WIS

FEBRUARY 2023

PROJECT ID: 6370-01-77

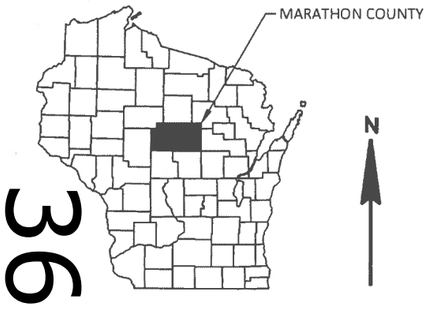
WITH:

COUNTY: MARATHON

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 = 134



DESIGN DESIGNATION 6370-01-07

A.A.D.T.	2023	=	1,400
A.A.D.T.	2043	=	1,610
D.H.V.		=	
D.D.		=	
T.		=	7.7%
DESIGN SPEED		=	60 MPH
ESALS		=	372,300

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 13 - STRATFORD

STH 13 - STAINLESS AVENUE

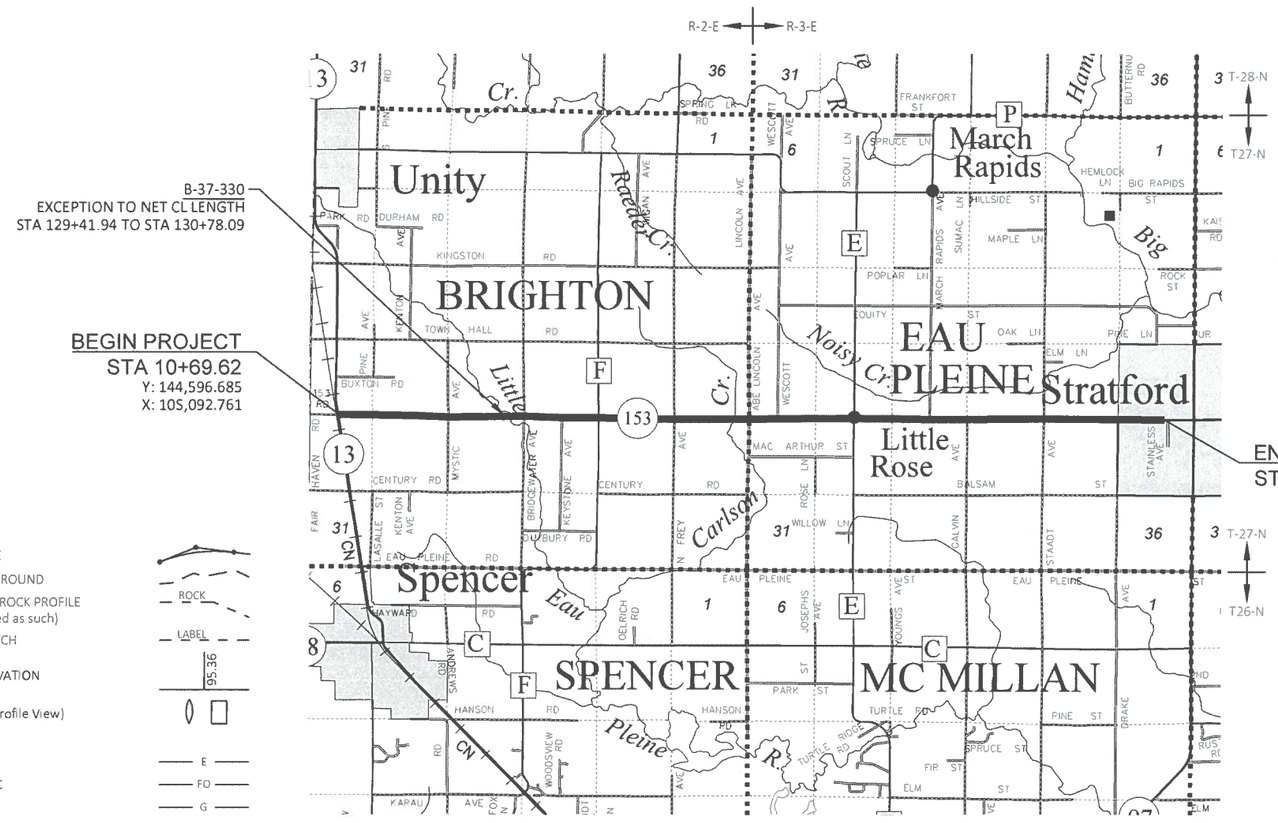
STH 153

MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6370-01-77		

STATE PROJECT NUMBER

6370-01-77



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 10.890 MILES

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

ORIGINAL PLANS PREPARED BY

Westwood

WISCONSIN
MARGARET A. HAWLEY
E-26879
MENASHA, WI
PROFESSIONAL ENGINEER

DATE: 9/26/22 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WESTWOOD PUBLIC INFRASTRUCTURE
Designer	WESTWOOD PUBLIC INFRASTRUCTURE
Project Manager	KIMBERLY SLEZAK
Regional Examiner	---
Regional Supervisor	ROBERT WAGNER

APPROVED FOR THE DEPARTMENT

DATE 10/18/2022 Kimberly A Slezak, P.E (Signature)

E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-010101-TI.DWG PLOT DATE : 7/29/2022 8:55 AM PLOT BY : ANDY WESTBROOK PLOT NAME :

GENERAL NOTES

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

THE PROJECT REFERENCE LINE IS BASED ON AS-BUILT PLAN AND FIELD INFORMATION. THE LOCATION OF THE REFERENCE LINE MAY VARY SLIGHTLY FROM THE ACTUAL CENTER

CULVERT PIPE FLOWLINE ELEVATONS SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED TO MATCH FIELD CONDITIONS (ACCOUNTING FOR BURIAL DEPTH WHERE REQUIRED).

WETLAND AREAS ARE SHOWN ON THE PLANS. LIMIT CONSTRUCTION ACTIVITIES TO WORK WITHIN THE SLOPE INTERCEPTS IN THE WETLAND AREAS.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED ARE TO BE TOPSOILED, SEEDED, FERTILIZED, AND EROSION MATTED.

ORDER OF "SECTION 2" SHEETS

SHEET TITLE

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
PAVEMENT MARKING
TRAFFIC CONTROL AND STAGING
DETPOUR PLAN

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

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
MEDIAN STRIP -	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
TURF	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
SIDE SLOPE -			0.25			0.27			0.28			0.30
TURF			0.32			0.34			0.36			0.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

EROSION CONTROL NOTES

RUNOFF COEFFICIENT FOR THIS PROJECT:
EXISTING PAVEMENT 0.95, EXISTING SLOPES 0.30,
NEW PAVEMENT 0.95, NEW SLOPES 0.30.

TOTAL PROJECT AREA = 91 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 7 ACRES

UTILITIES

COMMUNICATION
SPECTRUM
JESSE GRUNY
503 EAST IZES ST
MARSHFIELD, WI 5449
TELEPHONE: (715) 651-5605
EMAIL:JESSE.GRUNY@CHARTER.COM

ELECTRIC
CLARK ELECTRIC COOPERATIVE
JOSH BURNS
1209 W DAL-BERG ST
GREENWOOD WI 54437
TELEPHONE: (715) 267-6188
CELL: (715) 456-3364
EMAIL: JBURNS@CECOOP.COM

ELECTRIC
DAIRYLAND POWER COOPERATIVE
MIKE LYDON
3200 EAST AVENUE SOUTH, PO BOX 817
LA CROSSE, WI 54602-0817
TELEPHONE: (608) 787-1381
EMAIL:MICHAEL.LYDON@DAIRYANDPOWER,COM

COMMUNICATION
FRONTIER COMMUNICATIONS OF WI LLC
COLE ZIMMERMAN
BLUFFS, IL 62621
TELEPHONE: (217) 836-5351
EMAIL: CZIMMERMAN@MSCON.COM

ELECTRIC
VILLAGE OF STRATFORD
SCOTT DENNEE
PO BOX 12
STARTFORD, WI 54484
TELEPHONE: (715) 687-4118
CELL: (715) 573-2018
EMAIL: STRATFORDPUBLICWORKS@STRATFORDWI.COM

WATER
VILLAGE OF STRATFORD
SCOTT DENNEE
PO BOX 12
STARTFORD, WI 54484
TELEPHONE: (715) 687-4118
CELL: (715) 573-2018
EMAIL: STRATFORDPUBLICWORKS@STRATFORDWI.COM

ELECTRIC
WISCONSIN PUBIC SERVICE CORPORATION
JESSE PATTEN
PO BOX 166
WAUSAU, WI 54402
TELEPHONE: (715) 848-7405
CELL: (715) 573-0349
EMAIL:JESSE.PATTEN@WISCONSINPUBLICSERVICE.COM

GAS
WE ENERGIES
TRAVIS KAHL
8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
TELEPHONE:(715) 421-7256
CELL: (715) 798-6180
EMAIL: TRAVIS.KAHL@WE-ENERGIES.COM

OTHER CONTACTS

DNR LIAISON
CASEY JONES
WDNR - OSHKOSH SERVICE CENTER
625 EAST COUNTY RD Y, SUITE 700
OSHKOSH, WI 54901
TELEPHONE: (715) 213-6571
EMAIL: Casey.Jones@wisconsin.gov



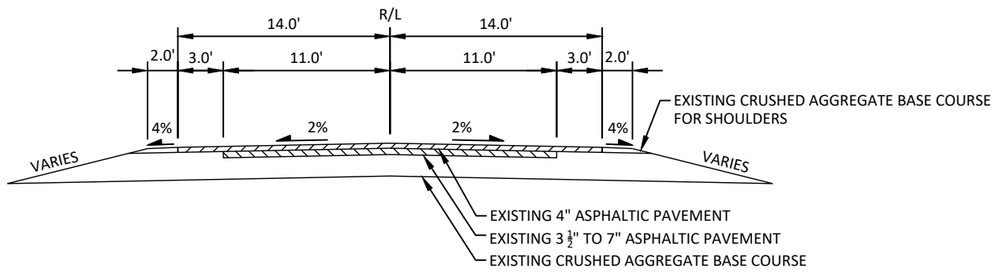
PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PROJECT OVERVIEW	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-020201-PO.DWG
LAYOUT NAME - 63700177-020201-po

PLOT DATE : 7/27/2022 11:33 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:4000 FT

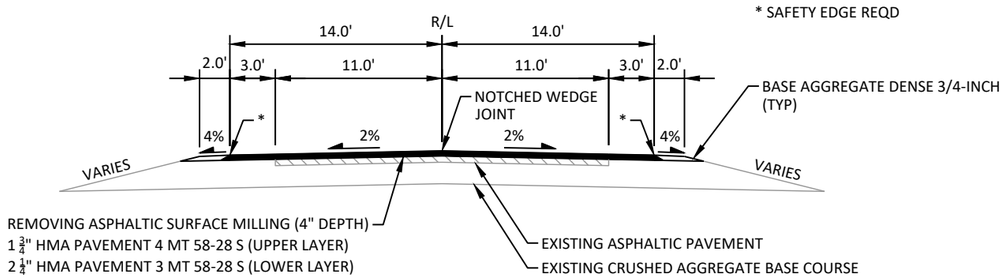
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION FOR STH 153

STA 10+69 TO STA 129+42
STA 130+78 TO STA 587+03

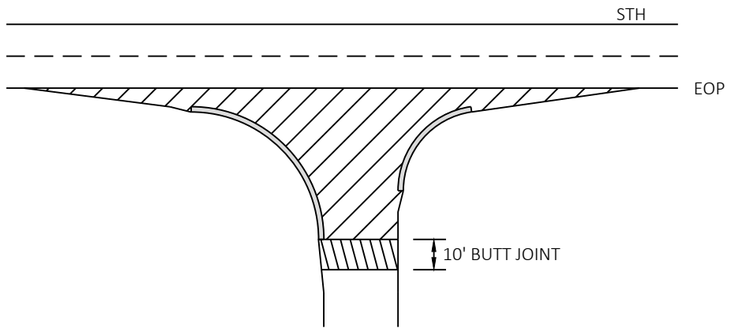


PROPOSED TYPICAL SECTION FOR STH 153

STA 10+69 TO STA 129+42
STA 130+78 TO STA 587+03

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-020301-TS.DWG
LAYOUT NAME - 63700177-020301-ts
PLOT DATE : 7/26/2022 12:45 PM
PLOT BY : ANDY WESTBROOK
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

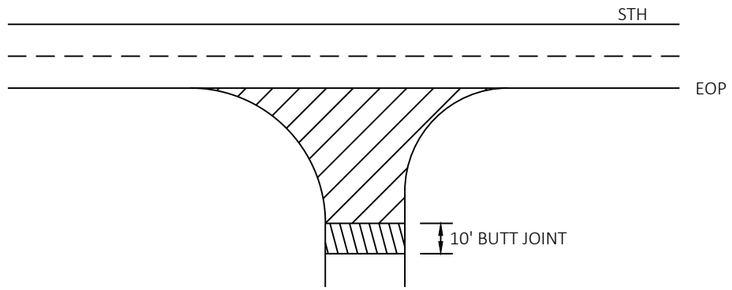
NOTE: WHEN MATCHING TO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED

SIDE ROAD BUTT JOINT

WITH CURB AND GUTTER

LOYALTY AVE
CONNER AVE

NOTE: BUTT JOINT NOT APPLICABLE ON SIDE ROADS SURFACED WITH GRAVEL. REMOVING ASPHALTIC SURFACE MILLING AND NEW PAVEMENT LIMITS SHALL EXTEND TO THE LIMITS OF THE EXISTING ASPHALTIC PAVEMENT OR AS DIRECTED BY ENGINEER.



REMOVING ASPHALTIC SURFACE MILLING

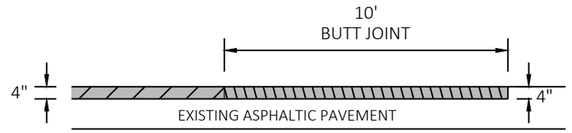
REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

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

SIDE ROAD BUTT JOINT

WITHOUT CURB AND GUTTER

CTH F
CTH E



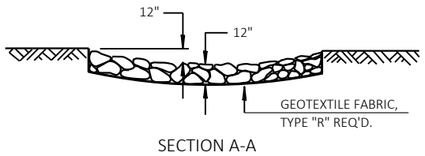
HMA PAVEMENT

REMOVING ASPHALTIC SURFACE MILLING

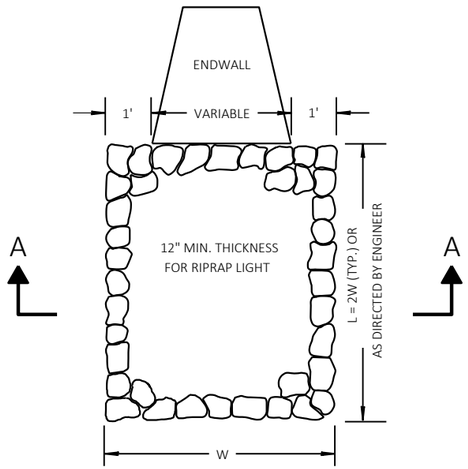
REMOVING ASPHALTIC SURFACE BUTT JOINTS

BUTT JOINT

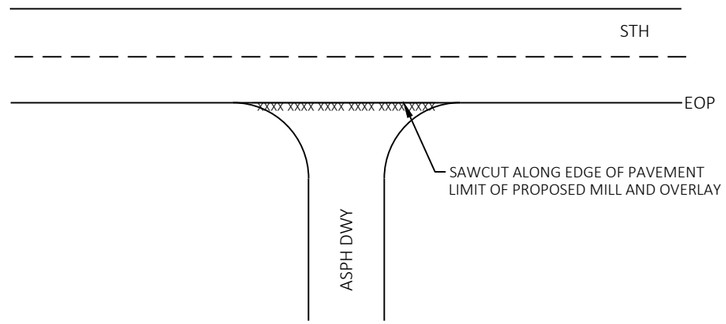
MAINLINE AND SIDE ROADS



SECTION A-A

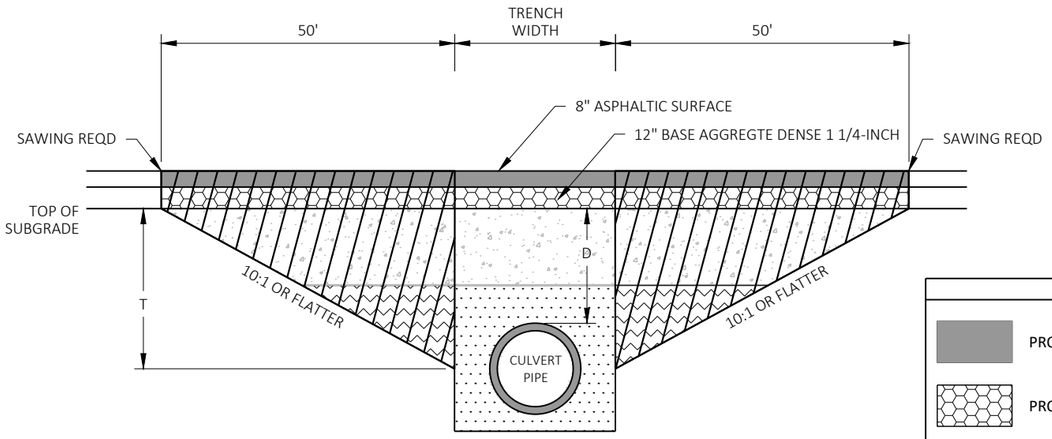


RIPRAP LIGHT TREATMENT AT CULVERTS



ASPHALTIC DRIVEWAY TREATMENT

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET	E

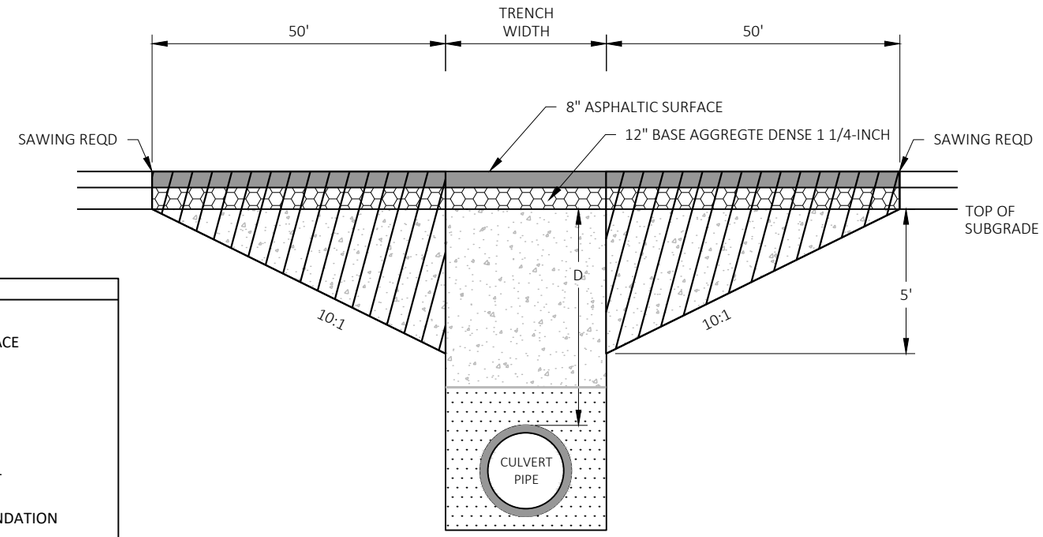


DEPTH D < 6 FT

TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

KEY

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT



DEPTH D ≥ 6 FT

2

NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.

TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.

BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.

PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.

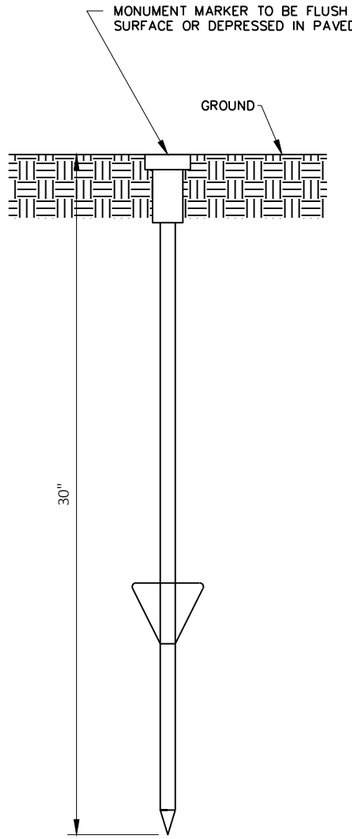
CULVERT PIPE TRANSITION

ROUTE	STA (CL)	C/L DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 153	77+96	0.9'	54"	7153002859
STH 153	180+64	1.4'	36"	7153002862
STH 153	317+69	0.0'	30"	7153002869
STH 153	377+28	1.7'	30"	7153002872
STH 153	412+90	1.2'	58"X91"	7153002874
STH 153	445+45	0.6'	24"	7153002876
STH 153	458+08	1.0'	30"	7153002878
STH 153	540+82	1.7'	24"	7153002883
STH 153	551+75	2.0'	36"	7153002884



WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)

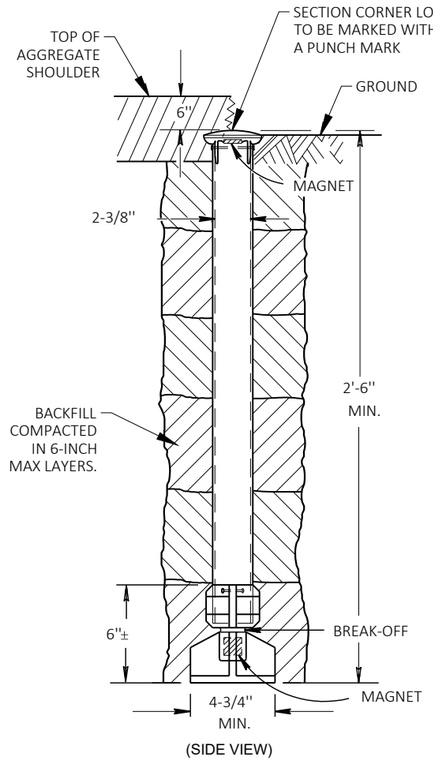
CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING



(FRONT VIEW)

BERNSTEN DRIVABLE MONUMENT SSDR130

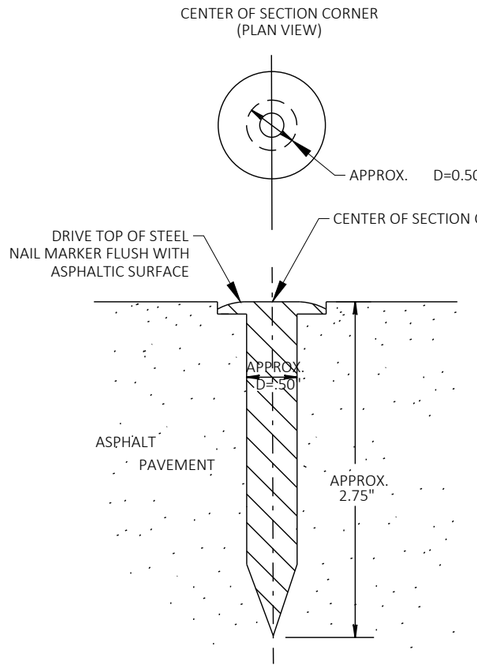
LANDMARK REFERENCE MONUMENT (TIES ONLY)



(SIDE VIEW)

OUTSIDE OF PAVEMENT

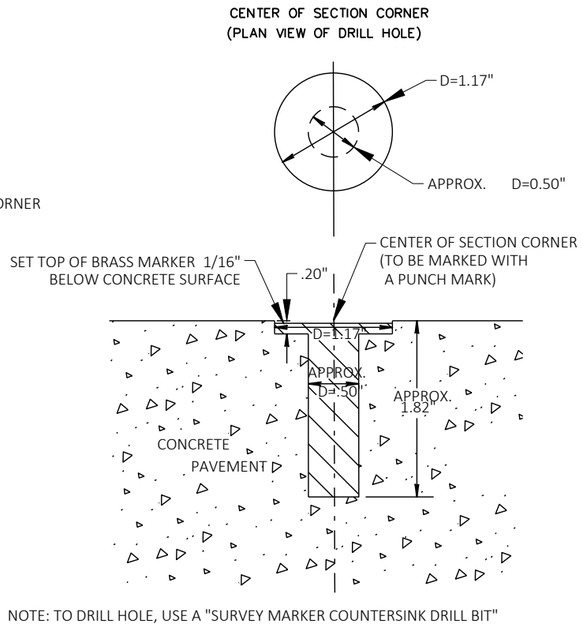
BERNTSEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



(SIDE VIEW)

IN ASPHALTIC PAVEMENT

BERNTSEN SNM1 STEEL NAIL MARKER



NOTE: TO DRILL HOLE, USE A "SURVEY MARKER COUNTERSINK DRILL BIT" ITEM #BPMDRL, AVAILABLE FROM BERNTSEN INTERNATIONAL INC.

(SIDE VIEW OF DRILL HOLE)

IN CONCRETE PAVEMENT

BERNTSEN BP - 1 BRASS MARKER WITH ANCHOR PLUG

SECTION CORNER MONUMENTS

GENERAL NOTES

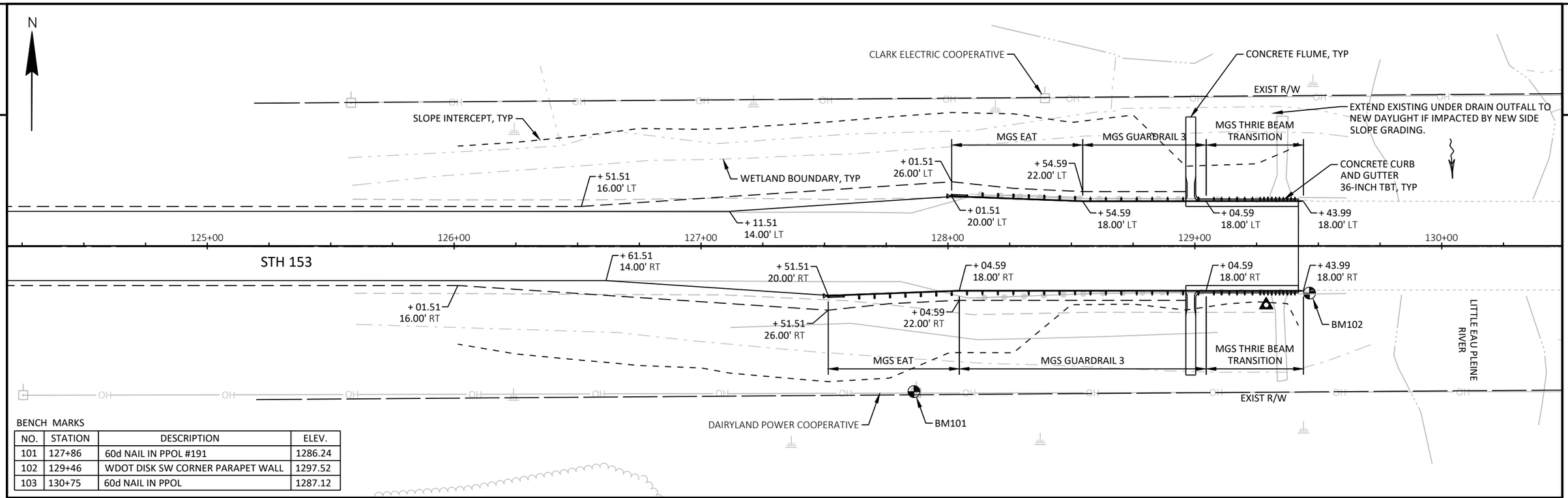
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

CONTRACTOR WILL SUPPLY ALL REQUIRED SURVEY MONUMENTS.

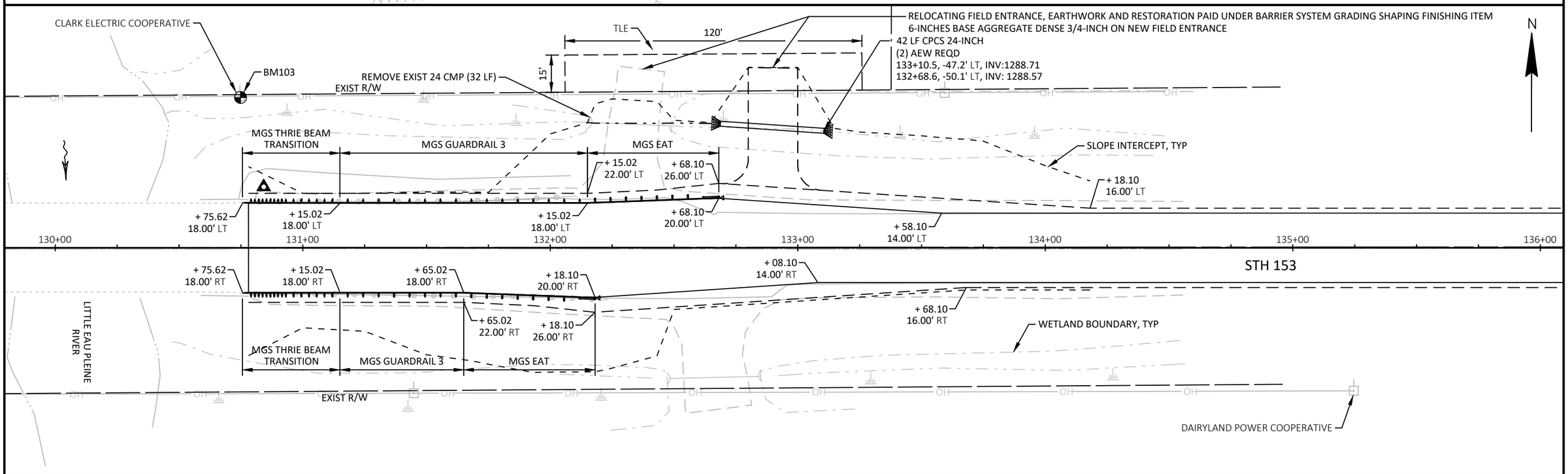
SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET	E



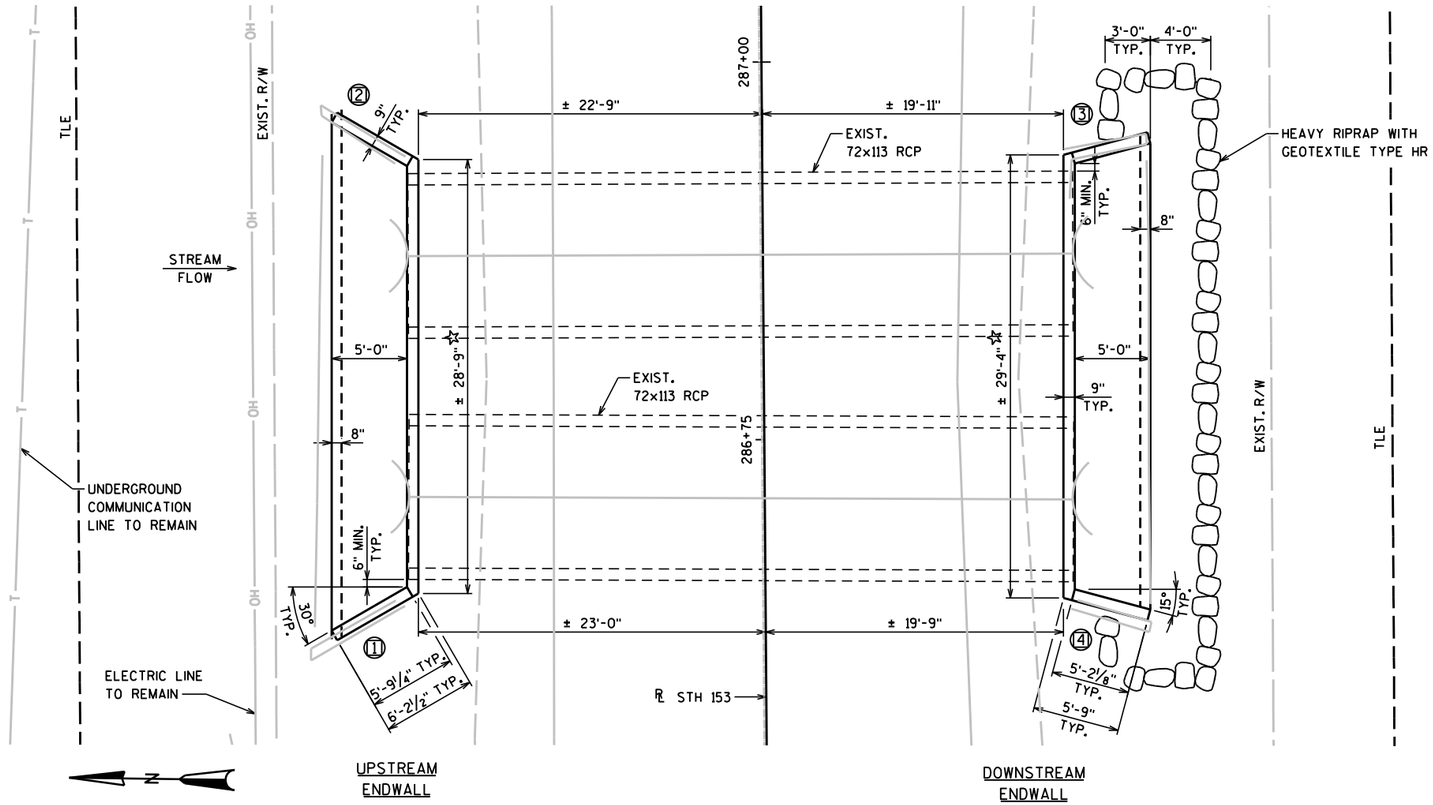
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
101	127+86	60d NAIL IN PPOL #191	1286.24
102	129+46	WDOT DISK SW CORNER PARAPET WALL	1297.52
103	130+75	60d NAIL IN PPOL	1287.12

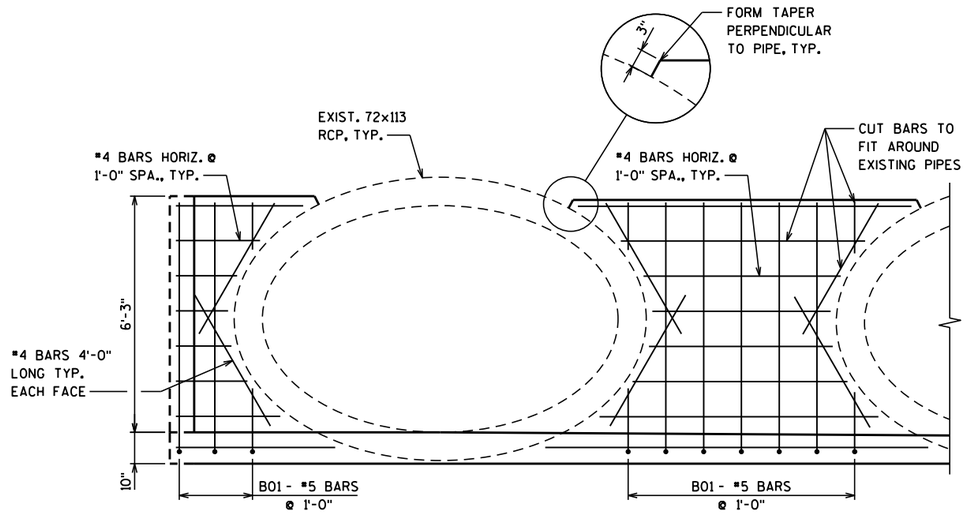


PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	GUARDRAIL DETAILS	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-021005-CD.DWG
LAYOUT NAME - 63700177-021005-cd
PLOT DATE : 7/25/2022 12:57 PM
PLOT BY : ANDY WESTBROOK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



CULVERT ENDWALL / APRON LAYOUT PLAN



TYPICAL ELEVATION AT ENDWALL

(BACK FACE STEEL SHOWN, FRONT FACE AND WINGS SIMILAR)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

GEOTEXTILE TYPE 'C' AND A MINIMUM OF 6" OF BACKFILL STRUCTURE TYPE B SHALL BE PLACED BELOW THE APRONS.

THE AREA IN FRONT OF THE DOWNSTREAM ENDWALL SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE 'HR' TO THE EXTENT SHOWN ON THE PLAN. PLACE RIPRAP NO HIGHER THAN THE CULVERT APRON INVERTS.

FILL SLOPES FLATTER THAN 2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

WITHIN THE LENGTH OF THE PIPES ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE CULVERT.

☆ THIS DIMENSION MAY VARY TO FIT THE EXISTING PIPE LOCATIONS. MAINTAIN 6" MINIMUM TO WING ON FRONT FACE OF WALL.

CUT OFF SPIGOT FLANGE ON UPSTREAM END OF PIPES PRIOR TO CONSTRUCTING APRON ENDWALL.

DESIGN DATA

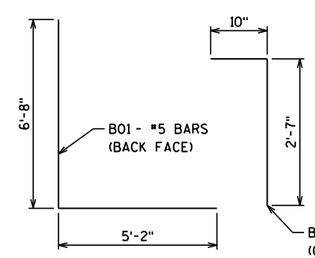
EARTH LOAD:

DESIGNED FOR 1 FT. SURCHARGE

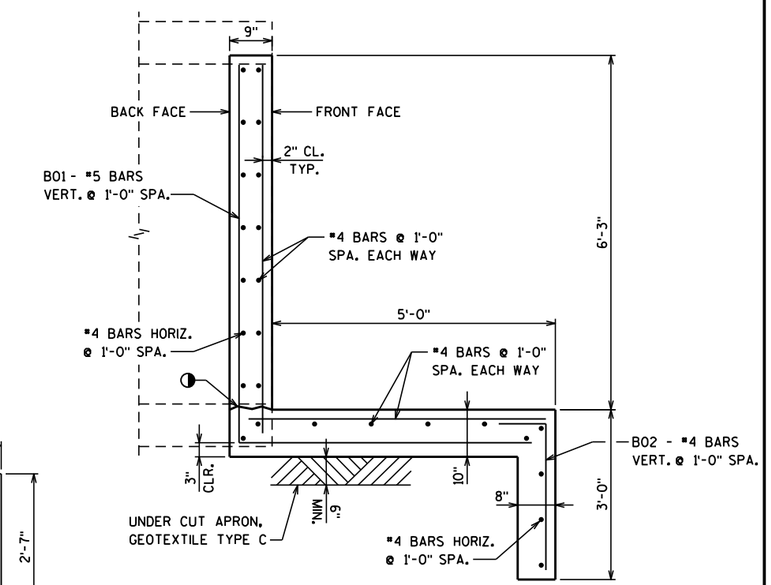
MATERIAL PROPERTIES:

CONCRETE MASONRY GRADE A-FA — f'c = 3,500 P.S.I.

HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.



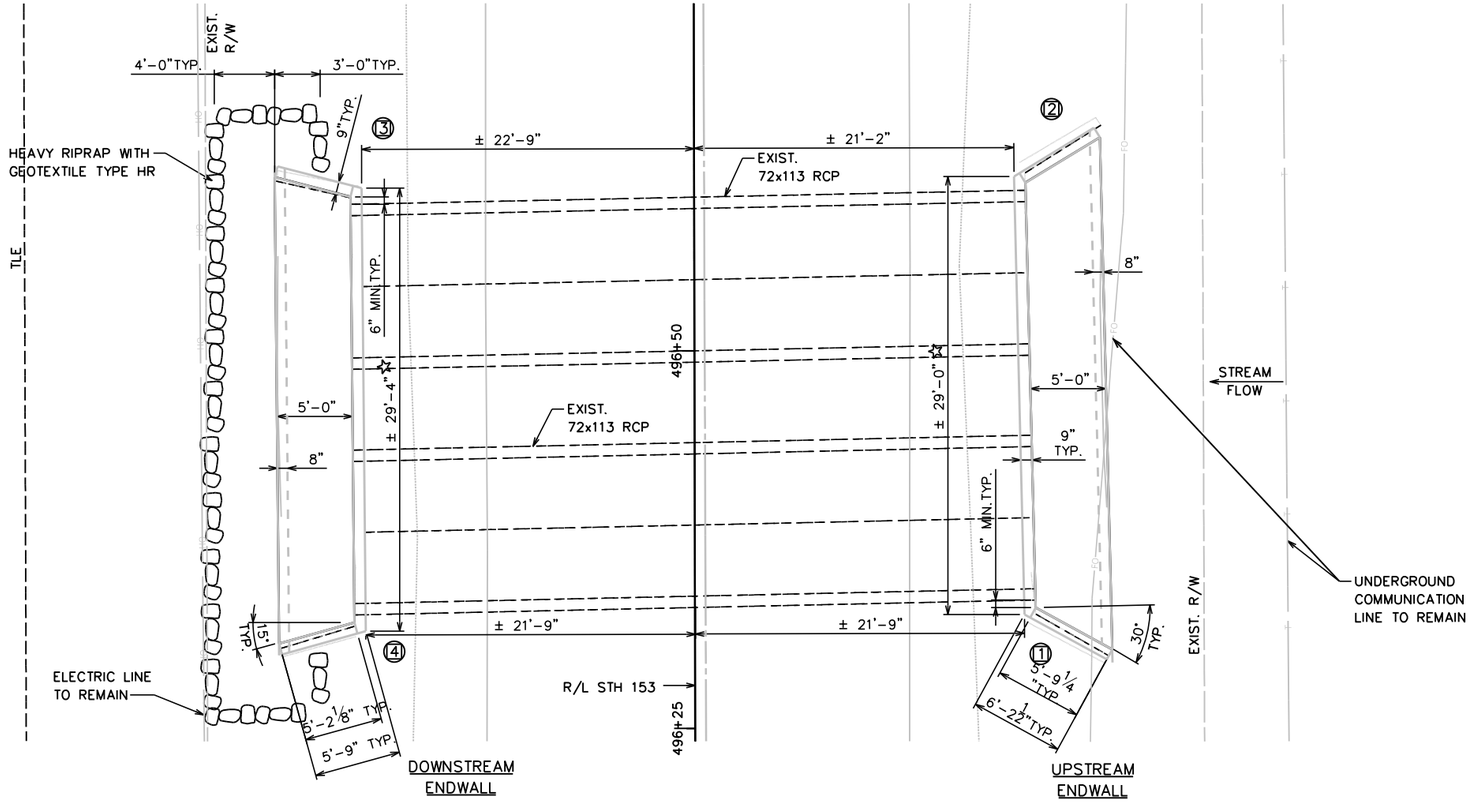
TYPICAL BAR BENDS



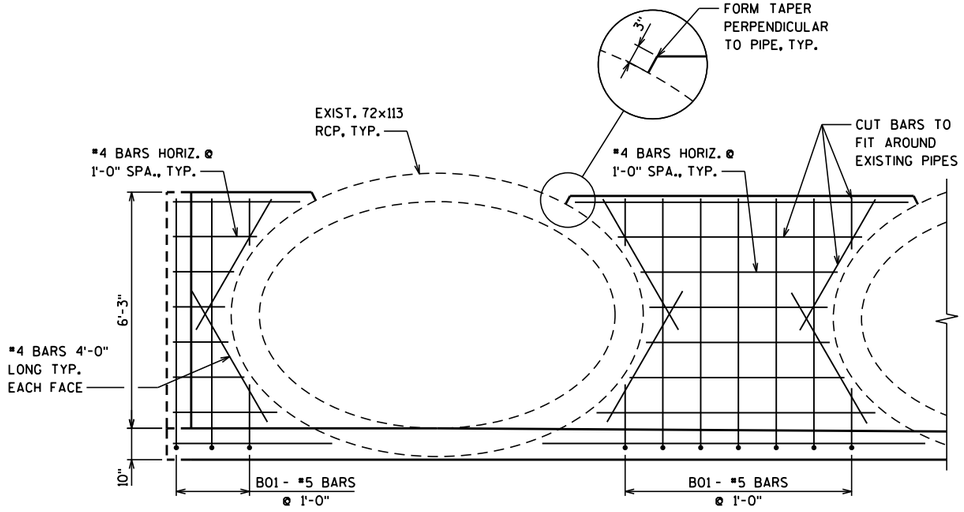
TYPICAL SECTION THRU ENDWALL

◑ HORIZ. CONST. JOINT - STRIKE OFF AND LEAVE ROUGH

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CONSTRUCTION DETAIL: CULVERT ENDWALL REPAIR	SHEET	E



CULVERT ENDWALL / APRON LAYOUT PLAN



TYPICAL ELEVATION AT ENDWALL

(BACK FACE STEEL SHOWN, FRONT FACE AND WINGS SIMILAR)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

GEOTEXTILE TYPE 'C' AND A MINIMUM OF 6" OF BACKFILL STRUCTURE TYPE B SHALL BE PLACED BELOW THE APRONS.

THE AREA IN FRONT OF THE DOWNSTREAM ENDWALL SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE 'HR' TO THE EXTENT SHOWN ON THE PLAN. PLACE RIPRAP NO HIGHER THAN THE CULVERT APRON INVERTS.

FILL SLOPES FLATTER THAN 2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

WITHIN THE LENGTH OF THE PIPES ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE CULVERT.

☆ THIS DIMENSION MAY VARY TO FIT THE EXISTING PIPE LOCATIONS. MAINTAIN 6" MINIMUM TO WING ON FRONT FACE OF WALL.

CUT OFF SPIGOT FLANGE ON UPSTREAM END OF PIPES PRIOR TO CONSTRUCTING APRON ENDWALL.

DESIGN DATA

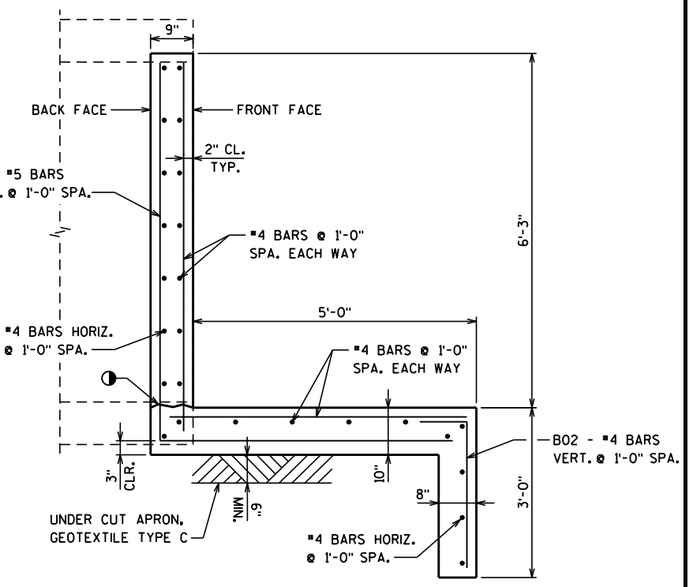
EARTH LOAD:

DESIGNED FOR 1 FT. SURCHARGE

MATERIAL PROPERTIES:

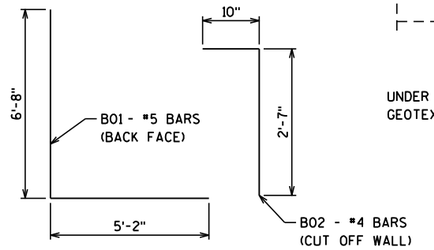
CONCRETE MASONRY GRADE A–FA — f'c = 3,500 P.S.I.

HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.



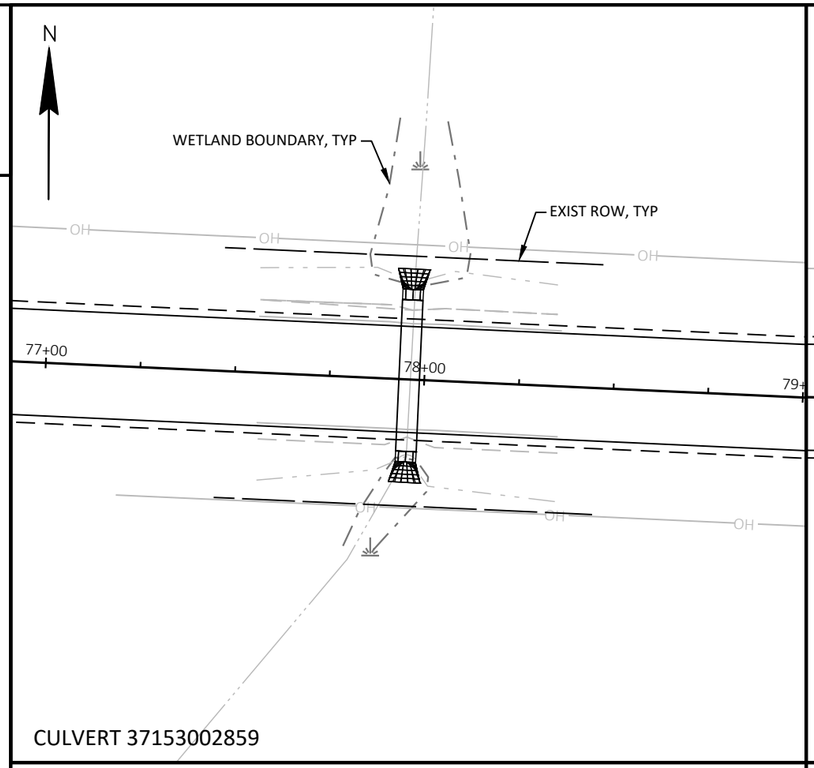
TYPICAL SECTION THRU ENDWALL

◑ HORIZ. CONST. JOINT - STRIKE OFF AND LEAVE ROUGH

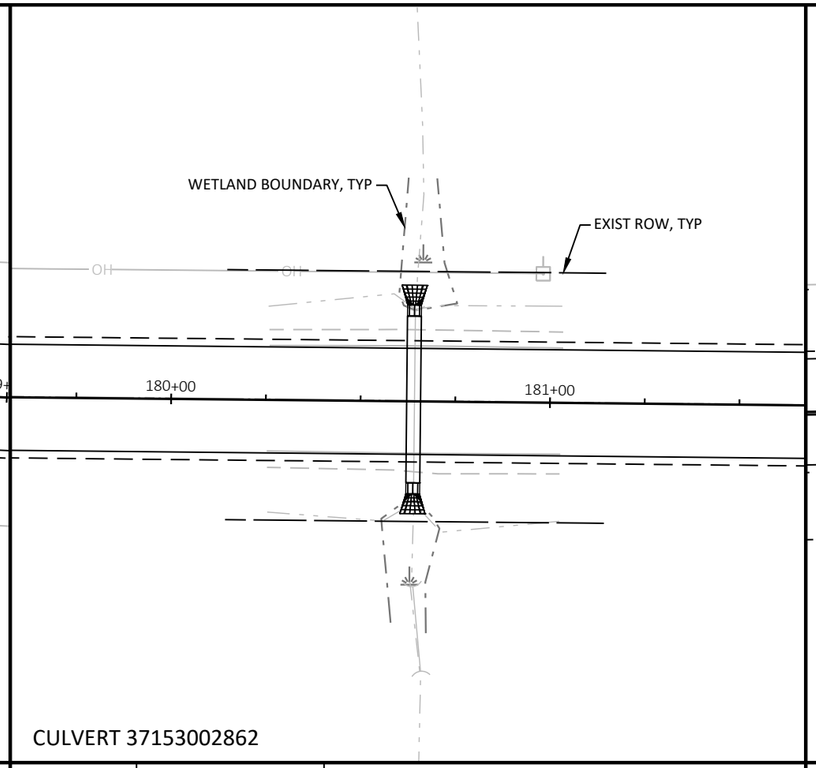


TYPICAL BAR BENDS

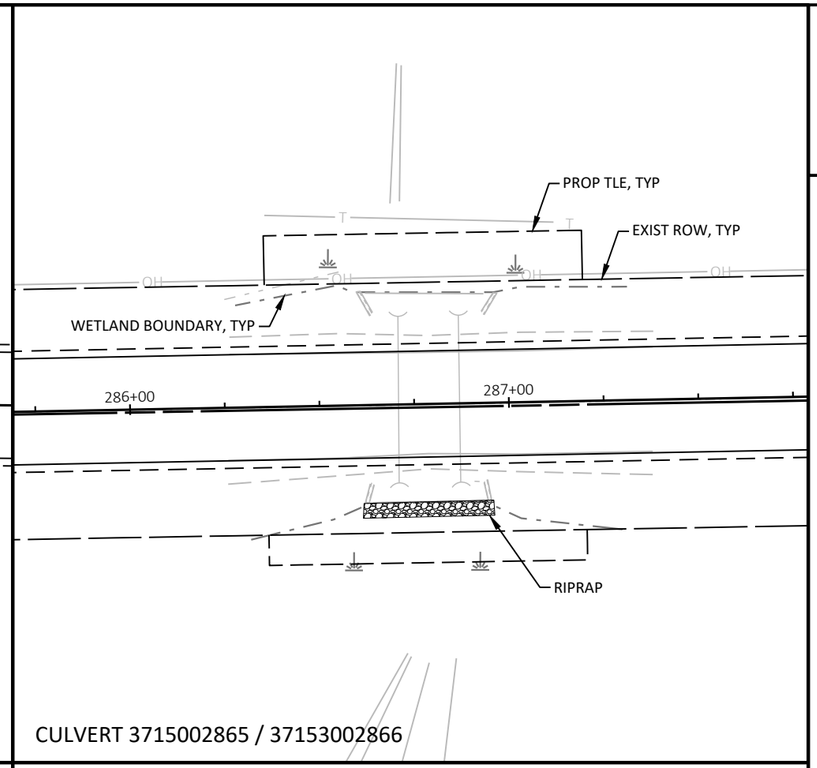
PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CONSTRUCTION DETAIL: CULVERT ENDWALL REPAIR	SHEET	E



CULVERT 37153002859

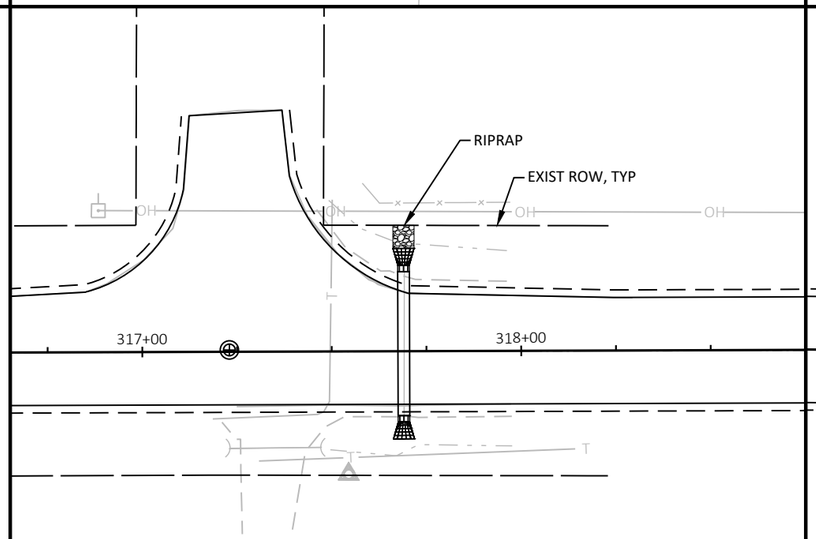


CULVERT 37153002862

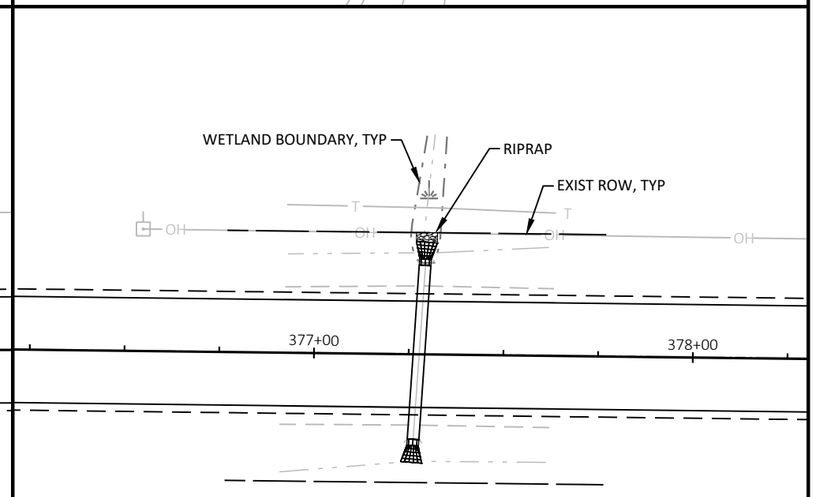


CULVERT 3715002865 / 37153002866

THIS SPACE LEFT BLANK INTENTIONALLY



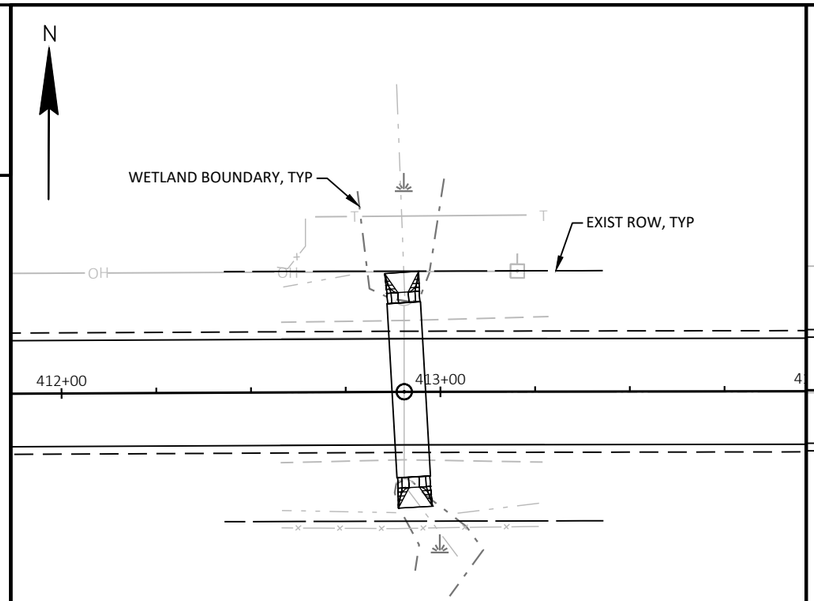
CULVERT 37153002869



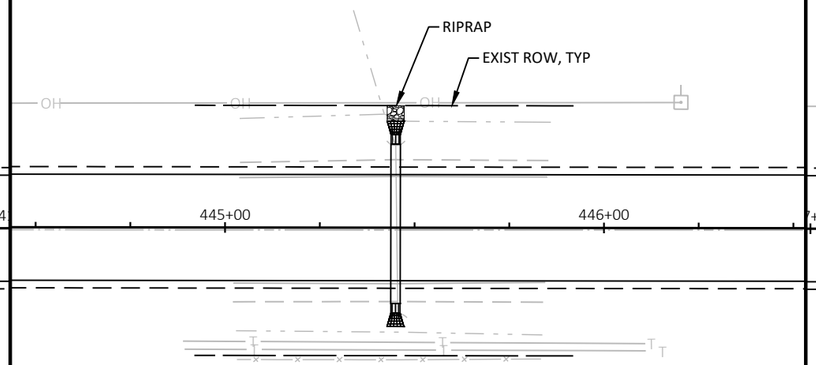
CULVERT 37153002872

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CULVERT DETAIL	SHEET	E

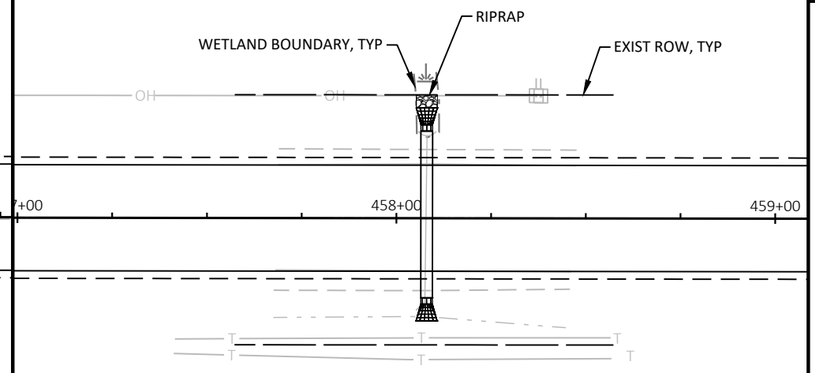
FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-021015-CD.DWG
LAYOUT NAME - 63700177-021015-cd
PLOT DATE : 7/29/2022 11:25 AM
PLOT BY : ANDY WESTBROOK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



