SUP

PROJECT ID: 8732-00-72

WITH:

COUNTY: BAYFIELD

29

MAY 2021

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8732-00-72	WISC 2021319	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CABLE - ECL

SPRUCE STREET TO FRELS ROAD

CTH M

BAYFIELD COUNTY

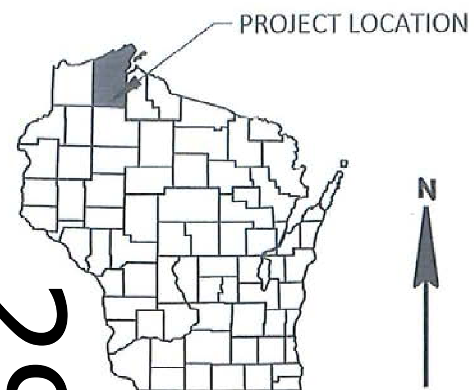
STATE PROJECT NUMBER

8732-00-72

ORDER OF SHEETS

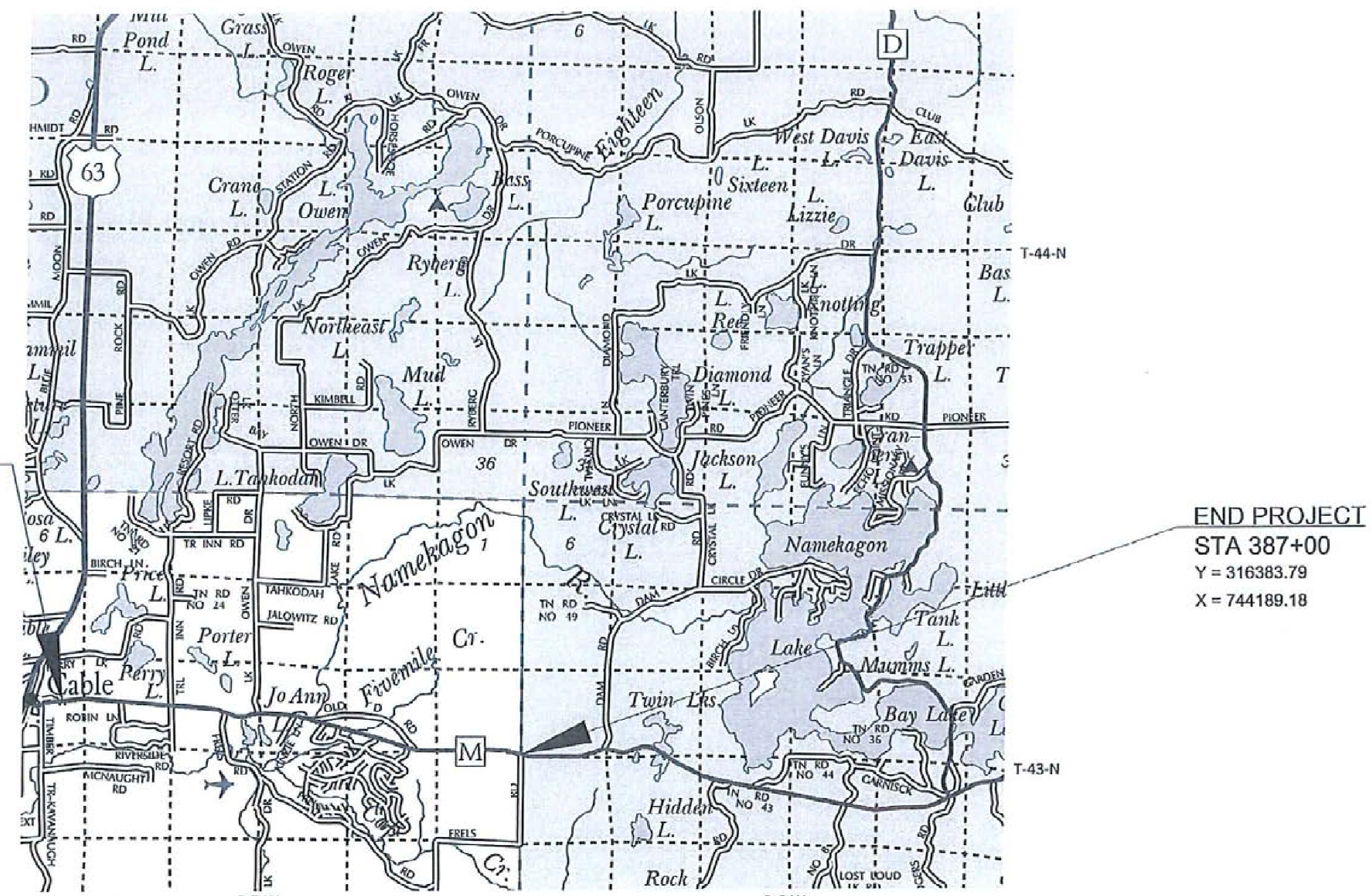
Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
~~Section No.~~	~~8~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS = 98



DESIGN DESIGNATION

A.A.D.T.	(2021)	=	3150
A.A.D.T.	(2041)	=	3450
D.H.V.		=	131
D.D.		=	50/50
T.		=	5.3%
DESIGN SPEED		=	55
ESALS		=	270,000



LAYOUT

SCALE 0 — 2 MI

TOTAL NET LENGTH OF CENTERLINE = 5.423 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BAYFIELD COUNTY, NAD83 (2019), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2019). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

CONVENTIONAL SYMBOLS

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

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

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

ACCEPTED FOR

BAYFIELD COUNTY

Date 1/28/21 (Signature and Title of Official)

Highway Commissioner

ORIGINAL PLANS PREPARED BY

WISCONSIN PROFESSIONAL ENGINEER AARON SCHARF E-37704 RICE LAKE WI

DATE: 1-26-21 (Professional Engineer Signature)

COOPER ENGINEERING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COOPER ENGINEERING CO., INC.
Designer	COOPER ENGINEERING CO., INC.
Project Manager	MATT VAN NATTA, P.E.
Regional Examiner	TOU YANG, P.E.
Regional Supervisor	ANDY STENSLAND, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 1/29/2021 (Signature)

E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\010101_TI.DWG PLOT DATE : 1/26/2021 1:53 PM PLOT BY : AARON SCHARF PLOT NAME :

UTILITIES

BAYFIELD ELECTRIC COOPERATIVE
ATTN: JAKE HIPSHER
68460 DISTRICT ST., P.O. BOX 68
IRON RIVER, WI 54847
715-372-4287
JAKE.HIPSHER@BAYFIELDELECTRIC.COM

XCEL ENERGY, INC.
ATTN: MITCHELL DIENGER
414 NICOLLED MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
608-386-2233
MITCHELL.A.DIENGER@XCELENERGY.COM

NORVADO
ATTN: GARIN MAYER
43705 US HWY 63
CABLE, WI 54821
715-798-3303
GMAYER@NORVADO.COM

ALL UTILITIES LISTED ARE MEMBERS OF DIGGERS HOTLINE

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

DESIGN CONSULTANT

COOPER ENGINEERING

COOPER ENGINEERING CO. INC.
ATTN: AARON SCHARF
2600 COLLEGE DRIVE
RICE LAKE, WI. 54868
PHONE (715) 234-7008
ASCHARF@COOPERENGINEERING.NET

BAYFIELD COUNTY

BAYFIELD COUNTY HIGHWAY COMMISSIONER
ATTN: PAUL JOHANIK
311 1ST AVE E
WASHBURN, WI 54891
715-373-6115
PJOHANIK@BAYFIELDCOUNTY.ORG

OTHER CONTACTS

DNR NORTHERN REGIONAL HQ

DNR/DOT LIAISON
ATTN.: SHAWN HASELEU
810 W. MAPLE ST.
SPOONER, WI 54801
TEL.: (715) 635-4228
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

GENERAL NOTES:

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 NOW 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.

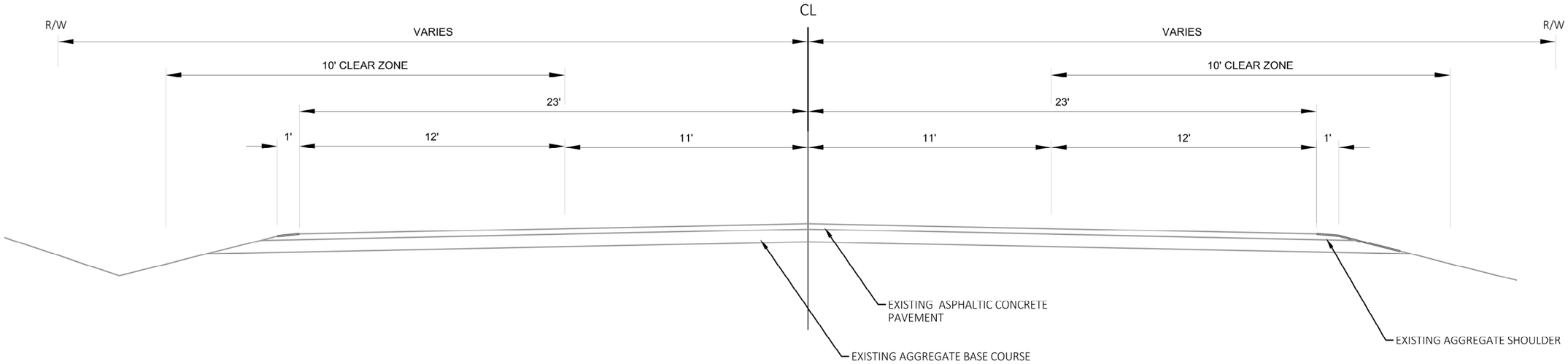
LIST OF STANDARD ABBREVIATIONS

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

RUNOFF COEFFICIENT TABLE

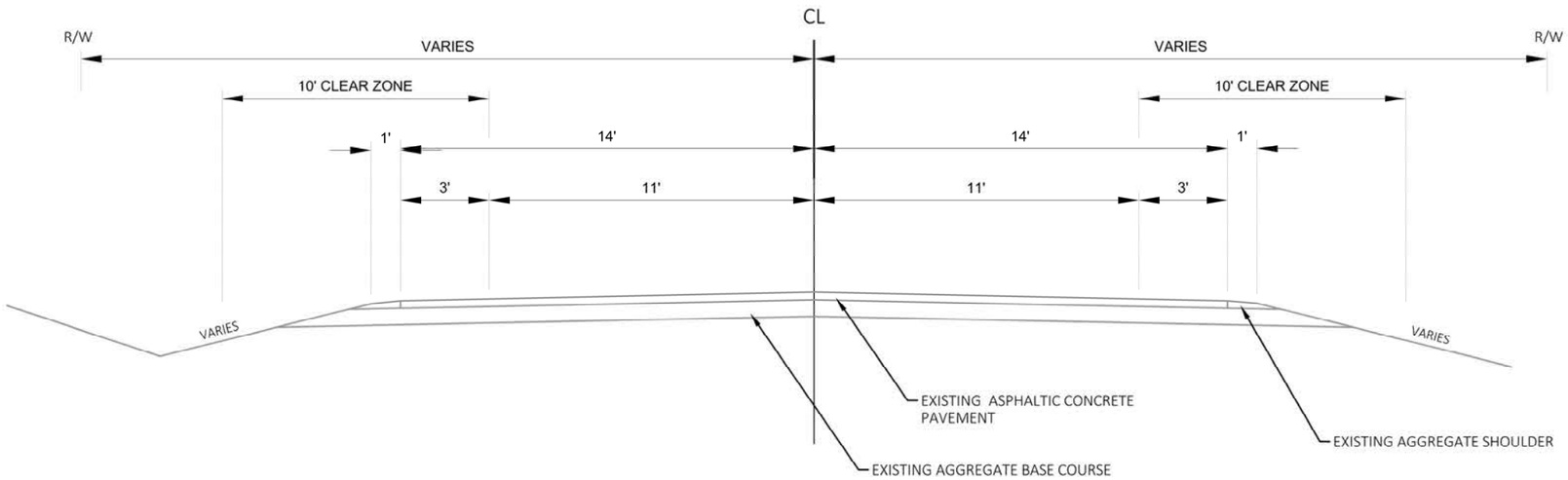
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 43 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 20 ACRES



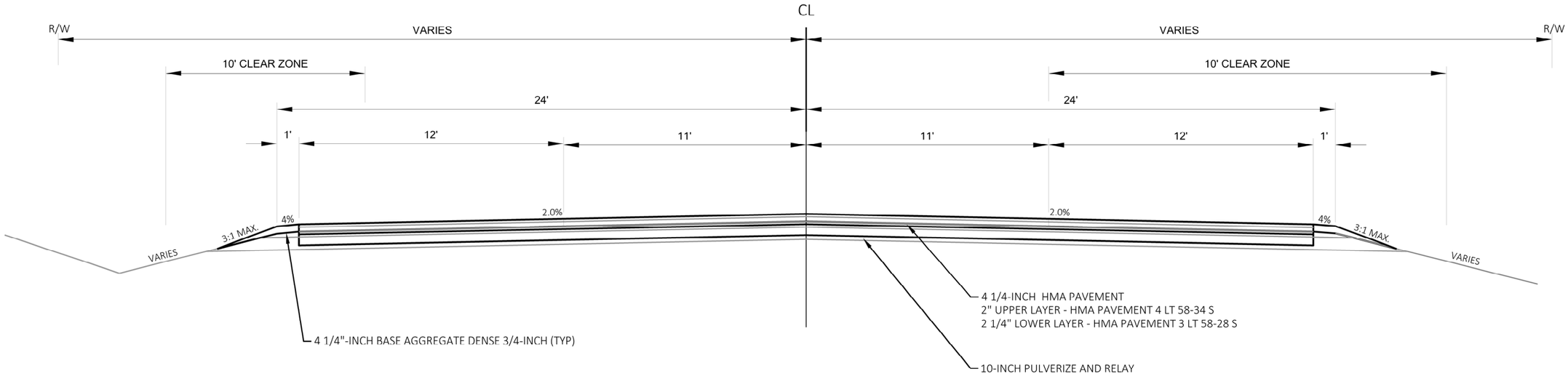
TYPICAL EXISTING SECTION
STA 100+66 TO 109+83

BORING LOG					
PROJECT: 8732-00-72					
COUNTY: BAYFIELD				SPRUCE TO FRELS RD.	
BORING NO.	STATION	OFFSET (FT)	SIDE	ASPHALTIC SURFACE (IN)	CABC (IN)
1	103+48	7	RT	6	18
2	112+58	7	LT	9	9
3	129+20	6	RT	12	4
4	155+467	7	LT	6	6
5	181+47	6	RT	7	7
6	204+96	6	LT	7	4
7	233+42	6	RT	9	5
8	255+50	6	LT	7	4
9	268+24	9	RT	6	4
10	280+47	7	LT	10	4
11	285+17	6	RT	7	17
12	311+49	6	LT	9	15
13	323+87	7	RT	4	20
14	337+14	7	LT	4	8
15	363+25	6	RT	15	3
16	384+97	7	LT	12	4

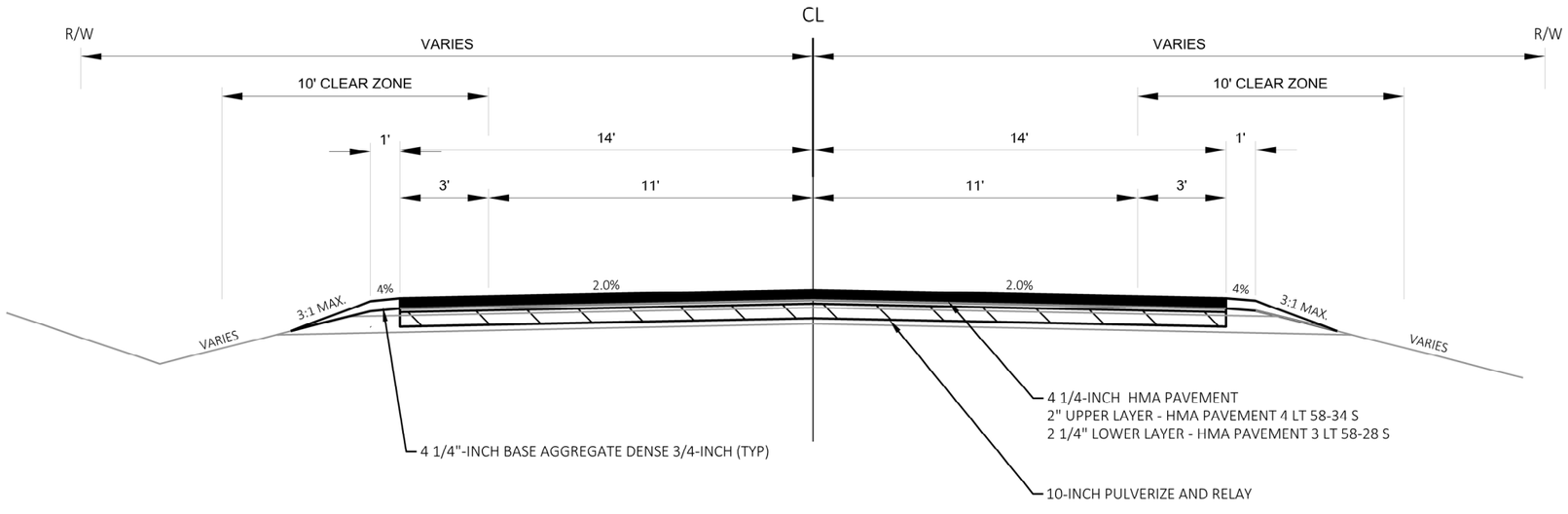


TYPICAL EXISTING SECTION
STA 109+83 TO 387+00

2



TYPICAL FINISHED SECTION
STA 100+66 TO 109+83



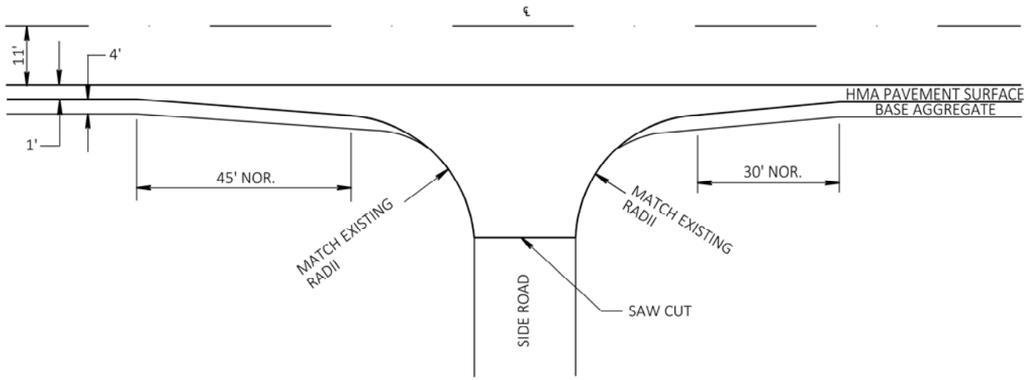
TYPICAL FINISHED SECTION
STA 109+83 TO 387+00

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PLAN: TYPICAL SECTIONS	SHEET 4	E

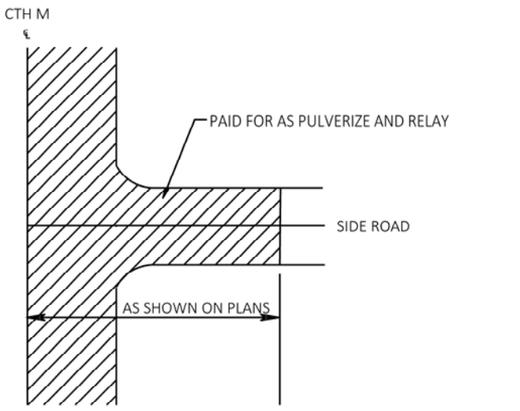
FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - TYPICAL SECTIONS (2)

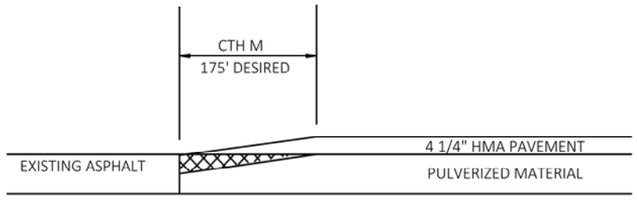
PLOT DATE : 1/26/2021 2:58 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:5 FT

2



SIDE ROAD DETAIL, SPECIAL
(ASPHALTIC SHOULDERS)

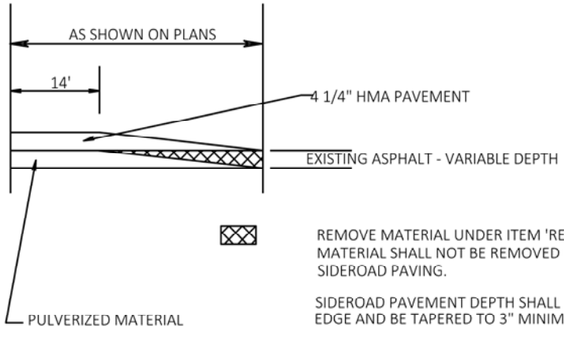




BUTT JOINT

REQUIRED AT BEGIN AND END
PAVING LOCATIONS

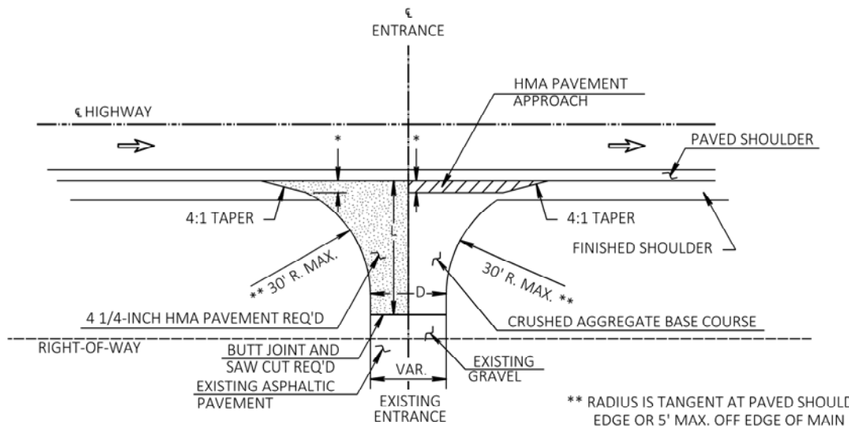
PAID FOR AS REMOVING ASPHALTIC
SURFACE BUTT JOINTS



REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALT SURFACE , BUTT JOINTS'
MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE
SIDEROAD PAVING.

SIDEROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT
EDGE AND BE TAPERED TO 3" MINIMUM AT JOINT

PAVEMENT TRANSITION
NOT TO SCALE



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

D=DRIVEWAY WIDTH (MATCH EXISTING SURFACE MATERIAL AND WIDTH)

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

* 3' MAX. OR TO FINISHED SHOULDER
WHICH EVER IS LESS.

PLAN VIEW

RURAL DRIVEWAY DETAIL
(PE's, & FE's)

2

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	114+26.07	-0.020	-0.020	-0.020	-0.040
EndNormalCrown	114+26.07	-0.020	-0.020	-0.020	-0.040
LevelCrown	114+79.53	0.000	0.000	-0.020	-0.040
ReverseCrown	115+32.98	0.020	0.020	-0.020	-0.040
LowShoulderMatch	115+86.43	0.040	0.040	-0.040	-0.040
BeginFullSuper	116+26.53	0.055	0.055	-0.055	-0.055
EndFullSuper	119+01.35	0.055	0.055	-0.055	-0.055
LowShoulderMatch	119+41.44	0.040	0.040	-0.040	-0.040
ReverseCrown	119+94.90	0.020	0.020	-0.020	-0.040
LevelCrown	120+48.35	0.000	0.000	-0.020	-0.040
BeginNormalCrown	121+01.81	-0.020	-0.020	-0.020	-0.040
BeginNormalShoulder	121+01.81	-0.020	-0.020	-0.020	-0.040
CURVE 2					
EndNormalShoulder	192+03.62	-0.020	-0.020	-0.020	-0.040
EndNormalCrown	192+03.62	-0.020	-0.020	-0.020	-0.040
LevelCrown	192+57.06	0.000	0.000	-0.020	-0.040
ReverseCrown	193+10.51	0.020	0.020	-0.020	-0.040
LowShoulderMatch	193+63.96	0.040	0.040	-0.040	-0.040
BeginFullSuper	194+12.06	0.058	0.058	-0.058	-0.058
EndFullSuper	197+53.10	0.058	0.058	-0.058	-0.058
LowShoulderMatch	198+01.20	0.040	0.040	-0.040	-0.040
ReverseCrown	198+54.65	0.020	0.020	-0.020	-0.038
LevelCrown	199+08.10	0.000	0.000	-0.020	-0.037
BeginNormalCrown	199+61.55	-0.020	-0.020	-0.020	-0.035
BeginNormalShoulder	199+61.55	-0.020	-0.020	-0.020	-0.035
CURVE 3					
EndNormalShoulder	204+83.15	-0.035	-0.020	-0.020	-0.020
EndNormalCrown	204+83.15	-0.035	-0.020	-0.020	-0.020
LevelCrown	205+36.62	-0.037	-0.020	0.000	0.000
ReverseCrown	205+90.08	-0.038	-0.020	0.020	0.020
LowShoulderMatch	206+43.54	-0.040	-0.040	0.040	0.040
BeginFullSuper	206+75.62	-0.052	-0.052	0.052	0.052
EndFullSuper	211+66.06	-0.052	-0.052	0.052	0.052
LowShoulderMatch	211+98.14	-0.055	-0.055	0.055	0.055
ReverseCrown	212+51.60	-0.059	-0.059	0.059	0.059
LevelCrown	213+05.06	-0.060	-0.060	0.060	0.060
BeginNormalCrown	213+58.52	-0.060	-0.060	0.060	0.060
BeginNormalShoulder	213+58.52	-0.060	-0.060	0.060	0.060

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 4					
EndNormalShoulder	210+52.38	-0.052	-0.052	0.052	0.052
EndNormalCrown	210+52.38	-0.052	-0.052	0.052	0.052
LevelCrown	211+05.72	-0.052	-0.052	0.052	0.052
ReverseCrown	211+59.05	-0.052	-0.052	0.052	0.052
LowShoulderMatch	212+12.38	-0.056	-0.056	0.056	0.056
BeginFullSuper	212+65.72	-0.060	-0.060	0.060	0.060
EndFullSuper	215+67.34	-0.060	-0.060	0.060	0.060
LowShoulderMatch	216+20.67	-0.040	-0.040	0.040	0.040
ReverseCrown	216+74.00	-0.038	-0.020	0.020	0.020
LevelCrown	217+27.34	-0.035	-0.020	0.000	0.000
BeginNormalCrown	217+80.67	-0.033	-0.020	-0.020	-0.020
BeginNormalShoulder	217+80.67	-0.033	-0.020	-0.020	-0.020
CURVE 5					
EndNormalShoulder	220+66.64	-0.020	-0.020	-0.020	-0.033
EndNormalCrown	220+66.64	-0.020	-0.020	-0.020	-0.033
LevelCrown	221+19.98	0.000	0.000	-0.020	-0.035
ReverseCrown	221+73.31	0.020	0.020	-0.020	-0.038
LowShoulderMatch	222+26.64	0.040	0.040	-0.040	-0.040
BeginFullSuper	222+79.98	0.060	0.060	-0.060	-0.060
EndFullSuper	225+19.40	0.060	0.060	-0.060	-0.060
LowShoulderMatch	225+72.74	0.040	0.040	-0.040	-0.040
ReverseCrown	226+26.07	0.020	0.020	-0.020	-0.040
LevelCrown	226+79.40	0.000	0.000	-0.020	-0.040
BeginNormalCrown	227+32.74	-0.020	-0.020	-0.020	-0.040
BeginNormalShoulder	227+32.74	-0.020	-0.020	-0.020	-0.040
CURVE 6					
EndNormalShoulder	241+80.49	-0.020	-0.020	-0.020	-0.040
EndNormalCrown	241+80.49	-0.020	-0.020	-0.020	-0.040
LevelCrown	242+33.69	0.000	0.000	-0.020	-0.040
ReverseCrown	242+86.89	0.020	0.020	-0.020	-0.040
LowShoulderMatch	243+40.09	0.040	0.040	-0.040	-0.040
BeginFullSuper	243+66.69	0.050	0.050	-0.050	-0.050
EndFullSuper	247+53.90	0.050	0.050	-0.050	-0.050
LowShoulderMatch	247+80.50	0.040	0.040	-0.040	-0.040
ReverseCrown	248+33.70	0.020	0.020	-0.020	-0.040
LevelCrown	248+86.90	0.000	0.000	-0.020	-0.040
BeginNormalCrown	249+40.10	-0.020	-0.020	-0.020	-0.040
BeginNormalShoulder	249+40.10	-0.020	-0.020	-0.020	-0.040

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 7					
EndNormalShoulder	317+57.75	-0.040	-0.020	-0.020	-0.020
EndNormalCrown	317+57.75	-0.040	-0.020	-0.020	-0.020
LevelCrown	318+11.09	-0.040	-0.020	0.000	0.000
ReverseCrown	318+64.42	-0.040	-0.020	0.020	0.020
LowShoulderMatch	319+17.75	-0.040	-0.040	0.040	0.040
BeginFullSuper	319+39.09	-0.048	-0.048	0.048	0.048
EndFullSuper	326+67.94	-0.048	-0.048	0.048	0.048
LowShoulderMatch	326+89.27	-0.040	-0.040	0.040	0.040
ReverseCrown	327+42.61	-0.040	-0.020	0.020	0.020
LevelCrown	327+95.94	-0.039	-0.020	0.000	0.000
BeginNormalCrown	328+49.27	-0.039	-0.020	-0.020	-0.020
BeginNormalShoulder	328+49.27	-0.039	-0.020	-0.020	-0.020
CURVE 8					
EndNormalShoulder	354+14.60	-0.020	-0.020	-0.020	-0.031
EndNormalCrown	354+14.60	-0.020	-0.020	-0.020	-0.031
LevelCrown	354+68.17	0.000	0.000	-0.020	-0.031
ReverseCrown	355+21.74	0.020	0.020	-0.020	-0.032
BeginFullSuper	355+43.17	0.028	0.028	-0.028	-0.032
EndFullSuper	359+96.78	0.028	0.028	-0.028	-0.034
ReverseCrown	360+18.20	0.020	0.020	-0.020	-0.034
LevelCrown	360+71.78	0.000	0.000	-0.020	-0.034
BeginNormalCrown	361+25.35	-0.020	-0.020	-0.020	-0.034
BeginNormalShoulder	361+25.35	-0.020	-0.020	-0.020	-0.034
CURVE 9					
EndNormalShoulder	372+70.81	-0.020	-0.020	-0.020	-0.039
EndNormalCrown	372+70.81	-0.020	-0.020	-0.020	-0.039
LevelCrown	373+24.14	0.000	0.000	-0.020	-0.040
ReverseCrown	373+77.48	0.020	0.020	-0.020	-0.040
LowShoulderMatch	374+30.81	0.040	0.040	-0.040	-0.040
BeginFullSuper	374+60.14	0.051	0.051	-0.051	-0.051
EndFullSuper	378+14.43	0.051	0.051	-0.051	-0.051
LowShoulderMatch	378+43.76	0.040	0.040	-0.040	-0.040
ReverseCrown	378+97.09	0.020	0.020	-0.020	-0.039
LevelCrown	379+50.43	0.000	0.000	-0.020	-0.038
BeginNormalCrown	380+03.76	-0.020	-0.020	-0.020	-0.036
BeginNormalShoulder	380+03.76	-0.020	-0.020	-0.020	-0.036

2

2

2

N

ROW

249

99'

250

1351

1350

1349

1348

1347

1346

SLOPE INTERCEPT

PI STA 250+51.12

HINGE POINT LINE

10:1 MAX.

STA 250+95.47, -15.09' LT

GRADE LINE

SILT FENCE

REMOVE EXISTING GUARDRAIL

CTH M

PAVEMENT EDGE

HINGE POINT LINE

STA 250+45.27, 16.23' RT

MGS ENERGY ABSORBING TERMINAL

251

MGS ENERGY ABSORBING TERMINAL

STA 251+48.60, 14.67' LT

39'-4 3/4"

MGS THRIE BEAM TRANSITION

STA 251+87.99, -14.36' LT

32'

MGS GUARDRAIL

STA 250+98.37, 16.79' RT

GRADE LINE

STA 251+29.96, 17.17' RT

39'-4 3/4"

MGS THRIE BEAM TRANSITION

252

STA 251+69.36, 17.63' RT

SLOPE INTERCEPT

SILT FENCE

REMOVE EXISTING GUARDRAIL

ROW

MGS THRIE BEAM TRANSITION ATTACHING TO TYPE F RAILING AT BRIDGE

NAMEKAGON RIVER

1337 1338 1339 1340 1341 1342 1343 1344 1345 1346 1347 1346 1345 1344 1343 1342 1341 1340 1339 1338 1337 1336 1335

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CONSTRUCTION DETAILS	SHEET 7	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - WEST BEAM GUARD DETAIL

PLOT DATE : 1/26/2021 3:58 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

NAMEKAGON RIVER

N

MGS THRIE BEAM TRANSITION ATTACHING TO TYPE F RAILING AT BRIDGE

REMOVE EXISTING GUARDRAIL

SILT FENCE

SLOPE INTERCEPT

ROW

STA 252+66.97, -14.79' LT

39'-4 3/4" MGS THRIE BEAM TRANSITION

253

MGS GUARDRAIL

39'-4 3/4" MGS THRIE BEAM TRANSITION

MGS ENERGY ABSORBING TERMINAL

STA 252+48.52, 17.18' RT

STA 252+87.92, 16.96' RT

CTH M

ROW

STA 253+41.04, 16.65' RT

10:1 MAX.

254

369' MGS GUARDRAIL

ROW

PAVEMENT EDGE

REMOVE EXISTING GUARDRAIL

SILT FENCE

SLOPE INTERCEPT

66'

255

ROW

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CONSTRUCTION DETAILS	SHEET 8	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - EAST BEAM GUARD DETAIL

PLOT DATE : 1/26/2021 3:59 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

N

ROW

MGS GUARDRAIL

SLOPE INTERCEPT

SILT FENCE

SLOPE INTERCEPT

WETLAND BOUNDARY

PI: 255+61.33

369'

MGS GUARDRAIL

256

132'

GRADE LINE

1339

1340

1341

1342

1343

STA 256+75.42, -15.79' LT

10:1 MAX.

EXISTING
PAVEMENT EDGE

R40'

R50'

OLD D ROAD

26'

STA 257+28.50, -17.99' LT HINGE POINT LINE

PAVEMENT EDGE

MGS ENERGY ABSORBING TERMINAL

257

10:1 TAPER

R17'

258

SILT FENCE

ROW

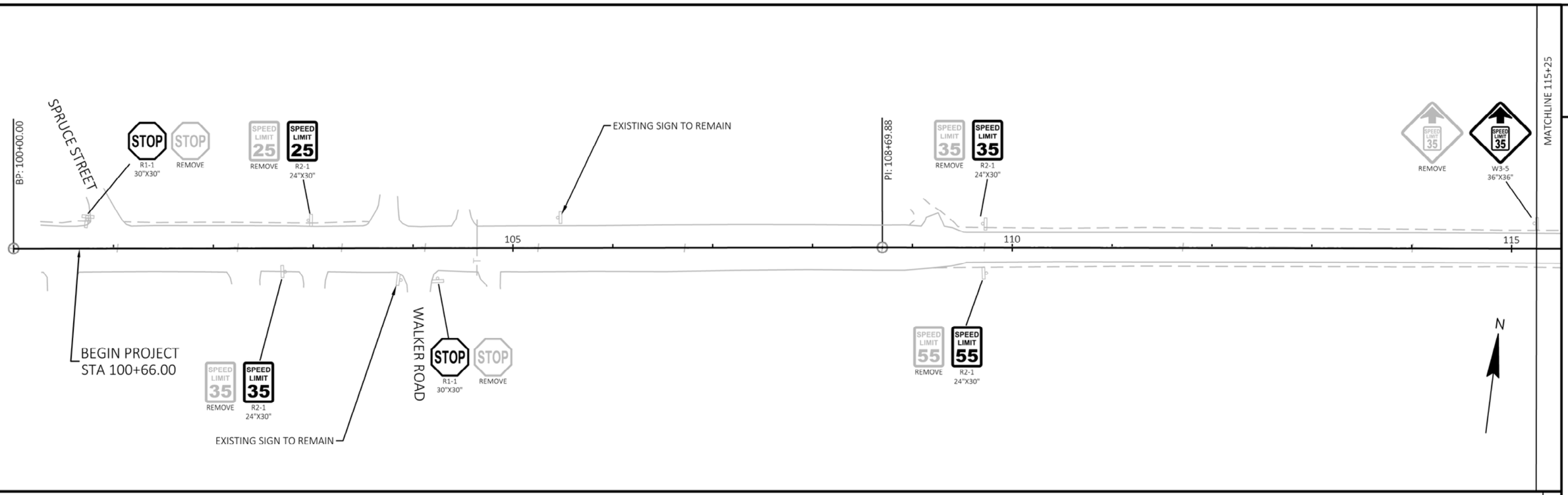
ROW

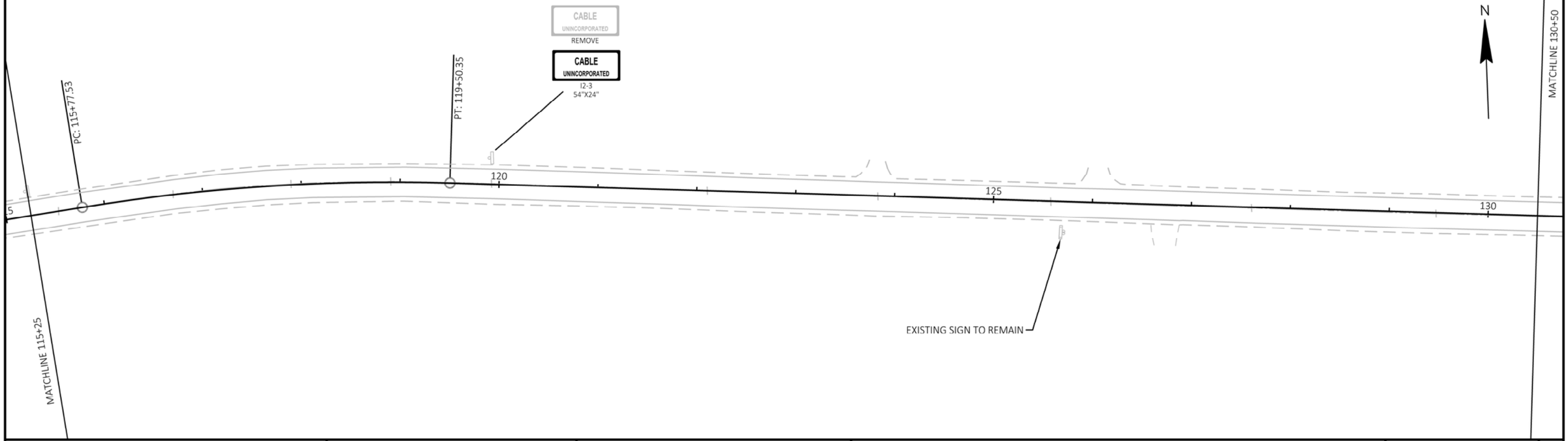
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CONSTRUCTION DETAILS	SHEET 9	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - EAST BEAM GUARD DETAIL (2)

PLOT DATE : 1/26/2021 4:08 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42





PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 10	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (01)
PLOT DATE : 1/27/2021 9:29 AM
PLOT BY : AARON SCHARF
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

MATCHLINE 130+50

PI: 136+23.28

135

140

145

N

MATCHLINE 145+75

2

EXISTING SIGN TO REMAIN

STOP
R1-1
30"X30"

NO ATV TRAFFIC
R5-51
24"X24"

STOP
REMOVE

NO ATV TRAFFIC
REMOVE

MATCHLINE 145+75

PI: 154+91.95

150

155

160

N

MATCHLINE 161+00

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (02)

PLOT DATE : 1/27/2021 9:33 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCHLINE 161+00

PI: 164+49.05

165

170

175

STOP
R1-1
30"X30"

STOP
REMOVE

EXISTING SIGN TO REMAIN

STOP
R1-1
30"X30"

STOP
REMOVE

D11-6
24"X18"

REMOVE

N

MATCHLINE 176+25

2

MATCHLINE 176+25

PI: 181+52.19

180

185

190

REMOVE

S3-1
30"X30"

N

MATCHLINE 191+50

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (03)
PLOT DATE : 1/27/2021 9:33 AM
PLOT BY : AARON SCHARF
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

PC: 193+60.40

195

PT: 198+04.76

200

205

PC: 206+29.29

MATCHLINE 206+75

MATCHLINE 191+50

REMOVE

REMOVE

45 MPH

W1-2L
36"X36"

45 MPH
W13-1
18"X18"

REMOVE

W2-2
30"X30"

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

STOP
REMOVE

STOP
R1-1
30"X30"

TELEMARK ROAD

W11-6
30"X30"

REMOVE

W1-2L
36"X36"

45 MPH
W13-1
18"X18"

REMOVE

45 MPH
REMOVE

2

PC: 206+29.29

MATCHLINE 206+75

CABLE
AIRPORT
D9-52L
VARIESX36"

CABLE
AIRPORT
REMOVE

REMOVE

W2-2
30"X30"

PCC: 212+12.39

REMOVE

W11-6
30"X30"

PT: 216+20.66

POST

PT: 220+91.99

MATCHLINE 222+00

PC: 222+26.65

210

215

220

N

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

W1-8
18"X24"

REMOVE

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 13	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (04)

PLOT DATE : 1/27/2021 9:33 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

S. LAKE OWEN DRIVE

REMOVE

I55-56
30"X18"

REMOVE

I55-56P
30"X18"

STOP
REMOVE

STOP
R1-1
30"X30"

EXISTING SIGN TO REMAIN

PC: 222+26.65

PT: 225+72.73

REMOVE

45 MPH
REMOVE

W1-5L
30"X30"

45 MPH
W13-1
18"X18"

PI: 228+28.55

N

MATCHLINE 237+25

2

225

230

235

COUNTY M
M1-5A
24"X24"

COUNTY M
REMOVE

M6-4
21"X21"

REMOVE

EXISTING SIGN TO REMAIN

MATCHLINE 222+00

STOP
REMOVE

STOP
R1-1
30"X30"

EXISTING SIGN TO REMAIN

SKI LARK ROAD

EXISTING SIGN TO REMAIN

PC: 243+22.36

PT: 247+98.23

EXISTING SIGN TO REMAIN

PI: 250+51.12

N

W5-52L
12"X36"

REMOVE

240

245

250

KINZIE LANE

STOP
R1-1
30"X30"

