WIS

Feb 08, 2022

PROJECT ID: 6170-00-73

WITH: N/A

COUNTY: WAUSHARA

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 = 206

34

N

DESIGN DESIGNATION 6170-00-03

A.A.D.T.	2023	=	5500
A.A.D.T.	2043	=	6700
D.H.V.		=	800
D.D.		=	61/39
T.		=	23.2%
DESIGN SPEED		=	55 MPH RURAL / 35-45 MPH URBAN
ESALS		=	3,900,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

V OF COLOMA

3RD LANE TO MADISON STREET

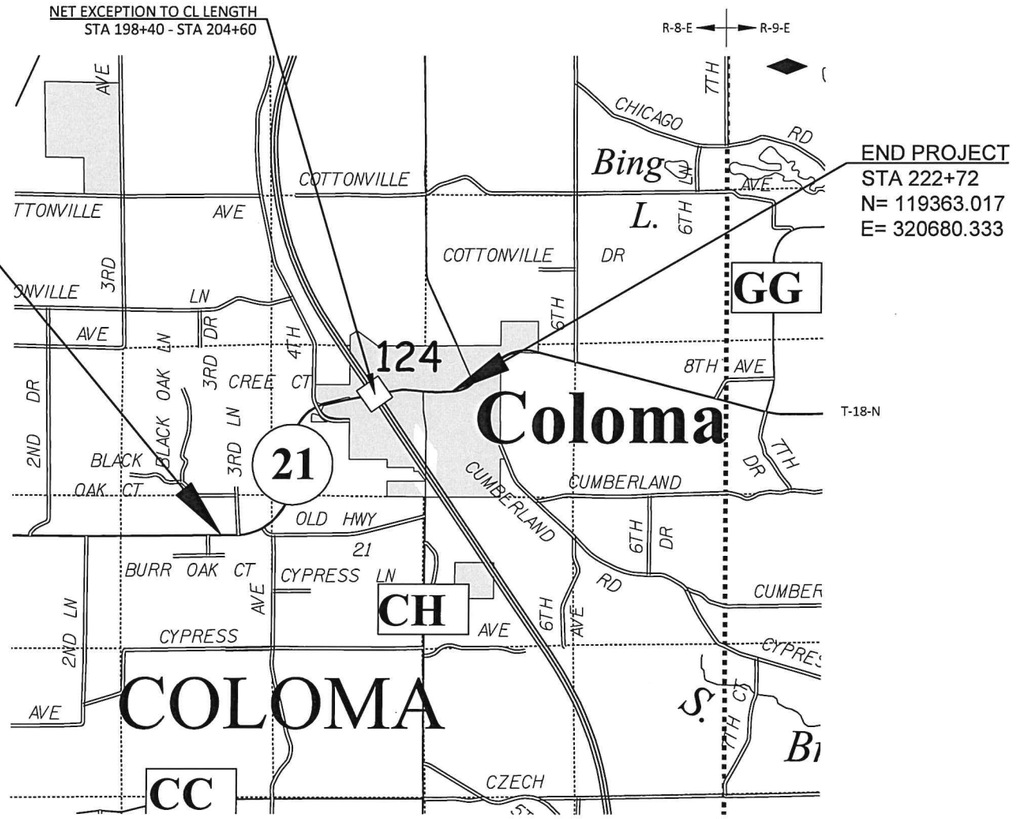
STH 21

WAUSHARA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6170-00-73	WISC 2022182	1

STATE PROJECT NUMBER

6170-00-73



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 1.873 MILES

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

CONVENTIONAL SYMBOLS

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

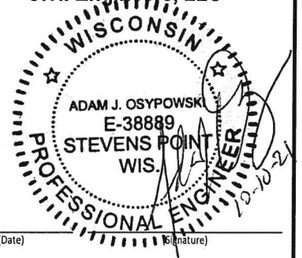
PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

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

ORIGINAL PLANS PREPARED BY

QUEST

Civil Engineers, LLC



(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	QUEST CIVIL ENGINEERS
Designer	QUEST CIVIL ENGINEERS
Project Manager	JEFF STEWART
Regional Examiner	NC REGION
Regional Supervisor	MIKE KRETSCHMER

APPROVED FOR THE DEPARTMENT

DATE: 10/13/21 (Signature)

E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\010101_TI-21.DWG PLOT DATE : 10/13/2021 12:55 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME :

GENERAL NOTES

THE ALIGNMENT IN THIS PLAN IS BASED ON FIELD SURVEY SHOTS TAKEN ON THE CENTERLINE. ACTUAL ROADWAY CENTERLINE MAY DEVIATE FROM THE PLAN. NEW HMA PAVEMENT SHALL FOLLOW EXISTING ROADWAY CENTERLINE. ANY ADJUSTMENTS SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

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

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, OR OTHER CONTROL POINTS MAY EXIST.

THE CONTRACTOR SHALL PROTECT ALL SURVEY MARKERS. SURVEY MARKERS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND RESTORATION OF ANY DISTURBED AREAS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO: SEED, FERTILIZER, MULCH, EROSION MAT.

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.

EXISTING CURVE SUPER ELEVATION SHALL BE RESTORED IN KIND.

PRESERVE ALL EXISTING DRIVEWAY ACCESS CURB CUTS AS IDENTIFIED IN THE FIELD, EXCEPT FOR THOSE LOCATIONS TO BE MODIFIED AS SHOWN IN THE PLAN.

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRICITY
MATT SCHMITZ
883 WEST SCOTT STREET
FOND DU LAC, WI 54937
PHONE: (920) 238-1137
E-MAIL: MATTEWSCHMITZ@ALLIANTENERGY.COM

UNION TELEPHONE COMPANY - COMMUNICATION LINE
JASON NOSKA
PO BOX 96
PLAINFIELD, WI 54966
PHONE: (715) 335-6301
CELL: (715) 570-3728
E-MAIL: JNOSKA@UNIONTEL.NET

COLOMA MUNICIPAL WATER UTILITY- WATER
WILLIAM PALAZZOLO
PO BOX 353
COLOMA, WI 54930
PHONE (715) 572-2932
E-MAIL: VOCDPW1@UNIONTEL.NET

COLOMA WASTE WATER TREATMENT FACILITY – SANITARY SEWER
WILLIAM PALAZZOLO
PO BOX 353
COLOMA, WI 54930
PHONE (715) 572-2932
E-MAIL: VOCDPW1@UNIONTEL.NET

WE ENERGIES - GAS
LARRY KOCH
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
PHONE: (715) 421-7249
CELL: (715) 421-9293
E-MAIL: LARRY.KOCH@WE-ENERGIES.COM

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

RUNOFF COEFFICENT 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-.85											
GRAVEL ROADS, SHOULDERS	.40-.60											

TOTAL PROJECT AREA = 11.5 ac
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES= 0.1 ac

DNR CONTACT

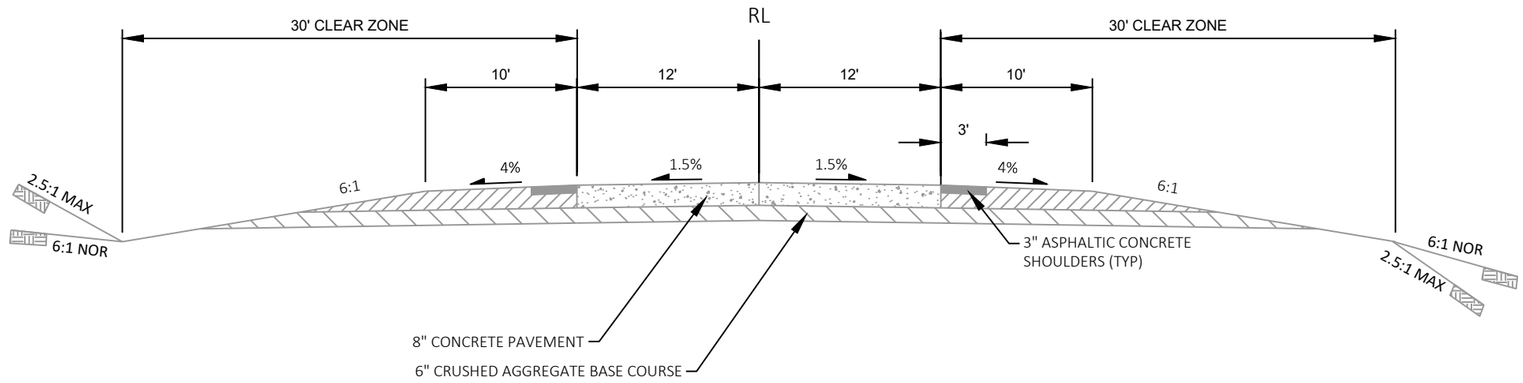
WISCONSIN DEPT OF NATURAL RESOURCES
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALISTS
WAUSHARA COUNTY
BRAD BETTHAUSER
WEST CENTRAL REGION
473 GRIFFITH AVE
WISCONSIN RAPIDS, WI 54494
715-213-9064 (MOBILE)
Bradley.betthauser@Wisconsin.gov

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020201_PO-21.DWG
LAYOUT NAME - Plan 1 IN 1000 FT

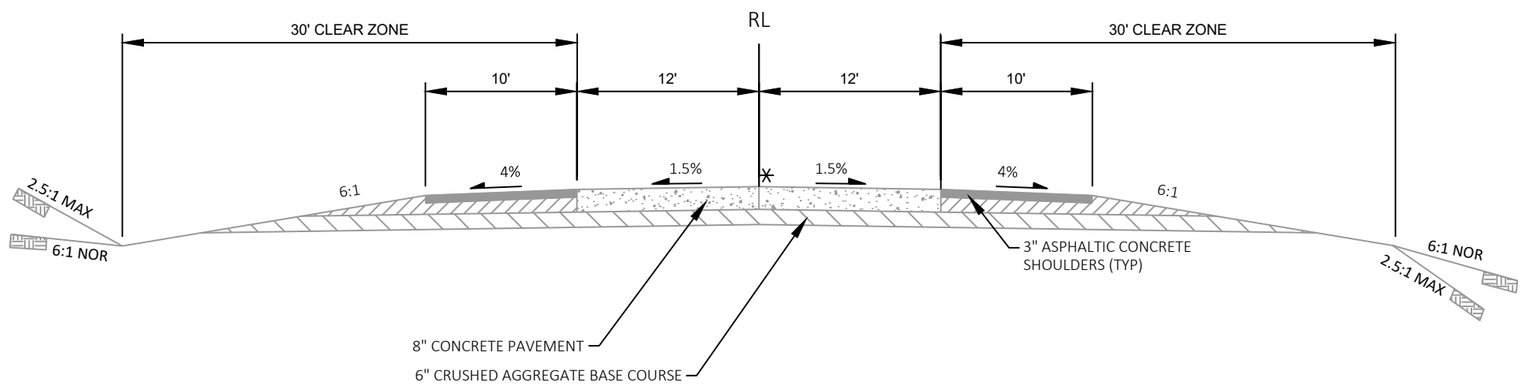
PLOT DATE : 12/17/2020 9:08 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1:750

WISDOT/CADDS SHEET 42



EXISTING STH 21 TYPICAL SECTION

STA 118+00 - STA 179+25



EXISTING STH 21 TYPICAL SECTION

STA 179+25 - STA 193+80

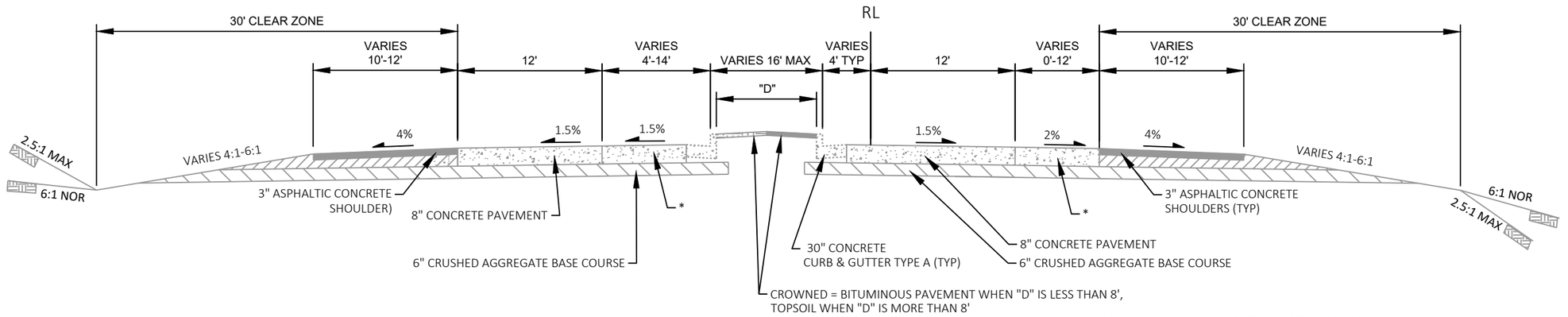
*3" ASPHALTIC CONCRETE MEDIAN (VARIABLE WIDTH)
STA 189+80 - STA 193+80

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 4	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020301-TS-21.DWG
LAYOUT NAME - 01

PLOT DATE : 8/9/2021 12:07 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT

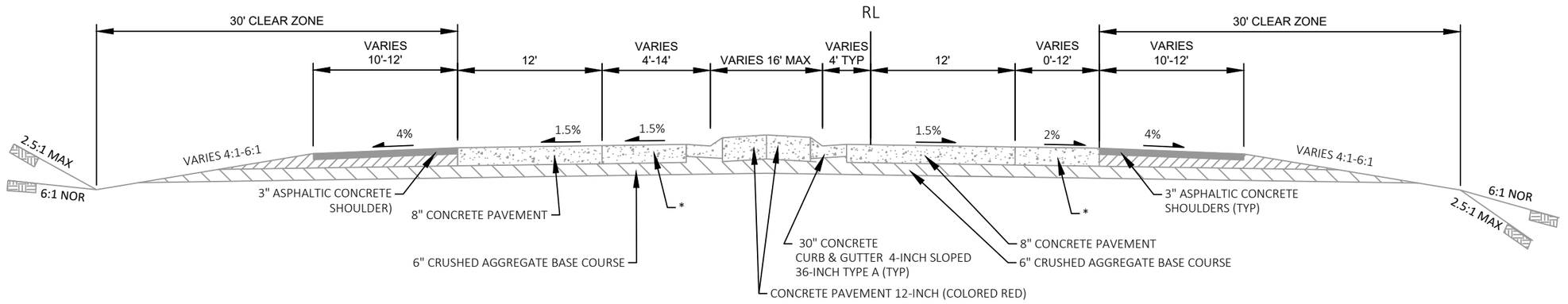
WISDOT/CADDS SHEET 42



*LANE IS NOT DOWELED FROM STA 193+80-STA 198+00

EXISTING STH 21 TYPICAL SECTION

STA 193+80 - STA 194+90
STA 197+25 - STA 198+40

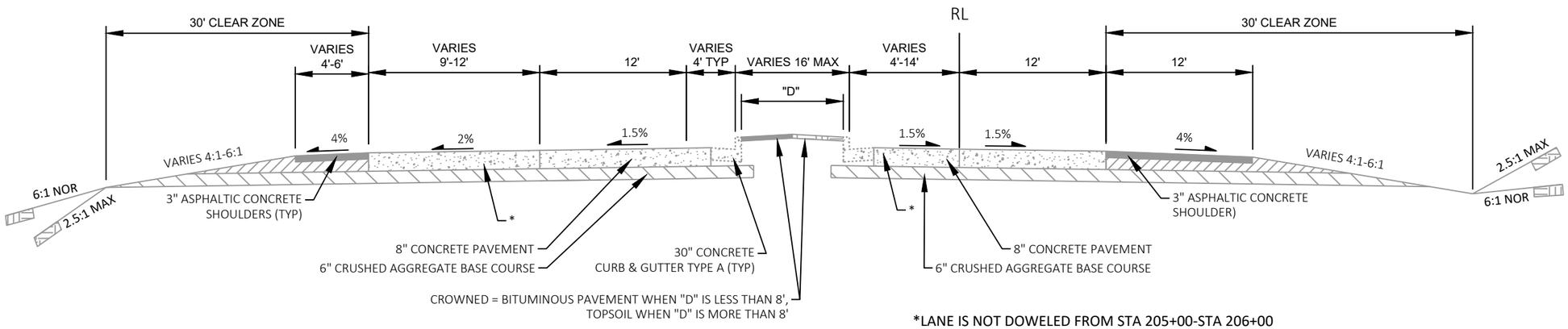


*LANE IS NOT DOWELED

EXISTING STH 21 TYPICAL SECTION

STA 194+90 - STA 197+25

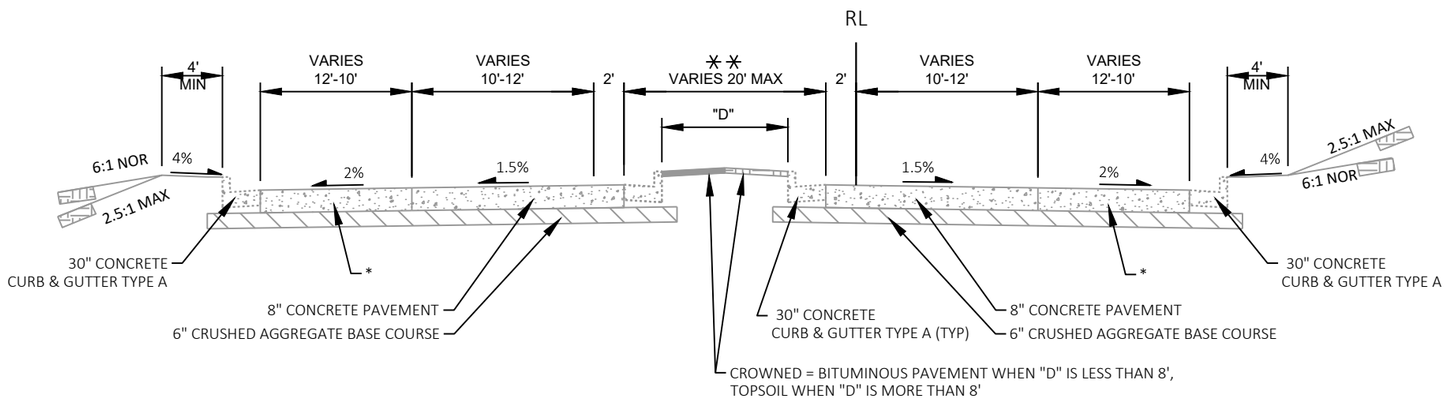
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 5	E



*LANE IS NOT DOWELED FROM STA 205+00-STA 206+00

EXISTING STH 21 TYPICAL SECTION

STA 204+60 - STA 206+00



EXISTING STH 21 TYPICAL SECTION

STA 206+00 - STA 211+68

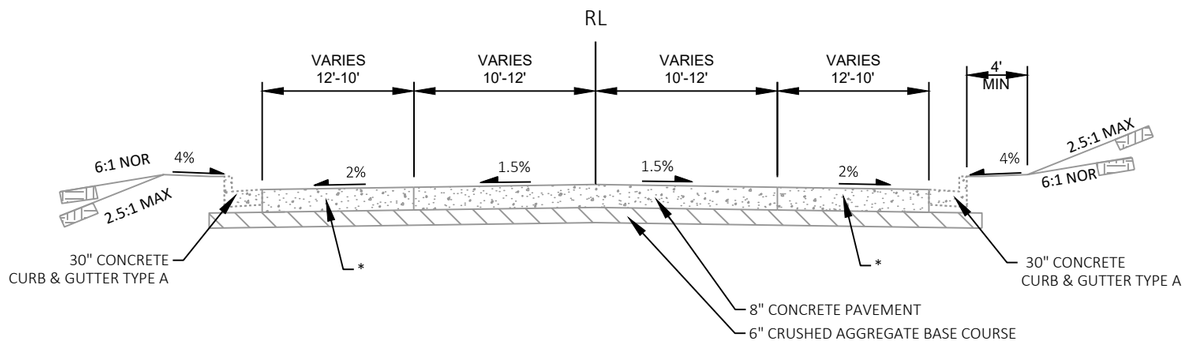
*LANE IS NOT DOWELED

**3" ASPHALTIC CONCRETE MEDIAN (VARIABLE WIDTH)
STA 209+17 - STA 211+68

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020301-TS-21.DWG
LAYOUT NAME - 03
PLOT DATE : 8/9/2021 12:08 PM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



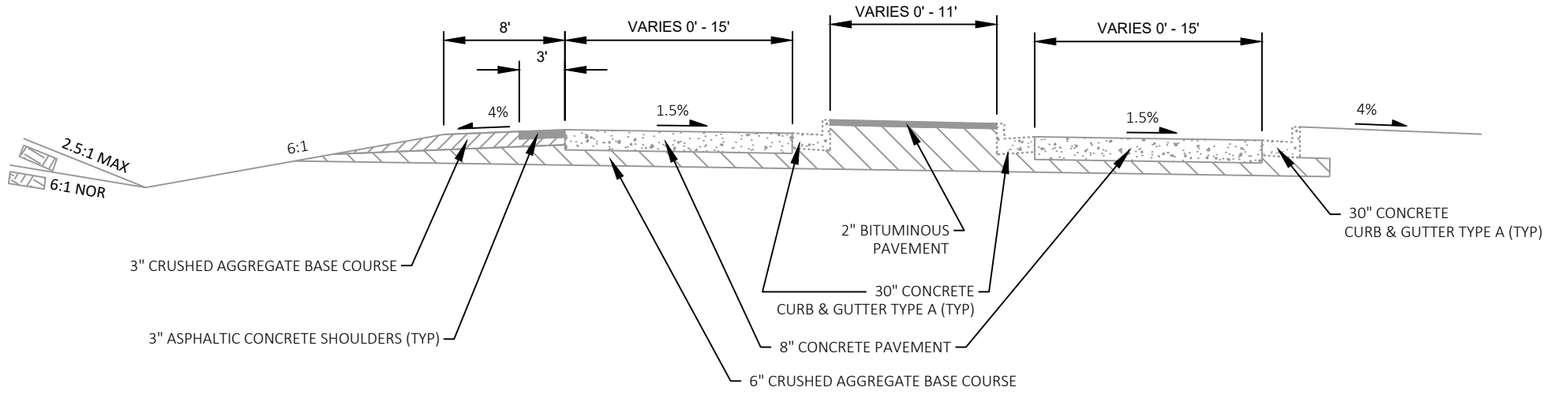
EXISTING STH 21 TYPICAL SECTION

STA 211+68 - STA 222+32

*LANE IS NOT DOWELED

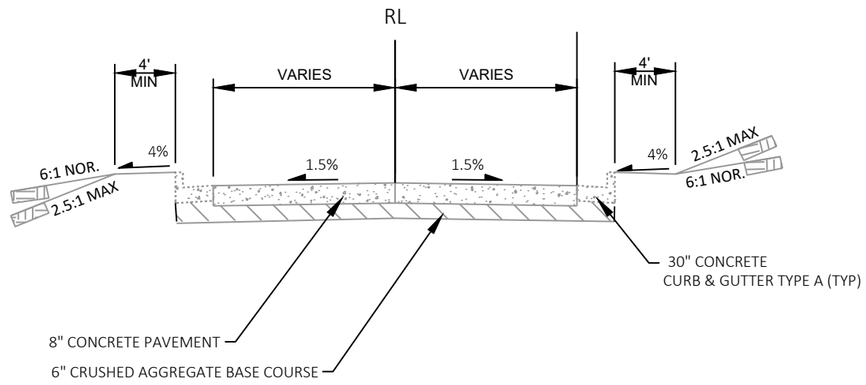
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 7	E

2



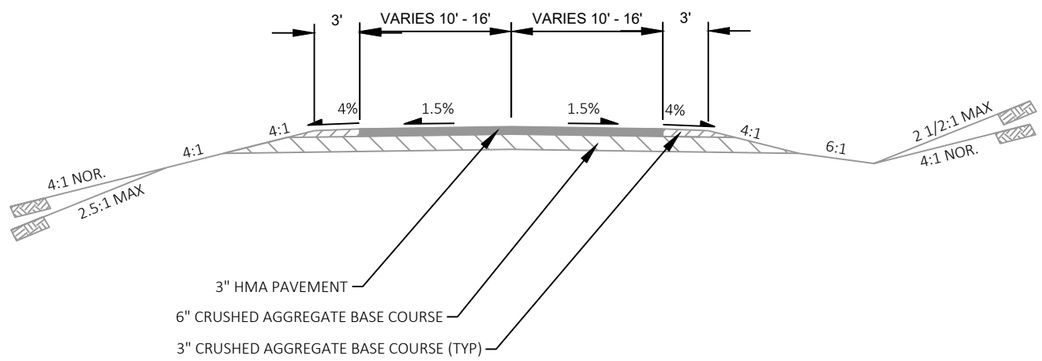
EXISTING TYPICAL SECTION

NB IH - 39 OFF RAMP



EXISTING TYPICAL SECTION

CHURCH LANE
SECOND AVENUE
ALLEY
FRONT STREET / CTH CH
FIRST STREET



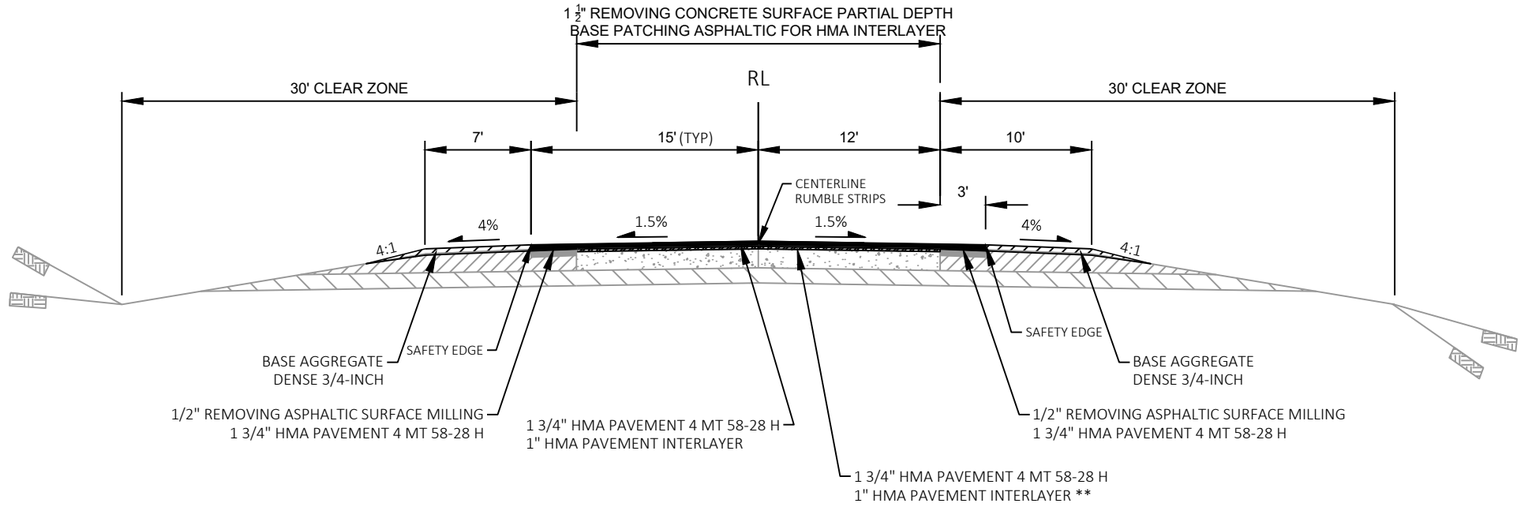
EXISTING TYPICAL SECTION

3RD LANE
OLD HWY 21
4TH AVENUE SOUTH

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020301-TS-21.DWG
LAYOUT NAME - 05
PLOT DATE : 8/9/2021 12:08 PM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

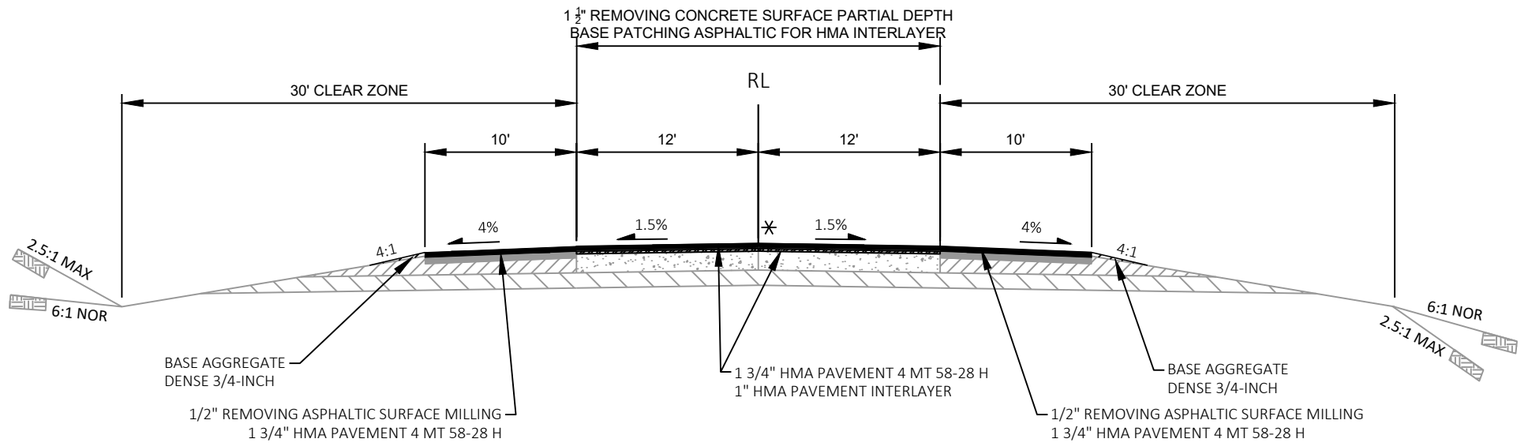
2



FINISHED STH 21 TYPICAL SECTION

STA 118+00 - STA 179+25

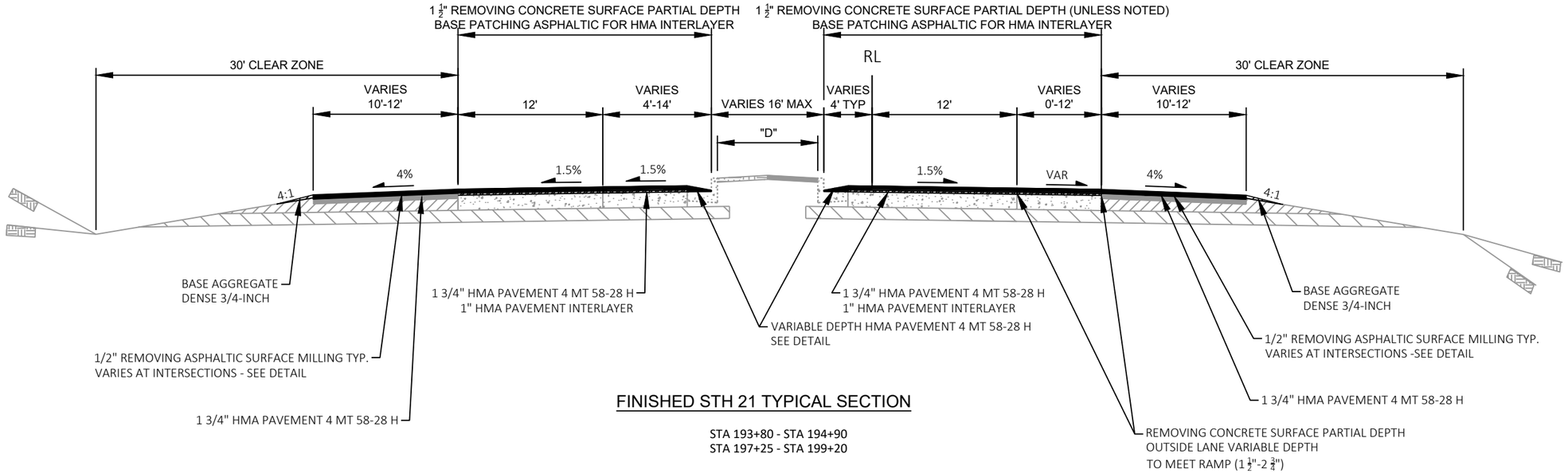
**STA 118+00-STA 130+00 HMA 5 MT 52-28 S LOWER LAYER
IN THE EASTBOUND LANE (CONTROL STRIP)



FINISHED STH 21 TYPICAL SECTION

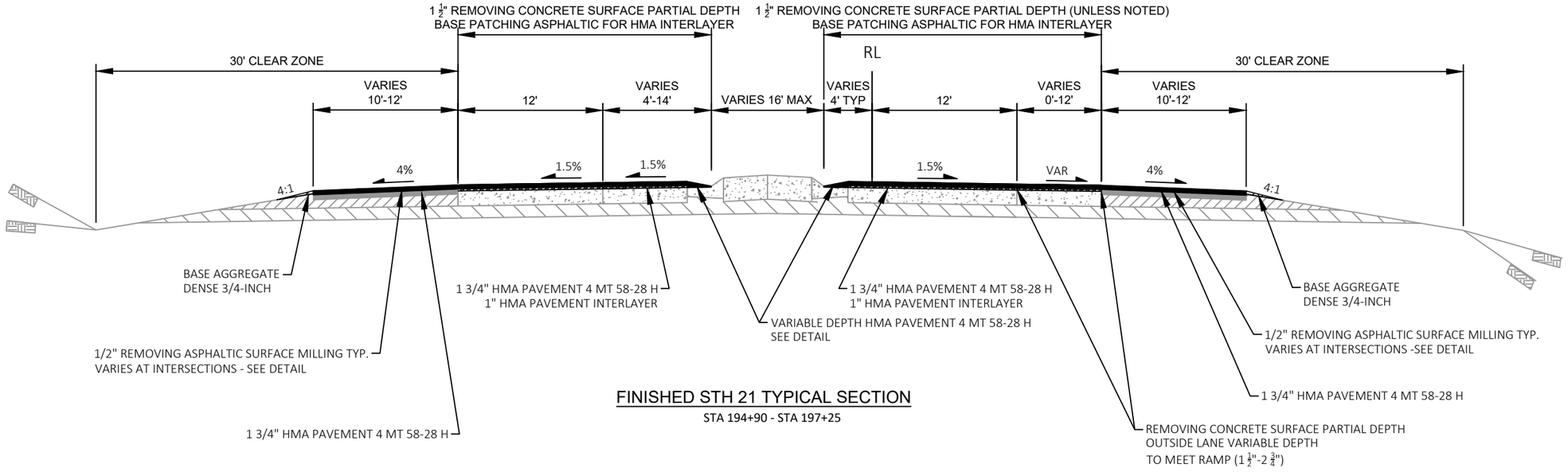
STA 179+25 - STA 193+80

*VARIABLE WIDTH ASPHALTIC CONCRETE MEDIAN
1/2" REMOVING ASPHALTIC SURFACE MILLING AND
1 3/4" HMA PAVEMENT 4 MT 58-28 H
STA 189+80 - STA 193+80



FINISHED STH 21 TYPICAL SECTION

STA 193+80 - STA 194+90
STA 197+25 - STA 199+20

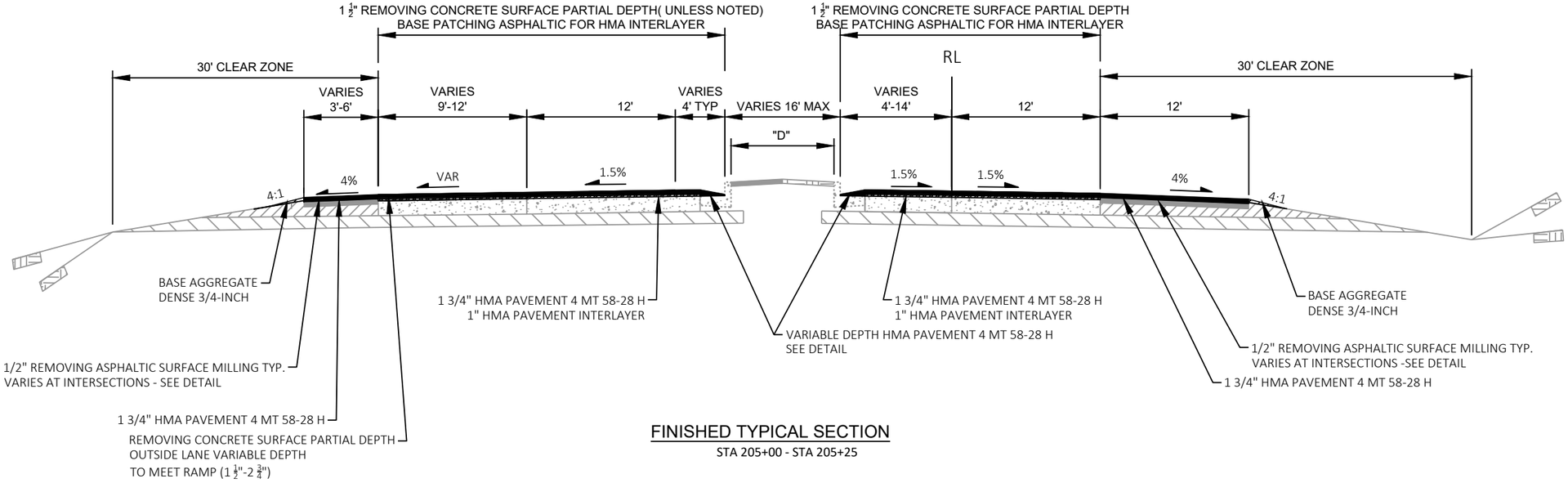


FINISHED STH 21 TYPICAL SECTION

STA 194+90 - STA 197+25

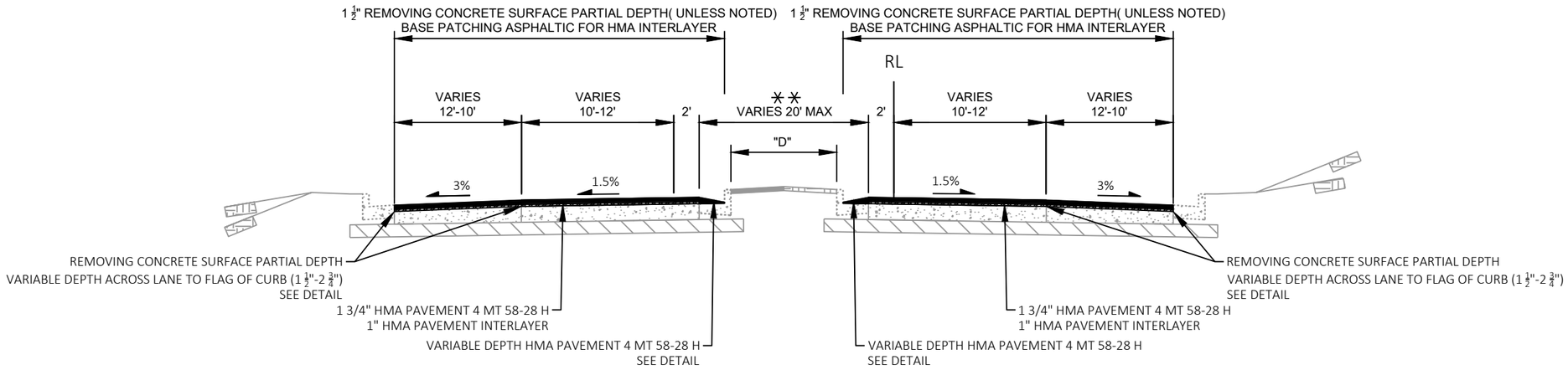
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 10	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020301-TS-21.DWG
LAYOUT NAME - 02 (2)
PLOT DATE : 8/9/2021 12:08 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT



FINISHED TYPICAL SECTION

STA 205+00 - STA 205+25



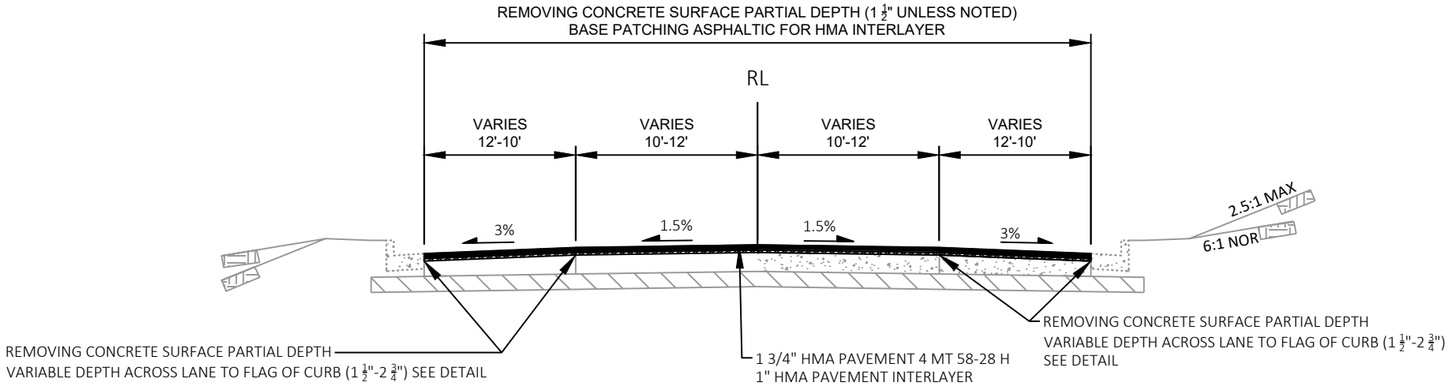
FINISHED STH 21 TYPICAL SECTION

STA 205+25 - STA 211+68

**1" REMOVING ASPHALTIC SURFACE MILLING AND
1 3/4" HMA PAVEMENT 58-28 H
VARIABLE WIDTH ASPHALTIC CONCRETE MEDIAN
STA 209+17 - STA 211+68

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 11	E

2



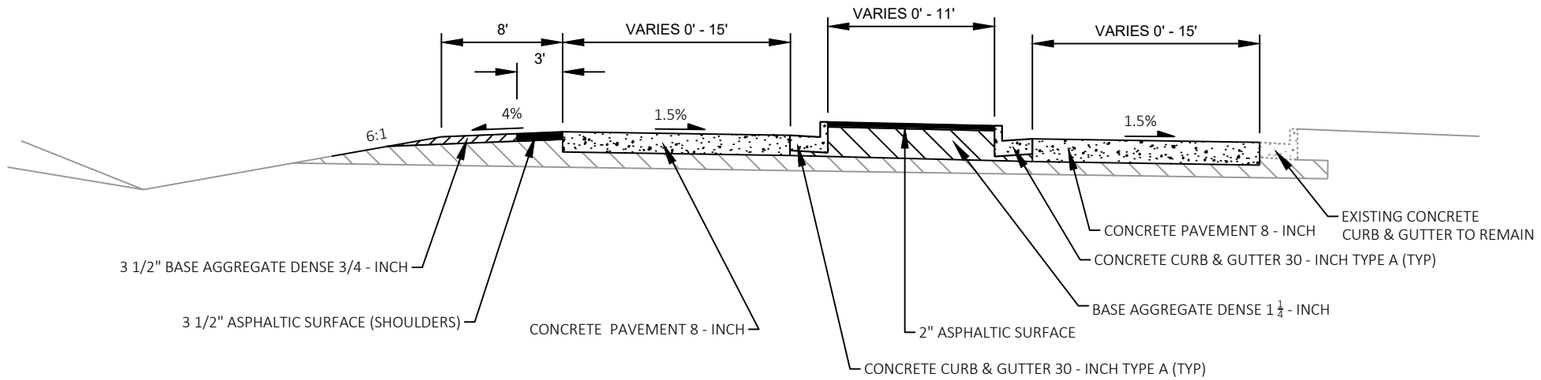
FINISHED STH 21 TYPICAL SECTION

STA 211+68 - STA 222+32

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 12	E

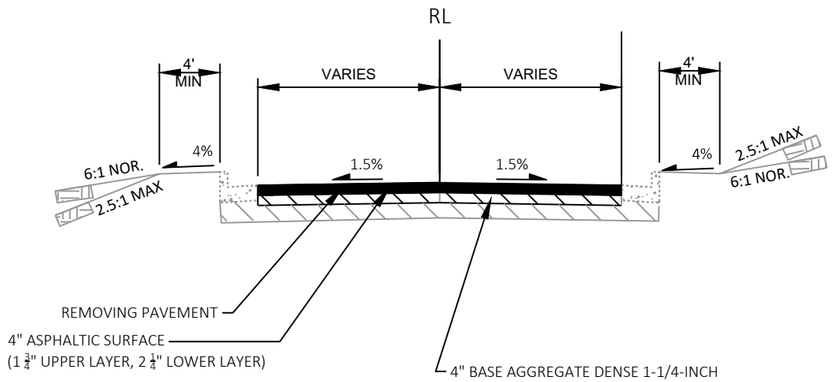
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020301-TS-21.DWG
LAYOUT NAME - 04 (2)
PLOT DATE : 8/9/2021 12:08 PM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



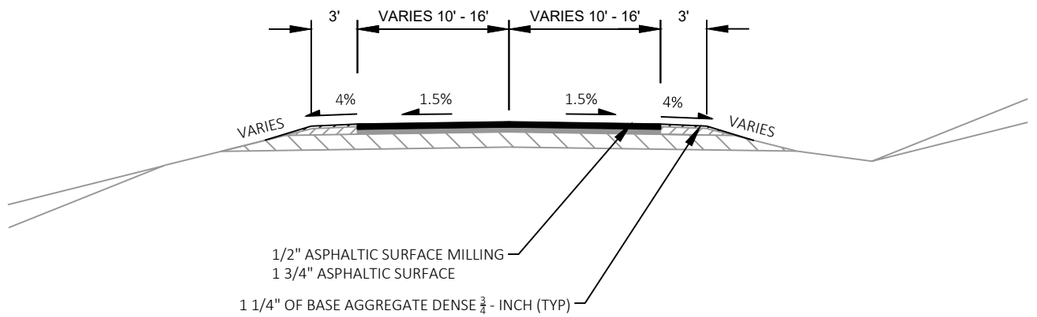
FINISHED TYPICAL SECTION

NB IH - 39 OFF RAMP



FINSHED TYPICAL SECTION

FRONT STREET / CTH CH



FINISHED TYPICAL SECTION

3RD LANE
OLD HWY 21
4TH AVENUE SOUTH

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TYPICAL SECTIONS	SHEET 13	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\020301-TS-21.DWG
LAYOUT NAME - 05 (2)

PLOT DATE : 8/9/2021 12:08 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT

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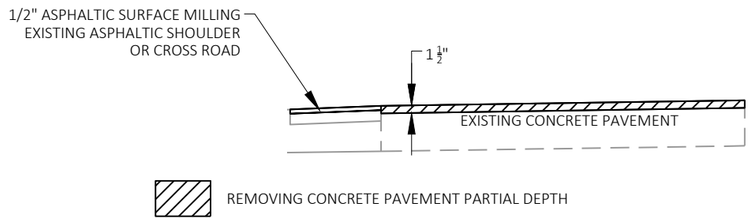
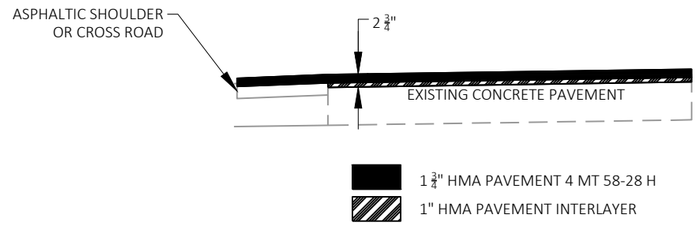
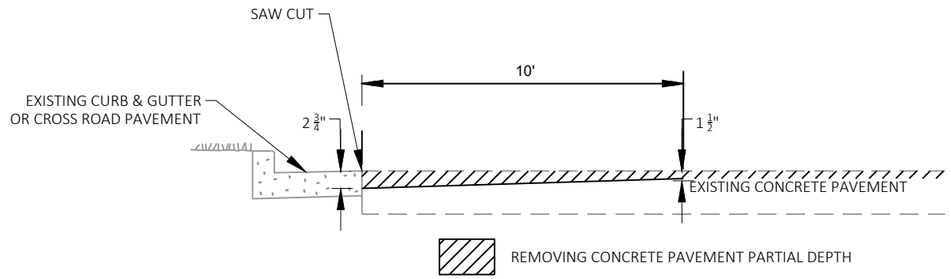


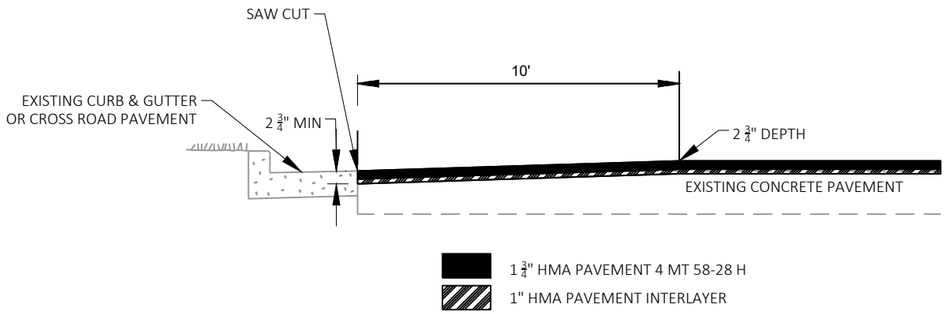
REMOVING CONCRETE SURFACE PARTIAL DEPTH AND REMOVING ASPHALTIC SURFACE MILLING AT ASPHALTIC SHOULDER OR CROSS ROAD



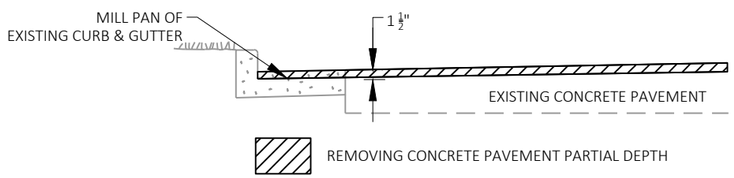
ASPHALT PAVING AT ASPHALTIC SHOULDER OR CROSS ROAD



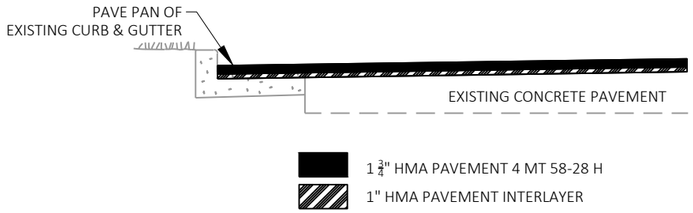
REMOVING CONCRETE SURFACE PARTIAL DEPTH FOR OUTSIDE LANE AT CURB AND GUTTER OR CONCRETE CROSS ROAD



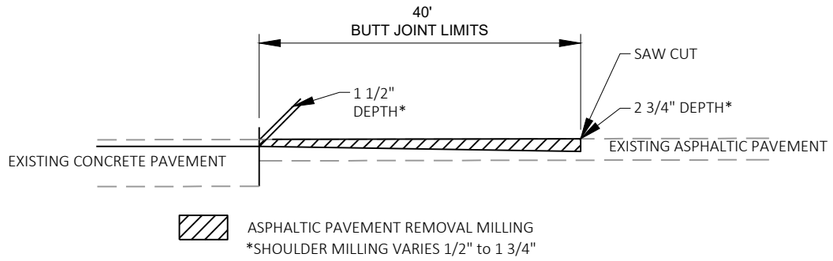
ASPHALT PAVING FOR OUTSIDE LANE AT CURB AND GUTTER OR CONCRETE CROSS ROAD



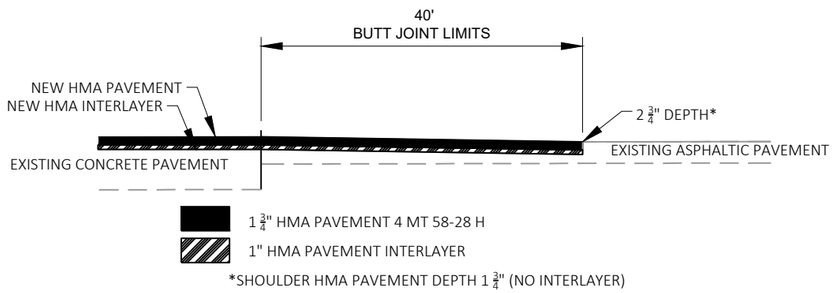
REMOVING CONCRETE SURFACE PARTIAL DEPTH FOR INSIDE LANE AT MEDIAN CURB AND GUTTER



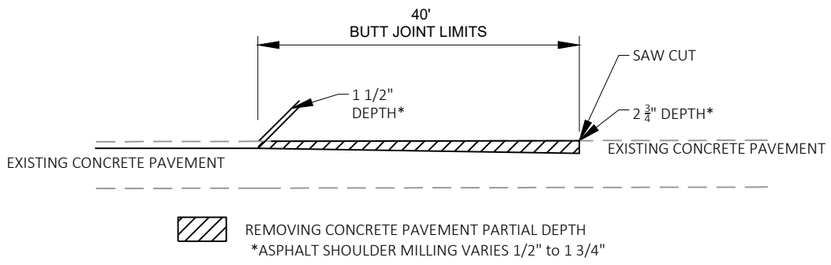
ASPHALT PAVING FOR INSIDE LANE AT MEDIAN CURB AND GUTTER



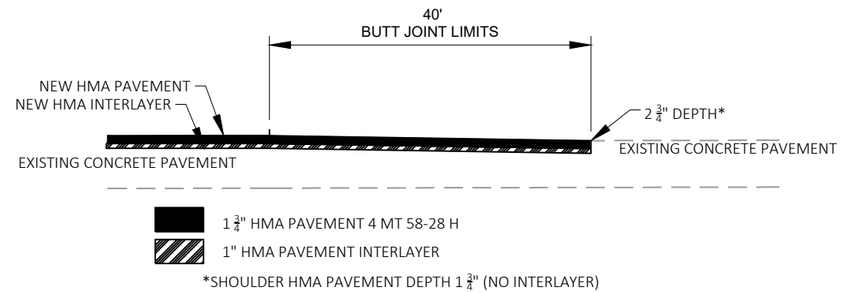
MAINLINE BUTT JOINT REMOVALS
(ASPHALT)



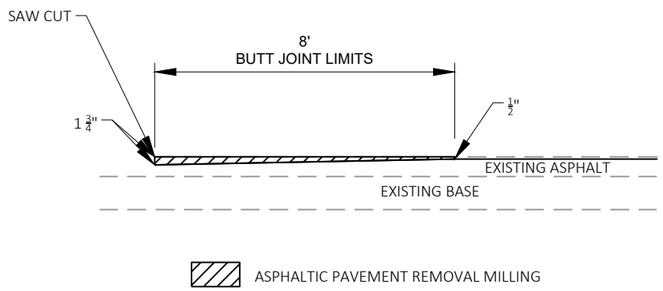
MAINLINE BUTT JOINT PAVING
(ASPHALT)



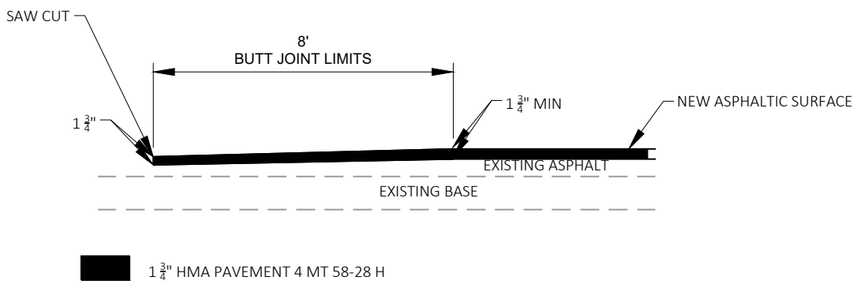
MAINLINE BUTT JOINT REMOVALS
(CONCRETE)



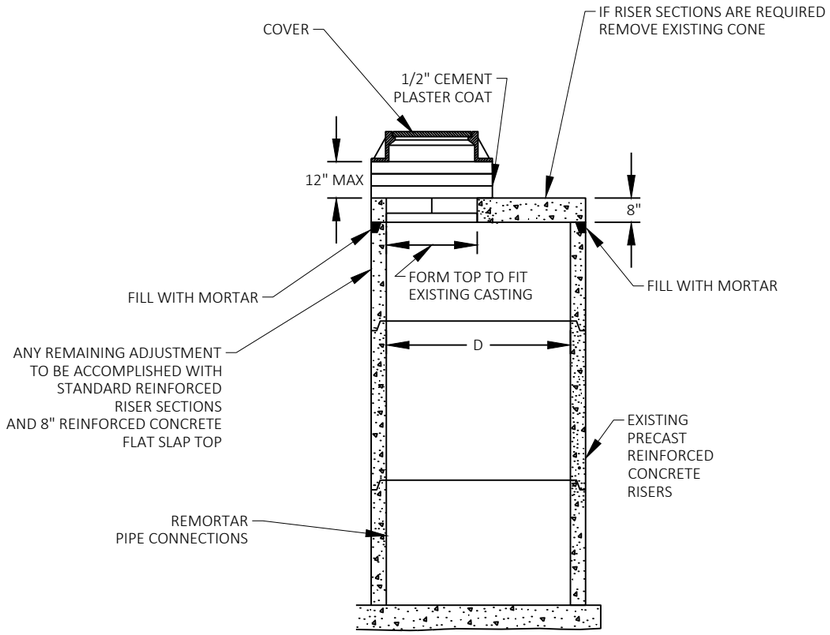
MAINLINE BUTT JOINT PAVING
(CONCRETE)



RURAL SIDE ROAD BUTT JOINT
REMOVAL (ASPHALT)

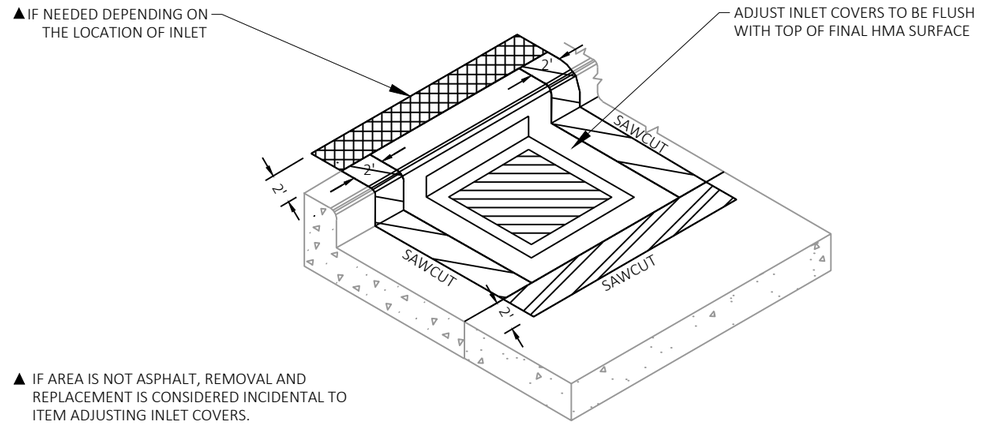


RURAL SIDE ROAD BUTT JOINT
PAVING (ASPHALT)



RECONSTRUCTING INLETS

NOTE: DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWING FOR INLET D-FT DIAMETER



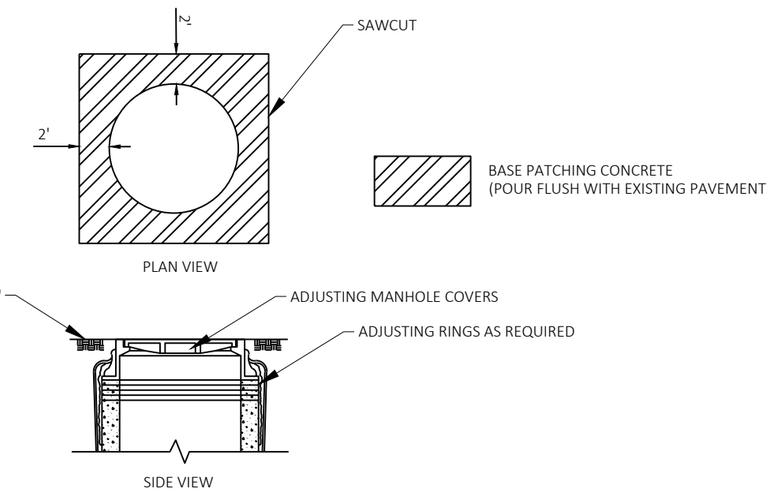
▲ IF AREA IS NOT ASPHALT, REMOVAL AND REPLACEMENT IS CONSIDERED INCIDENTAL TO ITEM ADJUSTING INLET COVERS.

REMOVING CURB & GUTTER
INSTALL CONCRETE CURB & GUTTER

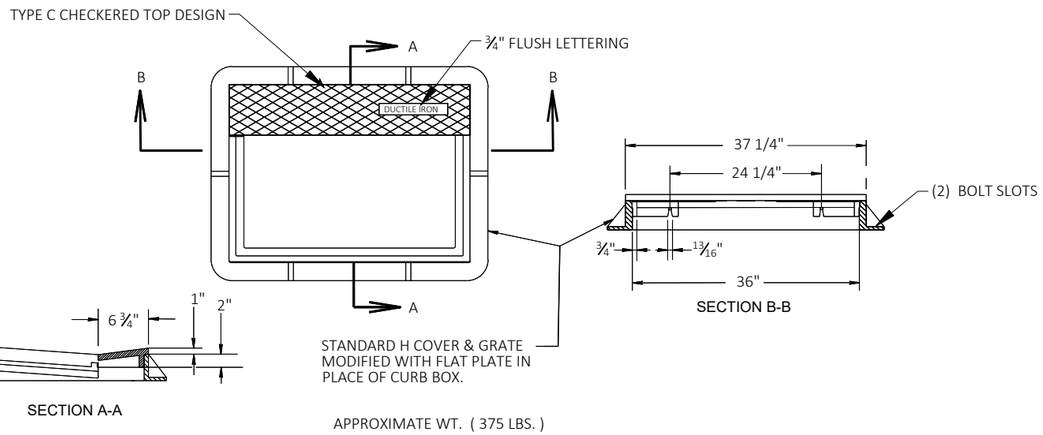
REMOVING ASPHALTIC SURFACE
ASPHALTIC SURFACE PATCHING

BASE PATCHING CONCRETE
(POUR FLUSH WITH EXISTING PAVEMENT

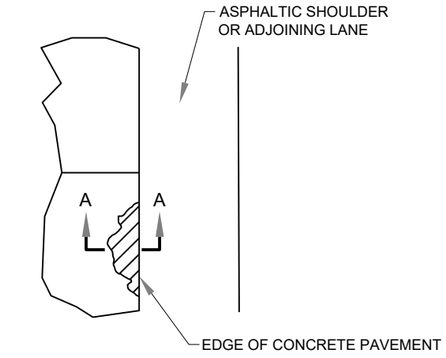
INLET ADJUSTMENT / RECONSTRUCTION DETAIL



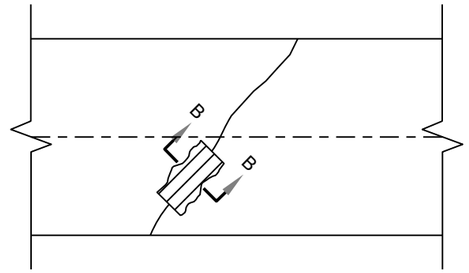
MANHOLE ADJUSTMENT DETAIL



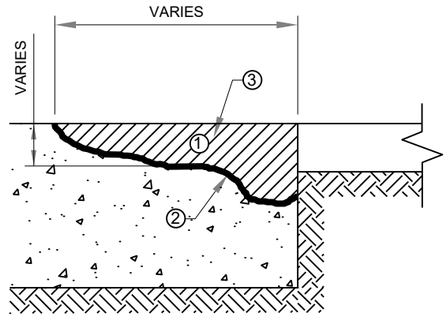
INLET COVER TYPE H-D
(WITH MOUNTABLE CURB PLATE)



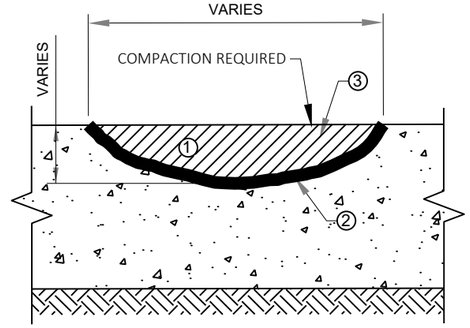
PLAN VIEW



PLAN VIEW



SECTION A-A



SECTION B-B

① REMOVE ALL UNSOUND AND DETERIORATED MATERIAL

② BLOW OUT REPAIR AREAS WITH 80 PSI MINIMUM COMPRESSED AIR - TACK COAT REQUIRED - PAID FOR UNDER BASE PATCHING ASPHALTIC FOR HMA INTERLAYER

③ ASPHALTIC SURFACE - PAID FOR UNDER BASE PATCHING ASPHALTIC FOR HMA INTERLAYER

BASE PATCHING ASPHALTIC FOR HMA INTERLAYER

2

2

N

EXISTING CONCRETE

MILL EXTENDED CURB PAN

EXISTING CONCRETE - MILL DEPTH VARIES 1 1/2" TO 2 3/4"

2 3/4"

2 3/4"

2 1/16"

1 3/4"

2 3/4"

EXISTING CONCRETE - MILL DEPTH VARIES

1 11/16"

1 11/16"

1/2"

EXISTING ASPHALT MILL DEPTH VARIES

EXISTING CONCRETE - MILL DEPTH 1 1/2"

MILL PAN OF CURB TO MATCH DEPTH OF ADJACENT PAVEMENT MILLING (1 1/2")

EXISTING ASPHALT - MILL DEPTH 1/2"

1 1/2"

1/2"

1/2"

MILL PAN OF CURB TO MATCH DEPTH OF ADJACENT PAVEMENT MILLING(1/2")

195

1 1/2"

1 1/2"

1 1/2"

2 3/4"

194

EXISTING CONCRETE - MILL DEPTH 1 1/2"

EXISTING CONCRETE - MILL DEPTH VARIES 1 1/2" TO 2 3/4"

193

1 1/2"

1 1/2"

2 3/4"

2 1/8"

1 1/8"

EXISTING CONCRETE - MILL DEPTH VARIES

1 1/2"

EXISTING ASPHALT MILL DEPTH VARIES

1/2"

SIGN

SIGN

GUY

MP

MP

MP

POST

DEPTH — REMOVING CONCRETE SURFACE PARTIAL DEPTH

DEPTH — REMOVING ASPHALTIC SURFACE MILLING

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	CONSTRUCTION DETAILS - MILL DEPTHS	SHEET 18	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021001-PD-MILLING21.DWG
LAYOUT NAME - Plan 1 IN 10 FT (4)

PLOT DATE : 4/27/2021 4:00 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING ASPHALT - MILL DEPTH 1/2"

EXISTING CONCRETE - MILL DEPTH 1 1/2"

EXISTING CONCRETE - MILL DEPTH 1 1/2"

MILL PAN OF CURB TO MATCH DEPTH OF ADJACENT PAVEMENT MILLING (1 1/2")

MILL PAN OF CURB TO MATCH DEPTH OF ADJACENT PAVEMENT MILLING (1 1/2")

EXISTING CONCRETE - MILL DEPTH 1 1/2"

EXISTING CONCRETE - MILL DEPTH 1 1/2"

EXISTING ASPHALT - MILL DEPTH 1/2"

EXISTING ASPHALT
MILL DEPTH VARIES 1/2" TO 1 3/4"

EXISTING CONCRETE - MILL DEPTH 1 1/2"

EXISTING ASPHALT
MILL DEPTH VARIES 1/2" TO 1 3/4"

EXISTING CONCRETE - MILL DEPTH VARIES 1 1/2" TO 2 3/4"

EXISTING CONCRETE

BUTT JOINT (ASPHALT)

BUTT JOINT (CONCRETE)

BUTT JOINT (CONCRETE)

BUTT JOINT (ASPHALT)

EXISTING ASPHALT

EXISTING CONCRETE

EXISTING CONCRETE

EXISTING ASPHALT

1 3/4" 1/2" 11/2" 1 1/2" 2 3/4"

1/2" 1 1/2" 1 3/4" 2 3/4"

1 1/2" 1/2" 1 1/2" 1/2"

1 1/2" 2 3/4" 1 3/4"

1 3/4" 1/2" 1 1/2" 2 3/4" 1 3/4"

196 197 198

MP

DEPTH REMOVING CONCRETE SURFACE PARTIAL DEPTH

DEPTH REMOVING ASPHALTIC SURFACE MILLING

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	CONSTRUCTION DETAILS - MILL DEPTHS	SHEET 19	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021001-PD-MILLING21.DWG
LAYOUT NAME - Plan 1 IN 10 FT (5)

PLOT DATE : 4/27/2021 4:00 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

N

EXISTING CONCRETE

EXISTING ASPHALT

BUTT JOINT (ASPHALT)

1 3/4"

2 3/4"

1 1/2"

EXISTING CONCRETE

BUTT JOINT (CONCRETE)

205

204

206

EXISTING CURB (NO MILLING)

EXISTING CONCRETE - MILL DEPTH VARIES 1 1/2" TO 2 3/4"

EXISTING CONCRETE - MILL DEPTH 1 1/2"

MILL PAN OF CURB TO MATCH DEPTH OF ADJACENT PAVEMENT MILLING (1 1/2")

EXISTING ASPHALT MILL DEPTH VARIES

1/2"

CONCRETE REPLACEMENT

GUY

MP

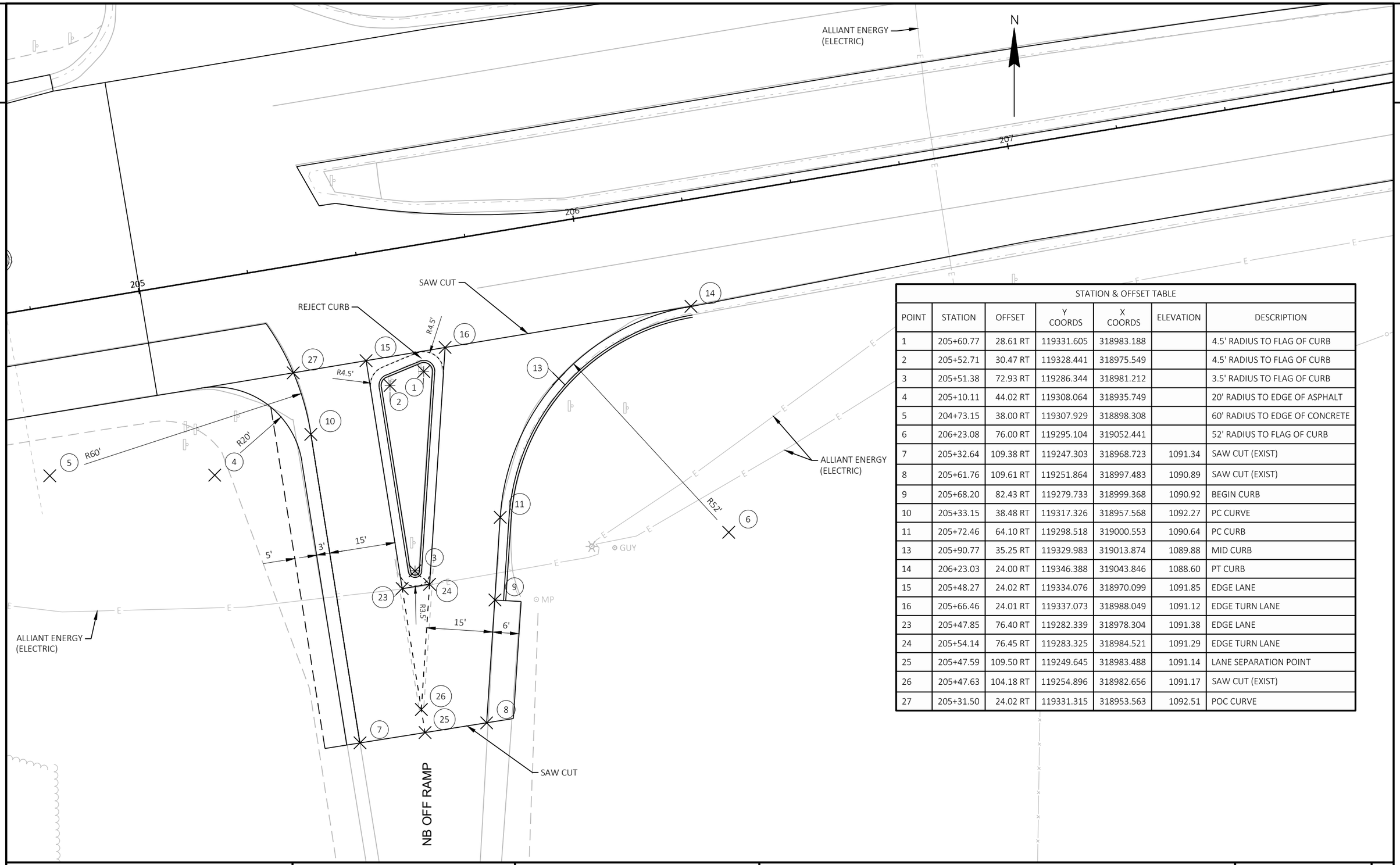
SS

DEPTH — REMOVING CONCRETE SURFACE PARTIAL DEPTH

DEPTH — REMOVING ASPHALTIC SURFACE MILLING

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	CONSTRUCTION DETAILS - MILL DEPTHS	SHEET 20	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021001-PD-MILLING21.DWG
LAYOUT NAME - Plan 1 IN 10 FT (2)
PLOT DATE : 4/27/2021 4:00 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



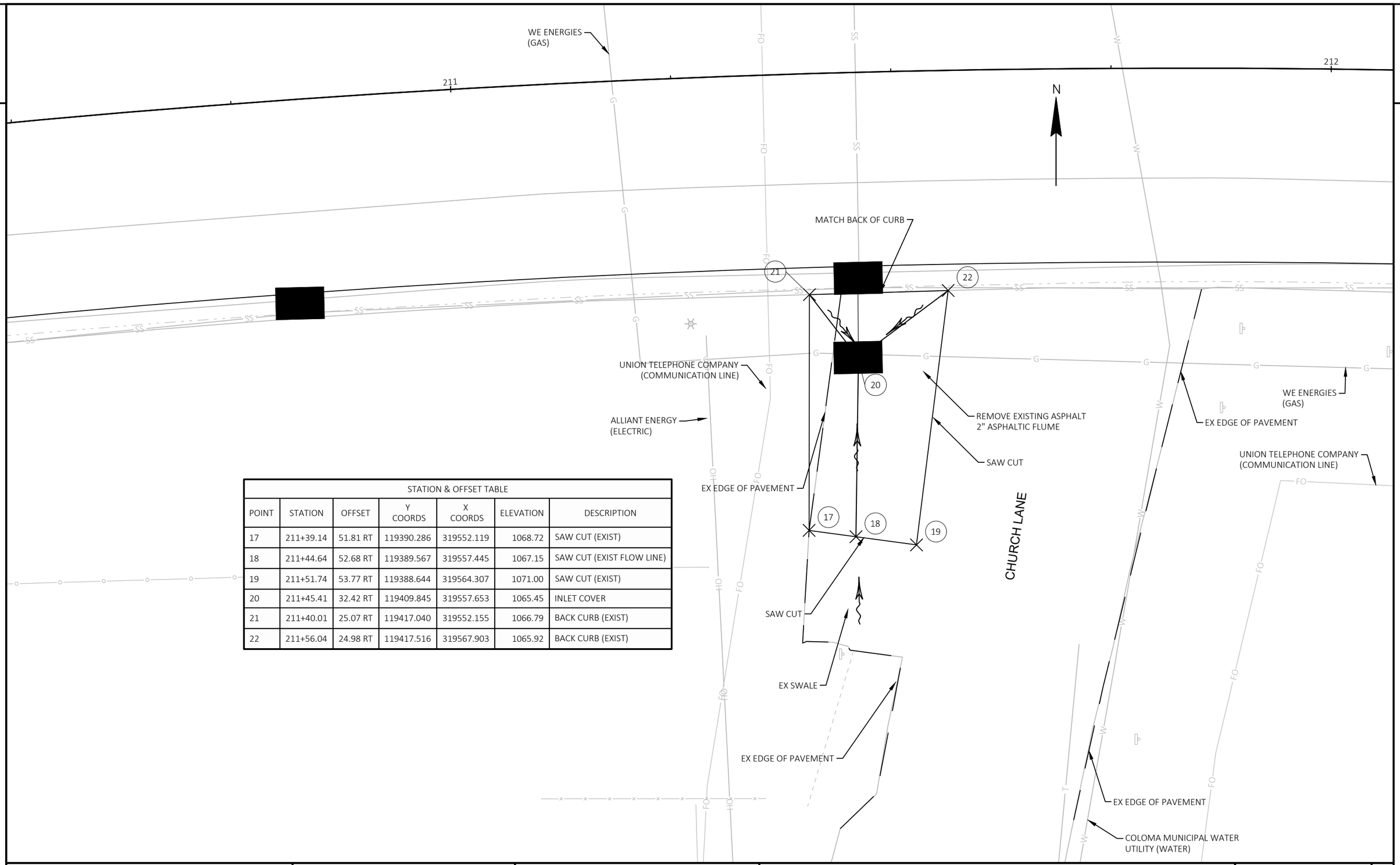
STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
1	205+60.77	28.61 RT	119331.605	318983.188		4.5' RADIUS TO FLAG OF CURB
2	205+52.71	30.47 RT	119328.441	318975.549		4.5' RADIUS TO FLAG OF CURB
3	205+51.38	72.93 RT	119286.344	318981.212		3.5' RADIUS TO FLAG OF CURB
4	205+10.11	44.02 RT	119308.064	318935.749		20' RADIUS TO EDGE OF ASPHALT
5	204+73.15	38.00 RT	119307.929	318898.308		60' RADIUS TO EDGE OF CONCRETE
6	206+23.08	76.00 RT	119295.104	319052.441		52' RADIUS TO FLAG OF CURB
7	205+32.64	109.38 RT	119247.303	318968.723	1091.34	SAW CUT (EXIST)
8	205+61.76	109.61 RT	119251.864	318997.483	1090.89	SAW CUT (EXIST)
9	205+68.20	82.43 RT	119279.733	318999.368	1090.92	BEGIN CURB
10	205+33.15	38.48 RT	119317.326	318957.568	1092.27	PC CURVE
11	205+72.46	64.10 RT	119298.518	319000.553	1090.64	PC CURB
13	205+90.77	35.25 RT	119329.983	319013.874	1089.88	MID CURB
14	206+23.03	24.00 RT	119346.388	319043.846	1088.60	PT CURB
15	205+48.27	24.02 RT	119334.076	318970.099	1091.85	EDGE LANE
16	205+66.46	24.01 RT	119337.073	318988.049	1091.12	EDGE TURN LANE
23	205+47.85	76.40 RT	119282.339	318978.304	1091.38	EDGE LANE
24	205+54.14	76.45 RT	119283.325	318984.521	1091.29	EDGE TURN LANE
25	205+47.59	109.50 RT	119249.645	318983.488	1091.14	LANE SEPARATION POINT
26	205+47.63	104.18 RT	119254.896	318982.656	1091.17	SAW CUT (EXIST)
27	205+31.50	24.02 RT	119331.315	318953.563	1092.51	POC CURVE

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	INTERSECTION DETAILS - NB OFF RAMP	SHEET 21	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021202_PD-INTS-21.DWG
LAYOUT NAME - NB OFF RAMP
PLOT DATE : 5/19/2021 1:40 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

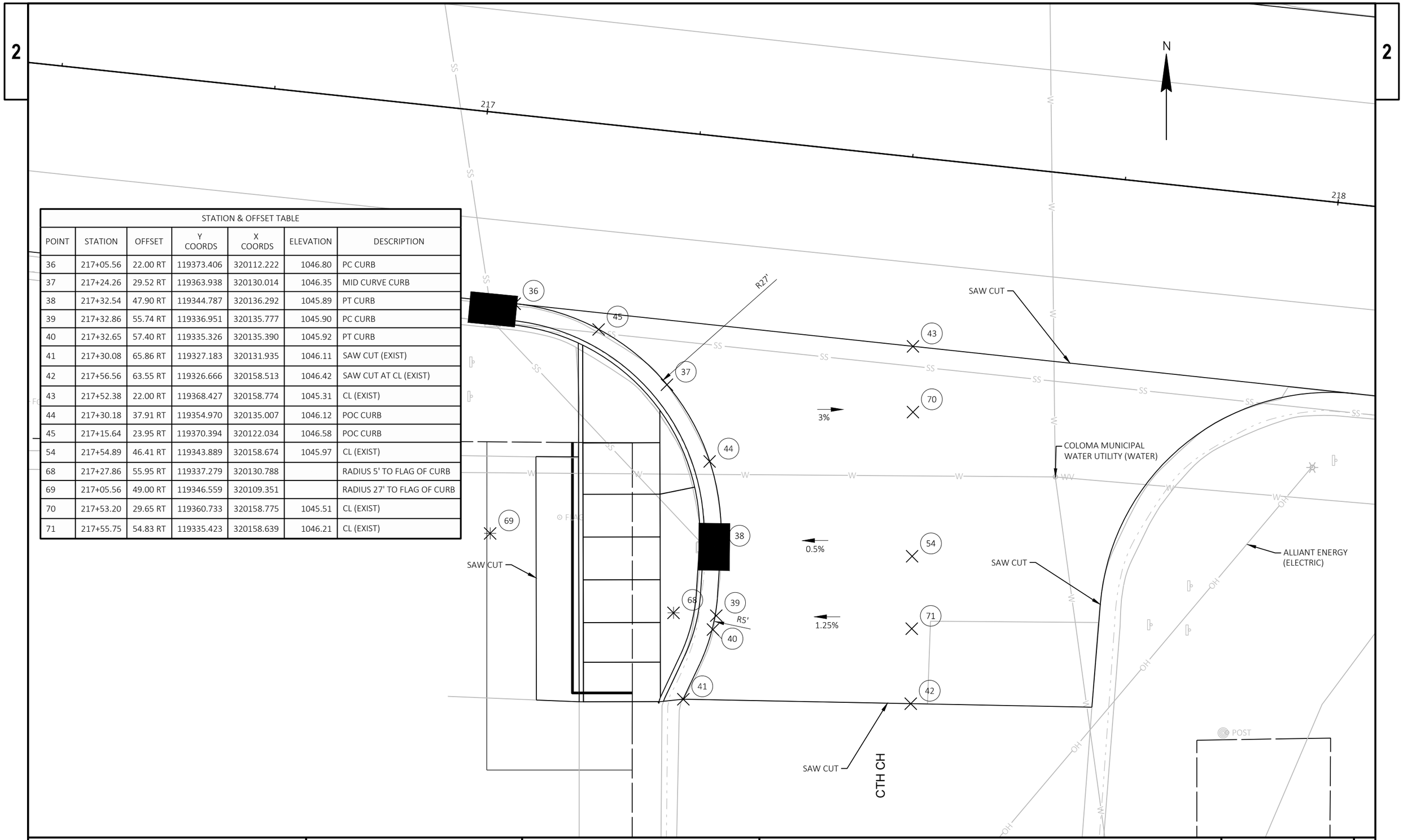


STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
17	211+39.14	51.81 RT	119390.286	319552.119	1068.72	SAW CUT (EXIST)
18	211+44.64	52.68 RT	119389.567	319557.445	1067.15	SAW CUT (EXIST FLOW LINE)
19	211+51.74	53.77 RT	119388.644	319564.307	1071.00	SAW CUT (EXIST)
20	211+45.41	32.42 RT	119409.845	319557.653	1065.45	INLET COVER
21	211+40.01	25.07 RT	119417.040	319552.155	1066.79	BACK CURB (EXIST)
22	211+56.04	24.98 RT	119417.516	319567.903	1065.92	BACK CURB (EXIST)

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	INTERSECTION DETAILS- CHURCH LANE SWALE	SHEET 22	E

2

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
36	217+05.56	22.00 RT	119373.406	320112.222	1046.80	PC CURB
37	217+24.26	29.52 RT	119363.938	320130.014	1046.35	MID CURVE CURB
38	217+32.54	47.90 RT	119344.787	320136.292	1045.89	PT CURB
39	217+32.86	55.74 RT	119336.951	320135.777	1045.90	PC CURB
40	217+32.65	57.40 RT	119335.326	320135.390	1045.92	PT CURB
41	217+30.08	65.86 RT	119327.183	320131.935	1046.11	SAW CUT (EXIST)
42	217+56.56	63.55 RT	119326.666	320158.513	1046.42	SAW CUT AT CL (EXIST)
43	217+52.38	22.00 RT	119368.427	320158.774	1045.31	CL (EXIST)
44	217+30.18	37.91 RT	119354.970	320135.007	1046.12	POC CURB
45	217+15.64	23.95 RT	119370.394	320122.034	1046.58	POC CURB
54	217+54.89	46.41 RT	119343.889	320158.674	1045.97	CL (EXIST)
68	217+27.86	55.95 RT	119337.279	320130.788		RADIUS 5' TO FLAG OF CURB
69	217+05.56	49.00 RT	119346.559	320109.351		RADIUS 27' TO FLAG OF CURB
70	217+53.20	29.65 RT	119360.733	320158.775	1045.51	CL (EXIST)
71	217+55.75	54.83 RT	119335.423	320158.639	1046.21	CL (EXIST)



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	INTERSECTION DETAILS - COUNTY CH	SHEET 23	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021202_PD-INTS-21.DWG
LAYOUT NAME - COUNTY CH

PLOT DATE : 5/19/2021 1:40 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

2

ALLIANT ENERGY
(ELECTRIC)

WE ENERGIES
(GAS)

UNION TELEPHONE COMPANY
(COMMUNICATION LINE)

N

PT: 221+60.90

222

223

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
28	222+32.47	42.00 RT	119320.367	320640.503		20' RADIUS TO FLAG OF CURB
29	222+52.44	43.16 RT	119319.527	320660.487	1032.59	PT CURB
30	222+52.18	48.82 RT	119313.865	320660.319	1032.47	END CURB / SAW CUT
31	222+89.28	34.31 RT	119328.975	320697.184	1032.36	SAW CUT (EXIST)
32	222+32.47	22.00 RT	119340.364	320640.180	1033.30	PC CURB
33	222+46.93	28.19 RT	119334.413	320654.740	1032.95	MID CURVE CURB
35	222+44.78	26.24 RT	119336.326	320652.558	1033.02	INLET
66	222+97.93	22.00 RT	119341.423	320705.631	1032.28	SAW CUT (EXIST)
67	222+72.99	22.00 RT	119341.020	320680.689	1033.05	END BUTT JOINT

R20

SAW CUT

SAW CUT

MADISON STREET

UNION TELEPHONE COMPANY
(COMMUNICATION LINE)

ALLIANT ENERGY
(ELECTRIC)

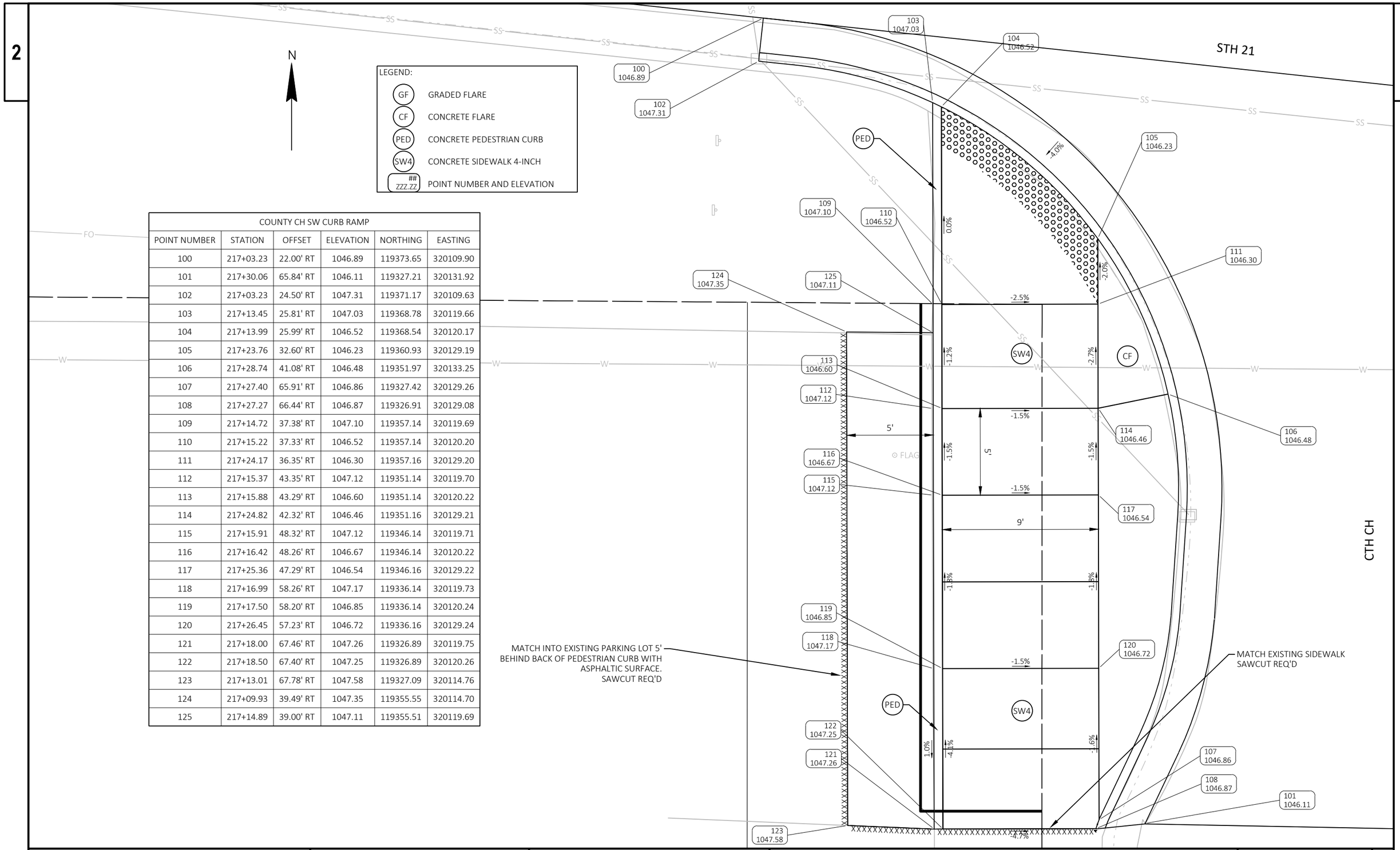
ALLIANT ENERGY
(ELECTRIC)

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	INTERSECTION DETAILS - MADISON STREET	SHEET 24	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021202_PD-INTS-21.DWG
LAYOUT NAME - MADISON

PLOT DATE : 5/19/2021 1:40 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT

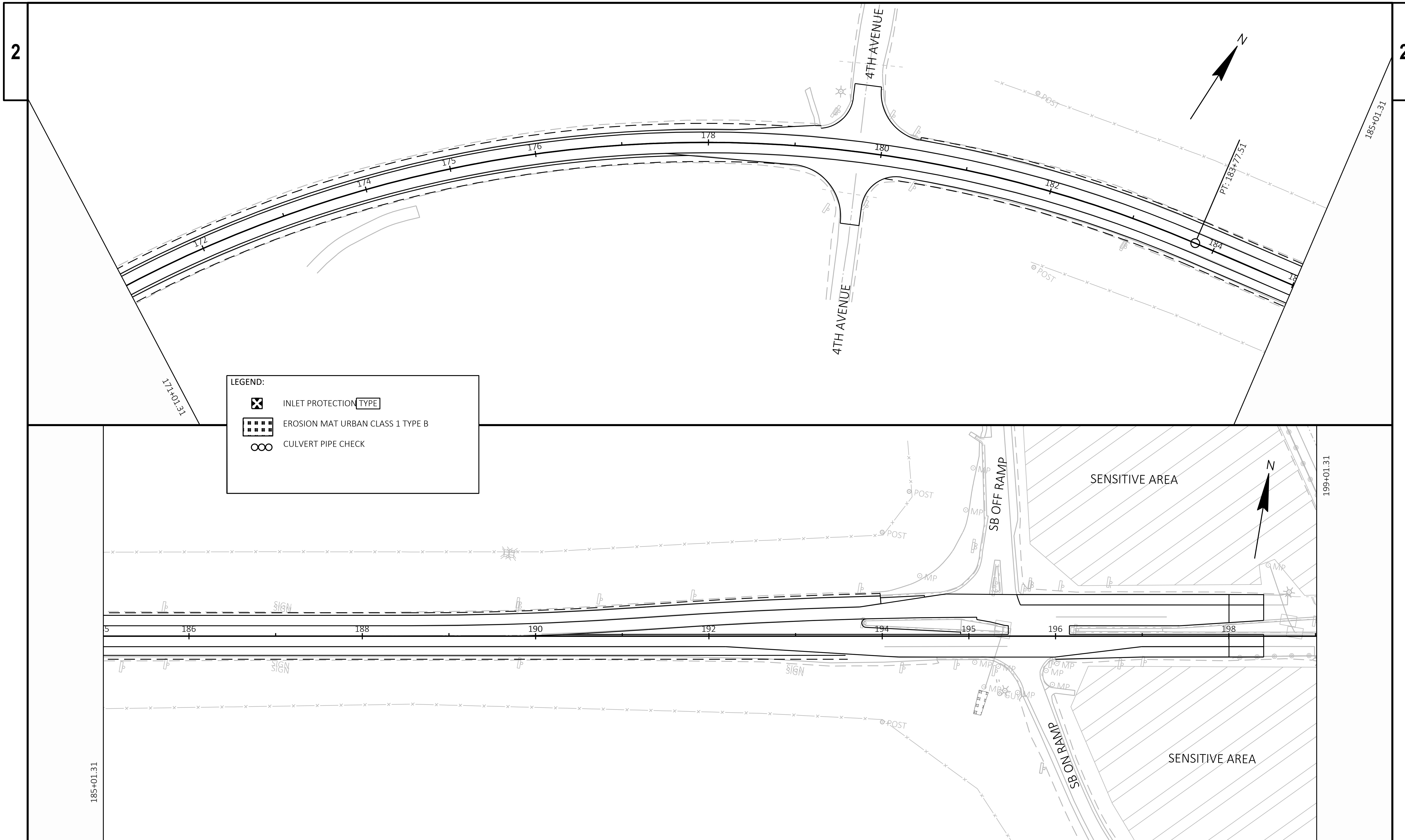
WISDOT/CADDS SHEET 42



COUNTY CH SW CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	217+03.23	22.00' RT	1046.89	119373.65	320109.90
101	217+30.06	65.84' RT	1046.11	119327.21	320131.92
102	217+03.23	24.50' RT	1047.31	119371.17	320109.63
103	217+13.45	25.81' RT	1047.03	119368.78	320119.66
104	217+13.99	25.99' RT	1046.52	119368.54	320120.17
105	217+23.76	32.60' RT	1046.23	119360.93	320129.19
106	217+28.74	41.08' RT	1046.48	119351.97	320133.25
107	217+27.40	65.91' RT	1046.86	119327.42	320129.26
108	217+27.27	66.44' RT	1046.87	119326.91	320129.08
109	217+14.72	37.38' RT	1047.10	119357.14	320119.69
110	217+15.22	37.33' RT	1046.52	119357.14	320120.20
111	217+24.17	36.35' RT	1046.30	119357.16	320129.20
112	217+15.37	43.35' RT	1047.12	119351.14	320119.70
113	217+15.88	43.29' RT	1046.60	119351.14	320120.22
114	217+24.82	42.32' RT	1046.46	119351.16	320129.21
115	217+15.91	48.32' RT	1047.12	119346.14	320119.71
116	217+16.42	48.26' RT	1046.67	119346.14	320120.22
117	217+25.36	47.29' RT	1046.54	119346.16	320129.22
118	217+16.99	58.26' RT	1047.17	119336.14	320119.73
119	217+17.50	58.20' RT	1046.85	119336.14	320120.24
120	217+26.45	57.23' RT	1046.72	119336.16	320129.24
121	217+18.00	67.46' RT	1047.26	119326.89	320119.75
122	217+18.50	67.40' RT	1047.25	119326.89	320120.26
123	217+13.01	67.78' RT	1047.58	119327.09	320114.76
124	217+09.93	39.49' RT	1047.35	119355.55	320114.70
125	217+14.89	39.00' RT	1047.11	119355.51	320119.69

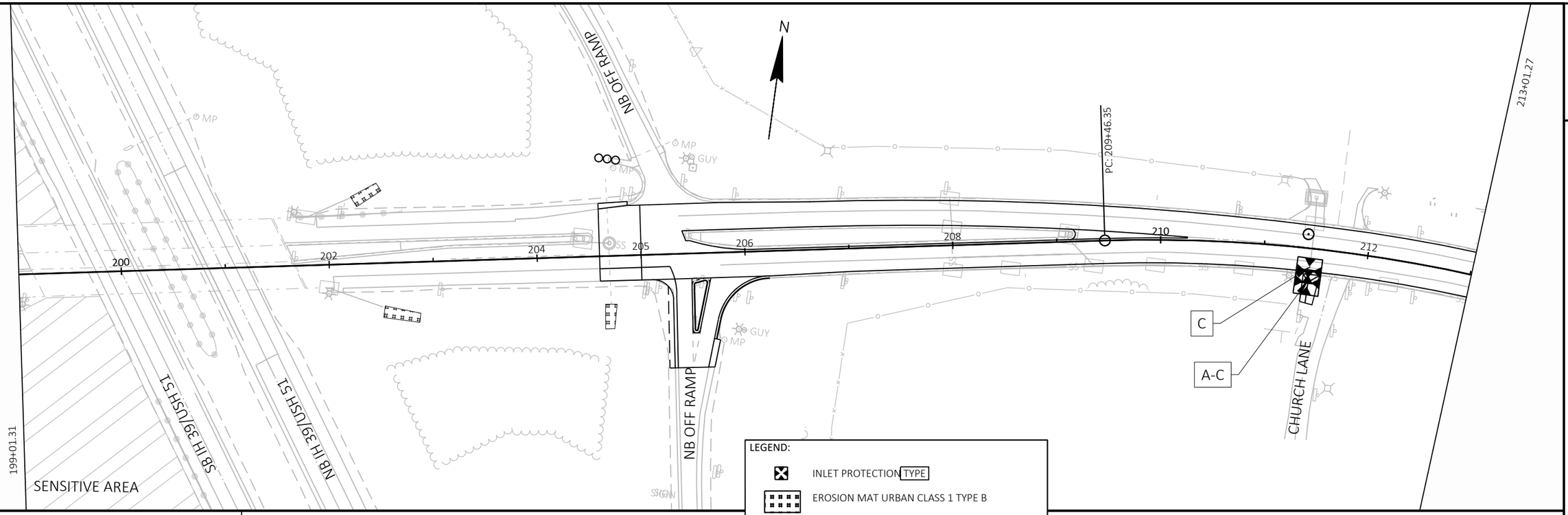
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	CURB RAMP DETAILS	SHEET 25	E