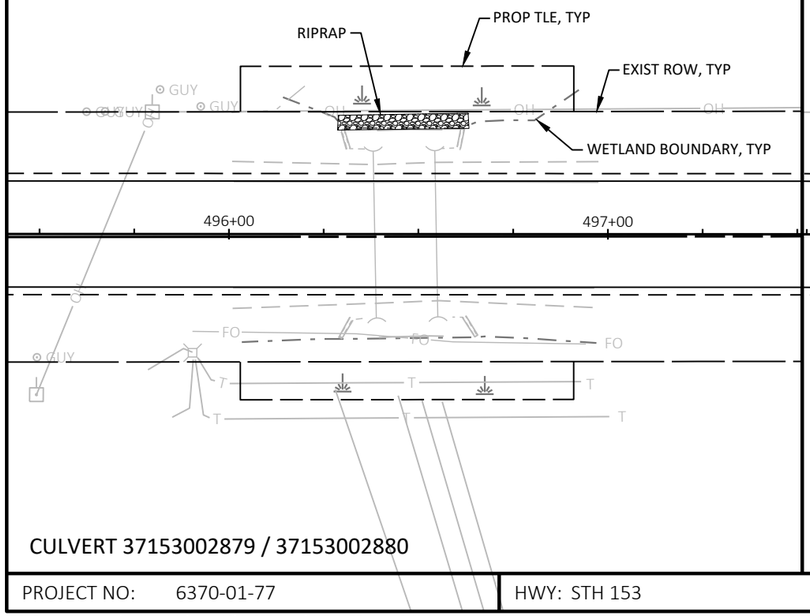
CULVERT 37153002874



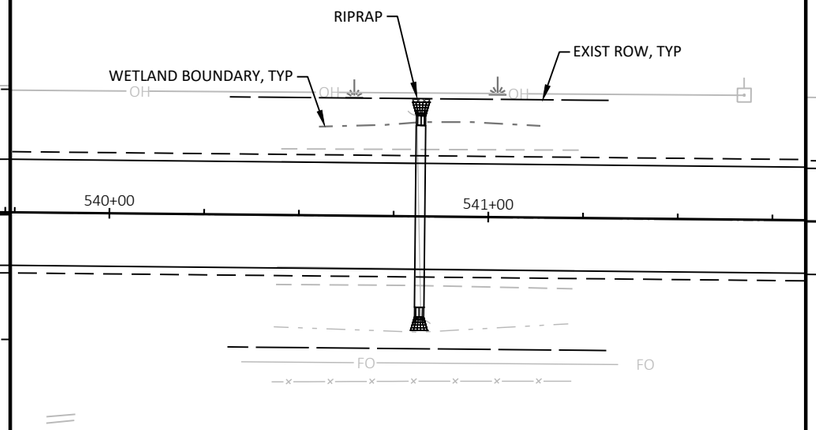
CULVERT 37153002876



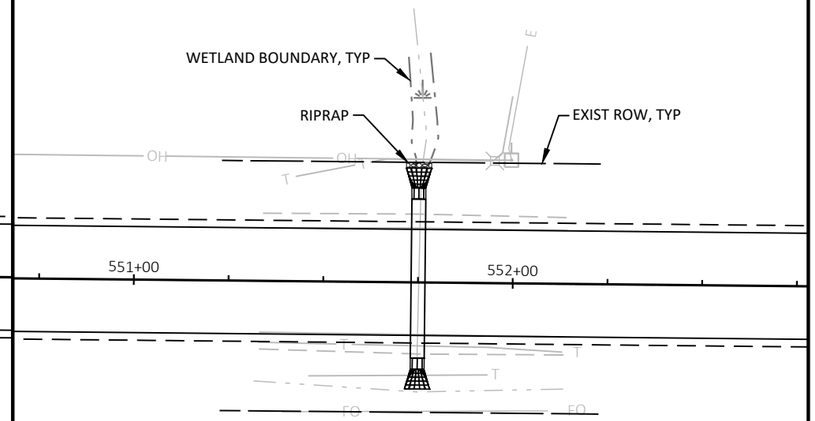
CULVERT 37153002878



CULVERT 37153002879 / 37153002880

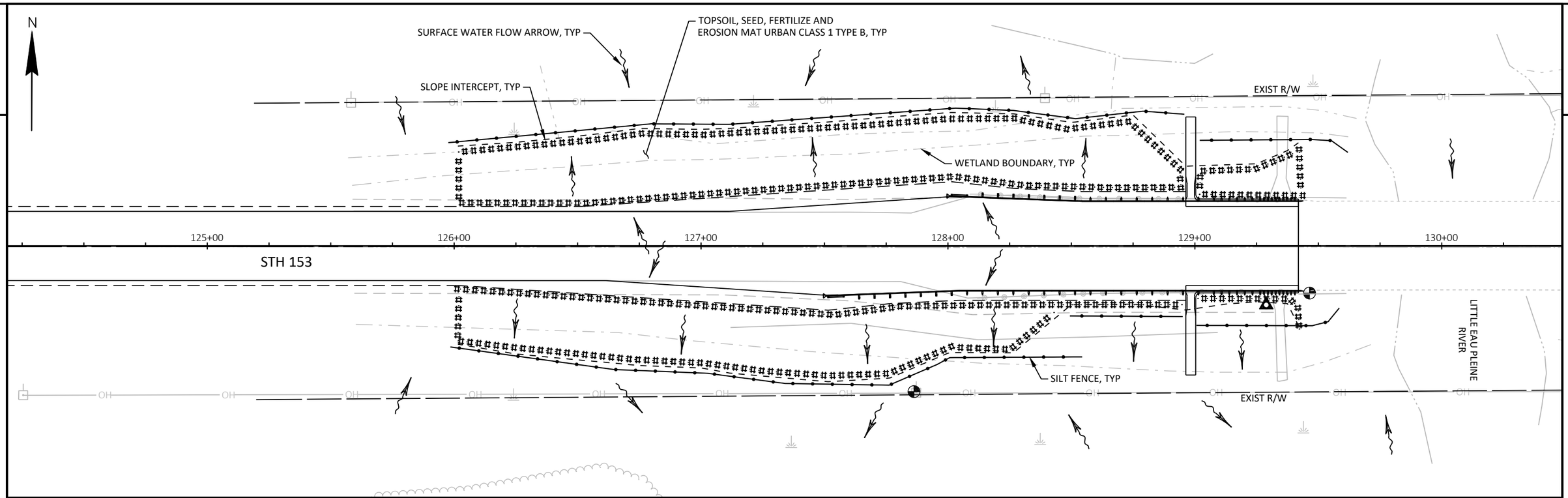


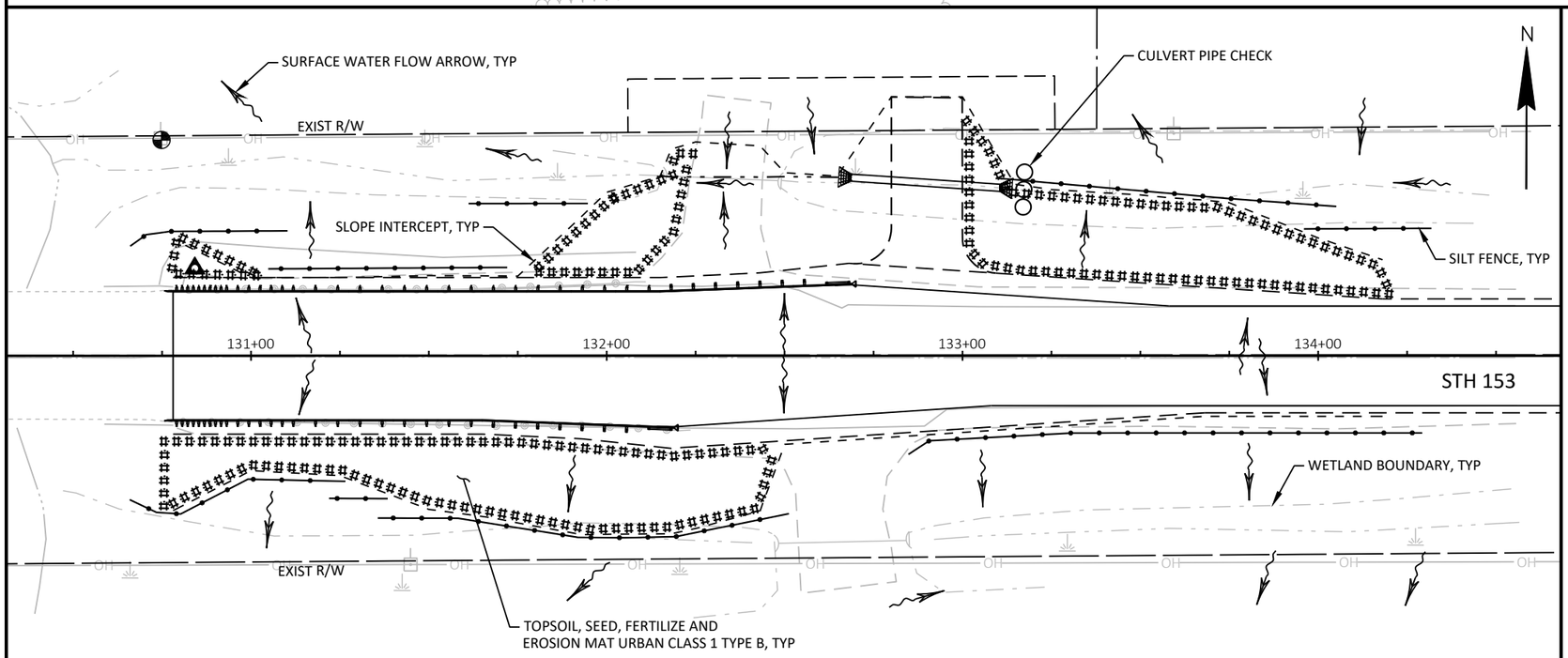
CULVERT 37153002883

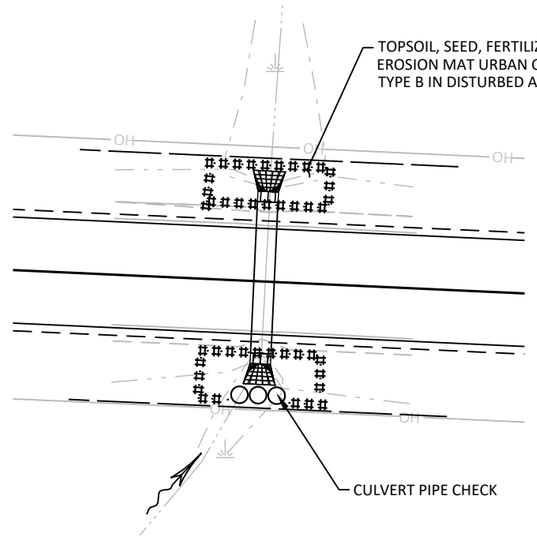


CULVERT 37153002884

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CULVERT DETAIL	SHEET	E





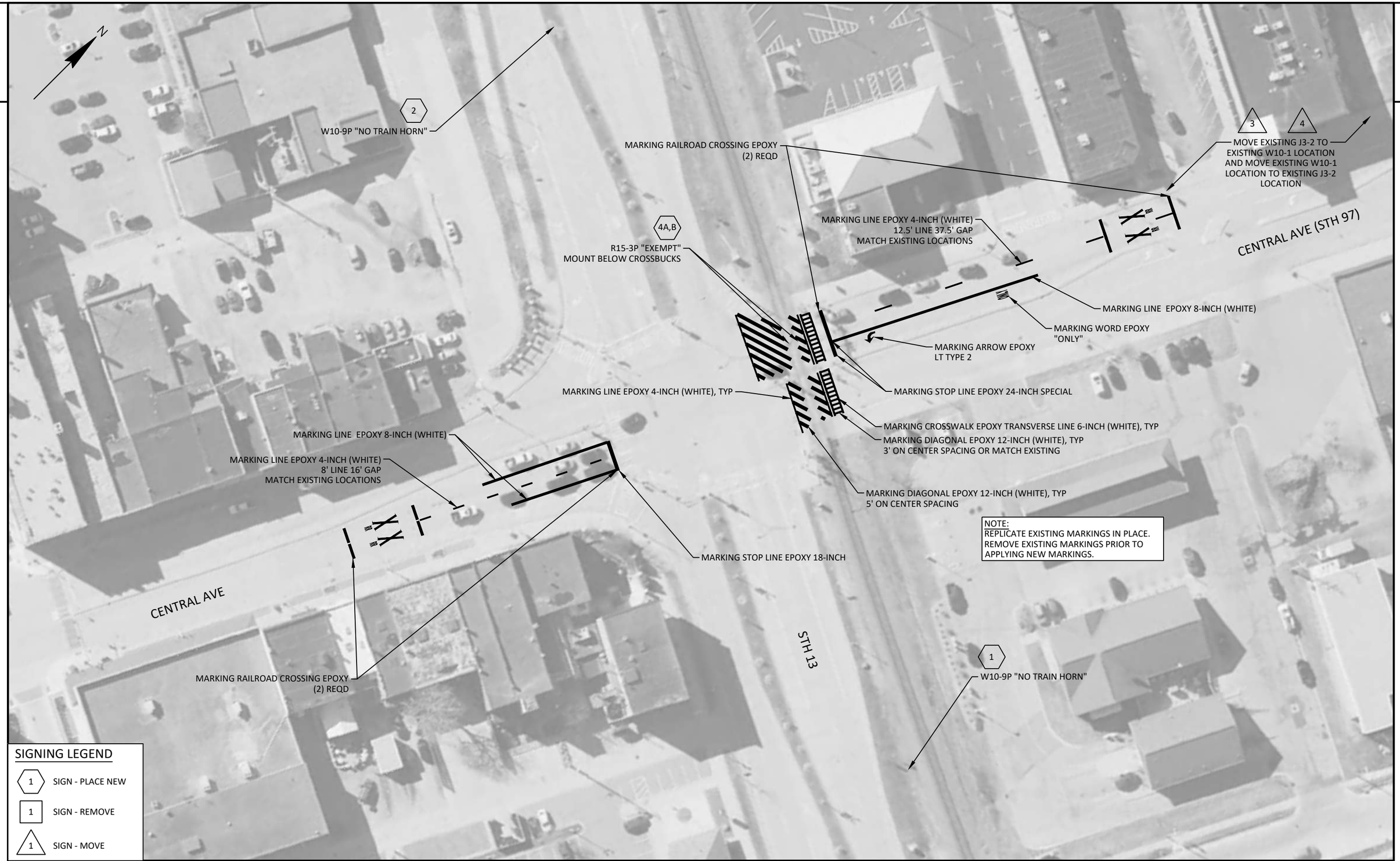


TYPICAL CULVERT PIPE REPLACEMENT AND
ENDWALL REPAIR
EROSION CONTROL

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	EROSION CONTROL	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-022001-EC.DWG
LAYOUT NAME - 63700177-022001-ec

PLOT DATE : 2/24/2022 10:08 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:40 FT



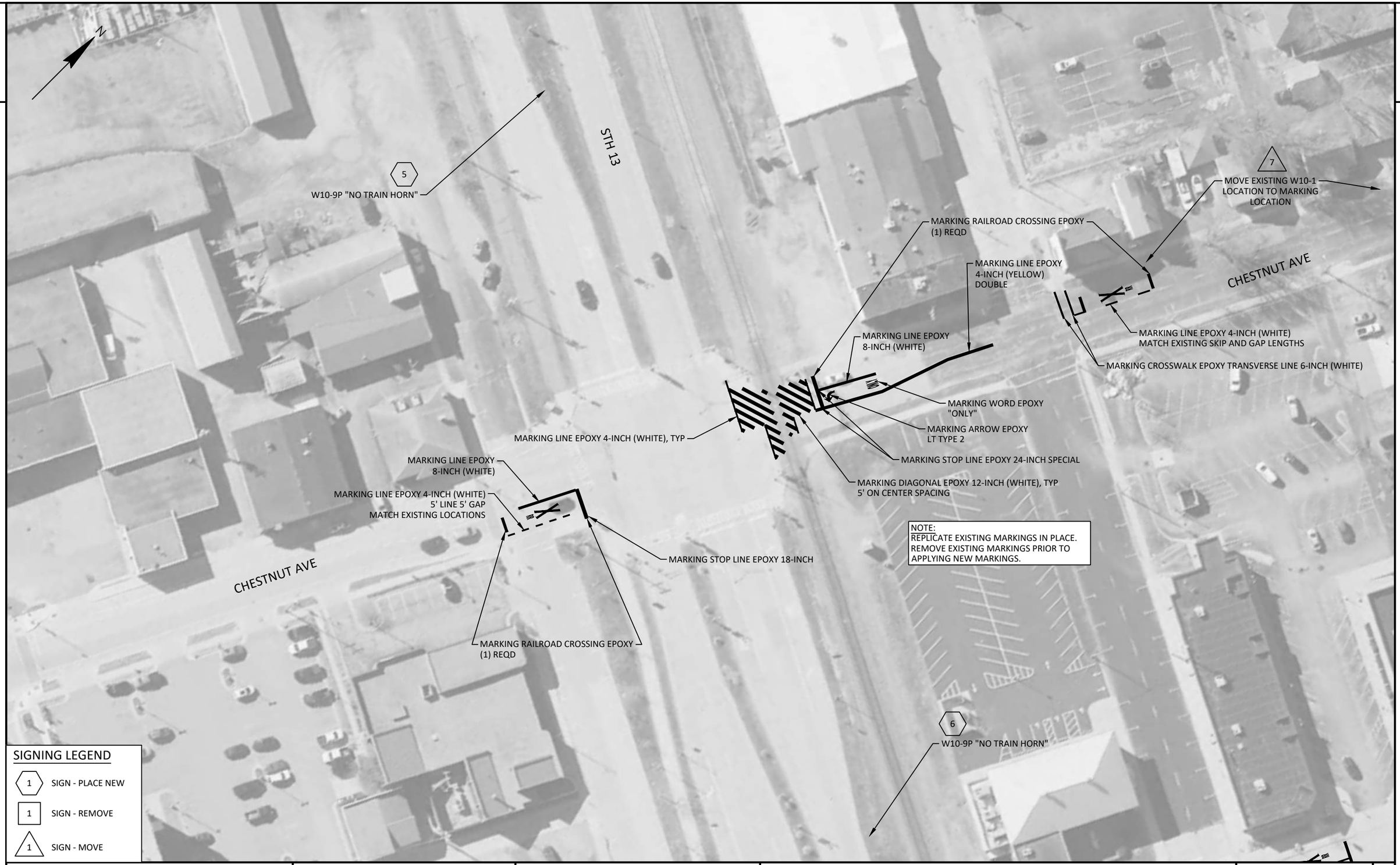
PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024501-pm

PLOT DATE : 12/16/2022 1:33 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:60 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024502-pm
PLOT DATE : 12/16/2022 1:33 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:60 FT
WISDOT/CADDS SHEET 42

2



SIGNING LEGEND

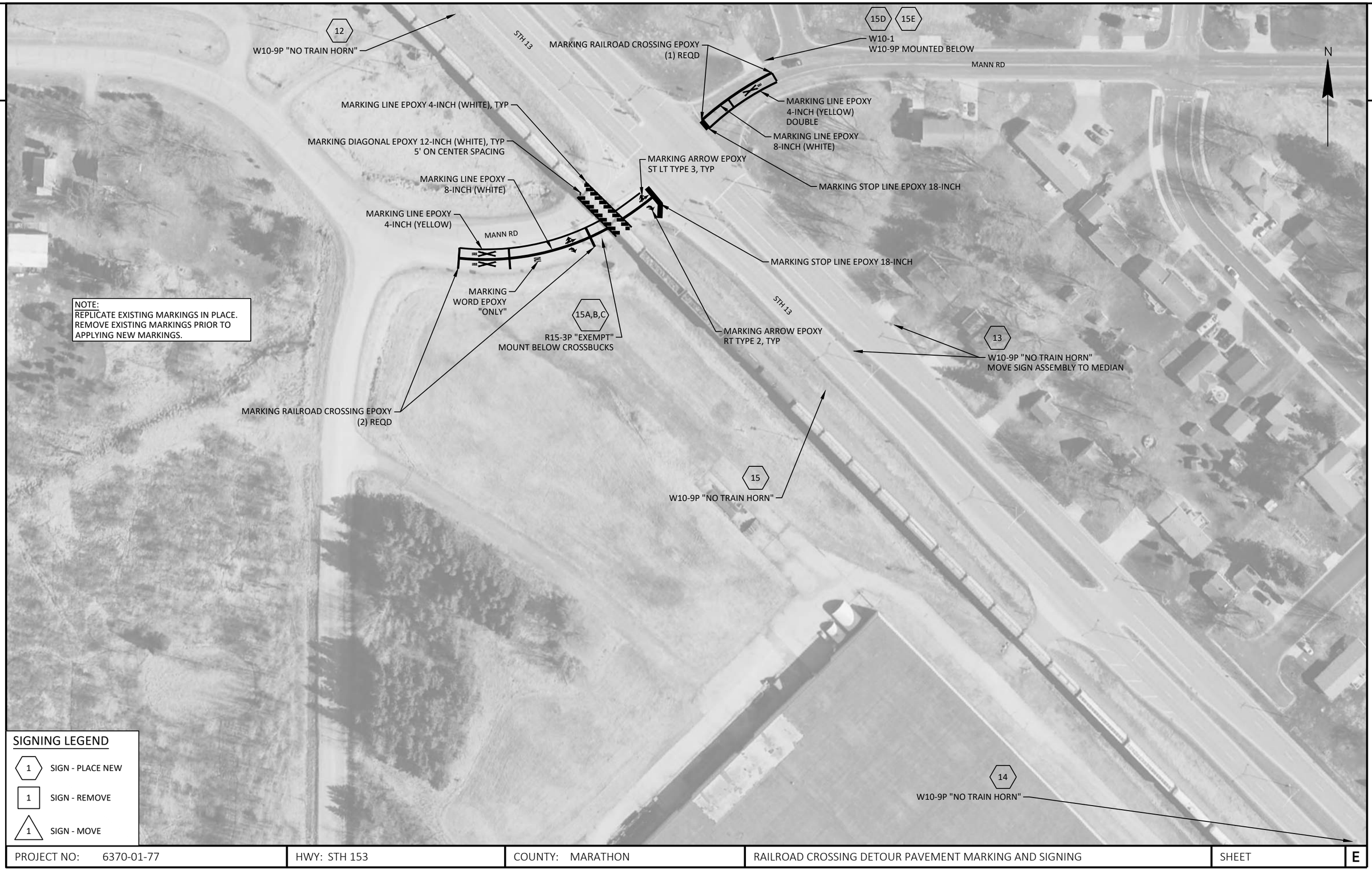
1 SIGN - PLACE NEW

1 SIGN - REMOVE

1 SIGN - MOVE

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024503-pm
PLOT DATE : 12/12/2022 11:06 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024504-pm

PLOT DATE : 12/16/2022 1:33 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

STH 13

17

W10-9P "NO TRAIN HORN"
MOVE EXISTING W10-1 200'
SOUTH OF EXISTING LOCATION

26TH RD

16

W10-9P "NO TRAIN HORN"
MOVE EXISTING W10-1 TO
MEDIAN

STH 13

SIGNING LEGEND

1 SIGN - PLACE NEW

1 SIGN - REMOVE

1 SIGN - MOVE

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024505-pm

PLOT DATE : 12/12/2022 11:06 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:200 FT



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024506-pm

PLOT DATE : 12/12/2022 11:06 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 13

21

W10-9P
"NO TRAIN HORN"

WILLOW DR

20

W10-9P "NO TRAIN HORN"
MOVE EXISTING W10-1 NORTH 350'
AND TO MEDIAN

STH 13

SIGNING LEGEND

1 SIGN - PLACE NEW

1 SIGN - REMOVE

1 SIGN - MOVE

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	RAILROAD CROSSING DETOUR PAVEMENT MARKING AND SIGNING	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-024501-PM.DWG
LAYOUT NAME - 63700177-024507-pm

PLOT DATE : 12/12/2022 11:06 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

N

ROAD CLOSED AHEAD
W20-3A
48" X48"

ROAD CLOSED 500 FT
W20-3D
48" X48"

TOWN HALL RD
PINE AVE
BUXTON RD
MYSTIC AVE
BRIDGEWATER AVE
BRIGHTON
N FREY AVE
ABE LINCOLN AVE
WESCOTT AVE
MARCH RAPIDS AVE
OAK LN
PINE LN
ELM LN
EAU PLEINE
Stratford
WEBERTOWN AVE
Little Eau Pleine
Carlson Cr.
Noisy Cr.
Rib River
KEYSTONE AVE
MAC ARTHUR ST
ROSE LN
GALVIN AVE
STAADT AVE
DRAKE AVE
CONNER AVE
CENTURY RD
BALSAM ST
FAIR HAVEN RD

13
153
97

BEGIN PROJECT
STA 10+69.62

END PROJECT
STA 587+03.24

CULVERT 37153002859
CULVERTS 37153002865 / 37153002866
CULVERT 37153002862
CULVERT 37153002869
CULVERT 37153002872
CULVERT 37153002874
CULVERT 37153002876
CULVERT 37153002878
CULVERT 37153002883
CULVERT 37153002884
CULVERTS 37153002879 / 37153002880

HWY 153
ROAD CLOSED
BEGINS XXX-XX
G20-57C
72"X36"

FOLLOW DETOUR
USE ONLY ONCE WHEN ROAD IS CLOSED

INSTALL 7 DAYS PRIOR TO START OF CONSTRUCTION.

HWY 153
ROAD CLOSED
BEGINS XXX-XX
G20-57C
72"X36"

FOLLOW DETOUR
USE ONLY ONCE WHEN ROAD IS CLOSED

INSTALL 7 DAYS PRIOR TO START OF CONSTRUCTION.

LEGEND

- WORK AREA
- TYPE III BARRICADE WITH SIGN AND TYPE "A" WARNING LIGHTS
- XX — NOTE LETTER
- POST MOUNTED SIGN

NOTES:

A — USE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B AND E.

B — USE SDD " BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A AND E.

C — USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4.

D — USE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAILS B AND D.

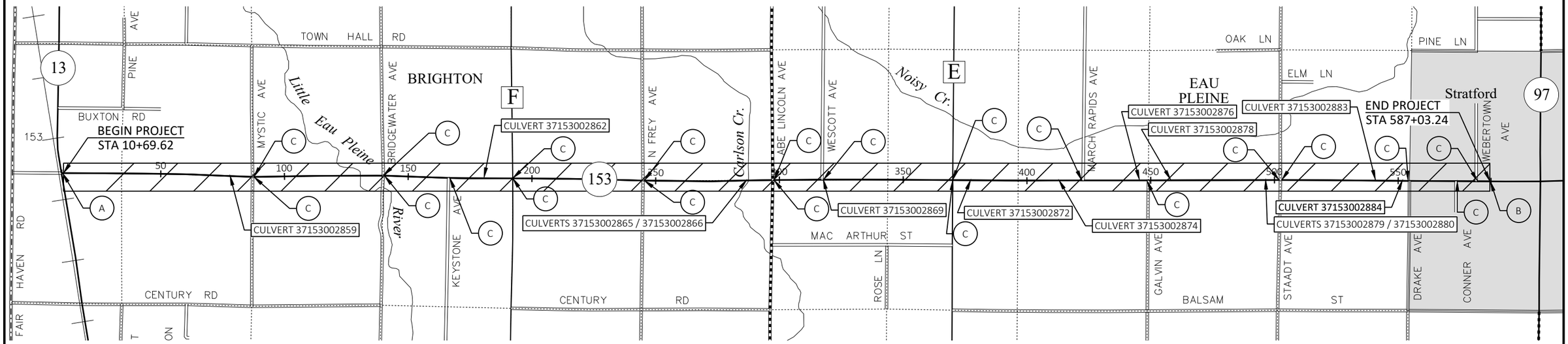
PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	TRAFFIC CONTROL - CULVERT WORK	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-025100-TC.DWG
LAYOUT NAME - 63700177-025100-tc

PLOT DATE : 8/29/2022 12:18 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:4000 FT

2

N



LEGEND

- WORK AREA
- TYPE III BARRICADE WITH SIGN AND TYPE "A" WARNING LIGHTS
- XX — NOTE LETTER
- POST MOUNTED SIGN

NOTES:

A. USE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC."

B. USE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC."

C. USE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 3.

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	TRAFFIC CONTROL - ROAD OPEN TO TRAFFIC	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-025101-TC.DWG
LAYOUT NAME - 63700177-025101-tc

PLOT DATE : 7/26/2022 4:00 PM PLOT BY : TYLER TAVES PLOT NAME : PLOT SCALE : 1 IN:4000 FT

1 EAST M3-2 24"X12"
8 153 M1-6 24"X24"
DETOUR AHEAD W20-3A 48"X48"

2 MODIFY FROM: EAST SOUTH 153 13
MODIFY TO: DETOUR M4-8 24"X12"; EAST SOUTH 153 13; MO6-1 24"X24"

3 MARSHFIELD / STRATFORD COVER

4 MODIFY FROM: EAST 153
MODIFY TO: DETOUR M4-8 24"X12"; EAST 153; MO6-1 24"X24"

5 45 11 47 41 49 43 51 — DETOUR M4-8 24"X12"; EAST M3-2 24"X12"; 153 M1-6 24"X24"

40 48 42 50 44 46 — DETOUR M4-8 24"X12"; EAST M3-2 24"X12"; 153 M1-6 24"X24"; MO6-1 24"X24"

6 — DETOUR M4-8 24"X12"; EAST M3-2 24"X12"; 153 M1-6 24"X24"; MO5-1L 24"X24"

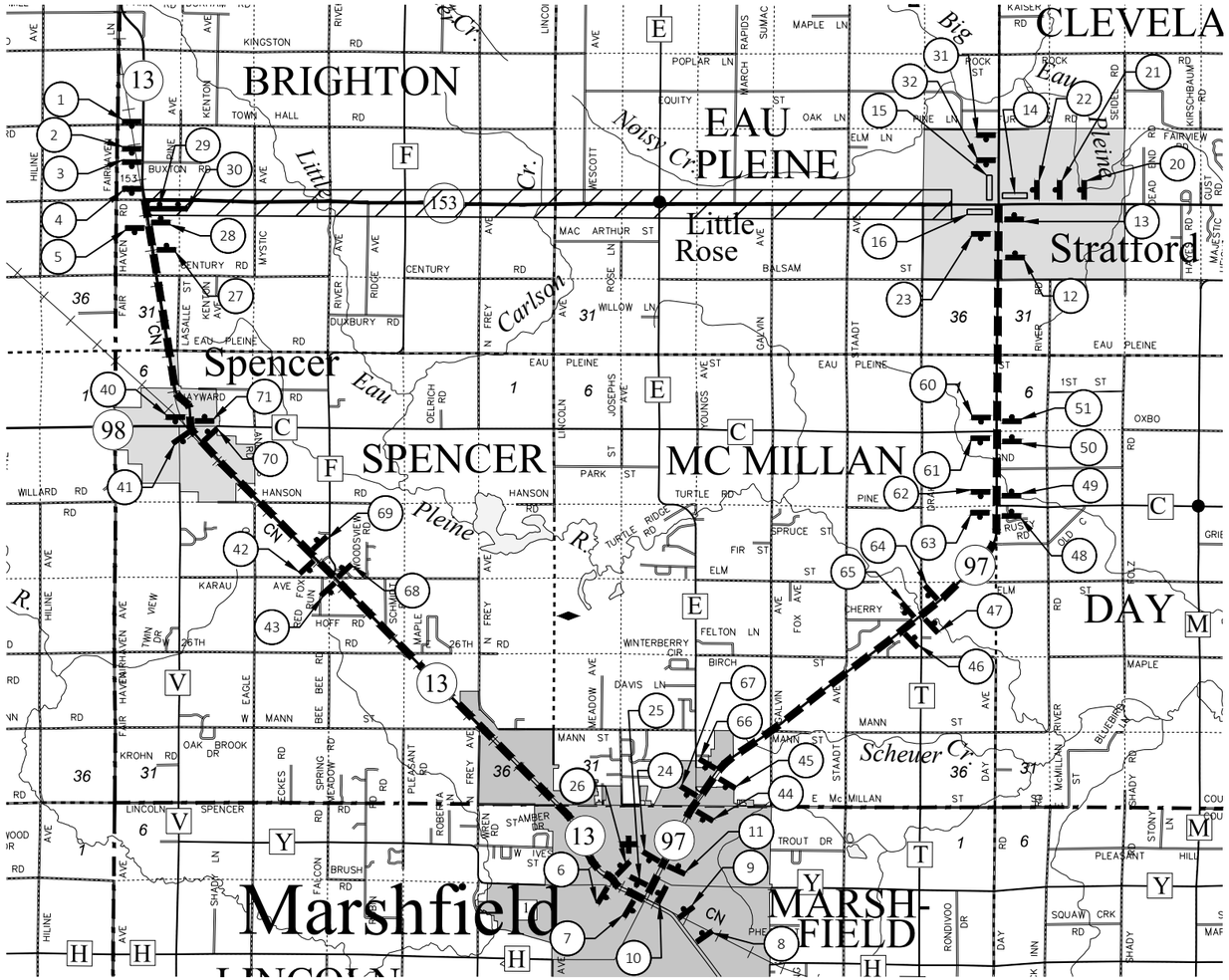
7 — DETOUR M4-8 24"X12"; EAST M3-2 24"X12"; 153 M1-6 24"X24"; MO6-1 24"X24"

9 — M4-8 24"X12"; DETOUR DETOUR; M3-4 24"X12"; WEST EAST; M1-6 24"X24"; 153 153; MO6-1 24"X24"; M4-8 24"X12"; M3-2 24"X12"; M1-6 24"X24"; MO5-1R 24"X24"

10 — M4-8 24"X12"; DETOUR DETOUR; M3-4 24"X12"; WEST EAST; M1-6 24"X24"; 153 153; MO6-1 24"X24"; M4-8 24"X12"; M3-2 24"X12"; M1-6 24"X24"; MO6-1 24"X24"

31 WEST M3-4 24"X12"; 153 M1-6 24"X24"; DETOUR AHEAD W20-3A 48"X48"

32 MODIFY FROM: EAST WEST 153 153
MODIFY TO: DETOUR M4-8 24"X12"; EAST WEST 153 153; MO6-1 24"X24"



N

20 DETOUR AHEAD W20-3A 48"X48"

21 DETOUR M4-8 24"X12"; WEST M3-4 24"X12"; 153 M1-6 24"X24"; MO5-1L 24"X24"

22 DETOUR M4-8 24"X12"; WEST M3-4 24"X12"; 153 M1-6 24"X24"; MO6-1 24"X24"

23 65 26 67 61 69 63 71 — DETOUR M4-8 24"X12"; WEST M3-4 24"X12"; 153 M1-6 24"X24"

24 — DETOUR M4-8 24"X12"; WEST M3-4 24"X12"; 153 M1-6 24"X24"; MO5-1R 24"X24"

25 — DETOUR M4-8 24"X12"; WEST M3-4 24"X12"; 153 M1-6 24"X24"; MO6-1 24"X24"

27 NORTH EAST 13 153 COVER

28 ABBOTSFORD / STRATFORD COVER

29 EAST 153 COVER

30 END DETOUR M4-8A 24"X18"; WEST M3-4 24"X12"; 153 M1-6 24"X24"

15 MODIFY FROM: 97 WEST 153
MODIFY TO: 97 WEST 153; MO6-1 24"X24"; DETOUR M4-8 24"X12"

12 WEST EAST 153 153 COVER

13 END DETOUR M4-8A 24"X18"; EAST M3-2 24"X12"; 153 M1-6 24"X24"

14 WEST EAST 153 153 COVER

16 MODIFY FROM: EAST WEST 153 153
MODIFY TO: DETOUR M4-8 24"X12"; EAST WEST 153 153; MO6-1 24"X24"

60 66 62 68 64 70 — DETOUR M4-8 24"X12"; WEST M3-4 24"X12"; 153 M1-6 24"X24"; MO6-1 24"X24"

LEGEND

- DETOUR ROUTE
- SIGN MOUNTED ON TYPE III BARRICADE WITH TYPE A" WARNING LIGHTS
- POST MOUNTED SIGN
- EXISTING SIGN ON UTILITY POLE
- WORK AREA
- XX SIGN NUMBER

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	DETOUR PLAN	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-027001-DT.DWG
LAYOUT NAME - 63700177-027001-dt
PLOT DATE : 7/27/2022 11:18 AM
PLOT BY : TYLER TAVES
PLOT NAME :
PLOT SCALE : 1 IN:2 MI

6370-01-77

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	9.000	9.000
0004	203.0220	Removing Structure (structure) 01. STA 412+91	EACH	1.000	1.000
0006	203.0220	Removing Structure (structure) 02. STA 286+80	EACH	2.000	2.000
0008	203.0220	Removing Structure (structure) 03. STA 496+50	EACH	2.000	2.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	295.000	295.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	185,785.000	185,785.000
0014	204.0165	Removing Guardrail	LF	542.000	542.000
0016	205.0100	Excavation Common	CY	4,140.000	4,140.000
0018	208.0100	Borrow	CY	1,025.000	1,025.000
0020	209.2500	Backfill Granular Grade 2	TON	1,650.000	1,650.000
0022	210.2500	Backfill Structure Type B	TON	254.000	254.000
0024	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6370-01-77	EACH	1.000	1.000
0026	213.0100	Finishing Roadway (project) 01. 6370-01-77	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,295.000	6,295.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,090.000	3,090.000
0032	416.1010	Concrete Surface Drains	CY	6.000	6.000
0034	455.0605	Tack Coat	GAL	22,330.000	22,330.000
0036	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0038	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0040	460.2005	Incentive Density PWL HMA Pavement	DOL	32,320.000	32,320.000
0042	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	28,770.000	28,770.000
0044	460.2010	Incentive Air Voids HMA Pavement	DOL	43,630.000	43,630.000
0046	460.6223	HMA Pavement 3 MT 58-28 S	TON	24,085.000	24,085.000
0048	460.6224	HMA Pavement 4 MT 58-28 S	TON	19,535.000	19,535.000
0050	465.0105	Asphaltic Surface	TON	1,360.000	1,360.000
0052	465.0110	Asphaltic Surface Patching	TON	260.000	260.000
0054	504.0900	Concrete Masonry Endwalls	CY	46.000	46.000
0056	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0058	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	42.000	42.000
0060	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	90.000	90.000
0062	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	128.000	128.000
0064	522.0436	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	86.000	86.000
0066	522.0454	Culvert Pipe Reinforced Concrete Class IV 54-Inch	LF	40.000	40.000
0068	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0070	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	6.000	6.000
0072	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	4.000	4.000
0074	522.1054	Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	EACH	2.000	2.000
0076	522.2358	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 58x91-Inch	LF	46.000	46.000
0078	522.2658	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 58x91-Inch	EACH	2.000	2.000
0080	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	80.000	80.000
0082	606.0200	Riprap Medium	CY	7.000	7.000
0084	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	20.000	20.000
0086	614.2300	MGS Guardrail 3	LF	300.000	300.000
0088	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0090	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0092	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6730-01-77	EACH	1.000	1.000
0094	619.1000	Mobilization	EACH	1.000	1.000
0096	621.0100	Landmark Reference Monuments	EACH	88.000	88.000
0098	624.0100	Water	MGAL	94.000	94.000

Line	Item	Item Description	Unit	Total	Qty
0100	625.0100	Topsoil	SY	5,580.000	5,580.000
0102	628.1504	Silt Fence	LF	1,690.000	1,690.000
0104	628.1520	Silt Fence Maintenance	LF	1,690.000	1,690.000
0106	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0108	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0110	628.2008	Erosion Mat Urban Class I Type B	SY	5,580.000	5,580.000
0112	628.7555	Culvert Pipe Checks	EACH	80.000	80.000
0114	629.0210	Fertilizer Type B	CWT	3.500	3.500
0116	630.0130	Seeding Mixture No. 30	LB	101.000	101.000
0118	630.0500	Seed Water	MGAL	125.000	125.000
0120	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000
0122	637.2210	Signs Type II Reflective H	SF	10.000	10.000
0124	637.2230	Signs Type II Reflective F	SF	76.070	76.070
0126	638.2102	Moving Signs Type II	EACH	8.000	8.000
0128	642.5201	Field Office Type C	EACH	1.000	1.000
0130	643.0300	Traffic Control Drums	DAY	2,108.000	2,108.000
0132	643.0420	Traffic Control Barricades Type III	DAY	1,940.000	1,940.000
0134	643.0705	Traffic Control Warning Lights Type A	DAY	3,881.000	3,881.000
0136	643.0715	Traffic Control Warning Lights Type C	DAY	462.000	462.000
0138	643.0800	Traffic Control Arrow Boards	DAY	92.000	92.000
0140	643.0900	Traffic Control Signs	DAY	17,975.000	17,975.000
0142	643.0920	Traffic Control Covering Signs Type II	EACH	6.000	6.000
0144	643.1000	Traffic Control Signs Fixed Message	SF	39.600	39.600
0146	643.3105	Temporary Marking Line Paint 4-Inch	LF	106,126.000	106,126.000
0148	643.5000	Traffic Control	EACH	1.000	1.000
0150	645.0105	Geotextile Type C	SY	80.000	80.000
0152	645.0120	Geotextile Type HR	SY	30.000	30.000
0154	646.1020	Marking Line Epoxy 4-Inch	LF	1,305.000	1,305.000
0156	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	157,699.000	157,699.000
0158	646.3020	Marking Line Epoxy 8-Inch	LF	615.000	615.000
0160	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	200.000	200.000
0162	646.5020	Marking Arrow Epoxy	EACH	8.000	8.000
0164	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0166	646.5320	Marking Railroad Crossings Epoxy	EACH	9.000	9.000
0168	646.6120	Marking Stop Line Epoxy 18-Inch	LF	95.000	95.000
0170	646.7120	Marking Diagonal Epoxy 12-Inch	LF	935.000	935.000
0172	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	175.000	175.000
0174	646.9000	Marking Removal Line 4-Inch	LF	1,305.000	1,305.000
0176	646.9200	Marking Removal Line Wide	LF	1,844.000	1,844.000
0178	646.9300	Marking Removal Special Marking	EACH	27.000	27.000
0180	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	80.000	80.000
0182	650.6000	Construction Staking Pipe Culverts	EACH	10.000	10.000
0184	650.6501	Construction Staking Structure Layout (structure) 01. 37153002865	EACH	1.000	1.000
0186	650.6501	Construction Staking Structure Layout (structure) 02. 37153002879	EACH	1.000	1.000
0188	650.8000	Construction Staking Resurfacing Reference	LF	57,498.000	57,498.000
0190	650.9911	Construction Staking Supplemental Control (project) 01. 6370-01-77	EACH	1.000	1.000
0192	650.9920	Construction Staking Slope Stakes	LF	685.000	685.000
0194	690.0150	Sawing Asphalt	LF	804.000	804.000
0196	740.0440	Incentive IRI Ride	DOL	43,558.000	43,558.000

6370-01-77

Line	Item	Item Description	Unit	Total	Qty
0198	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. Station 286+80	EACH	1.000	1.000
0200	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. Station 496+50	EACH	1.000	1.000
0202	SPV.0060	Special 01. Reestablish Section Corner Monuments	EACH	22.000	22.000
0204	SPV.0090	Special 01. Marking Stop Line Epoxy 24-Inch Special	LF	24.000	24.000

3

REMOVING SMALL PIPE CULVERTS

STATION	DIR	ROADWAY	203.0100 EA	COMMENTS
PROJECT 6370-01-77				
CATEGORY 0010				
77+96	R/L	STH 153	1	48" RCP
132+90	LT	STH 153	1	24" CMP
180+64	R/L	STH 153	1	30" RCP
317+69	R/L	STH 153	1	30" RCP
377+28	R/L	STH 153	1	30" RCP
445+45	R/L	STH 153	1	24" RCP
458+08	R/L	STH 153	1	24" RCP
540+82	R/L	STH 153	1	24" RCP
551+75	R/L	STH 153	1	36" CMP

PROJECT TOTALS 9

REMOVING ASPHALTIC SURFACE

STATION	TO	STATION	ROADWAY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	COMMENTS
PROJECT 6370-01-77						
CATEGORY 0010						
10+70	-	36+00	STH 153	45	7,895	
36+00	-	66+00	STH 153	---	9,335	
66+00	-	96+00	STH 153	---	9,700	
96+00	-	126+00	STH 153	---	9,335	
126+00	-	156+00	STH 153	---	9,725	
156+00	-	186+00	STH 153	---	9,560	
186+00	-	216+00	STH 153	50	9,700	
216+00	-	246+00	STH 153	---	9,720	
246+00	-	276+00	STH 153	---	9,335	
276+00	-	306+00	STH 153	---	9,790	
306+00	-	336+00	STH 153	---	9,560	
336+00	-	366+00	STH 153	---	9,335	
366+00	-	396+00	STH 153	65	9,655	
396+00	-	426+00	STH 153	---	9,605	
426+00	-	456+00	STH 153	---	9,585	
456+00	-	486+00	STH 153	---	9,335	
486+00	-	516+00	STH 153	---	9,830	
516+00	-	546+00	STH 153	---	9,335	
546+00	-	576+00	STH 153	85	11,370	
576+00	-	587+03	STH 153	50	4,080	

PROJECT TOTALS 295 185,785

REMOVING STRUCTURE

STATION	DIR	ROADWAY	203.0220.01 STA 412+91 EA	COMMENTS
PROJECT 6370-01-77				
CATEGORY 0010				
412+91	R/L	STH 153	1	77"X52" CMP

PROJECT TOTALS 1

REMOVING GUARDRAIL

STATION	TO	STATION	DIR	ROADWAY	204.0165 LF
PROJECT 6370-01-77					
CATEGORY 0010					
128+12	-	129+42	RT	STH 153	130
128+09	-	129+42	LT	STH 153	133
130+78	-	132+24	RT	STH 153	146
130+78	-	132+11	LT	STH 153	133

PROJECT TOTALS 542

3

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	CULVERT NUMBER	205.0100 COMMON EXCAVATION CY CUT (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL (2) CY	UNEXPANDED FILL CY	EXPANDED FILL CY FACTOR 1.25	MASS ORDINATE +/- (3) CY	WASTE CY	208.0100 BORROW CY	COMMENT
PROJECT 6370-01-77												
CATEGORY 0010												
BEAM GUARD REPLACEMENT	126+02 / 134+18	STH 153	---	130	0	130	924	1,155	-1,025	-1,025	1,025	
CULVERT REPLACEMENTS	77+43 / 78+50	STH 153	7153002859	480	---	---	---	---	---	---	---	TRANSITON CUT AND ASPHALTIC PAVEMENT REMOVAL
	180+12 / 181+17	STH 153	7153002862	460	---	---	---	---	---	---	---	
	317+17 / 318+22	STH 153	7153002869	340	---	---	---	---	---	---	---	
	376+76 / 377+81	STH 153	7153002872	470	---	---	---	---	---	---	---	
	412+35 / 413+45	STH 153	7153002874	520	---	---	---	---	---	---	---	
	444+93 / 445+97	STH 153	7153002876	370	---	---	---	---	---	---	---	
	457+56 / 458+61	STH 153	7153002878	410	---	---	---	---	---	---	---	
	540+30 / 541+34	STH 153	7153002883	450	---	---	---	---	---	---	---	
	551+23 / 552+28	STH 153	7153002884	510	---	---	---	---	---	---	---	
	PROJECT TOTALS			4,140							1,025	

NOTES:

(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(2) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(3) 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.

3

BACKFILL GRANULAR GRADE 2

STATION	TO	STATION	ROADWAY	CULVERT	209.2500 TON	COMMENTS
PROJECT 6370-01-77						
CATEGORY 0010						
77+43	-	78+50	STH 153	7153002859	---	FOR TRANSITION CUT / TRENCH BACKFILL IF EXISTING MATERIAL IS UNSUITABLE. FOUNDATION BACKFILL INCIDENTAL TO PIPE ITEM.
180+12	-	181+17	STH 153	7153002862	250	
317+17	-	318+22	STH 153	7153002869	---	
376+76	-	377+81	STH 153	7153002872	300	
412+35	-	413+45	STH 153	7153002874	200	
444+93	-	445+97	STH 153	7153002876	---	
457+56	-	458+60	STH 153	7153002878	260	
540+30	-	541+34	STH 153	7153002883	290	
551+23	-	552+28	STH 153	7153002884	350	

PROJECT TOTALS 1,650

PREPARE FOUNDATION FOR ASPHALTIC PAVING

STATION	TO	STATION	ROADWAY	211.0101 EA	COMMENT
PROJECT 6370-01-77					
CATEGORY 0010					
UNDISTRUBUTED			STH 153	1	

PROJECT TOTAL 1

BASE AGGREGATE DENSE

STATION	TO	STATION	ROADWAY	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL	COMMENTS
PROJECT 6370-01-77							
CATEGORY 0010							
10+70	-	36+00	STH 153	260	---	---	SHOULDER
36+00	-	66+00	STH 153	310	---	---	SHOULDER
66+00	-	96+00	STH 153	315	---	---	SHOULDER
96+00	-	126+00	STH 153	310	---	---	SHOULDER
126+00	-	156+00	STH 153	425	---	---	SHOULDER AND FE 132+90 RT
156+00	-	186+00	STH 153	315	---	---	SHOULDER
186+00	-	216+00	STH 153	315	---	---	SHOULDER
216+00	-	246+00	STH 153	315	---	---	SHOULDER
246+00	-	276+00	STH 153	310	---	---	SHOULDER
276+00	-	306+00	STH 153	315	---	---	SHOULDER
306+00	-	336+00	STH 153	315	---	---	SHOULDER
336+00	-	366+00	STH 153	310	---	---	SHOULDER
366+00	-	396+00	STH 153	315	---	---	SHOULDER
396+00	-	426+00	STH 153	315	---	---	SHOULDER
426+00	-	456+00	STH 153	315	---	---	SHOULDER
456+00	-	486+00	STH 153	310	---	---	SHOULDER
486+00	-	516+00	STH 153	315	---	---	SHOULDER
516+00	-	546+00	STH 153	310	---	---	SHOULDER
546+00	-	576+00	STH 153	300	---	---	SHOULDER
576+00	-	587+03	STH 153	115	---	---	SHOULDER
77+43	-	78+50	STH 153	20	350	---	CULVERT 7153002859 REPLACEMENT
180+12	-	181+17	STH 153	20	340	---	CULVERT 7153002862 REPLACEMENT
317+17	-	318+22	STH 153	20	340	---	CULVERT 7153002869 REPLACEMENT
376+76	-	377+81	STH 153	20	340	---	CULVERT 7153002872 REPLACEMENT
412+35	-	413+45	STH 153	25	360	---	CULVERT 7153002874 REPLACEMENT
444+93	-	445+97	STH 153	20	340	---	CULVERT 7153002876 REPLACEMENT
457+56	-	458+61	STH 153	20	340	---	CULVERT 7153002878 REPLACEMENT
540+30	-	541+34	STH 153	20	340	---	CULVERT 7153002883 REPLACEMENT
551+23	-	552+28	STH 153	20	340	---	CULVERT 7153002884 REPLACEMENT
UNDISTRIBUTED			STH 153	---	---	94	

PROJECT TOTALS 6,295 3,090 94

3

ASPHALTIC ITEMS

STATION TO STATION			ROADWAY	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	COMMENTS
PROJECT 6370-01-77								
CATEGORY 0010								
10+70	-	36+00	STH 153	950	1,030	835	---	OVERLAY
36+00	-	66+00	STH 153	1,120	1,210	980	---	OVERLAY
66+00	-	96+00	STH 153	1,160	1,255	1,020	---	OVERLAY
96+00	-	126+00	STH 153	1,120	1,210	980	---	OVERLAY
126+00	-	156+00	STH 153	1,170	1,260	1,025	---	OVERLAY
156+00	-	186+00	STH 153	1,150	1,235	1,005	---	OVERLAY
186+00	-	216+00	STH 153	1,170	1,260	1,025	---	OVERLAY
216+00	-	246+00	STH 153	1,170	1,255	1,020	---	OVERLAY
246+00	-	276+00	STH 153	1,120	1,210	980	---	OVERLAY
276+00	-	306+00	STH 153	1,170	1,265	1,030	---	OVERLAY
306+00	-	336+00	STH 153	1,150	1,235	1,005	---	OVERLAY
336+00	-	366+00	STH 153	1,120	1,210	980	---	OVERLAY
366+00	-	396+00	STH 153	1,170	1,260	1,020	---	OVERLAY
396+00	-	426+00	STH 153	1,150	1,245	1,010	---	OVERLAY
426+00	-	456+00	STH 153	1,150	1,240	1,005	---	OVERLAY
456+00	-	486+00	STH 153	1,120	1,210	980	---	OVERLAY
486+00	-	516+00	STH 153	1,180	1,270	1,030	---	OVERLAY
516+00	-	546+00	STH 153	1,120	1,210	980	---	OVERLAY
546+00	-	576+00	STH 153	1,370	1,480	1,195	---	OVERLAY
576+00	-	587+03	STH 153	500	535	430	---	OVERLAY
77+43	-	78+50	STH 153	0	---	---	155	CULVERT 7153002859 REPLACEMENT
180+12	-	181+17	STH 153	0	---	---	150	CULVERT 7153002862 REPLACEMENT
317+17	-	318+22	STH 153	0	---	---	150	CULVERT 7153002869 REPLACEMENT
376+76	-	377+81	STH 153	0	---	---	150	CULVERT 7153002872 REPLACEMENT
412+35	-	413+45	STH 153	0	---	---	155	CULVERT 7153002874 REPLACEMENT
444+93	-	445+97	STH 153	0	---	---	150	CULVERT 7153002876 REPLACEMENT
457+56	-	458+60	STH 153	0	---	---	150	CULVERT 7153002878 REPLACEMENT
540+30	-	541+34	STH 153	0	---	---	150	CULVERT 7153002883 REPLACEMENT
551+23	-	552+28	STH 153	0	---	---	150	CULVERT 7153002884 REPLACEMENT
			PROJECT TOTALS	22,330	24,085	19,535	1,360	

HMA MIXTURE ACCEPTANCE

STATION TO STATION			ROADWAY	LOCATION	UNDERLAYING SURFACE	MIXTURE USE	BID ITEM	LAYER DEPTH (IN)	TONNAGE	QMP TO BE USED FOR: MIXTURE ACCEPTANCE	QMP TO BE USED FOR: DENSITY ACCEPTANCE
PROJECT 6370-01-77											
CATEGORY 0010											
10+70	-	587+03	STH 153	DRIVING LANE	3 MT 58-28 S	UPPER	4 MT 58-28 S	1.75	14,140	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
				SHLDS / SIDE ROADS	3 MT 58-28 S	UPPER	4 MT 58-28 S	1.75	5,395		ACCEPTENCE TESTING BY DEPARTMENT NOT ELIGIBLE FOR INCENTIVE
				DRIVING LANE	MILLED HMA	LOWER	3 MT 58-28 S	2.25	18,180		INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
				SHLDS / SIDE ROADS	MILLED HMA	LOWER	3 MT 58-28 S	2.25	5,905		ACCEPTENCE TESTING BY DEPARTMENT NOT ELIGIBLE FOR INCENTIVE
VARIOUS			STH 153	CULVERT REPLACEMENTS	BASE AGG	UPPER/LOWER	ASPH SURF	8.00	1,360	AS PER SS 460	ACCEPTANCE BY ORDINARY COMPACTION

ASPHALTIC SURFACE PATCHING

STATION	TO	STATION	ROADWAY	465.0110 TON	COMMENT
PROJECT 6370-01-77					
CATEGORY 0010					
UNDISTRUBUTED			STH 153	60	TEMP RAMPING
UNDISTRUBUTED			STH 153	200	MINOR REPAIRS
PROJECT TOTAL				260	

CULVERT ENDWALL REPAIRS

STATION	ROADWAY	203.0220 REMOVING STRUCTURE 02. STA 286+80 EA	203.0220 REMOVING STRUCTURE 03. STA 496+50 EA	210.2500 BACKFILL STRUCTURE TYPE B TON	504.0900 CONCRETE MASONRY ENDWALLS CY	645.0105 GEOTEXTILE TYPE C SY
PROJECT 6370-01-77						
CATEGORY 0010						
286+80	STH 153	2	---	127	23	40
496+50	STH 153	---	2	127	23	40
PROJECT TOTALS		2	2	254	46	80

CULVERT ITEMS

CULVERT NO	STATION	DIR	ROADWAY	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EA	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	MINIMUM WALL THICKNESS IN	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.0454 CULVERT PIPE REINFORCED CONCRETE CLASS IV 54-INCH LF	522.2358 CULVERT PIPE REINFORCED CONCRETE CLASS HE-III 58X91-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EA	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EA	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EA	522.1054 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH EA	522.2658 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 58X91-INCH EA	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
PROJECT 6370-01-77																		
CATEGORY 0010																		
7153002859	77+96	R/L	STH 153	---	---	---	---	---	---	40	---	---	---	---	2	---	---	---
---	132+90	LT	STH 153	2	42	0.064	---	---	---	---	---	---	---	---	---	---	---	---
7153002862	180+64	R/L	STH 153	---	---	---	---	---	44	---	---	---	---	2	---	---	---	---
7153002869	317+69	R/L	STH 153	---	---	---	---	38	---	---	---	---	---	---	---	---	2	8
7153002872	377+28	R/L	STH 153	---	---	---	---	46	---	---	---	---	---	---	---	---	1	5
7153002874	412+91	R/L	STH 153	---	---	---	---	---	---	---	46	---	---	---	---	2	---	---
7153002876	445+45	R/L	STH 153	---	---	---	42	---	---	---	---	2	---	---	---	---	1	5
7153002878	458+08	R/L	STH 153	---	---	---	---	44	---	---	---	---	2	---	---	---	1	5
7153002883	540+82	R/L	STH 153	---	---	---	48	---	---	---	---	2	---	---	---	---	1	3
7153002884	551+75	R/L	STH 153	---	---	---	---	---	42	---	---	---	---	2	---	---	1	4
			PROJECT TOTALS	2	42		90	128	86	40	46	4	6	4	2	2	7	30

CONCRETE CURB AND GUTTER / SURFACE DRAINS

STATION		TO STATION	DIR	ROADWAY	416.1010 CONCRETE SURFACE DRAINS CY	601.0588 4-INCH SLOPED 36-INCH TYPE TBT LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
PROJECT 6370-01-77							
CATEGORY 0010							
129+02	-	129+42	LT	STH 153	3	40	40
129+02	-	129+42	RT	STH 153	3	40	40
			PROJECT TOTALS		6	80	80

PIPE UNDERDRAIN

STATION	DIR	ROADWAY	612.0206 UNPERFORATED 6-INCH LF	COMMENTS
PROJECT 6370-01-77				
CATEGORY 0010				
129+30	LT	STH 153	20	TO BE USED IF EXISTING OUTFALL IS IMPACTED BY PROPOSED GRADING
PROJECT TOTAL			20	

GUARDRAIL

STATION		TO STATION	DIR	ROADWAY	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EA	COMMENT
PROJECT 6370-01-77								
CATEGORY 0010								
128+02	-	129+44	LT	STH 153	50	39.4	1	B-37-330
127+52	-	129+44	RT	STH 153	100	39.4	1	
130+76	-	132+68	LT	STH 153	100	39.4	1	
130+76	-	132+18	RT	STH 153	50	39.4	1	
				PROJECT TOTALS	300	157.6	4	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0618 POSTS WOOD 4x6x18 EACH	638.2102* MOVING SIGNS TYPE II EACH	REMARKS
PROJECT 6370-01-27								
CATEGORY 0010								
1	STH 13, S. OF STH 97	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
2	STH 13, N. OF STH 97	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
3	STH 97, N. OF STH 13	W10-1	---	---	---	---	1	MOVE ASSEBLY TO RR CROSSING MARKINGS
4	"	J3-2	---	---	---	---	1	MOVE ASSEMBLY
4A	"	R15-3P	24" X 12"	2.00	---			PLACE UNDER MEDIAN CROSSBUCKS
4B	"	R15-3P	24" X 12"	2.00	---			PLACE UNDER MEDIAN CROSSBUCKS
5	STH 13, N. OF CHESTNUT AVE	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
6	STH 13, S. OF CHESTNUT AVE	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
7	CHESTNUT AVE, F. OF STH 13	W10-1	---	---	---	---	1	MOVE ASSEBLY TO SDD15C09-12A STANDARD DISTANCE FROM CROSSING
8	STH 13, N. OF SPENCER ST	W10-2	36" X 36"	---	9.00	---	---	
9	"	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW SIGN 8
10	STH 13, S. OF SPENCER ST	W10-2	36" X 36"	---	9.00	---	---	MOUNT IN MEDIAN
11	"	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW SIGN 10
12	STH 13, N. OF MANN ST	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
13	STH 13, S. OF MANN ST	W10-9P	24" X 18"	---	3.00	---	1	MOUNT BELOW EXISTING 10-2, MOVE ASSEMBLY TO MEDIAN
14	"	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
15	"	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
15A	MANN ST	R15-3P	24" X 12"	2.00	---	---	---	PLACE UNDER MEDIAN CROSSBUCKS
15B	"	R15-3P	24" X 12"	2.00	---	---	---	PLACE UNDER CROSSBUCKS
15C	"	R15-3P	24" X 12"	2.00	---	---	---	PLACE UNDER CROSSBUCKS
15D	"	W10-1	36" X 36"	---	7.07	---	---	
15E	"	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW SIGN 15D
16	STH 13, S. 26TH RD	W10-9P	24" X 18"	---	3.00	1	1	MOUNT BELOW EXISTING 10-2, MOVE ASSEMBLY TO MEDIAN
17	STH 13, N. OF 26TH RD	W10-9P	24" X 18"	---	3.00	1	1	MOUNT BELOW EXISTING 10-2, PLACE 200' SOUTH OF EXISTING LOCATION
18	STH 13, S. CTH F	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2, MOVE ASSEMBLY TO MEDIAN
19	STH 13, N. CTH F	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2, PLACE 200' SOUTH OF EXISTING LOCATION
20	STH 13, S. WILLOW DR	W10-9P	24" X 18"	---	3.00	---	1	MOUNT BELOW EXISTING 10-2, MOVE TO MEDIAN, MOVE ASSEMBLY NORTH 350'
21	STH 13, N. WILLOW DR	W10-9P	24" X 18"	---	3.00	---	---	MOUNT BELOW EXISTING 10-2
	TOTALS			10.00	76.07	2	7*	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MOVING SIGNS

STA	638.2102* MOVING SIGNS TYPE II EACH
PROJECT 6370-01-77	
CATEGORY 0010	
317+60, LT	1
PROJECT TOTAL	1*

TRAFFIC CONTROL

STAGE	LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE SF	NOTES
CATEGORY 0010																
NO DETOUR	STH 153 AT STH 13	115		--		--		--		--			5	575	--	
	STH 153 AT STH 97	115		--		--		--		--			4	460	--	
	SIDEROADS	115		--		--		--		--			20	2,300	--	
	STH 153 (GROOVED PAVEMENT)	115		--		--		--		--			28	3,220	--	
	STH 153 (UNEVEN LANES)	115		--		--		--		--			22	2,530	--	
	NO DETOUR SUBTOTALS			0		0		0		0		0		9,085	0	
DETOUR	CENTRAL AVE	28	19	532	1	28	2	56	5	140	1	28	7	196		REQUIRED FOR INSTALLTION OF RAILROAD CROSSING MARKINGS ALONG DETOUR ROUTE
	CHESTNUT AVE	28	19	532	1	28	2	56	5	140	1	28	7	196		
	MANN RD	28	19	532	1	28	2	56	5	140	1	28	7	196		
	STH 153 AT STH 13	28		--	2	56	4	112		--		--	17	476	18.00	NOTE 1
	STH 13	28		--		--		--		--		--	28	784		
	STH 13 AT STH 97	28		--		--		--		--		--	40	1,120	18.00	
	STH 97	28		--		--		--		--		--	56	1,568		
	STH 153 AT STH 97	28		--	4	112	8	224		--		--	27	756	--	NOTE 1
	SIDEROADS	28		--	40	1,120	80	2,240		--		--	60	1,680	--	
	STH 153 AT CULVERT ENDWALL REPLACEMENT	28		--	14	392	28	784		--		--	8	224	--	
	DETOUR SUBTOTALS			1,596		1,764		3,528		420		84		7,196	36	
SHOULDER CLOSURE	BEAM GUARD REPLACEMENT B-37-330	10	32	320		---		---					6	60	---	
	SHOULDER CLOSURE TOTALS			320		0		0		0		0		60	0	
	SUBTOTALS			1,916		1,764		3,528		420		84		16,341	36	
	UNDISTRIBUTED			192		176		353		42		8		1,634	3.60	
	PROJECT TOTALS			2,108		1,940		3,881		462		92		17,975	39.60	

NOTES: 1. INSTALL G20-57C A MINIMUM OF 7 DAYS PRIOR TO START OF CONSTRUCTION. REMOVE WHEN CONSTRUCTION STARTS.