STOP
REMOVE

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

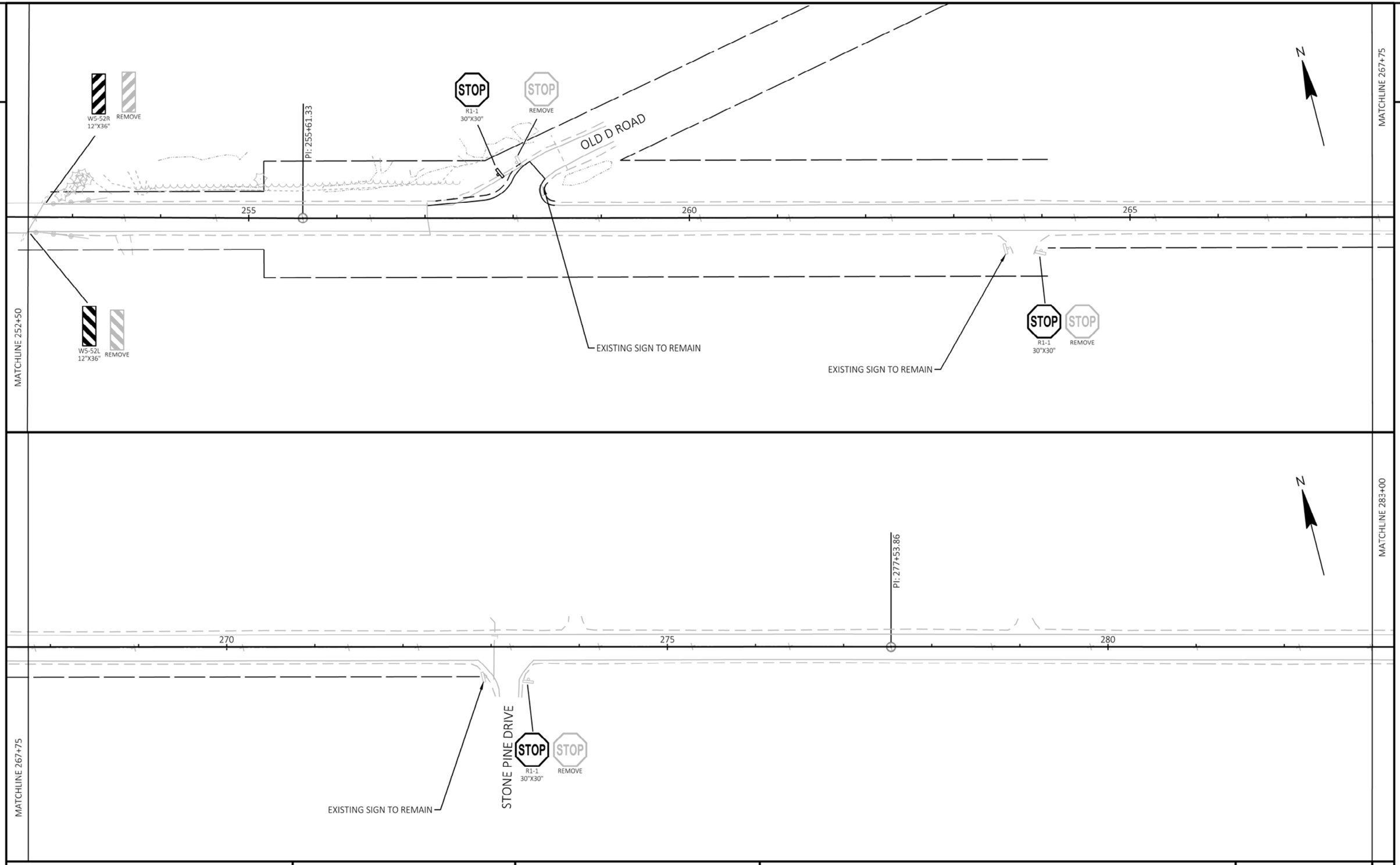
W5-52R
12"X36"

REMOVE

MATCHLINE 237+25

MATCHLINE 252+50

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 14	E



PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 15	E

2

MATCHLINE 283+00

285

290

295

MATCHLINE 298+25

2

N

LAKE LODGE DRIVE

STOP
R1-1
30"X30"

STOP
REMOVE

EXISTING SIGN TO REMAIN

MATCHLINE 298+25

PC: 298+83.71

300

PT: 304+68.06

305

310

MATCHLINE 313+50

N

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 16	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (07)

PLOT DATE : 1/27/2021 9:33 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

MATCHLINE 313+50

EXISTING SIGN TO REMAIN

WOODCREST DRIVE

STOP R1-1 30"X30"

STOP REMOVE

315

PC: 318+96.42

OLD D ROAD

320

STOP R1-1 30"X30"

STOP REMOVE

EXISTING SIGN TO REMAIN

325

PT: 327+10.60

MATCHLINE 328+75

2

N

MATCHLINE 328+75

330

335

340

PC: 340+57.66

N

MATCHLINE 344+00

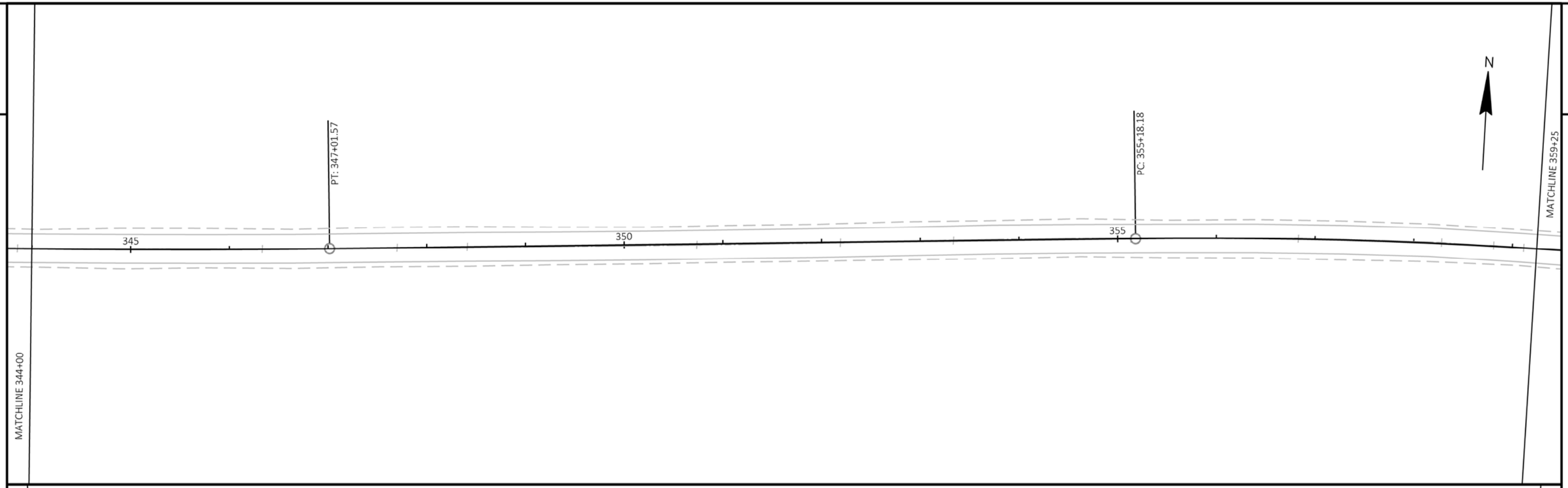
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 17	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (08)

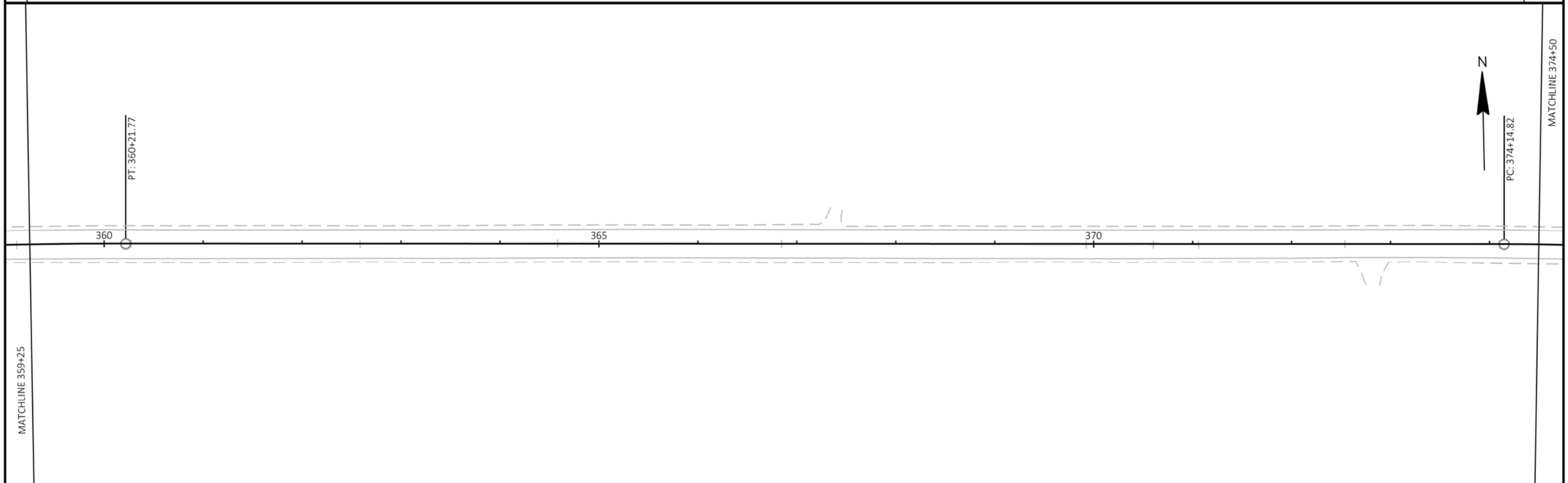
PLOT DATE : 1/27/2021 9:34 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



2

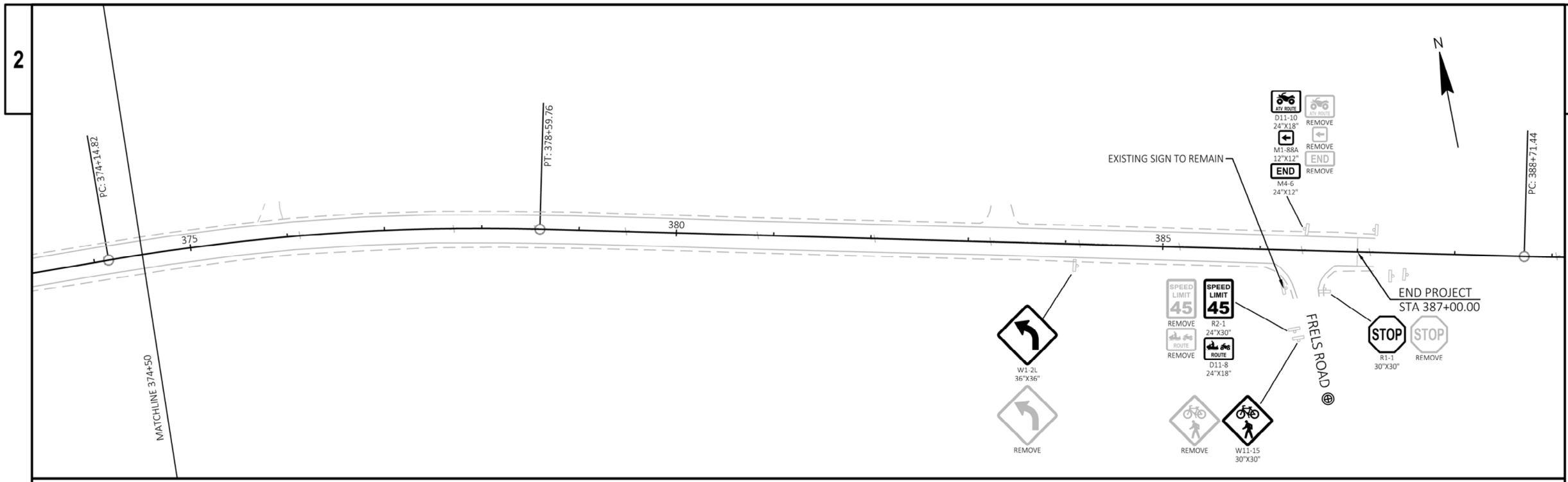


PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (09)

PLOT DATE : 1/27/2021 9:34 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 19	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - SIGNING - (10)

PLOT DATE : 1/27/2021 9:34 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

Estimate Of Quantities

8732-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	37.000	37.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,101.000	2,101.000
0006	204.0165	Removing Guardrail	LF	284.000	284.000
0008	205.0100	Excavation Common	CY	4.000	4.000
0010	208.0100	Borrow	CY	38.000	38.000
0012	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 8732-00-72	LS	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 8732-00-72	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,388.000	2,388.000
0018	325.0100	Pulverize and Relay	SY	98,646.000	98,646.000
0020	455.0605	Tack Coat	GAL	4,624.000	4,624.000
0022	460.2000	Incentive Density HMA Pavement	DOL	11,980.000	11,980.000
0024	460.5223	HMA Pavement 3 LT 58-28 S	TON	11,658.000	11,658.000
0026	460.5244	HMA Pavement 4 LT 58-34 S	TON	10,356.000	10,356.000
0028	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	100.000	100.000
0030	614.2300	MGS Guardrail 3	LF	401.000	401.000
0032	614.2500	MGS Thrie Beam Transition	LF	158.000	158.000
0034	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0036	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8732-00-72	EACH	1.000	1.000
0038	619.1000	Mobilization	EACH	1.000	1.000
0040	624.0100	Water	MGAL	100.000	100.000
0042	625.0100	Topsoil	SY	978.000	978.000
0044	628.1504	Silt Fence	LF	1,170.000	1,170.000
0046	628.1520	Silt Fence Maintenance	LF	1,170.000	1,170.000
0048	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0050	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0052	628.2006	Erosion Mat Urban Class I Type A	SY	978.000	978.000
0054	629.0210	Fertilizer Type B	CWT	1.000	1.000
0056	630.0120	Seeding Mixture No. 20	LB	4.000	4.000
0058	630.0500	Seed Water	MGAL	30.000	30.000
0060	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	47.000	47.000
0062	637.2210	Signs Type II Reflective H	SF	198.690	198.690
0064	637.2230	Signs Type II Reflective F	SF	92.250	92.250
0066	638.2602	Removing Signs Type II	EACH	63.000	63.000
0068	638.3000	Removing Small Sign Supports	EACH	47.000	47.000
0070	642.5001	Field Office Type B	EACH	1.000	1.000
0072	643.0900	Traffic Control Signs	DAY	1,125.000	1,125.000
0074	643.5000	Traffic Control	EACH	1.000	1.000
0076	646.1020	Marking Line Epoxy 4-Inch	LF	56,133.000	56,133.000

8732-00-72

Line	Item	Item Description	Unit	Total	Qty
0078	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	37,205.000	37,205.000
0080	648.0100	Locating No-Passing Zones	MI	5.400	5.400
0082	649.0105	Temporary Marking Line Paint 4-Inch	LF	74,411.000	74,411.000
0084	650.8000	Construction Staking Resurfacing Reference	LF	28,634.000	28,634.000
0086	650.9910	Construction Staking Supplemental Control (project) 01. 8732-00-72	LS	1.000	1.000
0088	690.0150	Sawing Asphalt	LF	200.000	200.000
0090	740.0440	Incentive IRI Ride	DOL	10,846.000	10,846.000
0092	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0094	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0096	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000	1.000

3

CLEARING ITEMS

CATEGORY	STATION	TO	STATION	SIDE	201.0105 CLEARING STA
0010	134+00	-	135+00	LT/RT	1
0010	142+00	-	147+00	LT/RT	5
0010	151+00	-	152+00	LT/RT	1
0010	160+00	-	163+00	LT/RT	3
0010	167+00	-	168+00	LT/RT	1
0010	170+00	-	192+00	LT/RT	22
0010	199+00	-	203+00	LT/RT	4
				0010 TOTAL	37

REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	SIDE	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
0010	100+66	-	101+25	LT/RT	BEGIN PROJECT	302
0010	100+94			LT	SPRUCE STREET	55
0011	104+06			RT	WALKER ROAD	44
0010	139+95			RT	ROBIN LANE	69
0010	169+92			LT	TRAIL INN ROAD	113
0011	169+96			RT	TRAIN INN SOUTH ROAD	65
0010	202+86			RT	TELEMARK ROAD	225
0010	223+07			LT	S. LAKE OWEN DRIVE	163
0011	258+12			LT	OLD D ROAD	228
0010	273+18			RT	STONE PINE DRIVE	109
0010	296+86			LT	LAKE LODGE DRIVE	80
0011	316+16			RT	WOODCREST DRIVE	106
0010	321+22			LT	OLD D ROAD	197
0010	386+46			RT	FRELS ROAD	112
0010	386+25	-	387+00	LT/RT	END PROJECT	233
						2,101

3

EARTHWORK SUMMARY

CATEGORY	STATION	TO	STATION	SIDE	EXCAVATION COMMON 205.0100 CY	SALVAGED/ UNUSEABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	EXPANDED FILL (FACTOR = 1.25) CY	MASS ORDINATE +/- CY	BORROW 208.0100
0010	249+56	-	251+71	RT	1.3	0	1.3	1	3	-2	2
0010	250+08	-	251+90	LT	0.2	0	0.2	1	2	-2	2
0010	252+48	-	254+30	LT	2.2	0	2.2	24	30	-28	28
0010	252+68	-	257+35	RT	0.4	0	0.4	6	7	-7	7
				TOTAL 0010	4	0	4	33	42	-38	38

BASE AGGREGATE DENSE ITEMS

CATEGORY	STATION	TO	STATION	SIDE	WIDTH (FT)	THICKNESS (IN)	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	REMARKS
0010	100+66	-	387+00	LT/RT	1	4.25	2,206	BEGIN PROJECT
0010	100+94			LT	1		2	SPRUCE STREET
0010	104+06			RT	1		1	WALKER ROAD
0010	139+95			RT	1		2	ROBIN LANE
0010	169+92			LT	1		2	TRAIL INN ROAD
0010	169+96			RT	1		2	TRAIN INN SOUTH ROAD
0010	202+86			RT	1		3	TELEMARK ROAD
0010	223+07			LT	3		8	S. LAKE OWEN DRIVE
0010	245+10			RT	1		60	KINZIE LANE
0010	246+12			LT	1		36	SKI LARK ROAD
0010	258+12			LT	1		5	OLD D ROAD
0010	273+18			RT	1		2	STONE PINE DRIVE
0010	296+86			LT	1		2	LAKE LODGE DRIVE
0010	316+16			RT	1		3	WOODCREST DRIVE
0010	321+22			LT	1		2	OLD D ROAD
0010	386+46			RT	1		3	FRELS ROAD
0010			DRIVEWAYS	LT/RT		4.25	50	END PROJECT
							2,388	

ASPHALT ITEMS

CATEGORY	STATION	TO	STATION	SIDE	WIDTH (FT)	THICKNESS (IN)	LAYERS	325.0100 PULVERIZE AND RELAY SY	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5244 HMA PAVEMENT 4 LT 58-34 S TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	690.0150 SAWING ASPHALT LF	SPV.0105.01 MATERIAL TRANSFER VEHICLE LS	REMARKS
0010	100+66	-	109+83	LT/RT	46	10.00	1	4,690							CTH M
0010	109+83	-	387+00	LT/RT	30	10.00	1	92,390							CTH M
0010	100+66	-	109+83	LT/RT	46	2.25	1		234	590					CTH M
0010	109+83	-	387+00	LT/RT	28	2.25	1		4,312	10,870					CTH M
0010	100+66	-	109+83	LT/RT	46	2.00	1				520				CTH M
0010	109+83	-	387+00	LT/RT	28	2.00	1				9,660				CTH M
0010	100+94			LT				55	3	7	6				SPRUCE STREET
0010	104+06			RT				44	2	6	5				WALKER ROAD
0010	139+95			RT				69	3	9	8				ROBIN LANE
0010	169+92			LT				113	6	14	13				TRAIL INN ROAD
0010	169+96			RT				65	3	8	7				TRAIN INN SOUTH ROAD
0010	202+86			RT				225	11	28	25				TELEMARK ROAD
0010	223+07			LT				163	8	21	18				S. LAKE OWEN DRIVE
0010	258+12			LT				228	11	29	26				OLD D ROAD
0010	273+18			RT				109	5	14	12				STONE PINE DRIVE
0010	296+86			LT				80	4	10	9				LAKE LODGE DRIVE
0010	316+16			RT				106	5	13	12				WOODCREST DRIVE
0010	321+22			LT				197	10	25	22				OLD D ROAD
0010	386+46			RT				112	6	14	13				FRELS ROAD
	UNDISTRUBUTED											100	200	1	
							0010 TOTAL	98,646	4,624	11,658	10,356	100	200	1	

GUARDRAIL ITEMS

CATEGORY	POST #1 STA	LOCATION	REMOVING GUARDRAIL 204.0165 LF	MGS GUARDRAIL 3 614.2300 LF	MGS THRIE BEAM TRANSITION 614.2500 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH
0010	250+45	RT	74	32	39.4	1
0010	250+95	LT	67	-	39.4	1
0010	253+41	RT	73	-	39.4	1
0010	257+28	LT	70	369	39.4	1
		TOTAL 0010	284	401	158	4

EROSION CONTROL SUMMARY

CATEGORY	STATION	TO	STATION	SIDE	624.0100 WATER MGAL	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0500 SEED WATER MGAL
0010	249+56	-	251+71	RT		94	215	215			94	0.06	0.3	3
0010	250+08	-	251+90	LT		78	184	184			78	0.05	0.3	3
0010	252+48	-	254+30	LT		83	185	185			83	0.05	0.3	3
0010	252+68	-	257+35	RT		222	561	561			222	0.14	0.8	7
0010	258+42	-	258+51	RT			25	25						
0010	UNDISTRIBUTED				100	500			2	2	500	0.32	1.8	14
			TOTAL		100	978	1,170	1,170	2	2	978	1	4	30

SIGNING

CATEGORY	STATION	SIDE	DIRECTION	CODE	DESCRIPTION	WIDTH (IN)	HEIGHT (IN)	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	ORDER LINE 1	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
0010	100+74	29 LT	SB	R1-1	STOP	30	30	5.18			1	1	1
0010	102+95	28 LT	WB	R2-1	SPEED LIMIT	24	30	5.00		25	1	1	1
0010	109+70	24 LT	WB	R2-1	SPEED LIMIT	24	30	5.00		35	1	1	1
0010	115+23	25 LT	WB	W3-5	SPEED REDUCTION AHEAD	36	36		9.00	35	1	1	1
0010	119+89	27 LT	WB	I2-3	MUNICIPALITY/POPULATION	54	24	9.00		CABLE	1	1	1
0010	169+73	52 LT	SB	R1-1	STOP	30	30	5.18			1	1	1
0010	205+38	24 LT	WB	W1-2L	ROAD CURVES LEFT	36	36		9.00		1	1	1
0010	205+38	24 LT	WB	W13-1	SPEED WARNING	18	18		2.25	45	-	1	-
0010	206+81	29 LT	WB	D9-52L	AIRPORT W/ ARROW	36	36	9.00			1	1	1
0010	209+01	22 LT	WB	W2-2	SIDE ROAD (RIGHT ANGLE) SYMBOL	30	30		6.25		1	1	1
0010	213+73	22 LT	WB	W11-6	SNOMOBILE ROUTE W/ SYMBOL	30	30		6.25		1	1	1
0010	222+26	26 LT	WB	I55-56	ADOPT A HIGHWAY	30	18	3.75			1	1	1
0010	222+26	26 LT	WB	I55-56P	ADOPT A HIGHWAY SPONSOR (NAME)	30	18	3.75			-	1	-
0010	222+83	50 LT	SB	R1-1	STOP			5.18			1	1	1
0010	227+93	25 LT	WB	W13-1	SPEED WARNING	18	18		2.25	45	1	1	1
0010	227+93	25 LT	WB	W1-5L	ROAD SHARP CURVES	30	30		6.25		-	1	-
0010	246+16	48 LT	SB	R1-1	STOP			5.18			1	1	1
0010	251+65	17 RT	WB	W5-52R	BRIDGE HASH MARKS	12	36		3.00		1	1	1
0010	251+86	17 LT	WB	W5-52L	BRIDGE HASH MARKS	12	36		3.00		1	1	1
0010	258+04	63 LT	SB	R1-1	STOP			5.18			1	1	1
0010	320+58	43 LT	SB	R1-1	STOP			5.18			1	1	1
0010	386+45	22 LT	WB	D11-10	ATV ROUTE W/ SYMBOL	24	18	3.00			1	1	1
0010	386+45	22 LT	WB	M1-88A	ARROW	12	12	1.00			-	1	-
0010	386+45	22 LT	WB	M4-6	END	24	12	2.00			-	1	-
					EASTBOUND TOTAL			72.58	47.25		19	24	19

SIGNING

CATEGORY	STATION	SIDE	DIRECTION	CODE	DESCRIPTION	WIDTH (IN)	HEIGHT (IN)	643.0500 SIGNS TYPE II REFLECTIVE H AREA (SF)	643.0715 SIGNS TYPE II REFLECTIVE F AREA (SF)	ORDER LINE 1	639.0504 POSTS WOOD 4X6-INCH X 16-FT EA	643.1050 REMOVING SIGNS TYPE II EA	643.1051 REMOVING SMALL SIGN SUPPORTS EA
0010	102+72	23 RT	EB	R2-1	SPEED LIMIT	24	30	5.00		35	1	1	1
0010	104+24	30 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	109+74	25 RT	EB	R2-1	SPEED LIMIT	24	30	5.00		55	1	1	1
0010	140+16	32 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	140+16	32 RT	NB	R5-51	NO ATV TRAFFIC	24	24	4.00			-	1	-
0010	170+13	42 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	170+13	42 RT	NB	D11-6	SNOMOBILE ROUTE W/ SYMBOL	24	18	3.00			-	1	-
0010	191+17	24 RT	EB	S3-1	SCHOOL BUS STOP AHEAD	30	30	6.25			1	1	1
0010	195+87	23 RT	EB	W2-2	SIDE ROAD (RIGHT ANGLE) SYMBOL	30	30		6.25		1	1	1
0010	198+47	26 RT	EB	D9-52R	AIRPORT W/ ARROW	36	36						
0010	203+20	29 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	203+56	26 RT	EB	W11-6	SNOMOBILE ROUTE W/ SYMBOL	30	30		6.25		1	1	1
0010	205+32	24 RT	EB	W13-1	SPEED WARNING	18	18		2.25	45	1	1	1
0010	205+32	24 RT	EB	W1-2L	ROAD CURVES LEFT	36	36		9.00		-	1	-
0010	209+49	28 RT	EB	W1-8	CHEVRON	18	24	3.00			1	1	1
0010	209+49	28 RT	WB	W1-8	CHEVRON	18	24	3.00			-	1	-
0010	210+36	27 RT	EB	W1-8	CHEVRON	18	24	3.00			1	1	1
0010	210+36	27 RT	WB	W1-8	CHEVRON	18	24	3.00			-	1	-
0010	211+26	28 RT	EB	W1-8	CHEVRON	18	24	3.00			1	1	1
0010	211+26	28 RT	WB	W1-8	CHEVRON	18	24	3.00			-	1	-
0010	212+13	29 RT	EB	W1-8	CHEVRON	18	24	3.00			1	1	1
0010	212+13	29 RT	WB	W1-8	CHEVRON	18	24	3.00			-	1	-
0010	212+96	30 RT	EB	W1-8	CHEVRON	18	24	3.00			1	1	1
0010	212+96	30 RT	WB	W1-8	CHEVRON	18	24	3.00			-	1	-
0010	213+86	31 RT	EB	W1-8	CHEVRON	18	24	3.00			1	1	1
0010	213+86	31 RT	WB	W1-8	CHEVRON	18	24	3.00			-	1	-
0010	223+03	29 RT	SB	M1-5A	COUNTY ROUTE MARKER	24	24	4.00		M	1	1	1
0010	223+03	29 RT	SB	M6-4	DOUBLE DIRECTIONAL ARROW	21	21	3.06			-	1	-
0010	252+50	17 RT	EB	W5-52R	BRIDGE HASH MARKS	12	36		3.00		1	1	1
0010	252+69	17 LT	EB	W5-52L	BRIDGE HASH MARKS	12	36		3.00		1	1	1
0010	245+36	35 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	263+99	38 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	273+42	37 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	297+05	47 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	316+35	39 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
0010	384+13	22 RT	EB	W1-2L	ROAD CURVES LEFT	36	36		9.00		1	1	1
0010	386+38	84 RT	SB	R2-1	SPEED LIMIT	24	30	5.00		45	1	1	1
0010	386+38	84 RT	SB	D11-8	SNOMOBILE AND ATV ROUTE W/ SYMBOLS	24	18	3.00			-	1	-
0010	386+42	93 RT	SB	W11-15	BICYCLE/PEDESTRIAN SYMBOL	30	30		6.25		1	1	1
0010	386+67	39 RT	NB	R1-1	STOP	30	30	5.18			1	1	1
					WESTBOUND TOTAL			126.11	45.00		28	39	28
					PROJECT TOTAL			198.69	92.25		47	63	47

3

TRAFFIC CONTROL ITEMS

CATEGORY	DAYS	TRAFFIC CONTROL SIGNS 643.0900 # SIGNS	TRAFFIC CONTROL SIGNS 643.0900 DAYS
0010	45	25	1,125
0010 TOTAL			1,125

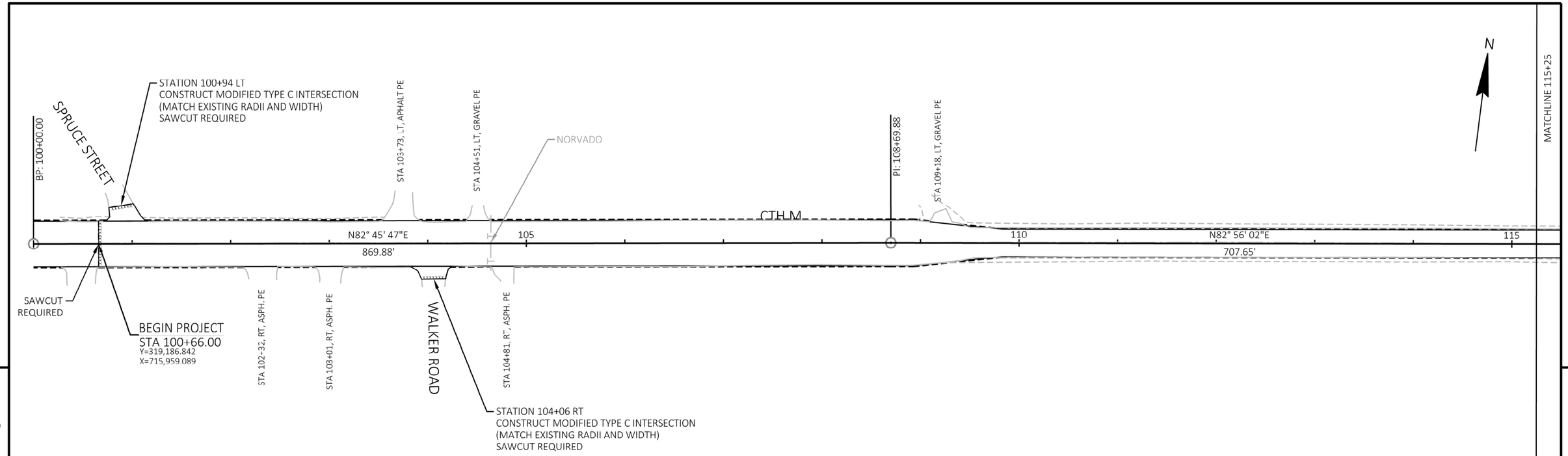
PAVEMENT MARKING ITEMS

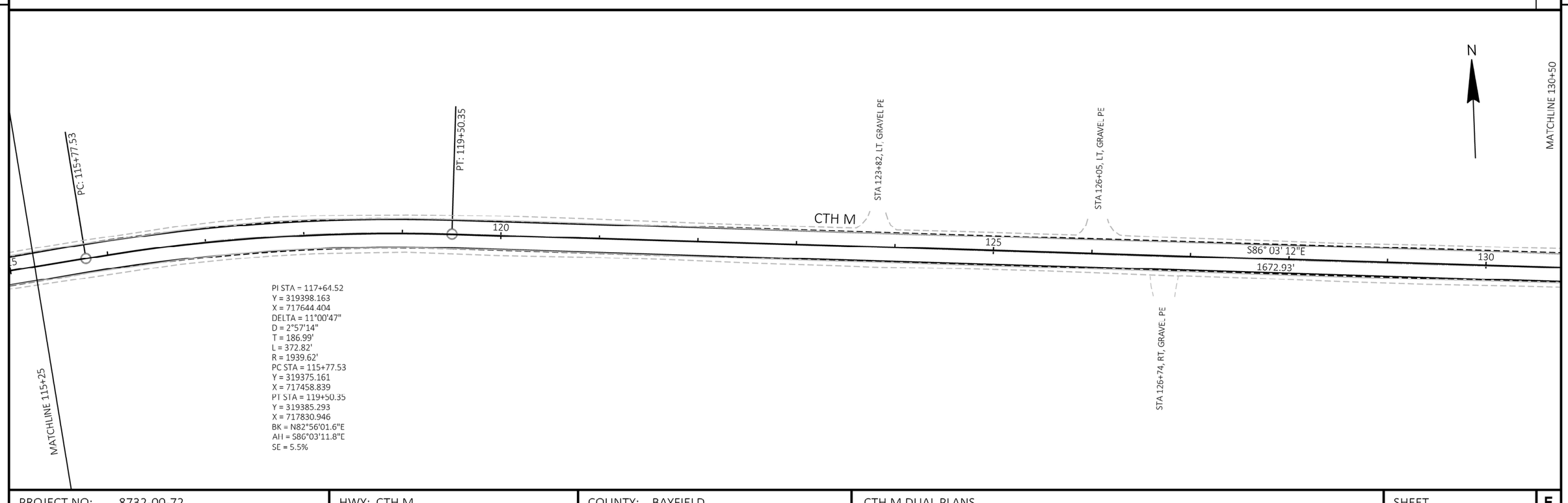
CATEGORY	STATION	TO	STATION	LOCATION	MARKING LINE EPOXY 4-INCH WHITE 646.1020 LF	MARKING LINE SAME DAY EPOXY 4-INCH 646.4520 LF	LOCATING NO-PASSING ZONES 648.0100 MI	TEMPORARY MARKING LINE PAINT 4-INCH 649.0105 LF	REMARKS
0010	100+66	-	387+00	LT	28137				WHITE, EDGELINE
0010	100+66	-	387+00	RT	27996				WHITE, EDGELINE
0010	100+66	-	387+00	LT/RT			5.4		
0011	101+05	-	111+87	LT/RT		2164		4328	YELLOW, CL, DOUBLE YELLOW
0012	111+87	-	126+29	LT/RT		1803		3605	YELLOW, CL, NO PASSING WESTBOUND
0013	126+29	-	138+65	LT/RT		309		618	YELLOW, CL, PASSING ZONE
0014	138+65	-	149+54	LT/RT		1361		2723	YELLOW, CL, NO PASSING EASTBOUND
0015	149+54	-	158+42	LT/RT		1776		3552	YELLOW, CL, DOUBLE YELLOW
0016	158+42	-	160+39	LT/RT		246		493	YELLOW, CL, NO PASSING EASTBOUND
0017	160+39	-	167+07	LT/RT		167		334	YELLOW, CL, PASSING ZONE
0018	167+07	-	169+75	LT/RT		335		670	YELLOW, CL, NO PASSING WESTBOUND
0019	169+75	-	174+51	LT/RT		952		1904	YELLOW, CL, DOUBLE YELLOW
0020	174+51	-	182+23	LT/RT		965		1930	YELLOW, CL, NO PASSING WESTBOUND
0021	182+23	-	184+61	LT/RT		60		119	YELLOW, CL, PASSING ZONE
0022	184+61	-	194+99	LT/RT		1298		2595	YELLOW, CL, NO PASSING EASTBOUND
0023	194+99	-	226+01	LT/RT		6204		12408	YELLOW, CL, DOUBLE YELLOW
0024	226+01	-	234+63	LT/RT		1078		2155	YELLOW, CL, NO PASSING WESTBOUND
0025	234+63	-	236+03	LT/RT		35		70	YELLOW, CL, PASSING ZONE
0026	236+03	-	248+50	LT/RT		1559		3118	YELLOW, CL, NO PASSING EASTBOUND
0027	248+50	-	271+87	LT/RT		4674		9348	YELLOW, CL, DOUBLE YELLOW
0028	271+87	-	282+71	LT/RT		1355		2710	YELLOW, CL, NO PASSING WESTBOUND
0029	282+71	-	287+13	LT/RT		111		221	YELLOW, CL, PASSING ZONE
0030	287+13	-	309+24	LT/RT		2764		5528	YELLOW, CL, NO PASSING EASTBOUND
0031	309+24	-	311+36	LT/RT		53		106	YELLOW, CL, PASSING ZONE
0032	311+36	-	322+10	LT/RT		1343		2685	YELLOW, CL, NO PASSING EASTBOUND
0033	322+10	-	323+45	LT/RT		270		540	YELLOW, CL, DOUBLE YELLOW
0034	323+45	-	334+19	LT/RT		1343		2685	YELLOW, CL, NO PASSING WESTBOUND
0035	334+19	-	350+81	LT/RT		416		831	YELLOW, CL, PASSING ZONE
0036	350+81	-	356+44	LT/RT		704		1408	YELLOW, CL, NO PASSING EASTBOUND
0037	356+44	-	361+91	LT/RT		137		274	YELLOW, CL, PASSING ZONE
0038	361+91	-	367+28	LT/RT		671		1343	YELLOW, CL, NO PASSING WESTBOUND
0038	367+28	-	377+62	LT/RT		1293		2585	YELLOW, CL, NO PASSING EASTBOUND
0039	377+62	-	386+44	LT/RT		1764		3528	YELLOW, CL, DOUBLE YELLOW
0010 TOTAL					56133	37205	5.4	74411	

STAKING ITEMS

CATEGORY	STATION	TO	STATION	CONSTRUCTION STAKING RESURFACING REFERENCE 650.8000 LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8732-00-02) 650.9910 LS	REMARKS
0010	100+66	-	387+00	28634	1	
0010 TOTAL				28634	1	

3

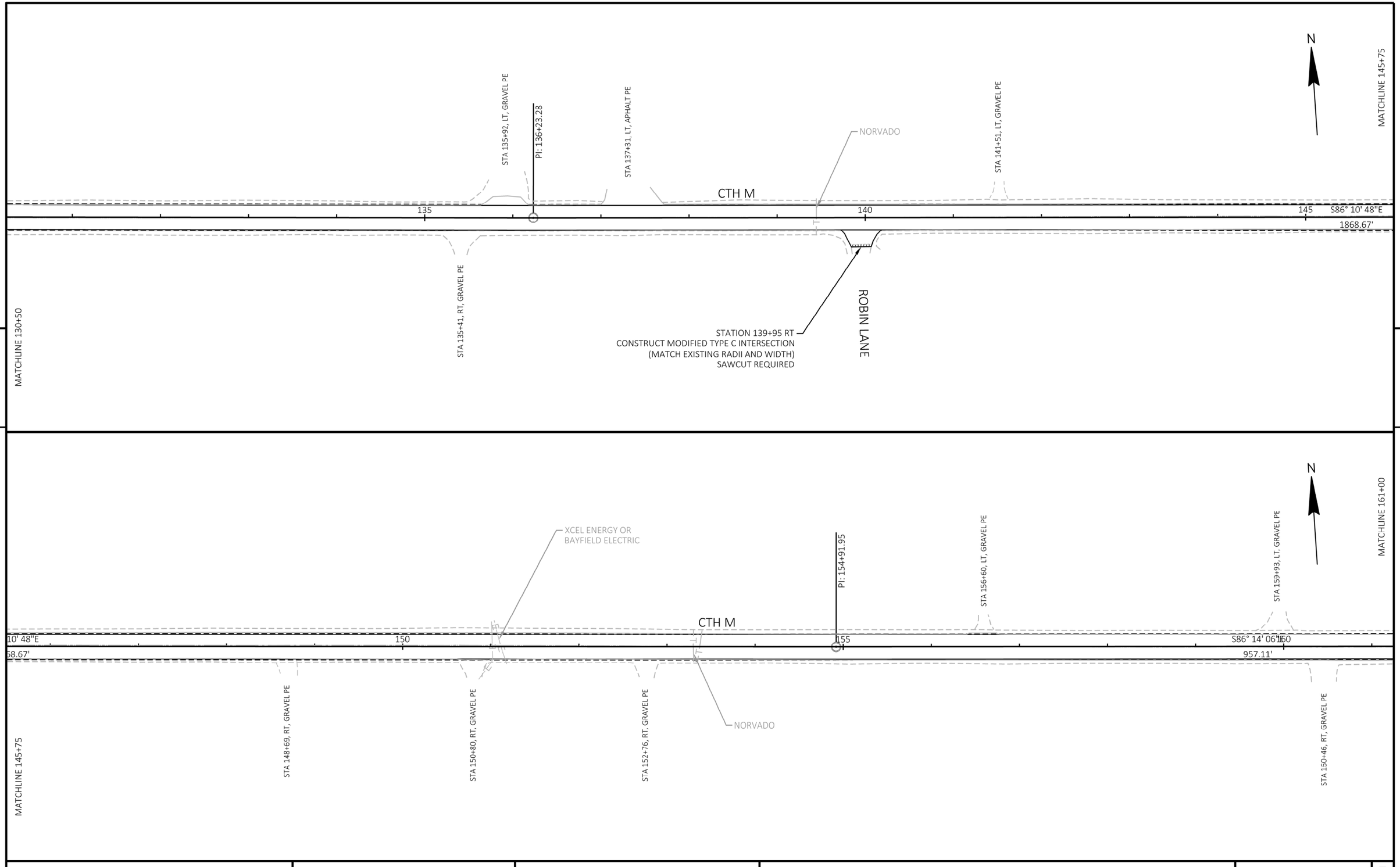




PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 27	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (01)

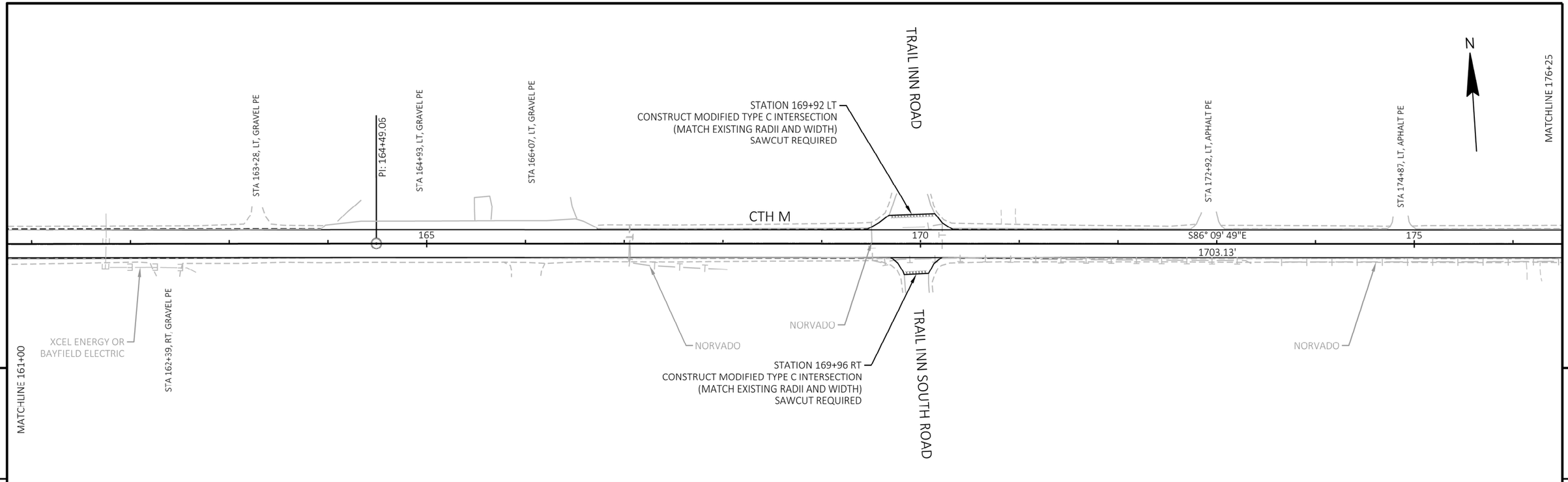
PLOT DATE : 1/28/2021 2:00 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 28	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (02)

PLOT DATE : 1/28/2021 2:08 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

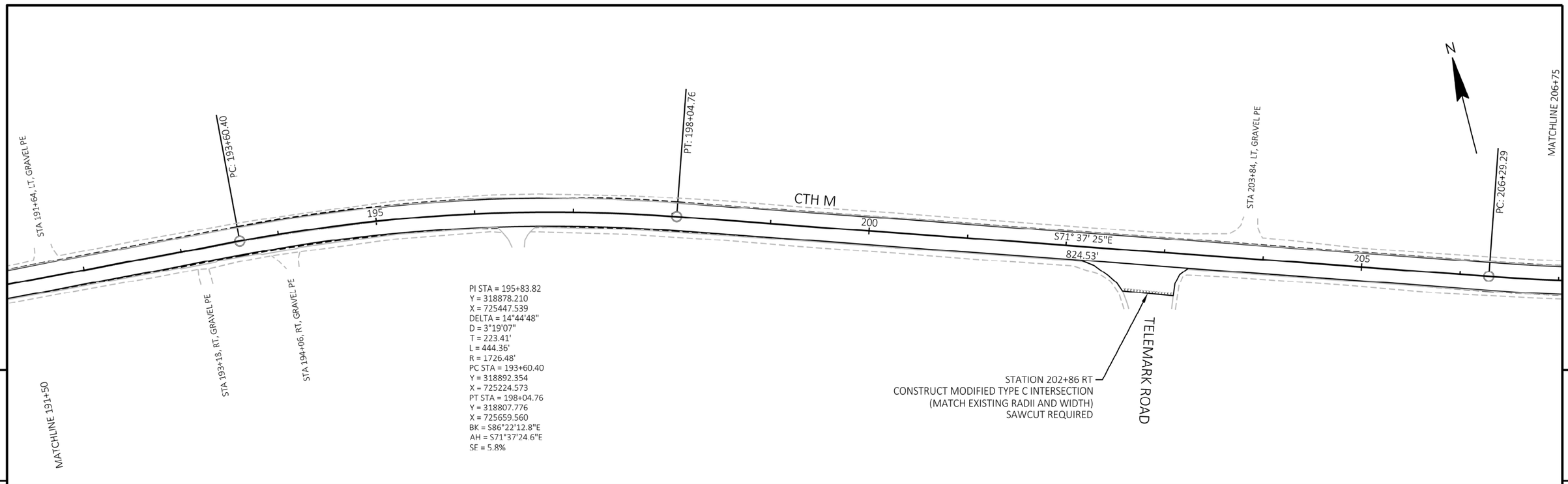


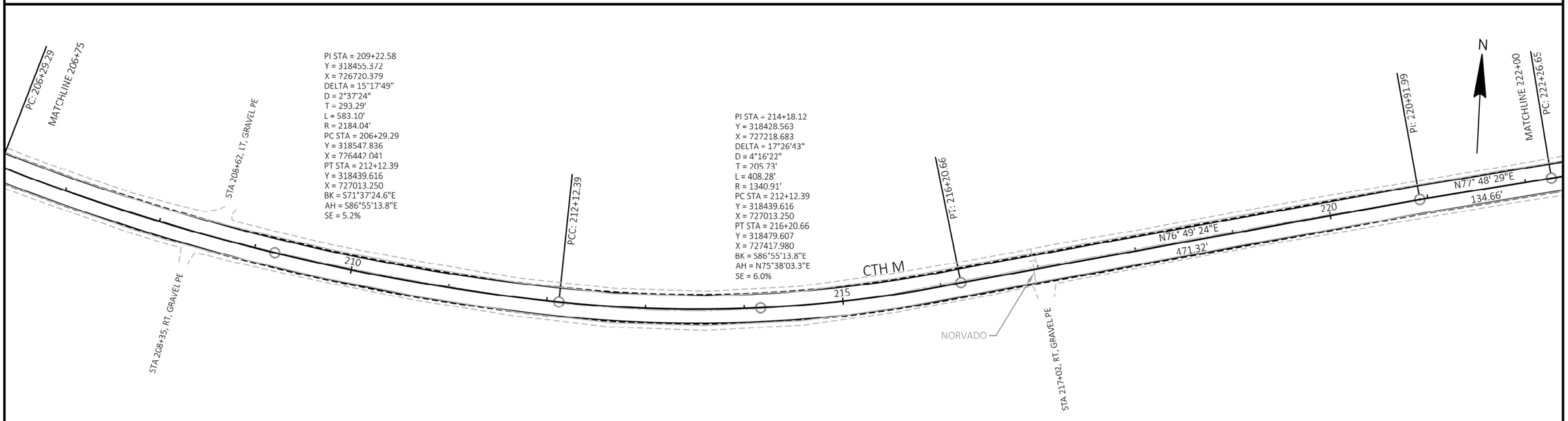
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 29	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (03)

PLOT DATE : 1/28/2021 2:08 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

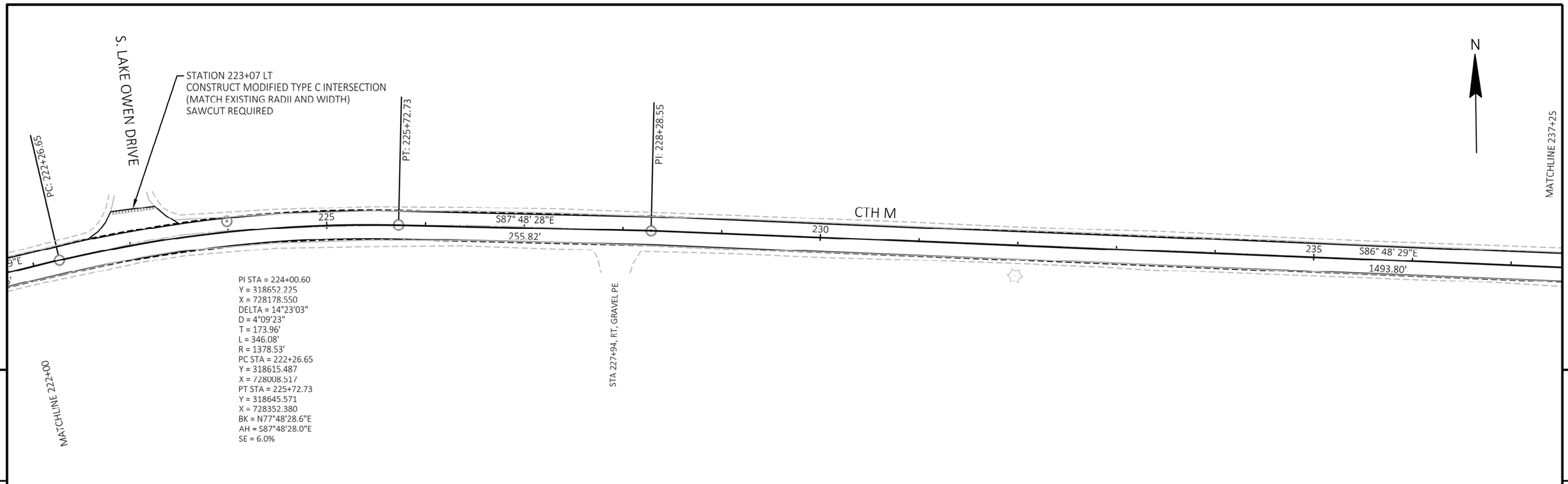


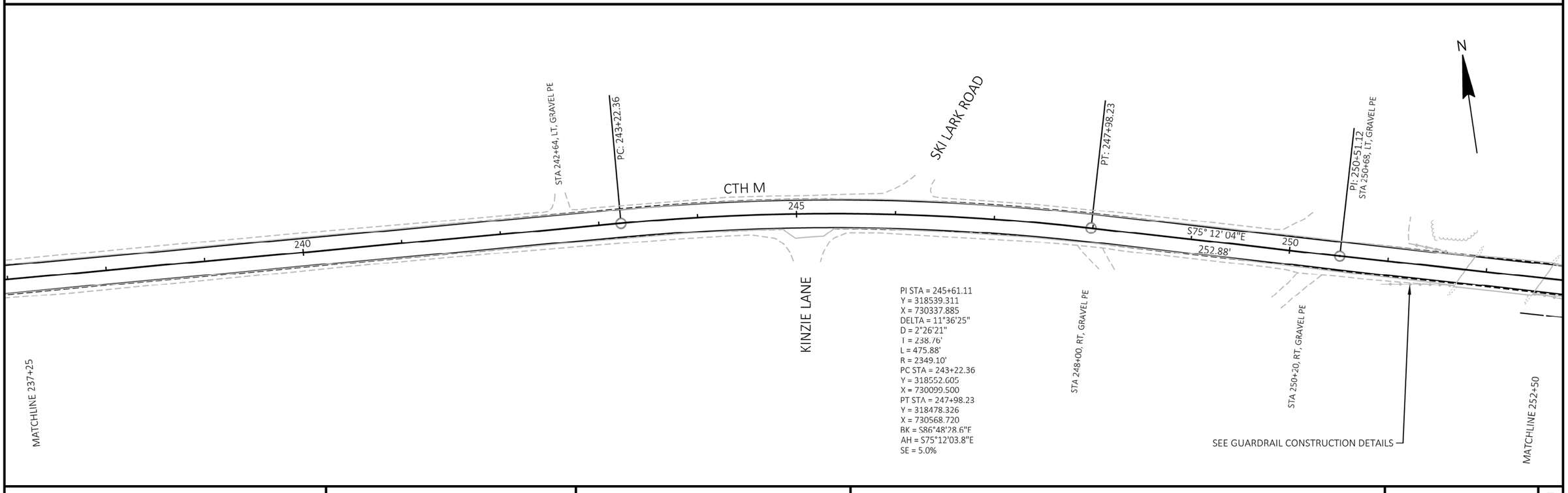


PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 30	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (04)

PLOT DATE : 1/28/2021 2:08 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT



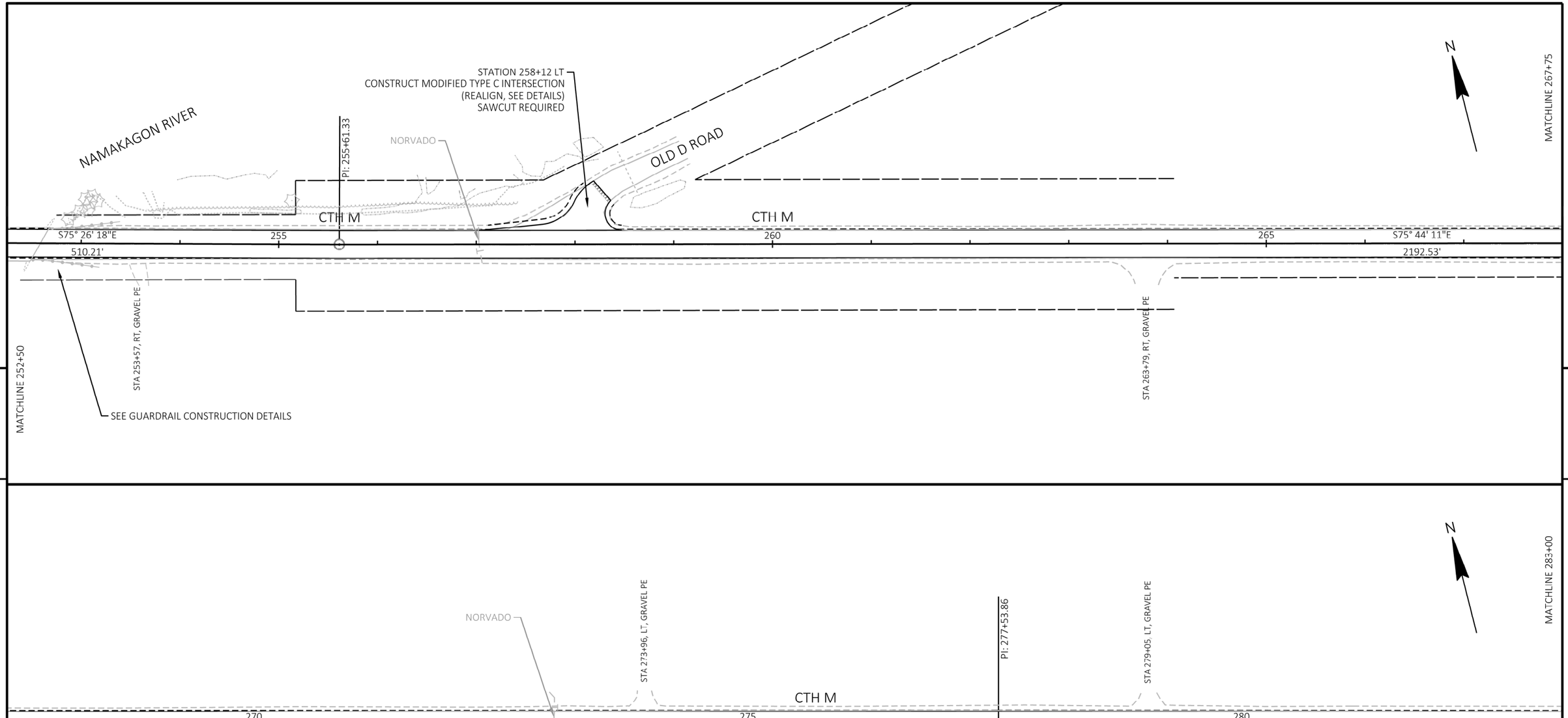


PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 31	E

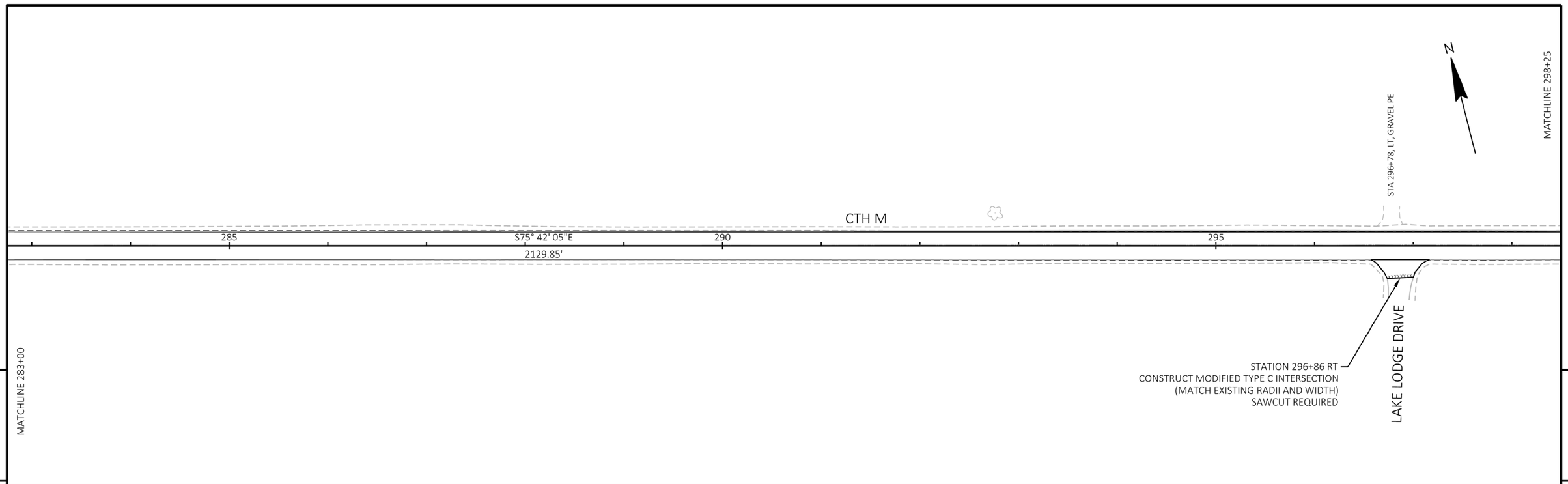
FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (05)

PLOT DATE : 1/28/2021 2:09 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 32	E



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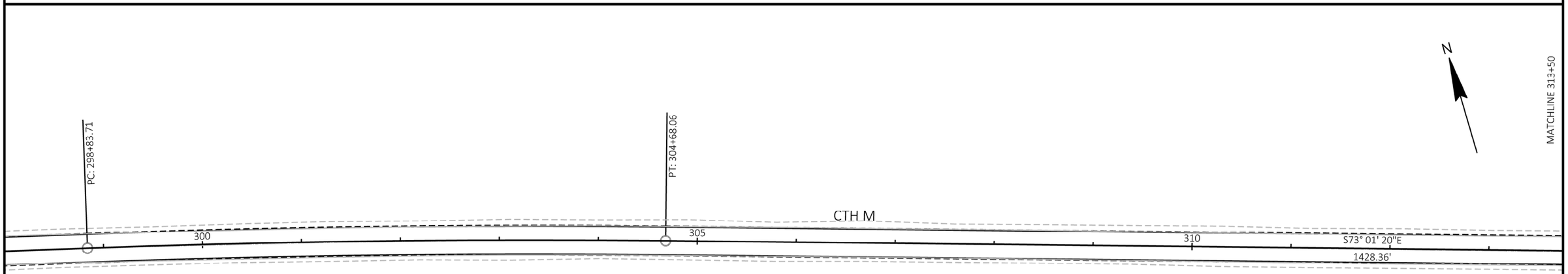
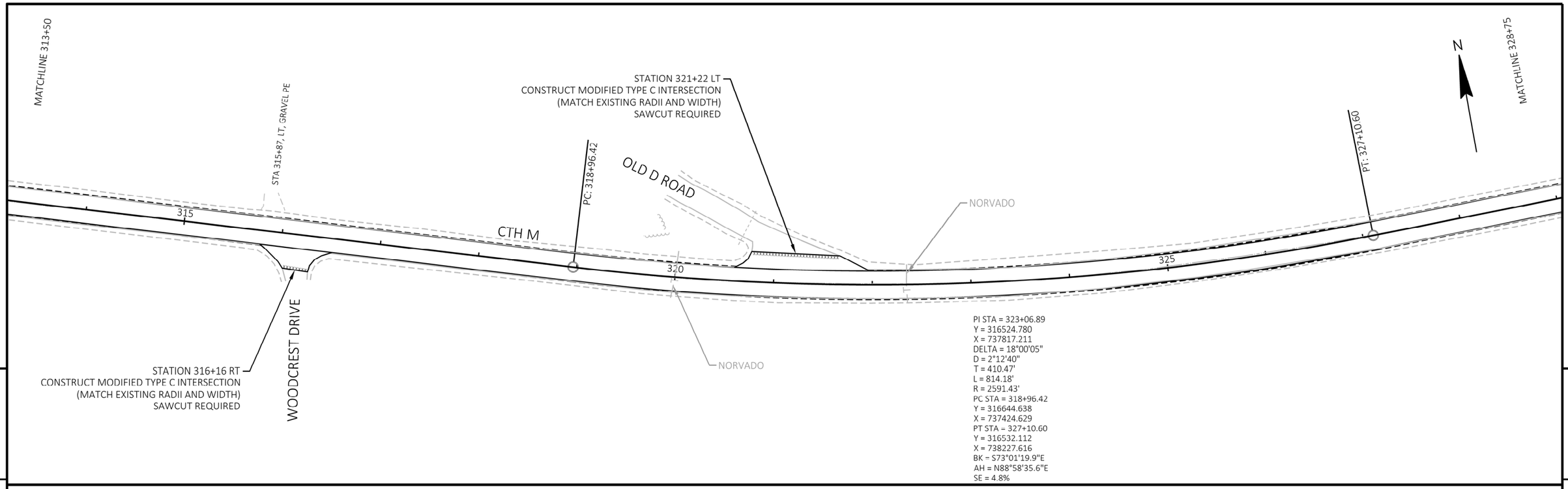
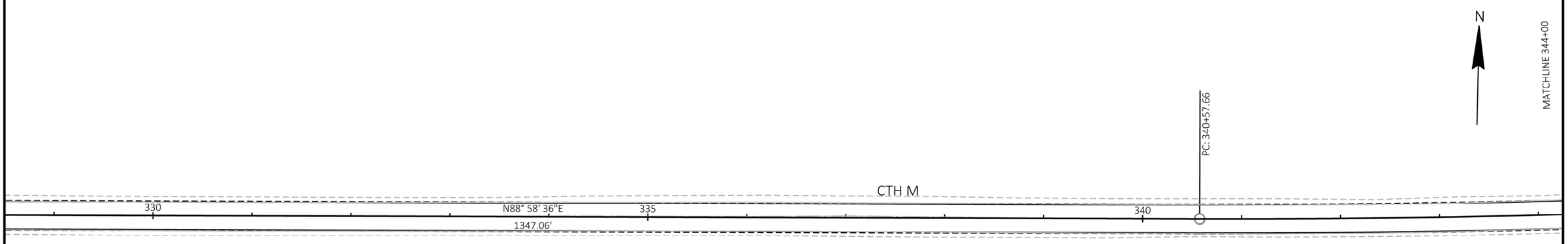


MATCHLINE 298+25

PI STA = 301+75.94
Y = 317147.053
X = 735779.027
DELTA = 2°40'45"
D = 0°27'31"
T = 292.23'
L = 584.35'
R = 12496.61'
PC STA = 298+83.71
Y = 317219.226
X = 735495.851
PT STA = 304+68.06
Y = 317061.721
X = 736058.520
BK = S75°42'05.0"E
AH = S73°01'19.9"E
SE = NC

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 33	E

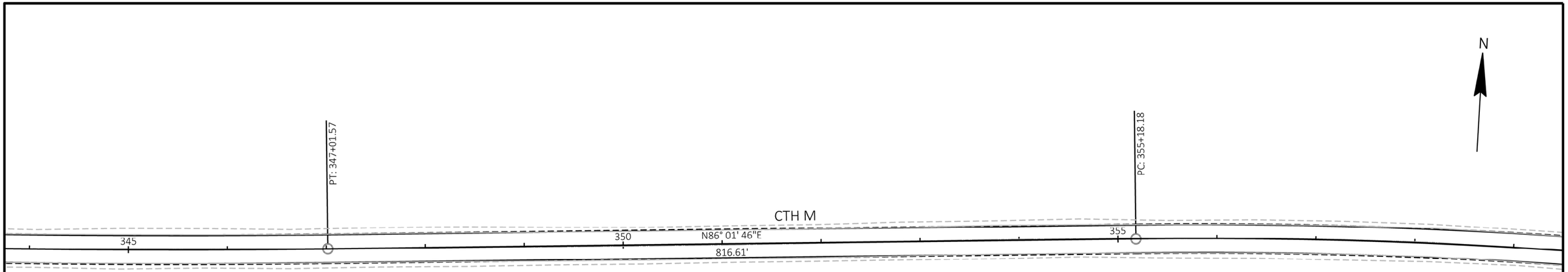




PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 34	E

FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (08)

PLOT DATE : 1/28/2021 2:09 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT



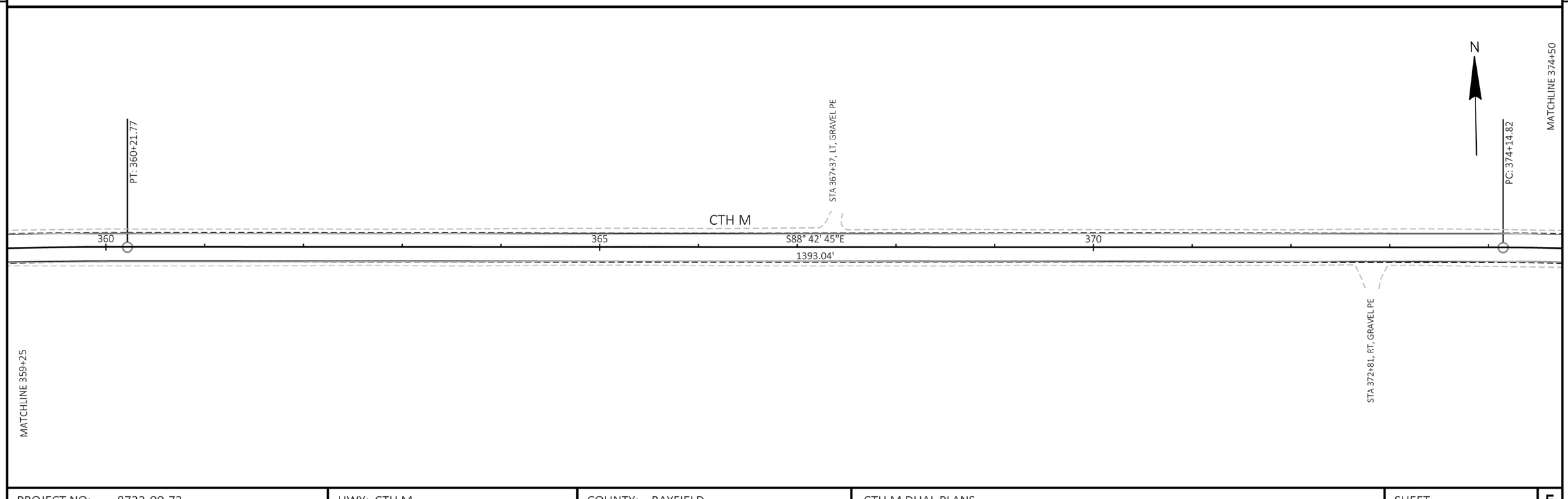
PI STA = 357+70.15
Y = 316658.214
X = 741283.704
DELTA = 5°15'29"
D = 1°02'39"
T = 251.98'
L = 503.60'
R = 5487.50'
PC STA = 355+18.18
Y = 316640.767
X = 741032.333
PT STA = 360+21.77
Y = 316652.552
X = 741535.616
BK = N86°01'46.1"E
AH = S88°42'44.6"E
SE = 2.8%

MATCHLINE 344+00

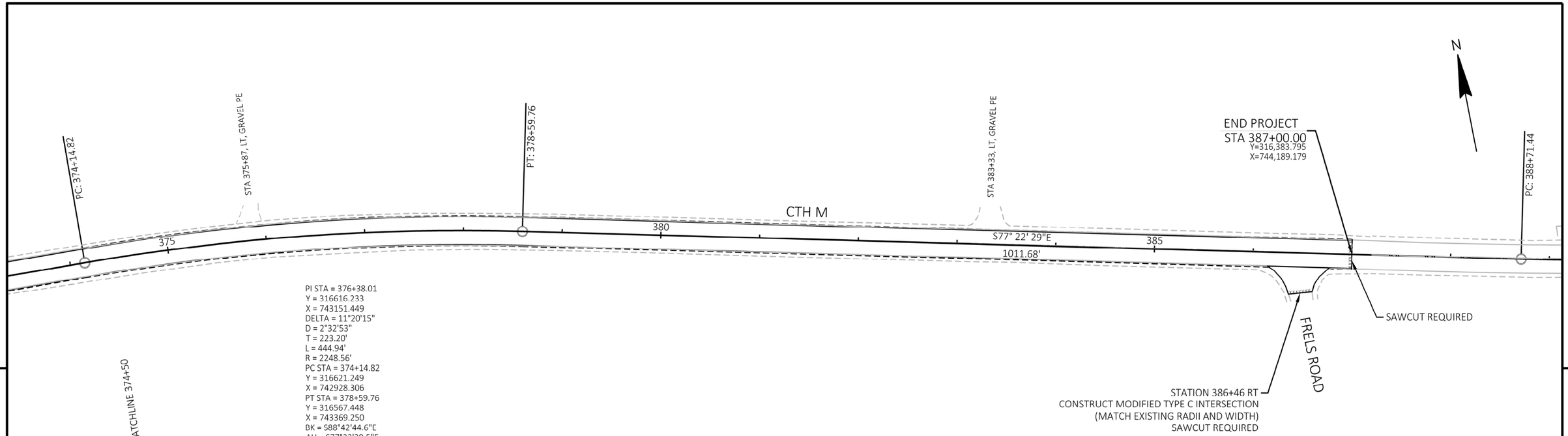
MATCHLINE 359+25

5

5



PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 35	E



5

5

PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CTH M DUAL PLANS	SHEET 36	E

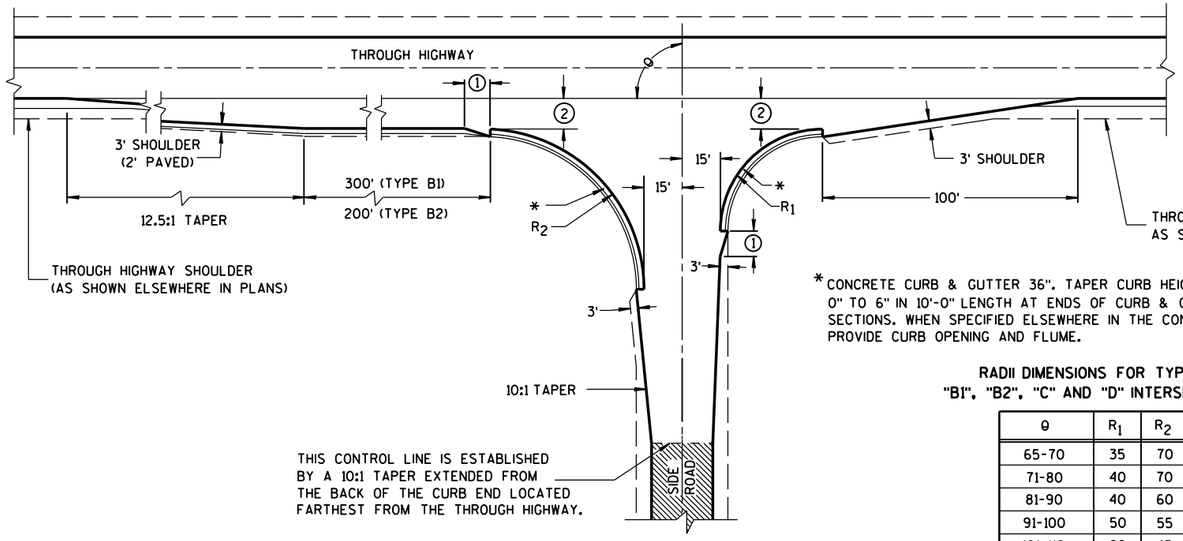
FILE NAME : G:\2019-PROJ\19467123\C3D\SHEETSPLAN\050101_PN.DWG
LAYOUT NAME - CTH M - (10)

PLOT DATE : 1/28/2021 2:09 PM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
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

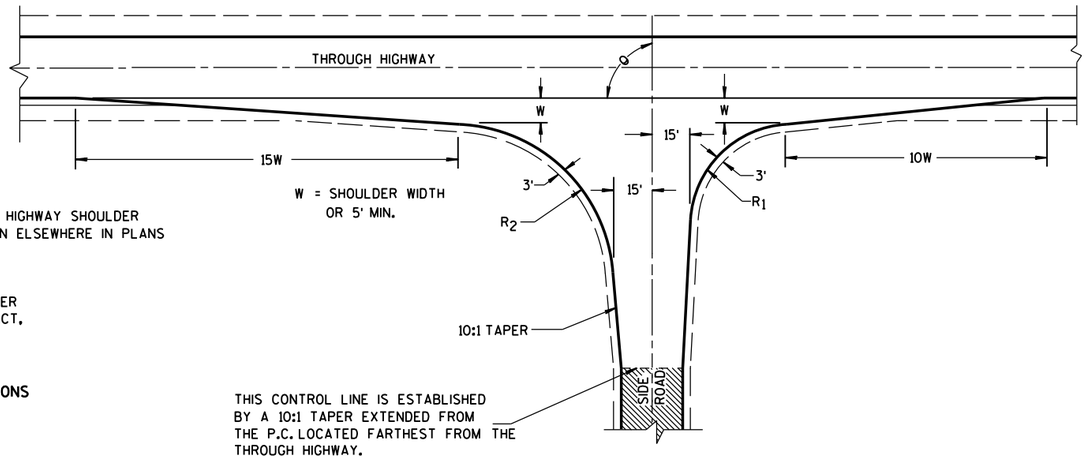


TYPE "B1" AND "B2"

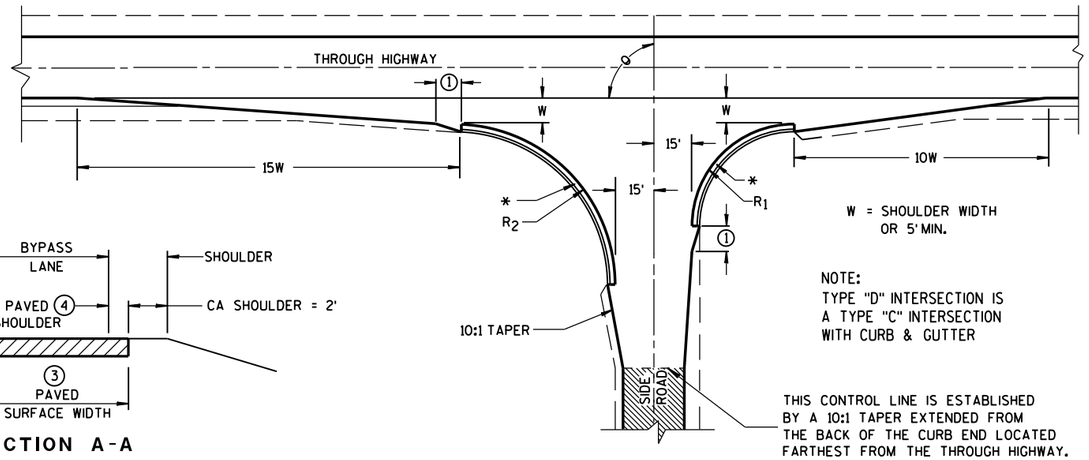
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

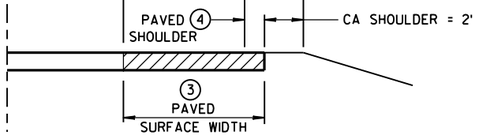
(1) 10-FT TYPICAL.

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

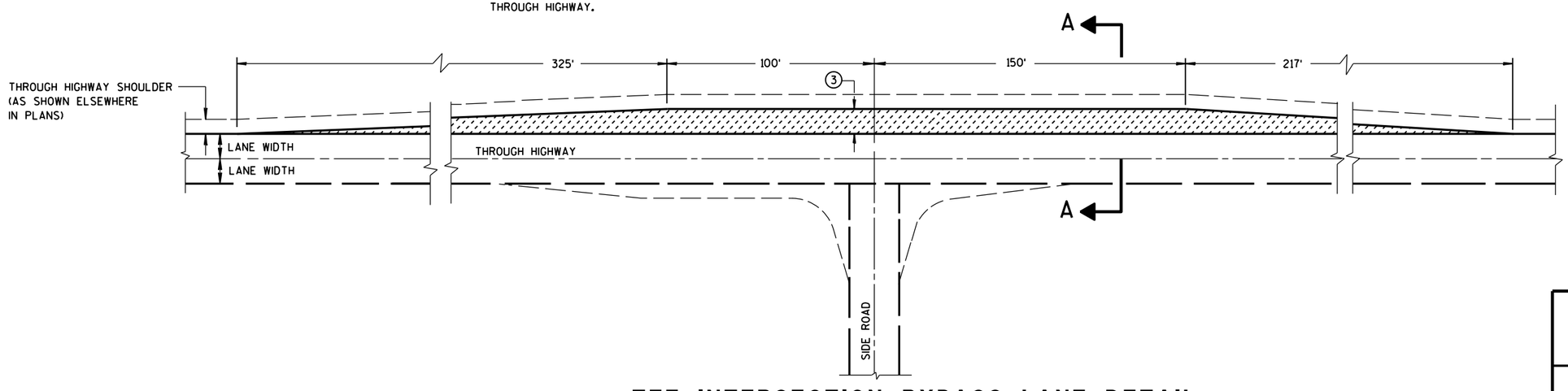
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

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



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 9 A 1-13a

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

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

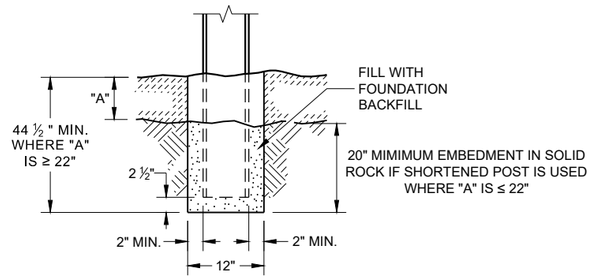
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

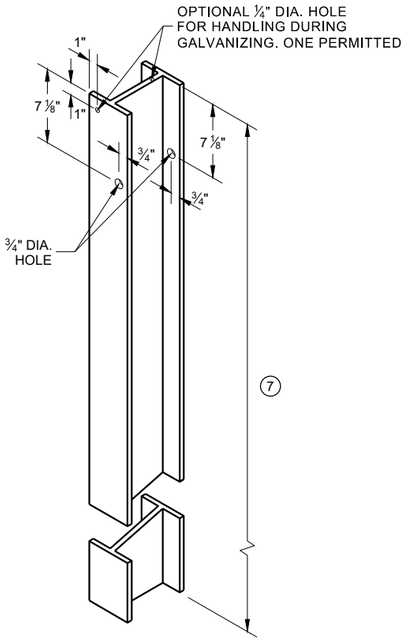
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

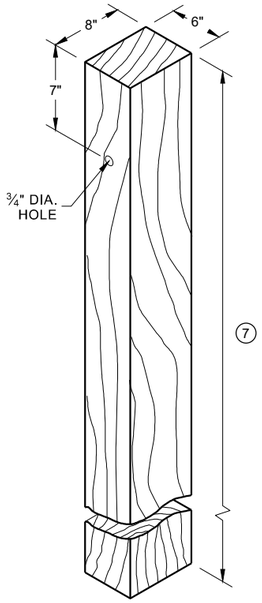
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



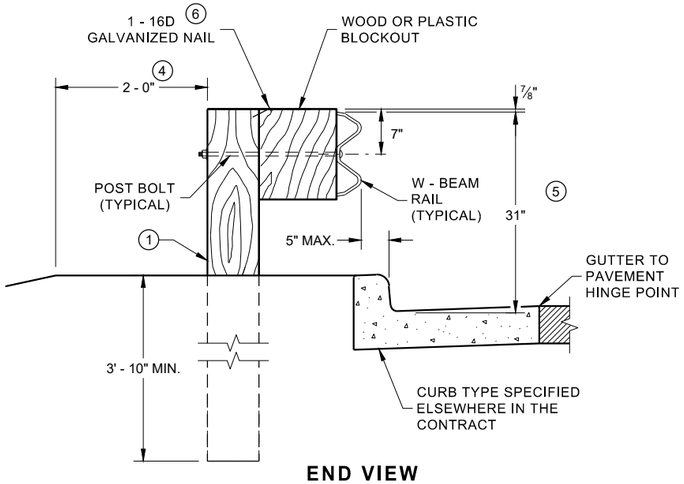
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



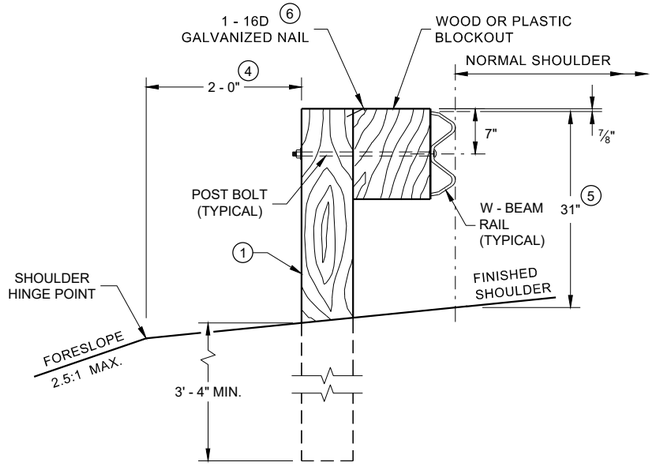
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



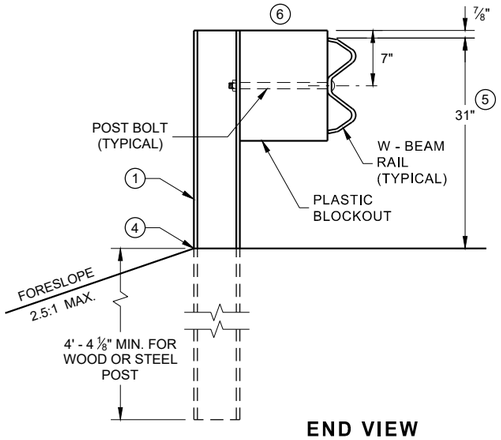
WOOD POST (6" X 8") NOMINAL (1)



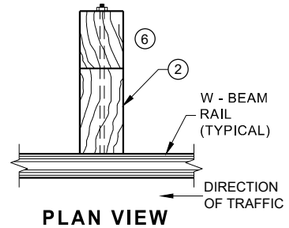
END VIEW
LOCATED ALONG A CURBED ROADWAY



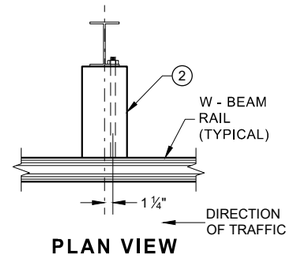
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



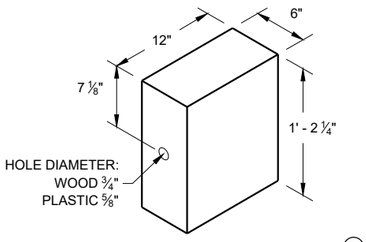
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

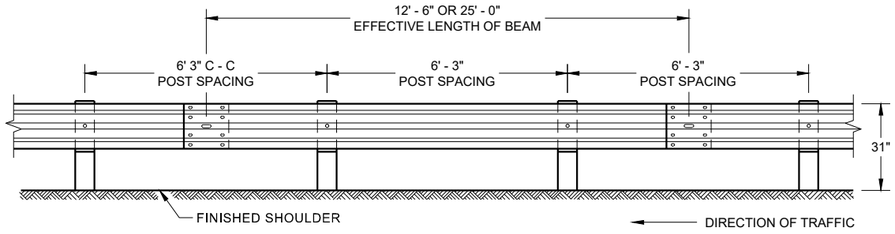
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

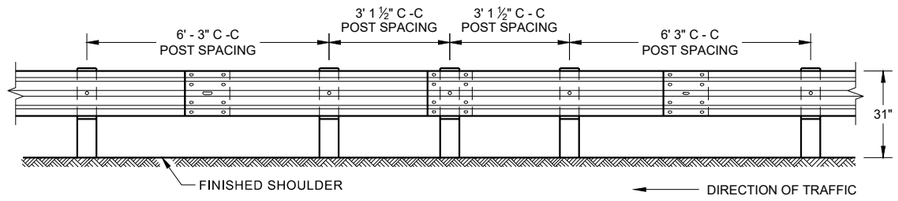
SDD 14B42 - 06a

6

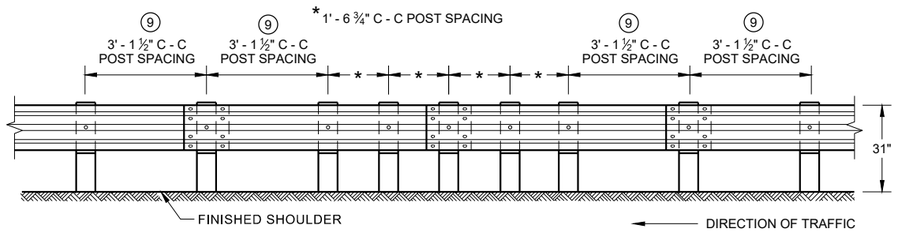
SDD 14B42 - 06a



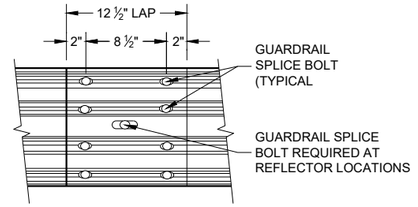
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

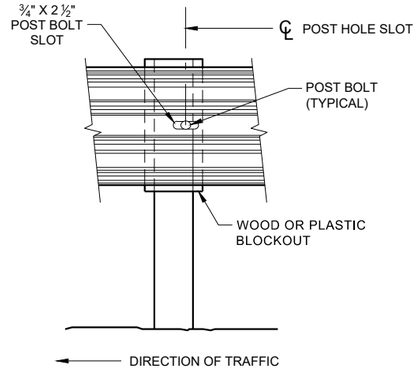
GENERAL NOTES

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

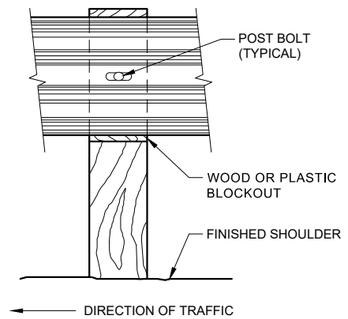
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

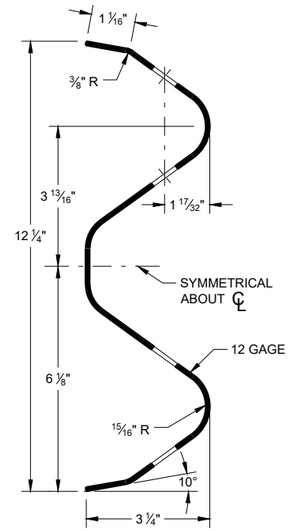
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



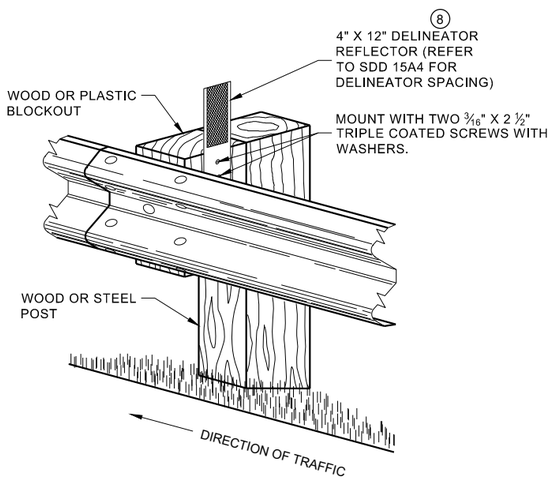
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



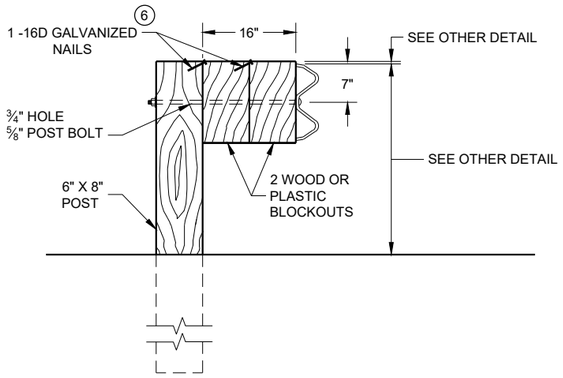
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

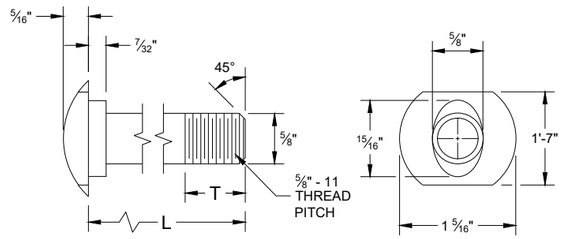


DETAIL FOR 16" BLOCKOUT DEPTH

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

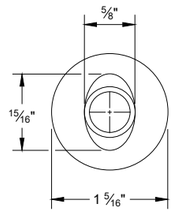
NOTE:

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

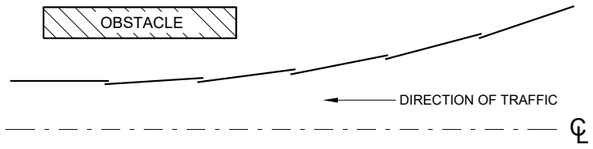


POST BOLT TABLE

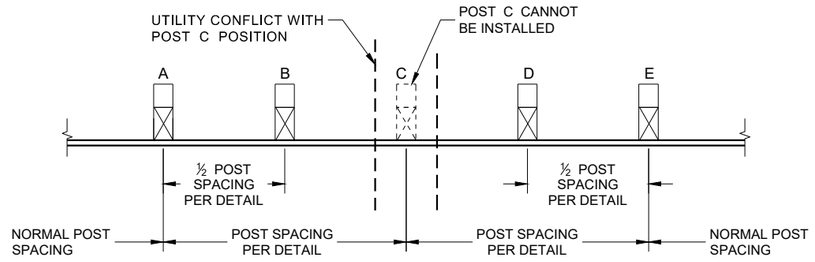
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



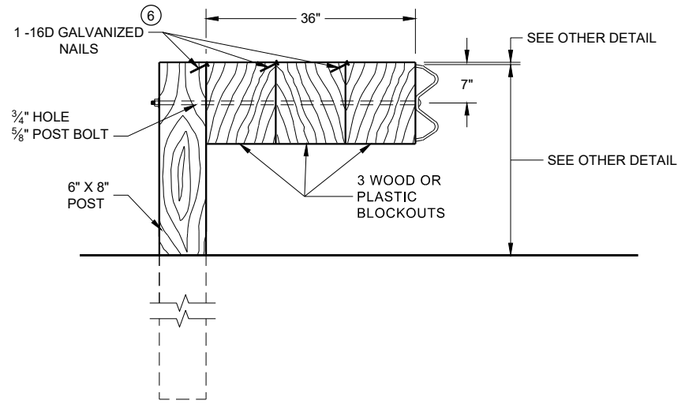
ALTERNATE BOLT HEAD



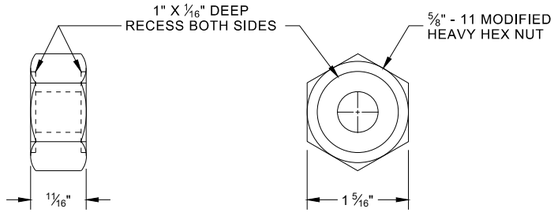
PLAN VIEW
BEAM LAPPING DETAIL



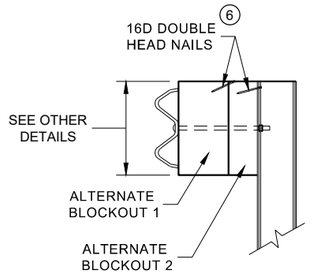
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



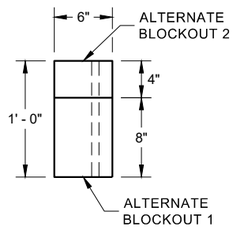
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

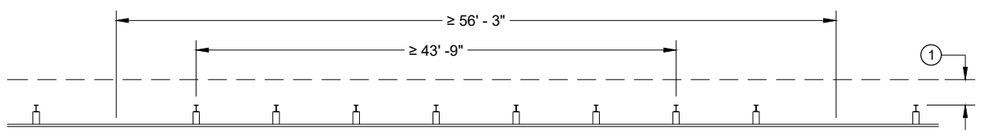
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

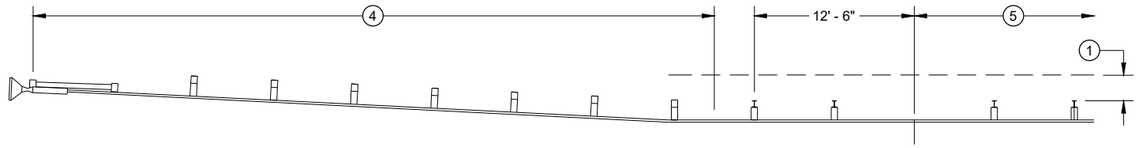
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

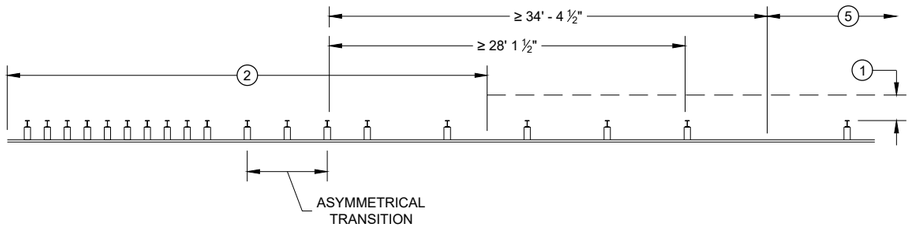
SDD 14B42 - 06c



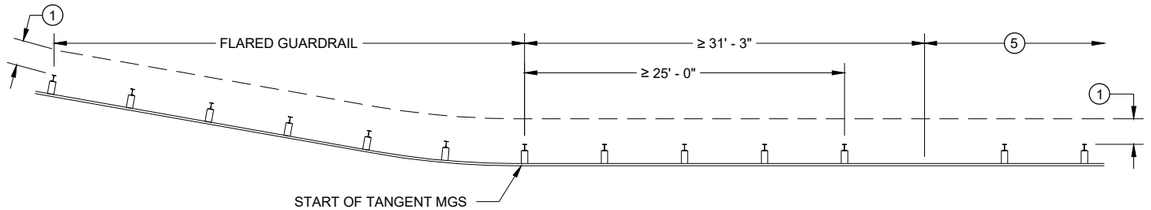
MISSING POST IN NORMAL BEAM GUARD RUN



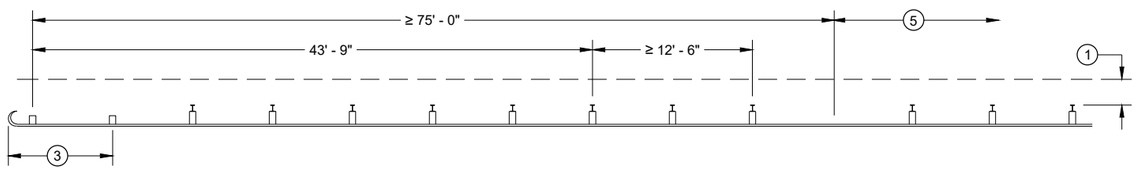
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



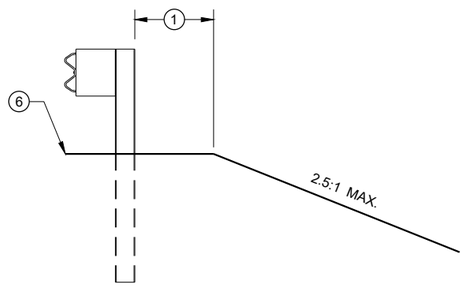
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 14B42 - 06d

SDD 14B42 - 06d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

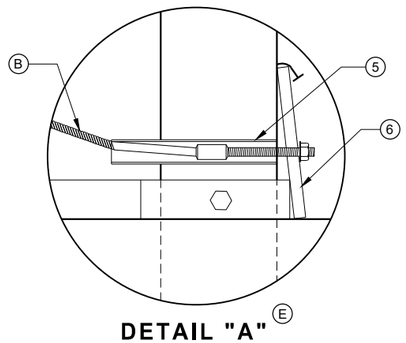
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

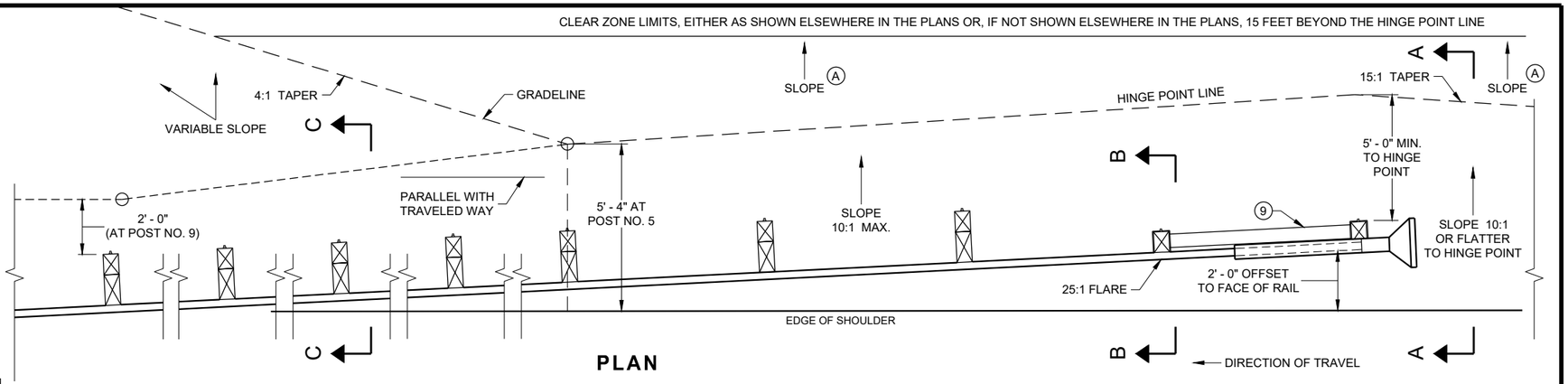
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

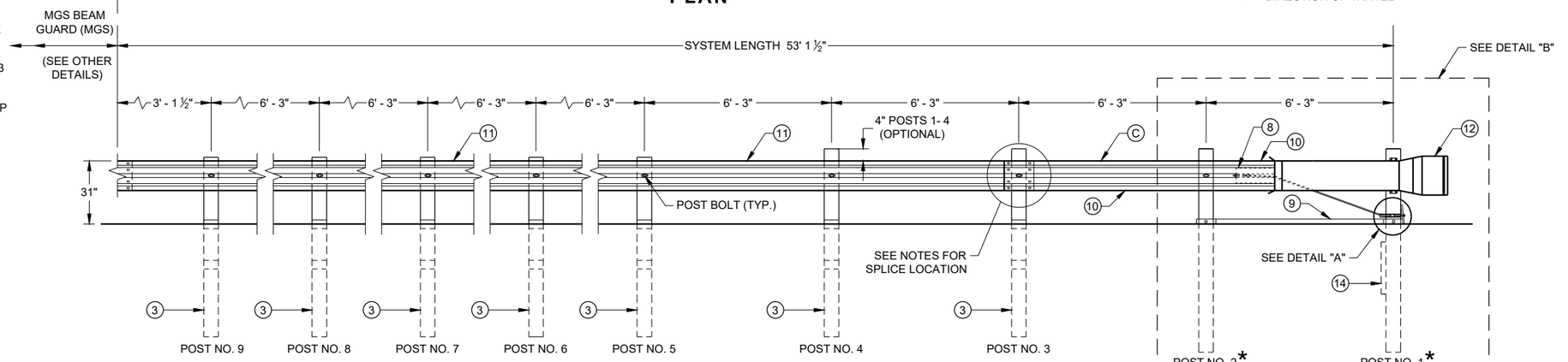
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



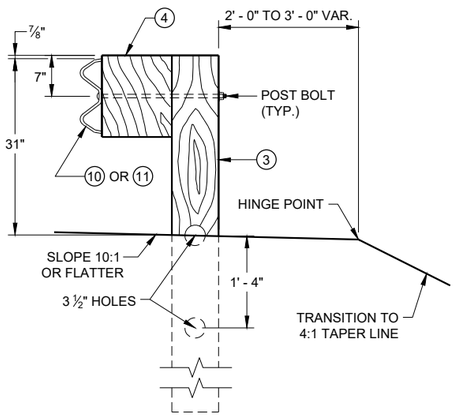
DETAIL "A" (E)



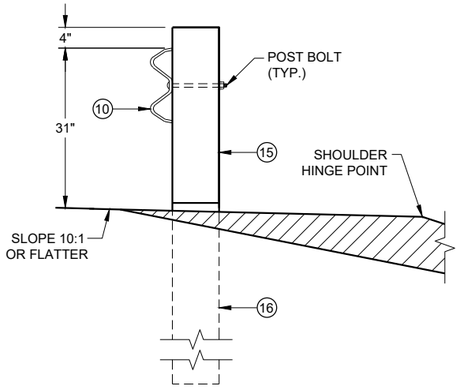
PLAN



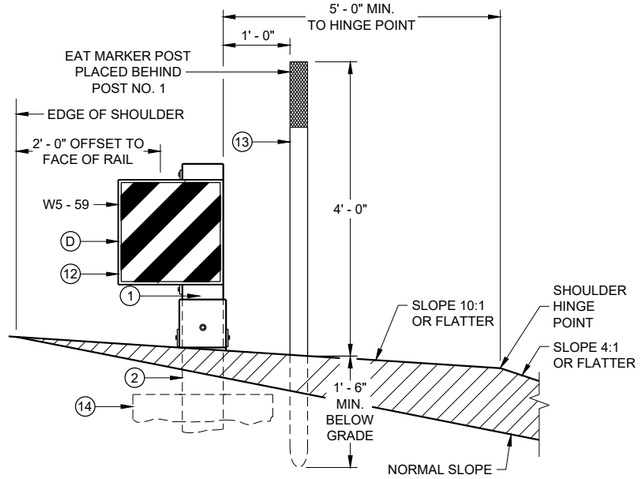
ELEVATION



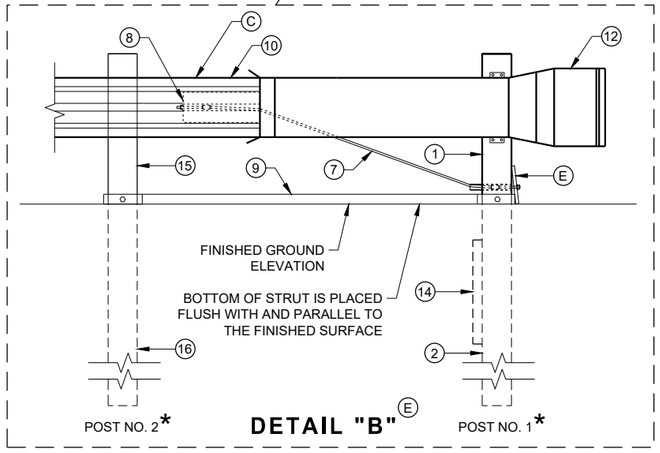
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



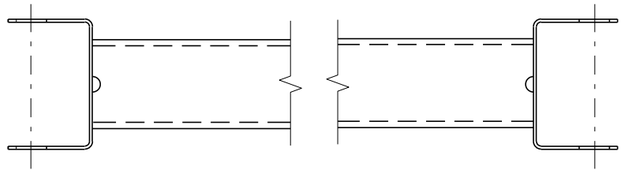
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

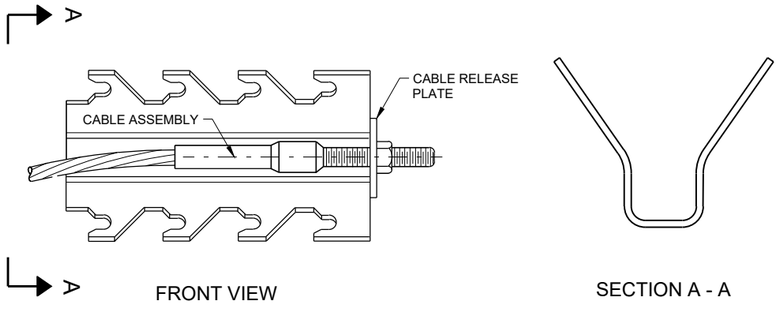
SDD 14B44 - 04a



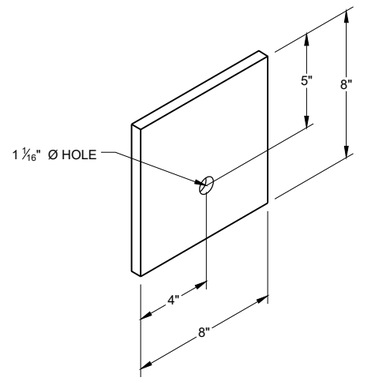
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

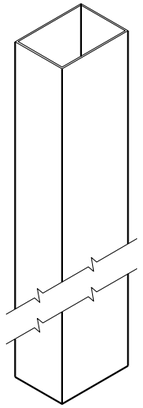
6

SDD 14B44 - 04b

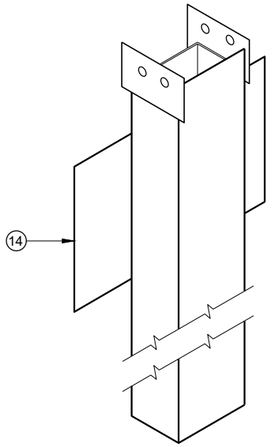
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

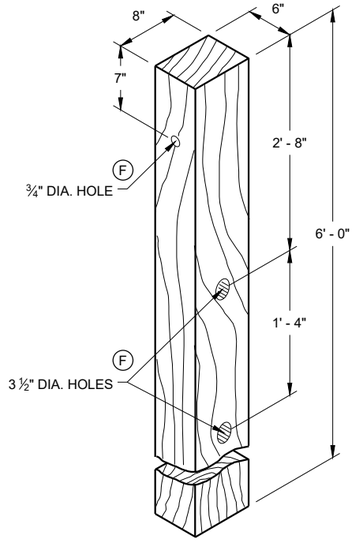
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



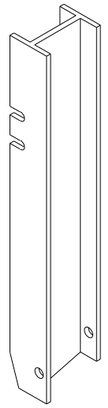
UPPER POST NO. 1 (1) (E)



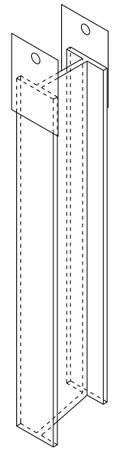
LOWER POST NO. 1 (2) (E)



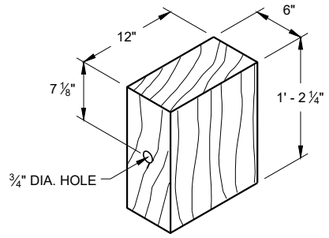
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



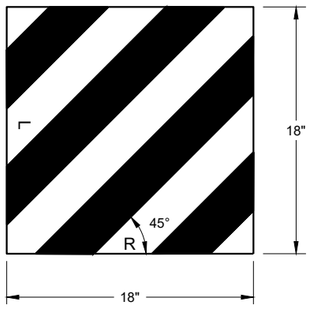
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

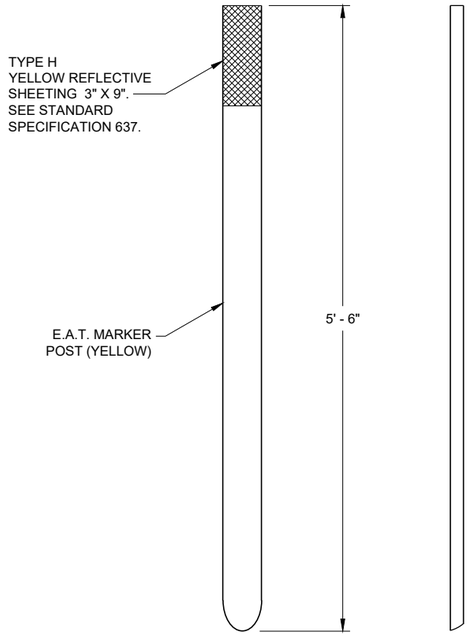


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



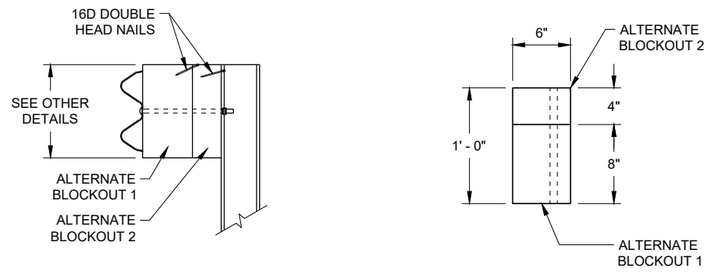
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

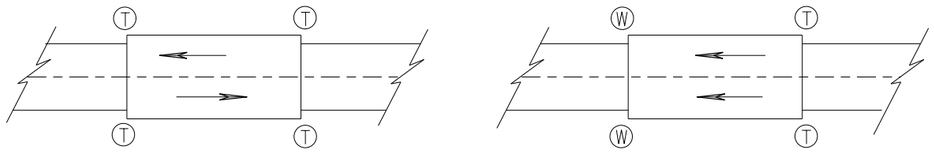
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

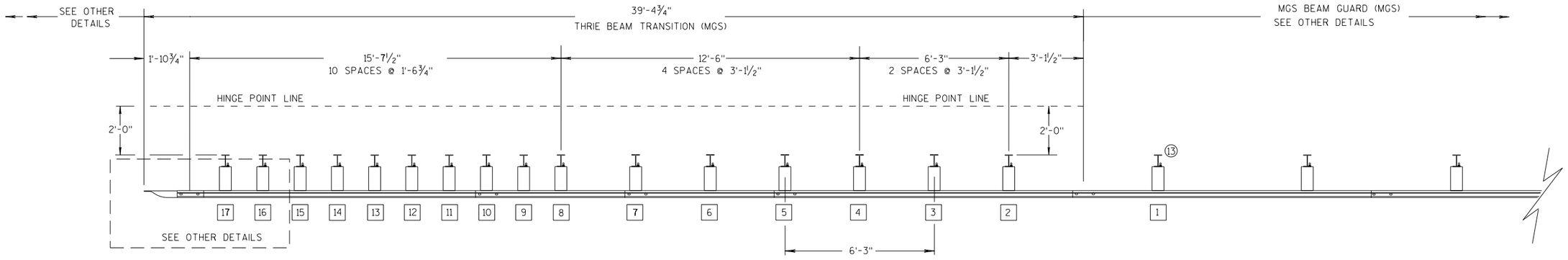
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

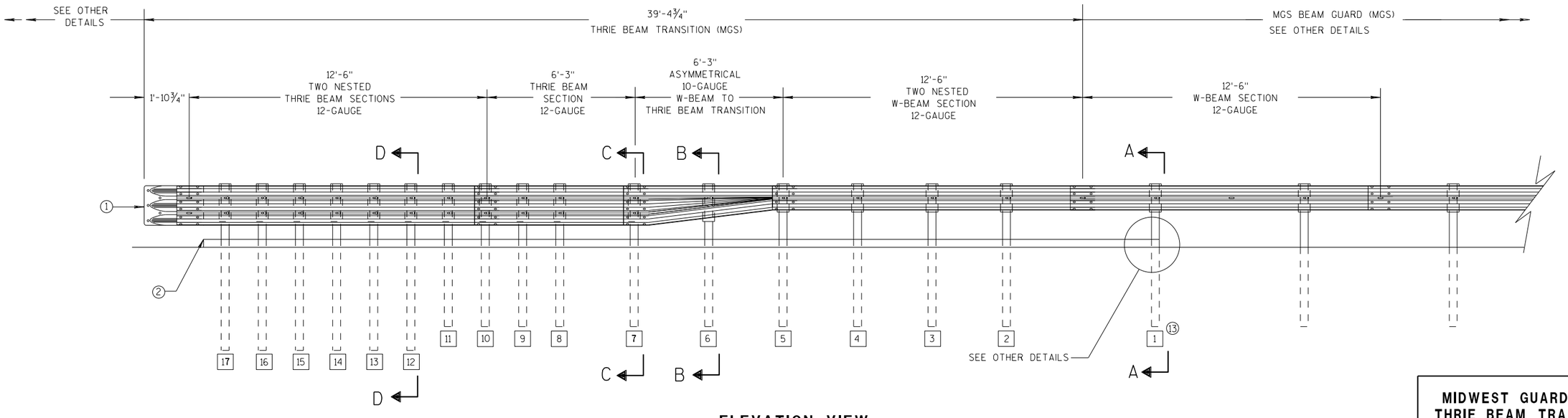
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

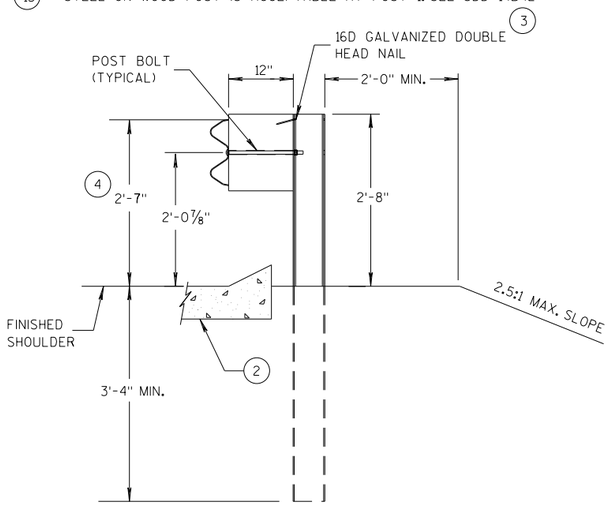
GENERAL NOTES

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

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

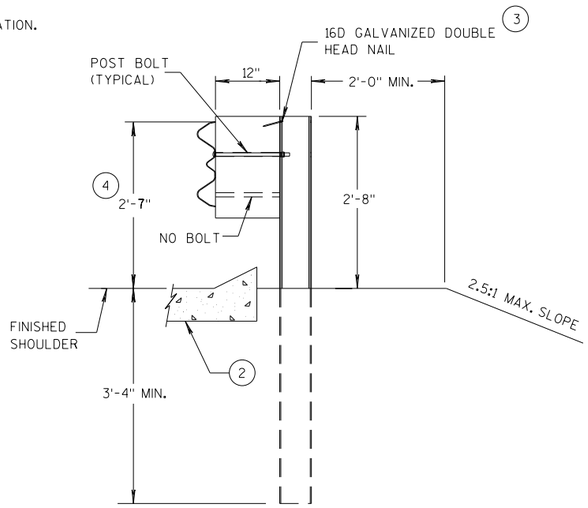
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



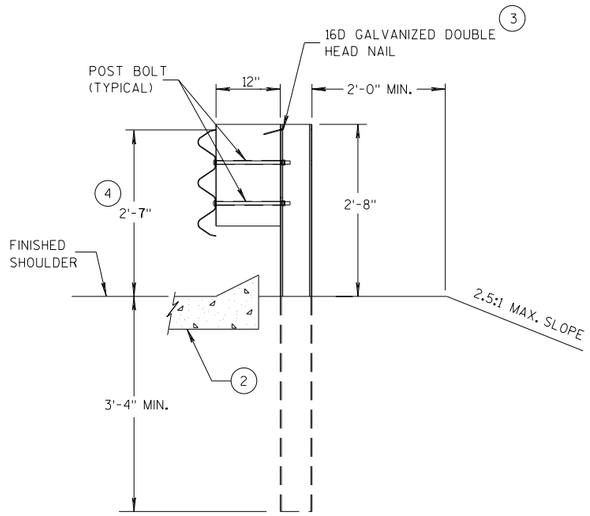
SECTION A-A (13)

POSTS 1-5



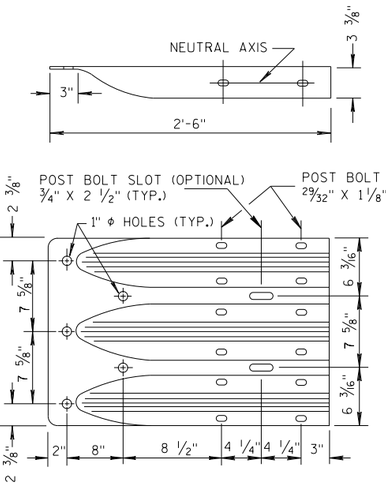
SECTION B-B

POST 6

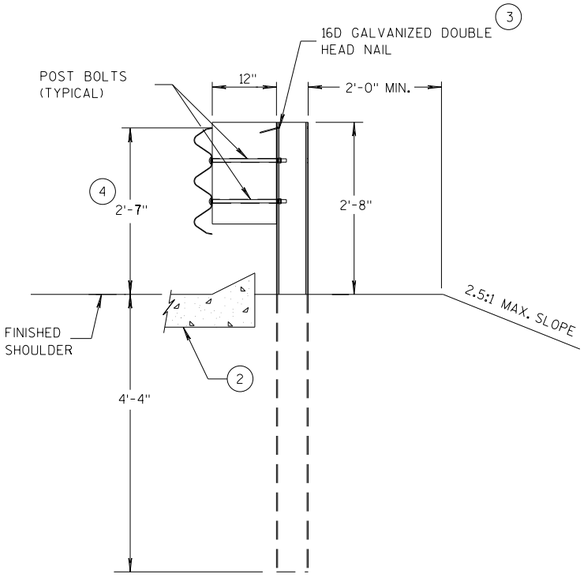


SECTION C-C

POSTS 7-11

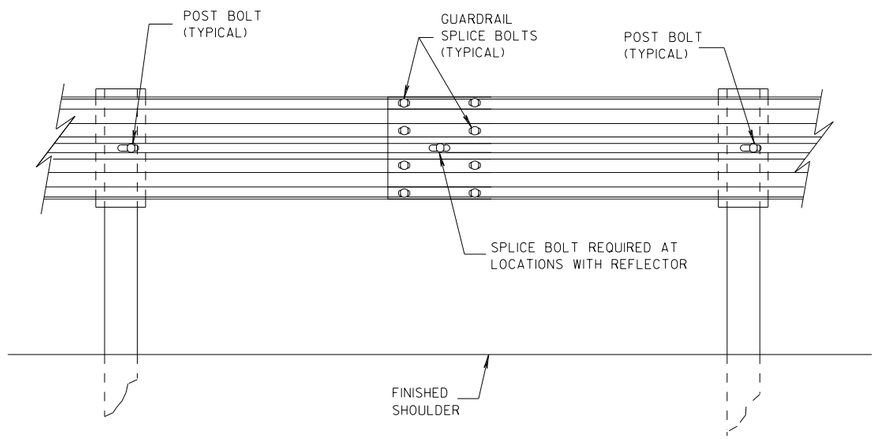


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

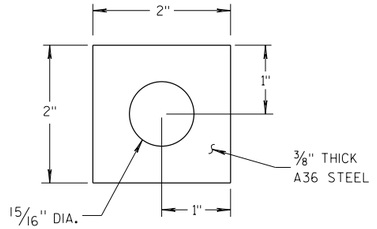
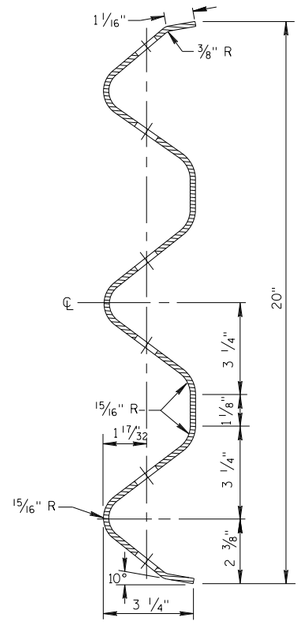


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

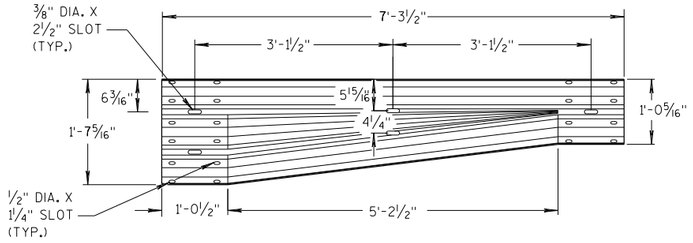
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 47

6

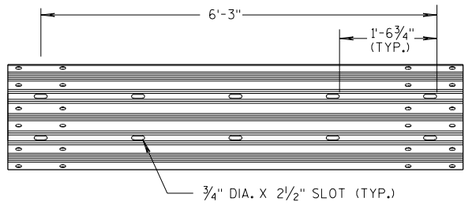
S.D.D. 14 B 45-5b

6

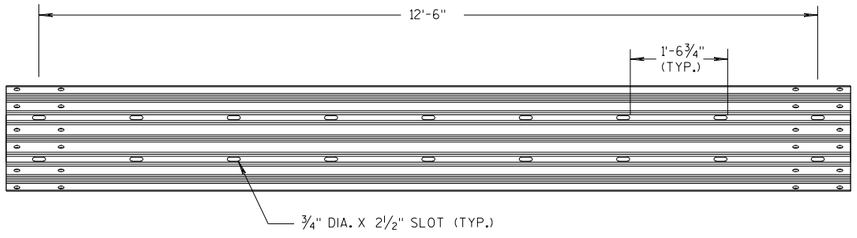
S.D.D. 14 B 45-5b



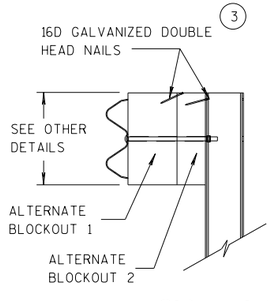
W-BEAM TO THRIE BEAM TRANSITION SECTION



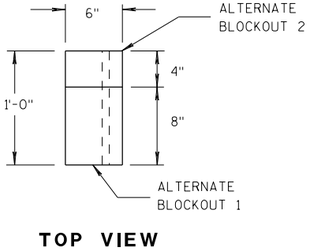
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

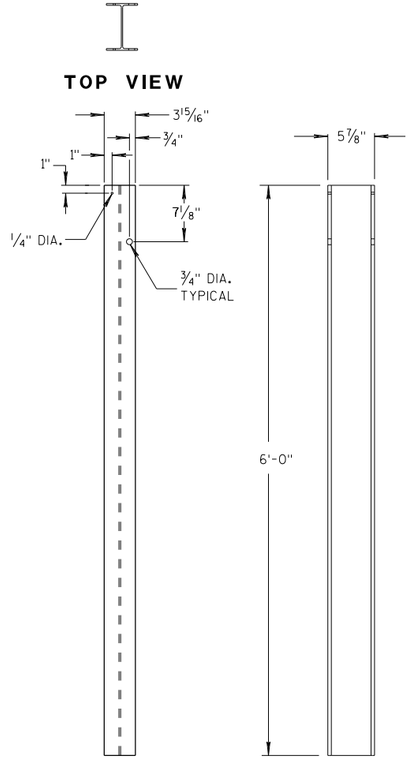


SIDE VIEW



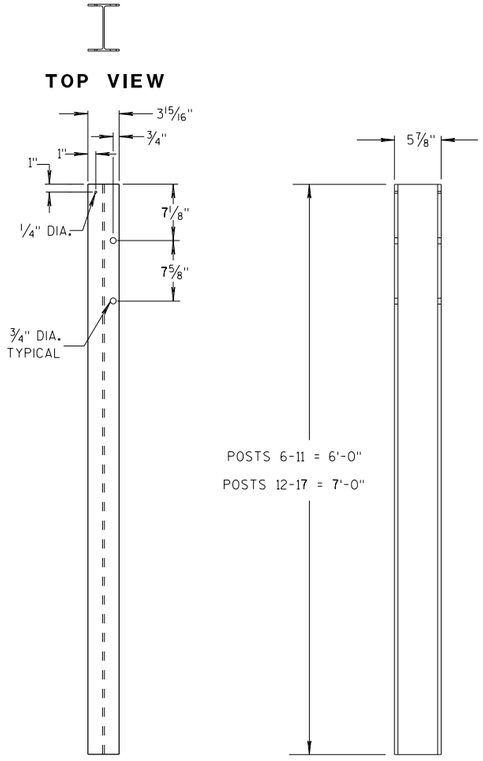
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



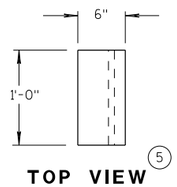
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

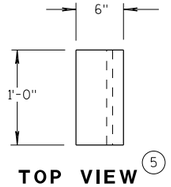


FRONT VIEW SIDE VIEW

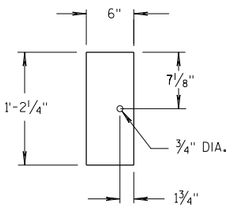
STEEL POSTS 6-17



TOP VIEW (5)

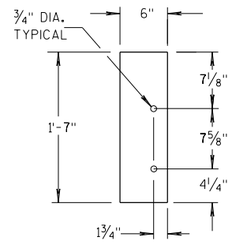


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

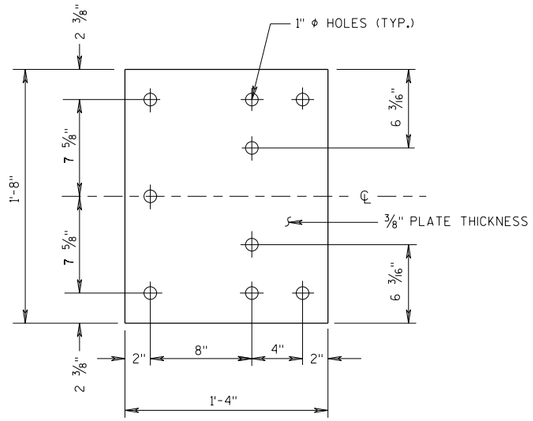
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

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

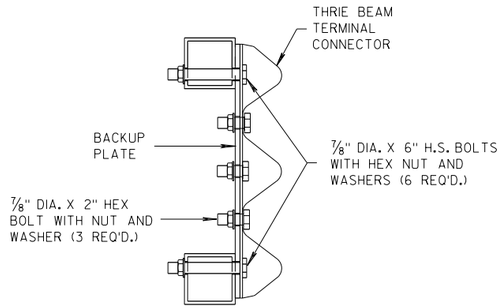
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

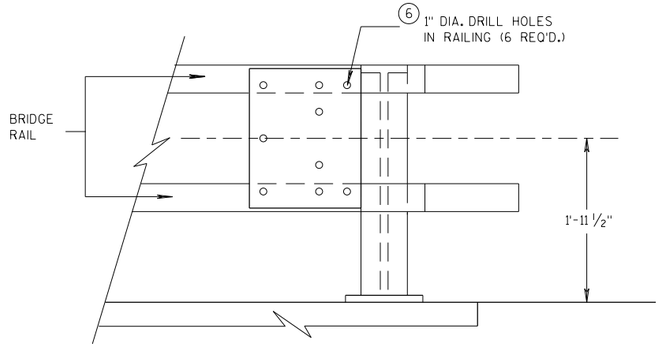
6
S.D.D. 14 B 45-5c



BACK-UP PLATE DETAIL



SECTION J-J

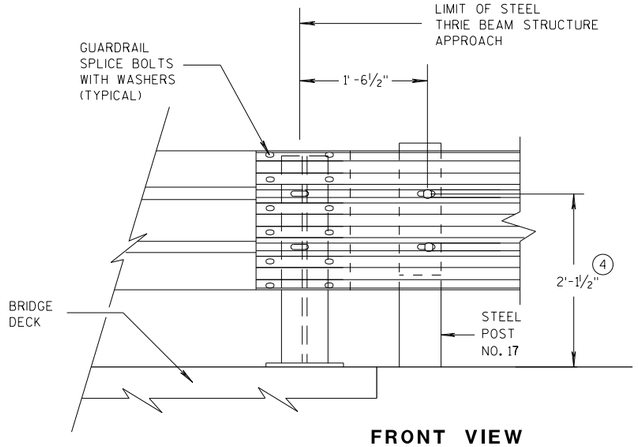


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

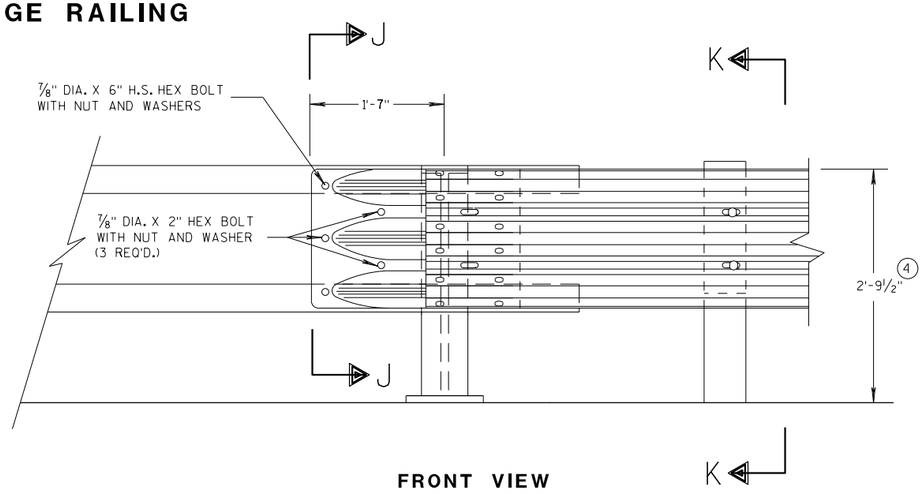
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

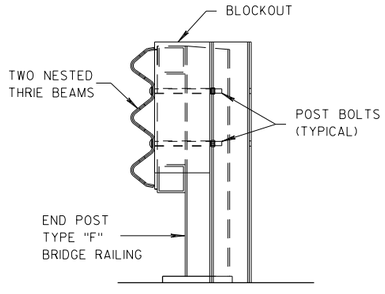


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

6

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

6

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

GENERAL NOTES

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

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

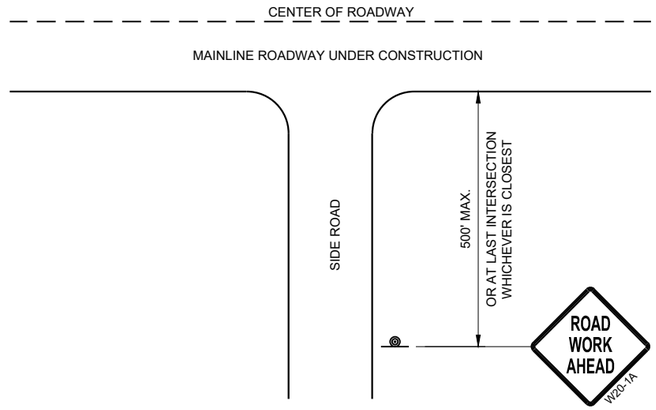
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



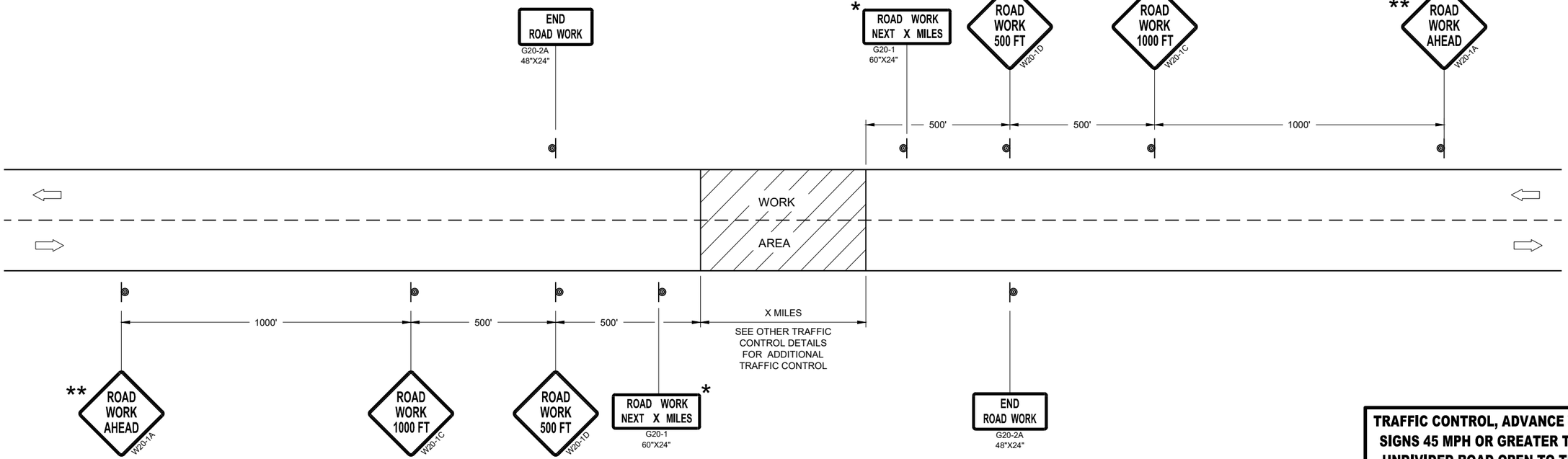
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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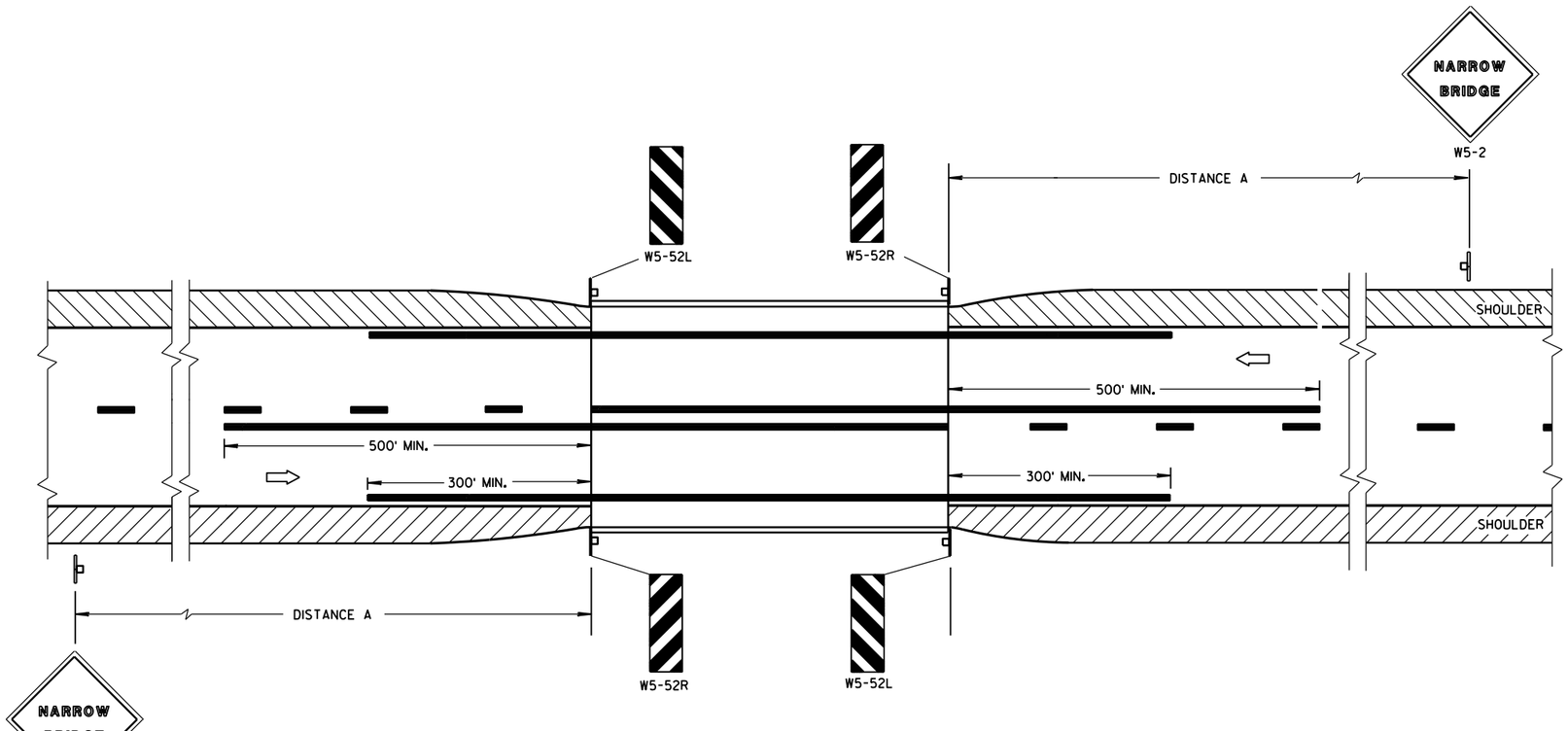
SDD 15C04 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

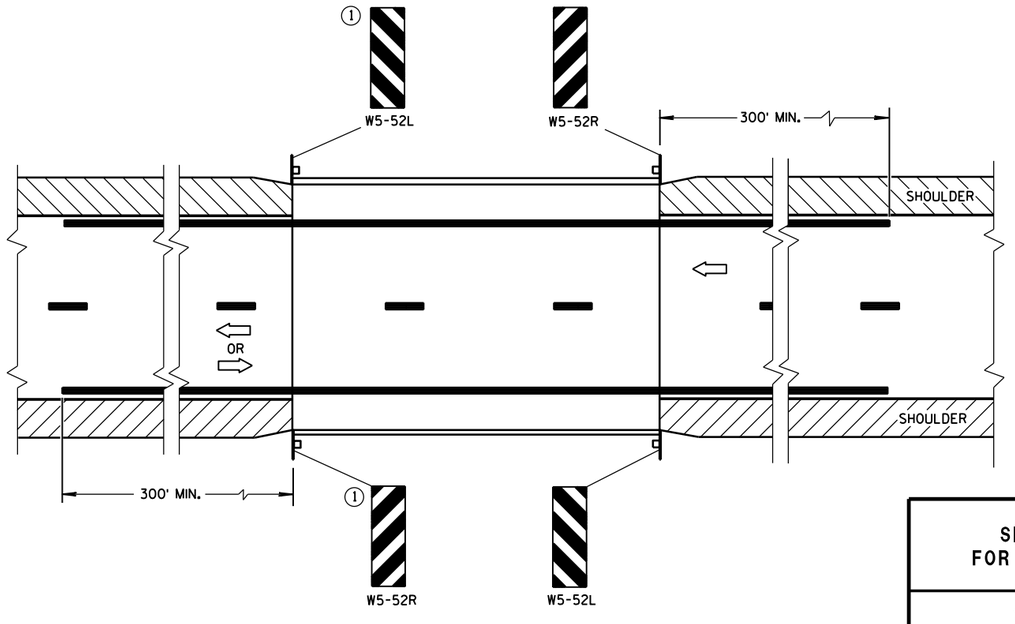
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...IEER
FHWA

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S.D.D. 15 C 6-9

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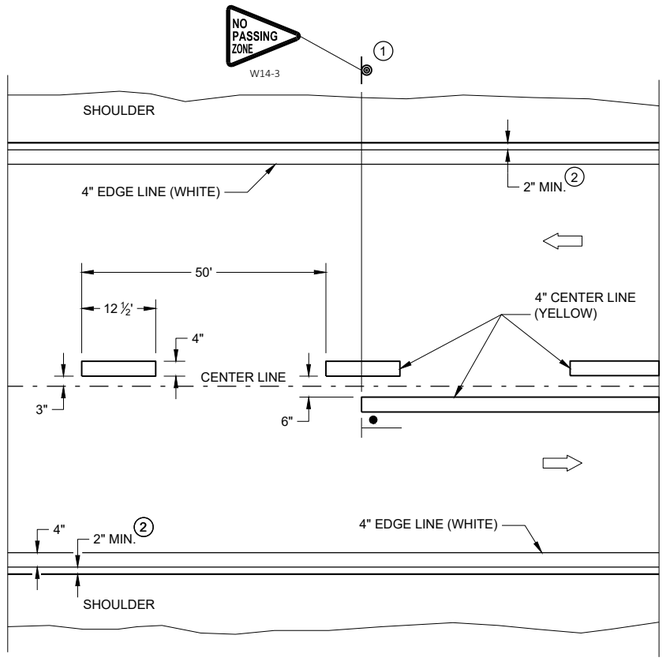
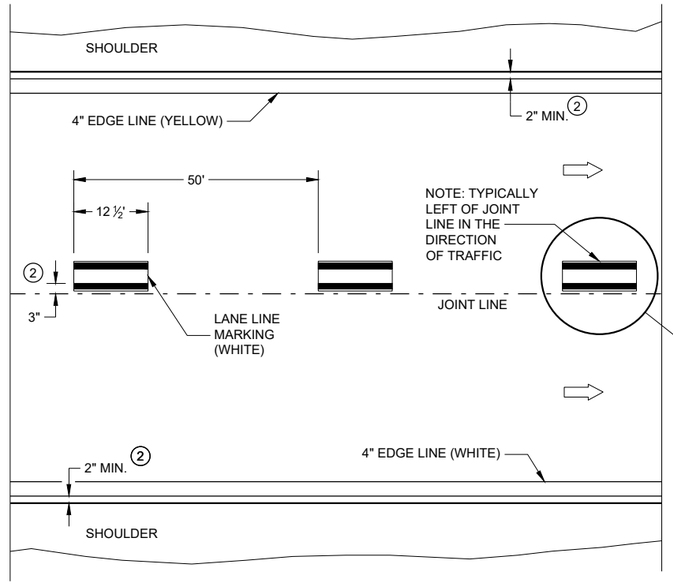
S.D.D. 15 C 6-9

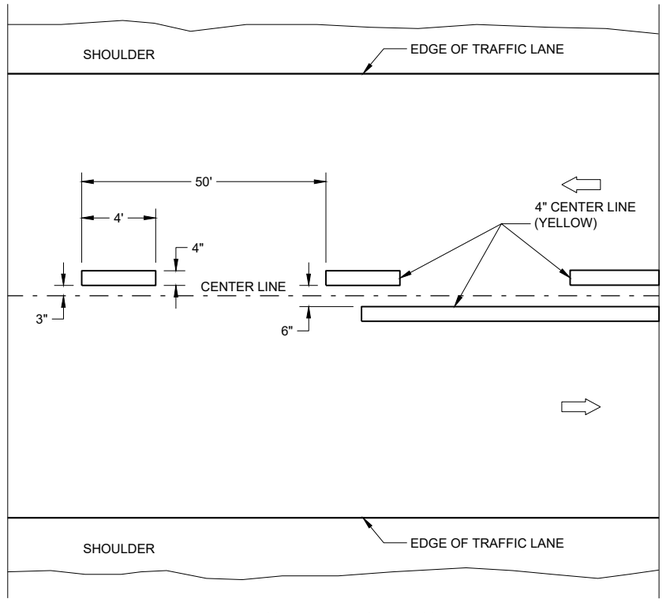


TWO WAY TRAFFIC

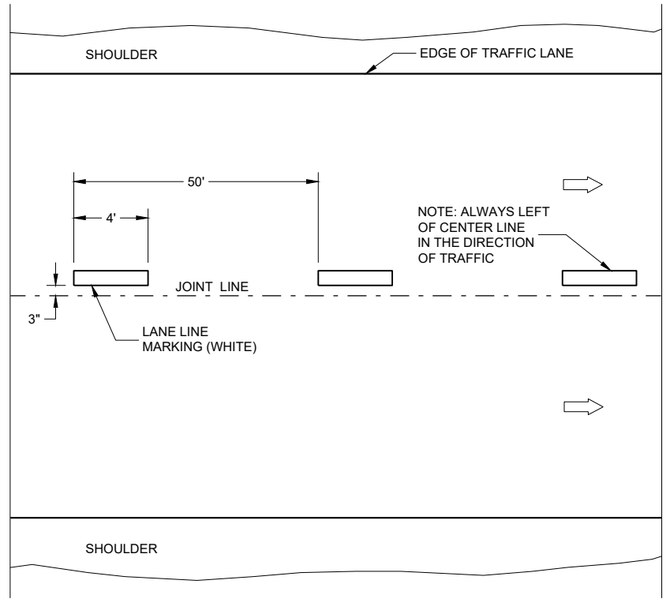


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

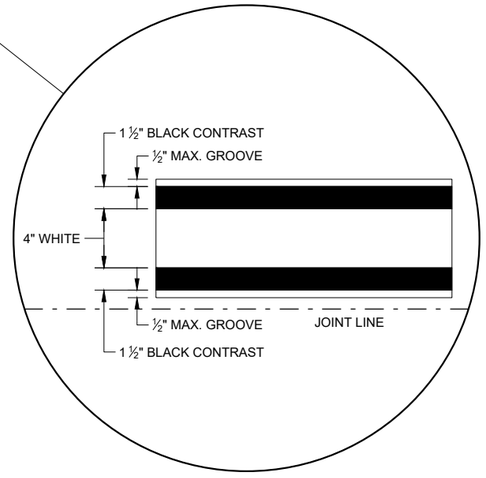
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

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 M ENGINEER

FHWA

SDD 15C08 - 20a

SDD 15C08 - 20a

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.

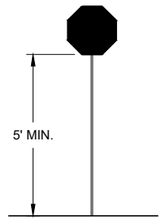
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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.



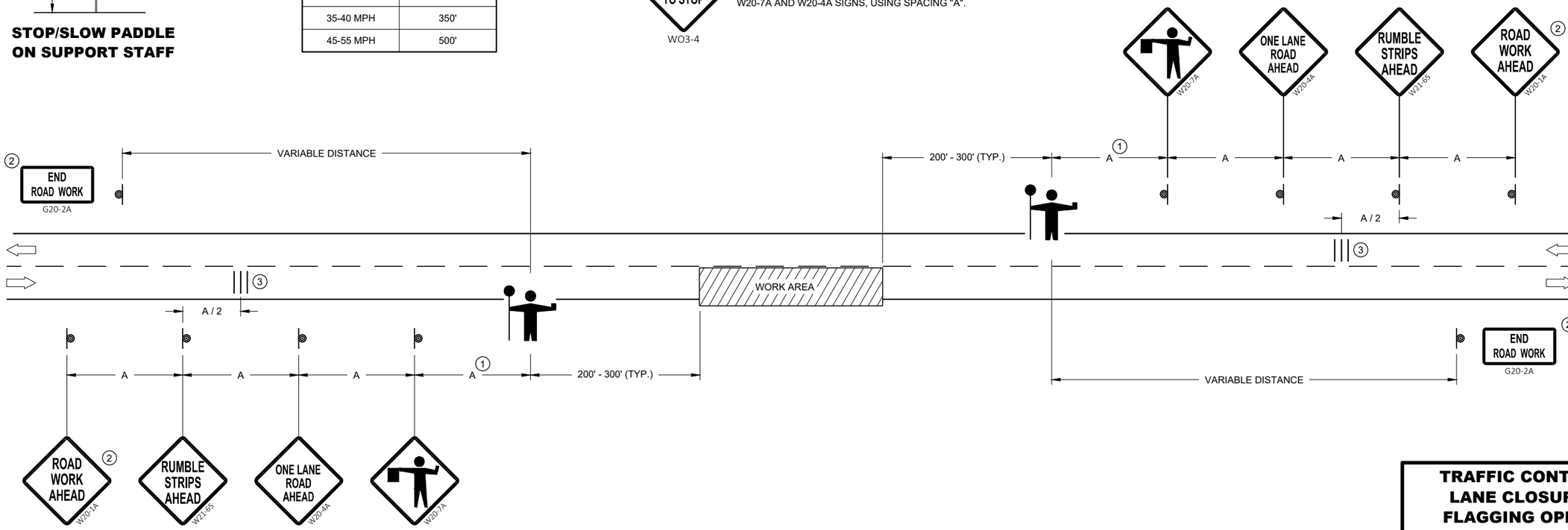
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C12 - 07

SDD 15C12 - 07

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.

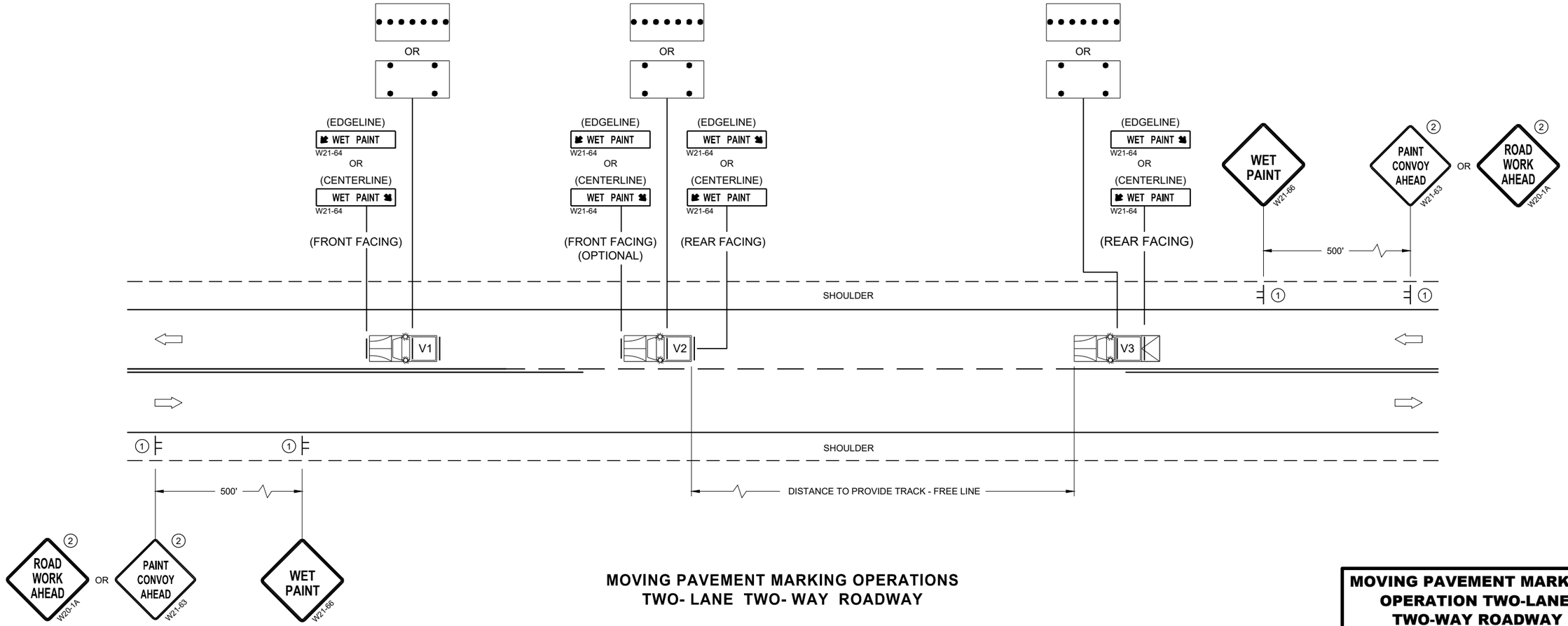
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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 OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

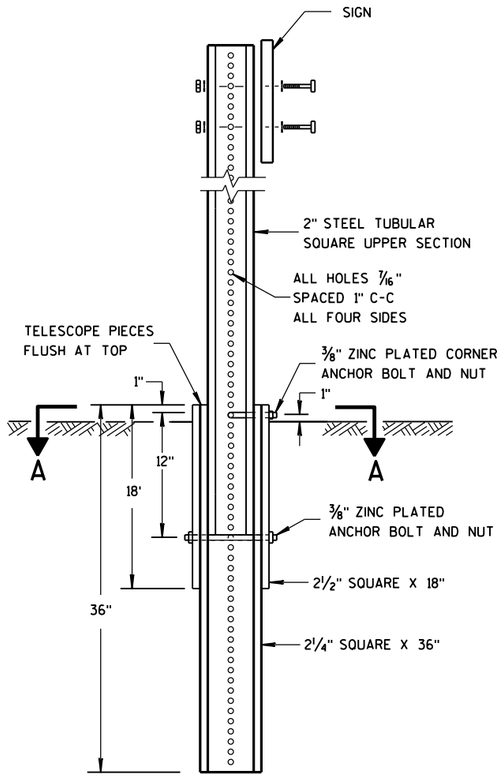
APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

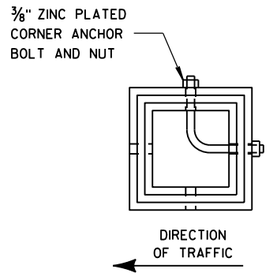
FHWA

SDD 15C19 - 06a

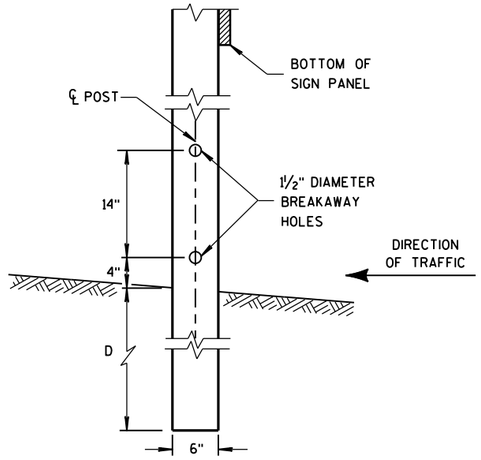
SDD 15C19 - 06a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



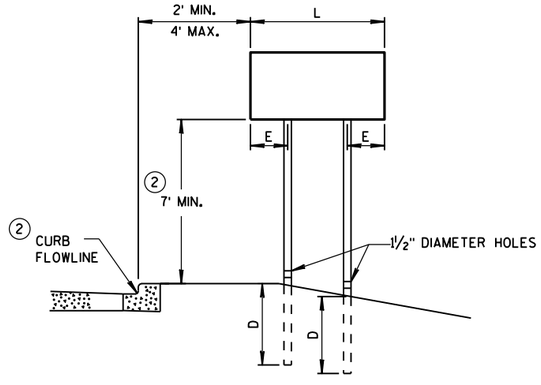
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

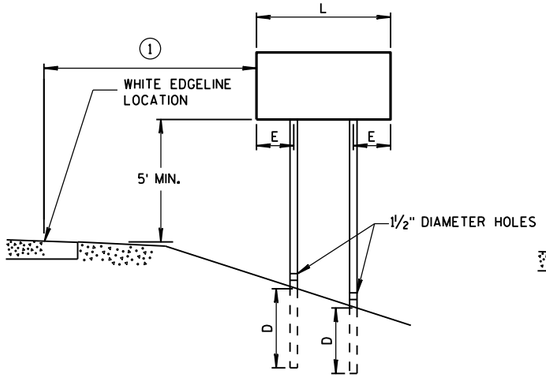
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

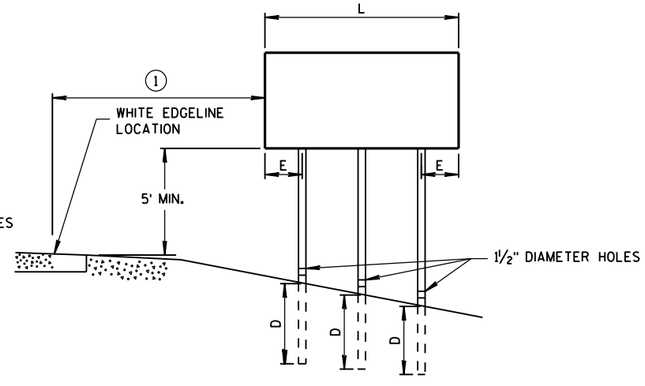
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

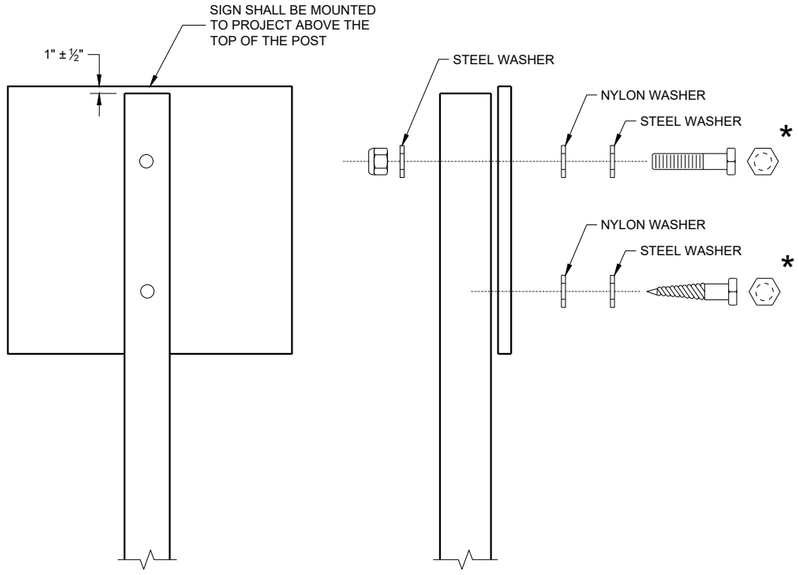
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

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



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 - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (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 1/16" 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.

6

6

SDD 15D38 - 02b

SDD15D38 - 02b

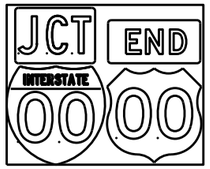
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

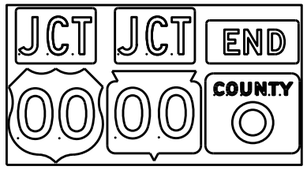
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

TYPICAL ASSEMBLIES

J1-1

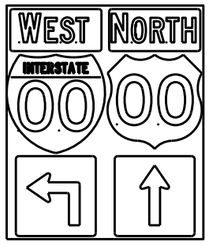


J1-2

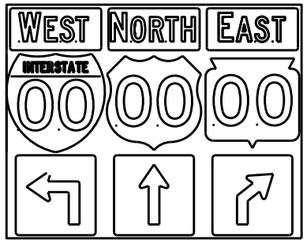


J1-3

J2-1



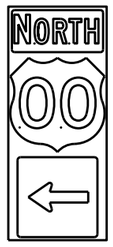
J2-2



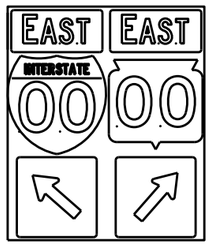
J2-3

JV

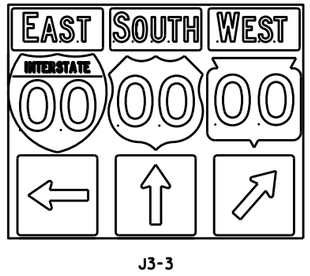
(Typical Vertical J-Assembly
See Note 10 and 11)



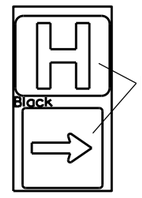
J3-1



J3-2



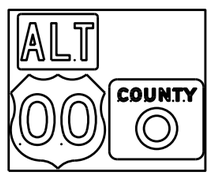
J3-3



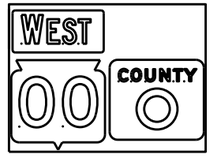
Blue Background

JH-1

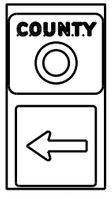
J4-1



J4-2



J4-2



J13-1

J12-1

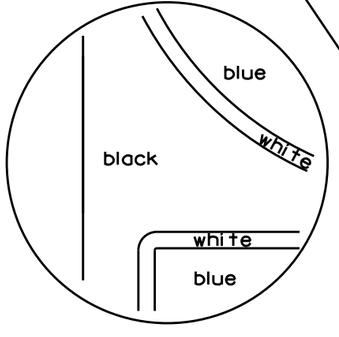
J32-1

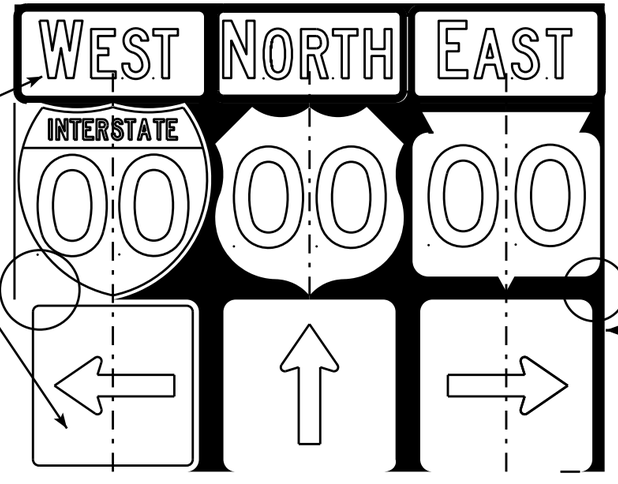
J33-1

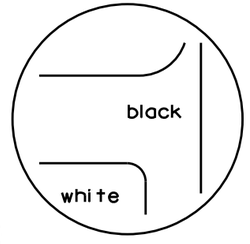
J23-1

J22-1

[blue background with interstate]







[black background]

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 inchs (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.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

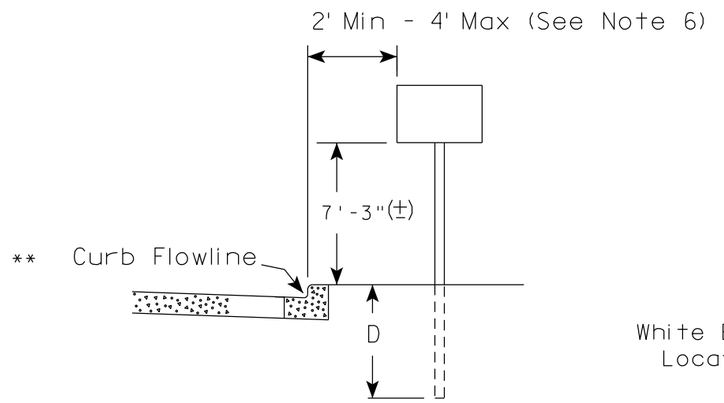
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

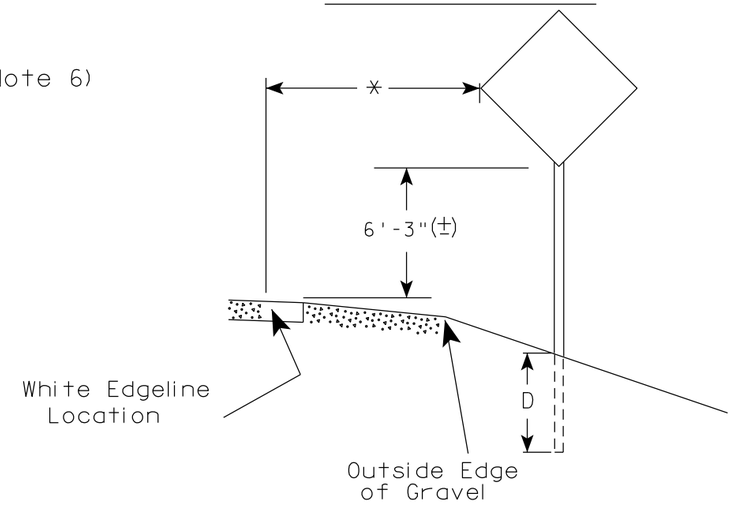
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

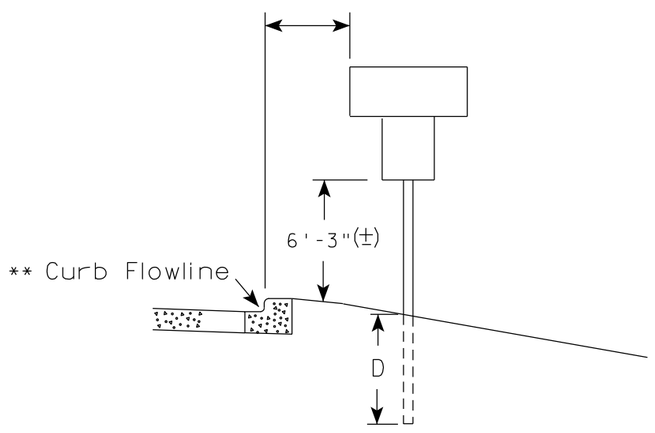
WISDOT/CADDS SHEET 42

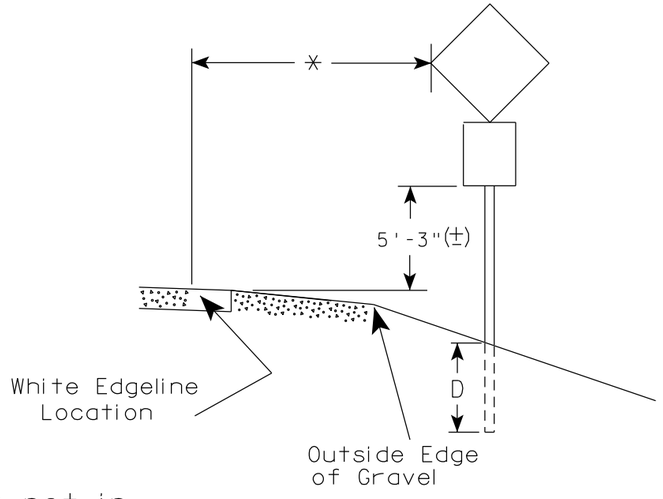
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

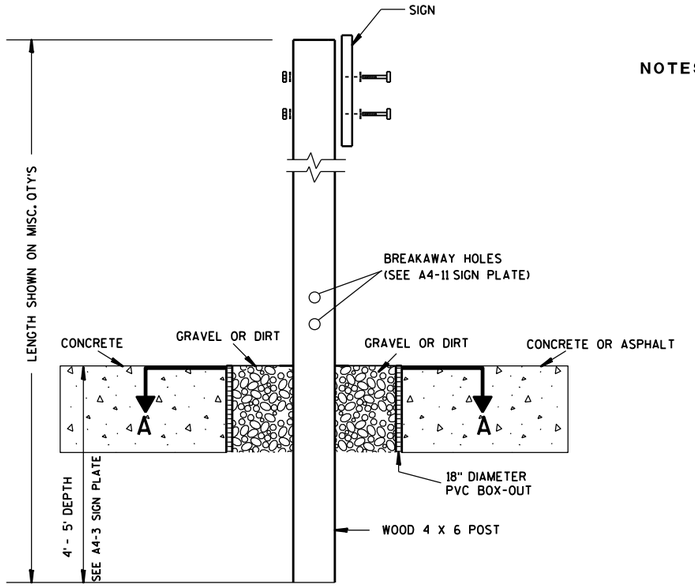
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

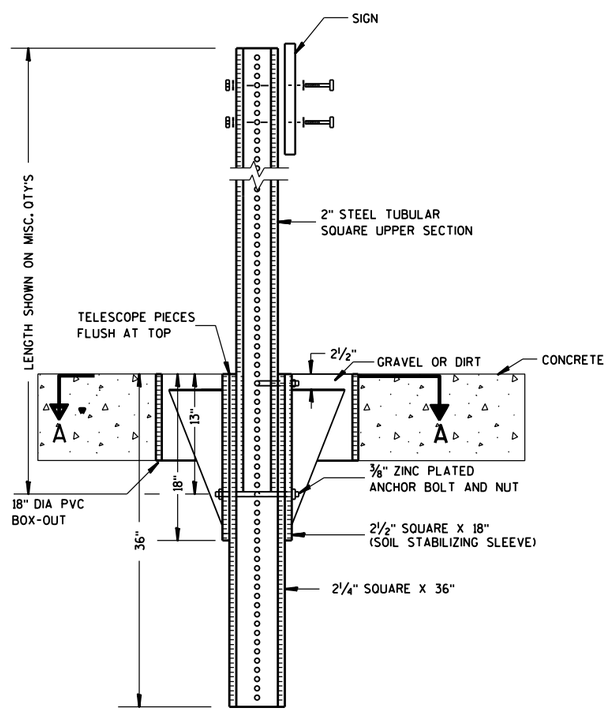
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 58	E



ELEVATION VIEW

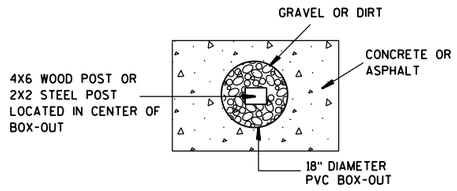
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

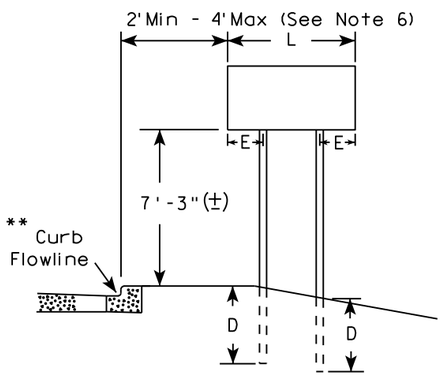
APPROVED Matthew R Rauch
for State Traffic Engineer

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

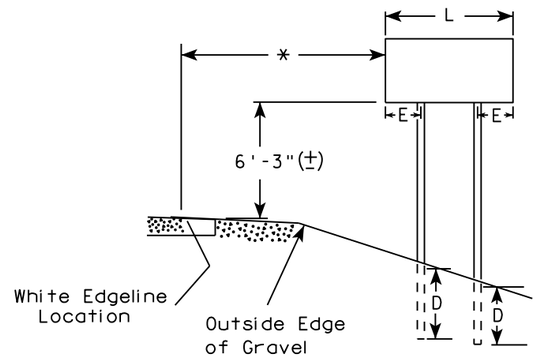
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

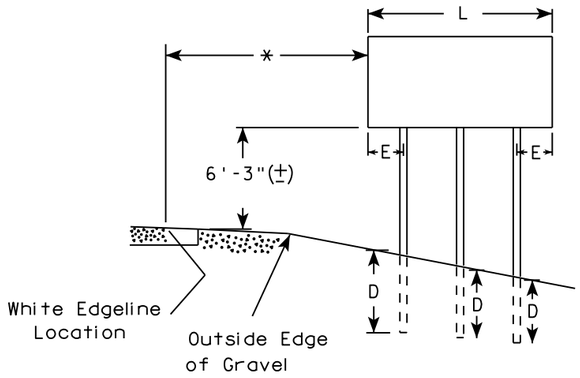
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

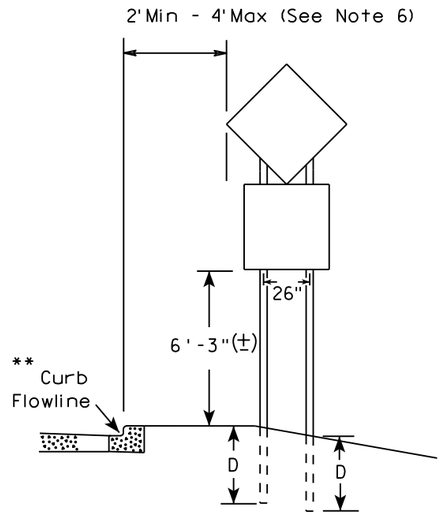
URBAN AREA



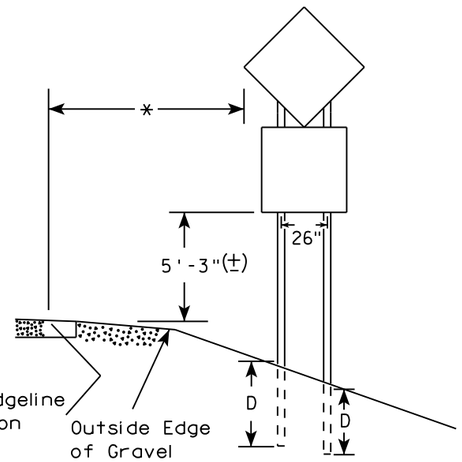
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

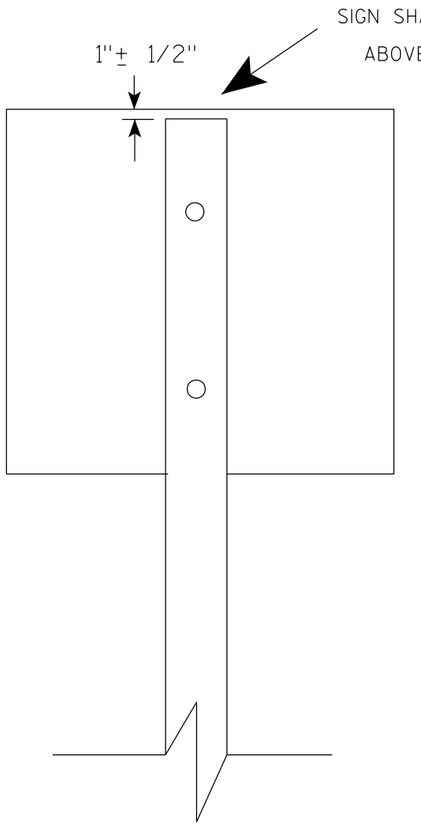
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

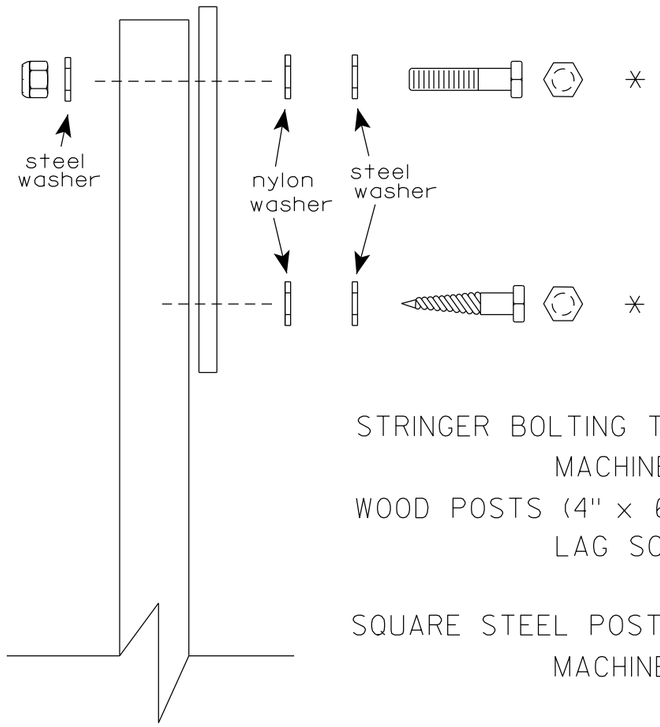
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 60	E





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

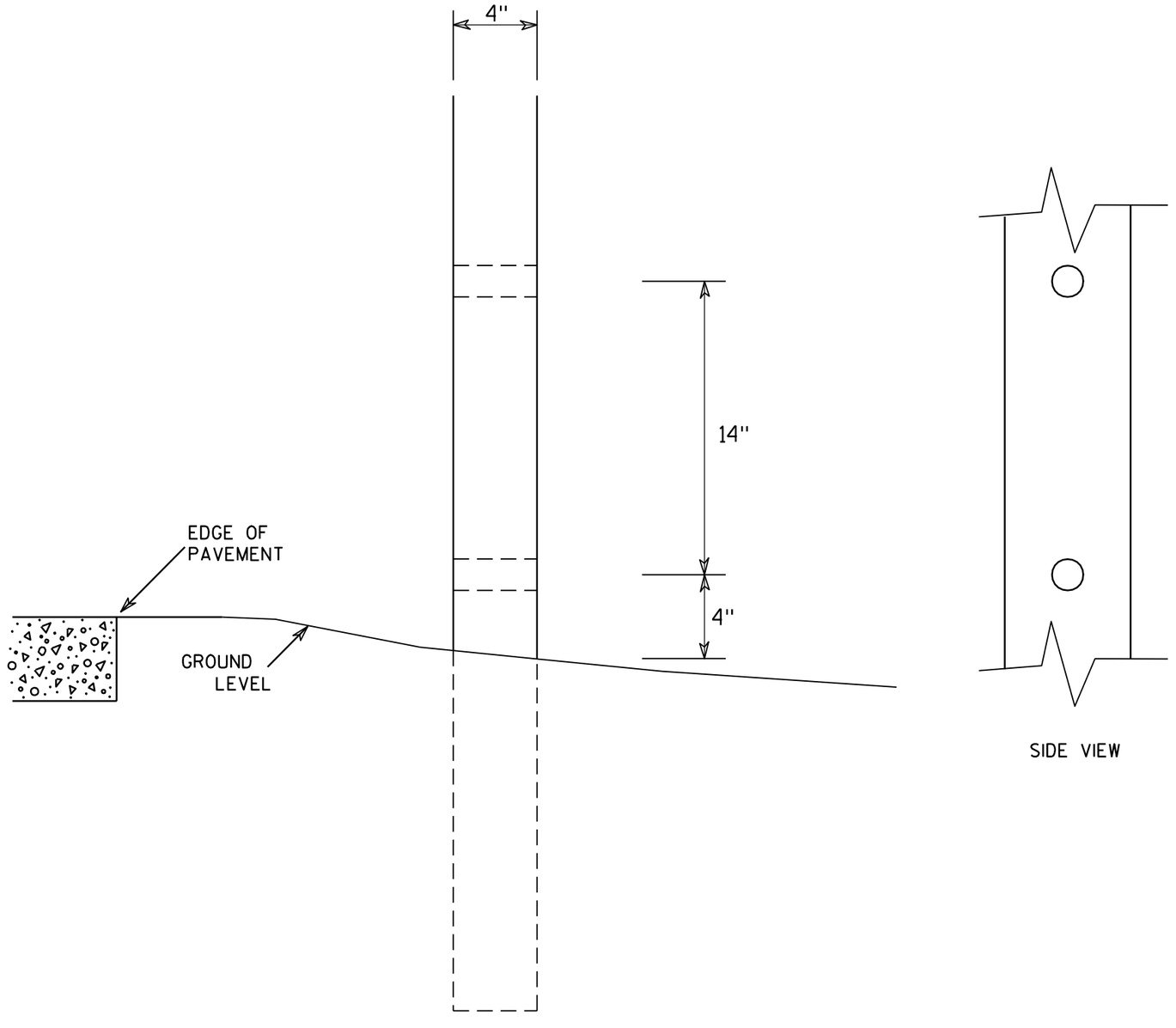
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

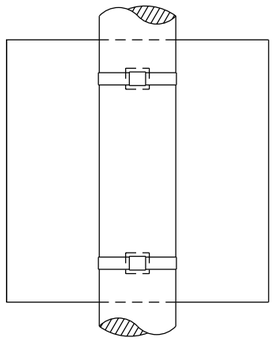
APPROVED Chester J Spang
for State Traffic Engineer

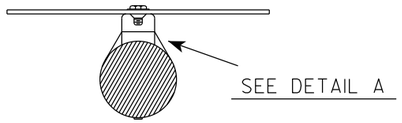
DATE 3/27/97 PLATE NO. A4-11.2

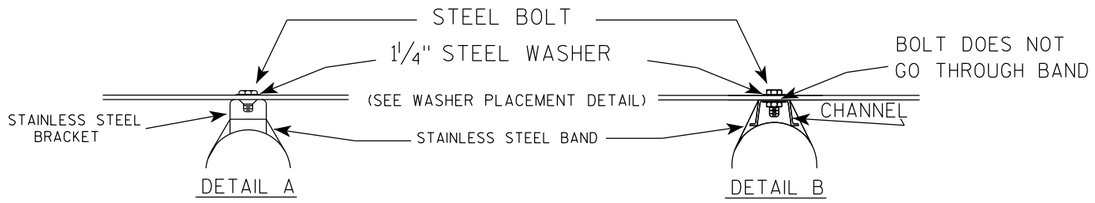
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 62	E

BANDING

SINGLE SIGN



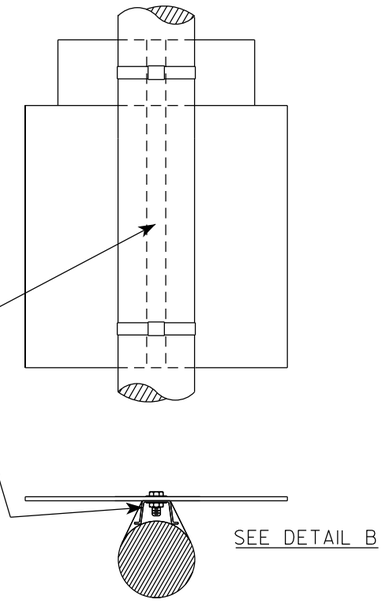




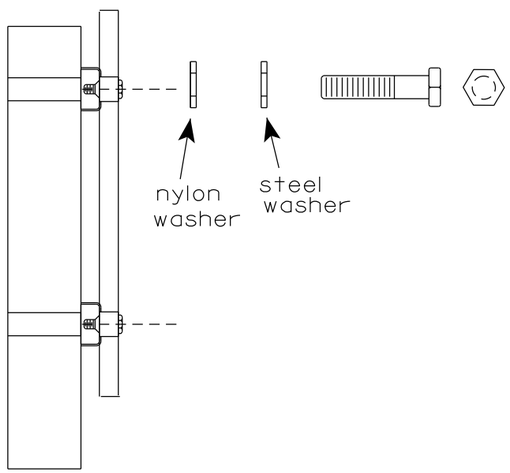
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

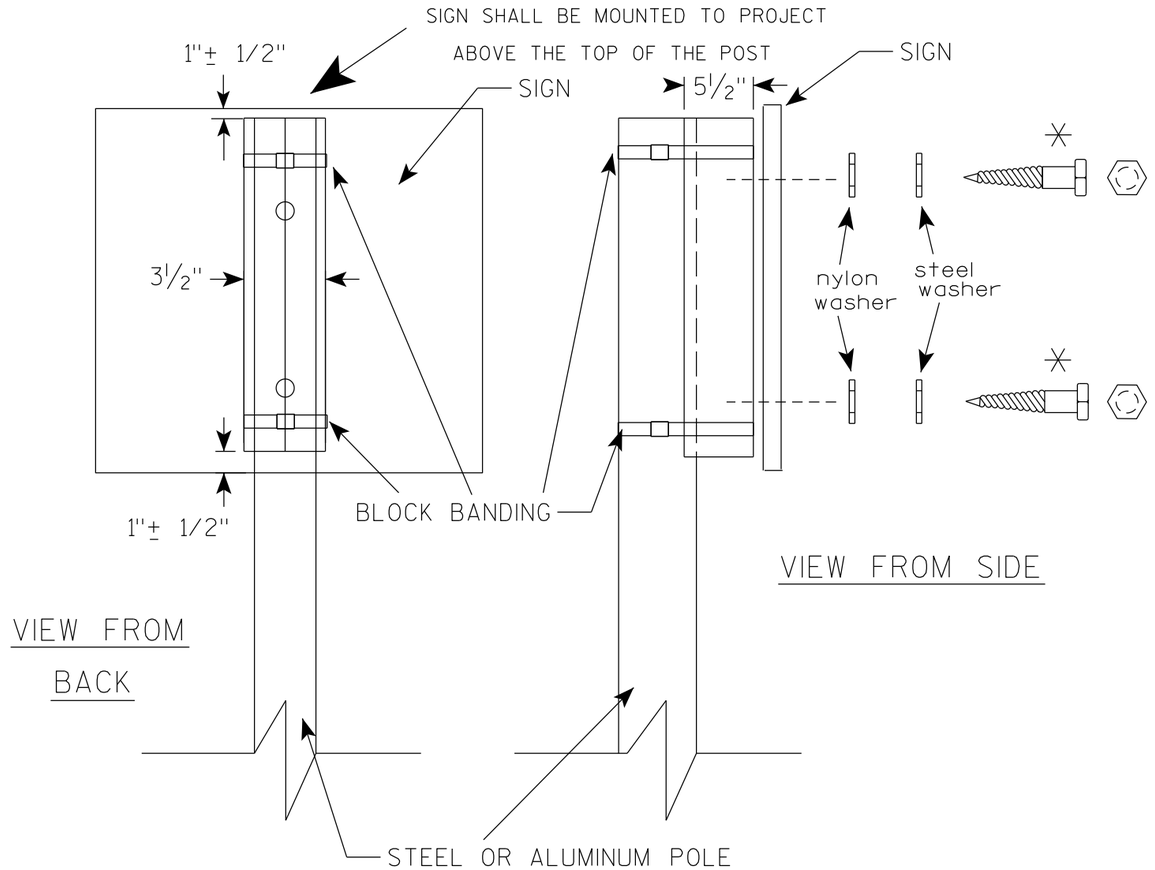
WISCONSIN DEPT OF TRANSPORTATION

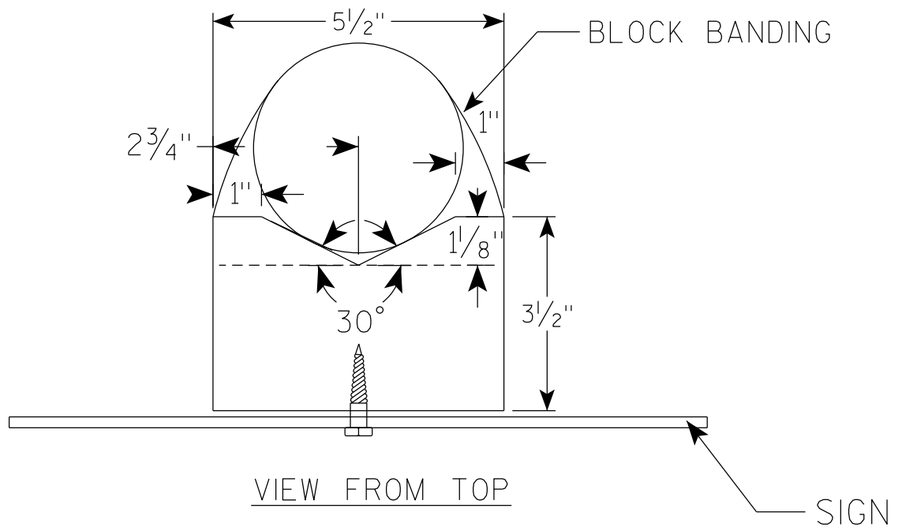
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 63	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

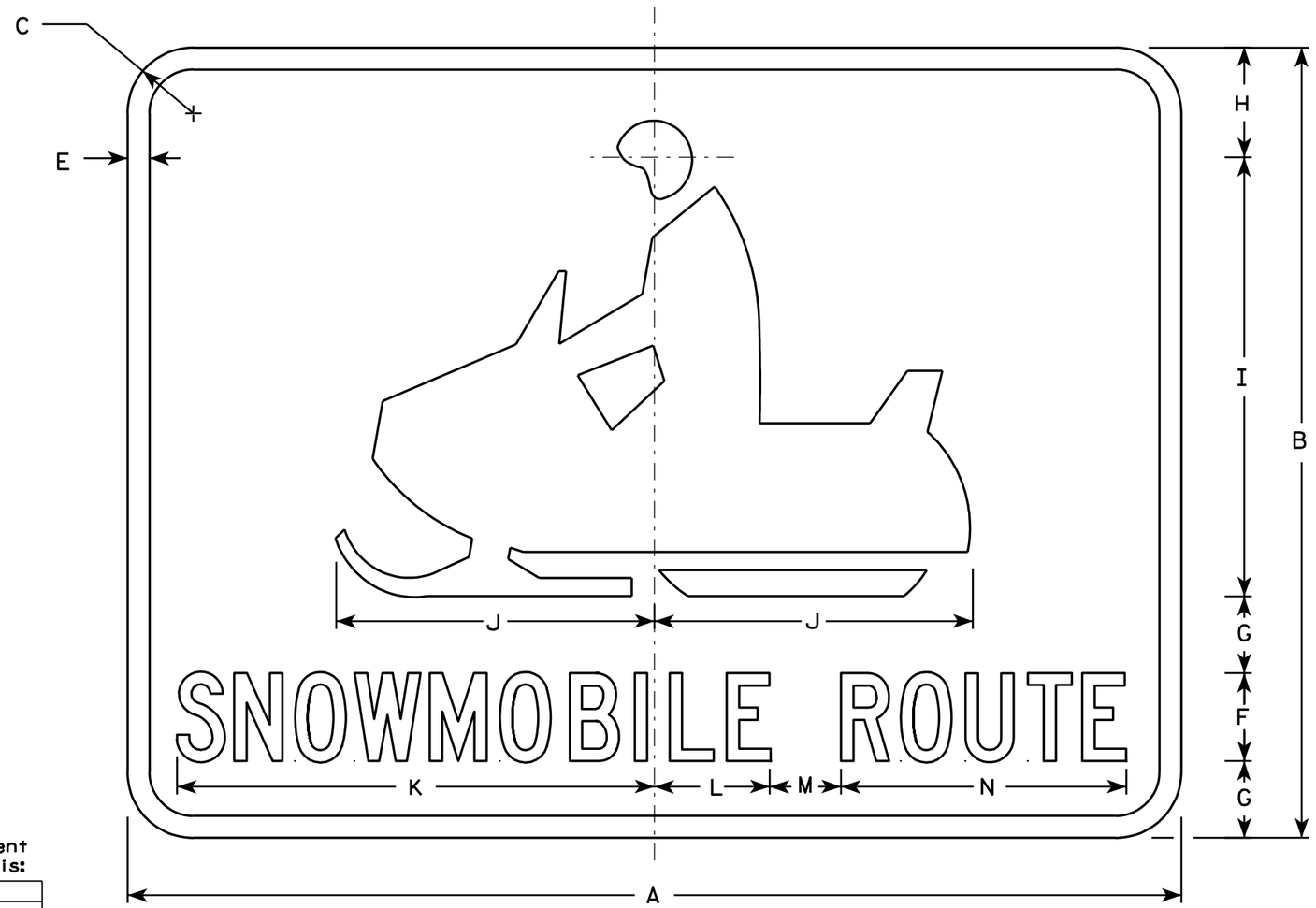
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:				SHEET NO: 64	E



D11-6

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
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 m²
1																												
2	24	18	1 1/2		1/2	2	1 3/4	2 1/2	10	7 1/4	10 7/8	2 5/8	1 5/8	6 1/2													3.0	0.27
3																												
4																												
5																												

STANDARD SIGN
D11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spry for State Traffic Engineer

DATE 1/16/02 PLATE NO. D11-6.6

PROJECT NO:

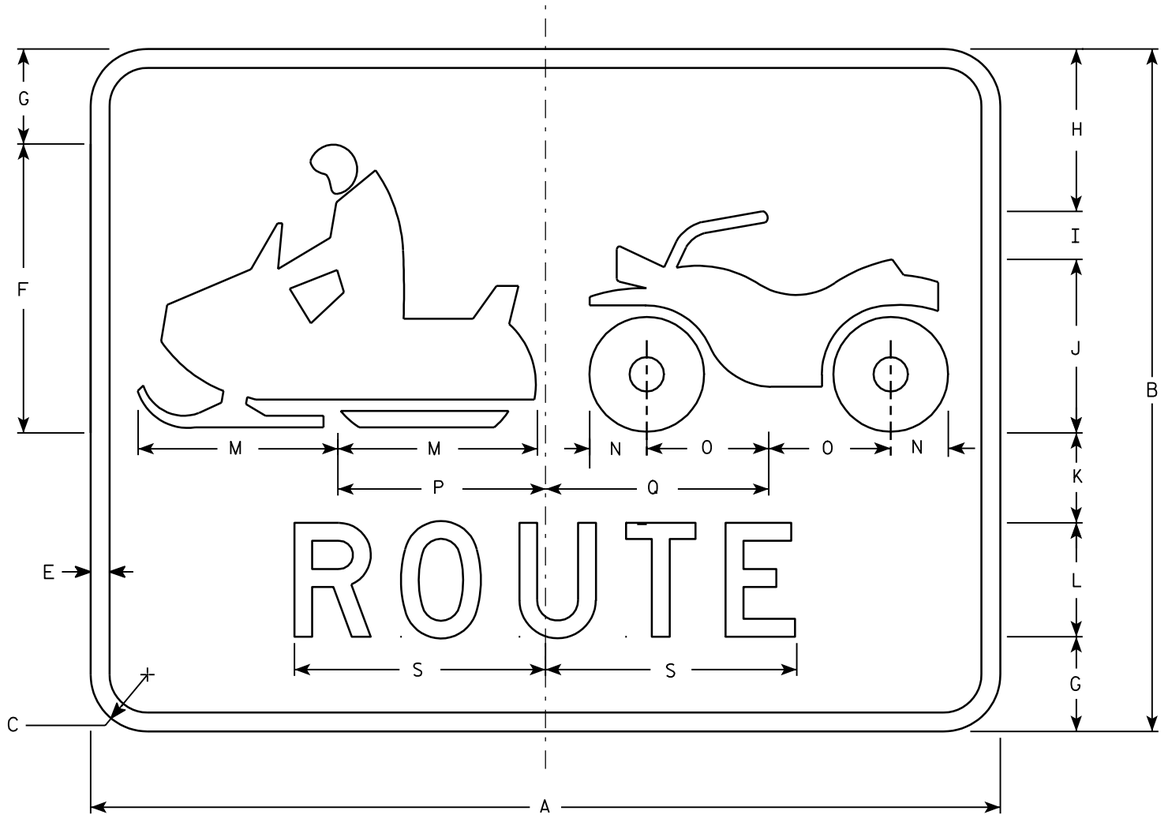
SHEET NO: 65 E

FILE NAME : C:\Users\Projects\tr_stdplate\D116.DGN PLOT DATE : 11-OCT-2005 14:57 PLOT BY : DOTSJA

WISDOT/CADDS SHEET 42

7

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 - 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

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 m2
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																												

STANDARD SIGN

D11-8

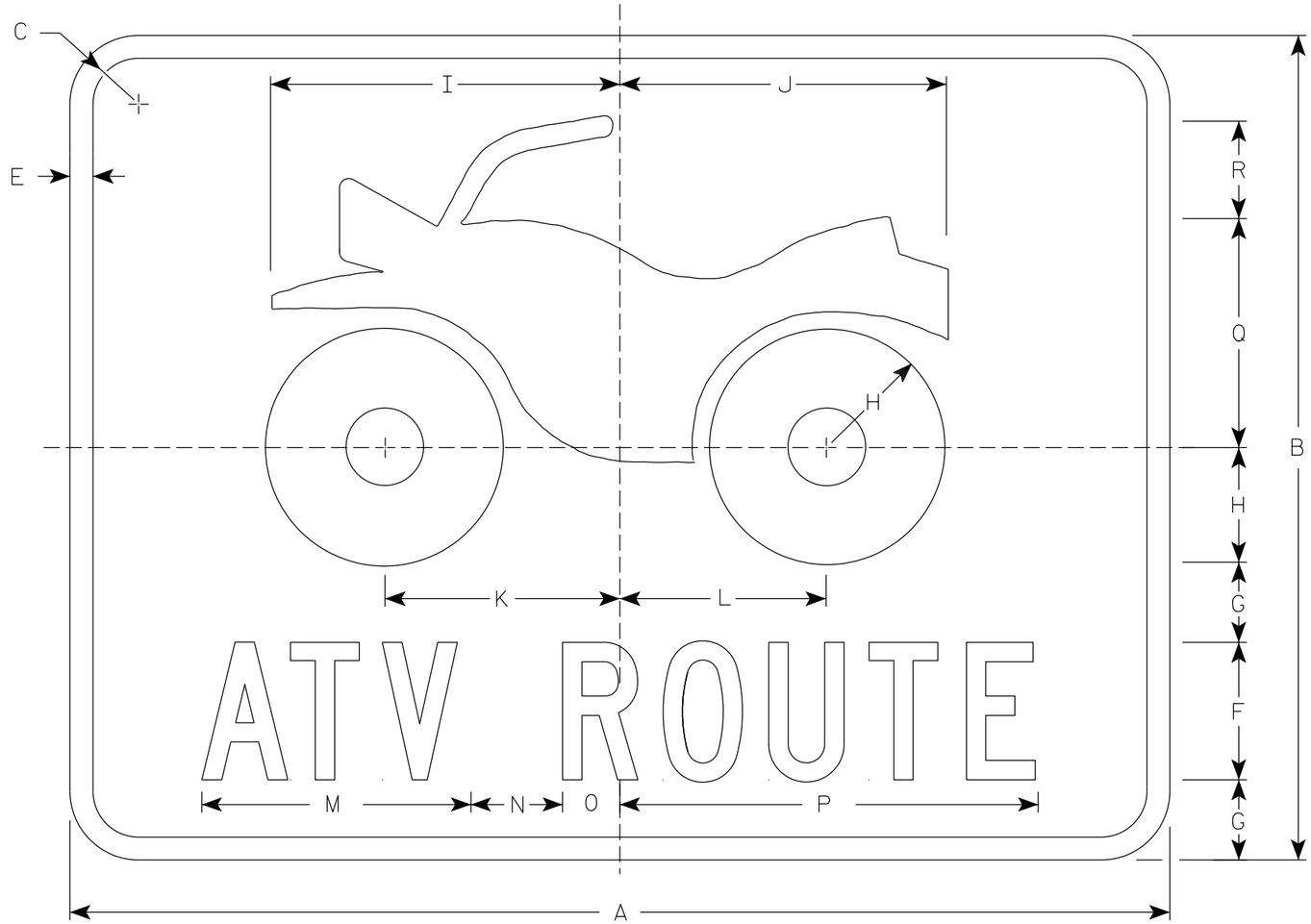
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 1/16/02 PLATE NO. D11-8.2

PROJECT NO:

SHEET NO: 66 E



D11-10

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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																											

STANDARD SIGN
D11-10

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/19 PLATE NO. D11-10.5

PROJECT NO:

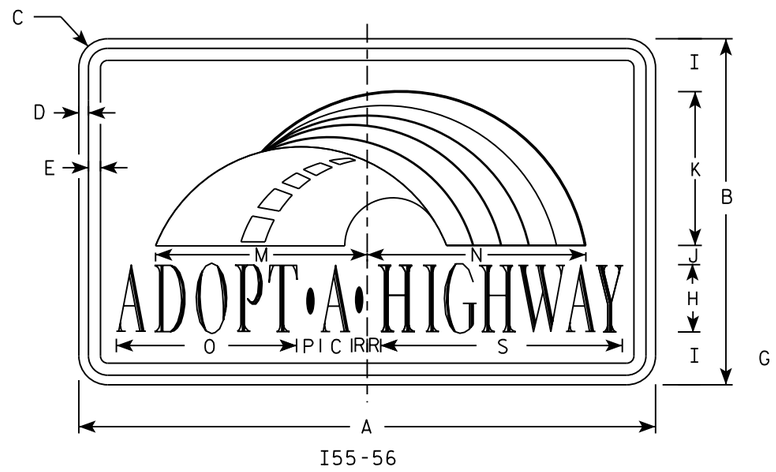
SHEET NO: 67 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\D1110.DGN PLOT DATE : 25-MAR-2019 PLOT BY : dotc4c

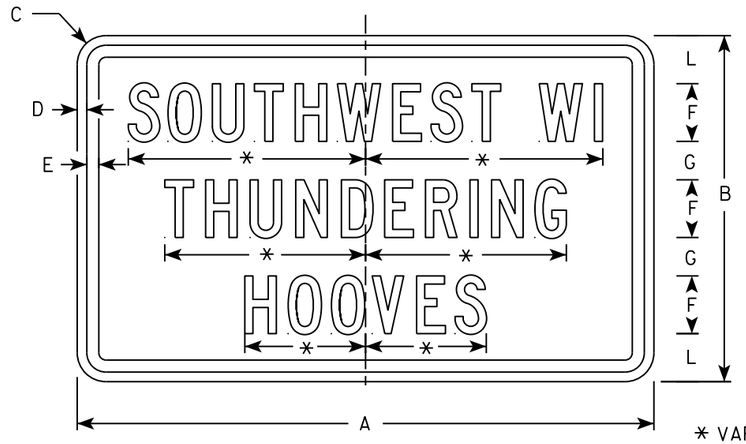
WISDOT/CADDS SHEET 42

7

7



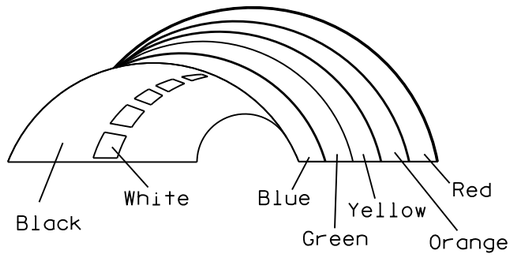
I55-56



I55-56P

* VARIES

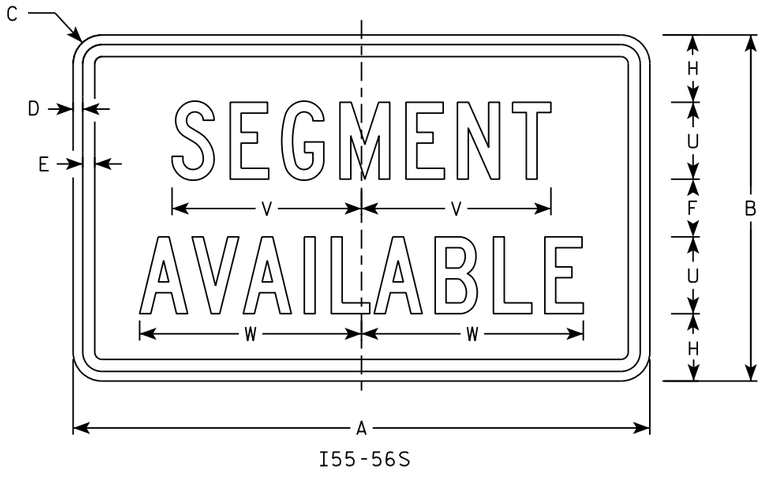
Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
   Adopt a Highway - Red
   All other Text - Blue
5. Adopt a Highway - Dutch 8011L
   All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.



I55-56S

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

STANDARD SIGN
I55-56

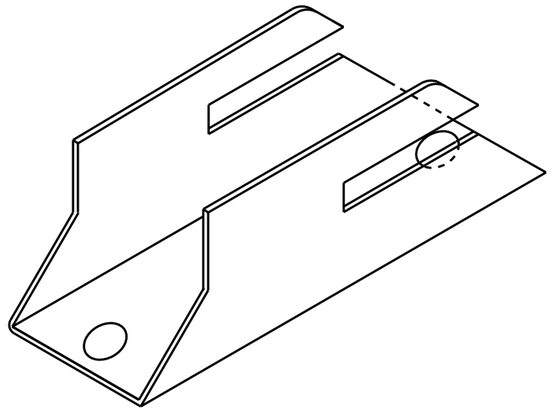
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

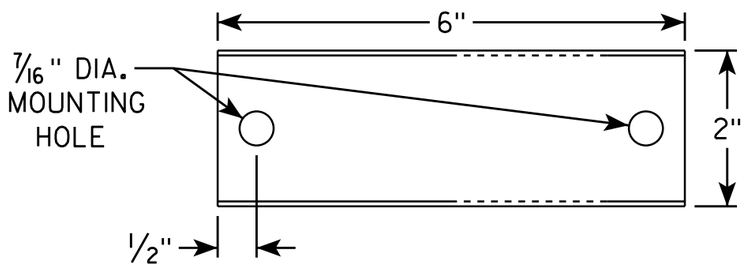
DATE 2/20/18 PLATE NO. I55-56.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 68 | E

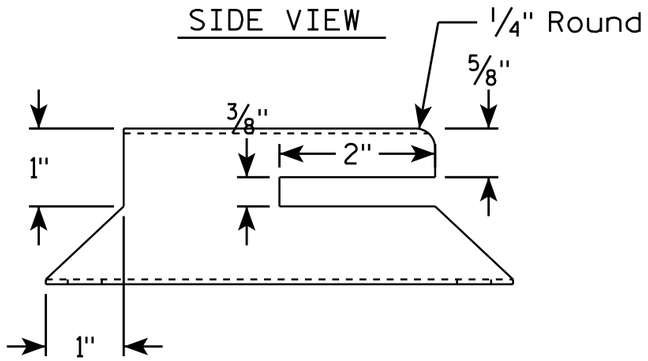
ISOMETRIC VIEW



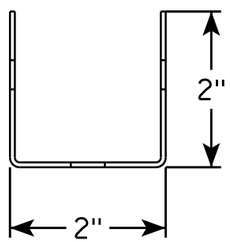
TOP VIEW



SIDE VIEW



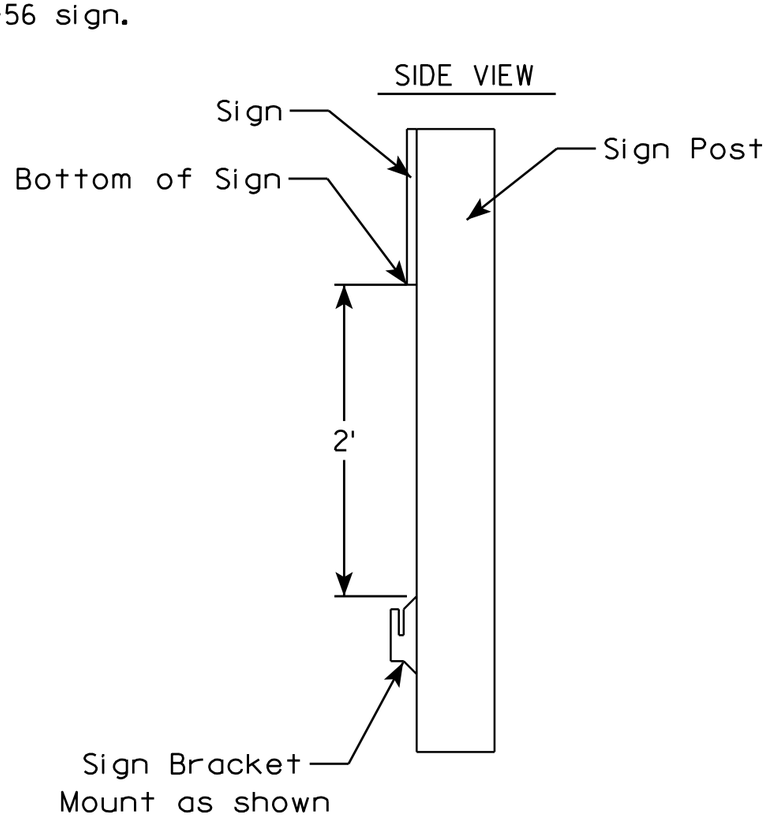
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

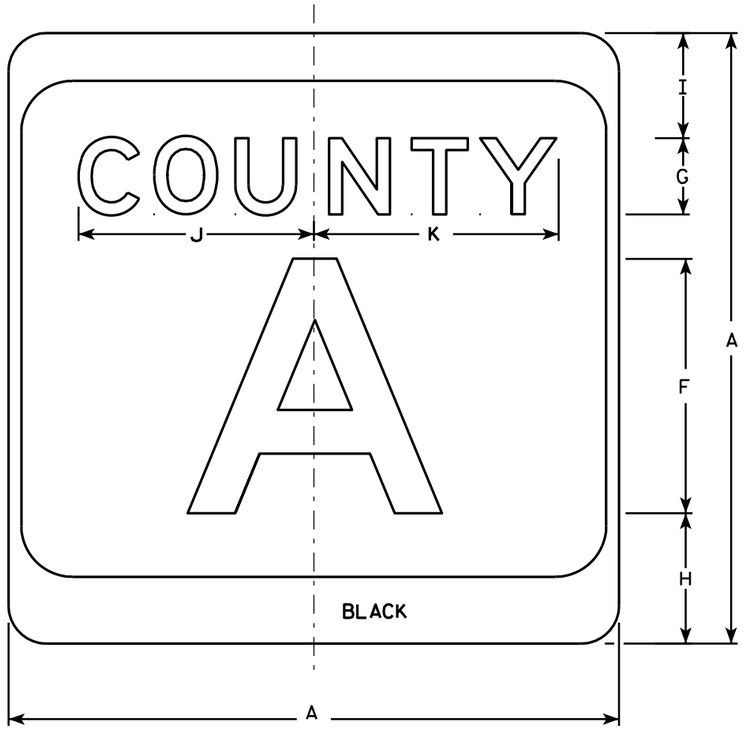
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

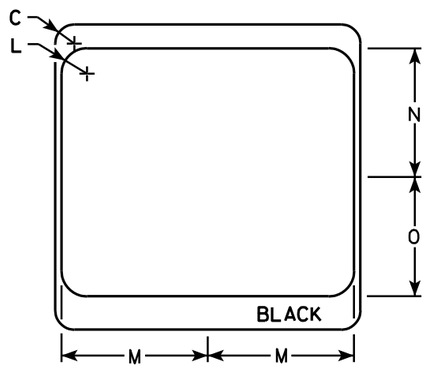
DATE 4/26/16 PLATE I55-56B.2

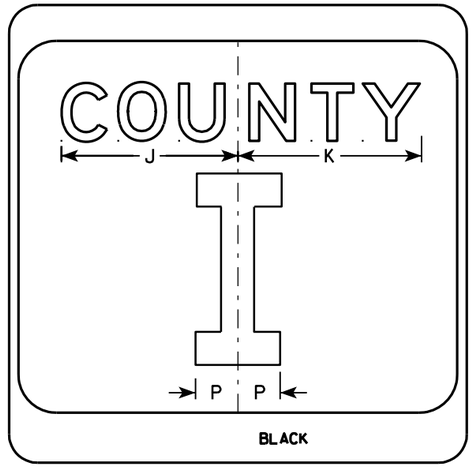
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

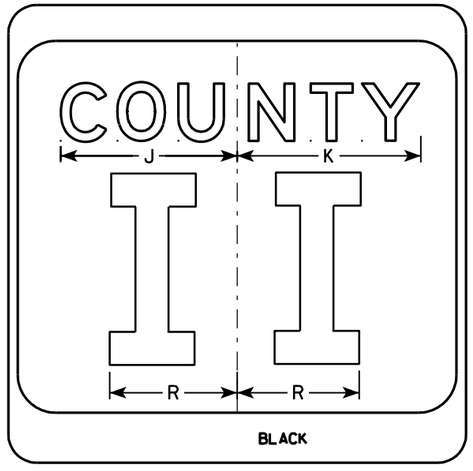
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000 WISDOT/CADDS SHEET 42



M1-5A







NOTES

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

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

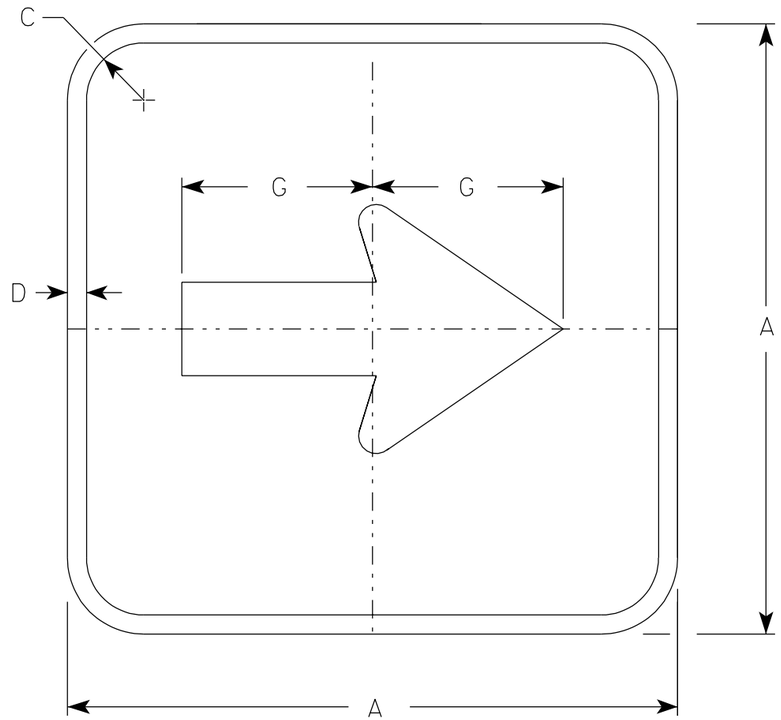
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

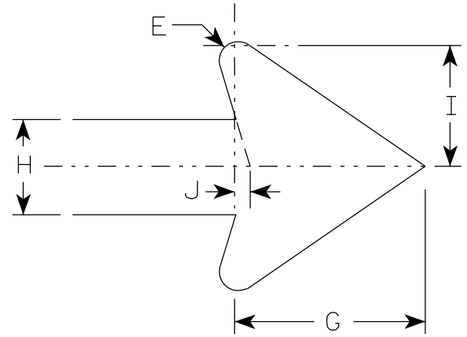
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 70	E



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																												

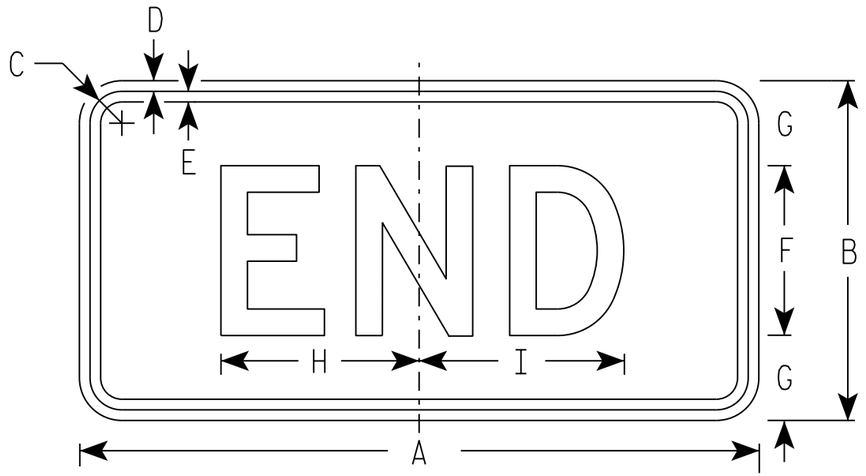
STANDARD SIGN
M1-88A

WISCONSIN DEPT OF TRANSPORTATION

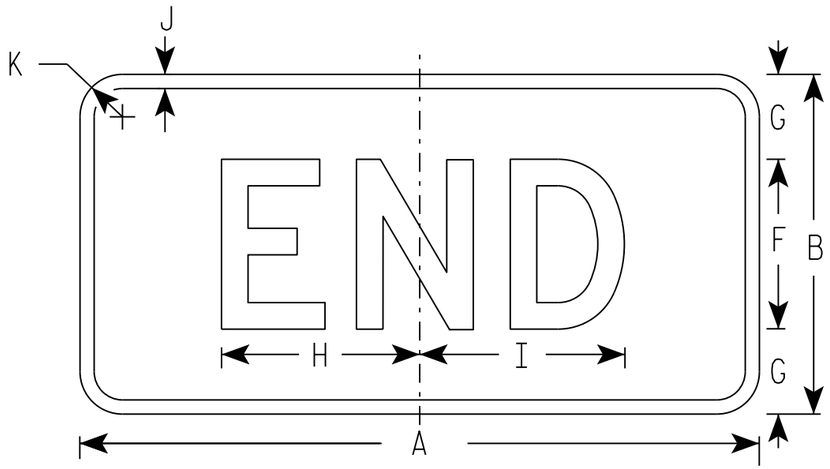
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 71	E



M4-6
MM4-6
MP4-6



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

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. 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

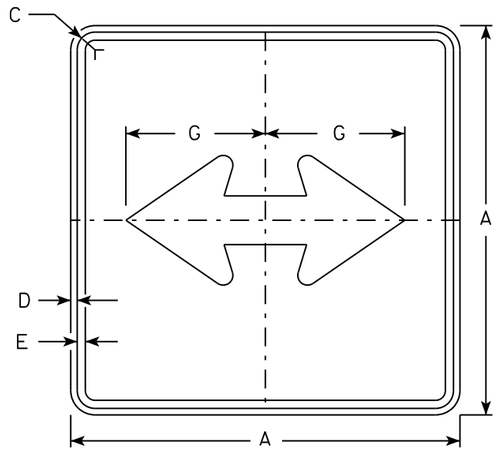
STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

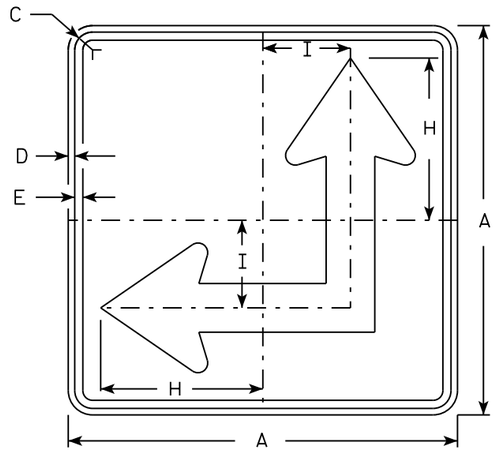
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 72 '14-7.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



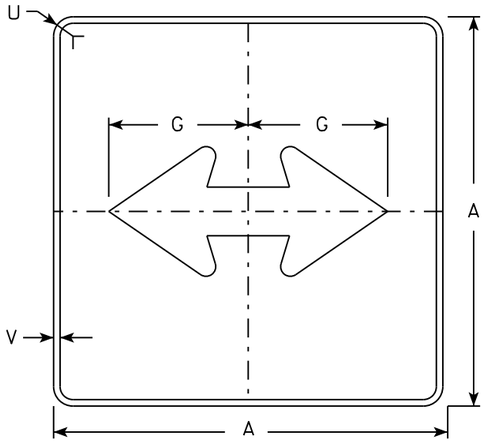
M6-4
MM6-4
MO6-4
MP6-4



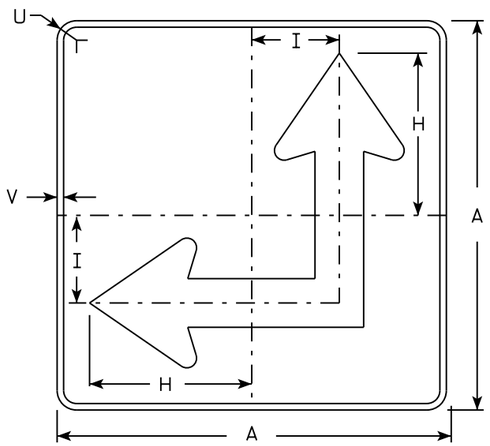
M6-6
MM6-6
MO6-6
MP6-6

NOTES

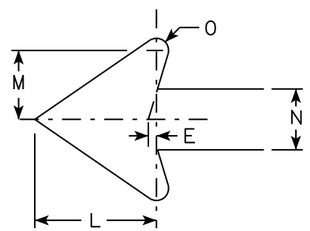
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - 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
   MO6-4 and MO6-6 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
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