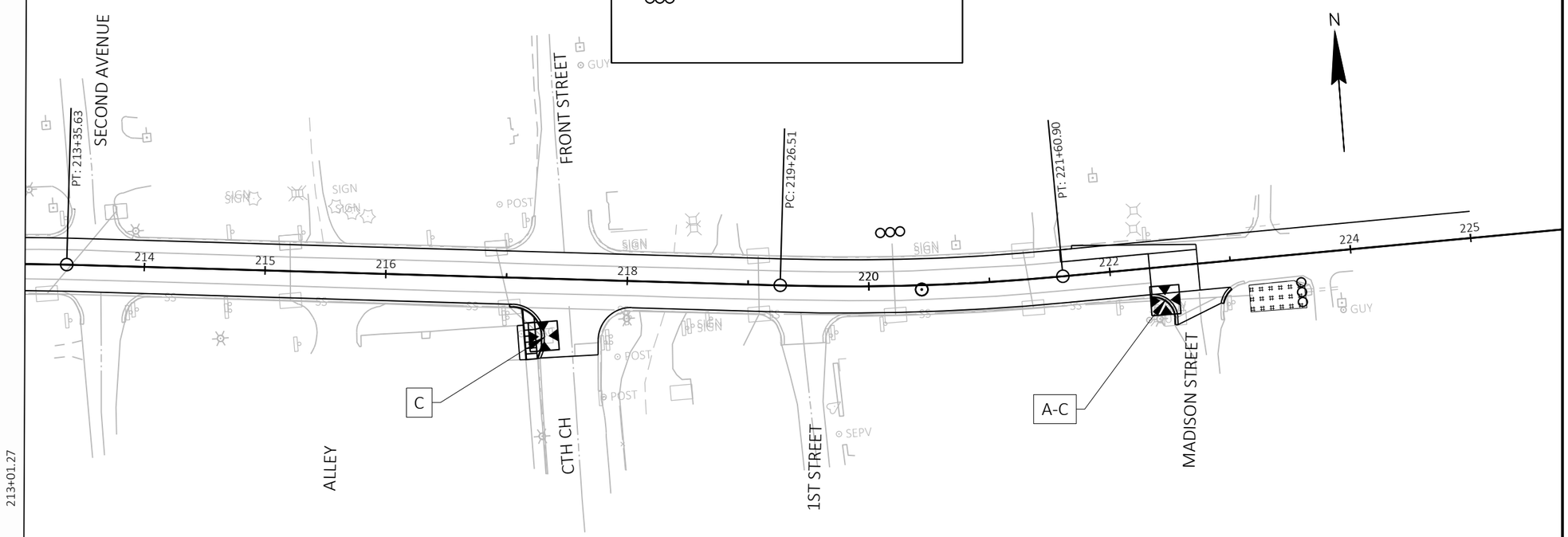
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\021203_PD-CURBBRAMP-21.DWG
LAYOUT NAME - Cty CH SW (5)
PLOT DATE : 5/19/2021 1:42 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	EROSION CONTROL	SHEET 26	E

2



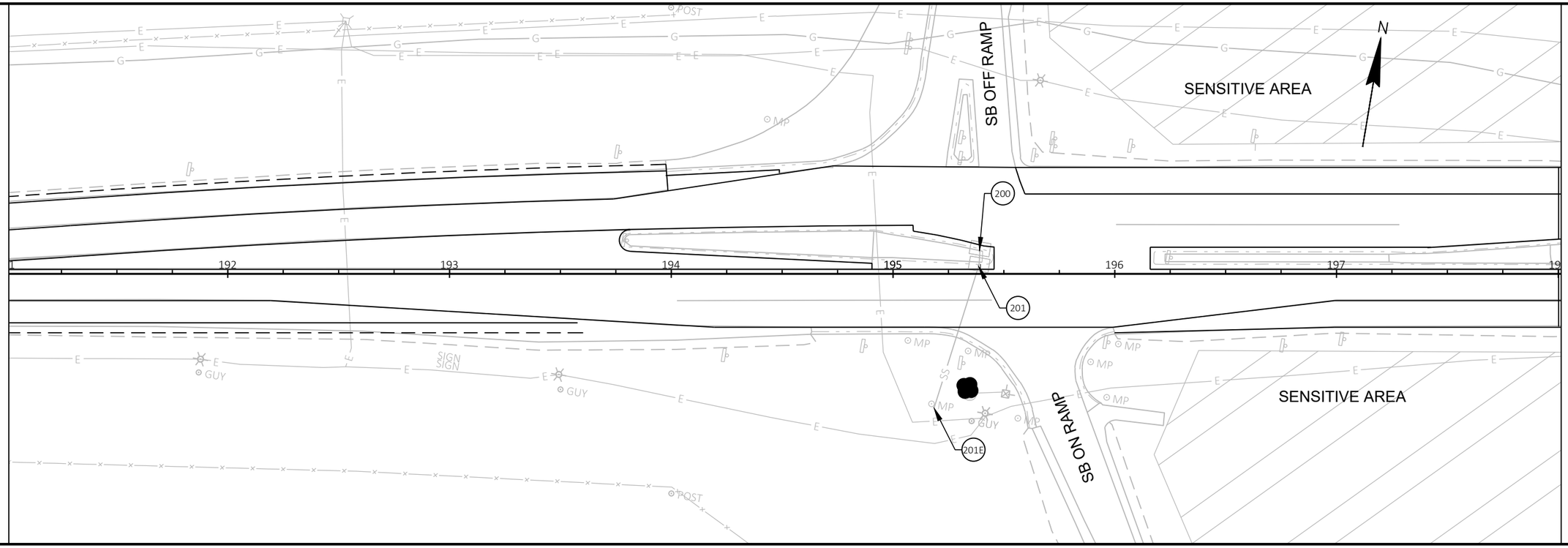


PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	EROSION CONTROL	SHEET 27	E

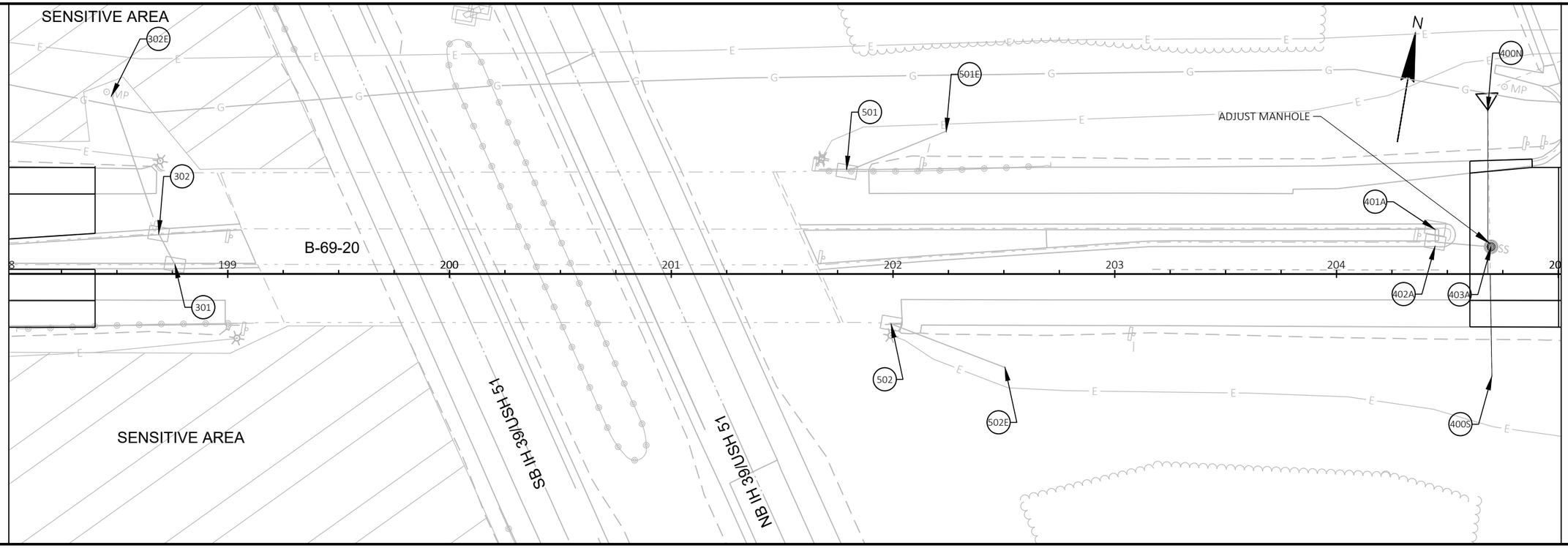
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\022001-EC-21.DWG
LAYOUT NAME - (6)

PLOT DATE : 5/19/2021 11:04 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

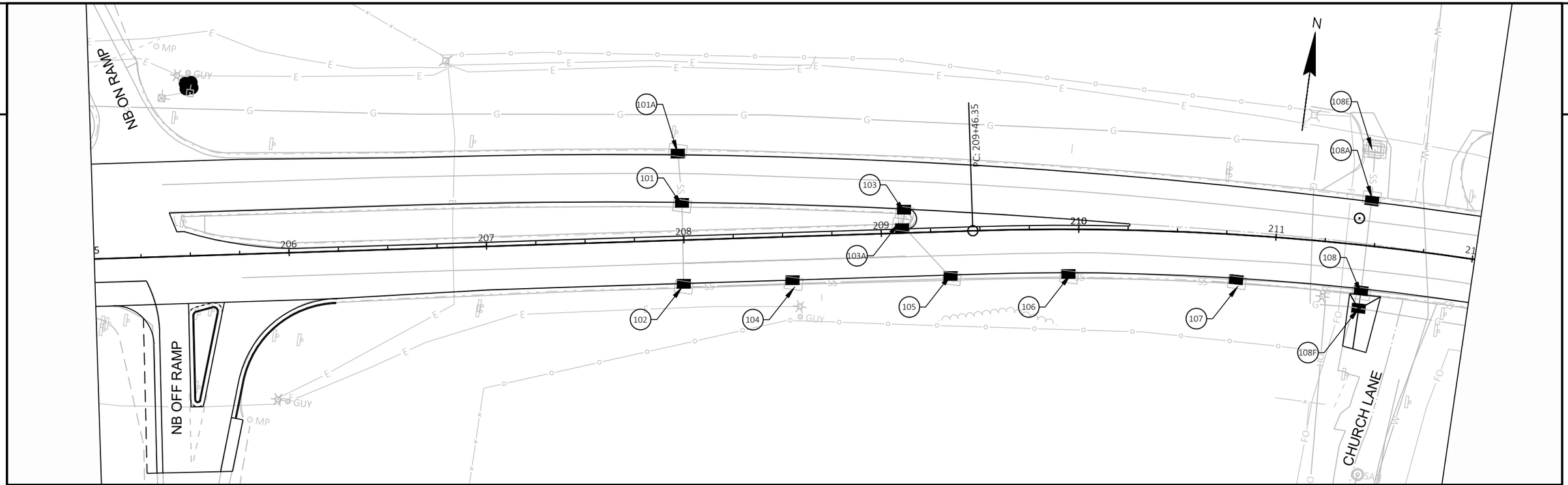
WISDOT/CADDS SHEET 44



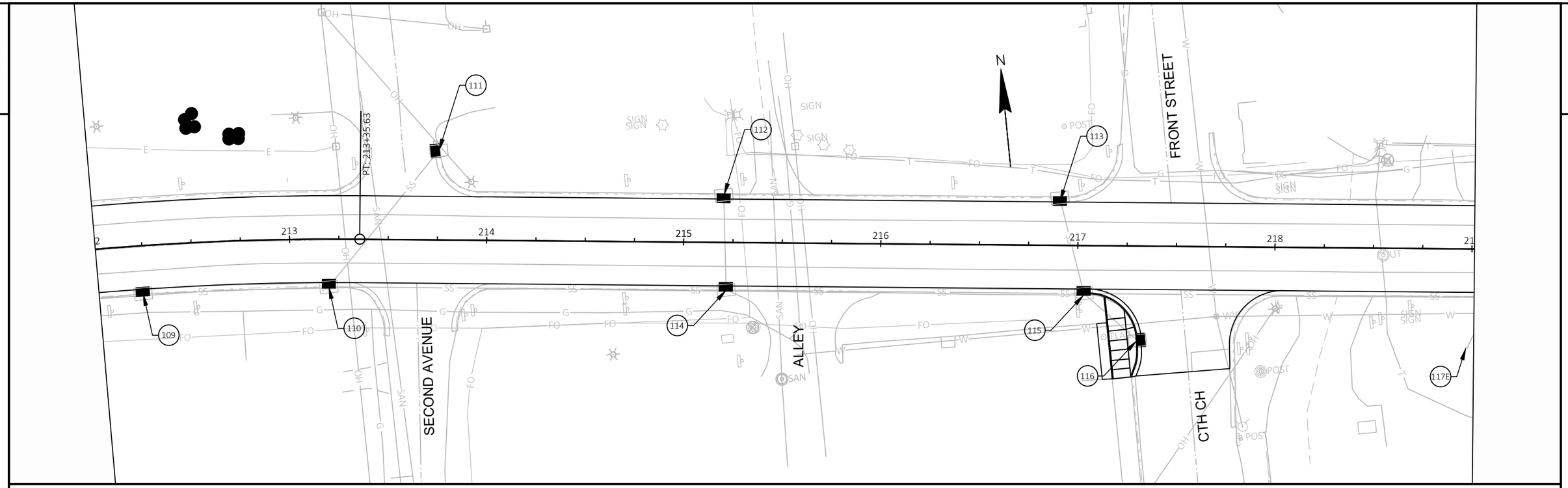
STRUCT NO.	STATION	OFFSET		STRUCTURE TYPE			COVER	PROP RIM (FLOW LINE)	T.O.S. ELEV	B.O.S ELEV	DEPTH (FT)	DISCHARGE PIPE TO STRUCT	SIZE (IN)	C-C (FT)	INLET ELEV	DISCHARGE ELEV	LENGTH (FT)	SLOPE (%)	PIPE/ STRUCTURE REPAIR	DITCH RESTORATION/ PIPE CLEANING
200	195+38	11'	LT	EX	INLET	RECT	EXIST T	EXIST	EXISTING			201	12"	EXISTING					NONE - TO REMAIN	-
201	195+38	5'	LT	EX	INLET	RECT	EXIST T	EXIST	EXISTING			201E	18"	EXISTING					NONE - TO REMAIN	-
201E	195+17	60'	RT	EX	CONC AEW	18-IN	-	EXIST	-			-	-	-					NONE - TO REMAIN	DITCH RESTORATION 15'



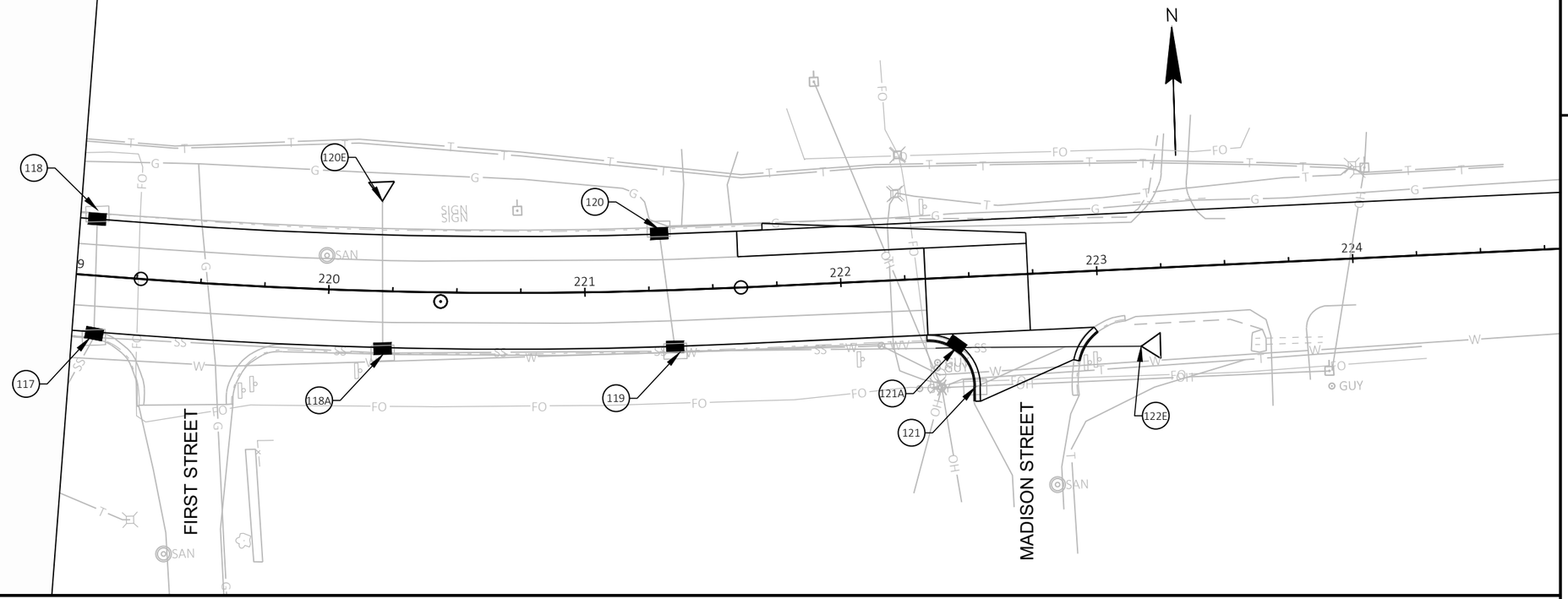
STRUCT NO.	STATION	OFFSET		STRUCTURE TYPE			COVER	PROP RIM (FLOW LINE)	T.O.S. ELEV	B.O.S ELEV	DEPTH (FT)	DISCHARGE PIPE TO STRUCT	SIZE (IN)	C-C (FT)	INLET ELEV	DISCHARGE ELEV	LENGTH (FT)	SLOPE (%)	PIPE/ STRUCTURE REPAIR	DITCH RESTORATION/ PIPE CLEANING
301	198+76	2'	LT	EX	INLET	ROUND	EXIST A-S	EXIST	EXISTING			302	12"	EXISTING					NONE - TO REMAIN	CLEANING STORM SEWER
302	198+69	18'	LT	EX	INLET	ROUND	EXIST A-S	EXIST	EXISTING			302E	12"	EXISTING					NONE - TO REMAIN	CLEANING STORM SEWER
302E	198+47	82'	LT	EX	CONC AEW	12-IN	-	EXIST	-			-	-	-					NONE - TO REMAIN	
400N	204+69	77'	LT	EX	CONC AEW	30-IN	-	1087.45	-			403A	30"	EXISTING					SALVAGE AND RESET ENDWALL	CLEANING STORM SEWER
400S	204+69	46	RT	EX	CONC AEW	30-IN	-	EXIST	-			-	-	-					NONE-TO REMAIN	DITCH RESTORATION 10'
401A	204+45	20'	LT	EX	INLET	RECT	EXIST H	EXIST	EXISTING			402A	12"	EXISTING					NONE-TO REMAIN	CLEANING STORM SEWER
402A	204+45	14'	LT	EX	INLET	RECT	EXIST H	EXIST	EXISTING			403A	12"	EXISTING					NONE-TO REMAIN	CLEANING STORM SEWER
403A	204+69	13'	LT	EX	MH	ROUND	EXIST J	1096.01	EXISTING			400S	30"	EXISTING					ADJUST MANHOLE (ELEVATION)	CLEANING STORM SEWER
501	201+79	46'	LT	EX	INLET	RECT	EXIST V	EXIST	EXISTING			501E	12"	EXISTING					NONE-TO REMAIN	-
501E	202+25	64'	LT	EX	CONC AEW	12-IN	-	EXIST	-			-	-	-					NONE-TO REMAIN	DITCH RESTORATION 6'
502	201+97	22'	RT	EX	INLET	RECT	EXIST V	EXIST	EXISTING			502E	12"	EXISTING					NONE-TO REMAIN	-
502E	202+45	42'	RT	EX	CONC AEW	12-IN	-	EXIST	-			-		-					NONE-TO REMAIN	DITCH RESTORATION 15'



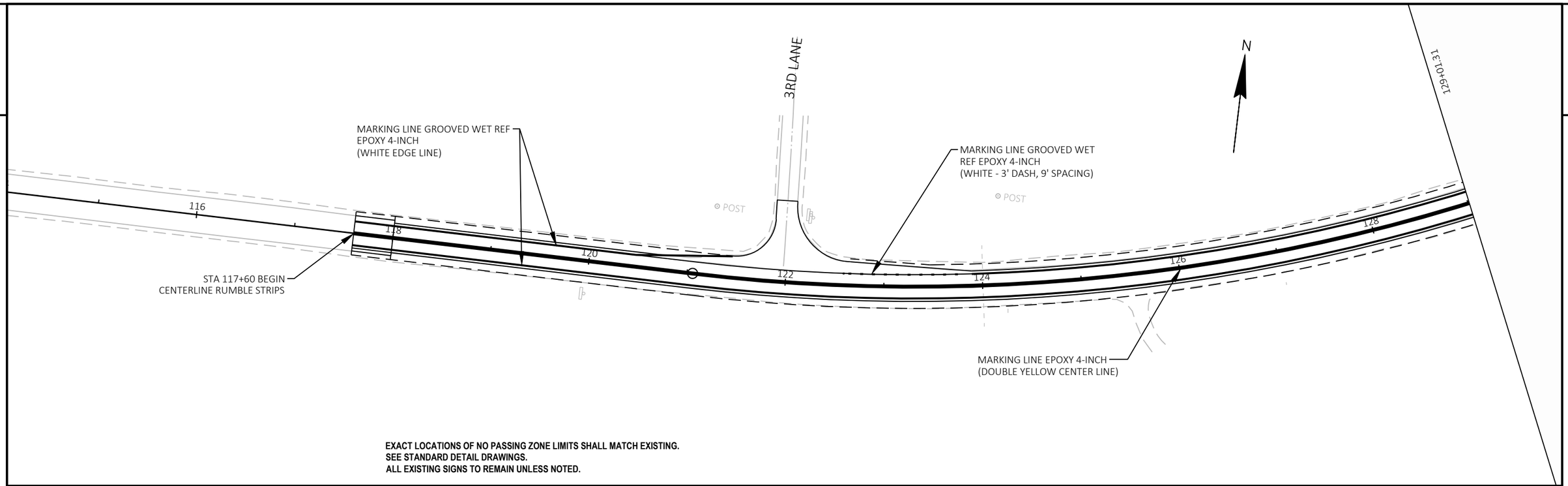
STRUCT NO.	STATION	OFFSET		STRUCTURE TYPE			COVER	PROP RIM (FLOW LINE)	T.O.S. ELEV	B.O.S ELEV	DEPTH (FT)	DISCHARGE PIPE TO STRUCT	SIZE (IN)	C-C (FT)	INLET ELEV	DISCHARGE ELEV	LENGTH (FT)	SLOPE (%)	PIPE/ STRUCTURE REPAIR	DITCH RESTORATION/ PIPE CLEANING
101	208+00	18'	LT	RECST	INLET	RECT	NEW H	1081.25	EXISTING			102	12"	EXISTING					RECONSTRUCT INLET - PIPE CONECTION REPAIR NEW TYPE H CASTING	CLEANING STORM SEWER
101A	208+00	41'	LT	RECST	INLET	RECT	EXIST H-S	1081.81	EXISTING			101	12"	EXISTING					RECONSTRUCT INLET - RISER AND PIPE CONNECTION REPAIR	CLEANING STORM SEWER
102	208+00	24'	RT	RECST	INLET	ROUND	EXIST H-S	1080.90	EXISTING			104	24"	EXISTING					RECONSTRUCT INLET - RISER AND PIPE CONNECTION REPAIR	CLEANING STORM SEWER
103	209+12	11'	LT	ADJUST	INLET	RECT	EXIST H-S	1076.53	EXISTING			103A	12"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
103A	209+12	4'	LT	ADJUST	INLET	RECT	EXIST H-S	1076.54	EXISTING			105	12"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
104	280+55	24'	RT	RECST	INLET	ROUND	EXIST H-S	1078.58	EXISTING			105	24"	EXISTING					RECONSTRUCT INLET - RISER AND PIPE CONNECTION REPAIR	CLEANING STORM SEWER
105	209+35	24'	RT	RECST	INLET	ROUND	EXIST H-S	1075.04	EXISTING			106	24"	EXISTING					RECONSTRUCT INLET - RISER AND PIPE CONNECTION REPAIR	CLEANING STORM SEWER
106	209+95	24'	RT	ADJUST	INLET	ROUND	EXIST H-S	1072.46	EXISTING			107	24"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
107	210+80	24'	RT	ADJUST	INLET	ROUND	EXIST H-S	1068.88	EXISTING			108	24"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
108F	211+46	35'	RT	NEW	NEW CB	3-FT	NEW C	1065.45	1064.62	1060.25	4.37	108	12"	8	1062.25	1062.2	8	0.62%	NEW CATCH BASIN 3-FT NEW TYPE C CASTING NEW 18" PIPE	-
108	211+46	24'	RT	RECST	INLET	ROUND	NEW H	1066.14	EXISTING'			109	24"	EXISTING					RECONSTRUCT INLET - CONNECT TO NEW PIPE FROM 108F NEW TYPE H CASTING	CLEANING STORM SEWER
108A	211+46	24'	LT	RECST	INLET	RECT	NEW H-D	1066.89	EXISTING			108	12"	EXISTING					RECONSTRUCT INLET TO FIT CASTING NEW TYPE H-D CASTING	CLEANING STORM SEWER
108E	211+46	35'	LT	EXIST	INLET	RECT	EXIST MS	EXIST	EXISTING			108E	12"	EXISTING					NONE-TO REMAIN	-



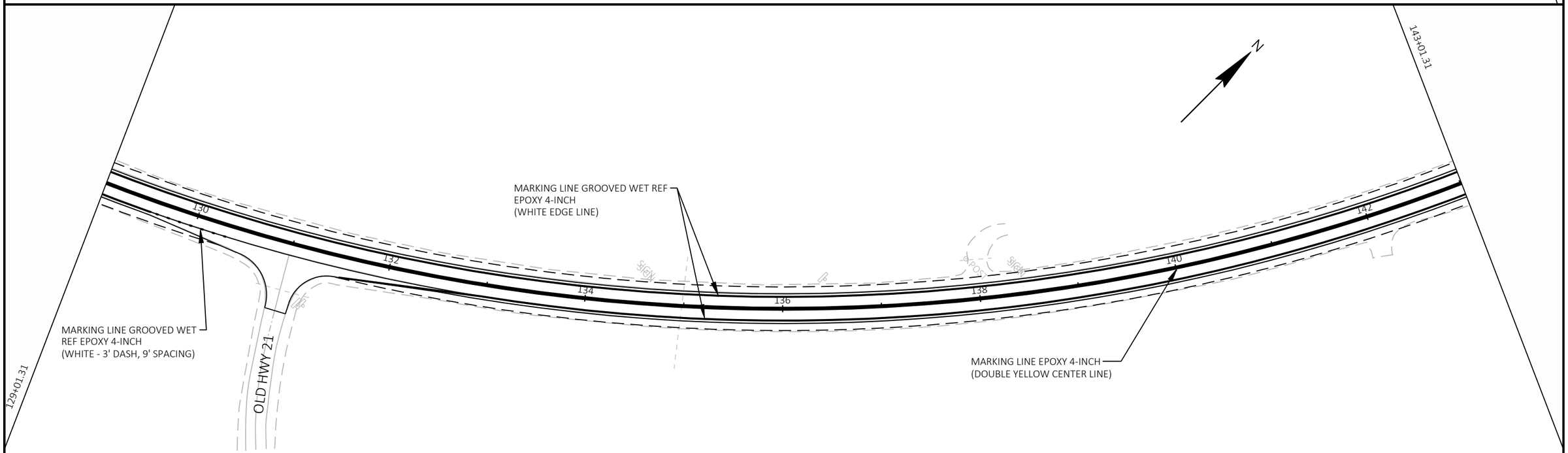
STRUCT NO.	STATION	OFFSET		STRUCTURE TYPE			COVER	PROP RIM (FLOW LINE)	T.O.S. ELEV	B.O.S ELEV	DEPTH (FT)	DISCHARGE PIPE TO STRUCT	SIZE (IN)	C-C (FT)	INLET ELEV	DISCHARGE ELEV	LENGTH (FT)	SLOPE (%)	PIPE/ STRUCTURE REPAIR	DITCH RESTORATION/ PIPE CLEANING
109	212+24	24'	RT	RECST	INLET	ROUND	EXIST H-S	1063.16	EXISTING			110	24"	EXISTING					RECONSTRUCT INLET - REPLACE TOP OF STRUCTURE AND RISERS	CLEANING STORM SEWER
110	213+22	24'	RT	RECST	INLET	ROUND	NEW H	1059.38	EXISTING			114	24"	EXISTING					RECONSTRUCT INLET -RISER REPAIR NEW TYPE H CASTING	CLEANING STORM SEWER
111	213+73	45'	LT	ADJUST	INLET	RECT	EXIST H-S	1058.59	EXISTING			110	12"	EXISTING					ADJUST INLET - RISER REPAIR RESET CASTING	CLEANING STORM SEWER
112	215+20	24'	LT	ADJUST	INLET	RECT	EXIST H-S	1052.56	EXISTING			114	12"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
113	216+90	24'	LT	ADJUST	INLET	RECT	EXIST H-S	1047.11	EXISTING			115	12"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
114	215+20	24'	RT	ADJUST	INLET	ROUND	EXIST H-S	1052.27	EXISTING			115	24"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
115	217+02	24'	RT	EXIST	INLET	ROUND	EXIST H-S	EXIST	EXISTING			117	24"	EXISTING					NONE-TO REMAIN	CLEANING STORM SEWER
116	217+31	48'	RT	ADJUST	INLET	RECT	EXIST H-S	1045.81	EXISTING			115	18"	EXISTING					ADJUST-INLET - ELEVATION AND RISER REPAIR	CLEANING STORM SEWER
117E	218+99	44'	RT	EXIST	CONC AEW	18-INCH	-	EXIST	-			117	18"	-					NONE-TO REMAIN	CLEANING STORM SEWER



STRUCT NO.	STATION	OFFSET		STRUCTURE TYPE			COVER	PROP RIM (FLOW LINE)	T.O.S. ELEV	B.O.S ELEV	DEPTH (FT)	DISCHARGE PIPE TO STRUCT	SIZE (IN)	C-C (FT)	INLET ELEV	DISCHARGE ELEV	LENGTH (FT)	SLOPE (%)	PIPE/ STRUCTURE REPAIR	DITCH RESTORATION/ PIPE CLEANING
117	219+07	23.5'	RT	ADJUST	INLET	ROUND	EXIST H-S	1040.32	EXISTING			118A	30"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
118	219+07	23.5'	LT	RECST	INLET	RECT	EXIST H-S	1040.25	EXISTING			117	12"	EXISTING					RECONSTRUCT INLET - RISER REPAIR RESET STRUCTURE	CLEANING STORM SEWER
118A	220+20	23.5'	RT	ADJUST	INLET	ROUND	EXIST H-S	1037.23	EXISTING			119	36"	EXISTING					RISER REPAIR	CLEANING STORM SEWER
119	221+34	23.5'	RT	RECST	INLET	ROUND	EXIST H-S	1034.62	EXISTING			121A	36"	109	1029.32	1028.6	4	0.66%	RECONSTRUCT INLET - RISER AND PIPE CONNECTION REPAIR REPLACE 4 FT OF PIPE AT CONNECTION TO STRUCTURE 121A PIPE COLLAR REQUIRED	CLEANING STORM SEWER
120	221+29	23.5'	LT	ADJUST	INLET	RECT	EXIST H-S	1034.66	EXISTING			119	12"	EXISTING					ADJUST INLET -RISER REPAIR	CLEANING STORM SEWER
120E	221+29	23.5'	LT	NEW	CONC AEW	24-INCH	-	1033.70	-			118A	24"	-					REMOVE AND REPLACE END WALL	CLEANING STORM SEWER
121	222+50	43.0'	RT	REMOVE	INLET	ROUND	REMOVE	-	EXISTING			N/A	REMOVE	REMOVE					REMOVE INLET AND 18"PIPE TO EXISTING UNDERGROUND CONNECTION WITH 36"	-
121A	222+42	27.6'	RT	NEW	CB 5-FT	NEW	H	1032.90	1032.07	1026.60	5.47	122E	36"	68	1028.6	1028.12	68	0.71%	NEW CATCH BASIN5-FT NEW TYPE H CASTING REPLACE INLET AND EXISTING 36-INCH OUTLET PIPE TO ENDWALL.	-
122E	223+16	30.5'	RT	NEW	CONC AEW	36-INCH	-	1028.12	-			-	-	-					REMOVE AND REPLACE END WALL	DITCH RESTORATION 20'-30'



EXACT LOCATIONS OF NO PASSING ZONE LIMITS SHALL MATCH EXISTING.
SEE STANDARD DETAIL DRAWINGS.
ALL EXISTING SIGNS TO REMAIN UNLESS NOTED.



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PAVEMENT MARKING	SHEET 33	E

2

143+01.31

MARKING LINE GROOVED WET REF
EPOXY 4-INCH
(WHITE EDGE LINE)

MARKING LINE EPOXY 4-INCH
(YELLOW CENTER LINE)

144 146 148 150 152 154 156

MARKING LINE EPOXY 4-INCH
(DOUBLE YELLOW CENTER LINE)

MARKING LINE EPOXY 4-INCH
(YELLOW CENTER SKIPS-12.5 LINE, 37.5' SPACING)

157+

157+01.31

143+01.31

EXACT LOCATIONS OF NO PASSING ZONE LIMITS SHALL MATCH EXISTING.
SEE STANDARD DETAIL DRAWINGS.
ALL EXISTING SIGNS TO REMAIN UNLESS NOTED.

2

MARKING LINE GROOVED WET REF
EPOXY 4-INCH
(WHITE EDGE LINE)

MARKING LINE EPOXY 4-INCH
(YELLOW CENTER SKIPS-12.5 LINE, 37.5' SPACING)

MARKING LINE EPOXY 4-INCH
(YELLOW CENTER LINE)

158 160 162 164 166 168 170

MARKING LINE EPOXY 4-INCH
(YELLOW CENTER SKIPS-12.5 LINE, 37.5' SPACING)

MARKING LINE EPOXY 4-INCH
(YELLOW CENTER LINE)

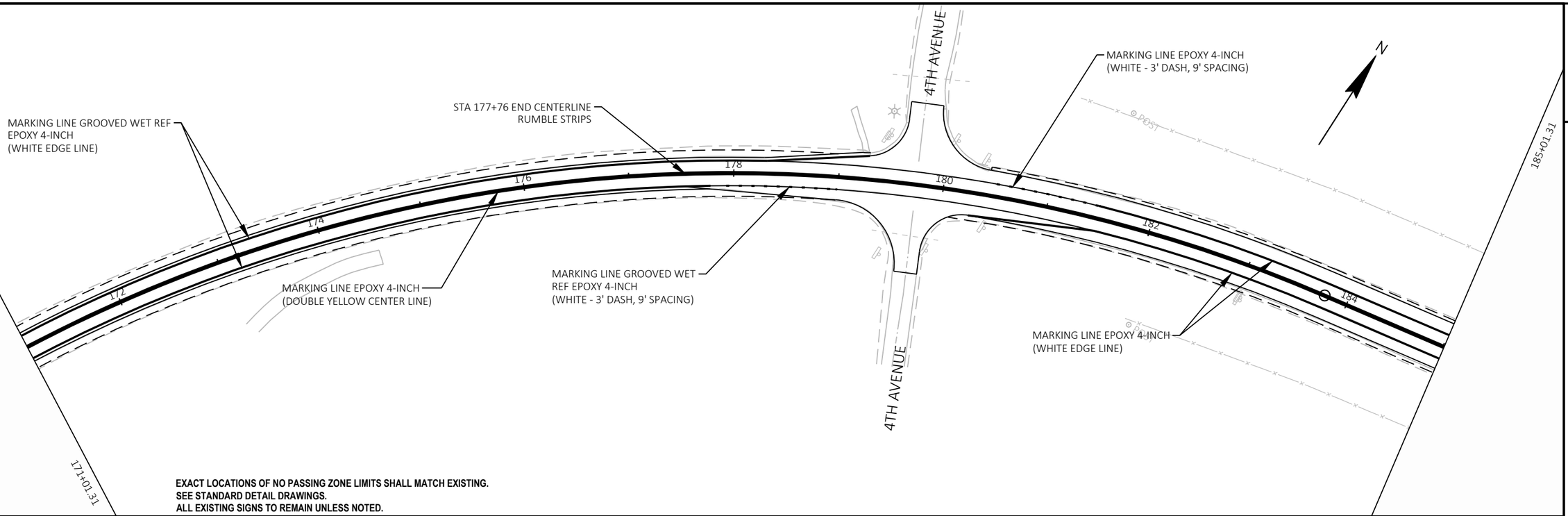
171+01.31

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PAVEMENT MARKING	SHEET 34	E

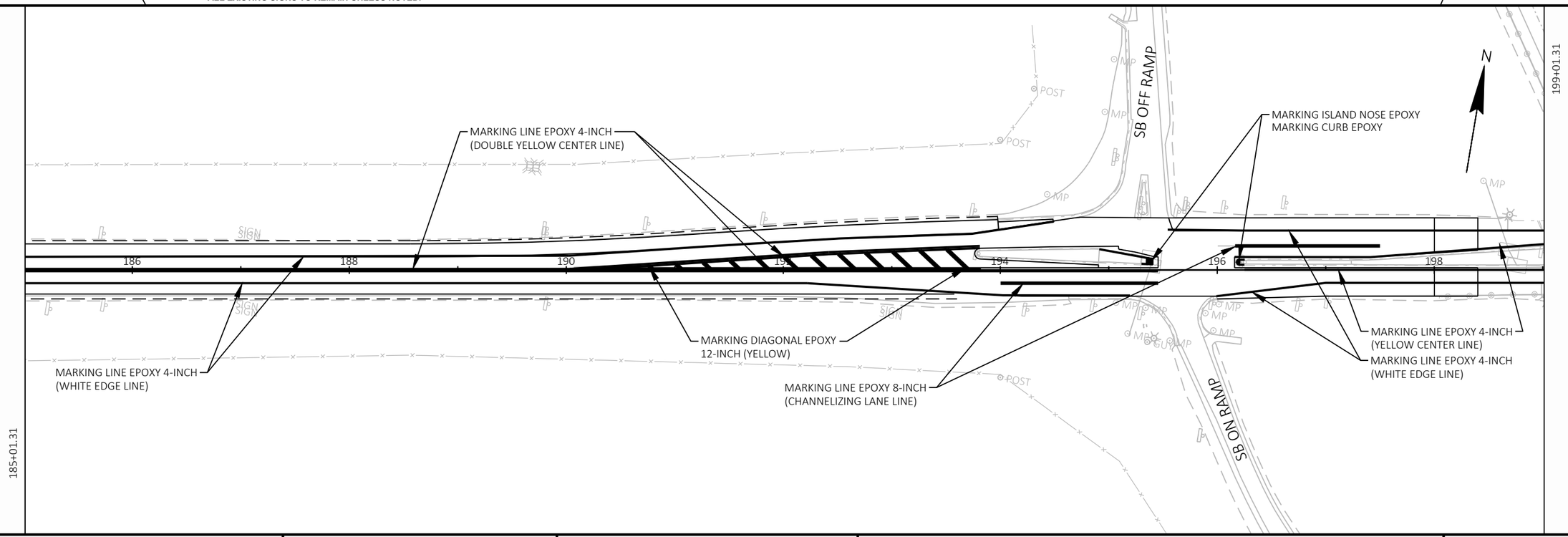
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\024501-PM-21.DWG
LAYOUT NAME - (4)

PLOT DATE : 8/19/2021 2:52 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

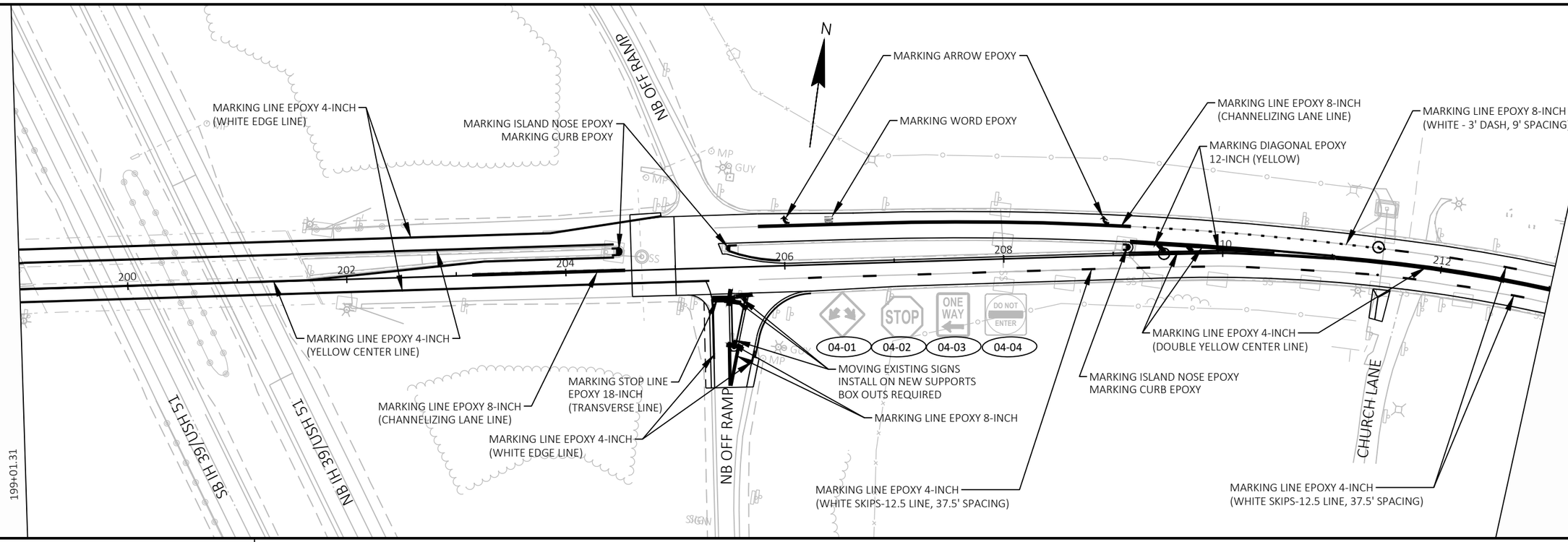


EXACT LOCATIONS OF NO PASSING ZONE LIMITS SHALL MATCH EXISTING.
SEE STANDARD DETAIL DRAWINGS.
ALL EXISTING SIGNS TO REMAIN UNLESS NOTED.

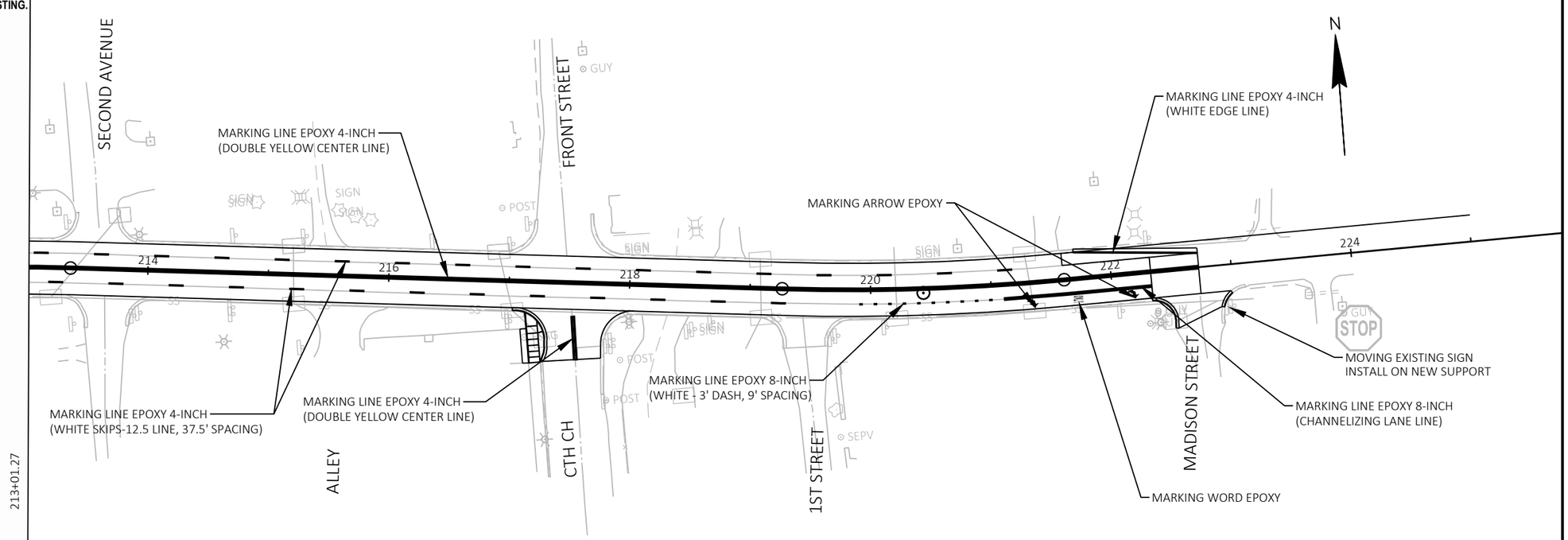


PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PAVEMENT MARKING	SHEET 35	E

2



EXACT LOCATIONS OF NO PASSING ZONE LIMITS SHALL MATCH EXISTING.
SEE STANDARD DETAIL DRAWINGS.
ALL EXISTING SIGNS TO REMAIN UNLESS NOTED.

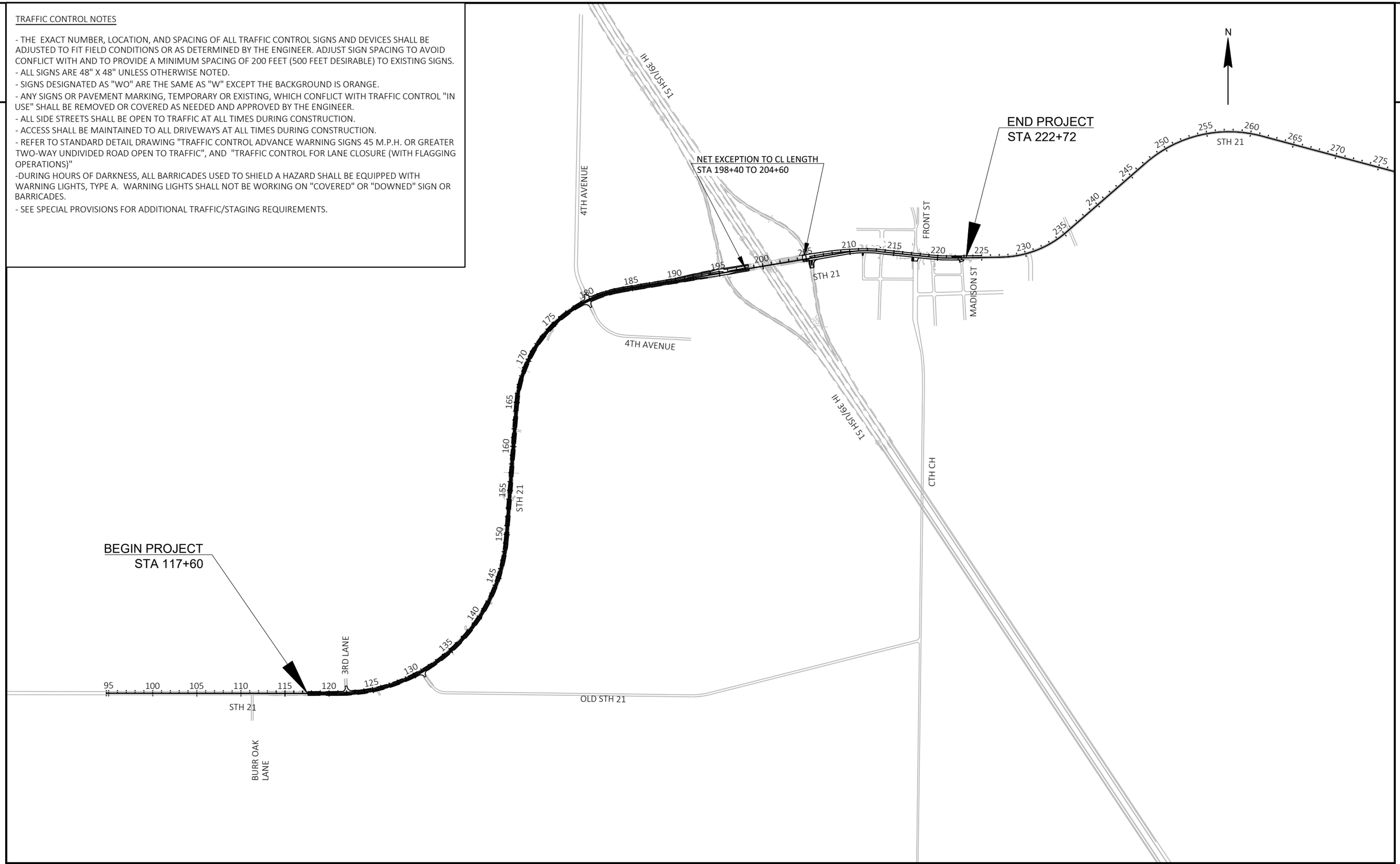


PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PAVEMENT MARKING	SHEET 36	E

2

TRAFFIC CONTROL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DETERMINED BY THE ENGINEER. ADJUST SIGN SPACING TO AVOID CONFLICT WITH AND TO PROVIDE A MINIMUM SPACING OF 200 FEET (500 FEET DESIRABLE) TO EXISTING SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- ANY SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND APPROVED BY THE ENGINEER.
- ALL SIDE STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES DURING CONSTRUCTION.
- ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.
- REFER TO STANDARD DETAIL DRAWING "TRAFFIC CONTROL ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC", AND "TRAFFIC CONTROL FOR LANE CLOSURE (WITH FLAGGING OPERATIONS)"
-DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A. WARNING LIGHTS SHALL NOT BE WORKING ON "COVERED" OR "DOWNED" SIGN OR BARRICADES.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL OVERVIEW	SHEET 37	E

2

2

13

Big Flats

Cottonville

W

W

W

21

ADAMS COUNTY
WAUSHARA COUNTY

131

Hancock

A

124

Coloma

21

Richford

73

N

Wild Rose

22

E

Wautoma

E

A

Dakota

WAUSHARA COUNTY
MARQUETTE COUNTY

22

INTERSTATE
39
51

EAST M3-2 24"X12"
21 M1-6 24"X24"
MAX. 11' WIDTH W12-52 48"X48"
13 MILES AHEAD WO57-52 48"X36"
W

WEST M3-4 24"X12"
21 M1-6 24"X24"
MAX. 11' WIDTH W12-52 48"X48"
12 MILES AHEAD WO57-52 48"X36"
E

21 M1-6 36"X36"
MAX. 11' WIDTH W12-52 48"X48"
A

TRAFFIC CONTROL SIGN AND SUPPORT

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - OSOW SIGNING	SHEET 38	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\025050-TC-21OSOW.DWG
LAYOUT NAME - Plan 1 IN 2000 FT

PLOT DATE : 7/15/2021 8:34 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:2 MI

WISDOT/CADDS SHEET 42

2

		STAGES 1 A-B		7 DAYS PRIOR TO STAGE 1C		STAGES 1 C-D		STAGE 2 3 DAYS PRIOR TO RAMP TURN CLOSURES/RESTRICTION		STAGE 2 RAMP TURN RESTRICTIONS		STAGE 2 FULL RAMP CLOSURE	
SITE NO.	LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
SITE N1	3/4 MILE SOUTH OF STH 21 OFF RAMP	NO MESSAGE BOARD USED		RAMP TO CLOSE	MONTH DAY TIME	NO MESSAGE BOARD USED		DAILY RAMP CLOSURE	BEGINS XXXDAY XX XX XX	NO TURN TO XXXX 21		EXIT 124 CLOSED	USE EXIT 131
SITE S1	3/4 MILE NORTH OF STH 21 OFF RAMP	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		DAILY RAMP CLOSURE	BEGINS XXXDAY XX XX XX	NO TURN TO XXXX 21		EXIT 124 CLOSED	USE EXIT 113
SITE E1	1000' WEST OF SB IH 39 RAMPS	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		DAILY RAMP CLOSURE	BEGINS XXXDAY XX XX XX	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE W1	1000' EAST OF NB IH 39 RAMPS	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		DAILY RAMP CLOSURE	BEGINS XXXDAY XX XX XX	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
										NOTE: XXXX AND XXXXX REFER TO CARDINAL DIRECTION			

GENERAL NOTES FOR CHANGEABLE MESSAGE BOARDS

CONSIDER CLEAR ROADWAY GEOMETRICS WHEN LOCATING MESSAGE SIGNS. PLACE THE SIGNS SO THE DRIVER HAS A CLEAR VIEW OF THE MESSAGE FOR A MINIMUM OF 1500 FEET.

MESSAGE SIGNS SHOULD BE PLACED AS FAR AWAY FROM THE LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY. IN ADVANCE OF INTERSTATE CONSTRUCTION PROJECTS, THE SIGNS SHOULD BE PLACED ON THE BACKSLOPE BEYOND THE DITCH. THE LOCATION SELECTED SHOULD BE AT OR SLIGHTLY ABOVE THE ROADWAY.

FOR INTERMITTENT WORK SUCH AS A FREEEWAY LANE CLOSURE, OR WHERE SITE CONDITIONS DO NOT ALLOW OTHERWISE, THE SIGNS MAY BE PLACED ON THE SHOULDER. THE SITE SHOULD BE VISITED TO ASSURE VISIBILITY, SAFETY AND MAINTENANCE CONSIDERATIONS. A TAPER OF FIVE (5) REFLECTORIZED DRUMS OR SHALL BE PLACED AHEAD OF A PCMS THAT IS PLACED ON THE SHOULDER IF IT IS NOT SHIELDED BY A BARRIER.

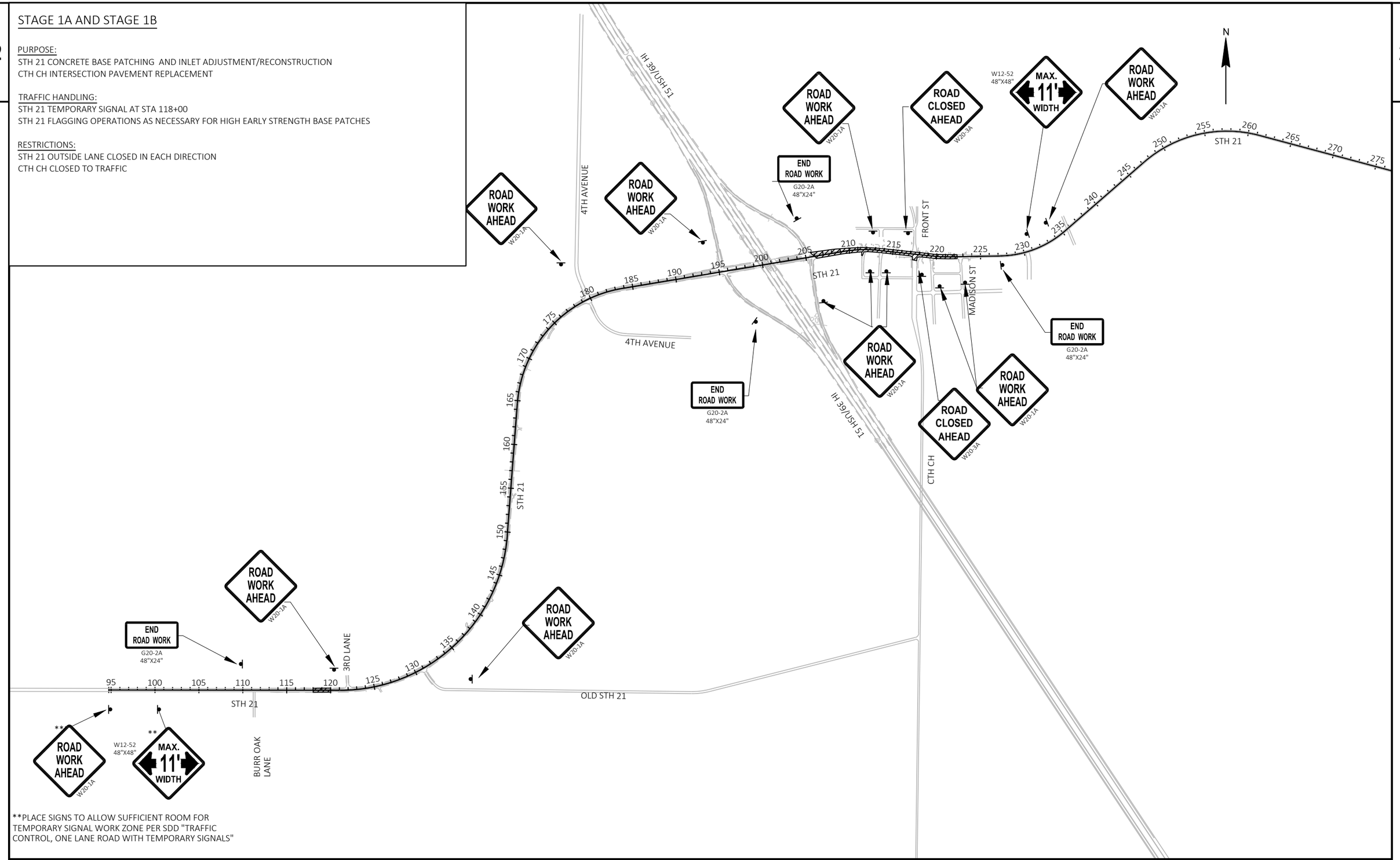
2

STAGE 1A AND STAGE 1B

PURPOSE:
STH 21 CONCRETE BASE PATCHING AND INLET ADJUSTMENT/RECONSTRUCTION
CTH CH INTERSECTION PAVEMENT REPLACEMENT

TRAFFIC HANDLING:
STH 21 TEMPORARY SIGNAL AT STA 118+00
STH 21 FLAGGING OPERATIONS AS NECESSARY FOR HIGH EARLY STRENGTH BASE PATCHES

RESTRICTIONS:
STH 21 OUTSIDE LANE CLOSED IN EACH DIRECTION
CTH CH CLOSED TO TRAFFIC



**PLACE SIGNS TO ALLOW SUFFICIENT ROOM FOR TEMPORARY SIGNAL WORK ZONE PER SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS"

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1AB ADVANCED WARNING	SHEET 40	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026101-TC-SIGNING-S1AB.DWG
LAYOUT NAME - Overview
PLOT DATE : 8/31/2021 9:44 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1000 FT

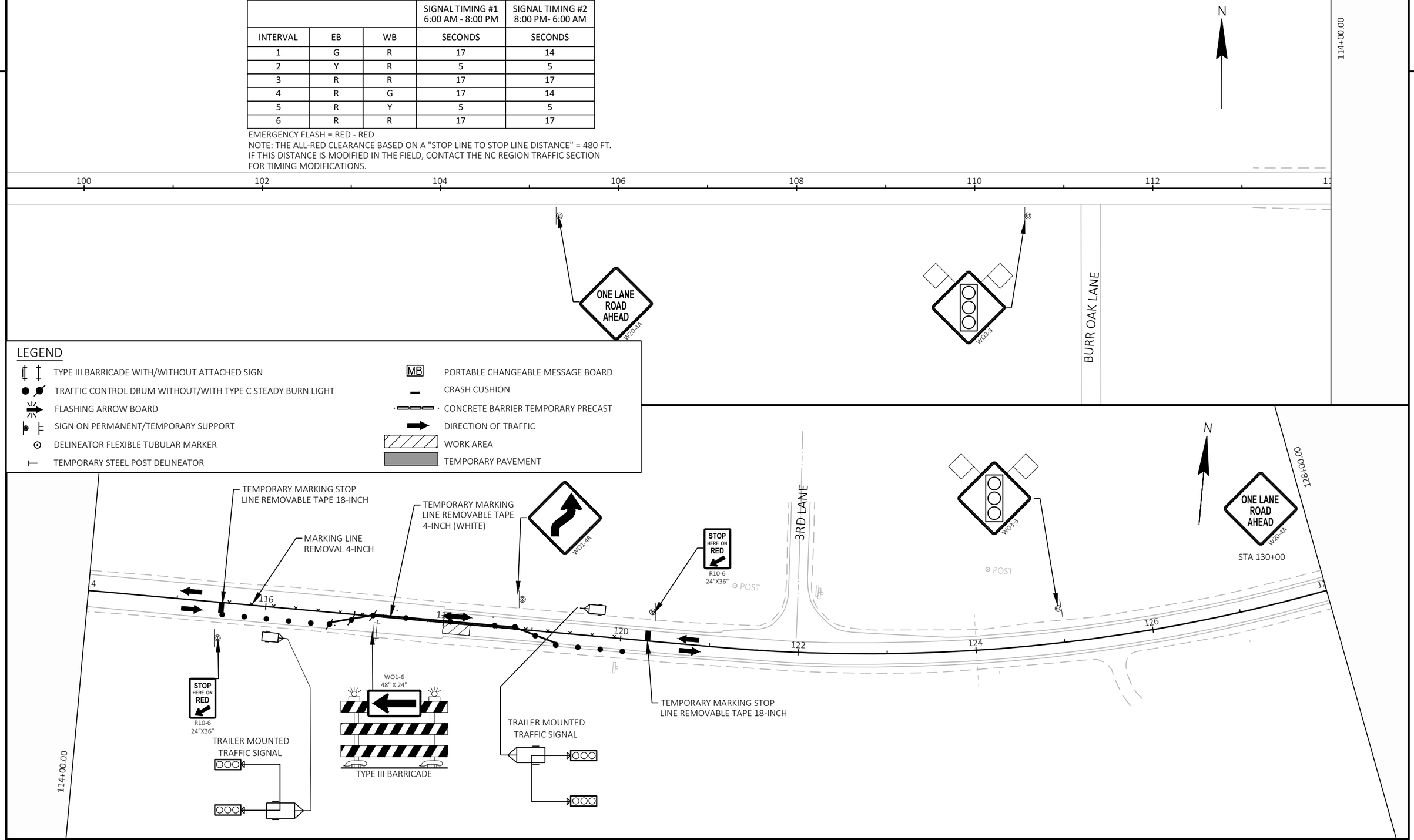
2

SIGNAL TIMING

TEMPORARY TRAFFIC SIGNALS FOR BRIDGES WEST END (STAGES 1A AND 1B)

			SIGNAL TIMING #1 6:00 AM - 8:00 PM	SIGNAL TIMING #2 8:00 PM- 6:00 AM
INTERVAL	EB	WB	SECONDS	SECONDS
1	G	R	17	14
2	Y	R	5	5
3	R	R	17	17
4	R	G	17	14
5	R	Y	5	5
6	R	R	17	17

EMERGENCY FLASH = RED - RED
NOTE: THE ALL-RED CLEARANCE BASED ON A "STOP LINE TO STOP LINE DISTANCE" = 480 FT.
IF THIS DISTANCE IS MODIFIED IN THE FIELD, CONTACT THE NC REGION TRAFFIC SECTION
FOR TIMING MODIFICATIONS.



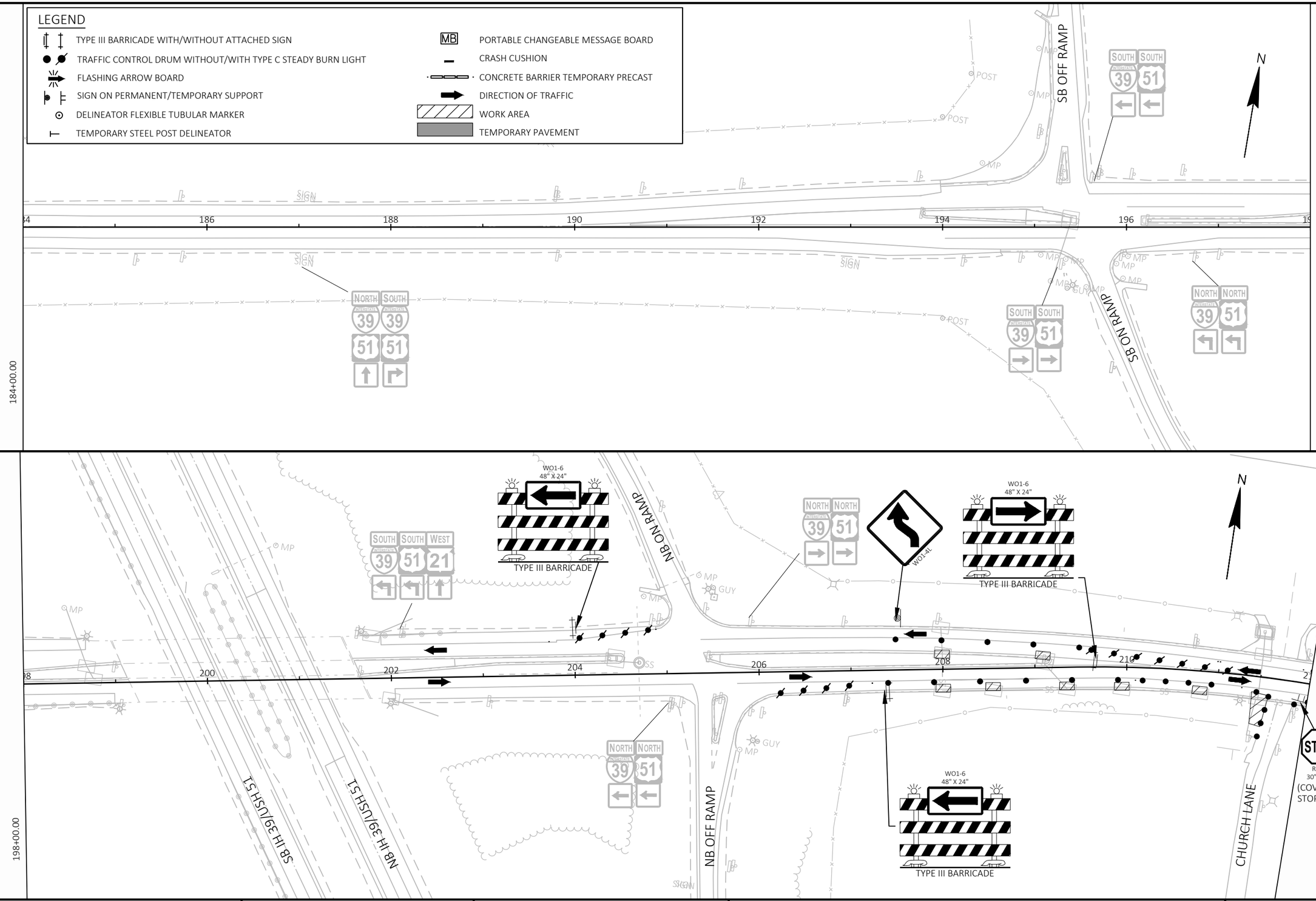
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1A	SHEET 41	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026110-TC-S1A-21-NEW.DWG
LAYOUT NAME - (101)
PLOT DATE : 8/18/2021 9:06 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

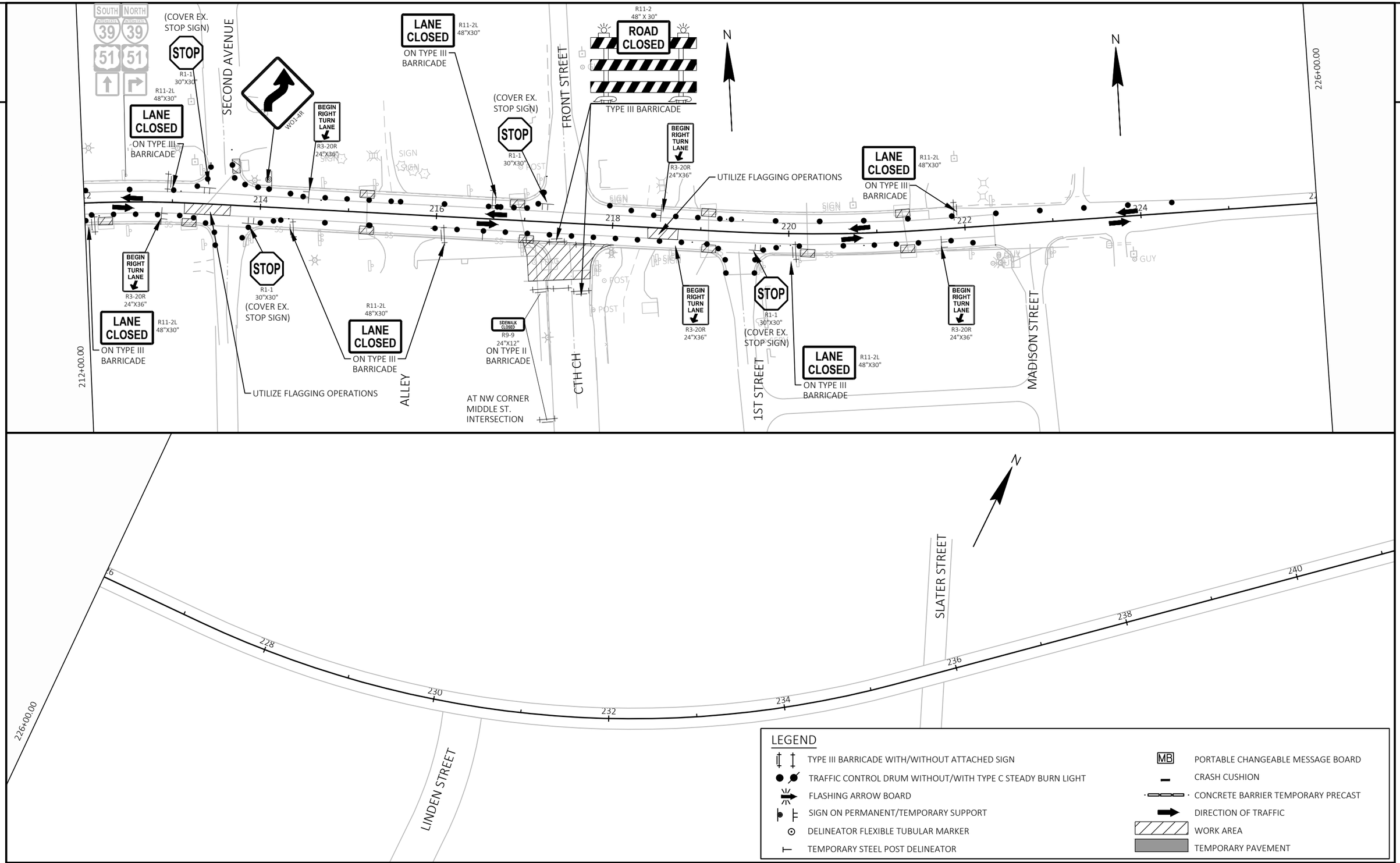
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



2

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1A	SHEET 42	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026110-TC-S1A-21-NEW.DWG
LAYOUT NAME - (109)
PLOT DATE : 8/18/2021 9:06 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1A	SHEET 43	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026110-TC-S1A-21-NEW.DWG
LAYOUT NAME - (110)
PLOT DATE : 8/18/2021 9:06 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

SIGNAL TIMING
SAME AS STAGE 1A

N

114+00.00

100 102 104 106 108 110 112

ONE LANE ROAD AHEAD
W20-4A

W03-3

BURR OAK LANE

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

48" X 24"

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

TYPE III BARRICADE

STOP HERE ON RED
R10-6
24"X36"

POST

3RD LANE

N

128+00.00

ONE LANE ROAD AHEAD
W20-4A

STA 130+00

4 116 118 120 122 124 126

STOP HERE ON RED
R10-6
24"X36"

W01-4R

TRAILER MOUNTED TRAFFIC SIGNAL

TRAILER MOUNTED TRAFFIC SIGNAL

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH

114+00.00

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1B	SHEET 44	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026120-TC-S1B-21-NEW.DWG
LAYOUT NAME - (101)

PLOT DATE : 8/18/2021 9:09 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

184+00.00

SB OFF RAMP

SOUTH SOUTH 39 51

N

SIGN

POST

MP

186 188 190 192 194 196

NORTH SOUTH 39 39 51 51

SOUTH SOUTH 39 51

SB ON RAMP

NORTH NORTH 39 51

198+00.00

SOUTH SOUTH WEST 39 51 21

NB ON RAMP

GUY

200 202 204 206 208 210 212+00.00

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

LANE CLOSED
R11-2L
48"X30"
ON TYPE III BARRICADE

STOP
R1-1
30"X30"
(COVER EX. STOP SIGN)

WO1-6
48" X 24"
TYPE III BARRICADE

SB IH 39/USH 51

NB IH 39/USH 51

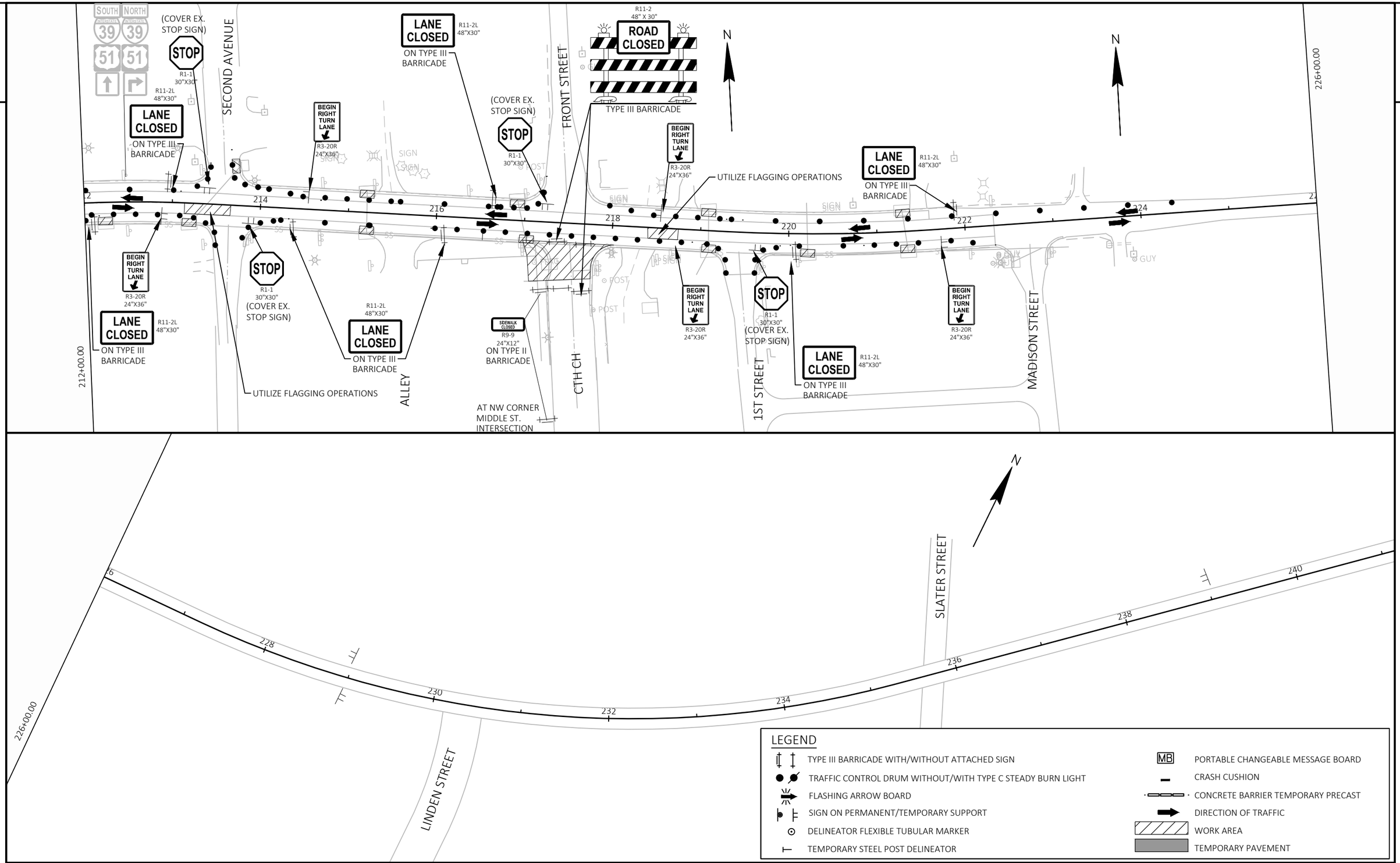
NB OFF RAMP

CHURCH LANE

2

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1B	SHEET 45	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026120-TC-S1B-21-NEW.DWG
LAYOUT NAME - (109)
PLOT DATE : 8/18/2021 9:09 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1B	SHEET 46	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026120-TC-S1B-21-NEW.DWG
LAYOUT NAME - (110)

PLOT DATE : 8/18/2021 9:09 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

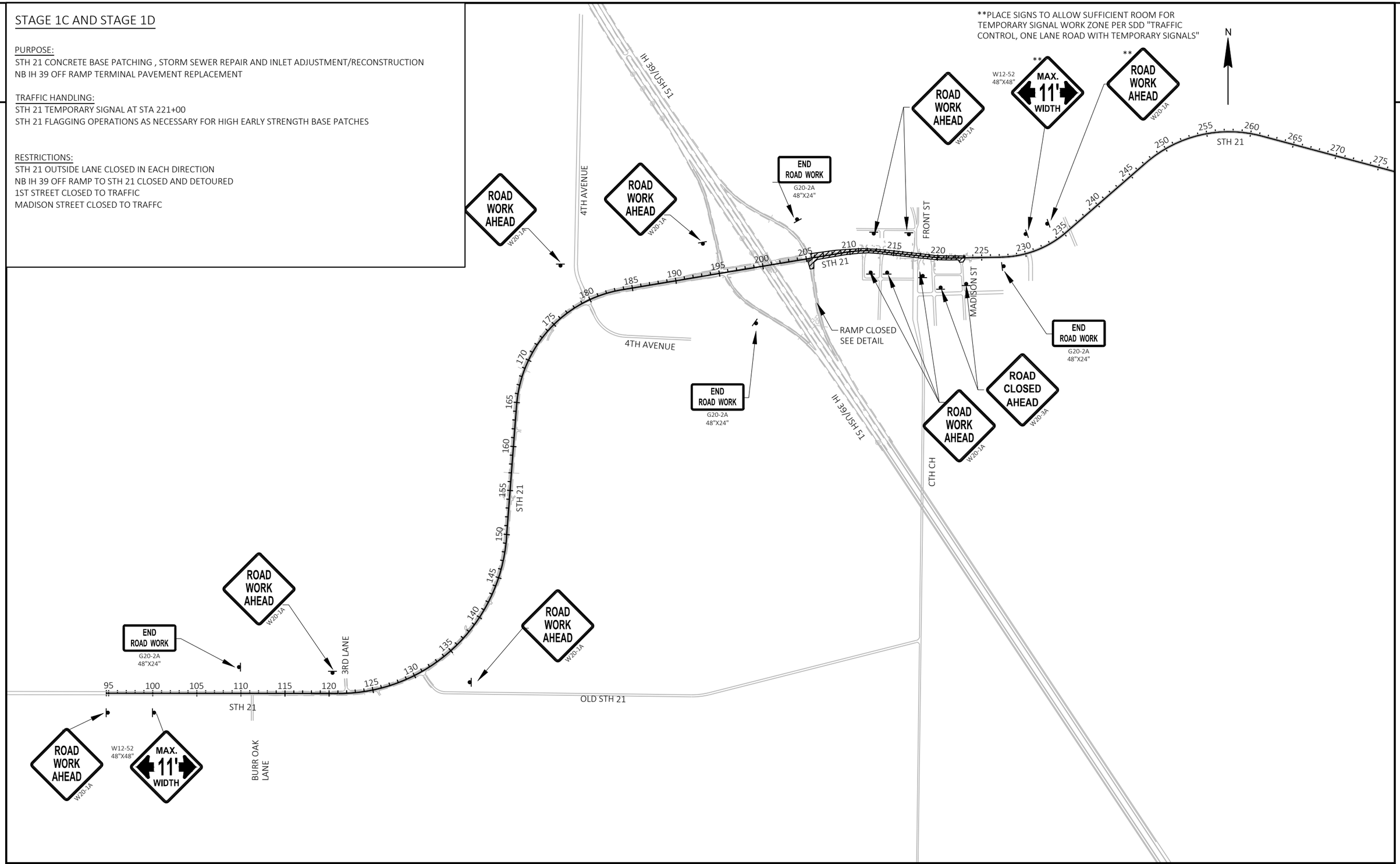
2

STAGE 1C AND STAGE 1D

PURPOSE:
STH 21 CONCRETE BASE PATCHING , STORM SEWER REPAIR AND INLET ADJUSTMENT/RECONSTRUCTION
NB IH 39 OFF RAMP TERMINAL PAVEMENT REPLACEMENT

TRAFFIC HANDLING:
STH 21 TEMPORARY SIGNAL AT STA 221+00
STH 21 FLAGGING OPERATIONS AS NECESSARY FOR HIGH EARLY STRENGTH BASE PATCHES

RESTRICTIONS:
STH 21 OUTSIDE LANE CLOSED IN EACH DIRECTION
NB IH 39 OFF RAMP TO STH 21 CLOSED AND DETOURED
1ST STREET CLOSED TO TRAFFIC
MADISON STREET CLOSED TO TRAFFC



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1CD ADVANCED WARNING	SHEET 47	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026129-TC-SIGNING-S1CD.DWG
LAYOUT NAME - Overview
PLOT DATE : 8/31/2021 9:48 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

184+00.00

SB OFF RAMP

SOUTH 39 51

N

SIGN

POST

MP

186 188 190 192 194 196

NORTH 39 51

SOUTH 39 51

SB ON RAMP

NORTH 39 51

198+00.00

SOUTH 39 51 21

NB ON RAMP

NORTH 39 51

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

LANE CLOSED
R11-2L
48"X30"
ON TYPE III BARRICADE

212+00.00

200 202 204 206 208 210

GUY

SS

NORTH 39 51

LANE CLOSED
R11-2L
48"X30"
ON TYPE III BARRICADE

ONE LANE ROAD AHEAD
W20-4A

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

STOP
R1-1
30"X30"
(COVER EX. STOP SIGN)

CHURCH LANE

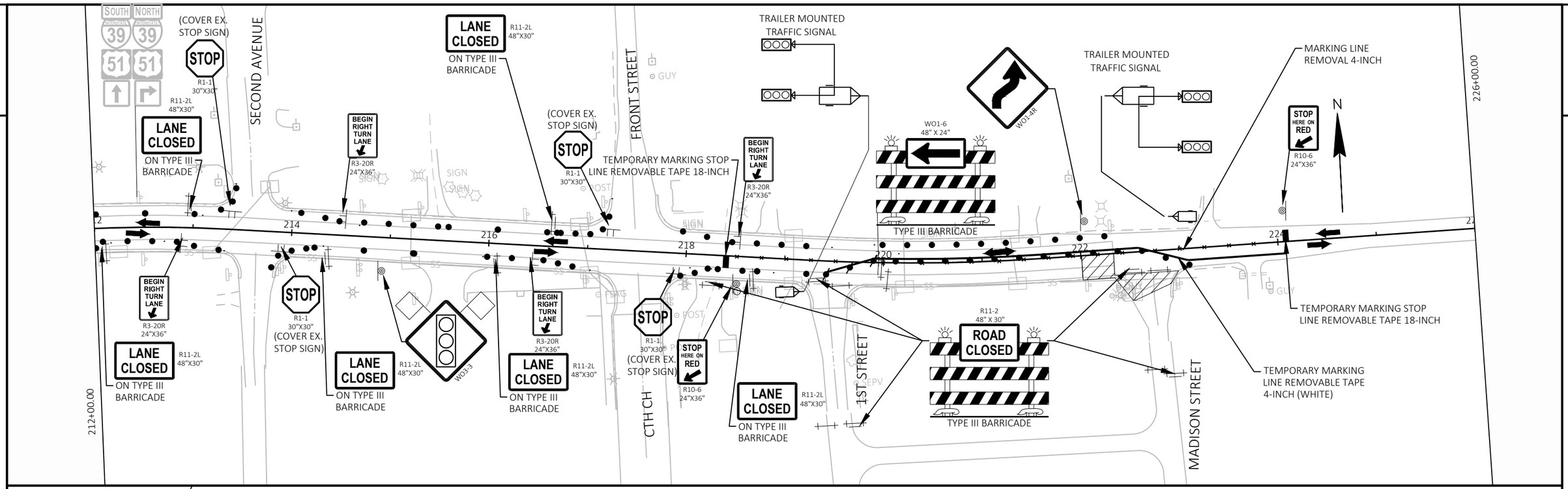
SB IH 39/USH 51

NB IH 39/USH 51

NB OFF RAMP

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1C	SHEET 48	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026130-TC-S1C-21-NEW.DWG
LAYOUT NAME - (109)
PLOT DATE : 8/18/2021 9:12 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



SIGNAL TIMING

TEMPORARY TRAFFIC SIGNALS FOR BRIDGES EAST END (STAGES 1C AND 1D)

			SIGNAL TIMING #1 6:00 AM - 8:00 PM	SIGNAL TIMING #2 8:00 PM- 6:00 AM
INTERVAL	EB	WB	SECONDS	SECONDS
1	G	R	21	17
2	Y	R	3.5	3.5
3	R	R	19	19
4	R	G	21	17
5	R	Y	3.5	3.5
6	R	R	19	19

EMERGENCY FLASH = RED - RED

NOTE: THE ALL-RED CLEARANCE BASED ON A "STOP LINE TO STOP LINE DISTANCE" = 565 FT. IF THIS DISTANCE IS MODIFIED IN THE FIELD, CONTACT THE NC REGION TRAFFIC SECTION FOR TIMING MODIFICATIONS.

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1C	SHEET 49	E

2

2

N

265

270

EXIT 124

21

Coloma

Necedah COVER

CLOSED

G20-60
108"X24"

MB N1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

N

EXIT 124

COVER

270 275 280 285 290 295 300 305 310 315 202 204 206 208

RAMP CLOSED AHEAD
W20-53A

RAMP CLOSED 1000 FT
W20-53C

TO 21
M04-5
36"X18"
M1-6
36"X36"
M06-1
30"X30"

EXIT 124
21
Coloma
Necedah COVER
CLOSED
G20-61
120"X30"

RAMP CLOSED

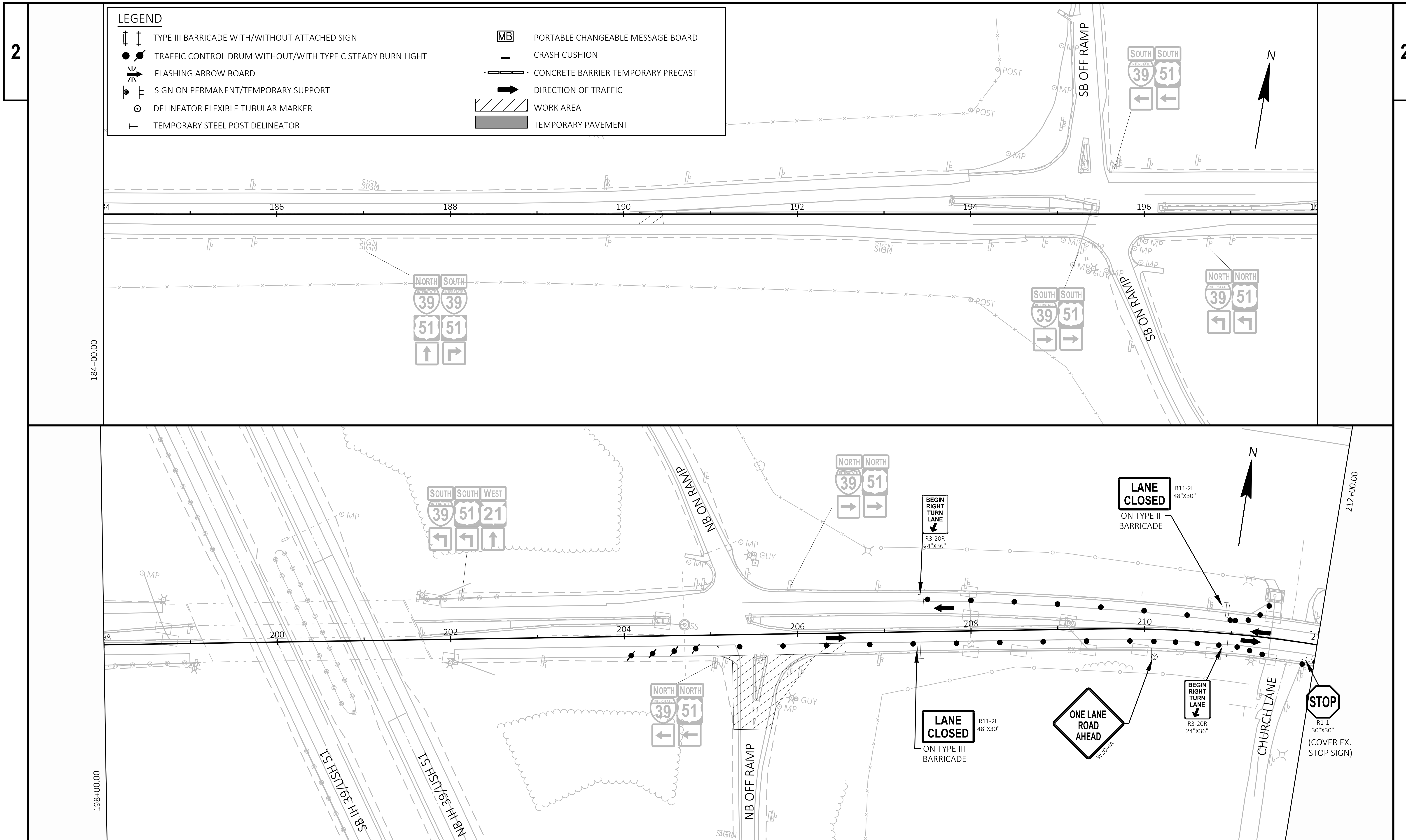
R11-2R
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

SEE DETOUR PLAN FOR ADDITIONAL SIGNING

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1CD - NB IH39 OFF RAMP	SHEET 50	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026131-TC-S1C-NB39-21.DWG
LAYOUT NAME - (101)

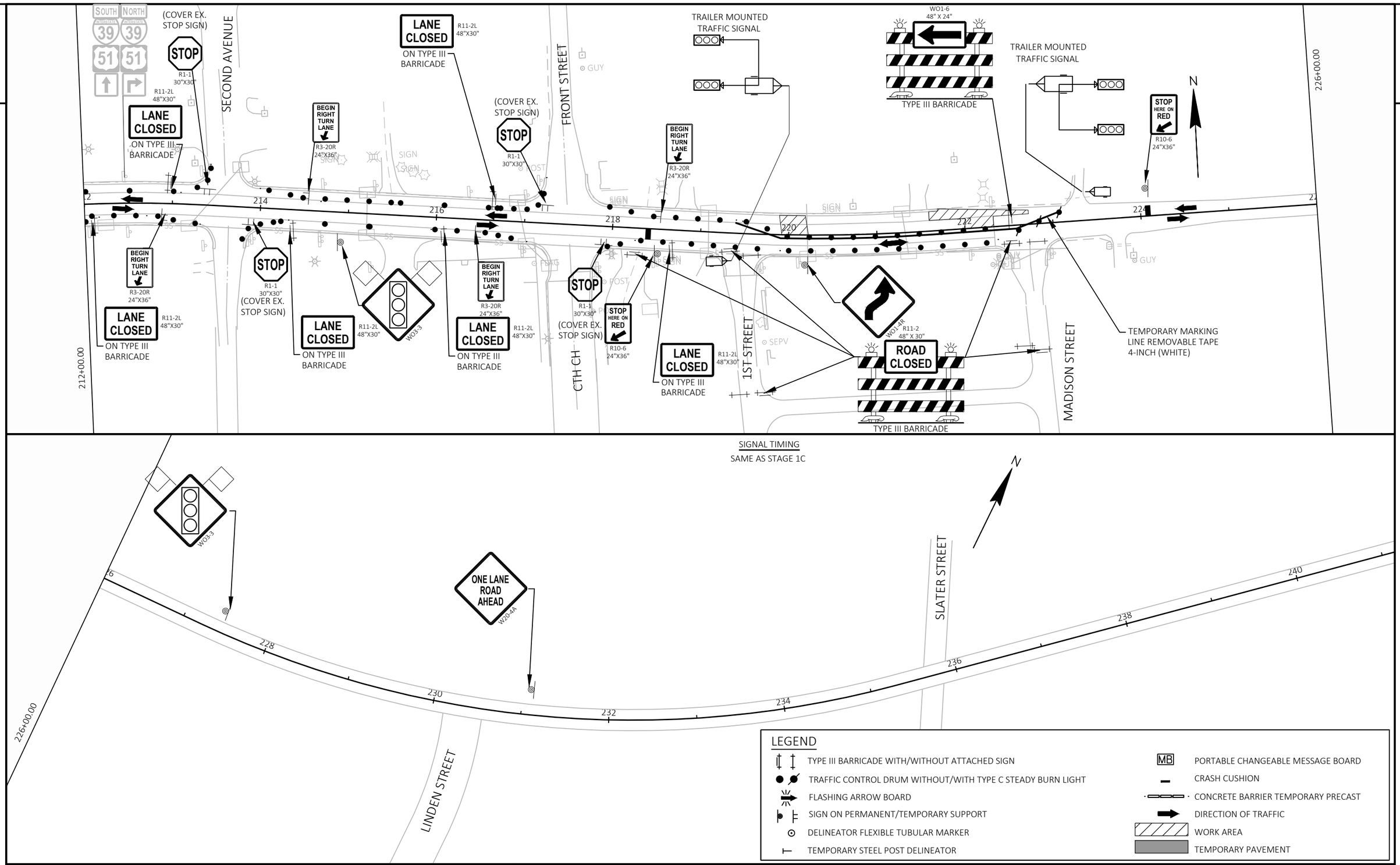
PLOT DATE : 10/25/2021 10:41 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########



2
LEGEND
TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
FLASHING ARROW BOARD
SIGN ON PERMANENT/TEMPORARY SUPPORT
DELINEATOR FLEXIBLE TUBULAR MARKER
TEMPORARY STEEL POST DELINEATOR
MB PORTABLE CHANGEABLE MESSAGE BOARD
CRASH CUSHION
CONCRETE BARRIER TEMPORARY PRECAST
DIRECTION OF TRAFFIC
WORK AREA
TEMPORARY PAVEMENT
SB OFF RAMP
SB ON RAMP
N
186
188
190
192
194
196
184+00.00
NB ON RAMP
NB OFF RAMP
SB IH 39/USH 51
NB IH 39/USH 51
CHURCH LANE
200
202
204
206
208
210
198+00.00
212+00.00
BEGIN RIGHT TURN LANE
R3-20R 24"X36"
LANE CLOSED
R11-2L 48"X30"
ON TYPE III BARRICADE
ONE LANE ROAD AHEAD
W20-4A
STOP
R1-1 30"X30"
(COVER EX. STOP SIGN)

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1D	SHEET 51	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026140-TC-S1D-21-NEW.DWG
LAYOUT NAME - (109)
PLOT DATE : 8/18/2021 9:04 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 1D	SHEET 52	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026140-TC-S1D-21-NEW.DWG
LAYOUT NAME - (110)
PLOT DATE : 8/18/2021 9:05 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

STAGE 2

PURPOSE:
REMOVING CONCRETE PARTIAL DEPTH AND PLACEMENT OF HMA OVERLAY

TRAFFIC HANDLING:
WEST OF STA 190+00:

MAINTAIN A SINGLE LANE OF TRAFFIC UTILIZING FLAGGING OPERATIONS. RETURN TRAFFIC TO ONE LANE IN EACH DIRECTION ON EACH SIDE OF THE CENTERLINE AT THE END OF THE DAY.

BETWEEN STA 190+00 AND STA 212+00:

MAINTAIN A SINGLE LANE OF TRAFFIC UTILIZING FLAGGING OPERATIONS. SHIFTING TRAFFIC TO THE OTHER SIDE OF THE MEDIAN BETWEEN THE MEDIAN ENDS AND INTERSECTIONS AS NECESSARY. RETURN TRAFFIC TO ONE LANE IN EACH DIRECTION ON EITHER SIDE OF THE MEDIAN AT THE END OF THE DAY.

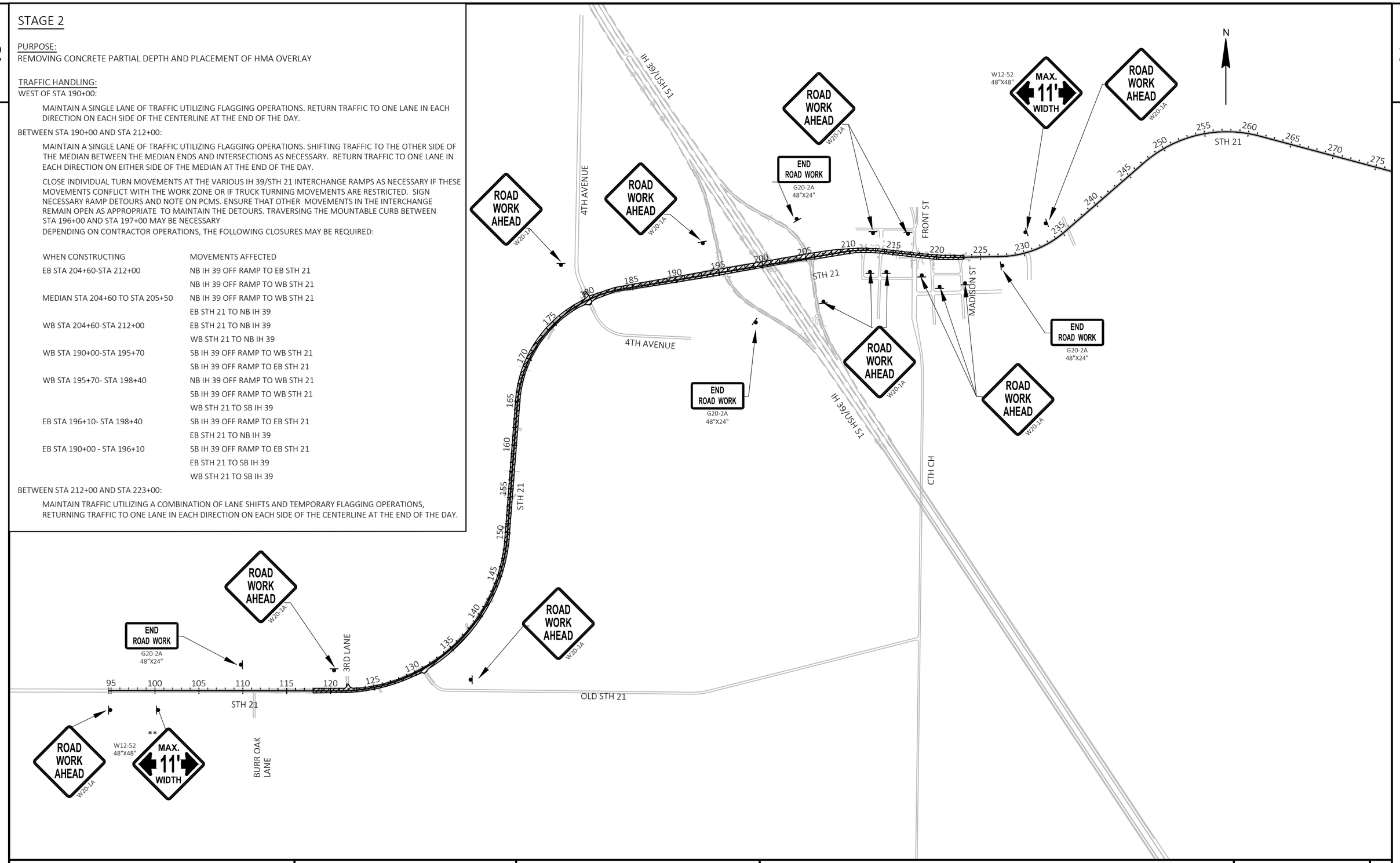
CLOSE INDIVIDUAL TURN MOVEMENTS AT THE VARIOUS IH 39/STH 21 INTERCHANGE RAMPS AS NECESSARY IF THESE MOVEMENTS CONFLICT WITH THE WORK ZONE OR IF TRUCK TURNING MOVEMENTS ARE RESTRICTED. SIGN NECESSARY RAMP DETOURS AND NOTE ON PCMS. ENSURE THAT OTHER MOVEMENTS IN THE INTERCHANGE REMAIN OPEN AS APPROPRIATE TO MAINTAIN THE DETOURS. TRAVERSING THE MOUNTABLE CURB BETWEEN STA 196+00 AND STA 197+00 MAY BE NECESSARY

DEPENDING ON CONTRACTOR OPERATIONS, THE FOLLOWING CLOSURES MAY BE REQUIRED:

WHEN CONSTRUCTING	MOVEMENTS AFFECTED
EB STA 204+60-STA 212+00	NB IH 39 OFF RAMP TO EB STH 21
	NB IH 39 OFF RAMP TO WB STH 21
MEDIAN STA 204+60 TO STA 205+50	NB IH 39 OFF RAMP TO WB STH 21
	EB STH 21 TO NB IH 39
WB STA 204+60-STA 212+00	EB STH 21 TO NB IH 39
	WB STH 21 TO NB IH 39
WB STA 190+00-STA 195+70	SB IH 39 OFF RAMP TO WB STH 21
	SB IH 39 OFF RAMP TO EB STH 21
WB STA 195+70- STA 198+40	NB IH 39 OFF RAMP TO WB STH 21
	SB IH 39 OFF RAMP TO WB STH 21
	WB STH 21 TO SB IH 39
EB STA 196+10- STA 198+40	SB IH 39 OFF RAMP TO EB STH 21
	EB STH 21 TO NB IH 39
EB STA 190+00 - STA 196+10	SB IH 39 OFF RAMP TO EB STH 21
	EB STH 21 TO SB IH 39
	WB STH 21 TO SB IH 39

BETWEEN STA 212+00 AND STA 223+00:

MAINTAIN TRAFFIC UTILIZING A COMBINATION OF LANE SHIFTS AND TEMPORARY FLAGGING OPERATIONS, RETURNING TRAFFIC TO ONE LANE IN EACH DIRECTION ON EACH SIDE OF THE CENTERLINE AT THE END OF THE DAY.