COVERING SIGNS

STAGE	LOCATION	DESCRIPTION	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	NUMBER OF CYCLES	NUMBER OF SIGNS
CATEGORY 0010					
DETOUR	STH 13 AT STH 153	STRATFORD LEFT ARROW	1	1	1
		EAST 153 ADVANCE RIGHT ARROW	1	1	1
		STRATFORD RIGHT ARROW	1	1	1
		EAST 153 RIGHT ARROW	1	1	1
	STH 97 AT STH 153	WEST 153 ADVANCE LEFT ARROW	1	1	1
		WEST 153 LEFT ARROW	1	1	1

TOTALS 6

3

PAVEMENT MARKING

STATION TO STATION			LOCATION	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE) LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH (YELLOW) LF	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE) LF	646.5020* MARKING ARROW EPOXY (TYPE 2) (WHITE) EACH	646.5120* MARKING WORD EPOXY (WHITE) EACH	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF
CATEGORY 0010									
10+70	-	36+00	STH 153	5,060	1,098	---	---	---	2,002
36+00	-	66+00	STH 153	6,000	750	---	---	---	720
66+00	-	96+00	STH 153	5,860	1,450	---	---	---	2,820
96+00	-	126+00	STH 153	6,000	1,745	---	---	---	3,705
126+00	-	156+00	STH 153	5,548	1,381	---	---	---	2,682
156+00	-	186+00	STH 153	5,920	3,878	---	---	---	10,577
186+00	-	216+00	STH 153	5,845	1,970	---	---	---	4,380
216+00	-	246+00	STH 153	5,855	2,340	---	---	---	5,490
246+00	-	276+00	STH 153	6,000	2,615	---	---	---	6,315
276+00	-	306+00	STH 153	5,860	750	---	---	---	720
306+00	-	336+00	STH 153	5,915	1,910	---	---	---	4,200
336+00	-	366+00	STH 153	6,000	2,465	---	---	---	5,865
366+00	-	396+00	STH 153	5,860	4,004	---	---	---	10,943
396+00	-	426+00	STH 153	5,900	2,680	---	---	---	6,704
426+00	-	456+00	STH 153	5,920	1,980	---	---	---	4,410
456+00	-	486+00	STH 153	6,000	3,115	---	---	---	7,815
486+00	-	516+00	STH 153	5,845	2,055	---	---	---	4,635
516+00	-	546+00	STH 153	6,000	3,325	---	---	---	8,578
546+00	-	576+00	STH 153	5,625	3,065	200	2	1	7,665
576+00	-	587+03	STH 153	2,100	2,011	---	---	---	5,900
			SUBTOTALS	113,113	44,586				
			PROJECT TOTALS	157,699		200	2*	1*	106,126

NOTE: TEMPORARY PAVEMENT MARKING PAINT APPLIED TO MILLED SURFACE, LOWER LAYER, AND UPPER LAYER

*ADDITIONAL QTY SHOWN IN PAVEMENT MARKING DETOUR TABLE

PAVEMENT MARKING DETOUR

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF	646.5020* MARKING ARROW EPOXY (WHITE) EACH	646.5120* MARKING WORD EPOXY (WHITE) EACH	646.5320 MARKING RAILROAD CROSSING EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	SPV.0090.01 MARKING STOP LINE EPOXY 24-INCH SPECIAL LF
CATEGORY 0010													
CENTRAL AVE	260	---	315	1	1	4	22	490	135	260	974	14	12
CHESTNUT AVE	145	260	80	1	1	2	22	280	40	405	434	2	12
MANN RD	240	400	220	4	1	3	51	165	---	640	436	11	---
SUBTOTALS	645	660											
PROJECT TOTALS	1,305		615	6*	3*	9	95	935	175	1,305	1,844	27	24

*ADDITIONAL QTY SHOWN IN PAVEMENT MARKING TABLE

RESTORATION AND EROSION CONTROL

STATION TO STATION	DIR	ROADWAY	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILZATIONS EMERGENCY EROSION CONTROL EA	628.7555 CULVERT PIPE CHECKS EA	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE #30 LB	630.0500 SEED WATER MGAL
PROJECT 6370-01-77												
BEAM GUARD REPLACEMENT		STH 153	3,310	1,350	1,350	3,310	---	---	3	2.1	60	74
CULVERT REPLACEMENTS		STH 153	1,150	---	---	1,150	---	---	68	0.7	21	26
UNDISTRIBUTED		STH 153	1,120	340	340	1,120	1	2	9	0.7	20	25
		PROJECT TOTALS	5,580	1,690	1,690	5,580	1	2	80	3.5	101	125

CONSTRUCTION STAKING

STATION TO STATION			LOCATION	650.6000 PIPE CULVERTS EA	650.6501.01 STRUCTURE LAYOUT 37153002865 EA	650.6501.02 STRUCTURE LAYOUT 37153002879 EA	650.8000 RESURFACING REFERENCE LF	650.9911.01 SUPPLEMENTAL CONTROL 6370-01-77 EA	650.9920 SLOPE STAKES LF
PROJECT 6370-01-77									
CATEGORY 0010									
10+69	-	578+03	STH 153	10	---	---	57,498	1	---
126+01	-	129+44	STH 153	---	---	---	---		343
130+76	-	134+18	STH 153	---	---	---	---		342
286+75			STH 153	---	1	---	---	---	---
496+50			STH 153	---	---	1	---	---	---
			PROJECT TOTAL	10	1	1	57,498	1	685

NOTE: CURB AND GUTTER STAKING IN CURB AND GUTTER TABLE

SAWING

STATION	TO	STATION	DIR	ROADWAY	690.0150 ASPHALT LF	COMMENT
PROJECT 6370-01-77						
CATEGORY 0010						
77+43	-	77+43	R/L	STH 153	28	CULVERT 7153002859 REPLACEMENT
78+50	-	78+50	R/L	STH 153	28	
180+12	-	180+12	R/L	STH 153	28	CULVERT 7153002862 REPLACEMENT
181+17	-	181+17	R/L	STH 153	28	
317+17	-	317+17	R/L	STH 153	28	CULVERT 7153002869 REPLACEMENT
318+22	-	318+22	R/L	STH 153	28	
376+76	-	376+76	R/L	STH 153	28	CULVERT 7153002872 REPLACEMENT
377+81	-	377+81	R/L	STH 153	28	
412+35	-	412+35	R/L	STH 153	28	CULVERT 7153002874 REPLACEMENT
413+45	-	413+45	R/L	STH 153	28	
444+93	-	444+93	R/L	STH 153	28	CULVERT 7153002876 REPLACEMENT
445+97	-	445+97	R/L	STH 153	28	
457+55	-	457+55	R/L	STH 153	28	CULVERT 7153002878 REPLACEMENT
458+60	-	458+60	R/L	STH 153	28	
540+30	-	540+30	R/L	STH 153	28	CULVERT 7153002883 REPLACEMENT
541+34	-	541+34	R/L	STH 153	28	
551+23	-	551+23	R/L	STH 153	28	CULVERT 7153002884 REPLACEMENT
552+28	-	552+28	R/L	STH 153	28	
DRIVEWAYS				STH 153	300	
			PROJECT TOTAL		804	

3

SECTION CORNER MONUMENTS

STATION	CORNER	SECTION	TOWNSHIP	RANGE	621.0100 LANDMARK REFERENCE MONUMENTS EACH	SPV.0060.01 REESTABLISH SECTION CORNER MONUMENTS EACH	MONUMENT TYPE
PROJECT 6370-01-77							
CATEGORY 0010							
34+09	NW	29	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
60+79	N	29	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
87+08	NE	29	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
113+54	N	28	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
139+99	NE	28	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
166+21	N	27	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
192+27	NE	27	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
218+54	N	26	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
244+83	NE	26	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
271+17	N	25	27 NORTH	2 EAST	4	1	BERNTSEN STEEL NAIL MARKER
297+30	NW	30	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
317+23	N	30	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
343+63	NE	30	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
370+01	N	29	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
396+40	NE	29	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
422+65	N	28	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
448+99	NE	28	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
475+39	N	27	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
502+31	NE	27	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
528+33	N	26	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
554+57	NE	26	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
580+99	N	25	27 NORTH	3 EAST	4	1	BERNTSEN STEEL NAIL MARKER
			PROJECT TOTALS		88	22	

INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM

STATION	DIR	ROADWAY	999.2000.S.01 STATION 286+80 EA	999.2000.S.02 STATION 496+50 EA	COMMENT
PROJECT 6370-01-77					
CATEGORY 0010					
286+80	R/L	STH 153	1	---	
496+50	R/L	STH 153	---	1	
		PROJECT TOTALS	1	1	

R/W PROJECT NUMBER: 6370-01-27	EXHIBIT NUMBER:1

TLE ACQUISITION EXHIBIT
STH 13 - STRATFORD
STH 13 - STAINLESS AVENUE
STH 153 MARATHON COUNTY

PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 21, T27N R02E, TOWN OF BRIGHTON, MARATHON COUNTY, WISCONSIN

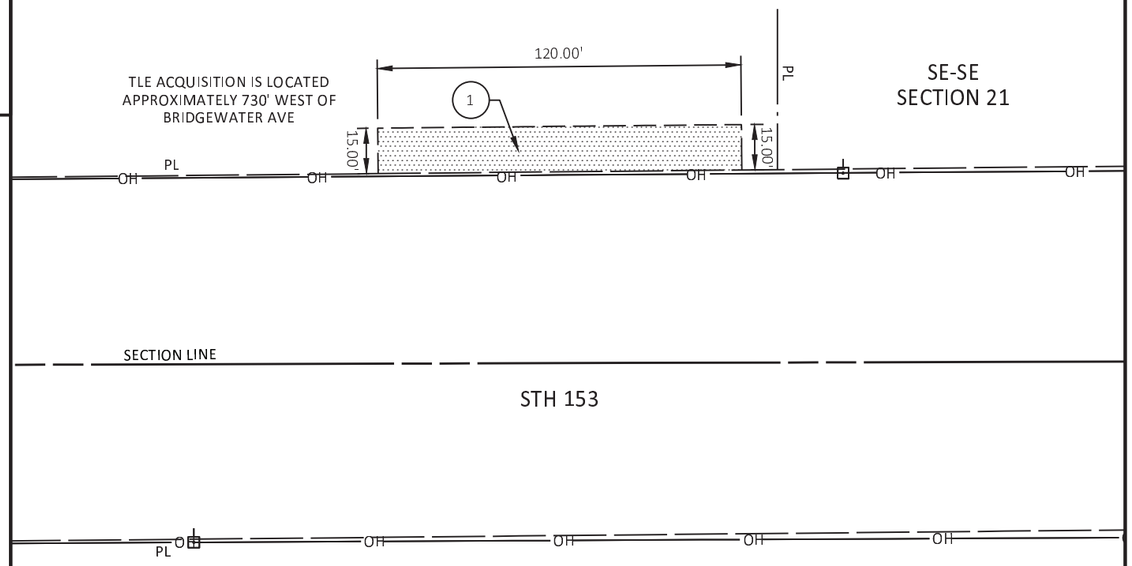
NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF TLE IS FOR DRIVEWAY GRADING.

4

TAX PARCEL NUMBER:
010-2702-214-0991

TLE ACQUISITION IS LOCATED APPROXIMATELY 730' WEST OF BRIDGEWATER AVE



SE-SE
SECTION 21

NE-NE
SECTION 28

GN

SCALE, FEET
0 25 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
1	CHRISTOPHER M. WOLF AND STEPHANIE A. WOLF	TLE	1,800

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
GREEN BAY NORTHEAST REGION OFFICE

SIGNATURE: Curt Van Erem DATE: 12/22/2021

PRINT NAME: CURT VAN EREM

FILE NAME : 63700177-040101-RP.DWG PLOT DATE : 1/13/2022 9:53 AM R/W PROJECT: 6370-01-77

R/W PROJECT NUMBER: 6370-01-27	EXHIBIT NUMBER:2

TLE ACQUISITION EXHIBIT
STH 13 - STRATFORD
STH 13 - STAINLESS AVENUE
STH 153 MARATHON COUNTY

PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 24, AND OF THE NE 1/4 OF THE NE 1/4 OF SECTION 25, ALL IN T27N R02E, TOWN OF BRIGHTON, MARATHON COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF TLES IS TO PROVIDE WORKING ROOM FOR CULVERT REPAIRS.

SE-SE
SECTION 24

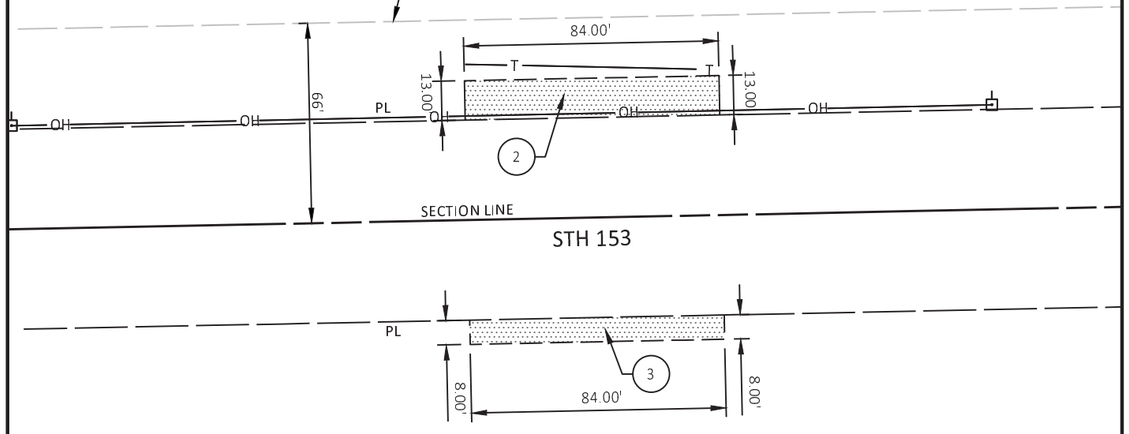
TLE ACQUISITIONS ARE LOCATED APPROXIMATELY 1,050' WEST OF ABE LINCOLN AVE

4

TAX PARCEL NUMBER:
010-2702-244-0995

91 FRONTIER COMMUNICATIONS
RIGHT OF WAY DOC 624203

95 CLARK ELECTRIC COOP
EASEMENT DOC 339396



TAX PARCEL NUMBER:
010-2702-251-0995

NE-NE
SECTION 25

GN

SCALE, FEET
0 25 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
2	TROY D. GAWLIKOSKI	TLE	1,092
3	RUTH A. GAWLIKOSKI	TLE	672

REVISION DATE: 1-13-2022

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
91	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS
95	CLARK ELECTRIC COOP	RELEASE OF RIGHTS

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
GREEN BAY NORTHEAST REGION OFFICE

SIGNATURE: Curt Van Erem DATE: 12/22/2021

PRINT NAME: CURT VAN EREM

FILE NAME : 63700177-040101-RP.DWG PLOT DATE : 1/13/2022 9:53 AM R/W PROJECT: 6370-01-77

R/W PROJECT NUMBER: 6370-01-27	EXHIBIT NUMBER: 3

TLE ACQUISITION EXHIBIT
STH 13 - STRATFORD
STH 13 - STAINLESS AVENUE

STH 153 MARATHON COUNTY

PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 22, AND OF
THE NE 1/4 OF THE NE 1/4 OF SECTION 27, ALL IN T27N R03E,
TOWN OF EAU PLEINE, MARATHON COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

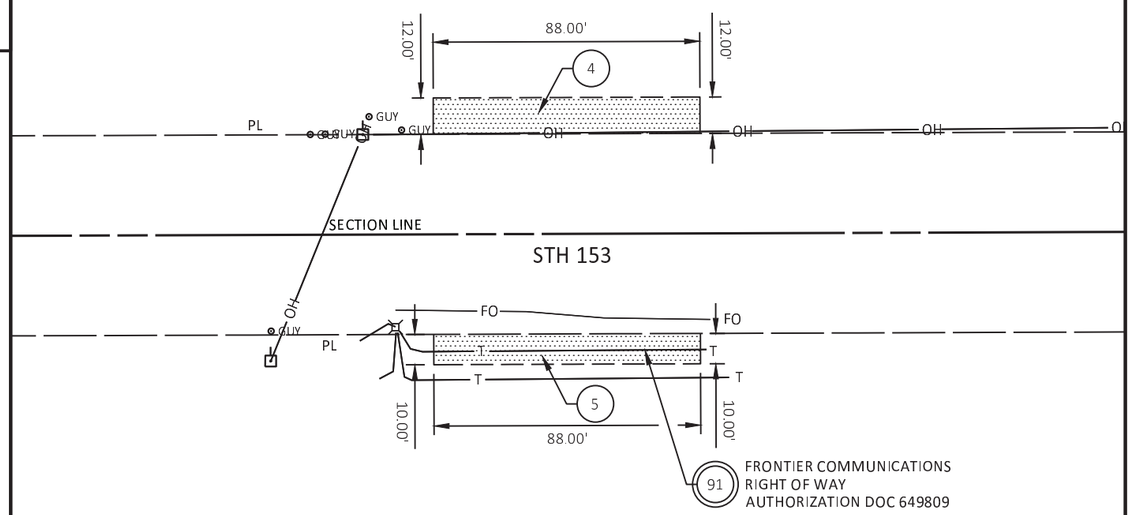
PURPOSE OF TLES IS TO PROVIDE WORKING ROOM FOR CULVERT REPAIRS.

4

TLE ACQUISITIONS ARE LOCATED APPROXIMATELY 580' WEST OF STAADT AVE

TAX PARCEL NUMBER:
020-2703-224-0993

SE-SE
SECTION 22



TAX PARCEL NUMBER:
020-2703-271-0998

NE-NE
SECTION 27

GN

SCALE, FEET
0 25 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
4	ALLEN GREENBERG	TLE	1,056
5	JESSE C. GREENBERG AND EILEEN GREENBERG	TLE	880

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
91	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
GREEN BAY NORTHEAST REGION OFFICE

SIGNATURE: Curt VanErem DATE: 12/22/2021

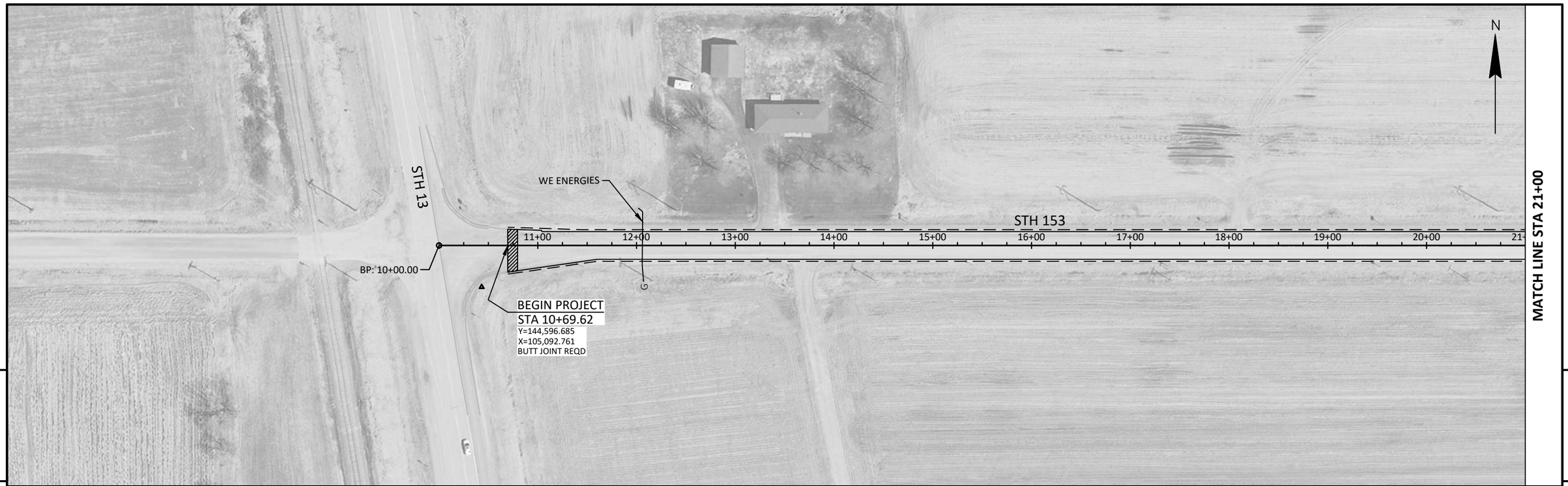
PRINT NAME: CURT VAN EREM

FILE NAME : 63700177-040101-RP.DWG PLOT DATE : 11/11/2021 7:50 AM R/W PROJECT: 6370-01-77

4

THIS SPACE INTENTIONALLY LEFT BLANK

FILE NAME : 63700177-040101-RP.DWG PLOT DATE : 11/11/2021 7:50 AM R/W PROJECT:





PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050201-pn

PLOT DATE : 7/27/2022 10:09 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 36+00

MATCH LINE STA 51+00

5

5

N

STH 153

37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

743.92' S89°25'58"E

PI: 43+00.78

MATCH LINE STA 51+00

MATCH LINE STA 66+00

N

STH 153

52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00

1579.75' S89°11'46"E

REESTABLISH SECTION CORNER MONUMENT

PC: 58+80.53

PT: 62+92.32

PI STA = 60+86.44
Y = 144548.235
X = 110109.319
DELTA = 1°39'42"
D = 0°24'13"
T = 205.91'
L = 411.79'
R = 14200.00'
PC STA = 58+80.53
PT STA = 62+92.32

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

MATCH LINE STA 66+00

MATCH LINE STA 81+00

5

5

N

37153002859
REMOVE EXISTING 48" RCP

40 LF CPRC CLASS IV 54-INCH
(2) AEW REQD
77+96.0, 19.0' RT, INV:1294.89
77+96.0, -21.0' LT, INV: 1295.18

DAIRYLAND POWER COOPERATIVE

WETLAND BOUNDARY, TYP

OH

OH

OH

STH 153

67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00

2171.29' S87°32'05"E

OH

OH

CLARK ELECTRIC COOPERATIVE

N

MYSTIC AVE
(GRAVEL)

END CONSTRUCTION

STH 153

82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00

PC: 84+63.61

REESTABLISH SECTION
CORNER MONUMENT

PT: 89+23.63

END CONSTRUCTION

MYSTIC AVE
(GRAVEL)

PI STA = 86+93.69
Y = 144436.081
X = 112714.186
DELTA = 3°30'51"
D = 0°45'50"
T = 230.08'
L = 460.02'
R = 7500.00'
PC STA = 84+63.61
PT STA = 89+23.63

MATCH LINE STA 96+00

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050203-pn

PLOT DATE : 7/27/2022 10:10 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 96+00

STH 153

97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111

1819.97' N88°57'04"E

PC: 107+43.60

N

MATCH LINE STA 111+00

5

5

MATCH LINE STA 111+00

REESTABLISH SECTION CORNER MONUMENT

STH 153

112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00 125+00 126

PT: 116+85.96

OH

N

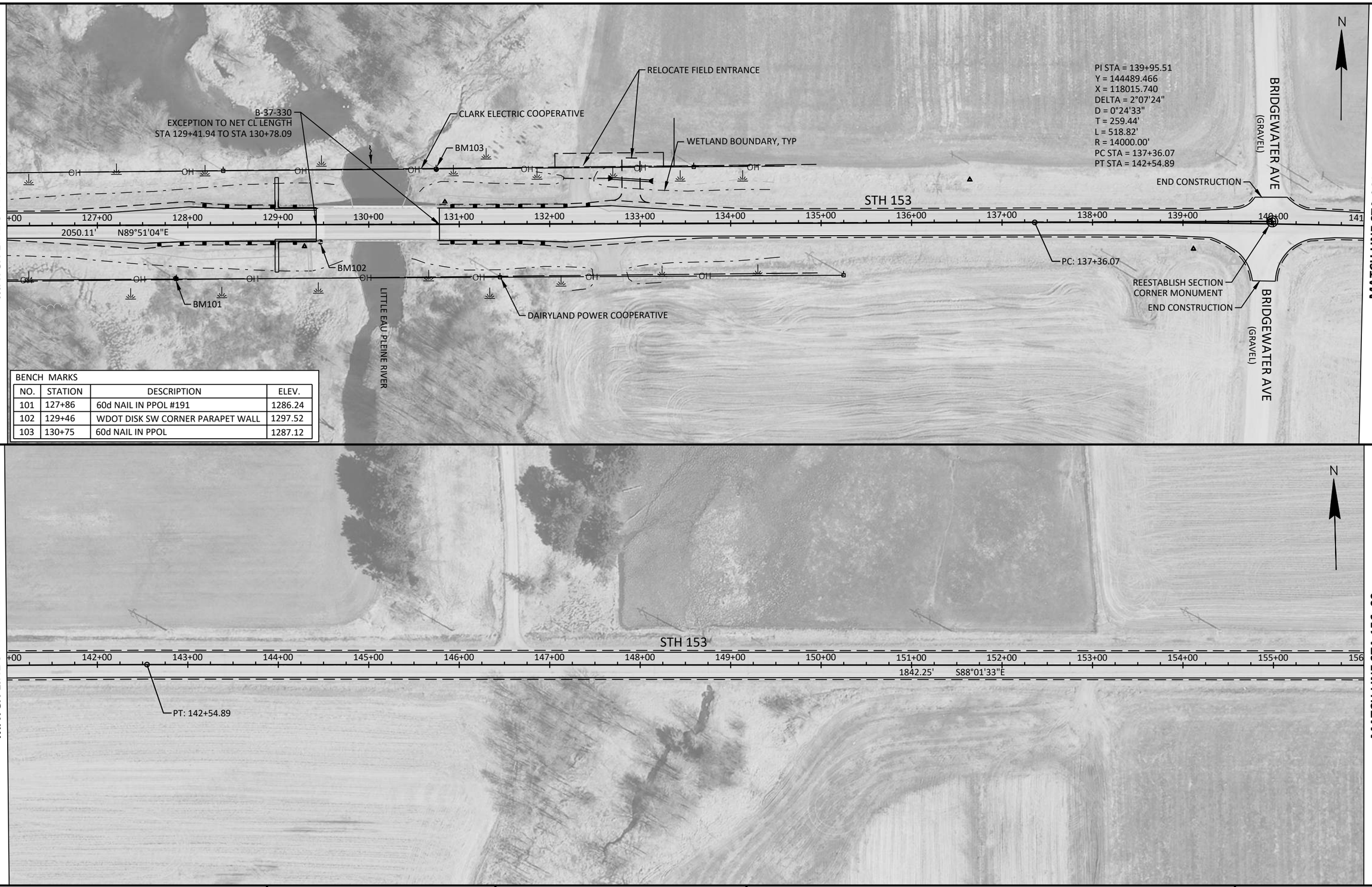
MATCH LINE STA 126+00

PI STA = 112+14.79
Y = 144482.234
X = 115235.003
DELTA = 0°54'00"
D = 0°05'44"
T = 471.19'
L = 942.36'
R = 60000.00'
PC STA = 107+43.60
PT STA = 116+85.96

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050204-pn

PLOT DATE : 7/27/2022 10:10 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
101	127+86	60d NAIL IN PPOL #191	1286.24
102	129+46	WDOT DISK SW CORNER PARAPET WALL	1297.52
103	130+75	60d NAIL IN PPOL	1287.12

5

5

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050205-pn

PLOT DATE : 7/27/2022 10:10 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 156+00

MATCH LINE STA 171+00

STH 153

+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171

PC: 160+97.14

PI STA = 165+68.39
Y = 144400.826
X = 120587.147
DELTA = 1°32'34"
D = 0°09'49"
T = 471.24'
L = 942.43'
R = 35000.00'
PC STA = 160+97.14
PT STA = 170+39.58

REESTABLISH SECTION CORNER MONUMENT

END CONSTRUCTION

KEYSTONE AVE (GRAVEL)

PT: 170+39.58

N

5

5

MATCH LINE STA 171+00

MATCH LINE STA 186+00

DAIRYLAND POWER COOPERATIVE

37153002862
REMOVE EXISTING 30" RCP

44 LF CPRC CLASS IV 36-INCH
(2) AEW REQD
180+64.0, -22.5' LT, INV:1328.43
180+64.0, 21.5' RT, INV: 1327.78

OH OH

STH 153

+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186

1868.94' S89°34'07"E

WETLAND BOUNDARY, TYP

N

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

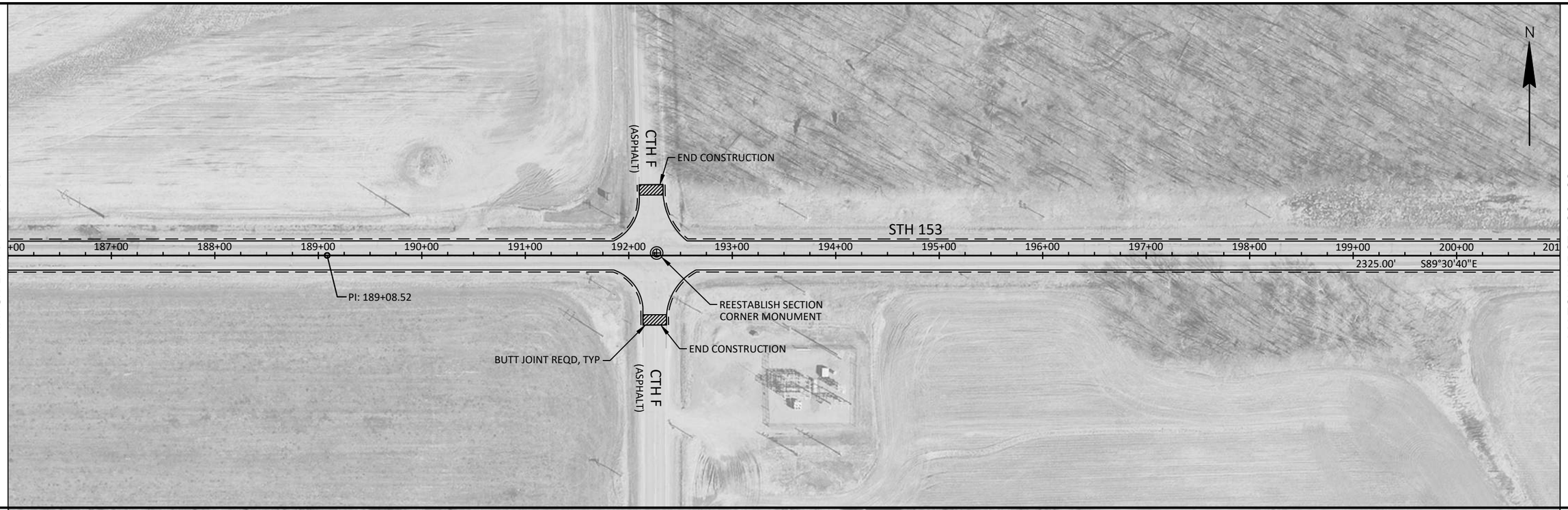
FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050206-pn

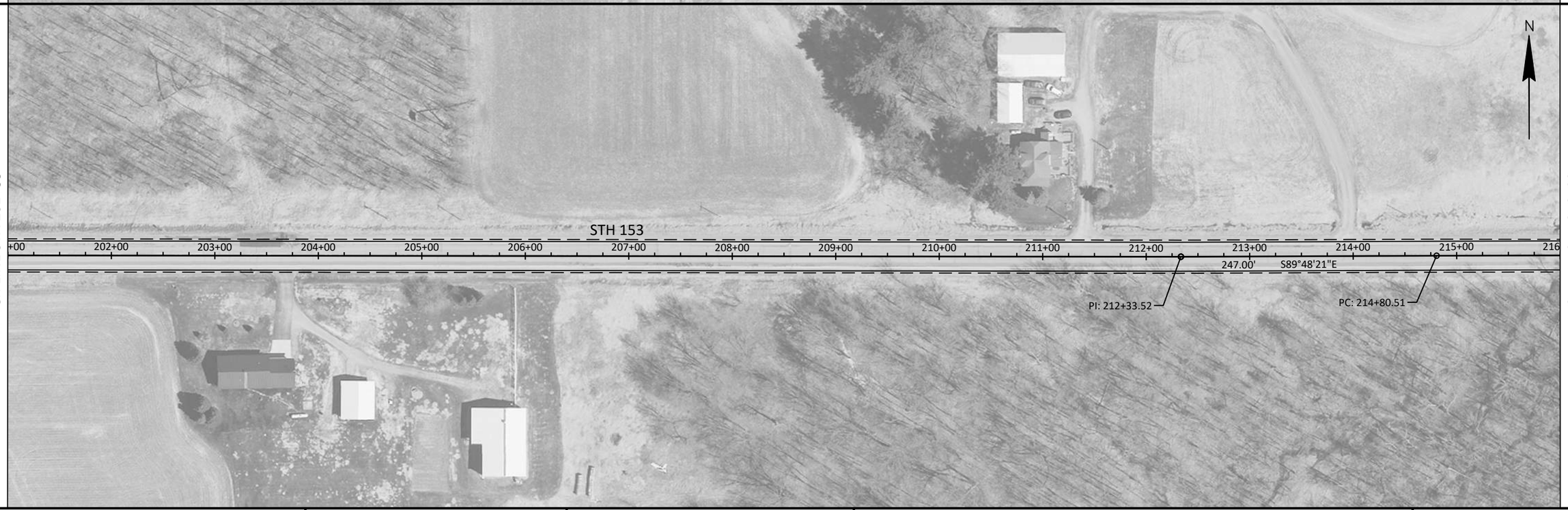
PLOT DATE : 7/27/2022 10:10 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 186+00

MATCH LINE STA 201+00

5





MATCH LINE STA 201+00

MATCH LINE STA 216+00

5

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050207-pn

PLOT DATE : 7/27/2022 10:11 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 216+00

REESTABLISH SECTION CORNER MONUMENT

STH 153

+00 217+00 218+00 219+00 220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231

1630.18' S8

PT: 223+01.93

PI STA = 218+91.24
Y = 144361.136
X = 125909.901
DELTA = 1°20'41"
D = 0°09'49"
T = 410.73'
L = 821.42'
R = 35000.00'
PC STA = 214+80.51
PT STA = 223+01.93

N

MATCH LINE STA 231+00

MATCH LINE STA 231+00

STH 153

+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246

8°27'40"E

550.43' S88°43'20"E

PI: 239+32.11

PI: 244+82.54

END CONSTRUCTION

REESTABLISH SECTION CORNER MONUMENT

END CONSTRUCTION

N FREY AVE (GRAVEL)

N FREY AVE (GRAVEL)

N

MATCH LINE STA 246+00

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050208-pn

PLOT DATE : 7/27/2022 10:11 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050209-pn

PLOT DATE : 7/27/2022 10:11 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 276+00

MATCH LINE STA 291+00

5

5

N

37153002865 / 37153002866
EXISTING TWIN 72" X 113" RCP TO REMAIN
REPAIR EXISTING ENDWALLS
SEE ENDWALL REPAIR CONSTRUCTION DETAIL

FRONTIER

CLARK ELECTRIC COOPERATIVE

OH

OH

T

STH 153

+00 277+00 278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291

1915.66' N88°45'09"E

WETLAND BOUNDARY, TYP

MATCH LINE STA 291+00

MATCH LINE STA 306+00

N

ABE LINCOLN AVE
(GRAVEL)

END CONSTRUCTION

REESTABLISH SECTION
CORNER MONUMENT

STH 153

+00 292+00 293+00 294+00 295+00 296+00 297+00 298+00 299+00 300+00 301+00 302+00 303+00 304+00 305+00 306

505.26' N89°05'04"E

393.93' N89°26'17"E

PI: 292+24.73

PI: 297+29.99

PI: 301+23.92

END CONSTRUCTION

ABE LINCOLN AVE
(GRAVEL)

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050210-pn

PLOT DATE : 7/27/2022 10:11 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 306+00

MATCH LINE STA 321+00

5

5

N

MOVING SIGNS TYPE II
RESET IN EXISTING LOCATION
AFTER CULVERT REPLACEMENT

37153002869
REMOVE EXISTING 30" RCP

38 LF CPRC CLASS IV 30-INCH
(2) AEW REQD
MEDIUM RIPRAP REQD LT (TO EX ROW)
317+69.0, -21.0' LT, INV:1335.14
317+69.0, 17.0' RT, INV: 1335.63

END CONSTRUCTION
CLARK ELECTRIC COOPERATIVE

WESCOTT AVE
(GRAVEL)

OH

OH

STH 153

+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00 321

1782.01' N89°39'56"E

T

PI: 319+05.93

FRONTIER

REESTABLISH SECTION
CORNER MONUMENT

N

STH 153

+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00 331+00 332+00 333+00 334+00 335+00 336

938.44' N89°50'53"E

PI: 328+44.37

MATCH LINE STA 336+00

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050211-pn

PLOT DATE : 7/27/2022 10:12 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 336+00

STH 153

+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00 346+00 347+00 348+00 349+00 350+00 351

1691.44' S89°56'42"E

REESTABLISH SECTION CORNER MONUMENT

PI: 345+35.80

N

MATCH LINE STA 351+00

5

5

MATCH LINE STA 351+00

STH 153

+00 352+00 353+00 354+00 355+00 356+00 357+00 358+00 359+00 360+00 361+00 362+00 363+00 364+00 365+00 366

2595.54' S89°33'14"E

N

MATCH LINE STA 366+00

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050212-pn

PLOT DATE : 7/27/2022 10:12 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 366+00

MATCH LINE STA 381+00

5

5

N

CTH E (ASPHALT)

BUTT JOINT REQD, TYP

END CONSTRUCTION

STH 153

+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00 376+00 377+00 378+00 379+00 380+00 381

1983.84' S89°27'40"E

REESTABLISH SECTION CORNER MONUMENT

END CONSTRUCTION

CTH E (ASPHALT)

PI: 371+31.34

WETLAND BOUNDARY, TYP

FRONTIER

WISCONSIN PUBLIC SERVICE

OH

T

OH

37153002872
REMOVE EXISTING 30" RCP

46 LF CPRC CLASS IV 30-INCH
(2) AEW REQD
MEDIUM RIPRAP REQD LT (TO EX ROW)
377+26.4, 22.4' RT, INV:1310.37
377+29.0, -23.5' LT, INV: 1310.25

MATCH LINE STA 381+00

MATCH LINE STA 396+00

N

STH 153

+00 382+00 383+00 384+00 385+00 386+00 387+00 388+00 389+00 390+00 391+00 392+00 393+00 394+00 395+00 396

652.50' S89°40'15"E

PI: 391+15.18

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050213-pn

PLOT DATE : 7/27/2022 10:12 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 396+00

MATCH LINE STA 411+00

5

5

N

STH 153

+00 397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00 410+00 411

567.89' N89°51'09"E

954.86' N89°34'36"E

REESTABLISH SECTION CORNER MONUMENT

PI: 397+67.68

PI: 403+35.58

MATCH LINE STA 411+00

MATCH LINE STA 426+00

N

WETLAND BOUNDARY, TYP

37153002874
REMOVING OLD STRUCTURE STA 412+90
EXISTING ~77" X 52" STEEL CMP

FRONTIER

WISCONSIN PUBLIC SERVICE

46 LF CPRCHE CLASS HE-III 58X91-INCH
(2) AEW REQD
412+92.9, 22.5' RT, INV:1288.51
412+90.4, -23.5' LT, INV: 1288.44

OH

T

MARCH RAPIDS AVE (GRAVEL)

END CONSTRUCTION

REESTABLISH SECTION CORNER MONUMENT

STH 153

+00 412+00 413+00 414+00 415+00 416+00 417+00 418+00 419+00 420+00 421+00 422+00 423+00 424+00 425+00 426

974.72' N89°46'05"E

PI: 412+90.43

PI: 422+65.15

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050214-pn

PLOT DATE : 7/27/2022 10:12 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 426+00

MATCH LINE STA 441+00

N

STH 153

+00 427+00 428+00 429+00 430+00 431+00 432+00 433+00 434+00 435+00 436+00 437+00 438+00 439+00 440+00 441

742.15' N89°51'20"E

748.58' N89°58'52"E

PI: 430+07.30

PI: 437+55.88

5

5

MATCH LINE STA 441+00

MATCH LINE STA 456+00

N

37153002876
REMOVE EXISTING 24" RCP

42 LF CPRC CLASS IV 24-INCH
(2) AEW REQD
MEDIUM RIPRAP REQD LT (TO EX ROW)
445+45.0, 20.0' RT, INV:1313.12
445+45.0, -22.0' LT, INV: 1312.38

WISCONSIN PUBLIC SERVICE

OH OH

STH 153

+00 442+00 443+00 444+00 445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00 454+00 455+00 456

3543.10' N89°55'17"E

FRONTIER

REESTABLISH SECTION
CORNER MONUMENT

END CONSTRUCTION

GALVIN AVE
(GRAVEL)

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050215-pn

PLOT DATE : 7/27/2022 10:12 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 456+00

37153002878
REMOVE EXISTING 24" RCP

44 LF CPRC CLASS IV 30-INCH
(2) AEW REQD
MEDIUM RIPRAP REQD LT (TO EX ROW)
458+08.0, 21.0' RT, INV:1315.38
458+08.0, -23.0' LT, INV: 1314.76

WETLAND BOUNDARY, TYP

WISCONSIN PUBLIC SERVICE

OH

FRONTIER

STH 153

+00 457+00 458+00 459+00 460+00 461+00 462+00 463+00 464+00 465+00 466+00 467+00 468+00 469+00 470+00 471

N

MATCH LINE STA 471+00

MATCH LINE STA 471+00

STH 153

+00 472+00 473+00 474+00 475+00 476+00 477+00 478+00 479+00 480+00 481+00 482+00 483+00 484+00 485+00 486

1290.01' N89°47'30"E

PI: 472+98.98

REESTABLISH SECTION
CORNER MONUMENT

PI: 485+89.00

N

MATCH LINE STA 486+00

5

5

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050216-pn

PLOT DATE : 7/27/2022 10:13 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 486+00

MATCH LINE STA 501+00

5

5

N

37153002879 / 37153002880
EXISTING TWIN 72" X 113" RCP TO REMAIN
REPAIR EXISTING ENDWALLS
SEE ENDWALL REPAIR CONSTRUCTION DETAIL

WETLAND BOUNDARY, TYP

WISCONSIN PUBLIC SERVICE

STH 153

+00 487+00 488+00 489+00 490+00 491+00 492+00 493+00 494+00 495+00 496+00 497+00 498+00 499+00 500+00 501

600.88' N89°41'56"E

1132.24' N89°52'19"E

PI: 491+89.88

FRONTIER

FO

T

T

OH

OH

OH

N

STAADT AVE
(GRAVEL)

END CONSTRUCTION

REESTABLISH SECTION
CORNER MONUMENT

STH 153

+00 502+00 503+00 504+00 505+00 506+00 507+00 508+00 509+00 510+00 511+00 512+00 513+00 514+00 515+00 516

1382.09' S89°42'21"E

PI: 503+22.11

END CONSTRUCTION

STAADT AVE
(GRAVEL)

MATCH LINE STA 501+00

MATCH LINE STA 516+00

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050217-pn

PLOT DATE : 7/27/2022 10:13 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 516+00

MATCH LINE STA 531+00

5

5

N

STH 153

+00 517+00 518+00 519+00 520+00 521+00 522+00 523+00 524+00 525+00 526+00 527+00 528+00 529+00 530+00 531

609.13' S89°35'52"E

PI: 517+04.20

PI: 523+13.33

REESTABLISH SECTION CORNER MONUMENT

MATCH LINE STA 531+00

MATCH LINE STA 546+00

N

WETLAND BOUNDARY, TYP

WISCONSIN PUBLIC SERVICE

37153002883
REMOVE EXISTING 24" RCP

48 LF CPRC CLASS IV 24-INCH
(2) AEW REQD
MEDIUM RIPRAP REQD LT (TO EX ROW)
540+82.0, 24.0' RT, INV:1279.18
540+82.0, -24.0' LT, INV: 1278.47

OH

STH 153

+00 532+00 533+00 534+00 535+00 536+00 537+00 538+00 539+00 540+00 541+00 542+00 543+00 544+00 545+00 546

3709.08' S89°34'34"E

FO

FRONTIER

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050218-pn

PLOT DATE : 7/27/2022 10:13 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

MATCH LINE STA 546+00

WETLAND BOUNDARY, TYP

37153002884
REMOVE EXISTING ALUMINUM 36" CMP

42 LF CPRC CLASS IV 36-INCH
(2) AEW REQD
MEDIUM RIPRAP REQD LT (TO EX ROW)
551+75.0, 20.0' RT, INV:1268.38
551+75.0, -22.0' LT, INV: 1267.00

WISCONSIN PUBLIC SERVICE

WISCONSIN PUBLIC SERVICE

OH OH

FRONTIER

STH 153

REESTABLISH SECTION
CORNER MONUMENT

+00 547+00 548+00 549+00 550+00 551+00 552+00 553+00 554+00 555+00 556+00 557+00 558+00 559+00 560+00 561

PI: 560+22.41

END CONSTRUCTION

DRAKE AVE
(GRAVEL)

MATCH LINE STA 561+00

N

MATCH LINE STA 561+00

STH 153

+00 562+00 563+00 564+00 565+00 566+00 567+00 568+00 569+00 570+00 571+00 572+00 573+00 574+00 575+00 576

2727.59' S89°42'43"E

LOYALTY AVE
(ASPHALT)

BUTT JOINT REQD
END CONSTRUCTION

BUTT JOINT REQD
END CONSTRUCTION

CONNOR AVE
(ASPHALT)

MATCH LINE STA 576+00

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050219-pn

PLOT DATE : 7/27/2022 10:13 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT



5

5

THIS FRAME INTENTIONALLY LEFT BLANK

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	PLAN: STH 153	SHEET	E

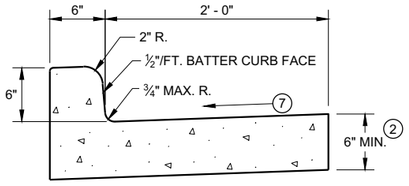
FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-050201-PN.DWG
LAYOUT NAME - 63700177-050220-pn

PLOT DATE : 7/27/2022 10:13 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:100 FT

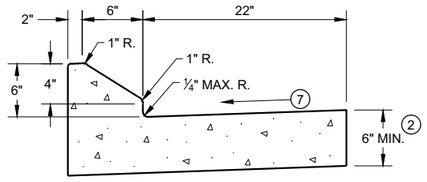
Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	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)
15A04-07E	DELINEATOR POST WITH REFLECTIVE SHEETING
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-22C	PAVEMENT MARKING (TURN LANES)
15C08-22D	PAVEMENT MARKING (TURN LANES)
15C09-12A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-06C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

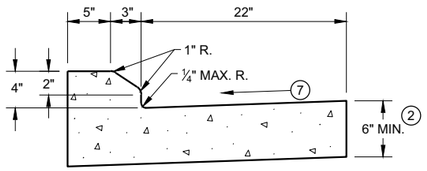
6



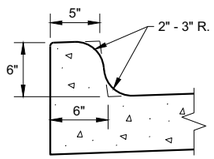
TYPES A (1) & D



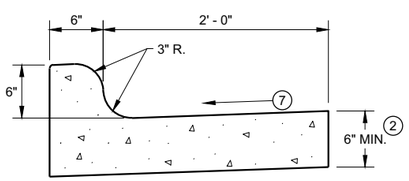
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

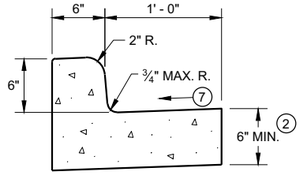


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



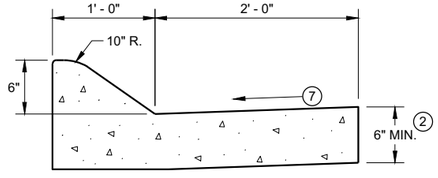
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

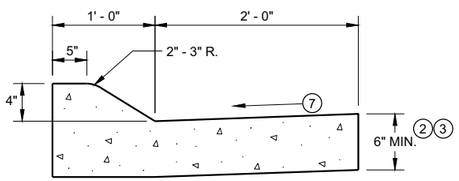


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

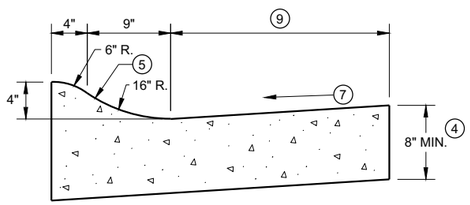


6" SLOPED CURB TYPES A (1) & D



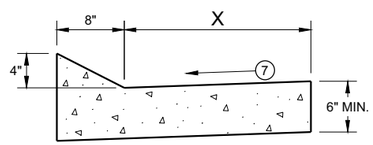
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

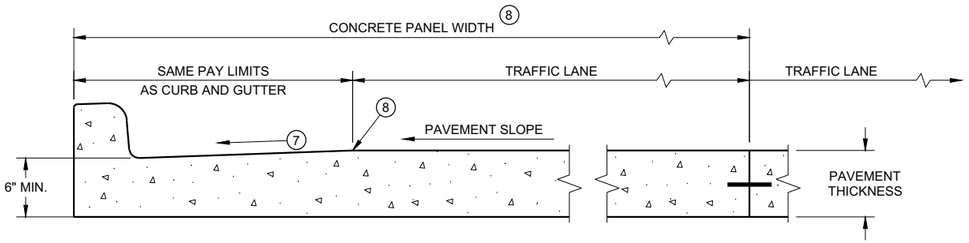


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

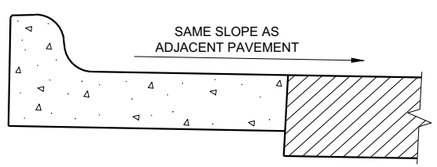
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

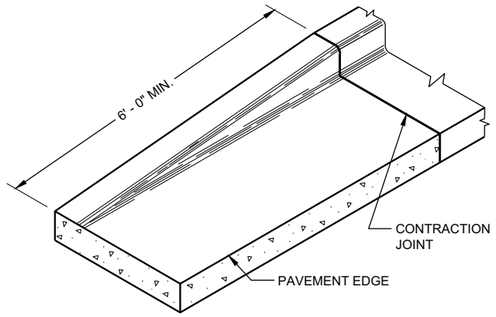
(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

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

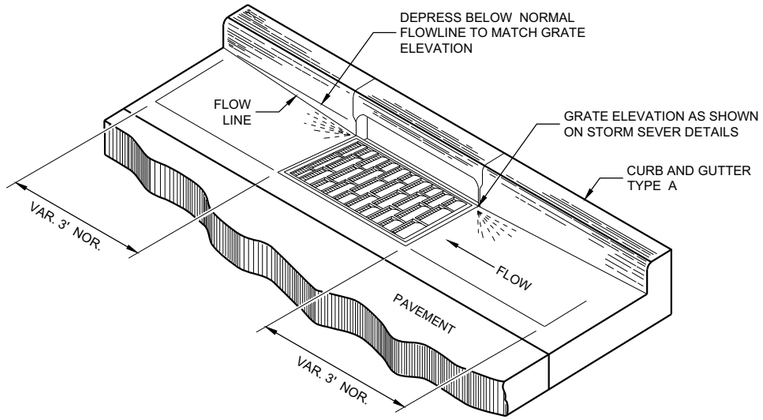
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

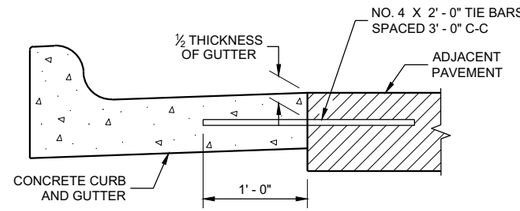
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

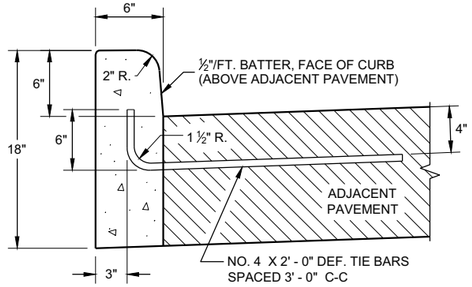
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

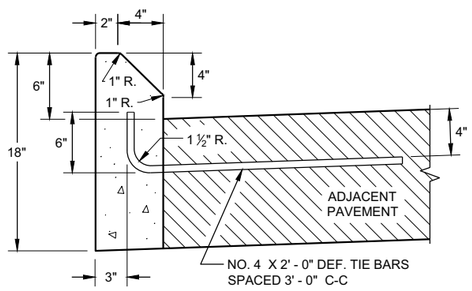
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

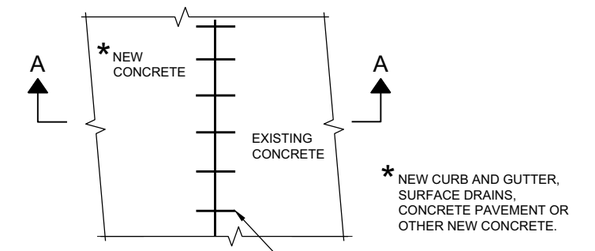


TYPES A (1) & D

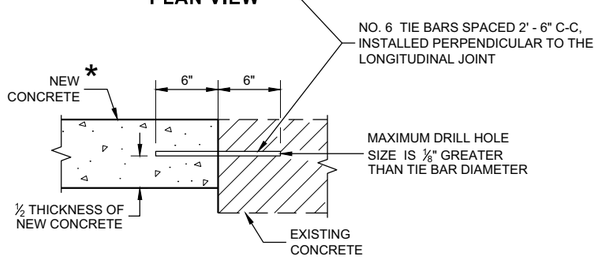


TYPES G (1) & J

CONCRETE CURB

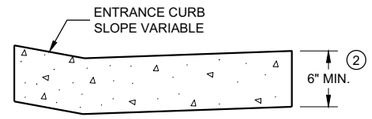


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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.