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

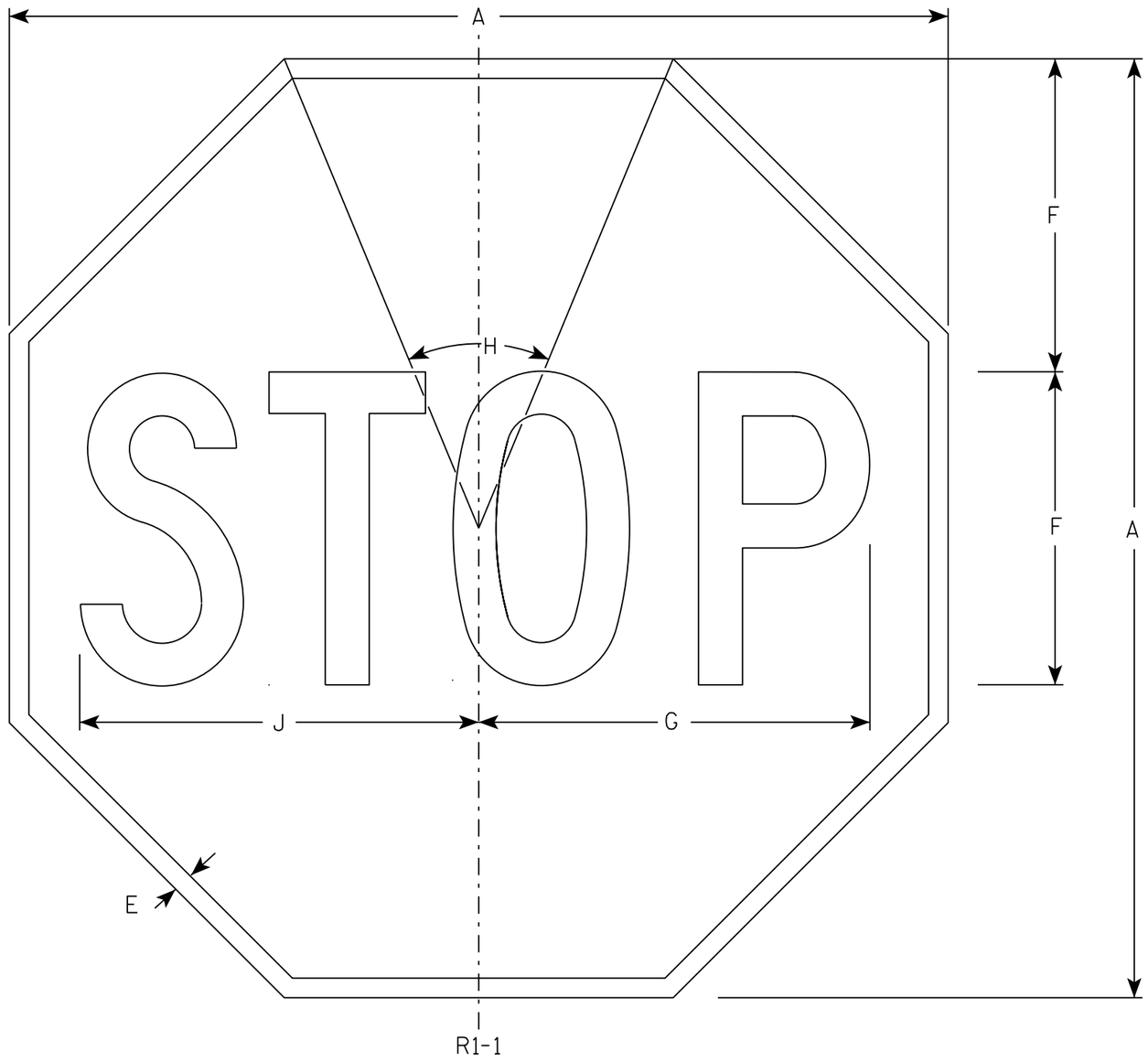
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 73 M6-4.10

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



NOTES

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

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

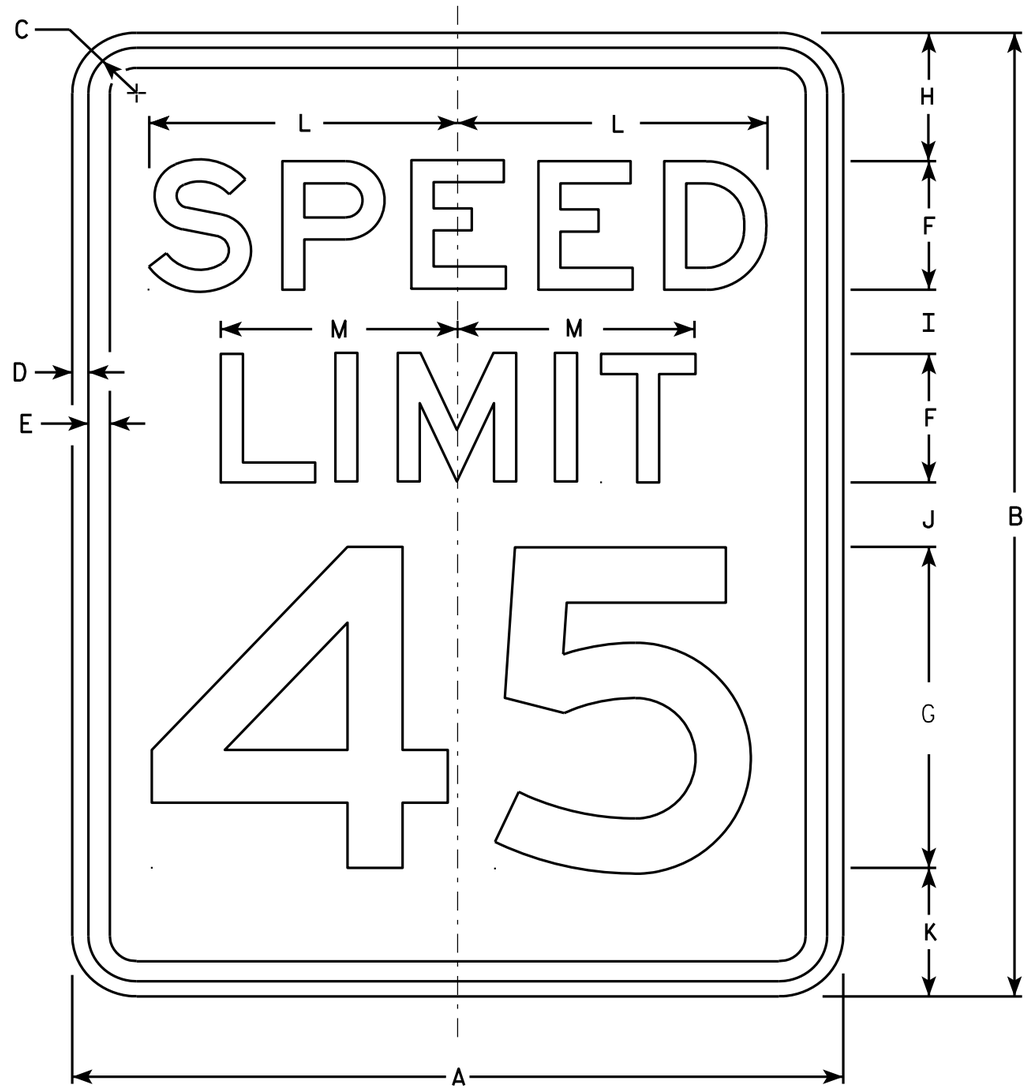
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 74	E



R2-1

NOTES

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

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

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

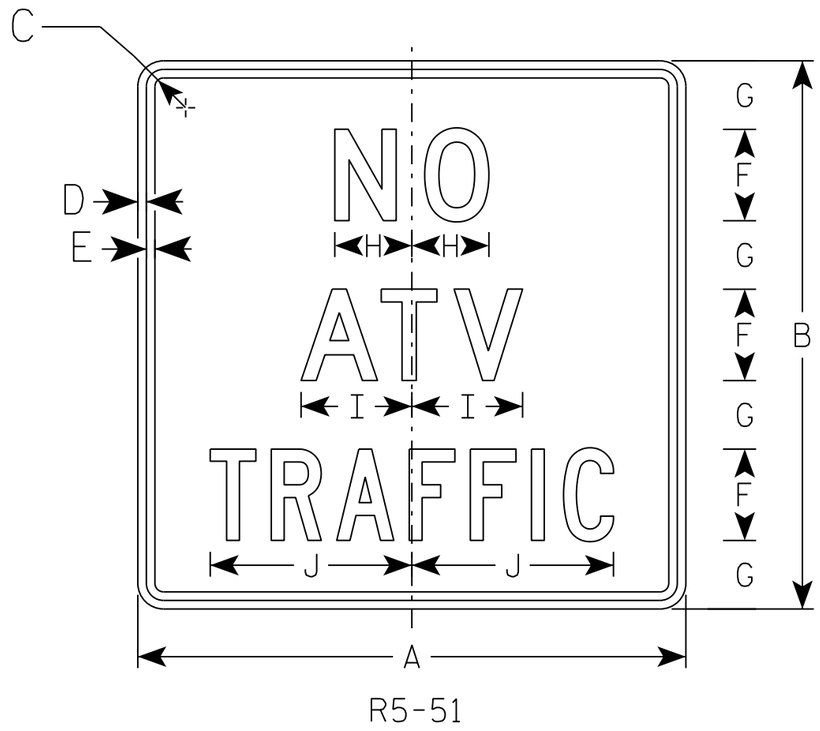
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 75	E

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																											

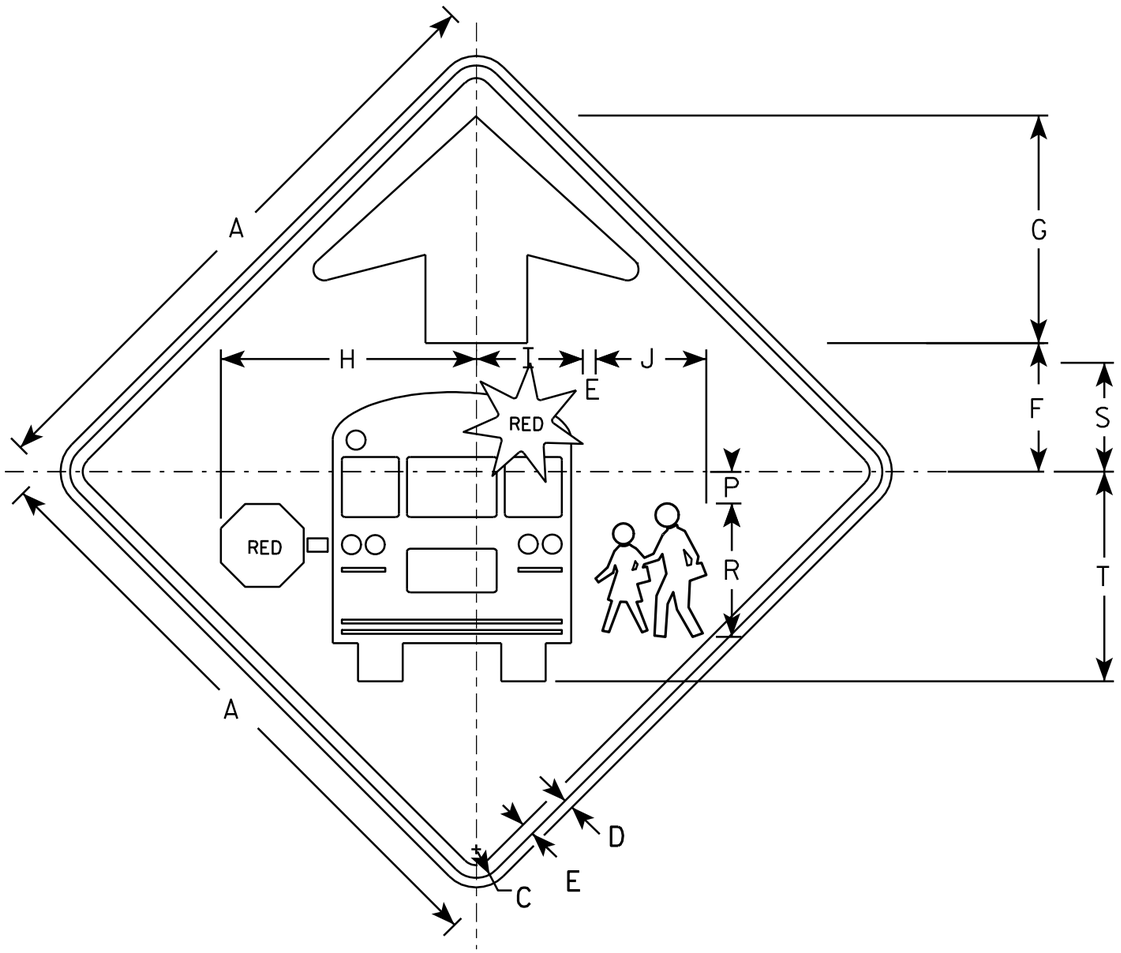
STANDARD SIGN
R5-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

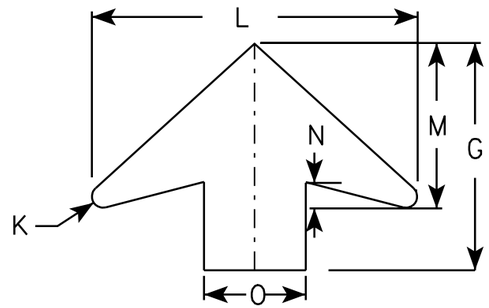
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 76	E



S3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW-GREEN
   Message - BLACK except as noted
   Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	12 1/2	5 1/4	5 1/2	1/2	16	8	1 1/4	5	1 1/2		6 5/8	5 3/8	10 3/8							6.25
2	36		1 5/8	5/8	3/4	7 1/2	13 1/2	15 1/8	6 1/4	6 1/2	5/8	19 1/4	9 3/4	1 5/8	6	1 7/8		7 7/8	6 3/8	12 3/8							9.0
3	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
4	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
5																											

STANDARD SIGN
S3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

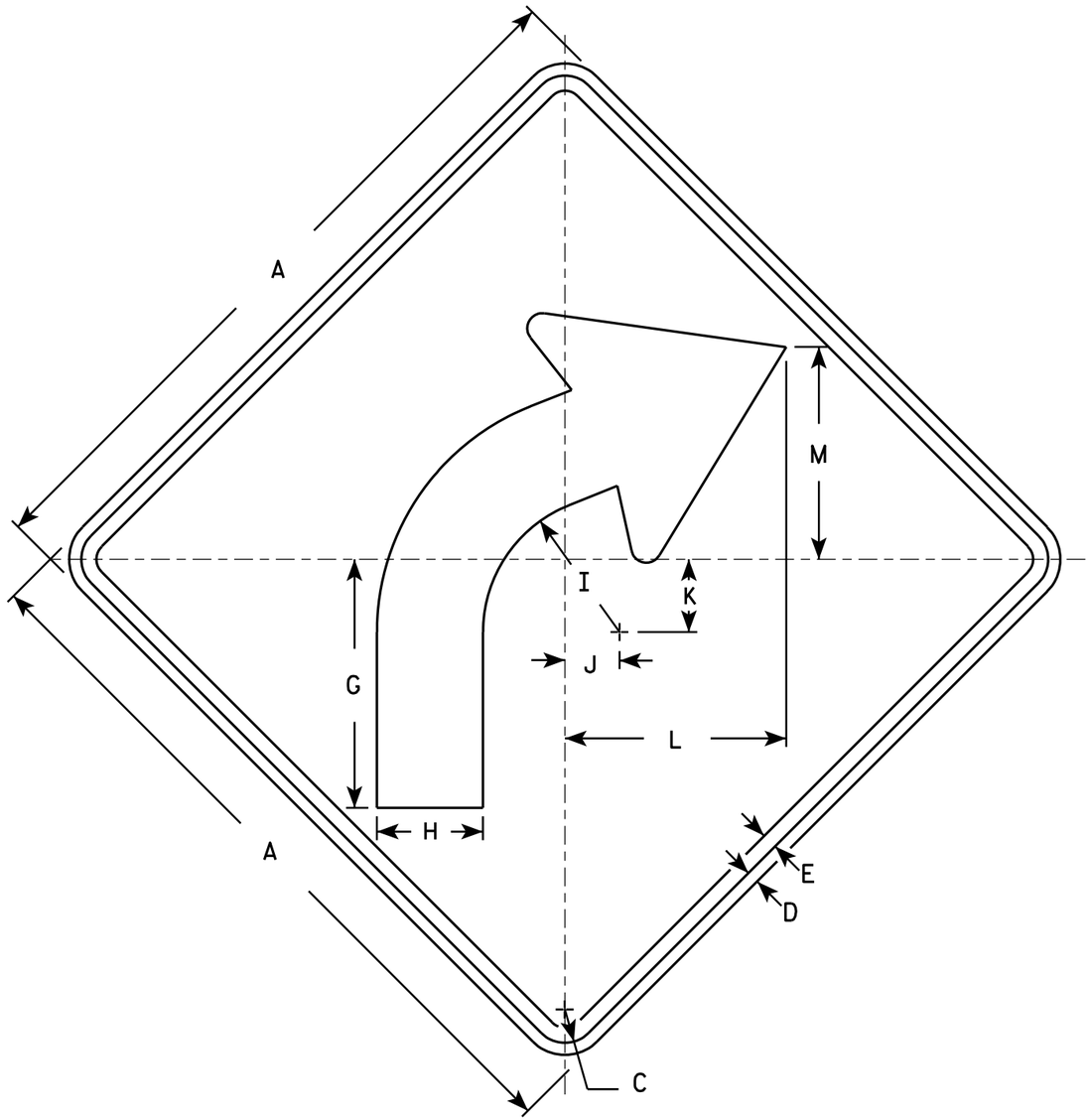
DATE 6/8/10 PLATE NO. S3-1.6

PROJECT NO:

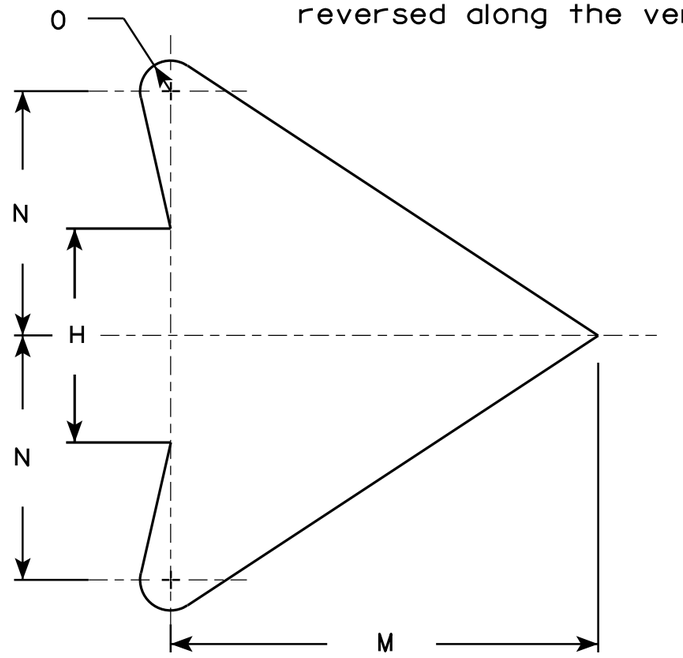
SHEET NO: 77 E

NOTES

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

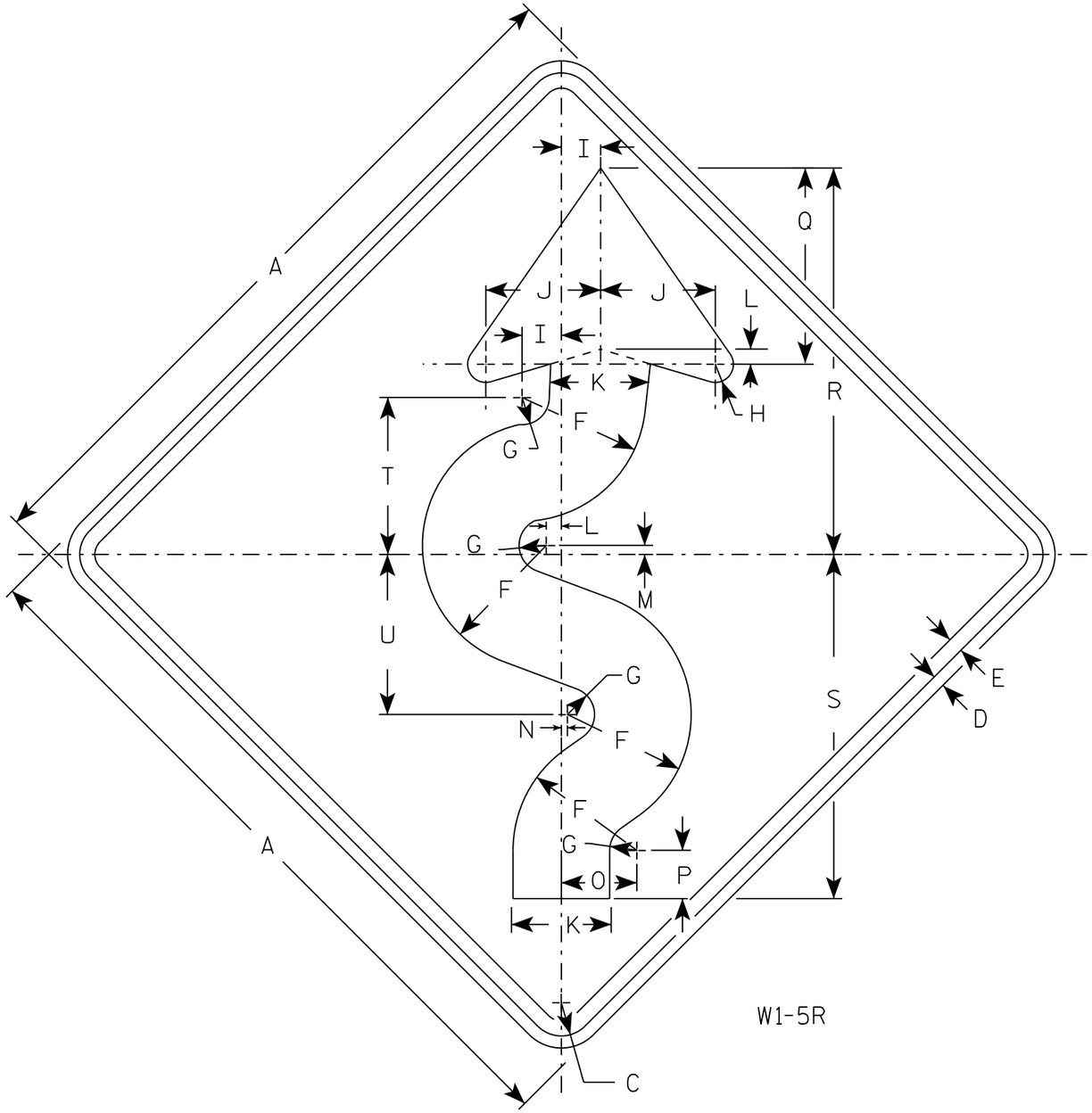
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 78	E



W1-5R

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

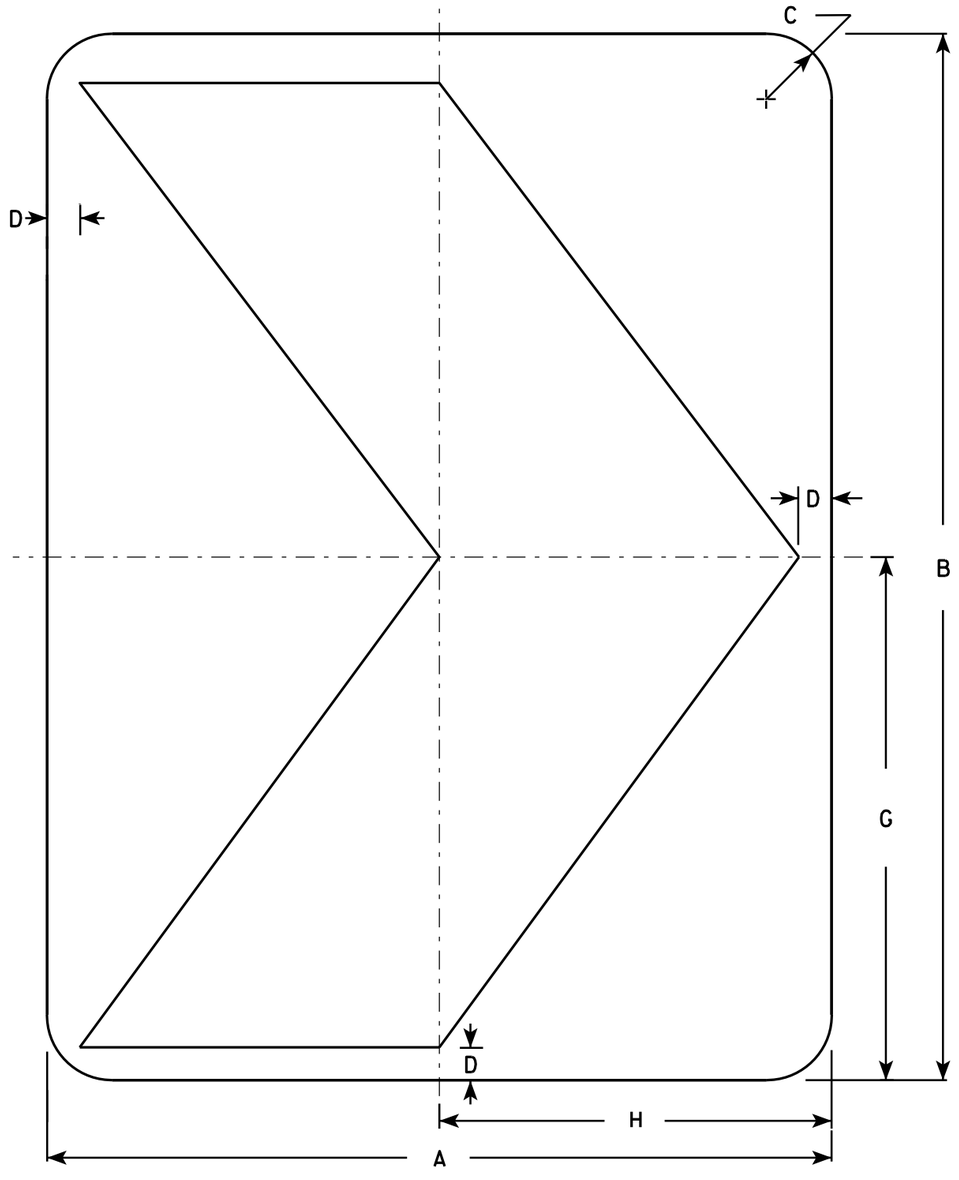
W1-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

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



W1-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

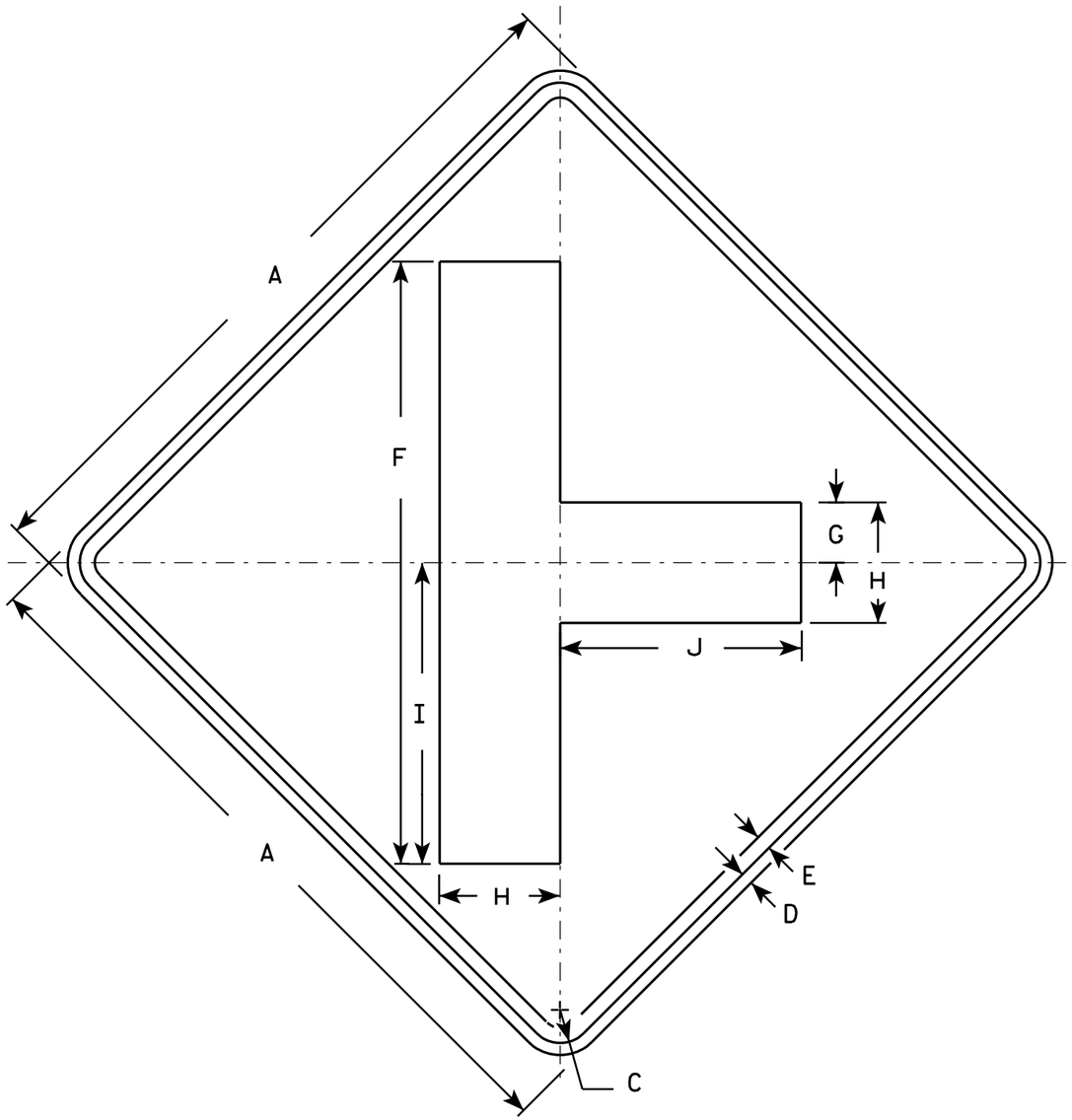
SHEET NO: 80 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W18.DGN PLOT DATE : 07-JUN-2010 12:55 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7



W2-2

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																											

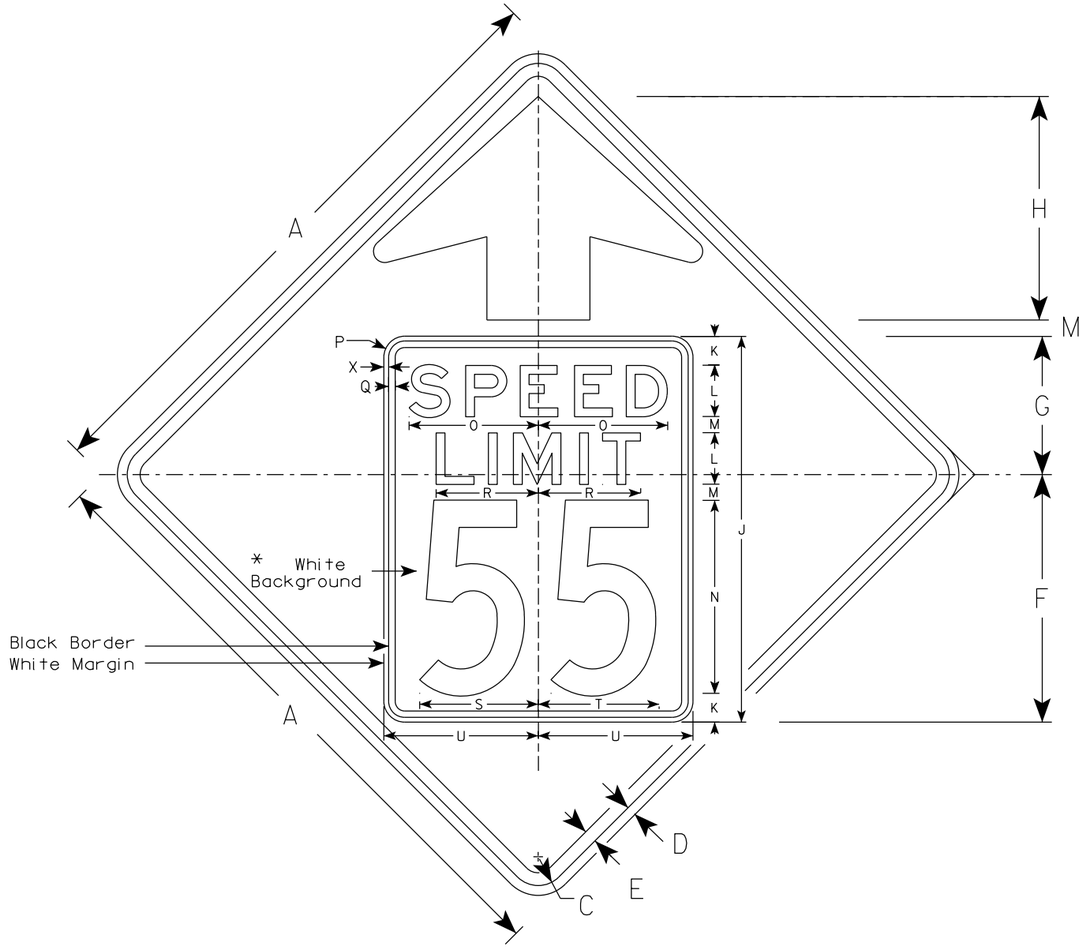
STANDARD SIGN
W2-2

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: 81 | E

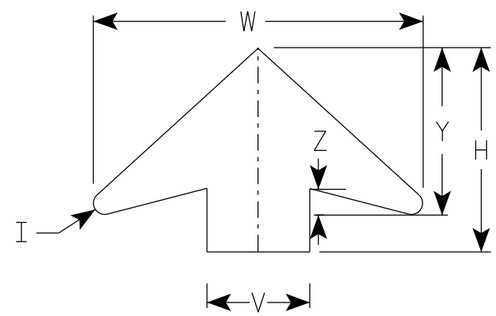


W3-5

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color: *
   Background - Yellow* (Type F Reflective)
   Message - Black
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background with black message (Type SH Reflective)



ARROW DETAIL

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

STANDARD SIGN
W3-5

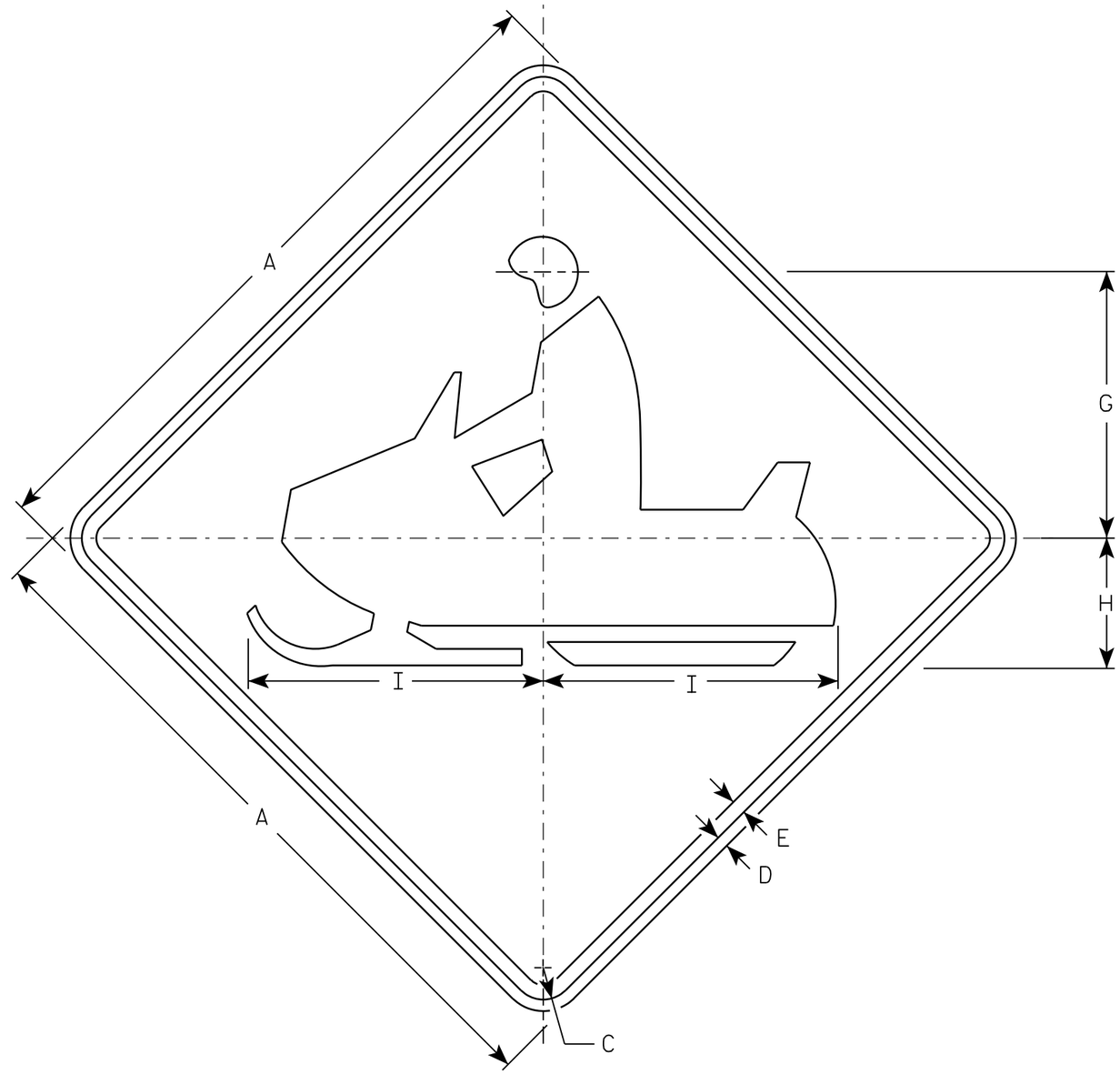
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. W3-5.6

PROJECT NO:

SHEET NO: 82 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																											

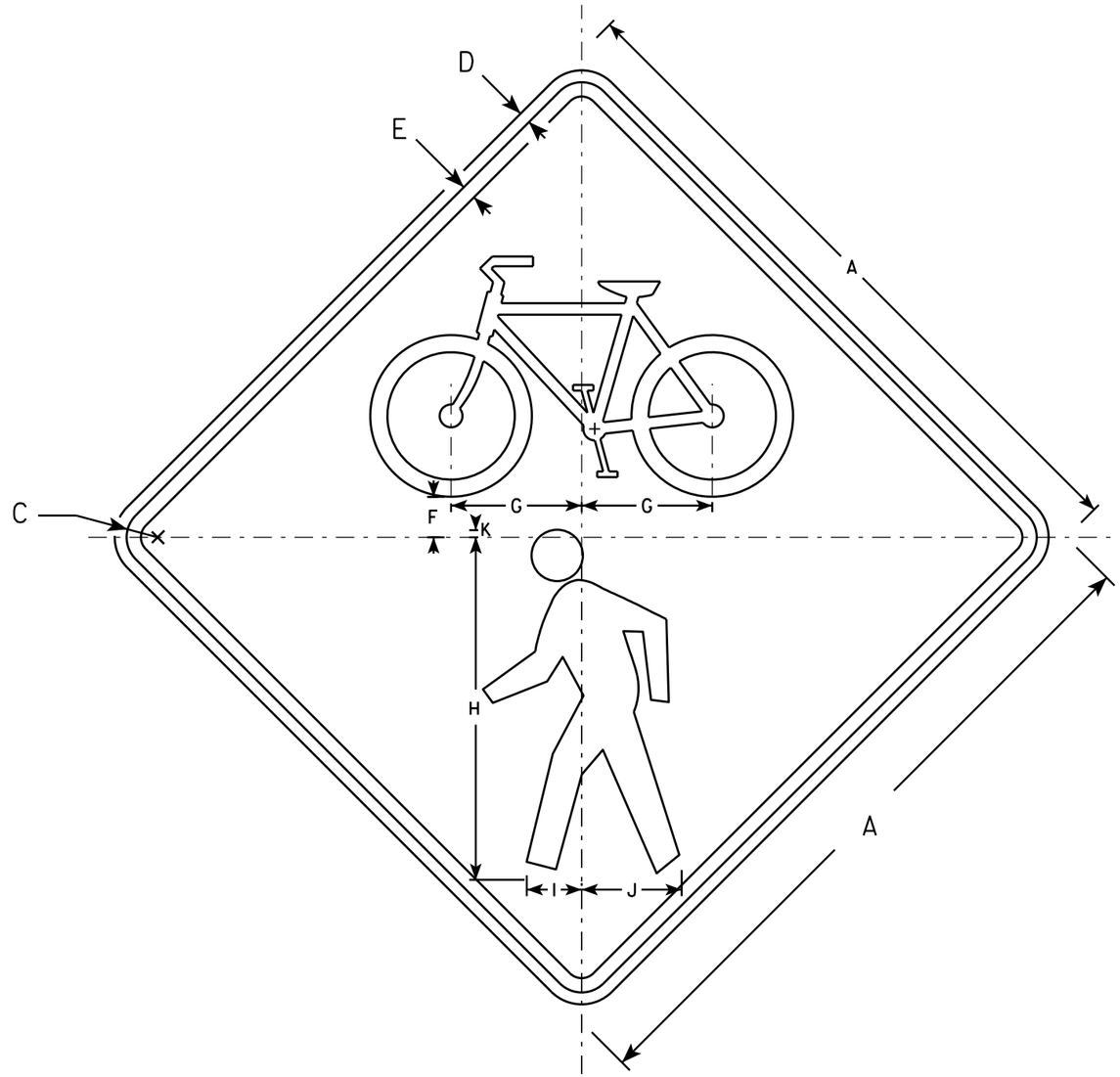
STANDARD SIGN
W11-6

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: 83	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

