EAU

APRIL 2019

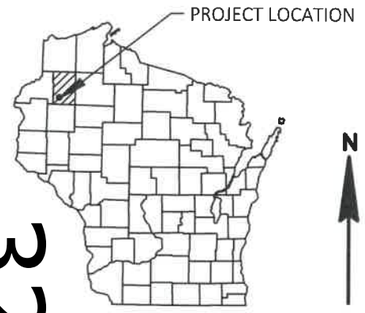
PROJECT ID: 8813-00-70

WITH: N/A

COUNTY: WASHBURN

ORDER OF SHEETS

TOTAL SHEETS = 58



32

DESIGN DESIGNATION

A.A.D.T.	(2019)	=	990
A.A.D.T.	(2039)	=	1100
D.H.V.		=	189
D.D.		=	61/39
T.		=	7.4%
DESIGN SPEED		=	55 MPH
ESALS		=	140,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHELL LAKE - SARONA

USH 63 TO SHALLOW LAKE ROAD

CTH D

WASHBURN COUNTY

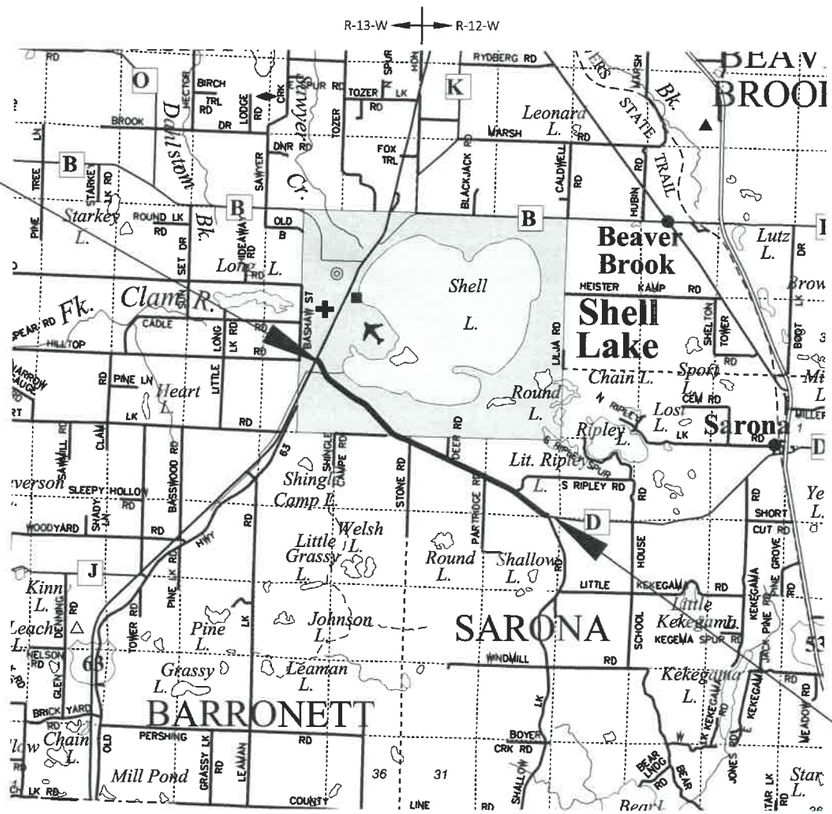
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8813-00-70	WISC 2019237	1

STATE PROJECT NUMBER

8813-00-70

BEGIN PROJECT
STA 101+23.00

Y = 531,806.871
X = 729,450.884



END PROJECT
STA 303+60.00

LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 3.833 MILES

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

APPROVED FOR WASHBURN COUNTY

DATE: 9-4-18 Frank Wolf (Signature)

Commissioner (Title)

ORIGINAL PLANS PREPARED BY

CORRE ENGINEERING

WISCONSIN

KEVIN L. MEYER E-38309-006 ELK MOUND WI PROFESSIONAL ENGINEER

DATE: 8/31/18 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE, INC.
Designer	CORRE, INC.
Management Consultant	KNIGHT E/A, INC.

APPROVED FOR THE DEPARTMENT

DATE: 10/11/18 (Management Consultant Signature)

E

UTILITY CONTACTS

ELECTRICITY

XCEL ENERGY
CHADWICK ERICKSON
2911 PIONEER AVE. SOUTH
RICE LAKE, WI 54868
PHONE: (715) 236-5716
EMAIL: chadwick.p.erickson@xcelenergy.com

BARRON ELECTRIC
SCOTT DEVOE
1434 N. STH 25
PO BOX 40
BARRON, WI 54812
PHONE: (715) 418-1182
EMAIL: sdevoe@barronelectric.com

GAS

WE ENERGIES
LEWIS KNAPP
104 W SOUTH ST
RICE LAKE, WI 54868
PHONE: (715) 234-9605
EMAIL: lewis.knapp@we-energies.com

SANITARY SEWER

CITY OF SHELL LAKE
MITCH BROWN, PUBLIC WORKS DIRECTOR
PO BOX 520
SHELL LAKE, WI 54871
PHONE: (715) 468-7873
EMAIL: mitchb@shelllake.org

COMMUNICATION

CHARTER COMMUNICATIONS
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RICE LAKE, WI 54868
PHONE: (715) 418-9317
EMAIL: tom.hasse@charter.com

CENTURY LINK
DAVE KOESHALL
PO BOX 13
SHELDON, WI 54766
PHONE: (715) 378-2131
EMAIL: dave.koeshall@centurylink.com

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

DNR CONTACT

SHAWN HASELEU
810 W MAPLE STREET
SPOONER, WI 54801
(715) 625-4228
shawn.haseleu@wisconsin.gov

CONSULTANT CONTACT

CORRE, INC.
KEVIN MEYER, P.E.
1802 WARDEN ST
EAU CLAIRE, WI 54703
(715) 299-1894
kmeyer@correinc.com

COUNTY CONTACT

FRANK SCALZO, HIGHWAY COMMISSIONER
1600 CTH H
SPOONER, WI 54801
(715) 635-4480
fscalzo@co.washburn.wi-us

GENERAL NOTES

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

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

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

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

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

4-INCH HMA LAYER SHALL BE CONSTRUCTED WITH A 1 3/4 - INCH (4 LT 58-34 S) UPPER LAYER AND A 2 1/4 - INCH (3 LT 58-28 S) LOWER LAYER.

BORING LOG

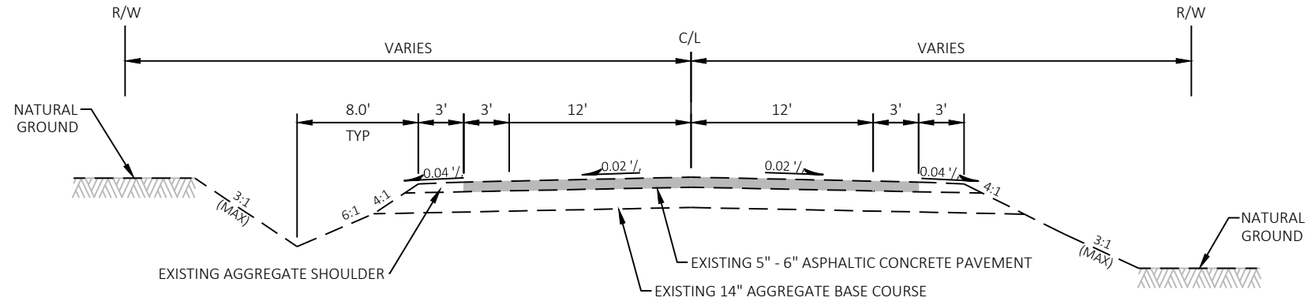
BORING NO.	STATION	ASPHALTIC DEPTH (IN)	*BASE DEPTH (IN)
B-1	102+45	6	14
B-2	118+95	5.75	14
B-3	153+15	5.0	14
B-4	175+30	5.5	14
B-5	199+40	5.0	14
B-6	245+20	5.25	14
B-7	271+45	6.0	14
B-8	295+35	6.25	14

*DEPTH FROM 1996 AS-BUILT PLANS

RUNOFF COEFFICIENT TABLE

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

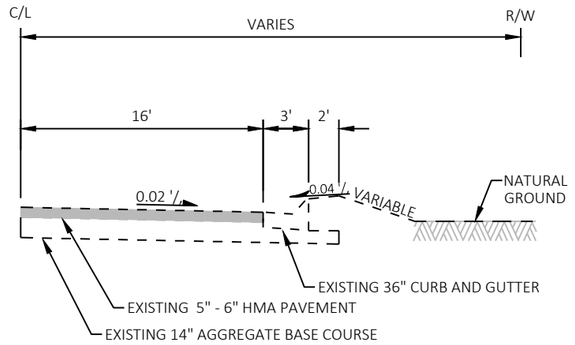
TOTAL PROJECT AREA = 40 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 17 ACRES



TYPICAL EXISTING SECTION - CTH D

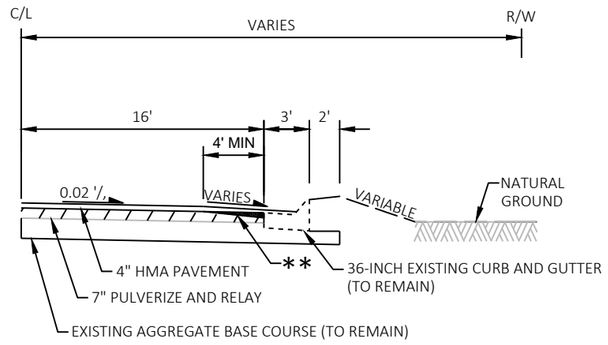
STA 101+23 TO STA 303+60 *

* EXCEPT AS SHOWN IN CURB AND GUTTER LOCATIONS



TYPICAL EXISTING SECTION - CTH D

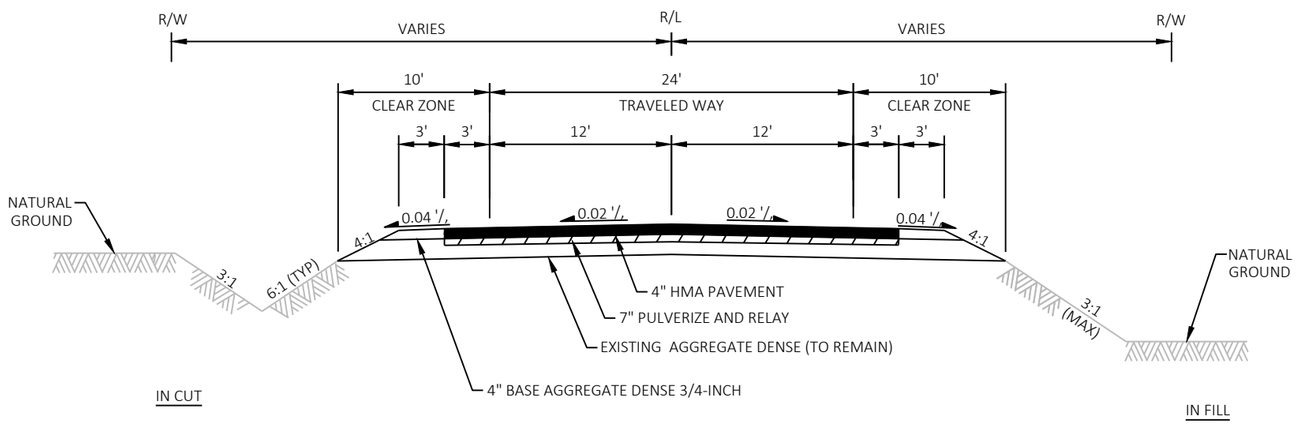
STA 155+94 TO STA 157+66, RT
STA 206+00 TO STA 207+97, LT



TYPICAL FINISHED SECTION - CTH D

STA 155+94 TO STA 157+66, RT
STA 206+00 TO STA 207+97, LT

** REMOVE EXCESS PULVERIZED MATERIAL SO THAT LOWER HMA PAVEMENT LIFT MATCHES CURB AND GUTTER FLAG LINE, (CONSIDERED INCIDENTAL TO PULVERIZE AND RELAY.)
UPPER HMA PAVEMENT LIFT WILL OVERLAY GUTTER.



TYPICAL FINISHED SECTION - CTH D

STA 101+23 TO STA 303+60 *

* EXCEPT AS SHOWN IN CURB AND GUTTER LOCATIONS

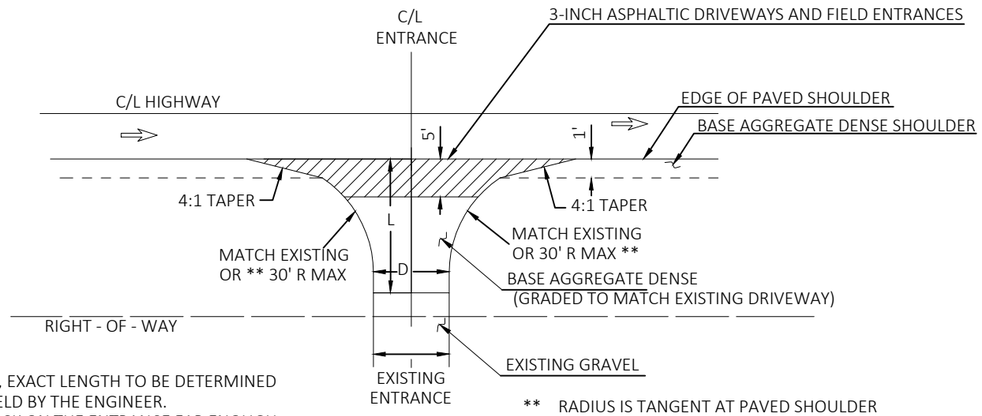
PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PLAN: TYPICAL SECTIONS	SHEET 3	E

Curve	PI	Station	Description	Left Lane	Right Lane
CURVE 1	102+20.52	101+23.00	Begin Alignment	MATCH EXISTING	MATCH EXISTING
		101+40.00	Begin Full Super	3.50%	-3.50%
		103+07.56	End Full Super	3.50%	-3.50%
		103+26.89	Reverse Crown	2.00%	-2.00%
		103+65.56	Level Crown	0.00%	-2.00%
		104+04.56	Begin Normal Crown	-2.00%	-2.00%
CURVE 2	115+35.80	110+94.83	Normal Crown	-2.00%	-2.00%
		111+33.83	Level Crown	-2.00%	0.00%
		111+72.69	Reverse Crown	-2.00%	2.00%
		112+01.83	Begin Full Super	-3.50%	3.50%
		118+54.85	End Full Super	-3.50%	3.50%
		118+93.71	Reverse Crown	-2.00%	2.00%
		119+22.85	Level Crown	-2.00%	0.00%
		119+61.85	Begin Normal Crown	-2.00%	-2.00%
CURVE 3	139+08.91	135+97.73	End Normal Crown	-2.00%	-2.00%
		136+48.73	Level Crown	-2.00%	0.00%
		136+99.73	Reverse Crown	-2.00%	2.00%
		137+50.73	Begin Full Super	-4.00%	4.00%
		140+66.50	End Full Super	-4.00%	4.00%
		141+17.50	Reverse Crown	-2.00%	2.00%
		141+68.50	Level Crown	-2.00%	0.00%
		142+19.50	Begin Normal Crown	-2.00%	-2.00%
CURVE 4	148+19.34	144+28.70	End Normal Crown	-2.00%	-2.00%
		144+79.70	Level Crown	0.00%	-2.00%
		145+30.77	Reverse Crown	2.00%	-2.00%
		146+22.70	Begin Full Super	5.60%	5.60%
		150+11.63	End Full Super	5.60%	5.60%
		151+03.56	Reverse Crown	2.00%	-2.00%
		151+54.63	Level Crown	0.00%	-2.00%
		152+05.63	Begin Normal Crown	-2.00%	-2.00%
CURVE 5	177+15.32	170+98.04	End Normal Crown	-2.00%	-2.00%
		171+49.04	Level Crown	0.00%	-2.00%
		172+00.06	Reverse Crown	2.00%	-2.00%
		172+74.04	Begin Full Super	4.90%	-4.90%
		181+37.59	End Full Super	4.90%	-4.90%
		182+11.57	Reverse Crown	2.00%	-2.00%
		182+62.59	Level Crown	0.00%	-2.00%
		183+12.00	Begin Normal Crown	-2.00%	-2.00%

Curve	PI	Station	Description	Left Lane	Right Lane
CURVE 6	186+71.72	183+12.00	End Normal Crown	-2.00%	-2.00%
		183+61.51	Level Crown	0.00%	-2.00%
		184+12.81	Reverse Crown	2.00%	-2.00%
		184+20.51	Begin Full Super	2.30%	-2.30%
		189+22.52	End Full Super	2.30%	-2.30%
		189+30.22	Reverse Crown	2.00%	-2.00%
		189+81.52	Level Crown	0.00%	-2.00%
		190+32.52	Begin Normal Crown	-2.00%	-2.00%
CURVE 7	266+82.84	260+66.66	End Normal Crown	-2.00%	-2.00%
		261+17.66	Level Crown	0.00%	-2.00%
		261+68.37	Reverse Crown	2.00%	-2.00%
		261+88.66	Begin Full Super	2.80%	-2.80%
		271+72.74	End Full Super	2.80%	-2.80%
		271+93.03	Reverse Crown	2.00%	-2.00%
		272+43.74	Level Crown	0.00%	-2.00%
		272+94.74	Begin Normal Crown	-2.00%	-2.00%
CURVE 8	296+47.88	292+58.29	End Normal Crown	-2.00%	-2.00%
		293+09.29	Level Crown	-2.00%	0.00%
		293+60.29	Reverse Crown	-2.00%	2.00%
		294+62.29	Begin Full Super	-6.00%	6.00%
		298+22.61	End Full Super	-6.00%	6.00%
		299+24.61	Reverse Crown	-2.00%	2.00%
		299+75.61	Level Crown	-2.00%	0.00%
		300+26.61	Begin Normal Crown	-2.00%	-2.00%

2

2



L=VARIABLE, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER. BLEND BACK ON THE ENTRANCE FAR ENOUGH TO GET A SMOOTH PROFILE.

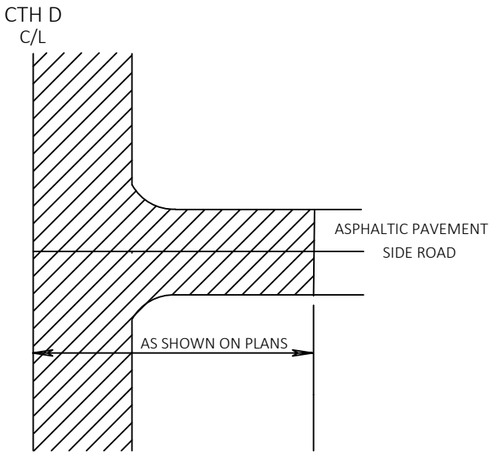
D=DRIVEWAY WIDTH (AS SHOWN ON PLAN)

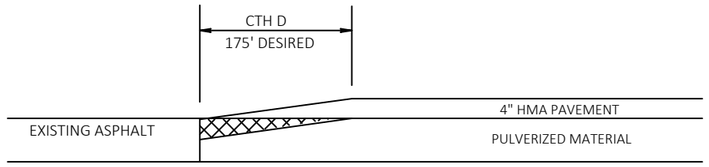
NOTE: IF EXISTING DRIVEWAY IS ASPHALTIC, SAWCUT AT MATCH LINE AND MATCH EXISTING DRIVEWAY

** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

PLAN VIEW

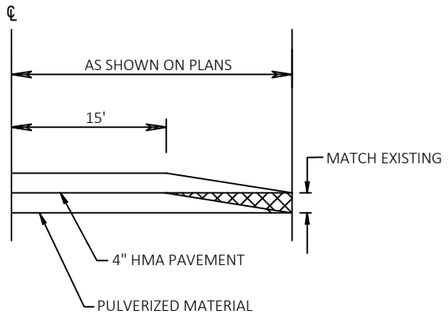
DRIVEWAY DETAIL
(PE)





BUTT JOINT

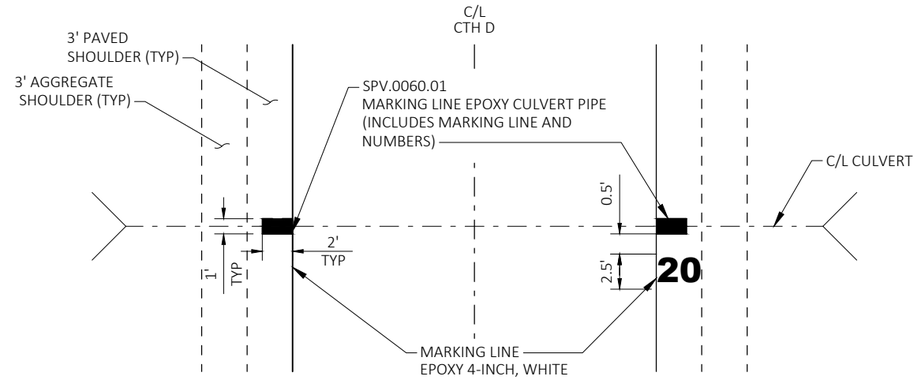
REQUIRED AT BEGIN AND END OF PAVING LOCATIONS.



PAID FOR AS PULVERIZE AND RELAY

PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS

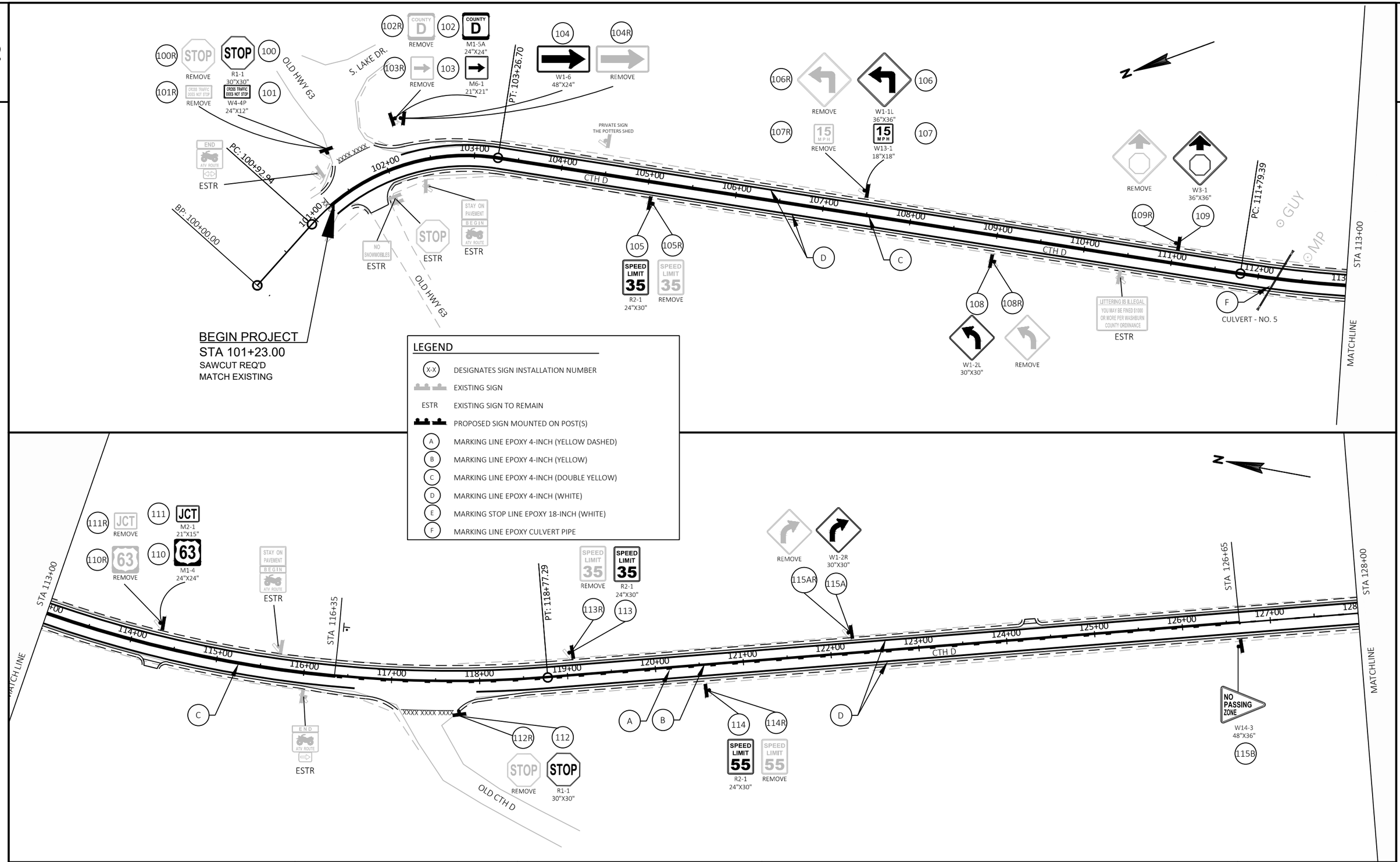
PAVEMENT TRANSITION
NOT TO SCALE



NOTE: SEE PAVEMENT MARKING PLAN FOR CULVERT PIPE NUMBERS. 6" NUMBER THICKNESS.