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

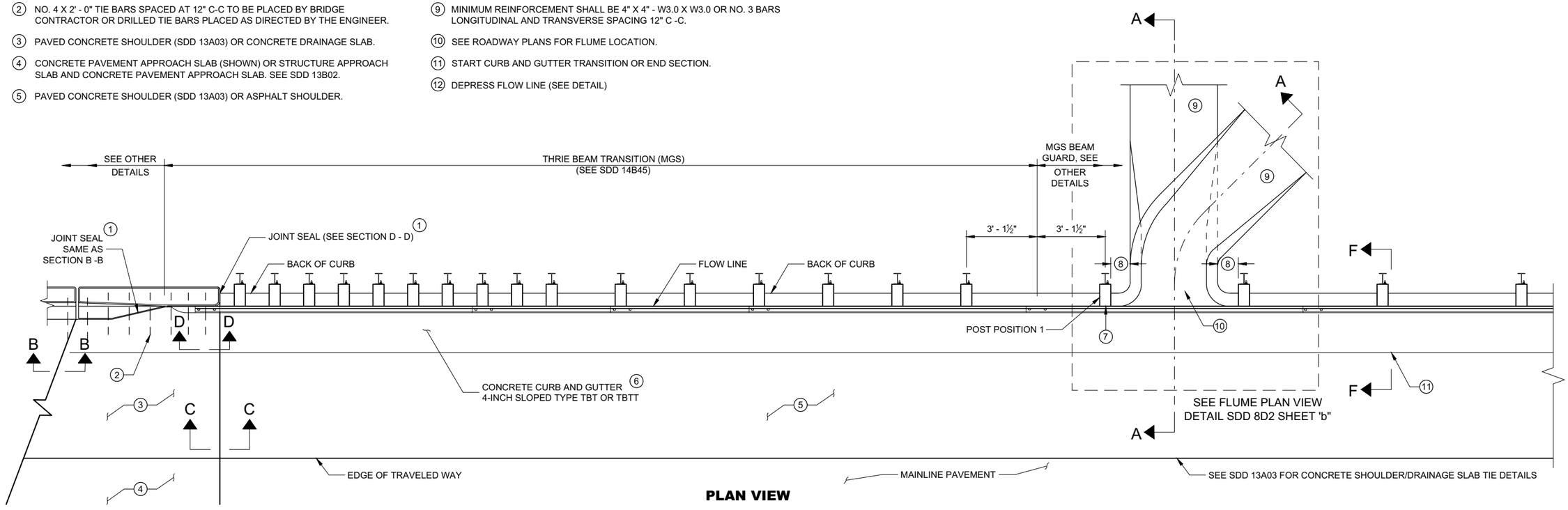
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

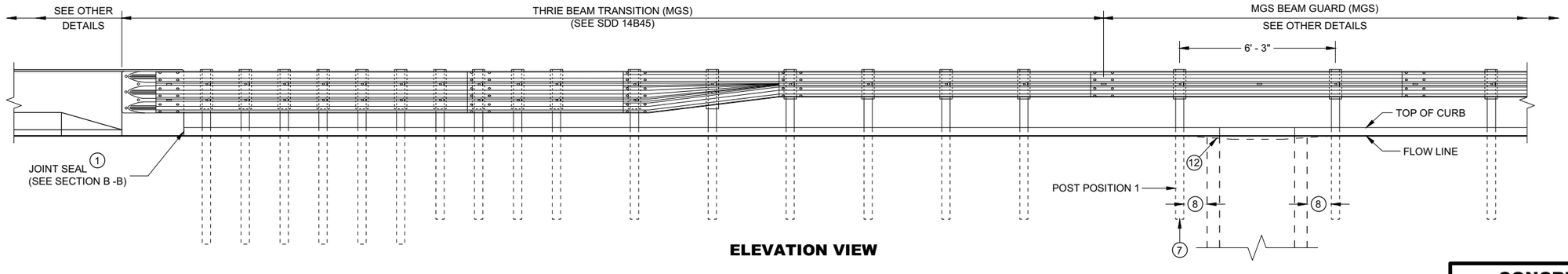
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



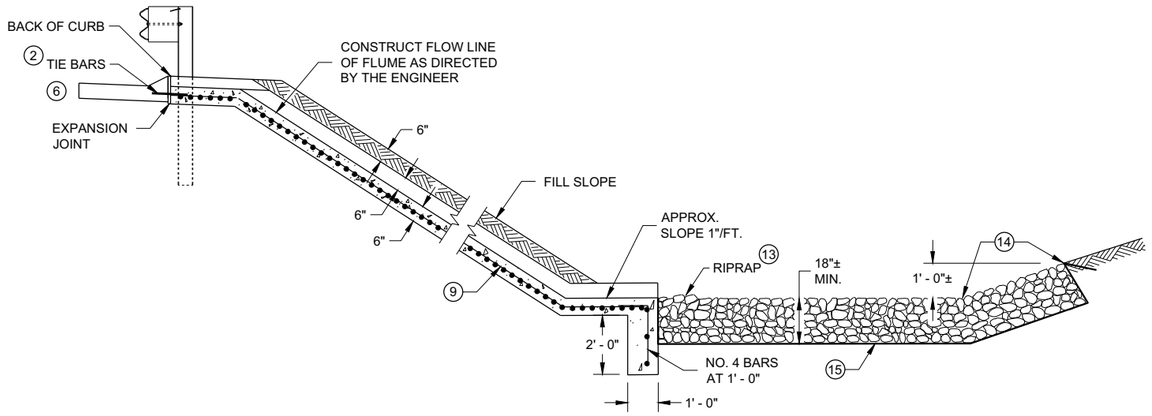
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

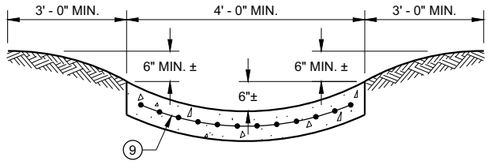
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 07a

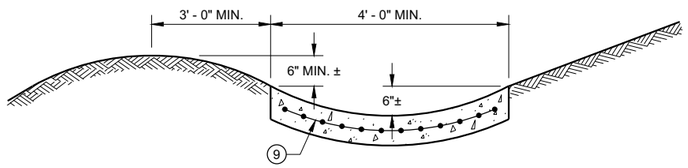
SDD 08D02 - 07a



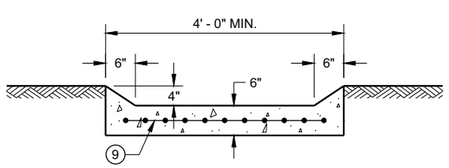
SECTION A - A



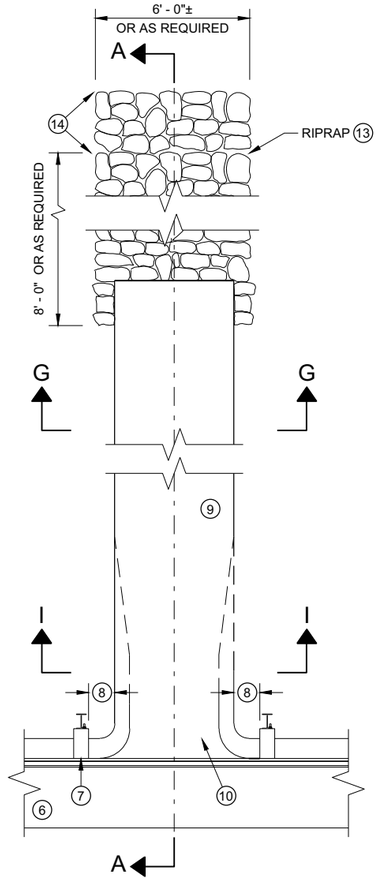
SECTION G - G



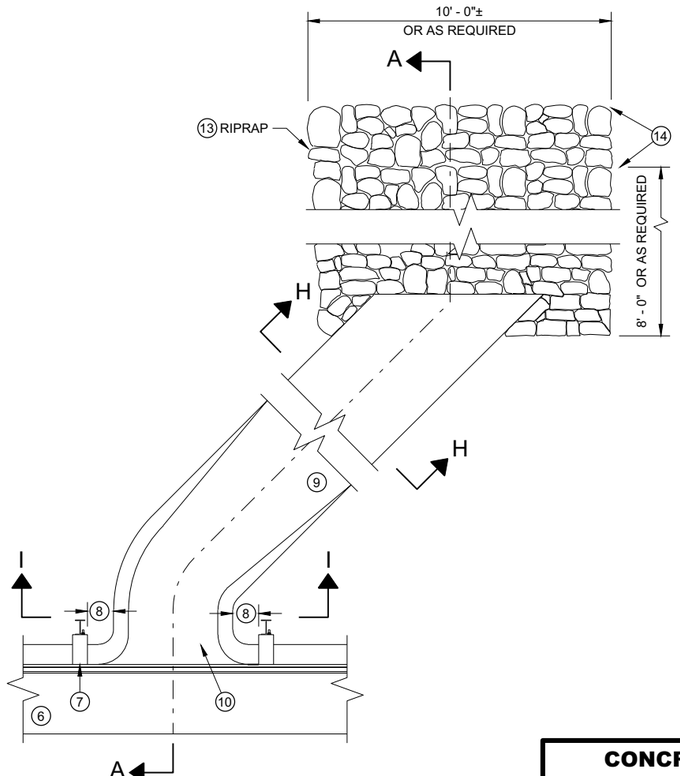
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

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

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE FABRIC TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

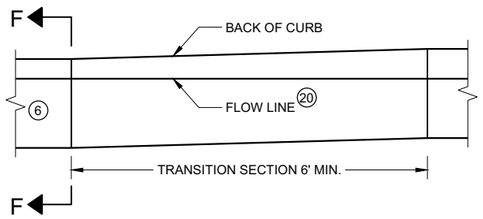
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

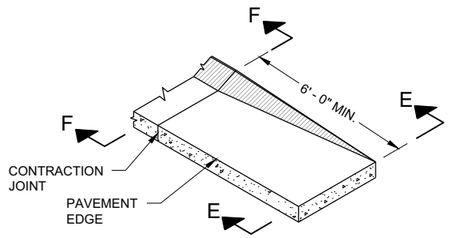
SDD 08D02 - 07b

6

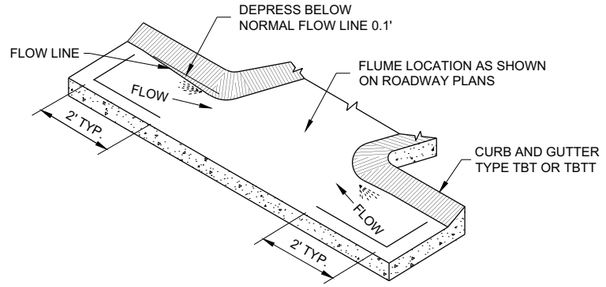
SDD 08D02 - 07b



CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

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.

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

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE FABRIC TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

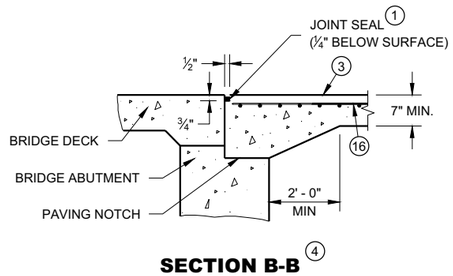
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

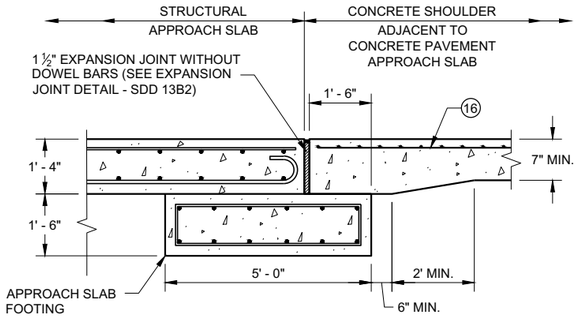
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

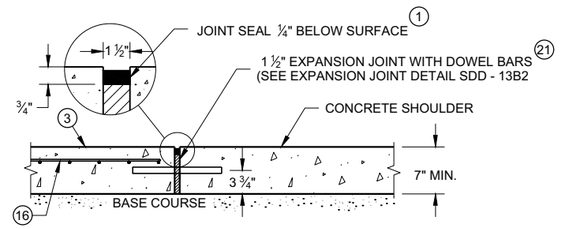
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



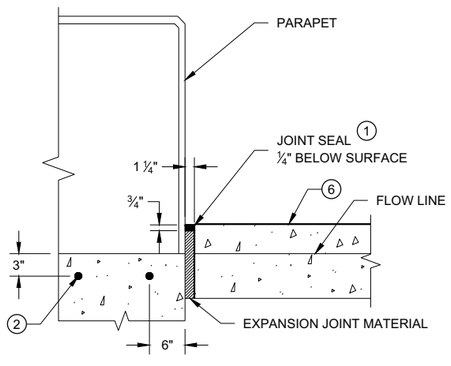
SECTION B-B (4)



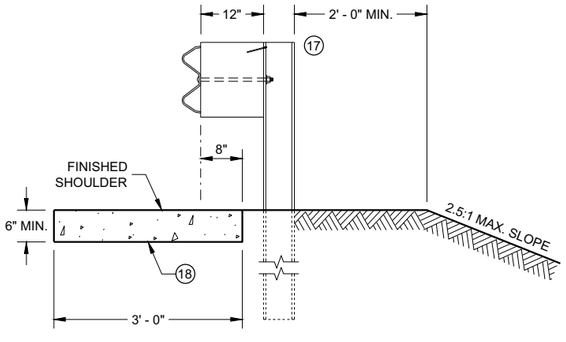
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



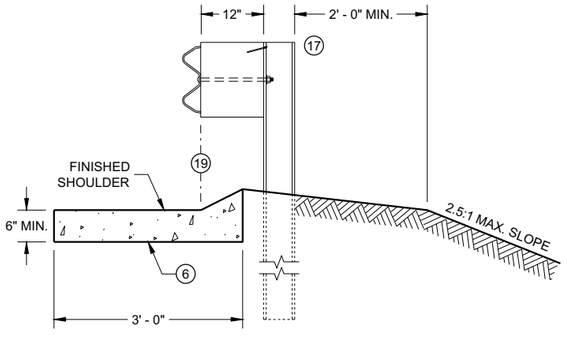
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

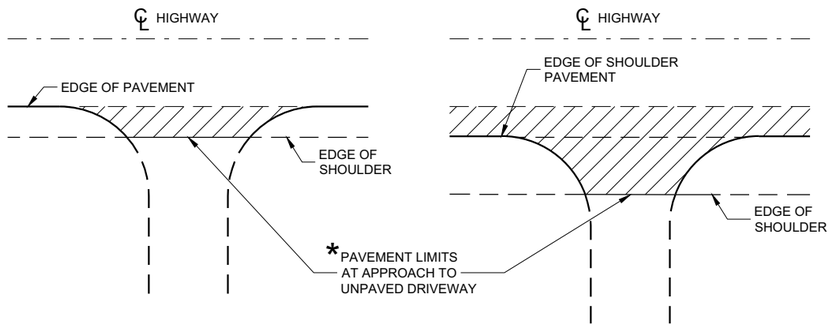
FHWA

6

SDD 08D02 - 07c

6

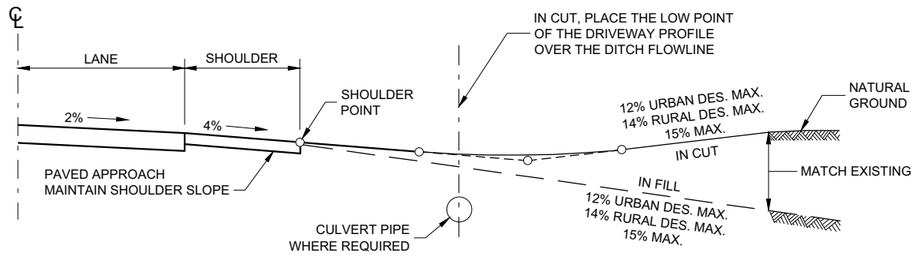
SDD 08D02 - 07c



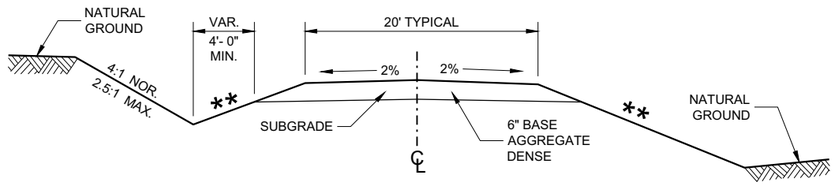
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

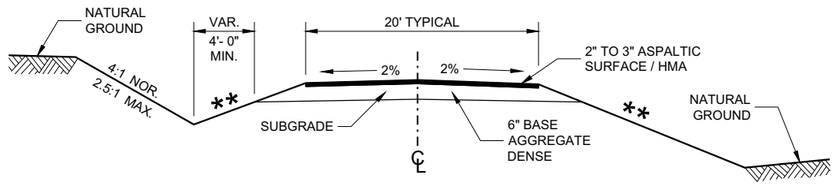


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

SDD 08D21 - 01

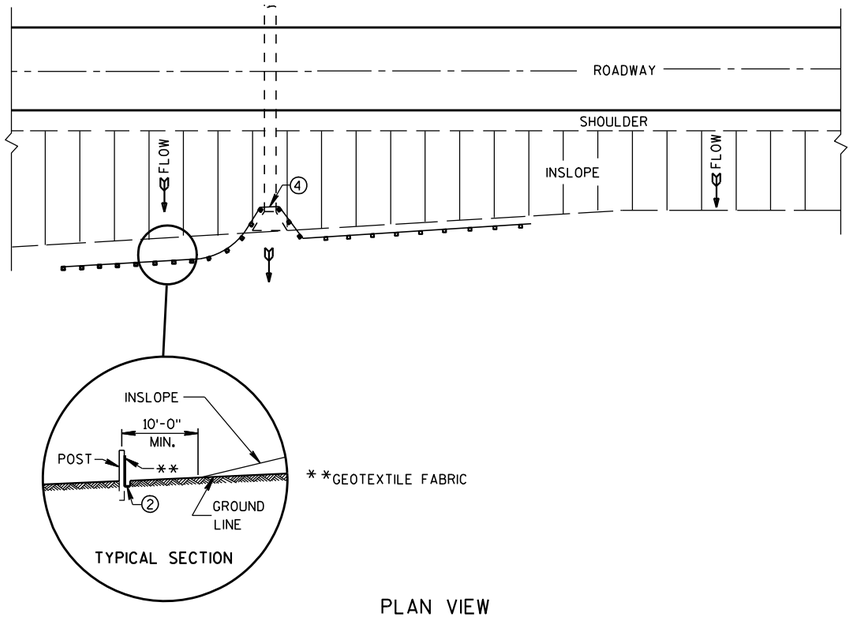
DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017
DATE

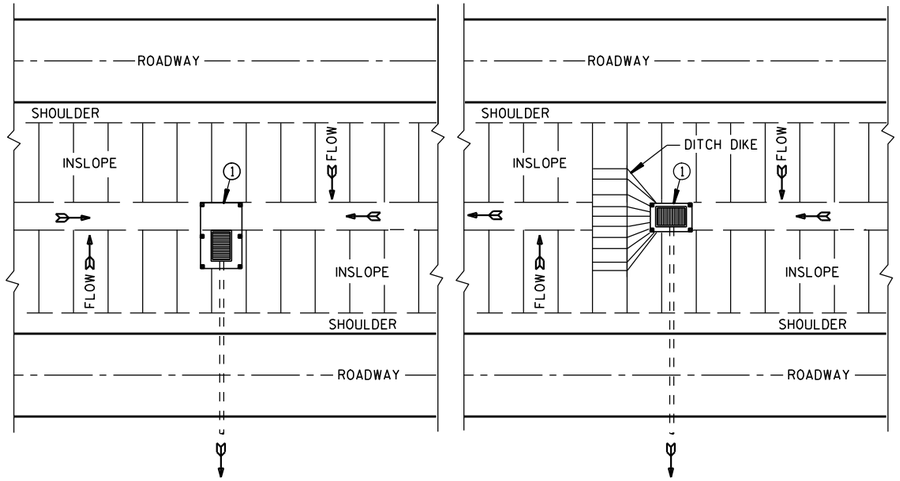
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



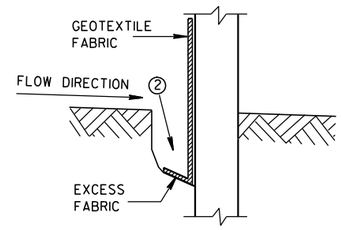
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

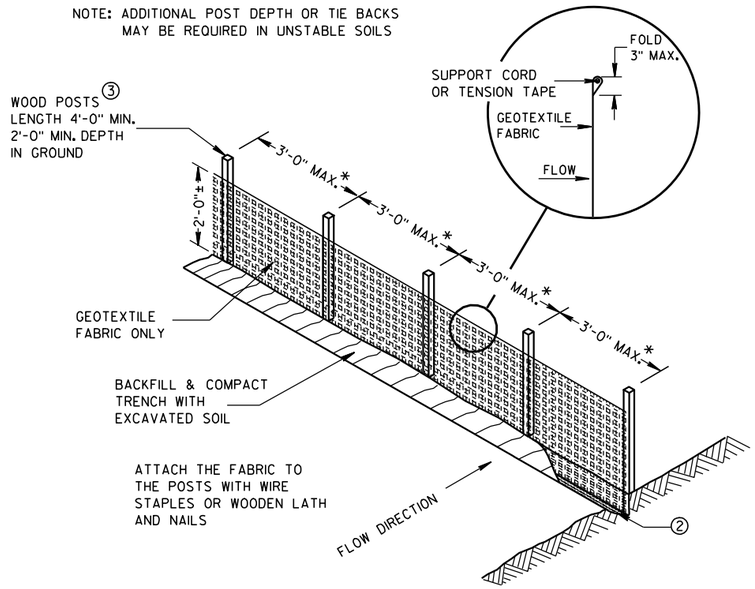
GENERAL NOTES

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

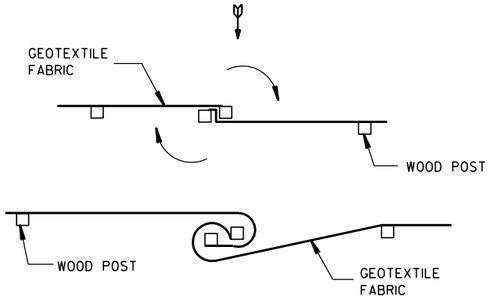
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



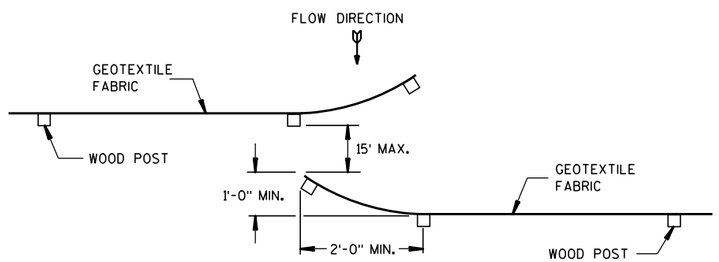
TRENCH DETAIL



SILT FENCE

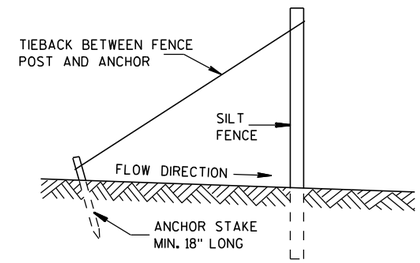


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

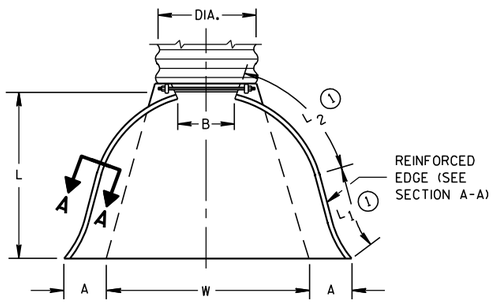
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

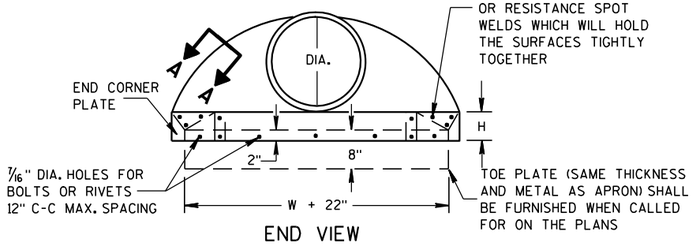
REINFORCED CONCRETE APRON ENDWALLS

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

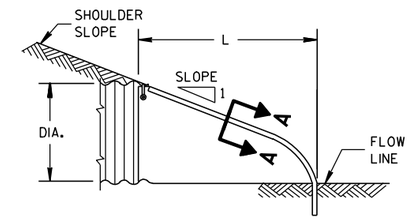
*MINIMUM
**MAXIMUM



PLAN VIEW

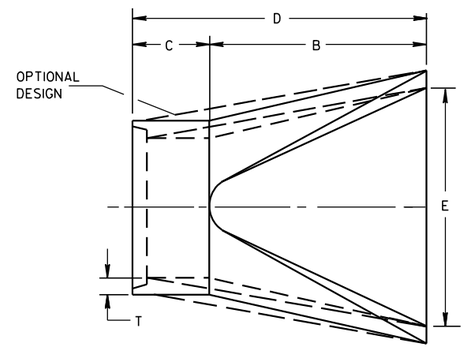


END VIEW

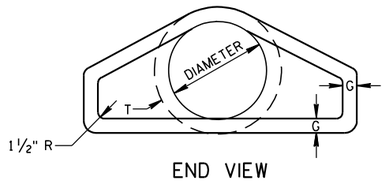


SIDE ELEVATION

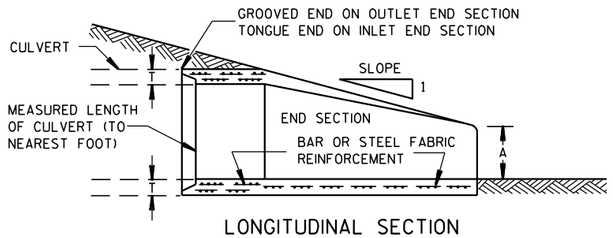
METAL ENDWALLS



PLAN

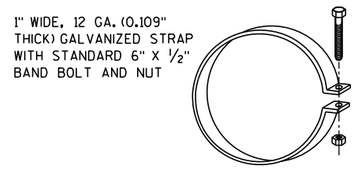


END VIEW



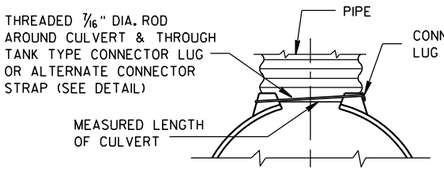
LONGITUDINAL SECTION

CONCRETE ENDWALLS

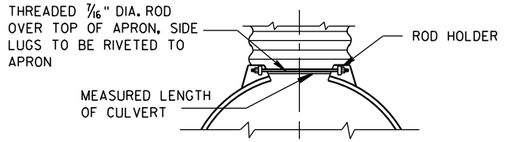


ALTERNATE FOR TYPE 1 CONNECTION

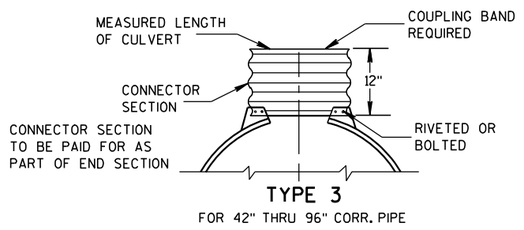
END SECTION CONNECTOR STRAP



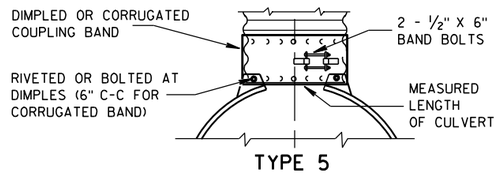
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

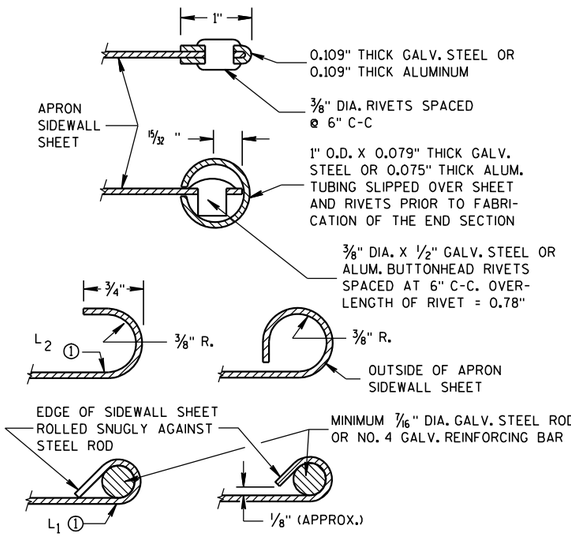
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

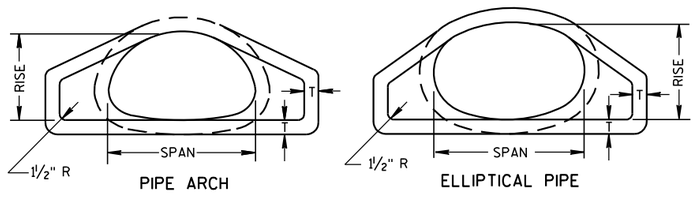
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

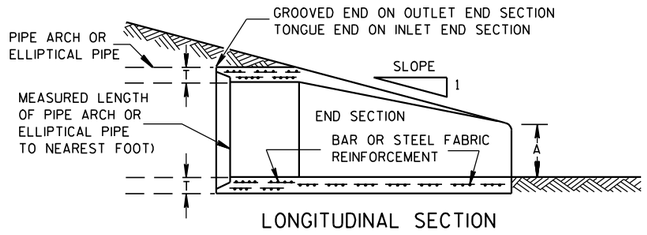
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

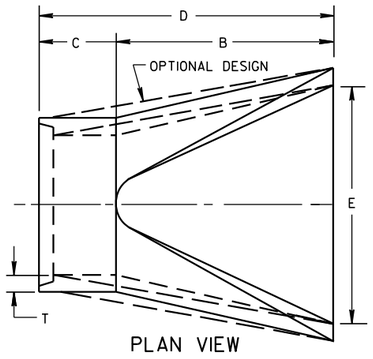
6
S.D.D. 8 F 1-11



END VIEW

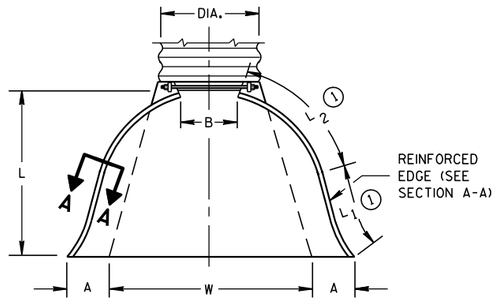


LONGITUDINAL SECTION

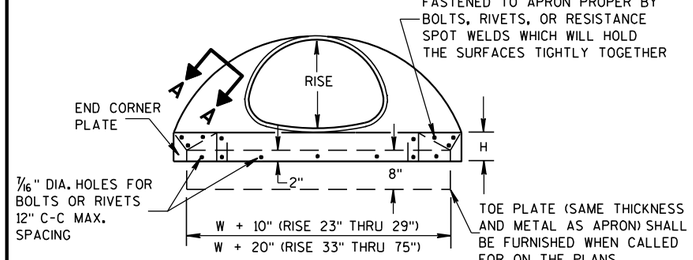


PLAN VIEW

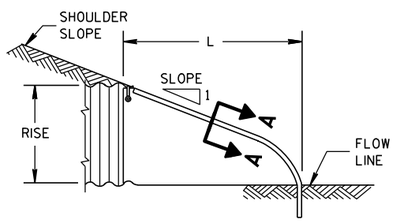
CONCRETE ENDWALLS



PLAN VIEW

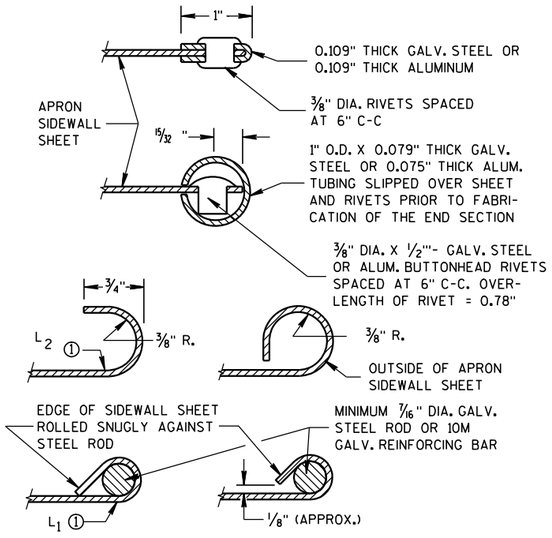


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

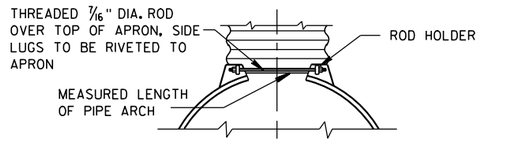
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

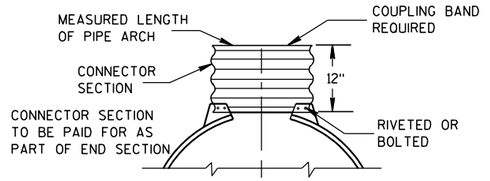
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



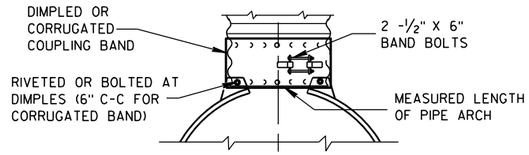
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

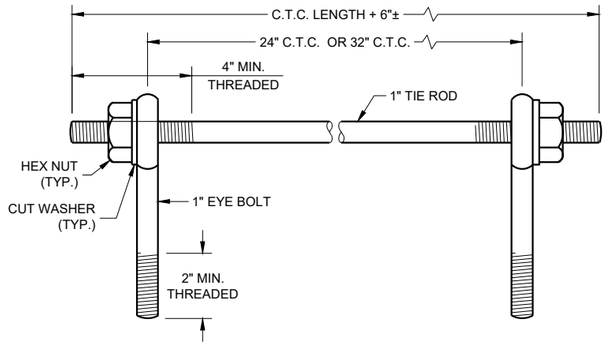
FHWA

6

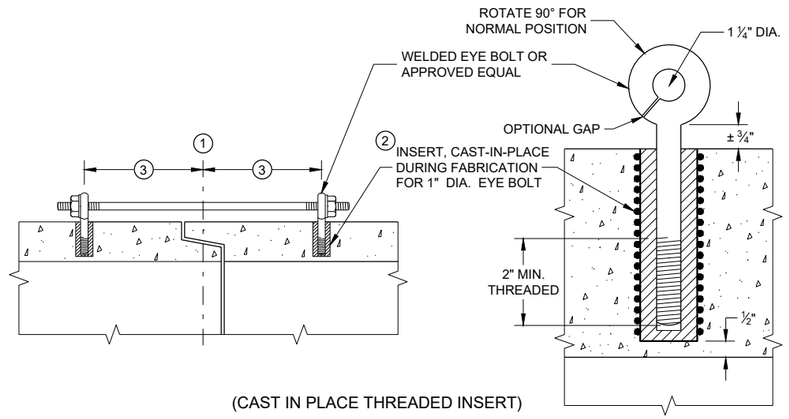
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) 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.

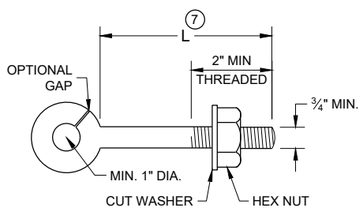
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

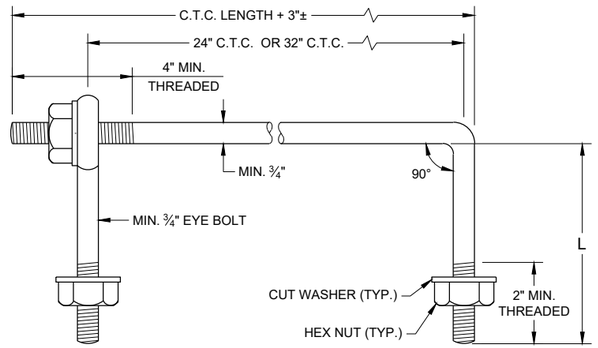
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

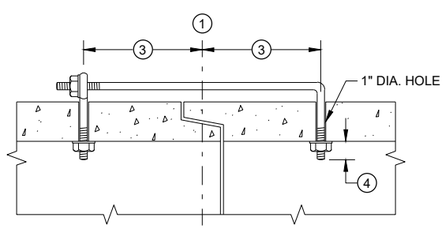


EYE BOLT (7)

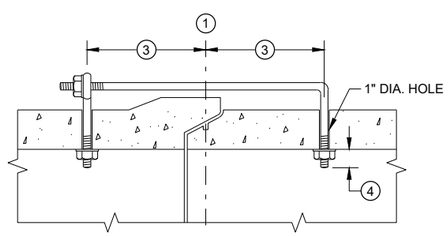
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

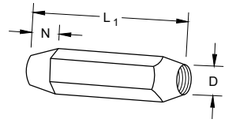
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

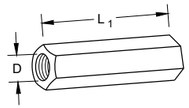
ADJUSTABLE TIE ROD TABLE

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



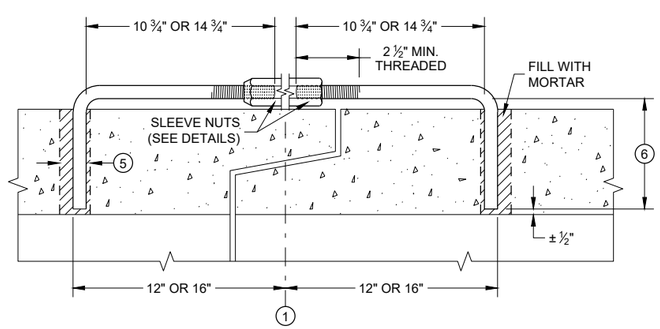
TAPERED



PLAIN

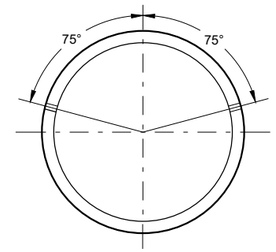
RIGHT AND LEFT THREADS

SLEEVE NUTS



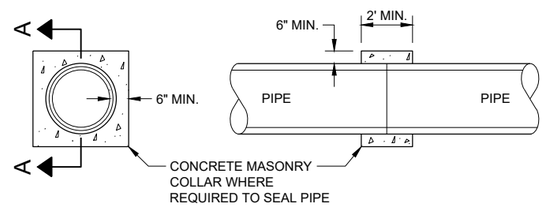
LONGITUDINAL SECTION

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 DEVELOPMENT ENGINEER

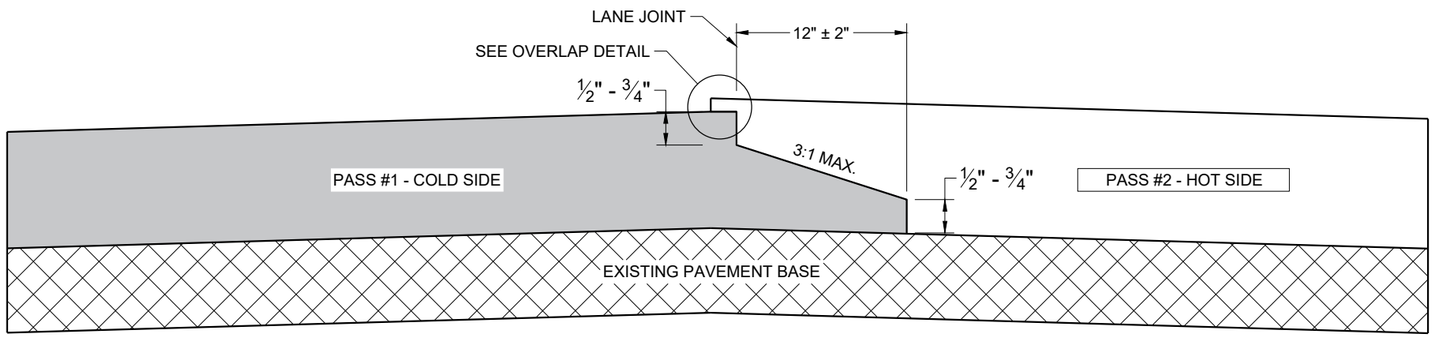
FHWA

6

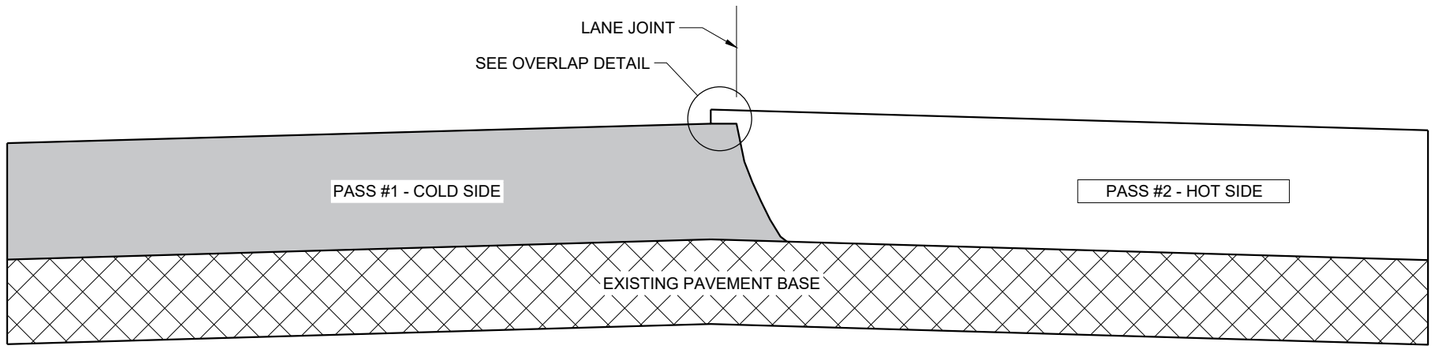
SDD 08F04 - 08

6

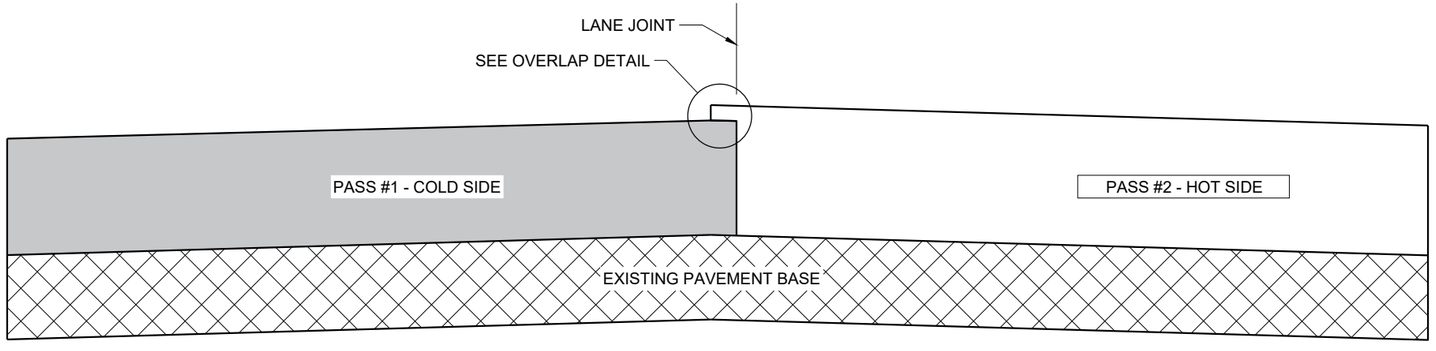
SDD 08F04 - 08



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

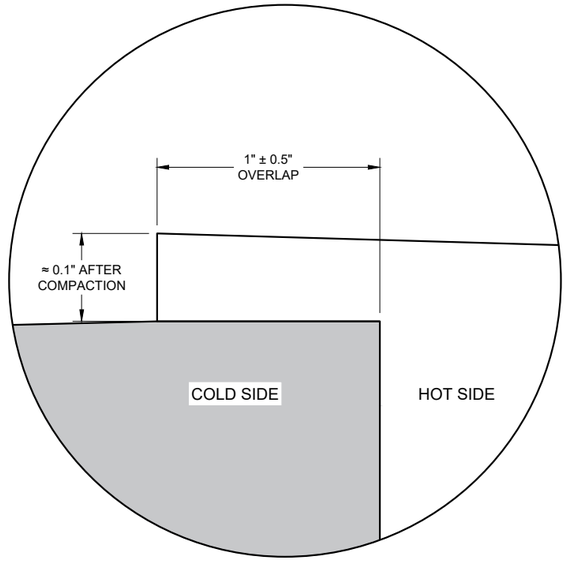
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

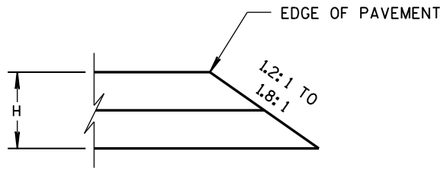
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

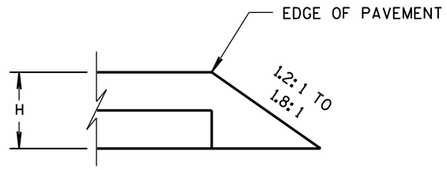
/S/ Steven Hefel
HMA PAVEMENT ENGINEER

FHWA



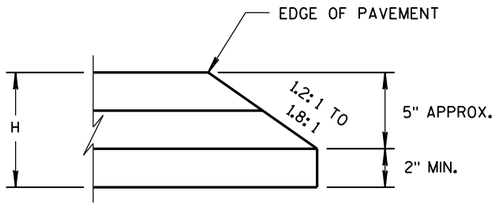
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



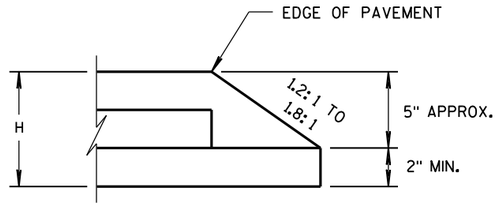
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

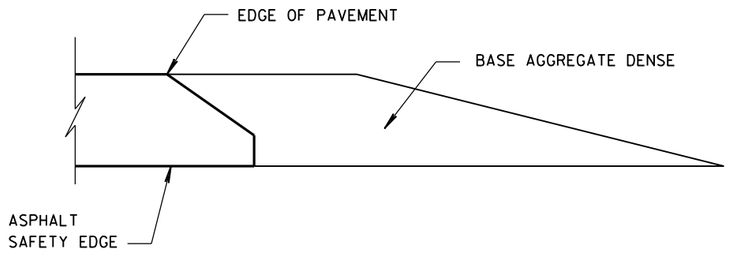
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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.

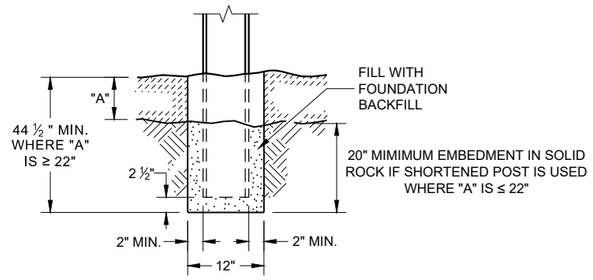
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

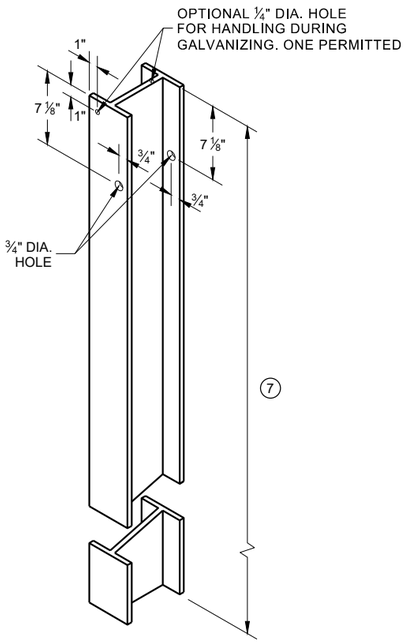
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

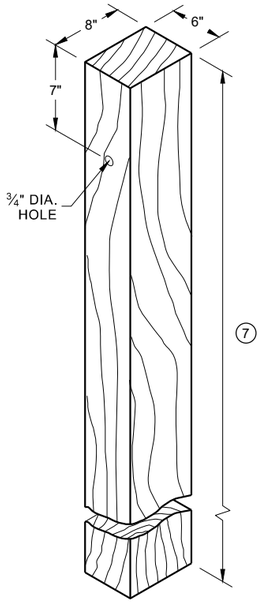
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



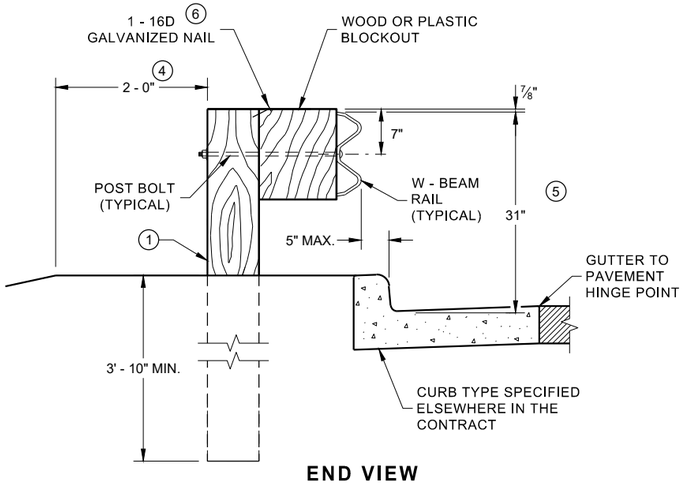
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



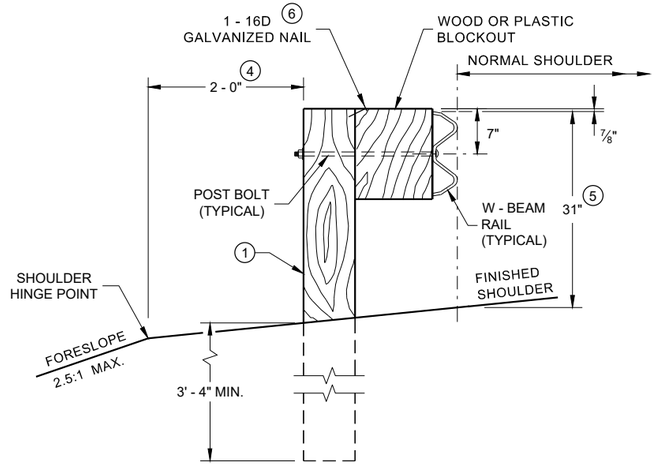
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



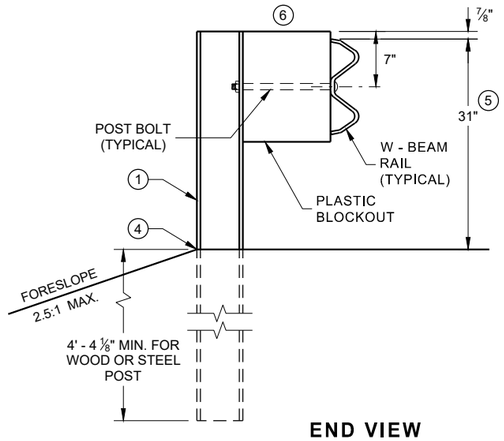
WOOD POST (6" X 8") NOMINAL (1)



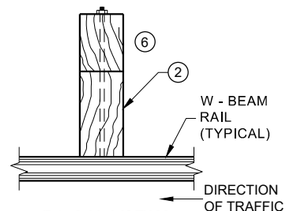
END VIEW
LOCATED ALONG A CURBED ROADWAY



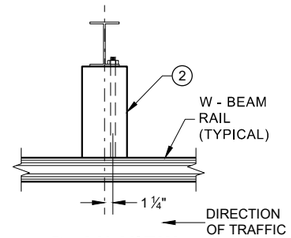
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



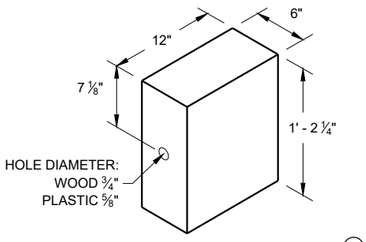
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

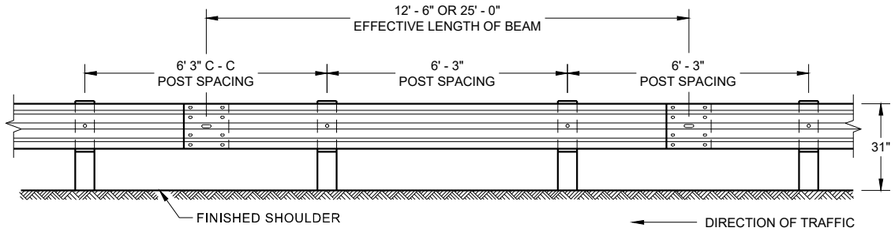
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

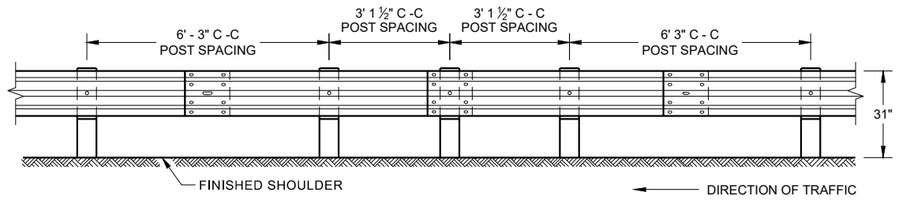
SDD 14B42 - 07a

6

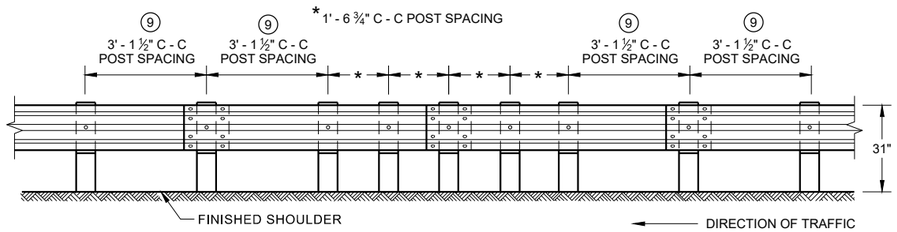
SDD 14B42 - 07a



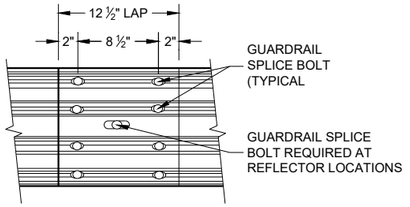
FRONT VIEW
POST SPACING STANDARD INSTALLATION



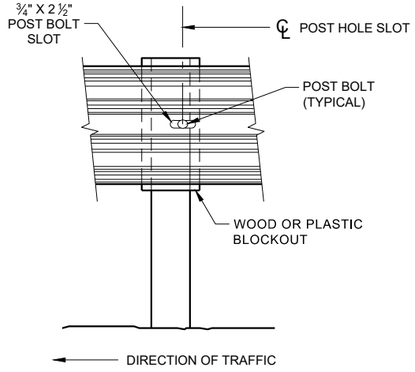
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



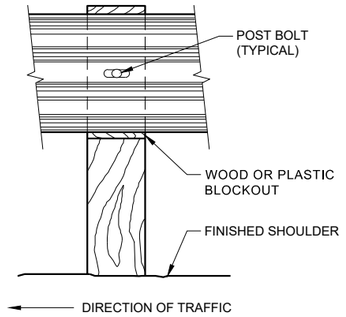
FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST

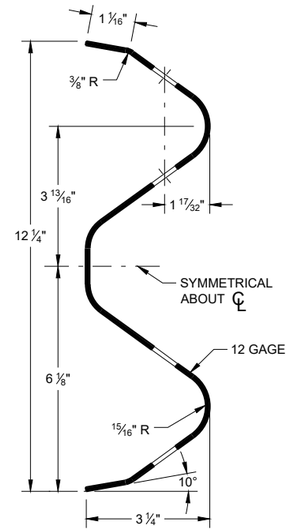
GENERAL NOTES

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

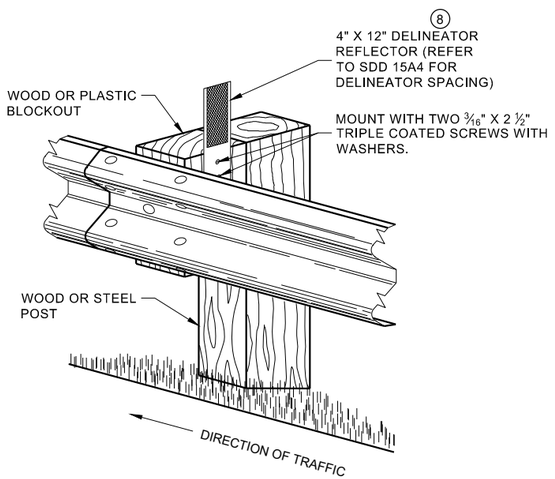
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

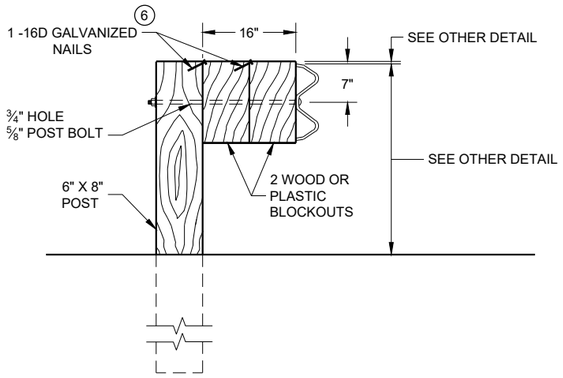
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

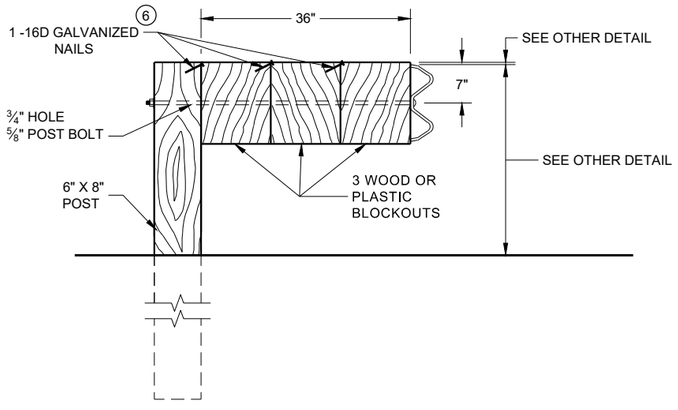
6

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.



