WIS

MARCH 2024

PROJECT ID: 6220-01-76

COUNTY: WAUPACA

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 = 190



22

N

DESIGN DESIGNATION

A.A.D.T.	2024	=	4,750
A.A.D.T.	2044	=	5,360
D.H.V.		=	
D.D.		=	
T.		=	13.8%
DESIGN SPEED		=	50MPH
ESALS		=	1,710,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF WAUPACA

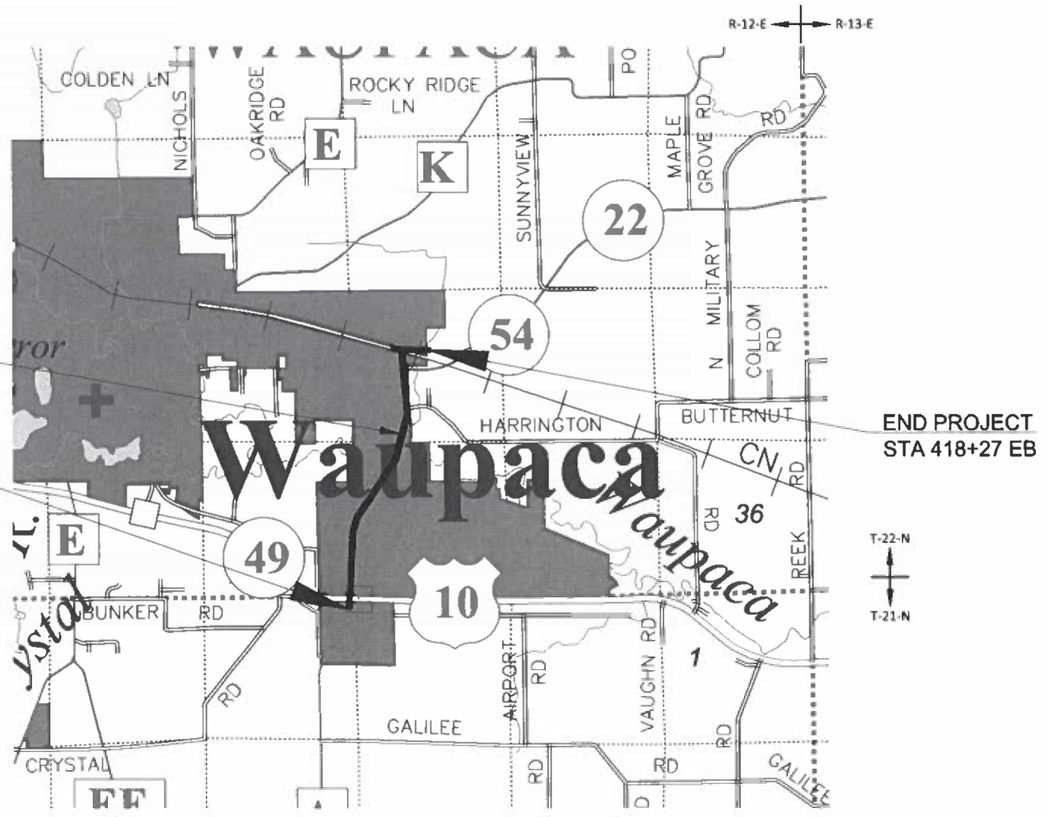
USH 10 RAMPS TO WCL RR BRIDGE

STH 22

WAUPACA

STATE PROJECT NUMBER
6220-01-76

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
PROJECT ID		
6220-01-76	WISC 2024294	1



NET EXCEPTION TO CL LENGTH
STA 105+07 NB - STA 108+33 NB
STRUCTURE B-68-124

BEGIN PROJECT
STA 40+40 NB
Y = 330,591.505
X = 548,126.898

END PROJECT
STA 418+27 EB

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 1.91

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WAUPACA 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 g18-wi.

ORIGINAL PLANS PREPARED BY

GRAEF

116 S Adams Street,
Green Bay, WI 54301
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com

WISCONSIN
ANDREW K. SCHULTZ
41695
GREEN BAY, WI
PROFESSIONAL ENGINEER

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	GRAEF
Designer	GRAEF
Project Manager	BRYCE SCHLEICHER
Regional Examiner	FRED SCHUNKE
Regional Supervisor	ELIZABETH NEMEC

APPROVED FOR THE DEPARTMENT

DATE: 10/26/23 Elizabeth Nemec Date: 2023.10.26 (Signature)

E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\010101_TI.DWG PLOT DATE : 9/17/2023 4:34 PM PLOT BY : ENGLES, BRIAN PLOT NAME :

GENERAL NOTES

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.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 115 LBS/SY/IN.

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

WISCONSIN DNR LIAISON

JAY SCHIEFELBEIN
CENTRAL REGION
2984 SHAWANO AVE.
GREEN BAY, WI. 54313
PHONE: (920) 360-3784
EMAIL: jeremiah.schiefelbein@wisconsin.gov

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

UTILITIES CONTACTS

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

CITY OF WAUPACA
SEWER LINE
ROGER HANSEN
325 OBORN STREET
WAUPACA, WI. 54981
PHONE: (715) 258-4421
MOBILE: (715) 572-3536
EMAIL: rhansen@cityofwaupaca.org

CITY OF WAUPACA
WATER LINE
MARK NOLLENBERG
519 HARDING STREET
WAUPACA, WI. 54981
PHONE: (715) 258-4423
MOBILE: (715) 281-9796
EMAIL: mnollenberg@cityofwaupaca.org

NSIGHT TELSERVICES
COMMUNICATION LINE
RICK VINCENT
450 SECURITY BLVD.
GREEN BAY, WI. 54313
PHONE: (920) 617-7316
EMAIL: rick.vincent@nsight.com

WISCONSIN PUBLIC SERVICE CORPORATION
ELECTRIC LINE
DON LUTZOW
P.O. BOX 1166
WAUSAU, WI. 54402
PHONE: (715) 848-7487
MOBILE (507) 848-4211
EMAIL: donald.lutzow@wisconsinpublicservice.com

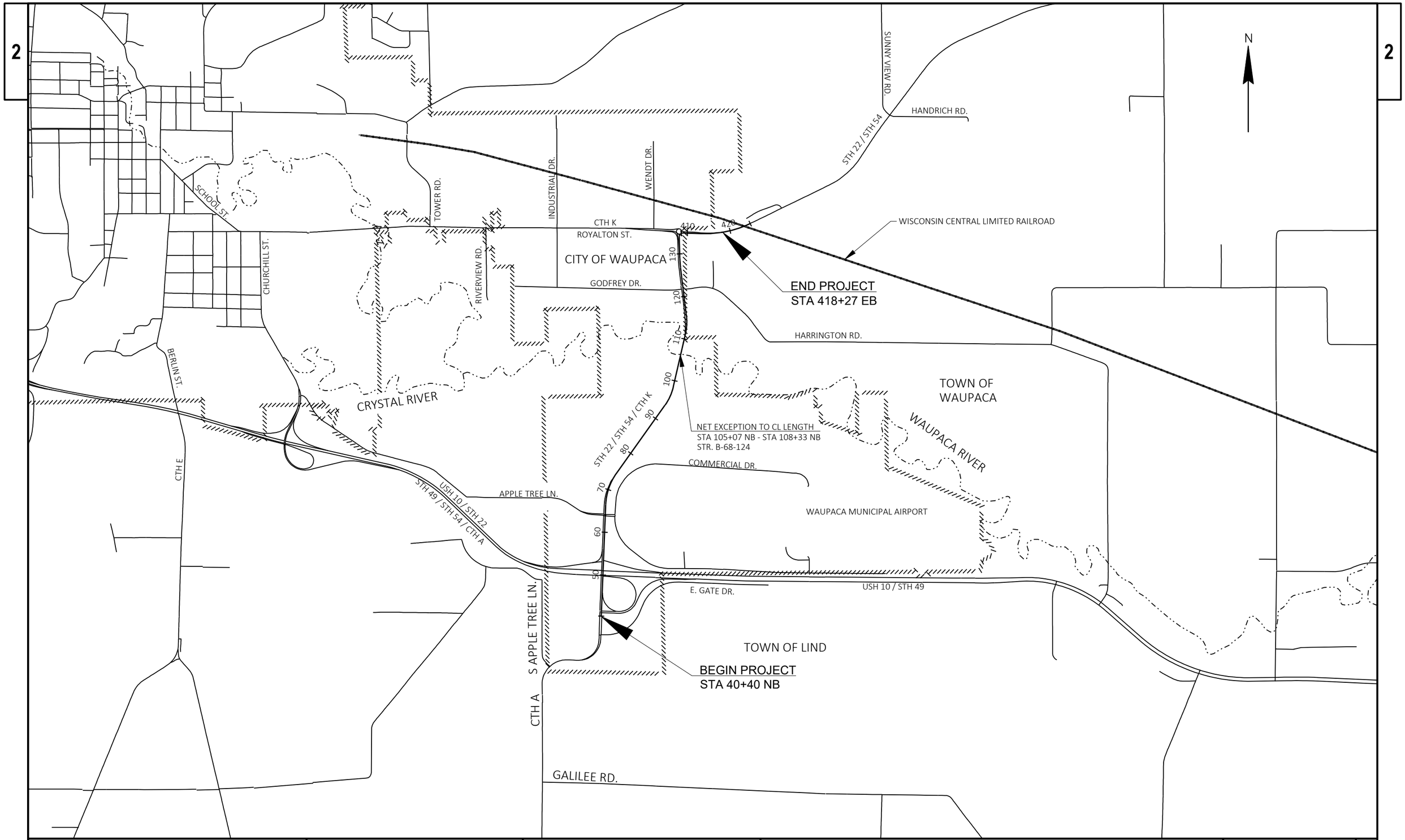
WE ENERGIES
ELECTRIC LINE
ZACH DUGA
800 S. LYNNDALE DRIVE
APPLETON, WI. 54912
PHONE: (920) 380-3458
MOBILE: (920) 450-9314

WE ENERGIES
GAS/PETROLEUM LINE
LARRY KOCH
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI. 54494
PHONE: (715) 421-7249
MOBILE: (715) 421-9293

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 12.4 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.77 ACRES

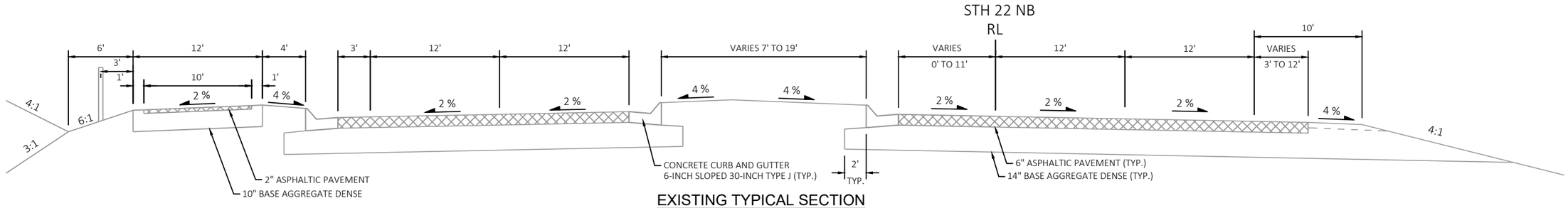


PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 01

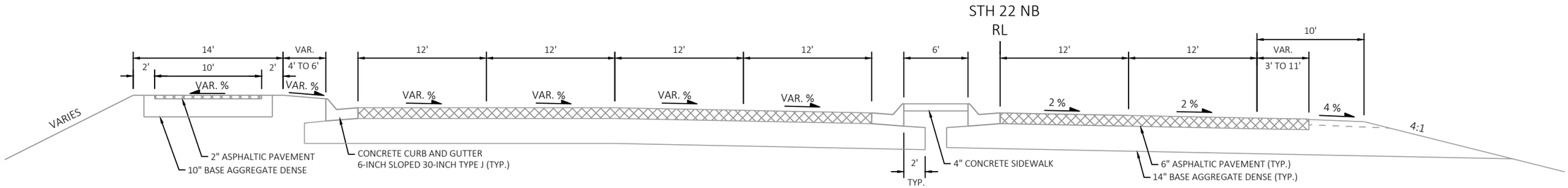
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WISDOT/CADDS SHEET 42



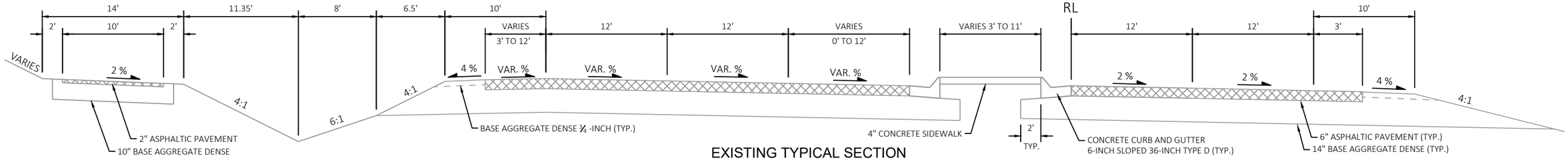
EXISTING TYPICAL SECTION

STA 57+50 NB - 63+48 NB



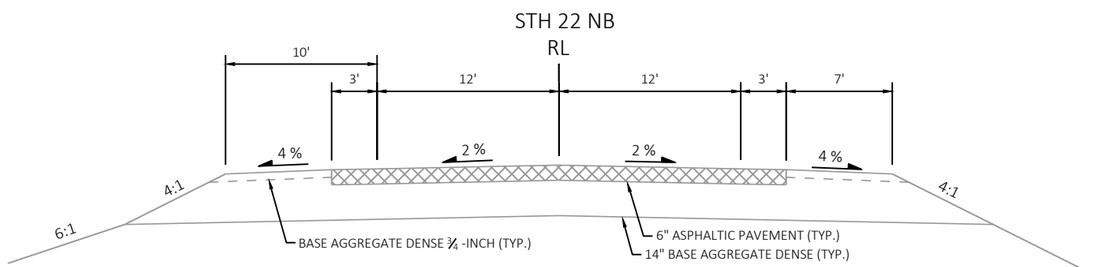
EXISTING TYPICAL SECTION

STA 64+37 NB - 66+00 NB



EXISTING TYPICAL SECTION

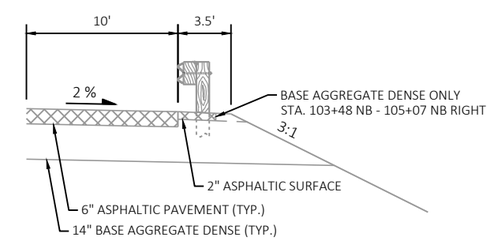
STA 66+00 NB - 69+60 NB



EXISTING TYPICAL SECTION

STA 69+60 NB - 105+07 NB

STA 108+33 NB - 112+13 NB



EXISTING TYPICAL SECTION AT BEAM GUARD

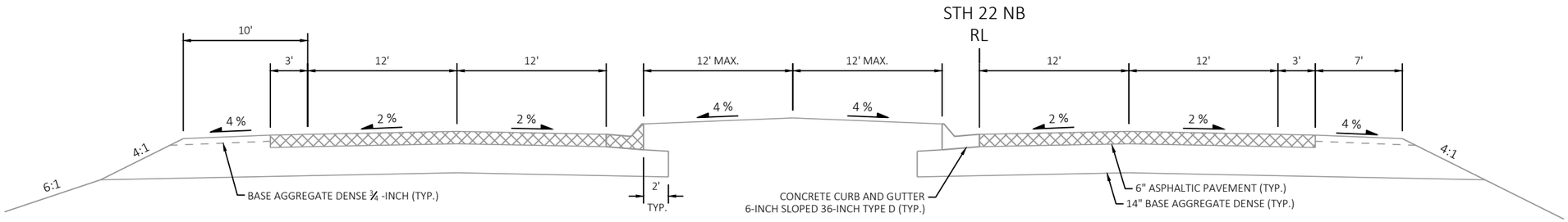
STA 103+48 NB - 105+07 NB LEFT AND RIGHT

STA 108+33 NB - 112+13 NB LEFT AND RIGHT

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 4	E

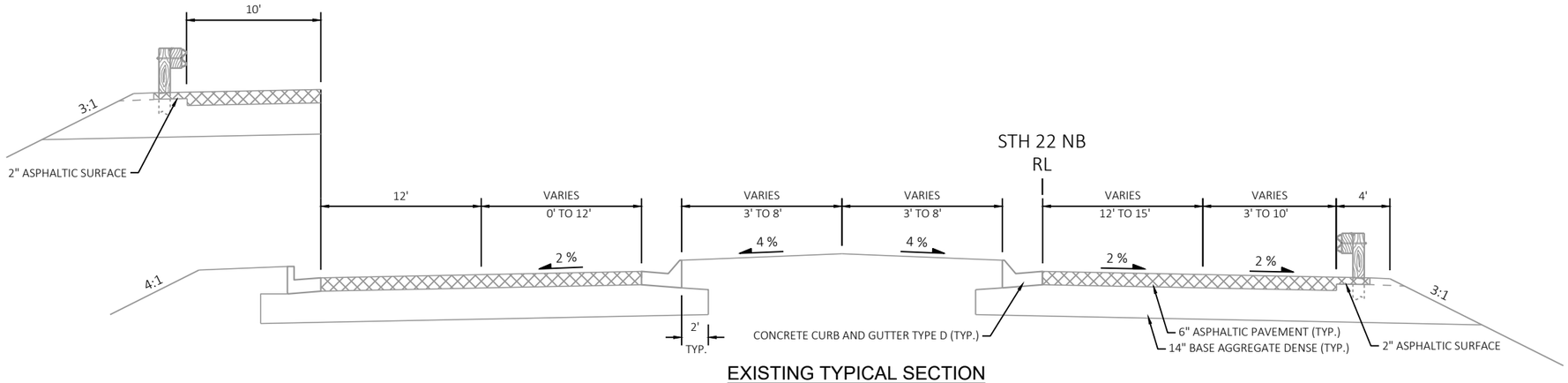
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LAYOUT NAME - 01
PLOT DATE : 7/11/2023 8:17 AM
PLOT BY : WORECK, CHRIS
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



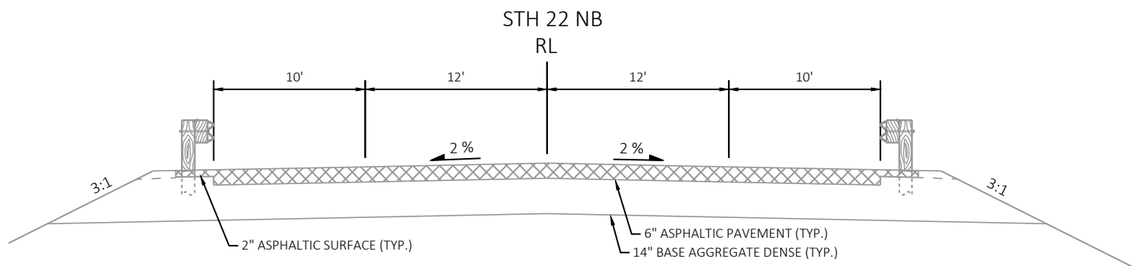
EXISTING TYPICAL SECTION

STA 112+13 NB - 121+17 NB
STA 122+10 NB - 134+48 NB



EXISTING TYPICAL SECTION

STA 408+54 EB - 413+09 EB



EXISTING TYPICAL SECTION

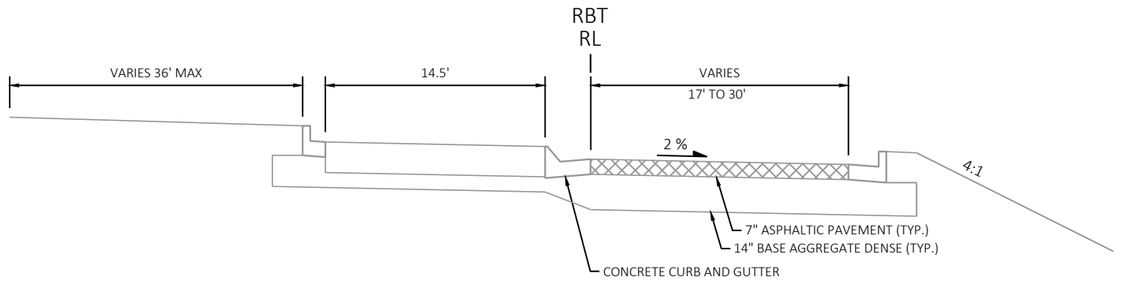
STA 413+09 EB - 418+27 EB

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 5	E

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LAYOUT NAME - 02

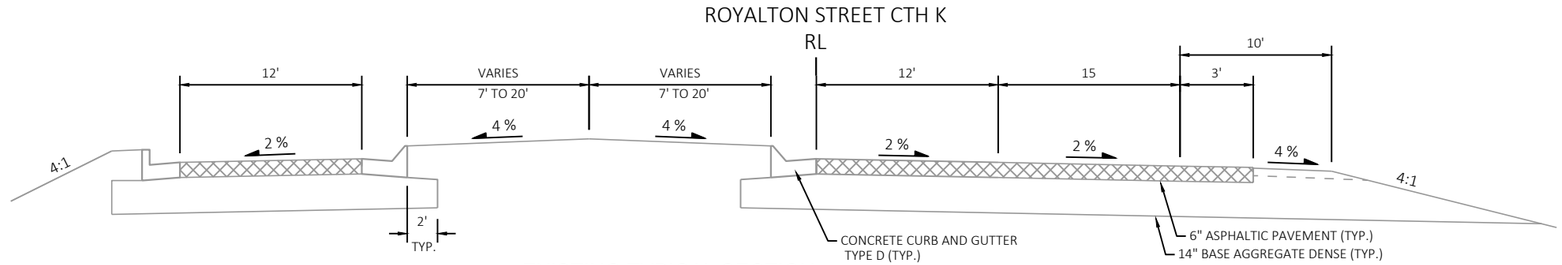
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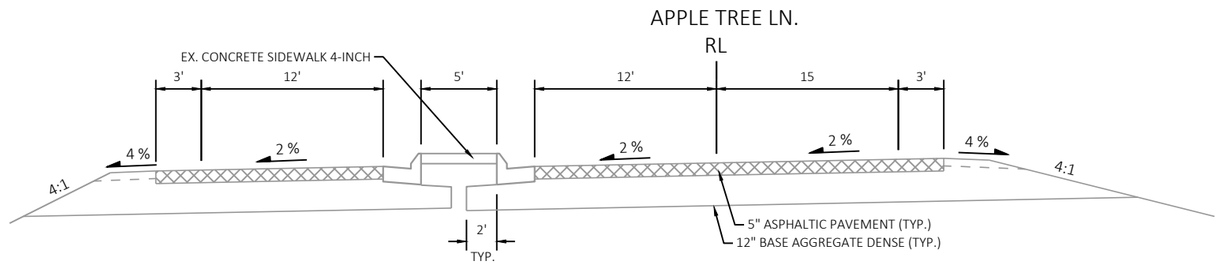
EXISTING TYPICAL SECTION

STA 1+00 RBT - 4+24 RBT



EXISTING TYPICAL SECTION

STA 404+81 RWEB - 407+27 RWEB

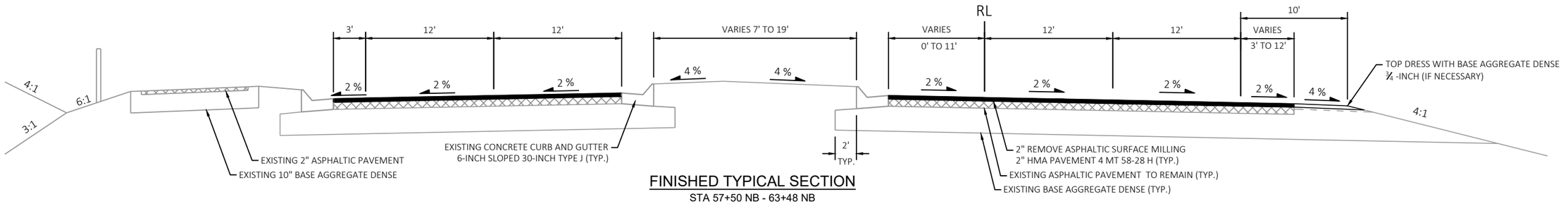


EXISTING TYPICAL SECTION

STA 27+45 AT - 29+31 AT

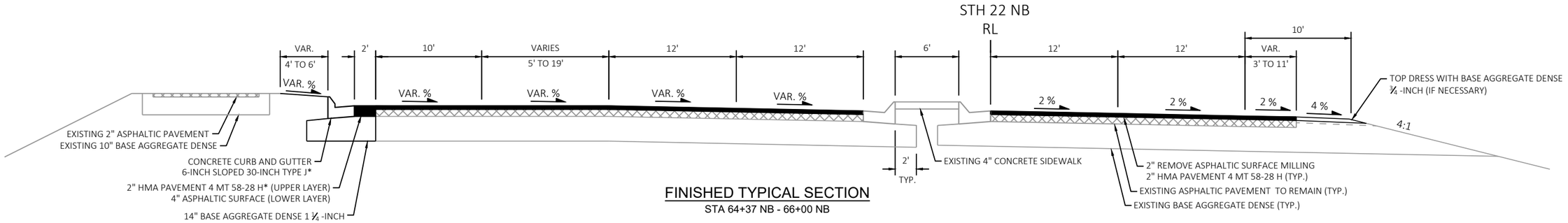
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* SEE PLAN DETAILS FOR LIMITS



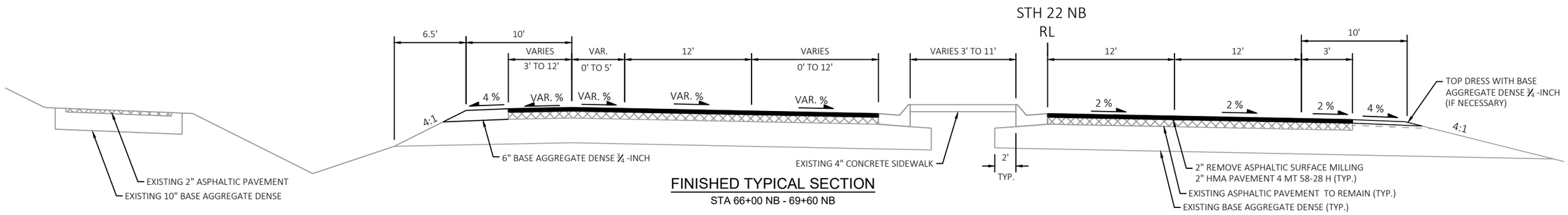
FINISHED TYPICAL SECTION

STA 57+50 NB - 63+48 NB



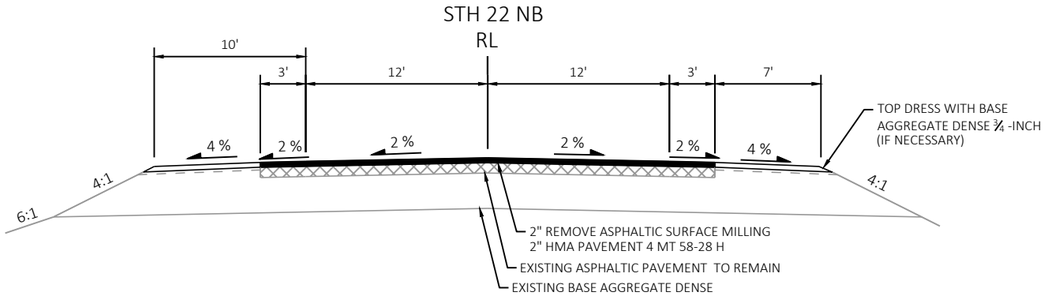
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STA 64+37 NB - 66+00 NB



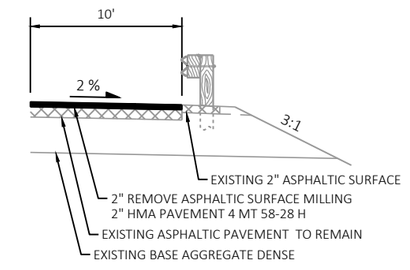
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STA 66+00 NB - 69+60 NB



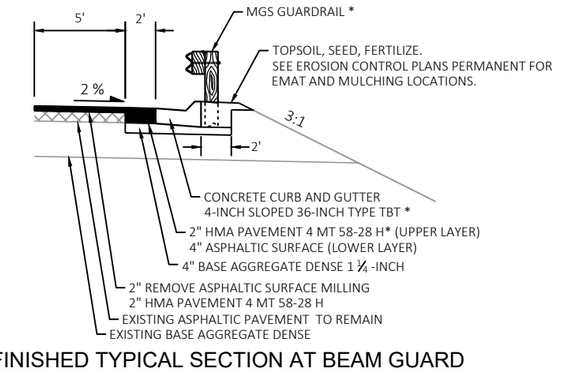
FINISHED TYPICAL SECTION

STA 69+60 NB - 105+07 NB
STA 108+33 NB - 112+13 NB



FINISHED TYPICAL SECTION AT BEAM GUARD

STA 103+48 NB - 105+07 NB LEFT
STA 108+33 NB - 112+13 NB LEFT AND RIGHT



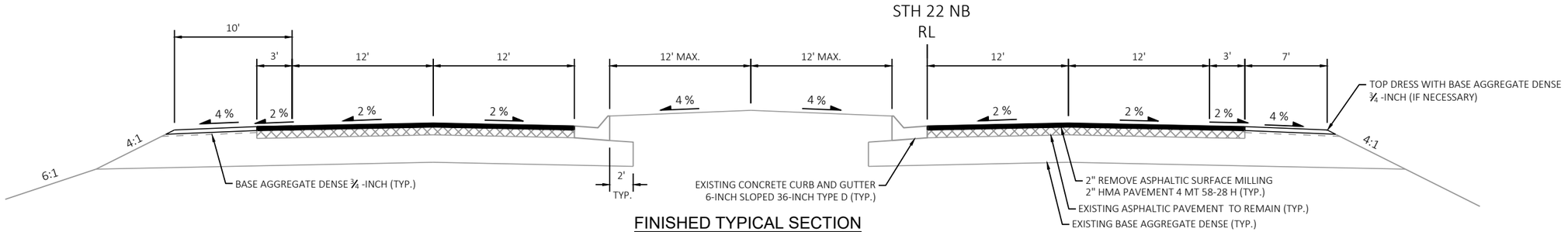
FINISHED TYPICAL SECTION AT BEAM GUARD

STA 103+48 NB - 105+07 NB RIGHT

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 7	E

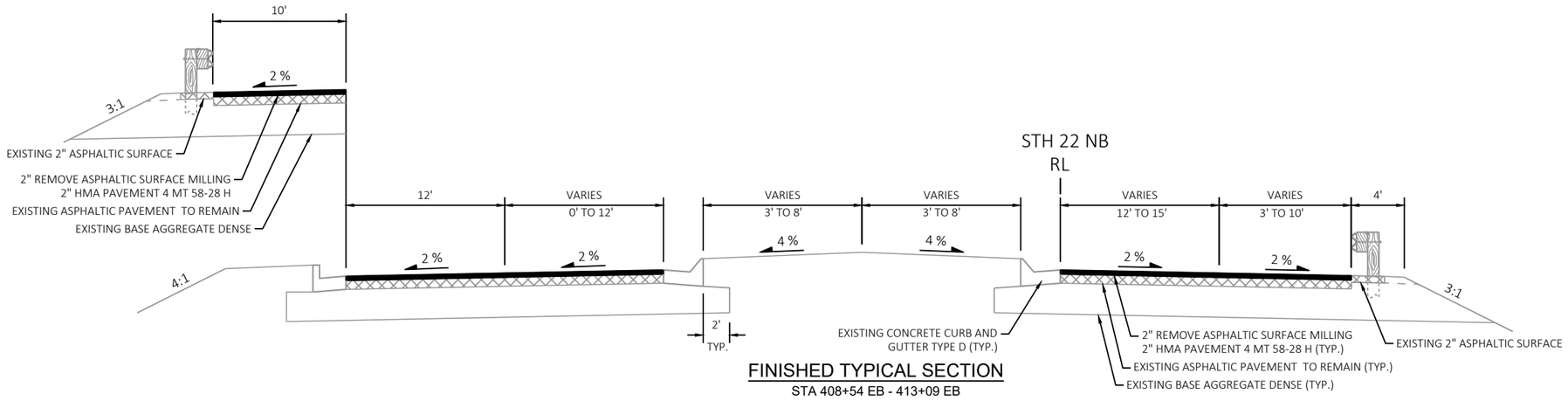
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LAYOUT NAME - 04
PLOT DATE : 9/17/2023 4:37 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



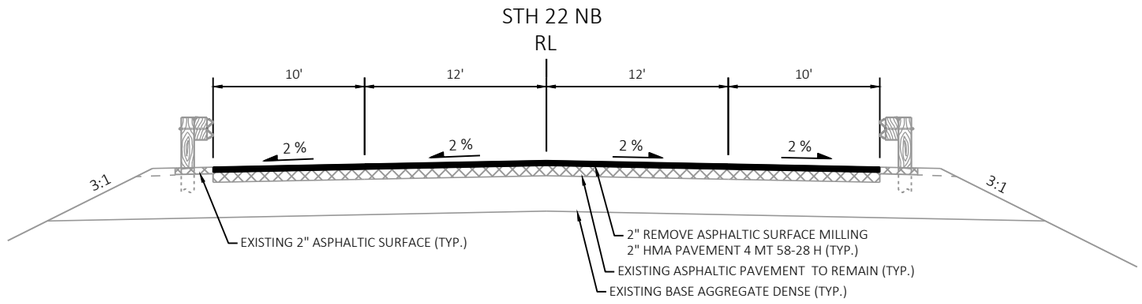
FINISHED TYPICAL SECTION

STA 112+13 NB - 121+17 NB
STA 122+10 NB - 134+48 NB



FINISHED TYPICAL SECTION

STA 408+54 EB - 413+09 EB

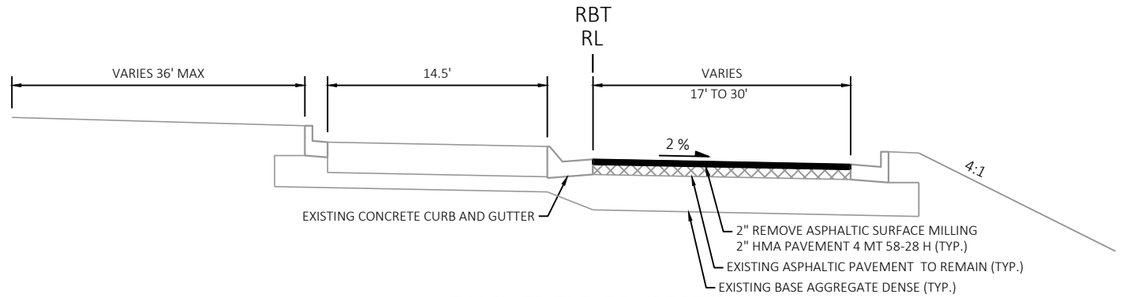


FINISHED TYPICAL SECTION

STA 413+09 EB - 418+27 EB

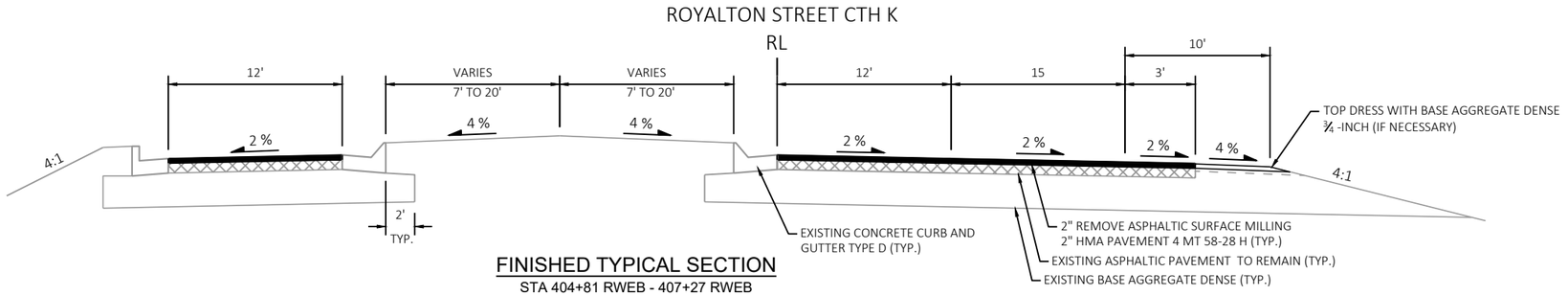
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 8	E

2



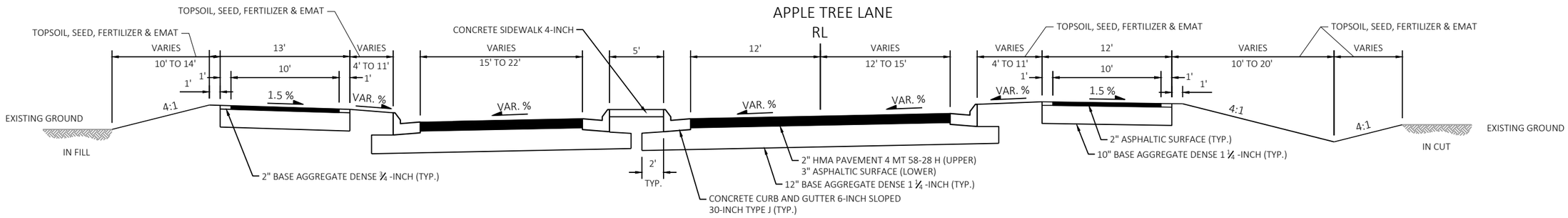
FINISHED TYPICAL SECTION

STA 1+00 RBT - 4+24 RBT



FINISHED TYPICAL SECTION

STA 404+81 RWEB - 407+27 RWEB



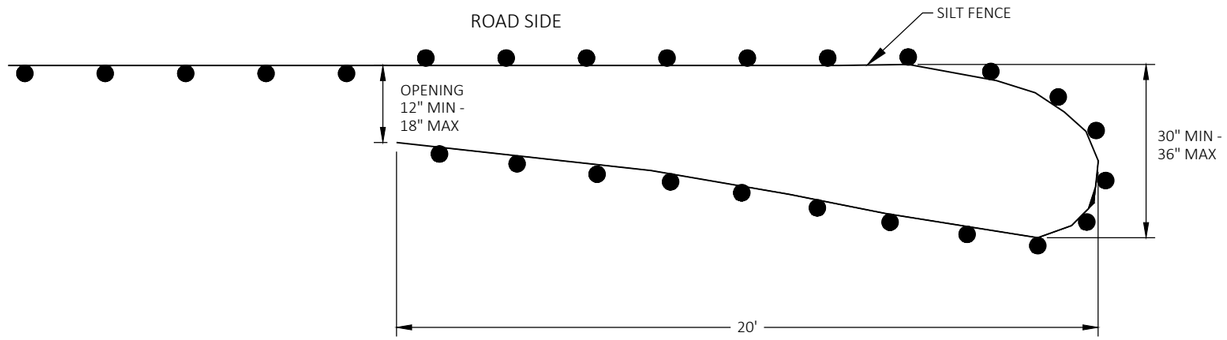
FINISHED TYPICAL SECTION

STA 27+45 AT - 29+31 AT

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TYPICAL SECTIONS	SHEET 9	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 06

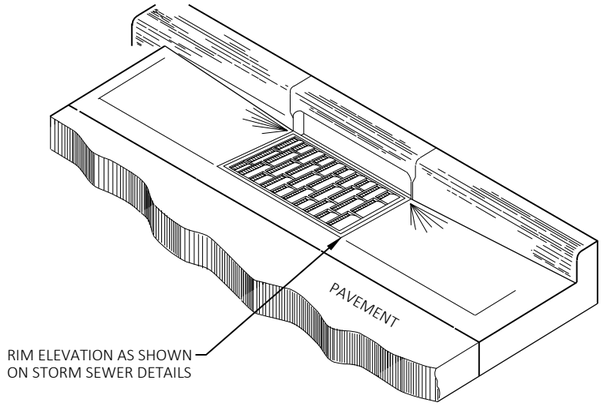
PLOT DATE : 9/19/2023 9:17 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:10 FT



PLAN VIEW

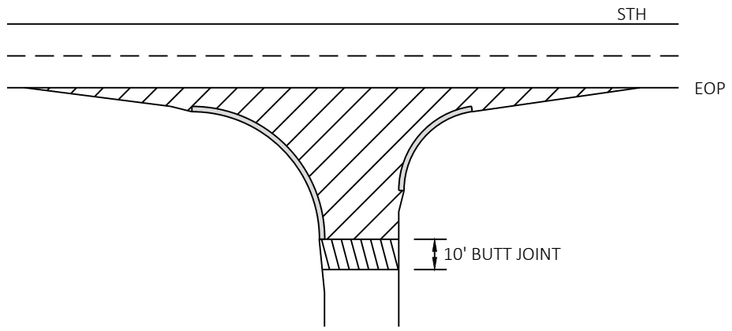
TEMPORARY SMALL ANIMAL TURN-AROUND

GENERAL NOTES:
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.



DETAIL OF CURB AND GUTTER AT INLETS

SEE SDD CONCRETE GUTTER, TIES AND CURB AND GUTTER APPLICATIONS FOR DETAILS NOT SHOWN



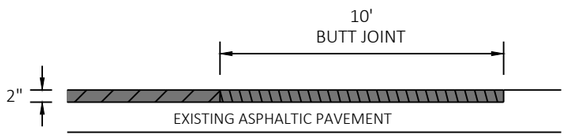
REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED

SIDE ROADS
WITH CURB AND GUTTER

RUNWAY DRIVE
GODFREY DRIVE
HARRINGTON ROAD
ROYALTON STREET/CTH K

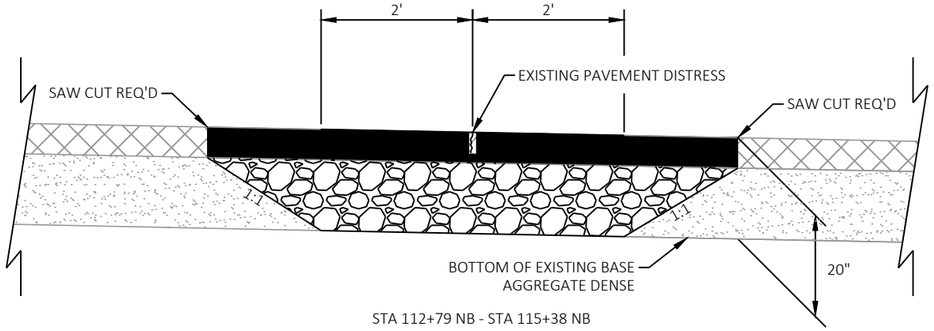


HMA PAVEMENT

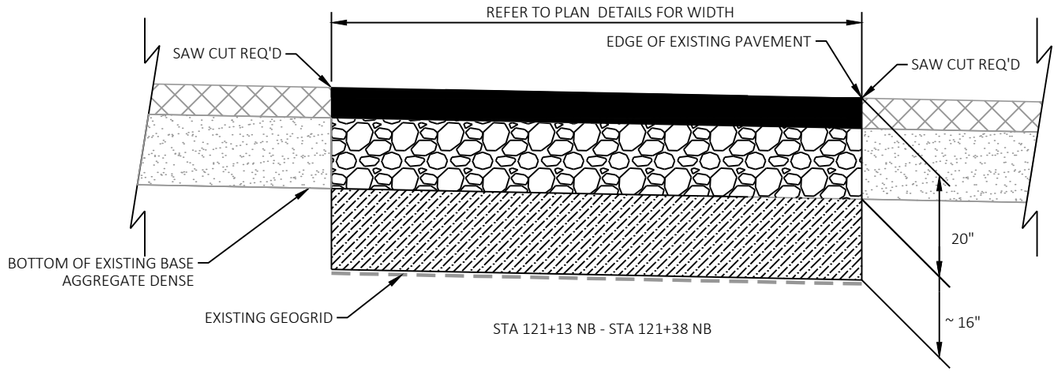
REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINTS

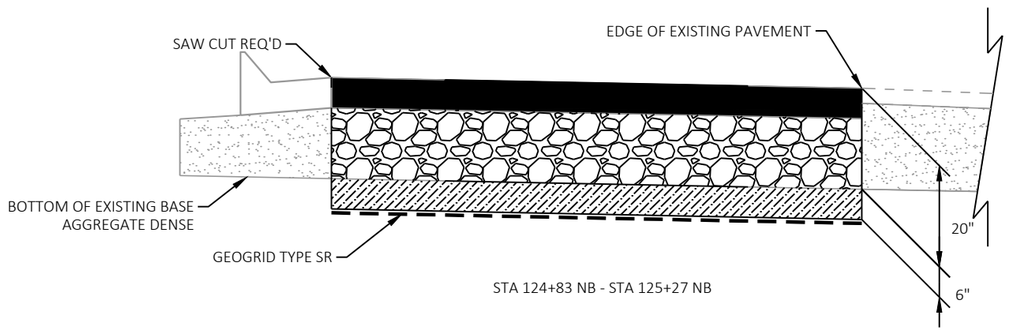
BUTT JOINT
MAINLINE, SIDE ROADS AND STRUCTURE B-68-124



STA 112+79 NB - STA 115+38 NB
STA 410+40 EB - STA 418+27 EB

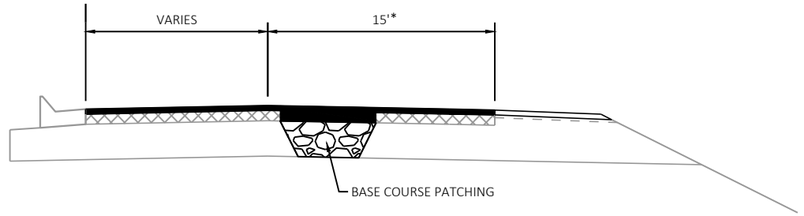


STA 121+13 NB - STA 121+38 NB



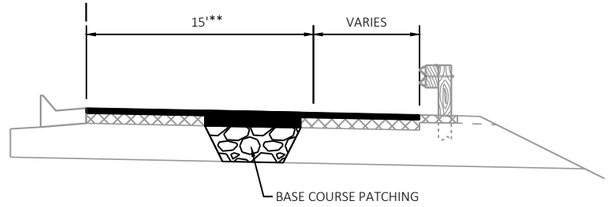
STA 124+83 NB - STA 125+27 NB

STH 22 NB
RL



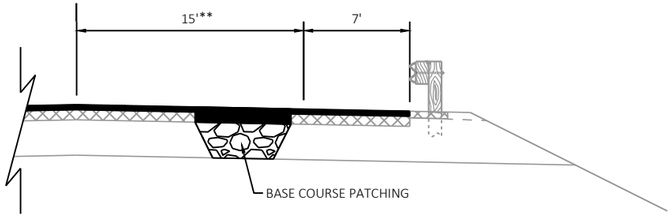
STA 112+79 NB - STA 115+38 NB

STH 22 NB
RL



STA 410+40 EB - STA 413+09 EB

STH 22 NB
RL



STA 413+09 EB - STA 418+27 EB

* PAVE 15' WIDTH FROM OUTSIDE PAVED SHOULDER EDGE
** PAVE 15' WIDTH FROM INSIDE LANE EDGE

LEGEND

- 6" ASPHALTIC SURFACE
- BASE AGGREGATE DENSE 1 1/4-INCH
- SELECT CRUSHED MATERIAL
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE AGGREGATE DENSE

NOTE

EXCAVATION FOR BASE COURSE PATCHING WILL BE PAID AS EXCAVATION COMMON

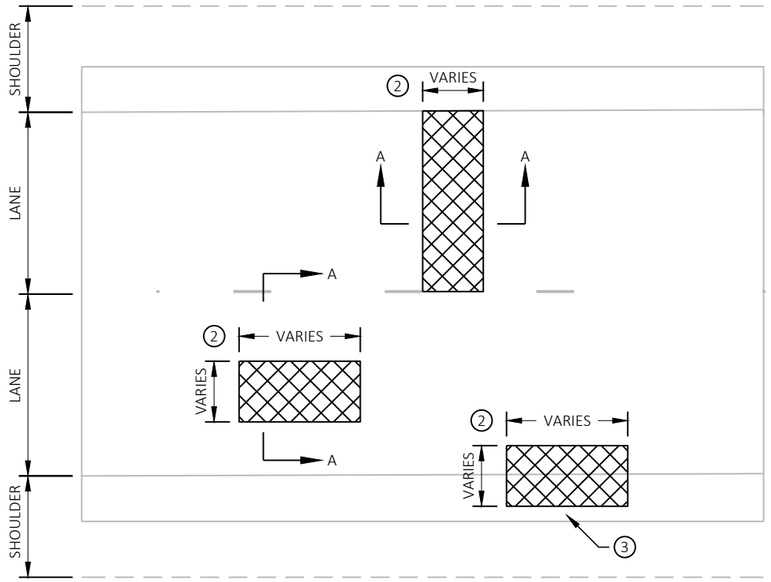
BASE COURSE PATCHING

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	CONSTRUCTION DETAILS	SHEET 11	E

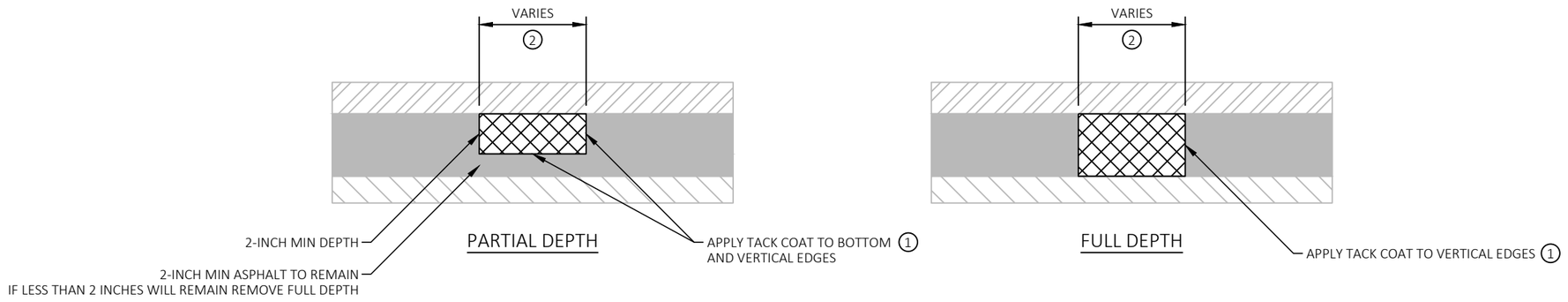
NOTES:

PERFORM REMOVING ASPHALTIC SURFACE MILLING PRIOR TO REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

1. MILLED VERTICAL EDGES ARE ACCEPTABLE, SAW CUTS ARE NOT REQUIRED.
2. THE SMALLEST DIMENSION OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS 4 FEET IN ANY DIRECTION.
3. WHEN THE DISTANCE FROM THE EDGE OF PAVEMENT TO EDGE OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS LESS THAN 1-FOOT, EXTEND THE REMOVING DISTRESSED ASPHALTIC SURFACE MILLING TO THE EDGE OF PAVEMENT.



PLAN VIEW



SECTION A-A

REMOVING ASPHALTIC SURFACE MILLING

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING
ASPHALTIC SURFACE PATCHING

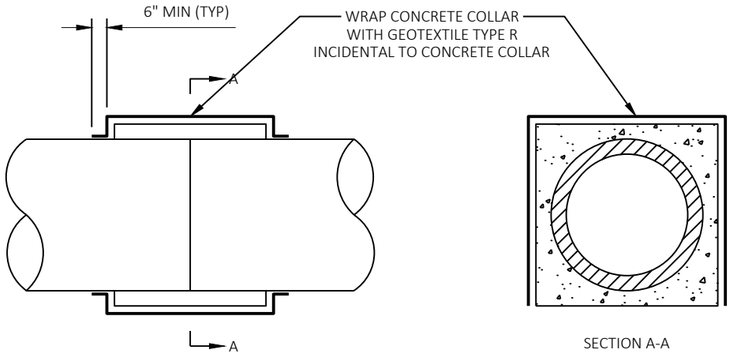
EXISTING ASPHALT

EXISTING BASE COURSE

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

LOCATIONS AND LIMITS DETERMINED BY THE ENGINEER IN THE FIELD

2



CONCRETE COLLAR

SEE SDD JOINT TIES FOR CONCRETE PIPE AND
CONCRETE PIPE COLLARS FOR DETAILS NOT SHOWN

2

2

MATCH LINE STA. 64+75 NB

APPLE TREE LANE

STA 1+18.47 NW, 0.00'
834.19
834.41
STA 1+05.77 NW, 0.00'
833.69
1.5%
834.26
833.80
STA 10+52.73
833.75
2" BASE AGGREGATE DENSE ¾ -INCH
2" ASPHALTIC SURFACE MULTI-USE TRAIL
PC: 0+86.26 NW
833.08
SEE CURB RAMP DETAIL 'C'
APPLE TREE LANE BACK OF TRAIL NW QUAD 'NW' R/L
STA 0+79.32 NW, 0.00'
832.95
1+00 NW
834.04
831.25
2'
BP: 0+00.00 NW
831.22
STA 0+29.27 NW
832.12
831.97
832.47
832.88
833.48
10'
BREAK LINE
PROPOSED CONCRETE SURFACE DRAIN
STA 0+10.03
831.39
1.5%
831.82
831.97
832.32
832.73
832.93
833.33
833.54
832.80
832.75
833.25
2'
830.92
831.24
CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
10+00 WBE
PC: 10+00.00 WBE
BP: 8+53.77 WBE
830.73
832.30
831.85
830.51
PI: 8+73.85 WBE
830.72
9+00 WBE
831.10
PI: 9+03.91 WBE
831.42
834.09
STA 29+45.21 ATWB, 2.49' RT
834.16
APPLE TREE LANE WB EDGE OF PAVEMENT 'WBE' R/L
MATCH INTO EXISTING PAVEMENT
PI: 8+63.85 WBE
830.62
APPLE TREE LANE WB 'ATWB' R/L
STA 28+20 ATWB
831.91
4" CONCRETE SIDEWALK
832.45
832.90
29+00 ATWB
STA 29+28.09 ATWB
833.86
R60'
834.25
STA 29+49.77 ATWB
30+00 ATWB
STA 27+44.90
830.97
831.02
STA 27+70 ATWB
831.22
831.27
28+00 ATWB
832.00
833.35
STA 29+47.91, 6.72' RT
834.27
R2' TO FACE
4" CONCRETE SIDEWALK
831.59
830.95
831.22
831.51
831.85
832.25
832.71
833.23
833.78
834.19
STA 29+44.05, -12.00' LT
STA 27+44.50, -11.69' LT
830.90
SEE CURB RAMP DETAIL 'B'
CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
12'
MATCH INTO EXISTING PAVEMENT
64+00 NB
30+00 AT
MATCH INTO EXISTING PAVEMENT
PT: 27+67.76 AT
831.32
831.56
APPLE TREE LANE 'AT' R/L
832.10
28+00 AT
831.81
832.46
29+00 AT
831.28
831.49
832.87
833.35
833.85
834.35
PI: 3+77.24 EBE
832.03
832.17
PI: 4+46.84 EBE
832.68
832.72
833.11
PC: 5+00.00 EBE
BP: 3+41.86 EBE
831.84
PI: 3+47.19 EBE
831.87
831.87
831.99
831.98
832.10
4+00 EBE
832.41
12'
5+00 EBE
833.55
832.22
832.70
833.06
833.33
833.37
833.67
833.70
833.84
STA 5+30.22
833.90
BP: 0+00.00 SW
832.02
832.26
833.25
2'
1.5%
10'
832.55
832.91
833.09
833.17
833.22
APPLE TREE LANE EB EDGE OF PAVEMENT 'EBE' R/L
PROPOSED CONCRETE SURFACE DRAIN
832.00
832.10
STA 0+10 SW
PI: 0+65.01 SW
PI: 0+71.31 SW
1+00 SW
833.52
834.01
834.35
APPLE TREE LANE BACK OF TRAIL SW QUAD 'SW' R/L
833.55
PC: 1+03.11 SW
1.5%
833.86
STA 5+56.66
834.50
BREAK LINE
SEE CURB RAMP DETAIL 'A'
2" BASE AGGREGATE DENSE ¾ -INCH
2" ASPHALTIC SURFACE MULTI-USE TRAIL
834.45
834.30
834.63
834.74
EP: 5+75.55 EBE
834.69
N
SAW CUT CONCRETE
SAW CUT ASPHALT
834.90
PT: 1+76.67 SW
834.94
1.5%
835.05
835.09
835.08
XXXXXXX
EP: 1+86.67 SW
MATCH INTO EXISTING TRAIL
835.29
STH 22/54 CTH K
63+00 NB

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN DETAILS: APPLE TREE LANE INTERSECTION CONSTRUCTION	SHEET 14	E

2

SAW CUT CONCRETE

SAW CUT ASPHALT

N

2" BASE AGGREGATE DENSE ¾ -INCH

2" ASPHALTIC SURFACE MULTI-USE TRAIL

APPLE TREE LANE BACK OF TRAIL NW QUAD 'NW' R/L

834.79

PT: 1+68.57 NW

EP: 1+78.57 NW

834.90

834.85

10'

834.75

MATCH INTO EXISTING TRAIL

834.64

STA 66+00.65 NB, -62.82' LT

834.02

STA 10+82.89 WBE

834.29

11+00 WBE

834.10

834.16

834.35

834.57

834.58

2'

834.78

834.78

APPLE TREE LANE WB EDGE OF PAVEMENT 'WBE' R/L

834.92

834.88

834.92

STA 66+19.32 NB, -57.48' LT

6" BASE AGGREGATE DENSE ¾ -INCH

834.90

STA 66+90.09 NB, -48.22' LT

STA 66+02.63 NB, -52.24' LT

834.79

MATCH INTO EXISTING PAVEMENT

MATCH LINE STA. 64+75 NB

833.97

START 6" HMA PAVEMENT 4 MT 58-28 S

PT: 10+70.31 WBE

6" HMA PAVEMENT 4 MT 58-28 S

CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J

MATCH INTO EXISTING PAVEMENT

EP: 11+83.97 WBE

834.90

834.87

STH 22/54 CTH K

PC: 66+43.61 NB

65+00 NB

66+00 NB

67+00 NB

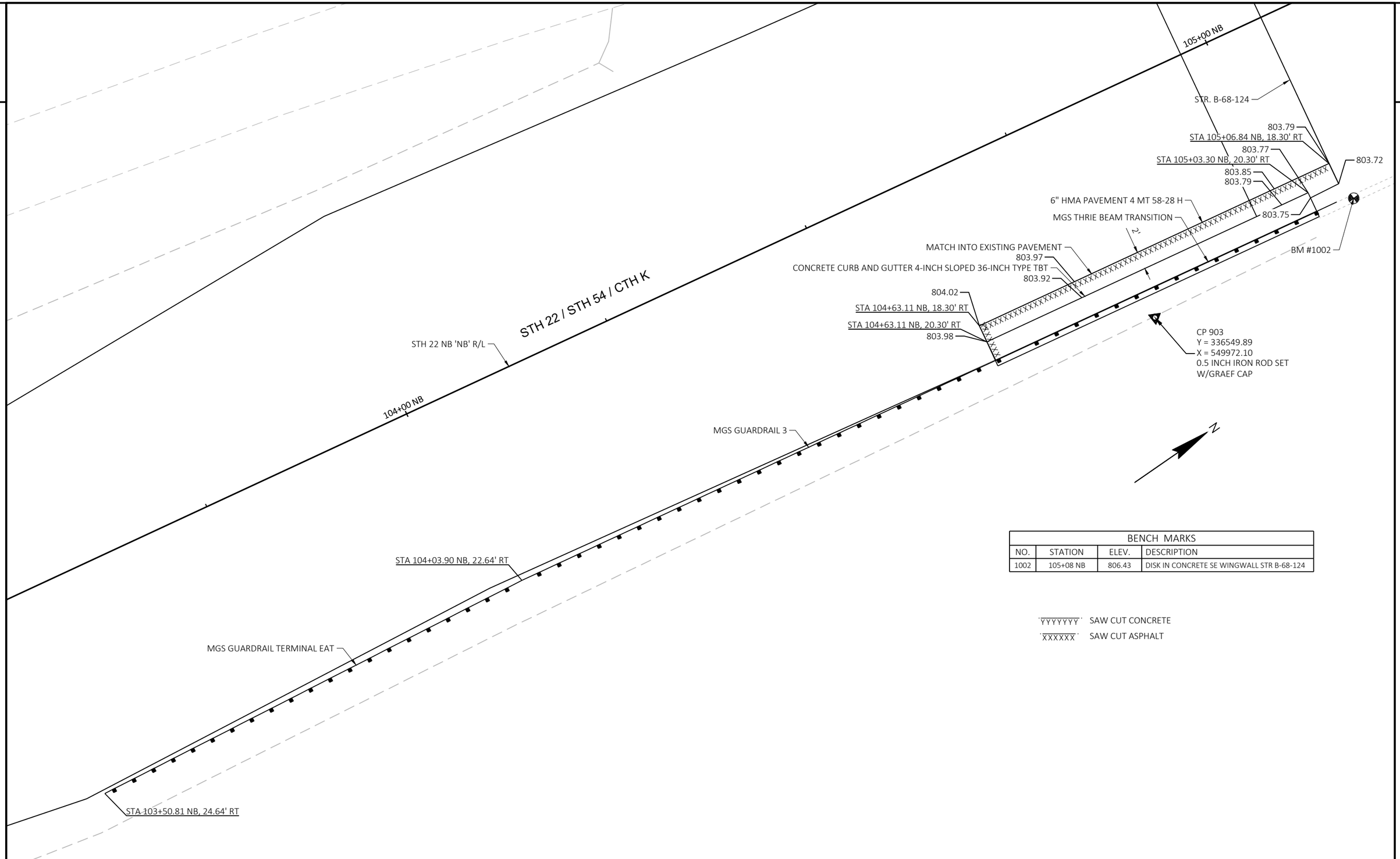
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN DETAILS: APPLE TREE LANE INTERSECTION CONSTRUCTION	SHEET 15	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 02

PLOT DATE : 7/11/2023 12:32 PM PLOT BY : WORECK, CHRIS PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1002	105+08 NB	806.43	DISK IN CONCRETE SE WINGWALL STR B-68-124

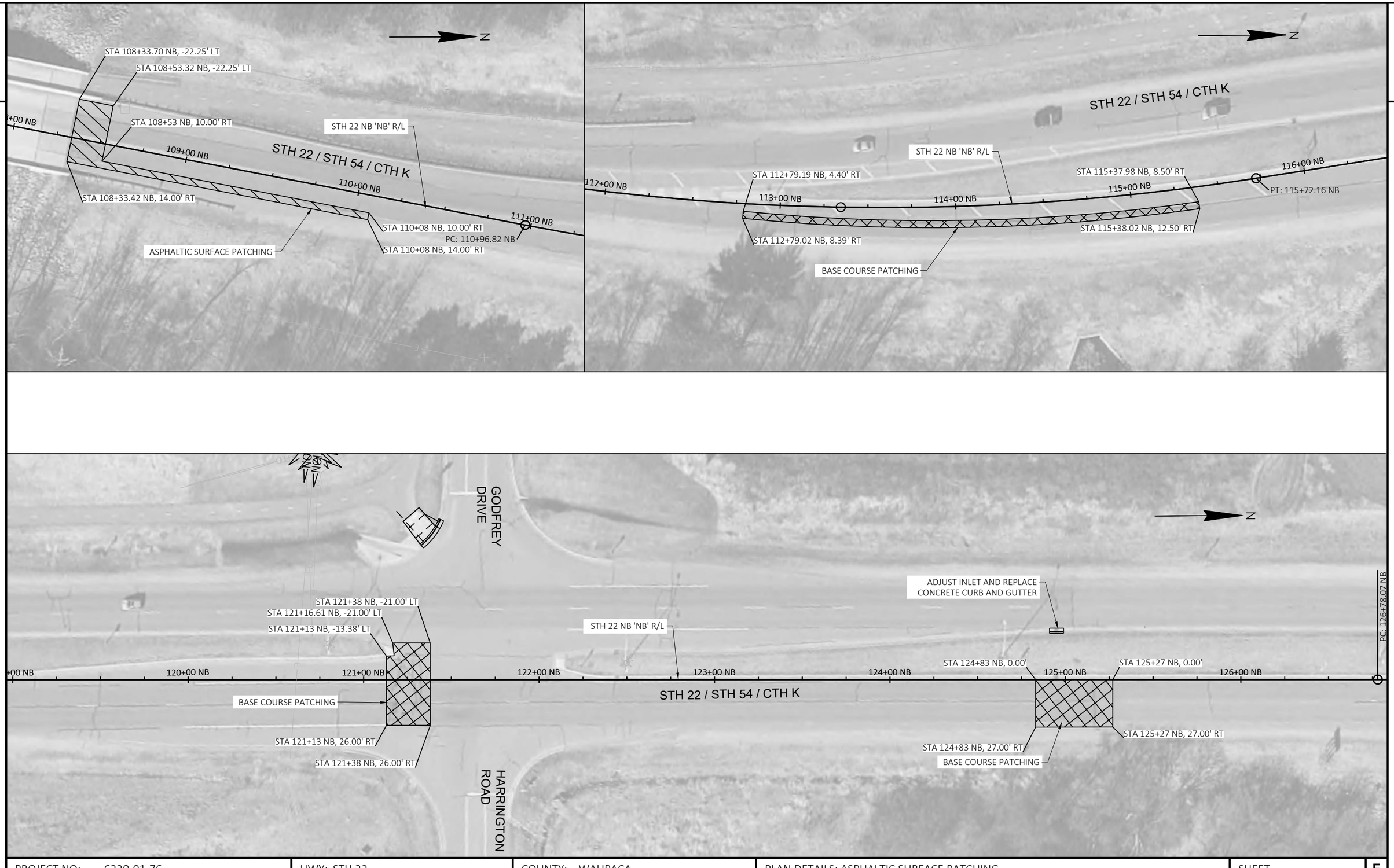
YYYYYYY SAW CUT CONCRETE

XXXXXX SAW CUT ASPHALT

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN DETAILS: MGS REPLACEMENT	SHEET 16	E

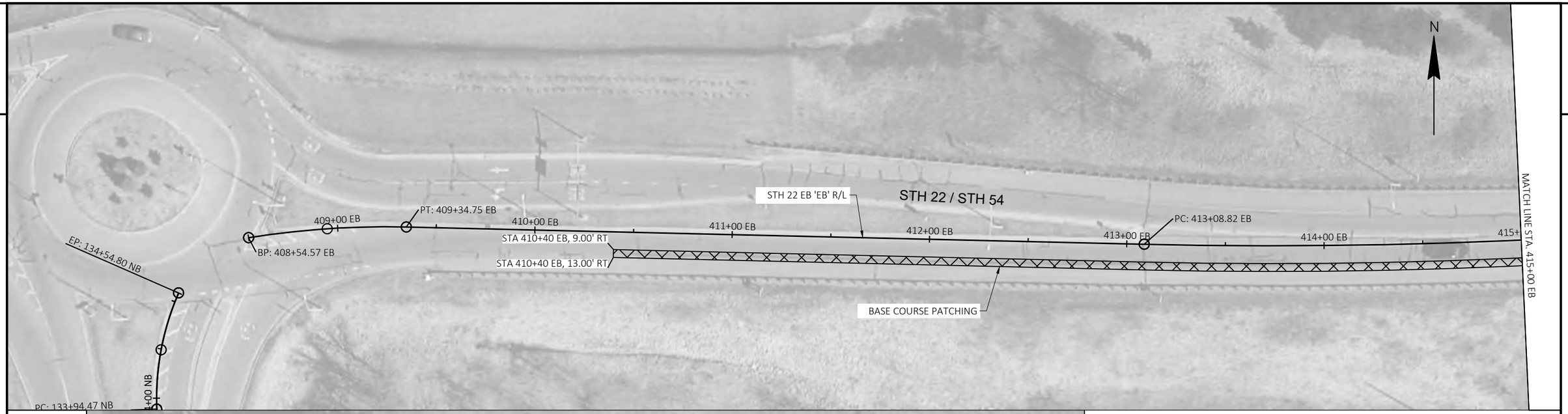
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LAYOUT NAME - 03
PLOT DATE : 9/18/2023 3:21 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

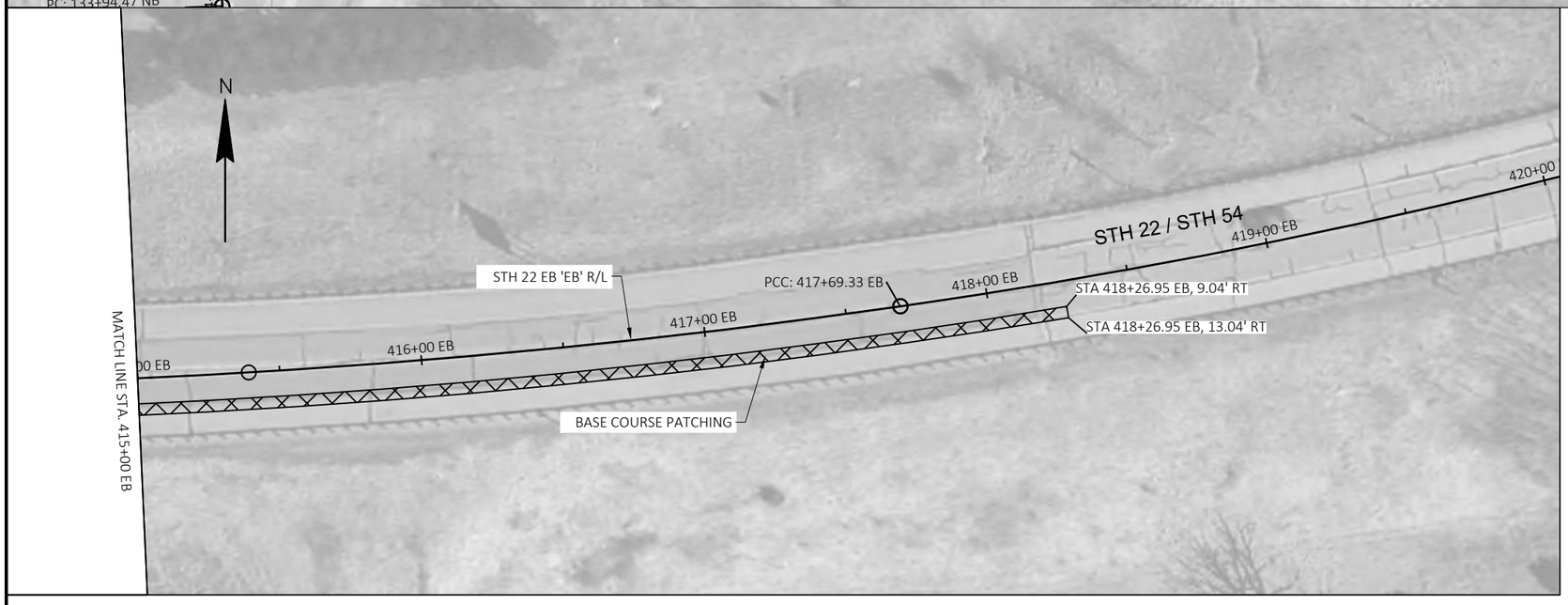
2



PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN DETAILS: ASPHALTIC SURFACE PATCHING	SHEET 17	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\021204_PD.DWG
LAYOUT NAME - 04
PLOT DATE : 10/31/2023 3:41 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42





2

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN DETAILS: ASPHALTIC SURFACE PATCHING	SHEET 18	E

2

STH 22 / STH 54 / CTH K

APPLE TREE LANE

PI: 0+80.23 SWD
Y: 332846.18
X: 548124.42

S6°45'02"W

PI: 0+96.25 SWD
Y: 332830.27
X: 548122.54

SI

S5°23'01"W

PI: 1+43.64 SWD
Y: 332783.09
X: 548118.09

S7°08'16"W

PI: 2+04.06 SWD
Y: 332723.14
X: 548110.58

EP: 2+57.59 SWD

PT: 0+49.46 SWD

1+00 SWD

2+00 SWD

SI

PC: 0+19.80 SWD

S76°00'06"E

PI: 0+00.00 SWD
Y: 332902.73
X: 548084.34

S80°56'41"E

0+00 SWD

BP: -0+02.50 SWD
Y: 332903.13
X: 548081.87

N

-0+20.00 SWD 0+00.00 SWD 1+00.00 SWD 2+00.00 SWD

835

830

828

STA 0+00.00 SWD
EL 831.07

STA 0+41.94 SWD
EL 830.60

STA 0+45.75 SWD
EL 830.60

STA 1+95.74 SWD
EL 829.85

ORIGINAL GROUND

-1.12%

0.00%

-0.50%

PROPOSED PROFILE

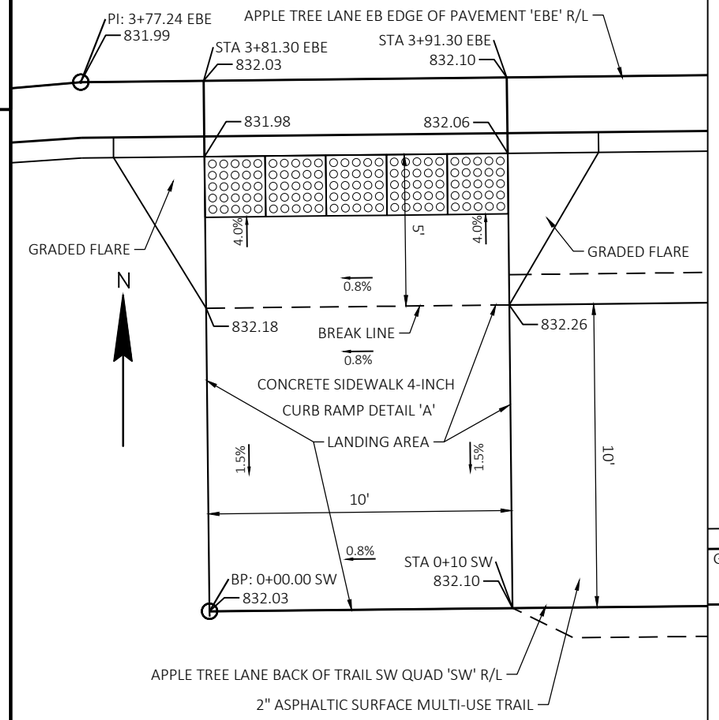
831.07 831.07 831.18 830.58 830.56 830.33 830.25 830.08 829.81

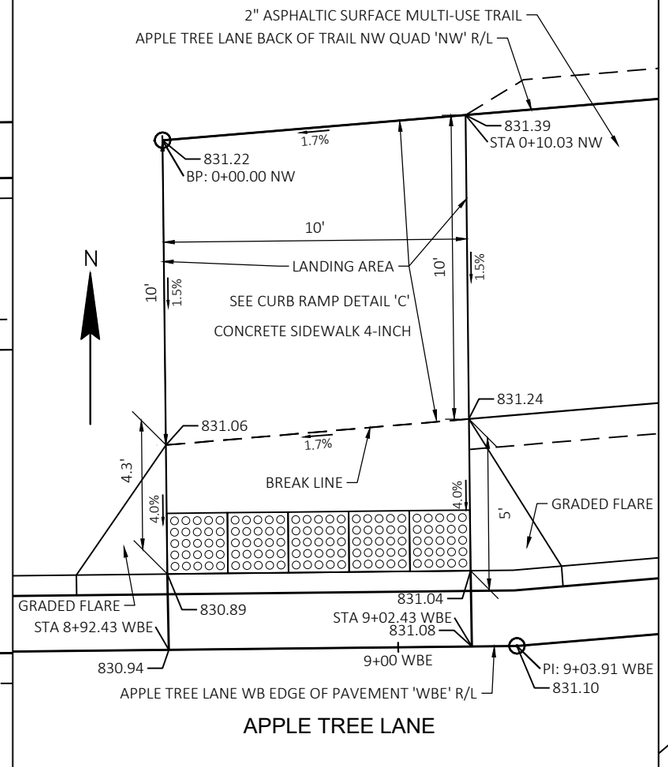
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN DETAIL: APPLE TREE LANE SW QUAD PROPOSED DITCH	SHEET 19	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\021206_PD.DWG
LAYOUT NAME - 06

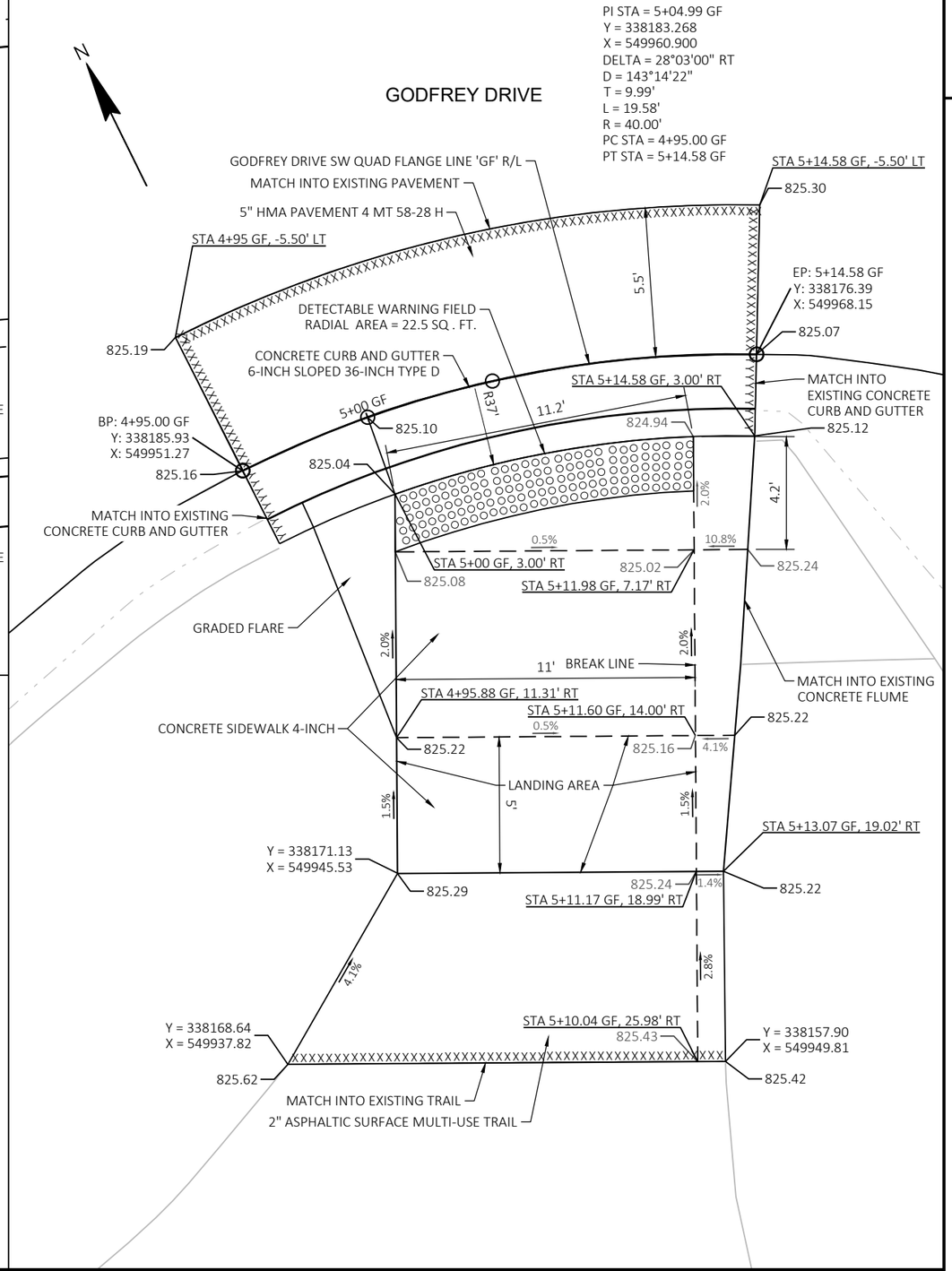
PLOT DATE : 7/19/2023 2:26 PM PLOT BY : WORECK, CHRIS PLOT NAME : PLOT SCALE : 1 IN:20 FT

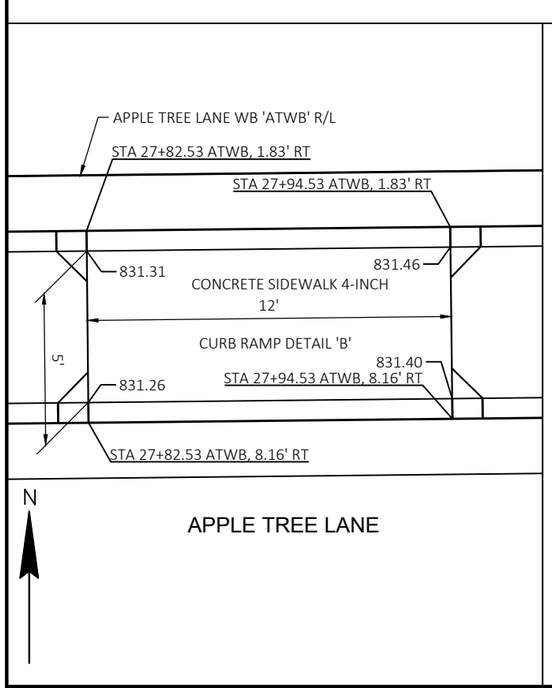
APPLE TREE LANE





APPLE TREE LANE





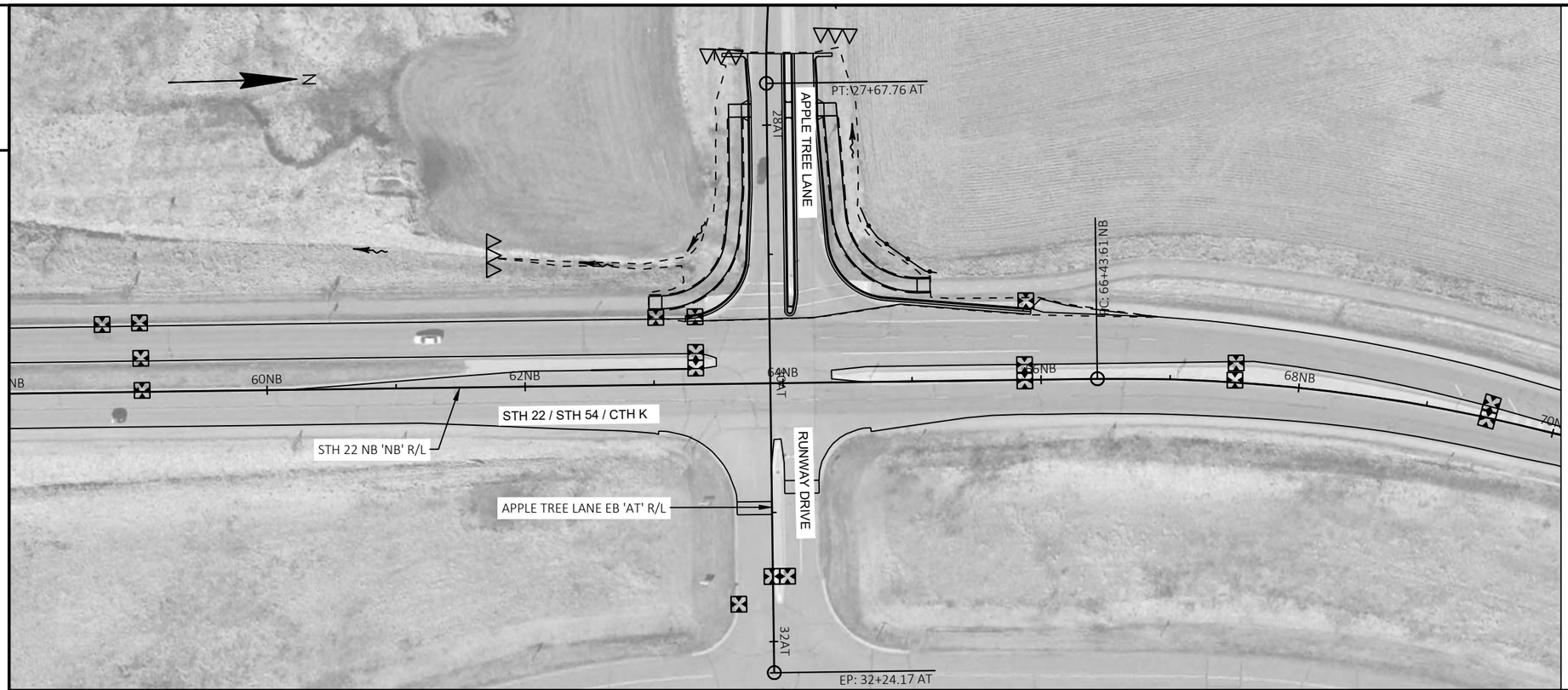
APPLE TREE LANE

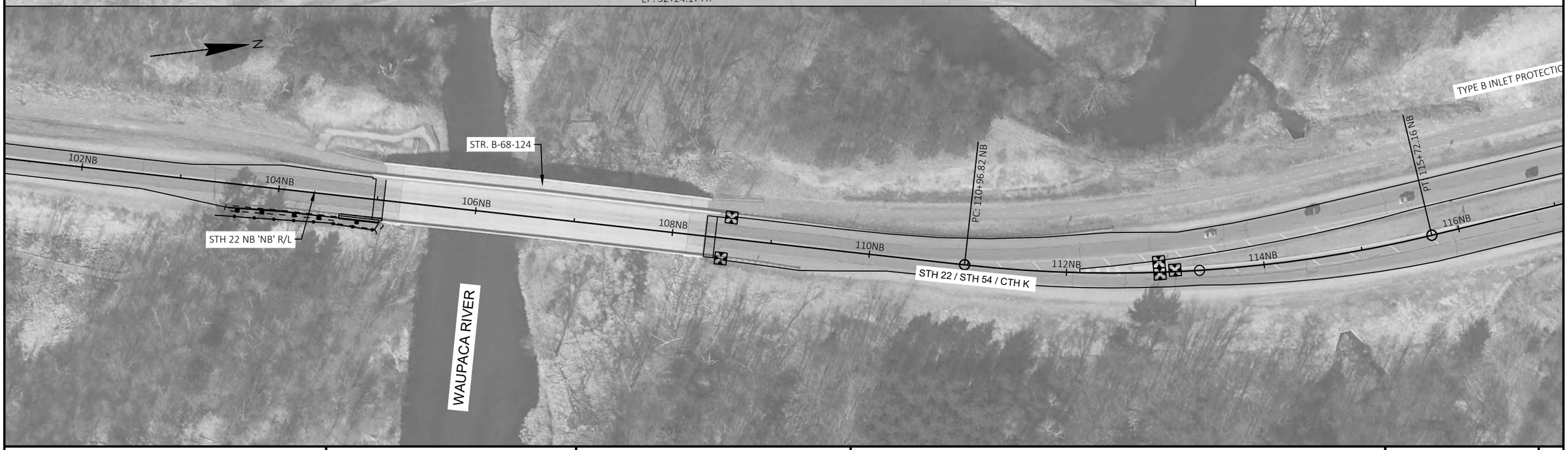
YYYYYYY SAW CUT CONCRETE

XXXXXX SAW CUT ASPHALT

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	CURB RAMP DETAILS	SHEET 20	E

2





LEGEND

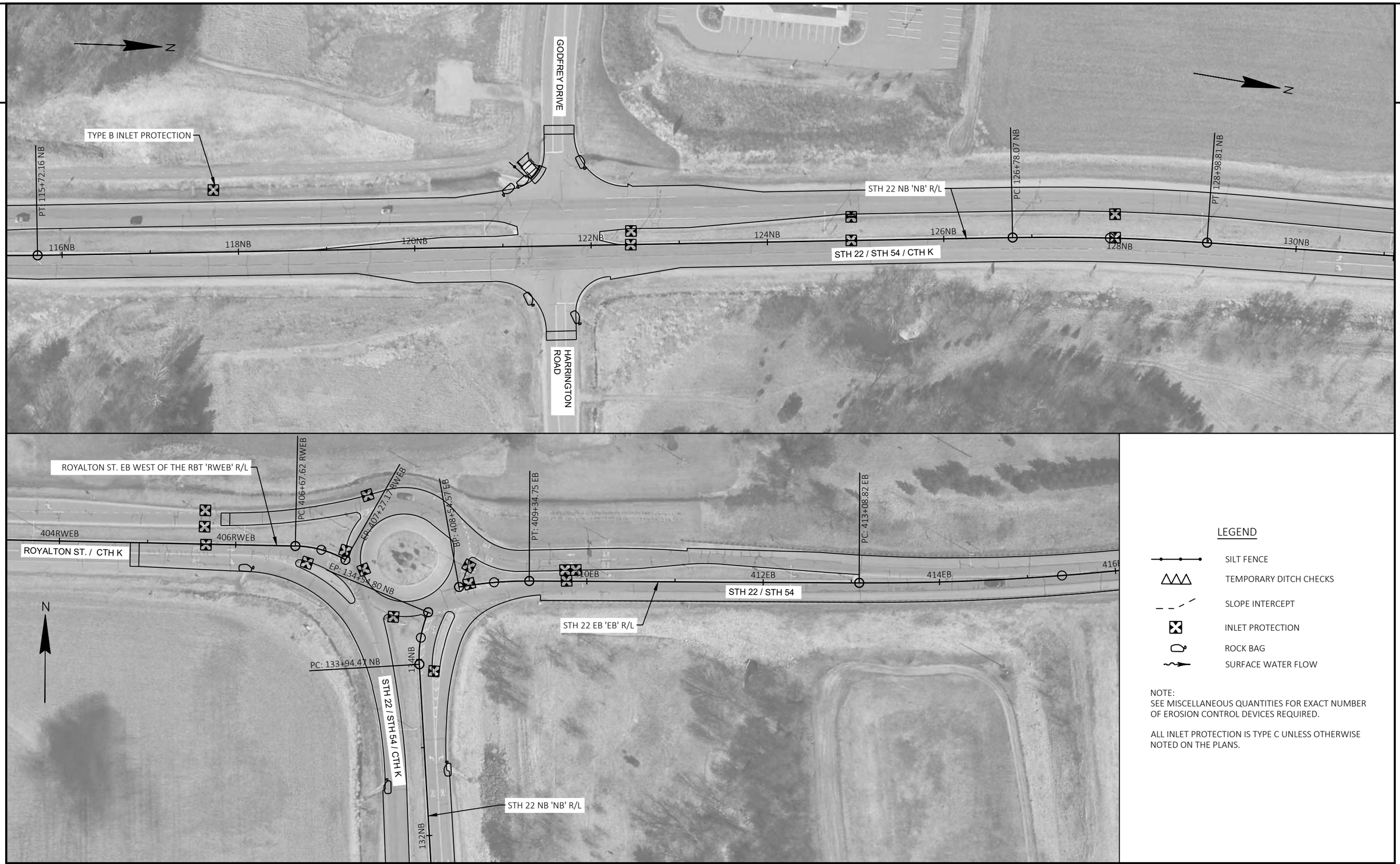
- SILT FENCE
- TEMPORARY DITCH CHECKS
- SLOPE INTERCEPT
- INLET PROTECTION
- ROCK BAG
- SURFACE WATER FLOW

NOTE:
SEE MISCELLANEOUS QUANTITIES FOR EXACT NUMBER OF EROSION CONTROL DEVICES REQUIRED.

ALL INLET PROTECTION IS TYPE C UNLESS OTHERWISE NOTED ON THE PLANS.

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	EROSION CONTROL: TEMPORARY	SHEET 21	E

2



LEGEND

- SILT FENCE
- TEMPORARY DITCH CHECKS
- SLOPE INTERCEPT
- INLET PROTECTION
- ROCK BAG
- SURFACE WATER FLOW

NOTE:
SEE MISCELLANEOUS QUANTITIES FOR EXACT NUMBER OF EROSION CONTROL DEVICES REQUIRED.

ALL INLET PROTECTION IS TYPE C UNLESS OTHERWISE NOTED ON THE PLANS.