CULVERT PIPE PAVEMENT MARKING DETAIL

PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	CONSTRUCTION DETAILS	SHEET 5	E

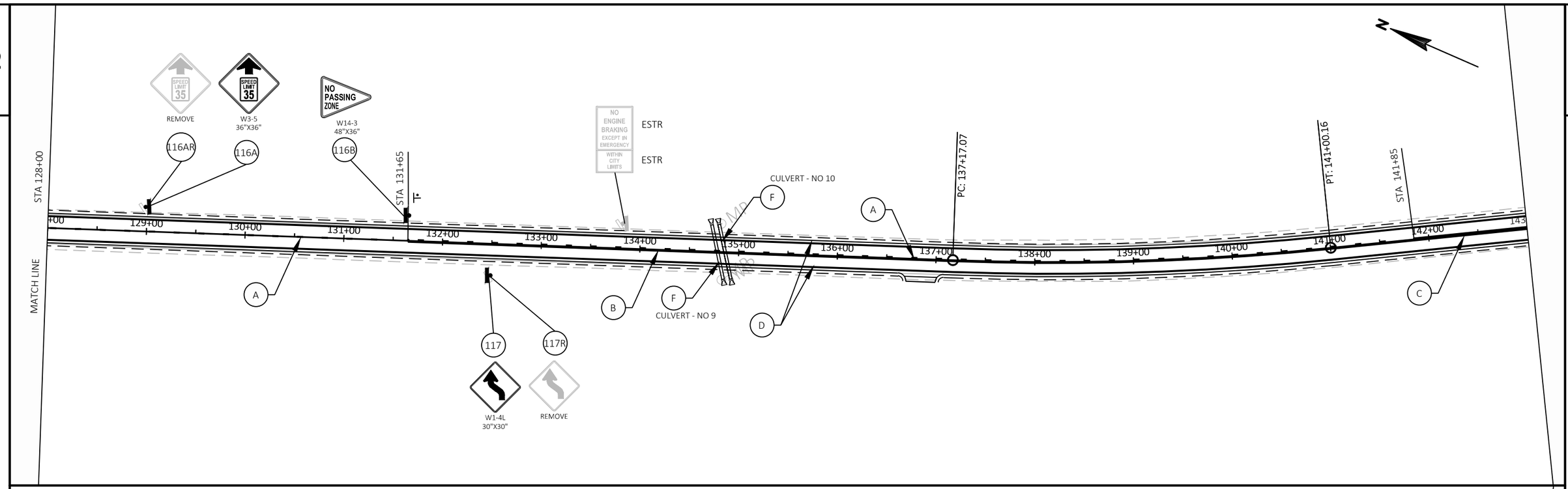


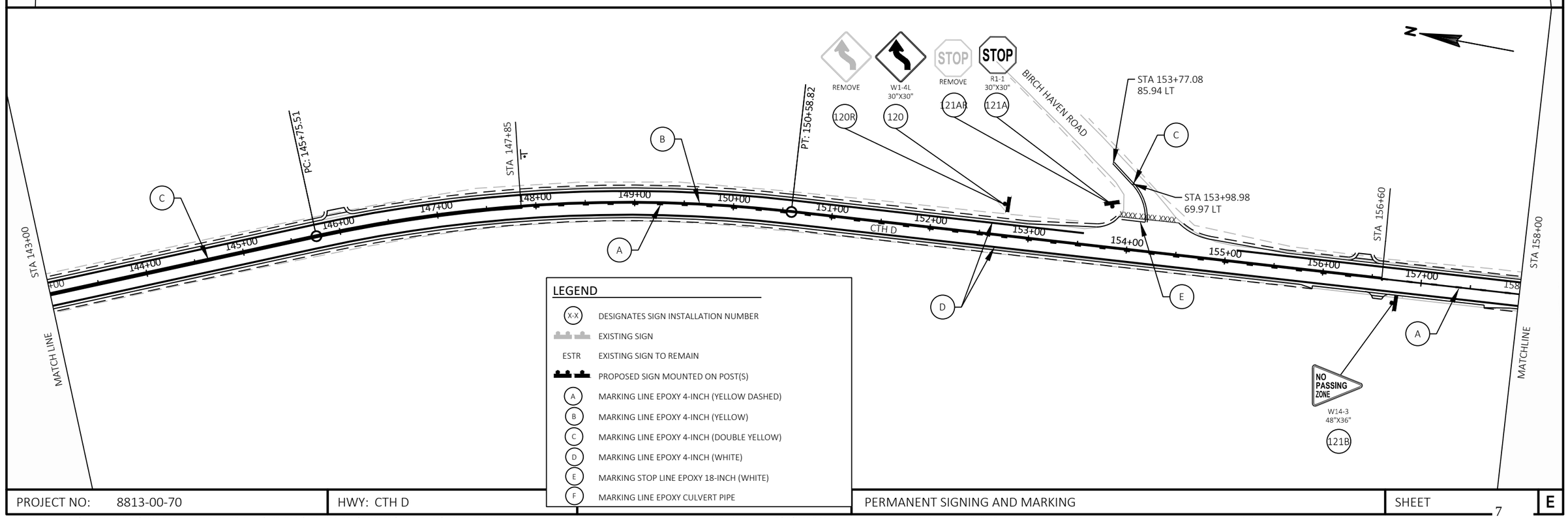
PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PERMANENT SIGNING AND MARKING	SHEET 6	E

FILE NAME : P:\WI - NW REGION\8813-00-00_WASHBURN CO_CTH D\500_CADD\501_C3D_2016\88130000\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023201-ps

PLOT DATE : 8/30/2018 2:11 PM PLOT BY : NICHOLAS WATHKE PLOT NAME : PLOT SCALE : 1 IN : 100 FT

WISDOT/CADDS SHEET 44

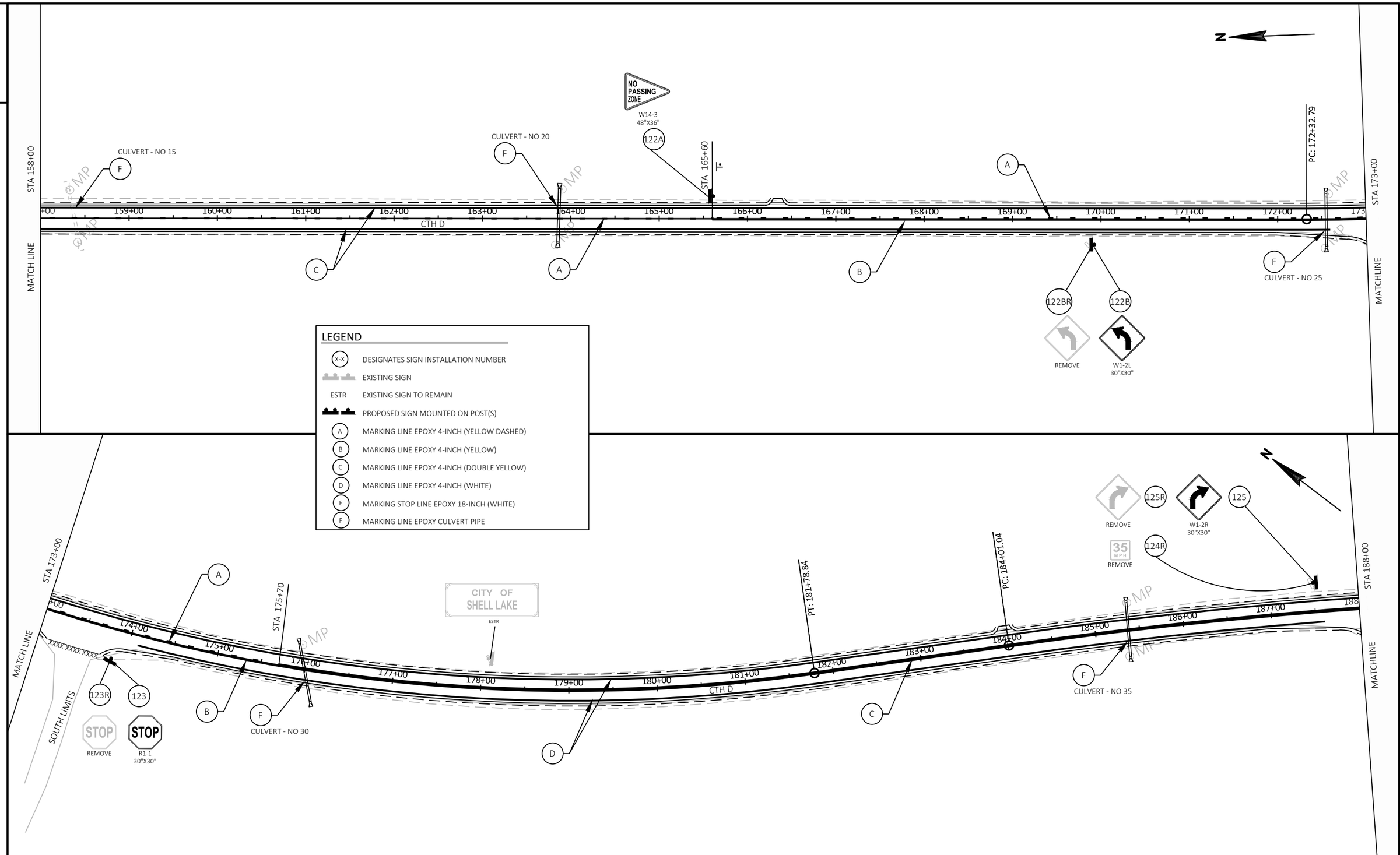




LEGEND

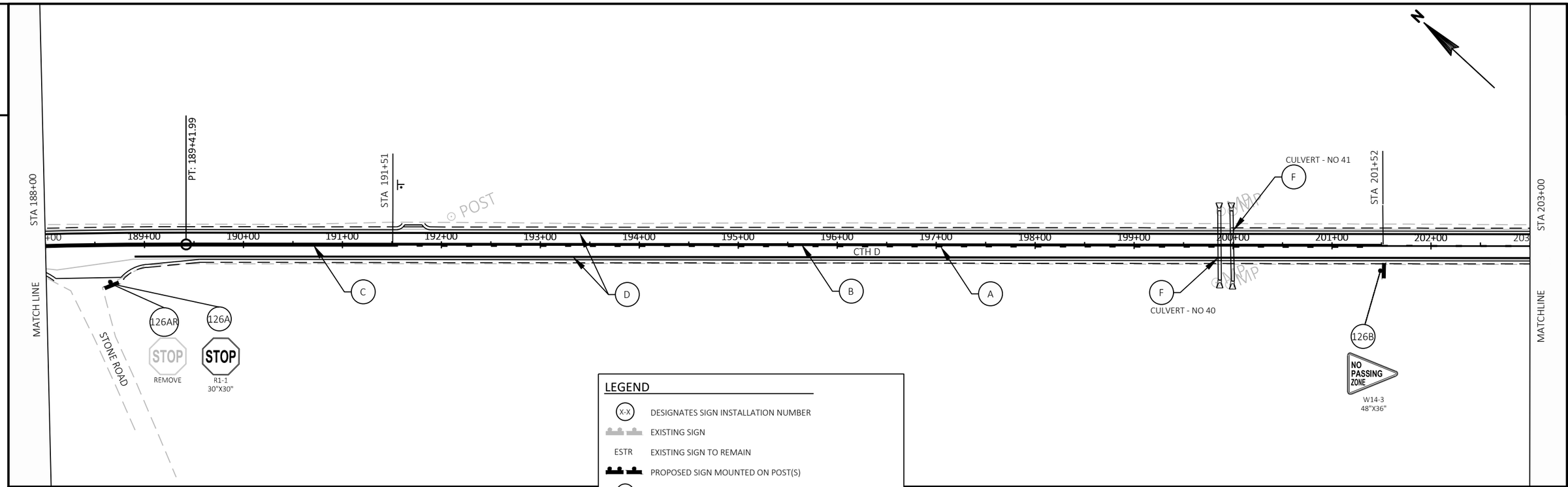
(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
(A)	MARKING LINE EPOXY 4-INCH (YELLOW DASHED)
(B)	MARKING LINE EPOXY 4-INCH (YELLOW)
(C)	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
(D)	MARKING LINE EPOXY 4-INCH (WHITE)
(E)	MARKING STOP LINE EPOXY 18-INCH (WHITE)
(F)	MARKING LINE EPOXY CULVERT PIPE

PROJECT NO: 8813-00-70 | HWY: CTH D | PERMANENT SIGNING AND MARKING | SHEET 7 | E



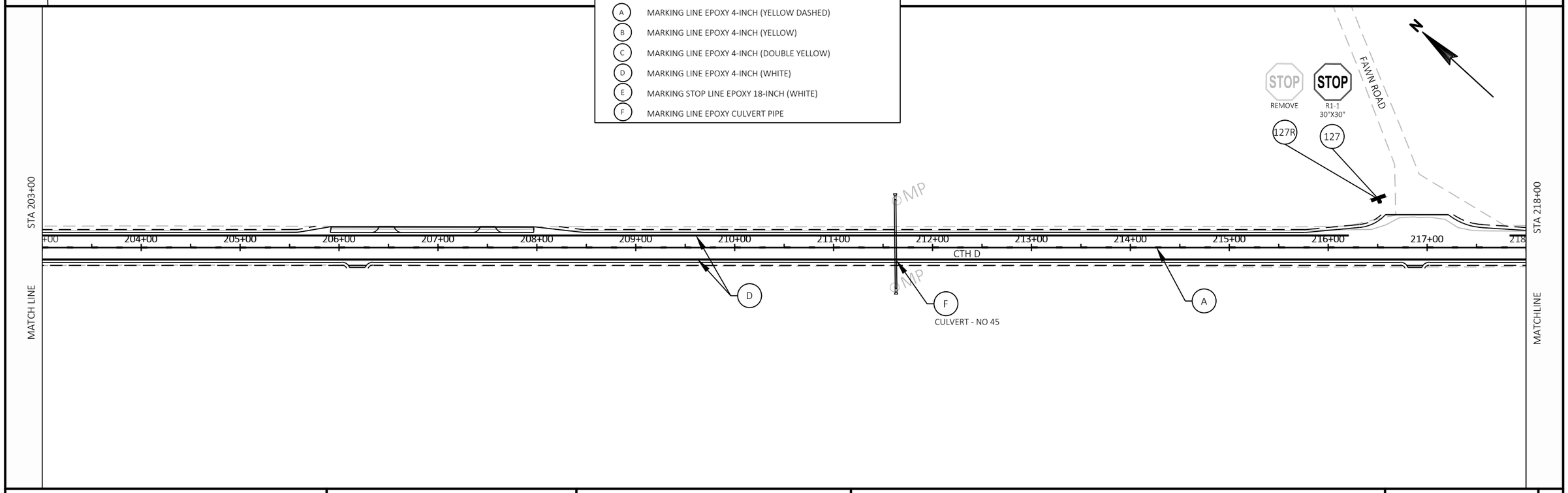
PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PERMANENT SIGNING AND MARKING	SHEET 8	E

FILE NAME : P:\WI - NW REGION\8813-00-00_WASHBURN CO_CTH D\500_CADD\501_C3D_2016\88130000\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023203-ps
PLOT DATE : 10/11/2018 9:07 AM PLOT BY : NICHOLAS WATHKE PLOT NAME : PLOT SCALE : 1 IN : 100 FT

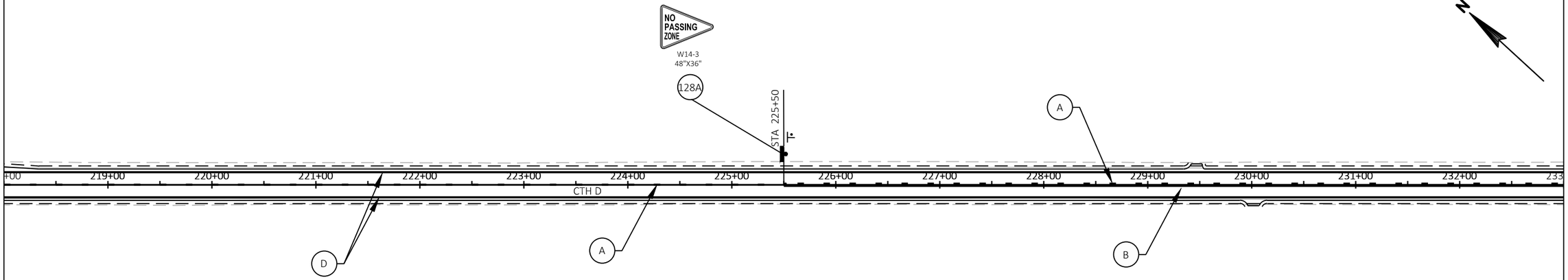


LEGEND

X-X	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
A	MARKING LINE EPOXY 4-INCH (YELLOW DASHED)
B	MARKING LINE EPOXY 4-INCH (YELLOW)
C	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
D	MARKING LINE EPOXY 4-INCH (WHITE)
E	MARKING STOP LINE EPOXY 18-INCH (WHITE)
F	MARKING LINE EPOXY CULVERT PIPE

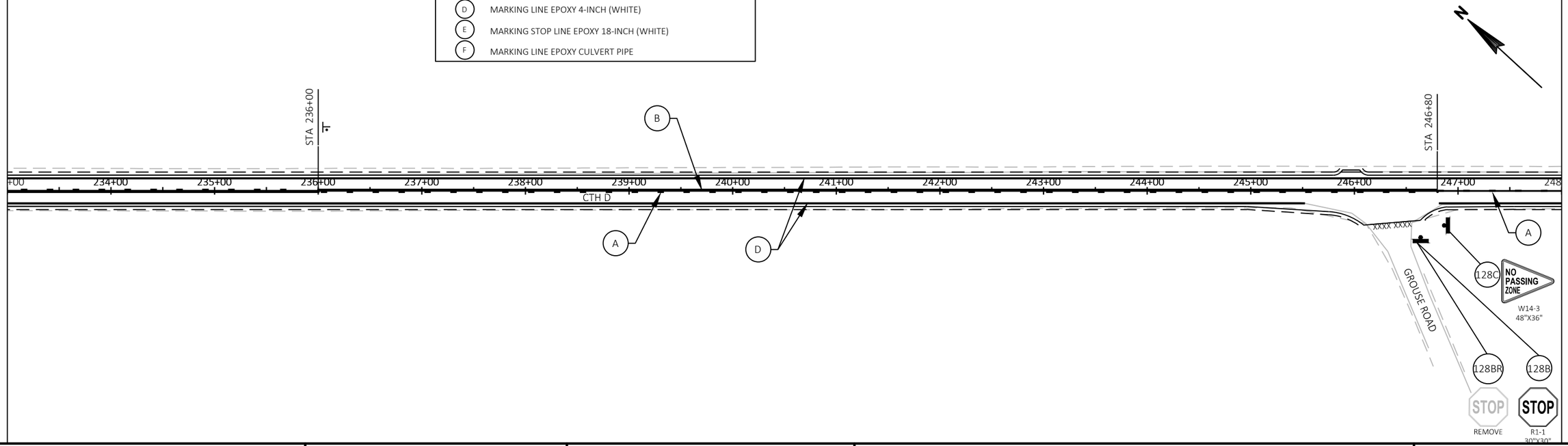


PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PERMANENT SIGNING AND MARKING	SHEET 9	E

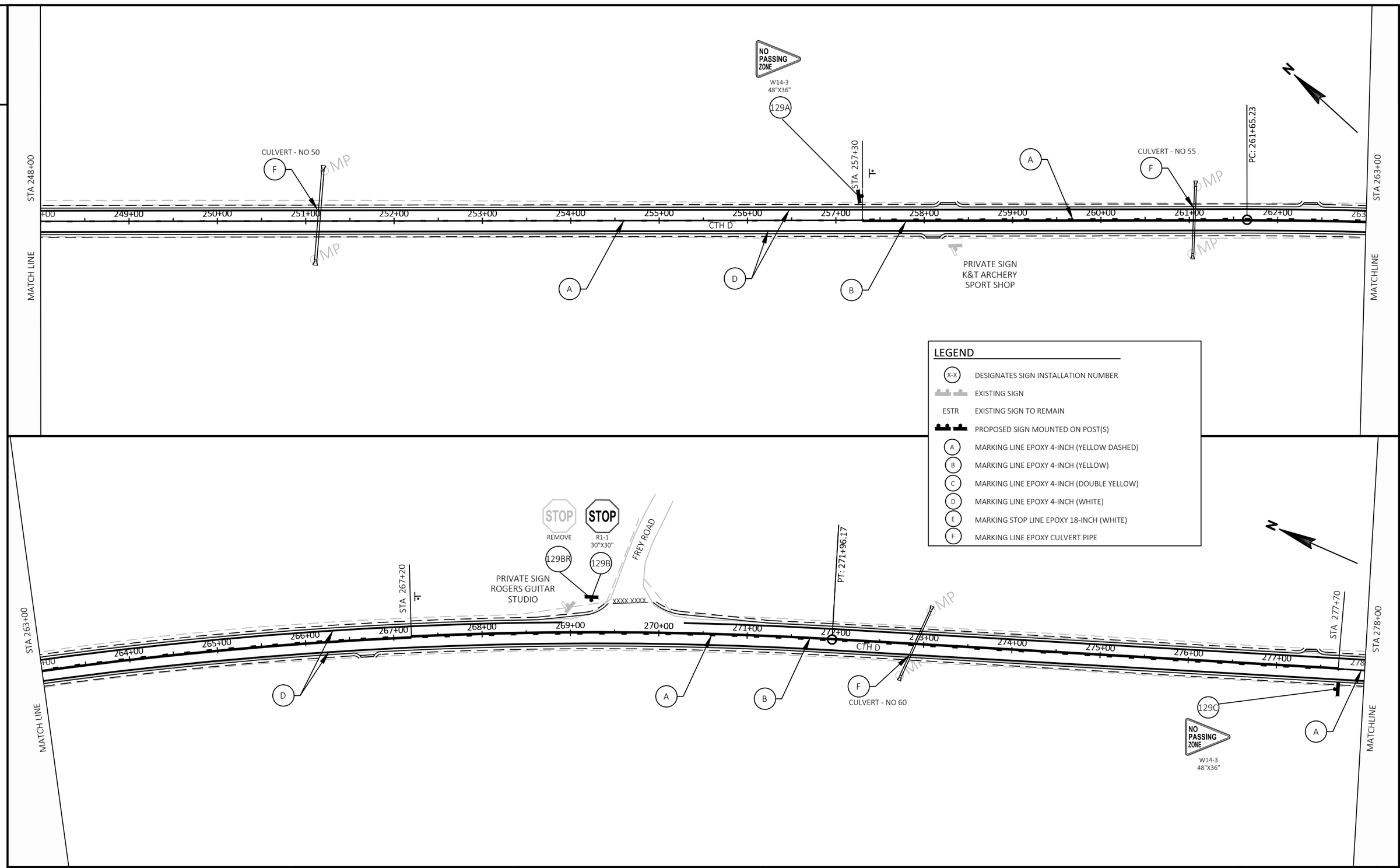


LEGEND

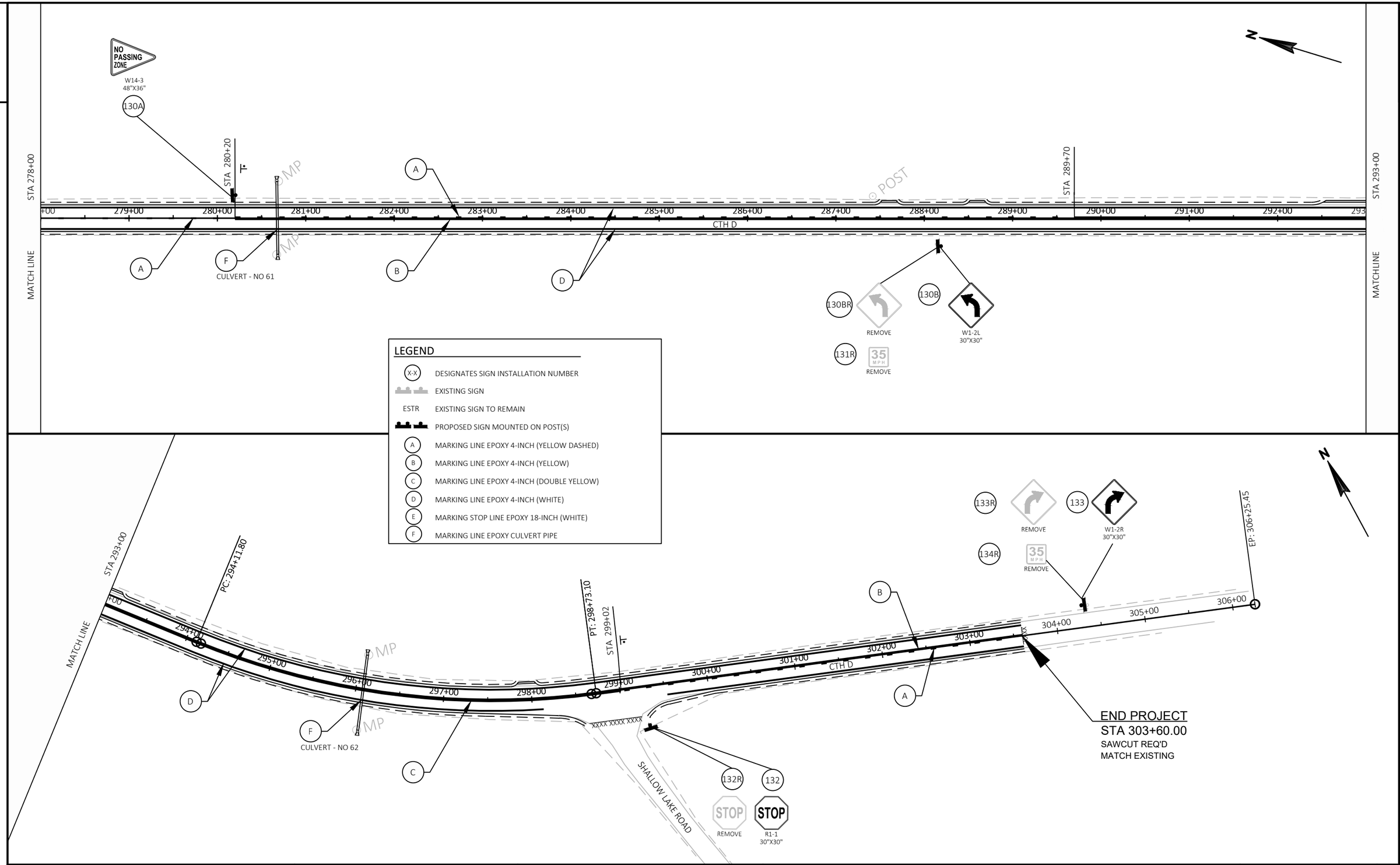
X-X	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
A	MARKING LINE EPOXY 4-INCH (YELLOW DASHED)
B	MARKING LINE EPOXY 4-INCH (YELLOW)
C	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
D	MARKING LINE EPOXY 4-INCH (WHITE)
E	MARKING STOP LINE EPOXY 18-INCH (WHITE)
F	MARKING LINE EPOXY CULVERT PIPE



PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PERMANENT SIGNING AND MARKING	SHEET 10	E



PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PERMANENT SIGNING AND MARKING	SHEET 11	E



PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PERMANENT SIGNING AND MARKING	SHEET 12	E

FILE NAME : P:\WI - NW REGION\8813-00-00_WASHBURN CO_CTH D\500_CADD\501_C3D_2016\88130000\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023207-ps

PLOT DATE : 8/30/2018 2:11 PM PLOT BY : NICHOLAS WATHKE PLOT NAME : PLOT SCALE : 1 IN : 100 FT

8813-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	15.000	15.000
0004	204.0110	Removing Asphaltic Surface	SY	342.000	342.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,042.000	2,042.000
0008	213.0100	Finishing Roadway (project) 01. 8813-00-70	EACH	1.000	1.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,393.000	3,393.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	400.000	400.000
0014	325.0100	Pulverize and Relay	SY	68,310.000	68,310.000
0016	374.1020.S	QMP Pulverize and Relay Compaction	SY	68,310.000	68,310.000
0018	455.0605	Tack Coat	GAL	4,869.000	4,869.000
0020	460.2000	Incentive Density HMA Pavement	DOL	9,980.000	9,980.000
0022	460.5223	HMA Pavement 3 LT 58-28 S	TON	8,769.000	8,769.000
0024	460.5244	HMA Pavement 4 LT 58-34 S	TON	6,820.000	6,820.000
0026	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	57.000	57.000
0028	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	66.000	66.000
0030	522.0160	Culvert Pipe Reinforced Concrete Class III 60-Inch	LF	72.000	72.000
0032	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0034	522.1060	Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	EACH	2.000	2.000
0036	525.0324	Apron Endwalls for Culvert Pipe Aluminum 24-Inch	EACH	14.000	14.000
0038	525.0330	Apron Endwalls for Culvert Pipe Aluminum 30-Inch	EACH	8.000	8.000
0040	525.0336	Apron Endwalls for Culvert Pipe Aluminum 36-Inch	EACH	4.000	4.000
0042	530.0124	Culvert Pipe Corrugated Polyethylene 24-Inch	LF	528.000	528.000
0044	530.0130	Culvert Pipe Corrugated Polyethylene 30-Inch	LF	260.000	260.000
0046	530.0136	Culvert Pipe Corrugated Polyethylene 36-Inch	LF	136.000	136.000
0048	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8813-00-70	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	145.000	145.000
0054	625.0500	Salvaged Topsoil	SY	1,865.000	1,865.000
0056	627.0200	Mulching	SY	190.000	190.000
0058	628.1504	Silt Fence	LF	50.000	50.000
0060	628.1520	Silt Fence Maintenance	LF	50.000	50.000
0062	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0066	628.2008	Erosion Mat Urban Class I Type B	SY	1,955.000	1,955.000
0068	629.0210	Fertilizer Type B	CWT	0.160	0.160
0070	630.0120	Seeding Mixture No. 20	LB	61.000	61.000
0072	630.0200	Seeding Temporary	LB	61.000	61.000
0074	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	35.000	35.000