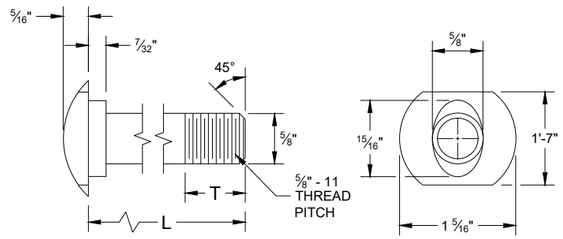
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

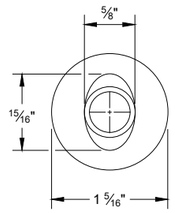
NOTE:

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

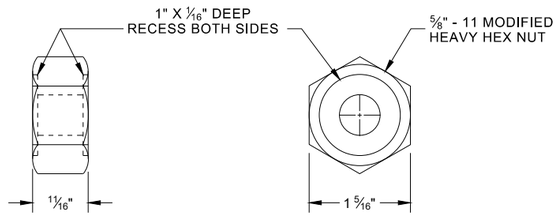


POST BOLT TABLE

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

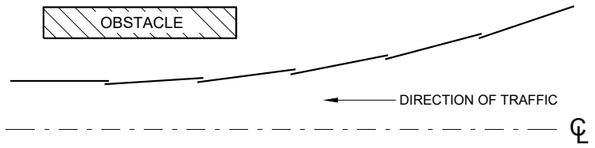


ALTERNATE BOLT HEAD

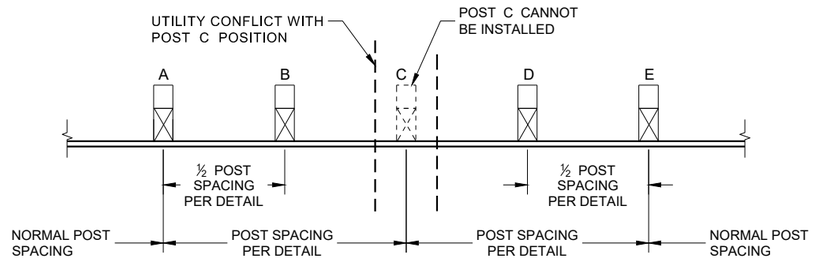


POST BOLT, SPLICE BOLT AND RECESS NUT

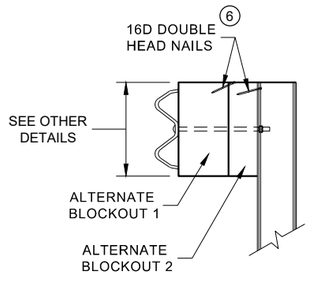
6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



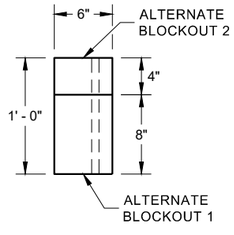
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

6

SDD 14B42 - 07c

6

SDD 14B42 - 07c

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

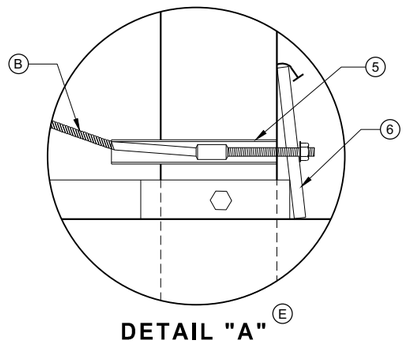
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

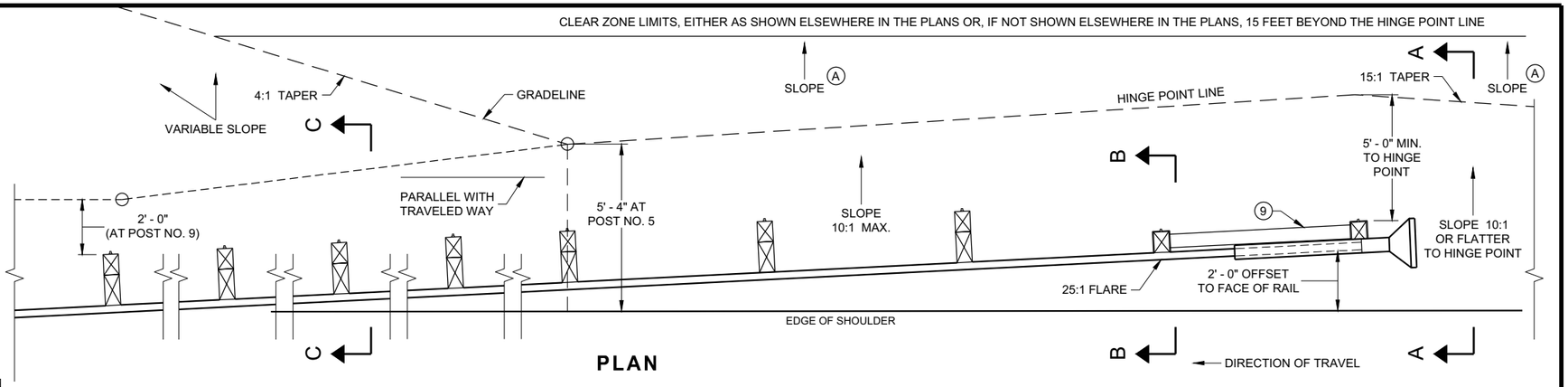
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

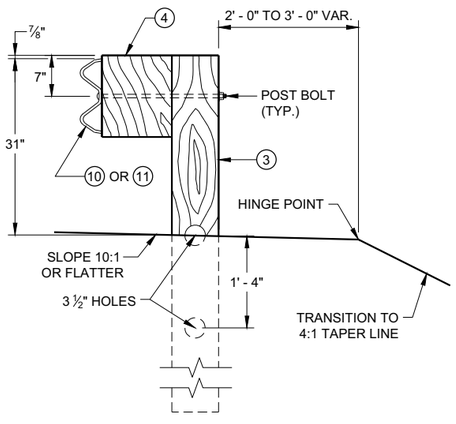
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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.

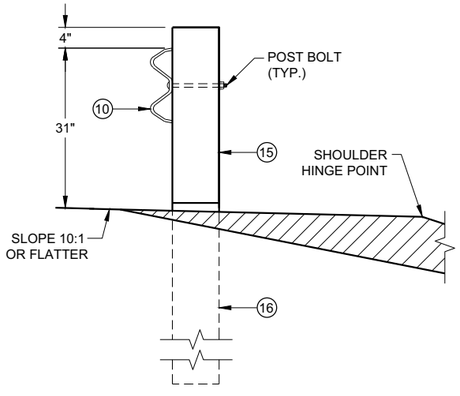


DETAIL "A" (E)

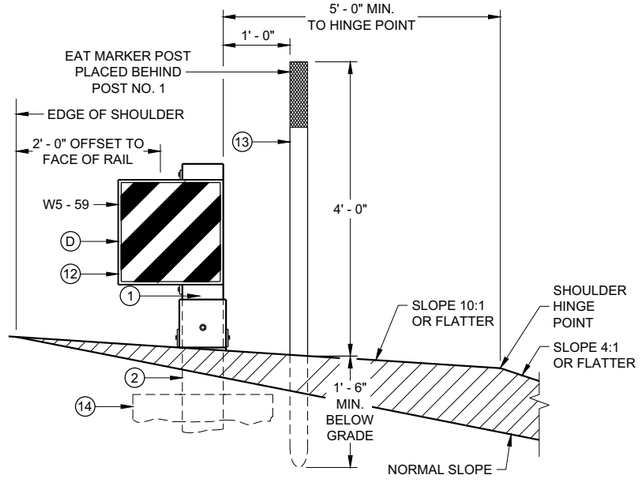




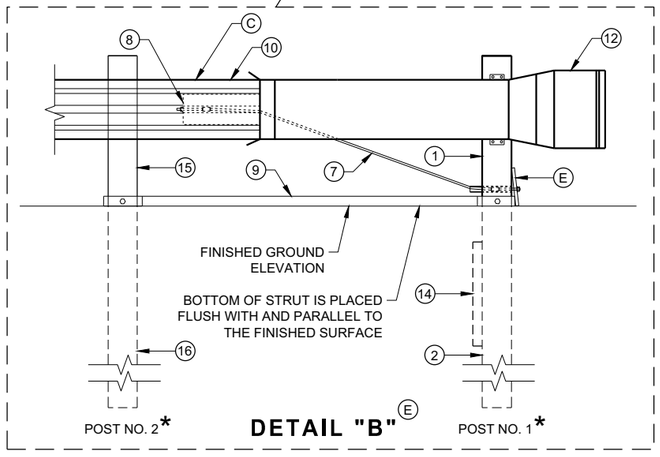
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



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

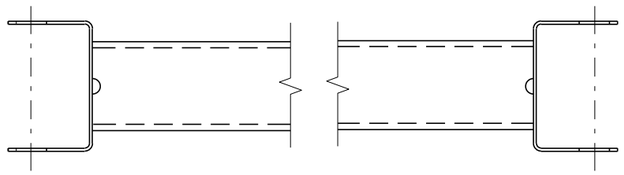
SDD 14B44 - 04a

SDD 14B44 - 04a

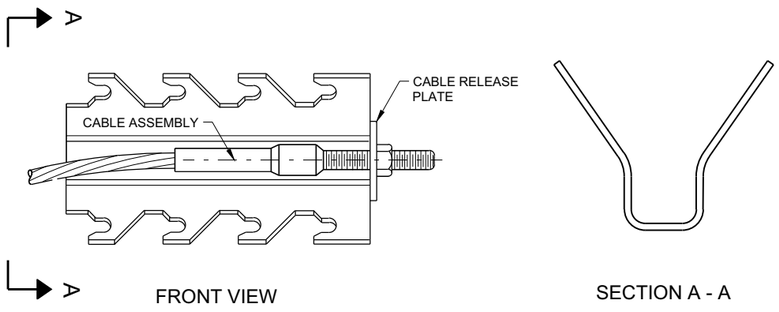
6

BILL OF MATERIALS

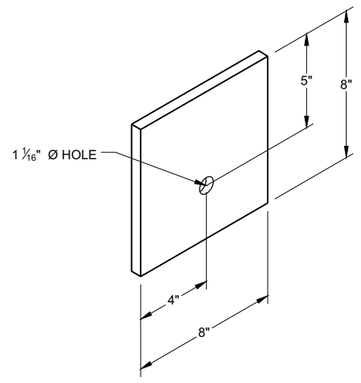
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
1	UPPER POST NO. 1 6" X 6" TUBE
2	LOWER POST NO. 1
3	WOOD CRT
4	WOOD BLOCKOUT
5	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL 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 GROUND STRUT (9) (E)



GENERIC ANCHOR CABLE BOX (9) (E)



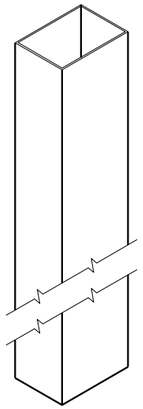
BEARING PLATE (6) (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

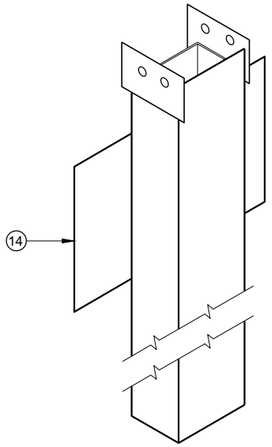
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

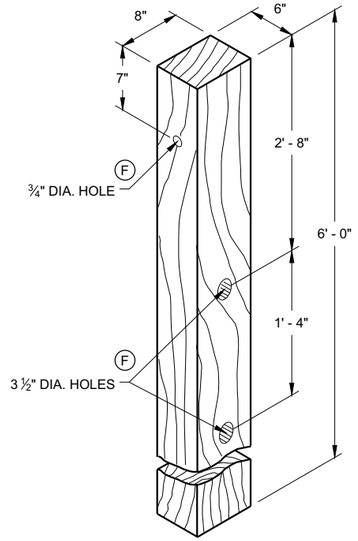
SDD 14B44 - 04b



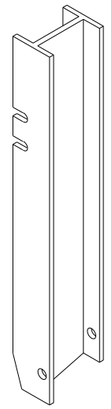
UPPER POST NO. 1 (1) (E)



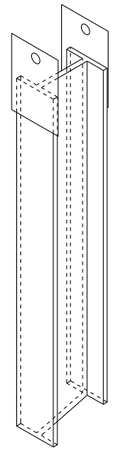
LOWER POST NO. 1 (2) (E)



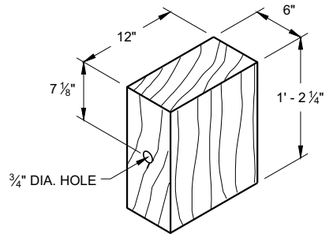
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



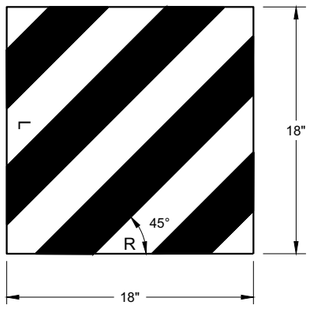
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

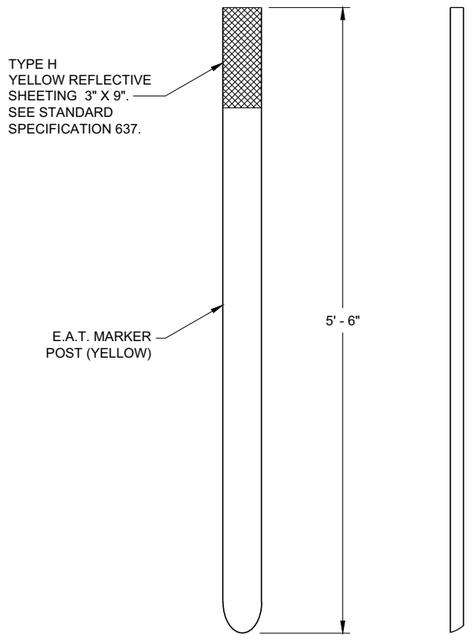


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



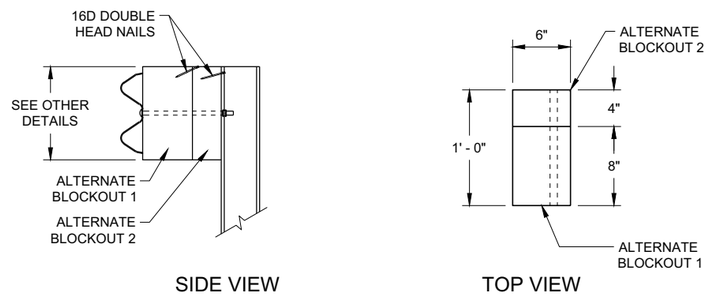
W5 - 59

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

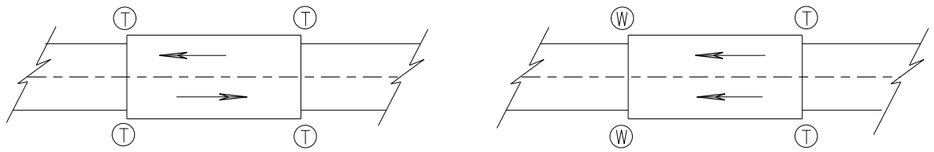
APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

6

SDD 14B44 - 04c

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.

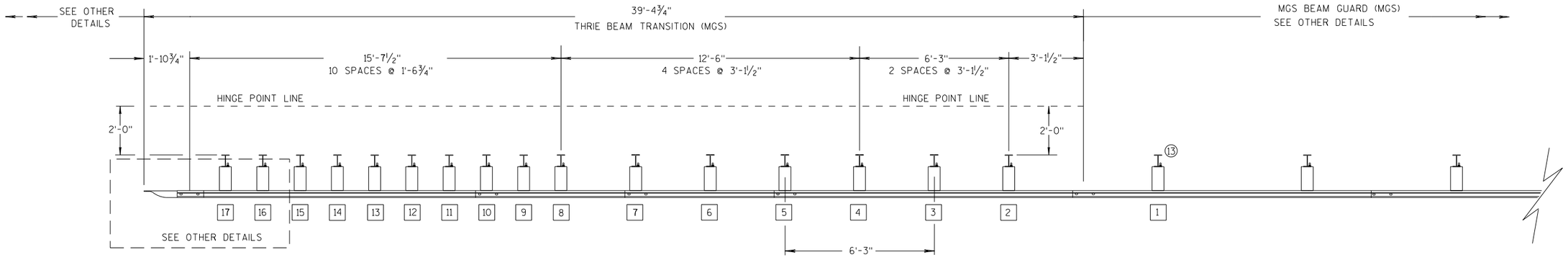
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

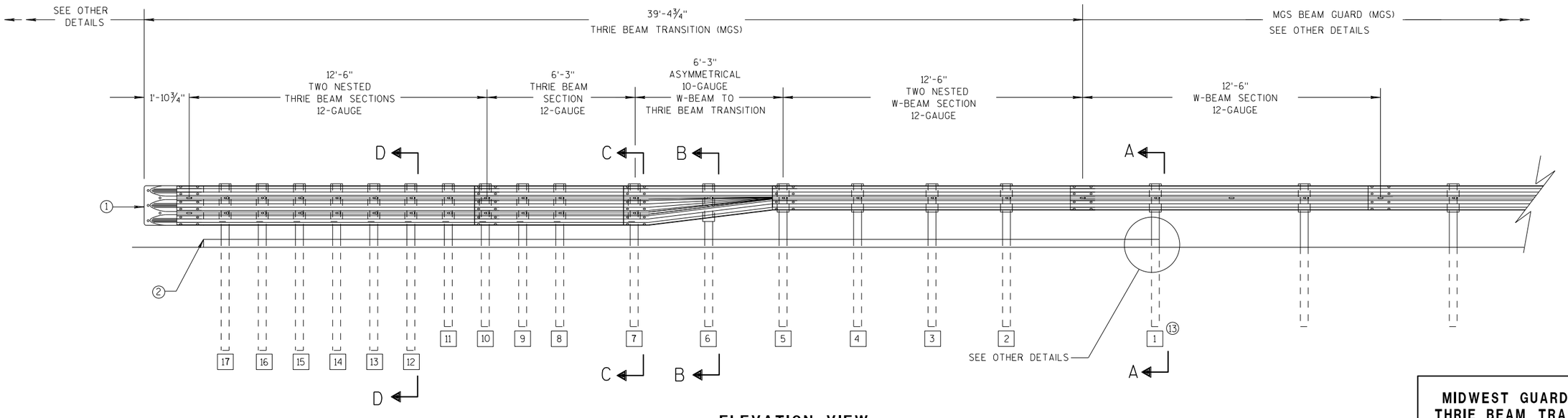
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPORTATION

6

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

6

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

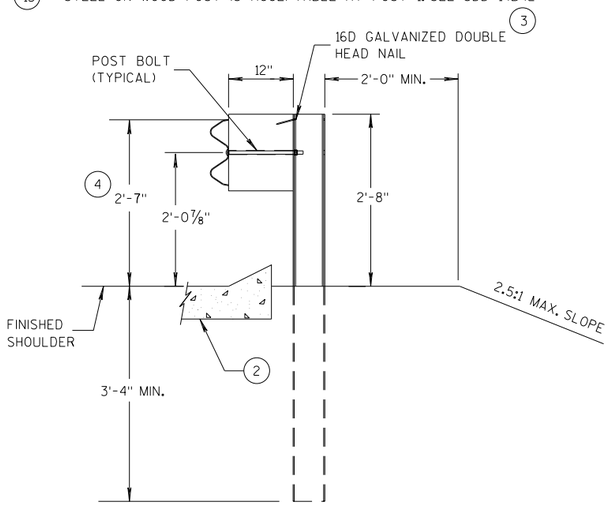
GENERAL NOTES

(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.

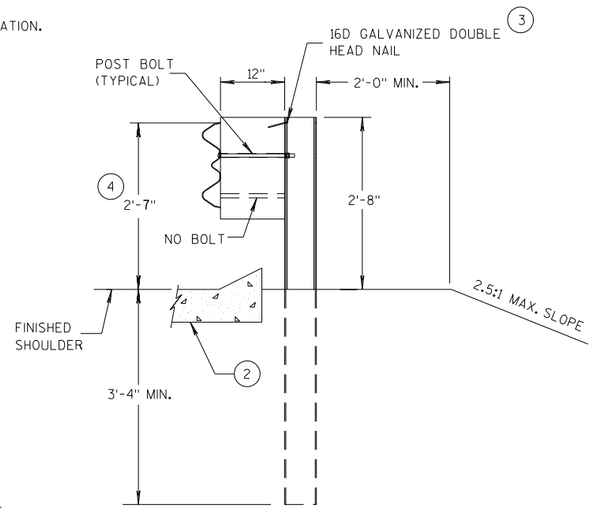
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



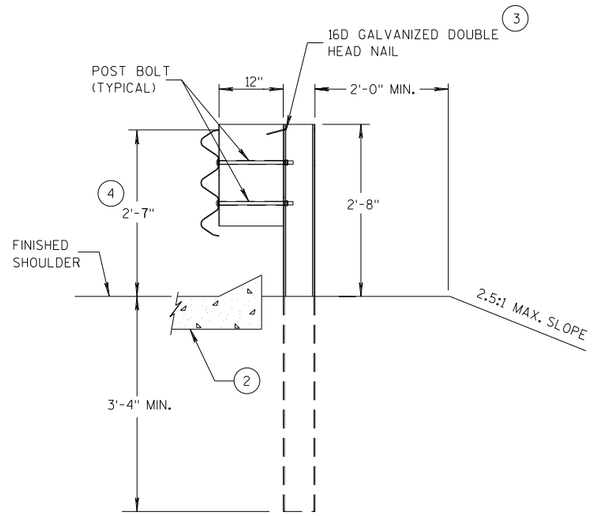
SECTION A-A (13)

POSTS 1-5



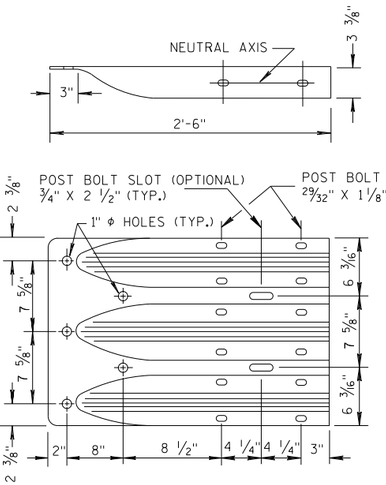
SECTION B-B

POST 6

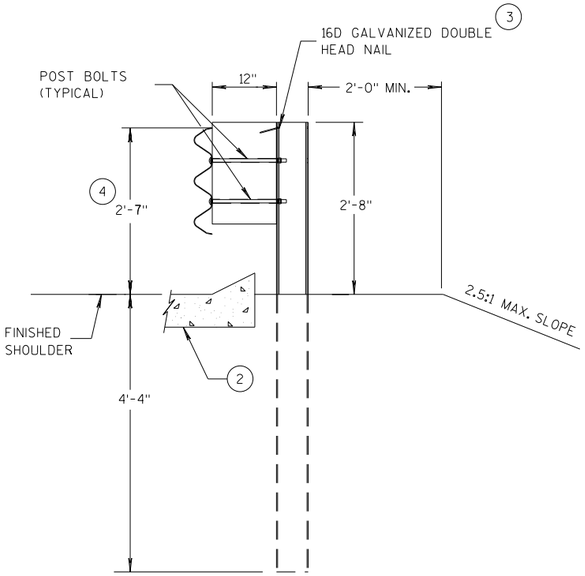


SECTION C-C

POSTS 7-11

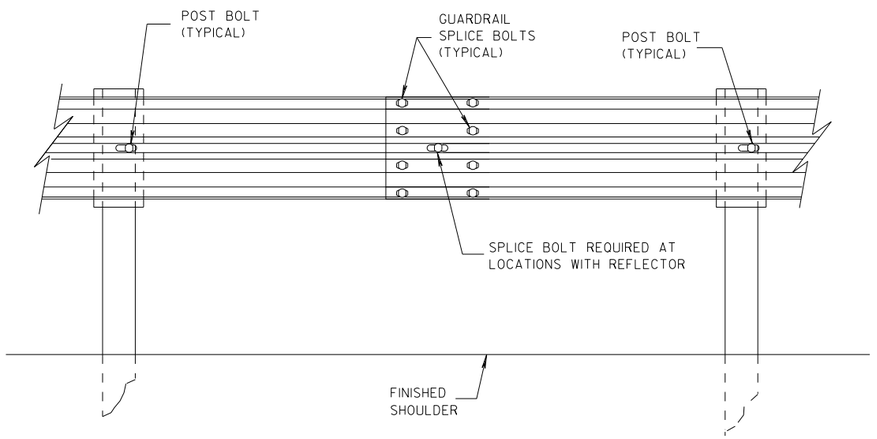


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

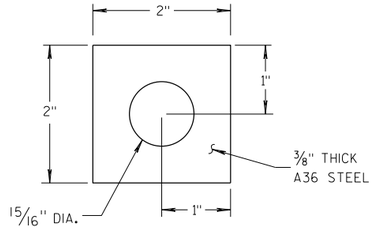
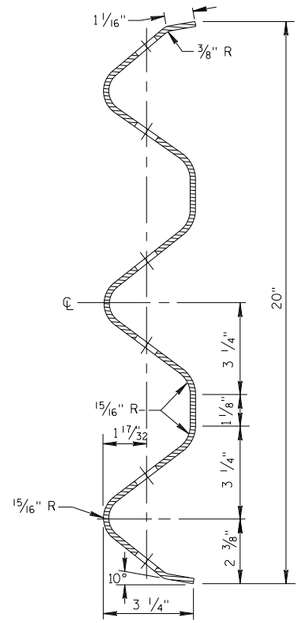


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

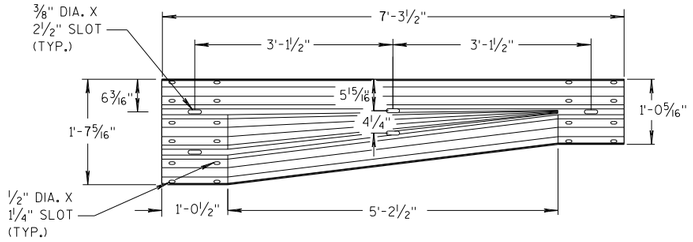
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

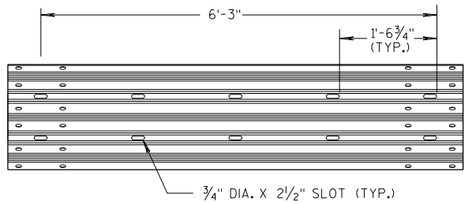
S.D.D. 14 B 45-5b

6

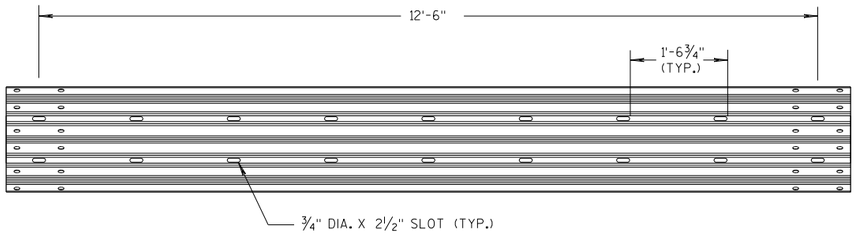
S.D.D. 14 B 45-5b



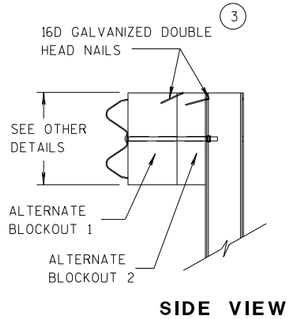
W-BEAM TO THRIE BEAM TRANSITION SECTION



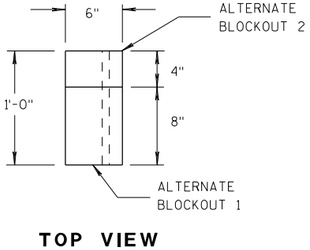
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

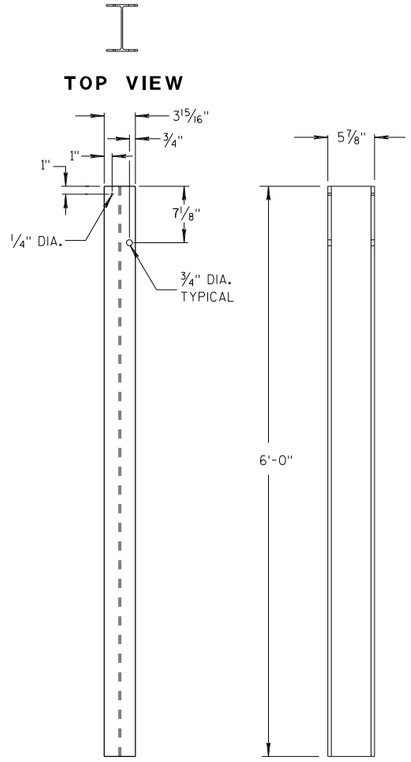


SIDE VIEW



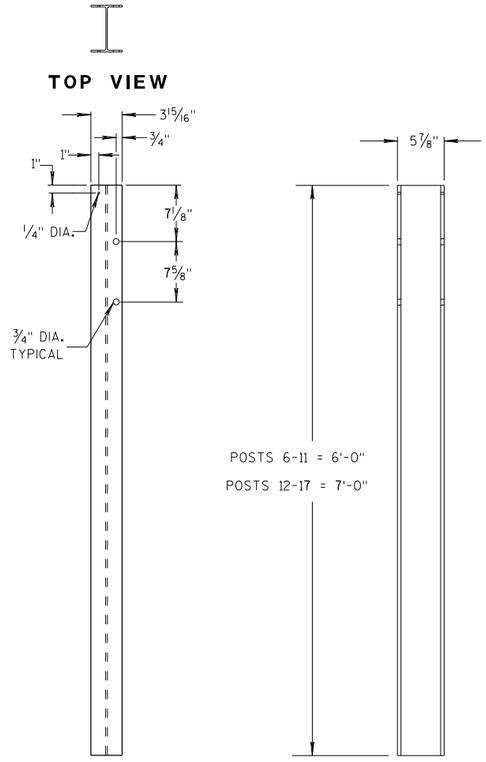
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



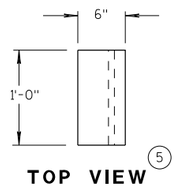
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

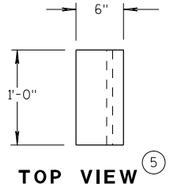


FRONT VIEW SIDE VIEW

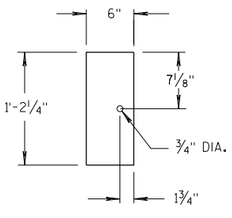
STEEL POSTS 6-17



TOP VIEW (5)

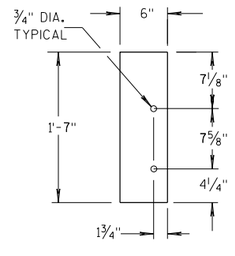


TOP VIEW (5)



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)

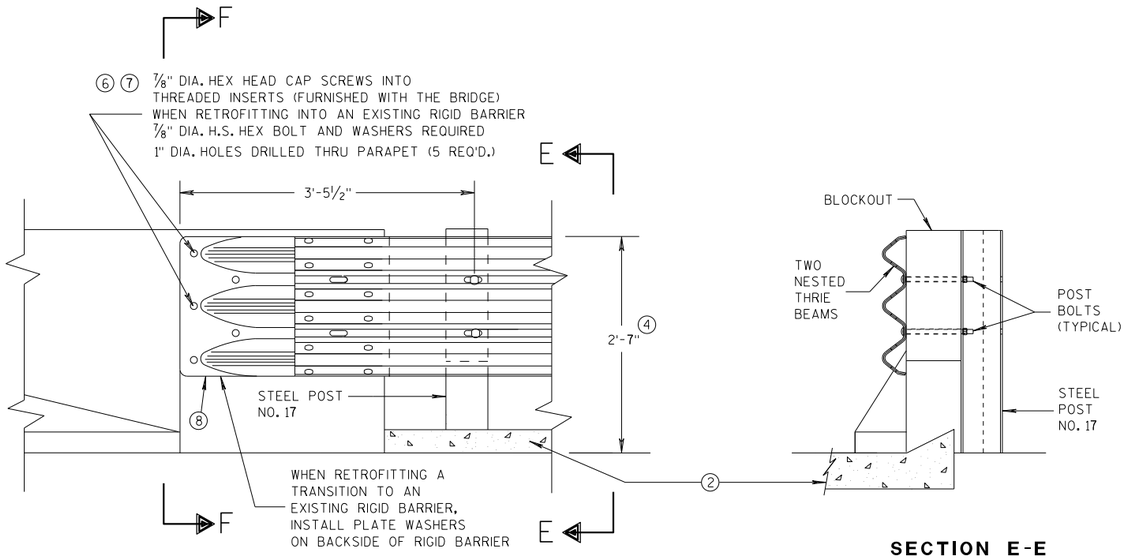
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

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.

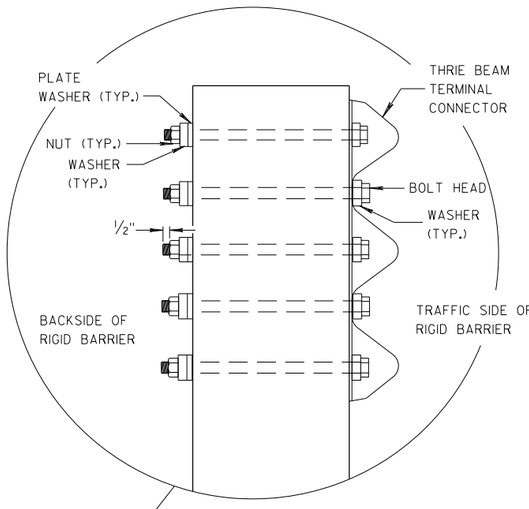
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

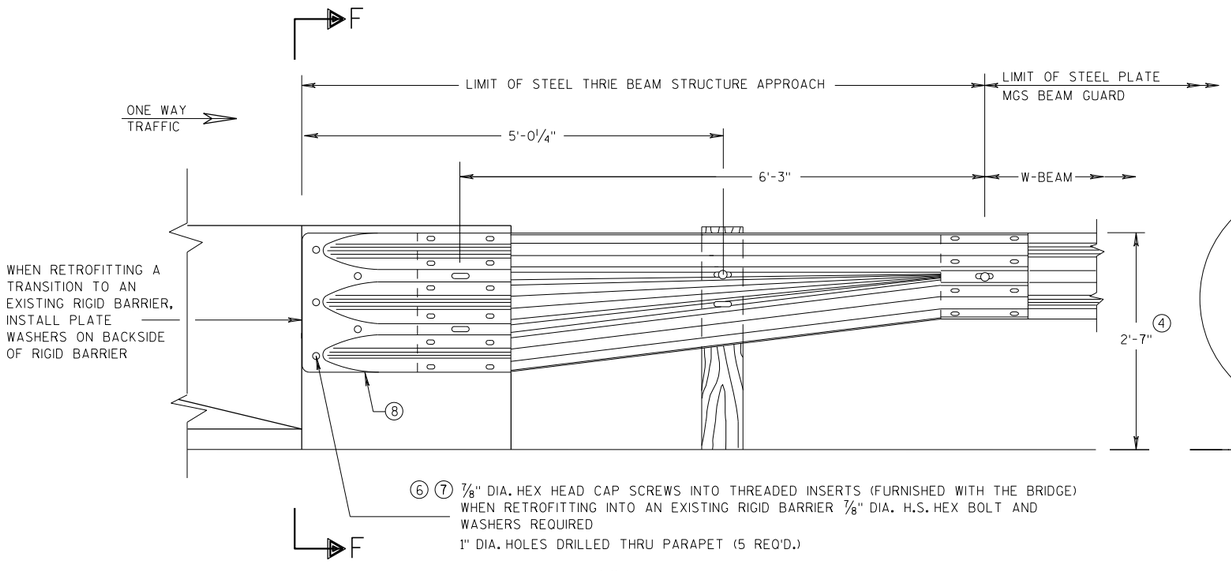
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

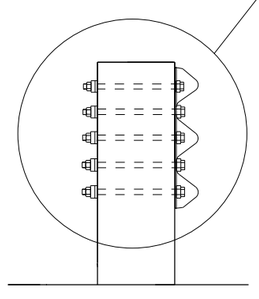
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

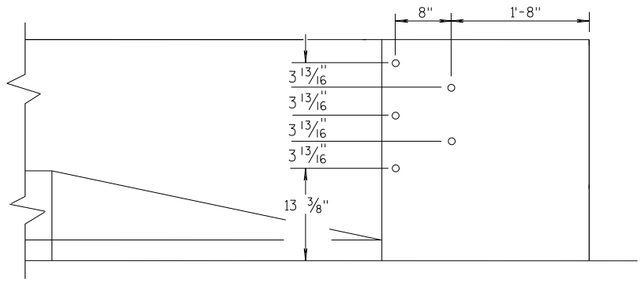




FRONT VIEW



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

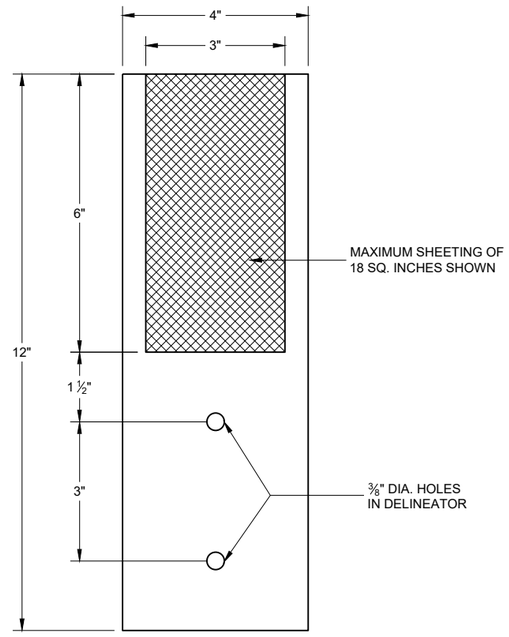
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

6

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

6

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



4" x 12" DELINEATOR
WITH REFLECTIVE SHEETING

6

DELINEATOR
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

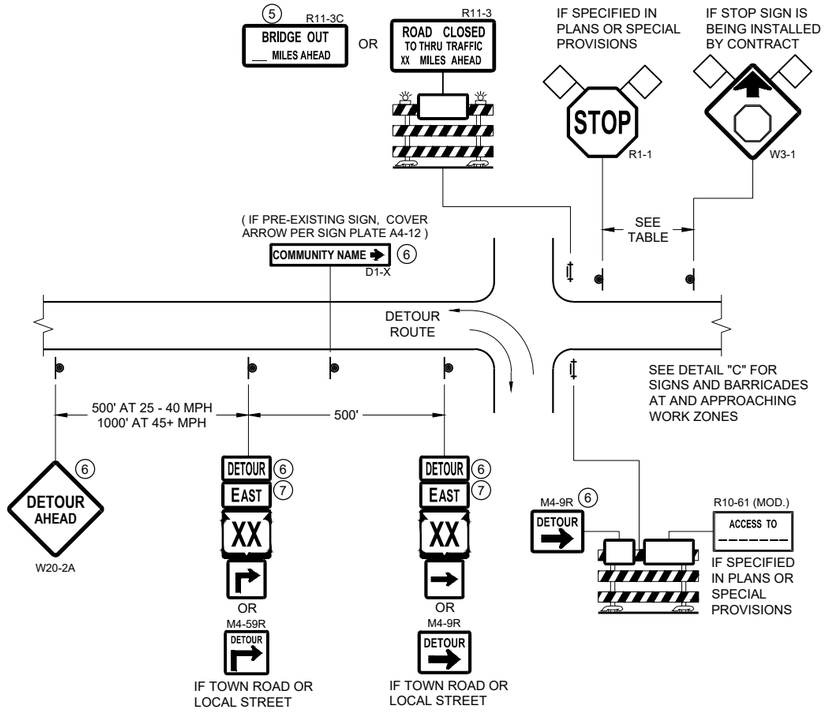
APPROVED

November 2021
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

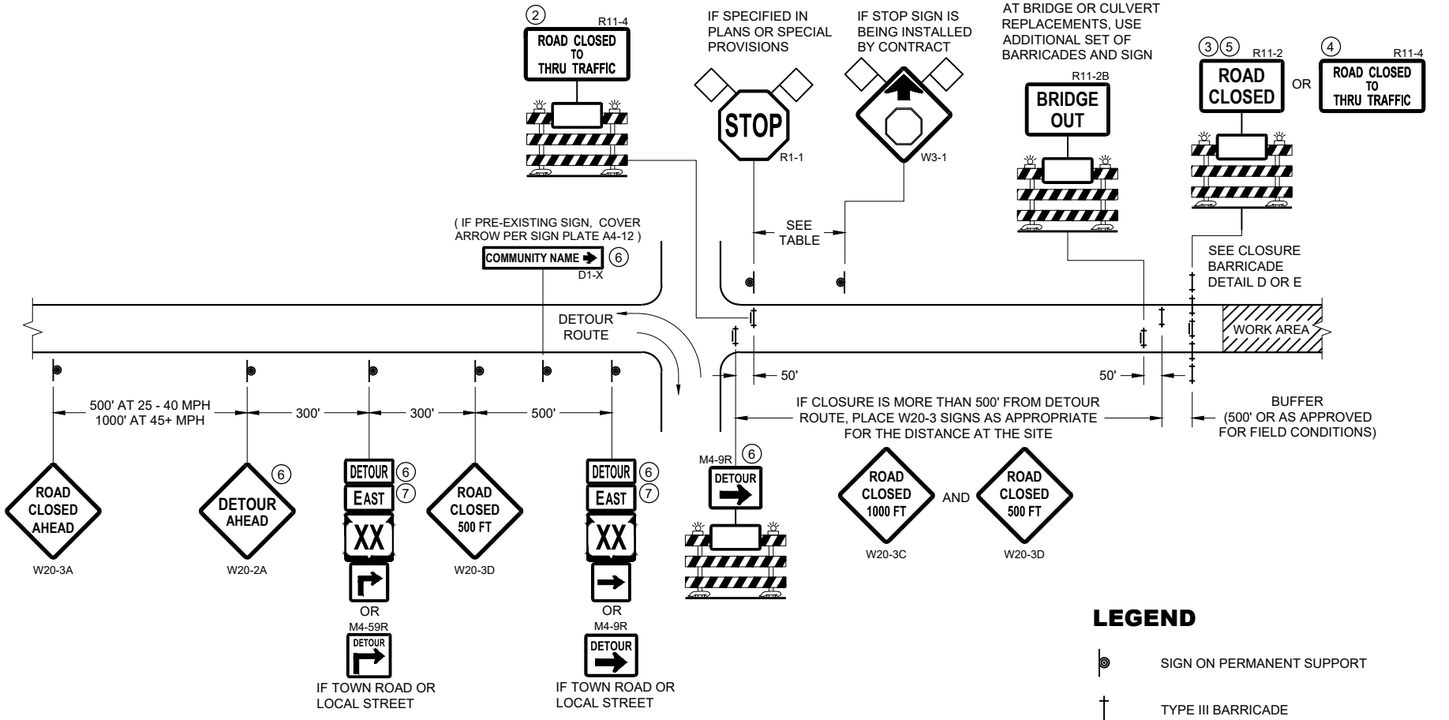
FHWA

SDD15A04 - 07e



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



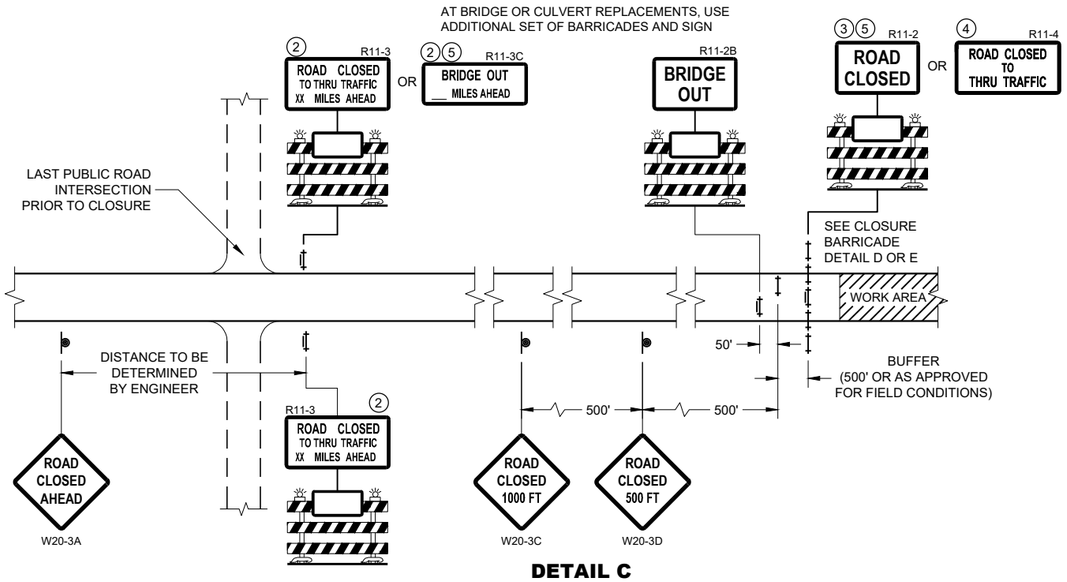
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

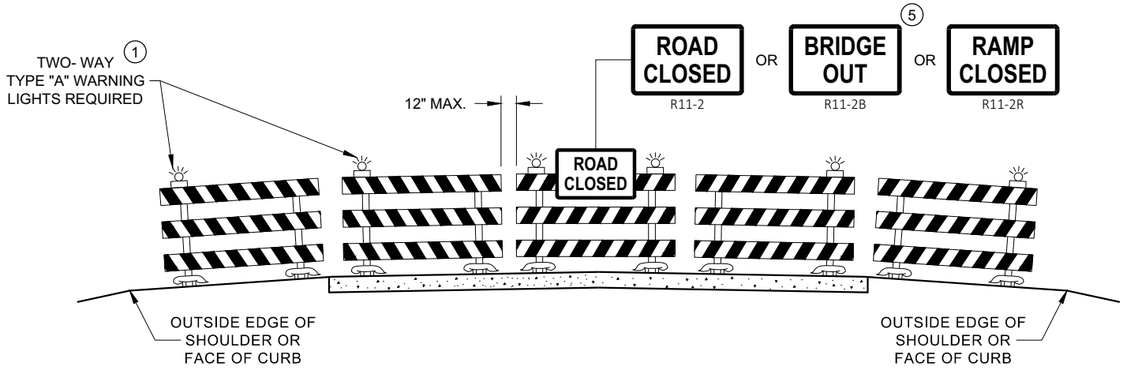
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

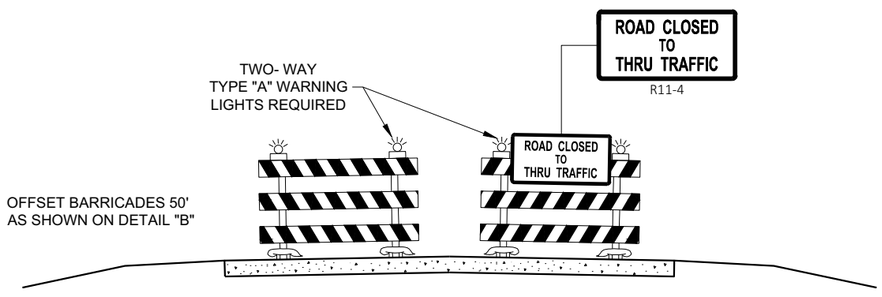
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15C02 - 08b

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.

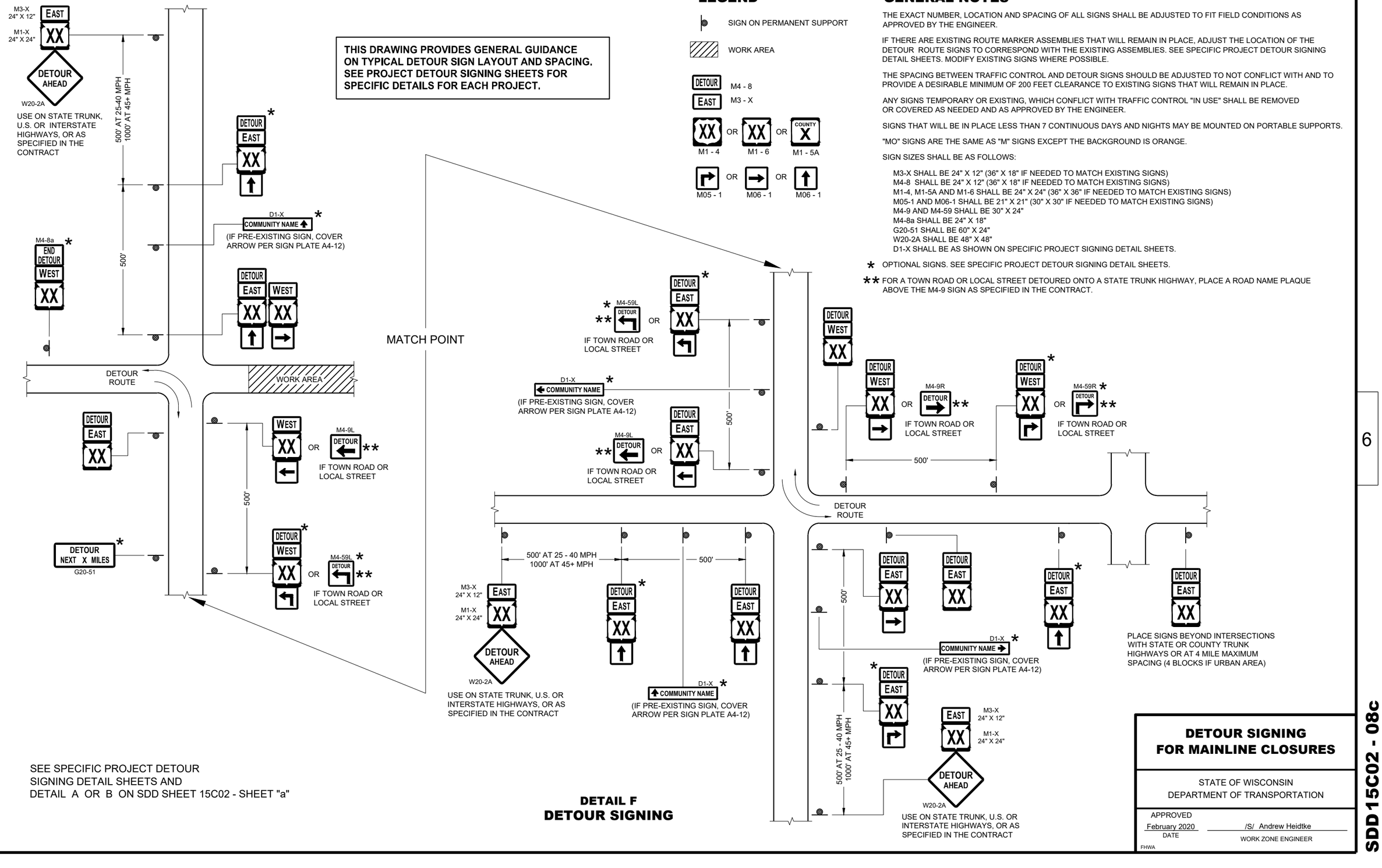
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

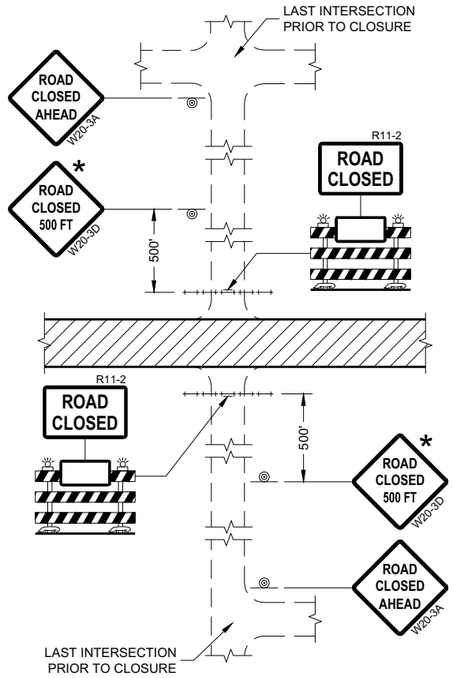
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

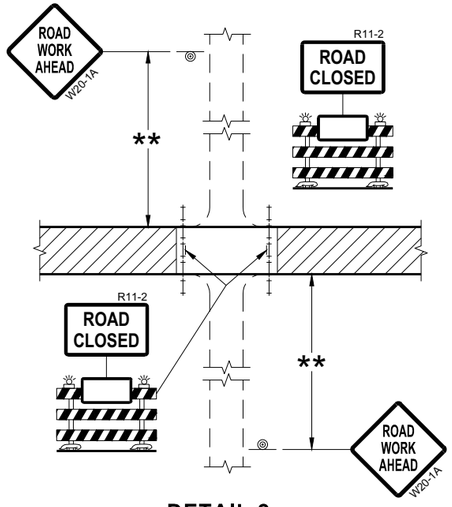
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

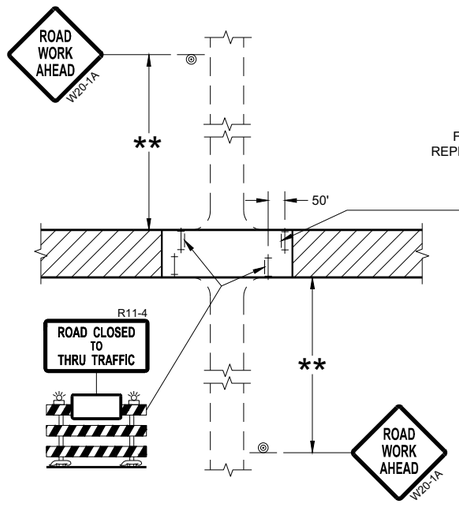
6
SDD 15C02 - 08c



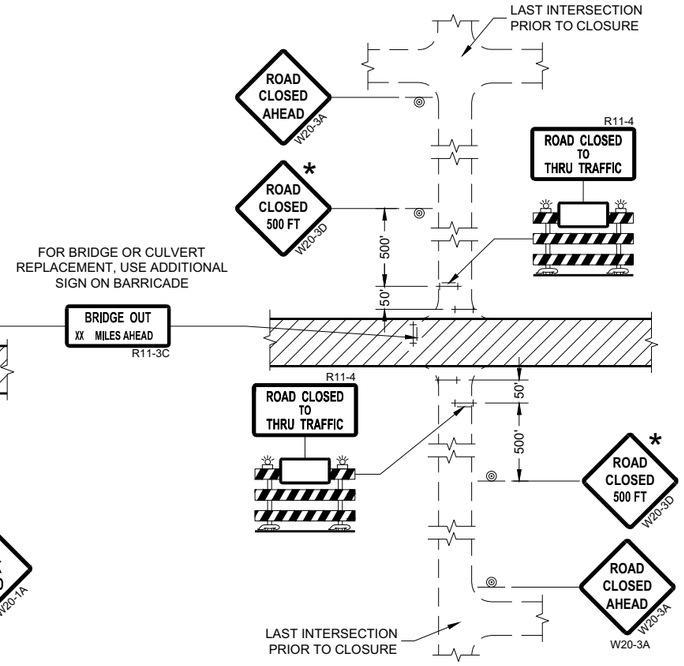
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT 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.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
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.