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	EROSION CONTROL: TEMPORARY	SHEET 22	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 02

PLOT DATE : 7/11/2023 8:26 AM PLOT BY : WORECK, CHRIS PLOT NAME : PLOT SCALE : ##########

2

N

APPLE TREE LANE EB 'AT' R/L

EROSION MAT URBAN CLASS 1, TYPE A

EROSION MAT CLASS 1, TYPE B

EROSION MAT CLASS 1, TYPE B

EROSION MAT URBAN CLASS 1, TYPE A

PT: 27+67.76 AT

28AT

APPLE TREE LANE

PC: 66+43.61 NB

STH 22 / STH 54 / CTH K

STH 22 NB 'NB' R/L

62NB

64NB

60AT

66NB

STR. B-68-124

STH 22 NB 'NB' R/L

104NB

STH 22 / STH 54 / CTH K

EROSION MAT URBAN CLASS 1, TYPE B

106NB

MULCHING

WAUPACA RIVER

LEGEND

EROSION MAT (SEE PLAN CALLOUTS)

RIP RAP

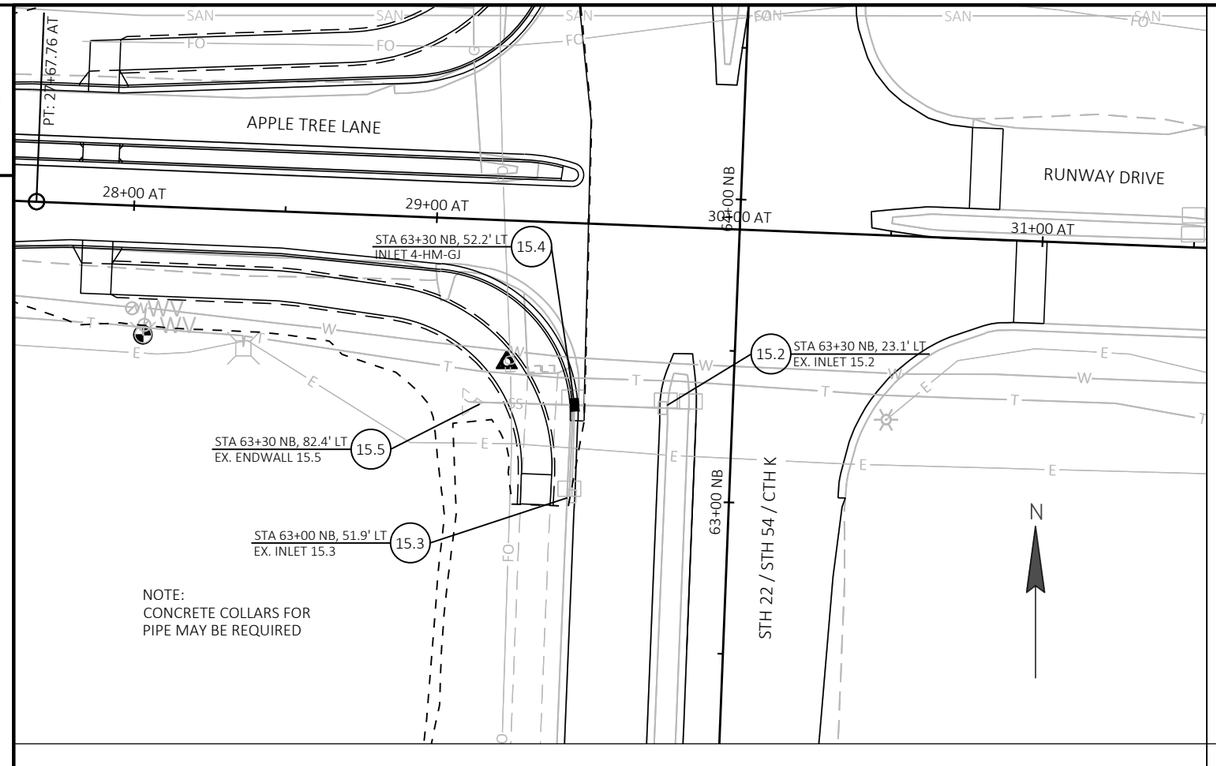
SLOPE INTERCEPT

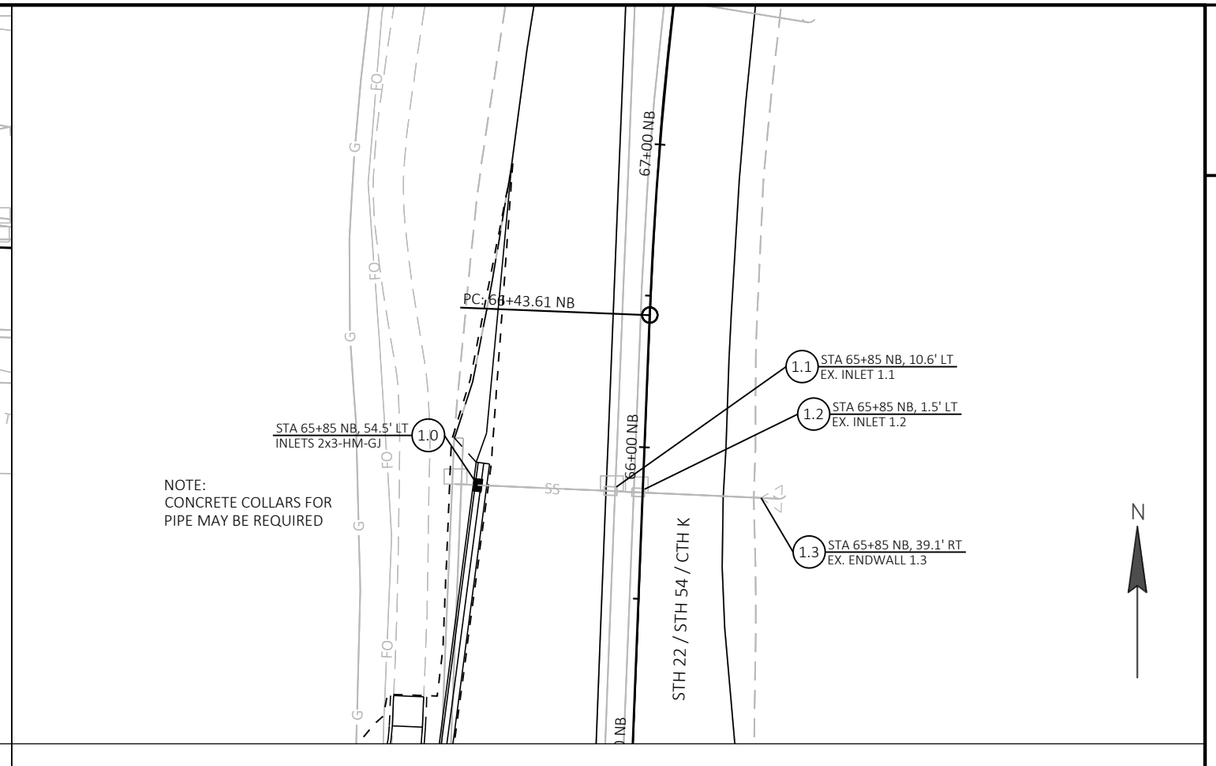
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	EROSION CONTROL: PERMANENT	SHEET 23	E

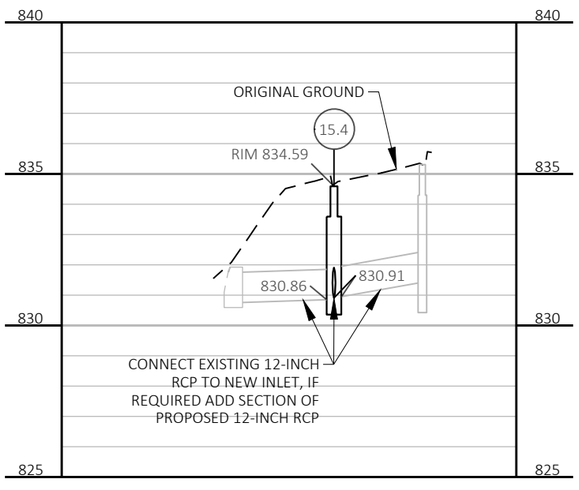
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LAYOUT NAME - 03

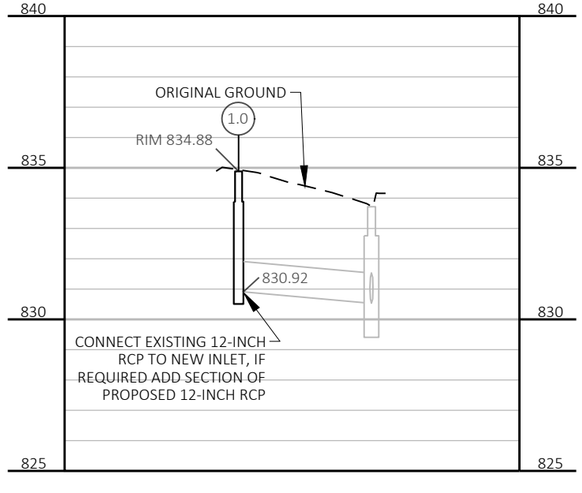
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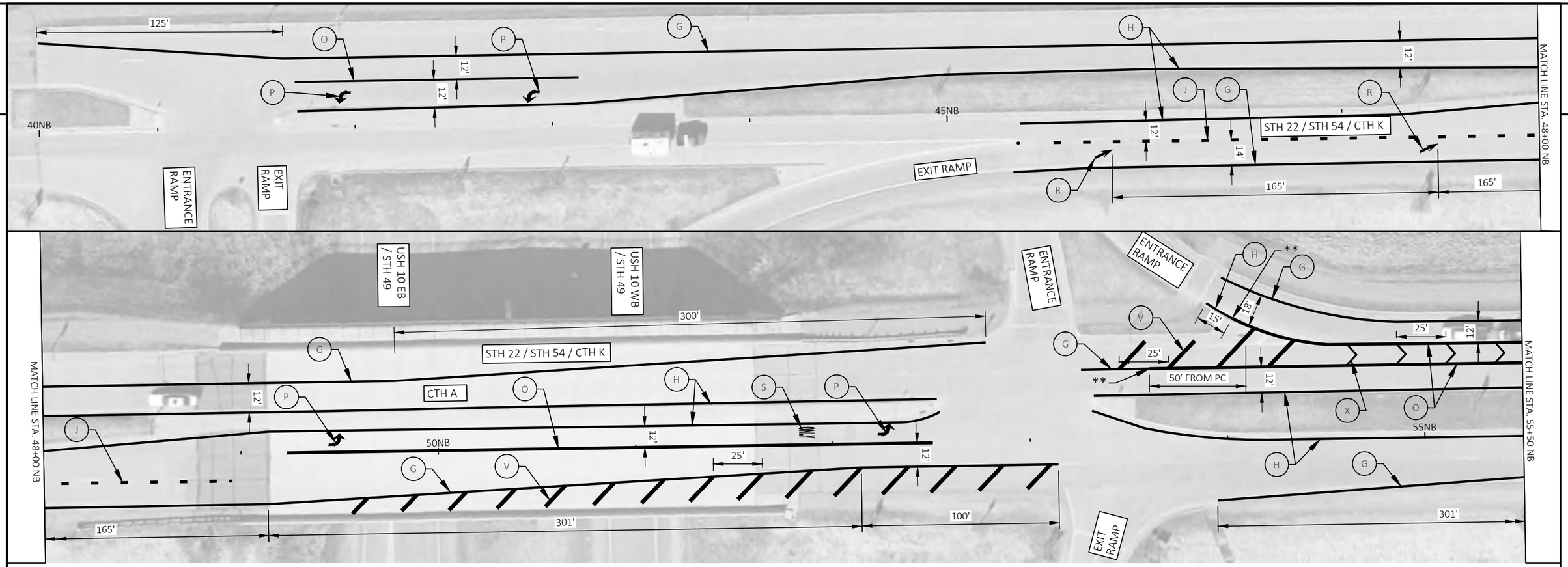
WISDOT/CADDS SHEET 42


PT: 27+67.76 AT
APPLE TREE LANE
28+00 AT
29+00 AT
30+00 AT
31+00 AT
63+00 NB
RUNWAY DRIVE
STA 63+30 NB, 52.2' LT
INLET 4-HM-GJ
15.4
STA 63+30 NB, 23.1' LT
EX. INLET 15.2
15.2
STA 63+30 NB, 82.4' LT
EX. ENDWALL 15.5
15.5
STA 63+00 NB, 51.9' LT
EX. INLET 15.3
15.3
STH 22 / STH 54 / CTH K
NOTE:
CONCRETE COLLARS FOR
PIPE MAY BE REQUIRED
N


PC: 66+43.61 NB
67+00 NB
66+00 NB
STA 65+85 NB, 54.5' LT
INLETS 2x3-HM-GJ
1.0
STA 65+85 NB, 10.6' LT
EX. INLET 1.1
1.1
STA 65+85 NB, 1.5' LT
EX. INLET 1.2
1.2
STA 65+85 NB, 39.1' RT
EX. ENDWALL 1.3
1.3
STH 22 / STH 54 / CTH K
NOTE:
CONCRETE COLLARS FOR
PIPE MAY BE REQUIRED
N


840
835
830
825
ORIGINAL GROUND
15.4
RIM 834.59
830.86
830.91
CONNECT EXISTING 12-INCH
RCP TO NEW INLET, IF
REQUIRED ADD SECTION OF
PROPOSED 12-INCH RCP


840
835
830
825
ORIGINAL GROUND
1.0
RIM 834.88
830.92
CONNECT EXISTING 12-INCH
RCP TO NEW INLET, IF
REQUIRED ADD SECTION OF
PROPOSED 12-INCH RCP



Z

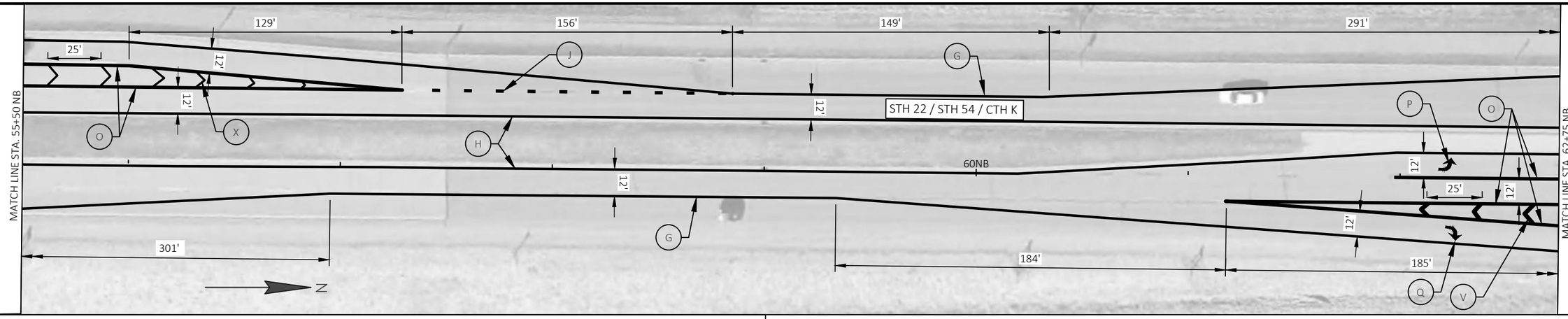
NOTE
** PAVEMENT MARKING CHANGE

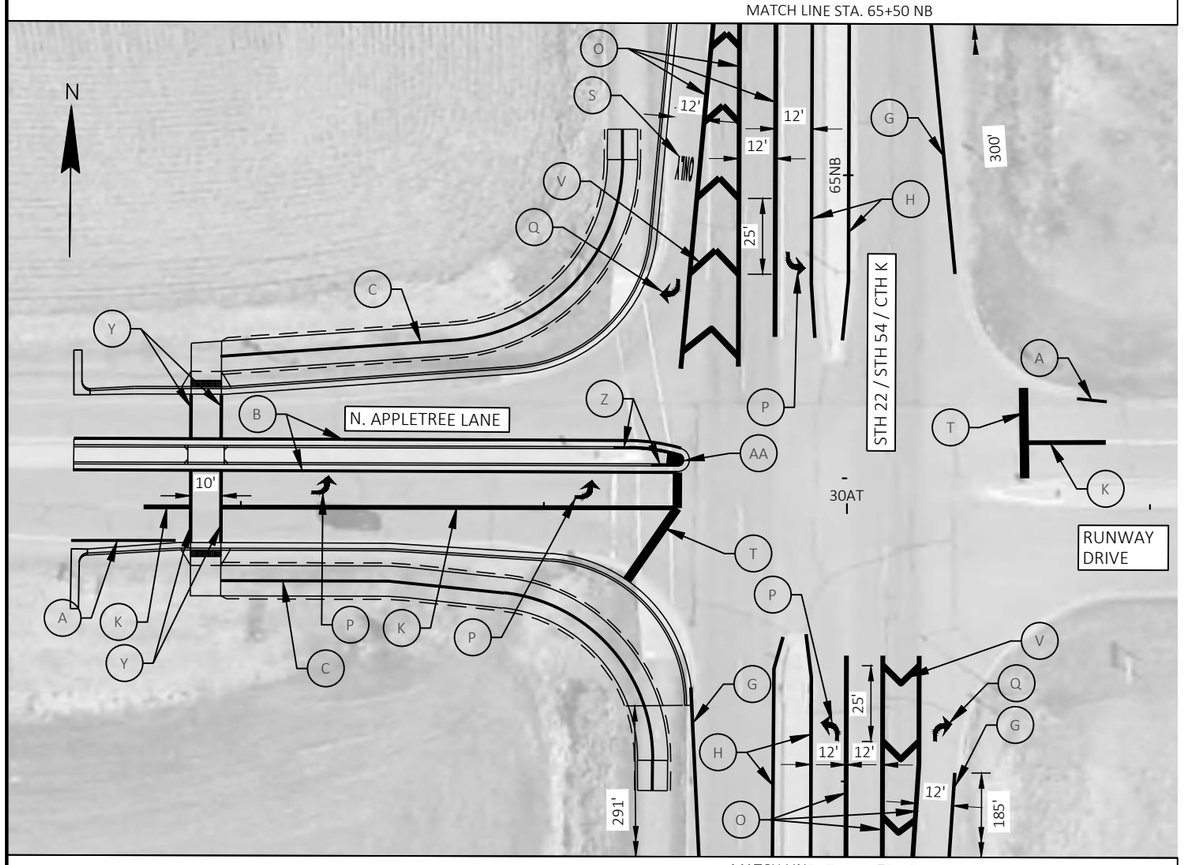
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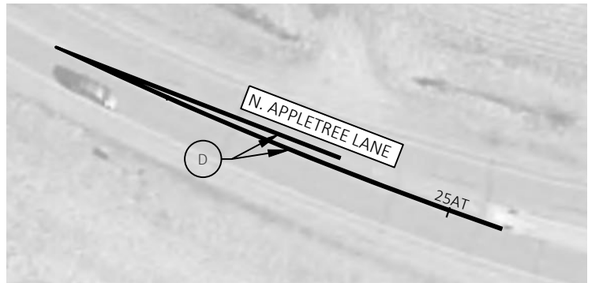
- A MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- C MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
- D MARKING LINE EPOXY 4-INCH (CENTER LINE) (DOUBLE YELLOW)
- E MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 12.5'x37.5') (WHITE)
- F MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 3'x9') (WHITE)
- G MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (WHITE)
- H MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (YELLOW)
- I MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (DOUBLE YELLOW)
- J MARKING LINE GROOVED WET REF EPOXY 10-INCH (SKIP-DASH 3'x9') (WHITE)
- K MARKING LINE EPOXY 8-INCH (CHANNEL LINE) (WHITE)
- L MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASH 12.5' AFTER WHITE DASH) (BLACK)
- M MARKING LINE EPOXY 10-INCH (SKIP-DASH 1'x3') (WHITE)
- N MARKING LINE EPOXY 10-INCH (SKIP-DASH 6'x3') (WHITE)
- O MARKING LINE GROOVED WET REF EPOXY 10-INCH (CHANNEL LINE) (WHITE)
- P MARKING ARROW EPOXY (TYPE 2 LT) (WHITE)
- Q MARKING ARROW EPOXY (TYPE 2 RT) (WHITE)
- R MARKING ARROW EPOXY (TYPE 5) (WHITE)
- S MARKING WORD EPOXY (ONLY) (WHITE)
- T MARKING STOP LINE EPOXY 18-INCH (WHITE)
- U MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- V MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- W MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- X MARKING CHEVRON EPOXY 24-INCH (WHITE)
- Y MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- Z MARKING CURB EPOXY (YELLOW)
- AA MARKING ISLAND NOSE EPOXY (YELLOW)
- AB MARKING ARROW EPOXY (TYPE 2R) (WHITE)
- AC MARKING ARROW EPOXY (TYPE 1) (WHITE)
- AD MARKING LINE SAME DAY EPOXY 6-INCH (CENTER LINE) (DOUBLE YELLOW)
- AE MARKING LINE EPOXY 6-INCH (EDGE LINE) (YELLOW)
- AF MARKING LINE EPOXY 6-INCH (EDGE LINE) (WHITE)
- AG MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PAVEMENT MARKING PLAN	SHEET 25	E

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WISDOT/CADDS SHEET 42



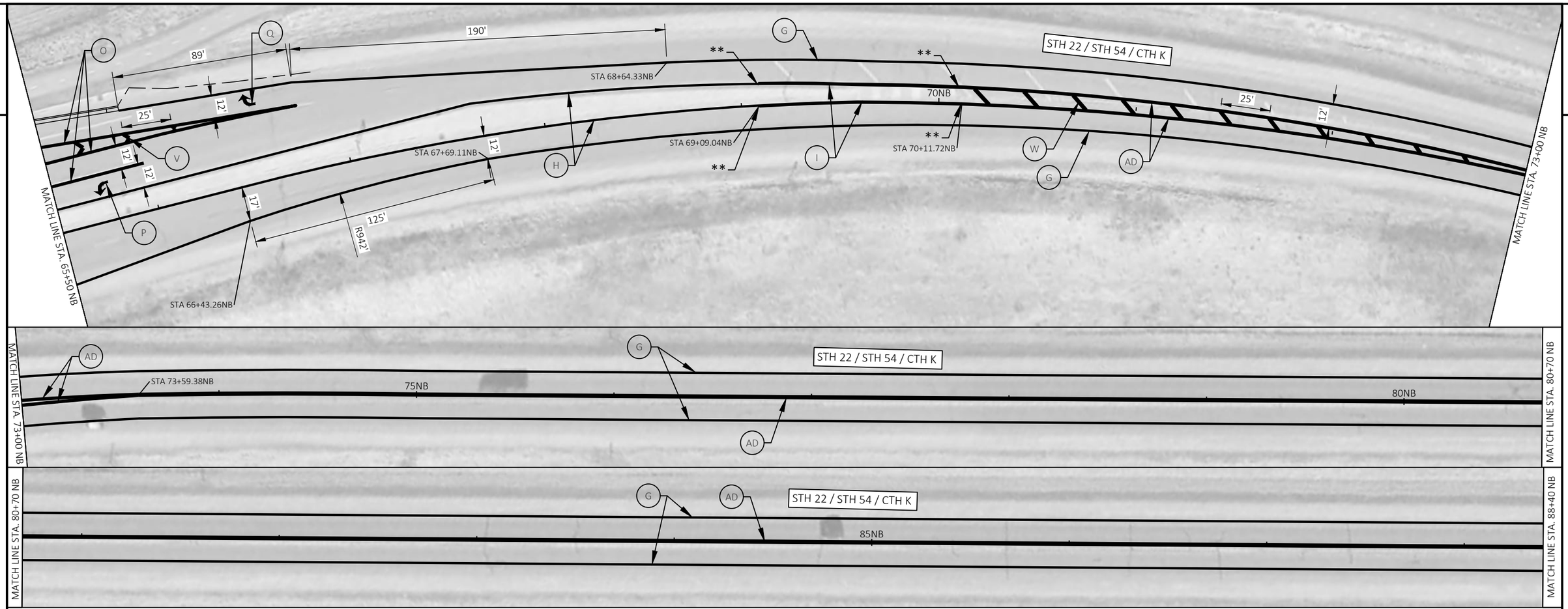




NOTE
** PAVEMENT MARKING CHANGE

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- (B) MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
- (D) MARKING LINE EPOXY 4-INCH (CENTER LINE) (DOUBLE YELLOW)
- (E) MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 12.5'x37.5') (WHITE)
- (F) MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 3'x9') (WHITE)
- (G) MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (WHITE)
- (H) MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (YELLOW)
- (I) MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (DOUBLE YELLOW)
- (J) MARKING LINE GROOVED WET REF EPOXY 10-INCH (SKIP-DASH 3'x9') (WHITE)
- (K) MARKING LINE EPOXY 8-INCH (CHANNEL LINE) (WHITE)
- (L) MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASH 12.5' AFTER WHITE DASH) (BLACK)
- (M) MARKING LINE EPOXY 10-INCH (SKIP-DASH 1'x3') (WHITE)
- (N) MARKING LINE EPOXY 10-INCH (SKIP-DASH 6'x3') (WHITE)
- (O) MARKING LINE GROOVED WET REF EPOXY 10-INCH (CHANNEL LINE) (WHITE)
- (P) MARKING ARROW EPOXY (TYPE 2 LT) (WHITE)
- (Q) MARKING ARROW EPOXY (TYPE 2 RT) (WHITE)
- (R) MARKING ARROW EPOXY (TYPE 5) (WHITE)
- (S) MARKING WORD EPOXY (ONLY) (WHITE)
- (T) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (U) MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- (V) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (W) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (X) MARKING CHEVRON EPOXY 24-INCH (WHITE)
- (Y) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (Z) MARKING CURB EPOXY (YELLOW)
- (AA) MARKING ISLAND NOSE EPOXY (YELLOW)
- (AB) MARKING ARROW EPOXY (TYPE 2R) (WHITE)
- (AC) MARKING ARROW EPOXY (TYPE 1) (WHITE)
- (AD) MARKING LINE SAME DAY EPOXY 6-INCH (CENTER LINE) (DOUBLE YELLOW)
- (AE) MARKING LINE EPOXY 6-INCH (EDGE LINE) (YELLOW)
- (AF) MARKING LINE EPOXY 6-INCH (EDGE LINE) (WHITE)
- (AG) MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)



LEGEND

N

NOTE
** PAVEMENT MARKING CHANGE

- A MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- C MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
- D MARKING LINE EPOXY 4-INCH (CENTER LINE) (DOUBLE YELLOW)
- E MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 12.5'x37.5') (WHITE)
- F MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 3'x9') (WHITE)
- G MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (WHITE)
- H MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (YELLOW)
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- J MARKING LINE GROOVED WET REF EPOXY 10-INCH (SKIP-DASH 3'x9') (WHITE)
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- N MARKING LINE EPOXY 10-INCH (SKIP-DASH 6'x3') (WHITE)
- O MARKING LINE GROOVED WET REF EPOXY 10-INCH (CHANNEL LINE) (WHITE)
- P MARKING ARROW EPOXY (TYPE 2 LT) (WHITE)
- Q MARKING ARROW EPOXY (TYPE 2 RT) (WHITE)
- R MARKING ARROW EPOXY (TYPE 5) (WHITE)
- S MARKING WORD EPOXY (ONLY) (WHITE)
- T MARKING STOP LINE EPOXY 18-INCH (WHITE)
- U MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- V MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- W MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
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- Y MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- Z MARKING CURB EPOXY (YELLOW)
- AA MARKING ISLAND NOSE EPOXY (YELLOW)
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- AE MARKING LINE EPOXY 6-INCH (EDGE LINE) (YELLOW)
- AF MARKING LINE EPOXY 6-INCH (EDGE LINE) (WHITE)
- AG MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PAVEMENT MARKING PLAN	SHEET 27	E



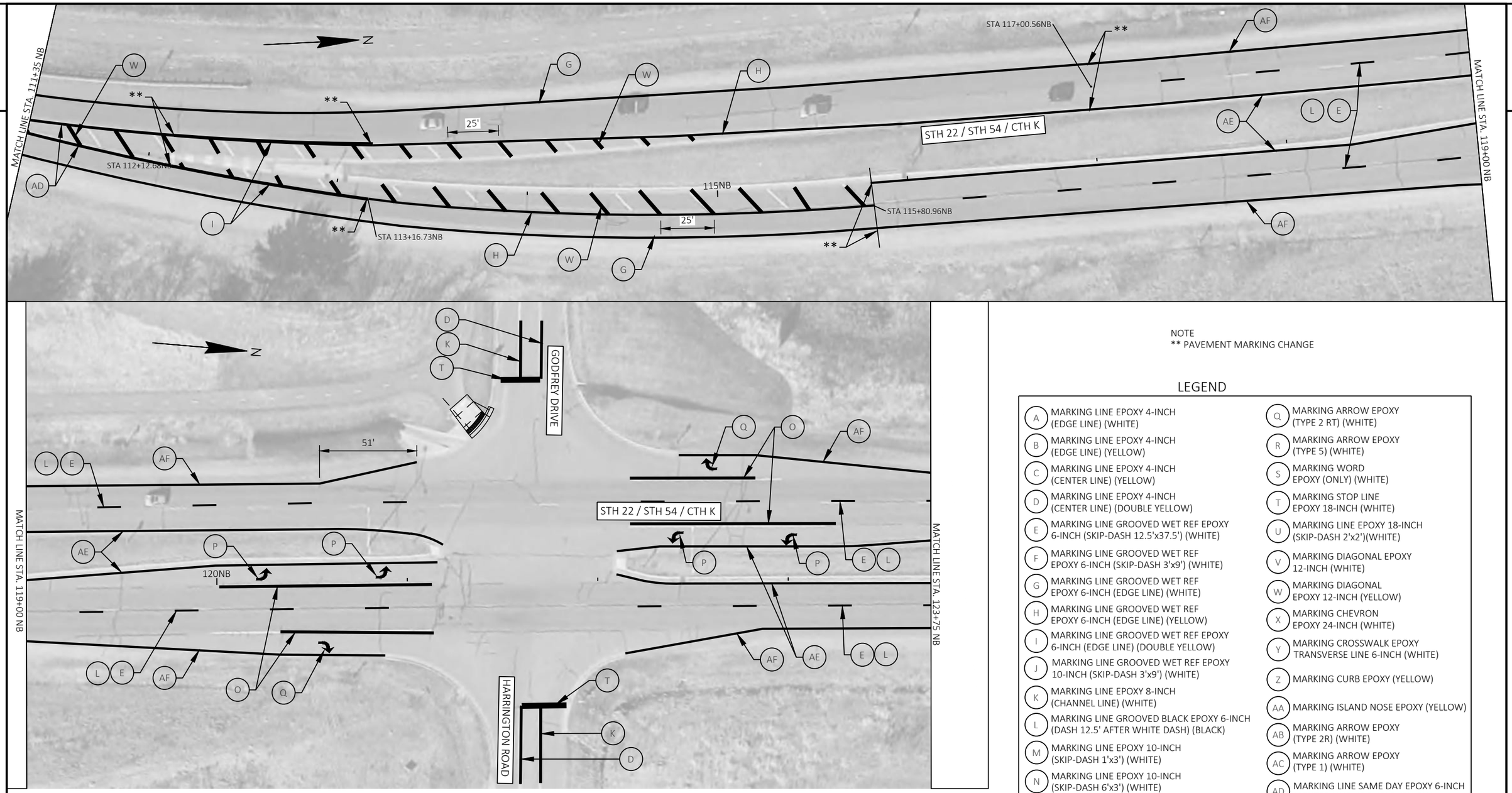
NOTE
** PAVEMENT MARKING CHANGE

LEGEND

- A MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- C MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
- D MARKING LINE EPOXY 4-INCH (CENTER LINE) (DOUBLE YELLOW)
- E MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 12.5'x37.5') (WHITE)
- F MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 3'x9') (WHITE)
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- J MARKING LINE GROOVED WET REF EPOXY 10-INCH (SKIP-DASH 3'x9') (WHITE)
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- L MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASH 12.5' AFTER WHITE DASH) (BLACK)
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- O MARKING LINE GROOVED WET REF EPOXY 10-INCH (CHANNEL LINE) (WHITE)
- P MARKING ARROW EPOXY (TYPE 2 LT) (WHITE)
- Q MARKING ARROW EPOXY (TYPE 2 RT) (WHITE)
- R MARKING ARROW EPOXY (TYPE 5) (WHITE)
- S MARKING WORD EPOXY (ONLY) (WHITE)
- T MARKING STOP LINE EPOXY 18-INCH (WHITE)
- U MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- V MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- W MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
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- AA MARKING ISLAND NOSE EPOXY (YELLOW)
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- AC MARKING ARROW EPOXY (TYPE 1) (WHITE)
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- AE MARKING LINE EPOXY 6-INCH (EDGE LINE) (YELLOW)
- AF MARKING LINE EPOXY 6-INCH (EDGE LINE) (WHITE)
- AG MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PAVEMENT MARKING PLAN	SHEET 28	E

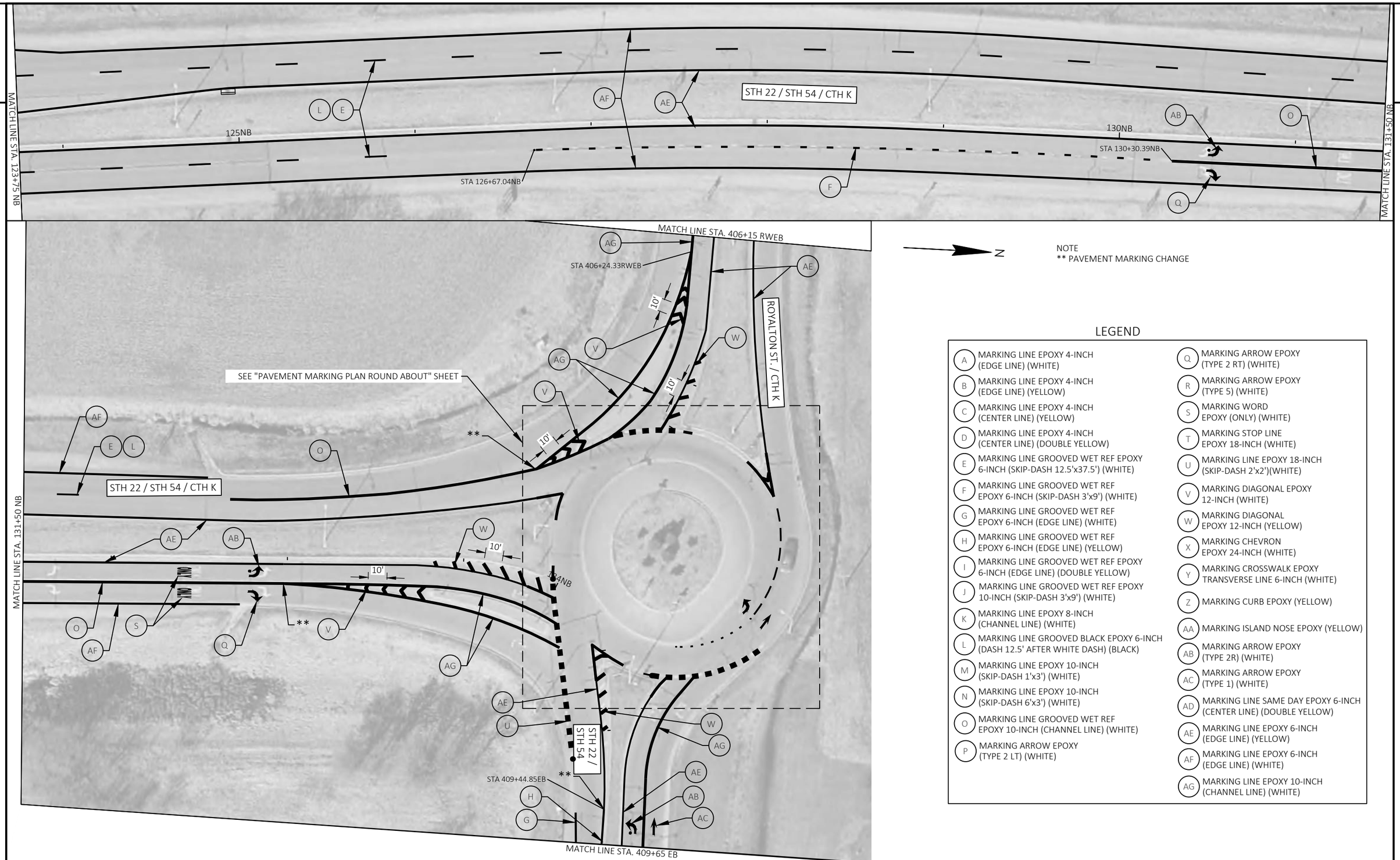
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PLOT DATE : 7/13/2023 1:16 PM
PLOT BY : WORECK, CHRIS
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



NOTE
** PAVEMENT MARKING CHANGE

LEGEND

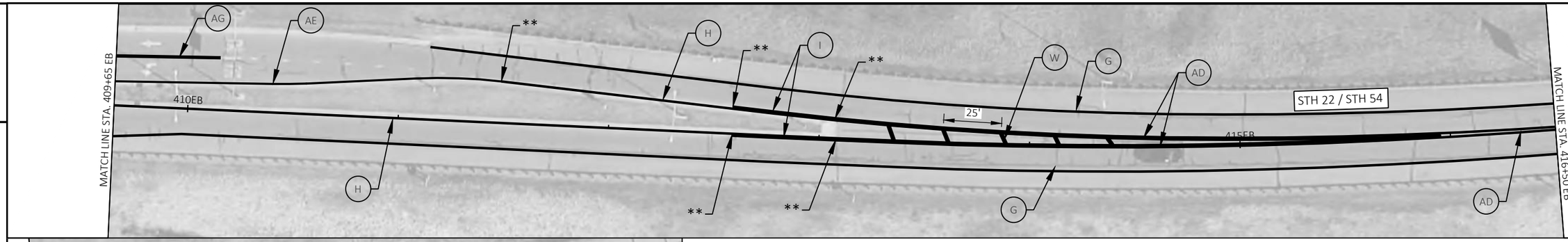
- A — MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B — MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
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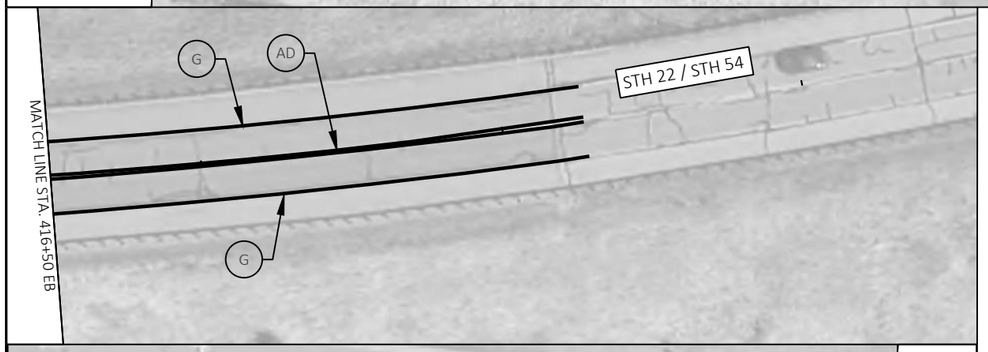


LEGEND

- A — MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B — MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- C — MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
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- G — MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (WHITE)
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- S — MARKING WORD EPOXY (ONLY) (WHITE)
- T — MARKING STOP LINE EPOXY 18-INCH (WHITE)
- U — MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- V — MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- W — MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- X — MARKING CHEVRON EPOXY 24-INCH (WHITE)
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- AG — MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PAVEMENT MARKING PLAN	SHEET 30	E





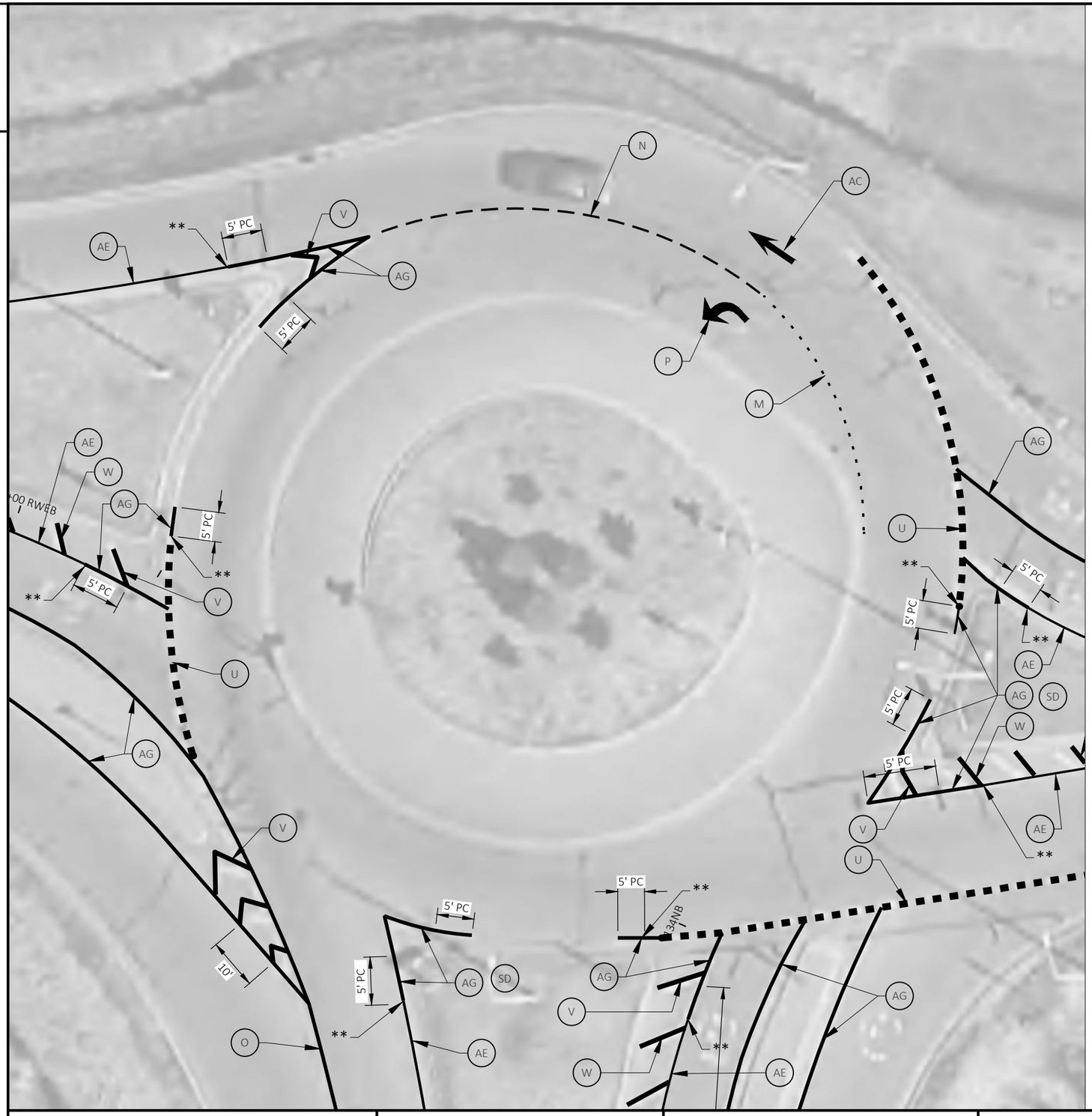


N

NOTE
** PAVEMENT MARKING CHANGE

LEGEND

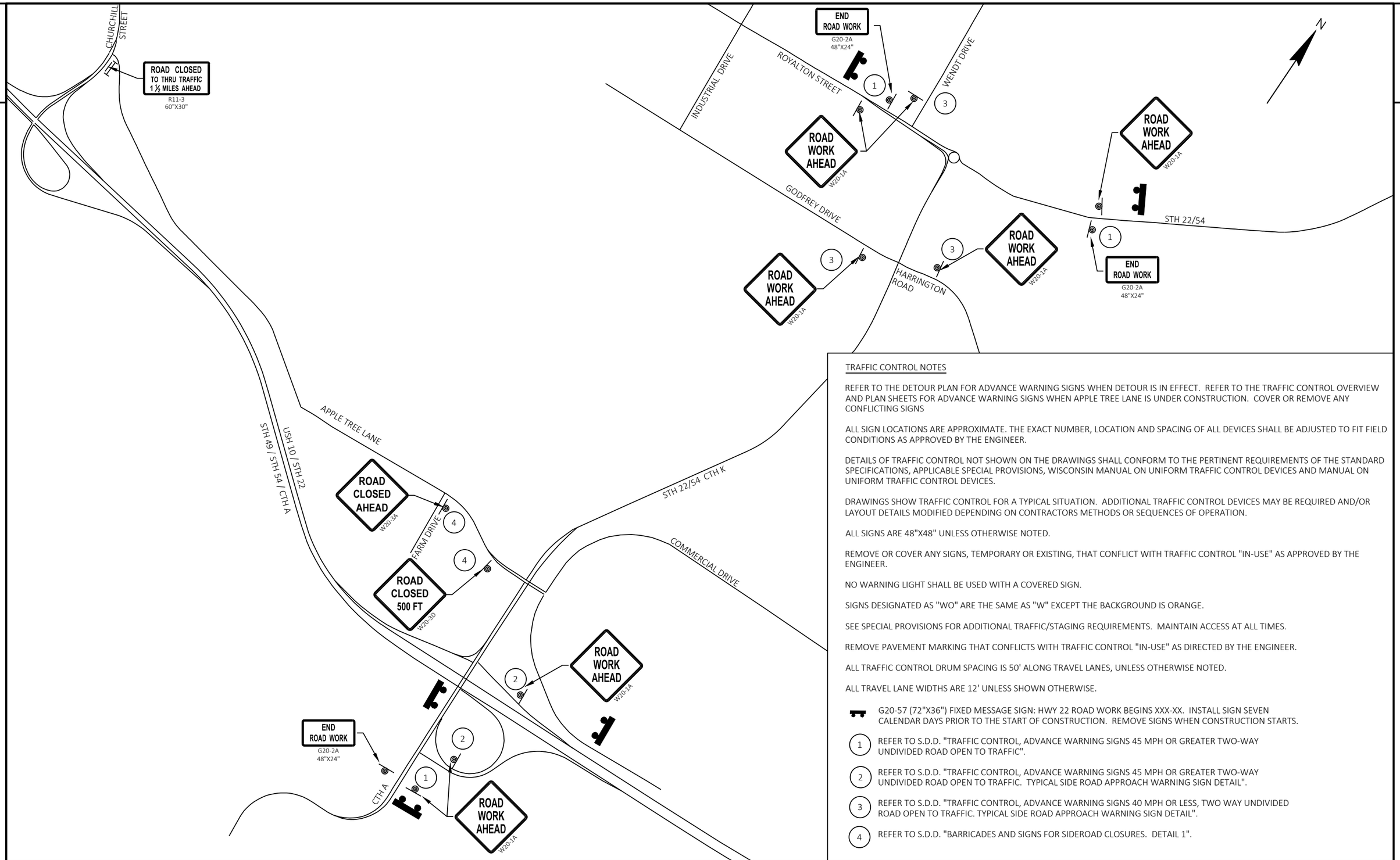
- A — MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B — MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- C — MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
- D — MARKING LINE EPOXY 4-INCH (CENTER LINE) (DOUBLE YELLOW)
- E — MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 12.5'x37.5') (WHITE)
- F — MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 3'x9') (WHITE)
- G — MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (WHITE)
- H — MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (YELLOW)
- I — MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (DOUBLE YELLOW)
- J — MARKING LINE GROOVED WET REF EPOXY 10-INCH (SKIP-DASH 3'x9') (WHITE)
- K — MARKING LINE EPOXY 8-INCH (CHANNEL LINE) (WHITE)
- L — MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASH 12.5' AFTER WHITE DASH) (BLACK)
- M — MARKING LINE EPOXY 10-INCH (SKIP-DASH 1'x3') (WHITE)
- N — MARKING LINE EPOXY 10-INCH (SKIP-DASH 6'x3') (WHITE)
- O — MARKING LINE GROOVED WET REF EPOXY 10-INCH (CHANNEL LINE) (WHITE)
- P — MARKING ARROW EPOXY (TYPE 2 LT) (WHITE)
- Q — MARKING ARROW EPOXY (TYPE 2 RT) (WHITE)
- R — MARKING ARROW EPOXY (TYPE 5) (WHITE)
- S — MARKING WORD EPOXY (ONLY) (WHITE)
- T — MARKING STOP LINE EPOXY 18-INCH (WHITE)
- U — MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- V — MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- W — MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- X — MARKING CHEVRON EPOXY 24-INCH (WHITE)
- Y — MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- Z — MARKING CURB EPOXY (YELLOW)
- AA — MARKING ISLAND NOSE EPOXY (YELLOW)
- AB — MARKING ARROW EPOXY (TYPE 2R) (WHITE)
- AC — MARKING ARROW EPOXY (TYPE 1) (WHITE)
- AD — MARKING LINE SAME DAY EPOXY 6-INCH (CENTER LINE) (DOUBLE YELLOW)
- AE — MARKING LINE EPOXY 6-INCH (EDGE LINE) (YELLOW)
- AF — MARKING LINE EPOXY 6-INCH (EDGE LINE) (WHITE)
- AG — MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)



NOTE
** PAVEMENT MARKING CHANGE

LEGEND

- A MARKING LINE EPOXY 4-INCH (EDGE LINE) (WHITE)
- B MARKING LINE EPOXY 4-INCH (EDGE LINE) (YELLOW)
- C MARKING LINE EPOXY 4-INCH (CENTER LINE) (YELLOW)
- D MARKING LINE EPOXY 4-INCH (CENTER LINE) (DOUBLE YELLOW)
- E MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 12.5'x37.5') (WHITE)
- F MARKING LINE GROOVED WET REF EPOXY 6-INCH (SKIP-DASH 3'x9') (WHITE)
- G MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (WHITE)
- H MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (YELLOW)
- I MARKING LINE GROOVED WET REF EPOXY 6-INCH (EDGE LINE) (DOUBLE YELLOW)
- J MARKING LINE GROOVED WET REF EPOXY 10-INCH (SKIP-DASH 3'x9') (WHITE)
- K MARKING LINE EPOXY 8-INCH (CHANNEL LINE) (WHITE)
- L MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASH 12.5' AFTER WHITE DASH) (BLACK)
- M MARKING LINE EPOXY 10-INCH (SKIP-DASH 1'x3') (WHITE)
- N MARKING LINE EPOXY 10-INCH (SKIP-DASH 6'x3') (WHITE)
- O MARKING LINE GROOVED WET REF EPOXY 10-INCH (CHANNEL LINE) (WHITE)
- P MARKING ARROW EPOXY (TYPE 2 LT) (WHITE)
- Q MARKING ARROW EPOXY (TYPE 2 RT) (WHITE)
- R MARKING ARROW EPOXY (TYPE 5) (WHITE)
- S MARKING WORD EPOXY (ONLY) (WHITE)
- T MARKING STOP LINE EPOXY 18-INCH (WHITE)
- U MARKING LINE EPOXY 18-INCH (SKIP-DASH 2'x2')(WHITE)
- V MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- W MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- X MARKING CHEVRON EPOXY 24-INCH (WHITE)
- Y MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- Z MARKING CURB EPOXY (YELLOW)
- AA MARKING ISLAND NOSE EPOXY (YELLOW)
- AB MARKING ARROW EPOXY (TYPE 2R) (WHITE)
- AC MARKING ARROW EPOXY (TYPE 1) (WHITE)
- AD MARKING LINE SAME DAY EPOXY 6-INCH (CENTER LINE) (DOUBLE YELLOW)
- AE MARKING LINE EPOXY 6-INCH (EDGE LINE) (YELLOW)
- AF MARKING LINE EPOXY 6-INCH (EDGE LINE) (WHITE)
- AG MARKING LINE EPOXY 10-INCH (CHANNEL LINE) (WHITE)



TRAFFIC CONTROL NOTES

REFER TO THE DETOUR PLAN FOR ADVANCE WARNING SIGNS WHEN DETOUR IS IN EFFECT. REFER TO THE TRAFFIC CONTROL OVERVIEW AND PLAN SHEETS FOR ADVANCE WARNING SIGNS WHEN APPLE TREE LANE IS UNDER CONSTRUCTION. COVER OR REMOVE ANY CONFLICTING SIGNS

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

DETAILS OF TRAFFIC CONTROL NOT SHOWN ON THE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTORS METHODS OR SEQUENCES OF OPERATION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

REMOVE OR COVER ANY SIGNS, TEMPORARY OR EXISTING, THAT CONFLICT WITH TRAFFIC CONTROL "IN-USE" AS APPROVED BY THE ENGINEER.

NO WARNING LIGHT SHALL BE USED WITH A COVERED SIGN.

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

SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS. MAINTAIN ACCESS AT ALL TIMES.

REMOVE PAVEMENT MARKING THAT CONFLICTS WITH TRAFFIC CONTROL "IN-USE" AS DIRECTED BY THE ENGINEER.

ALL TRAFFIC CONTROL DRUM SPACING IS 50' ALONG TRAVEL LANES, UNLESS OTHERWISE NOTED.

ALL TRAVEL LANE WIDTHS ARE 12' UNLESS SHOWN OTHERWISE.

G20-57 (72"X36") FIXED MESSAGE SIGN: HWY 22 ROAD WORK BEGINS XXX-XX. INSTALL SIGN SEVEN CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION. REMOVE SIGNS WHEN CONSTRUCTION STARTS.

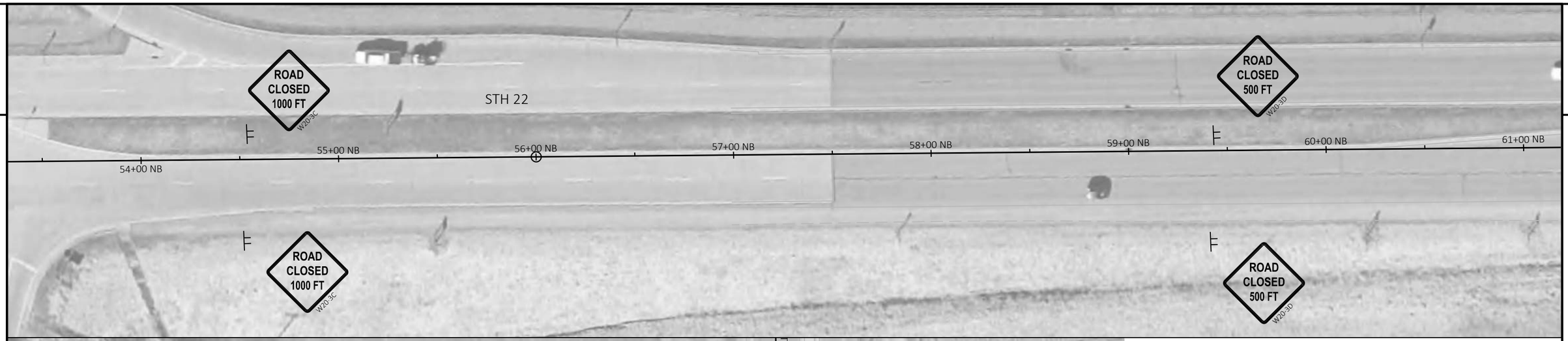
(1) REFER TO S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

(2) REFER TO S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC. TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL".

(3) REFER TO S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC. TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL".

(4) REFER TO S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES. DETAIL 1".

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL: ADVANCED WARNING PROJECT OVERVIEW	SHEET 33	E





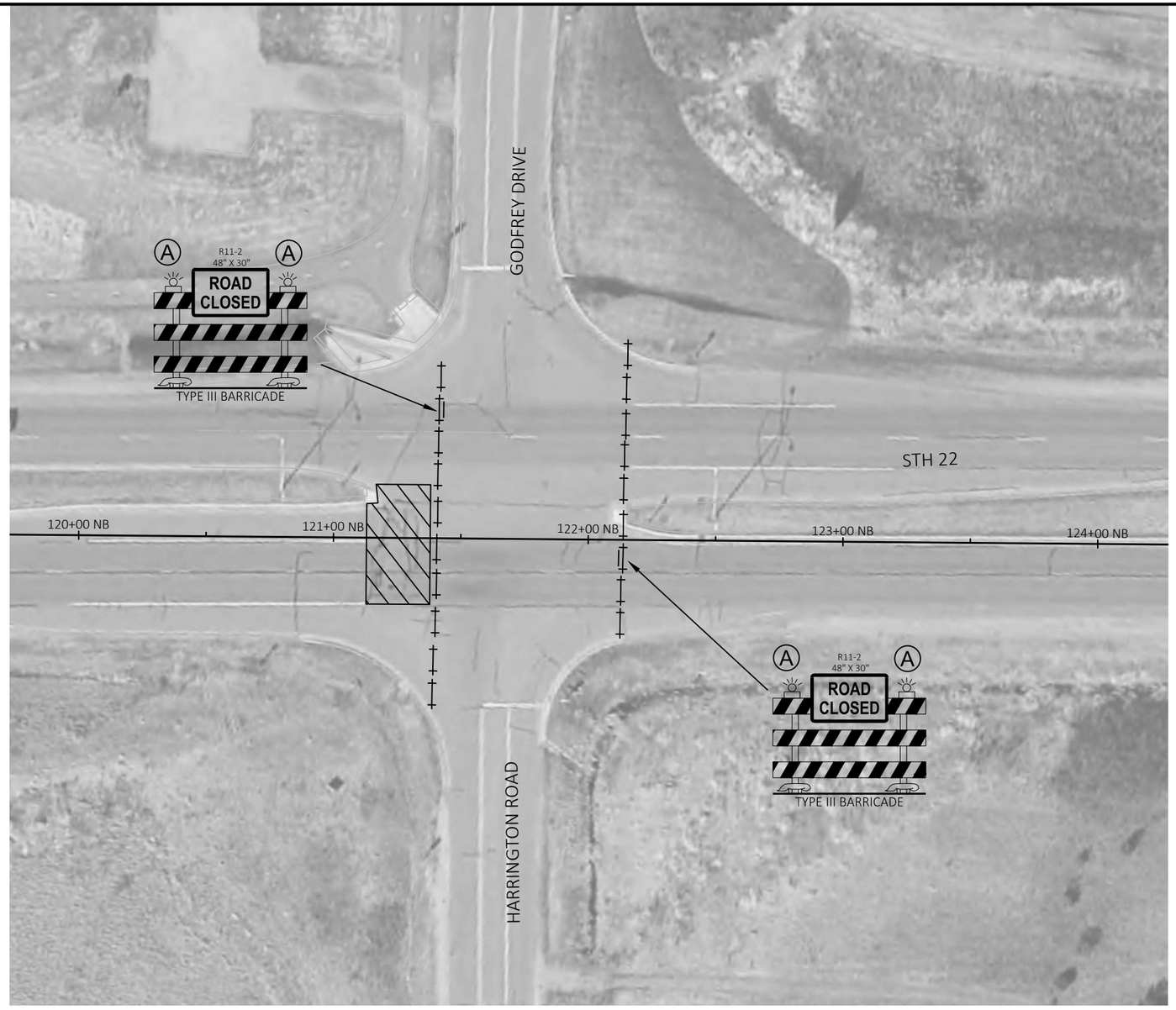
SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR TRAFFIC CONTROL NOTES.

N

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- G20-57C (72"X36") FIXED MESSAGE SIGN : HWY 22 ROAD CLOSED BEGINS XXX-XX INSTALL SIGN SEVEN CALENDAR DAYS PRIOR TO START OF ROAD CLOSURE. REMOVE SIGN WHEN CLOSURE STARTS.

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL STH 22/54 DETOUR	SHEET 34	E



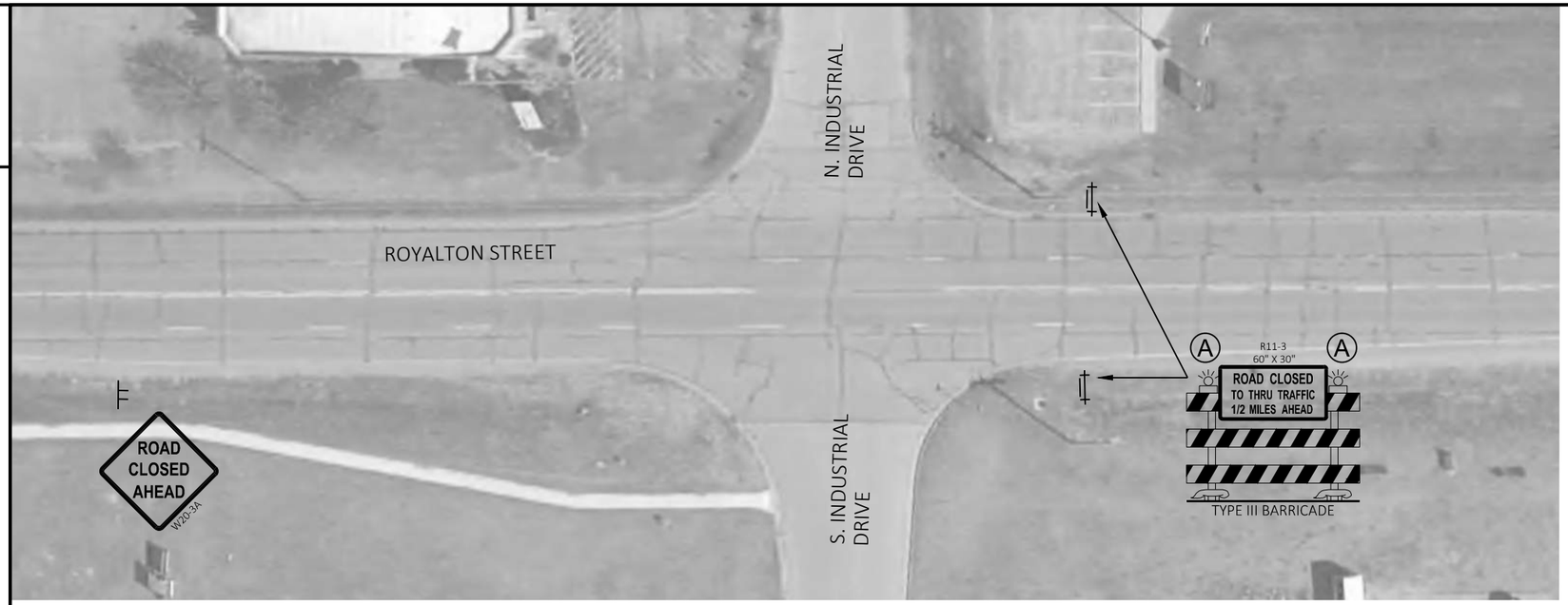
N

SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR TRAFFIC CONTROL NOTES.

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- G20-57C (72"X36") FIXED MESSAGE SIGN :
  HWY 22 ROAD CLOSED BEGINS XXX-XX
  INSTALL SIGN SEVEN CALENDAR DAYS PRIOR TO START
  OF ROAD CLOSURE. REMOVE SIGN WHEN CLOSURE STARTS.

2



SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR TRAFFIC CONTROL NOTES.

N

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- G20-57C (72"X36") FIXED MESSAGE SIGN : HWY 22 ROAD CLOSED BEGINS XXX-XX INSTALL SIGN SEVEN CALENDAR DAYS PRIOR TO START OF ROAD CLOSURE. REMOVE SIGN WHEN CLOSURE STARTS.

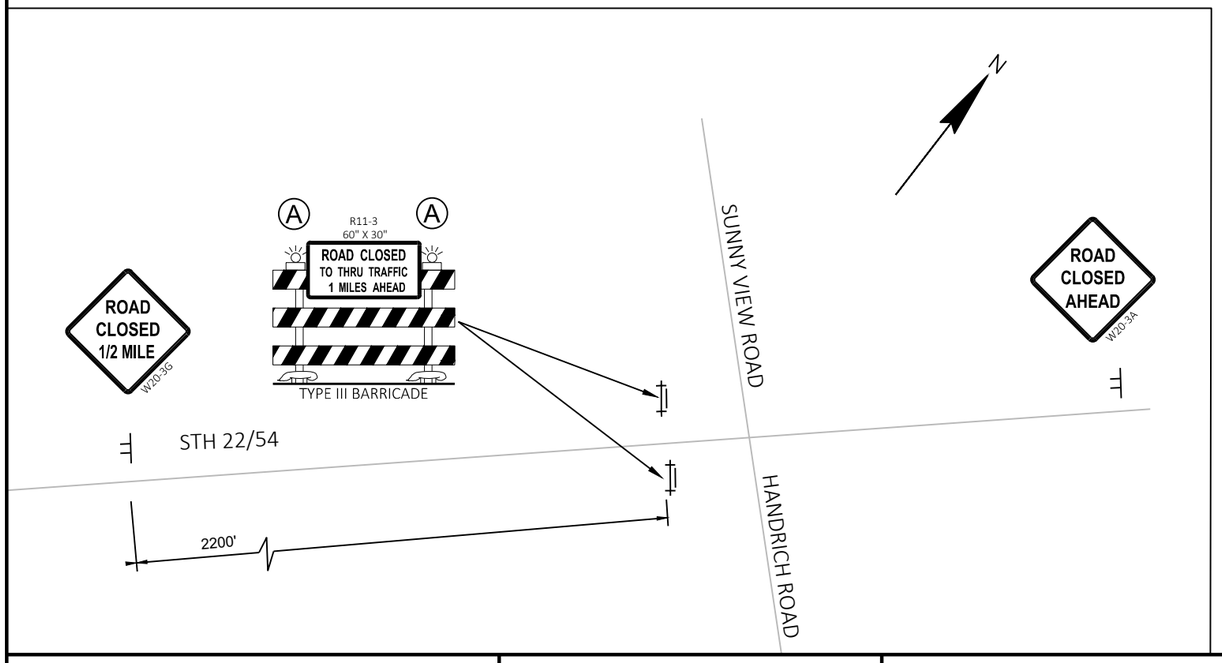


2

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL STH 22/54 DETOUR	SHEET 36	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\025101_TC.DWG
LAYOUT NAME - 03
PLOT DATE : 10/18/2023 11:13 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42





SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR TRAFFIC CONTROL NOTES.

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- G20-57C (72"X36") FIXED MESSAGE SIGN : HWY 22 ROAD CLOSED BEGINS XXX-XX INSTALL SIGN SEVEN CALENDAR DAYS PRIOR TO START OF ROAD CLOSURE. REMOVE SIGN WHEN CLOSURE STARTS.

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL STH 22/54 DETOUR	SHEET 37	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\025101_TC.DWG
LAYOUT NAME - 04
PLOT DATE : 10/18/2023 11:14 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

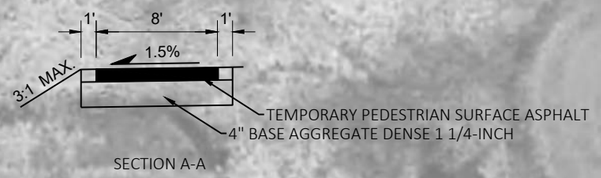
- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL APPLE TREE LANE NORTH SIDE CONSTRUCTION STAGE 1	SHEET 38	E

SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL



SECTION A-A

TEMPORARY SHARED-USA PATH CONNECTION

REFER TO "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADVANCED WARNING SIGNS ALONG APPLE TREE LANE DURING CLOSURE.

WHEN APPLE TREE LANE IS NOT CLOSED, REFER TO S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

N

R11-2 48" X 30" ROAD CLOSED
TYPE III BARRICADE

PT: 27+67.76 AT
PT: 27+67.76

CONSTRUCT TEMPORARY SHARED USE PATH CONNECTION FOR USE DURING STAGE 2

R11-2L 48" X 30" LANE CLOSED
TYPE III BARRICADE

CONSTRUCT TEMPORARY SHARED USE PATH CONNECTION FOR USE DURING STAGE 2
MARKING REMOVAL LINE 4-INCH
TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

R11-2L 48" X 30" LANE CLOSED
TYPE III BARRICADE

APPLE TREE LANE
RUNWAY DRIVE

STH 22

25'
PC: STA 65+95.16 NB

59+00 NB
60+00 NB
61+00 NB
62+00 NB
63+00 NB
64+00 NB
65+00 NB
66+00 NB

STA 59+98.71 NB
STA 61+95 NB
50'
12'

R3-2 24"X24"

WO1-6 48" X 24"

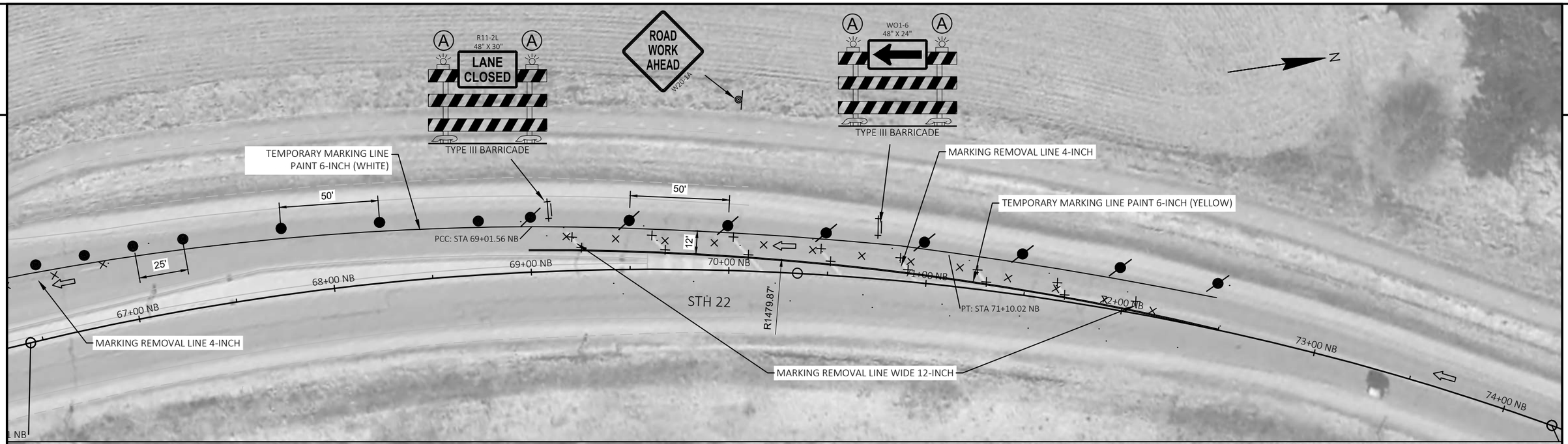
R1400.70'
PC: 66+43.61 NB

MARKING REMOVAL LINE 4-INCH
TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL APPLE TREE LANE NORTH SIDE CONSTRUCTION STAGE 1	SHEET 39	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\025102_TC.DWG
LAYOUT NAME - 02
PLOT DATE : 9/18/2023 9:56 AM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

2



SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL APPLE TREE LANE NORTH SIDE CONSTRUCTION STAGE 1	SHEET 40	E

2



SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN BARRICADE
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC
- PAVEMENT MARKING REMOVAL

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL: APPLE TREE LANE SOUTH SIDE CONSTRUCTION STAGE 2	SHEET 41	E

2

SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

I/‡	TYPE II / III BARRICADE	- - - - -	TEMPORARY PEDESTRIAN BARRICADE
I/‡	TYPE II / III BARRICADE WTH ATTACHED SIGN	Ⓐ	TYPE A WARNING LIGHT (FLASHING)
●	TRAFFIC CONTROL DRUM	▨	WORK AREA
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	⇨	DIRECTION OF TRAFFIC
⇨	FLASHING ARROW BOARD	× ×	PAVEMENT MARKING REMOVAL
	SIGN ON PERMANENT SUPPORT		
	SIGN ON TEMPORARY SUPPORT		

REFER TO "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADVANCED WARNING SIGNS ALONG APPLE TREE LANE DURING CLOSURE.

WHEN APPLE TREE LANE IS NOT CLOSED, REFER TO S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

N

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

APPLE TREE LANE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

M4-60L
30"X24"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

M4-60R
30"X24"

MARKING REMOVAL LINE 4-INCH

STA 64+63 NB

12'

25'

PC: STA 65+87.93 NB

TEMPORARY PEDESTRIAN BARRICADE

TEMPORARY PEDESTRIAN BARRICADE

59+00 NB 60+00 NB 61+00 NB 62+00 NB 63+00 NB 64+00 NB 65+00 NB 66+00 NB

STH 22/54 TH K

PC: 66+43.

R3-2
24"X24"

WO1-6
48" X 24"
TYPE III BARRICADE

TEMPORARY MARKING LINE
PAINT 6-INCH (WHITE)

RUNWAY DRIVE

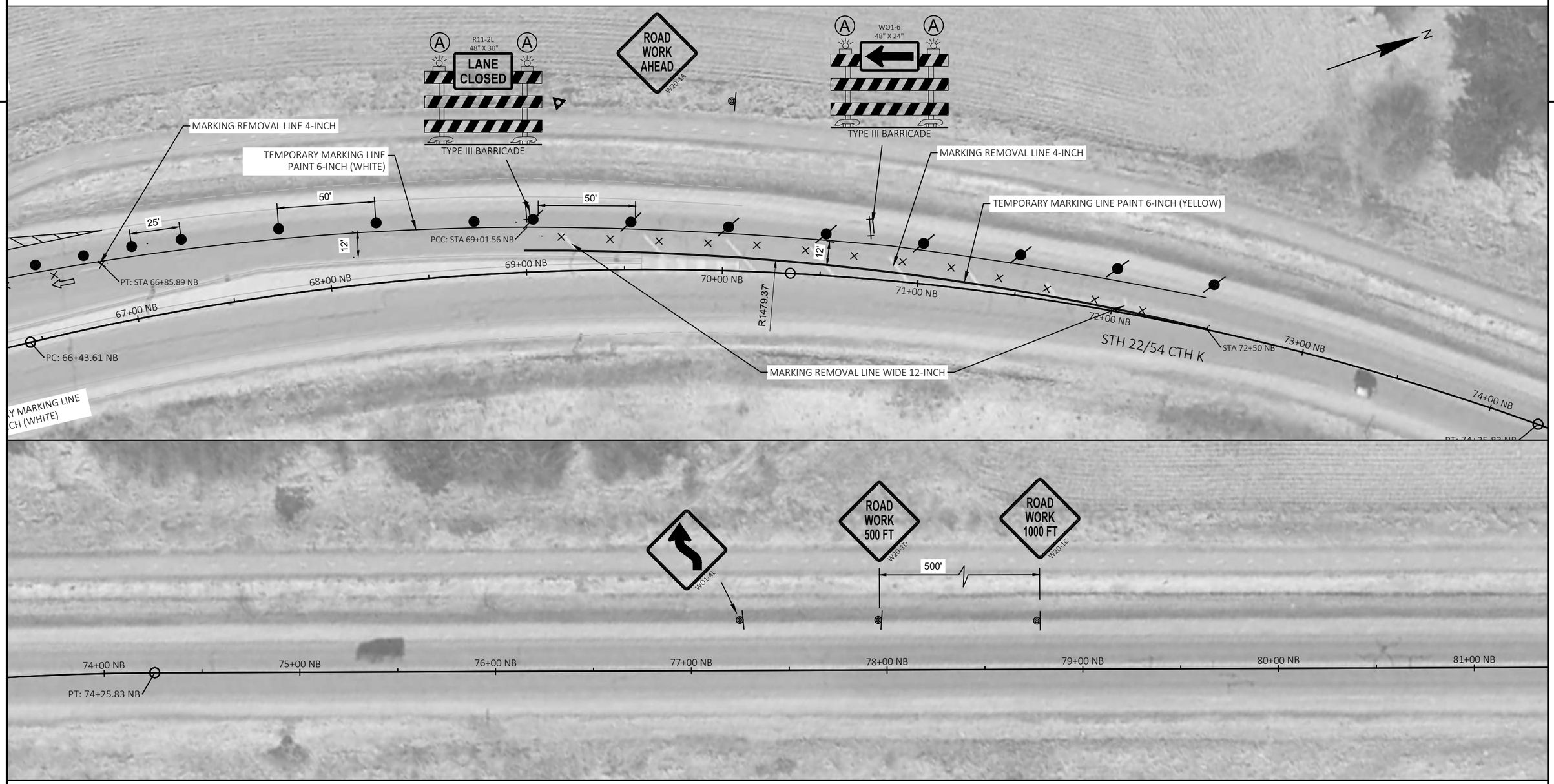
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL: APPLE TREE LANE SOUTH SIDE CONSTRUCTION STAGE 2	SHEET 42	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\025103_TC.DWG
LAYOUT NAME - 02

PLOT DATE : 10/18/2023 12:09 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



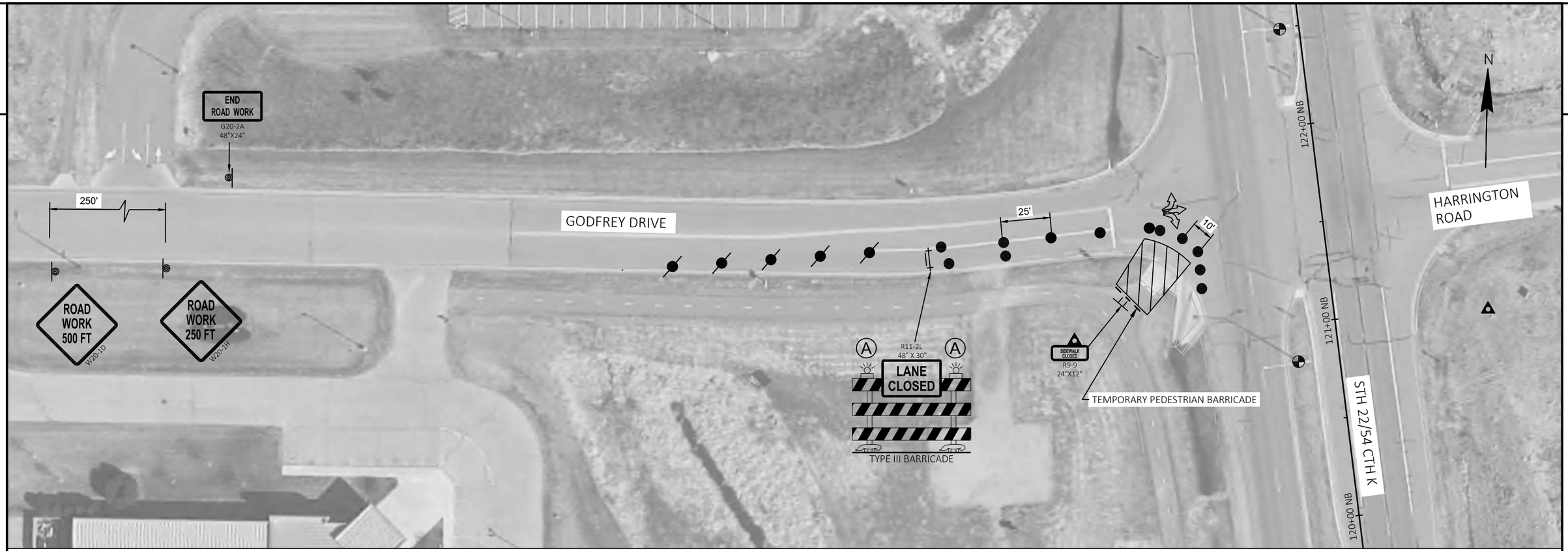
SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

I/‡	TYPE II / III BARRICADE	- - - - -	TEMPORARY PEDESTRIAN BARRICADE
I/‡	TYPE II / III BARRICADE WTH ATTACHED SIGN	Ⓐ	TYPE A WARNING LIGHT (FLASHING)
●	TRAFFIC CONTROL DRUM	▨	WORK AREA
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	⇨	DIRECTION OF TRAFFIC
➡	FLASHING ARROW BOARD	× ×	PAVEMENT MARKING REMOVAL
●	SIGN ON PERMANENT SUPPORT		
F	SIGN ON TEMPORARY SUPPORT		

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL: APPLE TREE LANE SOUTH SIDE CONSTRUCTION STAGE 2	SHEET 43	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\025103_TC.DWG
LAYOUT NAME - 03
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WISDOT/CADDS SHEET 42



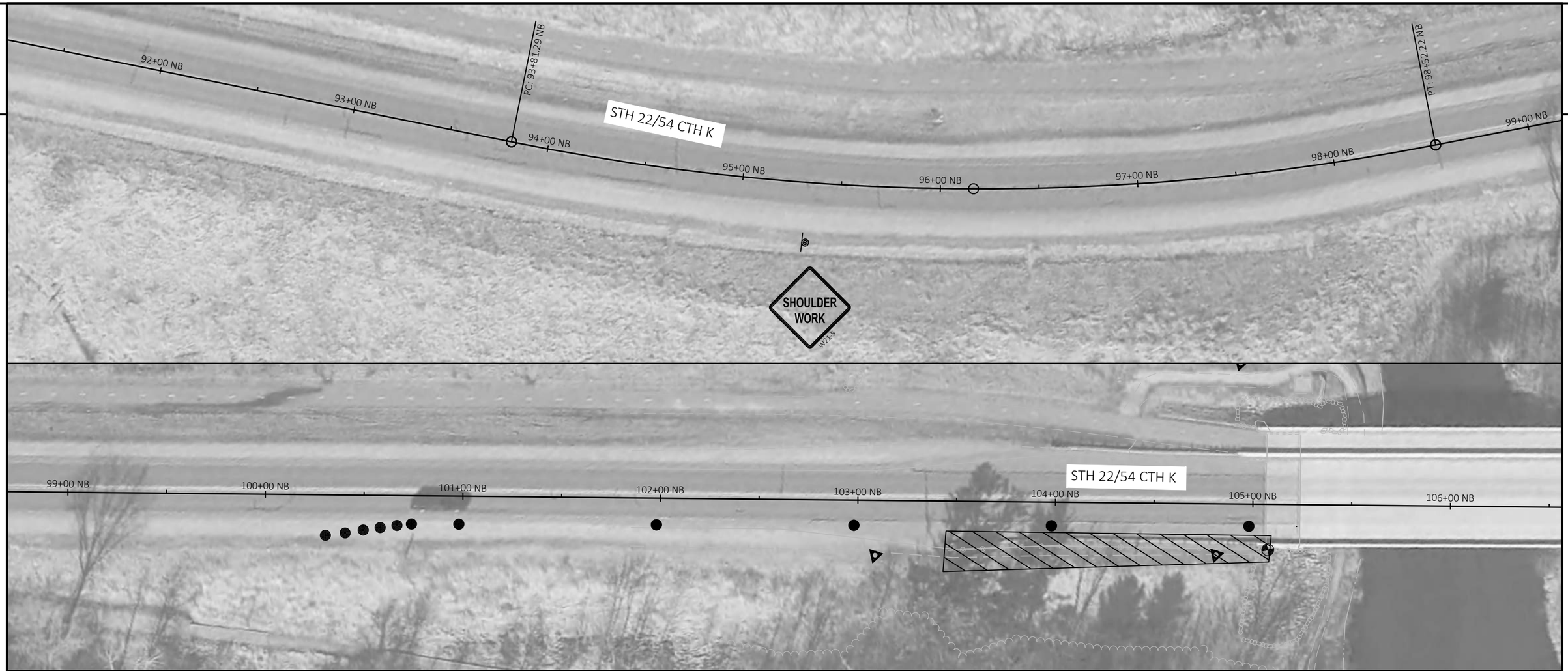
SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

TYPE II / III BARRICADE	TEMPORARY PEDESTRIAN BARRICADE
TYPE II / III BARRICADE WTH ATTACHED SIGN	TYPE A WARNING LIGHT (FLASHING)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PAVEMENT MARKING REMOVAL
SIGN ON PERMANENT SUPPORT	
SIGN ON TEMPORARY SUPPORT	

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL: GODFREY DRIVE CURB RAMP CONSTRUCTION	SHEET 44 E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\025106_TC.DWG
LAYOUT NAME - 01
PLOT DATE : 9/17/2023 5:02 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT

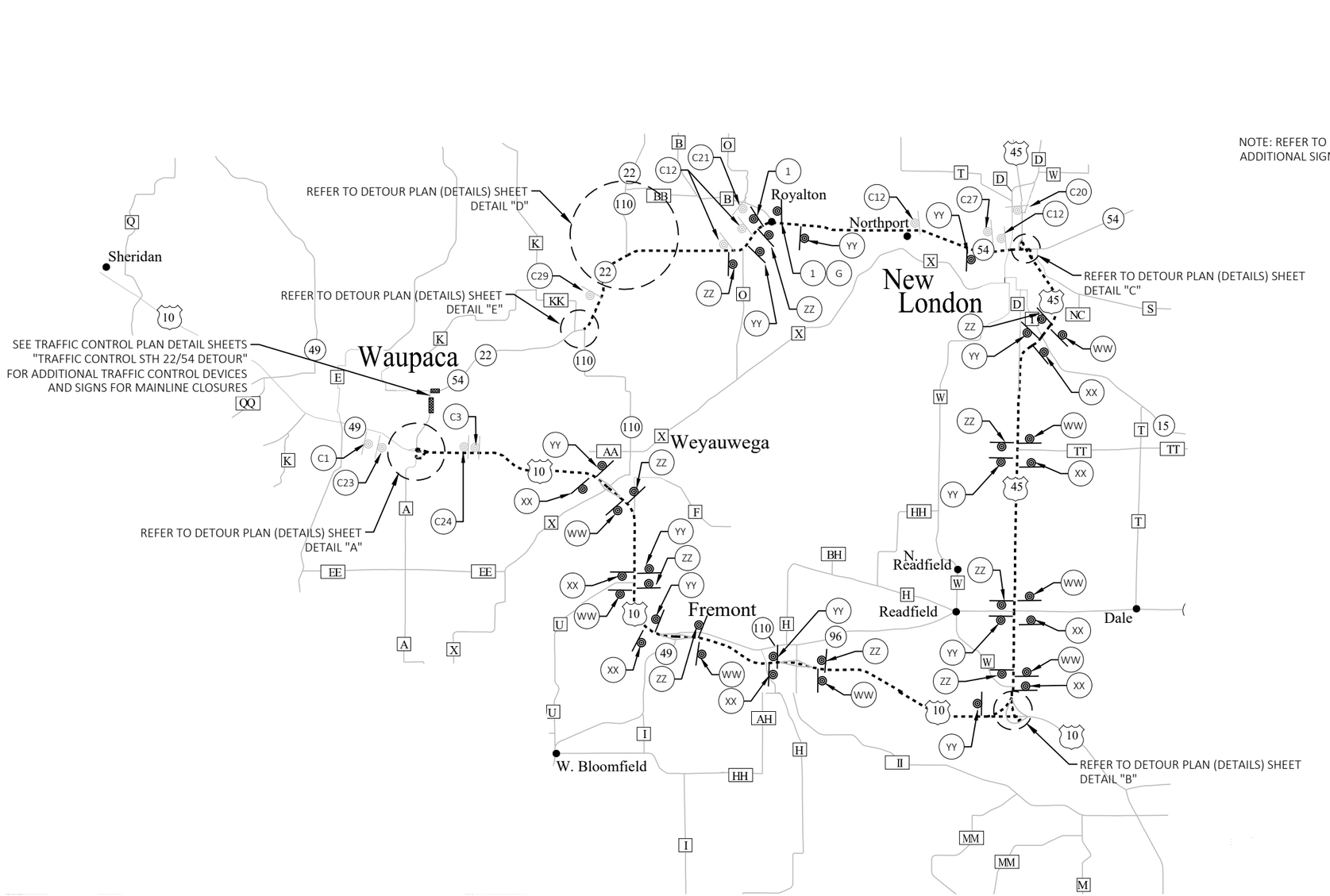


SEE "TRAFFIC CONTROL: ADVANCE WARNING PROJECT OVERVIEW" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND NOTES.

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	TRAFFIC CONTROL: MGS REPLACEMENT	SHEET 45	E



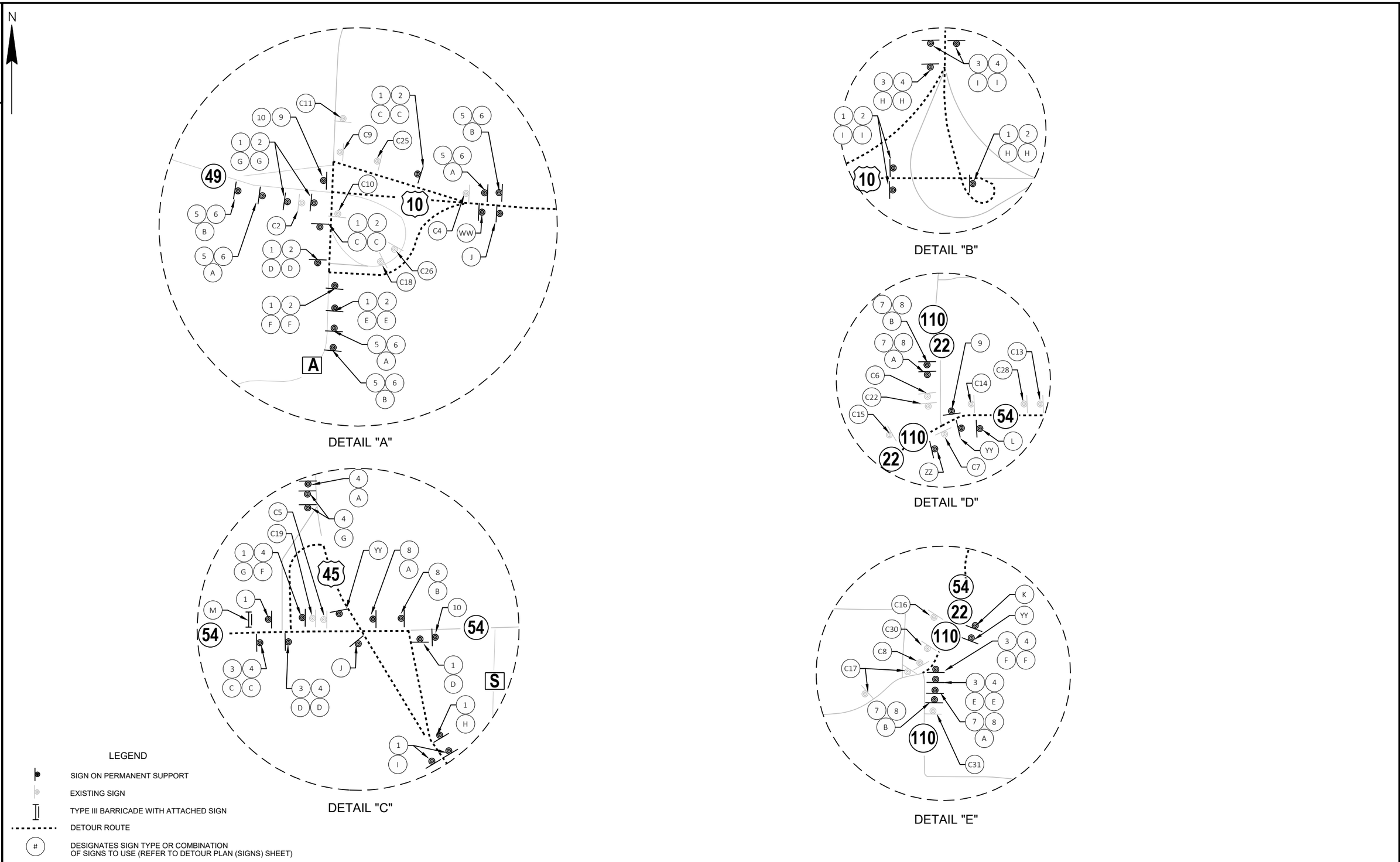
NOTE: REFER TO "TRAFFIC CONTROL STH 22/54 DETOUR" PLAN SHEET FOR ADDITIONAL SIGNS AND DEVICES.

LEGEND

- SIGN ON PERMANENT SUPPORT
- EXISTING SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- DETOUR ROUTE
- WORK AREA
- (#) DESIGNATES SIGN TYPE OR COMBINATION OF SIGNS TO USE (REFER TO DETOUR PLAN (SIGNS) SHEET)

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	DETOUR PLAN (OVERVIEW)	SHEET 46	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 01
PLOT DATE : 9/17/2023 5:04 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN : 3 MI



DETAIL "A"

DETAIL "B"

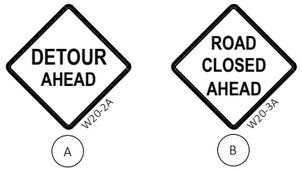
DETAIL "C"

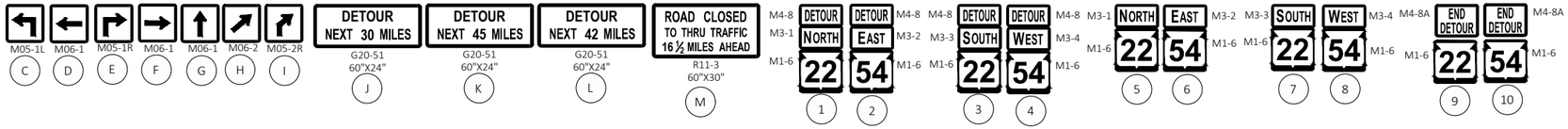
DETAIL "D"

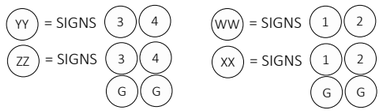
DETAIL "E"

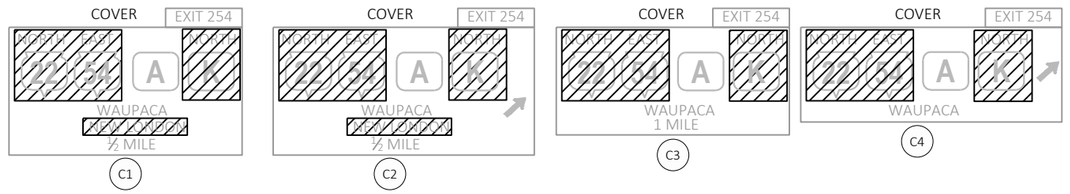
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	DETOUR PLAN (DETAILS)	SHEET 47	E

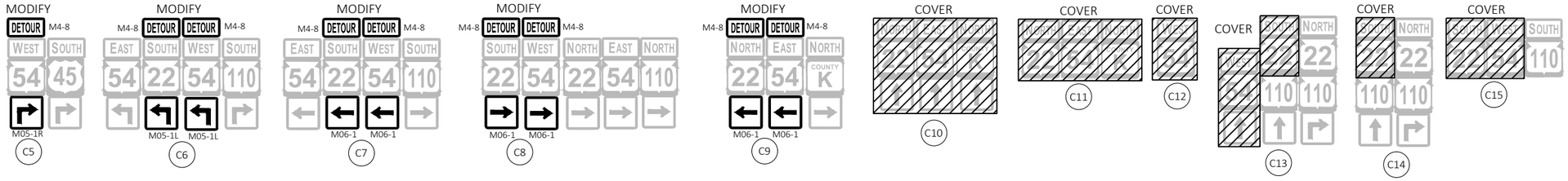
N

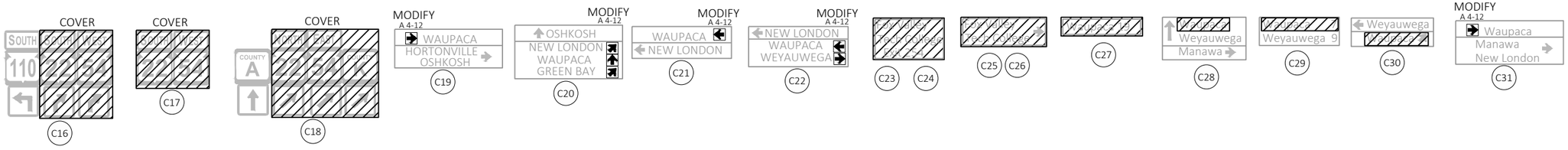








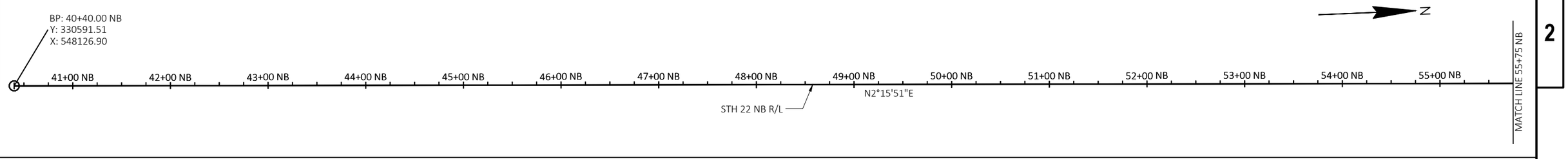




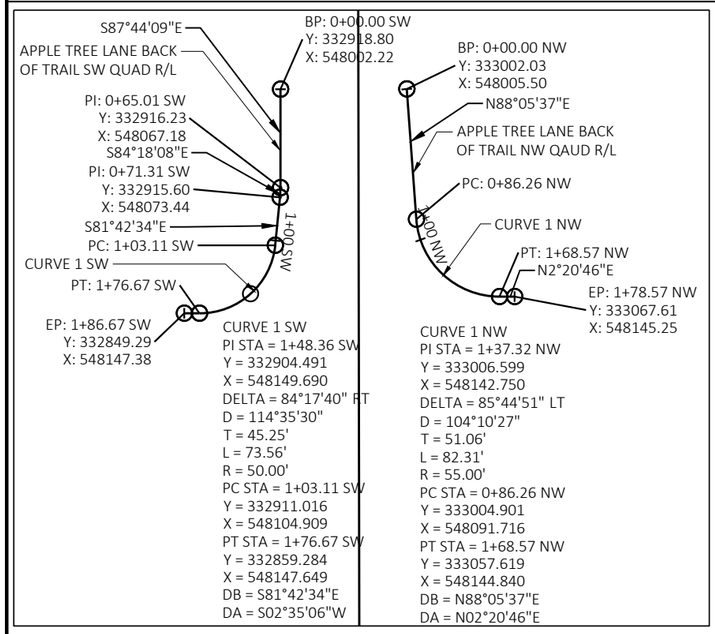
NOTE: SEE MISC. QUANTITIES "TRAFFIC CONTROL DETOUR SIGN SUMMARY"
FOR SIGN SIZES. ROUTE MARKERS ON USH 10 AND 45 SHALL BE SIZE 3.

