





UTILITIES

NORVADO  
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715-798-3303  
GMAYER@NORVADO.COM

XCEL ENERGY, INC.  
ATTN: CORISSA SEELY  
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ALL UTILITIES LISTED ARE MEMBERS OF DIGGERS HOTLINE

DESIGN CONSULTANT



COOPER ENGINEERING CO. INC.  
AARON SCHARF, P.E.  
2600 COLLEGE DRIVE  
RICE LAKE, WI. 54868  
PHONE (715) 234-7008

BAYFIELD COUNTY

BAYFIELD COUNTY HIGHWAY COMMISSIONER  
ATTN: PAUL JOHANIK  
311 1ST AVE E  
WASHBURN, WI 54891  
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PJOHANIK@BAYFIELDCOUNTY.ORG

OTHER CONTACTS

DNR NORTHERN REGIONAL HQ

DNR/DOT LIAISON  
ATTN.: SHAWN HASELEU  
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EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

GENERAL NOTES:

SUPER ELEVATIONS SHALL MATCH EXISTING ROADWAY.

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

ACCESS TO ALL RESIDENCES SHALL BE MAINTAINED DURING CONSTRUCTION.

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

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

RESTORE SIDEROAD INTERSECTIONS AND PRIVATE ENTRANCES TO EXISTING CONDITIONS UNLESS OTHERWISE SHOWN.

THE EXACT CONSTRUCTION LIMITS OF PRIVATE ENTRANCES SHALL BE COORDINATED WITH THE ENGINEER IN THE FIELD.

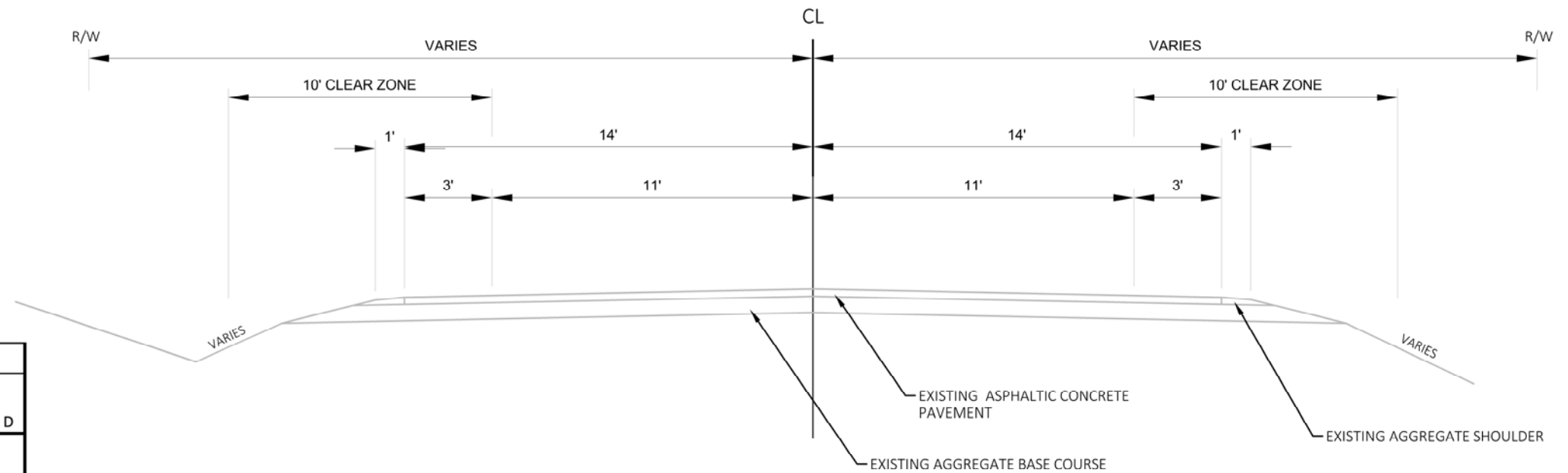
PAVEMENT MARKING SHALL MEET MUTCD STANDARDS.

LIST OF STANDARD ABBREVIATIONS

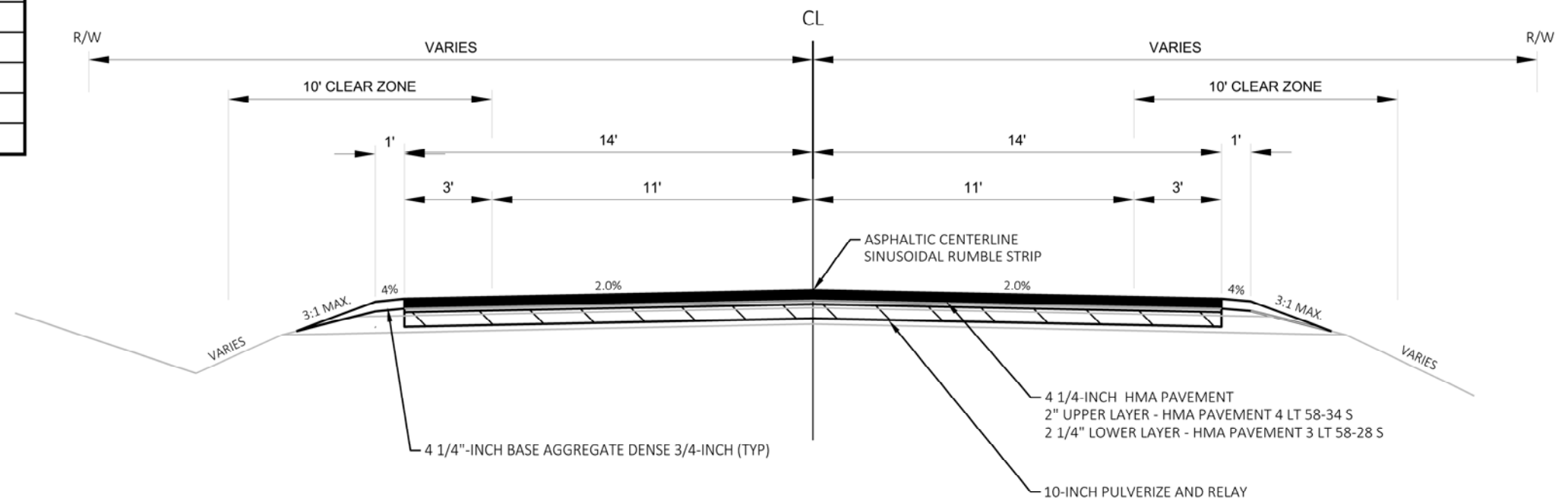
ABUT	ABUTMENT	LT.	LEFT
AC	ACRES	LS	LUMP SUM
AGG	AGGREGATE	MH	MANHOLE
AH	AHEAD	N	NORTH
ADT	AVERAGE DAILY TRAFFIC	NC	NORMAL CROWN
AVG.	AVERAGE	PAVT	PAVEMENT
ASPH	ASPHALTIC	PC	POINT OF CURVATURE
BK.	BACK	PE	PRIVATE ENTRANCE
BM	BENCHMARK	PI	POINT OF INTERSECTION
Δ	CENTRAL ANGLE OR DELTA	PL	PROPERTY LINE
℄, C/L	CENTERLINE	PP	POWER POLE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CABC	CRUSHED AGGREGATE BASE COURSE	R	RANGE , RADIUS
CONC.	CONCRETE	RCCP	REINFORCED CONCRETE CULVERT PIPE
COR	CORNER	RD	ROAD
CORR	CORRUGATED	REBAR	REINFORCEMENT BAR
CSCP	CORRUGATED STEEL CULVERT PIPE	REQD	REQUIRED
CSPA	CORRUGATED STEEL PIPE ARCH	RDWY	ROADWAY
CTH	COUNTY TRUNK HIGHWAY	RHF	RIGHT HAND FORWARD
CP.	CULVERT PIPE	RL, R/L	REFERENCE LINE
CY	CUBIC YARD	RR	RAILROAD
CWT.	HUNDREDWEIGHT	RT.	RIGHT
BLV., EL DIAMETER		R/W	RIGHT-OF-WAY
D	DEGREE OF CURVE	S	SOUTH
DHV	DESIGN HOURLY VOLUME	SAN S	SANITARY SEWER
DWY	DRIVEWAY	SDD	STANDARD DETAIL DRAWING
EBS	EXC. BELOW SUB GRADE ELEVATION	SE	SUPER ELEVATION
ELEC.	ELECTRIC	SF.	SQUARE FEET
EXC	EXCAVATION	SHLDR	SHOULDER
EXIST	EXISTING	SPECS	SPECIFICATIONS
E	EAST	SQ.	SQUARE
FE	FIELD ENTRANCE	SS.	STORM SEWER
FF.	FACE TO FACE	SY.	SQUARE YARD
FL, F/L	FLOW LINE	STH	STATE TRUNK HIGHWAY
FS	FULL SUPERELEVATION	ST.	STREET
G	GARAGE	STA.	STATION
GN	GRID NORTH	SW	SIDEWALK
INTERS	HOUSE	T	TANGENT
HYD	HYDRANT	TC	TOP OF CURB
I	INTERSECTION ANGLE INTERSECTION	℄, T/L	TRANSIT LINE
INV.	INVERT	TEL	TELEPHONE
IP	IRON PIN OR PIPE	TEMP	TEMPORARY
LC	LONG CHORD OF CURVE	TLE	TEMPORARY LIMITED EASEMENT
LF	LINEAR FOOT	TYP	TYPICAL
LHF	LEFT HAND FORWARD	USH	UNITED STATES HIGHWAY
L	LENGTH OF CURVE	UG	UNDERGROUND
		V	DESIGN SPEED
		VAR.	VARIABLE
		VERT	VERTICAL
		YD	YARD



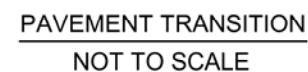
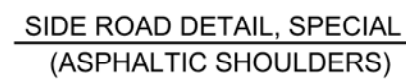
BORING LOG					
PROJECT: 8732-00-73					
COUNTY: BAYFIELD FREL RD. TO CTH D					
BORING NO.	STATION	OFFSET (FT)	SIDE	ASPHALTIC SURFACE (IN)	CABC (IN)
17	412+68	7	RT	13	11
18	441+15	6	LT	14	10
19	464+64	7	RT	4	3
20	474+93	7	LT	10	14
21	490+77	7	RT	7	5
22	516+04	9	LT	10	5
23	531+68	7	RT	7	5
24	541+91	7	LT	9	3
25	568+18	7	RT	9	3
26	594+03	5	LT	8	16
27	620+04	7	RT	7	17
28	649+12	5	LT	5	13



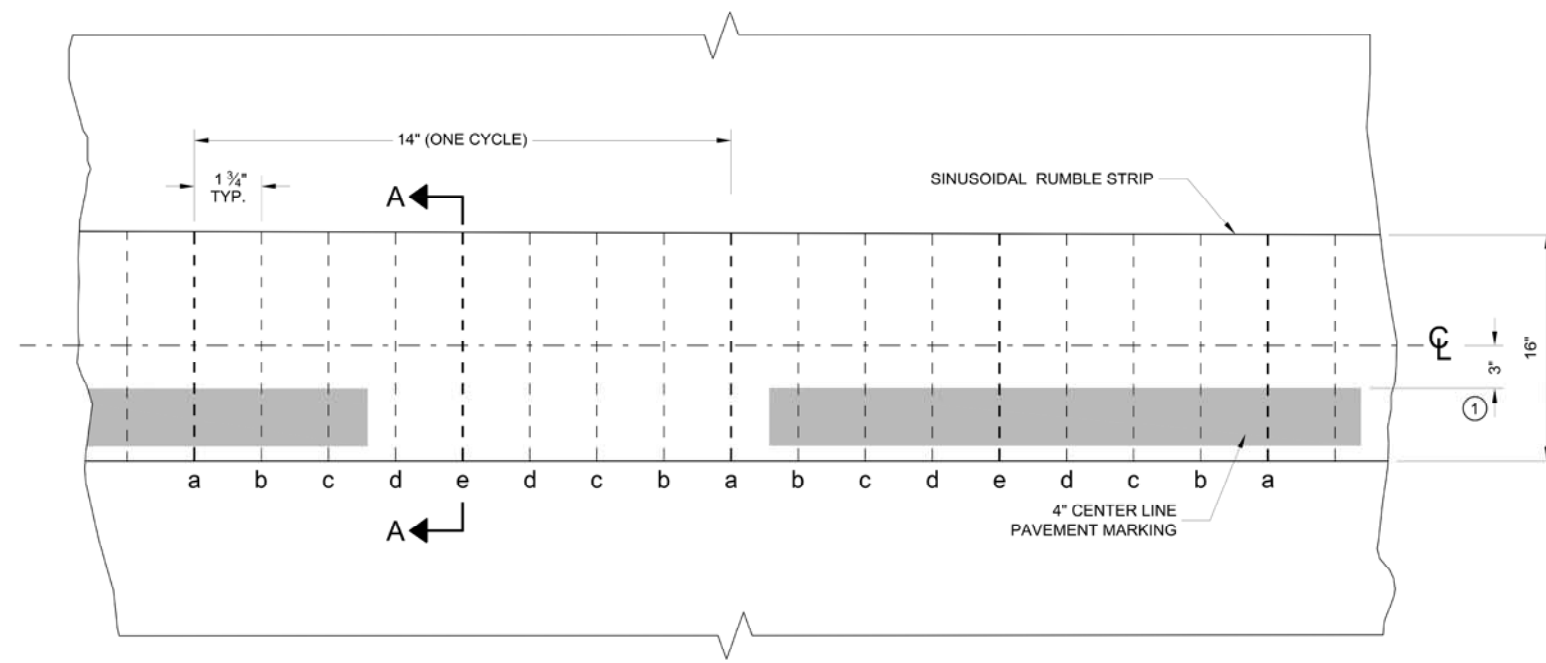
TYPICAL EXISTING SECTION  
STA 387+00 TO 651+76



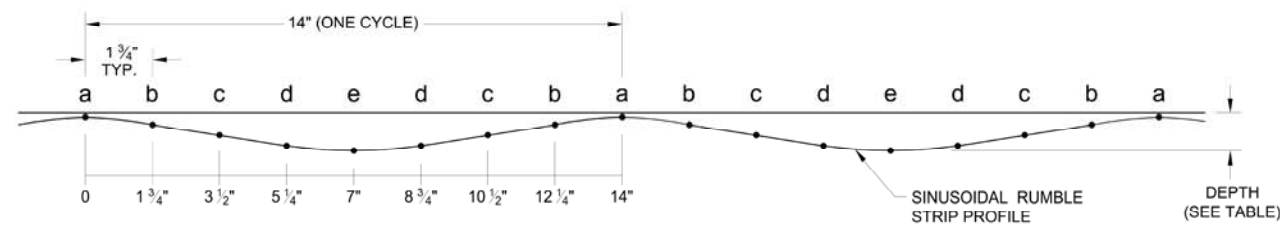
TYPICAL FINISHED SECTION  
STA 387+00 TO 651+76





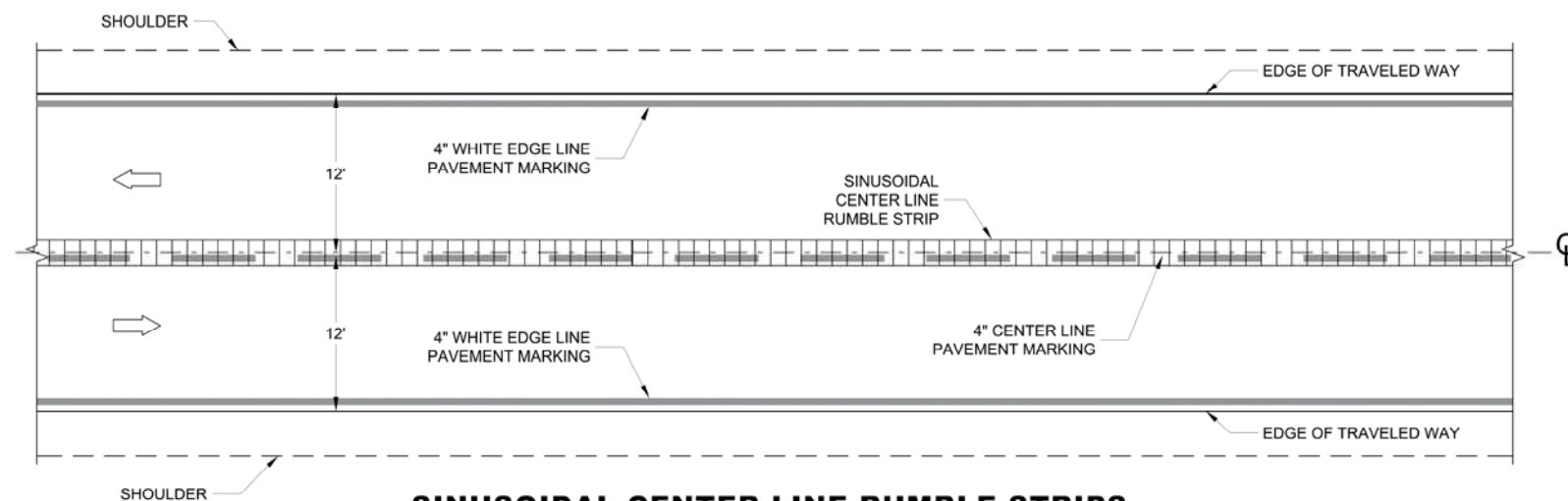


PLAN VIEW  
SINUSOIDAL CENTER LINE RUMBLE STRIPS



PROFILE VIEW  
SINUSOIDAL SHOULDER RUMBLE STRIPS

LOCATION	DEPTH (INCHES)
a	1/16"
b	5/32"
c	9/32"
d	7/16"
e	1/2"



SINUSOIDAL CENTER LINE RUMBLE STRIPS,  
2-LANE ASPHALTIC ROADWAY

### GENERAL NOTES

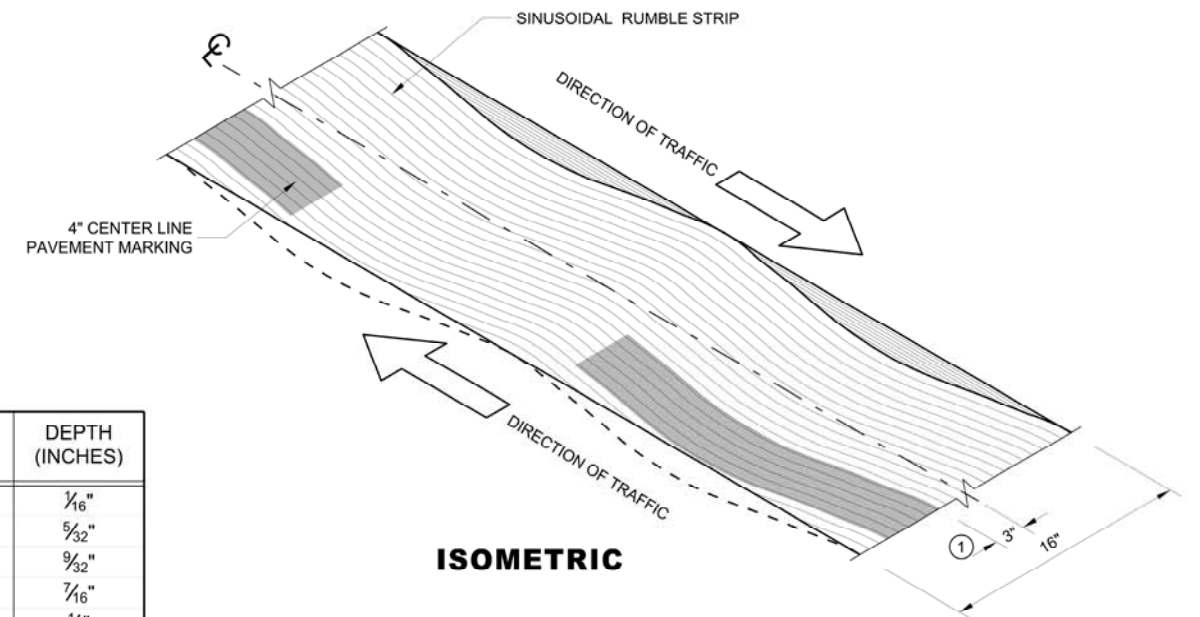
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

GAP SINUSOIDAL RUMBLE STRIPS AT INTERSECTIONS, BRIDGE AND APPROACH SLABS, RAILROADS, DRIVEWAYS, PASSING AND CLIMBING LANES, AND OTHER MISCELLANEOUS CROSSINGS

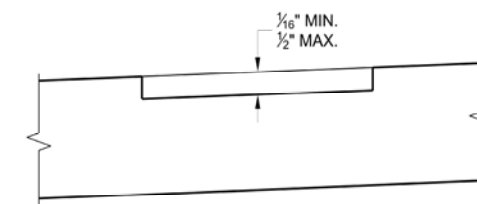
SHOULDER RUMBLE STRIPS MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

TEMPORARY PAVEMENT MARKINGS ARE TYPICALLY PLACED PRIOR TO RUMBLE STRIP INSTALLATION. PERMANENT MARKINGS ARE INSTALLED AFTER RUMBLE STRIP INSTALLATION.

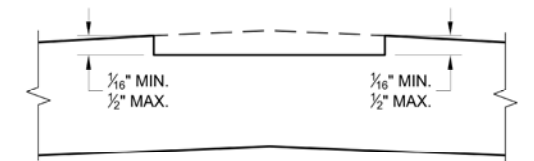
① REFER TO SDD 15C8 - SHEET "a" LONGITUDINAL MARKINGS (MAINLINE).



ISOMETRIC



SECTION A - A  
SUPERELEVATED ROADWAY



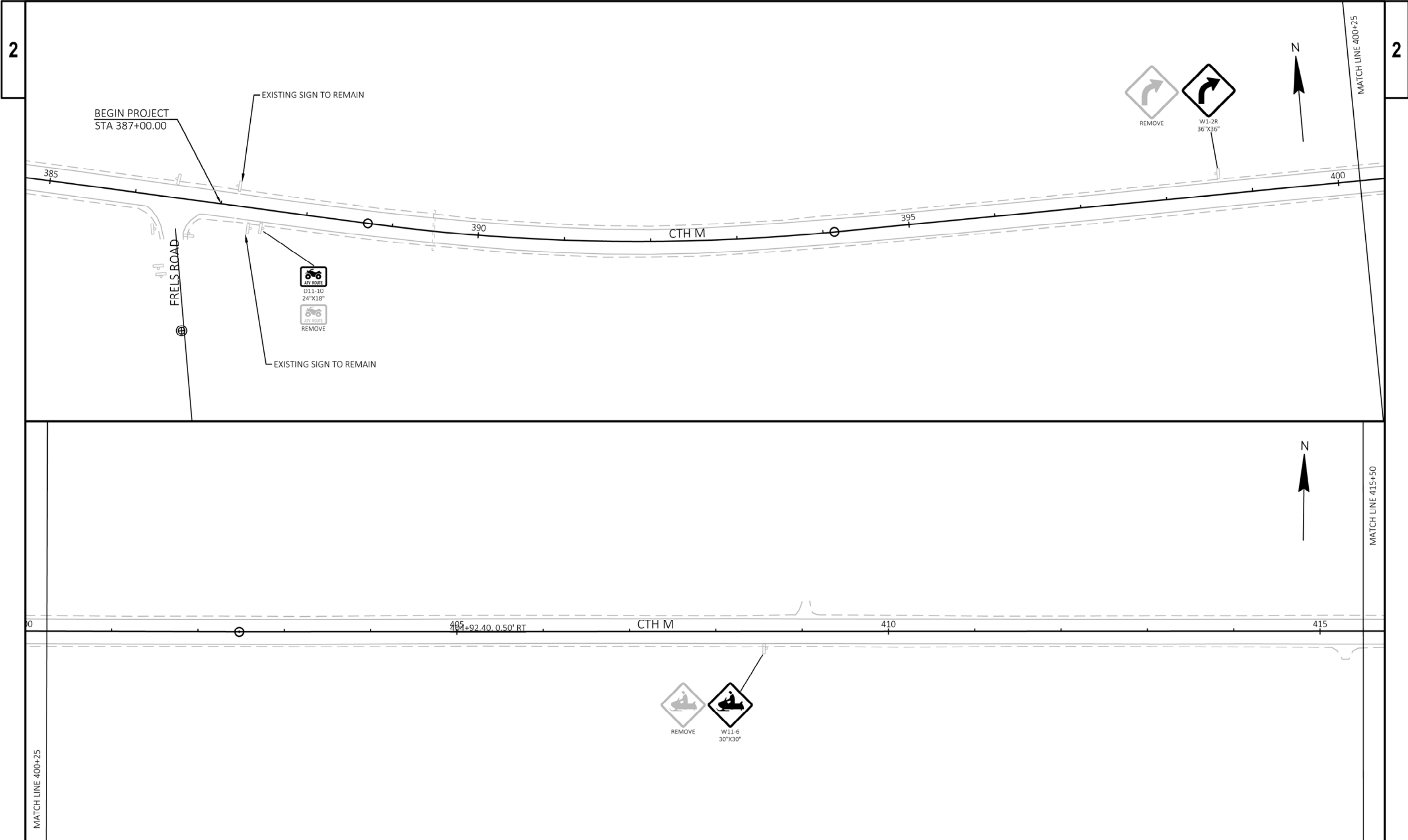
SECTION A - A  
CROWNED ROADWAY



SUPERELEVATION REPORT FOR 'CTH M ALI'					
TRANSITION EVENT POINTS		RATE (FT/FT)			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
CURVE 1					
EndNormalShoulder	387+29.57	-0.036	-0.020	-0.020	-0.020
EndNormalCrown	387+29.57	-0.036	-0.020	-0.020	-0.020
LevelCrown	387+82.77	-0.038	-0.020	0.000	0.000
ReverseCrown	388+35.97	-0.039	-0.020	0.020	0.020
LowShoulderMatch	388+89.17	-0.040	-0.040	0.040	0.040
BeginFullSuper	389+15.77	-0.050	-0.050	0.050	0.050
EndFullSuper	393+68.86	-0.050	-0.050	0.050	0.050
LowShoulderMatch	393+95.46	-0.040	-0.040	0.040	0.040
ReverseCrown	394+48.66	-0.040	-0.020	0.020	0.020
LevelCrown	395+01.86	-0.040	-0.020	0.000	0.000
BeginNormalCrown	395+55.06	-0.040	-0.020	-0.020	-0.020
BeginNormalShoulder	395+55.06	-0.040	-0.020	-0.020	-0.020
CURVE 2					
EndNormalShoulder	418+14.05	-0.040	-0.020	-0.020	-0.020
EndNormalCrown	418+14.05	-0.040	-0.020	-0.020	-0.020
LevelCrown	418+67.50	-0.040	-0.020	0.000	0.000
ReverseCrown	419+20.94	-0.040	-0.020	0.020	0.020
LowShoulderMatch	419+74.39	-0.040	-0.040	0.040	0.040
BeginFullSuper	420+22.50	-0.058	-0.058	0.058	0.058
EndFullSuper	424+54.79	-0.058	-0.058	0.058	0.058
LowShoulderMatch	425+02.89	-0.040	-0.040	0.040	0.040
ReverseCrown	425+56.34	-0.038	-0.020	0.020	0.020
LevelCrown	426+09.79	-0.037	-0.020	0.000	0.000
BeginNormalCrown	426+63.24	-0.035	-0.020	-0.020	-0.020
BeginNormalShoulder	426+63.24	-0.035	-0.020	-0.020	-0.020
CURVE 3					
EndNormalShoulder	431+88.74	-0.020	-0.020	-0.020	-0.035
EndNormalCrown	431+88.74	-0.020	-0.020	-0.020	-0.035
LevelCrown	432+42.07	0.000	0.000	-0.020	-0.037
ReverseCrown	432+95.41	0.020	0.020	-0.020	-0.038
LowShoulderMatch	433+48.74	0.040	0.040	-0.040	-0.040
BeginFullSuper	434+02.07	0.060	0.060	-0.060	-0.060
EndFullSuper	439+31.10	0.060	0.060	-0.060	-0.060
LowShoulderMatch	439+84.44	0.040	0.040	-0.040	-0.040
ReverseCrown	440+37.77	0.020	0.020	-0.020	-0.038
LevelCrown	440+91.10	0.000	0.000	-0.020	-0.036
BeginNormalCrown	441+44.44	-0.020	-0.020	-0.020	-0.034
BeginNormalShoulder	441+44.44	-0.020	-0.020	-0.020	-0.034
CURVE 4					
EndNormalShoulder	445+59.67	-0.034	-0.020	-0.020	-0.020
EndNormalCrown	445+59.67	-0.034	-0.020	-0.020	-0.020
LevelCrown	446+13.00	-0.036	-0.020	0.000	0.000
ReverseCrown	446+66.33	-0.038	-0.020	0.020	0.020
LowShoulderMatch	447+19.67	-0.040	-0.040	0.040	0.040
BeginFullSuper	447+73.00	-0.060	-0.060	0.060	0.060
EndFullSuper	449+21.88	-0.060	-0.060	0.060	0.060
LowShoulderMatch	449+75.22	-0.059	-0.059	0.059	0.059
ReverseCrown	450+28.55	-0.058	-0.058	0.058	0.058
LevelCrown	450+81.88	-0.057	-0.057	0.057	0.057
BeginNormalCrown	451+35.22	-0.056	-0.056	0.056	0.056
BeginNormalShoulder	451+35.22	-0.056	-0.056	0.056	0.056

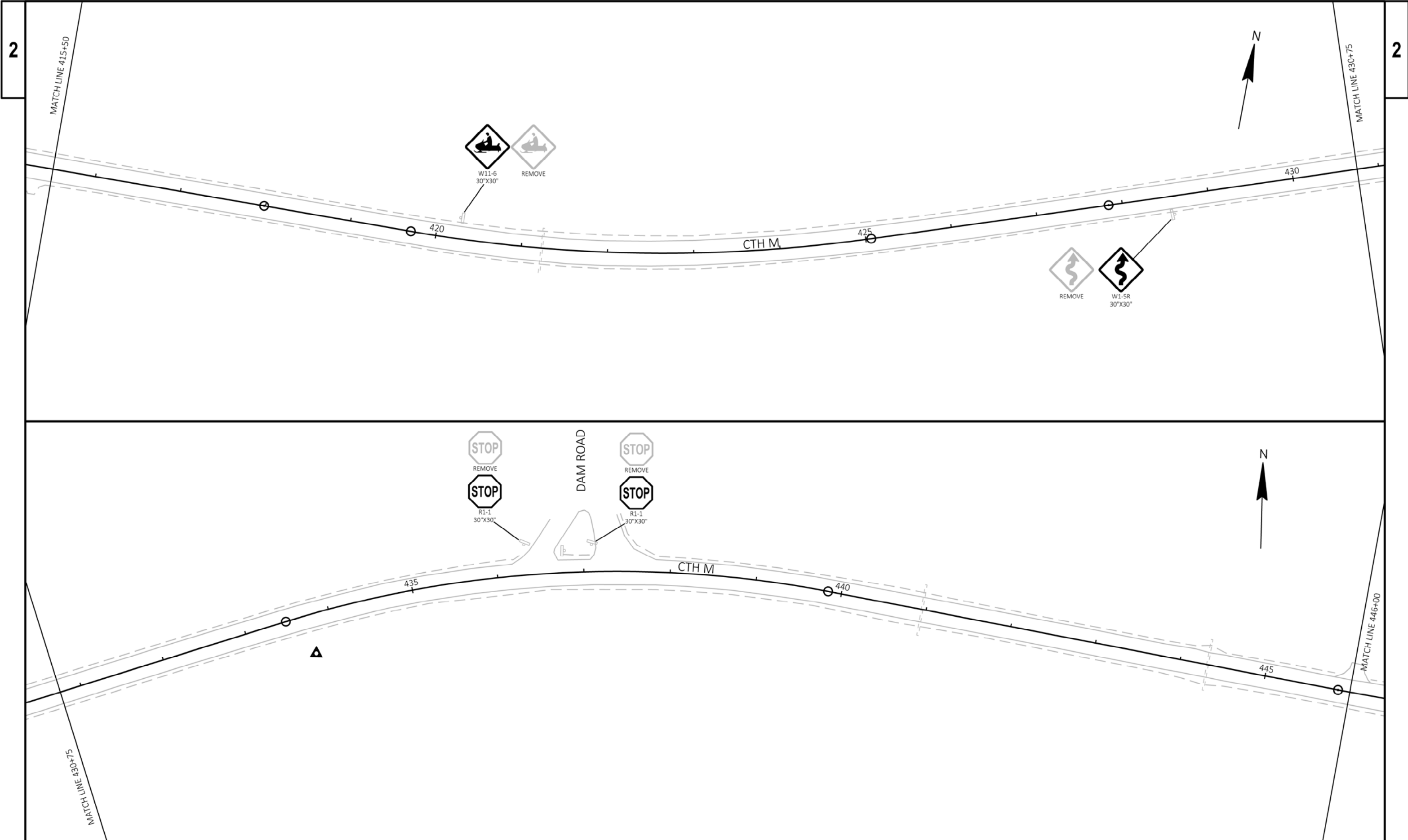
SUPERELEVATION REPORT FOR 'CTH M ALI'					
TRANSITION EVENT POINTS		RATE (FT/FT)			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
CURVE 5					
EndNormalShoulder	449+09.37	-0.060	-0.060	0.060	0.060
EndNormalCrown	449+09.37	-0.060	-0.060	0.060	0.060
LevelCrown	449+62.59	-0.059	-0.059	0.059	0.059
ReverseCrown	450+15.80	-0.058	-0.058	0.058	0.058
LowShoulderMatch	450+69.01	-0.057	-0.057	0.057	0.057
BeginFullSuper	451+11.59	-0.056	-0.056	0.056	0.056
EndFullSuper	453+22.19	-0.056	-0.056	0.056	0.056
LowShoulderMatch	453+64.76	-0.040	-0.040	0.040	0.040
ReverseCrown	454+17.97	-0.037	-0.020	0.020	0.020
LevelCrown	454+71.19	-0.033	-0.020	0.000	0.000
BeginNormalCrown	455+24.40	-0.030	-0.020	-0.020	-0.020
BeginNormalShoulder	455+24.40	-0.030	-0.020	-0.020	-0.020
CURVE 6					
EndNormalShoulder	456+80.52	-0.020	-0.020	-0.020	-0.030
EndNormalCrown	456+80.52	-0.020	-0.020	-0.020	-0.030
LevelCrown	457+33.85	0.000	0.000	-0.020	-0.033
ReverseCrown	457+87.18	0.020	0.020	-0.020	-0.037
LowShoulderMatch	458+40.52	0.040	0.040	-0.040	-0.040
BeginFullSuper	458+93.85	0.060	0.060	-0.060	-0.060
EndFullSuper	468+60.86	0.060	0.060	-0.060	-0.060
LowShoulderMatch	469+14.19	0.040	0.040	-0.040	-0.040
ReverseCrown	469+67.53	0.020	0.020	-0.020	-0.039
LevelCrown	470+20.86	0.000	0.000	-0.020	-0.038
BeginNormalCrown	470+74.19	-0.020	-0.020	-0.020	-0.037
BeginNormalShoulder	470+74.19	-0.020	-0.020	-0.020	-0.037
CURVE 7					
EndNormalShoulder	479+67.72	-0.026	-0.020	-0.020	-0.020
EndNormalCrown	479+67.72	-0.026	-0.020	-0.020	-0.020
LevelCrown	480+21.05	-0.026	-0.020	0.000	0.000
ReverseCrown	480+74.38	-0.027	-0.020	0.020	0.020
BeginFullSuper	481+25.05	-0.027	-0.039	0.039	0.039
EndFullSuper	484+00.90	-0.029	-0.039	0.039	0.039
ReverseCrown	484+51.56	-0.029	-0.020	0.020	0.020
LevelCrown	485+04.90	-0.030	-0.020	0.000	0.000
BeginNormalCrown	485+58.23	-0.030	-0.020	-0.020	-0.020
BeginNormalShoulder	485+58.23	-0.030	-0.020	-0.020	-0.020
CURVE 8					
EndNormalShoulder	498+90.36	-0.039	-0.020	-0.020	-0.020
EndNormalCrown	498+90.36	-0.039	-0.020	-0.020	-0.020
LevelCrown	499+43.84	-0.039	-0.020	0.000	0.000
ReverseCrown	499+97.32	-0.040	-0.020	0.020	0.020
LowShoulderMatch	500+50.80	-0.040	-0.040	0.040	0.040
BeginFullSuper	500+66.84	-0.046	-0.046	0.046	0.046
EndFullSuper	507+64.67	-0.046	-0.046	0.046	0.046
LowShoulderMatch	507+80.71	-0.040	-0.040	0.040	0.040
ReverseCrown	508+34.19	-0.040	-0.020	0.020	0.020
LevelCrown	508+87.67	-0.040	-0.020	0.000	0.000
BeginNormalCrown	509+41.14	-0.040	-0.020	-0.020	-0.020
BeginNormalShoulder	509+41.14	-0.040	-0.020	-0.020	-0.020

SUPERELEVATION REPORT FOR 'CTH M ALI'					
TRANSITION EVENT POINTS		RATE (FT/FT)			
LOCATION	STATION	LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
CURVE 9					
EndNormalShoulder	603+07.70	-0.040	-0.020	-0.020	-0.020
EndNormalCrown	603+07.70	-0.040	-0.020	-0.020	-0.020
LevelCrown	603+60.92	-0.040	-0.020	0.000	0.000
ReverseCrown	604+14.13	-0.040	-0.020	0.020	0.020
LowShoulderMatch	604+67.34	-0.040	-0.040	0.040	0.040
BeginFullSuper	605+09.92	-0.056	-0.056	0.056	0.056
EndFullSuper	610+08.83	-0.056	-0.056	0.056	0.056
LowShoulderMatch	610+51.40	-0.040	-0.040	0.040	0.040
ReverseCrown	611+04.62	-0.037	-0.020	0.020	0.020
LevelCrown	611+57.83	-0.035	-0.020	0.000	0.000
BeginNormalCrown	612+11.04	-0.032	-0.020	-0.020	-0.020
BeginNormalShoulder	612+11.04	-0.032	-0.020	-0.020	-0.020
CURVE 10					
EndNormalShoulder	614+68.44	-0.020	-0.020	-0.020	-0.020
EndNormalCrown	614+68.44	-0.020	-0.020	-0.020	-0.020
LevelCrown	615+21.55	0.000	0.000	-0.020	-0.020
ReverseCrown	615+74.65	0.020	0.020	-0.020	-0.020
BeginFullSuper	615+98.55	0.029	0.029	-0.029	-0.029
EndFullSuper	620+92.75	0.029	0.029	-0.029	-0.029
ReverseCrown	621+16.64	0.020	0.020	-0.020	-0.020
LevelCrown	621+69.75	0.000	0.000	-0.020	-0.020
BeginNormalCrown	622+22.85	-0.020	-0.020	-0.020	-0.020
BeginNormalShoulder	622+22.85	-0.020	-0.020	-0.020	-0.020
CURVE 11					
EndNormalShoulder	634+09.56	-0.038	-0.020	-0.020	-0.020
EndNormalCrown	634+09.56	-0.038	-0.020	-0.020	-0.020
LevelCrown	634+62.77	-0.038	-0.020	0.000	0.000
ReverseCrown	635+15.99	-0.039	-0.020	0.020	0.020
LowShoulderMatch	635+69.20	-0.040	-0.040	0.040	0.040
BeginFullSuper	636+11.77	-0.056	-0.056	0.056	0.056
EndFullSuper	643+28.72	-0.056	-0.056	0.056	0.056
LowShoulderMatch	643+71.29	-0.040	-0.040	0.040	0.040
ReverseCrown	644+24.50	-0.040	-0.020	0.020	0.020
LevelCrown	644+77.72	-0.040	-0.020	0.000	0.000
BeginNormalCrown	645+30.93	-0.040	-0.020	-0.020	-0.020
BeginNormalShoulder	645+30.93	-0.040	-0.020	-0.020	-0.020

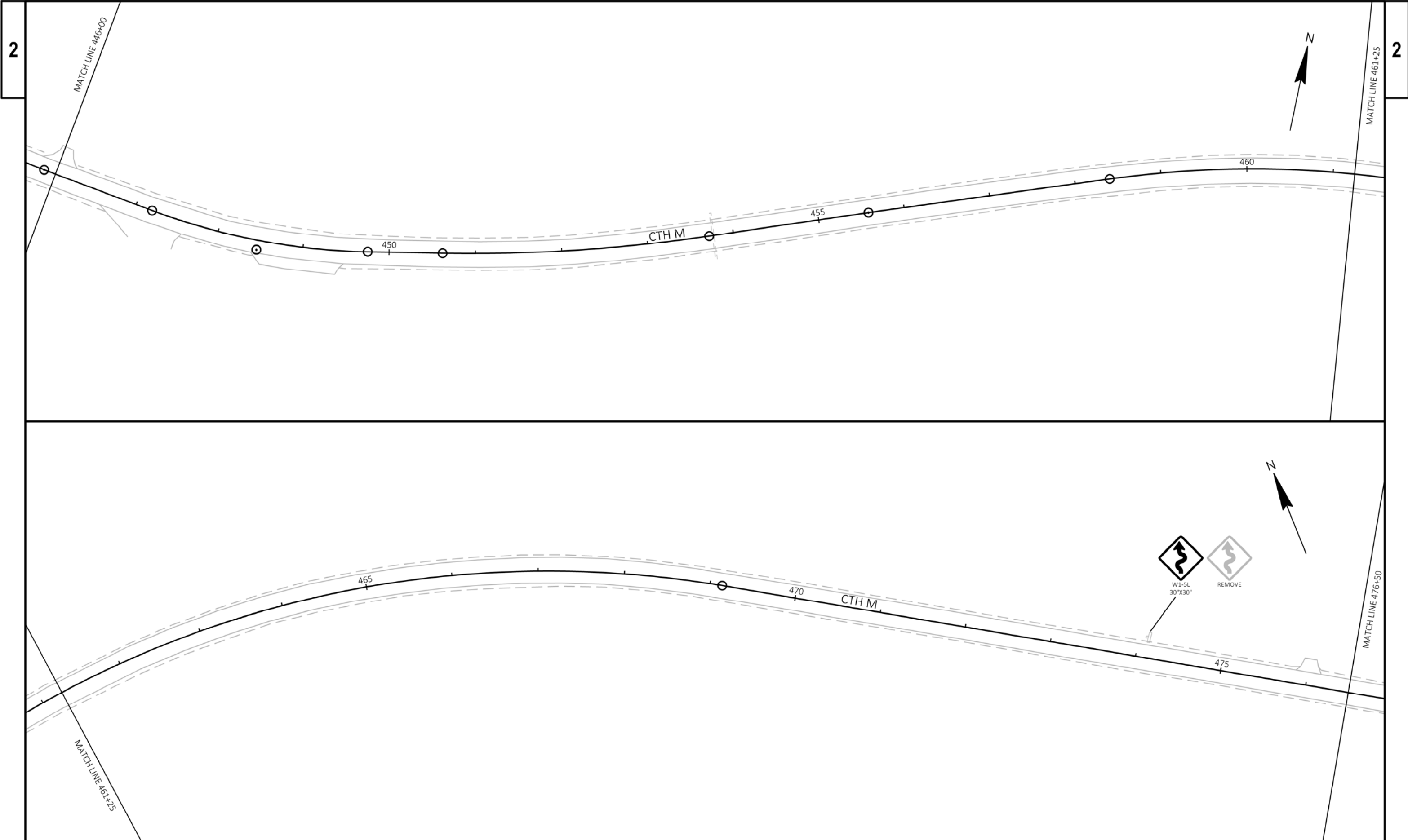


PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E
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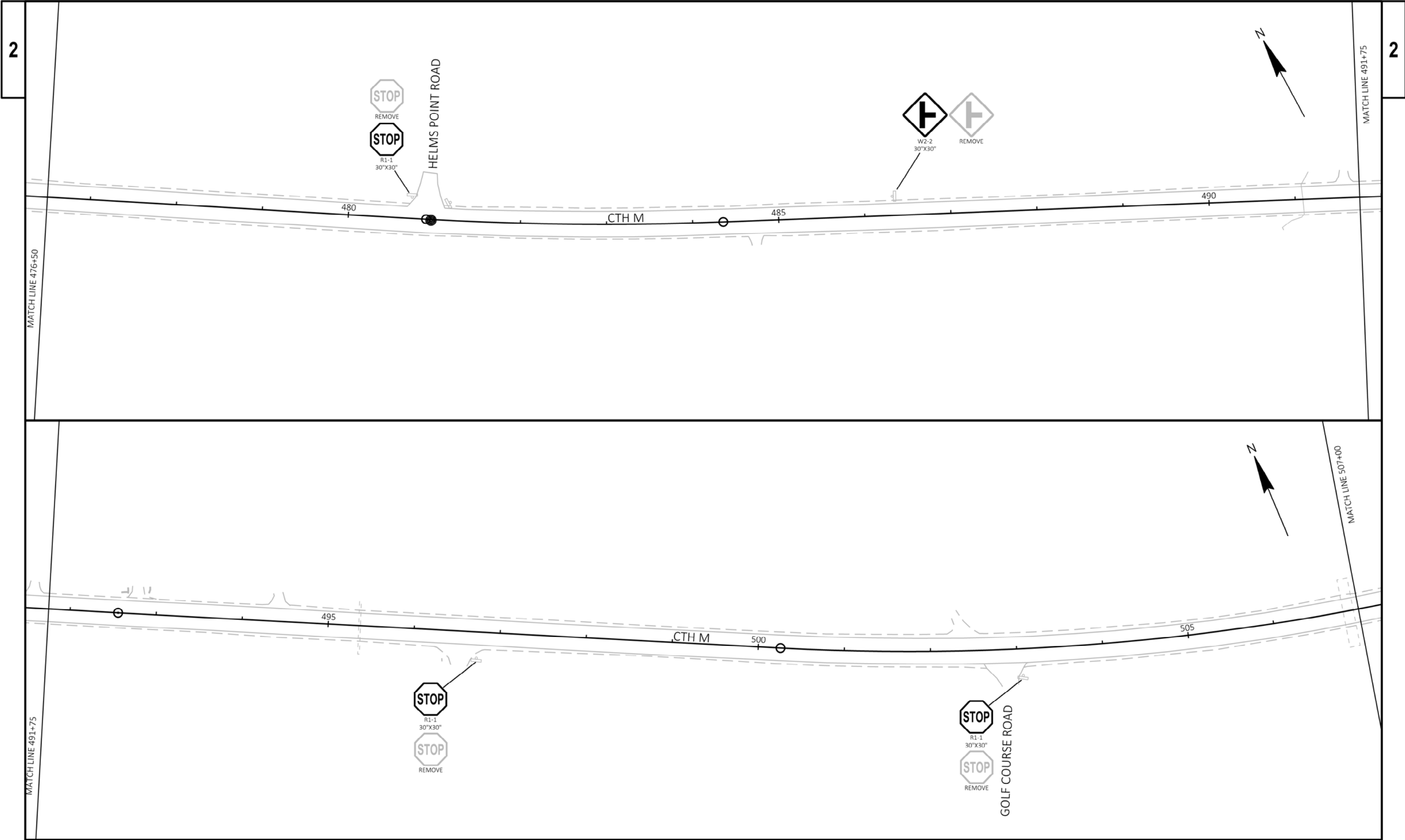




PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E
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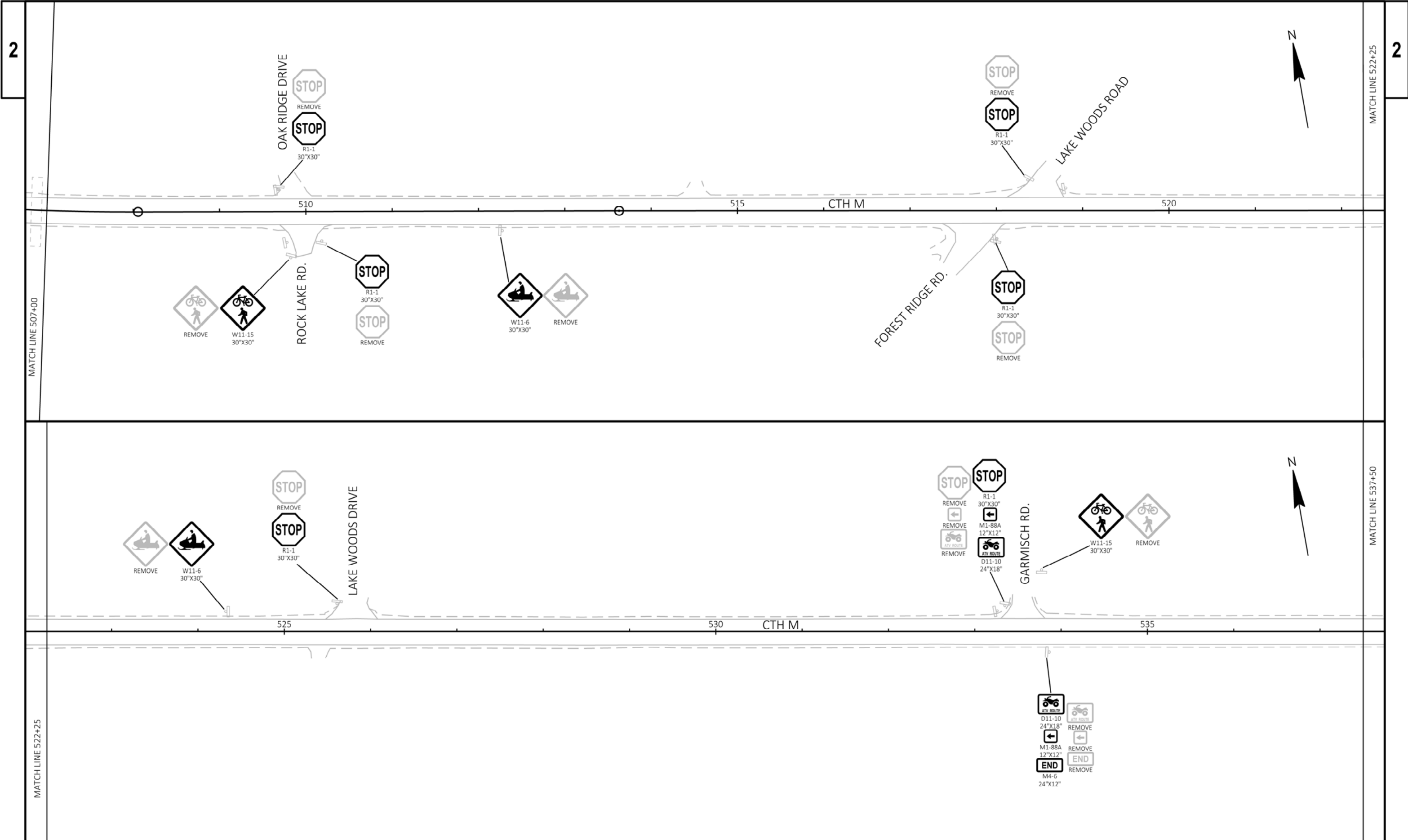


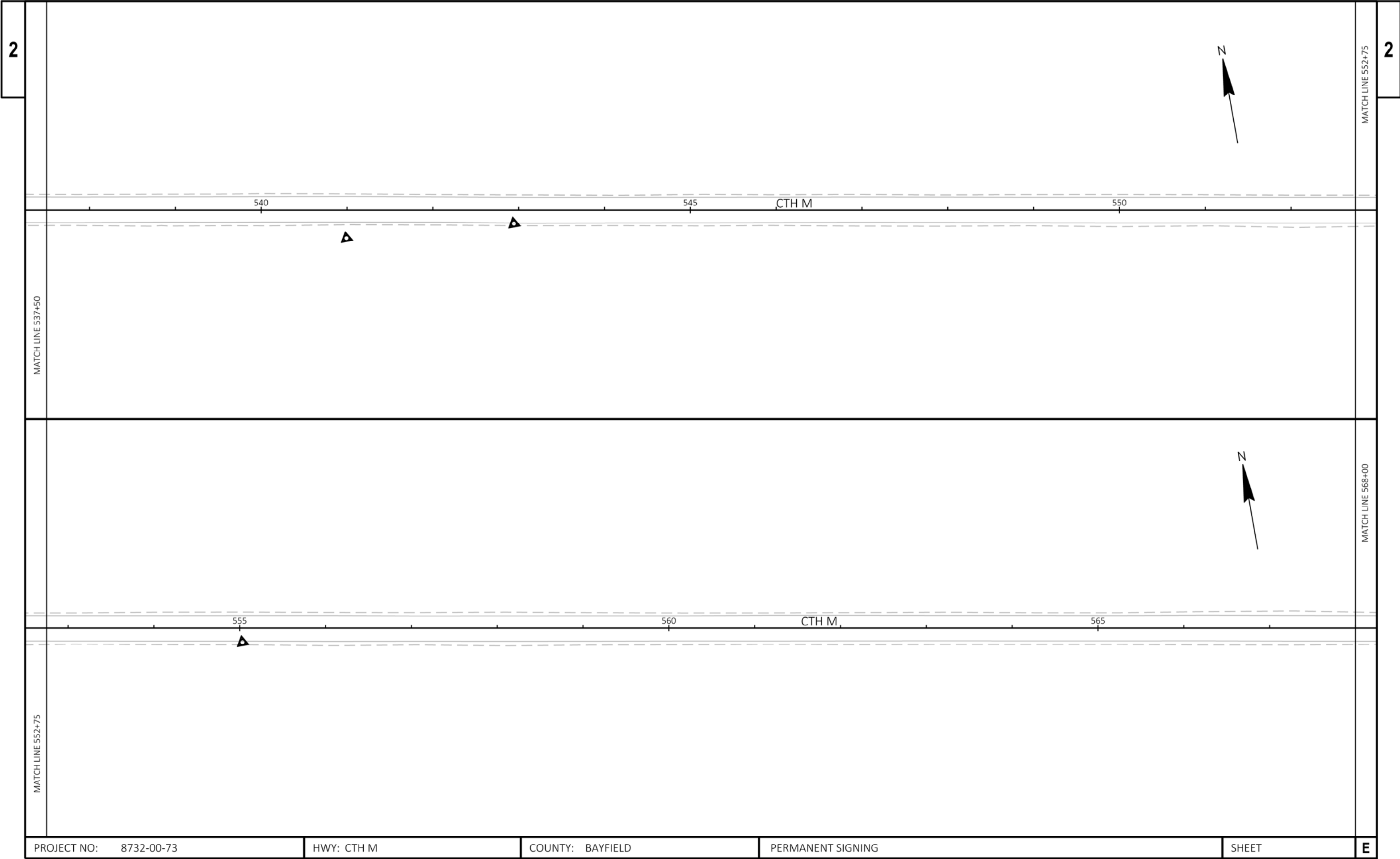
PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E
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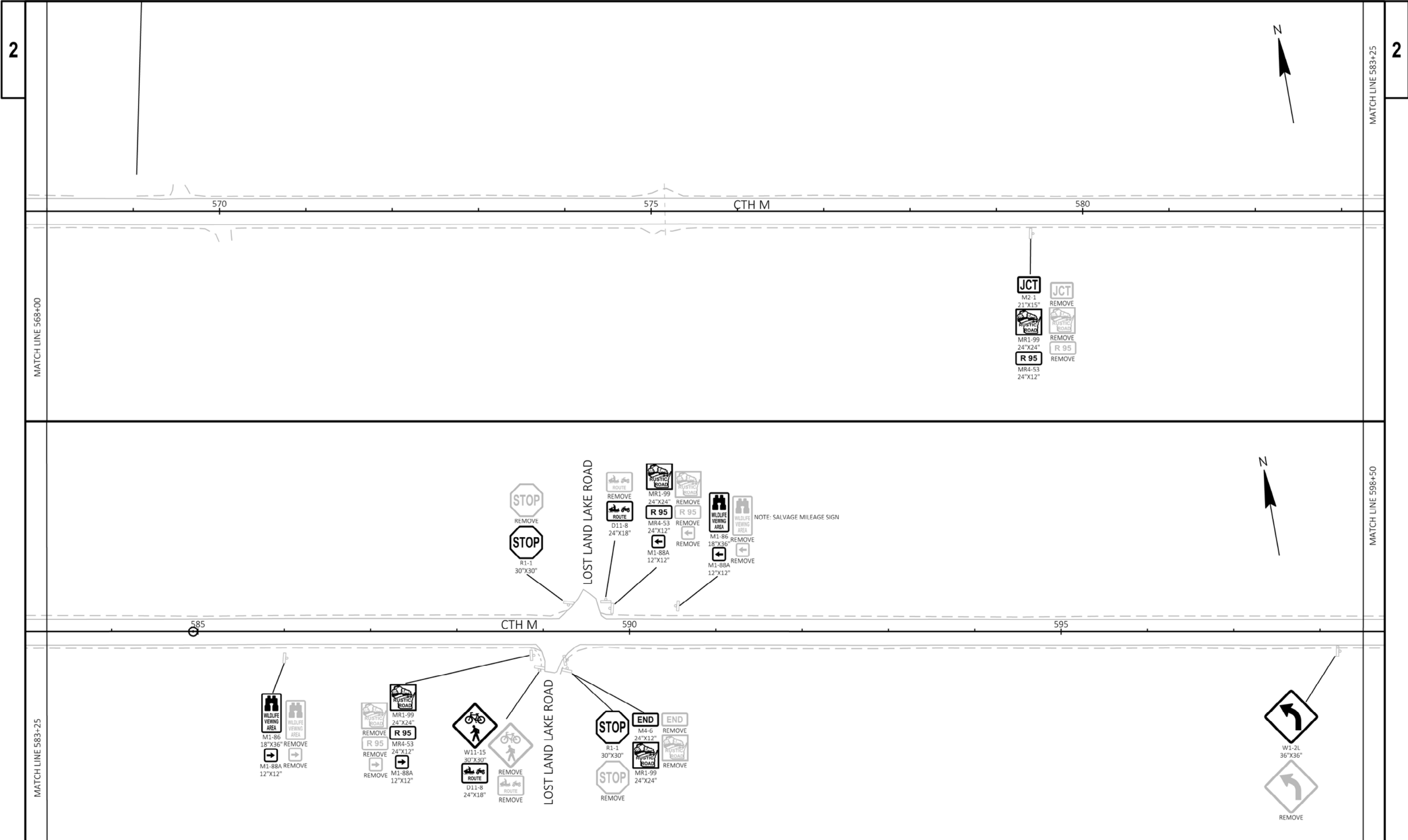
PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E
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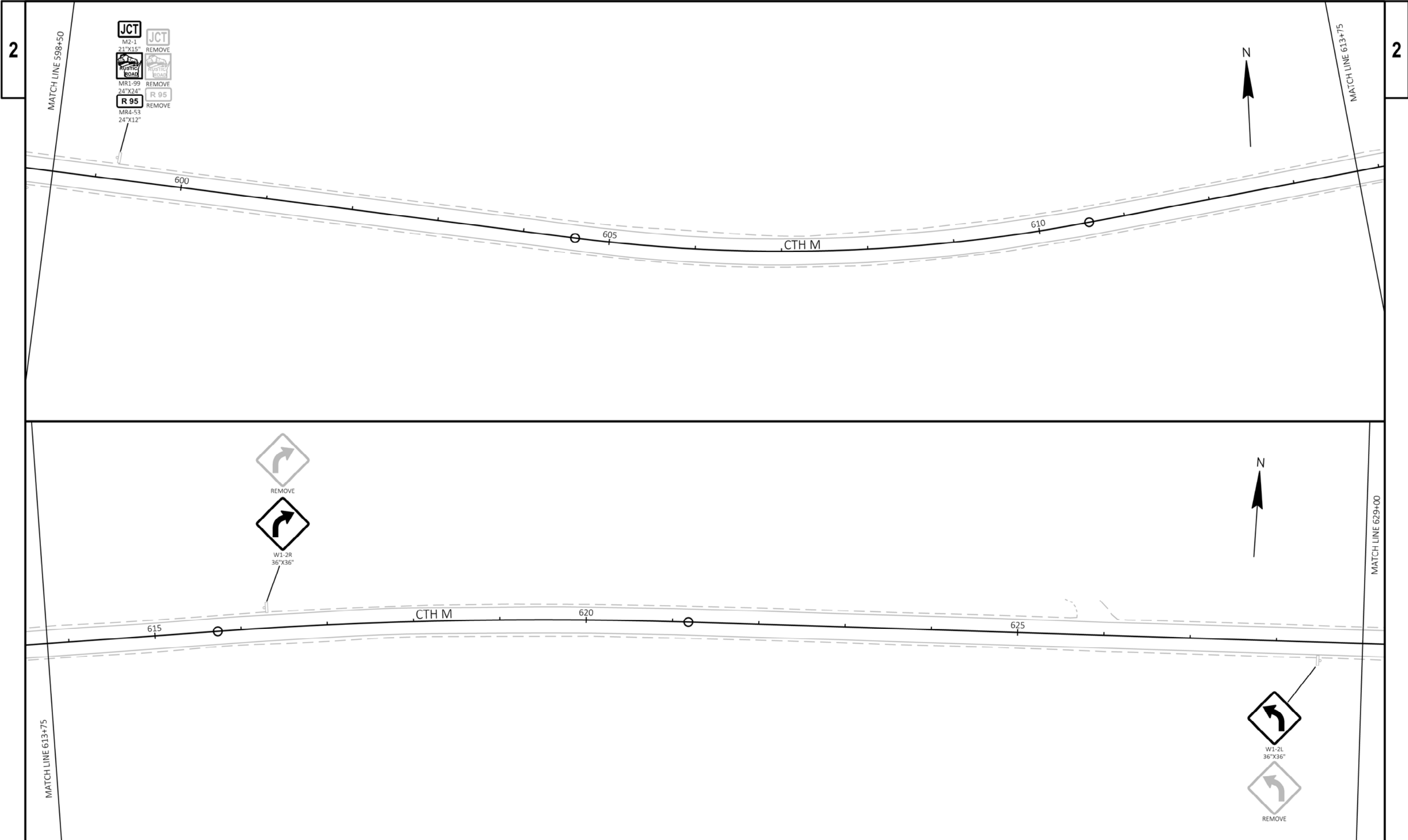




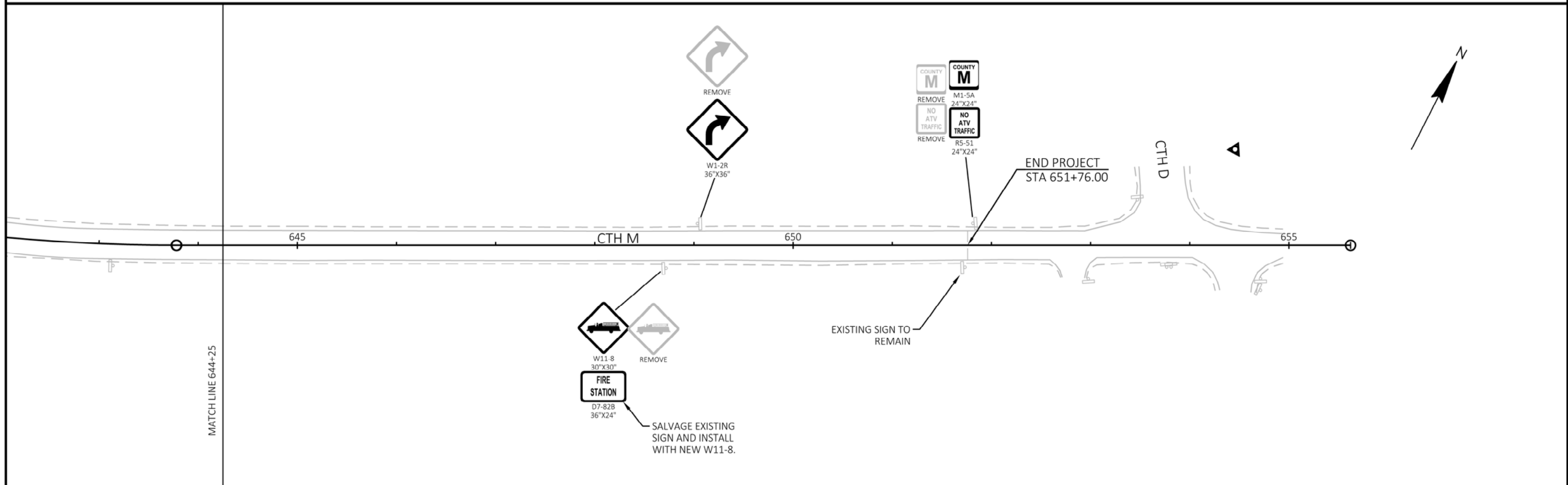
PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E
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PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E
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Estimate Of Quantities

8732-00-73					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	51.000	51.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,621.000	1,621.000
0006	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 8732-00-73	LS	1.000	1.000
0008	213.0100	Finishing Roadway (project) 01. 8732-00-73	EACH	1.000	1.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,176.000	2,176.000
0012	325.0100	Pulverize and Relay	SY	89,090.000	89,090.000
0014	455.0605	Tack Coat	GAL	4,160.000	4,160.000
0016	460.2000	Incentive Density HMA Pavement	DOL	19,820.000	19,820.000
0018	460.5223	HMA Pavement 3 LT 58-28 S	TON	10,486.000	10,486.000
0020	460.5244	HMA Pavement 4 LT 58-34 S	TON	9,328.000	9,328.000
0022	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	50.000	50.000
0024	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8732-00-73	EACH	1.000	1.000
0026	619.1000	Mobilization	EACH	1.000	1.000
0028	624.0100	Water	MGAL	100.000	100.000
0030	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	44.000	44.000
0032	637.2210	Signs Type II Reflective H	SF	148.000	148.000
0034	637.2230	Signs Type II Reflective F	SF	120.000	120.000
0036	638.2602	Removing Signs Type II	EACH	62.000	62.000
0038	638.3000	Removing Small Sign Supports	EACH	43.000	43.000
0040	642.5001	Field Office Type B	EACH	1.000	1.000
0042	643.0900	Traffic Control Signs	DAY	750.000	750.000
0044	643.5000	Traffic Control	EACH	1.000	1.000
0046	646.1020	Marking Line Epoxy 4-Inch	LF	52,469.000	52,469.000
0048	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	40,899.000	40,899.000
0050	648.0100	Locating No-Passing Zones	MI	5.000	5.000
0052	649.0105	Temporary Marking Line Paint 4-Inch	LF	81,797.000	81,797.000
0054	650.8000	Construction Staking Resurfacing Reference	LF	26,476.000	26,476.000
0056	650.9910	Construction Staking Supplemental Control (project) 01. 8732-00-73	LS	1.000	1.000
0058	690.0150	Sawing Asphalt	LF	435.000	435.000
0060	740.0440	Incentive IRI Ride	DOL	10,030.000	10,030.000
0062	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	800.000	800.000
0064	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0066	SPV.0090	Special 01. Asphaltic Centerline Rumble Strips, Sinusoidal, 2-Lane Rural	LF	26,476.000	26,476.000
0068	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000	1.000



3

CLEARING ITEMS					201.0105
CATEGORY	STATION	TO	STATION	SIDE	CLEARING STA
0010	391+00	-	417+00	LT/RT	26
0010	424+00	-	437+00	LT/RT	13
0010	446+00	-	447+00	LT/RT	1
0010	457+00	-	460+00	LT/RT	3
0010	475+00	-	481+00	LT/RT	6
0010	490+00	-	492+00	LT/RT	2
0010 TOTAL					51

REMOVAL ITEMS						
						204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS
CATEGORY	STATION	TO	STATION	SIDE	LOCATION	SY
0010	387+00	-	387+75	LT/RT	BEGIN PROJECT	234
0010	436+52			LT	DAM ROAD	58
0010	437+36			LT	DAM ROAD	86
0010	480+90			LT	HELMS POINT ROAD	52
0010	502+86			RT	GOLF COURSE ROAD	80
0010	509+98			RT	ROCK LAKE ROAD	58
0010	517+73			RT	FOREST RIDGE ROAD	128
0010	518+50			LT	LAKEWOODS ROAD	104
0010	525+78			LT	LAKEWOODS DRIVE	76
0010	533+57			LT	GARMISCH ROAD	70
0010	589+14			LT	LOST LAND LAKE ROAD	74
0010	589+47			RT	LOST LAND LAKE ROAD	56
0010	650+01	-	651+76	LT/RT	END PROJECT	545
0010 TOTAL						1,621

BASE AGGREGATE DENSE ITEMS								
							305.0110	
							BASE	
							AGGREGATE	
							DENSE	
							3/4-INCH	
					WIDTH	THICKNESS		
CATEGORY	STATION	TO	STATION	SIDE	(FT)	(IN)	TON	REMARKS
0010	387+00	-	651+76	LT/RT	1	4.25	2,039	GRAVEL SHOULDER
0010	436+52			LT	1		3	DAM ROAD
0010	437+36			LT	1		3	DAM ROAD
0010	480+90			LT	1		2	HELMS POINT ROAD
0010	502+86			RT	1		3	GOLF COURSE ROAD
0010	509+98			RT	1		2	ROCK LAKE ROAD
0010	517+73			RT	1		5	FOREST RIDGE ROAD
0010	518+50			LT	1		4	LAKEWOODS ROAD
0010	525+78			LT	1		3	LAKEWOODS DRIVE
0010	533+57			LT	1		3	GARMISCH ROAD
0010	589+14			LT	1		4	LOST LAND LAKE ROAD
0010	589+47			RT	1		2	LOST LAND LAKE ROAD
0010	DRIVEWAYS			LT/RT			100	
0010 TOTAL							2,176	

3

ASPHALT ITEMS																
325.0100    455.0605    460.5223    460.5244    465.0120    690.0150    SPV.0090.01    SPV.0105.01																
PULVERIZE AND    TACK COAT    HMA PAVEMENT    HMA PAVEMENT    ASPHALTIC    SAWING    ASPHALTIC CENTERLINE    MATERIAL																
RELAY    3 LT 58-28 S    4 LT 58-34 S    SURFACE    ASPHALT    RUMBLE STRIPS,    TRANSFER																
RURAL    VEHICLE																
CATEGORY	STATION	TO	STATION	SIDE	WIDTH (FT)	THICKNESS (IN)	LAYERS	SY	GAL	TON	TON	TON	LF	LF	LS	REMARKS
0010	387+00	-	651+76	LT/RT	30	10.00	1	88,250								CTH M
0010	387+00	-	651+76	LT/RT	28	2.25	1		4,117	10,380					1	CTH M
0010	387+00	-	651+76	LT/RT	28	2.00	1				9,230			26,476		CTH M
0010	436+52			LT				58	3	7	6					DAM ROAD
0010	437+36			LT				86	4	11	10					DAM ROAD
0010	480+90			LT				52	3	7	6					HELMS POINT ROAD
0010	502+86			RT				80	4	10	9					GOLF COURSE ROAD
0010	509+98			RT				58	3	7	7					ROCK LAKE ROAD
0010	517+73			RT				128	6	16	15					FOREST RIDGE ROAD
0010	518+50			LT				104	5	13	12					LAKEWOODS ROAD
0010	525+78			LT				76	4	10	9					LAKEWOODS DRIVE
0010	533+57			LT				70	4	9	8					GARMISCH ROAD
0010	589+14			LT				74	4	9	9					LOST LAND LAKE ROAD
0010	589+47			RT				56	3	7	7					LOST LAND LAKE ROAD
0010	UNDISTRUBUTED											50	435			
0010 TOTAL								89,090	4,160	10,486	9,328	50	435	26,476	1	

PROJECT NO: 8732-00-73

HWY: CTH M

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET

E

WATER			
624.0100			
CATEGORY	STATION	TO STATION	WATER MGAL
0010	UNDISTRIBUTED		100
0010 TOTAL			100

SIGNING														
CATEGORY	STATION	SIDE	DIRECTION	CODE	DESCRIPTION	WIDTH (IN)	HEIGHT (IN)	637.2210	637.2230	ORDER LINE 1	634.0616	638.2602	638.3000	REMARKS
								SIGNS TYPE II REFLECTIVE H	SIGNS TYPE II REFLECTIVE F		POSTS WOOD 4X6- INCH X 16-FT	REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS	
								SF	SF		EACH	EACH	EACH	
0010	387+52	22 RT	EB	D11-10	ATV ROUTE W/ SYMBOL	24	18	3.00			1	1	1	
0010	408+59	20 RT	EB	W11-6	SNOMOBILE ROUTE W/ SYMBOL	30	30		6.25		1	1	1	
0010	428+59	21 RT	EB	W1-5R	ROAD SHARP CURVES	30	30		6.25		1	1	1	
0010	496+74	30 RT	NB	R1-1	STOP	30	30	5.18			1	1	1	
0010	503+06	31 RT	NB	R1-1	STOP	30	30	5.18			1	1	1	
0010	509+82	54 RT	SB	W11-15	BICYCLE/PEDESTRIAN SYMBOL	30	30		6.25		1	1	1	
0010	510+18	34 RT	NB	R1-1	STOP	30	30	5.18			1	1	1	
0010	512+28	23 RT	EB	W11-6	SNOMOBILE CROSSING	30	30		6.25		1	1	1	
0010	518+00	33 RT	NB	R1-1	STOP	30	30	5.18			1	1	1	
0010	533+86	24 RT	EB	D11-10	ATV ROUTE W/ SYMBOL	24	18	3.00			1	1	1	
0010	533+86	24 RT	EB	M1-88A	ARROW	12	12	1.00			-	1	-	
0010	533+86	24 RT	EB	M4-6	END	24	12	2.00			-	1	-	
0010	579+42	26 RT	EB	M2-1	JUNCTION	21	15	2.19			1	1	1	
0010	579+42	26 RT	EB	MR1-99	RUSTIC ROAD	24	24	4.00			-	1	-	
0010	579+42	26 RT	EB	MR4-53	RUSTIC ROAD ROUTE MARKER	24	12	2.00		R95	-	1	-	
0010	586+03	31 LT	EB	M1-86	(BINOCULARS) WILDLIFE VEIWINING AREA	18	36	4.50			1	1	1	
0010	586+03	31 LT	EB	M1-88A	ARROW	12	12	1.00			-	1	-	
0010	588+89	27 RT	EB	MR1-99	RUSTIC ROAD	24	24	4.00			1	1	1	
0010	588+89	27 RT	EB	MR4-53	RUSTIC ROAD ROUTE MARKER	24	12	2.00		R95	-	1	-	
0010	588+89	27 RT	EB	M1-88A	ARROW	12	12	1.00			-	1	-	
0010	588+95	46 RT	SB	W11-15	BICYCLE/PEDESTRIAN SYMBOL	30	30		6.25		1	1	1	
0010	588+95	46 RT	SB	D11-8	SNOMOBILE AND ATV ROUTE W/ SYMBOLS	24	18	3.00			-	1	-	
0010	589+28	42 RT	NB	R1-1	STOP	30	30	5.18			1	1	1	
0010	589+28	40 RT	NB	MR1-99	RUSTIC ROAD	24	24	4.00			1	1	1	
0010	589+28	40 RT	NB	M4-6	END	24	12	2.00			-	1	-	
0010	598+23	23 RT	EB	W1-2L	ROAD CURVES LEFT	36	36		9.00		1	1	1	
0010	628+51	21 RT	EB	W1-2L	ROAD CURVES LEFT	36	36		9.00		1	1	1	
0010	631+64	21 RT	EB	W7-1	HILL SYMBOL	30	30		6.25	7%	1	1	1	
0010	631+64	21 RT	EB	W7-3P	HILL	12	12				-	1	-	REMOVE & SALVAGE
0010	643+15	22 RT	EB	M2-1	JUNCTION	21	15	2.19		JCT	1	1	1	
0010	643+15	22 RT	EB	M1-5A	COUNTY ROUTE MARKER	24	24	4.00		D	-	1	-	
0010	648+72	23 RT	EB	W11-8	FIRE TRUCK CROSSING	30	30		6.25		1	1	1	
0011	648+72	23 RT	EB	W7-3P	FIRE STATION	18	12				1	1	-	REMOVE & SALVAGE
EASTBOUND TOTAL								70.78	61.75		22	33	21	

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SIGNING														
CATEGORY	STATION	SIDE	DIRECTION	CODE	DESCRIPTION	WIDTH (IN)	HEIGHT (IN)	637.2210	637.2230	ORDER LINE 1	634.0616	638.2602	638.3000	REMARKS
								SIGNS TYPE II REFLECTIVE H AREA (SF)	SIGNS TYPE II REFLECTIVE F AREA (SF)		POSTS WOOD 4X6- INCH X 16-FT EA	REMOVING SIGNS TYPE II EA	REMOVING SMALL SIGN SUPPORTS EA	
0010	398+60	24 LT	WB	W1-2R	ROAD CURVES RIGHT	36	36		9.00		1	1	1	
0010	420+26	24 LT	WB	W11-6	SNOMOBILE CROSSING	30	30		6.25		1	1	1	
0010	436+33	35 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	437+09	31 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	474+10	24 LT	WB	W1-5L	ROAD SHARP CURVES	30	30		6.25		1	1	1	
0010	480+73	25 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	486+33	22 LT	WB	W2-2	SIDE ROAD (RIGHT ANGLE) SYMBOL	30	30		6.25		1	1	1	
0010	509+69	26 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	518+36	36 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	524+32	23 LT	WB	W11-6	SNOMOBILE CROSSING	30	30		6.25		1	1	1	
0010	525+61	32 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	533+35	30 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	533+35	30 LT	SB	D11-10	ATV ROUTE W/ SYMBOL	24	18	3.00			1	1	1	
0010	533+35	30 LT	SB	M1-88A	ARROW	12	12	1.00			-	1	-	
0010	533+77	72 LT	NB	W11-15	BICYCLE/PEDESTRIAN SYMBOL	30	30		6.25		1	1	1	
0010	589+29	31 LT	SB	R1-1	STOP	30	30	5.18			1	1	1	
0010	589+72	38 LT	NB	D11-8	SNOMOBILE AND ATV ROUTE W/ SYMBOLS	24	18	3.00			1	1	1	
0010	589+77	27 LT	WB	MR1-99	RUSTIC ROAD	24	24	4.00			1	1	1	
0010	589+77	27 LT	WB	MR4-53	RUSTIC ROAD ROUTE MARKER	24	12	2.00		R95	-	1	-	
0010	589+77	27 LT	WB	M1-88A	ARROW	12	12	1.00			-	1	-	
0010	590+53	30 LT	WB	M1-86	(BINOCULARS) WILDLIFE VEIWINING AREA	18	36	4.50			1	1	1	
0010	590+53	30 LT	WB	M1-88A	ARROW	12	12	1.00			-	1	-	
0010	599+22	25 LT	WB	M2-1	JUNCTION	21	15	2.19			1	1	1	
0010	599+22	25 LT	WB	MR1-99	RUSTIC ROAD	24	24	4.00			-	1	-	
0010	599+22	25 LT	WB	MR4-53	RUSTIC ROAD ROUTE MARKER	24	12	2.00		R95	-	1	-	
0010	616+28	24 LT	WB	W1-2R	ROAD CURVES RIGHT	36	36		9.00		1	1	1	
0010	649+04	22 LT	WB	W1-2R	ROAD CURVES RIGHT	36	36		9.00		1	1	1	
0010	651+81	22 LT	WB	M1-5A	COUNTY ROUTE MARKER	24	24	4.00			1	1	1	
0010	651+81	22 LT	WB	R5-51	NO ATV TRAFFIC	24	24	4.00			-	1	-	
WESTBOUND TOTAL								77.13	58.25		22	29	22	
0010 TOTAL								148.00	120.00		44	62	43	

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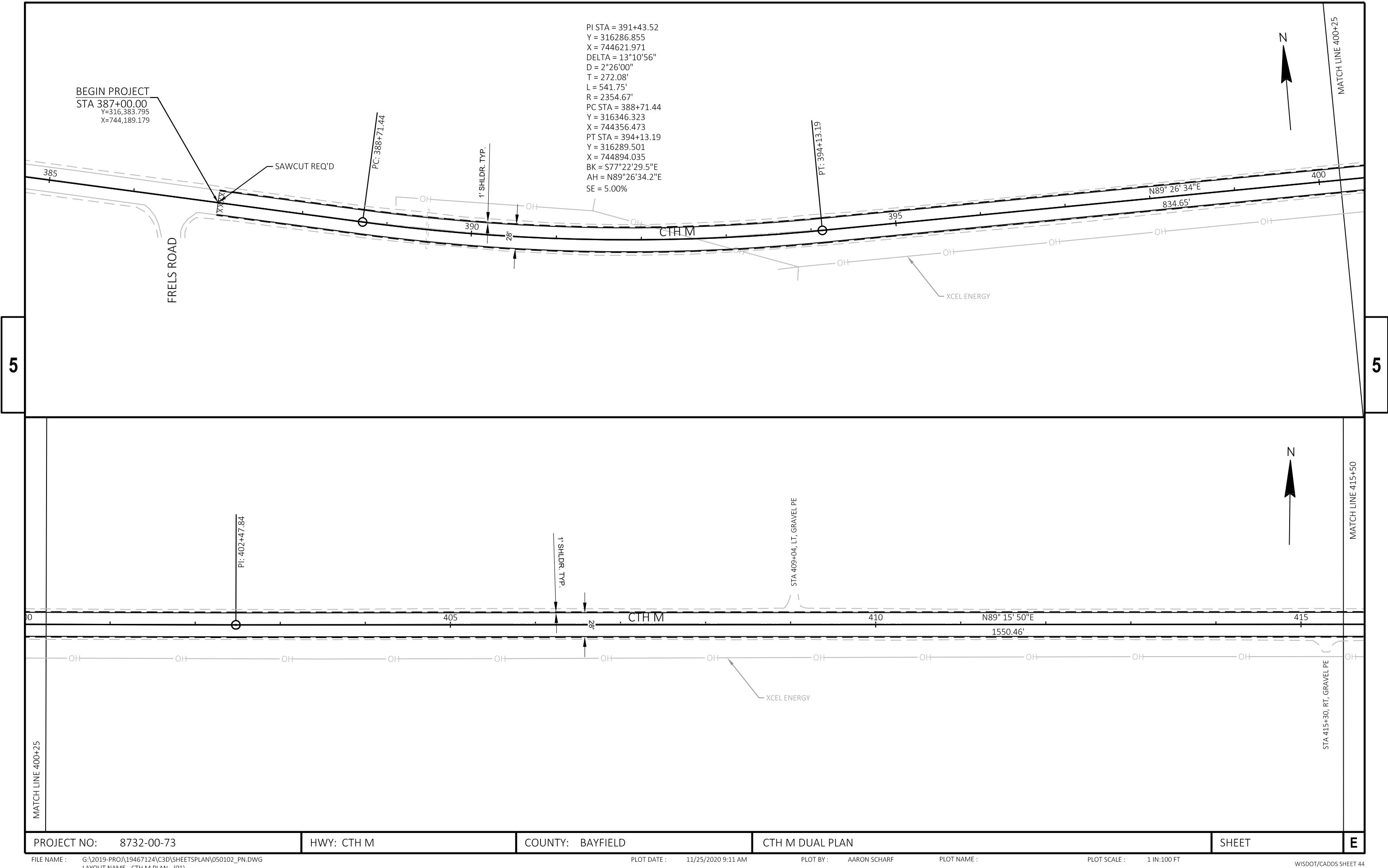
TRAFFIC CONTROL ITEMS			
TRAFFIC CONTROL SIGNS			
643.0900			
CATEGORY	WORKING DAYS	# SIGNS	DAYS
0010	30	25	750
0010 TOTAL			750

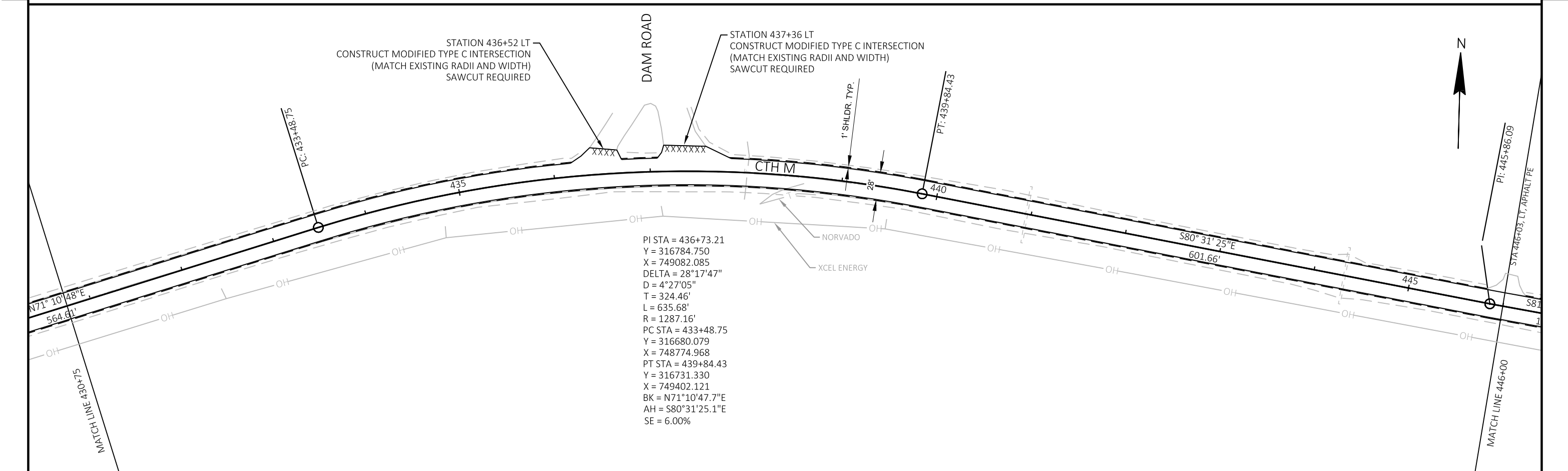
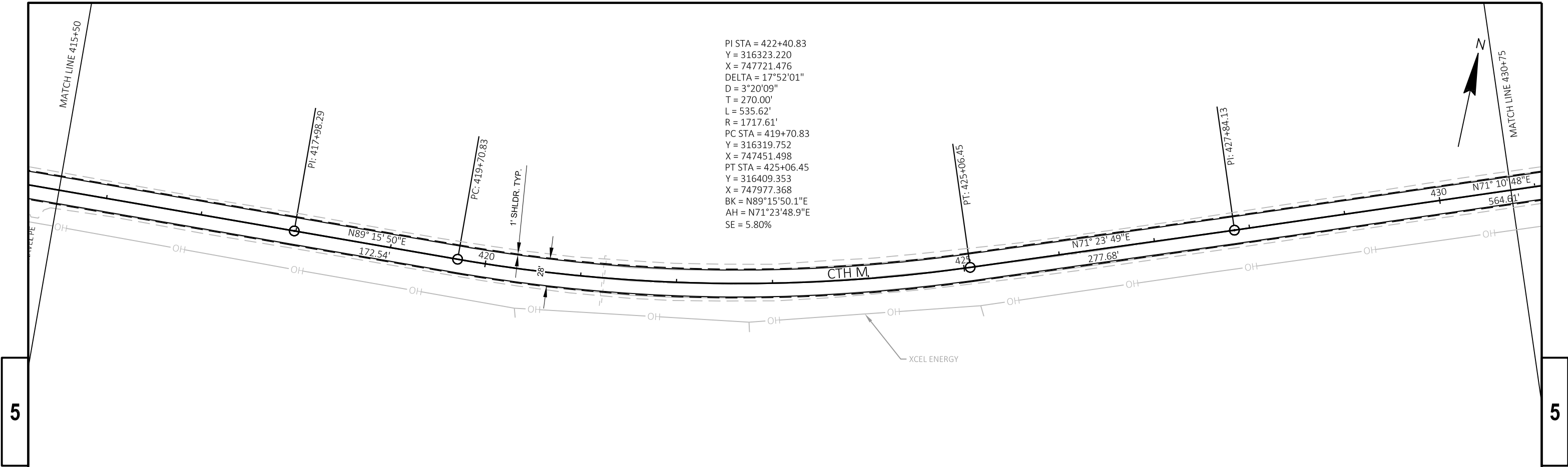
PAVEMENT MARKING ITEMS								
				MARKING LINE	MARKING LINE	TEMPORARY		
				EPOXY 4-INCH	SAME DAY EPOXY	LOCATING NO-	MARKING LINE	
				WHITE	4-INCH	PASSING ZONES	PAINT 4-INCH	
				646.1020	646.4520	648.0100	649.0105	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	MI	LF
REMARKS								
0010	387+00	-	651+76	LT	26233			WHITE, EDGELINE
0010	387+00	-	651+76	RT	26236			WHITE, EDGELINE
0010	387+00	-	655+00	LT/RT			5	
0010	387+00	-	404+93	LT/RT		3586		7172
0010	404+93	-	411+49	LT/RT		820		1640
0010	411+49	-	414+54	LT/RT		610		1220
0010	414+54	-	422+13	LT/RT		949		1898
0010	422+13	-	486+03	LT/RT		12780		25560
0010	486+03	-	496+22	LT/RT		1274		2548
0010	496+22	-	502+41	LT/RT		774		1548
0010	502+41	-	504+40	LT/RT		398		796
0010	504+40	-	513+05	LT/RT		1081		2163
0010	513+05	-	530+89	LT/RT		446		892
0010	530+89	-	540+87	LT/RT		1248		2495
0010	540+87	-	560+74	LT/RT		3974		7948
0010	560+74	-	571+40	LT/RT		1333		2665
0010	571+40	-	573+14	LT/RT		44		87
0010	573+14	-	583+61	LT/RT		1309		2618
0010	583+61	-	594+87	LT/RT		1408		2815
0010	594+87	-	598+13	LT/RT		82		163
0010	598+13	-	607+30	LT/RT		1146		2293
0010	607+30	-	616+81	LT/RT		1902		3804
0010	616+81	-	626+45	LT/RT		1205		2410
0010	626+45	-	628+26	LT/RT		362		724
0010	628+26	-	635+32	LT/RT		883		1765
0010	635+32	-	651+76	LT/RT		3288		6576
0010 TOTAL					52469	40899	5	81797

NOTE: TEMPORARY MARKING LINE PAINT 4-INCH INCLUDES QUANTITY FOR FIRST LIFT OF ASPHALT PAVEMENT AND QUANTITY FOR FINAL LIFT IF CENTERLINE MARKINGS ARE INSTALLED BEFORE CENTERLINE RUMBLE STRIPS

CONSTRUCTION STAKING					
			CONSTRUCTION STAKING	CONSTRUCTION STAKING	
			RESURFACING REFERENCE	SUPPLEMENTAL CONTROL	
			650.8000	650.9910	
CATEGORY	STATION	TO	STATION	LF	LS
REMARKS					
0010	387+00	-	651+76	26476	1
0010 TOTAL				26476	1

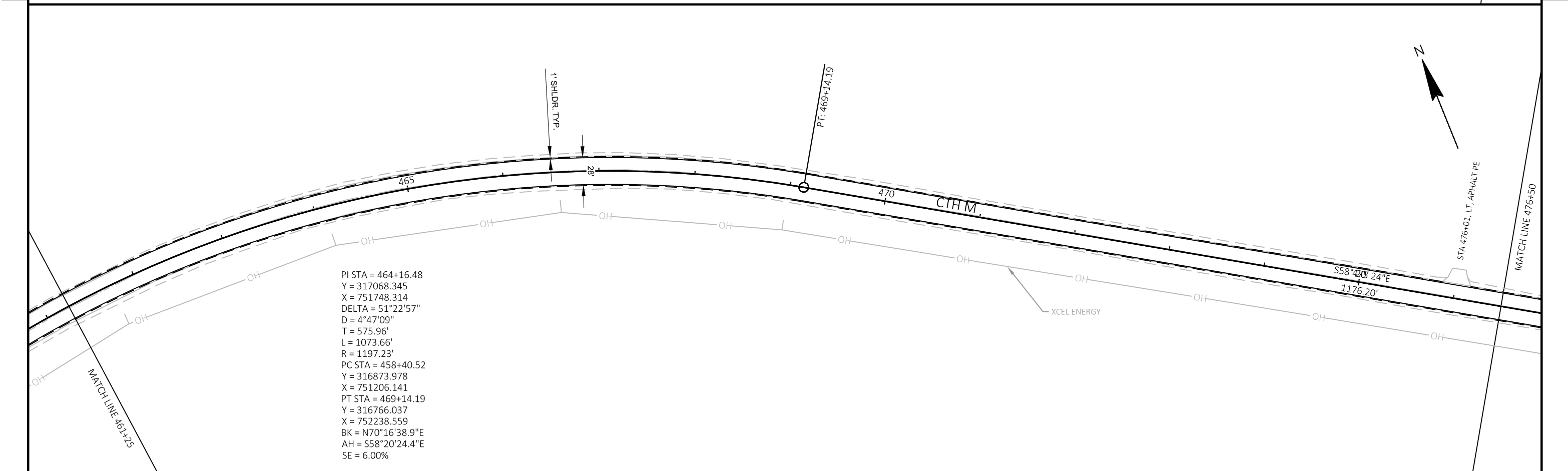
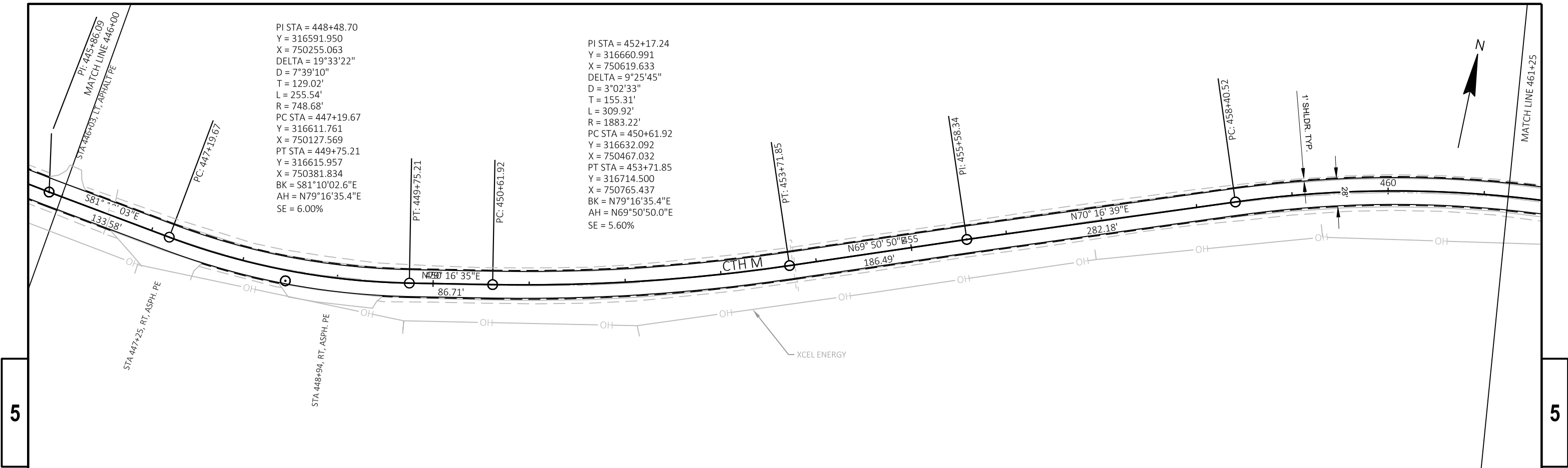




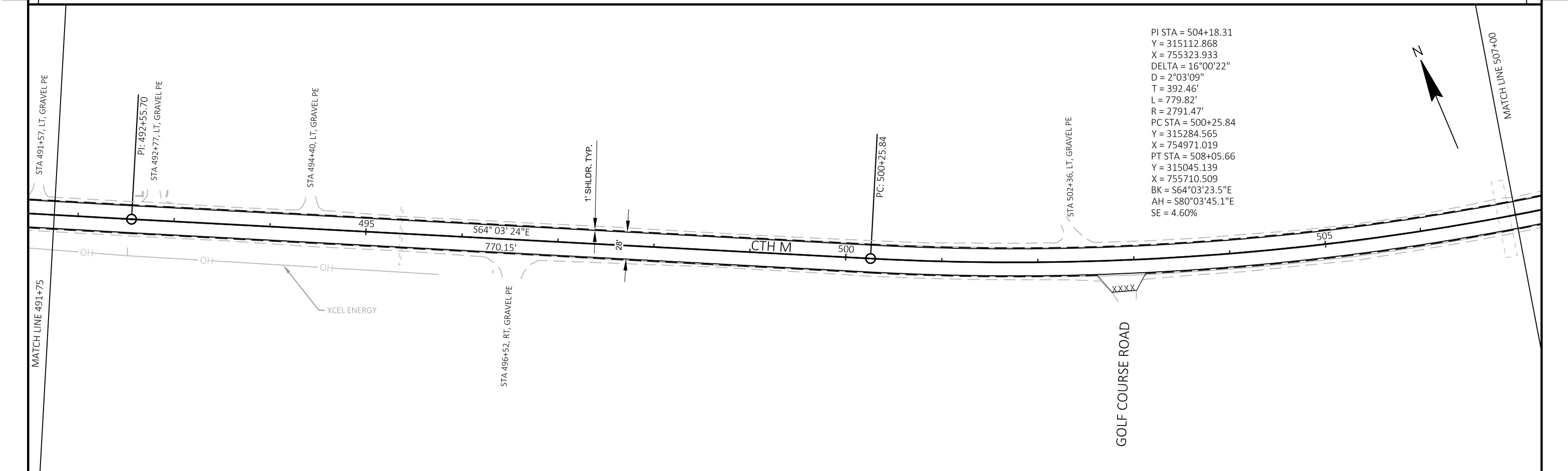
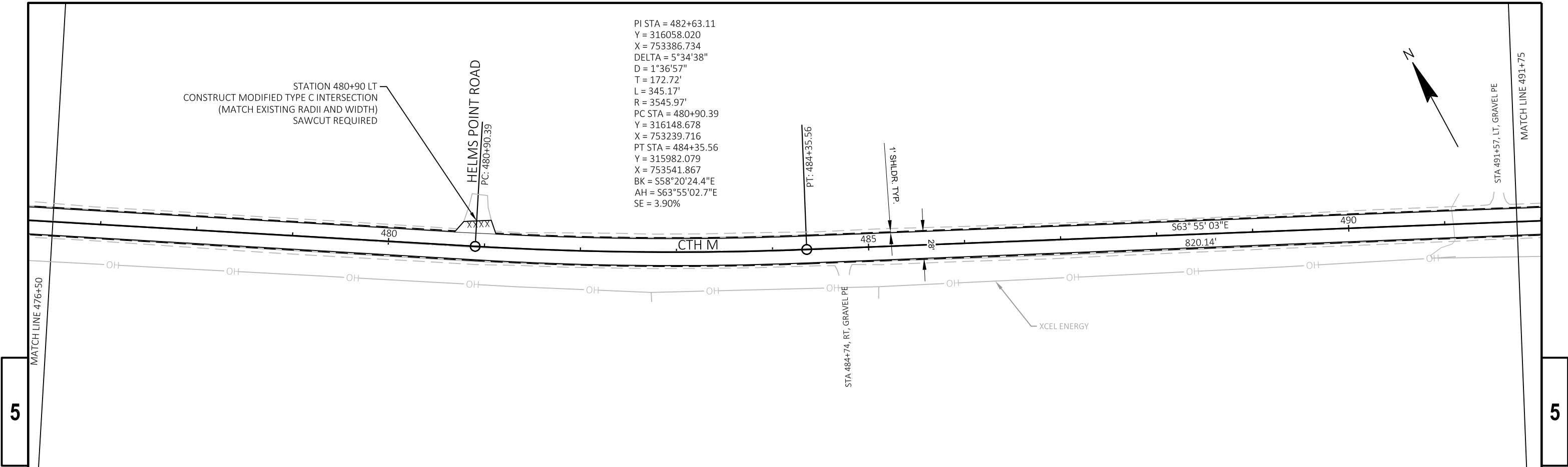


PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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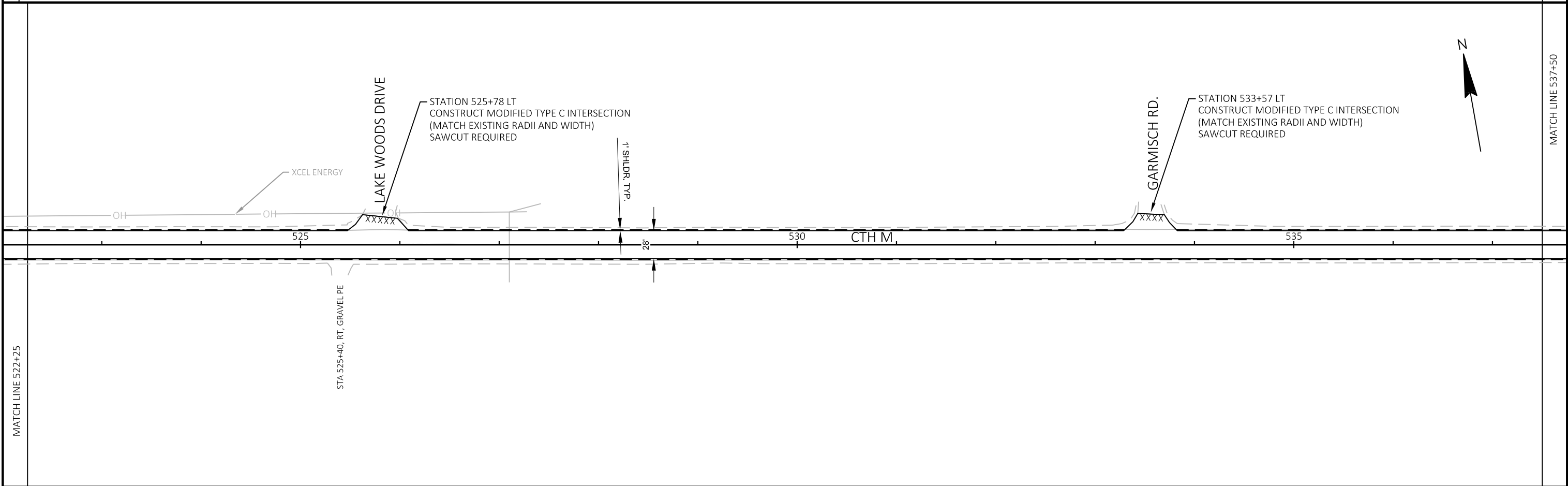
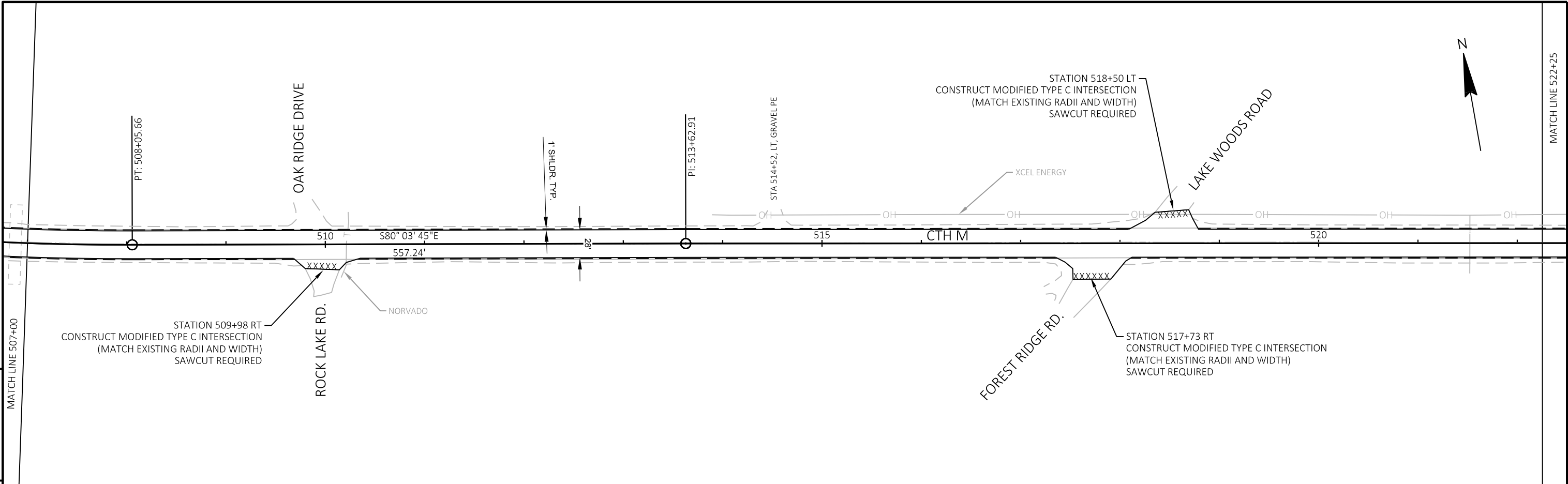




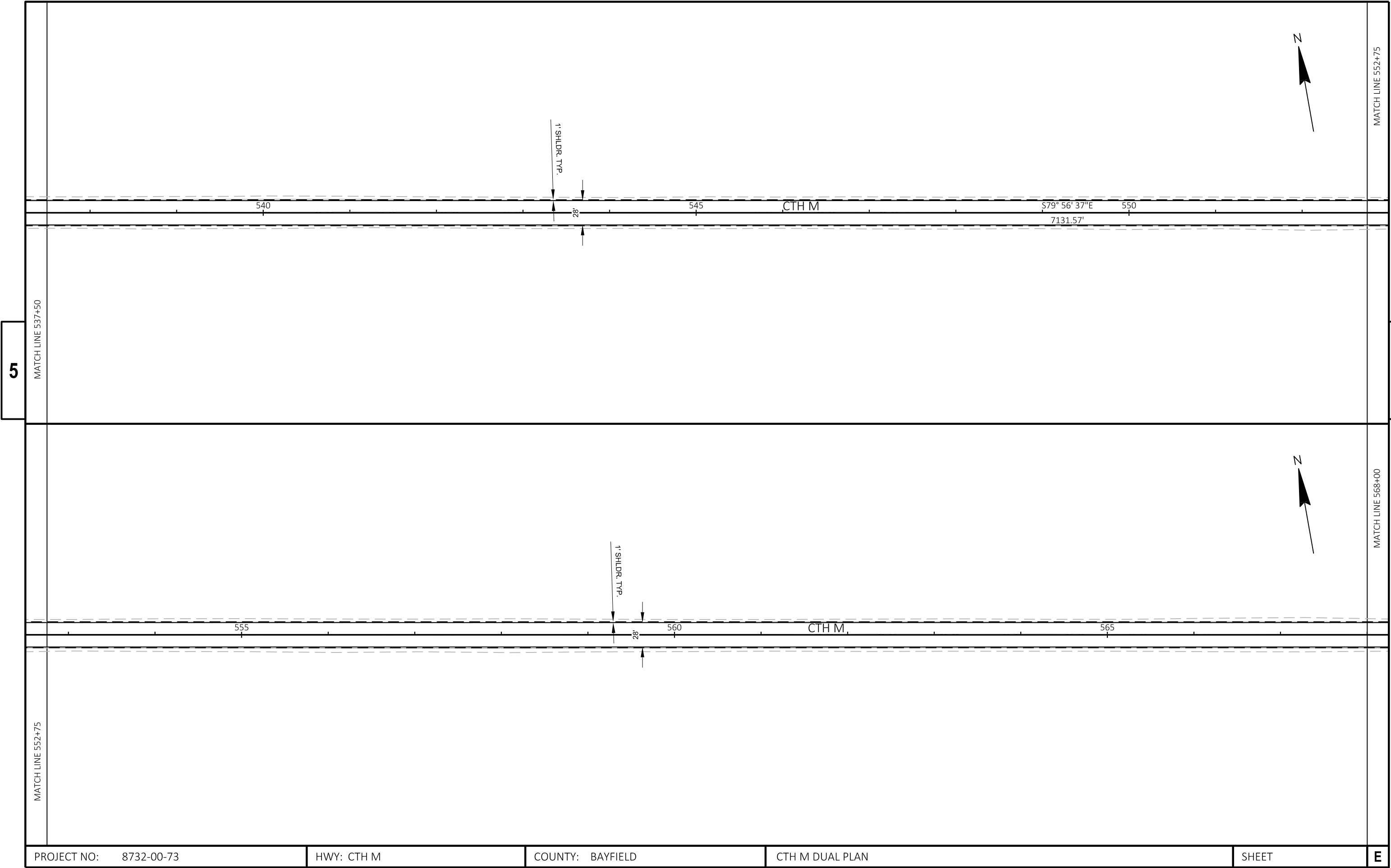
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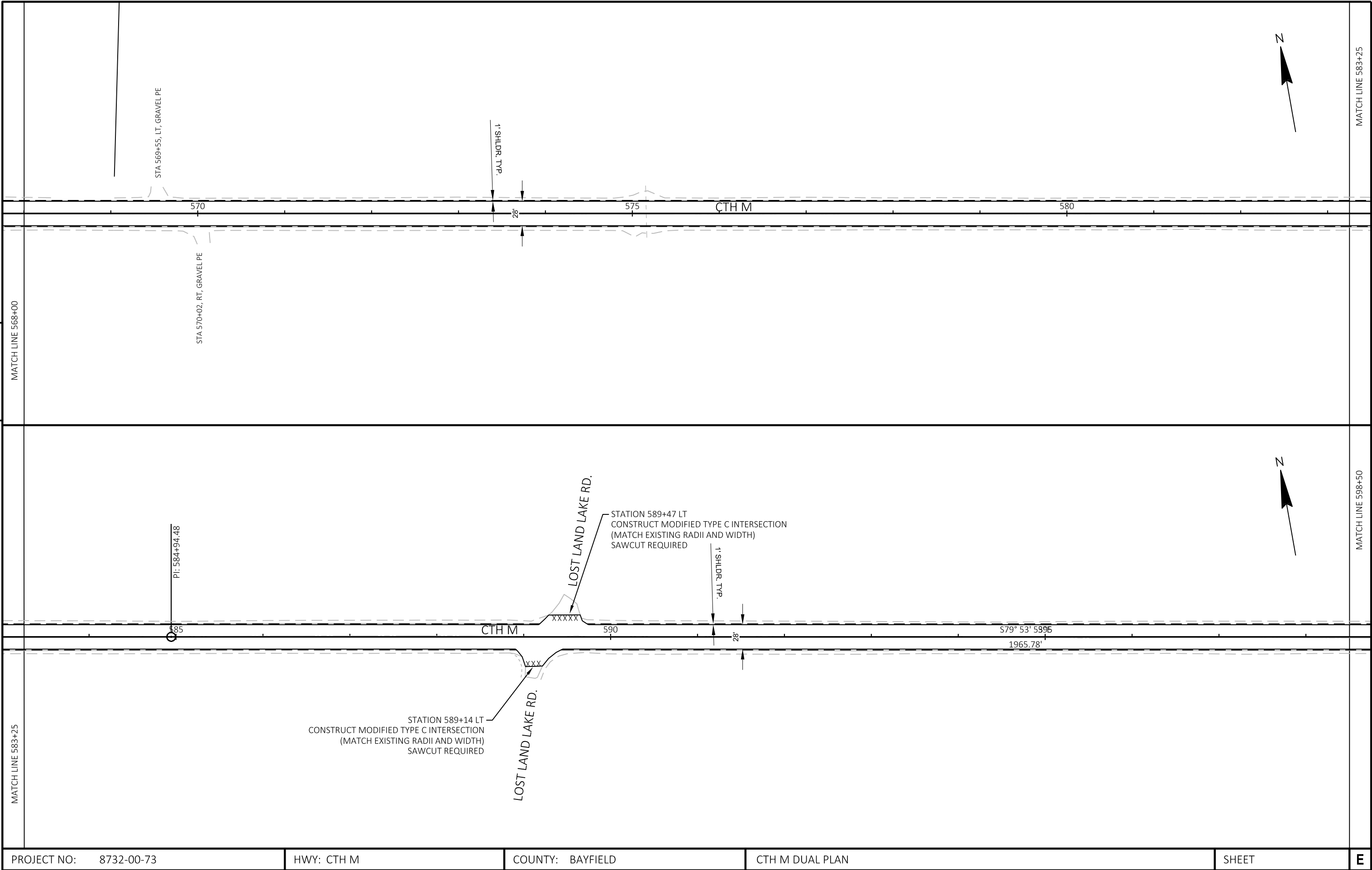
PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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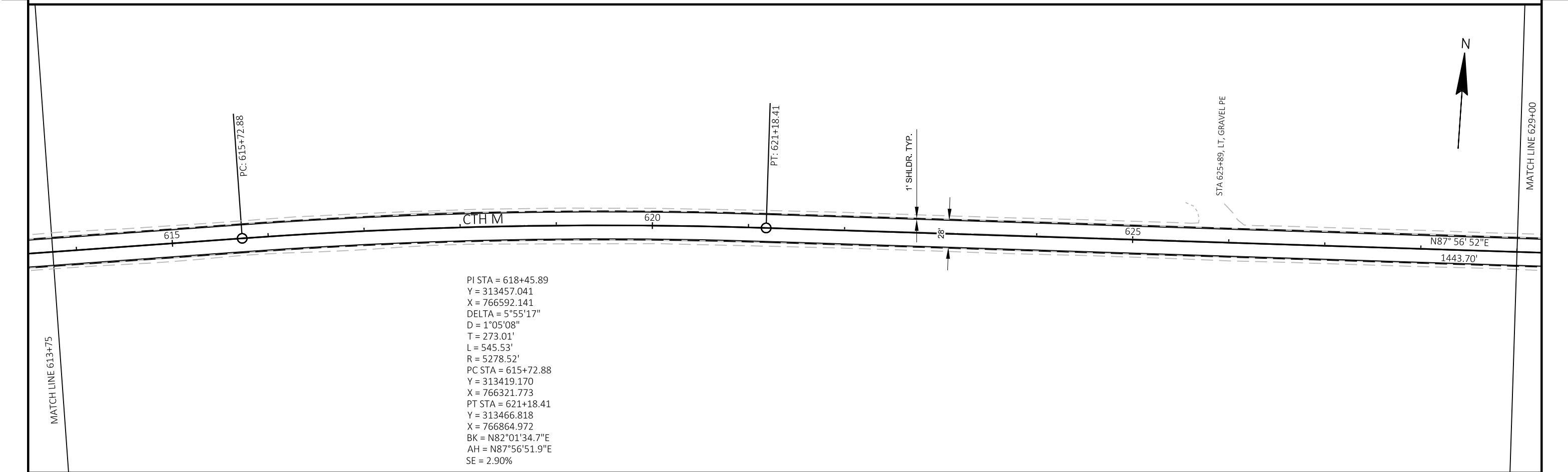
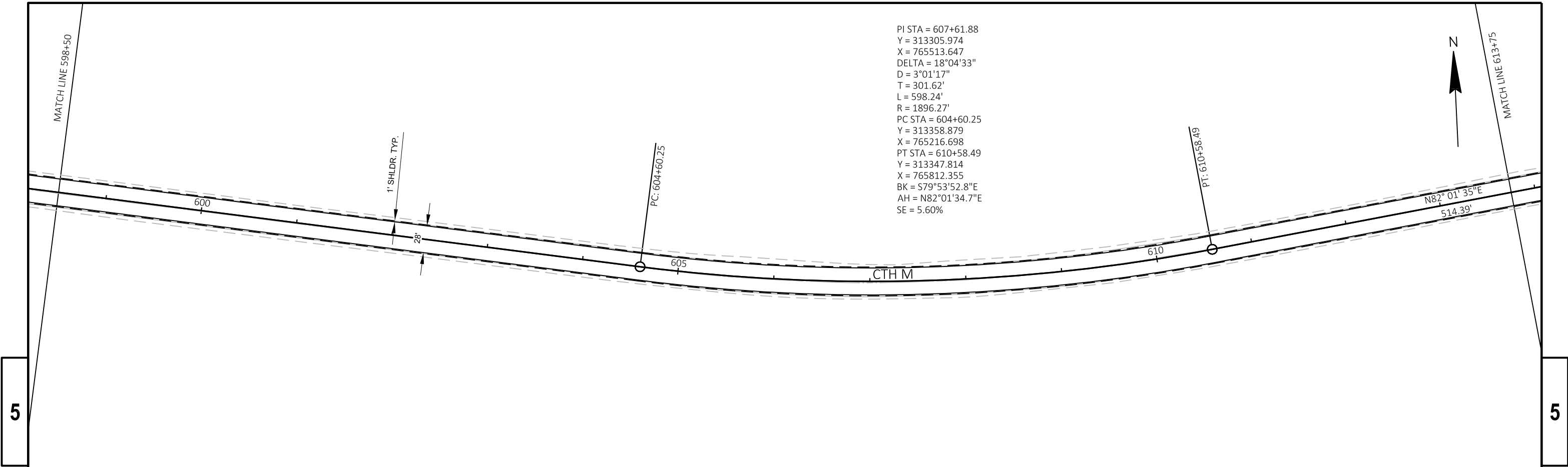


PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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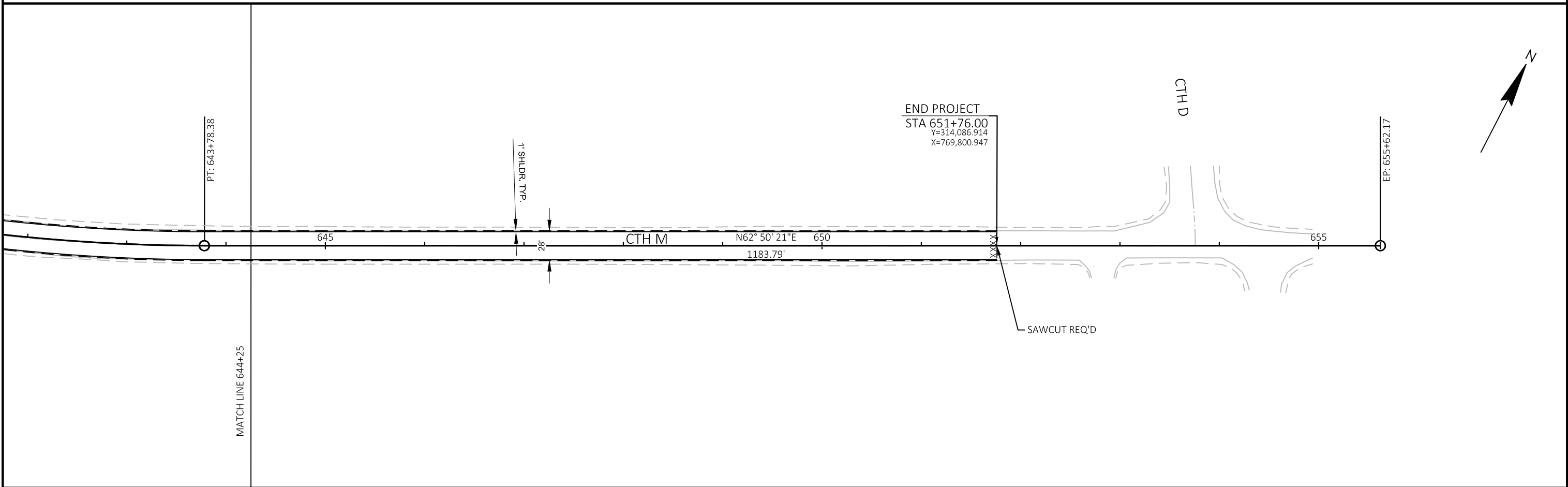
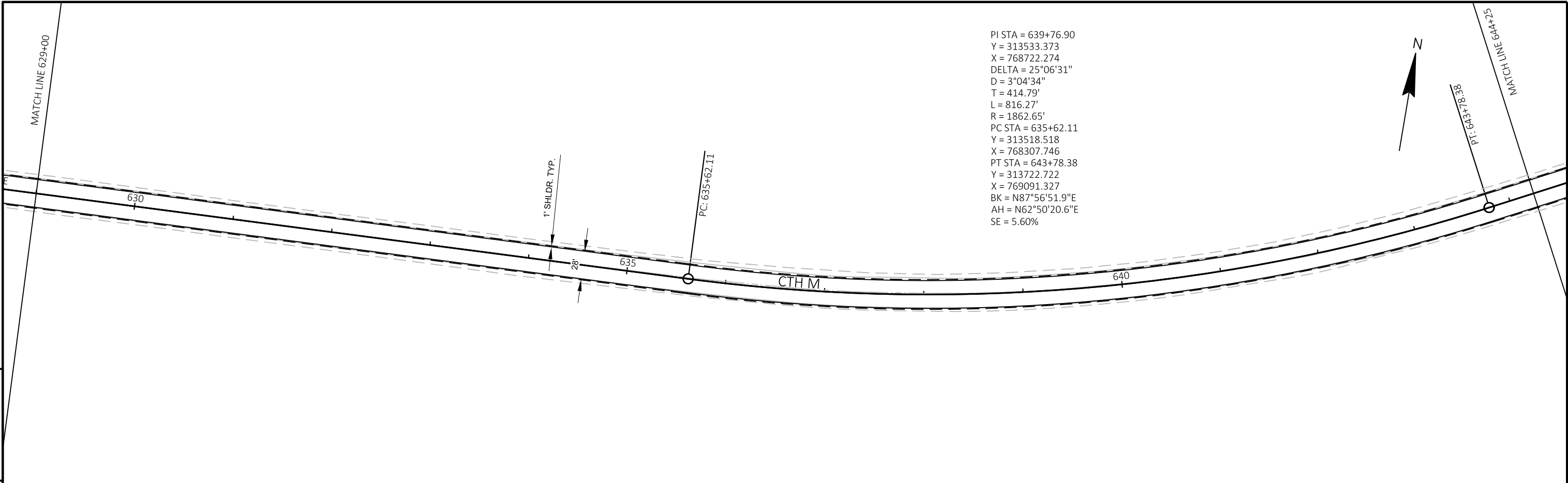


PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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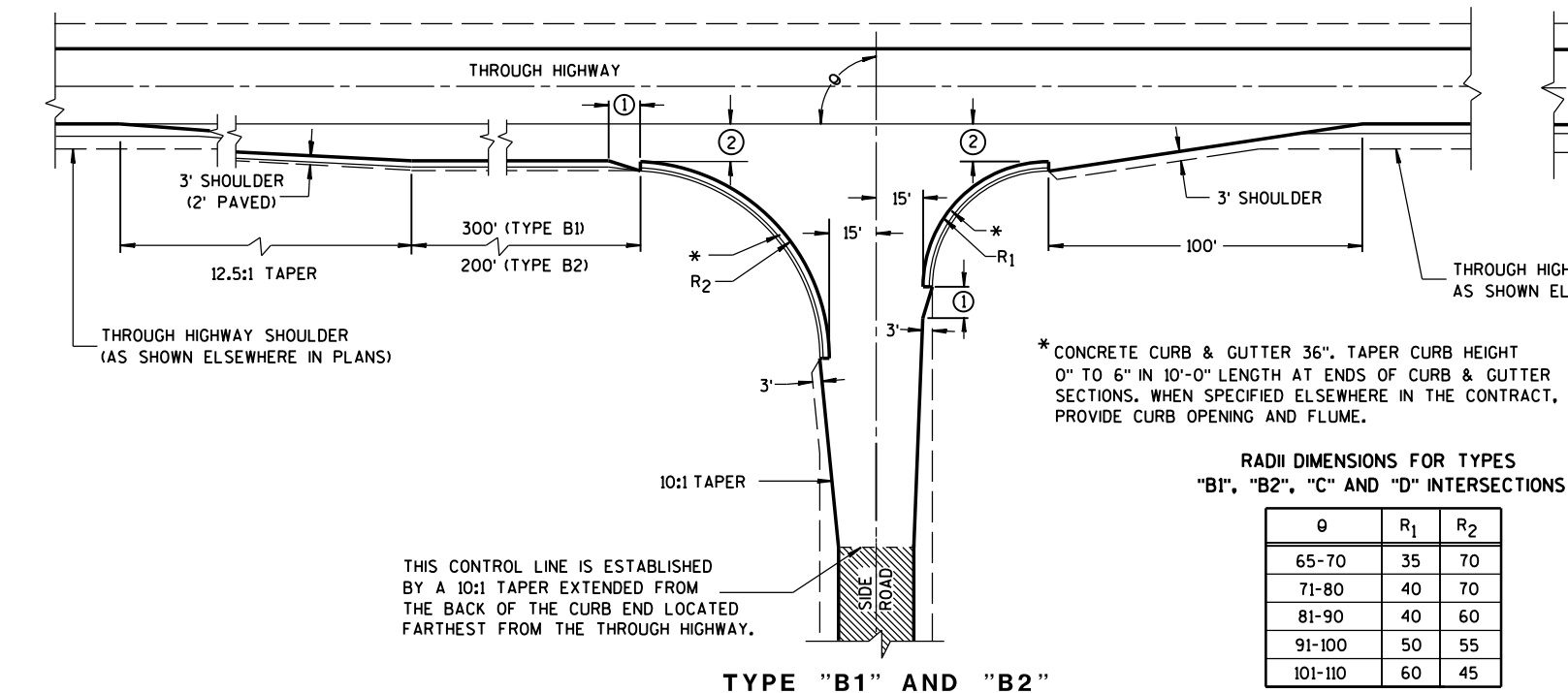
PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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PROJECT NO: 8732-00-73	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLAN	SHEET	E
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Standard Detail Drawing List

09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



### 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.

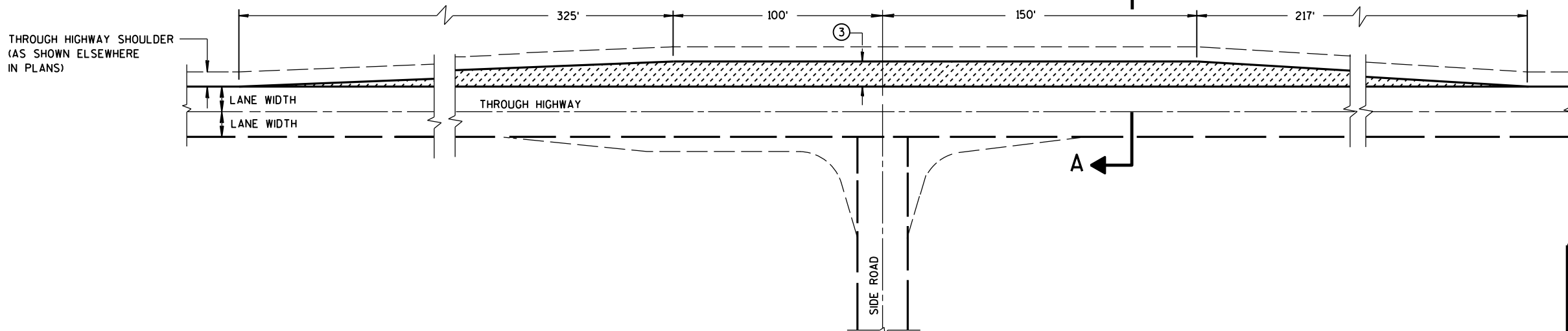
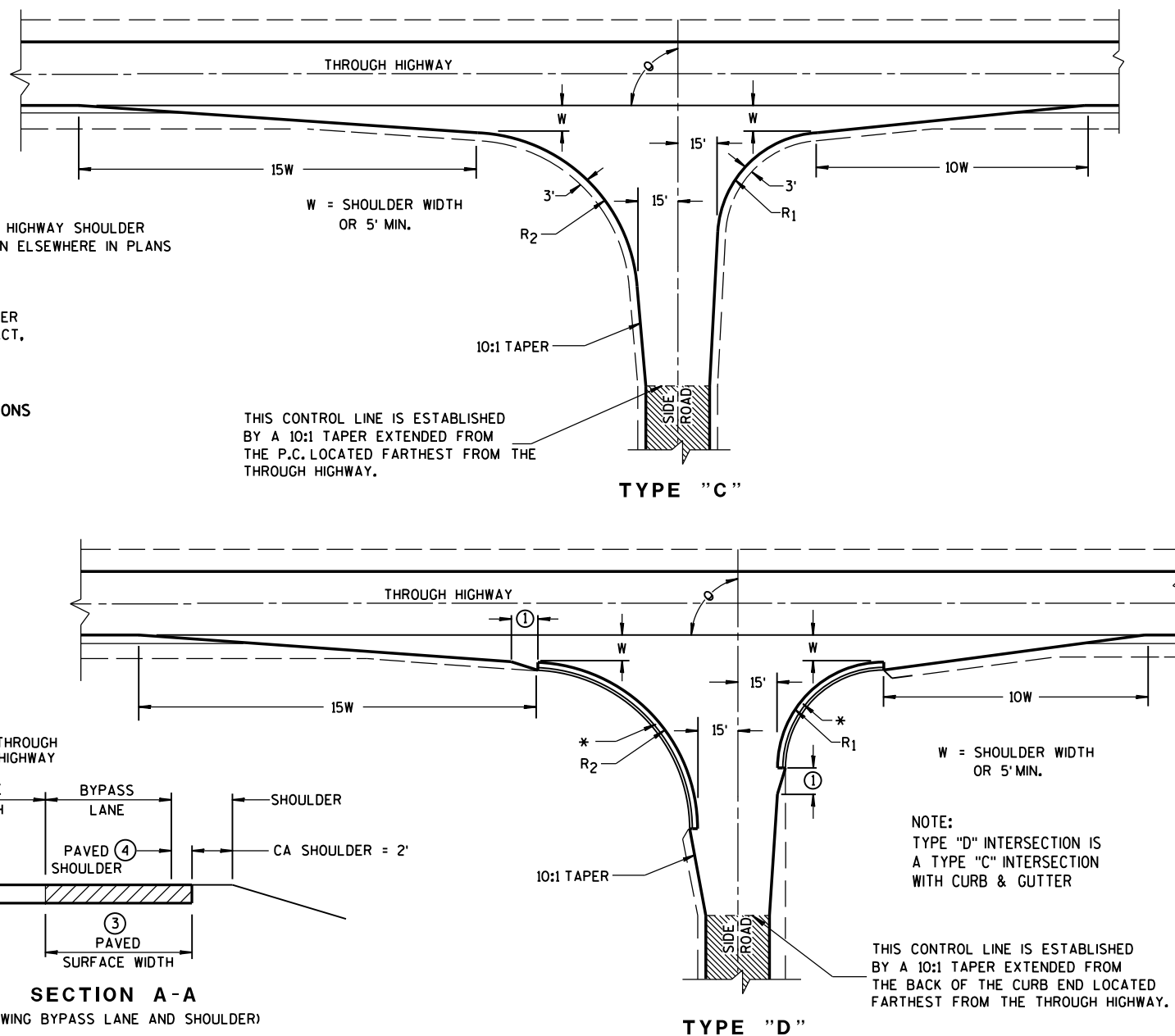
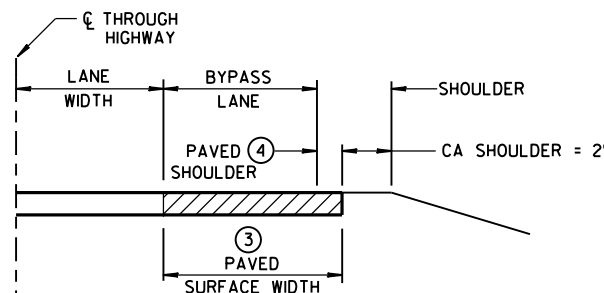
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

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

EXISTING PAVED SURFACE

BYPASS LANE

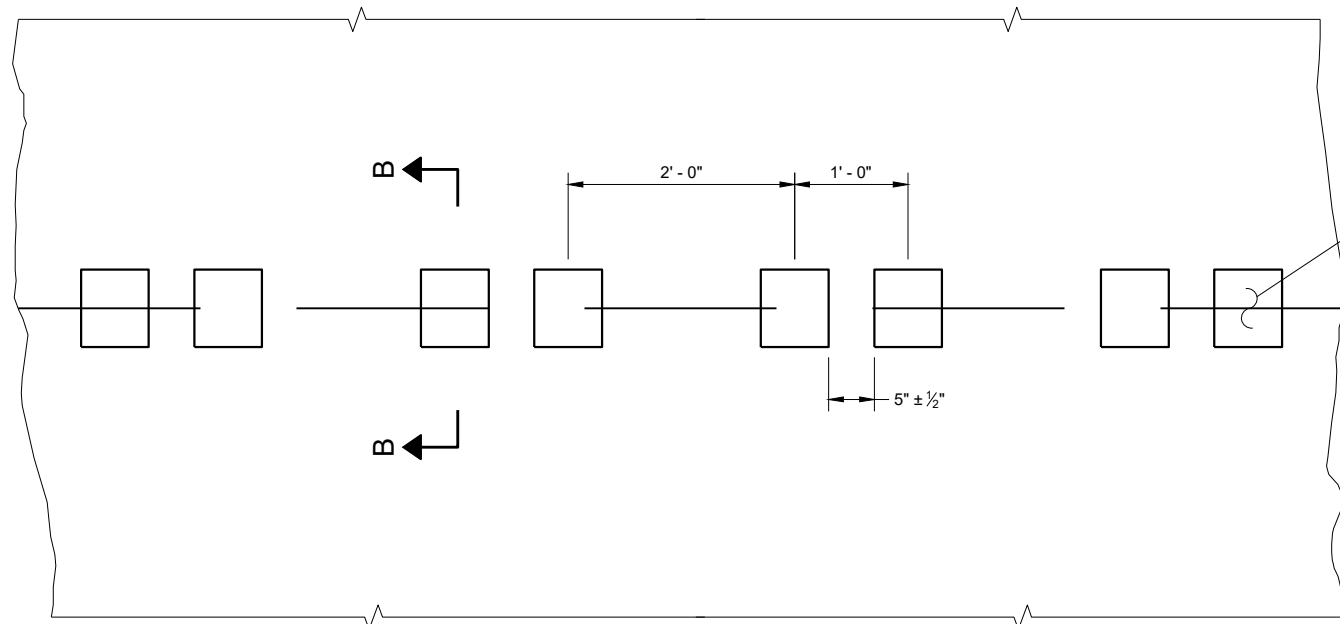
- 10-FT TYPICAL.
- 12-FT\*\* PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.  
  
\*\*10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE  
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.  
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



### TEE INTERSECTION BYPASS LANE DETAIL

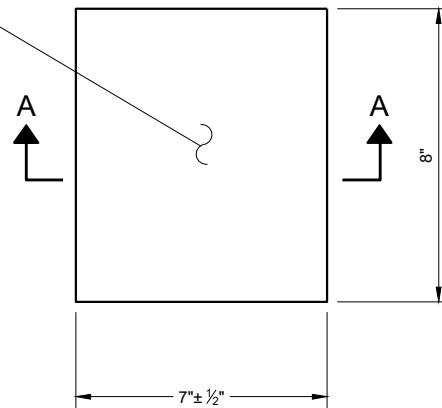
AT-GRADE SIDE ROAD  
INTERSECTION, TYPES "B1", "B2",  
"C" AND "D" AND TEE  
INTERSECTION BYPASS LANE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



PLAN VIEW  
SHOULDER WITH GROOVES

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



PLAN VIEW  
(SINGLE GROOVE)

GENERAL NOTES

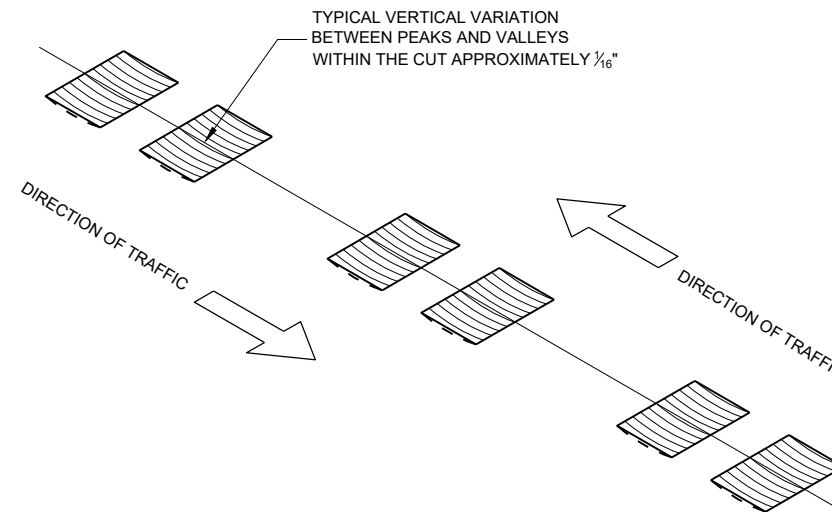
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

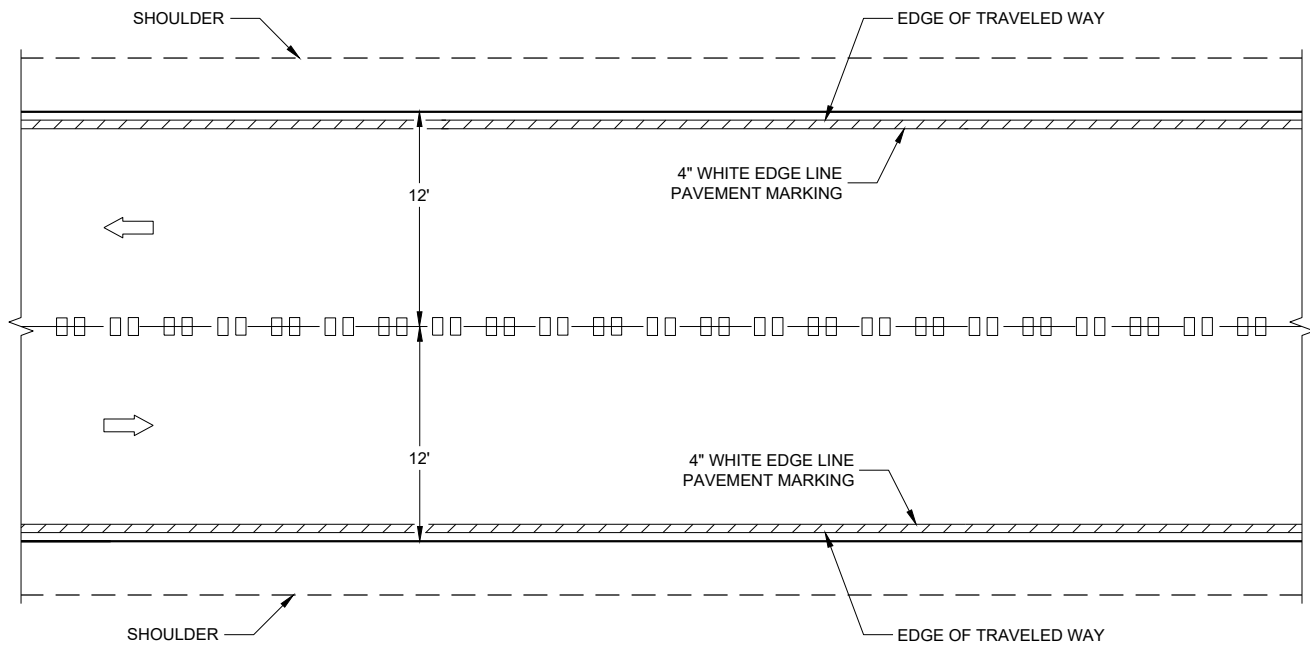
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

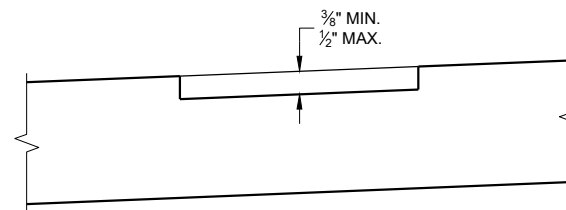
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



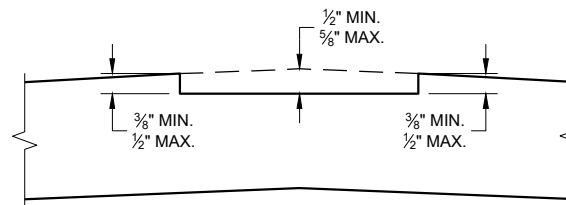
ISOMETRIC



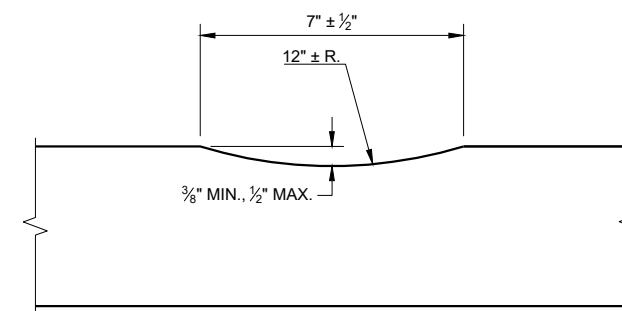
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B  
SUPERELEVATED ROADWAY



SECTION B - B  
CROWNED ROADWAY

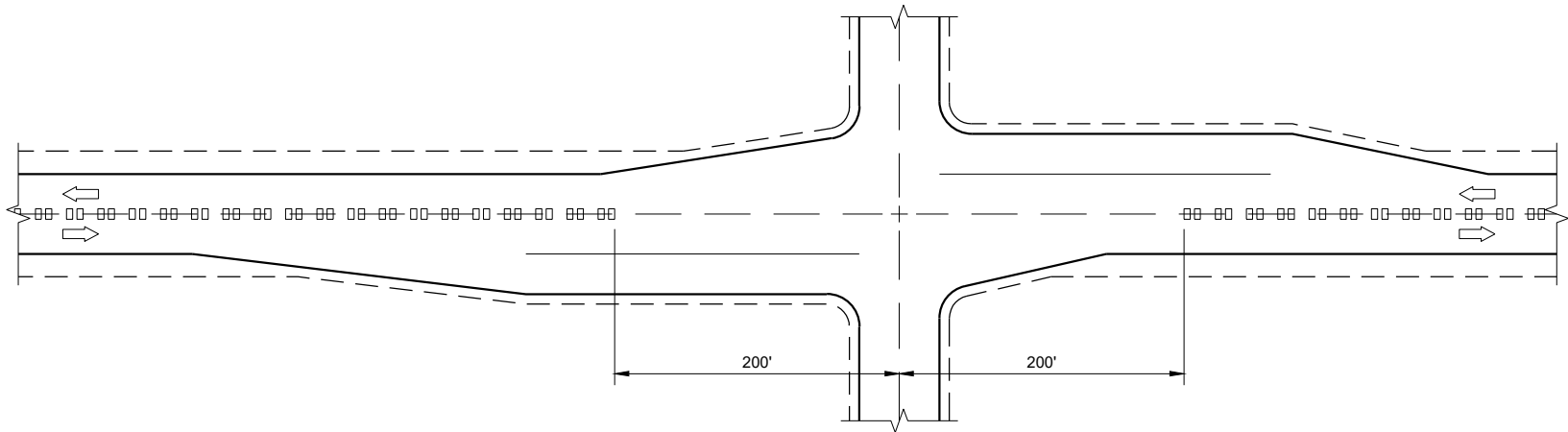


SECTION A - A

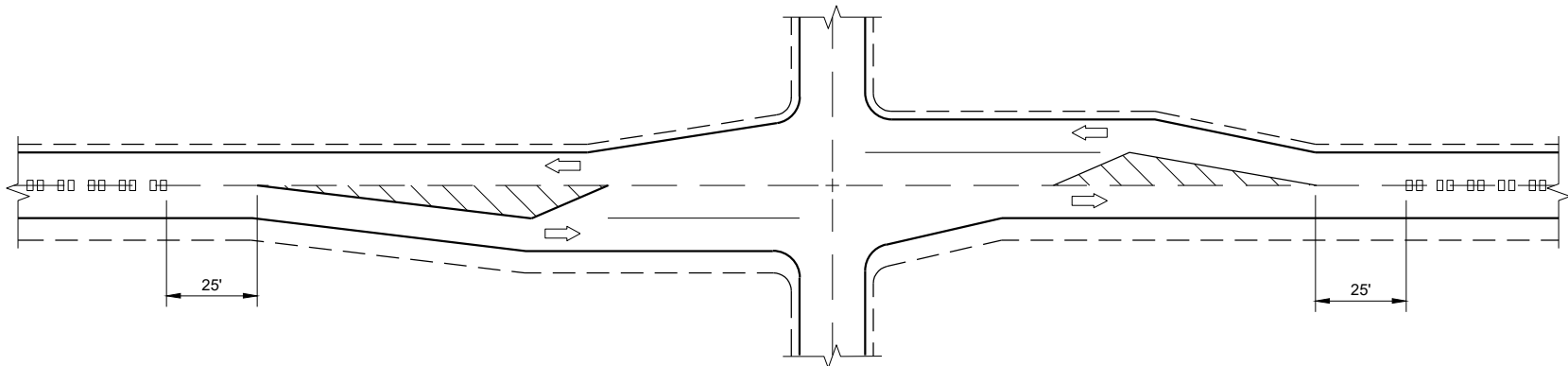
**2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

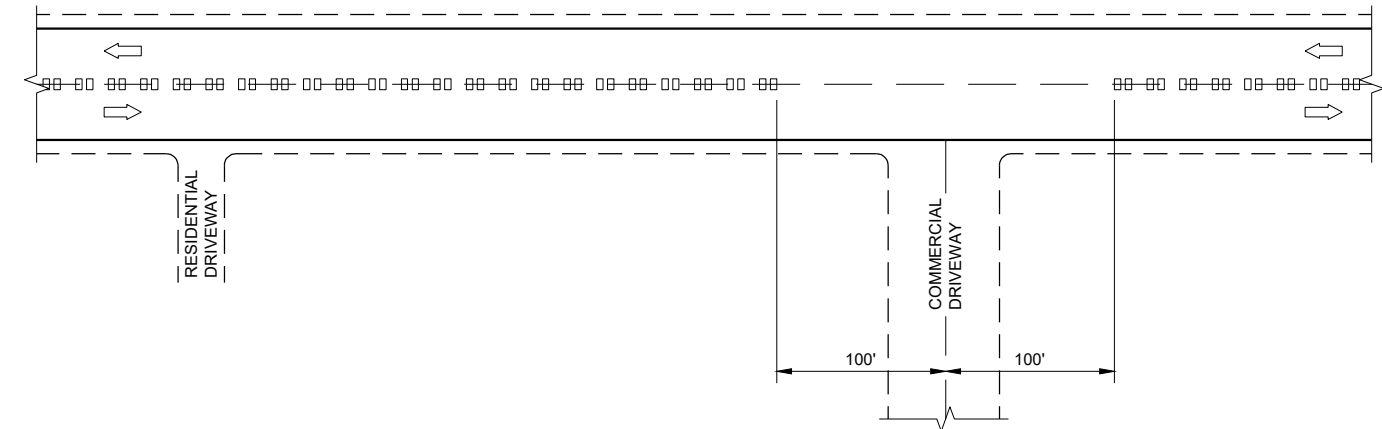




CENTERLINE GROOVES AT INTERSECTIONS



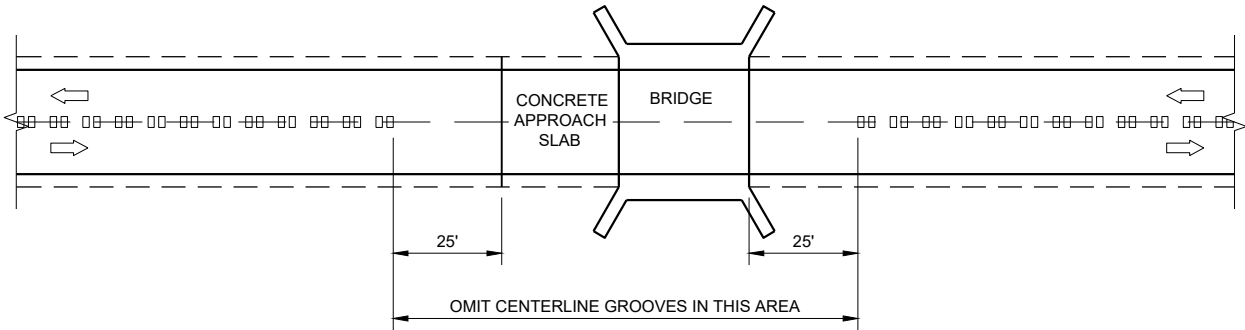
CENTERLINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)



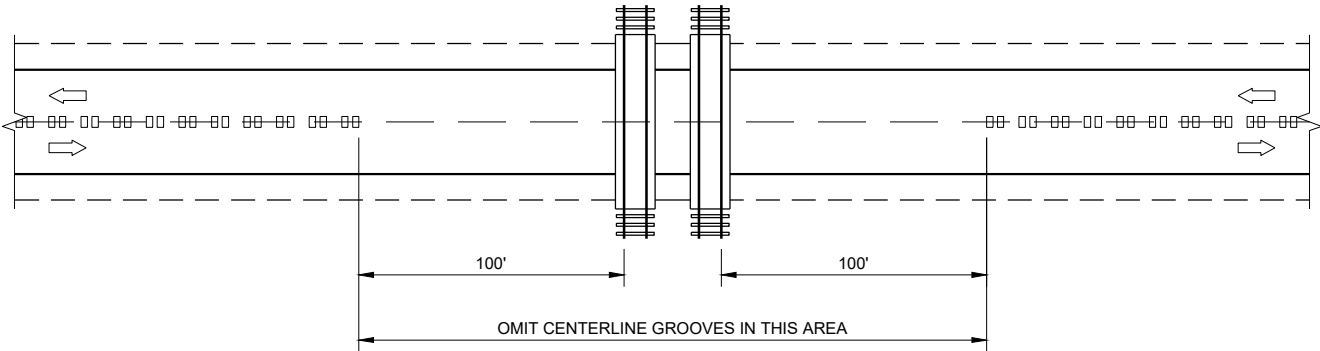
CENTERLINE GROOVES AT DRIVEWAYS<sup>①</sup>

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL  
CENTERLINE RUMBLE STRIP,  
MILLING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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




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

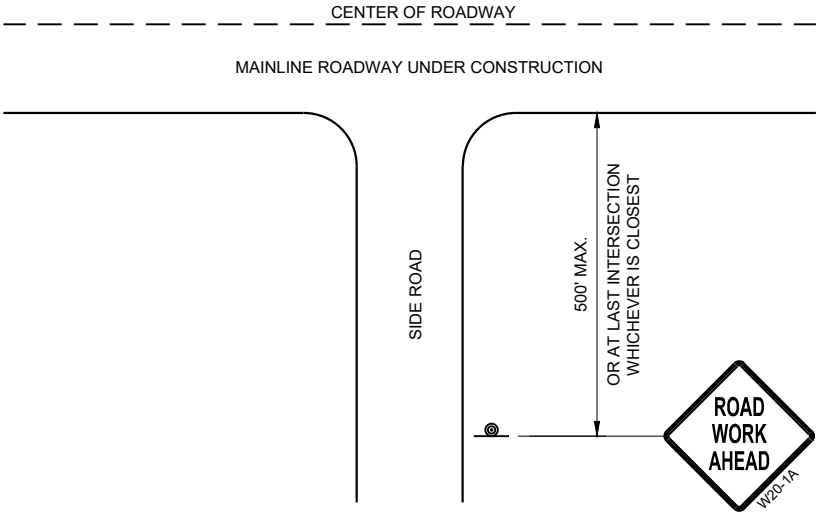
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

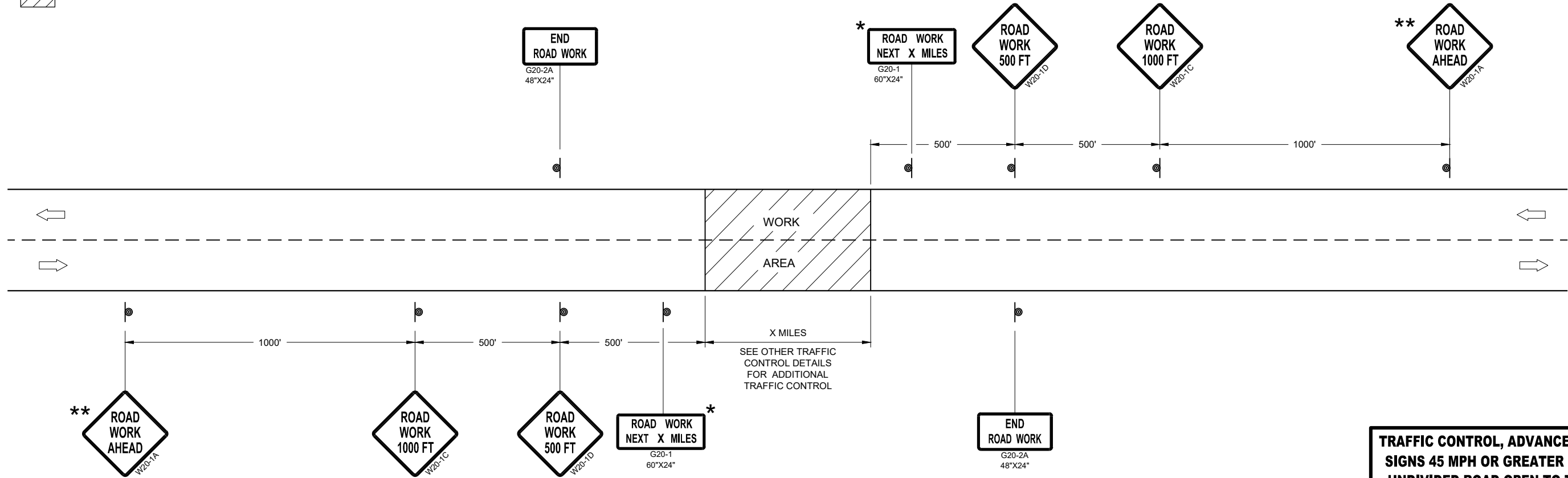
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL



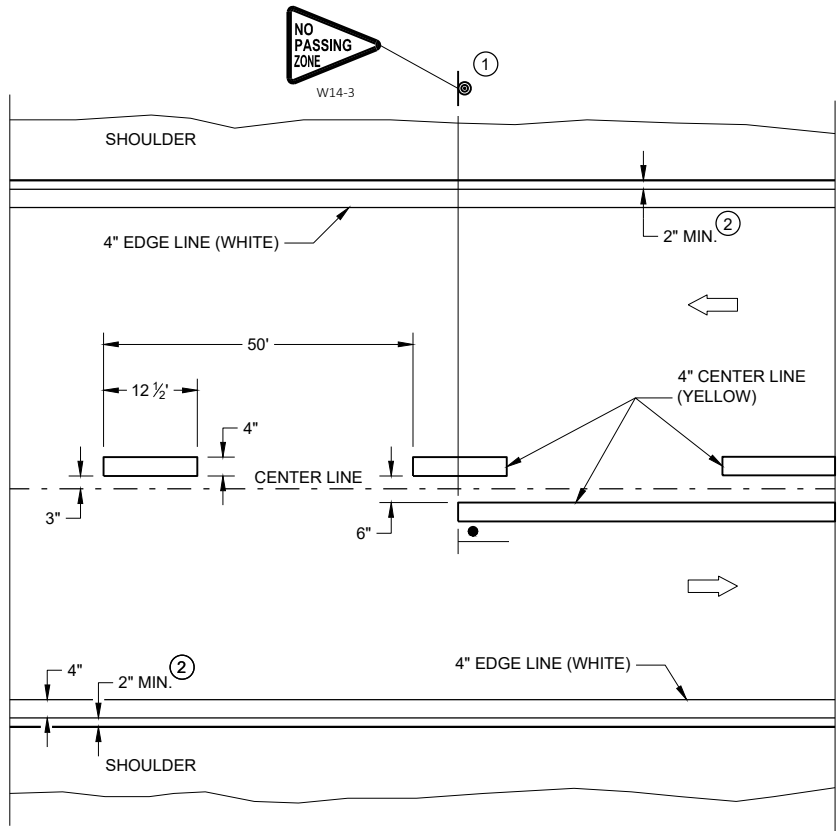
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

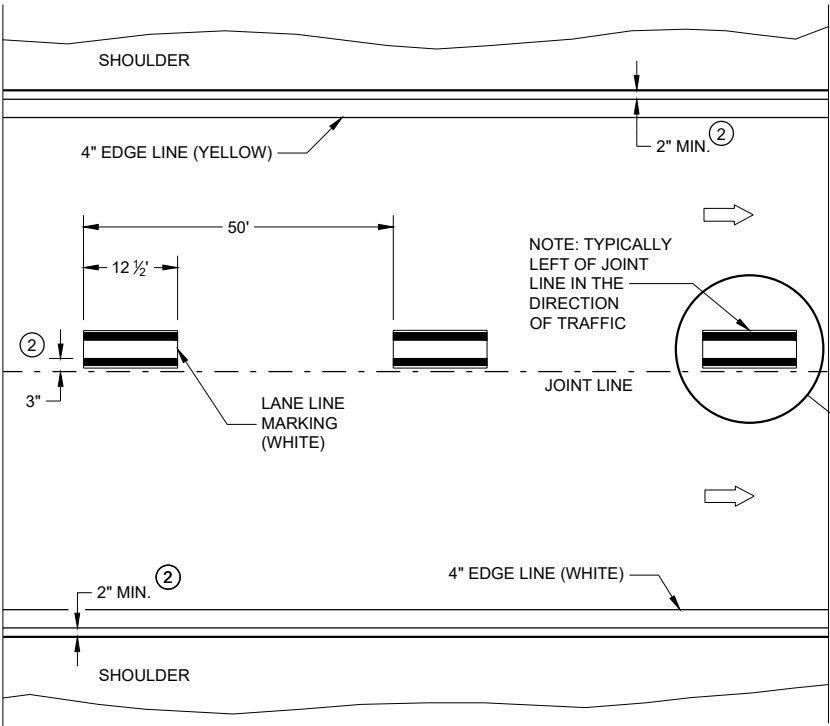
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

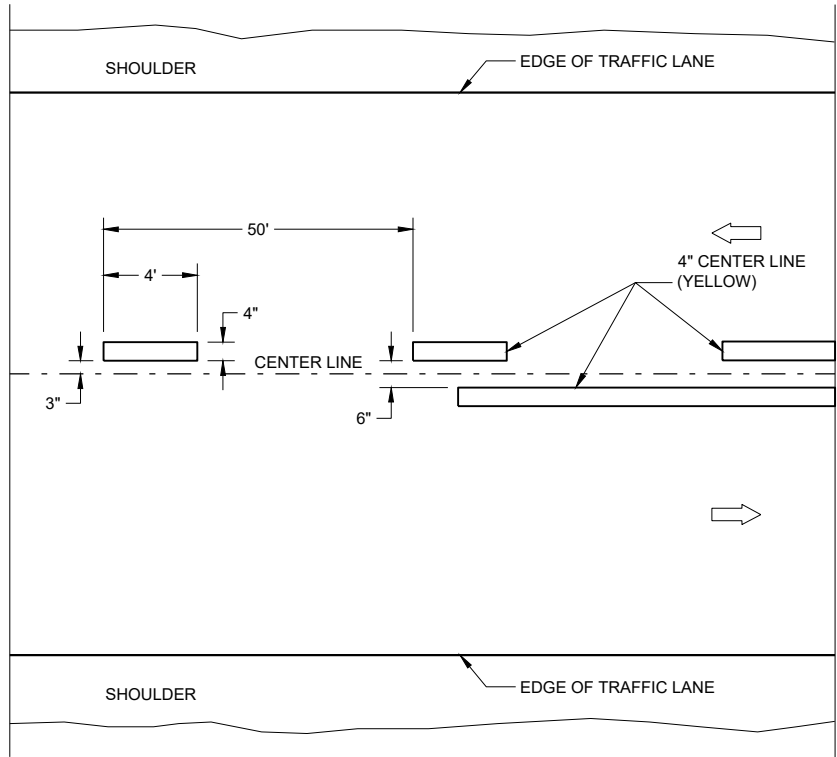


TWO WAY TRAFFIC

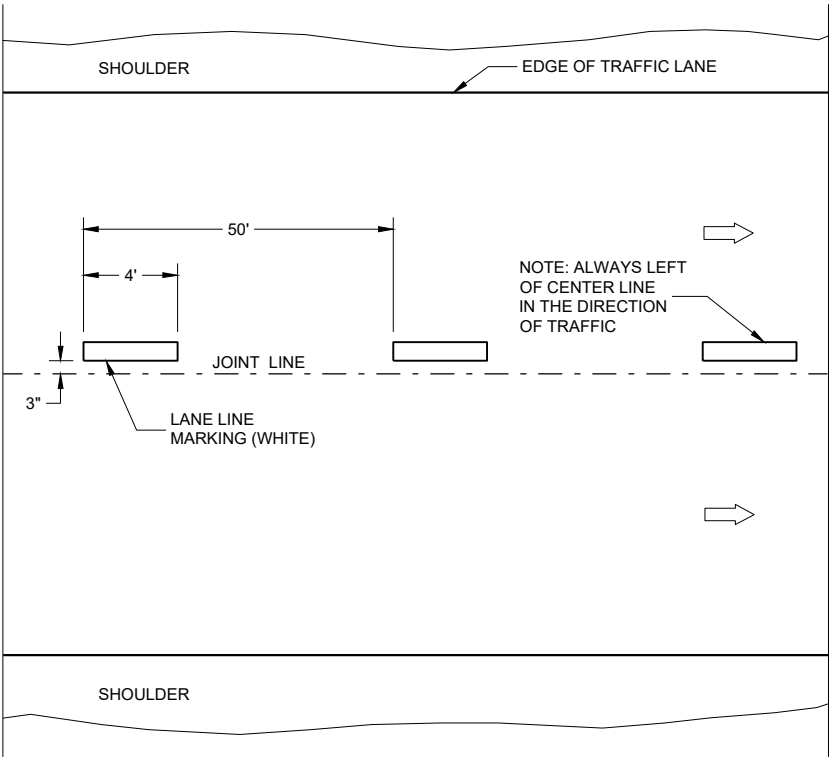


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

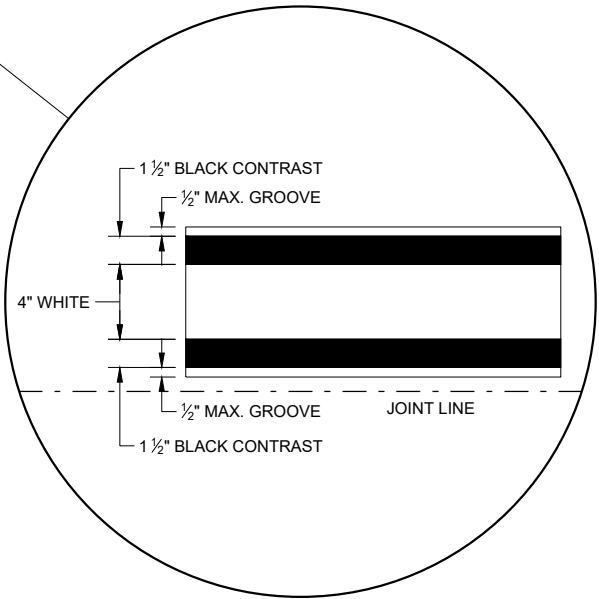
GENERAL NOTES

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

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

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC








LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

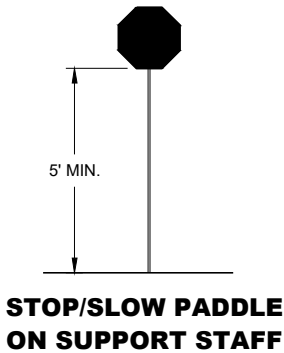
③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

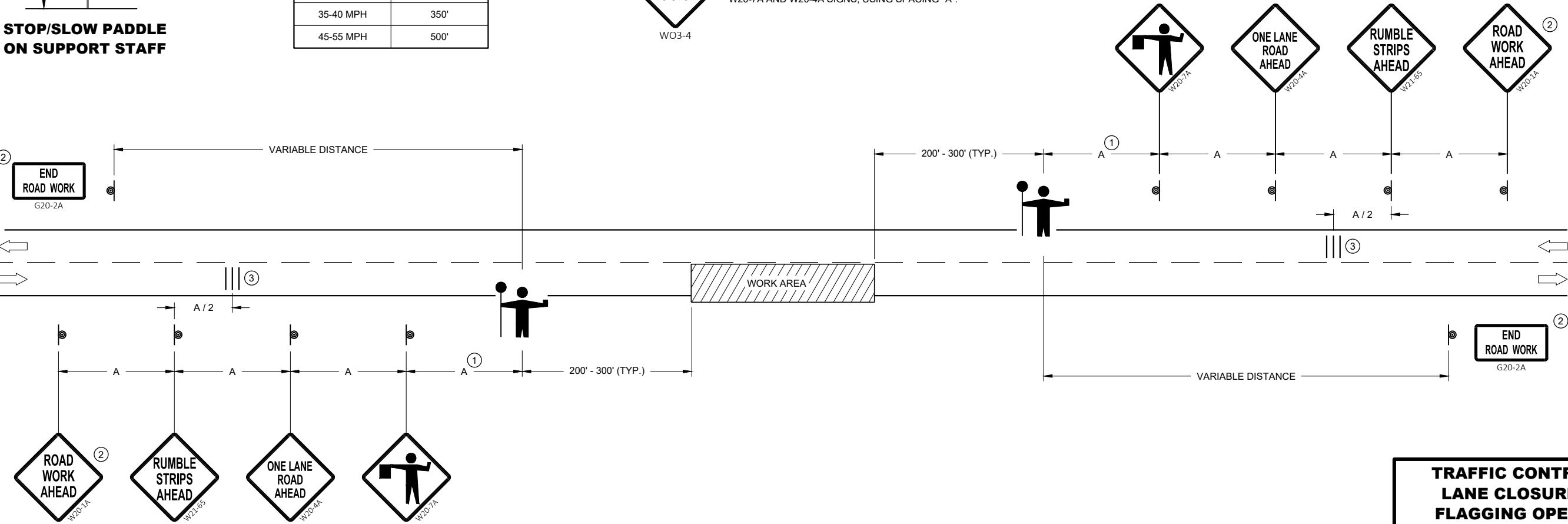


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION





**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2019 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

LEGEND

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

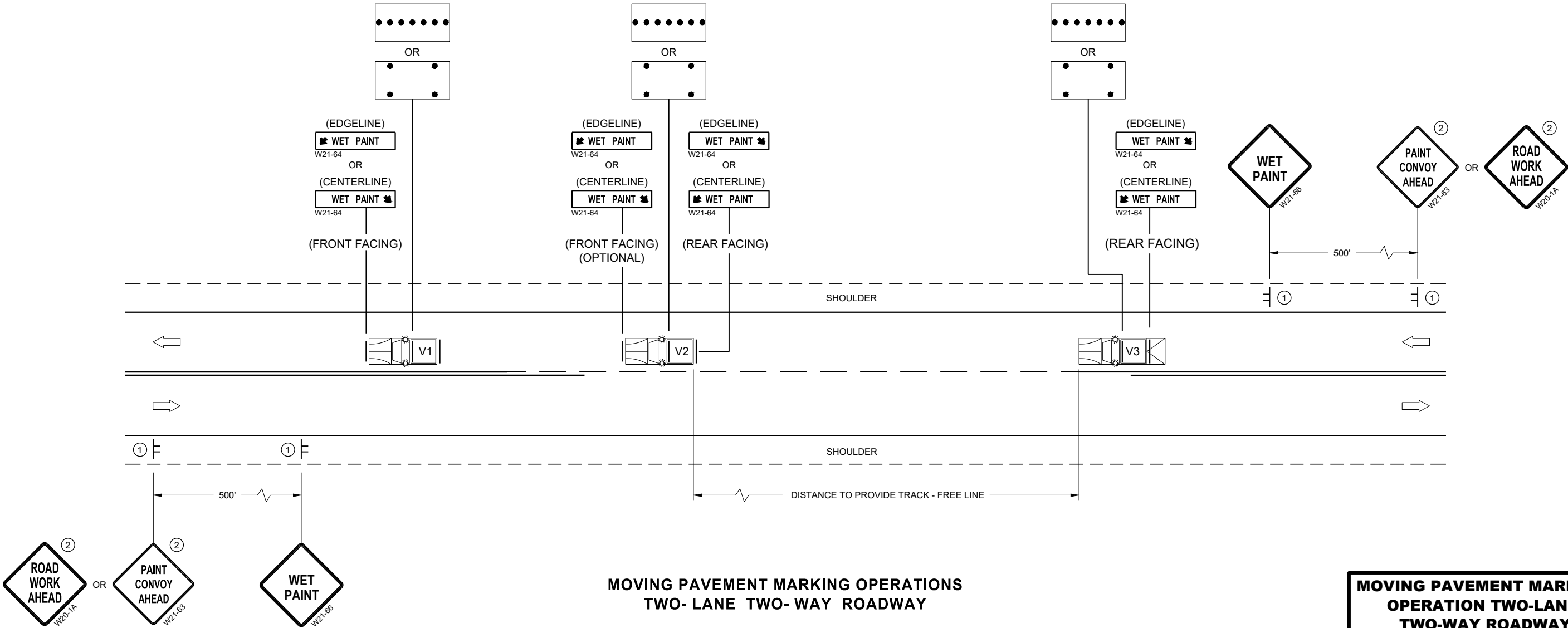
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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

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

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING  
OPERATION TWO-LANE  
TWO-WAY ROADWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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





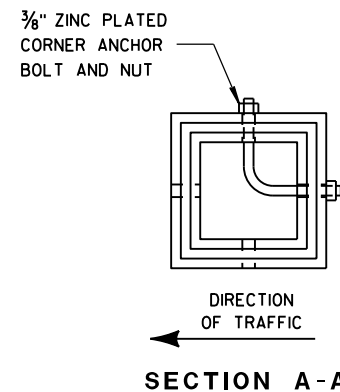
DETAIL OF TUBULAR  
STEEL SIGN POST

TUBULAR STEEL POSTS

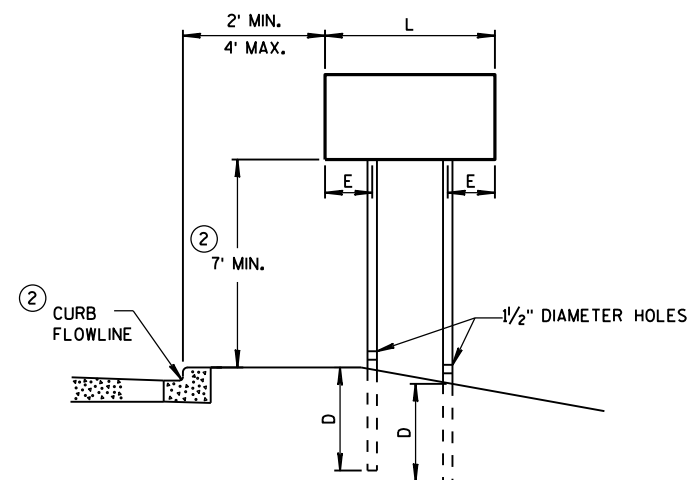
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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.



SECTION A-A

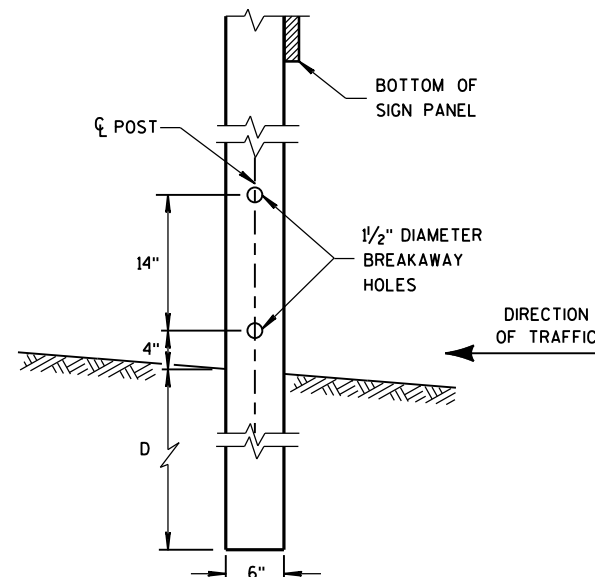


URBAN AREA

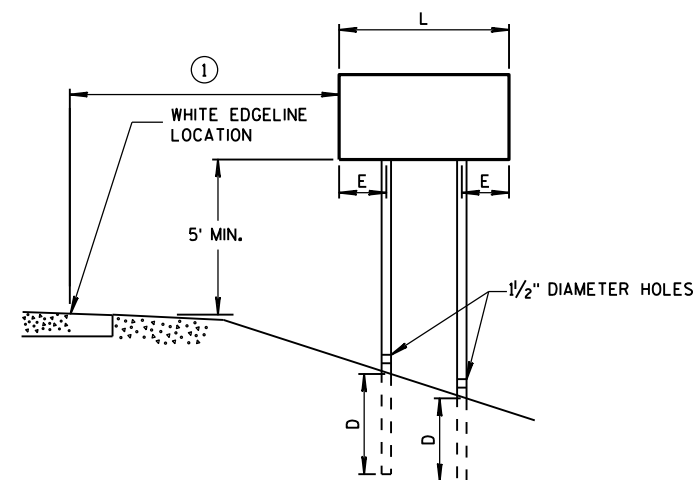
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST  
EMBEDMENT DEPTH

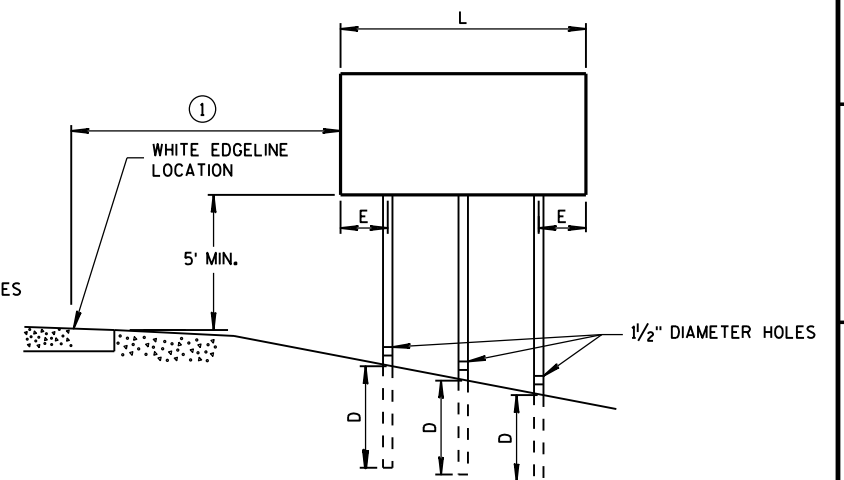
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4 "x6 " WOOD POST  
MODIFICATION



RURAL AREA



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

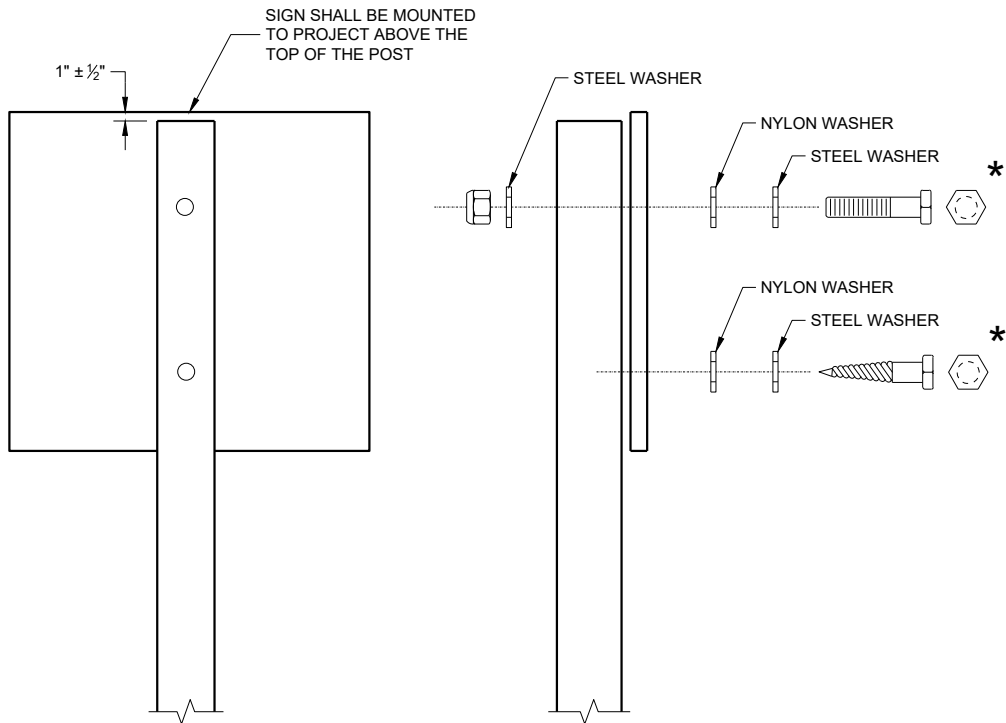
SEE NOTE ③

TEMPORARY TRAFFIC CONTROL  
SIGN MOUNTING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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.



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

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

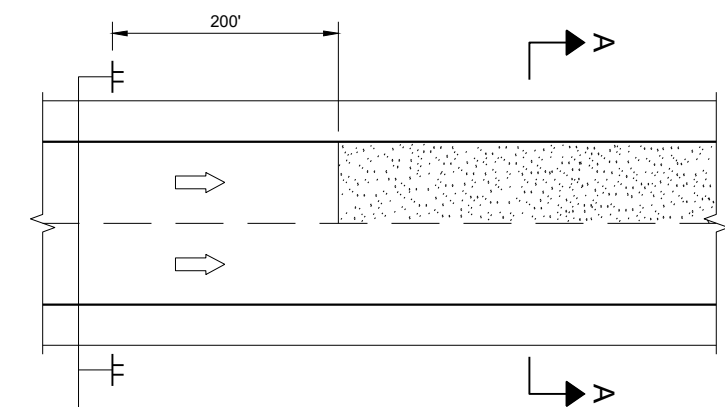
WOOD POST (4" x 6")  
LAG SCREWS - ¾" x 3"  
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")  
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS  
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM  
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,  
GRIP RANGE 0.042 - 0.375 INCH

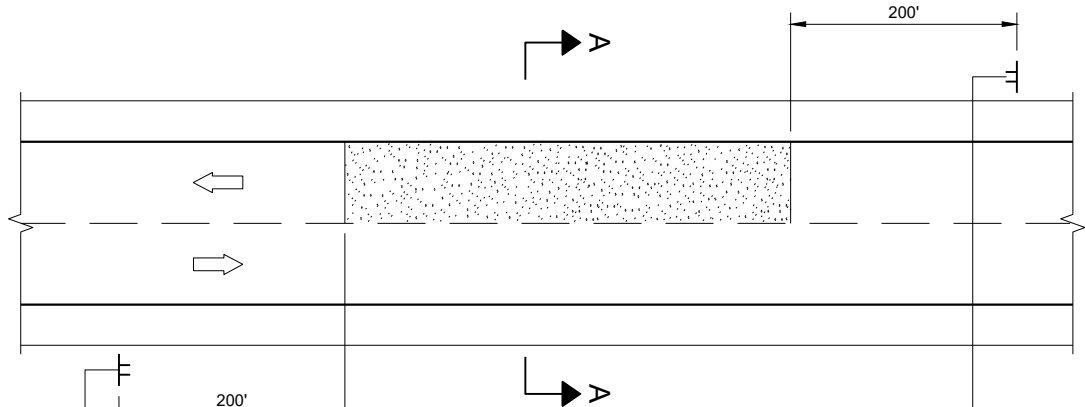
WASHERS (ALL POSTS) -  
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL  
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

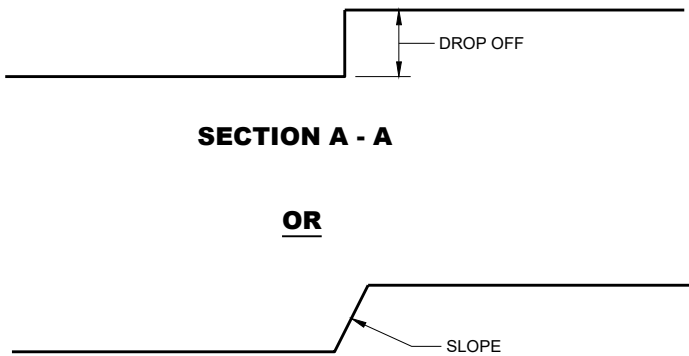
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



MULTI-LANE



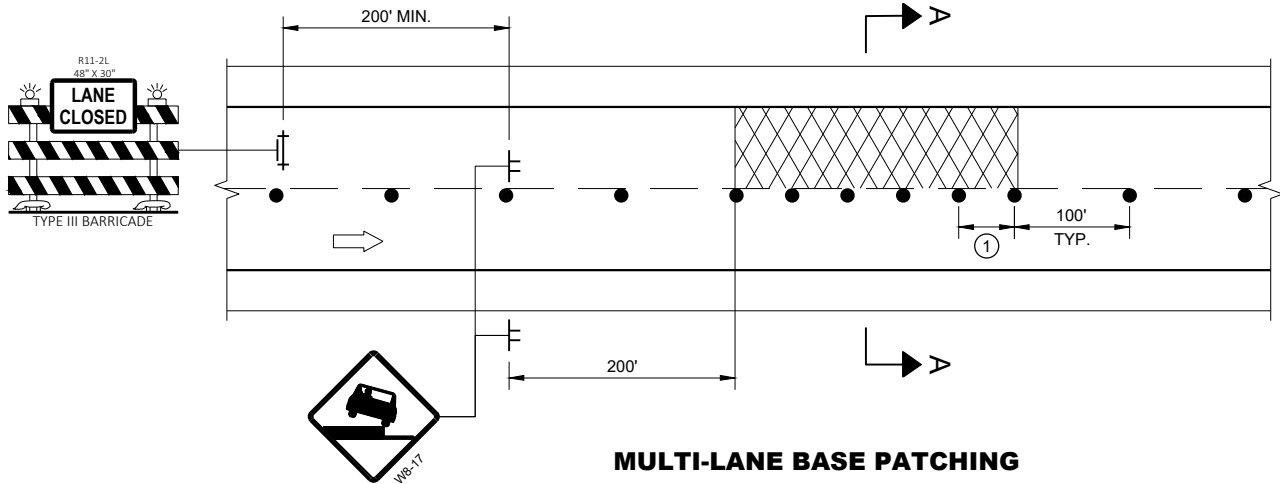
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

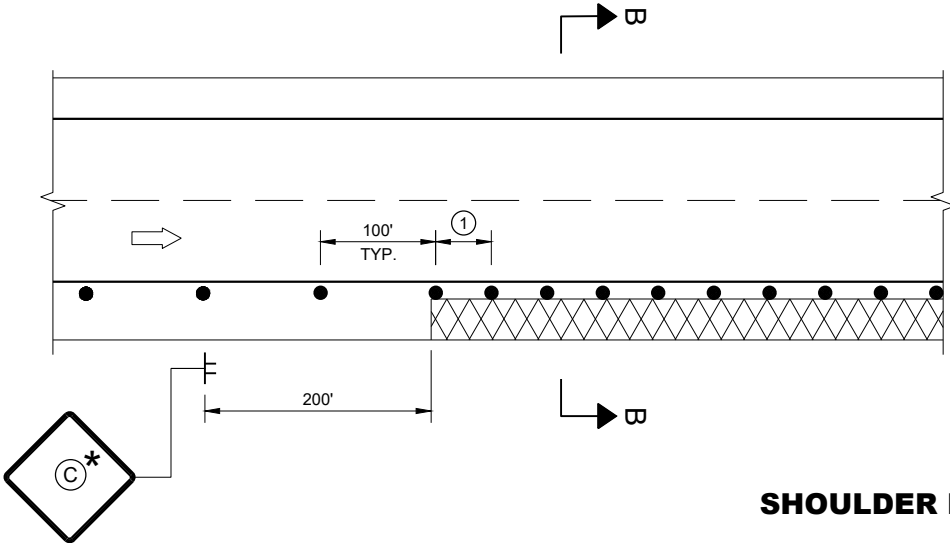
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

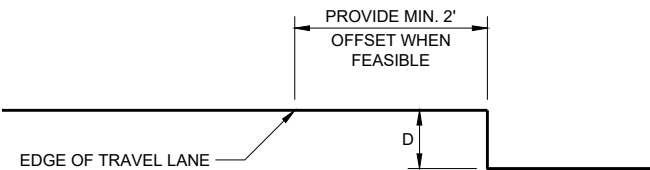
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

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

**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018  
DATE

/S/ Andrew Heidtke  
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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

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

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



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

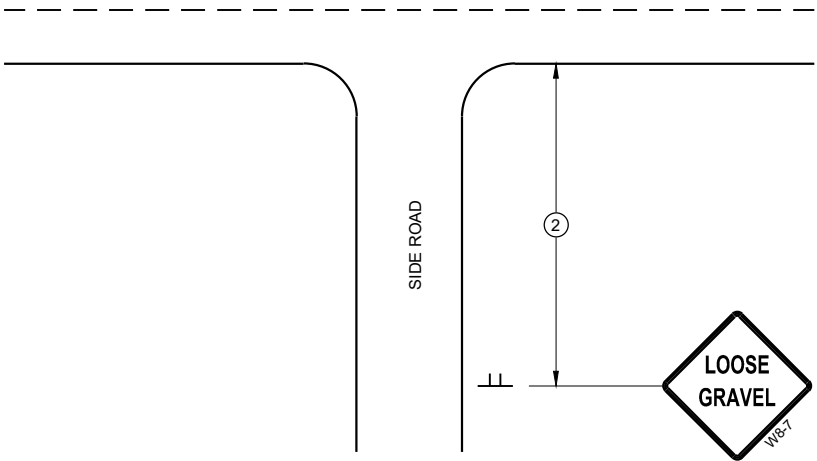
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

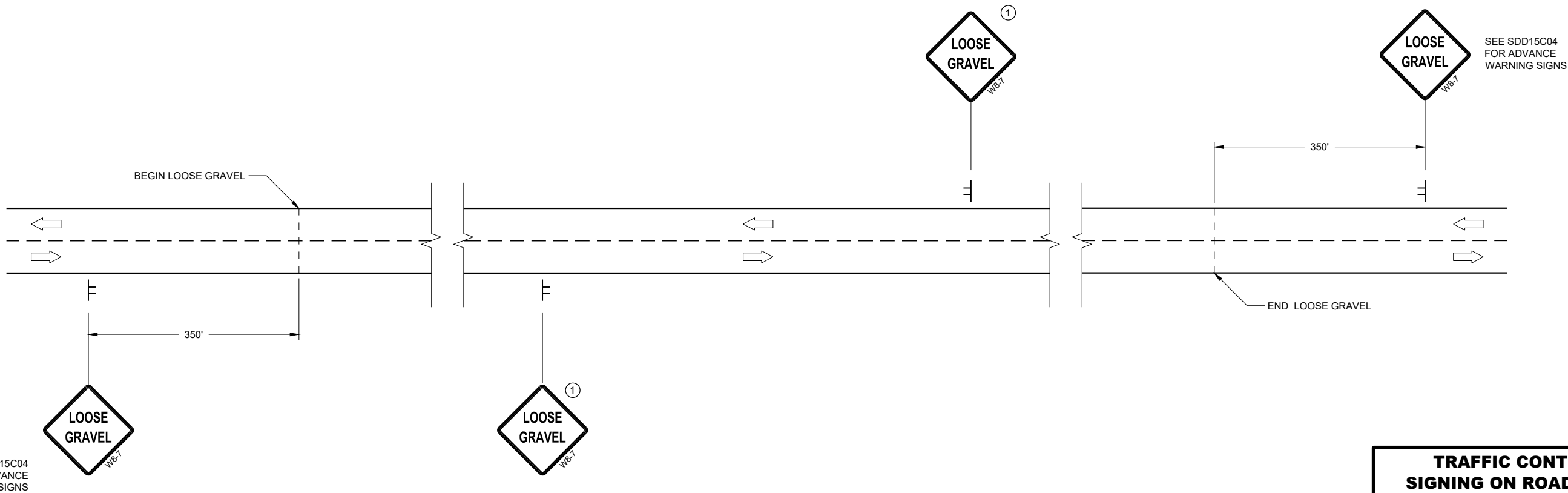
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH  
SIGN DETAIL



SEE SDD15C04  
FOR ADVANCE  
WARNING SIGNS

SEE SDD15C04  
FOR ADVANCE  
WARNING SIGNS

TRAFFIC CONTROL  
SIGNING ON ROADWAYS  
WITH LOOSE GRAVEL

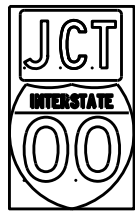
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

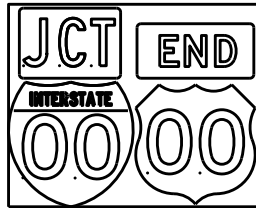
FHWA

DETAIL FOR SIGNING ON CHIP SEALED SURFACES

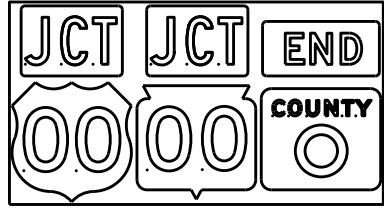
TYPICAL ASSEMBLIES



J1-1



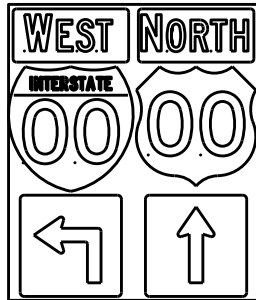
J1-2



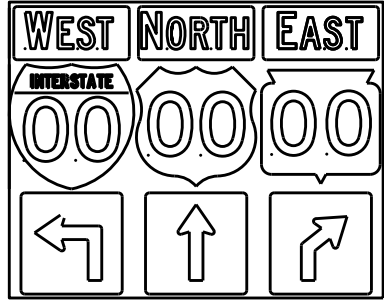
J1-3



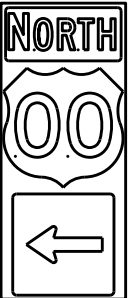
J2-1



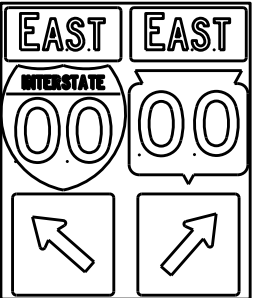
J2-2



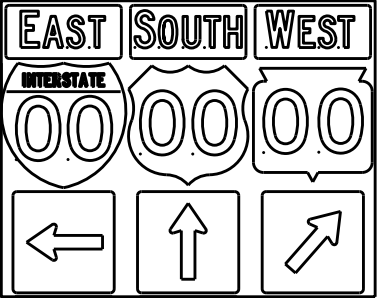
J2-3



J3-1



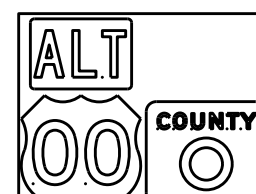
J3-2



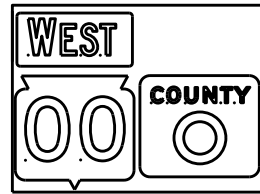
J3-3



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

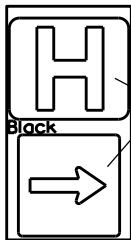


J22-1



JV

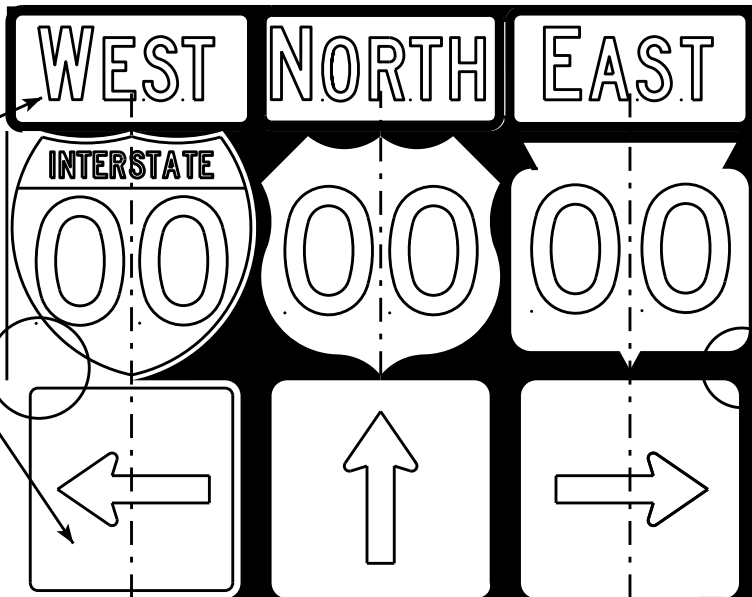
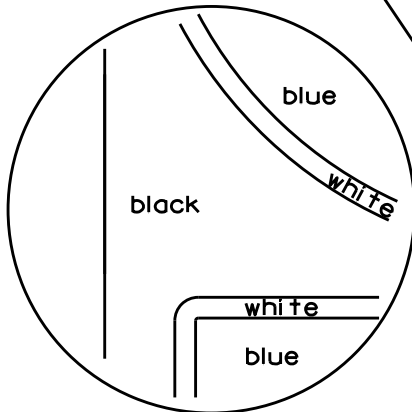
(Typical Vertical J-Assembly  
See Note 10 and 11)



JH-1

Blue Background

[blue background  
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS  
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

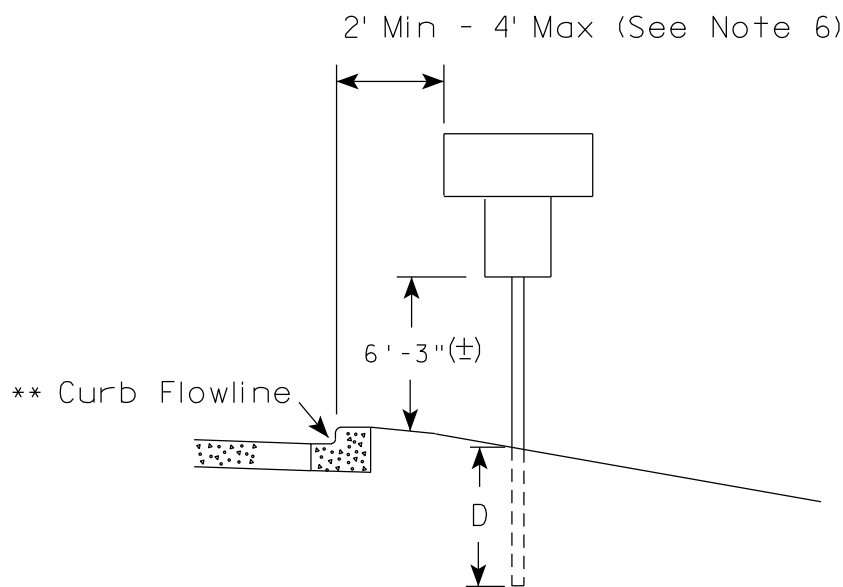
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

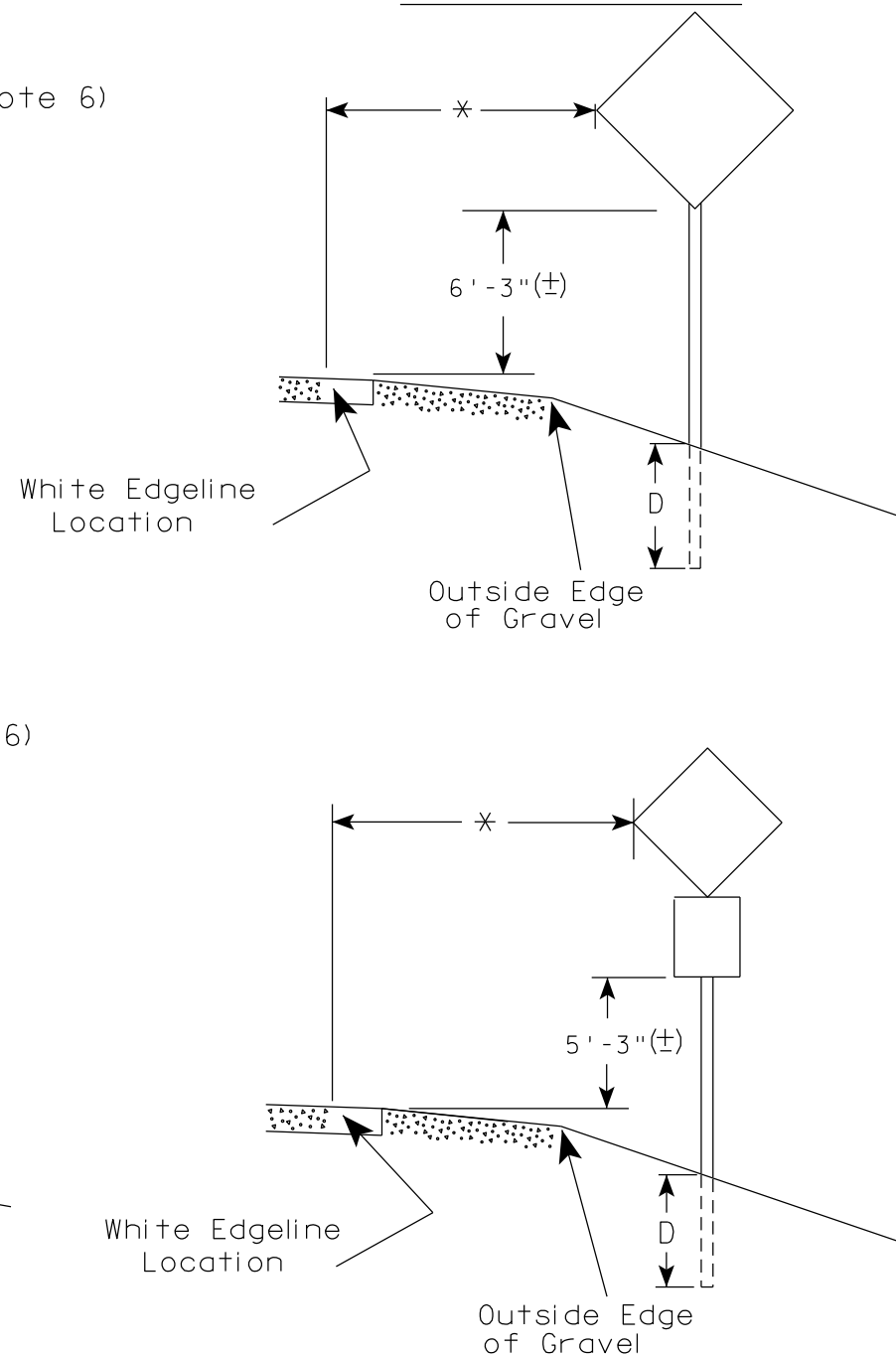
1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Black Non-reflective  
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

## 7



\* 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.

## 7



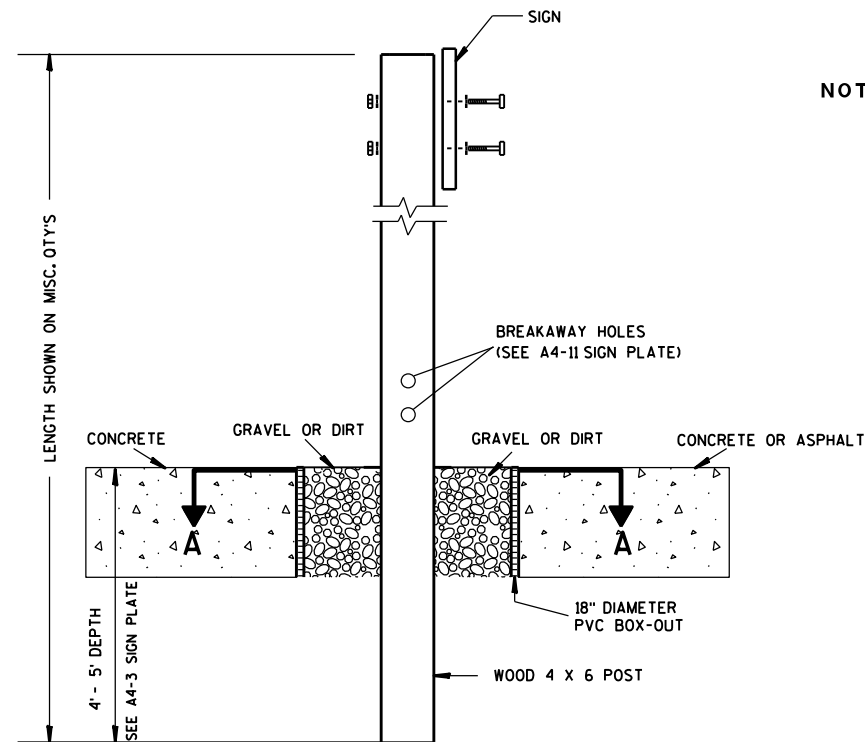
TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch  
for State Traffic Engineer

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

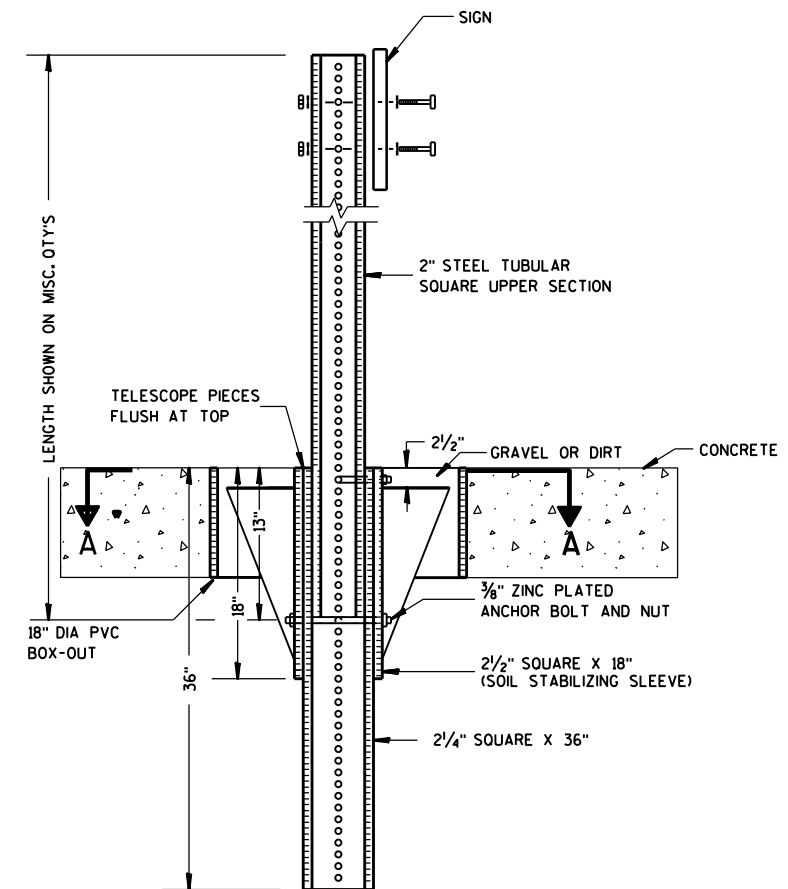
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" ( $\pm$ ). The Chevron sign (W1-8), Roundabout Chevron 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" ( $\pm$ ).
3. For expressways and freeways, mounting height is 7'- 3" ( $\pm$ ) or 6'-3" ( $\pm$ ) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" ( $\pm$ ).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The ( $\pm$ ) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" ( $\pm$ ) or as directed by the Engineer.



### ELEVATION VIEW

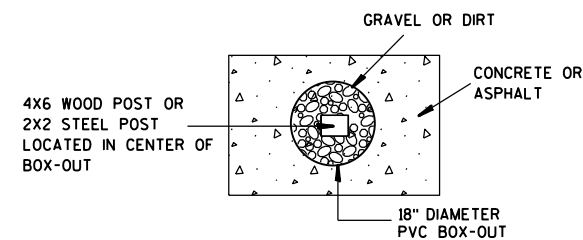
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



### ELEVATION VIEW

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



### PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST  
BOX-OUTS  
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

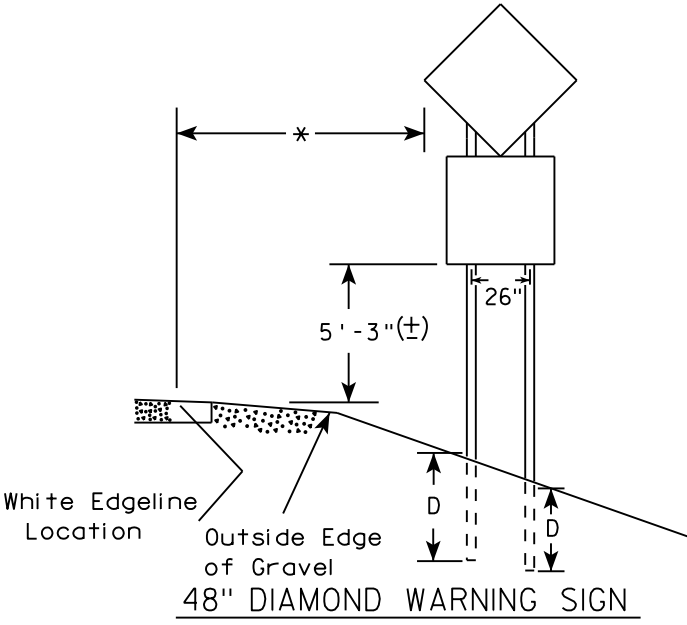
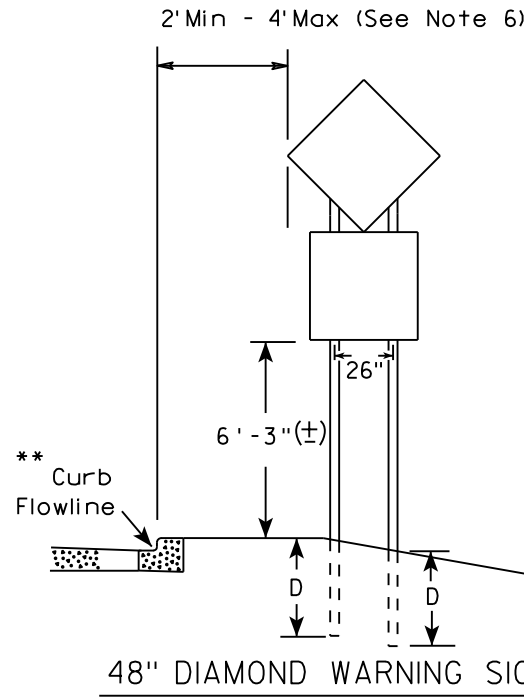
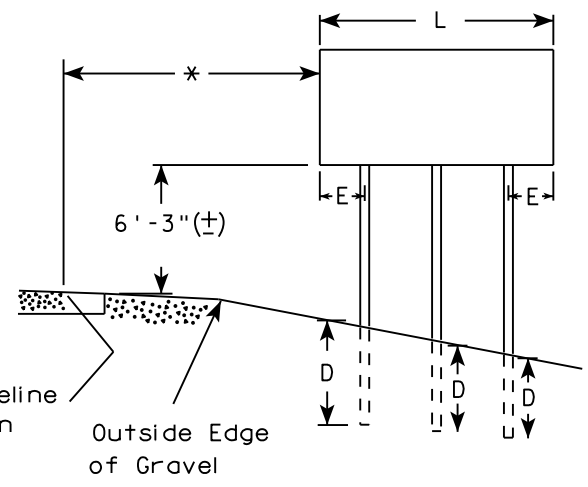
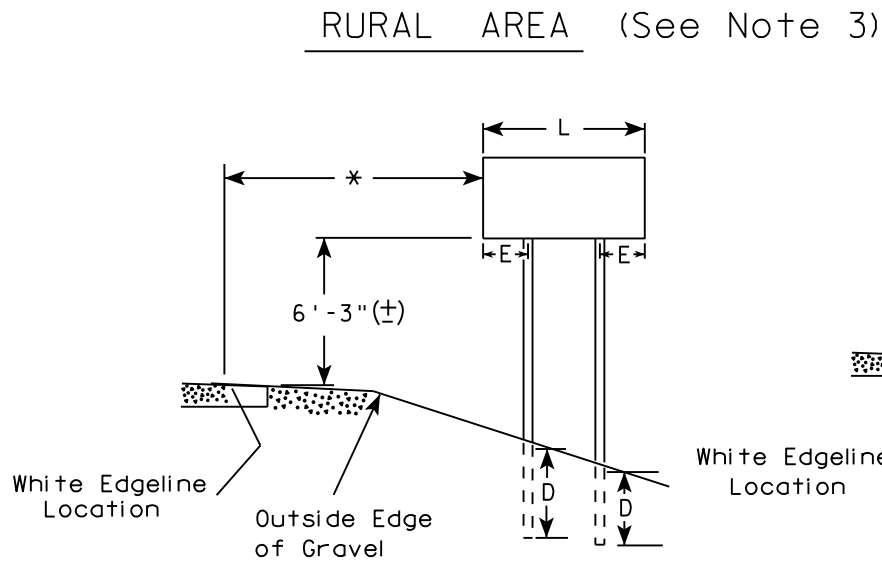
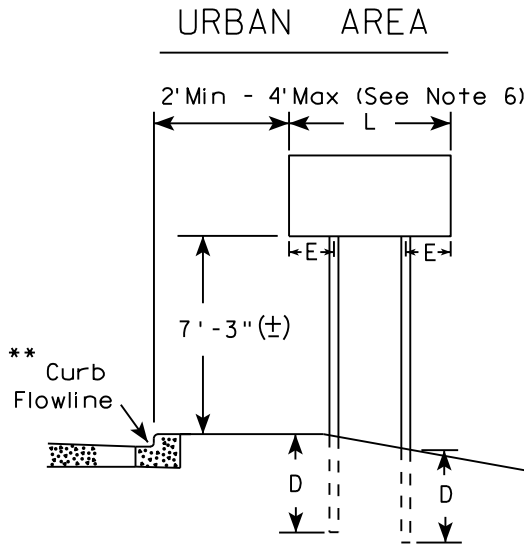
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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

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

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

\*\*\*

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

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

POST EMBEDMENT DEPTH

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

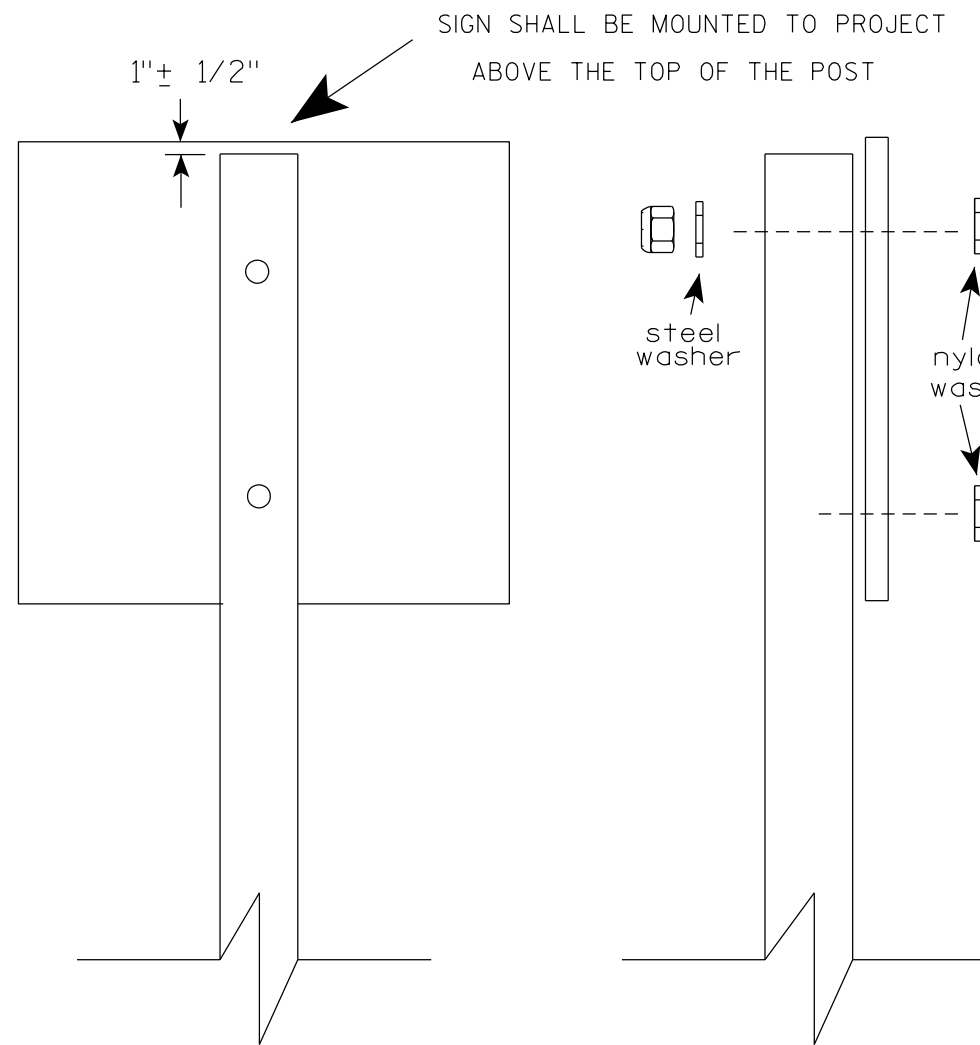
TYPICAL INSTALLATION  
OF TYPE II SIGNS  
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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





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.

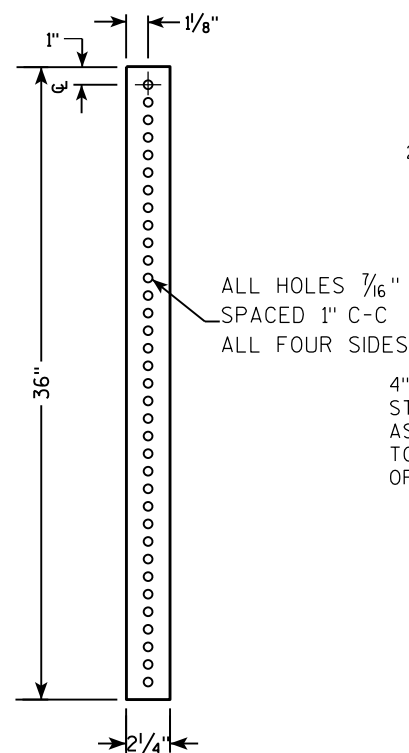
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (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  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
  - 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON

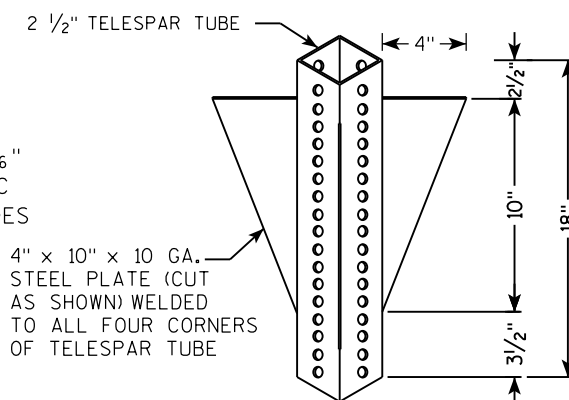
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH**



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



TECHNICAL DRAWING OF A VERTICAL SIGNPOST ASSEMBLY.

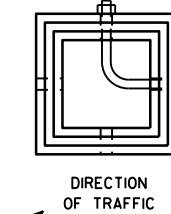
**Labels and Dimensions:**

- 18" DIA SCHEDULE 40 PVC BOX-OUT**: The base container for the assembly.
- 36"**: Total height of the PVC box-out.
- 18"**: Height of the gravel/dirt section at the base.
- 13"**: Height of the upper section of the PVC box-out.
- 2 1/2" GRAVEL OR DIRT**: The base layer within the box-out.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The sleeve supporting the upper section.
- 2 1/4" SQUARE X 36"**: The main vertical support structure.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The upper part of the main support.
- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES**: Specification for the holes in the steel tubular section.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware securing the sleeve.
- 3/16" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware securing the sleeve.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware details.
- SIGN**: The sign itself, attached to the top of the post.
- TELESCOPE PIECES FLUSH AT TOP**: Instruction for the top of the post assembly.

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the tubular section.
- SIGN**: Attached to the top of the post.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a separate drawing for hardware.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 1"**: Dimension for the offset of the anchor bolt from the post face.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the base plate to the ground.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The base plate of the post.
- 2 1/4" SQUARE X 36"**: The main base plate.
- 36"**: Dimension for the height of the main base plate.
- 18"** and **12"**: Dimensions for the offset of the anchor bolt from the post face.
- A**: Downward arrows indicating load or weight.

3/8" ZINC PLATED CORNER  
ANCHOR BOLT AND NUT



**SECTION A-A**

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

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

TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

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

PROJECT NO:

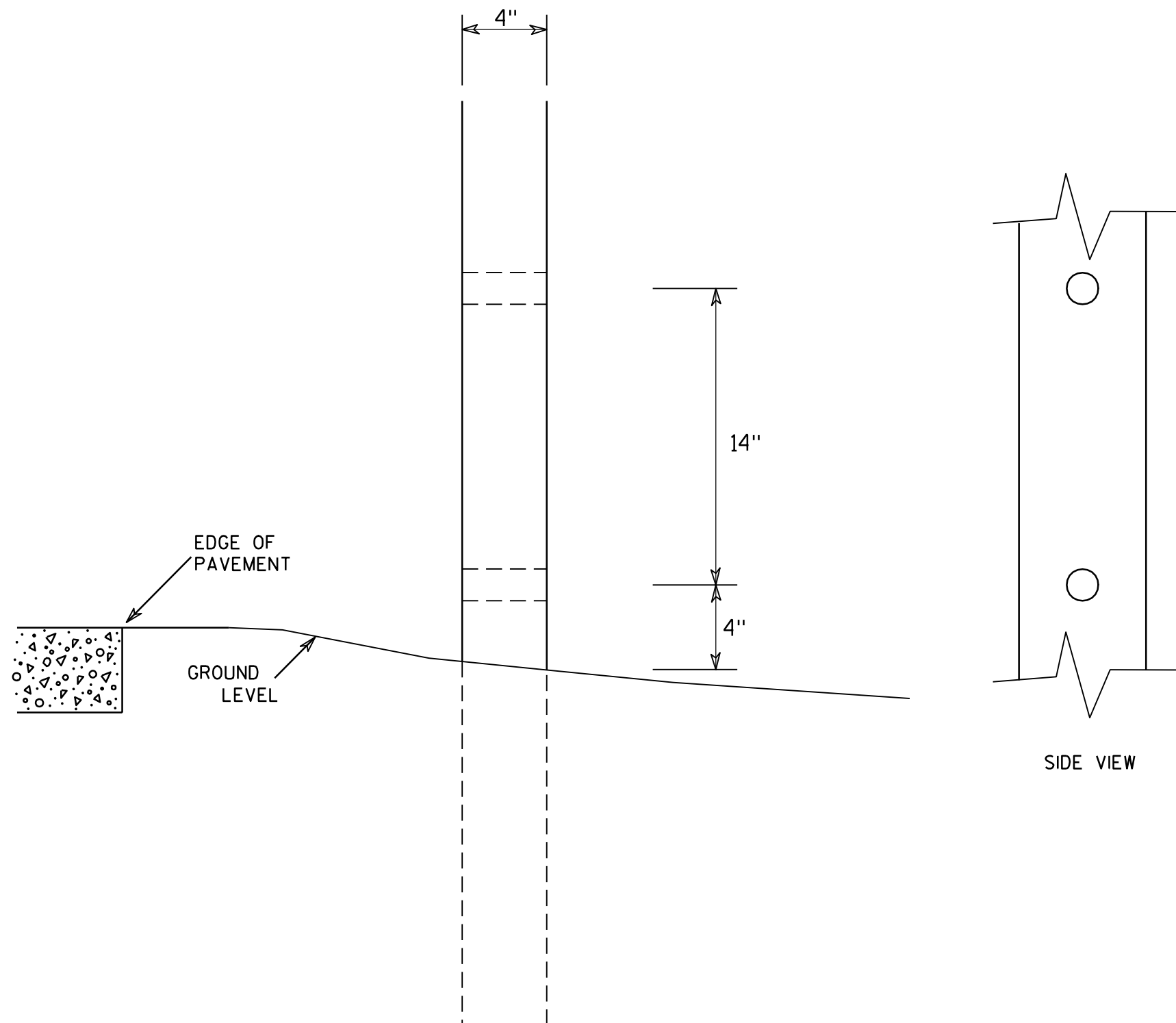
HWY:

COUNTY:

SHEET NO:

**T**

7



### 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

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

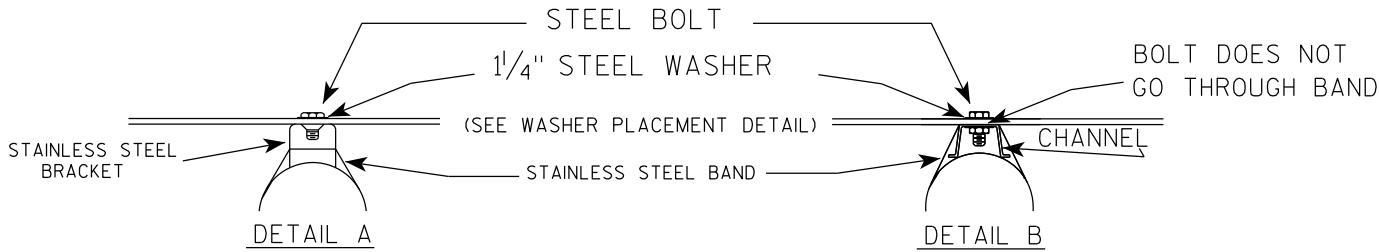
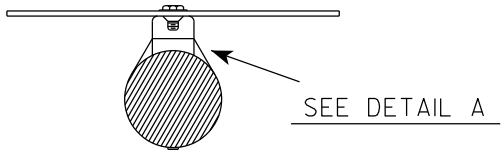
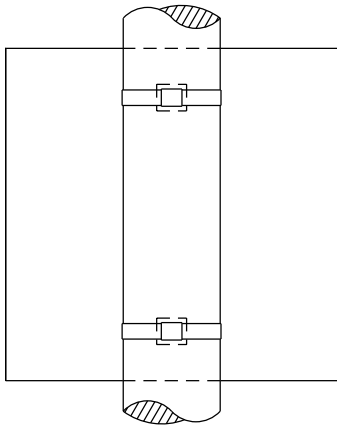
COUNTY:

SHEET NO:

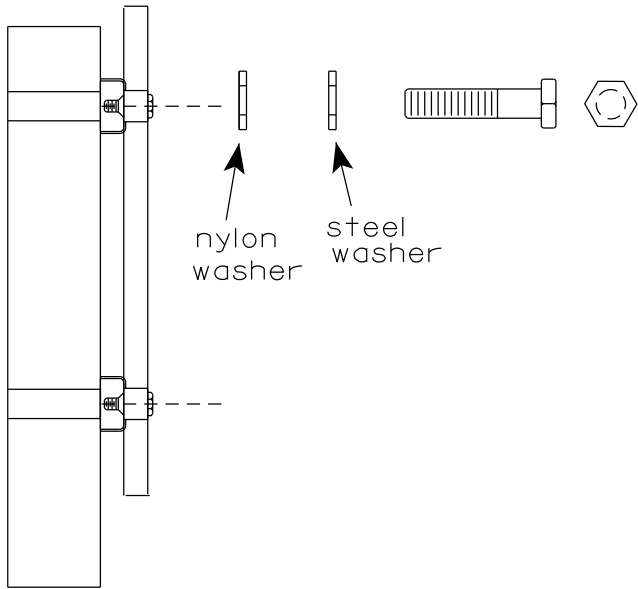
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

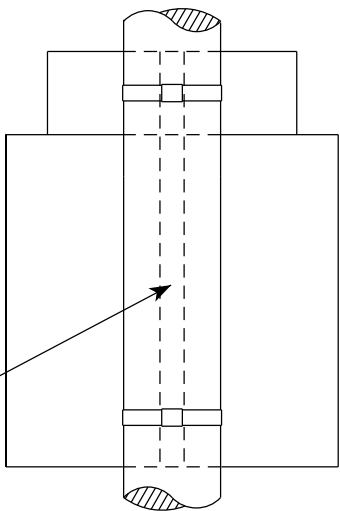


WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

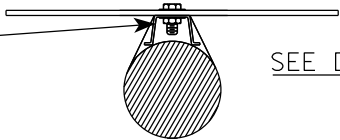
GENERAL NOTES

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

"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET

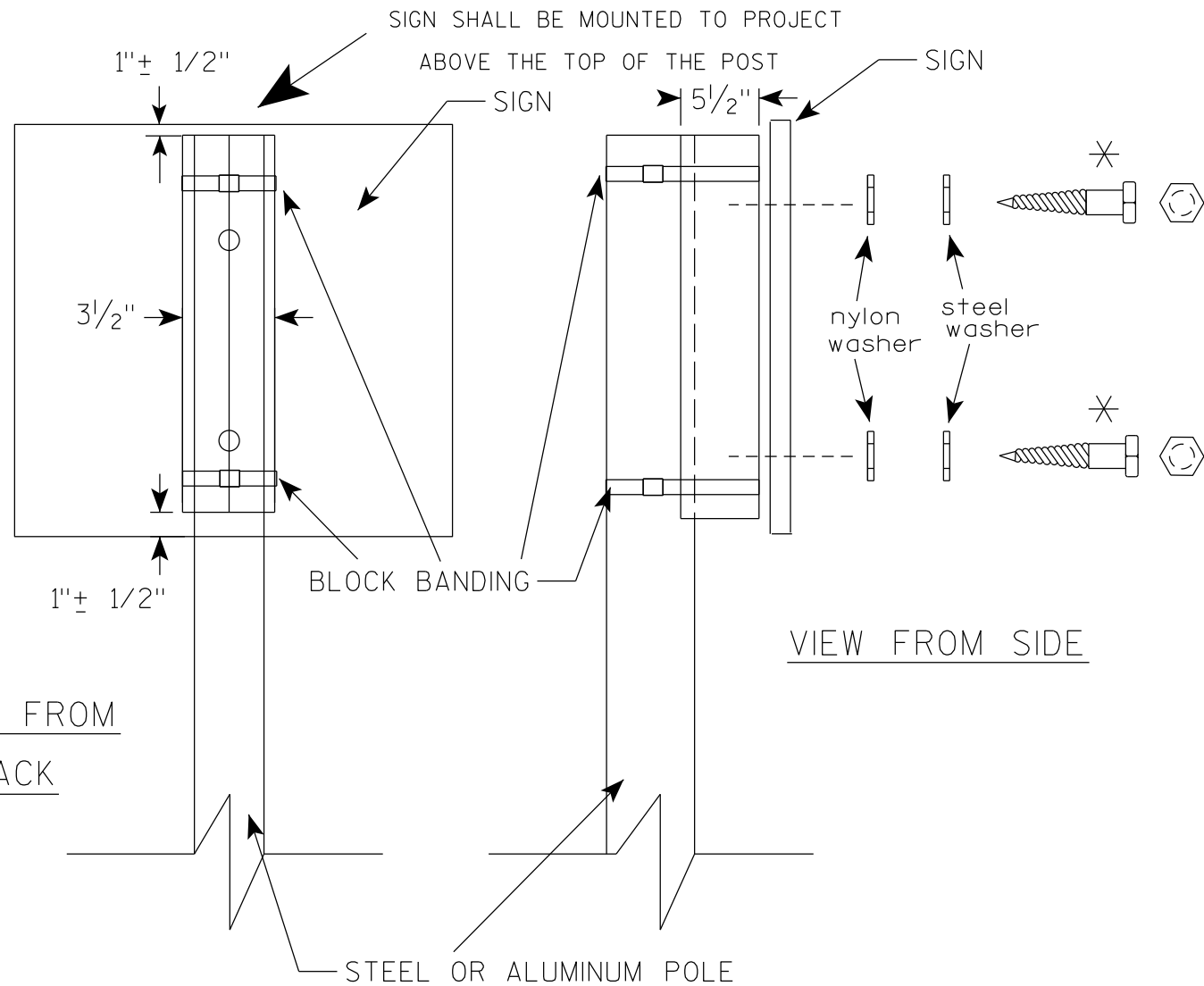


STANDARD SIGN  
SIGN BANDING DETAILS

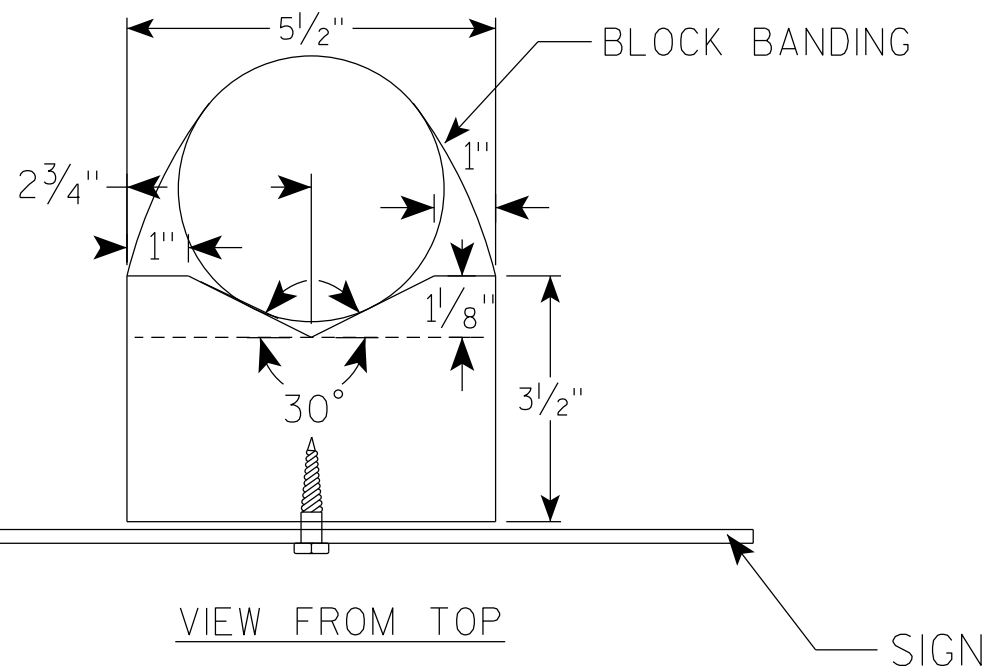
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM  
BACK



VIEW FROM SIDE



## GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL,  $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

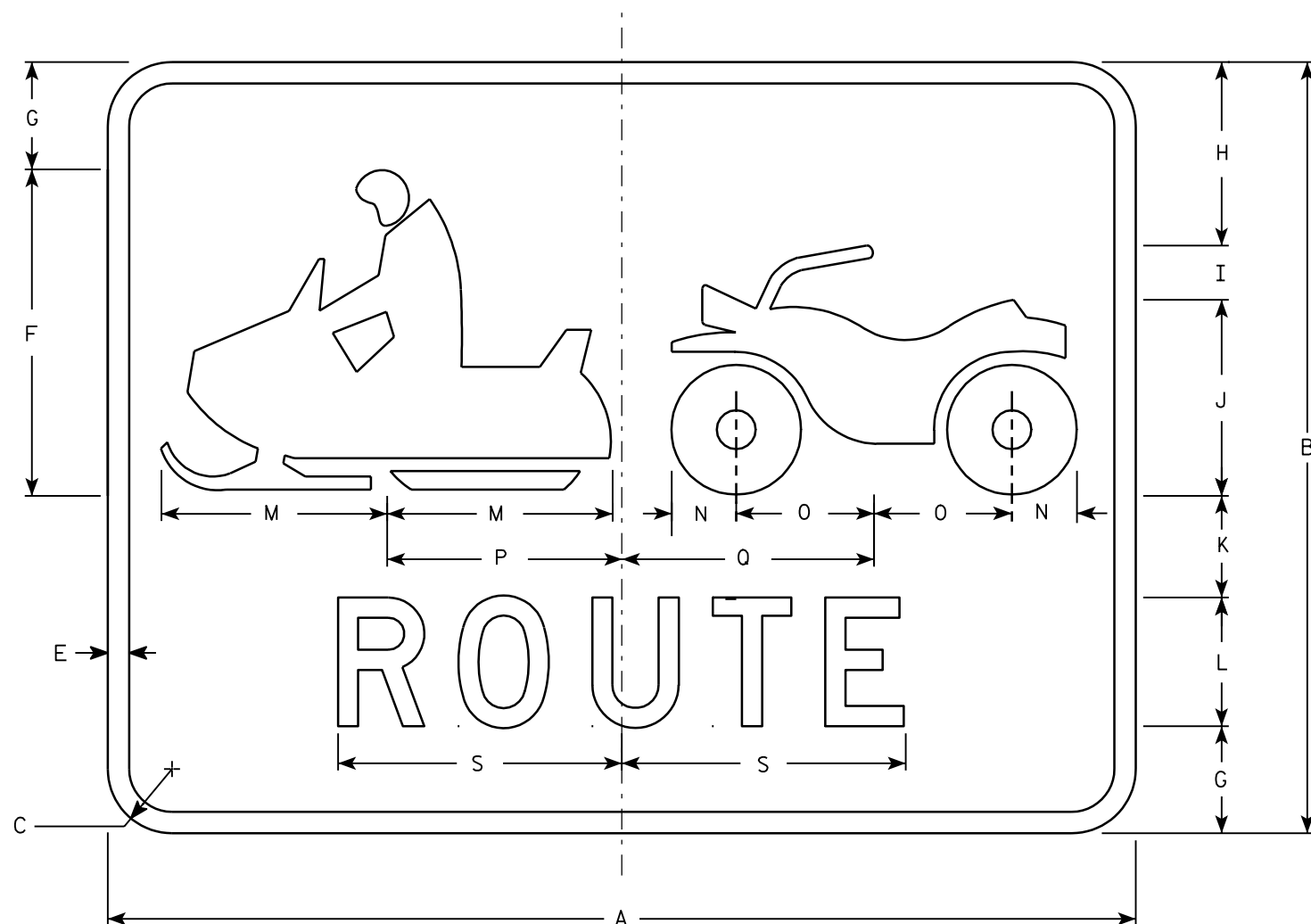
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

PROJECT NO:

SHEET NO:

E



NOTES

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

7

Metric equivalent  
for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m <sup>2</sup>
1																												
2	24	18	1 1/2		1/2	7 5/8	2 1/2	4 1/4	1 1/4	4 5/8	2 3/8	3	5 1/4	1 1/2	3 1/4	5 1/2	5 7/8		6 5/8								3.0	.28
3																												
4																												
5																												

PROJECT NO:

STANDARD SIGN

D11-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Christa J. Spang*  
for State Traffic Engineer

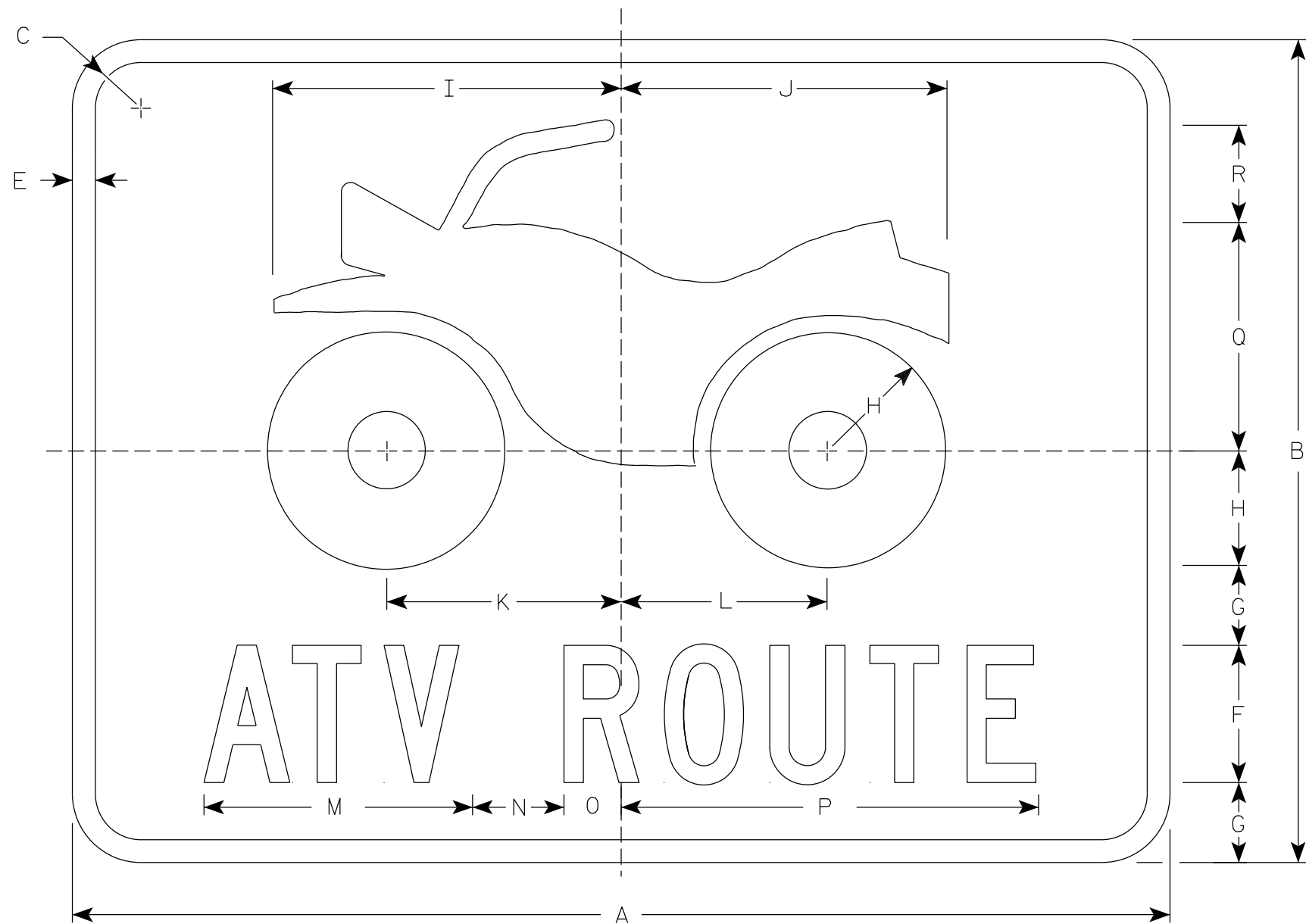
DATE 1/16/02

PLATE NO. D11-8.2

SHEET NO:

E

7



D11-10

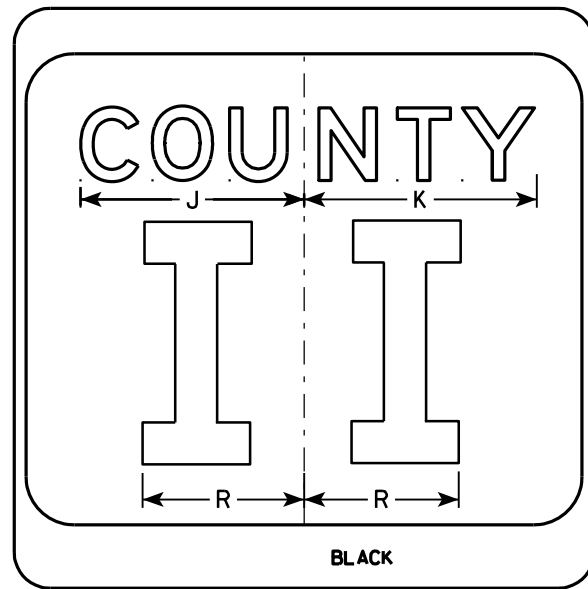
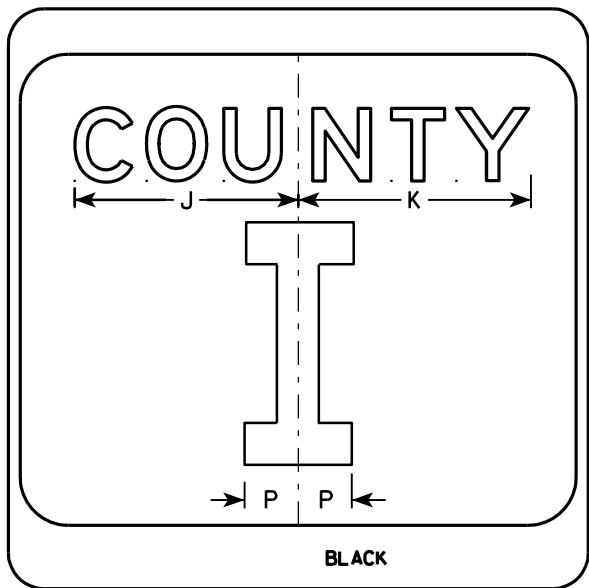
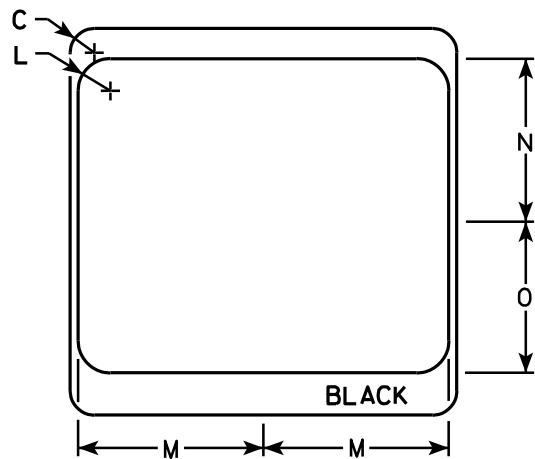
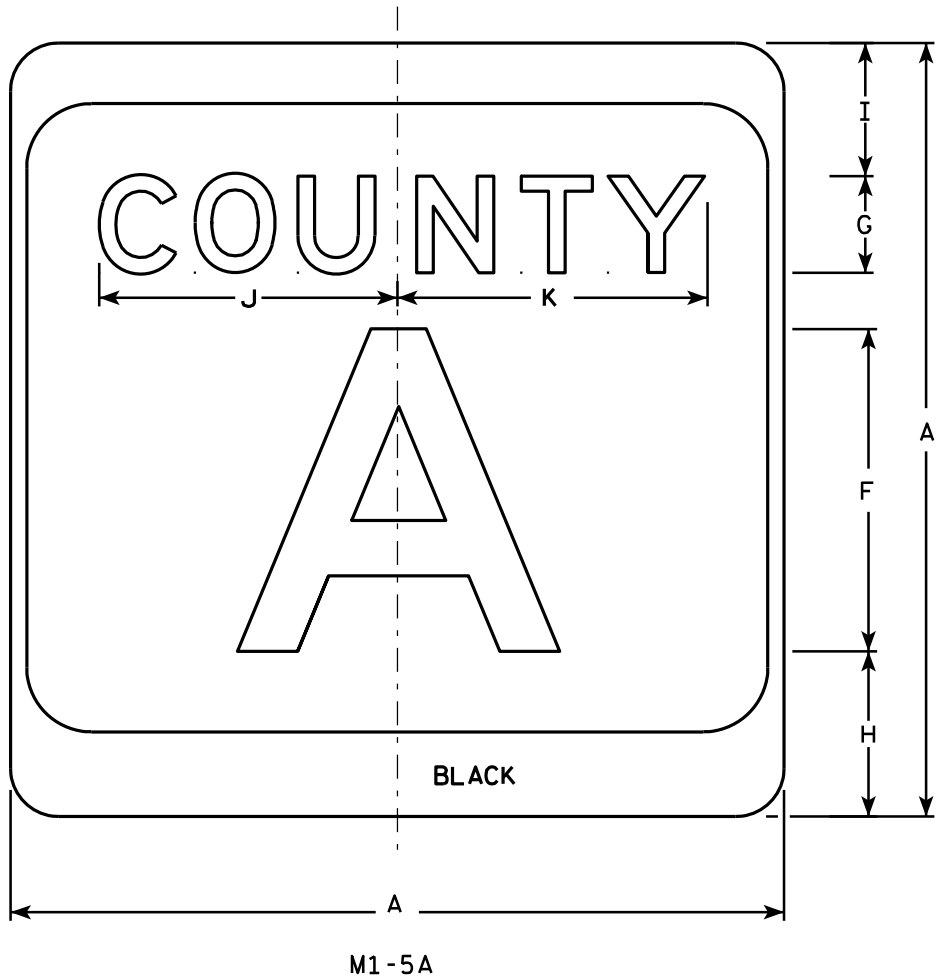
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
  - Background - Green
  - Message - White
- 3. Message Series - C

7

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

7



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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7



7

Metric equivalent  
for this sign is:

SIZE	
1	
2	450 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m <sup>2</sup>
1																												
2	18	36	1 1/8	3/8		4	2	13 3/4	2 1/2	1 5/8	7 1/4	7	4 3/8	1 3/4	2 5/8	7/8	1/4	3/4	5 1/8	2 1/8							4.5	.41
3																												
4																												
5																												

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

FILE NAME : C:\Users\Projects\tr\_stdplate\M186.DGN

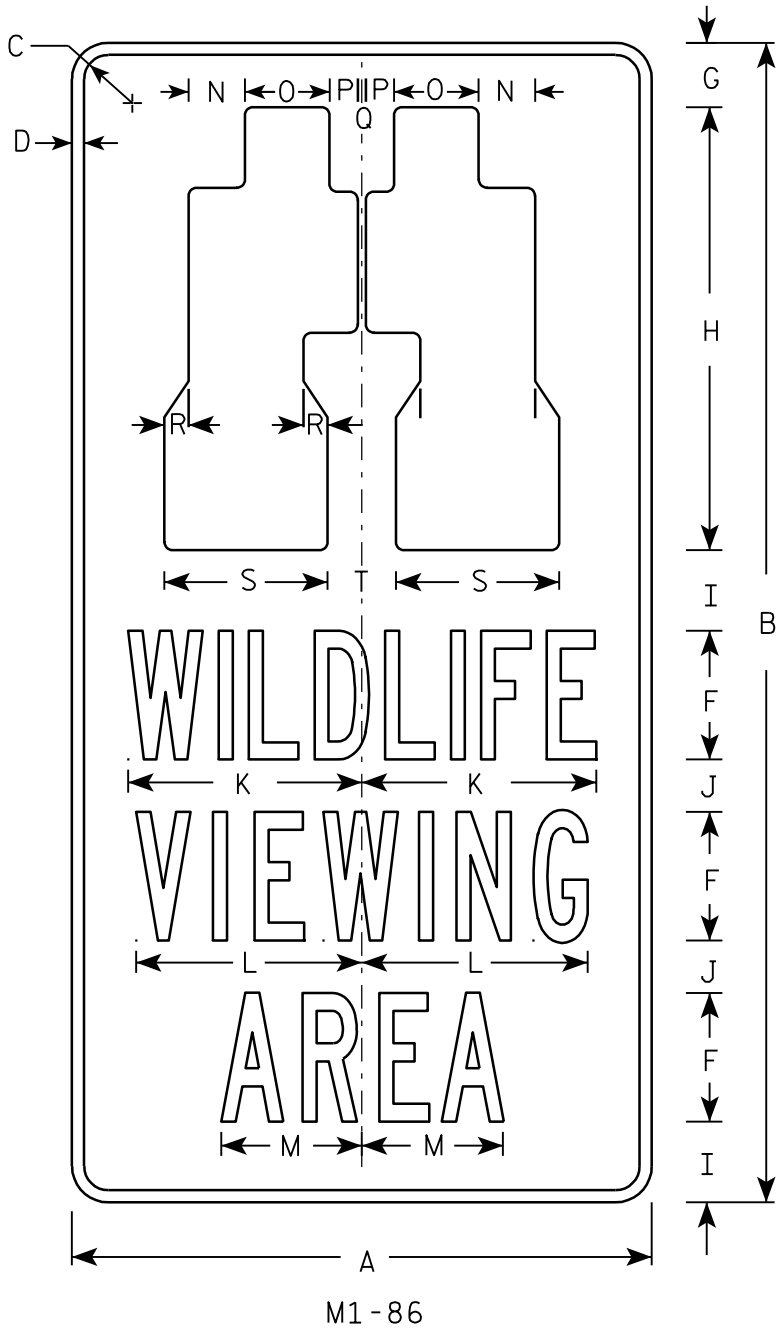
PLOT DATE : 13-OCT-2005 15:31

PLOT BY : DITJPH

PLOT NAME :

PLOT SCALE : 5.960833:1.000000

WISDOT/CADDs SHEET 42



NOTES

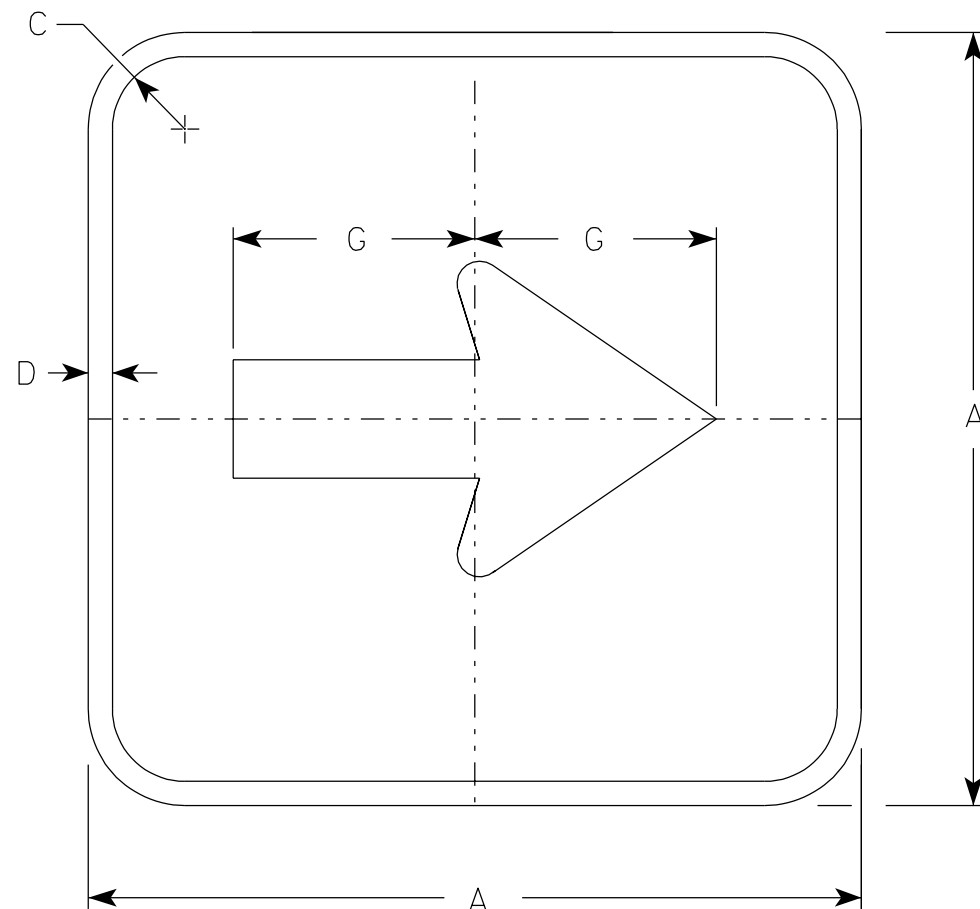
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Brown  
Message - White - Type H Reflective
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders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

STANDARD SIGN  
M1-86

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Chester J. Spang*  
for State Traffic Engineer

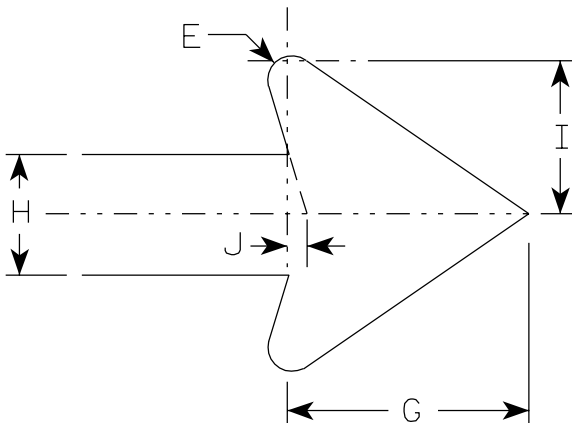
DATE 1/30/02  
PLATE NO. M1-86.3



M1-88A

NOTES

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



Metric equivalent for this sign is:

SIZE	
1	
2	300 mm X 300 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	12		1 1/8				3 3/4	1 7/8	2 3/8	5/16																	1.0	.09
3																												
4																												
5																												

STANDARD SIGN  
M1-88A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Christa J. Spang*  
for State Traffic Engineer

DATE 1/30/02 PLATE NO. M1-88A.2

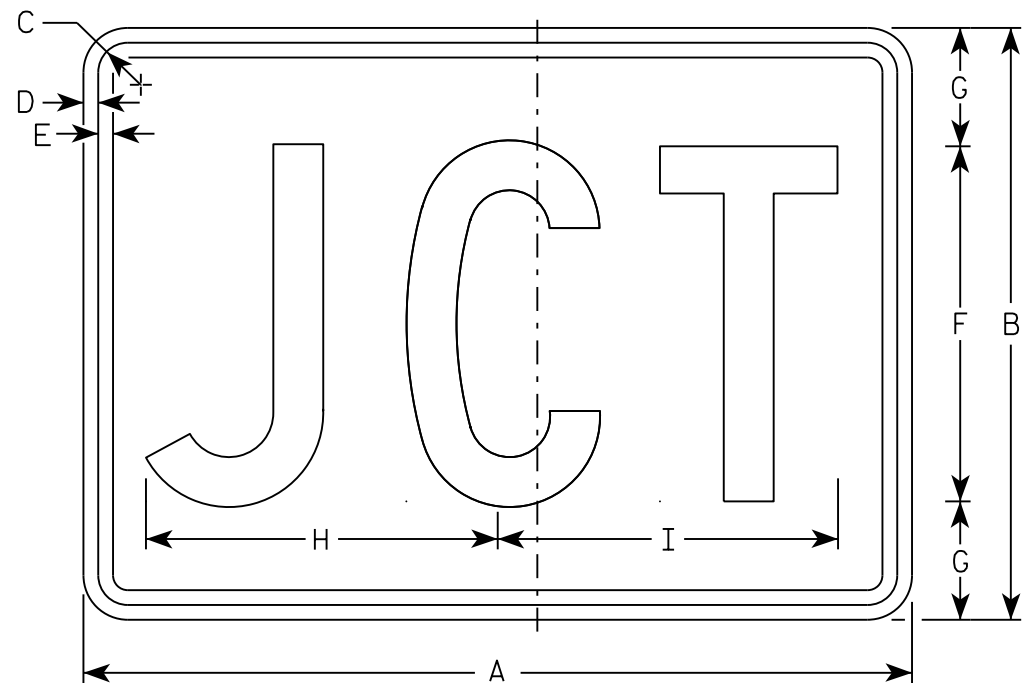
PROJECT NO:

HWY:

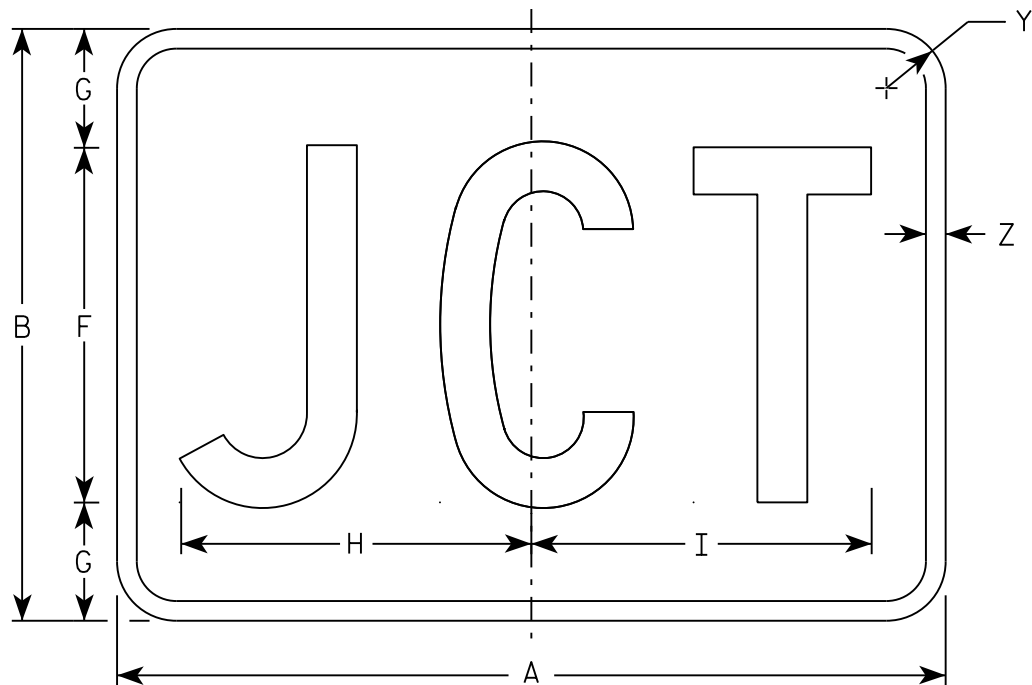
COUNTY:

SHEET NO:

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

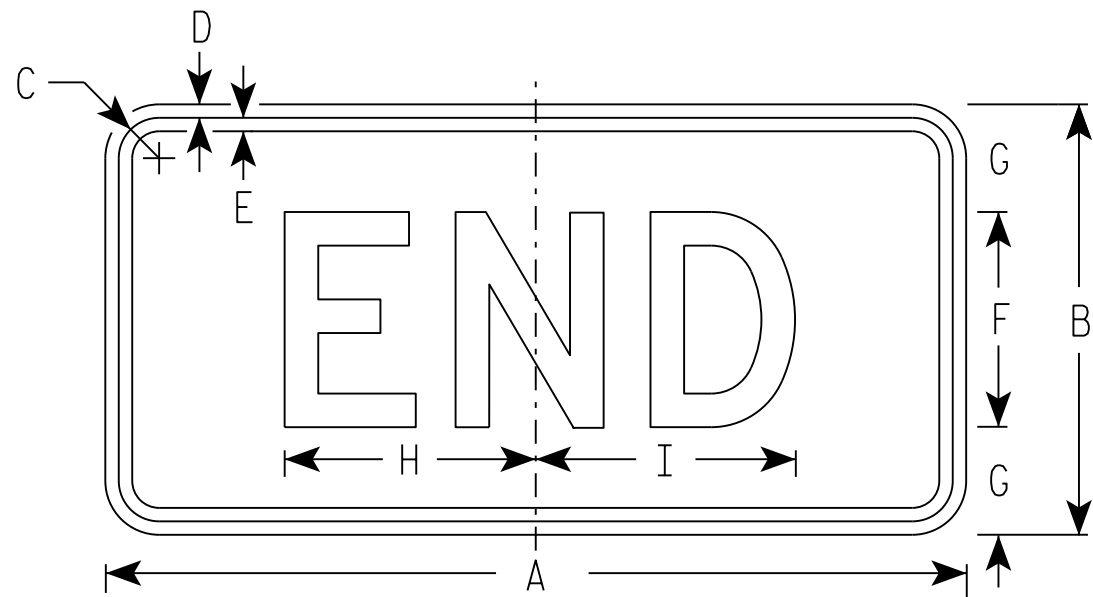
APPROVED

Matthew R. Rauch

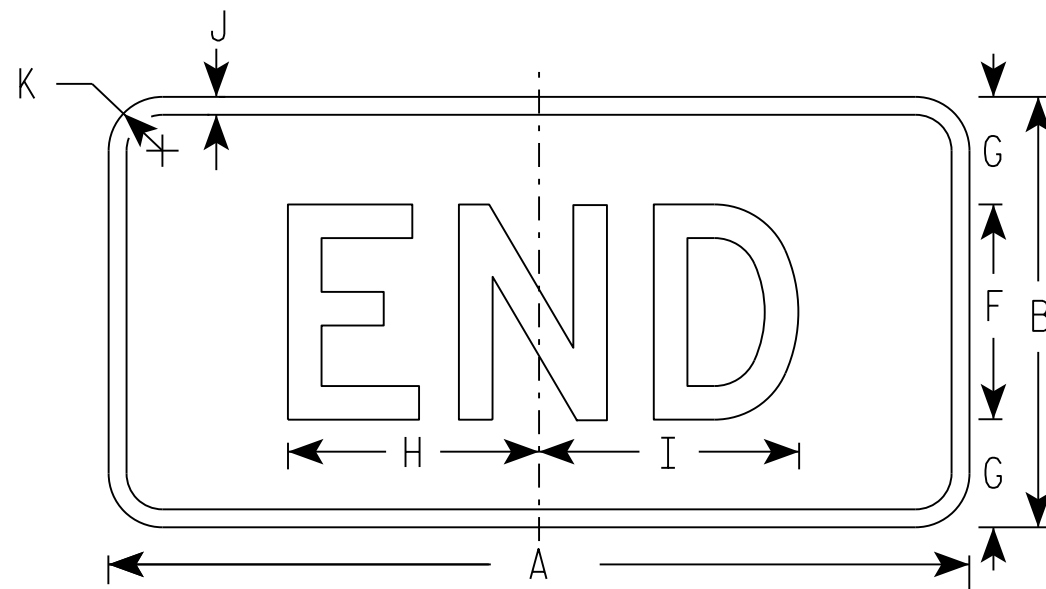
For State Traffic Engineer

DATE 10/15/15

PLATE NO. M2-1.12



M4-6  
MM4-6  
MP4-6



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

### NOTES

- Sign is Type II - Type H
- Color:  
Background - See note 5  
Message - See note 5
- Message Series - D
- 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.
- M4-6 Background - White  
Message - Black  
MB4-6 Background - Blue  
Message - White  
MK4-6 Background - Green  
Message - White  
MM4-6 Background - White  
Message - Green  
MN4-6 Background - Brown  
Message - White  
MP4-6 Background - White  
Message - Blue  
MR4-6 Background - Brown  
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

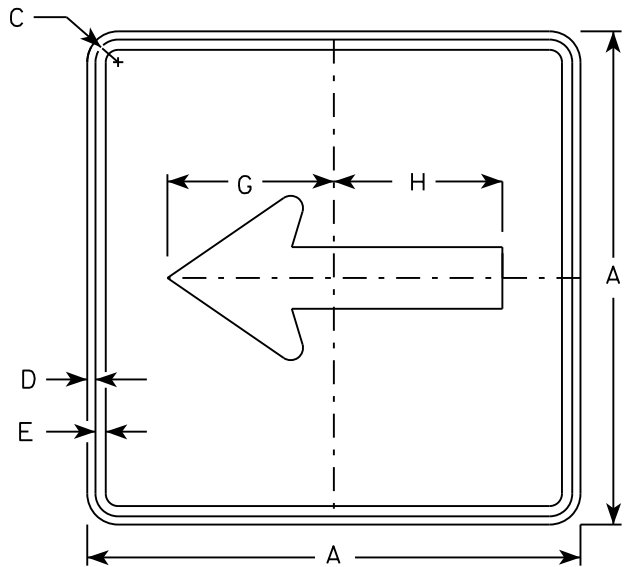
E

STANDARD SIGN  
M4-6

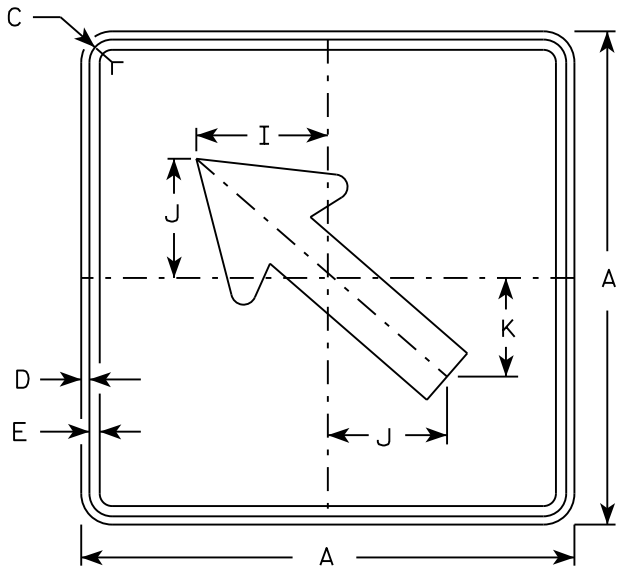
WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

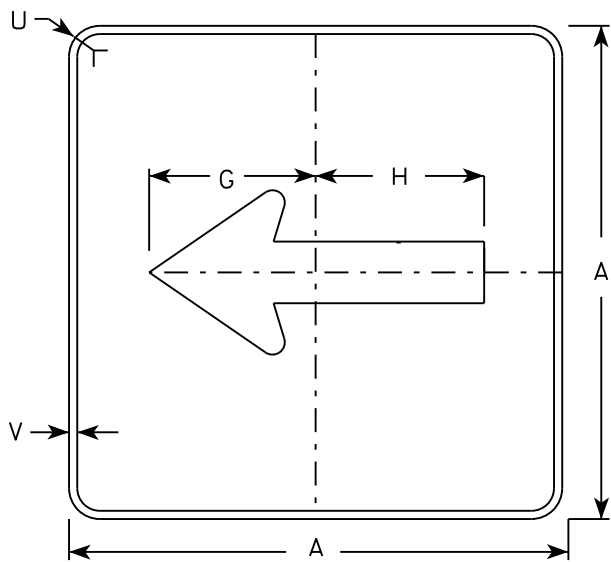
DATE 10/15/15 PLATE NO. M4-7.9



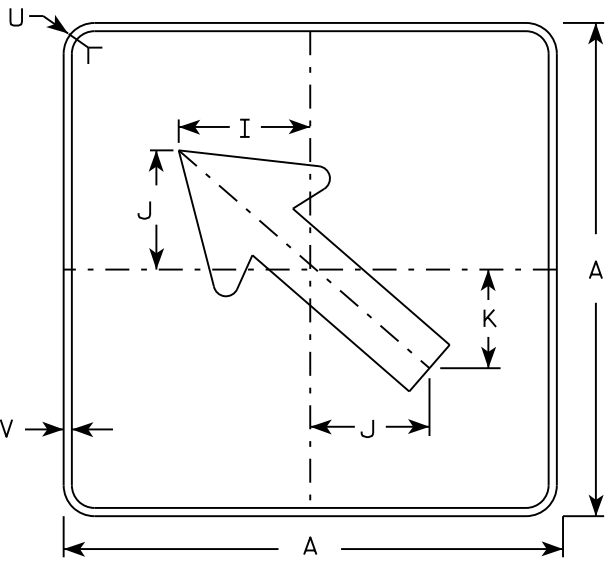
M6 - 1  
MM6 - 1  
M06 - 1  
MP6 - 1



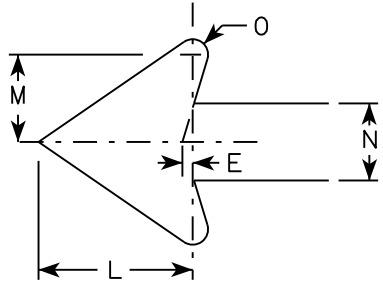
M6 - 2  
MM6 - 2  
M06 - 2  
MP6 - 2



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



MB6 - 2  
MK6 - 2  
MN6 - 2  
MR6 - 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  
M06-1 and M06-2 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

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

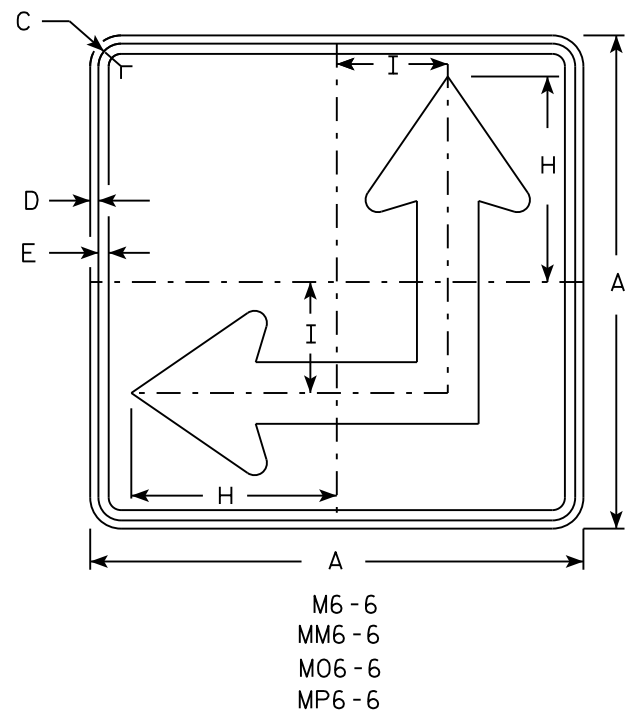
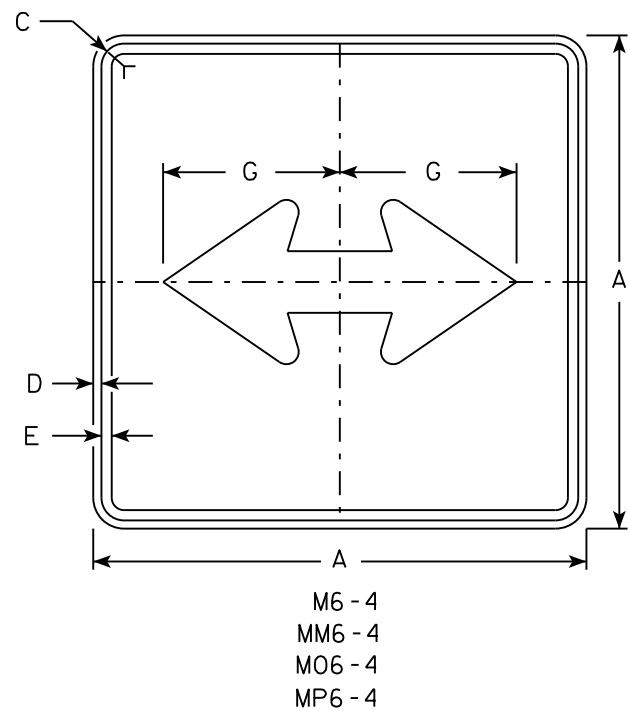
E

STANDARD SIGN  
M6 - 1 & M6 - 2  
SERIES

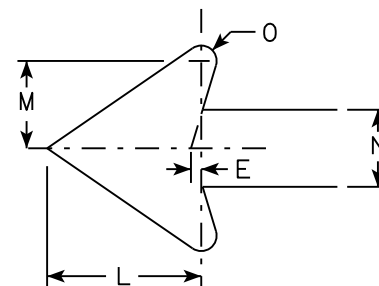
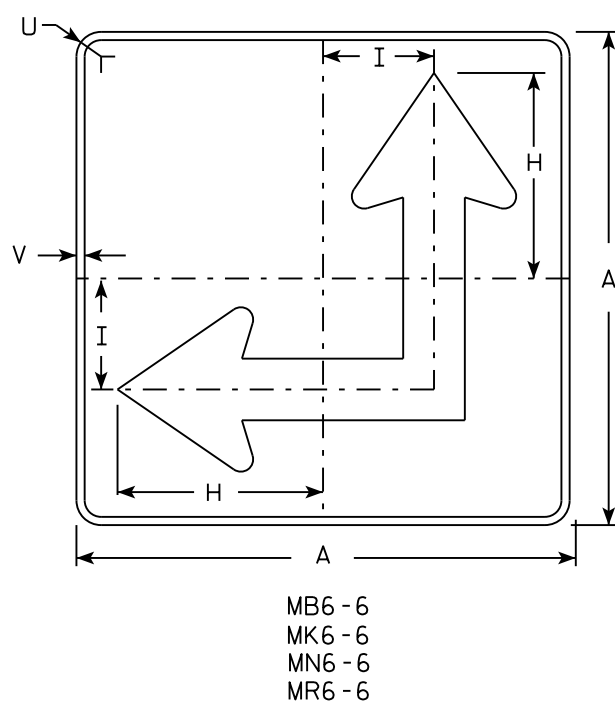
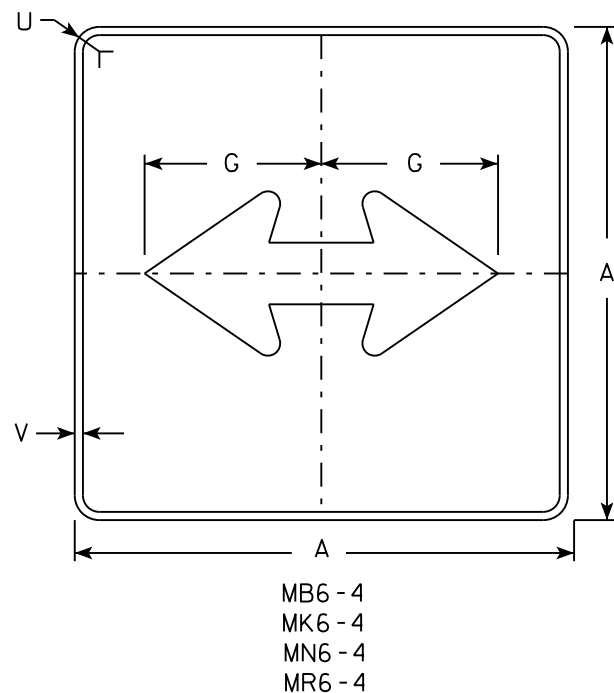
WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

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



- NOTES
- Signs are Type II - Type H except as Shown
  - Color:  
Background - See Note 4  
Message - See Note 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.
  - M6-4 and M6-6 Background - White  
Message - Black  
MB6-4 and MB6-6 Background - Blue  
Message - White  
MK6-4 and MK6-6 Background - Green  
Message - White  
MM6-4 and MM6-6 Background - White  
Message - Green  
MN6-4 and MN6-6 Background - Brown  
Message - White  
M06-4 and M06-6 Background - Orange - Type F Reflective  
Message - Black  
MP6-4 and MP6-6 Background - White  
Message - Blue  
MR6-4 and MR6-6 Background - Brown  
Message - Yellow
  - M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

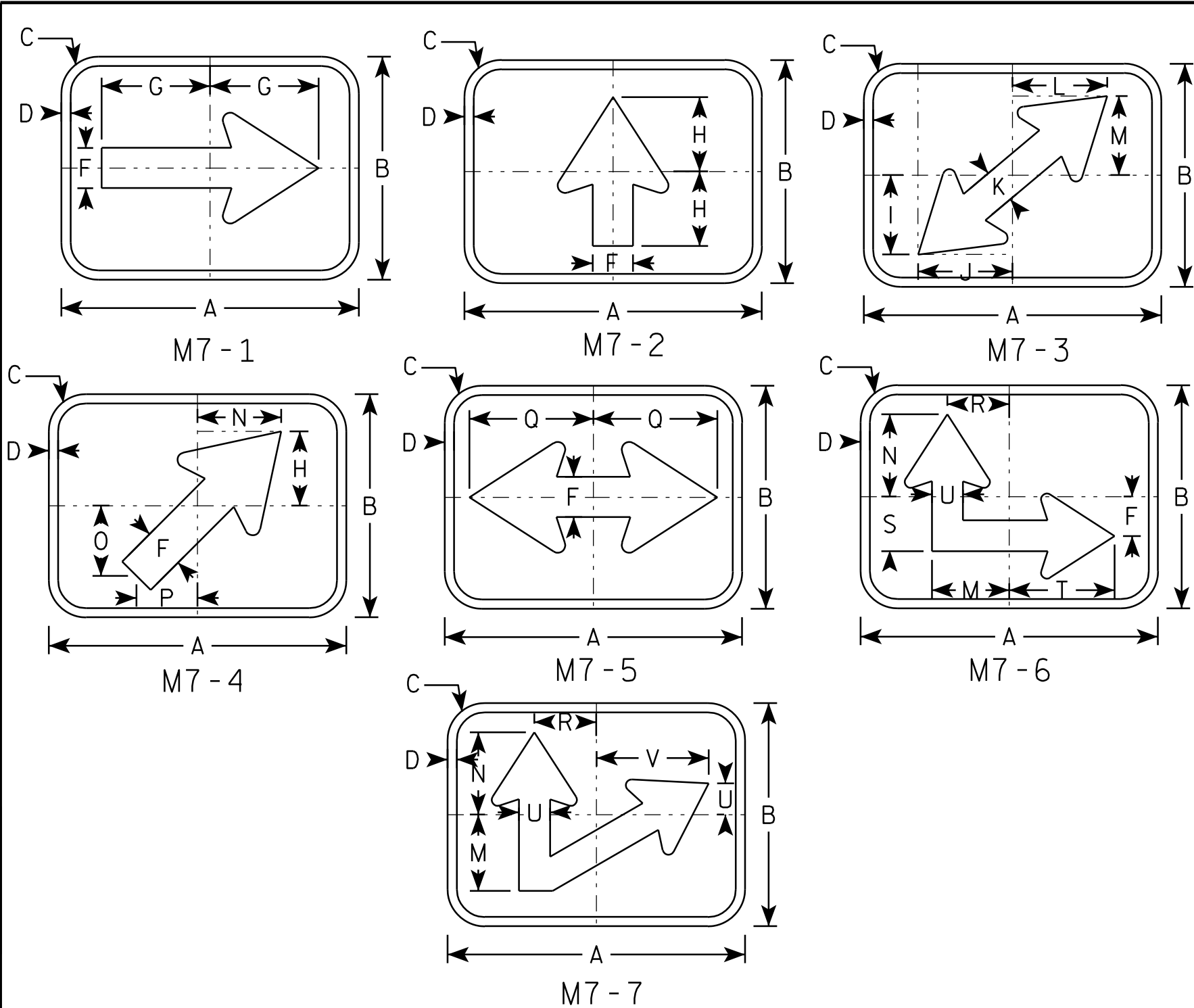
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN  
M6 - 4 & M6 - 6  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15      PLATE NO. M6-4.10



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Green  
Message - White
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																											
2	12	9	1½	¾		1 ⅝	4 ⅜	3	3 ¼	3 ¾	1 ⅜	3 ⅞	3 ⅛	3 ⅜	2 ⅞	2 ½	5	2 ½	2 ¼	4 ¼	1 ¼	4 ½					.75
3																											
4																											
5																											

STANDARD SIGN  
M7 SERIES

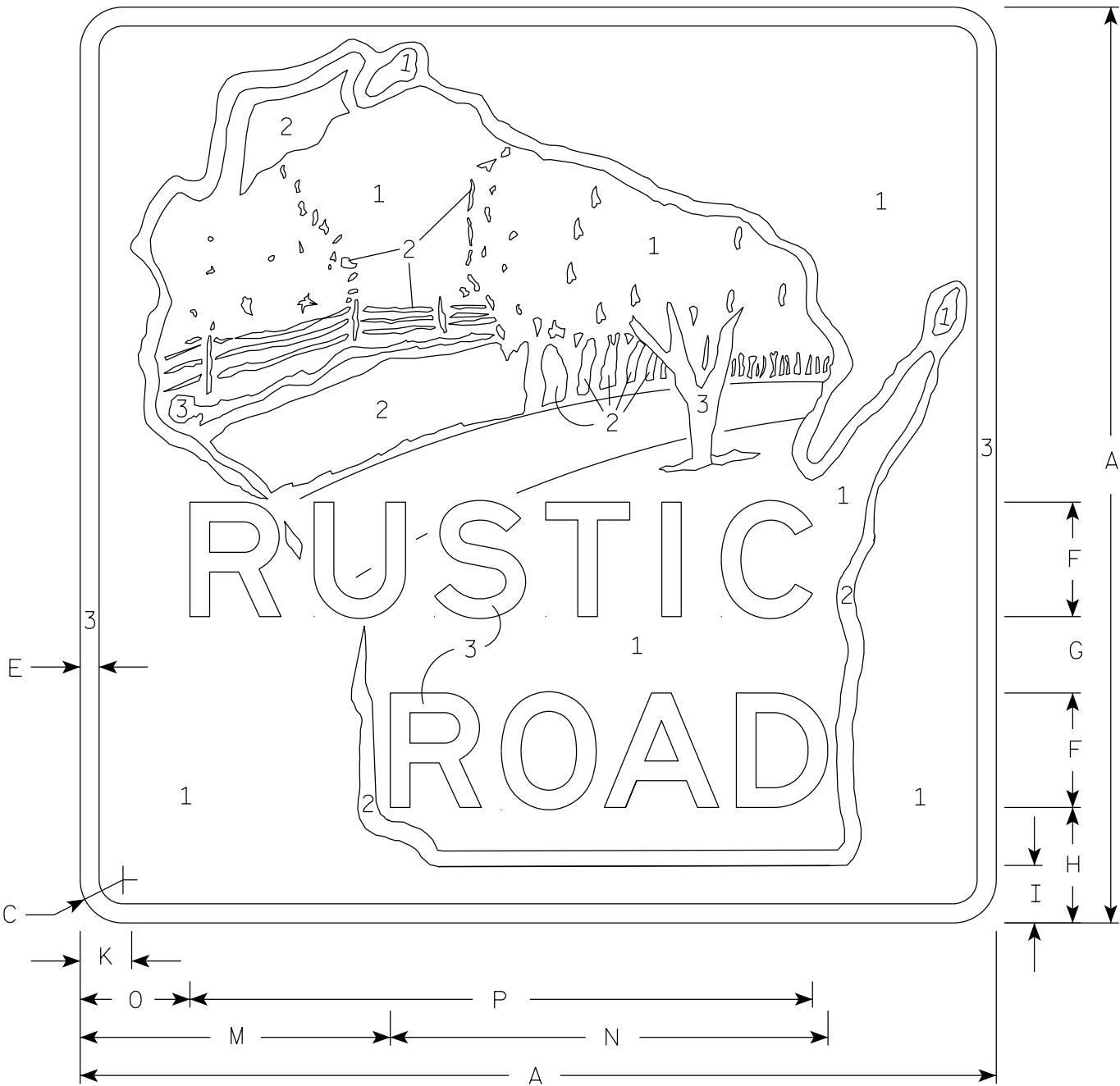
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 05/04/10 PLATE NO. M7-1.1

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
  - Background - See note 4
  - Message - See note 4
- 3. Message Series - Modified E
- 4. The sign will be color coded by numerical designation Numeral \*1 Brown
  - 2 White
  - 3 Yellow

Exact color descriptions will be furnished upon request.



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 1/8		1/2	3	2	3	1 1/2		1 3/8		8 1/8	11 1/4	2 7/8	16 1/4											4.0
3	36		1 5/8		3/4	4 1/2	3	4 1/2	2 1/4		2		12 1/8	17 1/4	4 3/8	24 1/2											9.0
4	36		1 5/8		3/4	4 1/2	3	4 1/2	2 1/4		2		12 1/8	17 1/4	4 3/8	24 1/2											9.0
5																											

STANDARD SIGN  
MR1-99

WISCONSIN DEPT OF TRANSPORTATION

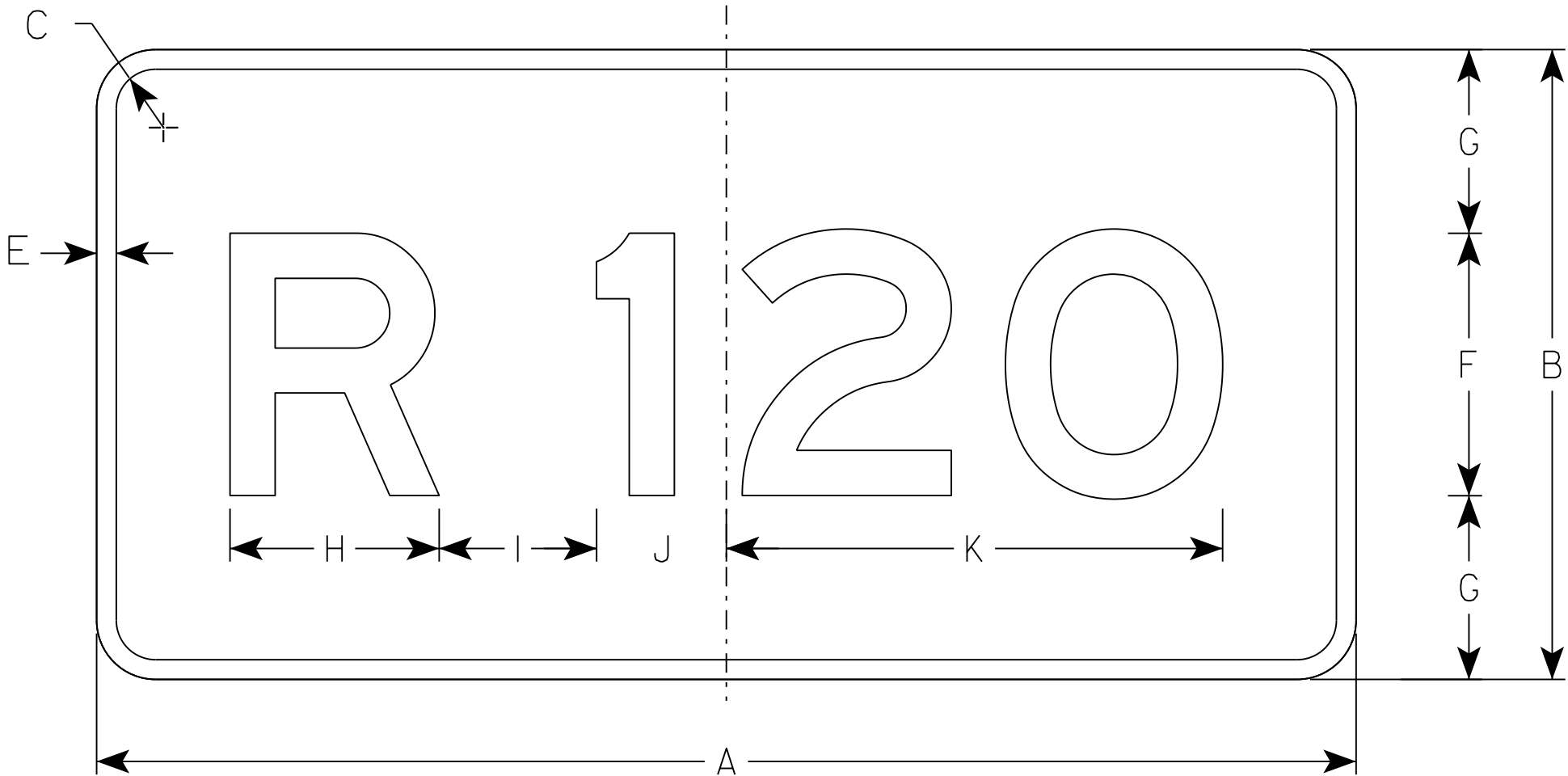
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/8/2020 PLATE NO. MR1-99.6



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:  
Background - Brown  
Message - Yellow
- 3. Message Series - E
- 4. Substitute appropriate numeral and optically center



MR4-53

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8		3/8	5	3 1/2	4	3	2 1/2	9 1/2																2.0
3																											
4																											
5																											

STANDARD SIGN  
MR4-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/20/18 PLATE NO. MR4-53.2

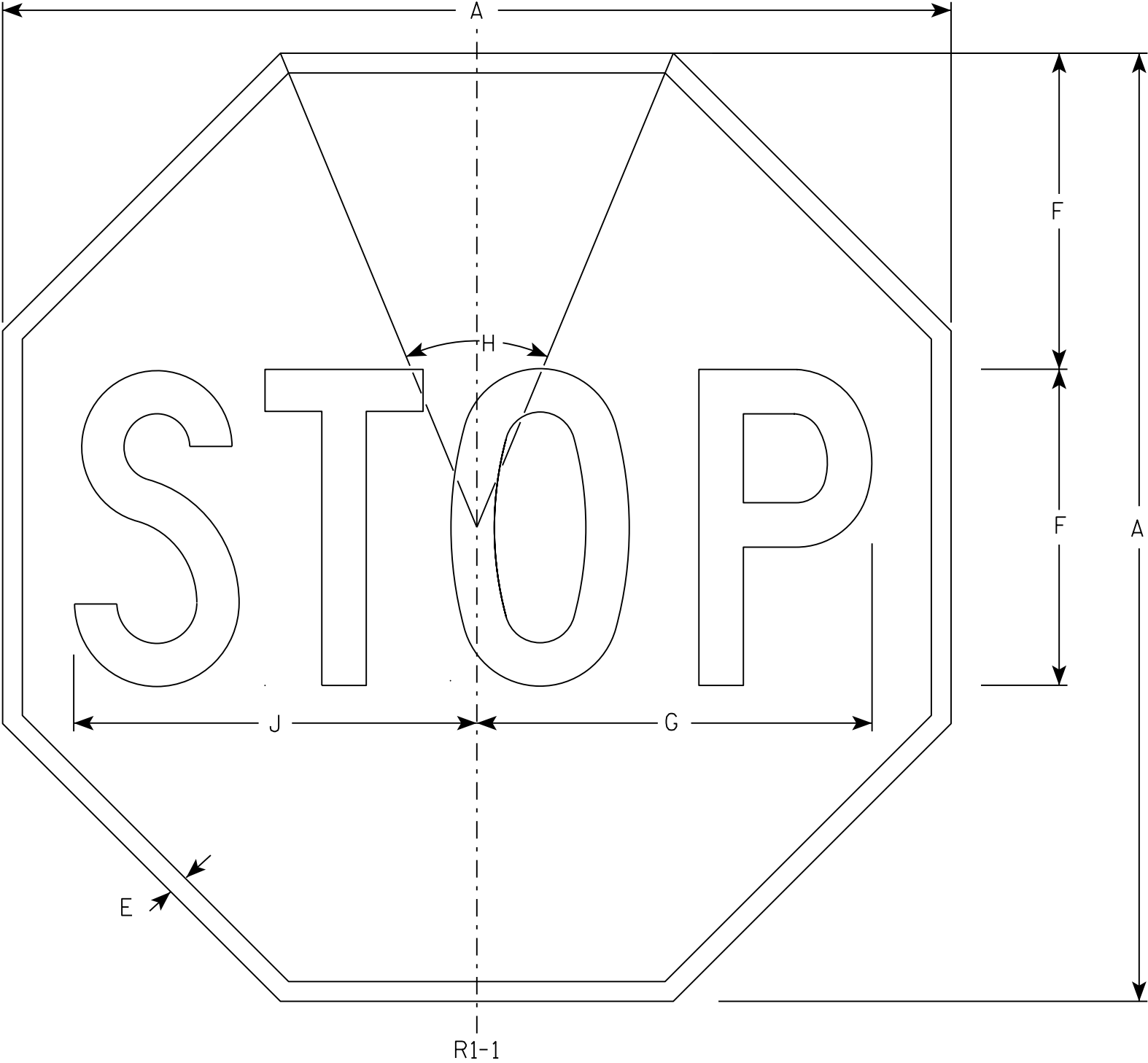
PROJECT NO:

HWY:

COUNTY:

SHEET NO: E

7



NOTES

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

7

R1-1

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

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color: Background - White  
Message - Black
- 3. Message Series - Line 1 and 2 Series D  
Line 3 Series C



R5-51

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	24	1 1/8	3/8	3/8	4	3	3 3/8	4 7/8	8 7/8																	4.0
2M	24	24	1 1/8	3/8	3/8	4	3	3 3/8	4 7/8	8 7/8																	4.0
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN  
R5 - 51

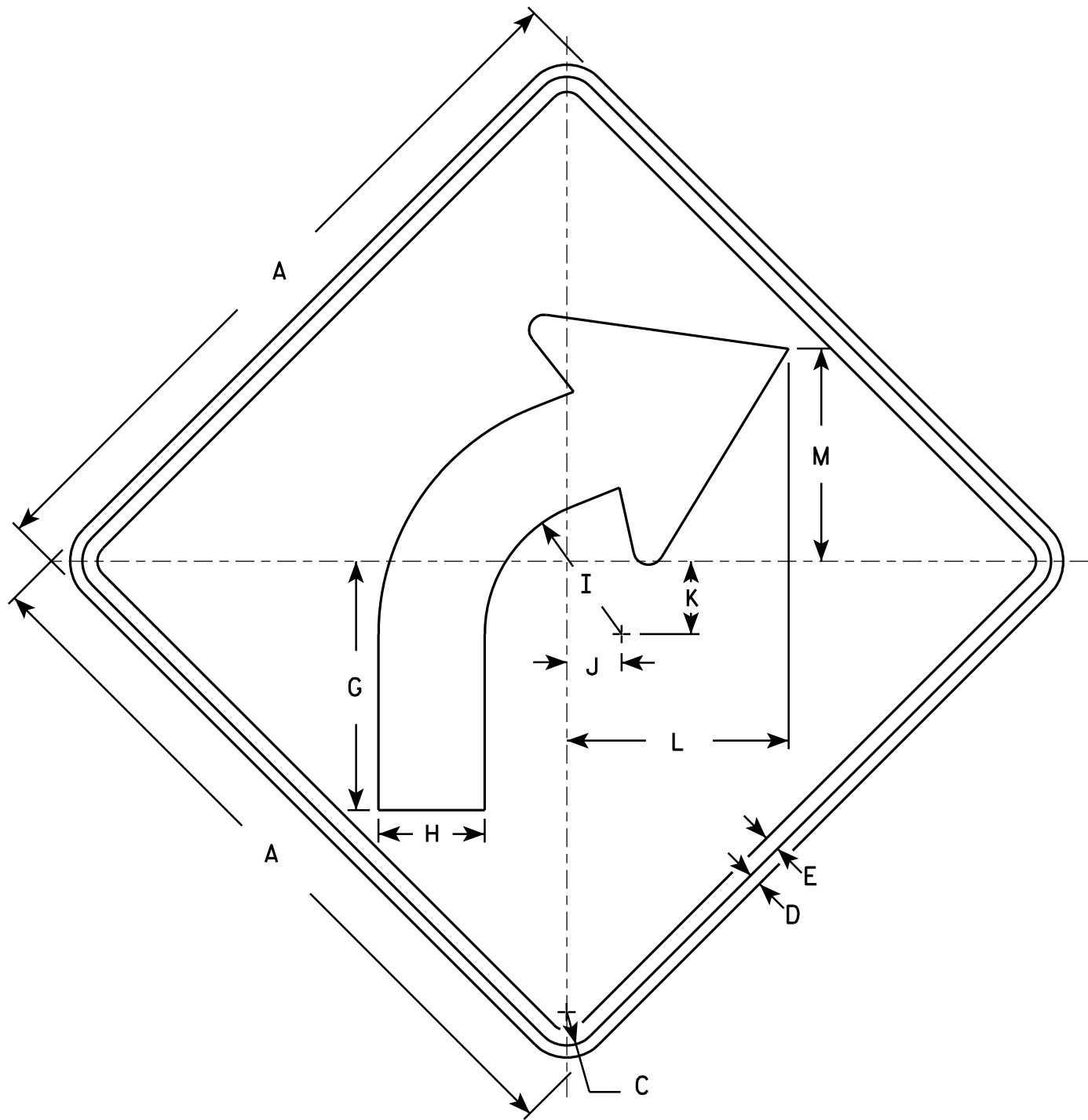
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

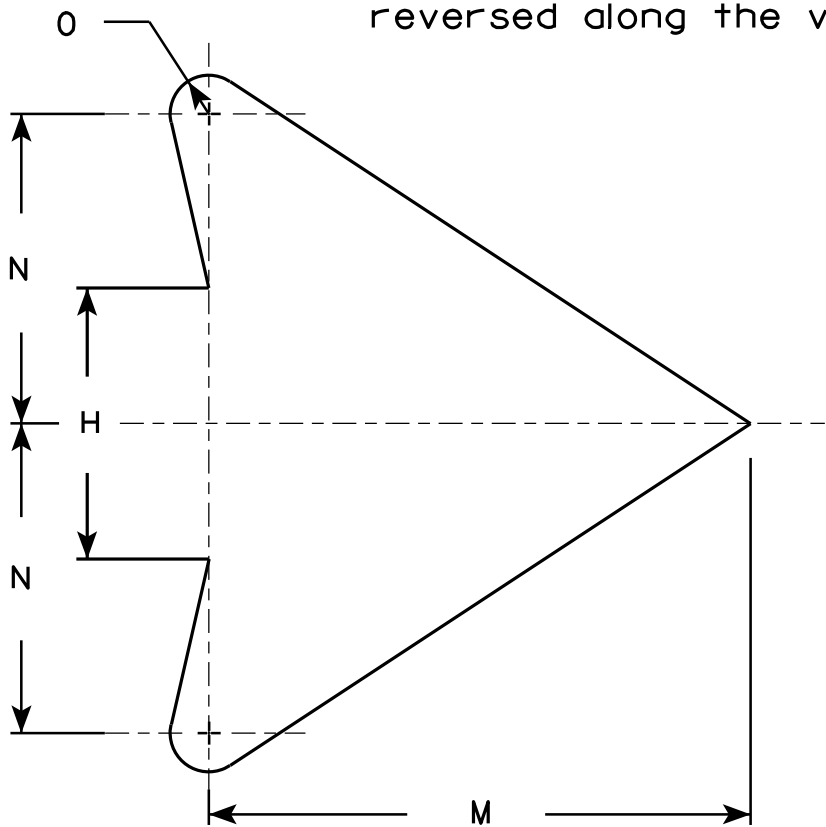
DATE 5/16/18 PLATE NO. R5-51.1

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.



W1-2R



ARROW DETAIL

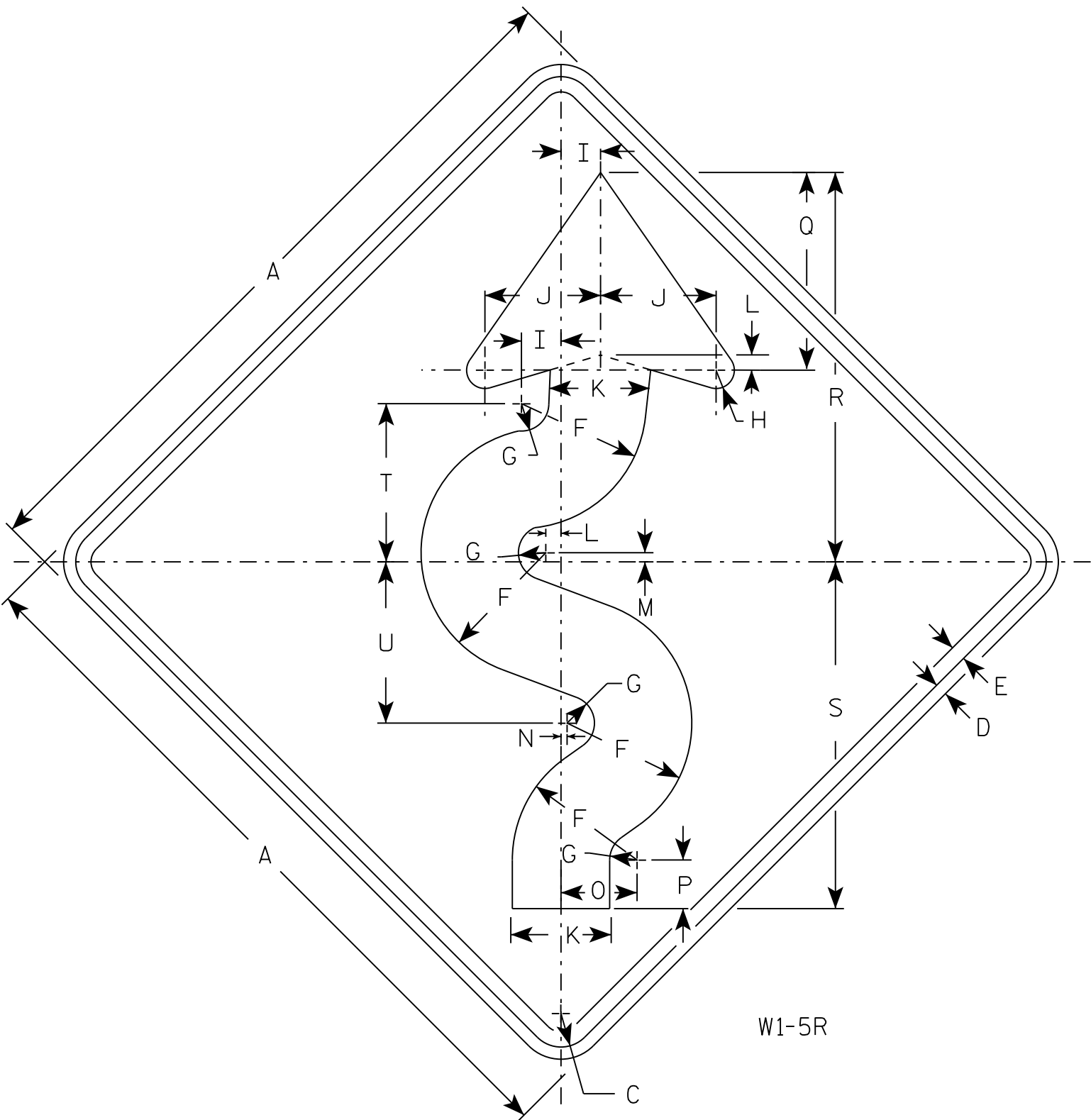
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6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



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:  
Background - Yellow  
Message - Black
- 3. W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.
- 4. If used with W13-1 of 30 MPH or less, use 36" sign for Size 2S.

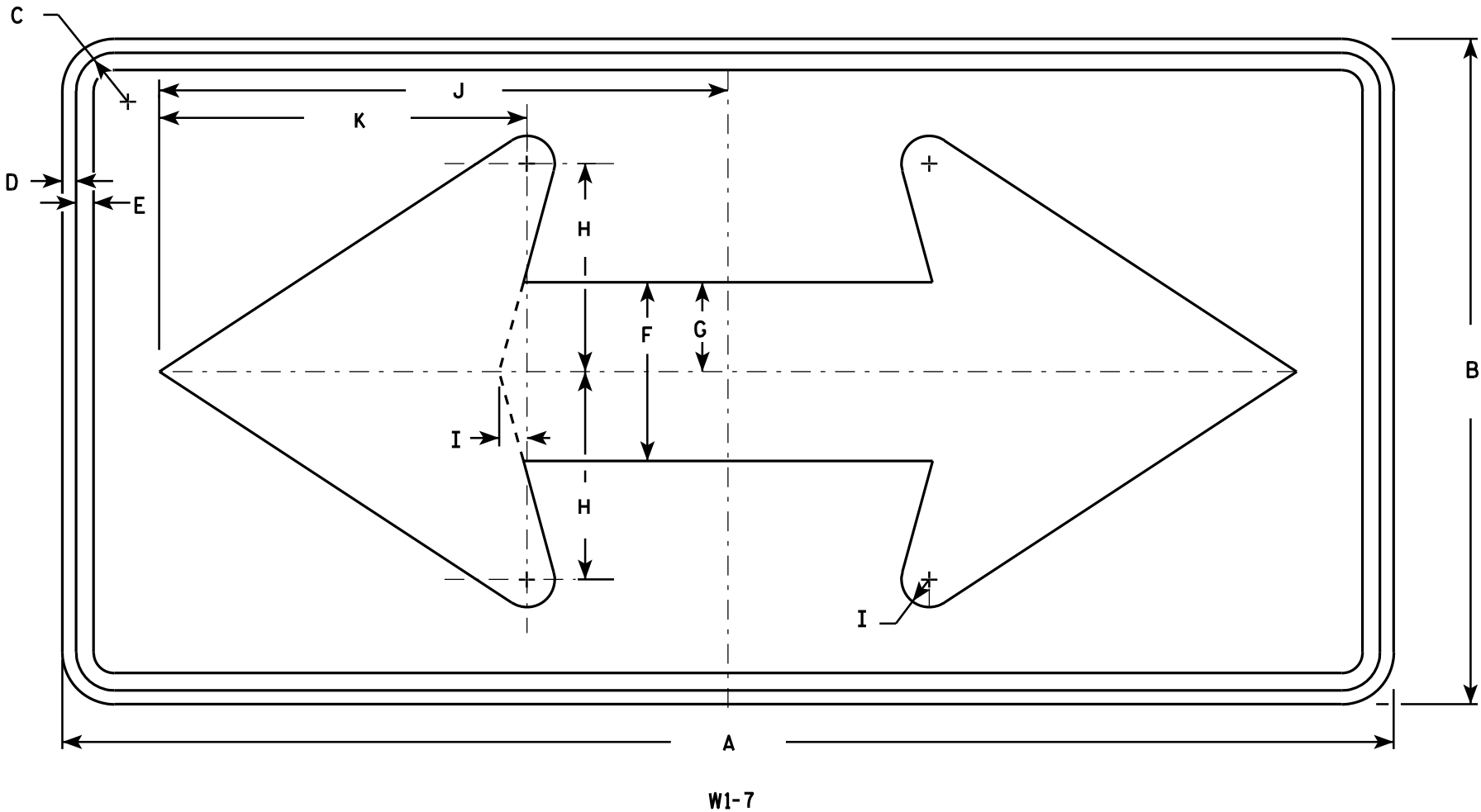
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

STANDARD SIGN  
W1-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/1/16 PLATE NO. W1-5.9



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	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

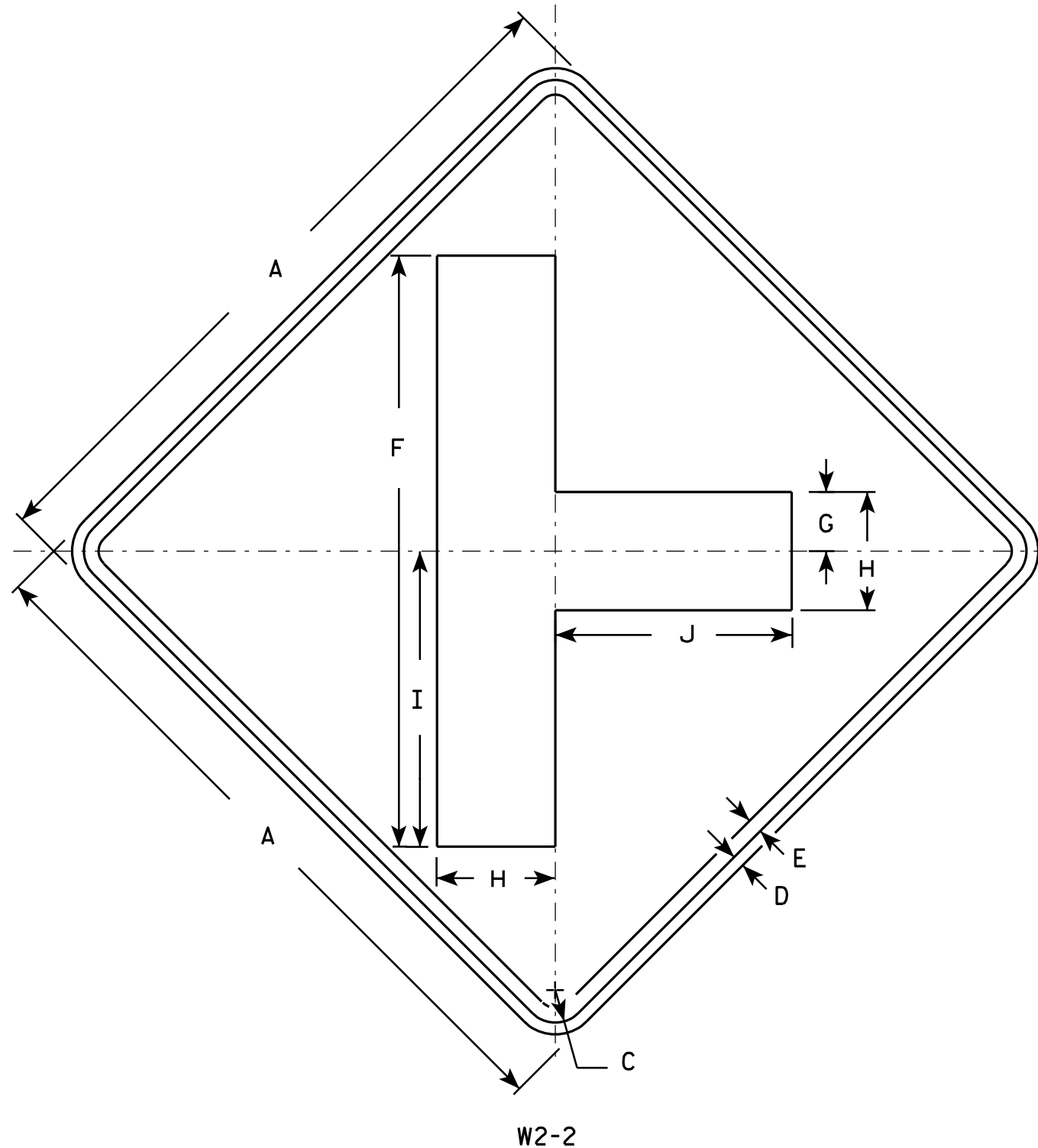
STANDARD SIGN

W1 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7



### 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	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

### STANDARD SIGN W2-2

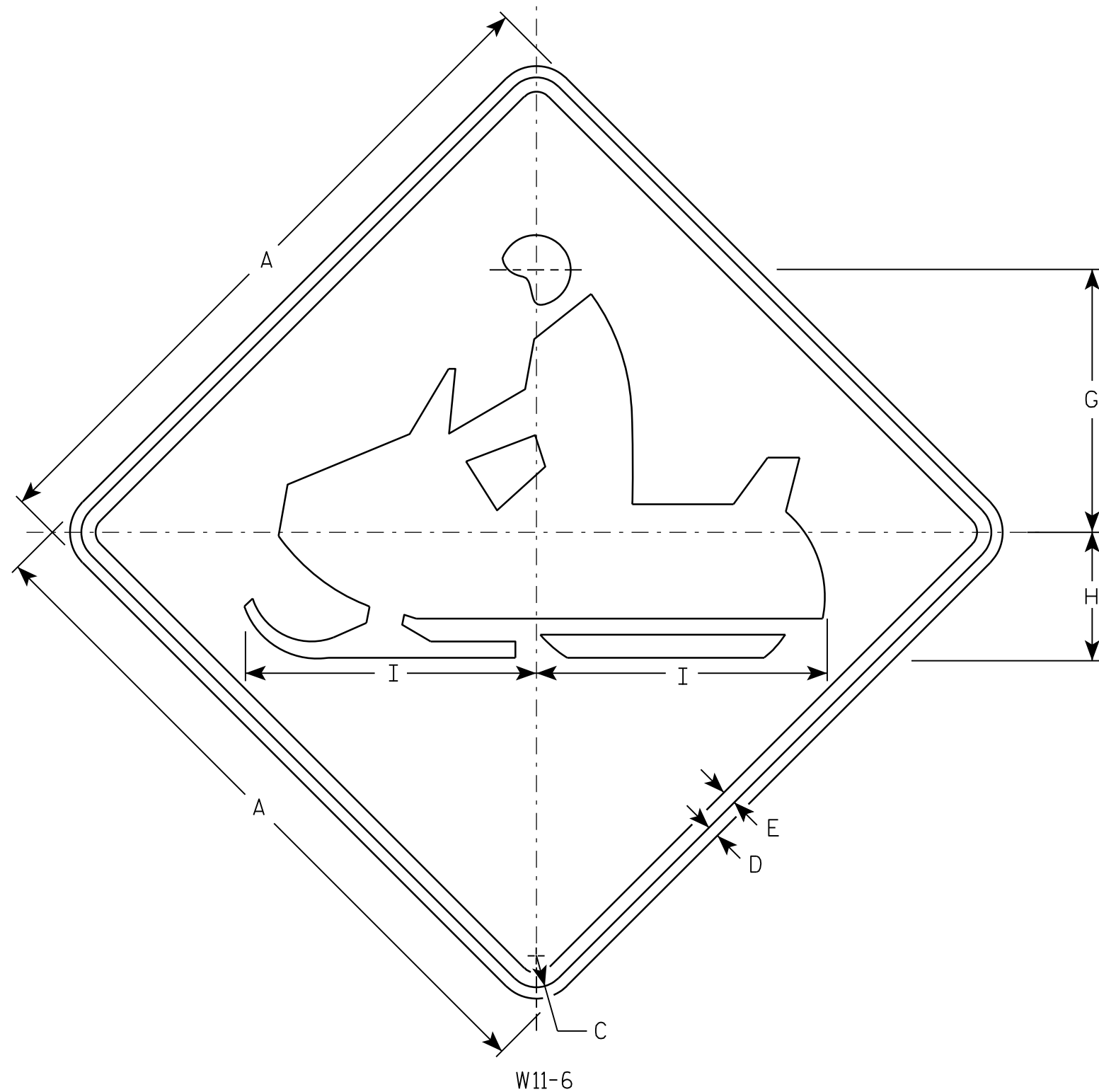
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: E





W11-6

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	24		1 1/8	3/8	1/2		9 1/2	4 1/2	10 1/4																		4.0
2S	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		1 5/8	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		2 1/4	3/4	1		19	9	20 1/2																		16.0
5																											

STANDARD SIGN  
W11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

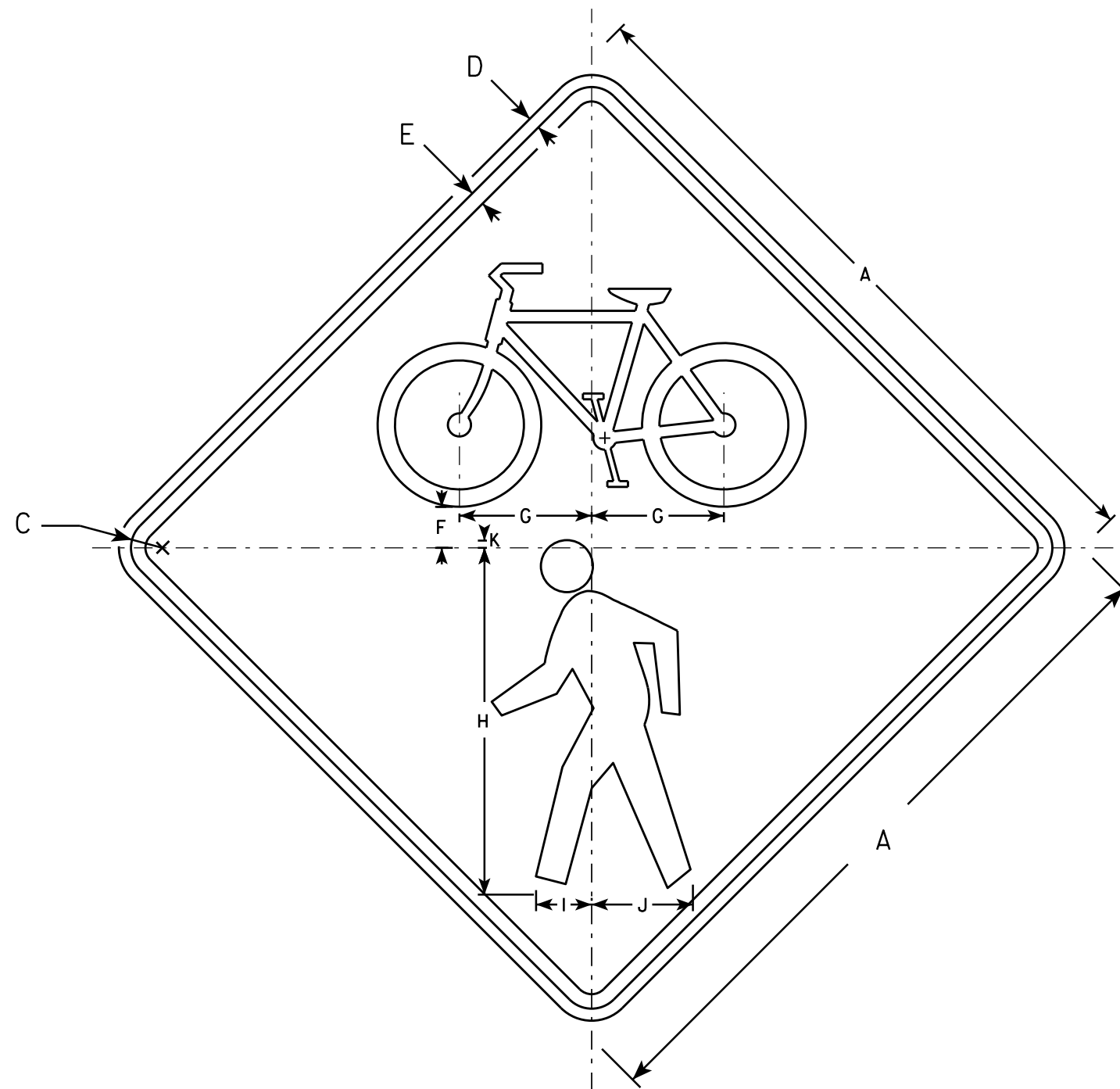
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W11-15

NOTES

1. Sign is Type II - Type F Reflective
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	24		1 1/8	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 3/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																16.0
4	48		2 1/4	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

STANDARD SIGN	
W11-15	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 2/13/14	PLATE NO. W11-15.4

## Notes



## *Wisconsin Department of Transportation*

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