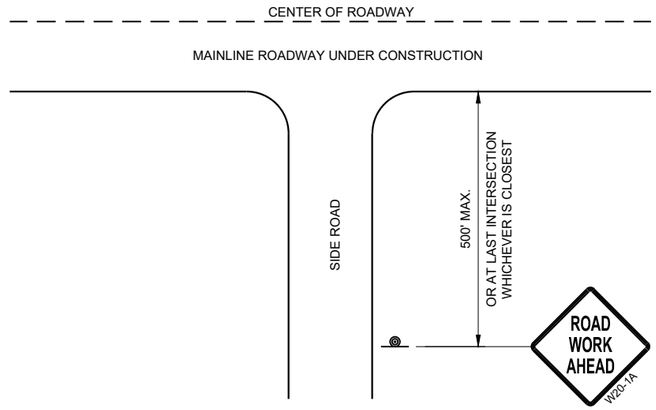
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



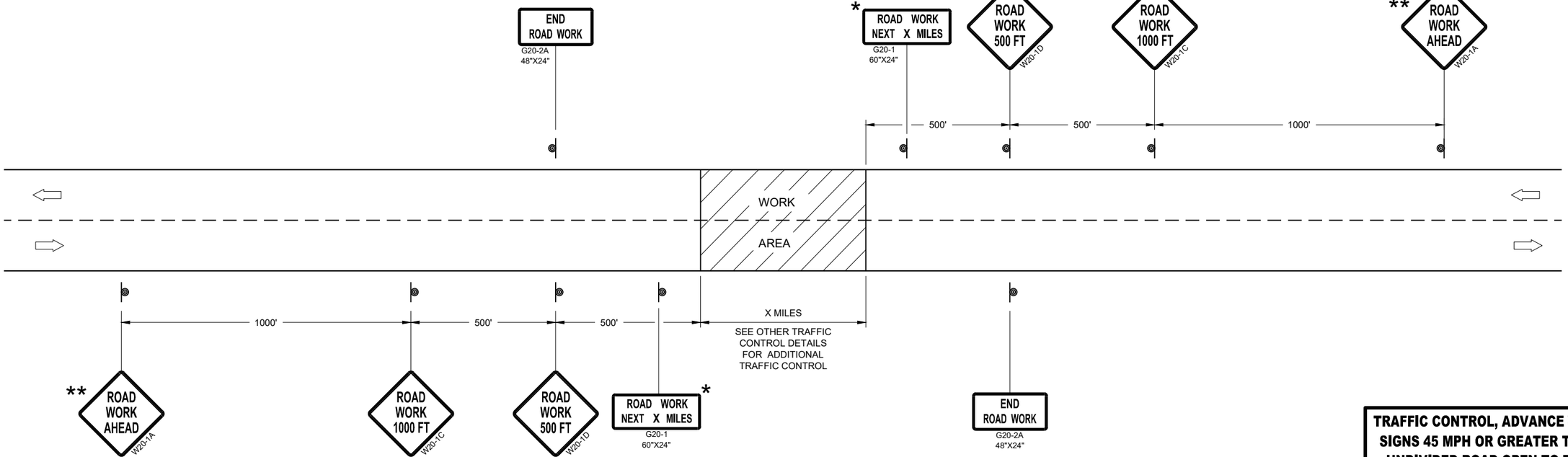
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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 ENGINEER

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

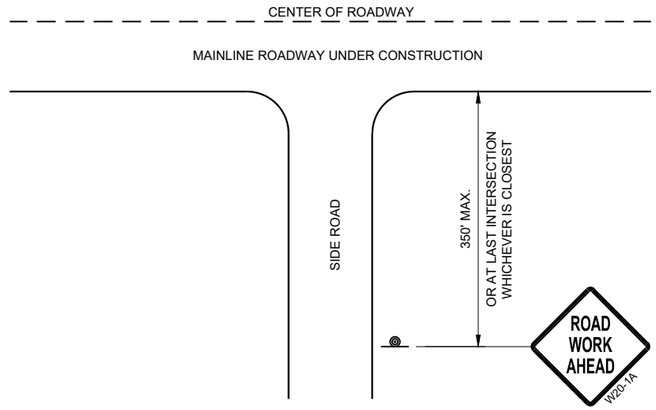
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



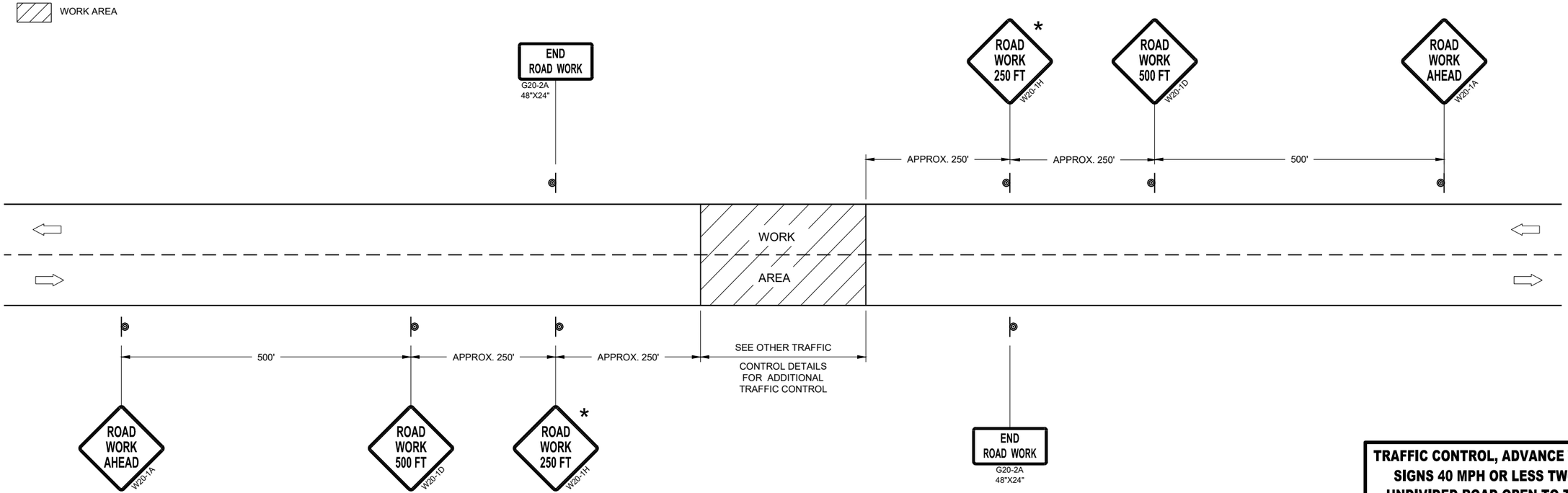
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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

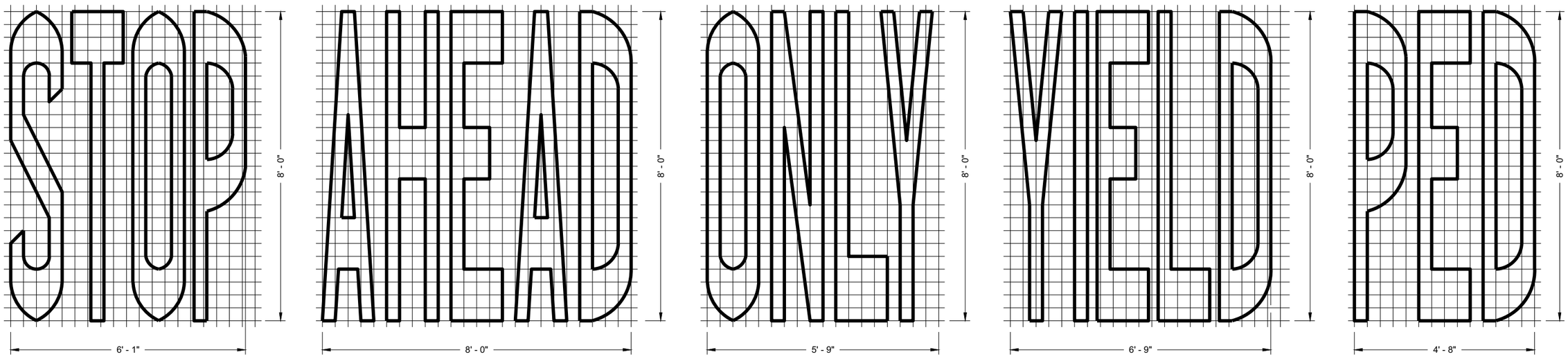
APPROVED
July 2018
DATE

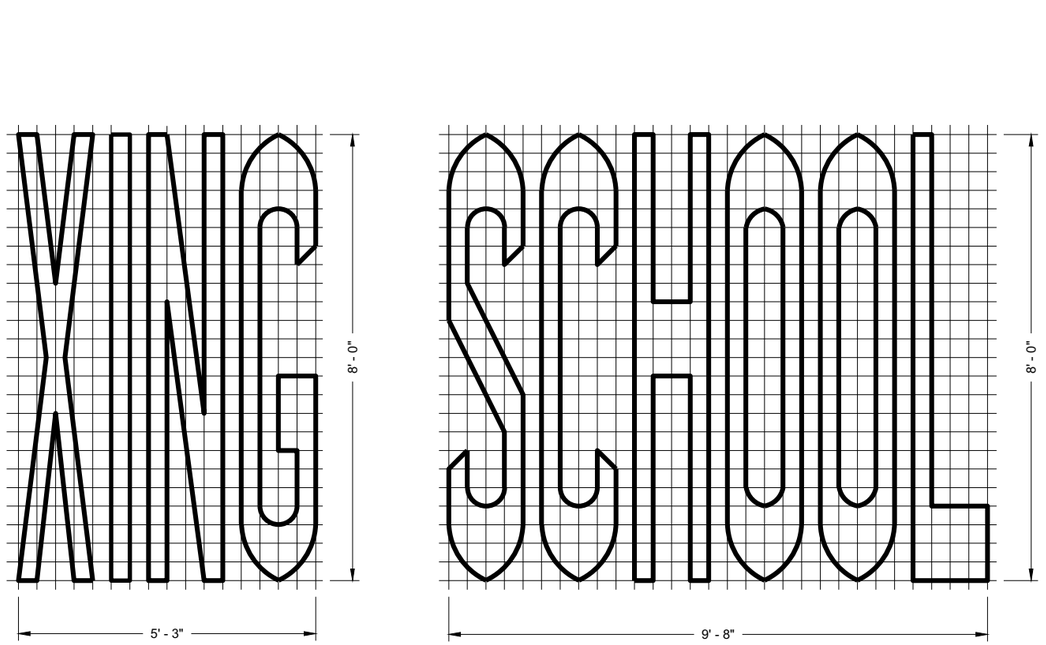
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

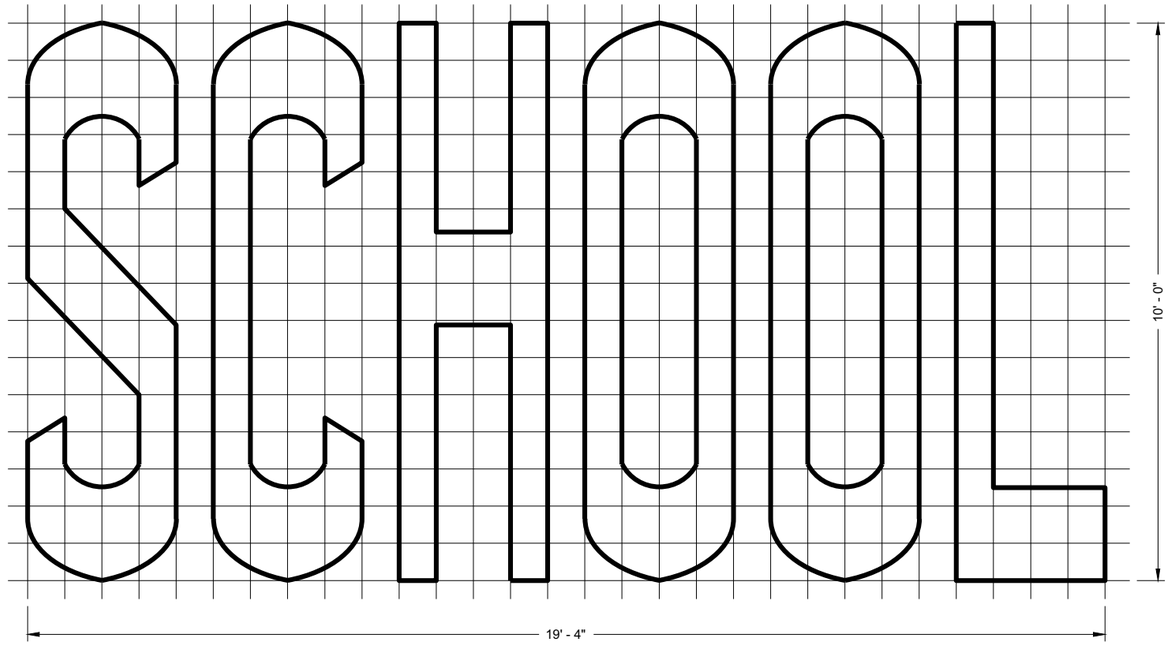
6

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

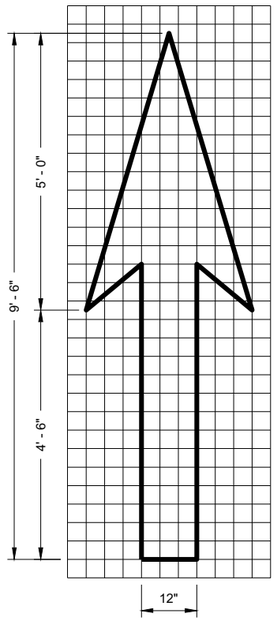
APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

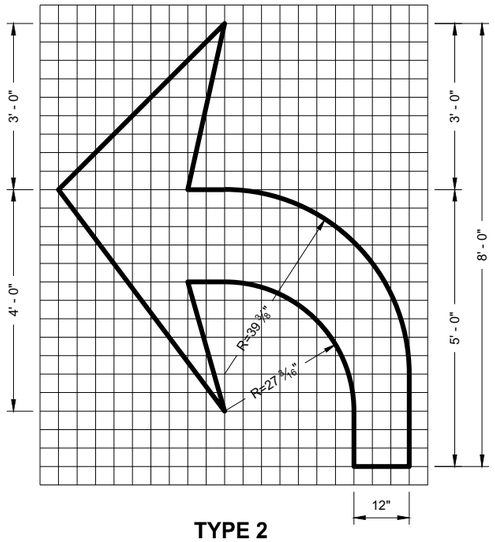
FHWA

6

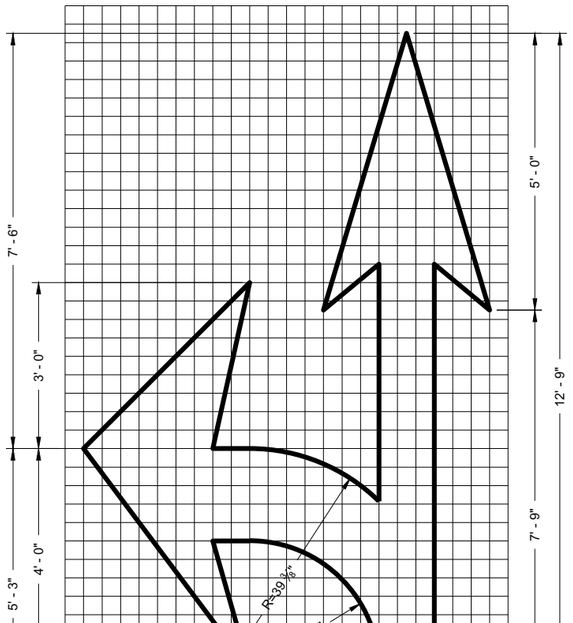
SDD 15C07 - 15b



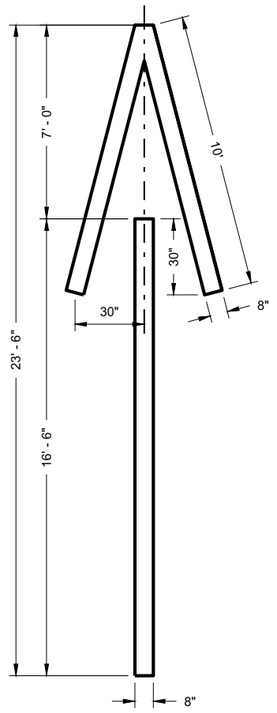
TYPE 1



TYPE 2



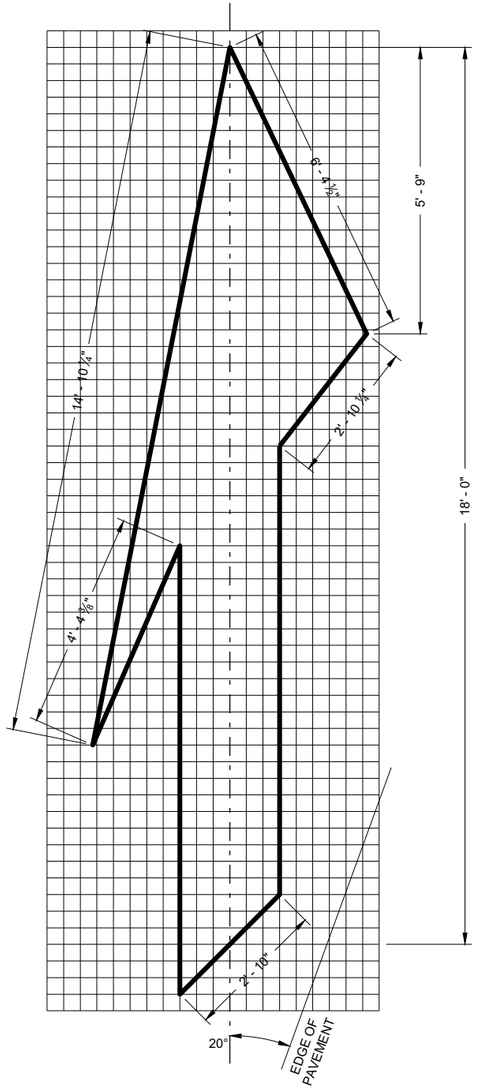
TYPE 3



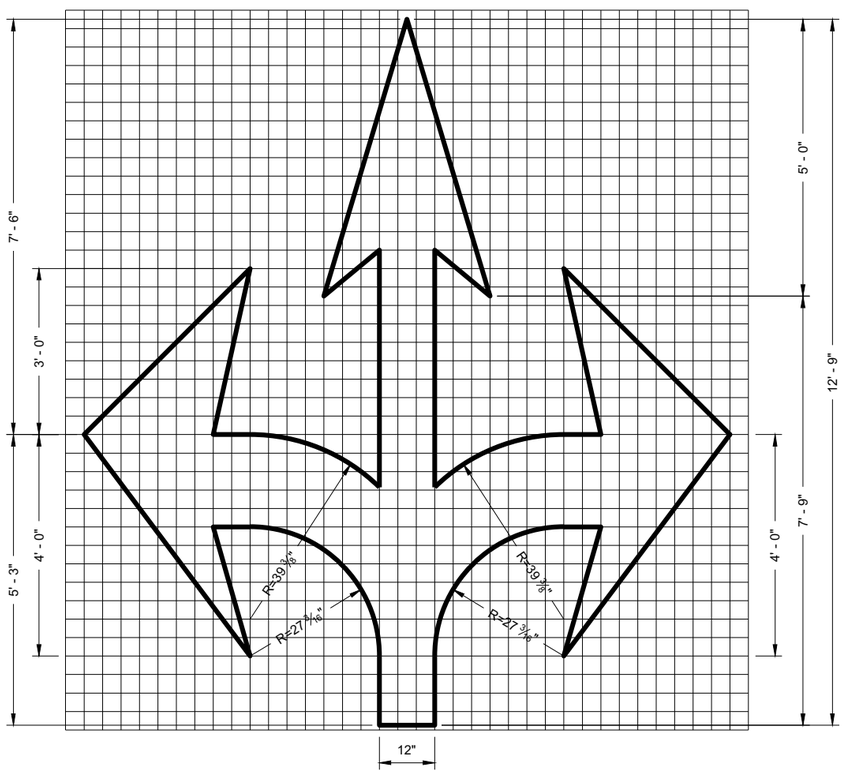
TYPE 4

GENERAL NOTES

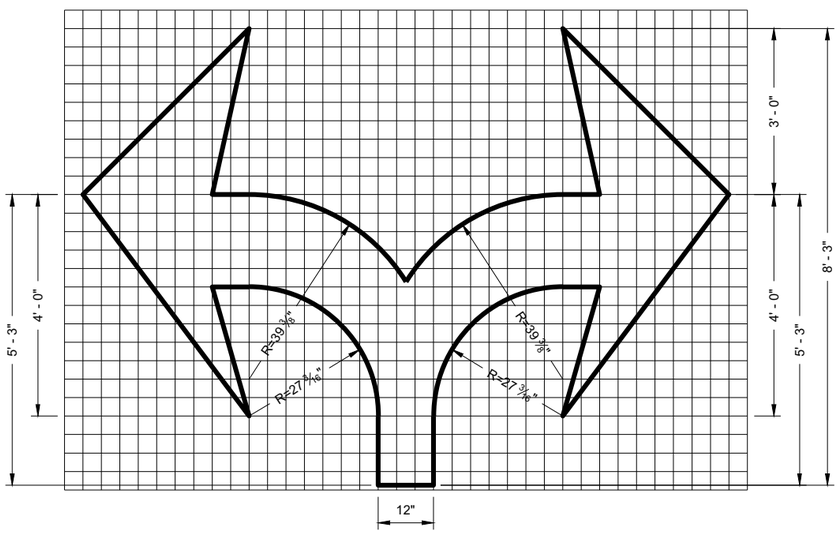
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 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

6

SDD 15C07 - 15c

6

SDD15C07 - 15c

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

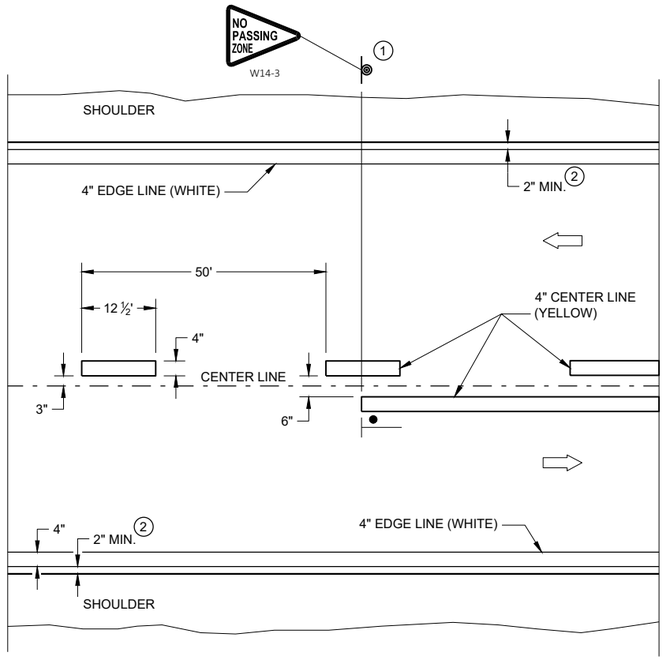
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

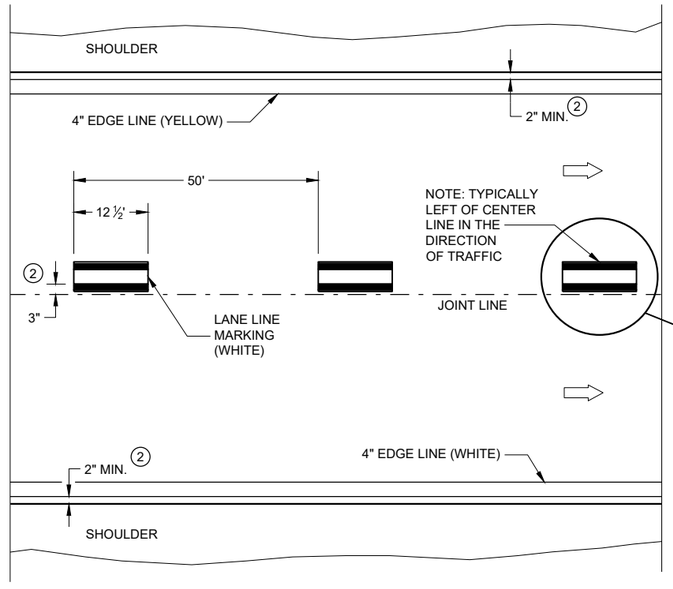
"T" MARKING

SIGN ON PERMANENT SUPPORT

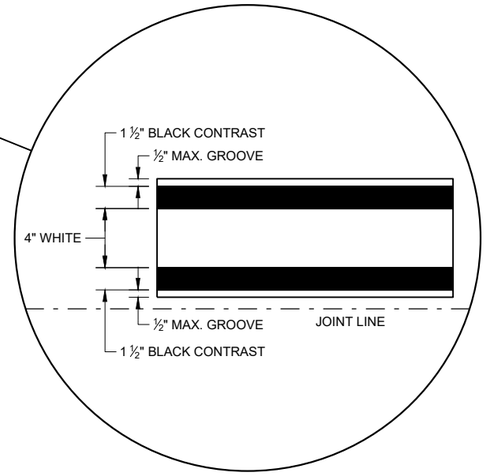
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

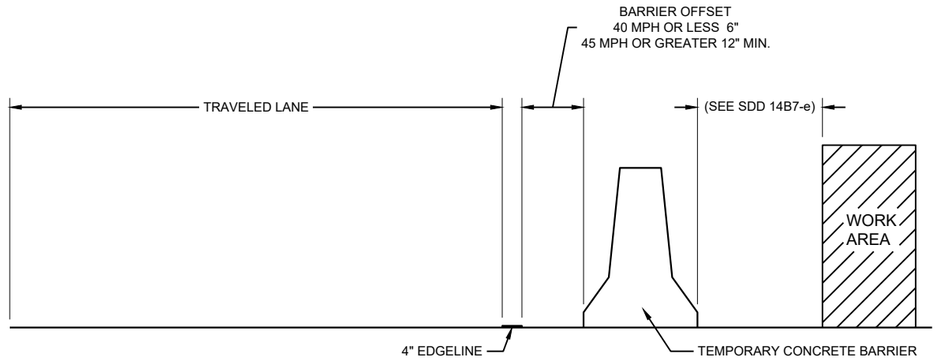
APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND MARKING ENGINEER
FHWA

6

SDD 15C08 - 22a

6

SDD 15C08 - 22a



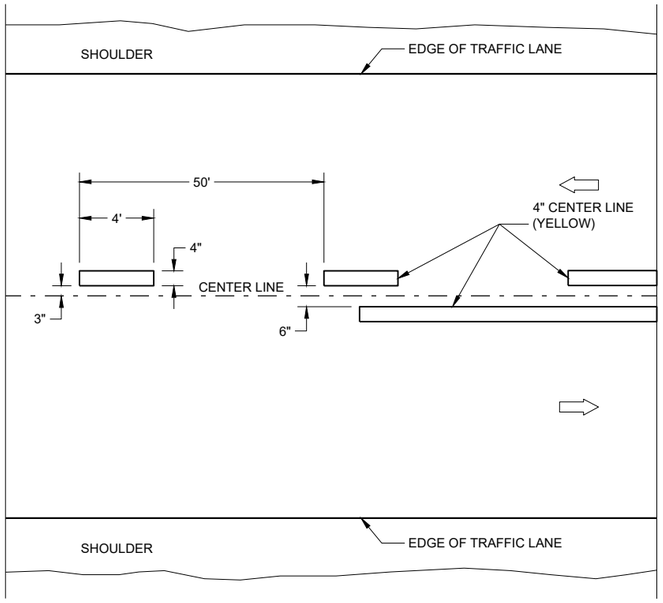
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

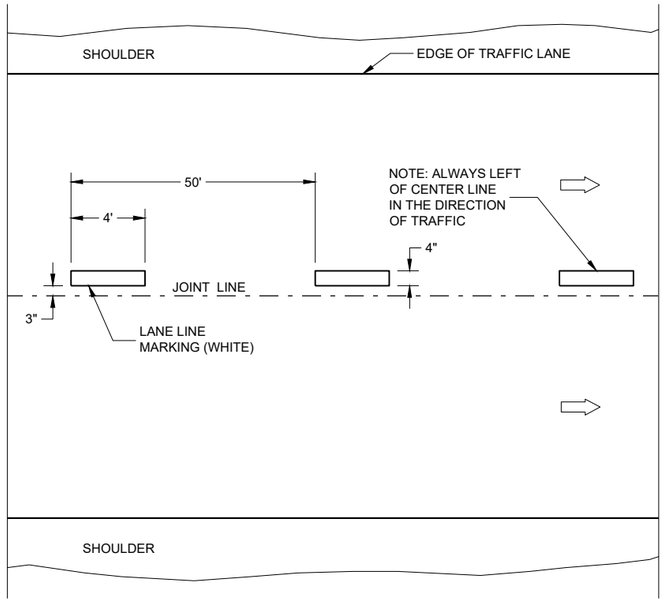
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

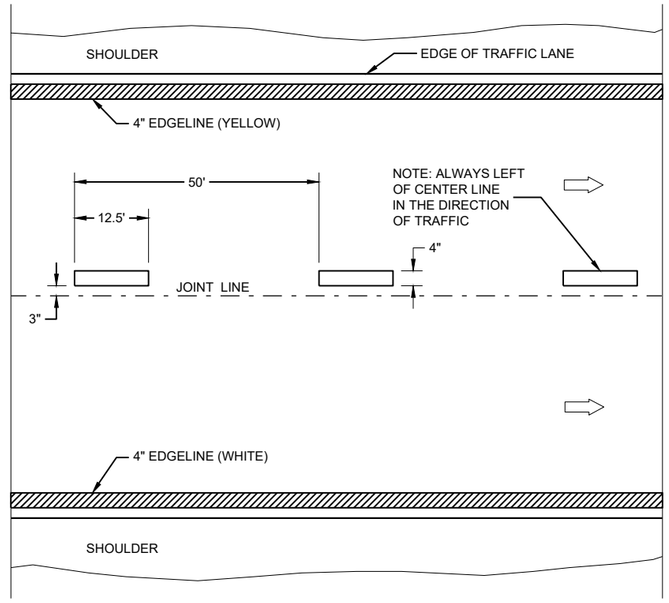
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C08 - 22b

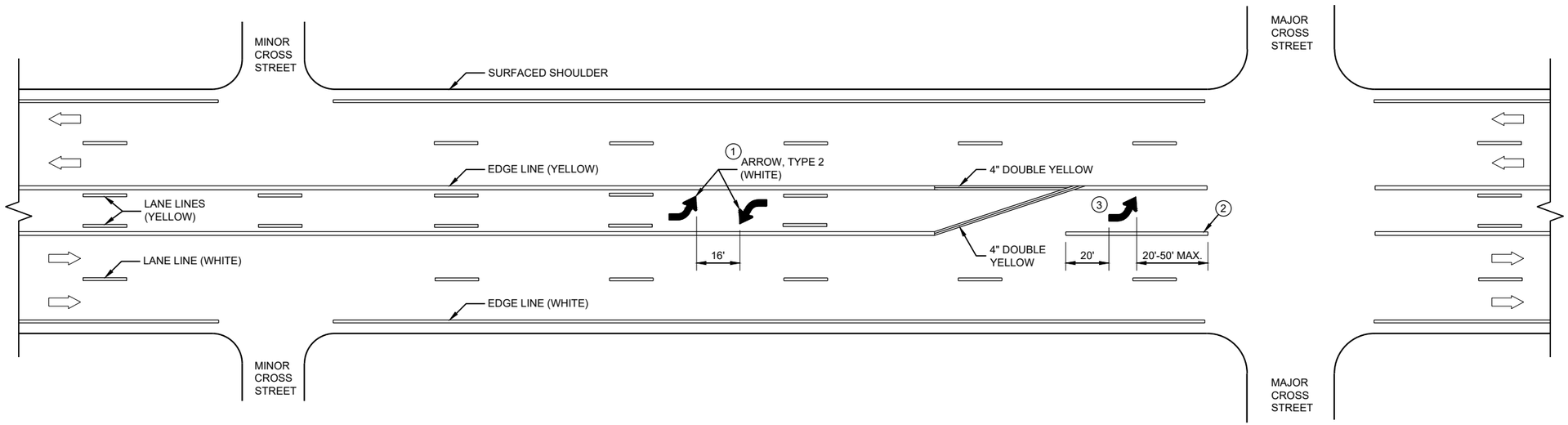
6

SDD 15C08 - 22b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

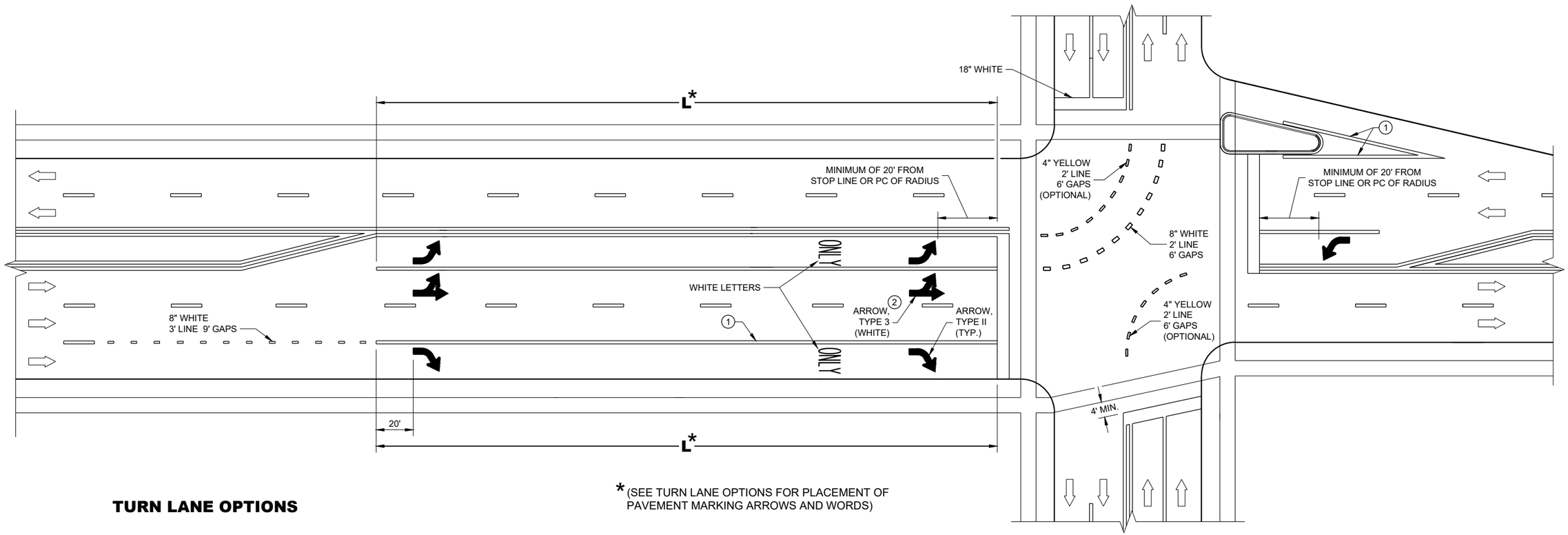
SDD 15C08 - 22c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

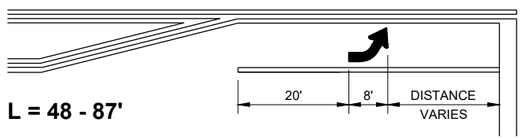
SDD 15C08 - 22c



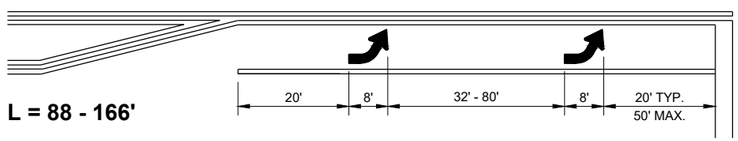
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

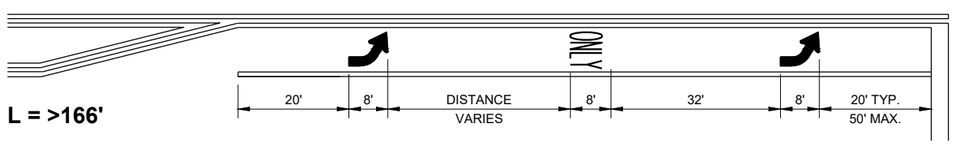
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

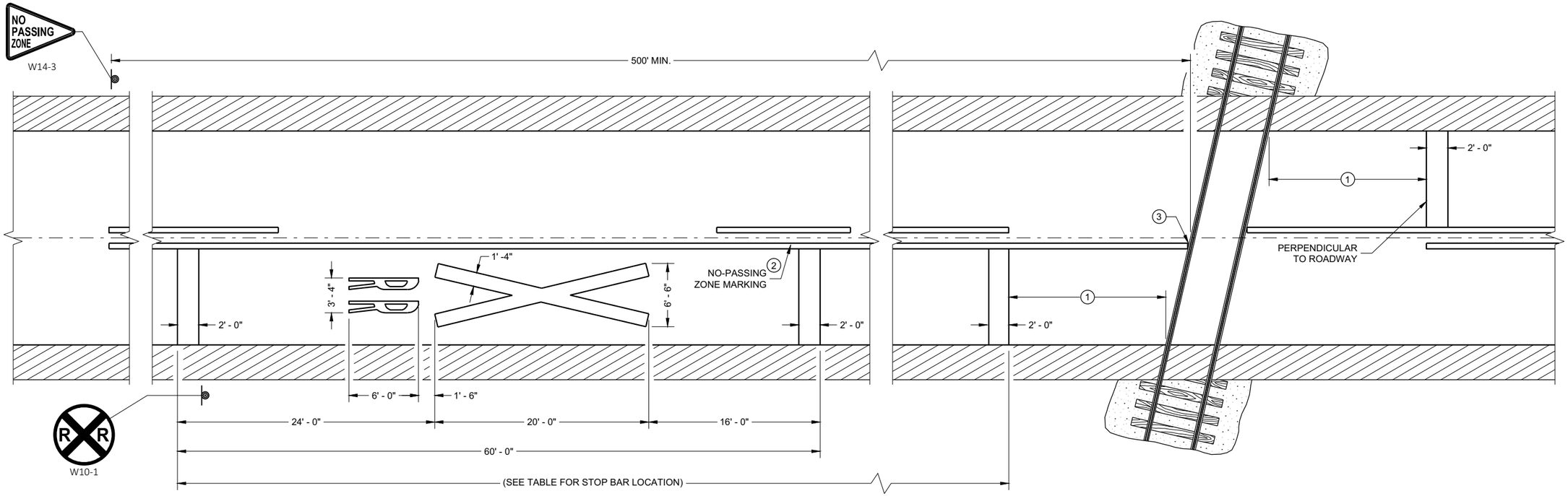
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

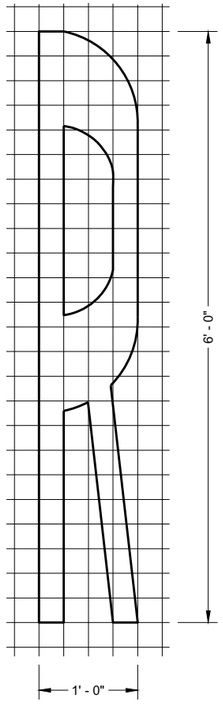
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 22d



PAVEMENT MARKING



LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNAL , GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

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

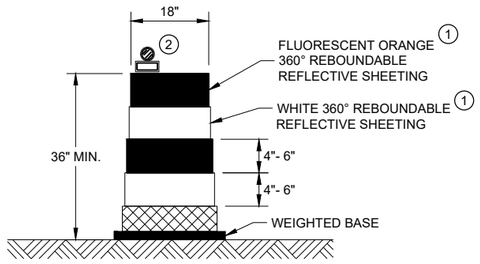
FHWA

6

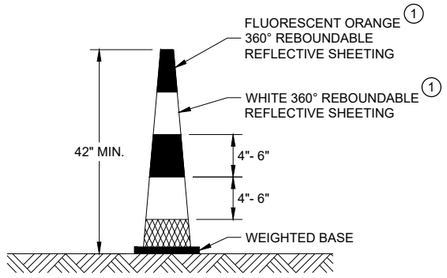
SDD15C09 - 12a

GENERAL NOTES

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

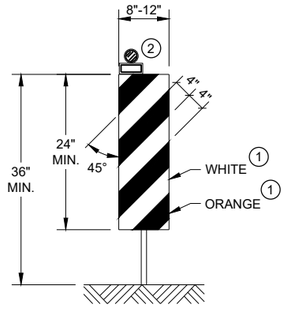


DRUM



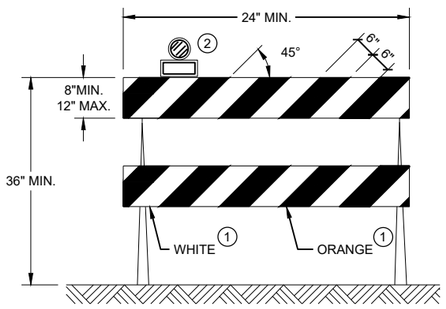
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



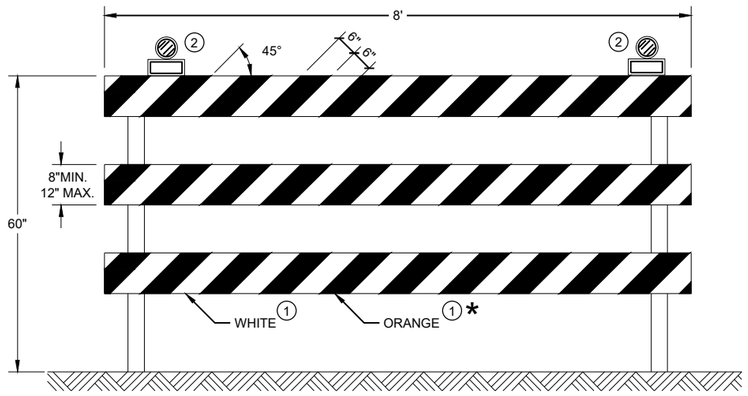
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

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.

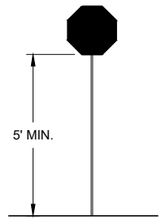
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

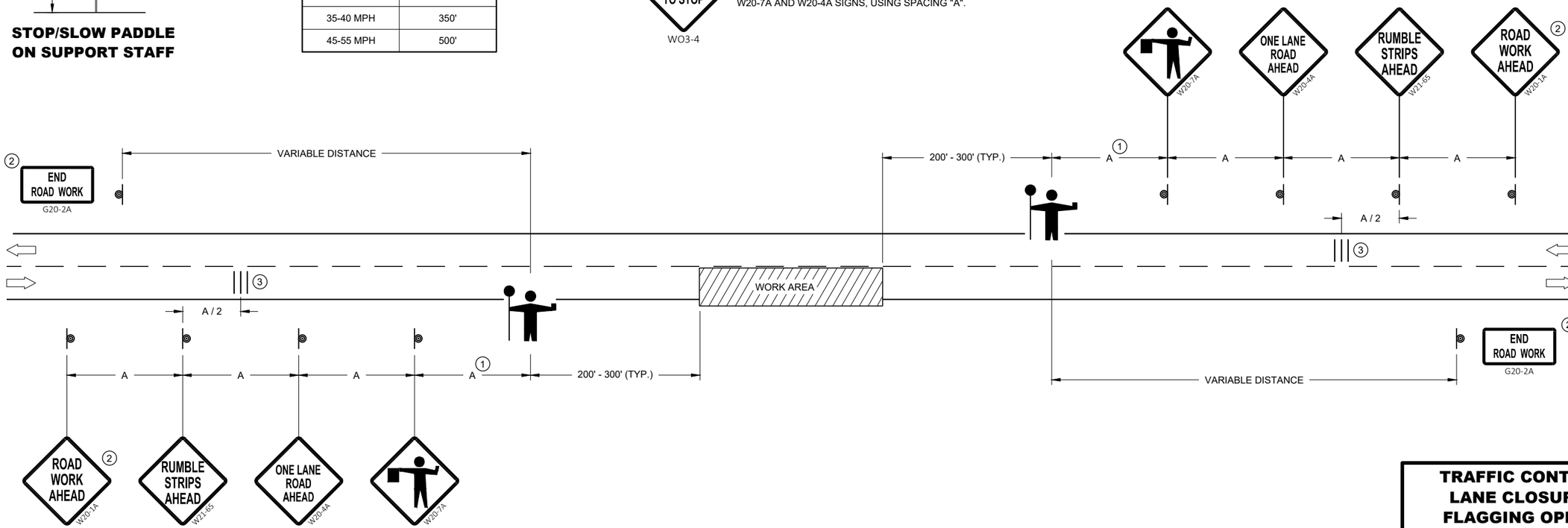
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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 ENGINEER

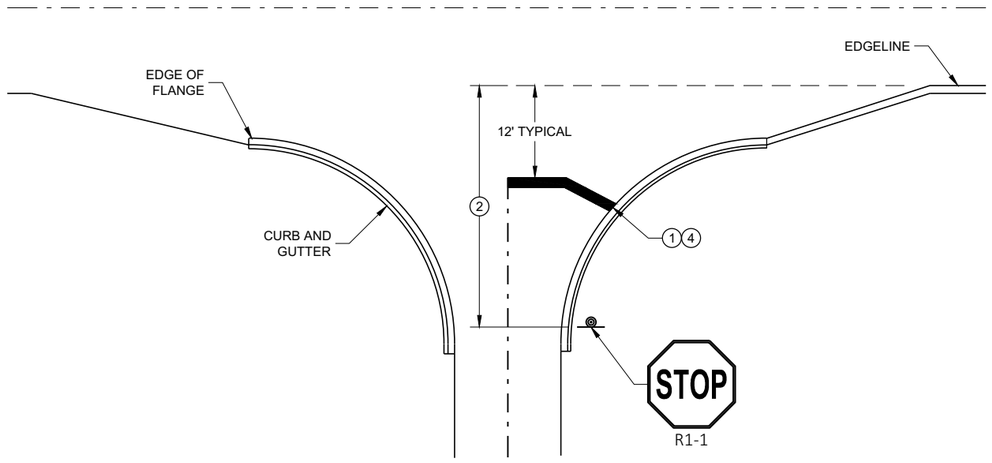
FHWA

6
SDD 15C12 - 09a

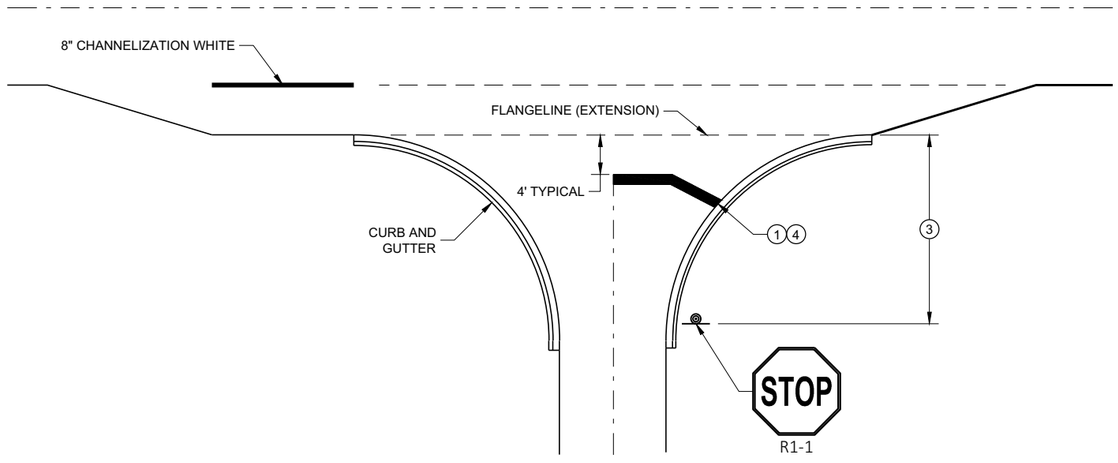
GENERAL NOTES

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

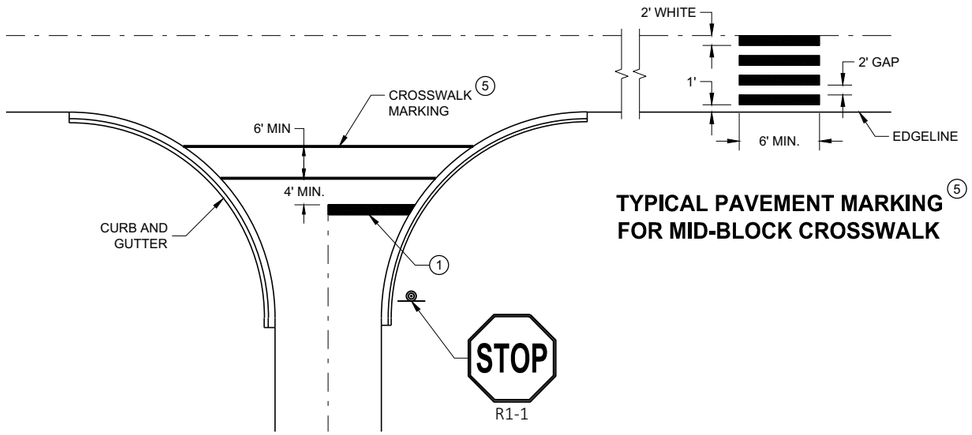
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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

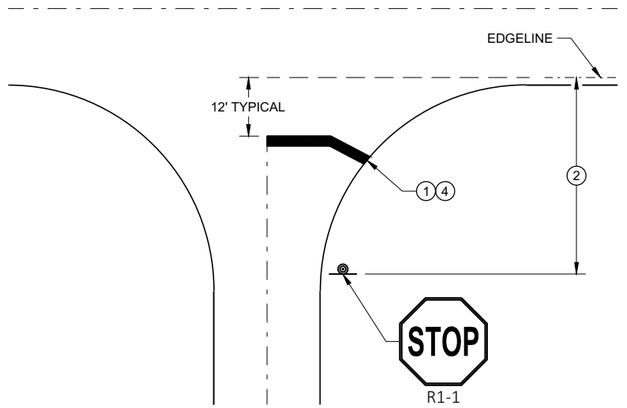


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

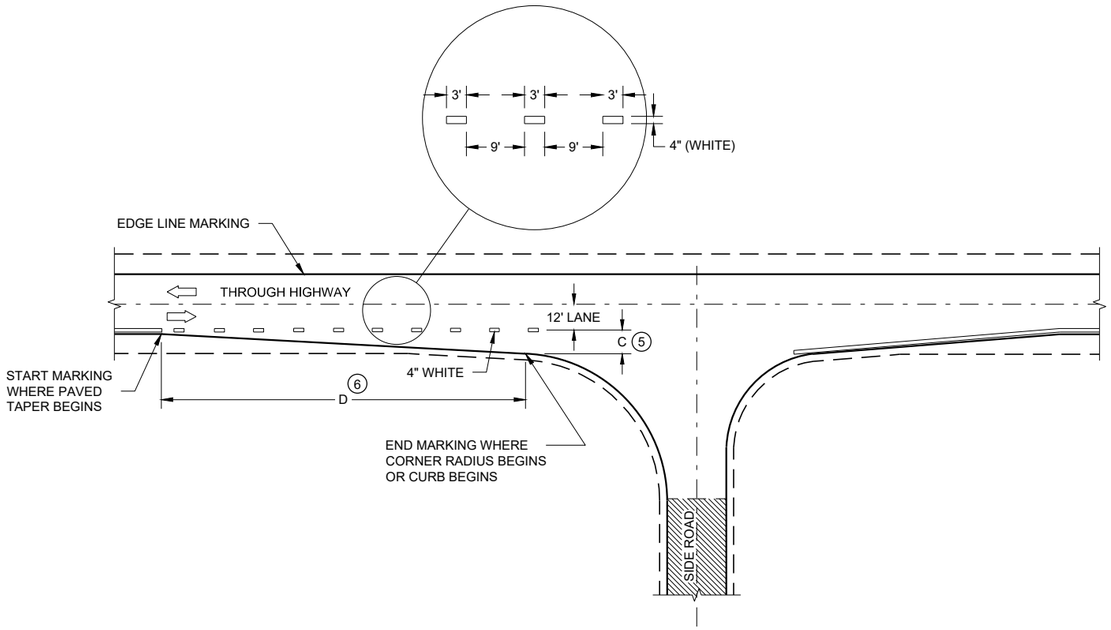
APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

SDD 15C33 - 04

6

SDD 15C33 - 04



MINOR INTERSECTION

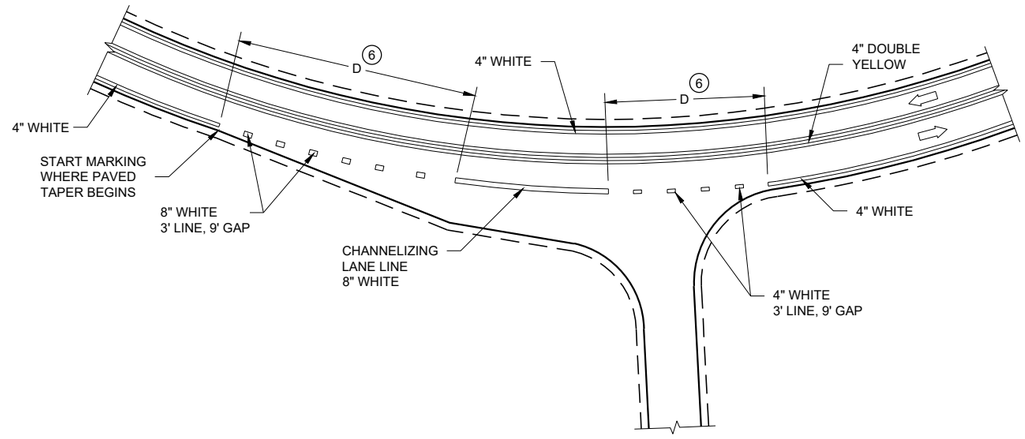
GENERAL NOTES

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

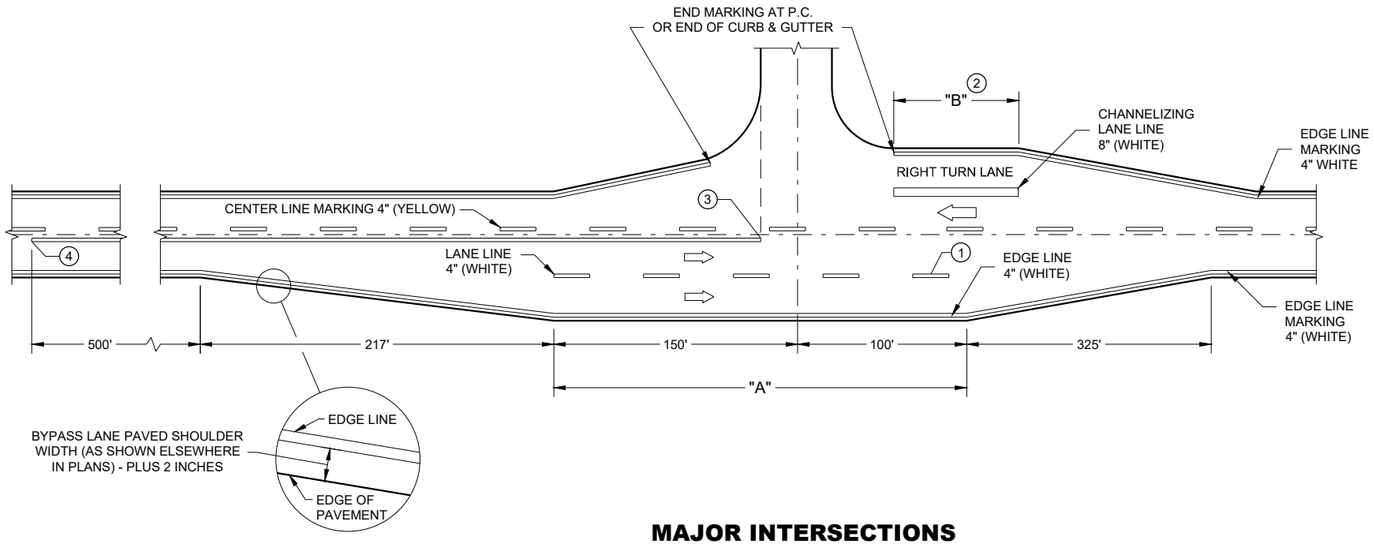
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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.

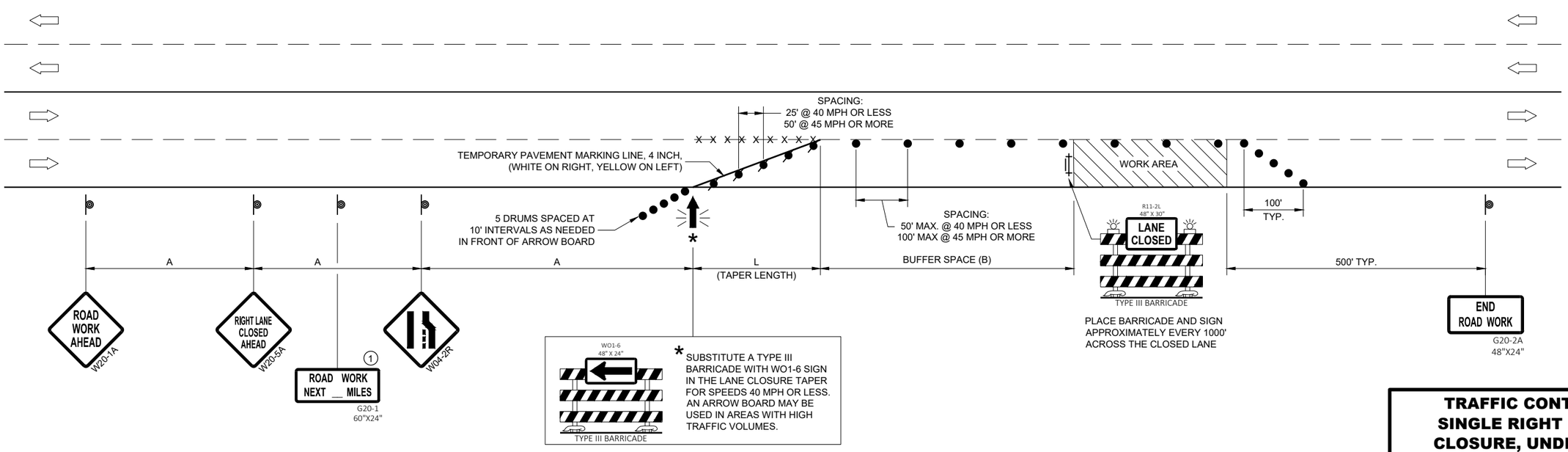
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

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'
50	500'	600'	280'
55	500'	660'	335'





TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D20 - 06b

SDD 15D20 - 06b

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

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.

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

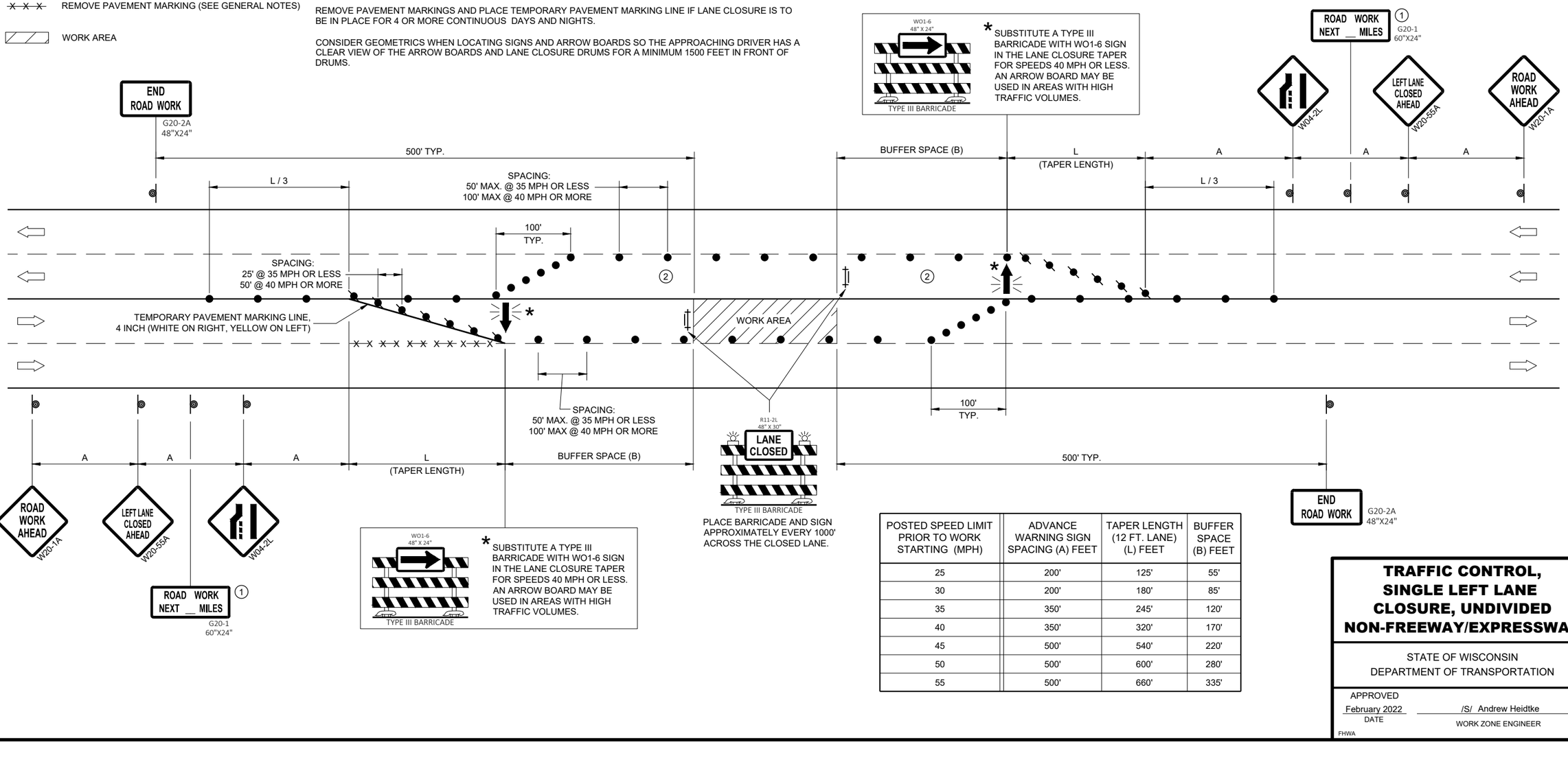
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



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'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20 - 06c

6

SDD 15D20 - 06c

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.

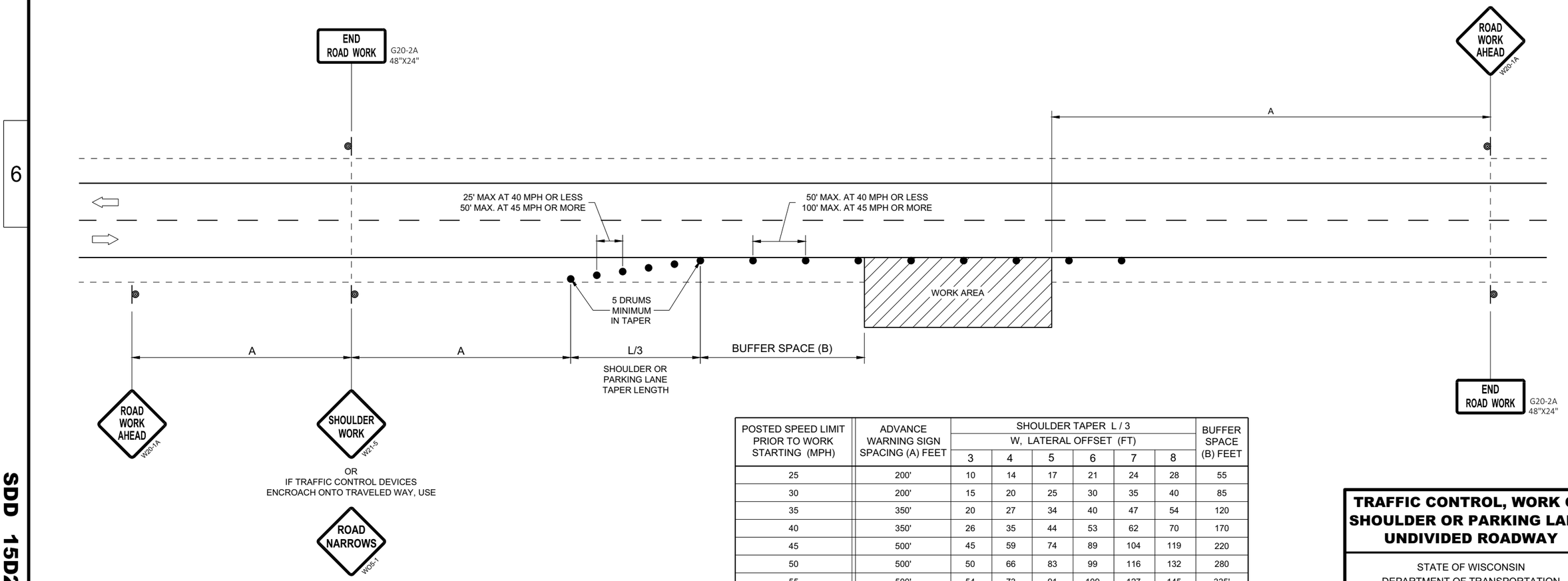
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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 TRAFFIC SAFETY ENGINEER

FHWA

6

SDD 15D28 - 04

GENERAL NOTES

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

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

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

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

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

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

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

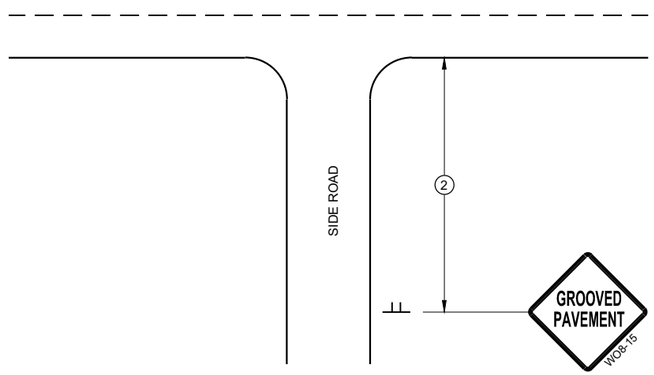
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

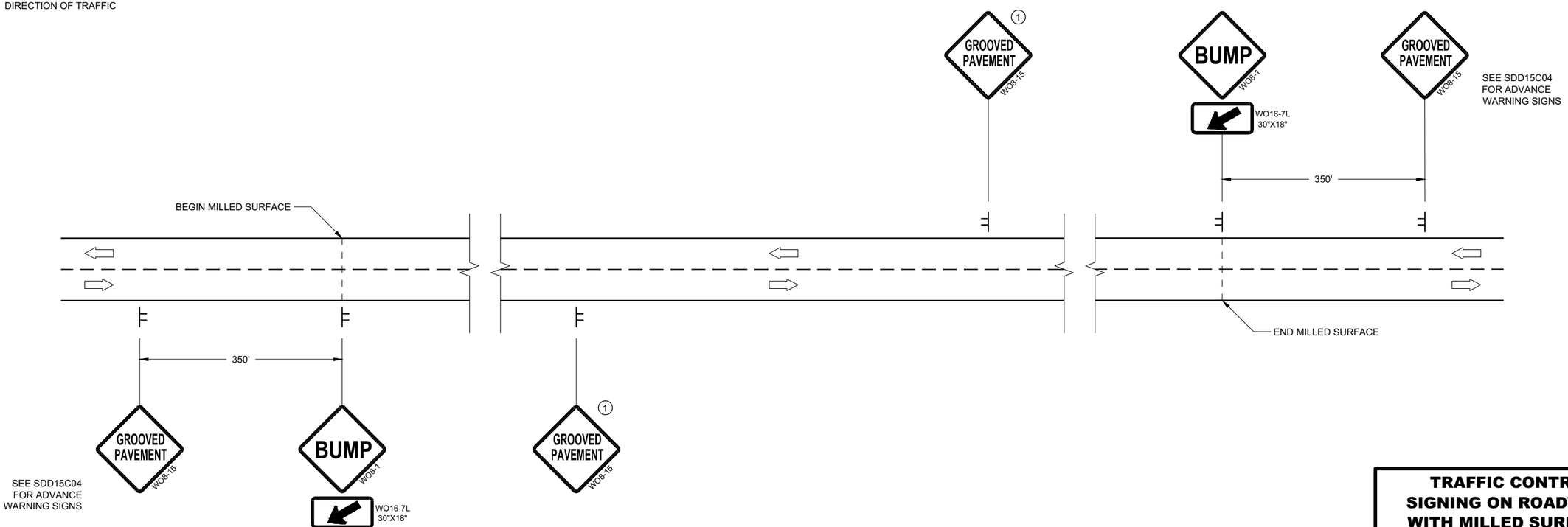
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D44 - 02

GENERAL NOTES

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

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

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

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

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

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

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

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

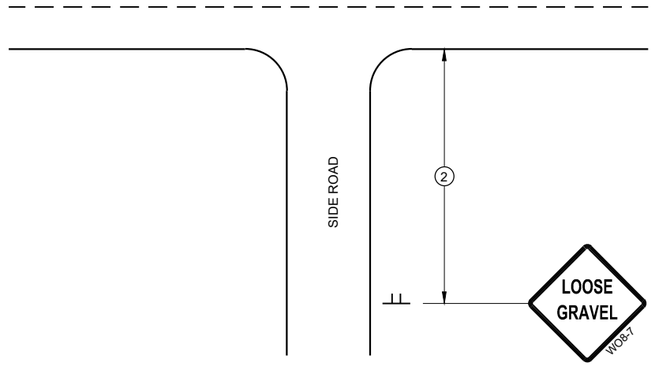
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

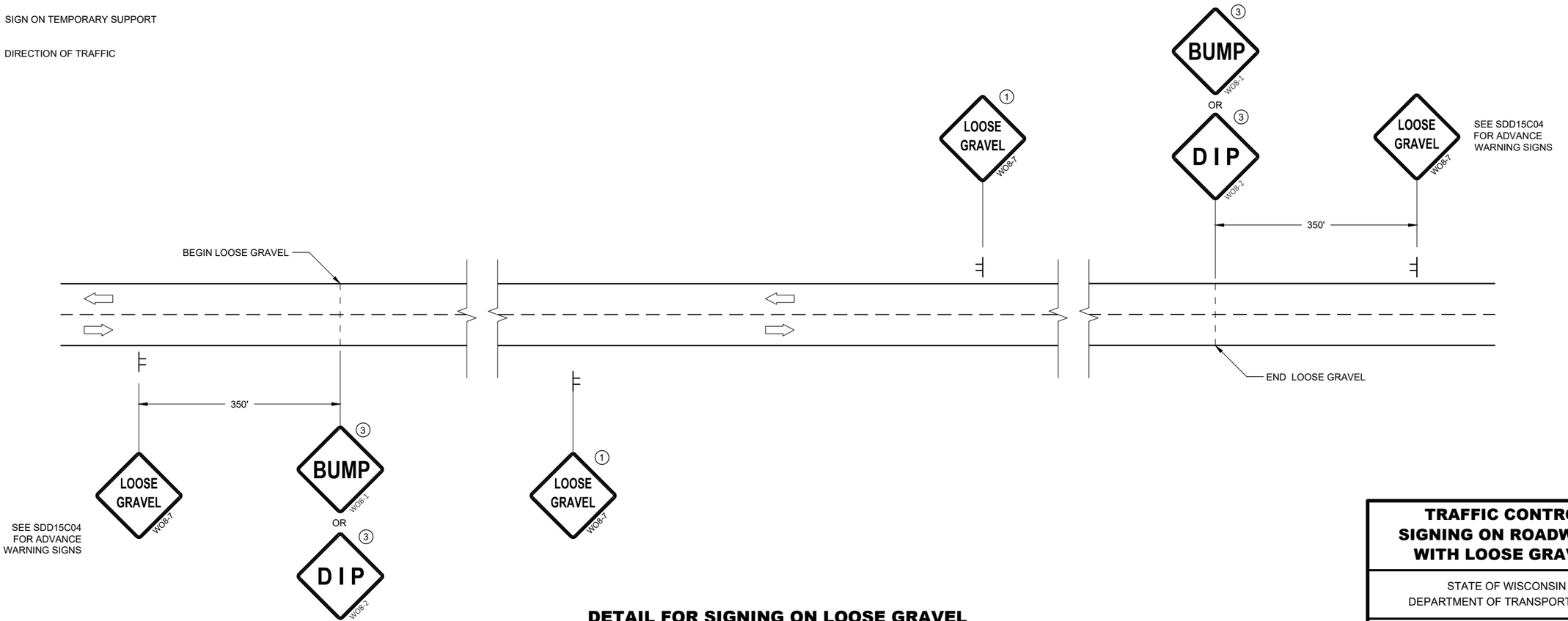
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

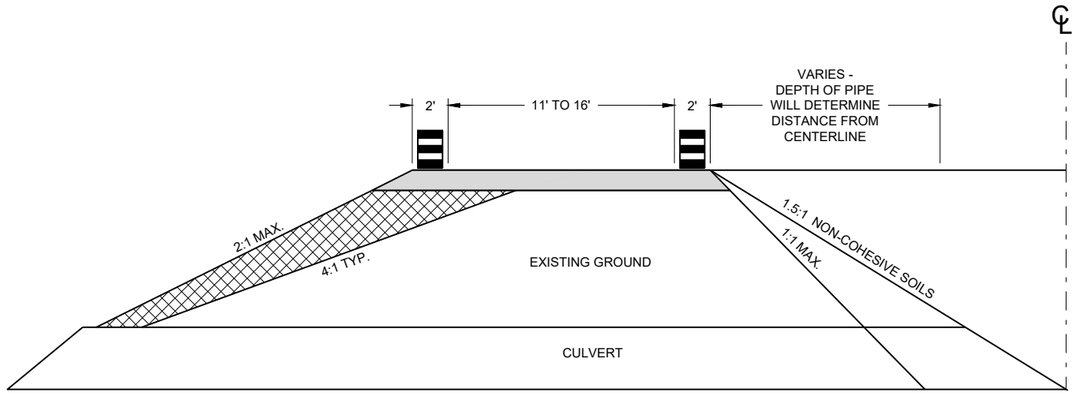
FHWA

6

SDD 15D45 - 03

6

SDD 15D45 - 03



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

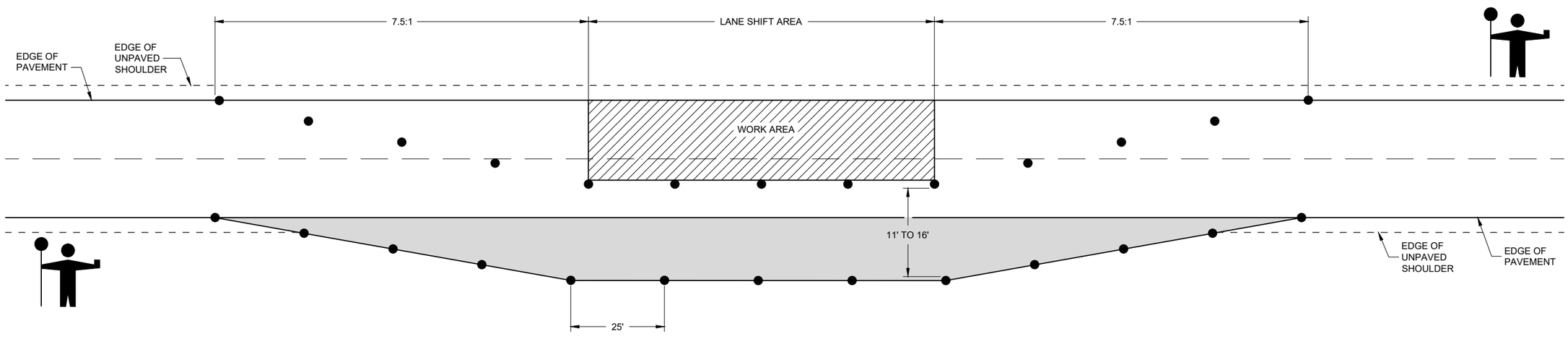
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D48 - 01

6

SDD 15D48 - 01

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.

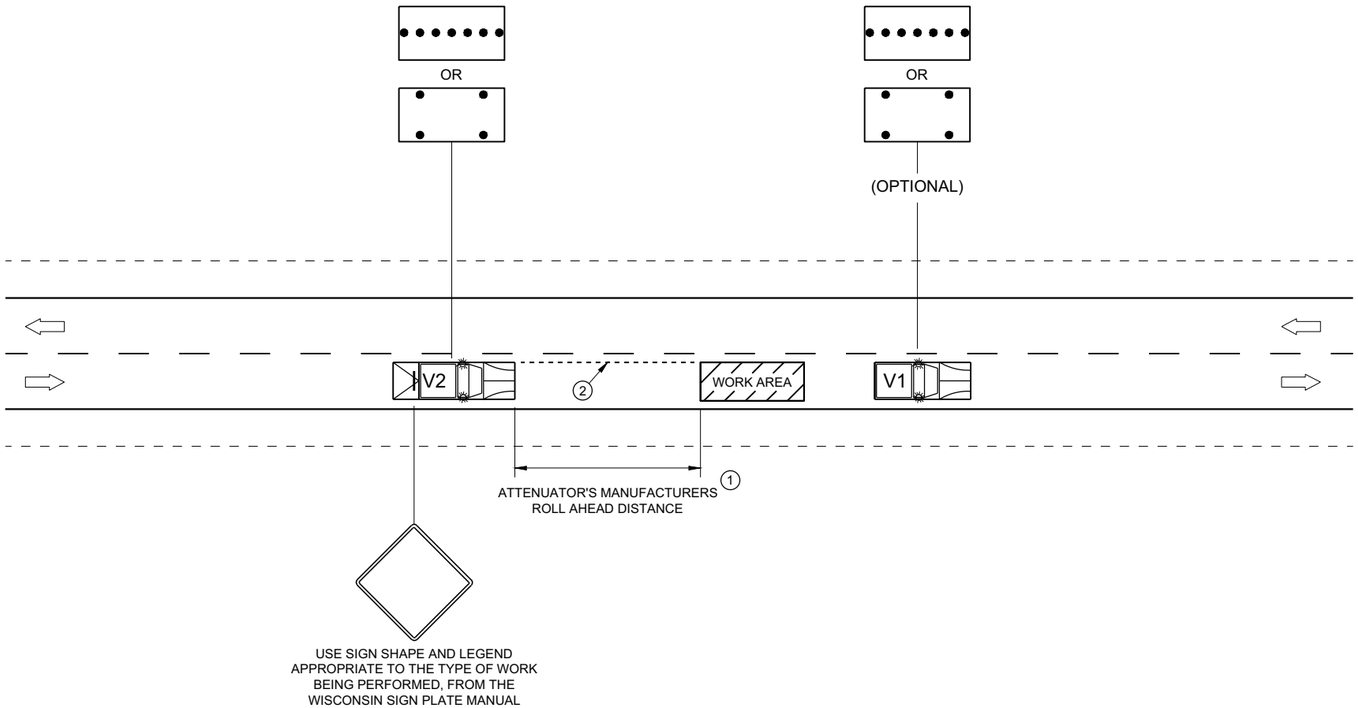
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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

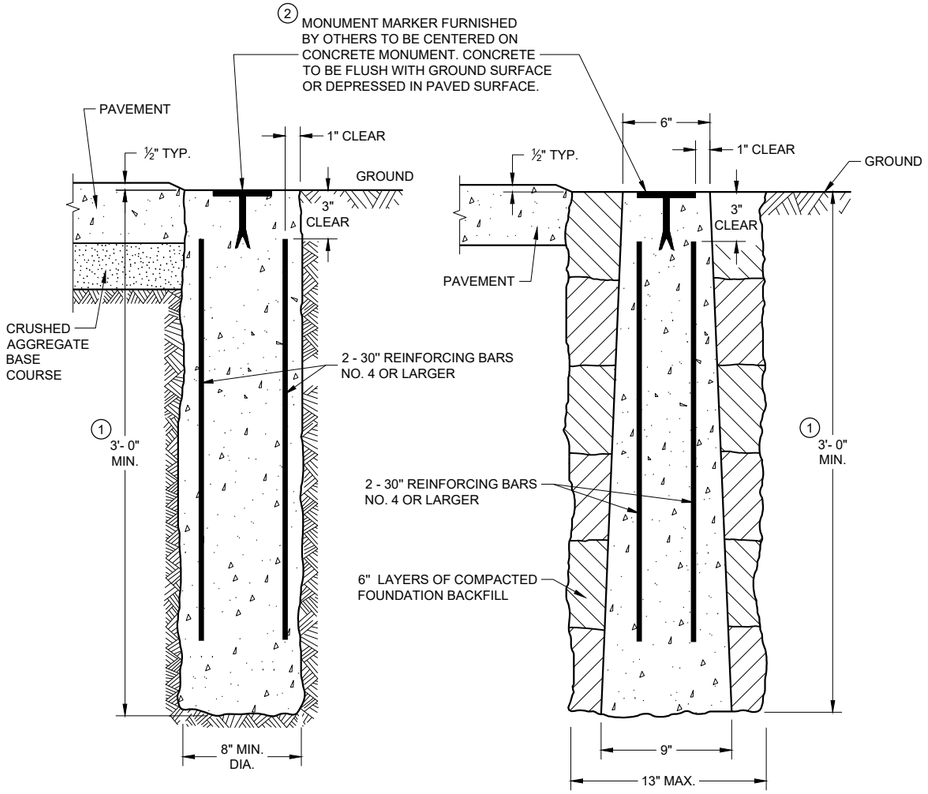
February 2021
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

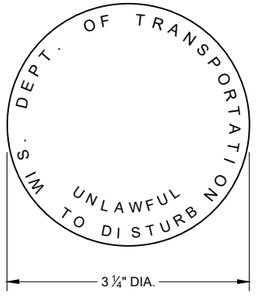
6

SDD 15D51 - 01



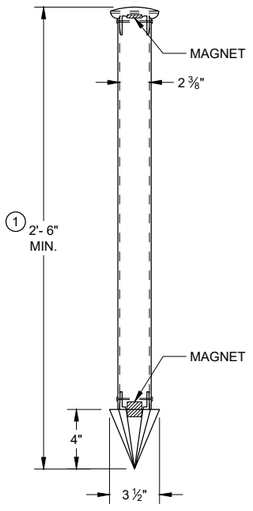
CAST-IN-PLACE **PRECAST**

CONCRETE MONUMENTS
TYPE A

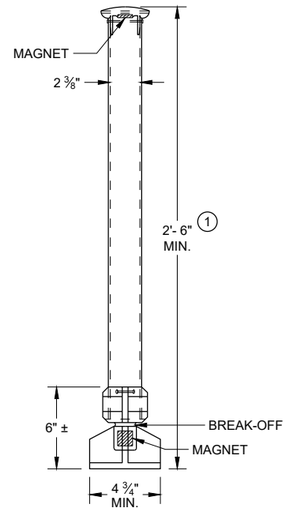


② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C" & "D"

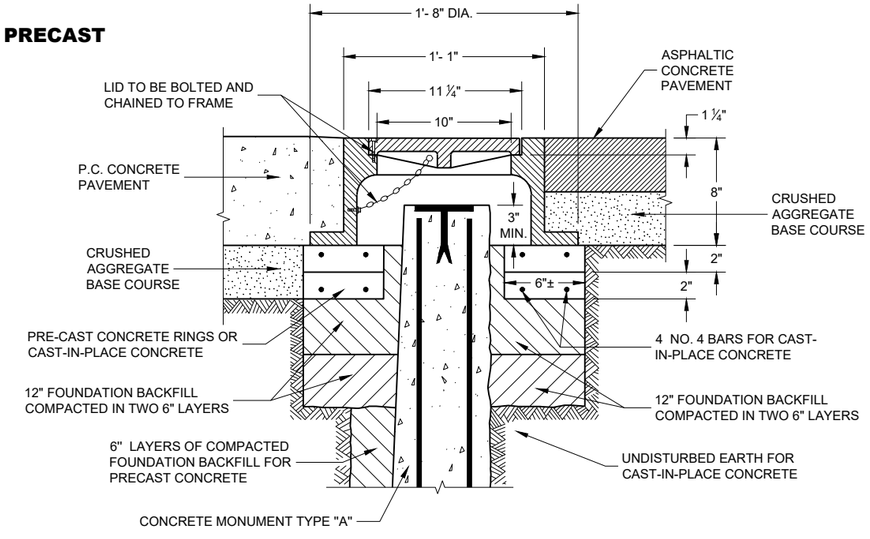


TYPE C
DRIVEN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS
(INCLUDES MARKER)



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

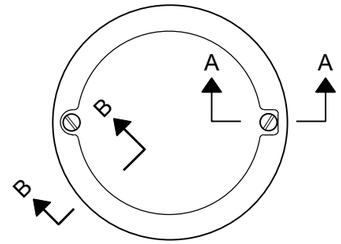
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

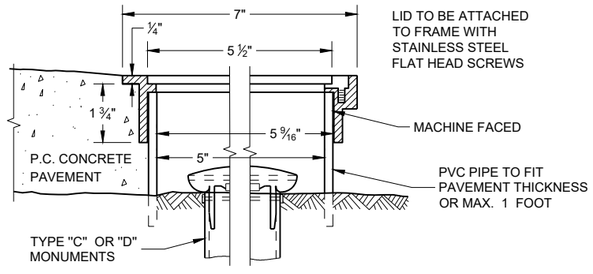
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



TOP VIEW



SECTION B-B **SECTION A-A**

ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

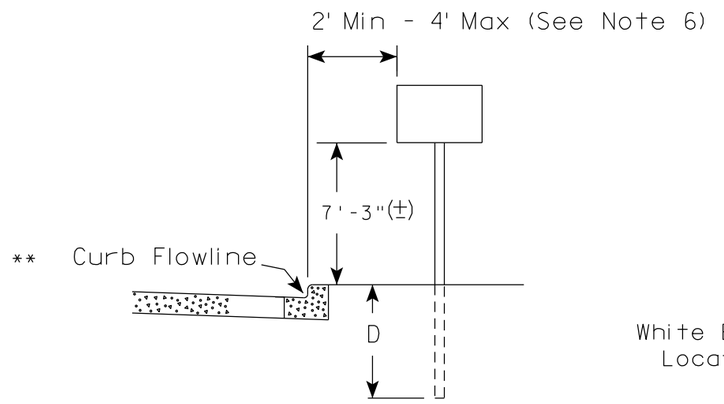
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Raymond A. Kumapayii — CHIEF SURVEYING AND MAPPING ENGINEER

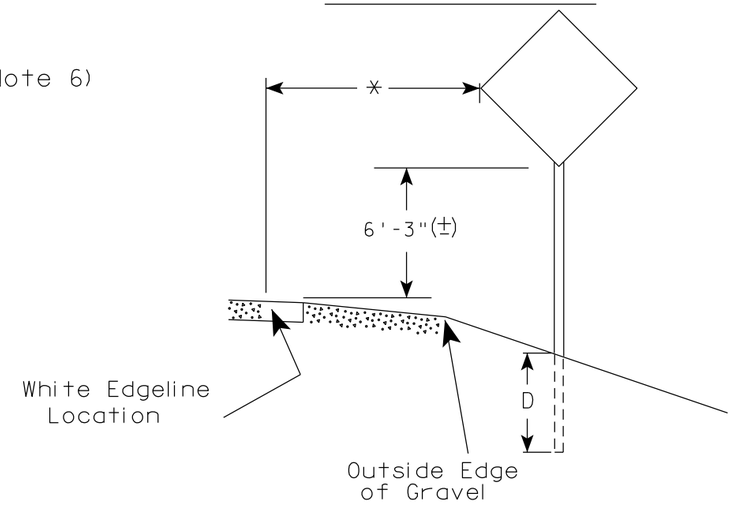
FHWA

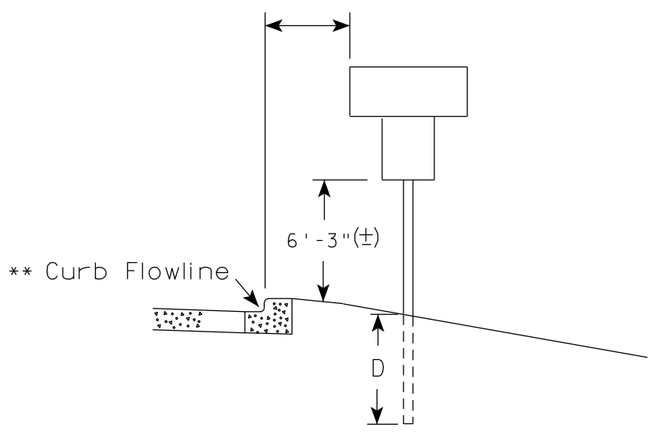
6
SDD 16A01 - 07

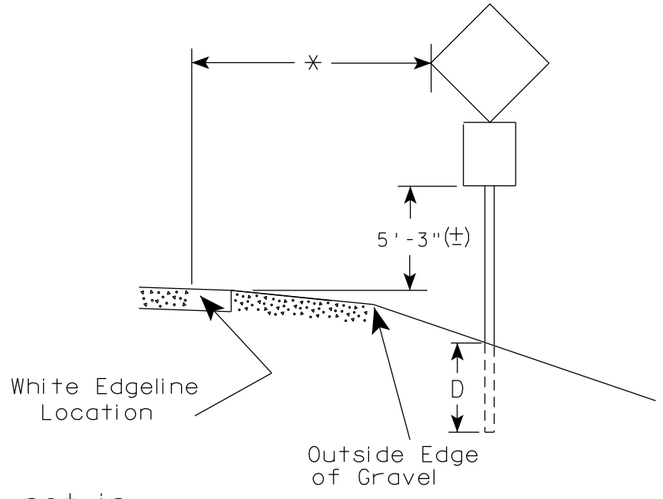
URBAN AREA



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.

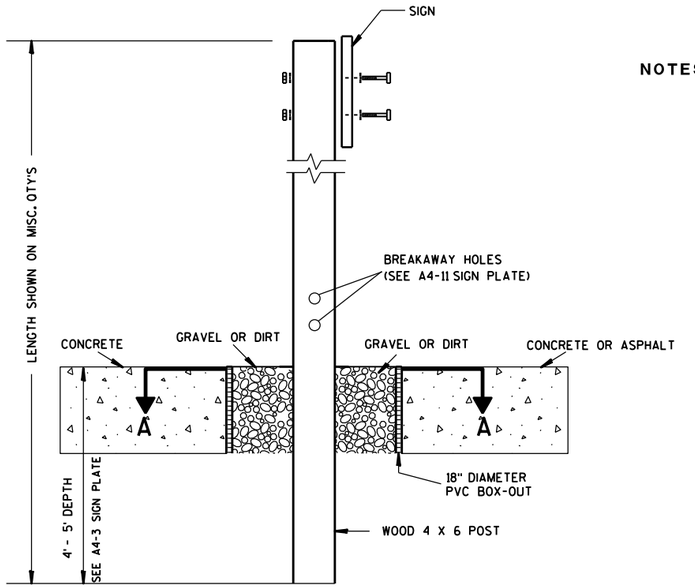
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

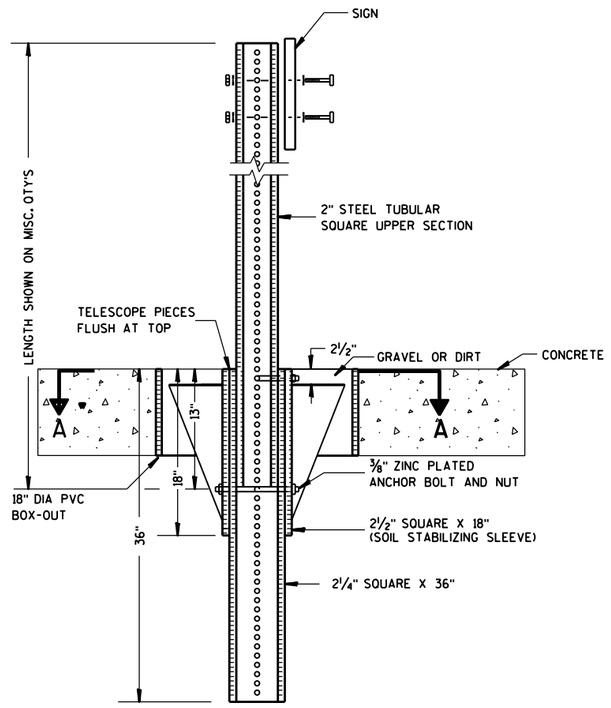
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

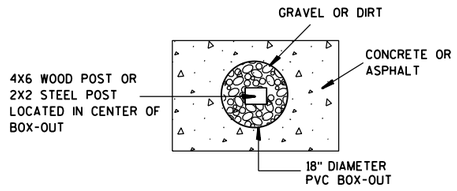
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

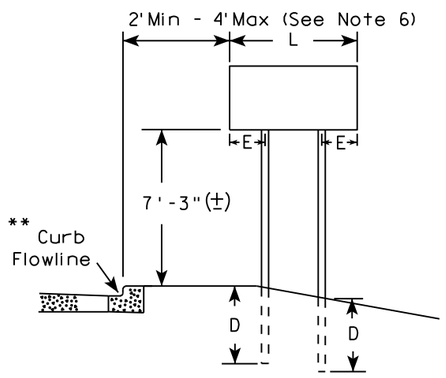
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

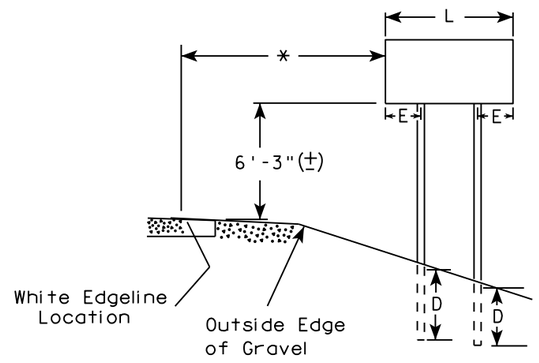
DATE 1/27/14 PLATE NO. A4-3B.1

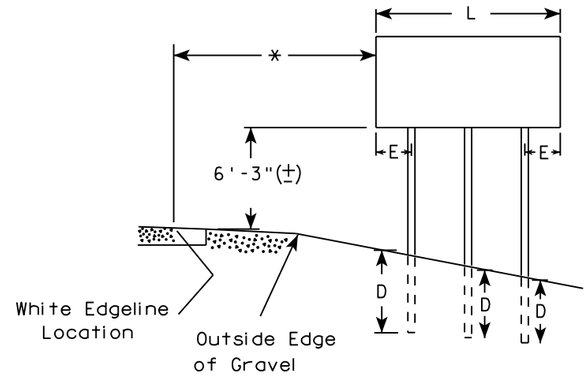
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

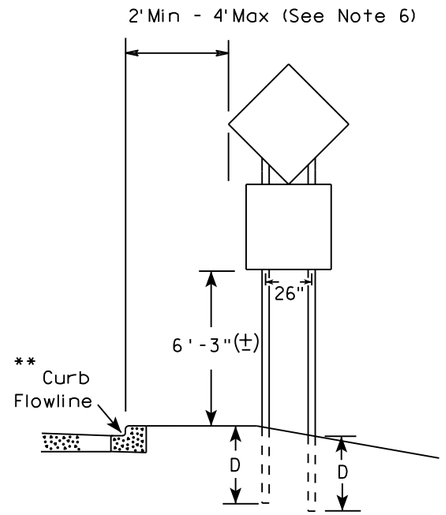
URBAN AREA



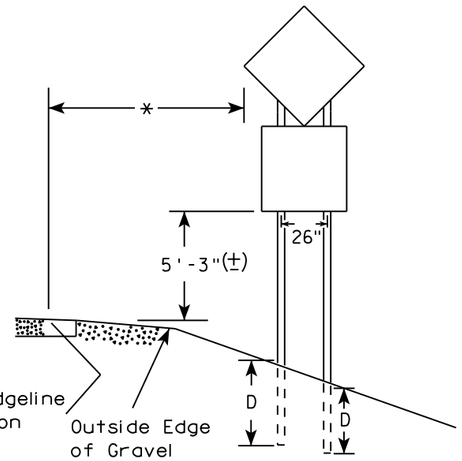
RURAL AREA (See Note 3)







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'

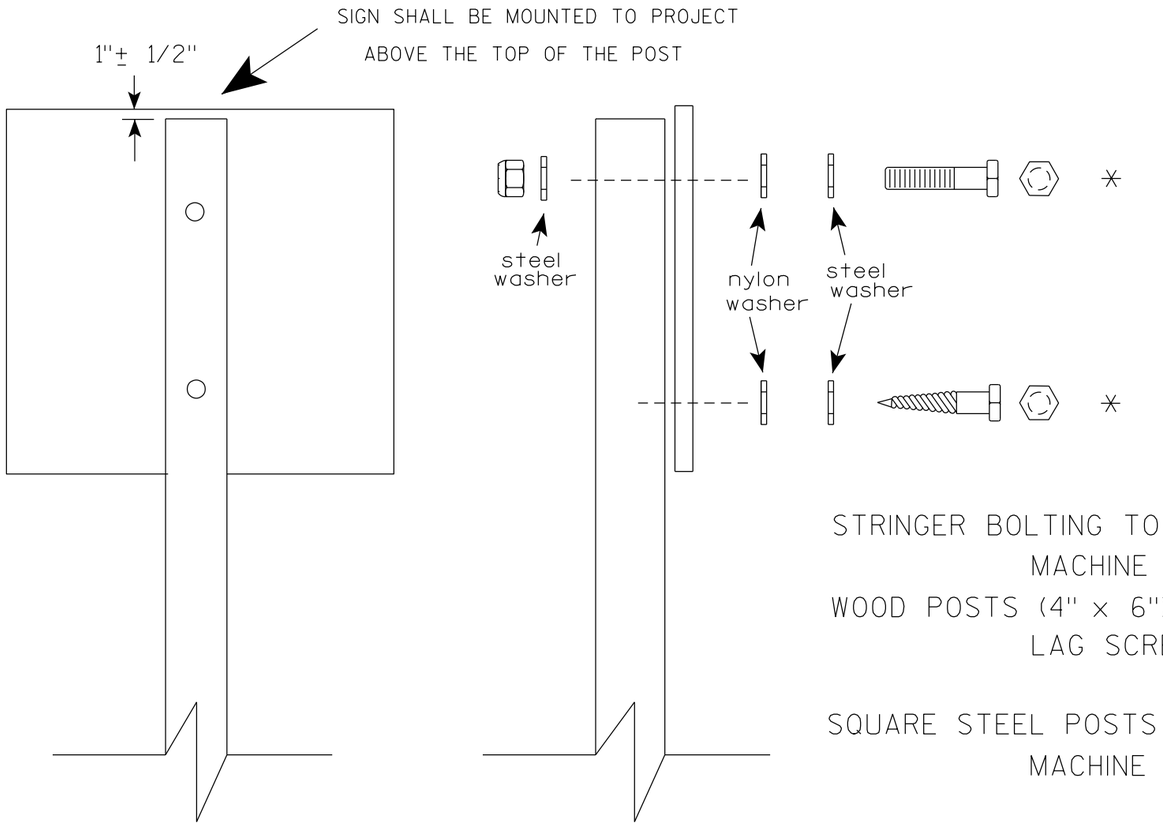
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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:	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

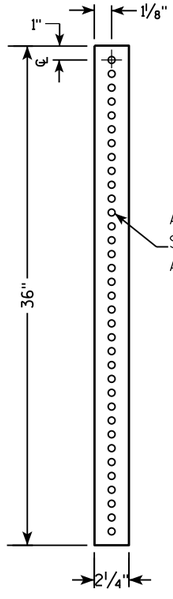
APPROVED Matthew R Rauch
for State Traffic Engineer

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

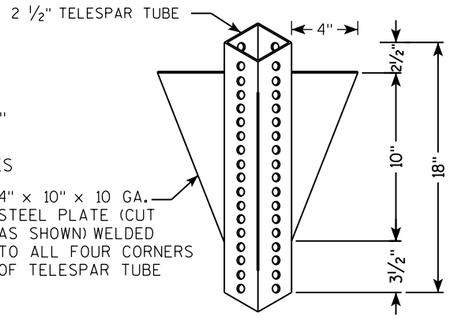
PROJECT NO:				SHEET NO:	E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

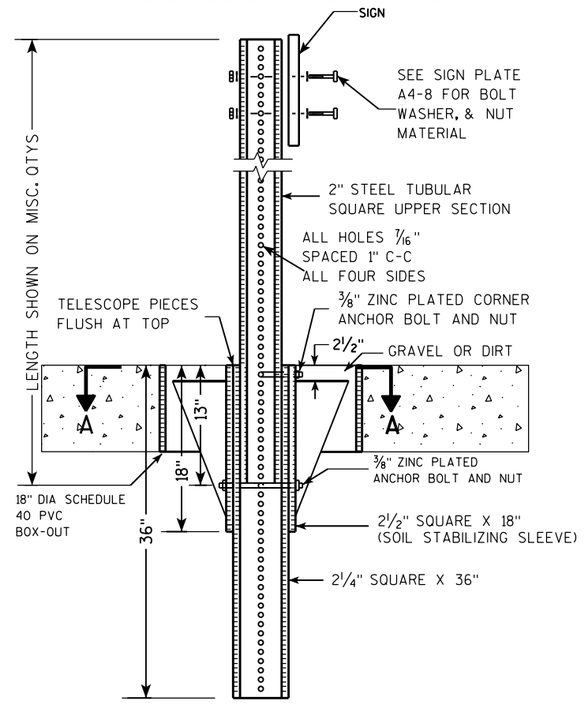
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



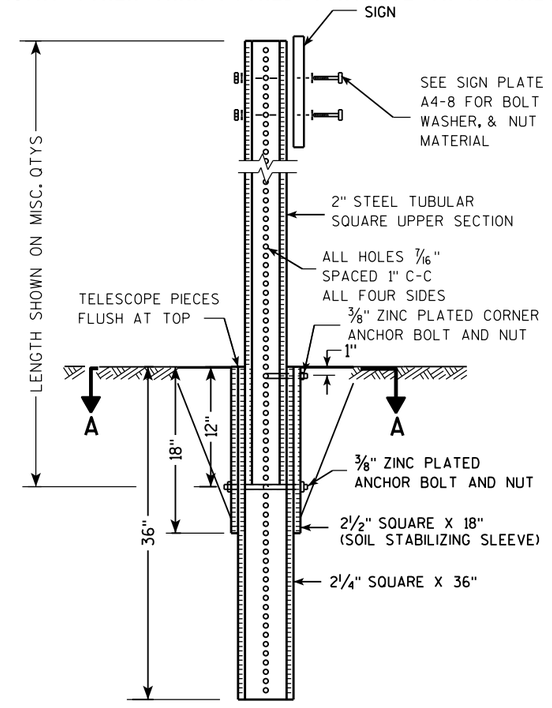
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

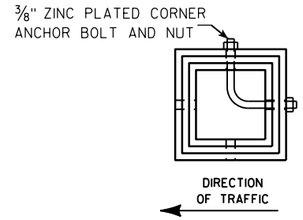


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

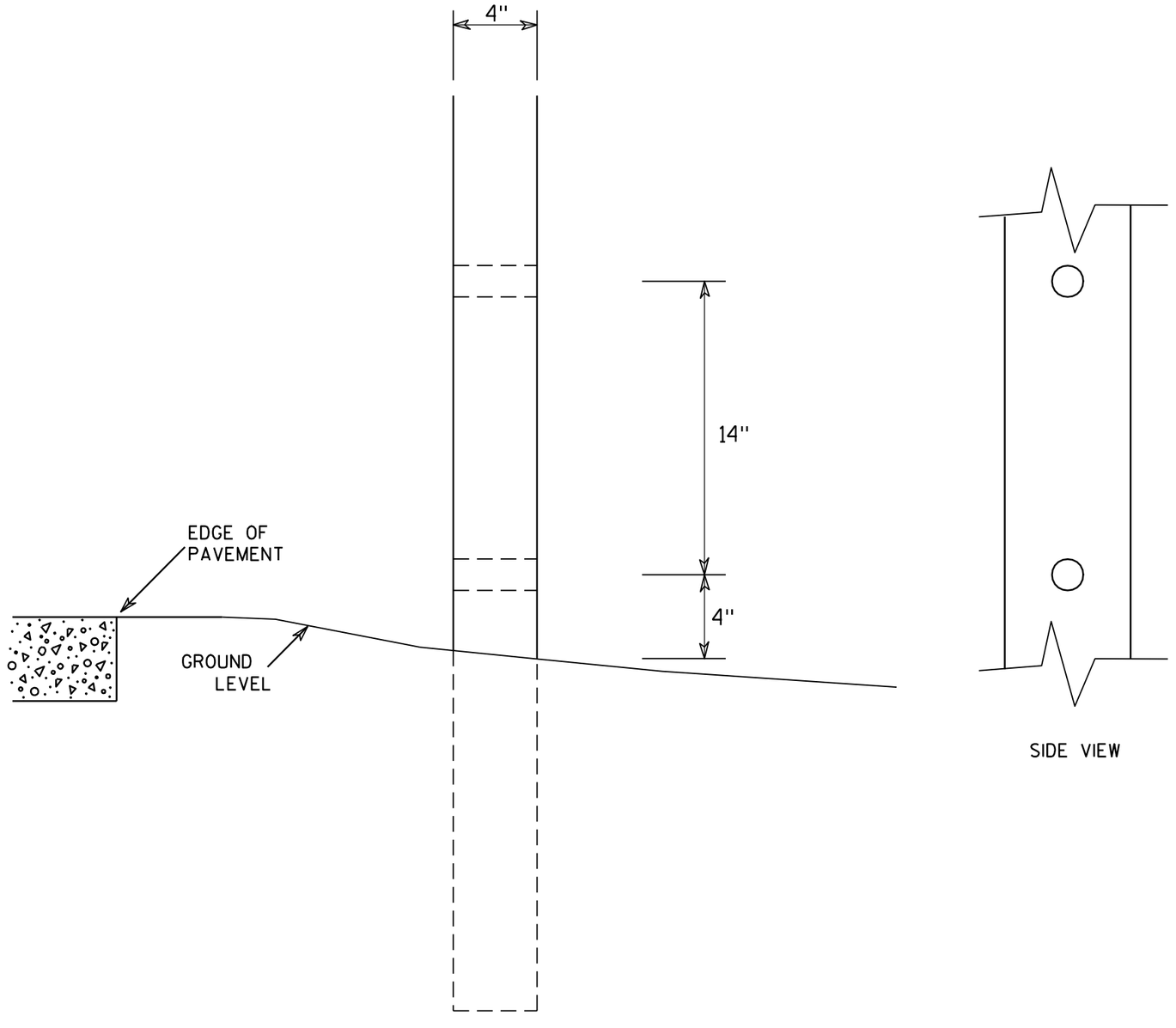
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

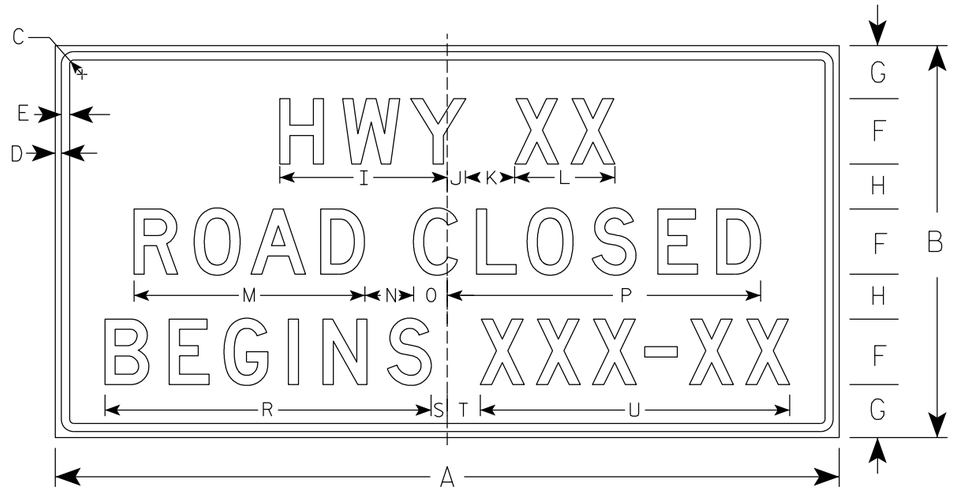
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

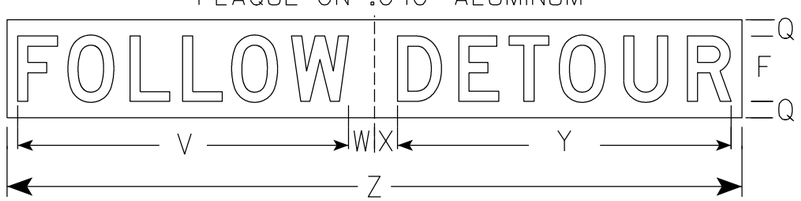
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and 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																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

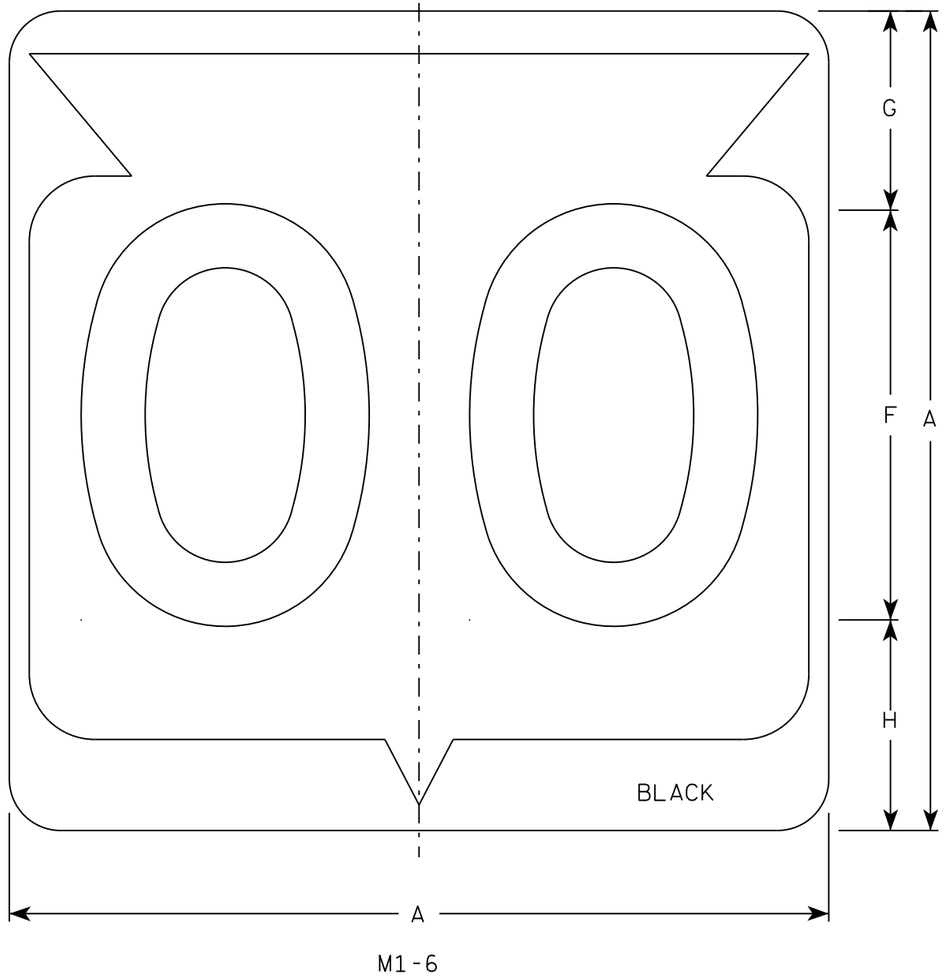
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

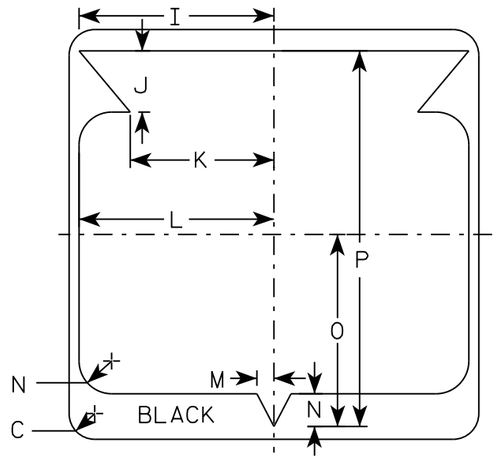
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



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

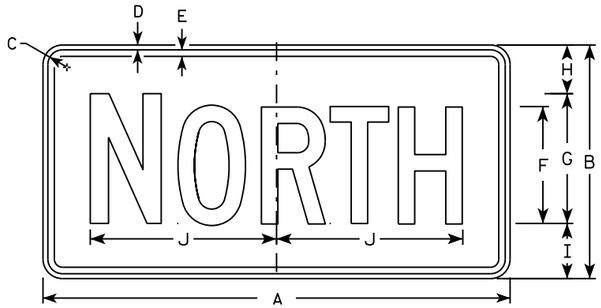
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

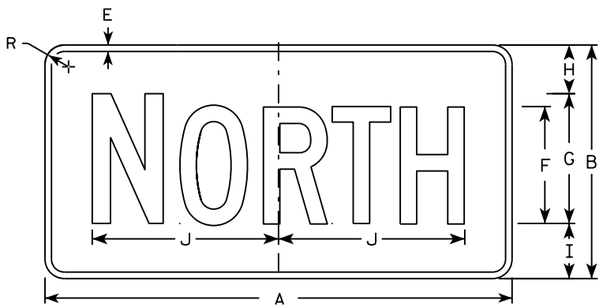
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M3-1
MM3-1
MP3-1