8813-00-70

Line	Item	Item Description	Unit	Total	Qty
0076	637.2210	Signs Type II Reflective H	SF	74.870	74.870
0078	637.2230	Signs Type II Reflective F	SF	147.100	147.100
0080	638.2602	Removing Signs Type II	EACH	33.000	33.000
0082	638.3000	Removing Small Sign Supports	EACH	33.000	33.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0300	Traffic Control Drums	DAY	100.000	100.000
0088	643.0900	Traffic Control Signs	DAY	2,485.000	2,485.000
0090	643.5000	Traffic Control	EACH	1.000	1.000
0092	646.1020	Marking Line Epoxy 4-Inch	LF	64,268.000	64,268.000
0094	646.6120	Marking Stop Line Epoxy 18-Inch	LF	24.000	24.000
0096	648.0100	Locating No-Passing Zones	MI	3.840	3.840
0098	650.6000	Construction Staking Pipe Culverts	EACH	15.000	15.000
0100	650.8000	Construction Staking Resurfacing Reference	LF	20,237.000	20,237.000
0102	650.9910	Construction Staking Supplemental Control (project) 01. 8813-00-70	LS	1.000	1.000
0104	690.0150	Sawing Asphalt	LF	491.000	491.000
0106	740.0440	Incentive IRI Ride	DOL	15,320.000	15,320.000
0108	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0110	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0112	SPV.0060	Special 01. Marking Line Epoxy Culvert Pipe	EACH	16.000	16.000

3

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	COMMENTS
CATEGORY CODE 0010			
112+20		1	60" CMP
134+78		2	30" CMP
163+86		1	30" CMP
172+55		1	24" CMP
175+99		1	43" CMP
185+37		1	24" CMP
199+86		2	36" CMP
211+62		1	20" CMP
251+15		1	20" CMP
261+05		1	24" CMP
272+90		1	24" CMP
280+68		1	24" CMP
296+08		1	24" CMP
	TOTALS	**15**	

REMOVING ASPHALTIC SURFACE

STATION - STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY
CATEGORY CODE 0010		
216+90	STONE RD	20
216+90	FAWN RD	93
246+37	GROUSE RD	179
ASPAHLT DRIVEWAYS	---	50
	TOTAL	**342**

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION - STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
CATEGORY CODE 0010		
101+23 - 102+98	CTH D	613
101+73	OLD HWY 63	145
117+36	OLD CTH D	184
154+14	BIRCH HAVEN RD	152
173+42	SOUTH LIMITS RD	177
269+70	FREY RD	134
298+90	SHALLOW LAKE RD	90
301+85 - 303+60	CTH D	547
	TOTAL	**2,042**

3

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGG DENSE 3/4-INCH TON	305.0120 BASE AGG DENSE 1 1/4-INCH TON	COMMENTS
CATEGORY CODE 0010				
101+23 - 303+60	MAINLINE	3,320	--	GRAVEL SHOULDER
101+23	LT & RT	7	--	OLD HWY 63
117+24	RT	6	--	OLD CTH D
153+75	LT	5	--	BIRCH HAVEN RD
173+27	RT	5	--	SOUTH LIMITS RD
188+27	RT	6	--	STONE RD
216+74	LT	6	--	FAWN RD
246+29	RT	6	--	GROUSE RD
269+58	LT	6	--	FREY RD
298+73	RT	6	--	SHALLOW LAKE RD
DRIVEWAYS		20		--
CULVERT REPLACEMENTS		--	400	--
	TOTAL:	**3,393**	**400**	

3

PULVERIZE AND RELAY

STATION	-	STATION	LOCATION	325.0100 PULVERIZE AND RELAY SY	374.1020.S QMP COMPACTION SY
CATEGORY CODE 0010					
102+90	-	301+85	MAINLINE	68,310	68,310
			TOTAL	**68,310**	**68,310**

ASPHALTIC ITEMS

STATION	-	STATION	LOCATION	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5244 HMA PAVEMENT 4 LT 58-34 S TON	455.0605 TACK COAT GAL	465.0120 ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES TON
CATEGORY CODE 0010							
101+23	-	103+00	CTH D	78	60	43	--
101+73			OLD HWY 63	28	21	15	--
103+00	-	303+60	CTH D	8,425	6,553	4681	--
117+36			OLD CTH D	31	24	17	--
154+14			BIRCH HAVEN RD	30	24	16	--
173+42			SOUTH LIMITS RD	30	24	16	--
188+40			STONE RD	31	24	17	--
216+90			FAWN RD	27	20	16	--
246+37			GROUSE RD	30	23	16	--
269+70			FREY RD	30	24	16	--
298+90			SHALLOW LAKE RD	30	22	16	--
			DRIVEWAYS	--	--	--	57
			TOTALS	**8,769**	**6,820**	**4,869**	**57**

3

INCENTIVE DENSITY HMA PAVEMENT

Location	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL
MAINLINE	9,976.96
TOTAL	**9,980**

INCENTIVE IRI RIDE

Location	740.0440 Incentive IRI RIDE DOL
MAINLINE	15,320.00
TOTAL	**15,320.00**

3

CULVERT PIPES

STATION	LOCATION	522.0148 CULVERT PIPE REINFORCED CONCRETE CLASS III 48 -INCH LF	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH EACH	522.0160 CULVERT PIPE REINFORCED CONCRETE CLASS III 60-INCH LF	522.1060 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 60-INCH EACH	530.0124 CULVERT PIPE CORRUGATED POLYETHYLENE 24-INCH LF	525.0324 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 24-INCH EACH	530.0130 CULVERT PIPE CORRUGATED POLYETHYLENE 30-INCH LF	525.0330 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 30-INCH EACH	530.0136 CULVERT PIPE CORRUGATED POLYETHYLENE 36-INCH LF	525.0336 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 36-INCH EACH	650.6000 CONSTRUCTION STAKING EACH	APPROX. DEPTH AT CENTERLINE FT
CATEGORY CODE 0010													
112+20	CTH D	--	--	72	2	--	--	--	--	--	--	1	8.5
134+78	CTH D	--	--	--	--	--	--	56	2	--	--	1	4.5
134+78	CTH D	--	--	--	--	--	--	56	2	--	--	1	4.5
163+86	CTH D	--	--	--	--	--	--	60	2	--	--	1	5.5
172+55	CTH D	--	--	--	--	60	2	--	--	--	--	1	5.0
175+99	CTH D	66	2	--	--	--	--	--	--	--	--	1	8.5
185+37	CTH D	--	--	--	--	62	2	--	--	--	--	1	5.5
199+86	CTH D	--	--	--	--	--	--	--	--	68	2	1	6.5
199+86	CTH D	--	--	--	--	--	--	--	--	68	2	1	6.5
211+62	CTH D	--	--	--	--	88	2	--	--	--	--	1	9.5
251+15	CTH D	--	--	--	--	--	--	88	2	--	--	1	10.5
261+05	CTH D	--	--	--	--	76	2	--	--	--	--	1	6.0
272+90	CTH D	--	--	--	--	80	2	--	--	--	--	1	6.0
280+68	CTH D	--	--	--	--	82	2	--	--	--	--	1	7.5
296+08	CTH D	--	--	--	--	80	2	--	--	--	--	1	5.5
	TOTALS	**66**	**2**	**72**	**2**	**528**	**14**	**260**	**8**	**136**	**4**	**15**	

WATER

STATION - STATION	LOCATION	624.0100 WATER MGAL
CATEGORY CODE 0010		
UNDISTRUBUTED	--	145
	TOTALS	**145**

3

PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	MISCELLANEOUS QUANTITIES	SHEET NO:	E

PLOT DATE : 10/11/2018 PLOT BY : CORRE INC. PLOT NAME : PLOT SCALE : 1:1

LANDSCAPING ITEMS

STATION	LOCATION	LENGTH		WIDTH	# SIDES	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEED MIX NO. 20 LBS	630.0200 SEEDING TEMPORARY LBS	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	COMMENTS
112+20	--	22	X	20	2	100	--	100	0.009	3	3	--	--	CULVERT
134+78	--	18	X	40	2	160	--	160	0.014	5	5	--	--	2 CULVERTS
163+86	--	23	X	20	2	100	--	100	0.009	3	3	--	--	CULVERT
172+55	--	17	X	20	2	75	--	75	0.007	3	3	--	--	CULVERT
175+99	--	25	X	20	2	110	--	110	0.010	3	3	--	--	CULVERT
185+37	--	19	X	20	2	85	--	85	0.008	3	3	--	--	CULVERT
199+86	--	27	X	40	2	240	--	240	0.022	7	7	--	--	2 CULVERTS
211+62	--	36	X	20	2	160	--	160	0.014	6	6	--	--	CULVERT
251+15	--	46	X	20	2	205	--	205	0.018	6	6	--	--	CULVERT
261+05	--	27	X	20	2	120	--	120	0.011	5	5	--	--	CULVERT
272+90	--	29	X	20	2	130	--	130	0.012	4	4	--	--	CULVERT
280+68	--	30	X	20	2	135	--	135	0.012	4	4	--	--	CULVERT
296+08	--	35	X	20	2	155	--	155	0.014	6	6	--	--	CULVERT
UNDISTRIBUTED						90	190	180	0.0	5	5	50	50	
		TOTALS				**1,865**	**190**	**1,955**	**0.16**	**61**	**61**	**50**	**50**	

MOBILIZATIONS EROSION CONTROL

	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
CATEGORY CODE 0010		
ID 8813-00-70	2	2
TOTAL	**2**	**2**

SIGNING ITEMS

SIGN NO.	STATION	LOCATION	SIGN CODE	SIZE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0616 POSTS WOOD 4X6X16 EACH	REMARKS
	CATEGORY CODE 0010									
100	101+49	LT	R1-1	30 x 30	--	--	5.18	--	1	STOP
100R	101+49	LT			1	1	--	--	--	STOP
101	101+49	LT	W4-4P	24 x 12	--	--	--	2.00	--	CROSS TRAFFIC DOES NOT STOP
101R	101+49	LT			1	1	--	--	--	CROSS TRAFFIC DOES NOT STOP
102	102+21	LT	M1-5A	24 x 24	--	--	4.00	--	1	COUNTY D
102R	102+21	LT			1	1	--	--	--	COUNTY D
103	102+21	LT	M6-1	21 x 21	--	--	3.06	--	--	ARROW RIGHT
103R	102+21	LT			1	1	--	--	--	ARROW RIGHT
104	102+30	LT	W1-6	48 x 24	--	--	--	8.00	1	ARROW RIGHT
104R	102+30	LT			1	1	--	--	--	ARROW RIGHT
105	105+07	RT	R2-1	24 x 30	--	--	5.00	--	1	SPEED LIMIT 35
105R	105+07	RT			1	1	--	--	--	SPEED LIMIT 35
106	107+47	LT	W1-1L	36 x 36	--	--	--	9.00	1	LEFT TURN
106R	107+47	LT			1	1	--	--	--	LEFT TURN
107	107+47	LT	W13-1	18 x 18	--	--	--	2.25	--	ADVISORY 15 MPH
107R	107+47	LT			1	1	--	--	--	ADVISORY 15 MPH
108	108+99	RT	W1-2L	30 x 30	--	--	--	6.25	1	LEFT CURVE
108R	108+99	RT			1	1	--	--	--	LEFT CURVE
109	111+04	LT	W3-1	36 x 36	--	--	--	9.00	1	STOP AHEAD
109R	111+04	LT			1	1	--	--	--	STOP AHEAD
110	114+28	LT	M1-4	24 x 24	--	--	4.00	--	1	US ROUTE MARKER 63
110R	114+28	LT			1	1	--	--	--	US ROUTE MARKER 63
111	114+28	LT	M2-1	21 x 15	--	--	2.19	--	--	JUNCTION MARKER
111R	114+28	LT			1	1	--	--	--	JUNCTION MARKER
112	117+76	RT	R1-1	30 x 30	--	--	5.18	--	1	STOP
112R	117+76	LT			1	1	--	--	--	STOP
113	119+05	LT	R2-1	24 x 30	--	--	5.00	--	1	SPEED LIMIT 35
113R	119+05	LT			1	1	--	--	--	SPEED LIMIT 35
114	120+58	RT	R2-1	24 x 30	--	--	5.00	--	1	SPEED LIMIT 55
114R	120+58	RT			1	1	--	--	--	SPEED LIMIT 55
115A	122+22	LT	W1-2R	30 x 30	--	--	--	6.25	1	RIGHT CURVE
115AR	122+22	LT			1	1	--	--	--	RIGHT CURVE
115B	126+65	RT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
116A	128+99	LT	W3-5	36 x 36	--	--	--	9.00	1	SPEED LIMIT 35 AHEAD
116AR	128+99	LT			1	1	--	--	--	SPEED LIMIT 35 AHEAD
116B	131+65	LT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
117	132+48	RT	W1-4L	30 x 30	--	--	--	6.25	1	LEFT REVERSE CURVE
117R	132+48	RT			1	1	--	--	--	LEFT REVERSE CURVE
				TOTALS	CONTINUED					

SIGNING ITEMS

SIGN NO.	STATION	LOCATION	SIGN CODE	SIZE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0616 POSTS WOOD 4X6X16 EACH	REMARKS
120	152+73	LT	W1-4L	30 x 30	--	--	--	6.25	1	LEFT REVERSE CURVE
120R	152+73	LT			1	1	--	--	--	LEFT REVERSE CURVE
121A	153+81	LT	R1-1	30 x 30	--	--	5.18	--	1	STOP
121AR	153+81	LT			1	1	--	--	--	STOP
121B	156+60	RT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
122A	165+60	LT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
122B	169+93	RT	W1-2L	30 x 30	--	--	--	6.25	1	LEFT CURVE
122BR	169+93	RT			1	1	--	--	--	LEFT CURVE
123	173+85	RT	R1-1	30 x 30	--	--	5.18	--	1	STOP
123R	173+85	RT			1	1	--	--	--	STOP
124R	187+49	LT			1	1	--	--	--	ADIVSORY SPEED
125	187+49	LT	W1-2R	30 x 30	--	--	--	6.25	--	RIGHT CURVE (SAME POST AS SIGN NO. 124)
125R	187+49	LT			1	1	--	--	--	RIGHT CURVE
126A	188+65	RT	R1-1	30 x 30	--	--	5.18	--	1	STOP
126AR	188+65	RT			1	1	--	--	--	STOP
126B	201+52	RT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
127	216+52	LT	R1-1	30 x 30	--	--	5.18	--	1	STOP
127R	216+52	LT			1	1	--	--	--	STOP
128A	225+50	LT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
128B	246+64	RT	R1-1	30 x 30	--	--	5.18	--	1	STOP
128BR	246+64	RT			1	1	--	--	--	STOP
128C	246+80	RT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
129A	257+30	LT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
129B	269+24	LT	R1-1	30 x 30	--	--	5.18	--	1	STOP
129BR	269+24	LT			1	1	--	--	--	STOP
129C	277+70	RT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
130A	280+20	LT	W14-3	48 x 36	--	--	--	5.56	1	NO PASSING ZONE
130B	288+19	RT	W1-2L	30 x 30	--	--	--	6.25	1	LEFT CUVRE
130BR	288+19	RT			1	1	--	--	--	LEFT CUVRE
131R	288+19	RT			1	1	--	--	--	ADVISORY SPEED 35 MPH
132	299+29	RT	R1-1	30 x 30	--	--	5.18	--	1	STOP
132R	299+29	RT			1	1	--	--	--	STOP
133	304+29	LT	W1-2R	30 x 30	--	--	--	--	--	RIGHT CURVE (OUTSIDE PROJECT LIMITS)
133R	304+29	LT			1	1	--	6.25	1	RIGHT CURVE (OUTSIDE PROJECT LIMITS)
134R	304+29	LT			1	1	--	2.25	--	ADVISORY SPEED 35 MPH (OUTSIDE PROJECT LIMITS)
				TOTALS	**33**	**33**	**74.87**	**147.10**	**35**	

3

TRAFFIC CONTROL ITEMS

LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0900 TRAFFIC CONTROL SIGNS DAYS
CATEGORY CODE 0010		
BEGINNING OF PROJECT	--	994
OLD HWY 63	--	142
OLD CTH D	--	142
BIRCH HAVEN RD	--	142
SOUTH LIMITS	--	142
STONE RD	--	142
FAWN RD	--	142
FREY RD	--	142
SHALLOW LAKE RD	--	142
END OF PROJECT	--	355
CULVERT REPLACEMENT	100	--
	100	**2,485**

MARKING ITEMS

STATION	-	STATION	LOCATION	646.1020 EPOXY 4-INCH WHITE LF	646.1020 EPOXY 4-INCH YELLOW LF	646.6120 STOP LINE EPOXY 18-INCH LF	648.0100 LOCATING NO-PASSING ZONES MI	SPV.0060.01 MARKING LINE EPOXY CULVERT PIPE EACH
CATEGORY CODE 0010								
101+23	-	303+60	CL	--	23,650	--	3.84	--
101+23	-	303+60	EDGELINE	40,474	--	--	--	--
154+14			BIRCH HAVEN RD	--	144	24	--	--
CULVERTS			--	--	--	--	--	16
			TOTALS	**40,474**	**23,794**	**24**	**3.84**	**16**
				64,268				

3

FIELD OFFICE

642.5001

FIELD OFFICE TYPE B

EACH

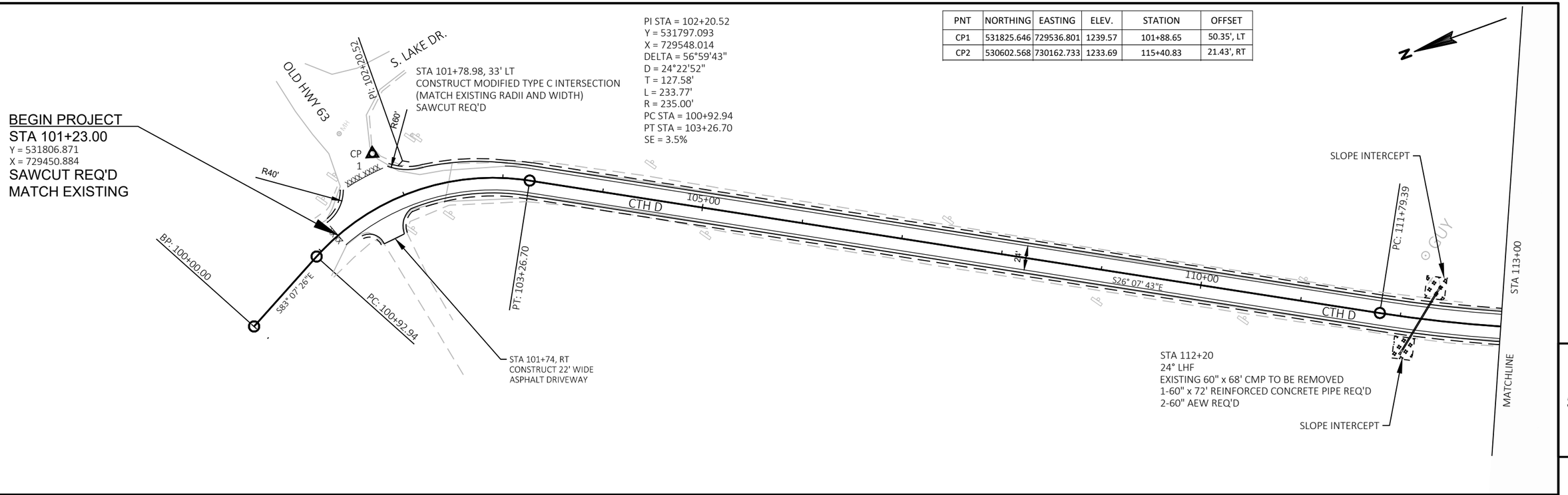
1

CONSTRUCTION STAKING ITEMS

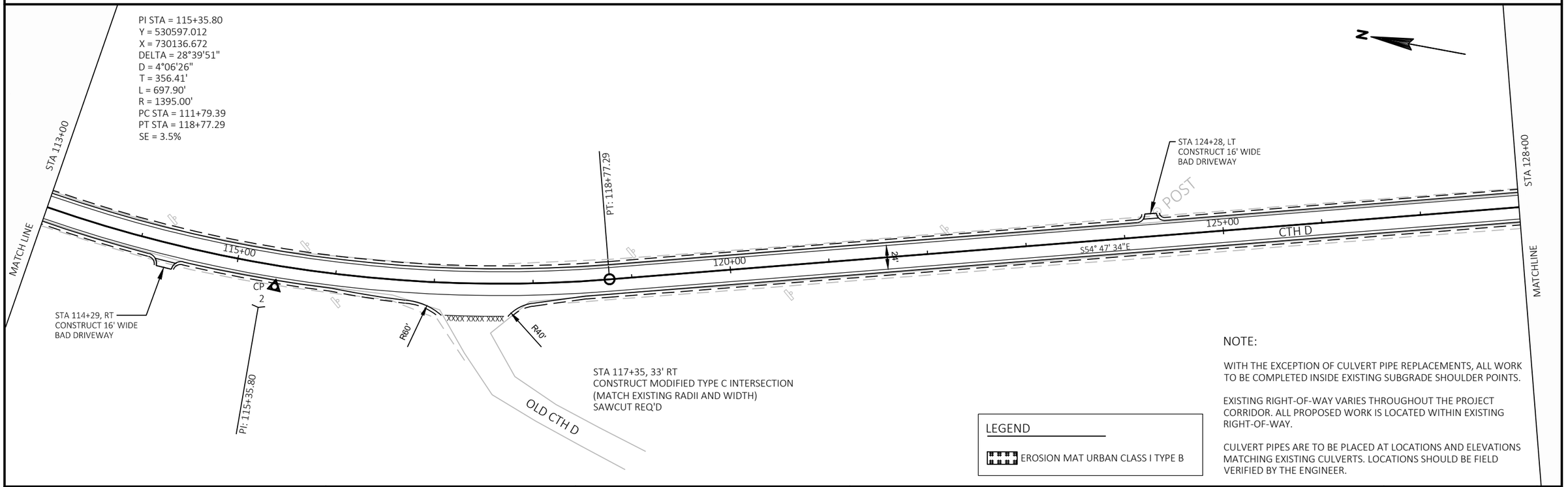
STATION	-	STATION	LOCATION	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS
CATEGORY CODE 0010					
101+23	-	303+60	MAINLINE	20,237	1
			TOTALS	**20,237**	**1**

SAWING PAVEMENT ITEMS

STATION	LOCATION	690.0150 ASPHALT LF	COMMENTS
CATEGORY CODE 0010			
101+23	CL	32	BEGINNING OF PROJECT
101+79	LT	54	OLD HWY 63
117+35	RT	69	OLD CTH D
154+22	LT	65	BIRCH HAVEN RD
173+40	RT	76	SOUTH LIMITS
246+35	RT	50	GROUSE RD
269+62	LT	55	FREY RD
298+89	RT	60	SHALLOW LAKE RD
303+60	CL	30	END OF PROJECT
	TOTALS	**491**	



PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP1	531825.646	729536.801	1239.57	101+88.65	50.35', LT
CP2	530602.568	730162.733	1233.69	115+40.83	21.43', RT



NOTE:

WITH THE EXCEPTION OF CULVERT PIPE REPLACEMENTS, ALL WORK TO BE COMPLETED INSIDE EXISTING SUBGRADE SHOULDER POINTS.

EXISTING RIGHT-OF-WAY VARIES THROUGHOUT THE PROJECT CORRIDOR. ALL PROPOSED WORK IS LOCATED WITHIN EXISTING RIGHT-OF-WAY.

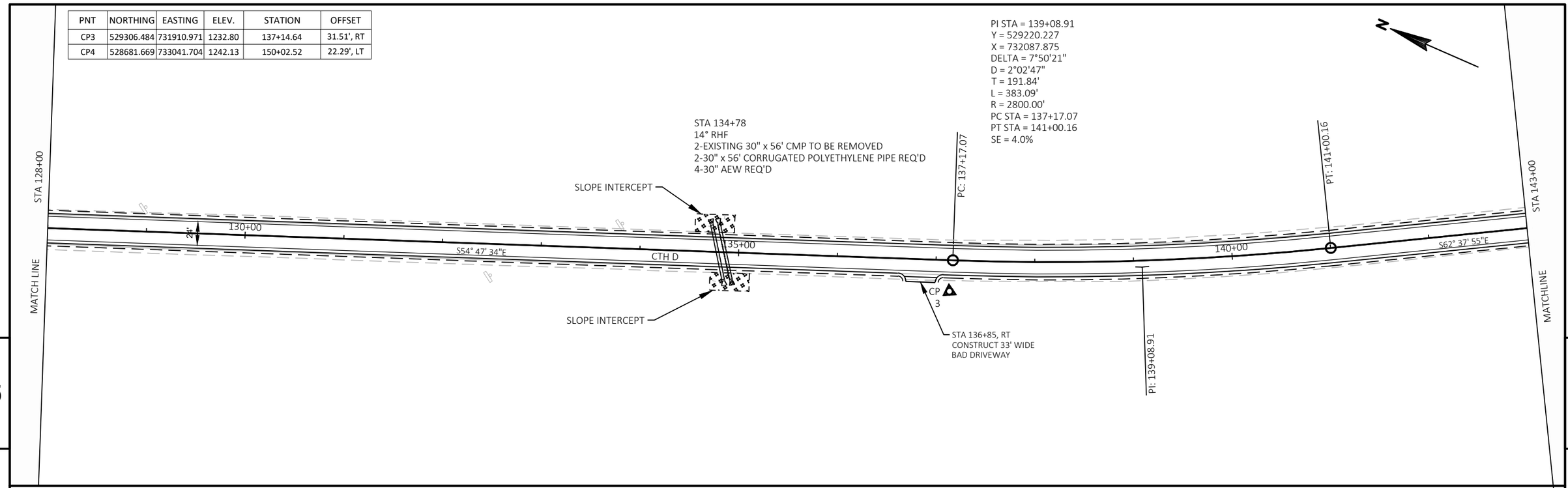
CULVERT PIPES ARE TO BE PLACED AT LOCATIONS AND ELEVATIONS MATCHING EXISTING CULVERTS. LOCATIONS SHOULD BE FIELD VERIFIED BY THE ENGINEER.

LEGEND

EROSION MAT URBAN CLASS I TYPE B

PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PLAN: MAINLINE	SHEET 22	E

PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP3	529306.484	731910.971	1232.80	137+14.64	31.51', RT
CP4	528681.669	733041.704	1242.13	150+02.52	22.29', LT



LEGEND

EROSION MAT URBAN CLASS I TYPE B

NOTE:

WITH THE EXCEPTION OF CULVERT PIPE REPLACEMENTS, ALL WORK TO BE COMPLETED INSIDE EXISTING SUBGRADE SHOULDER POINTS.

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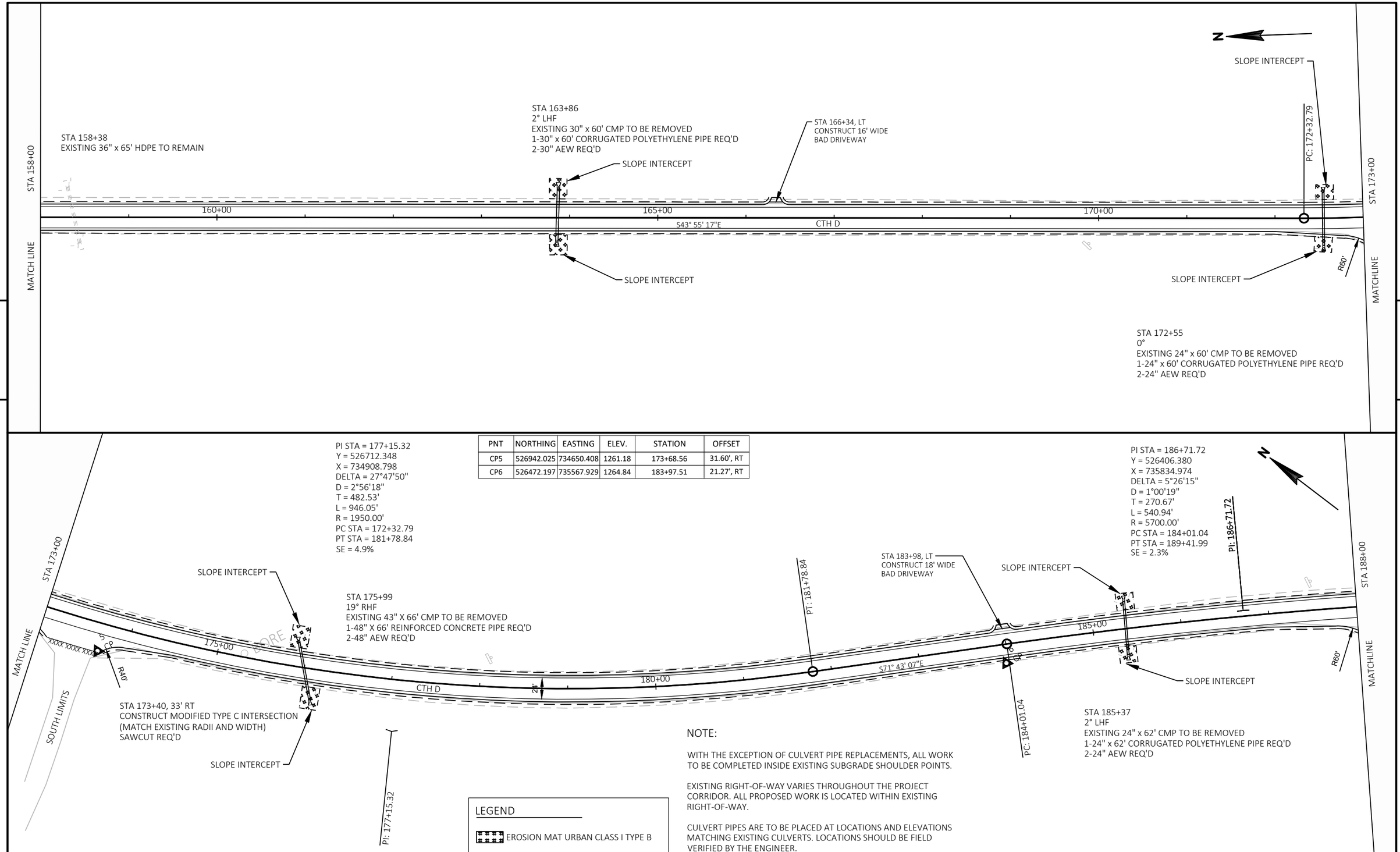
PI STA = 148+19.34
Y = 528801.426
X = 732896.931
DELTA = 18°42'38"
D = 3°52'17"
T = 243.83'
L = 483.31'
R = 1480.00'
PC STA = 145+75.51
PT STA = 150+58.82
SE = 5.6%

PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PLAN: MAINLINE	SHEET 23	E



PI STA = 177+15.32
Y = 526712.348
X = 734908.798
DELTA = 27°47'50"
D = 2°56'18"
T = 482.53'
L = 946.05'
R = 1950.00'
PC STA = 172+32.79
PT STA = 181+78.84
SE = 4.9%

PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP5	526942.025	734650.408	1261.18	173+68.56	31.60', RT
CP6	526472.197	735567.929	1264.84	183+97.51	21.27', RT

PI STA = 186+71.72
Y = 526406.380
X = 735834.974
DELTA = 5°26'15"
D = 1°00'19"
T = 270.67'
L = 540.94'
R = 5700.00'
PC STA = 184+01.04
PT STA = 189+41.99
SE = 2.3%

LEGEND

EROSION MAT URBAN CLASS I TYPE B

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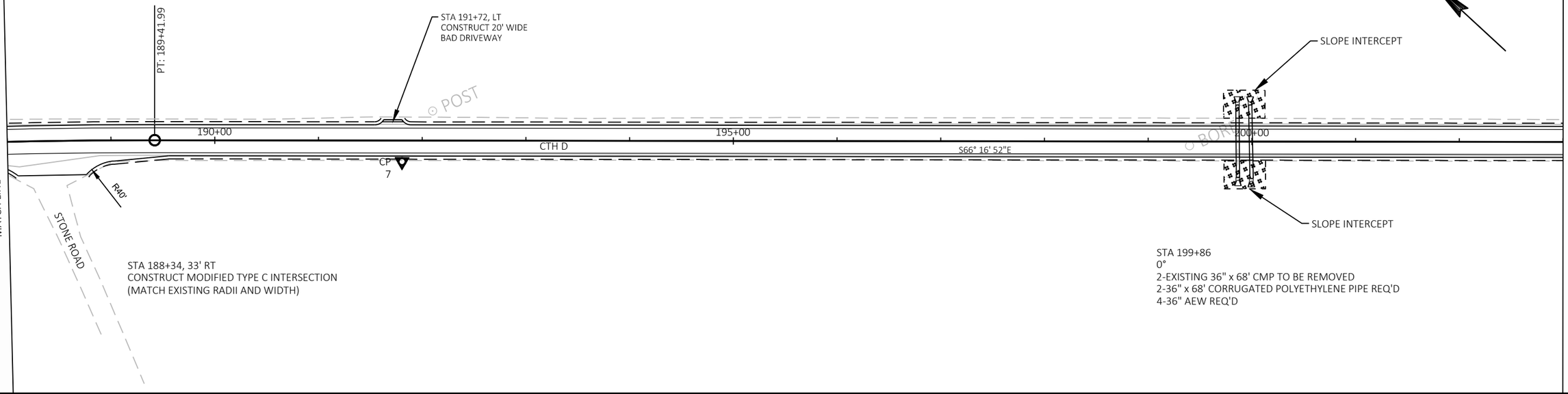
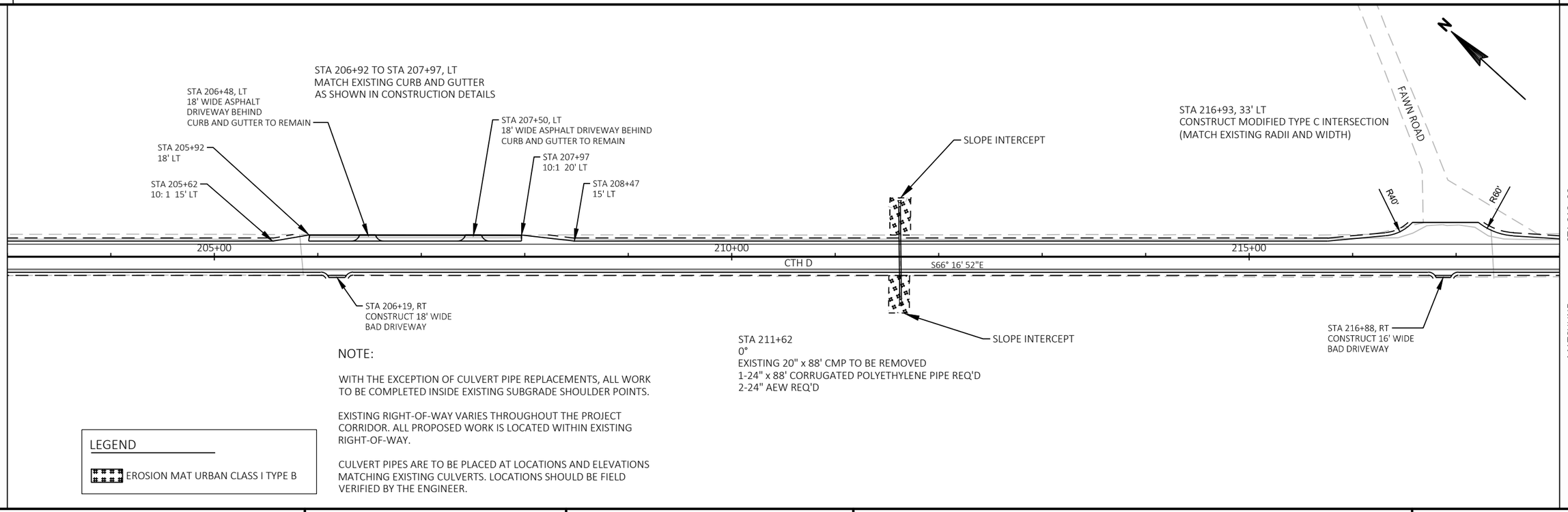
CULVERT PIPES ARE TO BE PLACED AT LOCATIONS AND ELEVATIONS MATCHING EXISTING CULVERTS. LOCATIONS SHOULD BE FIELD VERIFIED BY THE ENGINEER.

PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PLAN: MAINLINE	SHEET 24	E

PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP7	526182.882	736293.078	1274.81	191+80.62	20.35', RT





NOTE:

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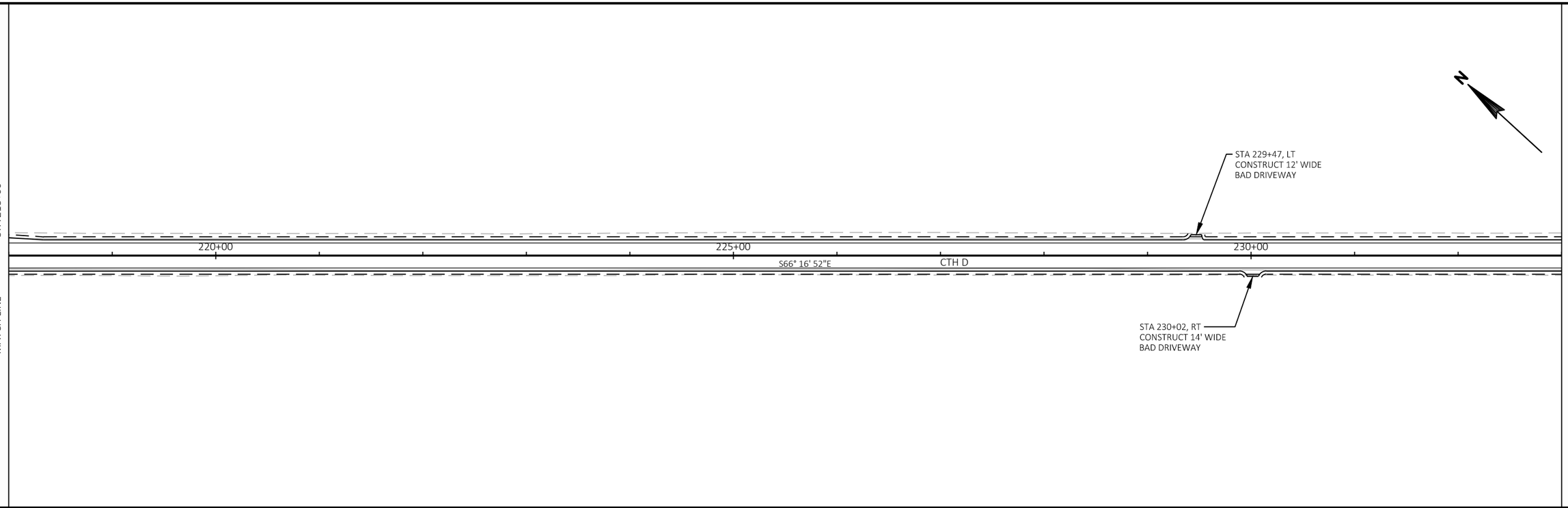
LEGEND

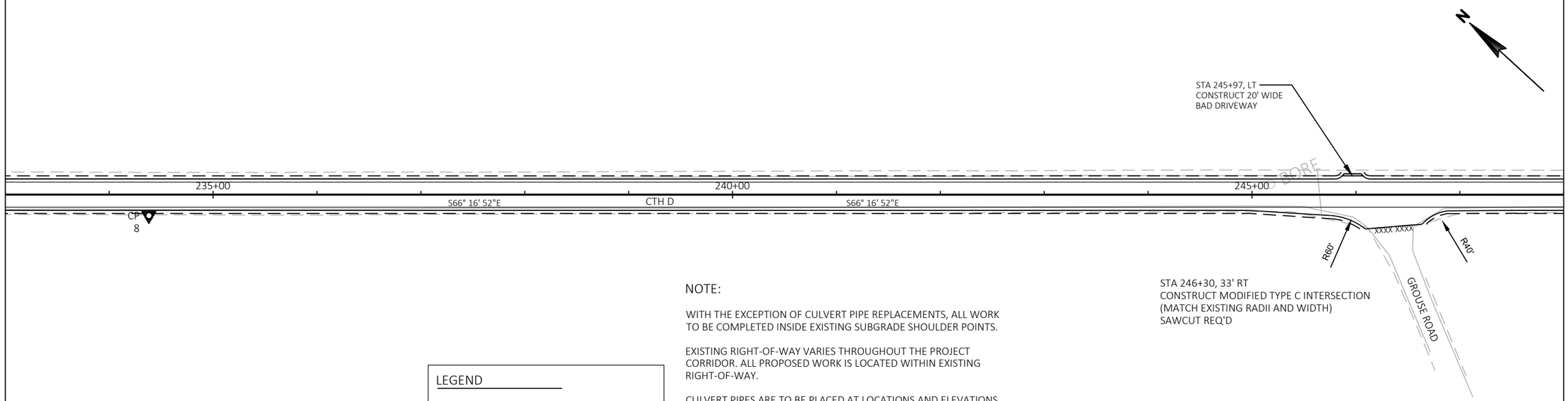
EROSION MAT URBAN CLASS I TYPE B

PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PLAN: MAINLINE	SHEET 25 E

FILE NAME : P:\WI - NW REGION\8813-00-00_WASHBURN CO_CTH D\500_CADD\501_C3D_2016\88130000\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050104-pn
PLOT DATE : 10/11/2018 11:05 AM PLOT BY : NICHOLAS WATHKE PLOT NAME : PLOT SCALE : 1 IN: 100 FT



PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP8	524470.404	740191.192	1315.22	234+38.31	20.17', RT



LEGEND

EROSION MAT URBAN CLASS I TYPE B

NOTE:

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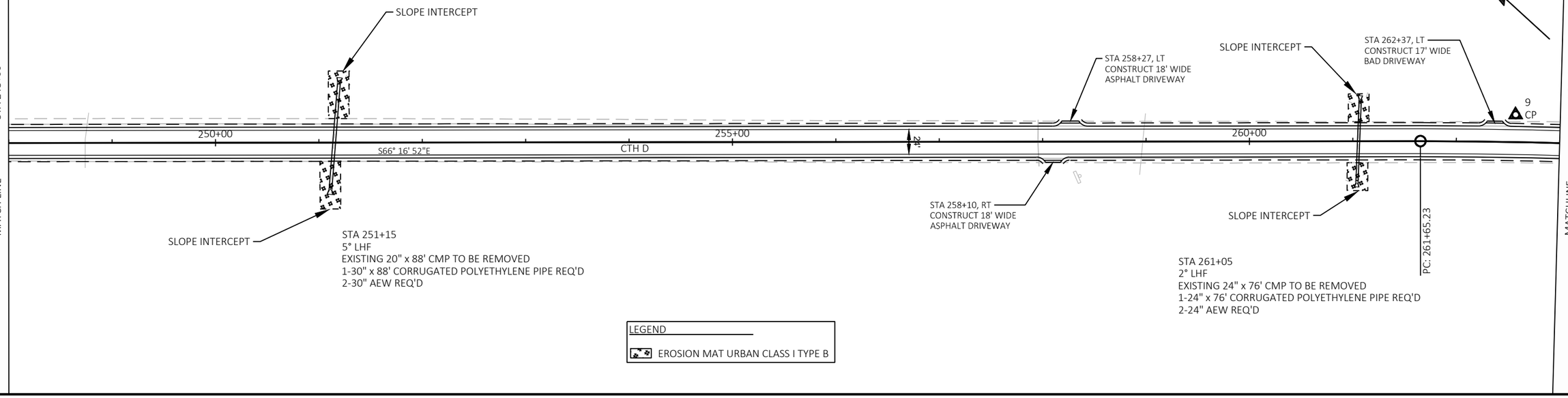
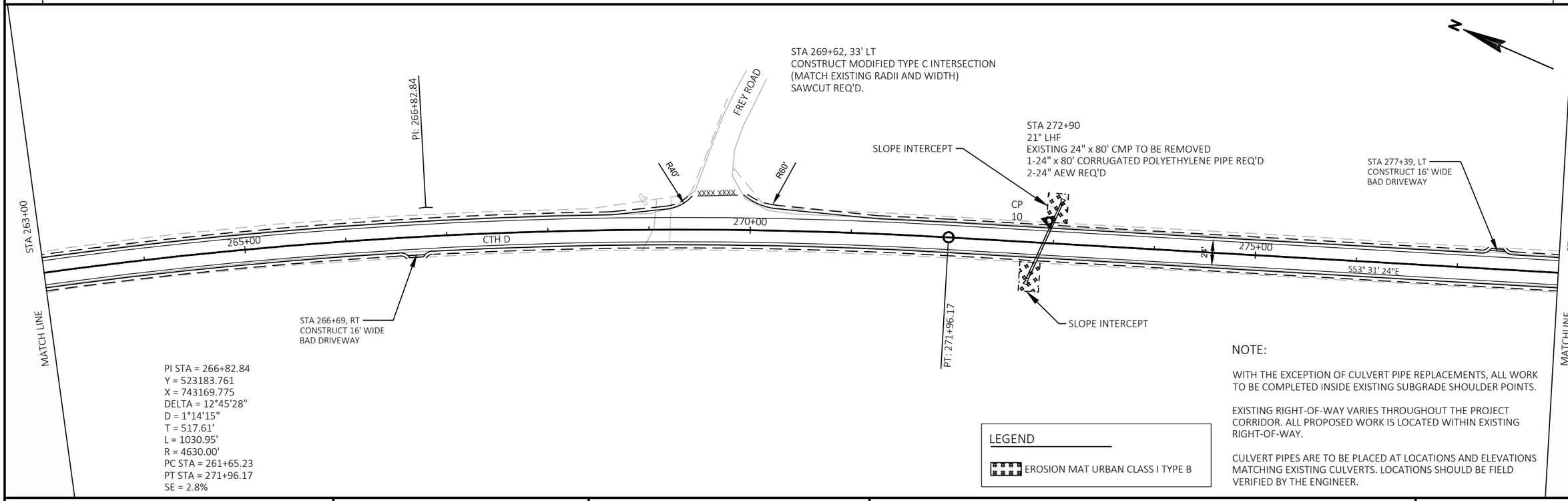
PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP9	523378.185	742790.505	1308.35	262+56.88	26.35', LT
CP10	522835.299	743677.735	1309.02	272+94.17	21.78', LT





PI STA = 266+82.84
Y = 523183.761
X = 743169.775
DELTA = 12°45'28"
D = 1°14'15"
T = 517.61'
L = 1030.95'
R = 4630.00'
PC STA = 261+65.23
PT STA = 271+96.17
SE = 2.8%

NOTE:

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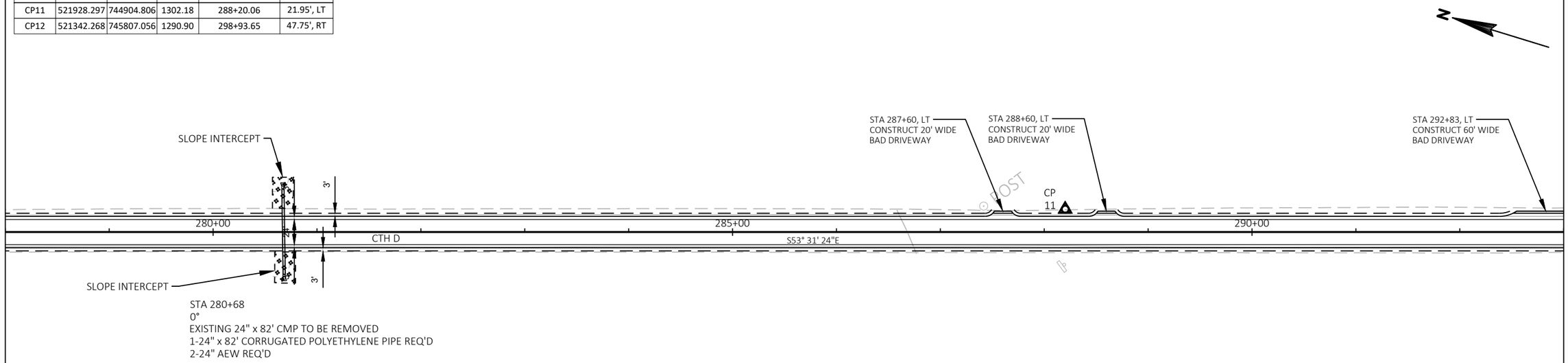
PNT	NORTHING	EASTING	ELEV.	STATION	OFFSET
CP11	521928.297	744904.806	1302.18	288+20.06	21.95', LT
CP12	521342.268	745807.056	1290.90	298+93.65	47.75', RT



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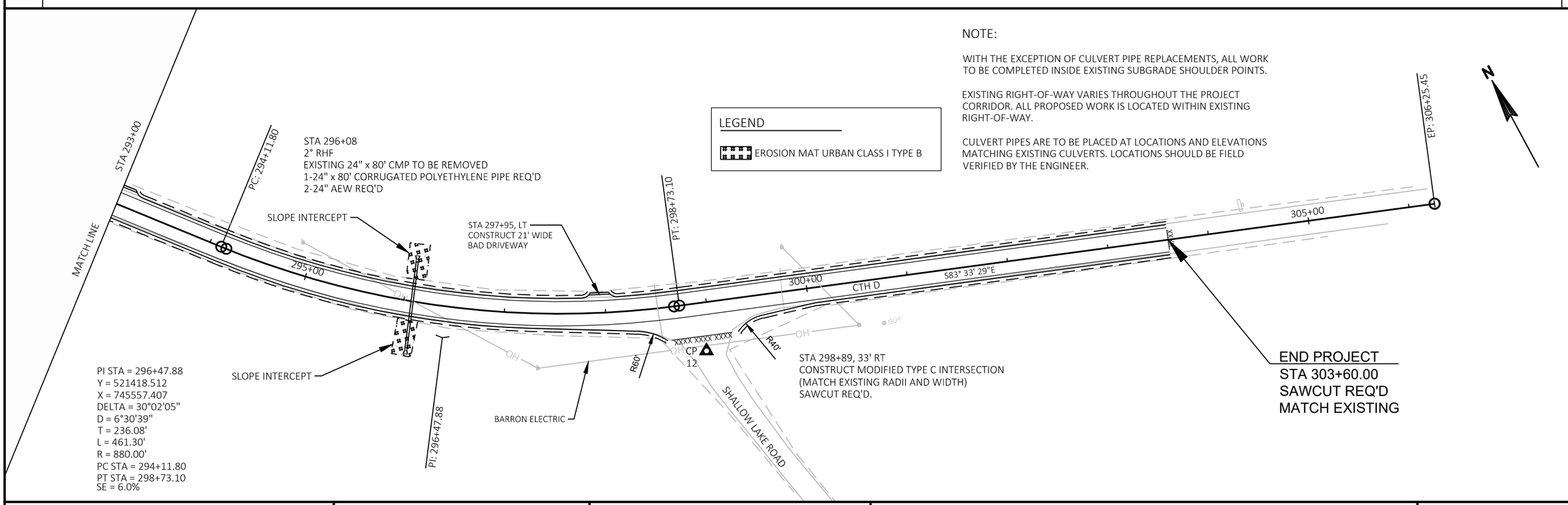
LEGEND

EROSION MAT URBAN CLASS I TYPE B



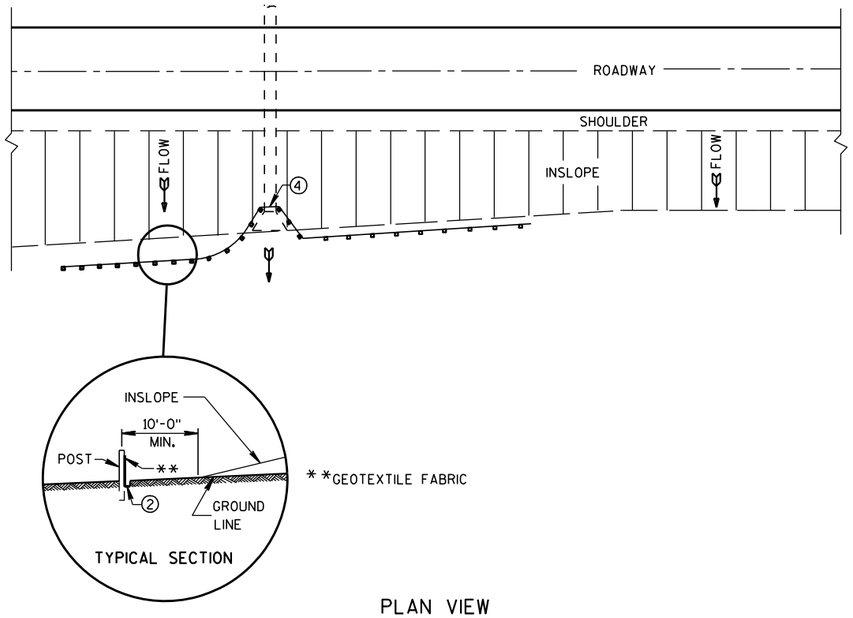
PROJECT NO: 8813-00-70	HWY: CTH D	COUNTY: WASHBURN	PLAN: MAINLINE	SHEET 28	E

Standard Detail Drawing List

08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

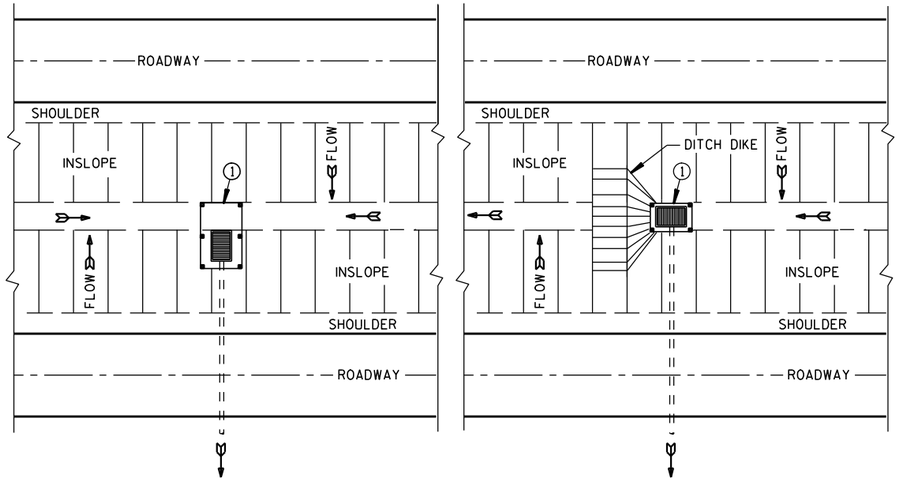
6

6



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.

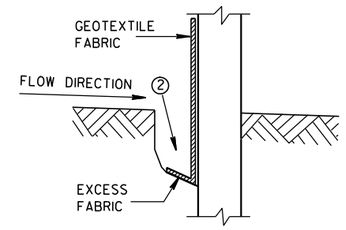
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

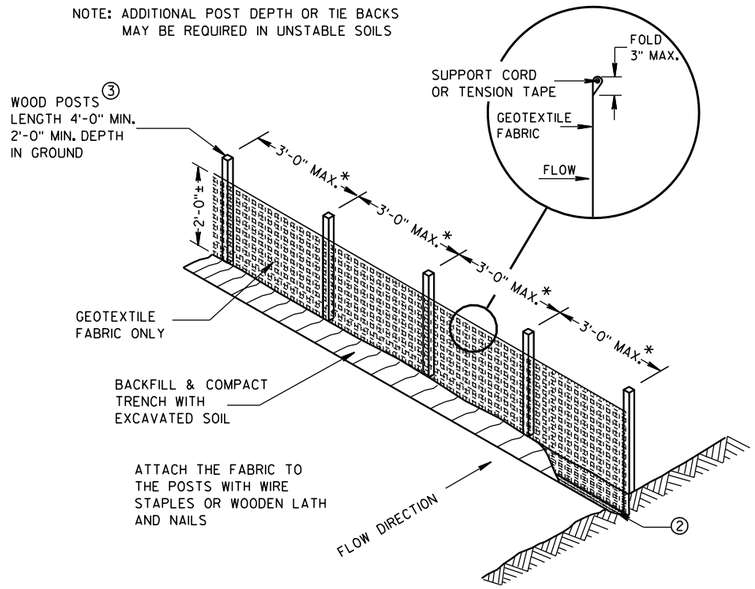
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

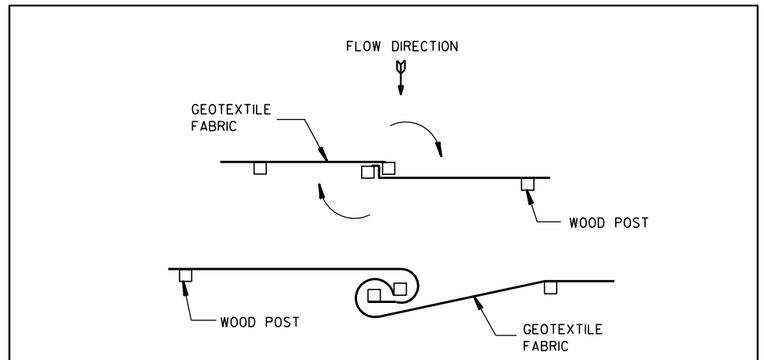
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



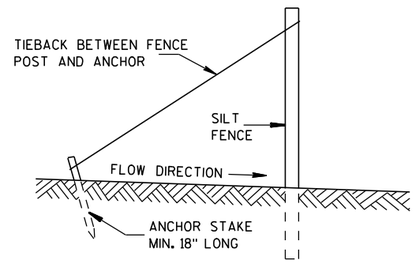
TRENCH DETAIL



SILT FENCE



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

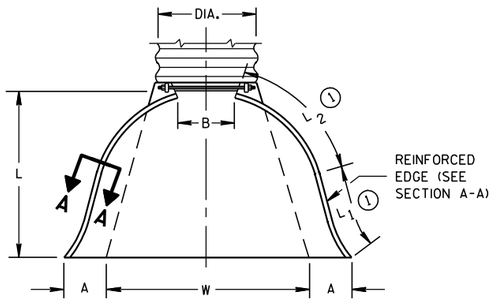
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

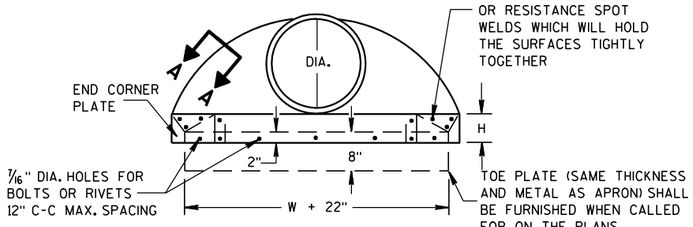
REINFORCED CONCRETE APRON ENDWALLS

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

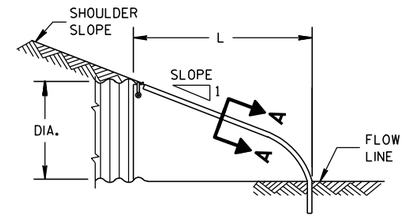
*MINIMUM
**MAXIMUM



PLAN VIEW

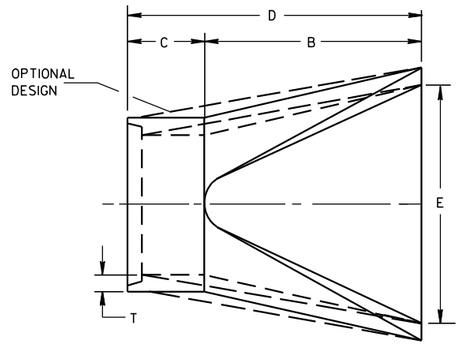


END VIEW

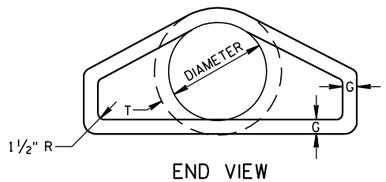


SIDE ELEVATION

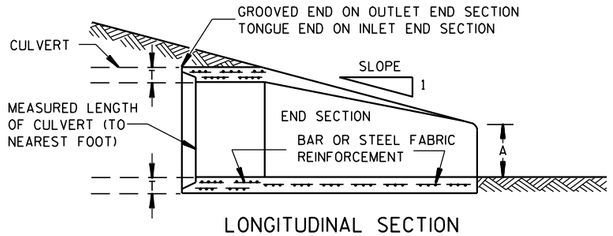
METAL ENDWALLS



PLAN

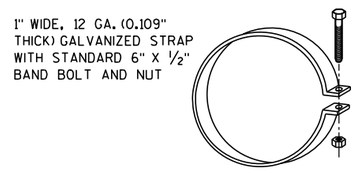


END VIEW



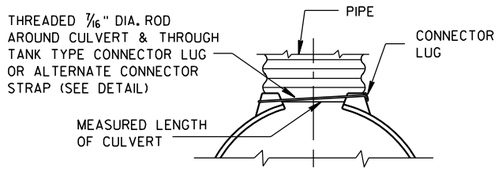
LONGITUDINAL SECTION

CONCRETE ENDWALLS

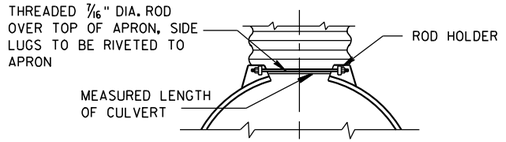


ALTERNATE FOR TYPE 1 CONNECTION

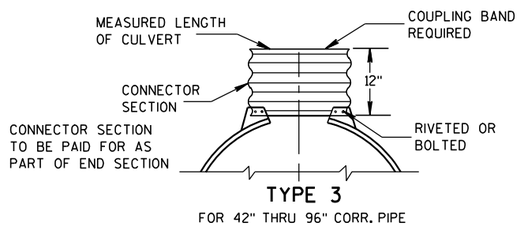
END SECTION CONNECTOR STRAP



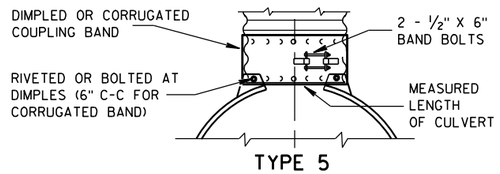
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

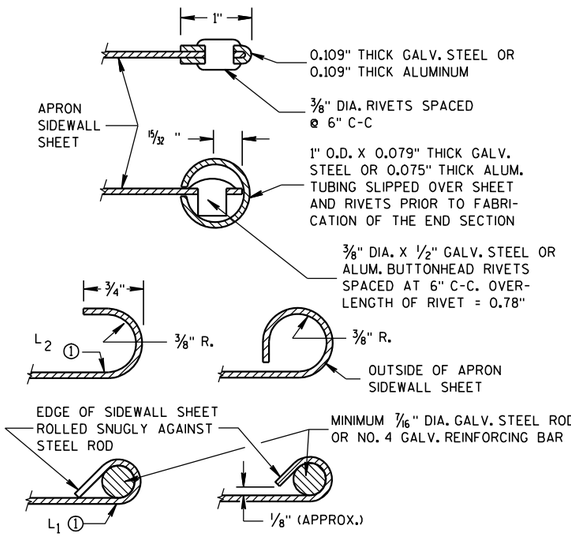
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

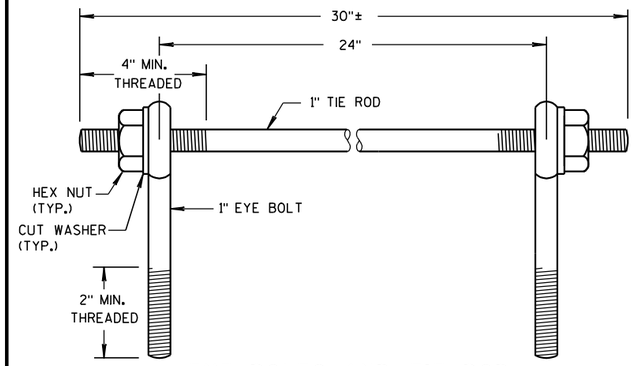
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

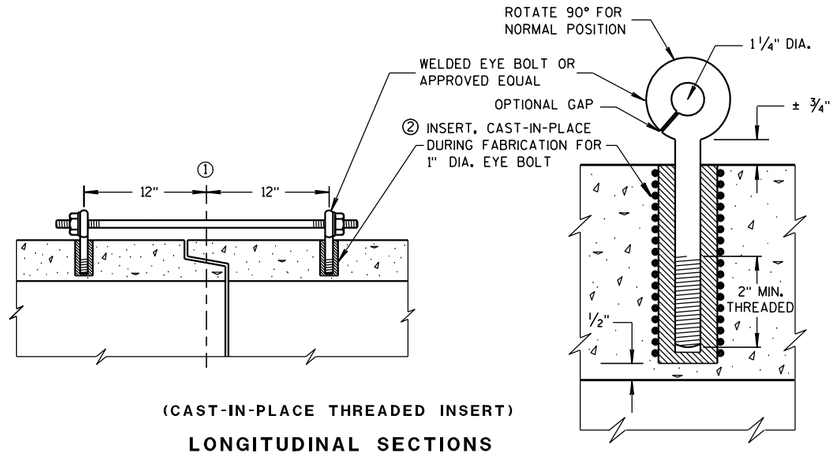
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

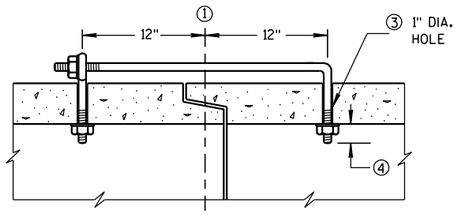
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

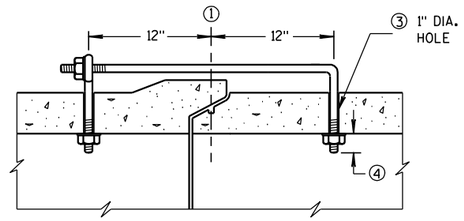
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

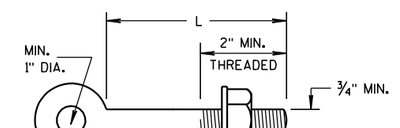


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

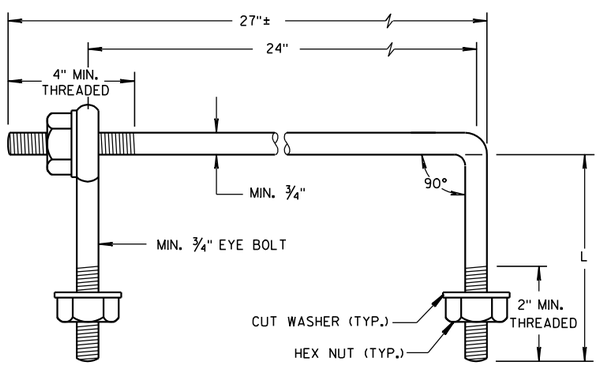
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

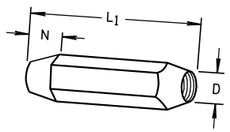
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

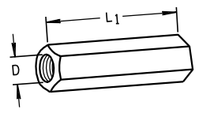
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



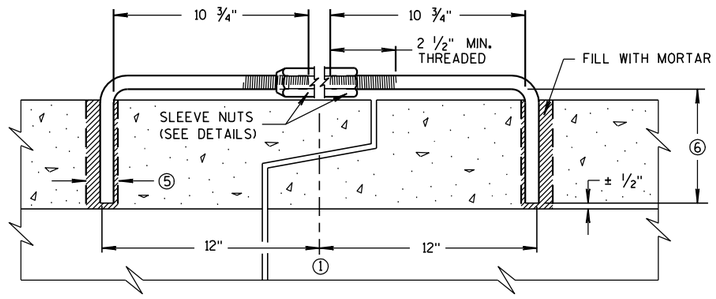
TAPERED



PLAIN

RIGHT AND LEFT THREADS

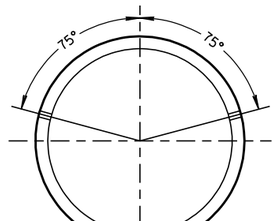
SLEEVE NUTS



LONGITUDINAL SECTION

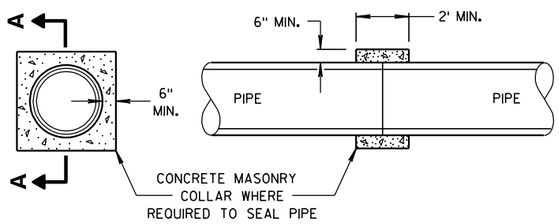
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

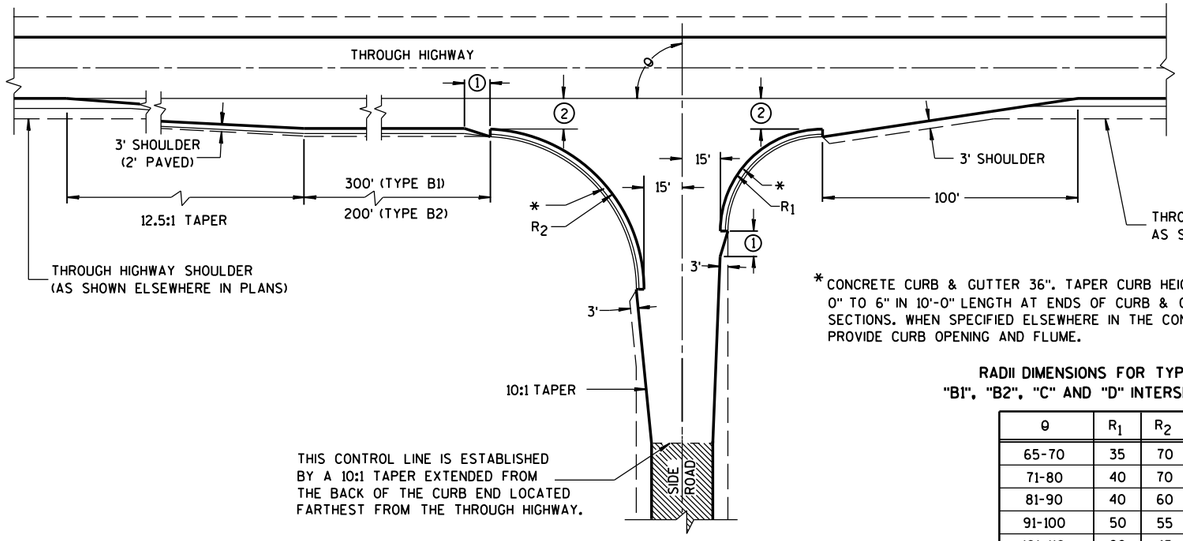
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
32
FHWA

6

S.D.D. 8 F 4-7

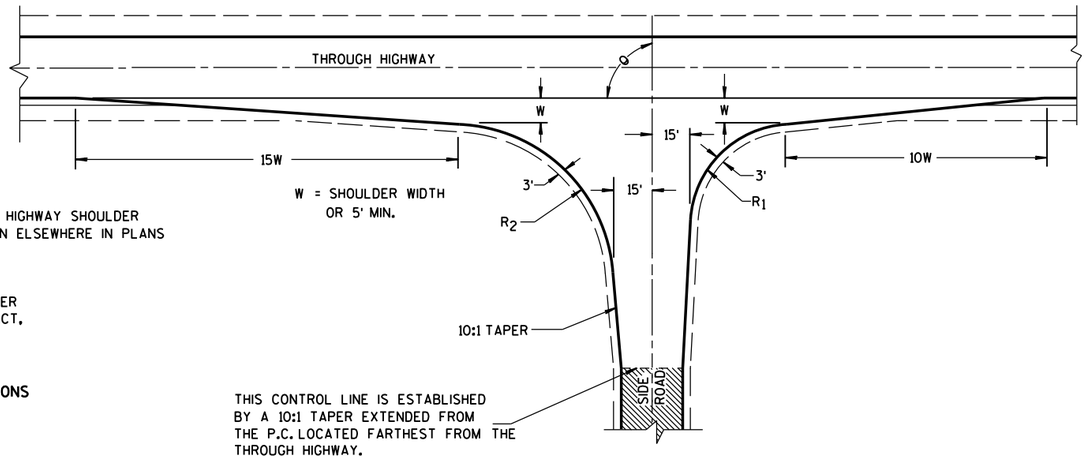


TYPE "B1" AND "B2"

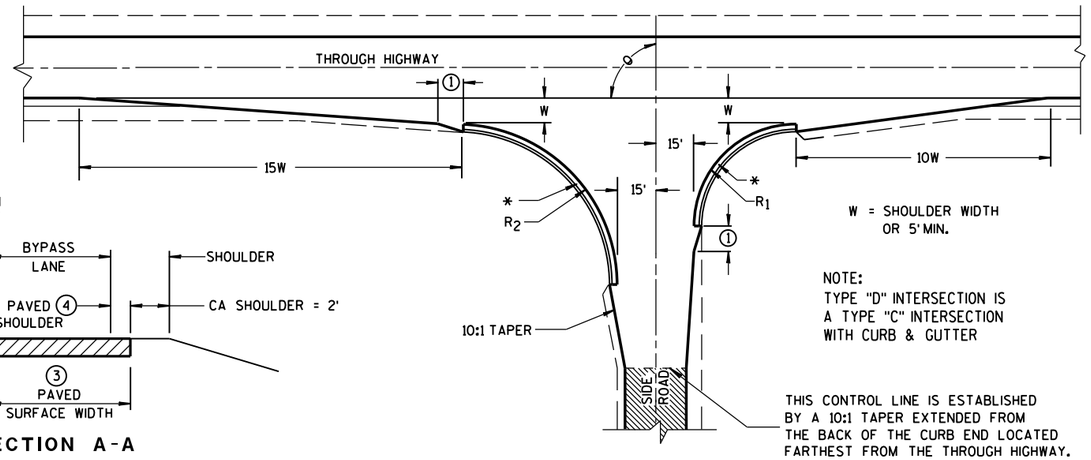
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

(1) 10-FT TYPICAL.

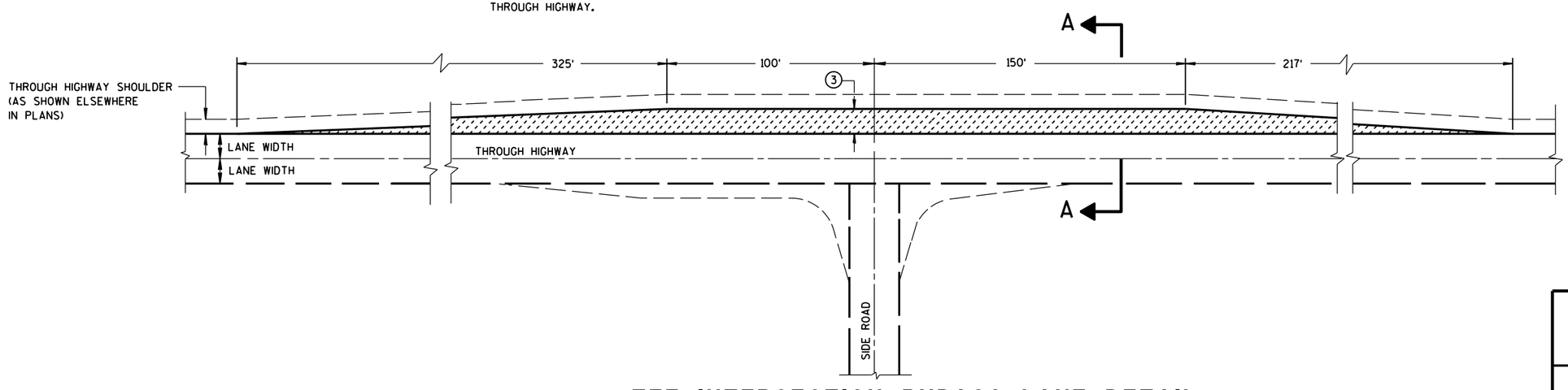
(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.

SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



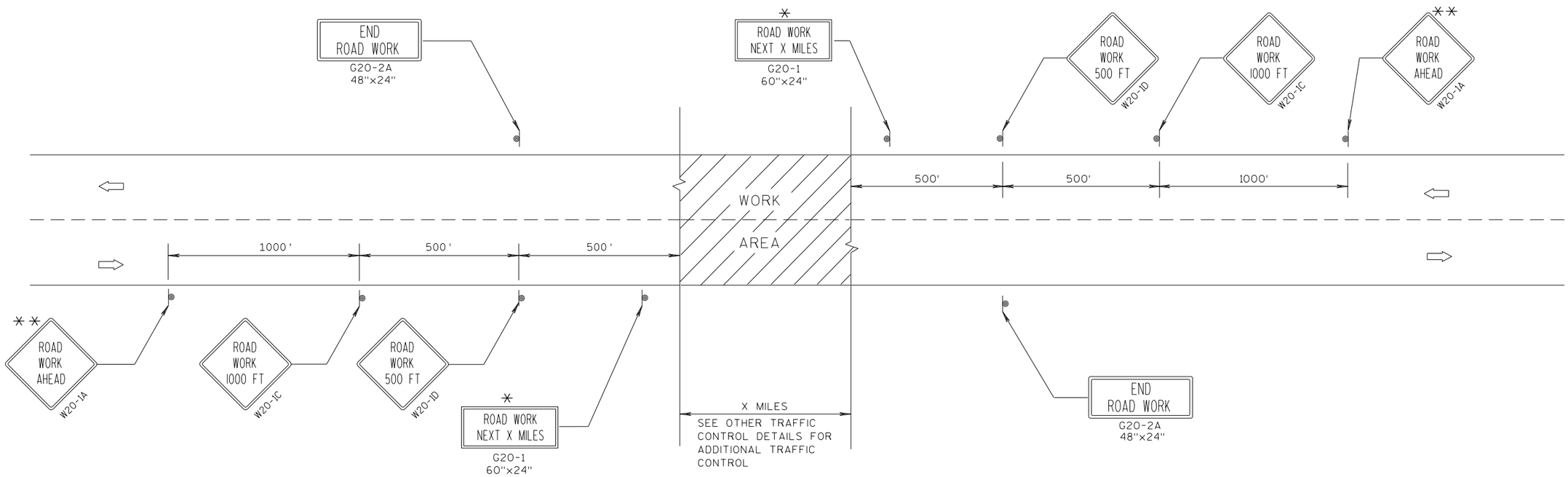
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

6

S.D.D. 9 A 1-13a

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



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.

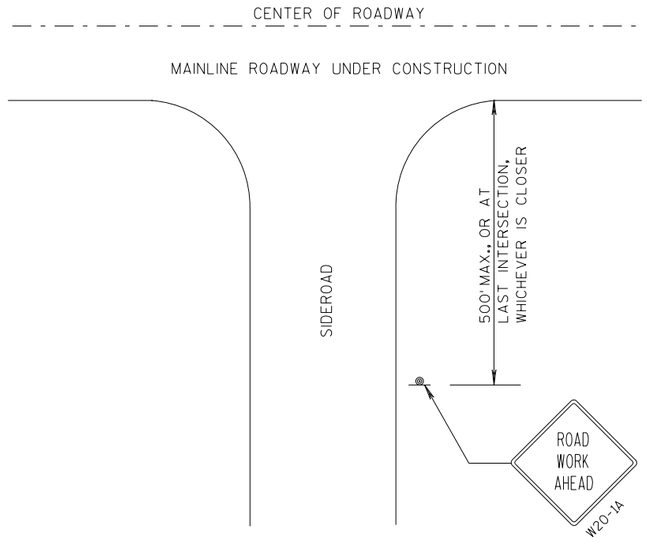
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

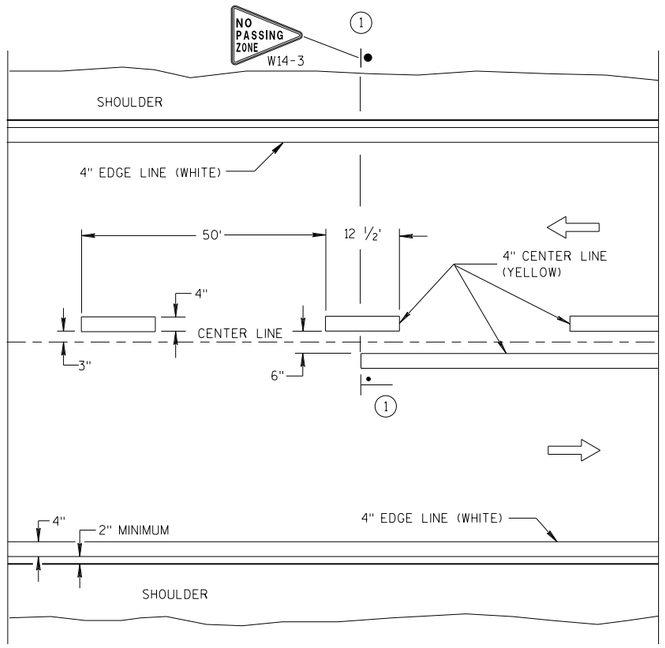
7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

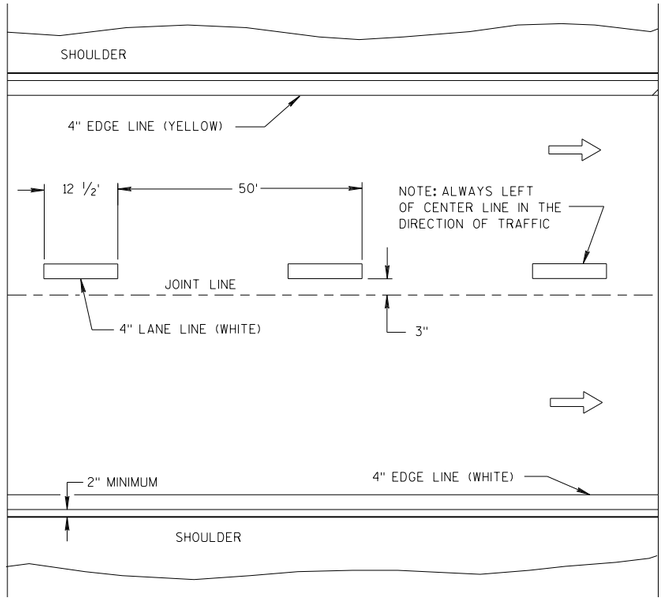
FHWA

6

S.D.D. 15 C 4-5



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

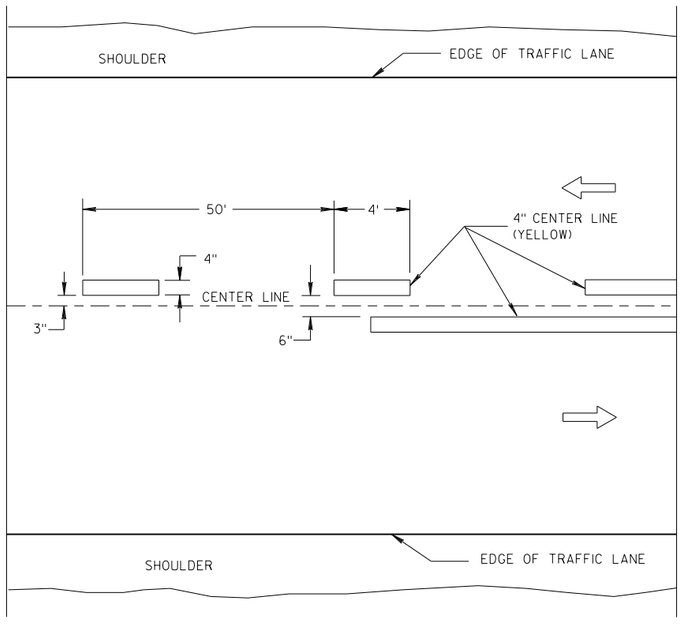
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

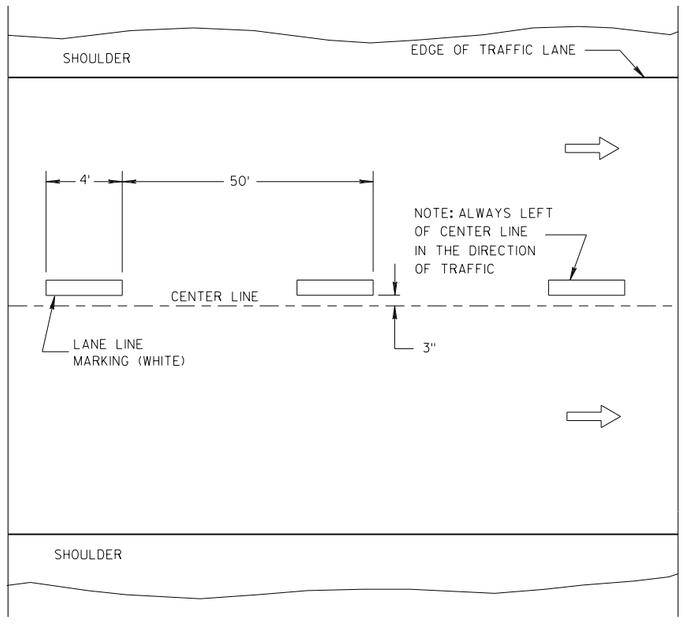
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

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

FHWA

6

S.D.D. 15 C 8-19a

6

S.D.D. 15 C 8-19a

LEGEND

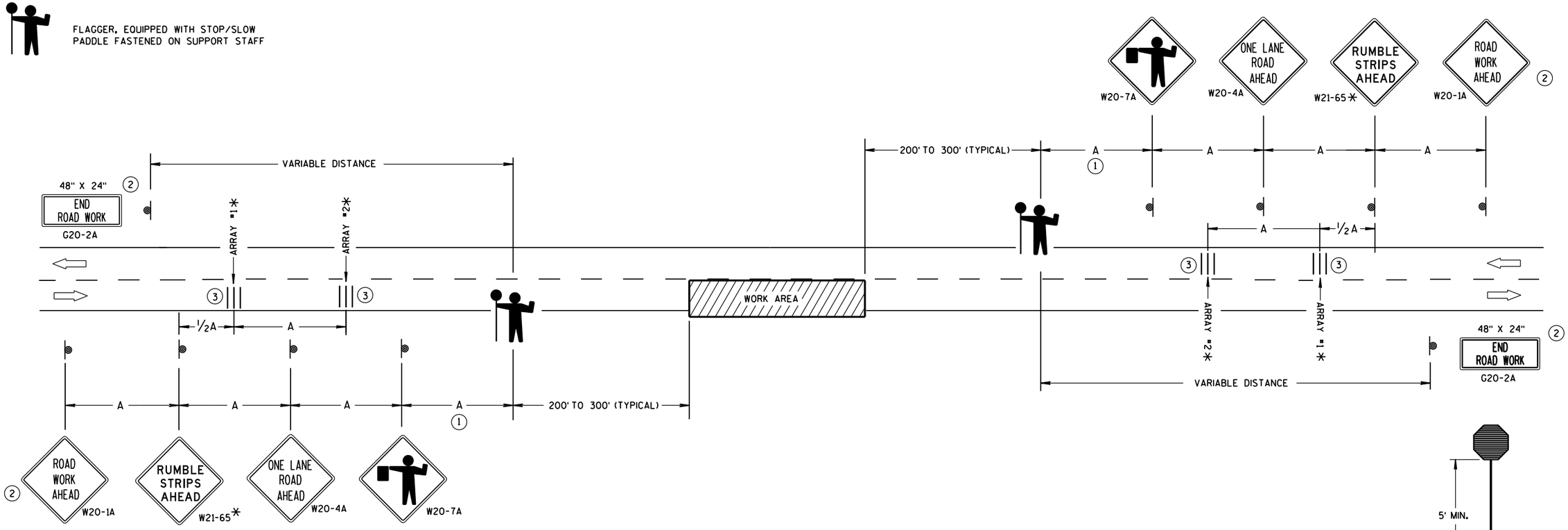
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

W03-4

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



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

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

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

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

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

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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 RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

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

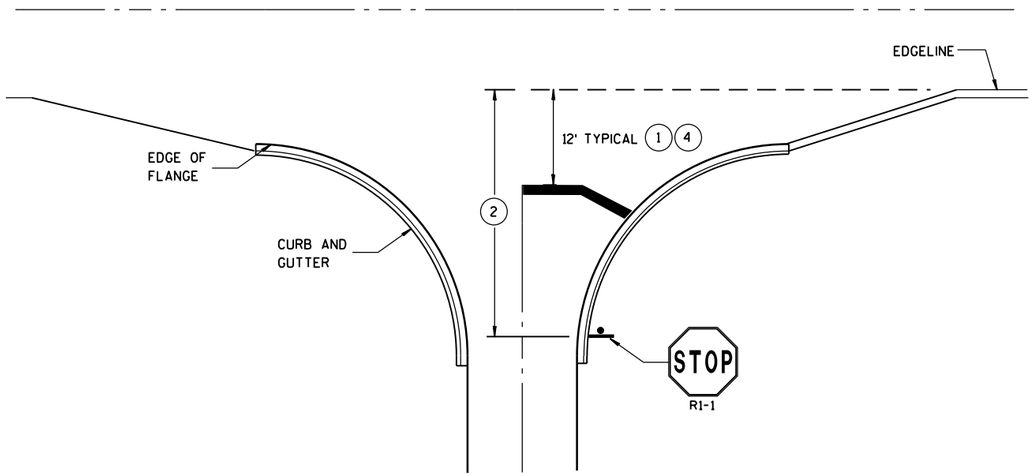
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

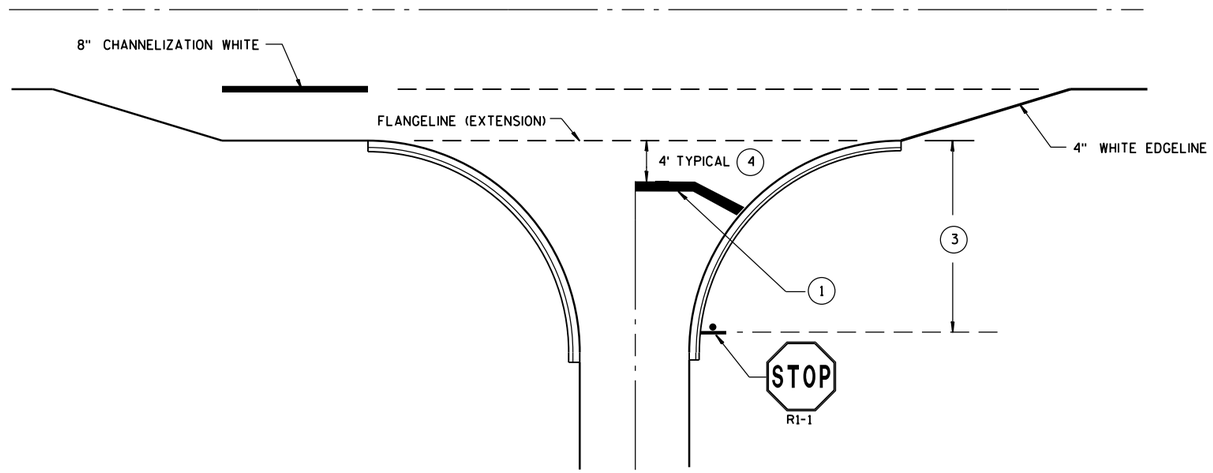
APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

6

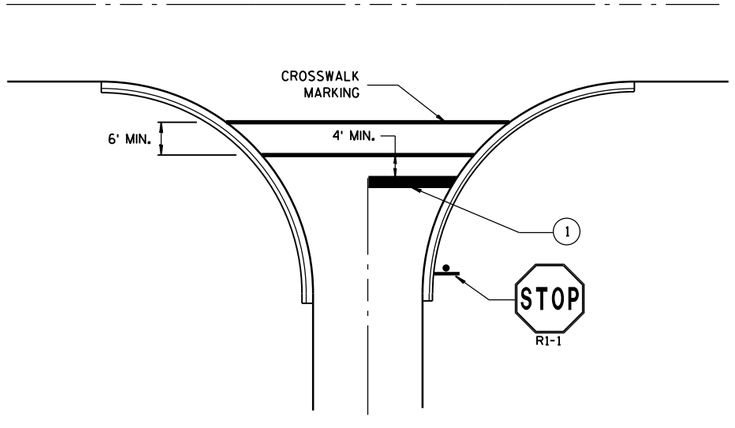
S.D.D. 15 C 12-6



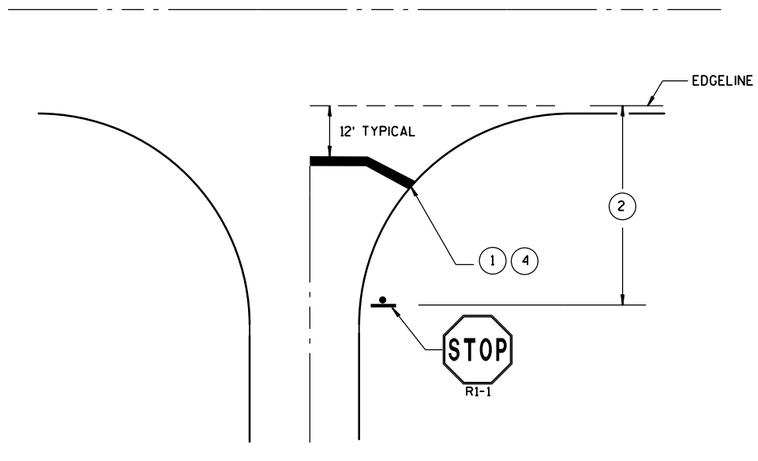
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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 PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

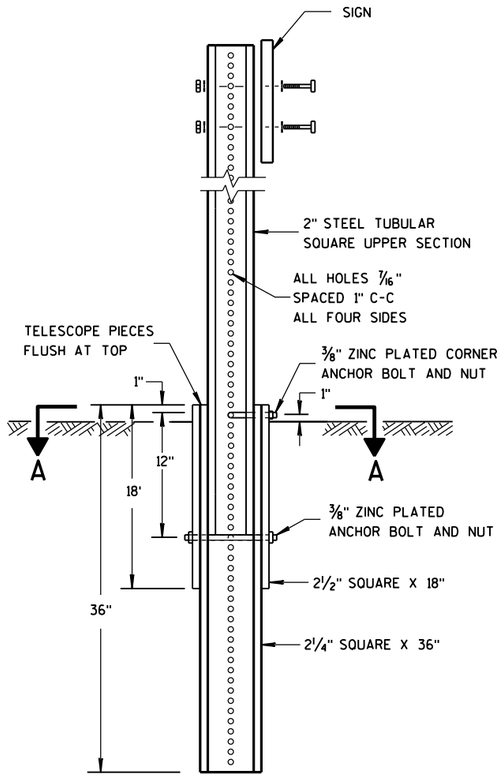
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR ENGINEER

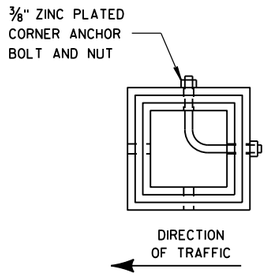
FHWA

6

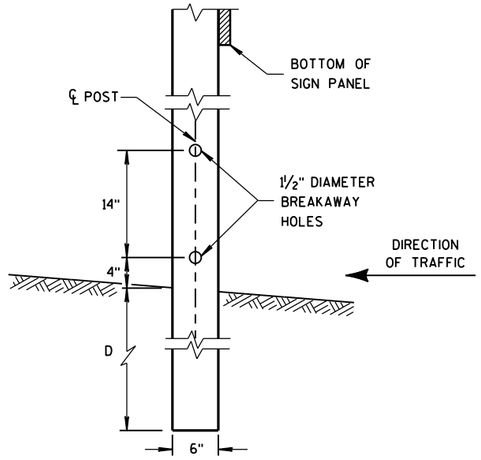
S.D.D. 15 C 33-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



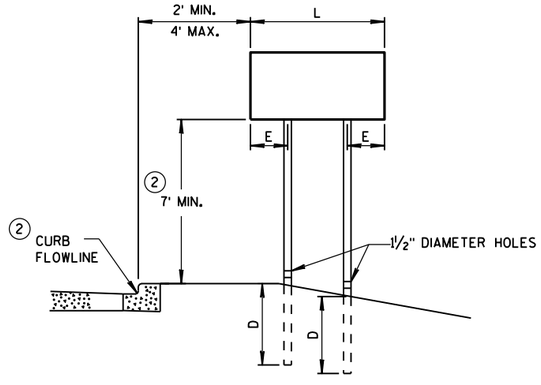
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

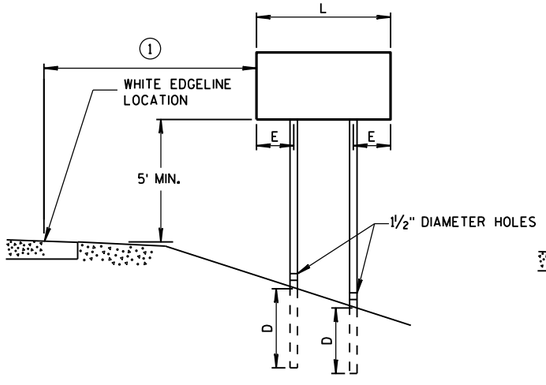
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

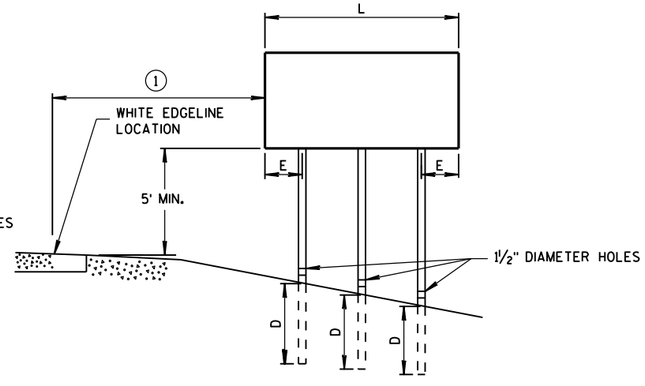
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

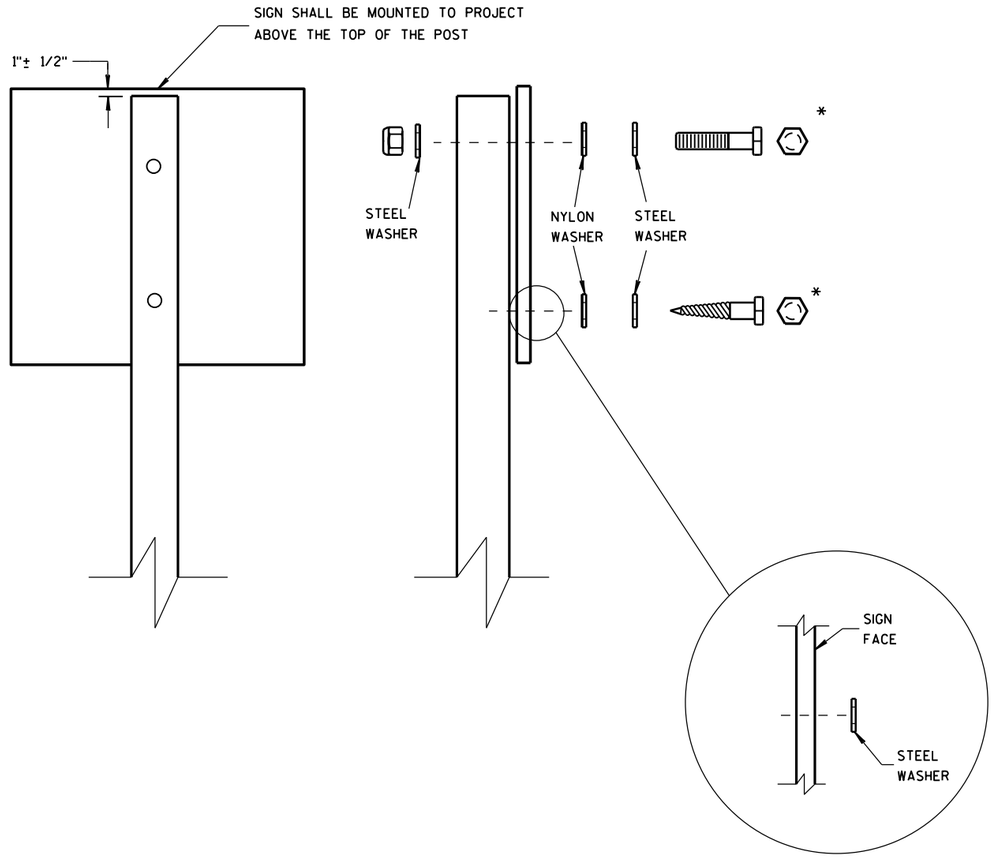
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

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

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

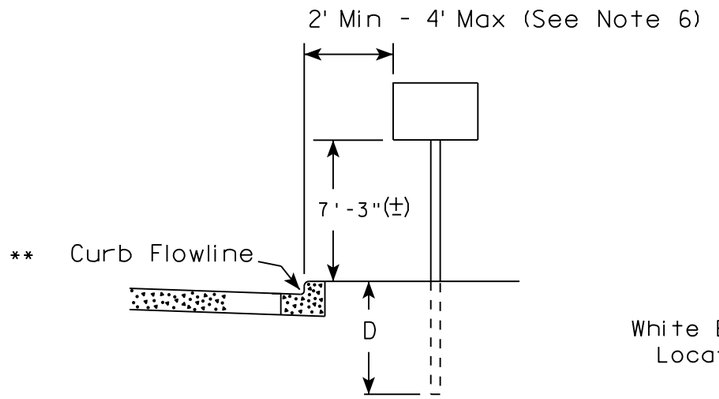
APPROVED

June 2017
DATE

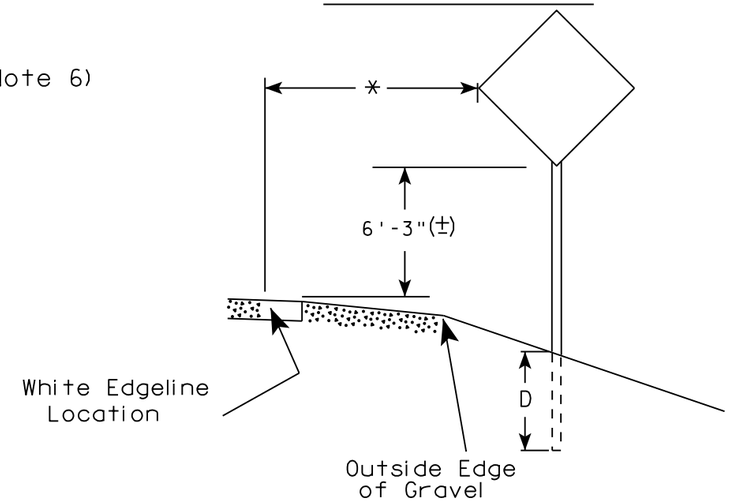
/S/ Andrew Heldtke
WORK ZONE ENG

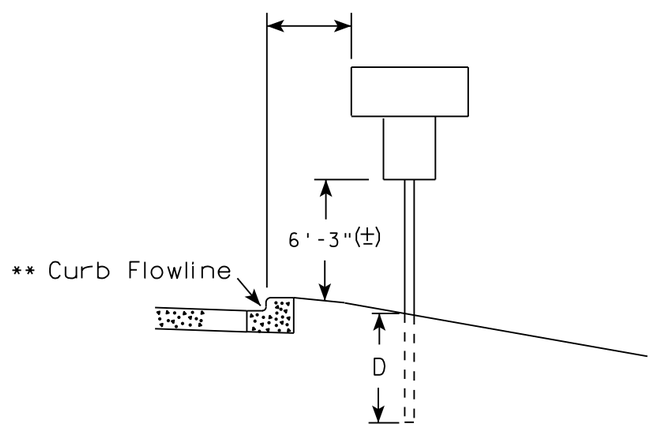
FHWA

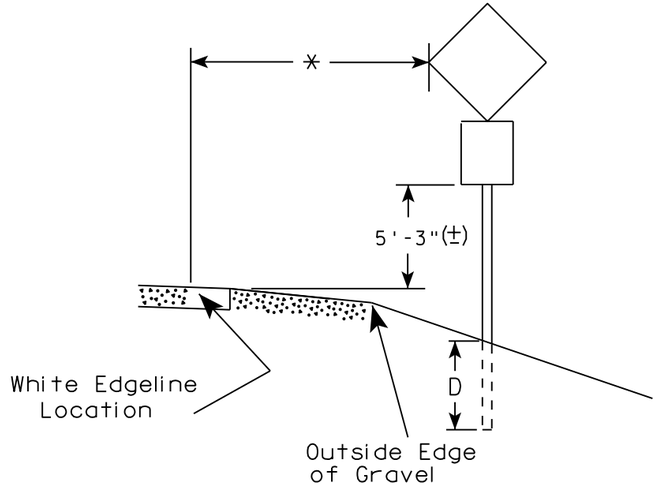
URBAN AREA



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

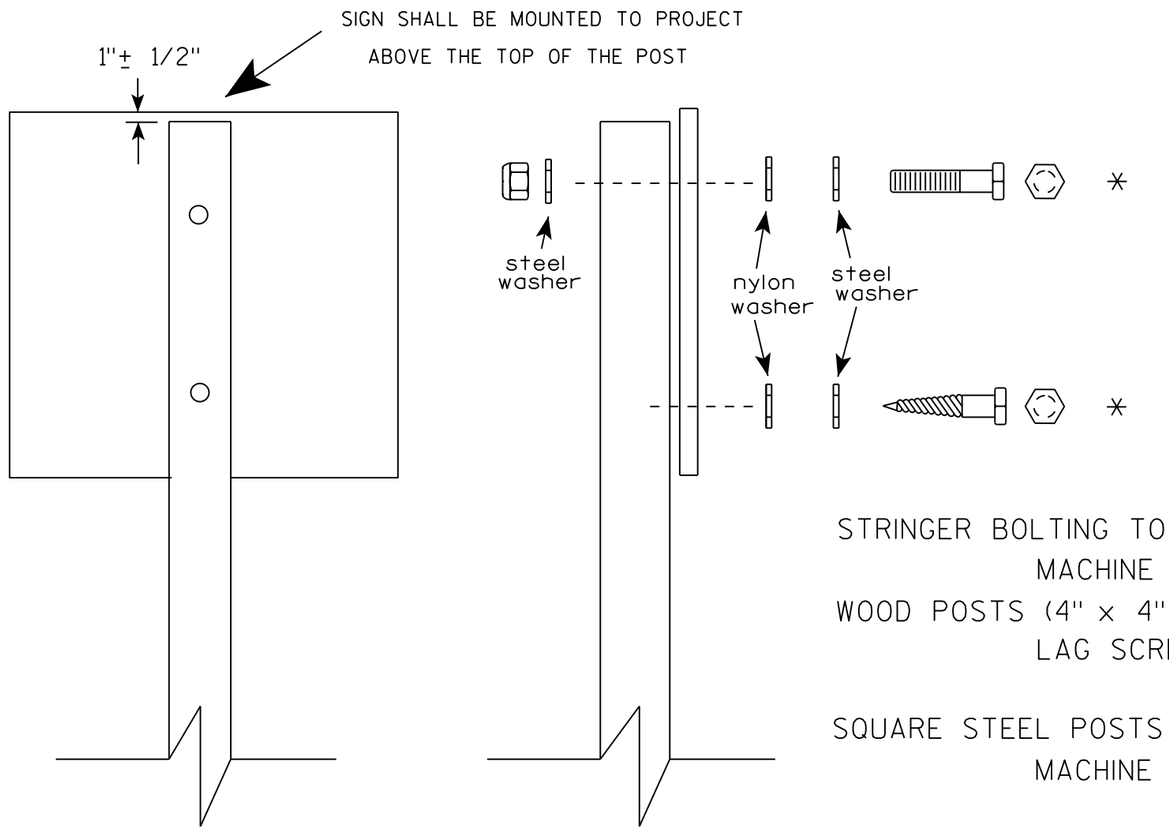
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21



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 4" or 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

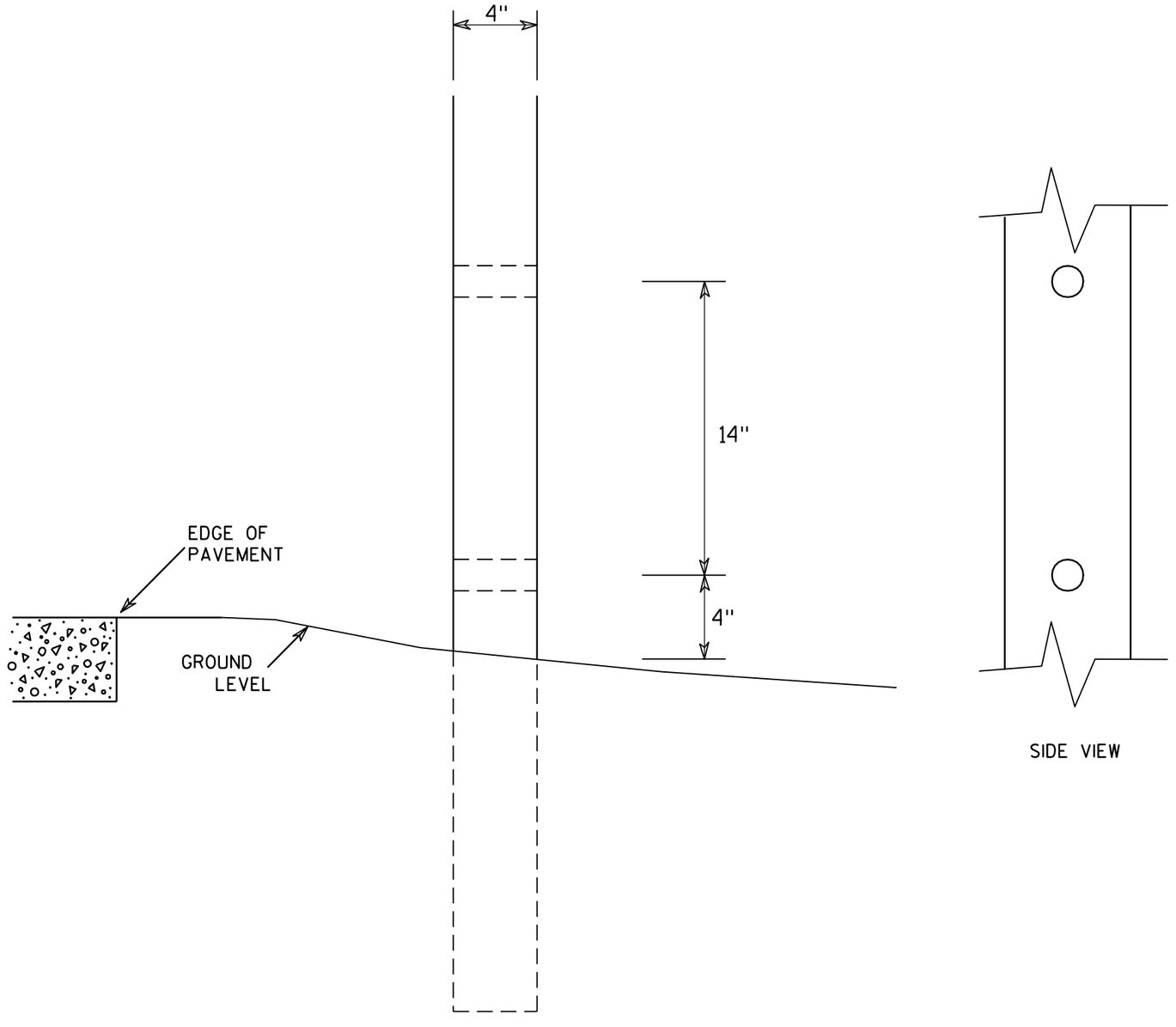
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

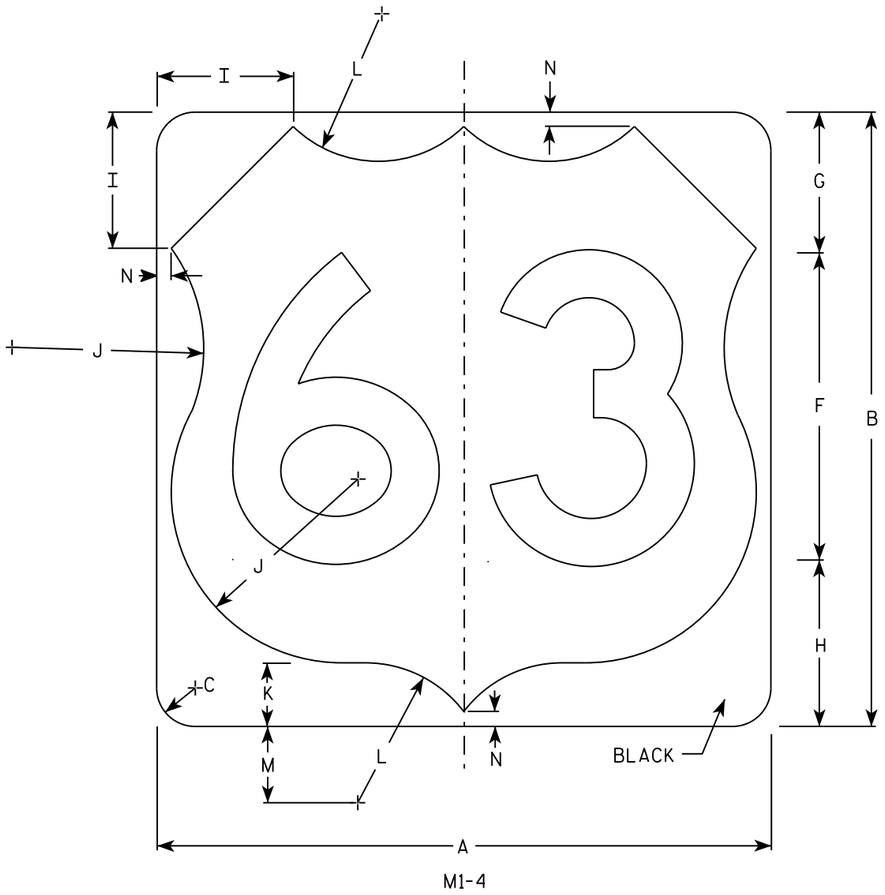
APPROVED Chester J Spang for State Traffic Engineer

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

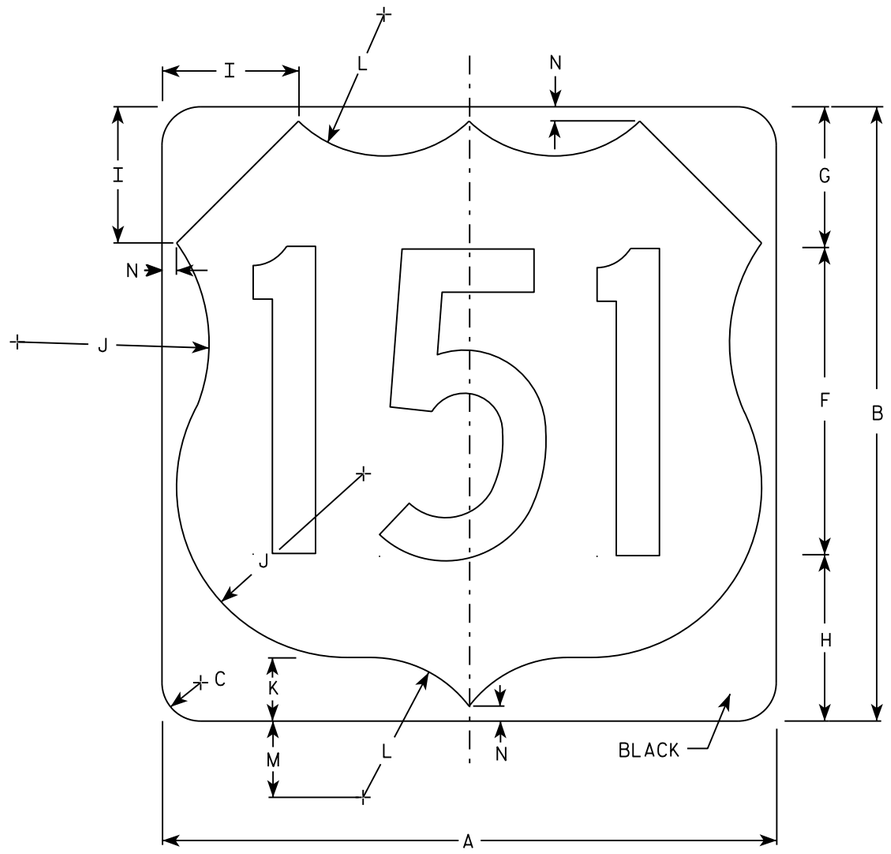
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E

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.



M1-4



M1-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

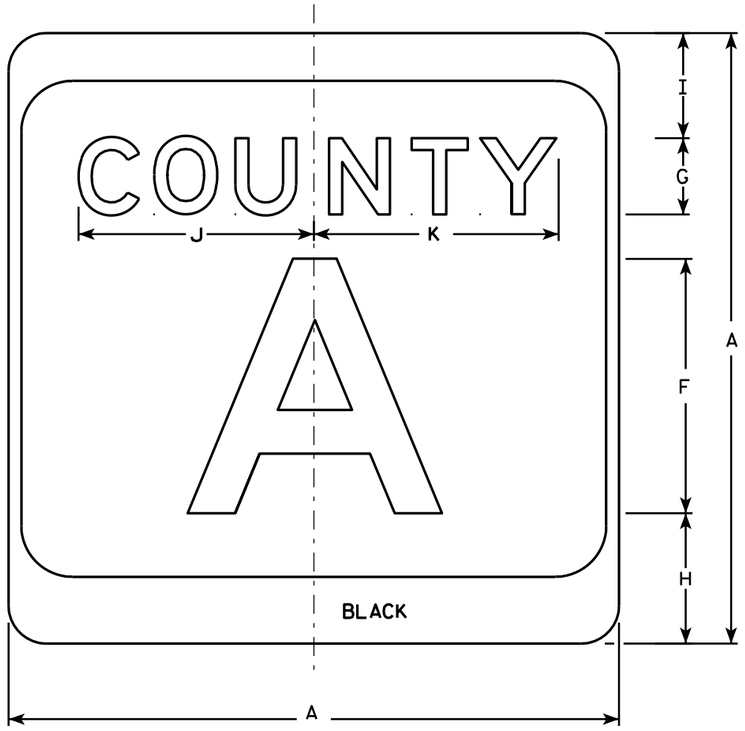
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

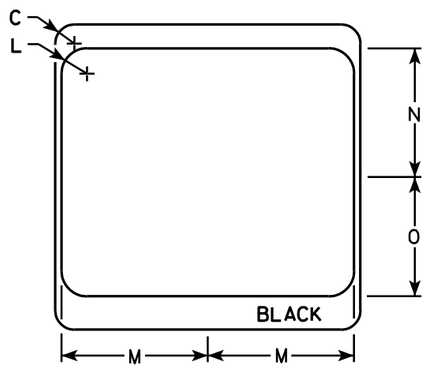
APPROVED Matthew R Rauch
for State Traffic Engineer

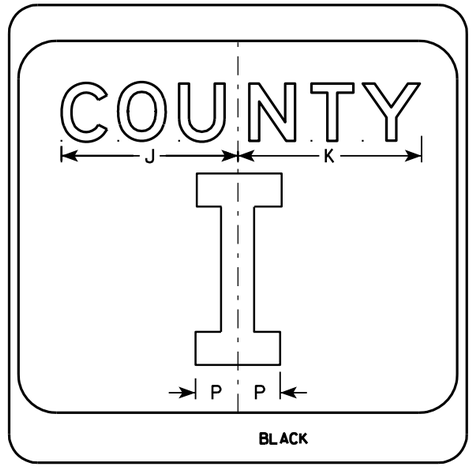
DATE 3/16/18 PLATE NO. M1-4.10

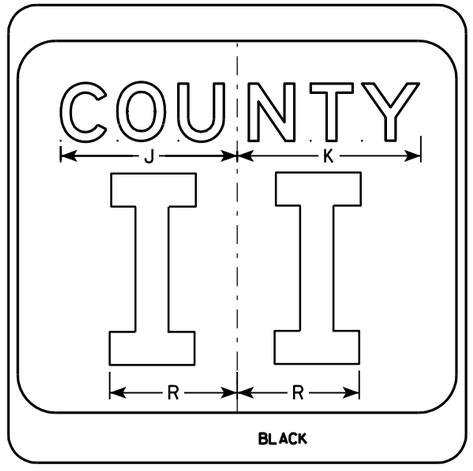
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

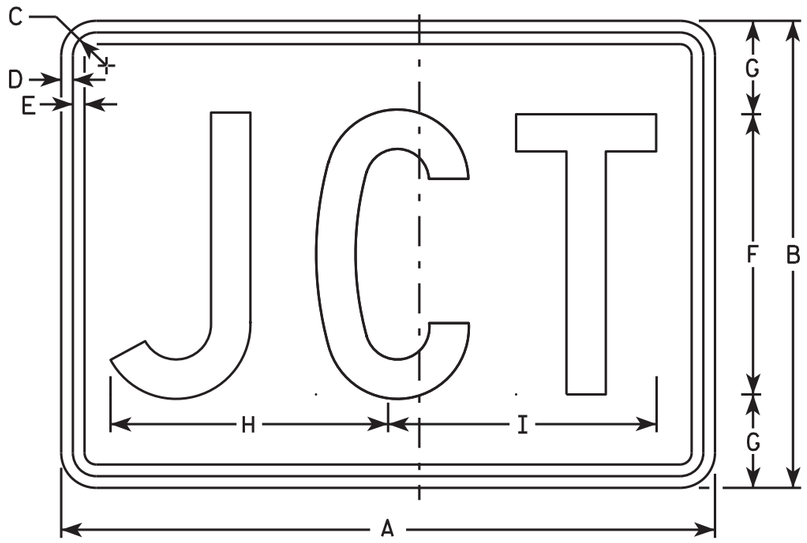
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

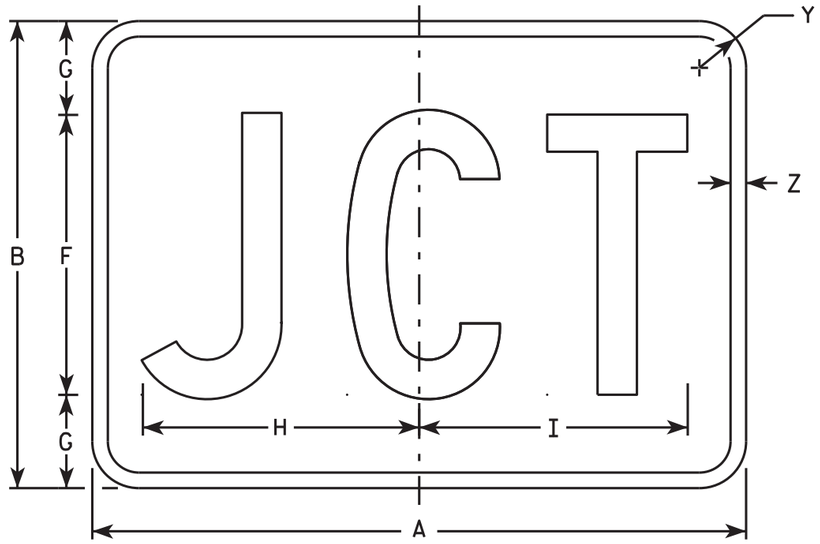
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 44	E



M2-1
MM2-1
MP2-1



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

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

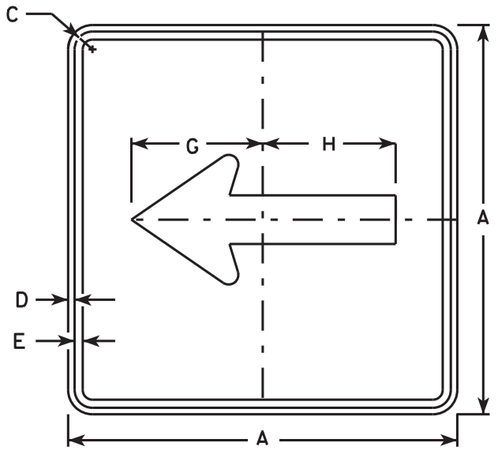
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

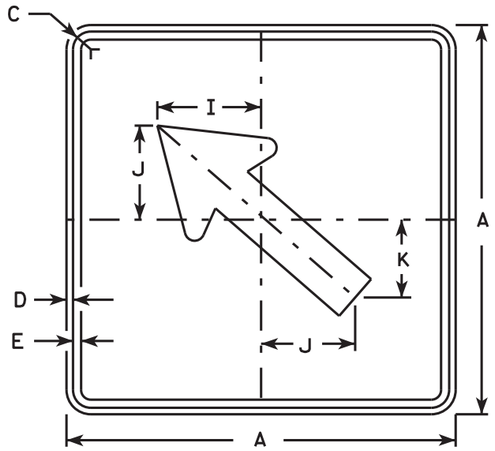
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M2-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO. 45 | E



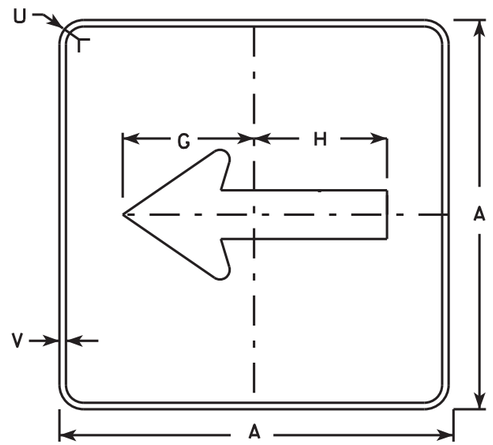
M6-1
MM6-1
MO6-1
MP6-1



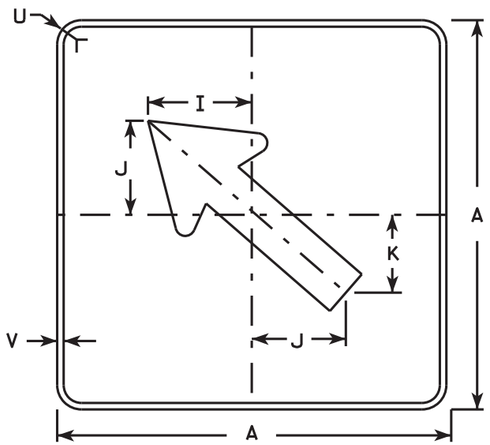
M6-2
MM6-2
MO6-2
MP6-2

NOTES

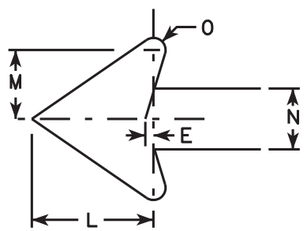
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background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

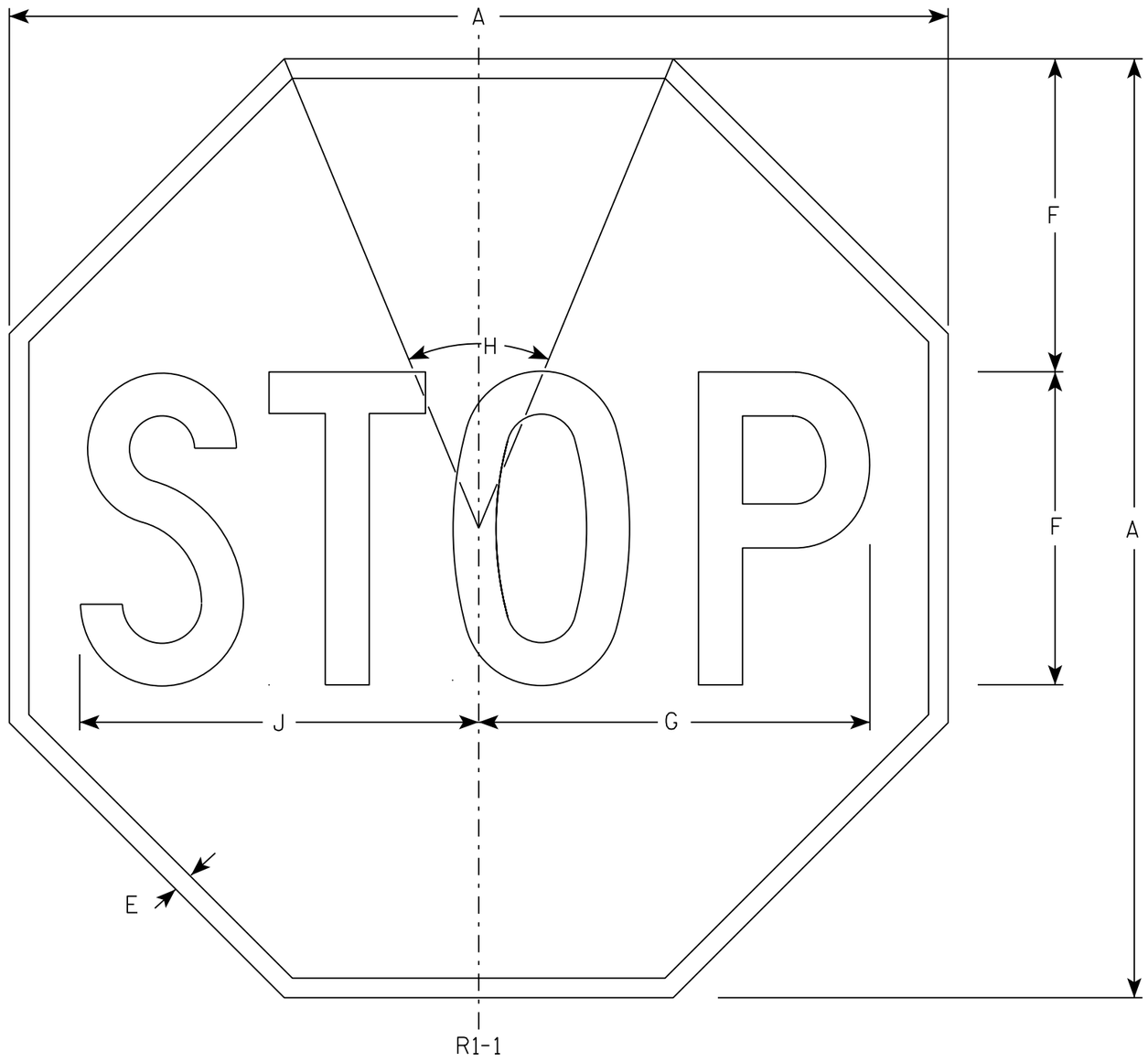
STANDARD SIGN
M6-1 & M6-2
SERIES

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. 46 | E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN

R1-1

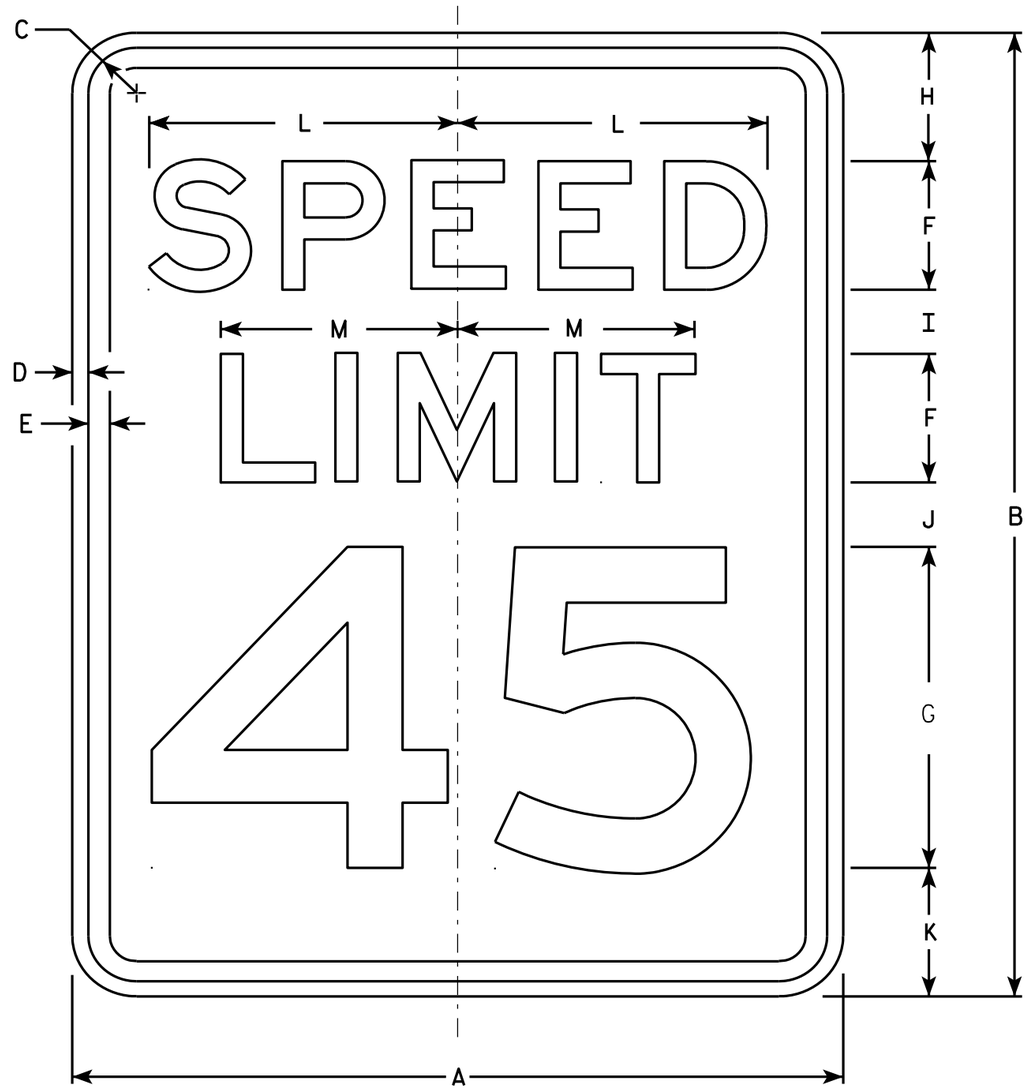
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 47	E



R2-1

NOTES

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

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

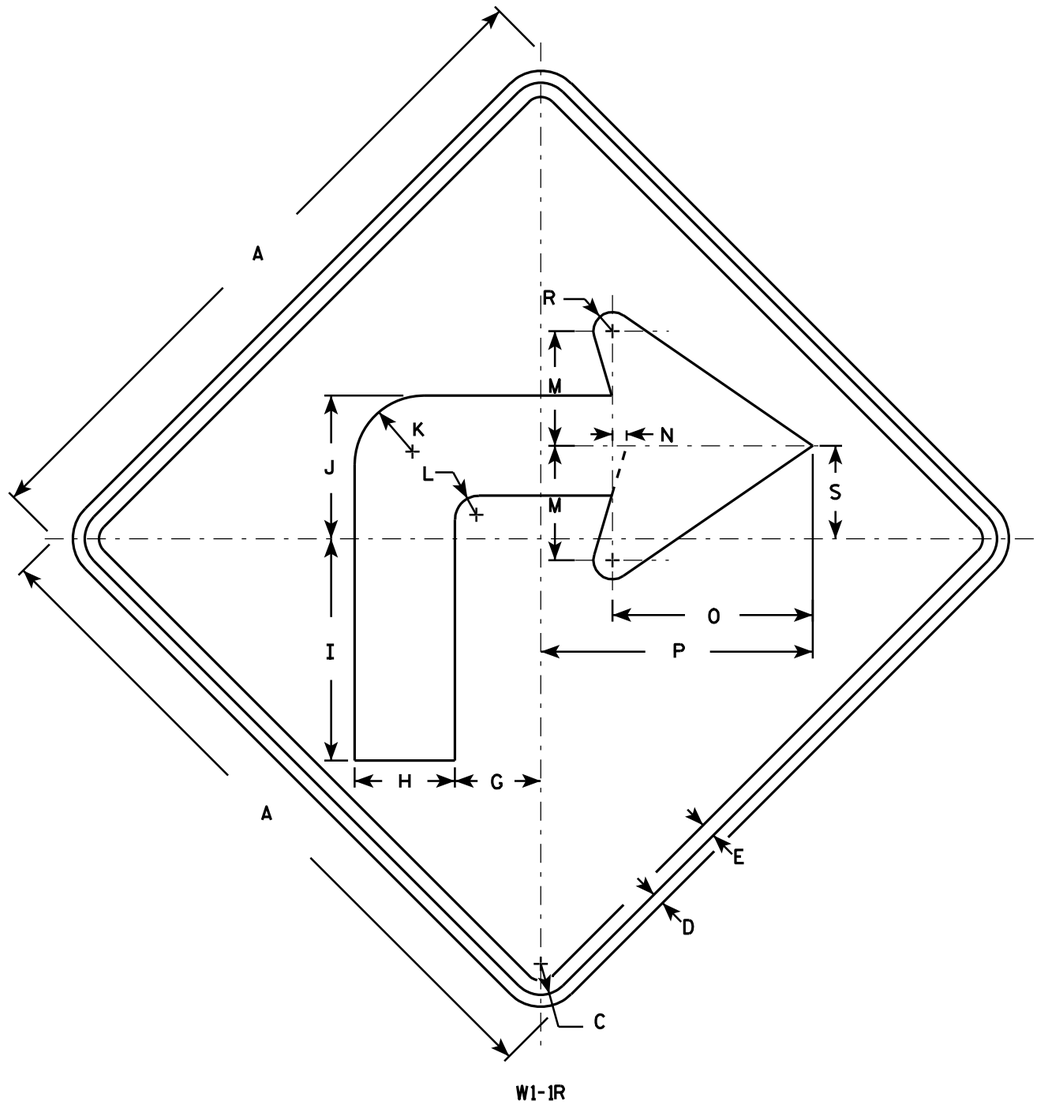
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 48	E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

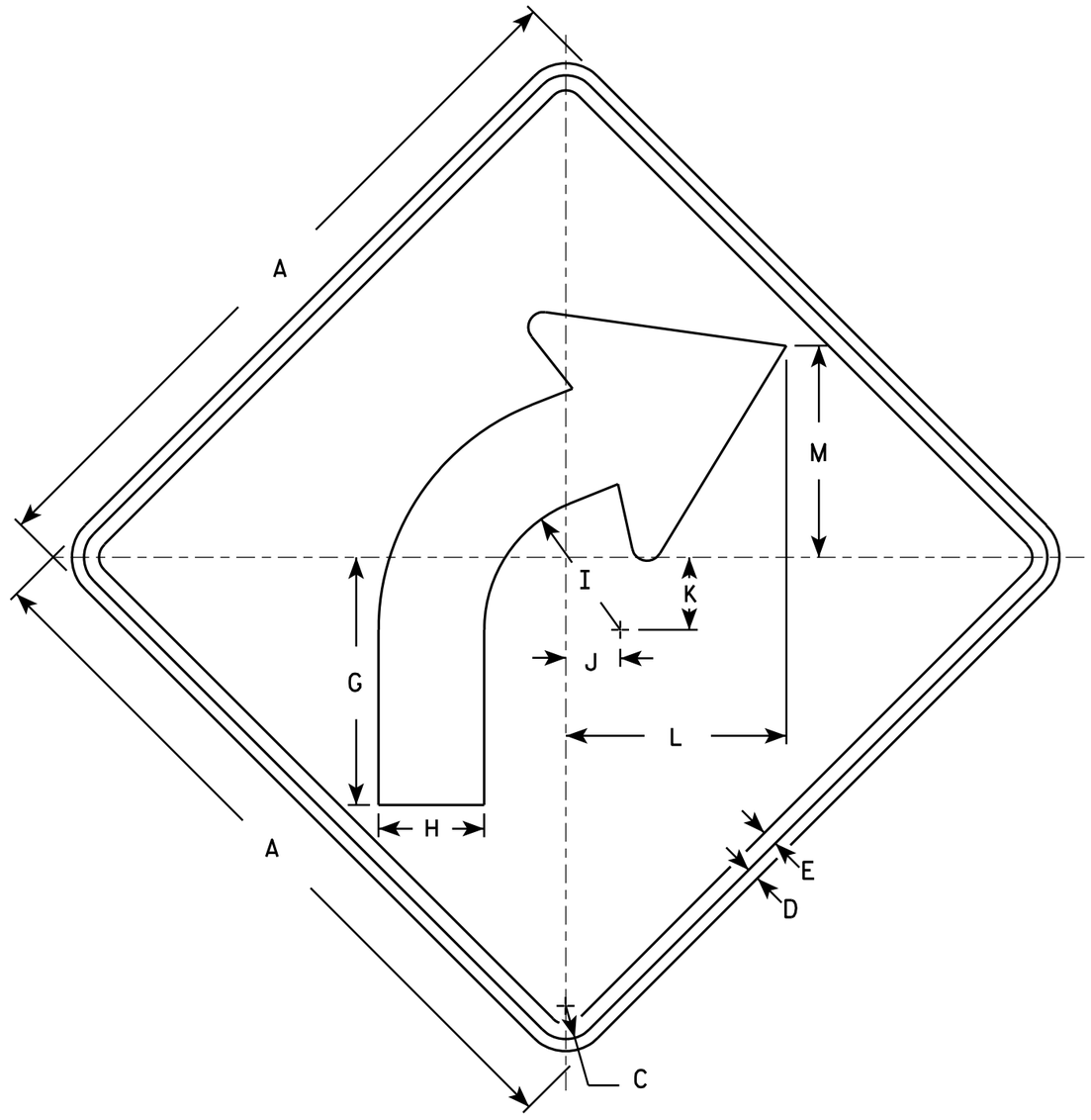
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

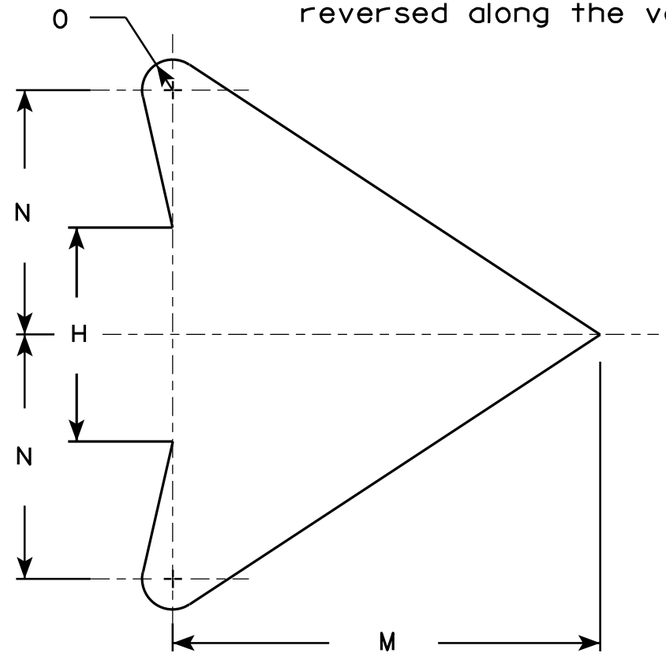
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 49 | E



W1-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

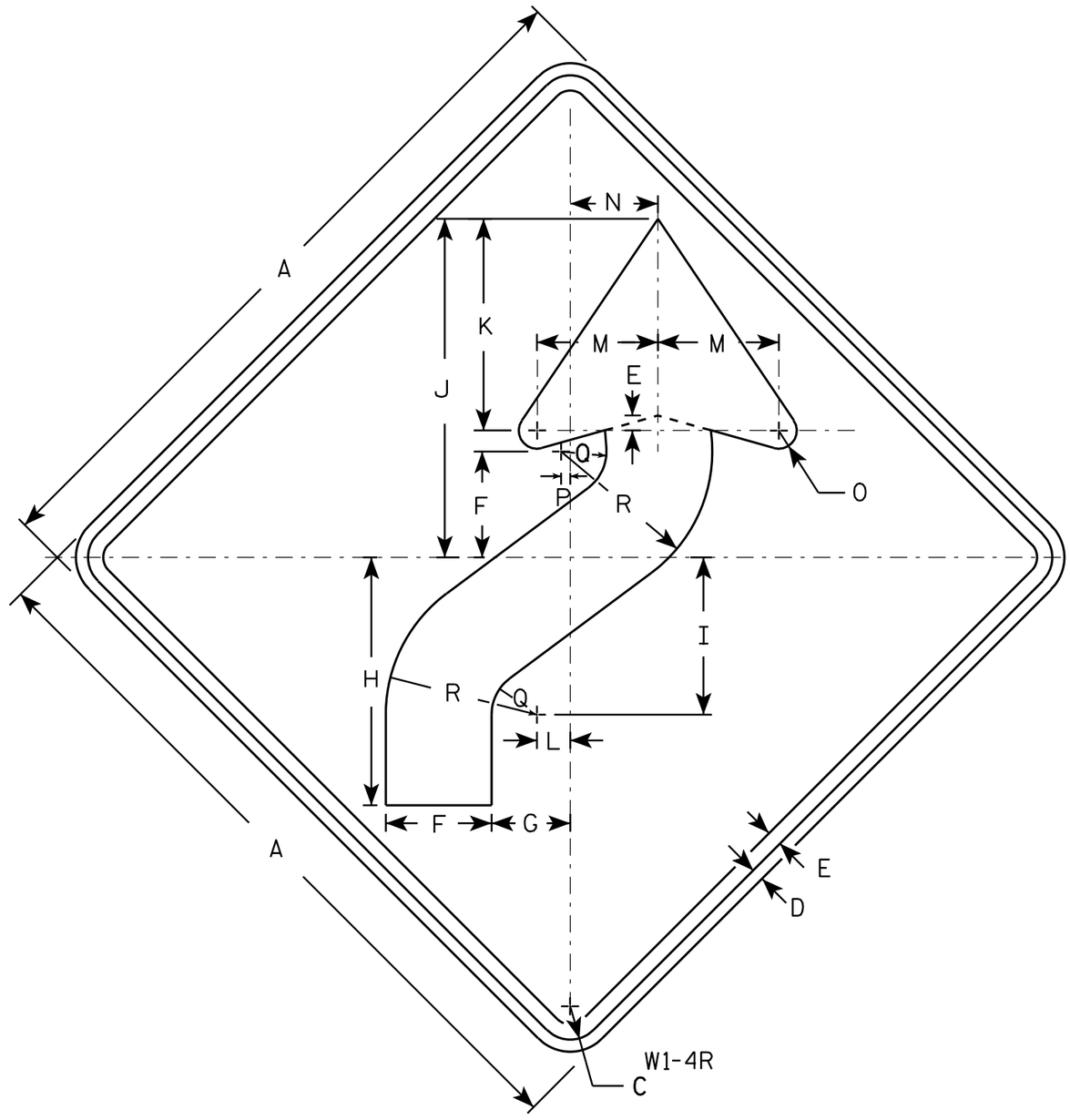
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 50	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

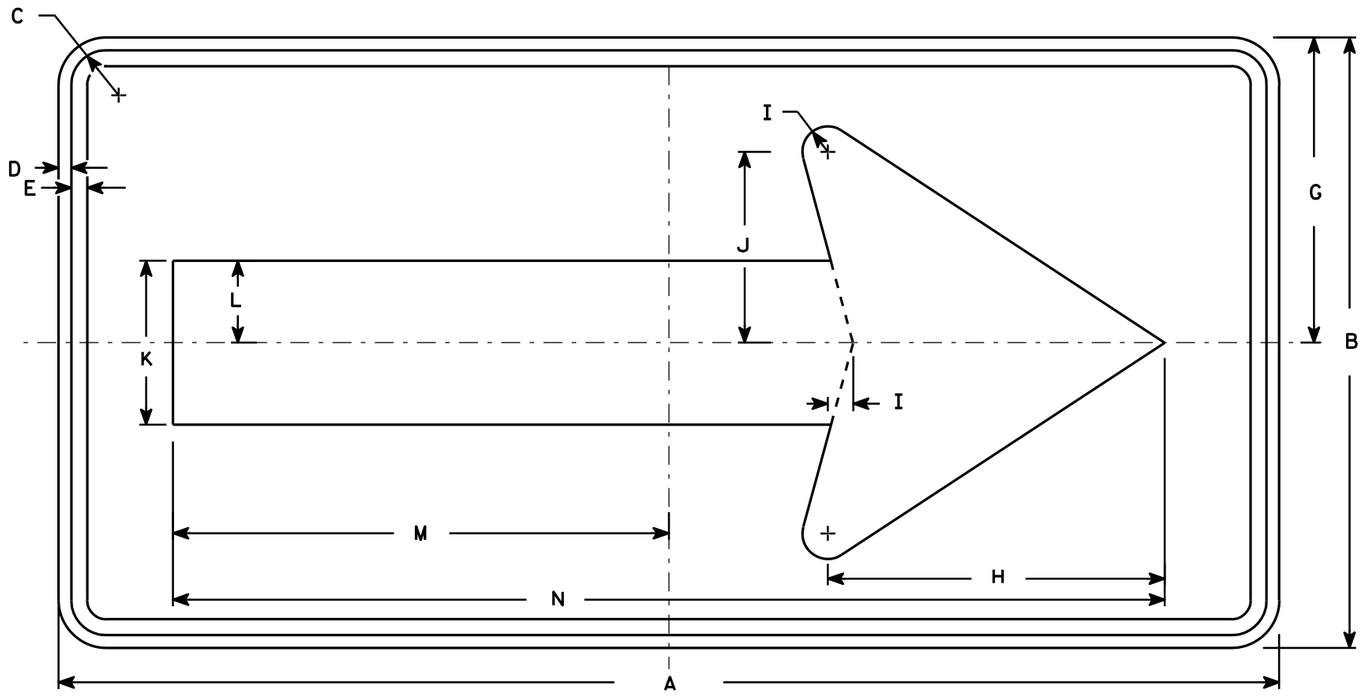
STANDARD SIGN
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 51 | E



W1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

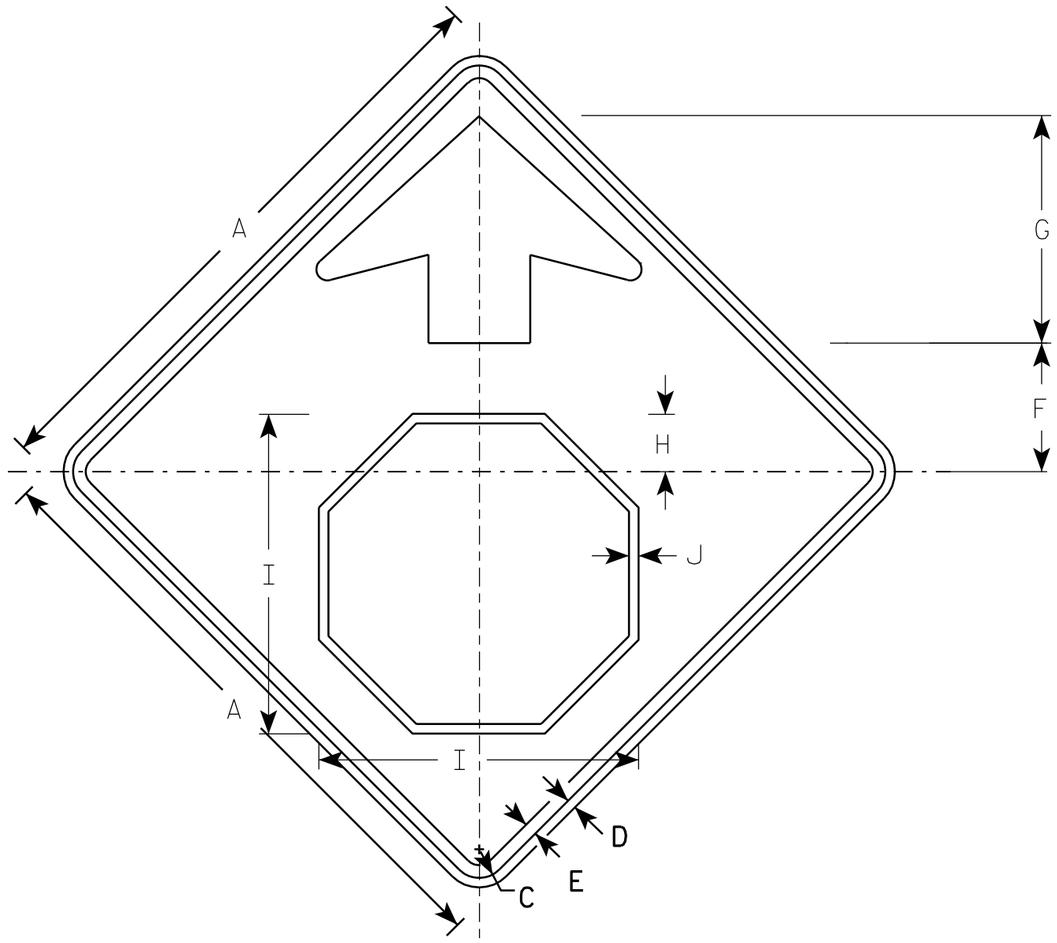
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

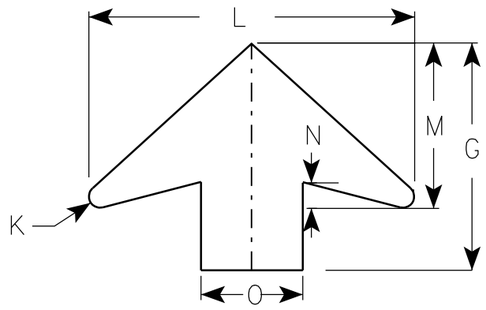
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 52



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

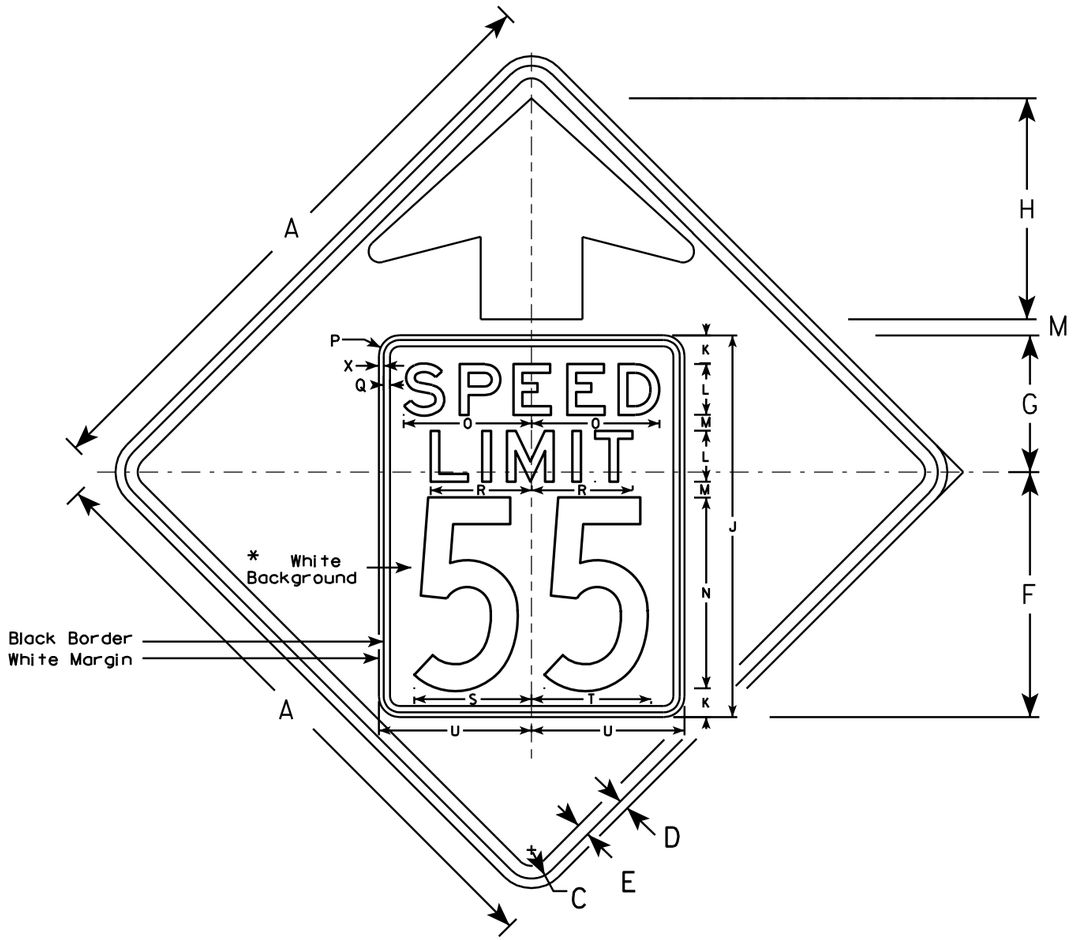
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 53 E

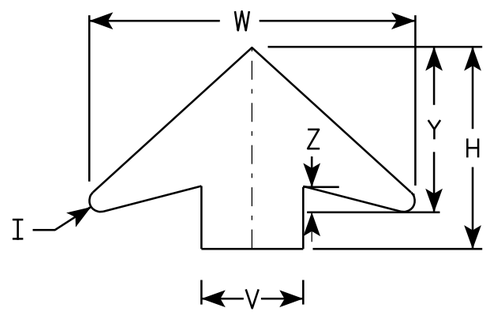


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 54 E

W4-4P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	10 3/4	2 3/8	3/8	13 1/2	8 3/8	3	3 1/8	8 3/8											3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	13 3/8	3 1/8	3/8	16 7/8	10 1/2	3 5/8	3 7/8	10 3/8											5.25
5																											

STANDARD SIGN
W4-4P

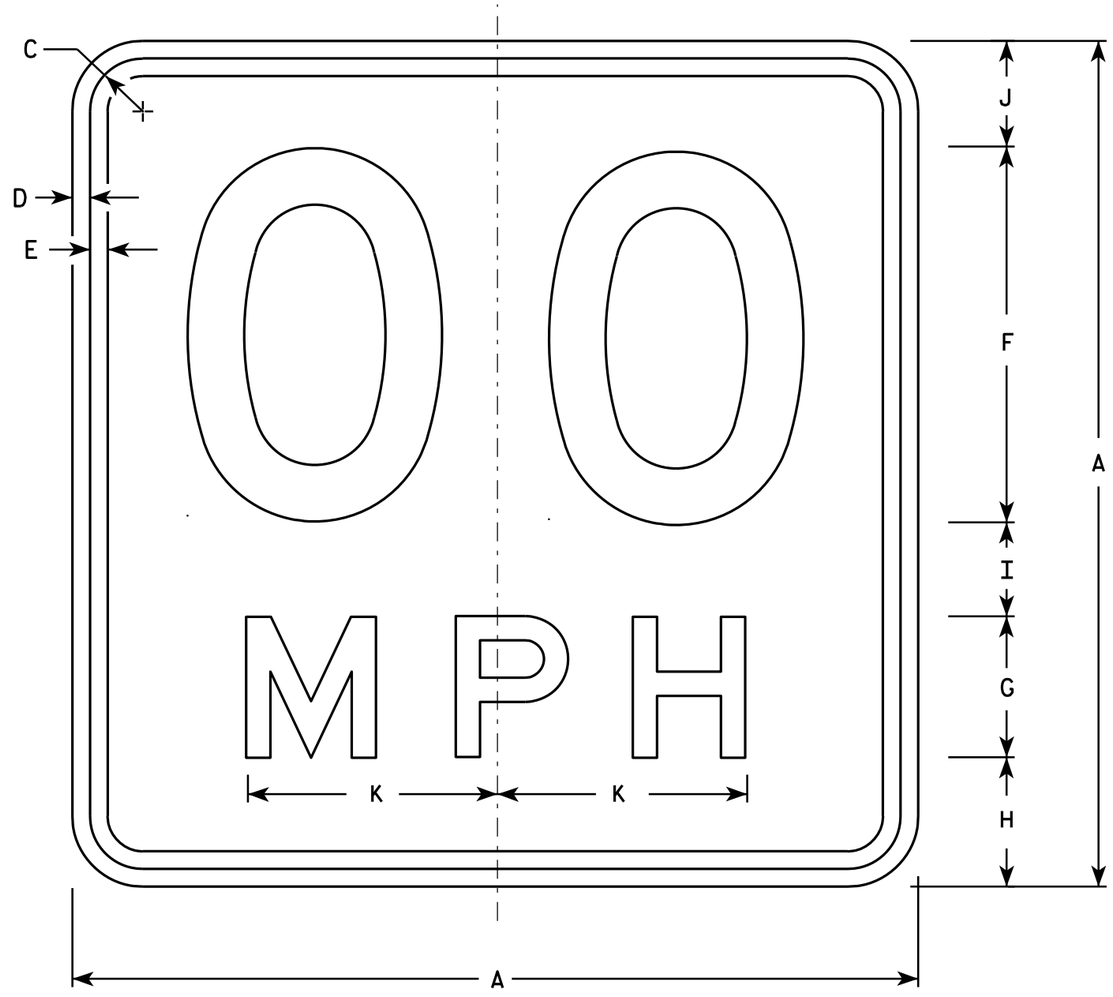
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 55 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W44P.DGN PLOT DATE : 12-MAR-2013 11:42 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.458200:1.000000
WISDOT/CADDS SHEET 42



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

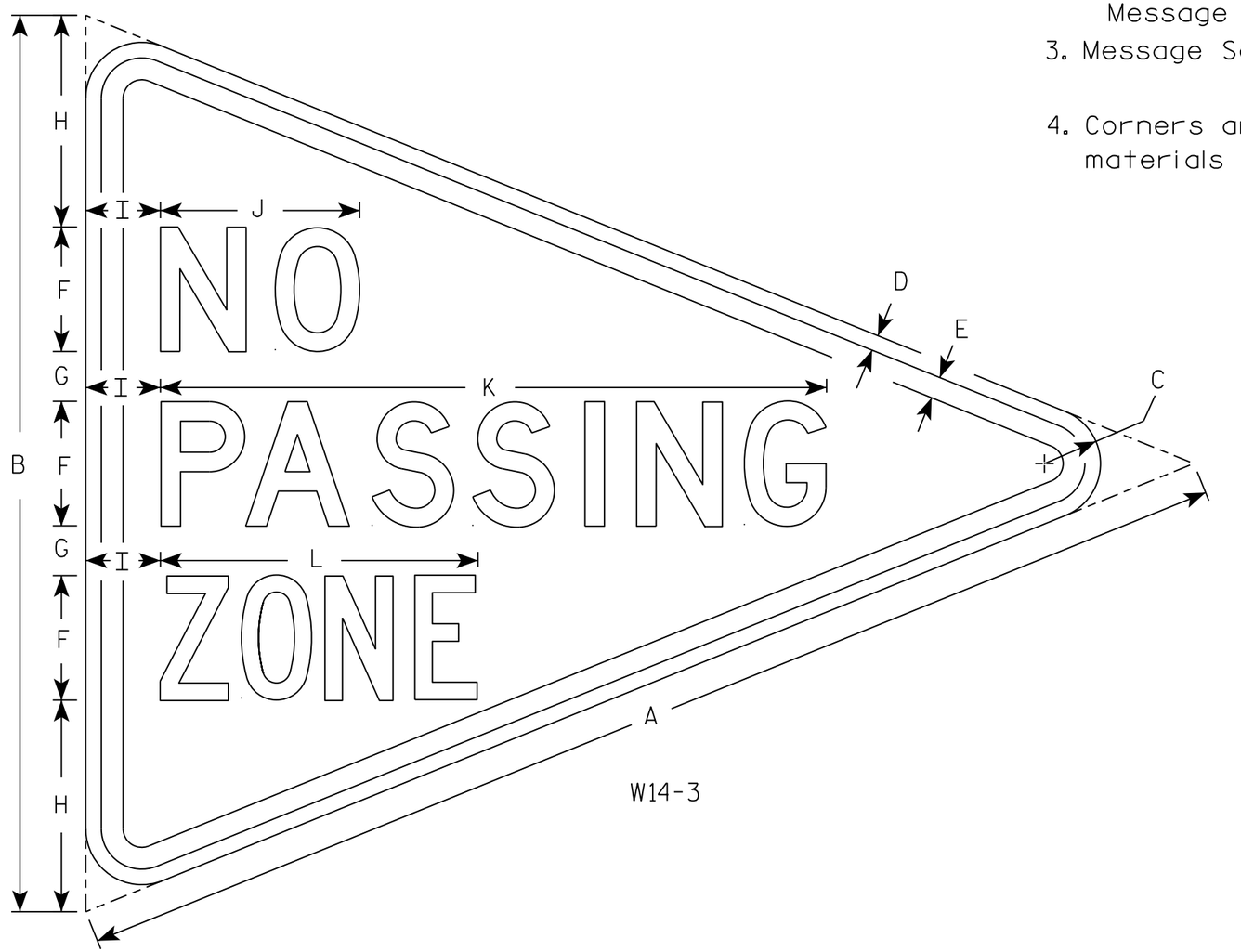
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 56 | E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 57	E

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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