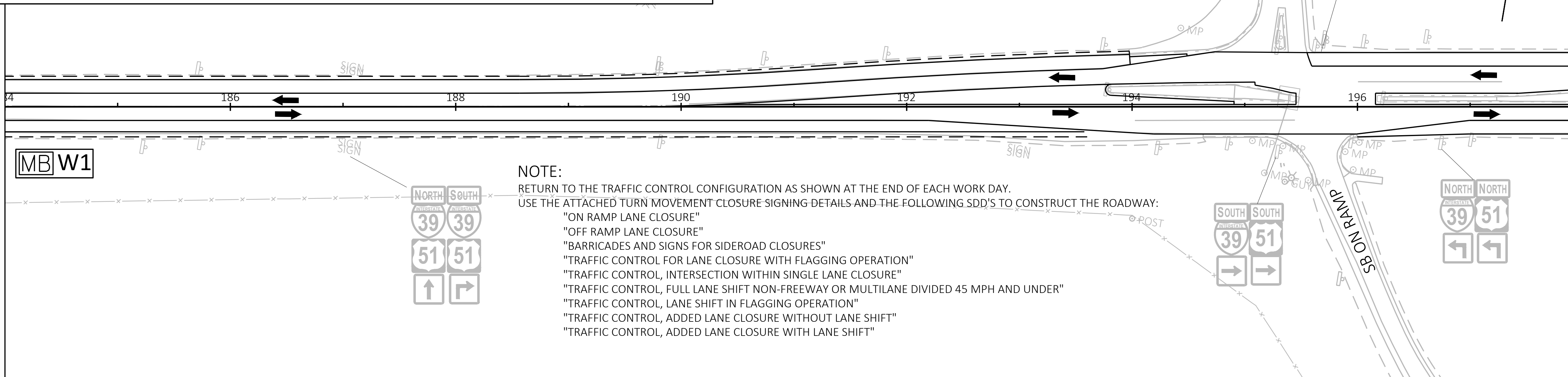
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 ADVANCED WARNING	SHEET 53	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026201-TC-SIGNING-S2.DWG
LAYOUT NAME - Overview
PLOT DATE : 8/31/2021 9:53 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

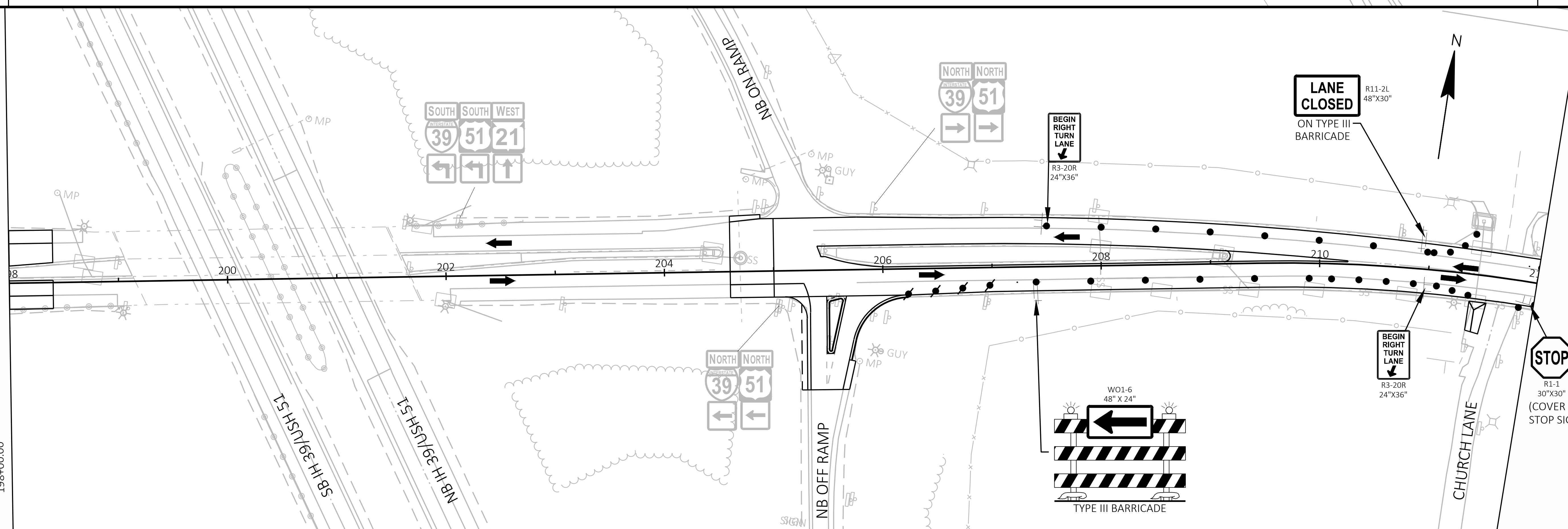


NOTE:

RETURN TO THE TRAFFIC CONTROL CONFIGURATION AS SHOWN AT THE END OF EACH WORK DAY.

USE THE ATTACHED TURN MOVEMENT CLOSURE SIGNING DETAILS AND THE FOLLOWING SDD'S TO CONSTRUCT THE ROADWAY:

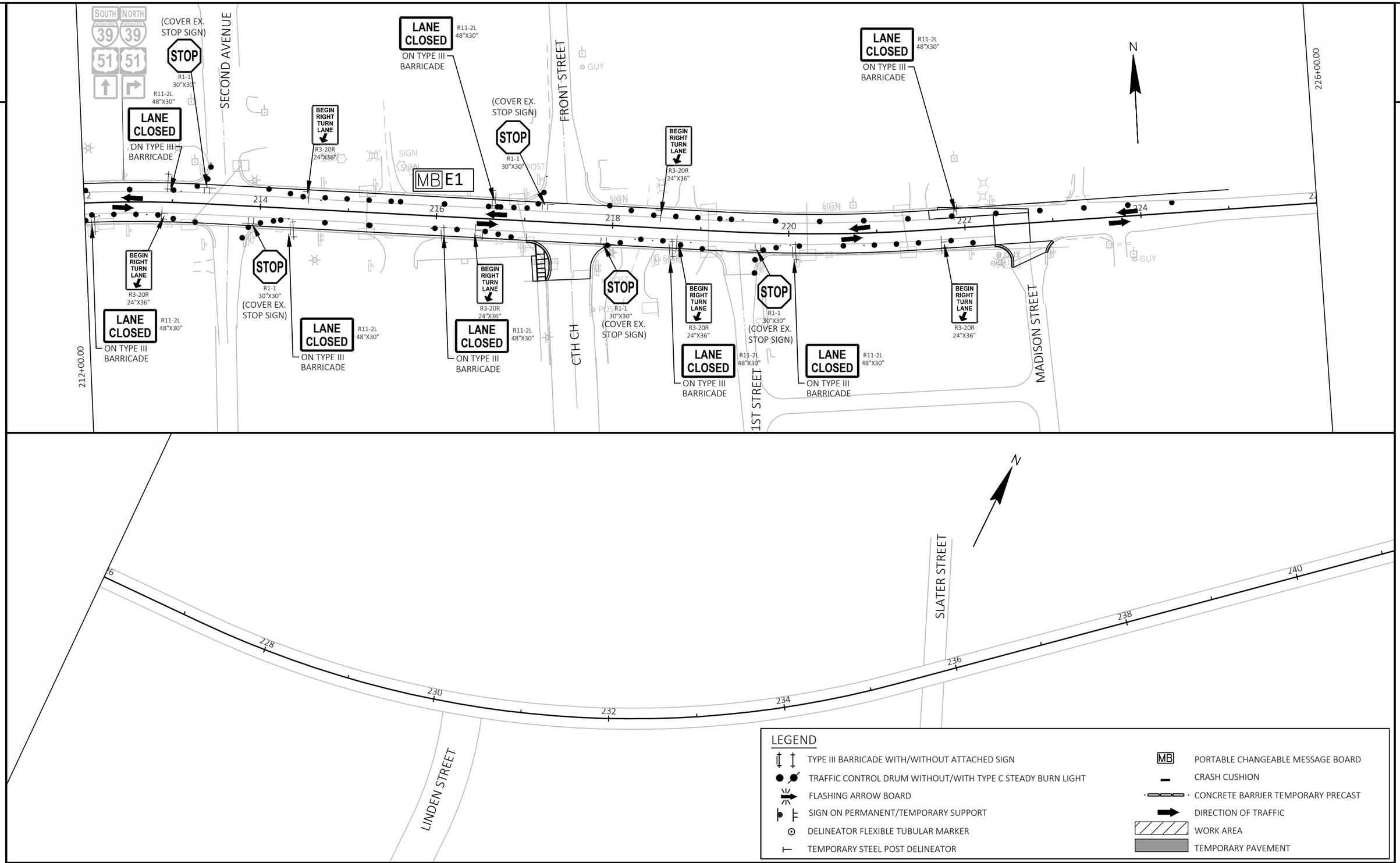
- "ON RAMP LANE CLOSURE"
- "OFF RAMP LANE CLOSURE"
- "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
- "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"
- "TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER"
- "TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION"
- "TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT"
- "TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT"



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2	SHEET 54	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026205-TC-S2.DWG
LAYOUT NAME - (109)
PLOT DATE : 8/18/2021 9:11 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



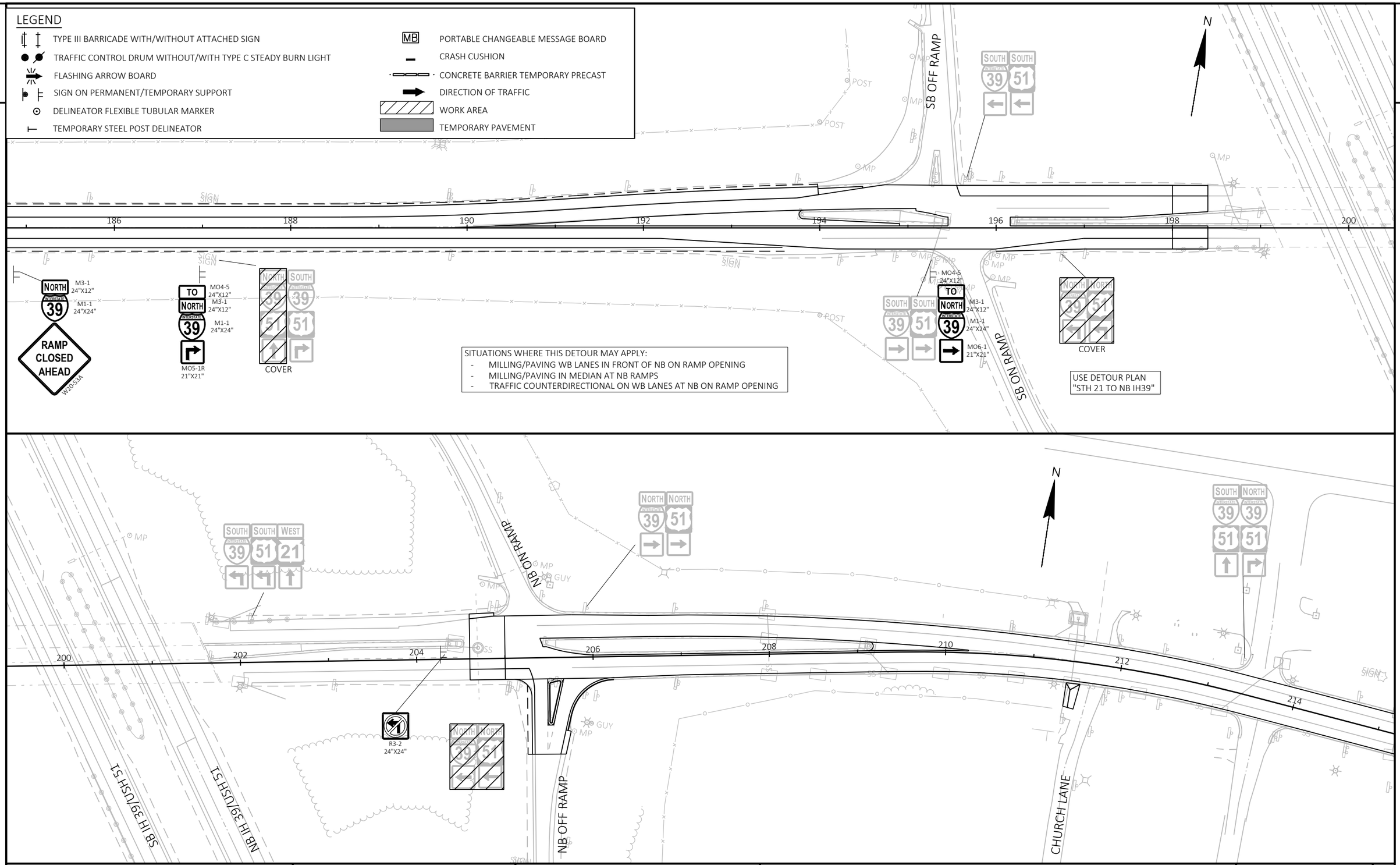
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2	SHEET 55	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026205-TC-S2.DWG
LAYOUT NAME - (110)
PLOT DATE : 8/18/2021 9:11 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



SITUATIONS WHERE THIS DETOUR MAY APPLY:
- MILLING/PAVING WB LANES IN FRONT OF NB ON RAMP OPENING
- MILLING/PAVING IN MEDIAN AT NB RAMPS
- TRAFFIC COUNTERDIRECTIONAL ON WB LANES AT NB ON RAMP OPENING

USE DETOUR PLAN "STH 21 TO NB IH39"

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - EB STH 21 TO NB IH 39 CLOSURE SIGNING	SHEET 56 E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026210-TC-S2-STH21TURNS.DWG
LAYOUT NAME - EB-NB

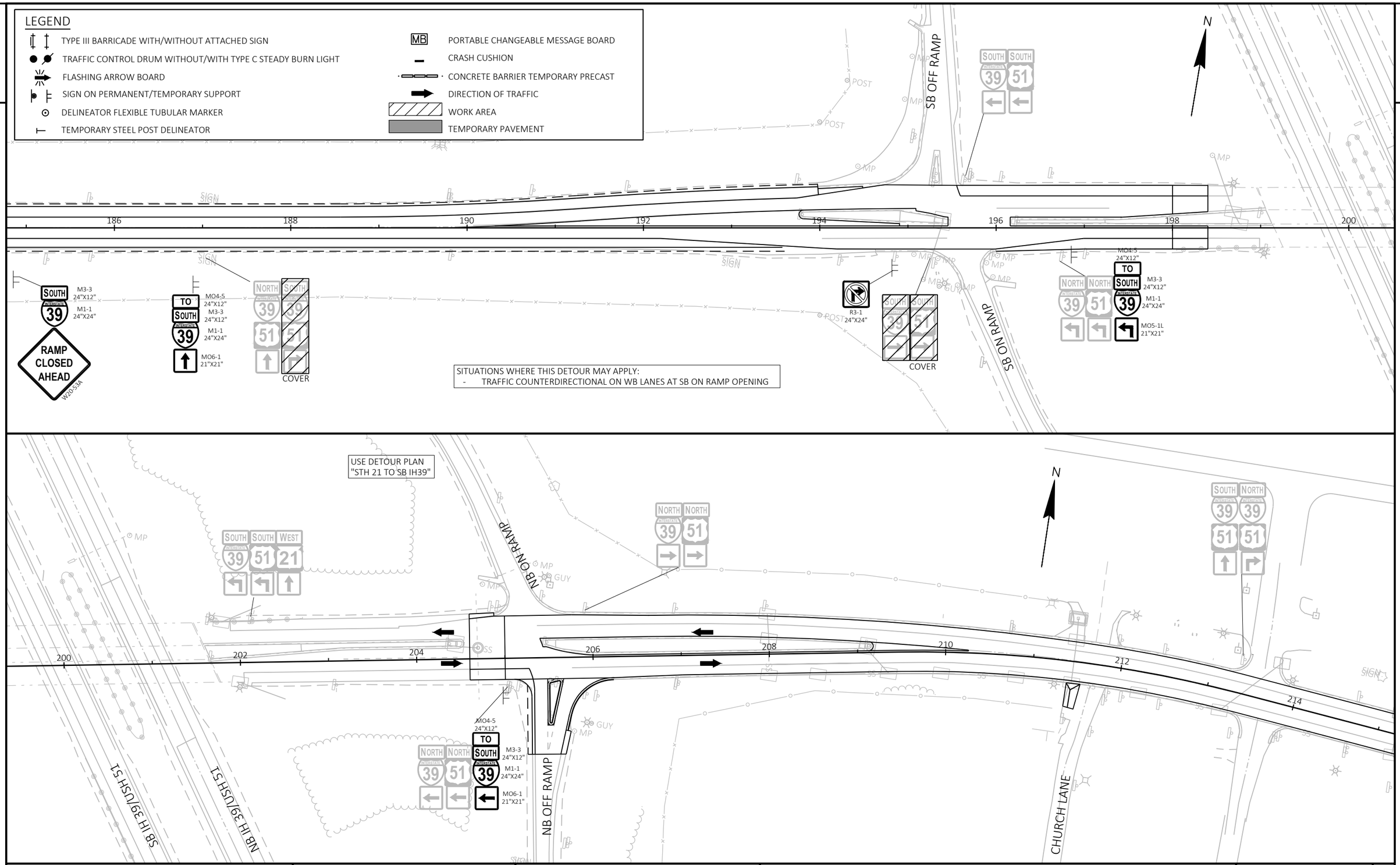
PLOT DATE : 10/25/2021 10:56 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - EB STH 21 TO SB IH 39 CLOSURE SIGNING	SHEET 57	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026210-TC-S2-STH21TURNS.DWG
LAYOUT NAME - EB-SB

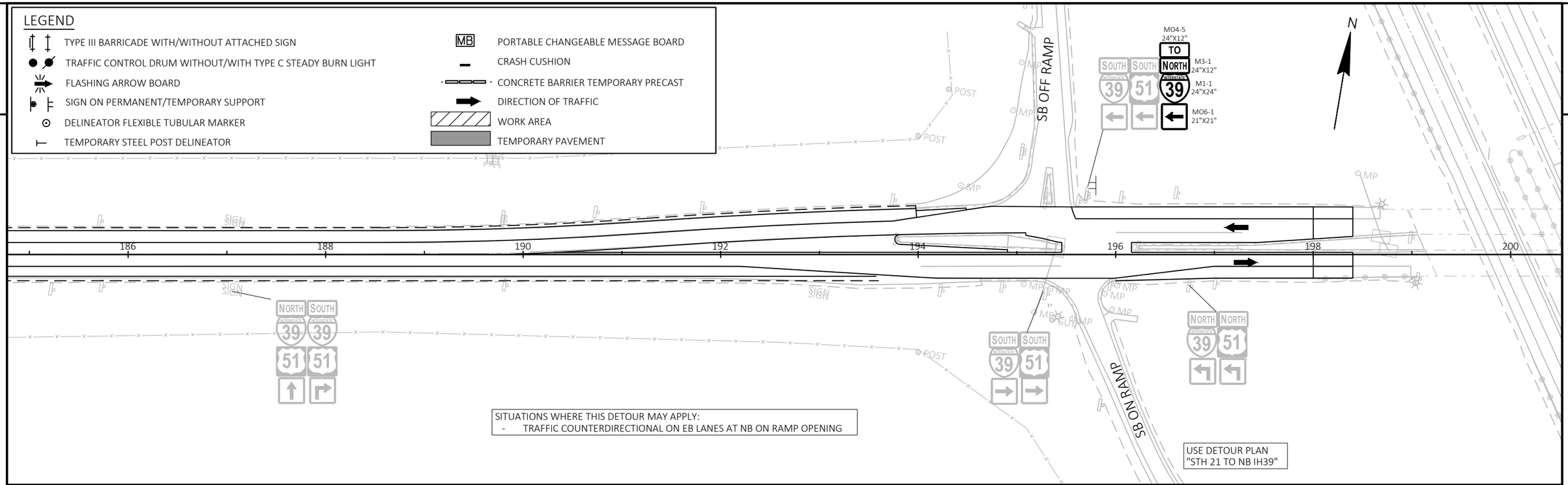
PLOT DATE : 10/25/2021 10:56 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

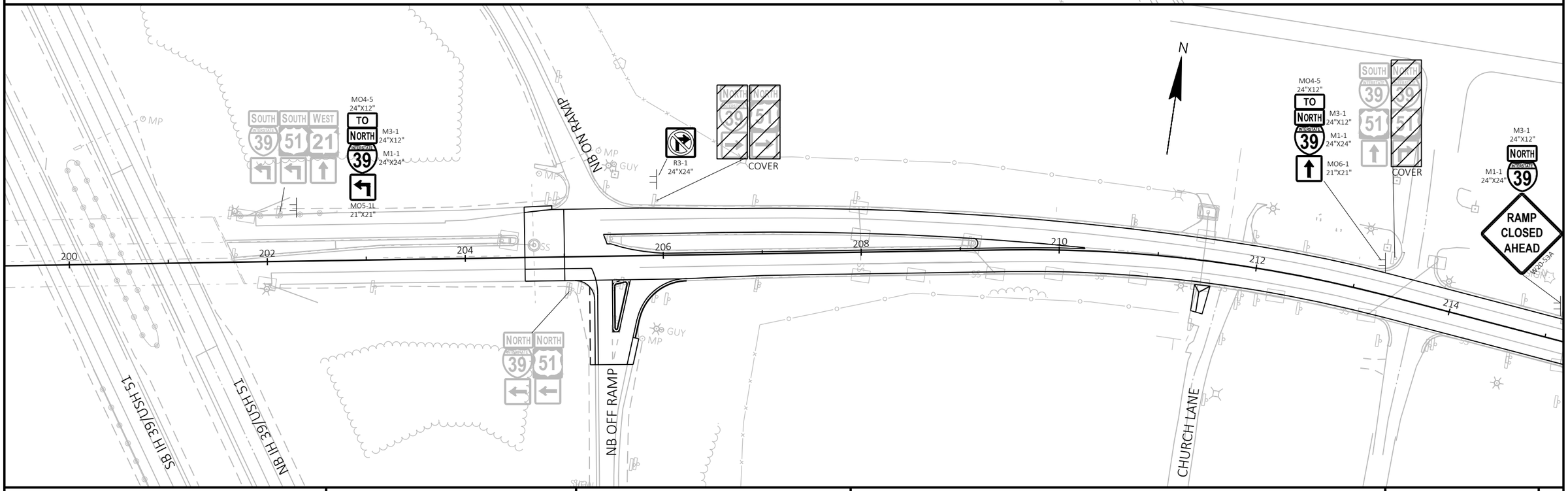
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



SITUATIONS WHERE THIS DETOUR MAY APPLY:
- TRAFFIC COUNTERDIRECTIONAL ON EB LANES AT NB ON RAMP OPENING

USE DETOUR PLAN "STH 21 TO NB IH39"



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - WB STH 21 TO NB IH 39 CLOSURE SIGNING	SHEET 58	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026210-TC-S2-STH21TURNS.DWG
LAYOUT NAME - WB-NB

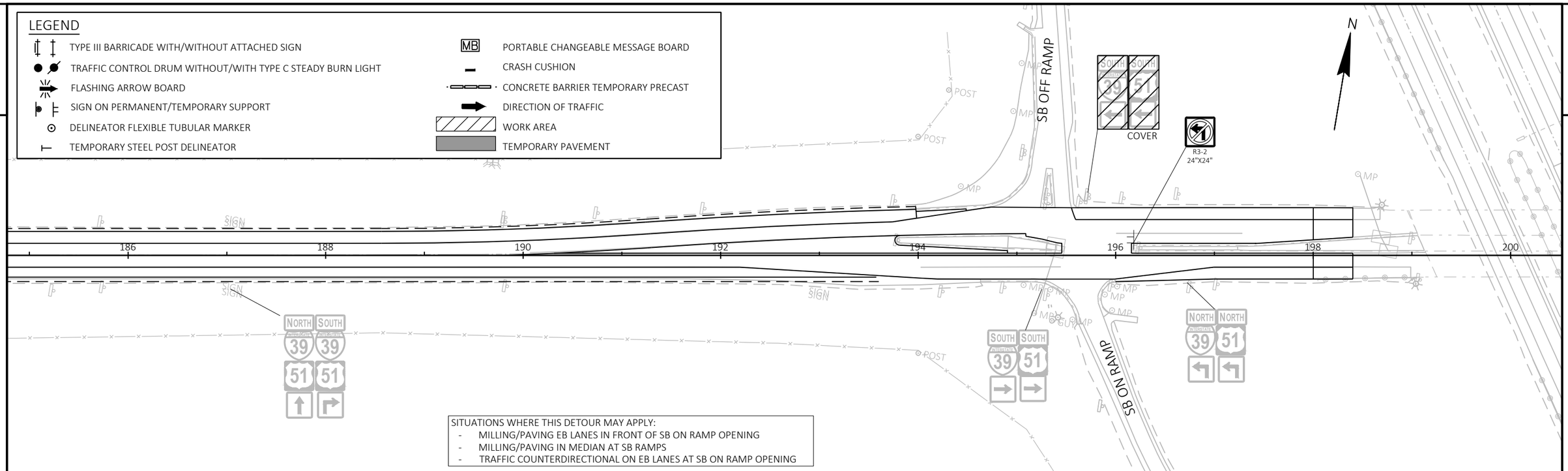
PLOT DATE : 10/25/2021 10:56 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

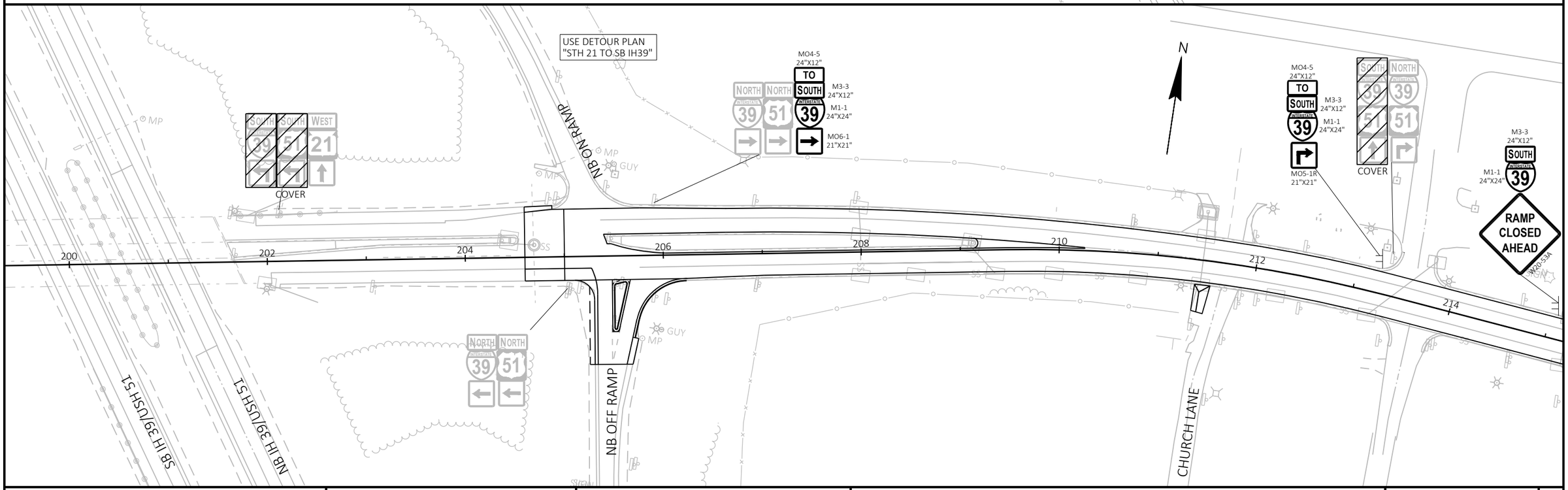
2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



SITUATIONS WHERE THIS DETOUR MAY APPLY:
- MILLING/PAVING EB LANES IN FRONT OF SB ON RAMP OPENING
- MILLING/PAVING IN MEDIAN AT SB RAMPS
- TRAFFIC COUNTERDIRECTIONAL ON EB LANES AT SB ON RAMP OPENING



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - WB STH 21 TO SB IH 39 CLOSURE SIGNING	SHEET 59	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026210-TC-S2-STH21TURNS.DWG
LAYOUT NAME - WB-SB

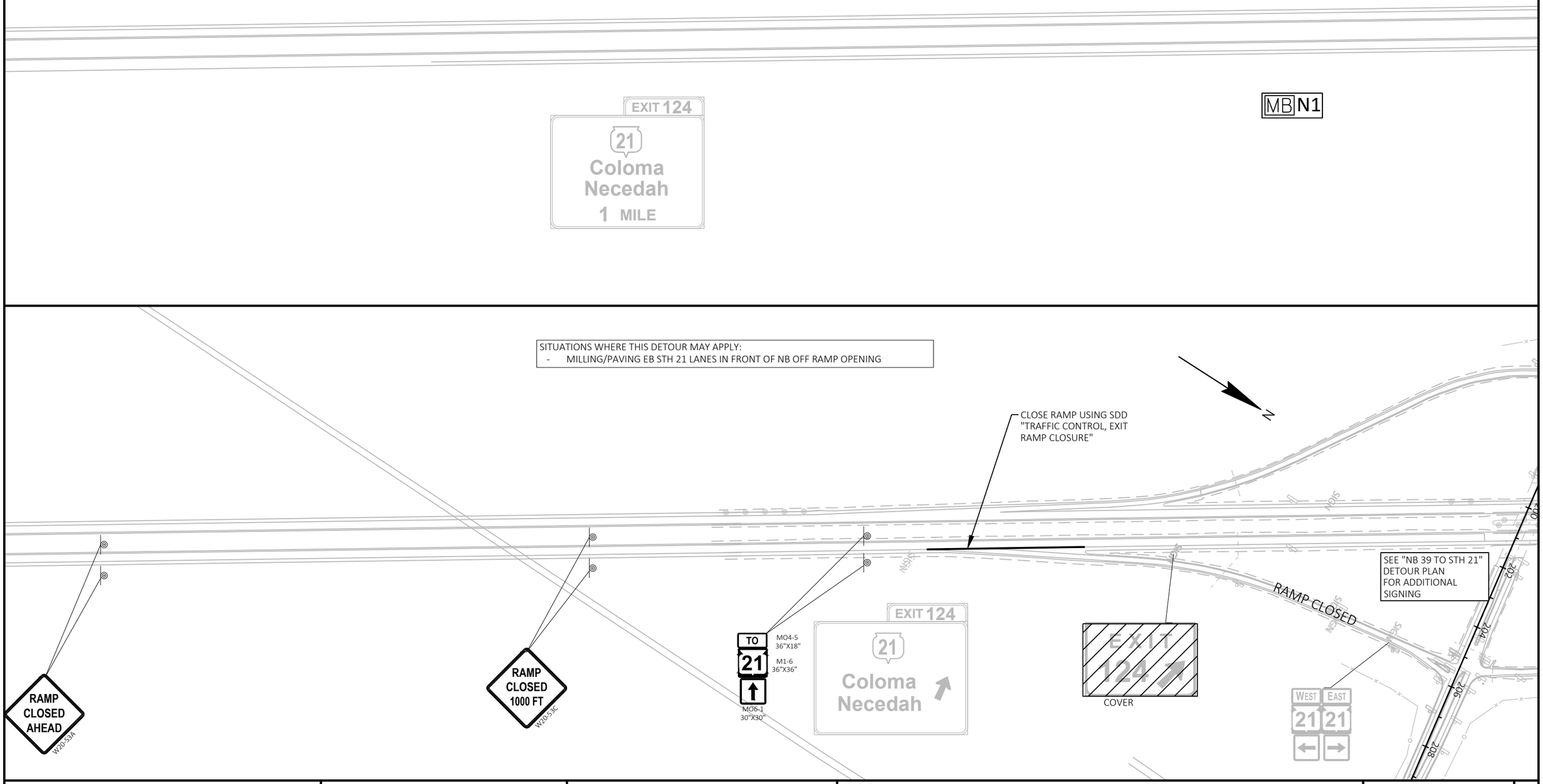
PLOT DATE : 10/25/2021 10:56 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



2

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - NB IH 39 TO EB AND WB STH 21 CLOSURE SIGNING	SHEET 60	E

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

MB N1

EXIT 124
21
Coloma
Necedah
1 MILE

SITUATIONS WHERE THIS DETOUR MAY APPLY:
- STH 21 TRAFFIC COUNTERDIRECTIONAL ON WB LANES AT NB ON RAMP OPENING

N

SEE "NB 39 TO STH 21" DETOUR PLAN FOR ADDITIONAL SIGNING

TO EAST 21
MO4-5 36"X18"
M3-2 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

EXIT 124
21
Coloma
Necedah

EXIT 124

R1-2L 48"X30"
LANE CLOSED
TYPE III BARRICADE

WEST 21
EAST 21
COVER

R3-1 24"X24"

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - NB IH 39 TO EB STH 21 CLOSURE SIGNING	SHEET 61	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026230-TC-S2M-NB39-RAMP.DWG
LAYOUT NAME - (102)
PLOT DATE : 10/25/2021 10:46 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

MB N1

EXIT 124
21
Coloma
Necedah
1 MILE

SITUATIONS WHERE THIS DETOUR MAY APPLY:
- MILLING/PAVING IN STH 21 MEDIAN AT NB RAMPS
- STH 21 TRAFFIC COUNTERDIRECTIONAL ON EB LANES AT NB ON RAMP OPENING

N

WO1-6
48" X 24"
TYPE III BARRICADE

SEE "NB 39 TO STH 21" DETOUR PLAN FOR ADDITIONAL SIGNING

R3-2
24"X24"

TO WEST 21
MO4-5 36"X18"
M3-4 36"X18"
M1-6 36"X36"
MO6-1 30"X30"

EXIT 124
21
Coloma
Necedah

EXIT 124

WEST 21 EAST 21
COVER

204
206
208

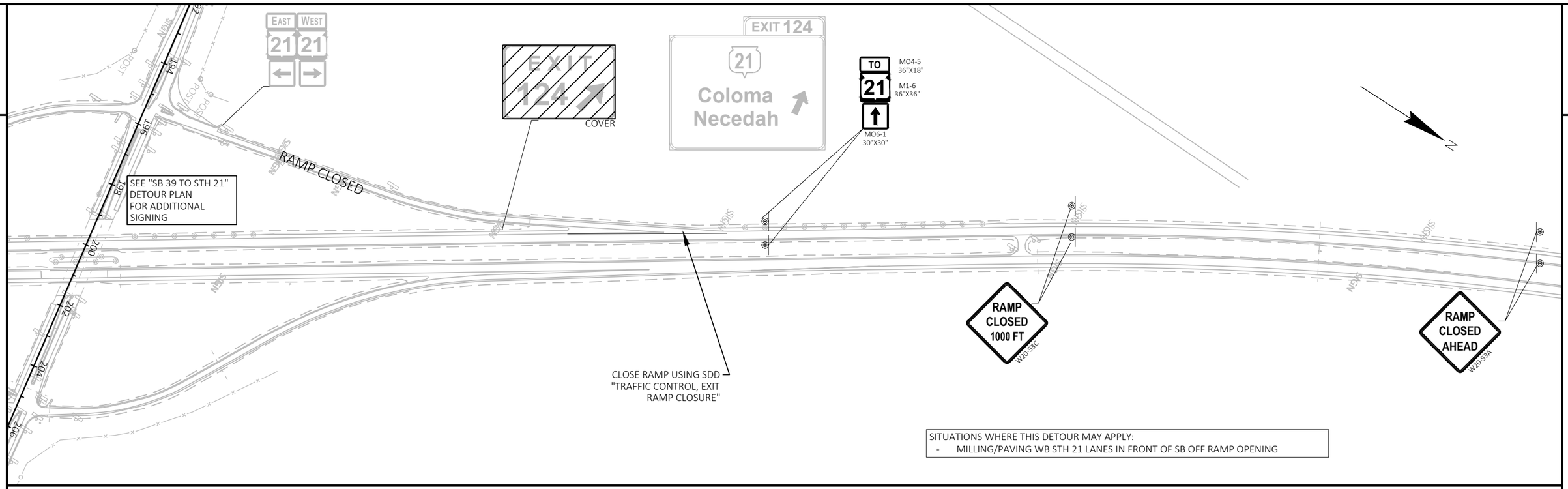
2

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - NB IH 39 TO WB STH 21 CLOSURE SIGNING	SHEET 62	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026230-TC-S2M-NB39-RAMP.DWG
LAYOUT NAME - (103)

PLOT DATE : 10/25/2021 10:46 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

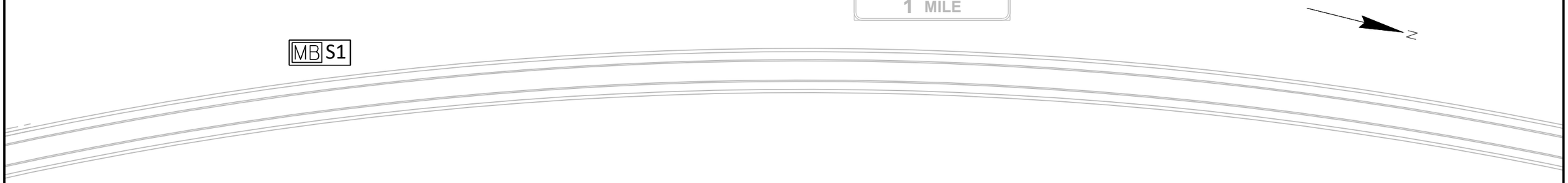
2



SITUATIONS WHERE THIS DETOUR MAY APPLY:
- MILLING/PAVING WB STH 21 LANES IN FRONT OF SB OFF RAMP OPENING

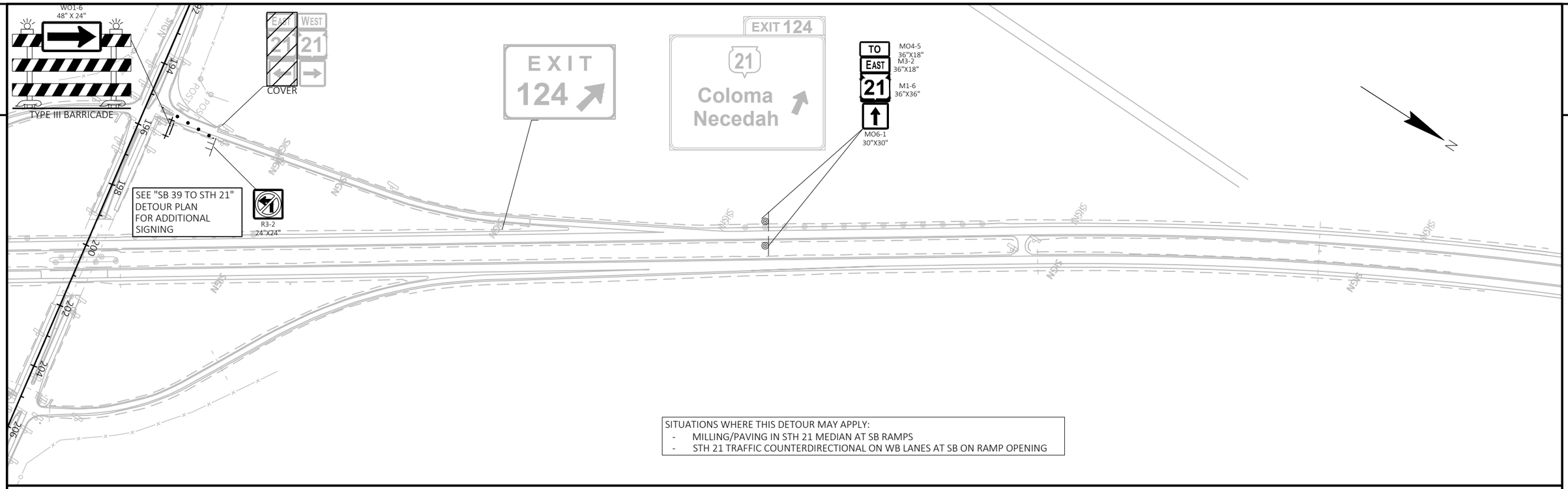
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



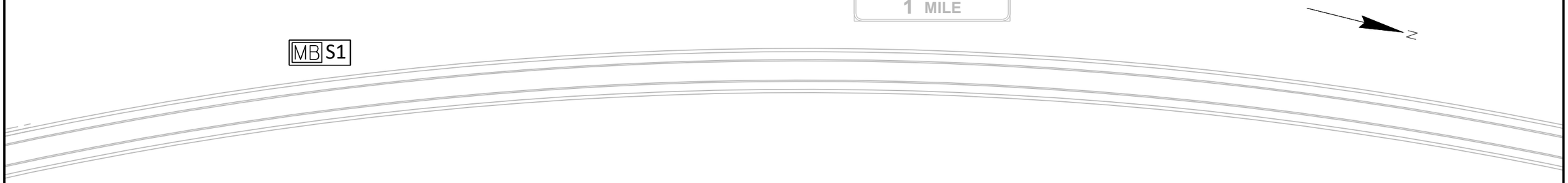
PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - SB IH 39 TO EB AND WB STH 21 CLOSURE SIGNING	SHEET 63	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026230-TC-S2M-SB39-RAMP.DWG
LAYOUT NAME - (101)
PLOT DATE : 10/25/2021 10:49 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44



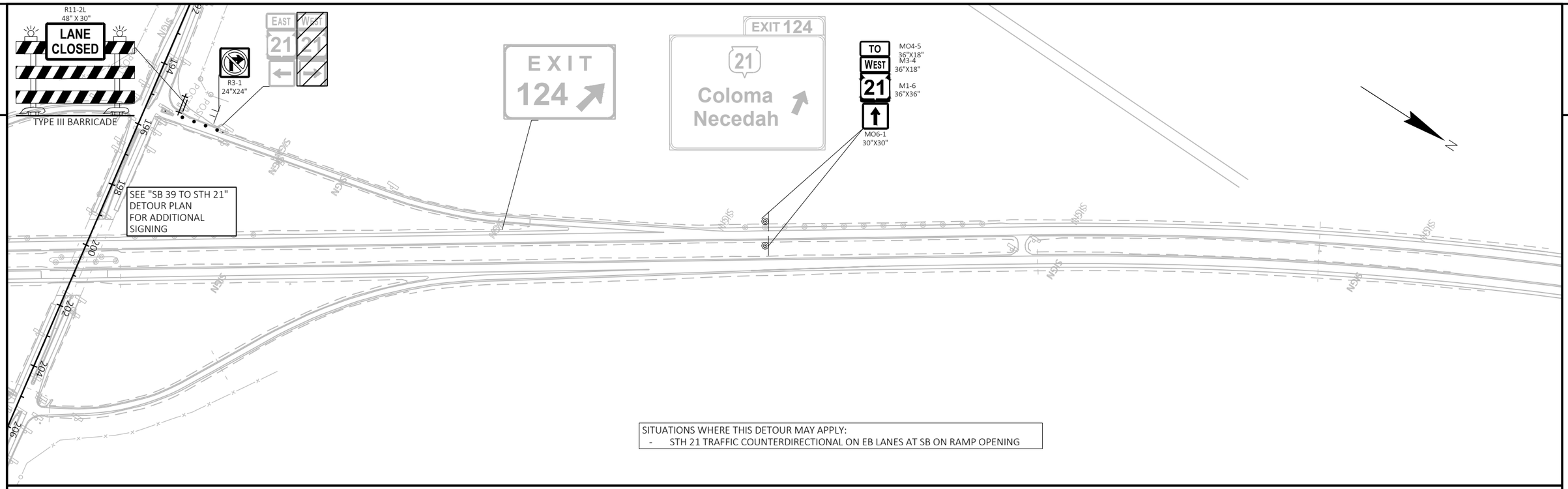
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE TUBULAR MARKER
- TEMPORARY STEEL POST DELINEATOR
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - SB IH 39 TO WB STH 21 CLOSURE SIGNING	SHEET 64	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026230-TC-S2M-SB39-RAMP.DWG
LAYOUT NAME - (103)
PLOT DATE : 10/25/2021 10:49 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : ##########



SITUATIONS WHERE THIS DETOUR MAY APPLY:
- STH 21 TRAFFIC COUNTERDIRECTIONAL ON EB LANES AT SB ON RAMP OPENING

LEGEND

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN	PORTABLE CHANGEABLE MESSAGE BOARD
TRAFFIC CONTROL DRUM WITHOUT/WITH TYPE C STEADY BURN LIGHT	CRASH CUSHION
FLASHING ARROW BOARD	CONCRETE BARRIER TEMPORARY PRECAST
SIGN ON PERMANENT/TEMPORARY SUPPORT	DIRECTION OF TRAFFIC
DELINEATOR FLEXIBLE TUBULAR MARKER	WORK AREA
TEMPORARY STEEL POST DELINEATOR	TEMPORARY PAVEMENT

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	TRAFFIC CONTROL - STAGE 2 - SB IH 39 TO EB STH 21 CLOSURE SIGNING	SHEET 65	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\026230-TC-S2M-SB39-RAMP.DWG
LAYOUT NAME - (104)
PLOT DATE : 10/25/2021 10:49 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2

2

N

COUNTY V

21

COUNTY CH

124

131

39 51

Coloma

Hancock

21

COUNTY V

WAUSHARA COUNTY
MARQUETTE COUNTY

PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 1 CD NB IH 39 TO STH 21	SHEET 66	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\027100-DT-S1CD-NB-21.DWG
LAYOUT NAME - NB TO 21

PLOT DATE : 7/16/2021 7:28 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1 MI

2

N

NORTH 39 NORTH 51 TO 21
M4-5 36"X18"
M1-6 36"X36"

STH 21

SEE TRAFFIC CONTROL PLAN FOR ADVANCED SIGNING

N

2

SOUTH 39 SOUTH 51 TO 21
M4-5 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

SOUTH 39 SOUTH 51 TO 21
M4-5 24"X12"
M1-6 24"X24"
MO5-1L 21"X21"

CTH V

TO 21
M4-5 24"X12"
M1-6 24"X24"
MO6-1 21"X21"

TO 21
M4-5 36"X18"
M1-6 36"X36"
MO6-2 30"X30"

SOUTH 39 SOUTH 51 TO 21
M4-5 36"X18"
M1-6 36"X36"

TO 21
M4-5 36"X18"
M1-6 36"X36"
MO5-2R 30"X30"

PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 1 CD NB IH 39 TO STH 21	SHEET 67	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\027100-DT-S1CD-NB-21.DWG
LAYOUT NAME - CTH V

PLOT DATE : 7/16/2021 7:28 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ############

2

2

21

COUNTY M

COUNTY E

COUNTY J

Westfield

COUNTY M

113

COUNTY CH

INTERSTATE 39 51

WAUSHARA COUNTY
MARQUETTE COUNTY

COUNTY Z

COUNTY E

COUNTY J

COUNTY CH

124

Coloma

21

PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 - STH 21 TO NB IH 39	SHEET 68	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\027210-DT-21-NB.DWG
LAYOUT NAME - 21 TO NB

PLOT DATE : 7/16/2021 7:20 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1 MI

2

N

STH 21

SEE TRAFFIC CONTROL PLAN FOR ADVANCED SIGNING

TO NORTH INTERSTATE 39
M4-5 36"X18"
M3-1 36"X18"
M1-1 36"X36"

SOUTH INTERSTATE 39 SOUTH INTERSTATE 51
TO NORTH INTERSTATE 39
M4-5 36"X18"
M3-1 36"X18"
M1-1 36"X36"

N

2

TO NORTH INTERSTATE 39
M4-5 36"X18"
M3-1 36"X18"
M1-1 36"X36"
MO5-2R 30"X30"

NORTH INTERSTATE 39 NORTH INTERSTATE 51

TO NORTH INTERSTATE 39
M4-5 36"X18"
M3-1 36"X18"
M1-1 36"X36"
MO6-2 30"X30"

TO NORTH INTERSTATE 39
M4-5 24"X12"
M3-1 24"X12"
M1-1 24"X24"
MO6-1 21"X21"

CTH E CTH J

NORTH INTERSTATE 39 51

NORTH INTERSTATE 39 51

PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 - STH 21 TO NB IH 39	SHEET 69	E

2

2

N

COUNTY V

21

STATE 39 51

124

131

COUNTY CH

Coloma

Hancock

21

COUNTY V

WAUSHARA COUNTY
MARQUETTE COUNTY

PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 STH 21 TO SB IH 39	SHEET 70	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\027220-DT-21-SB.DWG
LAYOUT NAME - NB TO 21

PLOT DATE : 7/16/2021 7:15 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1 MI

2

N

TO
SOUTH
39
M4-5
36"X18"
M3-3
36"X18"
M1-1
36"X36"

NORTH 39 NORTH 51

SEE TRAFFIC CONTROL PLAN FOR ADVANCED SIGNING

STH 21

SOUTH 39 SOUTH 51

CTH V

TO
SOUTH
39
M4-5
24"X12"
M3-3
24"X12"
M1-1
24"X24"
MO6-1
21"X21"

TO
SOUTH
39
M4-5
36"X18"
M3-3
36"X18"
M1-1
36"X36"
MO6-2
30"X30"

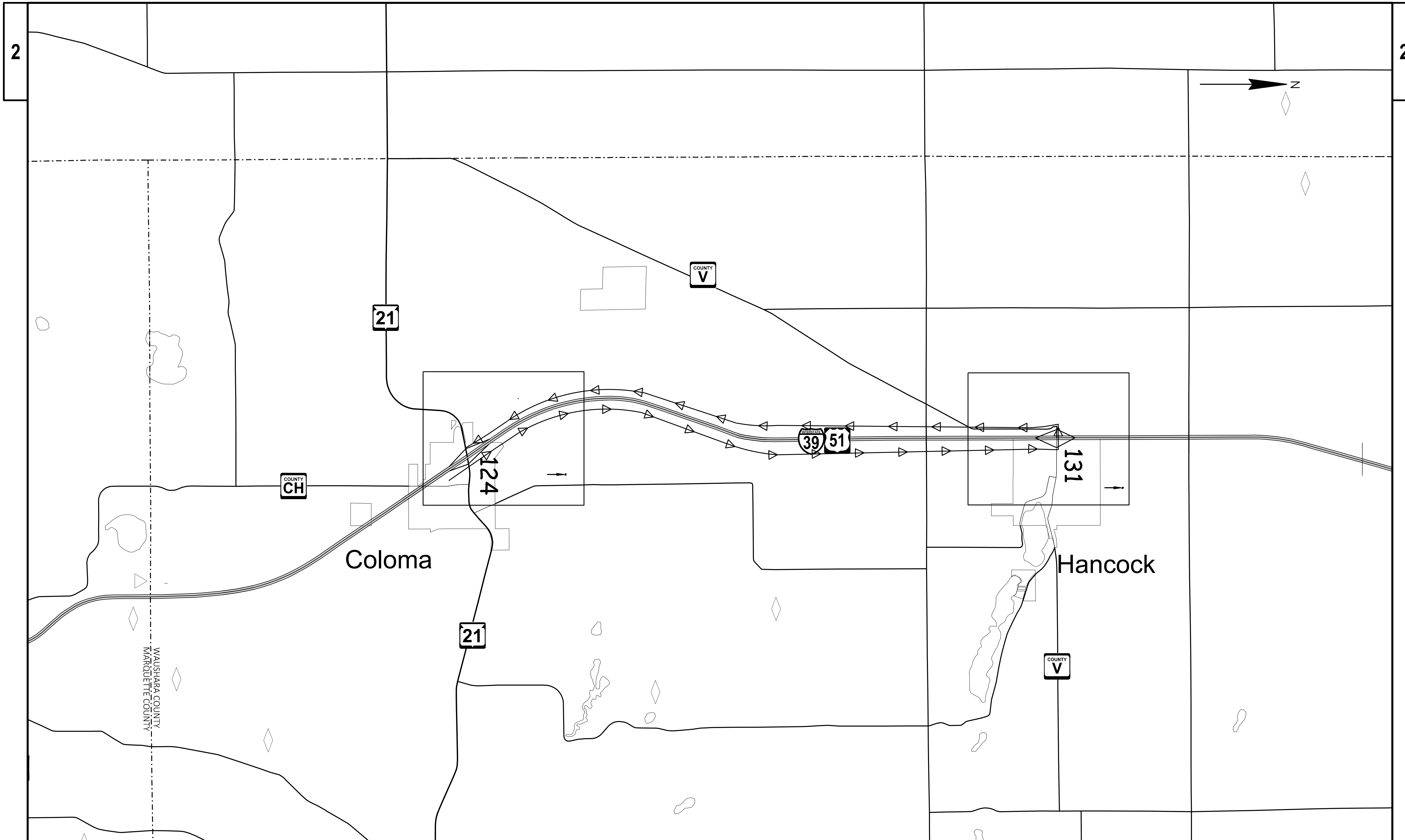
SOUTH 39 SOUTH 51

TO
SOUTH
39
M4-5
36"X18"
M3-3
36"X18"
M1-1
36"X36"
MO5-2R
30"X30"

N

2

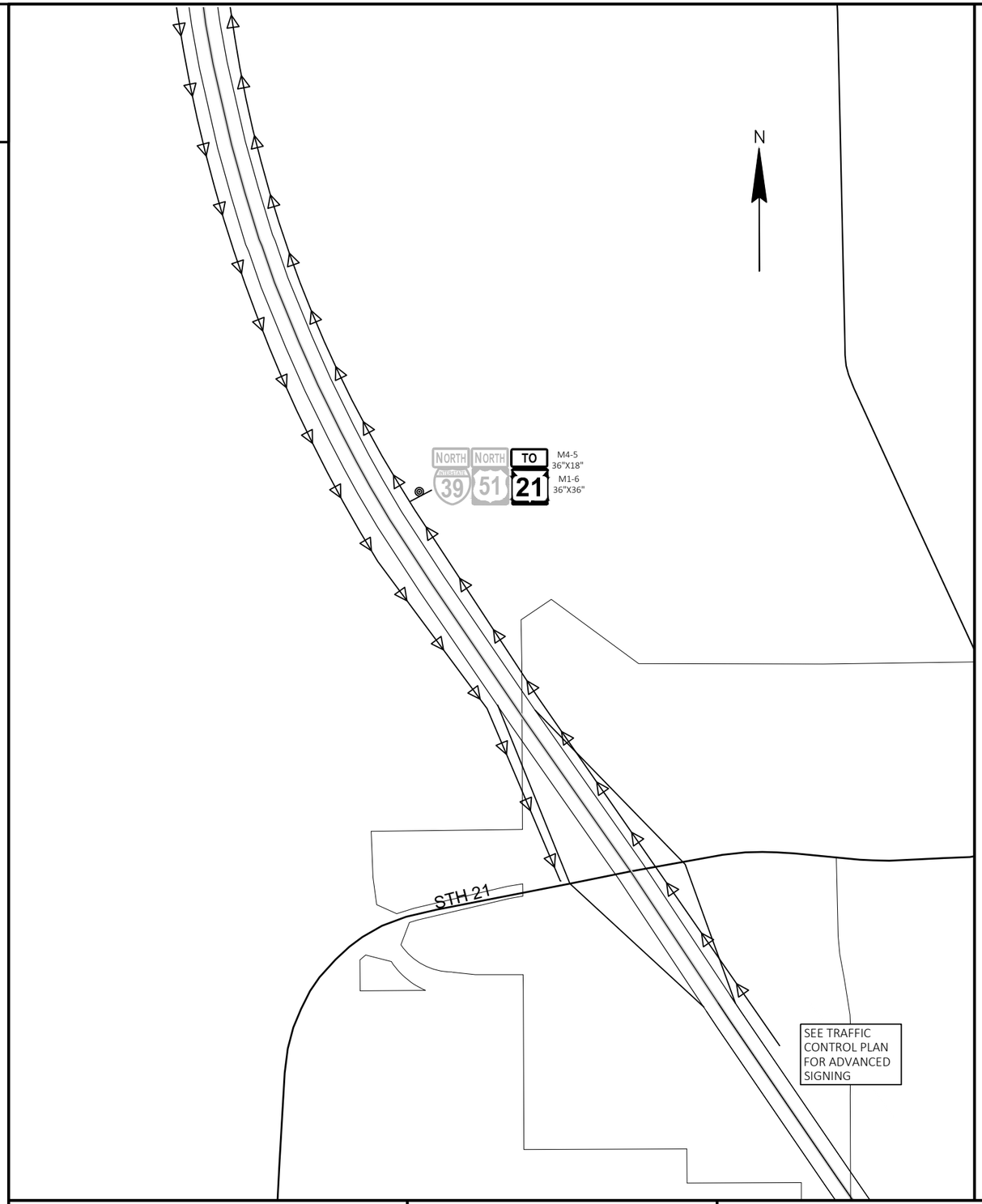
PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 STH 21 TO SB IH 39	SHEET 71	E

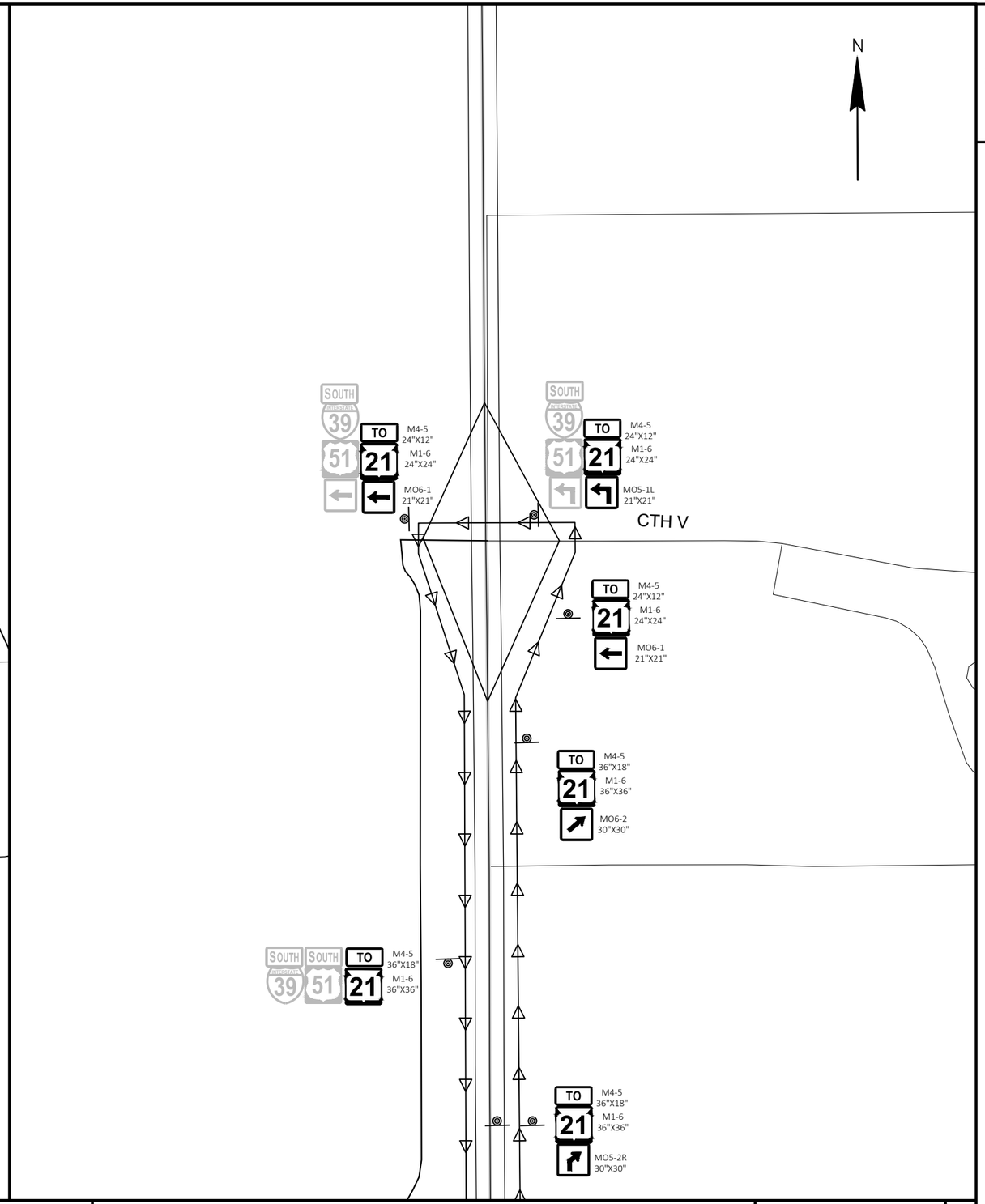


PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 - NB IH 39 TO STH 21	SHEET 72 E

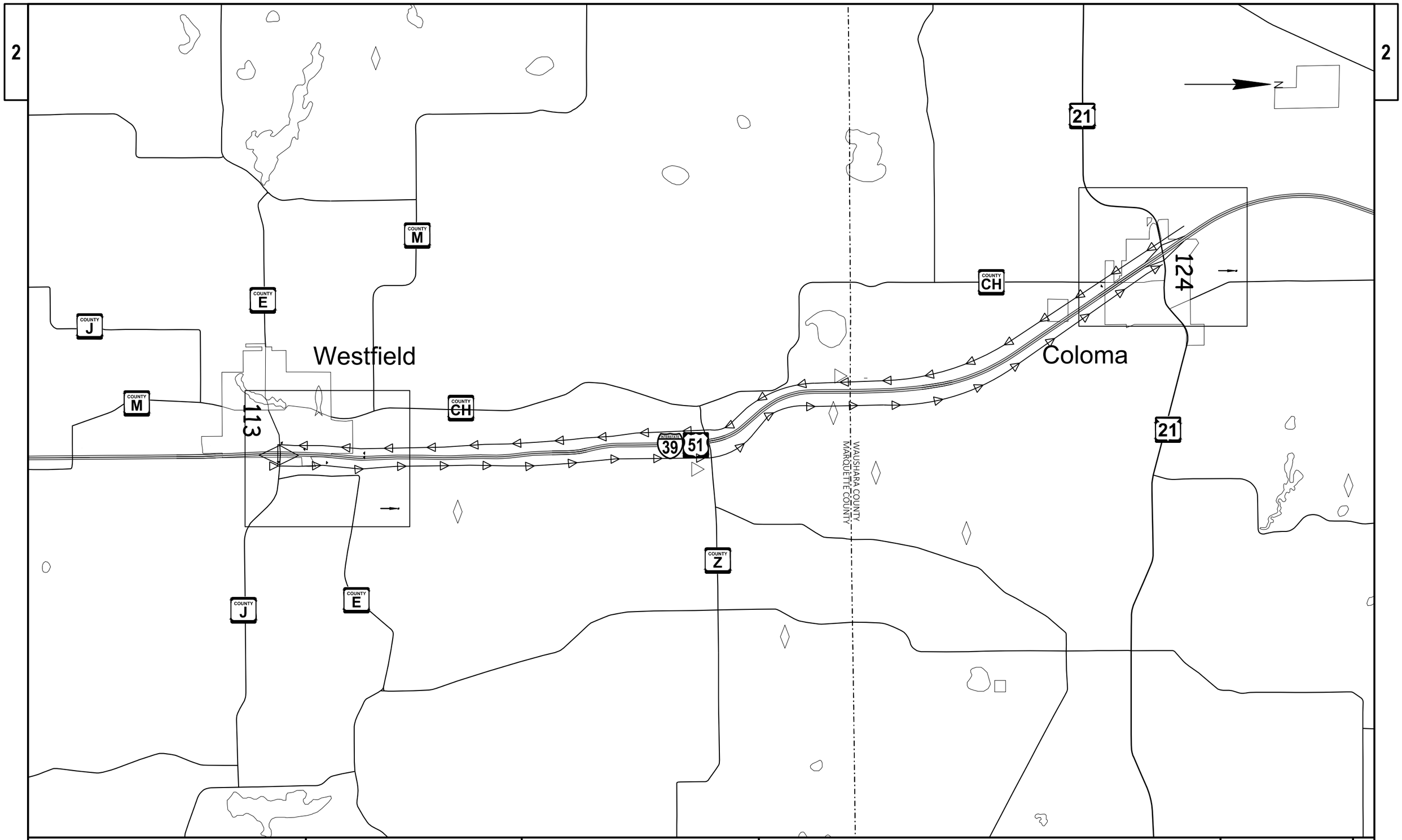
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\027230-DT-NB-21.DWG PLOT DATE : 7/16/2021 7:21 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1 MI
LAYOUT NAME - NB TO 21

WISDOT/CADDS SHEET 42





PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 - NB IH 39 TO STH 21	SHEET 73	E

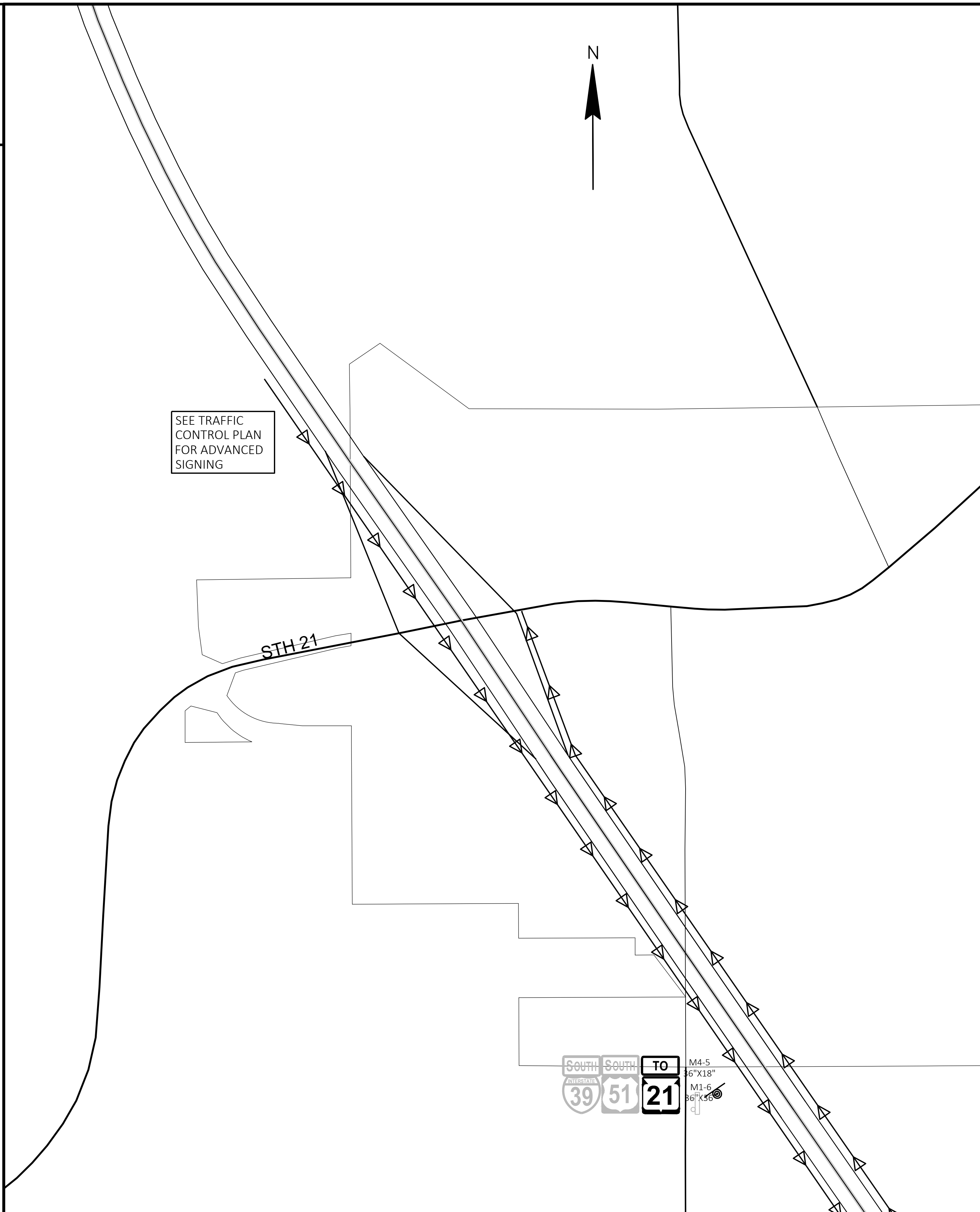


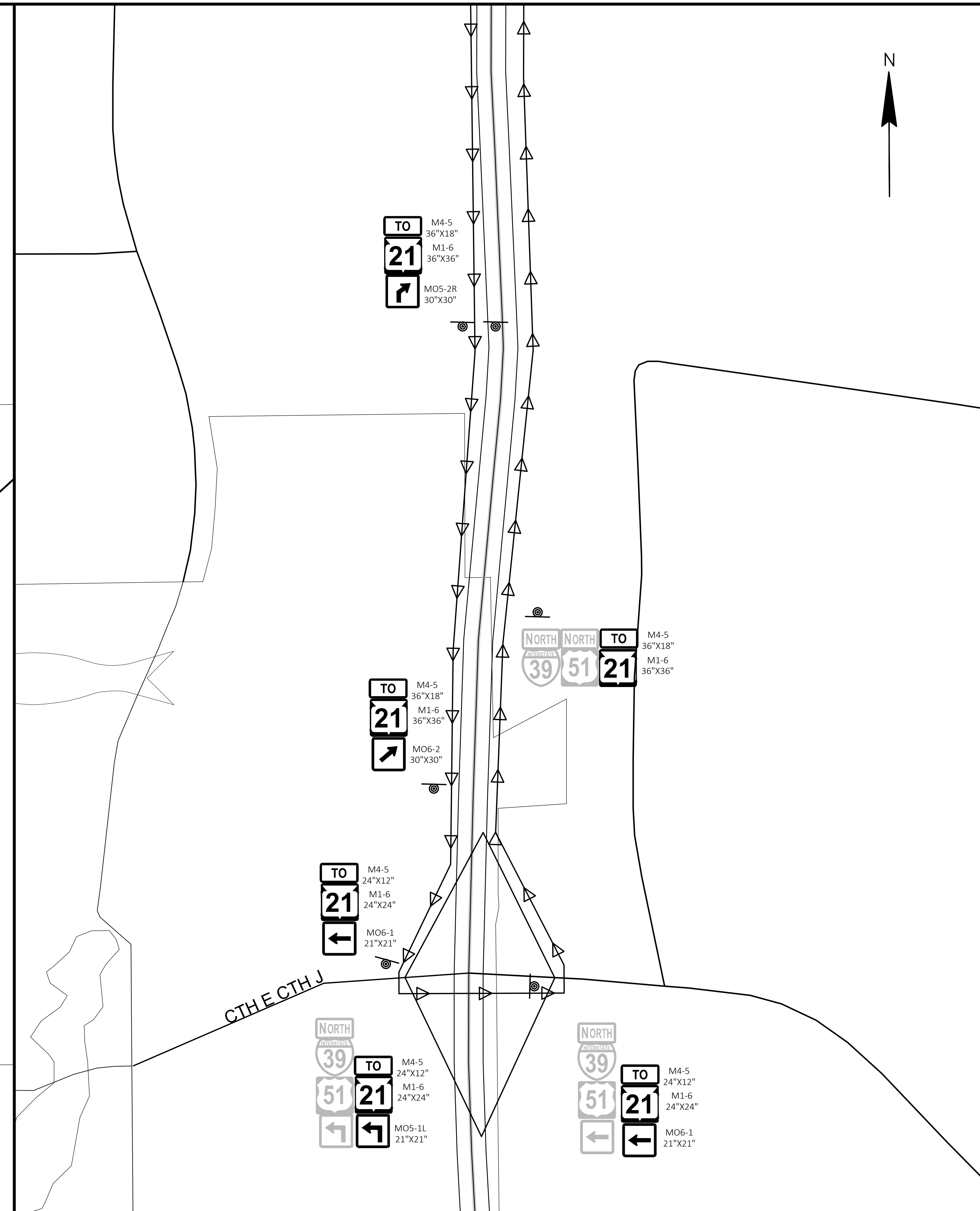
PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 - SB IH 39 TO STH 21	SHEET 74 E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\027240-DT-SB-21.DWG
LAYOUT NAME - EJ NB OFF

PLOT DATE : 7/16/2021 7:18 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:1 MI

WISDOT/CADDS SHEET 42





PROJECT NO: 1166-04-82	HWY: IH 39	COUNTY: MARQUETTE	DETOUR - STAGE 2 - SB IH 39 TO STH 21	SHEET 75	E

6170-00-73

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	509.000	509.000
0004	204.0105	Removing Pavement Butt Joints	SY	603.000	603.000
0006	204.0109.S	Removing Concrete Surface Partial Depth	SF	286,128.000	286,128.000
0008	204.0110	Removing Asphaltic Surface	SY	1,217.000	1,217.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	436.000	436.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	10,375.000	10,375.000
0014	204.0150	Removing Curb & Gutter	LF	1,224.000	1,224.000
0016	204.0155	Removing Concrete Sidewalk	SY	53.000	53.000
0018	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	40.000	40.000
0020	204.0245	Removing Storm Sewer (size) 02. 24-Inch	LF	6.000	6.000
0022	204.0245	Removing Storm Sewer (size) 03. 36-Inch	LF	76.000	76.000
0024	204.9180.S	Removing (item description) 01. Asphaltic Surface Flumes	SY	38.000	38.000
0026	211.0200	Prepare Foundation for Concrete Pavement (project) 01. 6170-00-73	LS	1.000	1.000
0028	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	15.000	15.000
0030	213.0100	Finishing Roadway (project) 01. 6170-00-73	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,336.000	1,336.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	50.000	50.000
0036	390.0303	Base Patching Concrete	SY	333.000	333.000
0038	390.0403	Base Patching Concrete Shes	SY	396.000	396.000
0040	390.0501.S	Base Patching Asphaltic for HMA Interlayer (project) 01. Project 6170-00-73	EACH	1.000	1.000
0042	415.0080	Concrete Pavement 8-Inch	SY	348.000	348.000
0044	416.0610	Drilled Tie Bars	EACH	538.000	538.000
0046	416.0620	Drilled Dowel Bars	EACH	261.000	261.000
0048	455.0605	Tack Coat	GAL	4,943.000	4,943.000
0050	460.2000	Incentive Density HMA Pavement	DOL	2,727.000	2,727.000
0052	460.4210.S	HMA Pavement Interlayer	TON	1,768.000	1,768.000
0054	460.6225	HMA Pavement 5 MT 58-28 S	TON	92.000	92.000
0056	460.6424	HMA Pavement 4 MT 58-28 H	TON	4,170.000	4,170.000
0058	465.0105	Asphaltic Surface	TON	428.000	428.000
0060	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0062	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	3.000	3.000
0064	465.0315	Asphaltic Flumes	SY	43.000	43.000
0066	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	5,200.000	5,200.000
0068	520.8000	Concrete Collars for Pipe	EACH	3.000	3.000
0070	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0072	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	1.000	1.000
0074	524.0630	Apron Endwalls for Culvert Pipe Salvaged 30-Inch	EACH	1.000	1.000
0076	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,115.000	1,115.000
0078	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	129.000	129.000
0080	601.0600	Concrete Curb Pedestrian	LF	42.000	42.000
0082	602.0410	Concrete Sidewalk 5-Inch	SF	475.000	475.000
0084	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	25.000	25.000
0086	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	8.000	8.000
0088	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	76.000	76.000
0090	611.0430	Reconstructing Inlets	EACH	11.000	11.000
0092	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0094	611.0624	Inlet Covers Type H	EACH	4.000	4.000
0096	611.1003	Catch Basins 3-FT Diameter	EACH	1.000	1.000
0098	611.1005	Catch Basins 5-FT Diameter	EACH	1.000	1.000

6170-00-73

Line	Item	Item Description	Unit	Total	Qty
0100	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0102	611.8115	Adjusting Inlet Covers	EACH	12.000	12.000
0104	614.0400	Adjusting Steel Plate Beam Guard	LF	50.000	50.000
0106	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6170-00-73	EACH	1.000	1.000
0108	619.1000	Mobilization	EACH	1.000	1.000
0110	624.0100	Water	MGAL	22.000	22.000
0112	625.0100	Topsoil	SY	89.000	89.000
0114	627.0200	Mulching	SY	42.000	42.000
0116	628.1504	Silt Fence	LF	100.000	100.000
0118	628.1520	Silt Fence Maintenance	LF	100.000	100.000
0120	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0122	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0124	628.2008	Erosion Mat Urban Class I Type B	SY	178.000	178.000
0126	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0128	628.7015	Inlet Protection Type C	EACH	9.000	9.000
0130	628.7555	Culvert Pipe Checks	EACH	14.000	14.000
0132	628.7570	Rock Bags	EACH	20.000	20.000
0134	629.0210	Fertilizer Type B	CWT	0.130	0.130
0136	630.0120	Seeding Mixture No. 20	LB	6.000	6.000
0138	630.0500	Seed Water	MGAL	5.000	5.000
0140	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	1.000	1.000
0142	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	3.000	3.000
0144	638.2102	Moving Signs Type II	EACH	5.000	5.000
0146	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0148	642.5201	Field Office Type C	EACH	1.000	1.000
0150	643.0300	Traffic Control Drums	DAY	12,565.000	12,565.000
0152	643.0410	Traffic Control Barricades Type II	DAY	60.000	60.000
0154	643.0420	Traffic Control Barricades Type III	DAY	1,771.000	1,771.000
0156	643.0705	Traffic Control Warning Lights Type A	DAY	3,602.000	3,602.000
0158	643.0715	Traffic Control Warning Lights Type C	DAY	825.000	825.000
0160	643.0900	Traffic Control Signs	DAY	8,410.000	8,410.000
0162	643.0910	Traffic Control Covering Signs Type I	EACH	1.000	1.000
0164	643.0920	Traffic Control Covering Signs Type II	EACH	66.000	66.000
0166	643.1050	Traffic Control Signs PCMS	DAY	71.000	71.000
0168	643.5000	Traffic Control	EACH	1.000	1.000
0170	646.1020	Marking Line Epoxy 4-Inch	LF	16,574.000	16,574.000
0172	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	12,225.000	12,225.000
0174	646.3020	Marking Line Epoxy 8-Inch	LF	1,050.000	1,050.000
0176	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	9,155.000	9,155.000
0178	646.5020	Marking Arrow Epoxy	EACH	4.000	4.000
0180	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0182	646.6120	Marking Stop Line Epoxy 18-Inch	LF	16.000	16.000
0184	646.7120	Marking Diagonal Epoxy 12-Inch	LF	212.000	212.000
0186	646.8120	Marking Curb Epoxy	LF	139.000	139.000
0188	646.8220	Marking Island Nose Epoxy	EACH	6.000	6.000
0190	646.9000	Marking Removal Line 4-Inch	LF	2,090.000	2,090.000
0192	649.0105	Temporary Marking Line Paint 4-Inch	LF	39,990.000	39,990.000
0194	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	10,840.000	10,840.000
0196	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	1,545.000	1,545.000

6170-00-73

Line	Item	Item Description	Unit	Total	Qty
0198	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	48.000	48.000
0200	650.4000	Construction Staking Storm Sewer	EACH	29.000	29.000
0202	650.5000	Construction Staking Base	LF	149.000	149.000
0204	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	302.000	302.000
0206	650.8000	Construction Staking Resurfacing Reference	LF	10,512.000	10,512.000
0208	650.9000	Construction Staking Curb Ramps	EACH	1.000	1.000
0210	650.9910	Construction Staking Supplemental Control (project) 01. 6170-00-73	LS	1.000	1.000
0212	661.0100	Temporary Traffic Signals for Bridges (structure) 01. West End	LS	1.000	1.000
0214	661.0100	Temporary Traffic Signals for Bridges (structure) 02. East End	LS	1.000	1.000
0216	690.0150	Sawing Asphalt	LF	1,009.000	1,009.000
0218	690.0250	Sawing Concrete	LF	6,122.000	6,122.000
0220	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0222	740.0440	Incentive IRI Ride	DOL	8,840.000	8,840.000
0224	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0226	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0228	SPV.0060	Special 01. Inlet Covers Type H-D	EACH	1.000	1.000
0230	SPV.0060	Special 02. Adjusting Water Main Valve Box	EACH	1.000	1.000
0232	SPV.0060	Special 03. Adjusting Sanitary Manhole Covers	EACH	2.000	2.000
0234	SPV.0090	Special 01. Ditch Restoration	LF	76.000	76.000
0236	SPV.0090	Special 02. Cleaning Storm Sewer	LF	2,205.000	2,205.000

3

REMOVING CONCRETE PAVEMENT

LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	** 690.0250 SAWING CONCRETE LF
PROJECT 6170-00-73 CATEGORY 0010		
CTH CH	168	90
	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS	**168**	90
PROJECT 6170-00-73 CATEGORY 0020		
NB IH 39 OFF RAMP	341	120
	---	---
PROJECT 6170-00-73 CAT 0020 TOTALS	**341**	120
		**

** SEE SAWING FOR PROJECT TOTALS

BUTT JOINTS

STA-STA	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	** 690.0150 SAWING ASPHALT LF	** 690.0250 SAWING CONCRETE LF
PROJECT 6170-00-73 CATEGORY 0010					
117+59 - 117+99	BEGIN PROJECT	160	---	36	---
--- - ---	3RD LANE	19	---	21	---
--- - ---	OLD HWY 21	20	---	22	---
--- - ---	4TH AVE N	30	---	34	---
--- - ---	4TH AVE S	20	---	23	---
222+32 - 222+72	END PROJECT	187	---	42	---
PROJECT 6170-00-73 CAT 0010 TOTALS		**436**	**0**	178	0
PROJECT 6170-00-73 CATEGORY 0020					
198+00 - 198+40	WB	---	145	---	33
198+00 - 198+40	EB	---	122	---	28
204+60 - 205+00	WB	---	170	---	38
204+60 - 205+00	EB	---	165	---	37
PROJECT 6170-00-73 CAT 0020 TOTALS		**0**	**603**	0	136
				**	**

** SEE SAWING FOR PROJECT TOTALS

REMOVING CONCRETE SURFACE PARTIAL DEPTH

STA	-	STA				204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF
PROJECT 6170-00-73 CATEGORY 0010						
118+00		179+25		LANES	STH21	147,000
179+25		190+00		LANES	STH21	25,800
190+00		194+00	EB	LANE	STH21	6,424
190+00		194+00	WB	LANE	STH21	10,770
206+25		210+50	EB	LANES	STH21	10,200
206+25		210+50	WB	LANES	STH21	10,200
210+50		221+59		LANES	STH21	48,796
221+59		222+32		LANES	STH21	3,212
205+39		209+15		MEDIAN CURB PAN		1,504
PROJECT 6170-00-73 CAT 0010 TOTAL						**263,906**
PROJECT 6170-00-73 CATEGORY 0020						
194+00		198+00	EB	SB ON RAMP	INTERSECTION	8,556
194+00		198+00	WB	SB OFF RAMP	INTERSECTION	5,526
205+00		206+25	EB	NB OFF RAMP	INTERSECTION	3,971
205+00		206+25	WB	NB ON RAMP	INTERSECTION	3,493
193+75		195+44		MEDIAN CURB PAN		676
PROJECT 6170-00-73 CAT 0020 TOTAL						**22,222**

REMOVING ASPHALTIC SURFACE

LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.9180.S REMOVING 01. ASPHALTIC SURFACE FLUMES SY	** 690.0150 SAWING ASPHALT LF
PROJECT 6170-00-73 CATEGORY 0010			
SHOULDER - 3RD LANE	293	---	103
SHOULDER - OLD HWY 21	260	---	126
SHOULDER - 4TH AVE	129	---	166
CHURCH LANE	---	38	54
CTH CH	127	---	20
CTH CH- PARKING LOT	16	---	30
EAST END OF PROJECT	108	---	8
MADISON ST	93	---	64
UNDISTRIBUTED	75	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS	**1,101**	**38**	571
PROJECT 6170-00-73 CATEGORY 0020			
NB OFF RAMP ISLAND	37	---	---
NB OFF RAMP LT SHOULDER	37	---	3
NB OFF RAMP RT SHOULDER	17	---	6
UNDISTRIBUTED	25	---	---
PROJECT 6170-00-73 CAT 0020 TOTALS	**116**	**0**	9
			**

** SEE SAWING FOR PROJECT TOTALS

REMOVING ASPHALTIC SURFACE MILLING

STA	-	STA					204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
PROJECT 6170-00-73 CATEGORY 0010							
118+00		179+25		A	SHOULDERS	STH21	4,083
179+25		190+00		A	SHOULDERS	STH21	2,628
190+00		194+00	EB	A	SHOULDERS	STH 21	495
190+00		194+00		A	MEDIAN	STH 21	422
190+00		194+00	WB	A	SHOULDERS	STH 21	522
190+00		210+25		A	MEDIAN	STH 21	62
	3RD LANE		N	A		INTERSECTION	424
	OLD HWY 21		S	A		INTERSECTION	376
	4TH AVE		N	A		INTERSECTION	377
	4TH AVE		S	A		INTERSECTION	376
PROJECT 6170-00-73 CAT 0010 TOTAL							**9,765**
PROJECT 6170-00-73 CATEGORY 0020							
194+00		198+00	EB	A	SHOULDERS	INTERSECTION	244
194+00		194+90		A	MEDIAN	STH 21	49
195+55		198+00	WB	A	SHOULDERS	INTERSECTION	317
PROJECT 6170-00-73 CAT 0020 TOTAL							**610**

3

REMOVING CURB AND GUTTER

STA	- STA		LOC	204.0150 REMOVING CURB AND GUTTER LF	** 690.025 SAWING CONCRETE LF
PROJECT 6170-00-73 CATEGORY 0010					
206+25	206+52	EB	LT	27	30
206+20	209+37	EB	RT	317	322
210+08	211+50	EB	RT	142	147
217+09	217+22	EB	CTH CH SW RADIUS	56	5
221+99	222+32	EB	RT	33	38
211+21	211+60	WB	LT	39	44
	MADISON ST			48	5
	INLET REPAIRS			176	110
	UNDISTRIBUTED			100	20
PROJECT 6170-00-73 CAT 0010 TOTALS				**938**	721
PROJECT 6170-00-73 CATEGORY 0020					
205+45	206+25	EB	LT	80	83
205+47	205+63	EB	RAMP ISLAND	121	---
	IH 39 NB OFF RAMP			85	---
PROJECT 6170-00-73 CAT 0020 TOTALS				**286**	83
			** SEE SAWING FOR PROJECT TOTALS		**

REMOVING SIDEWALK

LOC	204.0150 REMOVING CONCRETE SIDEWALK SY	** 690.025 SAWING CONCRETE LF
PROJECT 6170-00-73 CATEGORY 0010		
CTH CH SW	53	10
PROJECT 6170-00-73 CAT 0010 TOTALS	**53**	10
		**

** SEE SAWING FOR PROJECT TOTALS

REMOVING STORM SEWER

STA	LOC	STRUCTURE #	SIZE IN	REMOVAL LENGTH FT	DESC	204.0245 REMOVING STORM SEWER 01. 18-INCH LF	204.0245 REMOVING STORM SEWER 02. 24-INCH LF	204.0245 REMOVING STORM SEWER 02. 36-INCH LF	NOTES
PROJECT 6170-00-73 CATEGORY 0010									
221+29	LT	120E	24	6	EW	---	6	---	REMOVE ENDWALL ONLY
223+20	RT	122E	36	76	EW	---	---	76	REMOVE ENDWALL AND PIPE TO NEW INLET 121A
222+50	RT	121	18			40	---	---	INLET 121 AND PIPE
PROJECT 6170-00-73 CAT 0010 TOTAL						**40**	**6**	**76**	

PREPARING FOUNDATION

STA	- STA		LOC	211.0200 PREPARE FOUNDATION FOR CONCRETE PAVEMENT LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
PROJECT 6170-00-73 CATEGORY 0010					
121+00	123+70	LT	3RD LANE		3
129+34	132+50	RT	OLD HWY 21		4
179+87	181+06	RT	4TH LANE		2
221+60	222+73	LT	EAST END		2
			UNDISTRIBUTED		2
PROJECT 6170-00-73 CAT 0010 TOTALS				**0**	**13**
PROJECT 6170-00-73 CATEGORY 0020					
			NB OFF RAMP	1	2
PROJECT 6170-00-73 CAT 0020 TOTALS				**1**	**2**

PREP AND FINISH

LOCATION	213.0100 FINISHING ROADWAY EACH
PROJECT 6170-00-73 CATEGORY 0010	
PROJECT	1
PROJECT 6170-00-73 CAT 0010 TOTALS	1

BASE AGGREGATE

STA	-	STA		LOCATION	305.0110 BASE AGG DENSE 3/4-INCH TON	305.0120 BASE AGG DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
PROJECT 6170-00-73 CATEGORY 0010							
117+58	-	179+00	RT/LT	SHOULDERS	1,114	---	---
117+58	-	179+00	RT/LT	SHOULDERS	40	---	---
179+00	-	194+00	RT/LT	SHOULDERS	72	---	---
221+69	-	222+72	LT	SHOULDER	3	---	---
125+33	-	125+97	RT	DRIVEWAY	2	---	---
137+71	-	138+17	LT	DRIVEWAY	1	---	---
141+90	-	142+20	RT	DRIVEWAY	1	---	---
153+83	-	154+21	RT	DRIVEWAY	1	---	---
153+87	-	154+25	LT	DRIVEWAY	1	---	---
161+60	-	162+01	RT	DRIVEWAY	1	---	---
166+62	-	167+08	LT	DRIVEWAY	1	---	---
				CTH CH	---	8	---
				SIDEWALK	12	---	---
				UNDISTRIBUTED	60	37	21
PROJECT 6170-00-73 CAT 0010 TOTALS					**1309**	**45**	**21**
PROJECT 6170-00-73 CATEGORY 0020							
194+00	-	194+75	RT	SHOULDER	2	---	---
195+75	-	198+39	RT/LT	SHOULDERS	16	---	---
195+75	-	198+39	RT/LT	SHOULDERS	2	---	---
				NB OFF RAMP	7	5	1
PROJECT 6170-00-73 CAT 0020 TOTALS					**27**	**5**	**1**

BASE PATCHING CONCRETE

STATION	LANE LOCATION	390.0303 BASE PATCHING CONCRETE SY	390.0403 BASE PATCHING CONCRETE SHES SY	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH	** 690.0150 SAWING ASPHALT LF	** 690.0250 SAWING CONCRETE LF
PROJECT 6170-00-73 CATEGORY 0010							
118+13	EB/WB	80	---	---	19	60	24
131+39	EB	---	51	13	19	38	62
131+89	WB	---	47	12	19	36	60
190+28	EB	---	43	10	22	30	58
206+39	EB RT	---	39	11	16	---	84
213+37	EB	---	70	35	19	---	128
218+57	EB	---	46	23	19	---	92
220+03	WB	40	---	10	19	---	54
220+03	WBTL	33	---	10	16	---	50
222+15	WB	42	---	---	19	32	51
222+15	EB	43	---	---	19	---	12
222+15	EBTL	35	---	11	16	---	51
INLET REPAIRS		39	---	44	---	---	264
UNDISTRIBUTED		20	100	---	---	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS	**TOTAL**	**333**	**396**	179	222	196	990
				*	*	**	**

* SEE CONCRETE PAVEMENT FOR PROJECT TOTALS

** SEE SAWING FOR PROJECT TOTALS

BASE PATCHING ASPHALT

LOCATION	390.0501.S BASE PATCHING FOR ASPHALT HMA INTERLAYER EACH
PROJECT 6170-00-73 CATEGORY 0010	
PROJECT	0.9
PROJECT 6170-00-73 CAT 0010 TOTAL	0.9
PROJECT 6170-00-73 CATEGORY 0020	
PROJECT	0.1
PROJECT 6170-00-73 CAT 0020 TOTAL	0.1

3

CONCRETE PAVEMENT

STATION	LANE LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
PROJECT 6170-00-73 CATEGORY 0010				
	SECOND AVE INLET	2	2	---
	FROM BASE PATCHING	---	179	222
	FROM CURB AND GUTTER	---	276	---
	UNDISTRIBUTED	5	25	15
PROJECT 6170-00-73 CAT 0010 TOTALS		**7**	**482**	**237**
PROJECT 6170-00-73 CATEGORY 0020				
	FROM CURB AND GUTTER	---	27	---
205+64	IH 39 NB OFF RAMP	341	29	24
PROJECT 6170-00-73 CAT 0010 TOTALS		**341**	**56**	**24**

HMA PAVEMENT

STA	-	STA				455.0605 TACK COAT GAL	460.4210.S PAVEMENT INTERLAYER TON	LOWER LAYER 460.6225 HMA PAVEMENT 5 MT 58-28S (CONTROL STRIP) TON	UPPER LAYER 460.6424 HMA PAVEMENT 4 MT 58-28 H TON
PROJECT 6170-00-73 CATEGORY 0010									
117+60		118+00		BUTT JOINT	STH21	20	---	---	16
118+00		130+00		EB LANE	STH21	208	---	92	161
118+00		130+00		WB LANE	STH21	208	92	---	161
130+00		179+25		LANES	STH21	1,708	755	---	1,322
118+00		179+25		SHOULDERS	STH21	265	---	---	411
179+25		190+00		LANES	STH21	372	165	---	288
179+25		190+00		SHOULDERS	STH21	171	---	---	264
190+00		194+00	EB	SB ON RAMP	INTERSECTION	92	41	---	72
190+00		194+00	EB	SHOULDERS	INTERSECTION	32	---	---	50
190+00		194+00		MEDIAN	STH 21	27	---	---	42
							---	---	
190+00		194+00	WB	SB OFF RAMP	INTERSECTION	156	69	---	120
190+00		194+00	EB	SHOULDERS	INTERSECTION	34	---	---	53
							---	---	
206+25		210+50	EB	LANES	STH21	148	65	---	114
206+25		210+50	WB	LANES	STH21	148	65	---	114
							---	---	
210+50		221+59		LANES	STH21	704	312	---	546
221+59		222+32		LANES	STH21	46	21	---	36
221+59		222+32		TAPER	STH21	5	---	---	8
222+32		222+72		BUTT JOINT	STH21	24	---	---	---
	3RD LANE		N		INTERSECTION	28	---	---	---
	OLD HWY 21		S		INTERSECTION	24	---	---	---
	4TH AVE		N		INTERSECTION	25	---	---	---
	4TH AVE		S		INTERSECTION	24	---	---	---
	CTH CH		S		INTERSECTION	16	---	---	---
205+39		209+15		MEDIAN CURB PAN		22	10	---	17
	NB OFF RAMP			RAMP	SHLDR	1	---	---	4
PROJECT 6170-00-73 CAT 0010 TOTALS						**4,508**	**1,595**	**92**	**3,799**
PROJECT 6170-00-73 CATEGORY 0020									

194+00		198+00	EB	SB ON RAMP	INTERSECTION	124	55	---	96
194+00		198+00	EB	SHOULDERS	INTERSECTION	16	---	---	25
194+00		194+90		MEDIAN	STH 21	3	---	---	5
198+00		198+40	EB	BUTT JOINT	STH21	16	7	---	12
							---	---	
194+00		194+00	WB	SB OFF RAMP	INTERSECTION	80	35	---	62
194+00		198+00	EB	SHOULDERS	INTERSECTION	21	---	---	32
198+00		198+40	WB	BUTT JOINT	STH21	18	8	---	13
							---	---	
204+60		205+00	EB	BUTT JOINT	STH21	20	9	---	16
205+00		206+25	EB	NB OFF RAMP	INTERSECTION	58	25	---	44
204+60		205+00	WB	BUTT JOINT	STH21	18	8	---	15
205+00		206+25	WB	NB ON RAMP	INTERSECTION	50	22	---	39
193+75		195+44		MEDIAN CURB PAN		10	4	---	8
	NB OFF RAMP			RAMP	SHLDR	1	---	---	4
PROJECT 6170-00-73 CAT 0020 TOTALS						**435**	**173**	**0**	**371**

3

ASPHALTIC SURFACE

STA - STA	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCI TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0315 ASPHALTIC FLUMES SY
PROJECT 6170-00-73 CATEGORY 0010					
	3RD LANE shoulder	51	---	---	---
	OLD HWY 21 shoulder	45	---	---	---
	4TH AVE (S) shoulder	22	---	---	---
	3RD LANEintersection	43	---	---	---
	OLD HWY 21 intersection	38	---	---	---
	4TH AVE (S) intersection	38	---	---	---
	4TH AVE (N) intersection	37	---	---	---
	CHURCH LANE	---	---	---	43
	COUNTY CH	56	---	---	---
	COUNTY CH PARKING LOT	0	3	---	---
	221+59 LT STH 21	19	---	---	---
	MADISON ST	16	---	---	---
	UNDISTRIBUTED	25	---	20	---
PROJECT 6170-00-73 CAT 0010 TOTALS		**390**	**3**	**20**	**43**
PROJECT 6170-00-73 CATEGORY 0020					
	NB OFF RAMP ISLAND	38	---	---	---
PROJECT 6170-00-73 CAT 0020 TOTALS		**38**	**0**	**0**	**0**

ASPHALTIC CENTER LINE RUMBLE STRIP

STA - STA	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL FT
PROJECT 6170-00-73 CATEGORY 0010	
117+60 177+76	5,200

PROJECT 6170-00-73 CAT 0010 TOTAL	5,200

CONCRETE SIDEWALK

LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
PROJECT 6170-00-73 CATEGORY 0010		
CTH CH SW	475	25
PROJECT 6170-00-73 CAT 0010 TOTALS	**475**	**25**

CONCRETE CURB AND GUTTER

STA - STA		LOC	601.0409 CONCRETE CURB AND GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB AND GUTTER 30-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	* 416.0610 DRILLED TIE BARS EACH
PROJECT 6170-00-73 CATEGORY 0010						
206+25 206+52	EB	LT	27	---	---	9
206+25 209+37	EB	RT	312	---	---	104
210+08 211+50	EB	RT	142	---	---	47
217+09 217+22	EB	CTH CH SW RADIUS	---	56	42	---
221+99 222+32	EB	RT	33	---	---	11
211+21 211+60	WB	LT	39	---	---	13
MADISON ST			---	48	---	---
		INLET ADJUSTMENTS	176	---	---	59

UNDIST		CURB REPAIR	100	25	---	33
PROJECT 6170-00-73 CAT 0010 TOTALS			**829**	**129**	**42**	276
PROJECT 6170-00-73 CATEGORY 0020						
205+45 206+25	EB	LT	80	---	---	27
		RAMP ISLAND	121	---	---	---
		IH 39 NB OFF RAMP RT	85	---	---	---
PROJECT 6170-00-73 CAT 0020 TOTALS			**286**	**0**	**0**	27

* SEE CONCRETE PAVEMENT FOR PROJECT TOTALS

STORM SEWER

STRUCTURE #	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1024 APRON ENDWALLS FOR CULVERT REINFORCED CONCRETE 24-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT REINFORCED CONCRETE 36-INCH EACH	524.0630 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH EACH	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	611.0430 RECONSTRUCTING INLETS EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.1003 CATCH BASIN 3-FT DIAMETER EACH	611.1005 CATCH BASIN 5-FT DIAMETER	611.8110 ADJUSTING MANHOLE COVERS	611.8115 ADJUSTING INLET COVERS EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.01 INLET COVERS TYPE H-D EACH	SPV.0090.02 CLEANING STORM SEWER LF
PROJECT 6170-00-73 CATEGORY 0010																
101	---	---	---	---	---	---	1	---	1	---	---	---	---	1	---	40
101A	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---	25
102	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---	55
103	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	10
103A	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	35
104	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---	80
105	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---	60
106	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	85
107	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	64
108	---	---	---	---	---	---	1	---	1	---	---	---	---	1	---	76
108A	---	---	---	---	---	---	1	---	---	---	---	---	---	1	1	44
108F	---	---	---	---	8	---	---	1	---	1	---	---	---	1	---	---
109	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---	95
110	---	---	---	---	---	---	1	---	1	---	---	---	---	1	---	200
111	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	86
112	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	44
113	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	48
114	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	181
115	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	207
116	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	38
117	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	112
118	---	---	---	---	---	---	1	---	---	---	---	---	---	1	---	44
118A	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	115
119	1	---	---	---	---	4	1	---	---	---	---	---	---	1	---	110
120	---	---	---	---	---	---	---	---	---	---	---	---	1	1	---	65
120E	1	1	---	---	---	---	---	---	---	---	---	---	---	1	---	54
121A	---	---	---	---	---	72	---	---	1	---	1	---	---	1	---	---
122E	---	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS	**2**	**1**	**1**	**0**	**8**	**76**	**11**	**1**	**4**	**1**	**1**	**0**	**12**	**27**	**1**	**1973**
PROJECT 6170-00-73 CATEGORY 0020																
301	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15
302	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	66
302E	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
400N	1	---	---	1	---	---	---	---	---	---	---	---	---	1	---	60
400S	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
401A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6
402A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25
403A	---	---	---	---	---	---	---	---	---	---	---	1	---	1	---	60
PROJECT 6170-00-73 CAT 0020 TOTALS	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**232**

3

BEAM GUARD

STA	-	STA	LOC	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF
PROJECT 6170-00-73 CATEGORY 0020				
198+00	-	198+50	RT	50
PROJECT 6170-00-73 CAT 0020 TOTAL				**50.0**

SALVAGED TOPSOIL, EROSION MAT, FERTILIZER, AND SEEDING

STA	LOC	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	627.0200 MULCHING SY	628.2008 E MAT URBAN CLASS I TYPE B SY	630.0500 SEED WATER MGAL
PROJECT 6170-00-73 CATEGORY 0010							
217+09	RT	10	0.01	0	10	---	---
222+40	RT	30	0.02	1	30	---	---
223+00	RT	45	0.03	1	---	45	---
UNDISTRIBUTED		4	---	---	2	2	2
PROJECT 6170-00-73 CAT 0010 TOTALS		**89**	**0.05**	**2**	**42**	**47**	**2**
PROJECT 6170-00-73 CATEGORY 0020							
195+00	RT	---	0.02	1	---	30	---
202+60	RT	---	0.03	1	---	40	---
202+25	LT	---	0.02	1	---	30	---
204+68	RT	---	0.02	1	---	25	---
UNDISTRIBUTED		---	---	---	---	6	3
PROJECT 6170-00-73 CAT 0020 TOTALS		**0**	**0.08**	**4**	**0**	**131**	**3**

SILT FENCE

	628.1504 SILT FENCE FT	628.1520 SILT FENCE MAINT FT
PROJECT 6170-00-73 CATEGORY 0010		
UNDISTRUBUTED	100	100
PROJECT 6170-00-73 CAT 0010 TOTALS	**100**	**100**

CULVERT PIPE CHECKS

LOCATION	628.7555 CULVERT PIPE CHECKS EACH
PROJECT 6170-00-73 CATEGORY 0010	
ENDWALL 120E	2
DRIVE EAST OF 122E	4
UNDISTRIBUTED	4
PROJECT 6170-00-73 CAT 0010 TOTALS	**10**
PROJECT 6170-00-73 CATEGORY 0020	
ENDWALL 400N	4
PROJECT 6170-00-73 CAT 0020 TOTALS	**4**

INLET PROTECTION

STA	-	STA	LOC	628.7570 ROCK BAGS EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH
PROJECT 6170-00-73 CATEGORY 0010						
	108		CHURCH ST	---	1	1
	108F		CHURCH ST	---	---	1
	116		CTH CH	---	---	1
	121A		MADISON ST	---	1	1
UNDISTRUBUTED				20	---	5
PROJECT 6170-00-73 CAT 0010 TOTALS				**20**	**2**	**9**

DITCH RESTORATION

STATION	LOCATION		SPV.0090.01 DITCH RESTORATION LF
PROJECT 6170-00-73 CATEGORY 0010			
223+20	RT	ENDWALL 122E	30
PROJECT 6170-00-73 CAT 0010 TOTALS			30
PROJECT 6170-00-73 CATEGORY 0020			
195+17	RT	ENDWALL 201E	15
204+69	RT	ENDWALL 400S	10
202+25	LT	ENDWALL 501E	6
201+97	RT	ENDWALL 502E	15
PROJECT 6170-00-73 CAT 0020 TOTALS			46

MOBILIZATION EROSION CONTROL

LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
PROJECT 6170-00-73 CATEGORY 0010		
PROJECT	3	2
PROJECT 6170-00-73 CAT 0010 TOTALS	**3**	**2**

FIELD OFFICE

LOCATION	642.5201 FIELD OFFICE TYPE C EACH
PROJECT 6170-00-73 CATEGORY 0010	
PROJECT	1
PROJECT 6170-00-73 CAT 0010 TOTALS	**1**

6170-00-73

3

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF	646.5020 MARKING ARROW EPOXY (WHITE) EACH	646.5120 MARKING WORD EPOXY (WHITE) EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (YELLOW) MED ISLAND LF	646.8220 MARKING ISLAND NOSE EPOXY (YELLOW) MED ISLAND EACH	646.8120 MARKING CURB EPOXY LF
PROJECT 6170-00-73 CATEGORY 0010										
190+00	-	195+44	STH 21	145	---	---	---	194	2	55
196+15	-	197+49	STH 21	133	---	---	---	---	1	10
203+13	-	204+53	STH 21	140	---	---	---	---	1	10
205+75	-	211+41	STH 21	398	2	2	---	18	2	64
219+95	-	222+32	STH 21	154	2	1	---	---	---	---
			NB I39 OFF RAMP	80	---	---	16	---	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS				**1,050**	4	3	16	**212**	**6**	**139**

TYPE II SIGNING

SIGN #		SIGN CODE	MESSAGE	634.0612 POSTS WOOD 4X6 INCH 12 FT EACH	634.0614 POSTS WOOD 4X6 INCH 14 FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
PROJECT 6170-00-73 CATEGORY 0010							
04	05	R1-1	STOP (MADISON ST)	---	1	1	1
PROJECT 6170-00-73 CAT 0010 TOTA			**TOTALS**	**0**	**1**	**1**	**1**
PROJECT 6170-00-73 CATEGORY 0020							
04	- 01	W12-1D	DOUBLE DOWN ARROW	1	---	1	1
04	- 02	R1-1	STOP (NB OFF RAMP)	---	1	1	1
04	03	R6-2-L	ONE WAY (SHARES POST WITH STOP)	---	---	1	---
04	04	R5-1	DO NOT ENTER	---	1	1	1
PROJECT 6170-00-73 CAT 0020 TOTA			**TOTALS**	**1**	**2**	**4**	**3**

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PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.1040 MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) EDGE LF	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) CEN LINE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH (YELLOW) CEN LINE LF	649.0105 TEMOPORARY MARKING LINE PAINT 4-INCH (YELLOW) CEN LINE LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW) CEN LINE LF
PROJECT 6170-00-73 CATEGORY 0010									
115+60	-	121+43	STH 21	1,166	---	1,170	---	2,340	1,170
121+43	-	122+57	STH 21	114	---	230	---	460	230
122+57	-	123+88	STH 21	164	---	260	---	520	260
123+88	-	129+51	STH 21	1,126	---	1,130	---	2,260	1,130
129+51	-	130+46	STH 21	119	---	190	---	380	190
130+46	-	131+51	STH 21	105	---	210	---	420	210
131+51	-	147+00	STH 21	3,098	---	3,100	---	6,200	3,100
147+00	-	157+97	STH 21	2,194	---	1,370	---	2,740	1,370
157+97	-	158+97	STH 21	200	---	25	---	50	25
158+97	-	167+00	STH 21	1,606	---	1,005	---	2,010	1,005
167+00	-	177+76	STH 21	2,152	---	2,150	---	4,300	2,150
177+76	-	178+97	STH 21	151	---	---	240	480	---
178+97	-	179+27	STH 21	30	---	---	60	120	---
179+27	-	180+26	STH 21	---	---	---	200	400	---
180+26	-	180+38	STH 21	---	12	---	20	40	---
180+38	-	181+47	STH 21	---	136	---	220	440	---
181+47	-	190+00	STH 21	---	1,706	---	1,710	3,420	---
190+00	-	193+80	EB STH 21	---	380	---	760	1,520	---
190+00	-	193+80	WB STH 21	---	380	---	760	1,520	---
193+80	-	194+48	STH 21	---	136	---	70	140	---
194+48	-	195+18	STH 21	---	70	---	70	140	---
195+18	-	195+44	STH 21	---	---	---	25	50	---
195+44	-	195+53	STH 21	---	---	---	---	---	---
195+53	-	195+98	STH 21	---	45	---	---	---	---
195+98	-	196+23	STH 21	---	50	---	---	---	---
196+23	-	204+45	STH 21	---	1,644	---	1,640	3,280	---
204+45	-	204+87	STH 21	---	84	---	---	---	---
204+87	-	205+29	STH 21	---	42	---	---	---	---
205+29	-	205+75	STH 21	---	---	---	---	---	---
205+75	-	209+16	STH 21	---	85	---	---	---	---
209+16		210+47	EB STH 21	---	33	---	260	520	---
209+16		210+47	WB STH 21	---	33	---	260	520	---
210+47		211+41	STH 21	---	24	---	190	380	---
211+41	-	221+09	STH 21	---	484	---	1,940	3,880	---
221+09	-	221+69	STH 21	---	15	---	120	240	---
221+69	-	224+72	STH 21	---	303	---	610	1,220	---
IH 39 NB OFF RAMP			STH 21	---	72	---	---	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS				**12,225**	5,734	10,840	**9,155**	**39,990**	**10,840**
					16,574				

TRAFFIC CONTROL

STAGE	DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS # REQ'D	643.0300 DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II # REQ'D	643.0410 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III # REQ'D	643.0420 DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A # REQ'D	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C # REQ'D	643.0715 DAYS	643.0900 TRAFFIC CONTROL SIGNS # REQ'D	643.0900 DAYS	643.0910 COVERING SIGNS TYPE I CYCLES	643.0910 #	643.0910 EACH	643.0920 COVERING SIGNS TYPE II CYCLES	643.0920 #	643.0920 EACH	643.1050 TRAFFIC CONTROL PCMS # REQ'D	643.1050 DAYS	643.5000 TRAFFIC CONTROL EACH
PROJECT 6170-00-73 CATEGORY 0010																							
PROJECT 6170-00-73		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1
OSOW SIGNING	90	---	---	---	---	---	---	---	---	---	---	20	1800	---	---	---	---	---	---	---	---	---	
STAGE 1 AB ADVANCE SIGNING	30	---	---	---	---	---	---	---	---	---	---	20	600	---	---	---	---	---	---	---	---	---	
STAGE 1A	15	150	2250	2	30	17	255	36	540	20	300	34	510	---	---	---	1	5	5	---	---	---	
STAGE 1B	15	140	2100	2	30	15	225	32	480	5	75	32	480	---	---	---	---	---	---	---	---	---	
STAGE 1 CD ADVANCE SIGNING	30	---	---	---	---	---	---	---	---	---	---	19	570	---	---	---	---	---	---	---	---	---	
STAGE 1C	15	110	1650	---	---	18	270	36	540	10	150	32	480	---	---	---	---	---	---	---	---	---	
STAGE 1D	15	115	1725	---	---	19	285	38	570	10	150	30	450	---	---	---	---	---	---	---	---	---	
STAGE 1 CD RAMP CLOSURE	30	15	450	---	---	4	120	8	240	---	---	8	240	1	1	1	1	1	1	1	7	---	
STAGE 1 CD RAMP DETOUR	30	---	---	---	---	---	---	---	---	---	---	22	660	---	---	---	---	---	---	---	---	---	
STAGE 2 ADVANCE SIGNING	30	---	---	---	---	---	---	---	---	---	---	20	600	---	---	---	---	---	---	---	---	---	
STAGE 2 - LANE CONFIGURATION	30	105	3150	---	---	10	300	20	600	5	150	24	720	---	---	---	---	---	---	---	---	---	
STAGE 2 RAMP MOVEMENTS -TO IH 39	32	10	320	---	---	4	128	8	256	---	---	23	736	---	---	---	14	3	42	1	32	---	
STAGE 2 RAMP MOVEMENTS -FROM IH 39	32	10	320	---	---	4	128	8	256	---	---	12	384	---	---	---	18	1	18	1	32	---	
STAGE 2 UNDISTRIBUTED-SHIFTS ETC	30	20	600	---	---	2	60	4	120	---	---	6	180	---	---	---	---	---	---	---	---	---	
PROJECT 6170-00-73 CAT 0010 TOTALS			**12,565**		**60**		**1,771**		**3,602**		**825**		**8,410**			**1**			**66**		**71**		**1**

TEMPORARY TRAFFIC SIGNAL

STAGE	661.0100 TEMP TRAFFIC SIGNAL FOR BRIDGES 01. WEST END LS	661.0100 TEMP TRAFFIC SIGNAL FOR BRIDGES 02. EAST END LS
PROJECT 6170-00-73 CATEGORY 0010		
STAGES 1AB	1	---
STAGES 1CD	---	1
PROJECT 6170-00-73 CAT 0010 TOTAL	**1**	**1**

PAVEMENT MARKING (TRAFFIC CONTROL)

STAGE	LOCATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF
PROJECT 6170-00-73 CATEGORY 0010				
1A	WEST TEMP SIG	960	250	24
1B	WEST TEMP SIG	---	250	---
1CD	NB OFF RAMP	---	200	---
1C	EAST TEMP SIG	1,130	470	24
1D	EAST TEMP SIG	---	375	---
PROJECT 6170-00-73 CAT 0010 TOTALS		**2,090**	**1,545**	**48**

CONSTRUCTION STAKING

STA	-	STA	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB AND GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9910 CONSTRUCTION STAKING SUPPLIMENTAL CONTROL PROJECT LS
PROJECT 6170-00-73 CATEGORY 0010								
PROJECT			STH 21	---	---	---	---	1
117+60	-	222+72	STH 21	---	---	10,512	1	---
			CTH CH	44	56	---	---	---
			MADISON ST	20	40	---	---	---
PROJECT 6170-00-73 CAT 0010 TOTALS				**64**	**96**	**10,512**	**1**	**1**
PROJECT 6170-00-73 CATEGORY 0020								
			IH 39 NB OFF RAMP	85	206	---	---	---
PROJECT 6170-00-73 CAT 0020 TOTALS				**85**	**206**	**0**	**0**	**0**

ADJUSTING LOCAL UTILITY

STATION	SPV.0060.02 ADJUSTING WATER MAIN VALVE BOX EACH	SPV.0060.03 ADJUSTING SANITARY MANHOLE COVERS EACH
PROJECT 6170-00-73 CATEGORY 0030		
217+75 RT	1	---
218+50 RT	---	1
220+00 LT	---	1
PROJECT 6170-00-73 CAT 0030 TOTALS	**1**	**2**

SAWING

LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
PROJECT 6170-00-73 CATEGORY 0010		
ADJACENT TO OUTSIDE CURB EB	---	1,700
ADJACENT TO OUTSIDE CURB WB	---	1,682
FROM BUTT JOINTS	178	---
FROM REMOVING ASPHALT SURFACE	571	---
FROM BASE PATCHING	196	990
FROM REMOVING CONCRETE PAVEMENT	---	90
FROM REMOVING C&G	---	721
FROM REMOVING SIDEWALK	---	10
UNDISTRIBUTED	50	260
PROJECT 6170-00-73 CAT 0010 TOTALS	**995**	**5453**
PROJECT 6170-00-73 CATEGORY 0020		
ADJACENT TO SB ON RAMP	---	136
ADJACENT TO SB OFF RAMP	---	159
FROM BUTT JOINTS	---	136
FROM REMOVING ASPHALT SURFACE	9	---
FROM REMOVING CONCRETE PAVEMENT	---	120
FROM REMOVING C&G	---	83
UNDISTRIBUTED	5	35
PROJECT 6170-00-73 CAT 0020 TOTALS	**14**	**669**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT NO. 6170-00-23
VILLAGE OF COLOMA
3RD LANE TO MADISON STREET
S.T.H. "21"
WAUSHARA COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE
PARALLEL OFFSETS

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (AS NOTED)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		
LIGHT POLE		
FIRE HYDRANT		
WATER VALVE		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER (25)
UTILITY NUMBER (40)
EXISTING MONUMENT NUMBER
R/W BOUNDARY POINT NUMBER

CONVENTIONAL ABBREVIATIONS

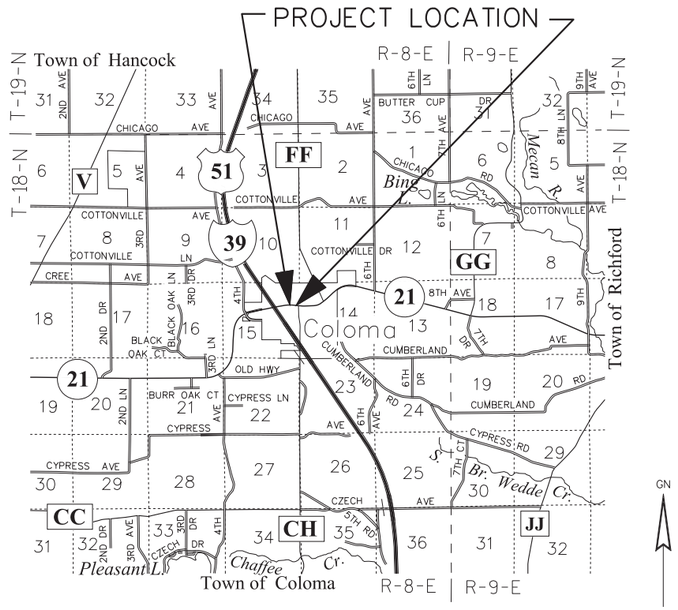
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	P.L.
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS



LAYOUT
SCALE 0 1 MI.

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6170-00-23.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WAUSHARA COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY CAPPED 1" X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE 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. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN NC REGION, WI.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TRANSPORTATION PROJECT PLAT DETAIL SHEETS.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TRANSPORTATION PROJECT PLAT DETAIL SHEETS.

4

PROJECT NUMBER 6170-00-23 - 4. 01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\SURVEY\C3D\TPP_STH21_6170-00-03_C3D2018.DWG
LAYOUT NAME: TPP Title Sheet
PLOT DATE : February 11, 2021 PLOT BY : KOLBY SCHERTZ PLOT NAME : S.T.H. 21
APPRAISAL PLAT DATE : 2/3/2021

TRANSPORTATION PROJECT PLAT NO: 6170-00-23 - 4.01

LOCATED IN PART OF LOT 7, BLOCK 1, COLOMA STATION RAILROAD PLAT, BEING PART OF LOT 2 CSM NO. 6440, VOL. 37, PG. 4, DOCUMENT NO. 506364; LOCATED IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 18 NORTH, RANGE 8 EAST, VILLAGE OF COLOMA, WAUSHARA COUNTY, WISCONSIN

RELOCATION ORDER S.T.H. "21", VILLAGE OF COLOMA (3RD LANE TO MADISON STREET) WAUSHARA COUNTY

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

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

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

Document Number: 530082
Waushara County, Wisconsin
Heather Schwersenska,
Register of Deeds
Recorded On:
02/12/2021 12:33:45 PM
Number of Pages: 2

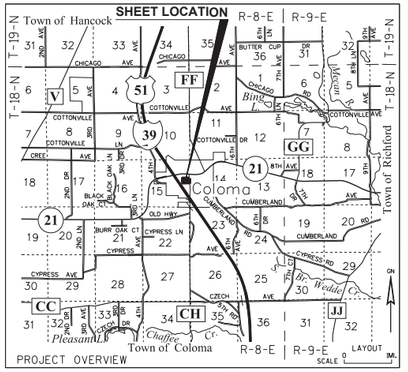
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6170-00-23 - 4.01
SHEET 1 OF 2
AMENDMENT NO:___

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
TIE9-10	N89°54'58"W	44.68'
10-11	N0°22'57"E	65.50'
11-12	S89°03'46"W	15.63'
12-13	S0°01'31"W	65.24'
13-14	N89°58'29"W	66.00'
14-15	N0°01'31"E	70.74'
15-16	N89°58'33"W	7.00'
16-17	N0°01'31"E	29.27'
17-18	N89°34'28"W	152.97'
18-19	N0°02'03"E	7.75'
19-20	N6°11'14"E	44.84'
20-21	N6°11'14"E	47.89'
21-22	S89°35'52"E	150.02'
22-23	S89°58'29"E	66.00'
23-24	S0°01'31"W	27.99'
24-25	S87°09'06"E	60.15'
25-8	S0°05'02"W	45.62'
8-TIE9	S0°05'02"W	123.51'

SCHEDULE OF LANDS AND INTERESTS REQUIRED		OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT				
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SF REQUIRED			TLE SF REQUIRED
			NEW	EXISTING	TOTAL	
10	PLACH ENTERPRISES LLC	FEE, TLE	205	-	205	446

BASIS OF EXISTING R/W TABLE			
ROAD NAME	PROJECT / SURVEY	DOCUMENT NO.	YEAR
S.T.H. "21"	1162-01-21	-	1980
S.T.H. "21"	1162-01-24	-	1980
S.T.H. "21"	4382	-	-
S.T.H. "21"	CSM #6440	506364	2017
NORTH LITHO STREET	CSM #4490	380016	2001
COUNTY ROAD "CH"	COLOMA STATION RAILROAD PLAT	PLTA19A	1877
NORTH FRONT STREET	COLOMA STATION RAILROAD PLAT	PLTA19A	1877

SHEET LOCATION



EXISTING MONUMENTS			
Point #	Y COORDS	X COORDS	DESCRIPTION
PROP101	119659.562	319806.165	2" I.D. IRON PIPE
PROP104	119460.618	319976.019	3/4" IRON ROD
PROP105	119483.287	319956.029	3/4" IRON ROD
PROP106	119484.420	319806.035	3/4" IRON ROD
PROP107	119383.245	319805.963	3/4" IRON ROD
PROP108	119357.139	320125.980	CHISELED "X"
PROP109	119401.538	320567.428	3/4" IRON ROD
PROP110	119297.223	320322.238	3/4" IRON ROD
PROP111	119165.677	320322.623	1" I.D. IRON PIPE
PROP112	119165.711	320309.012	1" I.D. IRON PIPE
PROP113	119153.710	320309.052	1" I.D. IRON PIPE
PROP115	119153.023	320256.464	3/4" IRON ROD
PROP116	119306.709	320257.489	3/4" IRON ROD
PROP117	119159.587	319805.806	2" I.D. IRON PIPE
PROP118	119238.706	320015.904	1" I.D. IRON PIPE
PROP119	119259.406	319984.703	PK NAIL
PROP408	119358.189	319984.692	1" IRON ROD
PROP413	119425.442	320268.255	3/4" IRON ROD
PROP414	119429.704	320189.819	3/4" IRON ROD
PROP417	118932.941	320191.793	1" I.D. IRON PIPE
PROP418	118756.701	320191.716	1" I.D. IRON PIPE
PROP419	119657.210	320126.107	2" I.D. IRON PIPE

SECTION COURSE TABLE		
COURSE	BEARING	DISTANCE
6-7	N 0°05'02" E	2655.82'
6-TIE9	N 0°05'02" E	897.95'
TIE9-8	N 0°05'02" E	123.51'
8-25	N 0°05'02" E	45.62'
25-7	N 0°05'02" E	1588.74'

UTILITY EASEMENT TABLE			
UTILITY NO.	PARCEL NO.	INTEREST DESCRIPTION	RECORDING DATA
100	10	RIGHT-OF-WAY EASEMENT	DOC. 473197
		RIGHT-OF-WAY EASEMENT	DOC. 473522

UTILITY INTERESTS REQUIRED		
UTILITY NO.	OWNER(S)	INTEREST REQUIRED
100	VILLAGE OF COLOMA WATER UTILITY	RELEASE OF RIGHTS

STATION & OFFSET TABLE TO S.T.H. 21 ALIGNMENT				
POINT	STATION	OFFSET	Y COORDS	X COORDS
10	218+12.32	127.51' RT	119257.139	320207.157
11	218+05.79	62.33' RT	119322.642	320207.594
12	217+90.28	64.25' RT	119322.386	320191.965
13	217+97.19	129.12' RT	119257.145	320191.936
14	217+31.56	136.11' RT	119257.174	320125.936
15	217+24.07	65.77' RT	119327.915	320125.967
16	217+17.11	66.51' RT	119327.918	320118.967
17	217+14.01	37.40' RT	119357.191	320118.980
18	215+61.78	52.54' RT	119358.328	319966.011
19	215+60.96	44.84' RT	119366.074	319966.016
21	215+61.10	47.89' LT	119458.260	319976.010
22	217+10.37	62.79' LT	119457.207	320126.024
23	217+76.00	69.78' LT	119457.178	320192.024
24	217+78.97	41.95' LT	119429.183	320192.011
25	218+39.02	45.36' LT	119426.194	320252.090
TIE9	218+56.76	122.82' RT	119257.073	320251.842
TLE50	217+25.02	74.74' RT	119318.899	320125.963
TLE51	217+08.12	76.54' RT	119318.906	320108.963
TLE52	217+04.05	38.39' RT	119357.266	320108.980

S.T.H."21" R/L CURVE DATA
CURVE 1
PI STA = 220+43.85
Y = 119359.305
X = 320450.934
Δ = 7°01'54" LT
D = 3°00'00"
T = 117.34'
L = 234.39'
R = 1909.86'
LC = 234.25'
LCB = S87°24'40"E
PC STA = 219+26.51
Y = 119371.784
X = 320334.256
PT STA = 221+60.90
Y = 119361.203
X = 320568.262
DB = S83°53'43"E
DA= N89°04'23"E

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WAUSHARA COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY CAPPED 1" X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN NC REGION, WI.

FOR ADDITIONAL INFORMATION, REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF THIS DOCUMENT IN THE OFFICE OF THE WAUSHARA COUNTY REGISTER OF DEED'S.

T.L.E.'S ARE REQUIRED FOR SLOPE BLENDING AND MAY EXTEND TO BUILDING FACES, BUILDINGS WILL NOT BE ADVERSELY AFFECTED.

ACCESS RIGHTS SHOWN PER PROJECT 1162-01-24

QUEST
Civil Engineers, LLC
320 West Grand Avenue, Suite 302
Wisconsin Rapids, WI 54495
Office: 715-423-3525
Fax: 715-423-3597

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

WISCONSIN KOLBY F. SCHERTZ S-2862 SEYMOUR WI LAND SURVEYOR

SIGNATURE: Kolby F. Scherty DATE: 2/11/2021
PRINT NAME: KOLBY F. SCHERTZ
REGISTRATION NUMBER: S-2862

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

SIGNATURE: Brent L Stella DATE: 2/11/2021
PRINT NAME: BRENT L. STELLA

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\SURVEY\C3D\TPP_STH21_6170-00-03_C3D2018.DWG
APPRAISAL PLAT DATE : 2/3/2021
PLOT DATE : February 11, 2021 PLOT BY : KFS PLOT NAME : S.T.H. 21 PLOT SCALE : 1" = 50'

BEGIN PROJECT
STA 117+60
N= 114426.642
E= 313265.466
BUTT JOINT REQUIRED

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

N

121+01.31

STA 117+60 BEGIN
CENTERLINE RUMBLE STRIPS

PAVEMENT REPAIR LEGEND:

- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES
- CURB AND GUTTER REPLACEMENT
- CONCRETE PAVEMENT REPLACEMENT
- 30A CURB AND GUTTER 30" TYPE (A OR D)

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

BUTT JOINT REQUIRED

3RD LANE

PC: 121+05.69

REMOVING ASPHALTIC SURFACE (FULL DEPTH)
3" ASPHALTIC SURFACE PATCHING

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

N

128+01.31

121+01.31

B.A.D.
F.E.

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

ALLIANT ENERGY-
OVERHEAD ELECTRIC

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 92 E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (1)

PLOT DATE : 11/29/2021 7:41 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

135+01.31

REMOVING ASPHALTIC SURFACE (FULL DEPTH)
3" ASPHALTIC SURFACE PATCHING

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

OLD HWY 21

BUTT JOINT REQUIRED

PAVEMENT REPAIR LEGEND:

- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES
- CURB AND GUTTER REPLACEMENT
- CONCRETE PAVEMENT REPLACEMENT
- 30A CURB AND GUTTER 30" TYPE (A OR D)

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

PI STA = 138+78.29
Y = 114423.793
X = 315383.534
DELTA = 85°43'50"
D = 3°00'00"
T = 1772.60'
L = 2857.69'
R = 1909.86'
PC STA = 121+05.69
PT STA = 149+63.38
SE= 5.5%
TTL= 225'

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

B.A.D.
P.E.

142+01.31

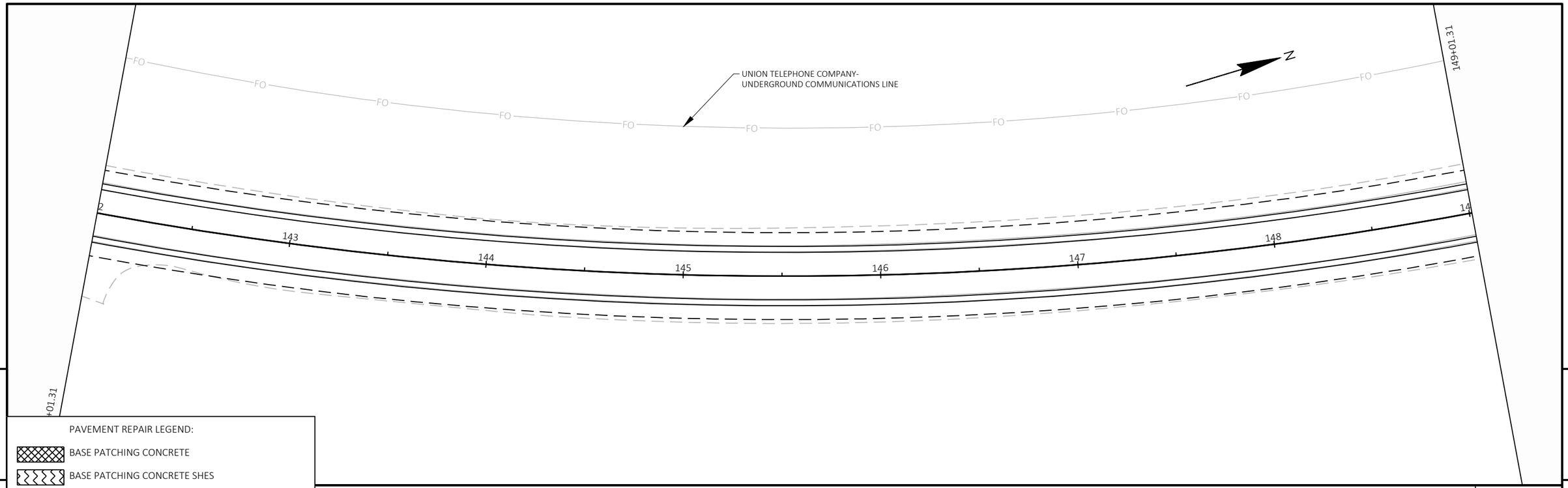
135+01.31

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 93	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (2)

PLOT DATE : 11/29/2021 7:41 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44



5

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 94	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (3)
PLOT DATE : 11/29/2021 7:41 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

PAVEMENT REPAIR LEGEND:

- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES
- CURB AND GUTTER REPLACEMENT
- CONCRETE PAVEMENT REPLACEMENT
- 30A CURB AND GUTTER 30" TYPE (A OR D)

FO

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

N

163+01.31

6 157 158 159 160 161 162 16

N4° 20' 47"E

B.A.D.
F.E.

5

5

FO

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

B.A.D.
F.E.

POST

N

170+01.31

PC: 164+72.84

164 165 166 167 168 169 17

N4° 20' 47"E

163+01.31

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 95	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (4)

PLOT DATE : 11/29/2021 7:41 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT

PI STA = 175+95.72
Y = 118816.058
X = 315717.375
DELTA = 76°11'13"
D = 4°00'00"
T = 1122.87'
L = 1904.67'
R = 1432.39'
PC STA = 164+72.84
PT STA = 183+77.51
SE= 6.0%
TTL= 220'

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

177+01.31

PAVEMENT REPAIR LEGEND:

- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES
- CURB AND GUTTER REPLACEMENT
- CONCRETE PAVEMENT REPLACEMENT
- 30A CURB AND GUTTER 30" TYPE (A OR D)

BUTT JOINT REQUIRED

WE ENERGIES-
UNDERGROUND GAS LINE

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

184+01.31

UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE

STA 177+75 END CENTERLINE
RUMBLE STRIPS

PT: 183+77.51

REMOVING ASPHALTIC SURFACE (FULL DEPTH)
ASPHALTIC SURFACE PATCHING

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

177+01.31

BUTT JOINT REQUIRED

4TH AVENUE

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 96	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (5)
PLOT DATE : 11/29/2021 7:42 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT

PAVEMENT REPAIR LEGEND:

- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES
- CURB AND GUTTER REPLACEMENT
- CONCRETE PAVEMENT REPLACEMENT
- 30A CURB AND GUTTER 30" TYPE (A OR D)

914

WE ENERGIES-
UNDERGROUND GAS LINE

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

N

191+01.31

SIGN
SIGN

185 186 187 188 189 190

N80° 32' 01"E

GUY

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

CONTROL POINTS					
POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
914	185+30.99	-91.200	119115.94	316961.35	CP IP1 CAP

POST

ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE

WE ENERGIES-
UNDERGROUND GAS LINE

MP

SB OFF RAMP

SENSITIVE AREA

198+01.31

192 193 194 195 196 197

N80° 32' 01"E

SB ON RAMP

SENSITIVE AREA

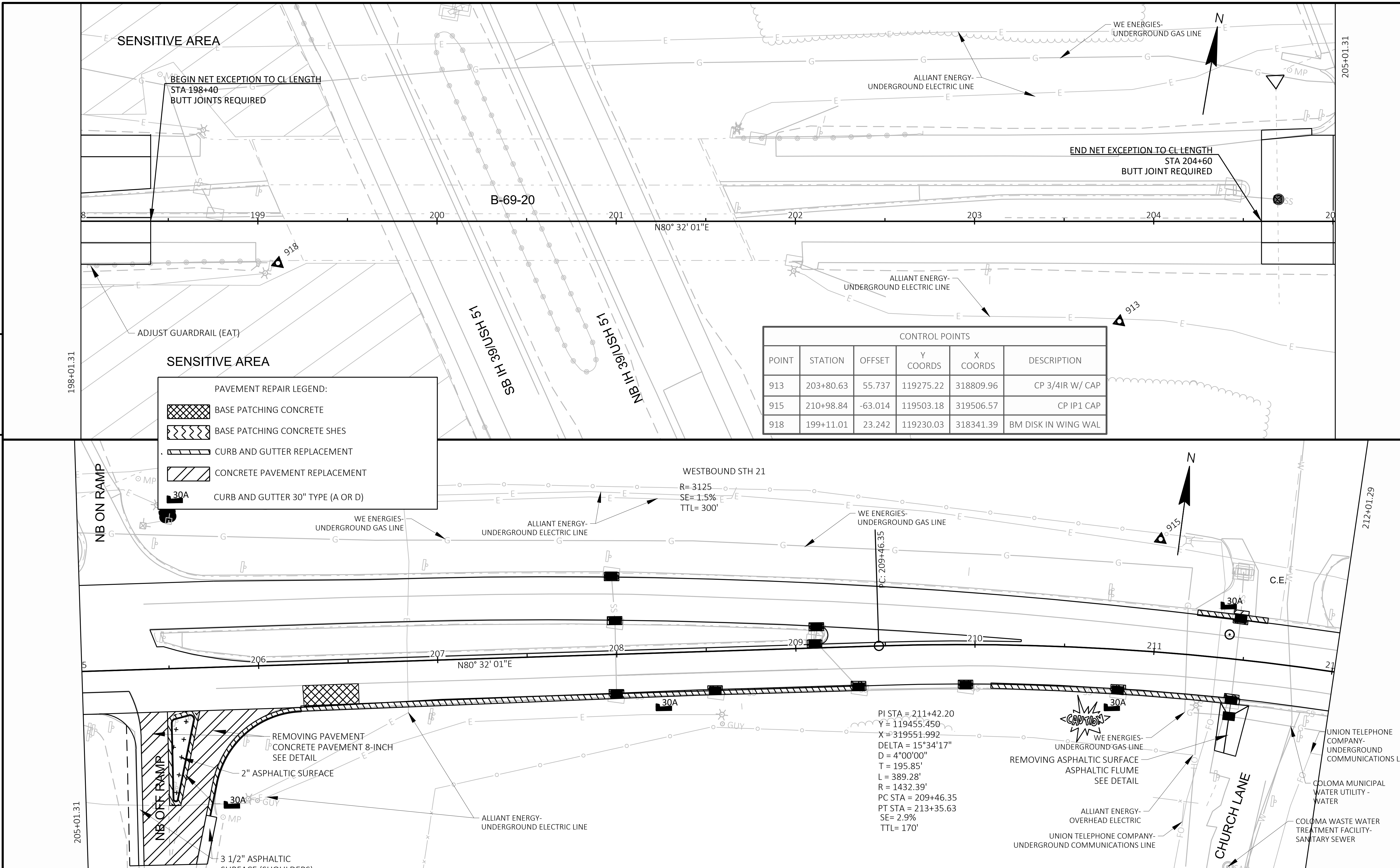
191+01.31

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 97	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (6)

PLOT DATE : 11/29/2021 7:42 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44


SENSITIVE AREA
BEGIN NET EXCEPTION TO CL LENGTH
STA 198+40
BUTT JOINTS REQUIRED
WE ENERGIES-
UNDERGROUND GAS LINE
ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE
N
205+01.31
END NET EXCEPTION TO CL LENGTH
STA 204+60
BUTT JOINT REQUIRED
B-69-20
199
200
201
202
203
204
N80° 32' 01"E
918
ADJUST GUARDRAIL (EAT)
SB IH 39/USH 51
NB IH 39/USH 51
ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE
913
SENSITIVE AREA
198+01.31
5
5
PAVEMENT REPAIR LEGEND:
BASE PATCHING CONCRETE
BASE PATCHING CONCRETE SHES
CURB AND GUTTER REPLACEMENT
CONCRETE PAVEMENT REPLACEMENT
30A CURB AND GUTTER 30" TYPE (A OR D)
NB ON RAMP
WESTBOUND STH 21
R= 3125
SE= 1.5%
TTL= 300'
WE ENERGIES-
UNDERGROUND GAS LINE
ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE
WE ENERGIES-
UNDERGROUND GAS LINE
PC: 209+46.35
915
212+01.29
C.E.
30A
206
207
208
209
210
211
N80° 32' 01"E
30A
30A
REMOVING PAVEMENT
CONCRETE PAVEMENT 8-INCH
SEE DETAIL
2" ASPHALTIC SURFACE
NB OFF RAMP
30A
3 1/2" ASPHALTIC
SURFACE (SHOULDERS)
205+01.31
ALLIANT ENERGY-
UNDERGROUND ELECTRIC LINE
PI STA = 211+42.20
Y = 119455.450
X = 319551.992
DELTA = 15°34'17"
D = 4°00'00"
T = 195.85'
L = 389.28'
R = 1432.39'
PC STA = 209+46.35
PT STA = 213+35.63
SE= 2.9%
TTL= 170'
CAUTION
WE ENERGIES-
UNDERGROUND GAS LINE
REMOVING ASPHALTIC SURFACE
ASPHALTIC FLUME
SEE DETAIL
ALLIANT ENERGY-
OVERHEAD ELECTRIC
UNION TELEPHONE COMPANY-
UNDERGROUND COMMUNICATIONS LINE
CHURCH LANE
UNION TELEPHONE
COMPANY-
UNDERGROUND
COMMUNICATIONS LINE
COLOMA MUNICIPAL
WATER UTILITY -
WATER
COLOMA WASTE WATER
TREATMENT FACILITY-
SANITARY SEWER

CONTROL POINTS

POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
913	203+80.63	55.737	119275.22	318809.96	CP 3/4IR W/ CAP
915	210+98.84	-63.014	119503.18	319506.57	CP IP1 CAP
918	199+11.01	23.242	119230.03	318341.39	BM DISK IN WING WAL

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 98	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (7) (1)
PLOT DATE : 11/29/2021 7:42 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

PAVEMENT REPAIR LEGEND:

- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES
- CURB AND GUTTER REPLACEMENT
- CONCRETE PAVEMENT REPLACEMENT
- 30A CURB AND GUTTER 30" TYPE (A OR D)

ALLIANT ENERGY- UNDERGROUND ELECTRIC LINE

ALLIANT ENERGY- OVERHEAD ELECTRIC

PT: 213+35.63

SECOND AVENUE

WE ENERGIES- UNDERGROUND GAS LINE

CAUTION

ALLEY

UNION TELEPHONE COMPANY- UNDERGROUND COMMUNICATIONS LINE

WE ENERGIES- UNDERGROUND GAS LINE

FRONT STREET

N

UNION TELEPHONE COMPANY- UNDERGROUND COMMUNICATIONS LINE

WE ENERGIES- UNDERGROUND GAS LINE

CAUTION

P.E.

219+01.26

ADJUSTING SANITARY MANHOLE COVERS

213 214 215 216 217 218

S83° 53' 43"E

30D

COLOMA MUNICIPAL WATER UTILITY -WATER

C.E.

911

ADJUSTING WATER VALVE MAIN BOX

REMOVING ASPHALTIC SURFACE
BASE AGGREGATE DENSE 1 1/4-INCH
4" HMA PAVEMENT 4 MT 58-28 S

WE ENERGIES- UNDERGROUND GAS LINE

SECOND AVENUE

UNION TELEPHONE COMPANY- UNDERGROUND COMMUNICATIONS LINE

COLOMA WASTE WATER TREATMENT FACILITY- SANITARY SEWER

REMOVING PAVEMENT
BASE AGGREGATE DENSE 1 1/4-INCH
4" HMA PAVEMENT 4 MT 58-28 S

RECONSTRUCT CURB RAMP

ALLEY

ALLIANT ENERGY- OVERHEAD ELECTRIC

CTH CH

ALLIANT ENERGY- OVERHEAD ELECTRIC

PI STA = 220+43.85
Y = 119359.305
X = 320450.934
DELTA = 7°01'54"
D = 3°00'00"
T = 117.34'
L = 234.39'
R = 1909.86'
PC STA = 219+26.51
PT STA = 221+60.90
NC

UNION TELEPHONE COMPANY- UNDERGROUND COMMUNICATIONS LINE

REMOVING ASPHALTIC SURFACE
BASE AGGREGATE DENSE 1 1/4-INCH
3" HMA PAVEMENT 3 MT 58-28 S

WE ENERGIES- UNDERGROUND GAS LINE

CAUTION

PC: 219+26.51

ADJUSTING SANITARY MANHOLE COVERS

COLOMA WASTE WATER TREATMENT FACILITY-

P.E.

PT: 221+60.90

WE ENERGIES- UNDERGROUND GAS LINE

CAUTION

910

P.E.

END PROJECT
STA 222+72
BUTT JOINT REQUIRED

219+01.26

220 221 222X 223 224

30A 30D

REPLACE CURB

P.E.

GUY

RECONSTRUCT INTERSECTION RADIUS

COLOMA MUNICIPAL WATER UTILITY - WATER

ALLIANT ENERGY- OVERHEAD ELECTRIC

UNION TELEPHONE COMPANY- UNDERGROUND COMMUNICATIONS LINE

FIRST STREET

WE ENERGIES- UNDERGROUND GAS LINE

UNION TELEPHONE COMPANY- UNDERGROUND COMMUNICATIONS LINE

MADISON STREET

CONTROL POINTS

POINT	STATION	OFFSET	Y COORDS	X COORDS	DESCRIPTION
910	222+83.44	-35.468	119398.65	320690.21	CP 3/4IR W/ CAP
911	217+99.82	57.101	119328.48	320202.21	CP 3/4IR W/ CAP

PROJECT NO: 6170-00-73	HWY: STH 21	COUNTY: WAUSHARA	PLAN: STH 21	SHEET 99	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6170-00-03 (STH 21)\C3D\SHEETSPLAN\050101-PP-21NEW.DWG
LAYOUT NAME - (8) (2)

PLOT DATE : 11/29/2021 7:42 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

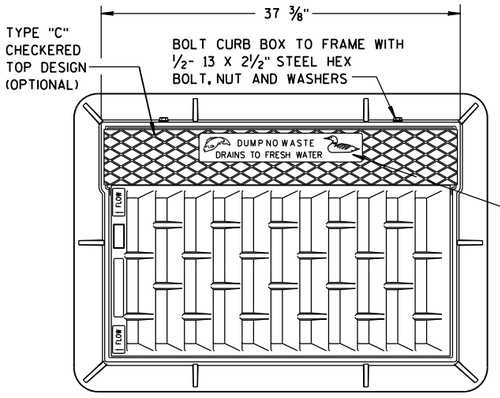
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
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
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C19-03	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
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-05B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-05C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D06-04	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D33-06	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-02A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D50-01A	TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT
15D50-01B	TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

6

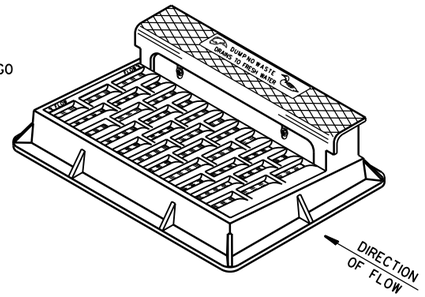
Standard Detail Drawing List

16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

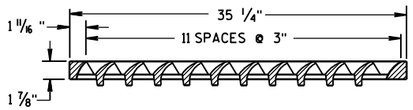
6

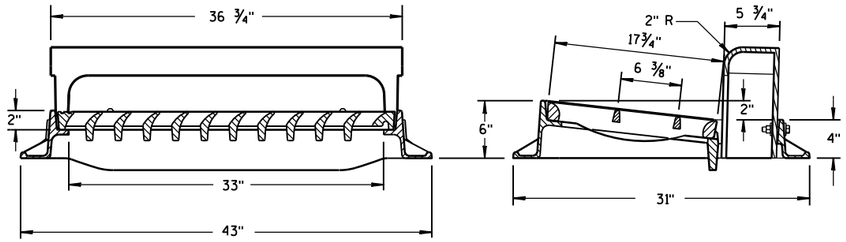


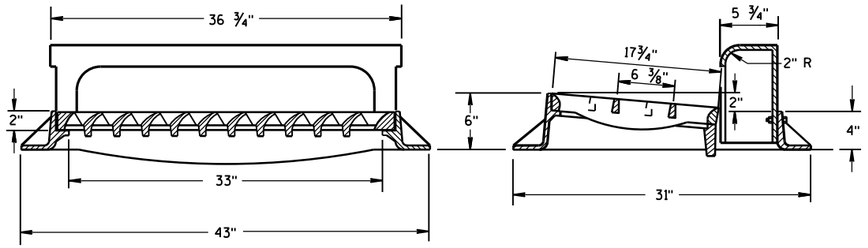
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

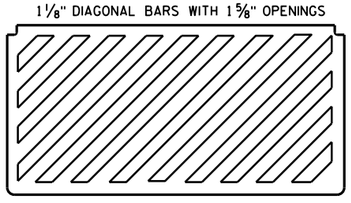






TYPE "H"

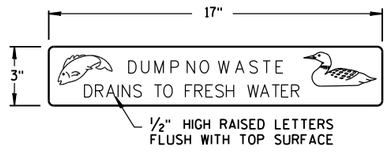
NOTE: EITHER CASTING IS ACCEPTABLE



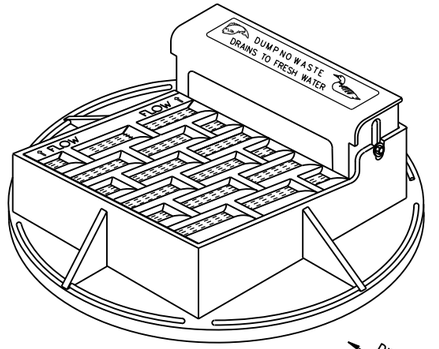
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

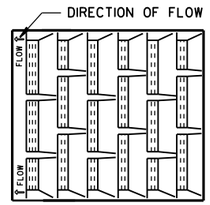
NOTE:
GRATE IS REVERSIBLE.

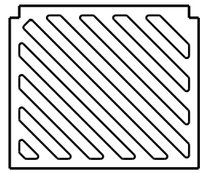
GENERAL NOTES

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

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

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

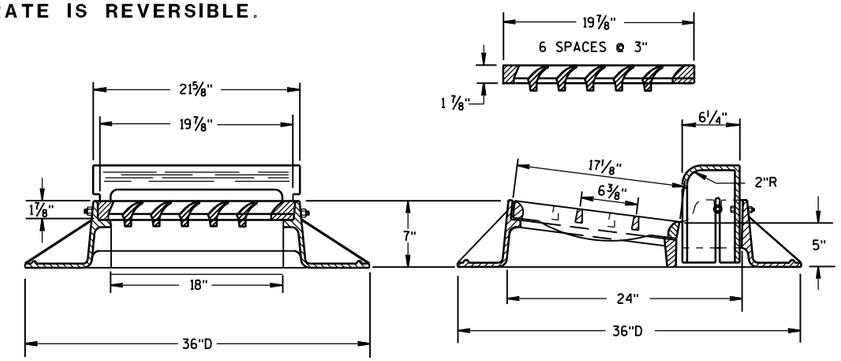




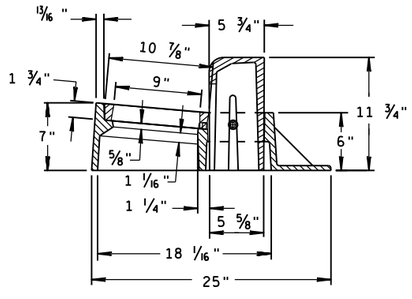
SPECIAL GRATE FOR TYPE "A" COVER

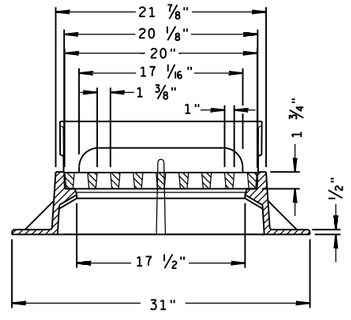
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

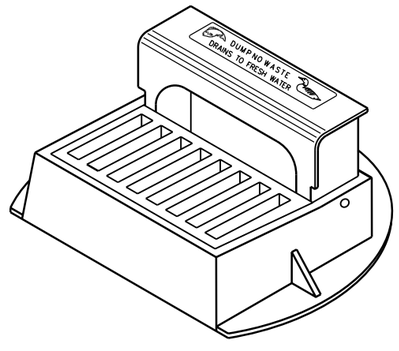


TYPE "A"





TYPE "Z"



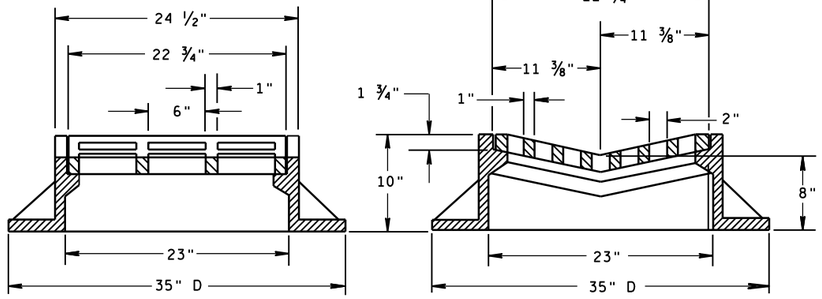
INLET COVERS
TYPE A, H, A-S, H-S & Z

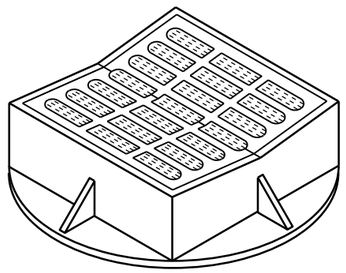
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

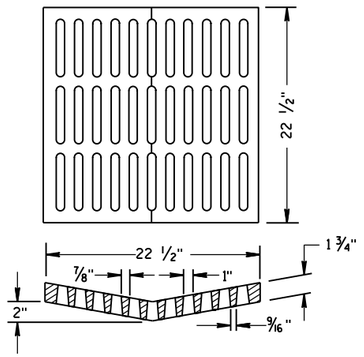
6

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



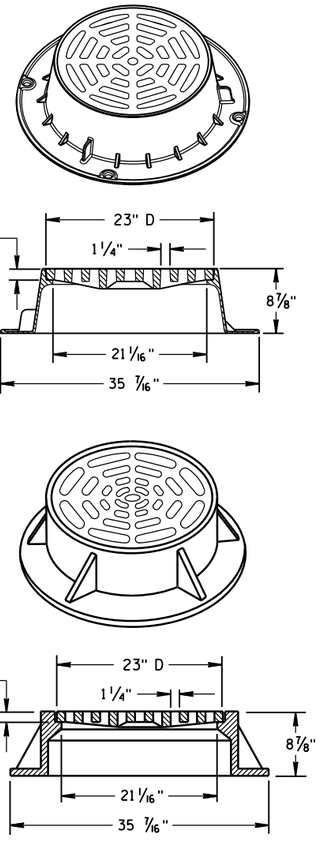


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

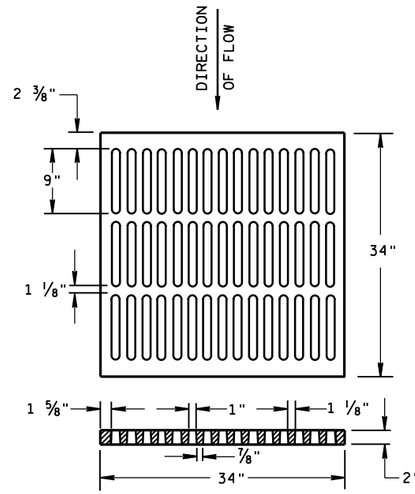
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

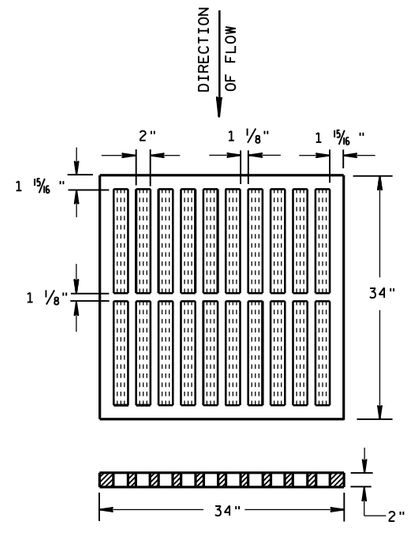
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



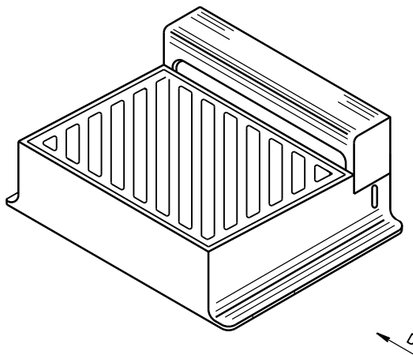
ALTERNATIVE TYPE "MS"

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

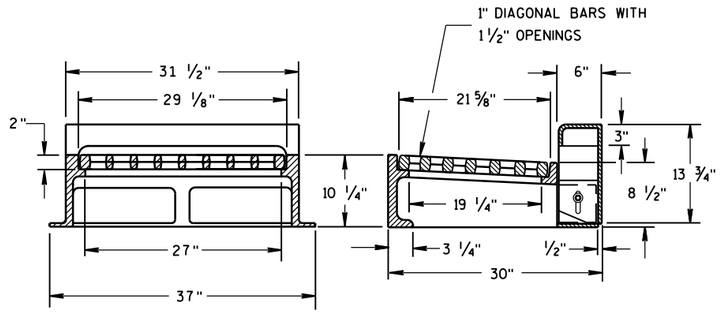


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

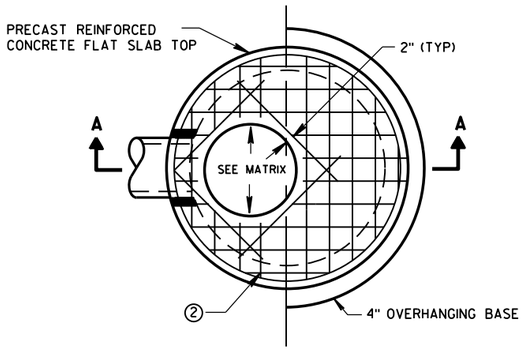
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

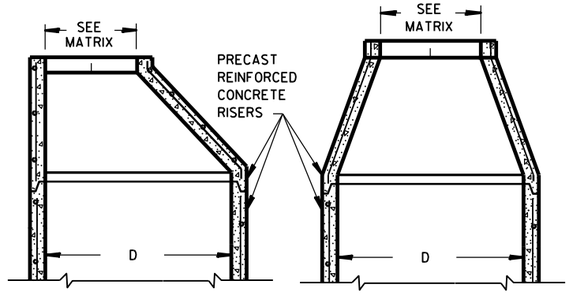
APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

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

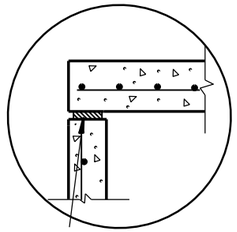


PLAN VIEW CIRCULAR OPENING

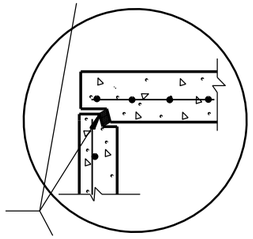


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

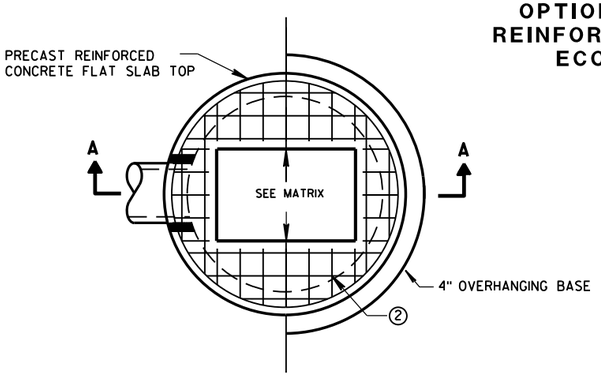
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



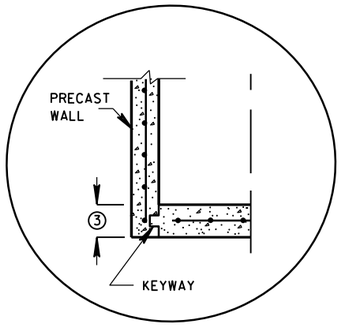
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

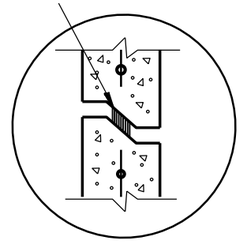


PLAN VIEW RECTANGULAR OPENING



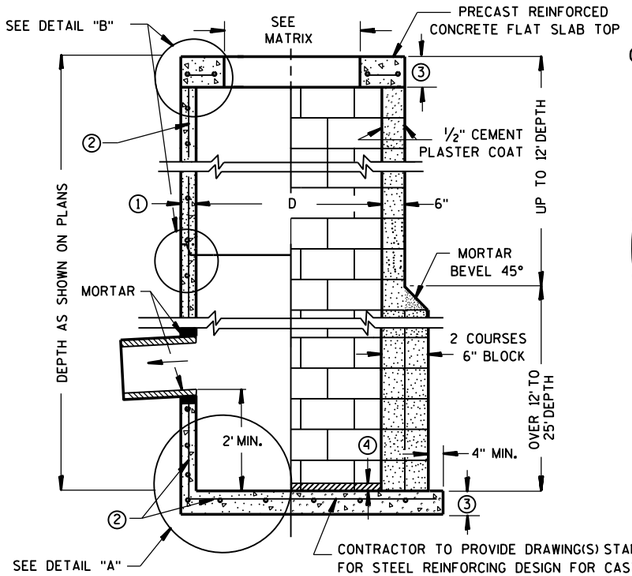
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



RISER WITH TONGUE AND GROOVE JOINT

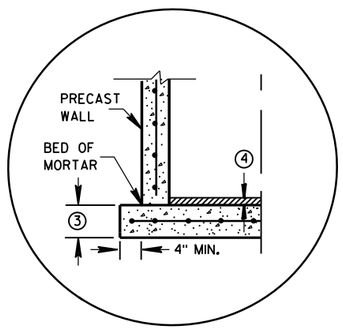
DETAIL "B"



SECTION A-A

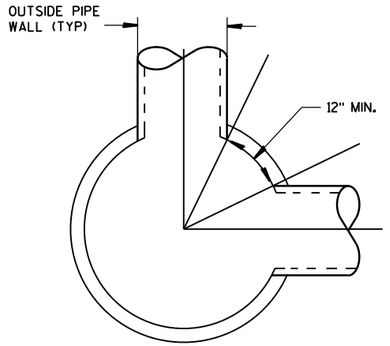
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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



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 CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

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

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, 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 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

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

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

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

② FOR PRECAST CATCH BASINS 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".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN 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	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

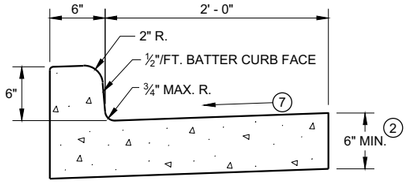
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI
ENT
FHWA

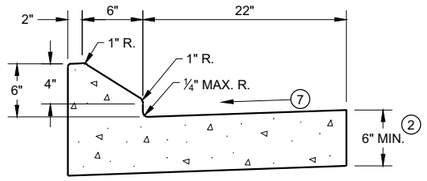
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

6

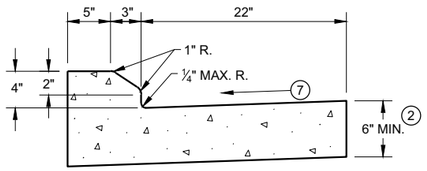
S.D.D. 8 A 8-2



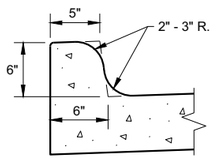
TYPES A (1) & D



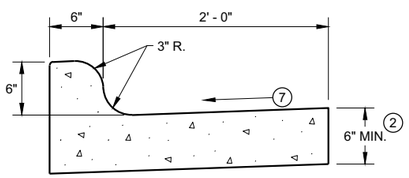
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

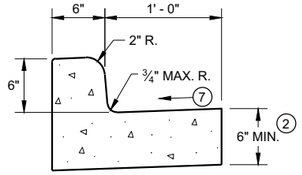


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



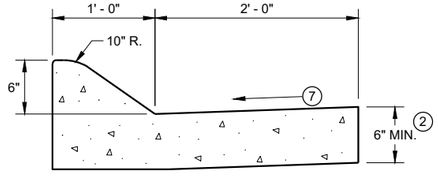
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

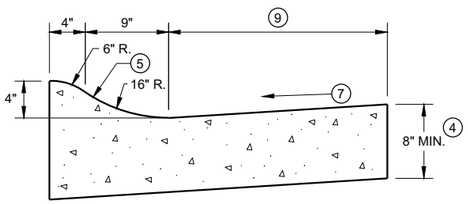
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

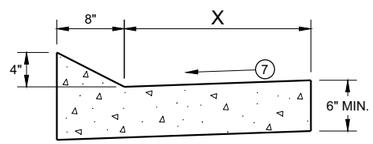
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

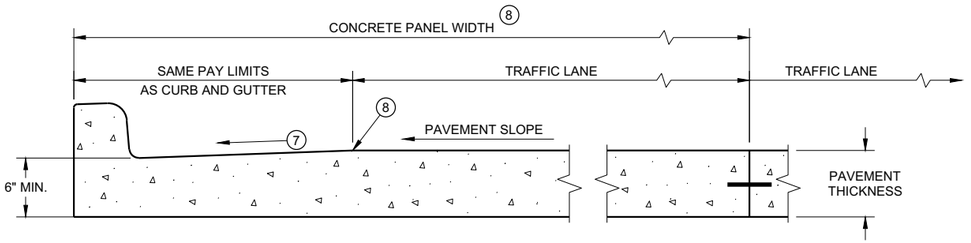


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

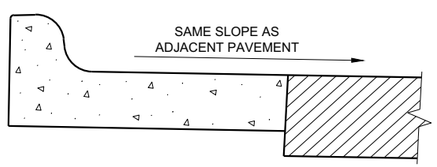
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

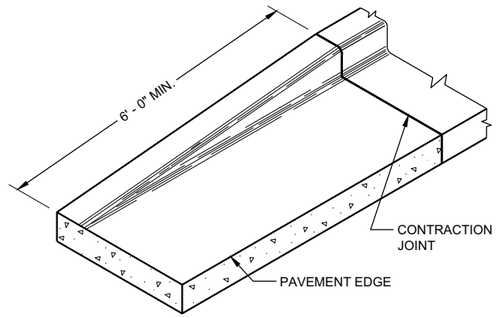
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

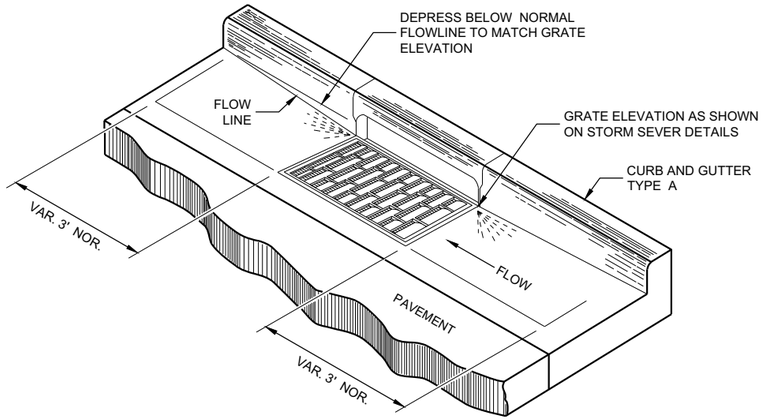
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



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.

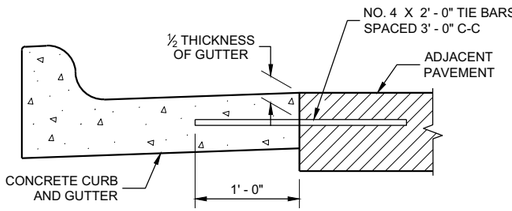
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

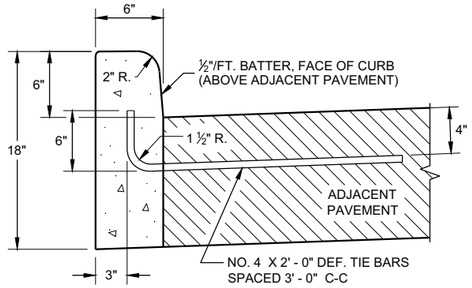
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

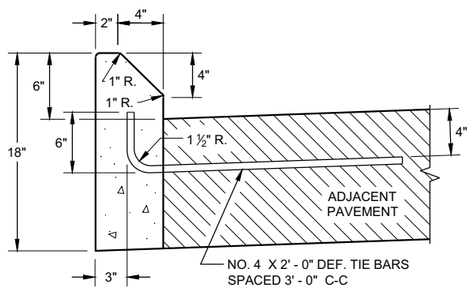
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

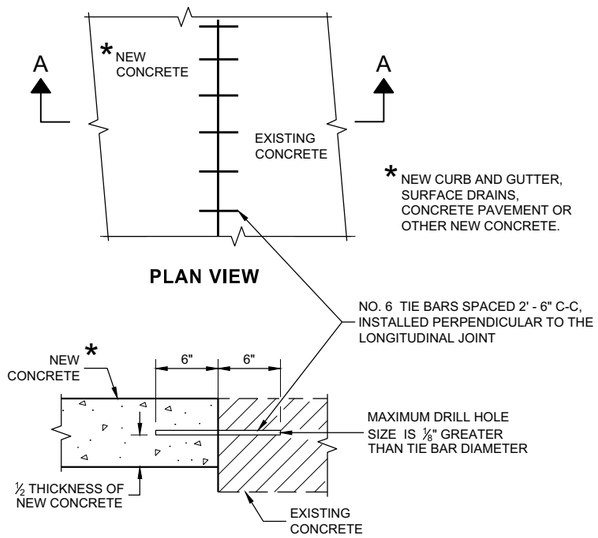


TYPES A (1) & D



TYPES G (1) & J

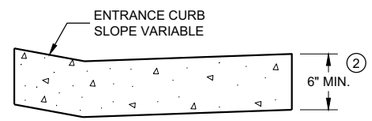
CONCRETE CURB



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

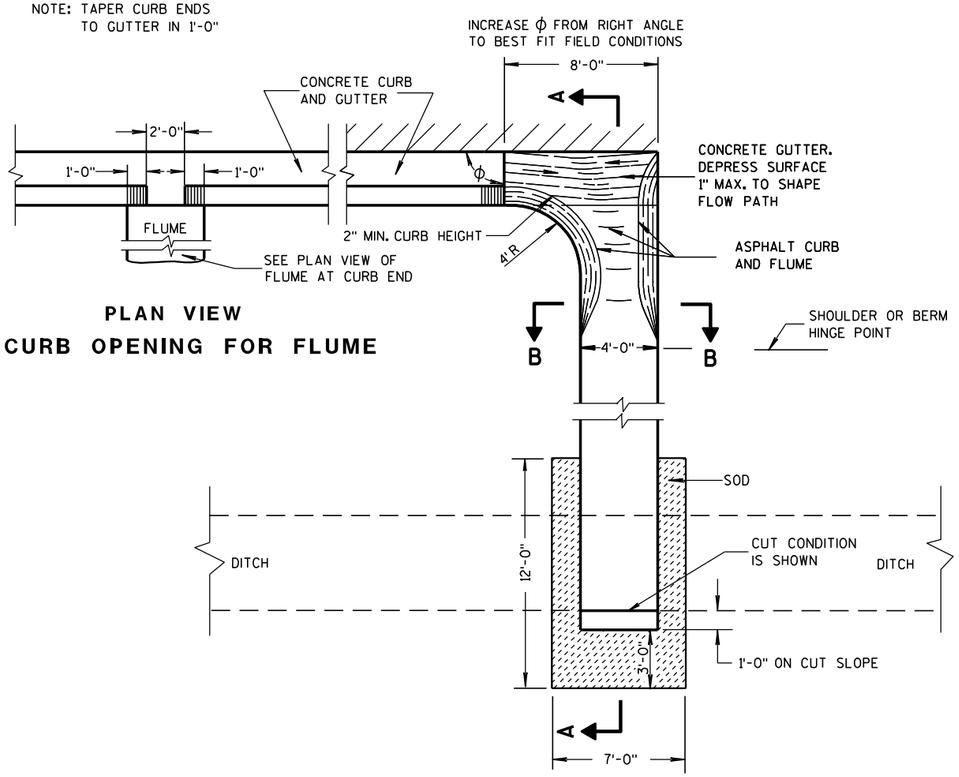
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

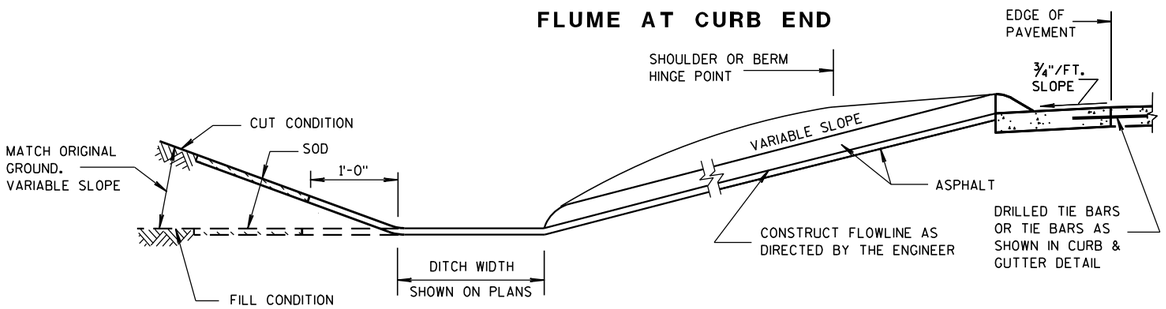
SDD08D01 - 22b

ASPHALTIC FLUME

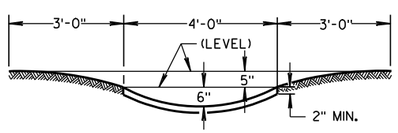


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

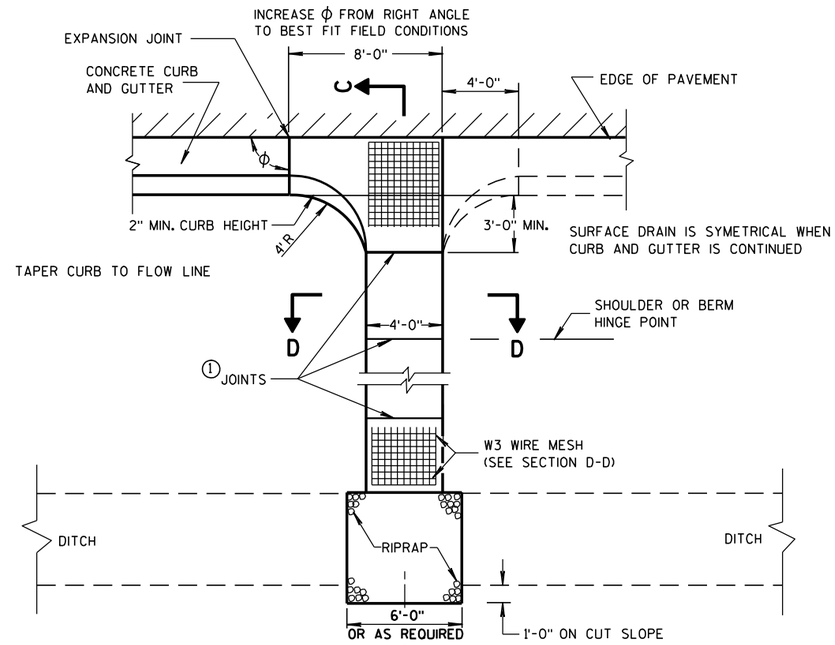
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

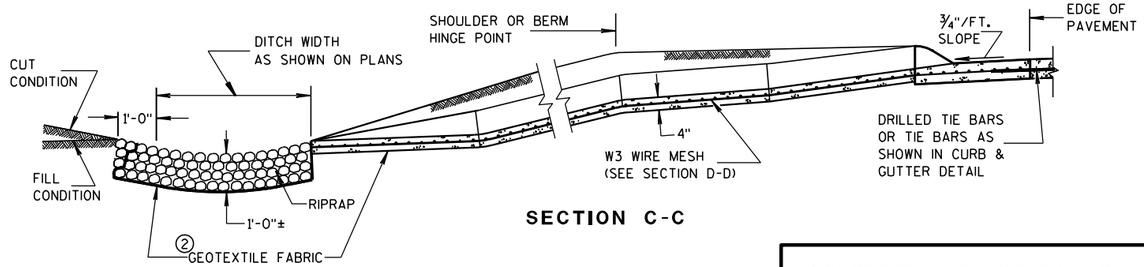
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

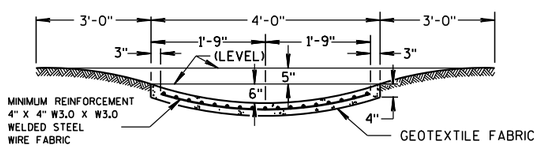
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

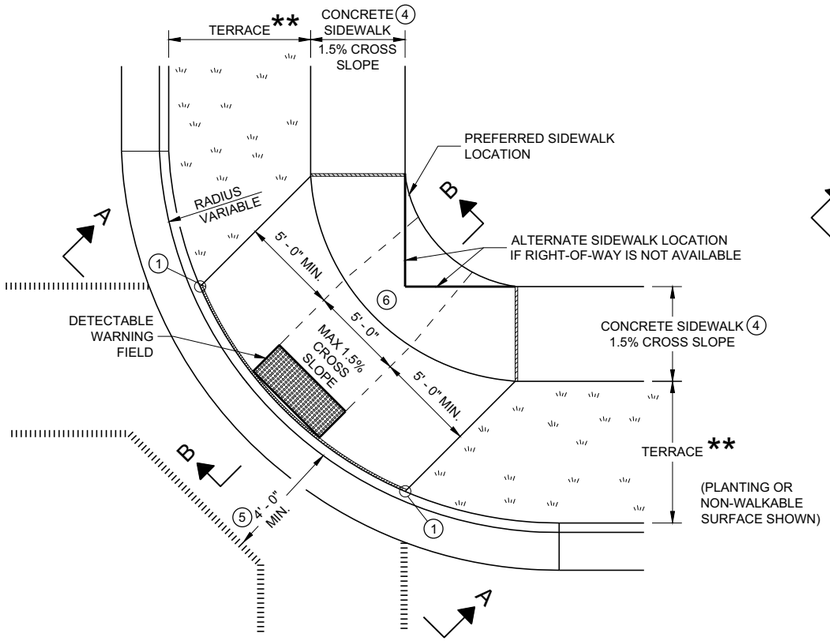
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

S.D.D. 8 D 4-5

6

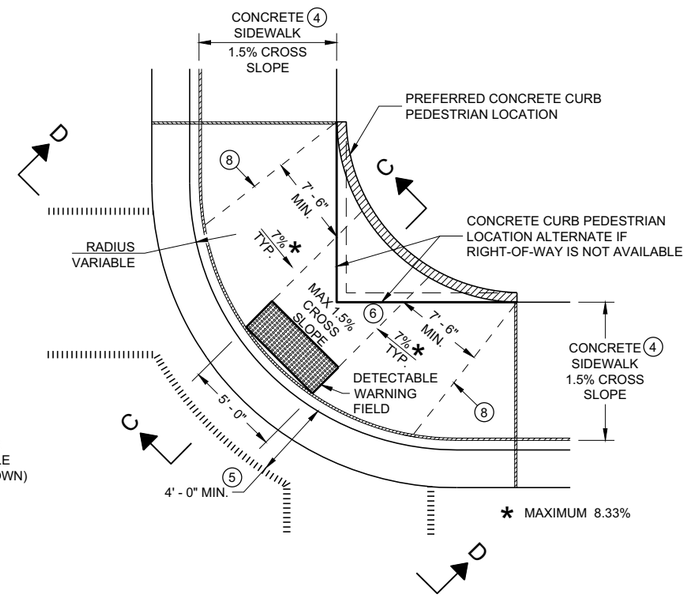
S.D.D. 8 D 4-5



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.

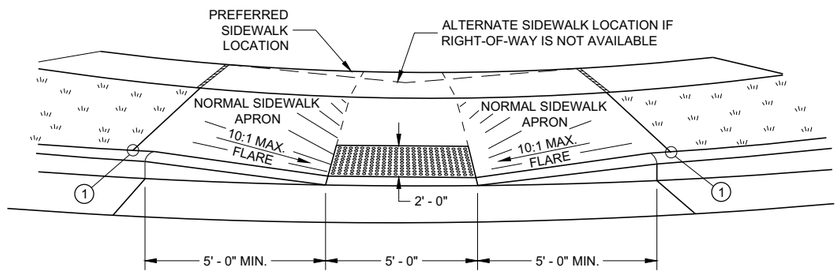
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

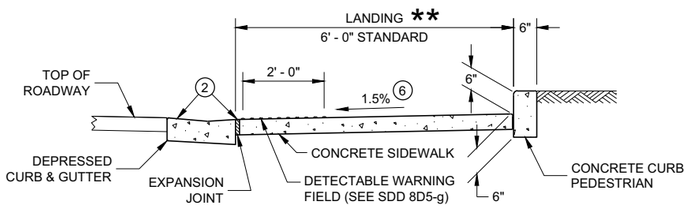
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(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

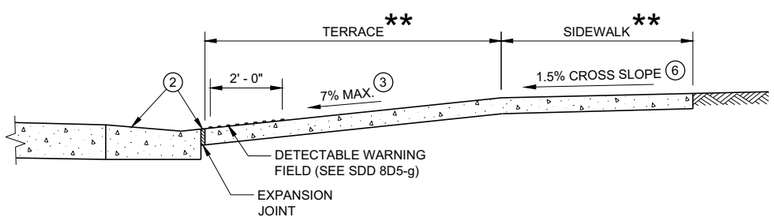


SECTION C - C FOR TYPE 1 - A

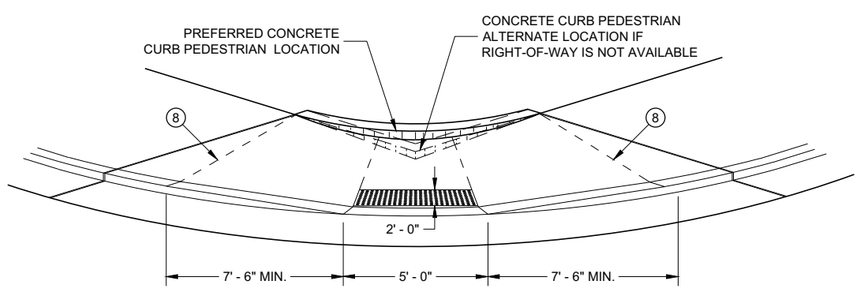
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



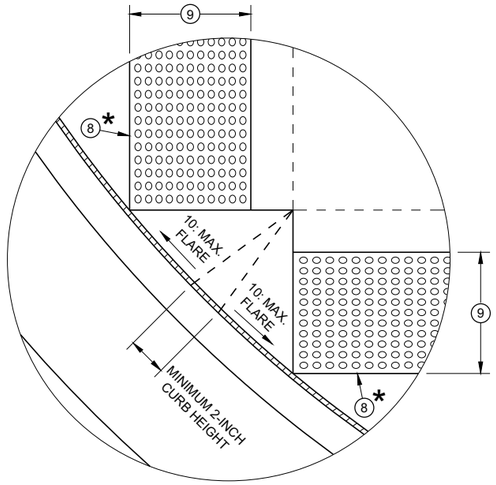
VIEW D - D FOR TYPE 1 - A

CURB RAMPS
TYPE 1 AND 1-A

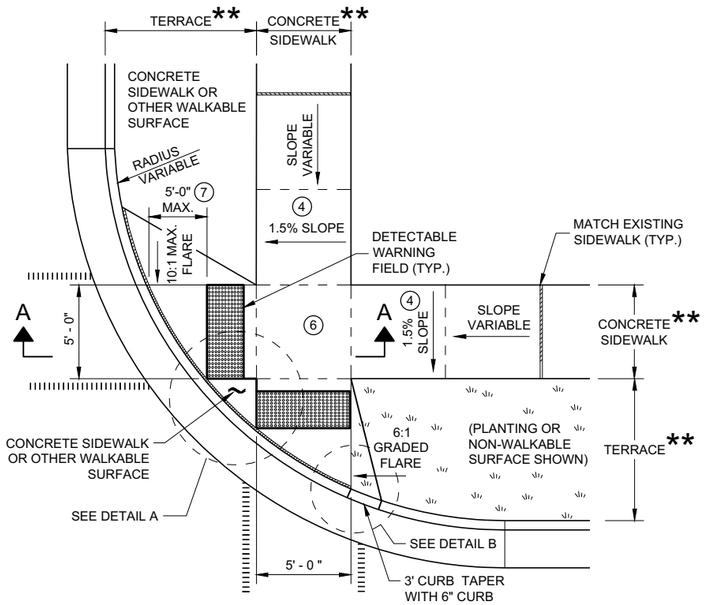
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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.

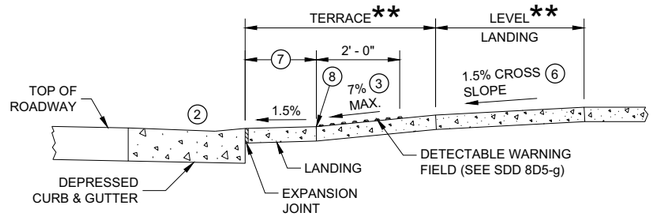
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

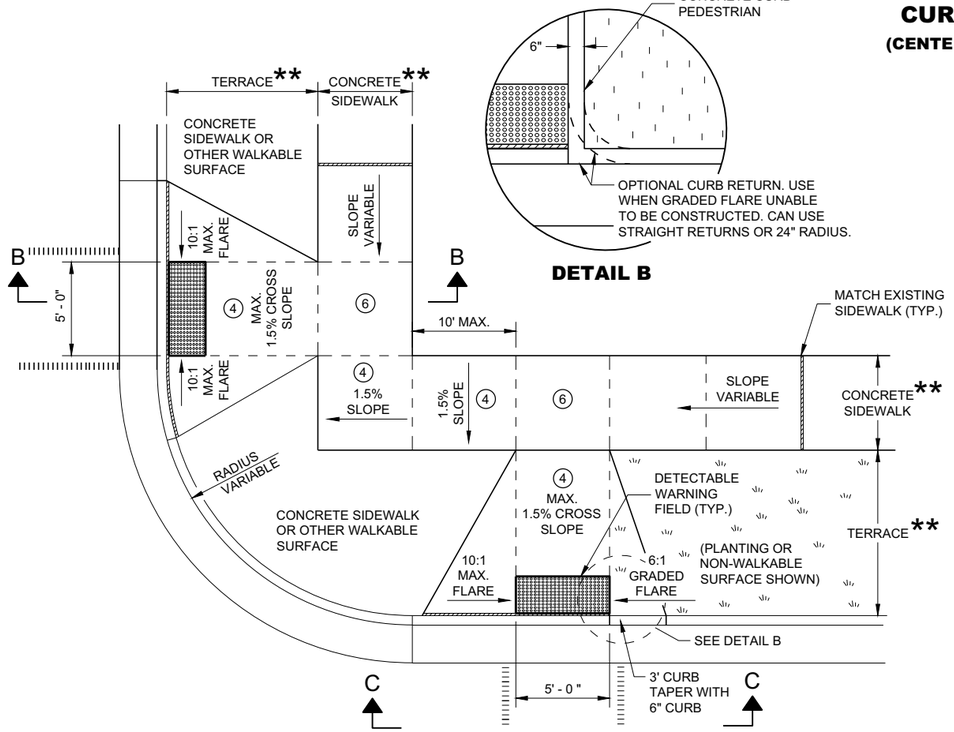
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

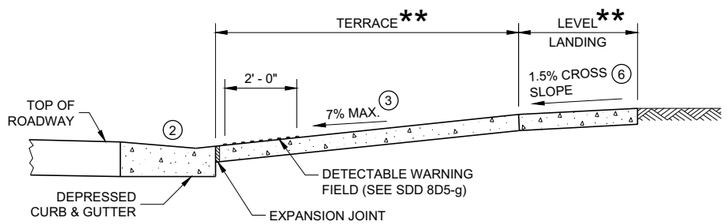
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS



DETAIL B

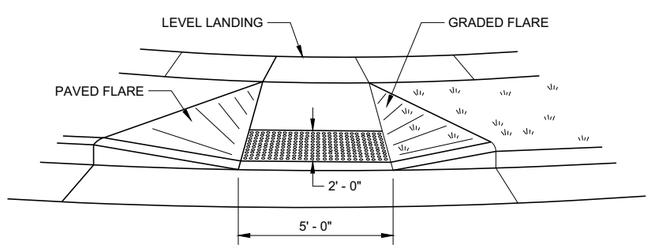
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



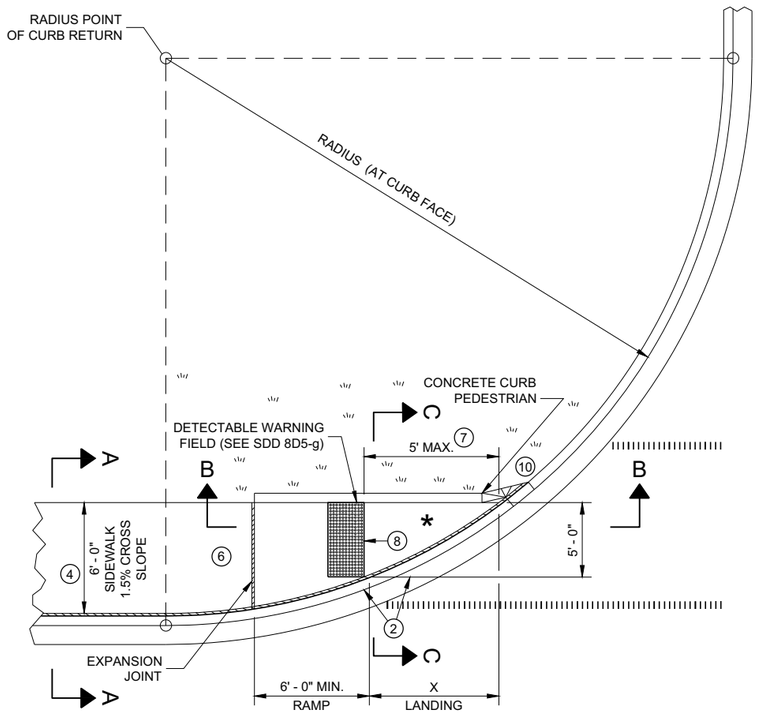
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

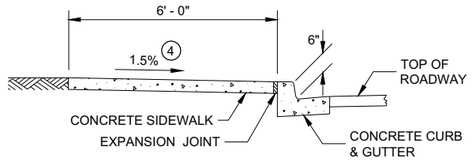


PLAN VIEW

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.

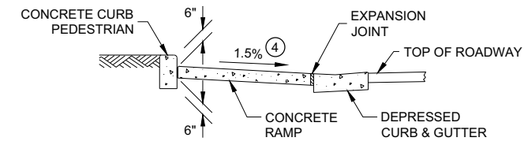
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

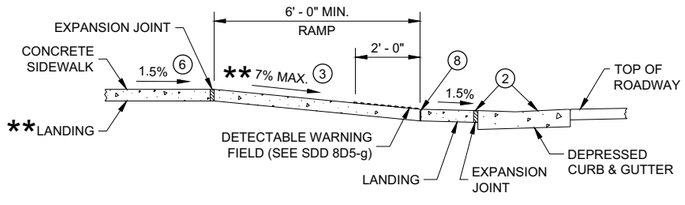
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



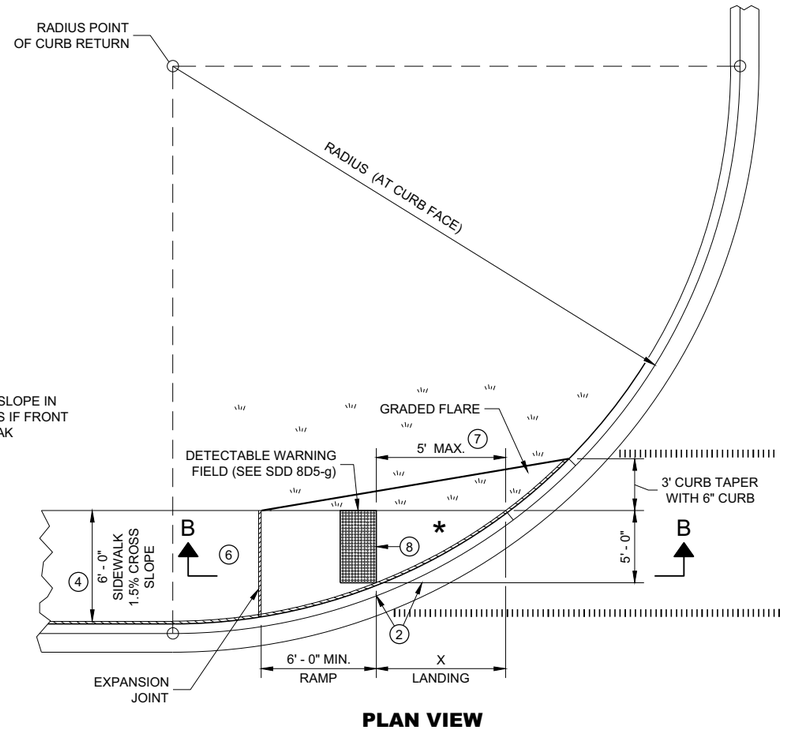
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

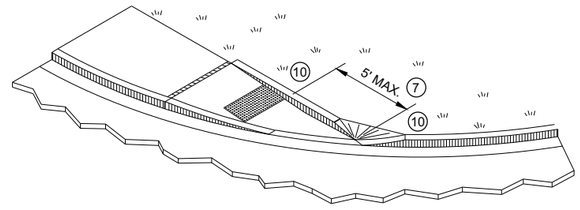
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

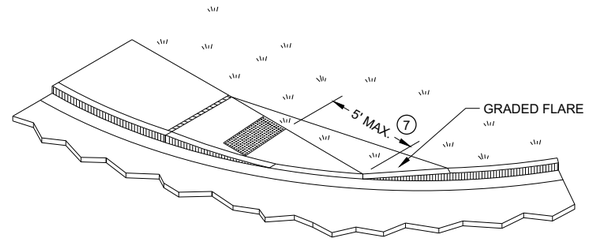


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



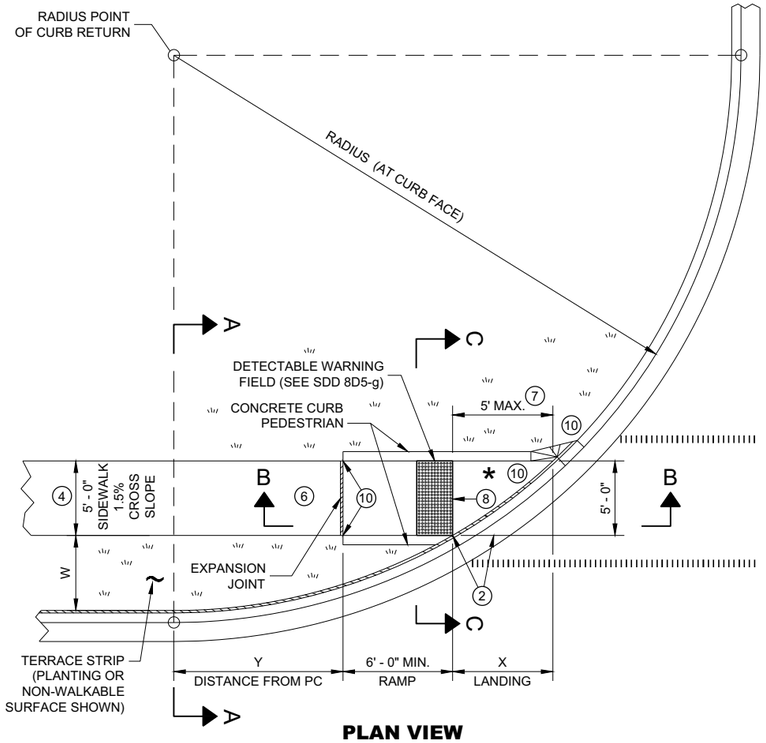
ISOMETRIC VIEW FOR TYPE 4A1

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.

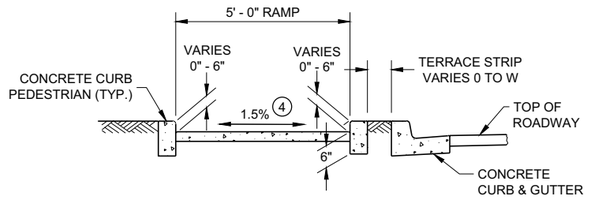
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

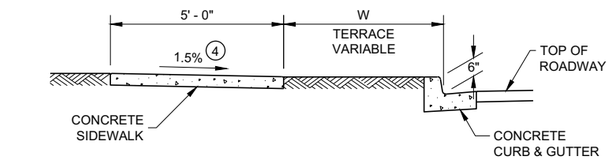
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

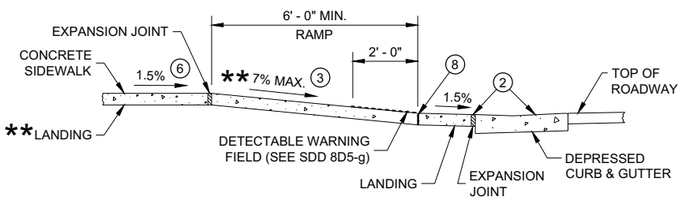
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



SECTION C - C FOR TYPE 4B



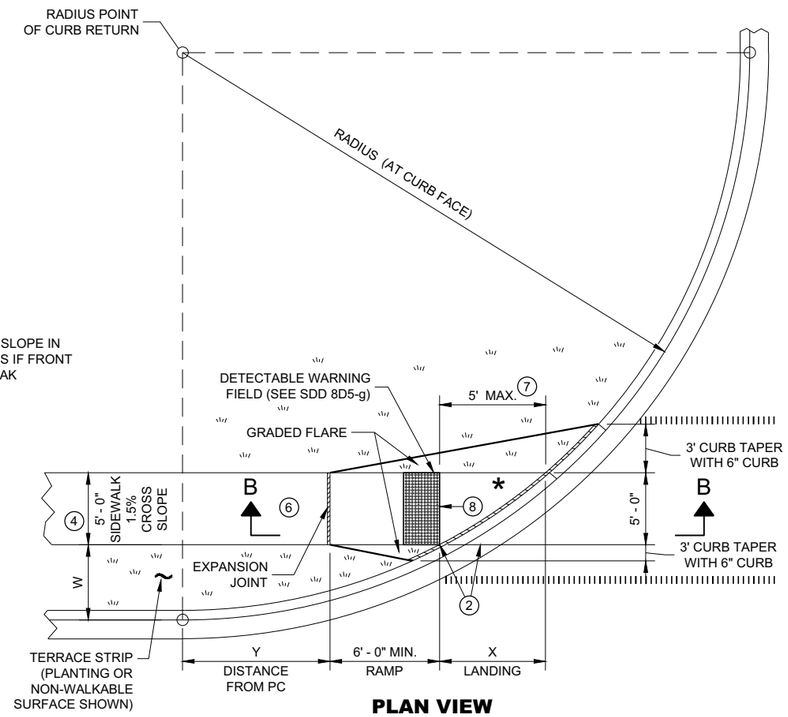
SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

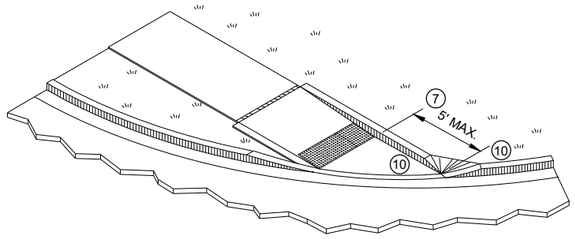
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

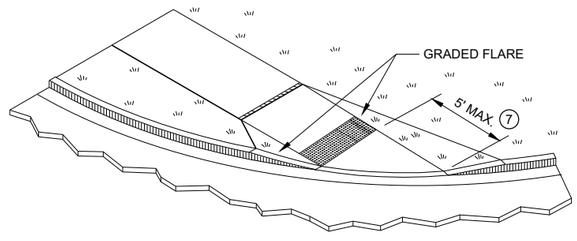


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



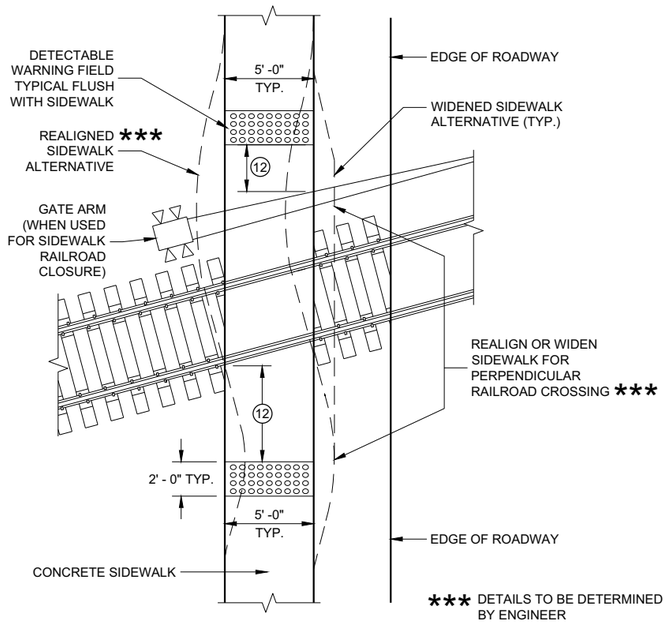
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

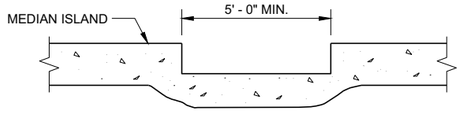
6

SDD 08D05 - 20d

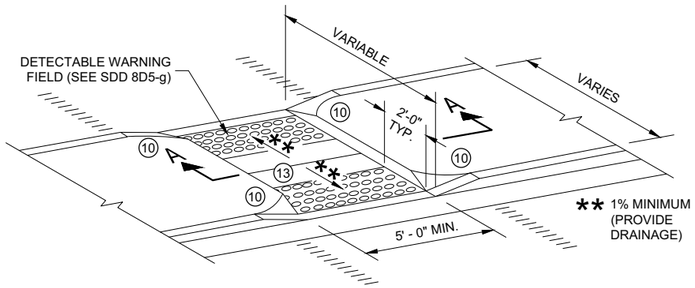


CURB RAMP TYPE 8

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.

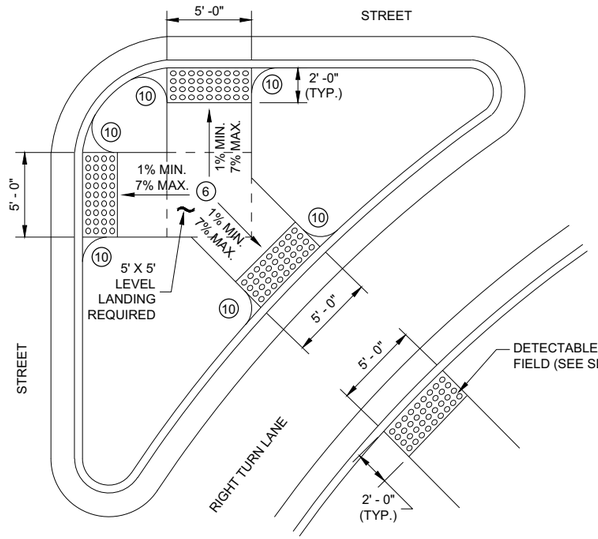
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

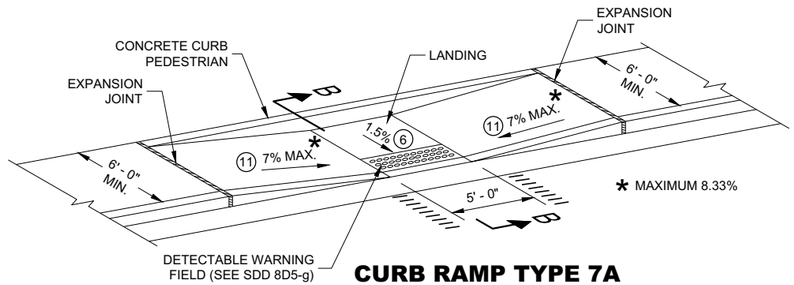
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

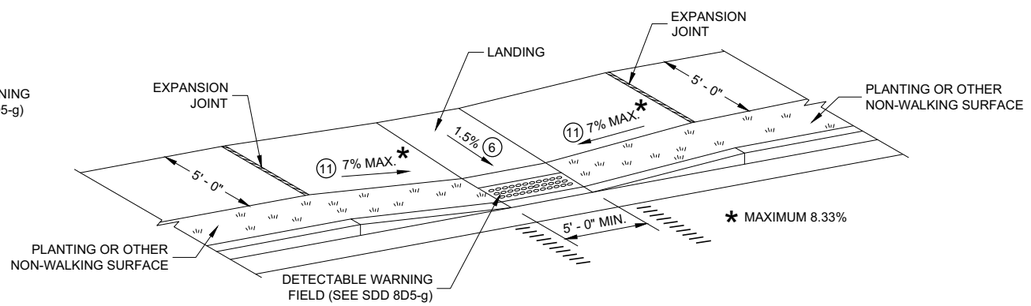
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

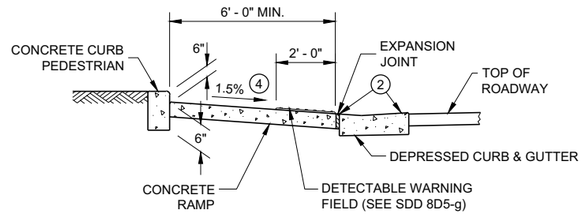
MID BLOCK CROSSING



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

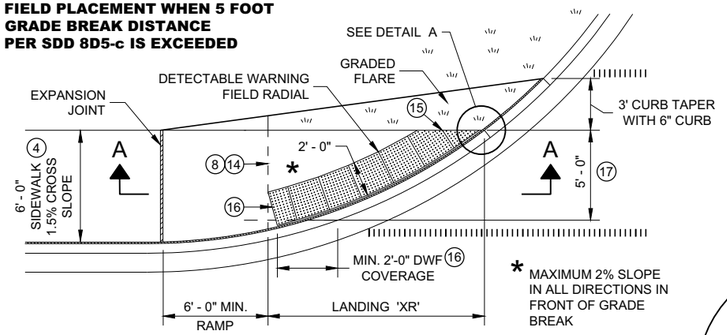
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e

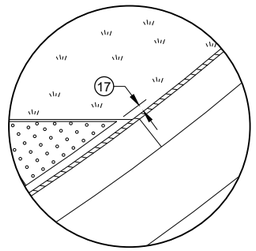
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



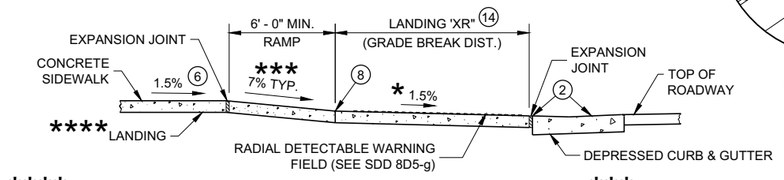
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

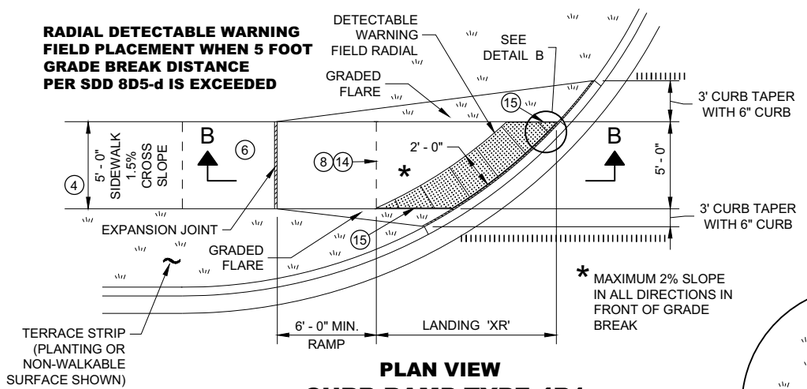


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

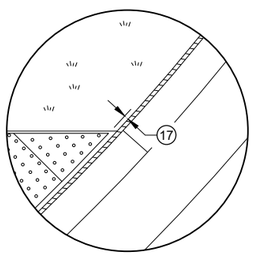
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



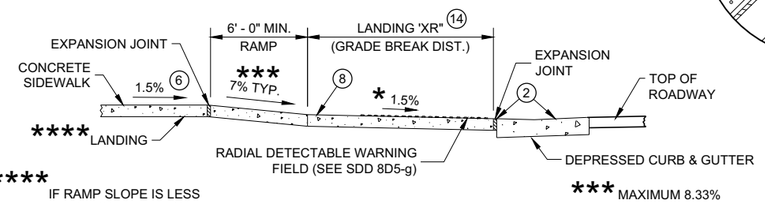
PLAN VIEW

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

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.

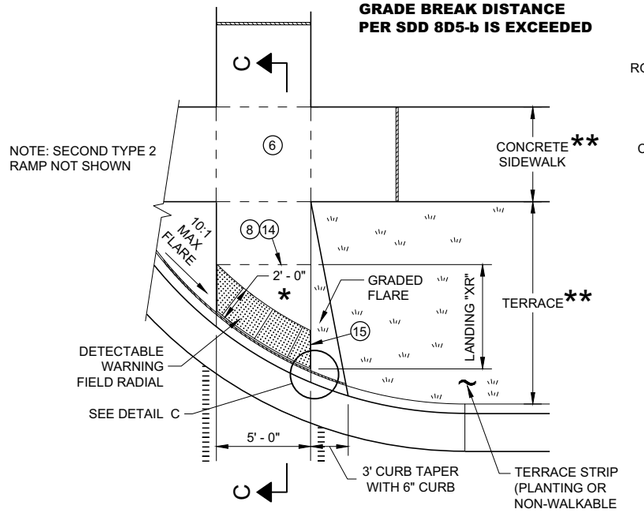
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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-b IS EXCEEDED

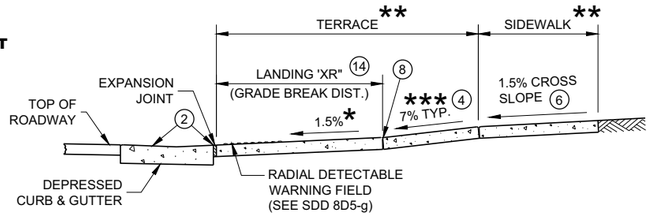


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

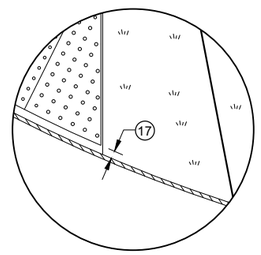


SECTION C - C FOR TYPE 2

* 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

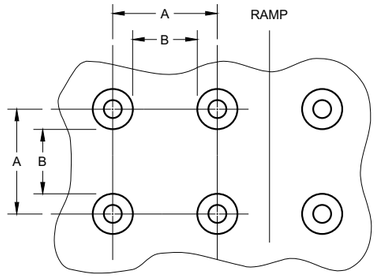
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

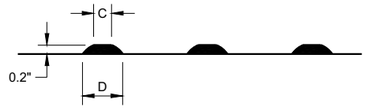
SDD 08D05 - 20f

	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.

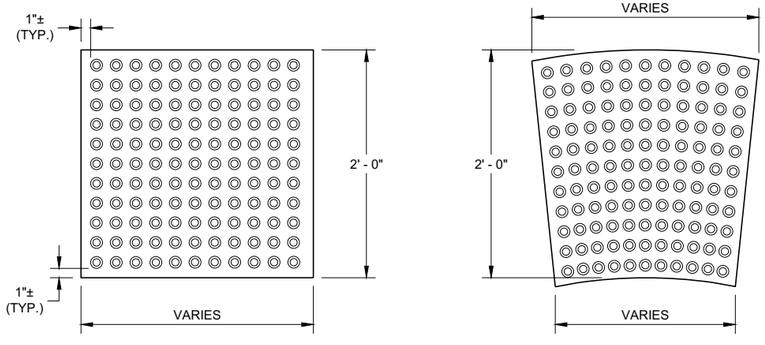


PLAN VIEW



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.

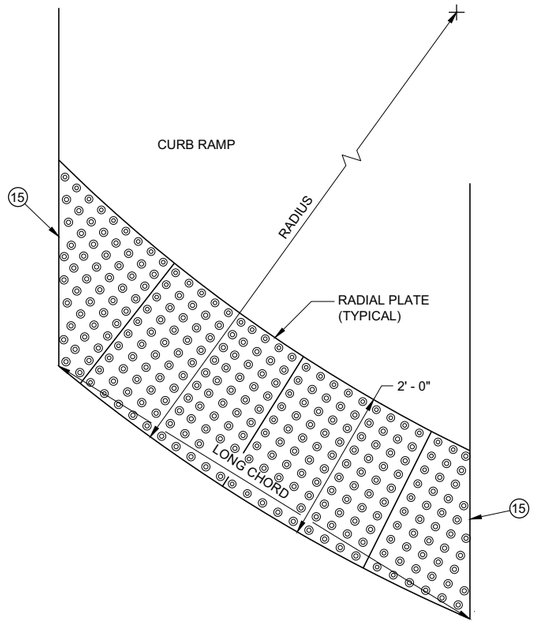
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

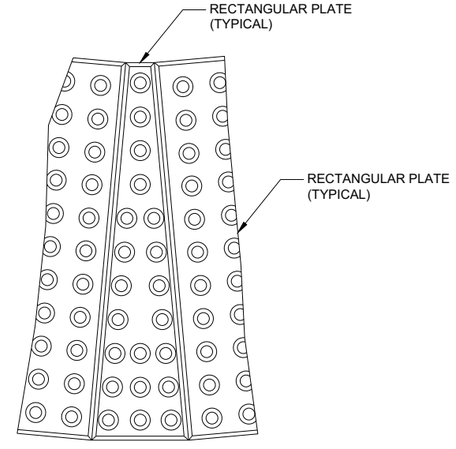
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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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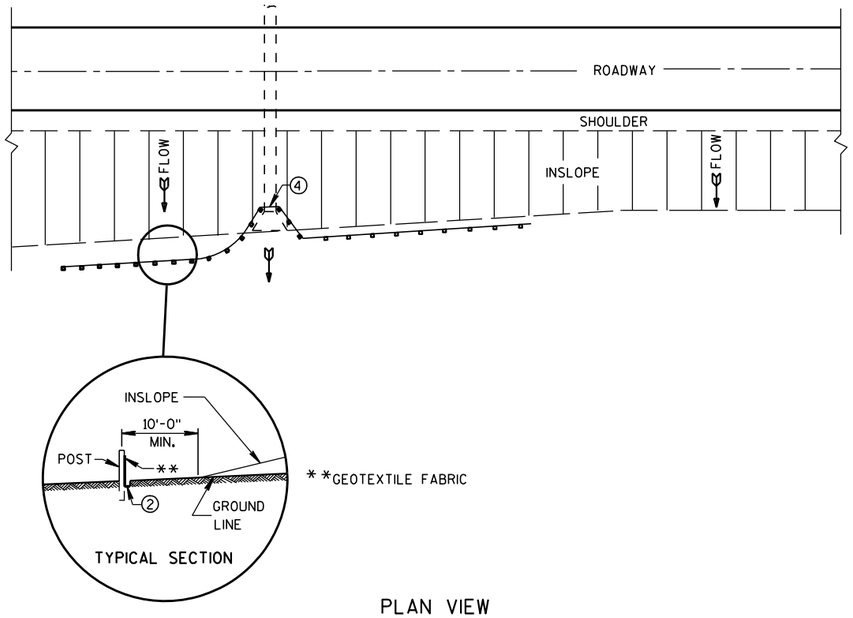
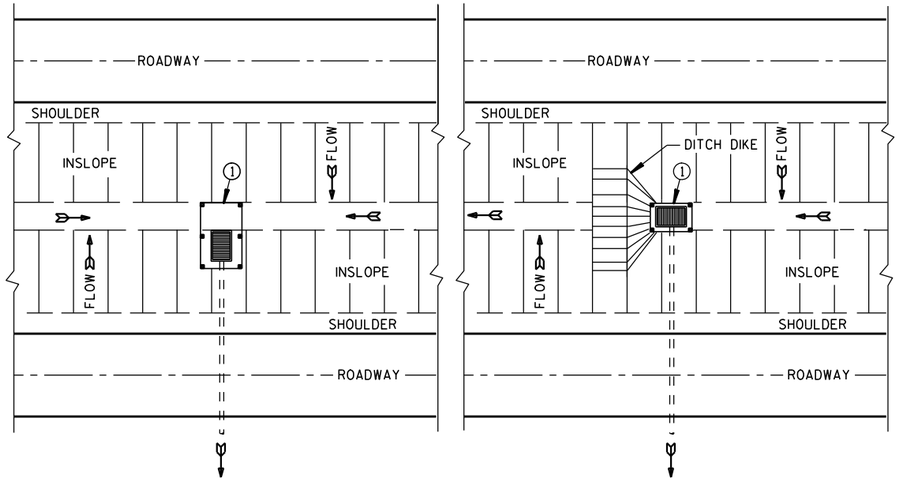
SDD 08D05 - 20g



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



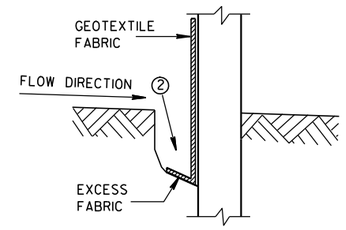
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

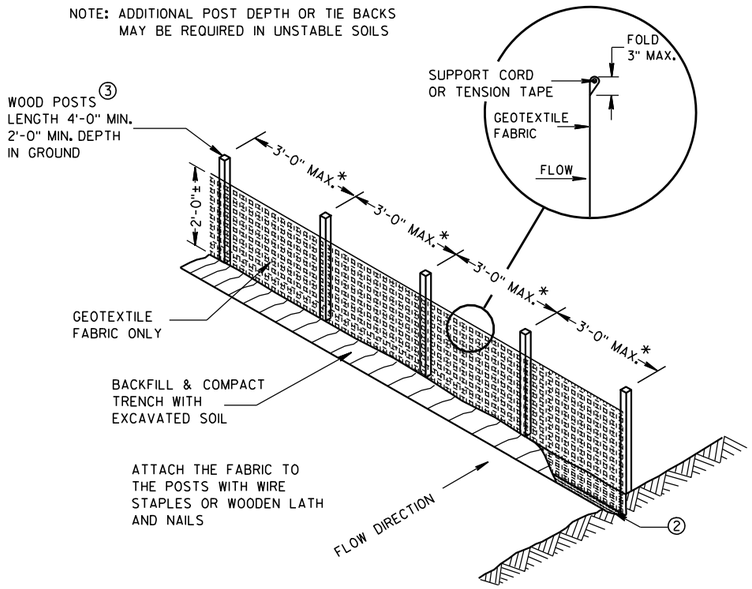
GENERAL NOTES

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

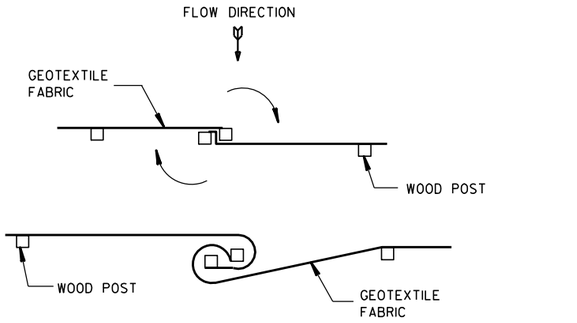
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



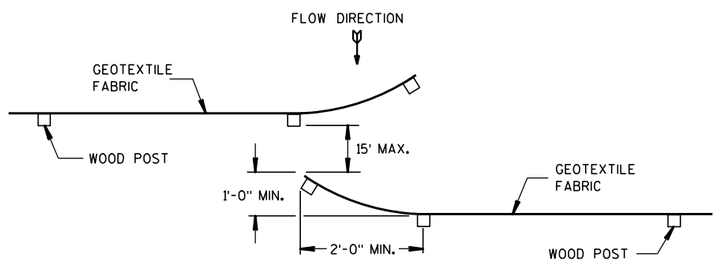
TRENCH DETAIL



SILT FENCE

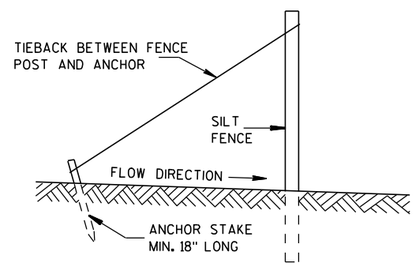


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

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S.D.D. 8 E 9-6

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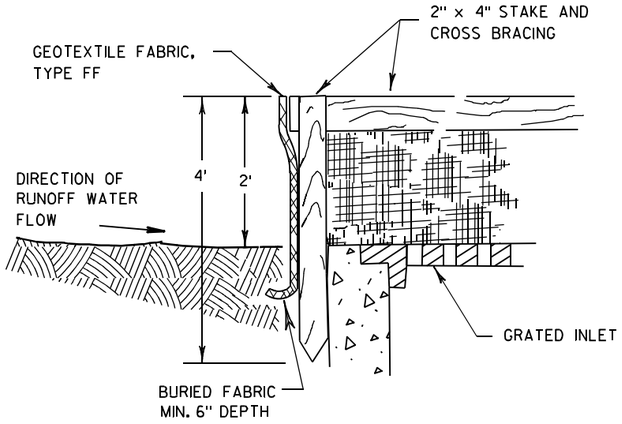
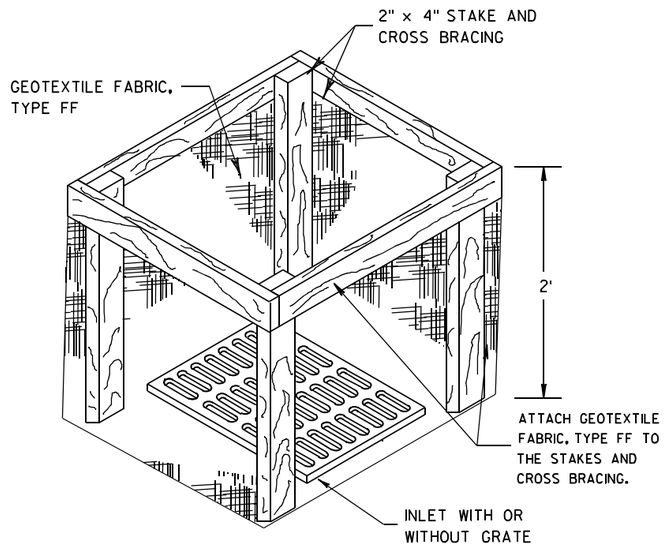
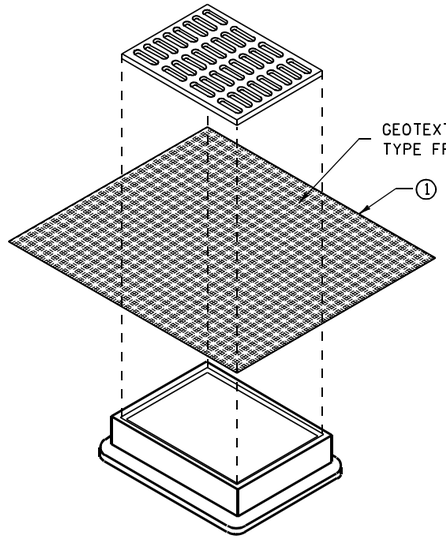
S.D.D. 8 E 9-6



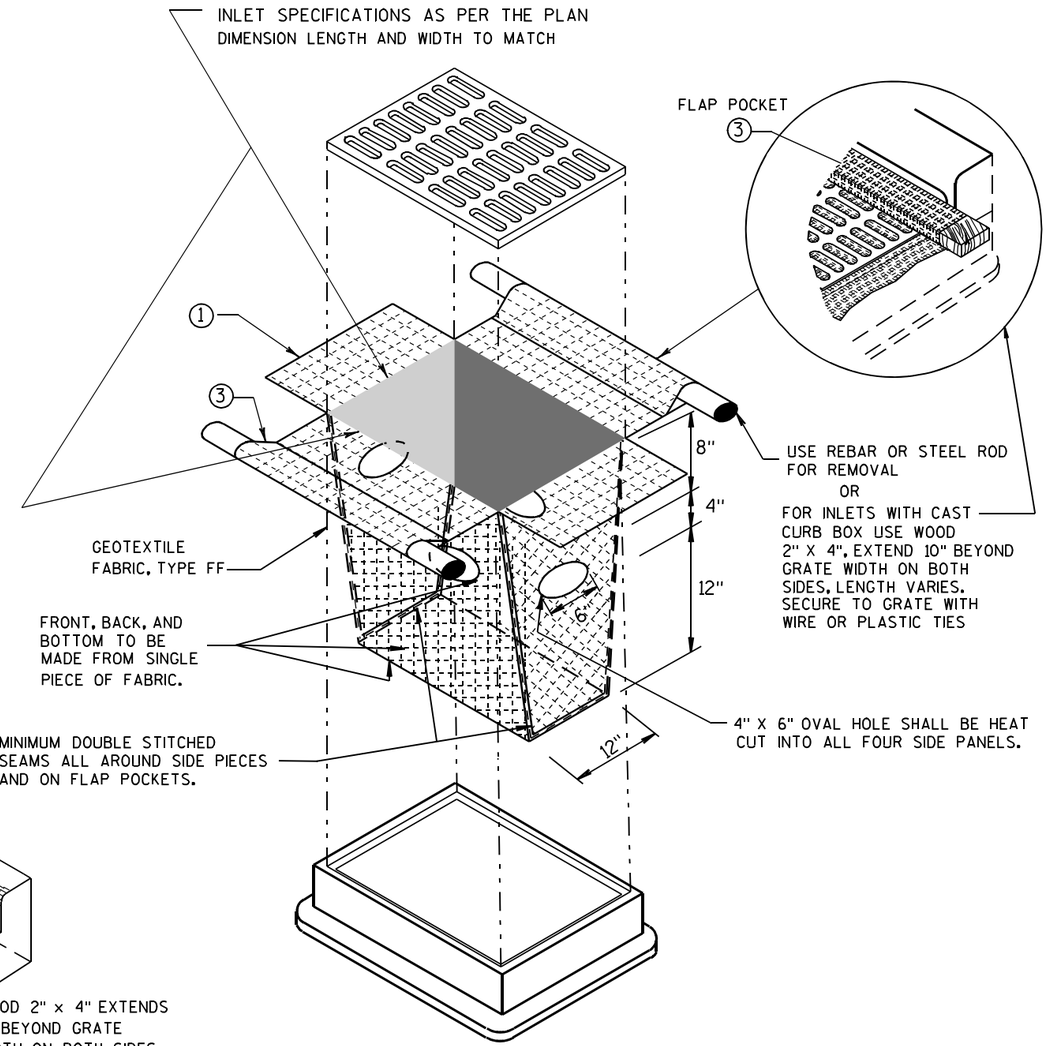


INLET PROTECTION, TYPE A



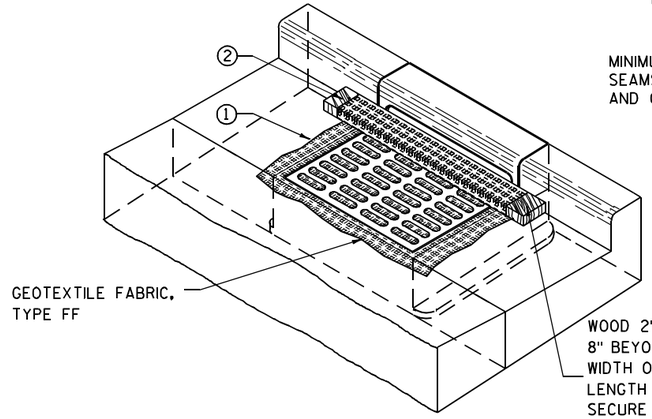
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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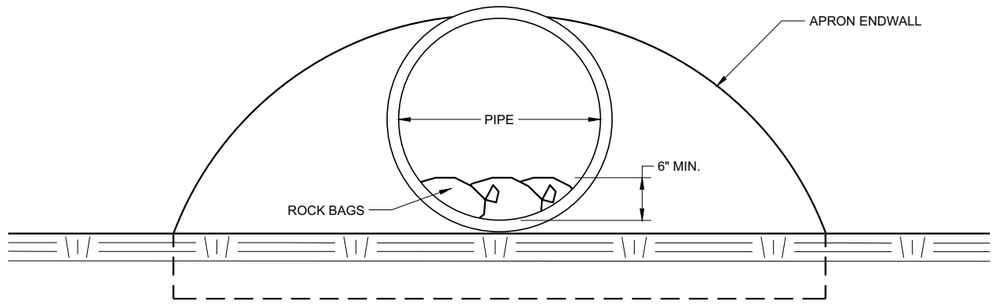
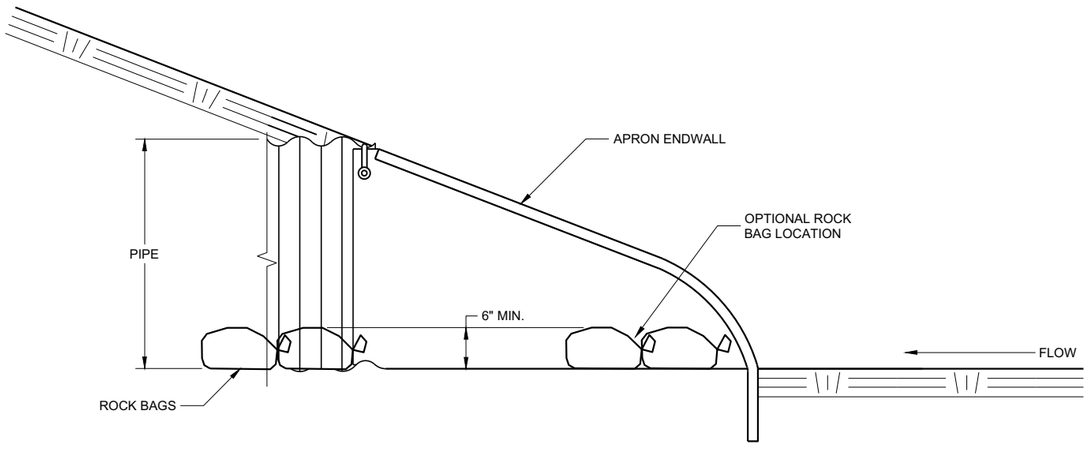
S.D.D. 8 E 10-2



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

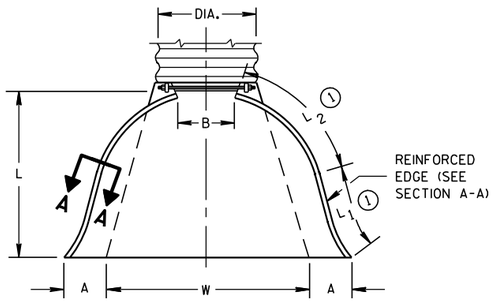
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

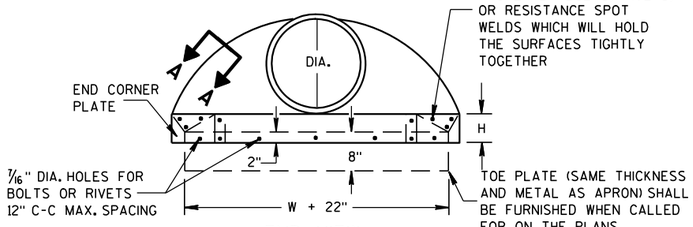
REINFORCED CONCRETE APRON ENDWALLS

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

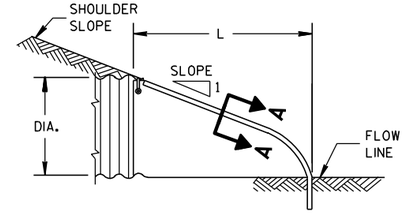
* MINIMUM
** MAXIMUM



PLAN VIEW

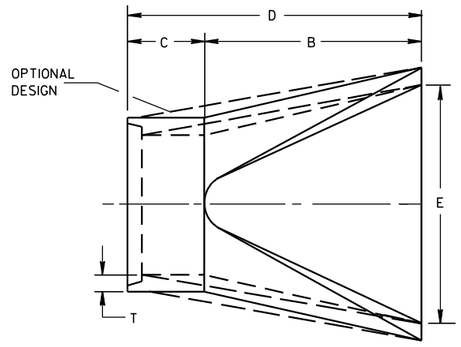


END VIEW

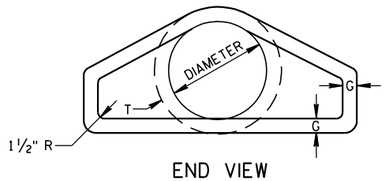


SIDE ELEVATION

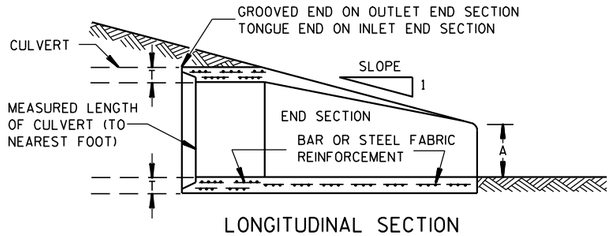
METAL ENDWALLS



PLAN

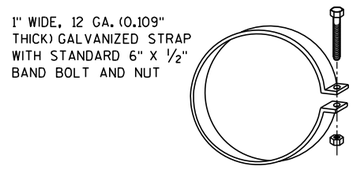


END VIEW



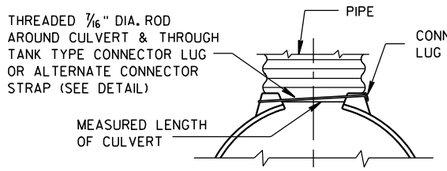
LONGITUDINAL SECTION

CONCRETE ENDWALLS

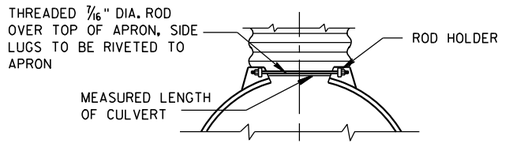


ALTERNATE FOR TYPE 1 CONNECTION

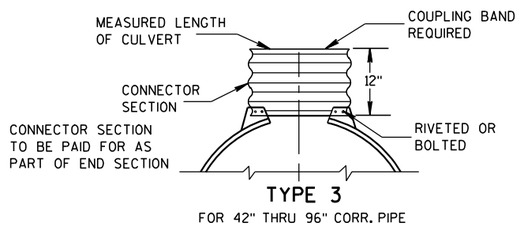
END SECTION CONNECTOR STRAP



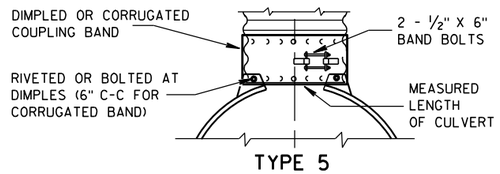
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

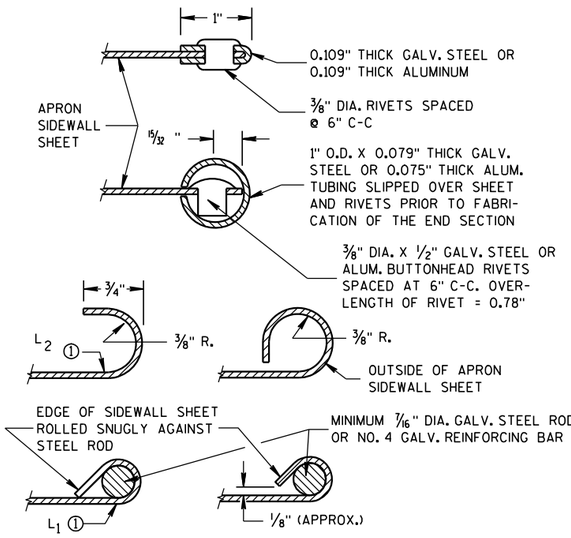
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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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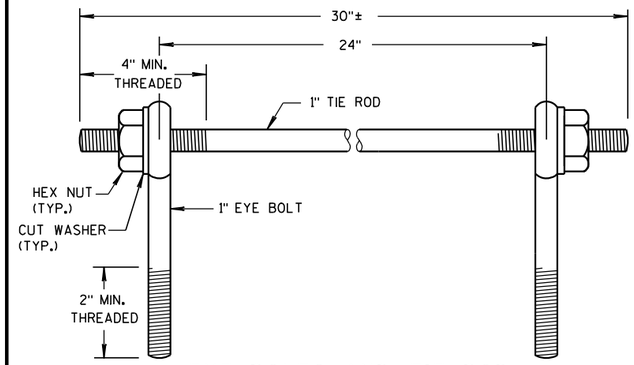
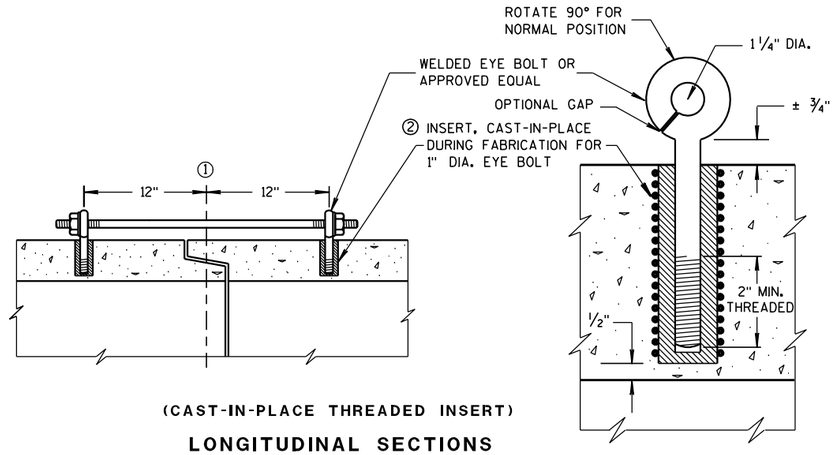
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

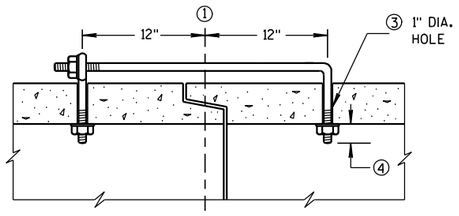
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

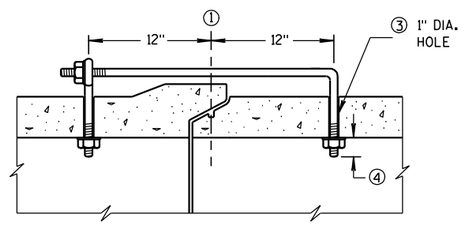
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

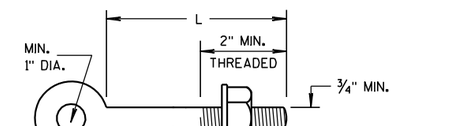


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

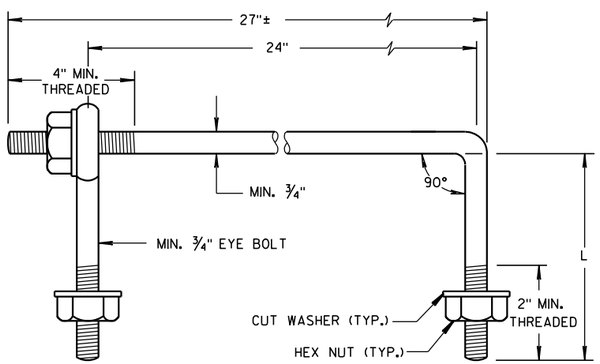
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

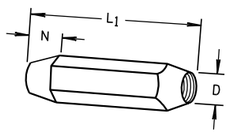
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



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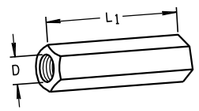
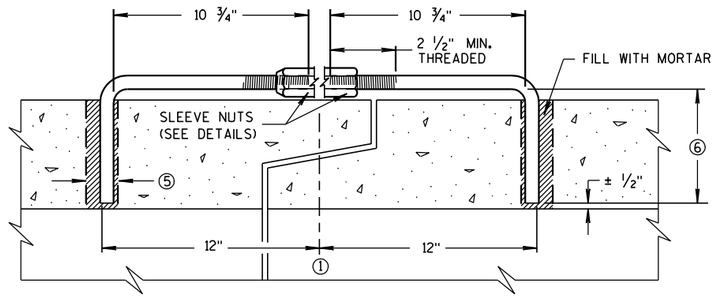


PLAIN

RIGHT AND LEFT THREADS

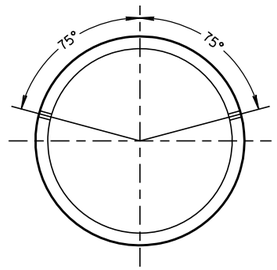
SLEEVE NUTS



LONGITUDINAL SECTION

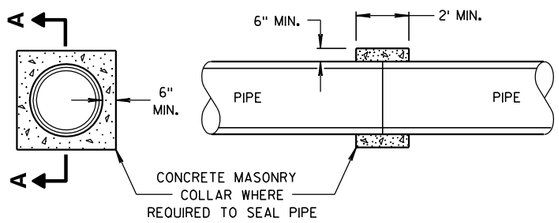
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 F 4-7

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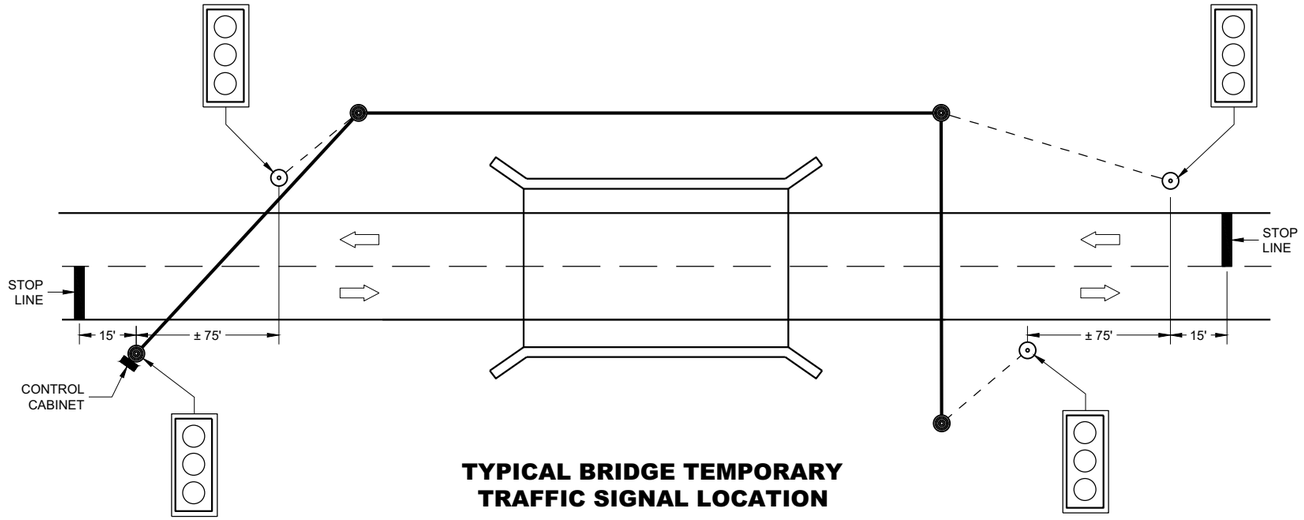
S.D.D. 8 F 4-7



TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREADAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- DIRECTION OF TRAFFIC
- LED TRAFFIC SIGNAL WITH BACKPLATE (3-12")

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

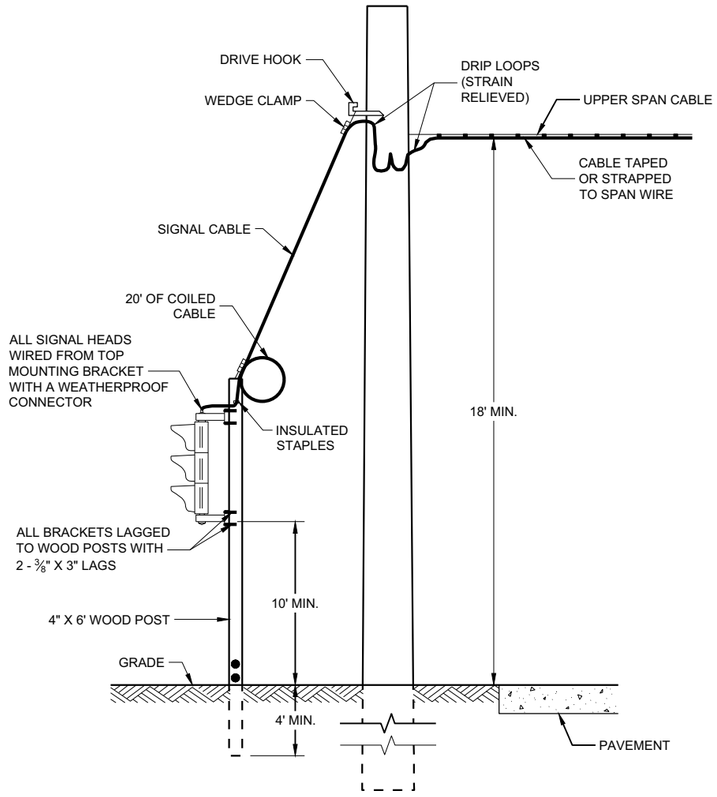
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

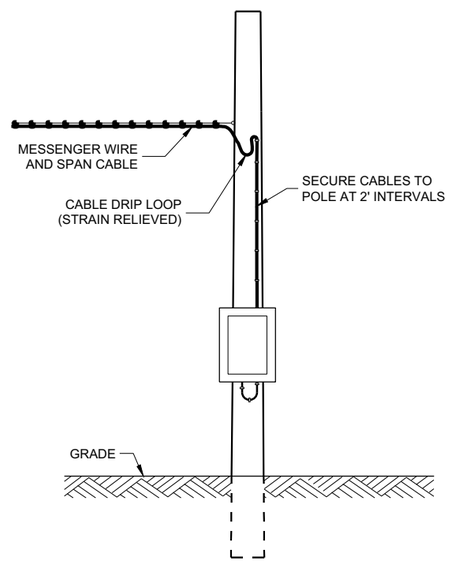
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.

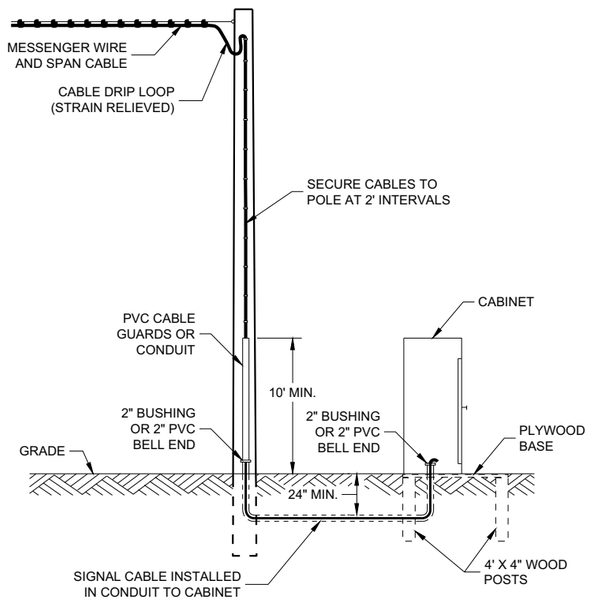
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD09G02 - 05a

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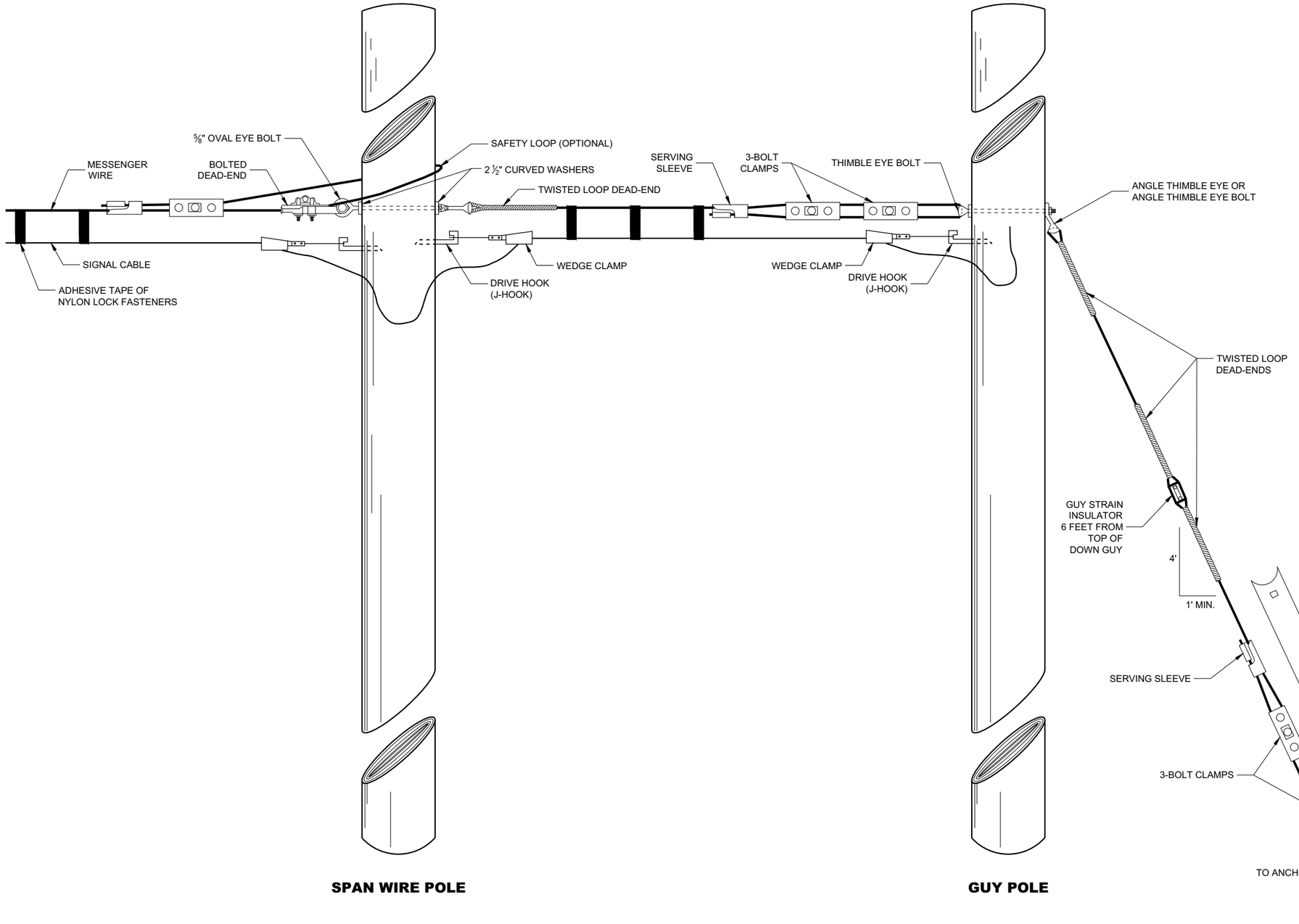
SDD09G02 - 05a

GENERAL NOTES

USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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SDD09G02 - 05b

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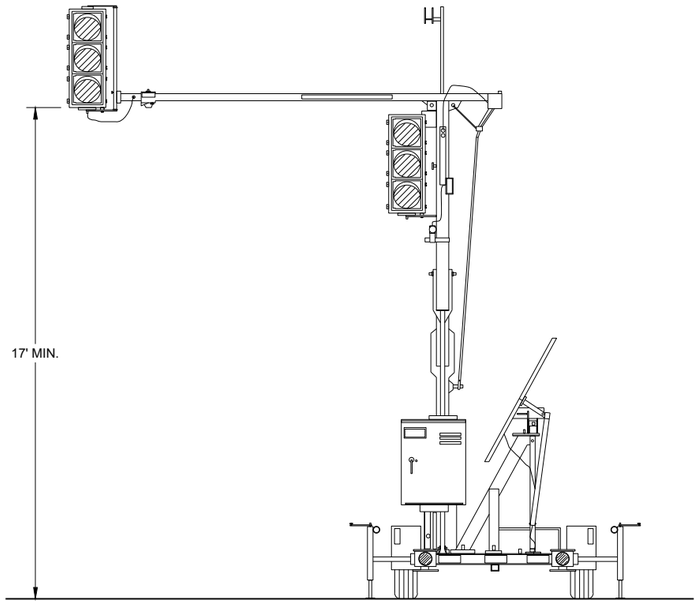
SDD09G02 - 05b

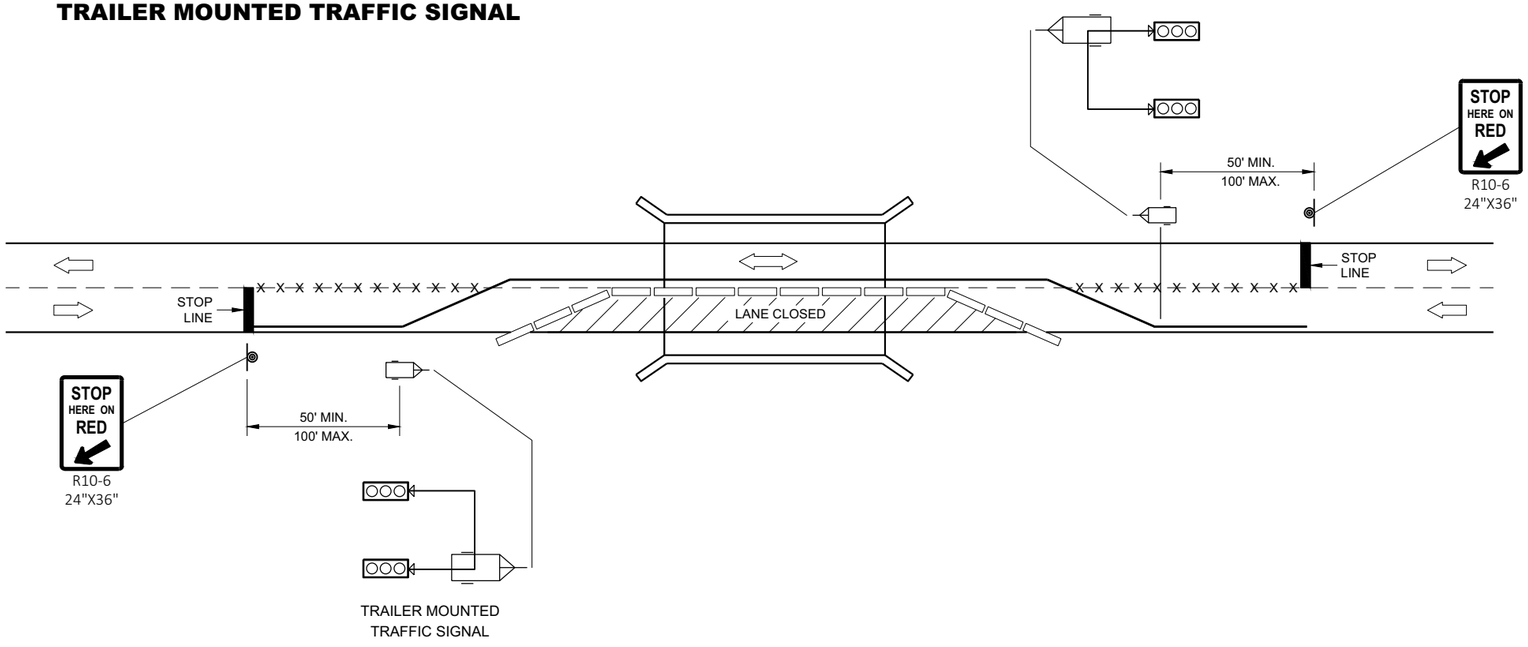


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD09G02 - 05c

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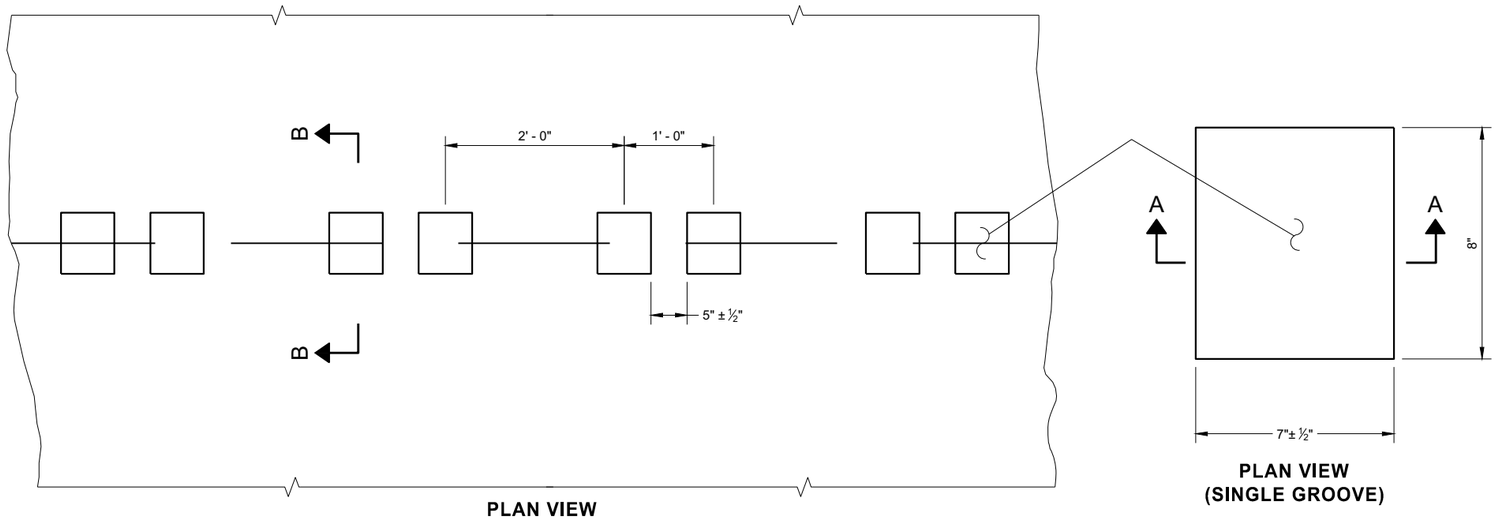
SDD09G02 - 05c



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

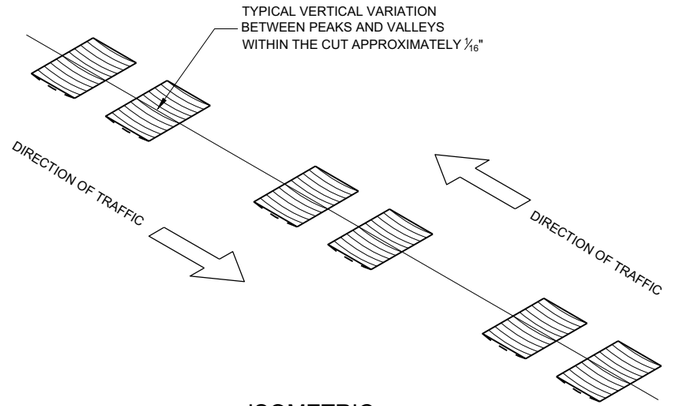
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

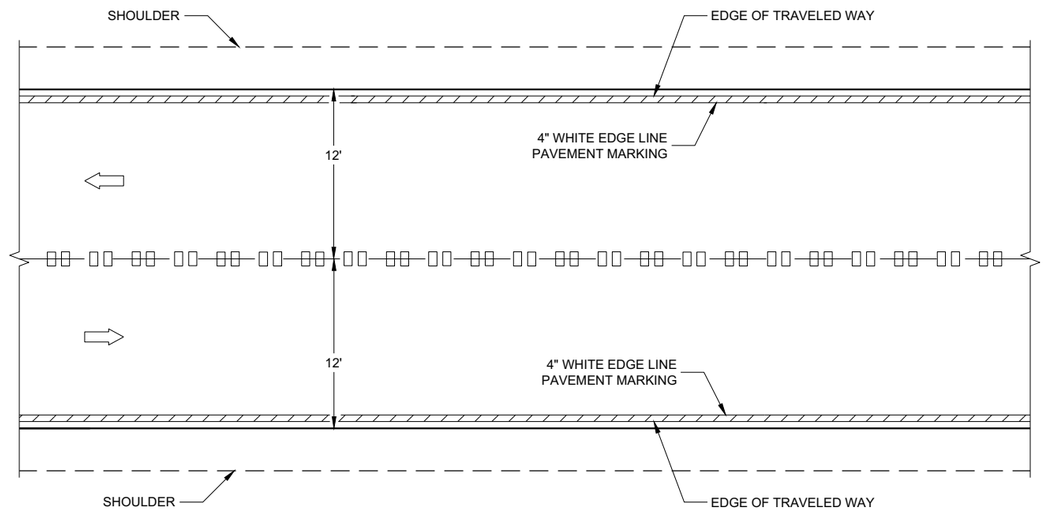
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

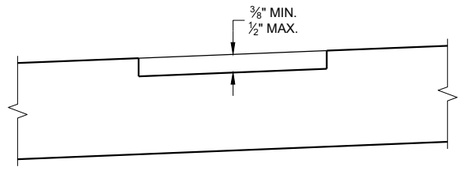
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



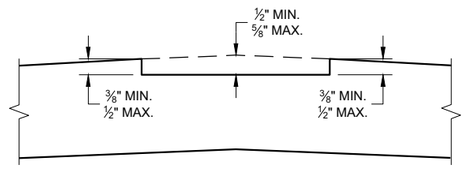
ISOMETRIC



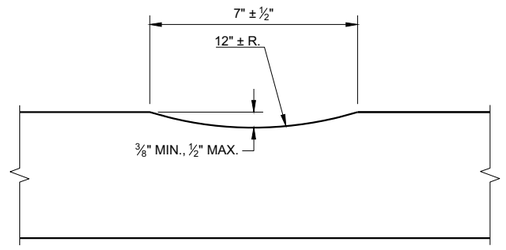
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A11 - 03a

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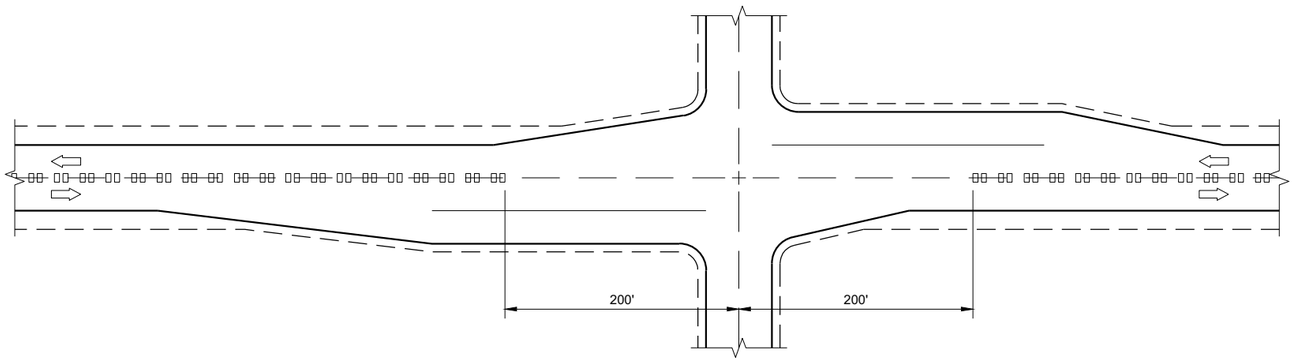
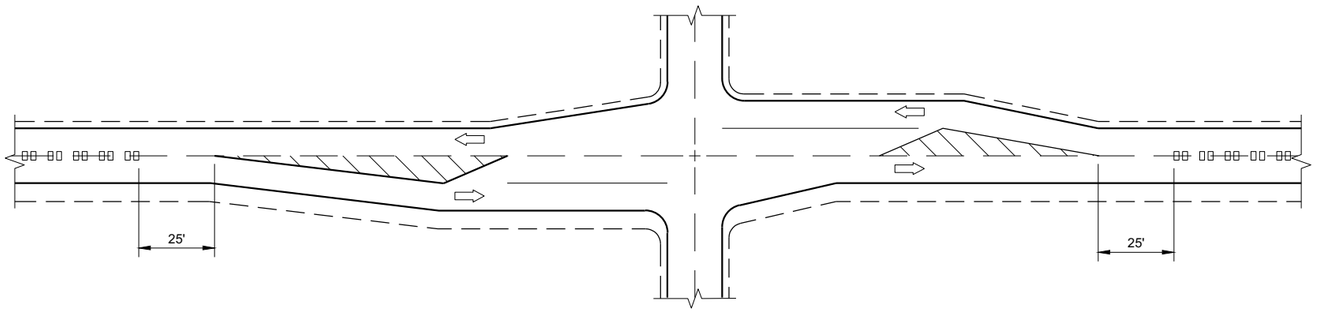
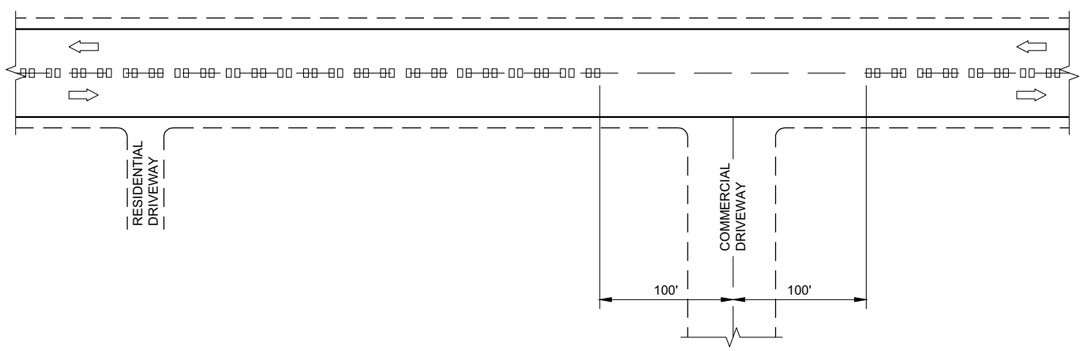
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



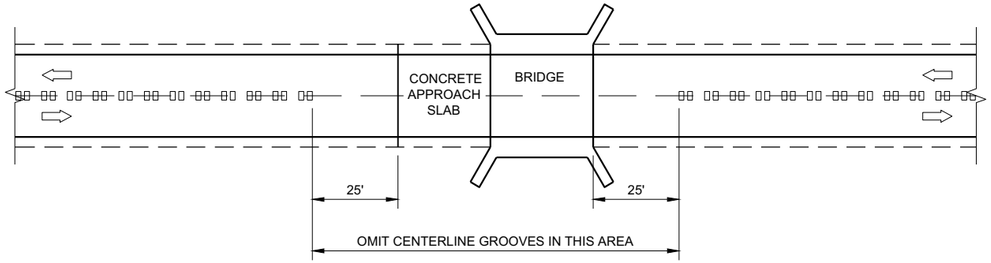
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



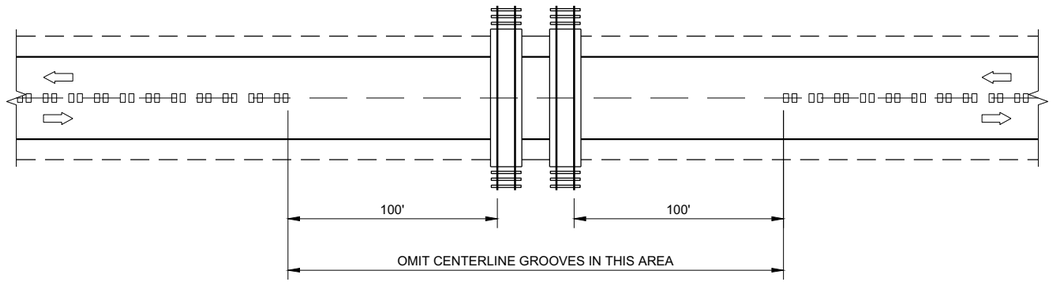
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 13A11 - 03b

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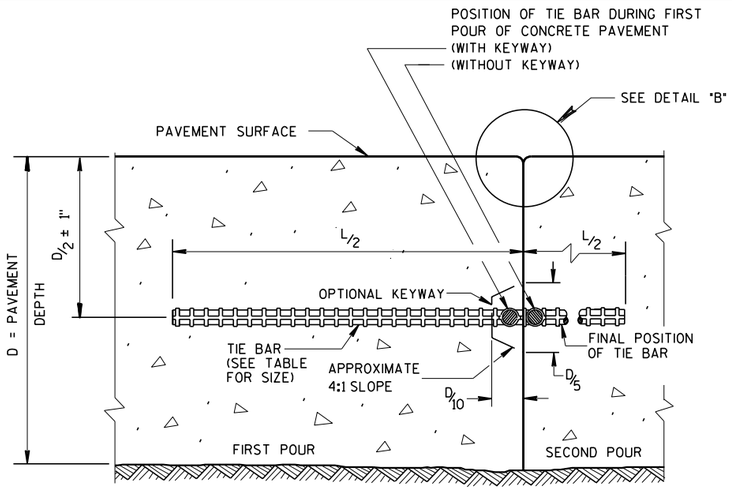
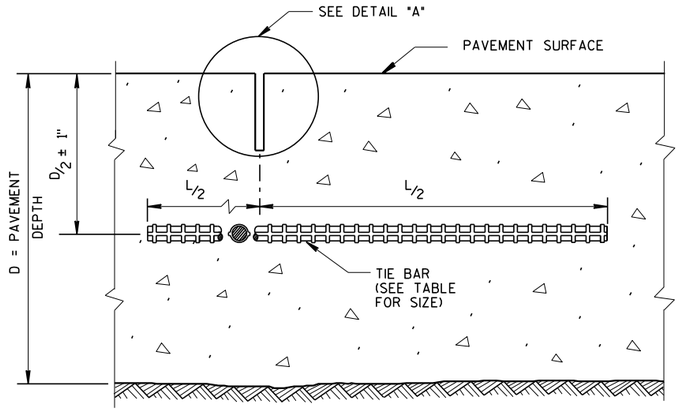
SDD 13A11 - 03b



CONSTRUCTION JOINT



SAWED JOINT

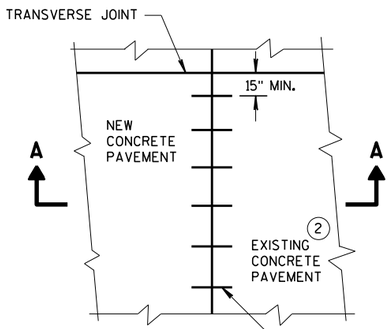
GENERAL NOTES

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

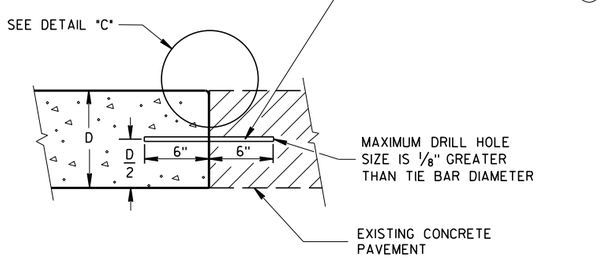
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

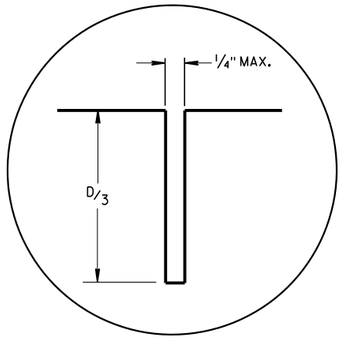


PLAN VIEW

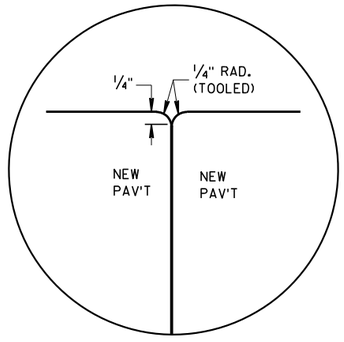


SECTION A-A

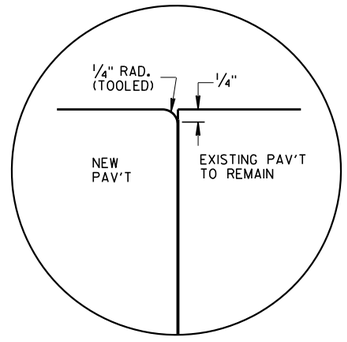
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



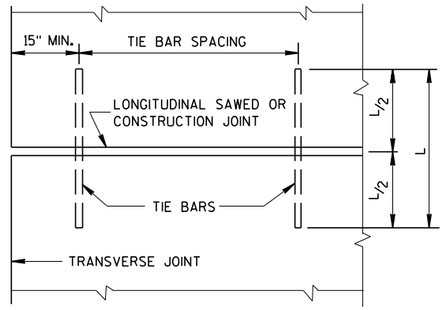
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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S.D.D. 13 C 1-19

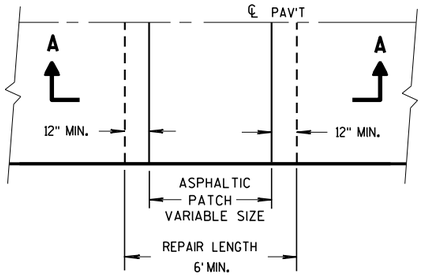
GENERAL NOTES

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.

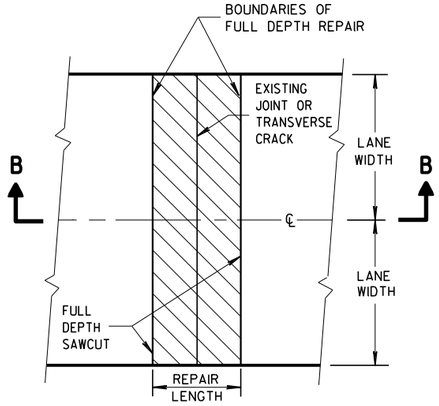
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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.

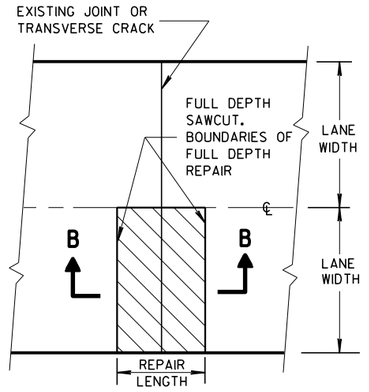
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

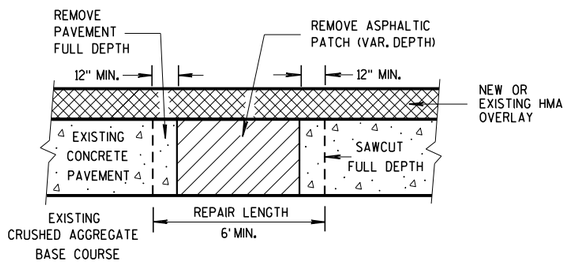


PLAN VIEW
(DOUBLE LANE REPAIR)



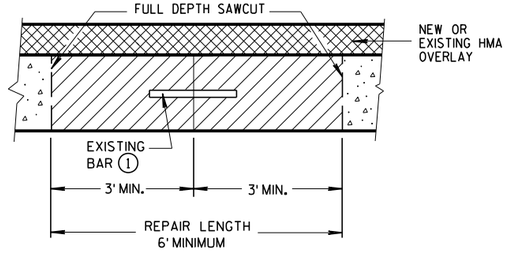
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSI
DEPARTMENT OF TRANSPORTATION

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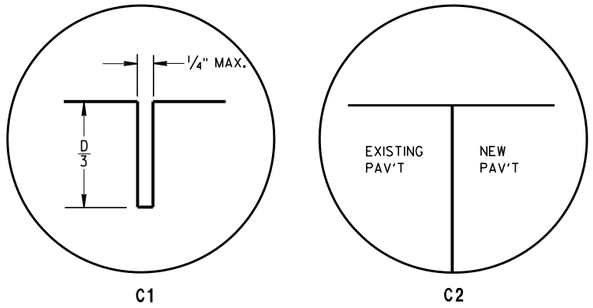
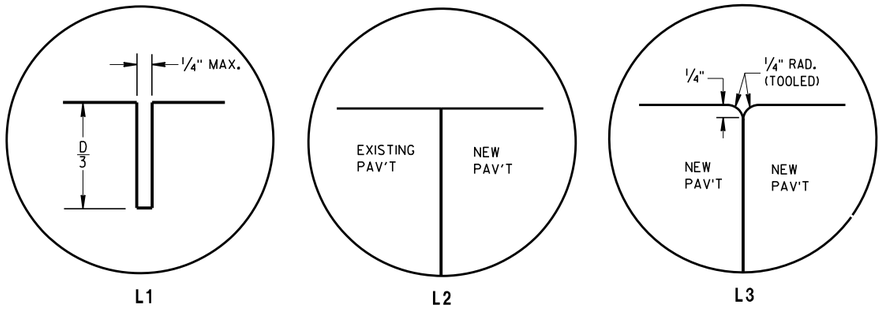
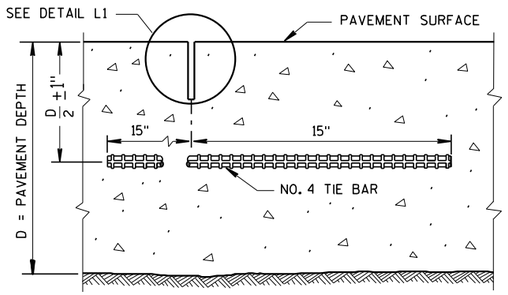
S.D.D. 13 C 14-7a



TRANSVERSE JOINTS

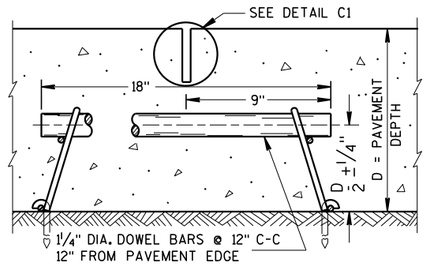


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

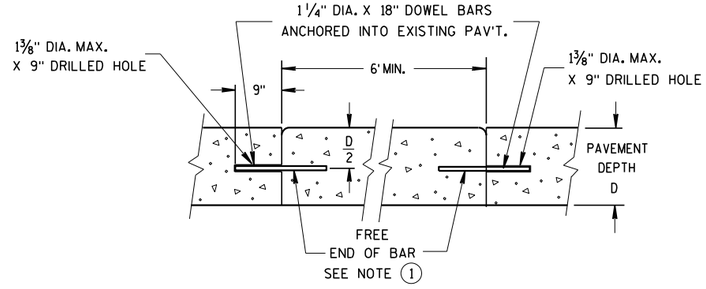
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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

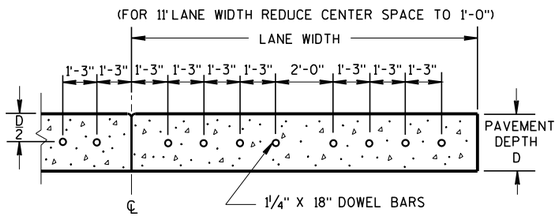
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

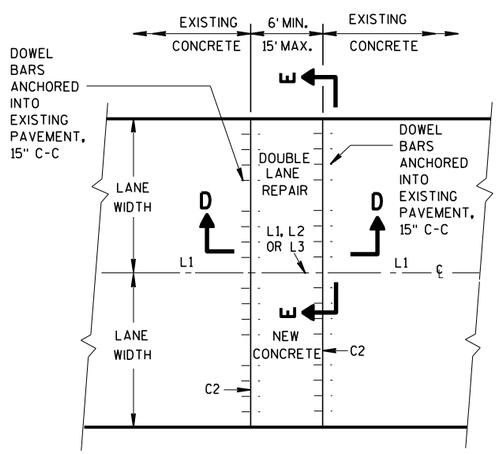


SECTION D-D



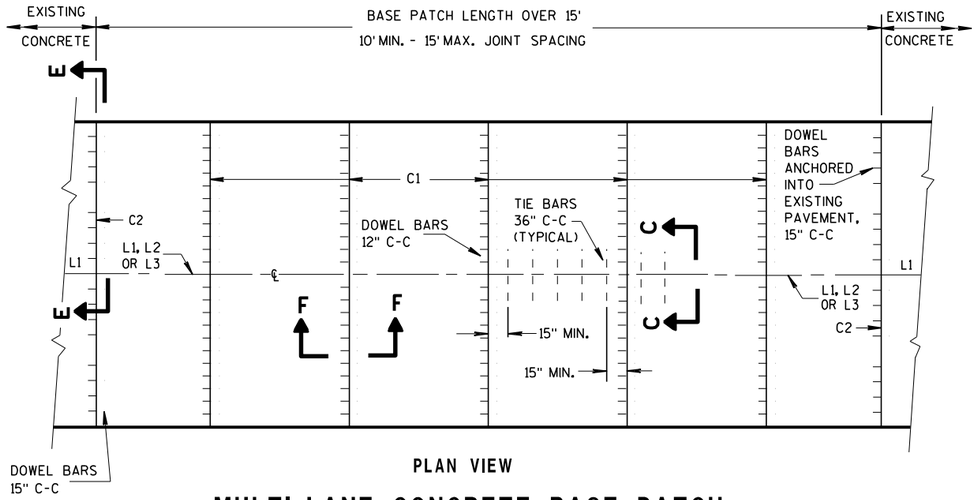
SECTION E-E

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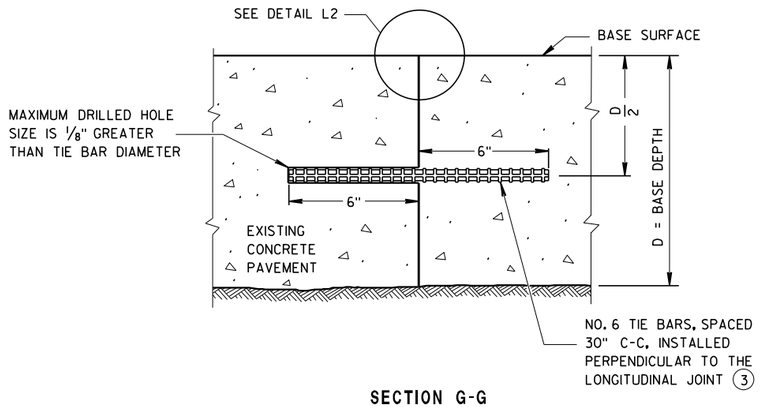
S.D.D. 13 C 14-7b



SECTION G-G

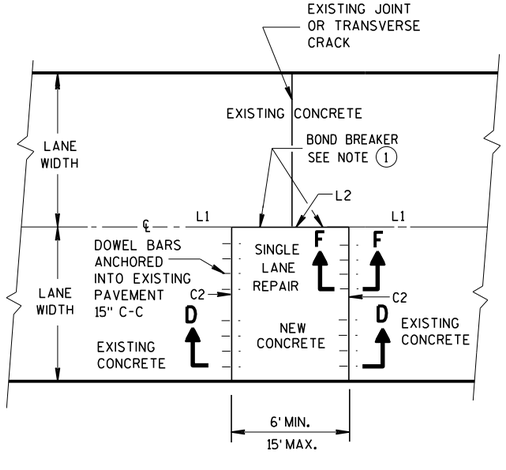
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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.

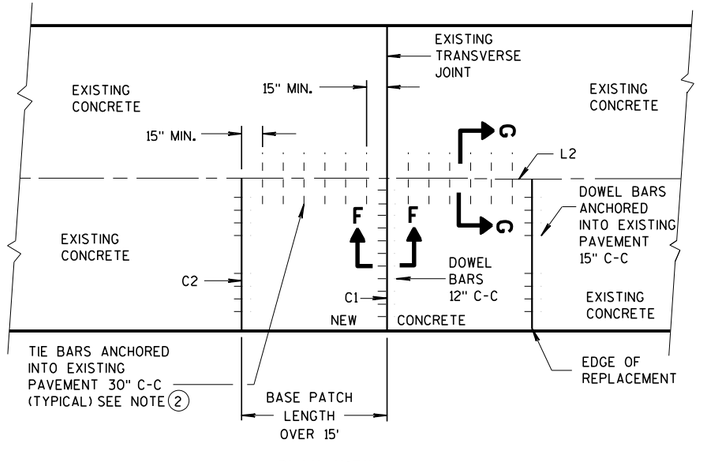
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO 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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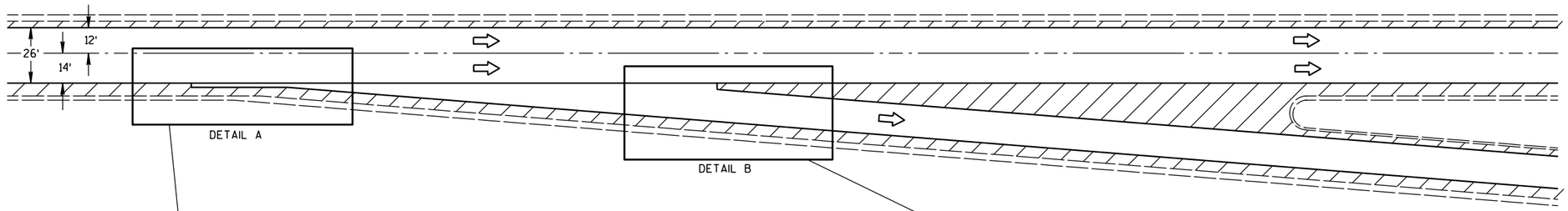
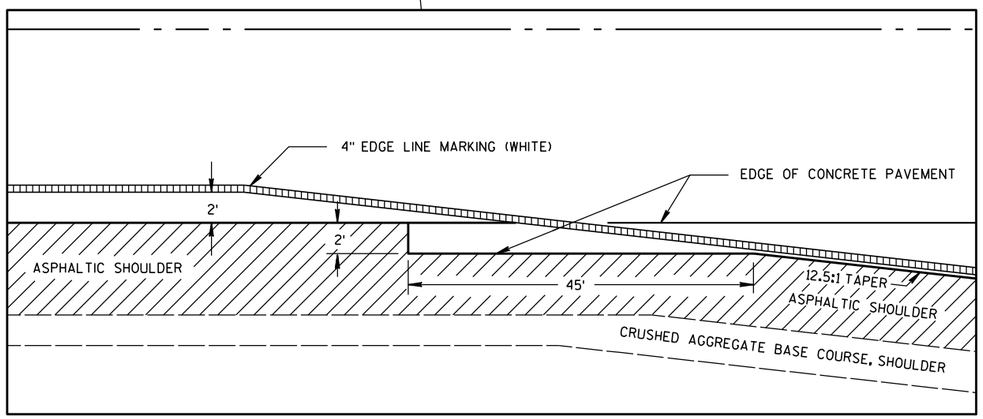
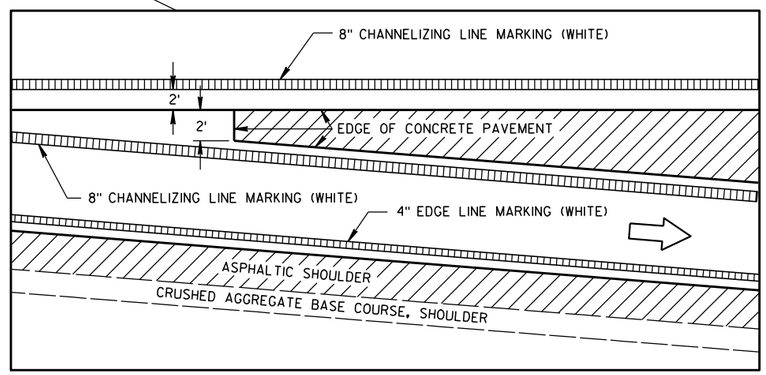
S.D.D. 13 C 14-7c



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

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

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

STATE OF WISCONSIN
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S.D.D. 13 C 17-1a

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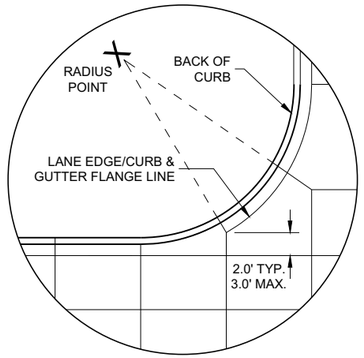
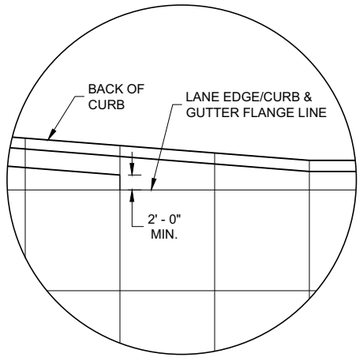
S.D.D. 13 C 17-1a



DETAIL "A"



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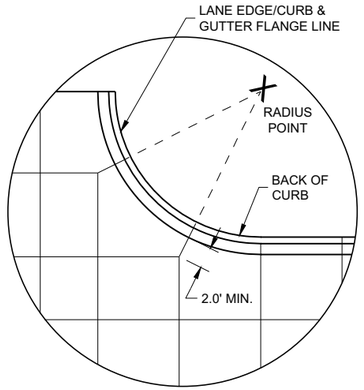

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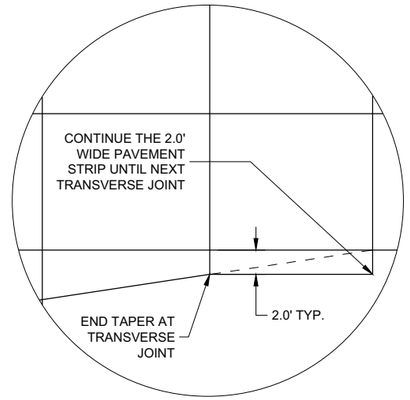


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

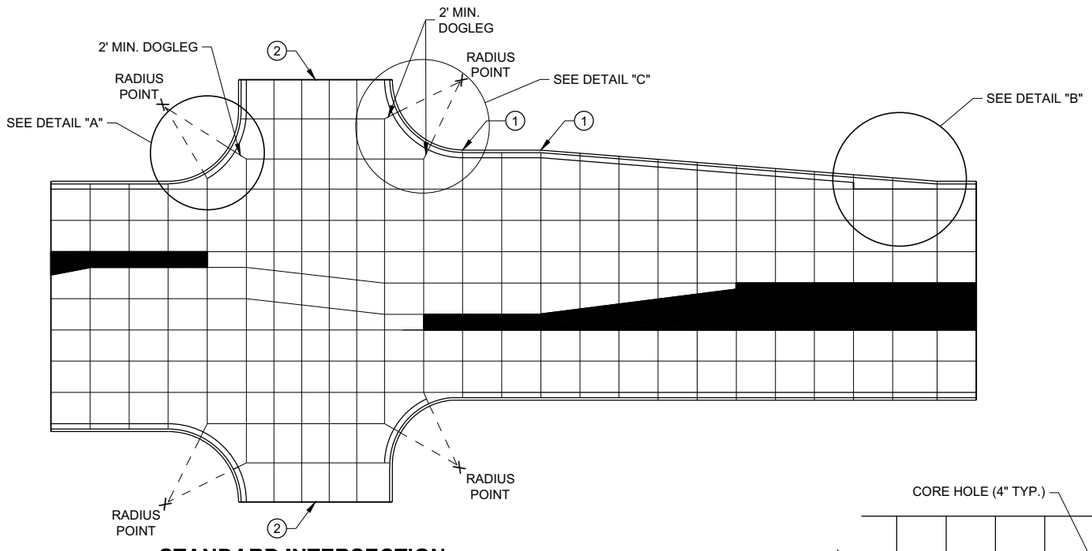
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

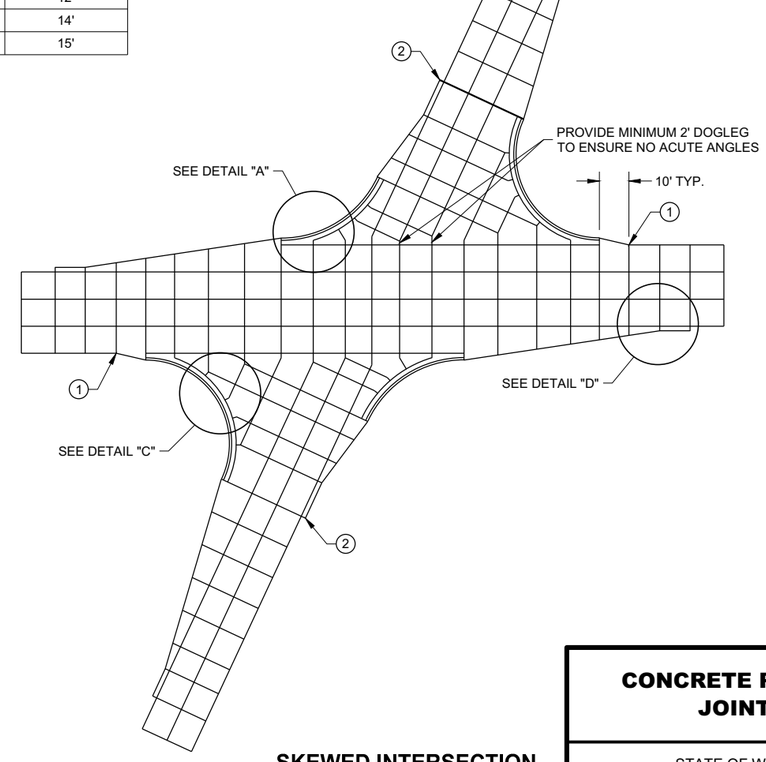
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



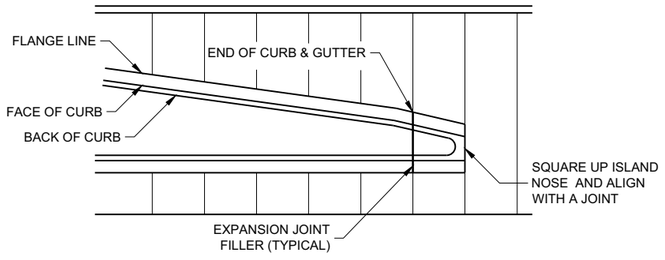
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

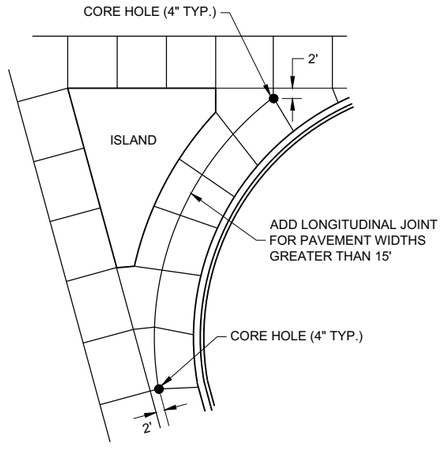
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C18 - 07a

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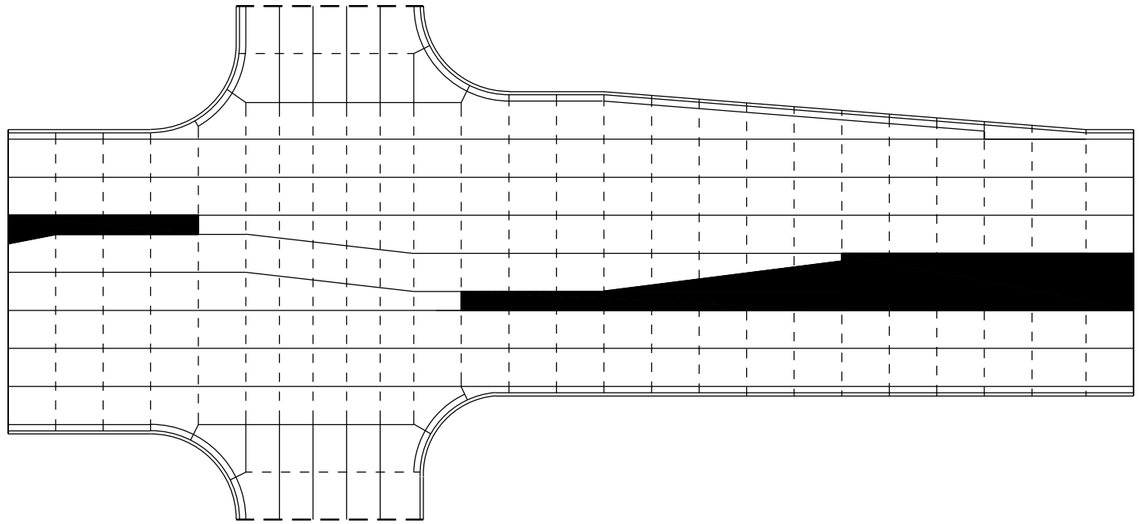
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

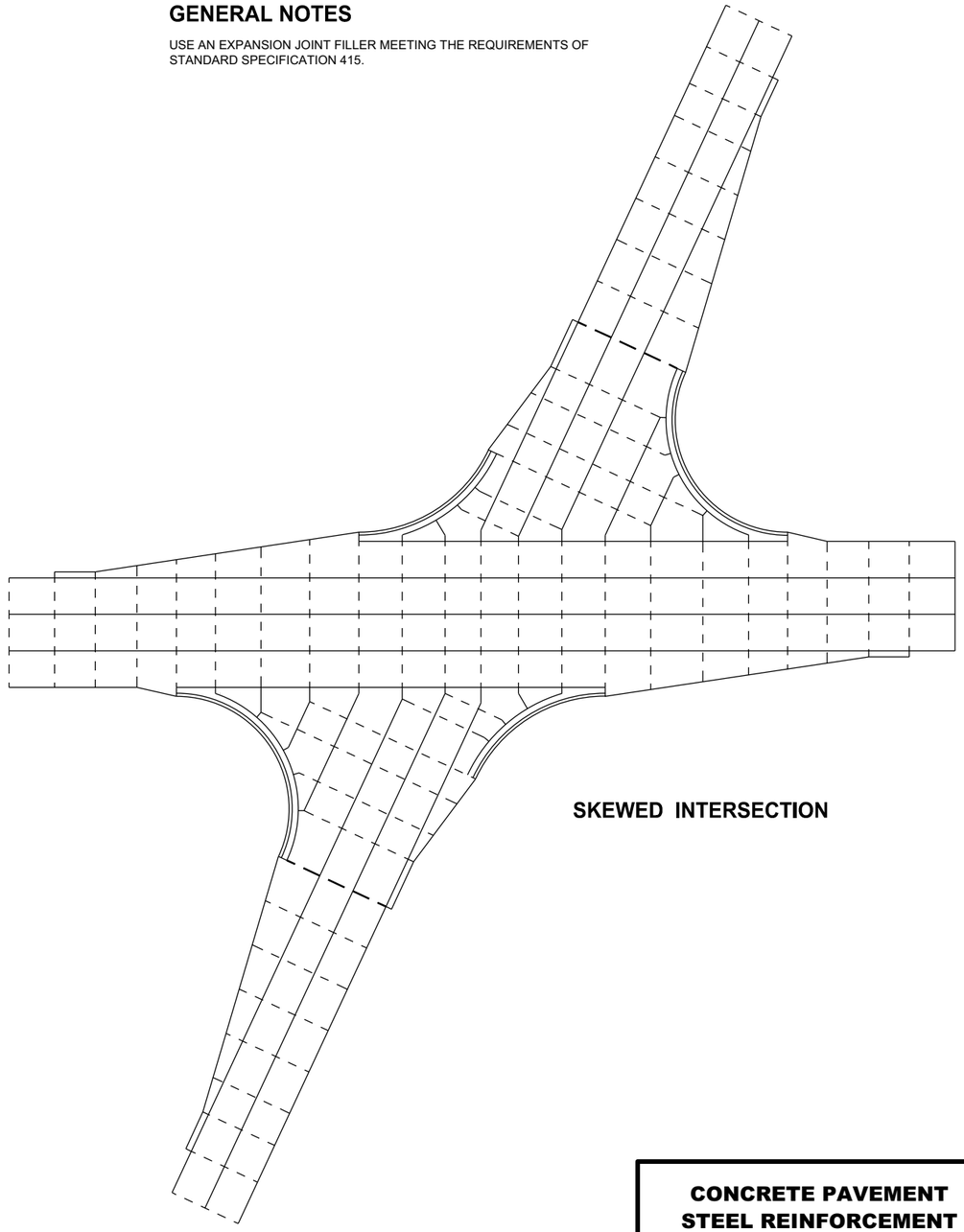
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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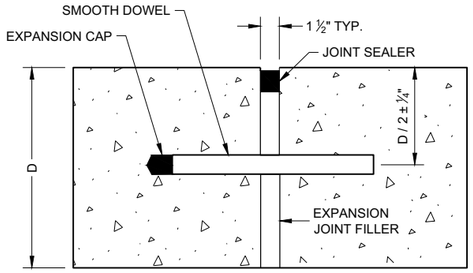
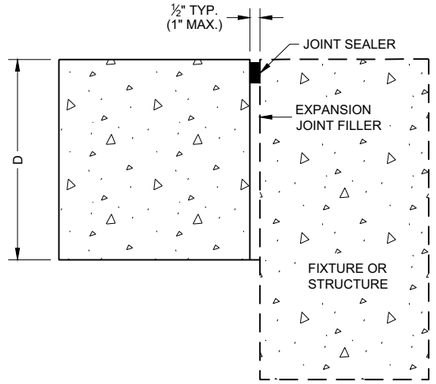
SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

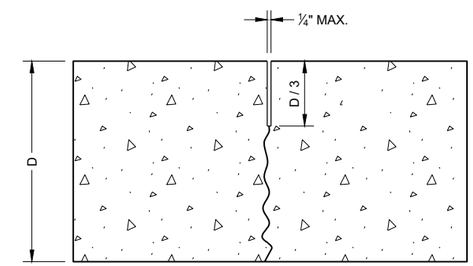
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

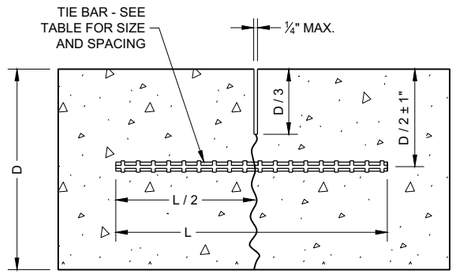
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

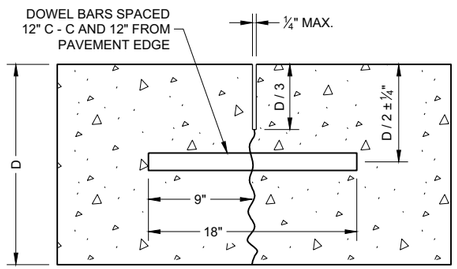
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

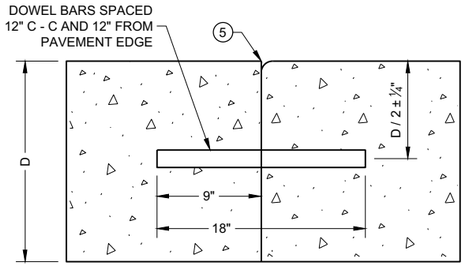


TIED LONGITUDINAL

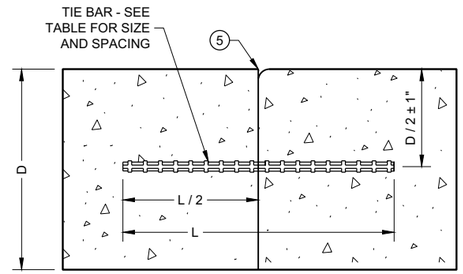


DOWELED TRANSVERSE

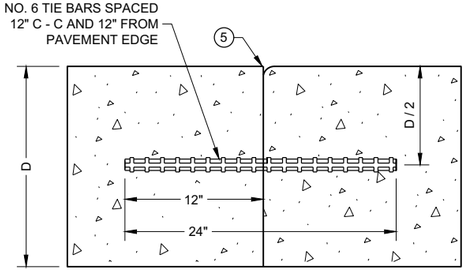
CONTRACTION JOINTS (2)



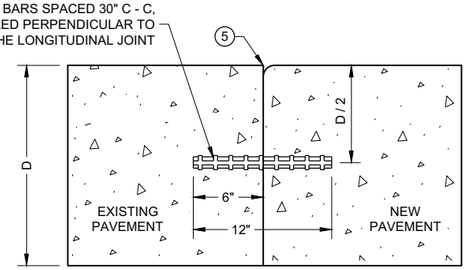
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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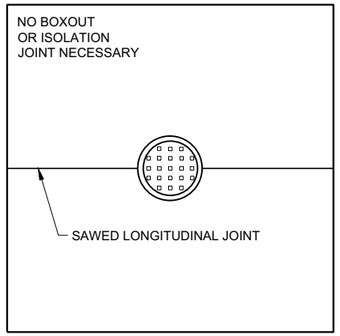
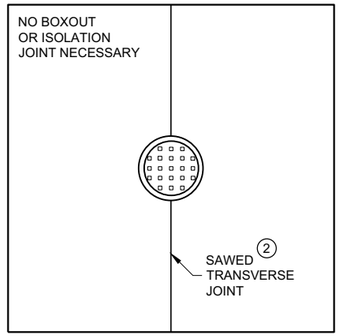
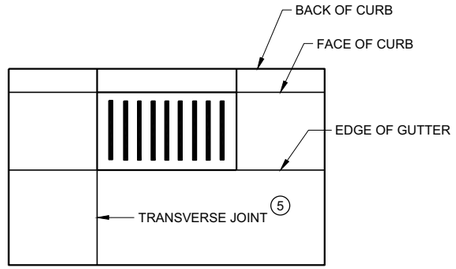


MANHOLE WITH LONGITUDINAL JOINT



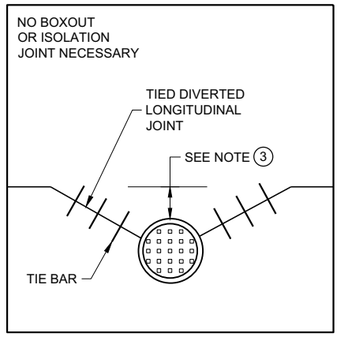
MANHOLE WITH TRANSVERSE JOINT



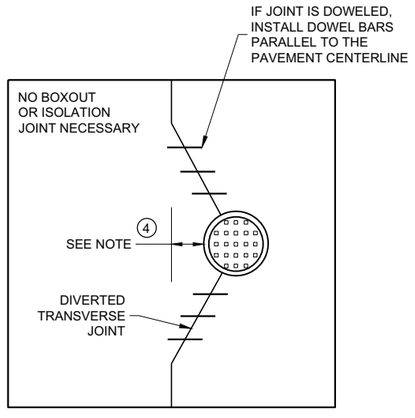
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

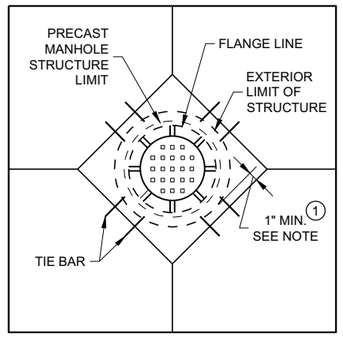
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD13C18 - 07d

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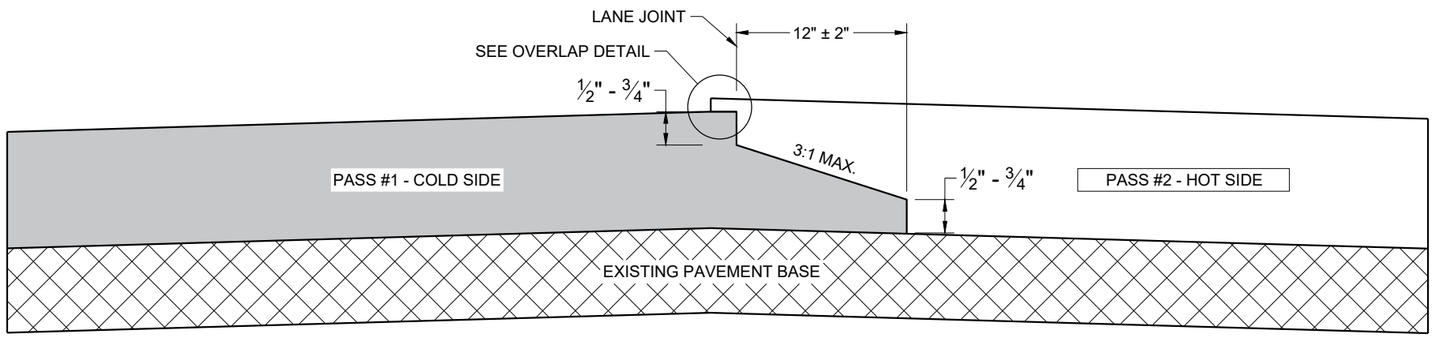
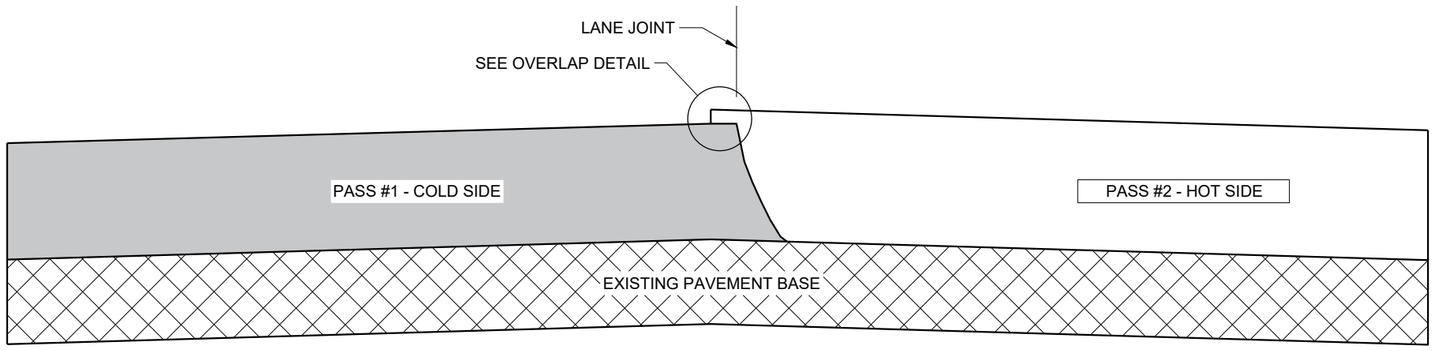
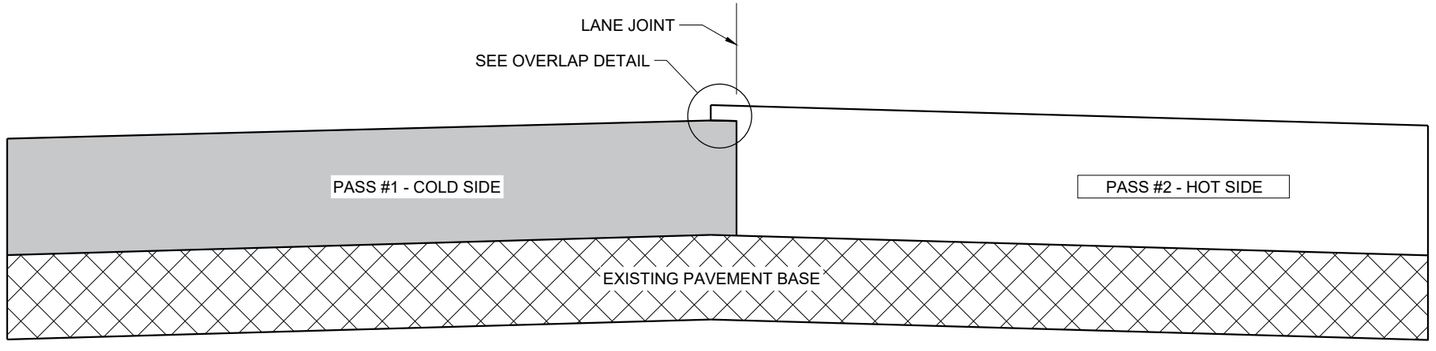
SDD13C18 - 07d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

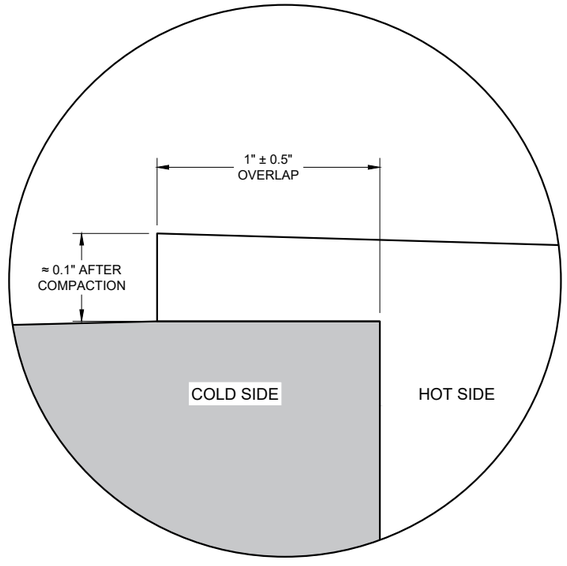
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

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

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

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



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES

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

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

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

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

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

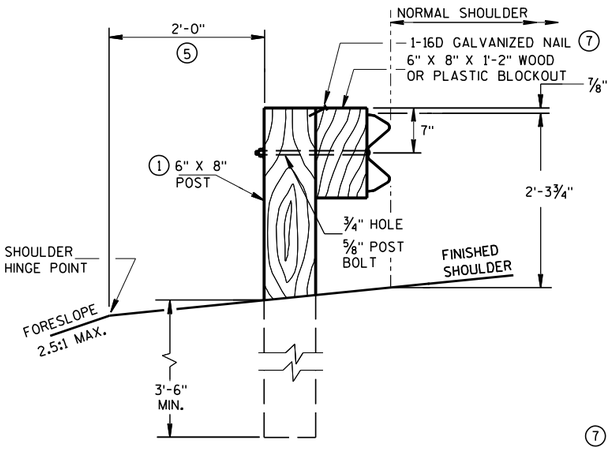
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

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

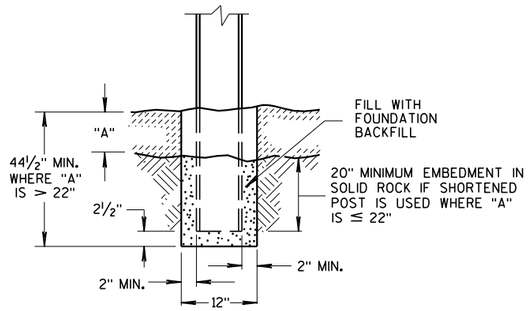
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

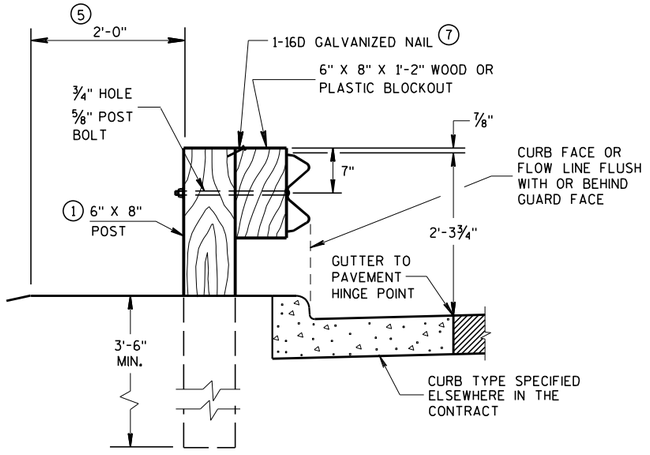
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



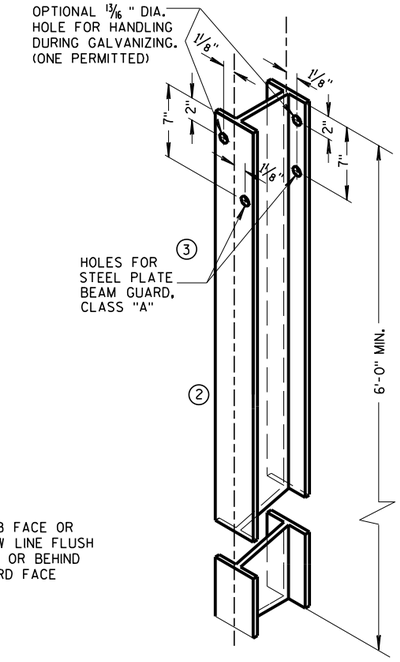
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



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

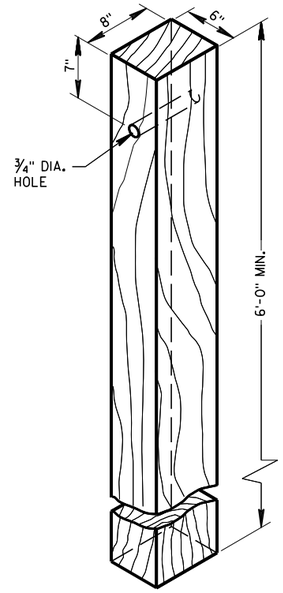


END VIEW
LOCATED ALONG A CURBED ROADWAY

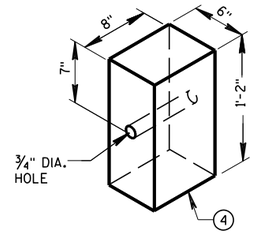


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

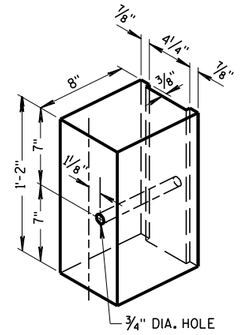
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



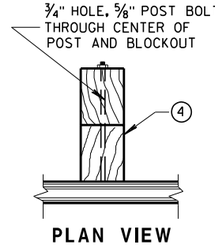
WOOD POST
(6"X8") NOMINAL



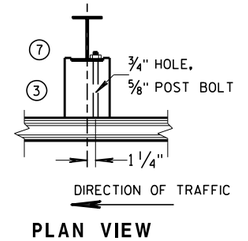
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



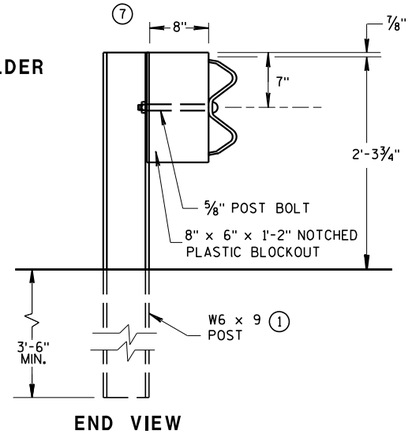
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



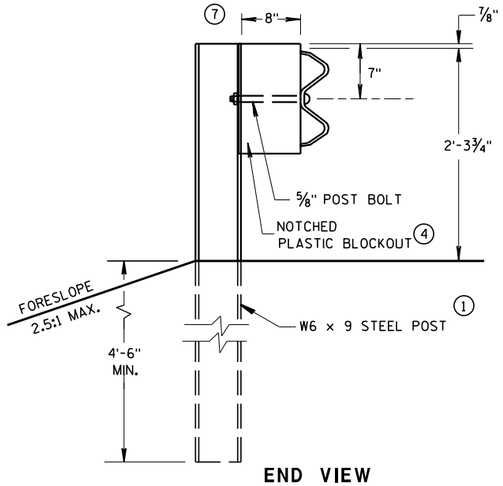
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



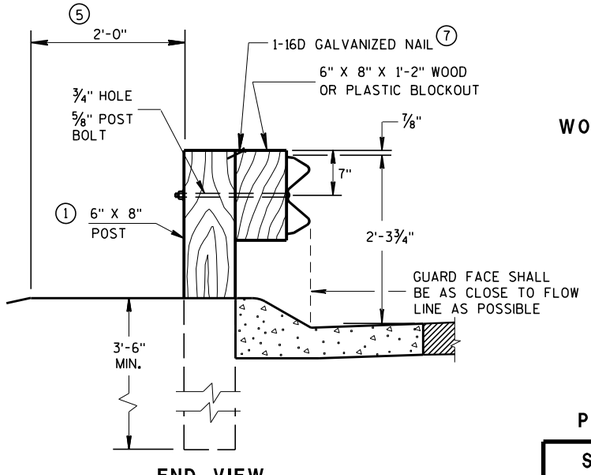
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



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



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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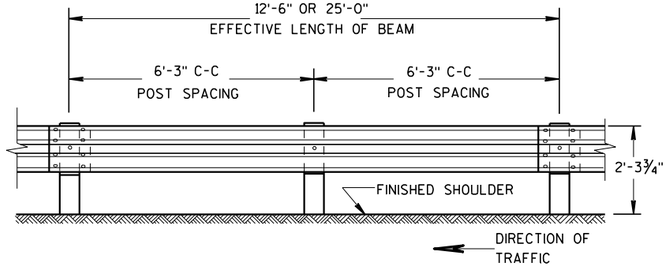
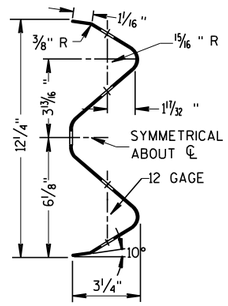
S.D.D. 14 B 15-11a

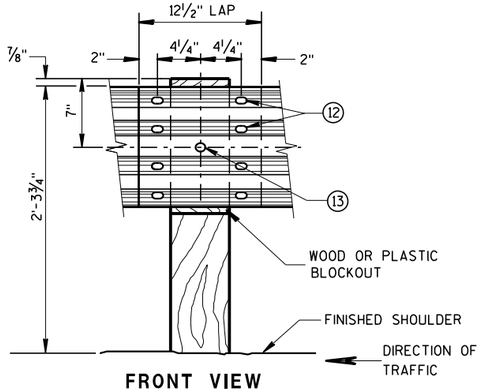


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

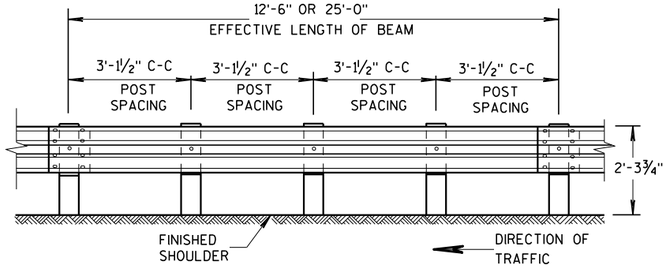
GENERAL NOTES

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.

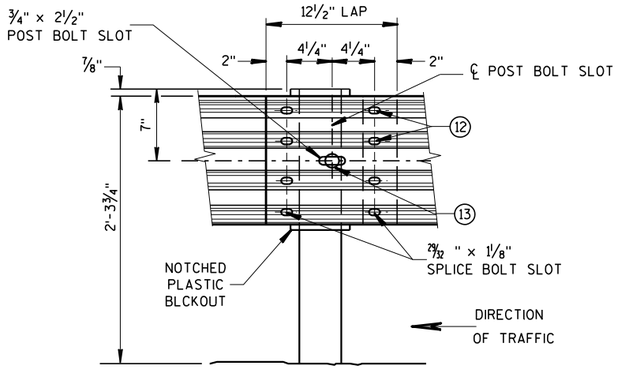
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

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



FRONT VIEW

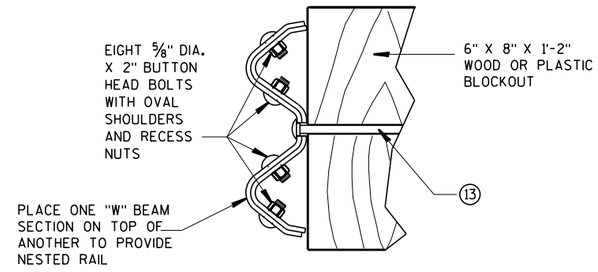
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

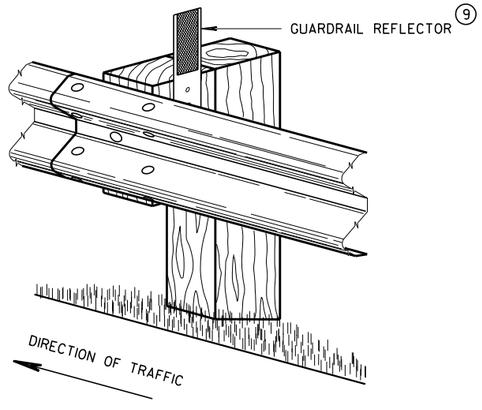
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



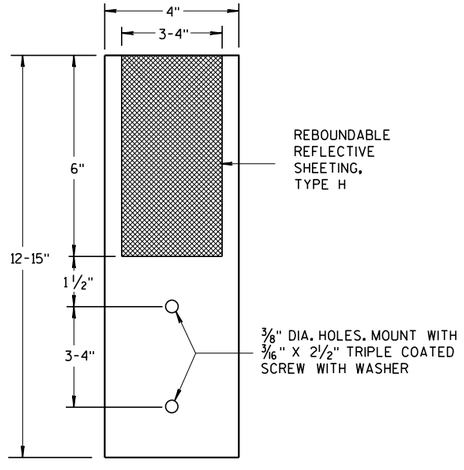
NESTED W BEAM (NW)

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

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



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



4"x 12" GUARDRAIL REFLECTOR

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

STATE OF WISCO 136
DEPARTMENT OF TRANSPORTATION

6

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

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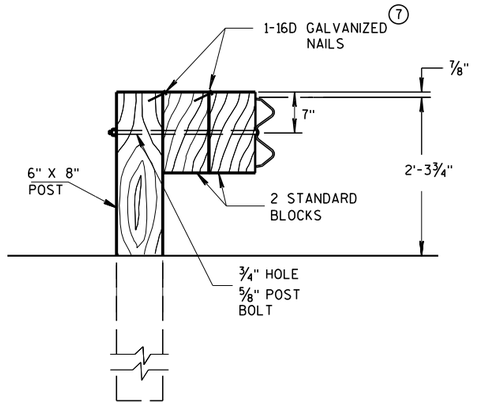
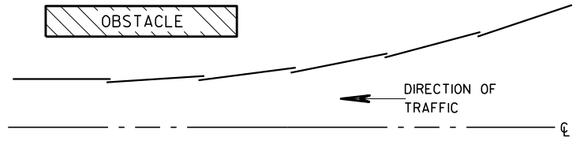
S.D.D. 14 B 15-11b

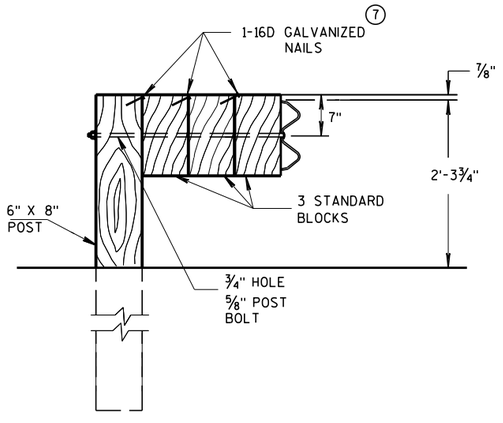


DETAIL FOR DOUBLE BLOCKS

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

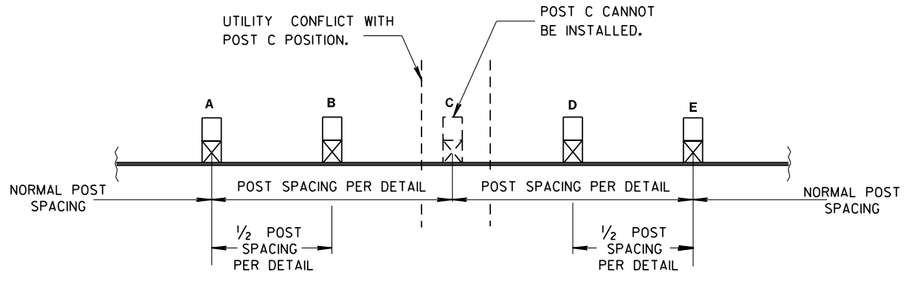


PLAN VIEW
BEAM LAPPING DETAIL



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.

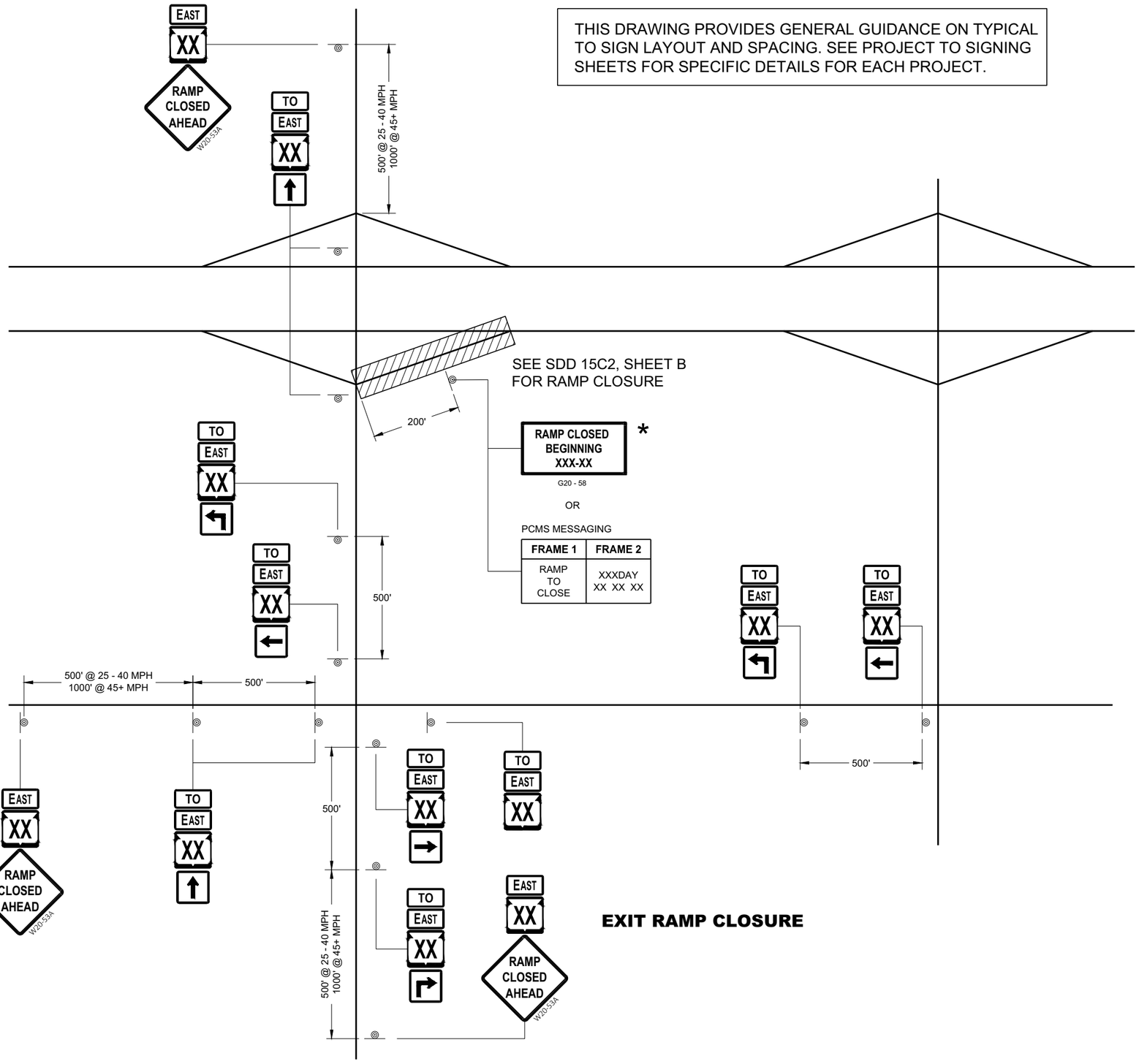
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

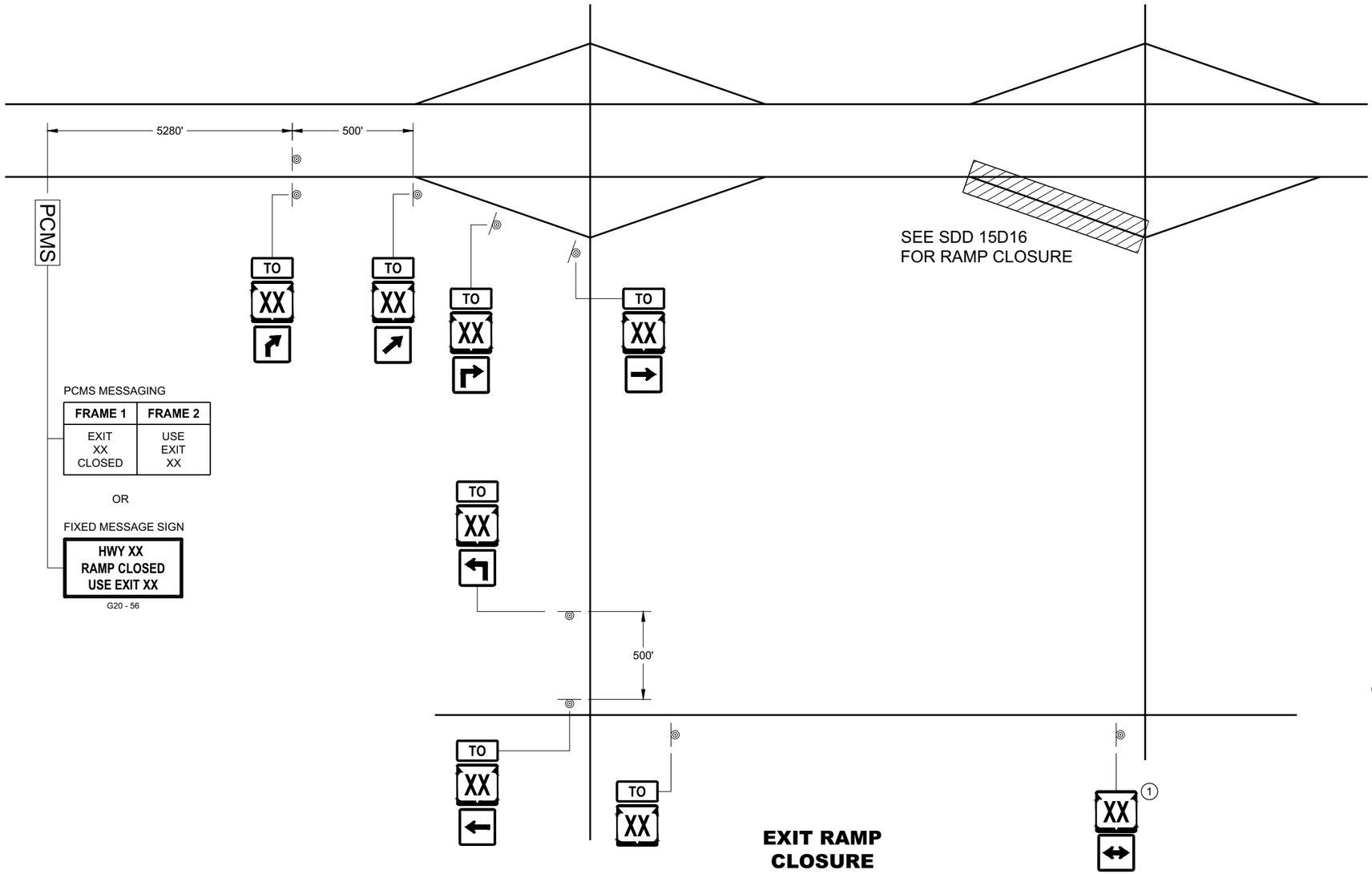
FHWA

6

SDD 15C02 - 08d

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.

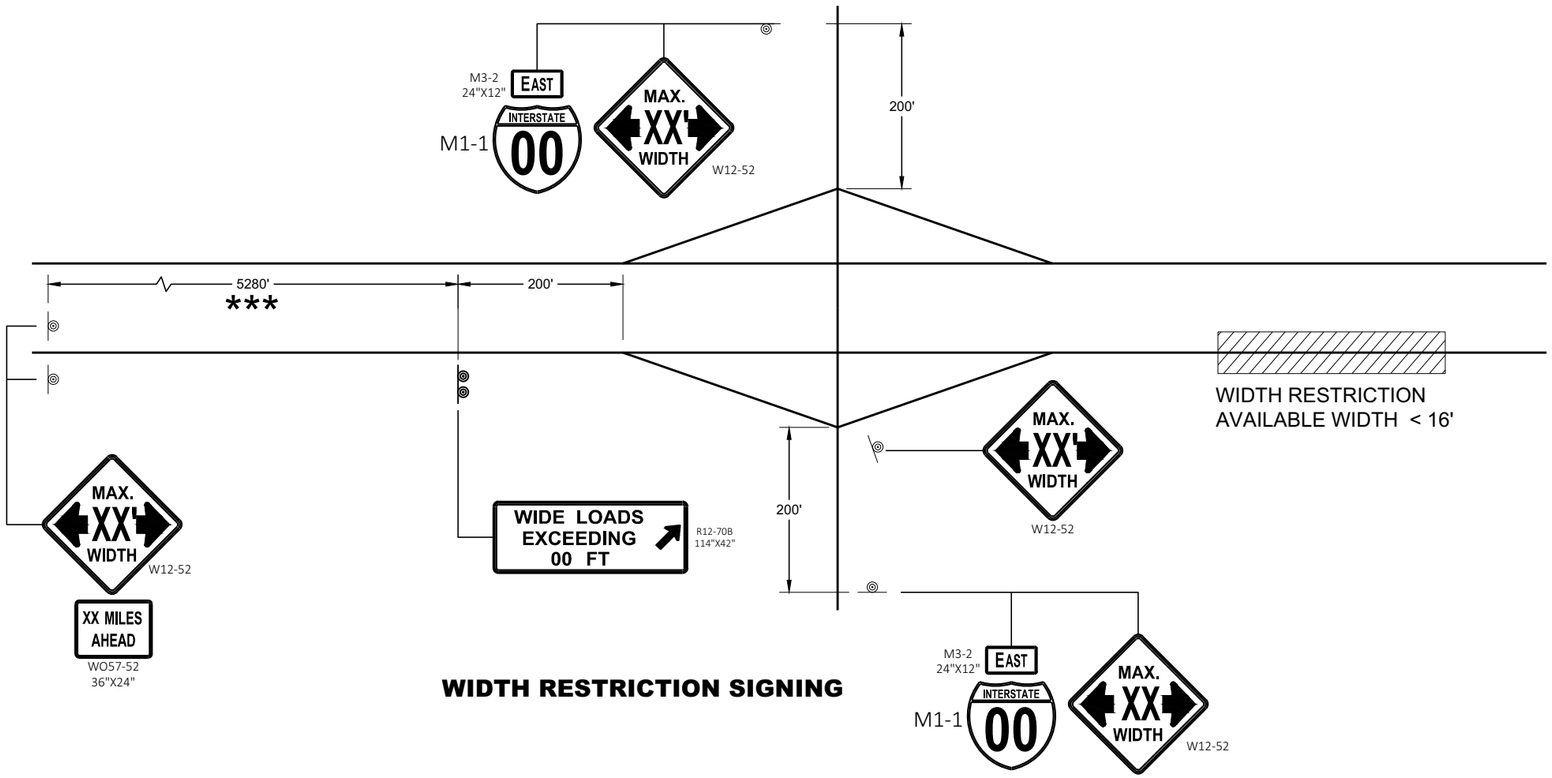
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C02 - 08e

SDD 15C02 - 08e



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

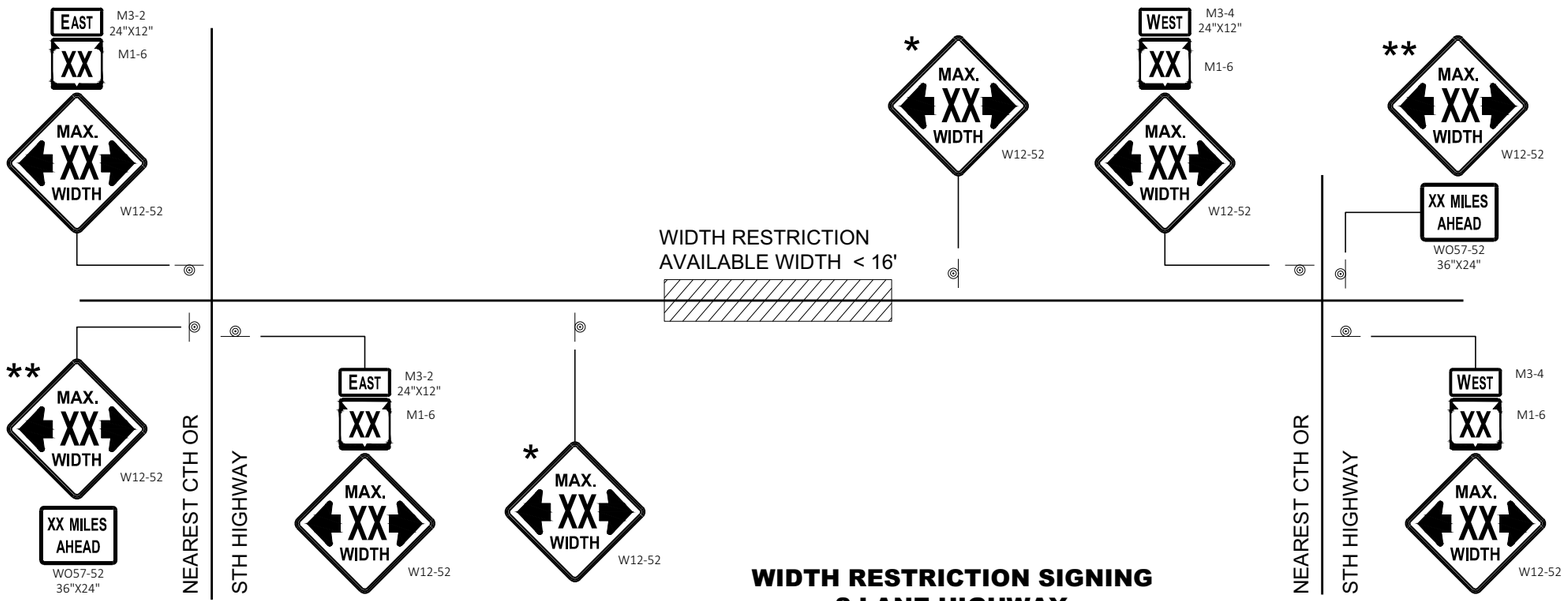
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 140

FHWA

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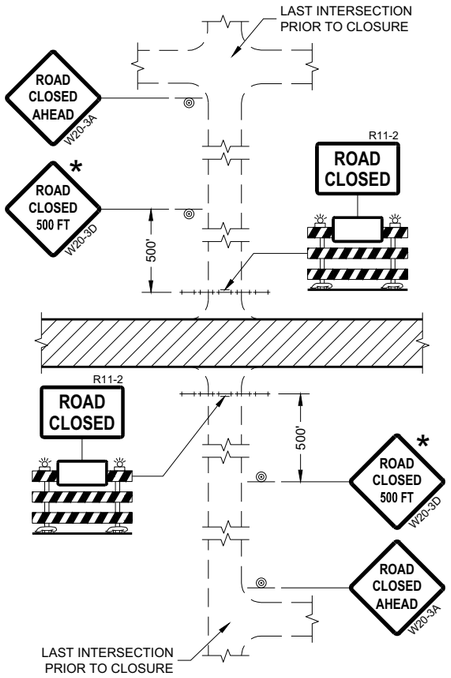
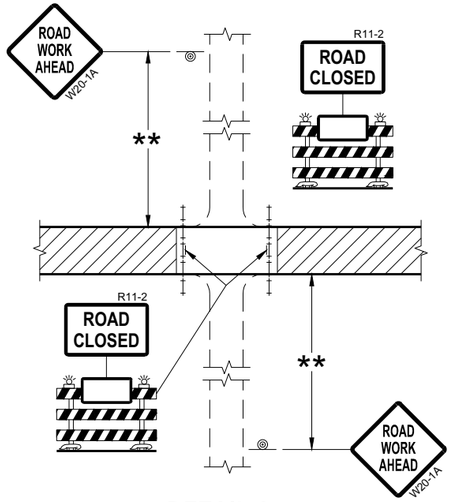
SDD 15C02 - 08f



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.

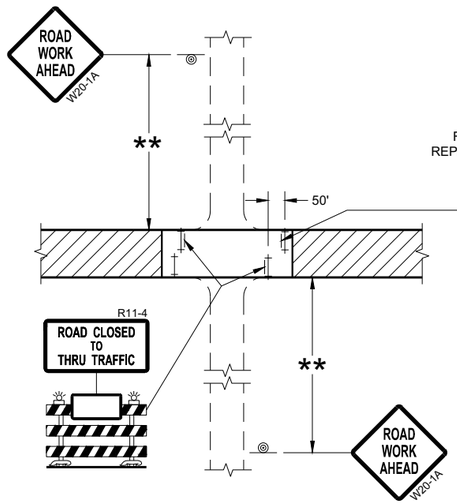
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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.

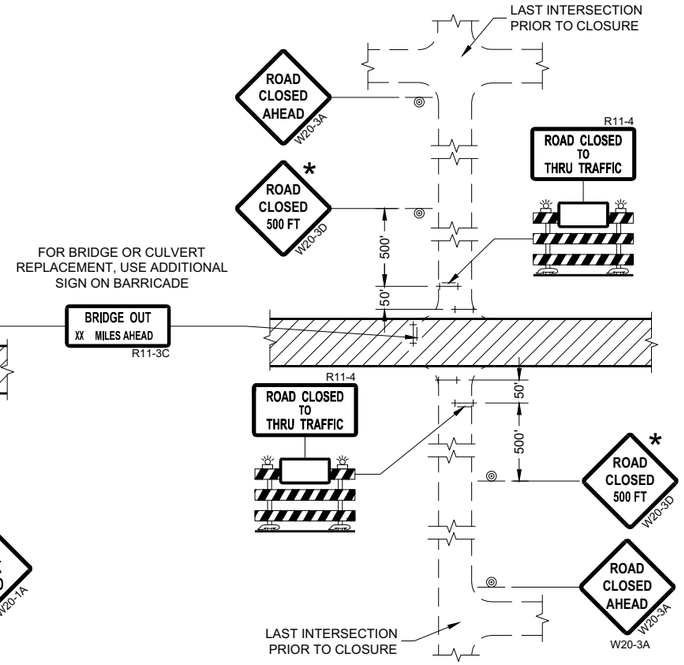
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* 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 ENGINEER

FHWA

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SDD 15C03 - 05

GENERAL NOTES

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

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.

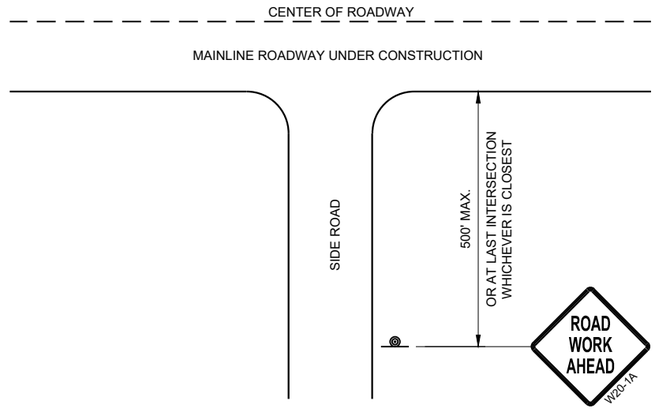
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

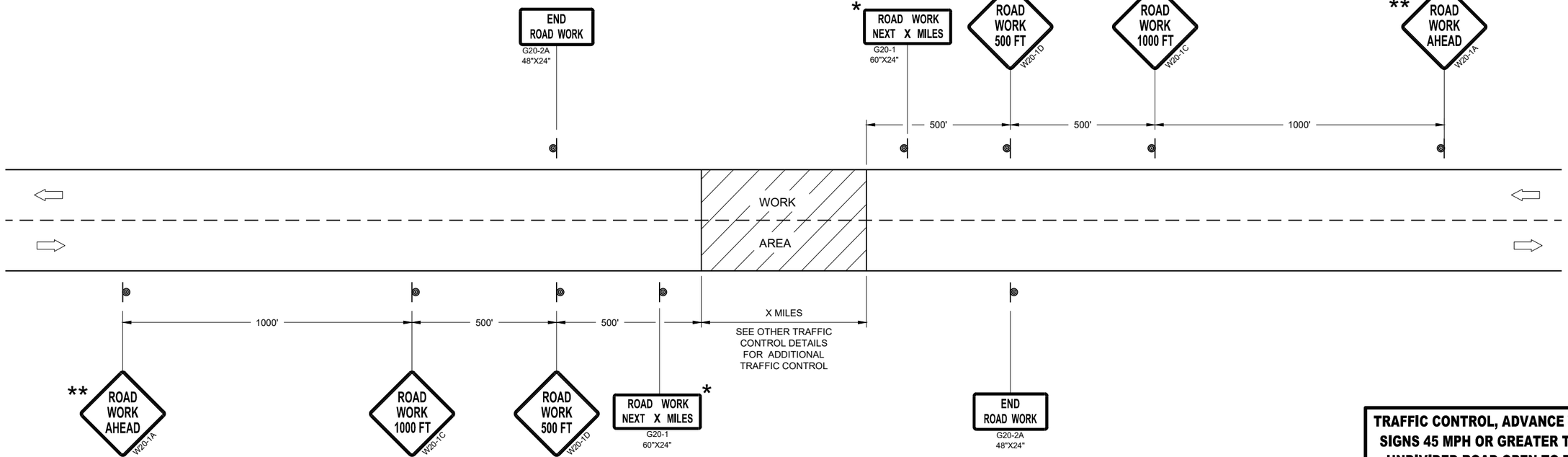
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

GENERAL NOTES

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

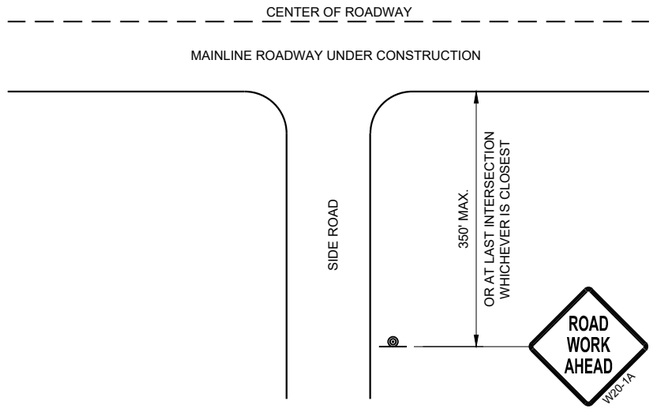
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



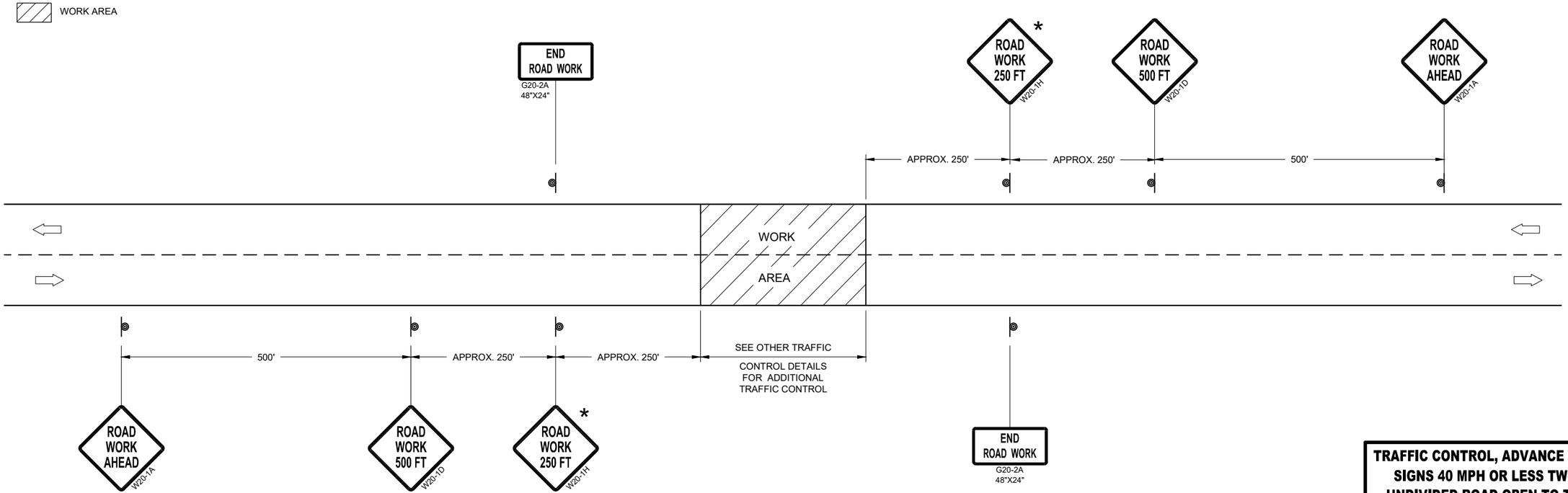
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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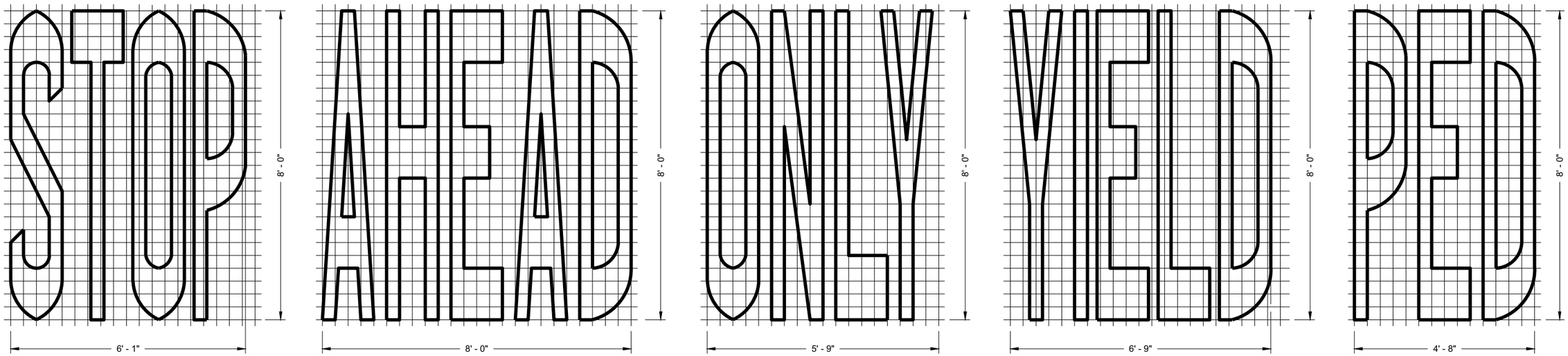
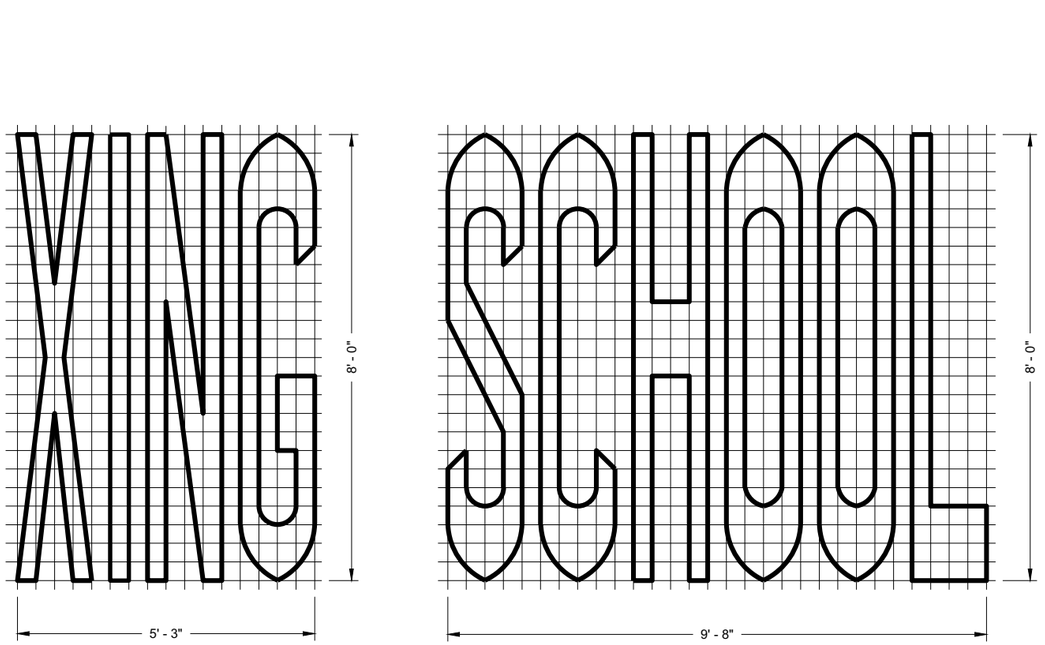
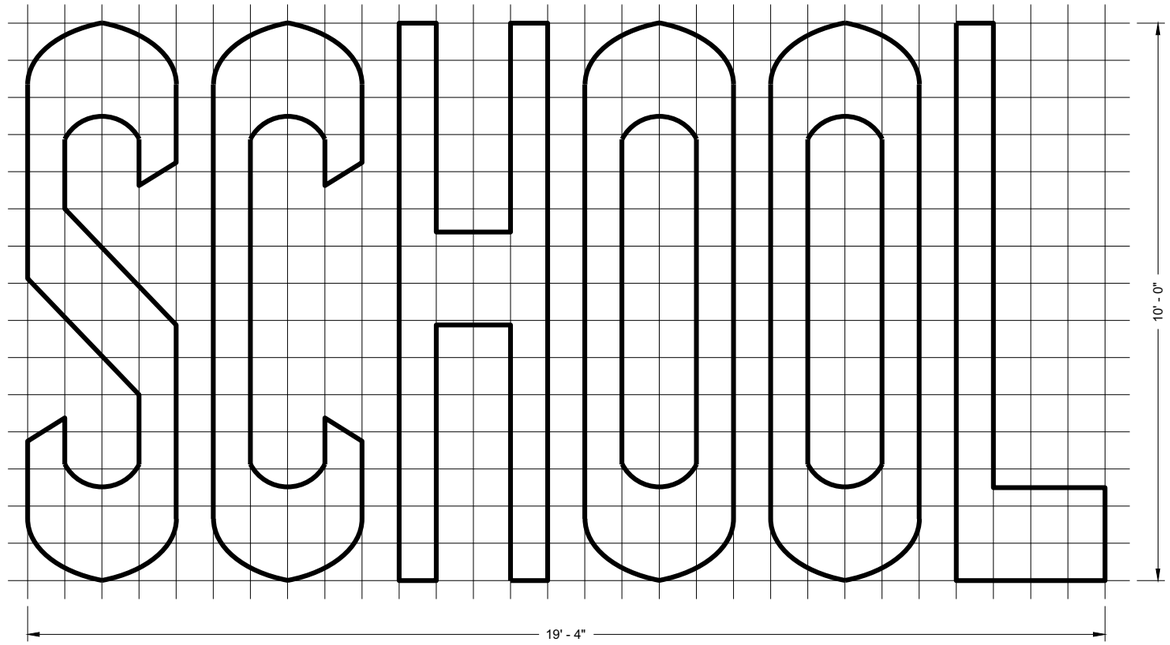
SDD 15C05 - 05





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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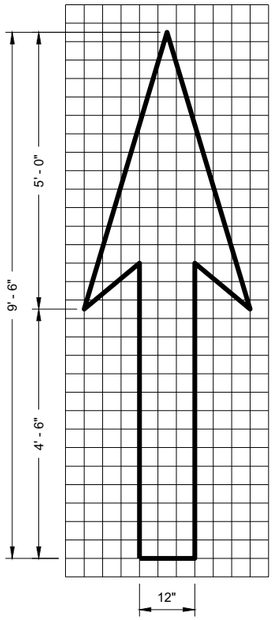
SDD 15C07 - 15b

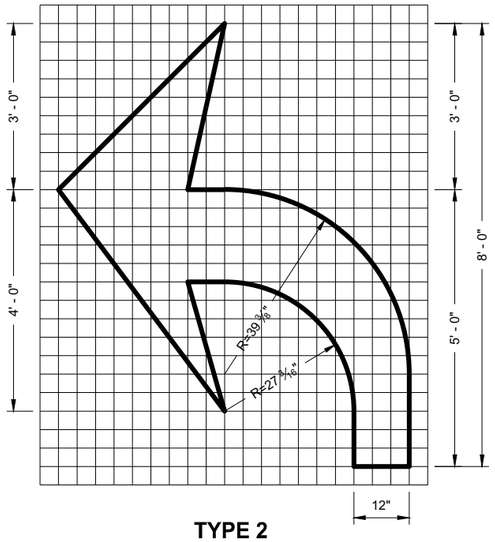
SDD 15C07 - 15b

GENERAL NOTES

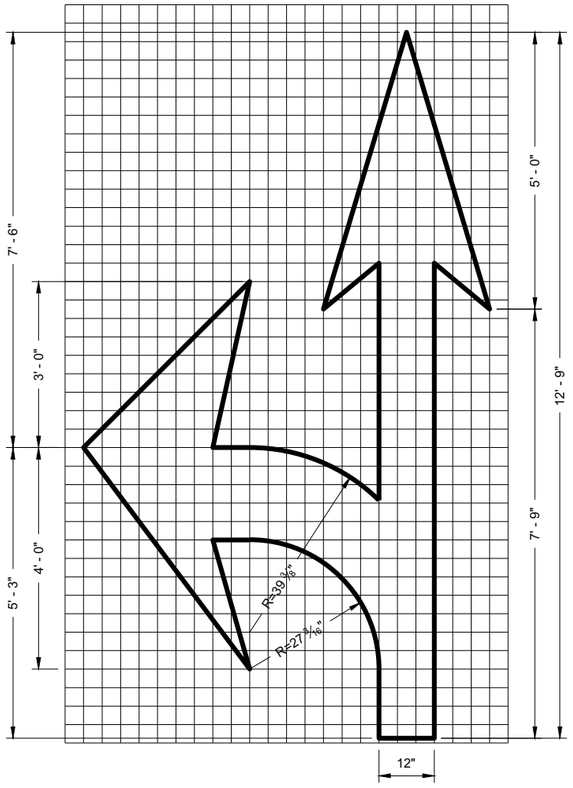
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



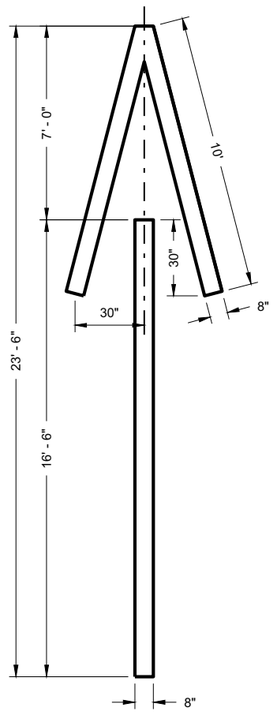
TYPE 1



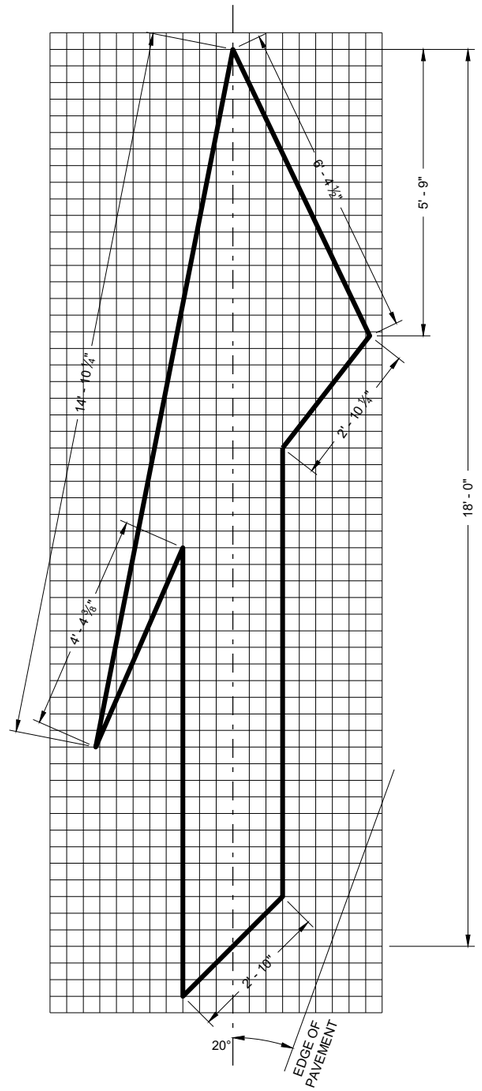
TYPE 2



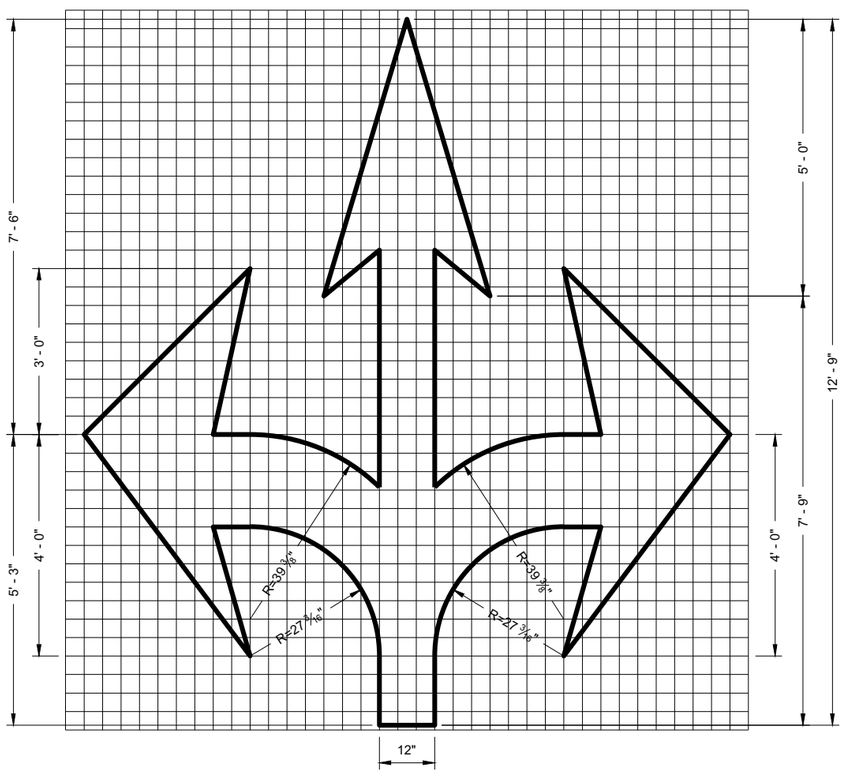
TYPE 3



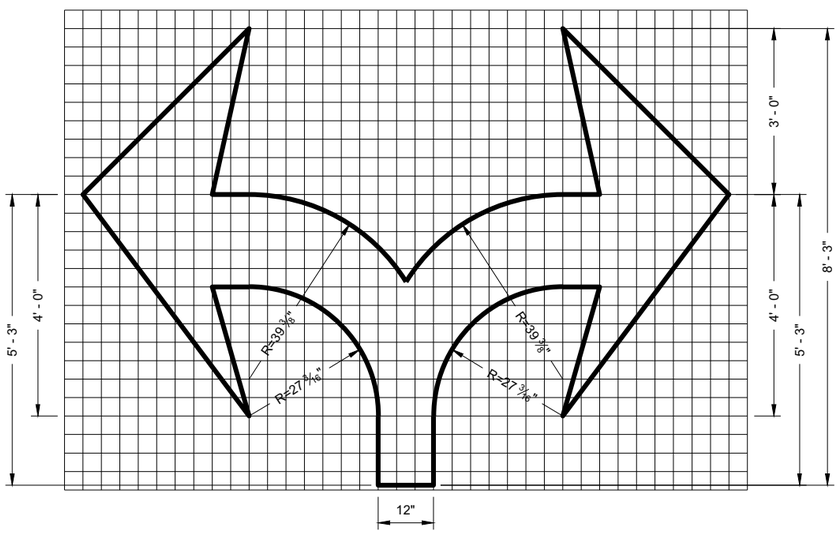
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C07 - 15c

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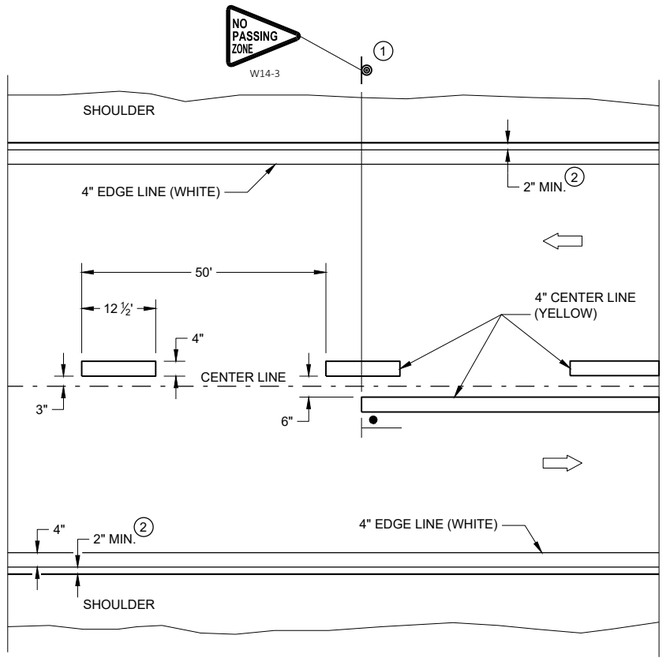
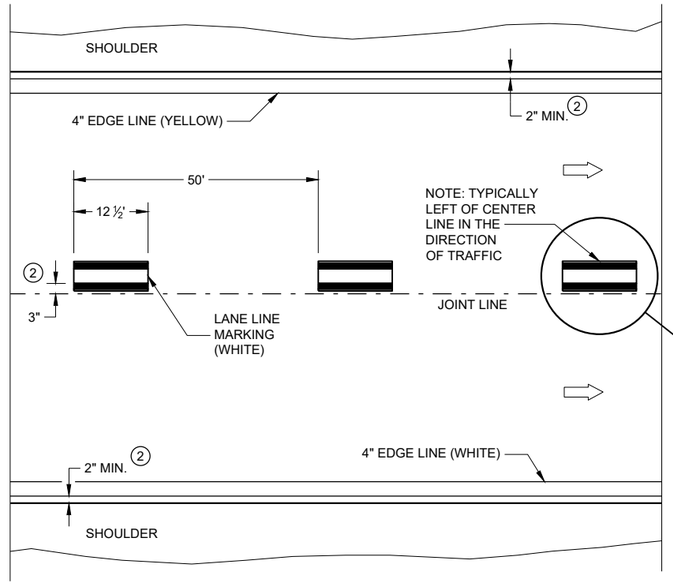
SDD 15C07 - 15c

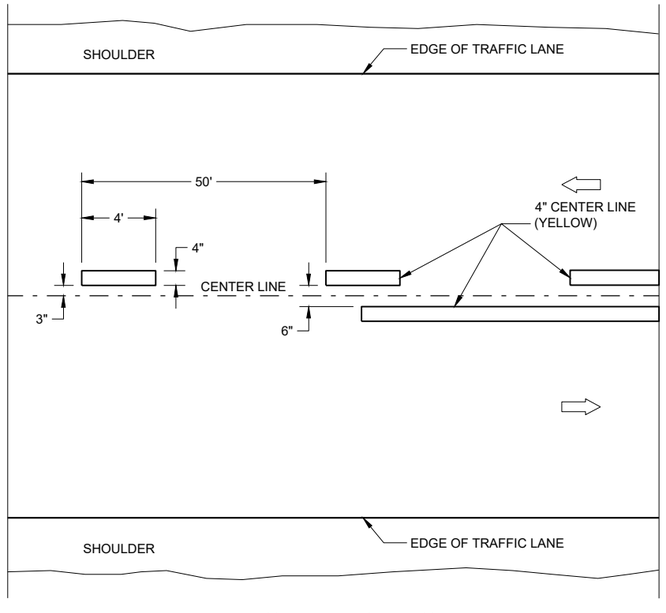


TWO WAY TRAFFIC

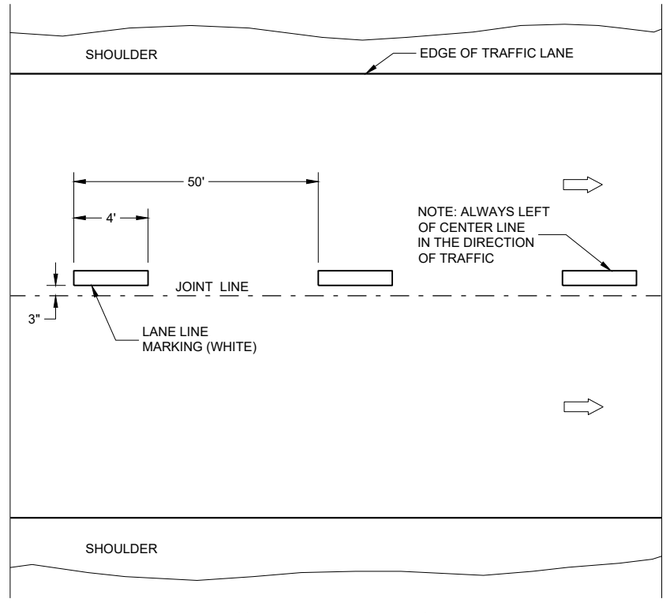


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

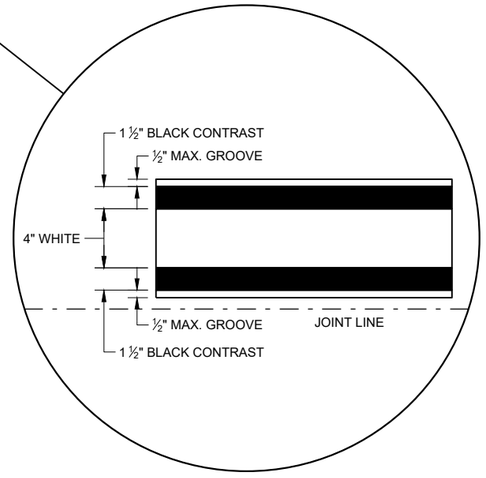
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

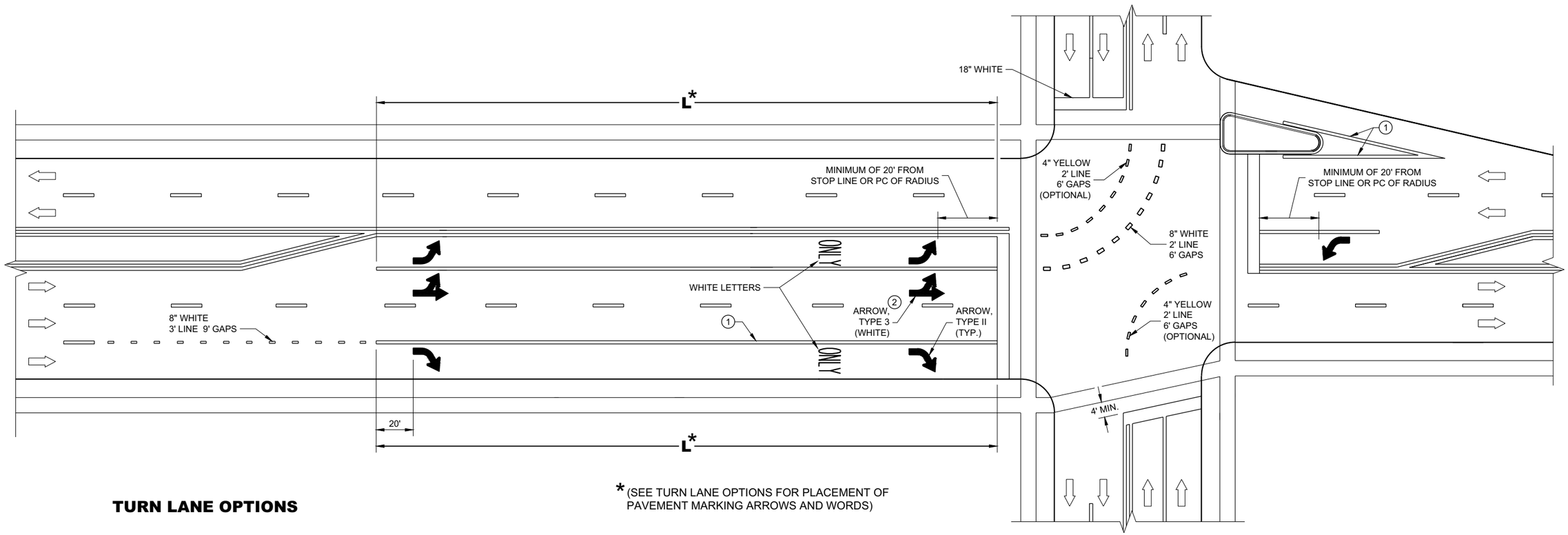
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15C08 - 20a

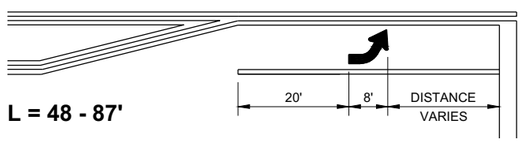
SDD 15C08 - 20a



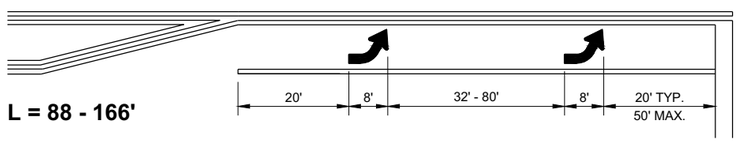
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

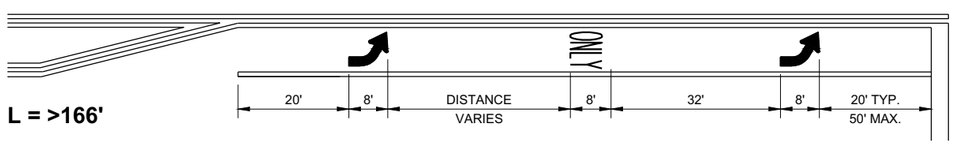
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

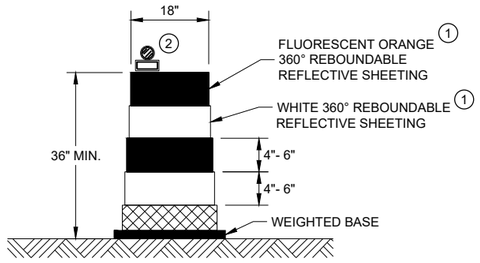
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

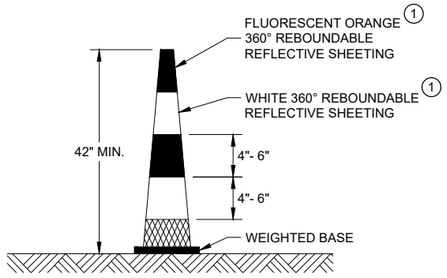
SDD 15C08 - 20c

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.

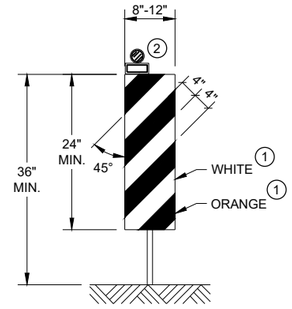


DRUM



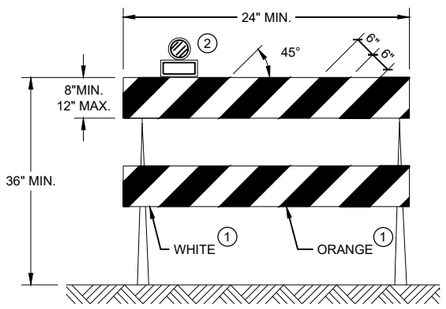
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



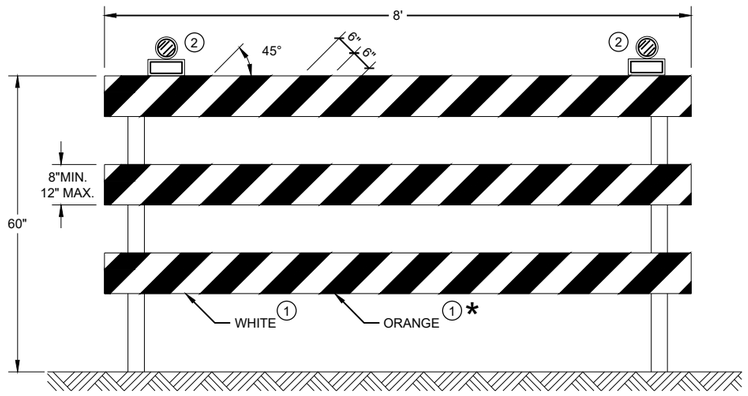
VERTICAL PANEL

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
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

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SDD15C11 - 09b

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SDD15C11 - 09b

LEGEND

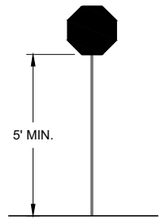
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

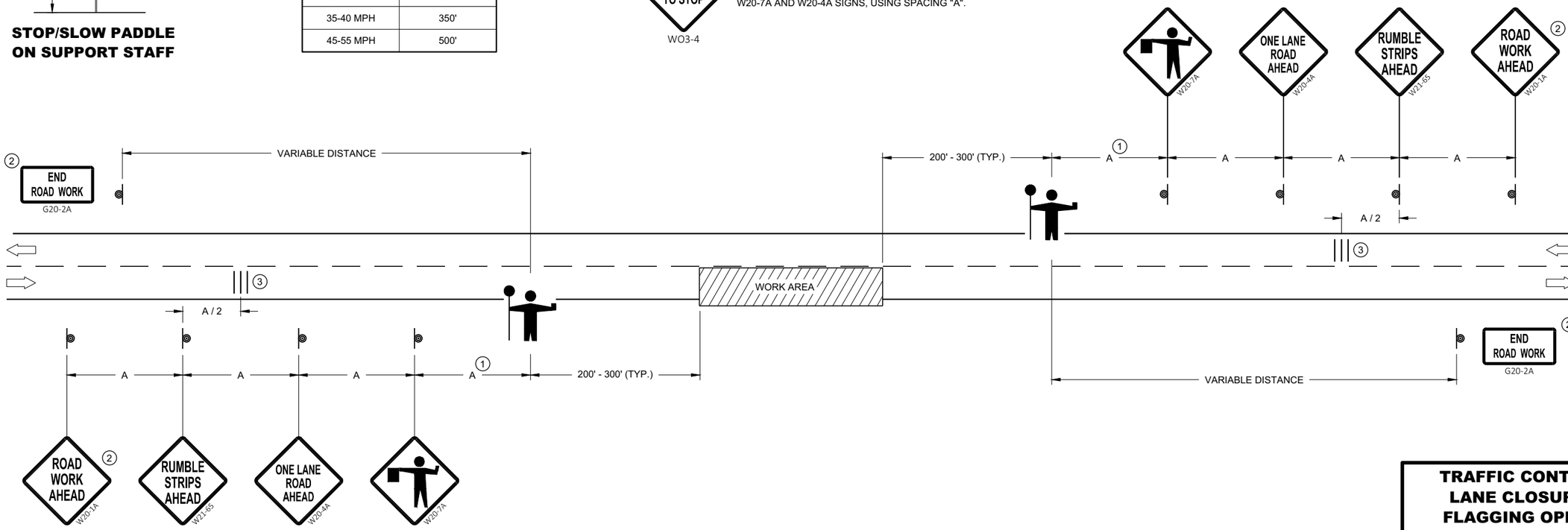
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

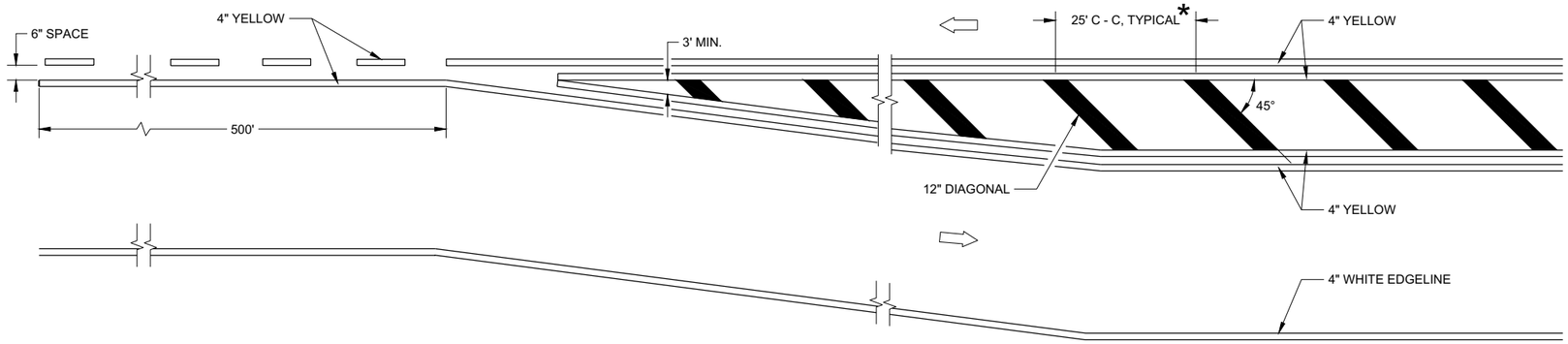
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 07

SDD 15C12 - 07

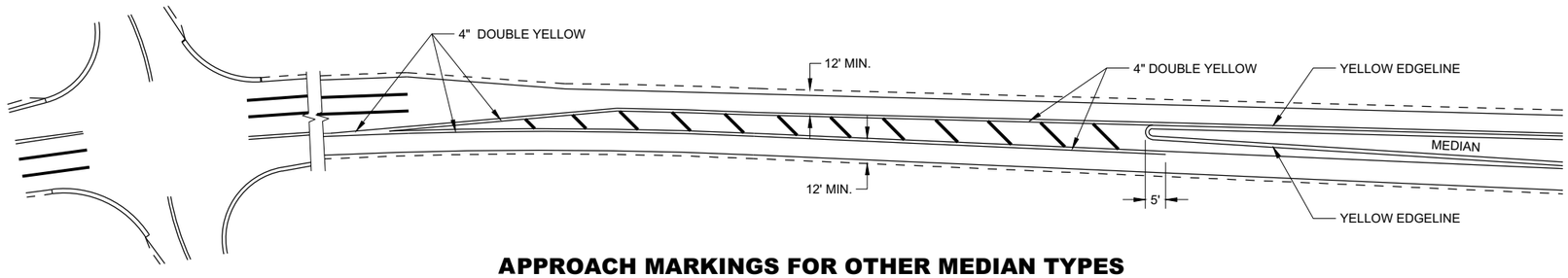


MEDIAN ISLAND DETAIL

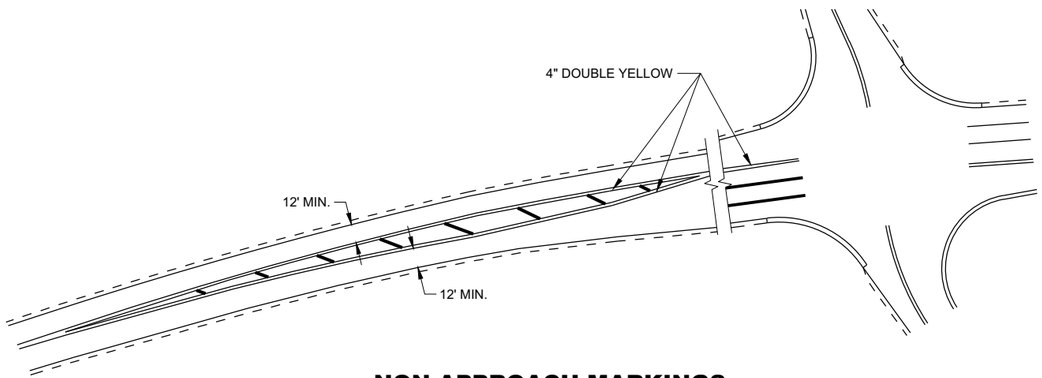
GENERAL NOTES

DIAGONALS ARE OPTIONAL WHEN PAINED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

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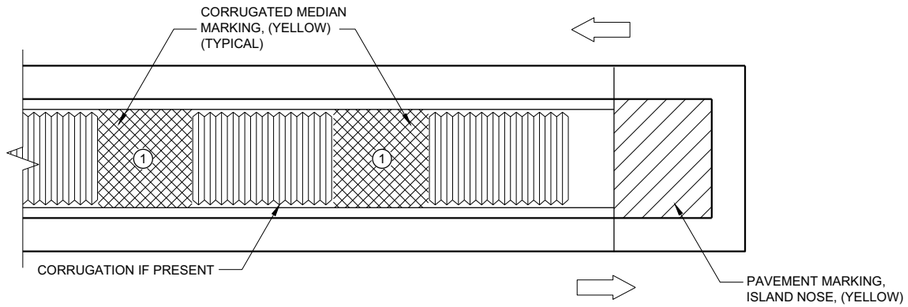
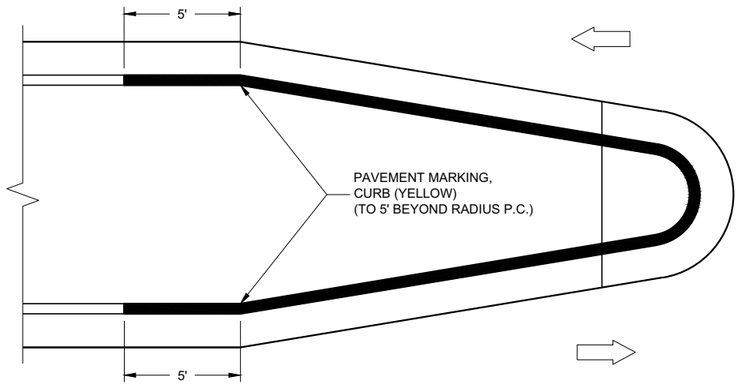
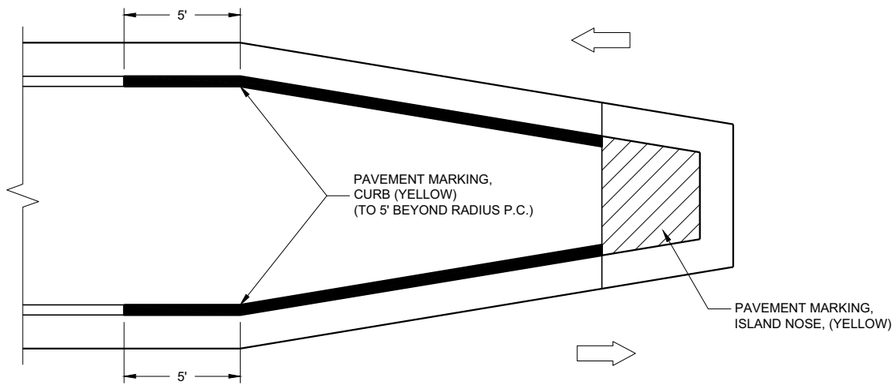


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

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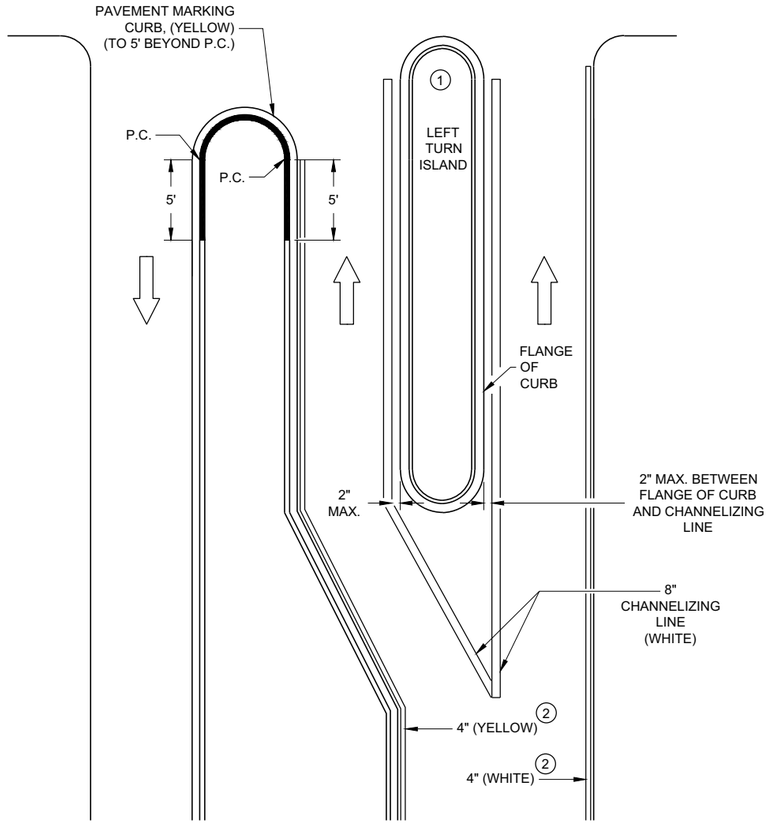
REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

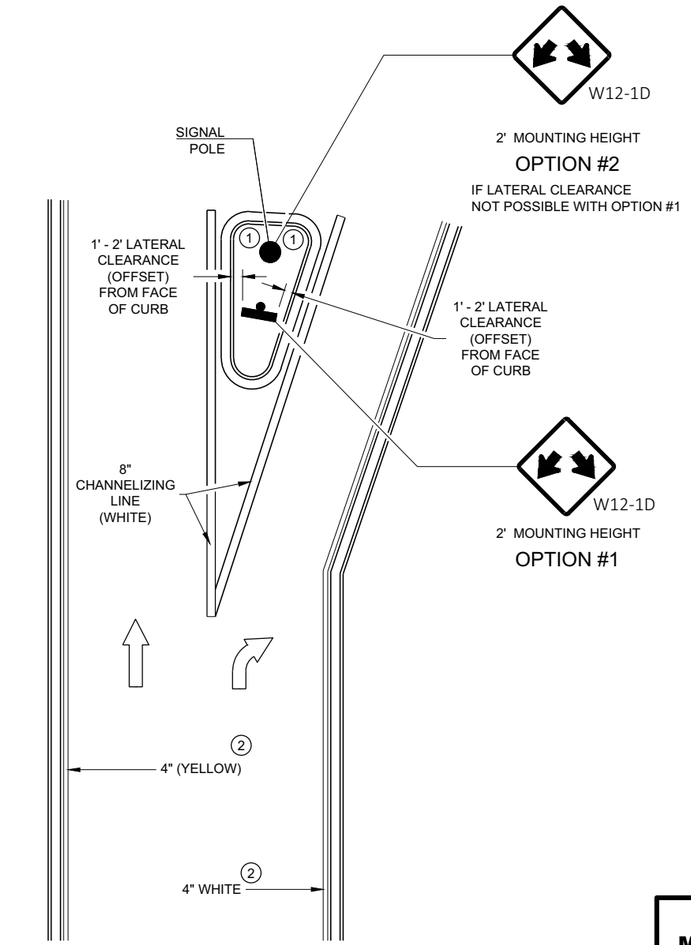
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

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LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

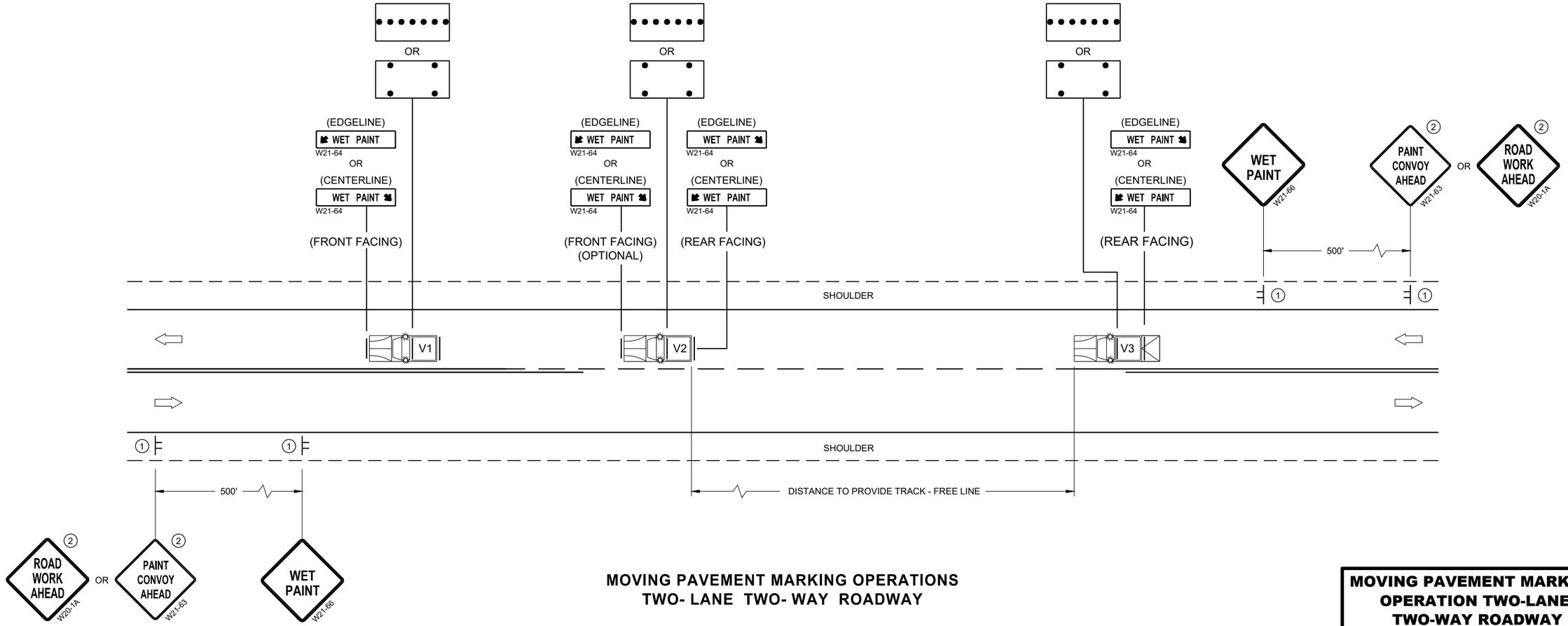
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15C19 - 06a

SDD 15C19 - 06a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

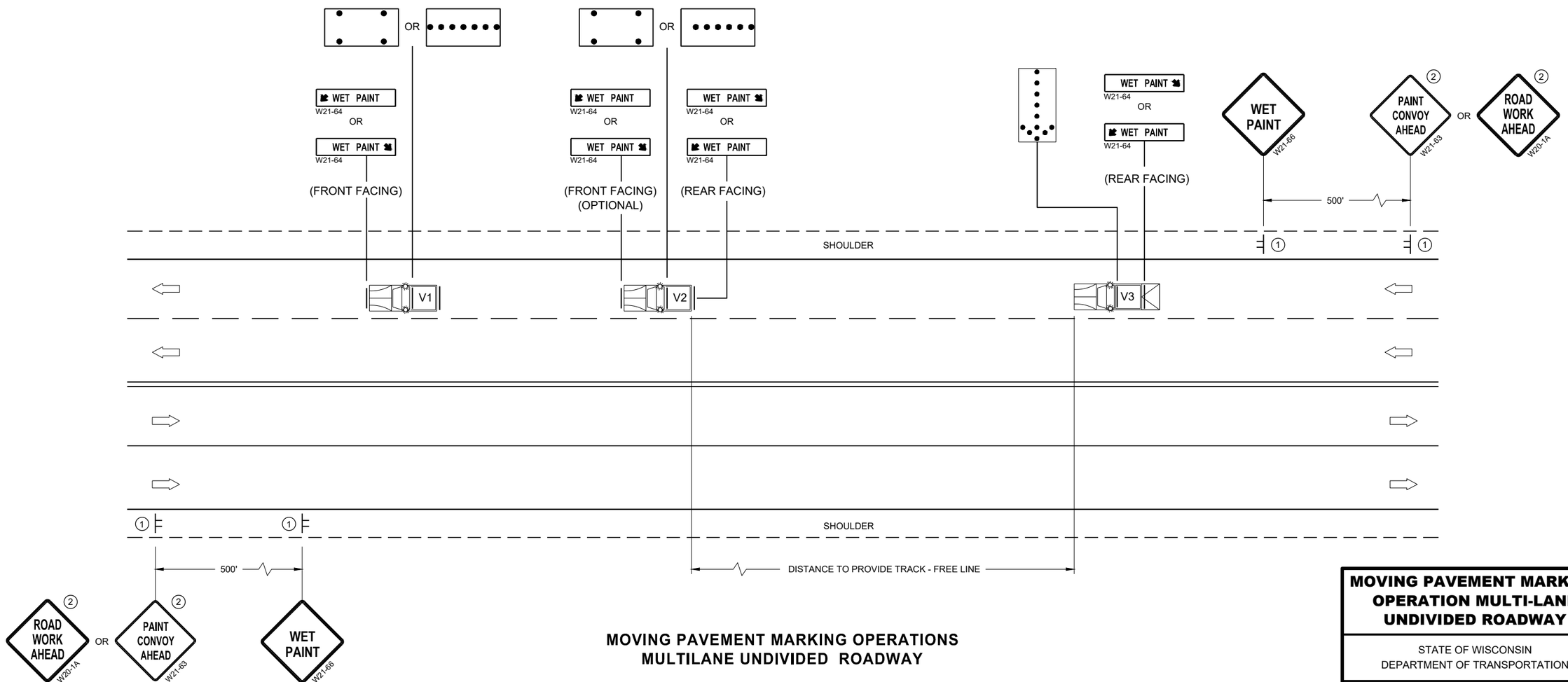
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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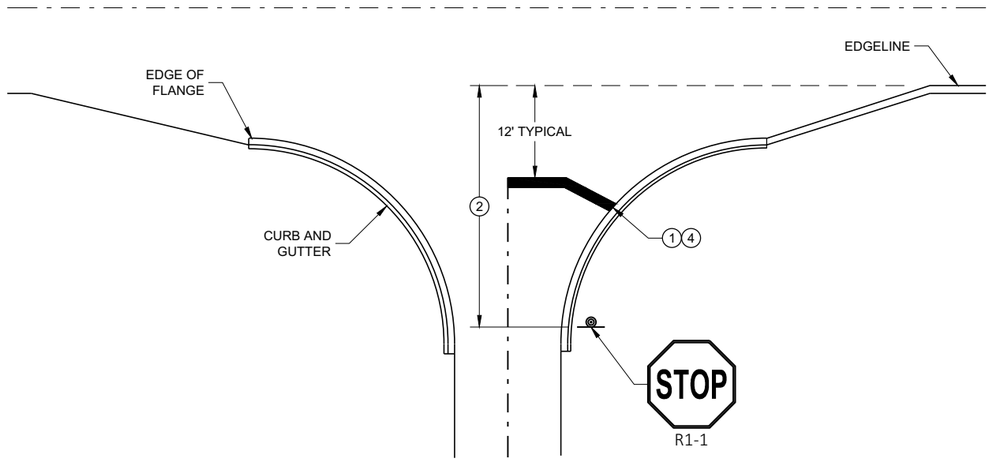
SDD 15C19 - 06b

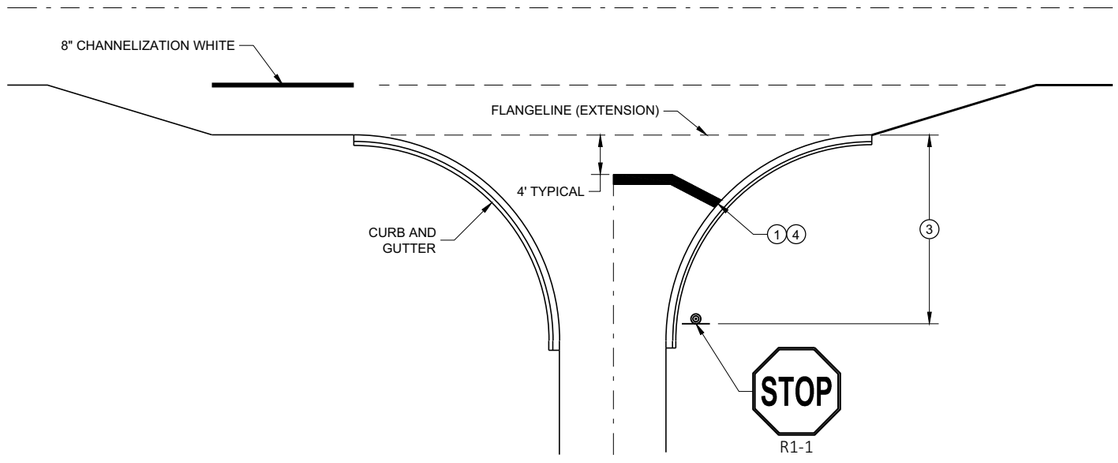
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

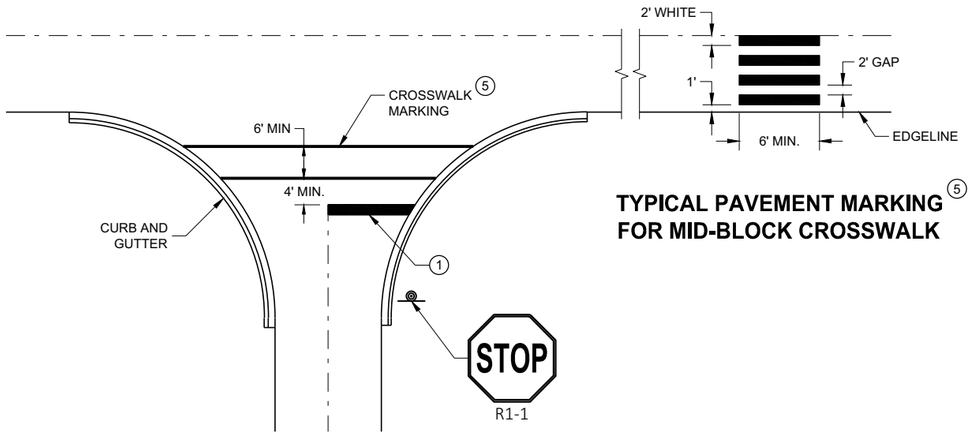
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

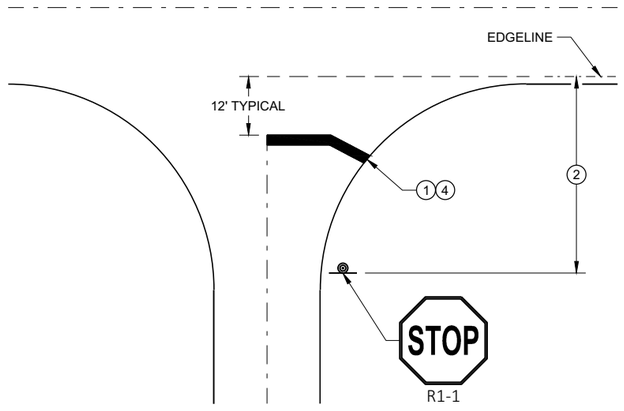


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C33 - 04

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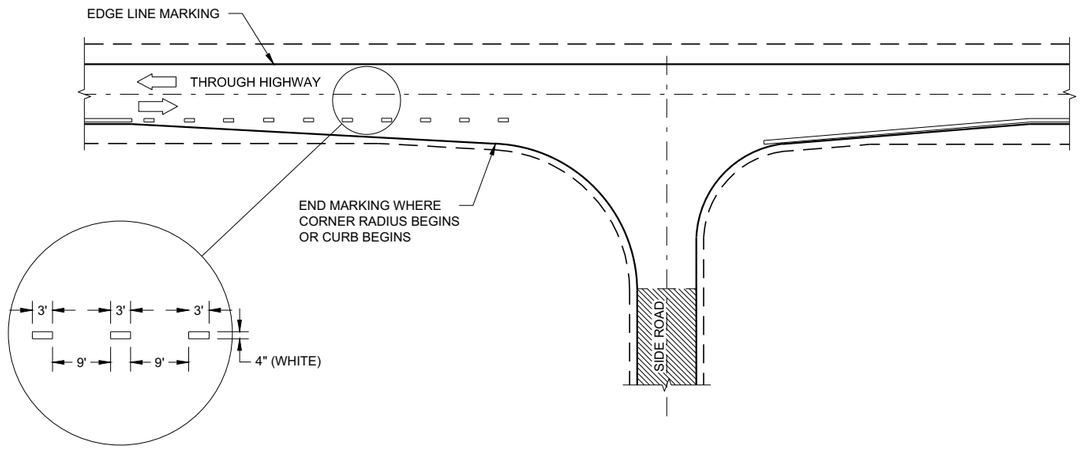
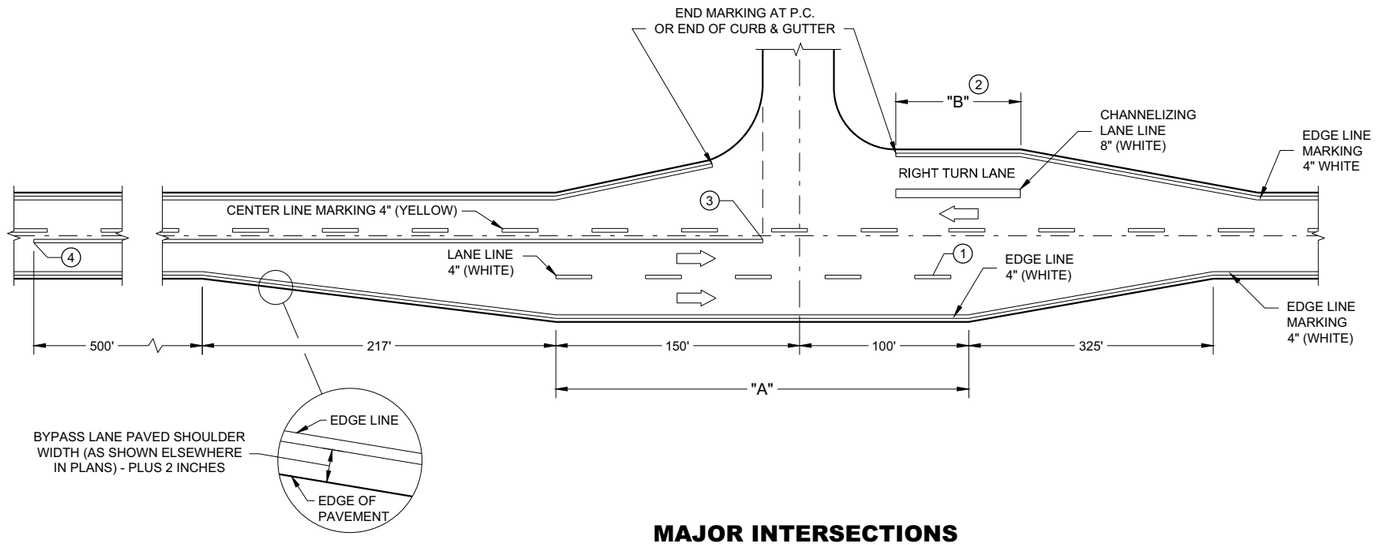


MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

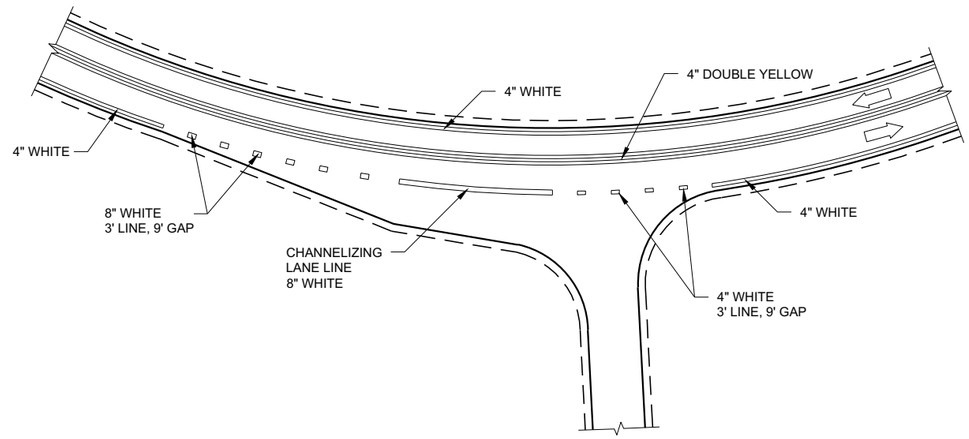
GENERAL NOTES

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

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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a

LEGEND

SIGN ON PERMANENT SUPPORT

DELINEATOR, FLEXIBLE/TUBULAR MARKER

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

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

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50 FOOT SPACING.

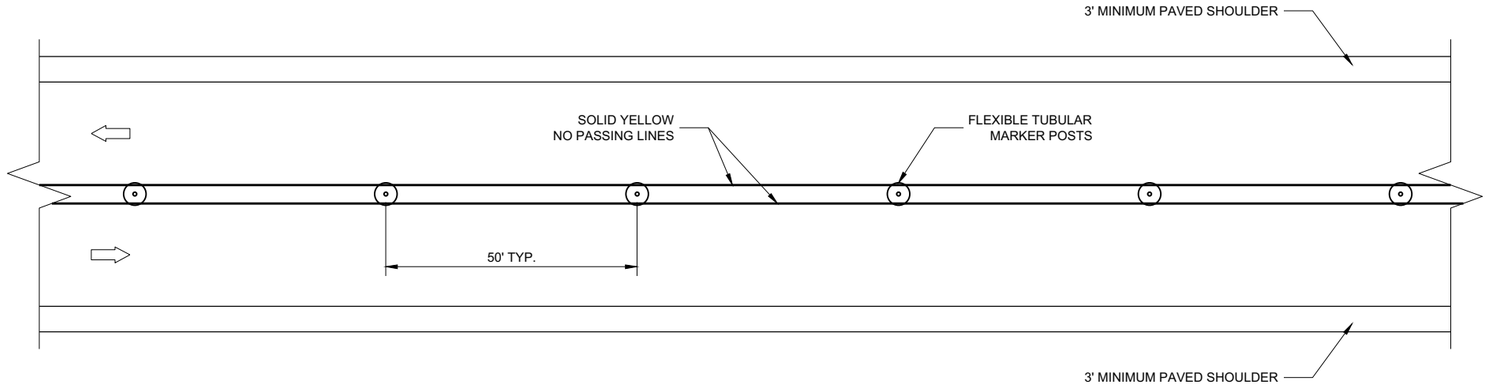
COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4 INCH DOUBLE YELLOW.

(1)

(2)

(1) THE WO6-3 AND WO57-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE WO6-3 AND THE WO57-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.

(2) CONVENTIONAL: 24" X 30"
FREEWAY AND EXPRESSWAY: 36" X 48"



TWO LANE, TWO WAY OPERATION

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SDD 15D06 - 04

SDD 15D06 - 04

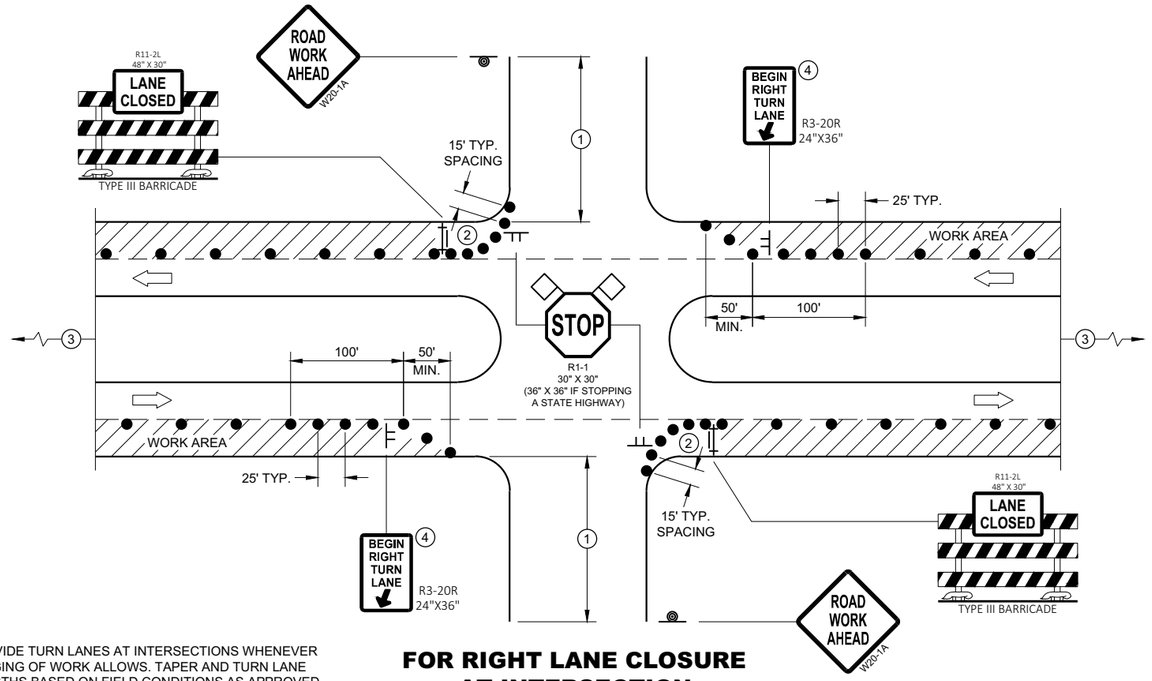
TRAFFIC CONTROL
TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
STATE TRAFFIC ENGINEER

FHWA



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

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

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

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

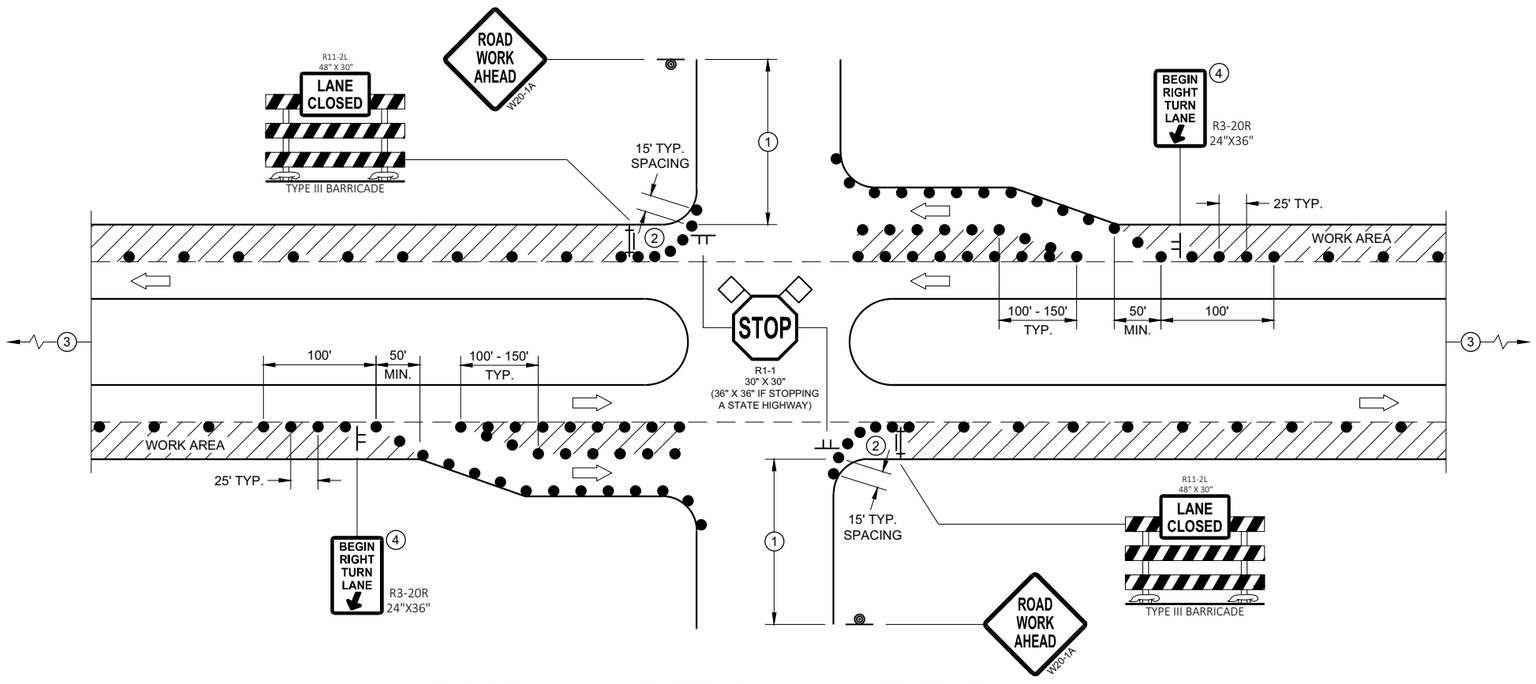
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

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SDD 15D21 - 07a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

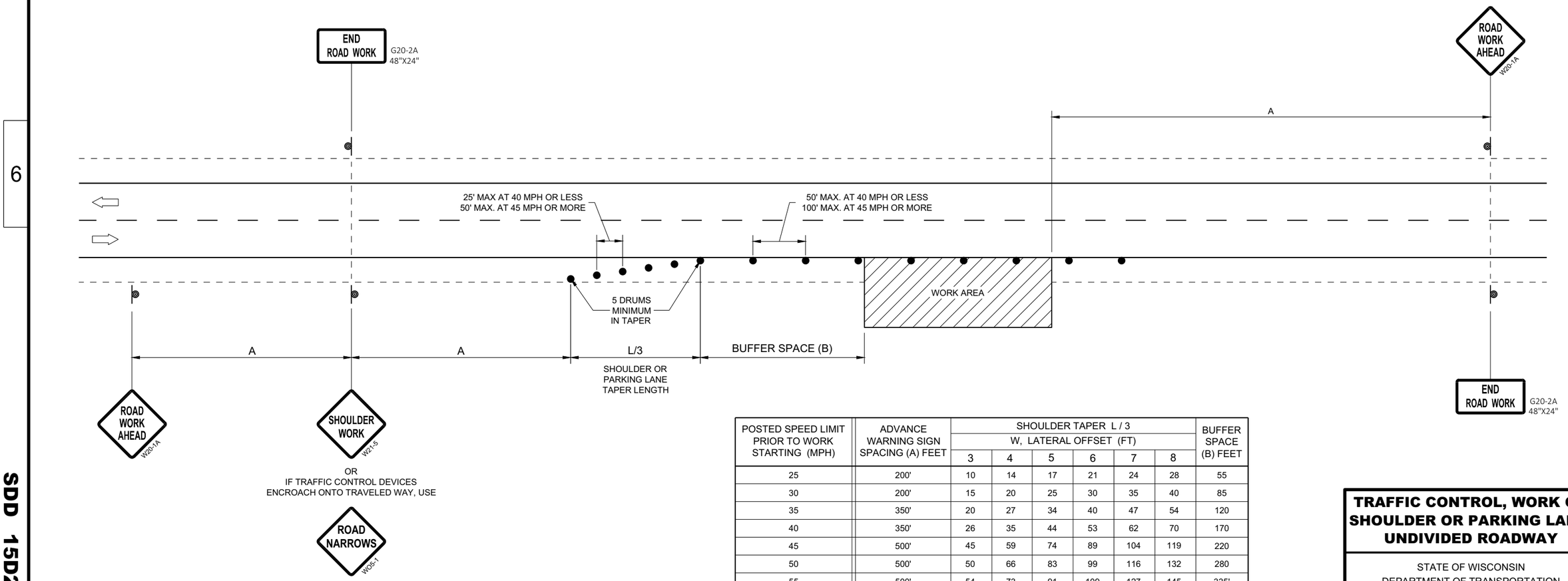
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

6

SDD 15D28 - 04

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

FLAGS, 16" X 16" MIN. (ORANGE)

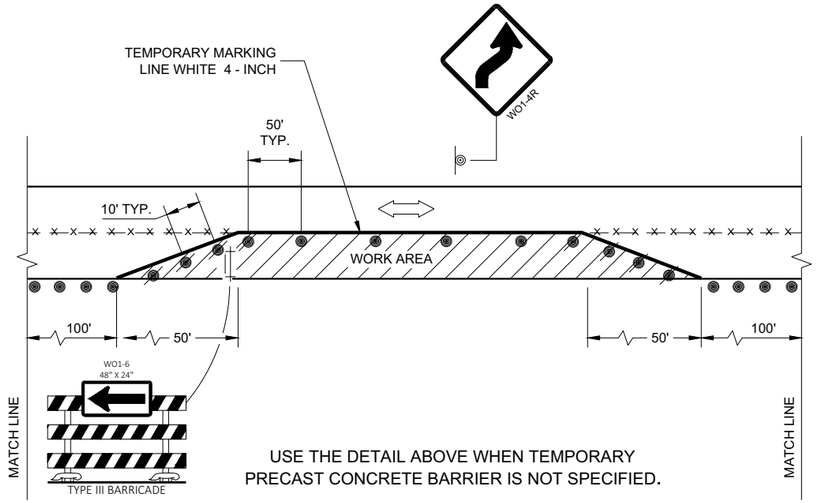
REMOVING PAVEMENT MARKING

DIRECTION OF TRAFFIC

ASPHALTIC PAVEMENT WIDENING

CONCRETE BARRIER TEMPORARY PRECAST

TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

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

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.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

(1) 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.

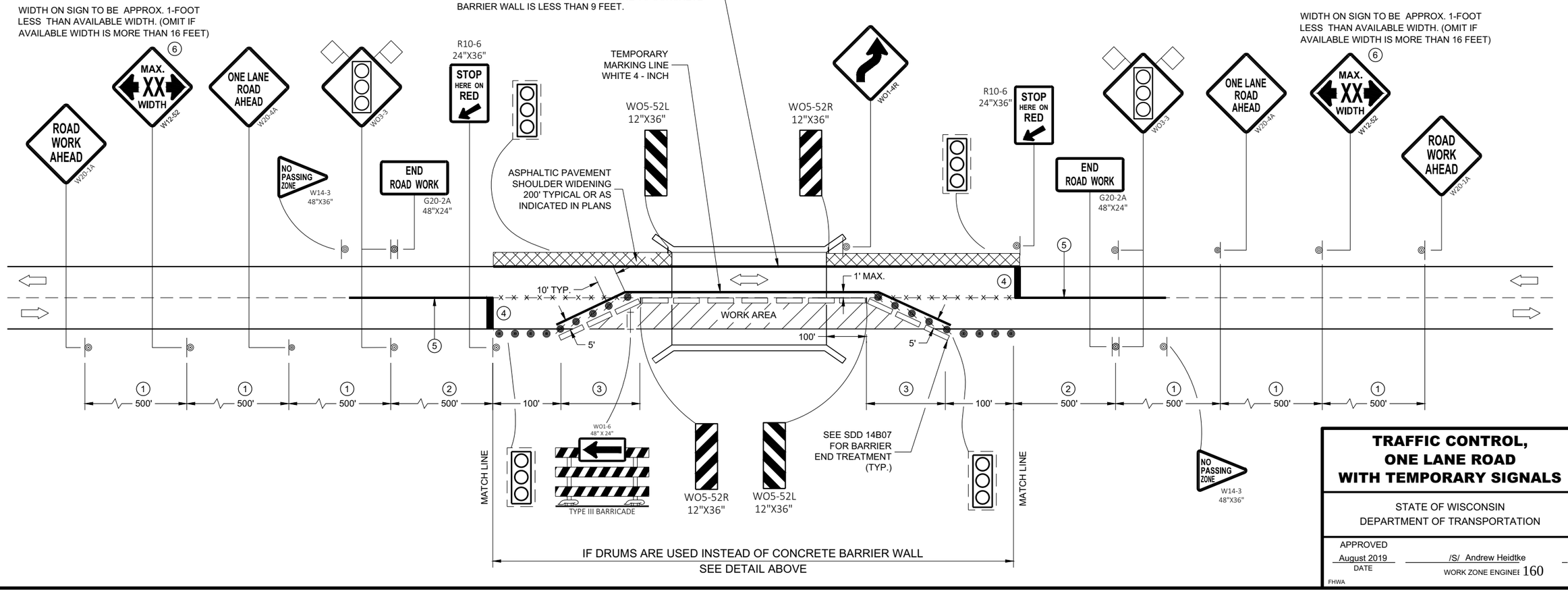
(2) USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.

(3) DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.

(4) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18 - INCH.

(5) 700 FOOT TEMPORARY MARKING LINE, DOUBLE YELLOW 4 - INCH . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

(6) SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

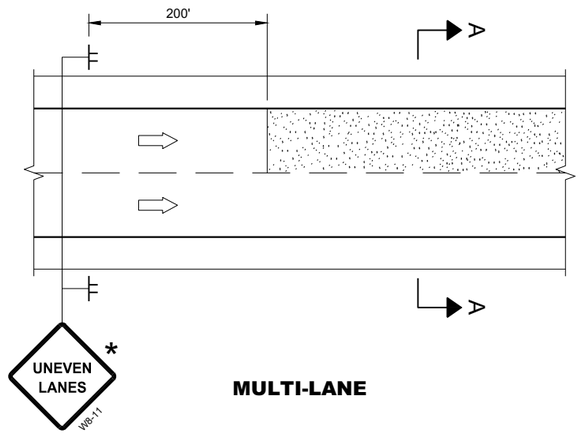
APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

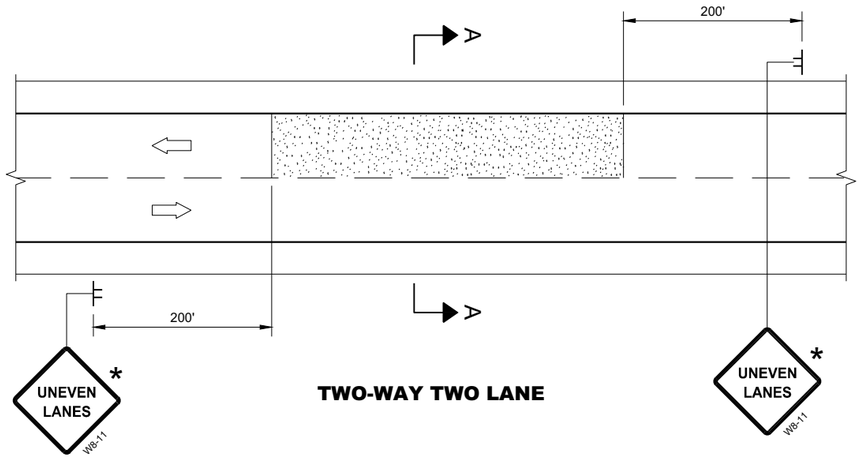
FHWA

6

SDD 15D33 - 06



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.

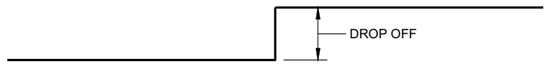
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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.

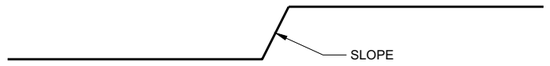
LEGEND

- 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

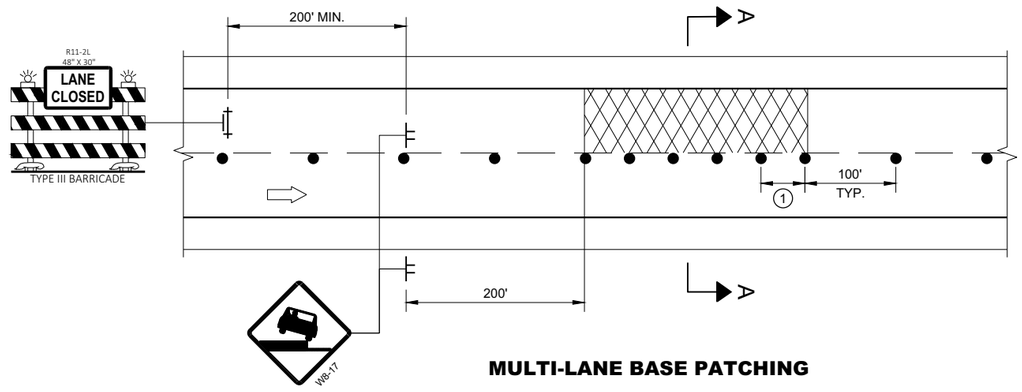


SECTION A - A

OR

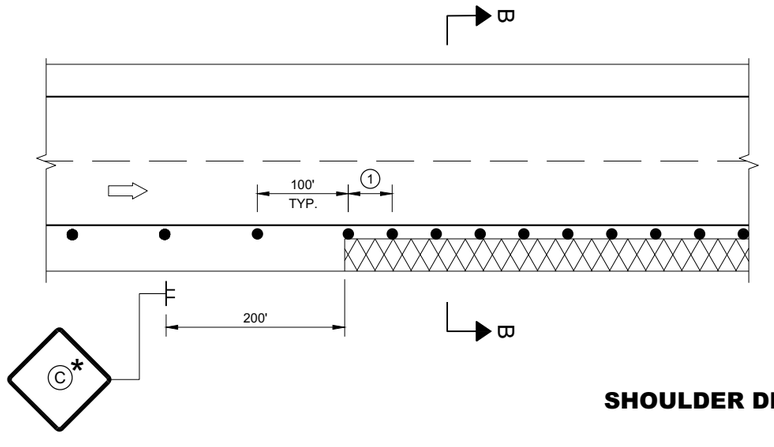


SECTION A - A

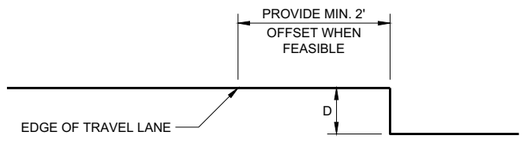


MULTI-LANE BASE PATCHING

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

SDD 15D39 - 02

SDD 15D39 - 02

LEGEND

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

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

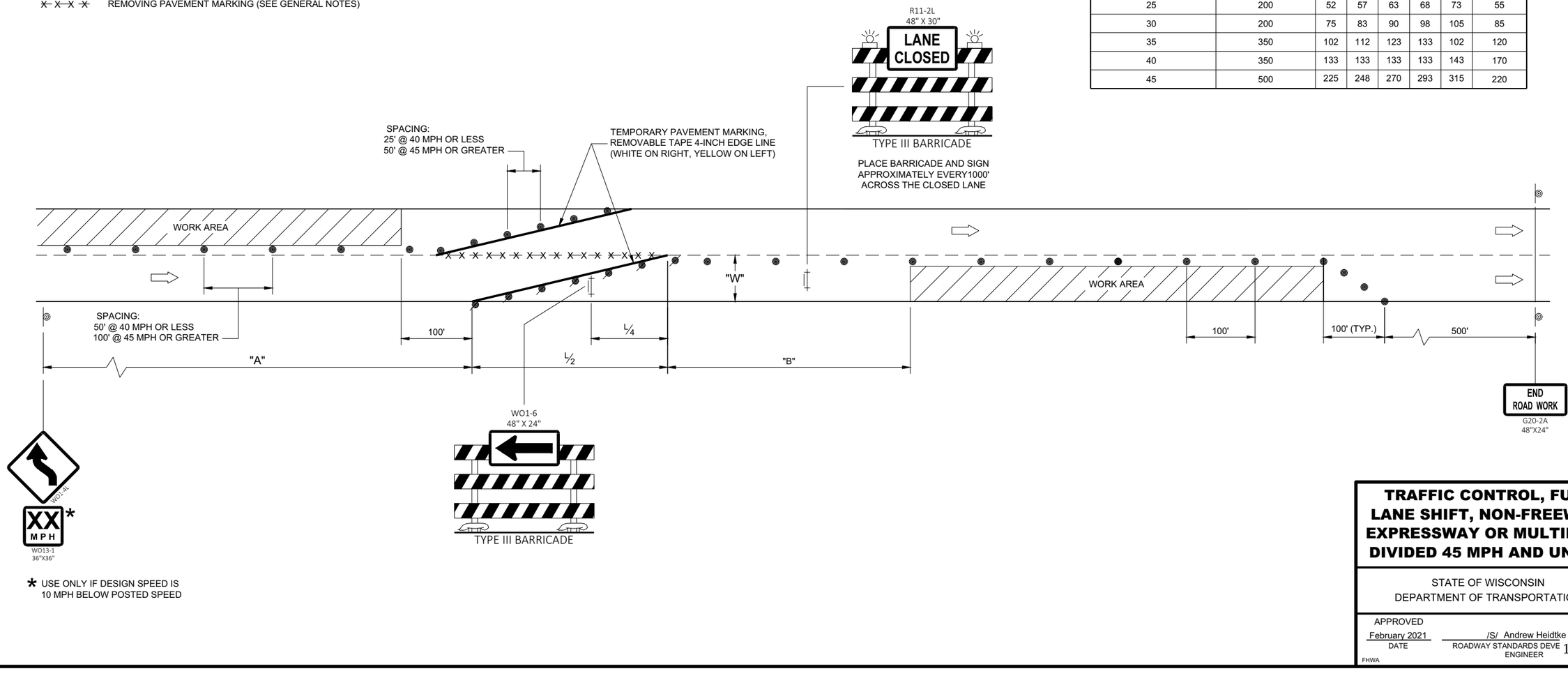
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

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

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	102	120
40	350	133	133	133	133	143	170
45	500	225	248	270	293	315	220



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D40 - 02a

6

SDD 15D40 - 02a

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.

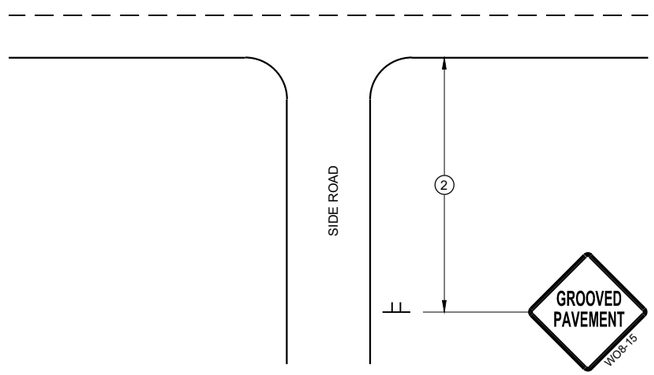
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

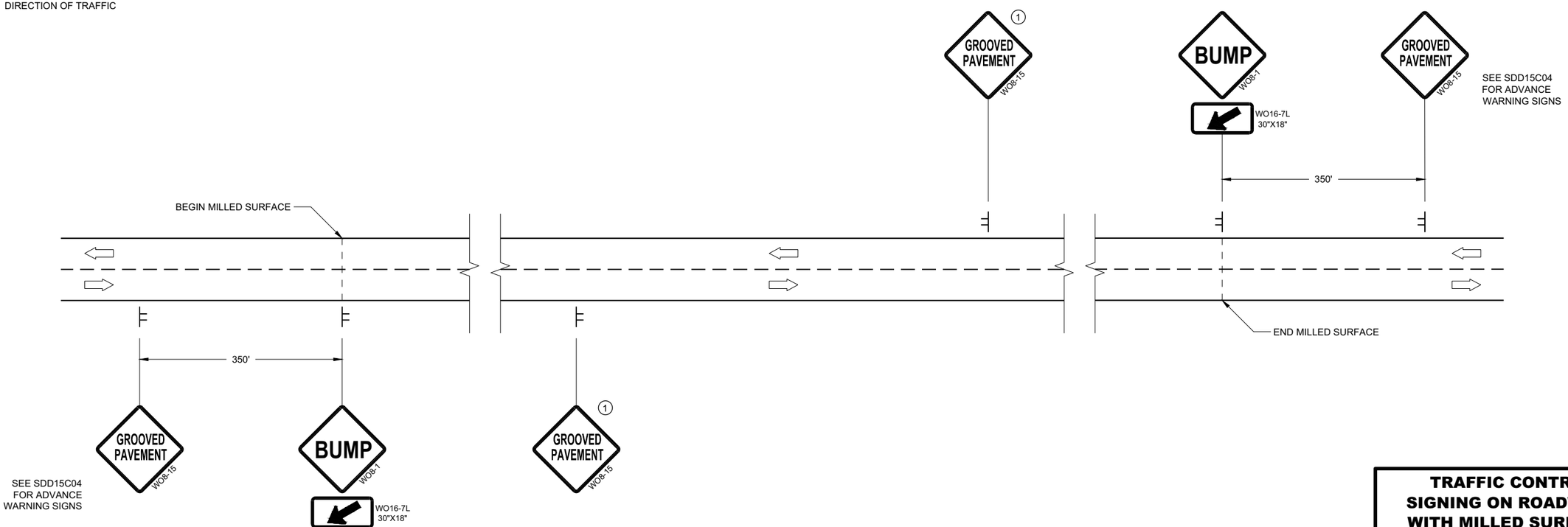
LEGEND

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 ENGINEE

FHWA

6
SDD 15D44 - 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 CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

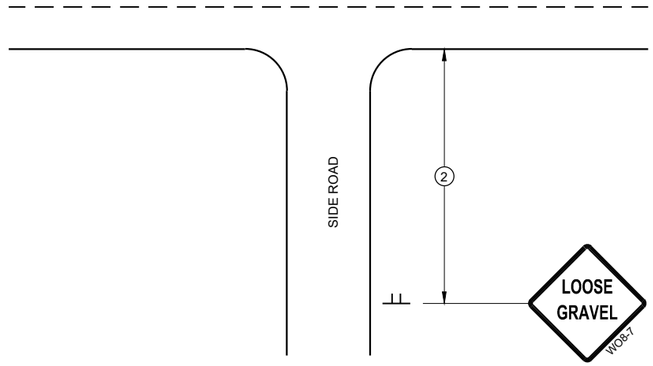
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

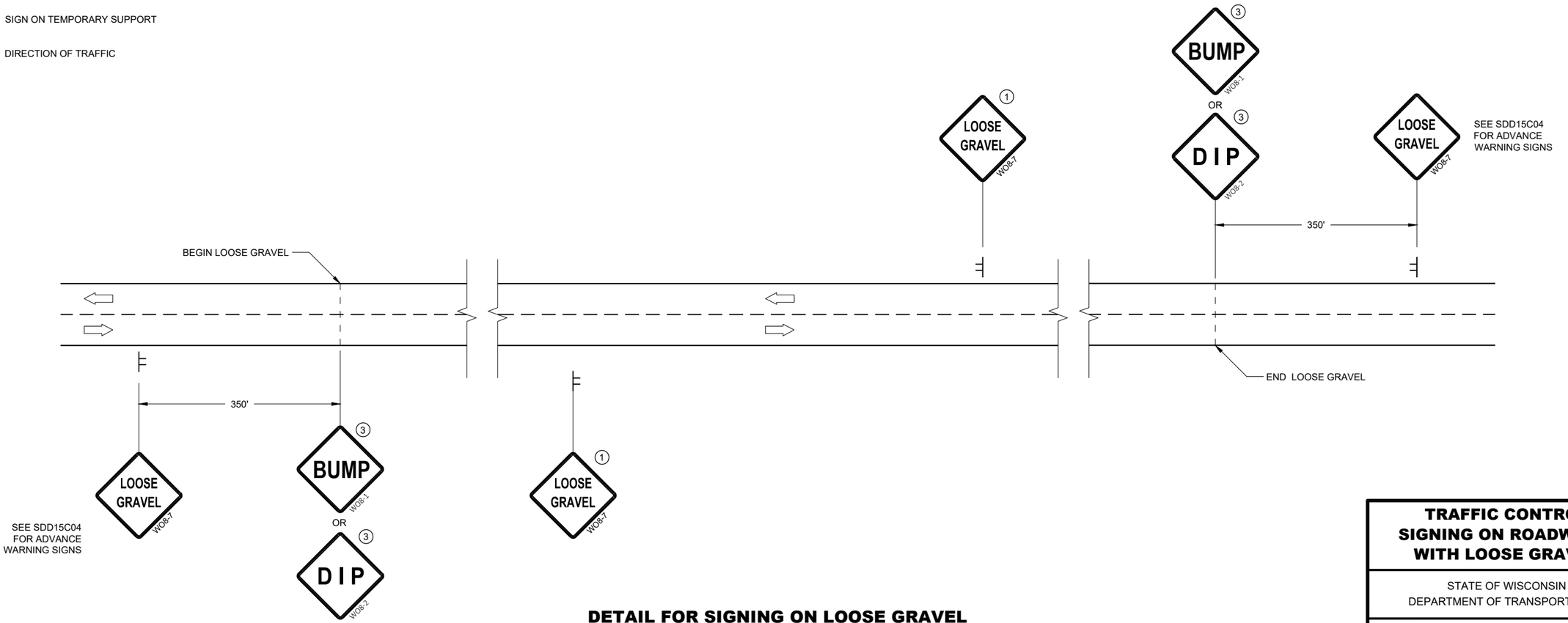
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

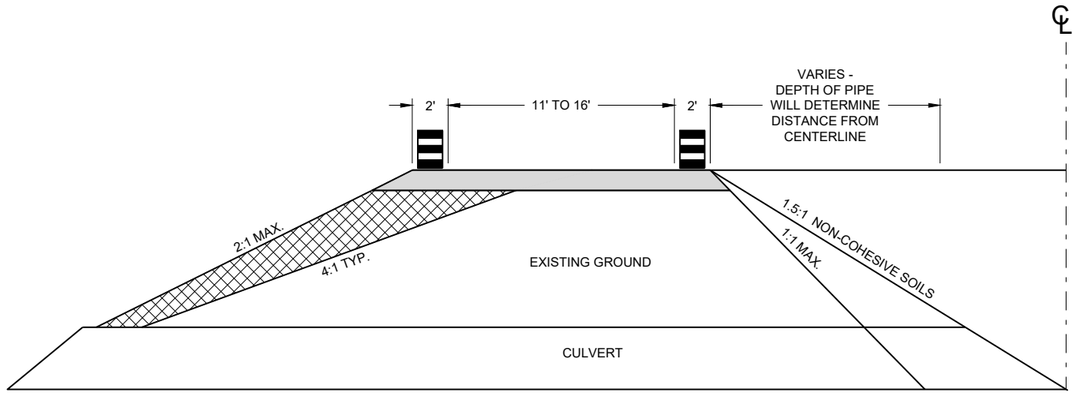
FHWA

6

SDD 15D45 - 03

6

SDD 15D45 - 03



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

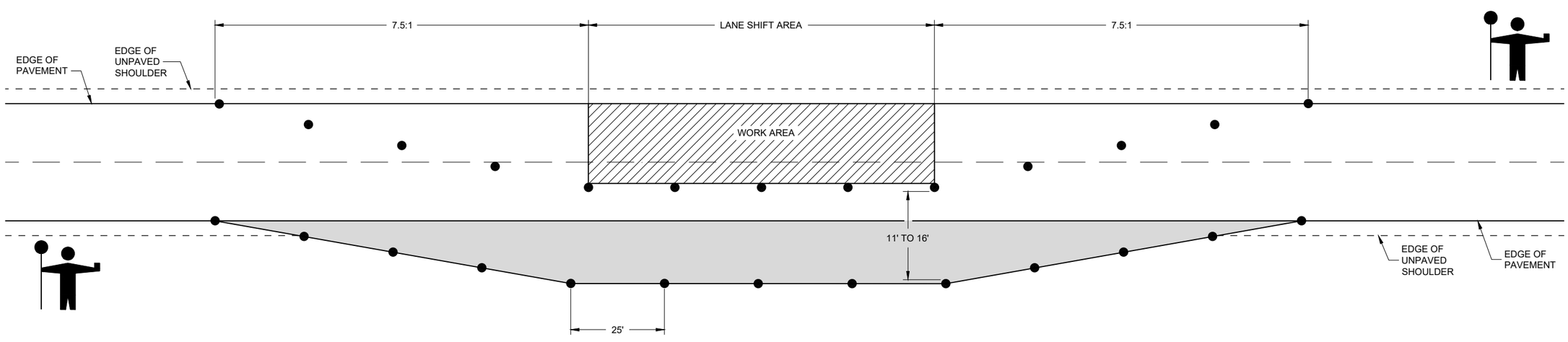
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D48 - 01

6

SDD 15D48 - 01

LEGEND

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					
		3	4	5	6	7	8
25	200	10	14	17	21	24	28
30	200	15	20	25	30	35	40
35	350	20	27	34	40	47	54
40	350	26	35	44	53	62	70
45	500	45	59	74	89	104	119
50	500	50	66	83	99	116	132
55	500	54	73	91	109	127	145

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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

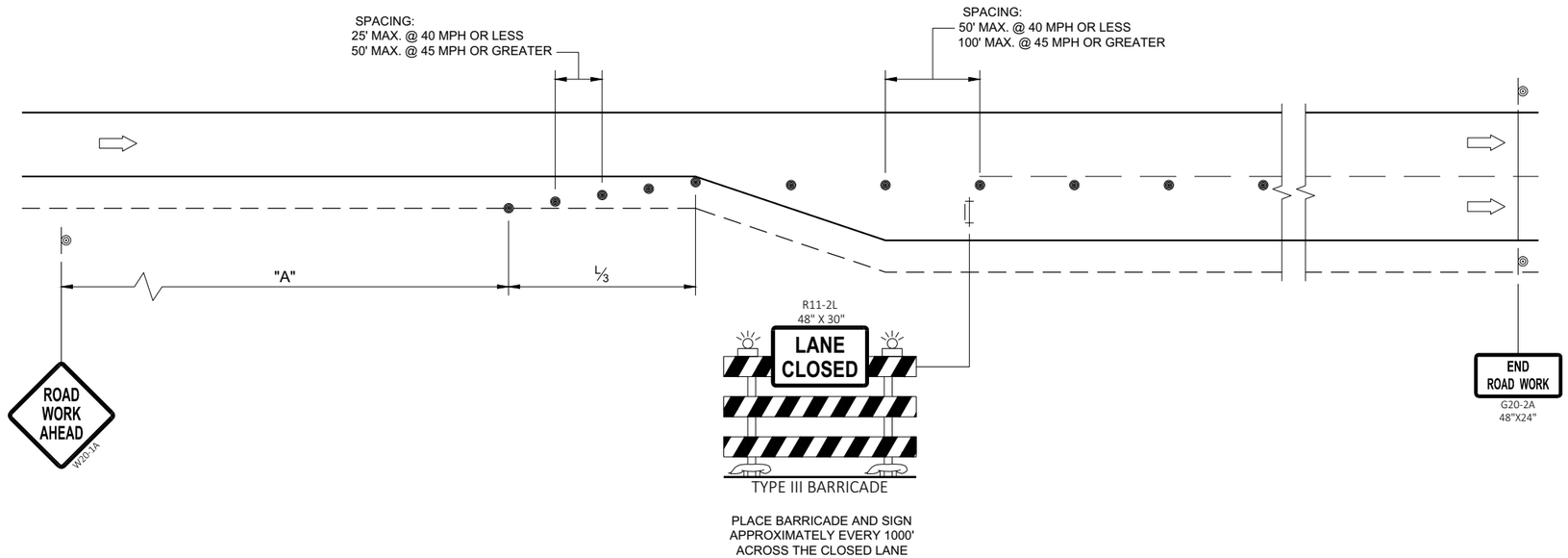
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.



PLACE BARRICADE AND SIGN APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE

ADDED LANE CLOSURE WITHOUT LANE SHIFT

TRAFFIC CONTROL
ADDED LANE CLOSURE
WITHOUT LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D50 - 01a

6

SDD 15D50 - 01a

LEGEND

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER (L/2) FEET
25	200	60
30	200	90
35	350	120
40	350	160
45	500	270
50	500	300
55	500	330

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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

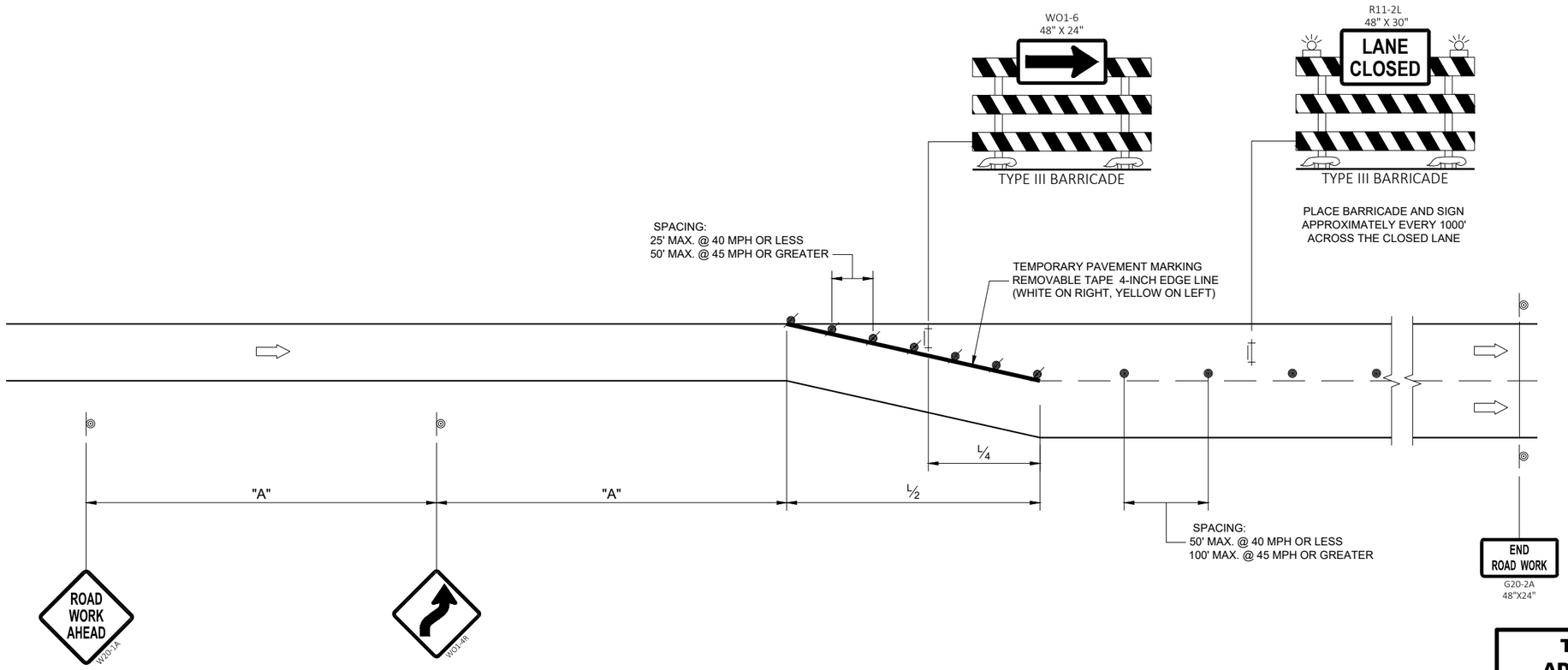
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR FOUR CONTINUOUS DAYS AND NIGHTS.



ADDED LANE CLOSURE WITH LANE SHIFT

TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15D50 - 01b

SDD15D50 - 01b

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

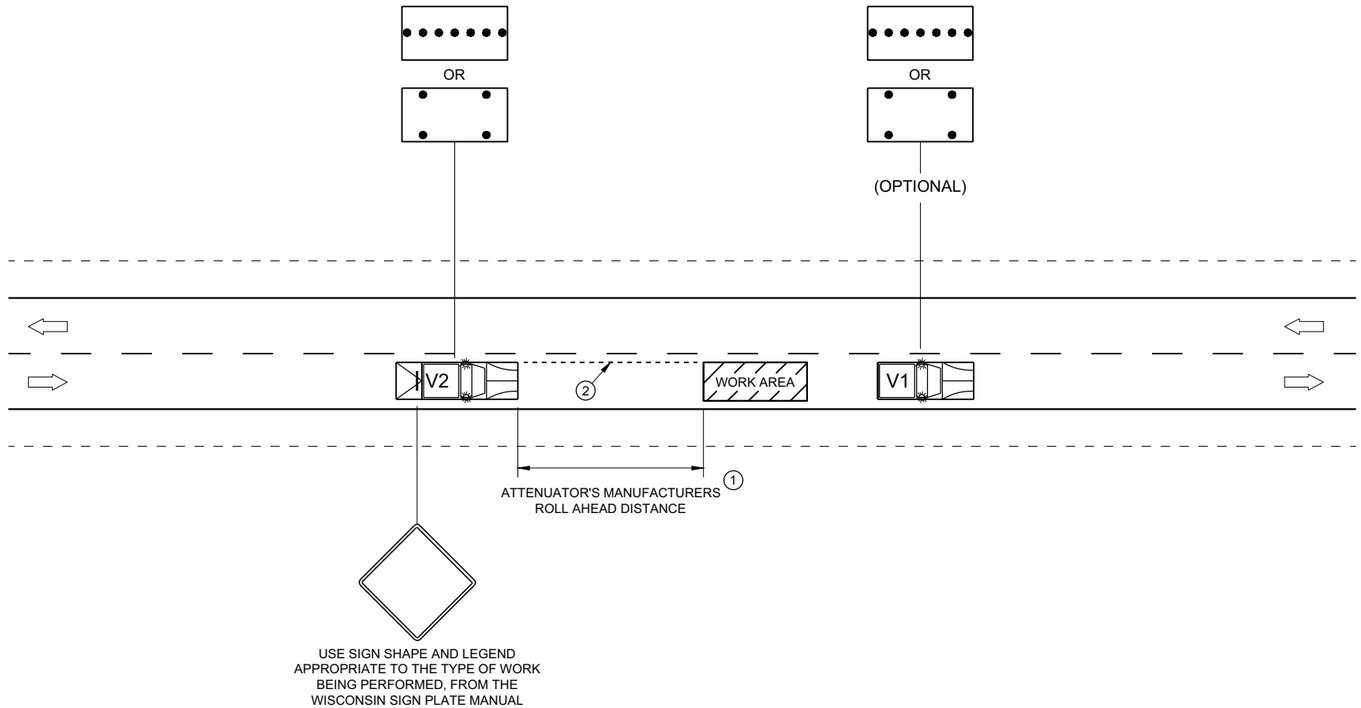
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



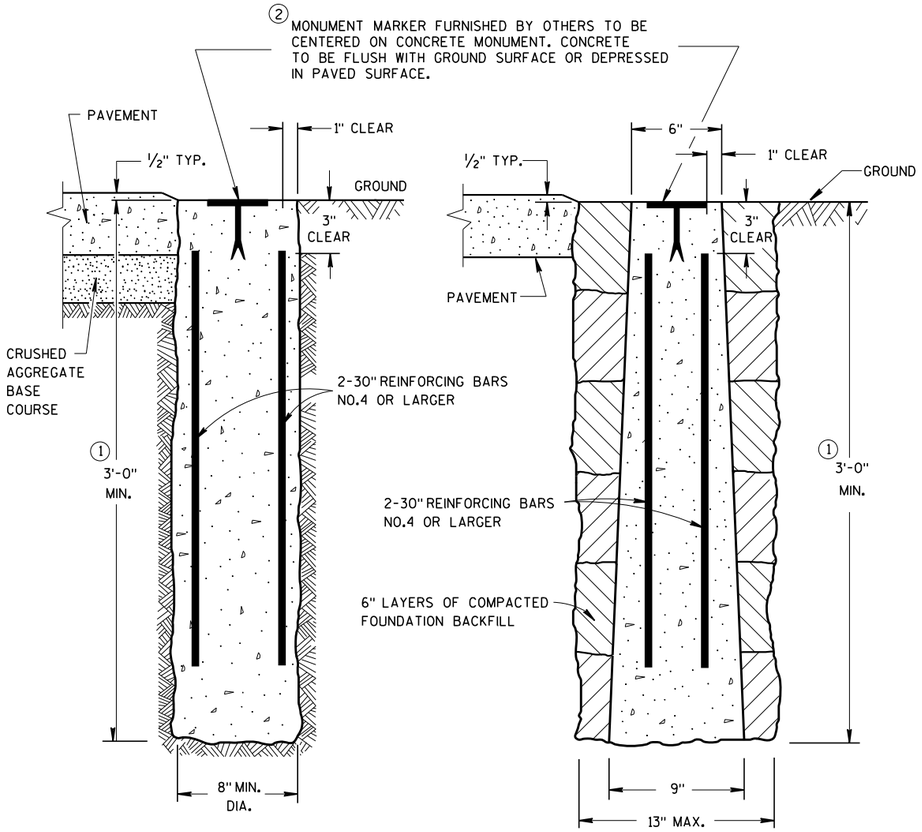
TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

6

SDD 15D51 - 01

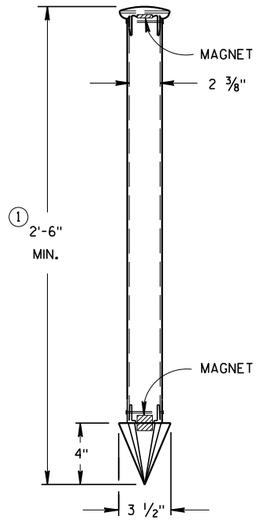


CAST-IN-PLACE

PRECAST

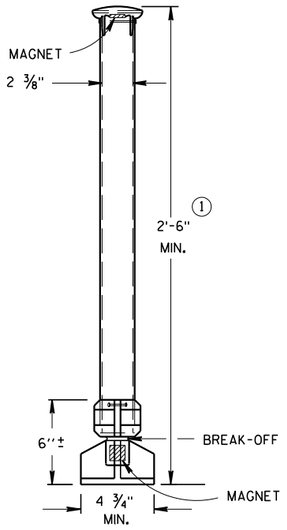
CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

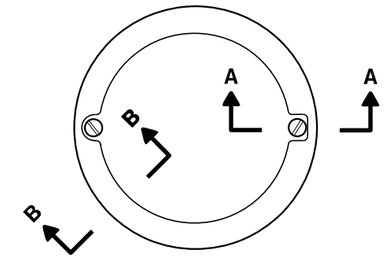
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

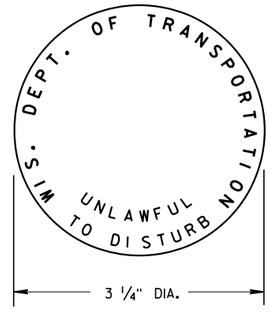
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

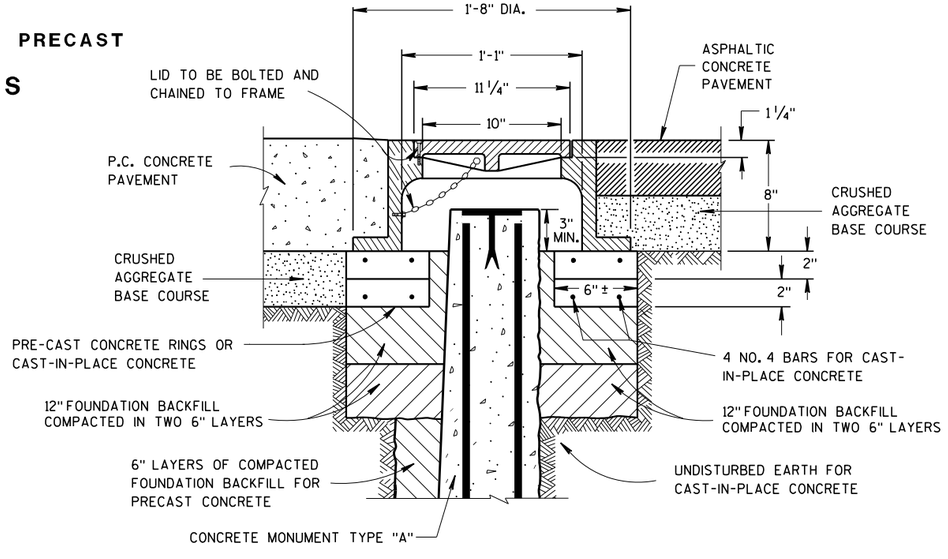


TOP VIEW



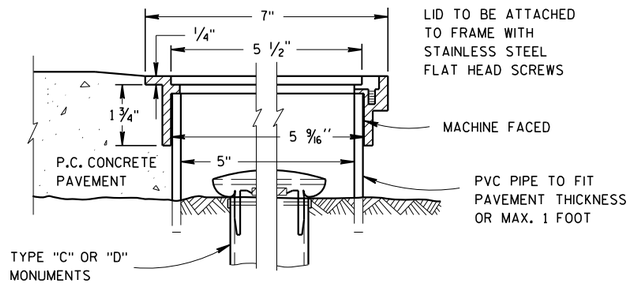
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C", & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

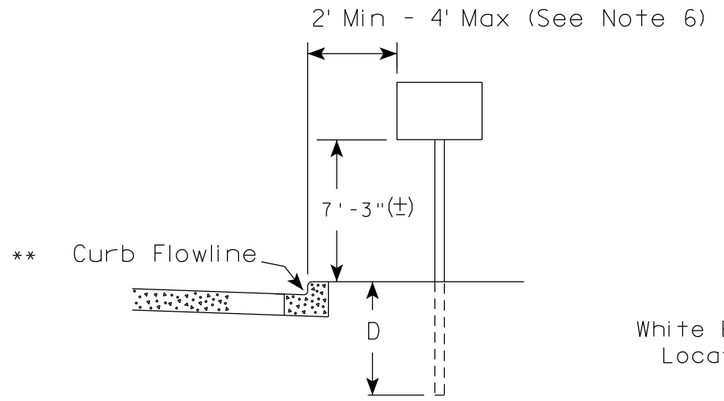
LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

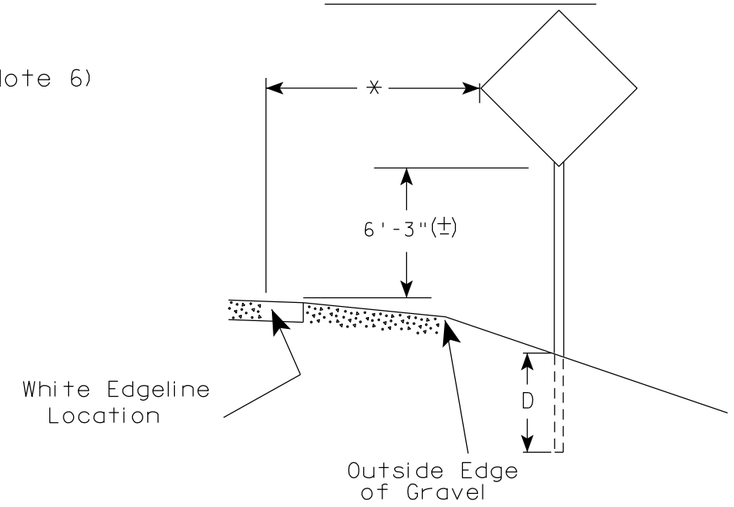
APPROVED
March 2018 — DATE
/S/ Raymond A. Kumagai — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

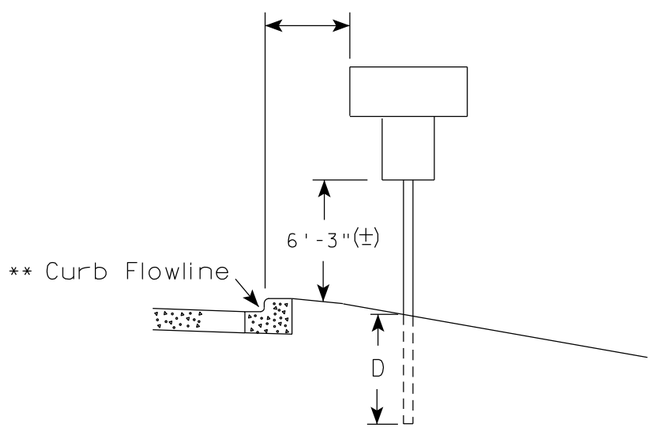
6

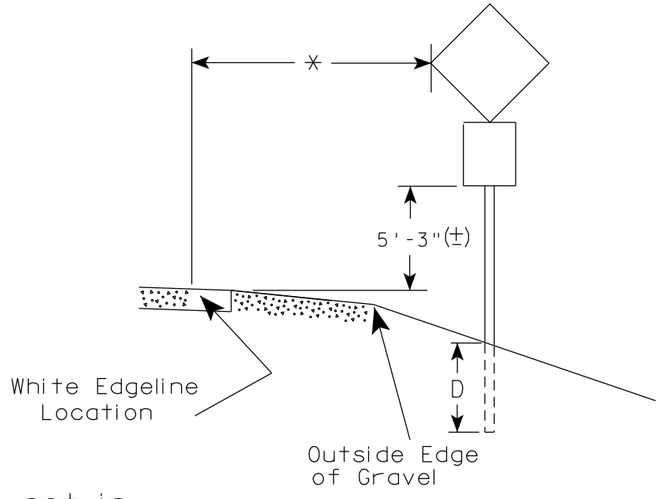
URBAN AREA



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.

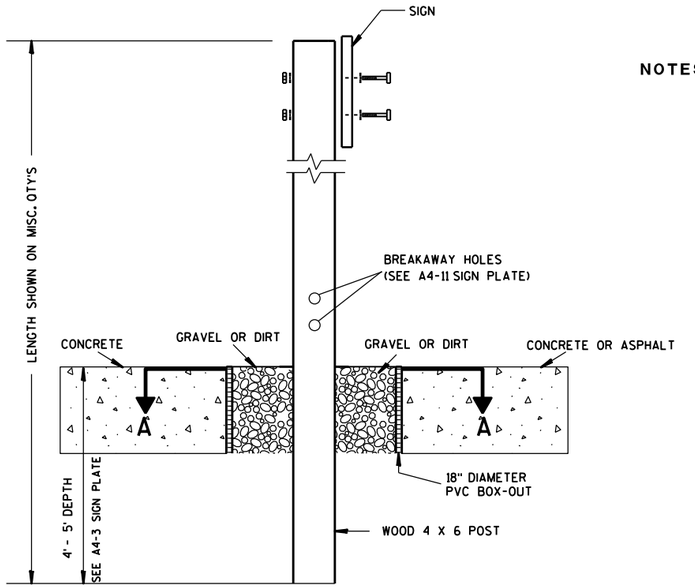
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

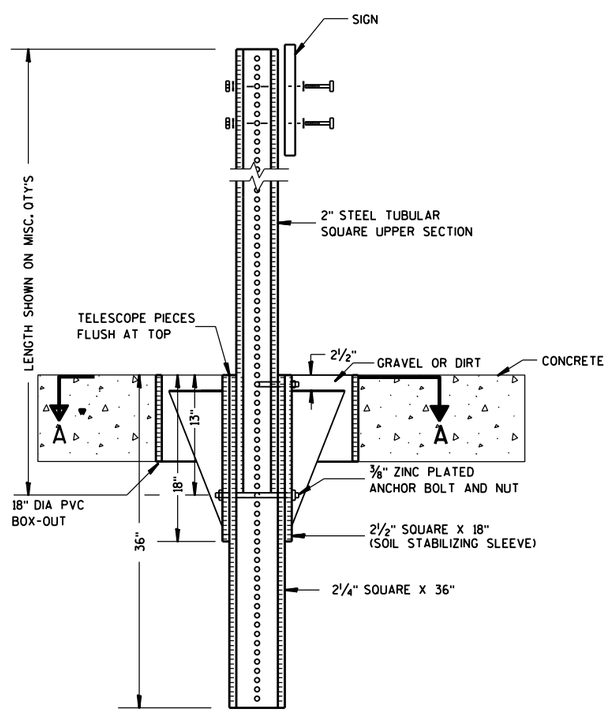
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 170	E



ELEVATION VIEW

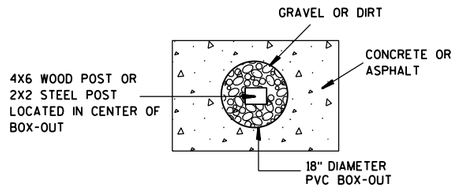
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

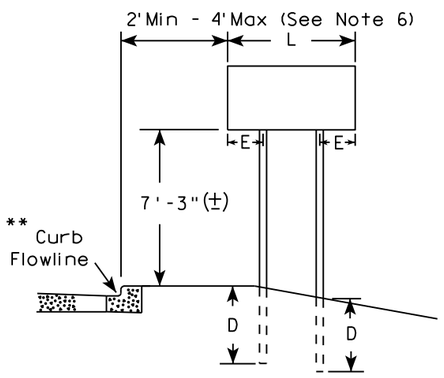
APPROVED Matthew R Rauch
for State Traffic Engineer

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

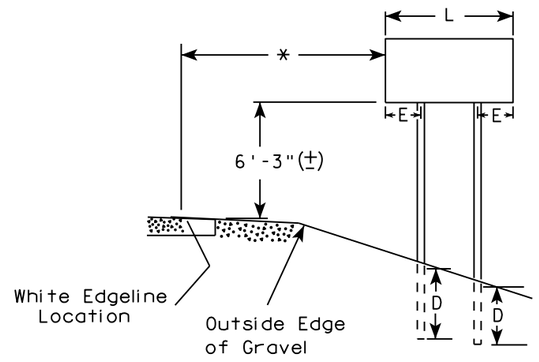
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

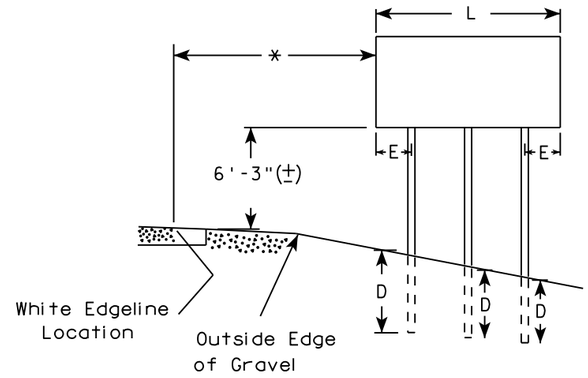
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

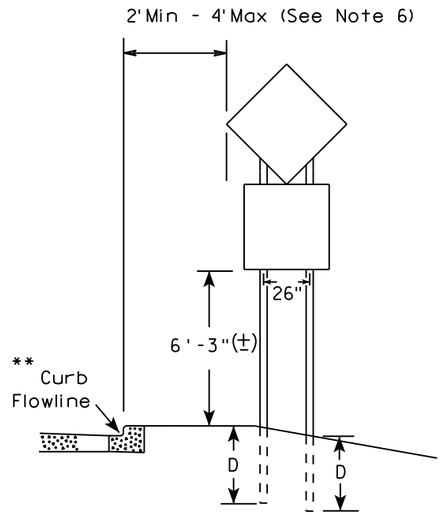
URBAN AREA



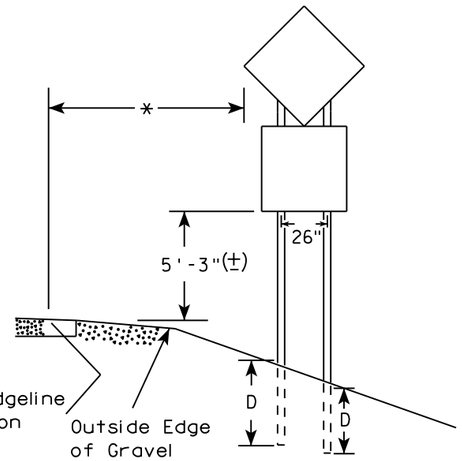
RURAL AREA (See Note 3)







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'

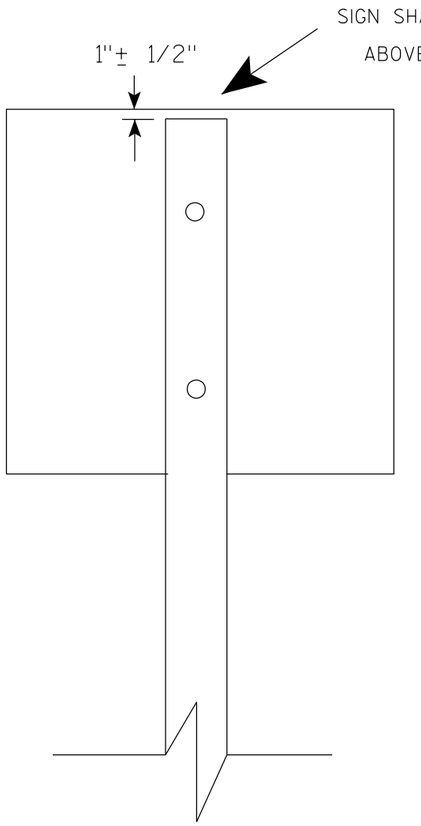
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

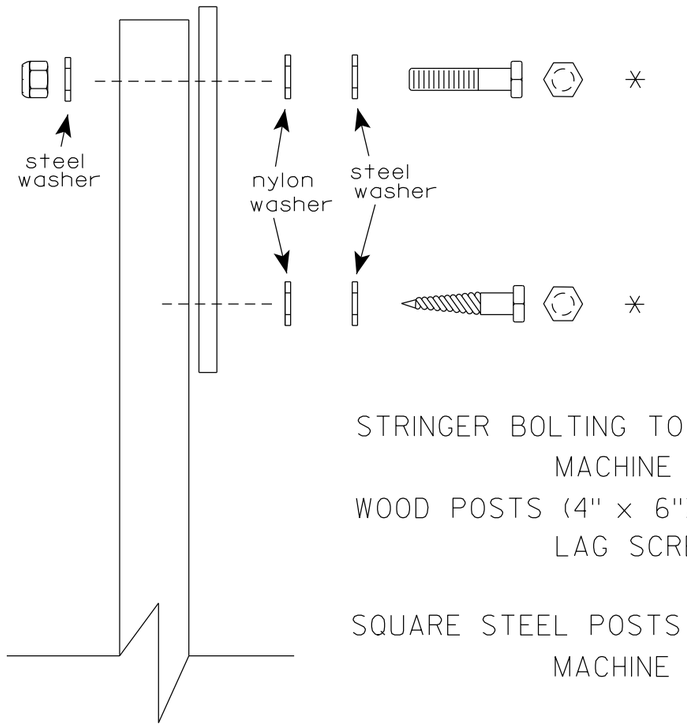
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E





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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

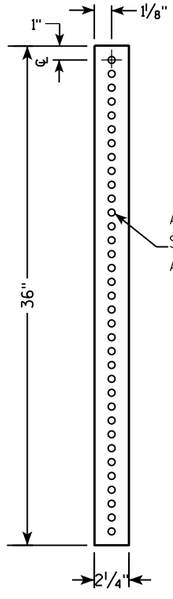
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

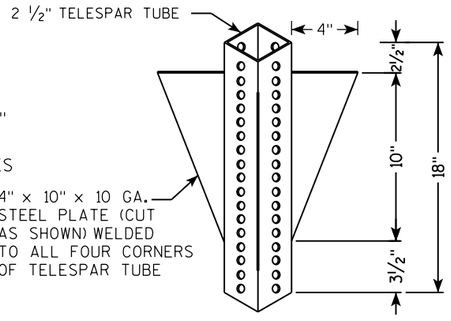
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

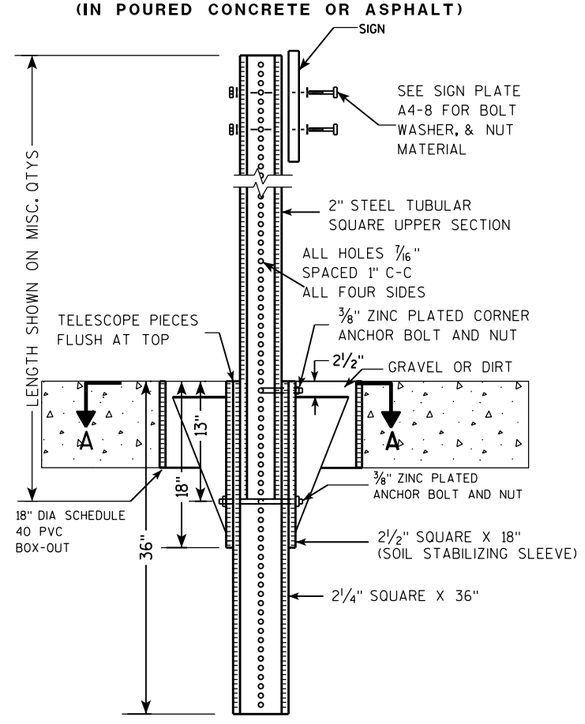
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



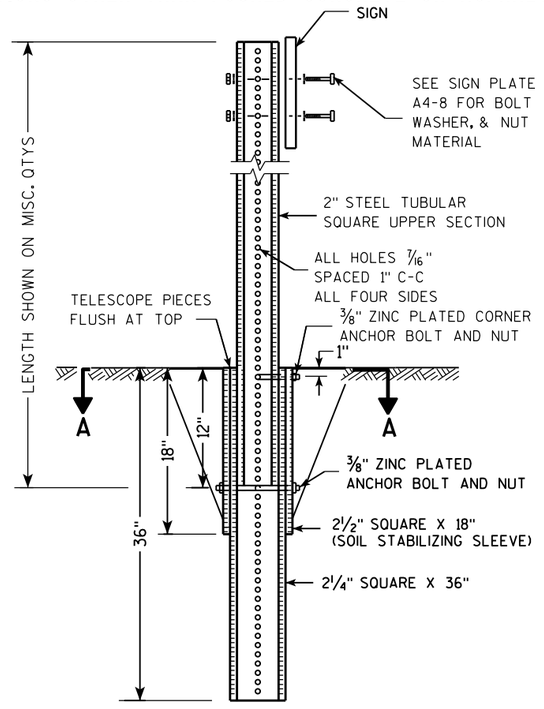
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

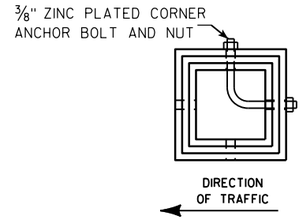


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

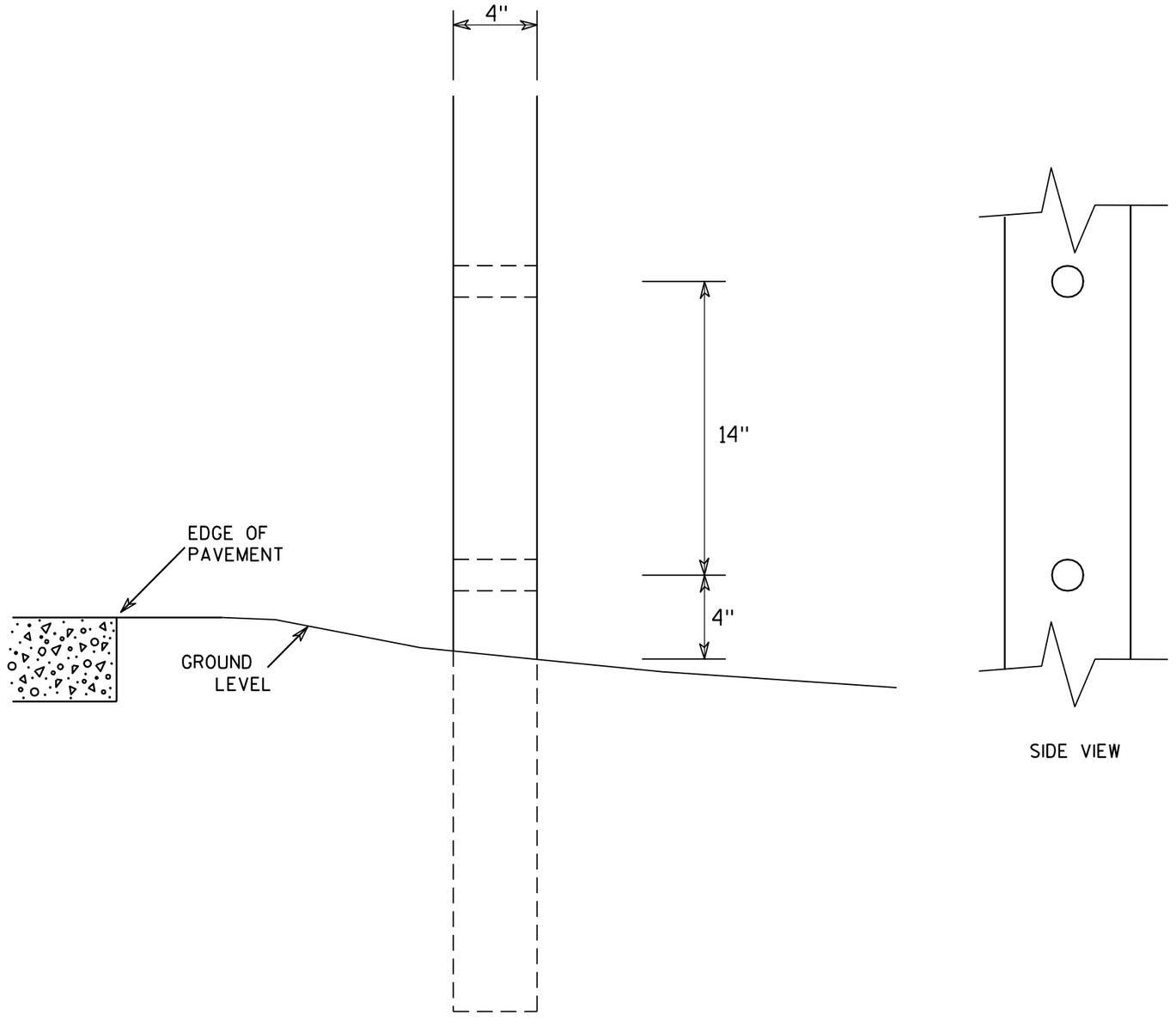
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

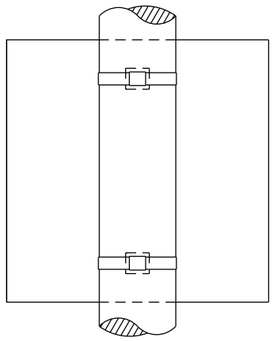
APPROVED Chester J Spang for State Traffic Engineer

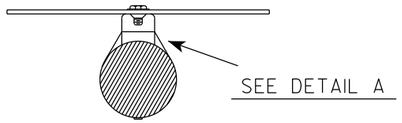
DATE 3/27/97 PLATE NO. A4-11.2

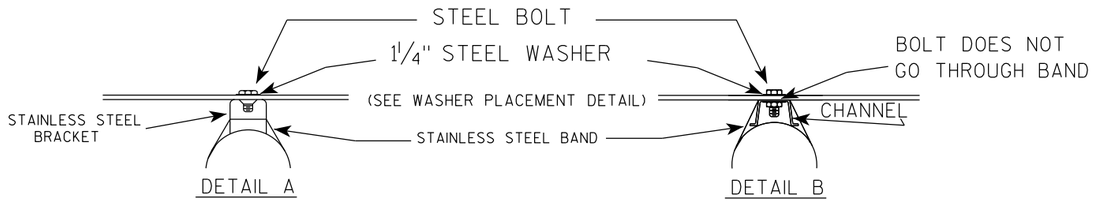
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 175	E

BANDING

SINGLE SIGN



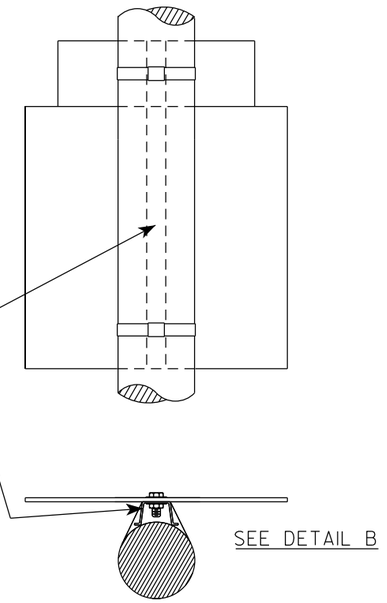




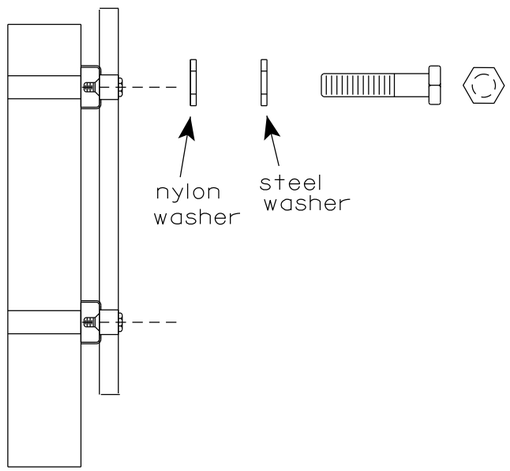
GENERAL NOTES

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

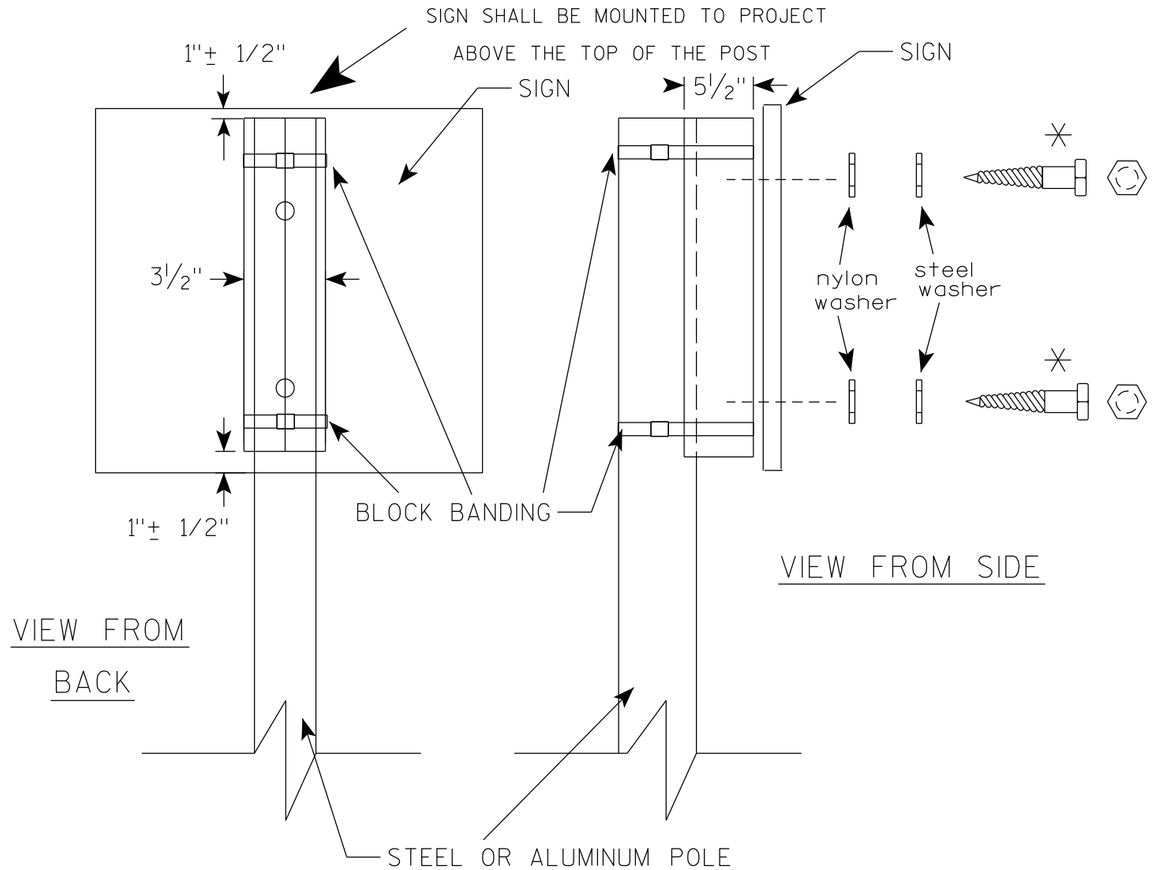
DATE 6/10/19 PLATE NO. A5-9.4

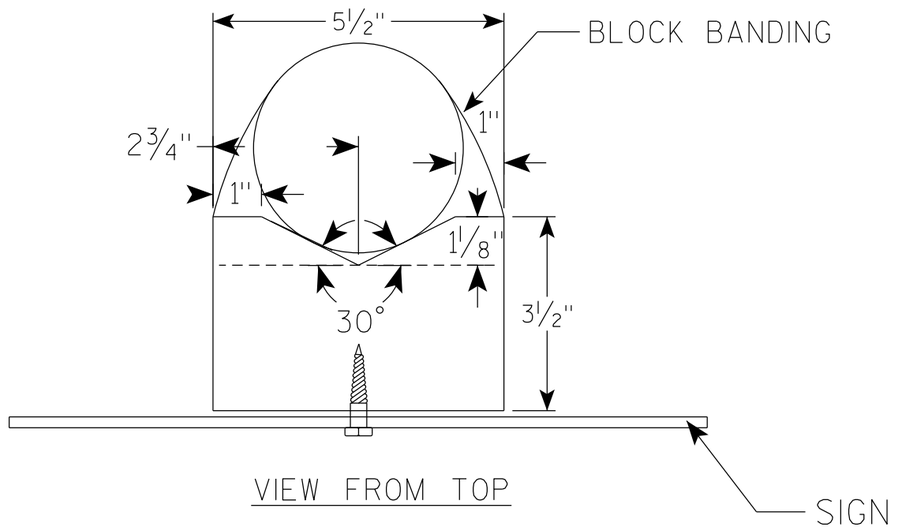
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E

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

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

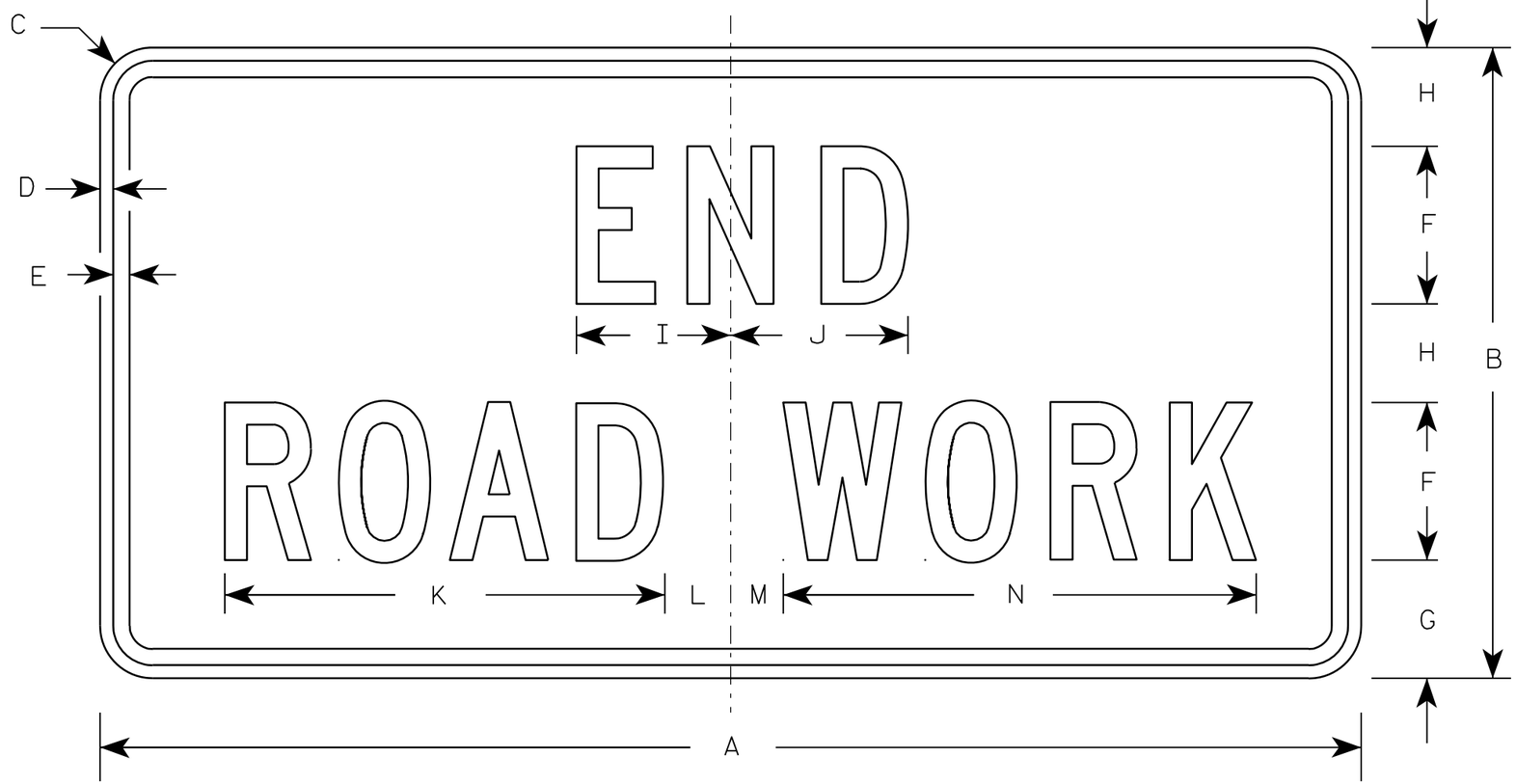
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | SHEET NO: 177 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgn PLOT DATE : 10-JUN 2019 4:15 PLOT BY : mscj9h
WISDOT/CADDS SHEET 42



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 178	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Material shall be .040 aluminmum

G20-60

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	108	24				12	6	14 7/8	78 1/4																		18.0
5																											

STANDARD SIGN
G20-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/15 PLATE NO G20-60.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G2060.DGN PLOT DATE : 13-MAY-2015 08:46 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 20.431338:1.000000
WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E

G20-61

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	120	30	6		2	12	9	21	78 1/4	20 3/4																	25.0
5																											

STANDARD SIGN
G20-61

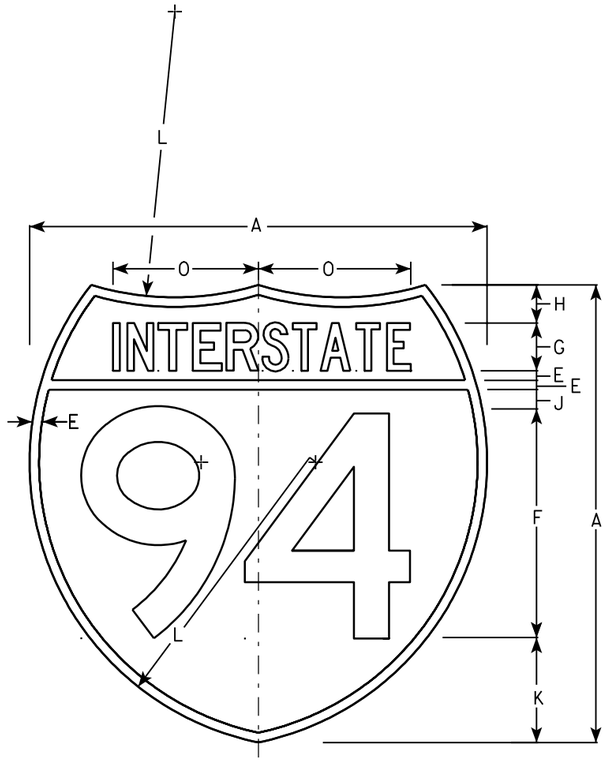
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

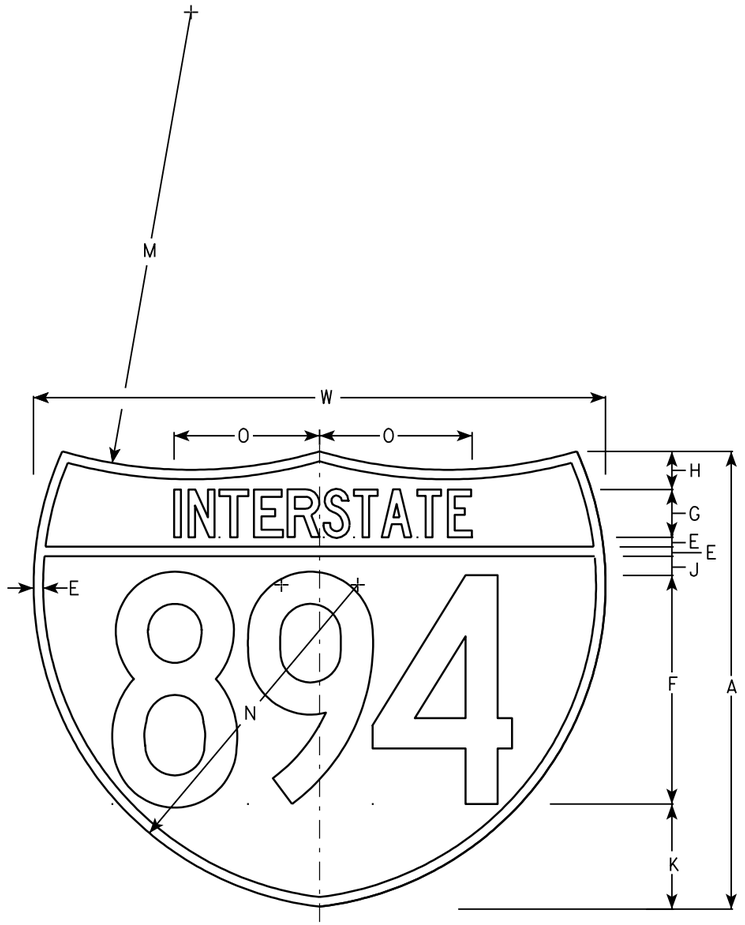
DATE 5/07/15 PLATE NO G20-61.1

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\G2061.DGN PLOT DATE : 07-MAY-2015 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 20.431338:1.000000 WISDOT/CADDS SHEET 42



M1-1



M1-1A

NOTES

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

Metric equivalent for these signs are:

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

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

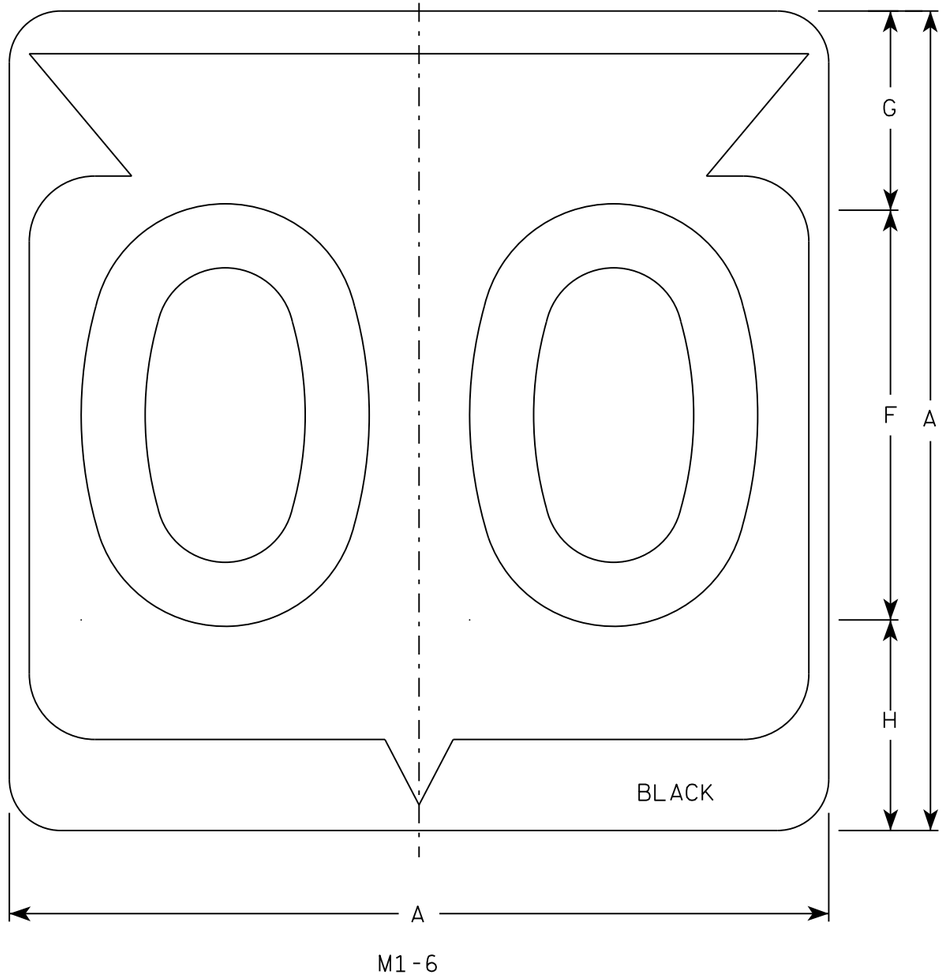
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

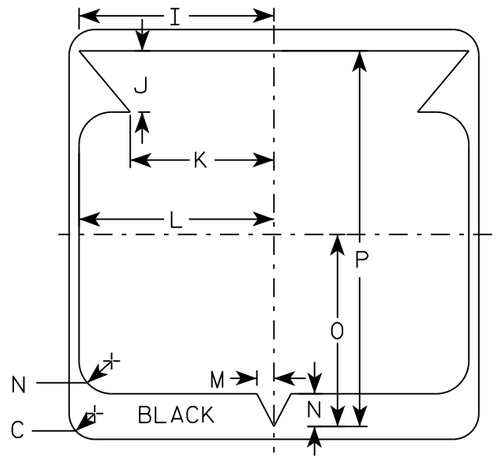
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 181	E



M1-6

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

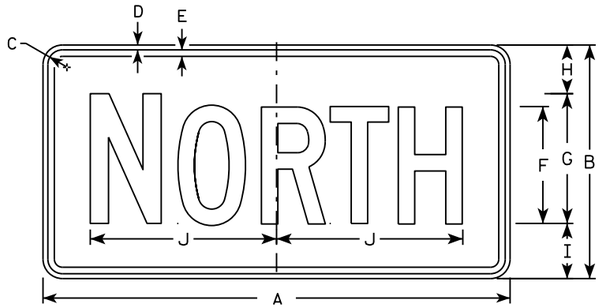
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

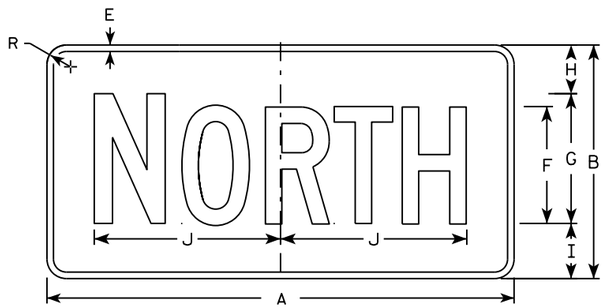
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 182	E



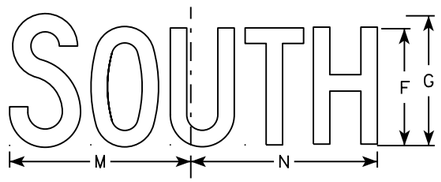
M3-1
MM3-1
MP3-1



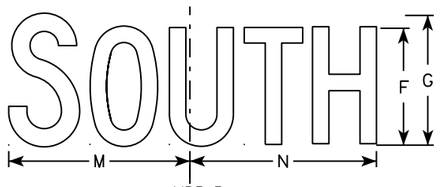
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

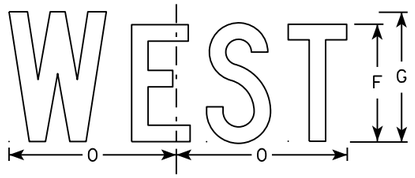
MB3-2
MK3-2
MN3-2



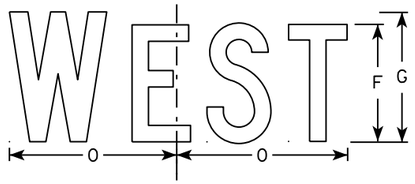
M3-3
MM3-3
MP3-3



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

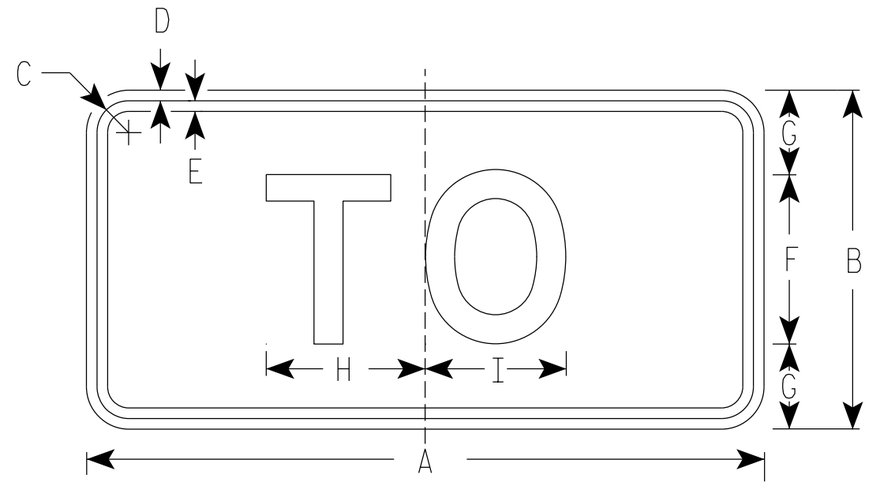
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

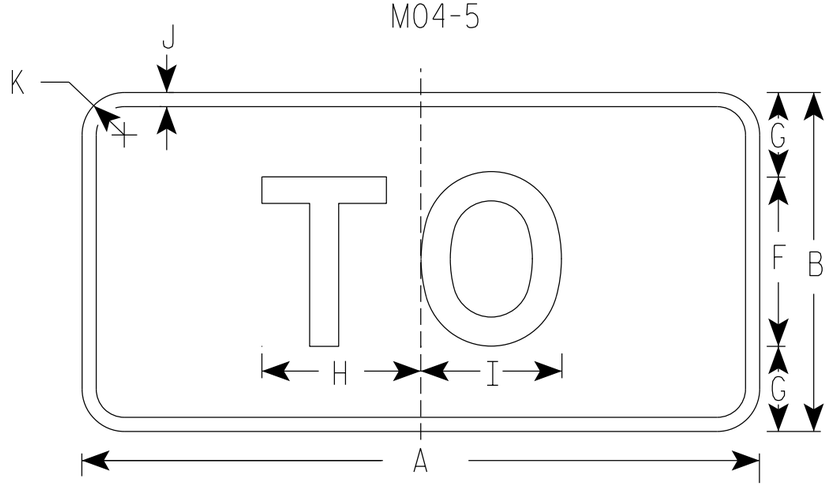
DATE 10/15/15 PLATE NO M3-1.14

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



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

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

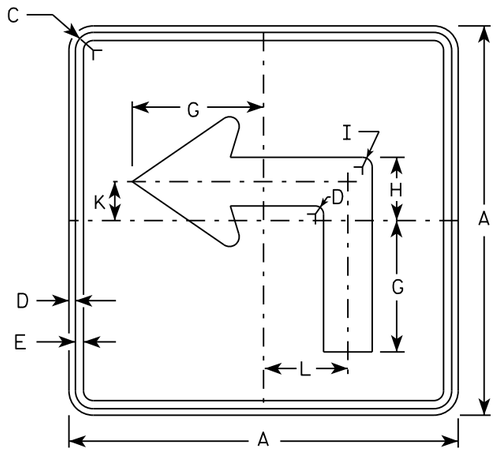
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

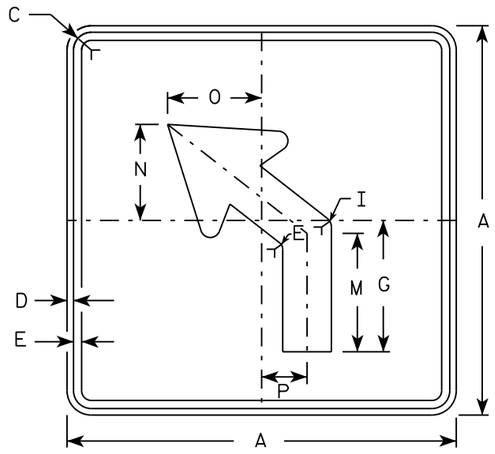
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

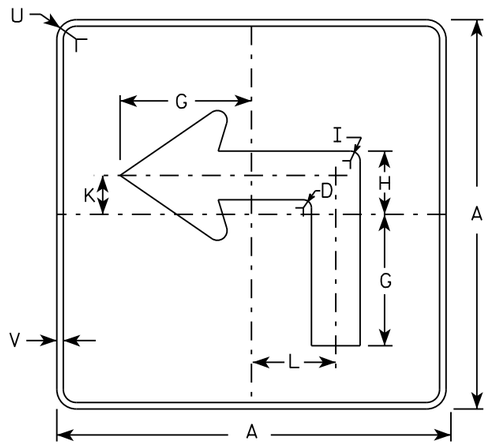
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 184 | E



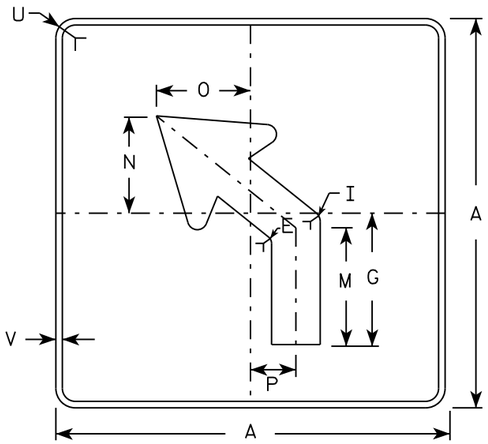
M5-1L
MM5-1L
MO5-1L
MP5-1L



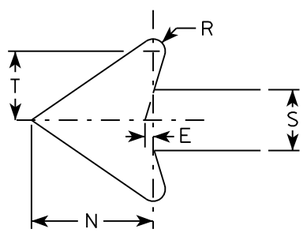
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

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

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

STANDARD SIGN
M5-1 & M5-2

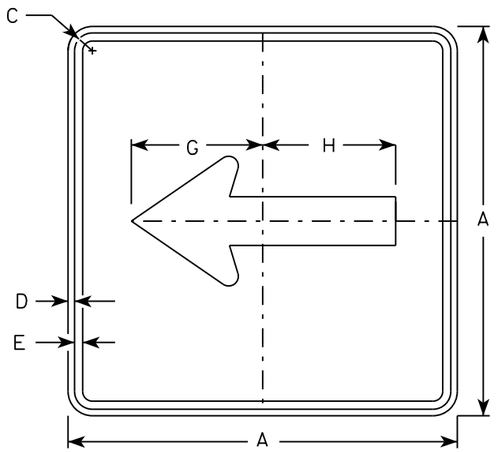
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

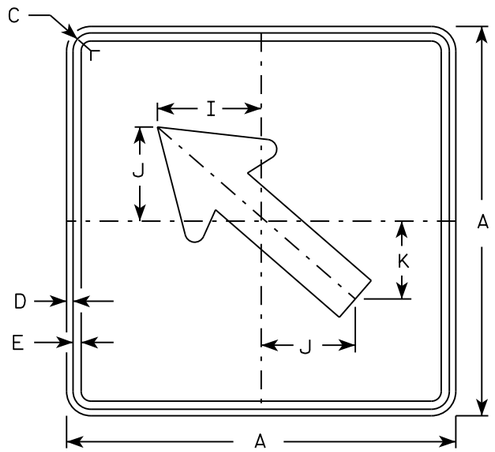
DATE 10/15/15 PLATE NO. M5-1.13

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

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



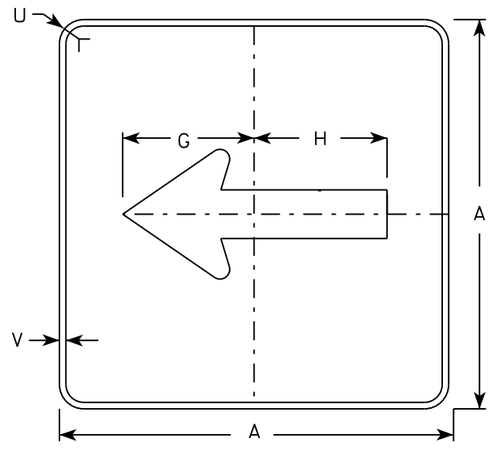
M6-1
MM6-1
MO6-1
MP6-1



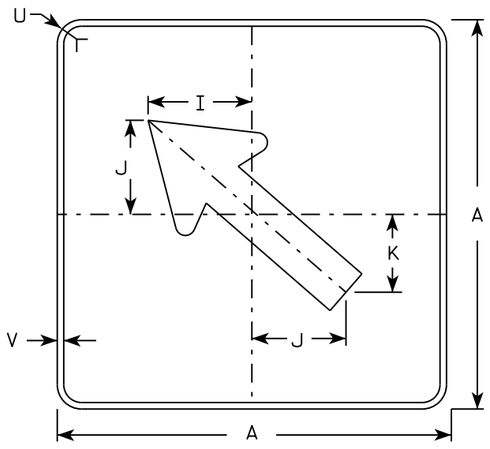
M6-2
MM6-2
MO6-2
MP6-2

NOTES

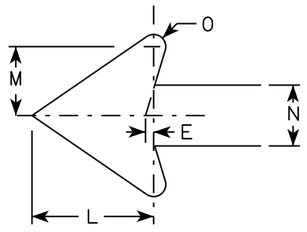
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background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



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



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



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

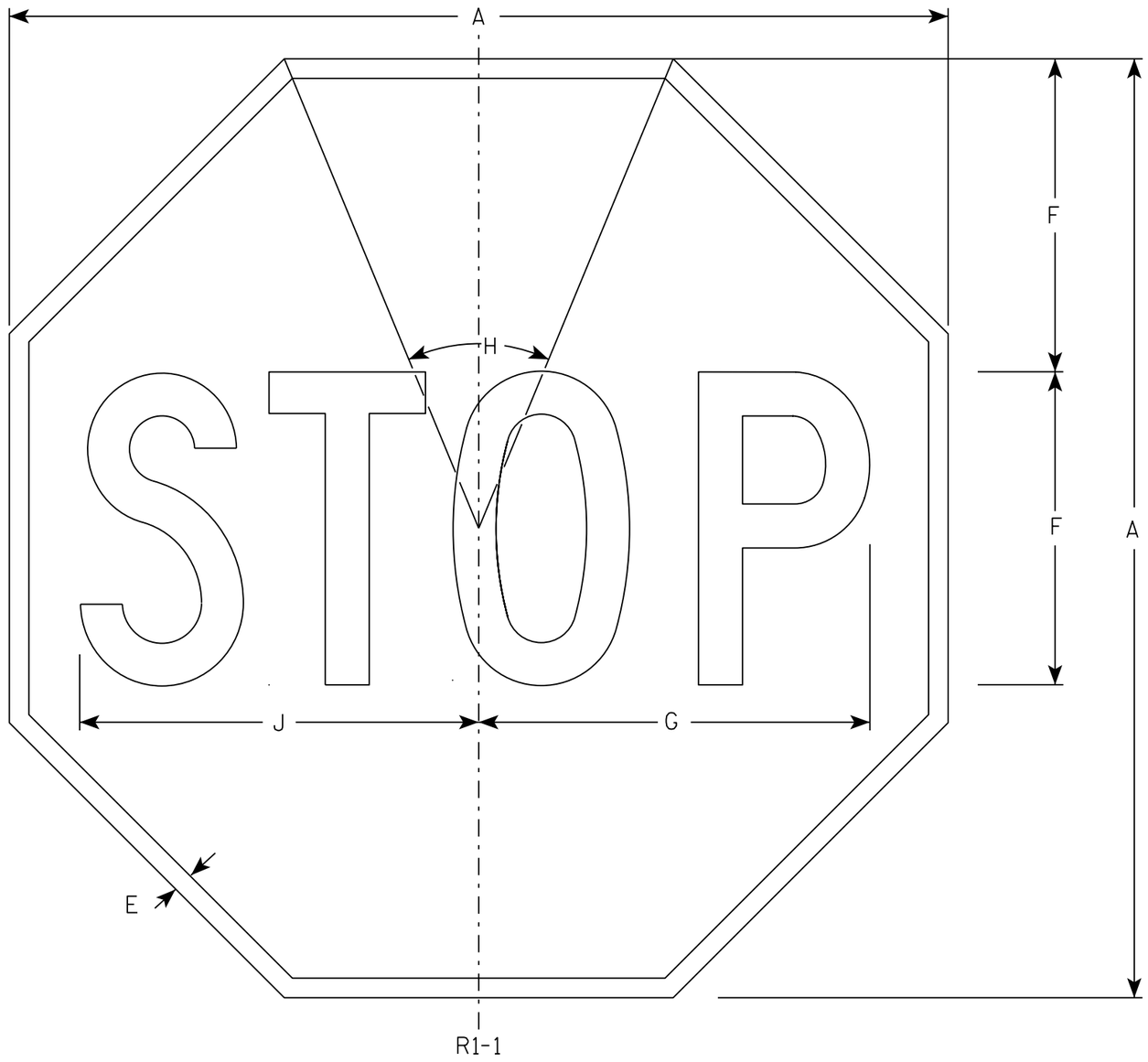
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 186 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



NOTES

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

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				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

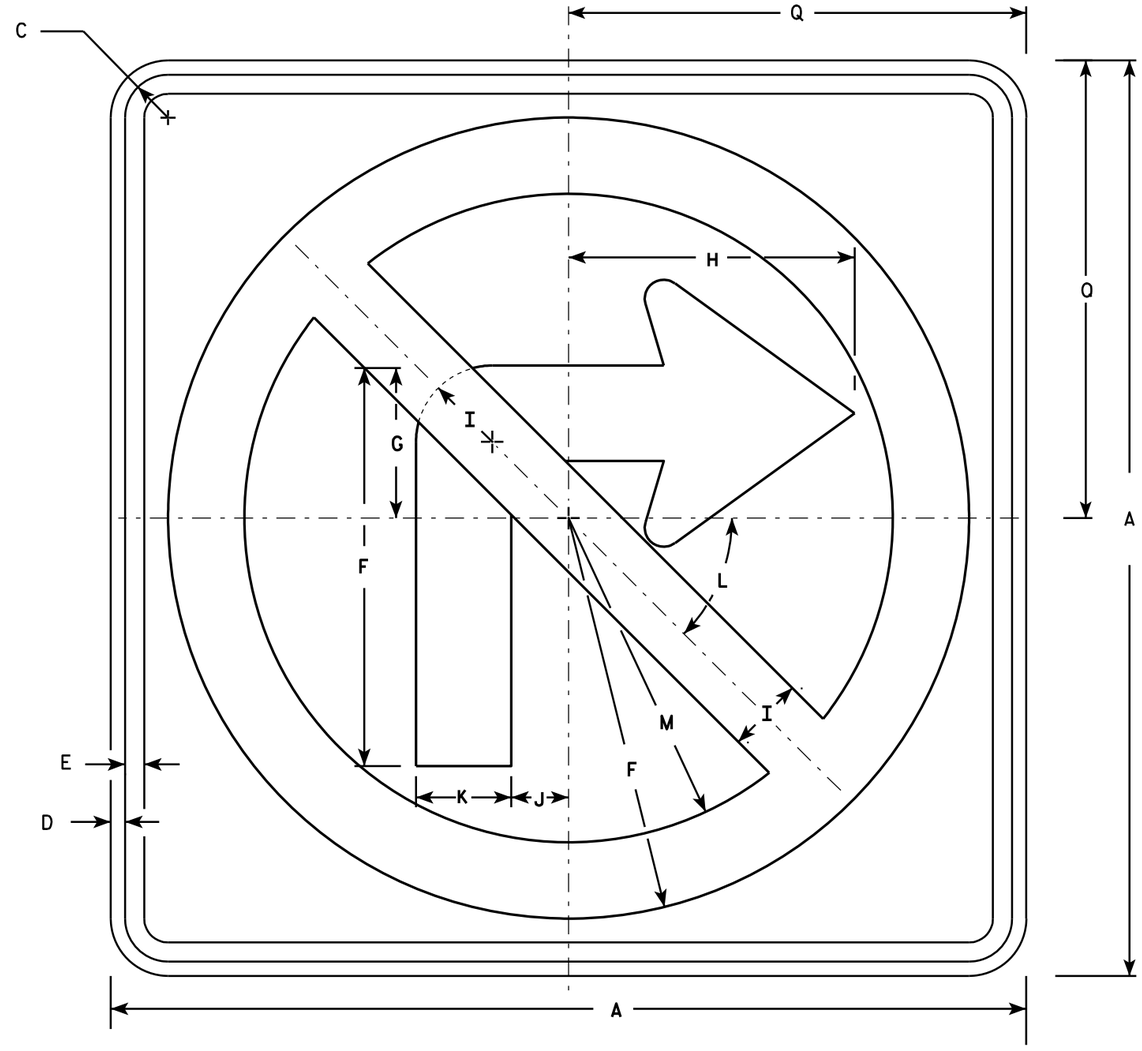
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

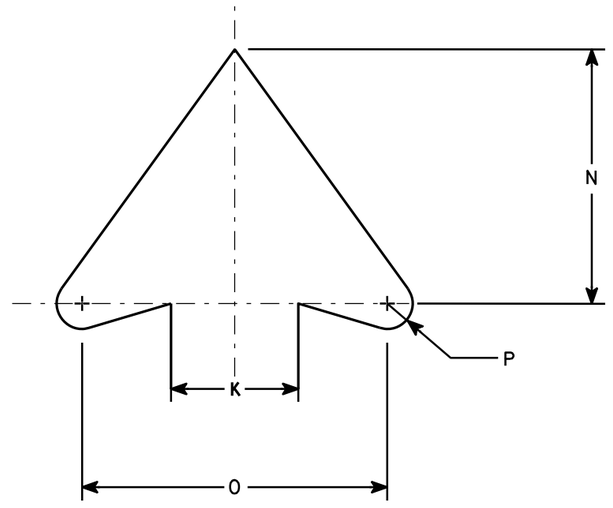
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 187	E



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

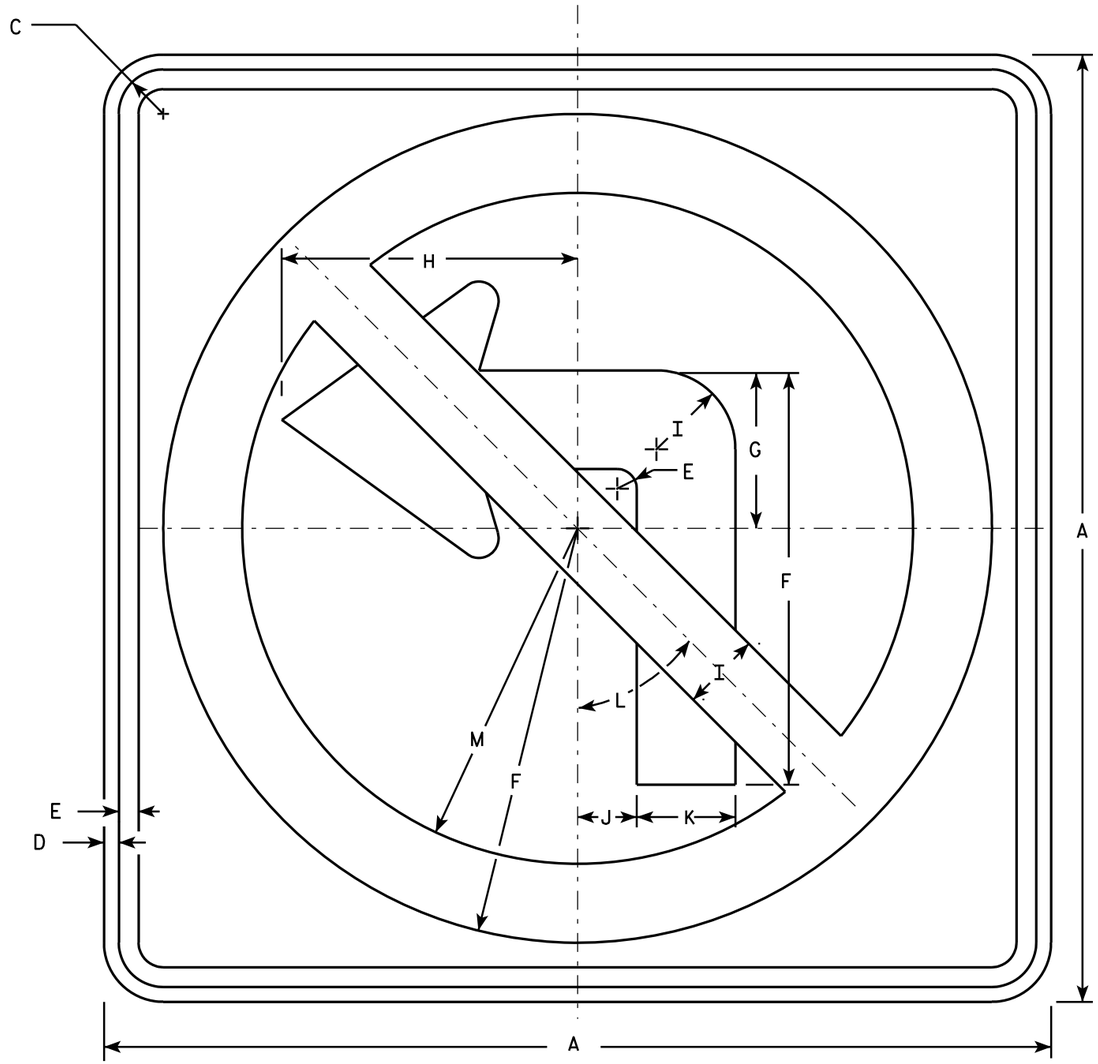
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

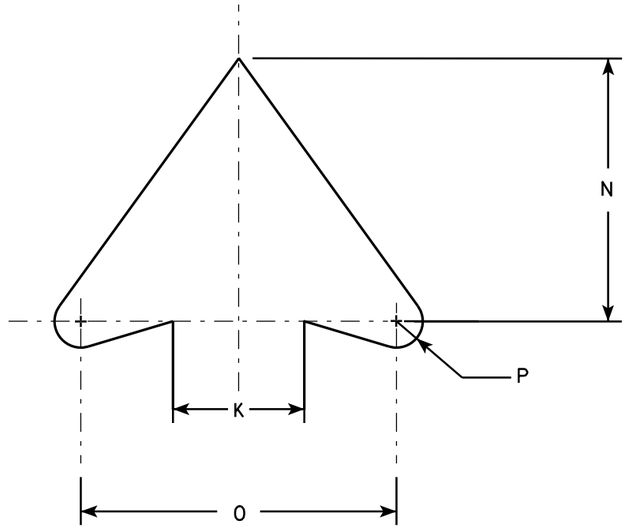
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 188	E



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

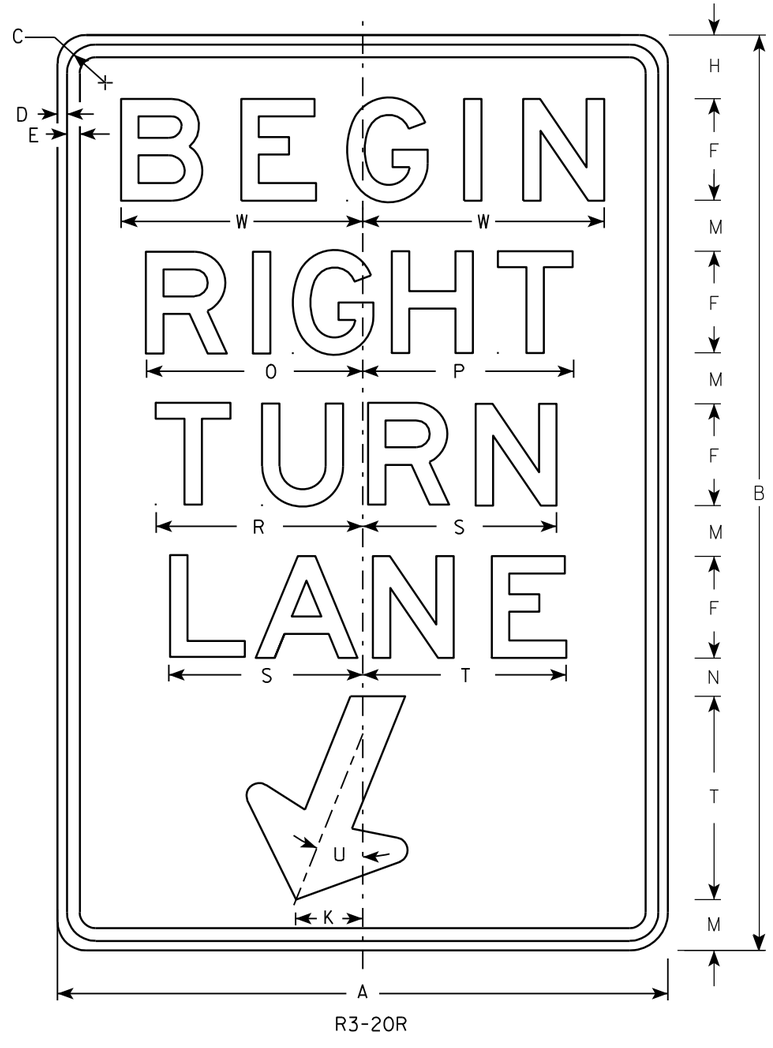
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

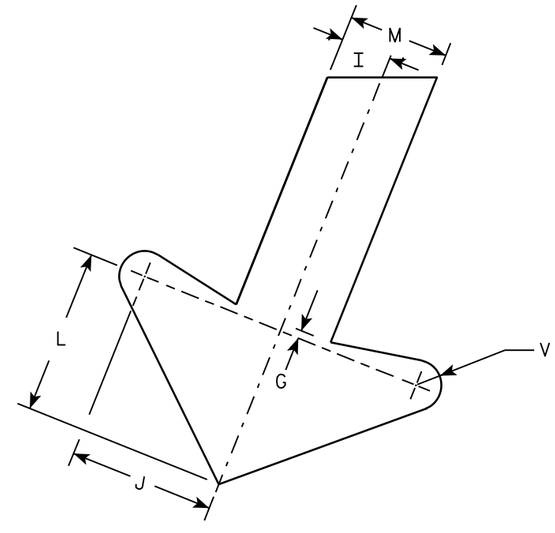
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 189	E



R3-20R

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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

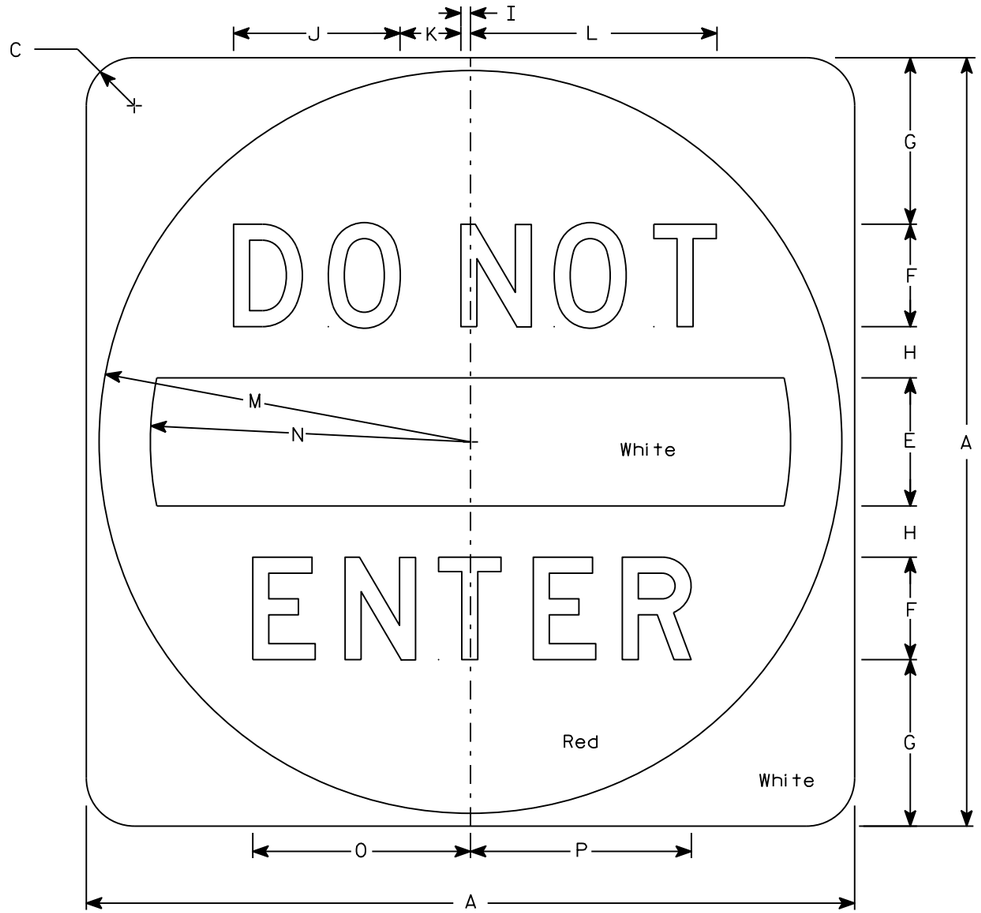
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320R.DGN PLOT DATE : 15-OCT-2010 14:59 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42



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

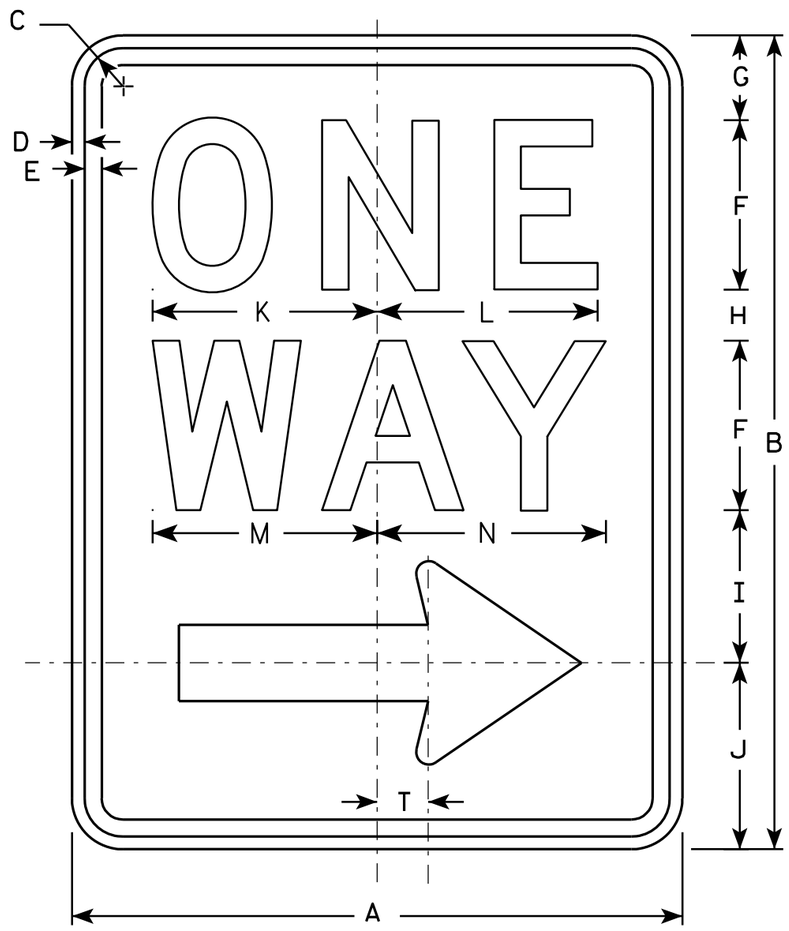
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

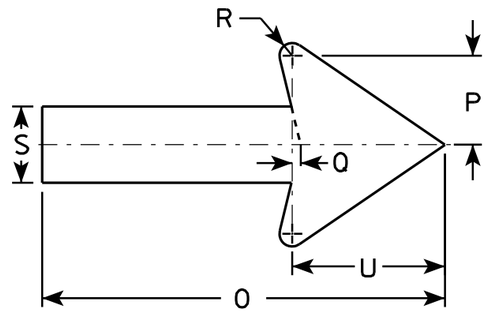
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 191 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

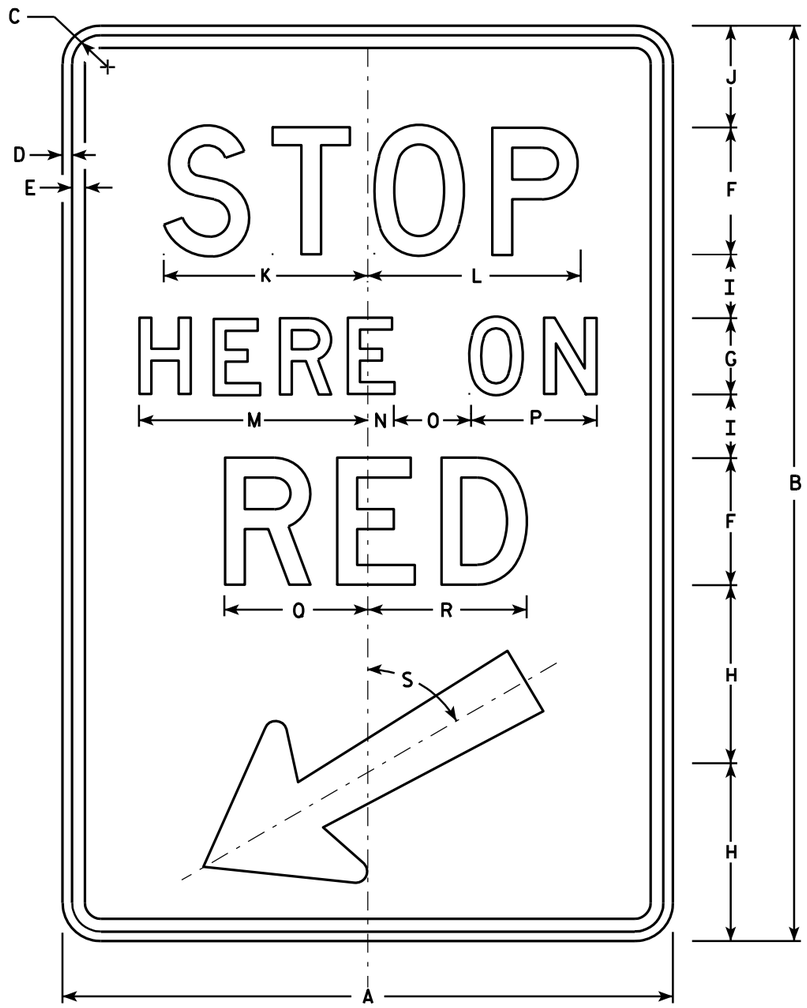
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

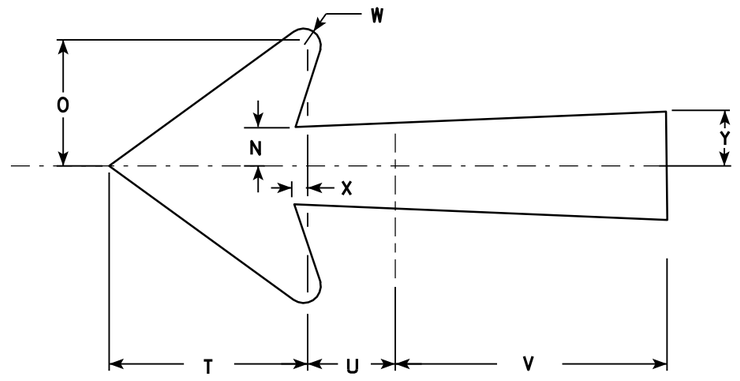
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



R10-6

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.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

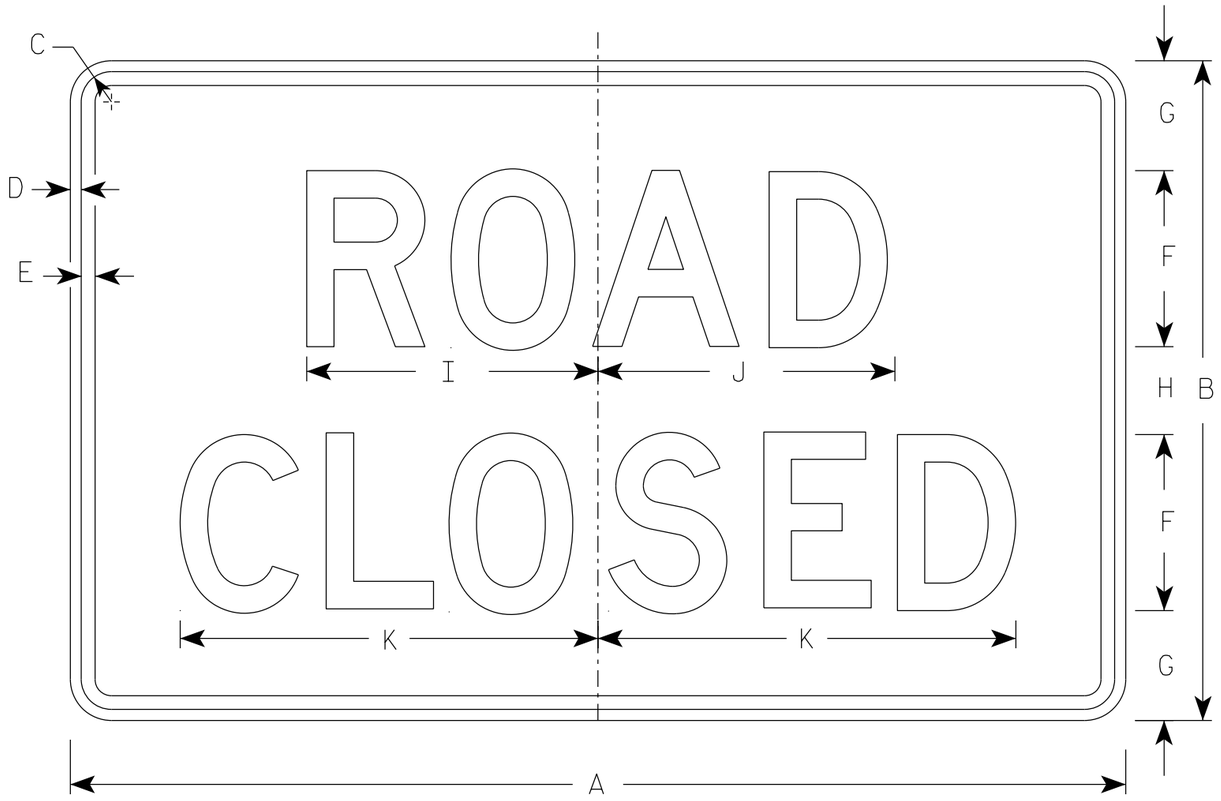
STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

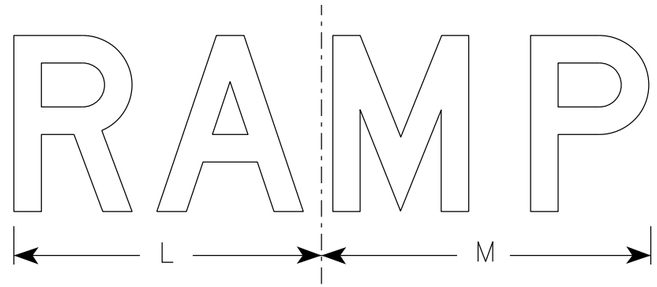
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	E



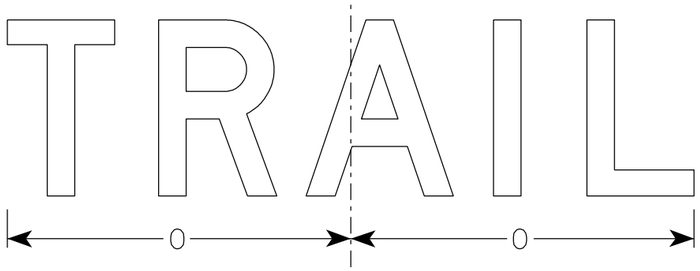
R11-2

NOTES

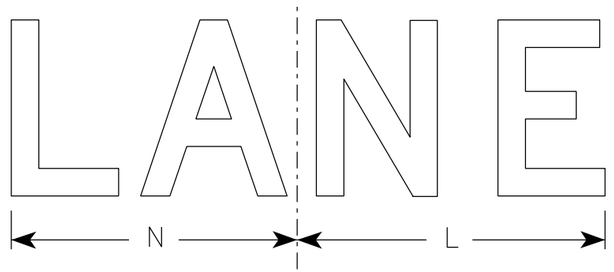
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

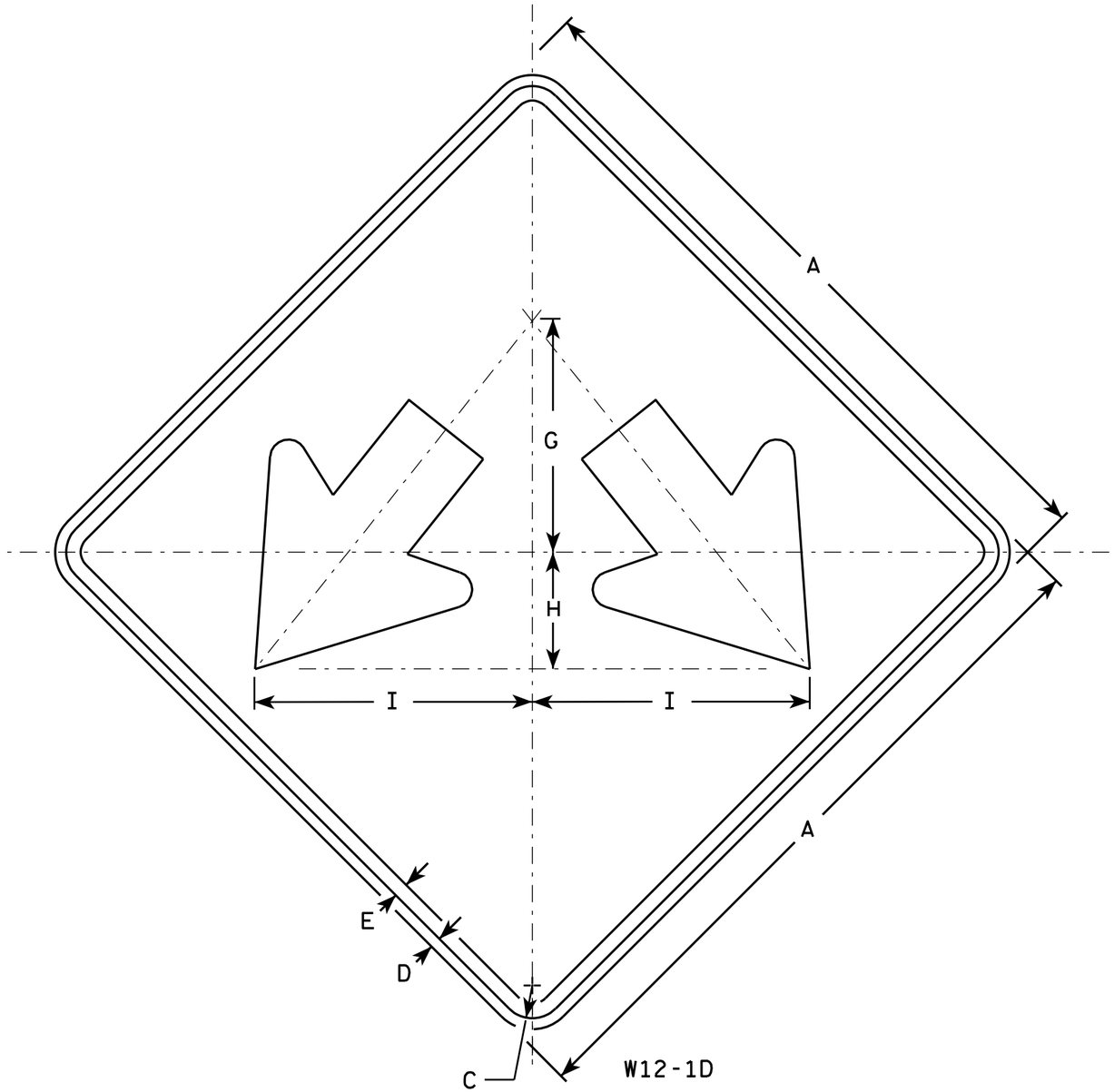
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

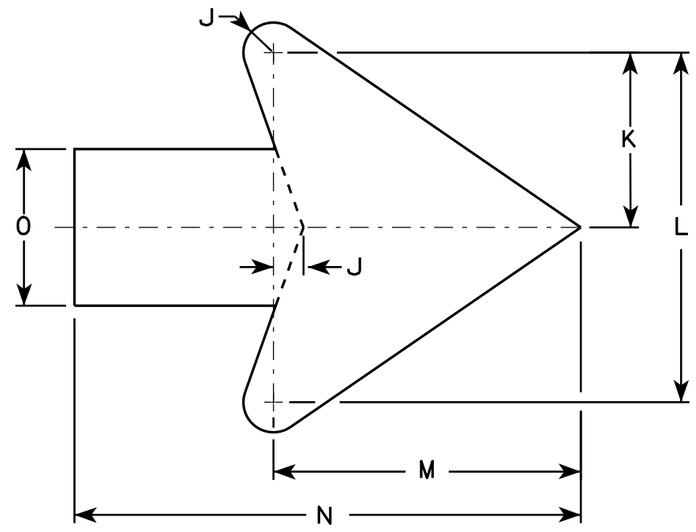
DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 194 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

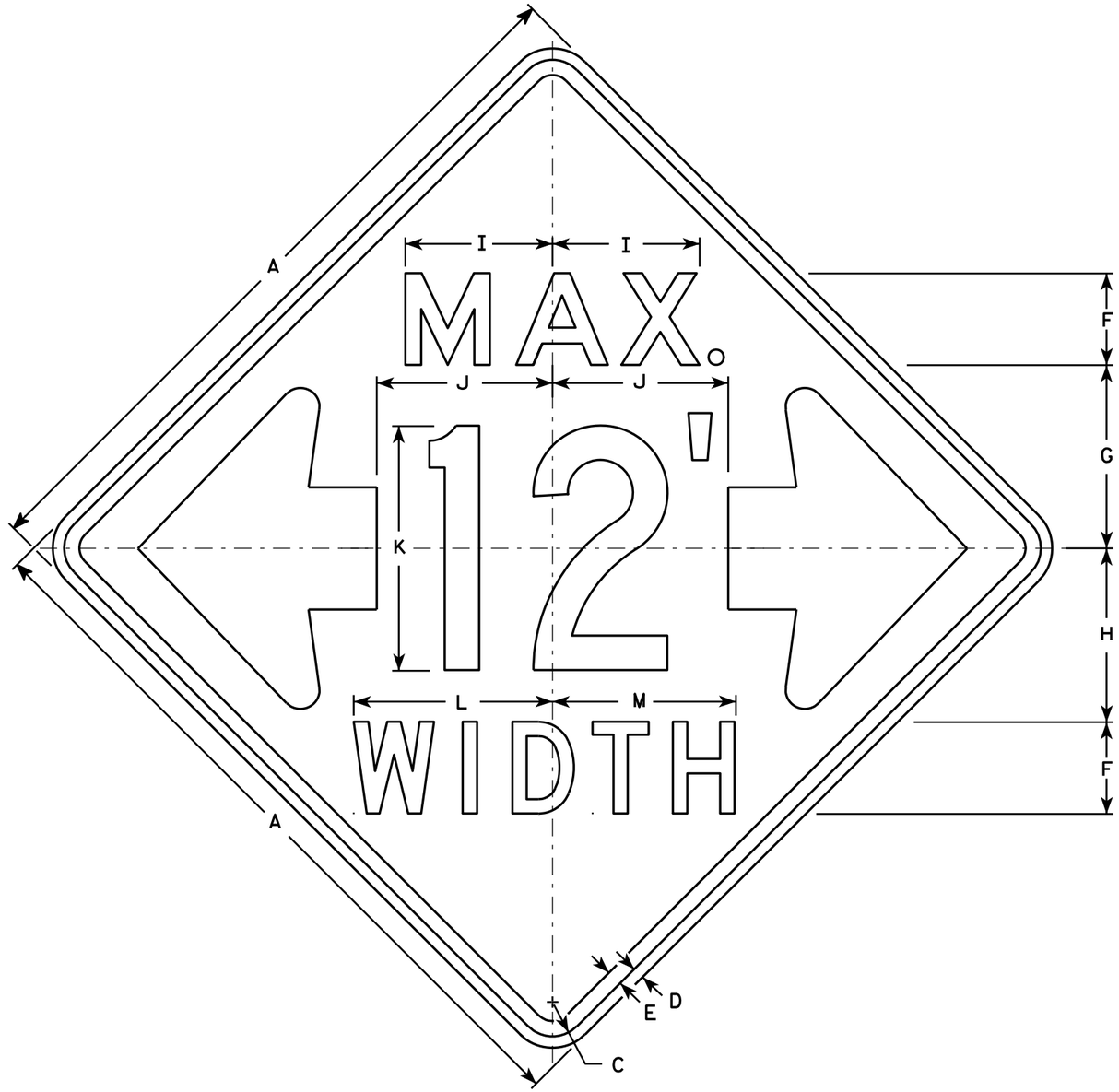
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

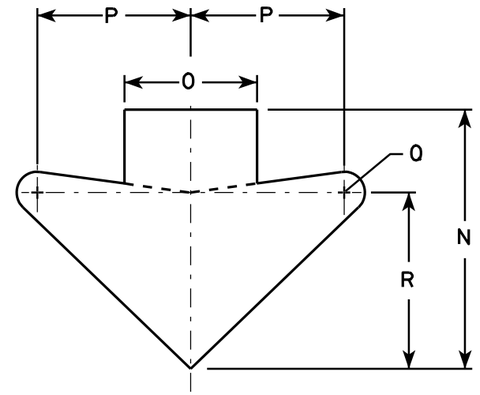
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 195	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

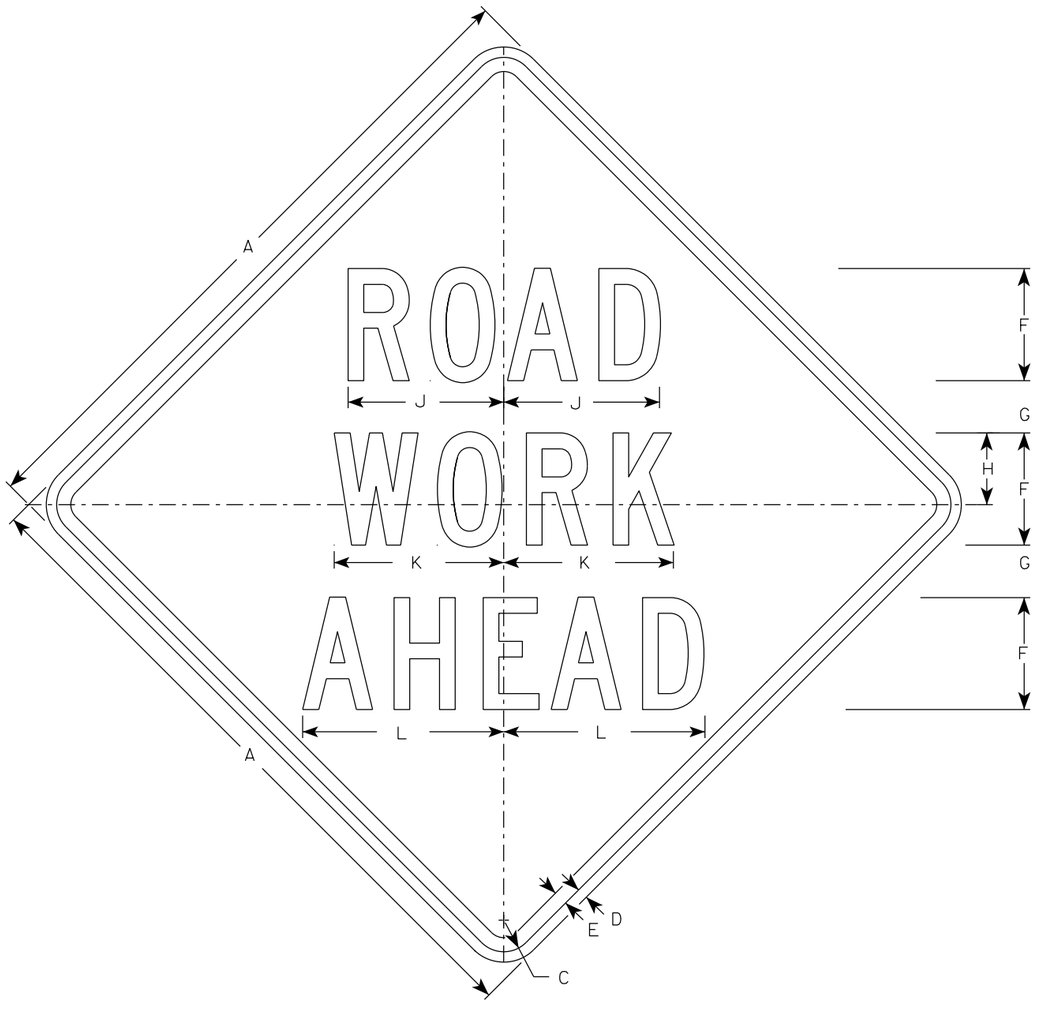
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

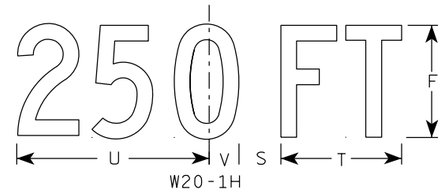
DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 196 | E

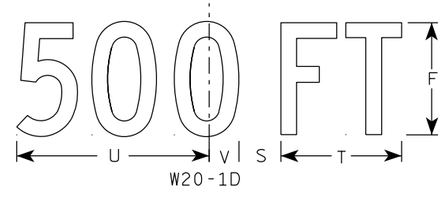
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



W20-1A

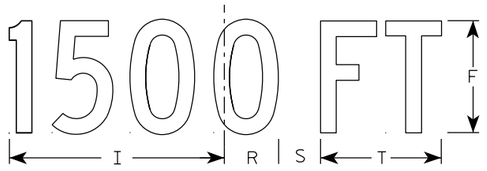


W20-1H



W20-1D

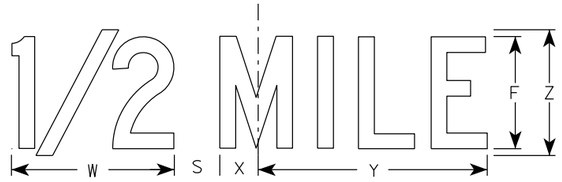
W20-1C



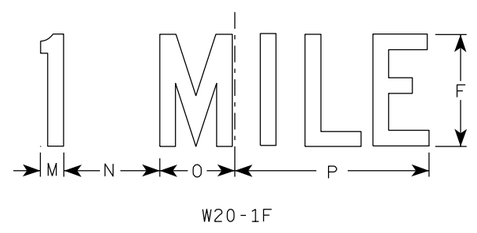
W20-1B

NOTES

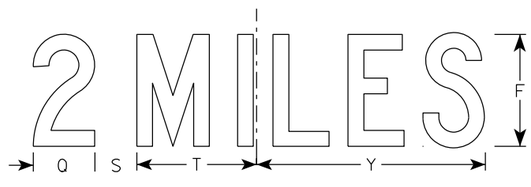
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

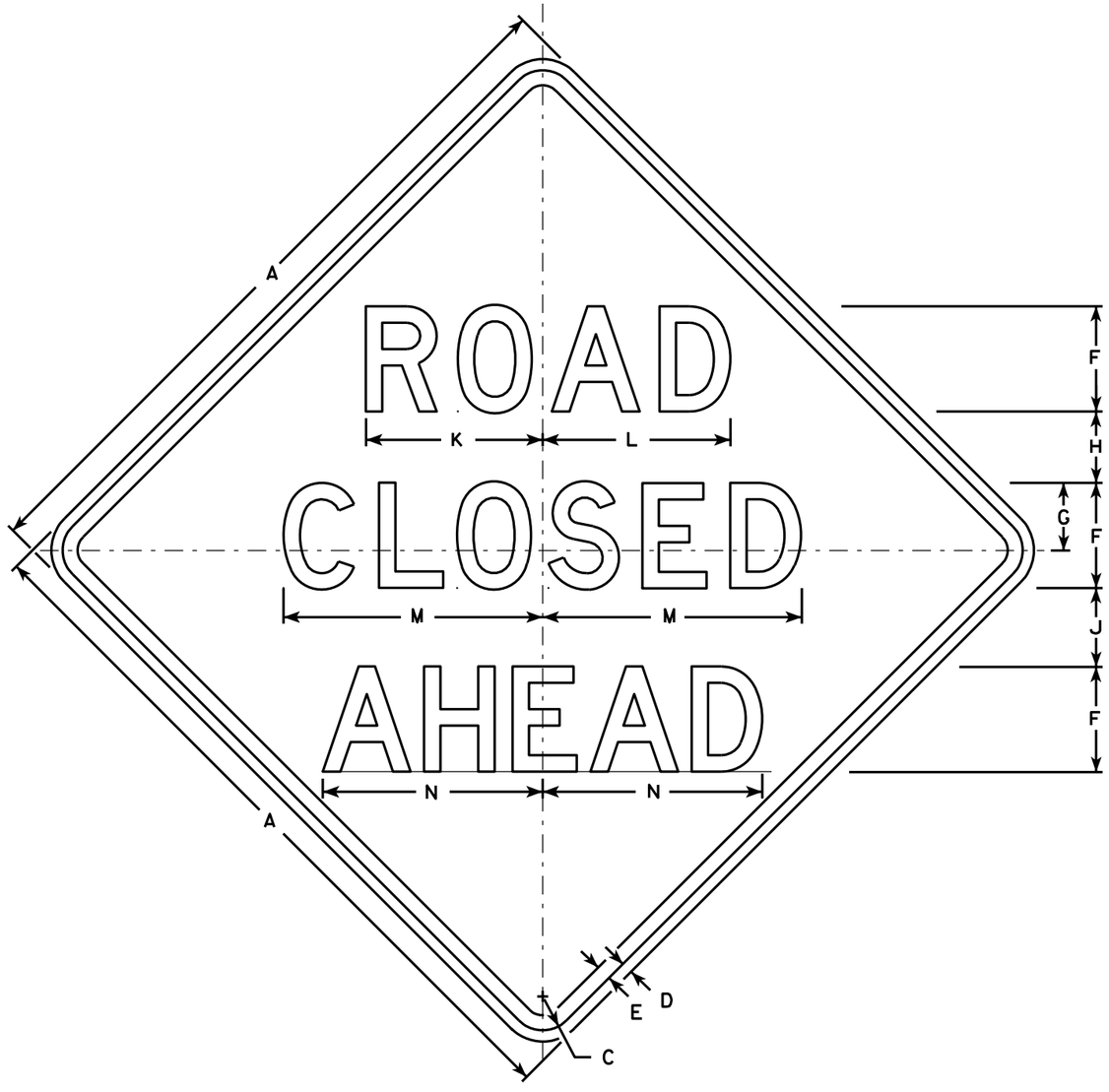
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

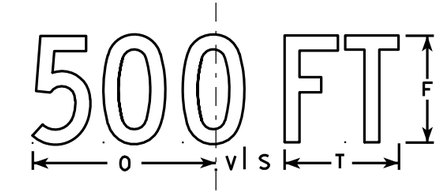
WISDOT/CADDS SHEET 42

7

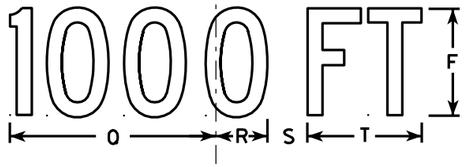
7



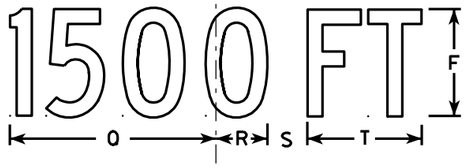
W20-3A



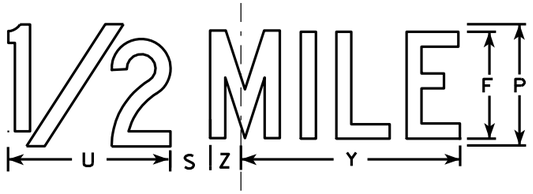
W20-3D



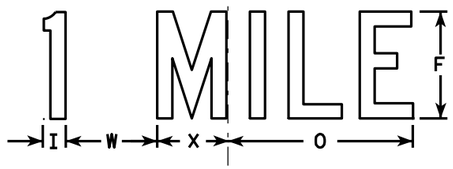
W20-3C



W20-3B



W20-3G



W20-3F

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. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

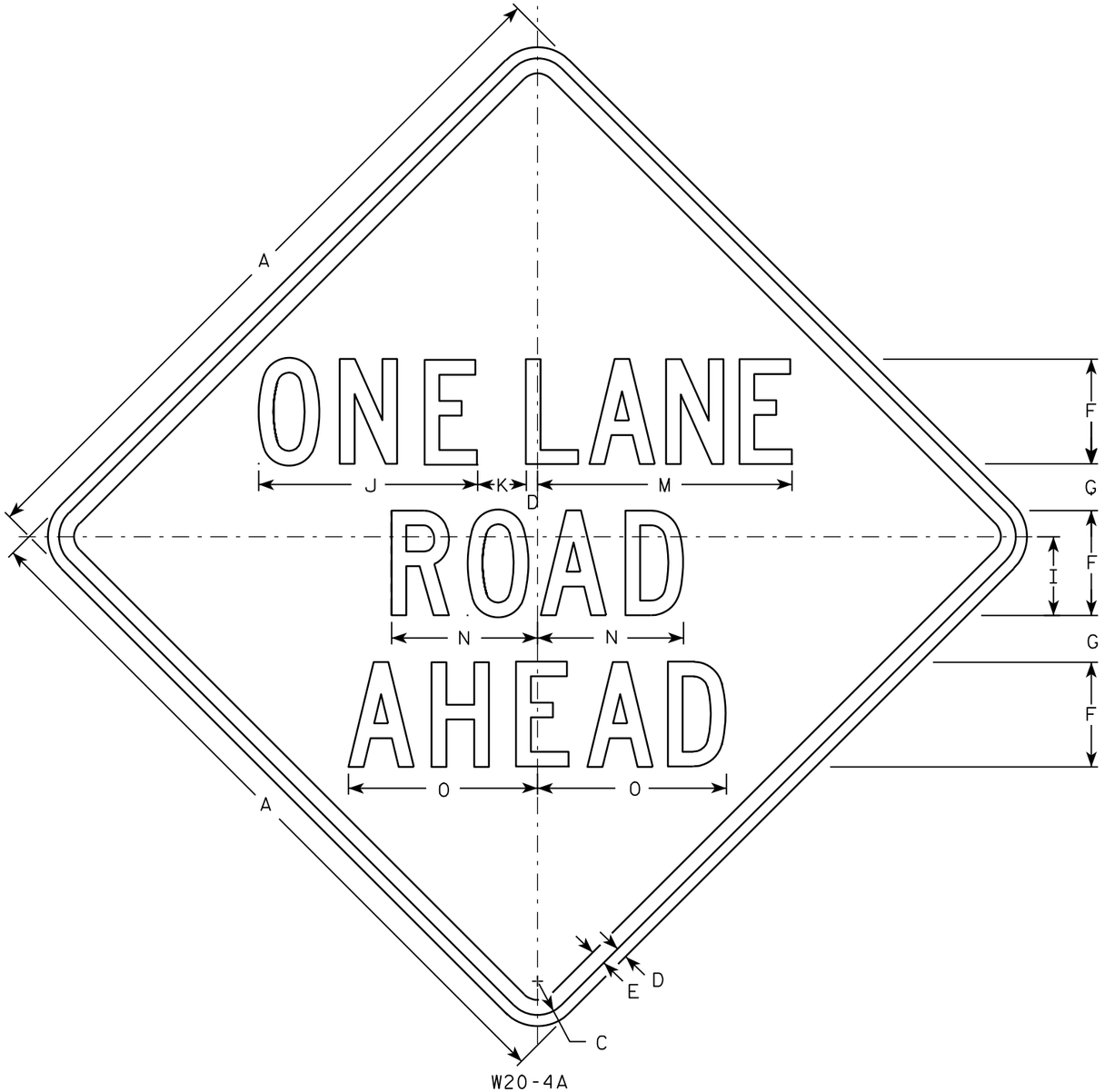
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

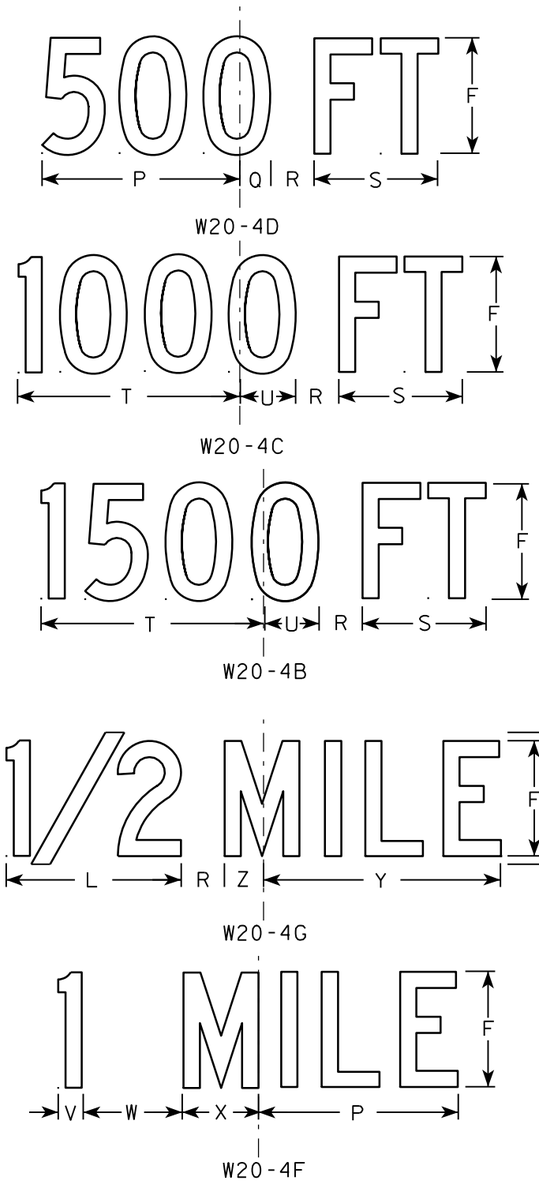
STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 198 | E





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

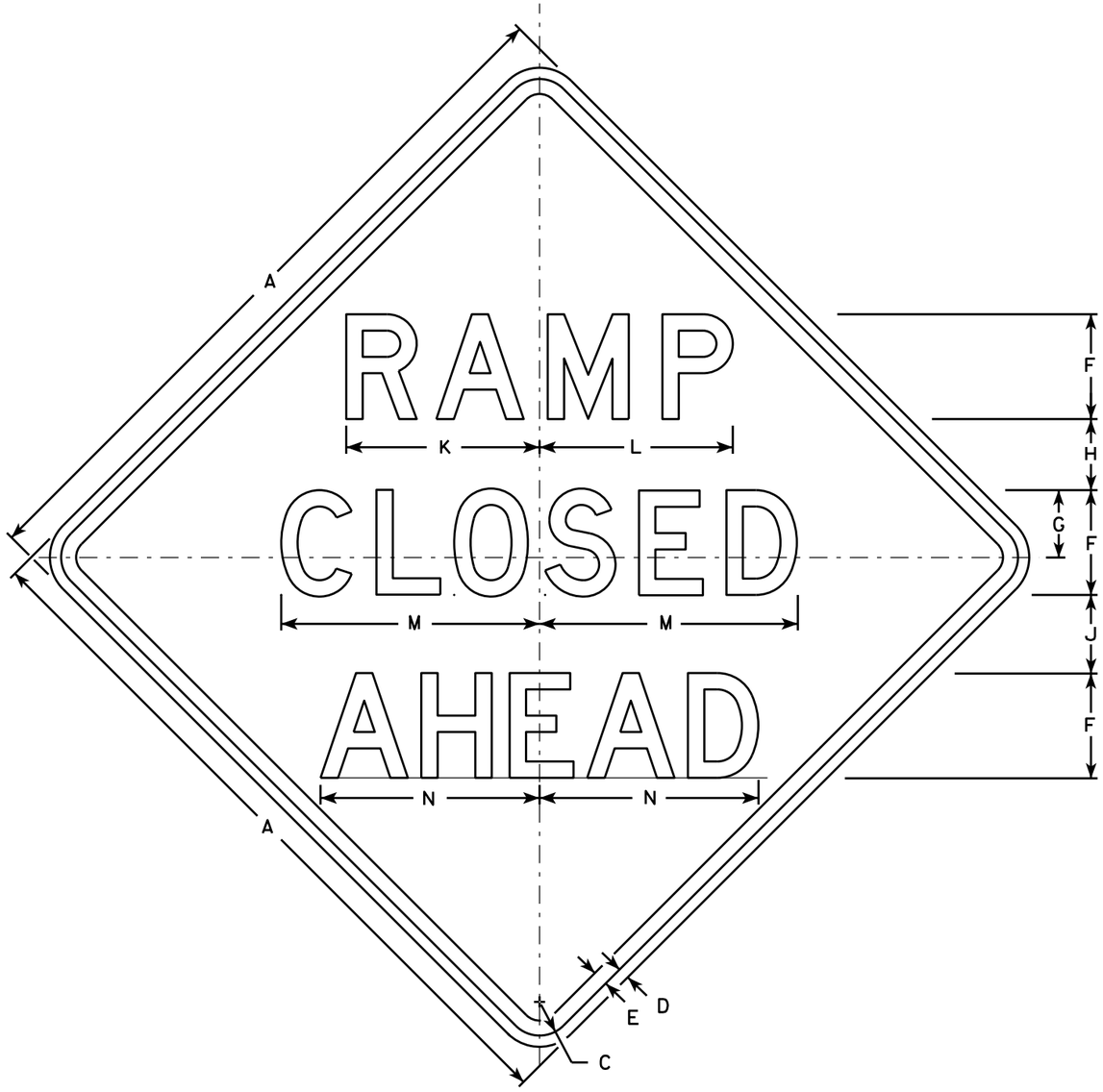
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

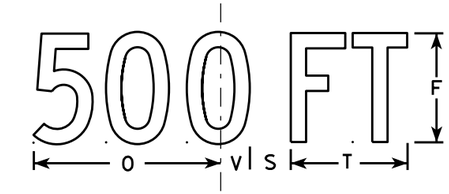
DATE 3/18/11 PLATE NO. W20-4.9

PROJECT NO:

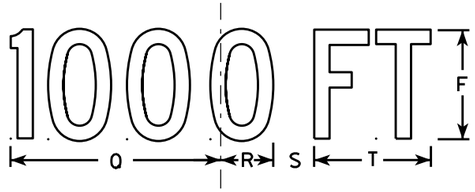
SHEET NO: 199 E



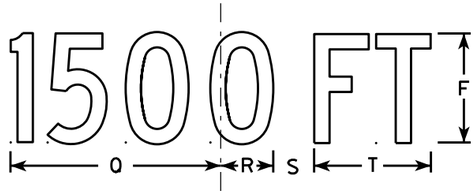
W20-53A



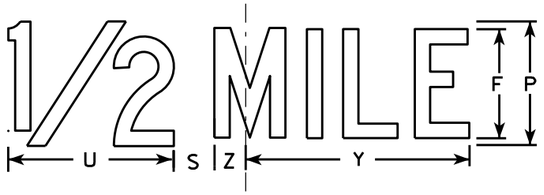
W20-53D



W20-53C



W20-53B



W20-53G

W20-53F

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. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

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

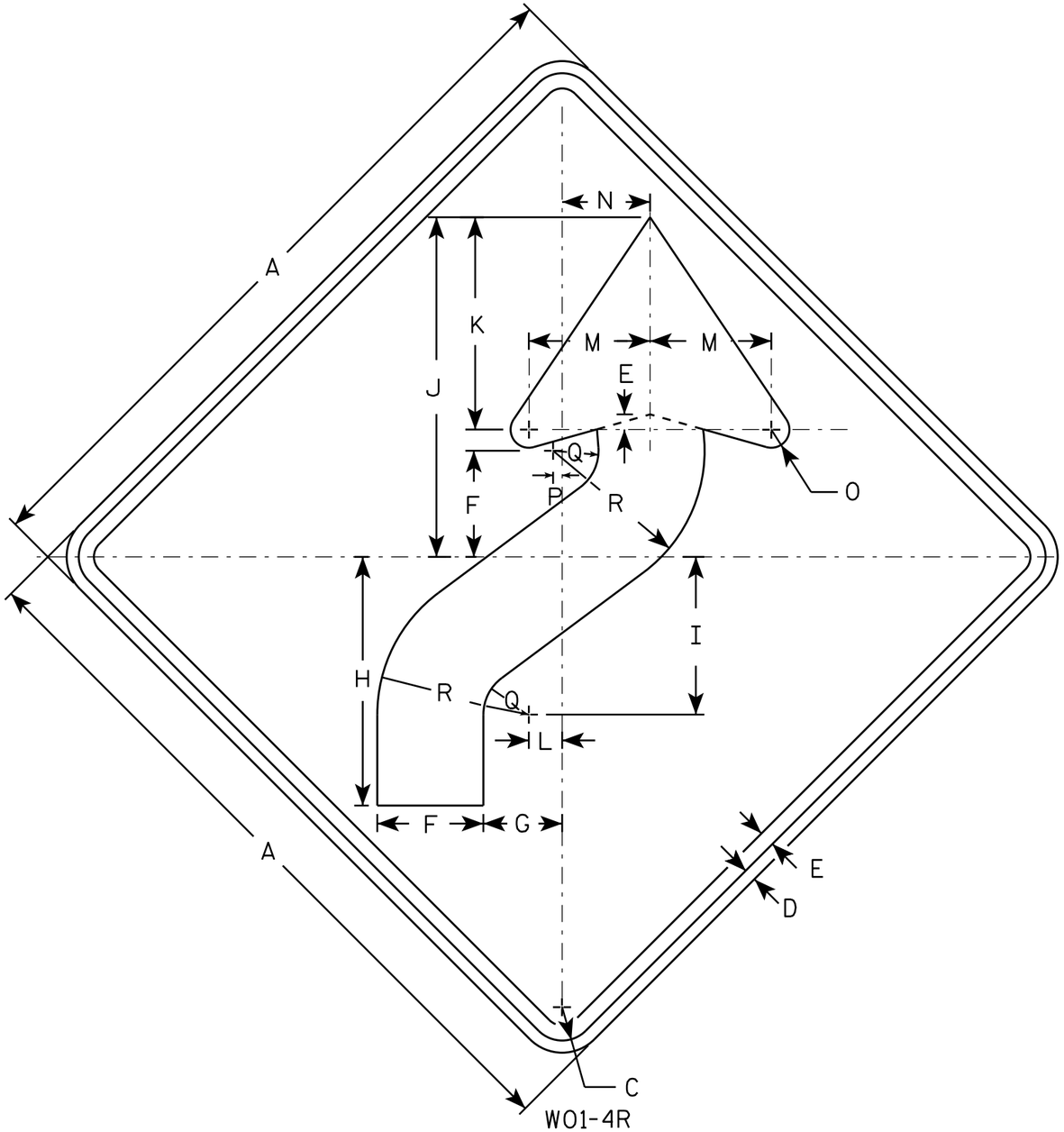
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

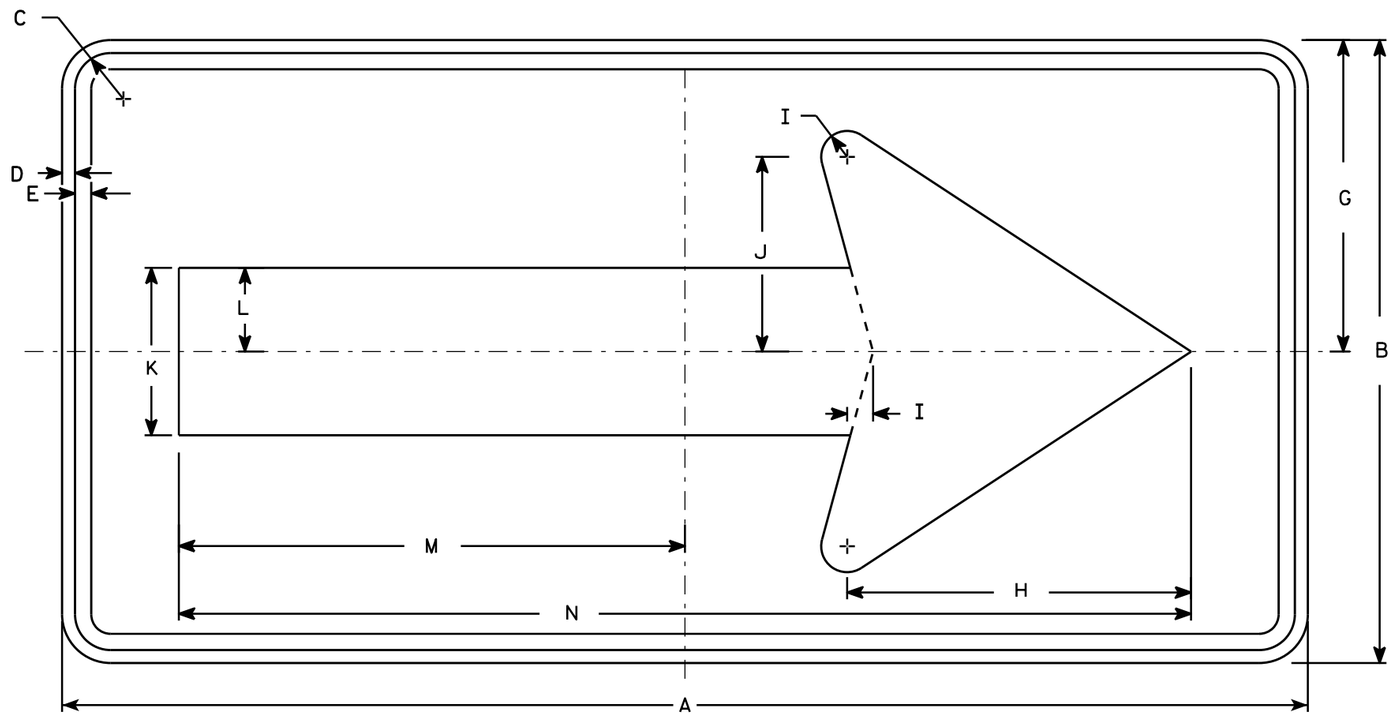
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

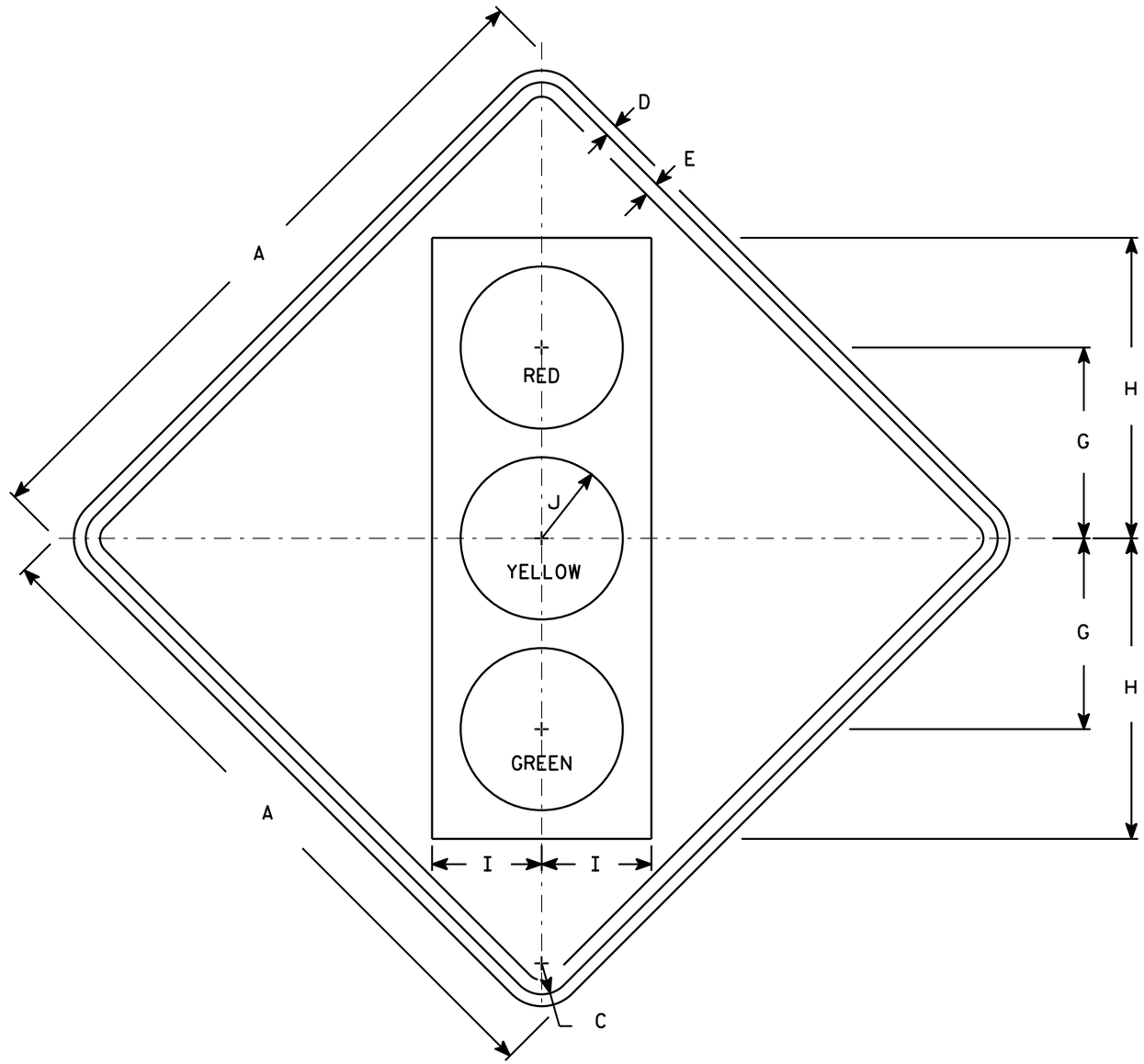
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2S	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
2M	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
3	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

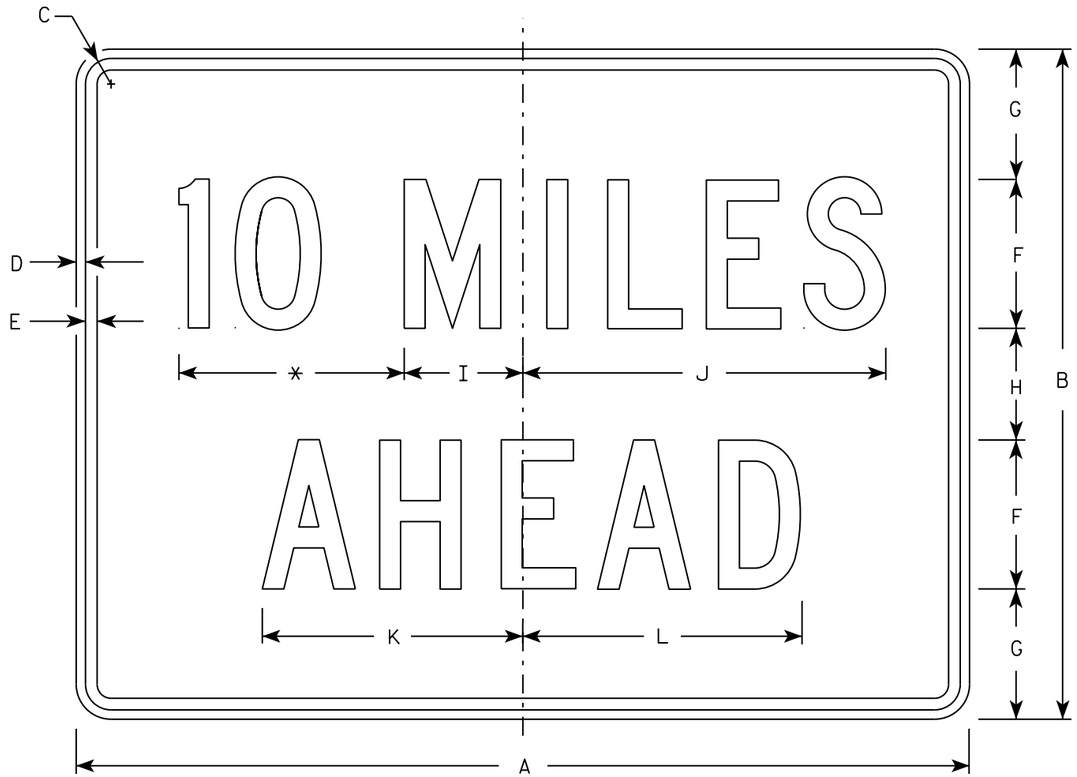
STANDARD SIGN
W03-3

WISCONSIN DEPT OF TRANSPORTATION

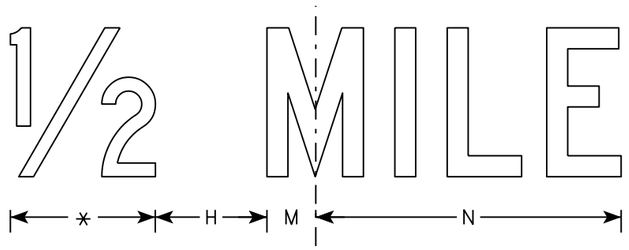
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 203 W03-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W057-52



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* 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	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E

Notes

Wisconsin Department of Transportation

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