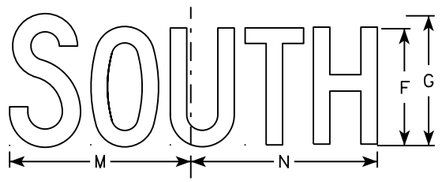
MB3-1
MK3-1
MN3-1



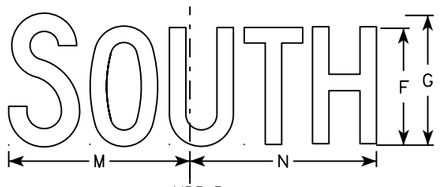
M3-2
MM3-2
MP3-2



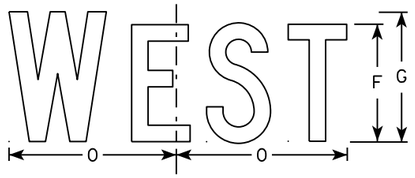
MB3-2
MK3-2
MN3-2



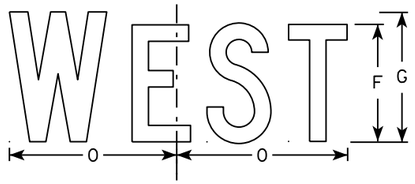
M3-3
MM3-3
MP3-3



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

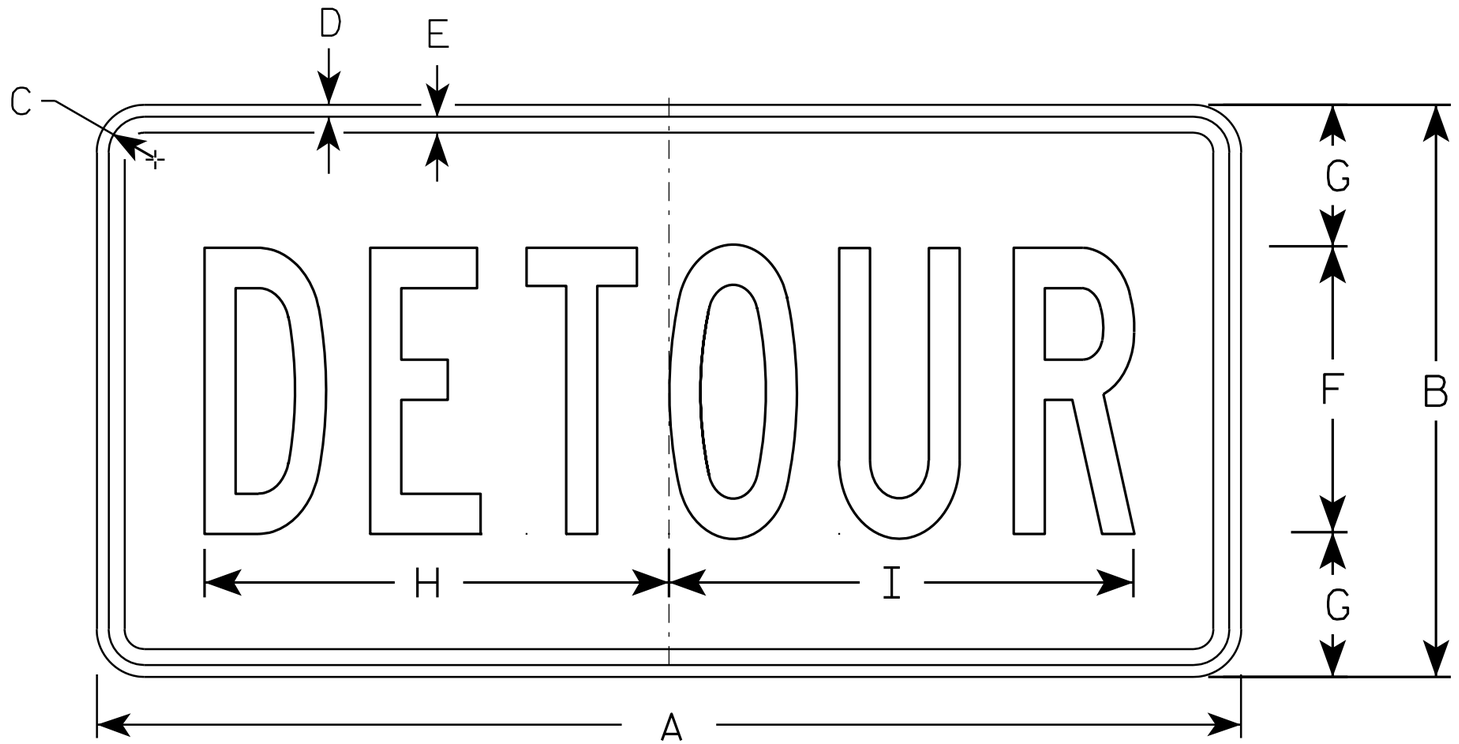
WISCONSIN DEPT OF TRANSPORTATION

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																											

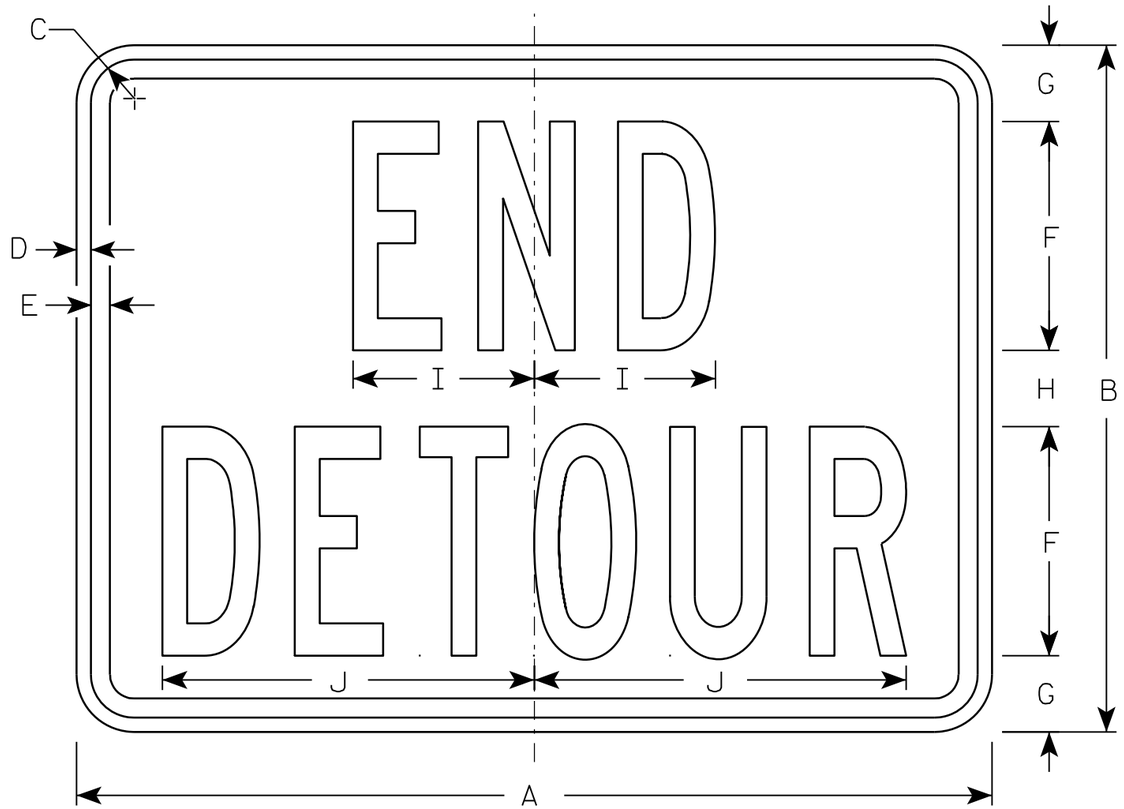
STANDARD SIGN
M4-8

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:	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																											

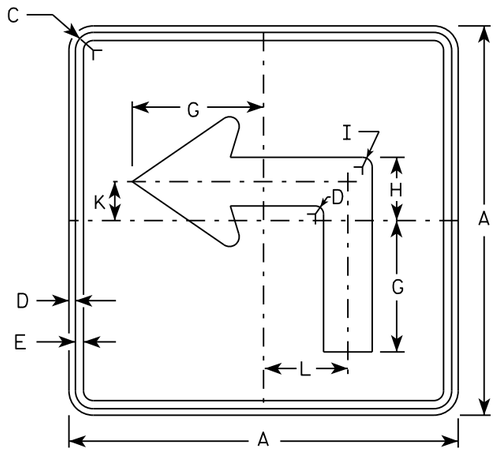
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

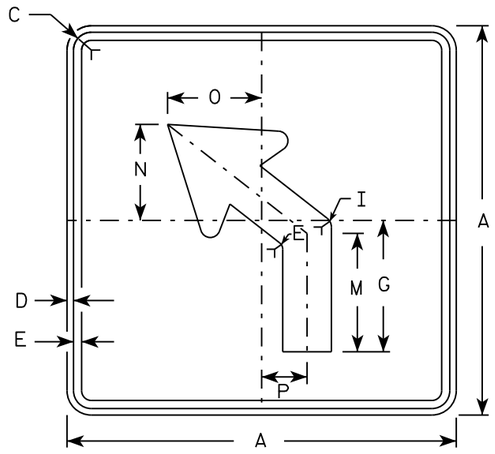
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

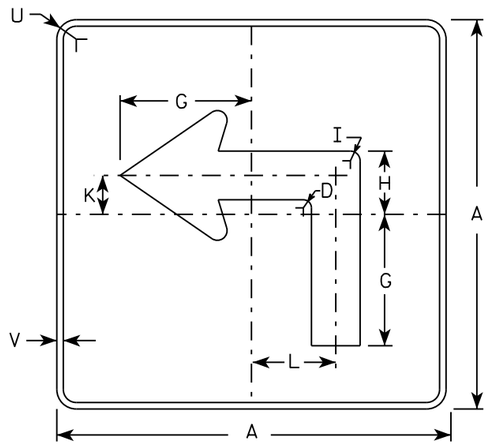
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



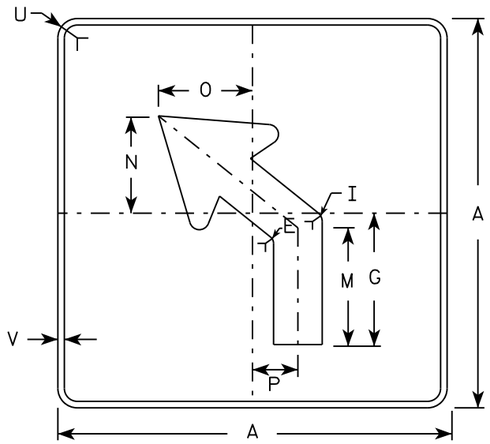
M5-1L
MM5-1L
MO5-1L
MP5-1L



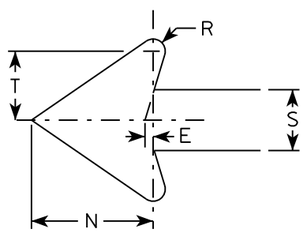
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

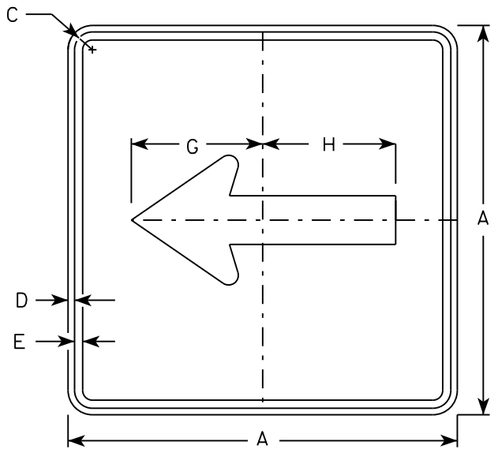
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

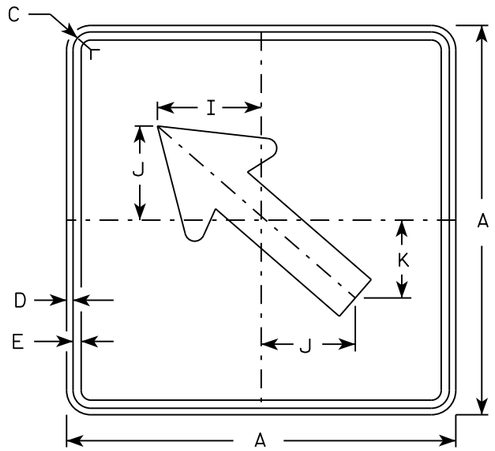
DATE 10/15/15 PLATE NO. M5-1.13

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



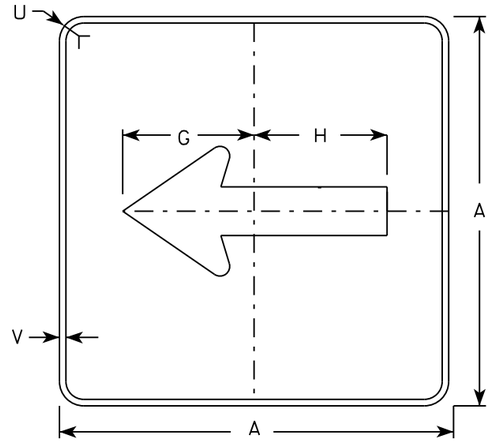
M6-1
MM6-1
MO6-1
MP6-1



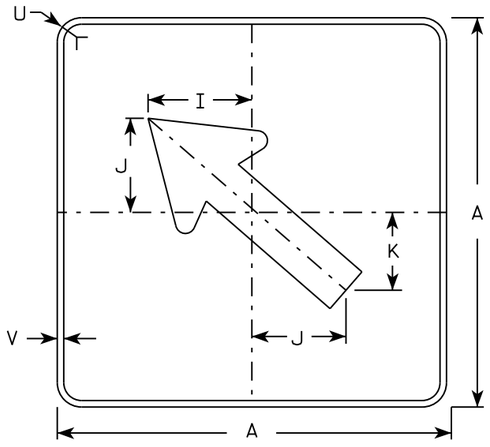
M6-2
MM6-2
MO6-2
MP6-2

NOTES

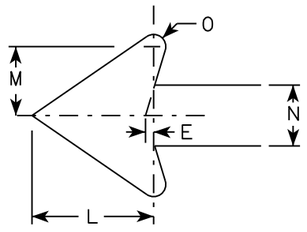
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

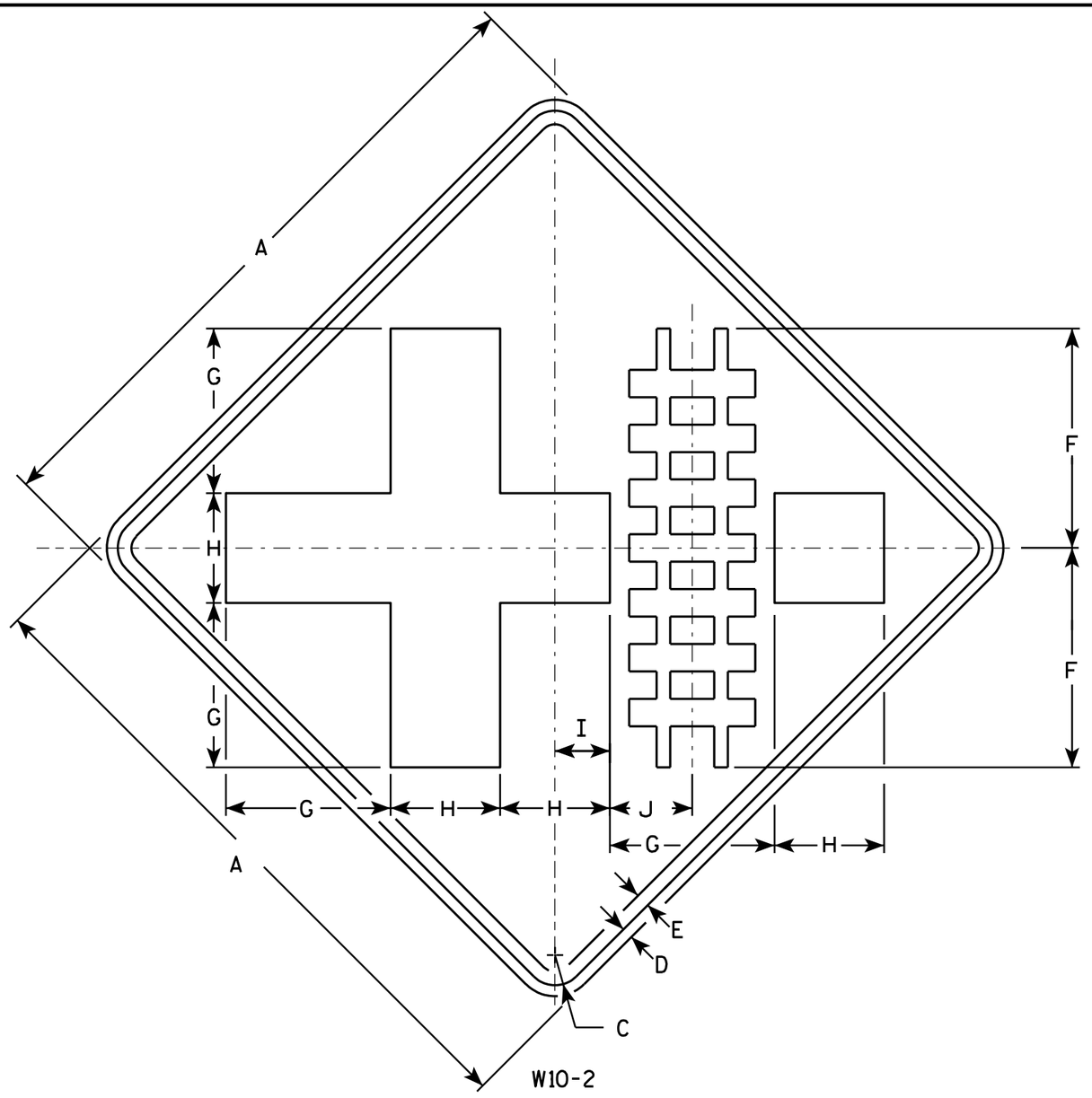
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

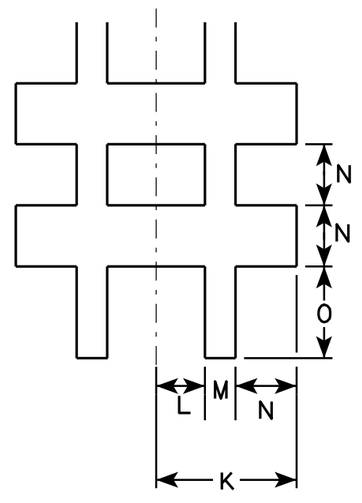
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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

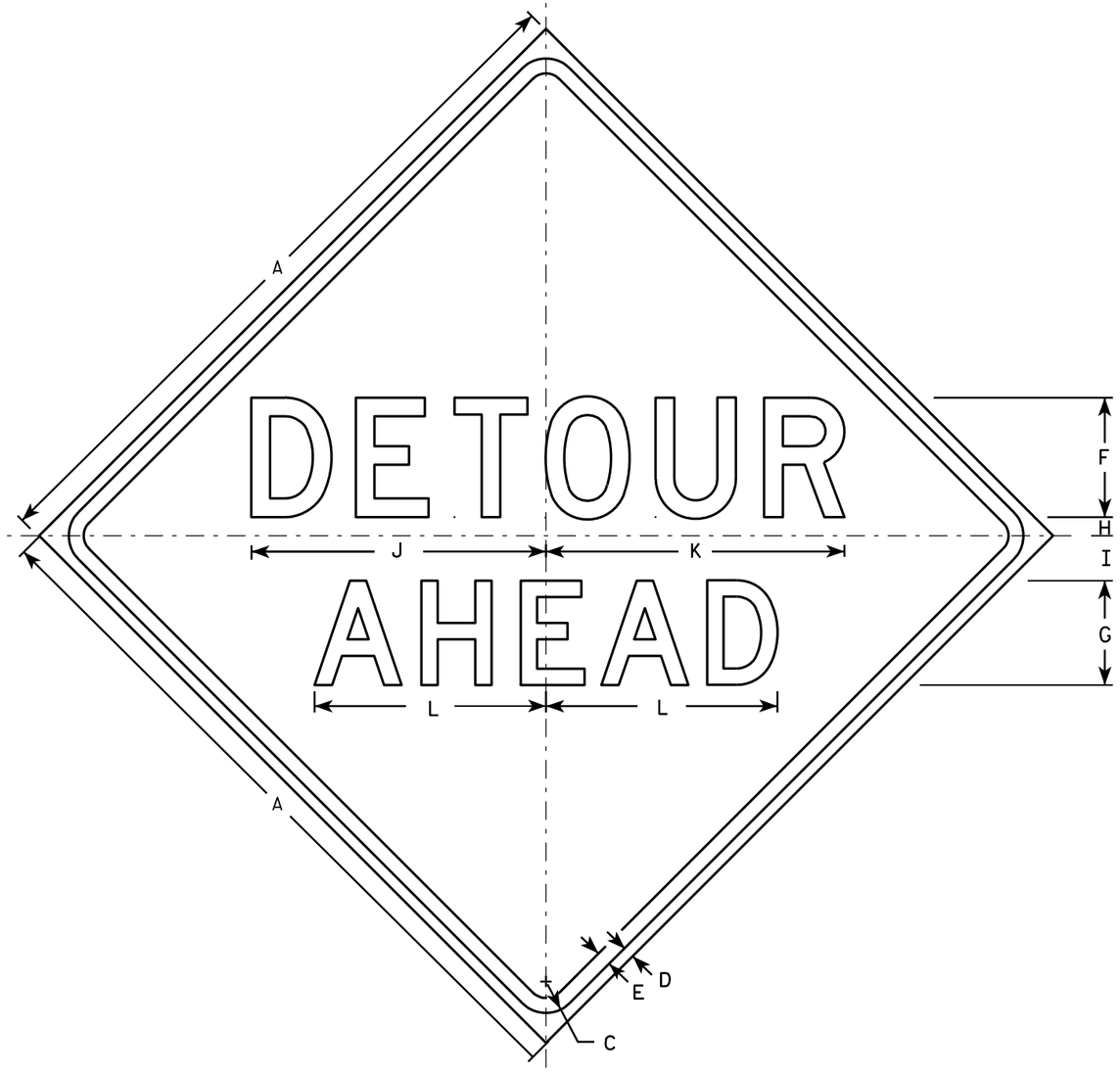
STANDARD SIGN
W10-2

WISCONSIN DEPT OF TRANSPORTATION

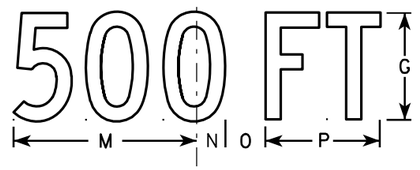
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-2.8

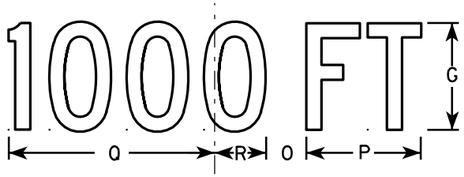
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



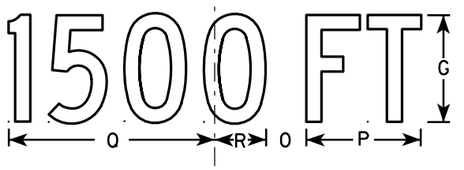
W20-2A



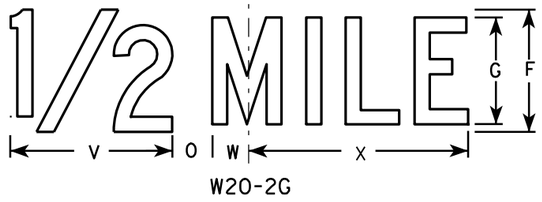
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

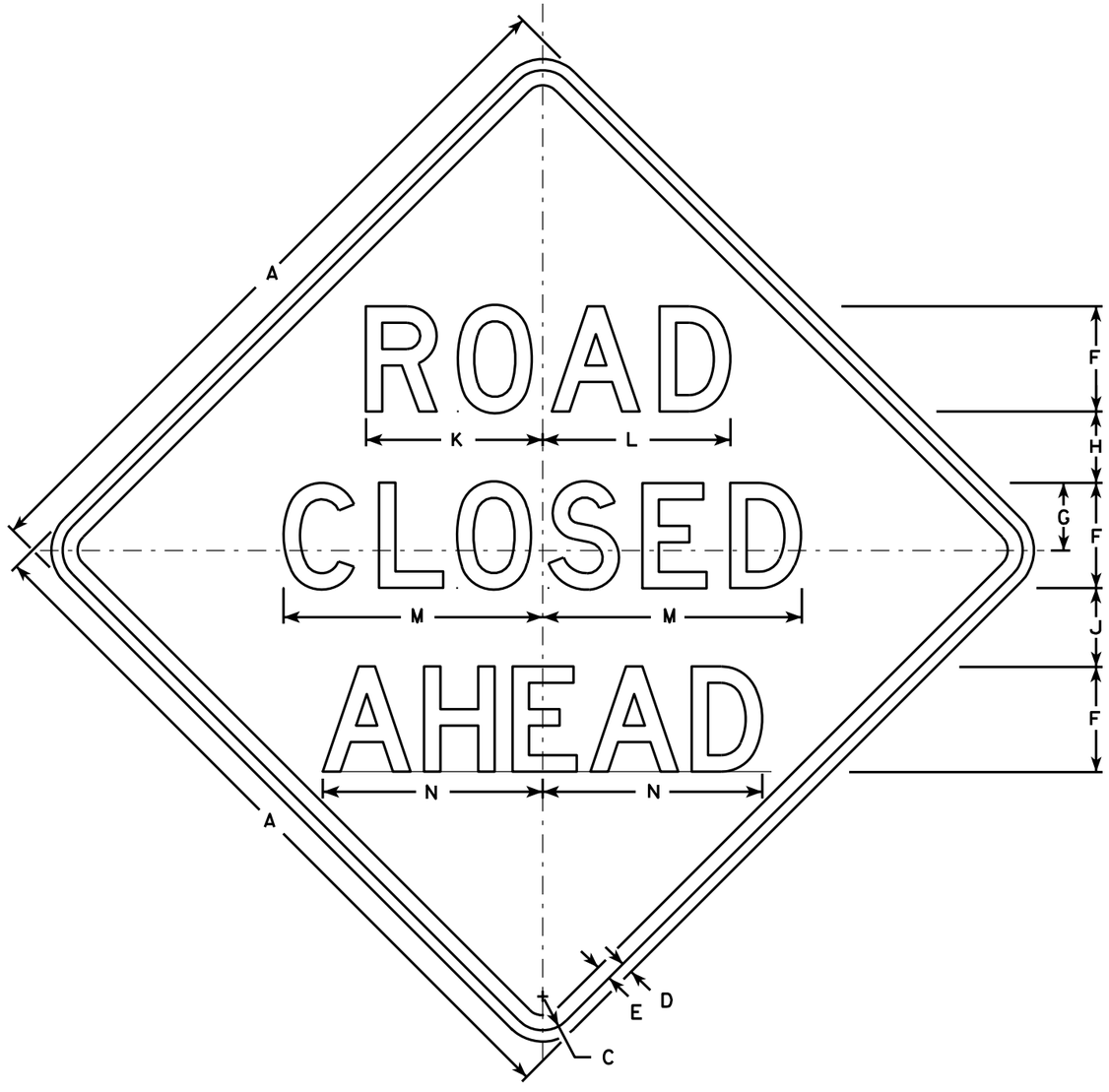
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

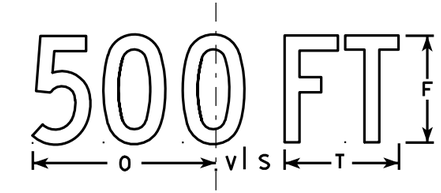
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

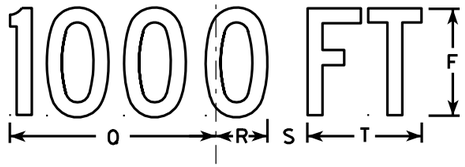
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



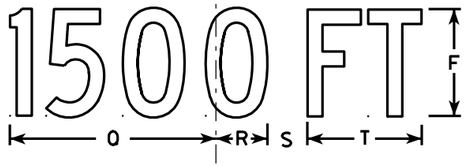
W20-3A



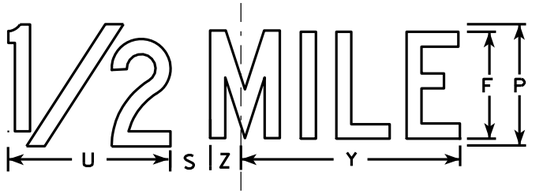
W20-3D



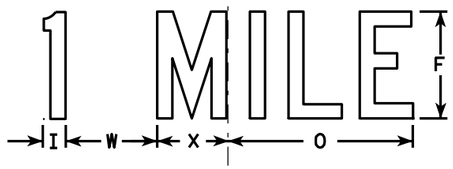
W20-3C



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

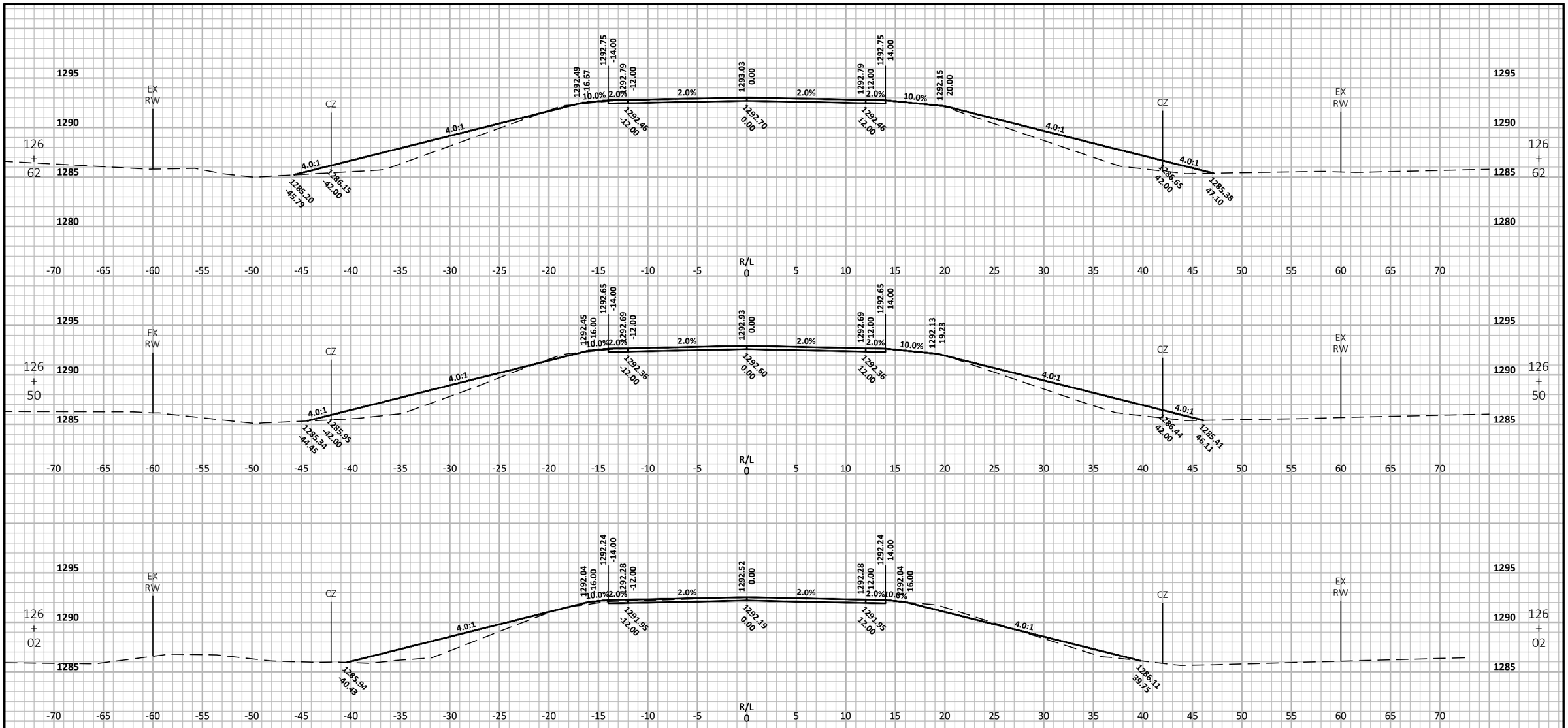
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

EARTHWORK DETAIL BEAM GUARD REPLACEMENT STA 126+02 - STA 134+18

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJ)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
					1.00	1.25	
126+02	2.8	21.7	0	0	0	0	0
126+50	0.6	40.0	3	55	3	69	-66
126+62	0.0	45.3	0	19	3	93	-90
127+12	0.0	81.7	0	118	3	240	-237
127+52	0.0	104.0	0	138	3	413	-410
127+76	0.0	88.9	0	86	3	520	-517
128+02	8.2	68.5	4	76	7	615	-608
128+26	8.9	50.6	8	53	15	681	-666
128+51	0.0	9.2	4	28	19	716	-697
129+00	0.0	9.2	0	17	19	738	-719
129+42	0.0	39.0	0	37	19	784	-765
129+43	0.0	0.0	0	1	19	785	-766
130+77	0.0	0.0	0	0	19	785	-766
130+78	0.0	21.3	0	0	19	785	-766
131+00	0.0	4.5	0	11	19	799	-780
131+50	0.0	6.8	0	10	19	811	-792
131+68	0.0	10.5	0	6	19	819	-800
131+93	1.0	32.4	0	20	19	844	-825
132+18	49.3	25.0	23	27	42	878	-836
132+43	69.4	0.9	55	12	97	893	-796
132+68	0.0	46.6	32	22	129	920	-791
132+90	0.0	122.0	0	69	129	1,006	-877
133+08	0.0	37.5	0	53	129	1,073	-944
133+58	0.0	15.3	0	49	129	1,134	-1,005
134+18	1.3	0.3	1	17	130	1,155	-1,025



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090201-xs

PLOT DATE : 7/27/2022 1:15 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

9

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090202-xs

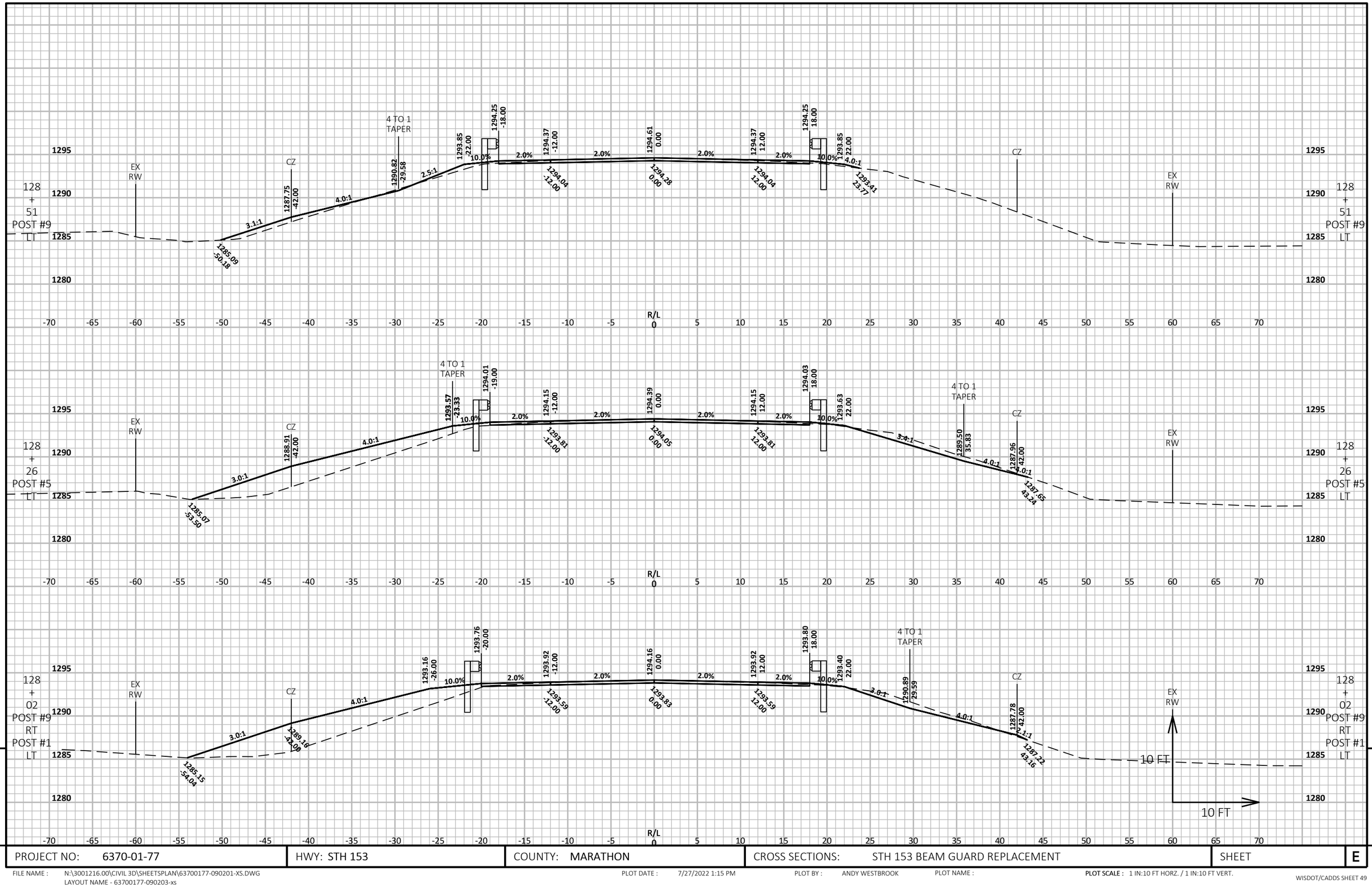
PLOT DATE : 7/27/2022 1:15 PM

PLOT BY : ANDY WESTBROOK

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090203-xs

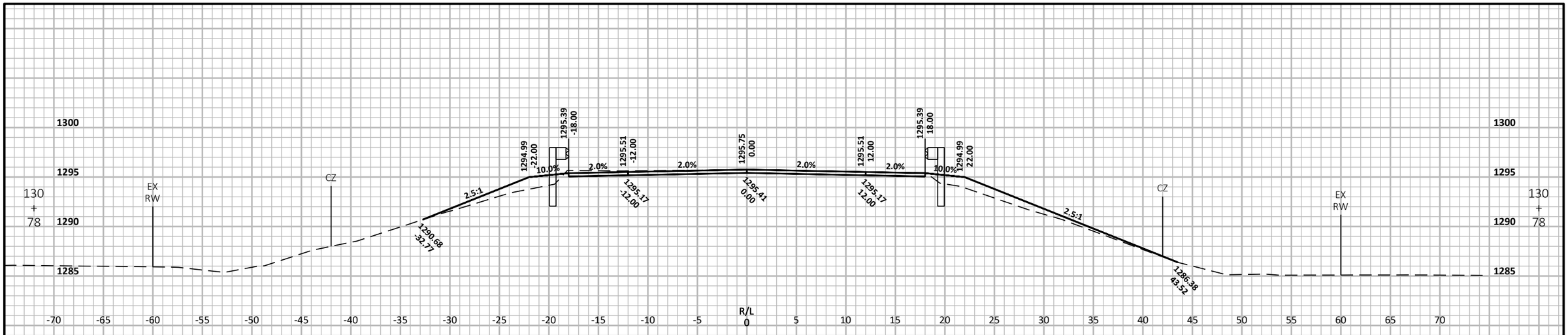
PLOT DATE : 7/27/2022 1:15 PM

PLOT BY : ANDY WESTBROOK

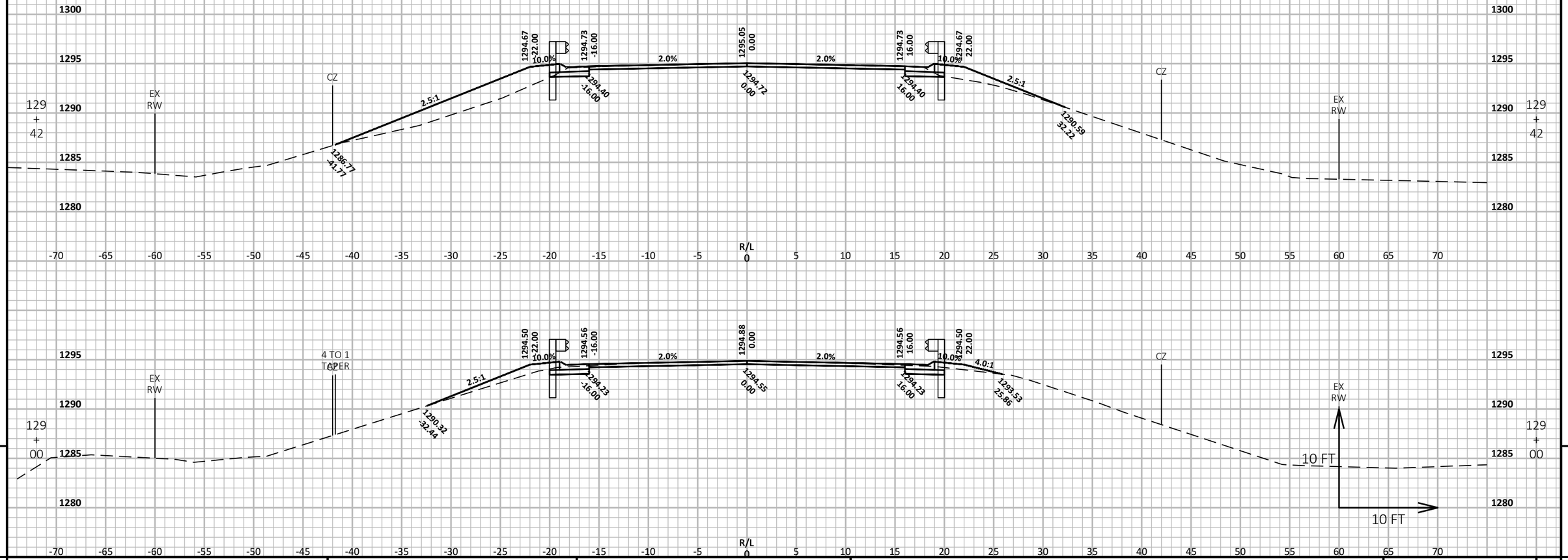
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

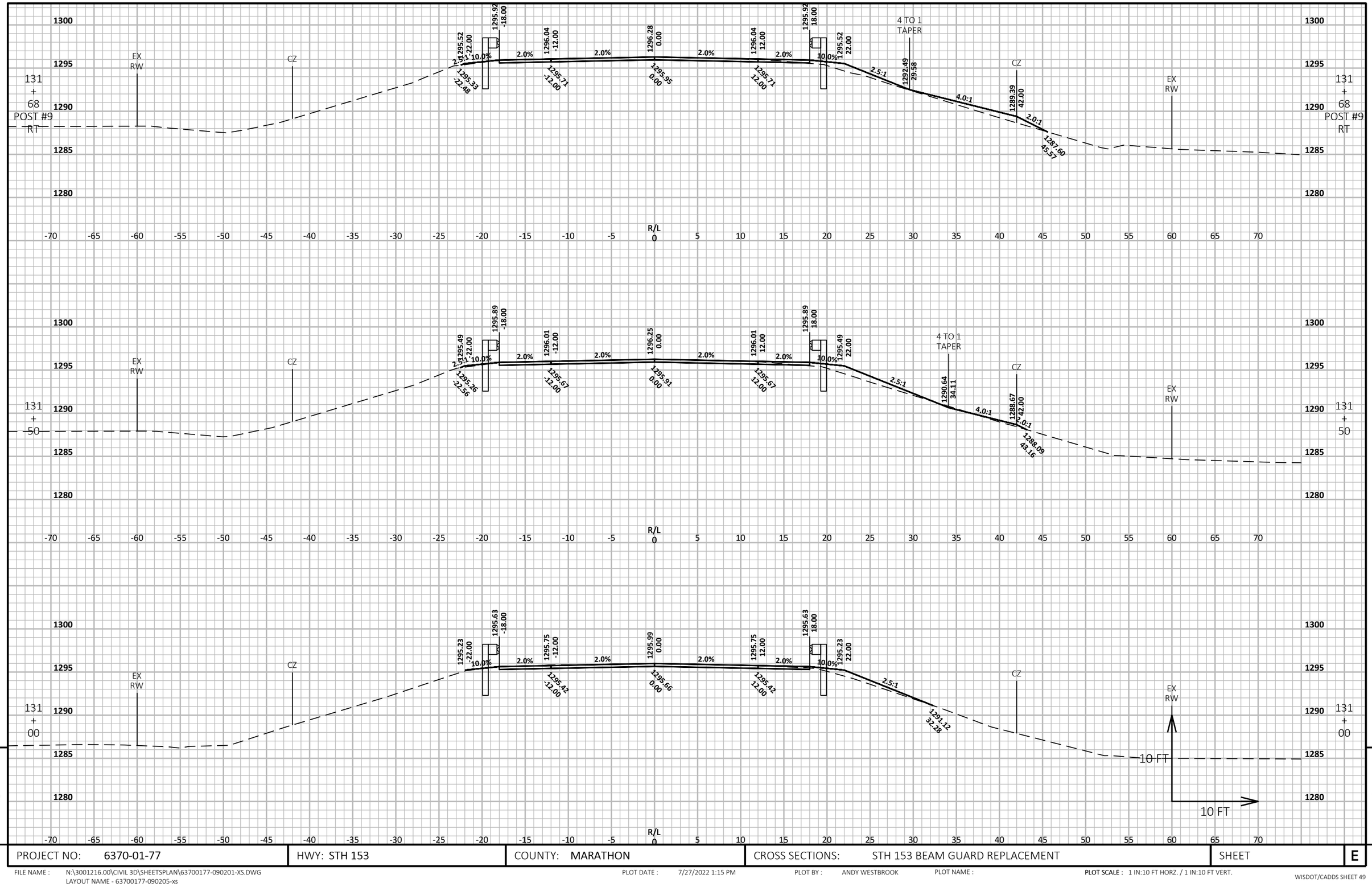


BEGIN ABRUPTLY STA 130+78
END ABRUPTLY STA 129+42



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090204-xs
PLOT DATE : 7/27/2022 1:15 PM
PLOT BY : ANDY WESTBROOK
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

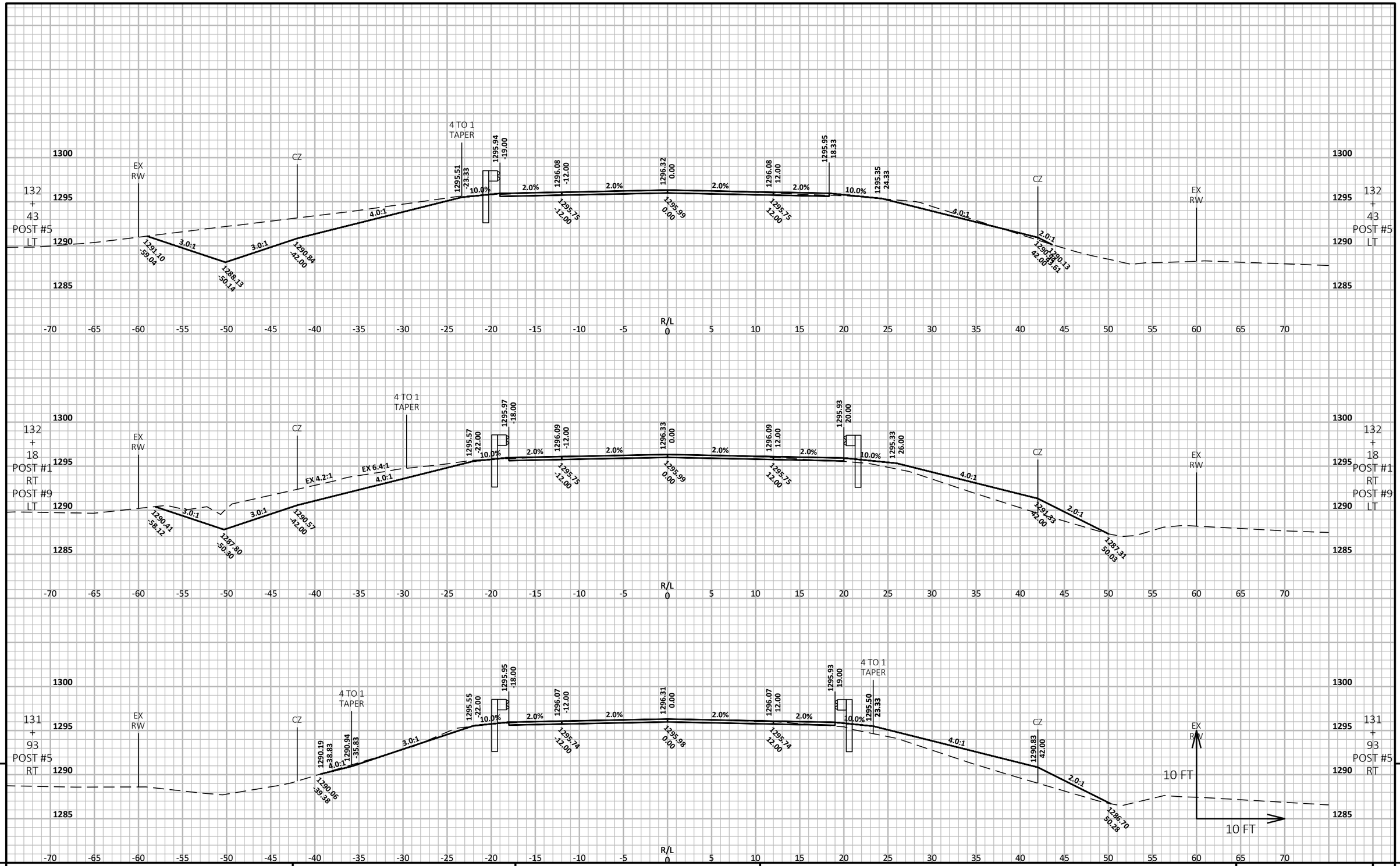
PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090205-xs

PLOT DATE : 7/27/2022 1:15 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9



9

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

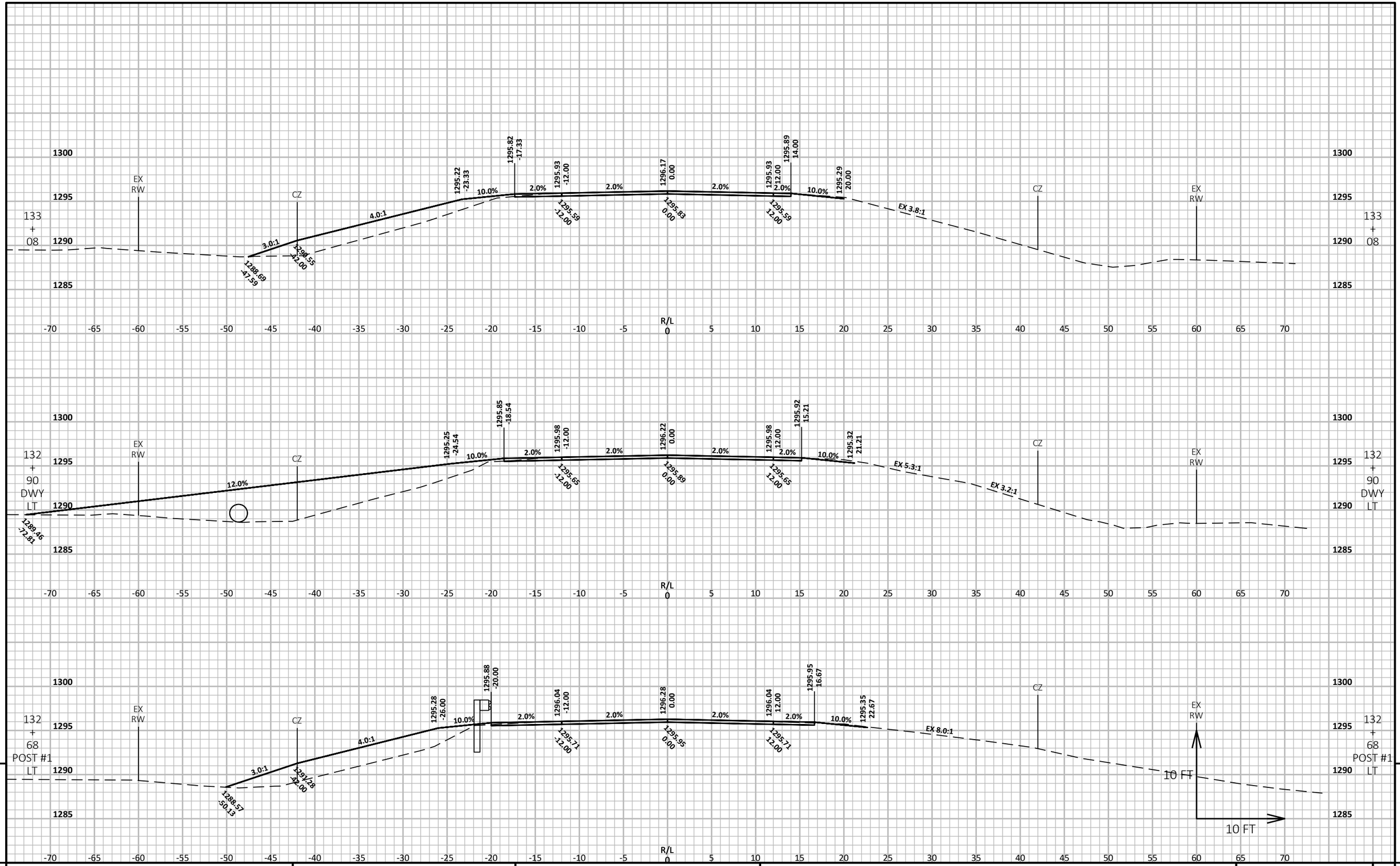
FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090206-xs

PLOT DATE : 7/27/2022 1:15 PM

PLOT BY : ANDY WESTBROOK

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



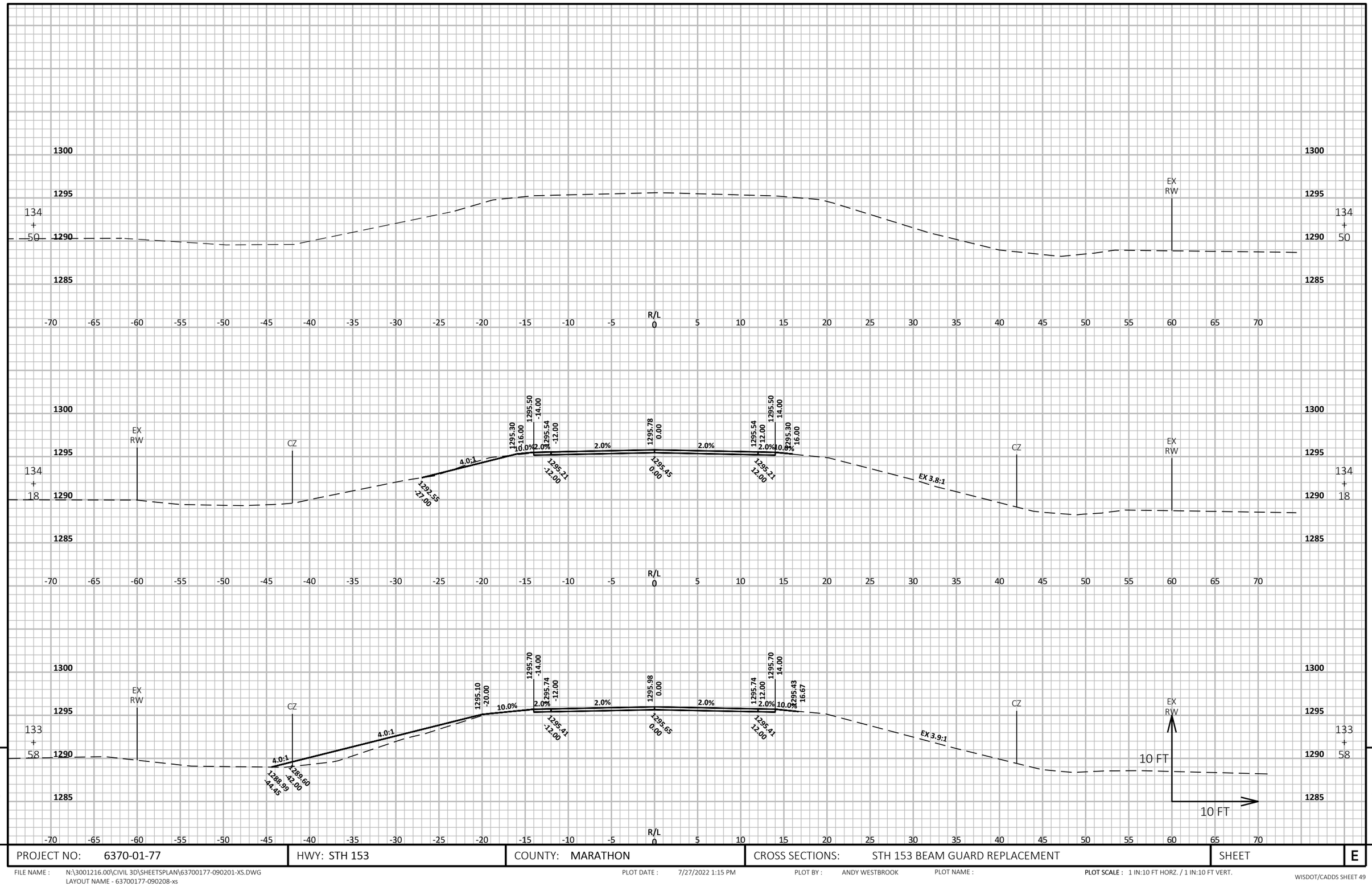
9

PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090207-xs

PLOT DATE : 7/27/2022 1:15 PM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6370-01-77	HWY: STH 153	COUNTY: MARATHON	CROSS SECTIONS: STH 153 BEAM GUARD REPLACEMENT	SHEET	E

FILE NAME : N:\3001216.00\CIVIL 3D\SHEETSPLAN\63700177-090201-XS.DWG
LAYOUT NAME - 63700177-090208-xs

PLOT DATE : 7/27/2022 1:15 PM

PLOT BY : ANDY WESTBROOK

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov