	14	14	28	14		
16	STH 32, N. OF UNION AVE, PLACE 50' N. OF UNION AVE	M 4-9BR MOD	24"X20"	1	14				3.33	AHEAD
	"	SP	24"X24"	1	14				4.00	URBAN REC TRAIL
	PED/BIKE DETOUR TOTALS			**26**		**56**	**84**	**42**	**79.29**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	634.0616 POSTS WOOD 4x6x16 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	STH 32, W. OF RR TRACKS	W3-1	---	1	---	---	1	REMOVE AND REINSTALL IN SAME LOCATION
2	"	R2-1	---	---	1	1	---	
3	STH 32, E. OF RR TRACKS	R2-1	---	1	---	---	1	REMOVE AND REINSTALL IN SAME LOCATION
4	"	J1-1	---	1	---	---	1	REMOVE AND REINSTALL IN SAME LOCATION
5	"	D11-1	---	1	---	---	1	REMOVE AND REINSTALL IN SAME LOCATION
	UNDISTRIBUTED		1	---	---	---	---	USE FOR DAMAGED POSTS IF NEEDED
	PROJECT TOTALS		**1**	**4**	**1**	**1**	**4**	

TRAFFIC CONTROL

STATION	TO	STATION	LOCATION	APPROXIMATE SERVICE PERIOD DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAYS	643.0420 * BARRICADES TYPE III NO. IN SERVICE	643.0420 * BARRICADES TYPE III DAYS	643.0705 * WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 * WARNING LIGHTS TYPE A DAYS	643.0710 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0710 WARNING LIGHTS TYPE C DAYS	643.0900 * SIGNS NO. IN SERVICE	643.0900 * SIGNS DAYS	643.1050 * SIGNS PORTABLE CHANGEABLE MESSAGE ** NO. IN SERVICE	643.1050 * SIGNS PORTABLE CHANGEABLE MESSAGE ** DAYS	REMARKS
241+78	-	-	STH 32	20	10	200	4	80	4	80	8	160	4	80	2	20	BEGIN PROJECT - RECONSTRUCTION MAIN STREET
-	-	246+87	STH 32	20	10	200	4	80	4	80	8	160	4	80	2	20	END RECONSTRUCTION STH 32 - JUST WEST OF COMMERCE ST
246+87	-	294+70	STH 32	20	10	200	5	100	5	100	10	200	5	100	2	14	STH 32 - JUST WEST OF SAUK TRAIL ROAD
9+00	-	9+50	COMMERCE STREET	20	10	200	5	100	5	100	10	200	5	100	-	-	BARRICADES W/ROAD CLOSED TO THRU TRAFFIC SIGN
18+50	-	19+00	CTH LL	20	10	200	5	100	5	100	10	200	5	100	-	-	BARRICADES W/ROAD CLOSED TO THRU TRAFFIC SIGN
31+00	-	31+50	SAUK TRAIL ROAD	20	10	200	5	100	5	100	10	200	5	100	-	-	BARRICADES W/ROAD CLOSED TO THRU TRAFFIC SIGN
-	-	294+70	END PROJECT	20	10	200	5	100	5	100	10	200	5	100	-	-	
			PROJECT 4540-27-71 TOTALS		1400		660		660		1320		660		54		

** PCMS TO BE IN PLACE FOR 10 DAYS PRIOR TO CLOSING STH 32 AT THE RAILROAD CROSSING

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

MARKING ITEMS

STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1555 LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH WHITE DASHED LF	646.1545 MARKING LINE GROOVED WET CONTRAST EPOXY 4-INCH WHITE LF	646.3545 MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH WHITE LF	646.5320 RAILROAD CROSSING EPOXY EACH	646.8120 CURB EPOXY LF	648.0100 LOCATING NO-PASSING ZONES MI	REMARKS
241+78	-	246+87	STH 32	-	653	127	509	509	2	6	1.02	AT FIRE HYDRANT (YELLOW PM)
246+33	-	246+72	STH 32	-					-	39	-	RADIUS
246+87	-	254+59	STH 32	-	772	193	772	772	-	6	-	AT FIRE HYDRANT
254+59	-	284+50	STH 32	5,982	2,991	748	2,991	2,991	-	6	-	AT FIRE HYDRANT
284+50	-	294+70	STH 32	2,040	1,020	255	1,020	1,020	-	-	-	HAS MEDIAN SECTION
285+00	-	288+50	STH 32	700	350	88	350	350	-	6	-	AT MEDIAN
288+50	-	290+82	STH 32	464	232	58	232	232	-	6	-	AT MEDIAN
290+82	-	294+70	STH 32	776	388	97	388	388	-	6	-	AT MEDIAN
-	-	-	SAUK TRAIL ROAD	100	50	-	-	-	-	-	-	
-	-	-	CTH LL	100	50	-	-	-	-	-	-	
			SUBTOTALS	10,162	6,506	-	-	-	-	-	-	
			TOTALS	16,668		1,566	6,262	6,262	2	75	1.02	

TEMPORARY MARKING

STATION	TO	STATION	LOCATION	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	REMARKS
254+59	-	261+00	STH 32	51	BETWEEN LIFTS
261+00	-	264+05	STH 32	24	BETWEEN LIFTS
264+05		281+50	STH 32	140	BETWEEN LIFTS
281+50	-	294+70	STH 32	106	BETWEEN LIFTS
			PROJECT 4540-27-71 TOTAL	321	

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

3

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
241+78	-	246+87	STH 32	1	509	509	999	-	-	2	1	1018	RECONSTRUCT SECTION
246+87	-	294+70	STH 32	-	-	-	-	2	4783	-	-	-	RESURFACE SECTION
PROJECT 4540-27-71 TOTALS				1	509	509	999	2	4,783	2	1	1018	

ADJUSTING WATER VALVES AND FIRE HYDRANT

CATEGORY	WATER VALVE OR MANHOLE NUMBER	LOCATION	STATION	OFFSET	390.0303 BASE PATCHING CONCRETE SY	SPV.0060.02 ADJUSTING WATER VALVE BOXES EACH	SPV.0060.04 ADJUSTING FIRE HYDRANT EACH	690.0250 * SAWING CONCRETE LF	REMARKS
0020	WV 294	STH 32	243+21	LT	-	1	-	8	
0020	WV 296	STH 32	244+40	LT	-	1	-	8	
0020	WV 301	STH 32	246+70	LT	-	1	-	8	
0020	WV 307	STH 32	246+74	RT	-	1	-	8	
0020	WV 304	STH 32	246+80	LT	-	1	-	8	
0020	WV 315	STH 32	249+05	LT	2	1	-	8	
0020	FH 100	STH 32	244+40	LT	-	-	1	-	
PROJECT 4540-27-71 TOTALS					2	6	1	48	

NOTE: ALL ITEMS ON THIS SHEET ARE PROJECT 4540-27-71 CATEGORY 0010 UNLESS OTHERWISE NOTED

TRANSPORTATION PROJECT PLAT NO: 4540-27-21-4.01 AMENDMENT NO. 1

AMENDS PARCEL 2 OF TRANSPORTATION PROJECT PLAT 4540-27-21-4.01, RECORDED AS DOCUMENT NO. 2043473, FILED IN VOLUME 1 PAGE 171.

BEING PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 24 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 25, T13N-R22E, VILLAGE OF CEDAR GROVE, SHEBOYGAN COUNTY, WISCONSIN.

RELOCATION ORDER STH 32 SHEBOYGAN COUNTY

PORT WASHINGTON - CEDAR GROVE

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTIONS 84.02 (3), 84.09 and 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

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

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

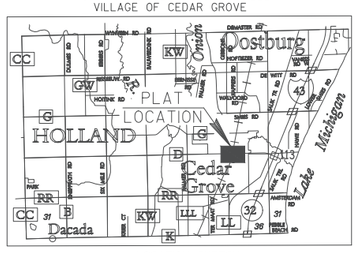
ACRES	AC	CORPORATE LIMITS
CHORD BEARING	CH BRG	EXISTING R/W
CHORD DISTANCE	CH DIS	SECTION LINE
DEED	(D)	QUARTER LINE
DOCUMENT	DOC	SIXTEENTH LINE
EAST BOUND	EB	PROPOSED OR NEW R/W LINE
GAS VALVE	GV	PROPOSED EASEMENT LINE
INLET	IL	PROPERTY LINE
MANHOLE	MH	COMMUNICATION LINE
MONUMENT	MON	BURIED GAS LINE
NORTH BOUND	NB	OVERHEAD ELECTRIC LINE
PAGE	PG	BURIED ELECTRIC LINE
PRIVATE DRIVEWAY	PD	LOT, TIE AND OTHER MINOR DASHED LINES
PROPERTY LINE	PL	
RADIUS	RAD	
REFERENCE LINE	RL	ACCESS RESTRICTED (By Acquisition)
REMAINING	REM	
RIGHT OF WAY	R/W	NO ACCESS (By Statutory Authority)
SECTION	SEC	
SECTION LINE	℄	ACCESS RESTRICTED (By Previous Project/Control)
FOUND IRON PIPE	IP	
STATION	STA	LIMITED EASEMENT (Temporary or Permanent)
TIE POINT	DB1	
VOLUME	VOL	
FEE ACQUISITION	VARIABLE HATCHING	HIGHWAY EASEMENT
ADJOINING LANDS WITH SAME OWNER		PARCEL NUMBER
BUILDING TO BE RAZED		UTILITY NUMBER
PROPOSED R/W BOUNDARY POINT	PRW	SECTION CORNER
TEMPORARY LIMITED EASEMENT	TLE	SET R/W MONUMENT W/CAP (1"x 24"IRON PIPE, 1.13 LBS/FT)
PERMANENT LIMITED EASEMENT	PLE	
HIGHWAY EASEMENT	HE	

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	■	⊡
TELEPHONE POLE	●	○
SIGN	▶	▷
TELEPHONE PEDESTAL	✖	⌑

SCALE, FEET

0 50 100

SECTION 24, 25 T13N - R22E
VILLAGE OF CEDAR GROVE



LOCATION SKETCH
(NOT TO SCALE)

STATION/OFFSET TABLE
FROM STH 32 REFERENCE LINE

POINT	STATION	OFFSET	NORTHING	EASTING
DB1	238+24.77	0.00'	111461.673	190382.482
DB2	239+80.13	0.00'	111462.650	190537.838
DB3	241+11.64	0.00'	111458.737	190669.295
TLE11	241+73.29	-39.36'	111497.623	190731.238
TLE10	241+73.38	-29.51'	111487.782	190731.256
TLE32	241+73.55	30.49'	111427.779	190730.965
TLE33	241+73.62	40.18'	111418.091	190730.965
TLE34	241+97.13	40.00'	111418.091	190754.471
TLE35	241+97.25	56.71'	111401.377	190754.471
TLE13	242+08.57	-54.09'	111512.085	190766.626
TLE12	242+08.68	-39.37'	111497.363	190766.626
TLE14	242+38.45	-53.98'	111511.753	190796.508
TLE15	242+38.53	-39.37'	111497.143	190796.481
DB4	242+42.29	0.00'	111457.743	190799.941
TLE36	242+55.77	56.46'	111401.243	190813.239
TLE37	242+56.05	41.37'	111416.336	190813.573
TLE16	242+75.82	-39.23'	111496.871	190833.591
TLE17	242+85.88	-50.74'	111508.345	190843.688
TLE38	242+95.08	41.58'	111416.002	190852.597
HE48	242+96.25	36.72'	111420.861	190853.783
DB53	242+97.71	30.67'	111426.902	190855.258
PRW44	242+98.82	-29.33'	111486.898	190856.561
TLE18	243+18.04	-50.92'	111508.428	190875.846
TLE19	243+18.53	-57.83'	111515.335	190876.351
DB55	243+21.81	1.19'	111456.310	190879.452
DB51	243+29.19	-29.31'	111486.784	190886.931
PRW45	243+32.52	-43.07'	111500.530	190890.299
HE46	243+42.86	-85.86'	111543.288	190900.775
TLE20	243+45.21	-95.58'	111553.002	190903.154
TLE39	243+71.62	57.98'	111399.362	190929.092
HE49	243+71.65	52.87'	111404.471	190929.129
HE50	243+95.36	48.00'	111409.274	190952.862
DB52	243+97.08	-29.26'	111486.530	190954.821
TLE40	243+99.07	52.34'	111404.919	190956.550
DB54	243+99.54	30.74'	111426.521	190957.088
TLE22	244+01.31	-46.76'	111504.012	190959.102
HE47	244+07.02	-70.36'	111527.593	190964.882
TLE21	244+09.37	-80.08'	111537.306	190967.260
TLE41	244+56.30	55.10'	111401.983	191013.773
TLE42	245+01.58	50.75'	111406.189	191059.069
TLE23	245+26.24	-42.01'	111498.879	191084.016
TLE25	245+40.23	-76.51'	111533.333	191098.110
TLE24	245+40.33	-42.02'	111498.844	191098.110
TLE26	245+83.23	-76.88'	111533.567	191141.115
TLE27	245+83.38	-56.79'	111513.476	191141.199
TLE29	246+02.59	-34.13'	111490.760	191160.345
TLE28	246+03.05	-56.85'	111513.476	191160.875
TLE56	246+42.17	-42.47'	111498.977	191199.950
TLE57	246+42.17	-34.10'	111490.612	191199.919
TLE43	246+57.77	48.16'	111408.303	191215.268
TLE30	246+63.96	-42.09'	111498.533	191221.734
TLE31	246+63.98	-34.09'	111490.530	191221.734
DB5	247+82.16	0.00'	111456.075	191339.809

COURSE TABLE
NEW RIGHT OF WAY/HIGHWAY EASEMENT

POINT	TO	POINT	BEARING	DISTANCE
SEC8		DB55	S 89°47'07" E	523.33'
DB55		DB51	N 13°47'23" E	31.38'
DB51		PRW44	N 89°47'07" W	30.37'
PRW44		PRW45	N 67°59'51" E	36.39'
PRW45		HE46	N 13°46'00" E	44.02'
HE46		HE47	S 76°14'33" E	66.00'
HE47		DB52	S 13°46'01" W	42.28'
DB52		DB54	S 02°09'49" E	60.05'
DB54		HE50	S 13°46'00" W	17.76'
HE50		HE49	S 78°33'35" W	24.21'
HE49		HE48	N 77°43'39" W	77.11'
HE48		DB53	N 13°43'18" E	6.22'
DB53		DB55	N 39°26'37" E	38.08'
DB55		SEC9	S 89°47'07" E	2108.57'
SEC9		SEC8	N 89°47'07" W	2631.90'

COURSE TABLE
STH 32 REFERENCE LINE

POINT	TO	POINT	BEARING	DISTANCE
SEC8		DB1	N 82°38'34" E	26.57'
DB1		DB2	N 89°38'22" E	155.36'
DB2		DB3	S 88°17'42" E	131.51'
DB3		DB4	S 89°33'50" E	130.65'
DB4		DB5	S 89°49'23" E	539.87'
DB5		SEC9	S 89°44'01" E	1648.22'
SEC9		SEC8	N 89°47'07" W	2631.90'

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

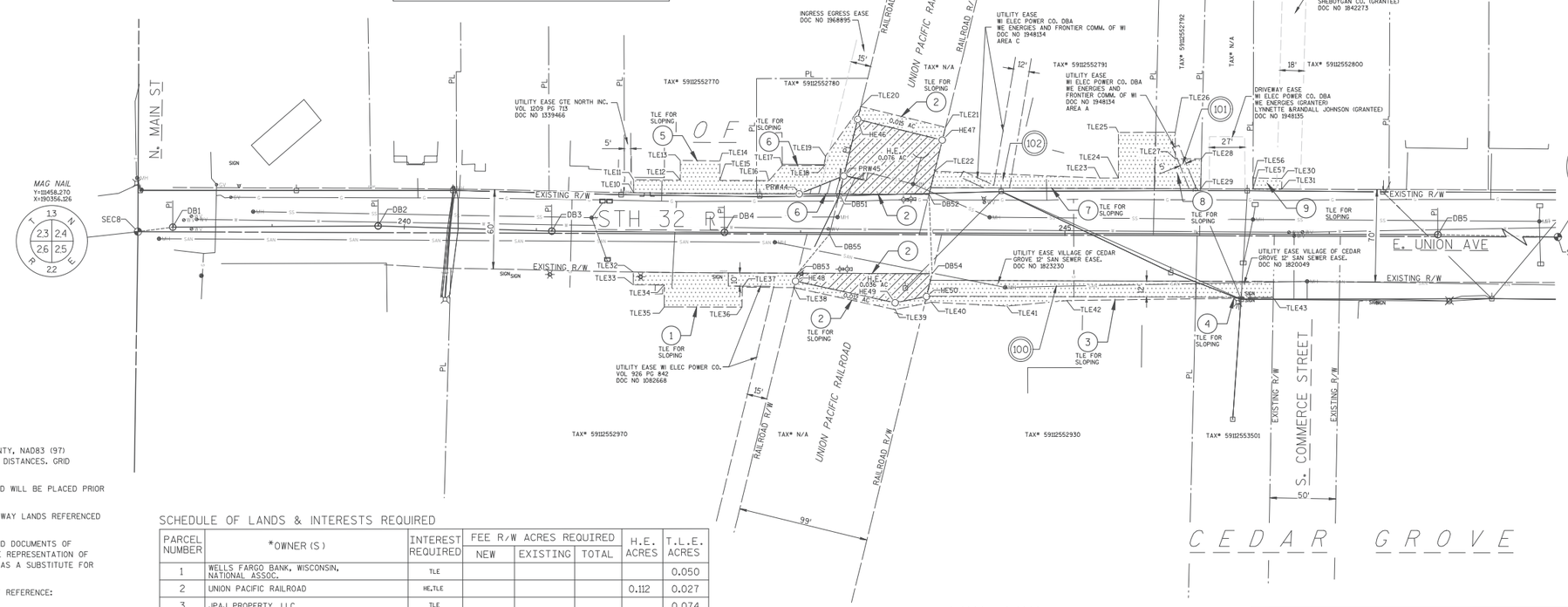
UTILITY NUMBER	*OWNER	INTEREST REQUIRED
100	VILLAGE OF CEDAR GROVE (SANITARY SEWER)	RELEASE OF RIGHTS
101	WISCONSIN ELECTRIC POWER COMPANY (ELECTRICITY)	RELEASE OF RIGHTS
102	FRONTIER NORTH INC.	RELEASE OF RIGHTS

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

2064513
SHEBOYGAN COUNTY WI
RECORDED ON
10/29/2018 03:52 PM
ELLEN R. SCHLEICHER
REGISTER OF DEEDS
PLAT FEE: 25.00
Cashier ID: J
Vol.: 1 Page(s): 195

Ellen R. Schleicher

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4540-27-21-4.01
AMENDMENT NO: 1



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER (S)	INTEREST REQUIRED	FEE R/W ACRES REQUIRED NEW	EXISTING	TOTAL	H.E. ACRES	T.L.E. ACRES
1	WELLS FARGO BANK, WISCONSIN, NATIONAL ASSOC.	TLE					0.050
2	UNION PACIFIC RAILROAD	HE,TLE				0.112	0.027
3	JPAJ PROPERTY, LLC	TLE					0.074
4	WI ELEC POWER CO	TLE					0.017
5	LARRY & BARBARA KLUTGEN	TLE					0.031
6	WARREN HEINEN	FEE,TLE	0.005		0.005		0.034
7	LYNNETTE & RANDALL JOHNSON	TLE					0.059
8	VILLAGE OF CEDAR GROVE	TLE					0.025
9	NANCY OTTE	TLE					0.004

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD83 (97) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 32 ESTABLISHED UNDER PROJECT 4225 1 22.

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

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

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

A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

WISCONSIN DEPARTMENT OF TRANSPORTATION

I, JEFFREY T. BOHRTZ, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN JEFFREY T. BOHRTZ S-2223 Green Bay, WI LAND SURVEYOR

SIGNATURE Jeffrey T. Bohrtz DATE 10/23/2018

NAME JEFFREY T. BOHRTZ, PLS-2223

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHEAST REGION.

SIGNATURE Curt Van Erem DATE 10/23/2018

NAME CURT VAN EREM

N:\pdoc3\dt\4540270D\RW\Plat\Sheet 4.01_amd1.dwg, 10/23/2018 1:33:11 PM, WisDOT PDF.pc3

MATCH EXISTING STH 32
BEGIN PROJECT
STA 241+78
SAWING CONCRETE &
REMOVING CONCRETE
BUTT JOINT REQUIRED

WETLANDS

SLOPE INTERCEPT

TLE

EXISTING R/W

UNION PACIFIC RAILROAD

HE

TLE

EXISTING R/W

WETLANDS

TEMPORARY ACCESS

BM602

BM700

RRW

STH 32

241+00 242+00 243+00 244+00 245+00 246+00

CONCRETE SIDEWALK

R/L STH 32

R/L STH 32

81.25'

BM701

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
701	241+10	CHISELED SQUARE LOCATED ON THE WEST LIGHT POLE BASE IN FRONT OF THE BANK	689.10
700	244+38	CHISELED "X" ON FIRE HYDRANT BOLT WITH ARROW POINTING TO IT. LOCATED IN FRONT OF SHEAR IMAGINATION	690.07
602	246+38	RR SPIKE IN PPOL 76 2952 LOCATED ON THE EAST SIDE OF THE ENTRANCE TO SHEAR IMAGINATION AND THE WEST SIDE OF THE TRAIL	682.95

TLE

HE

TLE

TLE

EXISTING R/W

RAILROAD CROSSING TO BE REPLACED BY THE RAILROAD

EXISTING R/W

SLOPE INTERCEPT

CURB RAMP MODIFIED TYPE 2

RECONSTRUCT LIMITS

LEGEND

HE - HIGHWAY EASEMENT
TLE - PROPOSED TEMPORARY LIMITED EASEMENT

5

5

696 694 692 690 688 686 684 682 680

EXISTING GROUND

FINISHED PROFILE GRADE

STA 241+77.99
EL 686.36

VCL = 85.00
K = 63.52

VPC STA 242+70.99
VPC EL 688.33

VPI STA 243+09.99
VPI EL 689.42

VPT STA 243+49.00
VPT EL 689.54

STA 243+58.72
EL 689.55

STA 243+61.22
EL 689.55

VPI STA 244+09.99
VPI EL 689.25

VPT STA 244+58.49
VPT EL 687.50

VCL = 60.00
K = 98.18

STA 245+49.99
EL 684.50

1.47%

2.80%

0.00%

0.32%

0.62%

-3.61%

-3.00%

-3.07%

STA 243+51.11
EL 689.55

STA 243+53.61
EL 689.55

VPC STA 243+61.49
VPC EL 689.55

VPC STA 241+83.49
VPC EL 686.44

VPI STA 242+25.99
VPI EL 687.06

VPT STA 242+68.49
VPT EL 688.26

VCL = 78.00
K = 31.34

VCL = 97.00
K = 32.38

VPC STA 244+69.99
VPC EL 687.08

VPI STA 244+99.99
VPI EL 686.00

VPT STA 245+29.99
VPT EL 685.10

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

240+50 241+00 241+50 242+00 242+50 243+00 243+50 244+00 244+50 245+00 245+50 246+00 246+50

687.08 686.53 686.23 686.03 686.18 686.32 686.47 686.70 686.90 687.19 687.48 687.76 688.10 688.44 688.72 689.01 689.08 689.38 689.52 689.55 689.21 689.44 688.59 689.08 687.93 688.53 687.20 687.79 686.44 686.90 685.68 686.05 684.93 685.25 684.17 684.50 683.43 683.73 682.69 682.97 681.97 682.20 681.27 681.43

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN & PROFILE: STH 32	SHEET 48	E

CP-501

INTER-URBAN TRAIL

CURB RAMP
MODIFIED TYPE 2

EXISTING
BOX CULVERT
NO WORK REQUIRED

EXIST R/W

247+00 248+00 249+00 250+00 251+00 252+00

RB RAMP
TYPE 2

END OF RECONSTRUCT
LIMITS
STA 246+87
BEGIN RESURFACE

BUTT JOINT REQUIRED

EXIST R/W

BASE PATCHING
CONCRETE

FINISHED PROFILE
GRADE

STA 246+56.00
EL 681.25

END RECONSTRUCT
BEGIN RESURFACE

-2.42% -3.00%

EXISTING
GROUND

690 680 674

246 247 248 249 250 251 252

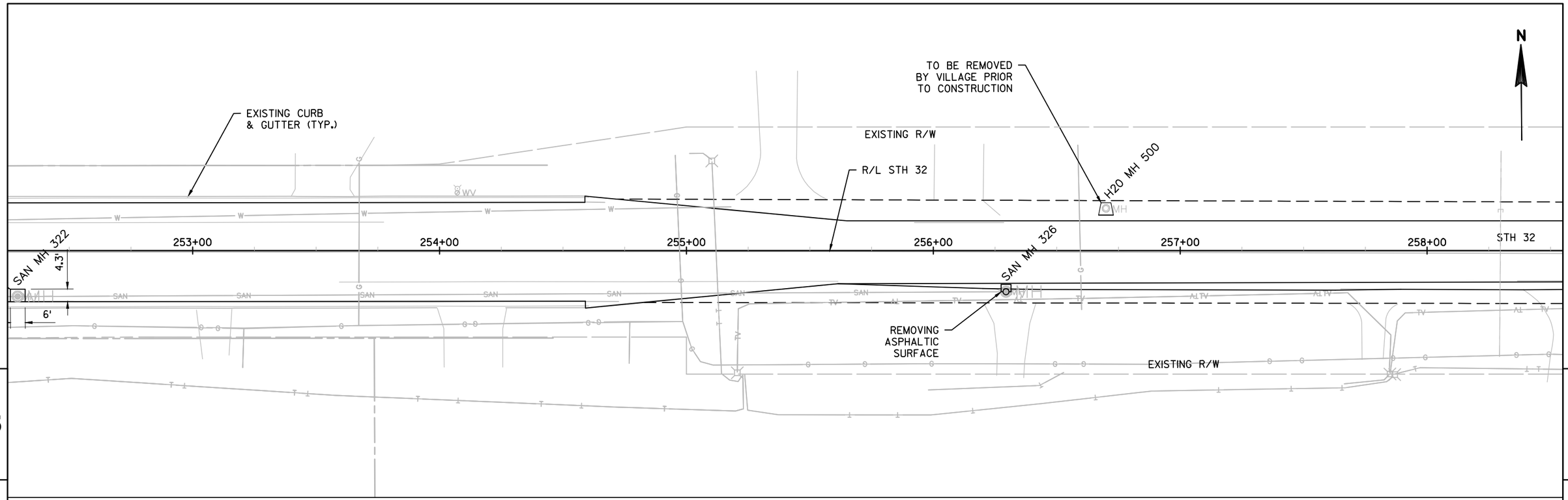
681.89 681.43

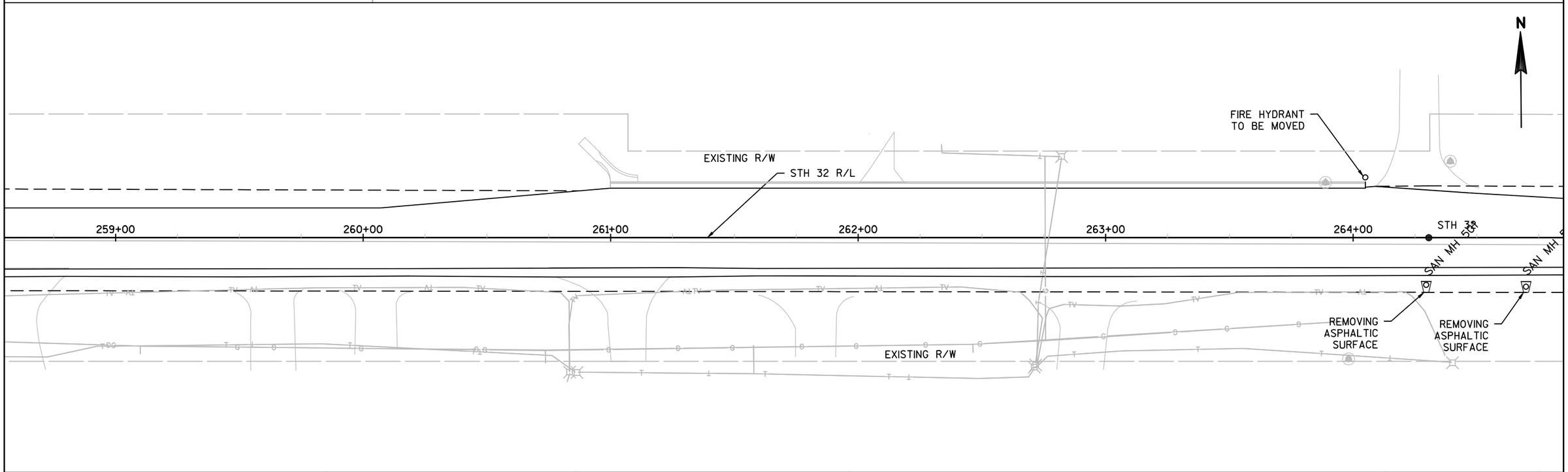
PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN AND PROFILE: STH 32	SHEET 49	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\050101_PP3.DWG
LAYOUT NAME - 08

PLOT DATE : 5/6/2019 11:11 AM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

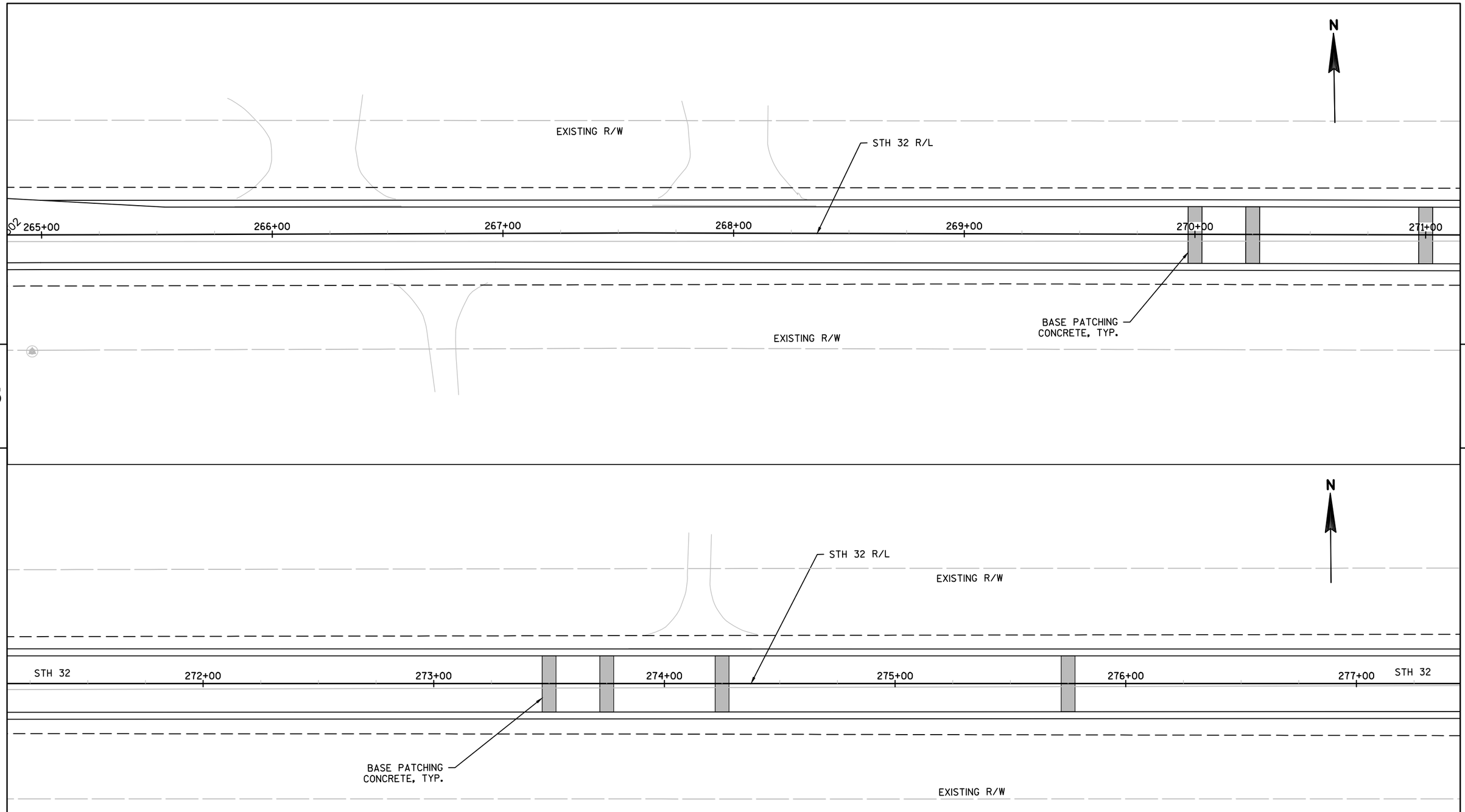




PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN: STH 32	SHEET 50	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\050101_SPLIT_PLAN_ALIGNMENT.DWG
LAYOUT NAME - 05020

PLOT DATE : 4/10/2019 11:25 AM PLOT BY : NELSON, PATTI M PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT



PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN: STH 32	SHEET	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\050101_SPLIT_PLAN_ALIGNMENT.DWG
LAYOUT NAME - 05020 (2)

PLOT DATE : 4/10/2019 11:24 AM PLOT BY : NELSON, PATTI M PLOT NAME : ---------- PLOT SCALE : 1 IN:40 FT

PI STA = 281+04.68
N = 580,636.382
E = 2,581,915.422
DELTA = 179°-41'-52"
D = 0°-20'
T = 45.32'
L = 90.64'
R = 17,188.73'
PC STA = 280+59.36
PT STA = 281+50.00 BK=
STA 282+00 AH.

STA AHEAD = 282+00.00
STA BACK = 281+50.00
EQUATION

N

EXISTING R/W

278+00
279+00
STH 32
280+00
281+00
282+00
283+00
284+00

STH 32 R/L

BASE PATCHING
CONCRETE, TYP.

EXISTING R/W

5

5

PI STA = 287+92.81
Y = 580,652.185
X = 2,582,553.294
DELTA = 203°-30'-45"
D = 3°-00'
T = 400.08'
L = 788.75'
R = 1,909.86'
PC STA = 283+92.73
PT STA = 291+81.48
SE = 5.3%

N

STH 32 R/L

EXISTING R/W

285+00
286+00
287+00
288+00
289+00
290+00

STH 32 WB

STH 32 EB

EXISTING R/W

0+00.00 MATCH LINE

0+00.00 MATCH LINE

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN: STH 32	SHEET 52	E

MATCH EXISTING SAUK TRAIL ROAD
STA 482+02.7
SAWING ASPHALT & REMOVING
ASPHALTIC SURFACE BUTT JOINT REQ'D

N

SAULK TRAIL ROAD

482+00

STA 291+32.40 STH 32
STA 480+79.96 CTH LL

IH 43 SB OFF-RAMP

END PROJECT
STA 294+70
SAWING ASPHALT & REMOVING
PAVEMENT BUTT JOINT REQ'D

5

5

INLET 6.01

481+00

STH 32 WB

291+00

292+00

293+00

294+00

295+00

296+00

2 EB

STH 32 EB

480+00

CTH LL

IH 43 SB ON-RAMP

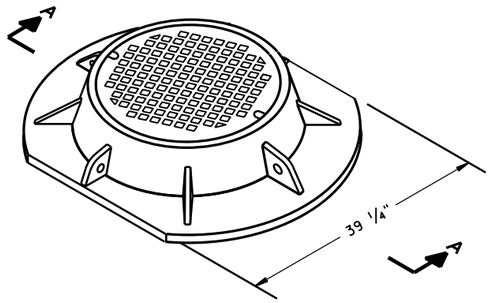
MATCH EXISTING CTH LL
STA 479+58.2
SAWING ASPHALT & REMOVING
ASPHALTIC SURFACE BUTT JOINT REQ'D

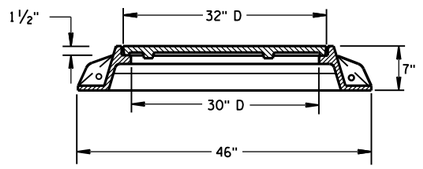
479+00

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	PLAN: STH 32	SHEET 53	E

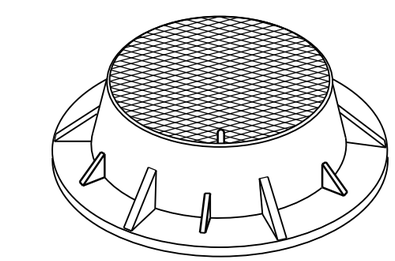
Standard Detail Drawing List

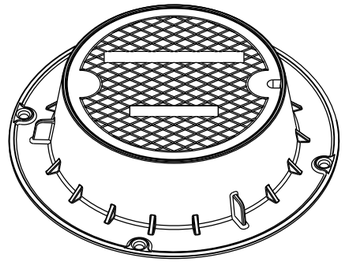
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C19-02	HMA LONGITUDINAL JOINTS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

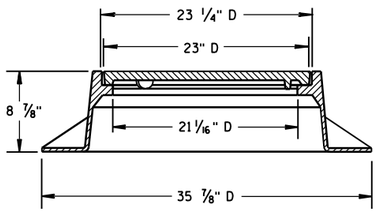


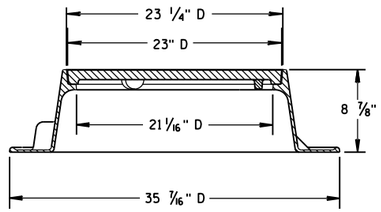


SECTION A-A
TYPE "K"









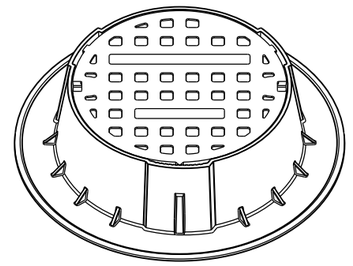
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

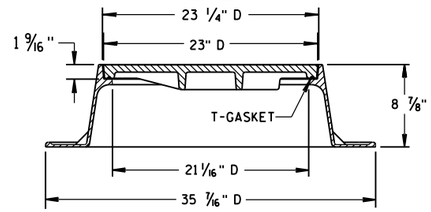
GENERAL NOTES

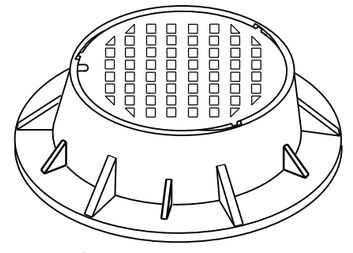
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

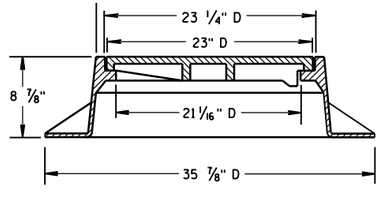
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

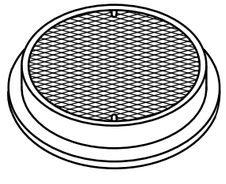


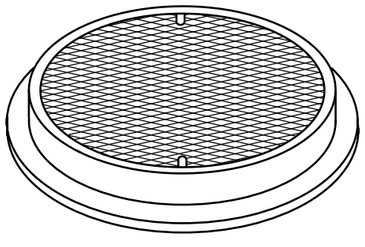


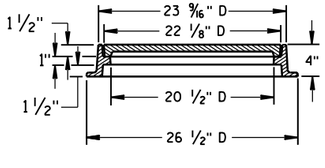




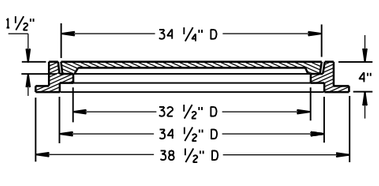
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



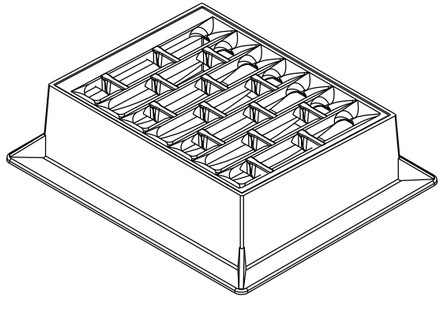


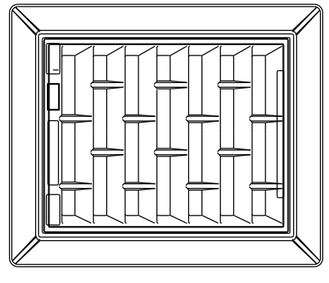


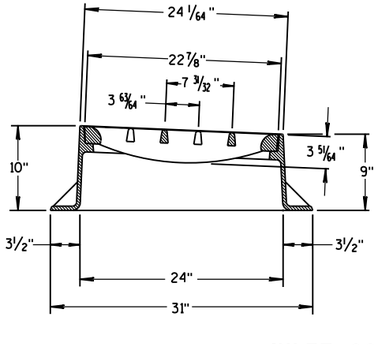
TYPE "L"

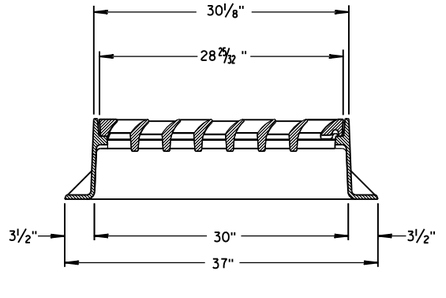


TYPE "M"









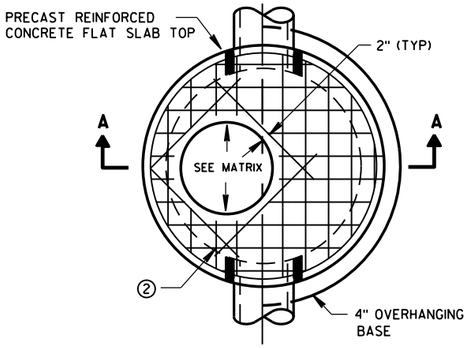
INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

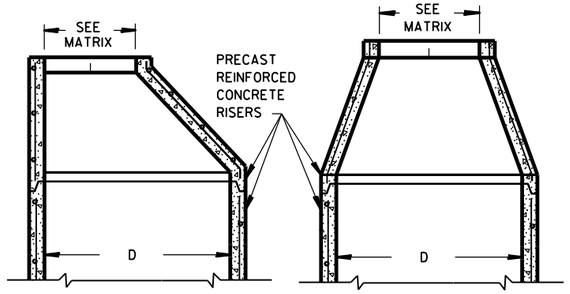
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 A 5-19d

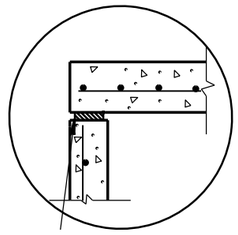


PLAN VIEW CIRCULAR OPENING

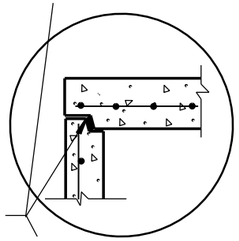


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

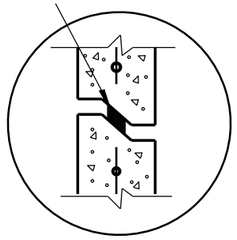


TOP WITH PLAIN END JOINT



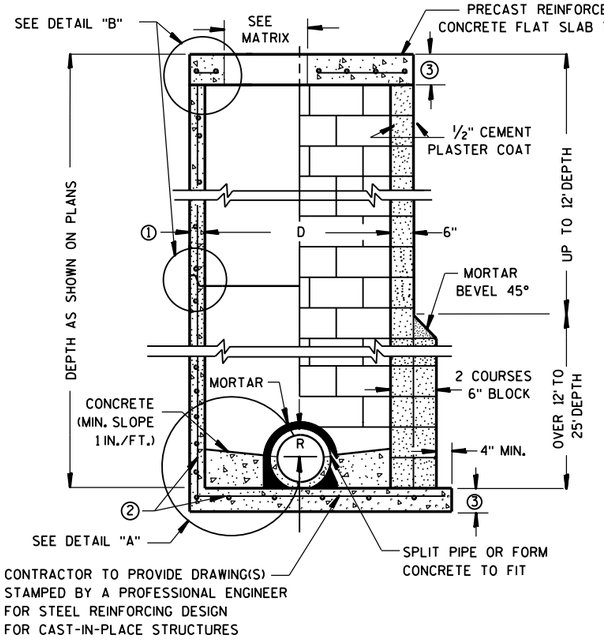
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



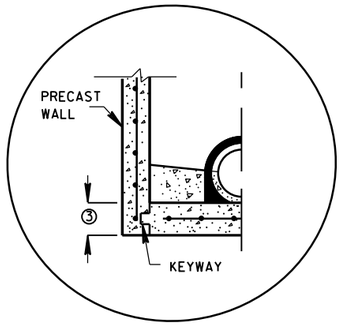
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

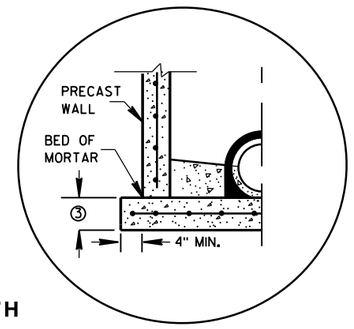


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

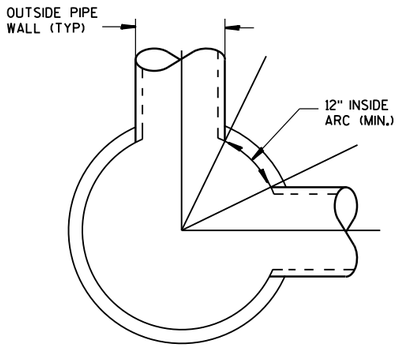


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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DEPARTMENT OF TRANSPORTATION

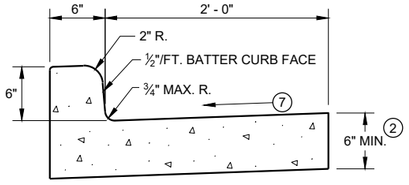
APPROVED

Sept., 2016
DATE

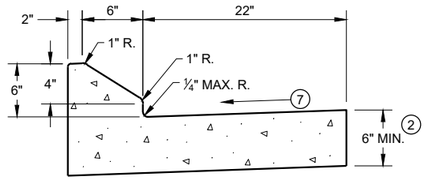
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

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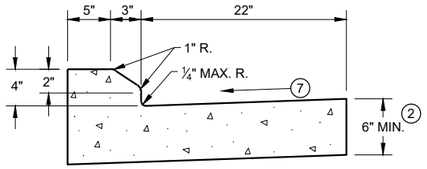
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER



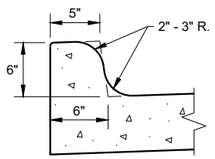
TYPES A[1] & D



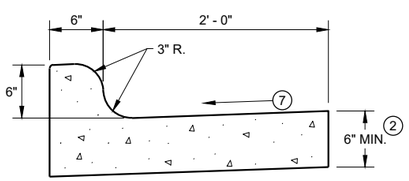
6" SLOPED CURB TYPES G[1] & J



4" SLOPED CURB TYPES G[1] & J

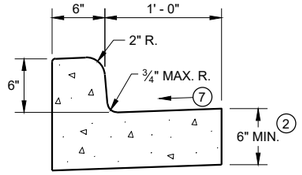


TYPES K[1] & L
(OPTIONAL CURB SHAPE)



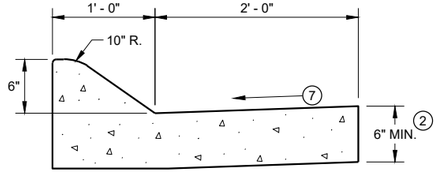
TYPES K[1] & L

CONCRETE CURB AND GUTTER 30"

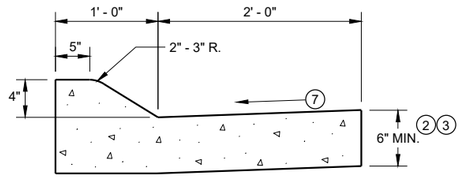


TYPES A[1] & D

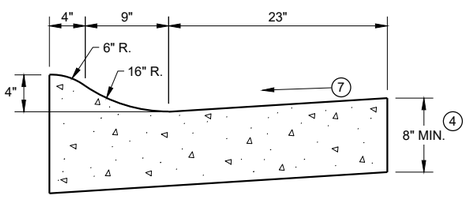
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A[1] & D



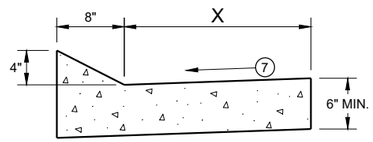
4" SLOPED CURB TYPES A[1] & D



4" SLOPED CURB TYPES R[1] & T[5]

CONCRETE CURB AND GUTTER 36"

TBT & TBTT	X
30"	22"
36"	28"

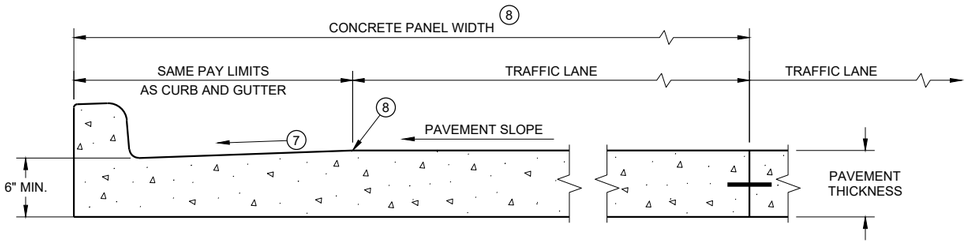


TYPES TBT & TBTT[1]

CONCRETE CURB AND GUTTER

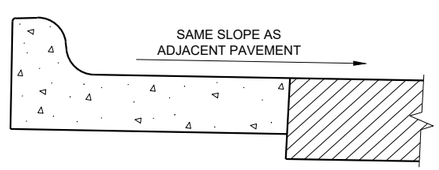
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER[6]
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

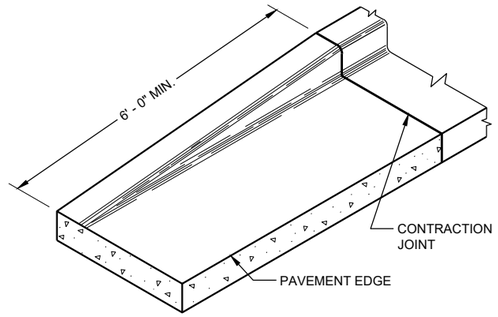
1. TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
3. USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
4. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
5. THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
6. WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
7. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
8. INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

CONCRETE CURB AND GUTTER

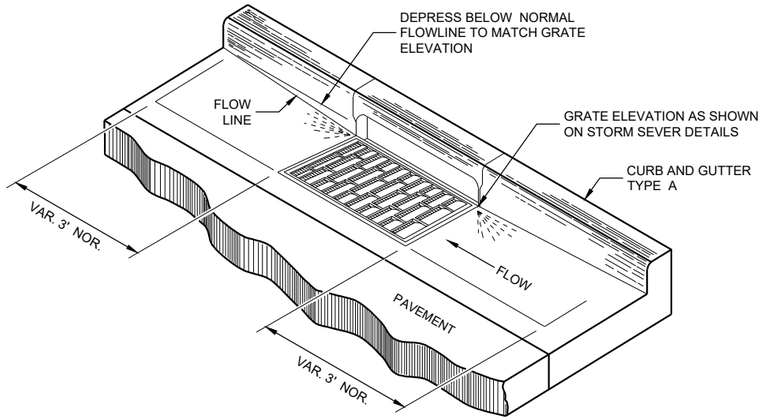
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D01 - 21a
SDD 08D01 - 21a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

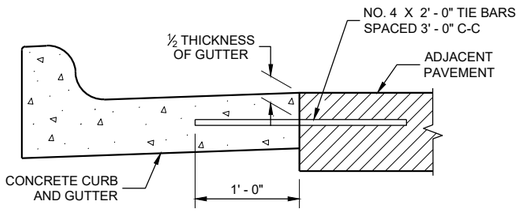
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

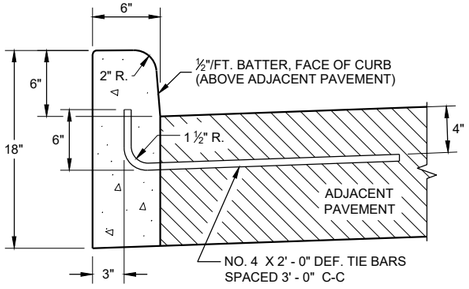
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

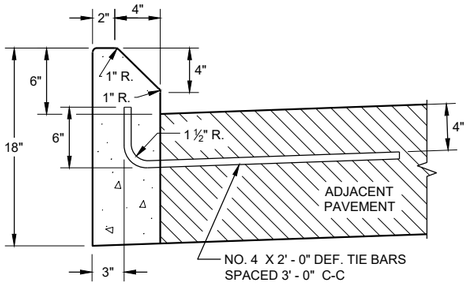
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

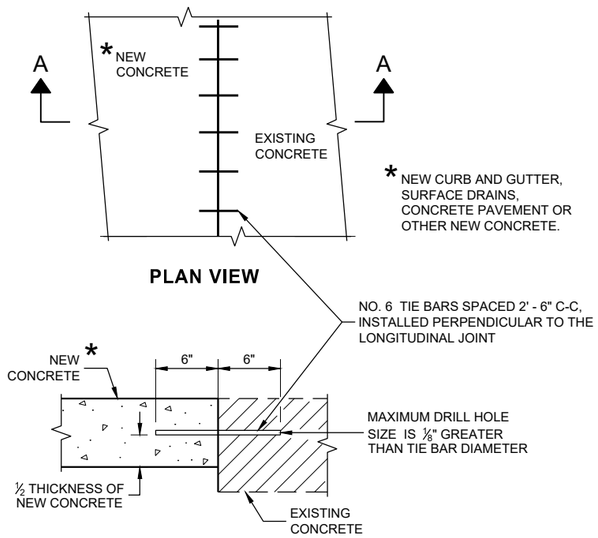


TYPES A (1) & D



TYPES G (1) & J

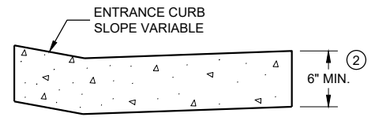
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

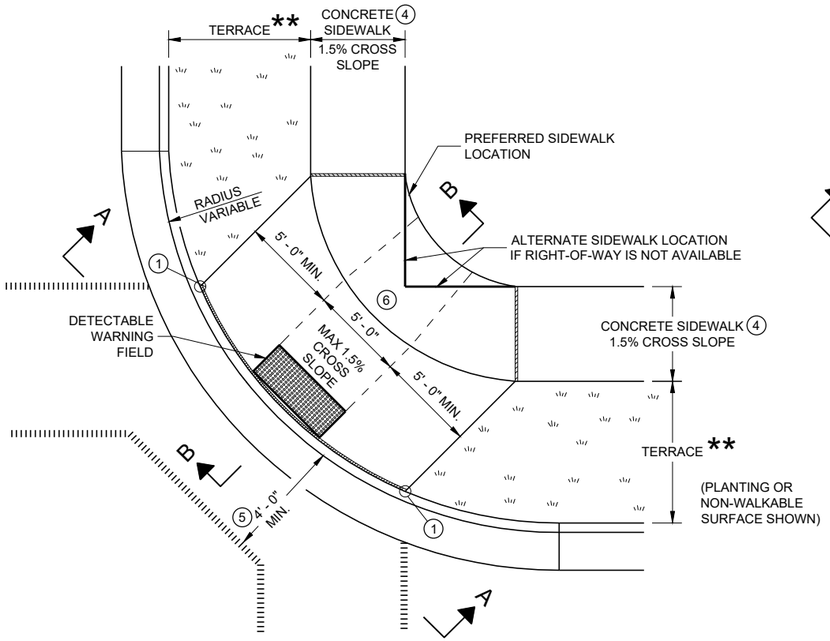
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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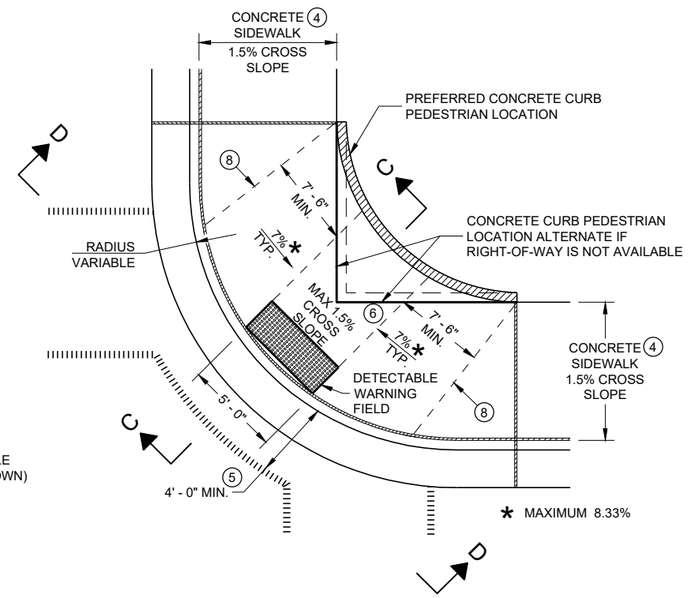
SDD08D01 - 21b



PLAN VIEW

CURB RAMP TYPE 1

(CENTER OF CORNER RADIUS)



PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

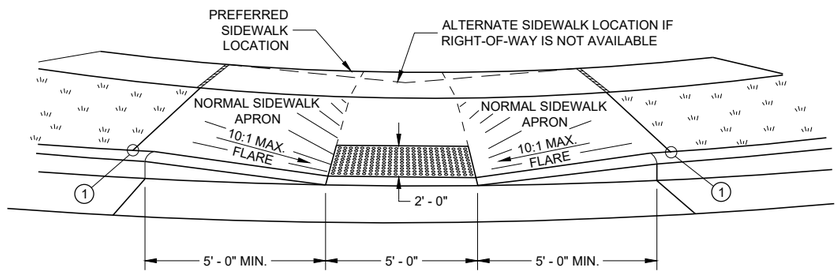
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

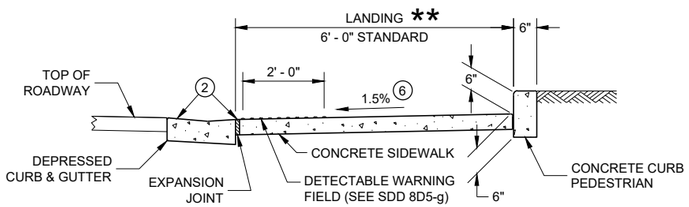
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A - A FOR TYPE 1

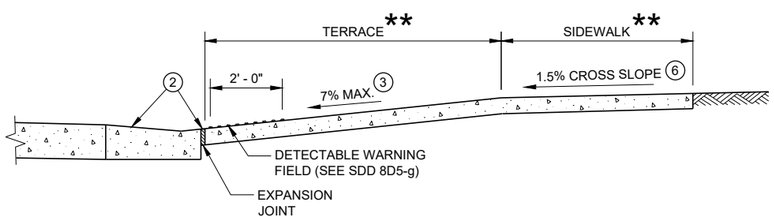


SECTION C - C FOR TYPE 1 - A

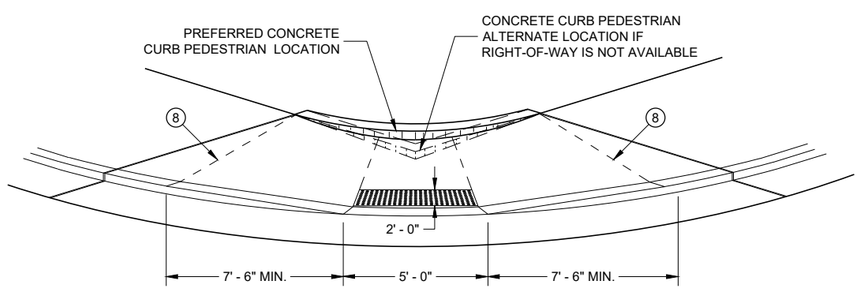
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



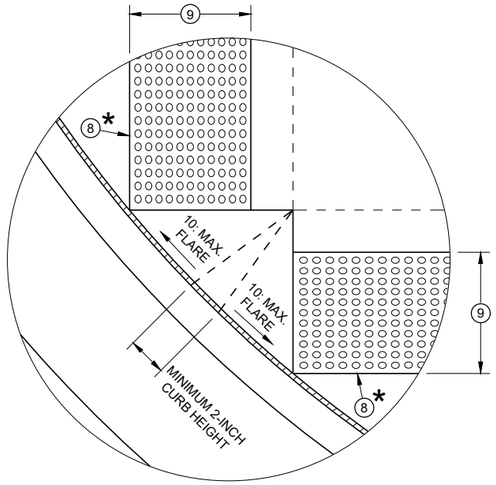
VIEW D - D FOR TYPE 1 - A

CURB RAMPS
TYPE 1 AND 1-A

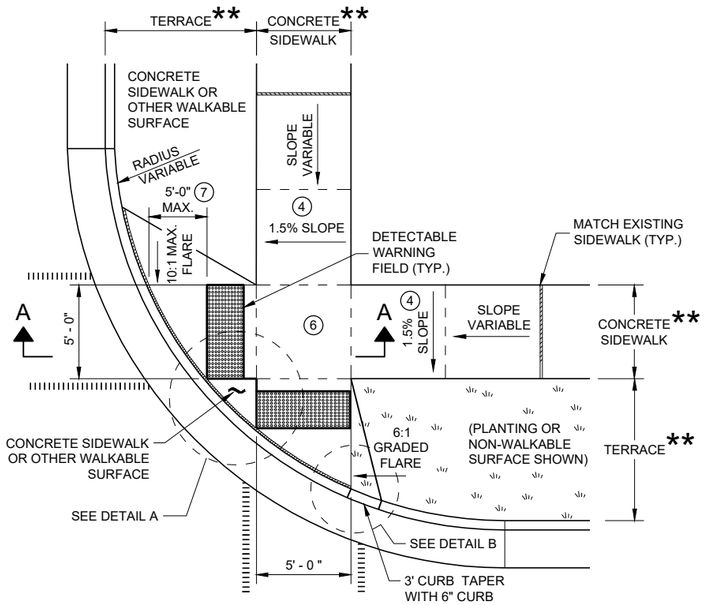
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20a

SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

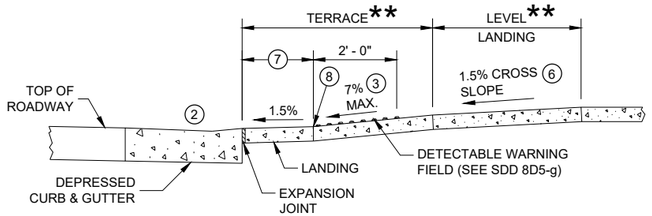
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

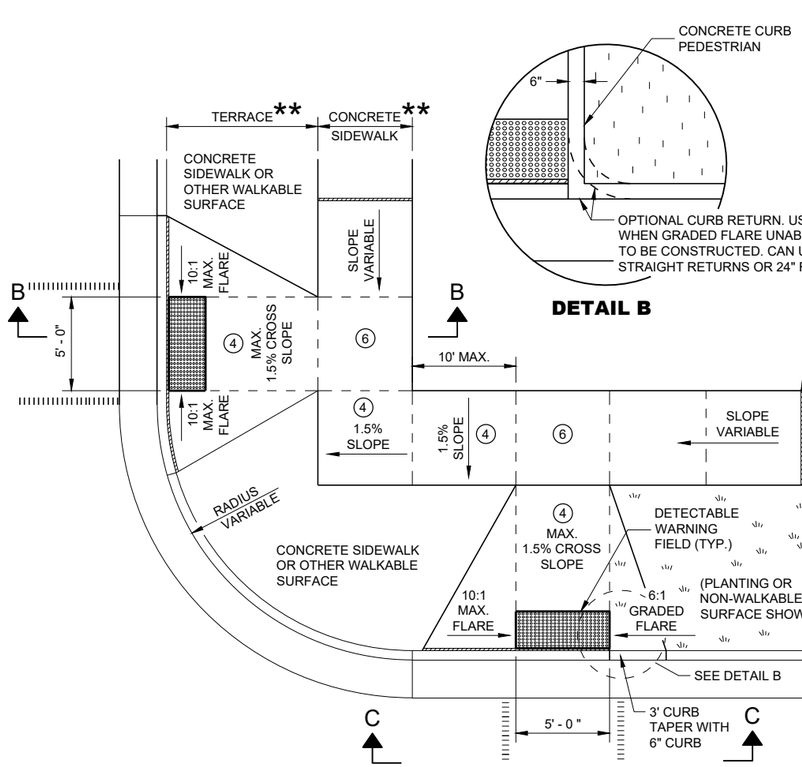
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

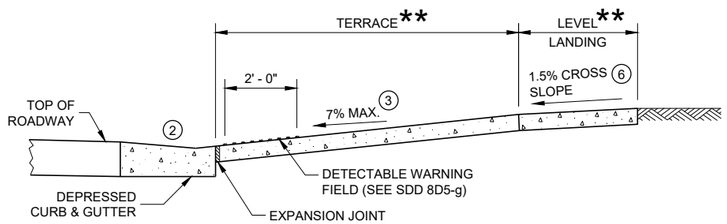
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



DETAIL B

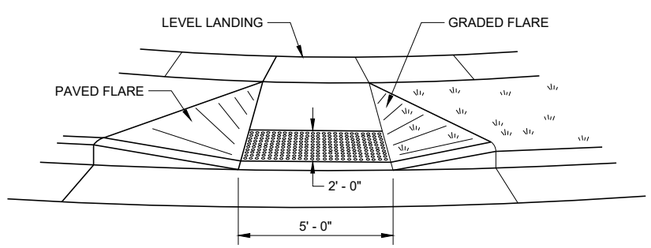
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



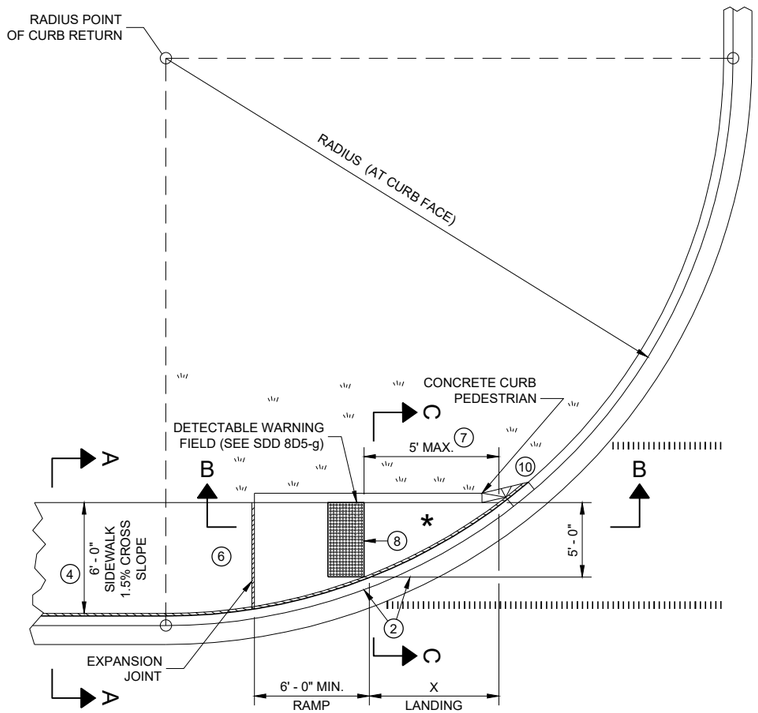
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

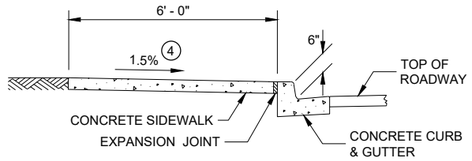


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

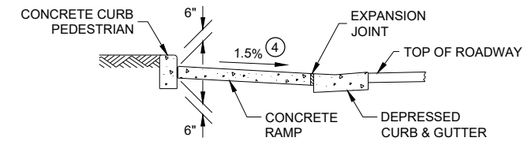
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

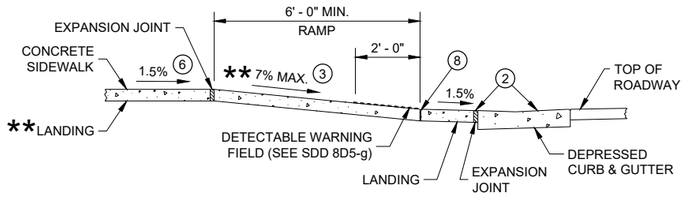
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



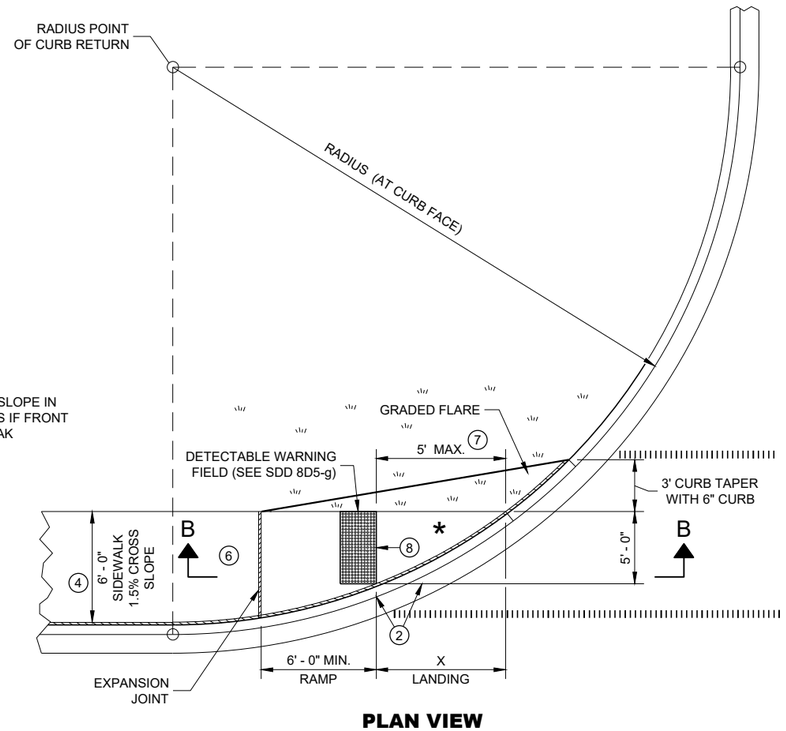
SECTION C - C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

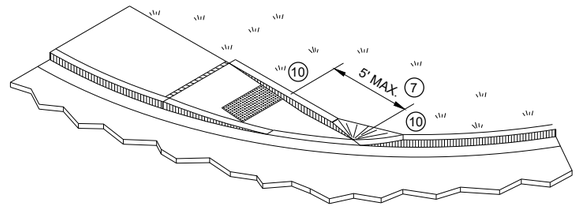
SECTION B - B FOR TYPE 4A AND TYPE 4A1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

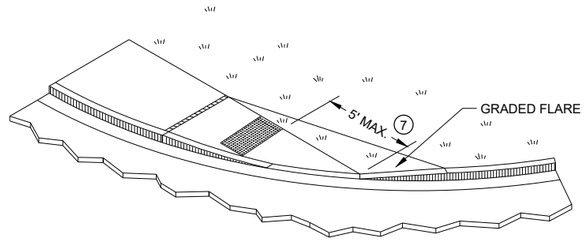


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



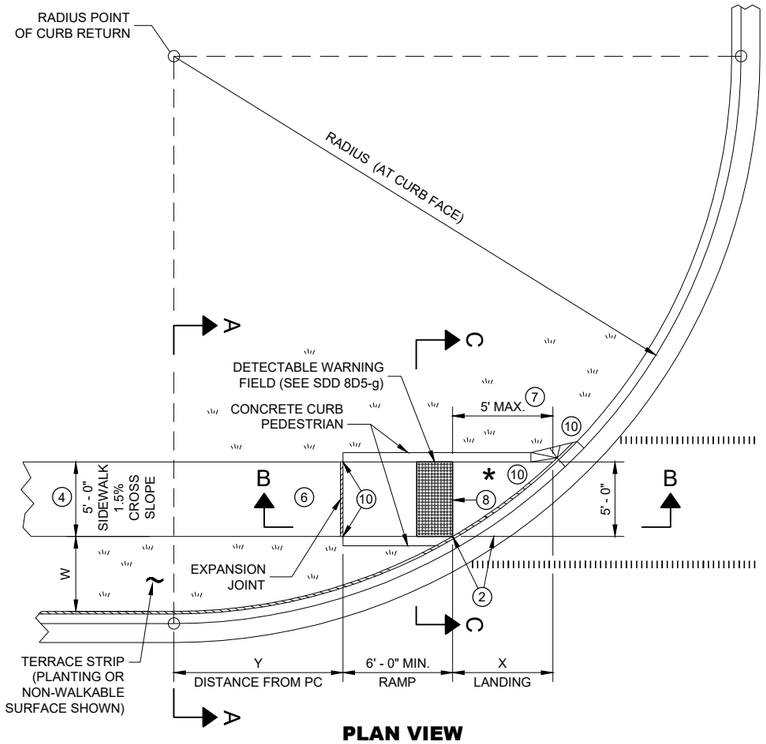
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c



PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

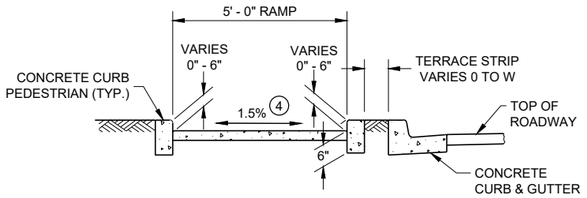
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

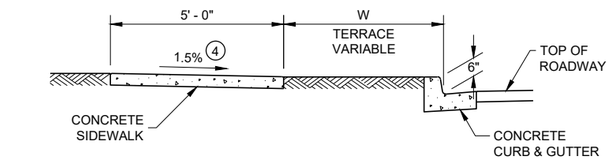
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

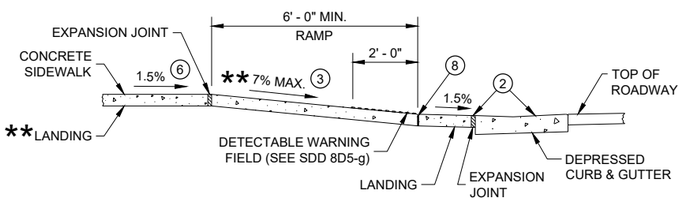
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



SECTION C - C FOR TYPE 4B



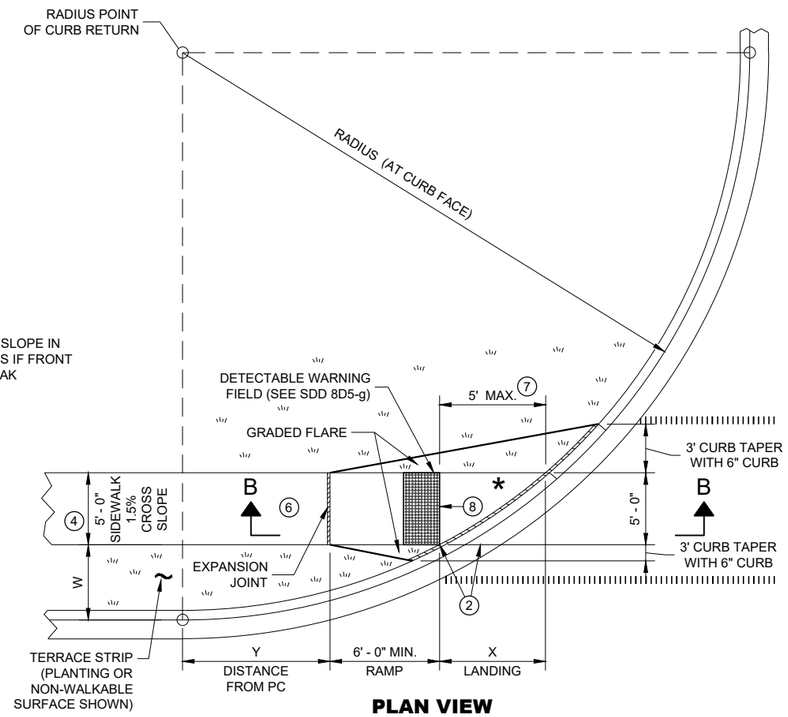
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

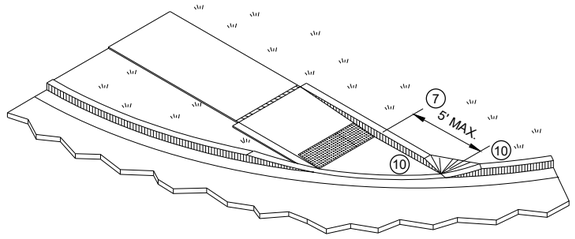
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

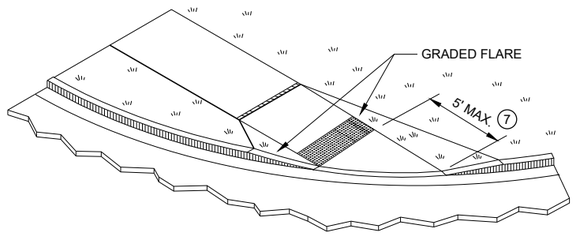


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



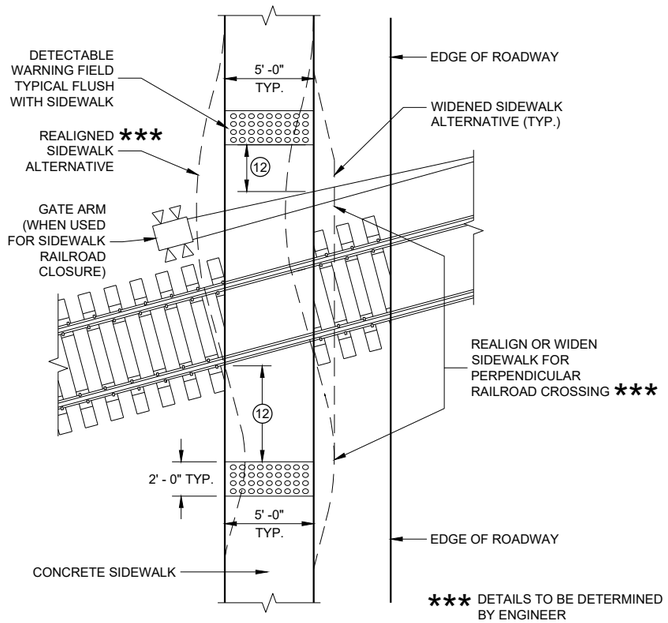
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

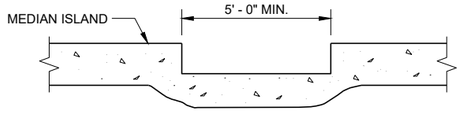
6

SDD 08D05 - 20d

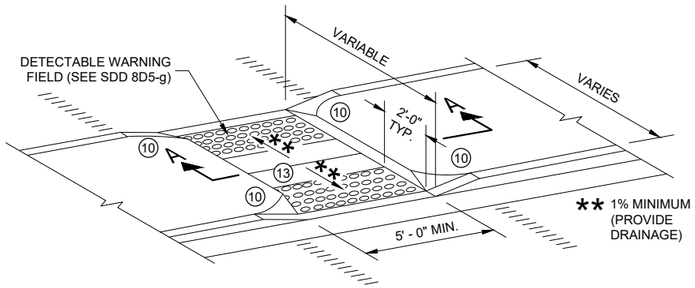


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

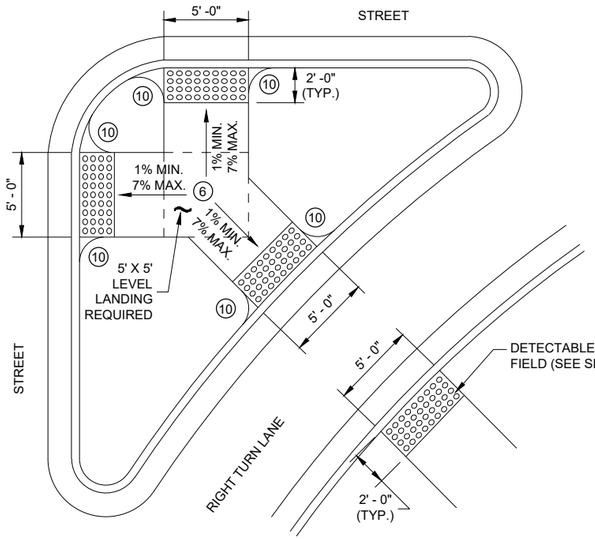
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

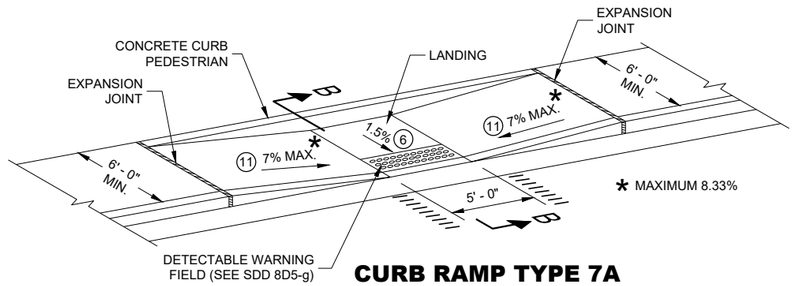
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

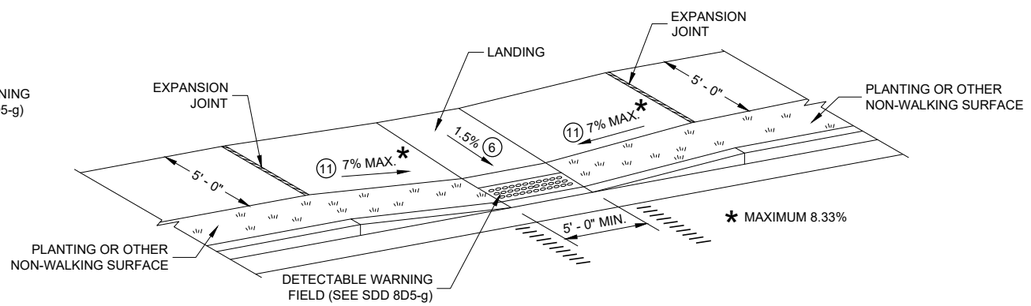
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

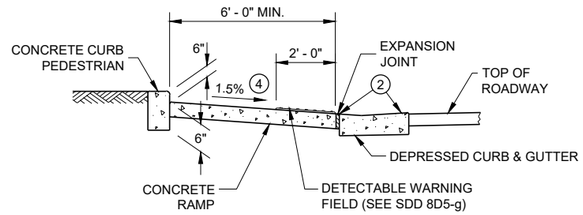
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

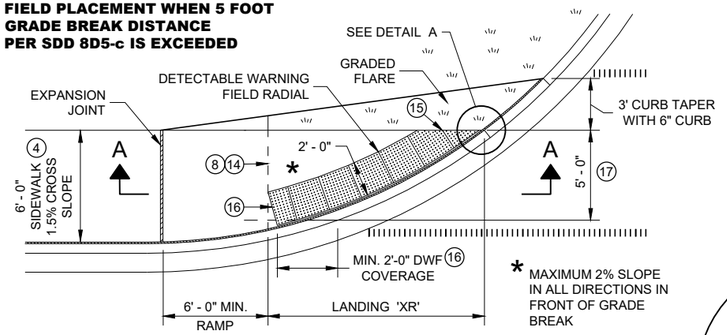
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

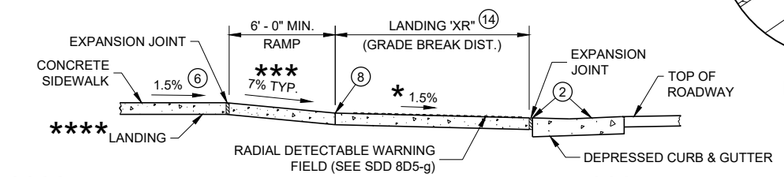
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

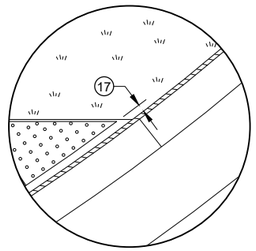
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

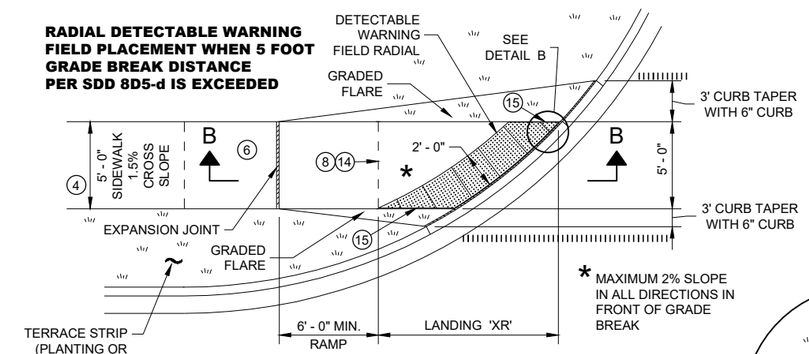
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

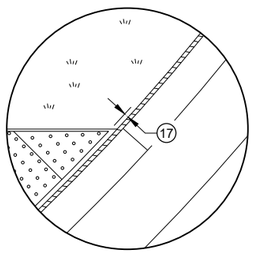
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



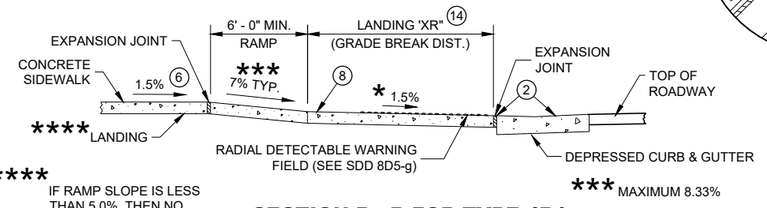
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

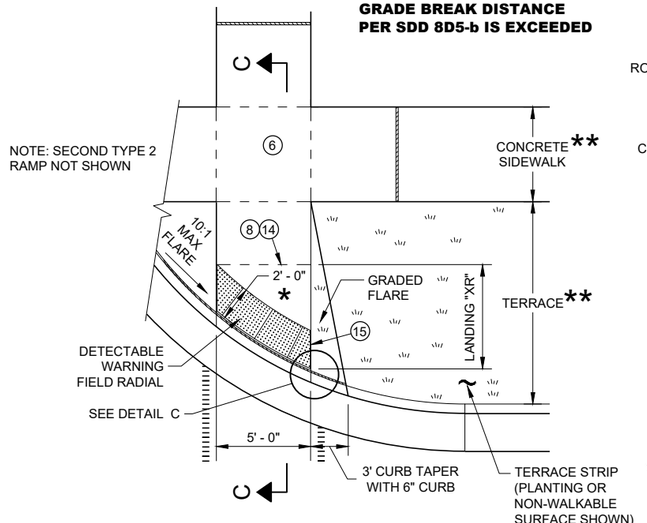


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

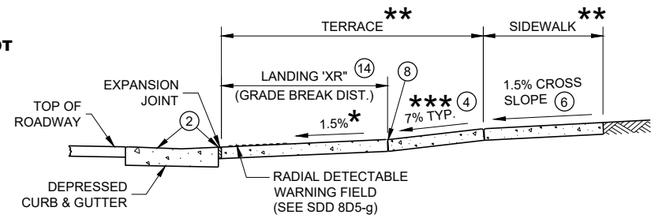


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

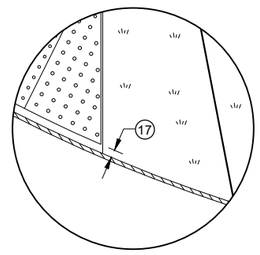


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

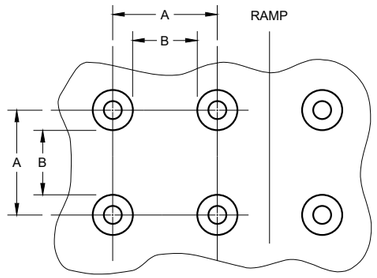
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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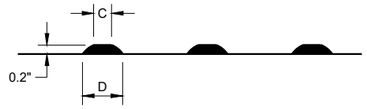
SDD 08D05 - 20f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

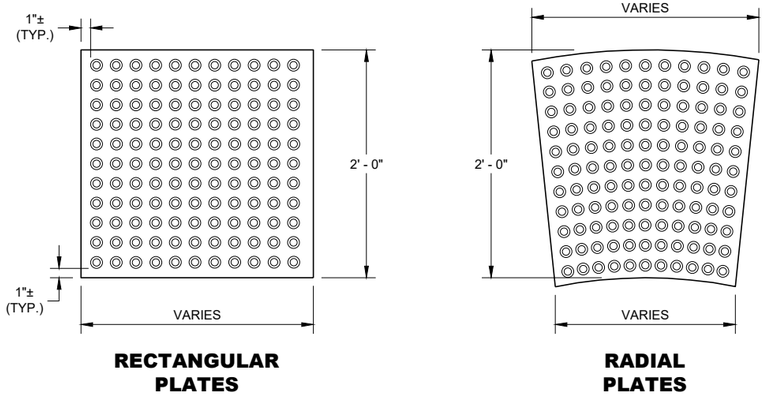


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

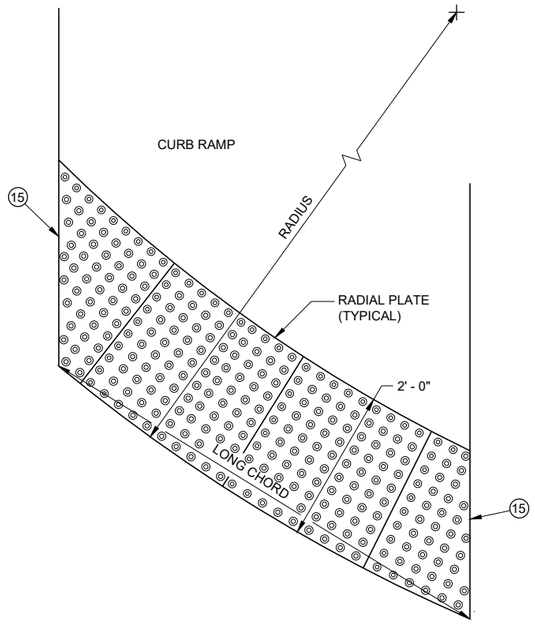
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

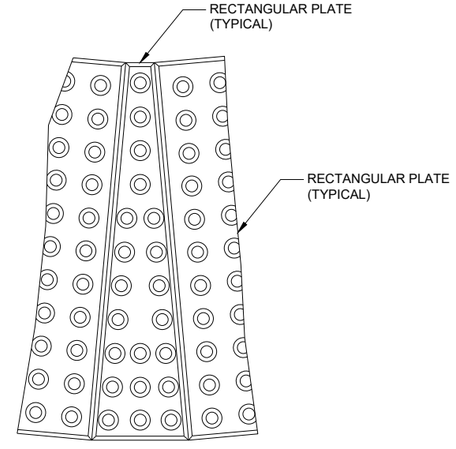
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

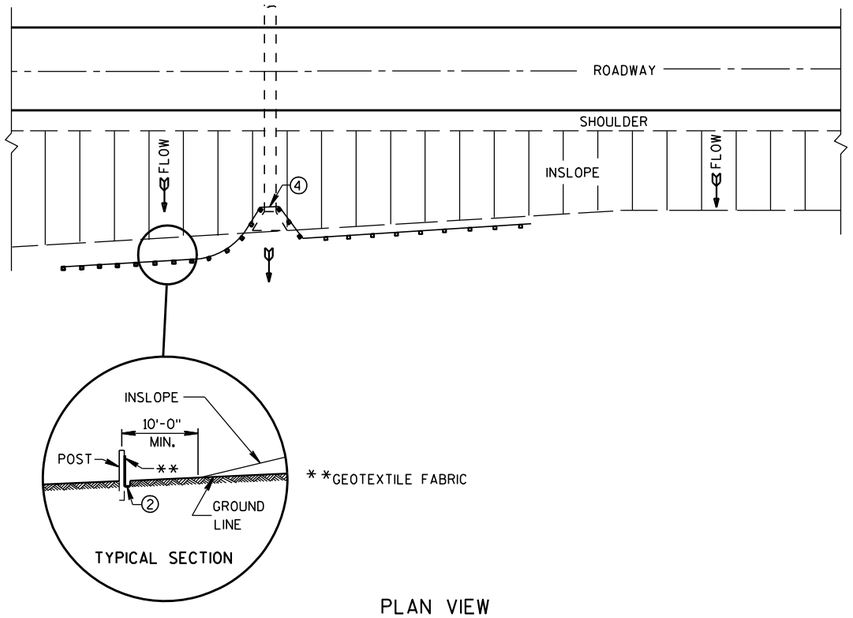
FHWA

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SDD 08D05 - 20g

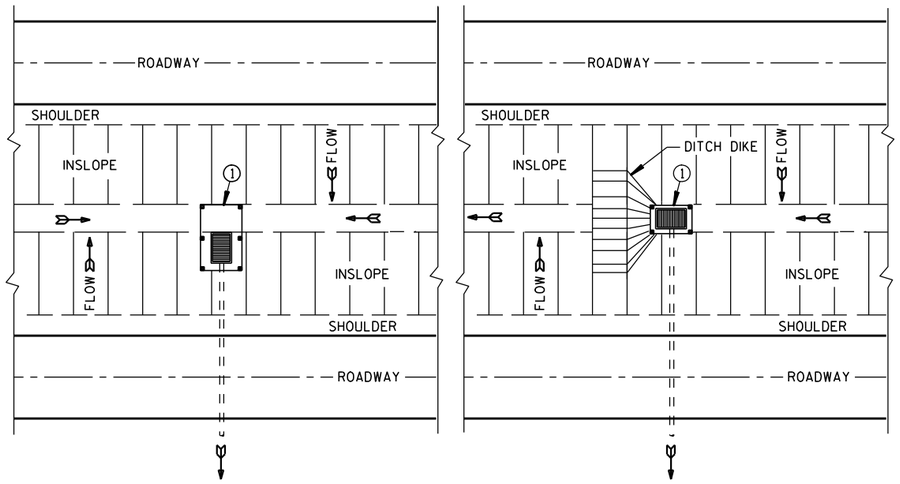
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PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



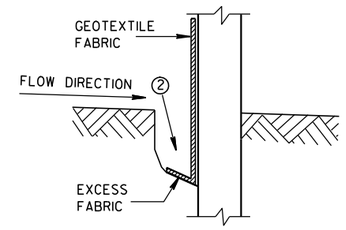
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

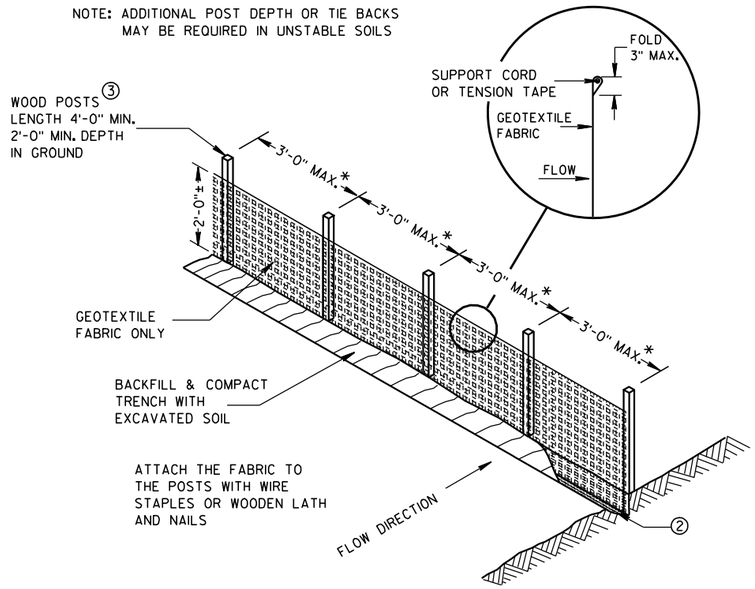
GENERAL NOTES

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

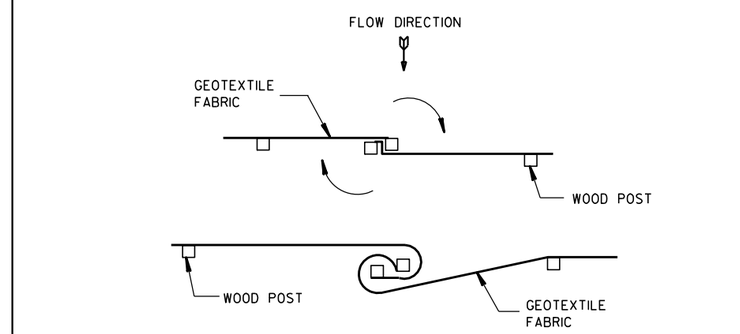
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



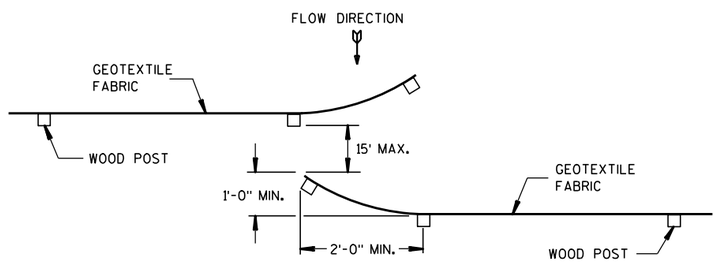
TRENCH DETAIL



SILT FENCE

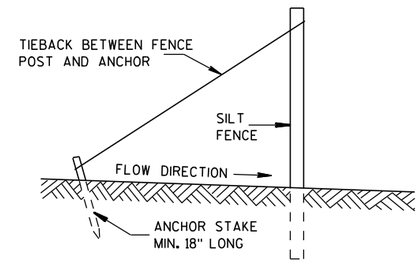


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

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DEPARTMENT OF TRANSPORTATION

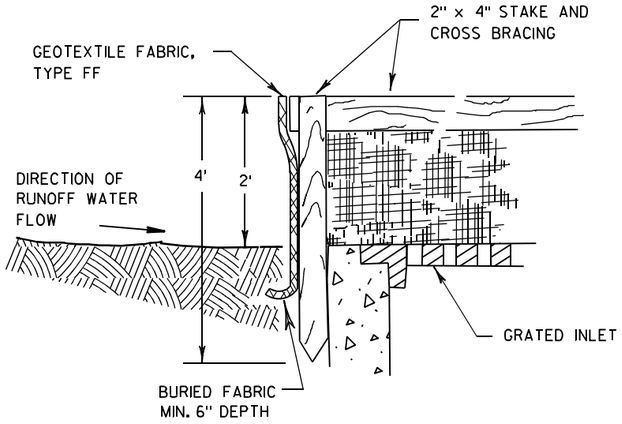
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

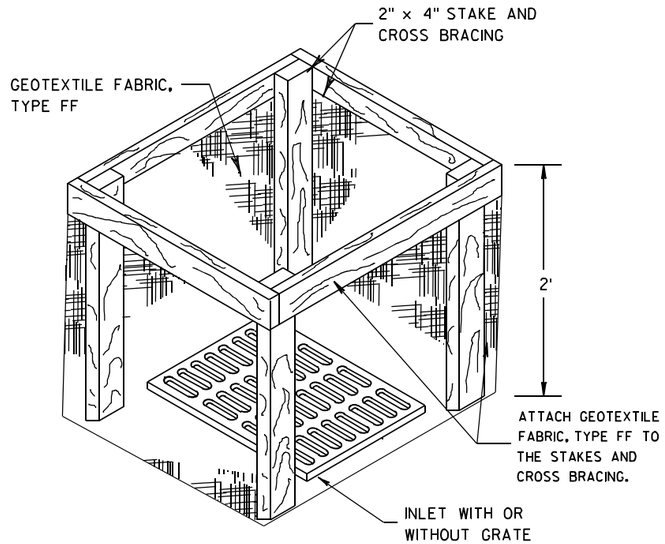
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S.D.D. 8 E 9-6

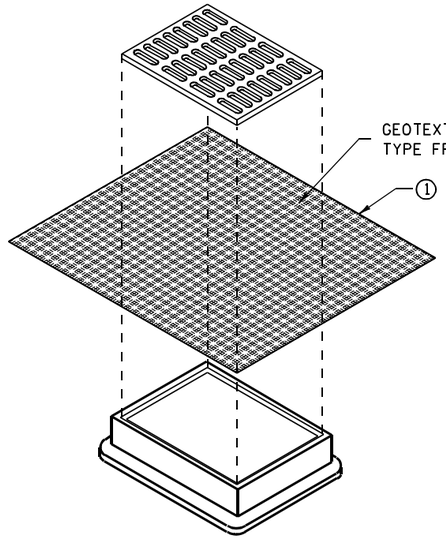
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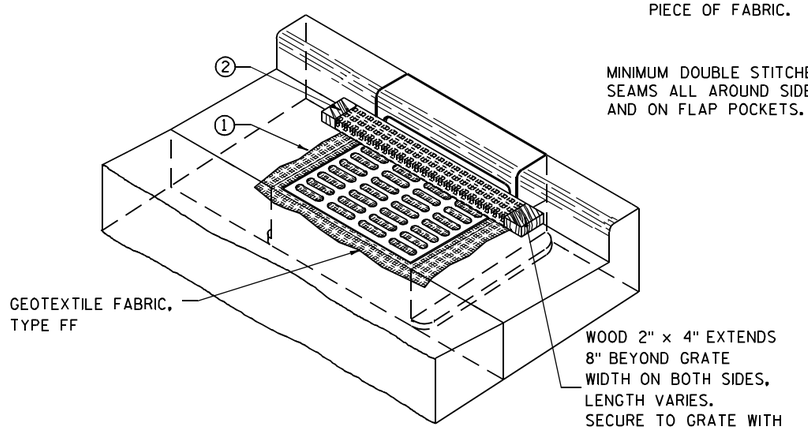


INLET PROTECTION, TYPE A

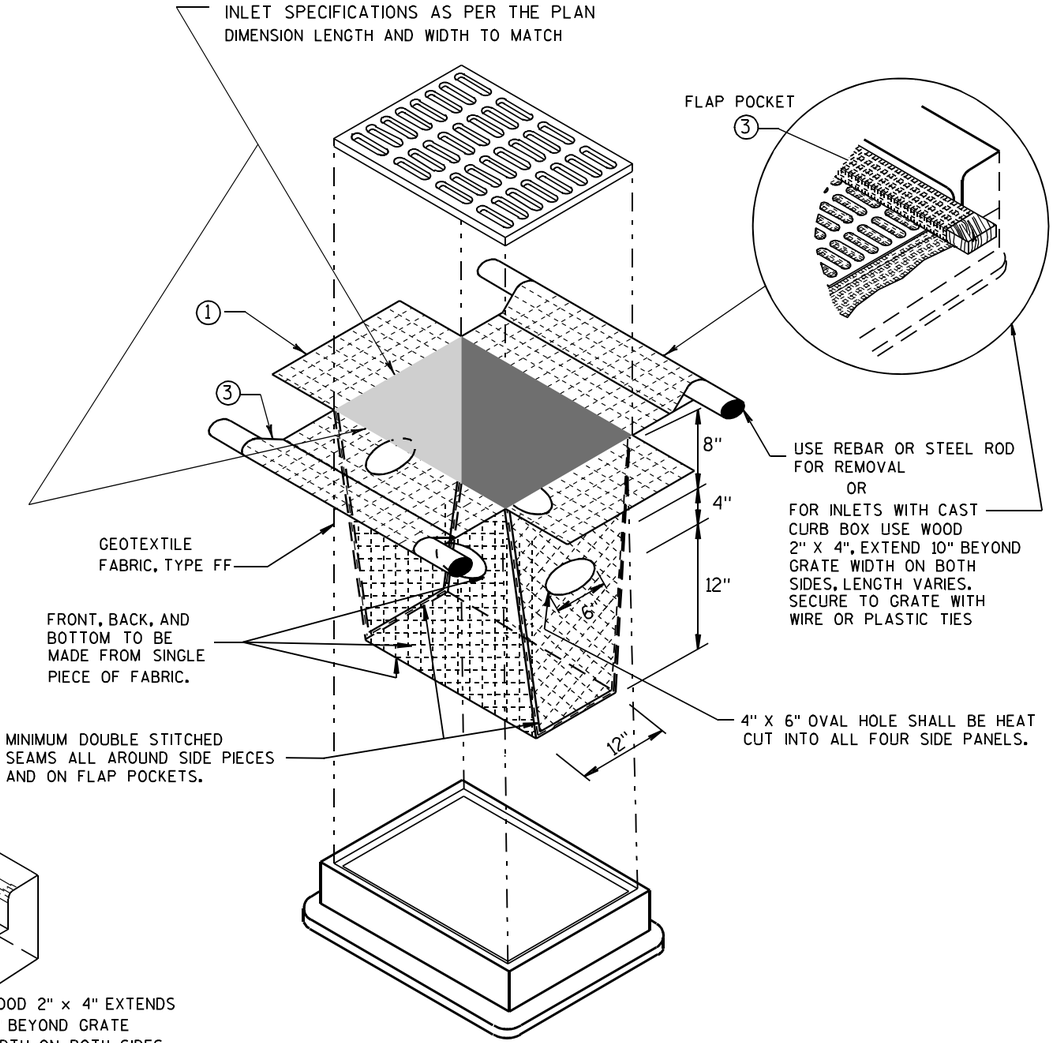


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

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DEPARTMENT OF TRANSPORTATION

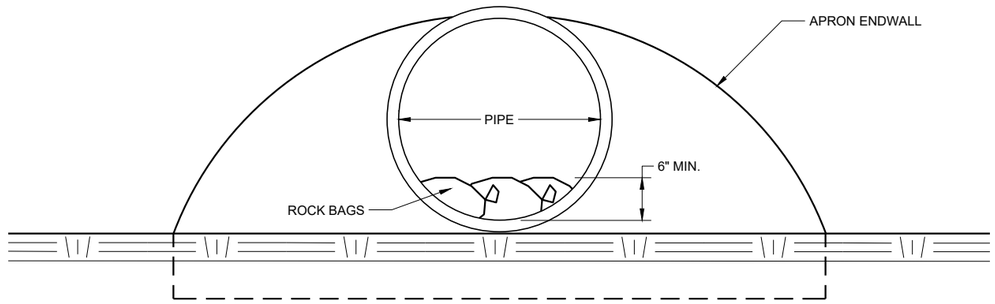
APPROVED

10/16/02
DATE

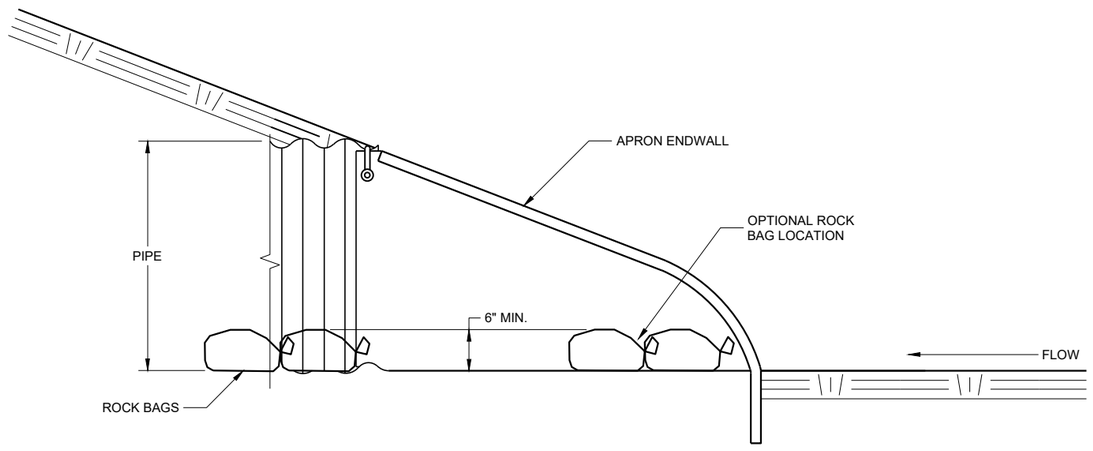
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

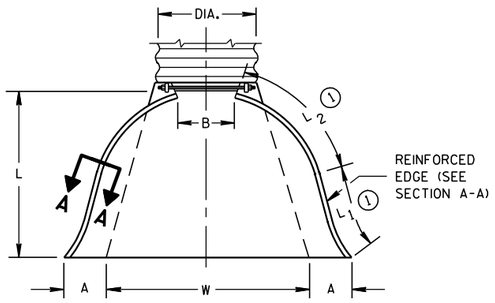
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

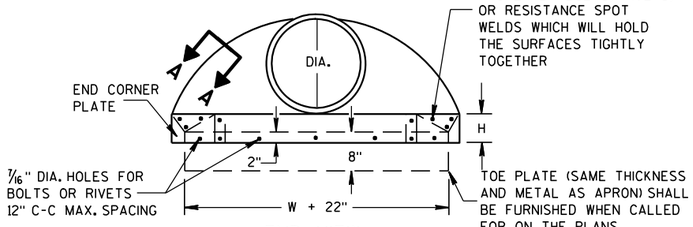
REINFORCED CONCRETE APRON ENDWALLS

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

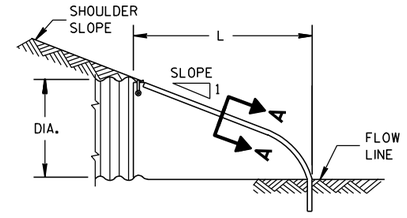
* MINIMUM
** MAXIMUM



PLAN VIEW

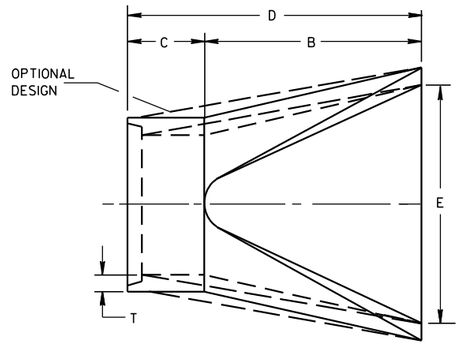


END VIEW

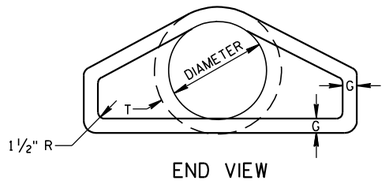


SIDE ELEVATION

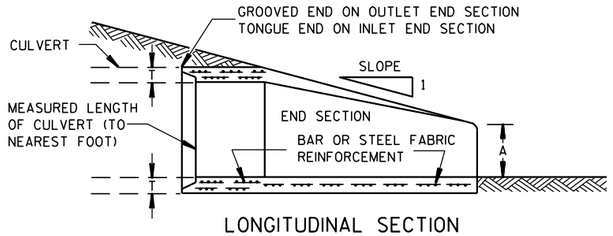
METAL ENDWALLS



PLAN

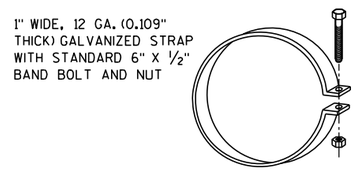


END VIEW



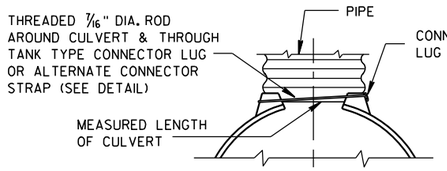
LONGITUDINAL SECTION

CONCRETE ENDWALLS

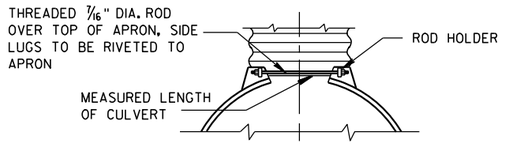


ALTERNATE FOR TYPE 1 CONNECTION

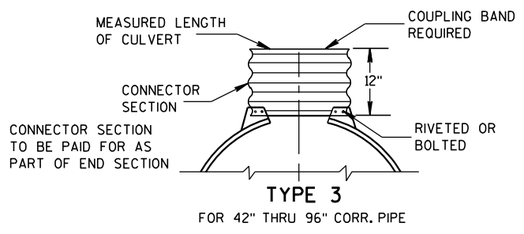
END SECTION CONNECTOR STRAP



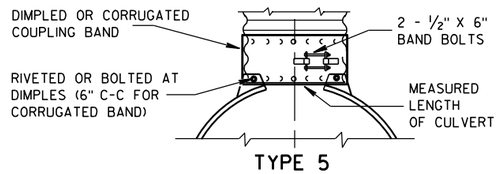
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

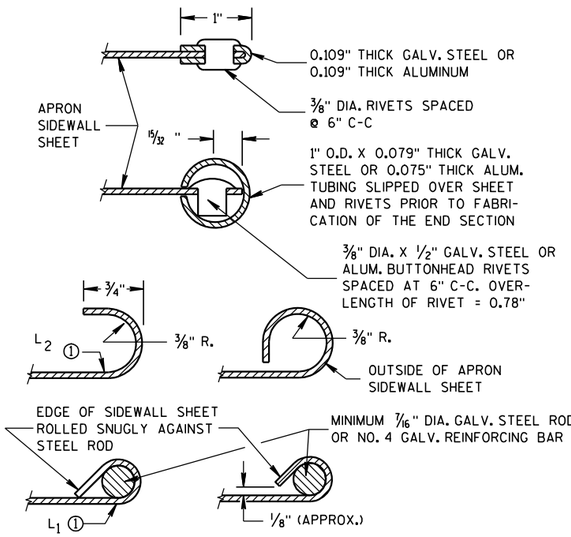
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 F 1-11

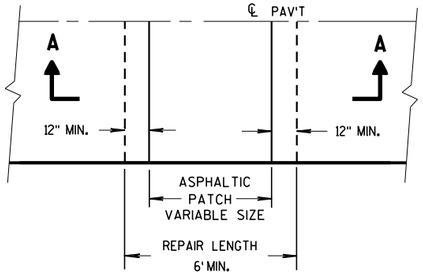
GENERAL NOTES

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

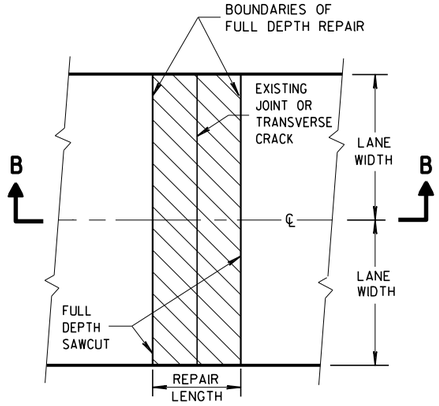
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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.

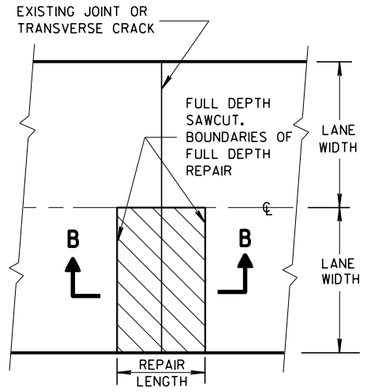
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

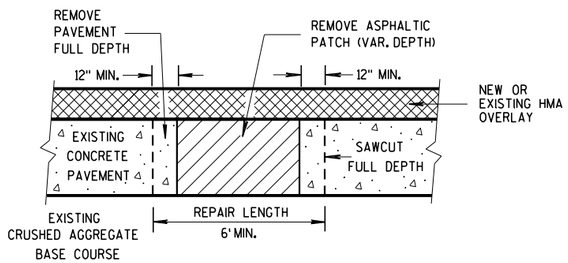


PLAN VIEW
(DOUBLE LANE REPAIR)



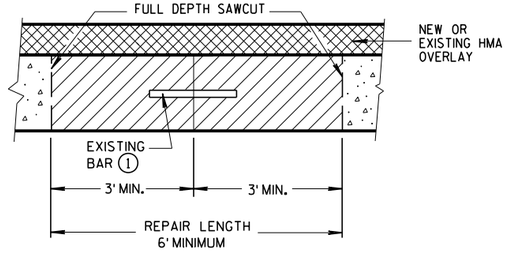
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



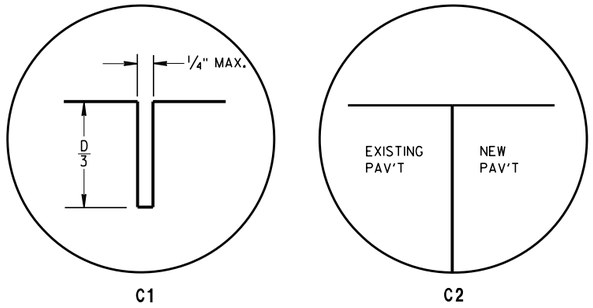
SECTION B-B

CONCRETE REMOVAL

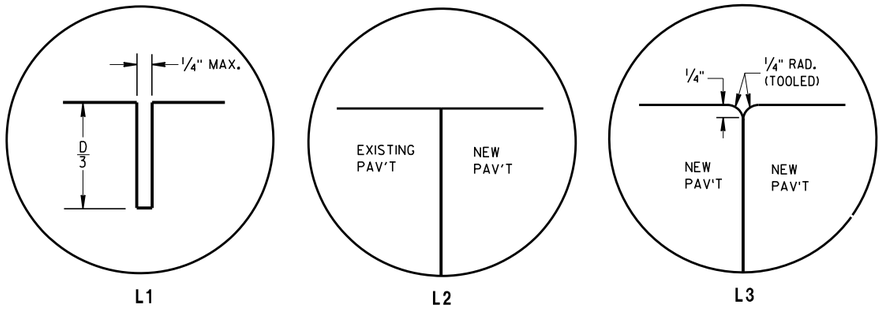
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

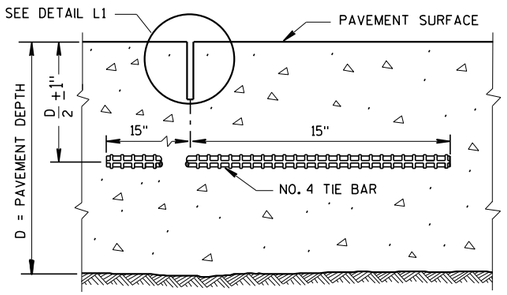
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S.D.D. 13 C 14-7a
6
S.D.D. 13 C 14-7a



TRANSVERSE JOINTS

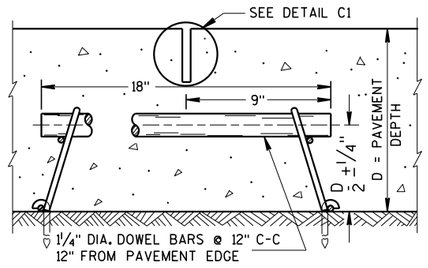


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

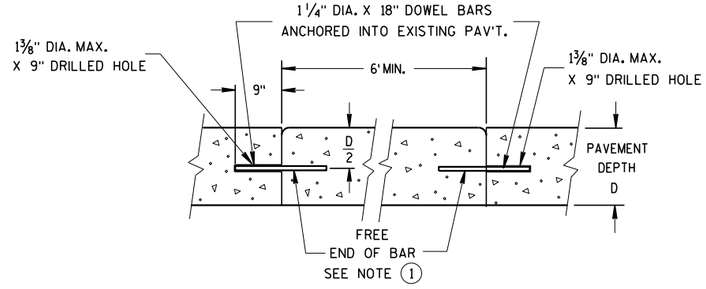
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

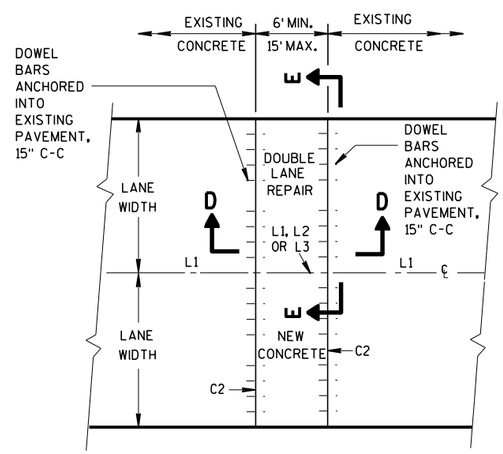
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE 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.

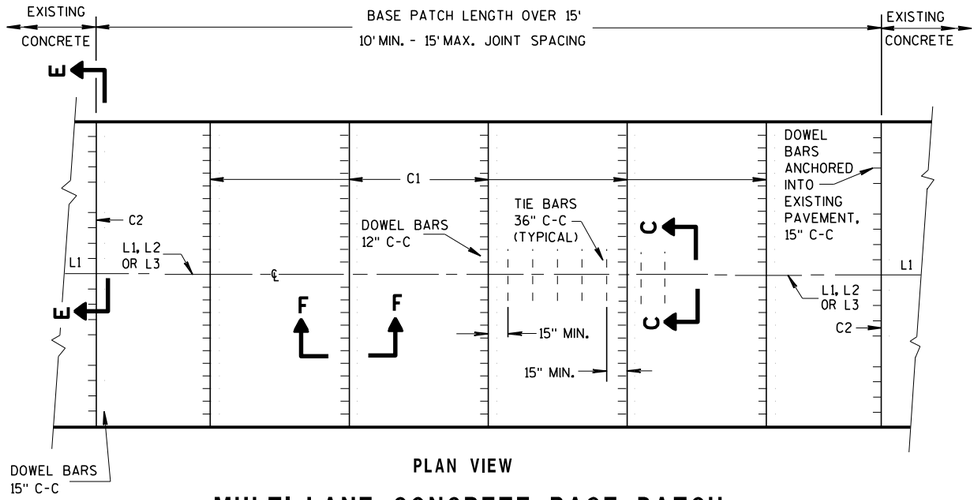


SECTION D-D



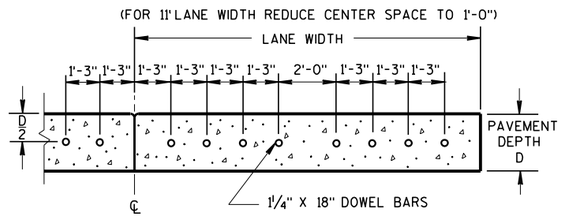
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

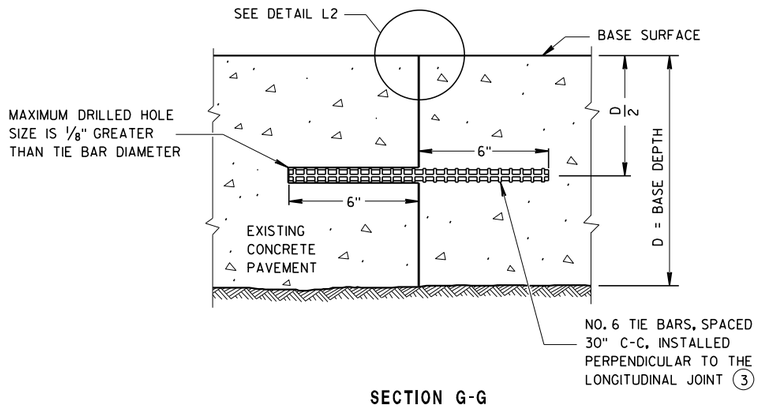


SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

6
S.D.D. 13 C 14-7b



SECTION G-G

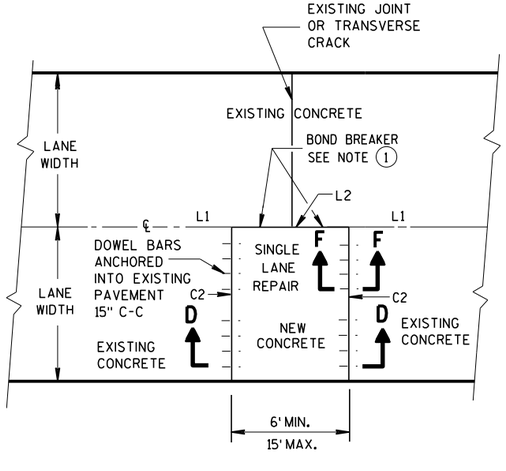
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

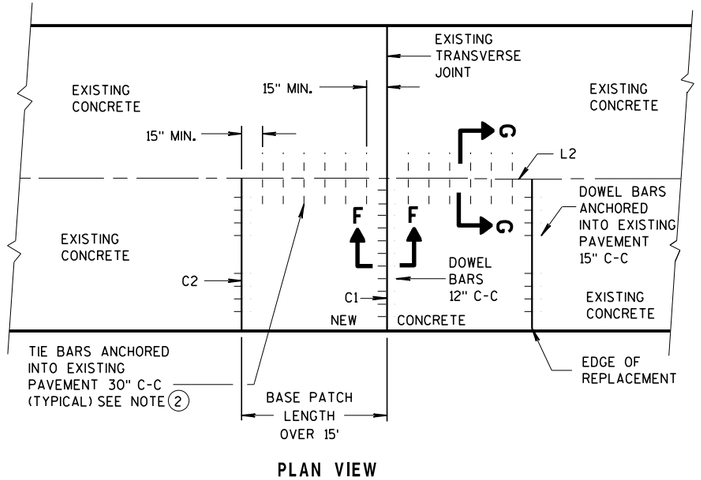
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

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



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

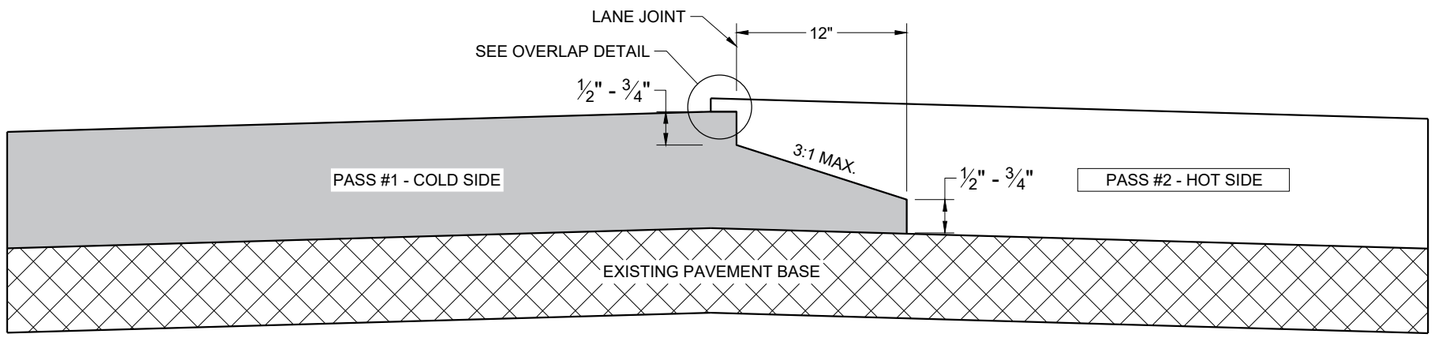
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

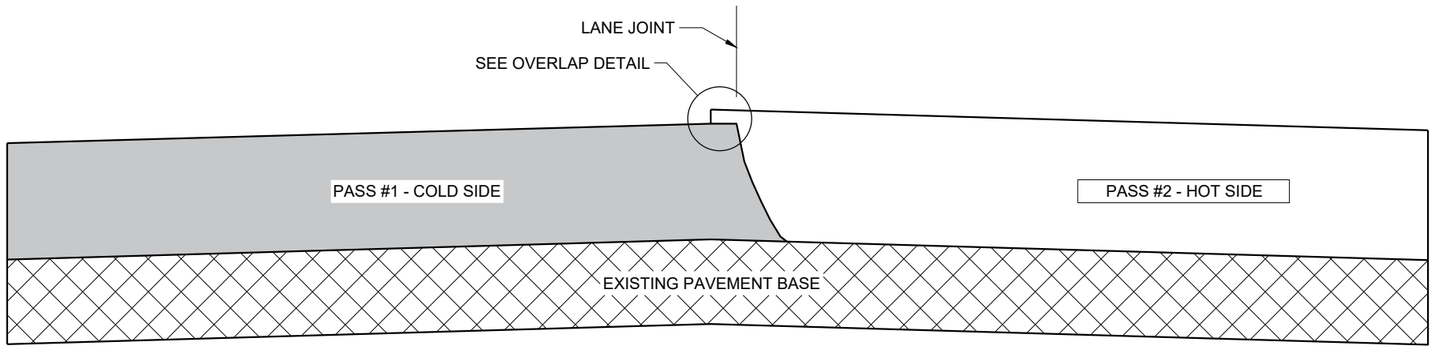
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

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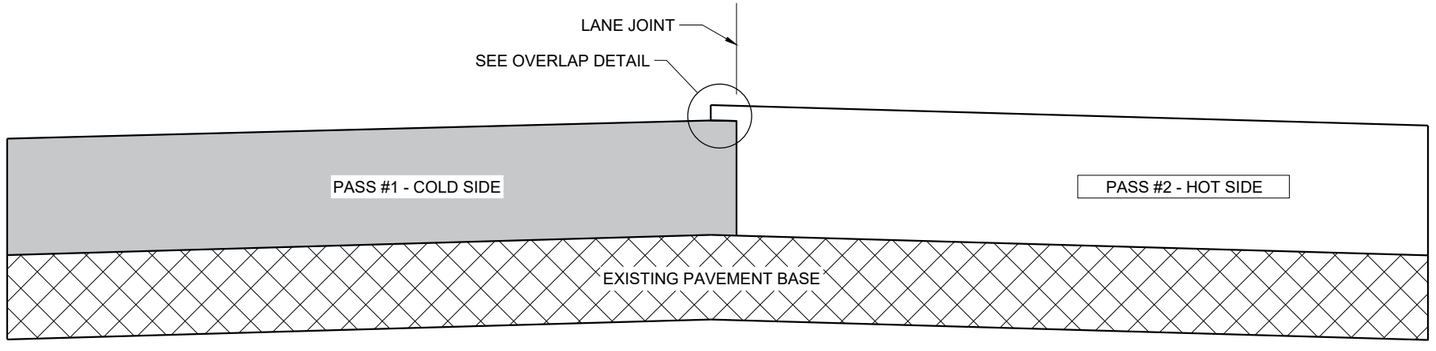
S.D.D. 13 C 14-7c



TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL LONGITUDINAL JOINT



TYPICAL PAVEMENT CROSS SECTION
OF MILLED LONGITUDINAL JOINT

GENERAL NOTES

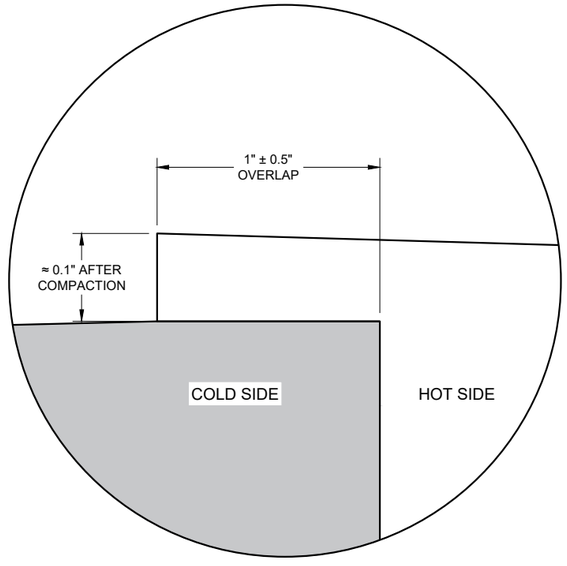
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION.

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Steven Hefel
HMA PAVEMENT ENGIN

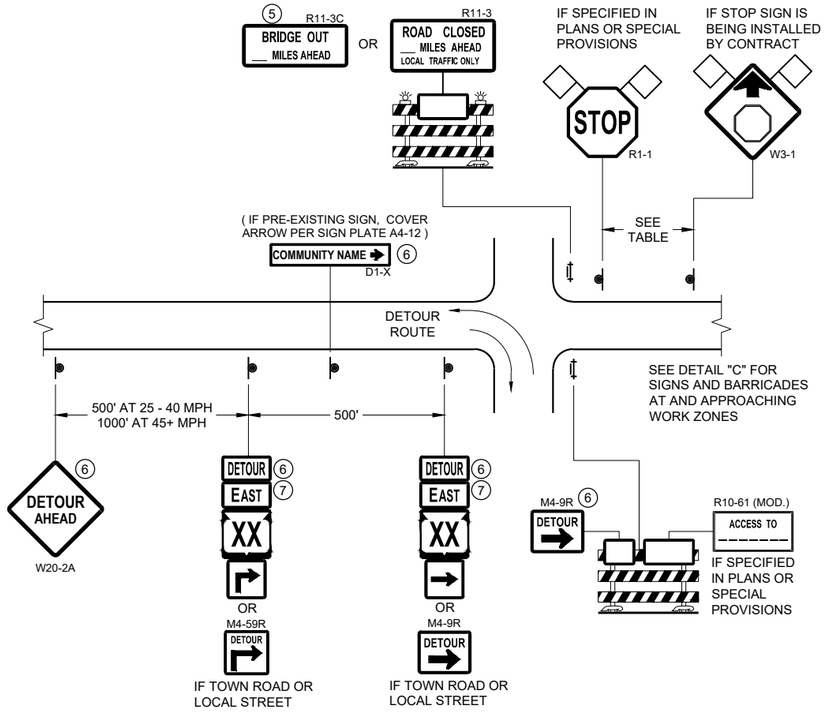
FHWA

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SDD 13C19 - 02

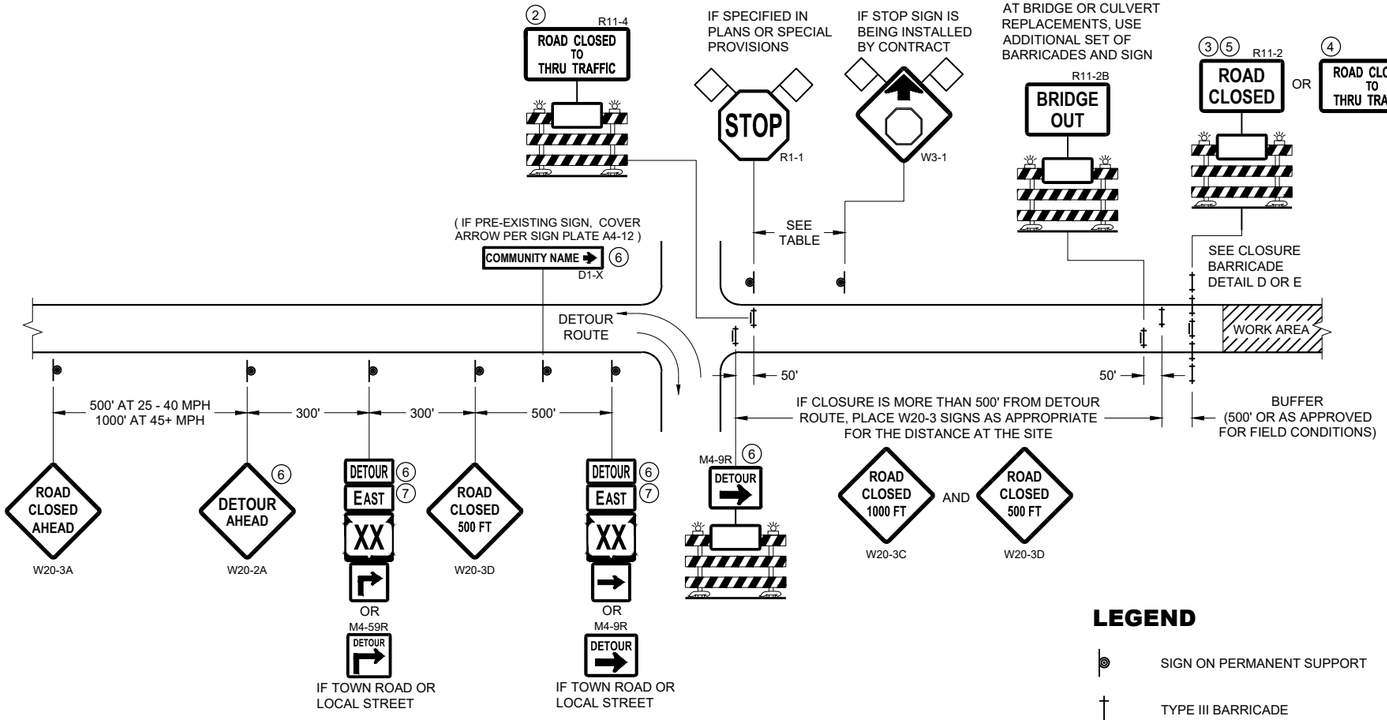
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SDD 13C19 - 02



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

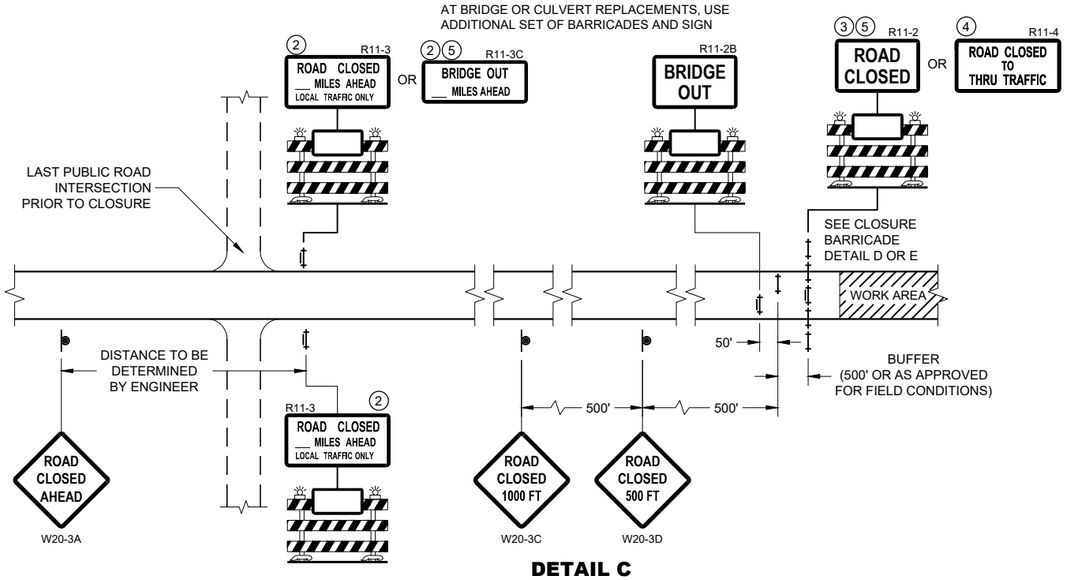


DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

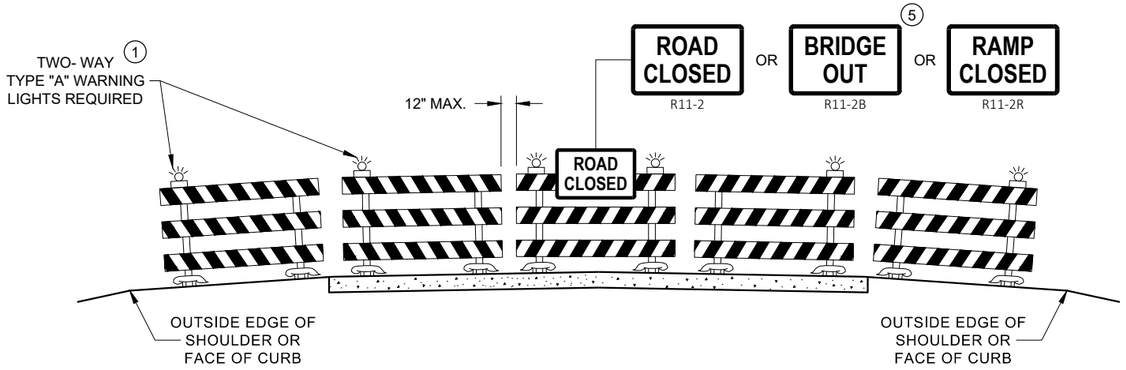
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

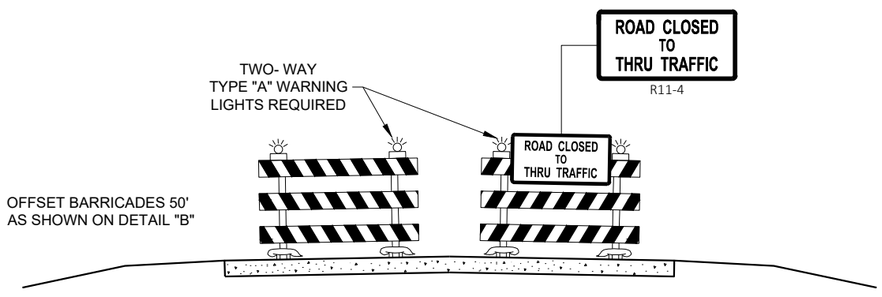
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SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

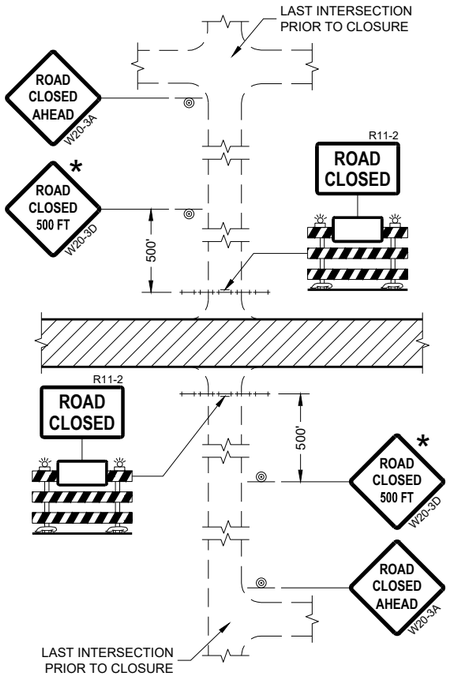
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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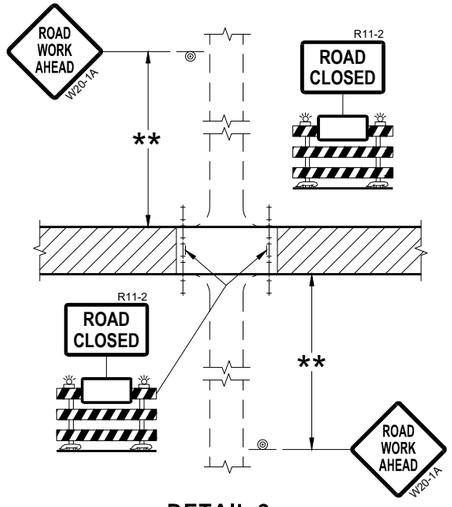
SDD 15C02 - 08b

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SDD 15C02 - 08b



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

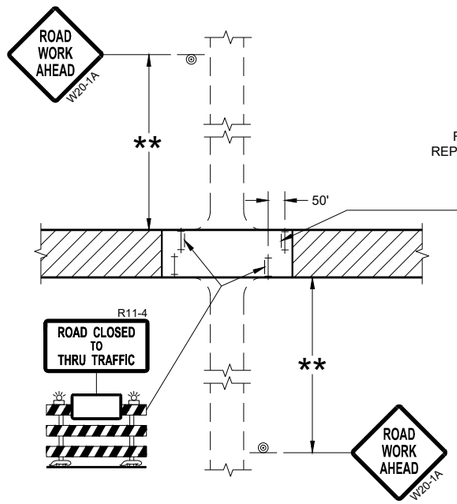
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

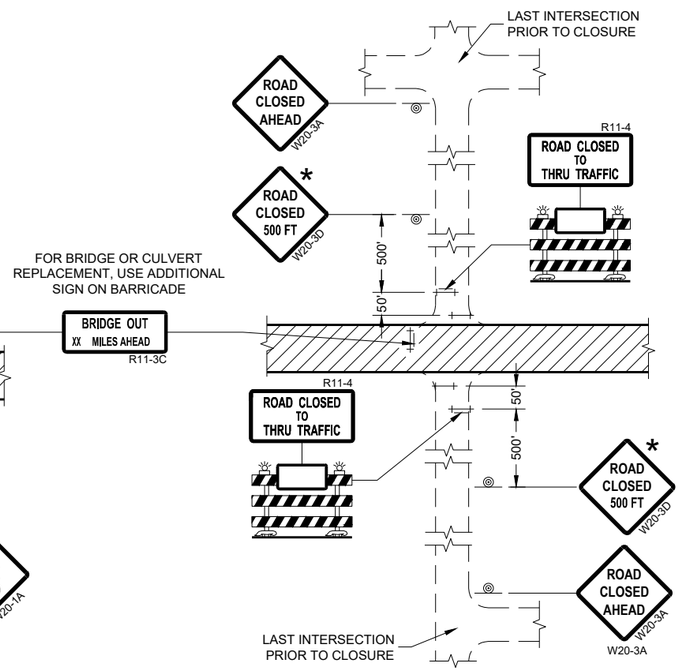
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

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

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

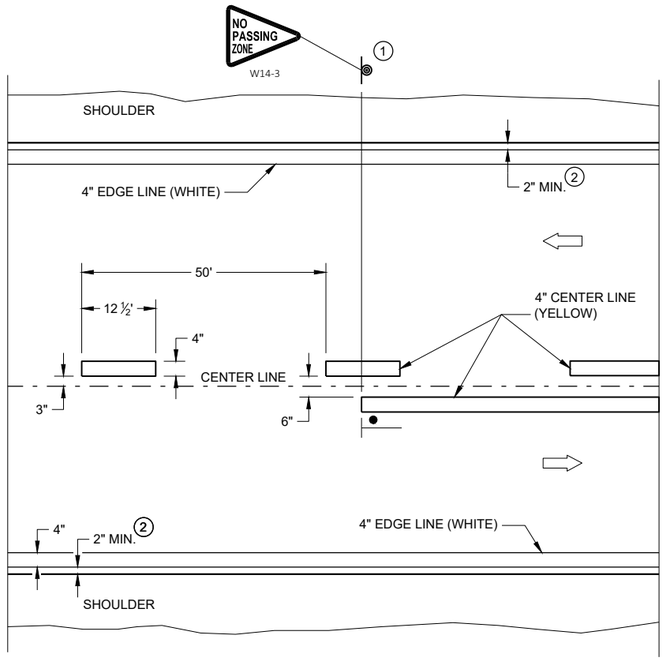
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

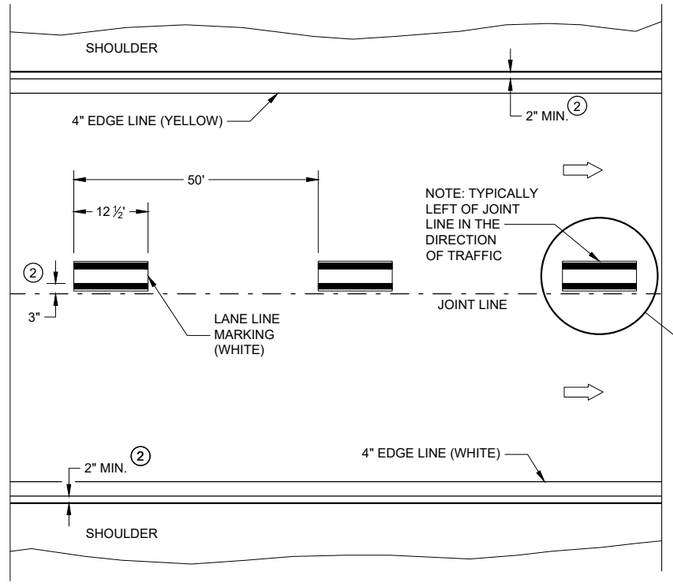
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SDD 15C03 - 05

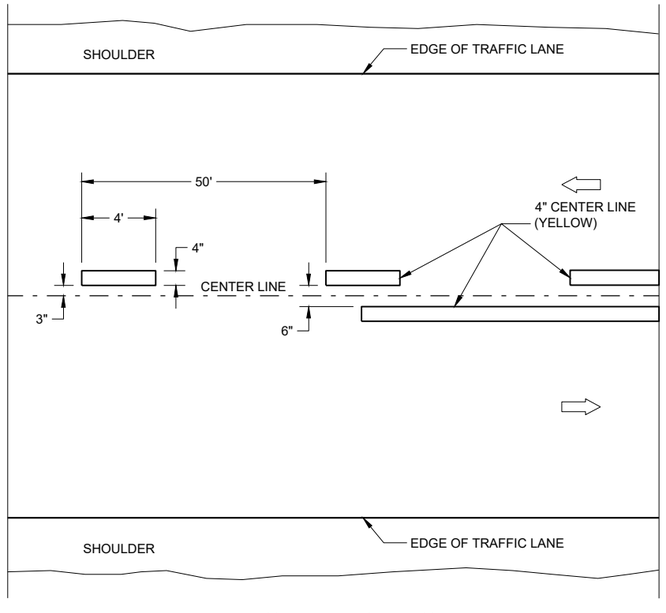


TWO WAY TRAFFIC

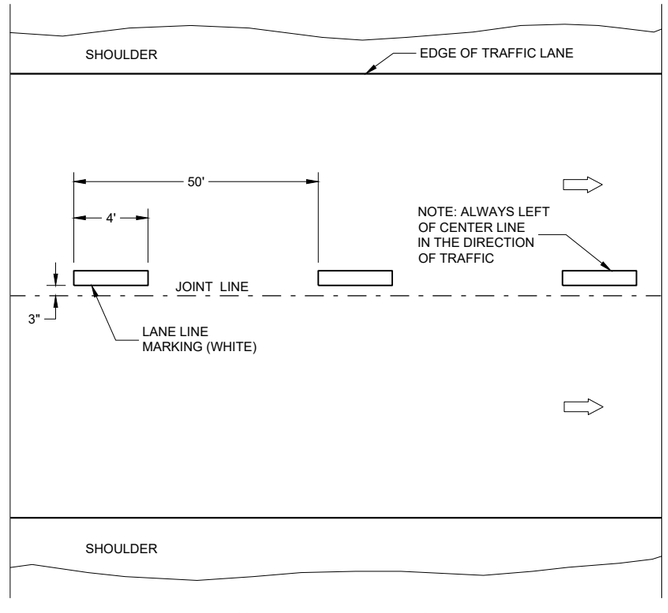


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

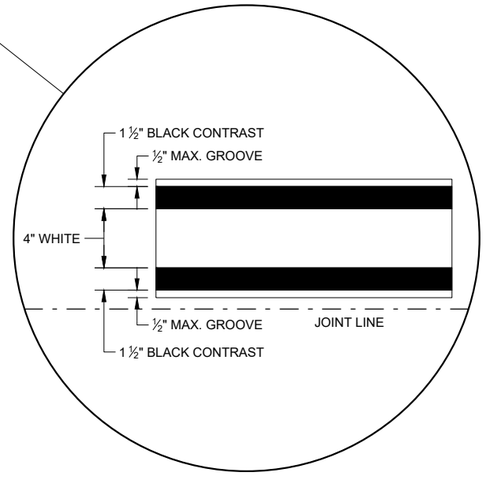
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

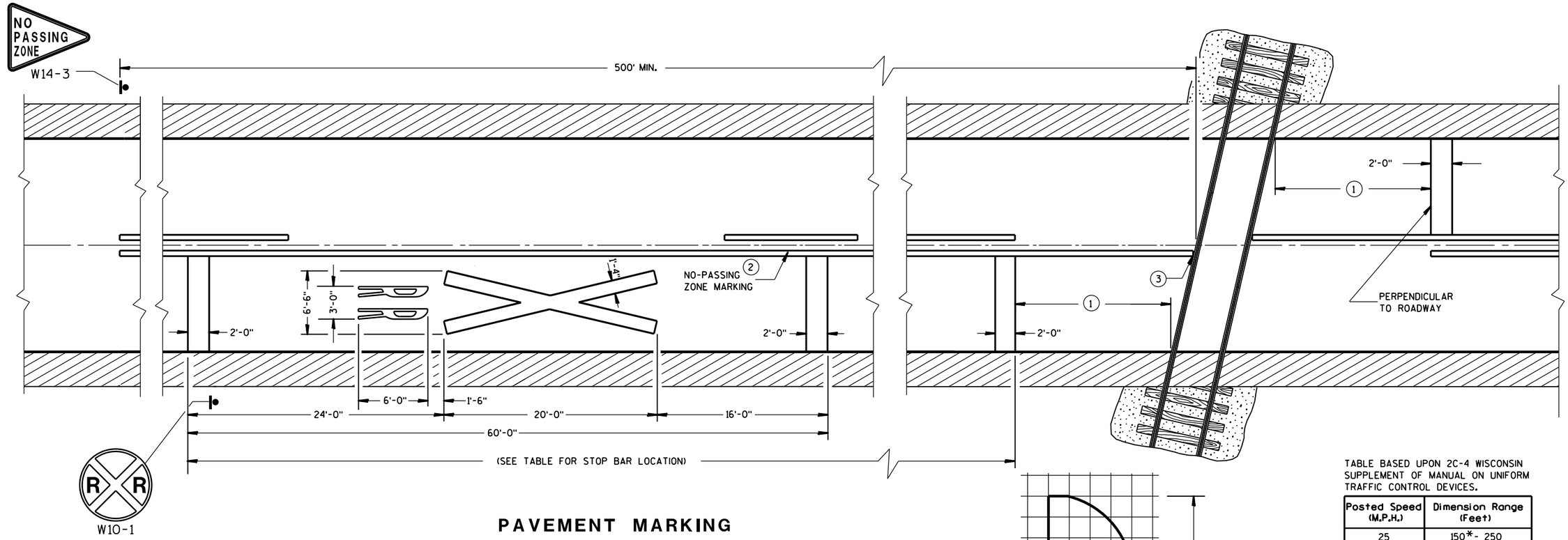
APPROVED
February 2020
DATE

/S/ Matthew Rauch
STATEWIDE SIGNING AND M
ENGINEER

FHWA

SDD 15C08 - 20a

SDD 15C08 - 20a



PAVEMENT MARKING

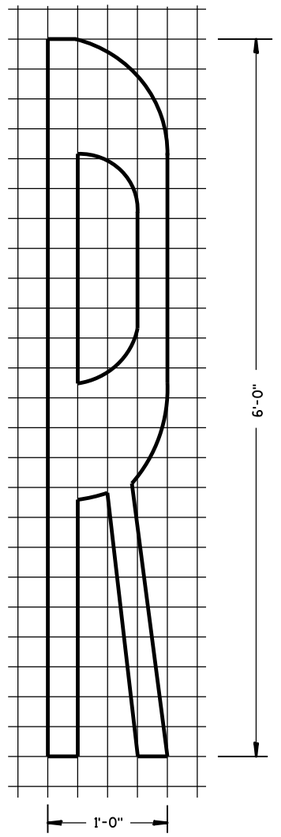


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAI[illegible]GINEER
FHWA

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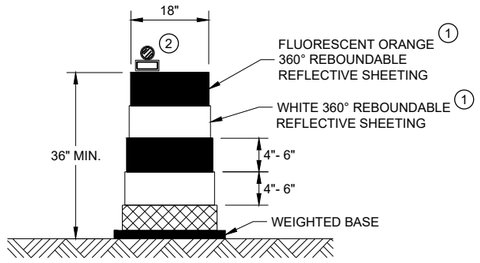
S.D.D. 15 C 9-11a

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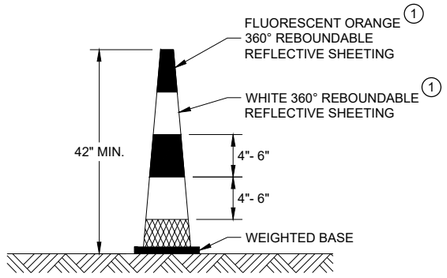
S.D.D. 15 C 9-11a

GENERAL NOTES

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

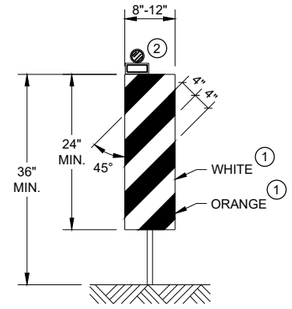


DRUM



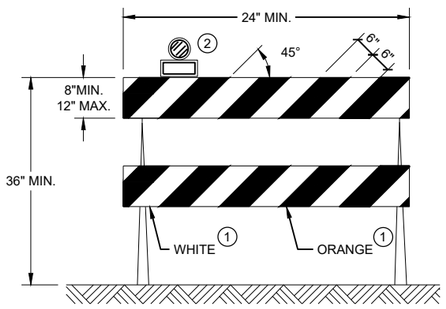
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



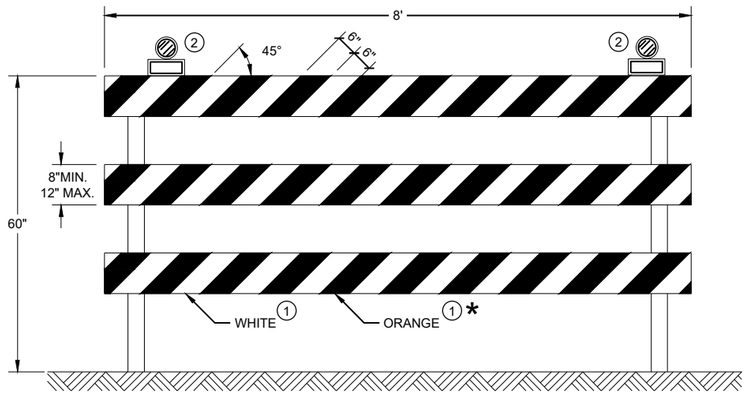
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

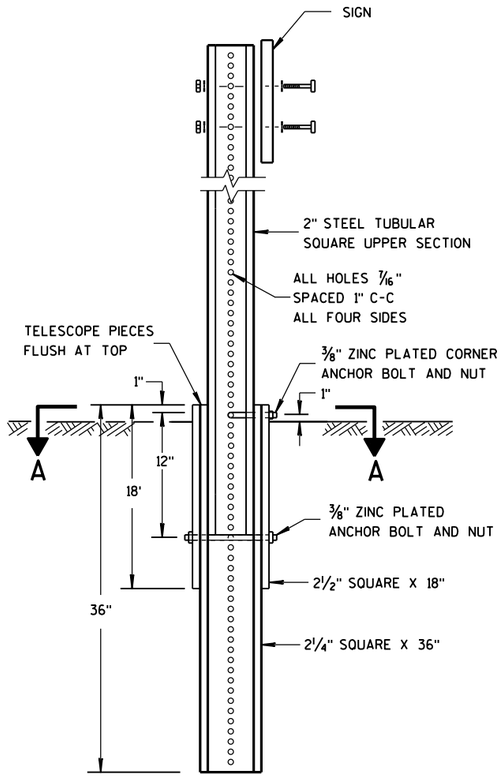
FHWA

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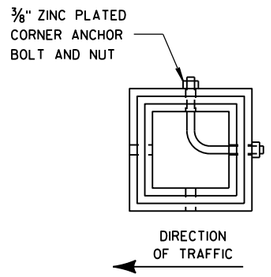
SDD 15C11 - 07b

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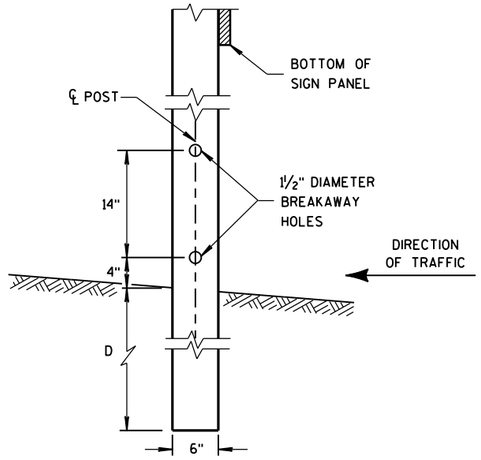
SDD 15C11 - 07b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



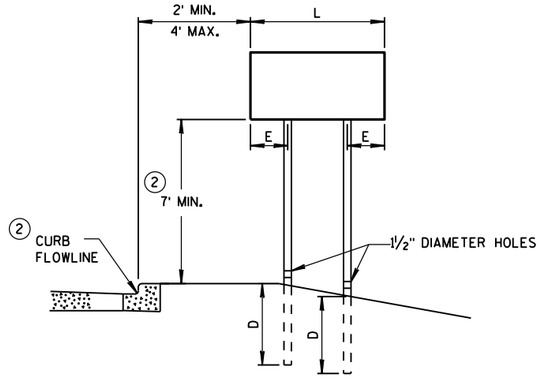
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

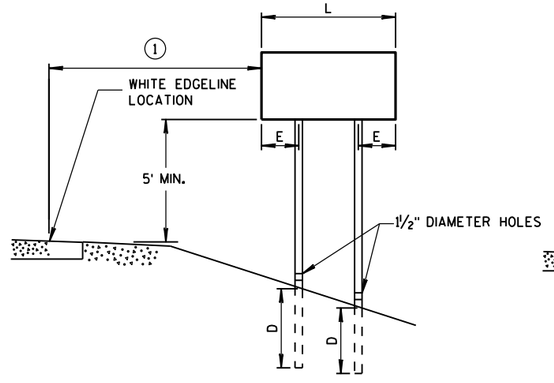
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

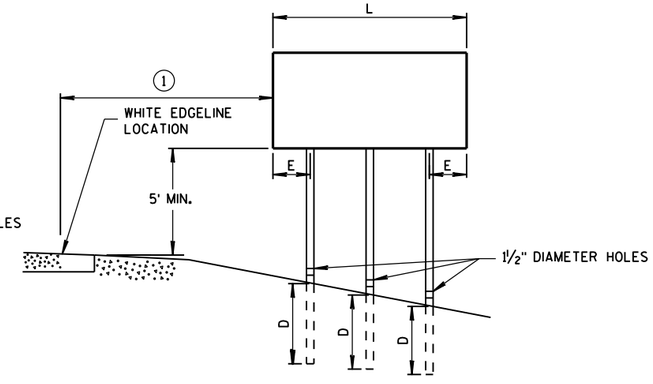
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

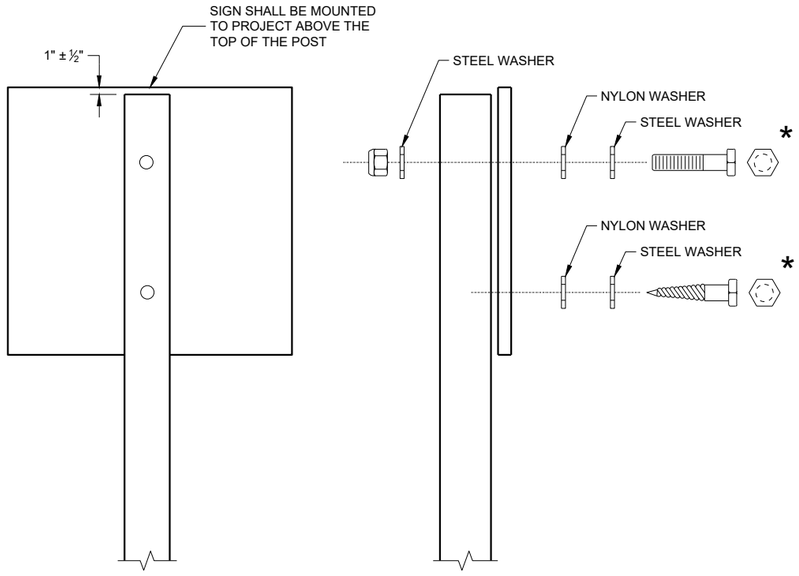
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 15 D 38-2a



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 POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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SDD 15D38 - 02b

SDD15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

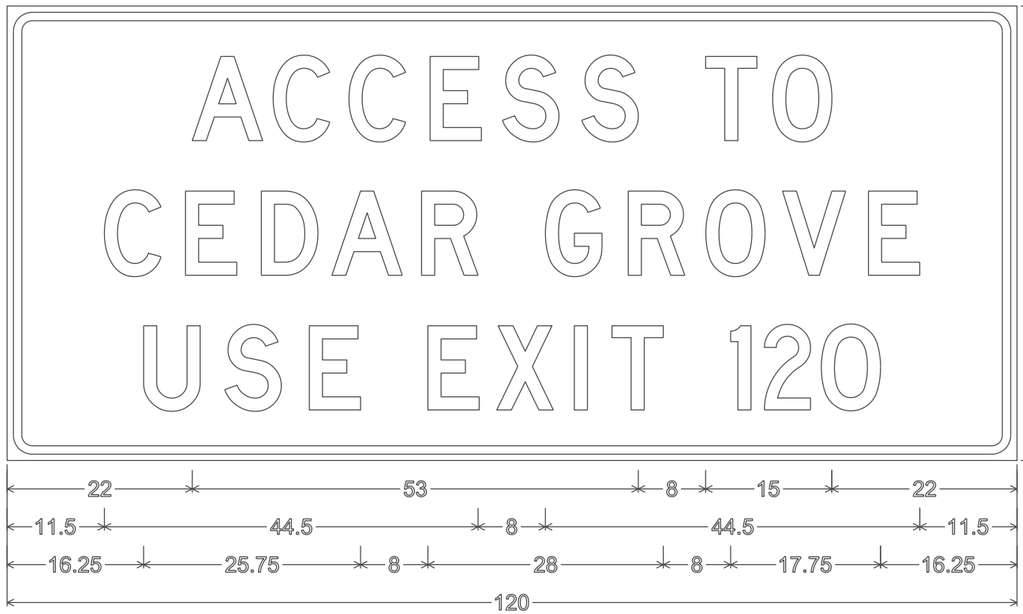
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

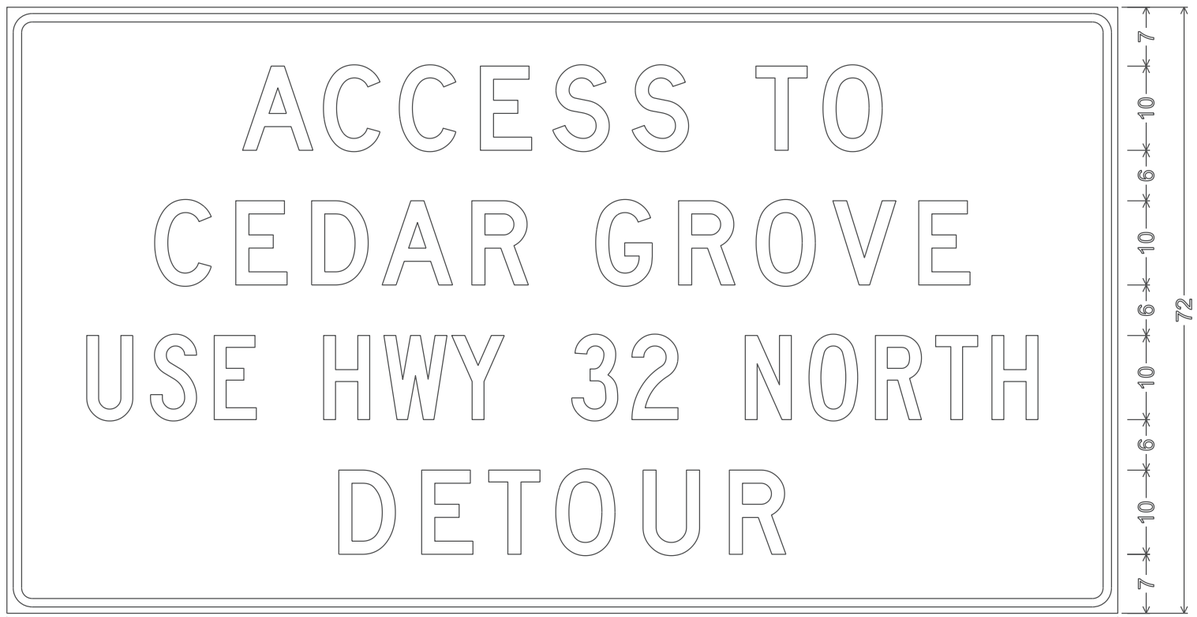
FHWA

NOTES

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



3.000" Radius, 1.000" Border, 0.750" Indent, Black on Fluorescent orange;
"ACCESS" D; "TO" D; "CEDAR" D; "GROVE" D; "USE" D; "EXIT" D; "116" D;

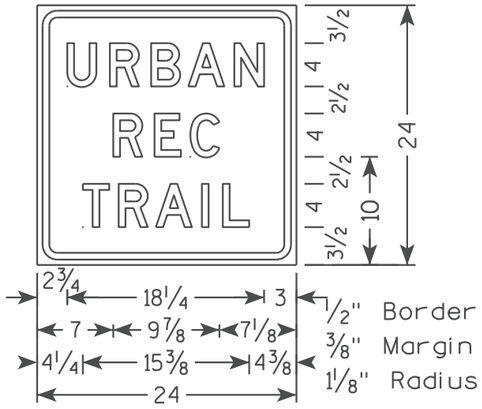


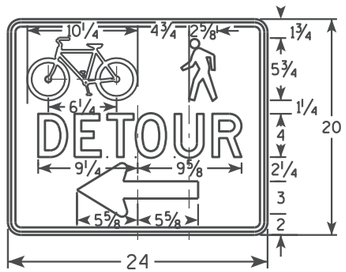
3.000" Radius, 1.000" Border, 0.750" Indent, Black on Fluorescent orange;
"ACCESS" D; "TO" D; "CEDAR" D; "GROVE" D; "USE" C; "HWY" C; "32" C; "NORTH" C; "DETOUR" D;

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET NO: 82	E

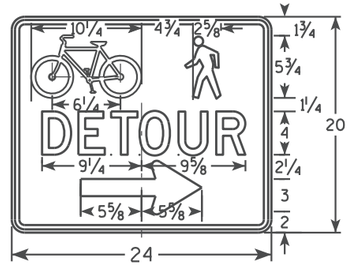
NOTES

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

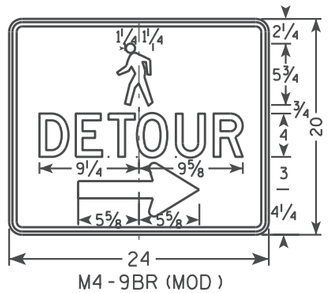




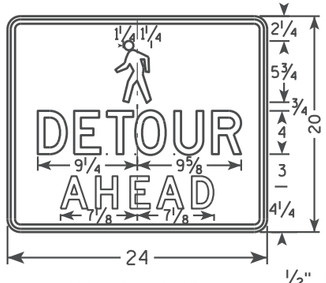
M4-9BL (MOD)
1/2" Border
3/8" Margin
1 1/8" Radius



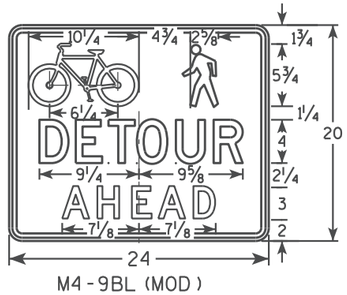
M4-9BR (MOD)
1/2" Border
3/8" Margin
1 1/8" Radius



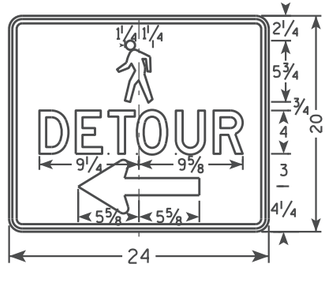
M4-9BR (MOD)
1/2" Border
3/8" Margin
1 1/8" Radius



M4-9BL (MOD)
1/2" Border
3/8" Margin
1 1/8" Radius



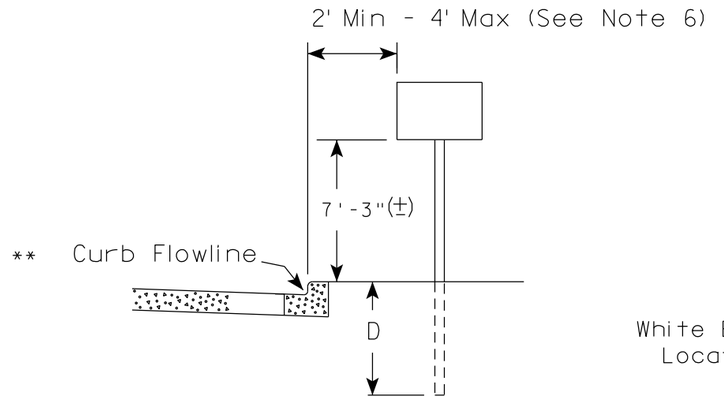
M4-9BL (MOD)
1/2" Border
3/8" Margin
1 1/8" Radius



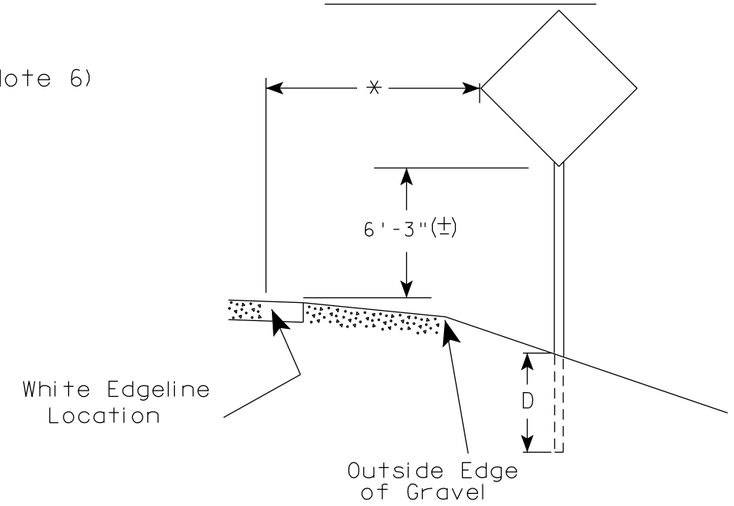
M4-9BL (MOD)
1/2" Border
3/8" Margin
1 1/8" Radius

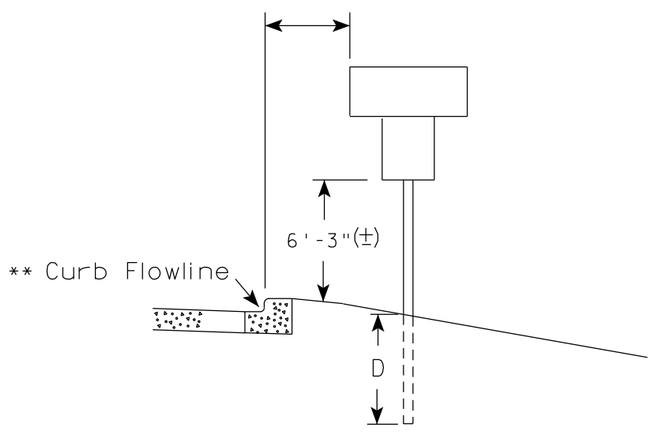
PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	FIXED MESSAGE SIGN DETAILS	SHEET NO:	E

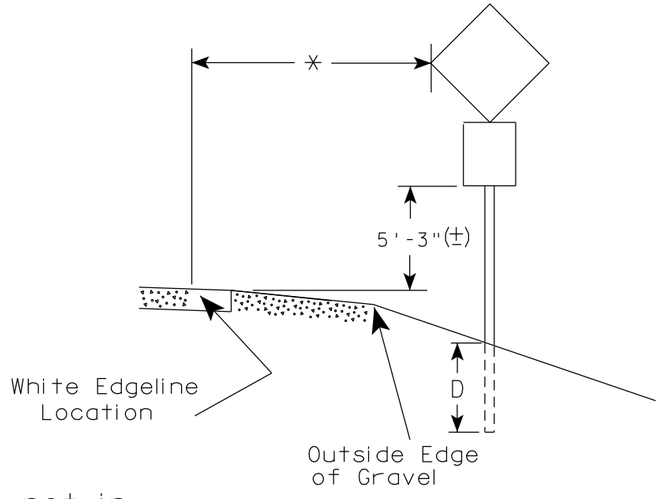
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

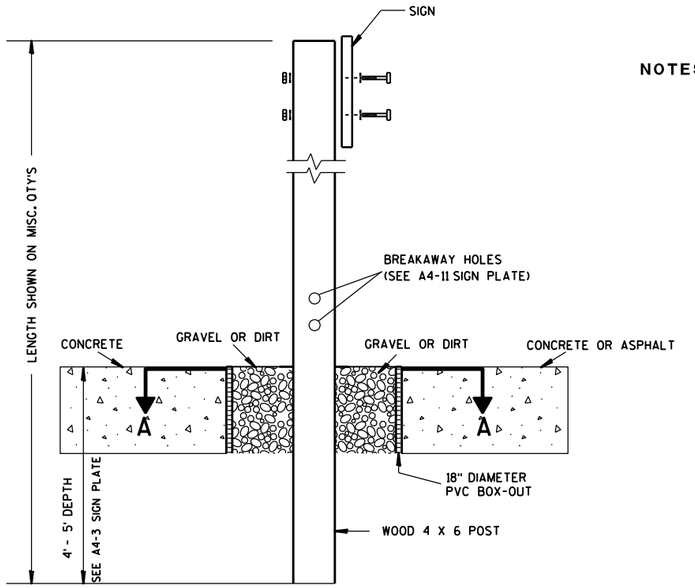
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

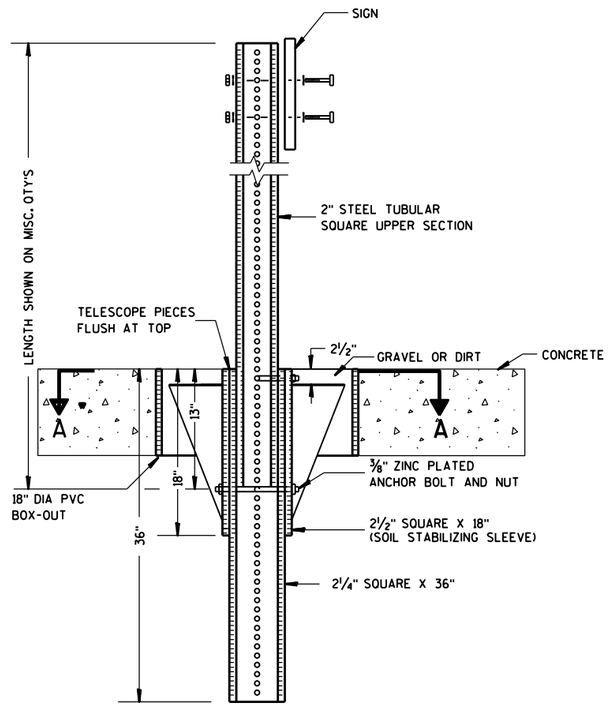
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 84	E



ELEVATION VIEW

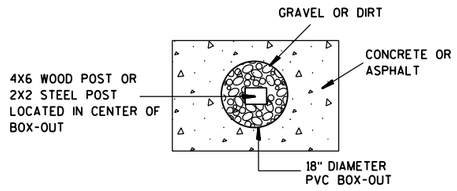
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

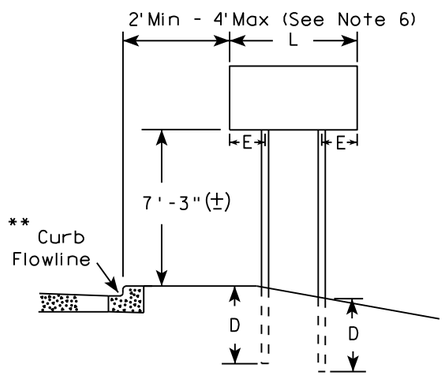
APPROVED Matthew R Rauch
for State Traffic Engineer

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

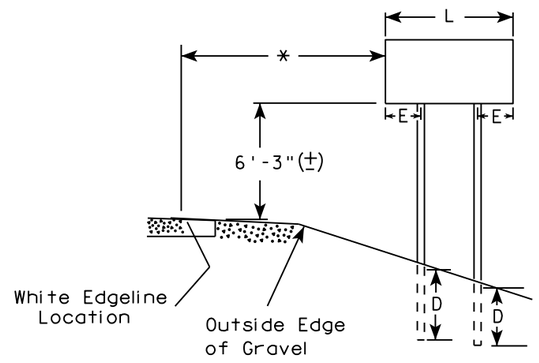
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

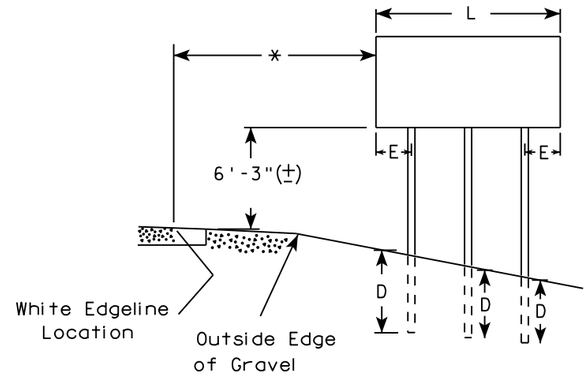
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

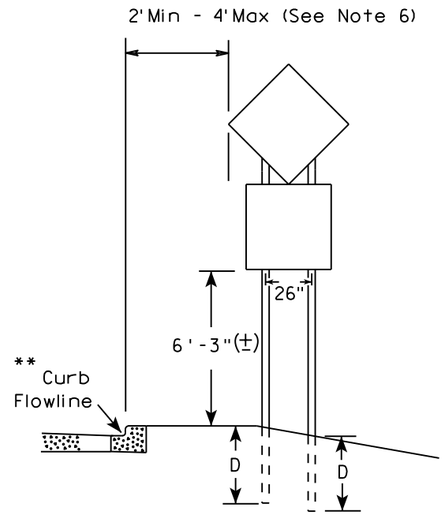
URBAN AREA



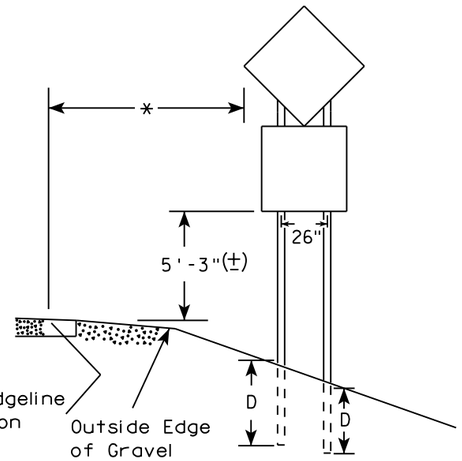
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

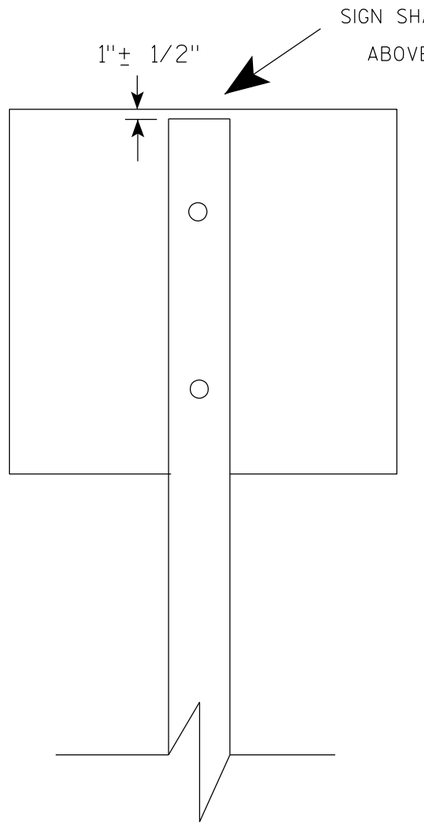
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

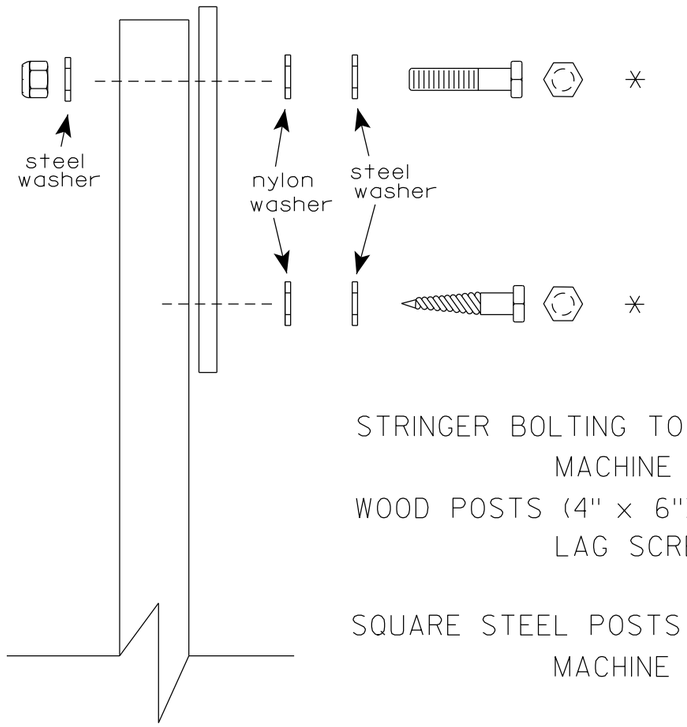
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 86	E





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

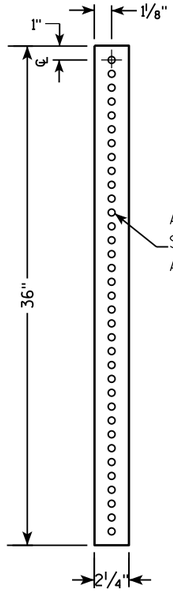
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

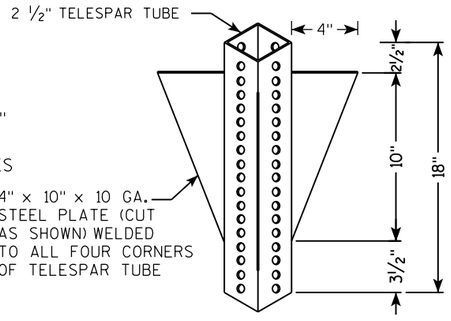
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

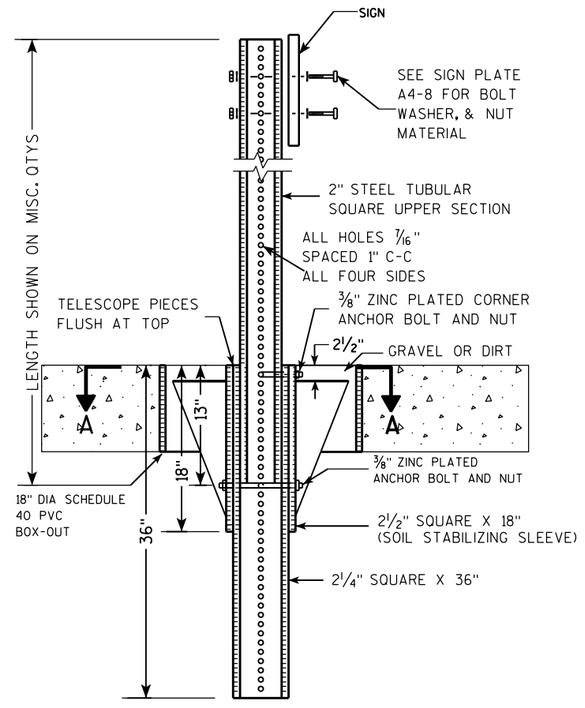
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



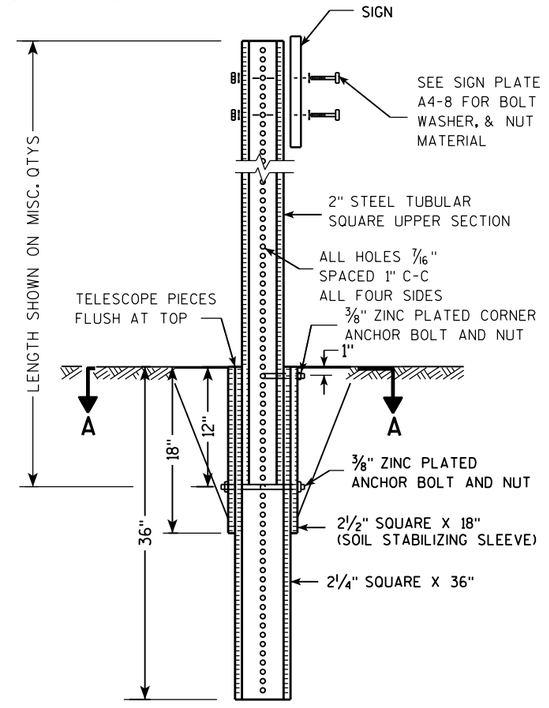
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

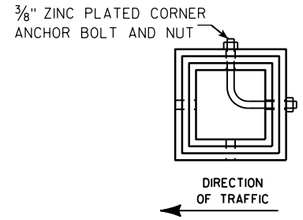


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

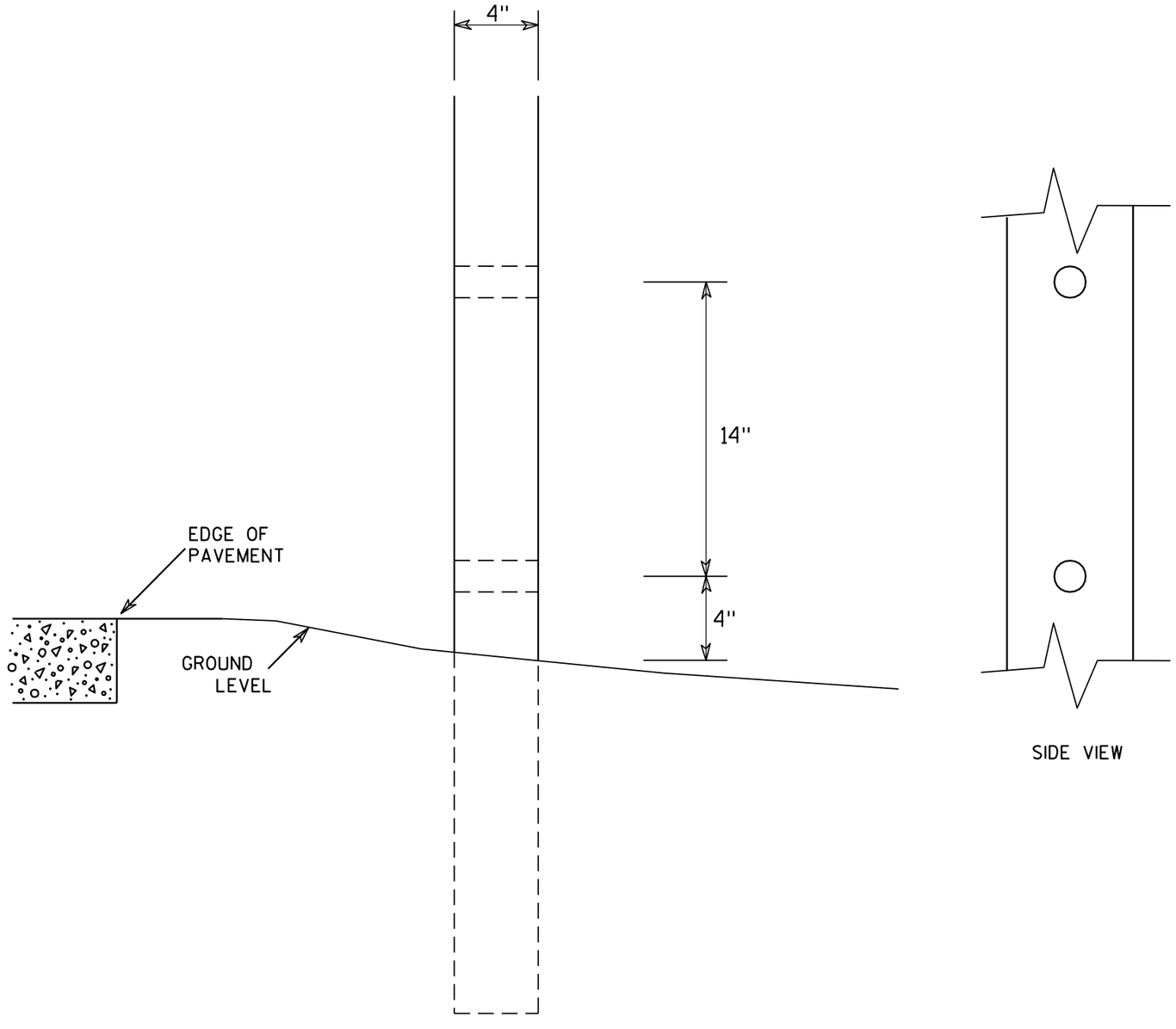
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 88 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

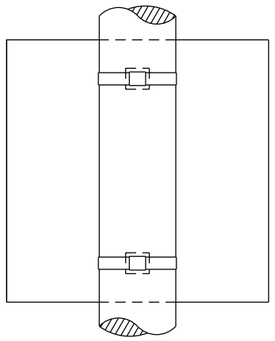
APPROVED Chester J Spang for State Traffic Engineer

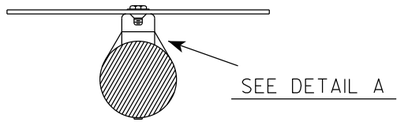
DATE 3/27/97 PLATE NO. A4-11.2

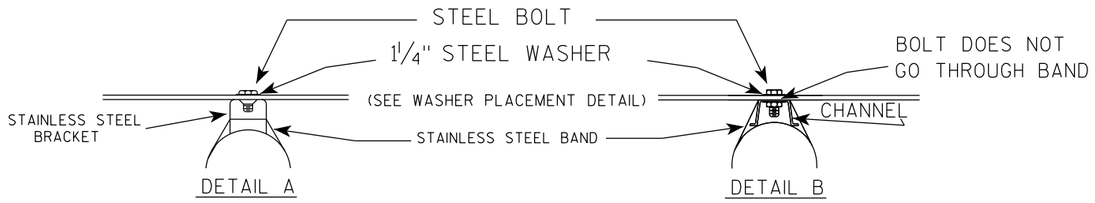
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 89	E

BANDING

SINGLE SIGN



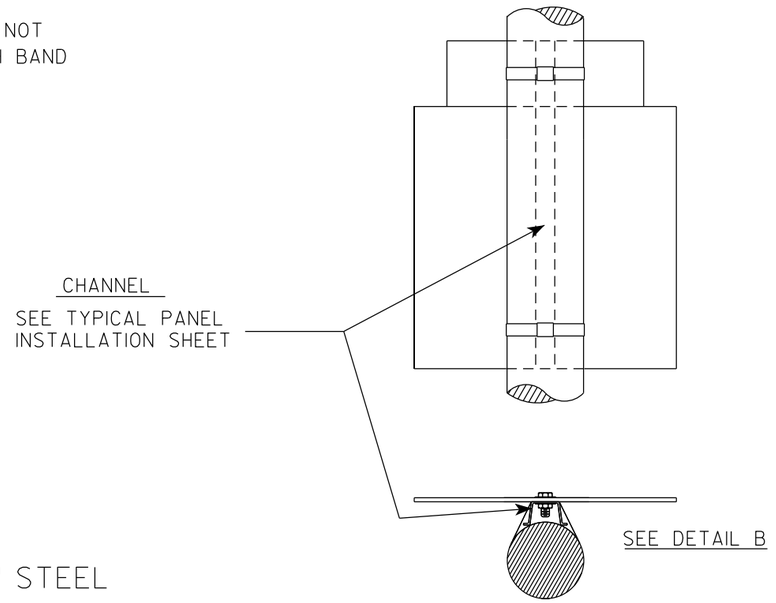




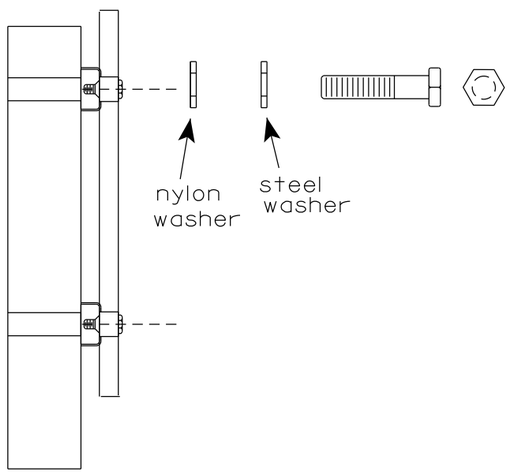
GENERAL NOTES

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

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

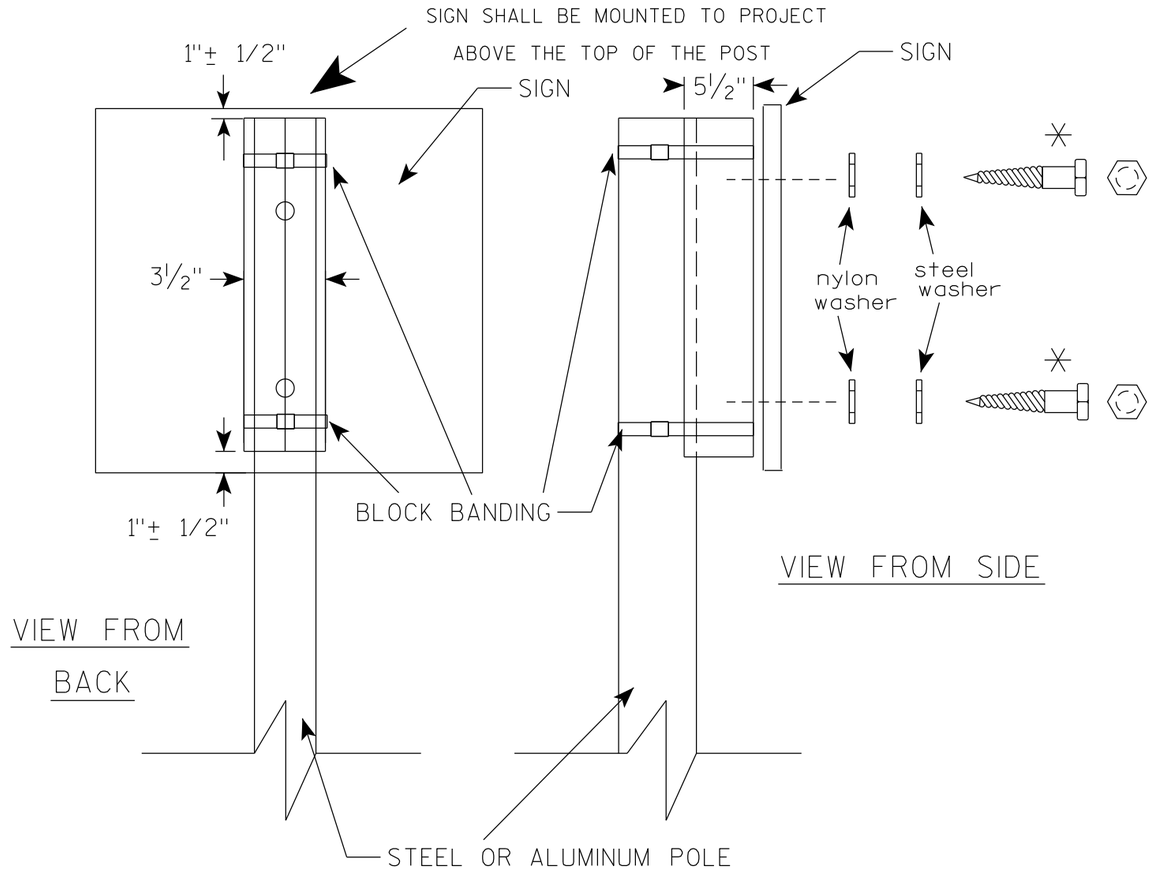
WISCONSIN DEPT OF TRANSPORTATION

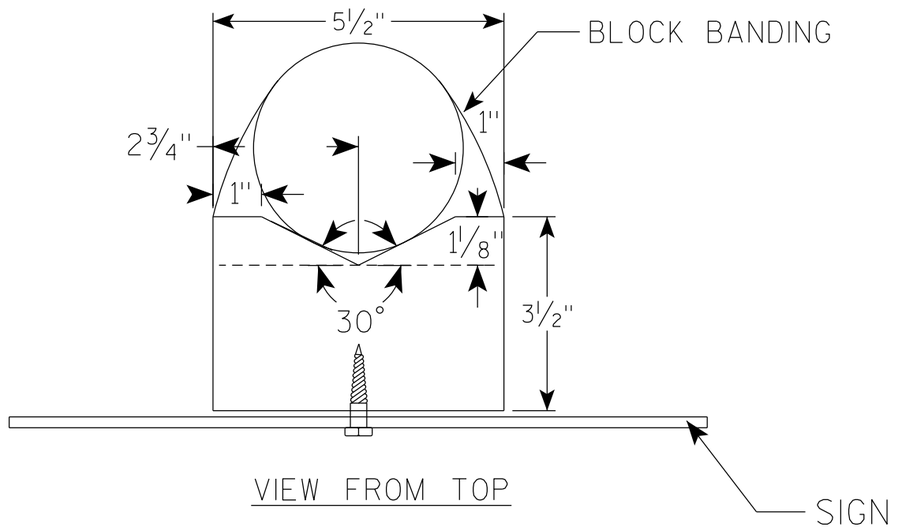
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 90	E

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





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

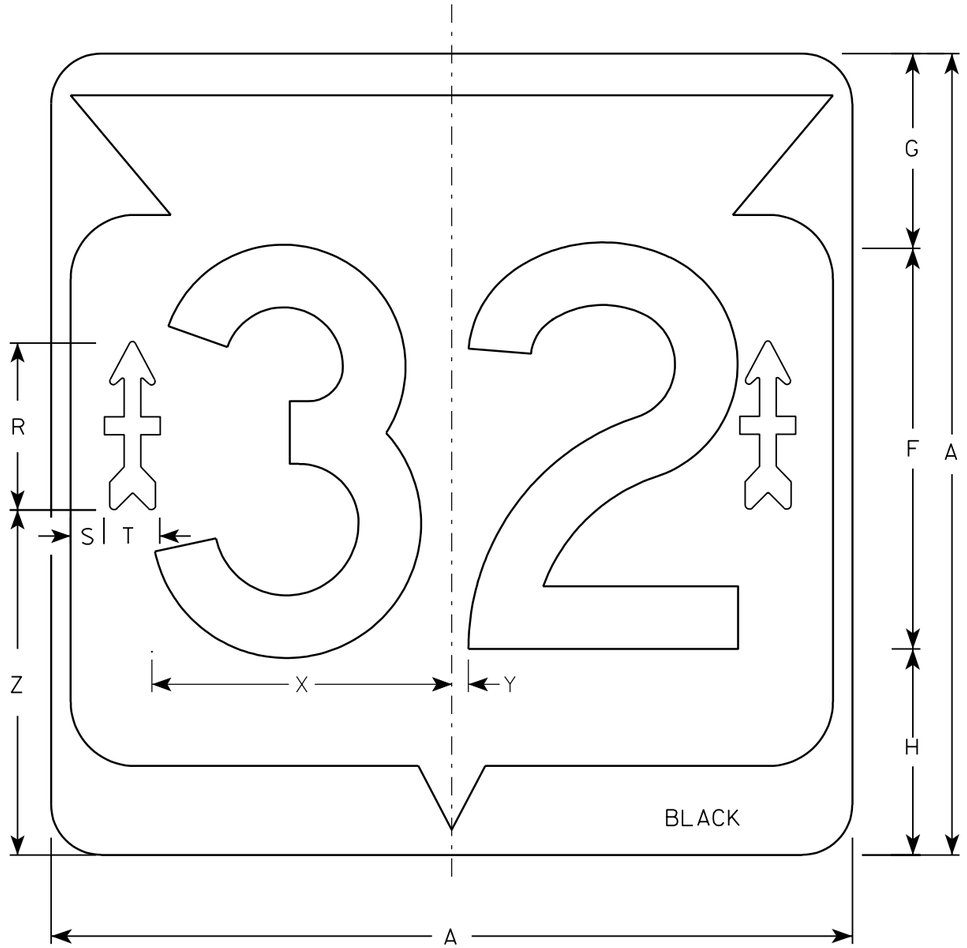
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

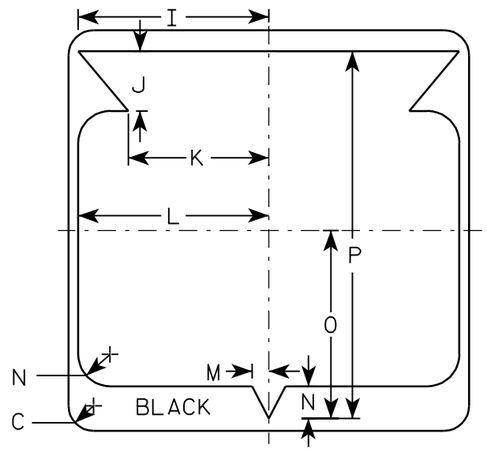
PROJECT NO:				SHEET NO: 91	E



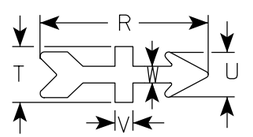
M1-6B

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black
   Message - Black
   Arrow - Type H Reflective Red
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.



32nd DIVISION ARROW
ACTUAL SIZE



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 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

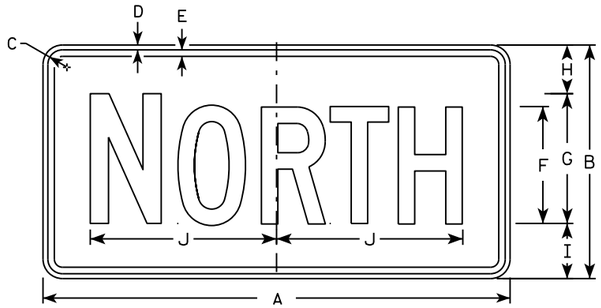
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

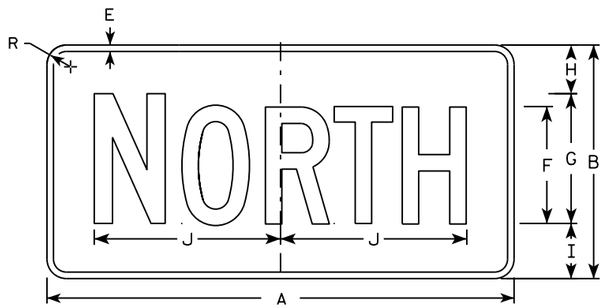
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 92 | E



M3-1
MM3-1
MP3-1



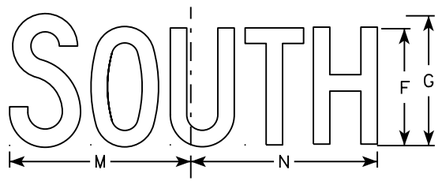
MB3-1
MK3-1
MN3-1



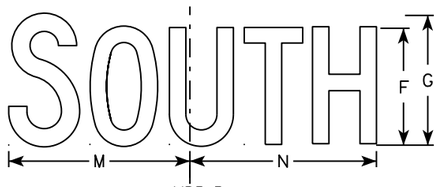
M3-2
MM3-2
MP3-2



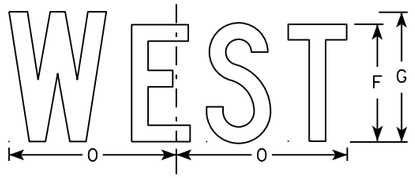
MB3-2
MK3-2
MN3-2



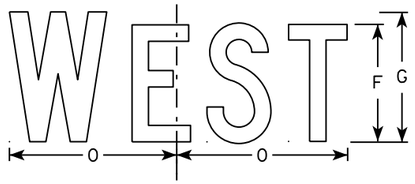
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

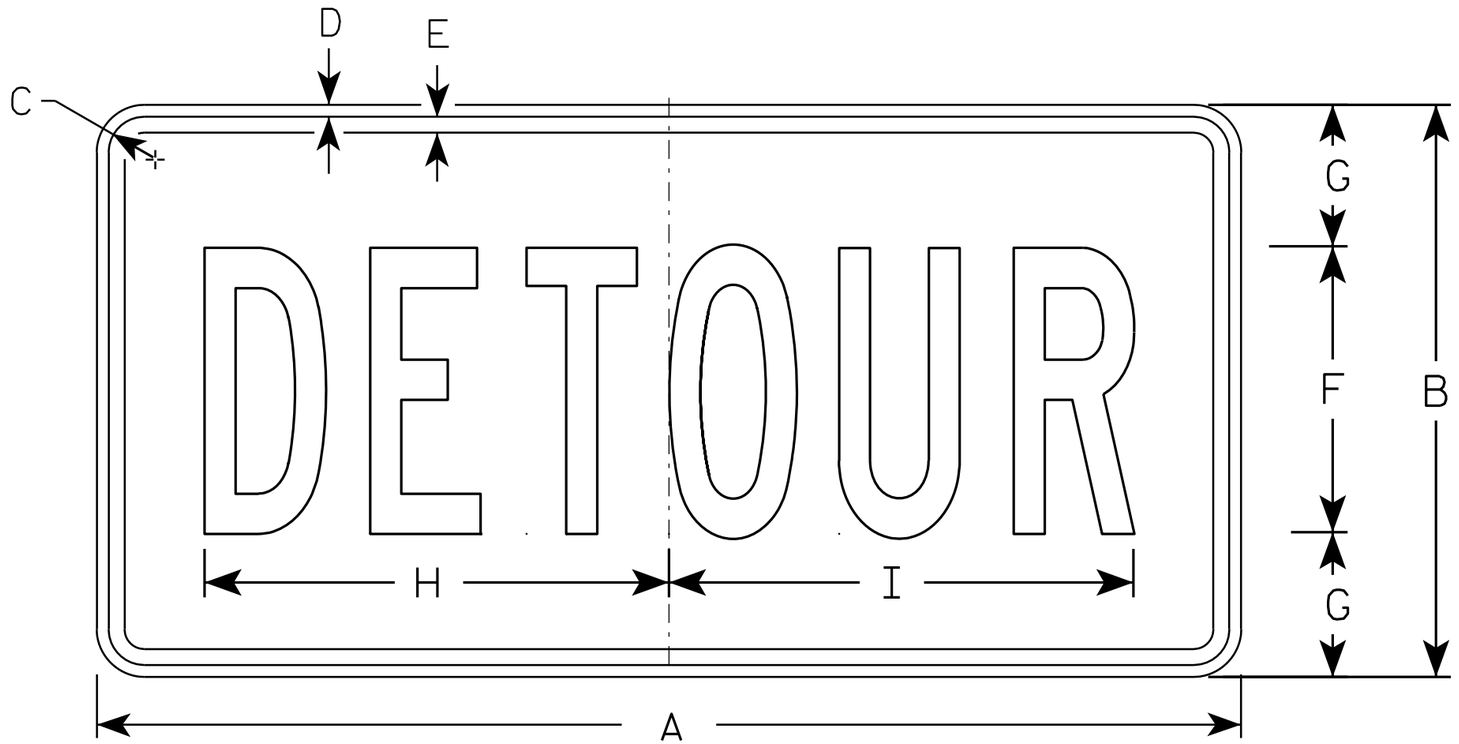
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

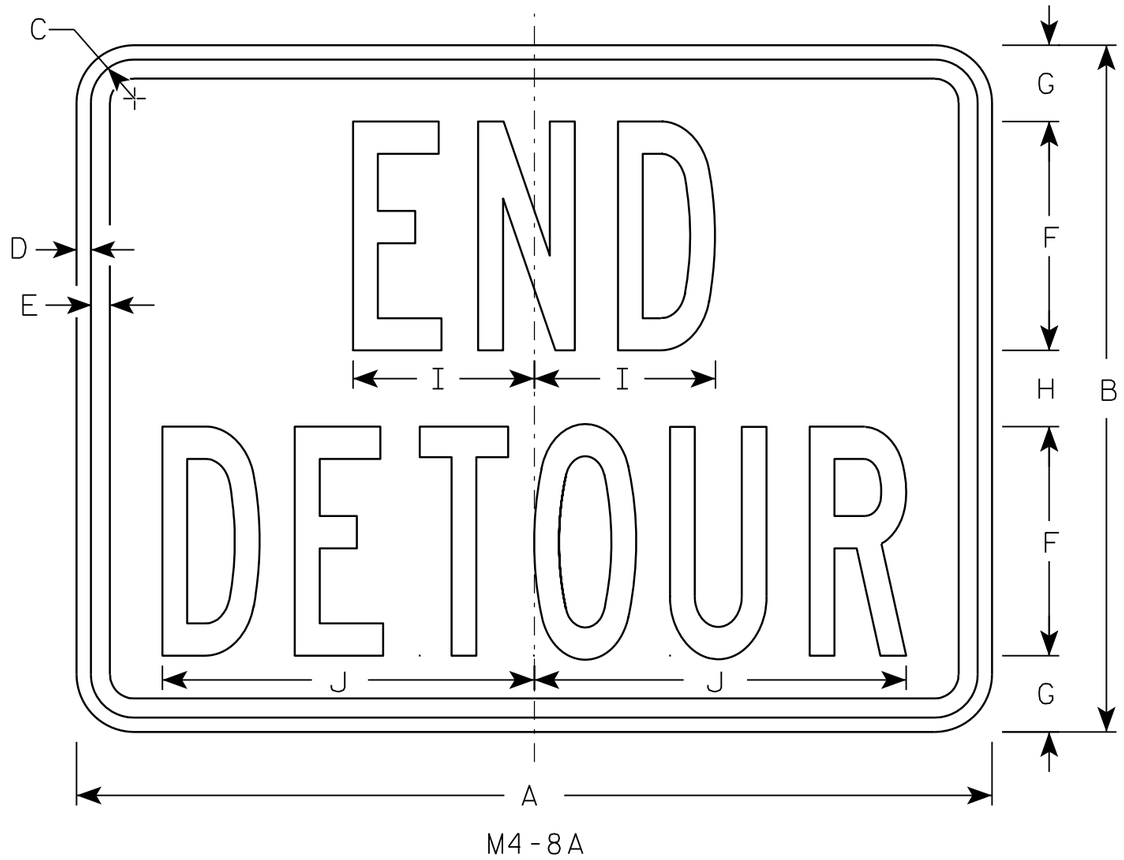
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

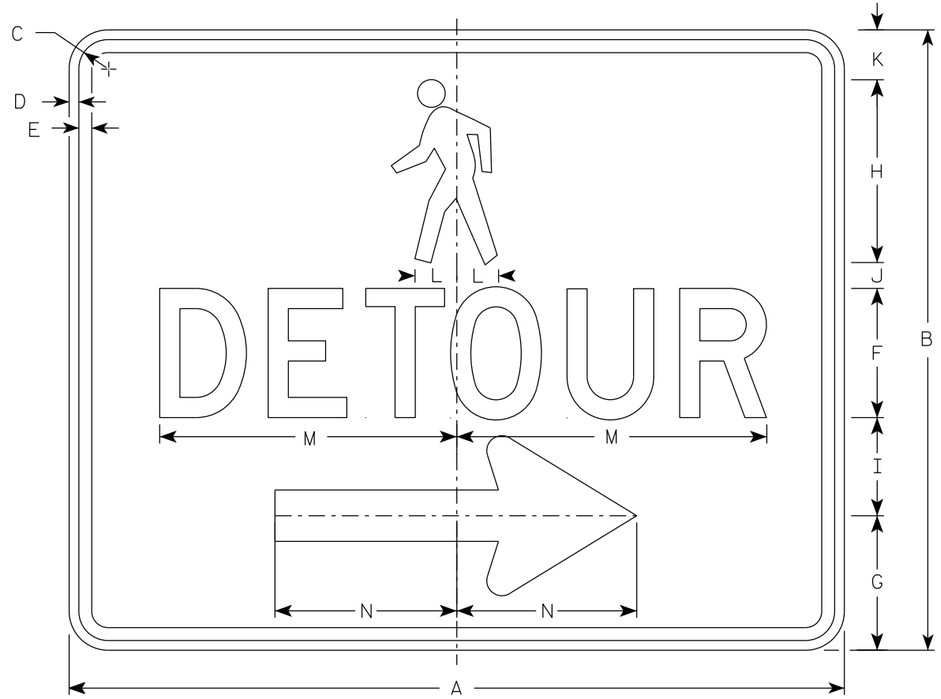
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

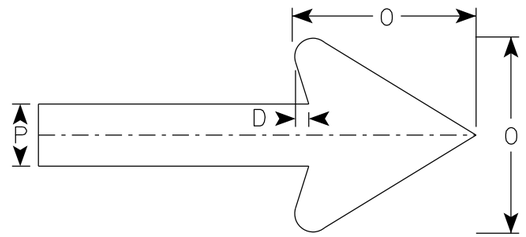
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 95	E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow 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																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

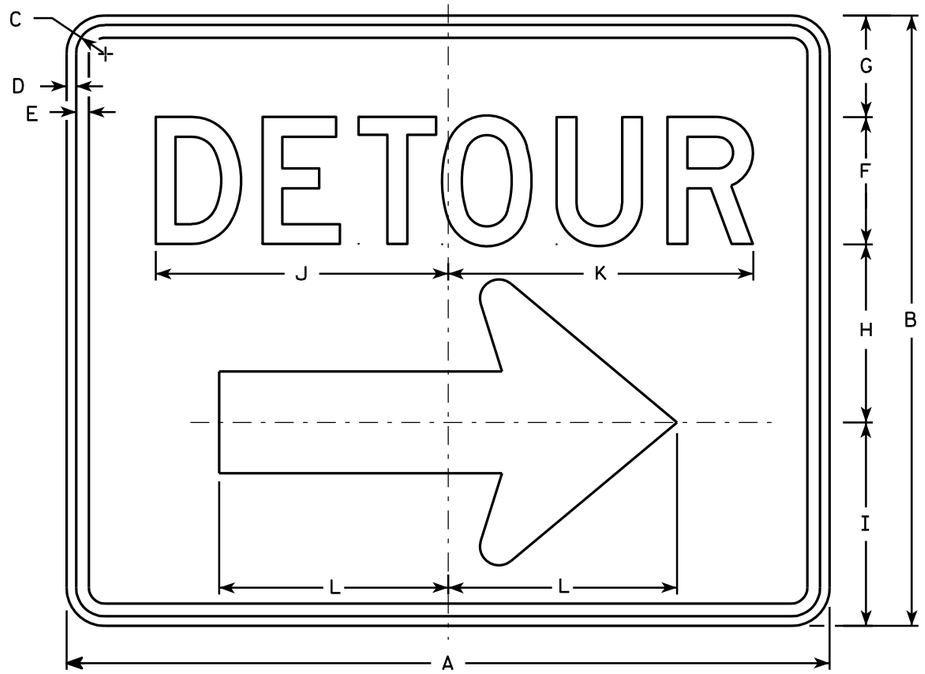
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

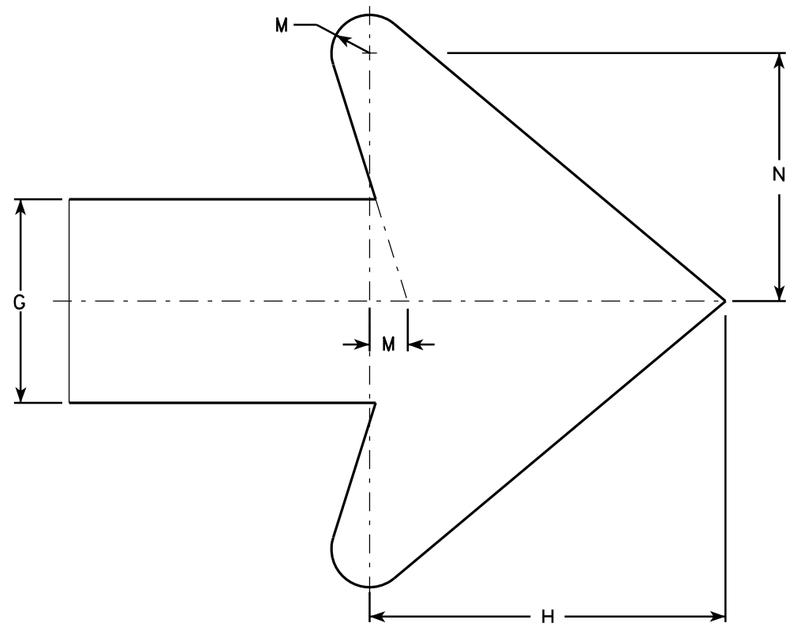
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 96 | E



M4-9R

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. 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. M4-9L is the same as M4-9R except the arrow 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																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

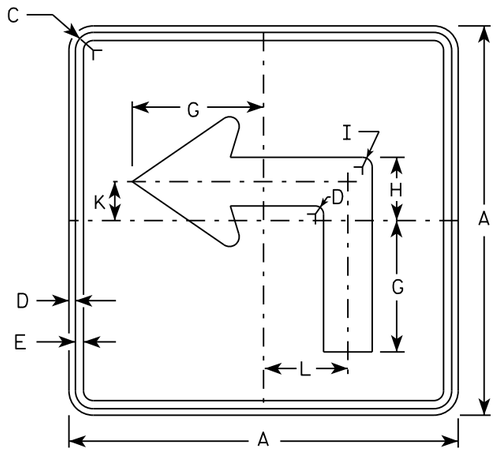
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

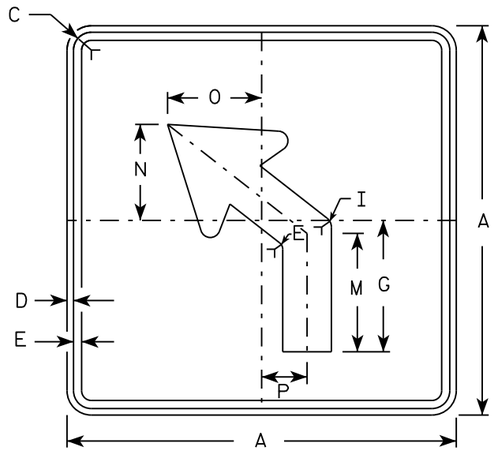
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

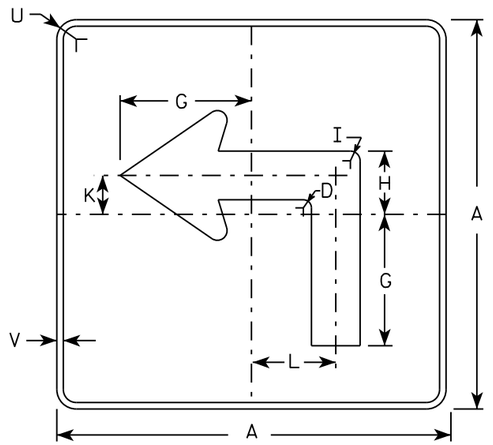
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 97	E



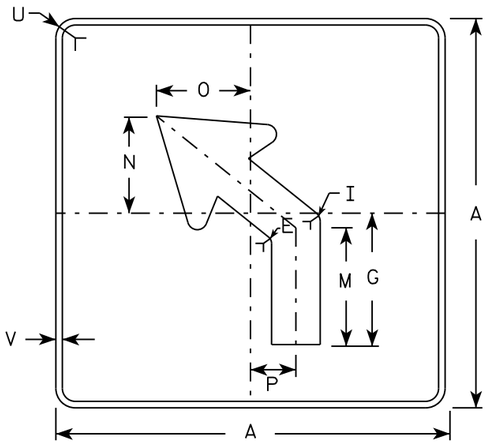
M5-1L
MM5-1L
MO5-1L
MP5-1L



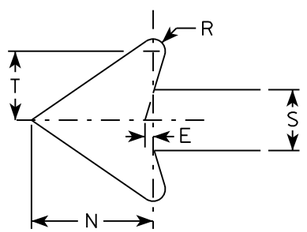
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

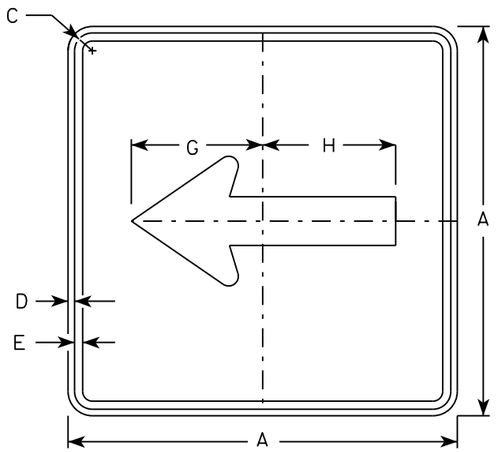
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

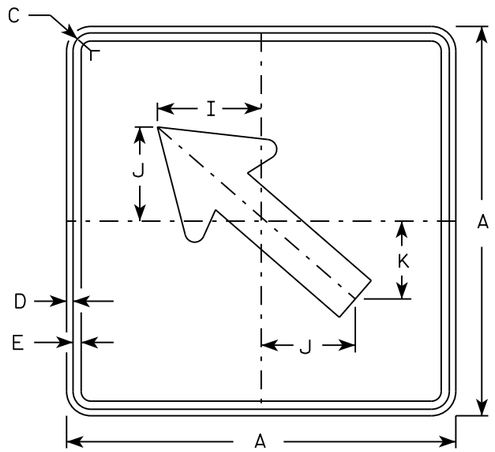
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



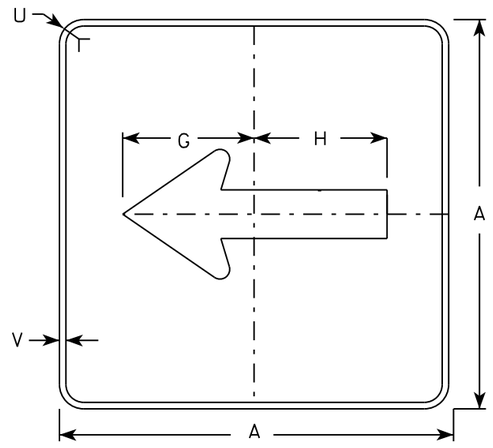
M6-1
MM6-1
MO6-1
MP6-1



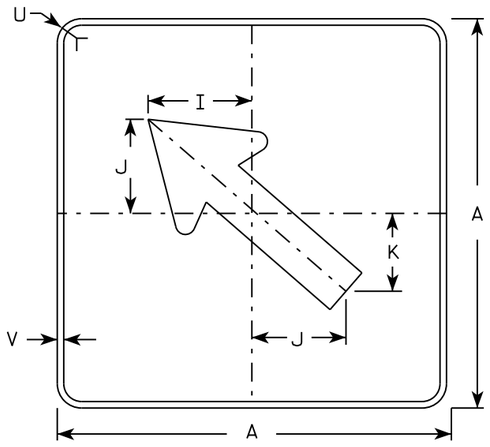
M6-2
MM6-2
MO6-2
MP6-2

NOTES

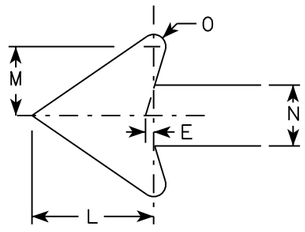
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

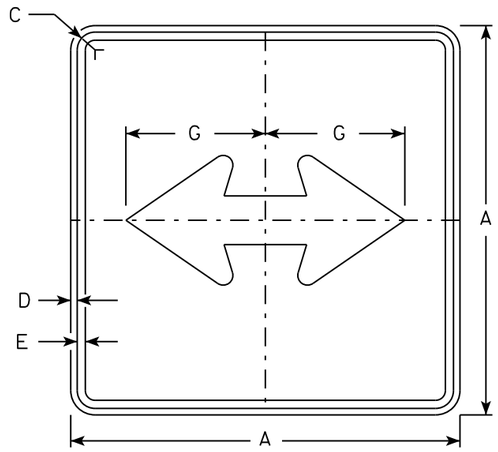
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

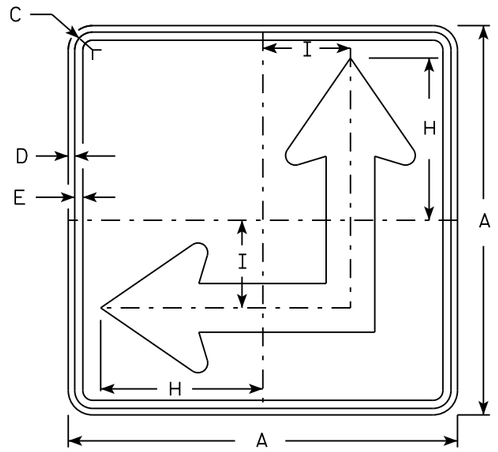
DATE 10/15/15 PLATI 99 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



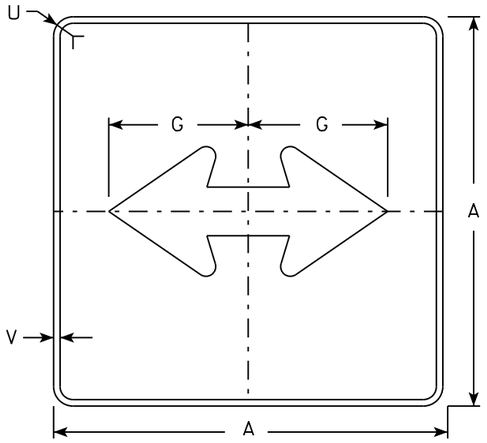
M6-4
MM6-4
MO6-4
MP6-4



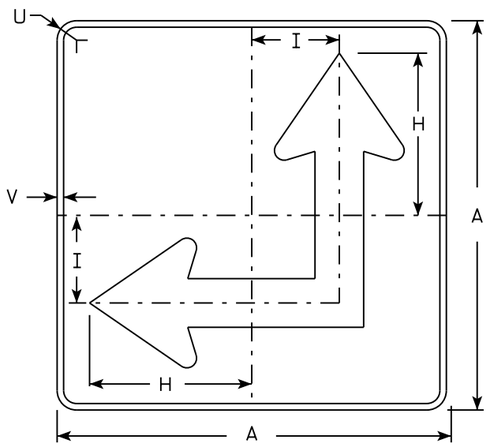
M6-6
MM6-6
MO6-6
MP6-6

NOTES

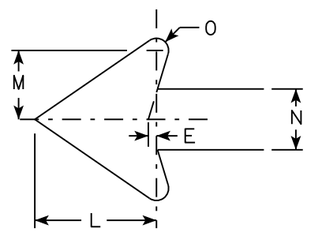
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	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	12 1/2	6 3/4			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	12 1/2	6 3/4			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	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

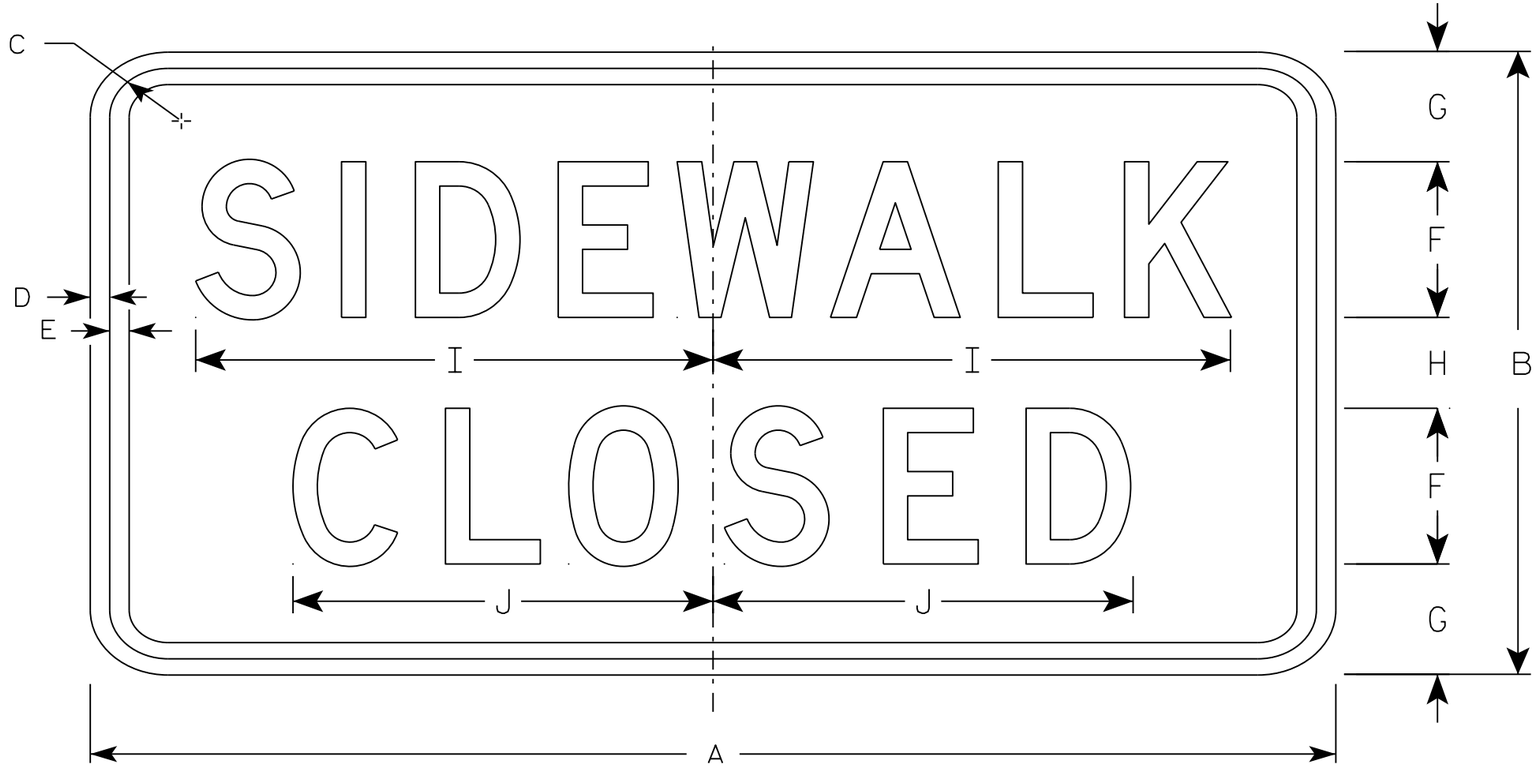
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 100 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R9-9

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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

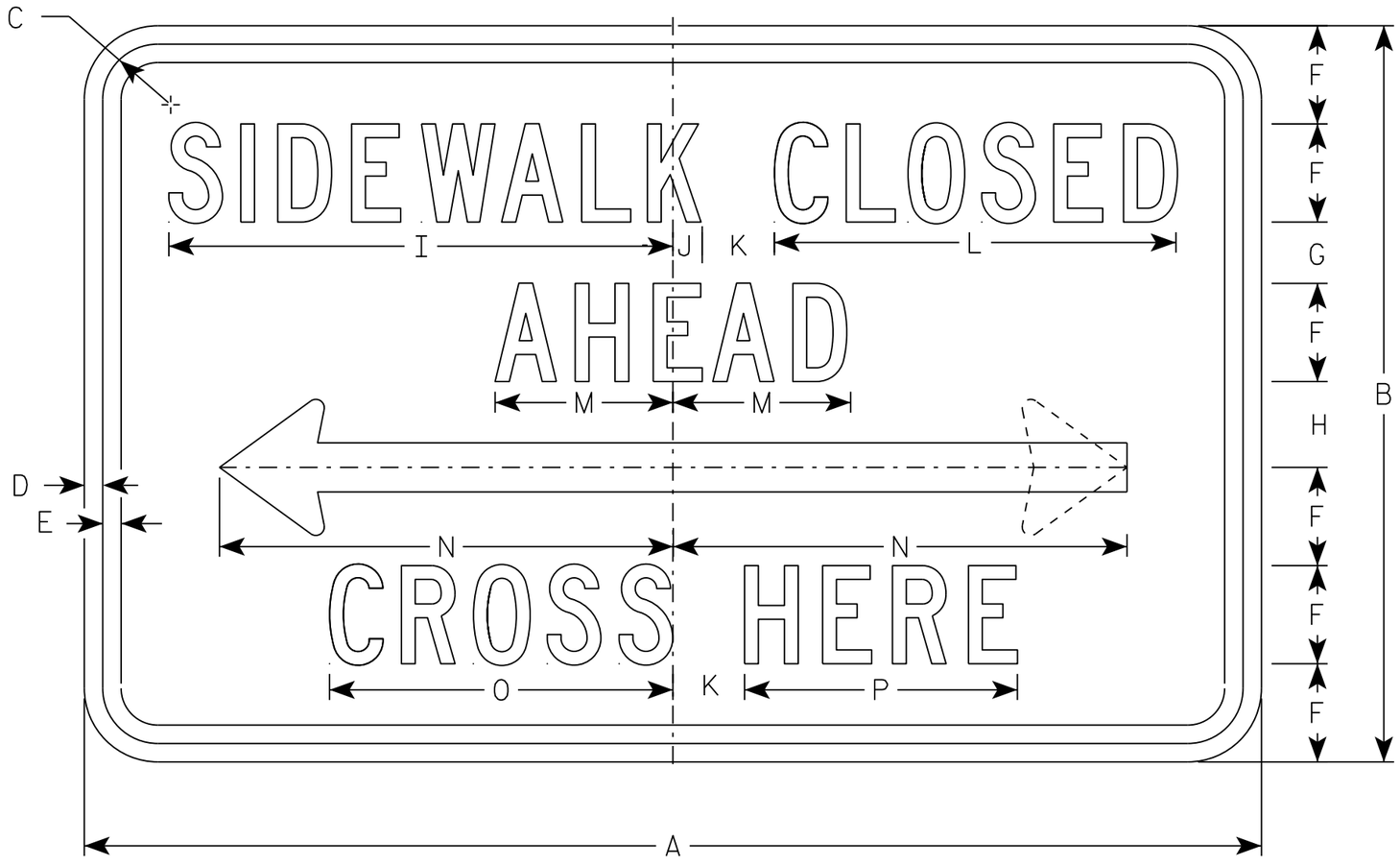
DATE 8/11/16 PLATE 101 R9-9.6

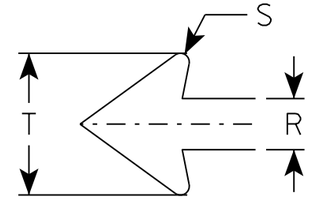
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.





R9-11

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	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

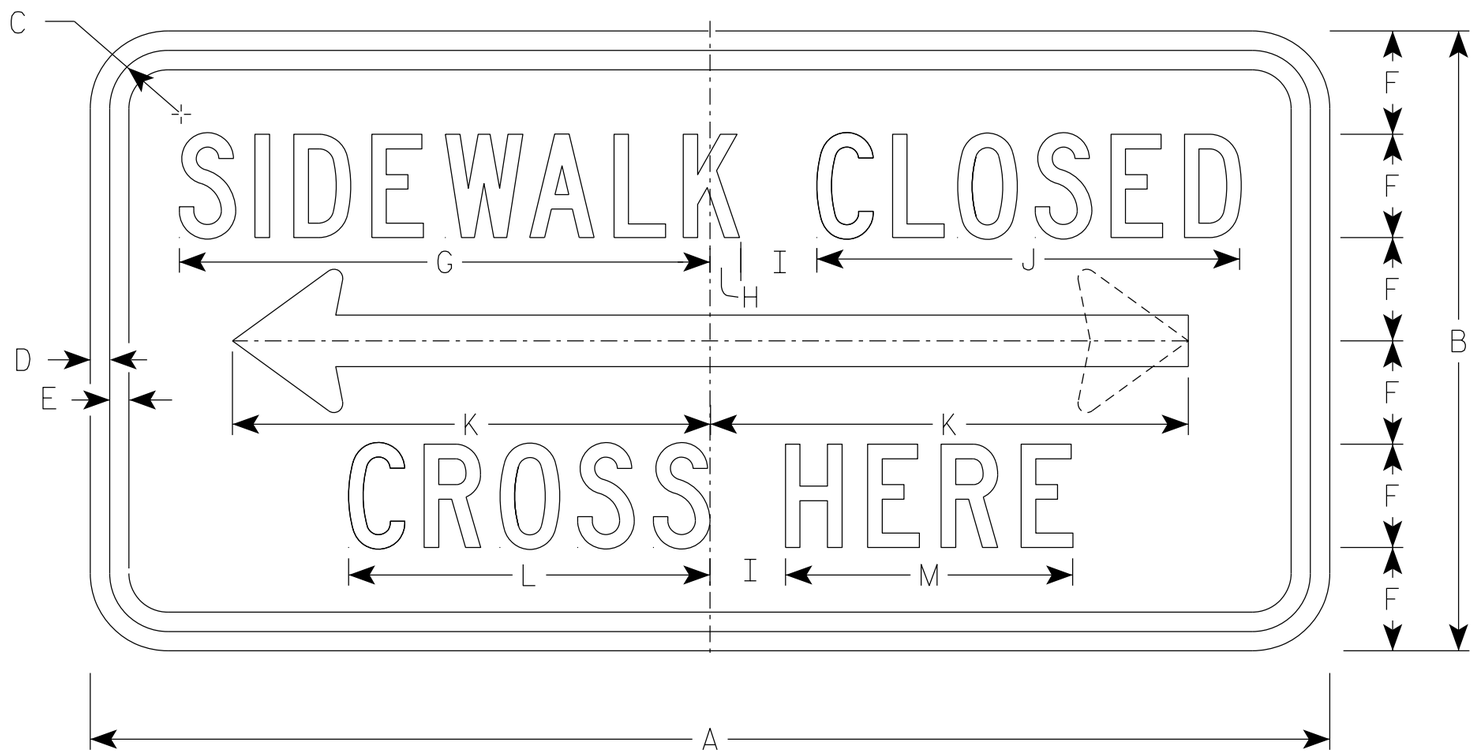
STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3

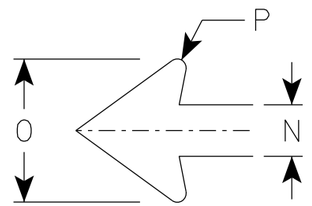
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E



R9-11A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

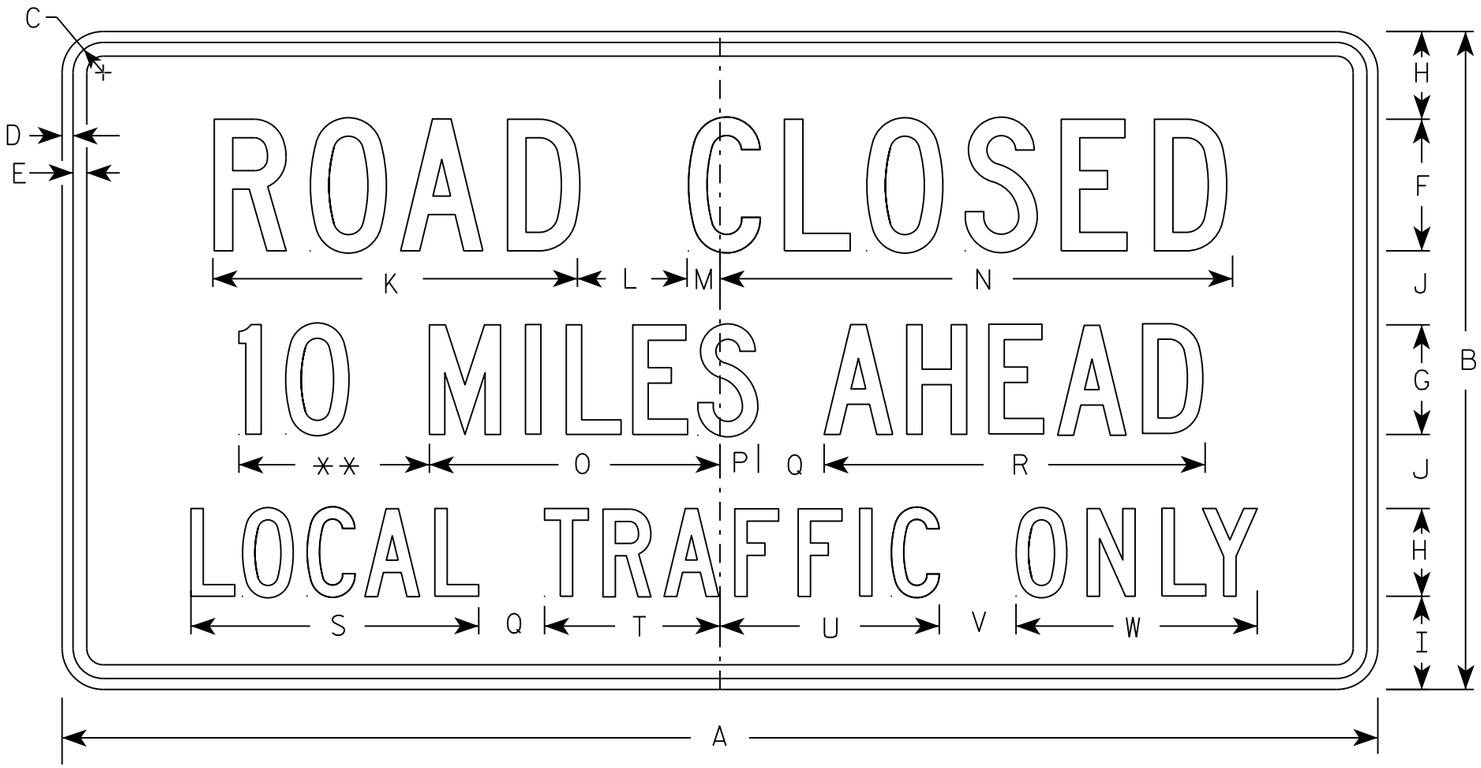
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/7/2020 PLATE NO. R9-11A.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 103 | E

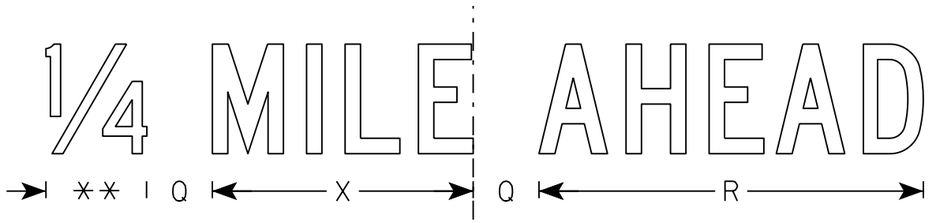
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

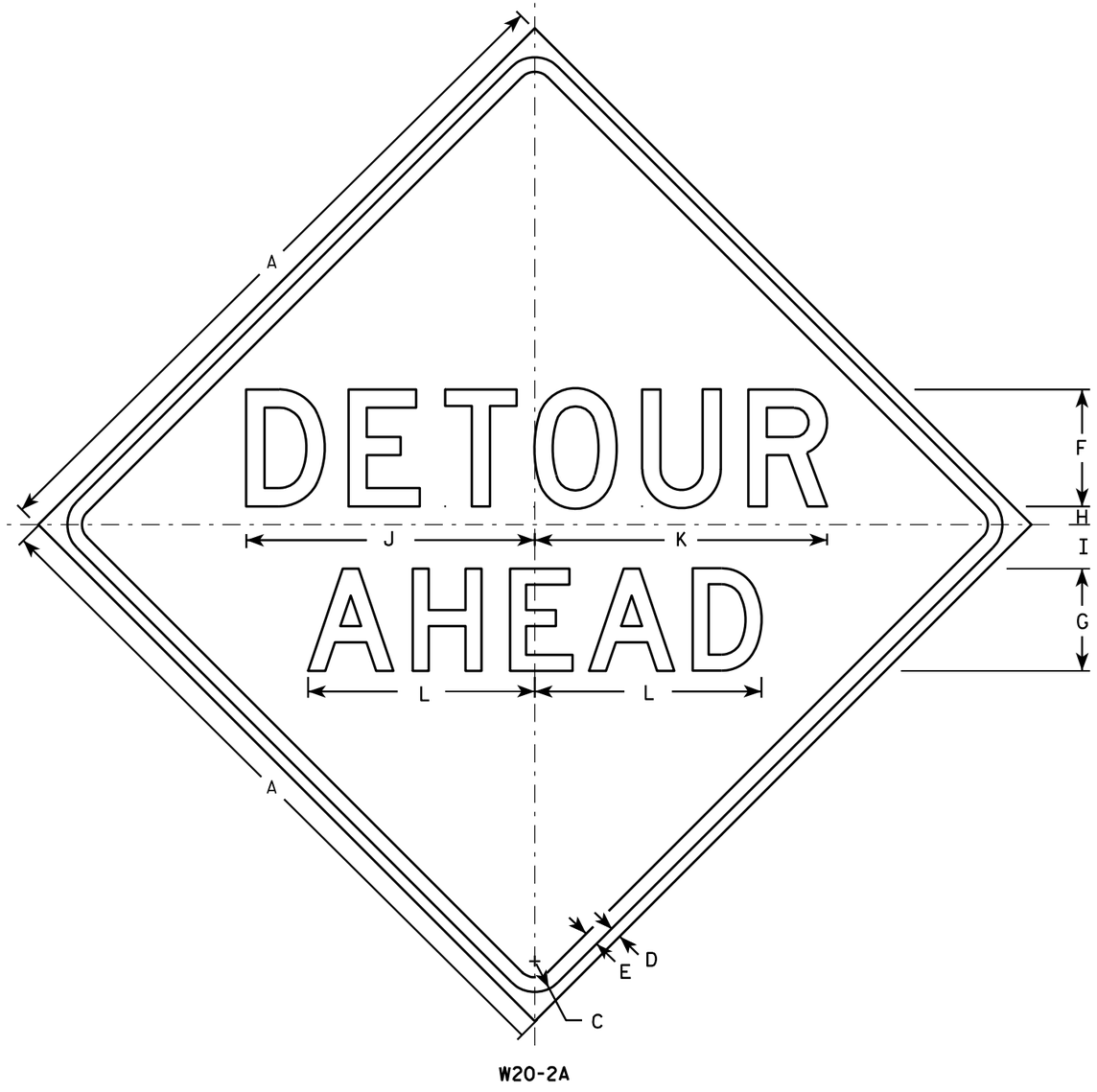
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

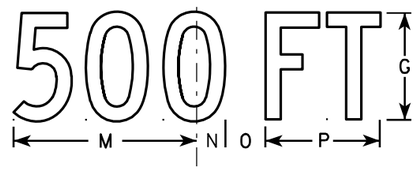
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/17 PLATE NO. R11-3.8

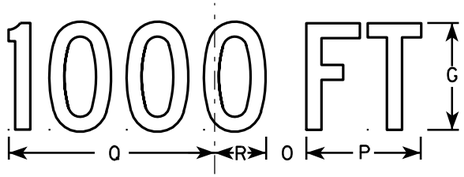
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



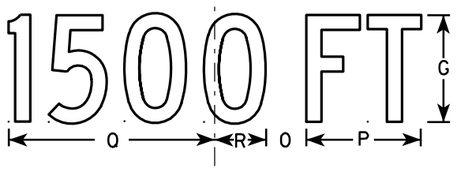
W20-2A



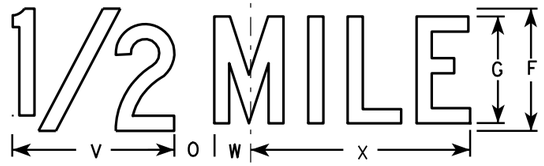
W20-2D



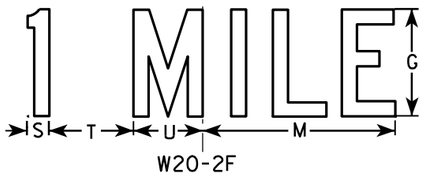
W20-2C



W20-2B



W20-2G



W20-2F

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. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

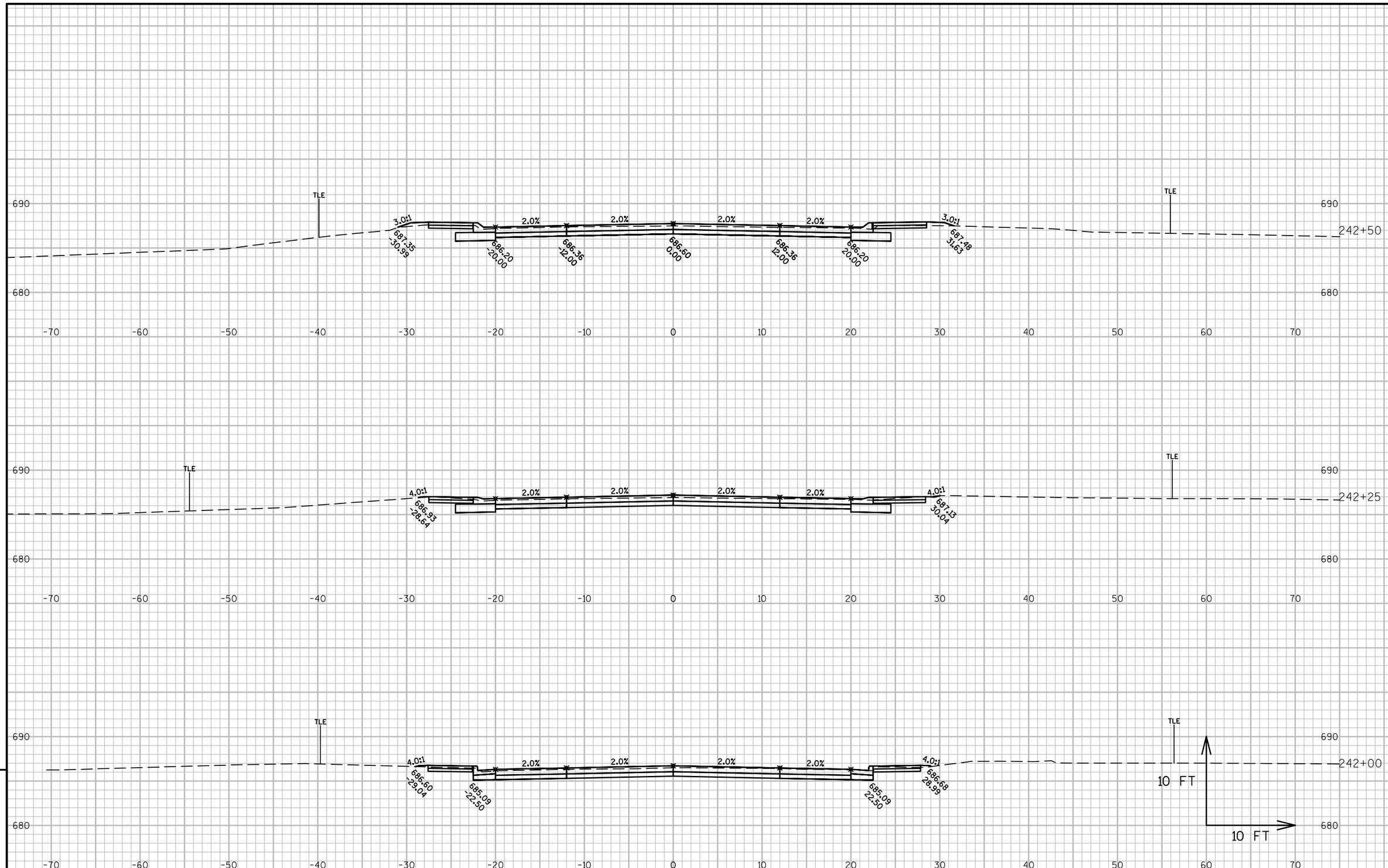
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 105 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



9

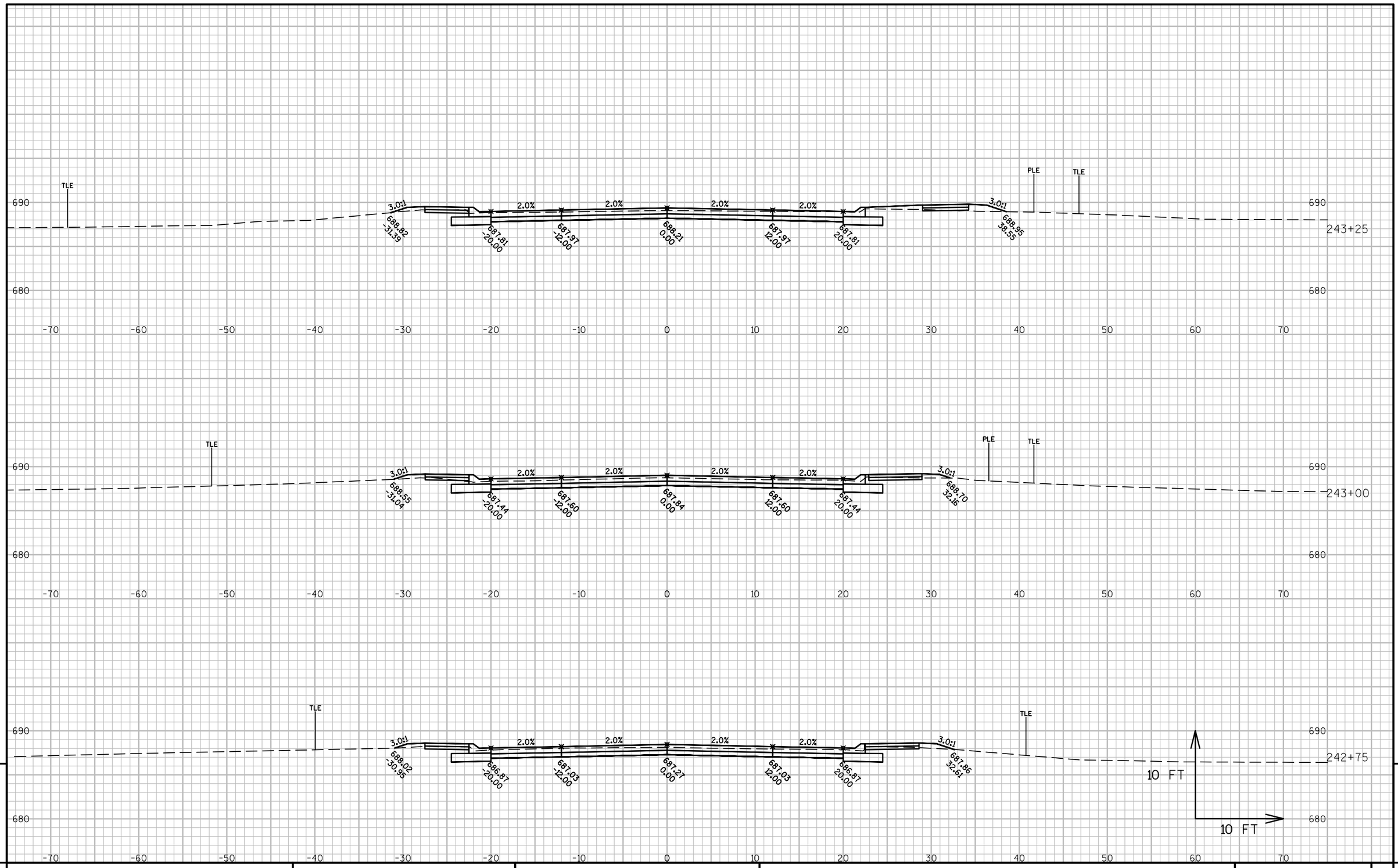
9

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 106	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 001

PLOT DATE : 9/23/2020 2:08 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

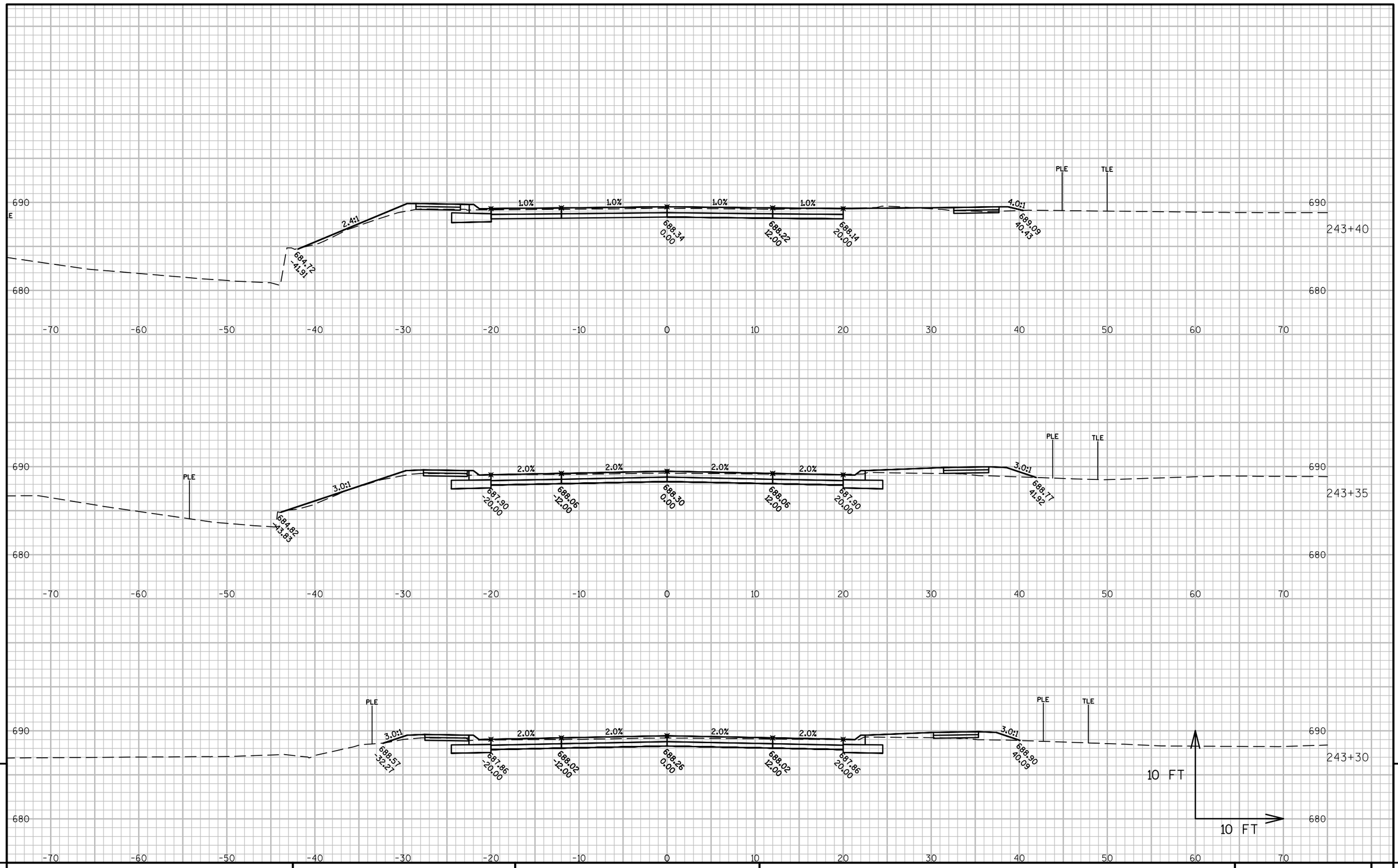
9

PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 107	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 002

PLOT DATE : 9/23/2020 2:09 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

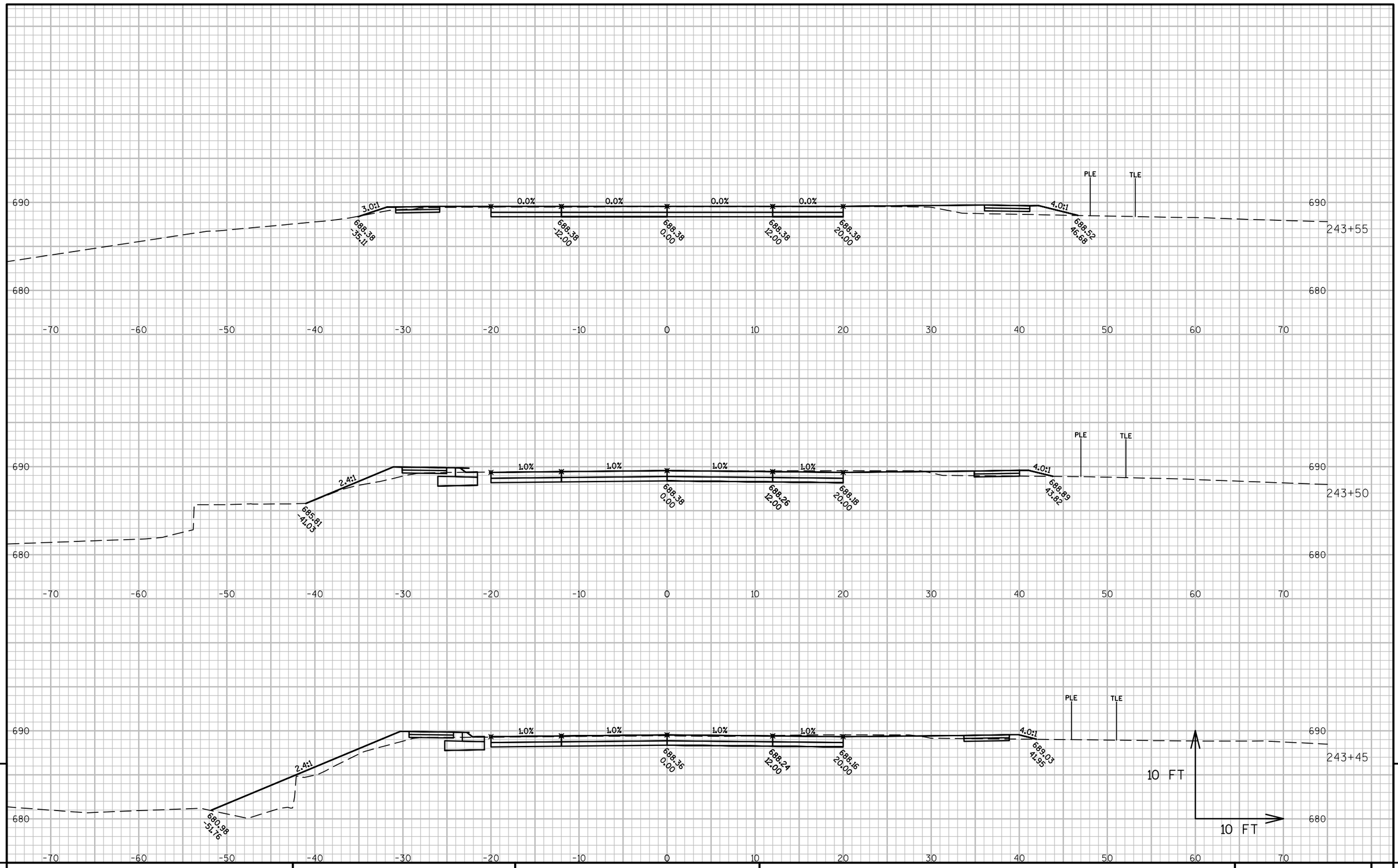
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PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 108	E

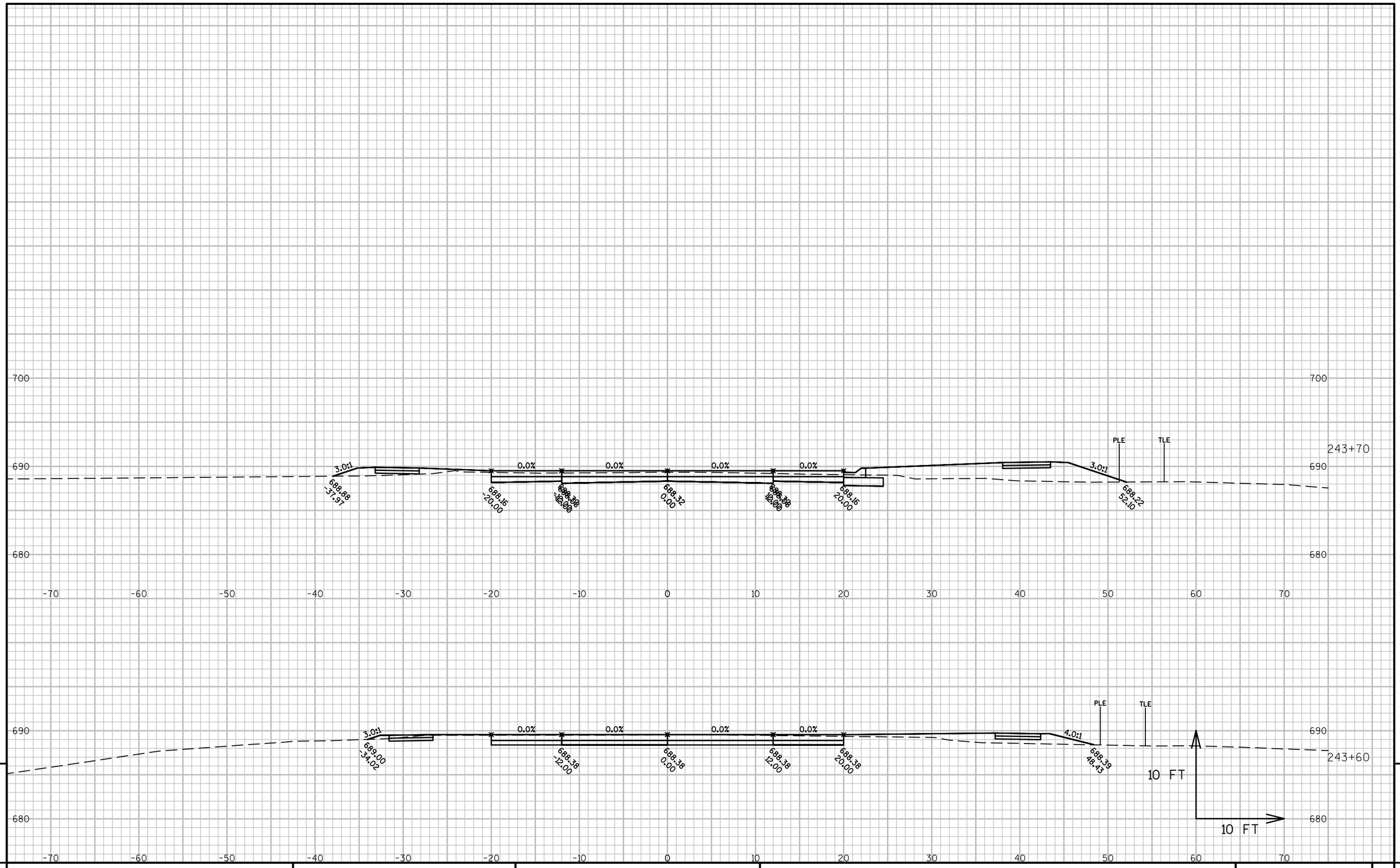
FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 003

PLOT DATE : 9/23/2020 2:09 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 109	E



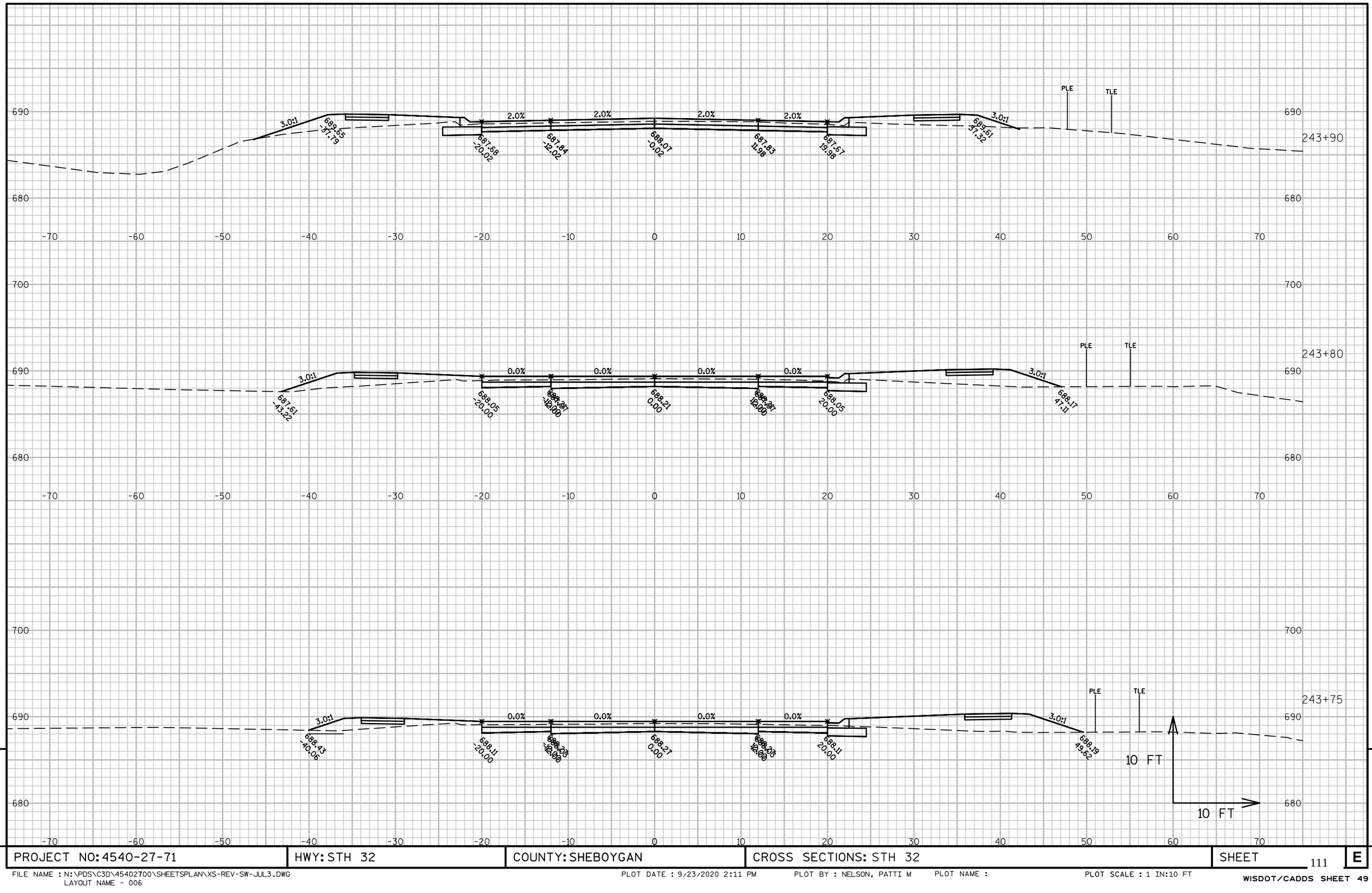
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PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 110	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 005

PLOT DATE : 9/23/2020 2:10 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT



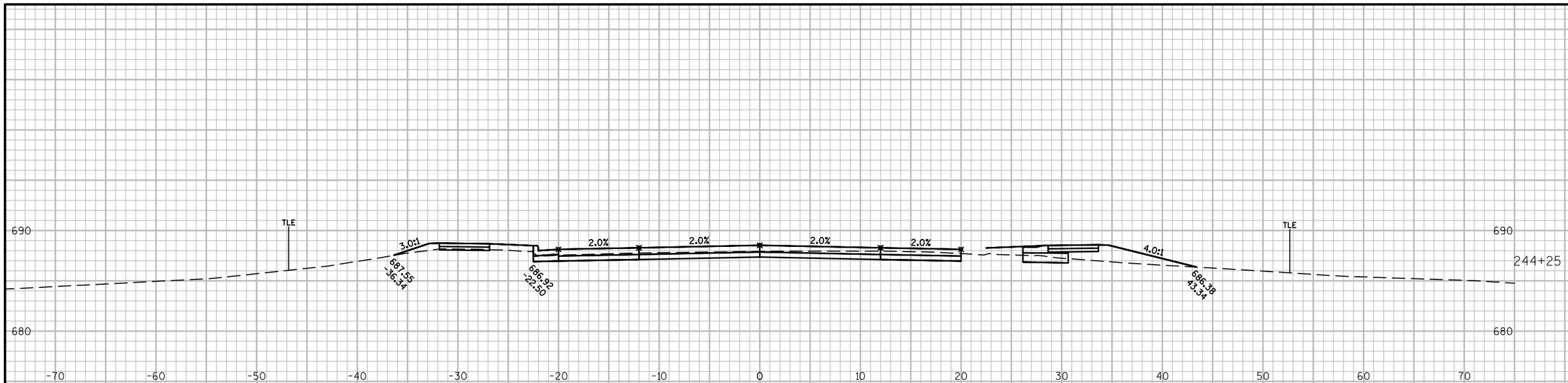
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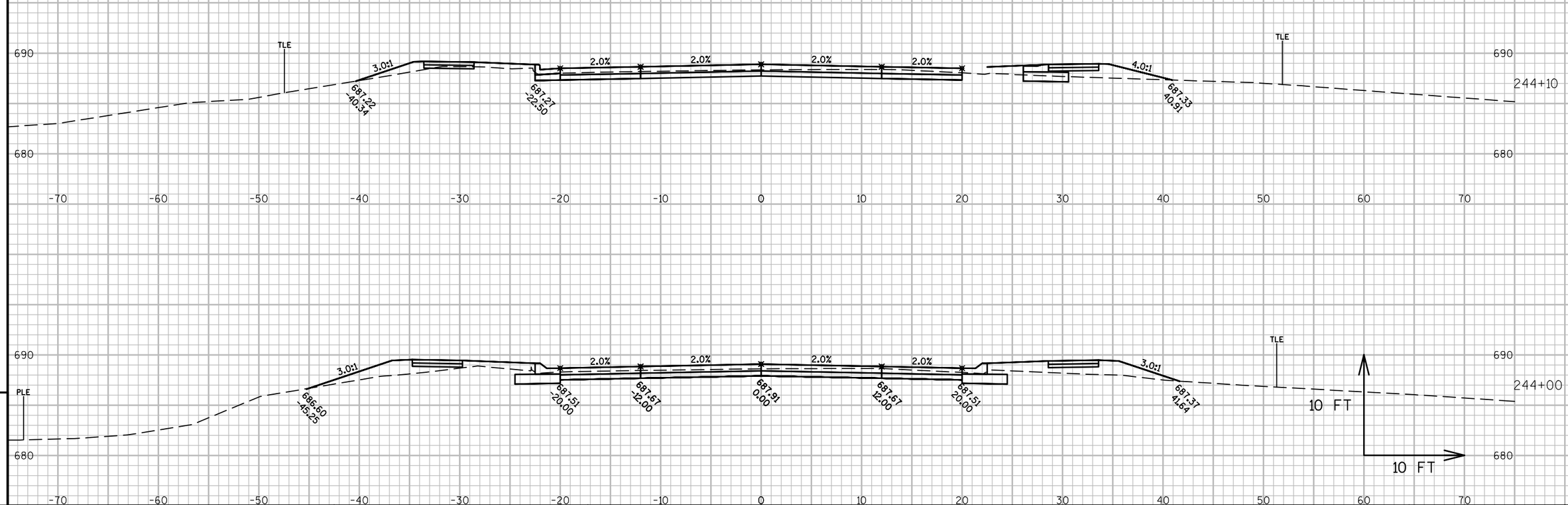
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PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 111	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 006

PLOT DATE : 9/23/2020 2:11 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT





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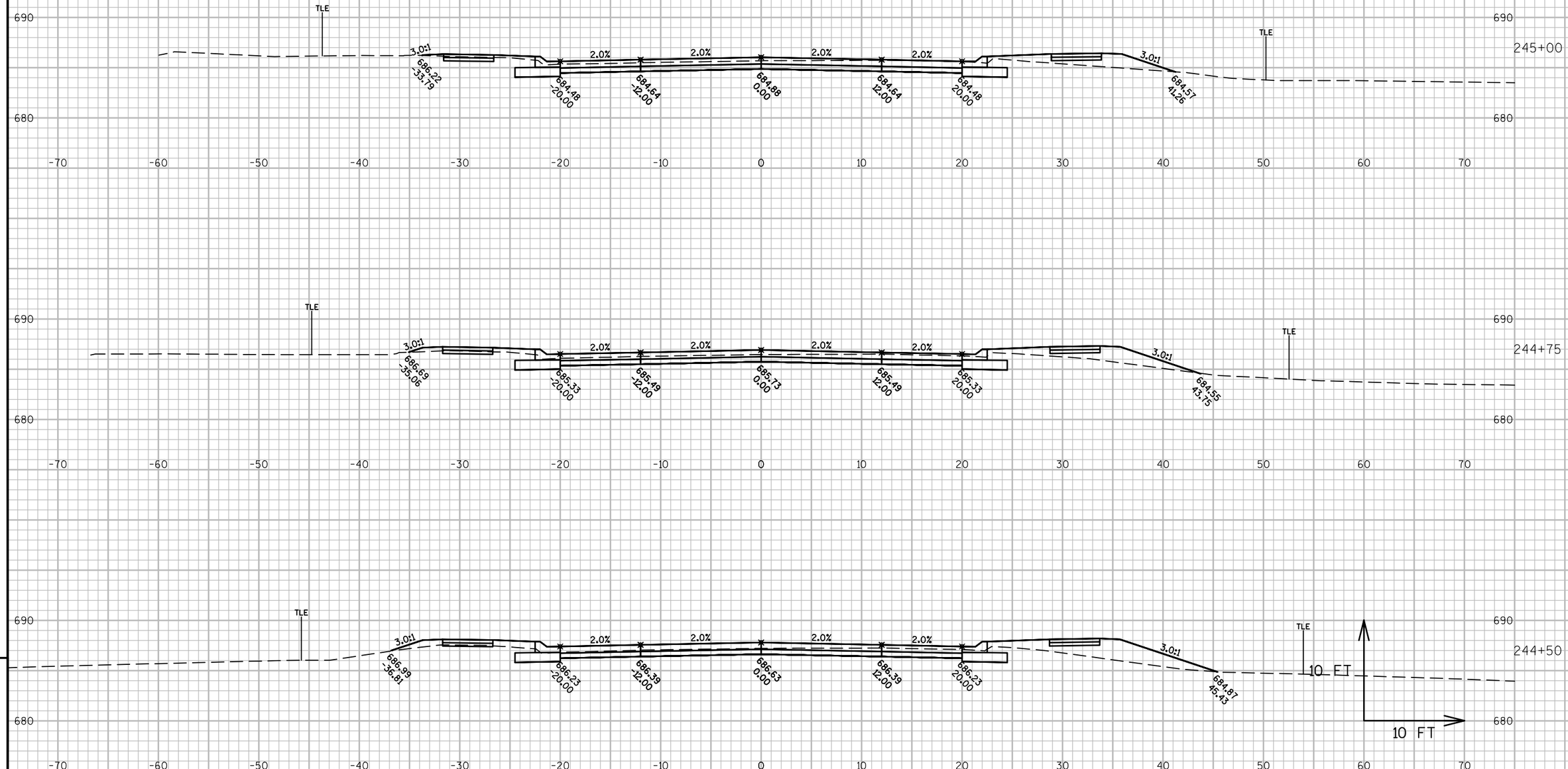
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PROJECT NO: 4540-27-71	HWY: STH 32	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 112	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 007

PLOT DATE : 9/23/2020 2:12 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



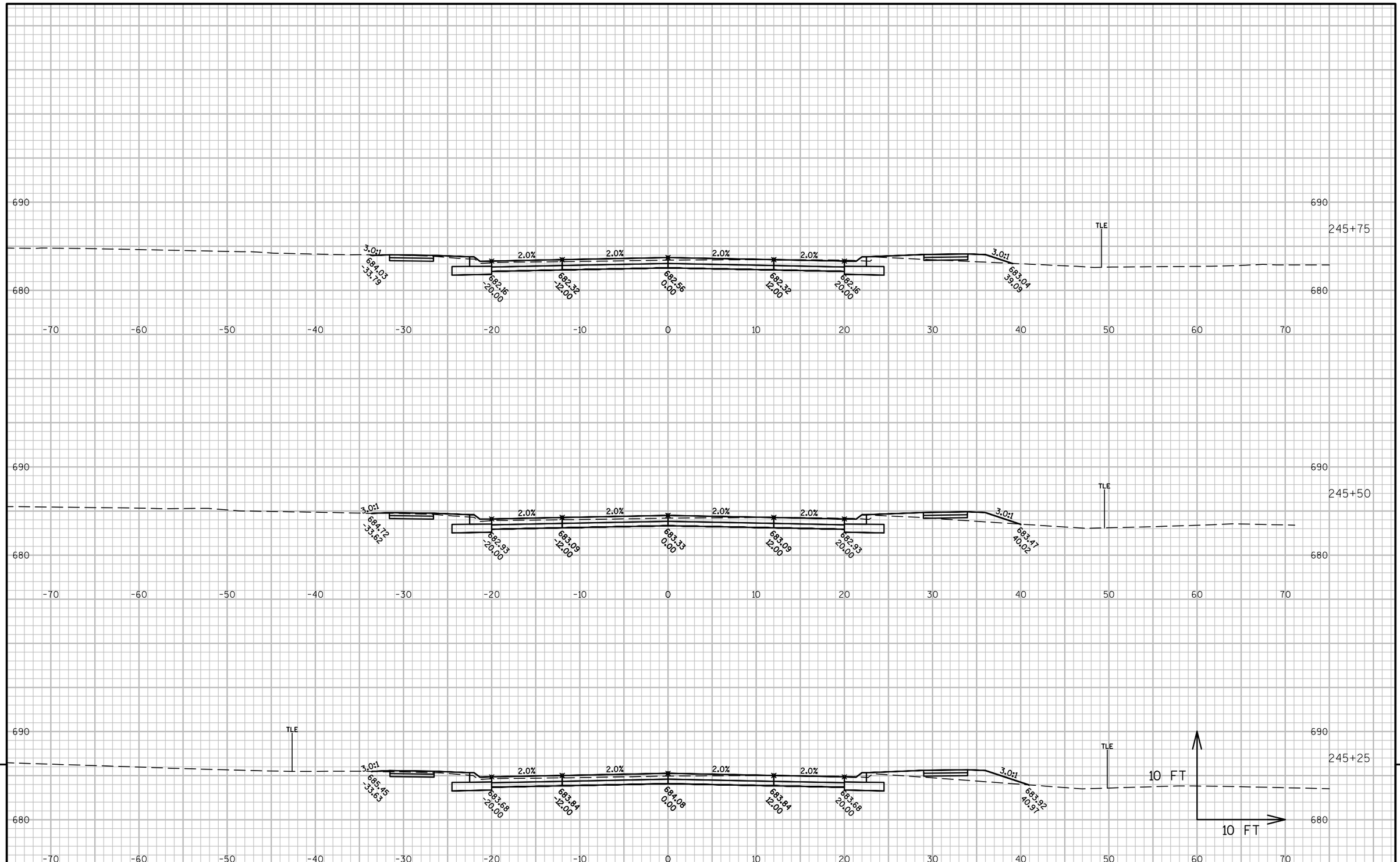
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9

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 113	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 008

PLOT DATE : 9/23/2020 2:13 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT



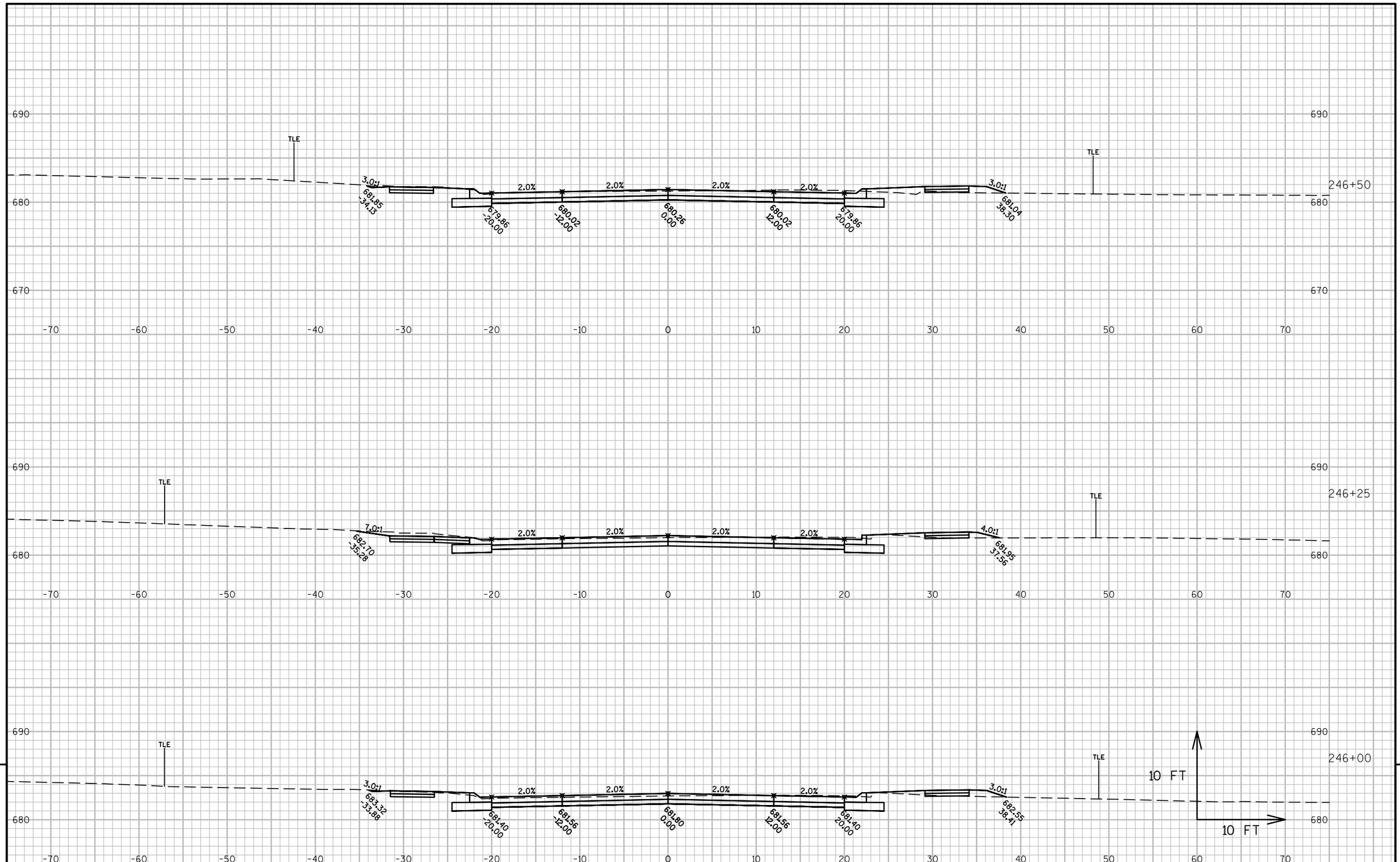
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9

PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 114	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 009

PLOT DATE : 9/23/2020 2:13 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1221-09-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 32	SHEET 115	E

FILE NAME : N:\PDS\C3D\45402700\SHEETSPLAN\XS-REV-SW-JUL3.DWG
LAYOUT NAME - 010

PLOT DATE : 9/23/2020 2:14 PM PLOT BY : NELSON, PATTI M PLOT NAME : PLOT SCALE : 1 IN:10 FT

Wisconsin Department of Transportation

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