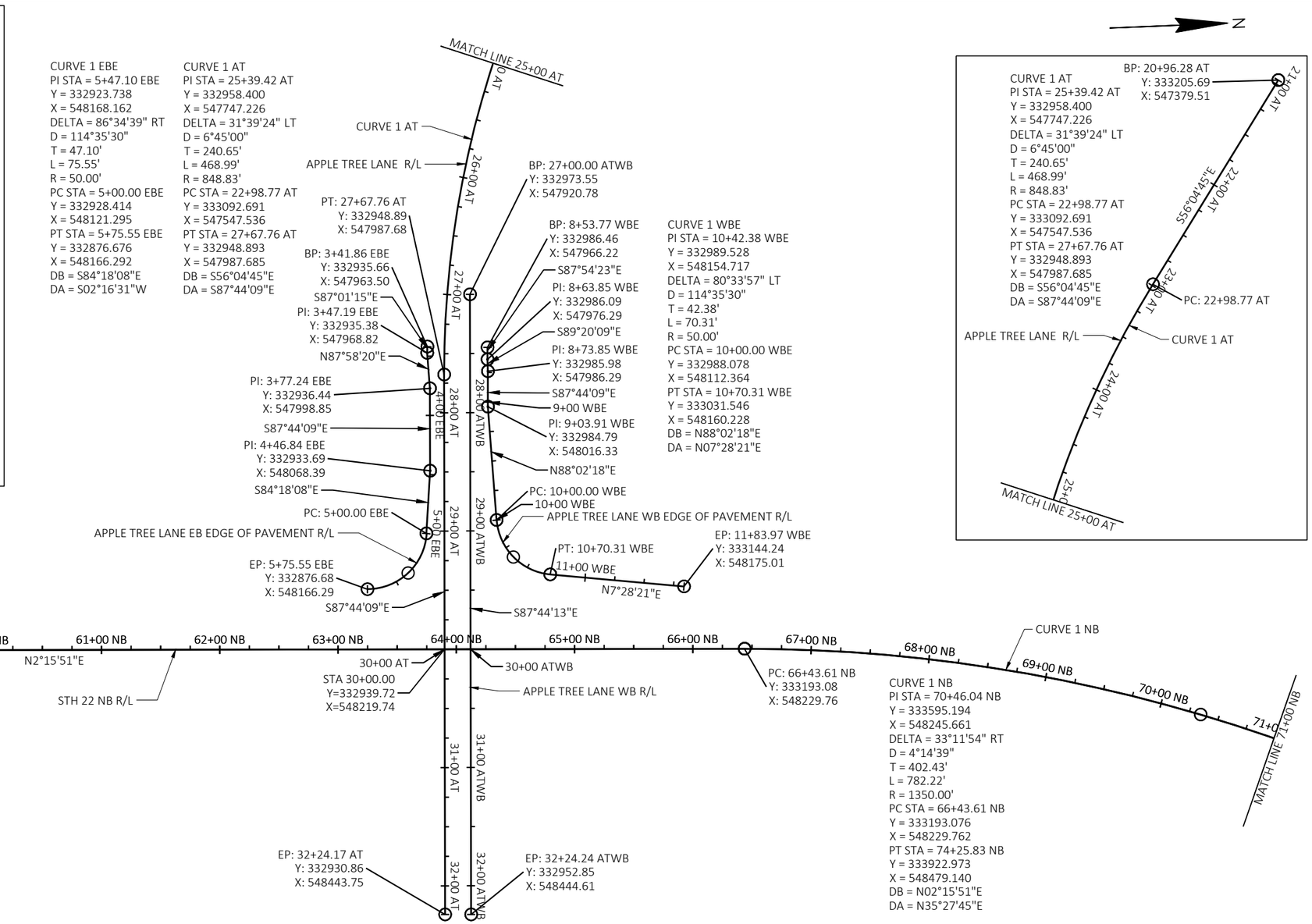
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	DETOUR PLAN (SIGNS)	SHEET 48	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 03
PLOT DATE : 10/18/2023 11:20 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : ############



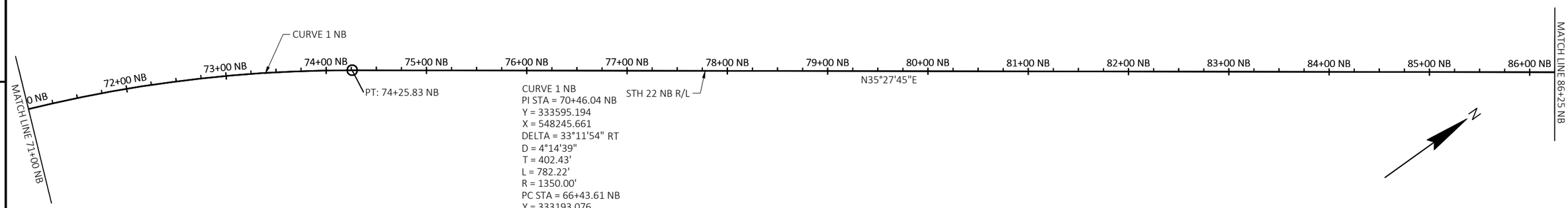
2



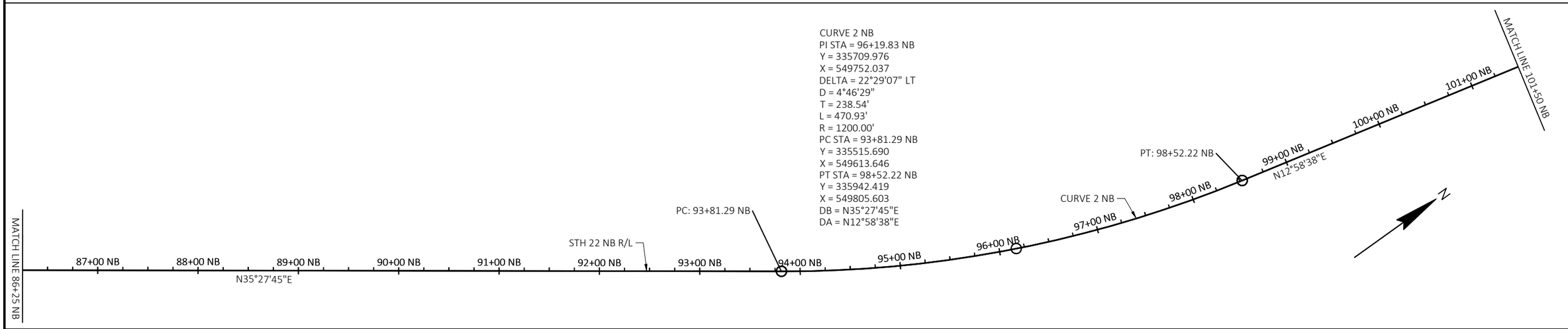


PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	ALIGNMENT DIAGRAM	SHEET 49	E

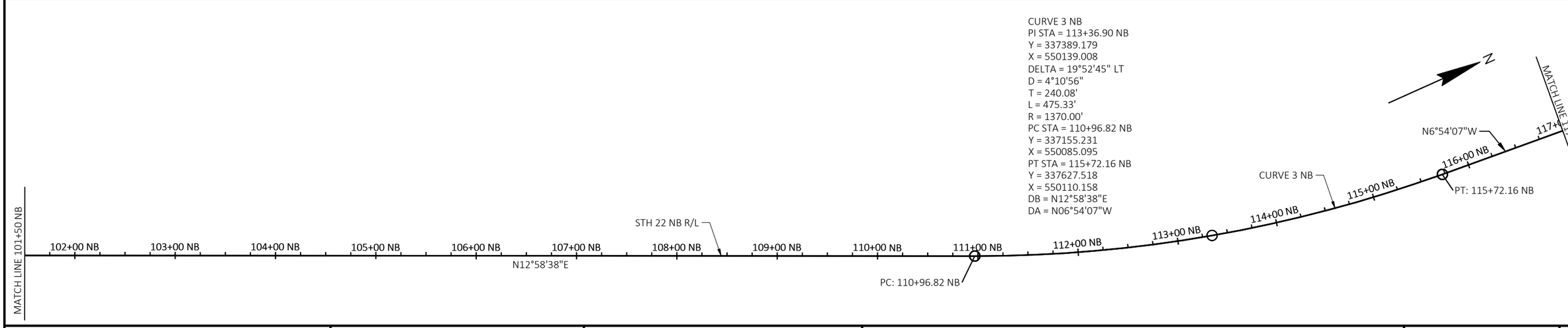
2



CURVE 1 NB
PI STA = 70+46.04 NB
Y = 333595.194
X = 548245.661
DELTA = 33°11'54" RT
D = 4°14'39"
T = 402.43'
L = 782.22'
R = 1350.00'
PC STA = 66+43.61 NB
Y = 333193.076
X = 548229.762
PT STA = 74+25.83 NB
Y = 333922.973
X = 548479.140
DB = N02°15'51"E
DA = N35°27'45"E



CURVE 2 NB
PI STA = 96+19.83 NB
Y = 335709.976
X = 549752.037
DELTA = 22°29'07" LT
D = 4°46'29"
T = 238.54'
L = 470.93'
R = 1200.00'
PC STA = 93+81.29 NB
Y = 335515.690
X = 549613.646
PT STA = 98+52.22 NB
Y = 335942.419
X = 549805.603
DB = N35°27'45"E
DA = N12°58'38"E

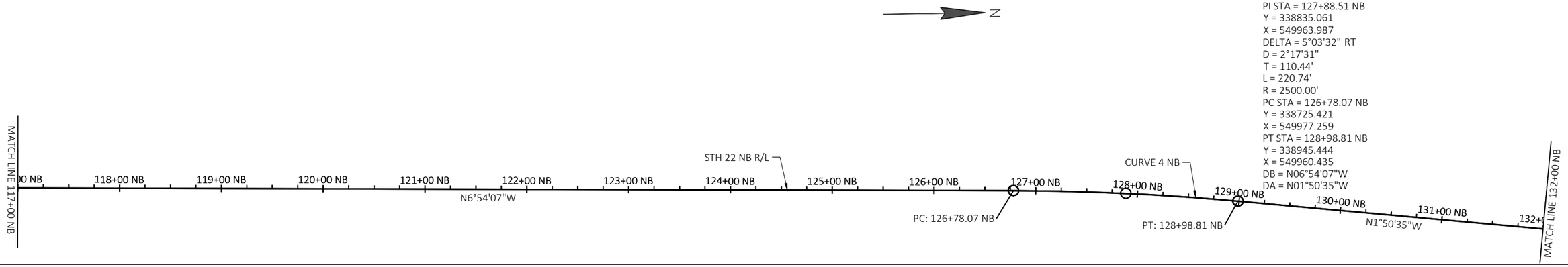


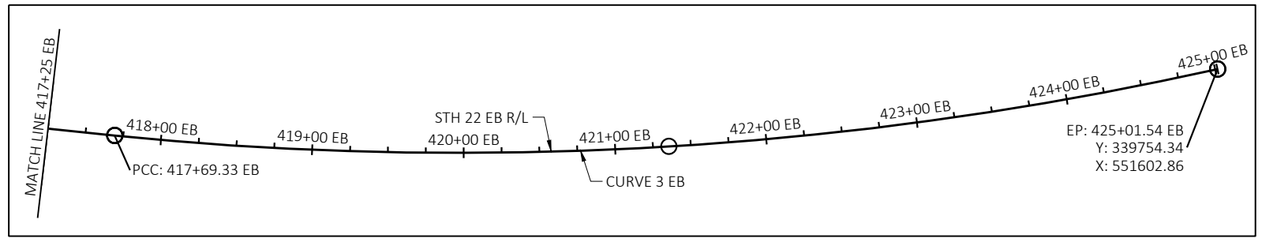
CURVE 3 NB
PI STA = 113+36.90 NB
Y = 337389.179
X = 550139.008
DELTA = 19°52'45" LT
D = 4°10'56"
T = 240.08'
L = 475.33'
R = 1370.00'
PC STA = 110+96.82 NB
Y = 337155.231
X = 550085.095
PT STA = 115+72.16 NB
Y = 337627.518
X = 550110.158
DB = N12°58'38"E
DA = N06°54'07"W

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	ALIGNMENT DIAGRAM	SHEET 50	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 02
PLOT DATE : 7/11/2023 8:32 AM PLOT BY : WORECK, CHRIS PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

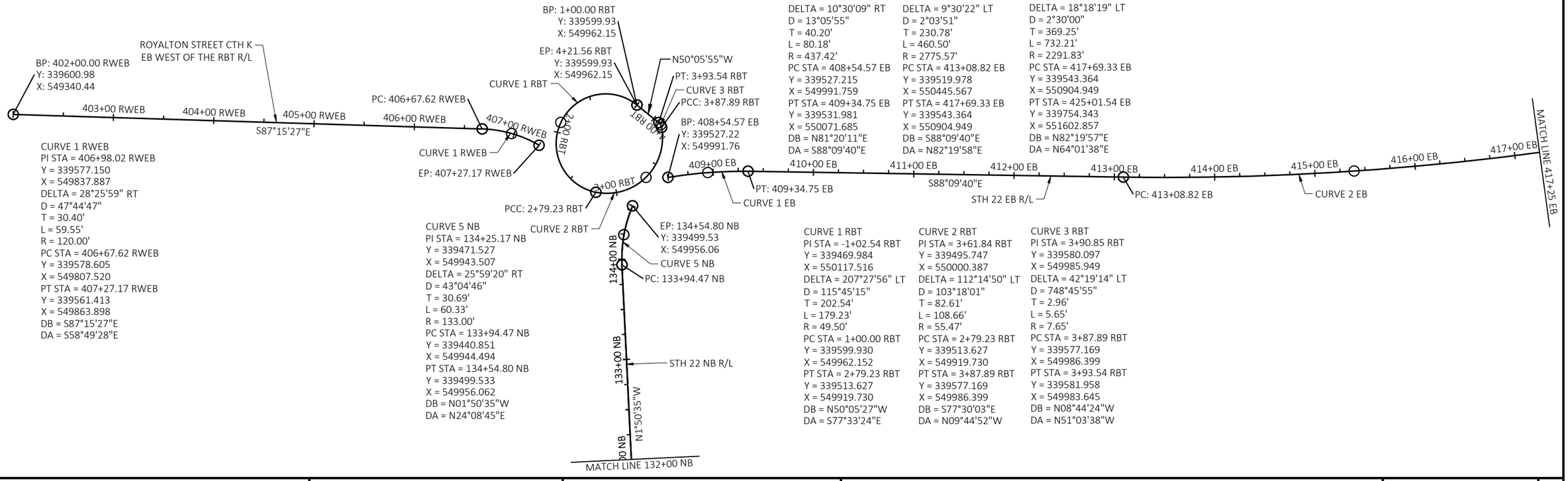




CURVE 1 EB
PI STA = 408+94.77 EB
Y = 339533.271
X = 550031.503
DELTA = 10°30'09" RT
D = 13°05'55"
T = 40.20'
L = 80.18'
R = 437.42'
PC STA = 408+54.57 EB
Y = 339527.215
X = 549991.759
PT STA = 409+34.75 EB
Y = 339531.981
X = 550071.685
DB = N81°20'11"E
DA = S88°09'40"E

CURVE 2 EB
PI STA = 415+39.61 EB
Y = 339512.573
X = 550676.230
DELTA = 9°30'22" LT
D = 2°03'51"
T = 230.78'
L = 460.50'
R = 2775.57'
PC STA = 413+08.82 EB
Y = 339519.978
X = 550445.567
PT STA = 417+69.33 EB
Y = 339543.364
X = 550904.949
DB = S88°09'40"E
DA = N82°19'58"E

CURVE 3 EB
PI STA = 421+38.58 EB
Y = 339592.631
X = 551270.899
DELTA = 18°18'19" LT
D = 2°30'00"
T = 369.25'
L = 732.21'
R = 2291.83'
PC STA = 417+69.33 EB
Y = 339543.364
X = 550904.949
PT STA = 425+01.54 EB
Y = 339754.343
X = 551602.857
DB = N82°19'57"E
DA = N64°01'38"E



CURVE 1 RWEB
PI STA = 406+98.02 RWEB
Y = 339577.150
X = 549837.887
DELTA = 28°25'59" RT
D = 47°44'47"
T = 30.40'
L = 59.55'
R = 120.00'
PC STA = 406+67.62 RWEB
Y = 339578.605
X = 549807.520
PT STA = 407+27.17 RWEB
Y = 339561.413
X = 549863.898
DB = S87°15'27"E
DA = S58°49'28"E

CURVE 5 NB
PI STA = 134+25.17 NB
Y = 339471.527
X = 549943.507
DELTA = 25°59'20" RT
D = 43°04'46"
T = 30.69'
L = 60.33'
R = 133.00'
PC STA = 133+94.47 NB
Y = 339440.851
X = 549944.494
PT STA = 134+54.80 NB
Y = 339499.533
X = 549956.062
DB = N01°50'35"W
DA = N24°08'45"E

CURVE 1 RBT
PI STA = -1+02.54 RBT
Y = 339469.984
X = 550117.516
DELTA = 207°27'56" LT
D = 115°45'15"
T = 202.54'
L = 179.23'
R = 49.50'
PC STA = 1+00.00 RBT
Y = 339599.930
X = 549962.152
PT STA = 2+79.23 RBT
Y = 339513.627
X = 549919.730
DB = N50°05'27"W
DA = S77°33'24"E

CURVE 2 RBT
PI STA = 3+61.84 RBT
Y = 339495.747
X = 550000.387
DELTA = 112°14'50" LT
D = 103°18'01"
T = 82.61'
L = 108.66'
R = 55.47'
PC STA = 2+79.23 RBT
Y = 339513.627
X = 549919.730
PT STA = 3+87.89 RBT
Y = 339577.169
X = 549986.399
DB = S77°30'03"E
DA = N09°44'52"W

CURVE 3 RBT
PI STA = 3+90.85 RBT
Y = 339580.097
X = 549985.949
DELTA = 42°19'14" LT
D = 748°45'55"
T = 2.96'
L = 5.65'
R = 7.65'
PC STA = 3+87.89 RBT
Y = 339577.169
X = 549986.399
PT STA = 3+93.54 RBT
Y = 339581.958
X = 549983.645
DB = N08°44'24"W
DA = N51°03'38"W

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	ALIGNMENT DIAGRAM	SHEET 51	E

Estimate Of Quantities

6220-01-76

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	71.000	71.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	323.000	323.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	46,164.000	46,164.000
0008	204.0150	Removing Curb & Gutter	LF	663.000	663.000
0010	204.0155	Removing Concrete Sidewalk	SY	166.000	166.000
0012	204.0165	Removing Guardrail	LF	160.000	160.000
0014	204.0190	Removing Surface Drains	EACH	1.000	1.000
0016	204.0220	Removing Inlets	EACH	2.000	2.000
0018	205.0100	Excavation Common	CY	1,623.000	1,623.000
0020	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6220-01-76	EACH	1.000	1.000
0022	213.0100	Finishing Roadway (project) 01. 6220-01-76	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	599.000	599.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,187.000	2,187.000
0028	312.0110	Select Crushed Material	TON	149.000	149.000
0030	450.4000	HMA Cold Weather Paving	TON	440.000	440.000
0032	455.0605	Tack Coat	GAL	3,402.000	3,402.000
0034	460.2000	Incentive Density HMA Pavement	DOL	3,500.000	3,500.000
0036	460.6424	HMA Pavement 4 MT 58-28 H	TON	5,459.000	5,459.000
0038	465.0105	Asphaltic Surface	TON	597.000	597.000
0040	465.0110	Asphaltic Surface Patching	TON	33.000	33.000
0042	520.8000	Concrete Collars for Pipe	EACH	4.000	4.000
0044	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	940.000	940.000
0046	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	25.000	25.000
0048	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	40.000	40.000
0050	602.0405	Concrete Sidewalk 4-Inch	SF	1,465.000	1,465.000
0052	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	40.000	40.000
0054	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	23.000	23.000
0056	602.3010	Concrete Surface Drains	CY	3.000	3.000
0058	606.0200	Riprap Medium	CY	4.000	4.000
0060	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	8.000	8.000
0062	611.0630	Inlet Covers Type HM-GJ	EACH	2.000	2.000
0064	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0066	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0068	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0070	614.2300	MGS Guardrail 3	LF	62.500	62.500
0072	614.2500	MGS Thrie Beam Transition	LF	39.400	39.400
0074	614.2610	MGS Guardrail Terminal EAT	EACH	1.000	1.000
0076	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6220-01-76	EACH	1.000	1.000
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	620.0300	Concrete Median Sloped Nose	SF	50.000	50.000
0082	624.0100	Water	MGAL	52.100	52.100
0084	625.0100	Topsoil	SY	1,245.000	1,245.000
0086	627.0200	Mulching	SY	54.000	54.000
0088	628.1504	Silt Fence	LF	374.000	374.000
0090	628.1520	Silt Fence Maintenance	LF	374.000	374.000
0092	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0094	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0096	628.2004	Erosion Mat Class I Type B	SY	783.000	783.000
0098	628.2006	Erosion Mat Urban Class I Type A	SY	393.000	393.000
0100	628.2008	Erosion Mat Urban Class I Type B	SY	31.000	31.000

Estimate Of Quantities

6220-01-76

Line	Item	Item Description	Unit	Total	Qty
0102	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0104	628.7015	Inlet Protection Type C	EACH	49.000	49.000
0106	628.7504	Temporary Ditch Checks	LF	16.000	16.000
0108	628.7570	Rock Bags	EACH	28.000	28.000
0110	629.0210	Fertilizer Type B	CWT	0.810	0.810
0112	630.0120	Seeding Mixture No. 20	LB	14.500	14.500
0114	630.0130	Seeding Mixture No. 30	LB	13.200	13.200
0116	630.0200	Seeding Temporary	LB	34.300	34.300
0118	630.0500	Seed Water	MGAL	256.500	256.500
0120	642.5201	Field Office Type C	EACH	1.000	1.000
0122	643.0300	Traffic Control Drums	DAY	3,626.000	3,626.000
0124	643.0410	Traffic Control Barricades Type II	DAY	7.000	7.000
0126	643.0420	Traffic Control Barricades Type III	DAY	1,162.000	1,162.000
0128	643.0705	Traffic Control Warning Lights Type A	DAY	1,896.000	1,896.000
0130	643.0715	Traffic Control Warning Lights Type C	DAY	803.000	803.000
0132	643.0800	Traffic Control Arrow Boards	DAY	48.000	48.000
0134	643.0900	Traffic Control Signs	DAY	4,066.000	4,066.000
0136	643.0910	Traffic Control Covering Signs Type I	EACH	12.000	12.000
0138	643.0920	Traffic Control Covering Signs Type II	EACH	19.000	19.000
0140	643.1000	Traffic Control Signs Fixed Message	SF	224.000	224.000
0142	643.3165	Temporary Marking Line Paint 6-Inch	LF	20,394.000	20,394.000
0144	643.3265	Temporary Marking Line Paint 10-Inch	LF	3,822.000	3,822.000
0146	643.5000	Traffic Control	EACH	1.000	1.000
0148	644.1410	Temporary Pedestrian Surface Asphalt	SF	950.000	950.000
0150	644.1810	Temporary Pedestrian Barricade	LF	158.000	158.000
0152	645.0120	Geotextile Type HR	SY	30.000	30.000
0154	645.0220	Geogrid Type SR	SY	132.000	132.000
0156	646.1020	Marking Line Epoxy 4-Inch	LF	1,443.000	1,443.000
0158	646.2020	Marking Line Epoxy 6-Inch	LF	7,196.000	7,196.000
0160	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	665.000	665.000
0162	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	22,780.000	22,780.000
0164	646.3020	Marking Line Epoxy 8-Inch	LF	266.000	266.000
0166	646.4020	Marking Line Epoxy 10-Inch	LF	1,165.000	1,165.000
0168	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	3,437.000	3,437.000
0170	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	10,334.000	10,334.000
0172	646.5020	Marking Arrow Epoxy	EACH	32.000	32.000
0174	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0176	646.6120	Marking Stop Line Epoxy 18-Inch	LF	116.000	116.000
0178	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	105.000	105.000
0180	646.7120	Marking Diagonal Epoxy 12-Inch	LF	1,151.000	1,151.000
0182	646.7220	Marking Chevron Epoxy 24-Inch	LF	131.000	131.000
0184	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	78.000	78.000
0186	646.8120	Marking Curb Epoxy	LF	24.000	24.000
0188	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0190	646.9000	Marking Removal Line 4-Inch	LF	7,986.000	7,986.000
0192	646.9100	Marking Removal Line 8-Inch	LF	760.000	760.000
0194	646.9200	Marking Removal Line Wide	LF	17.000	17.000
0196	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0198	650.4500	Construction Staking Subgrade	LF	750.000	750.000
0200	650.5000	Construction Staking Base	LF	750.000	750.000

Estimate Of Quantities

6220-01-76

Line	Item	Item Description	Unit	Total	Qty
0202	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	978.000	978.000
0204	650.8000	Construction Staking Resurfacing Reference	LF	13,261.000	13,261.000
0206	650.9000	Construction Staking Curb Ramps	EACH	3.000	3.000
0208	650.9500	Construction Staking Sidewalk (project) 01. 6220-01-76	EACH	1.000	1.000
0210	650.9911	Construction Staking Supplemental Control (project) 01. 6220-01-76	EACH	1.000	1.000
0212	650.9920	Construction Staking Slope Stakes	LF	904.000	904.000
0214	690.0150	Sawing Asphalt	LF	2,887.000	2,887.000
0216	690.0250	Sawing Concrete	LF	20.000	20.000
0218	740.0440	Incentive IRI Ride	DOL	7,045.000	7,045.000
0220	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0222	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0224	SPV.0090	Special 01. Cleaning Storm Sewer	LF	573.000	573.000
0226	SPV.0180	Special 01. Removing Distressed Asphaltic Surface Milling	SY	145.000	145.000

3

REMOVING ASPHALTIC SURFACE

STATION TO STATION	204.0110 REMOVING ASPHALTIC SURFACE SY
STH 22	
CATEGORY 0020	
65+93 NB - 66+90 NB (SB LANE)	45
TOTAL	45
CATEGORY 0010	
124+91 NB - 124+99 NB (SB LANE)	2
GODFREY DRIVE	
SW QUADRANT	13
SW QUADRANT (GODFREY DRIVE)	11
TOTAL	26
PROJECT TOTAL	71

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION TO STATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
STH 22	
CATEGORY 0010	
409+17 EB - 418+27 EB	24
409+17 EB - 418+27 EB	24
SOUTH STR. B-68-124	45
NORTH STR. B-68-124	47
RUNWAY DRIVE	61
HARRINGTON ROAD	38
GODFREY DRIVE	38
CTH K NB/ROYALTON ROAD	16
CTH K SB/ROYALTON ROAD	30
TOTAL	323

REMOVING ASPHALTIC SURFACE MILLING

STATION TO STATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
STH 22	
CATEGORY 0010	
57+50 NB - 63+90 NB (NB LANE)	2,549
63+90 NB - 105+06.82 NB (NB LANE)	8,182
108+33 NB - 121+71 NB (NB LANE)	4,001
121+71 NB - 132+73 NB (NB LANE)	3,412
409+48 EB - 418+17 EB	2,130
57+50 NB - 63+90 NB (SB LANE)	1,910
63+90 NB - 105+06.82 NB (SB LANE)	8,826
108+33 NB - 121+71 NB (SB LANE)	4,074
121+71 NB - 132+55 NB (SB LANE)	3,842
411+12 EB - 418+17 EB	1,808
ROUNDABOUT & APPROACHES	4,297
RUNWAY DRIVE	424
HARRINGTON ROAD	345
GODFREY DRIVE	364
TOTAL	46,164

REMOVING CURB & GUTTER

STATION TO STATION	204.0150 REMOVING CURB & GUTTER LF
STH 22	
CATEGORY 0020	
64+89 NB - 66+01 NB (SB LANE)	112
27+45 AT - 29+37 AT	526
TOTAL	638
CATEGORY 0010	
124+91 NB - 124+99 NB (SB LANE)	6
GODFREY DRIVE	19
TOTAL	25
PROJECT TOTAL	663

3

REMOVING CONCRETE SIDEWALK

STATION TO STATION	204.0155 REMOVING CONCRETE SY
STH 22	
CATEGORY 0020	
27+45 AT - 29+37 AT	143
TOTAL	143
CATEGORY 0010	
GODFREY DRIVE	23
TOTAL	23
PROJECT TOTAL	166

REMOVING GUARDRAIL

STATION TO STATION	204.0165 REMOVING GUARDRAIL LF
STH 22	
CATEGORY 0010	
103+46 NB - 105+06 NB	160
TOTAL	160

REMOVING SURFACE DRAINS

STATION TO STATION	204.0190 REMOVING SURFACE DRAINS EACH
STH 22	
CATEGORY 0020	
29+05 AT (RT)	1
TOTAL	1

REMOVING INLETS

STATION	204.0220 REMOVING INLETS EACH
STH 22	
CATEGORY 0020	
63+32 NB, 52' LT	1
65+88 NB, 62' LT	1
TOTAL	2

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

DIVISION	CATEGORY	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION CUT (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (2)	AVAILABLE MATERIAL (3)	UNEXPANDED FILL	EXPANDED FILL (4) FACTOR 1.30	MASS ORDINATE +/- (5)	WASTE	COMMENT
DIVISION 1											
	0010										
		104+63 NB - 105+07 NB	SE Quadrant Waupaca River Bridge	8	3	5	4	5	---	---	
		112+79 NB - 115+38 NB	Base Course Patching	89	31	58	---	---	58	58	
		121+13 NB - 121+38 NB	Base Course Patching	128	22	106	---	---	106	106	
		124+83 NB - 125+27 NB	Base Course Patching	96	22	74	---	---	74	74	
		410+40 EB - 418+27 EB	Roundabout East Approach (Base Course Patching)	269	93	176	---	---	176	176	
CATEGORY 0010 TOTAL				590	171	419	4	5	414	414	
	0020										
			Stage 1 (Apple Tree Lane Construction)	615	131	484	284	369	115	115	
			Stage 2 (Apple Tree Lane Construction)	418	58	360	14	18	342	342	
CATEGORY 0020 TOTAL				1,033	189	844	298	387	457	457	
DIVISION 1 SUBTOTAL				1,623	360	1,263	302	393	870	870	
GRAND TOTAL				1,623	360	1,263	302	393	870	870	
TOTAL COMMON EXC				1,623							

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(2) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(4) EXPANDED FILL FACTOR = 1.30
(5) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(6) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

PREPARE FOUNDATION FOR ASPHALTIC PAVING

	211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 6220-01-76
PROJECT	(EACH)
STH 22	
6220-01-76	1
TOTAL	1

BASE AGGREGATE DENSE 3/4-INCH

STATION TO STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 * WATER MGAL	COMMENT
STH 22			
CATEGORY 0020			-
65+93 NB - 66+90 NB	15	0.2	-
0+00 SW - 1+87 SW	10	-	
0+00 NW - 1+79 NW	9	-	
TOTALS	34	0.2	
CATEGORY 0010			
UNDISTRIBUTED	565	5.7	UNDISTRIBUTED QUANTITY FOR POTENTIAL TOP DRESSING OF GRAVEL SHOULDERS (ASSUMED 1-INCH DEPTH)
TOTALS	565	5.7	
PROJECT TOTALS	599	5.9	

* ADDITIONAL QUANTITY LISTED ELSEWHERE

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

BASE AGGREGATE DENSE 1 1/4-INCH

STATION TO STATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 * WATER MGAL
STH 22		
CATEGORY 0010		
104+63 NB - 105+07 NB	7	0.2
112+79 NB - 115+38 NB (BASE COURSE PATCHING)	116	2.4
121+13 NB - 121+38 NB (BASE COURSE PATCHING)	99	2.0
124+83 NB - 125+27 NB (BASE COURSE PATCHING)	103	2.2
410+40 EB - 418+27 EB (BASE COURSE PATCHING)	351	7.2
TOTALS	676	14.0
CATEGORY 0020		
APPLE TREE LANE STAGE 1	1,081	21.8
APPLE TREE LANE STAGE 2	373	7.6
TEMPORARY TRAIL CONNECTIONS	57	1.2
TOTALS	1,511	30.6
PROJECT TOTALS	2,187	44.6

* ADDITIONAL QUANTITY LISTED ELSEWHERE

SELECT CRUSHED MATERIAL

STATION TO STATION	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 * WATER MGAL
STH 22		
CATEGORY 0010		
121+13 NB - 121+38 NB (BASE COURSE PATCHING)	107	1.1
124+83 NB - 125+27 NB (BASE COURSE PATCHING)	42	0.5
TOTALS	149	1.6

* ADDITIONAL QUANTITY LISTED ELSEWHERE

CONCRETE SURFACE DRAIN ITEMS

STATION	LOCATION	602.3010 CONCRETE SURFACE DRAIN (CY)	606.0200 RIP RAP MEDIUM (CY)	645.0120 GEOTEXTILE TYPE HR (SY)
STH 22				
CATEGORY 0020				
27+47 AT	LT	1.5	2	15
27+47 AT	RT	1.5	2	15
	TOTALS	3.0	4	30.0

CONCRETE CURB & GUTTER

STATION TO STATION	LOCATION	601.0415 6-INCH SLOPED 30-INCH TYPE J LF	601.0557 6-INCH SLOPED 36-INCH TYPE D LF	601.0588 4-INCH SLOPED 36-INCH TYPE TBT LF
STH 22				
CATEGORY 0010				
104+63 NB - 105+03 NB (NB LANE)	RT	-	-	40
124+91 NB - 124+99 NB (SB LANE)	LT	-	6	-
GODFREY DRIVE (SW QUADRANT)	RT	-	19	-
TOTALS		0	25	40
CATEGORY 0020				
64+80 NB - 65+93 NB (SB LANE)	LT	114	-	-
27+55 AT - 63+25 NB	RT	225	-	-
27+44 AT - 29+27 AT	MEDIAN RT	196	-	-
27+44 AT - 29+27 AT	MEDIAN LT	196	-	-
27+54 AT - 64+80 NB	LT	209	-	-
TOTALS		940	0	0
PROJECT TOTALS		940	25	40

CONCRETE SIDEWALK

STATION TO STATION	602.0405 4-INCH SF
APPLE TREE LANE	
CATEGORY 0020	
MEDIAN (27+44 AT - 29+27 AT)	973
SOUTH CURB RAMP	150
NORTH CURB RAMP	147
TOTAL	1,270
GODFREY DRIVE	
CATEGORY 0010	
SW QUADRANT CURB RAMP	195
TOTAL	195
PROJECT TOTAL	1,465

CURB RAMP DETECTABLE WARNING FIELD YELLOW

STATION TO STATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF
STH 22		
CATEGORY 0020		
APPLE TREE LANE	40	-
TOTALS	40	0
CATEGORY 0010		
GODFREY DRIVE	-	23
TOTALS	0	23
PROJECT TOTALS	40	23

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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ADJUSTING INLET COVERS

STATION	611.8115 ADJUSTING INLET COVERS EACH
STH 22	
CATEGORY 0010	
124+96 NB, 28.5' LT (SB LANE)	1
TOTAL	1

CONCRETE MEDIAN NOSE

STATION TO STATION	620.0300 SLOPED NOSE SF
APPLE TREE LANE	
CATEGORY 0020	
29+44 AT	50
TOTAL	50

HMA PAVEMENT

STATION TO STATION	460.6424 4 MT 58-28 H TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL
STH 22					
CATEGORY 0010					
57+50 NB - 63+90 NB (NB LANE)	293	-	-	-	178
63+90 NB - 105+06.82 NB (NB LANE)	942	2	-	-	574
108+33.38 NB - 121+71 NB (NB LANE	460	107	33	115	312
121+71 NB - 132+73 NB (NB LANE)	392	46	-	98	248
409+48 EB - 418+17 EB (EB LANE)	248	191	-	-	190
57+50 NB - 63+90 NB (SB LANE)	220	-	-	-	134
63+90 NB - 105+07 NB (SB LANE)	1,015	-	-	-	618
108+33 NB - 121+71 NB (SB LANE)	468	-	-	117	285
121+71 NB - 132+55 NB (SB LANE)	442	-	-	110	269
411+12 EB - 418+17 EB (WB LANE)	211	-	-	-	128
ROUNDABOUT & APPROACHES	494	-	-	-	301
RUNWAY DRIVE	56	-	-	-	34
HARRINGTON ROAD	40	-	-	-	24
GODFREY DRIVE	42	-	-	-	25
SW QUADRANT (GODFREY DRIVE)	-	1	-	-	-
TOTALS	5,323	347	33	440	3,320
CATEGORY 0020					
EB (27+45 AT - 29+50 AT)	75	112	-	-	45
WB (27+44 AT - 29+50 AT)	61	91	-	-	37
SW QUADRANT (TRAIL)	-	24	-	-	-
NW QUADRANT (TRAIL)	-	23	-	-	-
TOTALS	136	250	0	0	82
PROJECT TOTALS	5,459	597	33	440	3,402

GUARDRAIL

STATION TO STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
STH 22				
CATEGORY 0010				
103+51 NB - 105+06 NB	RT	62.5	39.4	1
TOTALS		62.5	39.4	1

STORM SEWER

STATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	611.0630 INLET COVERS TYPE HM-GJ EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH
STH 22					
CATEGORY 0020					
63+30 NB 52.2' LT	3	4	1	1	-
65+85 NB 54.5' LT	1	4	1	-	1
TOTALS	4	8	2	1	1

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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MULCHING, FERTILIZER & SEEDING

STATION TO STATION	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
STH 22						
CATEGORY 0010						
103+50 NB - 105+03 NB	44	0.04	-	1.2	1.9	13.9
121+18 NB - 121+50 NB	-	0.01	-	0.1	0.1	1.0
UNDISTRIBUTED	11	0.01	-	0.3	0.5	3.7
TOTALS	54	0.07	0.0	1.7	2.5	18.6
CATEGORY 0020						
27+45 AT - 29+50 AT	-	0.59	11.6	9.2	25.4	190.3
UNDISTRIBUTED	-	0.15	2.9	2.3	6.4	47.6
TOTALS	0	0.74	14.5	11.5	31.8	237.9
PROJECT TOTALS	54	0.8	14.5	13.1	34.2	256.5

EROSION MATTING

STATION TO STATION	628.2004 EROSION MAT CLASS I TYPE B SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY
STH 22			
CATEGORY 0010			
104+63 NB - 105+03 NB	-	-	25
UNDISTRIBUTED	-	-	6
TOTALS	-	-	31
CATEGORY 0020			
27+45 AT - 29+50 AT	626	314	-
UNDISTRIBUTED	157	79	-
TOTALS	783	393	-
PROJECT TOTALS	783	393	31

3

SILT FENCE

STATION TO STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
STH 22		
CATEGORY 0020		
64+61 NB - 65+21 NB LT	82	82
UNDISTRIBUTED	21	21
TOTALS	103	103
CATEGORY 0010		
103+38 NB - 105+04 NB RT	190	190
121+07 NB - 121+28 NB LT	27	27
UNDISTRIBUTED	54	54
TOTALS	271	271
PROJECT TOTALS	374	374

TOPSOIL

STATION TO STATION	625.0100 TOPSOIL SY
STH 22	
CATEGORY 0010	
103+50 NB - 105+03 NB	50
121+18 NB - 121+50 NB	5
UNDISTRIBUTED	14
TOTAL	69
CATEGORY 0020	
27+45 AT - 29+50 AT	941
UNDISTRIBUTED	235
TOTAL	1,176
PROJECT TOTAL	1,245

INLET PROTECTION

STATION TO STATION	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
STH 22		
CATEGORY 0010		
53+27 NB - 63+90 NB	-	8
63+90 NB - 70+12 NB	-	7
70+12 NB - 105+07 NB	-	-
108+34 NB -121+75 NB	1	5
121+75 NB - 134+51 NB	-	10
404+81 EB - 407+27 EB	-	4
408+71 EB - 413+08 EB	-	5
ROUND ABOUT	-	5
RUNWAY DRIVE	-	3
TOTALS	1	47
CATEGORY 0020		
63+32 NB - 65+89 NB	-	2
TOTALS	0	2
PROJECT TOTALS	1	49

ROCK BAGS

STATION TO STATION	628.7570 ROCK BAGS EACH	COMMENT
STH 22		
CATEGORY 0010		
121+17 NB LT	10	SINGLE ROW AT FLUME
121+26 NB RT	2	SINGLE ROW AT FLUME
121+90 NB LT/RT	4	SINGLE ROW AT FLUME
132+74 NB LT/RT	4	SINGLE ROW AT FLUME
406+12 EB RT	2	SINGLE ROW AT FLUME
UNDISTRIBUTED	6	
TOTAL	28	

DITCH CHECKS

STATION TO STATION	628.7504 TEMPORARY DITCH CHECKS LF
STH 22	
CATEGORY 0020	
61+79 NB LT	3
27+36 AT LT/RT	10
UNDISTRIBUTED	3
TOTAL	16

EROSION CONTROL MOBILIZATIONS

STATION TO STATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
STH 22		
6220-01-76	4	2
UNDISTRIBUTED	1	1
TOTALS	5	3

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	"T LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH
1	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, COVER EXISTING TYPE I SIGN										1	3	
2	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, COVER EXISTING TYPE I SIGN										1	1	
3	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	W20-3A	48"X48"	1	4	4							
4	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
5	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
6	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, COVER EXISTING TYPE I SIGN										1	2	
7	USH 10 EB, WEST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
8	USH 10 EB, EAST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
9	USH 10 EB, EAST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	G 20-51	60"X24"	1	4	4							
10	USH 10 EB, WEST OF THE STH 110 CTH X INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
11	USH 10 EB, EAST OF THE STH 110 CTH X INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
12	USH 10 EB, WEST OF THE CTH U INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
13	USH 10 EB, EAST OF THE CTH U INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
14	USH 10 EB, WEST OF THE STH 49 & 110 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
15	USH 10 EB, EAST OF THE STH 49 & 110 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
16	USH 10 EB, WEST OF THE STH 96 & 110 CTH II INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
17	USH 10 EB, EAST OF THE STH 96 & 110 CTH II INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	PAGE SUBTOTALS			89		356	0	0	0.0	0		6	0

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH
18	USH 10 EB, WEST OF THE STH 45 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 5-2R	30"X30"	2	4	8							
19	USH 10 EB, WEST OF THE USH 45 INTERCHANGE, MEDIAN	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 5-2R	30"X30"	2	4	8							
20	USH 10 EB, WEST OF THE USH 45 ENTRANCE RAMP, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-2	30"X30"	2	4	8							
21	USH 45 NB, SOUTH OF THE CTH W INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
22	USH 45 NB, NORTH OF THE CTH W INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
23	USH 45 NB, SOUTH OF THE STH 96 ROUND ABOUT, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
24	USH 45 NB, NORTH OF THE STH 96 ROUND ABOUT, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
25	USH 45 NB, SOUTH OF THE CTH TT INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
26	USH 45 NB, NORTH OF THE CTH TT INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
27	USH 45 NB, SOUTH OF THE STH 15 CTH T INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
28	USH 45 NB, NORTH OF THE STH 15 CTH T INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
29	USH 45 NB, SOUTH OF THE STH 54 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 5-2R	30"X30"	1	4	4							
30	USH 45 NB, SOUTH OF THE STH 54 INTERCHANGE, MEDIAN	M 4-8	36"X18"	1	4	4							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 5-2R	30"X30"	1	4	4							
31	USH 45 NB, AT THE STH 54 EXIT RAMP, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 6-2	30"X30"	1	4	4							
	PAGE SUBTOTALS			92		368	0	0	0	0		0	0

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH
32	USH 45 NB EXIT RAMP AND STH 54 INTERSECTION, RIGHT SHOULDER	M 4-8	24"X12"	1	4	4							
	"	M 3-1	24"X12"	1	4	4							
	"	M 1-6	24"X24"	1	4	4							
	"	MO 6-1	21"X21"	1	4	4							
33	STH 54 WB, WEST OF THE USH 45 NB EXIT RAMP, RIGHT SHOULDER	M 3-4	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	W 20-3A	48"X48"	1	4	4							
34	STH 54 WB, WEST OF THE USH 45 NB EXIT RAMP, RIGHT SHOULDER	M 3-4	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
35	STH 54 WB, EAST OF THE USH 45 SB EXIT RAMP, MODIFY EXISTING TYPE II SIGN	M 4-8	36"X18"	1	4	4							
	"	MO 5-1R	30"X30"	1	4	4							
36	STH 54 WB, EAST OF THE USH 45 SB EXIT RAMP, MODIFY EXISTING TYPE II SIGN	A 4-12	14"X14"	1	4	4							
37	STH 54 WB, EAST OF THE USH 45 SB EXIT RAMP, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 6-1	30"X30"	1	4	4							
	"	M 4-8	36"X18"	1	4	4							
	"	M 3-4	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 6-1	30"X30"	1	4	4							
38	STH 54 WB, WEST OF THE USH 45 SB EXIT RAMP, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
39	STH 54 WB, WEST OF THE USH 45 SB EXIT RAMP, RIGHT SHOULDER	R11-3	60"X30"	1	4	4	4						
40	STH 54 WB, WEST OF N. SHAWANO STREET, COVER EXISTING TYPE II SIGN										1		1
41	STH 54 WB, WEST OF N. SHAWANO STREET, COVER EXISTING TYPE II SIGN										1		1
42	STH 54 WB, IN NORTHPORT, COVER EXISTING TYPE II SIGN										1		1
43	STH 54 WB, EAST OF CTH O & B IN ROYALTON, RIGHT SHOULDER	M 4-8	24"X12"	1	4	4							
	"	M 3-1	24"X12"	1	4	4							
	"	M 1-6	24"X24"	1	4	4							
	"	MO 6-1	21"X21"	1	4	4							
44	STH 54 WB, WEST OF CTH O & B IN ROYALTON, RIGHT SHOULDER	M 4-8	24"X12"	1	4	4							
	"	M 3-1	24"X12"	1	4	4							
	"	M 1-6	24"X24"	1	4	4							
45	STH 54 WB, WEST OF CTH O & B IN ROYALTON,COVER EXISTING TYPE II SIGN										1		1
46	STH 54 WB, WEST OF CTH O, COVER EXISTING TYPE II SIGN										1		1
47	STH 54 WB, EAST OF STH 22 & 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		2
48	STH 54 WB, EAST OF STH 22 & 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
49	STH 54 WB, EAST OF STH 22 & 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
50	STH 54 WB, WEST OF STH 22 & 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
51	STH 54 WB, WEST OF STH 22 & 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
52	STH 54 WB, EAST OF STH 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
53	STH 54 WB, EAST OF STH 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
54	STH 54 WB, AT THE STH 110 INTERSECTION, MODIFY EXISTING TYPE II SIGN	M 4-8	24"X12"	2	4	8							
	"	MO 6-1	21"X21"	2	4	8							
55	STH 54 WB, WEST OF STH 110 INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
56	STH 54 WB, WEST OF CTH KK INTERSECTION, COVER EXISTING TYPE II SIGN										1		1
57	STH 54 EB, EAST OF THE STH 110 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
58	STH 54 EB, EAST OF THE STH 110 INTERSECTION, RIGHT SHOULDER	G 20-51	60"X24"	1	4	4							
59	STH 54 EB, WEST OF THE STH 22 & 110 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
60	STH 54 EB, AT THE STH 22 & 110 INTERSECTION, MODIFY EXISTING TYPE II SIGN	M 4-8	24"X12"	2	4	8							
	"	MO 6-1	21"X21"	2	4	8							
61	STH 54 EB, EAST OF THE STH 22 & 110 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	PAGE SUBTOTALS			61		244	4	0	0	0		0	15

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH
62	STH 54 EB, EAST OF THE STH 22 & 110 INTERSECTION, RIGHT SHOULDER	G 20-51	60"X24"	1	4	4							
63	STH 54 EB, WEST OF THE CTH O INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
64	STH 54 EB, EAST OF THE CTH O INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
65	STH 54 EB, WEST OF THE CTH O & B INTERSECTION IN ROYALTON, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
66	STH 54 EB, EAST OF THE CTH O & B INTERSECTION IN ROYALTON, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
67	STH 54 EB, BETWEEN NORTHPORT AND NEW LONDON, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
68	STH 54 EB, WEST OF THE USH 45 SB ENTRANCE RAMP, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 5-1L	30"X30"	2	4	8							
69	STH 54 EB, AT THE USH 45 SB ENTRANCE RAMP, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
70	USH 45 SB ENTRANCE RAMP PRIOR TO MERGING WITH USH 45, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
71	USH 45 SB, SOUTH OF THE STRUCTURE, RIGHT SHOULDER	G 20-51	60"X24"	1	4	4							
72	USH 45 SB, NORTH OF THE STH 15 CTH T INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
73	USH 45 SB, SOUTH OF THE STH 15 CTH T INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
74	USH 45 SB, NORTH OF THE CTH TT INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
75	USH 45 SB, SOUTH OF THE CTH TT INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
76	USH 45 SB, NORTH OF THE STH 96 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
77	USH 45 SB, SOUTH OF THE STH 96 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	PAGE SUBTOTALS			100		400	0	0	0	0		0	0

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
78	USH 45 SB, NORTH OF THE CTH W INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "ZZ"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 6-1	30"X30"	2	4	8								"
79	USH 45 SB, NORTH OF THE USH 10 WB ENTRANCE RAMP, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, DETAIL "B"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 5-2R	30"X30"	2	4	8								"
80	USH 45 SB, NORTH OF THE USH 10 WB ENTRANCE RAMP, MEDIAN	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, DETAIL "B"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 5-2R	30"X30"	2	4	8								"
81	USH 45 SB, AT THE USH 10 WB ENTRANCE RAMP, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, DETAIL "B"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 6-2	30"X30"	2	4	8								"
82	USH 10 WB, WEST OF THE USH 10 & 45 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "YY"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
83	USH 10 WB, EAST OF THE STH 96 & 110 CTH II INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "ZZ"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 6-1	30"X30"	2	4	8								"
84	USH 10 WB, WEST OF THE STH 96 & 110 CTH II INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "YY"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
85	USH 10 WB, EAST OF THE STH 49 & 110 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "ZZ"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 6-1	30"X30"	2	4	8								"
86	USH 10 WB, WEST OF THE STH 49 & 110 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "YY"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
87	USH 10 WB, EAST OF THE CTH U INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "ZZ"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 6-1	30"X30"	2	4	8								"
88	USH 10 WB, WEST OF THE CTH U INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "YY"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
89	USH 10 WB, EAST OF THE STH 110 CTH X INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "ZZ"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
	"	MO 6-1	30"X30"	2	4	8								"
90	USH 10 WB, WEST OF THE STH 110 CTH X INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8								SEE DETOUR PLAN SHEET, SIGN "YY"
	"	M 3-3	36"X18"	1	4	4								"
	"	M 1-6	36"X36"	2	4	8								"
	"	M 3-4	36"X18"	1	4	4								"
91	USH 10 WB, EAST OF THE STH 22 & 54 CTH A & K INTERCHANGE, COVER EXISTING TYPE I SIGN										1	2		SEE DETOUR PLAN SHEET, SIGN "C3"
	PAGE SUBTOTALS			94		376	0	0	0	0		2	0	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH
92	USH 10 WB, EAST OF THE STH 22 & 54 CTH A & K INTERCHANGE, COVER EXISTING TYPE I SIGN										1	1	
93	USH 10 WB, EAST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	W 20-3A	48"X48"	1	4	4							
94	USH 10 WB, EAST OF THE STH 22 & 54 CTH A & K INTERCHANGE, RIGHT SHOULDER	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
95	USH 10 WB, AT THE EXIT RAMP FOR STH 22 & 54 CTH A & K, COVER EXISTING TYPE I SIGN										1	2	
96	ON THE EXIT RAMP FOR STH 22 & 54 CTH A & K FROM USH 10 WB, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 5-1L	30"X30"	2	4	8							
97	ON THE EXIT RAMP FOR STH 22 & 54 CTH A & K FROM USH 10 WB, COVER EXISTING TYPE I SIGN					0					1	1	
98	AT STH 22 & 54 CTH A & K AND EXIT RAMP INTERSECTION, MODIFY EXISTING TYPE II SIGN	M 4-8	24"X12"	2	4	8							
	"	MO 6-1	21"X21"	2	4	8							
99	USH 10 WB, WEST OF THE EXIT RAMP FOR STH 22 & 54 CTH A & K, RIGHT SHOULDER	M 4-8A	30"X24"	2	4	8							
	"	M 1-6	36"X36"	2	4	8							
100	USH 10 EB, EXIT RAMP FOR STH 22 & 54 CTH A & K, COVER EXISTING TYPE II SIGN										1		1
101	USH 10 EB, EXIT RAMP FOR STH 22 & 54 CTH A & K, COVER EXISTING TYPE II SIGN										1		1
102	CTH A NB, SOUTH OF THE USH 10 INTERCHANGE, RIGHT SHOULDER	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	W 20-3A	48"X48"	1	4	4							
103	CTH A NB, SOUTH OF THE USH 10 INTERCHANGE, RIGHT SHOULDER	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
104	CTH A NB, SOUTH OF THE USH 10 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
		MO 5-1R	30"X30"	2	4	8							
105	CTH A NB, SOUTH OF THE USH 10 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
		MO 6-1	30"X30"	2	4	8							
106	STH 22 NB, SOUTH OF BRIDGE, COVER EXISTING TYPE II SIGN										1		1
107	STH 22 NB, NORTH OF USH 10 WB EXIT RAMP, COVER EXISTING TYPE II SIGN										1		1
108	CTH A SB, SOUTH OF THE BRIDGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
		MO 5-1L	30"X30"	2	4	8							
109	CTH A SB, SOUTH OF THE BRIDGE, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-1	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-2	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
110	STH 54 EB, EAST OF THE USH 45 NB EXIT RAMP, RIGHT SHOULDER	M 4-8A	30"X24"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
111	USH 45 SB, NORTH OF THE USH 45 STH 54 INTERCHANGE, MODIFY EXISTING TYPE II SIGN	A 4-12	14"X14"	3	4	12							
112	USH 45 SB, NORTH OF THE USH 45 STH 54 INTERCHANGE, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-4	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
113	USH 45 SB, NORTH OF THE STH 54 EXIT RAMP, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-4	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 6-1	30"X30"	1	4	4							
	PAGE SUBTOTALS			81		324	0	0	0	0		4	4

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 SIGNS FIXED MESSAGE SF	643.1050 PORTABLE CHANGEABLE MESSAGE SIGN EACH	NUMBER OF CYCLES	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II EACH
114	USH 45 SB, NORTH OF THE STH 54 EXIT RAMP, RIGHT SHOULDER	M 4-8	36"X18"	1	4	4							
	"	M 3-4	36"X18"	1	4	4							
	"	M 1-6	36"X36"	1	4	4							
	"	MO 6-1	30"X30"	1	4	4							
115	CTH B & O SB, NORTH OF THE STH 54 INTERSECTION, MODIFY EXISTING TYPE II SIGN	A 4-12	14"X14"	1	4	4							
116	STH 22 & 110 SB, NORTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	W 20-3A	48"X48"	1	4	4							
117	STH 22 & 110 SB, NORTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
118	STH 22 & 110 SB, NORTH OF THE STH 54 INTERSECTION, MODIFY EXISTING TYPE II SIGN	M 4-8	36"X18"	2	4	8							
	"	MO 5-1L	30"X30"	2	4	8							
119	STH 22 & 110 SB, NORTH OF THE STH 54 INTERSECTION, MODIFY EXISTING TYPE II SIGN	A 4-12	14"X14"	2	4	8							
120	STH 22 & 110 NB, NORTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 4-8A	30"X24"	1	4	4							
		M 1-6	36"X36"	1	4	4							
121	STH 110 NB, SOUTH OF THE STH 54 INTERSECTION, MODIFY EXISTING TYPE II SIGN	A 4-12	14"X14"	1	4	4							
122	STH 110 NB, SOUTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	W 20-3A	48"X48"	1	4	4							
123	STH 110 NB, SOUTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	W 20-2A	48"X48"	1	4	4							
124	STH 110 NB, SOUTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 5-1R	30"X30"	2	4	8							
125	STH 110 NB, SOUTH OF THE STH 54 INTERSECTION, RIGHT SHOULDER	M 4-8	36"X18"	2	4	8							
	"	M 3-3	36"X18"	1	4	4							
	"	M 1-6	36"X36"	2	4	8							
	"	M 3-4	36"X18"	1	4	4							
	"	MO 6-1	30"X30"	2	4	8							
126	STH 22 NB, SOUTH OF APPLE TREE LANE INTERSECTION, RIGHT SHOULDER	W 20-3C	48"X48"	1	4	4							
127	STH 22 NB, SOUTH OF APPLE TREE LANE INTERSECTION, MEDIAN	W 20-3C	48"X48"	1	4	4							
128	STH 22 NB, SOUTH OF APPLE TREE LANE INTERSECTION, RIGHT SHOULDER	W 20-3D	48"X48"	1	4	4							
129	STH 22 NB, SOUTH OF APPLE TREE LANE INTERSECTION, MEDIAN	W 20-3D	48"X48"	1	4	4							
130	STH 22 NB, NORTH OF APPLE TREE LANE INTERSECTION, MAINLINE CLOSURE	R 11-2	48"X30"	1	4	4	40	44					
131	STH 22 NB AT THE LOCATION OF MAINLINE CLOSURE	G 20-57C	72"X36"	1	7	7			32				
132	GODFREY DRIVE AND HARRINGTON ROAD INTERSECTION, MAINLINE CLOSURE	R 11-2	48"X30"	2	4	8	76	84					
133	ROYALTON STREET WEST OF INDUSTRIAL DRIVE INTERSECTION	W 20-3A	48"X48"	1	4	4							
134	ROYALTON STREET EAST OF INDUSTRIAL DRIVE INTERSECTION	R 11-3	60"X30"	2	4	8	8	16					
135	ROYALTON STREET WEST OF WENDT DRIVE INTERSECTION	W 20-3C	48"X48"	1	4	4							
136	ROYALTON STREET WEST OF WENDT DRIVE INTERSECTION	W 20-3D	48"X48"	1	4	4							
137	ROYALTON STREET WEST OF WENDT DRIVE INTERSECTION	R 11-4	60"X30"	1	4	4	8	16					
138	ROYALTON STREET EAST OF WENDT DRIVE INTERSECTION, MAINLINE CLOSURE	R 11-2	48"X30"	1	4	4	6	28					
139	STH 22 NB, STH 54 EB, END OF PROJECT LIMITS, MAINLINE CLOSURE	R 11-2	48"X30"	1	4	4	16	24					
140	STH 22 NB, STH 54 EB AT THE LOCATION OF MAINLINE CLOSURE	G 20-57C	72"X36"	1	7	7			32				
141	STH 22 NB, STH 54 EB, EAST OF END OF PROJECT LIMITS	R 11-4	60"X30"	1	4	4	8	16					
142	STH 22 NB, STH 54 EB, EAST OF END OF PROJECT LIMITS	W 20-3D	48"X48"	1	4	4							
143	STH 22 NB, STH 54 EB, EAST OF END OF PROJECT LIMITS	W 20-3C	48"X48"	1	4	4							
144	STH 22 NB, STH 54 EB, WEST OF SUNNY VIEW RD. AND HANDRICH RD. INTERSECTION	W 20-3G	48"X48"	1	4	4							
145	STH 22 NB, STH 54 EB, WEST OF SUNNY VIEW RD. AND HANDRICH RD. INTERSECTION	R 11-3	60"X30"	2	4	8	8	16					
146	STH 22 NB, STH 54 EB, EAST OF SUNNY VIEW RD. AND HANDRICH RD. INTERSECTION	W 20-3A	48"X48"	1	4	4							
	PAGE SUBTOTALS			74		302	170	244	64	0		0	0
	DETOUR TOTALS			**591**		**2,370**	**174**	**244**	**64**	**0**		**12**	**19**

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC CONTROL

		643.0300 TRAFFIC CONTROL DRUMS		643.0410 TRAFFIC CONTROL BARRICADES TYPE II		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0800 TRAFFIC CONTROL ARROW BOARDS		643.0900 TRAFFIC CONTROL SIGNS		643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE	
STAGE	DURATION DAYS	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	SF
CATEGORY 0020																	
STAGE 1	27	76	2,052	-	-	20	540	35	945	16	432	1	27	20	540	-	-
STAGE 2	21	65	1,365	-	-	21	441	33	693	16	336	1	21	22	462	-	-
TOTALS		141	3,417	0	0	41	981	68	1,638	32	768	2	48	42	1,002	0	0
CATEGORY 0010																	
ADVANCED WARNING	50	-	-	-	-	-	-	-	-	-	-	-	-	13	650	5	160
GODFREY DRIVE CURB RAMP	7	17	119	1	7	1	7	2	14	5	35	-	-	5	35	-	-
MGS REPLACEMENT	9	10	90	-	-	-	-	-	-	-	-	-	-	1	9	-	-
TOTALS		27	209	1	7	1	7	2	14	5	35	0	0	19	694	5	160
PROJECT TOTALS		168	3,626	1	7	42	988	70	1,652	37	803	2	48	61	1,696	5	160

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TEMPORARY MARKING LINE

STAGE	(WHITE) LF	(YELLOW) LF	643.3165 PAINT 6-INCH (WHITE) 3' LINE 9' SKIP LF	(WHITE) 4' LINE 46' SKIP LF	643.3265 PAINT 10-INCH (WHITE) LF
CATEGORY 0020					
STAGE 1 (APPLE TREE LANE CONSTRUCTION)	970	1,645	-	-	-
STAGE 2 (APPLE TREE LANE CONSTRUCTION)	970	1,645	-	-	-
SUBTOTALS	1,940	3,290	0	0	0
TOTALS			5,230		0
CATEGORY 0010 MILLED SURFACE					
57+50 NB - 63+90 NB (NB LANE)	-	-	-	52	150
57+50 NB - 63+90 NB (SB LANE)	-	-	-	52	-
63+90 NB - 73+59 NB (NB LANE)	-	798	-	14	-
63+90 NB - 73+59 NB (SB LANE)	-	814	-	27	283
73+59 NB - 105+07 NB	-	6,296	-	-	-
108+34 NB - 112+13 NB	-	480	-	-	-
112+13 NB - 121+75 NB (NB LANE)	-	754	-	47	230
112+13 NB - 121+75 NB (SB LANE)	-	712	-	38	-
121+75 NB - 134+51 NB (NB LANE)	-	-	99	39	443
121+75 NB - 134+51 NB (SB LANE)	-	-	-	88	417
404+81 EB - 4407+27 EB (EB LANE)	-	46	-	-	233
408+71 EB - 413+08 EB (EB LANE)	-	84	-	-	-
408+71 EB - 413+08 EB (WB LANE)	-	-	-	-	155
413+08 EB - 418+27 EB	-	1,612	-	-	-
SUBTOTALS	0	11,596	99	357	1,911
TOTALS MILLED SURFACE			12,052		1,911
CATEGORY 0010 OVERLAY SURFACE					
57+50 NB - 63+90 NB (NB LANE)	-	-	-	52	150
57+50 NB - 63+90 NB (SB LANE)	-	-	-	52	-
63+90 NB - 73+59 NB (NB LANE)	-	798	-	14	-
63+90 NB - 73+59 NB (SB LANE)	-	814	-	27	283
73+59 NB - 105+07 NB	-	-	-	-	-
108+34 NB - 112+13 NB	-	-	-	-	-
112+13 NB - 121+75 NB (NB LANE)	-	476	-	47	230
112+13 NB - 121+75 NB (SB LANE)	-	438	-	38	-
121+75 NB - 134+51 NB (NB LANE)	-	-	99	39	443
121+75 NB - 134+51 NB (SB LANE)	-	-	-	88	417
404+81 EB - 4407+27 EB (EB LANE)	-	46	-	-	233
408+71 EB - 413+08 EB (EB LANE)	-	84	-	-	-
408+71 EB - 413+08 EB (WB LANE)	-	-	-	-	155
413+08 EB - 418+27 EB	-	-	-	-	-
SUBTOTALS	0	2,656	99	357	1,911
TOTALS OVERALY SURFACE			3,112		1,911
TOTALS MILLED AND OVERLAY			15,164		3,822
PROJECT TOTALS			20,394		3,822

TEMPORARY PEDESTRIAN ITEMS

STATION TO STATION	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
APPLE TREE LANE		
CATEGORY 0020		
TEMPORARY SHARED USE PATH CONNECTION (SW QUADRANT)	455	66
TEMPORARY SHARED USE PATH CONNECTION (NW QUADRANT)	495	74
TOTALS	950	140
CATEGORY 0010		
GODFREY DRIVE	-	18
TOTALS	0	18
PROJECT TOTALS	950	158

GEOGRID

STATION TO STATION	645.0220 GEOGRID TYPE SR SY
STH 22	
CATEGORY 0010	
124+83 NB - 125+27 NB (BASE COURSE PATCHING)	132
TOTAL	132

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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MARKING LINE

STATION TO STATION	646.1020 EPOXY 4-INCH (WHITE) LF	646.1020 EPOXY 4-INCH (YELLOW) LF	646.2020 EPOXY 6-INCH (WHITE) LF	646.2020 EPOXY 6-INCH (YELLOW) LF	646.2025 GROOVED BLACK EPOXY 6- LF	646.2040 GROOVED WET REF EPOXY 6-INCH (WHITE) LF	646.2040 GROOVED WET REF EPOXY 6-INCH (YELLOW) LF	646.3020 EPOXY 8-INCH (WHITE) LF	646.4020 EPOXY 10-INCH (WHITE) LF	646.4040 GROOVED WET REF EPOXY 10-INCH (WHITE) LF	646.4720 SAME DAY EPOXY 6-INCH (YELLOW) LF	646.6120 MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE) LF	646.7120 DIAGONAL EPOXY 12-INCH (WHITE) LF	646.7120 DIAGONAL EPOXY 12-INCH (YELLOW) LF	646.7220 CHEVRON EPOXY 24-INCH (WHITE) LF	646.7420 WALK EPOXY TRAVERSE LINE 6-INCH (WHITE) LF
STH 22																	
CATEGORY 0020																	
40+40 NB - 53+27 NB (SB LANE)	-	-	-	-	-	1,239	1,083	-	-	144	-	-	-	-	-	-	-
45+33 NB - 53+27 NB (NB LANE)	-	-	-	-	-	782	719	-	-	417	-	-	-	249	-	-	-
53+27 NB - 63+90 NB (SB LANE)	-	-	-	-	-	973	1,031	-	-	735	-	-	-	86	-	131	-
53+27 NB - 63+90 NB (NB LANE)	-	-	-	-	-	910	1,020	-	-	592	-	-	-	79	-	-	-
63+90 NB - 70+12 NB (SB LANE)	-	-	-	-	-	428	672	-	-	641	-	-	-	120	-	-	-
63+90 NB - 70+12 NB (NB LANE)	-	-	-	-	-	542	669	-	-	-	-	-	-	-	-	-	-
70+12 NB - 73+59 NB	-	-	-	-	-	698	-	-	-	-	1,392	-	-	-	89	-	-
27+45 AT - 29+37 AT (EB LANE)	35	876	-	-	-	-	-	167	-	-	-	41	-	-	-	-	48
27+45 AT - 29+37 AT (WB LANE)	-	378	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
SUBTOTALS	35	1,254	0	0	0	5,572	5,194	167	0	2,529	1,392	41	0	534	89	131	78
TOTALS	1,289		0		0	10,766		167	0	2,529	1,392	41	0	623		131	78
CATEGORY 0010																	
73+59 NB - 105+07 NB	-	-	-	-	-	6,295	-	-	-	-	6,296	-	-	-	-	-	-
108+34 NB - 112+13 NB	-	-	-	-	-	758	-	-	-	-	1,035	-	-	-	53	-	-
112+13 NB - 121+75 NB (SB LANE)	-	-	406	420	119	599	589	-	-	-	-	-	-	-	90	-	-
112+13 NB - 121+75 NB (NB LANE)	-	-	509	536	149	520	476	-	-	192	-	-	-	-	173	-	-
121+75 NB - 134+51 NB (SB LANE)	-	-	1,017	1,235	274	274	-	-	-	349	-	-	-	-	-	-	-
121+75 NB - 134+51 NB (NB LANE)	-	-	1,058	1,228	123	214	-	-	320	367	-	-	-	22	38	-	-
404+81 EB - 407+27 EB (EB LANE)	-	-	130	233	-	-	-	-	465	-	-	-	-	52	15	-	-
405+82 EB - 407+27 EB (WB LANE)	-	-	-	153	-	-	-	-	-	-	-	-	-	-	-	-	-
408+71 EB - 413+08 EB (EB LANE)	-	-	-	-	-	360	487	-	-	-	-	-	-	-	20	-	-
408+71 EB - 413+08 EB (WB LANE)	-	-	-	271	-	195	210	-	157	-	-	-	-	-	-	-	-
413+08 EB - 418+27 EB	-	-	-	-	-	1,037	-	-	-	-	1,611	-	-	-	30	-	-
ROUND ABOUT	-	-	-	-	-	-	-	-	223	-	-	-	105	35	-	-	-
30+59 AT - 30+85 AT (WB LANE)	10	-	-	-	-	-	-	26	-	-	-	30	-	-	-	-	-
GODFREY DRIVE	-	60	-	-	-	-	-	31	-	-	-	21	-	-	-	-	-
HARRINGTON ROAD	-	84	-	-	-	-	-	42	-	-	-	24	-	-	-	-	-
SUBTOTALS	10	144	3,120	4,076	665	10,252	1,762	99	1,165	908	8,942	75	105	109	419	0	0
TOTALS	154		7,196		665	12,014		99	1,165	908	8,942	75	105	528		0	0
PROJECT TOTALS	1,443		7,196		665	22,780		266	1,165	3,437	10,334	116	105	1,151		131	78

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

MARKING OTHER

STATION TO STATION	646.5020 ARROW EPOXY (TYPE 1) (WHITE) EACH	(TYPE 2) (WHITE) EACH	(TYPE 2R) (WHITE) EACH	(TYPE 5) (WHITE) EACH	646.5120 WORD EPOXY (ONLY) (WHITE) EACH	646.8120 CURB EPOXY (YELLOW) LF	646.8220 ISLAND NOSE EPOXY (YELLOW) EACH
STH 22							
CATEGORY 0020							
40+40 NB - 53+27 NB (SB LANE)	-	2	-	-	-	-	-
45+33 NB - 53+27 NB (NB LANE)	-	2	-	2	1	-	-
53+27 NB - 63+90 NB (SB LANE)	-	-	-	-	-	-	-
53+27 NB - 63+90 NB (NB LANE)	-	4	-	-	-	-	-
63+90 NB - 70+12 NB (SB LANE)	-	4	-	-	1	-	-
63+90 NB - 70+12 NB (NB LANE)	-	-	-	-	-	-	-
70+12 NB - 73+59 NB	-	-	-	-	-	-	-
27+45 AT - 29+37 AT (EB LANE)	-	2	-	-	-	5	1
27+45 AT - 29+37 AT (WB LANE)	-	-	-	-	-	19	-
SUBTOTALS	0	14	0	2	2	24	1
TOTALS		16			2	24	1
CATEGORY 0010							
73+59 NB - 105+07 NB	-	-	-	-	-	-	-
108+34 NB - 112+13 NB	-	-	-	-	-	-	-
112+13 NB - 121+75 NB (SB LANE)	-	-	-	-	-	-	-
112+13 NB -121+75 NB (NB LANE)	-	3	-	-	-	-	-
121+75 NB - 134+51 NB (SB LANE)	-	3	-	-	-	-	-
121+75 NB - 134+51 NB (NB LANE)	-	2	2	-	2	-	-
404+81 EB - 407+27 EB (EB LANE)	1	1	-	-	-	-	-
405+82 EB - 407+27 EB (WB LANE)	-	-	-	-	-	-	-
408+71 EB - 413+08 EB (EB LANE)	-	-	-	-	-	-	-
408+71 EB - 413+08 EB (WB LANE)	1	-	1	-	-	-	-
413+08 EB - 418+27 EB	-	-	-	-	-	-	-
ROUND ABOUT	1	1	-	-	-	-	-
30+59 AT - 30+85 AT (WB LANE)	-	-	-	-	-	-	-
GODFREY DRIVE	-	-	-	-	-	-	-
HARRINGTON ROAD	-	-	-	-	-	-	-
SUBTOTALS	3	10	3	0	2	0	0
TOTALS		16			2	0	0
PROJECT TOTALS		32			4	24	1

MARKING REMOVAL LINE

STATION TO STATION	646.9000 4-INCH LF	646.9100 8-INCH LF	646.9200 LINE WIDE LF
STH 22			
CATEGORY 0020			
STAGE 1 (APPLE TREE LANE CONSTRUCTION)	1,789	-	-
40+40 NB - 53+27 NB (SB LANE)	2,657	147	-
45+33 NB - 53+27 NB (NB LANE)	1,702	335	-
53+27 NB - 57+50 NB (NB LANE)	889	-	-
53+27 NB - 57+50 NB (SB LANE)	949	278	17
TOTALS	7,986	760	17

3

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4000 STORM SEWER (EA)	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	650.5500 CURB & GUTTER (LF)	650.8000 RESURFACING REFERENCE (LF)	650.9000 CURB RAMPS (EA)	650.9500 SIDEWALK (EA)	650.9911 SUPPLEMENTAL CONTROL (EA)	650.9920 SLOPE STAKES (LF)
STH 22										
CATEGORY 0010										
57+50 NB - 63+90 NB	NORTHBOUND LANE	---	---	---	---	640	---	---	---	---
57+50 NB - 63+90 NB	SOUTHBOUND LANE	---	---	---	---	640	---	---	---	---
63+90 NB - 70+12 NB	NORTHBOUND LANE	---	---	---	---	622	---	---	---	---
70+12 NB - 105+07 NB	FROM SPLIT TO STR. B-68-124	---	---	---	40	3,495	---	---	---	40
108+34 NB - 112+13 NB	FROM STR. B-68-124 TO SPLIT	---	---	---	---	379	---	---	---	---
112+13 NB - 121+75 NB	NORTHBOUND LANE	---	---	---	---	962	---	---	---	---
112+13 NB - 121+75 NB	SOUTHBOUND LANE	---	---	---	---	962	---	---	---	---
121+75 NB - 134+51 NB	NORTHBOUND LANE	---	---	---	---	1,276	---	---	---	---
121+75 NB - 134+51 NB	SOUTHBOUND LANE	---	---	---	6	1,276	---	---	---	---
404+81 EB - 407+27 EB	WESTBOUND LANE	---	---	---	---	246	---	---	---	---
405+82 EB - 407+27 EB	EASTBOUND LANE	---	---	---	---	145	---	---	---	---
408+71 EB - 413+08 EB	WESTBOUND LANE	---	---	---	---	437	---	---	---	---
408+71 EB - 413+08 EB	EASTBOUND LANE	---	---	---	---	437	---	---	---	---
413+08 EB - 418+27 EB	FROM SPLIT TO END PROJECT	---	---	---	---	519	---	---	---	---
ROUNDABOUT	---	---	---	---	---	294	---	---	---	---
GODFREY DRIVE	---	---	---	---	19	61	1	---	---	---
HARRINGTON ROAD	---	---	---	---	---	58	---	---	---	---
6220-01-76	---	---	---	---	---	---	---	1	1	---
	TOTALS	0	---	---	65	12,449	1	1	1	40
CATEGORY 0020										
57+50 NB - 63+90 NB	SOUTHBOUND LANE	1	---	---	---	---	---	---	---	---
63+90 NB - 70+12 NB	SOUTHBOUND LANE	1	---	---	114	622	---	---	---	114
27+45 AT - 29+37 AT	WESTBOUND LANE	---	192	192	407	---	1	---	---	192
27+54 ATWB - 29+37 ATWB	EASTBOUND LANE	---	192	192	392	---	1	---	---	192
30+39 AT - 31+92 AT	WESTBOUND LANE	---	---	---	---	153	---	---	---	---
30+39 ATWB - 30+76 ATWB	EASTBOUND LANE	---	---	---	---	37	---	---	---	---
0+00 NW - 11+84 NW	NORTHWEST TRAIL	---	179	179	---	---	---	---	---	179
0+00 SW - 1+87 SW	SOUTHWEST TRAIL	---	187	187	---	---	---	---	---	187
	TOTALS	2	750	750	913	812	2	---	0	864
	PROJECT TOTALS	2	750	750	978	13,261	3	1	1	904

SAWING

STATION TO STATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
STH 22		
CATEGORY 0010		
104+63 NB - 105+07 NB	48	-
112+79 NB - 115+38 NB (BASE COURSE PATCHING)	531	-
121+13 NB - 121+38 NB (BASE COURSE PATCHING)	145	-
124+83 NB - 125+27 NB (BASE COURSE PATCHING)	94	-
124+91 NB - 124+99 NB	-	6
GODFREY DRIVE	49	6
410+40 EB - 418+27 EB (BASE COURSE PATCHING)	1,587	-
TOTALS	2,454	12
CATEGORY 0020		
63+25 NB - 66+89 NB	392	3
APPLE TREE LANE	41	5
TOTALS	433	8
PROJECT TOTALS	2,887	20

CLEANING STORM SEWER

SPV.0090.01

CLEANING STORM SEWER

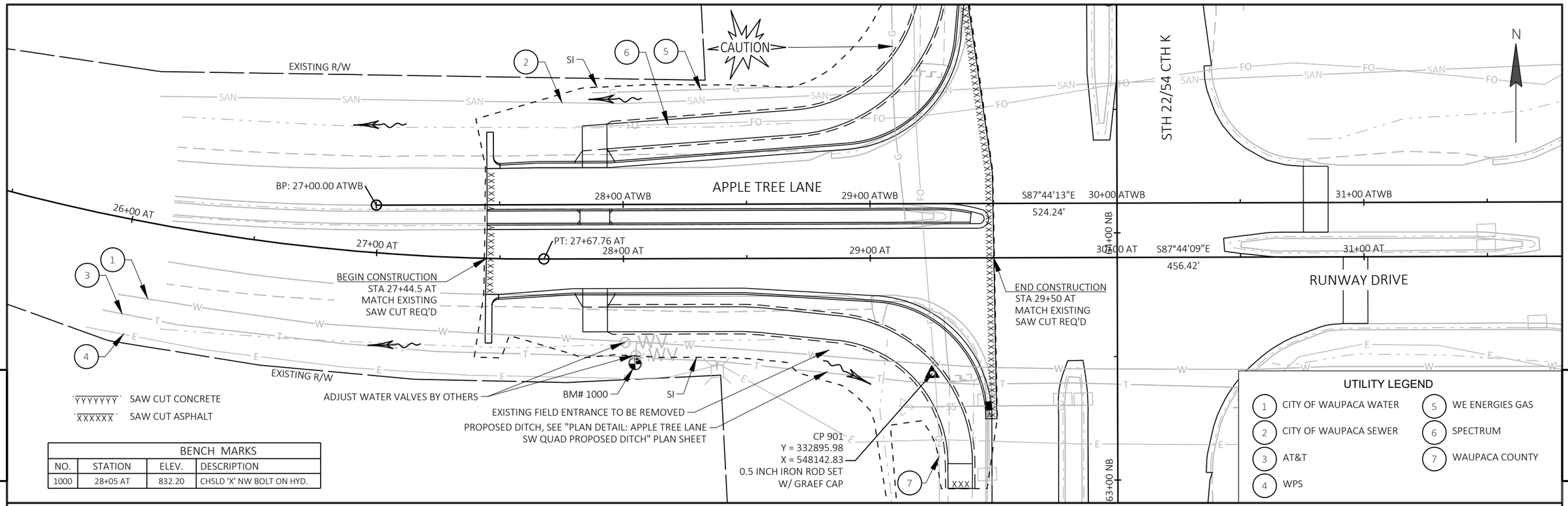
STATION	LF
STH 22	
CATEGORY 0010	
59+00 NB	132
63+30 NB	105
65+85 NB	102
67+50 NB	56
69+47 NB	44
131+17 NB	134
TOTAL	573

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

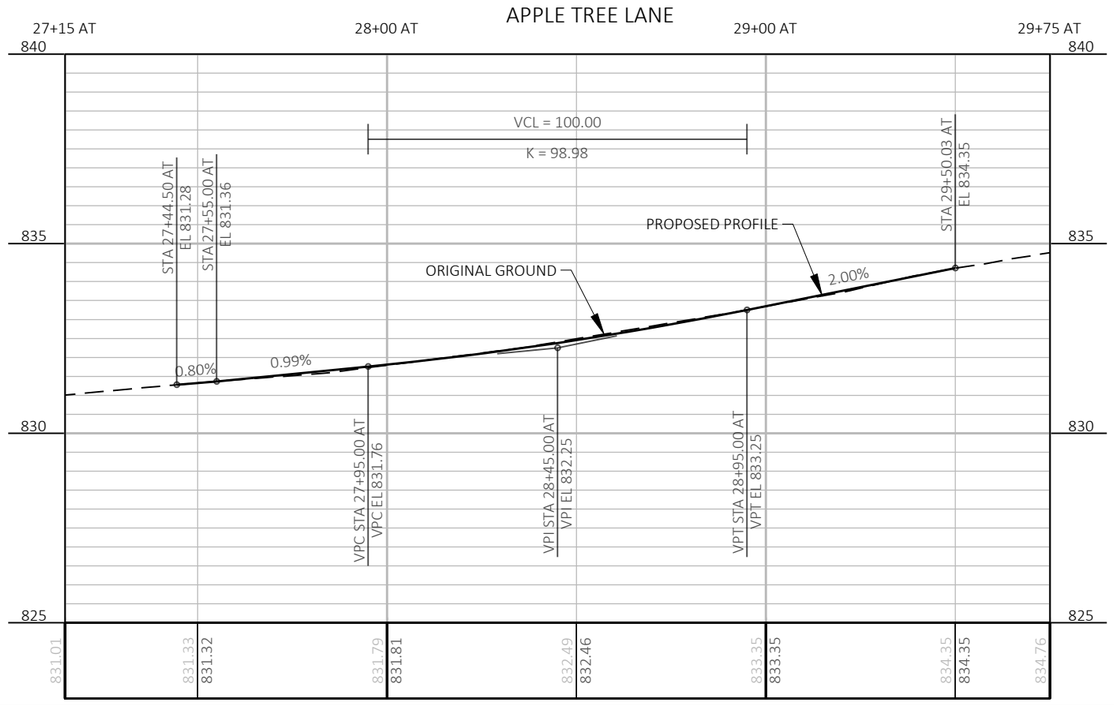
SPV.0180.01

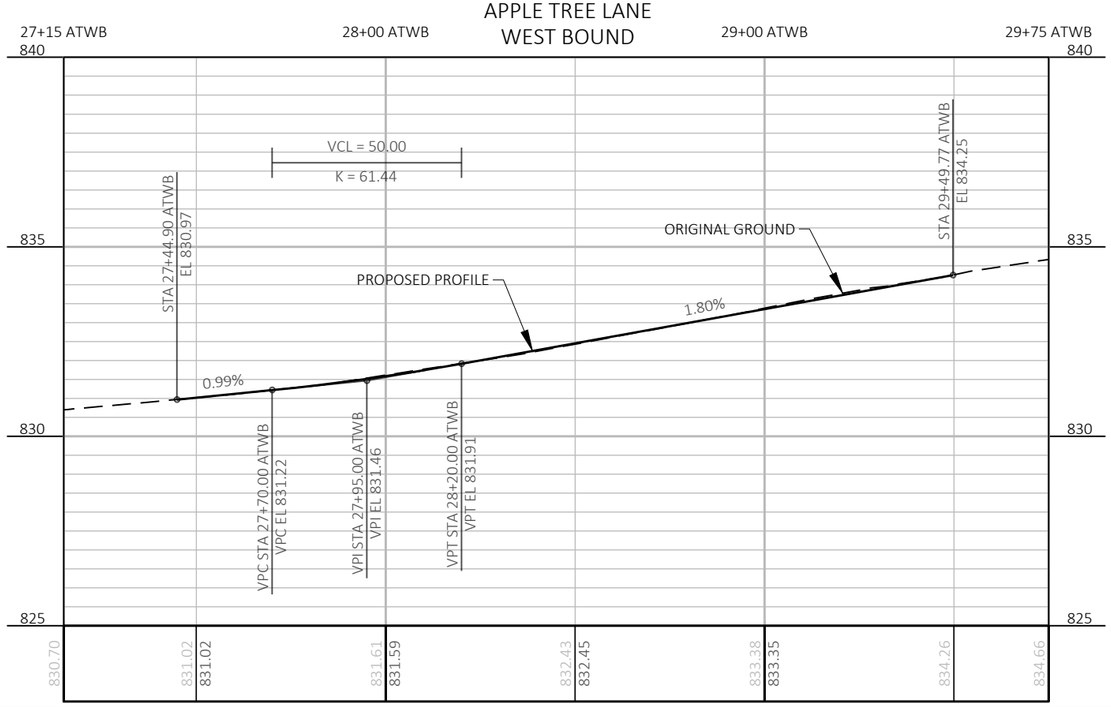
REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

STATION TO STATION	SY
STH 22	
CATEGORY 0010	
108+33.38 NB - 110+08 NB	145
TOTAL	145

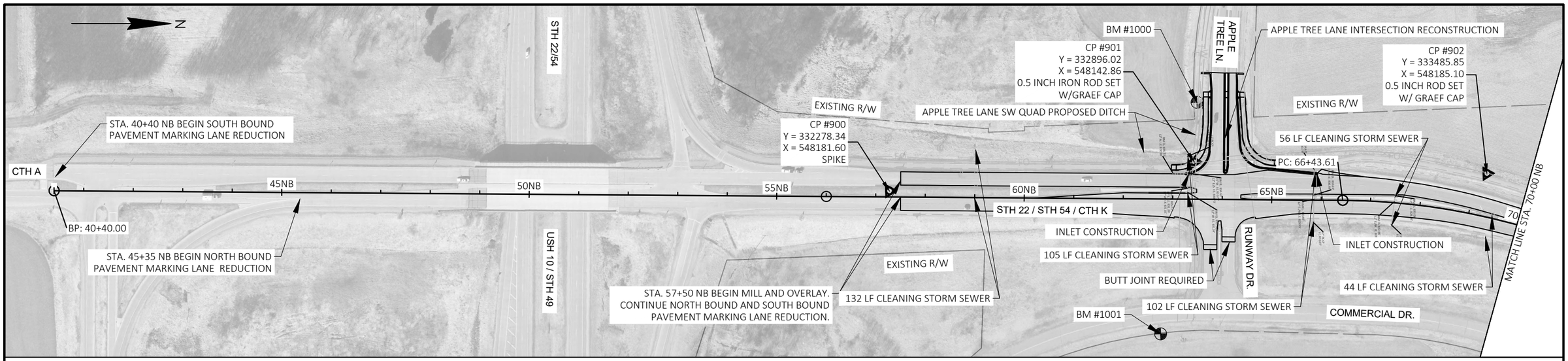


BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1000	28+05 AT	832.20	CHSLD 'X' NW BOLT ON HYD.





PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN AND PROFILE: APPLE TREE LANE	SHEET 72	E

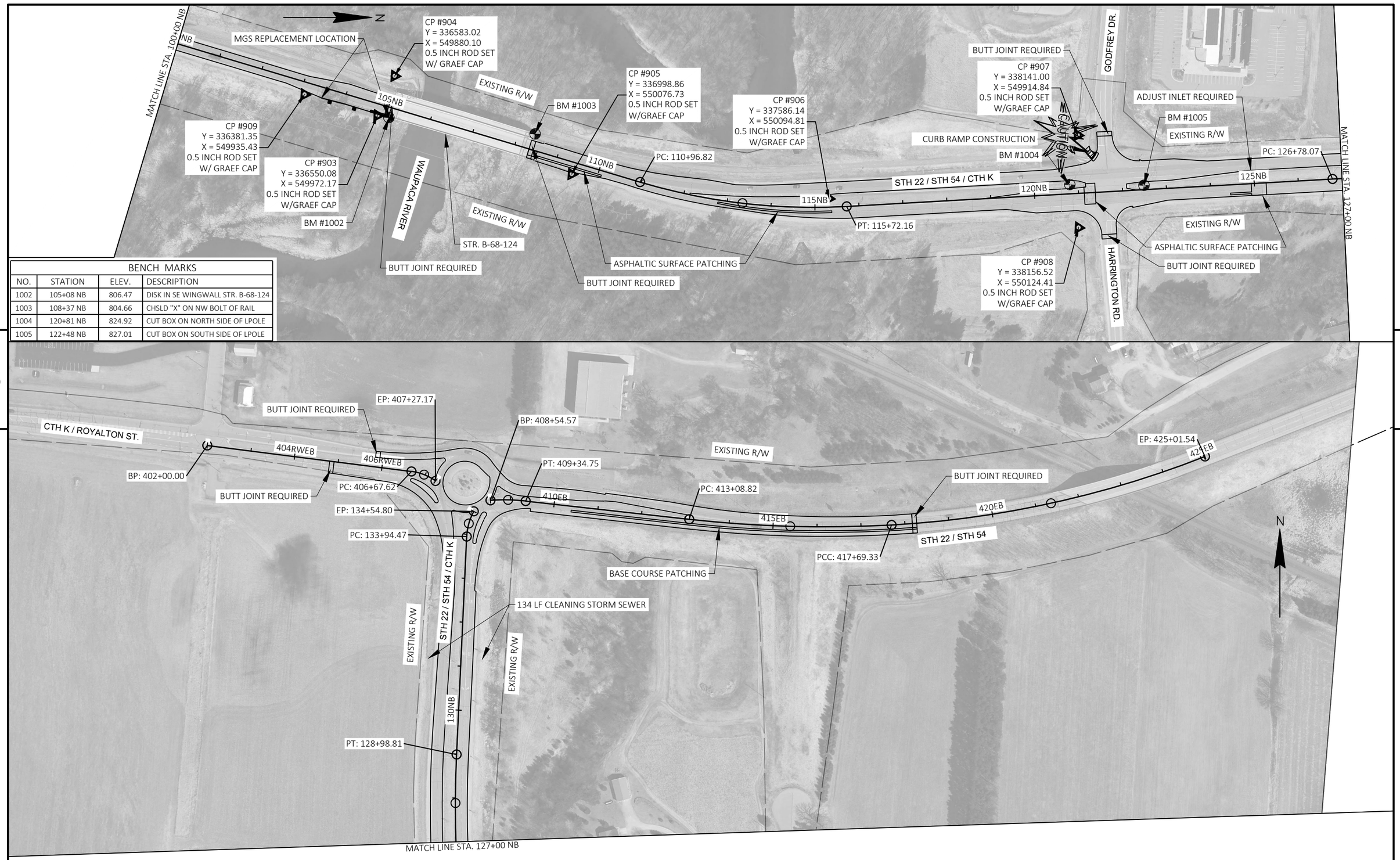


BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1000	28+05 AT	832.20	CHSLD "X" ON NW BOLT OF HYD
1001	N/A	833.06	CHSLD "X" ON SW BOLT OF HYD.



PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN VIEW	SHEET 73	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 01
PLOT DATE : 1/17/2024 12:18 PM PLOT BY : WORECK, CHRIS PLOT NAME : PLOT SCALE : ##########



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1002	105+08 NB	806.47	DISK IN SE WINGWALL STR. B-68-124
1003	108+37 NB	804.66	CHSLD "X" ON NW BOLT OF RAIL
1004	120+81 NB	824.92	CUT BOX ON NORTH SIDE OF LPOLE
1005	122+48 NB	827.01	CUT BOX ON SOUTH SIDE OF LPOLE

5

5

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	PLAN VIEW	SHEET 74	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 02

PLOT DATE : 1/17/2024 12:19 PM PLOT BY : WORECK, CHRIS PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

Standard Detail Drawing List

08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
11B02-02	CONCRETE MEDIAN NOSE
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09D	ON RAMP LANE CLOSURE
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR 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
15C07-15D	ROUNDABOUT ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-08B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-08C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C21-11	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

6

Standard Detail Drawing List

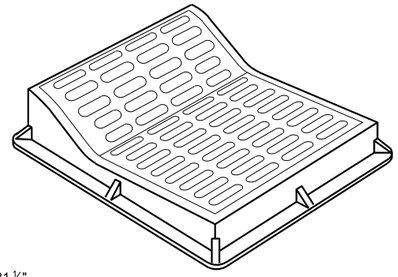
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-05A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-05C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

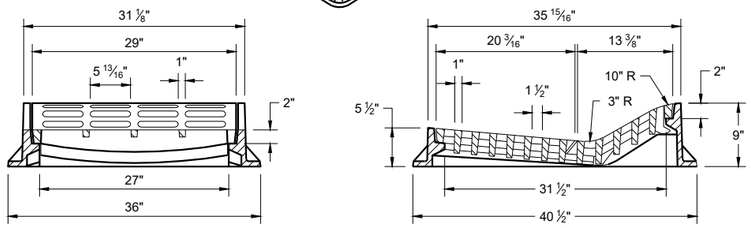
6

GENERAL NOTES

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

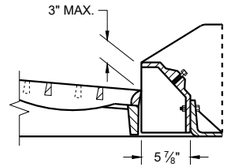
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

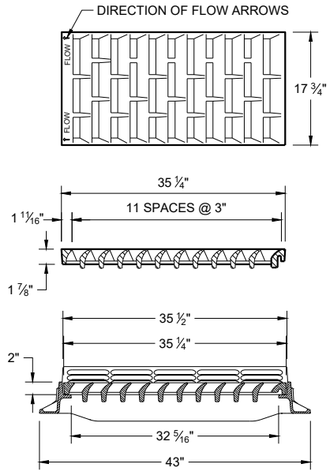


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

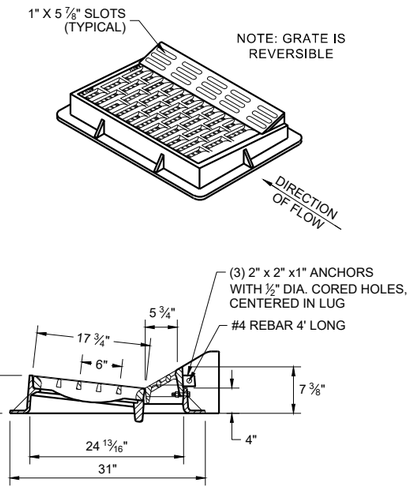
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



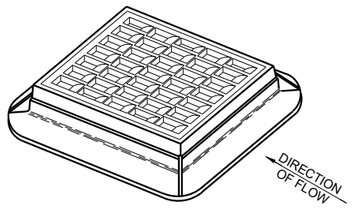
TYPE "HM"

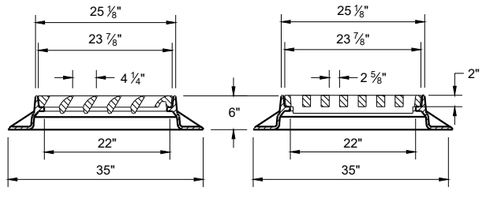
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



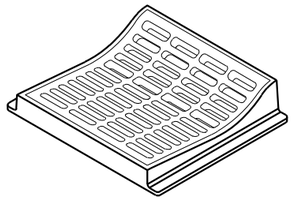
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

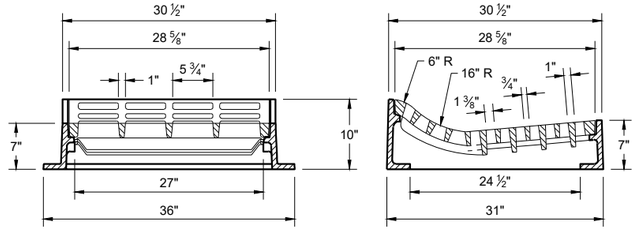
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





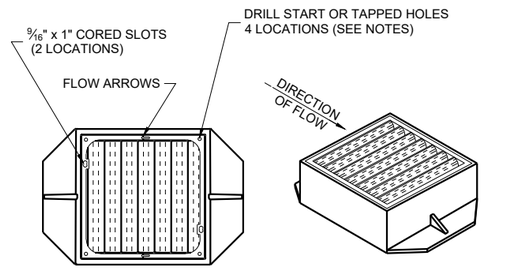
TYPE "S"

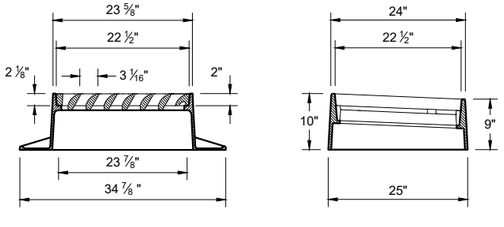




TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

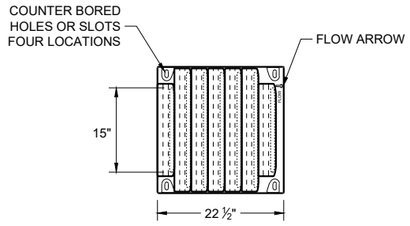




TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES F, HM, HM-S, S, T, V, HM-GJ AND HM-GJ-S

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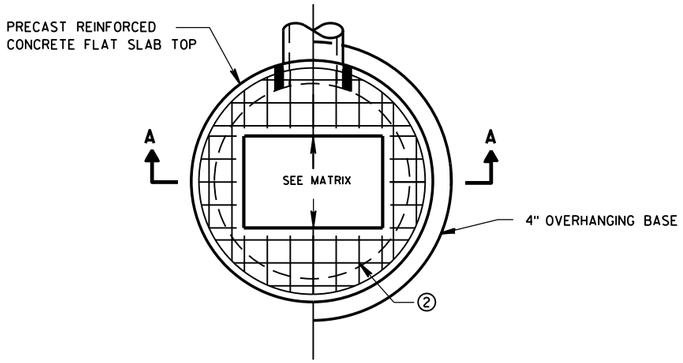
APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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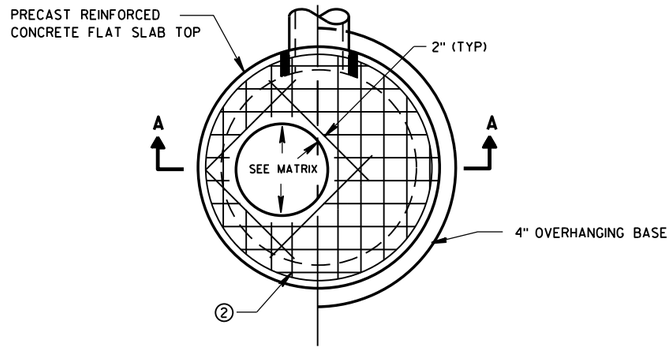
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SDD 08A05-20c

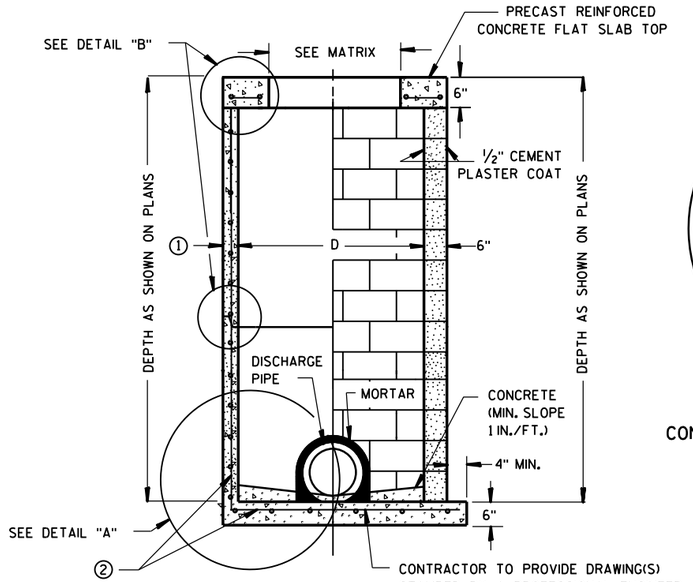
SDD 08A05-20c



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

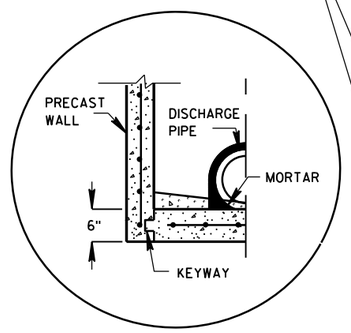


SECTION A-A

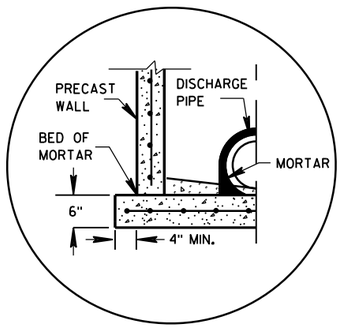
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

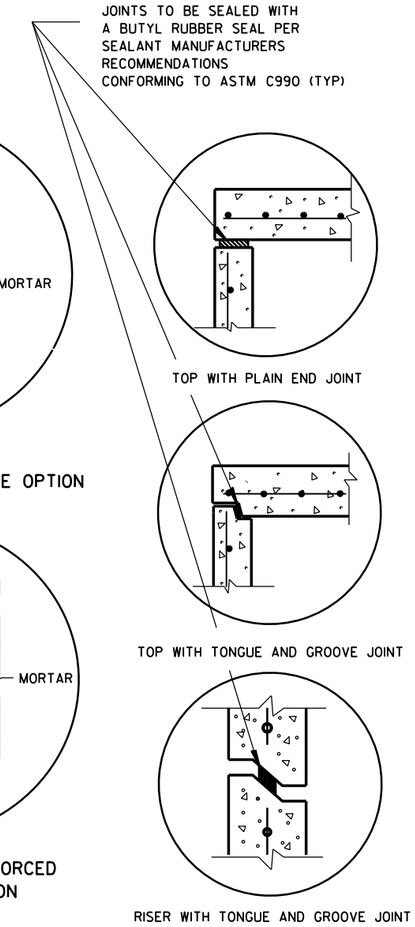


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR 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.

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.

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.

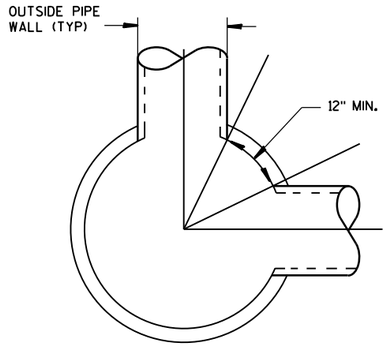
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

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

INLET COVER OPENING MATRIX

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



DETAIL "C"

PIPE MATRIX

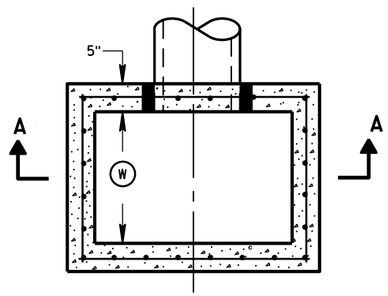
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

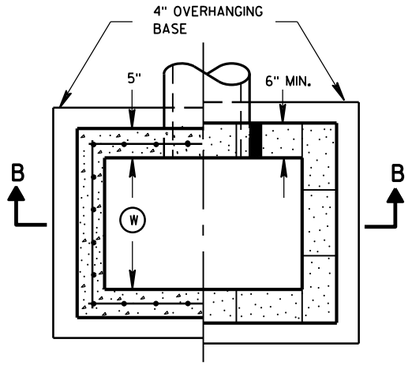
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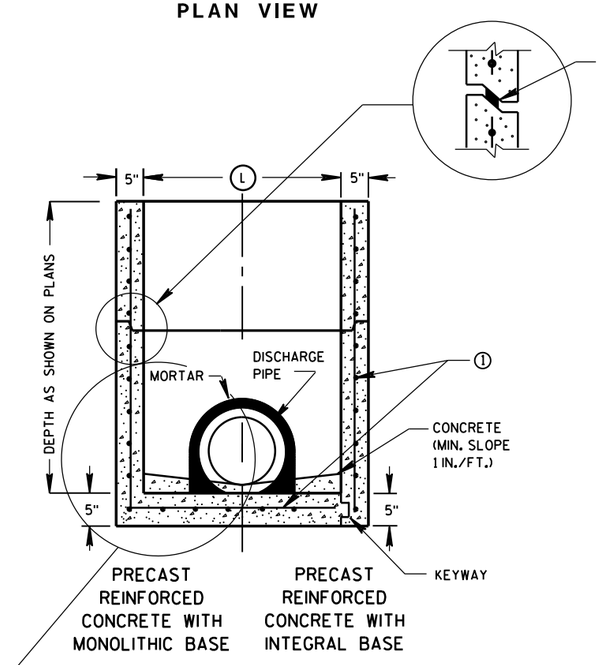
INLETS 3-FT AND 4-FT DIAMETER



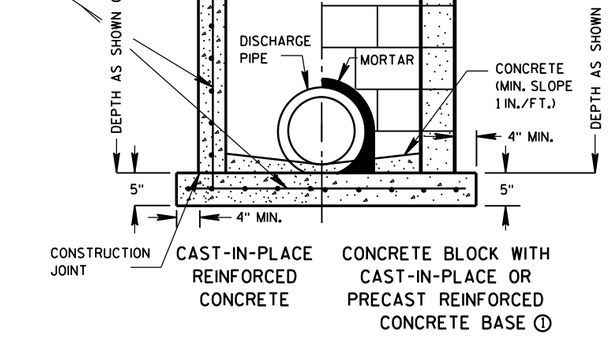
PLAN VIEW



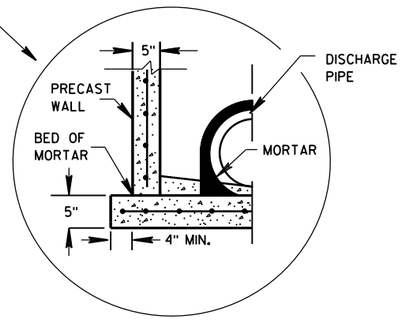
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES 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.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND 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.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

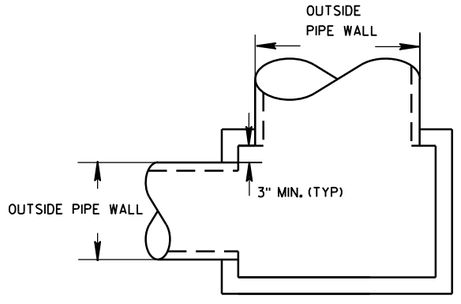
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



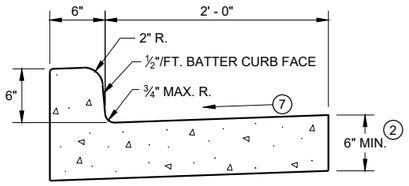
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

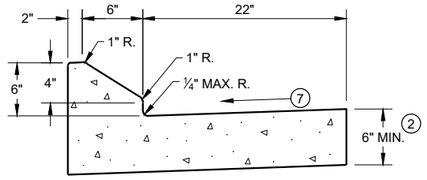
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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Sept., 2016 — DATE
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ROADWAY STANDARDS D IT UNIT SUPERVIS
FHWA

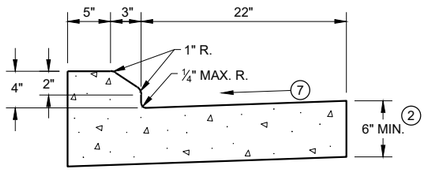
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



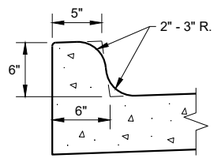
TYPES A (1) & D



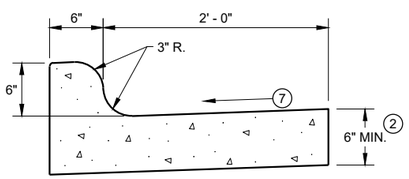
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

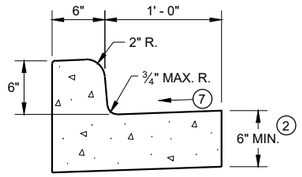


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



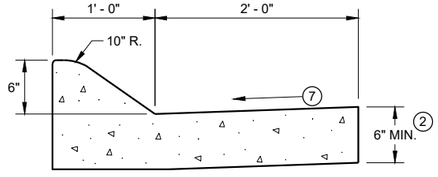
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

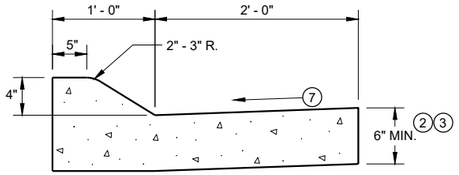


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

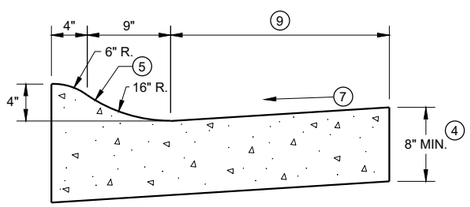


6" SLOPED CURB TYPES A (1) & D



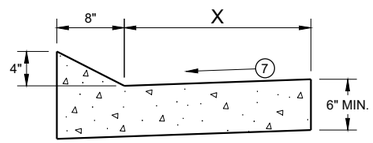
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

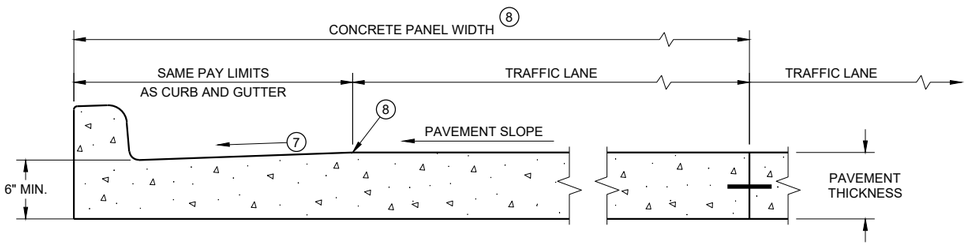


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

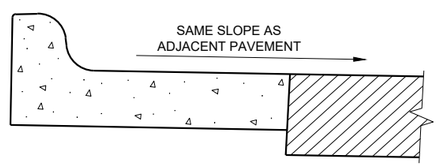
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

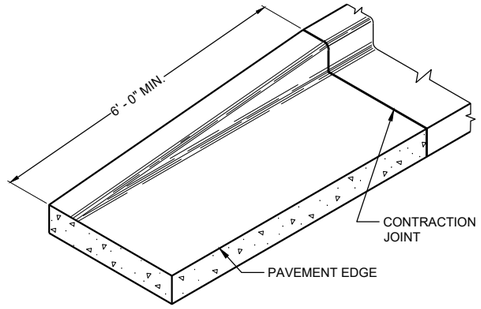
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(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

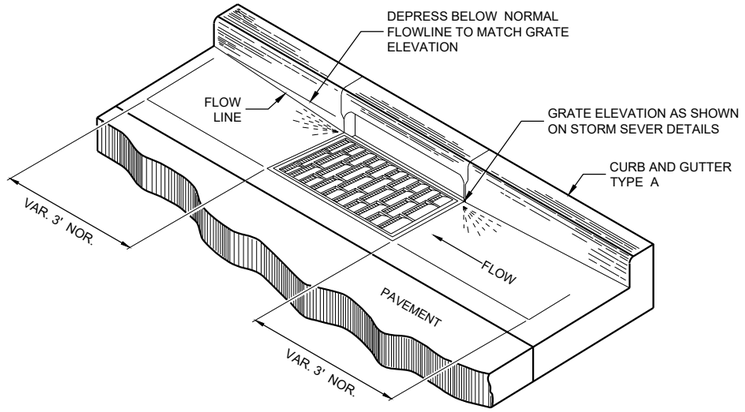
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
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SDD 08D01 - 23a



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.

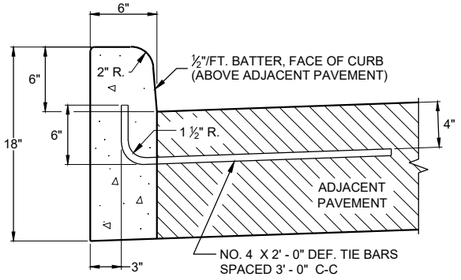
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

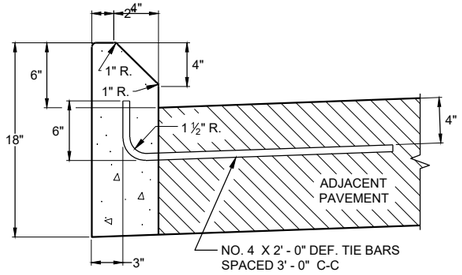
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

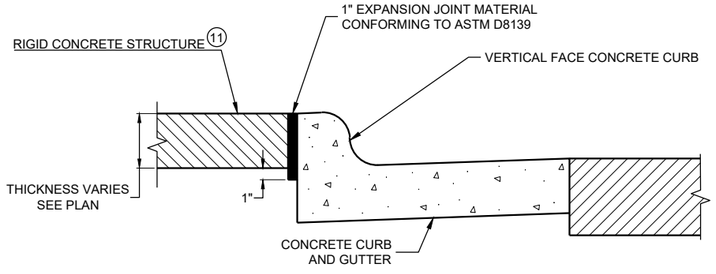


TYPES A (1) & D

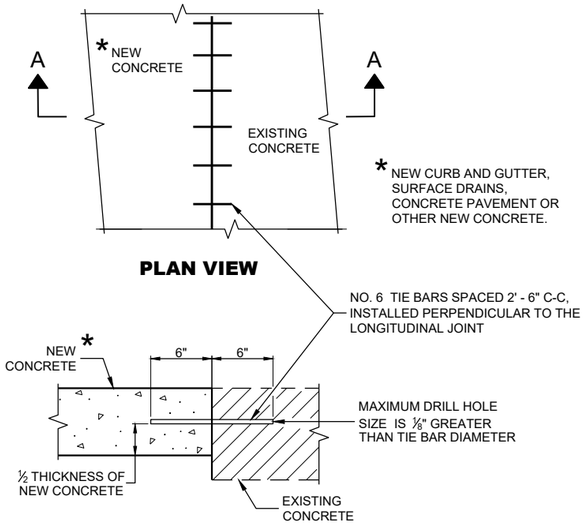


TYPES G (1) & J

CONCRETE CURB



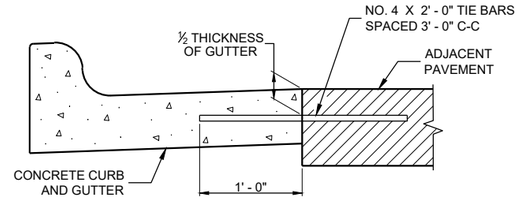
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



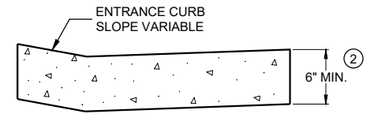
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

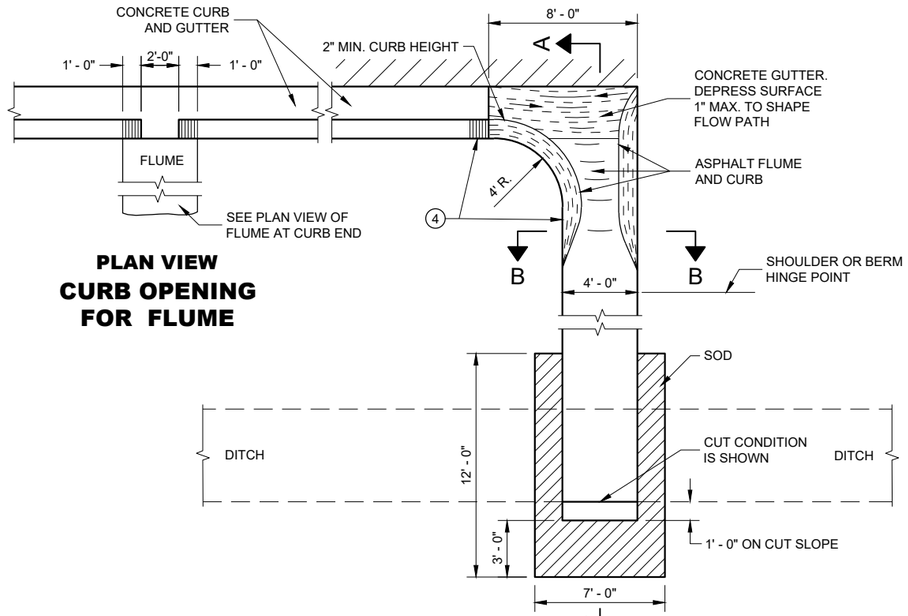
FHWA

6

SDD08D01 - 23b

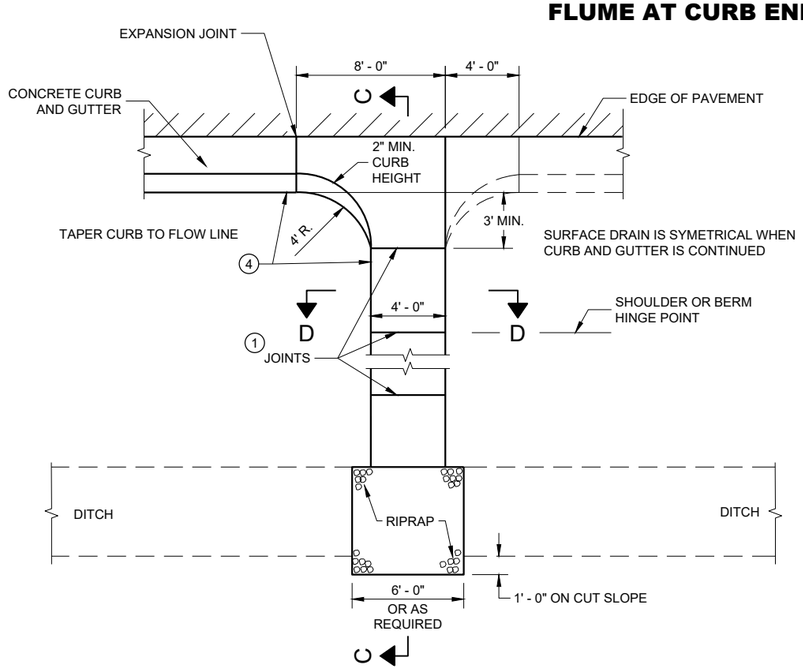
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



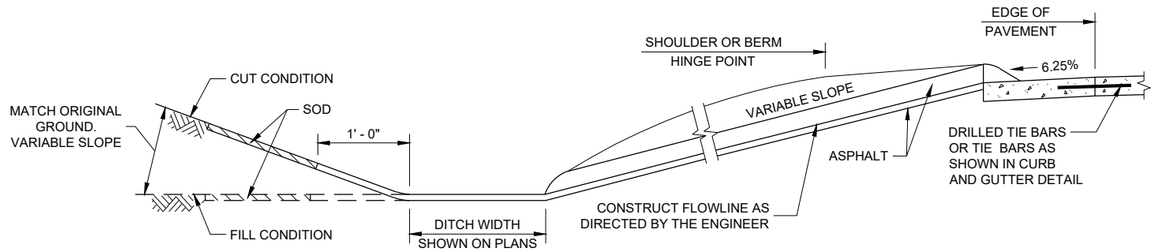
PLAN VIEW
CONCRETE SURFACE DRAIN

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.

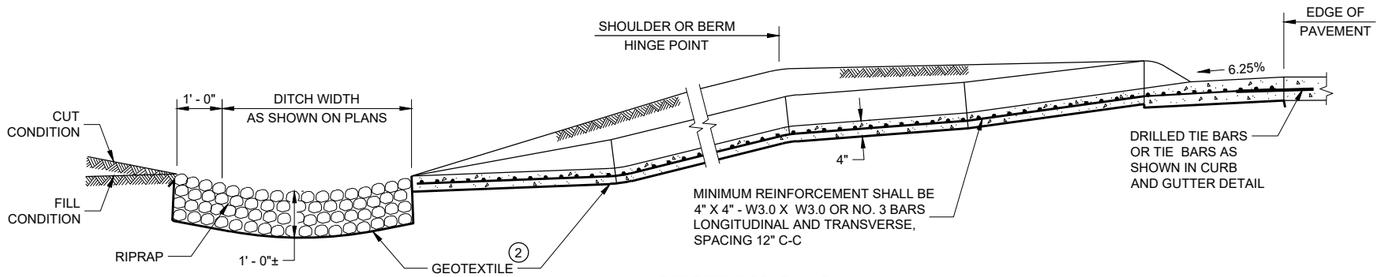
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE 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.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

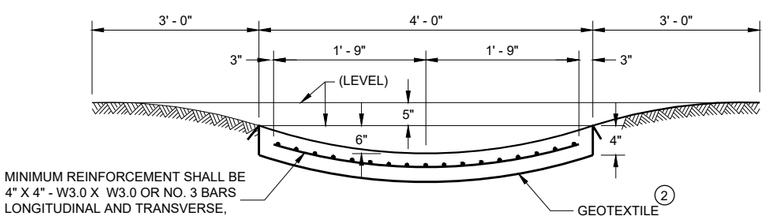


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

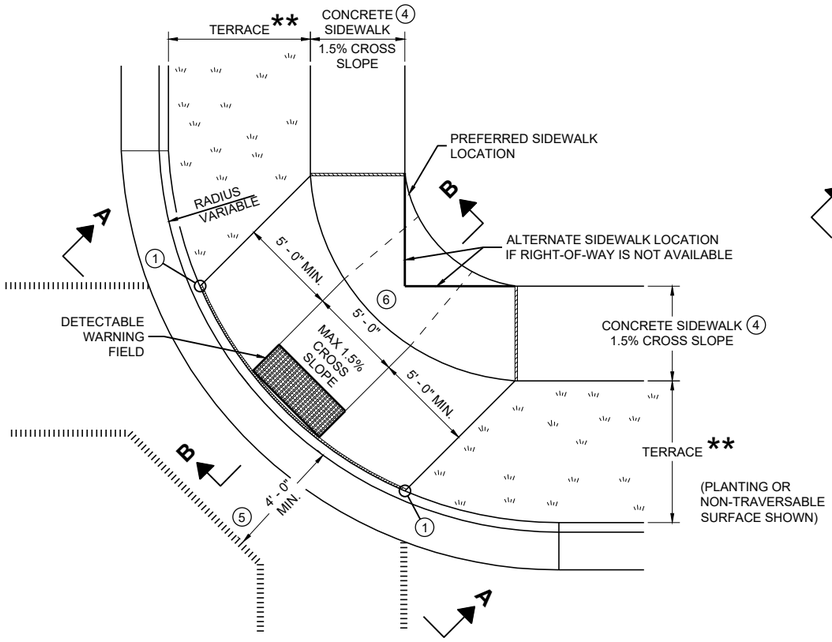
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

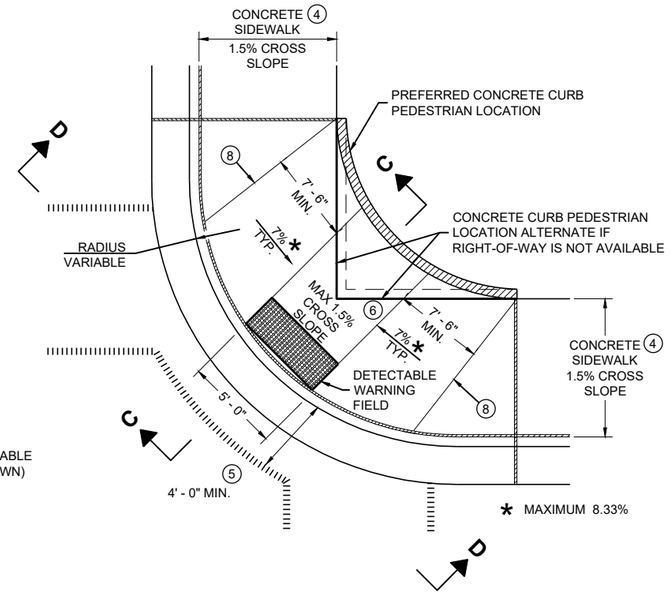
6
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

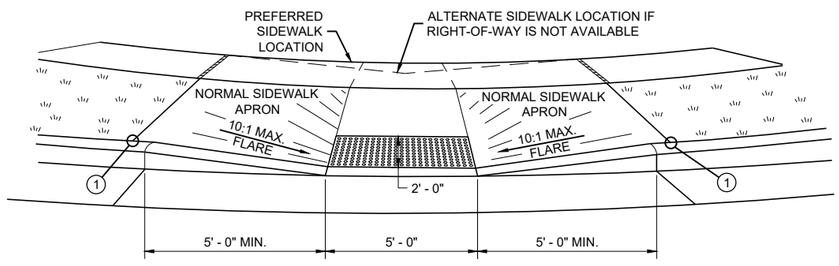
(CENTER OF CORNER RADIUS)



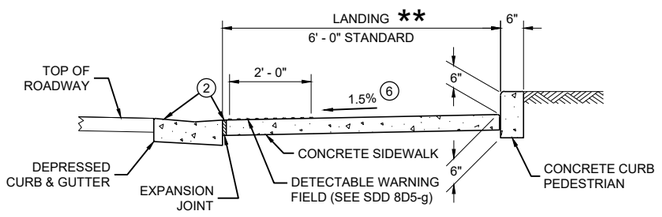
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

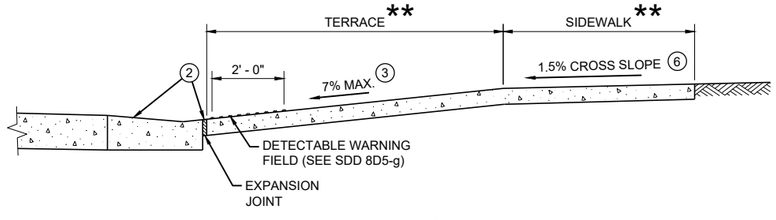


VIEW A - A FOR TYPE 1

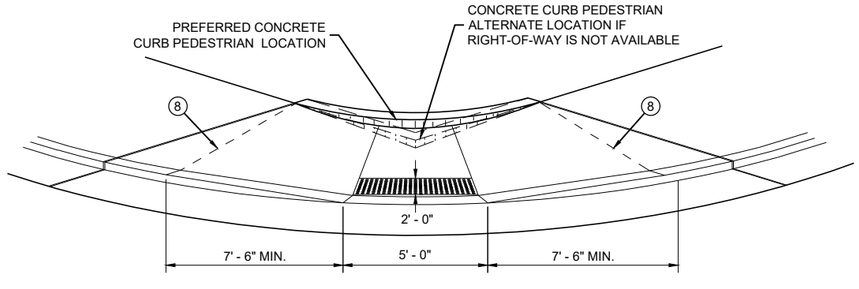


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

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 ½ - 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. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(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.

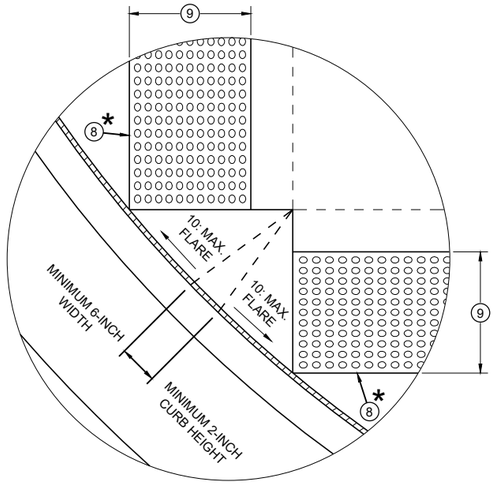
LEGEND

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

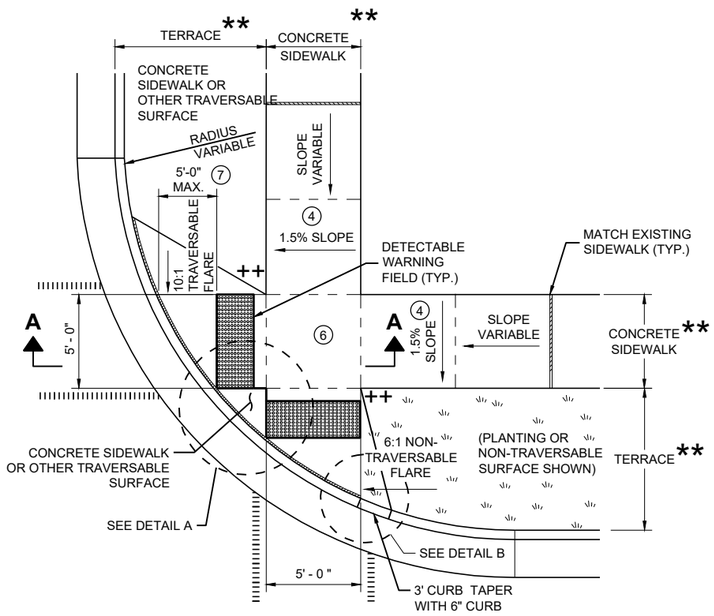
CURB RAMPS
TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05-21a



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.

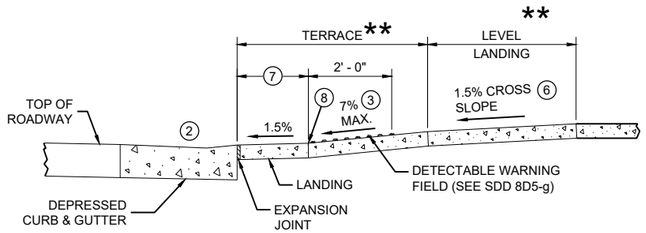
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

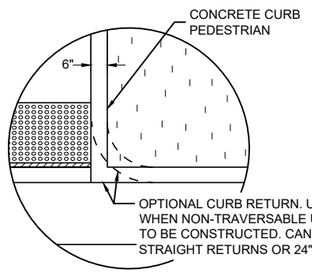


SECTION A - A FOR TYPE 2

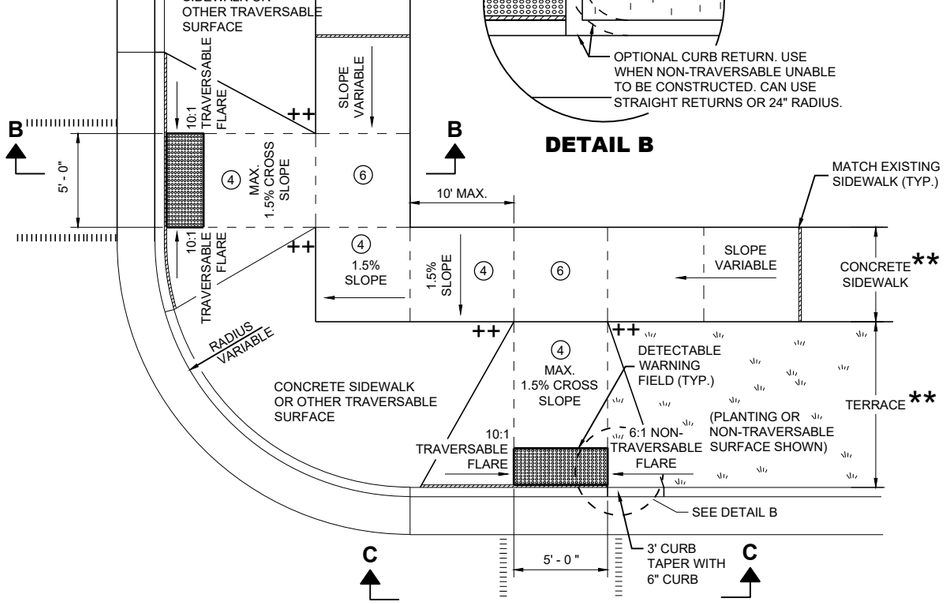
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

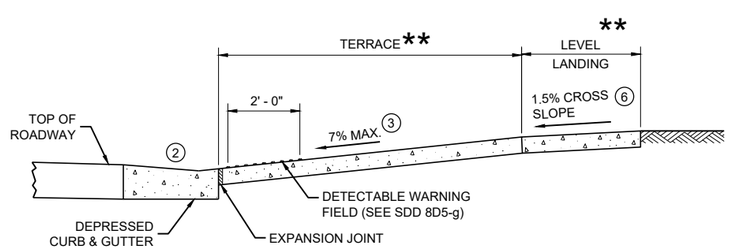
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



DETAIL B



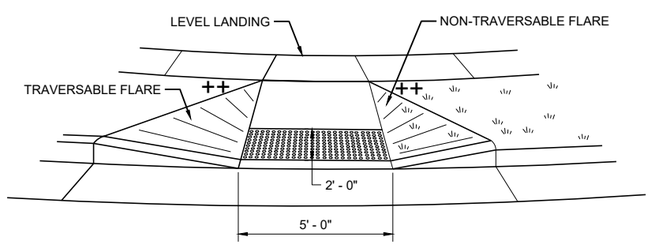
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3

LEGEND

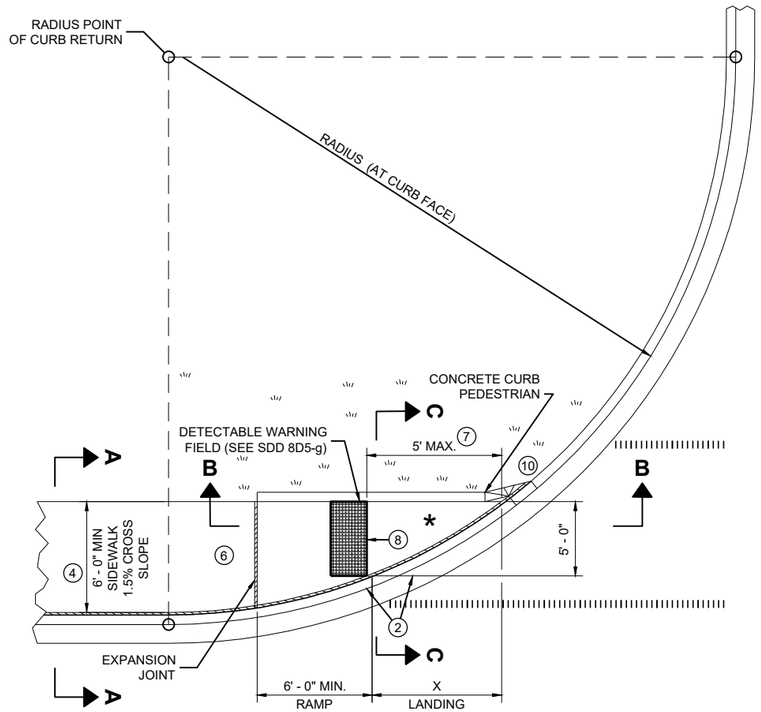
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

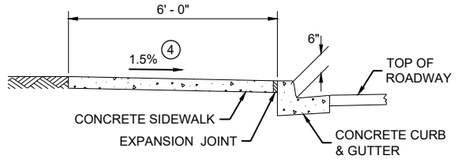


PLAN VIEW

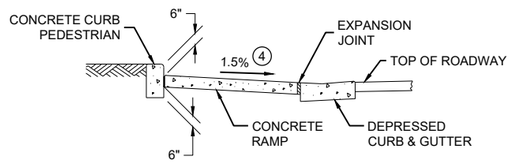
CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

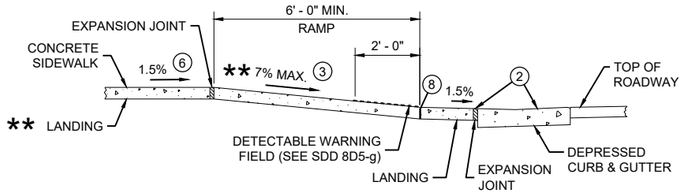
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

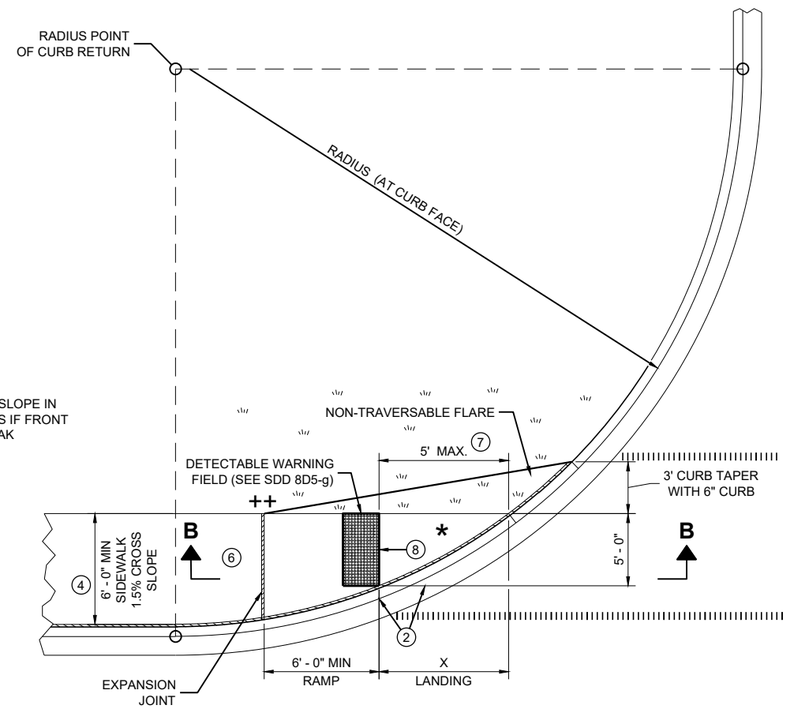


SECTION C - C FOR TYPE 4A



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

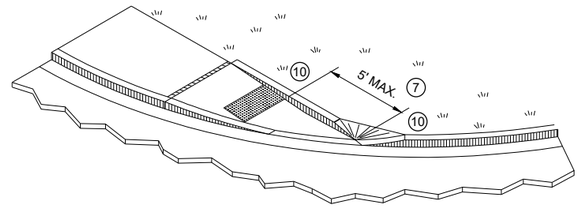
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



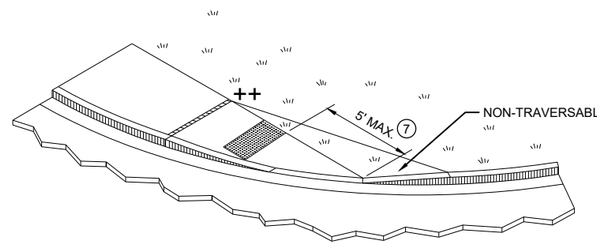
PLAN VIEW

CURB RAMP TYPE 4A1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

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

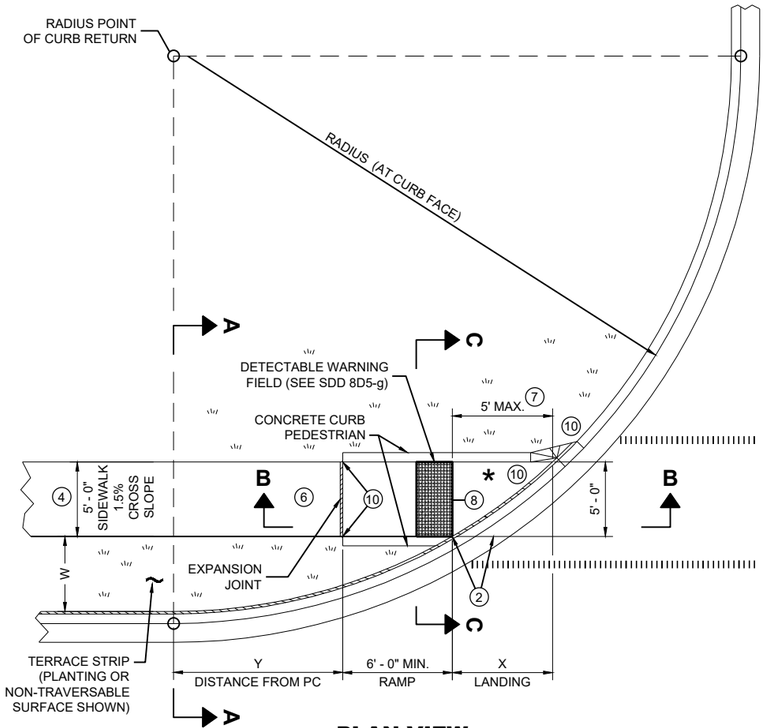
CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05-21c



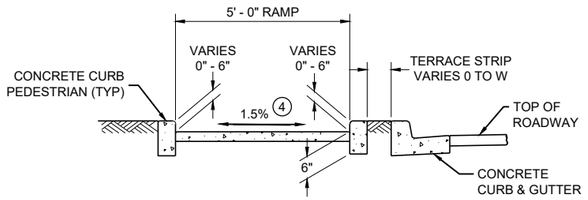
PLAN VIEW
CURB RAMP TYPE 4B

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 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

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)



SECTION C - C FOR TYPE 4B

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.

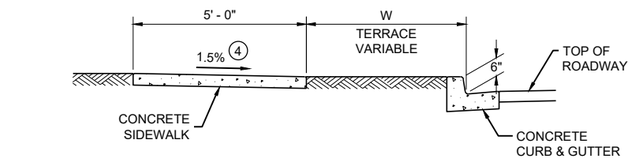
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

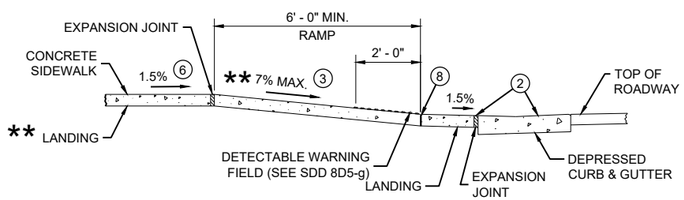
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

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

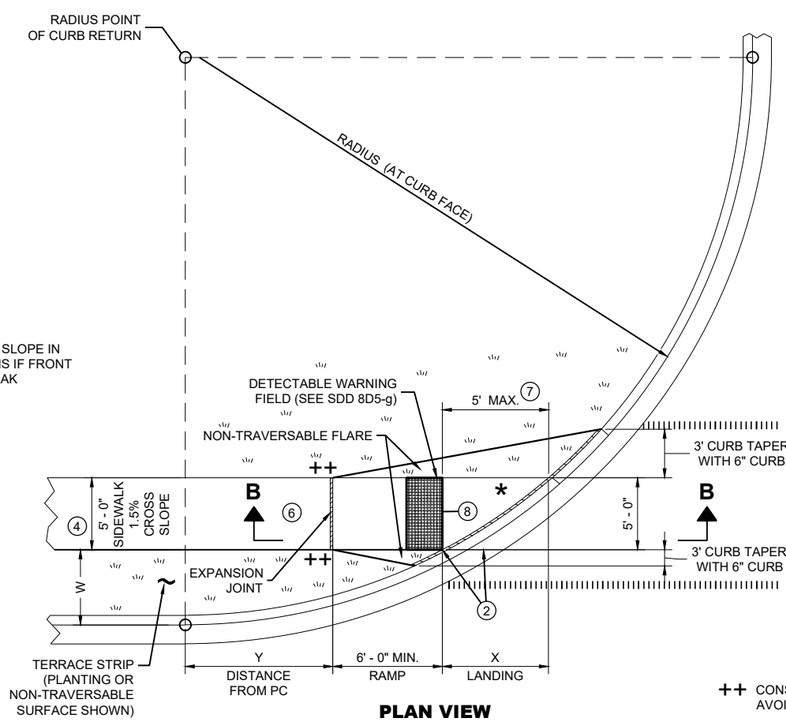


SECTION A - A FOR TYPE 4B



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

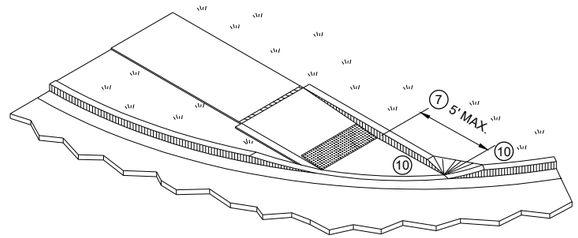
SECTION B - B FOR TYPE 4B AND TYPE 4B1



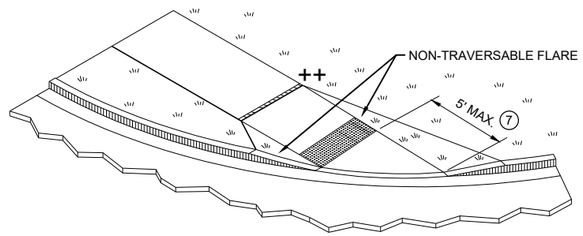
PLAN VIEW
CURB RAMP TYPE 4B1

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

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



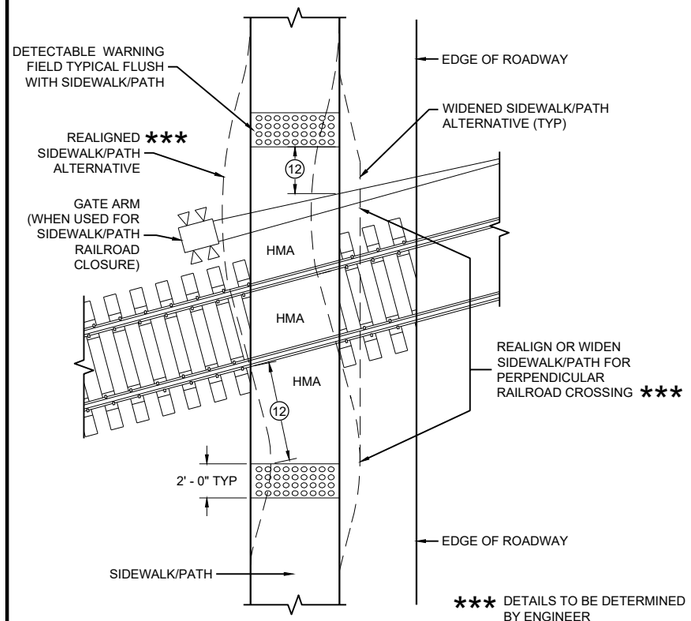
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

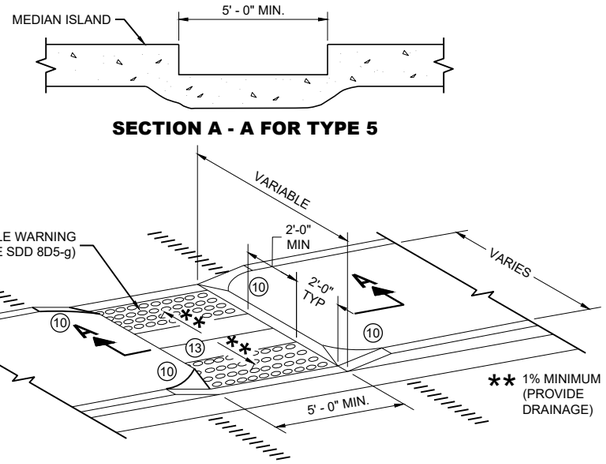
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



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.

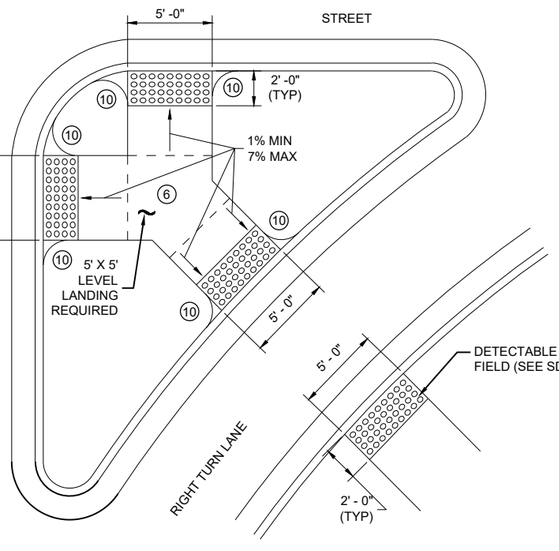
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL 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

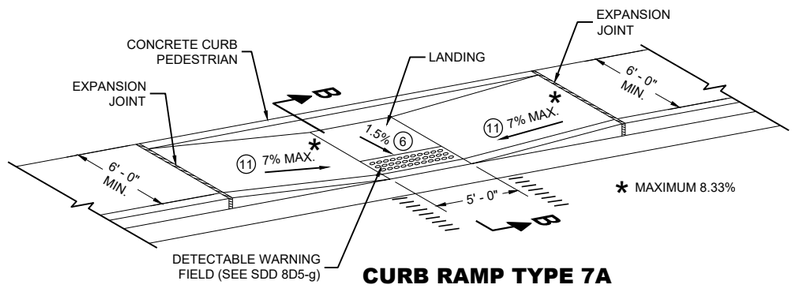
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

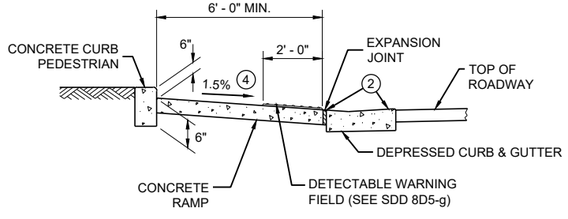
DETECTABLE WARNING AT ISLANDS

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

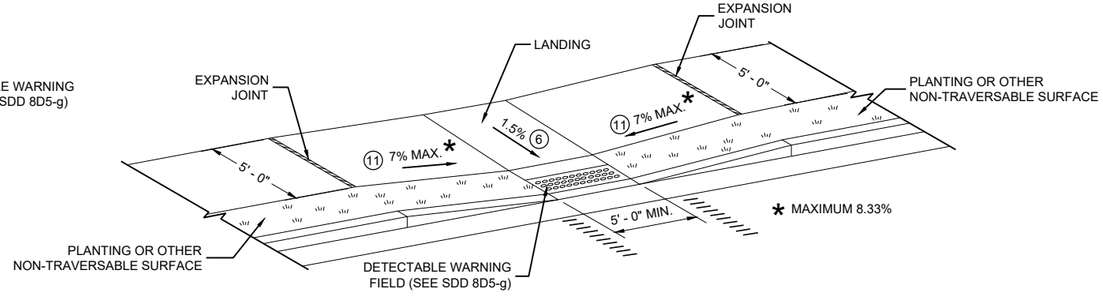


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



SECTION B - B FOR TYPE 7A



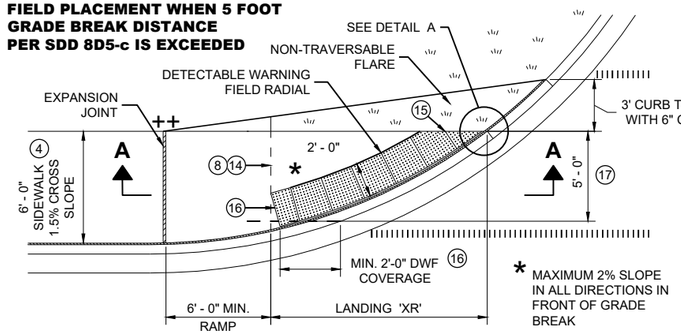
CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

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

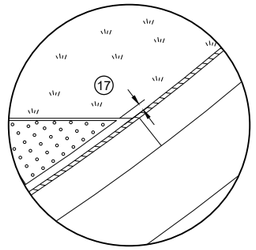
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

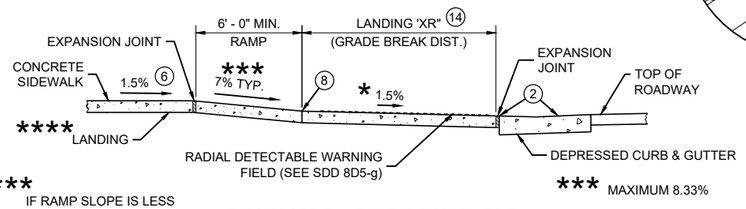


PLAN VIEW

CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

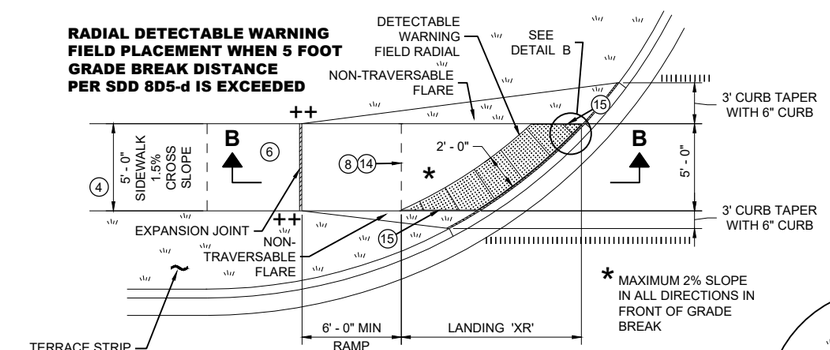


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

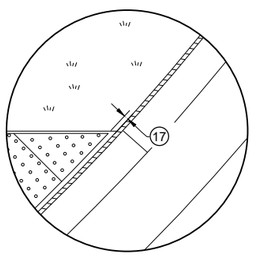
SECTION A - A FOR TYPE 4A1

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

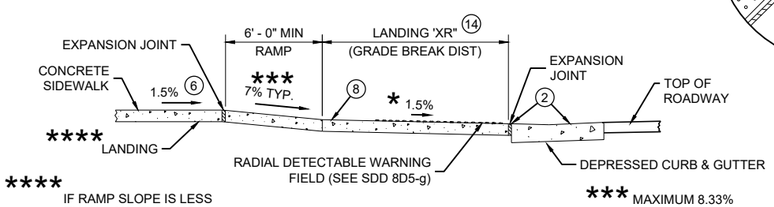


PLAN VIEW

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.

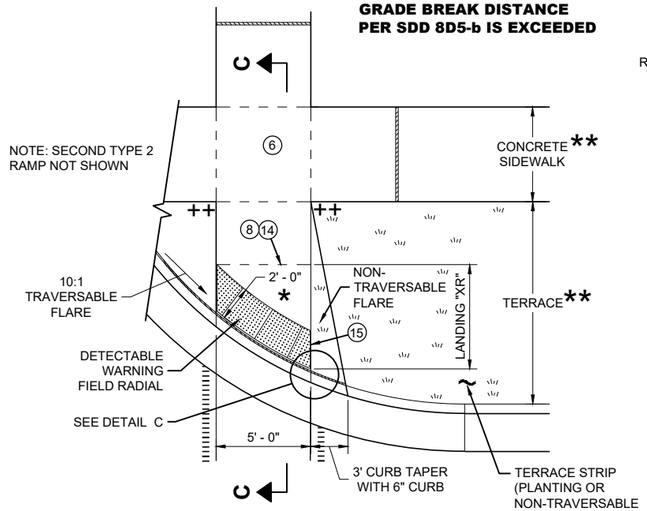
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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.

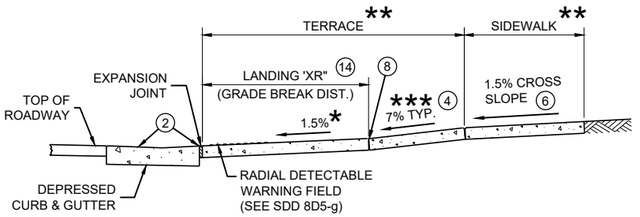
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

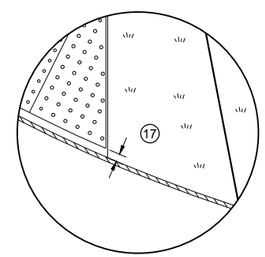


PLAN VIEW

CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

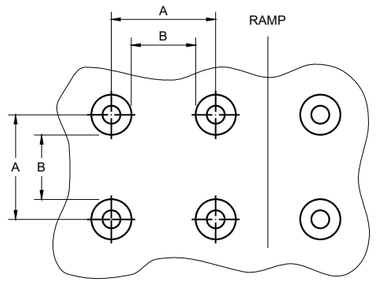
SDD 08D05-21f

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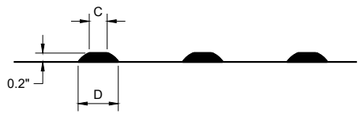
SDD 08D05-21f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

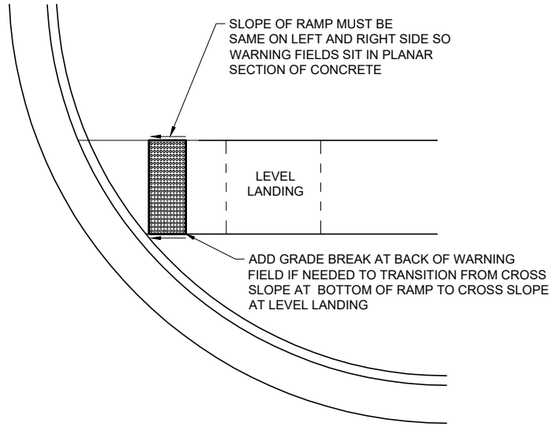
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

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.

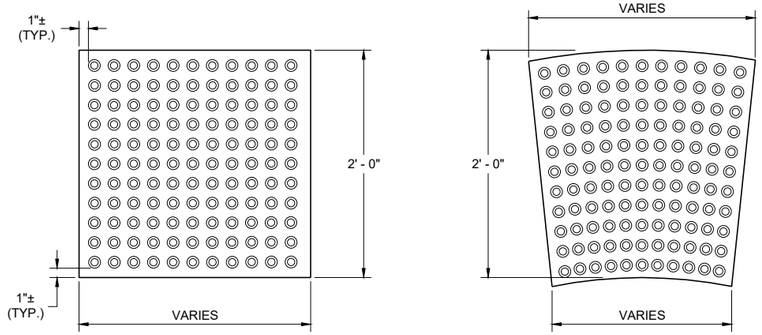
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. 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.

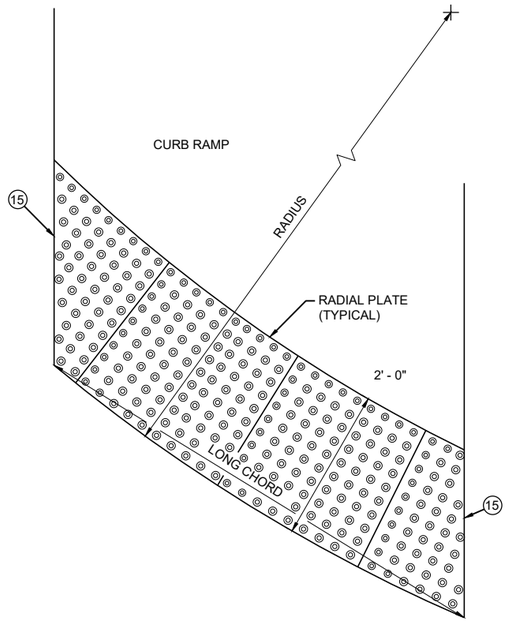
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



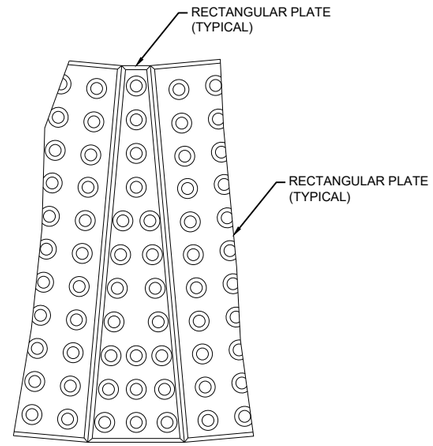
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

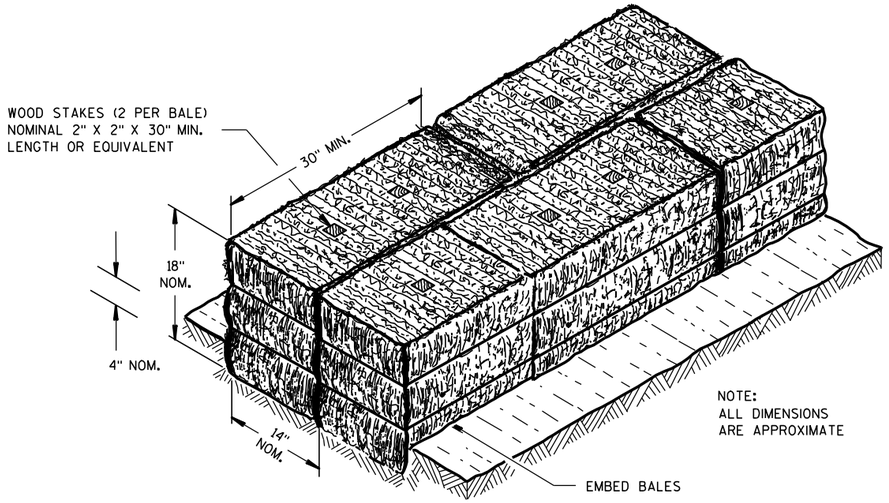
CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

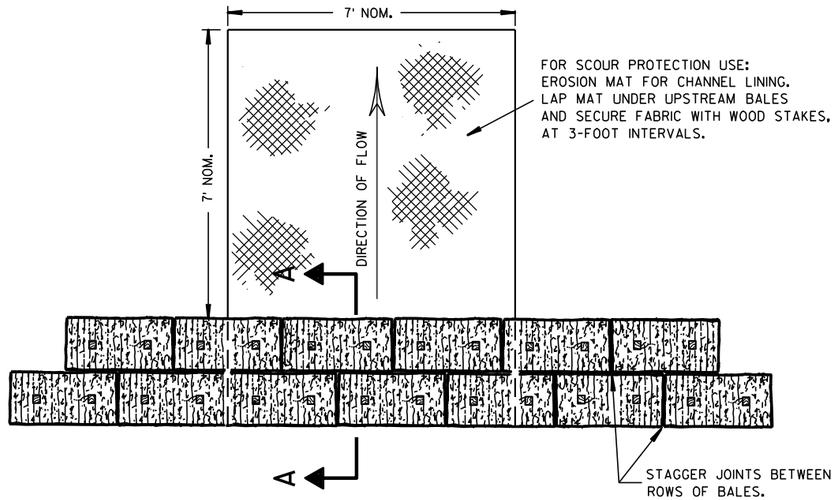
APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

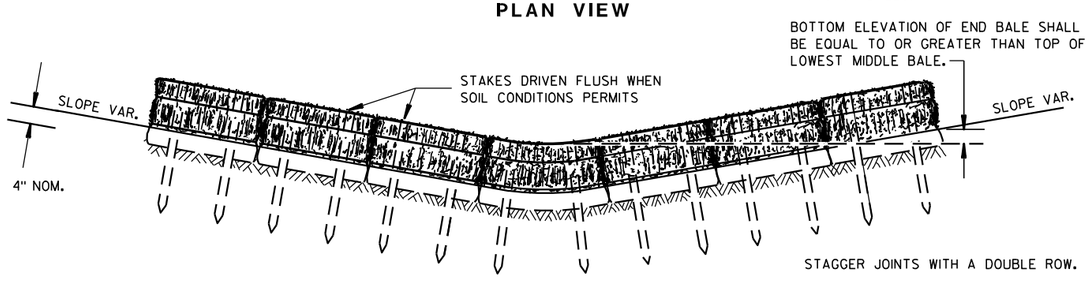
6
SDD 08D05-21g



SECTION A-A



PLAN VIEW



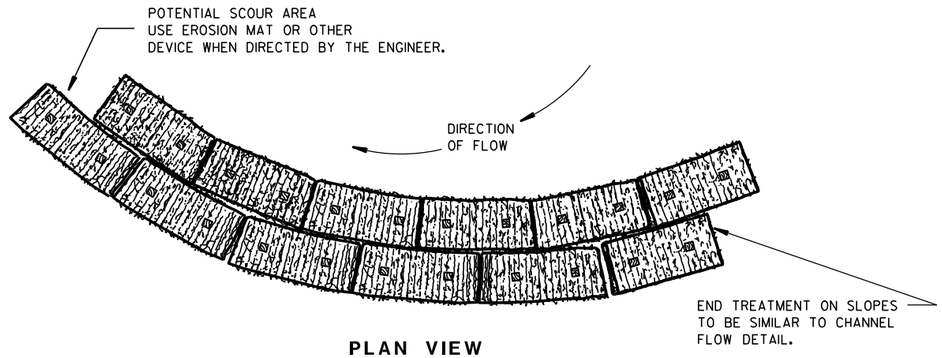
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

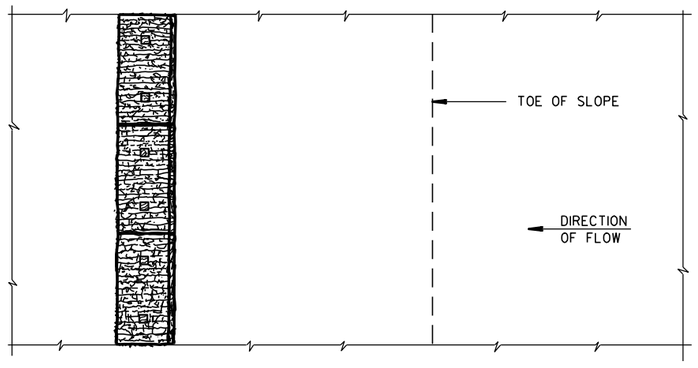
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

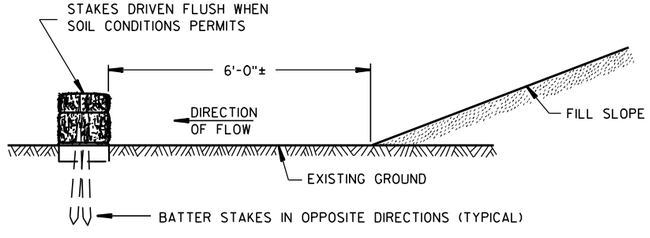


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

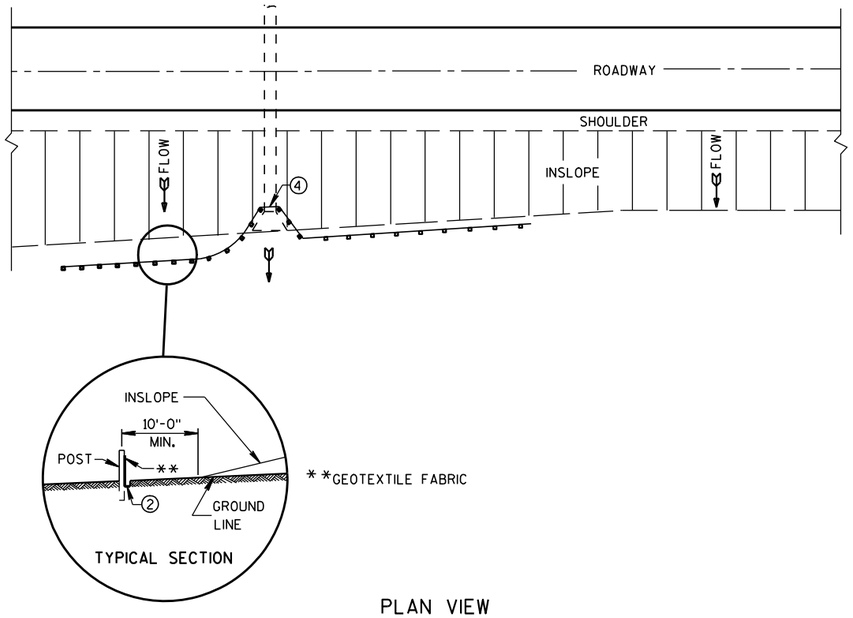
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

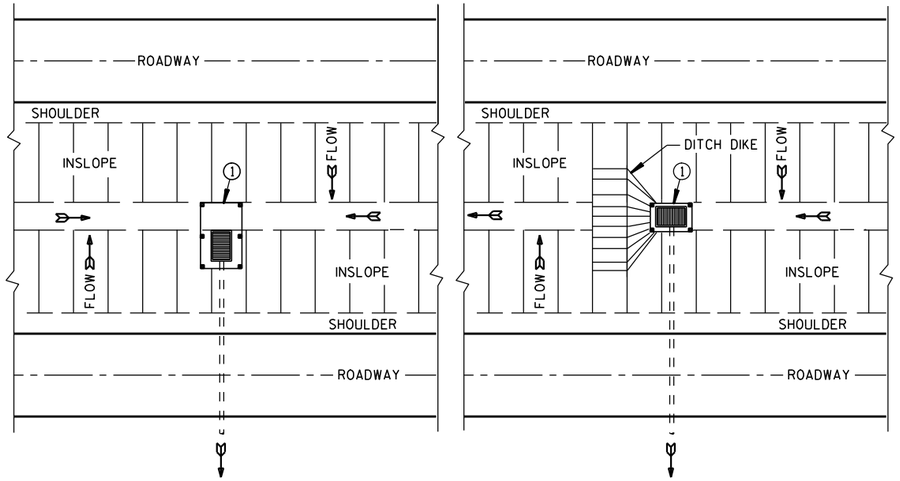
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
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PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



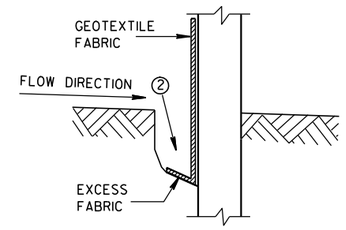
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

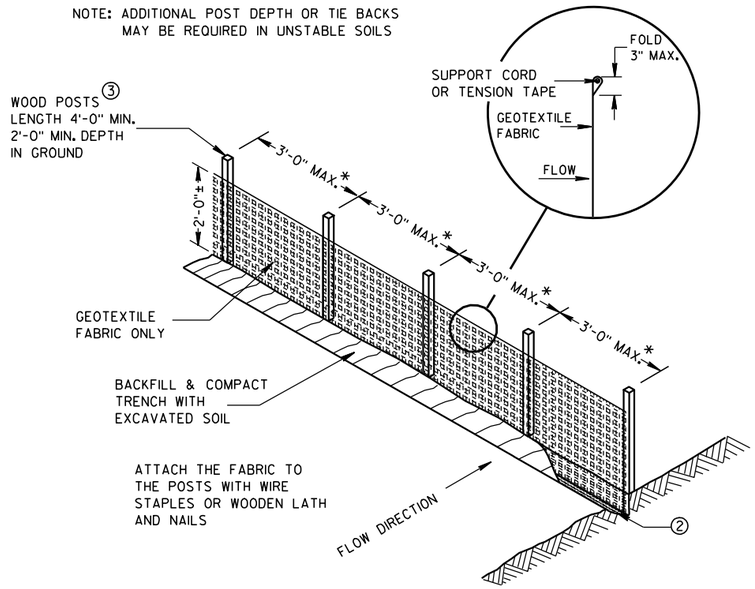
GENERAL NOTES

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

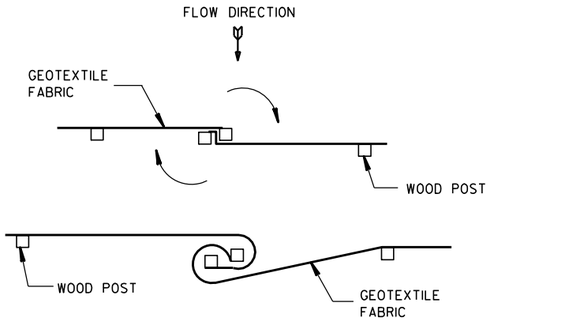
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



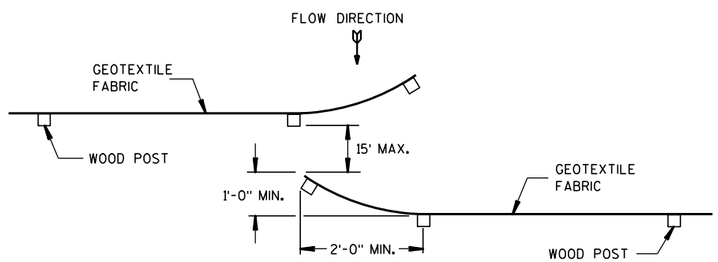
TRENCH DETAIL



SILT FENCE

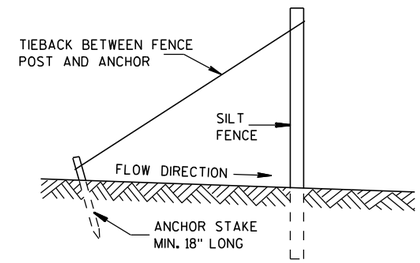


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

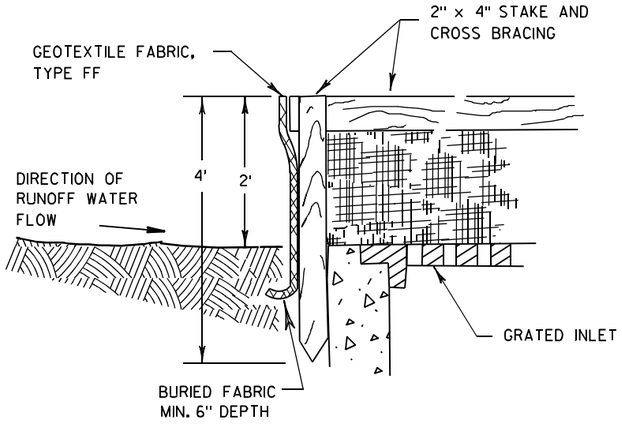
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

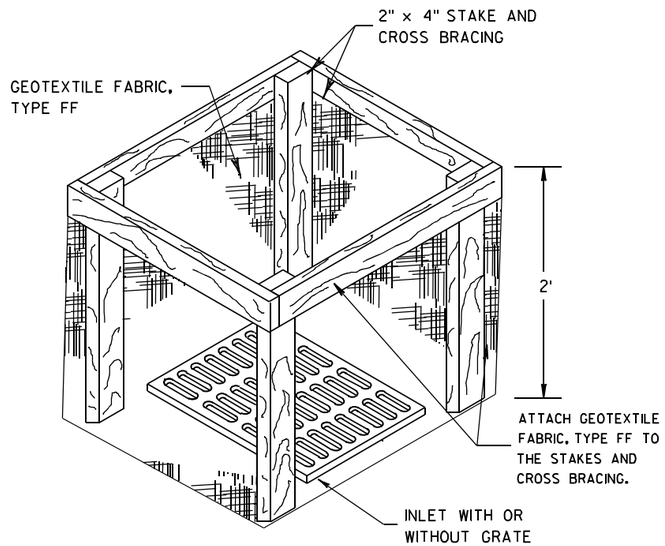
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S.D.D. 8 E 9-6

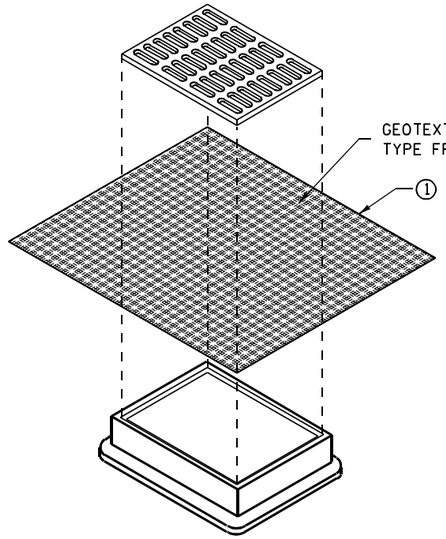
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S.D.D. 8 E 9-6



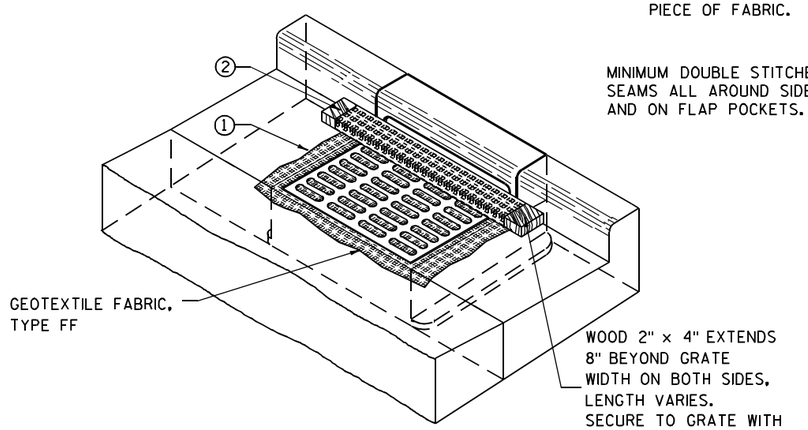


INLET PROTECTION, TYPE A

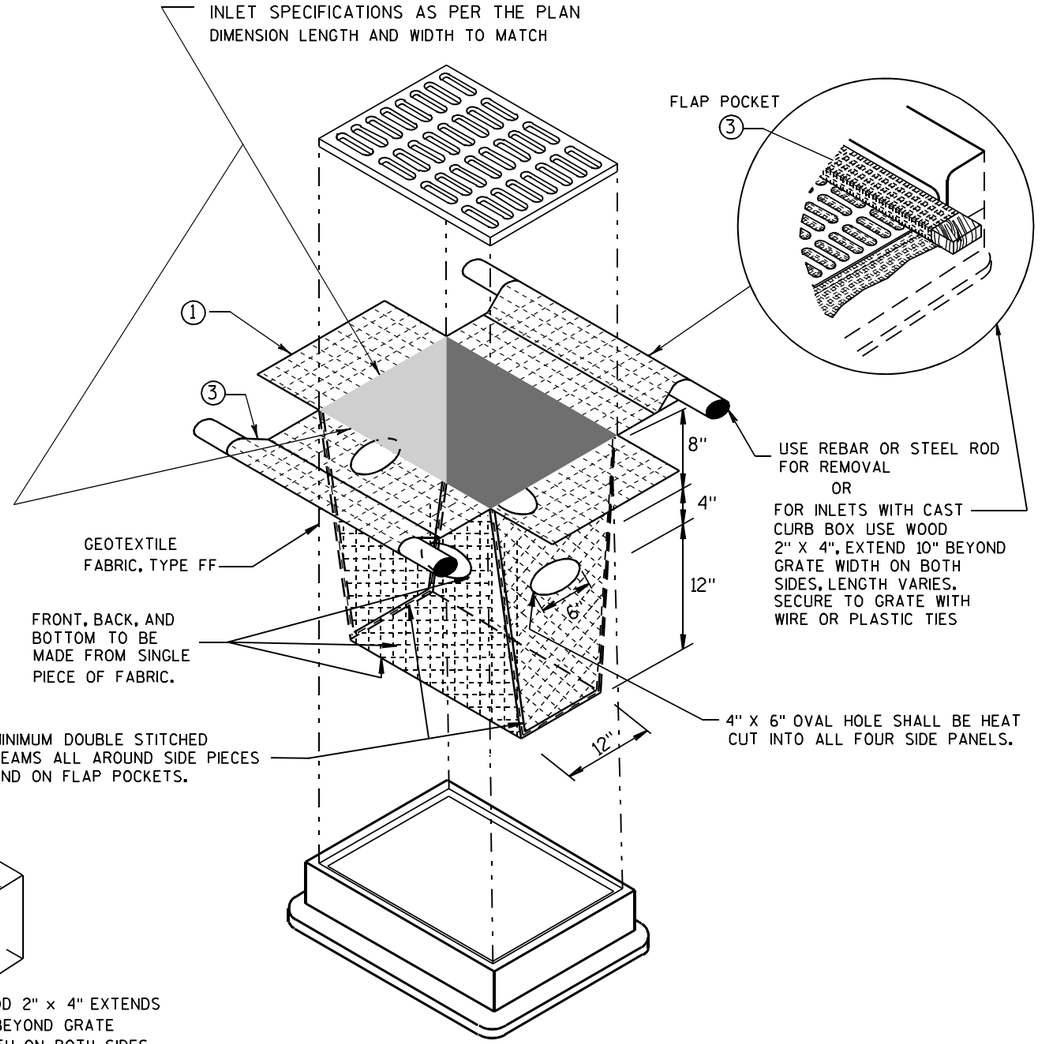


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

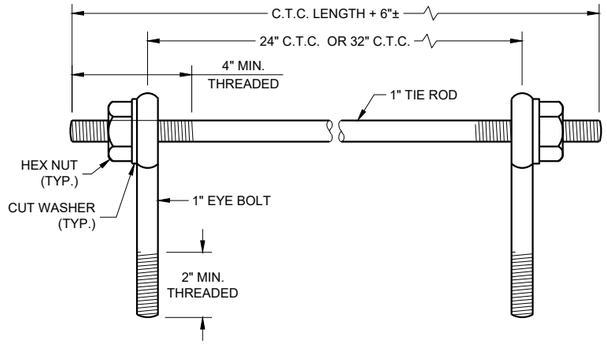
10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

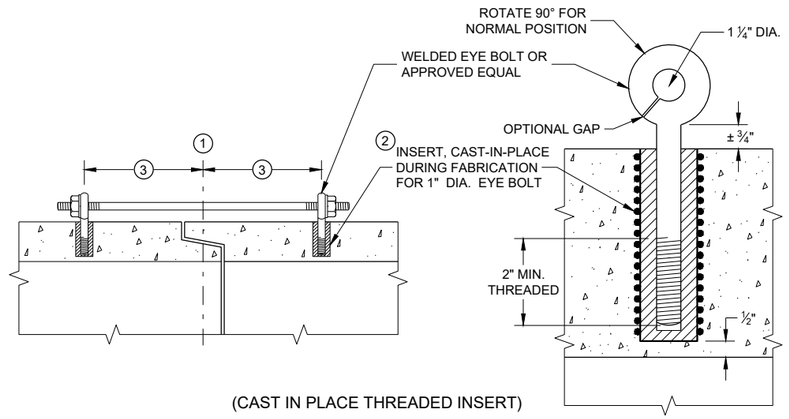
FHWA

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S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

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

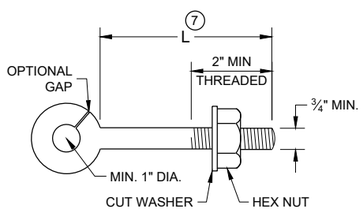
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

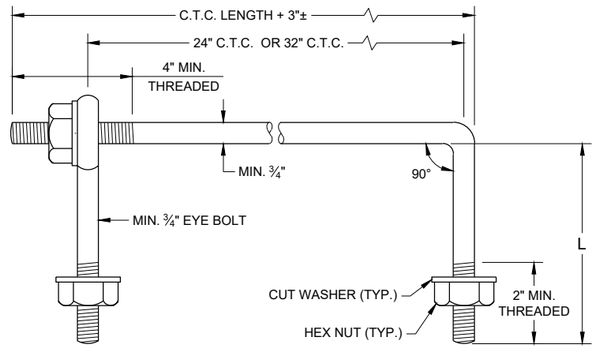
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

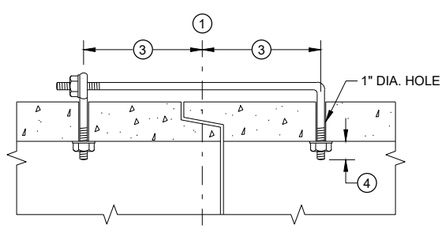


EYE BOLT (7)

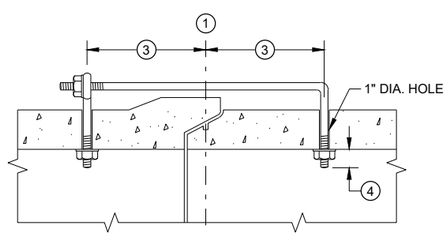
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

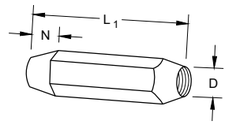
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

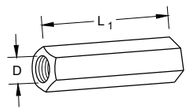
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



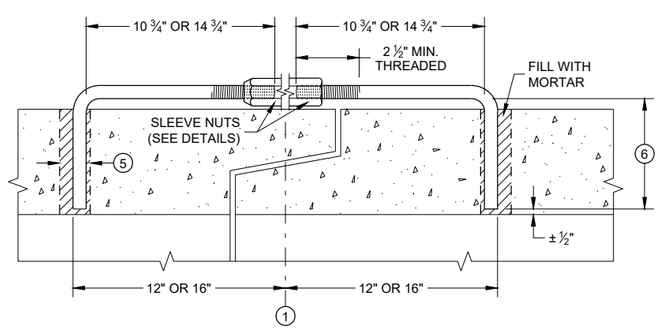
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PLAIN

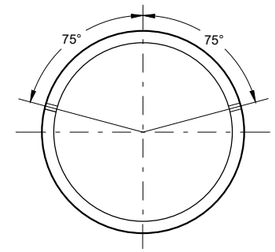
RIGHT AND LEFT THREADS

SLEEVE NUTS



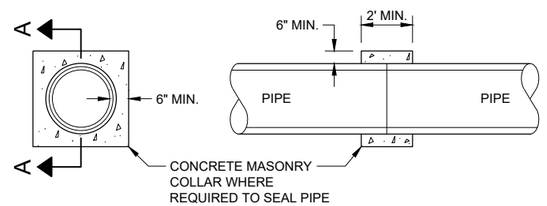
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

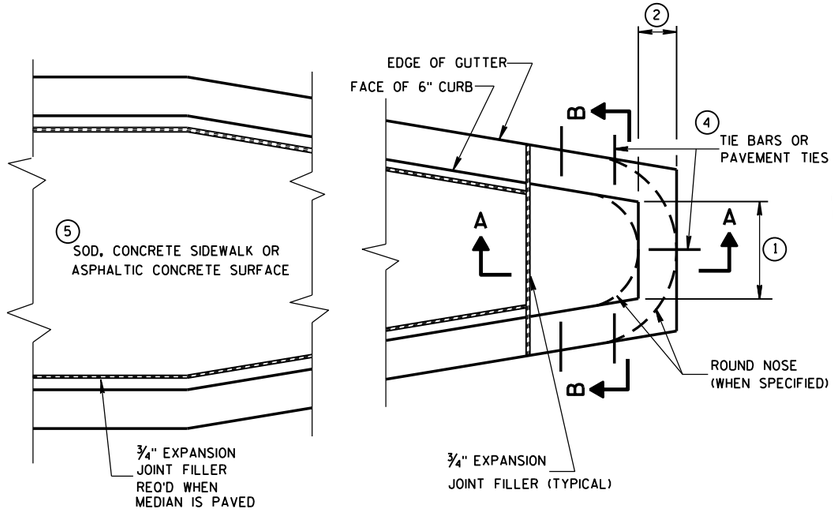
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

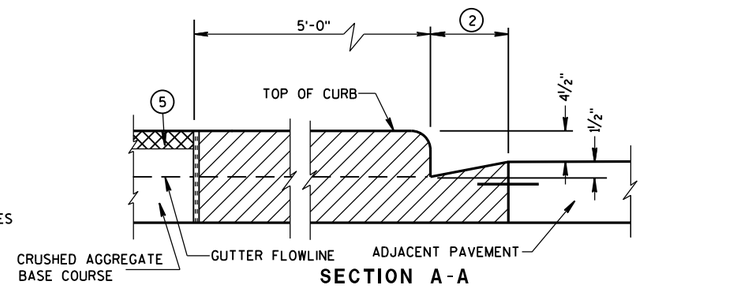
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

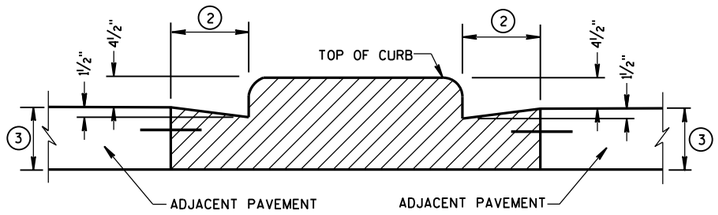
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 08F04 - 08

SDD 08F04 - 08







CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

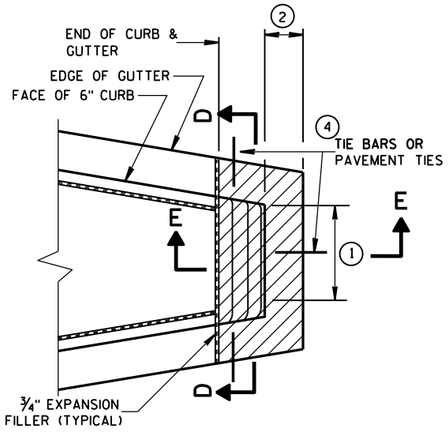
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

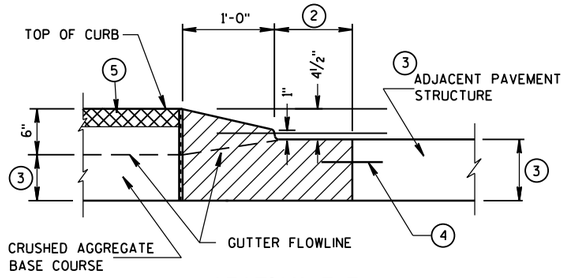
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

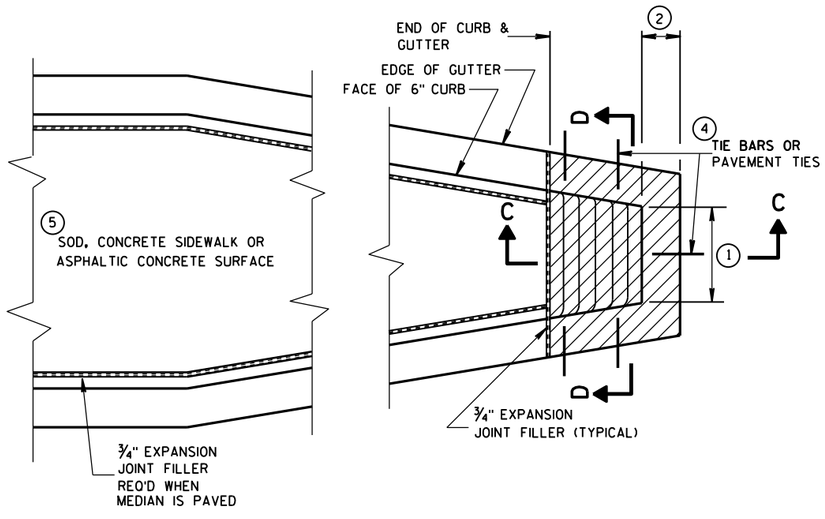
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

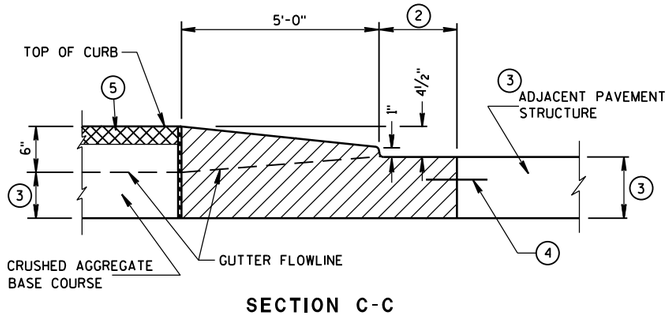
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



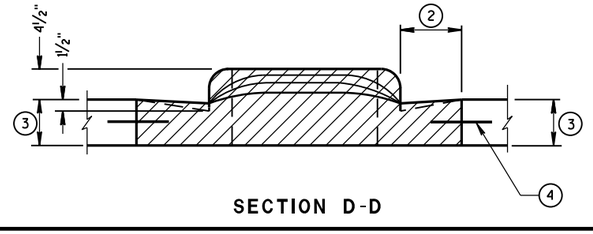


CONCRETE MEDIAN SLOPED NOSE TYPE 2

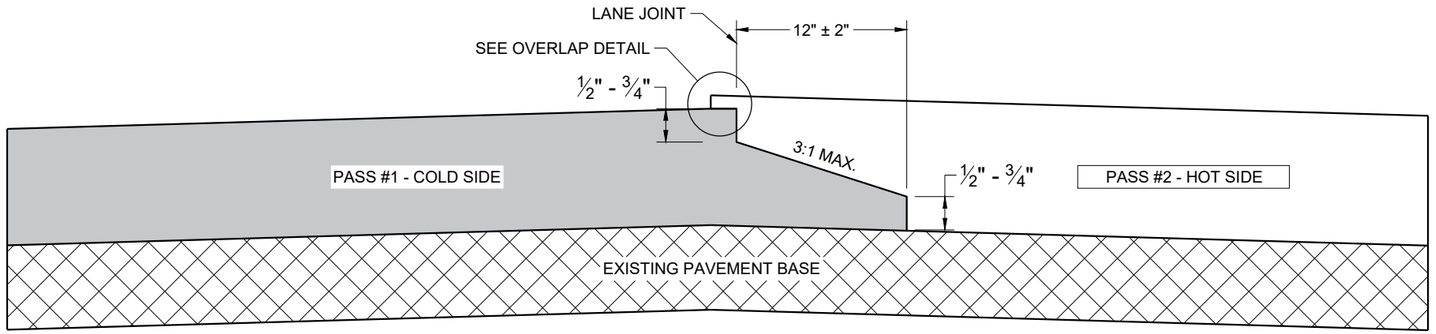




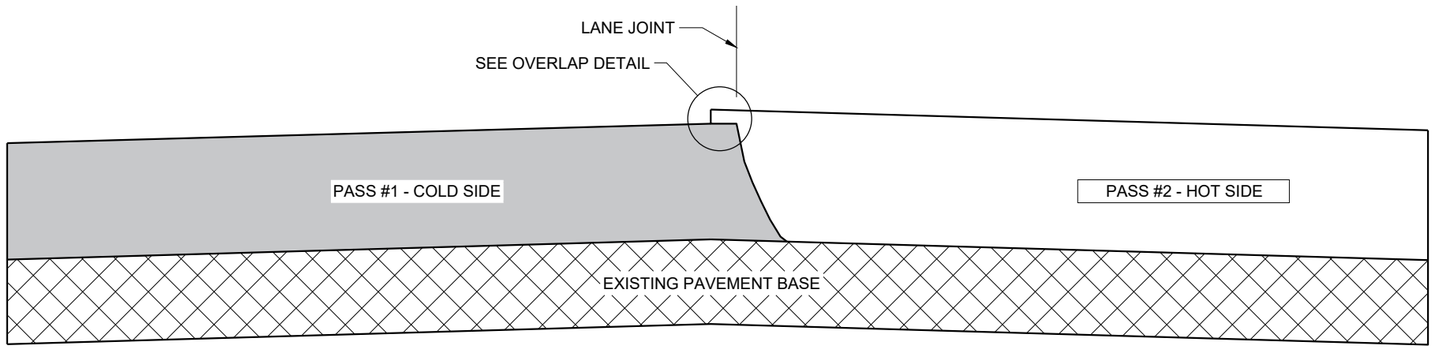
CONCRETE MEDIAN SLOPED NOSE TYPE 1



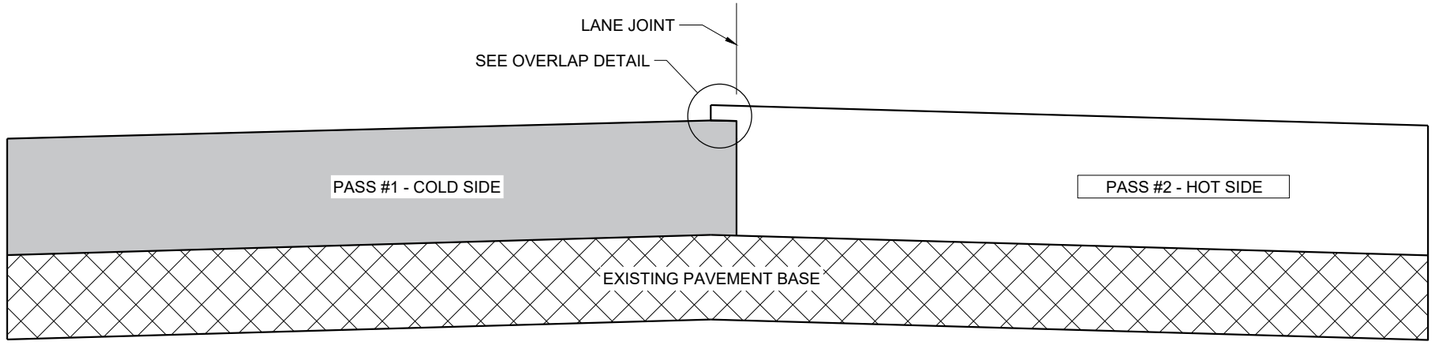
CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

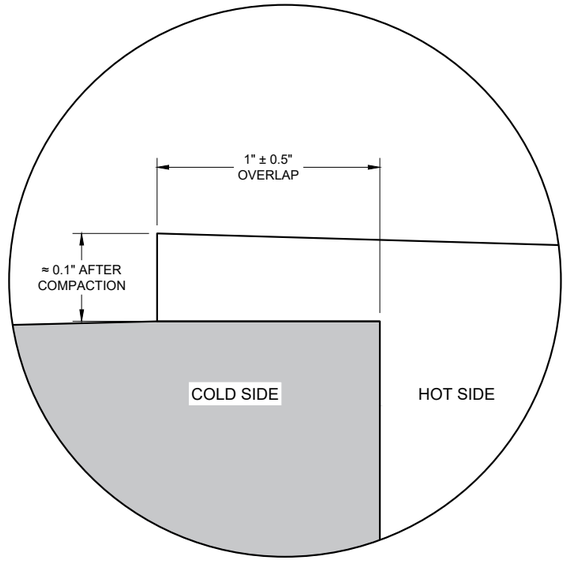
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

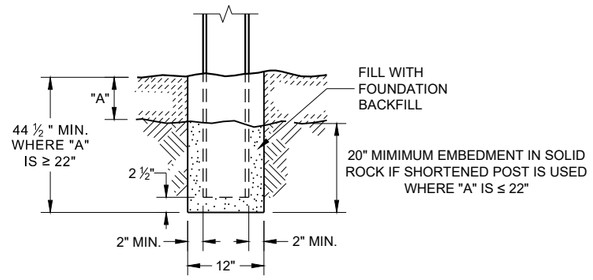
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

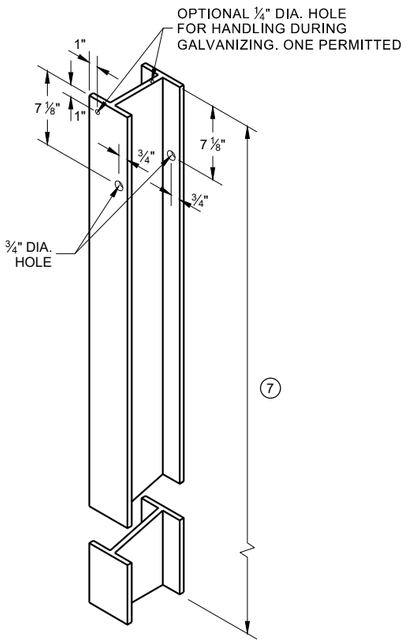
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

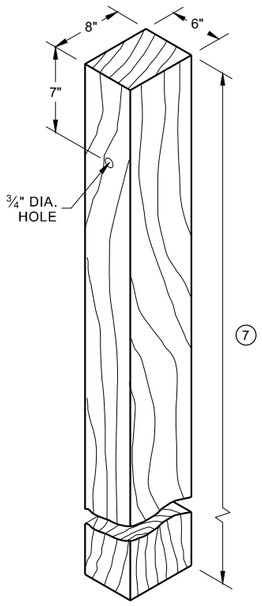
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



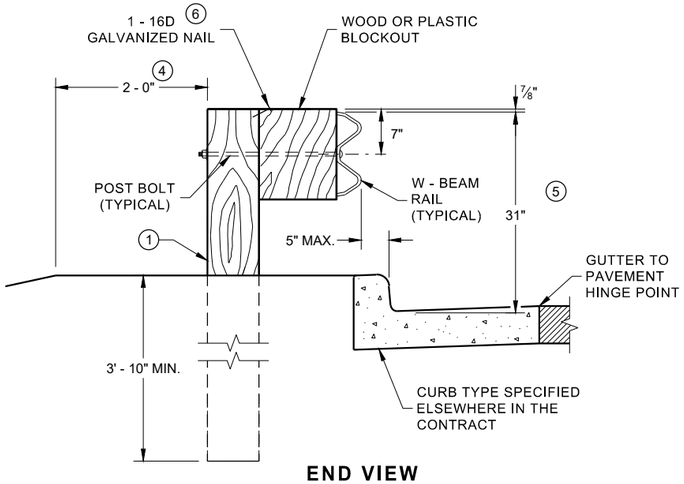
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



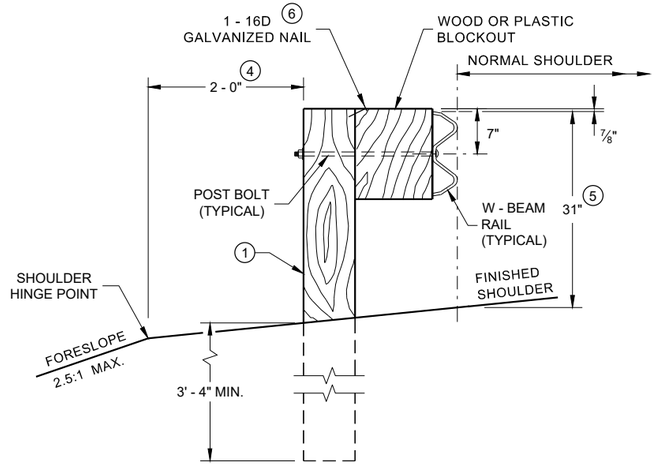
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



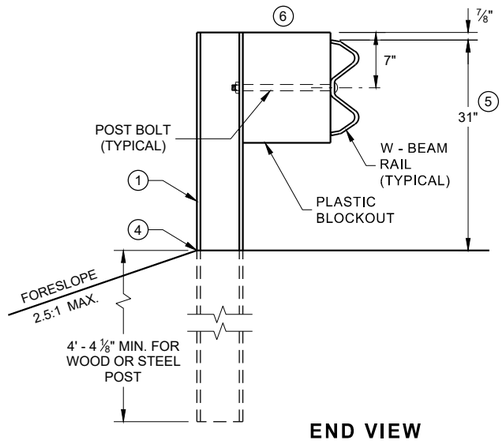
WOOD POST (6" X 8") NOMINAL (1)



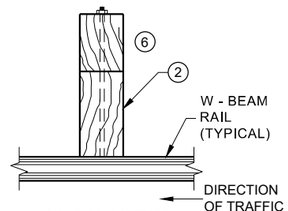
END VIEW
LOCATED ALONG A CURBED ROADWAY



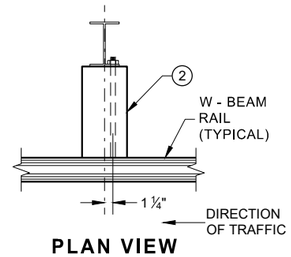
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



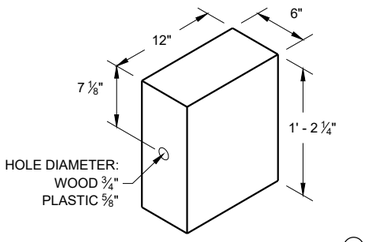
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

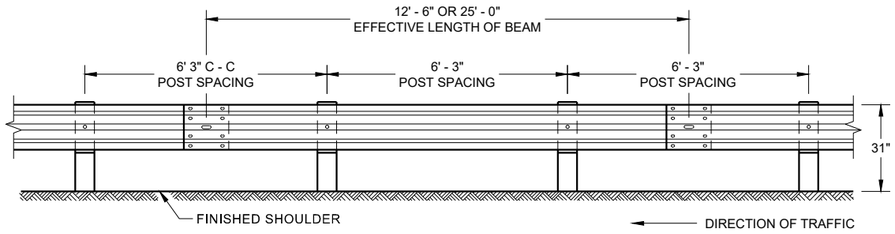


WOOD OR PLASTIC BLOCKOUT (2)

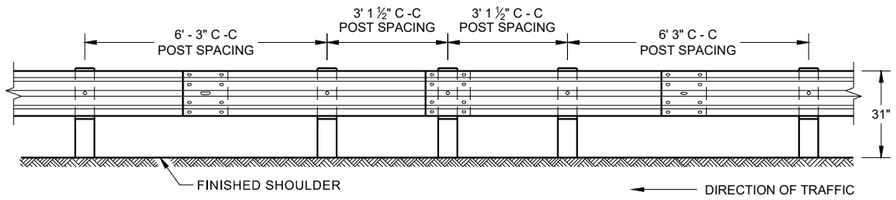
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

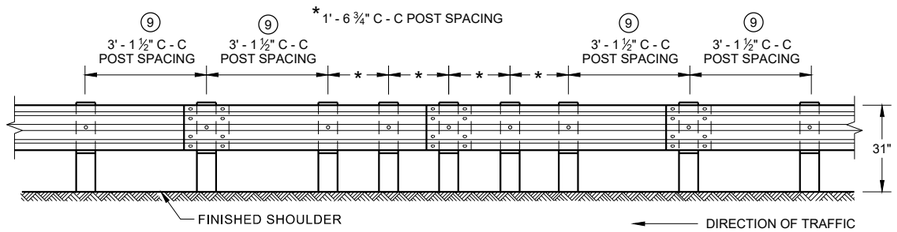
6
SDD 14B42 - 07a



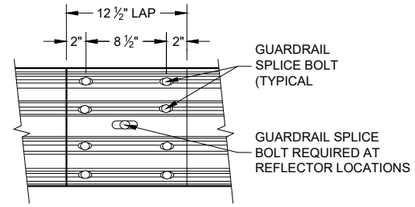
FRONT VIEW
POST SPACING STANDARD INSTALLATION



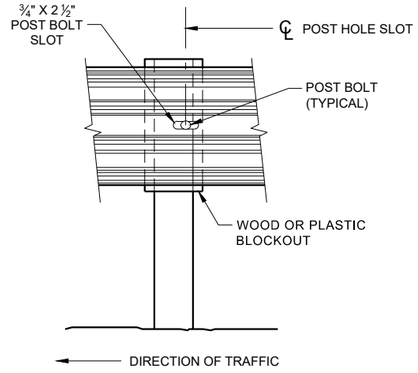
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



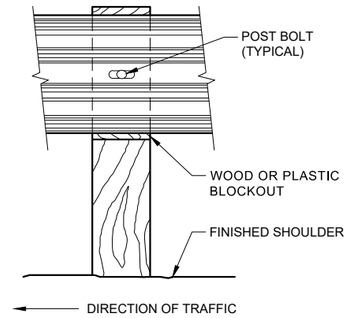
FRONT VIEW
QUARTER POST SPACING (QS)



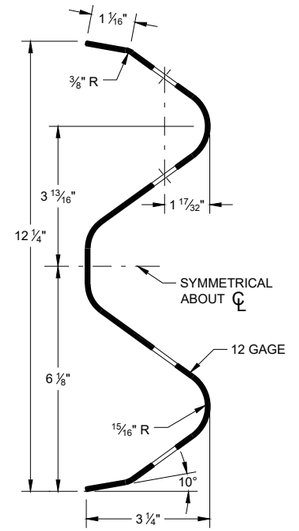
FRONT VIEW
MID-SPAN BEAM SPLICE



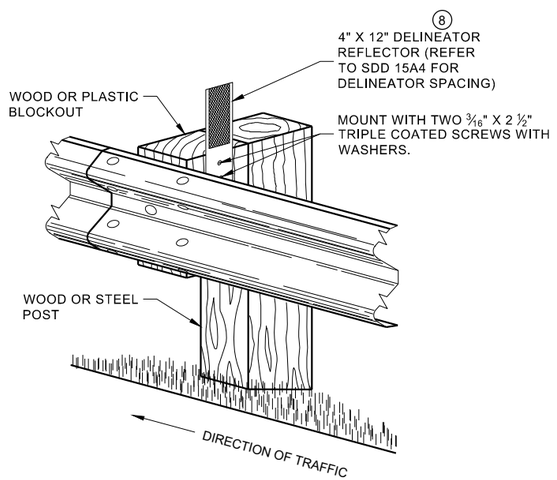
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

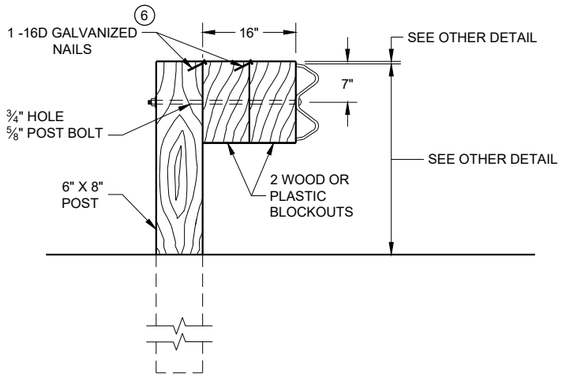
POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

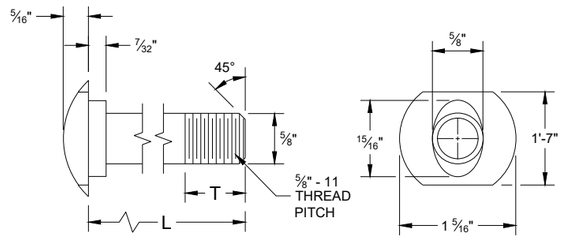


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

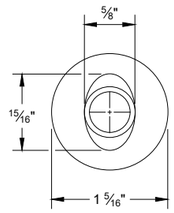
NOTE:

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

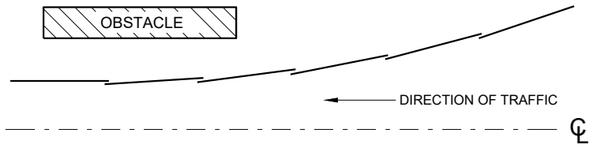


POST BOLT TABLE

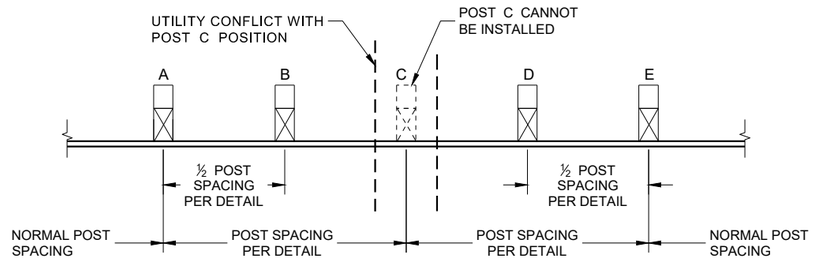
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



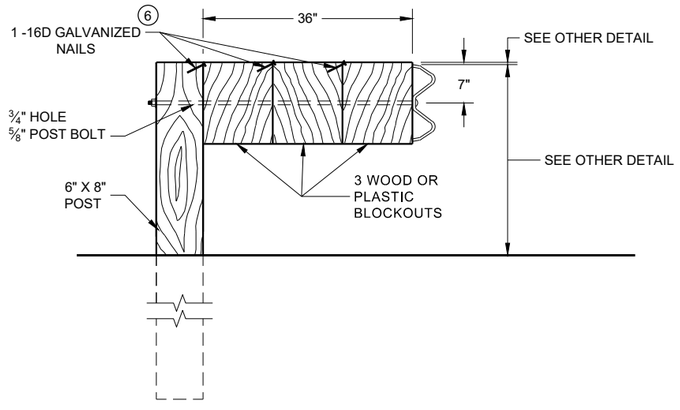
ALTERNATE BOLT HEAD



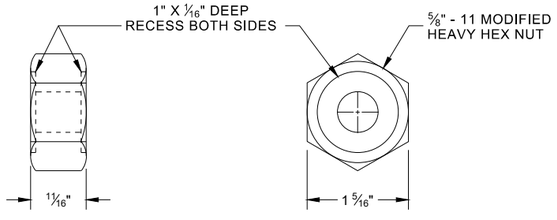
PLAN VIEW
BEAM LAPPING DETAIL



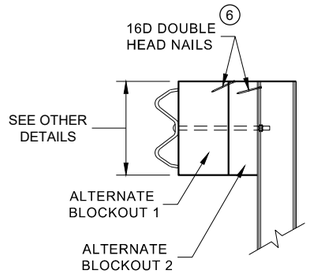
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



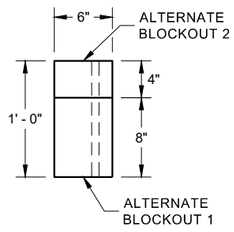
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

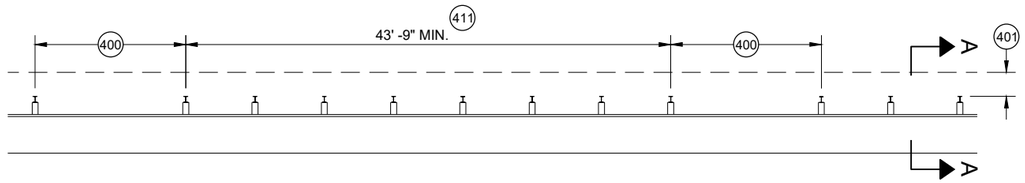
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

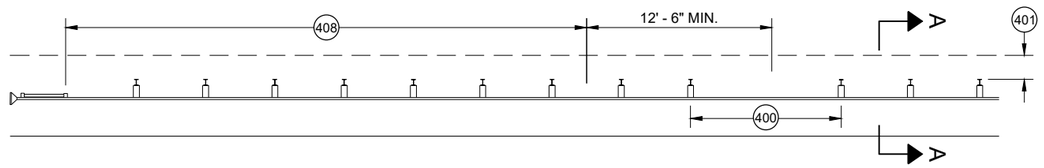
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

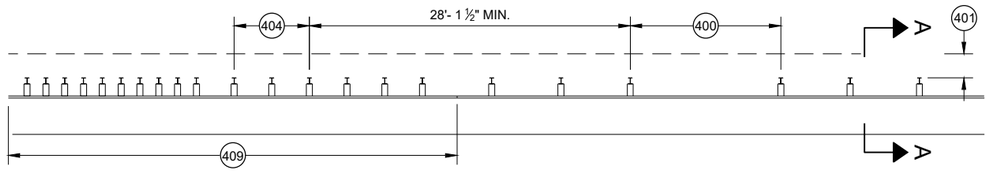
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



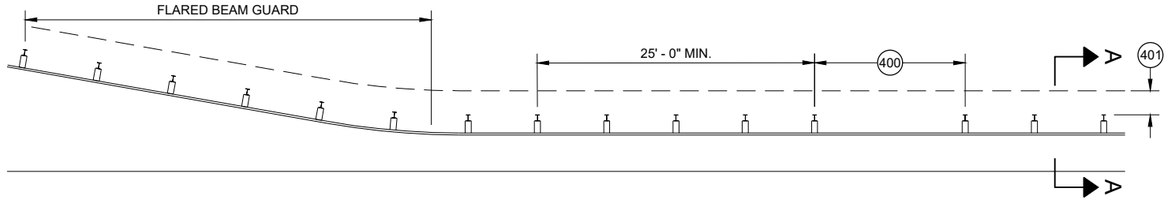
MISSING POST IN MGS GUARDRAIL



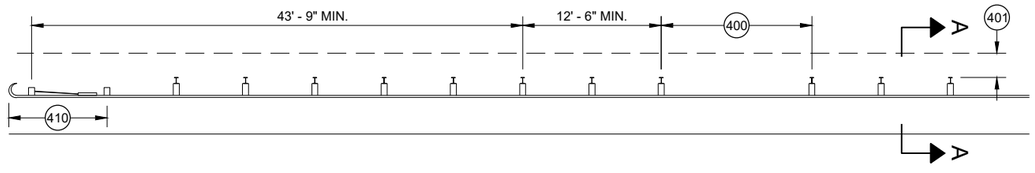
MISSING POST IN MGS GUARDRAIL NEAR EAT



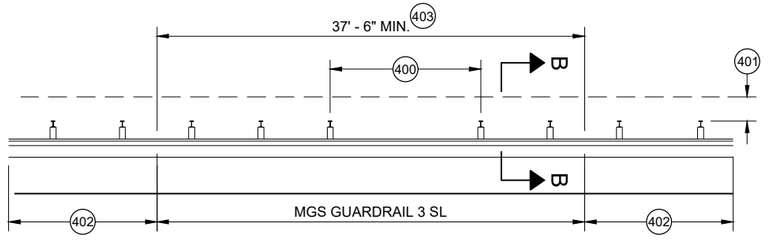
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

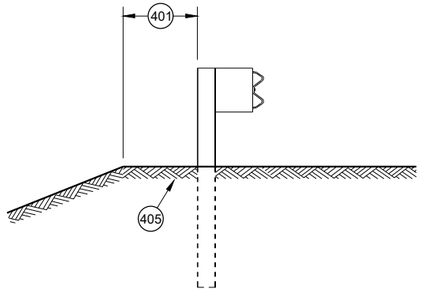


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

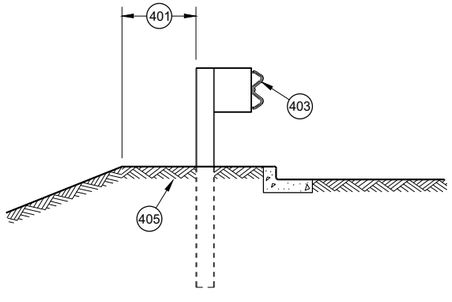


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

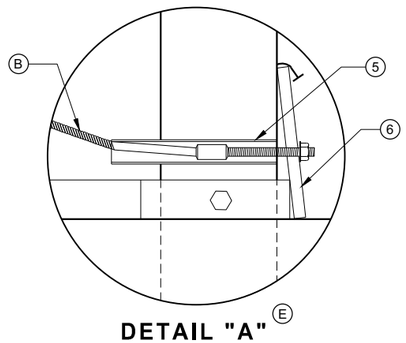
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

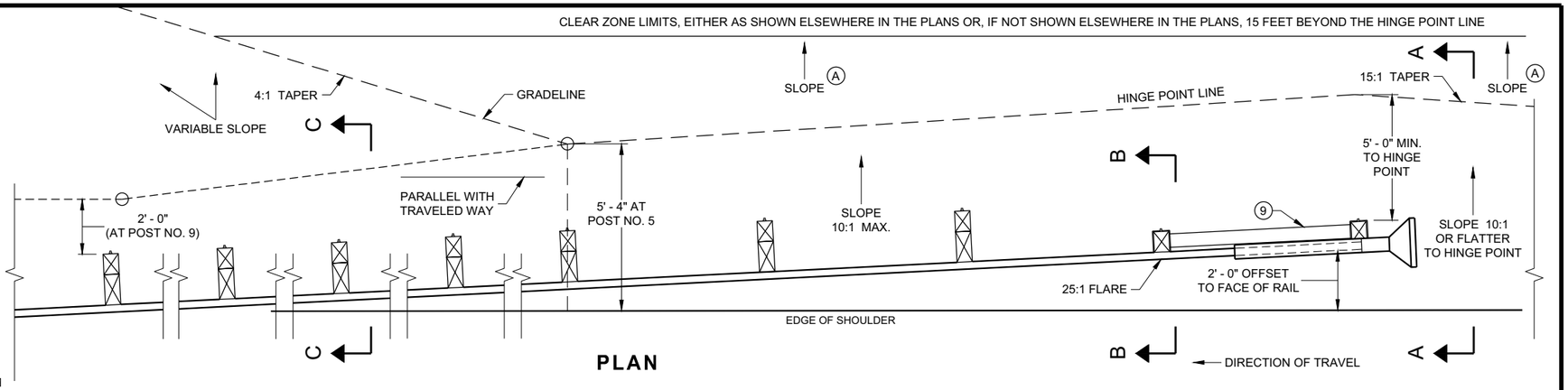
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

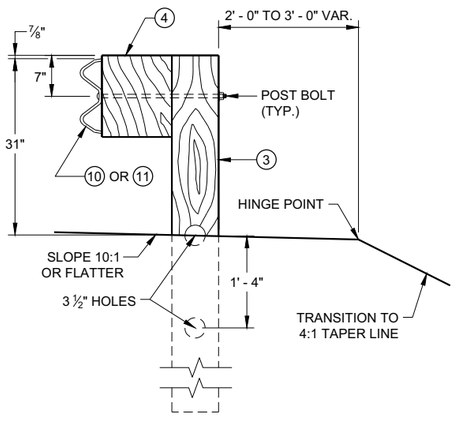
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

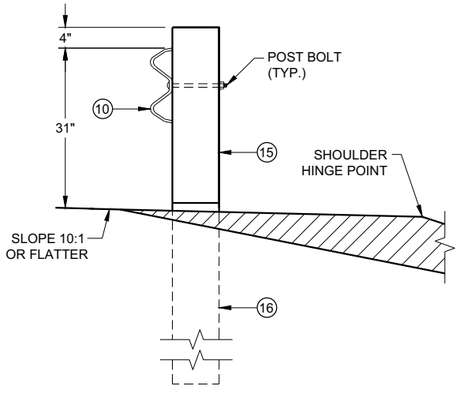


DETAIL "A" (E)

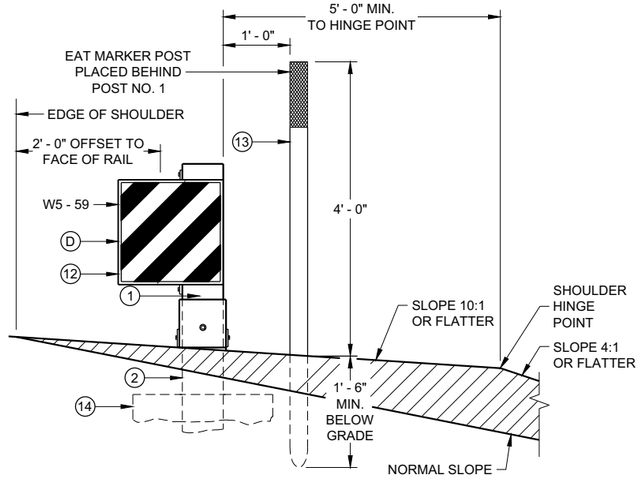




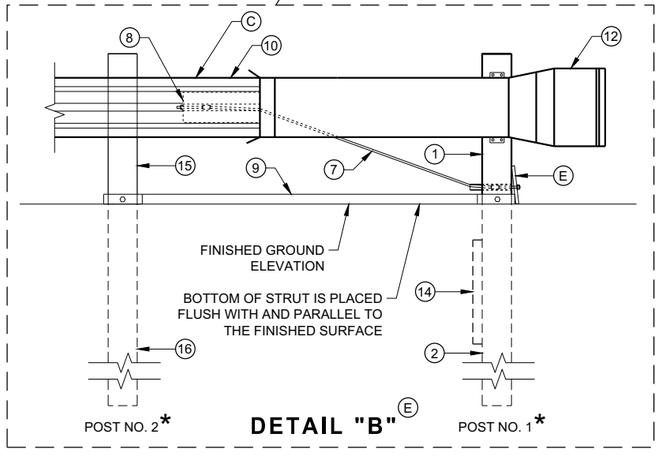
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



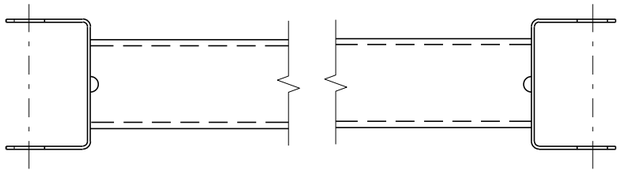
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

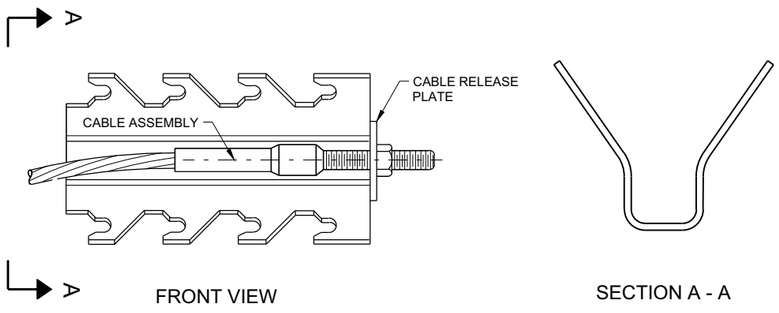
SDD 14B44 - 04a



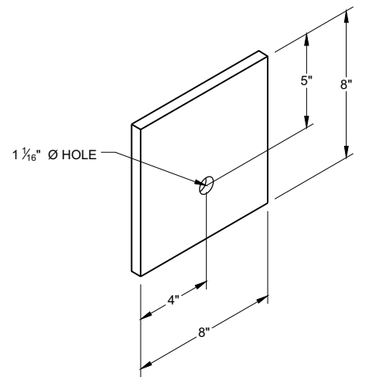
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

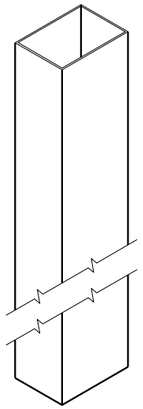
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SDD 14B44 - 04b

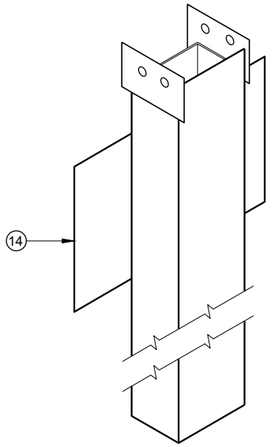
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

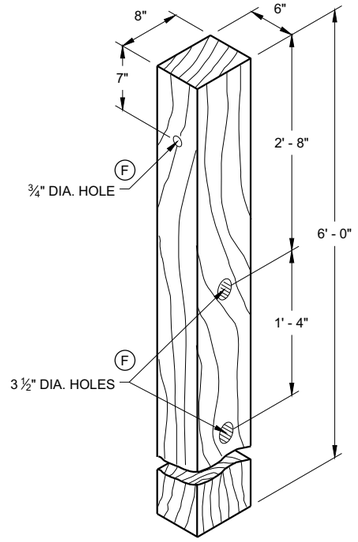
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



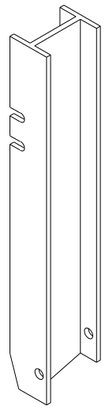
UPPER POST NO. 1 (1) (E)



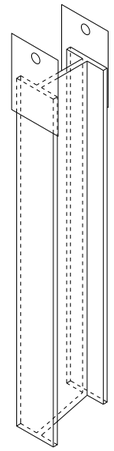
LOWER POST NO. 1 (2) (E)



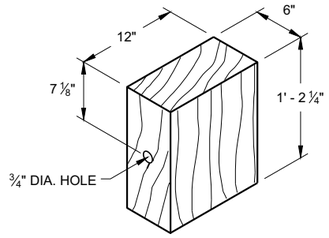
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



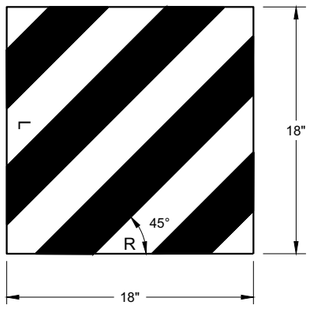
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

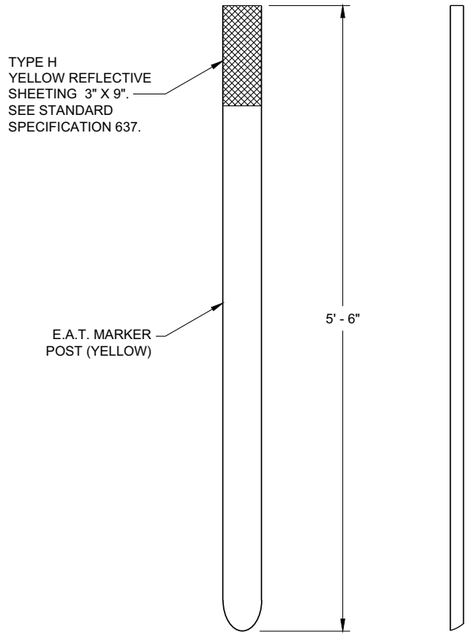


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



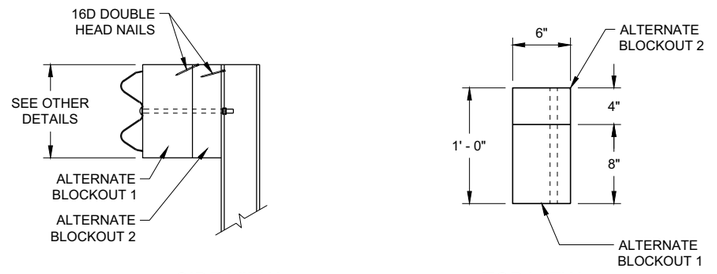
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

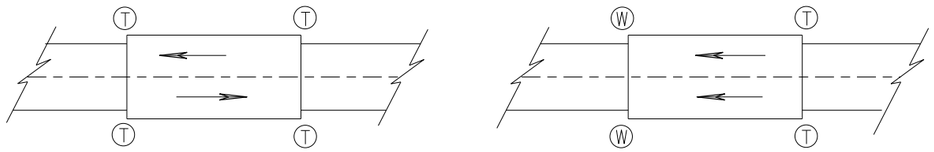
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

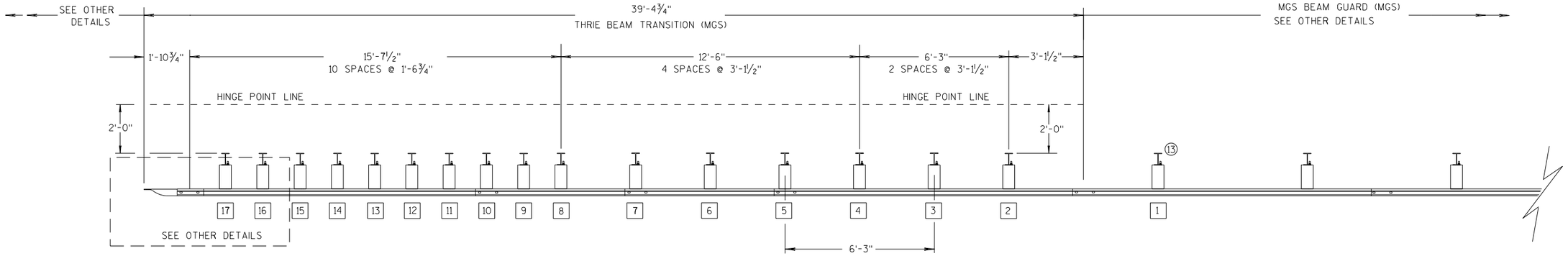
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

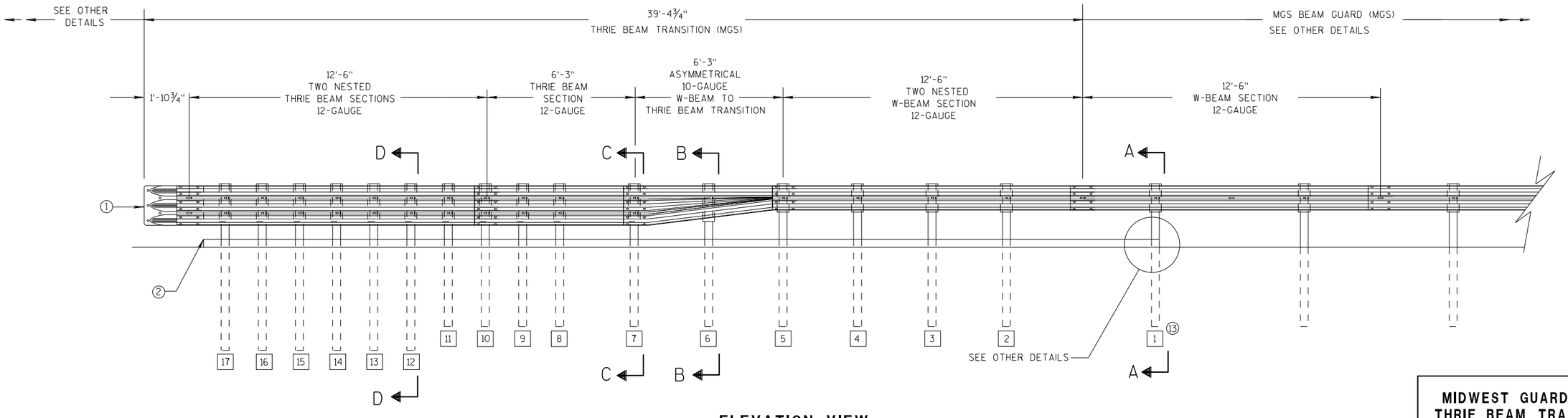
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

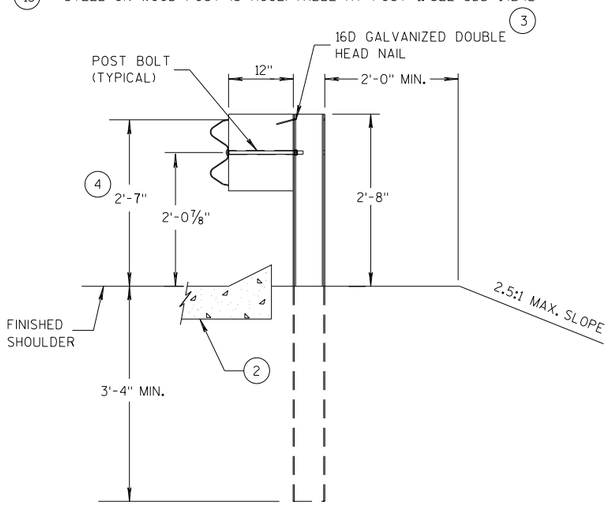
GENERAL NOTES

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

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

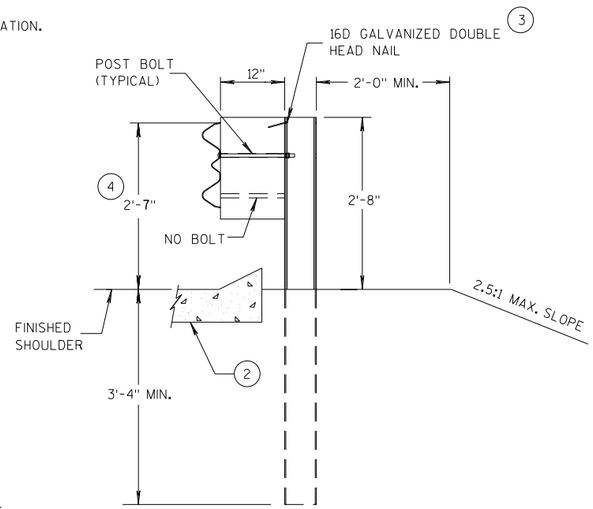
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



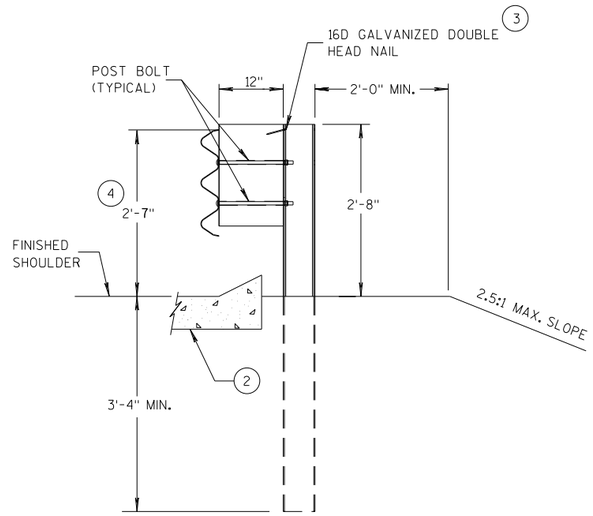
SECTION A-A (13)

POSTS 1-5



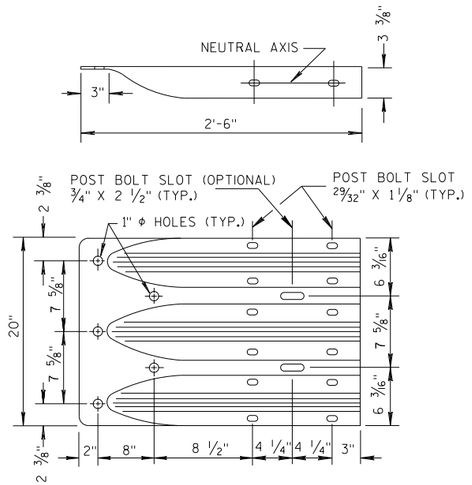
SECTION B-B

POST 6

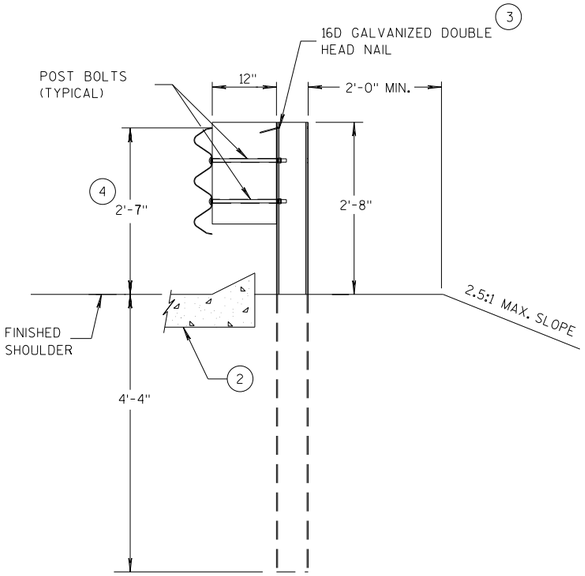


SECTION C-C

POSTS 7-11

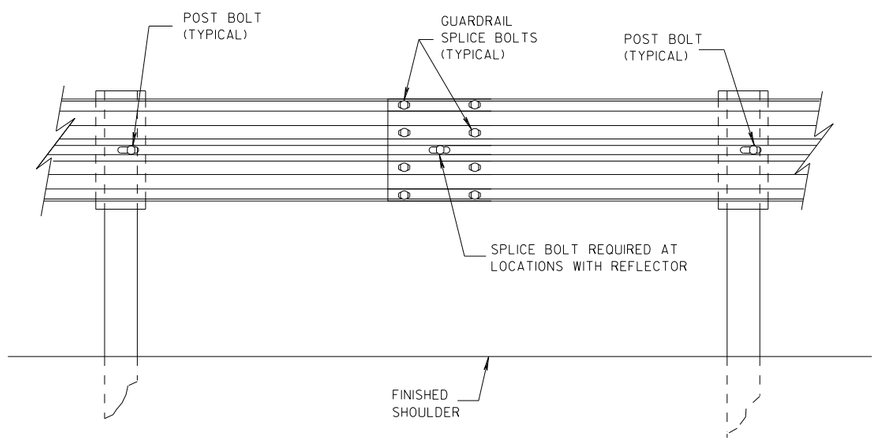


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

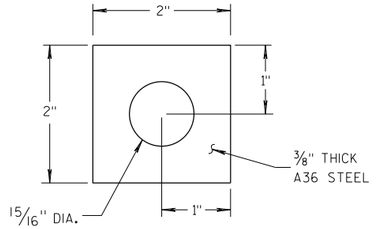
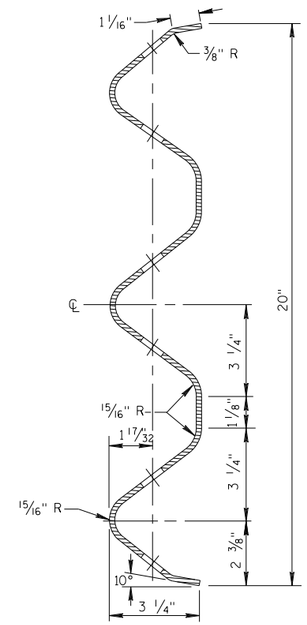


PLATE WASHER DETAIL



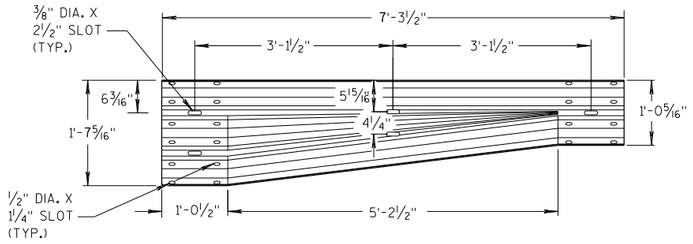
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

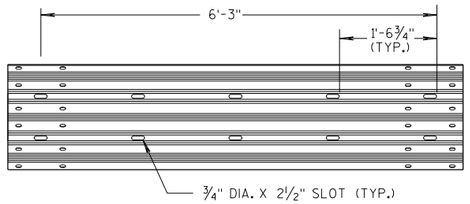
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

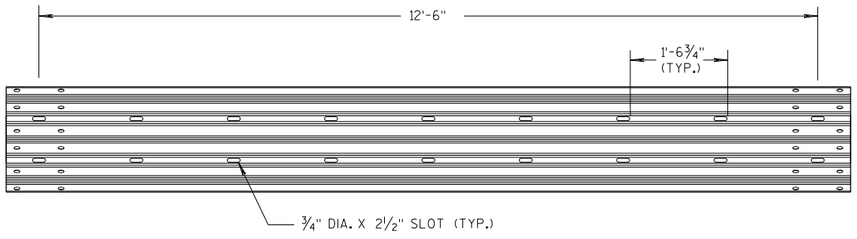
S.D.D. 14 B 45-5b



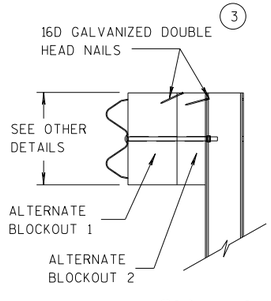
W-BEAM TO THRIE BEAM TRANSITION SECTION



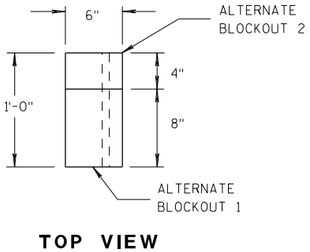
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

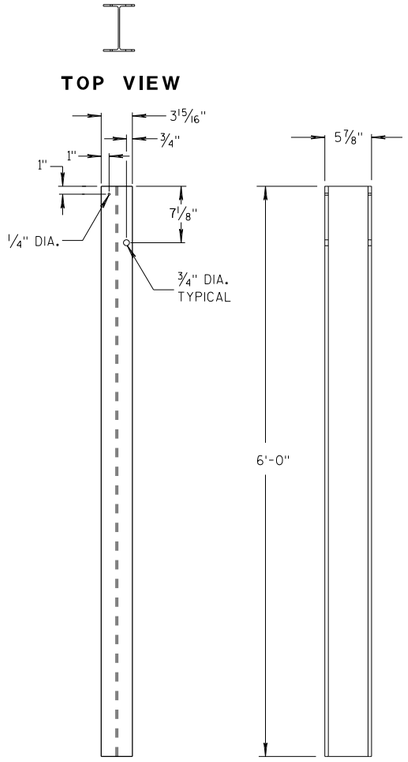


SIDE VIEW



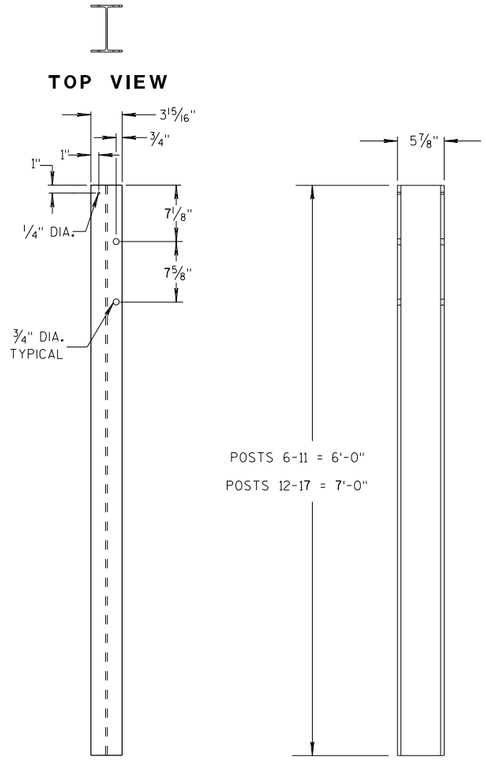
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



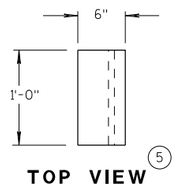
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

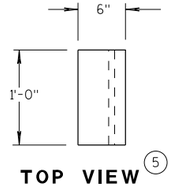


FRONT VIEW SIDE VIEW

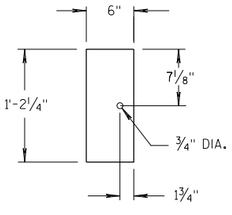
STEEL POSTS 6-17



TOP VIEW (5)

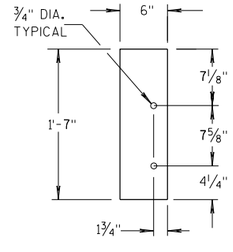


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

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

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

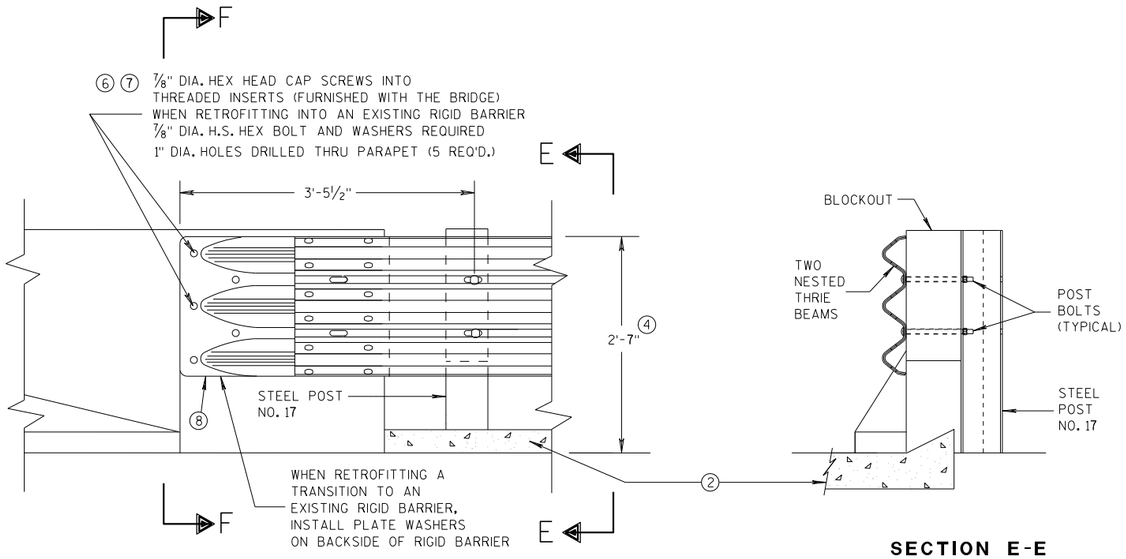
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

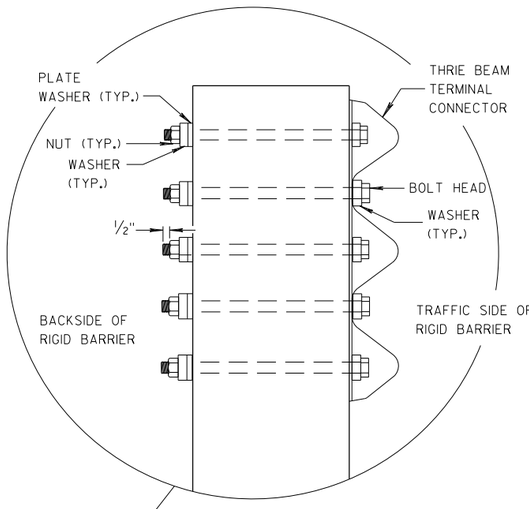
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

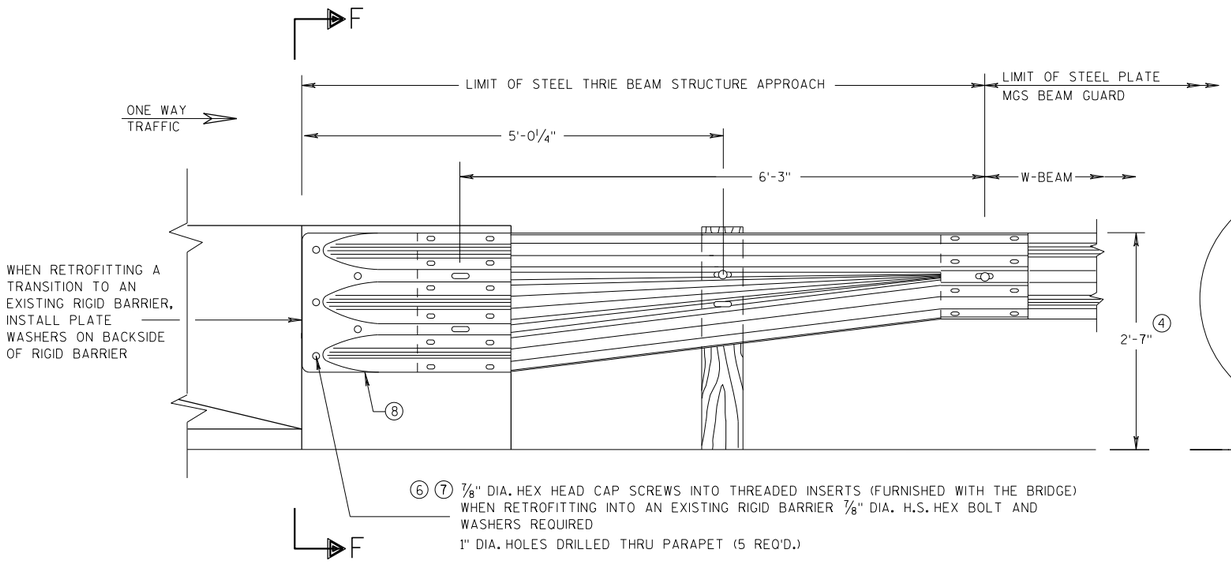
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

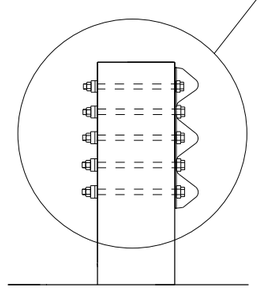
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

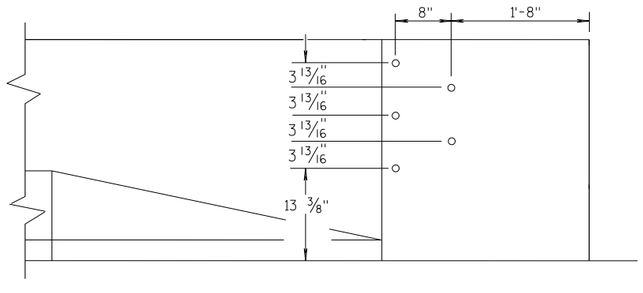




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
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S.D.D. 14 B 45-5d

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

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

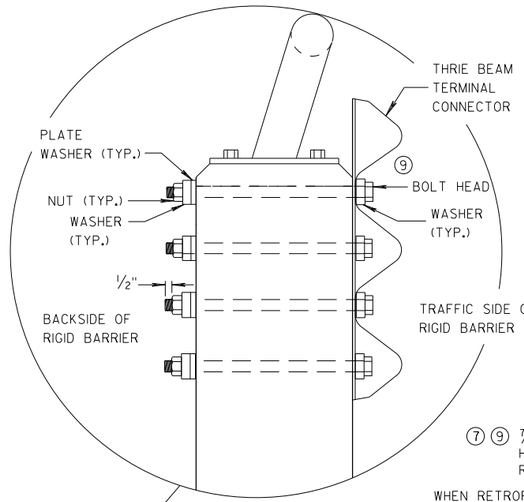
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

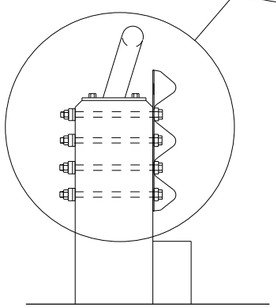
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

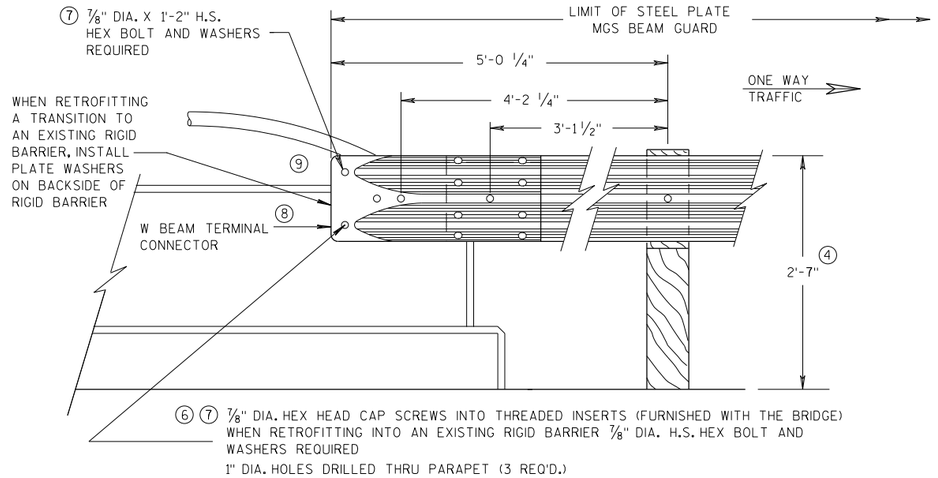
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





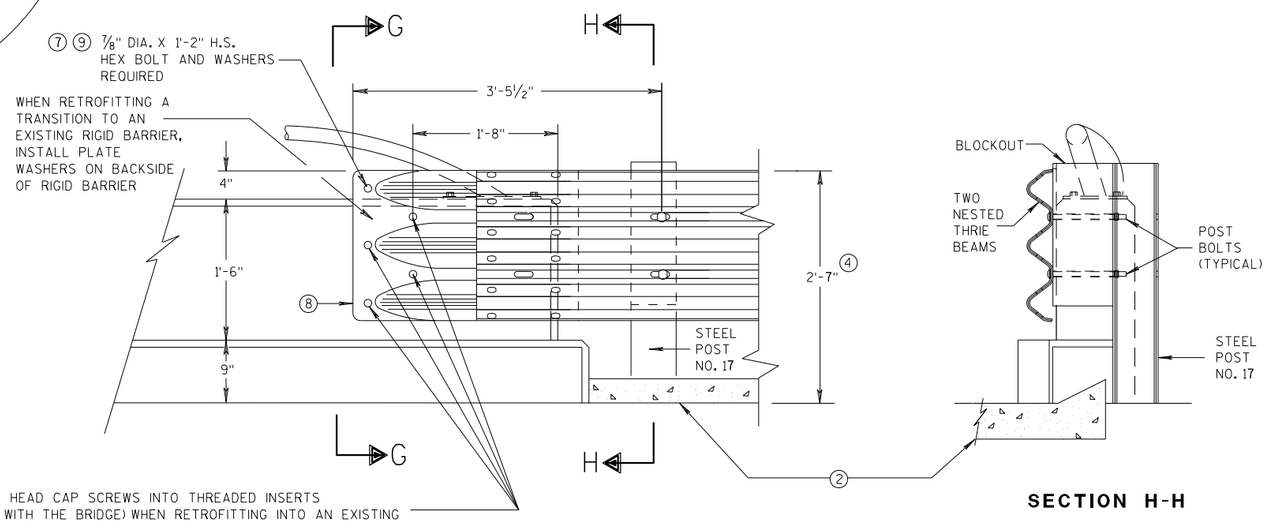
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

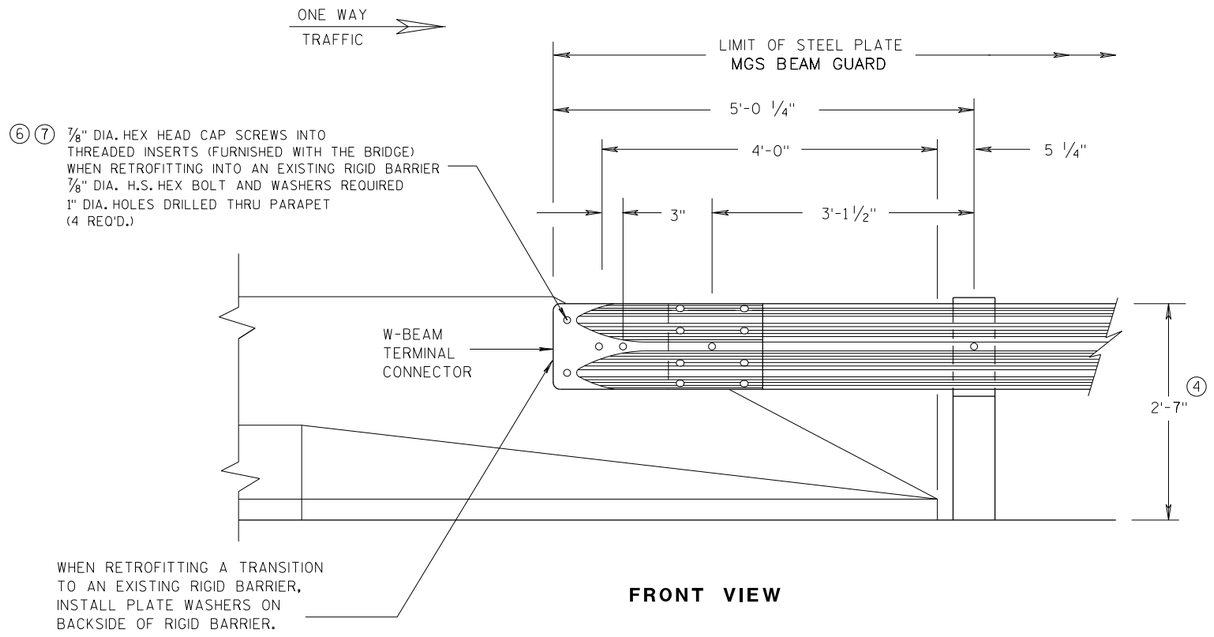
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S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

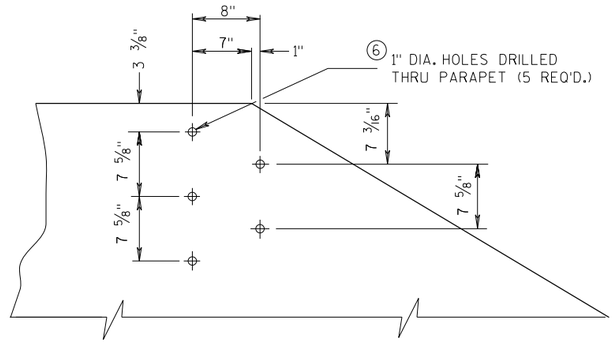
GENERAL NOTES

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

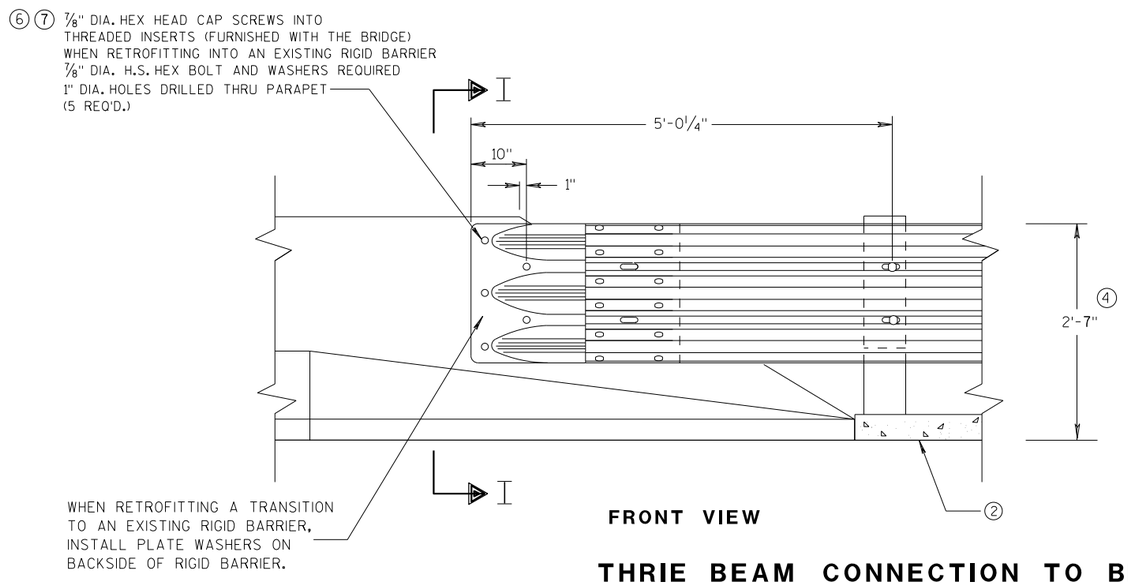
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

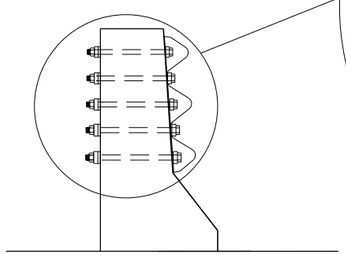
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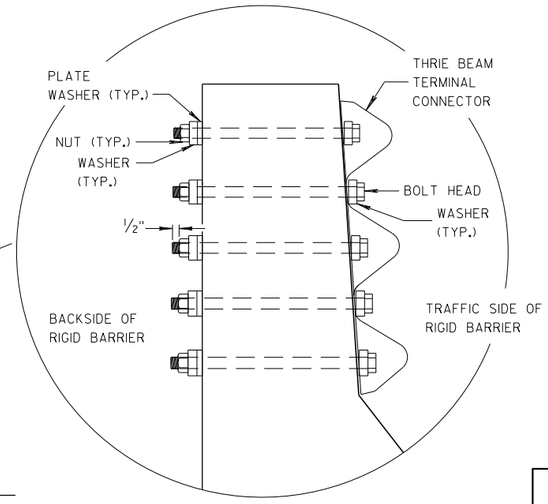
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

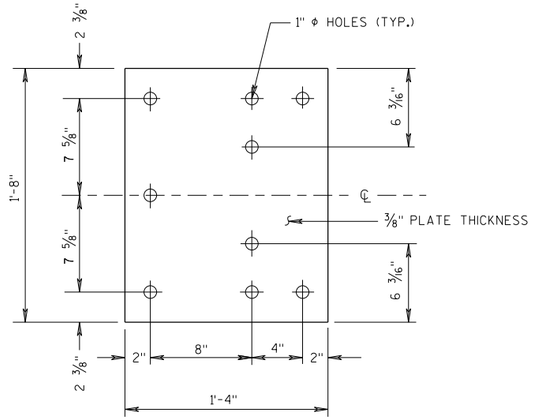
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FHWA

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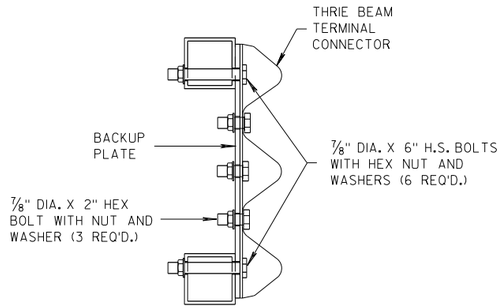
S.D.D. 14 B 45-5f

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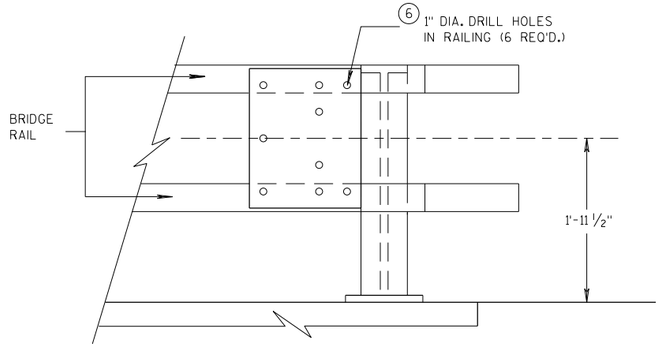
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

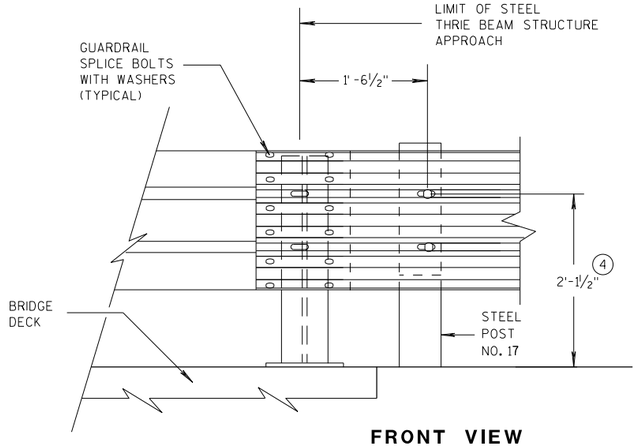


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

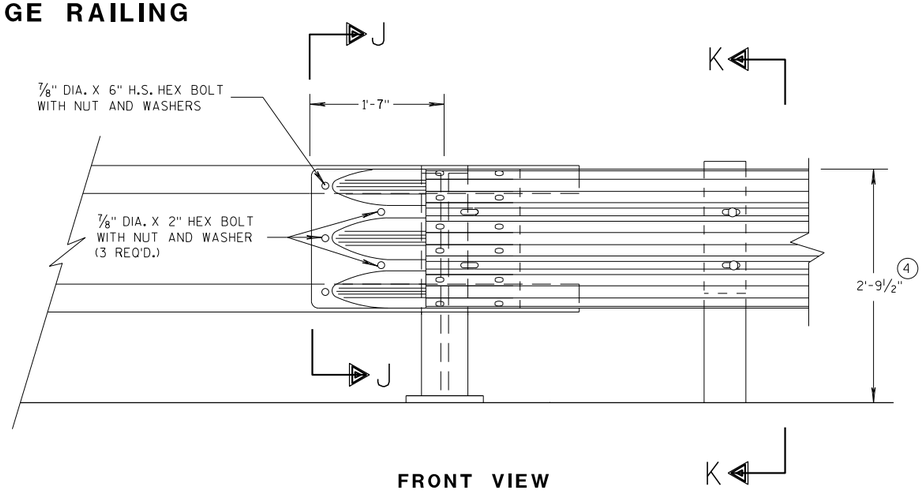
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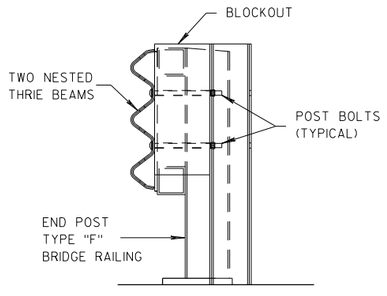


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
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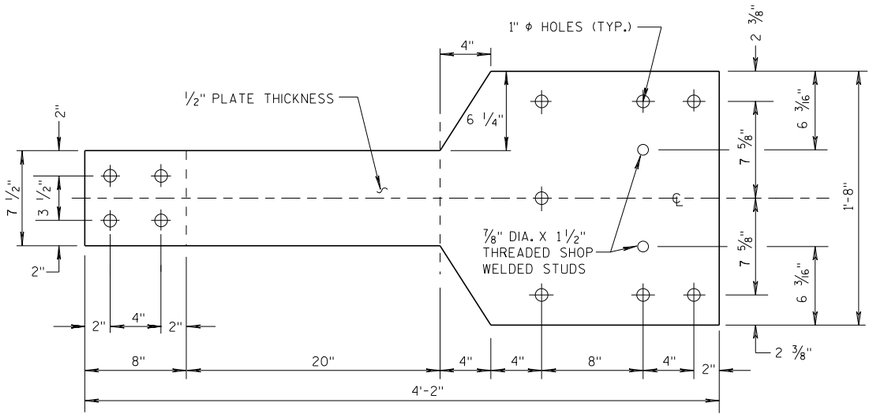
S.D.D. 14 B 45-5g

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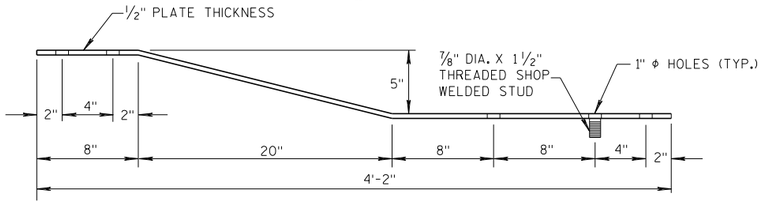
S.D.D. 14 B 45-5g

GENERAL NOTES

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

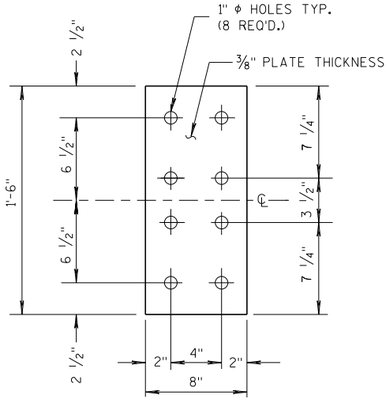


FRONT VIEW



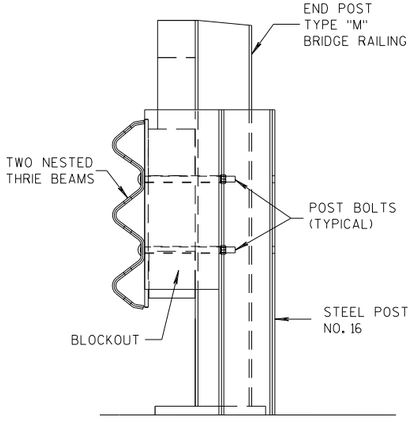
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

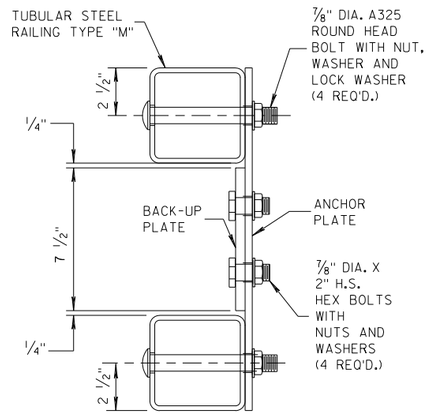


FRONT VIEW

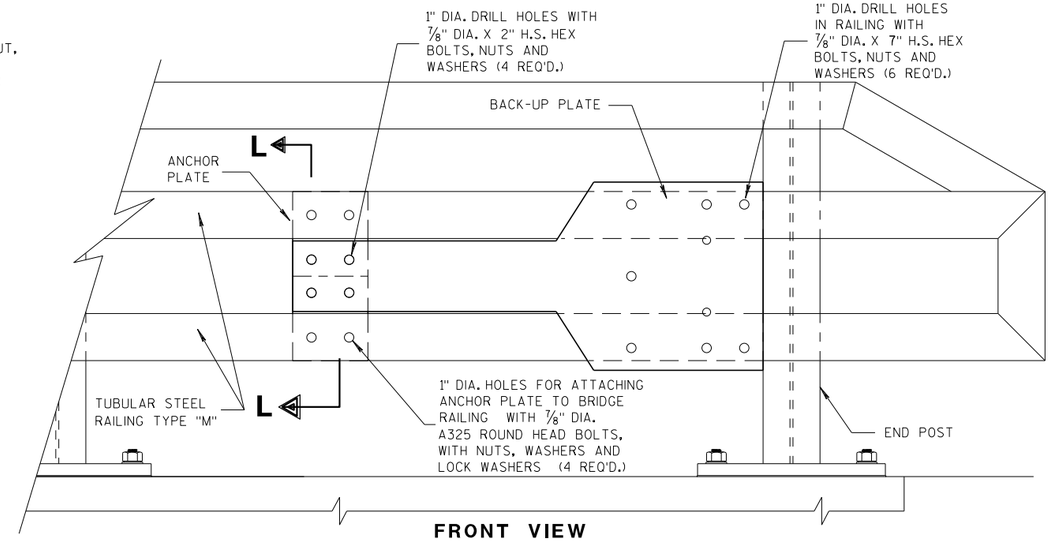
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

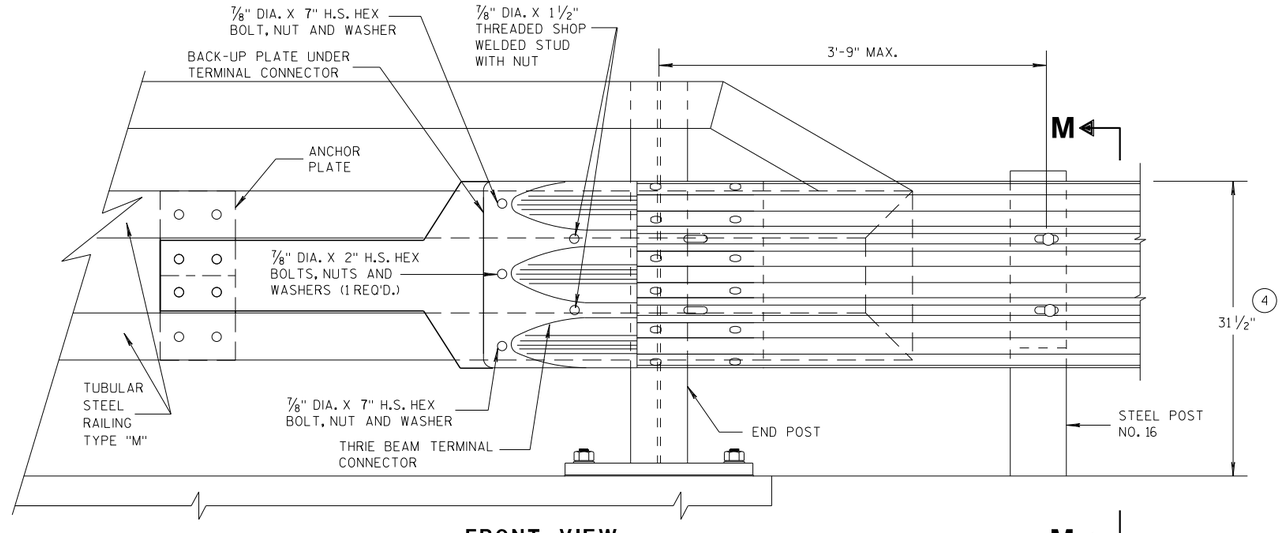


SECTION L-L

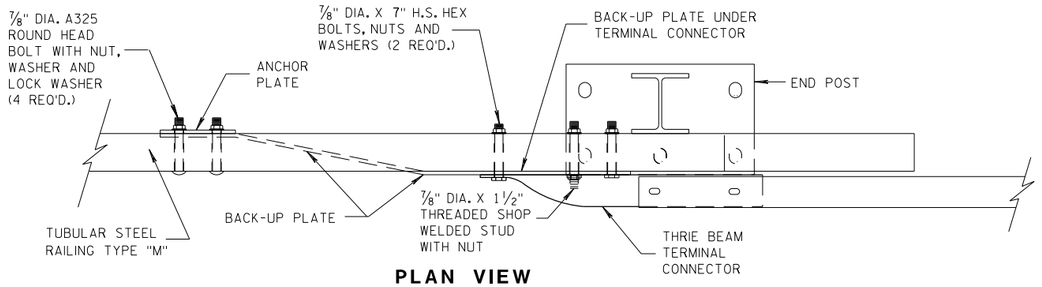


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

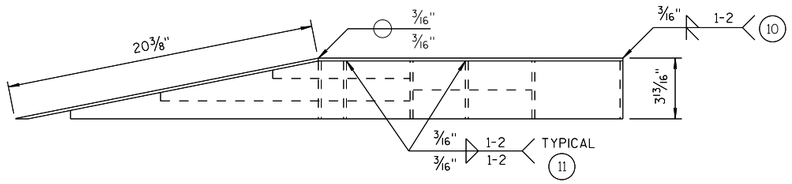
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FHWA

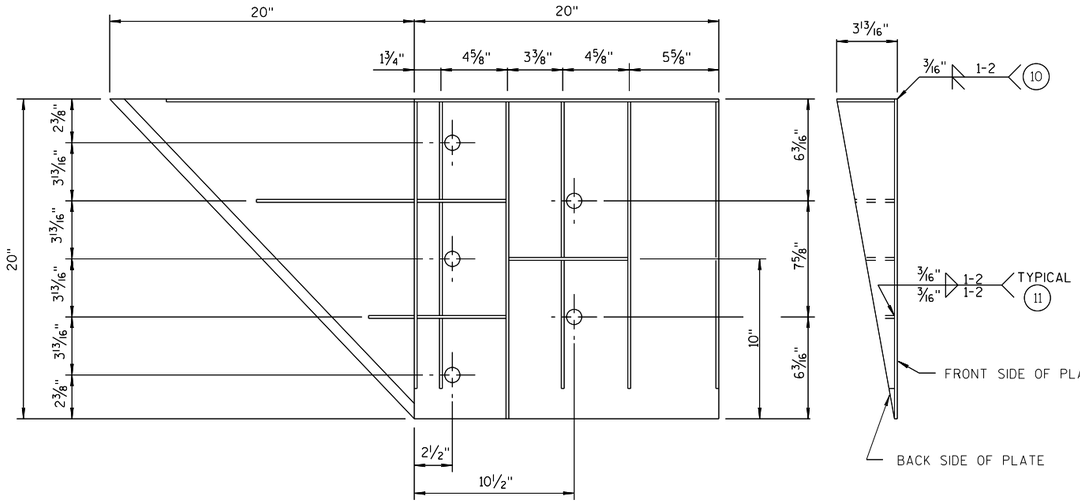
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S.D.D. 14 B 45-5h

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





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

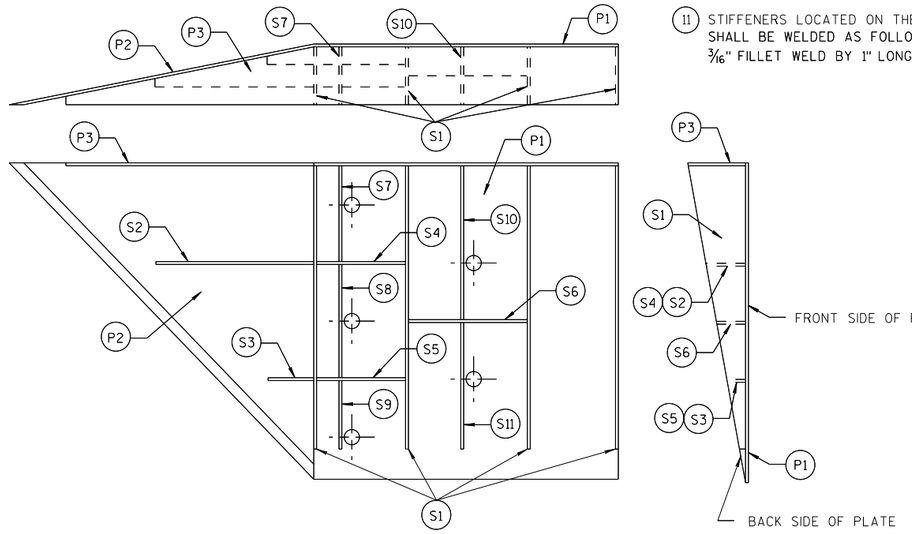


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

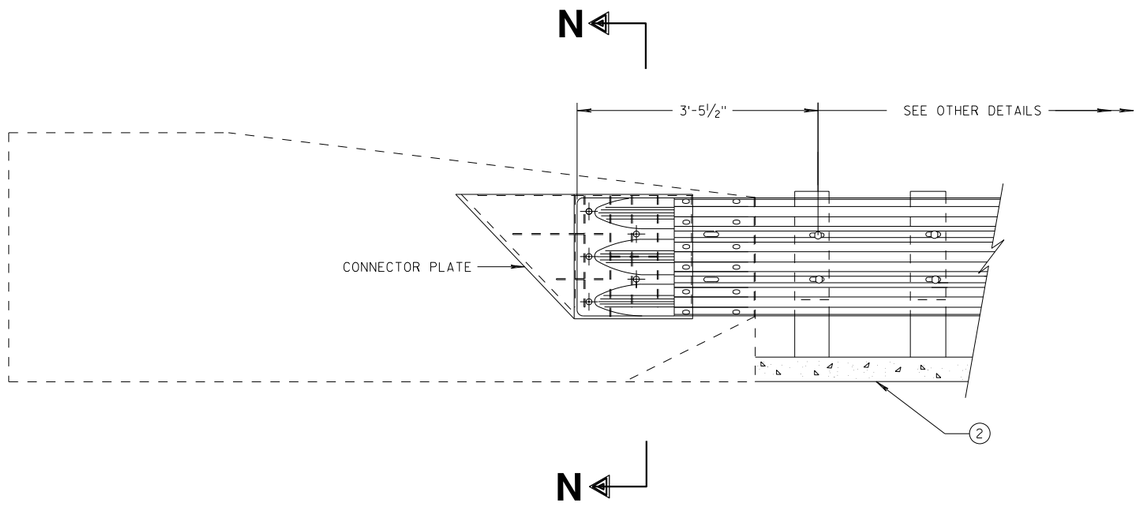
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

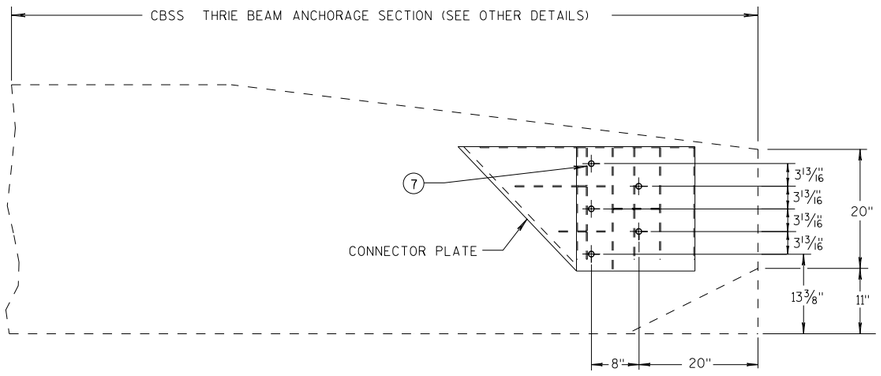
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7/2018
DATE
FHWA

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ROADWAY STANDARDS I
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S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



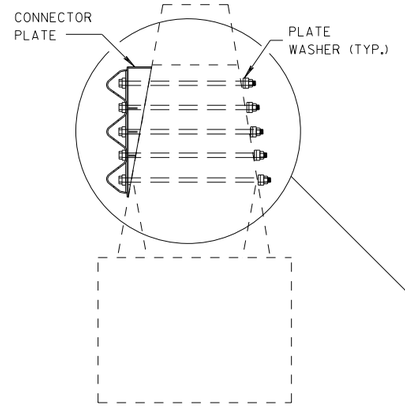
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

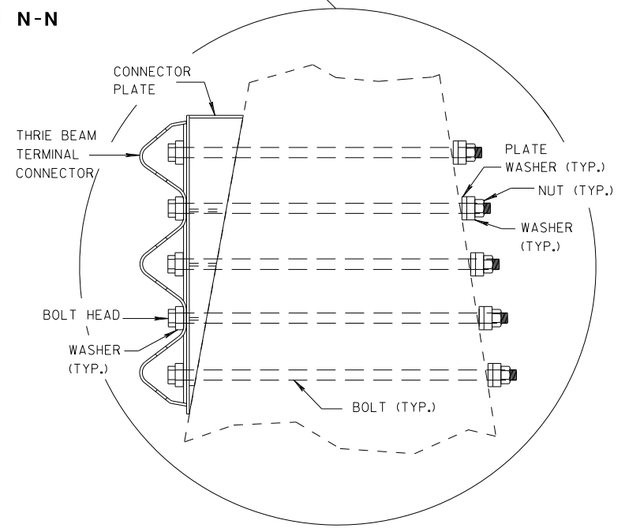
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

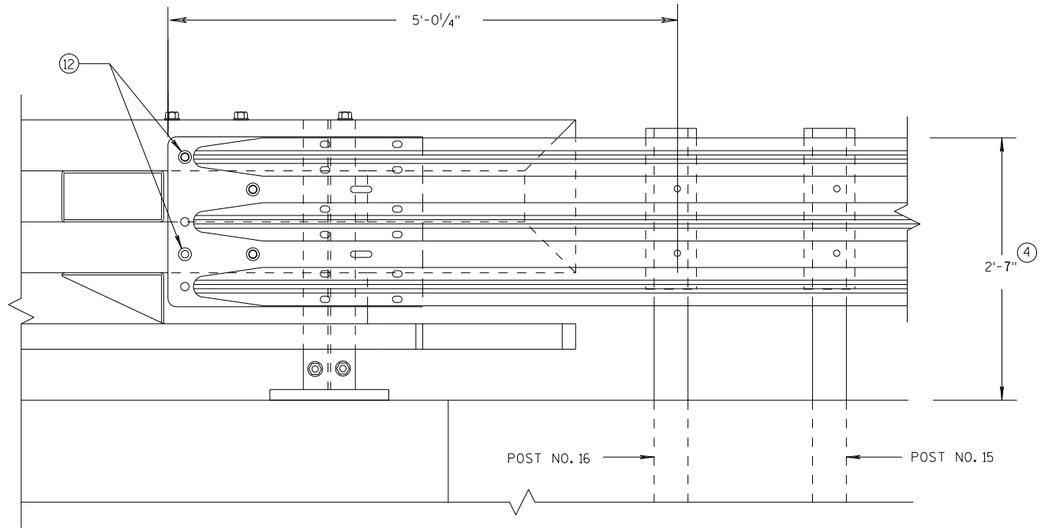
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UNIT SUPERVIS

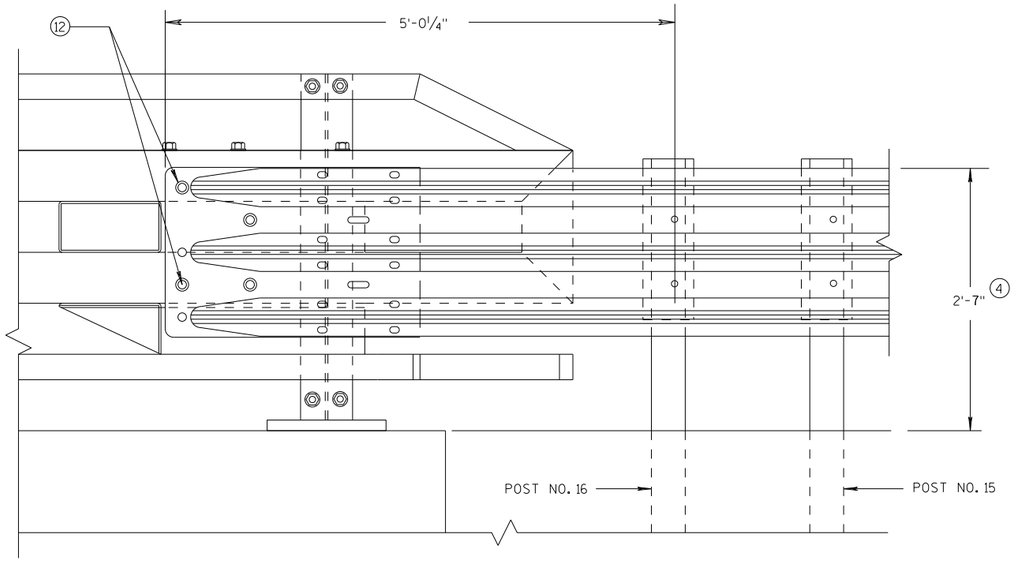
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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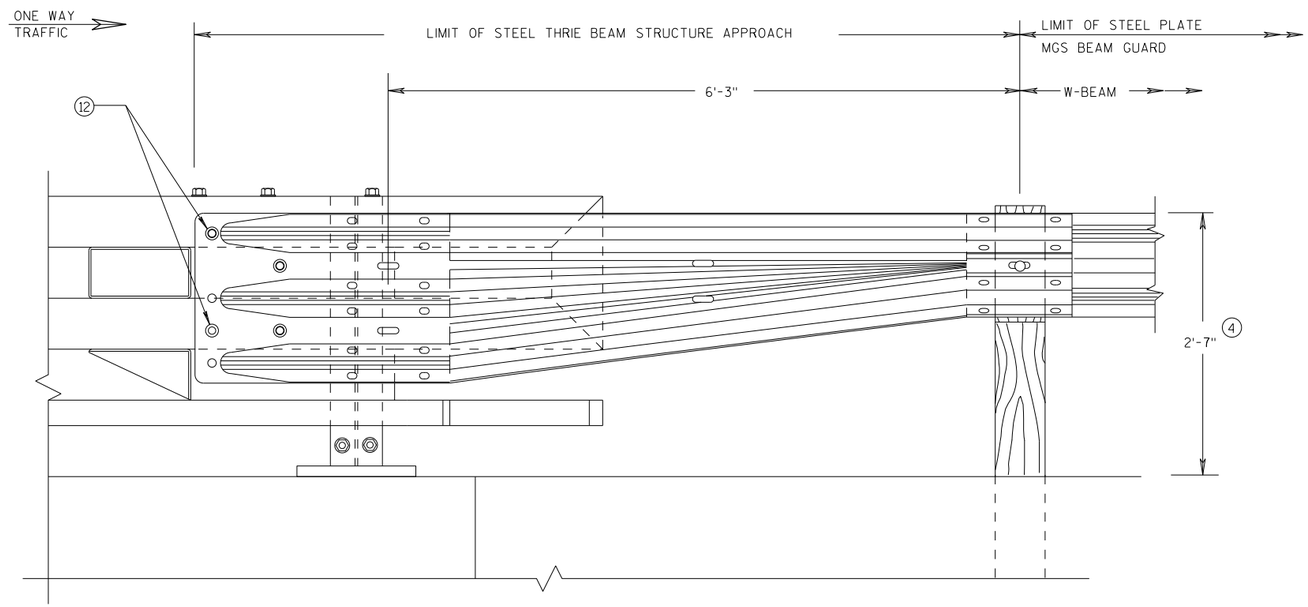
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S.D.D. 14 B 45-5k



FRONT VIEW

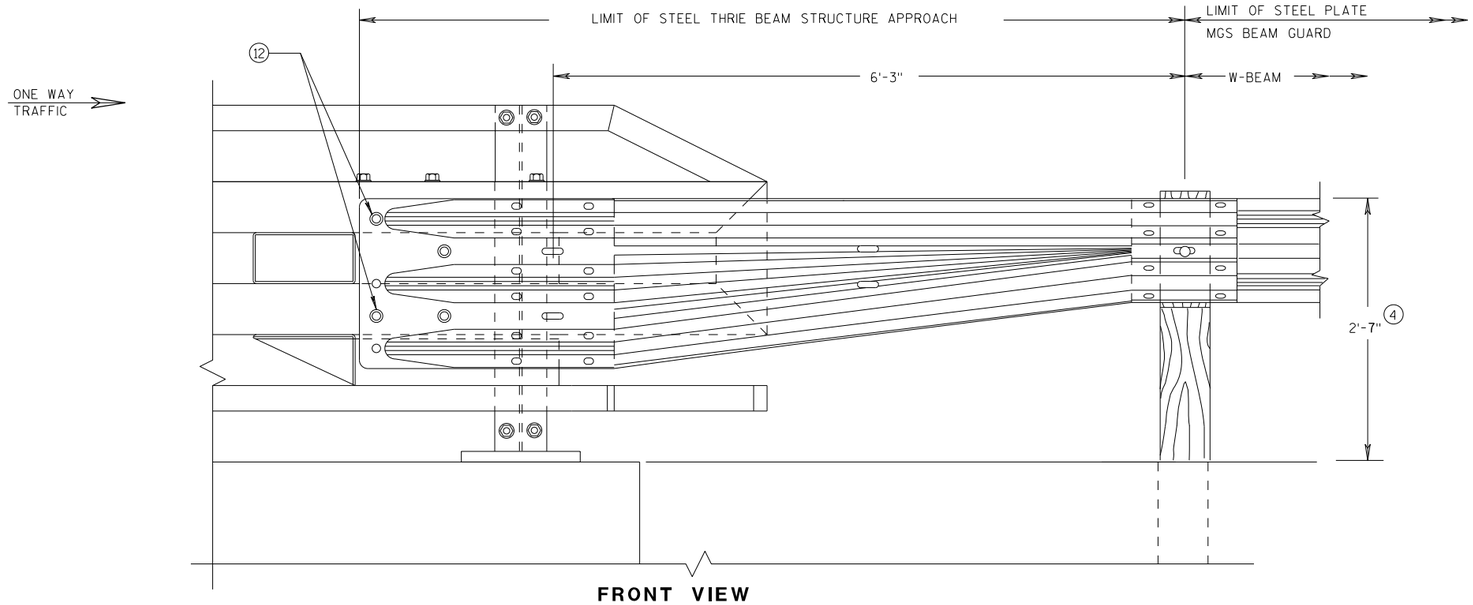
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

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



FRONT VIEW

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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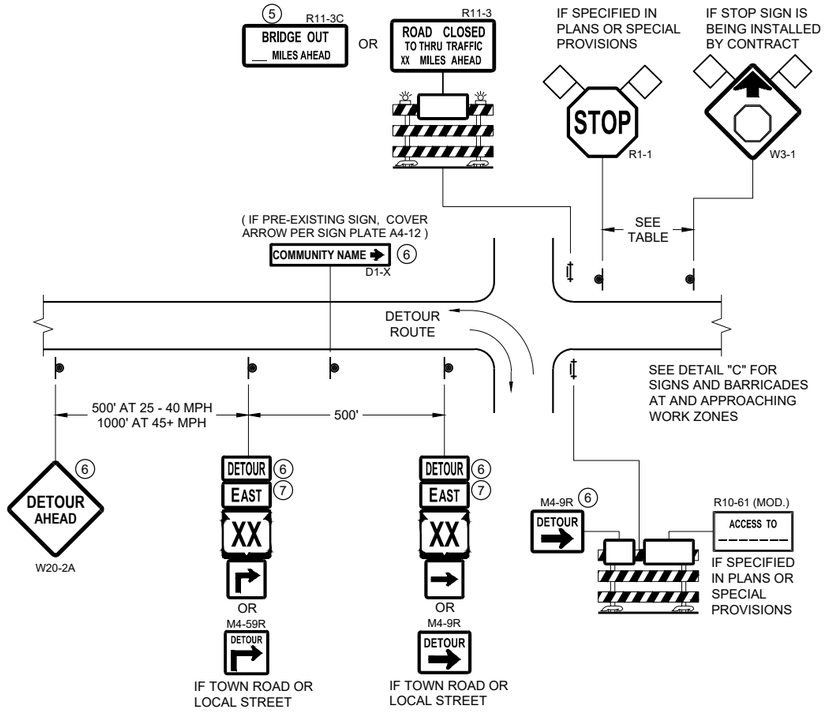
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S.D.D. 14 B 45-5L

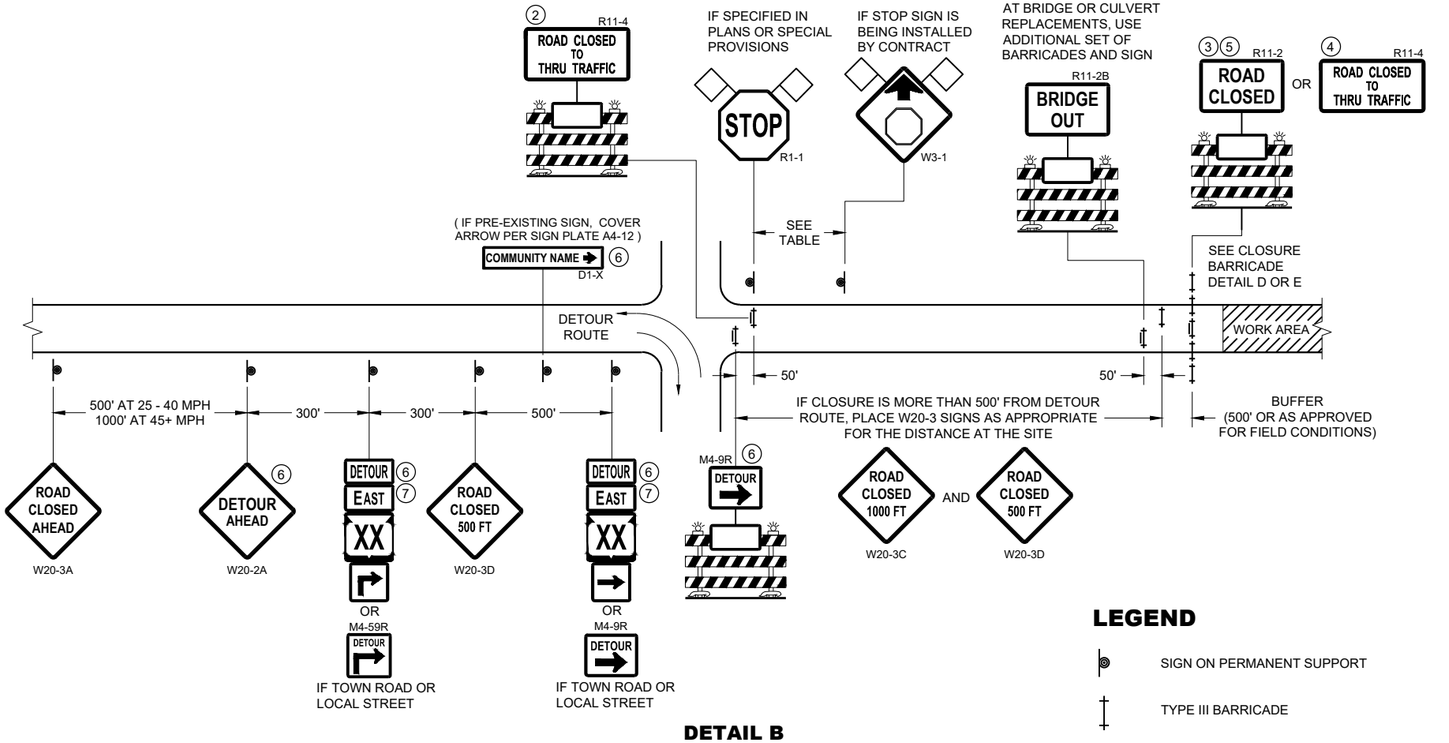
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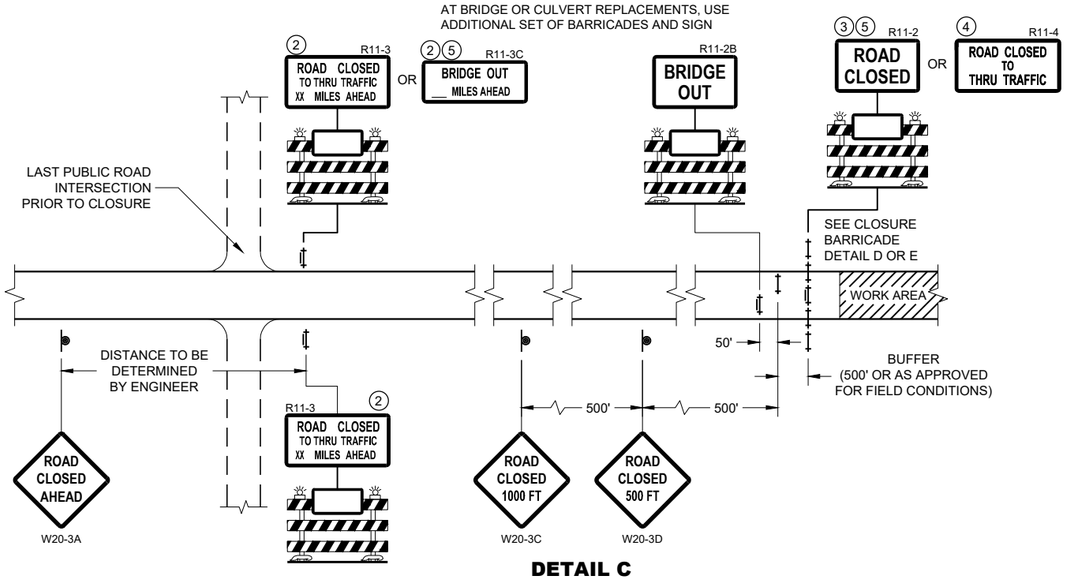
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
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May 2023
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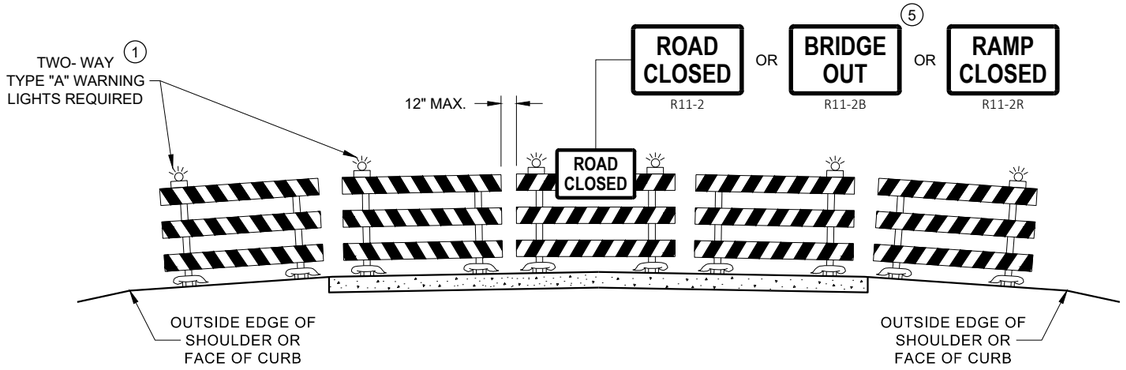
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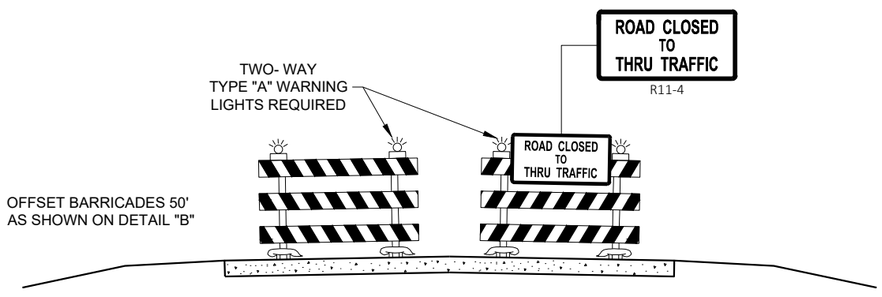
SDD 15C02 - 09a

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SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- 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 EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR 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 WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

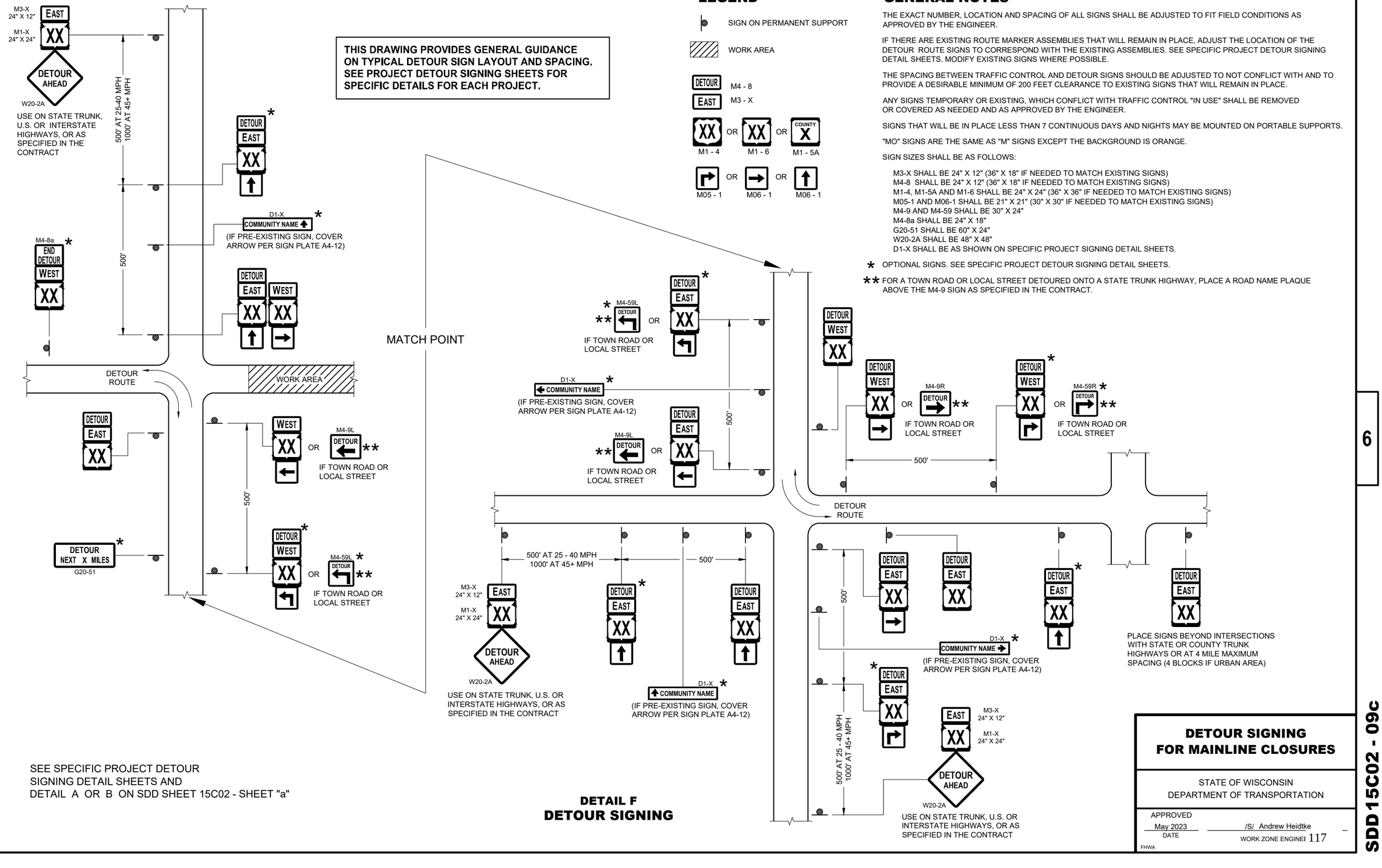
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

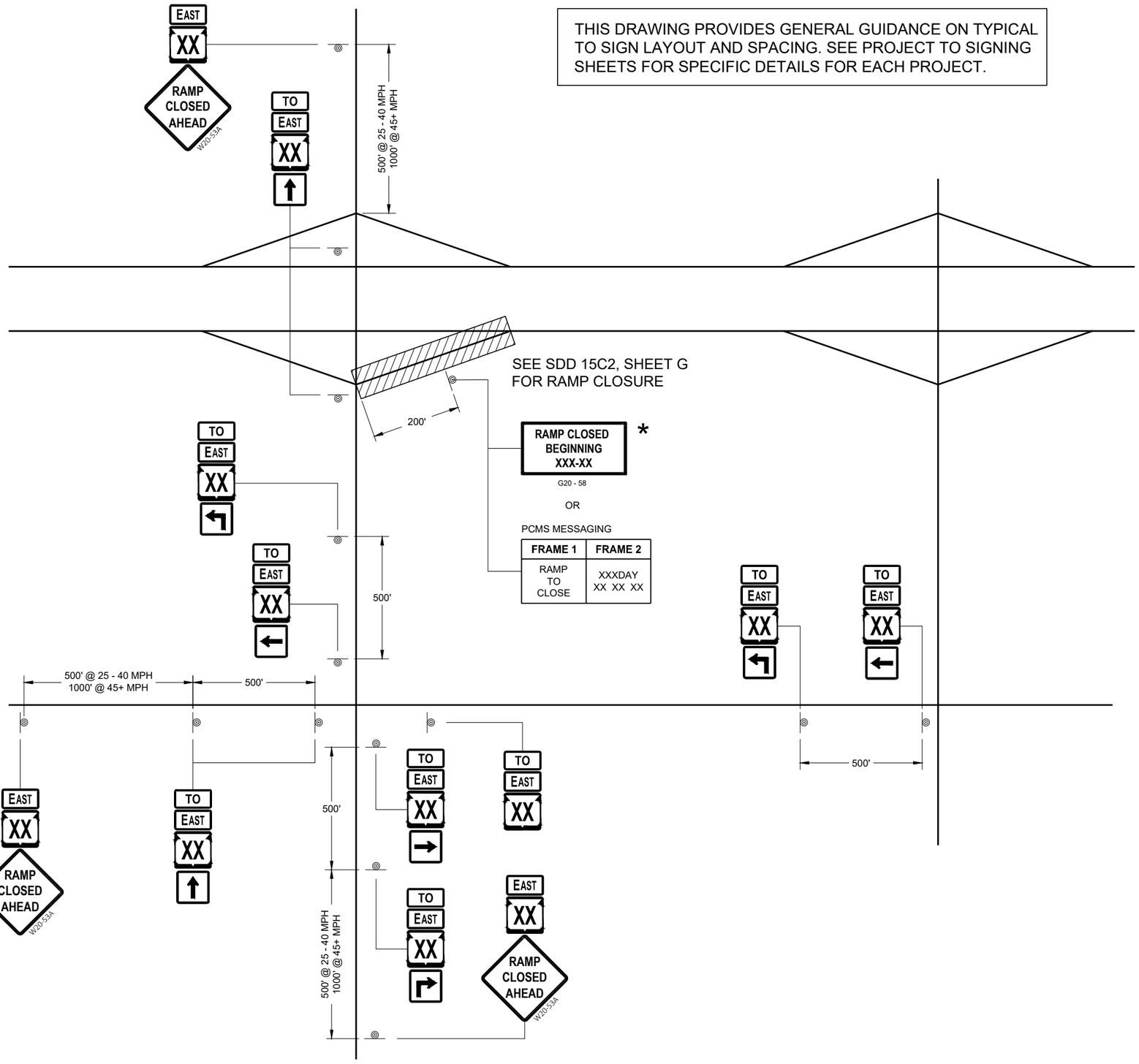
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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

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

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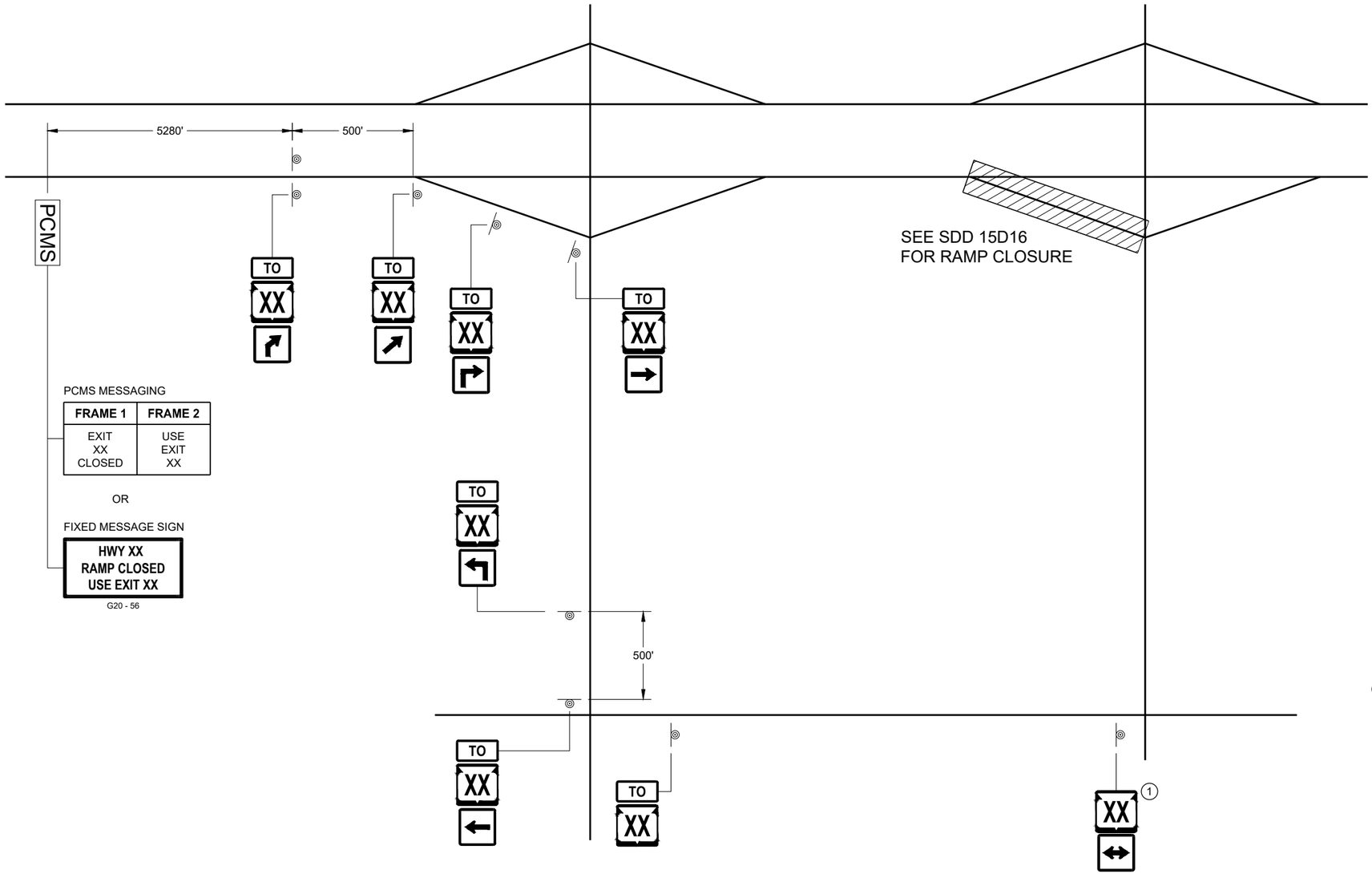
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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

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

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

OFF RAMP
LANE CLOSURE

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/S/ Andrew Heidtke
WORK ZONE ENGINEER

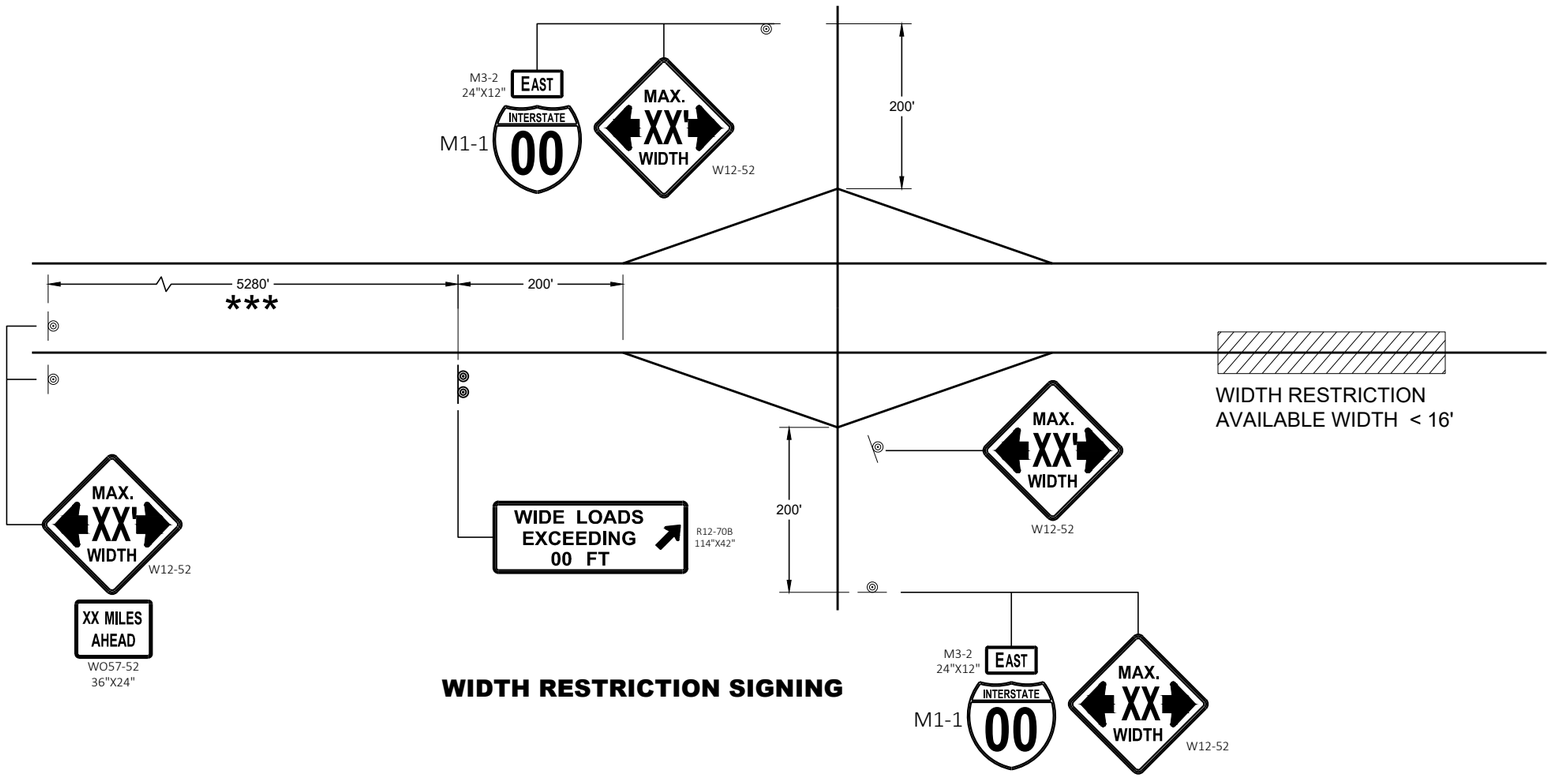
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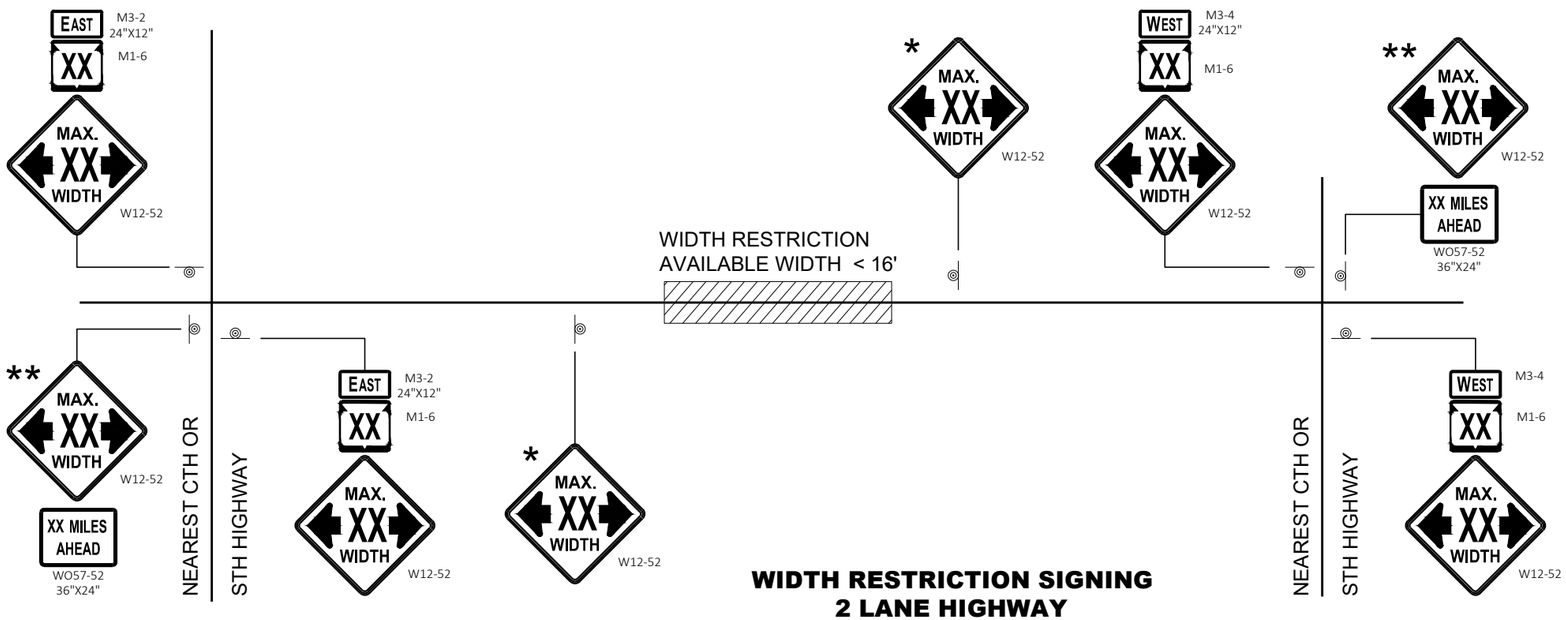
SDD 15C02 - 09e

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SDD 15C02 - 09e



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

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

ADVANCED WIDTH RESTRICTION SIGNING

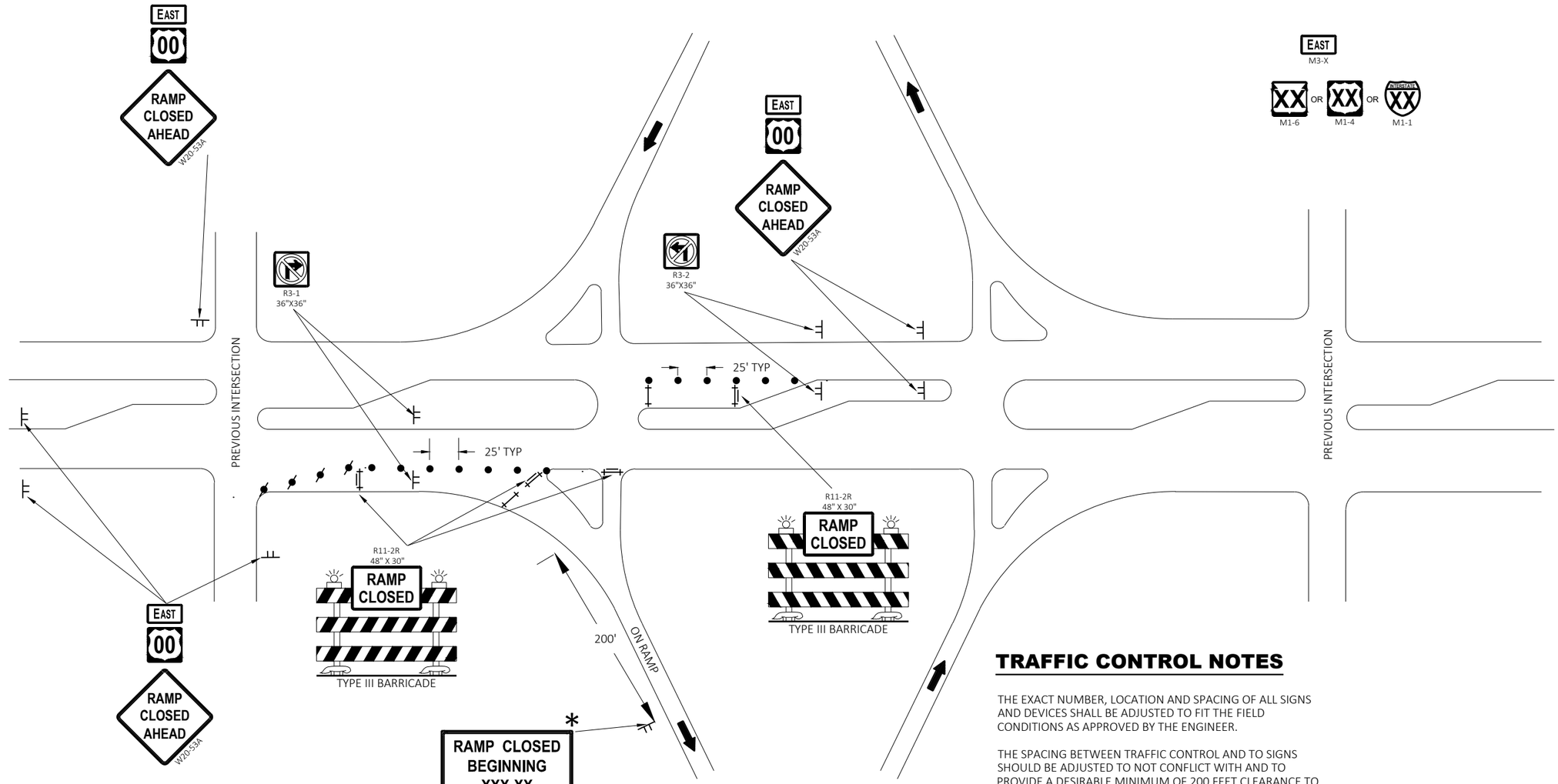
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LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

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

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

6

SDD 15C02-09g

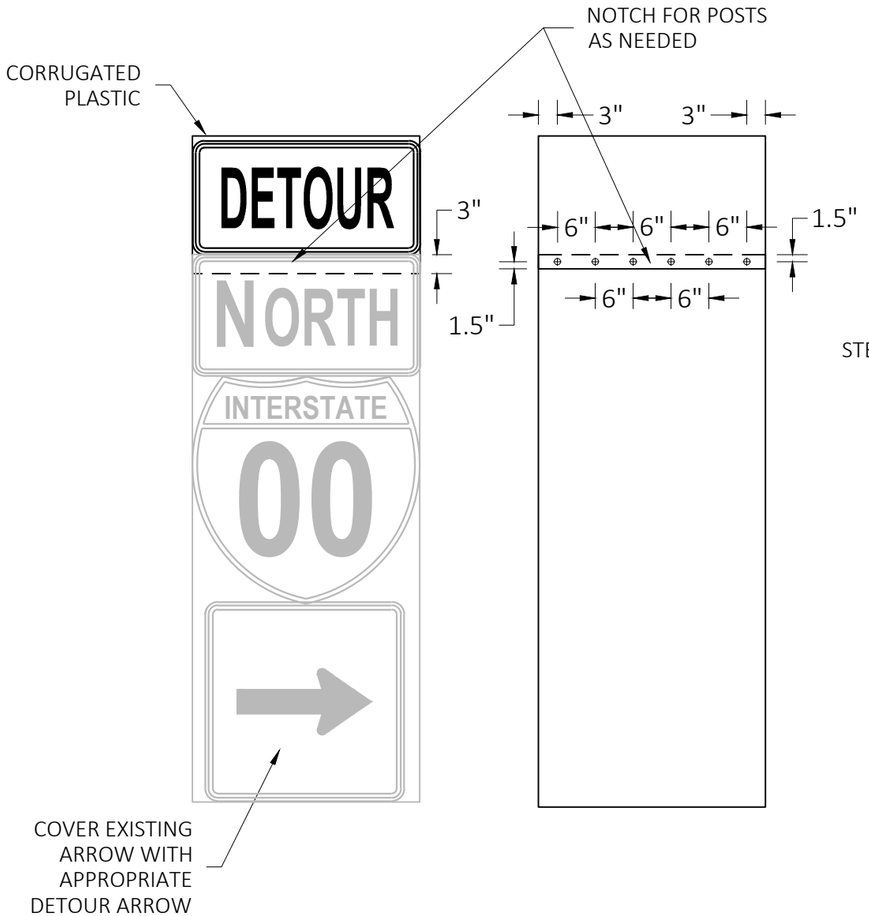
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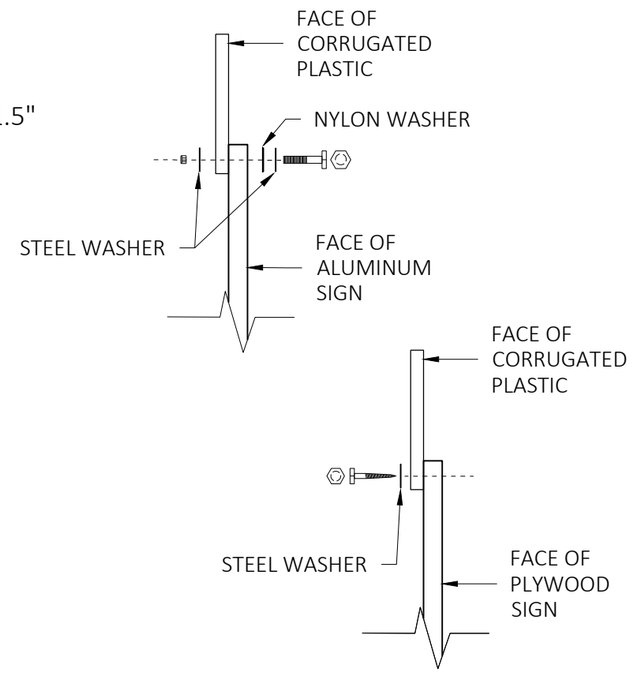
SDD 15C02-09g

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
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

6

6

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

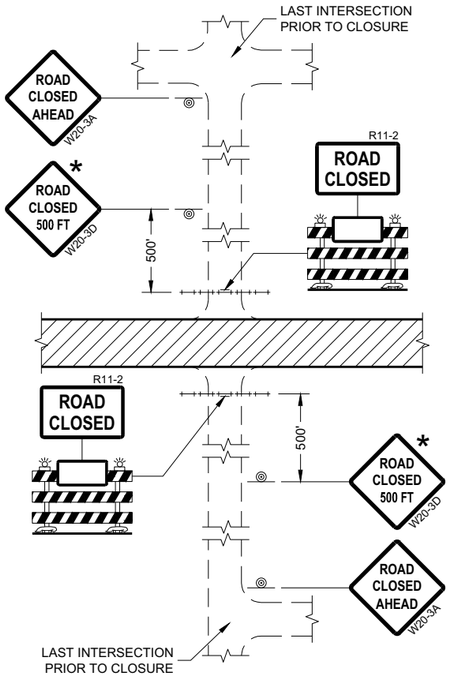
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

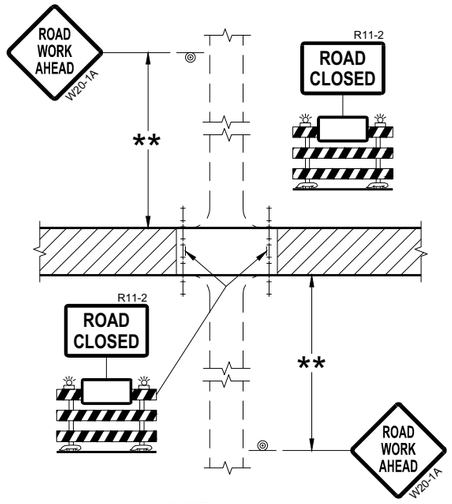
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVEL ENGINEER
FHWA

SDD 15C02-09h

SDD 15C02-09h



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

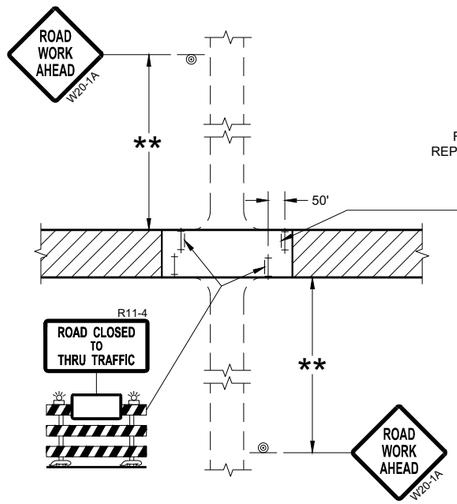
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

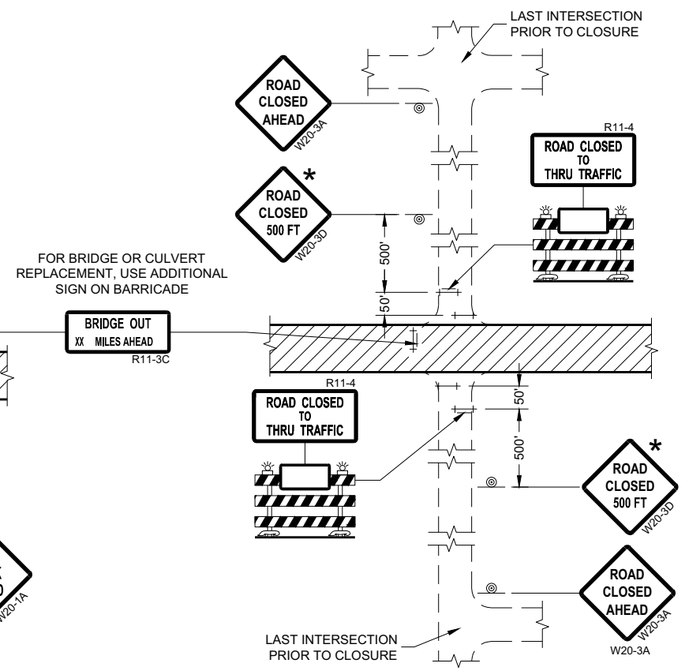
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

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.

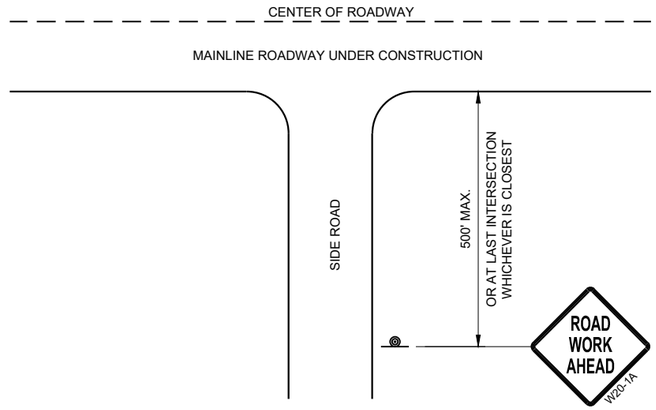
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

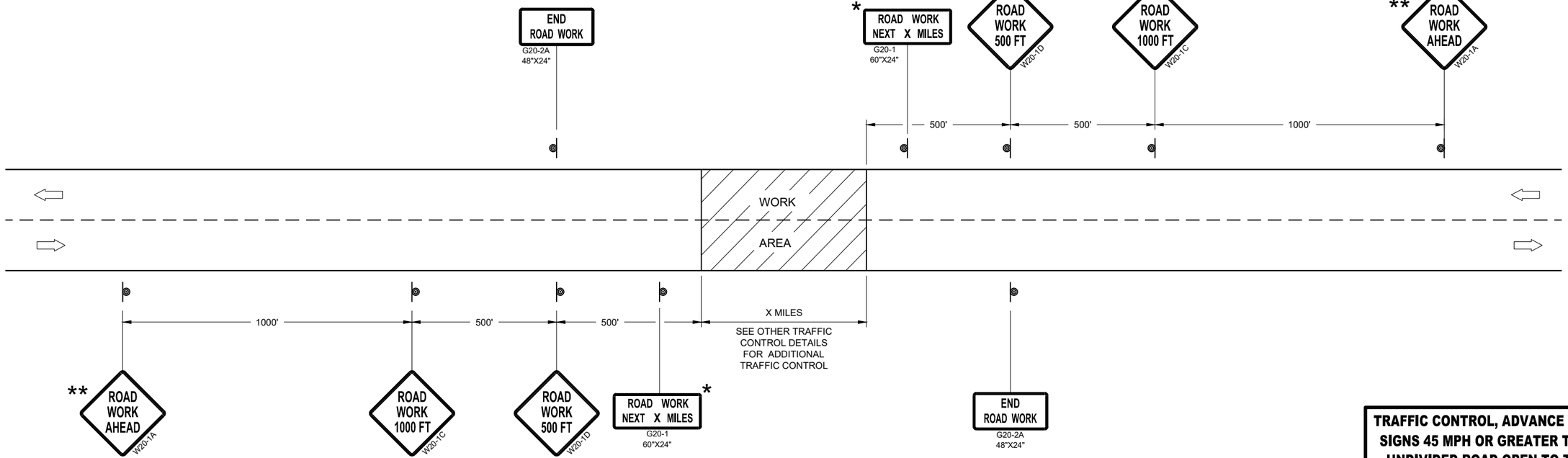
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



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.

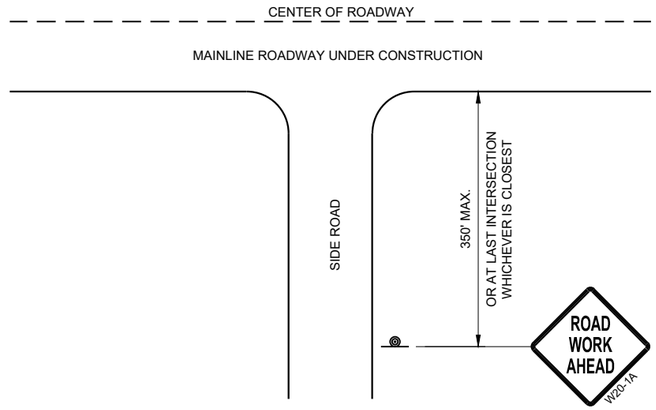
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

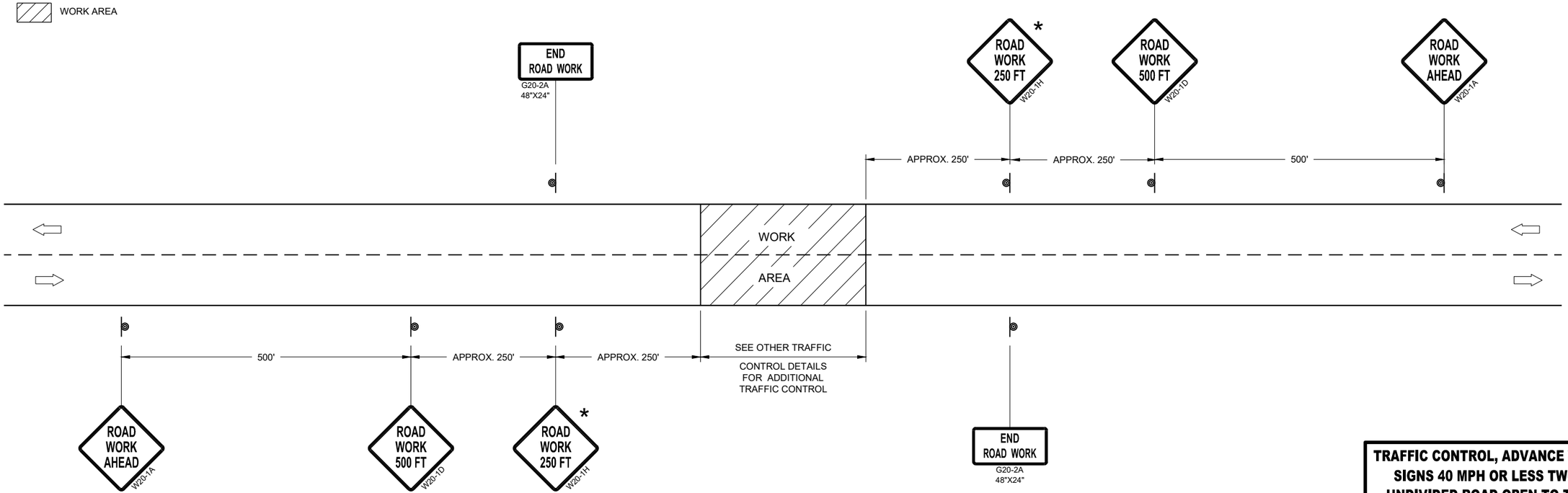
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



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

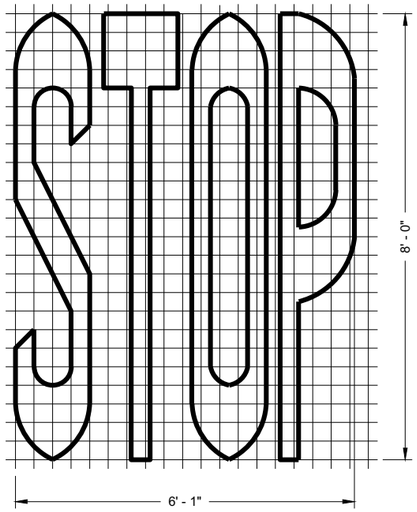
APPROVED
July 2018
DATE

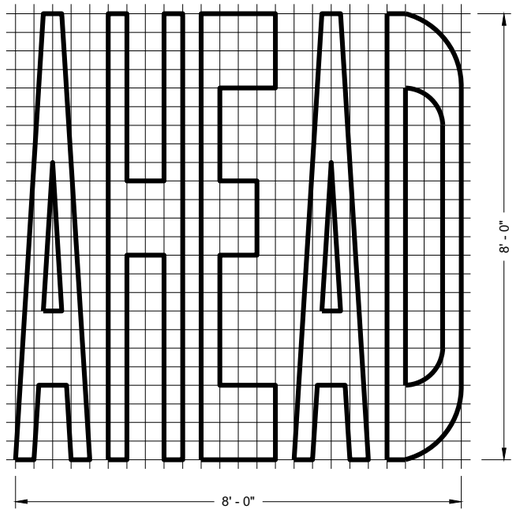
/S/ Andrew Heidtke
WORK ZONE ENGINEE

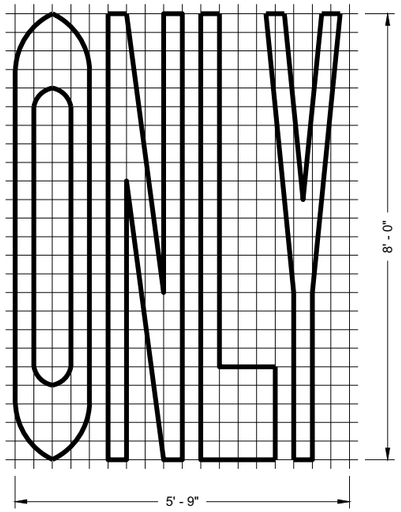
FHWA

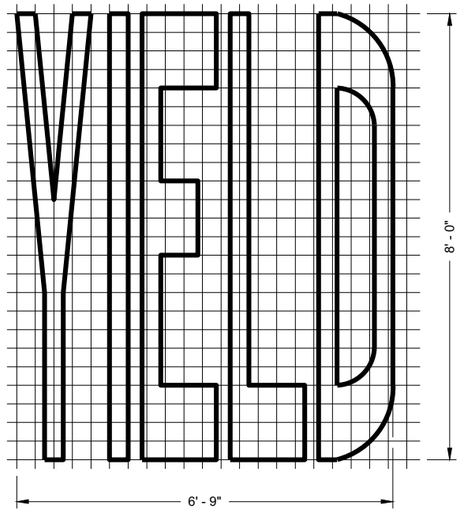
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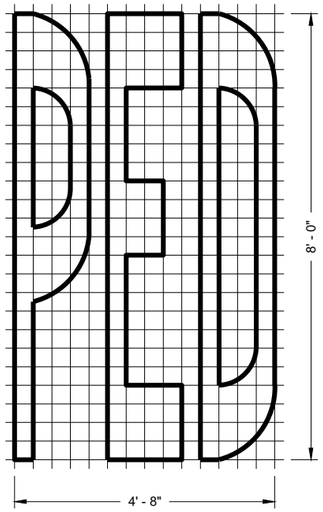
SDD 15C05 - 05



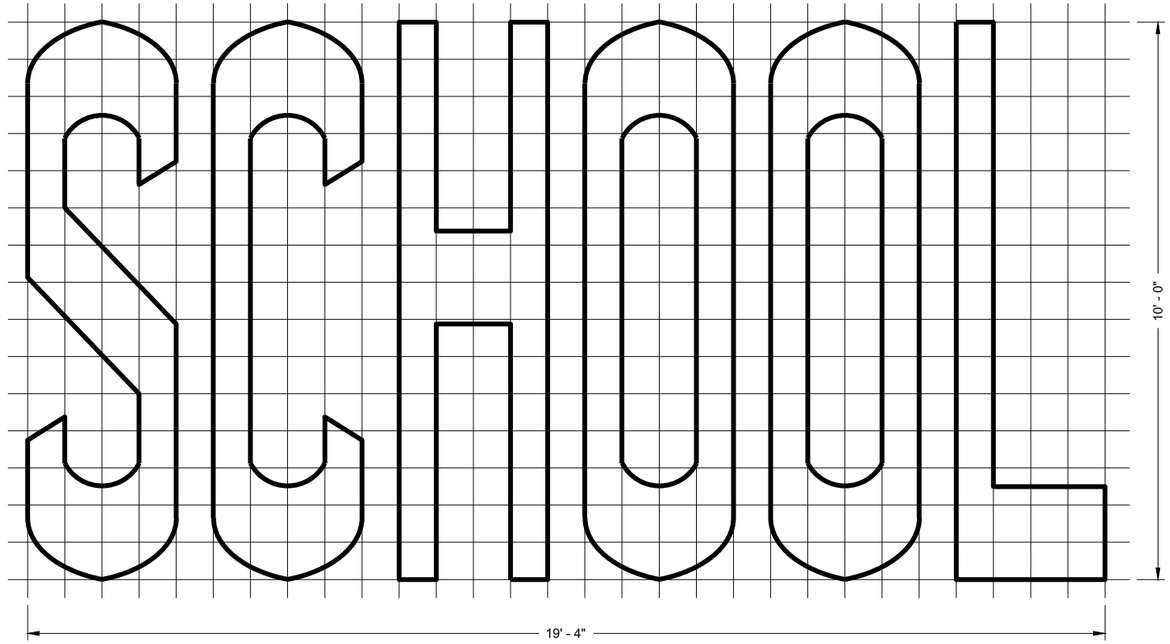








SINGLE LANE



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

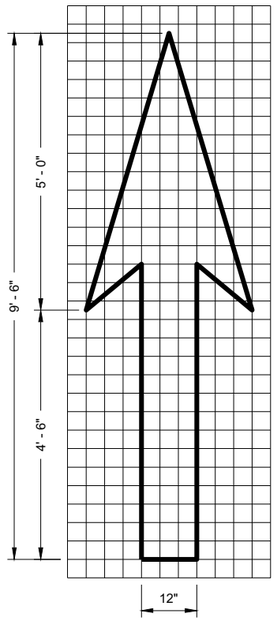
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

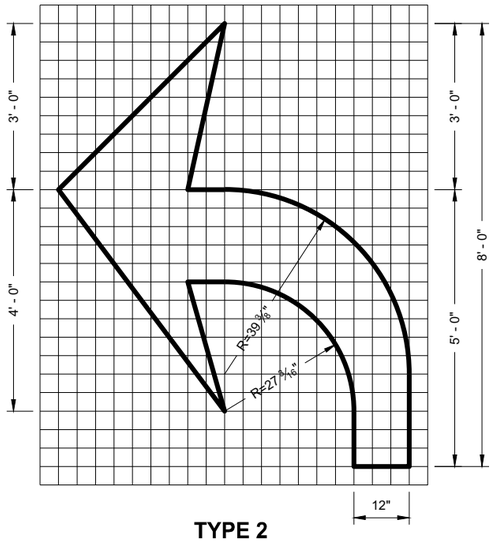
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SDD 15C07 - 15b

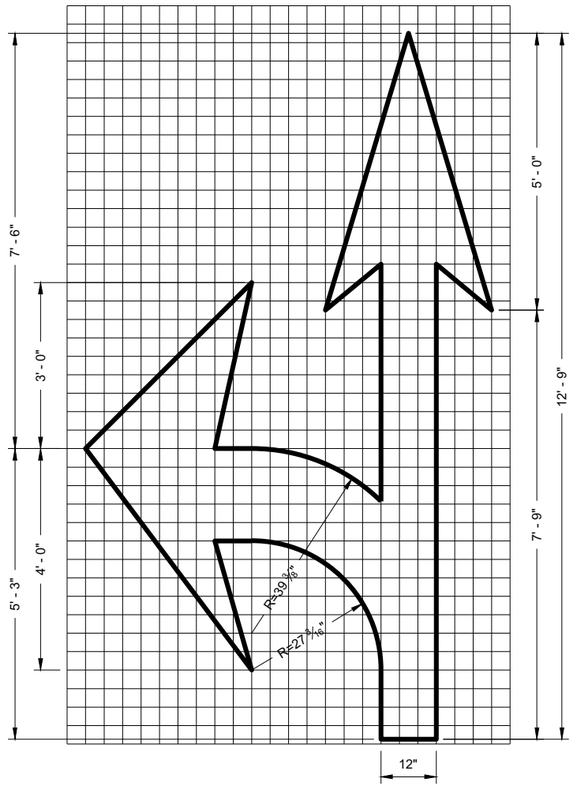
SDD 15C07 - 15b



TYPE 1



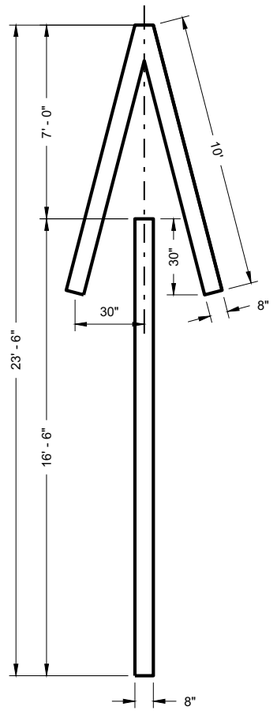
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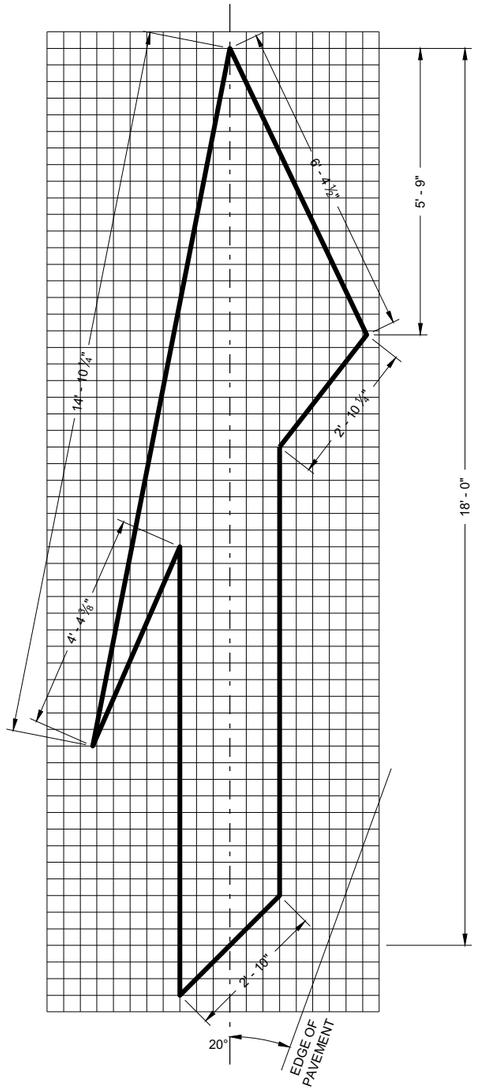
TYPE 3

GENERAL NOTES

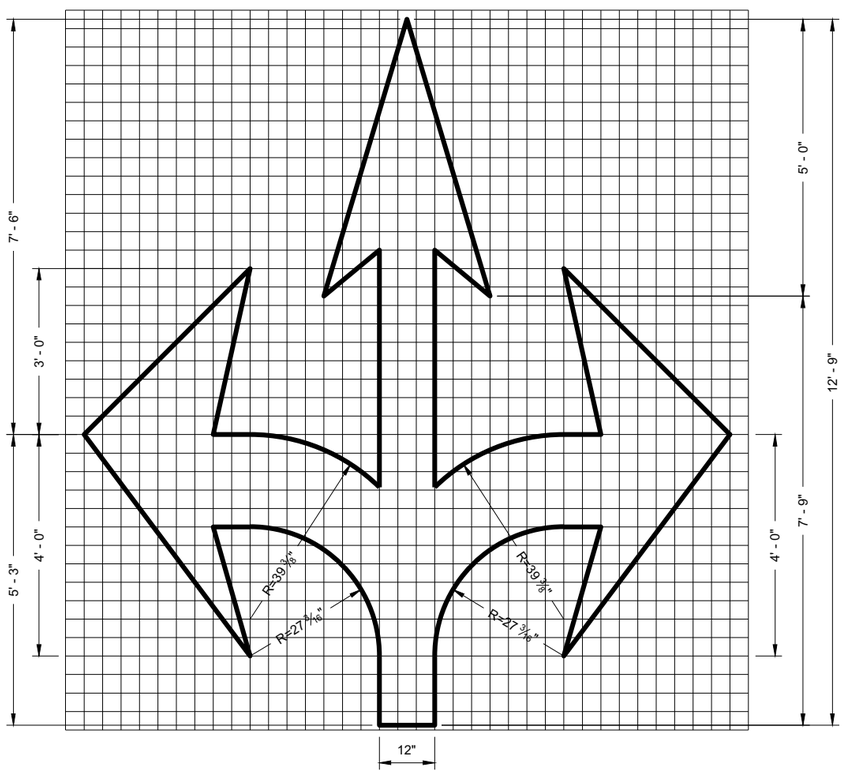
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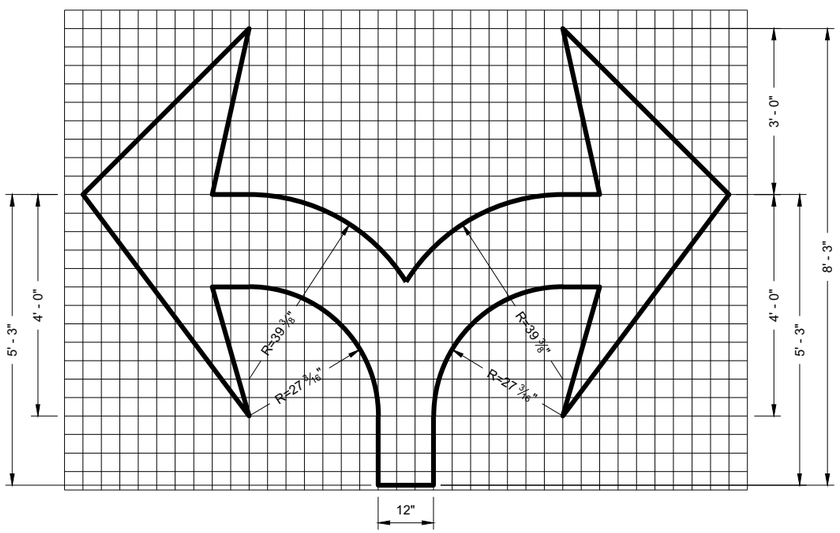
TYPE 4



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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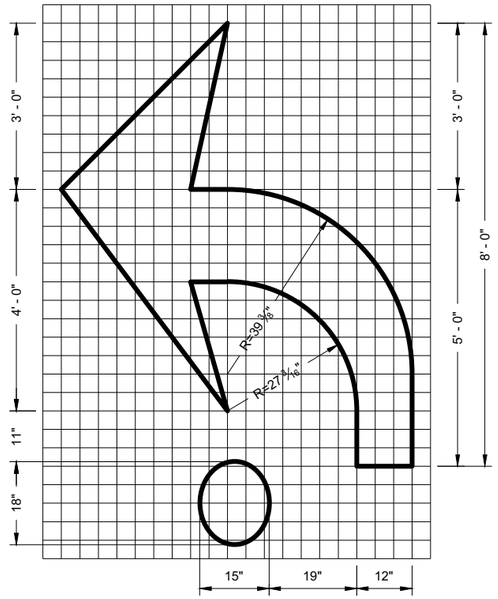
SDD 15C07 - 15c

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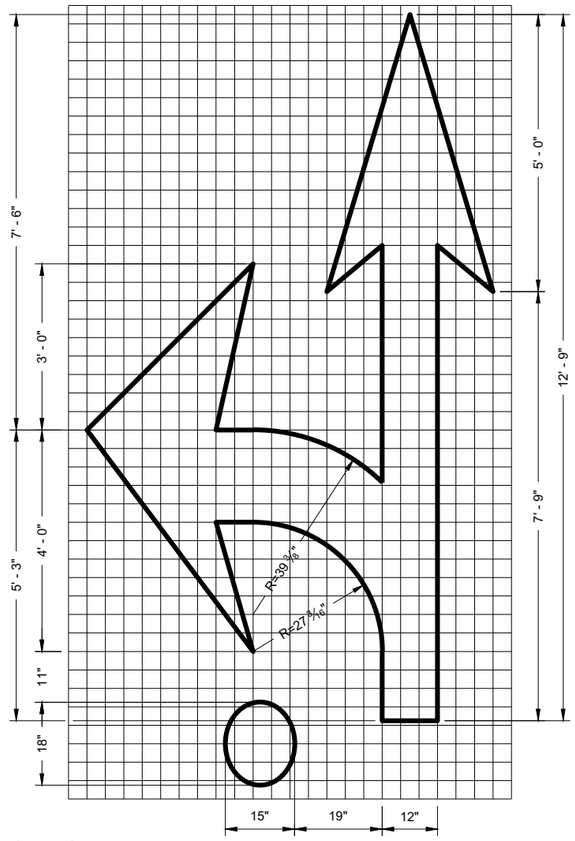
SDD 15C07 - 15c

GENERAL NOTES

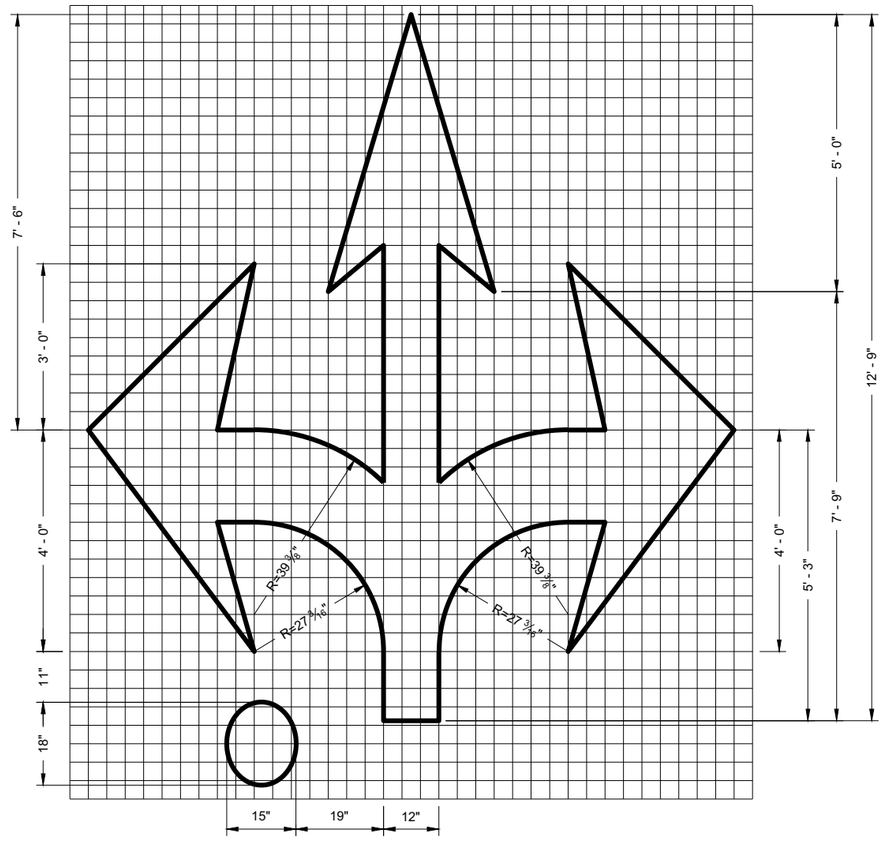
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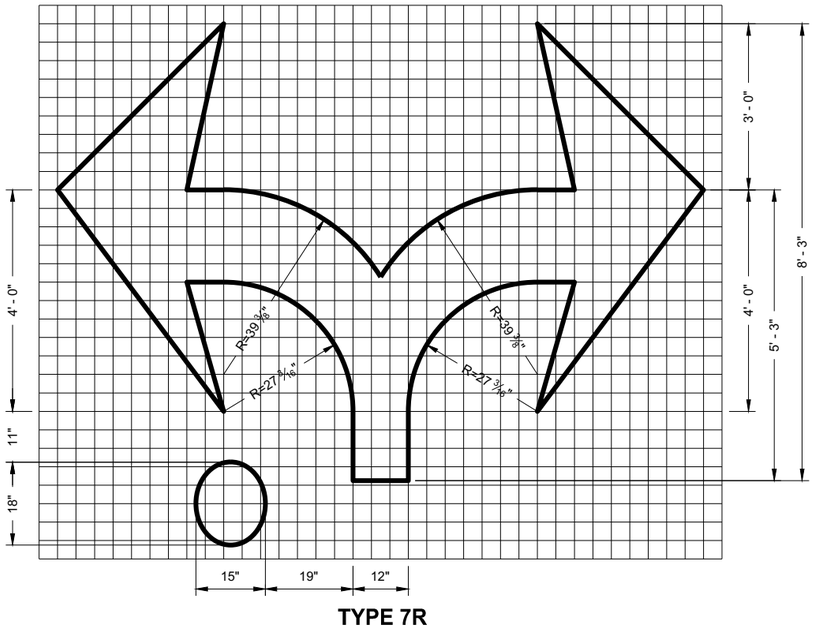
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

ROUNDABOUT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

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SDD 15C07 - 15d

6

SDD 15C07 - 15d

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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

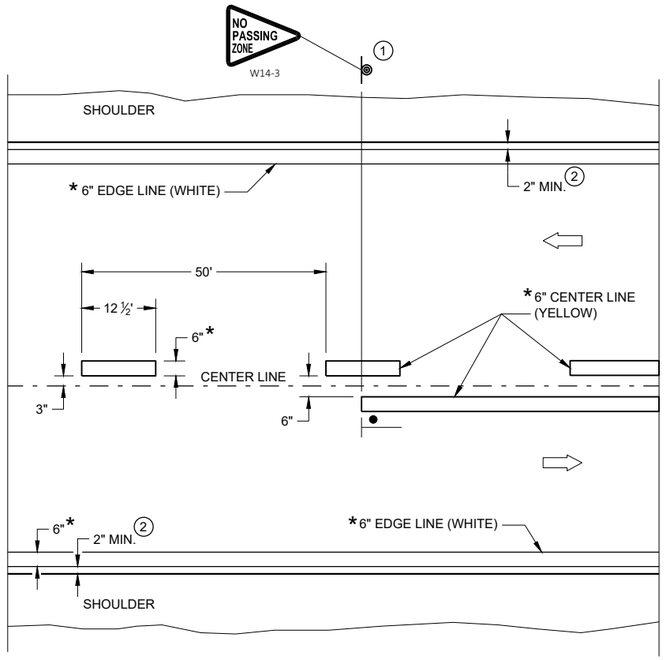
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

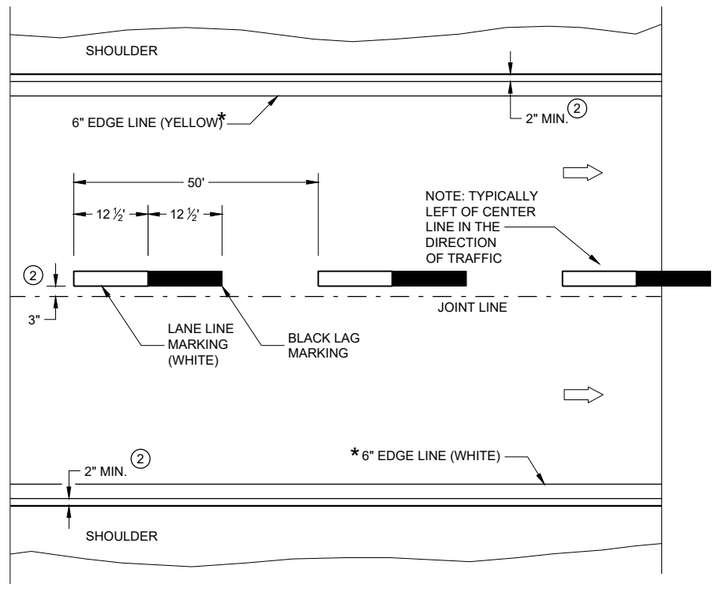
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

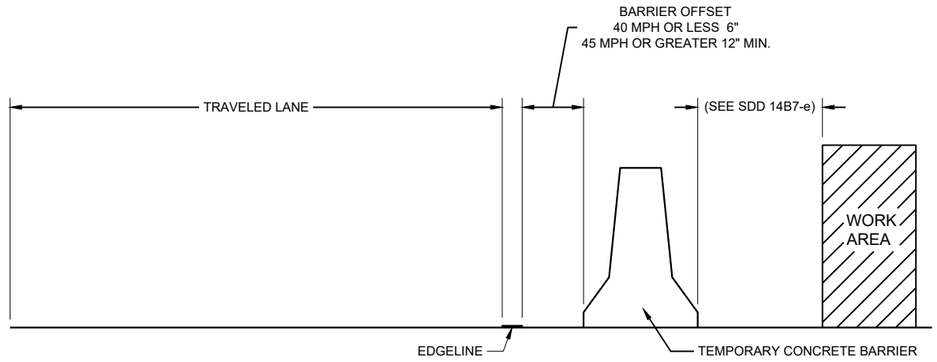
May 2023
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

FHWA

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SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

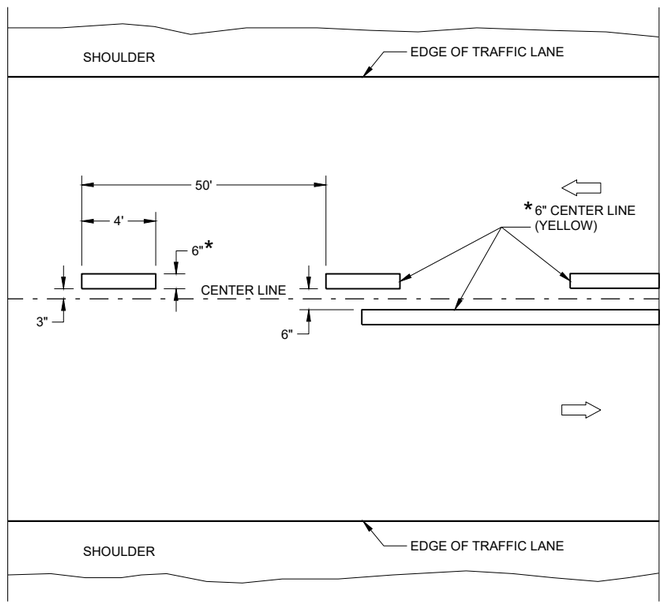
GENERAL NOTES

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

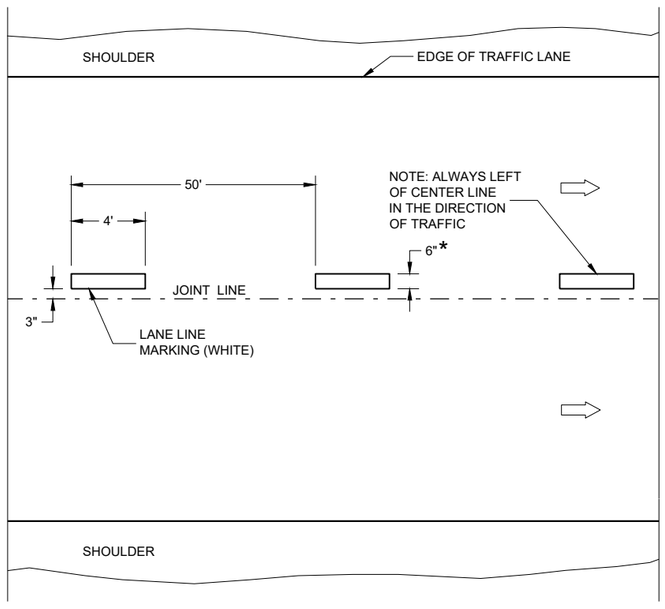
LEGEND

⇨ DIRECTION OF TRAFFIC

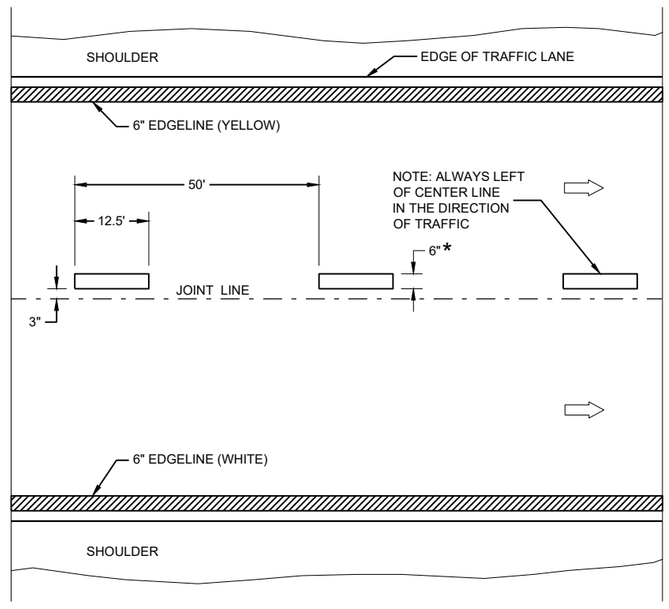
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver STATEWIDE SIGNING AND M ENGINEER

FHWA

6

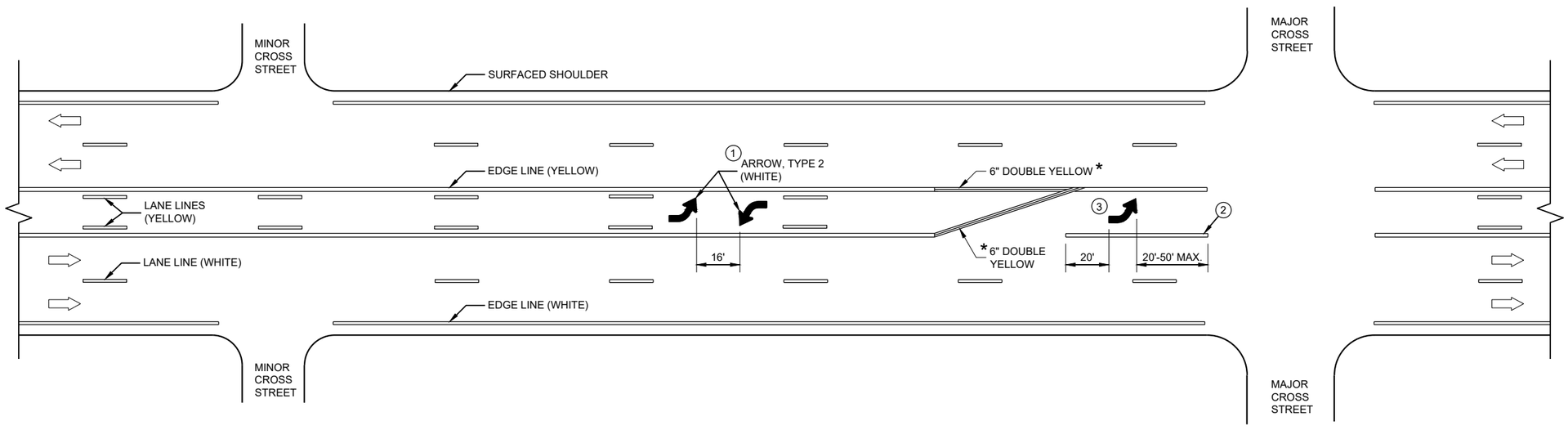
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

6

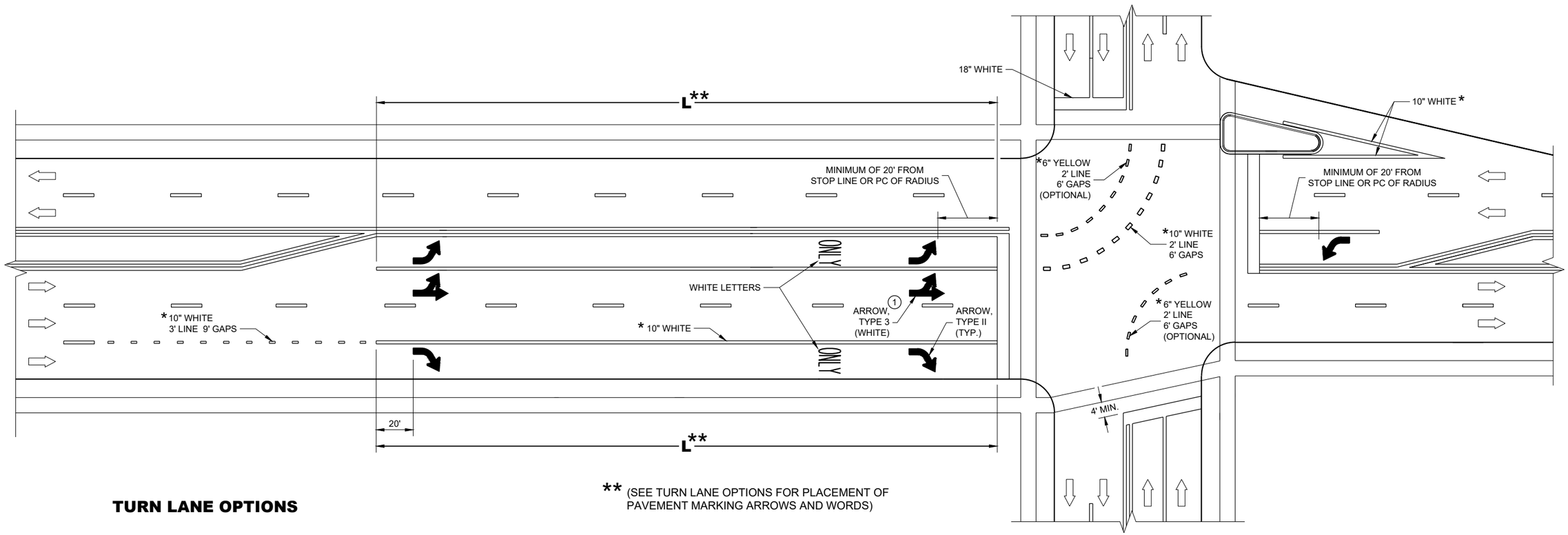
SDD 15C08-23c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA- 131

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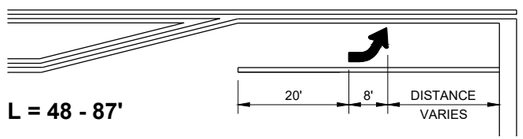
SDD 15C08-23c



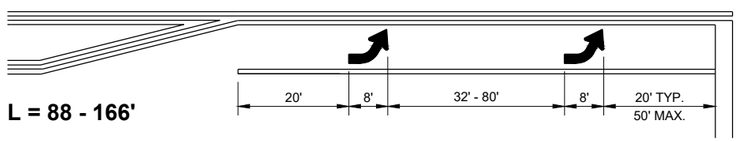
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

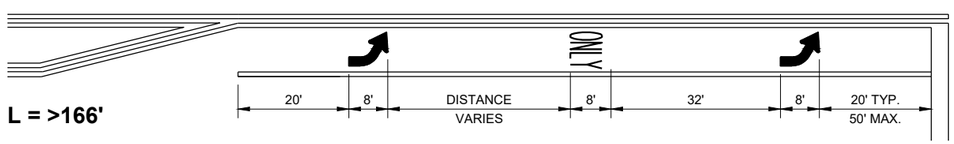
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

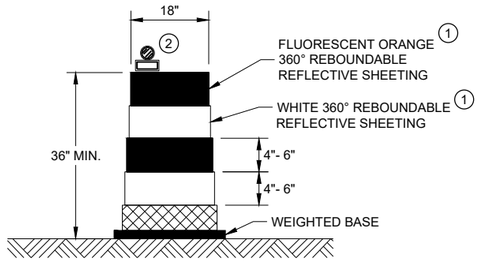
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d

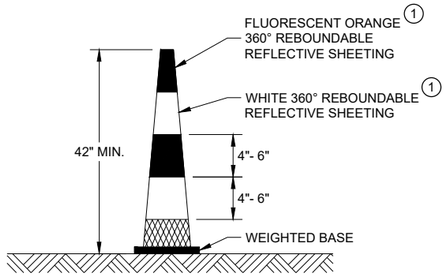
GENERAL NOTES

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



DRUM

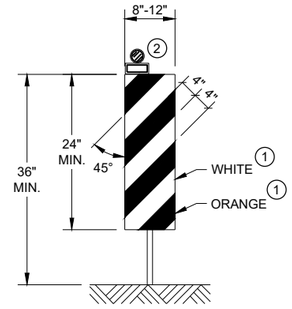
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

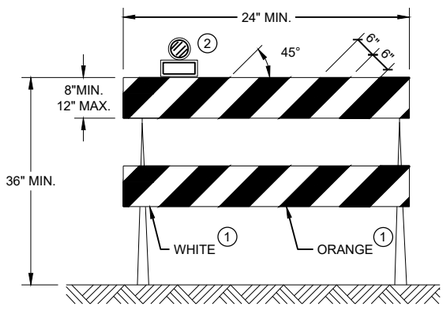
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



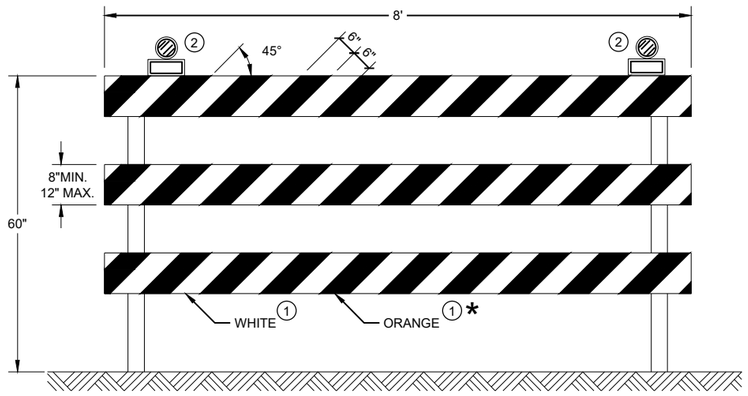
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

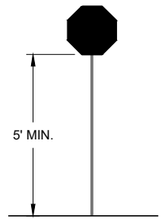
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



STOP/SLOW PADDLE ON SUPPORT STAFF

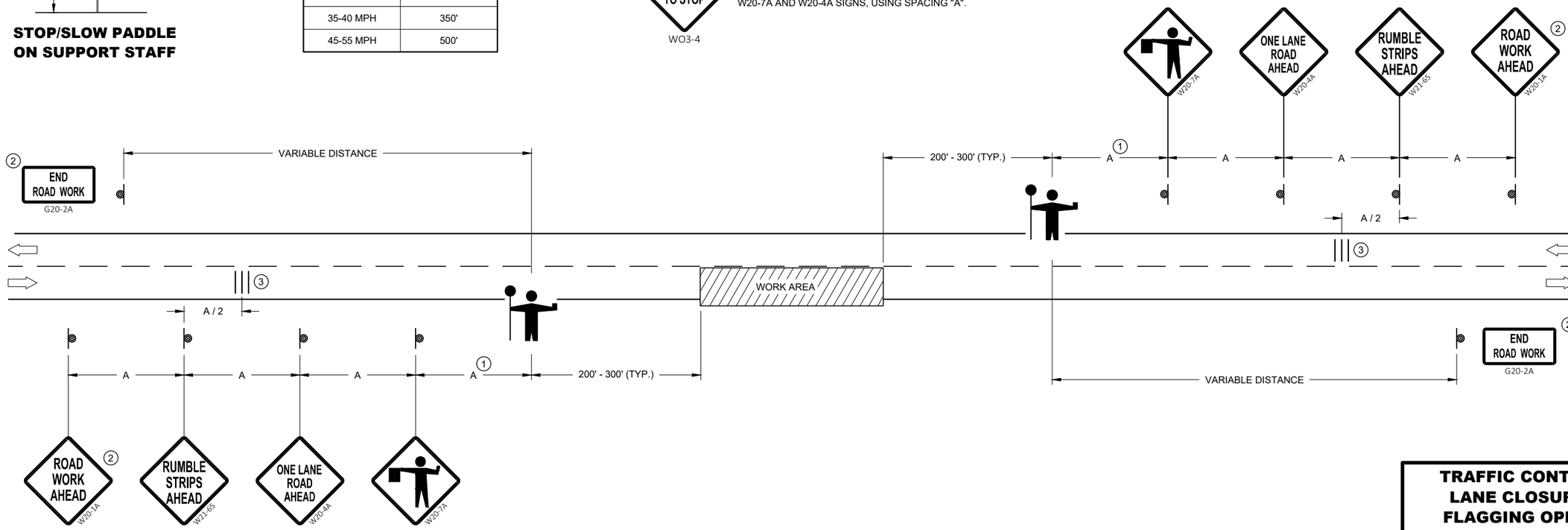
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a

6

SDD 15C12 - 09a

GENERAL NOTES

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL CONE 42-INCH

TRAFFIC CONTROL DRUM

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

AFAD — AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

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

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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.

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.

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

(2) IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

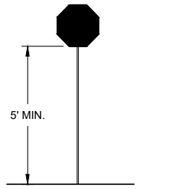
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

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.

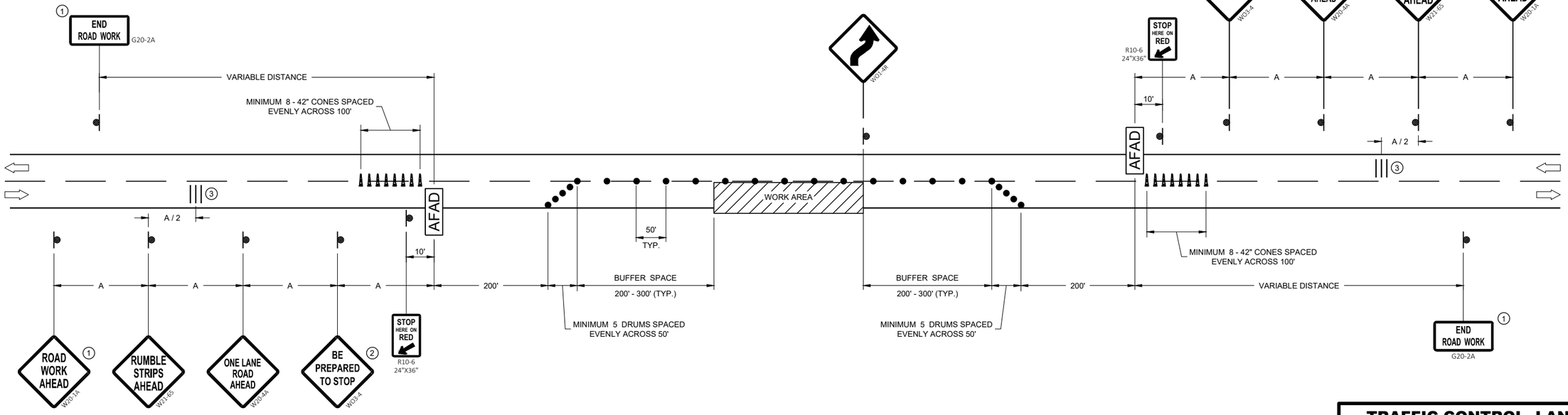
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

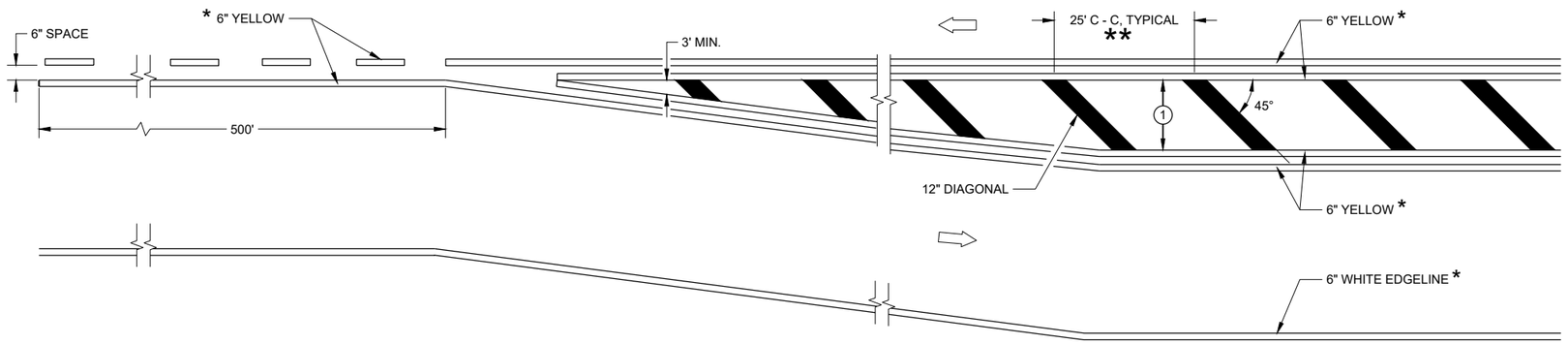
FHWA

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SDD 15C12 - 09b

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SDD 15C12 - 09b



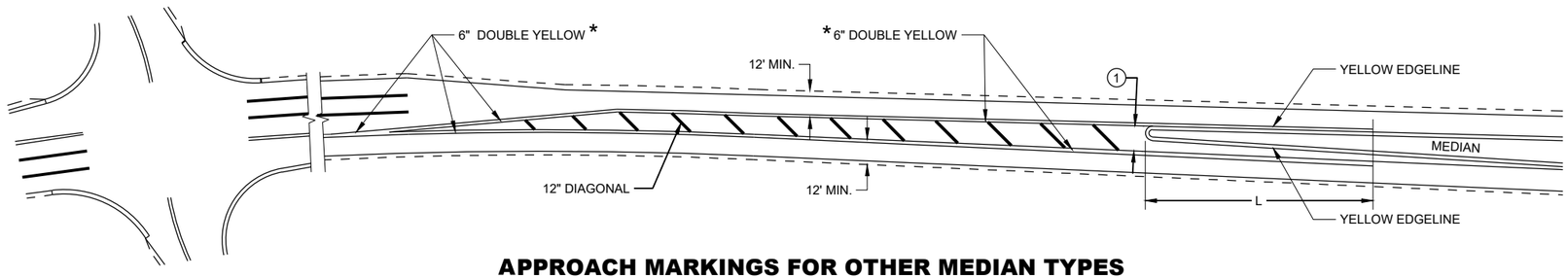
MEDIAN ISLAND DETAIL

GENERAL NOTES

(1) DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

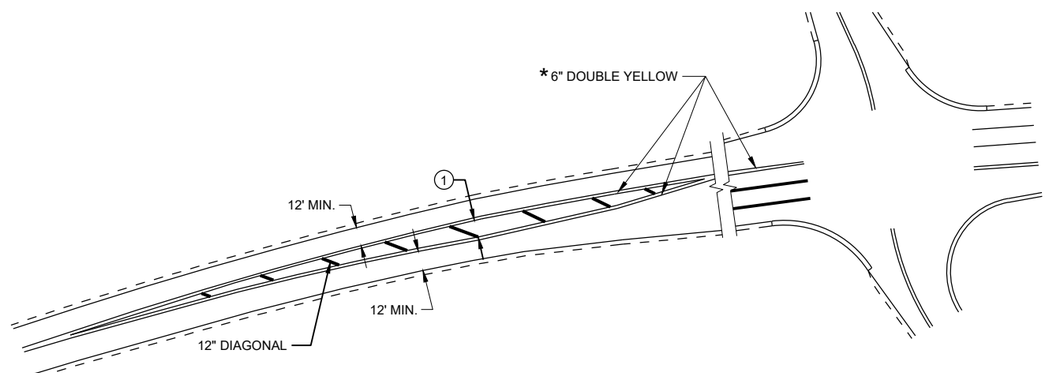
⇨ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAF ENGINEER

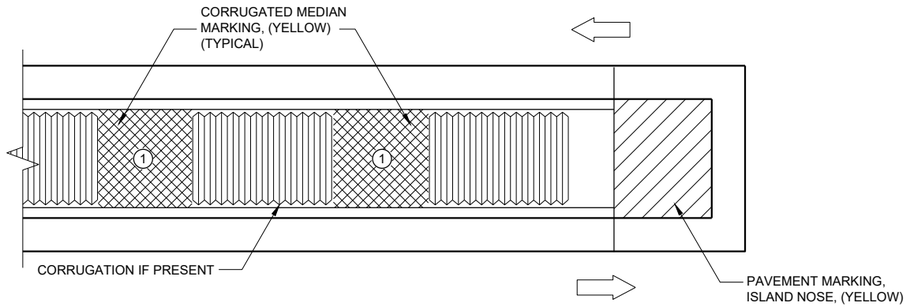
FHWA

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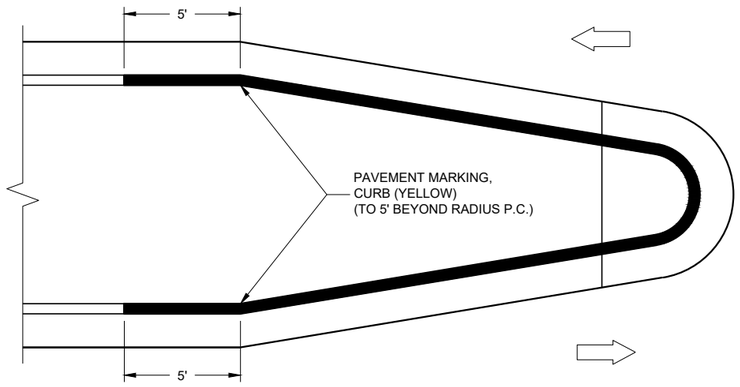
SDD 15C18-08a

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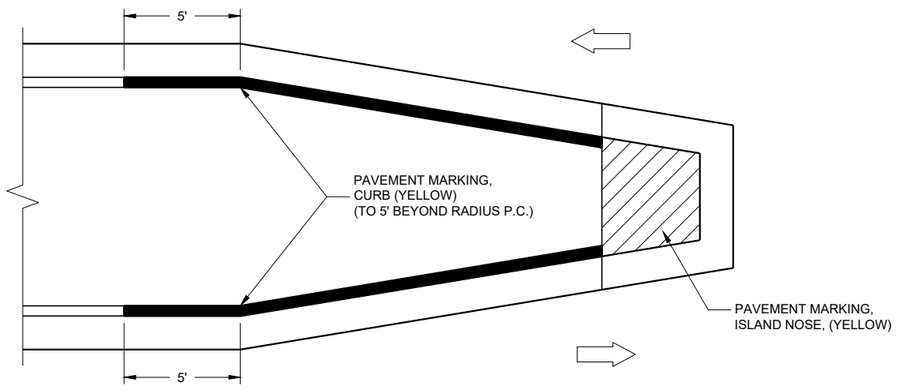
SDD 15C18-08a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

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

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

FHWA

6

SDD 15C18-08b

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.

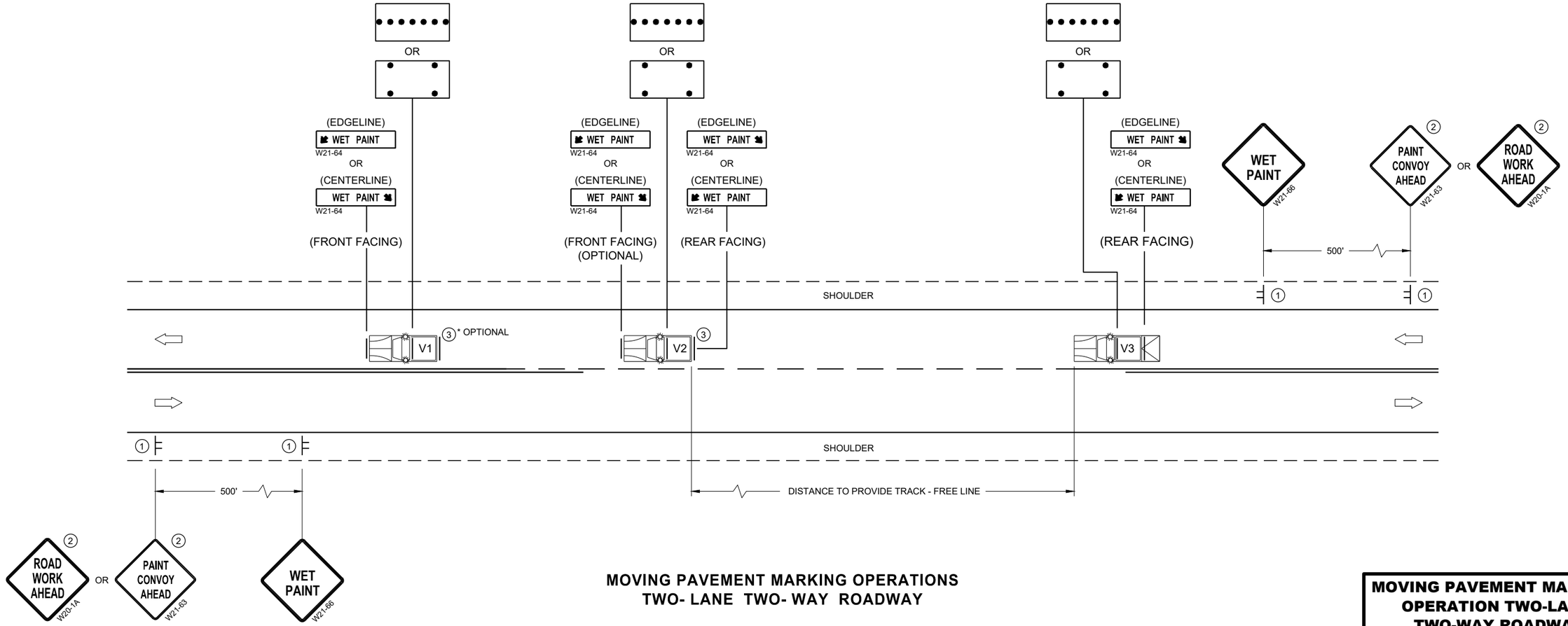
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



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
February 2023
DATE

/S/ Andrew I
WORK ZONE EN

FHWA

6

SDD 15C19-08a

6

SDD 15C19-08a

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.

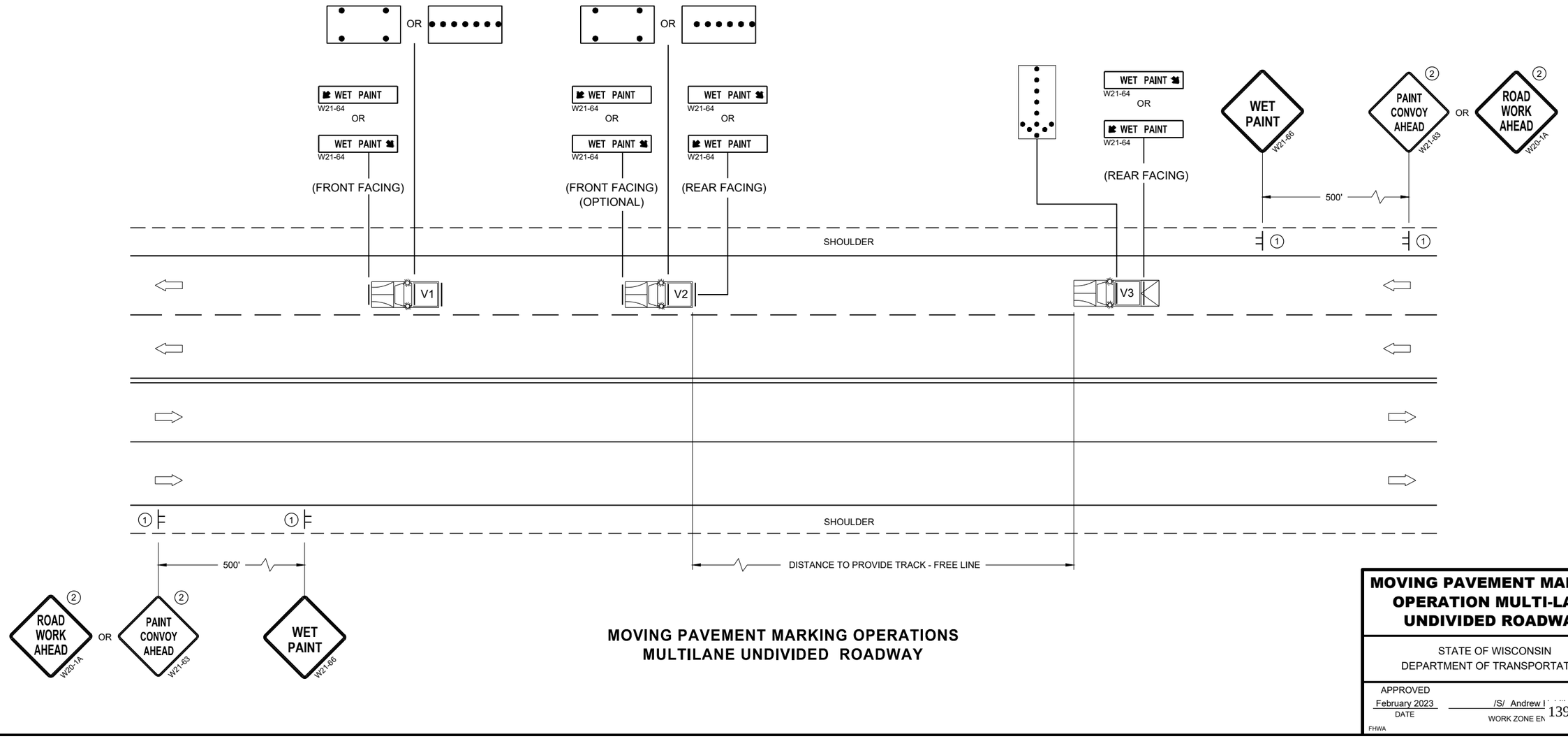
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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
February 2023
DATE

/S/ Andrew I...
WORK ZONE EN...

FHWA

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SDD 15C19-08b

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SDD 15C19-08b

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

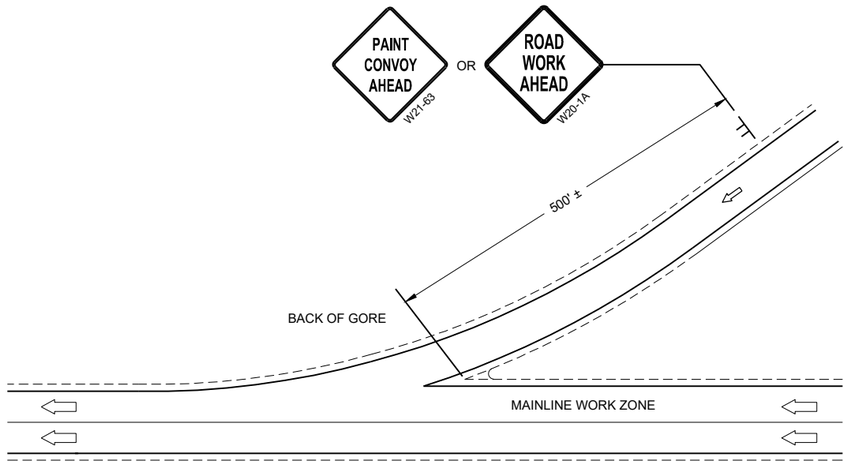
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

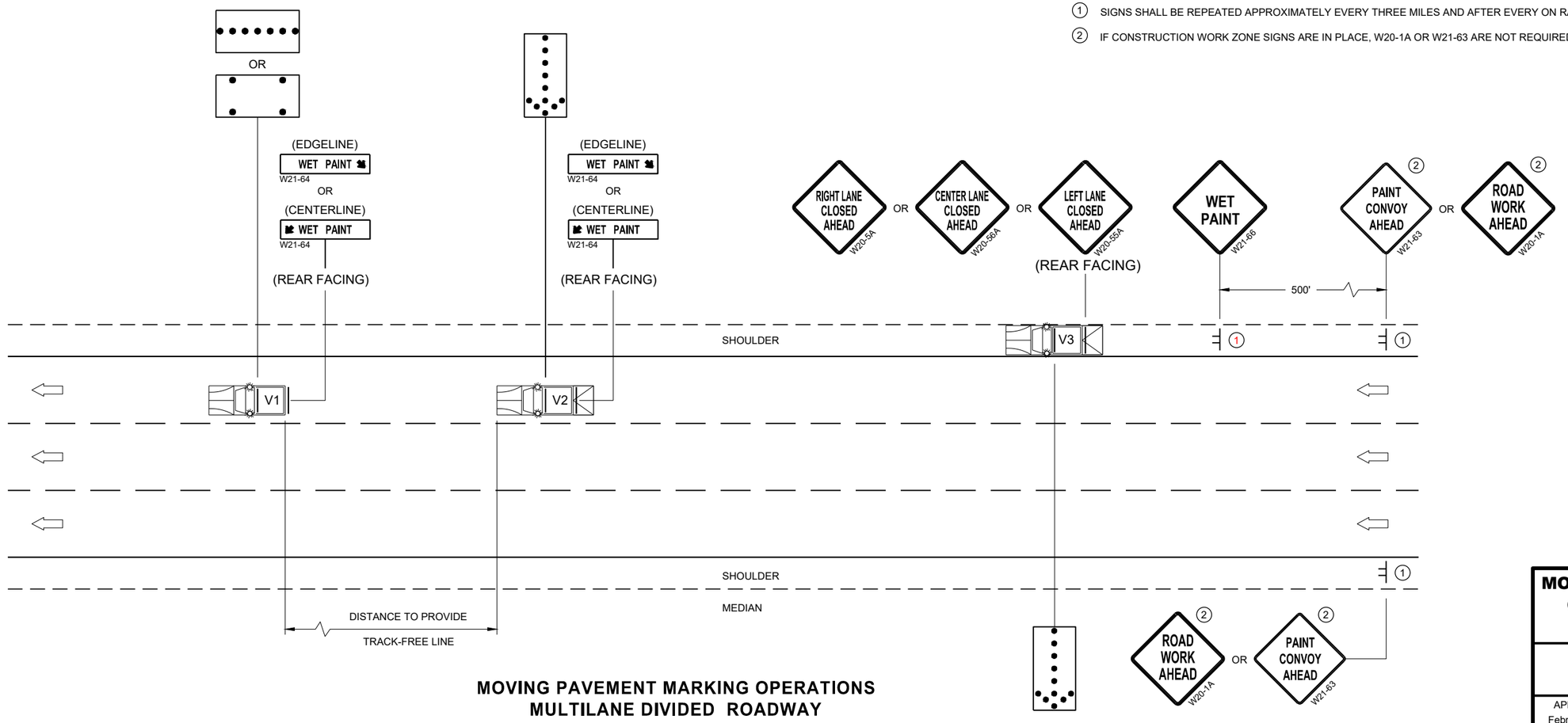
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

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



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE

/S/ Andrew [illegible]
WORK ZONE EN

FHWA

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SDD 15C19-08c

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SDD 15C19-08c

GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

(1) USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

** SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT PLACEMENT.

*** IF POSTED SPEED IS 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN).

LEGEND

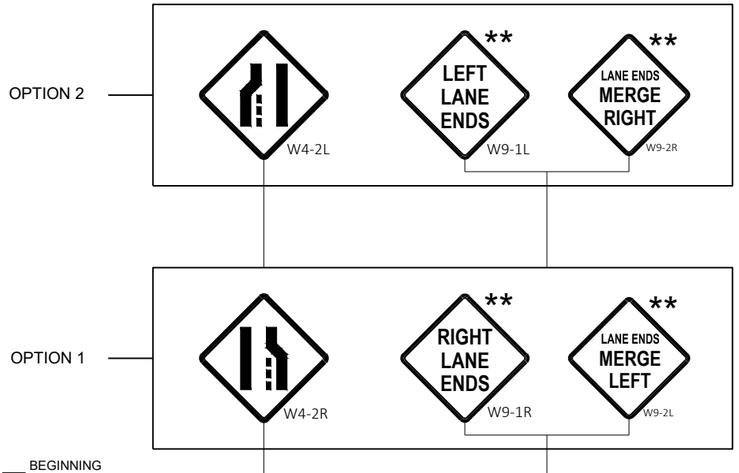
A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

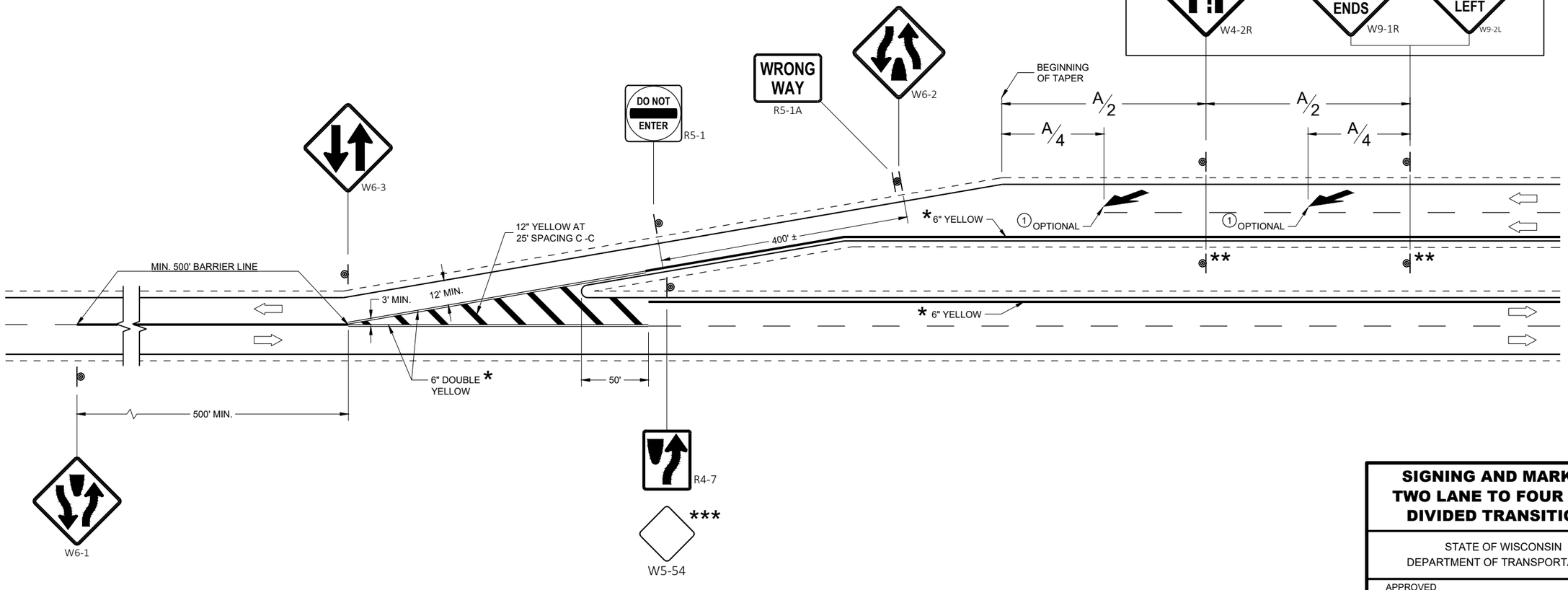
SIGN MOUNTED ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	325'
30	460'
35	565'
40	670'
45	775'
50	885'
55	990'
65	1200'
70	1250'





SIGNING AND MARKING TWO LANE TO FOUR LANE DIVIDED TRANSITIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C21-11

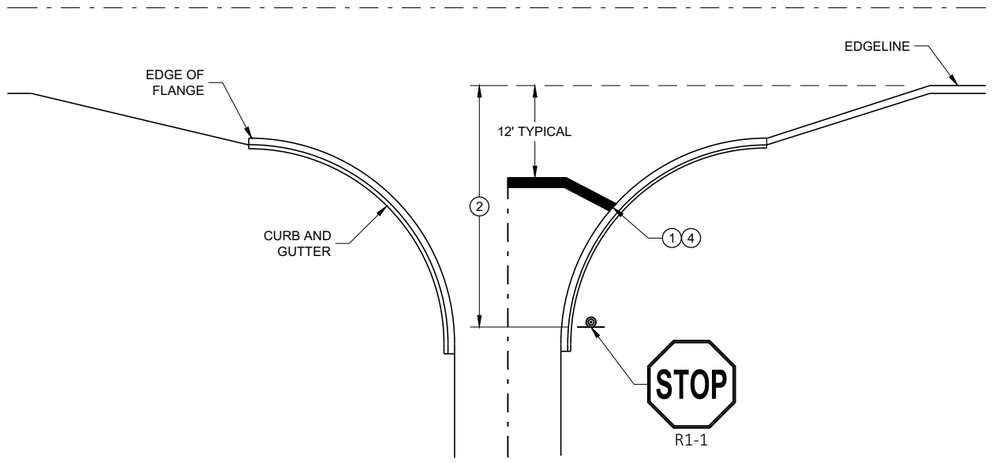
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SDD 15C21-11

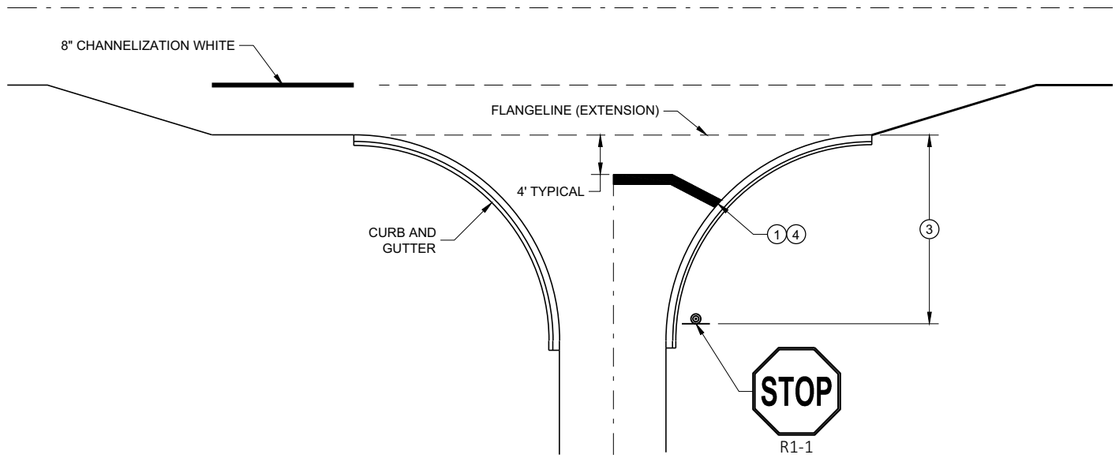
GENERAL NOTES

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

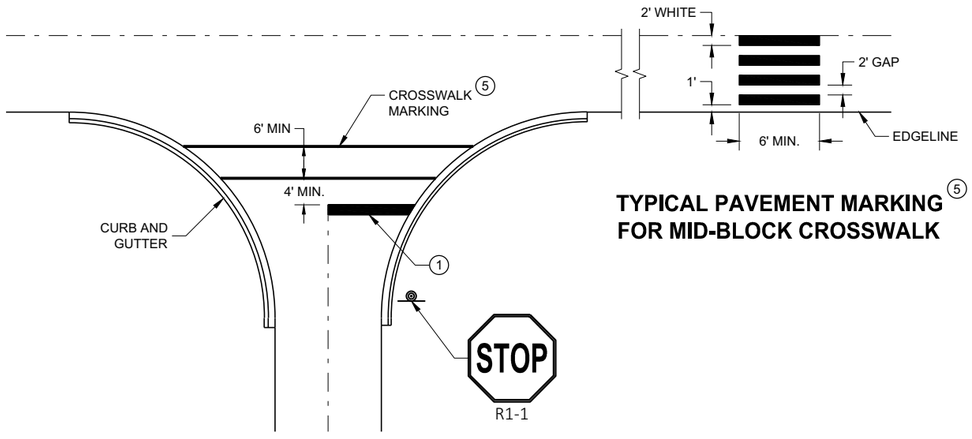
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

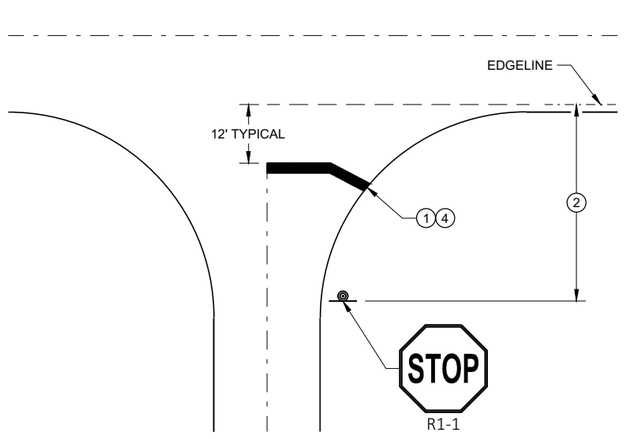


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING 5 FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15C33 - 04

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SDD 15C33 - 04

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

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

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

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

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

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

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

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

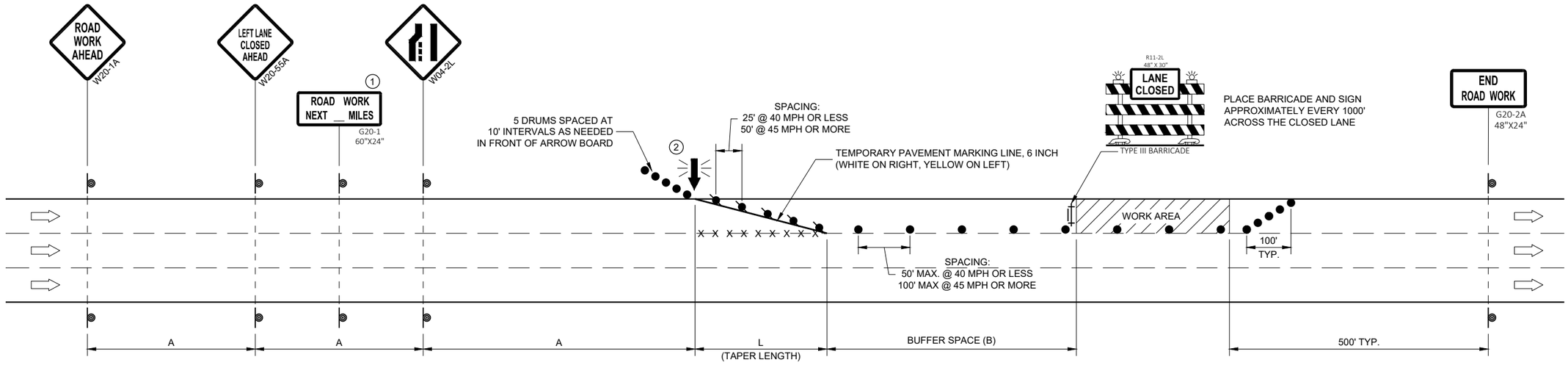
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

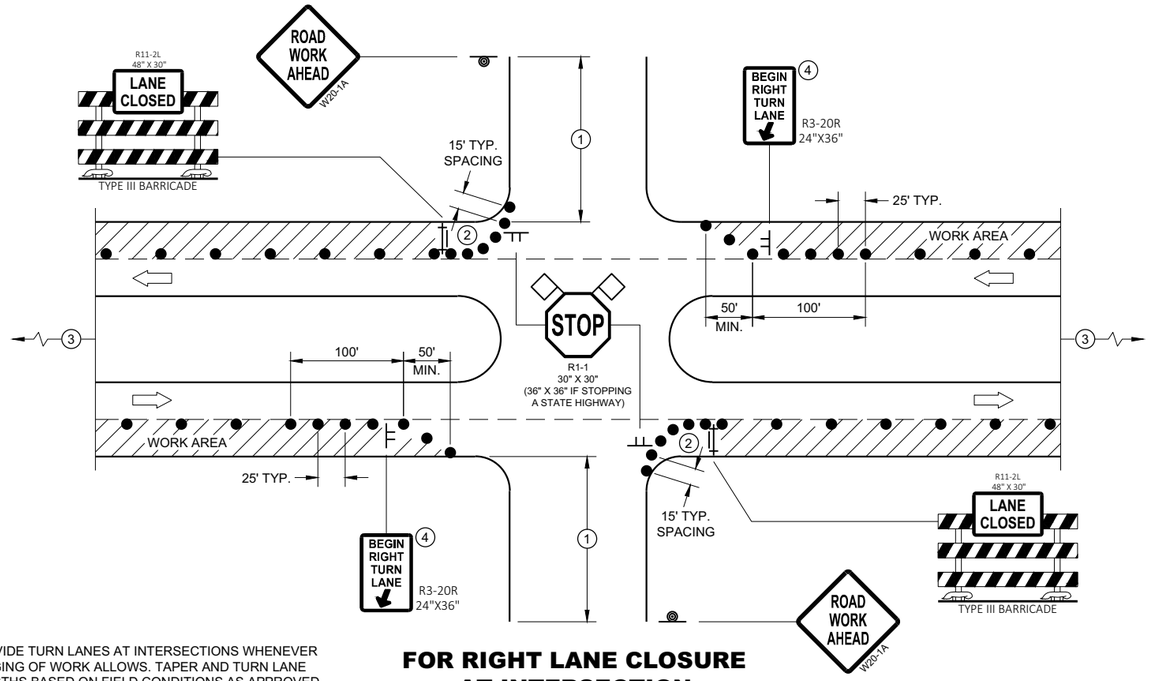
FHWA

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SDD 15D20-07a

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SDD 15D20-07a



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

FOR 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.

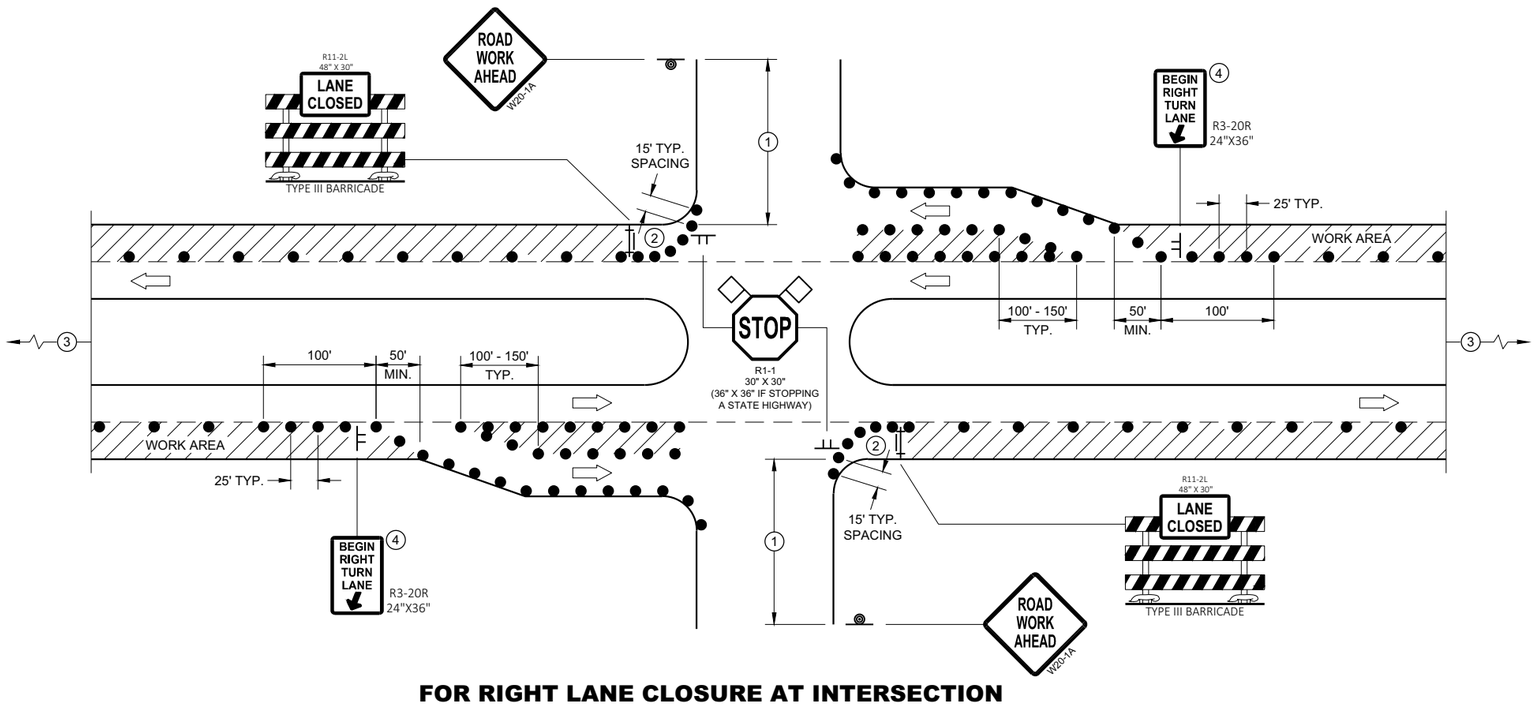
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(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.

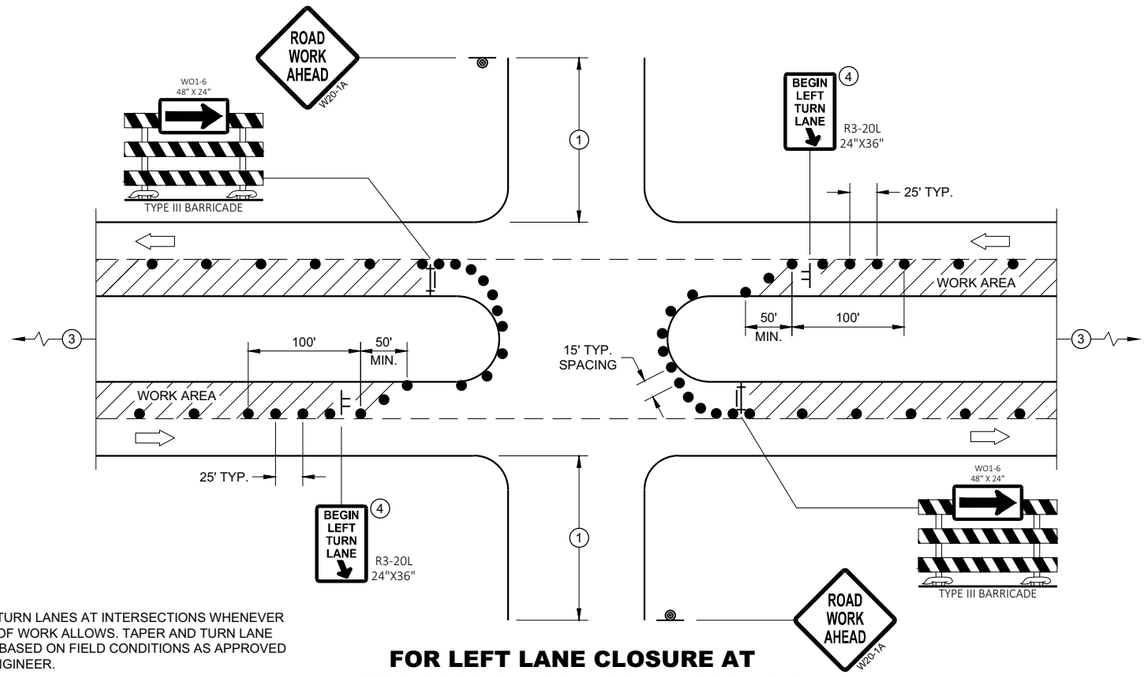


FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

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



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

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

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

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

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

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

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

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

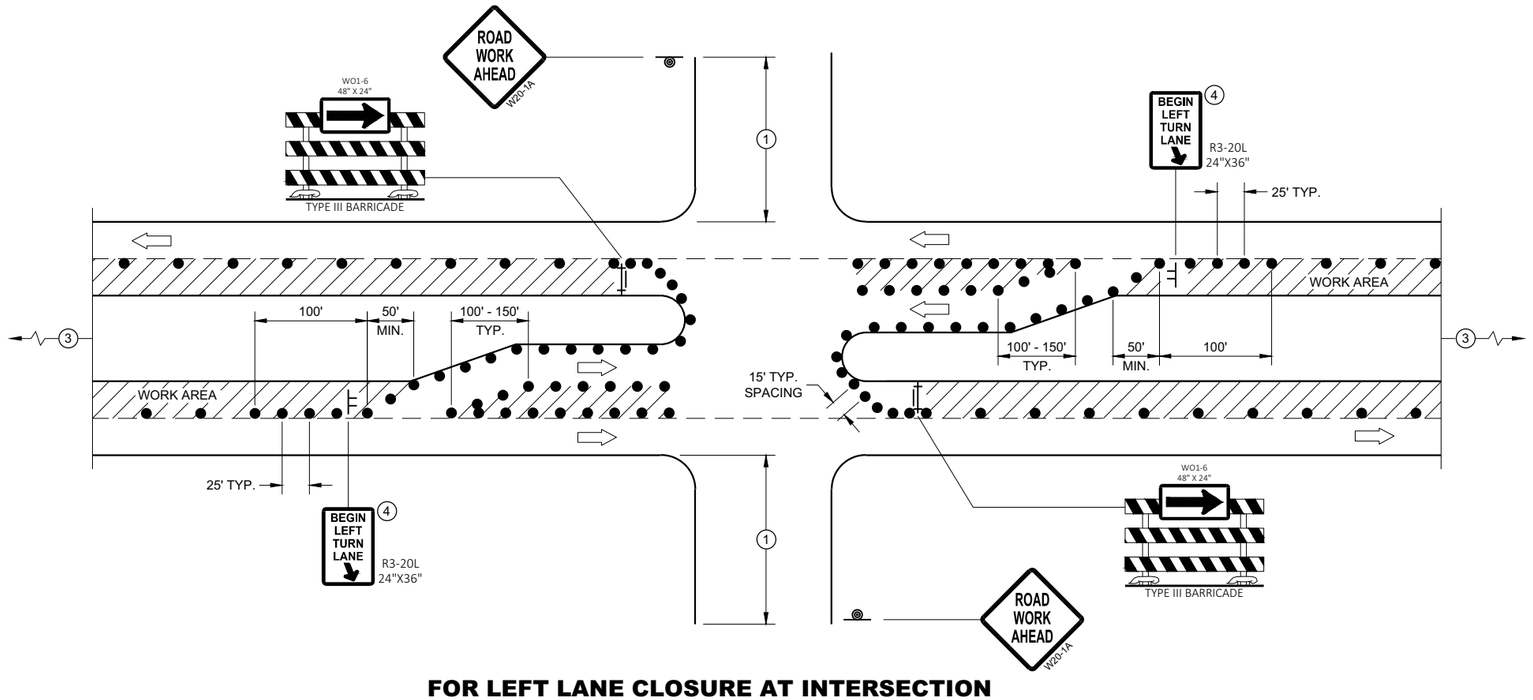
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

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

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



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- 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.

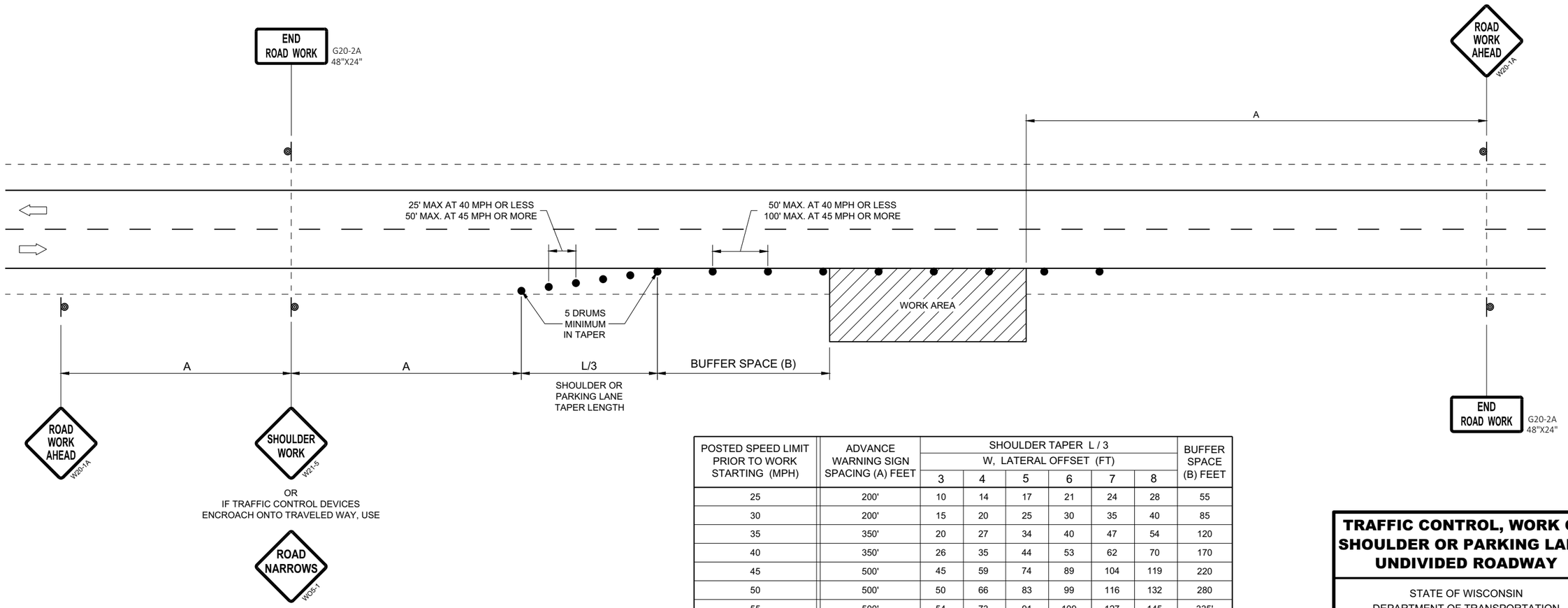
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

SDD 15D28 - 04

SDD 15D28 - 04

GENERAL NOTES

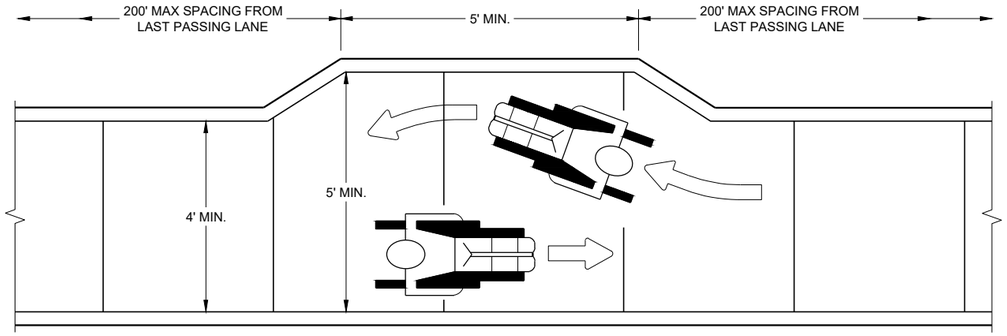
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

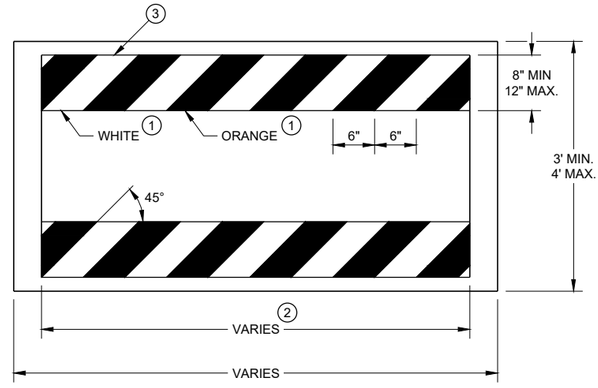
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

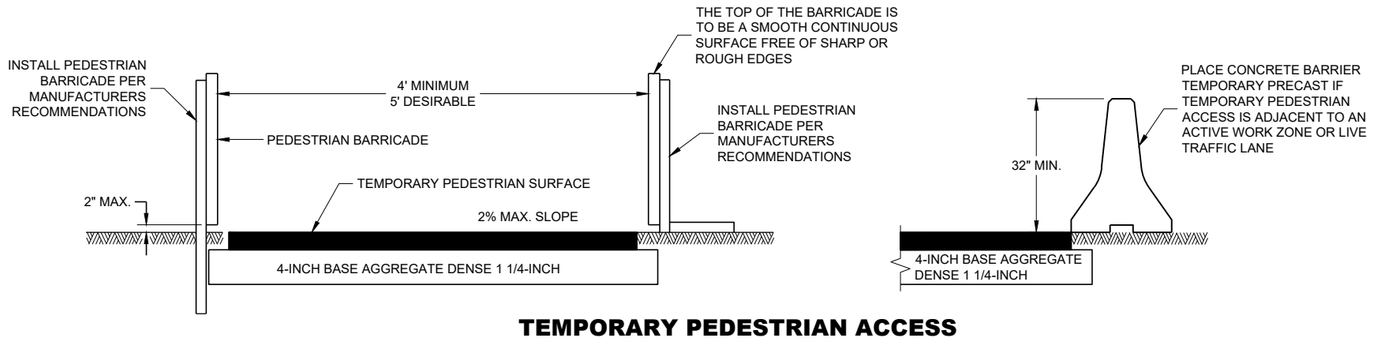
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



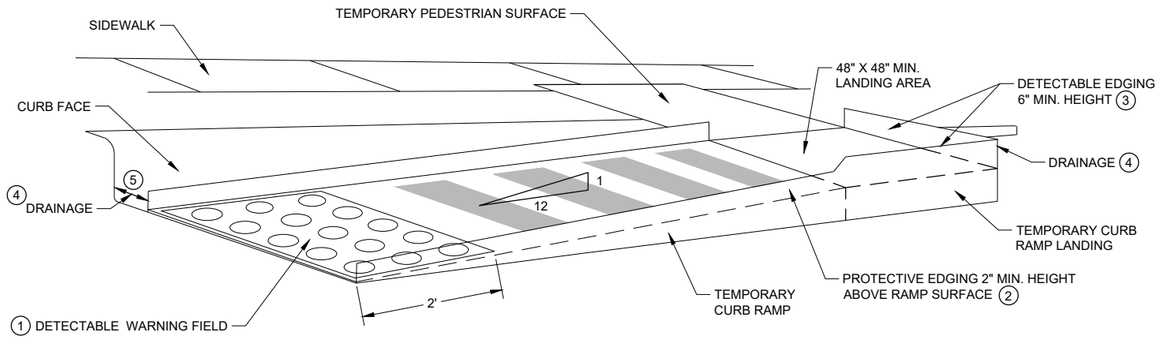
TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY PEDESTRIAN ACCESS

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6
SDD 15D30 - 09a



PERSPECTIVE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

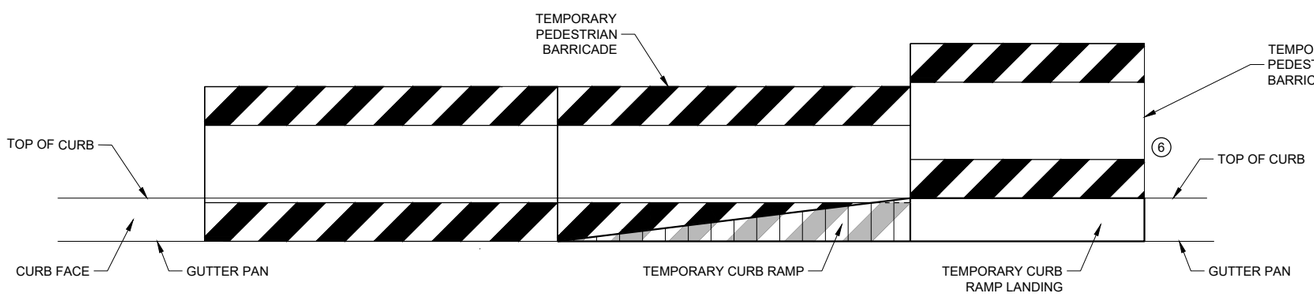
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

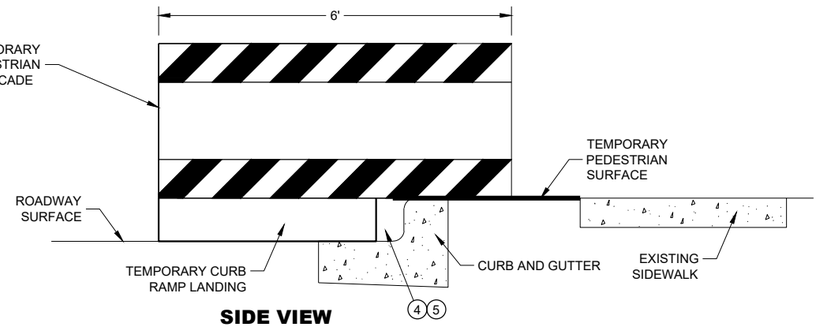
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

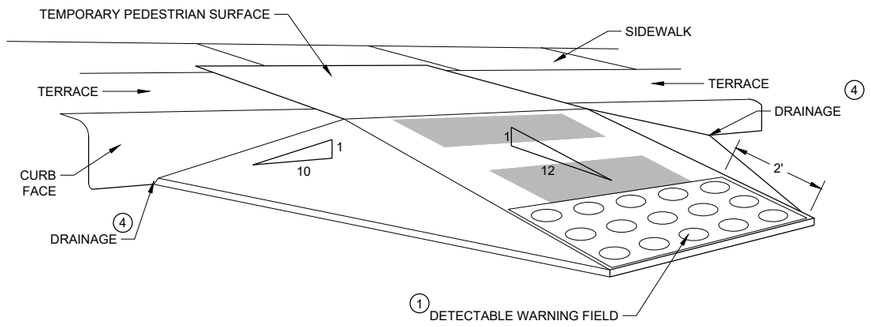
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

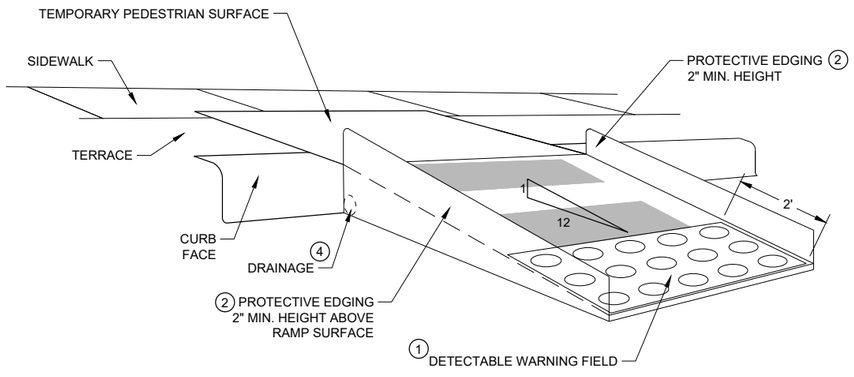
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 15D30 - 09b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

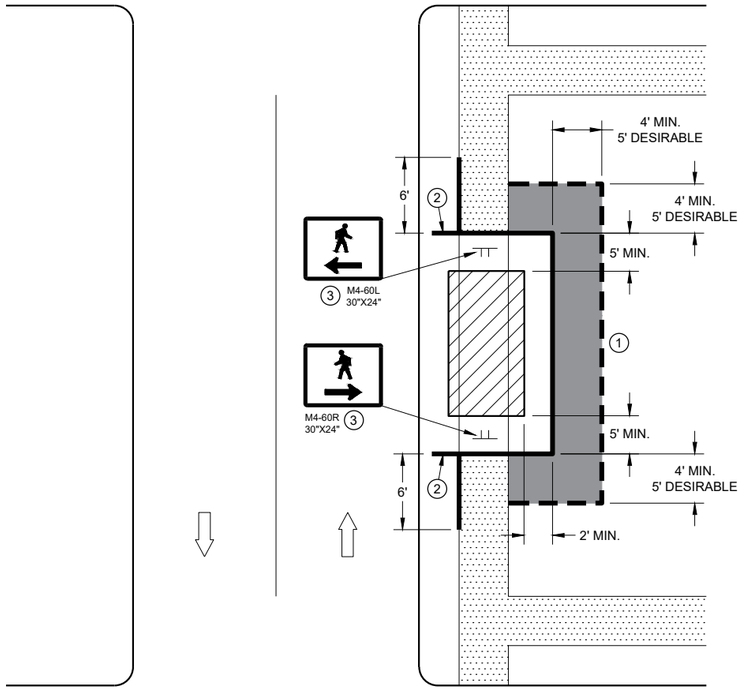
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

1. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
2. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DIVERSION
SINGLE SIDE

6

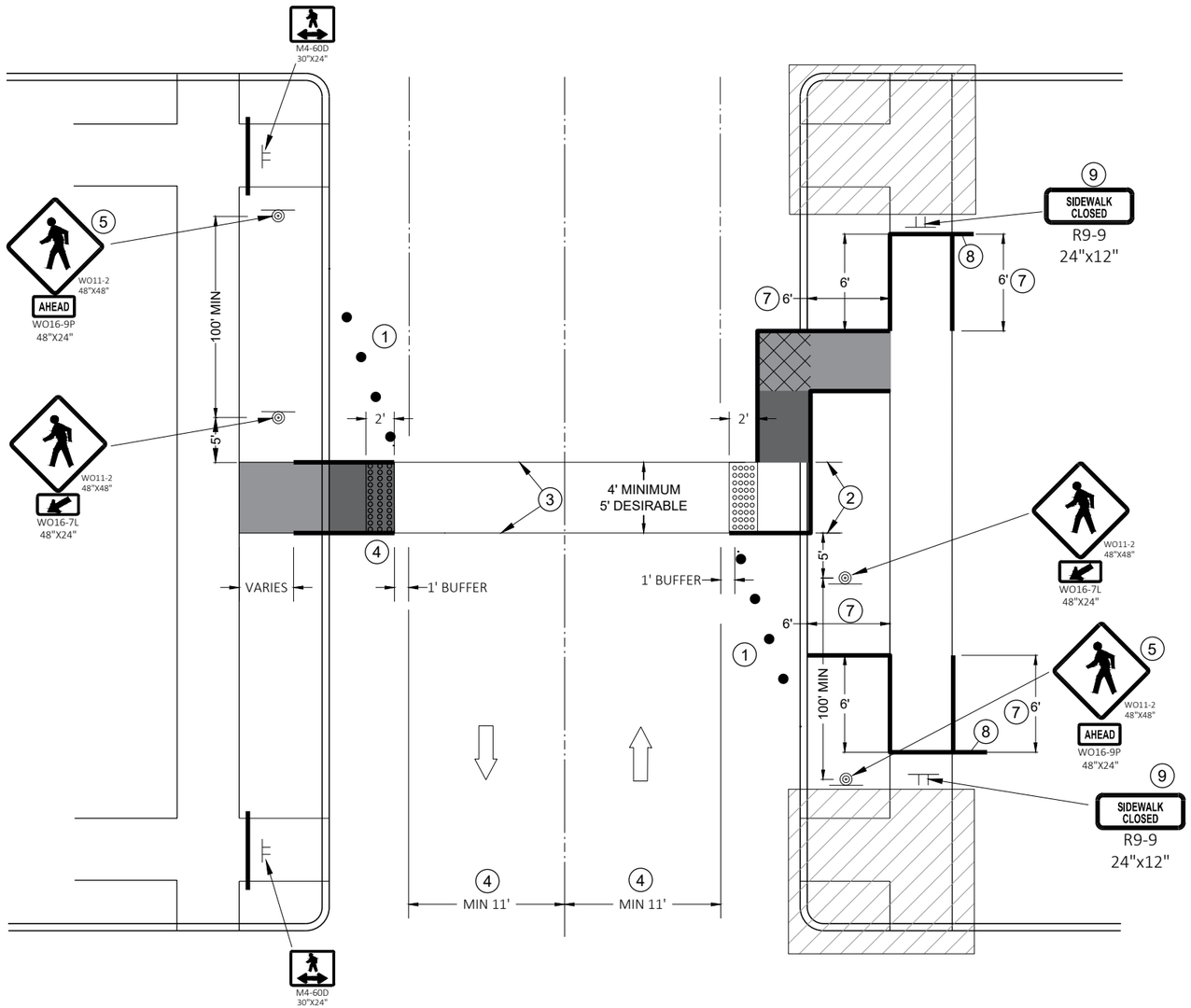
SDD 15D30 - 09g

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SDD15D30 - 09g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

(1) SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) 4 FEET MINIMUM, 5 FEET DESIRABLE.

(3) WHITE 6" TEMPORARY PAVEMENT MARKING.

(4) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.

(5) IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.

(6) IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.

(7) PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.

(8) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(9) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

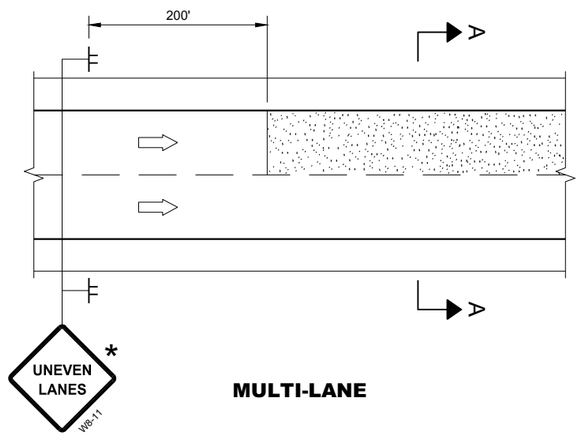
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

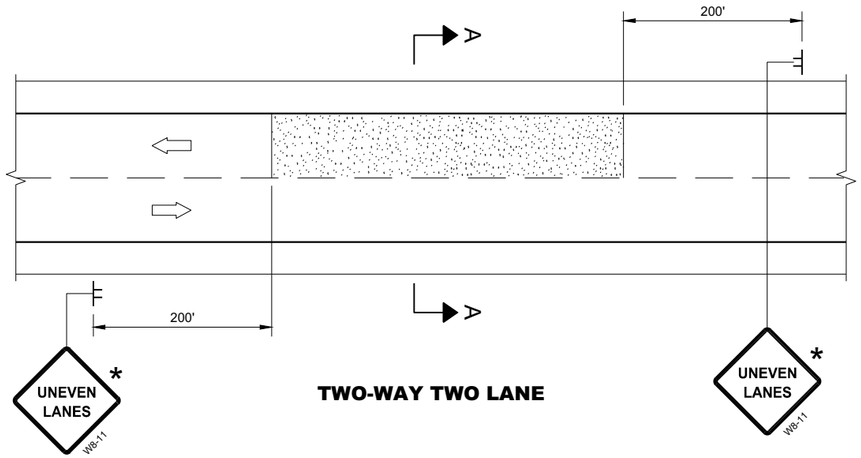
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TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09L



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

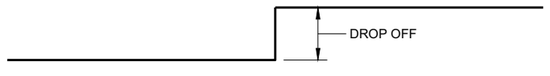
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

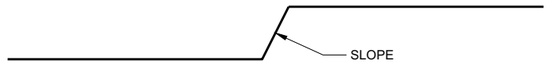
LEGEND

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

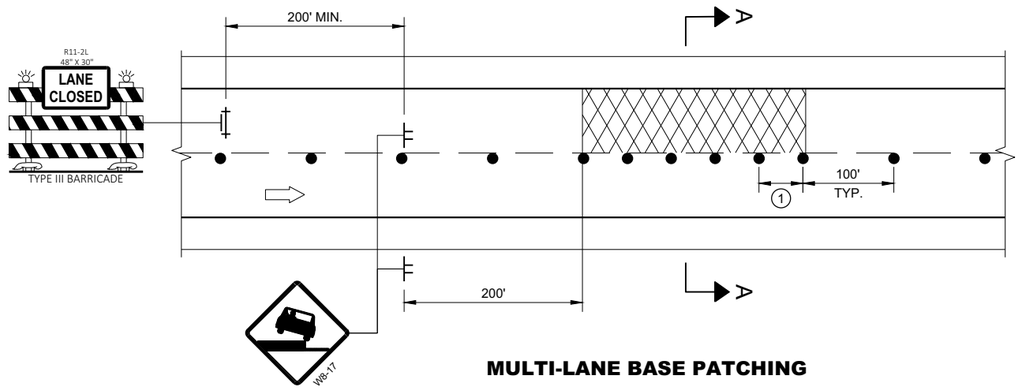


SECTION A - A

OR

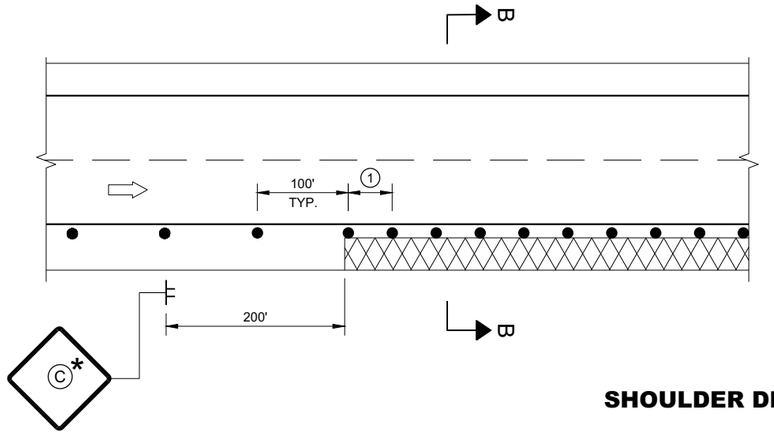


SECTION A - A

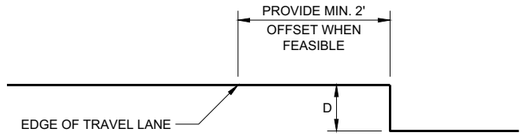


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

6

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)
- CONCRETE BARRIER TEMPORARY PRECAST

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	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

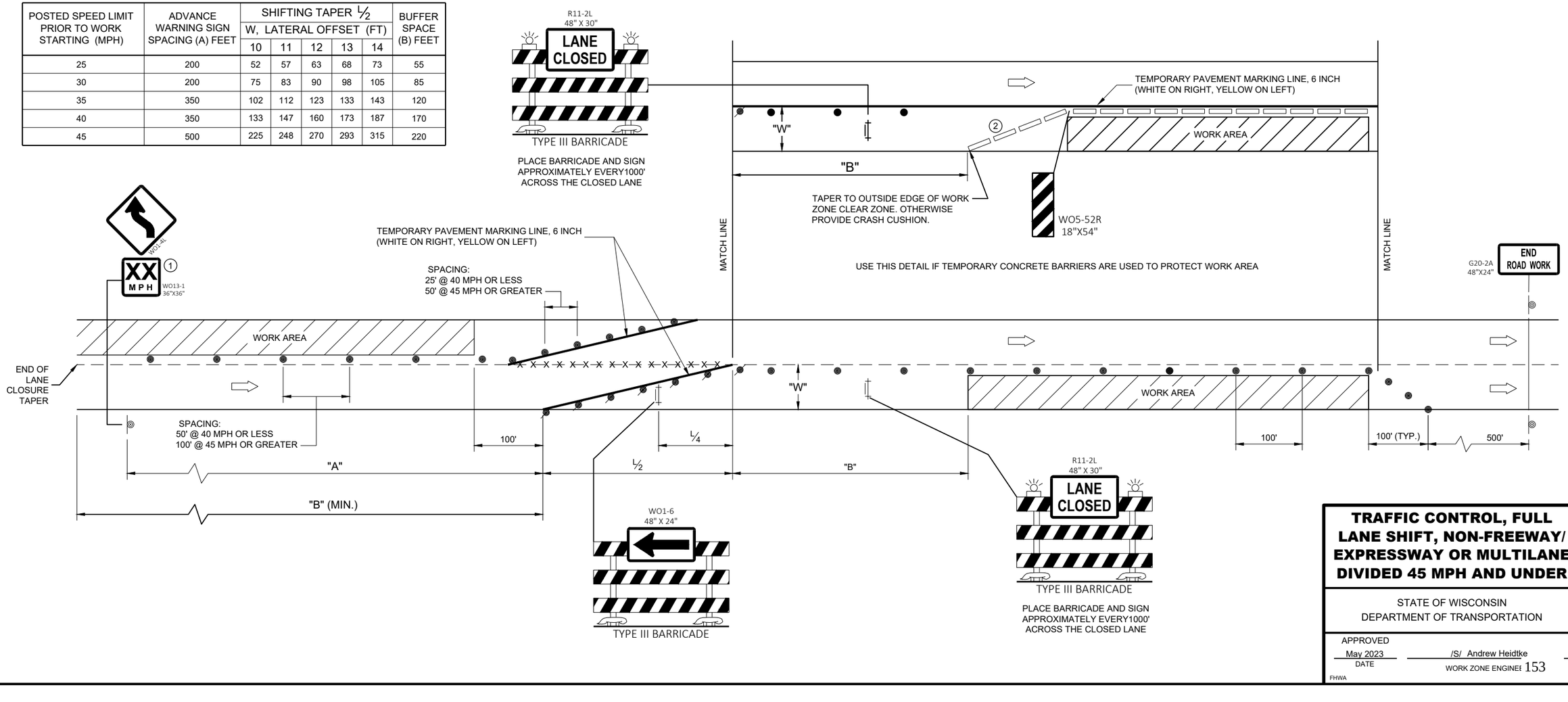
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D40-05a

6

SDD 15D40-05a

LEGEND

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

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

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

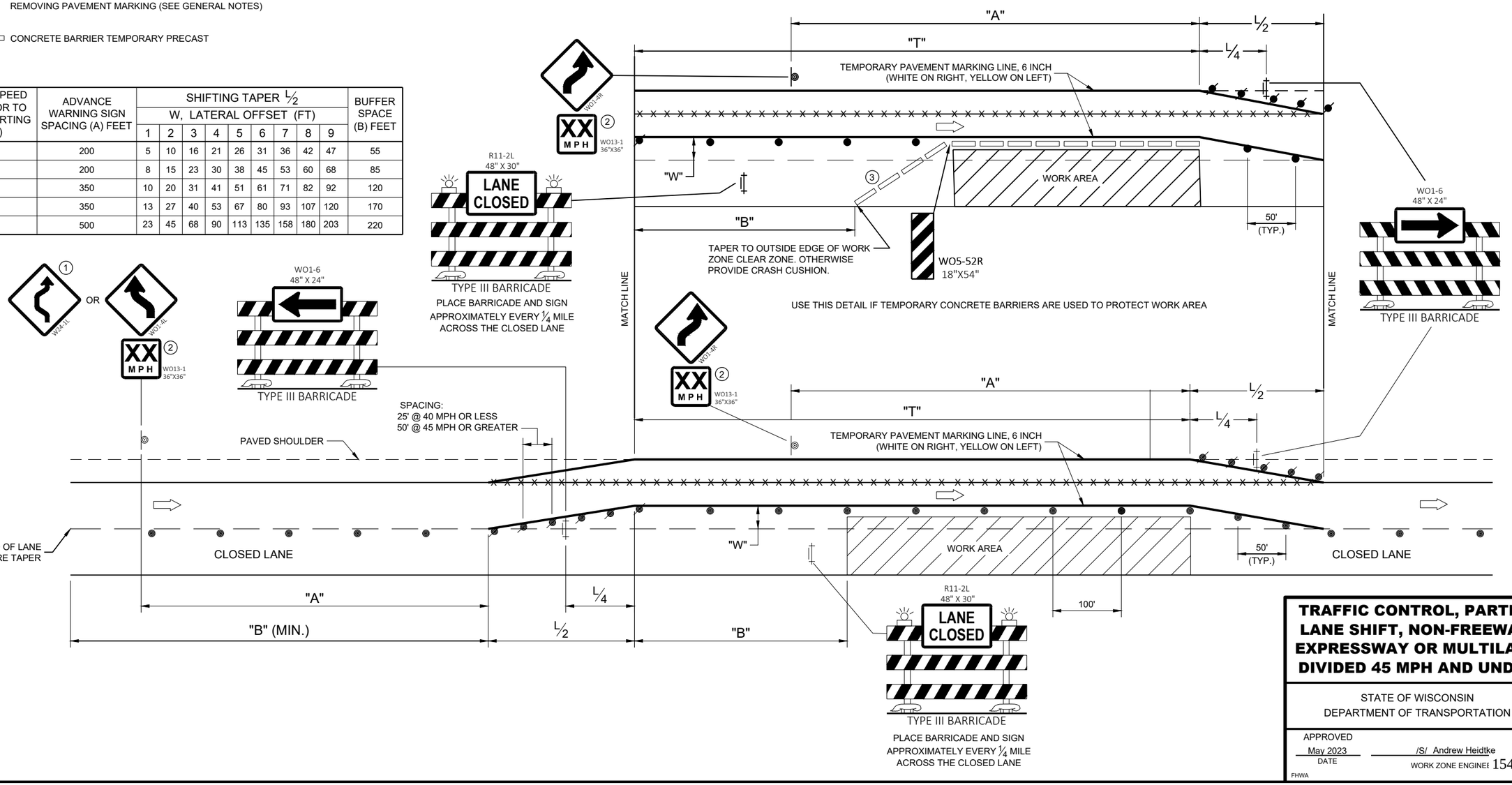
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP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

(1) USE ONLY WHEN T<600', OMIT WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(3) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

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
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D40-05c

SDD 15D40-05c

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.

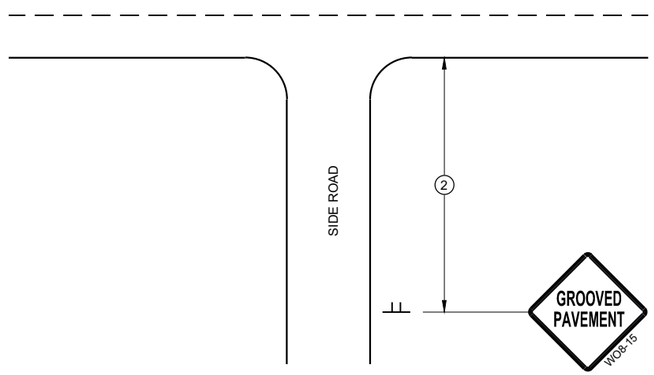
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

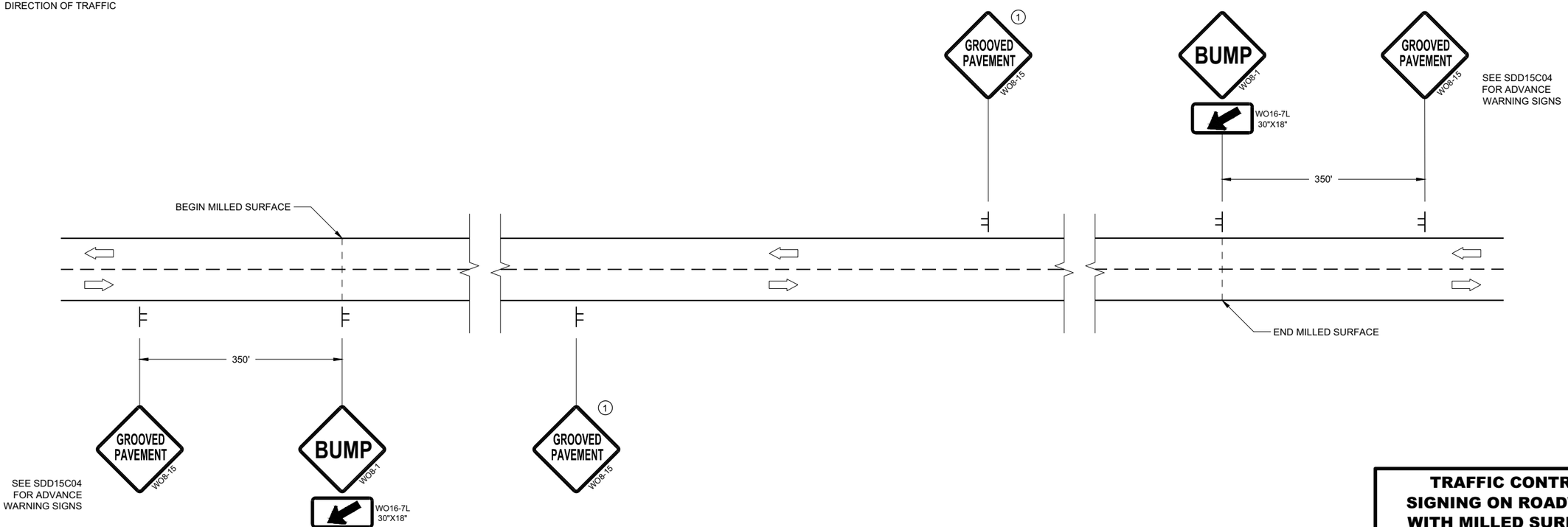
LEGEND

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

SDD 15D44 - 02

SDD 15D44 - 02

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.

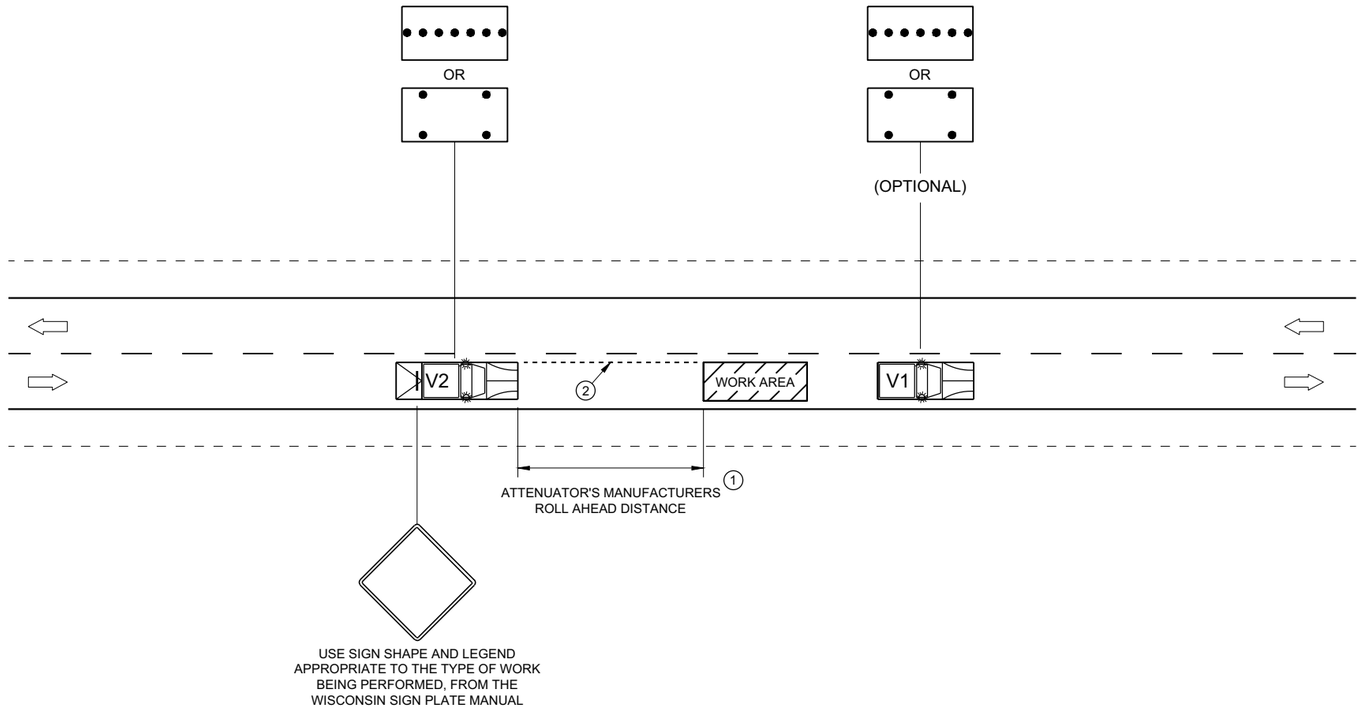
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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

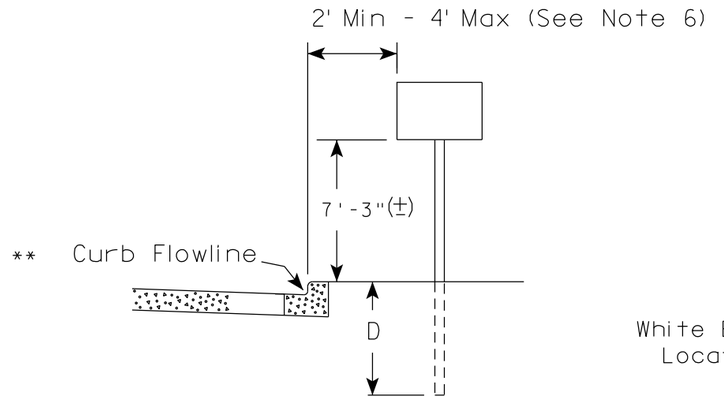
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

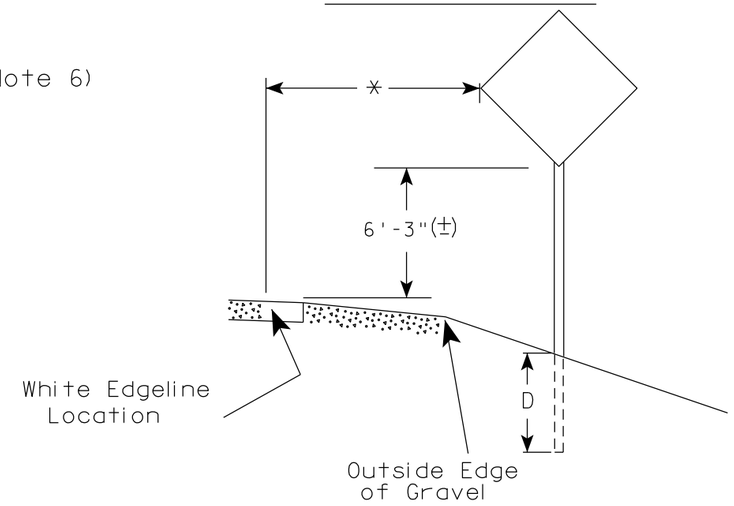
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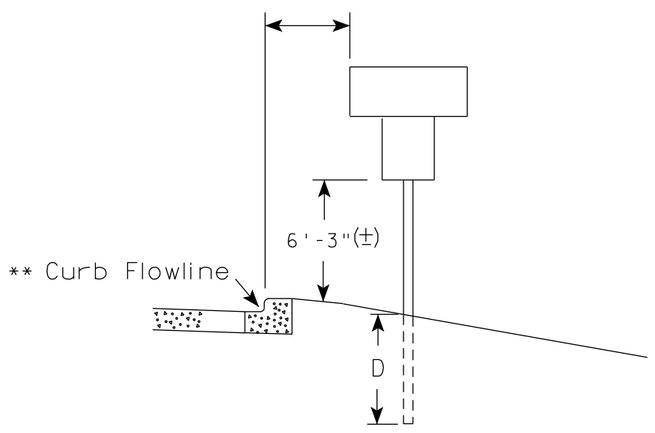
SDD 15D51 - 01

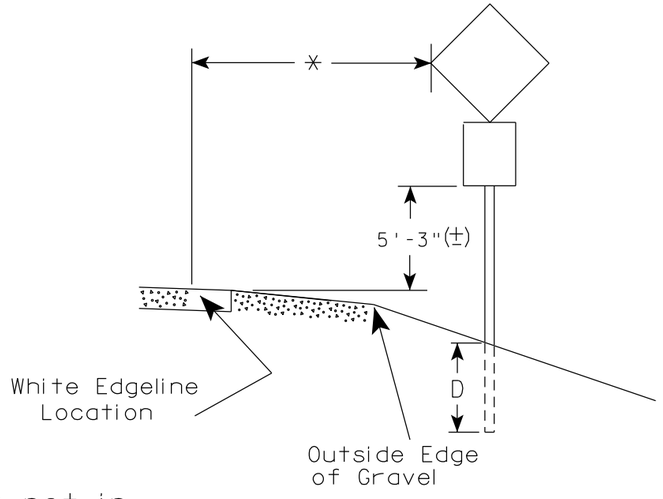
URBAN AREA



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.

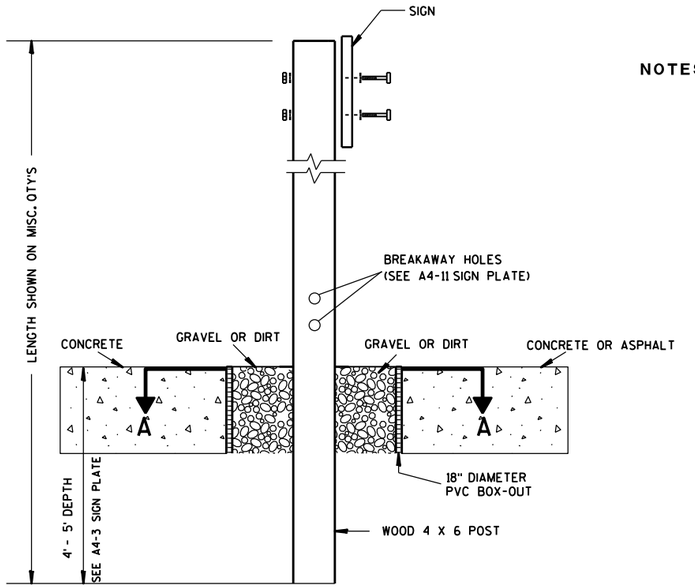
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

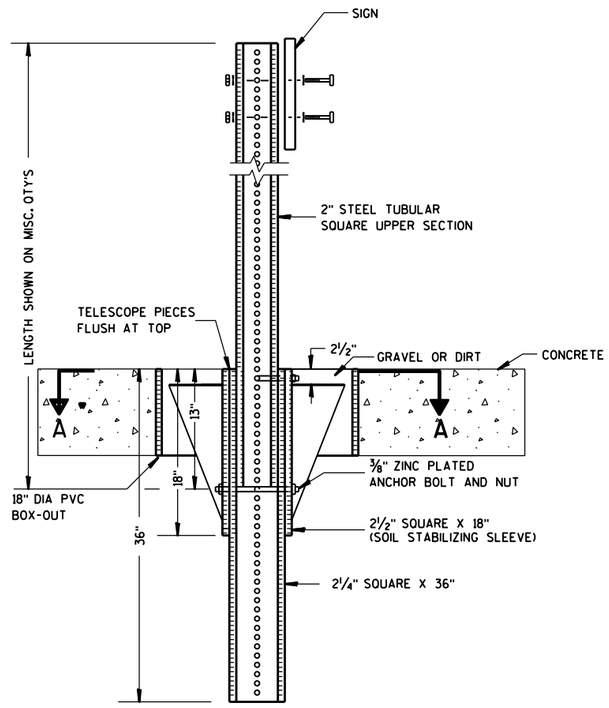
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 157	E



ELEVATION VIEW

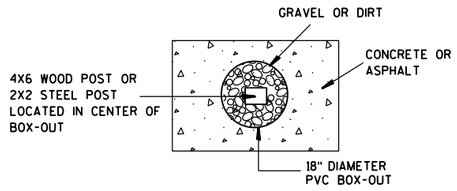
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

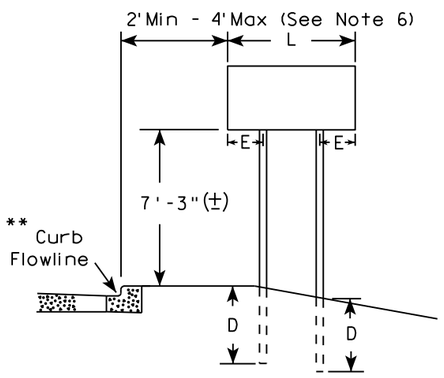
APPROVED Matthew R Rauch
for State Traffic Engineer

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

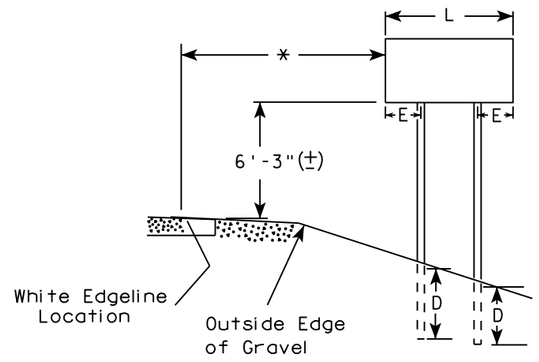
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

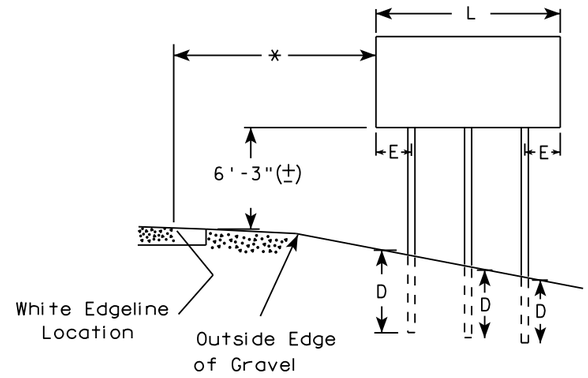
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

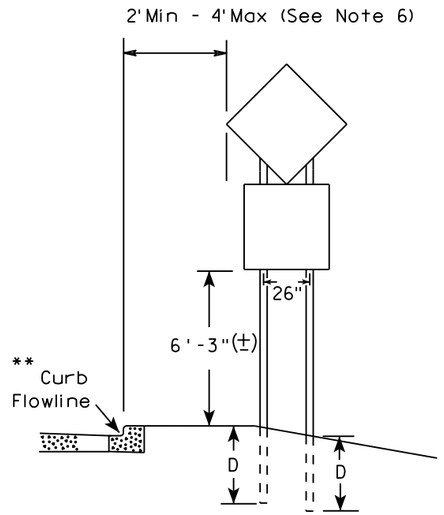
URBAN AREA



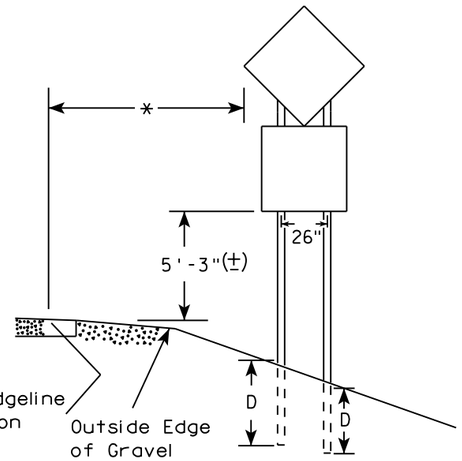
RURAL AREA (See Note 3)







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'

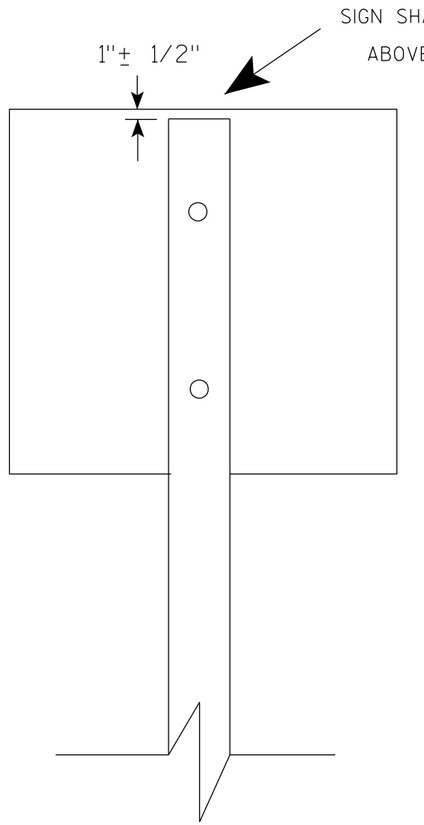
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

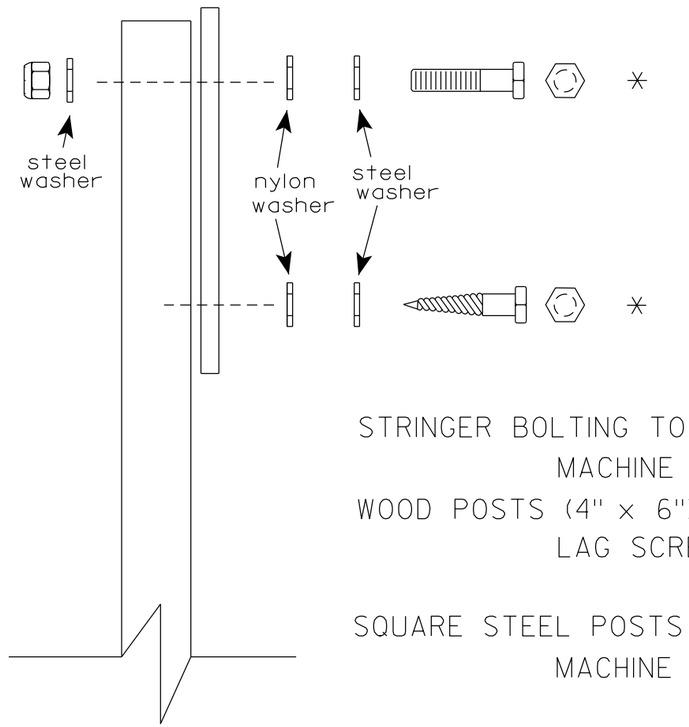
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 159	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

PROJECT NO:

SHEET NO: 160 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

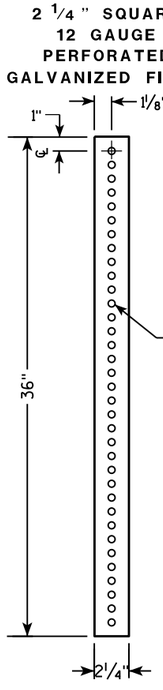
WISDOT/CADDS SHEET 42

7

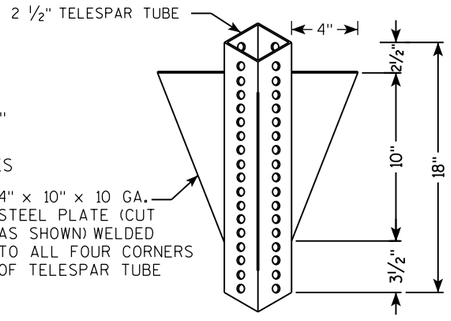
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TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

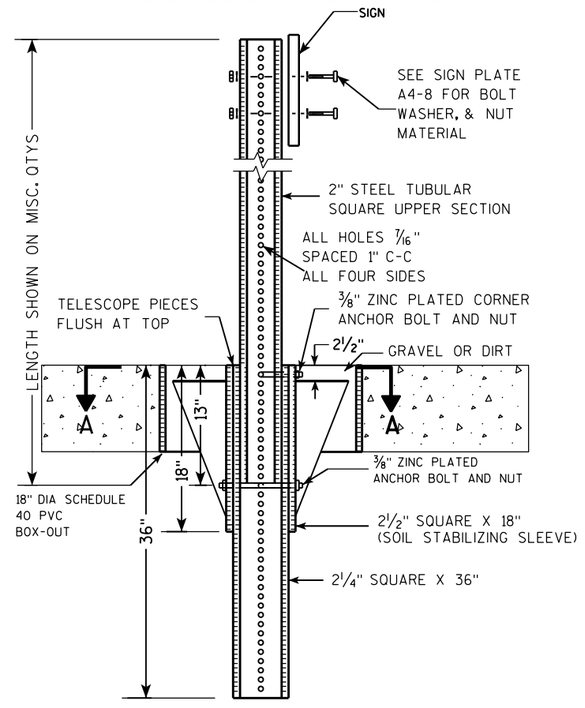
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



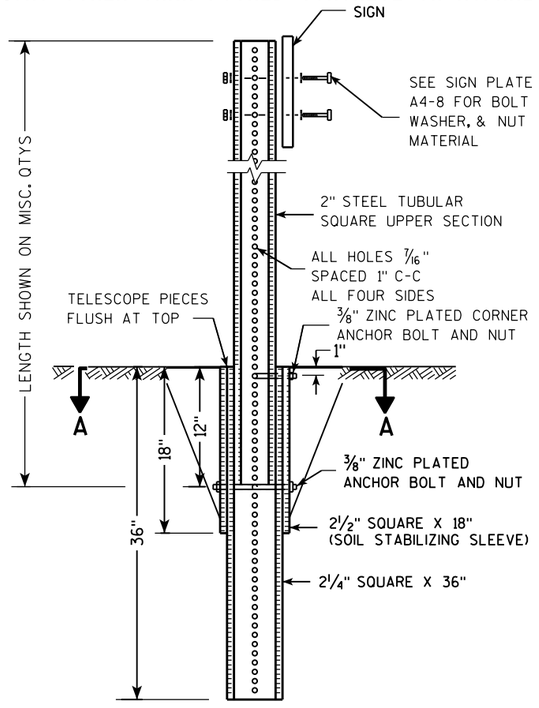
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

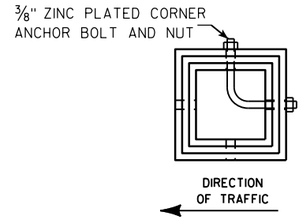


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

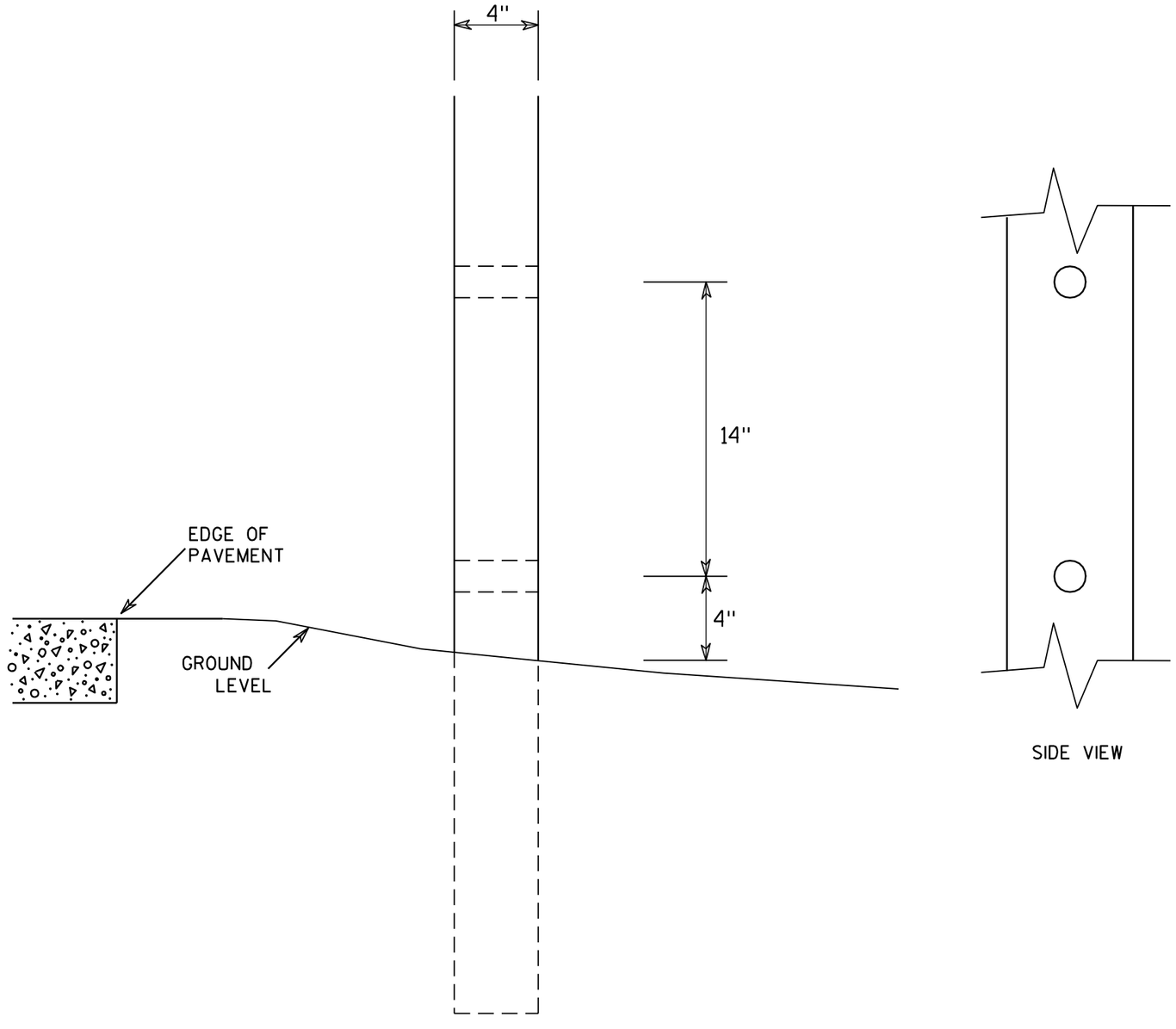
WISCONSIN DEPT OF TRANSPORTATION

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

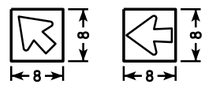
APPROVED Chester J Spang for State Traffic Engineer

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

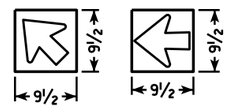
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

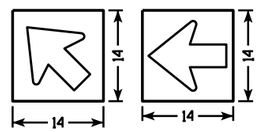




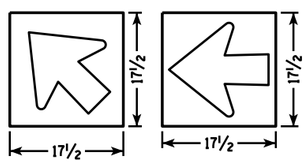










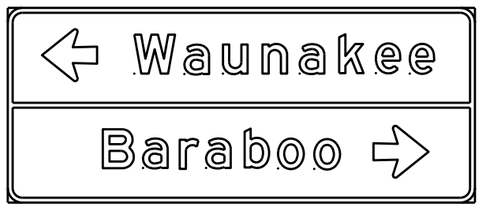


GENERAL NOTES

1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

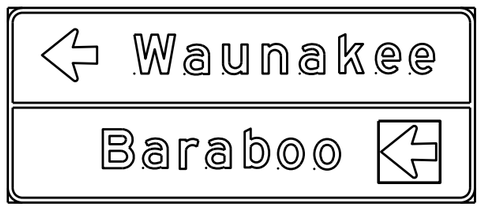
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

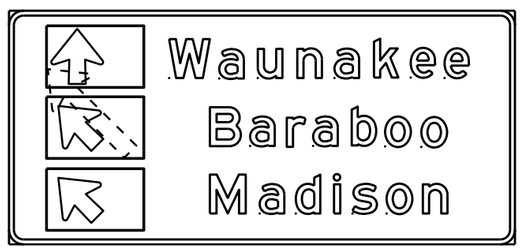
BEFORE





AFTER





DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

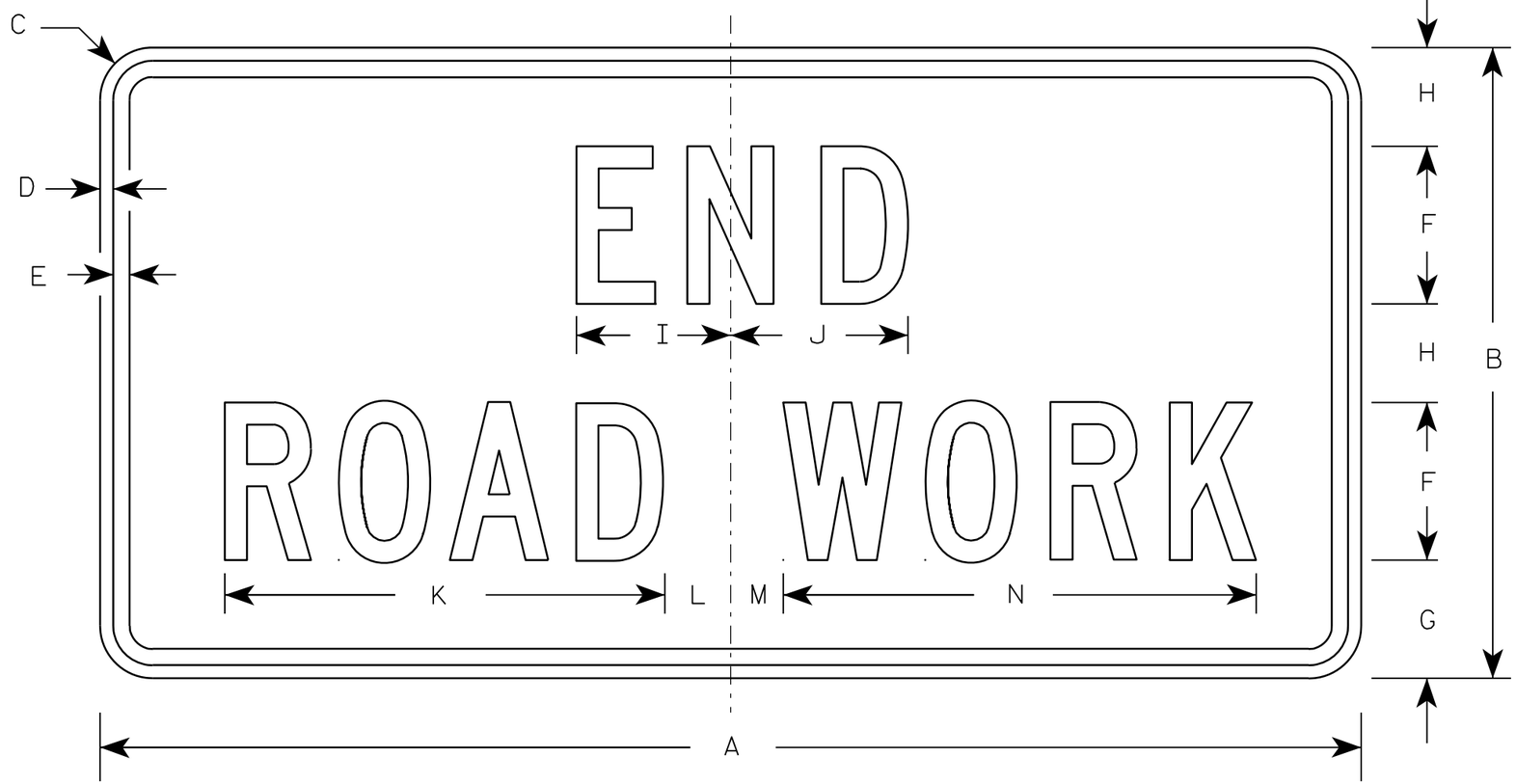
A4-12.2

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

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

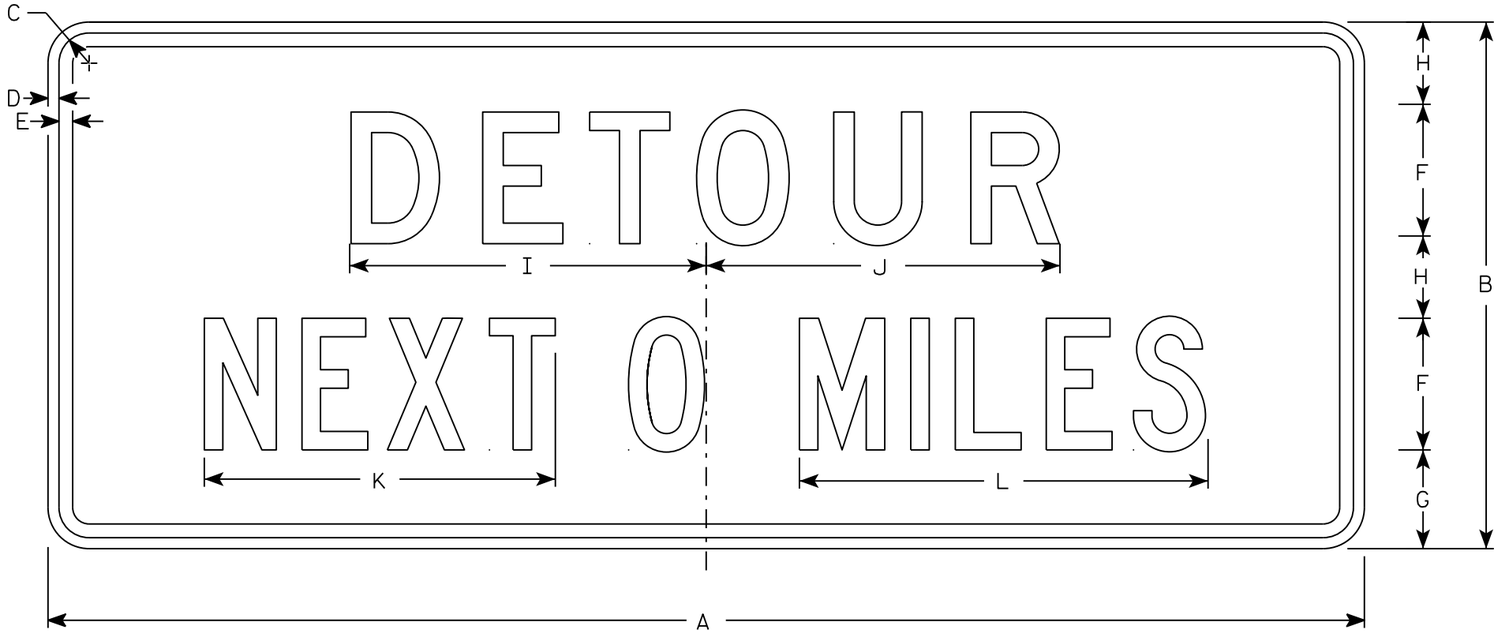
STANDARD SIGN
G20-2A

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: 164	E



G20-51

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Line 1 is D and Line 2 is 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. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

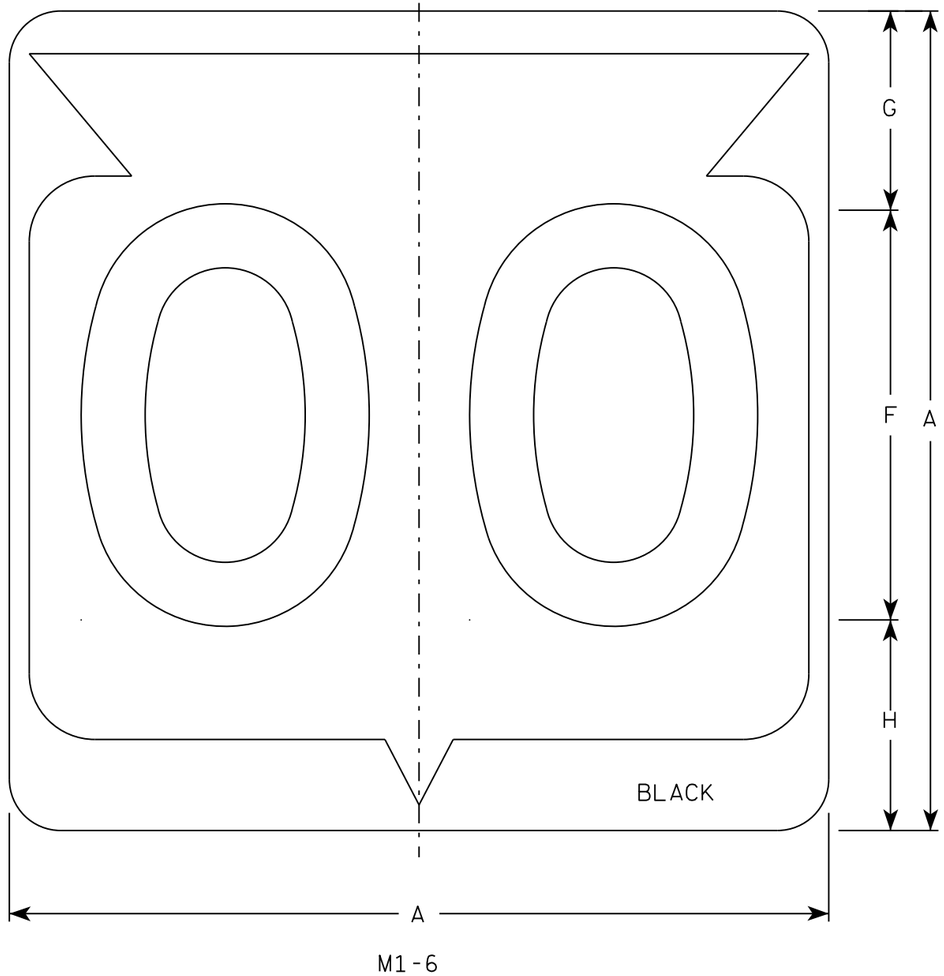
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

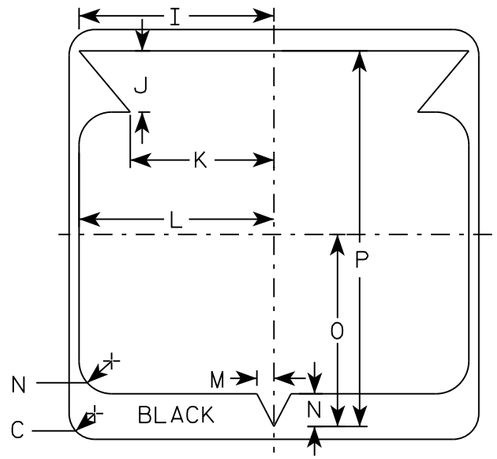
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E



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

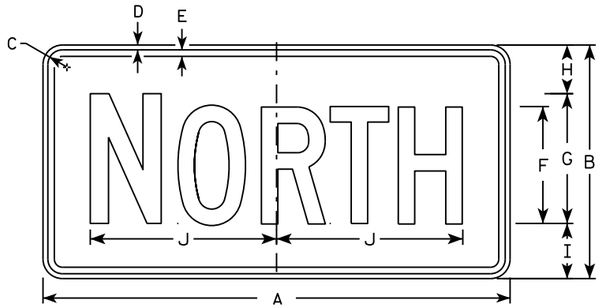
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

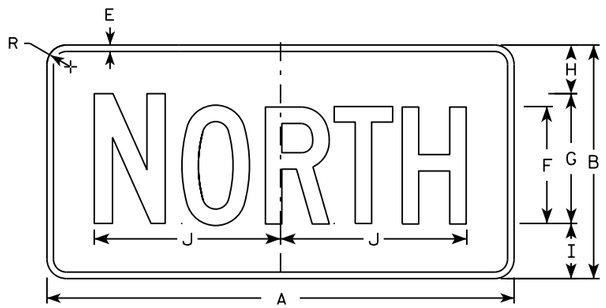
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E



M3-1
MM3-1
MP3-1



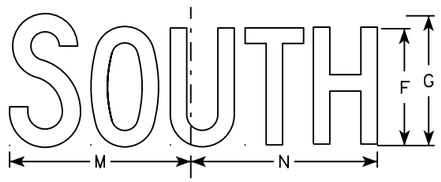
MB3-1
MK3-1
MN3-1



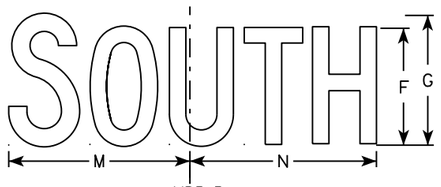
M3-2
MM3-2
MP3-2



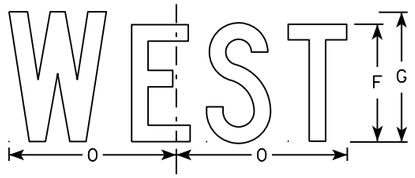
MB3-2
MK3-2
MN3-2



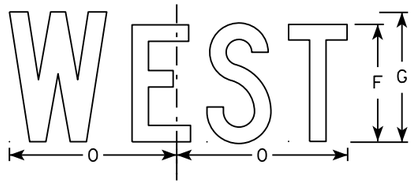
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

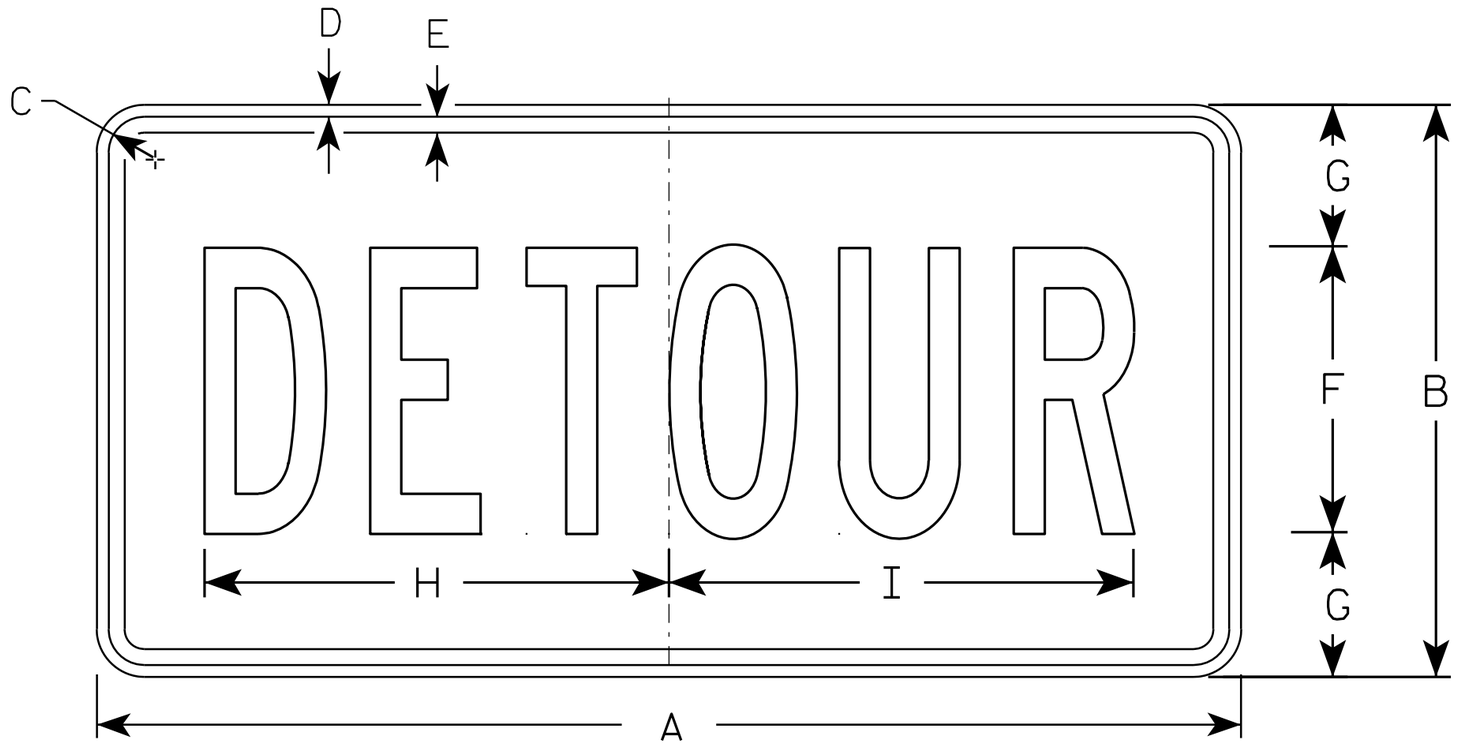
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

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



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

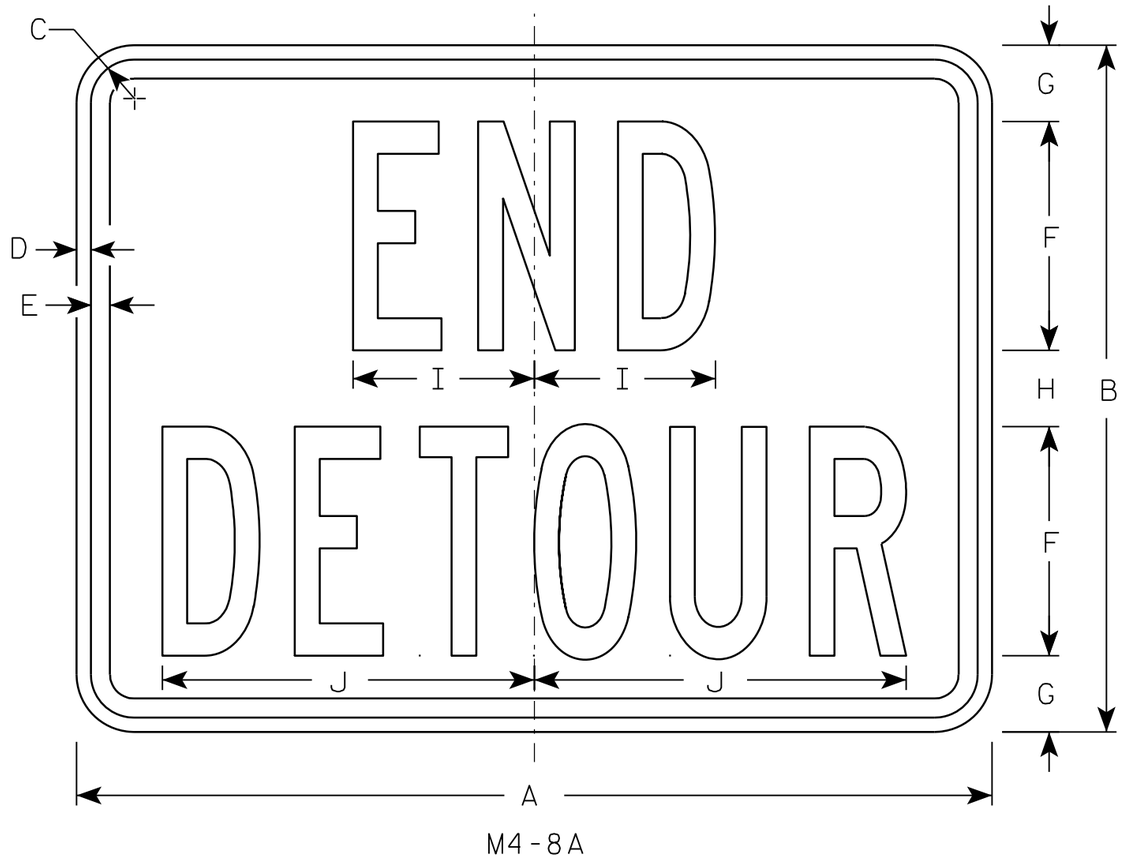
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

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



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

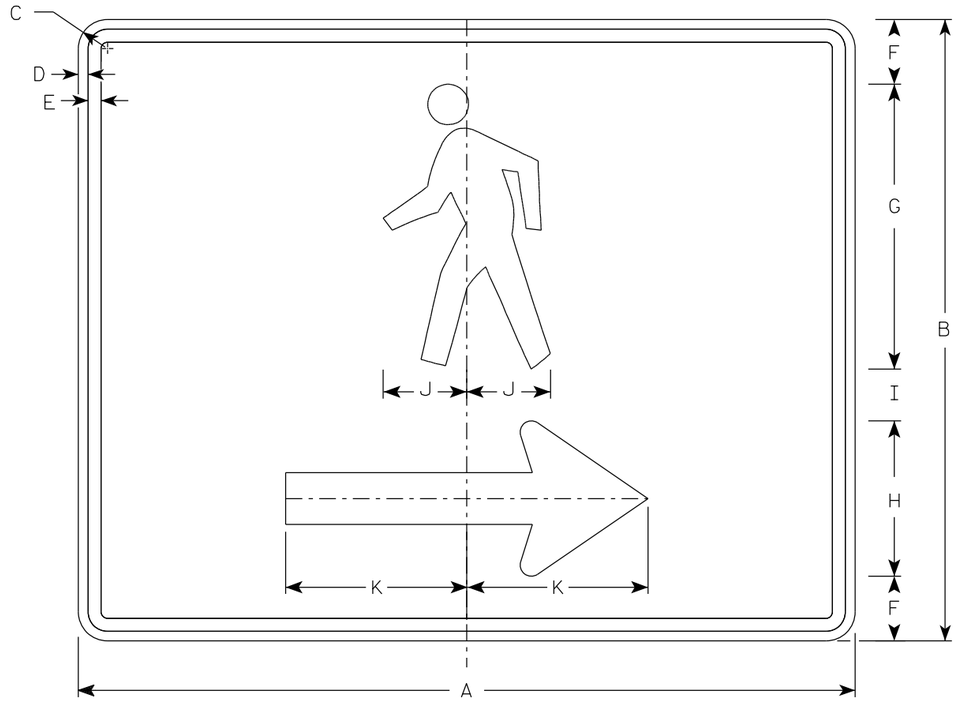
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

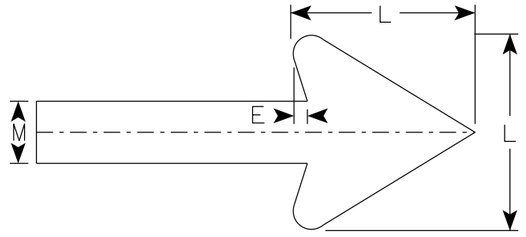
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 169	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



M4-60R



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

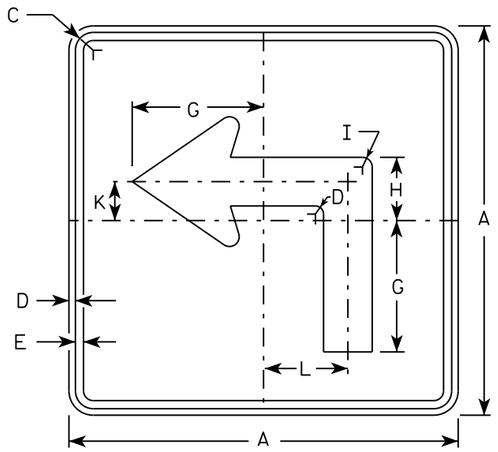
STANDARD SIGN
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

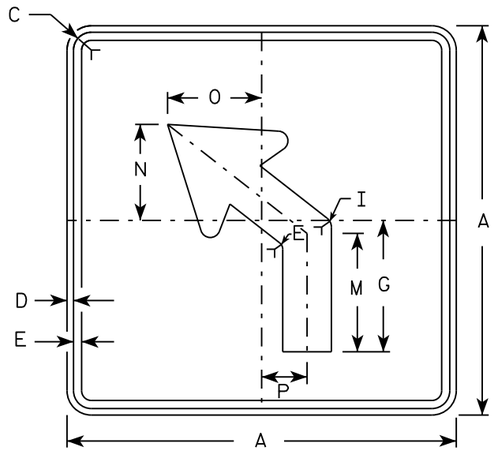
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/16/2021 PLATE NO. M4-60.1

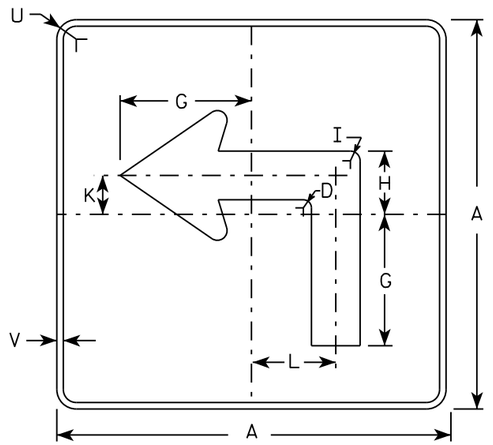
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 170 | E



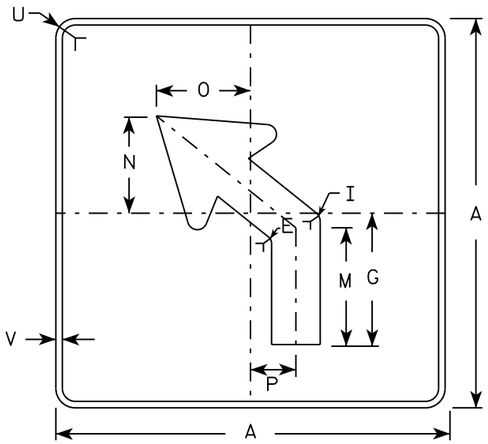
M5-1L
MM5-1L
MO5-1L
MP5-1L



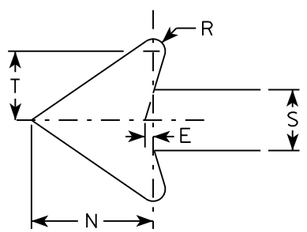
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

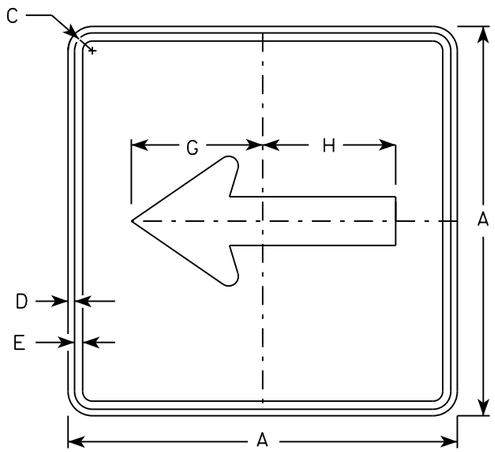
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

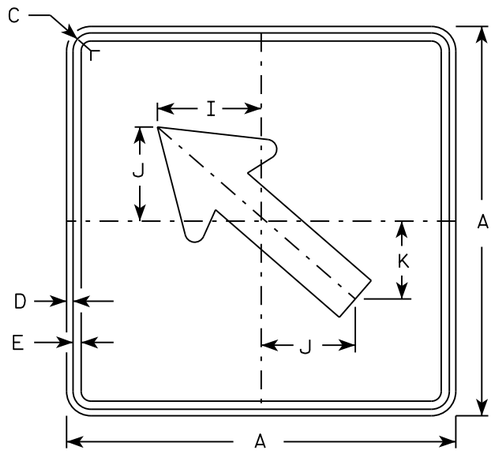
DATE 10/15/15 PLATE NO. M5-1.13

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



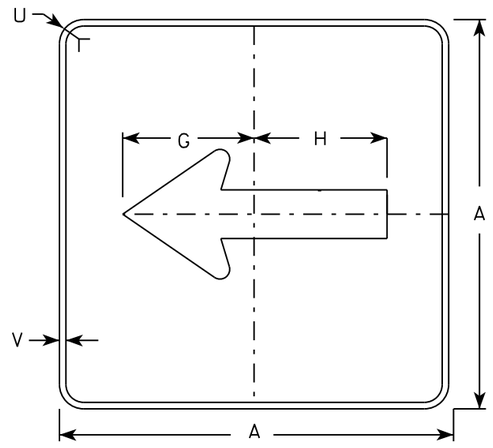
M6-1
MM6-1
MO6-1
MP6-1



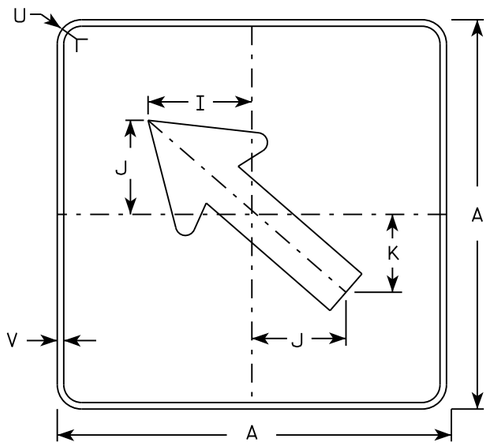
M6-2
MM6-2
MO6-2
MP6-2

NOTES

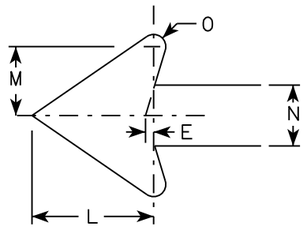
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

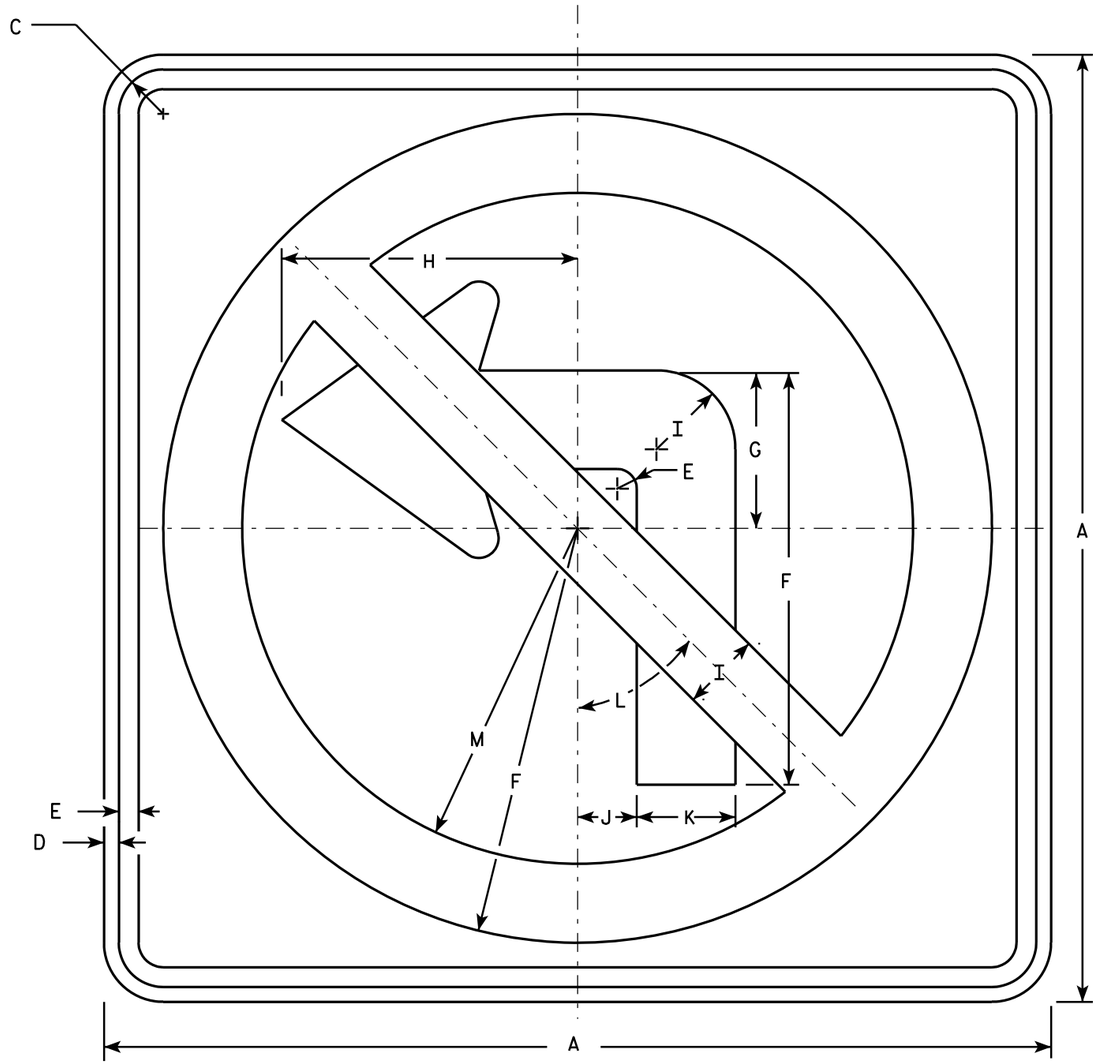
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 172 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

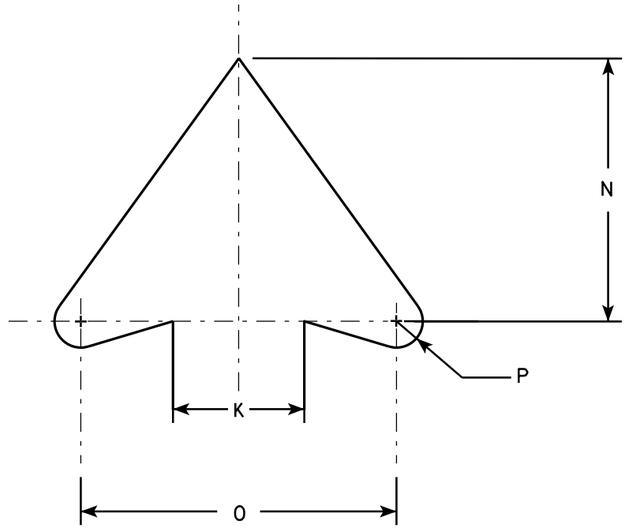
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

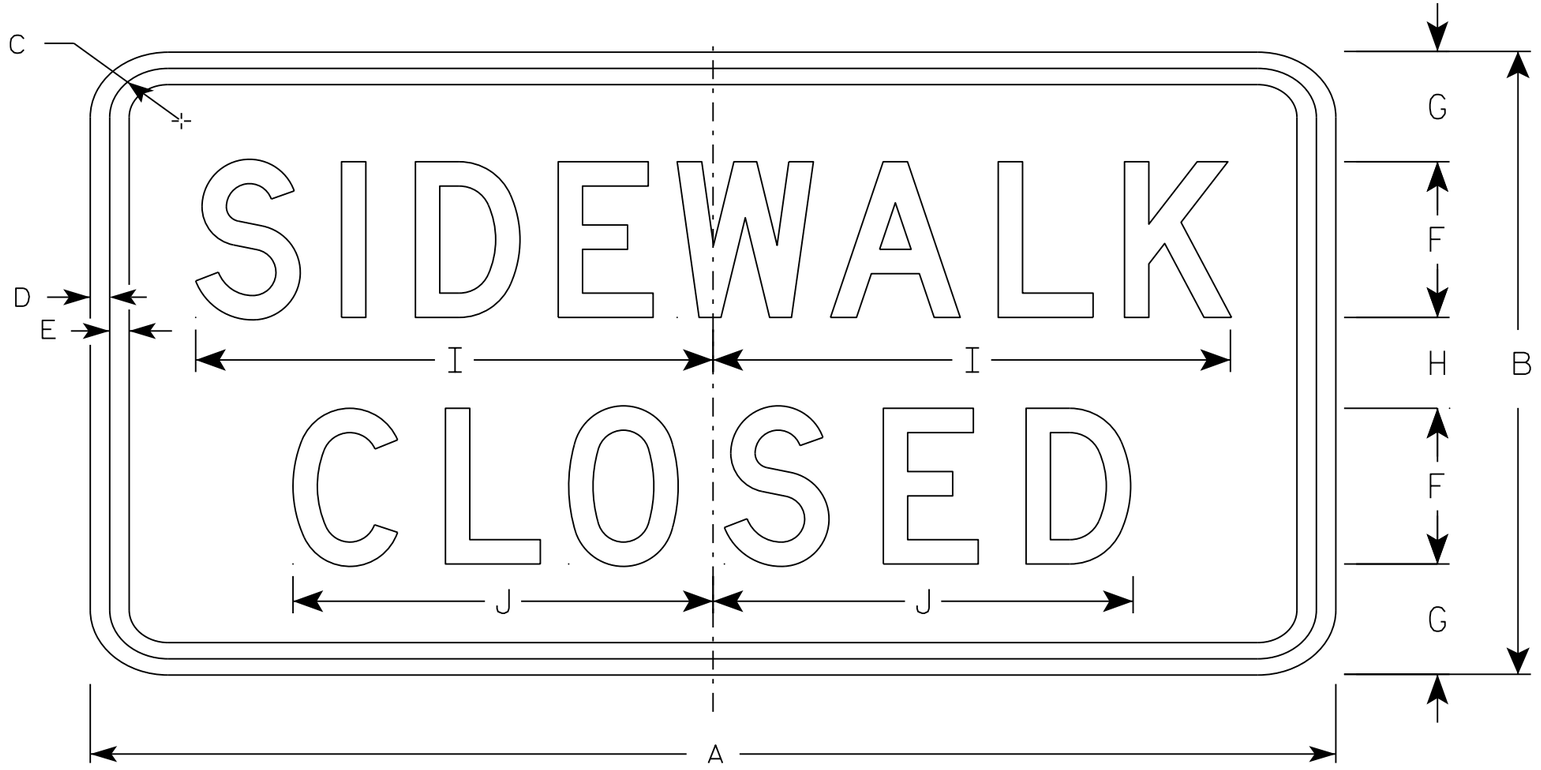
STANDARD SIGN
R3-2

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: 173	E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

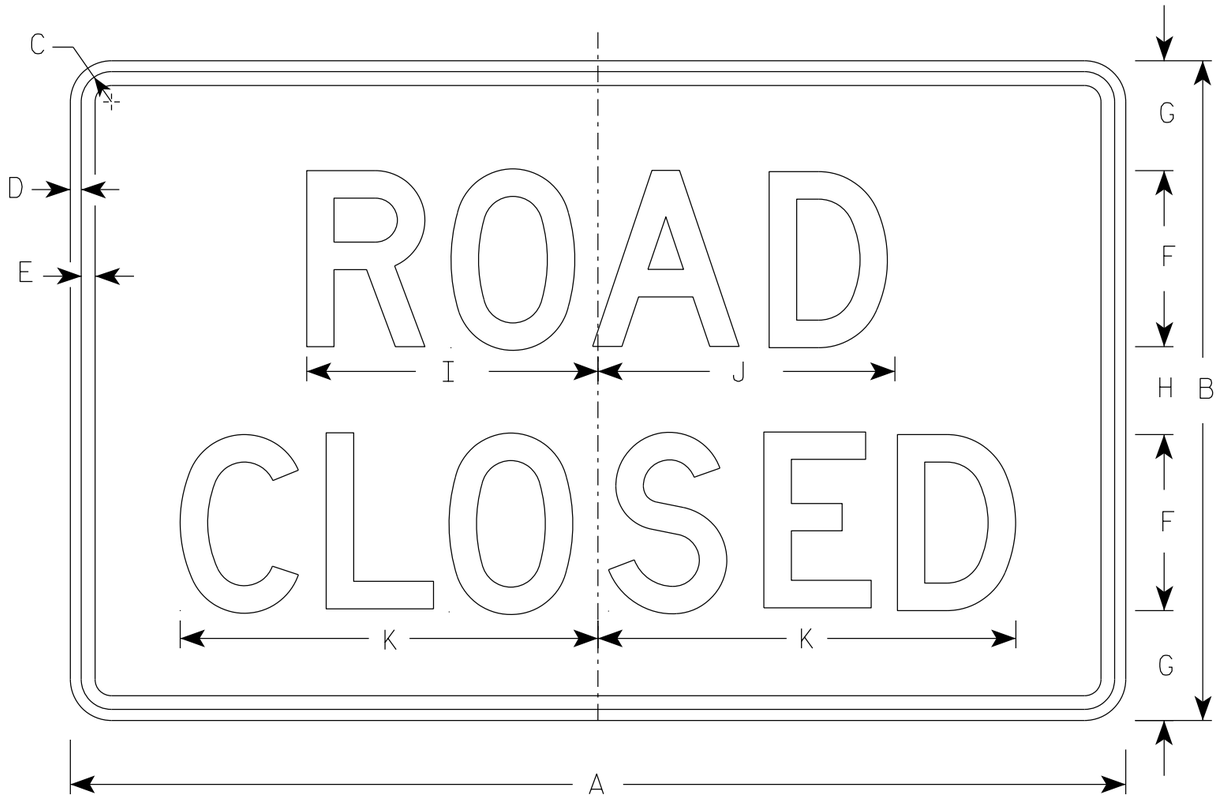
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 174 R9-9.6

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

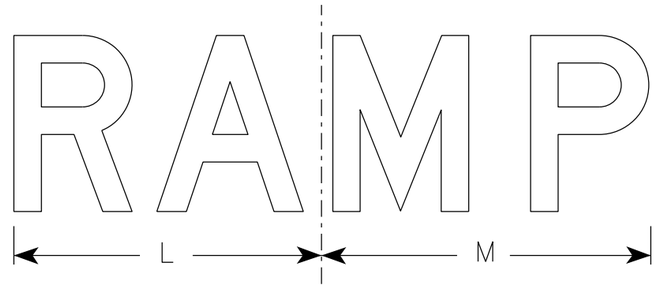
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



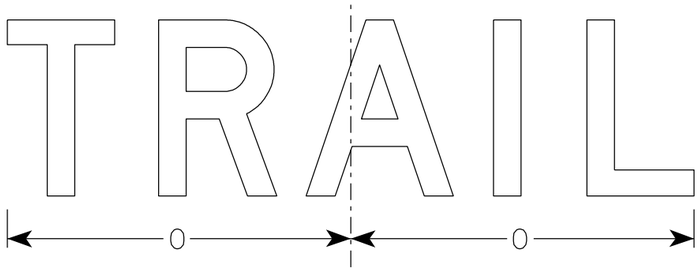
R11-2

NOTES

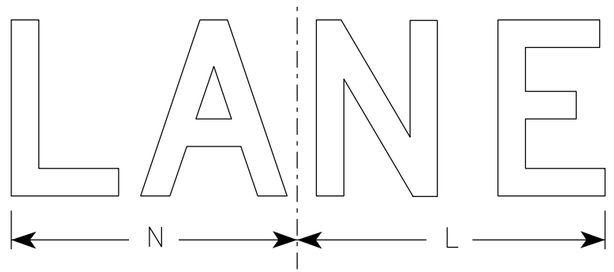
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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

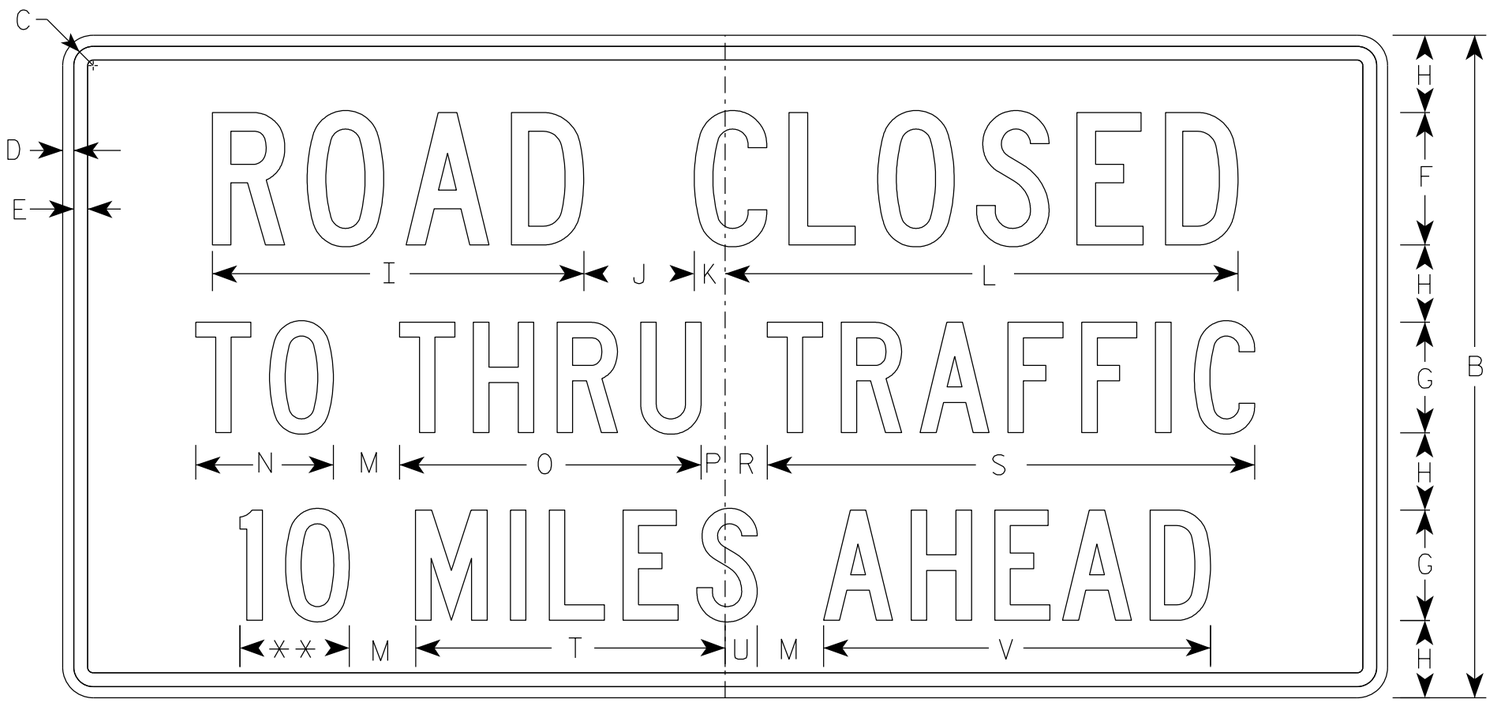
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 175	E

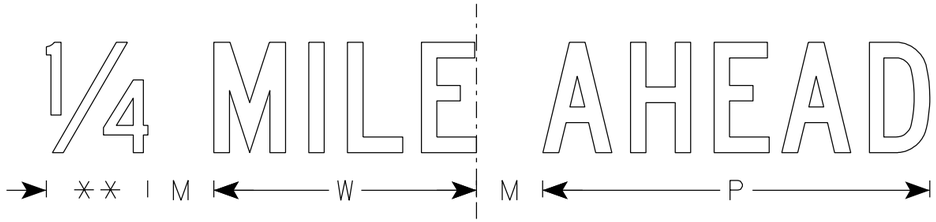
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



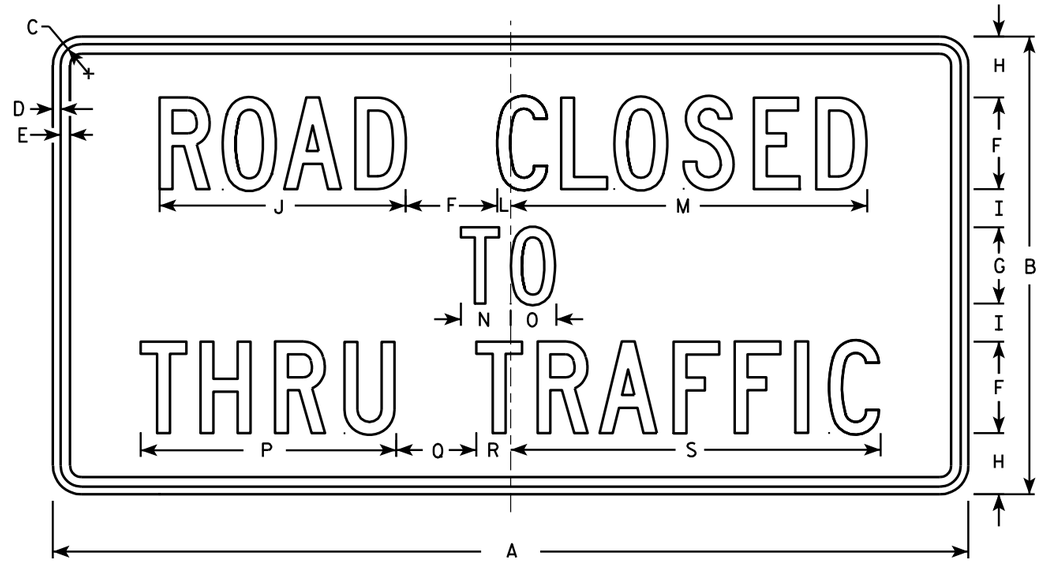
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E



R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

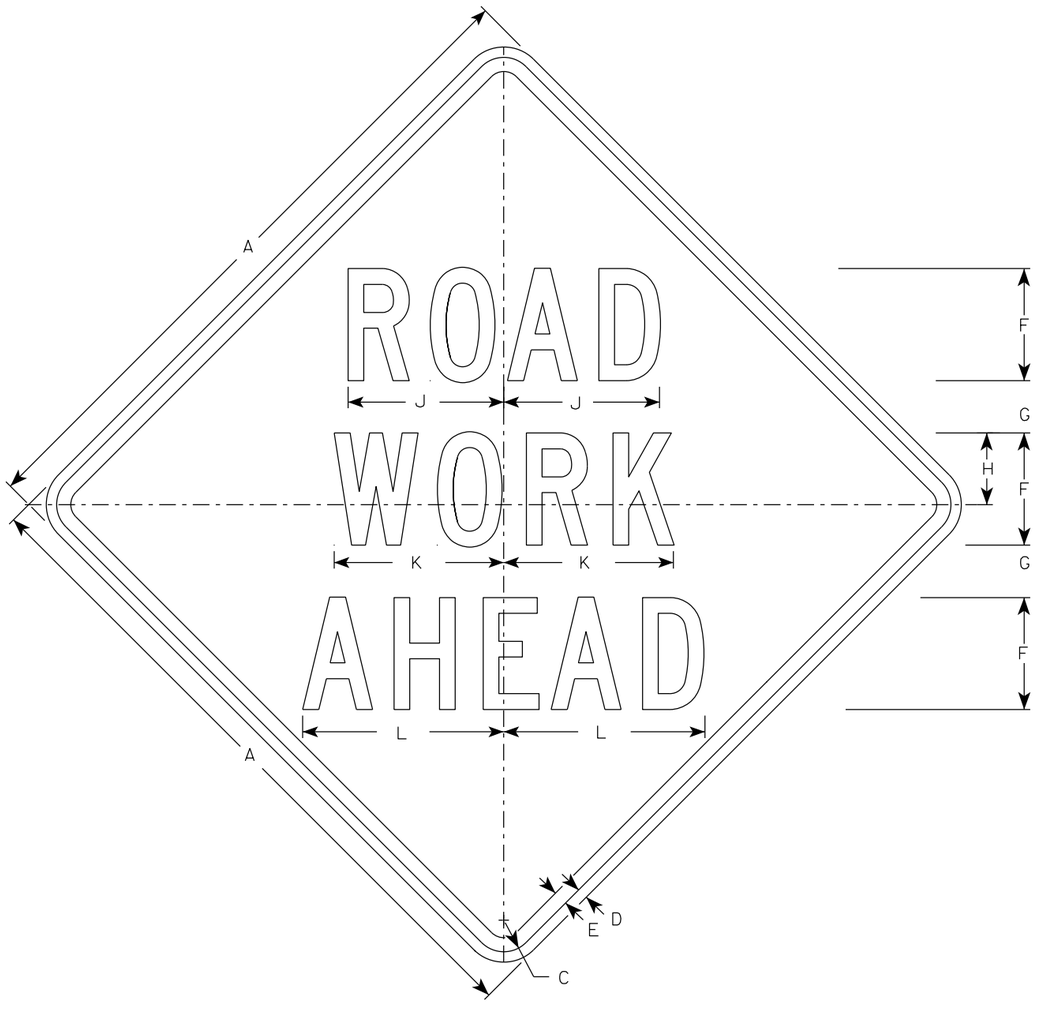
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

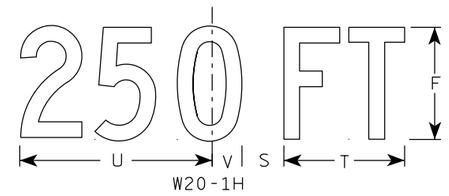
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

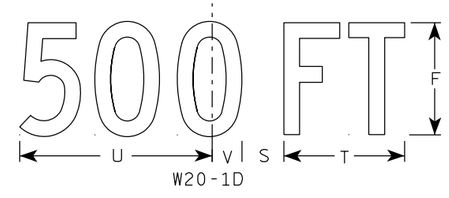
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E



W20-1A



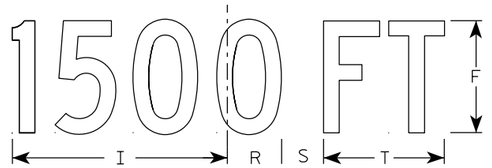
W20-1H



W20-1D



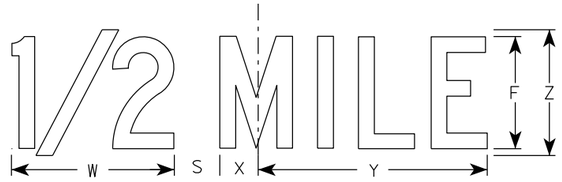
W20-1C



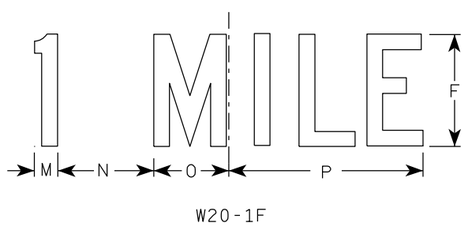
W20-1B

NOTES

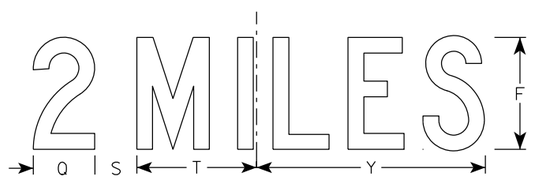
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		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:

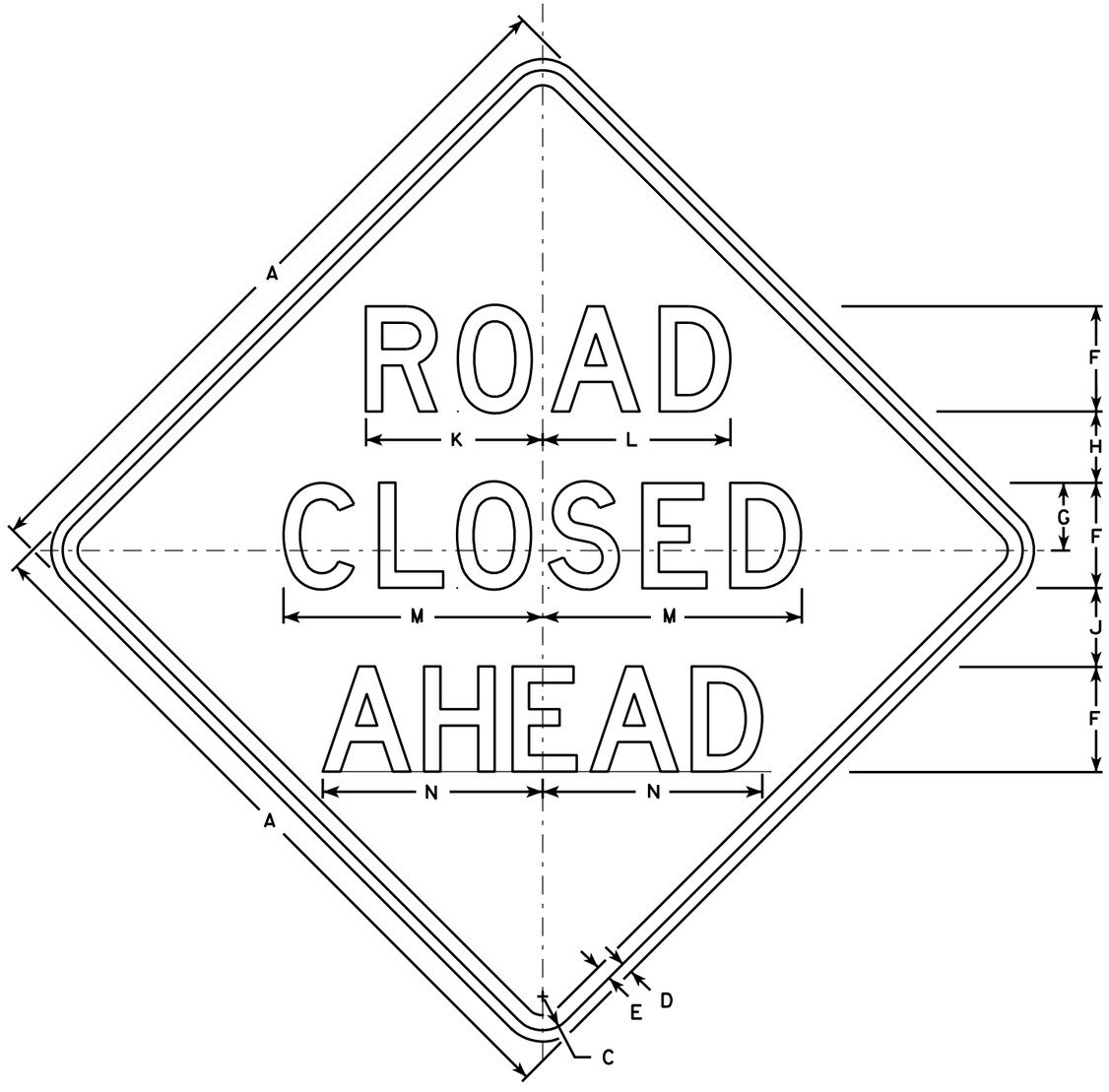
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

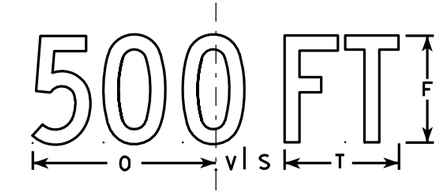
WISDOT/CADDS SHEET 42

7

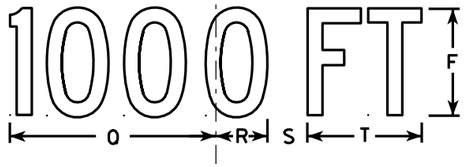
7



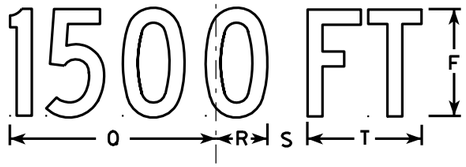
W20-3A



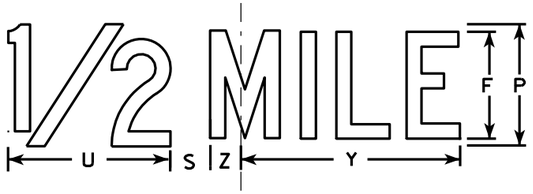
W20-3D



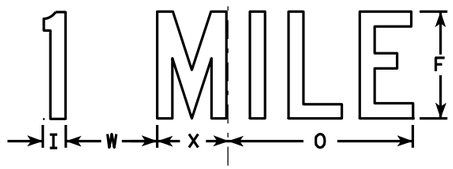
W20-3C



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

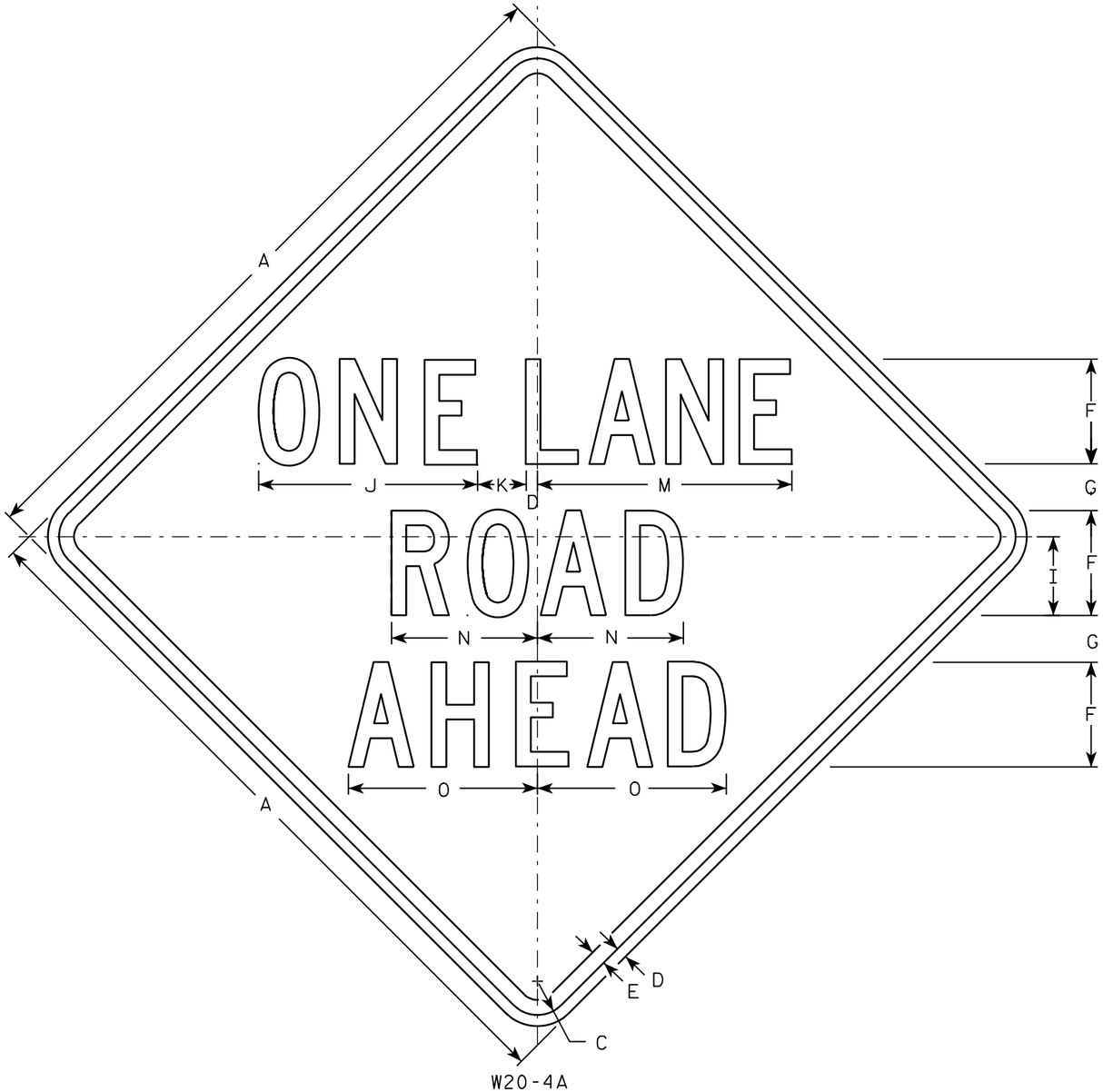
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

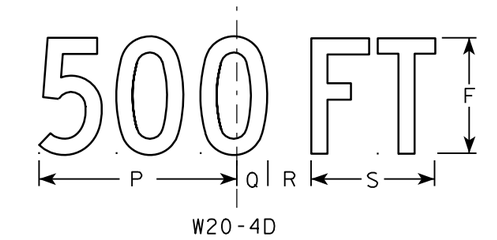
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 179 | E

7

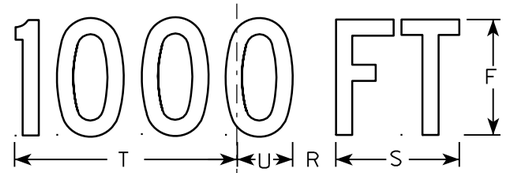
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



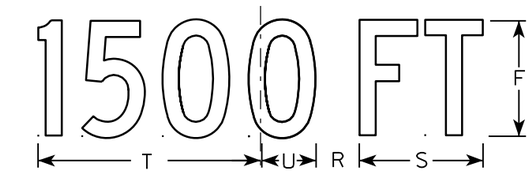
W20-4A



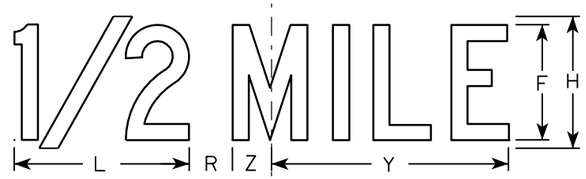
W20-4D



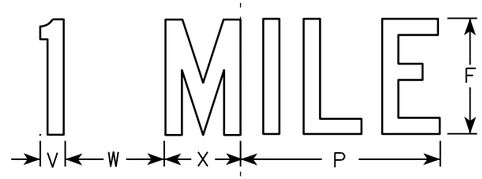
W20-4C



W20-4B



W20-4G



W20-4F

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:

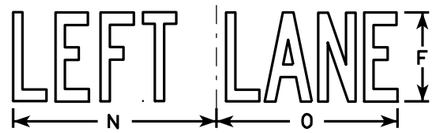
SHEET NO: 180 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W204.DGN PLOT DATE : 18-MAR-2011 12:11 PLOT BY : mscj9h

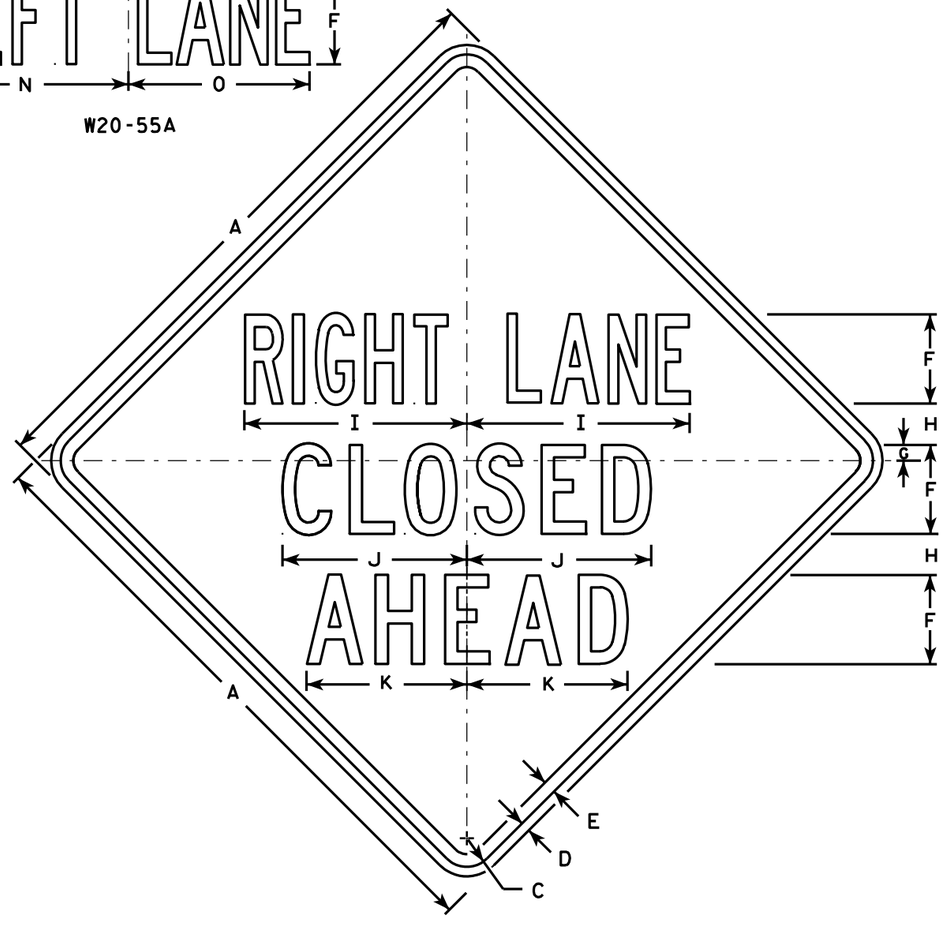
WISDOT/CADDS SHEET 42



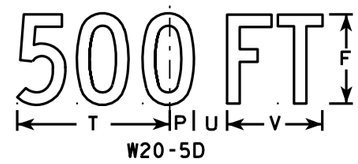
W20-56A



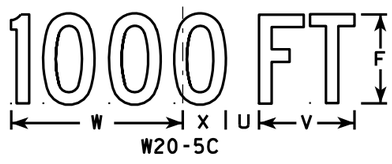
W20-55A



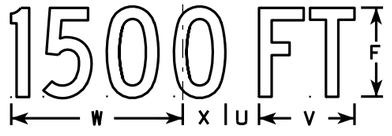
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

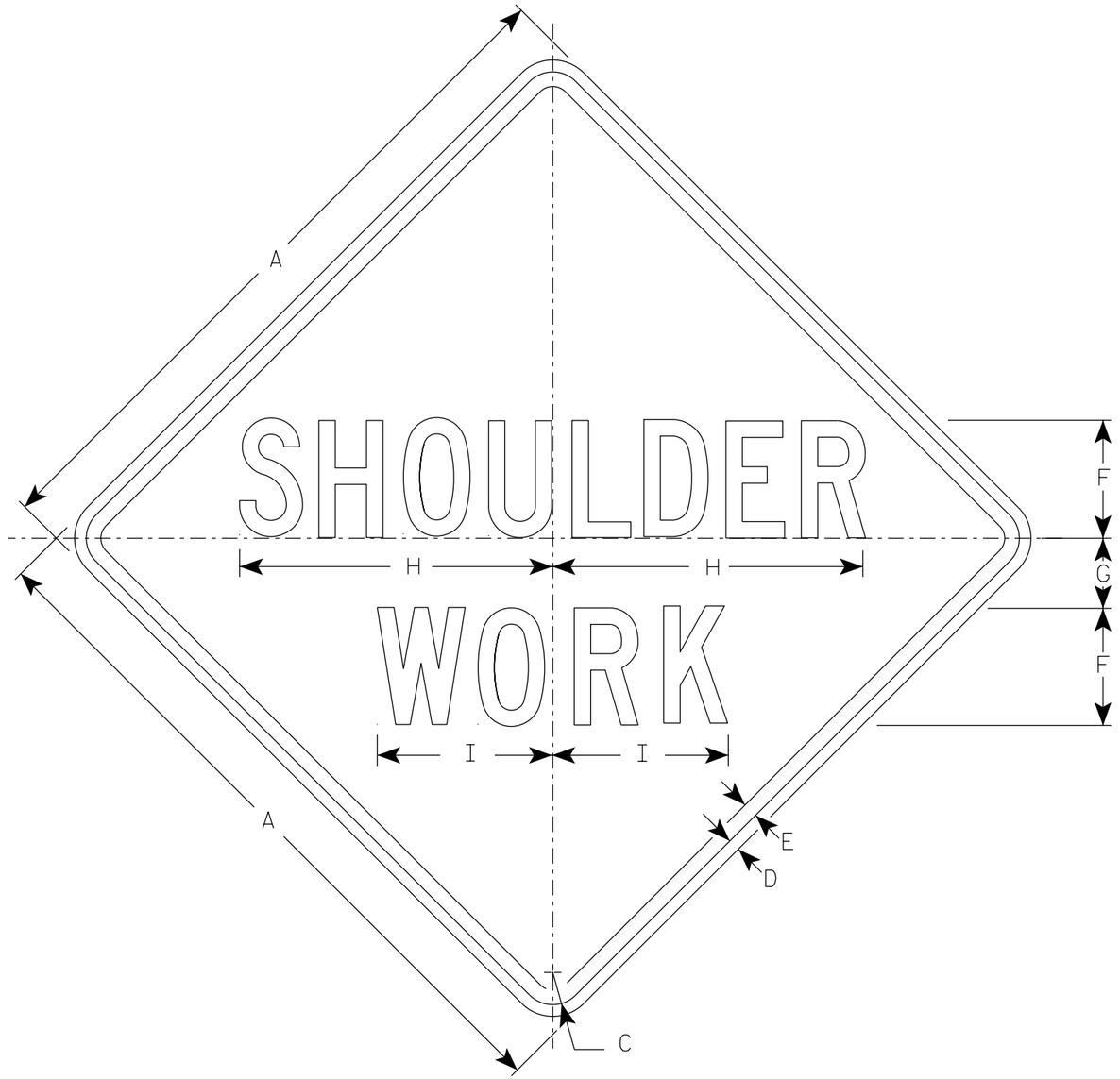
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 181 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-5

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

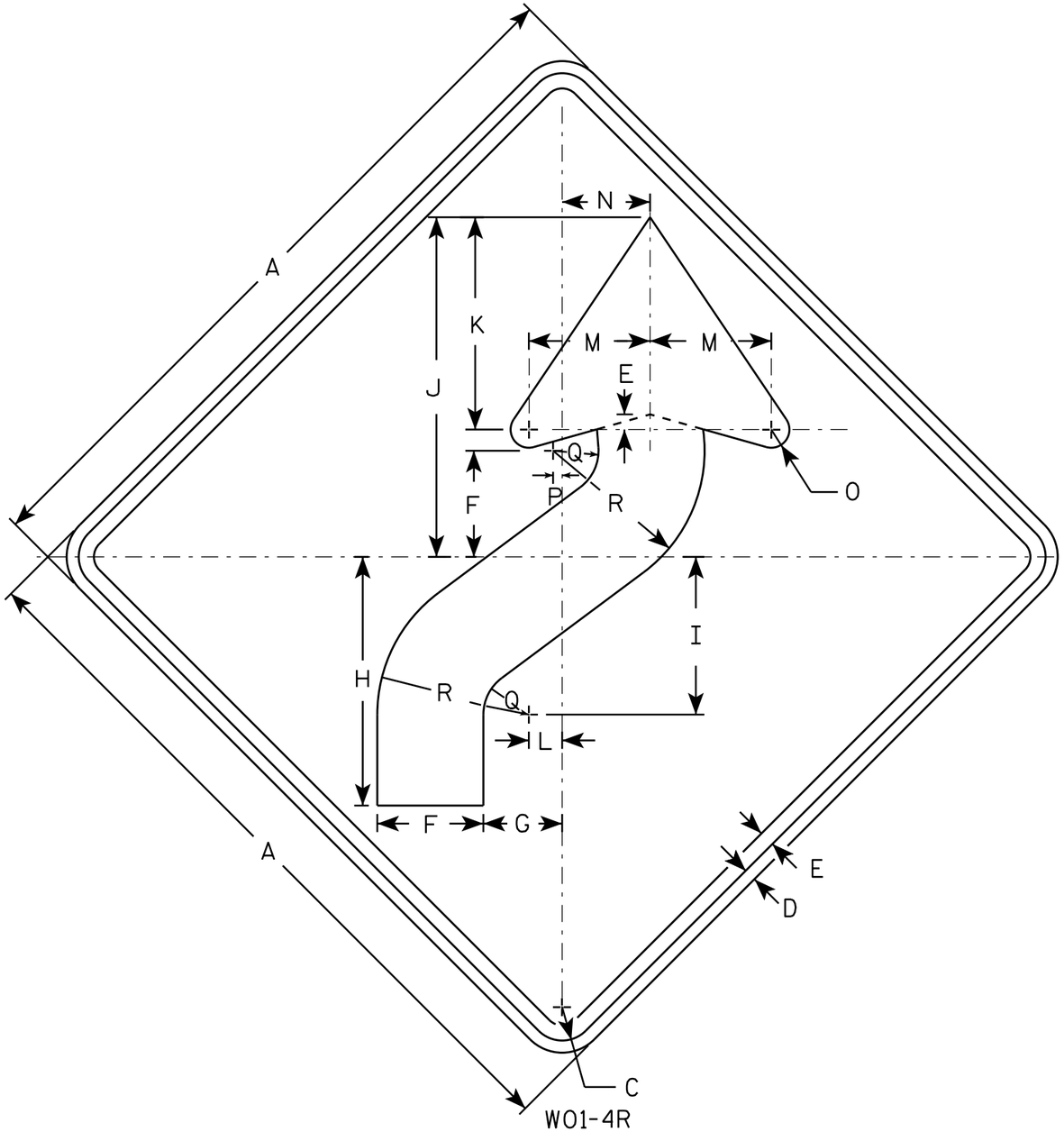
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/30/2020 PLATE NO. W21-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 182 E



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

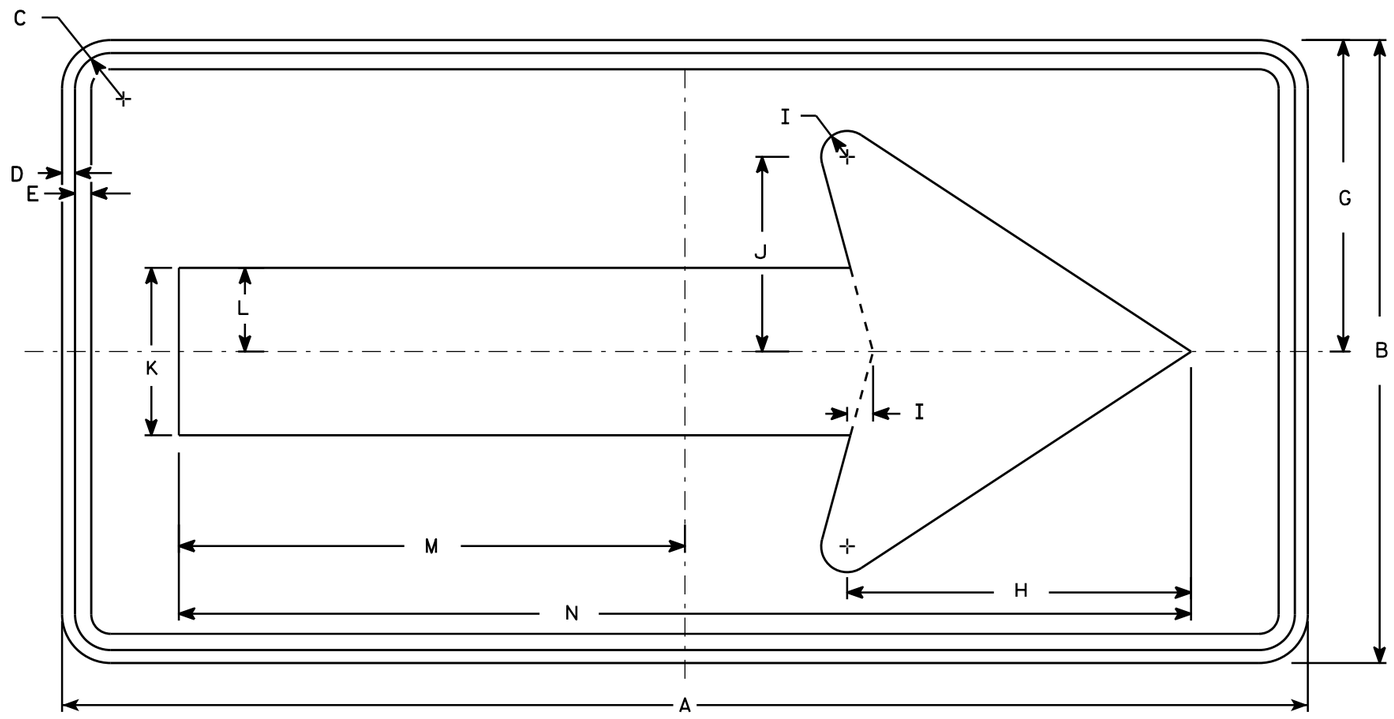
WISCONSIN DEPT OF TRANSPORTATION

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

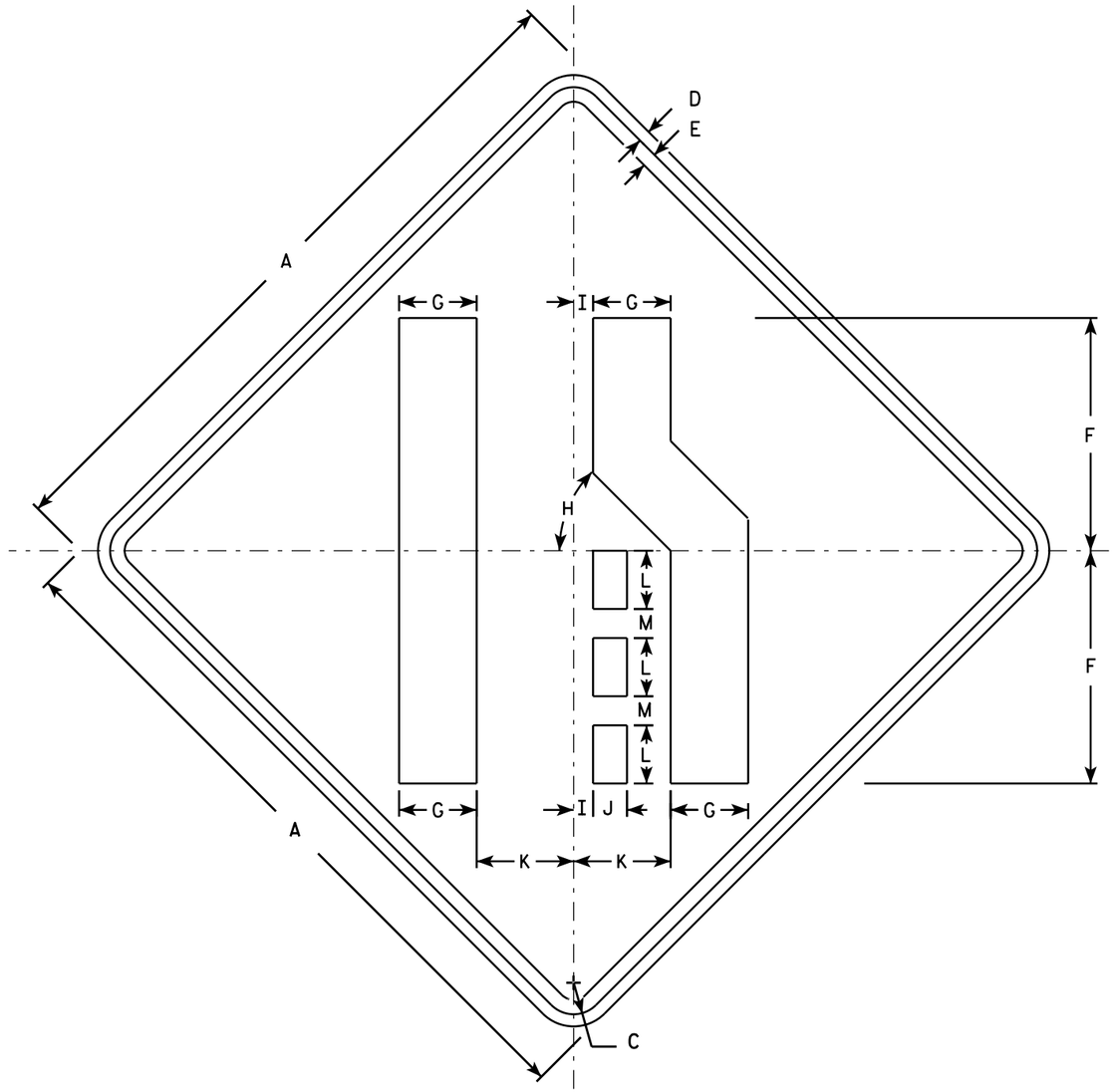
WISCONSIN DEPT OF TRANSPORTATION

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



W04-2R

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. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

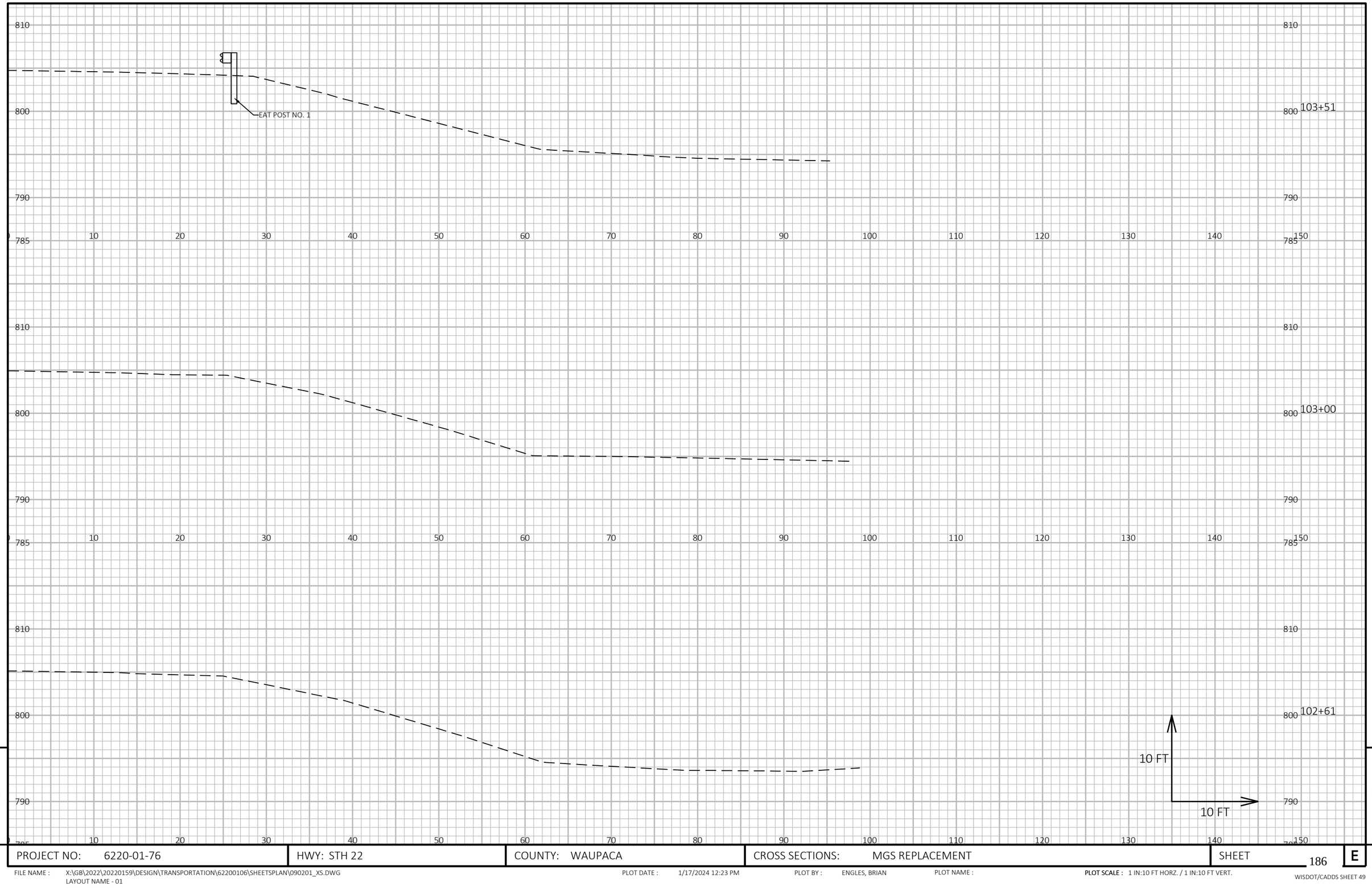
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 185 W04-2.1

PROJECT NO:

SHEET NO: E



9

9

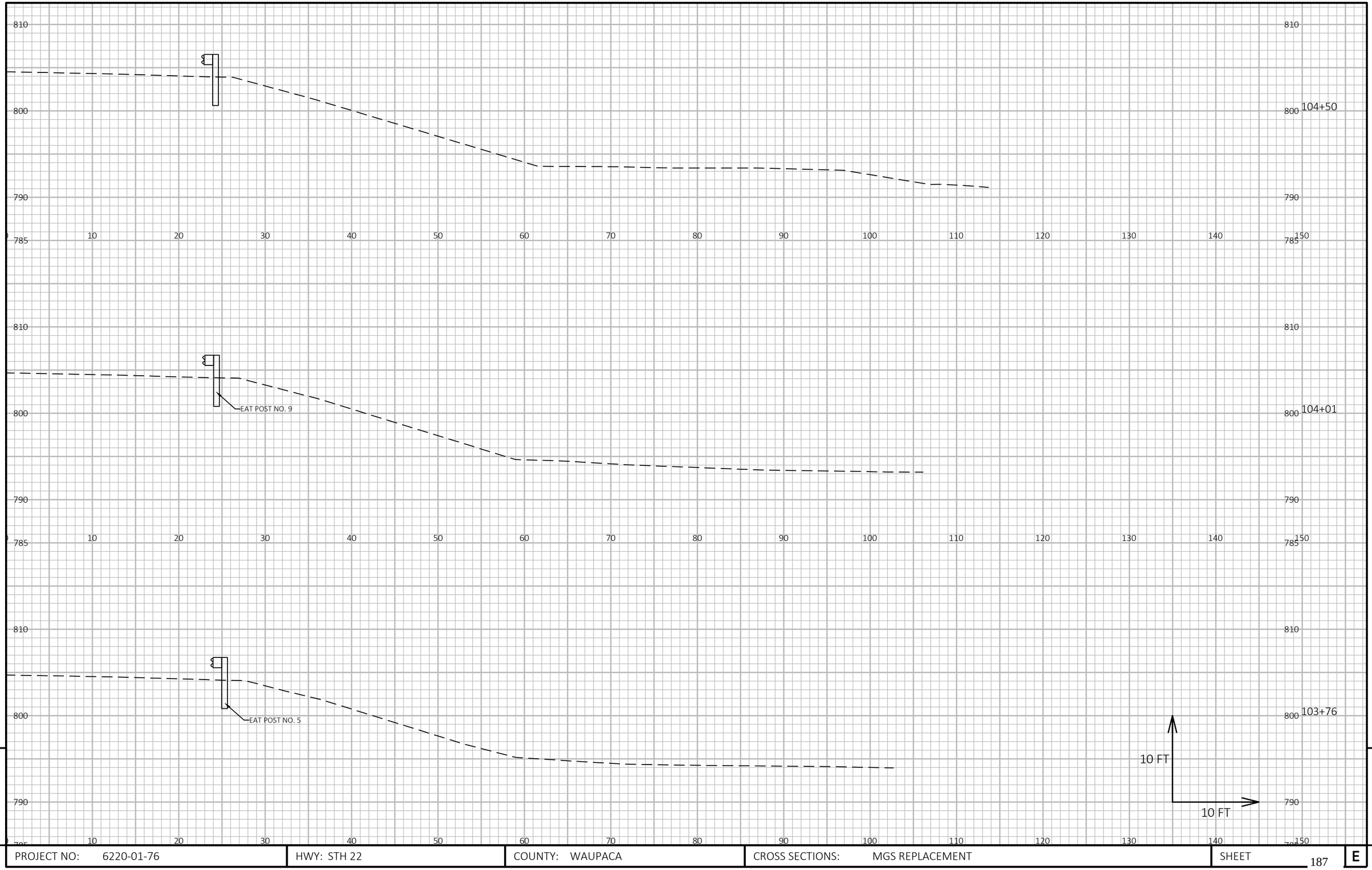
PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	CROSS SECTIONS: MGS REPLACEMENT	SHEET 186	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/17/2024 12:23 PM PLOT BY : ENGLES, BRIAN PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

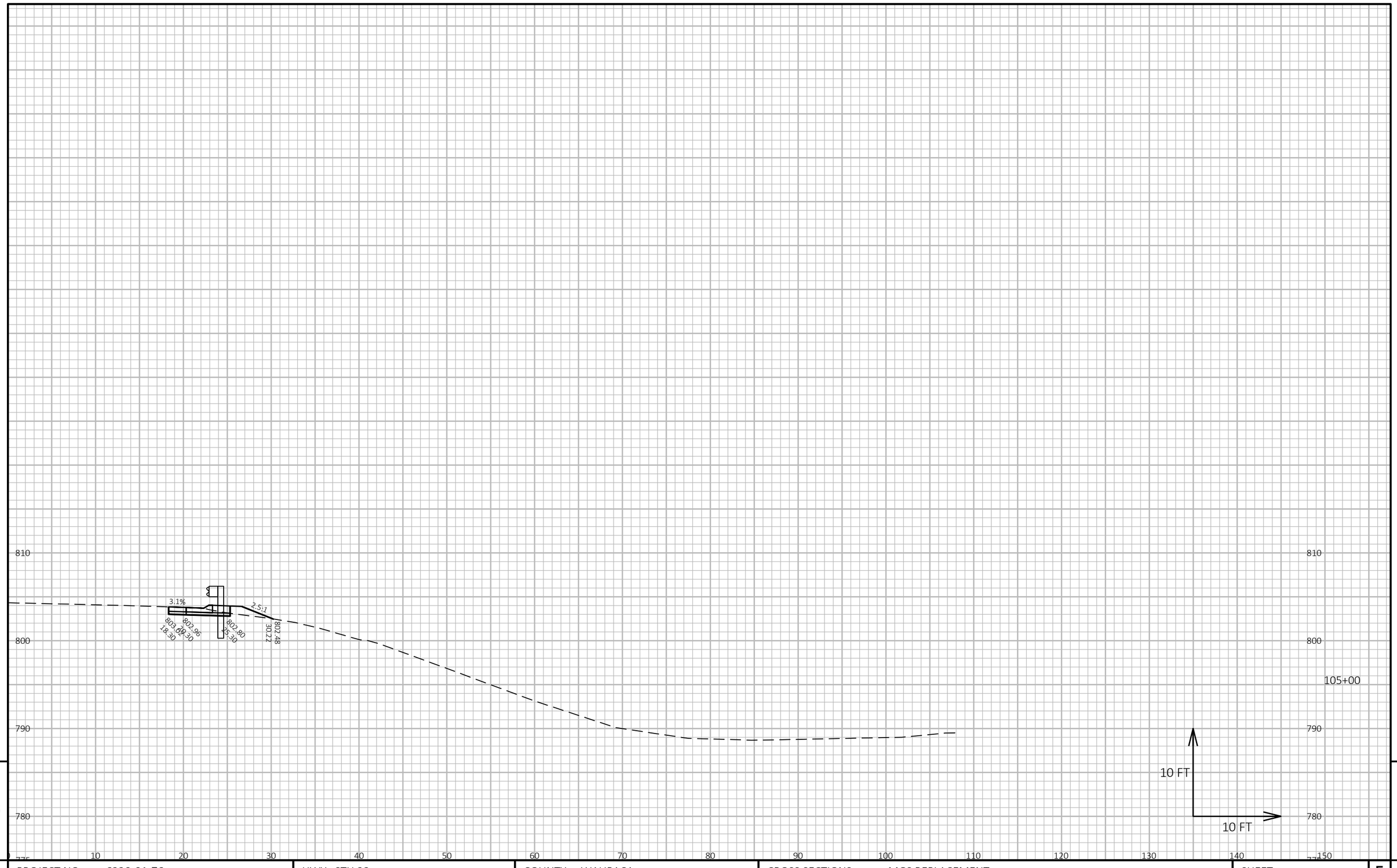
9

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	CROSS SECTIONS: MGS REPLACEMENT	SHEET 187	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/17/2024 12:23 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



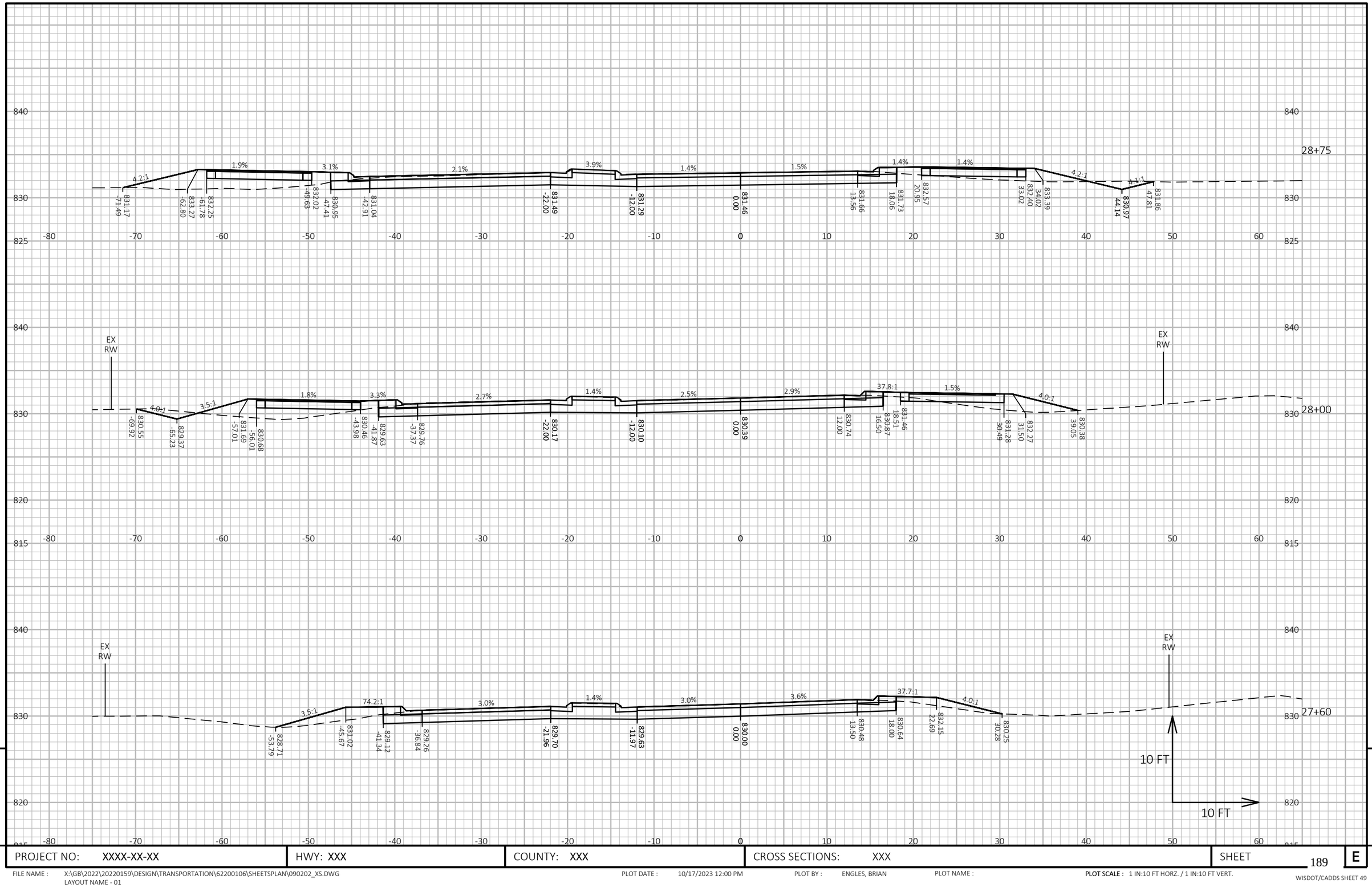
9

9

PROJECT NO: 6220-01-76	HWY: STH 22	COUNTY: WAUPACA	CROSS SECTIONS: MGS REPLACEMENT	SHEET 188	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 03

PLOT DATE : 9/17/2023 5:40 PM PLOT BY : ENGLES, BRIAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: XXXX-XX-XX	HWY: XXX	COUNTY: XXX	CROSS SECTIONS: XXX	SHEET 189	E

FILE NAME : X:\GB\2022\20220159\DESIGN\TRANSPORTATION\62200106\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 01
PLOT DATE : 10/17/2023 12:00 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

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