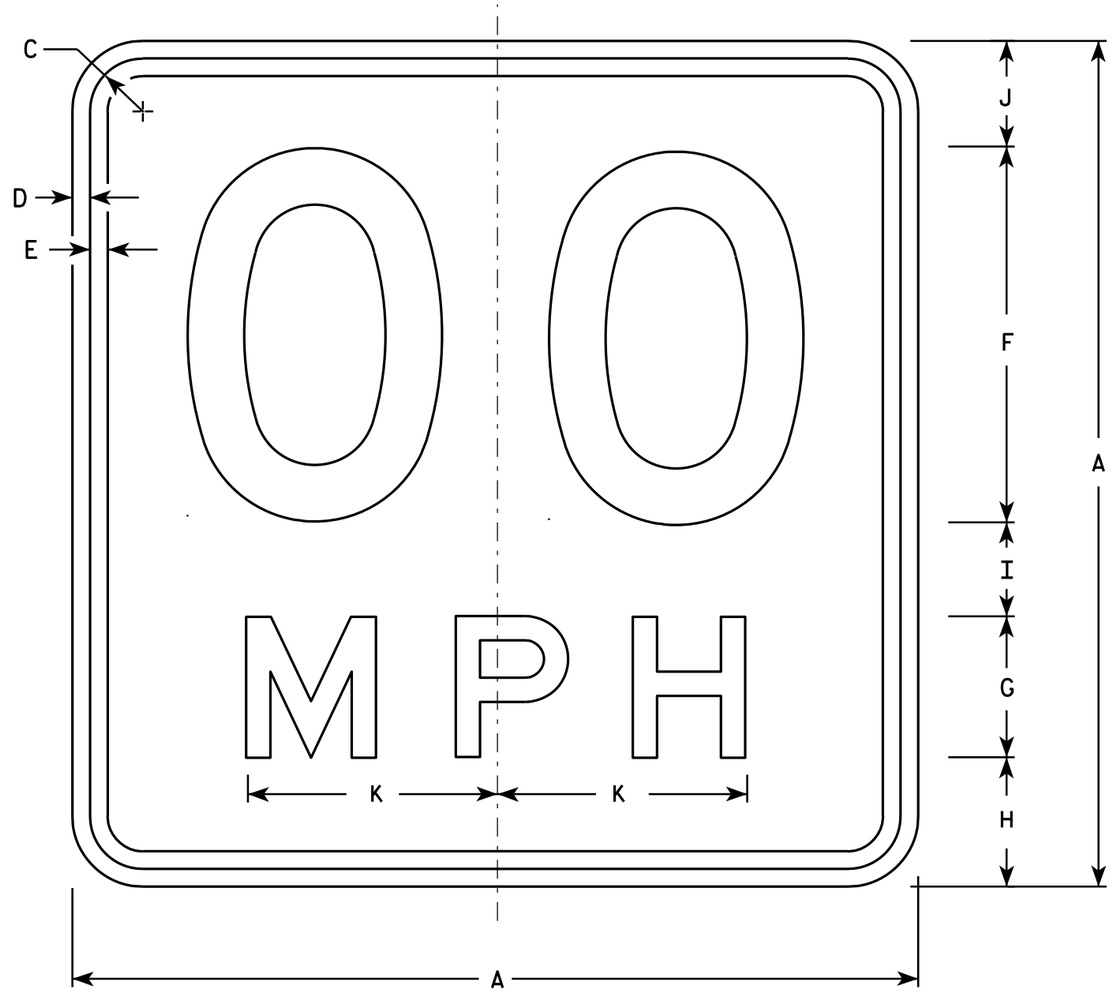
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/13/14 PLATE NO W11-15.4

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W1115.DGN PLOT DATE : 13-FEB-2014 10:54 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.783368:1.000000
WISDOT/CADDS SHEET 42



W13-1

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

NOTES

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

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

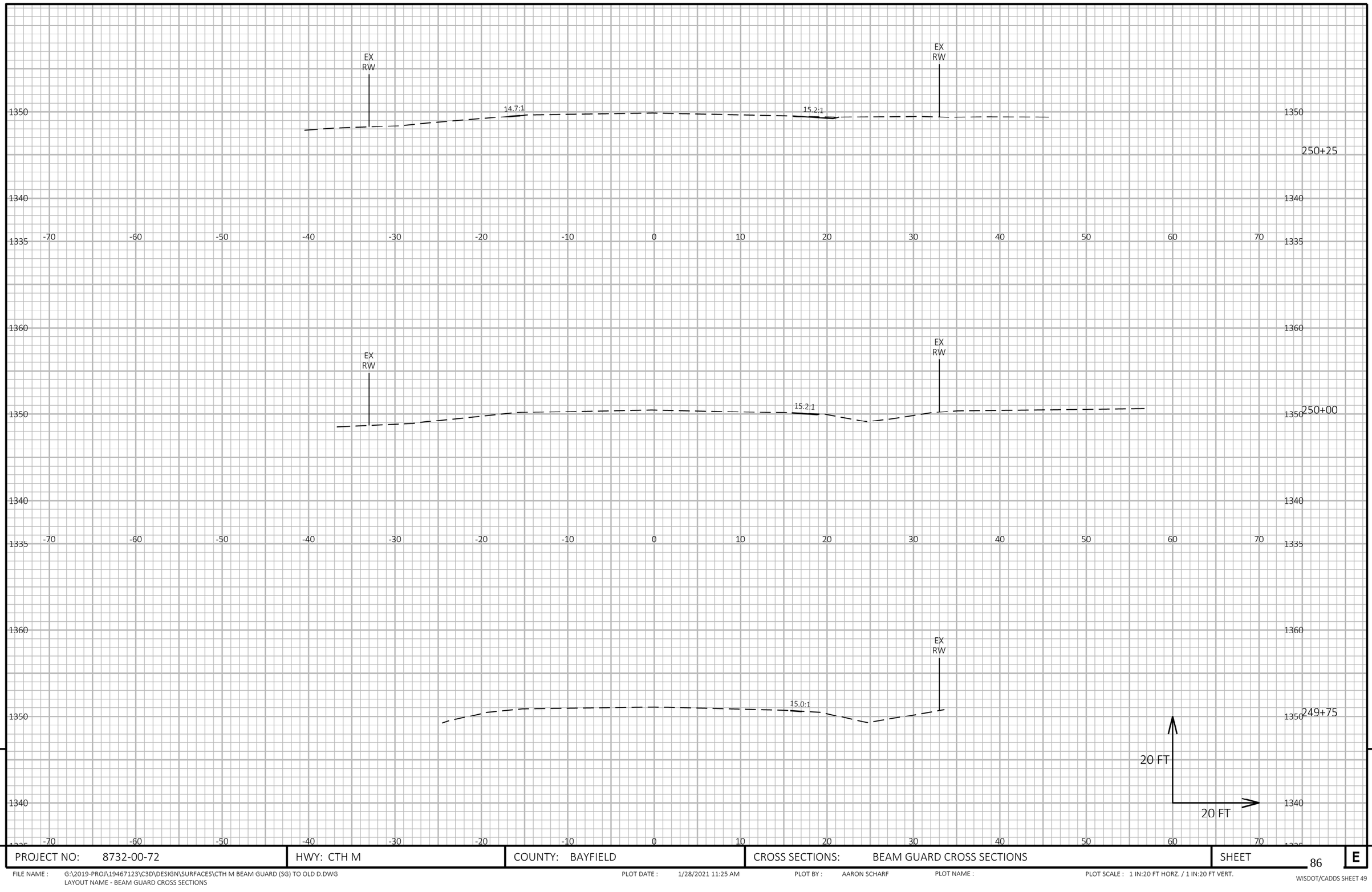
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 85	E



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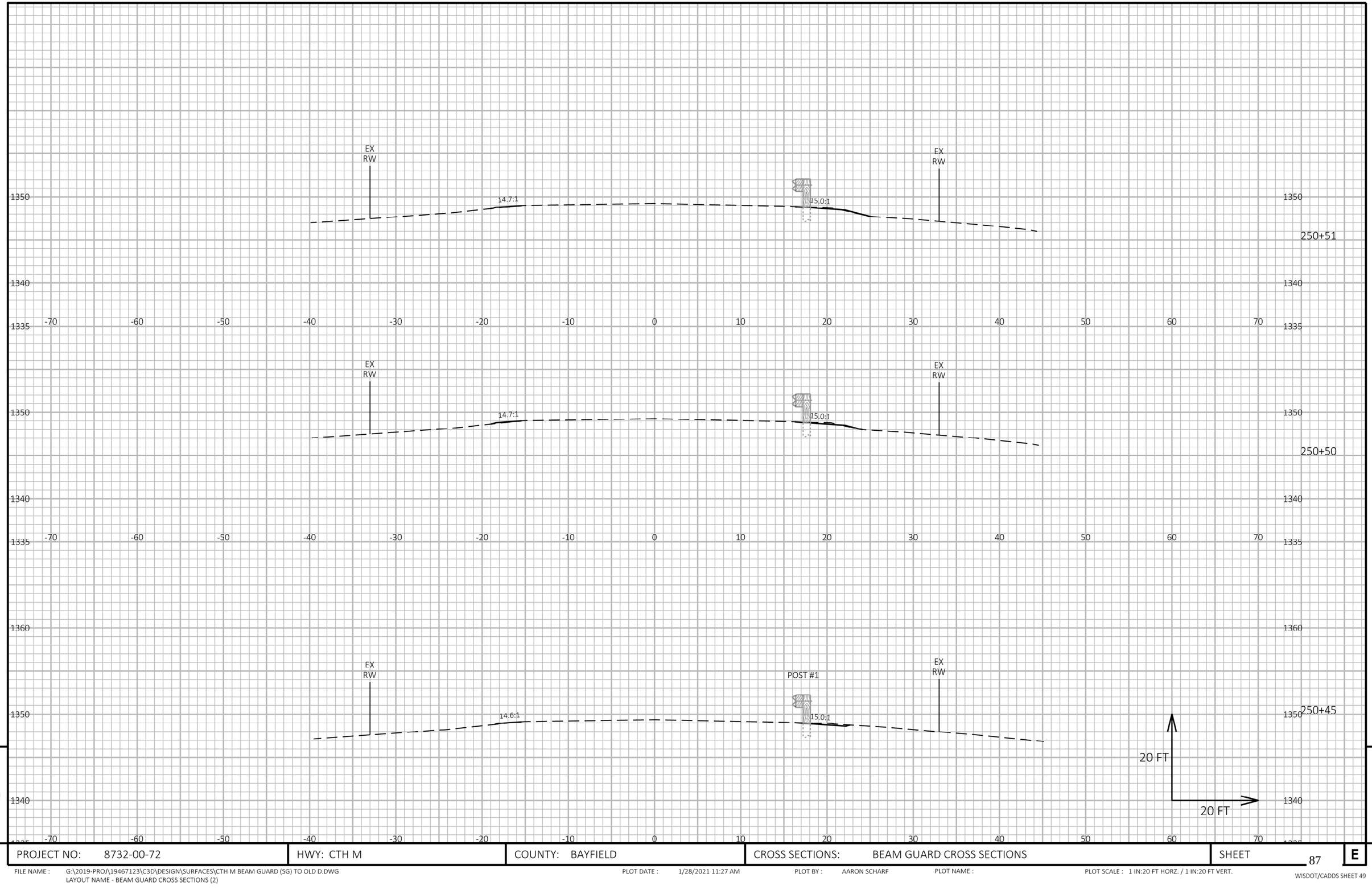
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 86	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS

PLOT DATE : 1/28/2021 11:25 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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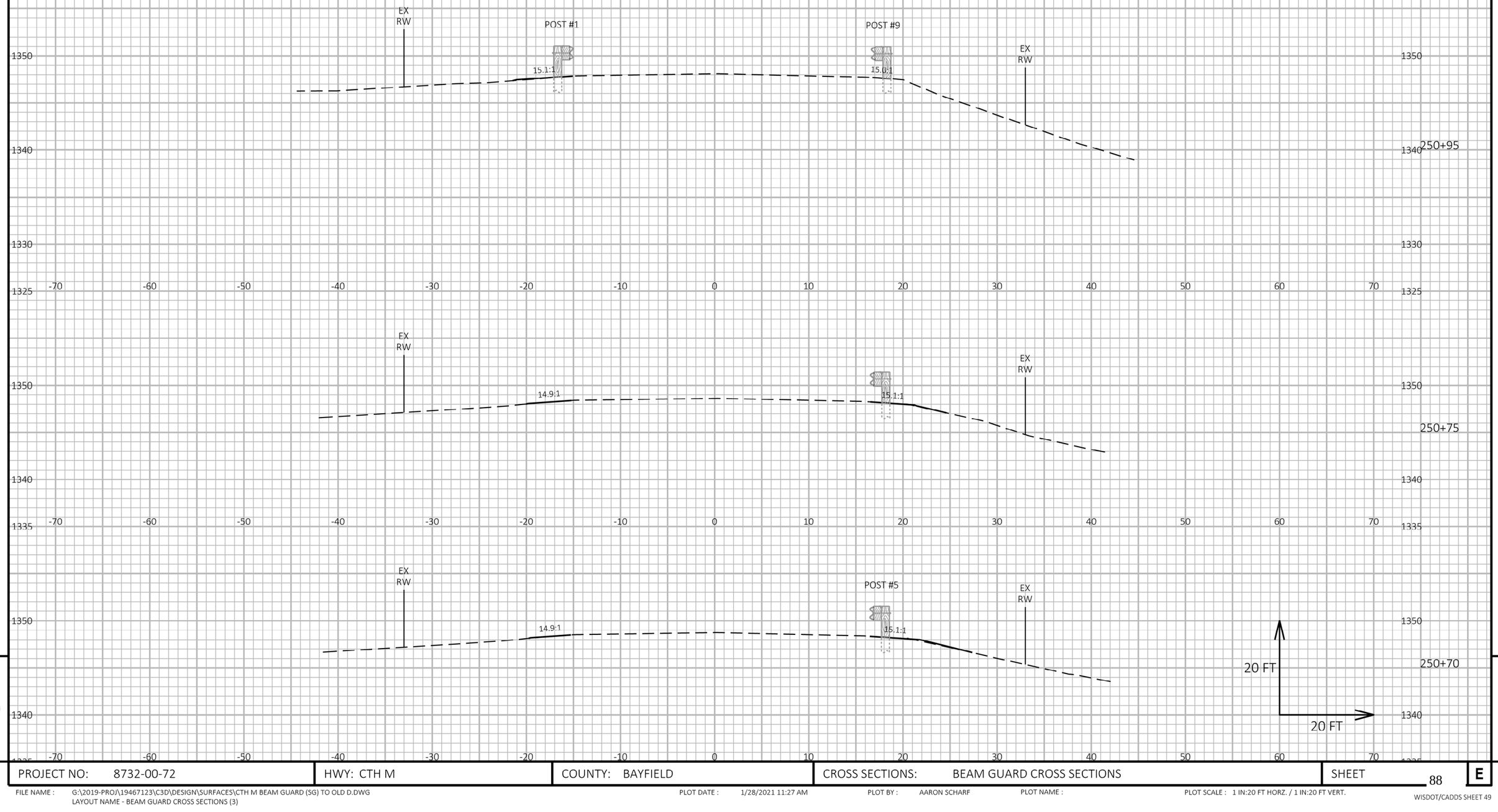
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 87	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (2)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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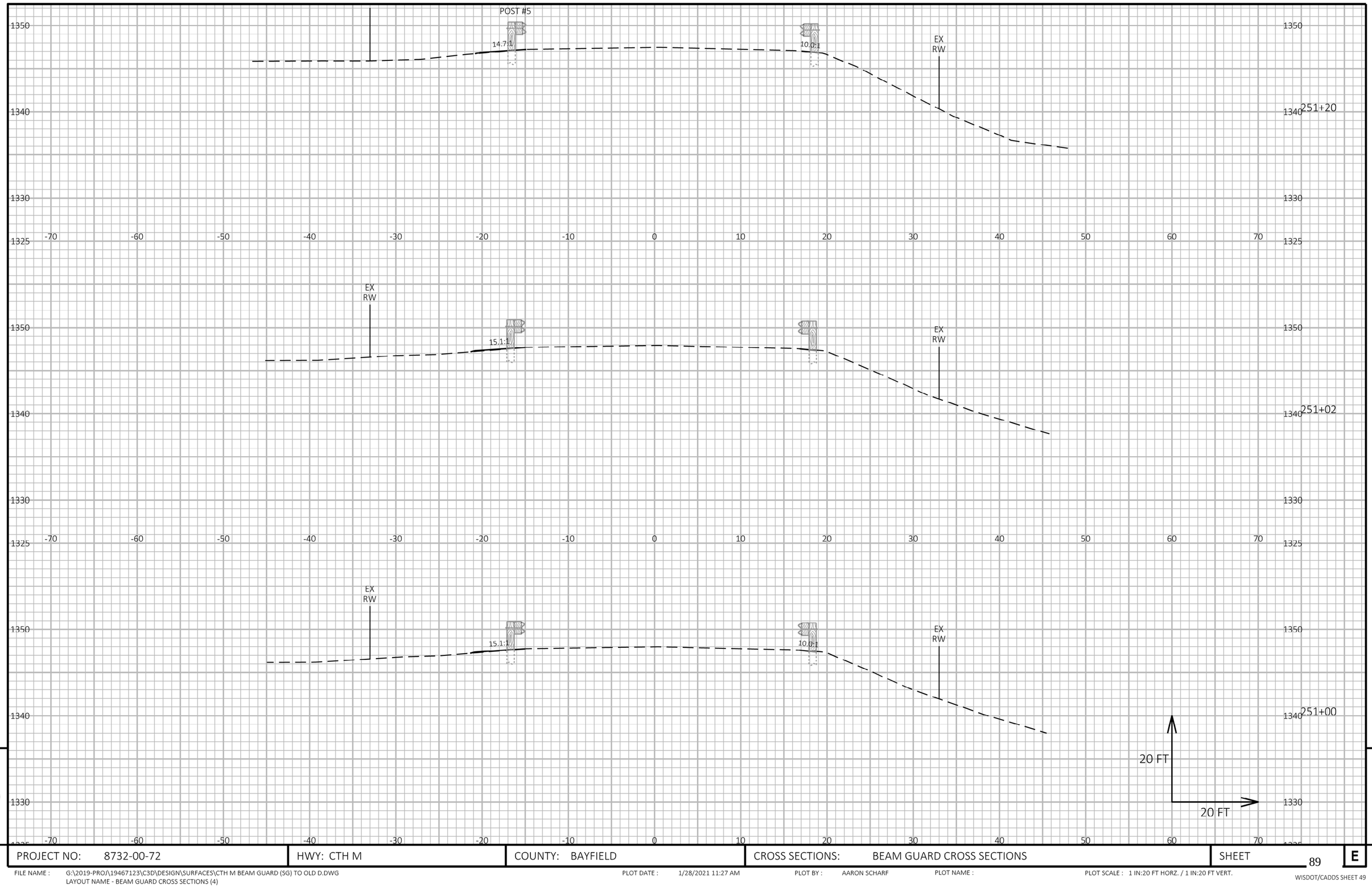
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 88	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (3)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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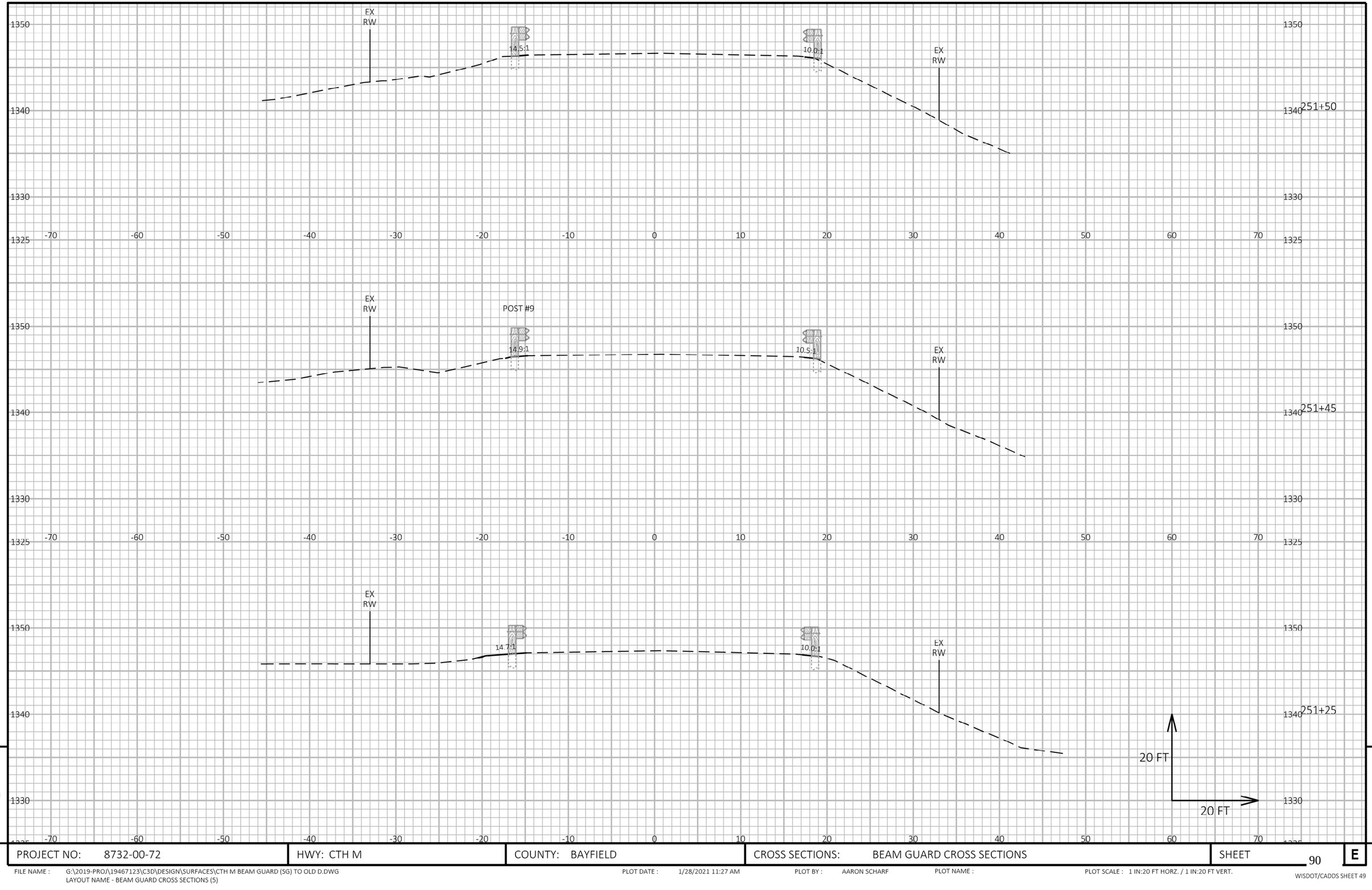
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 89	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (4)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

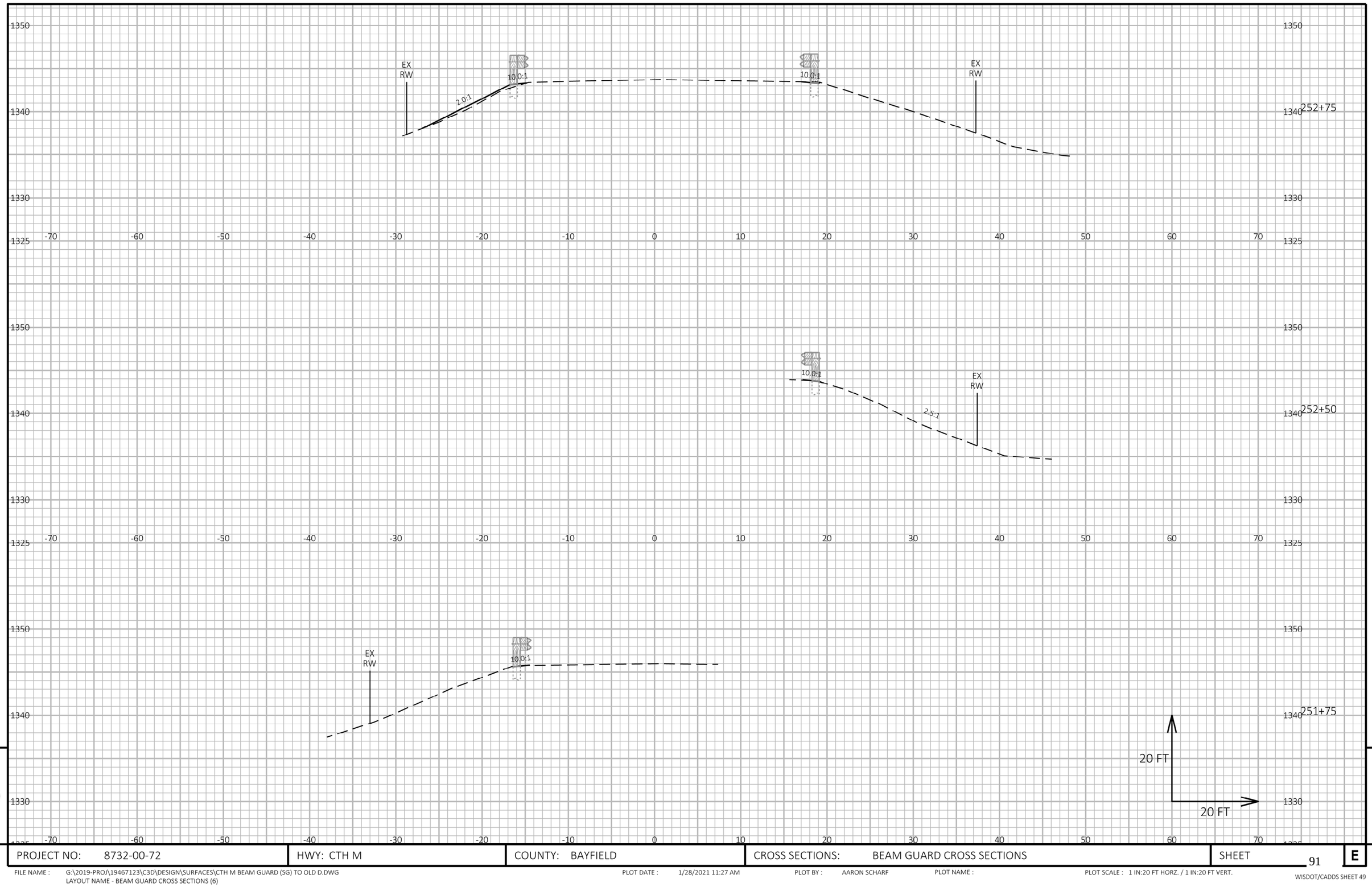


PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 90	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (5)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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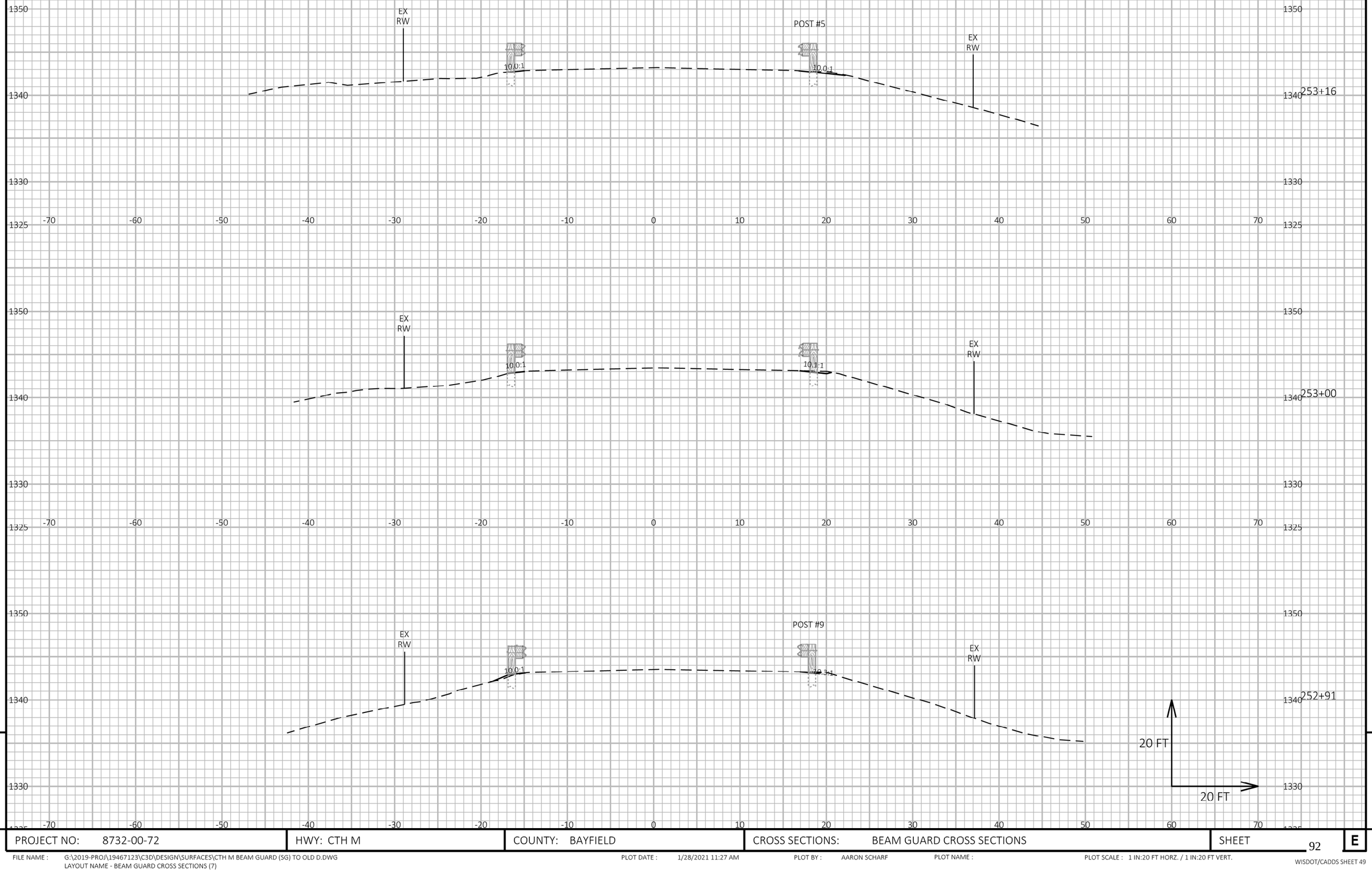
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 91	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (6)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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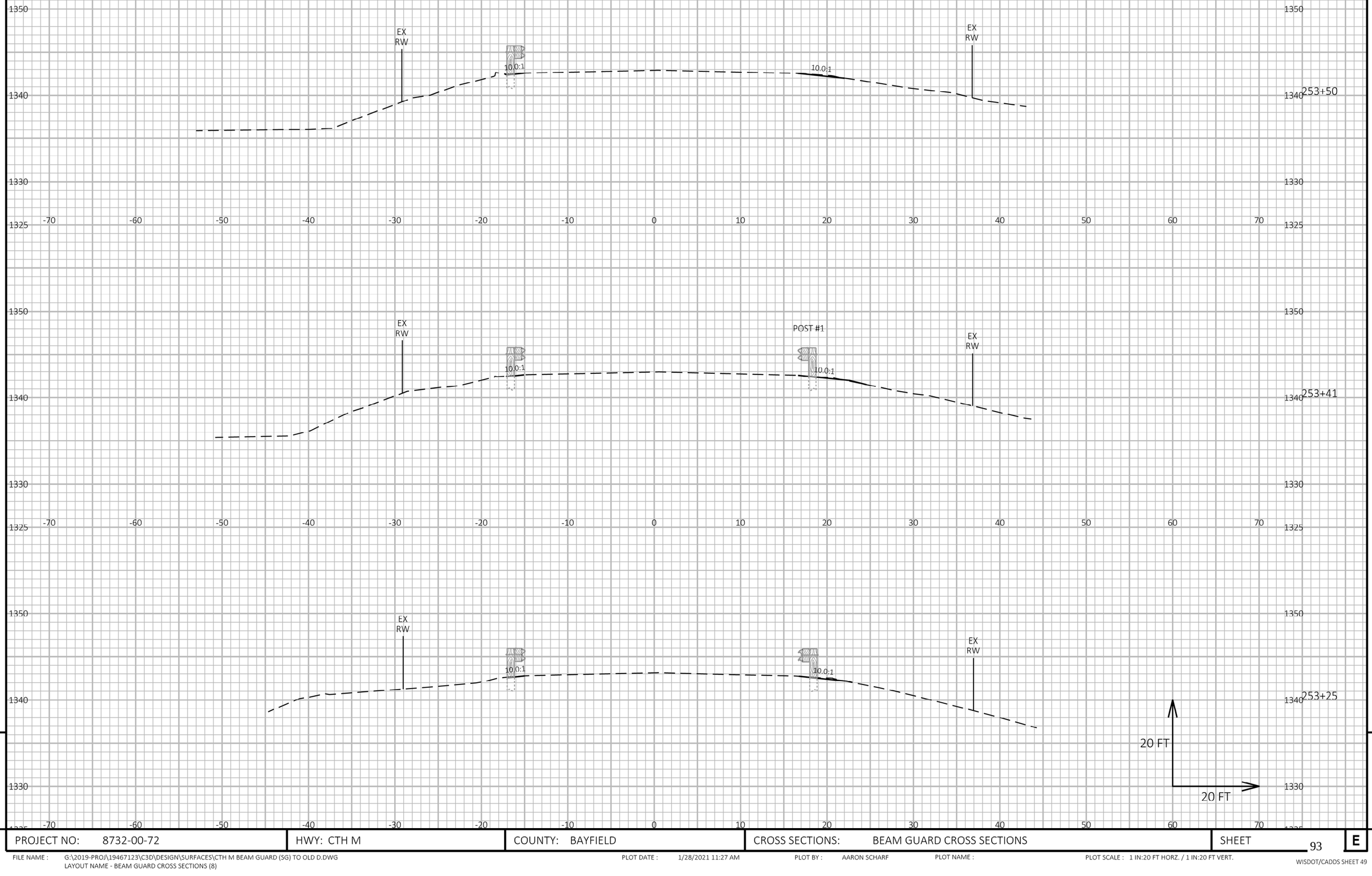
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 92	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (7)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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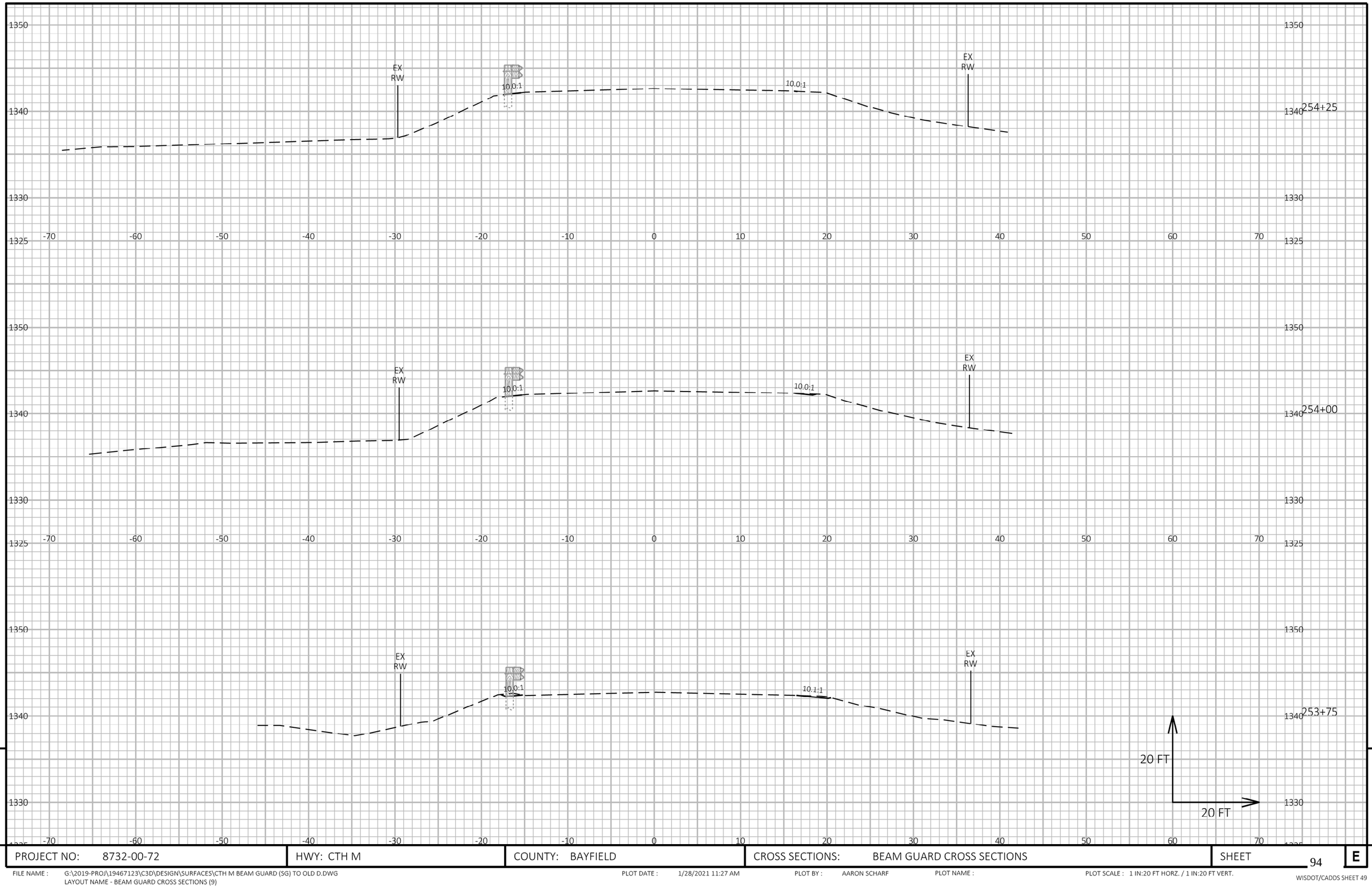
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 93	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (8)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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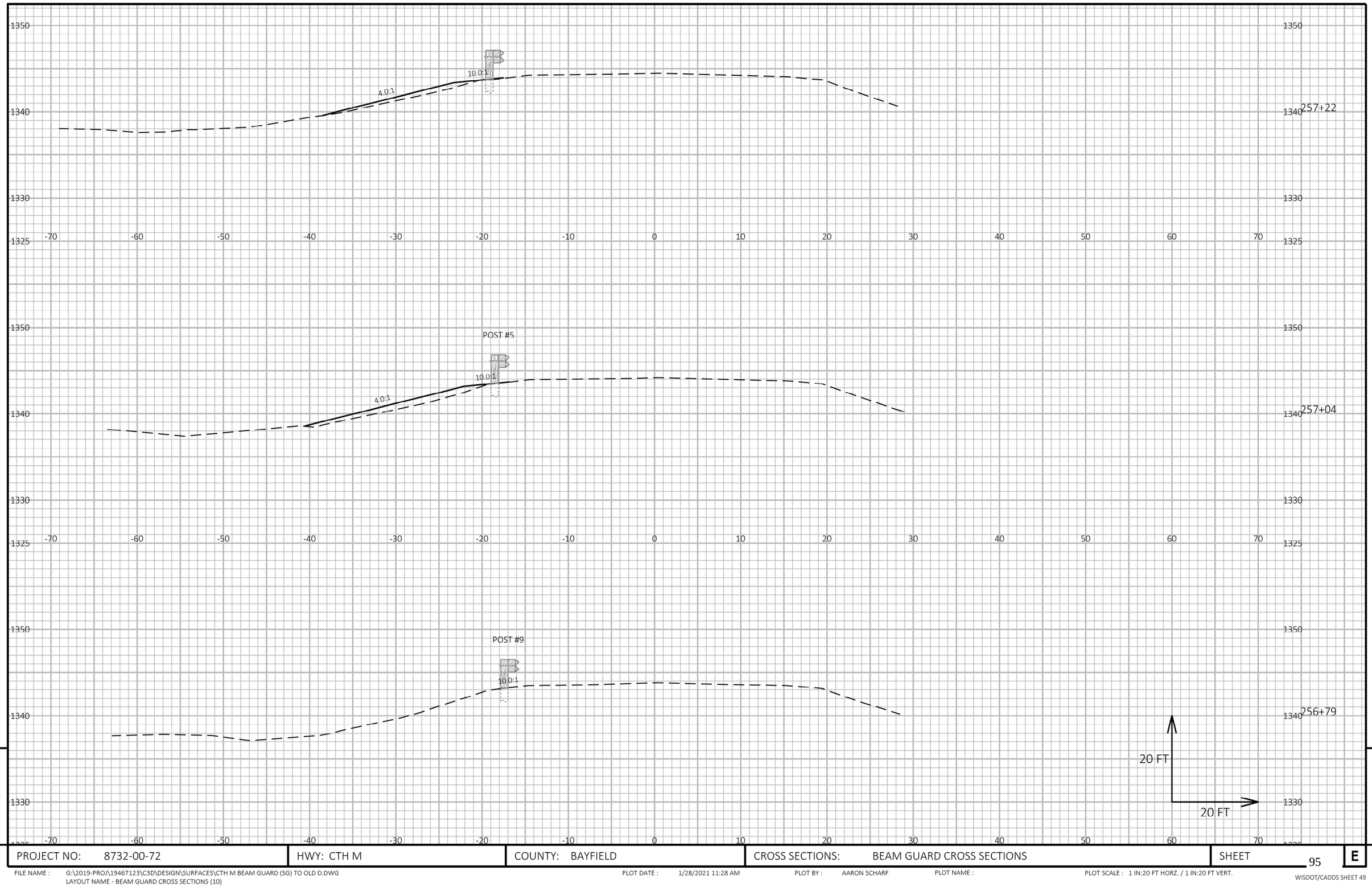
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 94	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (9)

PLOT DATE : 1/28/2021 11:27 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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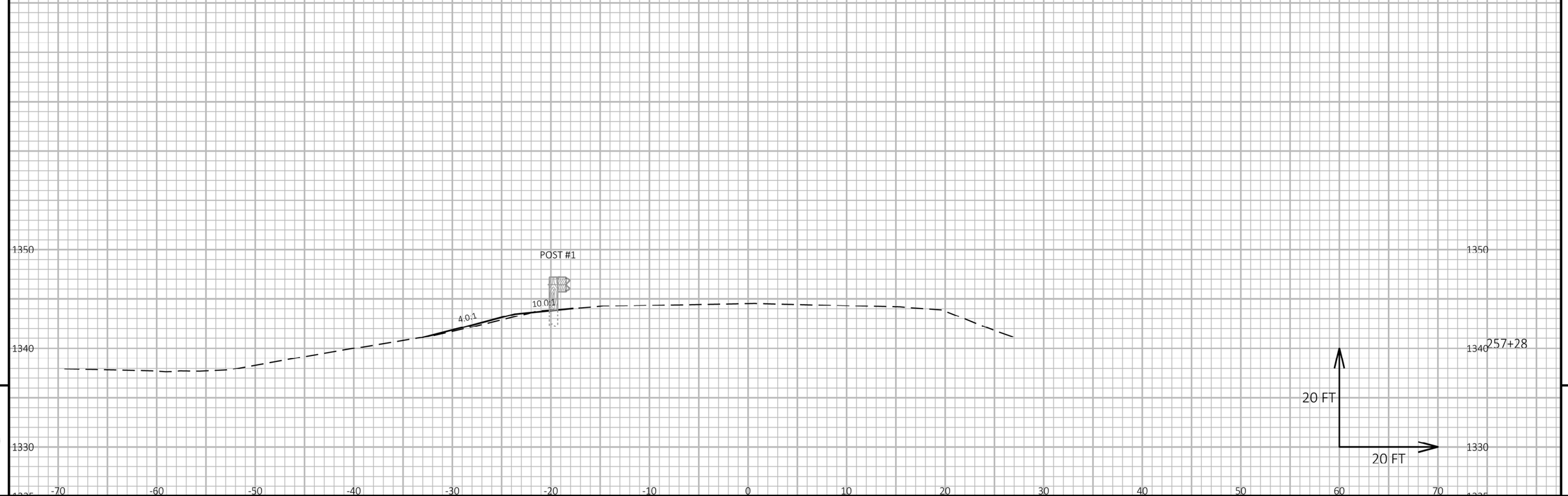
PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 95	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (10)

PLOT DATE : 1/28/2021 11:28 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 8732-00-72	HWY: CTH M	COUNTY: BAYFIELD	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 96	E

FILE NAME : G:\2019-PROJ\19467123\C3D\DESIGN\SURFACES\CTH M BEAM GUARD (SG) TO OLD D.DWG
LAYOUT NAME - BEAM GUARD CROSS SECTIONS (11)

PLOT DATE : 1/28/2021 11:28 AM PLOT BY : AARON SCHARF PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov