GRE

NOVEMBER 2017

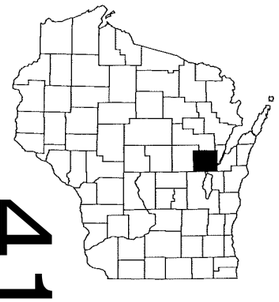
ORDER OF SHEETS

TOTAL SHEETS = 154

PROJECT ID: 6570-08-71

COUNTY: OUTAGAMIE

41



N

DESIGN DESIGNATION

A.A.D.T.	2018	= 4400
A.A.D.T.	2038	= 5100
D.H.V.		= 1060
D.D.		= 59/41
T.		= 8.5%
DESIGN SPEED		= 30 - 60 MPH
ESALS		= 25915

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SEYMOUR - ANGELICA

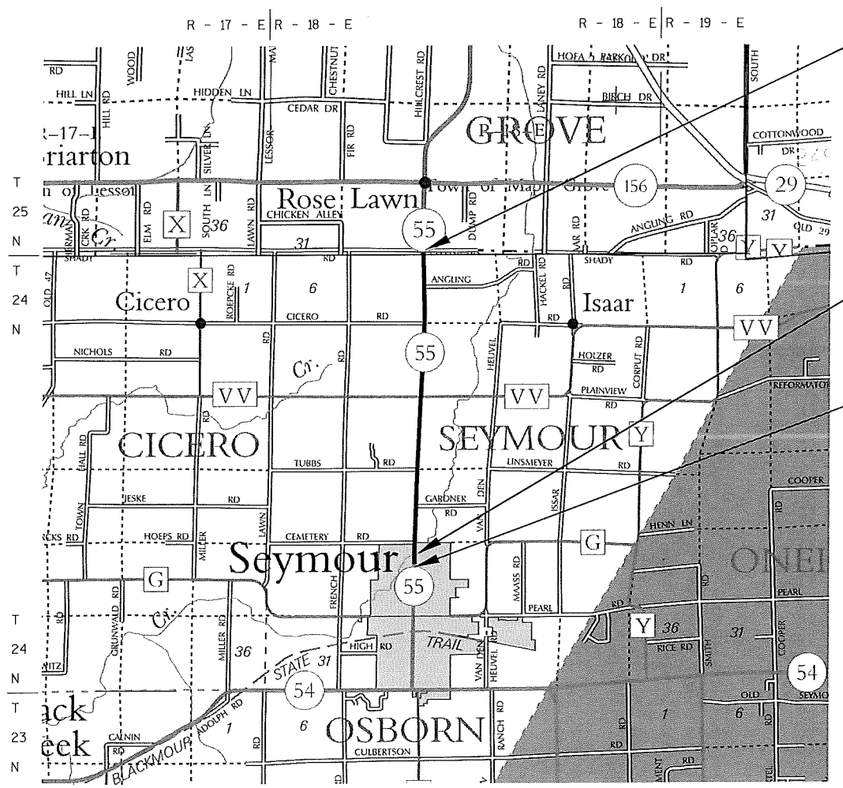
LAKE ROAD - NCL

STH 55

OUTAGAMIE COUNTY

STATE PROJECT NUMBER
6570-08-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6570-08-71	WISC 2017619	1



LAYOUT

SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 4.51 MILES

END PROJECT 6570-08-71
STA 352+05

EXCEPTION TO NET ℄ LENGTH
STA 132+41 TO STA 132+97

BEGIN PROJECT 6570-08-71
STA 115+00
Y = 657,311.65
X = 847,400.06

COORDINATES ON THIS PLAN ARE REFERENCED TO NAD 83 (2011) NAVD (2012)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT NE REGION
Designer	K VOGEL
Project Manager	T VERHAGEN
Regional Examiner	
Regional Supervisor	C DEGRAVE

APPROVED FOR THE DEPARTMENT

DATE: 6/22/2017 Tim Verhagen (Signature)

E

GENERAL NOTES

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

EXISTING PERMANENT SIGNS ARE TO REMAIN IN PLACE UNLESS SPECIALLY CALLED FOR REMOVAL ON MISCELLANEOUS QUANTITY TABLE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER. DETAILS OF CONSTRUCTION NOT SHOWN ON THE PLAN SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS AND SKEW FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. ADJUST ELEVATIONS AND SKEW AS DIRECTED BY THE ENGINEER.

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

ALL DISTURBED AREAS, NOT OTHERWISE SURFACED, ARE TO BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT, AS SHOWN ON THE PLANS.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

THE EROSION CONTROL ITEMS ARE SHOWN ON THE EROSION CONTROL PLAN AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING WORK.

UTILITIES

CENTURY LINK - COMMUNICATION LINE
MATT GUNDERSON
212 CHURCH AVE
CASCO, WI 54205
(920) 837-2344
(920) 896-2867
matt.gundersen@centurylink.com

CITY OF SEYMOUR - WATER
MIKE PEPIN
445 MUNICIPAL DR
SEYMOUR, WI 54165-1056
(920) 833-2397
(920) 851-3446
mjcppe@aol.com

WE ENERGIES - ELECTRICITY
STEVE ARMSTRONG
800 S. LYNNDALE DR
APPLETON, WI 54912-1699
(920) 380-3563
steven.armstrong@we-energies.com

CITY OF SEYMOUR - SEWER
MIKE PEPIN
445 MUNICIPAL DR
SEYMOUR, WI 54165-1056
(920) 833-2397
(920) 851-3446
mjcppe@aol.com

TIME WARNER CABLE - COMMUNICATION LINE
VINCENT ALBIN
3520 E DESTINATION DR
APPLETON, WI 54915
(920) 831-9249
(920) 378-0444
vince.albin@charter.com

WE ENERGIES - GAS/PETROLEUM
ANDY ROOYAKKERS
800 S. LYNNDALE DR
APPLETON, WI 54912-1699
(920) 380-3476
(920) 858-4857
andrew.rooyakkers@we-energies.com

DNR AREA LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
GREEN BAY, WI 54313-6727
ATTN: MATTHEW SCHAEVE
PHONE: 920-662-5472
CELL: 920-366-1544
FAX: 920-662-5159
E-MAIL: MATTHEW.SCHAEVE@WISCONSIN.GOV

SURVEY CONTACT PERSON

CORMAC MCINNIS
WISDOT-NE REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
920-492-5638
cormac.mcinnis@dot.wi.gov

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

EMERGENCY CONTACT NUMBERS FOR WE ENERGIES

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797
GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325

2

N

SCALE, FEET 0 250 500

CEMETERY RD

CITY OF SEYMOUR

TOWN OF SEYMOUR

TUBBS RD

VV

CICERO RD

SHADY RD

END PROJECT 6570-08-71
STA 352+05

60 55 120 140 160 180 200 220 240 260 280 300 320 340 353 55

LAKE RD

B-44-0180

E BRONSON RD

GARDNER RD

BLACK CREEK

VV

ANGLING RD

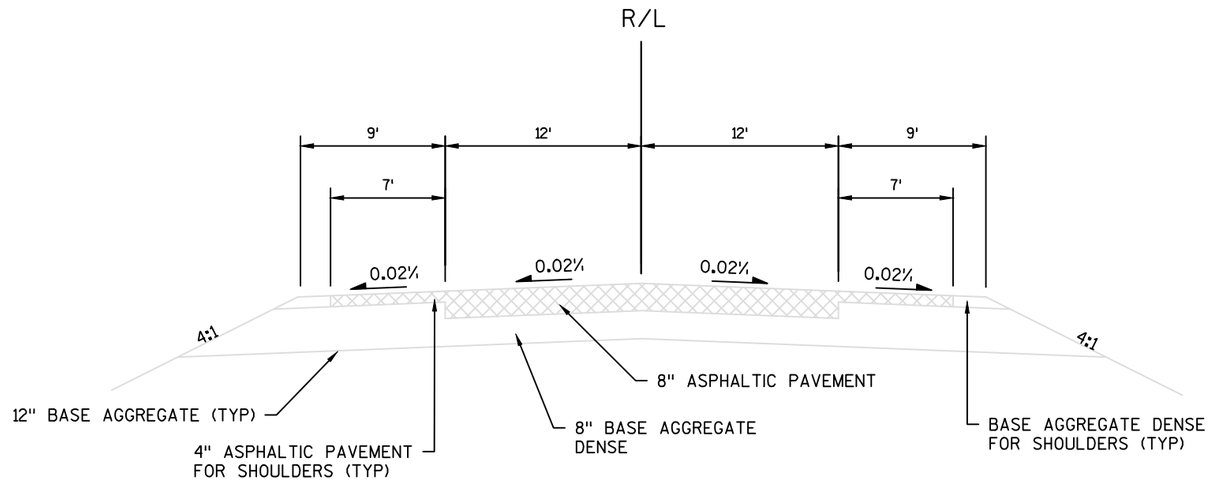
OUTAGAMIE COUNTY

SHAWANO COUNTY

BEGIN PROJECT 6570-08-71
STA 115+00

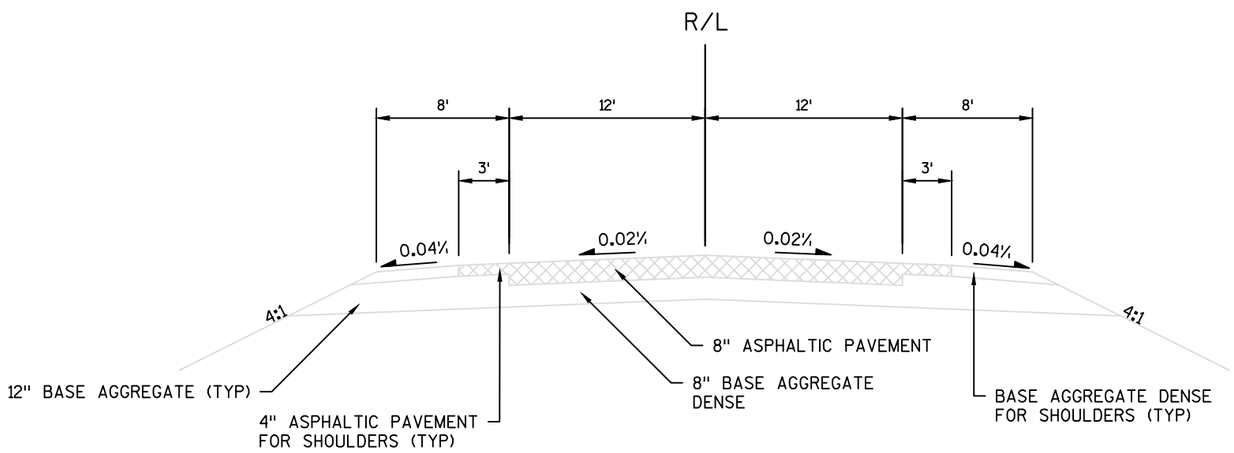
PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\020201-PO.DWG PLOT DATE : 3/23/2017 3:14 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE :



EXISTING TYPICAL SECTION STH 55

STA 115+00 TO STA 134+97



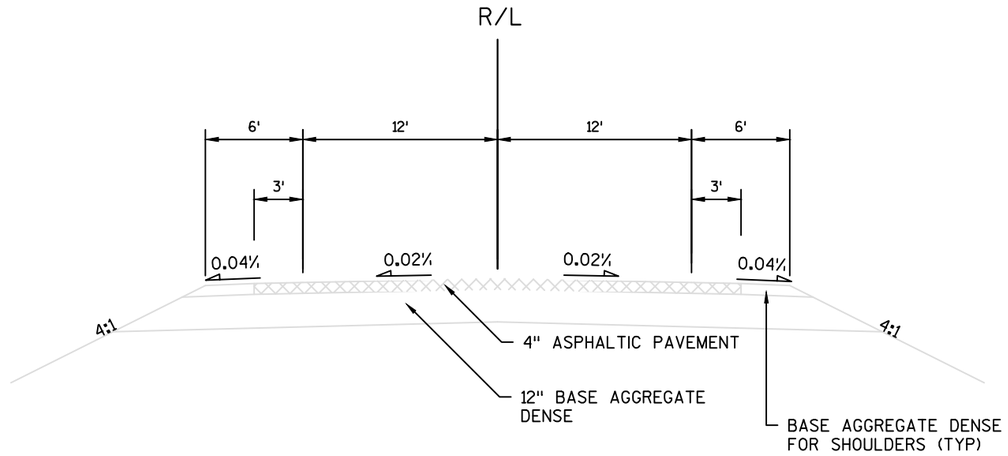
EXISTING TYPICAL SECTION STH 55

STA 134+97 TO STA 280+42

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 4	E

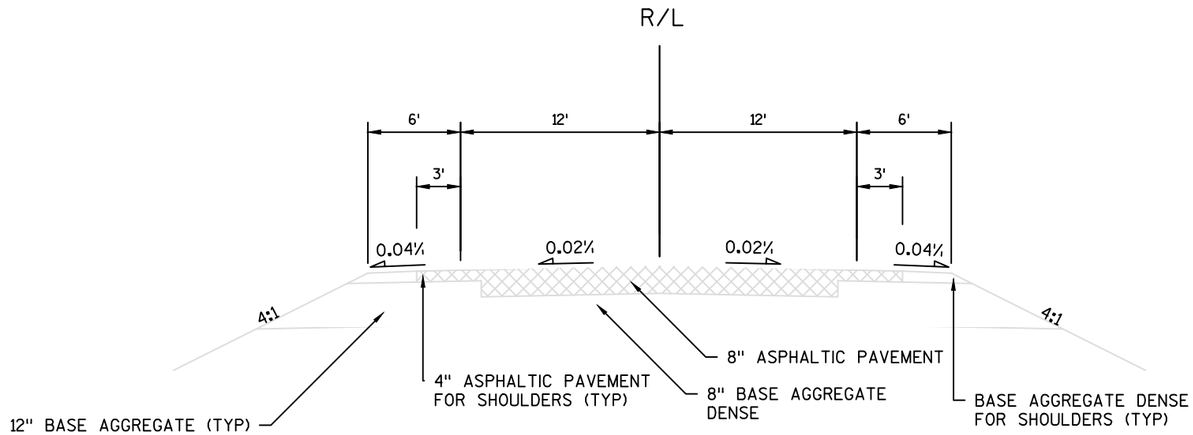
FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\020301-TS(71).DWG PLOT DATE : 3/23/2017 2:08 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



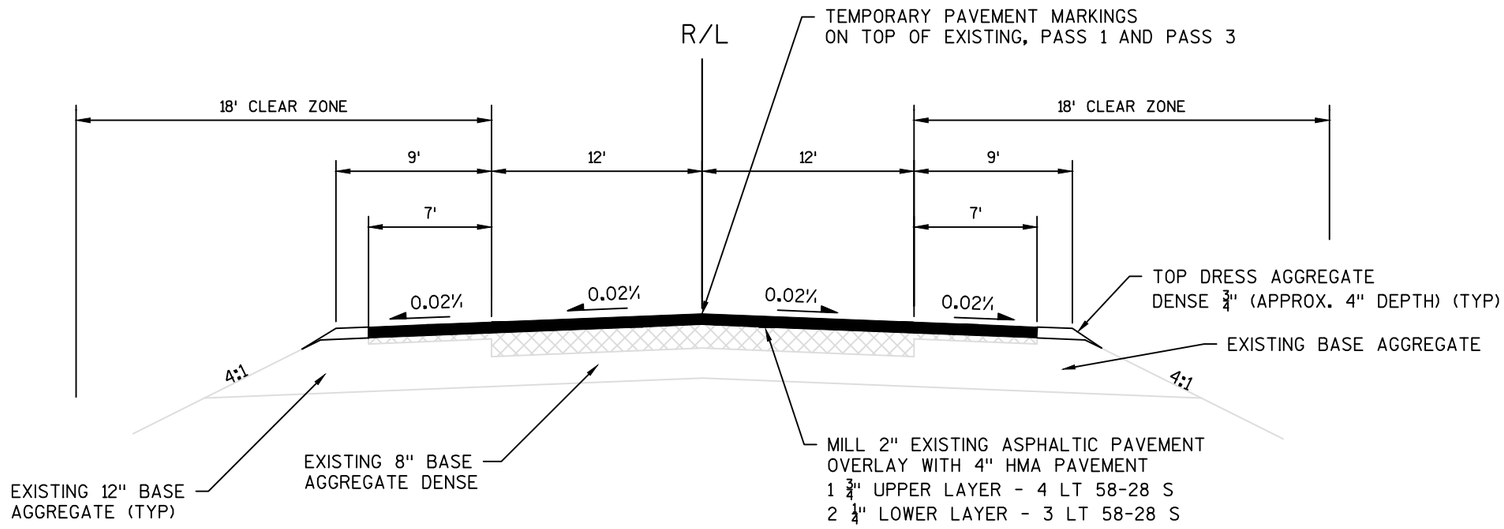
EXISTING TYPICAL SECTION STH 55

STA 280+42 TO STA 313+22



EXISTING TYPICAL SECTION STH 55

STA 313+22 TO STA 352+05

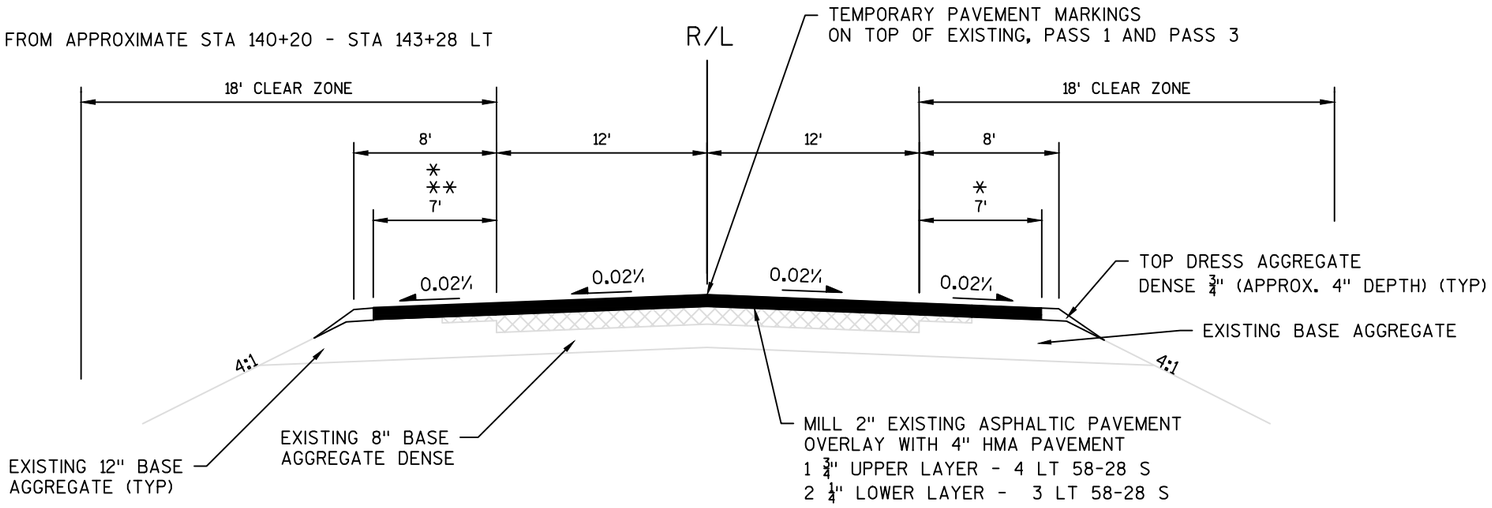


FINISHED TYPICAL SECTION STH 55

STA 115+00 TO STA 134+97

* 7' PAVED SHOULDER FROM APPROXIMATE STA 134+97 - STA 143+28 RT
AND STA 134+97 - STA 140+20 LT

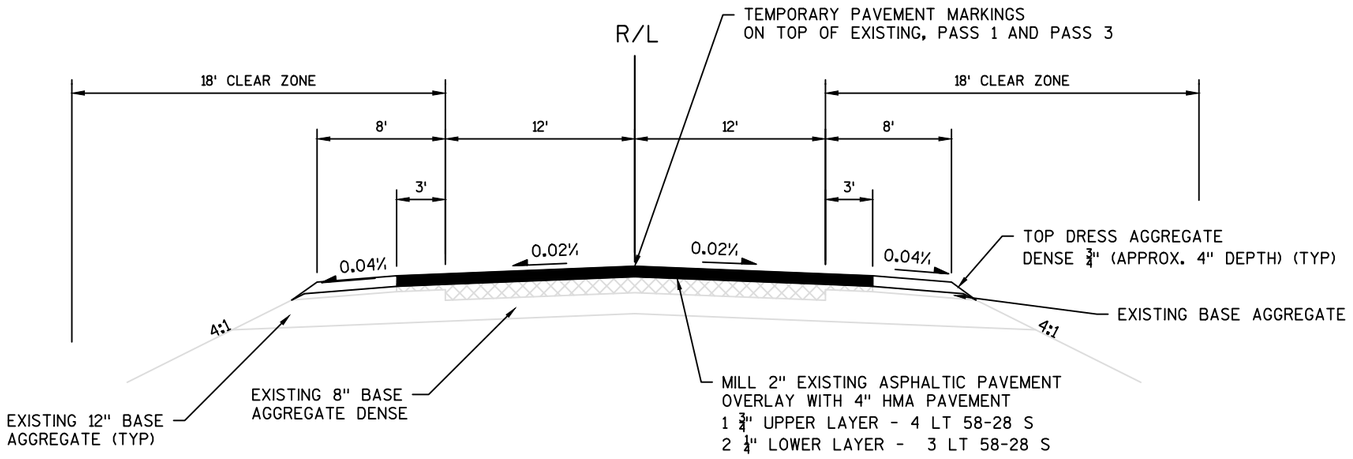
** MATCH EXISTING PAVED SHOULDER FROM APPROXIMATE STA 140+20 - STA 143+28 LT



FINISHED TYPICAL SECTION STH 55

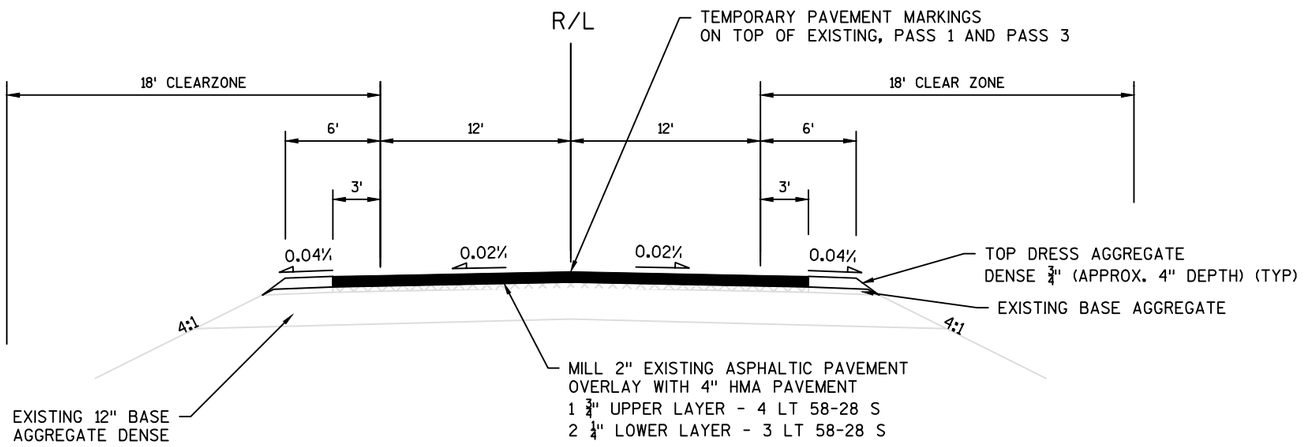
STA 134+97 TO STA 143+28

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 6	E



FINISHED TYPICAL SECTION STH 55

STA 143+28 TO STA 280+42

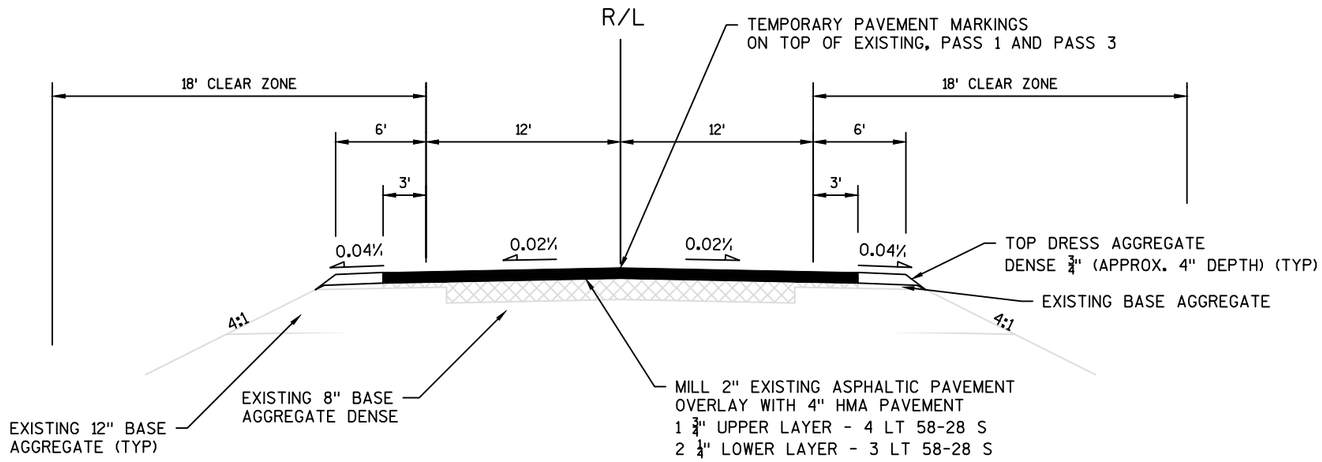


FINISHED TYPICAL SECTION STH 55

STA 280+42 TO STA 313+22

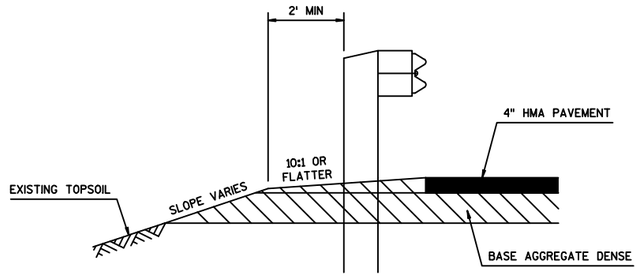
PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 7	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\020301-TS(71).DWG PLOT DATE : 5/19/2017 9:11 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

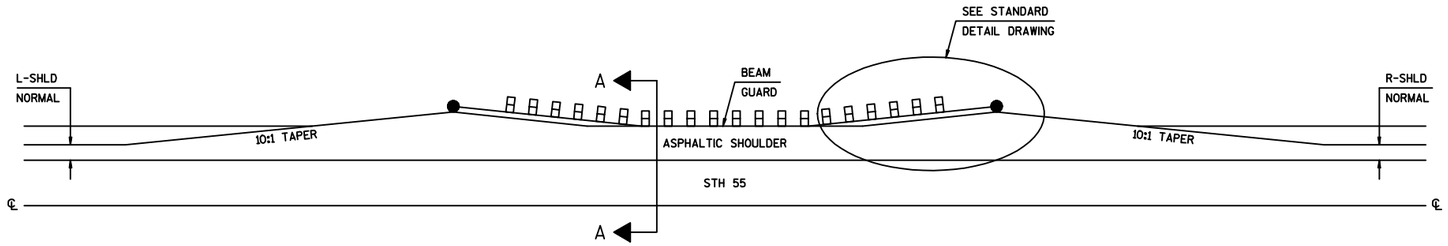


FINISHED TYPICAL SECTION STH 55

STA 313+22 TO STA 352+05



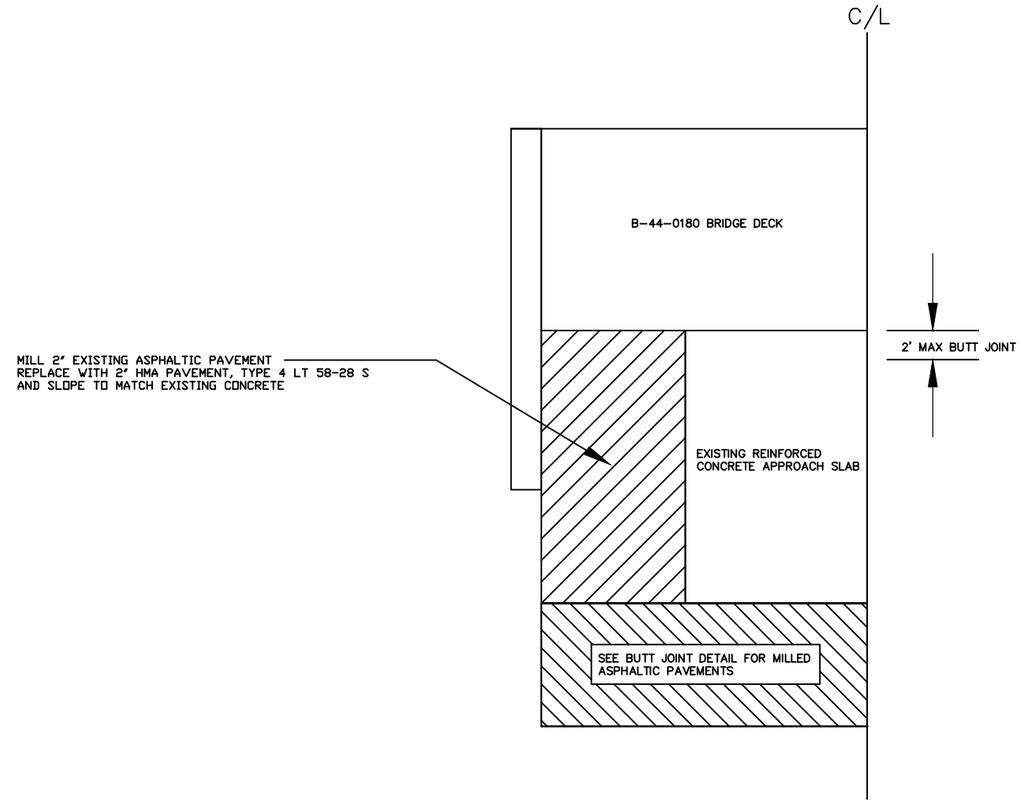
SECTION A-A



DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 9	E

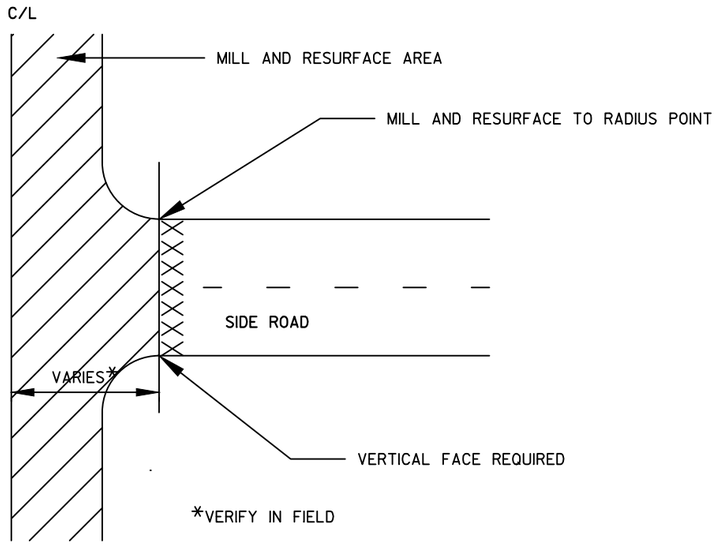
2



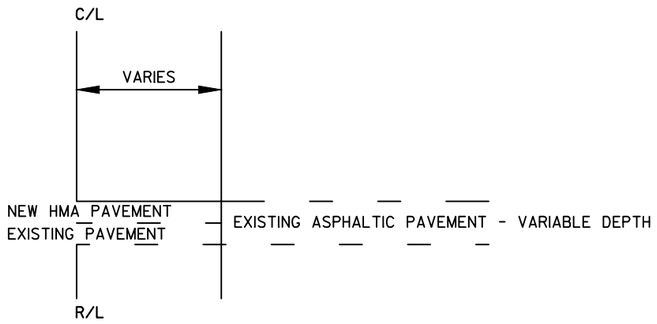
MILLING DETAIL FOR APPROACHES AT B-44-0180

DETAIL FOR NE, NW, SE, & SW QUADRANTS

SIDE ROAD DETAIL - NO CURB & GUTTER
NOT TO SCALE

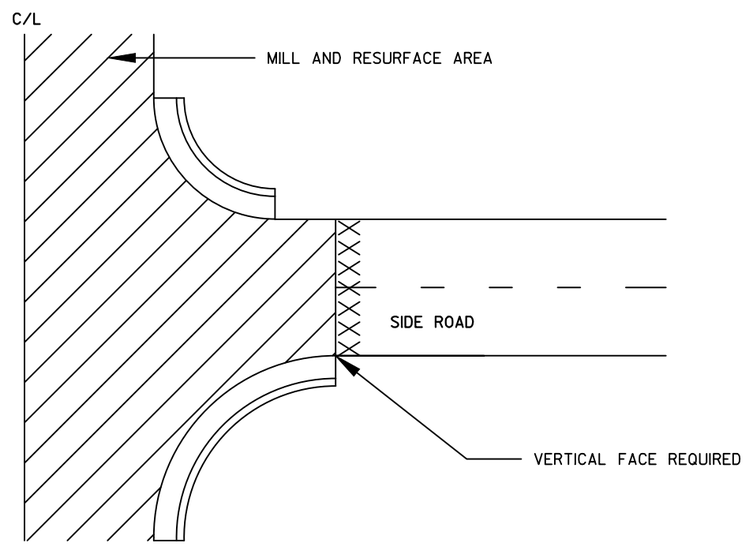


PLAN VIEW

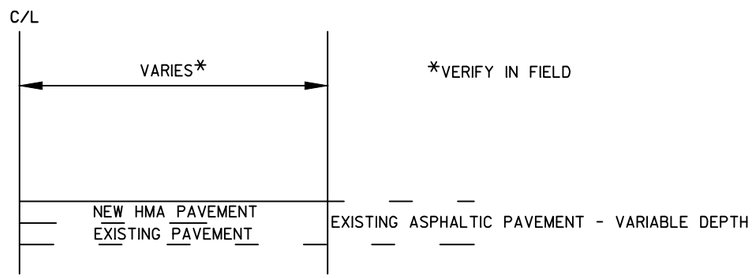


ELEVATIONS

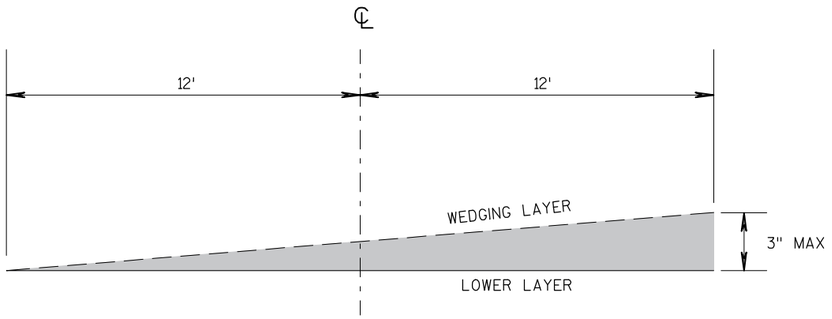
SIDE ROAD DETAIL - CURB & GUTTER
NOT TO SCALE



PLAN VIEW

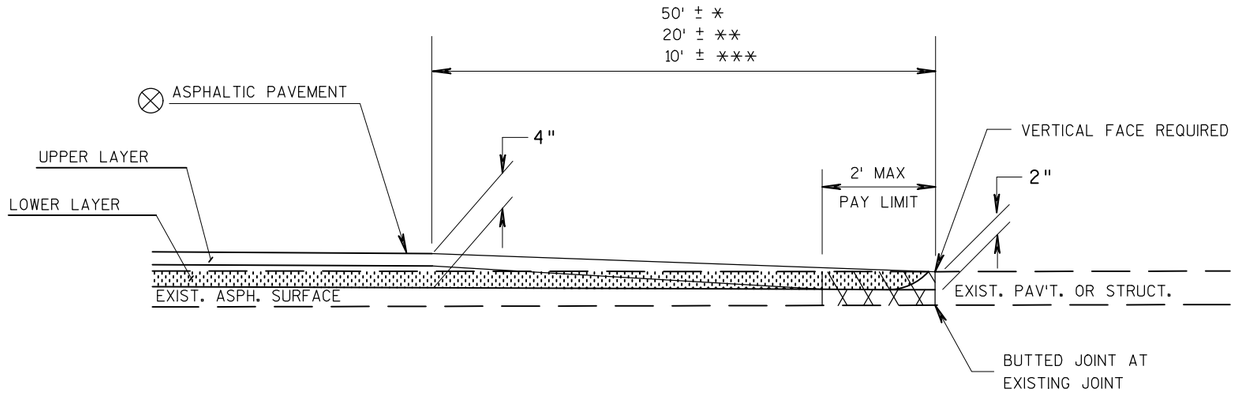


ELEVATIONS



WEDGING LAYER TO INCREASE SUPERELEVATION

CURVE PI	EXISTING SUPER	PLAN SUPER
STA 297+56	0.08%	1.0%



⊗ SEE TYPICAL CROSS SECTION FOR THICKNESS OF INDIVIDUAL LAYERS

REMOVING ASPHALTIC SURFACE, MILLING

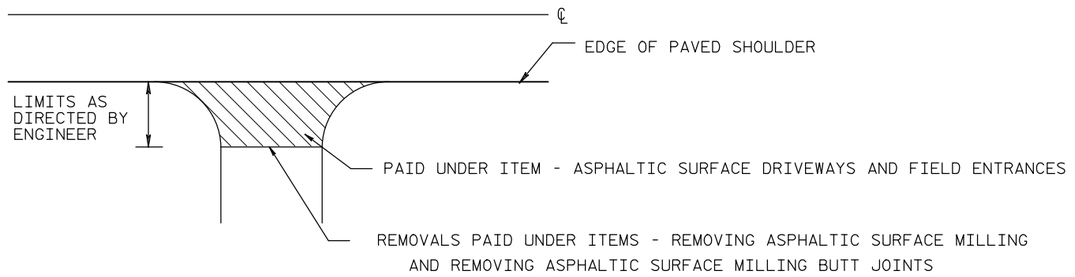
REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)

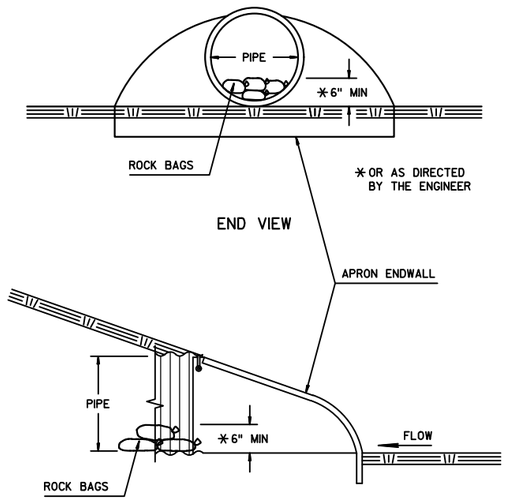
ASPHALTIC WEDGING (FULL DEPTH REMOVAL OPTION)

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS

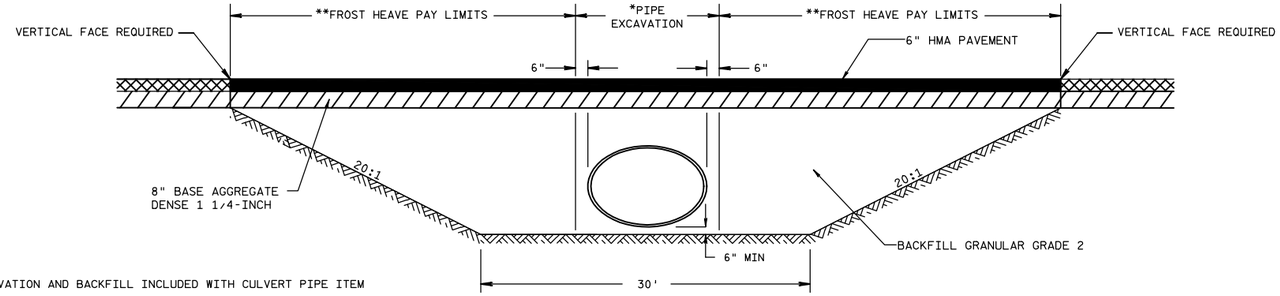
* MAINLINE
** SIDEROADS
*** PRIVATE ENTRANCES

RURAL DRIVEWAY DETAIL - ASPHALT



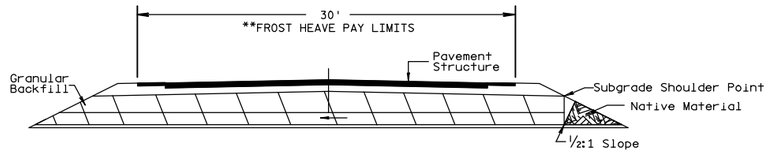


CULVERT PIPE CHECKS



*EXCAVATION AND BACKFILL INCLUDED WITH CULVERT PIPE ITEM

**PAID AS COMMON EXCAVATION AND GRANULAR BACKFILL GRADE 2



FROST HEAVE REPAIR AREA STA 225+56

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET 14	E

5

5

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET 15	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:15 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

5

5

PROJECT NO:6570-08-71	HWY:STH 55	COUNTY:OUTAGAMIE	EROSION CONTROL	SHEET 16	E

FILE NAME : N:\PDS\C3D\6570080O\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:17 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET 17	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:24 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

5

5

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET 18	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:25 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

PROJECT NO: 6570-08-71	HWY: OUTAGAMIE	COUNTY: STH 55	EROSION CONTROL	SHEET 19	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:56 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

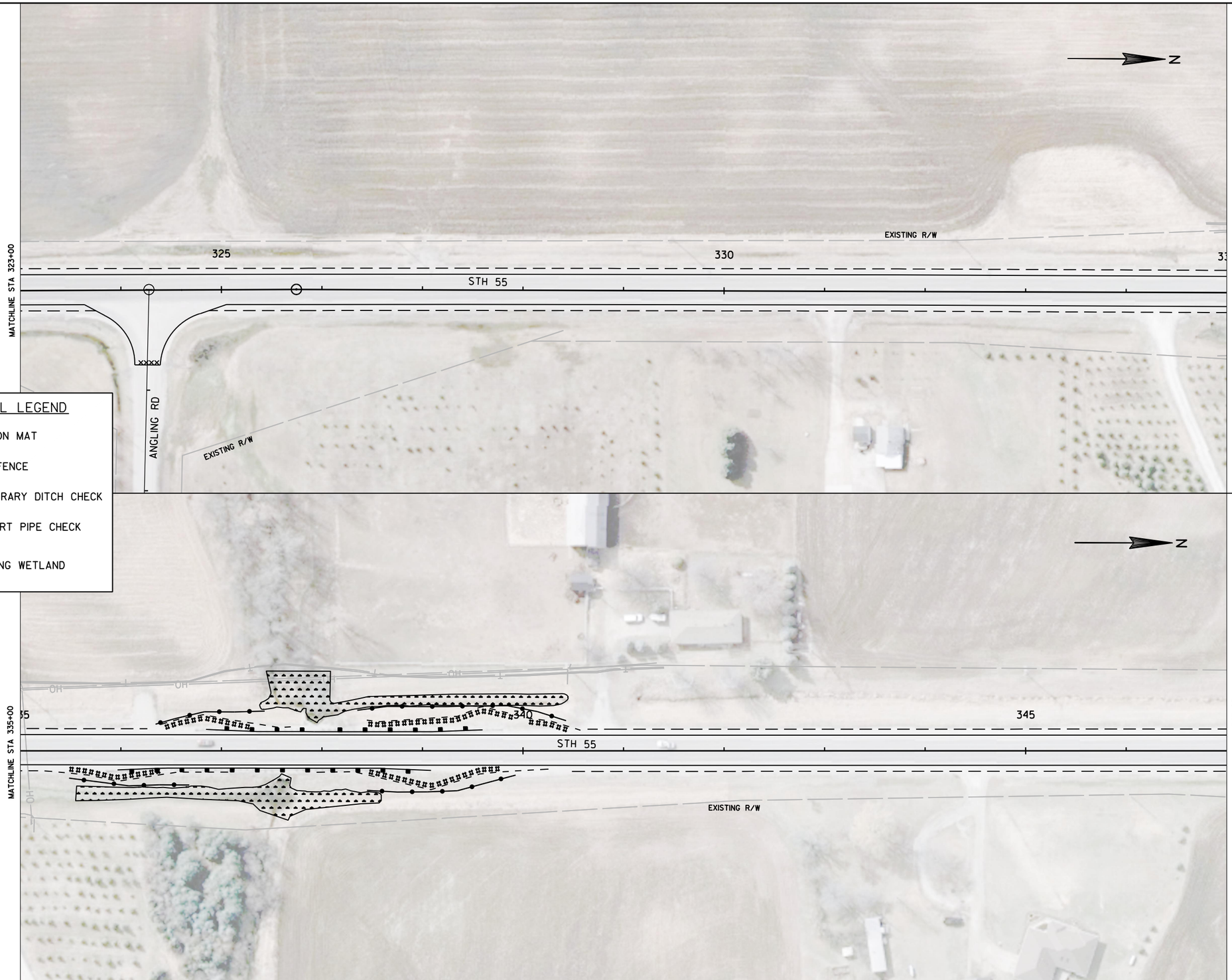
WISDOT/CADDS SHEET 42

5

5

PROJECT NO:6570-08-71	HWY:STH 55	COUNTY:OUTAGAMIE	EROSION CONTROL	SHEET 20	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:58 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT



5

5

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET 21	E

FILE NAME : N:\PDS\C3D\6570080O\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 11:59 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

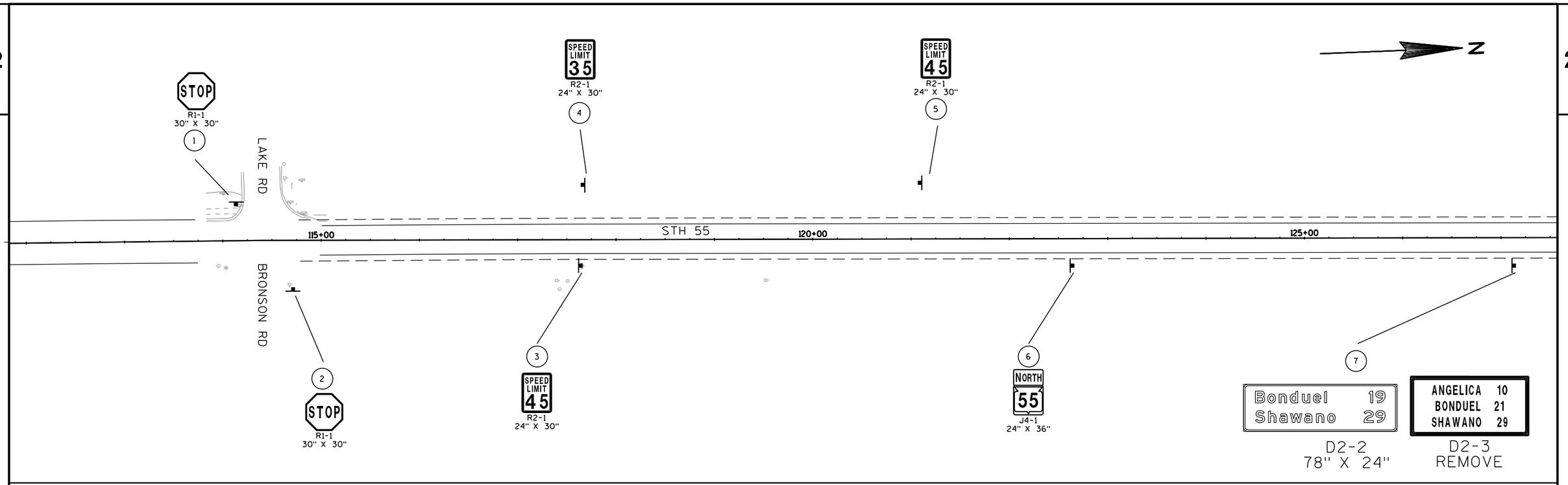
WISDOT/CADDS SHEET 42

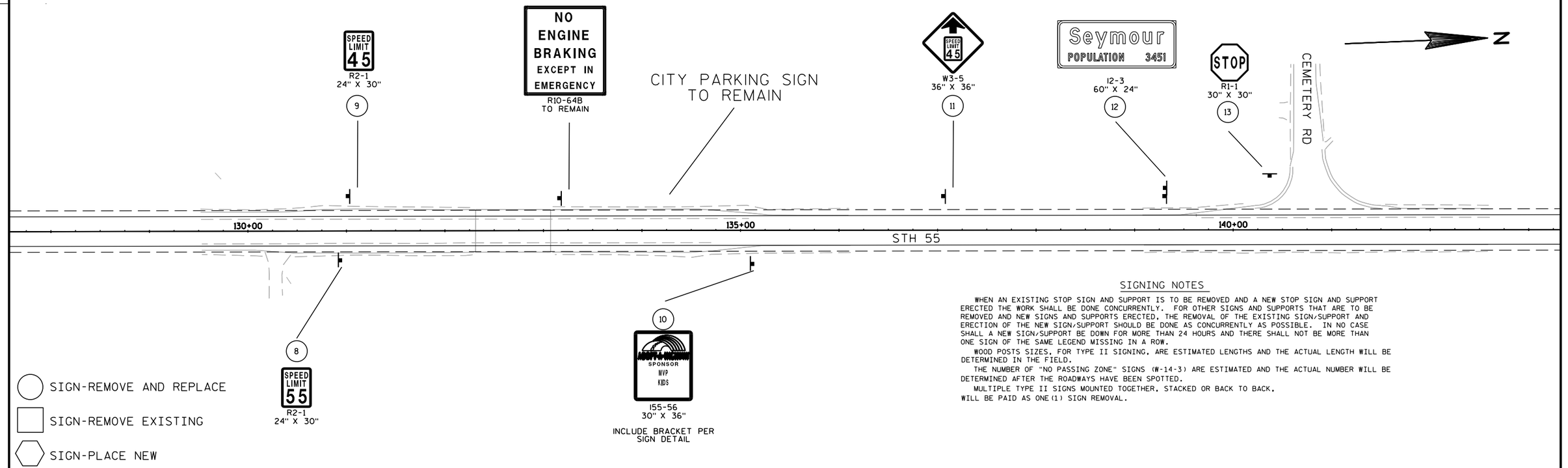
5

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	EROSION CONTROL	SHEET 22	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\022001-EC(71).DWG PLOT DATE : 3/20/2017 12:00 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

2





SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

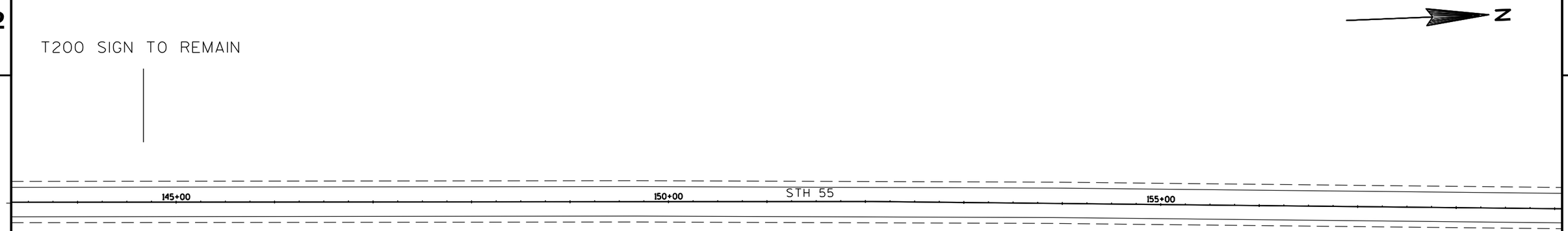
THE NUMBER OF "NO PASSING ZONE" SIGNS (W-14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED AFTER THE ROADWAYS HAVE BEEN SPOTTED.

MULTIPLE TYPE II SIGNS MOUNTED TOGETHER, STACKED OR BACK TO BACK, WILL BE PAID AS ONE(1) SIGN REMOVAL.

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMENANT SIGNING	SHEET	E

2

T200 SIGN TO REMAIN



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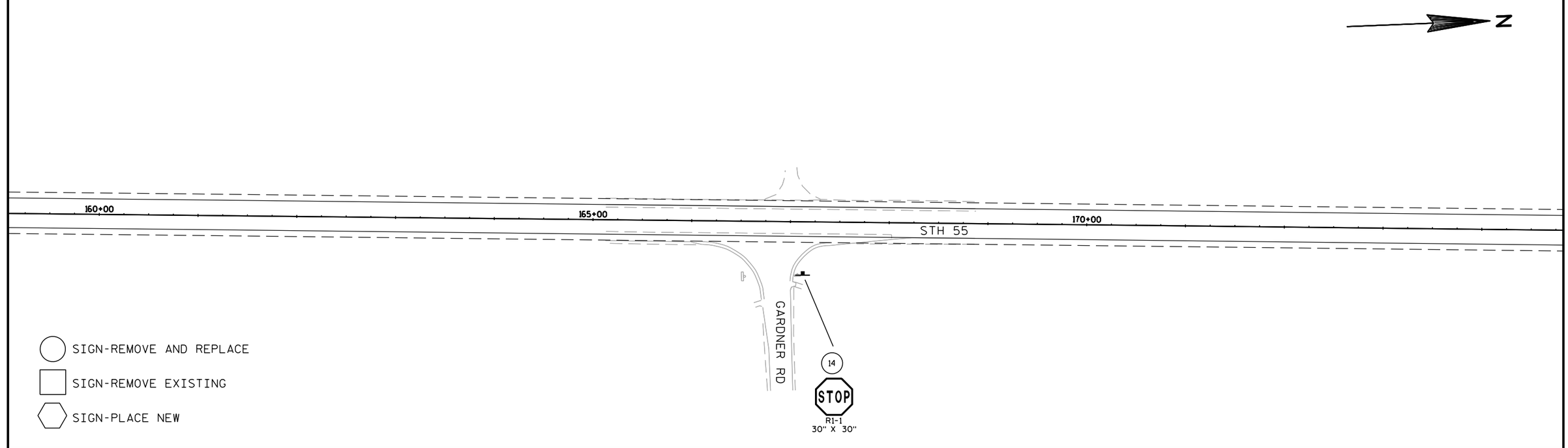


PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMENANT SIGNING	SHEET 24

E

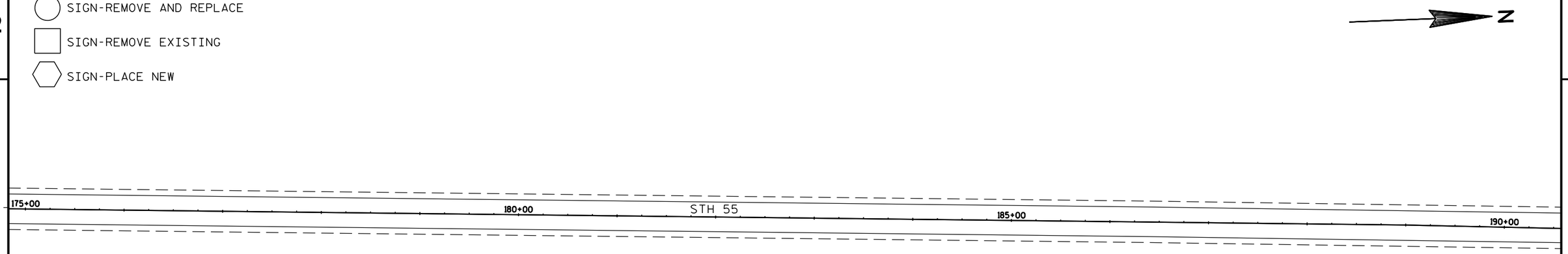
FILE NAME : N:\spo\traffic\SIGNING\Projects\6570-08-71 STH 55 SEYMOUR 54 TO NCL\65700871_SIGNPLAN.dgn PLOT DATE : 21-MAR-2017 13:53 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW



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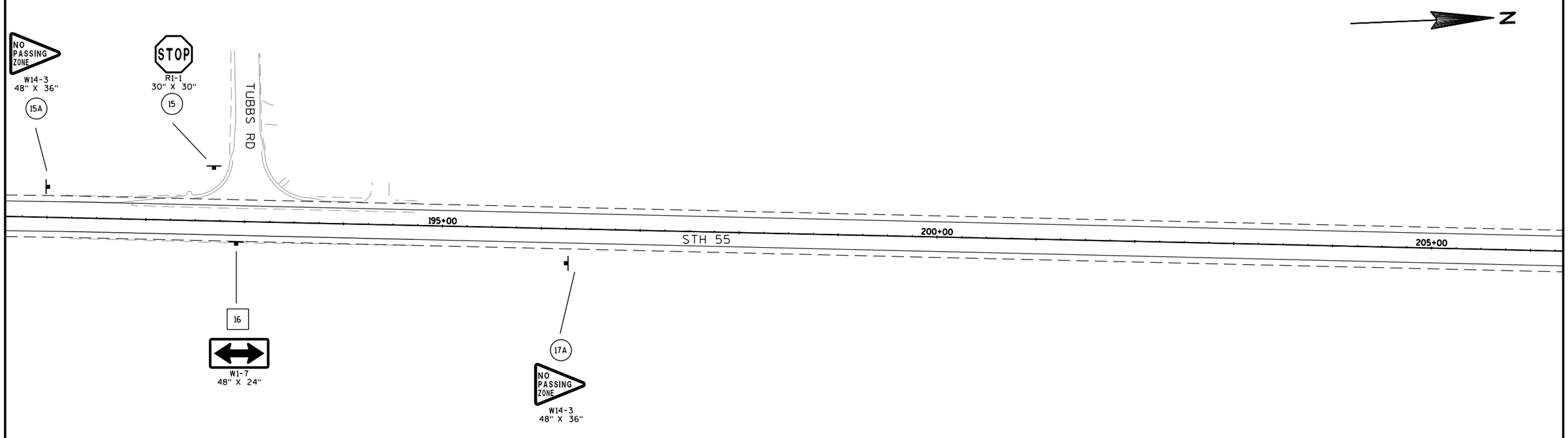

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMENANT SIGNING	SHEET	E

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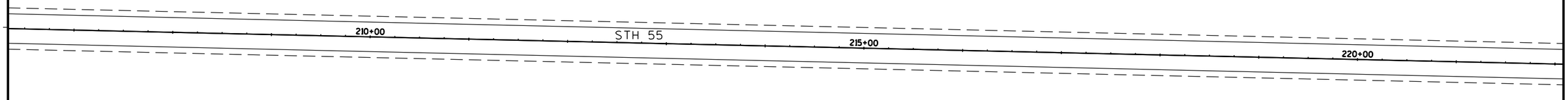

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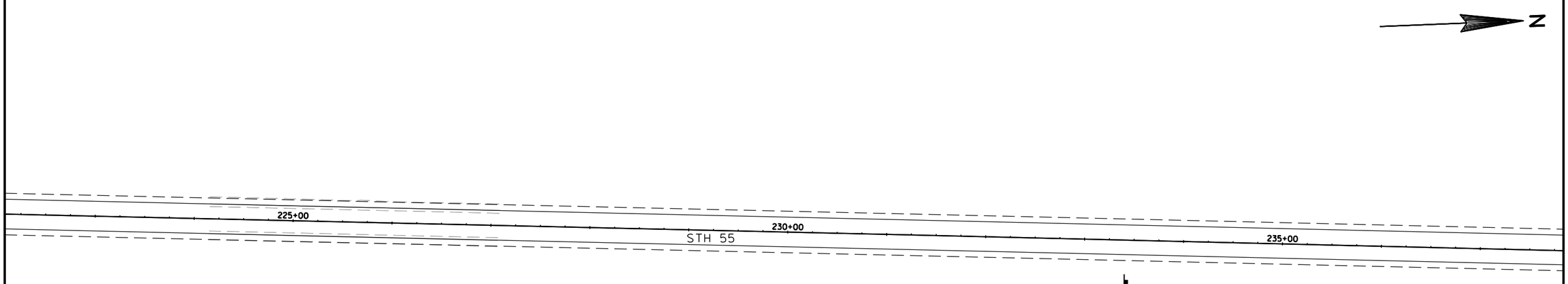
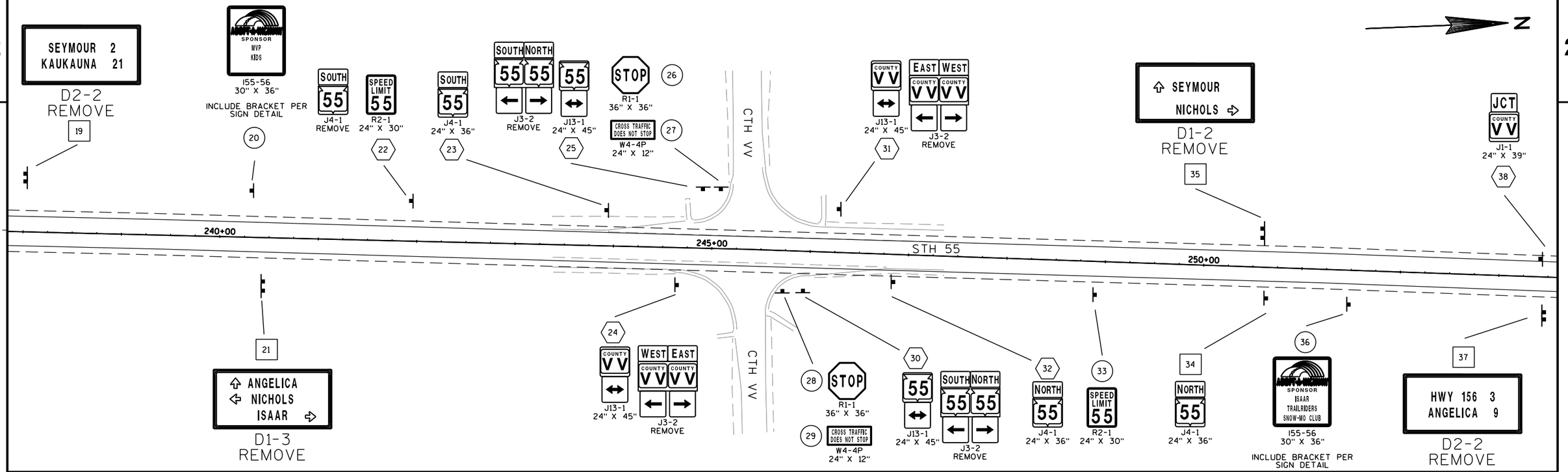
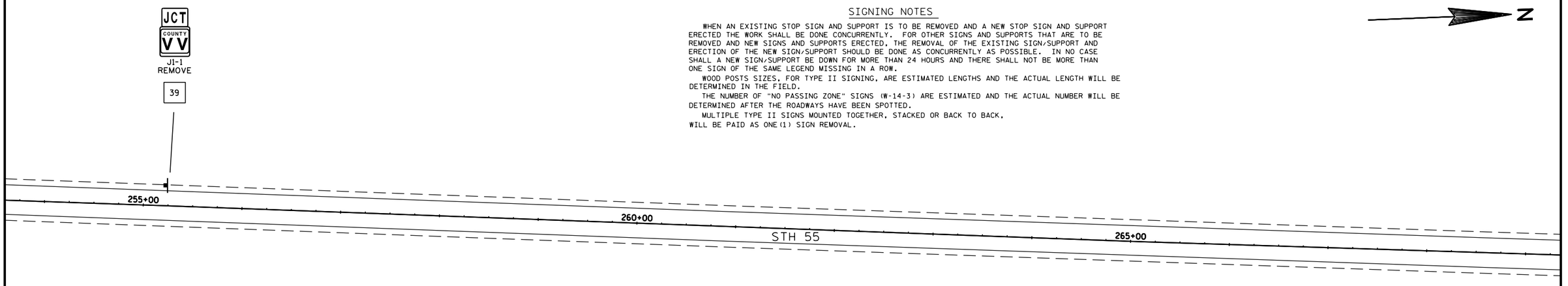


PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMENANT SIGNING	SHEET 26 E

FILE NAME : N:\spo\traffic\SIGNING\Projects\6570-08-71 STH 55 SEYMOUR 54 TO NCL\65700871_SIGNPLAN.dgn PLOT DATE : 21-MAR-2017 13:53 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1





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PROJECT NO:6570-08-71	HWY:STH 55	COUNTY:OUTAGAMIE	PERMENANT SIGNING	SHEET E

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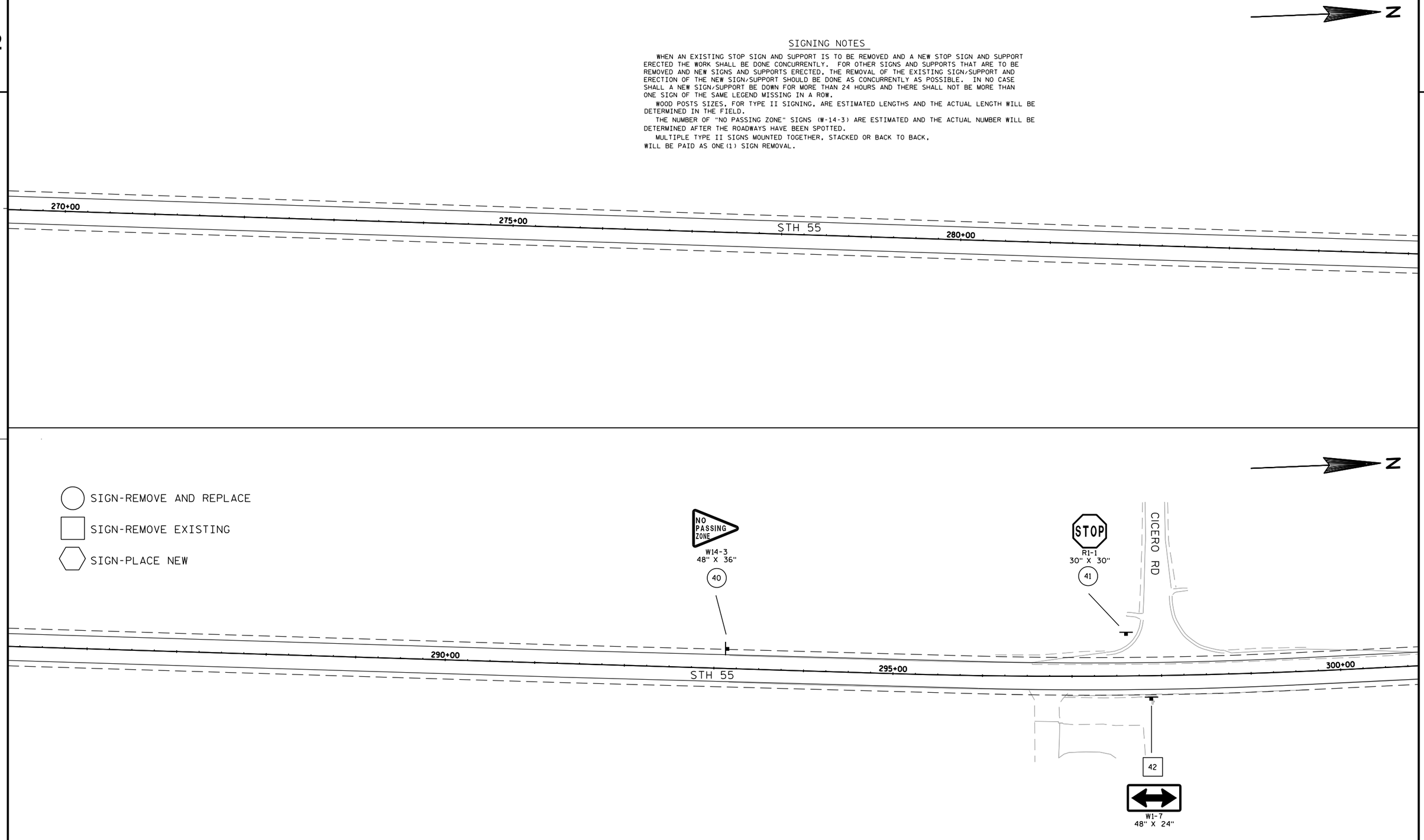

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMENANT SIGNING	SHEET	E

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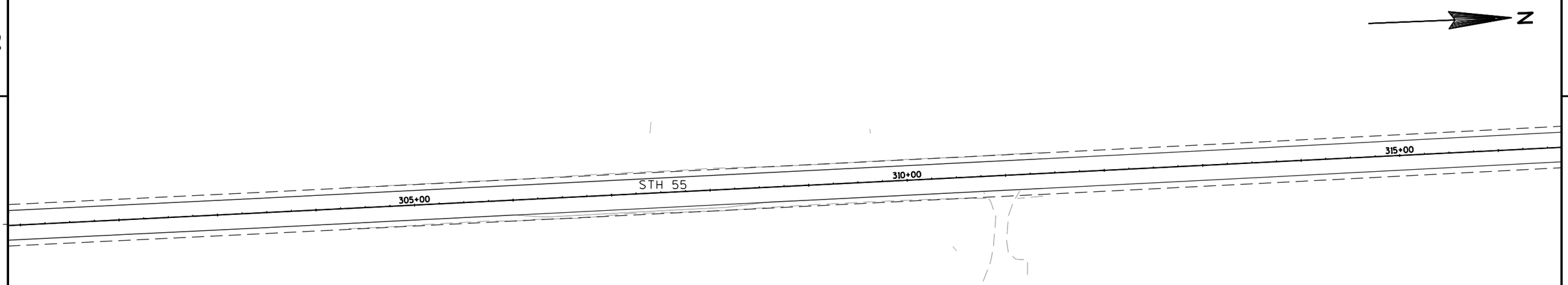
2



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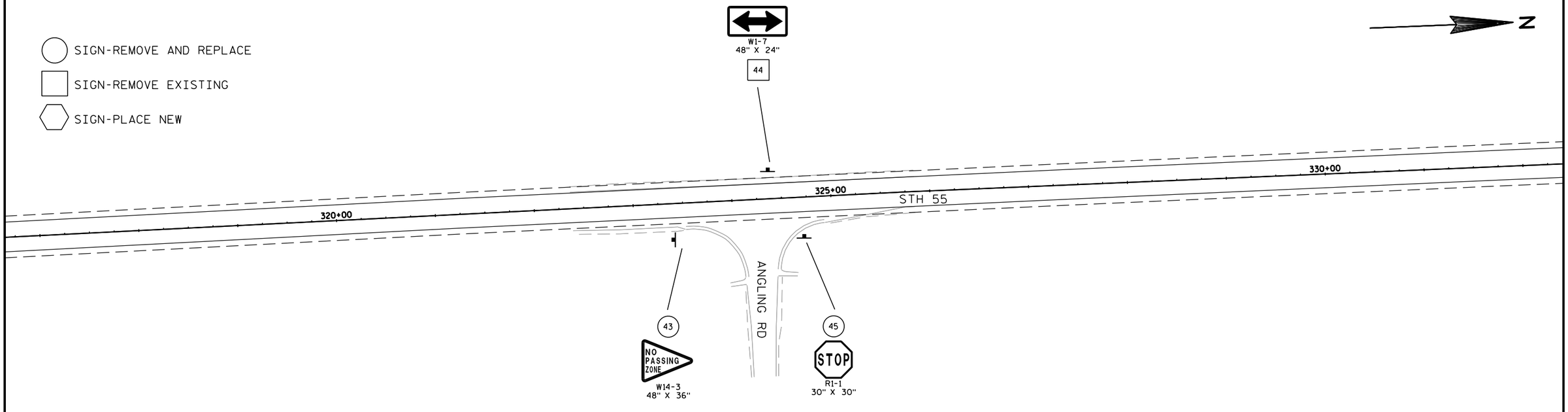

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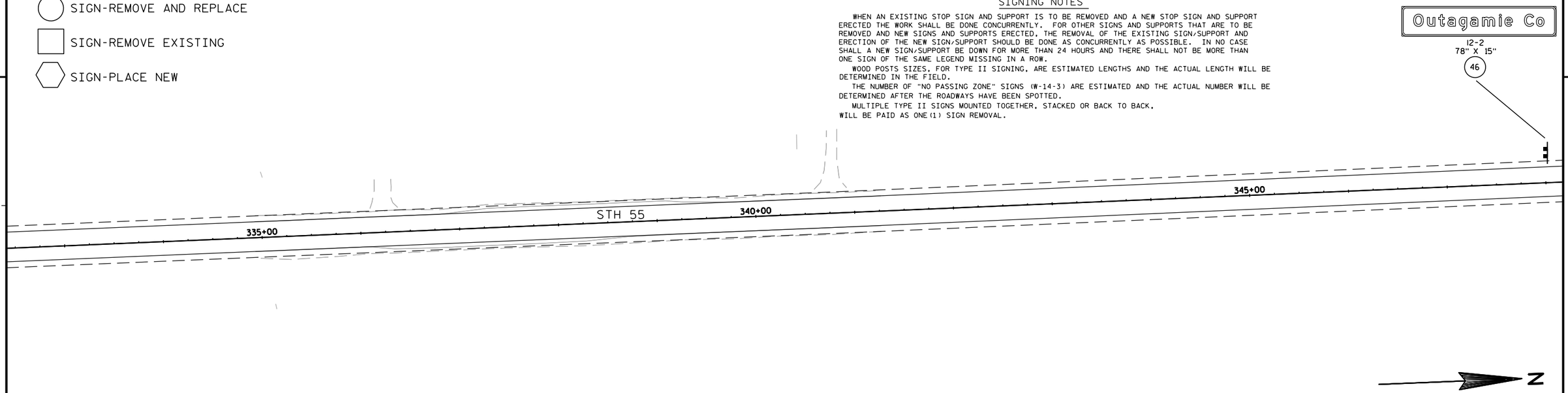

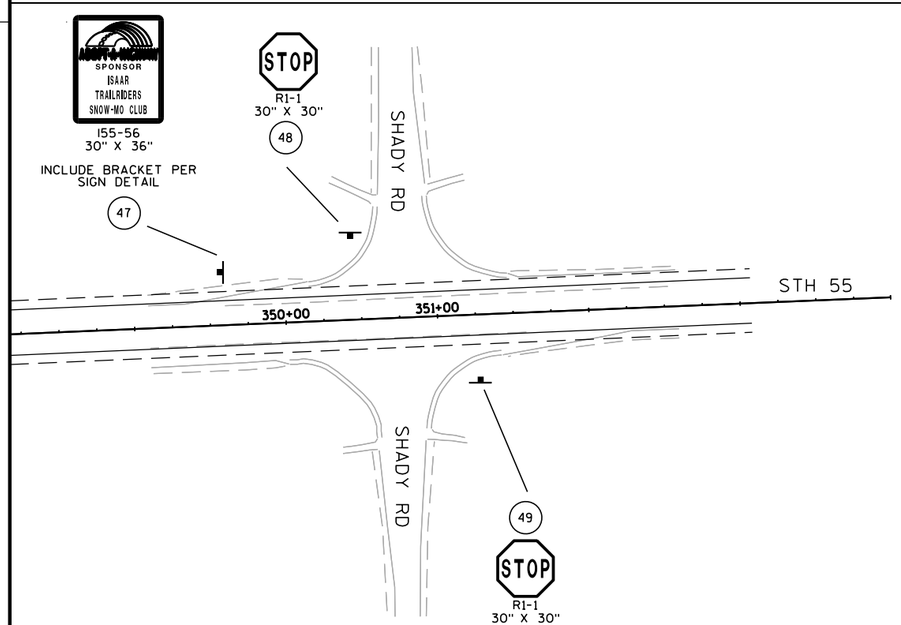

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMENANT SIGNING	SHEET	E

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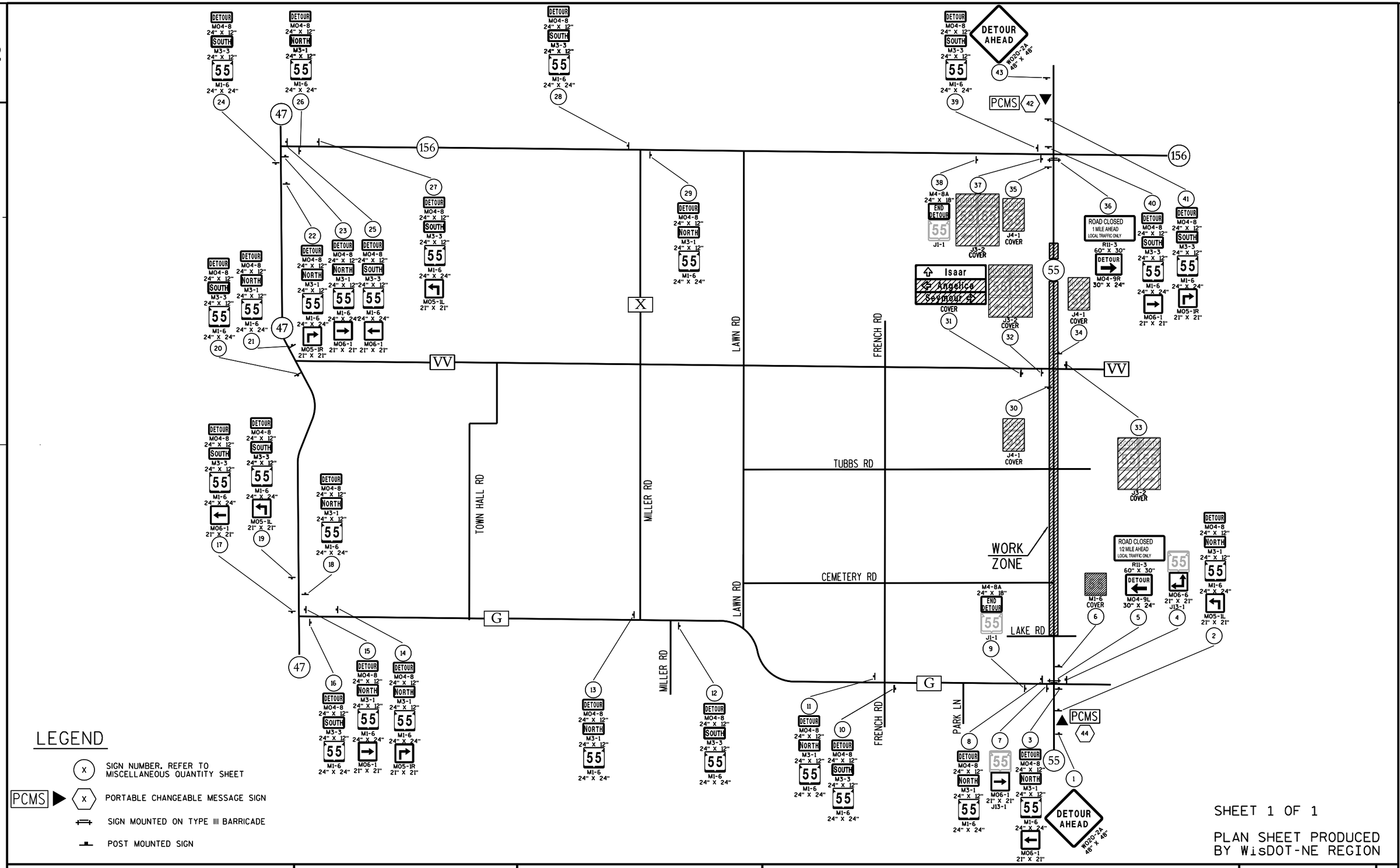

SHEET 1 OF 1

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	DETOUR SIGNING DETAIL	SHEET 31 E

FILE NAME : N:\spo\traffic\A Work Zone\Detours\Outagamie County\STH 55\North of Seymour\027001_dt.dgn PLOT DATE : 12-JUN-2017 13:41 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 500:1

WISDOT/CADDS SHEET 42

6570-08-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	6.000	6.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	196.000	196.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	88,399.000	88,399.000
0008	204.0165	Removing Guardrail	LF	1,639.000	1,639.000
0010	205.0100	Excavation Common	CY	682.000	682.000
0012	209.2500	Backfill Granular Grade 2	TON	1,086.000	1,086.000
0014	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 6570-08-71	LS	1.000	1.000
0016	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	18.000	18.000
0018	213.0100	Finishing Roadway (project) 01. 6570-08-71	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	5,186.000	5,186.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,340.000	1,340.000
0024	305.0500	Shaping Shoulders	STA	476.000	476.000
0026	440.4410	Incentive IRI Ride	DOL	17,958.000	17,958.000
0028	455.0605	Tack Coat	GAL	10,657.000	10,657.000
0030	460.2000	Incentive Density HMA Pavement	DOL	12,420.000	12,420.000
0032	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	47,220.000	47,220.000
0034	460.5223	HMA Pavement 3 LT 58-28 S	TON	12,417.000	12,417.000
0036	460.5224	HMA Pavement 4 LT 58-28 S	TON	8,519.000	8,519.000
0038	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0040	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	61.000	61.000
0042	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	19,290.000	19,290.000
0044	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	100.000	100.000
0046	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0048	523.0143	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 43x68-Inch	LF	320.000	320.000
0050	523.0543	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 43x68-Inch	EACH	10.000	10.000
0052	614.0010	Barrier System Grading Shaping Finishing	EACH	10.000	10.000
0054	614.2300	MGS Guardrail 3	LF	534.000	534.000
0056	614.2340	MGS Guardrail 3 L	LF	339.000	339.000
0058	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0060	614.2610	MGS Guardrail Terminal EAT	EACH	10.000	10.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6570-08-71	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	624.0100	Water	MGAL	50.000	50.000
0068	625.0500	Salvaged Topsoil	SY	1,946.000	1,946.000
0070	628.1504	Silt Fence	LF	1,450.000	1,450.000
0072	628.1520	Silt Fence Maintenance	LF	363.000	363.000
0074	628.1905	Mobilizations Erosion Control	EACH	9.000	9.000

6570-08-71

Line	Item	Item Description	Unit	Total	Qty
0076	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0078	628.2004	Erosion Mat Class I Type B	SY	1,631.000	1,631.000
0080	628.2006	Erosion Mat Urban Class I Type A	SY	315.000	315.000
0082	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0084	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0086	629.0210	Fertilizer Type B	CWT	1.226	1.226
0088	630.0130	Seeding Mixture No. 30	LB	35.000	35.000
0090	633.5200	Markers Culvert End	EACH	10.000	10.000
0092	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	19.000	19.000
0094	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	23.000	23.000
0096	637.2210	Signs Type II Reflective H	SF	214.670	214.670
0098	637.2230	Signs Type II Reflective F	SF	46.000	46.000
0100	638.2602	Removing Signs Type II	EACH	46.000	46.000
0102	638.3000	Removing Small Sign Supports	EACH	53.000	53.000
0104	642.5401	Field Office Type D	EACH	1.000	1.000
0106	643.0100	Traffic Control (project) 01. 6570-08-71	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	1,250.000	1,250.000
0110	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0112	643.0420	Traffic Control Barricades Type III	DAY	30.000	30.000
0114	643.0705	Traffic Control Warning Lights Type A	DAY	60.000	60.000
0116	643.0900	Traffic Control Signs	DAY	1,035.000	1,035.000
0118	643.0920	Traffic Control Covering Signs Type II	EACH	8.000	8.000
0120	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0122	643.2000	Traffic Control Detour (project) 01. 6570-08-71	EACH	1.000	1.000
0124	643.3000	Traffic Control Detour Signs	DAY	1,000.000	1,000.000
0126	646.0106	Pavement Marking Epoxy 4-Inch	LF	9,197.000	9,197.000
0128	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	9,739.000	9,739.000
0130	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	46,093.000	46,093.000
0132	646.2308.S	Pavement Marking Grooved Wet Reflective Epoxy 8-Inch	LF	740.000	740.000
0134	648.0100	Locating No-Passing Zones	MI	9.000	9.000
0136	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	11,691.000	11,691.000
0138	650.6000	Construction Staking Pipe Culverts	EACH	5.000	5.000
0140	650.8000	Construction Staking Resurfacing Reference	LF	23,655.000	23,655.000
0142	650.9910	Construction Staking Supplemental Control (project) 01. 6570-08-71	LS	1.000	1.000
0144	690.0150	Sawing Asphalt	LF	1,171.000	1,171.000
0146	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0148	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,320.000	1,320.000

				6570-08-71	
0150	SPV.0060	Special 01. Grading Shaping Finishing Driveway Culvert Extensions	EACH	1.000	1.000

3

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	PIPE SIZE/ TYPE
0010	125+53	STH 55	1	68"X43"/CMCP
	130+20	Driveway	1	18"/CMCP
	167+39	STH 55	1	68"X43"/CMCP
	200+07	STH 55	1	68"X43"/CMCP
	213+07	STH 55	1	68"X43"/CMCP
	225+56	STH 55	1	68"X43"/CMCP
		TOTAL	**6**	

REMOVING ASPHALTIC SURFACE MILLING BUTT JOINTS

CATEGORY	LOCATION FROM	204.0115 SY
0010	BEGINNING OF PROJECT	8
	B-44-0180 SOUTH END	9
	B-44-0180 NORTH END	9
	CEMETERY RD	5
	GARDNER RD	6
	TUBBS RD	6
	CTH VV	13
	CICERO RD	5
	ANGLING RD	7
	SHADY RD	14
	END OF PROJECT	11
	ASPHALTIC DRIVEWAYS	102
	TOTAL	**196**

3

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION FROM	STATION TO	LOCATION FROM	LOCATION TO	204.0120 SY	COMMENTS
0010	115+00	134+97	BEGINNING OF PROJECT	CEMETERY RD	8,432	
	134+97	163+00	CEMETERY RD	GARDNER RD	10,736	
	163+00	197+00	GARDNER RD	TUBBS RD	12,512	
	197+00	250+00	TUBBS RD	CTH VV	19,362	
	250+00	297+00	CTH VV	CICERO RD	15,667	
	297+00	321+00	CICERO RD	ANGLING RD	8,694	
	321+00	346+00	ANGLING RD	SHADY RD	9,039	
	346+00	352+05	SHADY RD	END OF PROJECT	3,438	
	115+00	352+05	BEGINNING OF PROJECT	END OF PROJECT	520	ASPHALTIC DRIVEWAYS
				TOTAL	**88,399**	

REMOVING GUARDRAIL

CATEGORY	STATION FROM	STATION TO	LOCATION	204.0165 LF	COMMENTS
0010	133+07	135+07	STH 55	200	BLACK CREEK, NW QUAD
	133+06	134+56	STH 55	150	BLACK CREEK, NE QUAD
	130+75	132+35	STH 55	160	BLACK CREEK, SW QUAD
	130+52	132+36	STH 55	184	BLACK CREEK, SE QUAD
	305+75	308+75	STH 55	325	N. OF CICERO RD, RT
	335+75	339+90	STH 55	310	N. OF ANGLING RD, RT
	335+75	339+90	STH 55	310	N. OF ANGLING RD, LT
			TOTAL	**1,639**	

EARTHWORK SUMMARY

CATEGORY 0010

From/To Station	Location	205.0100 Common Excavation (1) ****Cut (2) CY	**** Available Material (5) CY	**** Unexpanded Fill CY	**** Expanded Fill (13) CY	**** Mass Ordinate +/- (14) CY	**** Waste CY	Comment:
130+45 - 135+55	STH 55	**** 42	42	77	115	-73	0	****BEAMGUARD
305+23 - 309+65	STH 55	**** 30	30	27	41	-10	0	****BEAMGUARD
334+96 - 340+57	STH 55	**** 110	110	6	9	102	102	****BEAMGUARD
	SUBTOTAL	**** 183	182	110	165	19	102	
	PROJECT TOTALS							

**** FOR INFORMATION ONLY, COMMON EXCAVATION 205.0100 IS INCLUDED AND PAID FOR UNDER ITEMS BARRIER SYSTEM GRADING SHAPING FINISHING 614.0010 AND GRADING SHAPING FINISHING DRIVEWAY CULVERT EXTENSIONS SPV.0060.01

Notes:
(1) Common Excavation is the sum of the Cut and EBS Excavation. Item number 205.0100
(2) Salvaged/Unsuable Pavement Material is included in Cut.
(5) Available Material = Cut - Salvaged/Unusuable Pavement Material
(13) Expanded Fill Factor = 1.5
(14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

FROST HEAVE SUMMARY

CATEGORY	STATION	LOCATION	COMMON EXCAVATION 205.0100 CY	BACKFILL GRANULAR GRADE 2 209.2500 TON	COMMENTS
0010	225+56	STH 55, RT	682	1086	SEE CONSTRUCTION DETAIL FROST HEAVE REPAIR AREA STA 225+56
		SUBTOTALS	682	1086	
		PROJECT TOTAL	**682**	**1,086**	

BASE AGGREGATE SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	BASE AGGREGATE DENSE 3/4" 305.0110 TON	BASE AGGREGATE DENSE 1-1/4" 305.0120 TON	WATER 624.0100 MGAL	COMMENTS
0010	115+00	134+97	STH 55, RT	115	-	-	SHOULDER
	115+00	134+97	STH 55, LT	115	-	-	SHOULDER
	134+97	280+42	STH 55, RT	1,863	-	-	SHOULDER
	134+97	280+42	STH 55, LT	1,863	-	-	SHOULDER
	280+42	313+22	STH 55, RT	274	-	-	SHOULDER
	280+42	313+22	STH 55, LT	274	-	-	SHOULDER
	313+22	349+55	STH 55, RT	303	-	-	SHOULDER
	313+22	349+55	STH 55, LT	303	-	-	SHOULDER
	295+01	300+12	WEDGING	17	-	-	EXTRA SHOULDER GRAVEL FOR WEDGE
	-	-	DRIVEWAYS	61	-	-	
	130+55	134+07	STH 55, RT	-	-	-	SHOULDERS AT BEAMGUARD
	131+31	134+99	STH 55, LT	-	-	-	SHOULDERS AT BEAMGUARD
	305+88	308+64	STH 55, RT	-	-	-	SHOULDERS AT BEAMGUARD
	335+97	339+08	STH 55, RT	-	-	-	SHOULDERS AT BEAMGUARD
	336+85	339+59	STH 55, LT	-	-	-	SHOULDERS AT BEAMGUARD
	125+53	213+07	CULVERT REPLACEMENTS	-	946	-	CULVERT REPLACEMENTS
	225+56	-	FROST HEAVE	-	394	-	FROST HEAVE
			SUBTOTALS	5,186	1,340	0	
			UNDISTRIBUTED	0	0	50	
			PROJECT TOTAL	**5,186**	**1,340**	**50**	

PREPARE FOUNDATION FOR ASPHALTIC PAVING

CATEGORY	STATION FROM	STATION TO	LOCATION	211.0100 LS
0010	115+00	352+05	STH 55	1
			TOTAL	**1**

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

CATEGORY	STATION FROM	STATION TO	LOCATION	211.0400 STA
0010	134+97	143+78	STH 55	18
			TOTAL	**18**

SHAPING SHOULDERS

CATEGORY	STATION FROM	STATION TO	LOCATION	305.0500 STA
0010	115+00	352+05	STH 55, LT	238
	115+00	352+05	STH 55, RT	238
			TOTAL	**476**

HMA SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	TACK COAT 455.0605 GAL	HMA PAVEMENT 3 LT 58-28 S 460.5223 TON	HMA PAVEMENT 4 LT 58-28 S 460.5224 TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 465.0120 TON	COMMENTS
0010	115+00	134+97	STH 55	1,012	1,128	812	-	MAINLINE/SHOULDERS
	134+97	143+28	STH 55	421	469	338	-	MAINLINE/SHOULDERS
	143+28	352+05	STH 55	8,351	9,308	6,698	-	MAINLINE/SHOULDERS
	130+05	134+57	STH 55, RT	20	22	16	-	SHOULDERS AT BEAMGUARD
	130+81	135+49	STH 55, LT	17	18	13	-	SHOULDERS AT BEAMGUARD
	305+38	309+14	STH 55, RT	16	18	13	-	SHOULDERS AT BEAMGUARD
	335+57	339+08	STH 55, RT	12	14	10	-	SHOULDERS AT BEAMGUARD
	336+45	339+99	STH 55, LT	11	13	9	-	SHOULDERS AT BEAMGUARD
	140+00	144+40	STH 55, LT	78	87	63	-	CEMETERY RD/TURN LANES
	163+70	168+20	STH 55, RT	70	78	56	-	GARDNER RD/TURN LANES
	191+77	196+13	STH 55, LT	72	80	57	-	TUBBS RD/TURN LANES
	241+38	246+75	STH 55, RT	101	113	81	-	CTH VV/TURN LANES
	243+98	249+48	STH 55, LT	102	114	82	-	CTH VV/TURN LANES
	297+65	302+03	STH 55, LT	83	93	67	-	CICERO RD/TURN LANES
	321+30	325+86	STH 55, RT	85	94	68	-	ANGLING RD/TURN LANES
	346+65	352+05	STH 55, RT	100	111	80	-	SHADY RD/TURN LANES
	349+30	352+05	STH 55, LT	71	79	57	-	SHADY RD/TURN LANES
	-	-	STH 55	36	-	-	61	DRIVEWAYS
	-	-	STH 55	-	579	-	-	CULVERT REPLACEMENTS
			TOTAL	**10,657**	**12,417**	**8,519**	**61**	

CATEGORY	LOCATION	Asphaltic Surface Patching 465.0110 TON	COMMENTS
0010	UNDISTRIBUTED	20	TO BE USED TO MAKE MINOR PAVEMENT REPAIRS
	TOTAL	**20**	

CATEGORY	STATION FROM	STATION TO	LOCATION	REHEATING HMA PAVEMENT LONGITUDINAL JOINT 460.4110.S LF	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL 465.0475 LF
0010	115+00	132+20	STH 55	3440	-
0010	133+15	348+75	STH 55	43120	19290
0010	348+75	352+05	STH 55	660	-
			TOTAL	**47220**	**19290**

CULVERT PIPE SUMMARY

CATEGORY	STATION	LOCATION	CULVERT PIPE CORRUGATED STEEL 18-INCH* 521.0118 LF	RCCEP CLASS III 43"X68" 523.0143 LF	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH 521.1018 EACH	RCCEP ENDWALL 43"X68" 523.0543 EACH	MARKERS CULVERT END 633.5200 EACH	INLET ELEVATION	DISCHARGE ELEVATION	INLET END OF ENDWALL STATIONING / OFFSET	DISCHARGE END OF ENDWALL STATIONING / OFFSET
0010	125+53	STH 55	-	56	-	2	2	783.89	783.82	125+57.20 / 36.00' RT	125+51.78 / 35.80' LT
	130+20	Driveway	100	-	2	-	-	-	-	-	-
	157+78	STH 55	-	-	-	-	-	-	-	-	-
	167+39	STH 55	-	84	-	2	2	803.15	803.11	167+80.00 / 33.14' LT	167+24.93 / 50.33' RT
	200+07	STH 55	-	60	-	2	2	849.37	849.13	200+10.00 / 38.00' LT	200+10.00 / 38.00' RT
	213+07	STH 55	-	60	-	2	2	851.74	851.70	213+04.10 / 38.22' LT	213+05.53 / 37.76' RT
	225+56	STH 55	-	60	-	2	2	856.29	856.20	225+73.28 / 35.62' LT	225+46.07 / 37.62' RT
	253+20	STH 55	-	-	-	-	-	-	-	-	-
	258+10	STH 55	-	-	-	-	-	-	-	-	-
	279+75	STH 55	-	-	-	-	-	-	-	-	-
	298+50	STH 55	-	-	-	-	-	-	-	-	-
	324+75	STH 55	-	-	-	-	-	-	-	-	-
	334+50	STH 55	-	-	-	-	-	-	-	-	-
		TOTAL	**100**	**320**	**2**	**10**	**10**				

*MINIMUM WALL THICKNESS FOR CULVERT PIPE CORRUGATED STEEL EQUALS 0.064 INCHES

BEAM GUARD SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	BARRIER SYSTEM GRADING SHAPING FINISHING 614.0010 EACH	MGS GUARDRAIL 3 614.2300 LF	MGS GUARDRAIL 3L 614.2340 LF	MGS THRIE BEAM TRANSITION 614.2500 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH	**** MARKER POSTS EACH	COMMENTS
0010	130+81	134+99	STH 55, LT	2	162	-	78	2	2.00	B-44-0180
	130+55	134+57	STH 55, RT	2	154	-	78	2	2.00	B-44-0180
	305+88	308+64	STH 55, RT	2	58	113	-	2	2.00	BOX CULVERT
	336+85	339+59	STH 55, LT	2	63	113	-	2	2.00	BOX CULVERT
	335+97	339+08	STH 55, RT	2	100	113	-	2	2.00	BOX CULVERT
			TOTAL	**10**	**537**	**339**	**156**	**10**	**10**	

**** FOR INFORMATION PURPOSES ONLY, INCIDENTAL

LANDSCAPING SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	SALVAGED TOPSOIL 625.0500 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB
0010	125+53	-	STH 55	20	0.013	0.36
	130+10	-	STH 55, RT	20	0.013	0.36
	130+35	131+20	STH 55, RT	232	0.146	4.18
	131+20	132+05	STH 55, RT	78	0.049	1.40
	131+00	132+00	STH 55, LT	76	0.048	1.37
	133+50	134+70	STH 55, RT	112	0.070	2.01
	133+50	135+50	STH 55, LT	135	0.085	2.43
	167+39	-	STH 55	20	0.013	0.36
	200+07	-	STH 55	20	0.013	0.36
	213+07	-	STH 55	20	0.013	0.36
	225+56	-	STH 55	20	0.013	0.36
	305+50	306+75	STH 55, RT	46	0.029	0.82
	307+70	309+75	STH 55, RT	261	0.165	4.70
	335+25	336+75	STH 55, RT	67	0.042	1.20
	336+25	337+60	STH 55, LT	102	0.064	1.84
	338+25	340+25	STH 55, RT	150	0.095	2.70
	338+40	340+60	STH 55, LT	178	0.112	3.21
			SUBTOTAL	1,557	0.981	28
			UNDISTRIBUTED	389	0.245	7
			TOTAL	**1,946**	**1.23**	**35**

SILT FENCE SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF
0010	130+50	132+50	STH 55, LT	100	25
	130+50	132+50	STH 55, RT	80	20
	133+00	136+00	STH 55. LT	200	50
	133+00	135+00	STH 55, RT	120	30
	305+25	306+50	STH 55, RT	80	20
	307+75	309+75	STH 55, RT	120	30
	336+50	337+50	STH 55, LT	80	20
	335+00	336+75	STH 55, RT	100	25
	338+25	340+50	STH 55, LT	160	40
	338+25	340+00	STH 55, RT	120	30
			SUBTOTAL	1,160	290
			UNDISTRIBUTED	290	73
			TOTAL	**1,450**	**363**

EROSION MAT SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	EROSION MAT CLASS I TYPE B 628.2004 SY	EROSION MAT URBAN CLASS I TYPE A 628.2006 SY	COMMENTS
0010	125+53	-	STH 55	20	-	PIPE CROSSING
	130+10	-	STH 55, RT	-	20	DRIVEWAY CULVERT
	130+35	131+20	STH 55, RT	-	232	BEAMGUARD, SE QUAD
	131+20	132+05	STH 55, RT	78	-	BEAMGUARD, SE QUAD
	131+00	132+00	STH 55, LT	76	-	BEAMGUARD, SW QUAD
	133+50	134+70	STH 55, RT	112	-	BEAMGUARD, NE QUAD
	133+50	135+50	STH 55, LT	135	-	BEAMGUARD, NW QUAD
	167+39	-	STH 55	20	-	PIPE CROSSING
	200+07	-	STH 55	20	-	PIPE CROSSING
	213+07	-	STH 55	20	-	PIPE CROSSING
	225+56	-	STH 55	20	-	PIPE CROSSING
	305+50	306+75	STH 55, RT	46	-	BEAMGUARD, SOUTH
	307+70	309+75	STH 55, RT	261	-	BEAMGUARD, NORTH
	335+25	336+75	STH 55, RT	67	-	BEAMGUARD, SE QUAD
	336+25	337+60	STH 55, LT	102	-	BEAMGUARD, SW QUAD
	338+25	340+25	STH 55, RT	150	-	BEAMGUARD, NE QUAD
	338+40	340+60	STH 55, LT	178	-	BEAMGUARD,NW QUAD
			SUBTOTAL	1,304	252	
			UNDISTRIBUTED	327	63	
			TOTAL	**1,631**	**315**	

TEMPORARY EROSION CONTROL

CATEGORY	STATION	LOCATION	TEMPORARY DITCH CHECKS 628.7504 LF	CULVERT PIPE CHECKS 628.7555 EACH	MOBILIZATION EROSION CONTROL 628.1905 EACH	MOBILIZATION EMERGENCY EROSION CONTROL 628.1910 EACH	COMMENTS
0010	125+53	STH 55	10	-	-	-	PIPE CROSSING
	130+10	STH 55, RT	-	3	-	-	DRIVEWAY CULVERT
	131+75	STH 55, RT	10	-	-	-	BEAMGUARD
	131+75	STH 55, LT	-	-	-	-	SILT FENCE RELIEF
	132+00	STH 55, RT	-	-	-	-	SILT FENCE RELIEF
	133+50	STH 55, RT	-	-	-	-	SILT FENCE RELIEF
	134+50	STH 55, LT	-	-	-	-	SILT FENCE RELIEF
	167+39	STH 55	-	-	-	-	PIPE CROSSING
	200+07	STH 55	-	-	-	-	PIPE CROSSING
	213+07	STH 55	-	-	-	-	PIPE CROSSING
	225+56	STH 55	-	-	-	-	PIPE CROSSING
	305+00 - 310+00	STH 55, RT	20	-	-	-	BEAMGUARD
	335+00 - 340+00	STH 55	40	-	-	-	BEAMGUARD
		SUBTOTAL	80	3	0	0	
		UNDISTRIBUTED	20	1	9	2	
		TOTAL	**100**	**4**	**9**	**2**	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	LAKE RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
2	BRONSON RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
3	STH 55 N. OF LAKE RD	R2-1	24" X 30"	5.00	---	1	---	1	1	45 MPH
4	"	R2-1	24" X 30"	5.00	---	1	---	1	1	35 MPH
5	"	W3-5	36" X 36"	---	9.00	---	1	1	1	45 MPH, REMOVE R2-1
6	"	J4-1	24" X 36"	6.00	---	---	1	1	1	SEE PLAN SHEET
7	"	D2-2	78" X 24"	13.00	---	---	2	1	2	SEE SIGN DETAILS, REMOVE D2-3
8	"	R2-1	24" X 30"	5.00	---	1	---	1	1	55 MPH
9	"	R2-1	24" X 30"	5.00	---	1	---	1	1	45 MPH
10	"	I55-56	30" X 36"	7.50	---	---	1	1	1	MVP KIDS, SEE PLAN SHEET
11	"	W3-5	36" X 36"	---	9.00	---	1	1	1	45 MPH
12	"	I2-3	66" X 24"	11.00	---	2	---	1	2	SEYMOUR POP, SEE SIGN DETAIL
13	CEMETERY RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
14	GARDNER RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
15A	STH 55, S. OF TUBBS RD	W14-3	48" X 36"	---	6.00	---	1	1	1	
15	TUBBS RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
16	"	W1-7	---	---	---	---	---	1	1	
17	STH 55 N. OF TUBBS RD	J1-1	---	---	---	---	---	1	1	
17A	"	W14-3	48" X 36"	---	6.00	---	1	1	1	
18	"	J1-1	24" X 39"	6.50	---	---	1	1	1	SEE PLAN SHEET, REMOVE J2-3
19	"	D2-2	---	---	---	---	---	1	2	
20	"	I55-56	30" X 36"	7.50	---	---	1	1	1	MVP KIDS, SEE PLAN SHEET
21	"	D1-3	---	---	---	---	---	1	2	
22	"	R2-1	24" X 30"	5.00	---	1	---	1	1	55 MPH, REMOVE J4-1
23	"	J4-1	24" X 36"	6.00	---	---	1	---	---	SEE PLAN SHEET
24	"	J13-1	24" X 45"	7.50	---	---	1	1	1	SEE PLAN SHEET, REMOVE J3-2
25	CTH VV	J13-1	24" X 45"	7.50	---	---	1	1	1	SEE PLAN SHEET, REMOVE J3-2
26	"	R1-1	36" X 36"	7.46	---	---	1	1	1	
27	"	W4-4P	24" X 12"	---	2.00	---	---	---	---	MOUNT BELOW SIGN 26
28	"	R1-1	36" X 36"	7.46	---	---	1	1	1	
29	"	W4-4P	24" X 12"	---	2.00	---	---	---	---	MOUNT BELOW SIGN 28
30	"	J13-1	24" X 45"	7.50	---	---	1	1	1	SEE PLAN SHEET, REMOVE J3-2
	PAGE SUBTOTALS			145.82	34.00	12	16	29	33	

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
31	STH 55 N. OF CTH VV	J13-1	24" X 45"	7.50	---	---	1	1	1	SEE PLAN SHEET, REMOVE J3-2
32	"	J4-1	24" X 36"	6.00	---	---	1	---	---	SEE PLAN SHEET
33	"	R2-1	24" X 30"	5.00	---	1	---	1	1	55 MPH
34	"	J4-1	---	---	---	---	---	1	1	
35	"	D1-2	---	---	---	---	---	1	2	
36	"	I55-56	30" X 36"	7.50	---	---	1	1	1	ISAAR TRAILRIDERS SNOW-MO CLUB, SEE PLAN SHEET
37	"	D2-2	---	---	---	---	---	1	2	
38	"	J1-1	24" X 39"	6.50	---	---	1	---	---	SEE PLAN SHEET
39	"	J1-1	---	---	---	---	---	1	1	
40	"	W14-3	48" X 36"	---	6.00	---	1	1	1	
41	CICERO RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
42	"	W1-7	---	---	---	---	---	1	1	
43	STH 55 N. OF CICERO RD	W14-3	48" X 36"	---	6.00	---	1	1	1	
44	ANGLING RD	W1-7	---	---	---	---	---	1	1	
45	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
46	STH 55 N. OF ANGLING RD	I2-2	78" X 15"	8.13	---	2	---	1	2	OUTAGAMIE CO, SEE SIGN DETAILS
47	"	I55-56	30" X 36"	7.50	---	---	1	1	1	ISAAR TRAILRIDERS SNOW-MO CLUB, SEE PLAN SHEET
48	SHADY RD	R1-1	30" X 30"	5.18	---	1	---	1	1	
49	"	R1-1	30" X 30"	5.18	---	1	---	1	1	
	PAGE SUBTOTALS			68.85	12.00	7	7	17	20	
	PROJECT TOTALS			**214.67**	**46.00**	**19**	**23**	**46**	**53**	

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CATEGORY 0010

LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 TRAFFIC CONTROL DRUMS NO. IN SERVICE	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LS	643.0900 TRAFFIC CONTROL SIGNS NO. IN SERVICE	643.0900 TRAFFIC CONTROL SIGNS DAYS	REMARKS
MAINLINE/SIDE ROADS	45	-	-	-	17	765	See SDD 15C4
BEAM GUARD REMOVAL/INSTALLATION	20	50	1,000	-	5	100	See SDD 15D28-3
ASPHALTIC PAVING & MILLING OPERATIONS	15	-	-	1	8	120	See SDD 15C12-05
UNDISTRIBUTED	10	25	250	-	5	50	
TOTALS			1,250	1		1,035	

CATEGORY 0010

LOCATION	TRAFFIC CONTROL 6570-08-71 643.0100 EACH
PROJECT	1
TOTAL	1

CATEGORY 0010

LOCATION	TRAFFIC CONTROL DETOUR 6570-08-71 643.2000 EACH
PROJECT	1
TOTAL	1

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 10 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	STH 55, PLACE JUST NORTH OF DEPOT ST INTERSECTION	WO 20-2A	48"X48"	1	10	10						
2	STH 55, PLACE JUST SOUTH OF ROBBINS ST INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 5-1L	21"X21"	1	10	10						
3	STH 55, PLACE 50' SOUTH OF CTH G INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 6-1	21"X21"	1	10	10						LEFT
4	CTH G, AT STH 55 INTERSECTION, MODIFY EXISTING J13-1 SIGN AS SHOWN	MO 6-6	21"X21"	1	10	10						
5	STH 55, PLACE IN SHOULDER/PARKING LANE AT CTH G INTERSECTION ON NORTH LEG	R 11-3	60"X30"	1	10	10	15	30				1/2 MILE AHEAD
	"	MO 4-9L	30"X24"	1	10	10						
6	STH 55, N. OF CTH G INTERSECTION, COVER EXISTING M1-6 SIGN									1	1	COVER ENTIRE SIGN
7	CTH G, AT STH 55 INTERSECTION, MODIFY EXISTING J13-1 SIGN AS SHOWN	MO 6-6	21"X21"	1	10	10						
8	CTH G, PLACE 100' W. OF STH 55 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
9	CTH G, PLACE ON EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	10	10						
10	CTH G, PLACE 100' E. OF FRENCH RD INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
11	CTH G, PLACE 100' W. OF FRENCH RD INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
12	CTH G, PLACE 100' E. OF MILLER RD INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
13	CTH G, PLACE 100' W. OF MILLER RD INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
14	CTH G, PLACE 500' E. OF STH 47 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 5-1R	21"X21"	1	10	10						
15	CTH G, PLACE RIGHT OF EXISTING J13-1 AT STH 47 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 6-1	21"X21"	1	10	10						RIGHT
16	CTH G, PLACE 100' W. OF STH 47 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	PAGE SUBTOTALS			40		400	15	30	0		1	

3

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

3

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 10 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
17	STH 47, AT CTH G INTERSECTION, PLACE RIGHT OF EXISTING J13-1 SIGN	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 6-1	21"X21"	1	10	10						LEFT
18	STH 47, PLACE 100' N. OF CTH G INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
19	STH 47, PLACE 750' N. OF CTH G INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 5-1L	21"X21"	1	10	10						
20	STH 47, PLACE 100' S. OF CTH VV INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
21	STH 47, PLACE 100' N. OF CTH VV INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
22	STH 47, PLACE 750' S. OF STH 156 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 5-1R	21"X21"	1	10	10						
23	STH 47, PLACE RIGHT OF EXISTING J3-2 SIGN AT STH 156 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 6-1	21"X21"	1	10	10						LEFT
24	STH 47, PLACE 100' S. OF STH 156 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
25	STH 156, PLACE RIGHT OF EXISTING J3-3 SIGN AT STH 47 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 6-1	21"X21"	1	10	10						LEFT
26	STH 156, PLACE 100' E. OF STH 47 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
27	STH 156, PLACE 750' E. OF STH 47 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
		MO 5-1L	21"X21"	1	10	10						
28	STH 156, PLACE 100' W. OF CTH X INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	PAGE SUBTOTALS			42		420	0	0	0		0	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

3

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 10 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
29	STH 156, PLACE 100' E. OF CTH X INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-1	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
30	STH 55, S. OF CTH VV, COVER EXISTING J4-1 AS SHOWN									1	1	COVER "SOUTH 55"
31	CTH VV, W. OF STH 55, COVER EXISTING D1-3 AS SHOWN									1	1	COVER "ANGELICA-SEYMOUR"
32	CTH VV, W. OF STH 55, COVER EXISTING J3-2 AS SHOWN									1	1	COVER "N 55 LT-S 55 RT"
33	CTH VV, E. OF STH 55, COVER EXISTING J3-2 AS SHOWN									1	1	COVER "S 55 LT-N 55 RT"
34	STH 55, N. OF CTH VV, COVER EXISTING J4-1 AS SHOWN									1	1	COVER "NORTH 55"
35	STH 55, S. OF STH 156, COVER EXISTING J4-1 AS SHOWN									1	1	COVER "SOUTH 55"
36	STH 55, PLACE S. OF STH 156 INTERSECTION ACROSS ROADWAY	R 11-3	60"X30"	1	10	10	15	30				1 MILE AHEAD
	"	MO 4-9R	30"X24"	1	10	10						
37	STH 156, W. OF STH 55, COVER EXISTING J3-2 AS SHOWN									1	1	
38	STH 156, W. OF STH 55, MODIFY EXISTING J1-1 AS SHOWN	M 4-9A	24"X18"	1	10	10						
39	STH 156, PLACE 100' W. OF STH 55 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
40	STH 55, PLACE AT STH 156 INTERSECTION TO THE RIGHT OF EXISTING J3-2	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 6-1	21"X21"	1	10	10						RIGHT
41	STH 55, 500' N. OF STH 156 INTERSECTION	MO 4-8	24"X12"	1	10	10						
	"	M 3-3	24"X12"	1	10	10						
	"	M 1-6	24"X24"	1	10	10						55
	"	MO 5-1R	21"X21"	1	10	10						
42	STH 55, PLACE N. OF STH 156 INTERSECTION, FIELD DETERMINE	PCMS							7			
43	STH 55, 1000' N . OF STH 156 INTERSECTION	WO 20-2A	48"X48"	1	10	10						
44	STH 55, PLACE BETWEEN DEPOT AND ROBBINS ON PARKING LANE, FIELD DETERMINE	PCMS							7			
	PAGE SUBTOTALS			18		180	15	30	14		7	
	PROJECT TOTALS			**100**		**1,000**	**30**	**60**	**14**		**8**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

PAVEMENT MARKING SUMMARY

CATEGORY	STATION FROM	STATION TO	LOCATION	TEMPORARY PAVEMENT MARKING PAINT 4-INCH* 649.0402 YELLOW SOLID LF	TEMPORARY PAVEMENT MARKING PAINT 4-INCH* 649.0402 YELLOW DASHED LF	PAVEMENT MARKING EPOXY 4-INCH*** 646.0106 YELLOW SOLID LF	PAVEMENT MARKING EPOXY 4-INCH*** 646.0106 YELLOW DASHED LF	PAVEMENT MARKING SAME DAY EPOXY 4-INCH** 646.0406 YELLOW SOLID LF	PAVEMENT MARKING SAME DAY EPOXY 4-INCH** 646.0406 YELLOW DASHED LF	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH 646.2304.S WHITE SOLID LF	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 8-INCH 646.2308.S WHITE SOLID LF	COMMENTS
0010	115+00	133+15	STH 55	-	290	-	-	-	454	-	-	STH 55 CENTERLINE
	133+15	292+00	STH 55	-	2,542	-	3,971	-	3,971	-	-	
	292+00	303+25	STH 55	2,250	184	1,125	288	1,125	288	-	-	STH 55 CENTERLINE
	303+25	313+00	STH 55	3,700	-	1,850	-	1,850	-	-	-	STH 55 CENTERLINE
	313+00	323+50	STH 55	2,100	168	1,050	275	1,050	275	-	-	STH 55 CENTERLINE
	323+50	348+75	STH 55	-	404	-	638	-	638	-	-	STH 55 CENTERLINE
	348+75	352+05	STH 55	-	53	-	-	-	88	-	-	STH 55 CENTERLINE
	115+00	141+00	STH 55, RT/LT	-	-	-	-	-	-	5,100	-	STH 55 EDGELINES
	141+00	167+00	STH 55, RT/LT	-	-	-	-	-	-	5,003	-	STH 55 EDGELINES
	167+00	193+00	STH 55, RT/LT	-	-	-	-	-	-	5,100	-	STH 55 EDGELINES
	193+00	245+00	STH 55, RT/LT	-	-	-	-	-	-	10,303	-	STH 55 EDGELINES
	245+00	298+00	STH 55, RT/LT	-	-	-	-	-	-	10,352	-	STH 55 EDGELINES
	298+00	324+00	STH 55, RT/LT	-	-	-	-	-	-	5,081	-	STH 55 EDGELINES
	324+00	351+55	STH 55, RT/LT	-	-	-	-	-	-	5,154	-	STH 55 EDGELINES
	244+60	242+76	STH 55, RT	-	-	-	-	-	-	-	184	RIGHT TURN LANE
	247+94	246+22	STH 55, LT	-	-	-	-	-	-	-	172	RIGHT TURN LANE
	294+76	293+66	STH 55, LT	-	-	-	-	-	-	-	110	RIGHT TURN LANE
	323+50	322+72	STH 55, RT	-	-	-	-	-	-	-	78	RIGHT TURN LANE
	350+03	348+07	STH 55, RT	-	-	-	-	-	-	-	196	RIGHT TURN LANE
			SUBTOTAL	8,050	3,641	4,025	5,172	4,025	5,714	46,093	740	
			TOTAL	**11,691**		**9,197**		**9,739**		**46,093**	**740**	

*NOTE: TEMPORARY PAVEMENT MARKING PAINT APPLIED TO MILLED SURFACE AND APPLIED TO LIFT 1

**NOTE: PAVEMENT MARKING SAME DAY EPOXY 4-INCH FOR APPLICATION BEFORE CENTER LINE RUMBLE STRIPS PLACED

***NOTE: PAVEMENT MARKING EPOXY 4-INCH FOR APPLICATION AFTER CENTER LINE RUMBLE STRIPS PLACED, STA 133+15 TO STA 348+75

CATEGORY	LOCATION	LOCATING NO-PASSING ZONES 648.0100 MI
0010	STH 55 NB	4.5
	STH 55 SB	4.5
	TOTAL	**9**

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION	LOCATION	CONSTRUCTION STAKING PIPE CULVERTS 650.6000 EACH	CONSTRUCTION STAKING RESURFACING REFERENCE 650.8000 LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 650.9910 LS	*CONSTRUCTION STAKING SLOPE STAKES 650.9920 LF
0010	125+53	STH 55	1	-	-	-
	167+39	STH 55	1	-	-	-
	200+07	STH 55	1	-	-	-
	213+07	STH 55	1	-	-	-
	225+56	STH 55	1	-	-	-
	115+00 - 351+55	STH 55	-	23,655	1	-
	130+55 - 135+50	STH 55	-	-	-	495
	305+25 - 309+57	STH 55	-	-	-	432
	335+00 - 340+50	STH 55	-	-	-	550
		TOTAL	**5**	**23,655**	**1**	**1,477**

*FOR INFORMATION ONLY, CONSTRUCTION STAKING INCLUDED WITH ITEM 614.0010

CATEGORY	APPROXIMENT STATION	LOCATION	SAWING ASPHALT 690.0150 LF
0010	115+00	BEGIN PROJECT	30
	140+90, LT	CEMETERY RD	30
	166+75, RT	GARDNER RD	28
	193+00, LT	TUBBS RD	30
	245+25, RT	CTH VV	30
	245+25, LT	CTH VV	30
	298+00, LT	CICERO RD	30
	324+25, RT	ANGLING RD	33
	350+75, RT	SHADY RD	32
	350+75, LT	SHADY RD	32
	352+05	END OF PROJECT	49
	115+00 - 352+05	DRIVEWAYS	460
	125+53	PIPE CULVERT	76
	167+39	PIPE CULVERT	96
	200+07	PIPE CULVERT	60
	213+07	PIPE CULVERT	60
	225+56	PIPE CULVERT	65
		TOTAL	**1,171**

CATEGORY	APPROXIMENT STATION	LOCATION	GRADING SHAPING FINISHING DRIVEWAY CULVERT EXTENSIONS SPV.0060.01 EACH
0010	130+50 RT	1216 N MAIN ST	1
		TOTAL	**1**

LAKE RD

BRONSON RD

VERTICAL FACE REQUIRED
STA 115+00

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

EXISTING R/W

115

120

125

MATCHLINE STA 128+00

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

BEGIN PROJECT 6570-08-71
STA 115+00

EXISTING R/W

MILL 2" ASHPALT AND RESURFACE
WITH 4" HMA PAVEMENT

STA 125+53
REMOVE EXIST 65"X40" CSCP
1-68"x43" RCCEP CLASS III REQ'D
SEE MISC QUANTITIES FOR DETAILS

GRAVEL ENTRANCE

BENCH MARKS		
NO.	DESCRIPTION	ELEVATION
1	60D SPIKE IN PP#732131 ON WEST RIGHT-OF-WAY OF STH 55 SOUTH OF CULVERT 125+53	786.67
2	60D SPIKE IN PP#92-22118 PM WEST RIGHT-OF-WAY OF STH 55 AT OF CULVERT 125+53	786.14
3	CHISELED X ON TAG BOLT OF HYDRANT ON WEST SIDE OF STH 55 AT HOUSE #1105 NORTH OF CULVERT 125+53	789.97

MGS THRIE BEAM TRANSITION
STA 131+94.0 THROUGH STA 132+34

MGS GUARDRAIL 3 (TYP)
STA 131+31.0 THROUGH STA 131+94.0

ASPHALTIC ENTRANCE

*MGS EAT POST 9
STA 131+31 22' LT

*MGS EAT POST 1
STA 130+81 24' LT

EXISTING BRIDGE B-44-0180
(TO REMAIN)

MGS THRIE BEAM TRANSITION
STA 133+07 THROUGH STA 133+46

MGS GUARDRAIL 3 (TYP)
STA 133+46 THROUGH STA 134+46

*MGS EAT POST 9
STA 134+49 22.0' LT

*MGS EAT POST 1
STA 134+99 24.0' RT

*EARTHWORK ASSOCIATED WITH ITEM 614.0010 BARRIER SYSTEM
GRADING SHAPING FINISHING

**EARTHWORK ASSOCIATED WITH ITEM SPV.0060.01 GRADING
SHAPING FINISHING DRIVEWAY CULVERT EXTENSIONS

CEMETERY RD

VERTICAL FACE REQUIRED
STA 9+13.8

140+77.7 STH 55 =
10+00.0 CEMETERY RD

PAVE 7' WIDE SHOULDER

EXISTING R/W

EXISTING R/W

130

135

140

MATCHLINE STA 128+00

MATCHLINE STA 143+00

ASPHALTIC ENTRANCE

STA 130+20
REMOVE EXISTING 18" CSCP
1-18"CMCP X 100' CPCS REQ'D
**SEE MISC QUANTITIES FOR DETAILS

*MGS EAT POST 1
STA 130+55 24.0' RT

*MGS EAT POST 9
STA 131+05 22.0' RT

MGS GUARDRAIL 3 (TYP)
STA 131+05 THROUGH STA 131+93

ASPH SURFACE
BUTT JOINT
REQUIRED

MGS THRIE BEAM TRANSITION
STA 131+93 THROUGH STA 132+32

*MGS EAT POST 1
STA 134+57 24' RT

*MGS EAT POST 9
STA 134+07, 22' RT

MGS GUARDRAIL 3 (TYP)
STA 133+45 THROUGH STA 134+07

MGS THRIE BEAM TRANSITION
STA 133+06 THROUGH STA 133+45

PAVE 7' WIDE SHOULDERS

GRAVEL ENTRANCE

MILL 2" ASHPALT AND RESURFACE
WITH 4" HMA PAVEMENT

EXISTING R/W

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 50	E

FILE NAME : \\GRE31FP1\N3PUBLIC\PDS\C3D\65700800\SHEETSPLAN\050201-PN(71).DWG PLOT DATE : 5/30/2017 9:10 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

BENCH MARKS		
NO.	DESCRIPTION	ELEVATION
4	60D SPIKE IN PP#10-00983 ON WEST RIGHT-OF-WAY OF STH 55 SOUTH OF CULVERT STA 157+78	800.79
5	60D SPIKE IN PP#10-00982 ON WEST RIGHT-OF-WAY OF STH 55 NORTH OF CULVERT STA 157+78	800.66
6	60D SPIKE IN PP#10-00981 ON WEST RIGHT-OF-WAY OF STH 55 NORTH OF CULVERT STA 157+78, AT DRIVE ENTRANCE TO N8249	802.33

N

EXISTING R/W

GRAVEL ENTRANCE

MATCHLINE STA 143+00

145

150

155

MATCHLINE STA 158+00

20:1 TAPER
FROM STA 143+28 TO 144+08

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

MILL 2" ASHPALT AND RESURFACE
WITH 4" HMA PAVEMENT

GRAVEL ENTRANCE

EXISTING R/W

STA 157+78
EXISTING 49"X33" CMPA
TO REMAIN

N

166+86.08 STH 55 =
10+00.0 GARDNER RD

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

GRAVEL ENTRANCE

EXISTING R/W

MATCHLINE STA 158+00

160

165

170

MATCHLINE STA 173+00

GRAVEL ENTRANCE

GRAVEL ENTRANCE

MILL 2" ASHPALT AND RESURFACE
WITH 4" HMA PAVEMENT

VERTICAL FACE REQUIRED
STA 10+80

GARDNER RD

STA 167+39
REMOVE EXIST 68"X40" CSCP
1-68"X43" RCCEP CLASS III REQ'D
SEE MISC QUANTITIES FOR DETAILS

BENCH MARKS		
NO.	DESCRIPTION	ELEVATION
7	60D SPIKE IN PP#00-12352 40-4 SOUTHEAST QUADRANT OF GARDNER ROAD & STH 55	805.75
8	60D SPIKE IN PP#50C2 94-22320 ON WEST RIGHT-OF-WAY LINE OF STH 55 SOUTH OF GRAVEL DRIVE ENTRANCE	808.09
9	60D SPIKE IN PP#10-00979 ON WEST RIGHT-OF-WAY LINE OF STH 55 NORTH OF GRAVEL DRIVE ENTRANCE AT CULVERT STA 167+39	807.37

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 51 E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\050201-PN(71).DWG PLOT DATE : 5/26/2017 9:19 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

5

5

BENCH MARKS

NO.	DESCRIPTION	ELEVATION
10	60D SPIKE IN PP#10-00967 ON WEST RIGHT-OF-WAY OF STH 55 SOUTH OF CULVERT STA 200+07, AT HOUSE #N8533	855.22
11	60D SPIKE IN WOOD TELEPHONE PEDESTAL ON EAST RIGHT-OF-WAY OF STH 55 AT CULVERT STA 200+07 NORTH OF RED SHED	852.35
12	60D SPIKE IN PP#10-00966 ON WEST RIGHT-OF-WAY OF STH 55 NORTH OF CULVERT STA 200+07	853.82

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 52	E

BENCH MARKS		
NO.	DESCRIPTION	ELEVATION
13	60D SPIKE IN PP#10-00961 ON WEST RIGHT-OF-WAY OF STH 55 SOUTH OF CULVERT STA 213+07	857.03
14	60D SPIKE IN PP#10-00960 ON WEST RIGHT-OF-WAY OF STH 55 NORTH OF CULVERT STA 213+07	857.16
15	60D SPIKE IN PP#10-00959 ON WEST RIGHT-OF-WAY OF STH 55 NORTH OF CULVERT STA 213+07	857.16

BENCH MARKS		
NO.	DESCRIPTION	ELEVATION
16	60D SPIKE IN PP#10-00956 ON WEST RIGHT-OF-WAY OF STH 55 SOUTH OF CULVERT STA 225+56	861.45
17	60D SPIKE IN PP#10-00955 ON WEST RIGHT-OF-WAY OF STH 55 SOUTH OF CULVERT STA 225+56	861.27
18	60D SPIKE IN PP#10-00954 ON WEST RIGHT-OF-WAY OF STH 55 NORTH OF CULVERT STA 225+56	861.31

PROJECT NO:6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 53	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\050201-PN(71).DWG PLOT DATE : 5/26/2017 9:22 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

5

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 54	E

5

PROJECT NO: 6570-08-71	HWY: OUTAGAMIE	COUNTY: STH 55	PLAN	SHEET 55	E

*EARTHWORK ASSOCIATED WITH ITEM 614.0010 BARRIER SYSTEM
GRADING SHAPING FINISHING

N

CICERO RD

VERTICAL FACE REQUIRED
STA 9+11

30" CULVERT TO REMAIN

PC: 295+00.52

PT: 300+11.90

EXISTING R/W

GRAVEL ENTRANCE

EXISTING BOX CULVERT
TO REMAIN

MATCHLINE STA 293+00

MATCHLINE STA 308+00

295

300

305

GRAVEL ENTRANCE

ASPHALTIC ENTRANCE

298+97.9 STH 55 =
10+00.0 CICERO RD

ASPHALTIC ENTRANCE

GRAVEL ENTRANCE

*MGS EAT POST 1
STA 305+88 20' RT

*MGS EAT POST 9
STA 306+38 18' RT

MGS GUARDRAIL 3
STA 306+38 THROUGH STA 306+87

MGS GUARDRAIL 3 L
STA 306+87 THROUGH STA 308+00

MGS GUARDRAIL 3
STA 308+00 THROUGH STA 308+14

PI STA = 297+56.35
Y = 675535.040
X = 848471.752
DELTA = 4°39'03"
D = 0°54'34"
T = 255.83'
L = 511.38'
R = 6300.00'
PC STA = 295+00.52
PT STA = 300+11.90
*S.E. = 1.0%

*WEDGING REQUIRED, SEE MISC QUANTITIES & CONSTR DETAILS

N

GRAVEL ENTRANCE

GRAVEL ENTRANCE

GRAVEL ENTRANCE

EXISTING R/W

MATCHLINE STA 308+00

MATCHLINE STA 323+00

310

315

320

*MGS EAT POST 1
STA 308+64 20' RT

*MGS EAT POST 9
STA 308+14 18' RT

GRAVEL ENTRANCE

MILL 2" ASHPALT AND RESURFACE
WITH 4" HMA PAVEMENT

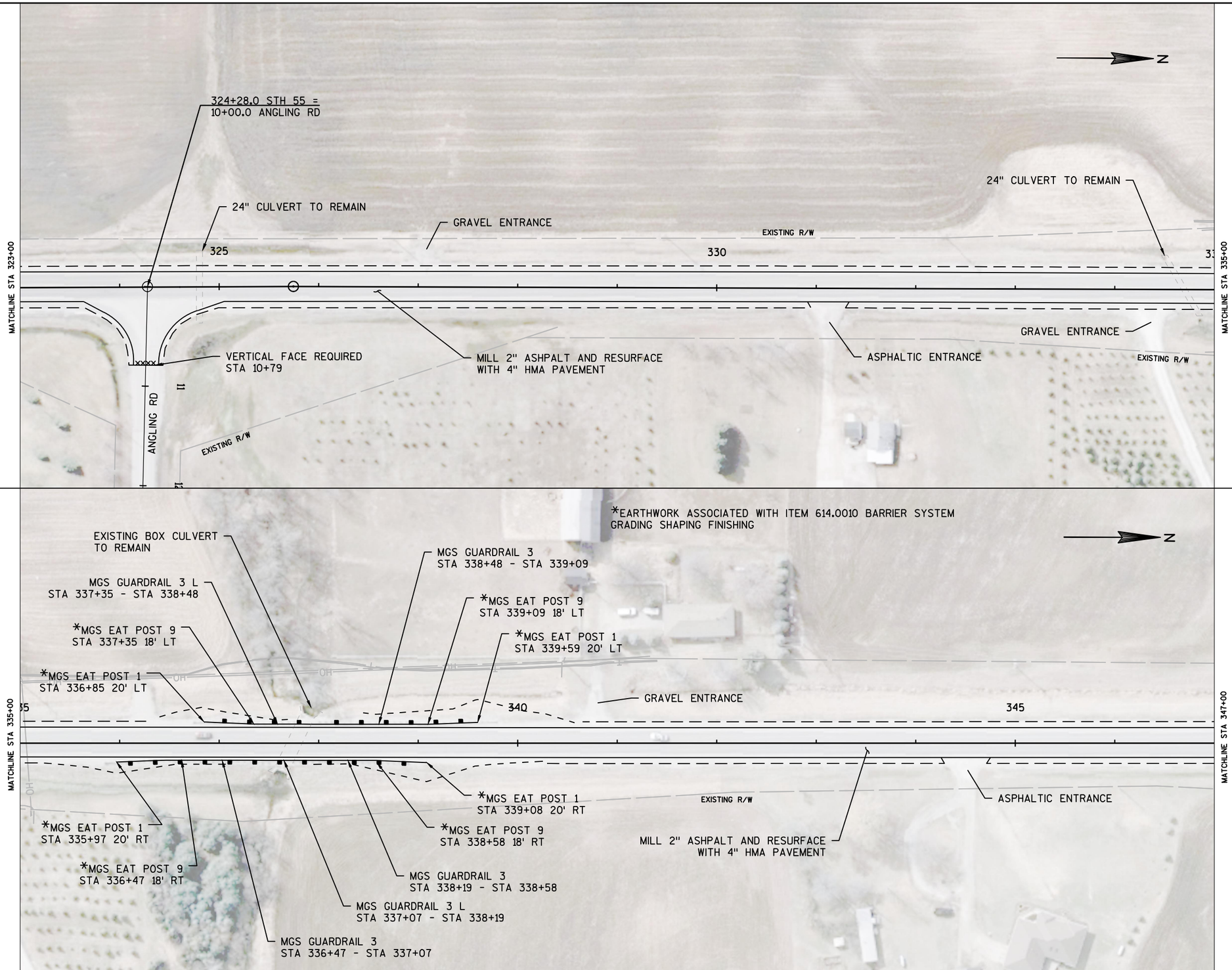
GRAVEL ENTRANCE

EXISTING R/W

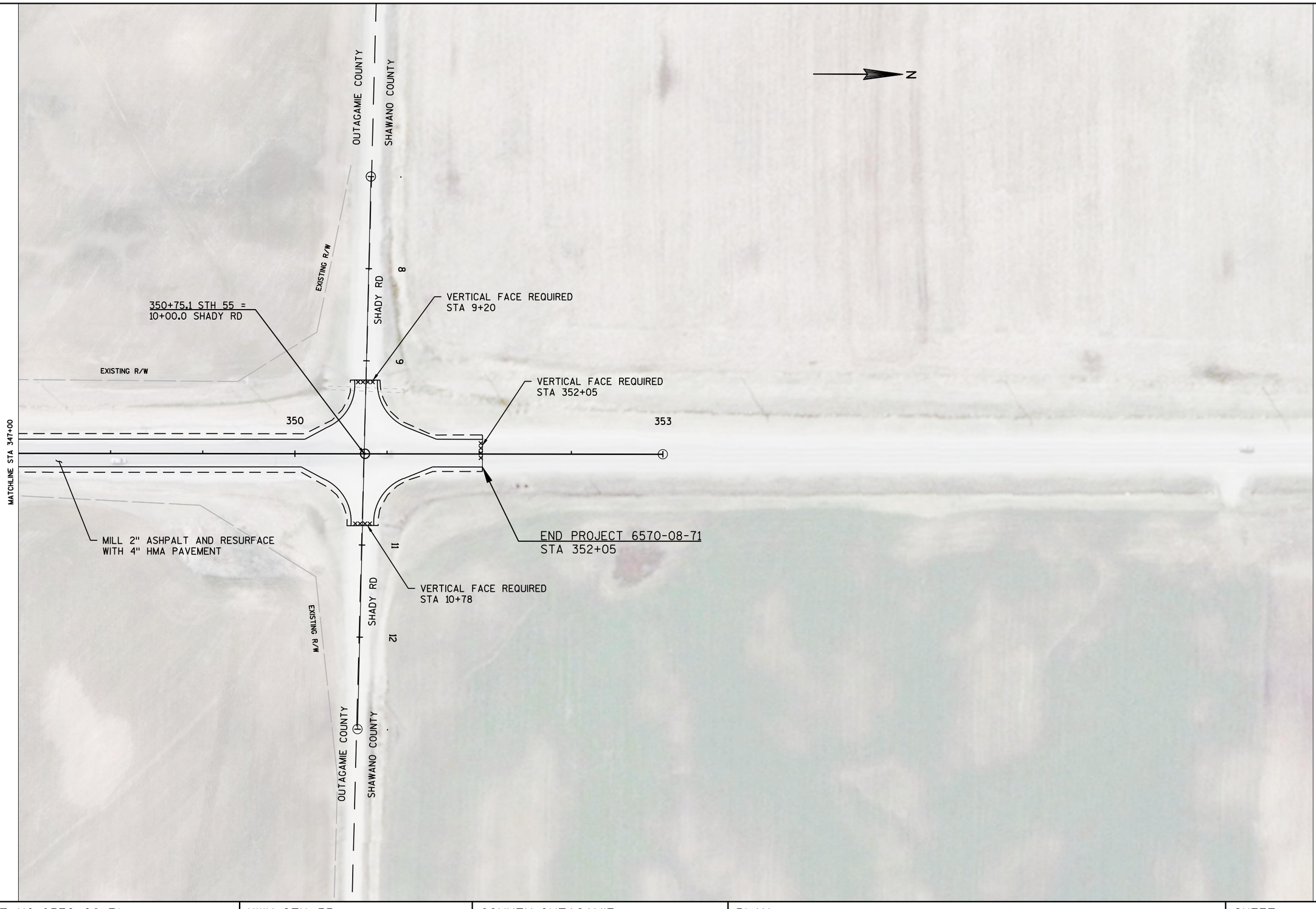
PROJECT NO:6570-08-71	HWY:STH 55	COUNTY:OUTAGAMIE	PLAN	SHEET 56	E

FILE NAME : \\GRE31FP1\N3PUBLIC\PDS\C3D\65700800\SHEETSPLAN\050201-PN(71).DWG PLOT DATE : 5/30/2017 9:59 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : ---------- PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 57	E



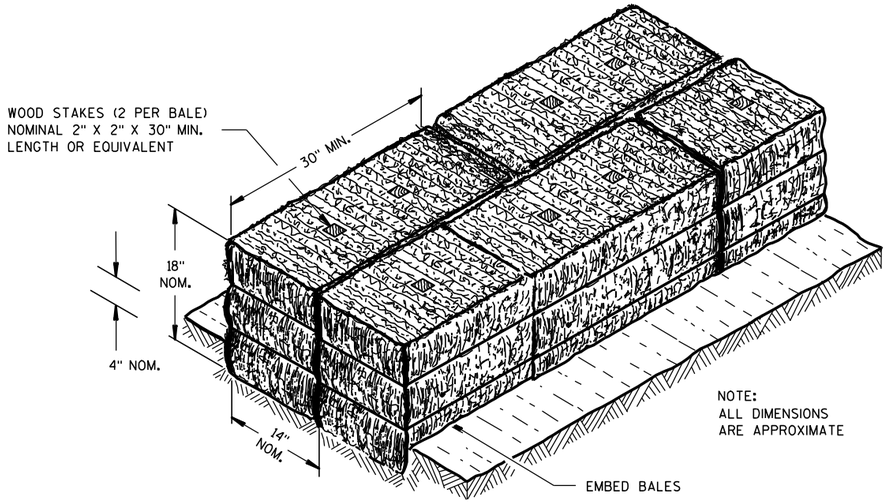
5

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PLAN	SHEET 58	E

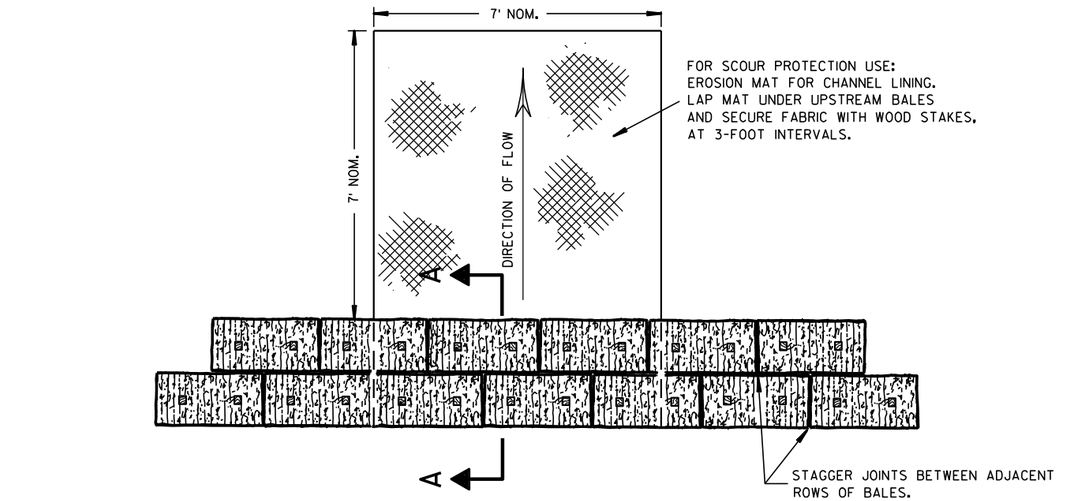
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B29-01	SAFETY EDGE
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-03A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C12-05	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-04A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

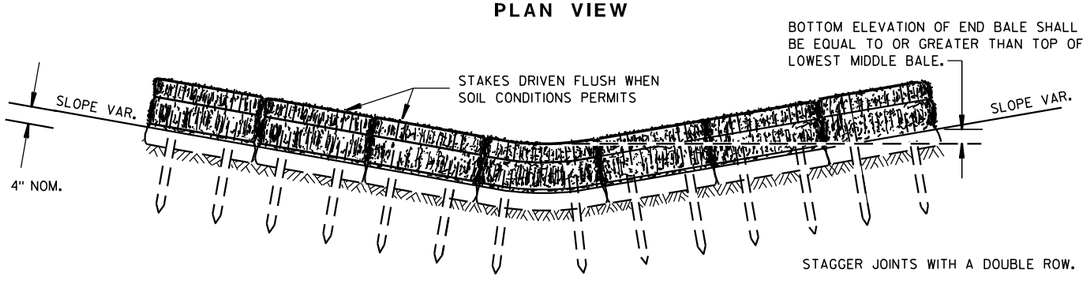
6



SECTION A-A



PLAN VIEW



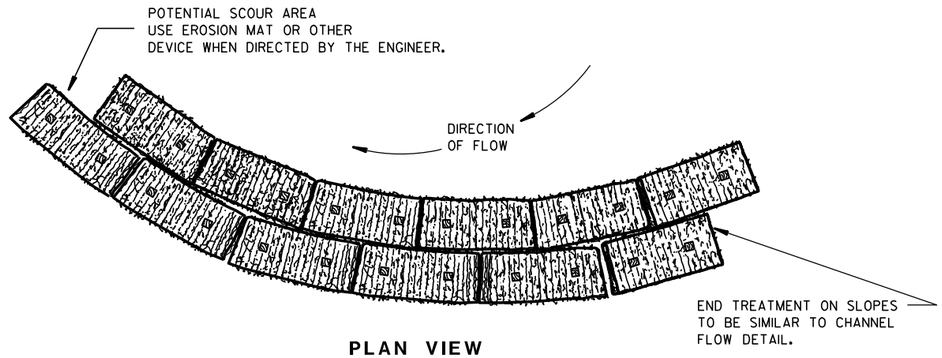
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

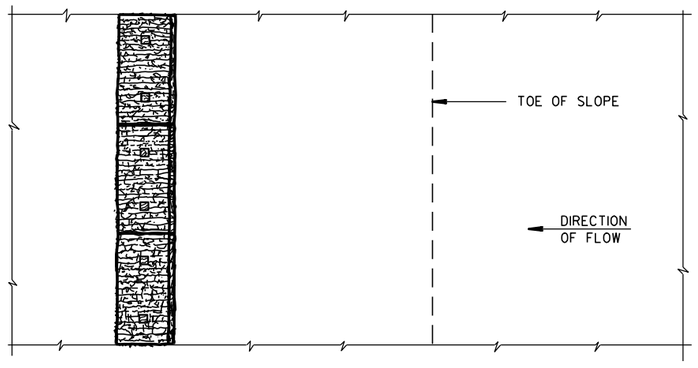
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

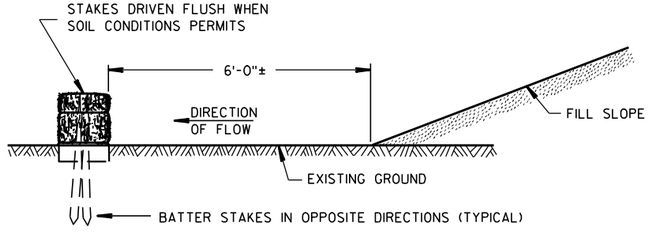


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

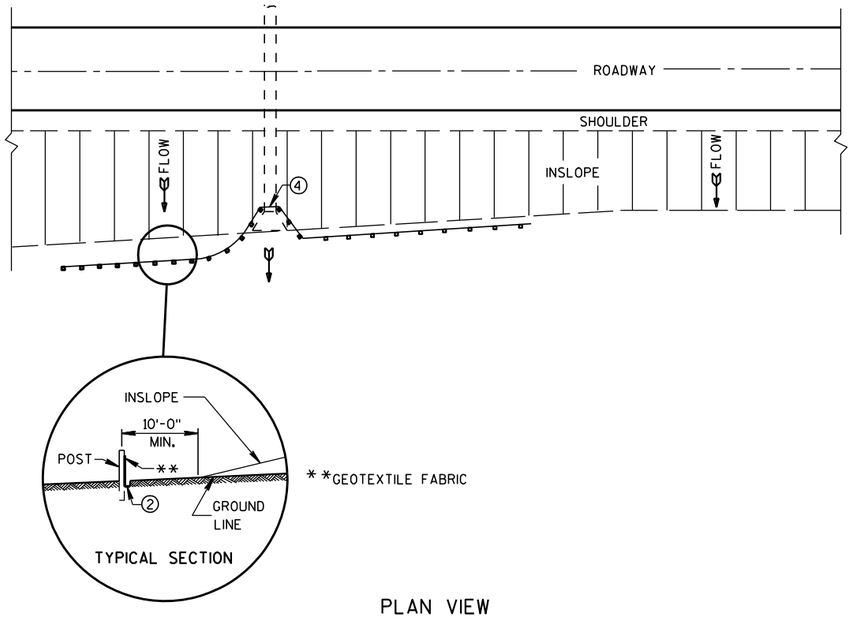
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

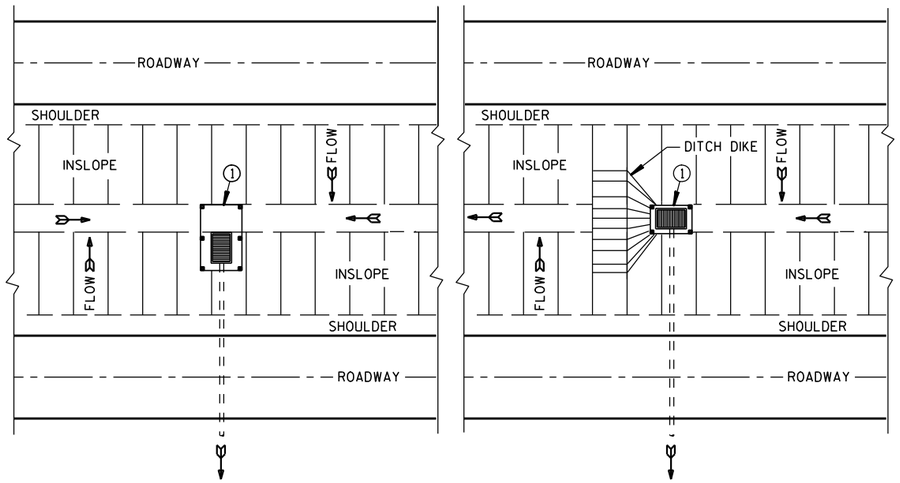
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

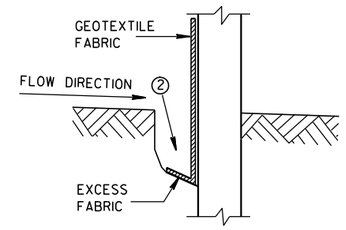
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

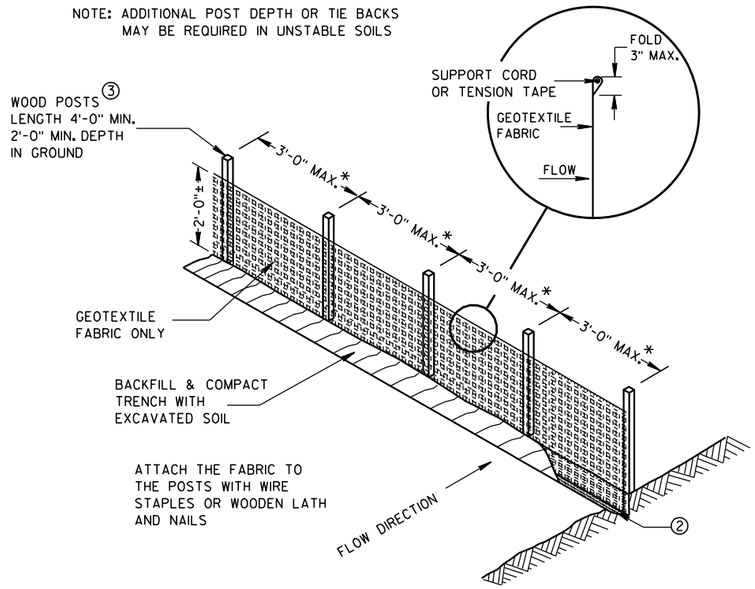
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

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

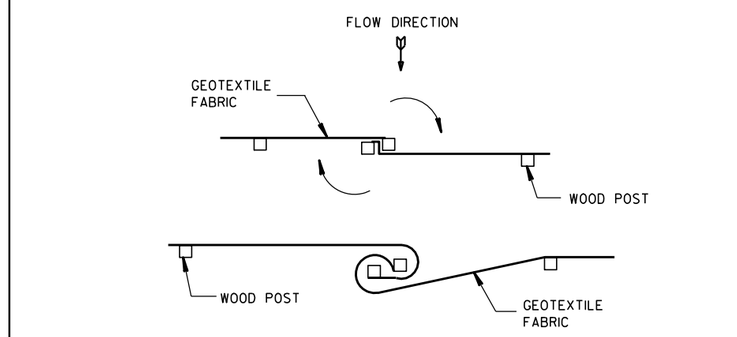


TRENCH DETAIL

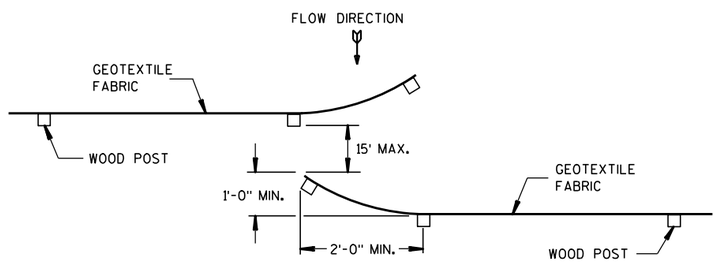


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

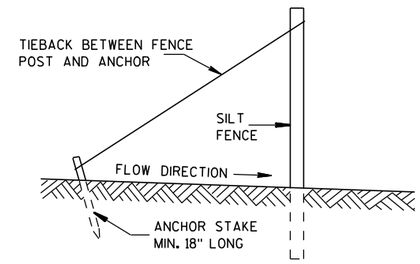


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

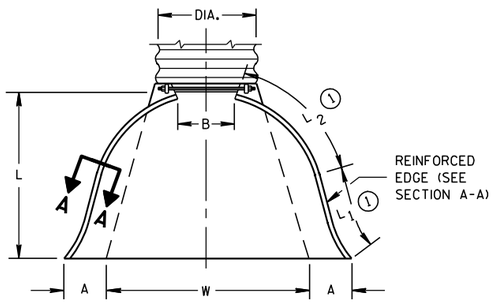
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

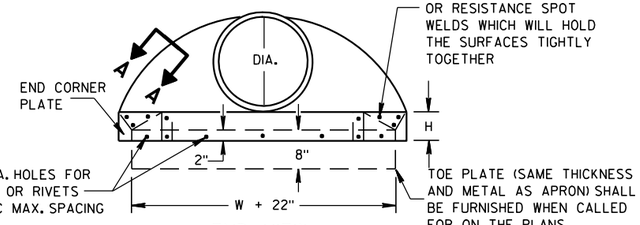
REINFORCED CONCRETE APRON ENDWALLS

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

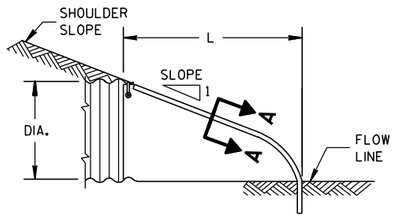
*MINIMUM
**MAXIMUM



PLAN VIEW

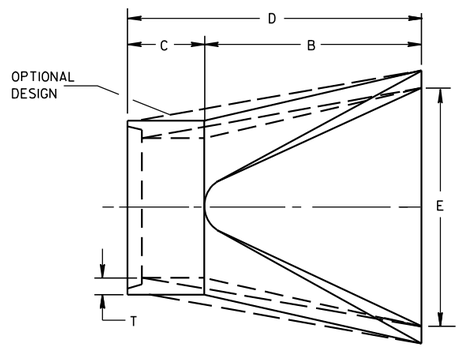


END VIEW

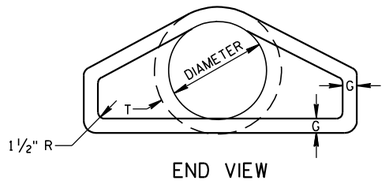


SIDE ELEVATION

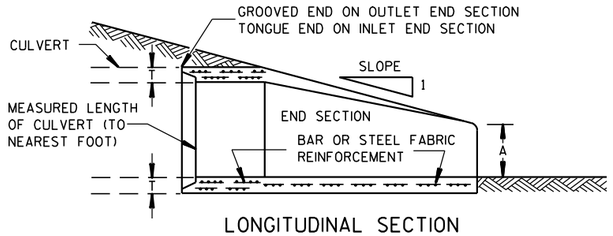
METAL ENDWALLS



PLAN

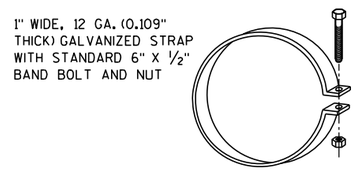


END VIEW



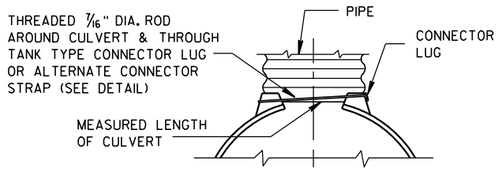
LONGITUDINAL SECTION

CONCRETE ENDWALLS

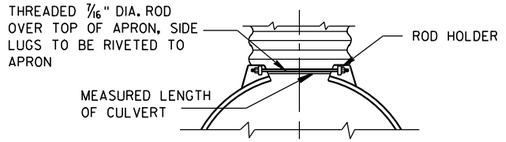


ALTERNATE FOR TYPE 1 CONNECTION

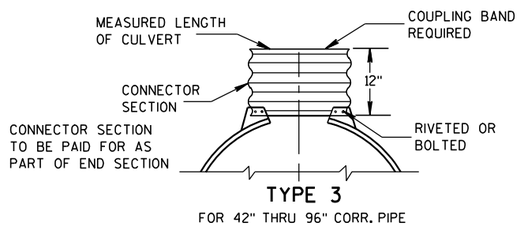
END SECTION CONNECTOR STRAP



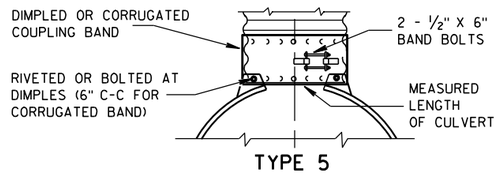
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

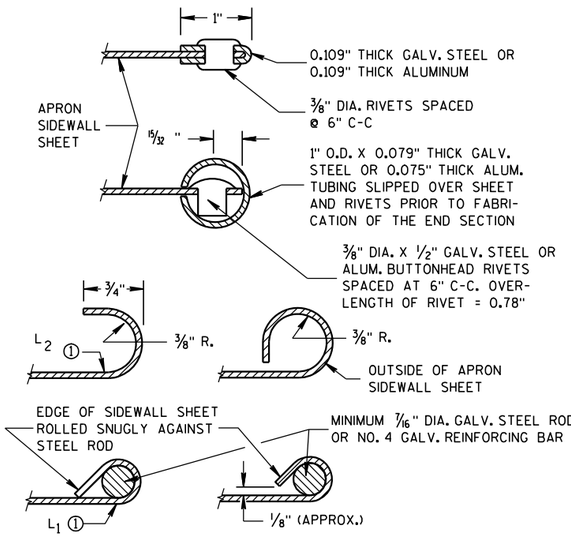
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

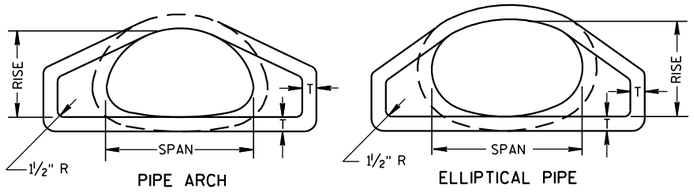
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

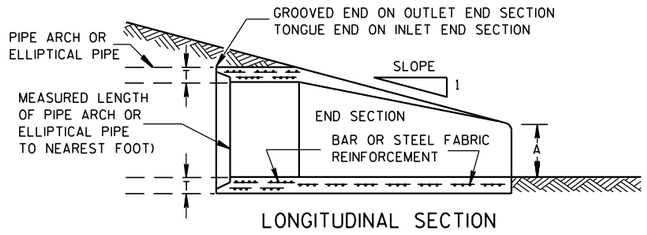
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

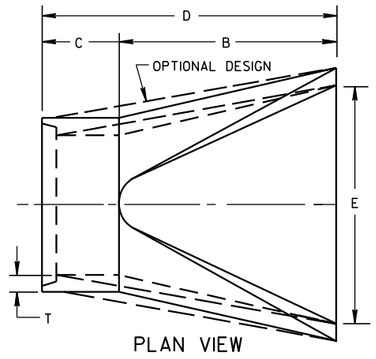
S.D.D. 8 F 1-11



END VIEW

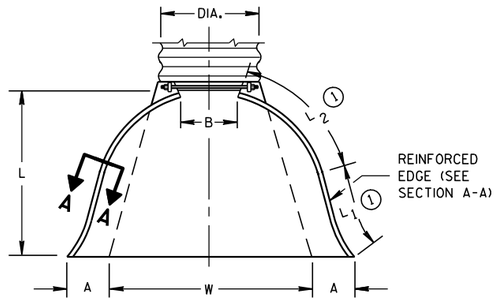


LONGITUDINAL SECTION

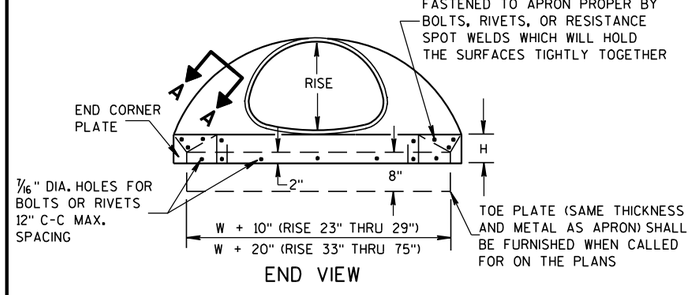


PLAN VIEW

CONCRETE ENDWALLS



PLAN VIEW



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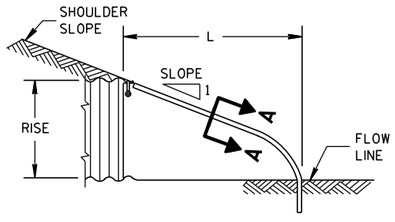
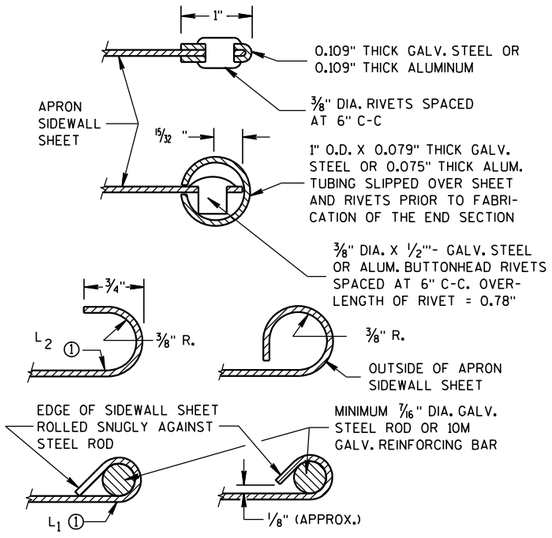


SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

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

3" X 1" CORRUGATIONS

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

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

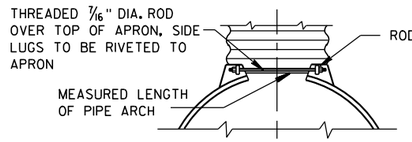
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

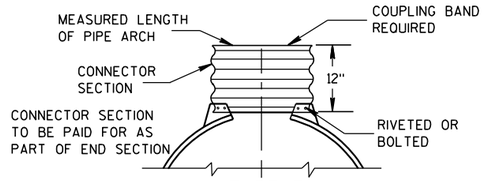
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



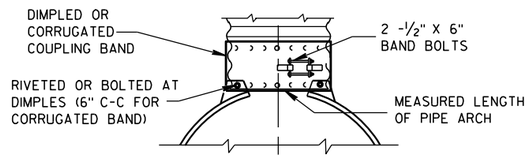
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

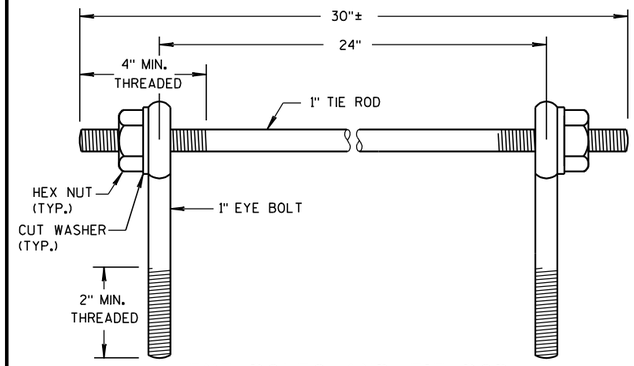
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

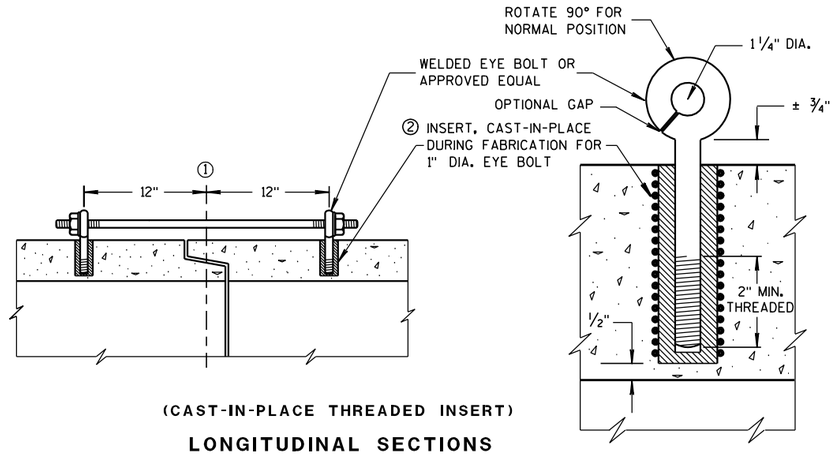
11/30/94 — DATE

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

FHWA



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

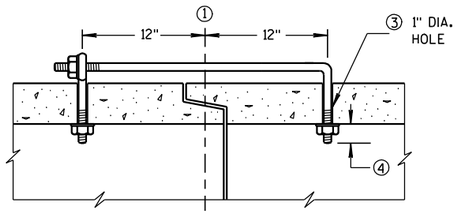
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

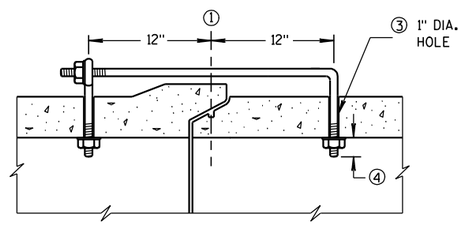
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

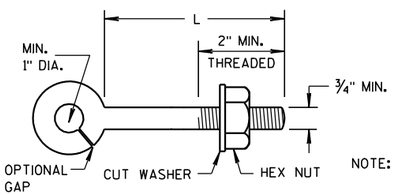


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

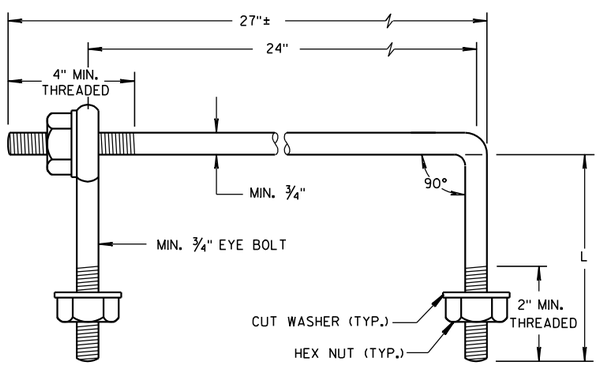
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

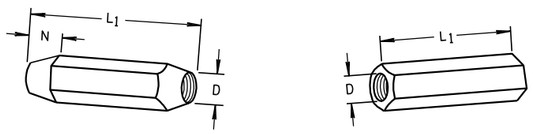
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

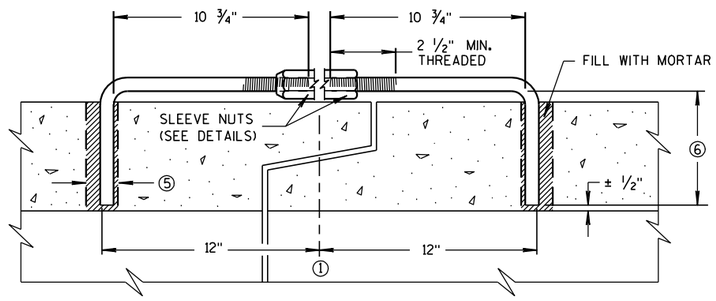
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

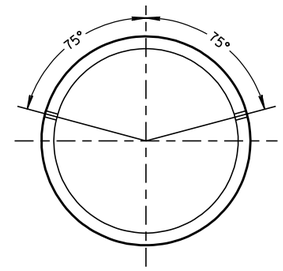
SLEEVE NUTS



LONGITUDINAL SECTION

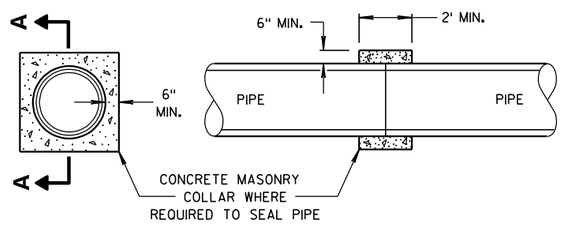
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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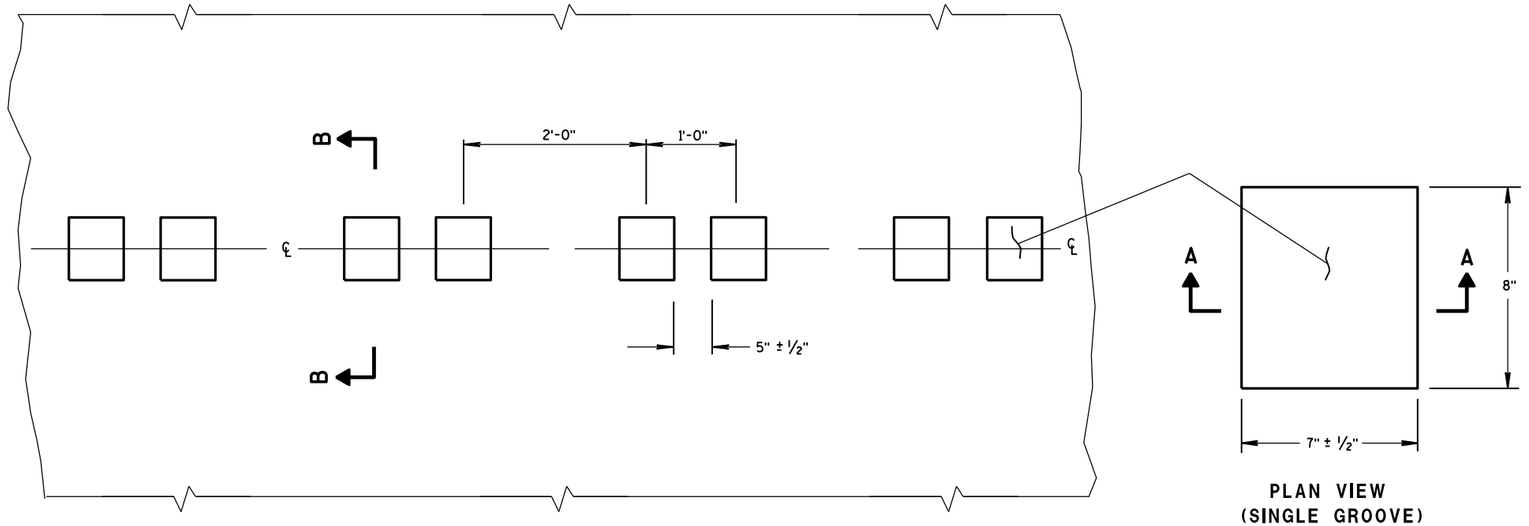


PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

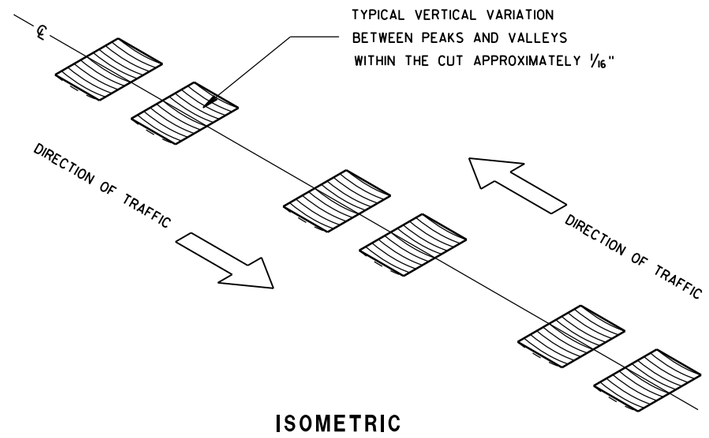
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

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



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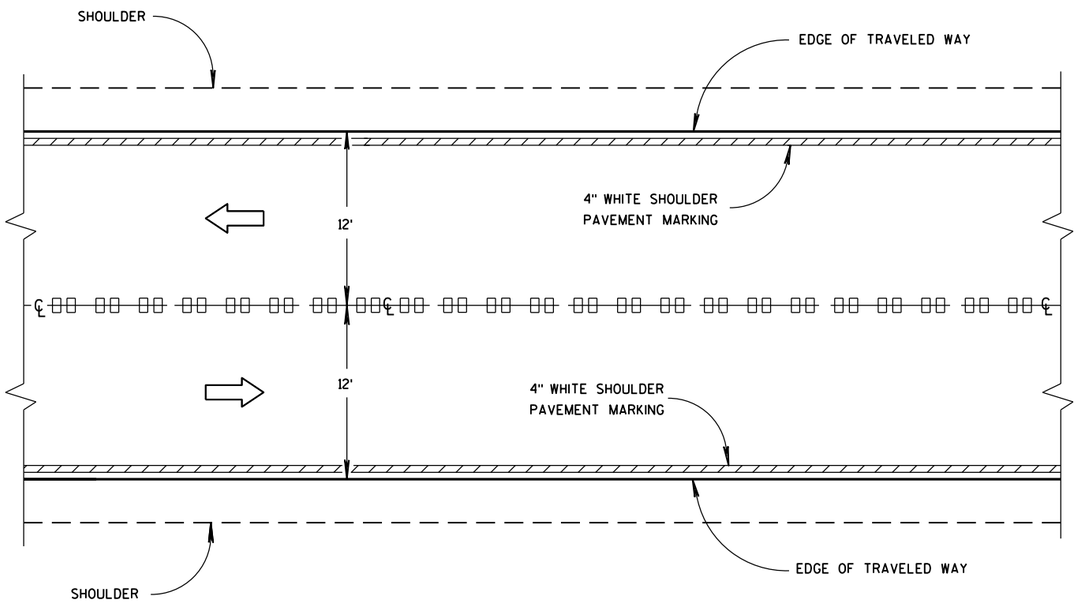
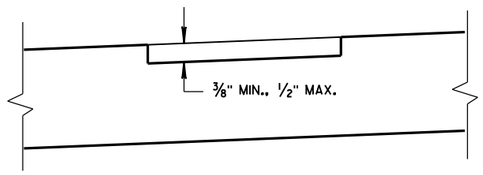
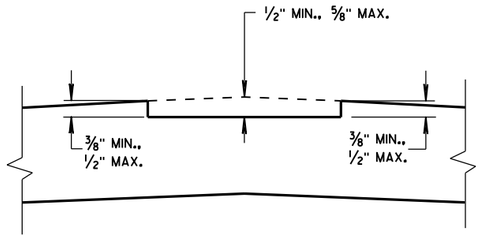


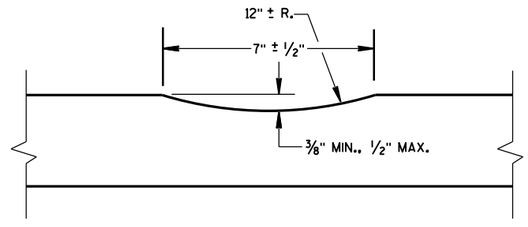
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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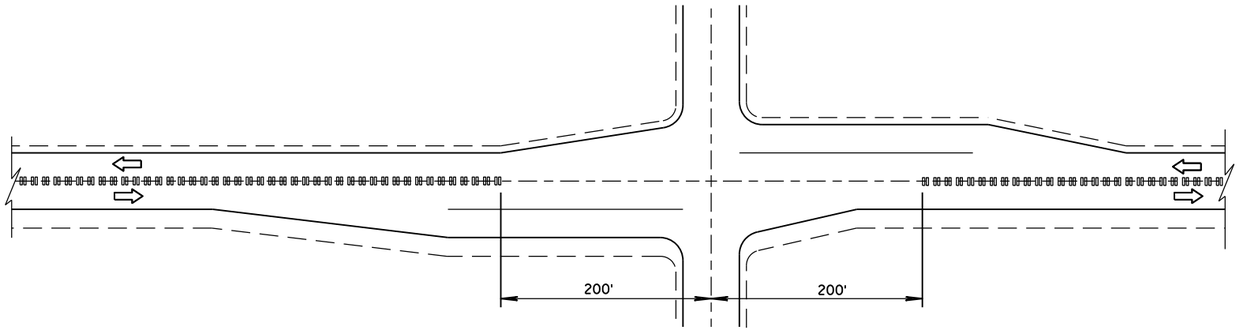
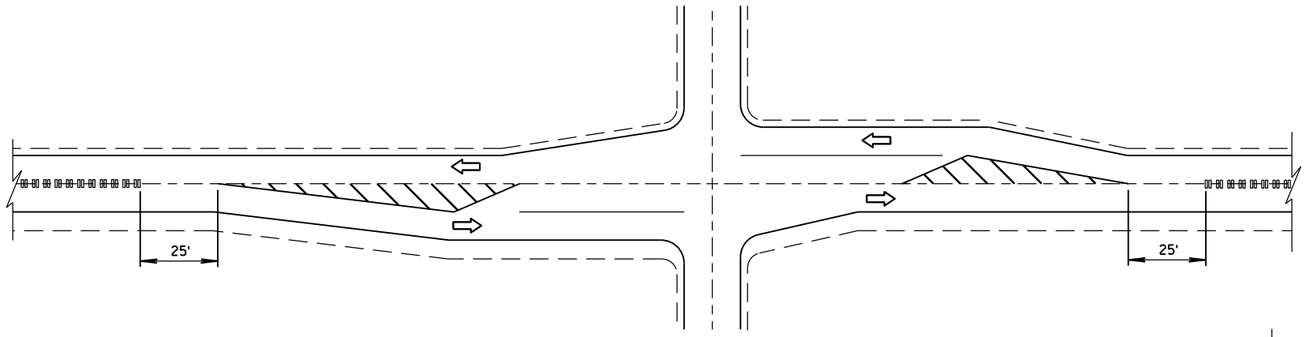
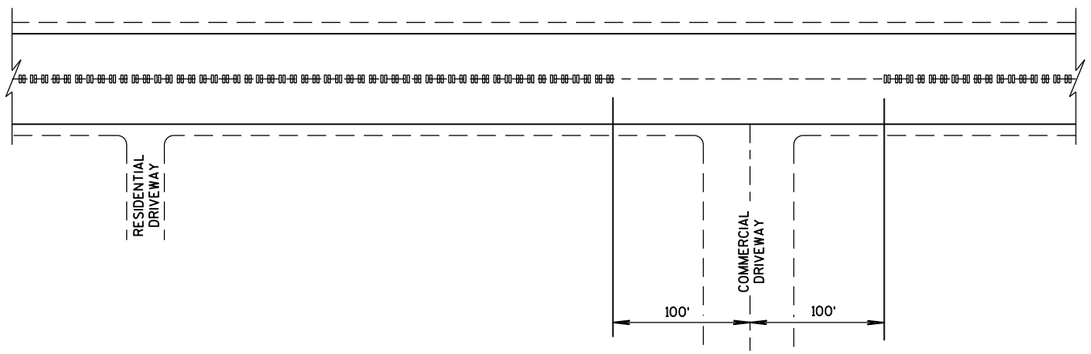
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

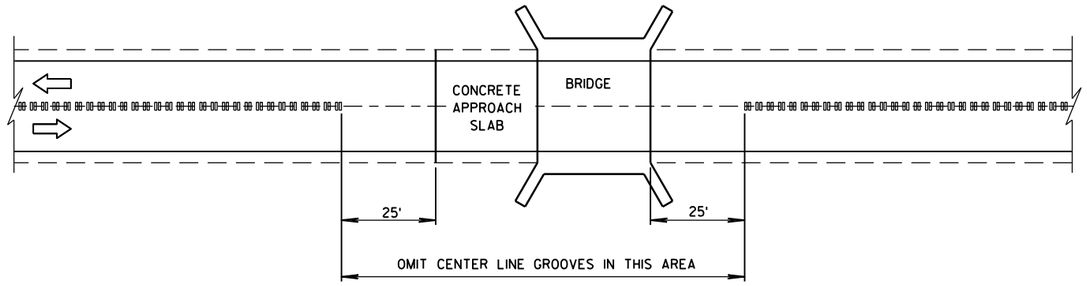


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

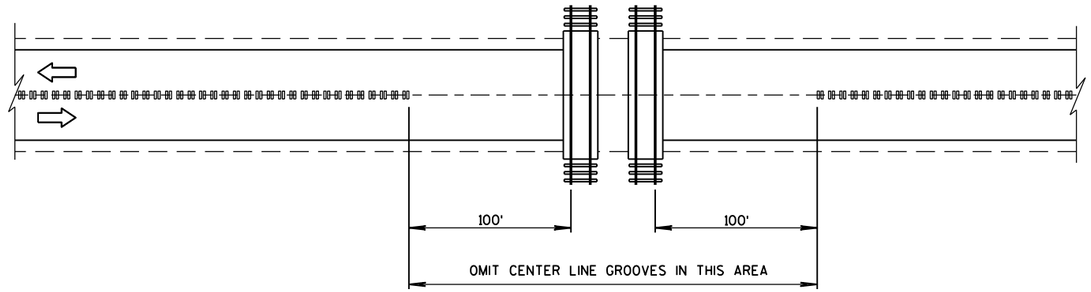


CENTER LINE GROOVES AT DRIVEWAYS (1)

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

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S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

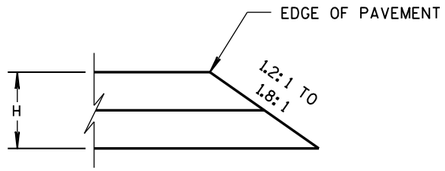
APPROVED

5/15/2013 DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

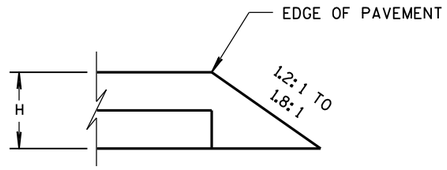
NT

FHWA



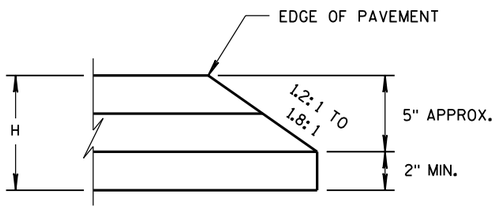
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



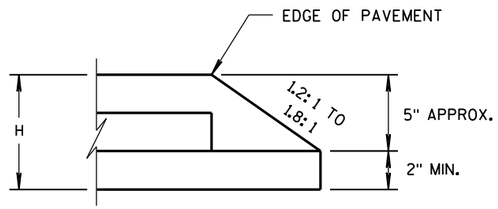
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

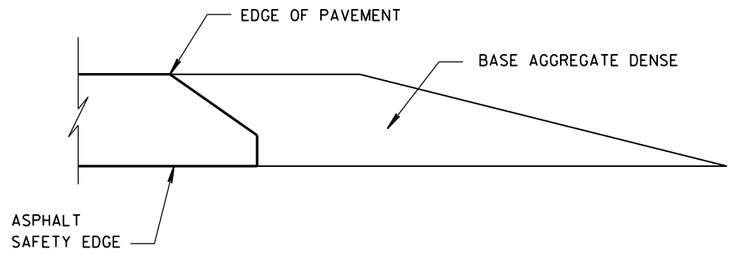
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

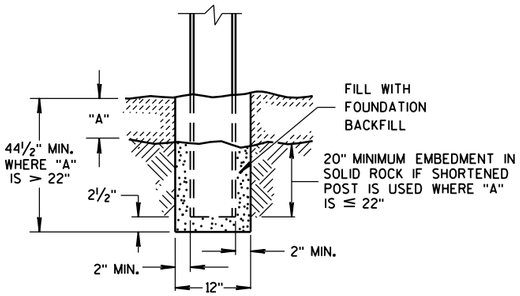
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ 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.

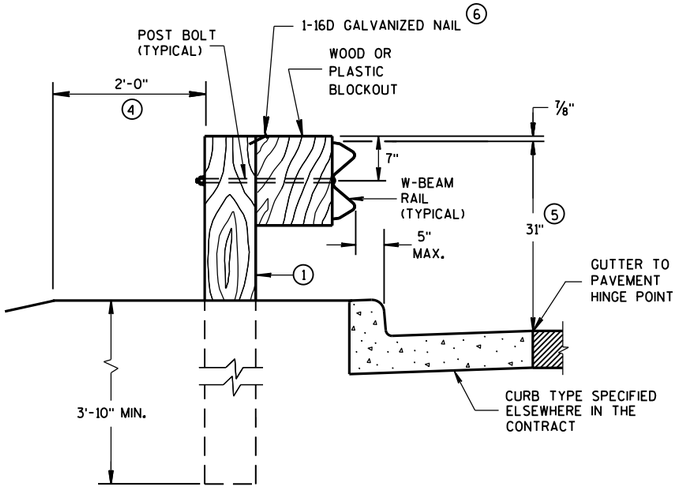
④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

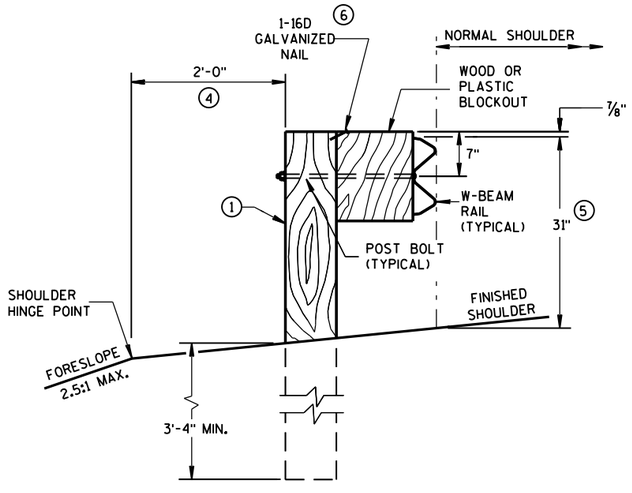
⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



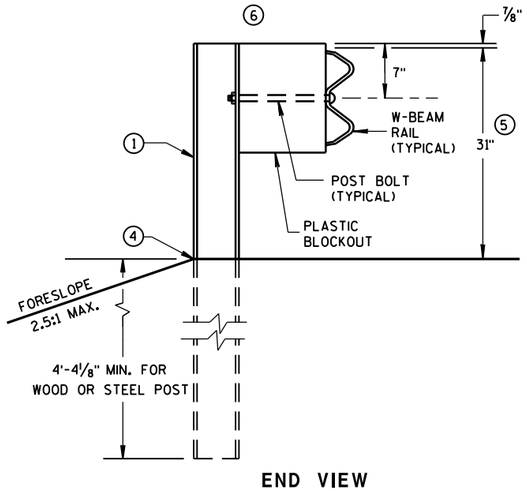
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



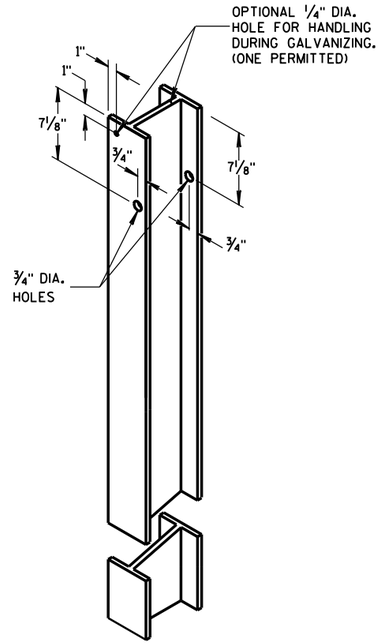
END VIEW
LOCATED ALONG A CURBED ROADWAY



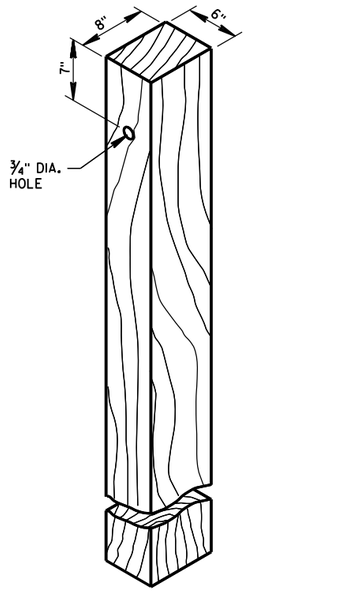
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



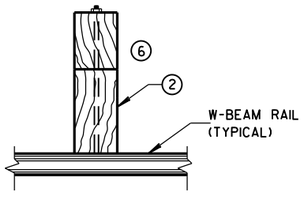
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



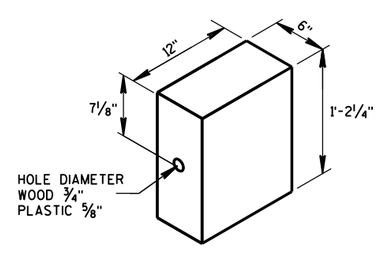
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



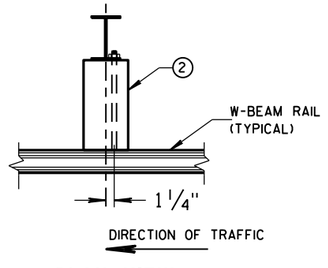
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



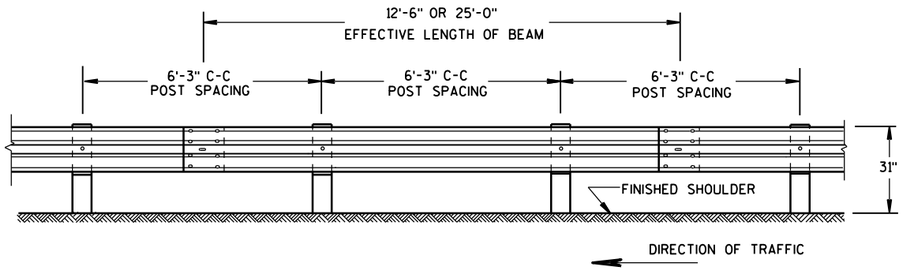
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

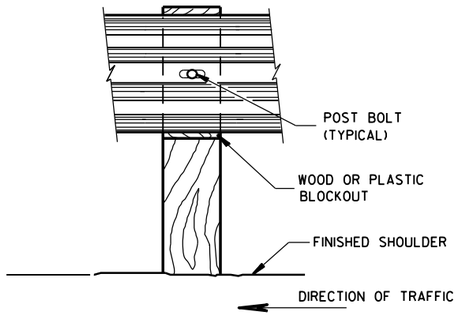
6

S.D.D. 14 B 42-4a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

7. PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

8. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

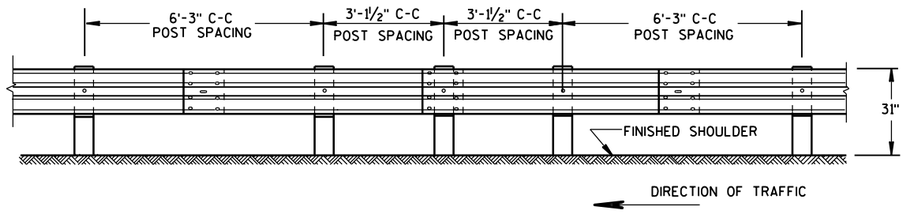
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

10. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

11. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

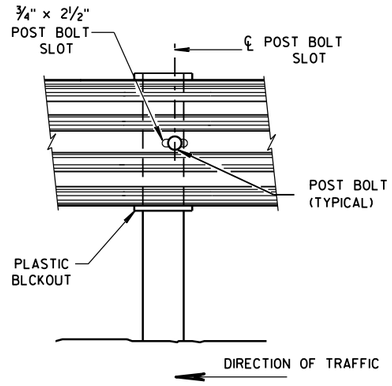
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

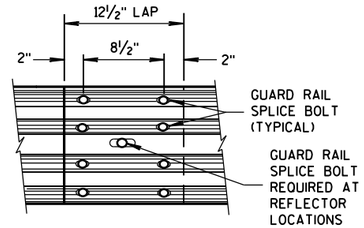


FRONT VIEW

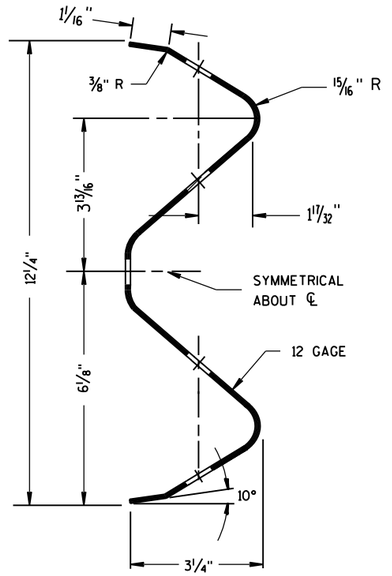
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



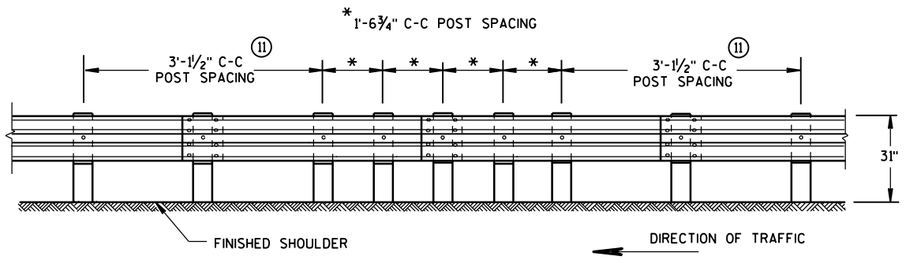
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

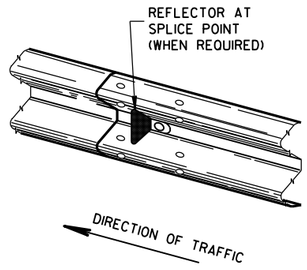


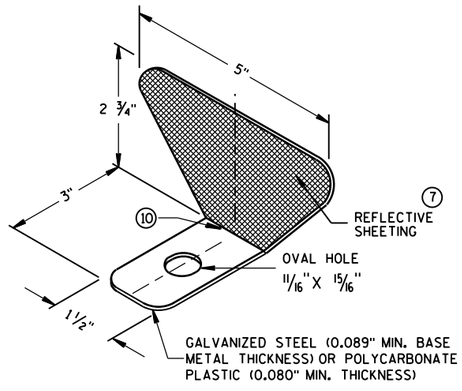
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

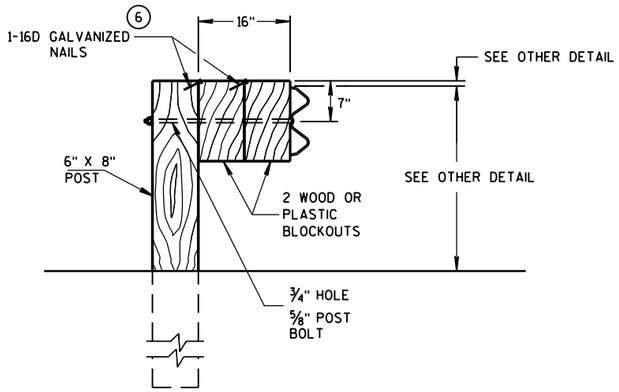
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

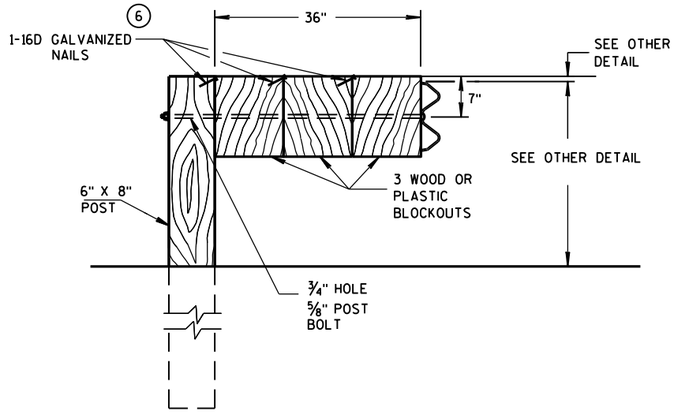
6

S.D.D. 14 B 42-4b



DETAIL FOR 16" BLOCKOUT DEPTH

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

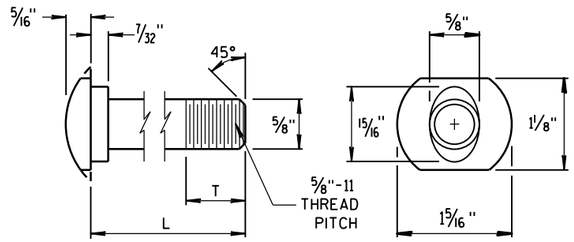


DETAIL FOR 36" BLOCKOUT DEPTH

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

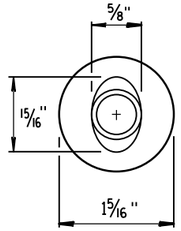
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

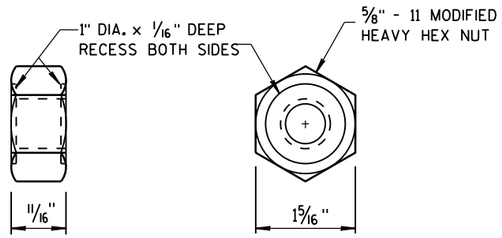


POST BOLT TABLE

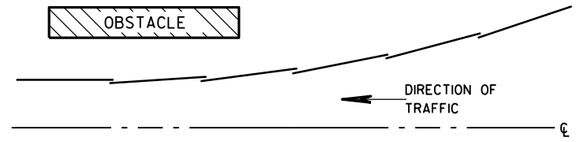
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

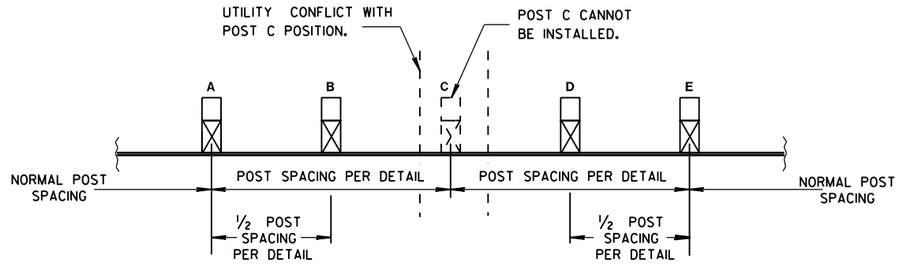


POST BOLT, SPLICE BOLT AND RECESS NUT

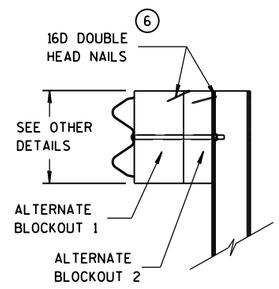


PLAN VIEW

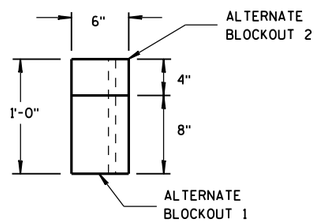
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-4c

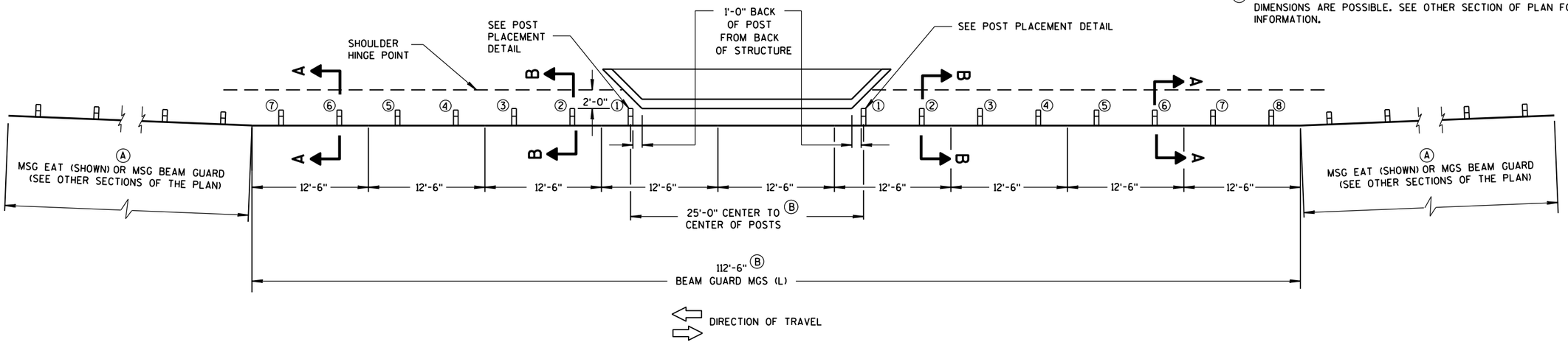
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

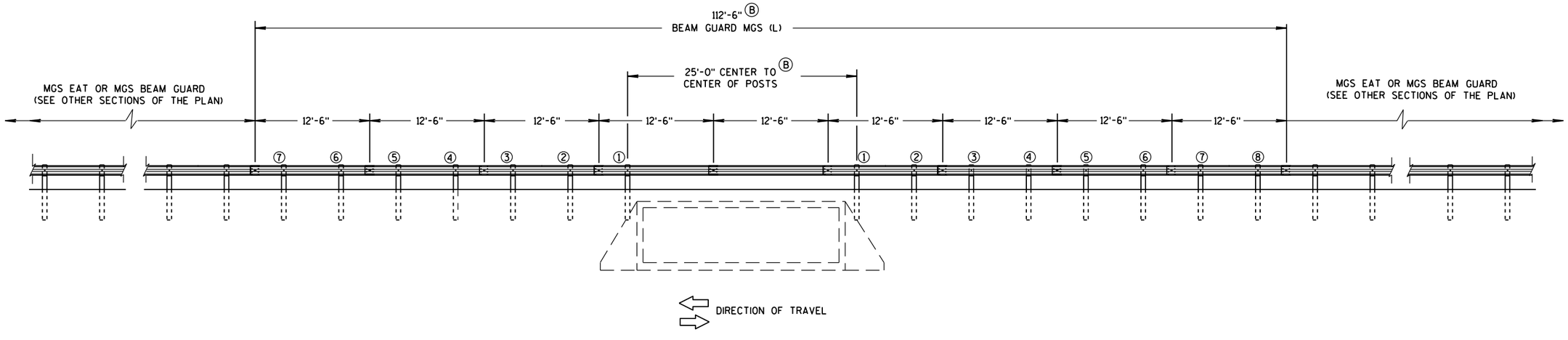
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3a

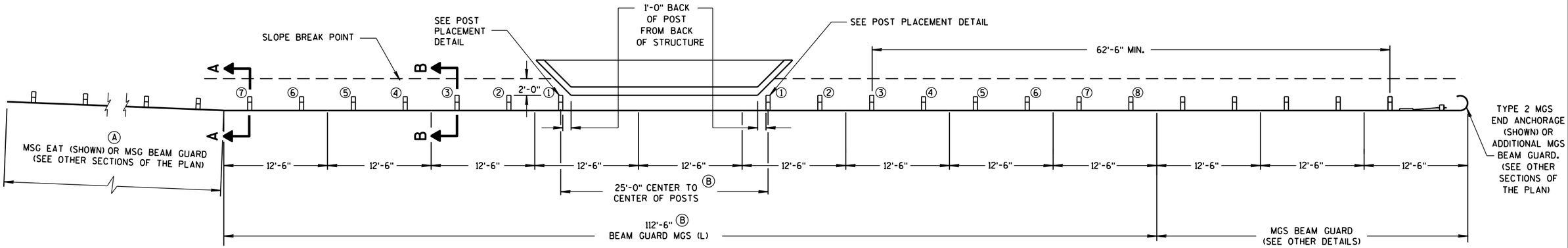
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

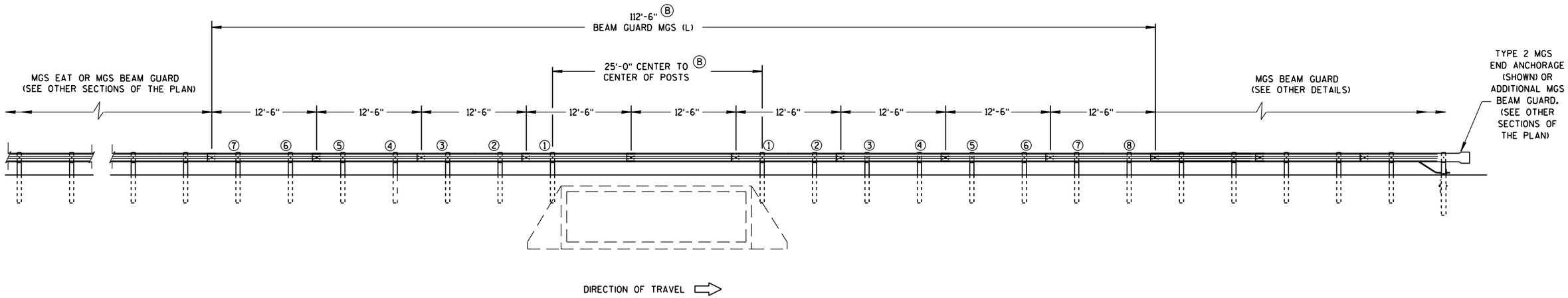
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

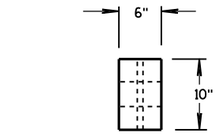
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

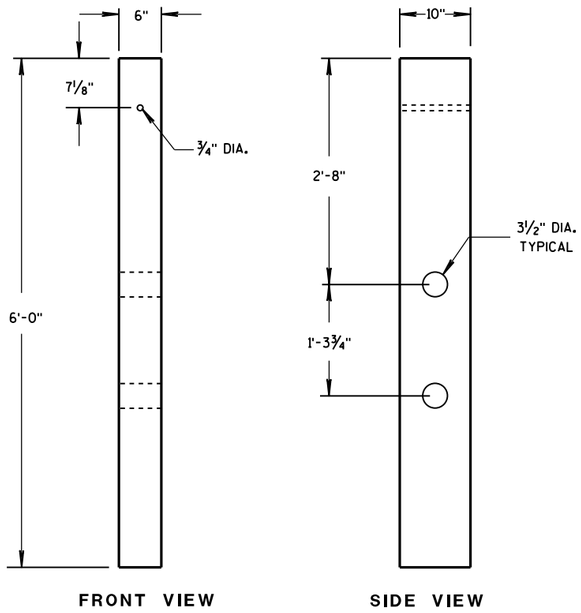
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3b

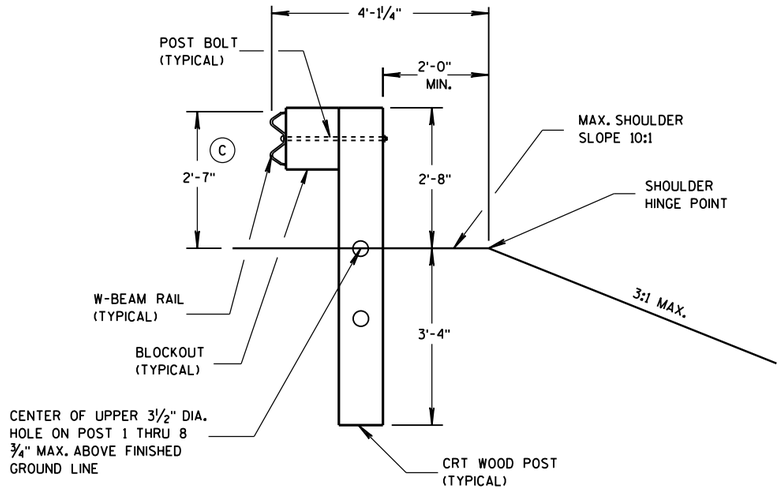


PLAN VIEW



FRONT VIEW SIDE VIEW

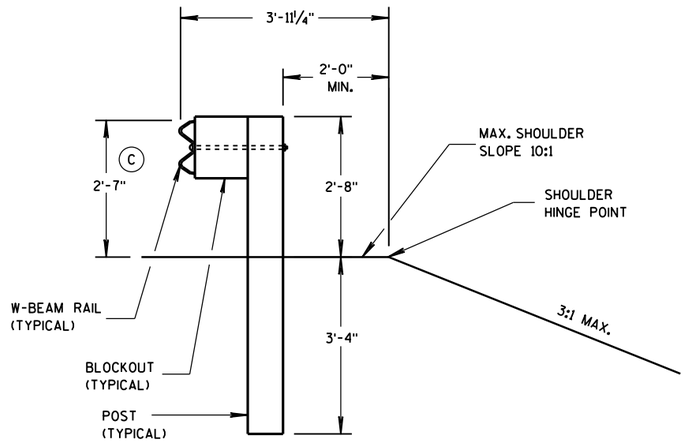
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



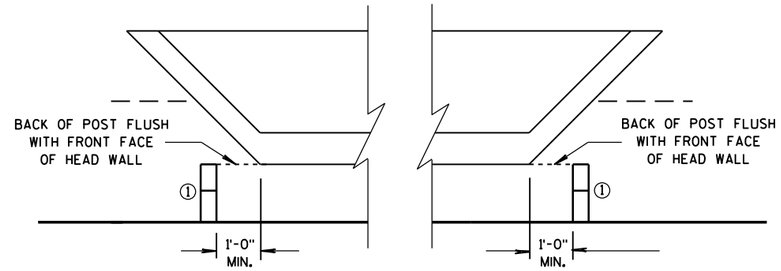
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/10/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 43-3c

6

S.D.D. 14 B 43-3c

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 MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

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

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

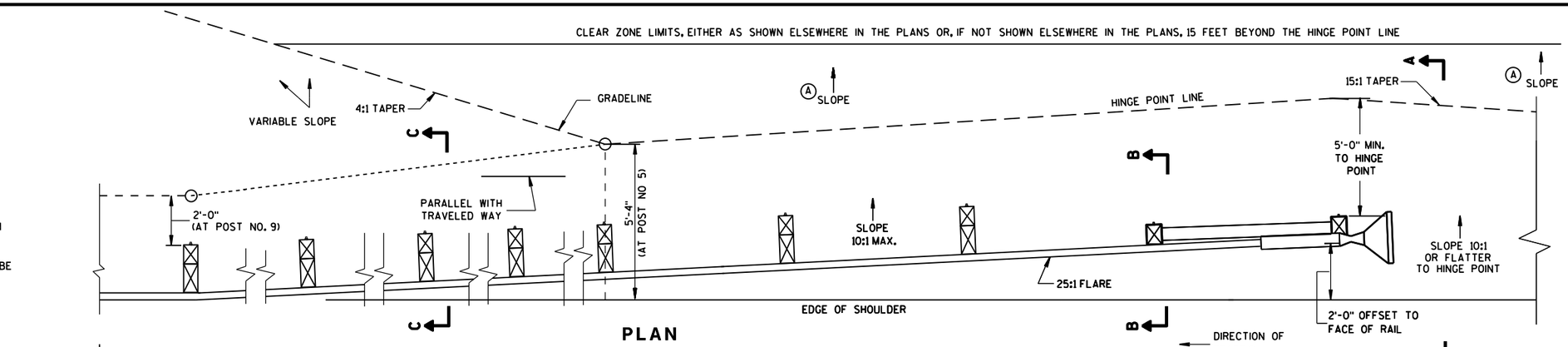
SEE SDD 14B42 FOR MORE INFORMATION.

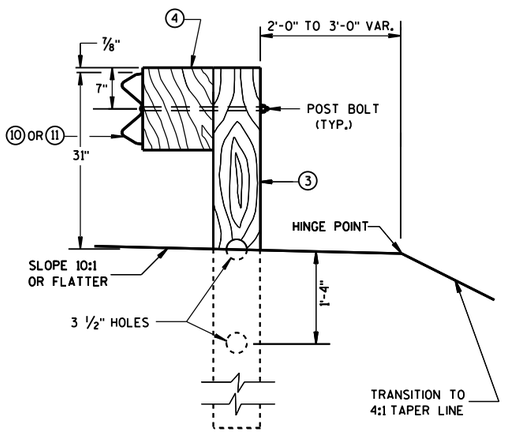
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

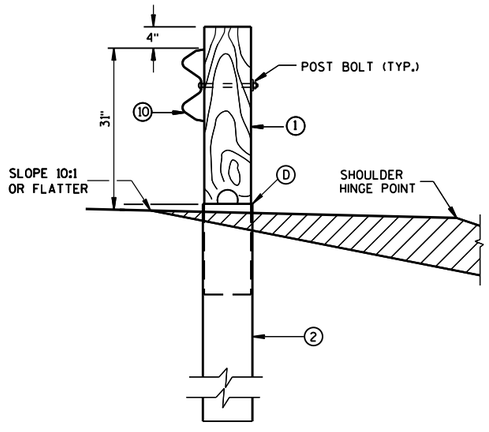
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" 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.

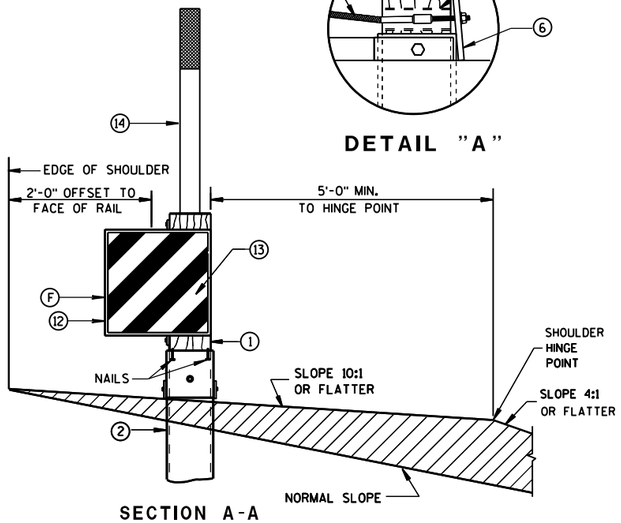




SECTION C-C
TYPICAL AT POST NOS. 3-9

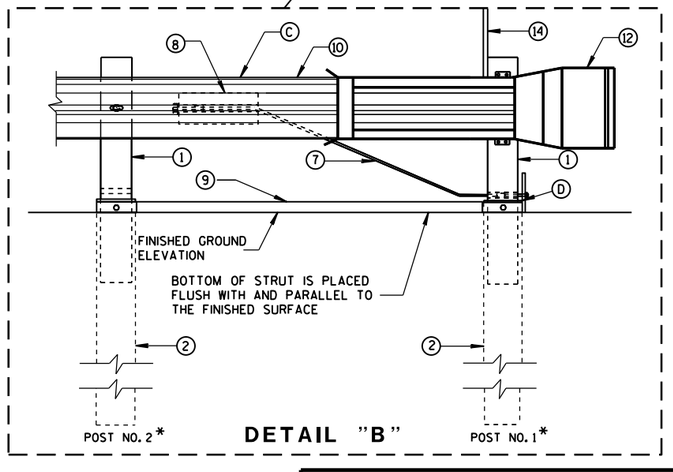


SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*

DETAIL "A"



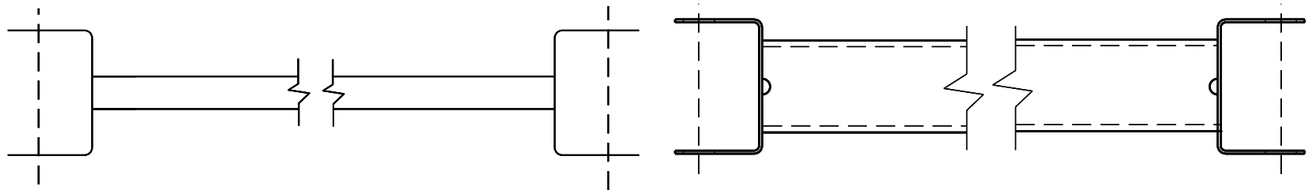
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

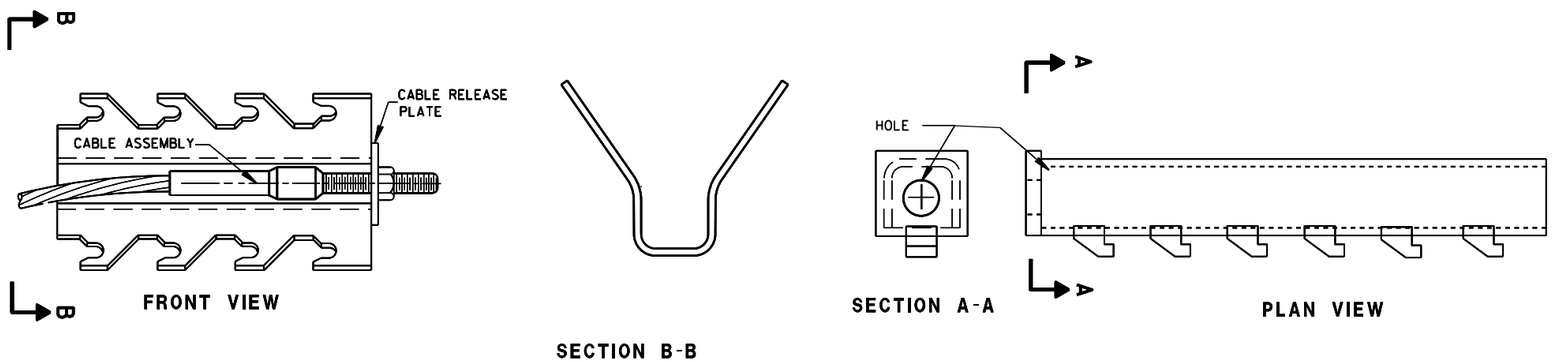
S.D.D. 14 B 44-2a



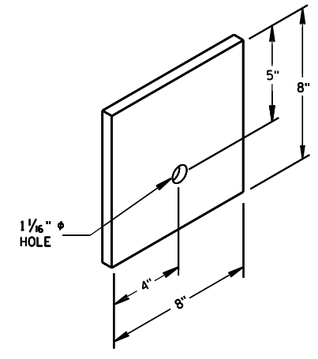
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(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)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



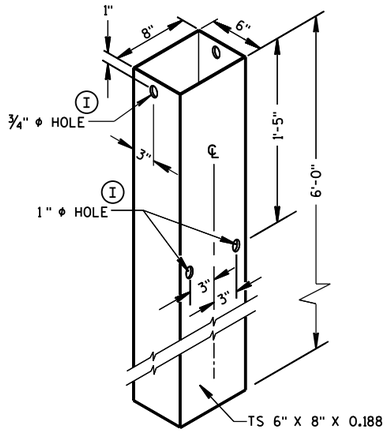
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

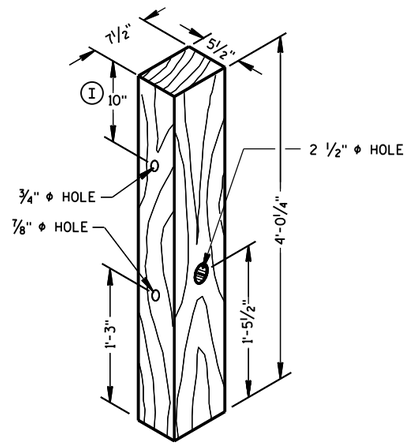
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 44-2b

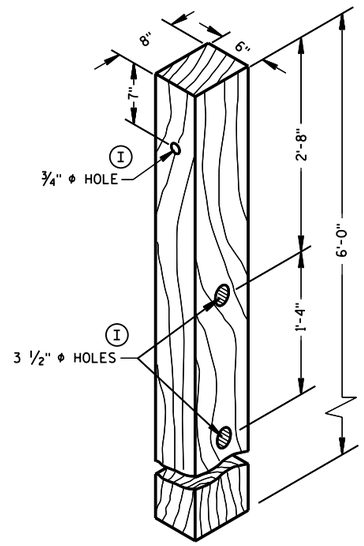


FOUNDATION TUBE (2)



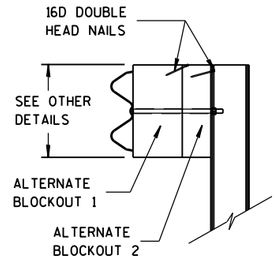
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

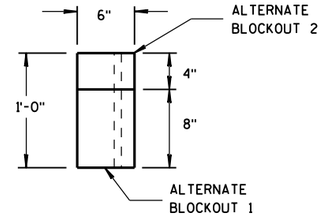


POSTS NUMBER 3-9

WOOD CRT POST (3)

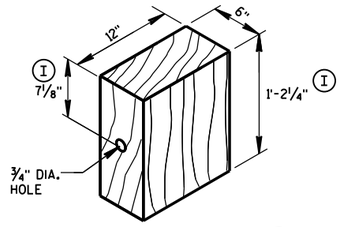


SIDE VIEW



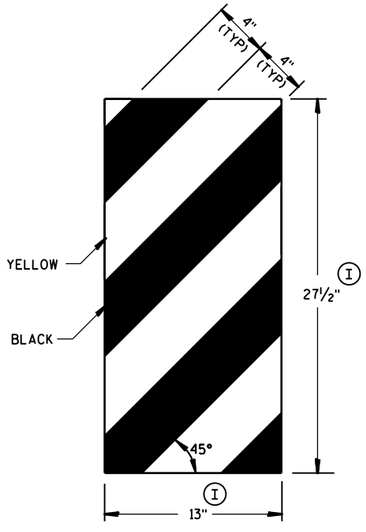
TOP VIEW

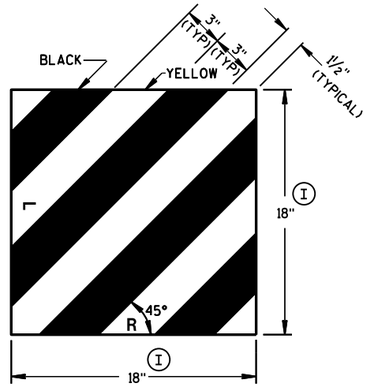
ALTERNATE WOOD BLOCKOUT DETAIL



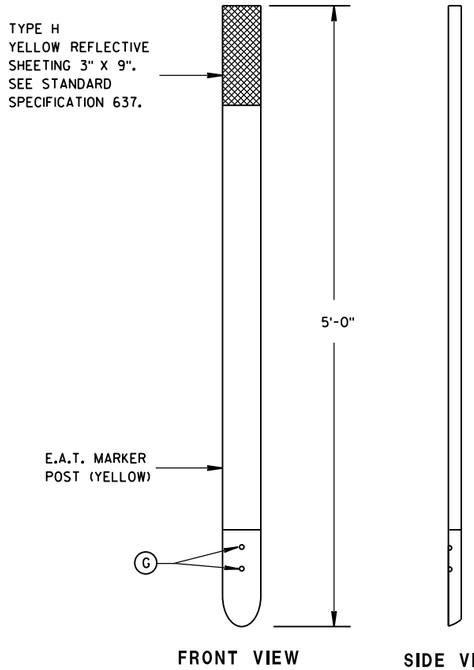
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





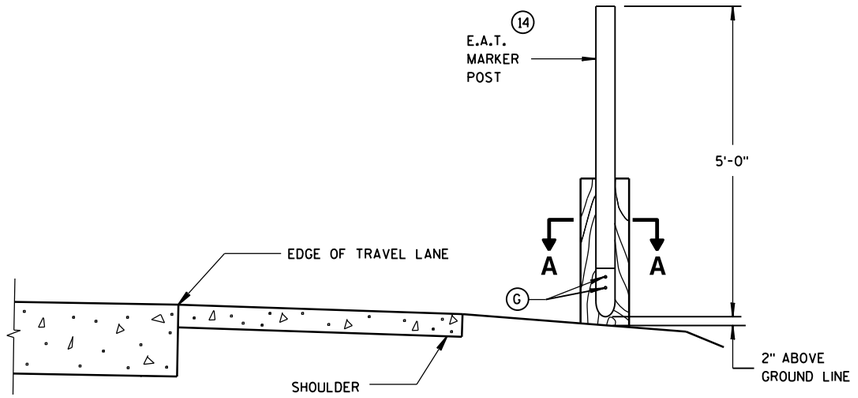
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

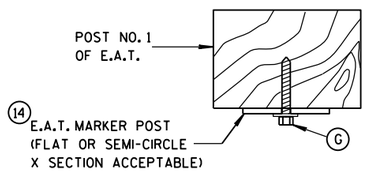
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

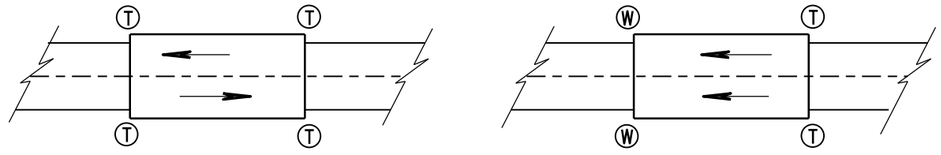
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

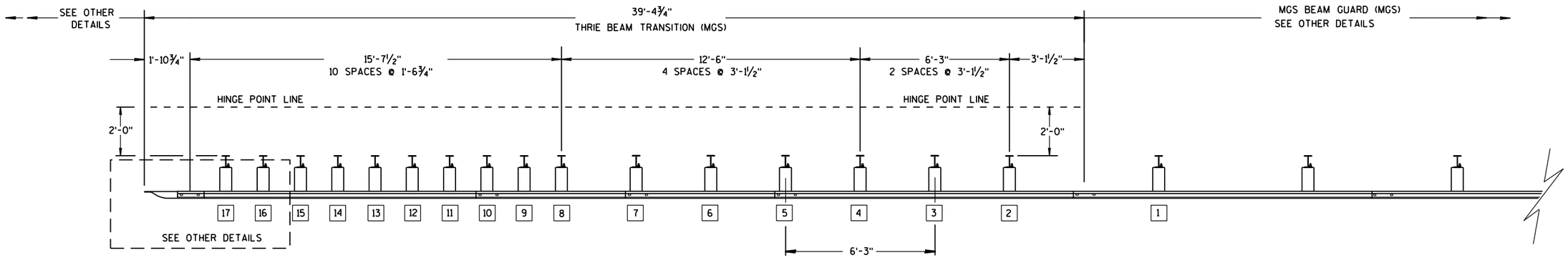
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

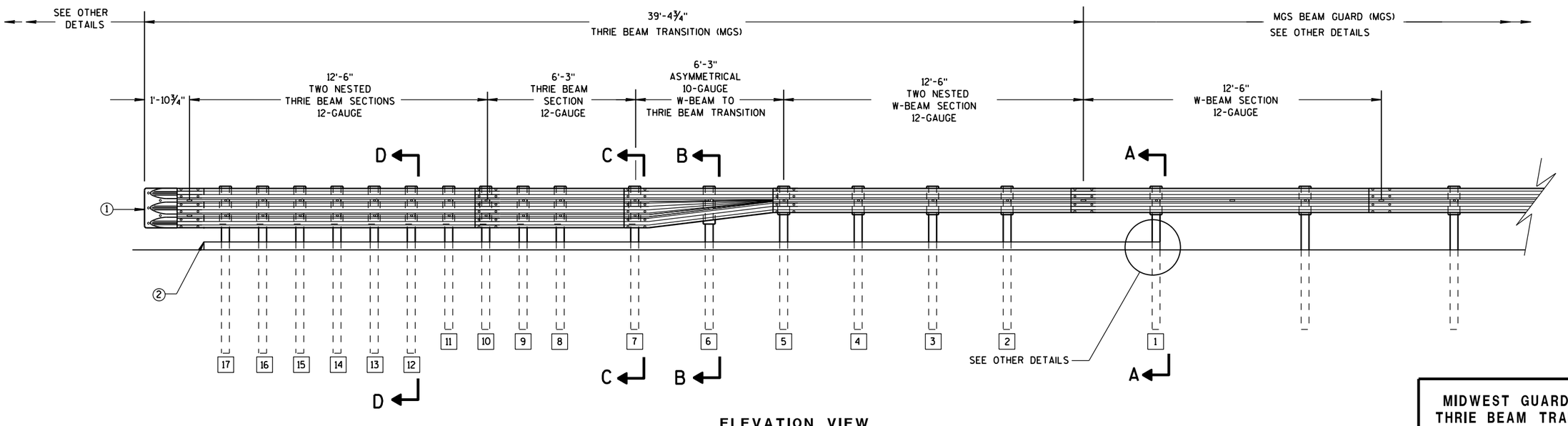
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

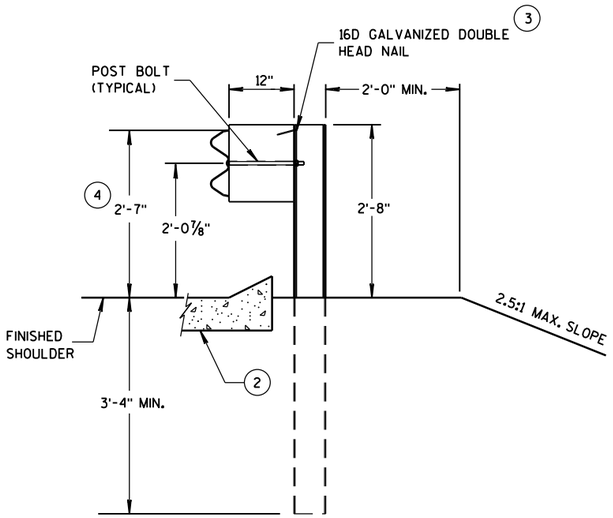
S.D.D. 14 B 45-4a

GENERAL NOTES

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

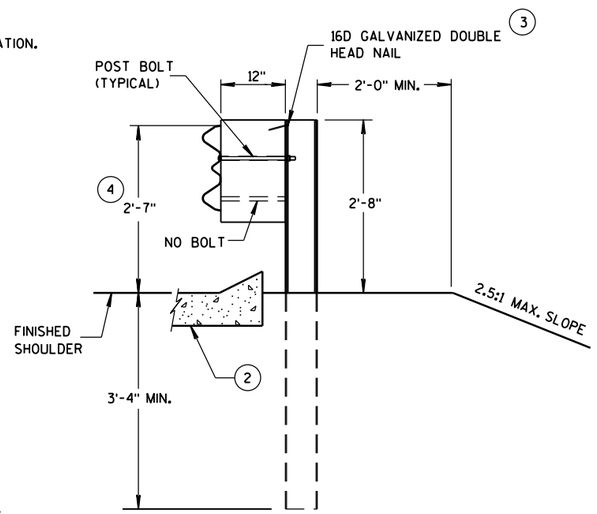
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



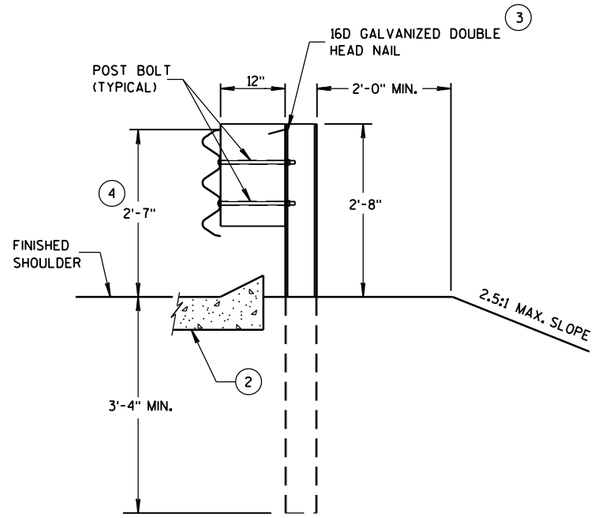
SECTION A-A

POSTS 1-5



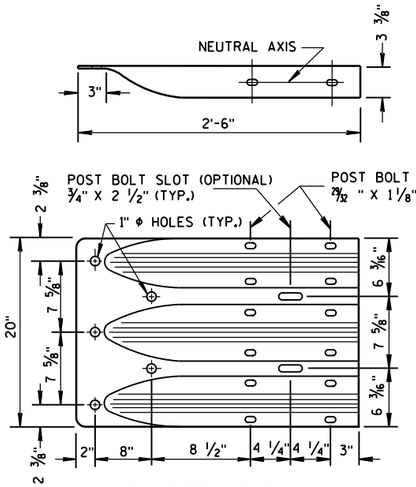
SECTION B-B

POST 6



SECTION C-C

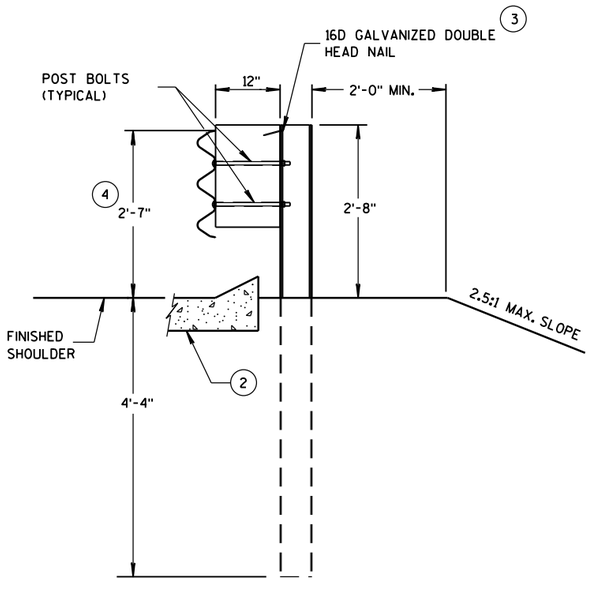
POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

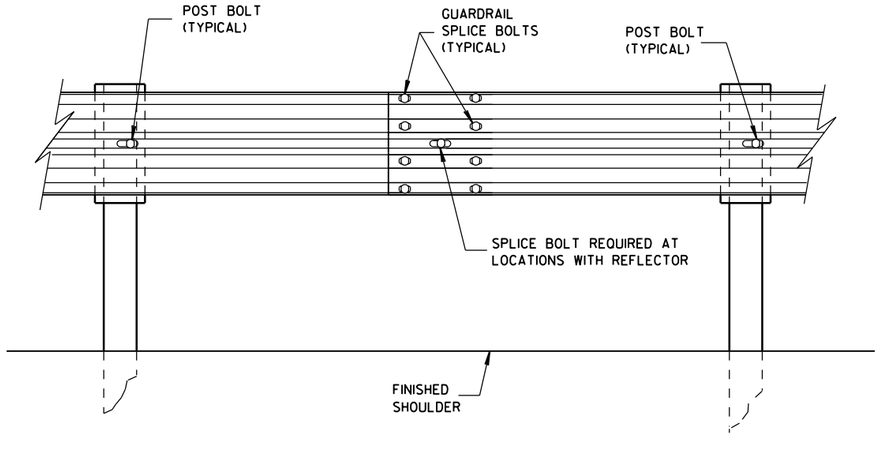
PLATE WASHER DETAIL

SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

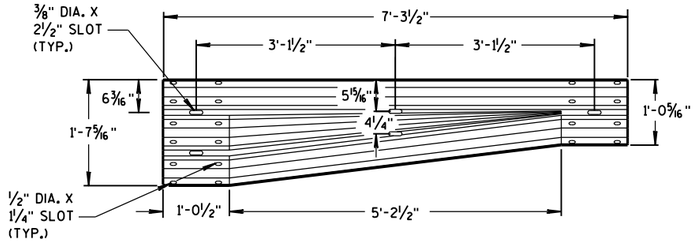
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 78

6

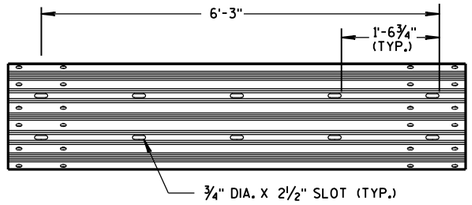
S.D.D. 14 B 45-4b

6

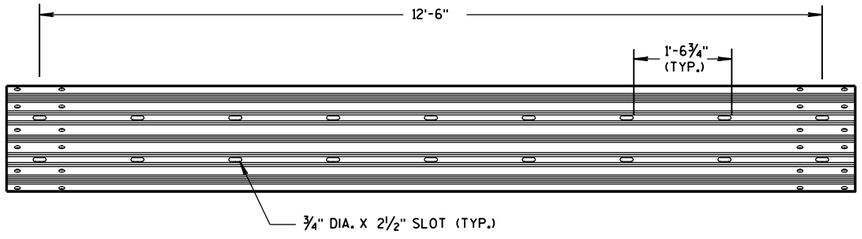
S.D.D. 14 B 45-4b



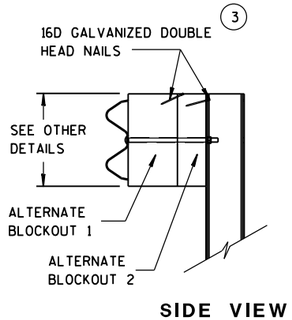
W-BEAM TO THRIE BEAM TRANSITION SECTION



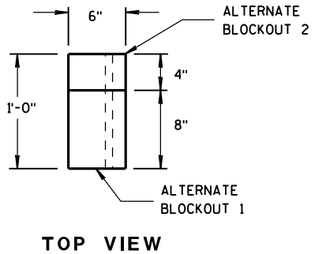
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

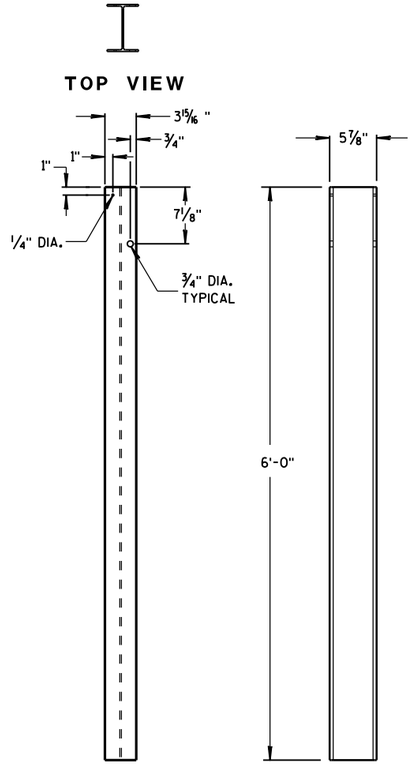


SIDE VIEW

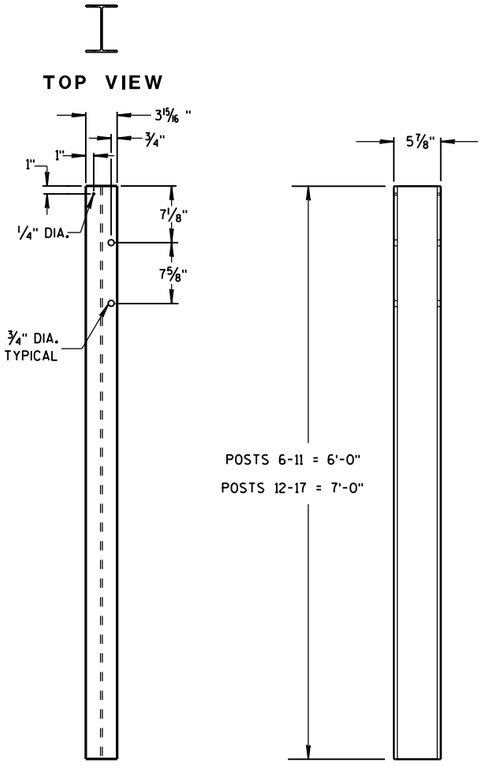


TOP VIEW

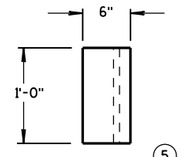
ALTERNATE WOOD BLOCKOUT DETAIL



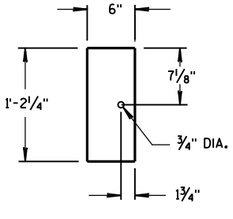
STEEL POSTS 1-5



STEEL POSTS 6-17

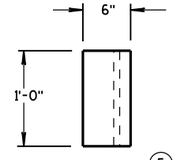


TOP VIEW (5)

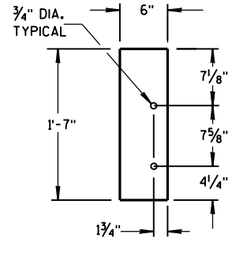


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW (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.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c
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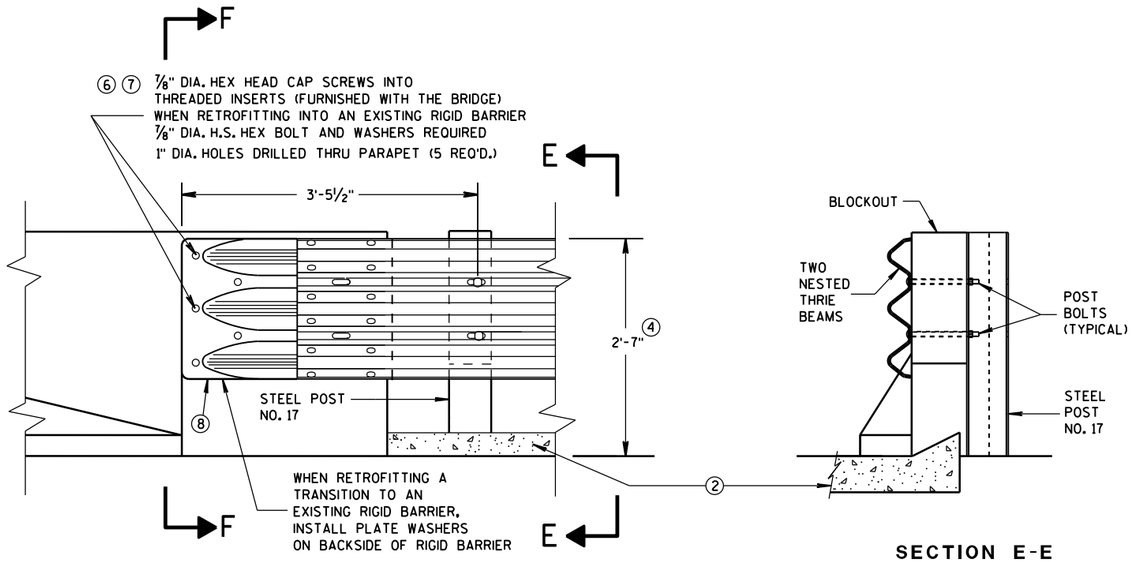


FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

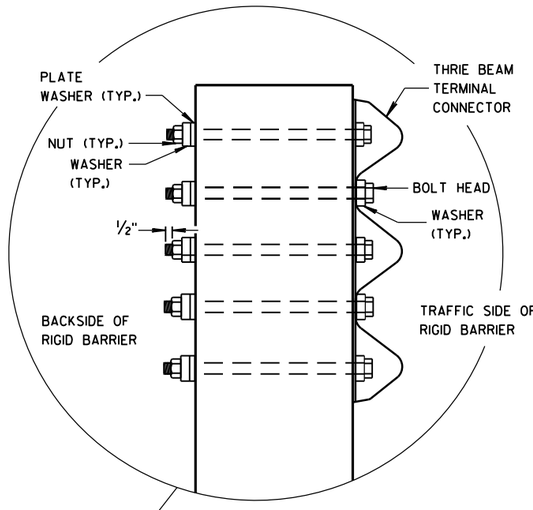
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

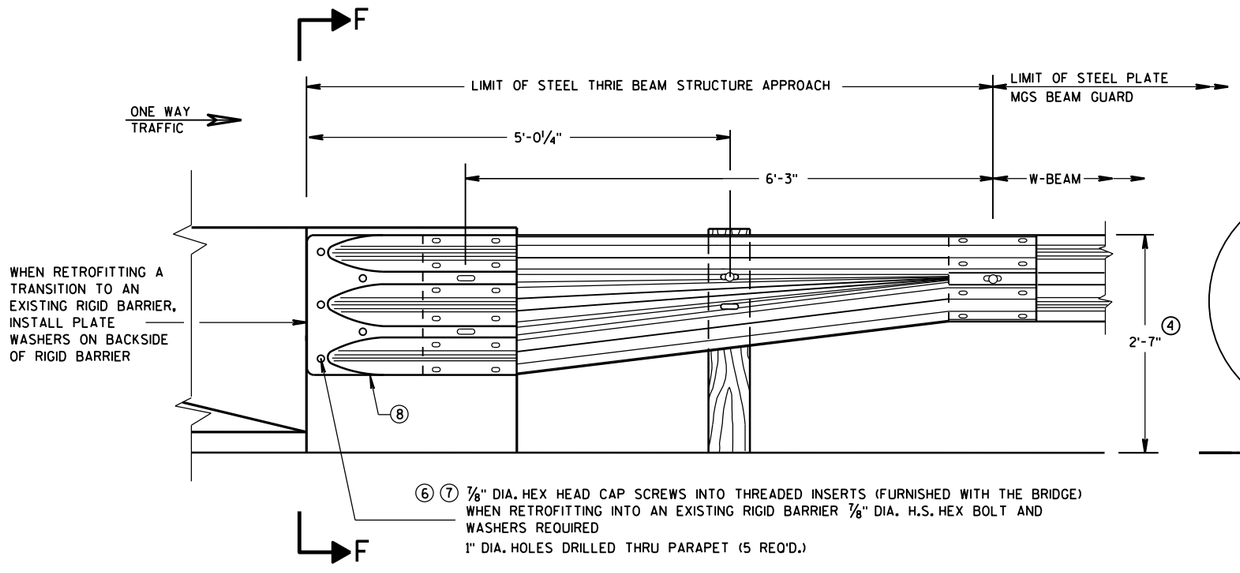
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

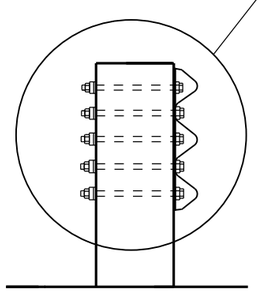
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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

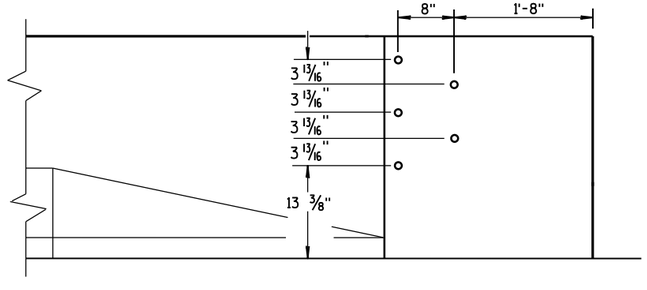




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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GENERAL NOTES

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

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

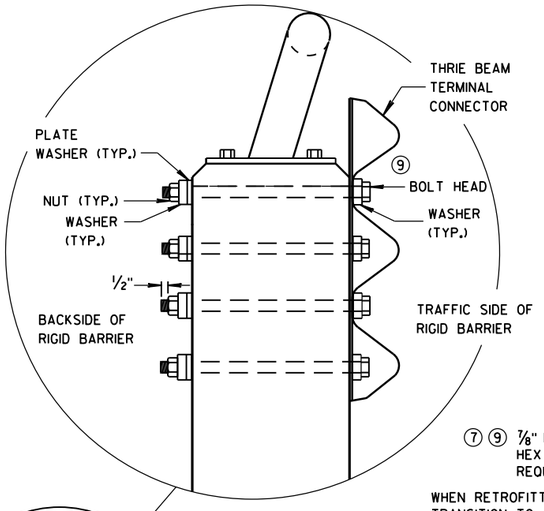
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

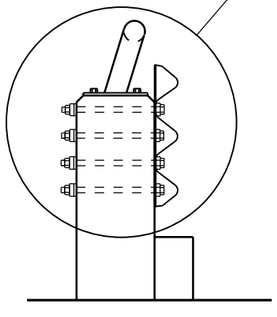
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

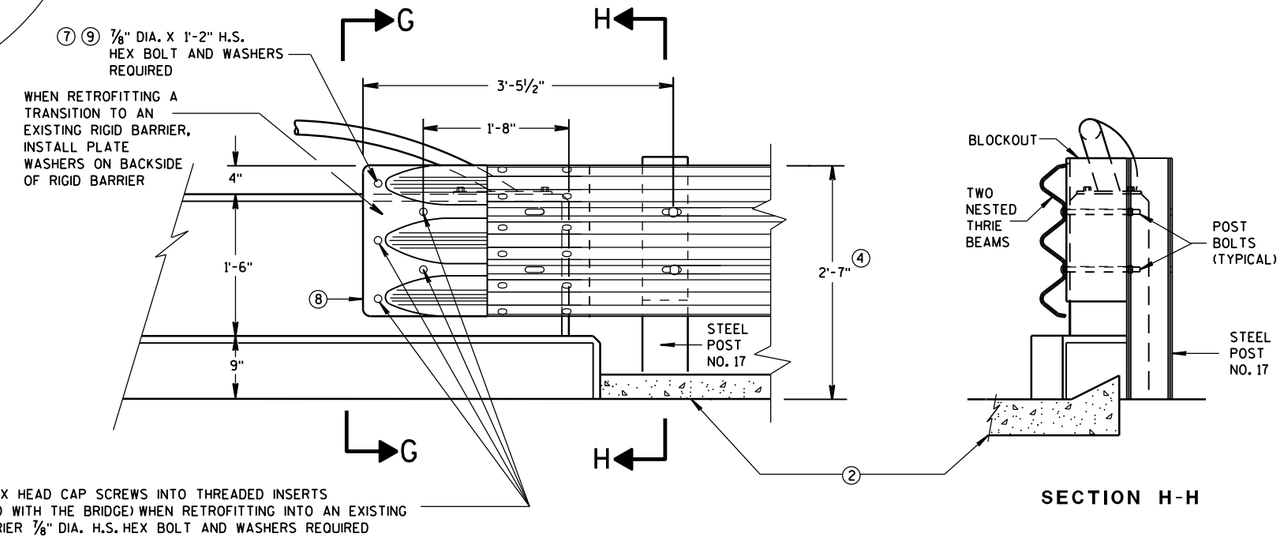
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

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





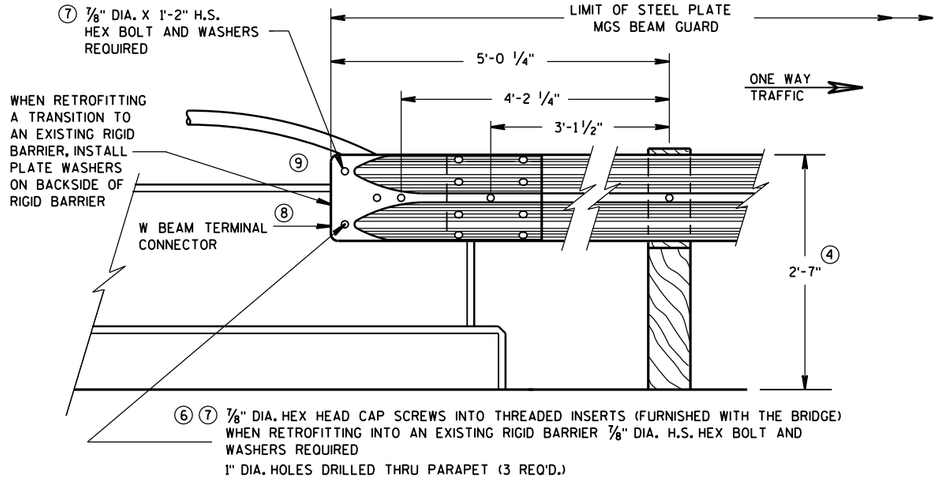
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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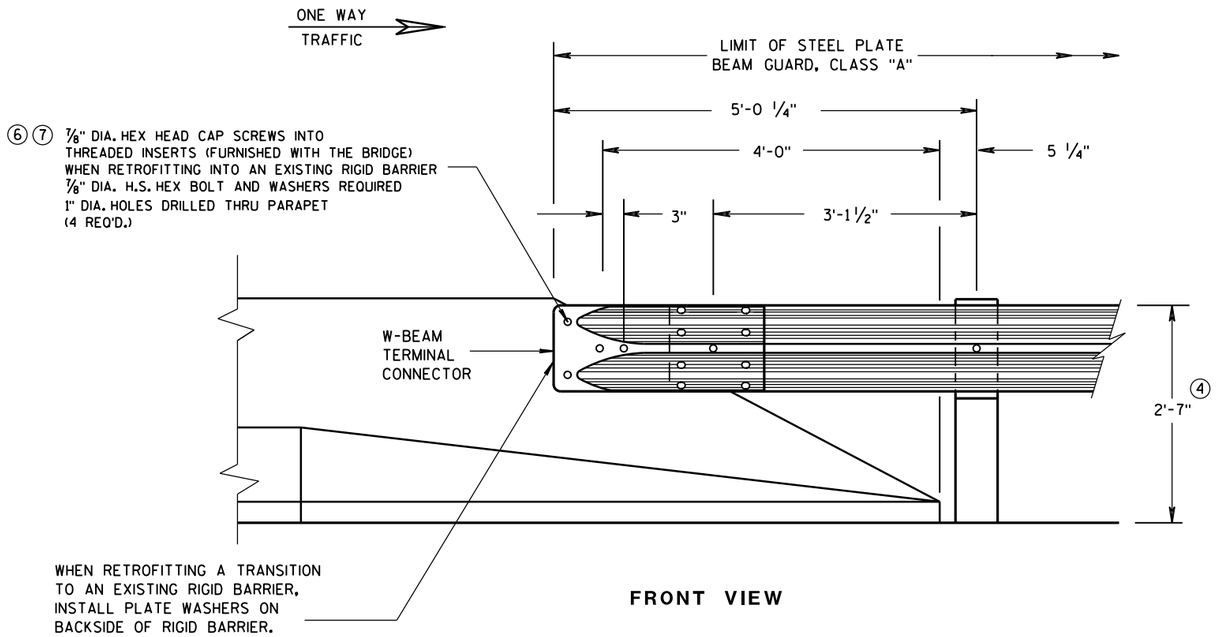

FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

GENERAL NOTES

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

④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

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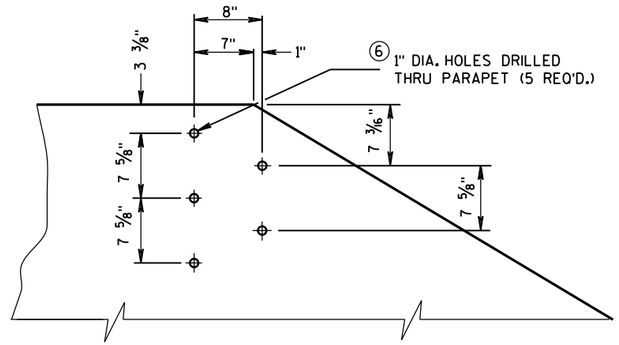
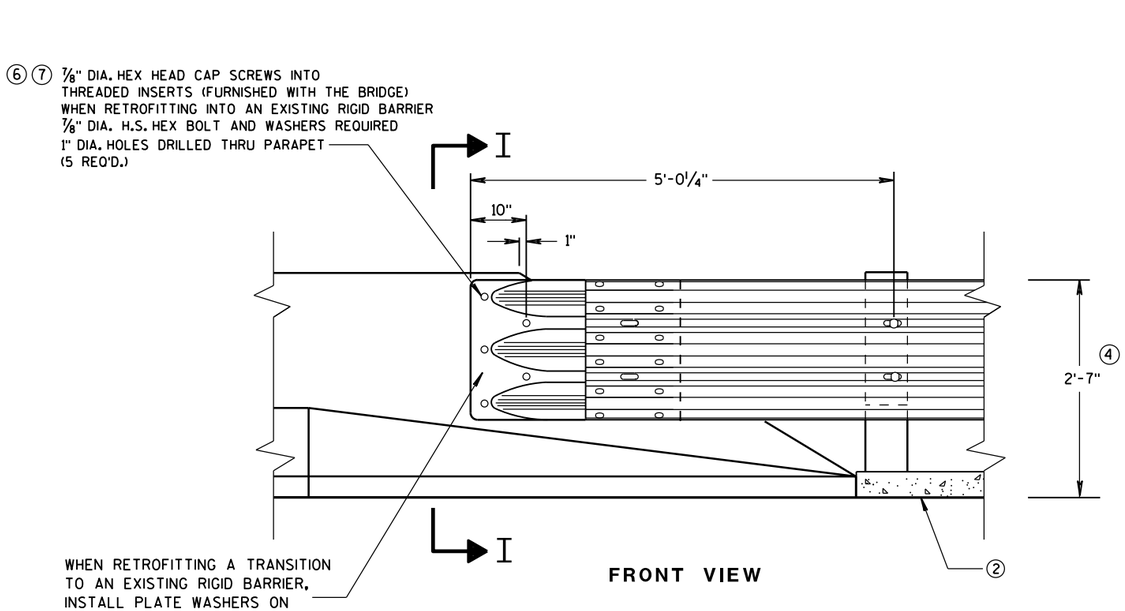
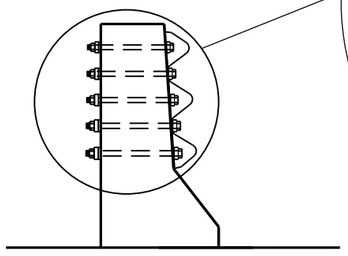


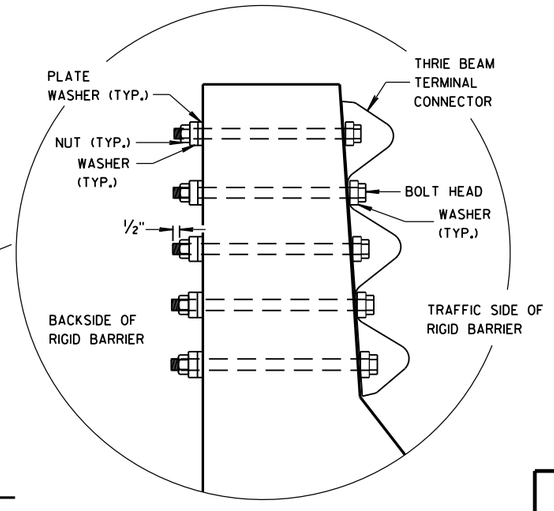
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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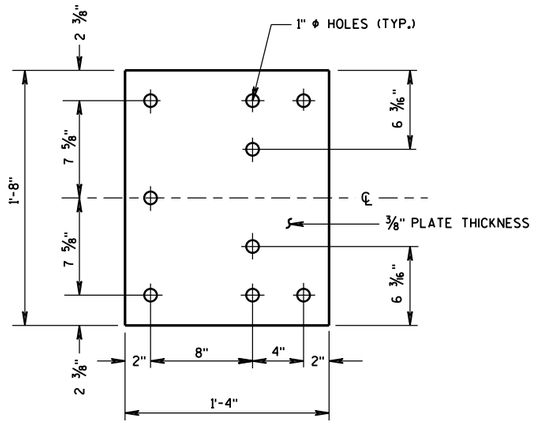
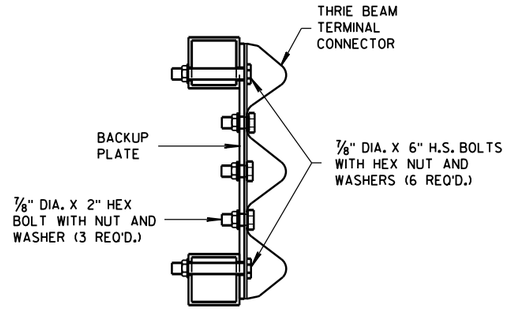
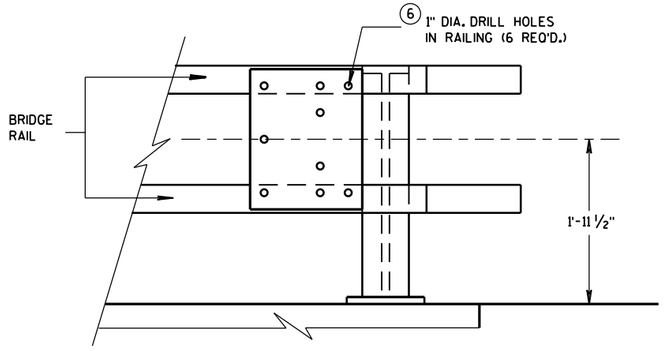


BACK-UP PLATE DETAIL



SECTION J-J

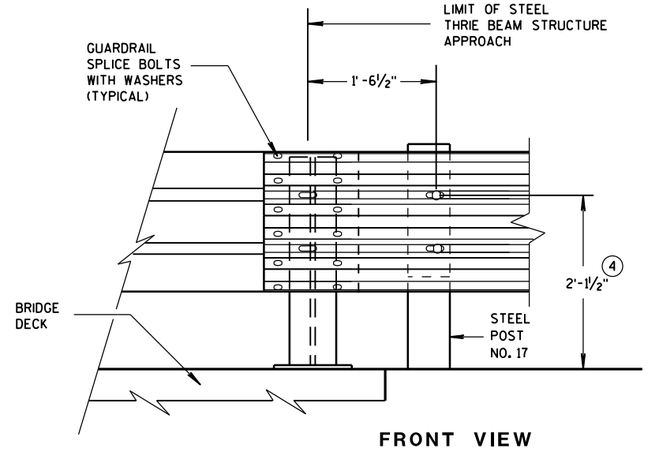


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

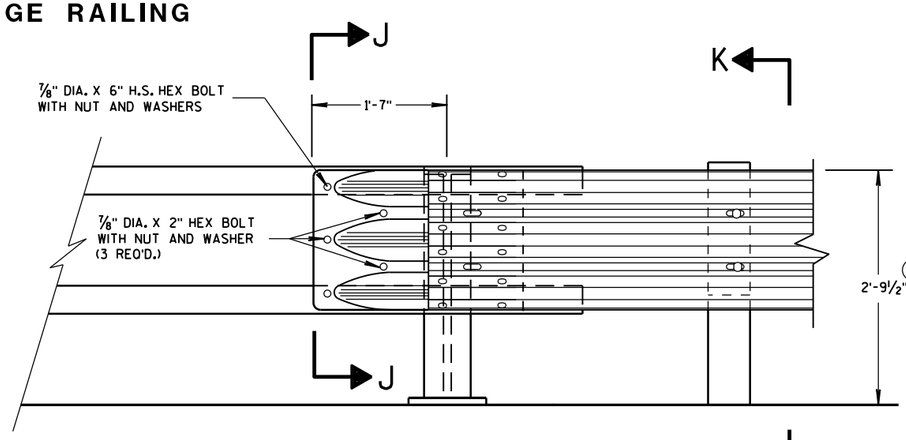
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

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

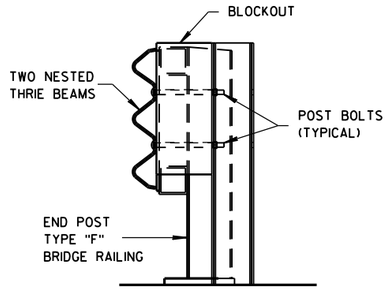


FRONT VIEW

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)

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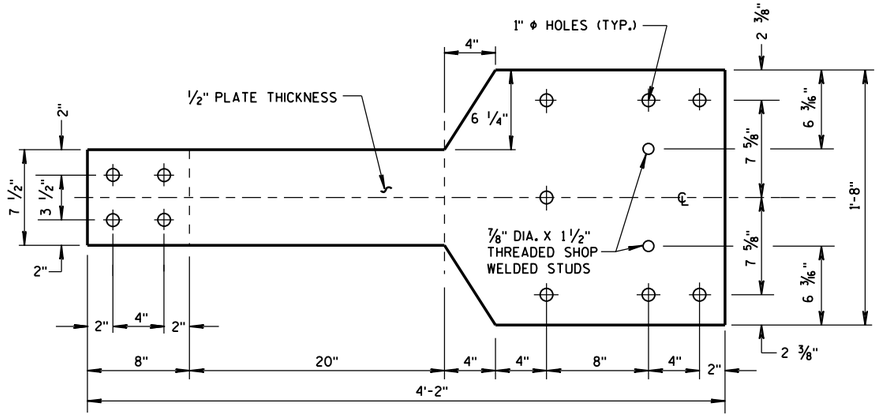
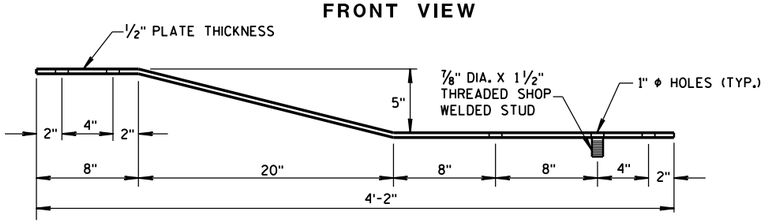
GENERAL NOTES

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

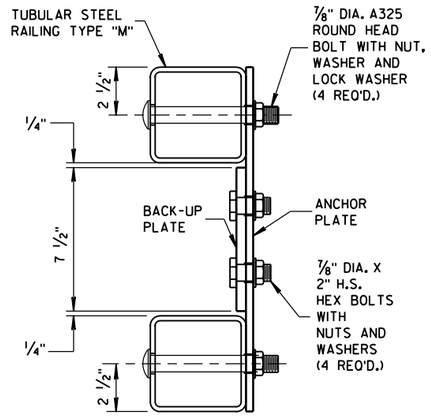


FRONT VIEW

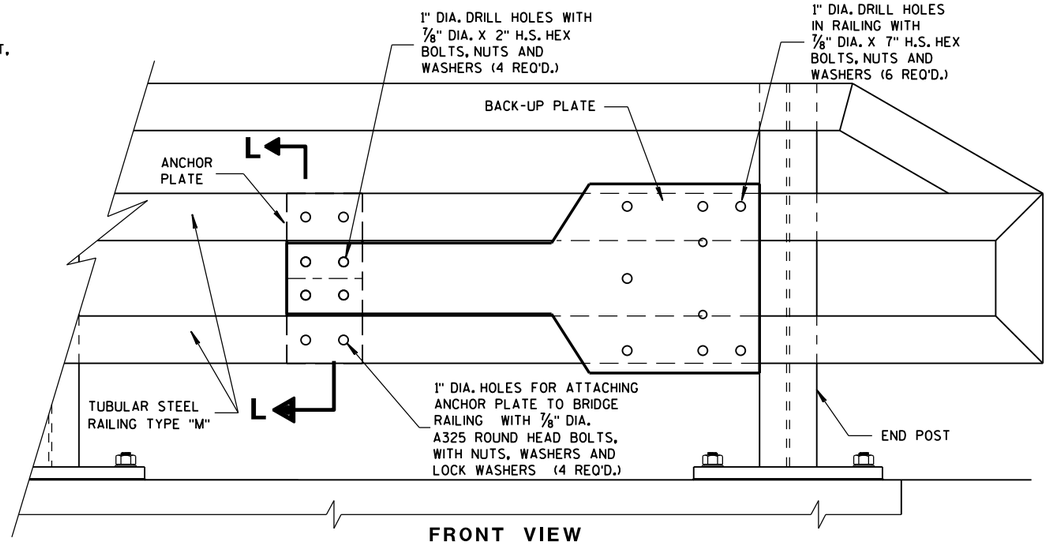


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

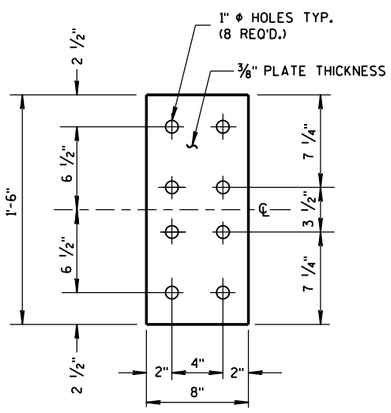


SECTION L-L



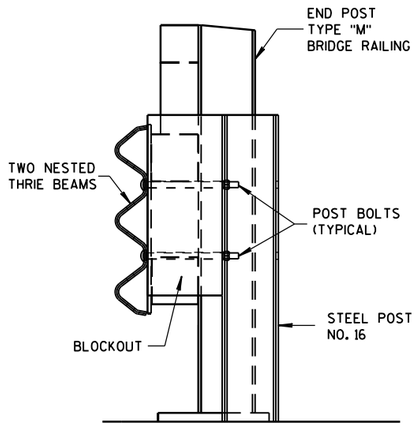
FRONT VIEW

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

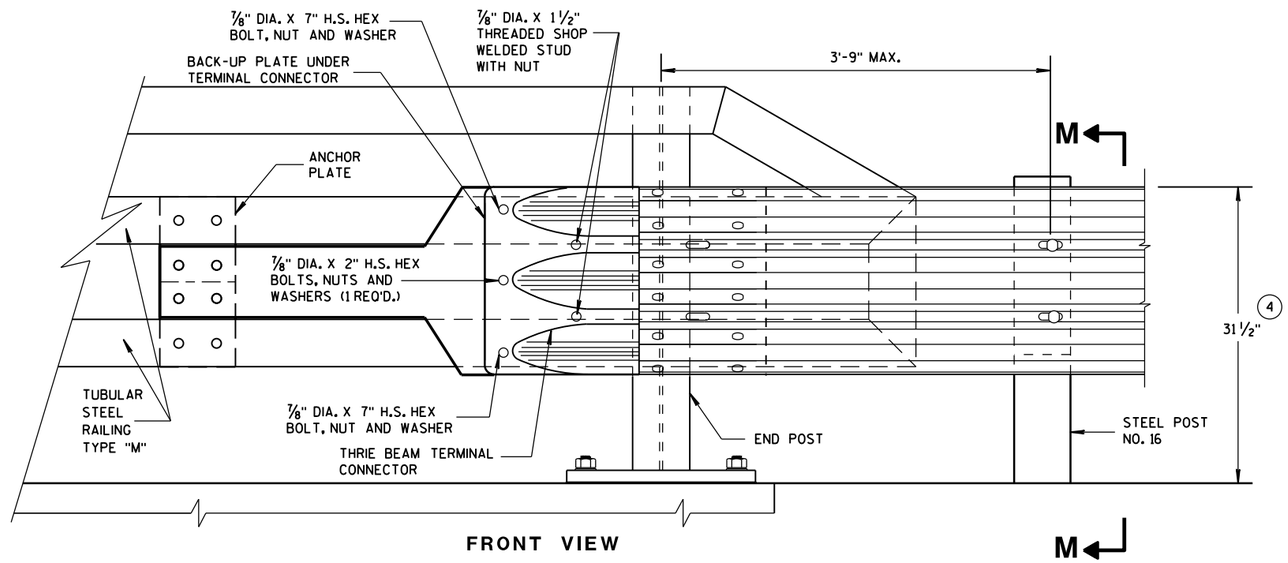


FRONT VIEW

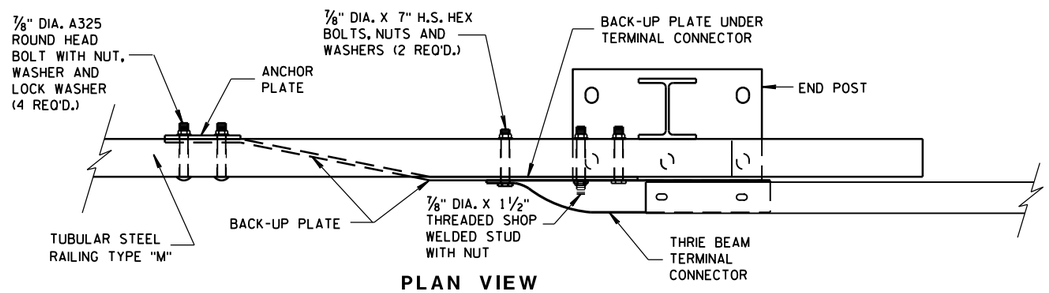
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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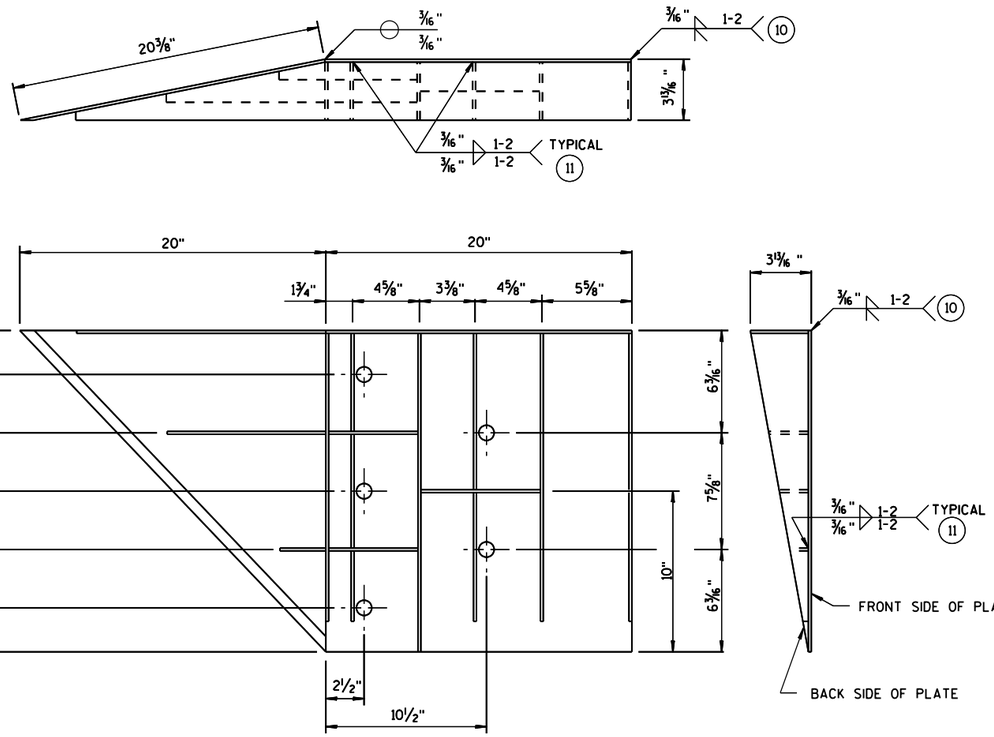

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

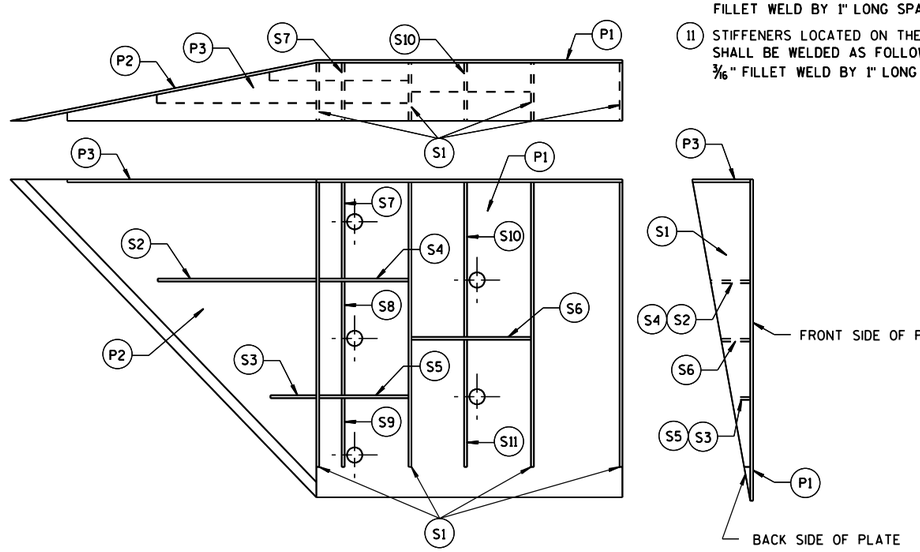

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

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

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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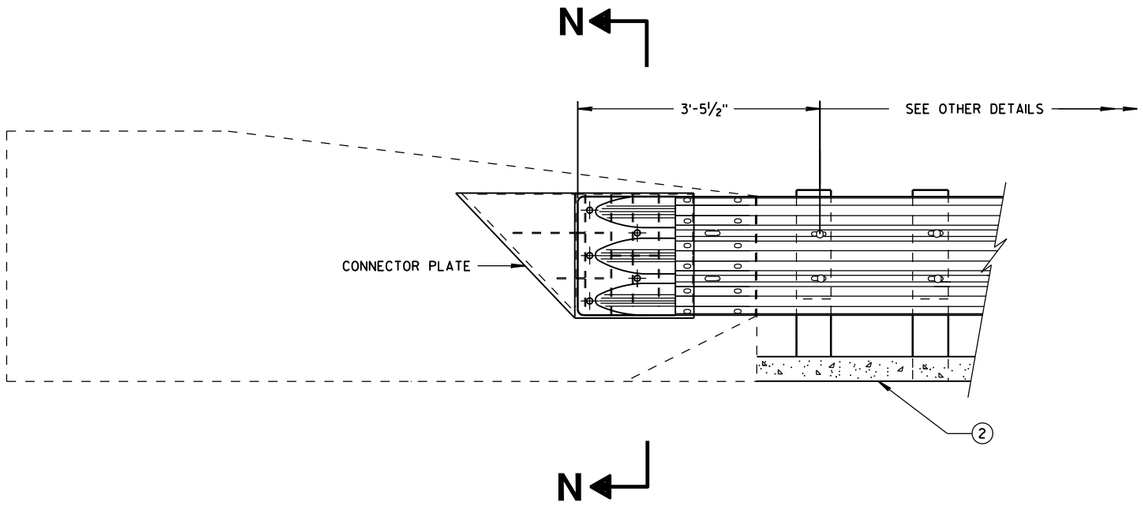
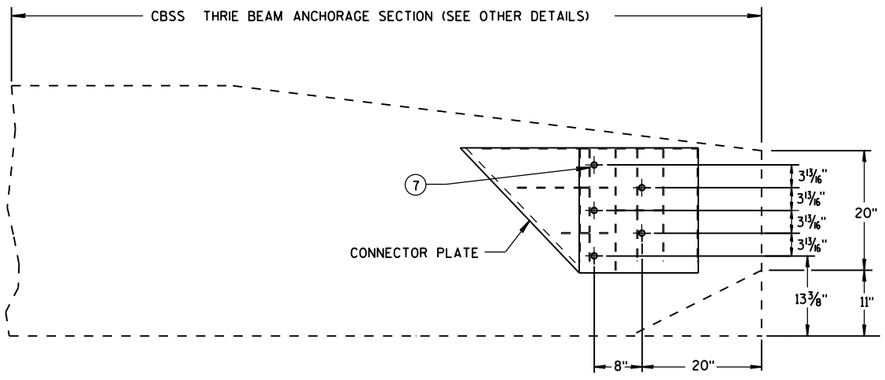


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



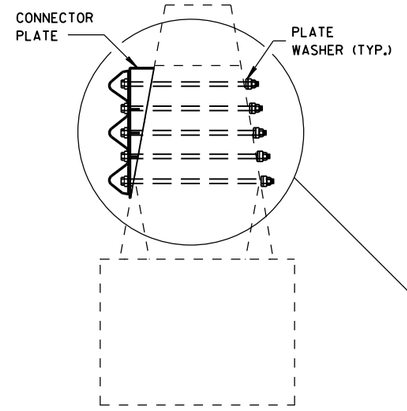
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

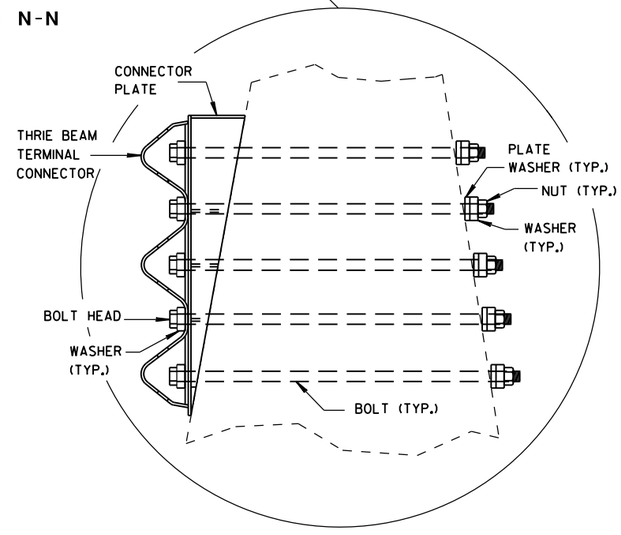
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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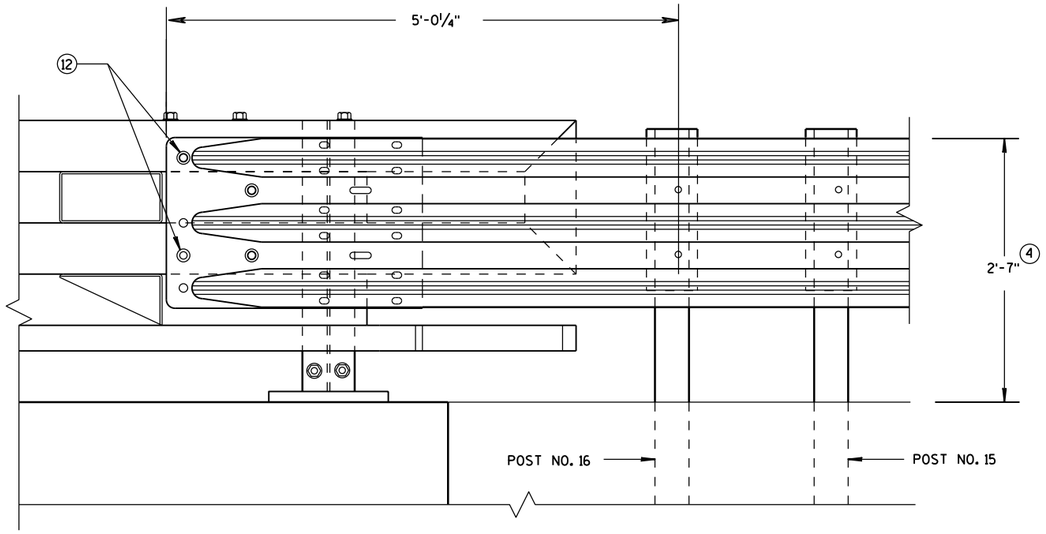
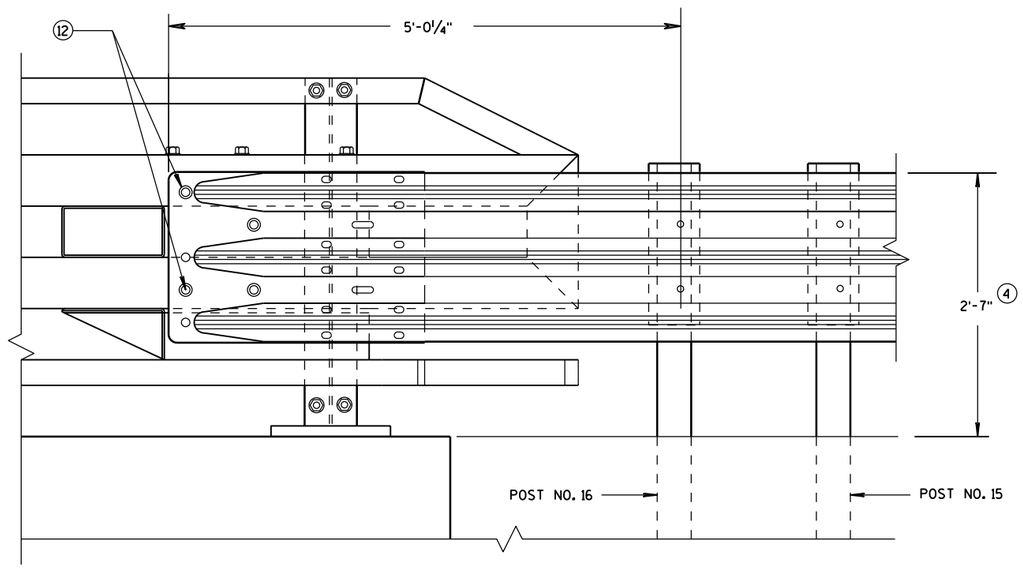
S.D.D. 14 B 45-4j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
FHWA

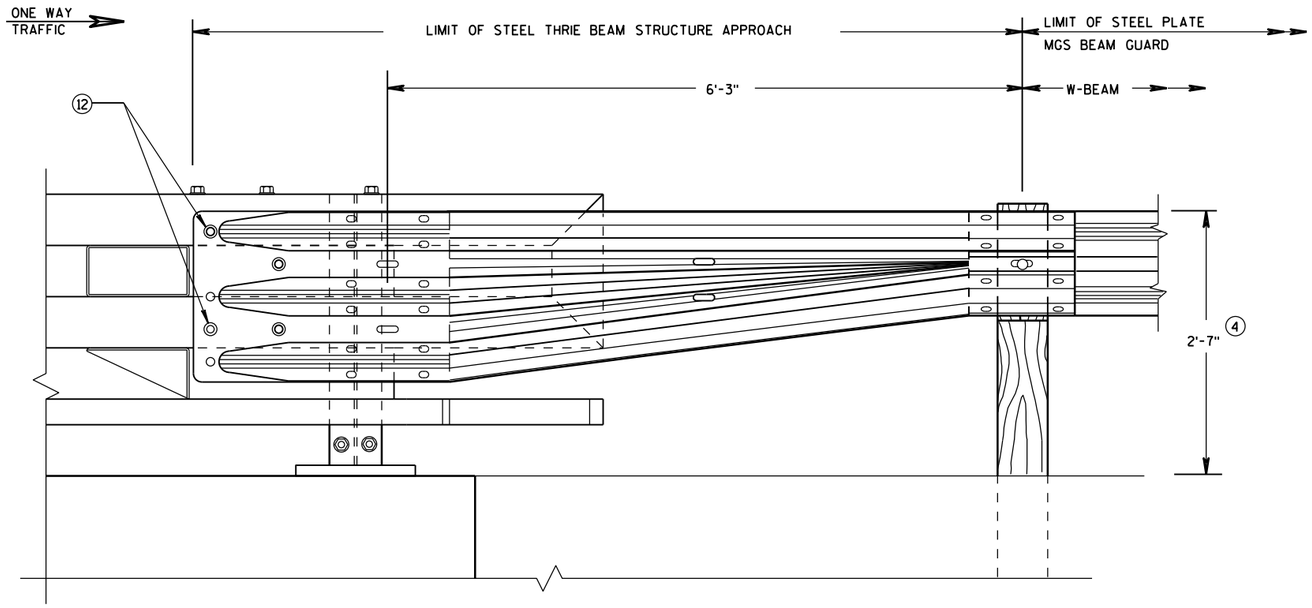
/S/ Jerry H. Zogg
ROADWAY STANDARDS D 87 NT
ENGINEER

6

S.D.D. 14 B 45-4k

6

S.D.D. 14 B 45-4k



FRONT VIEW

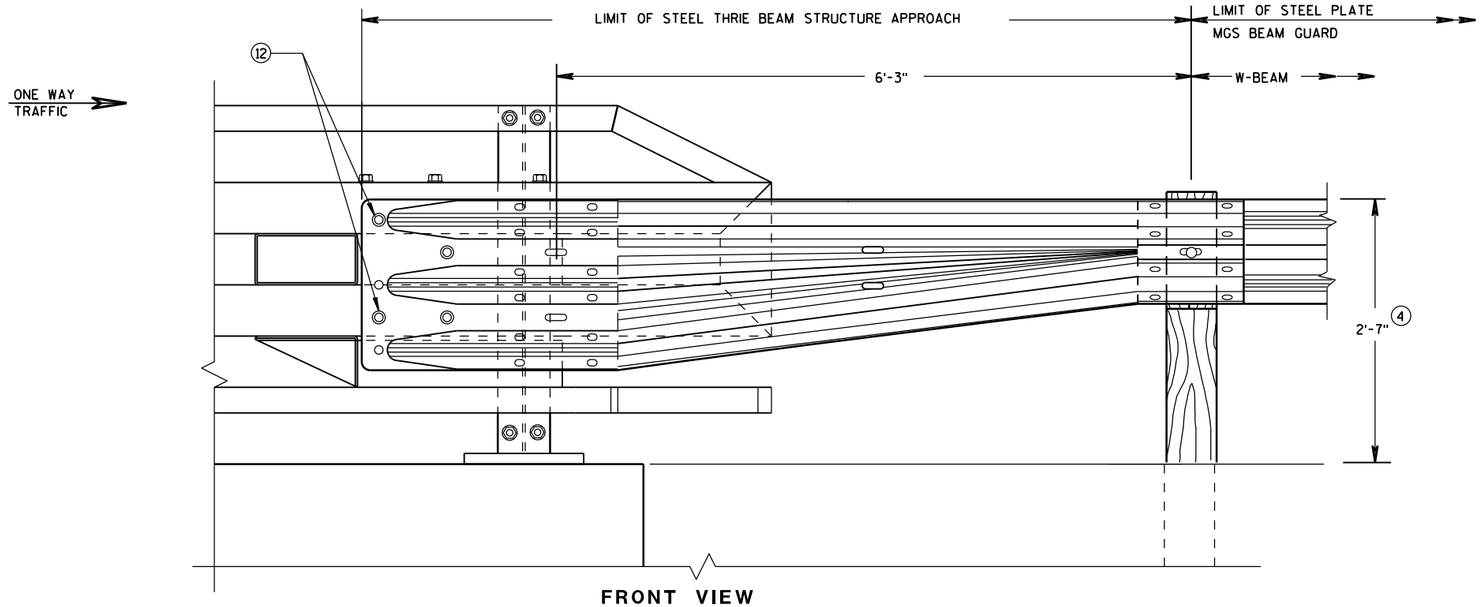
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

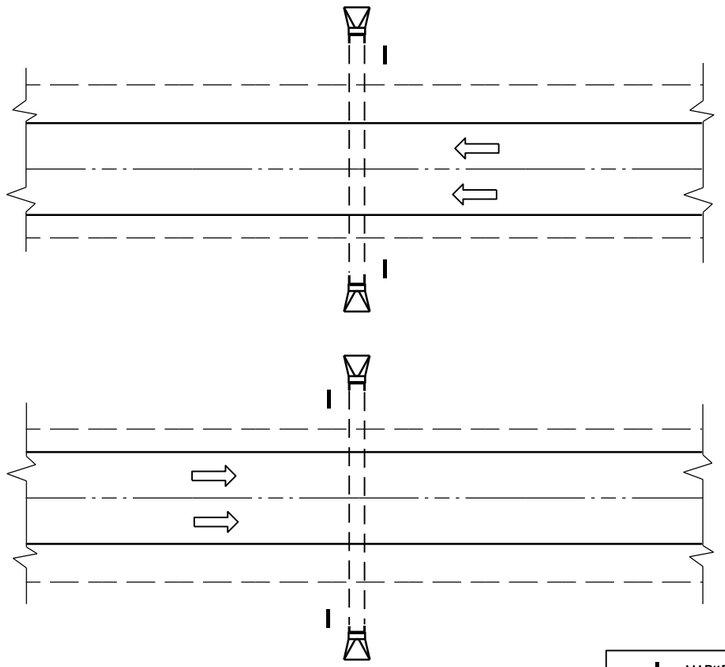
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
D 88 NT
FHWA

6

S.D.D. 14 B 45-4L

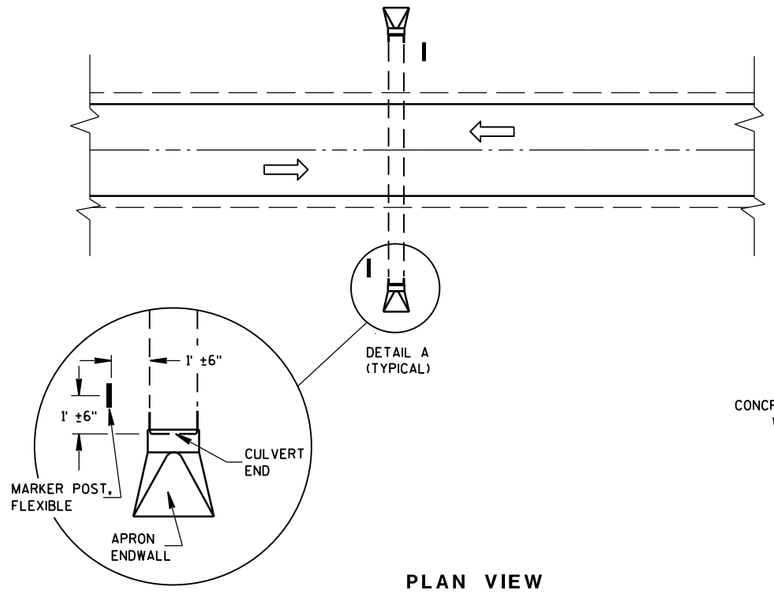
6

S.D.D. 14 B 45-4L



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

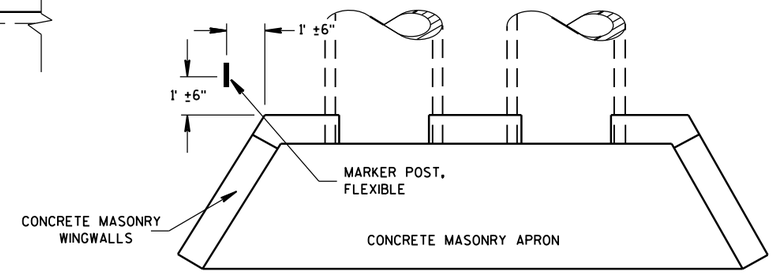
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

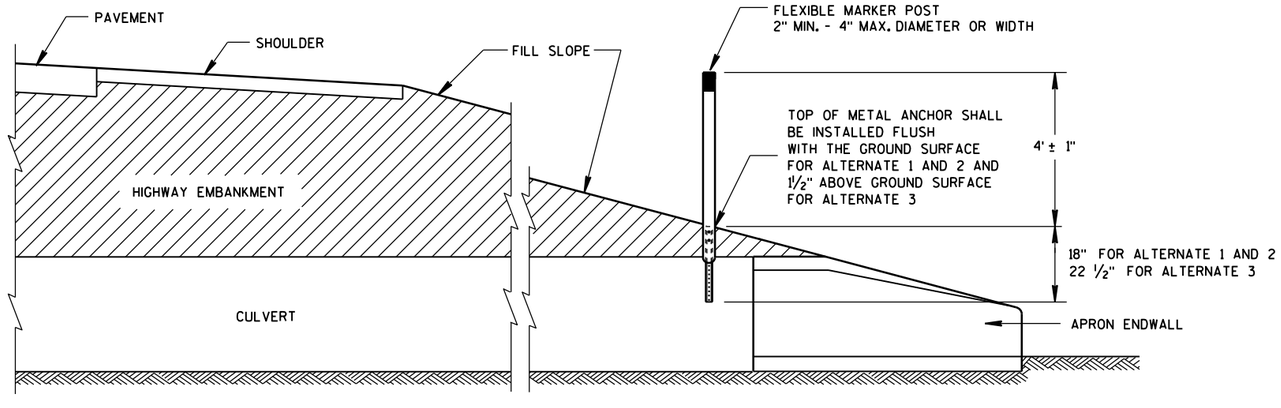
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 A 3-2a

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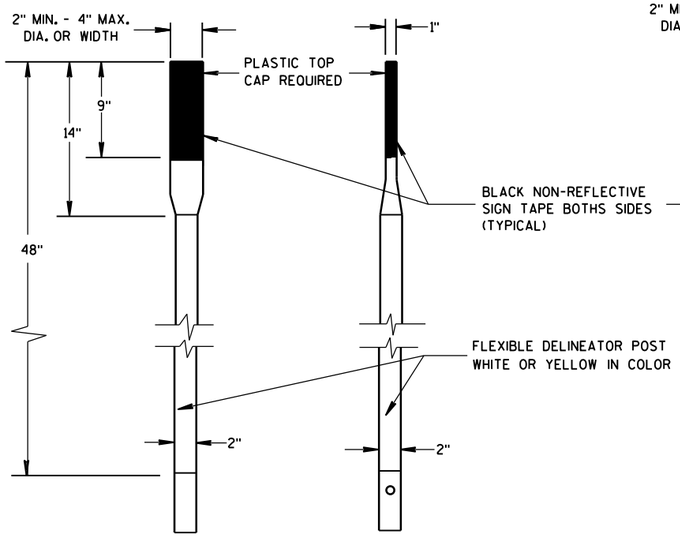
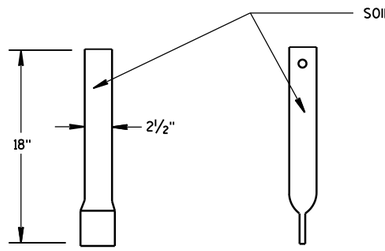
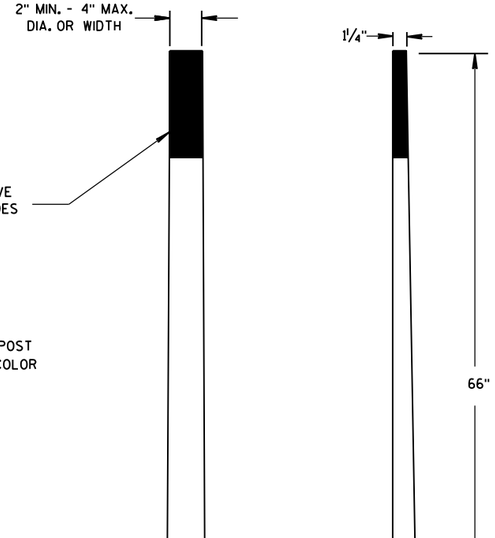
S.D.D. 15 A 3-2a





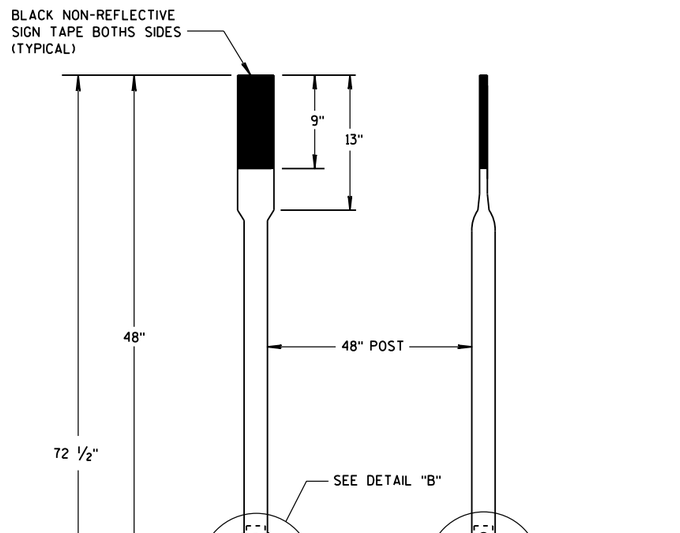
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

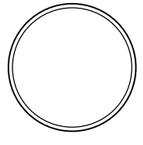
ALTERNATE 2



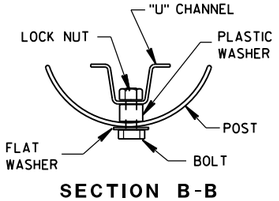
FRONT VIEW SIDE VIEW

ALTERNATE 3

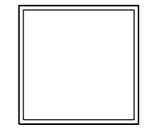
FLEXIBLE MARKER POSTS



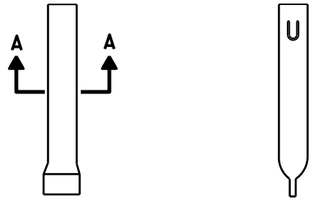
SECTION A-A



SECTION B-B

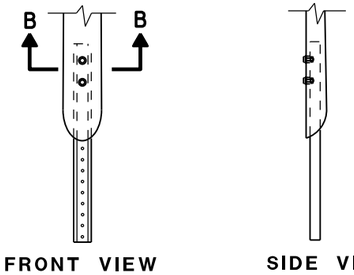


SECTION C-C



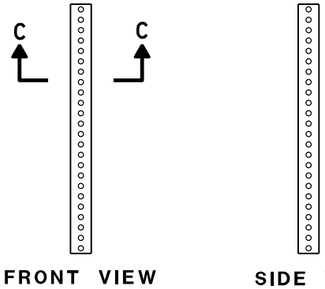
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

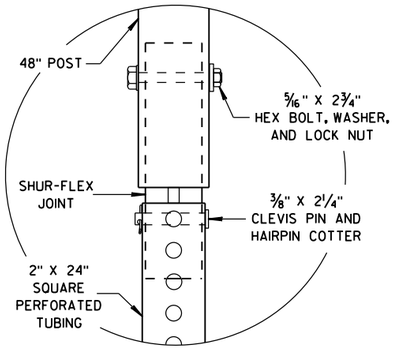
ALTERNATE 2



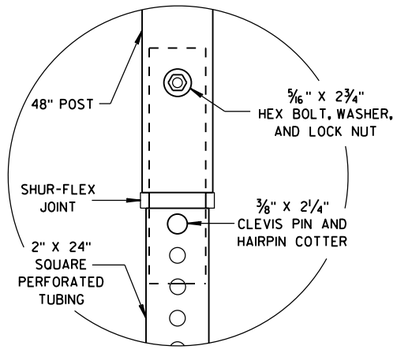
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

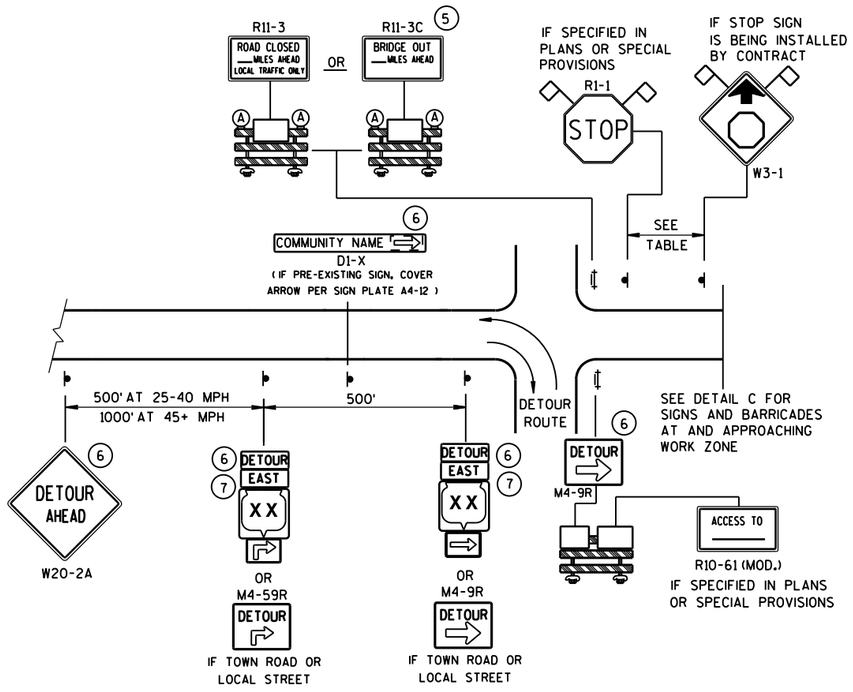
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

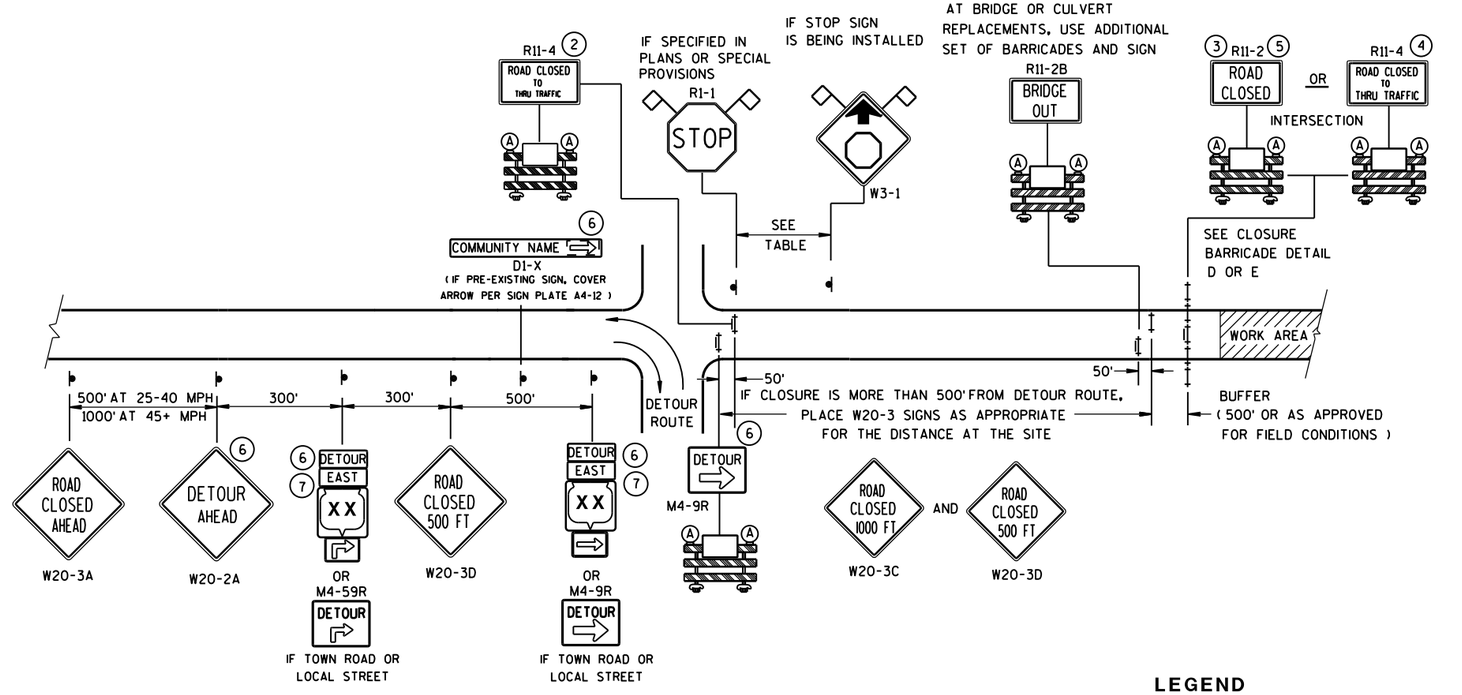
6

S.D.D. 15 A 3-2b



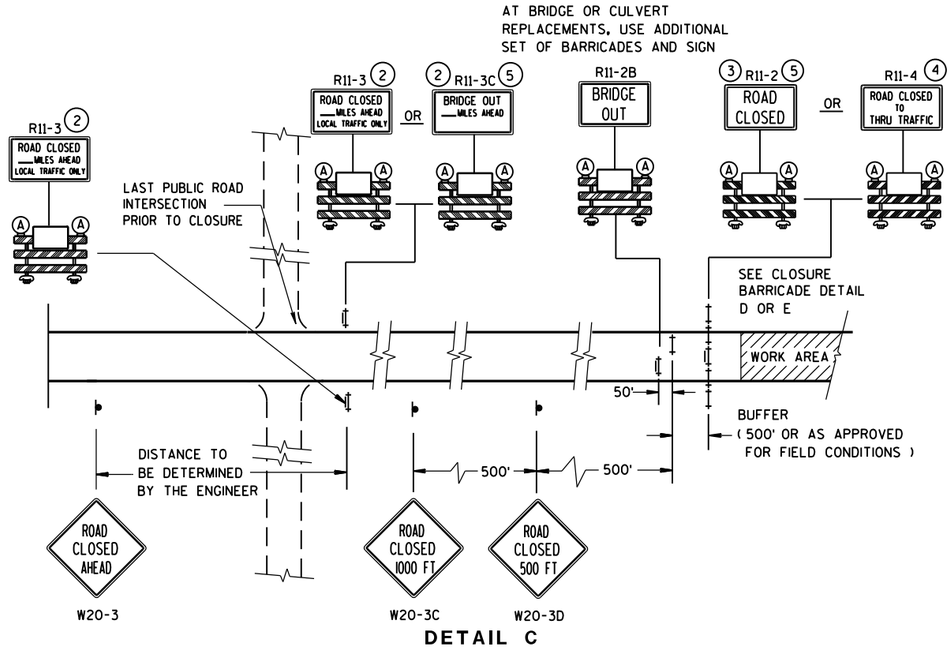
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

LEGEND

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

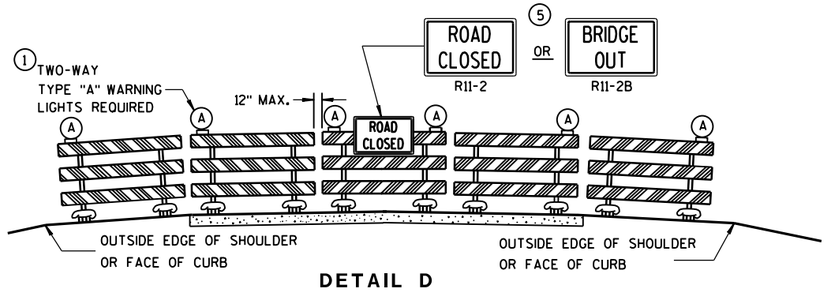
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

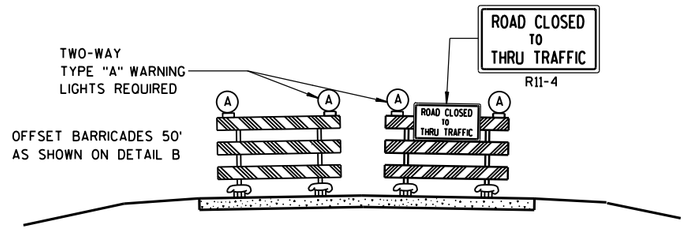
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO 92 FIC
SAFETY ENGI
FHWA

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

GENERAL NOTES

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

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

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

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

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

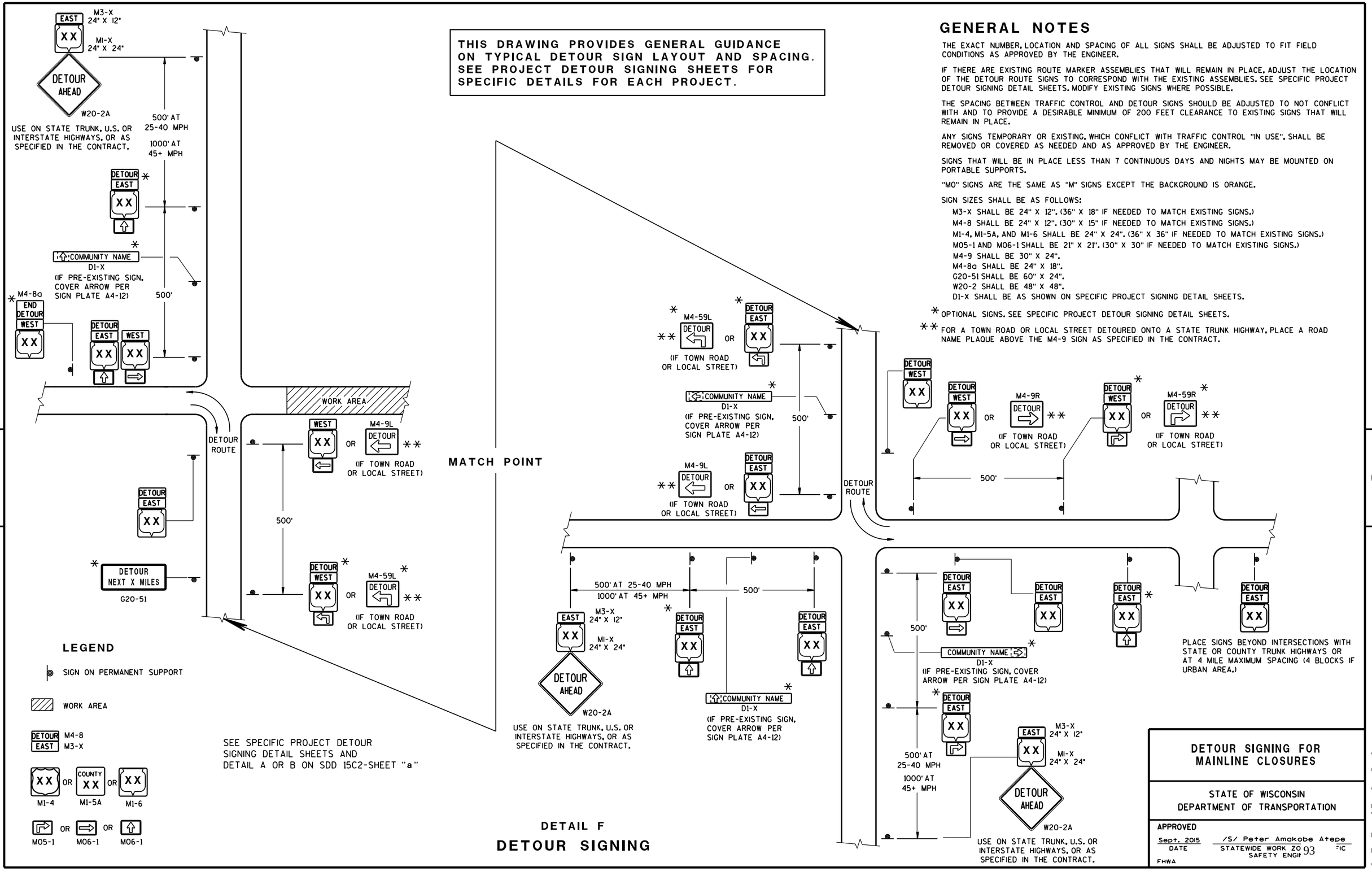
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

FHWA

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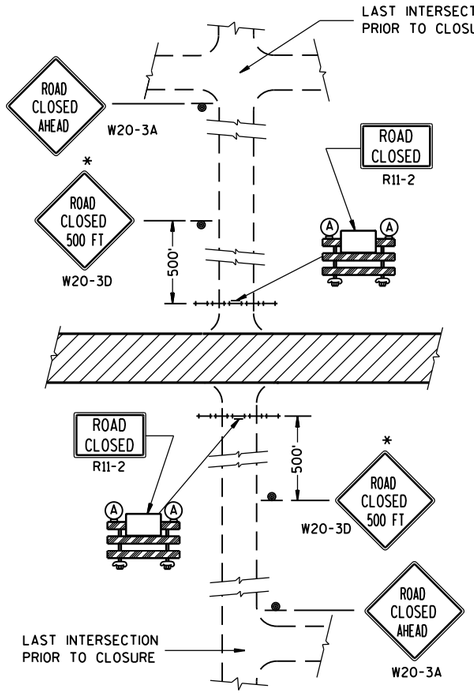
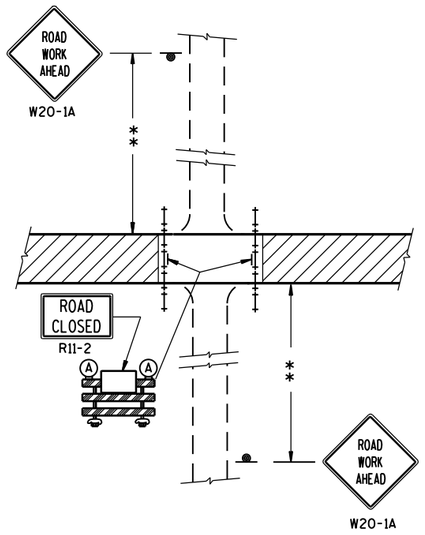
S.D.D. 15 C 2-6c



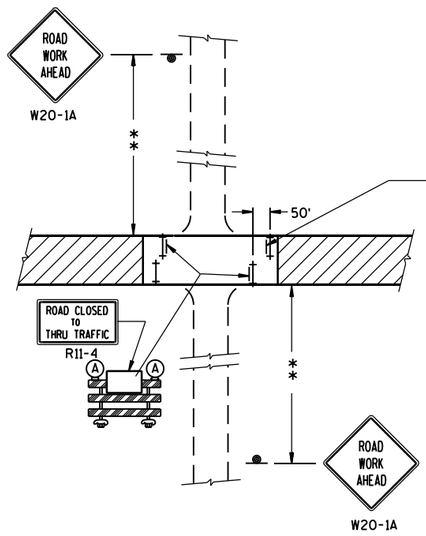
DETAIL 1

(NO ACCESS TO PROJECT)



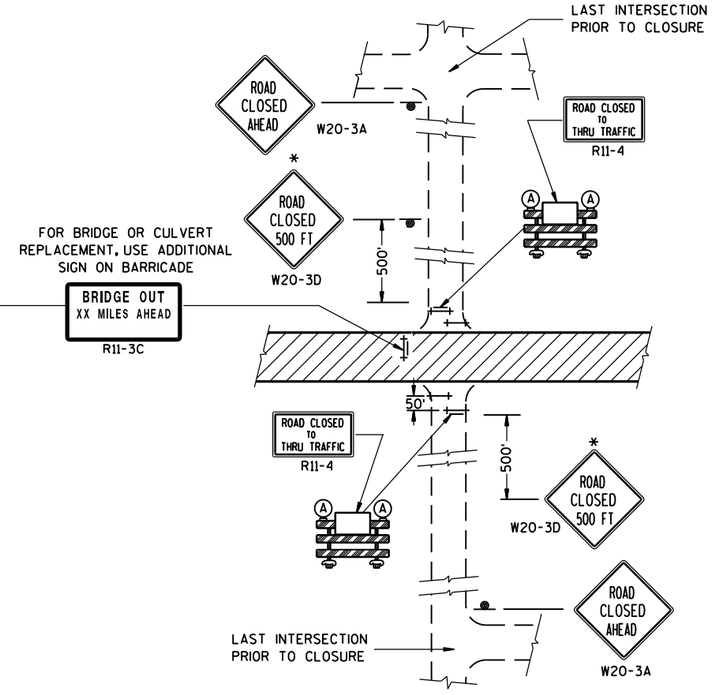
DETAIL 2

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



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

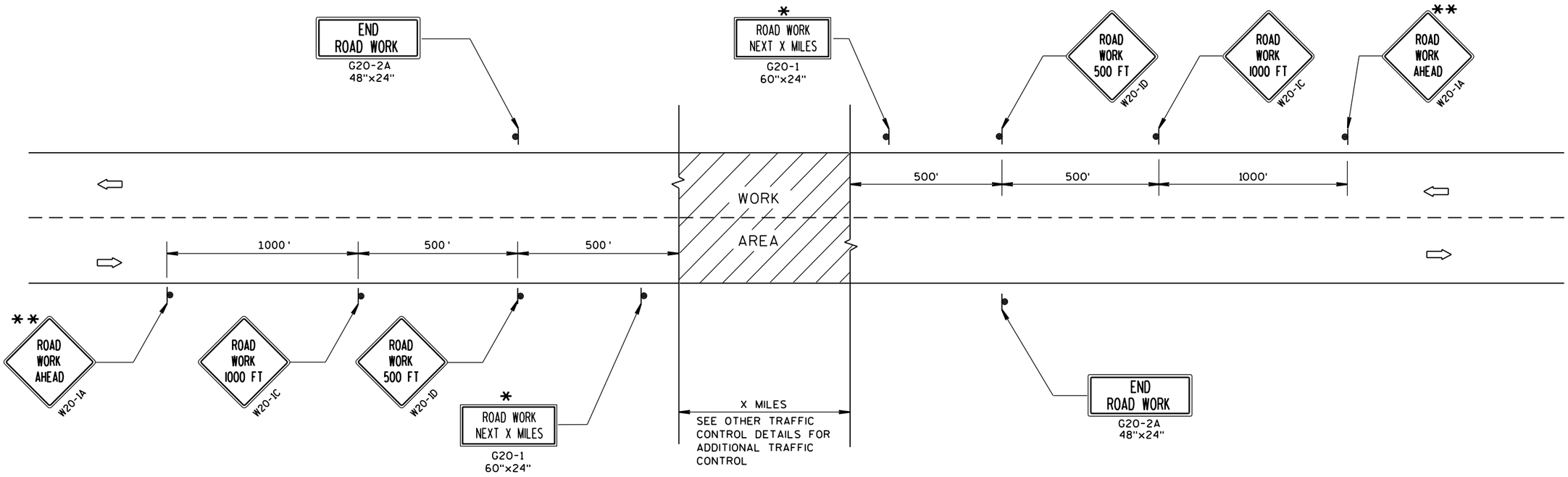
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

6

S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

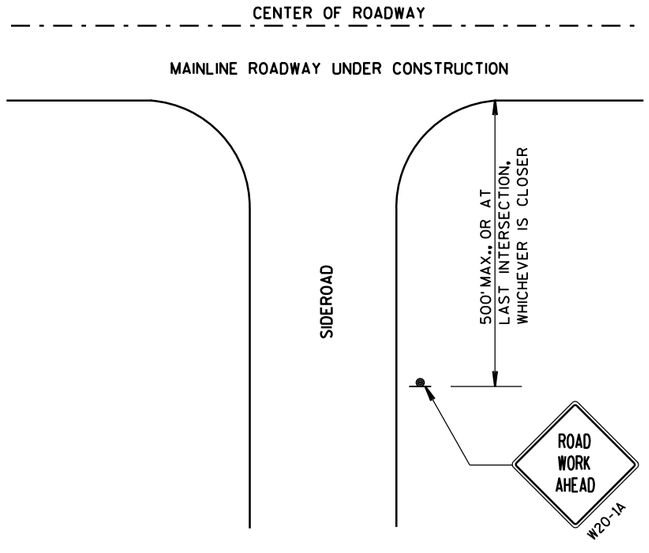
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

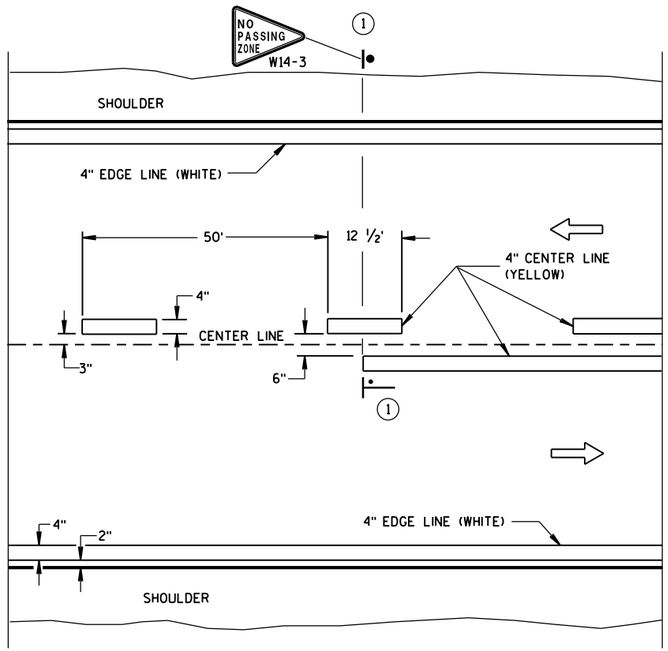
FHWA

6

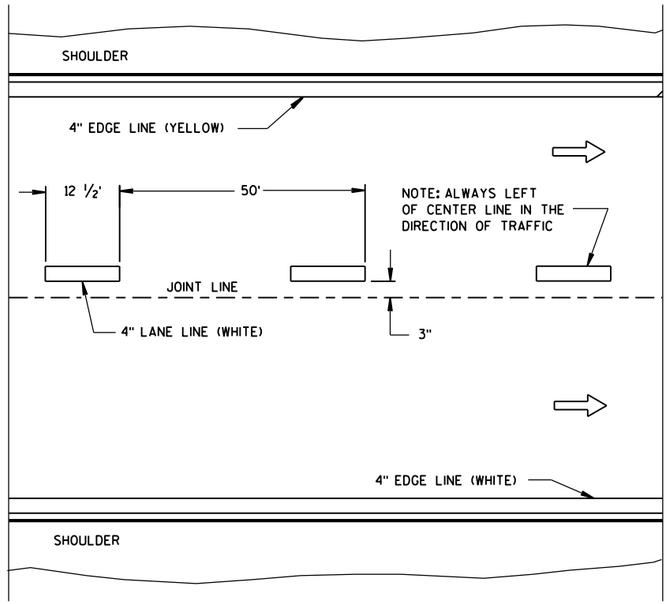
S.D.D. 15 C 4-3

6

S.D.D. 15 C 4-3



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

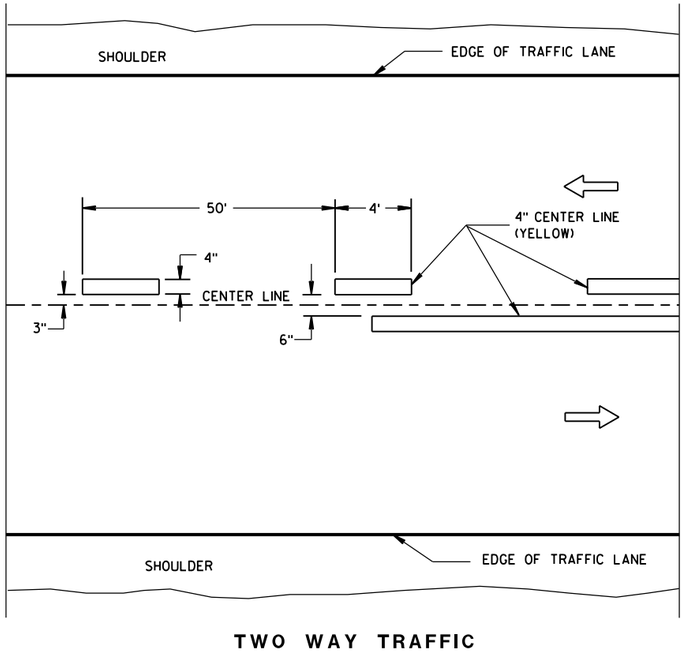
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

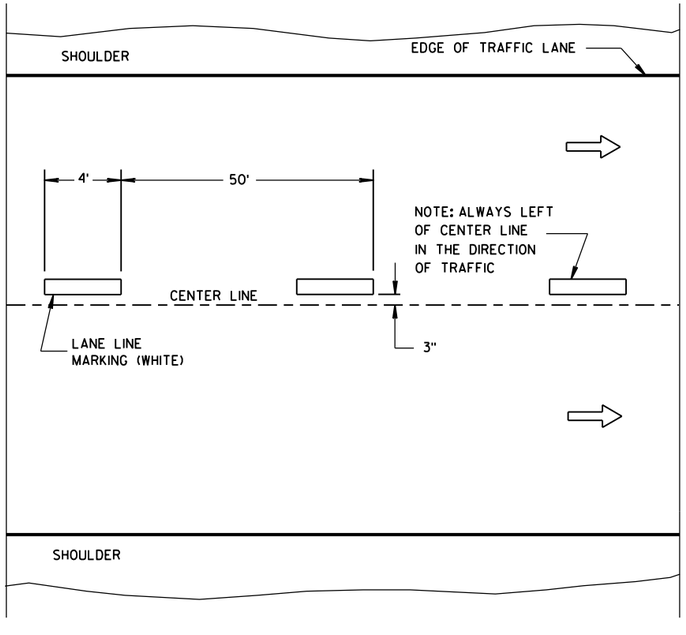
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2016	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MAR[illegible] ENGINEER
FHWA	

6

S.D.D. 15 C 8-17a

6

S.D.D. 15 C 8-17a

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

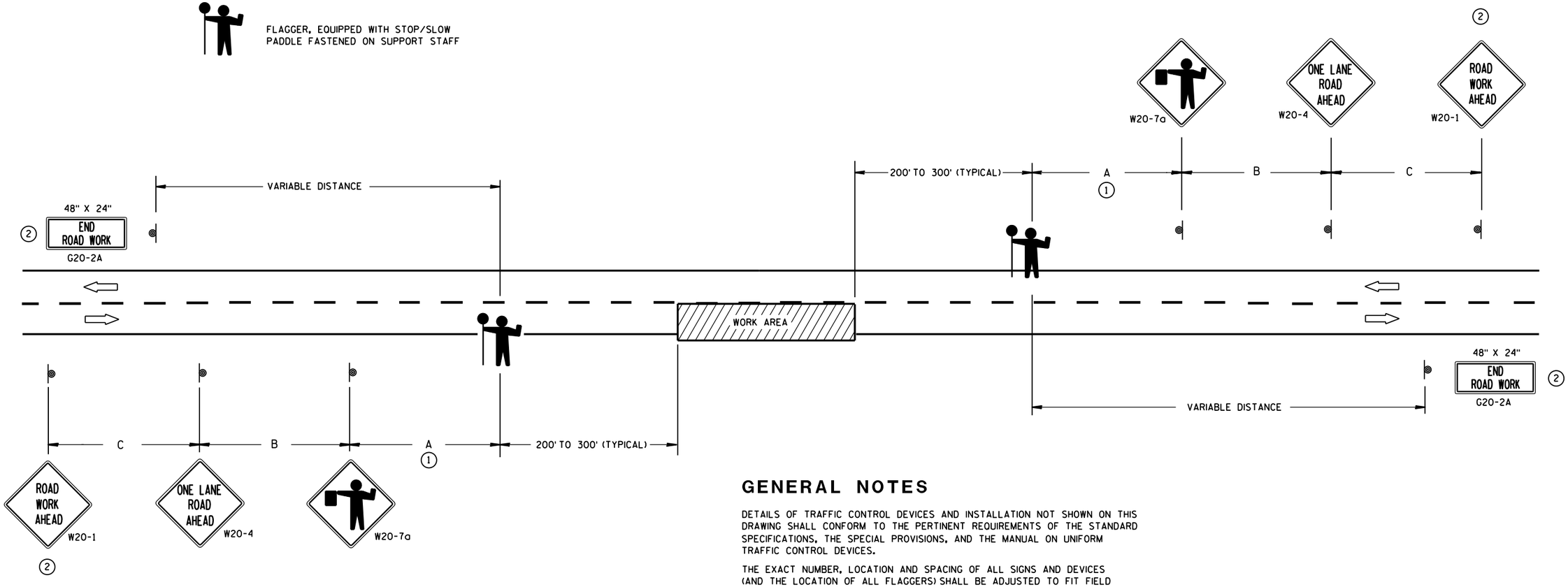
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

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

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

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

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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

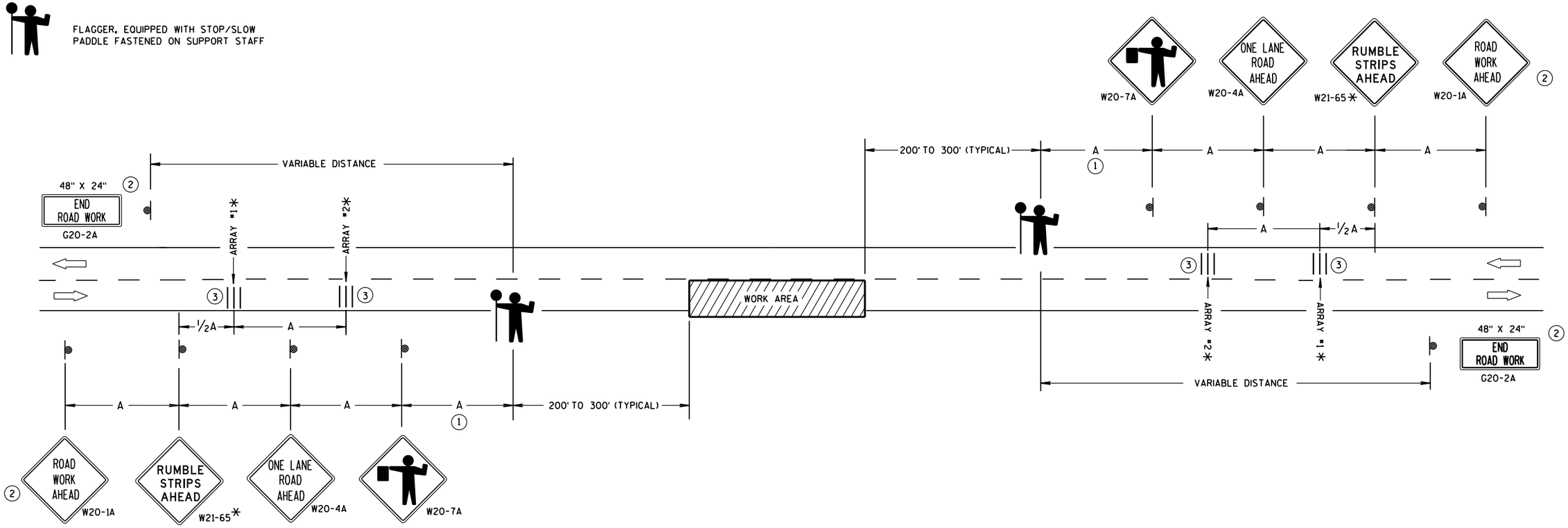
WORK AREA

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

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

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

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

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

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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

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

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

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

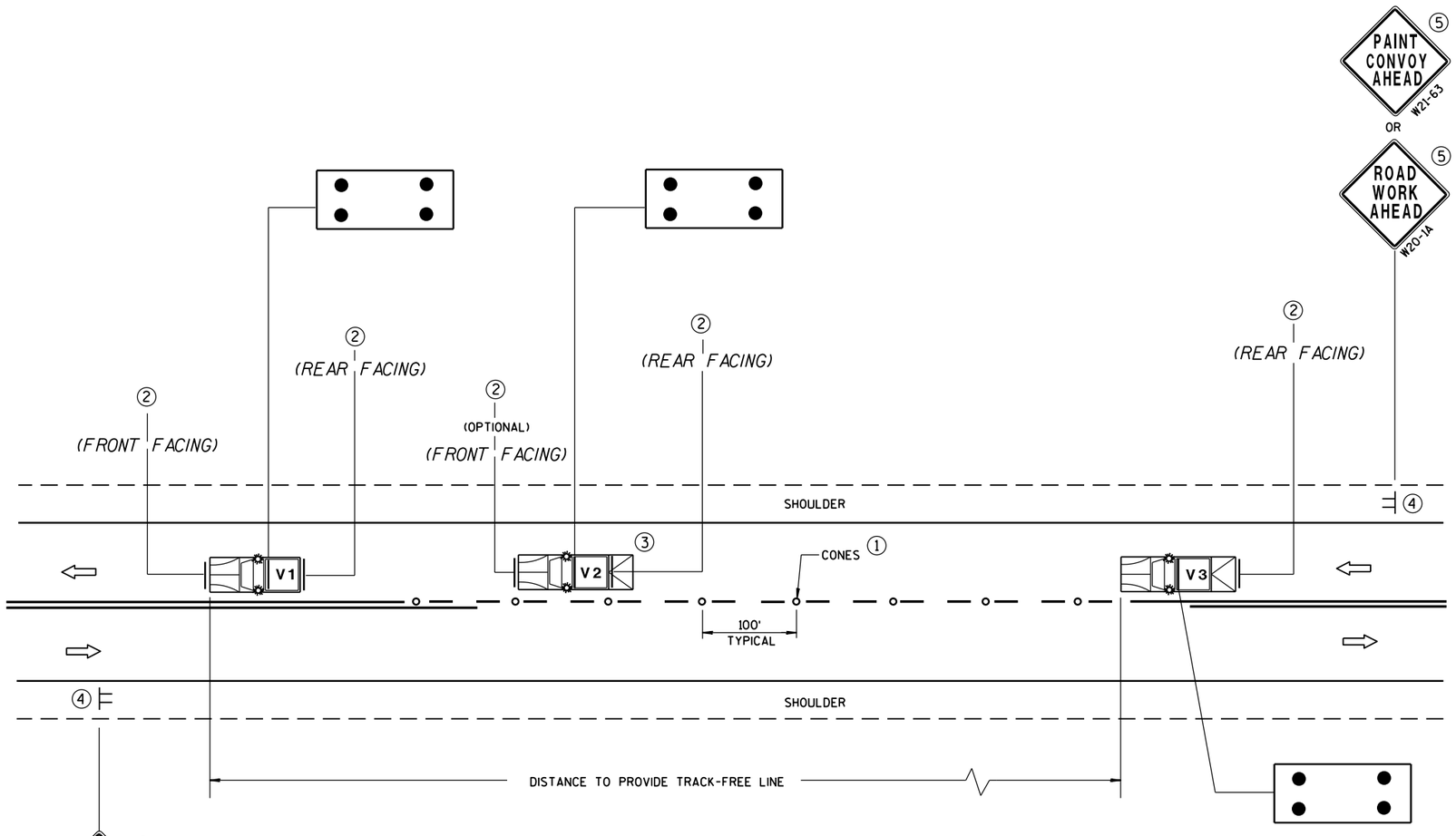
(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — /S/ Andrew Heldtke
DATE — WORK ZONE ENG
FHWA

6
S.D.D. 15 C 12-5



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

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.

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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 OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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

LEGEND

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

MOVING PAVEMENT MARKING OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA

6

S.D.D. 15 C 19-4a

6

S.D.D. 15 C 19-4a

GENERAL NOTES

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

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

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

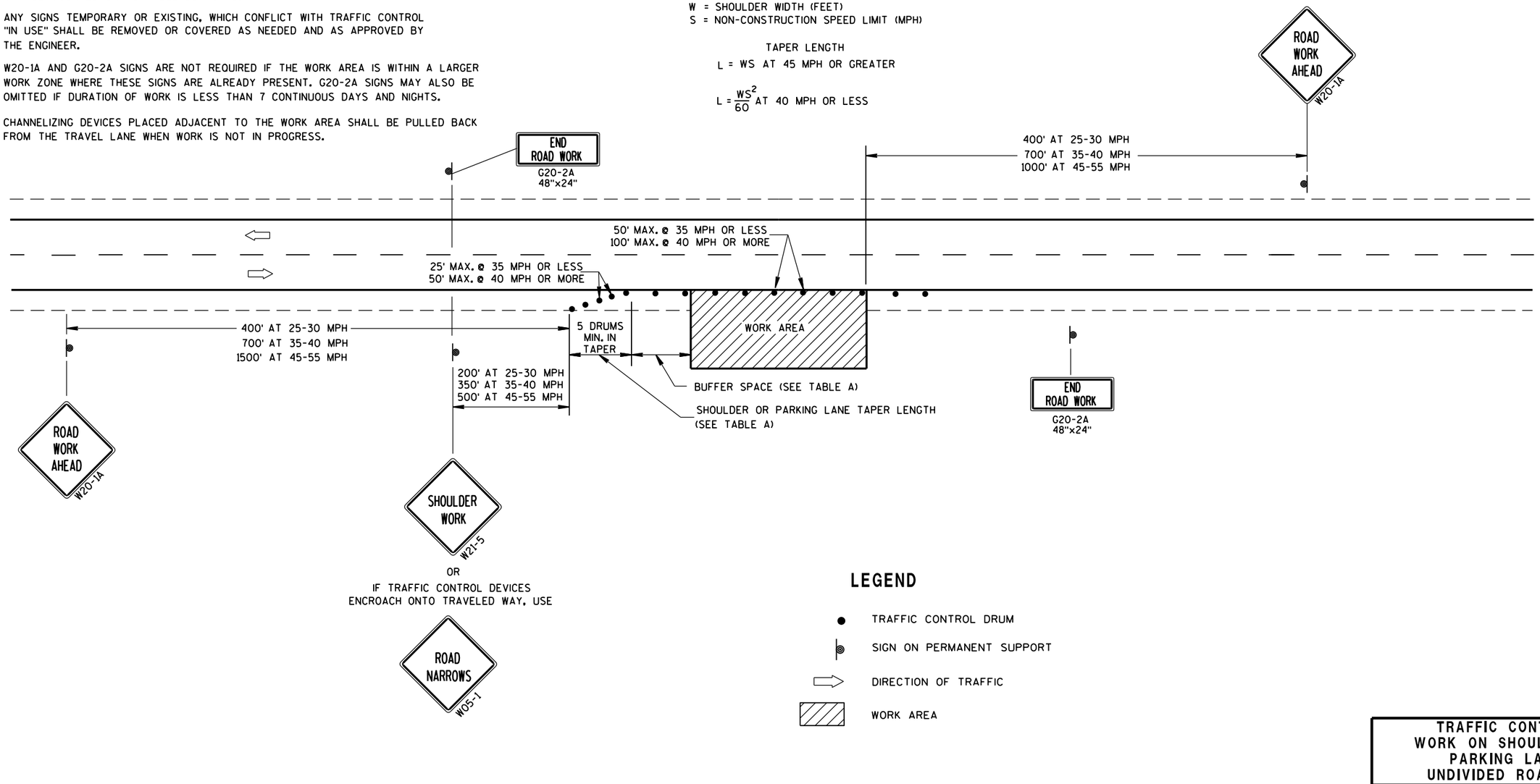
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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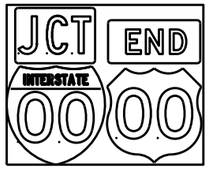
S.D.D. 15 D 28-3

6

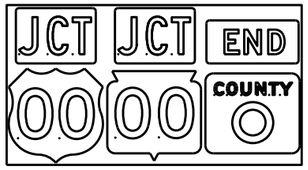
S.D.D. 15 D 28-3

TYPICAL ASSEMBLIES

J1-1

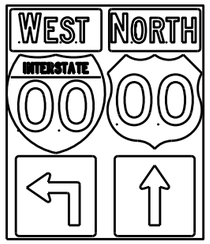


J1-2

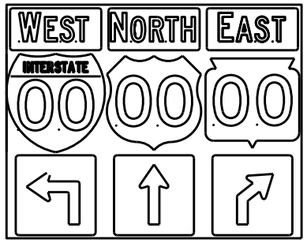


J1-3

J2-1



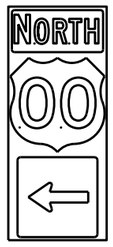
J2-2



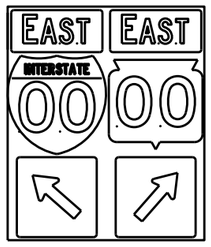
J2-3

JV

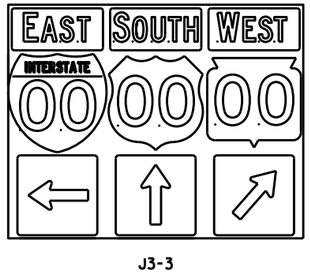
(Typical Vertical J-Assembly
See Note 10 and 11)



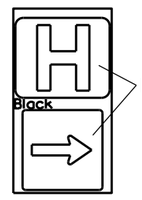
J3-1



J3-2

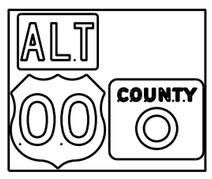


J3-3

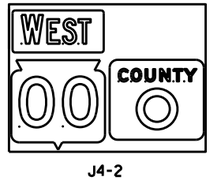


JH-1

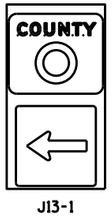
J4-1



J4-2



J4-2



J13-1

J12-1

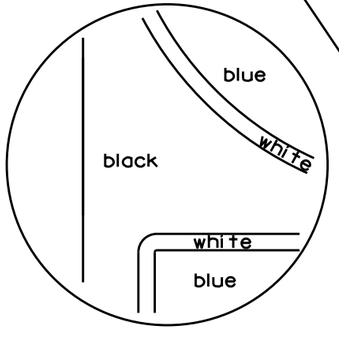
J32-1

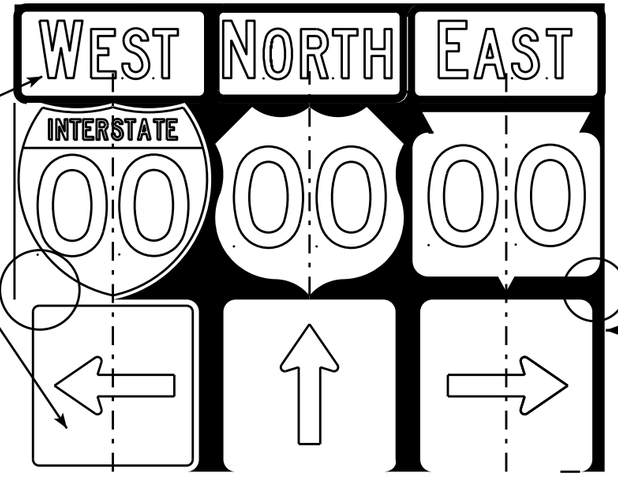
J33-1

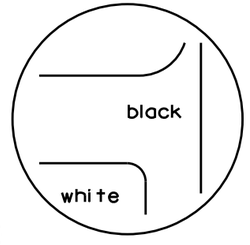
J23-1

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

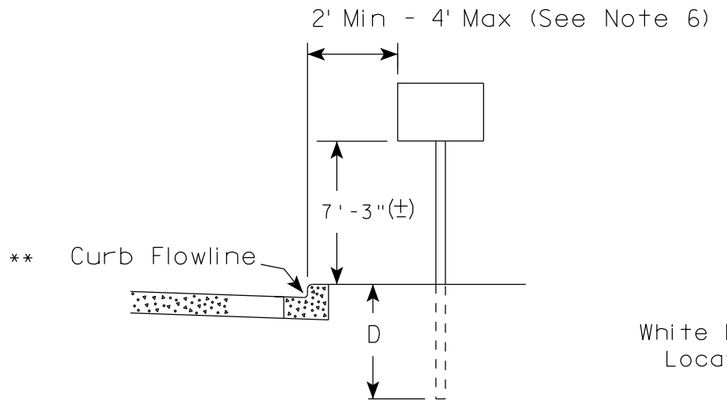
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

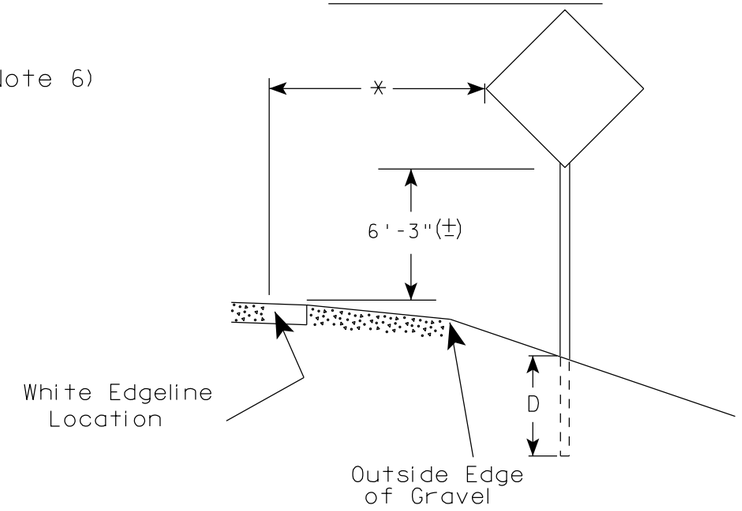
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

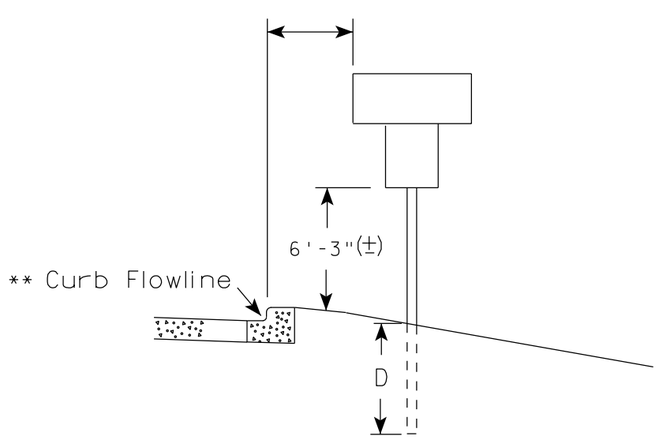
WISDOT/CADDS SHEET 42

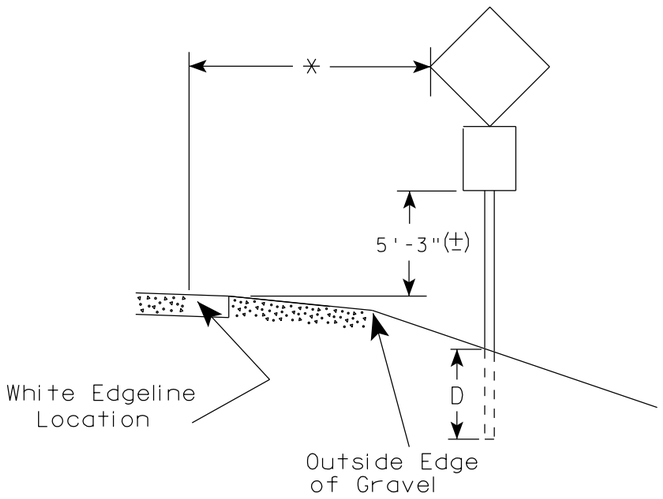
URBAN AREA



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 barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

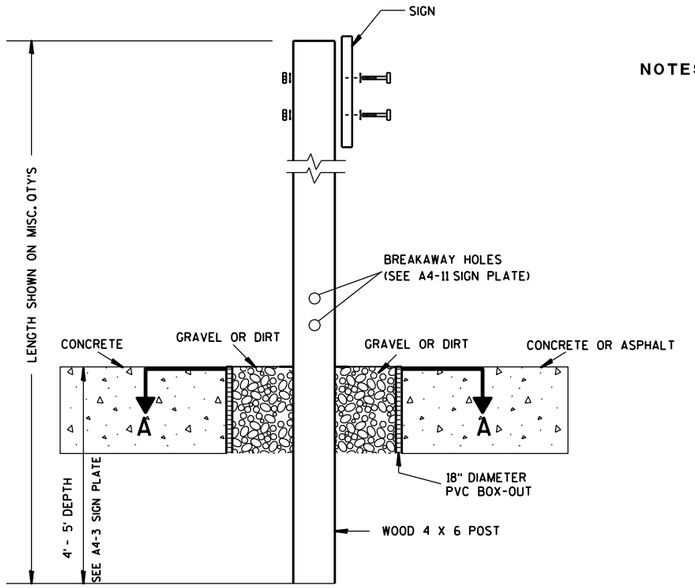
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

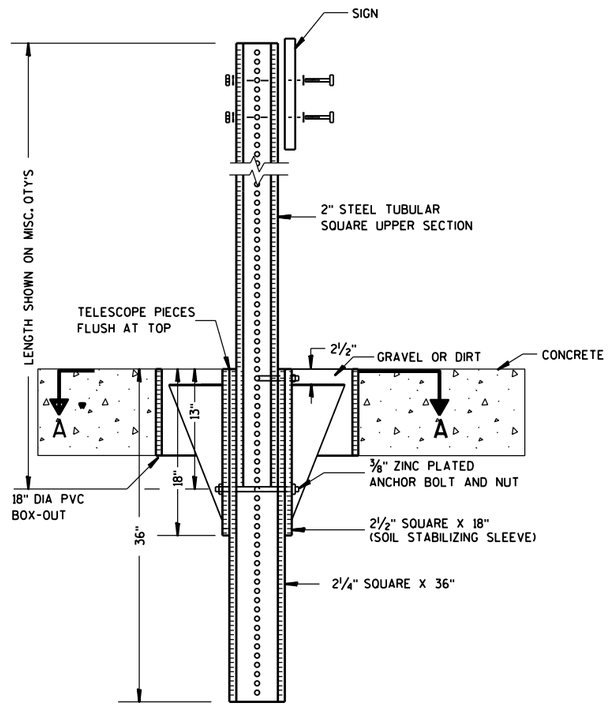
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 23-JUL-2015 15:21 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42



ELEVATION VIEW

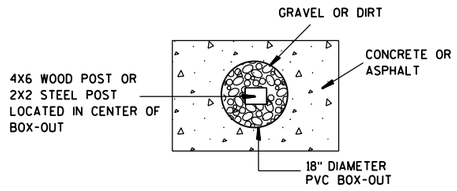
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

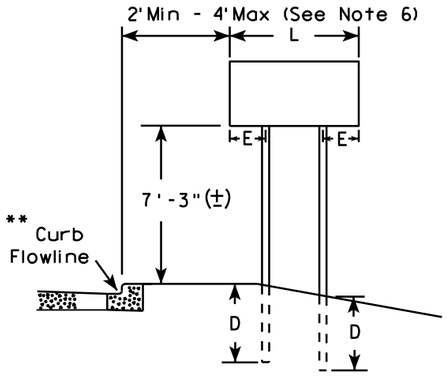
APPROVED Matthew R Rauch
for State Traffic Engineer

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

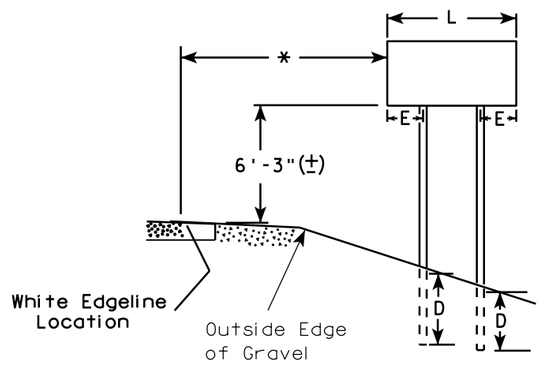
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

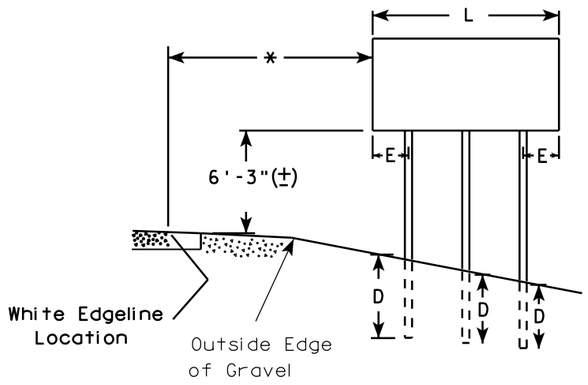
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

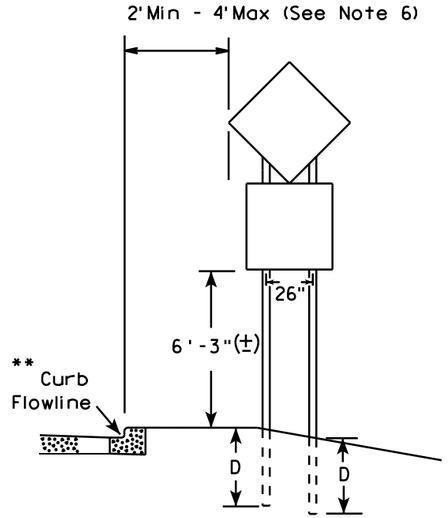
URBAN AREA



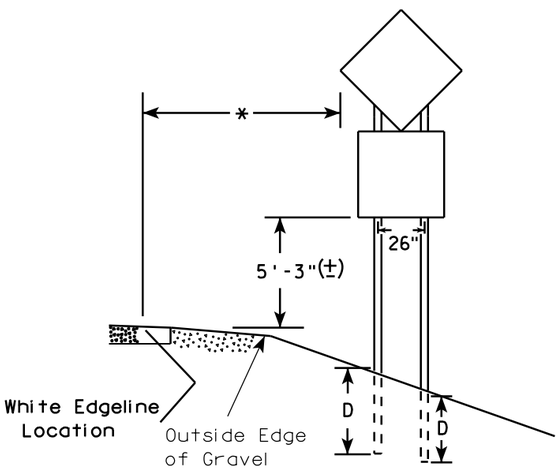
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

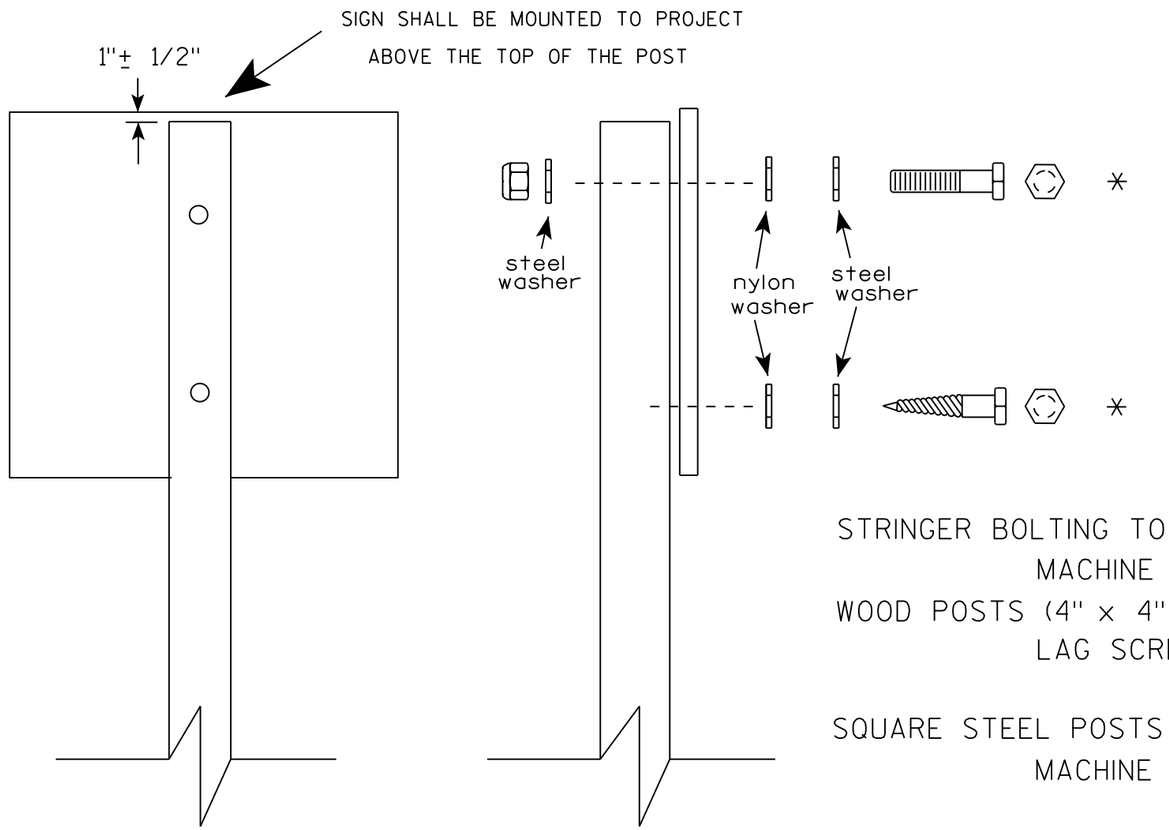
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

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

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

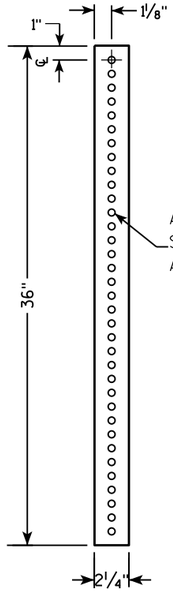
APPROVED Matthew R Rauch
For State Traffic Engineer

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

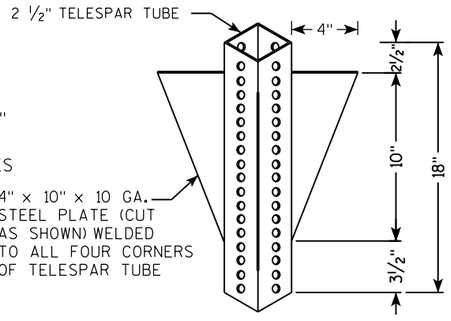
PROJECT NO: SHEET NO: E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

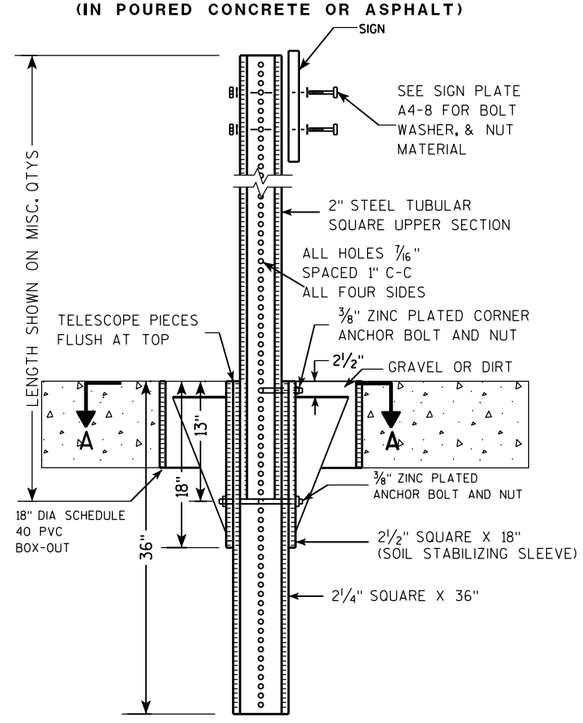
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



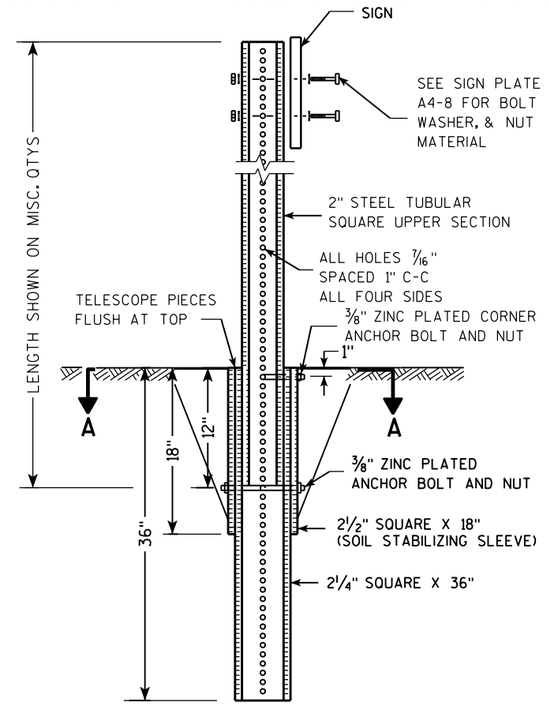
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

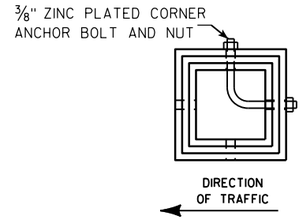


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

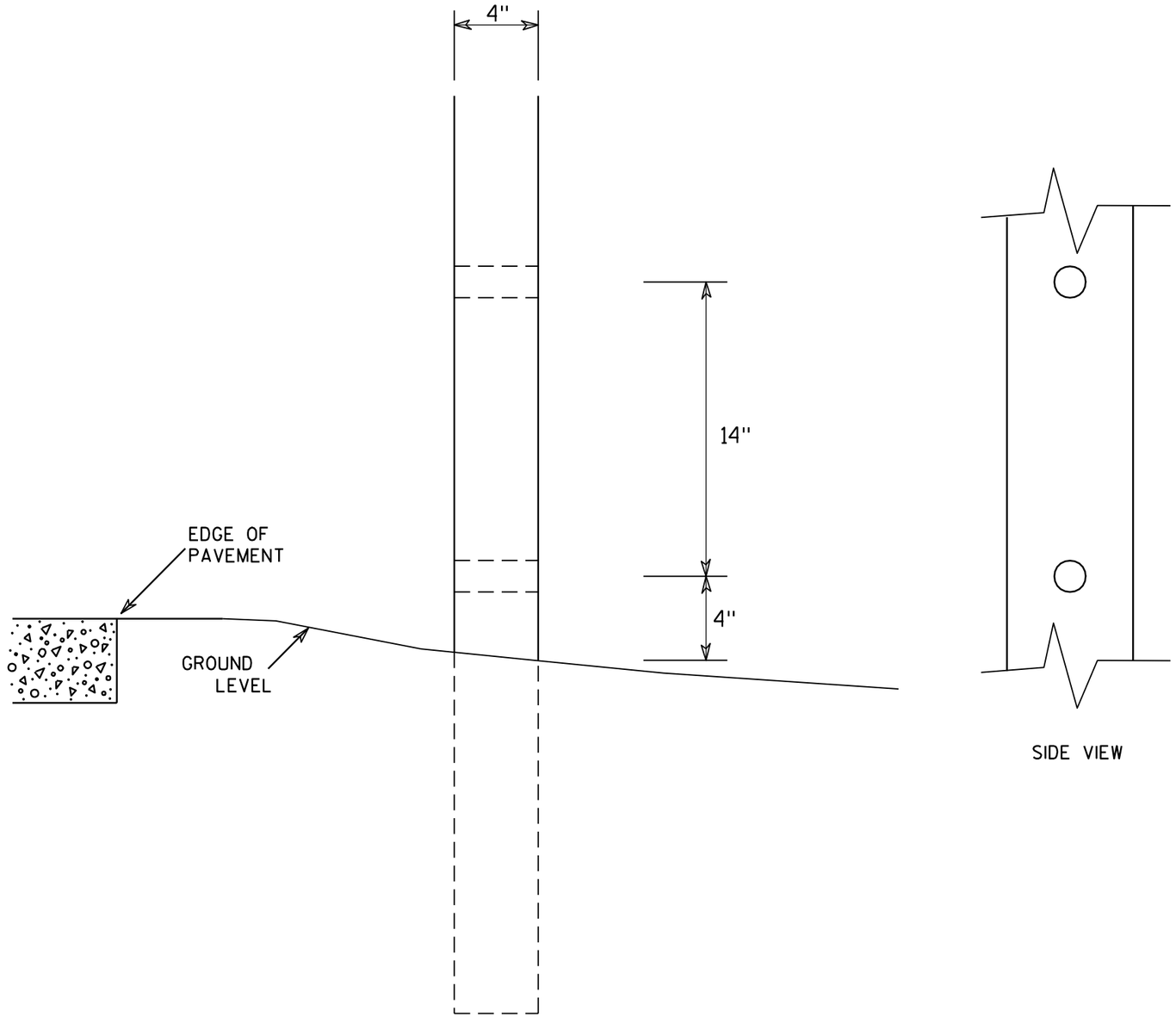
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

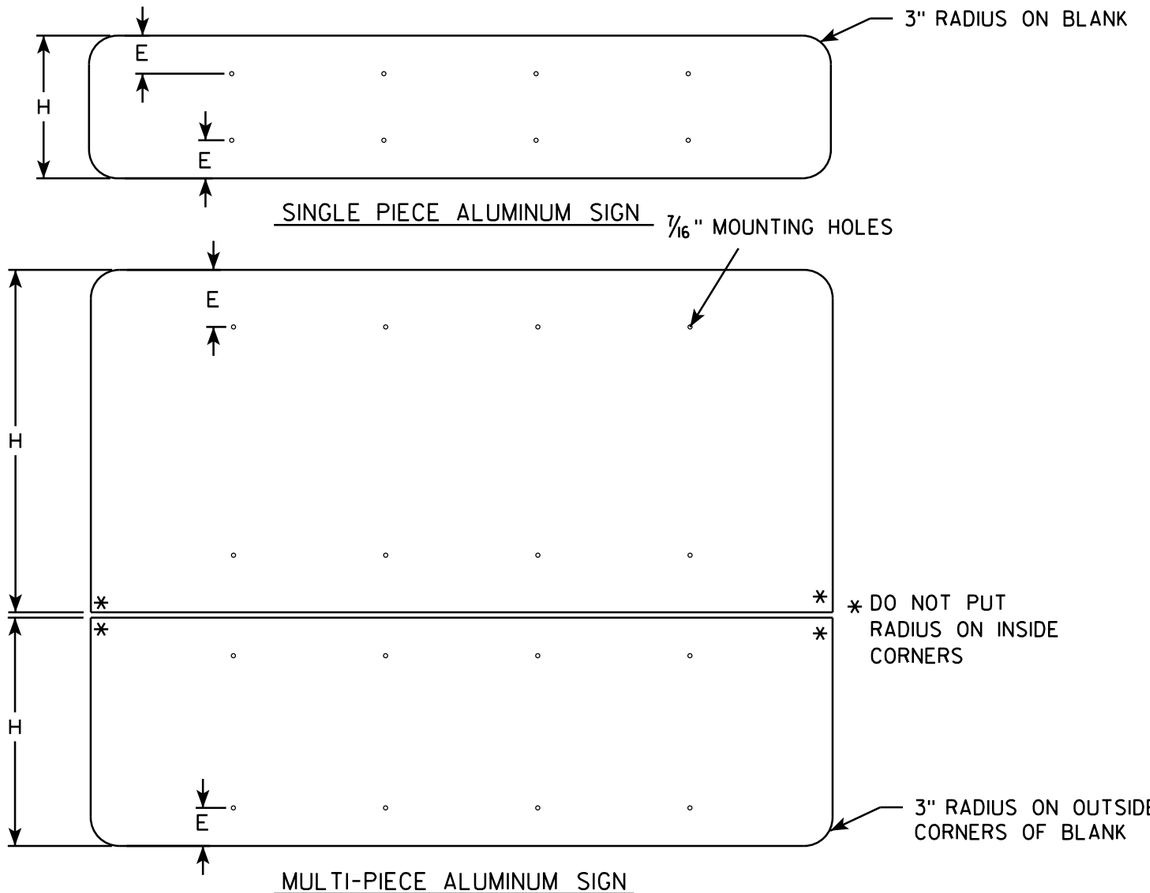
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

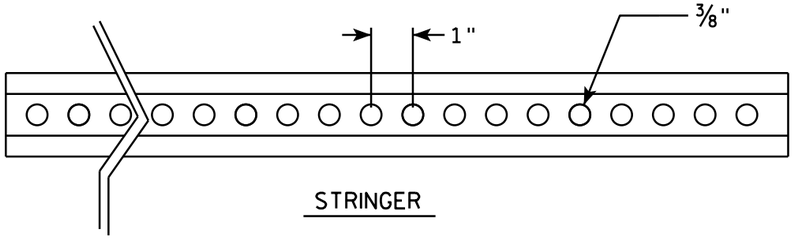
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E



GENERAL NOTES

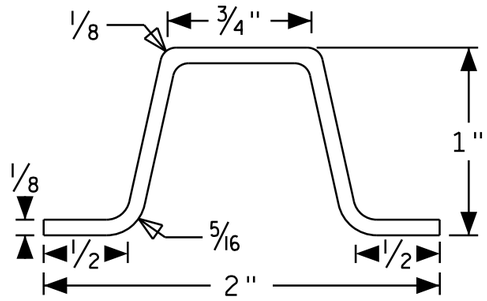
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

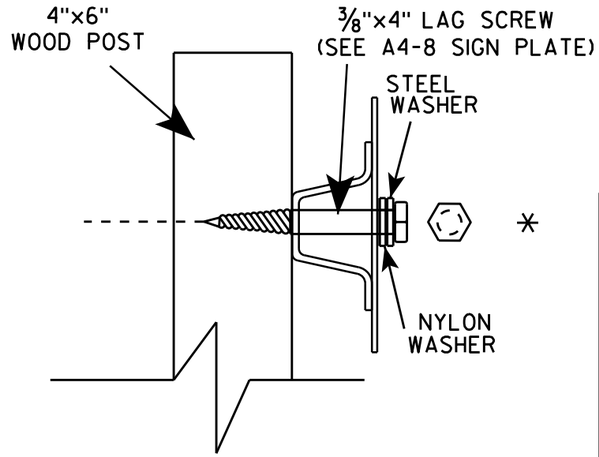


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

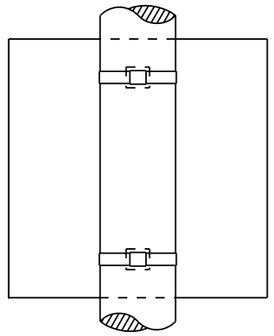
for State Traffic Engineer

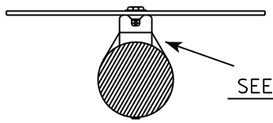
DATE 4/26/16 PLATE NO A4-18.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

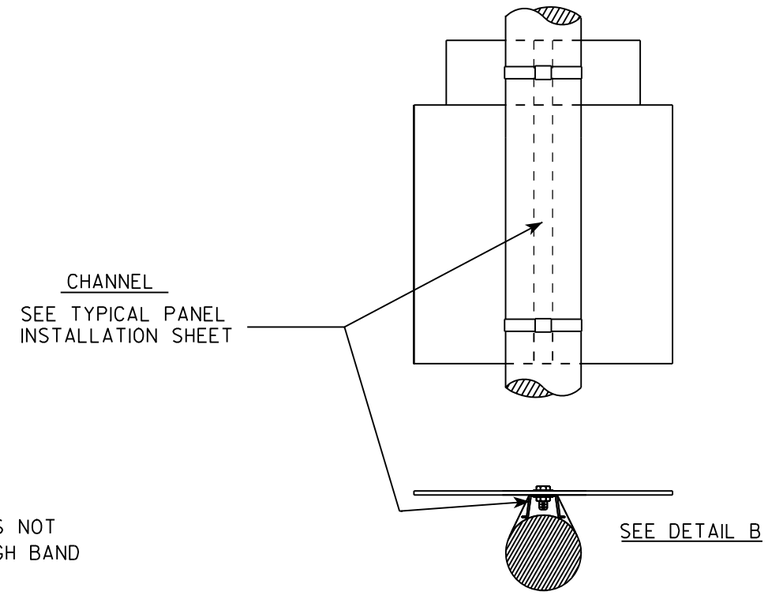
BANDING

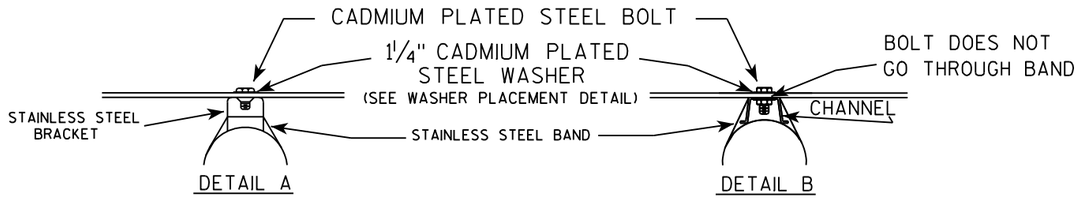
SINGLE SIGN



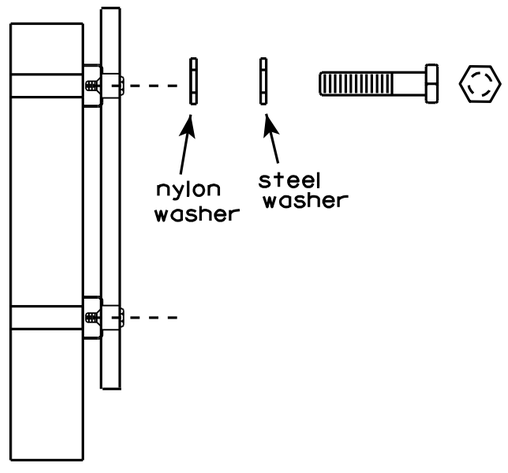


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

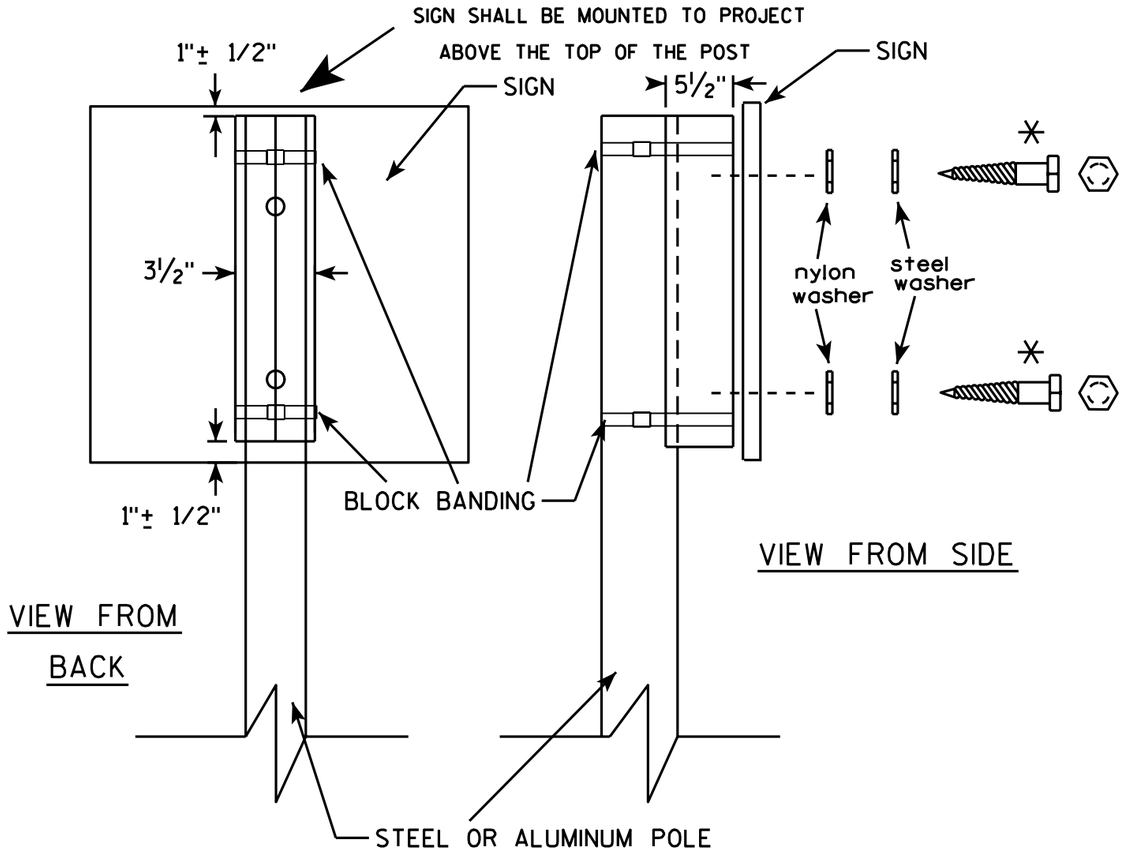
STANDARD SIGN
SIGN BANDING DETAILS

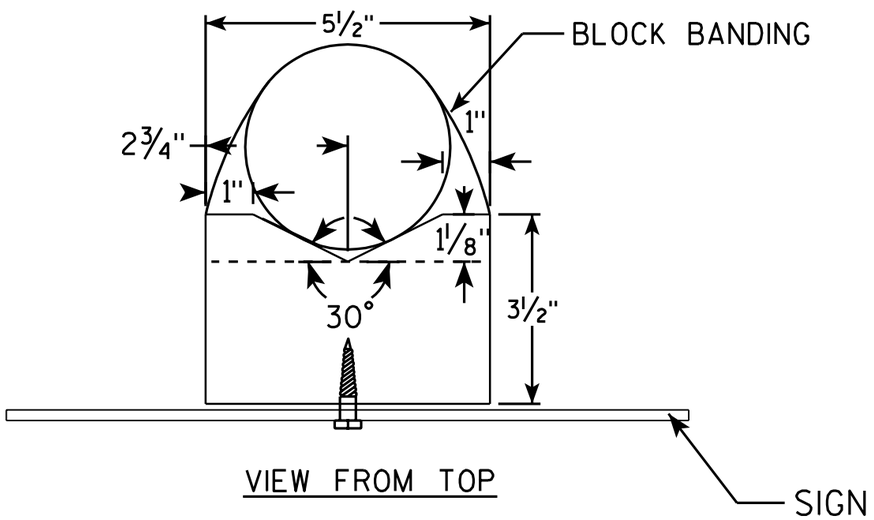
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E





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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. 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 7/12/07 PLATE NO. A5-10.1

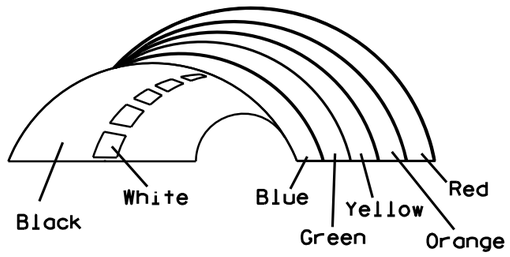
PROJECT NO:

SHEET NO: 110 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 - White
   Message - (See Note 5)
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. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



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

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	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

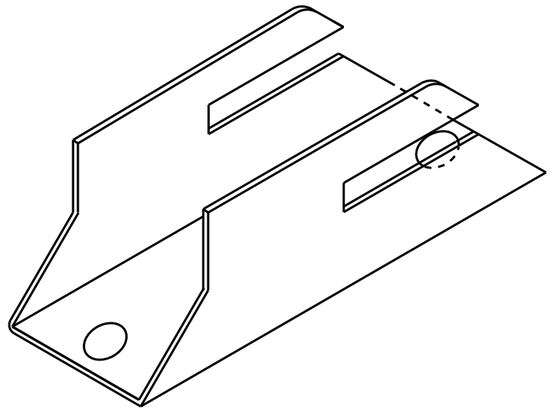
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111

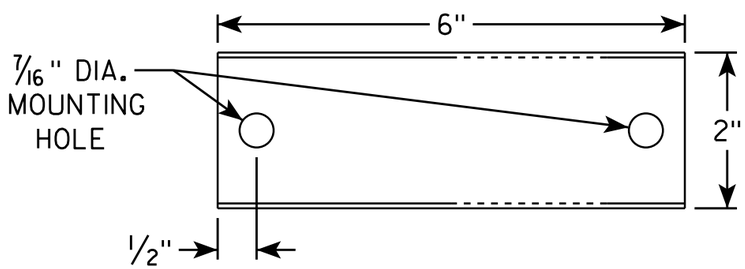
ISOMETRIC VIEW



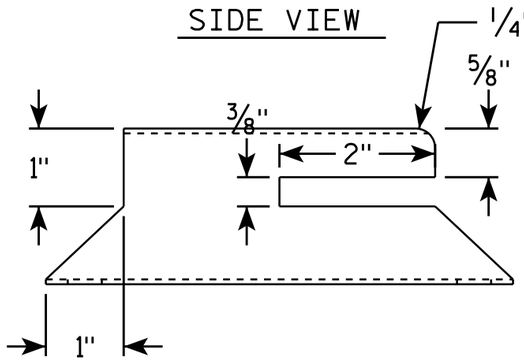
NOTES

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.

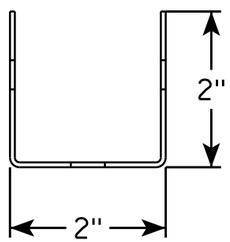
TOP VIEW



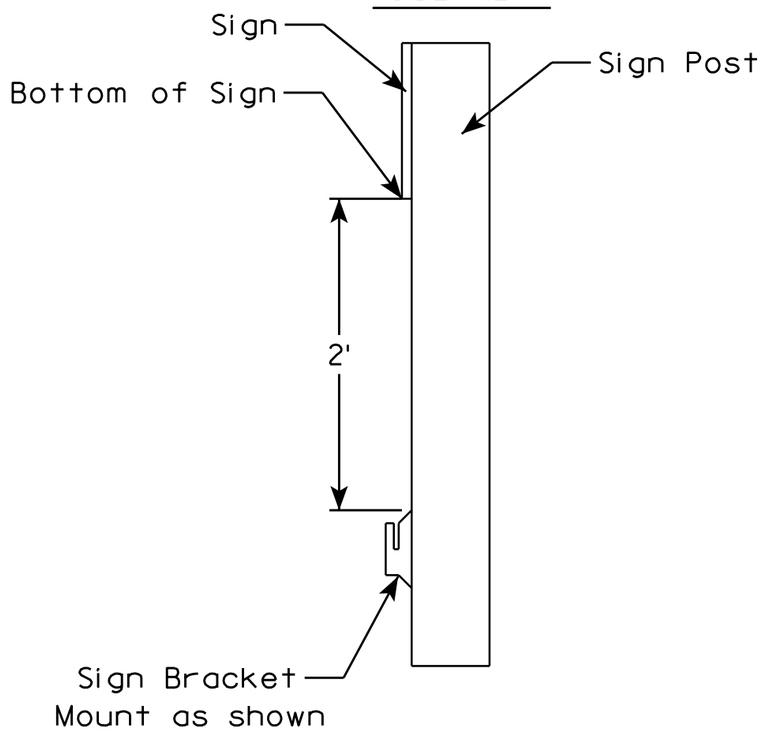
SIDE VIEW



END VIEW



SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

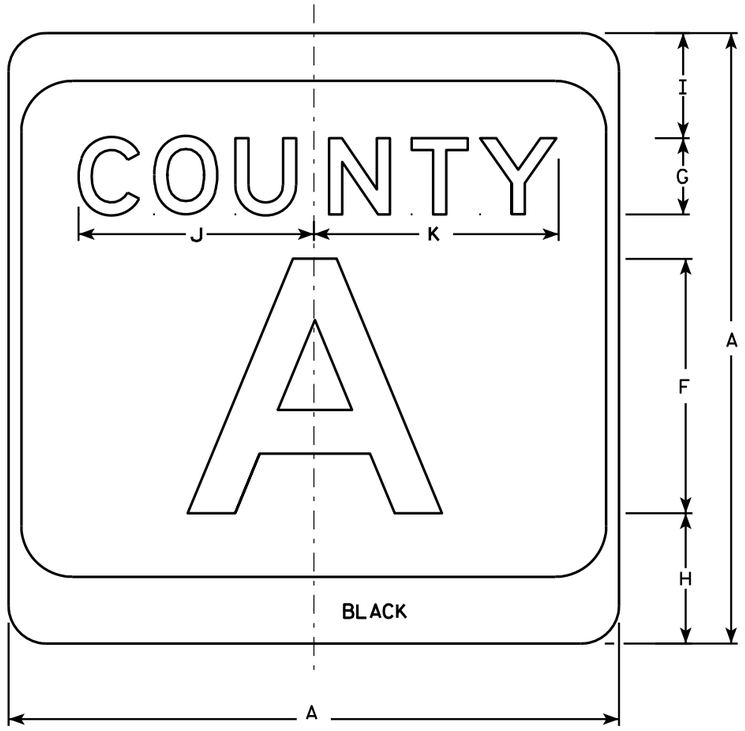
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

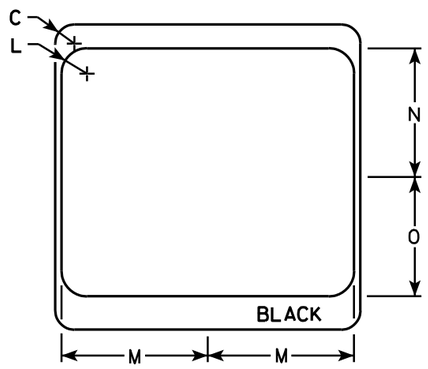
DATE 4/26/16 PLATE I55-56B.2

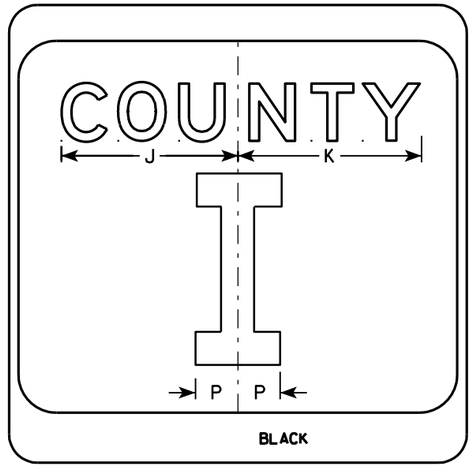
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

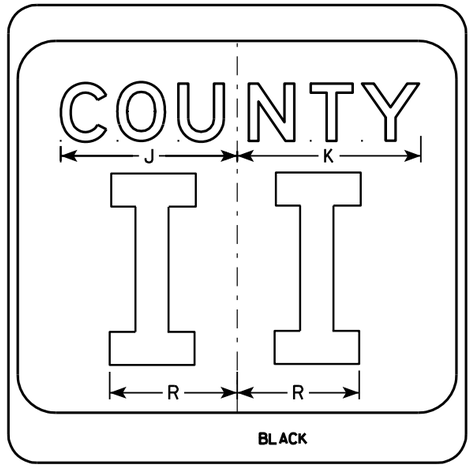
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000
WISDOT/CADDS SHEET 42



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

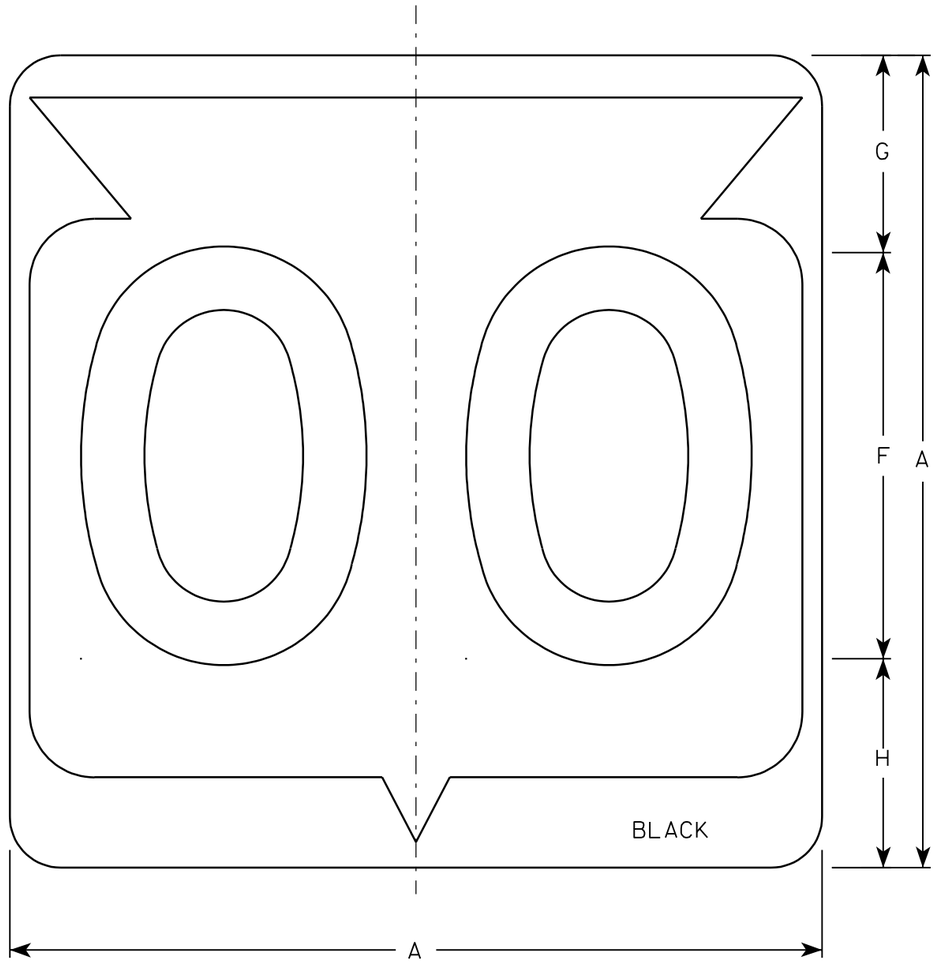
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

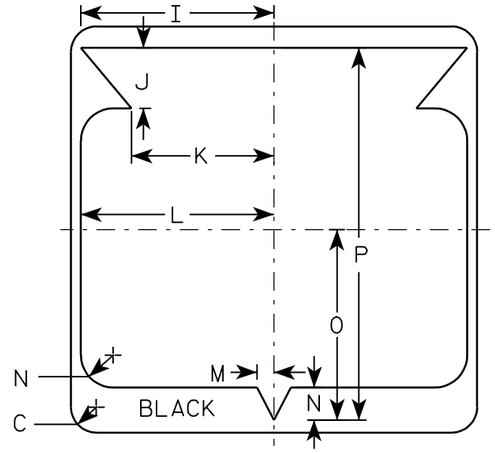
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 113	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

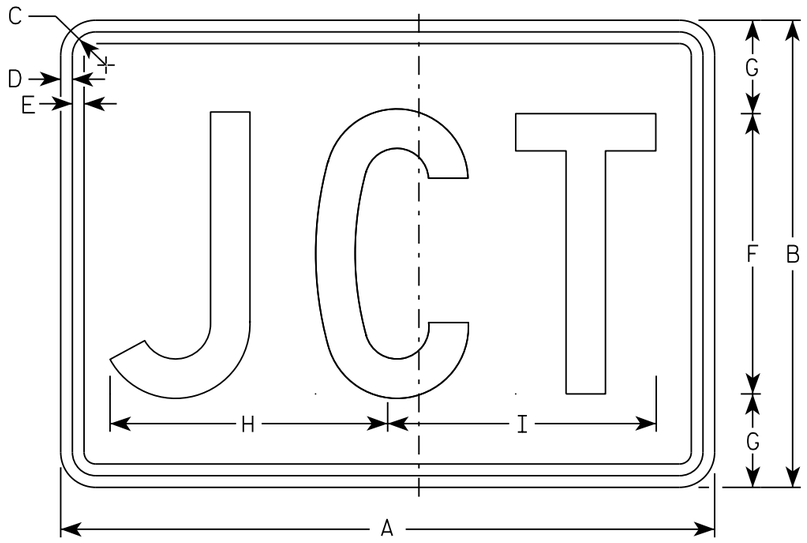
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

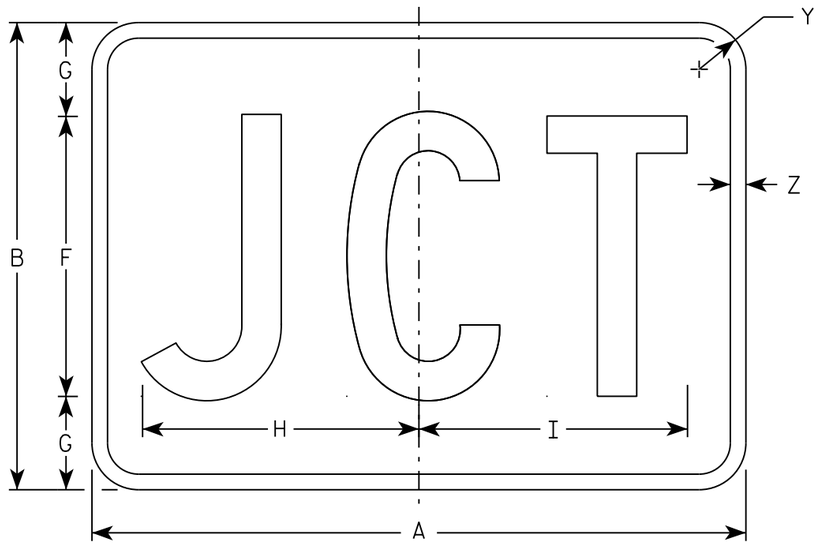
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



M2-1
MM2-1
MP2-1



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

NOTES

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

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

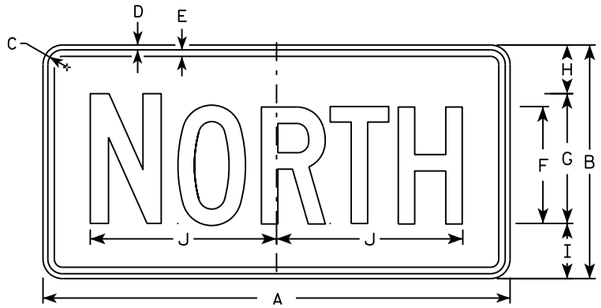
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

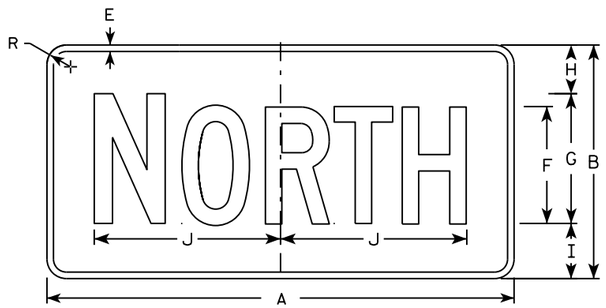
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 115 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



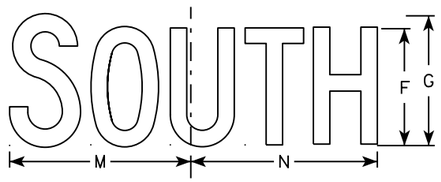
M3-1
MM3-1
MP3-1



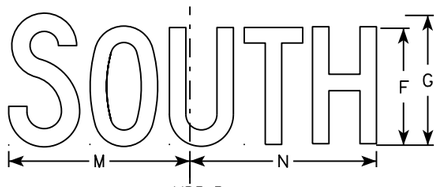
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

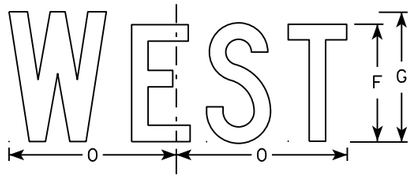
MB3-2
MK3-2
MN3-2



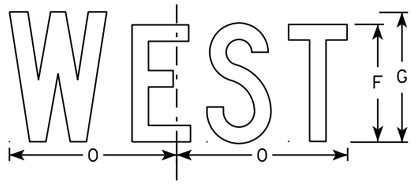
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

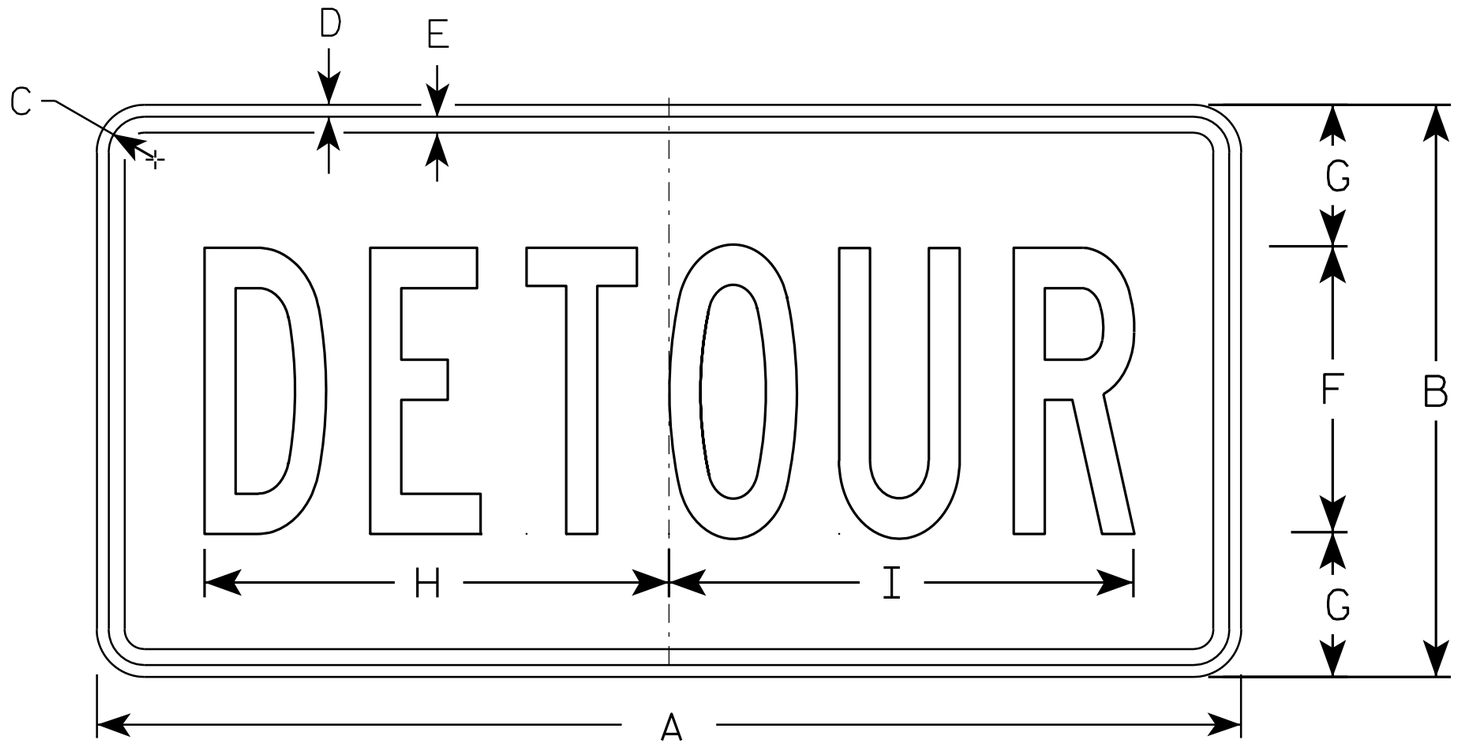
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

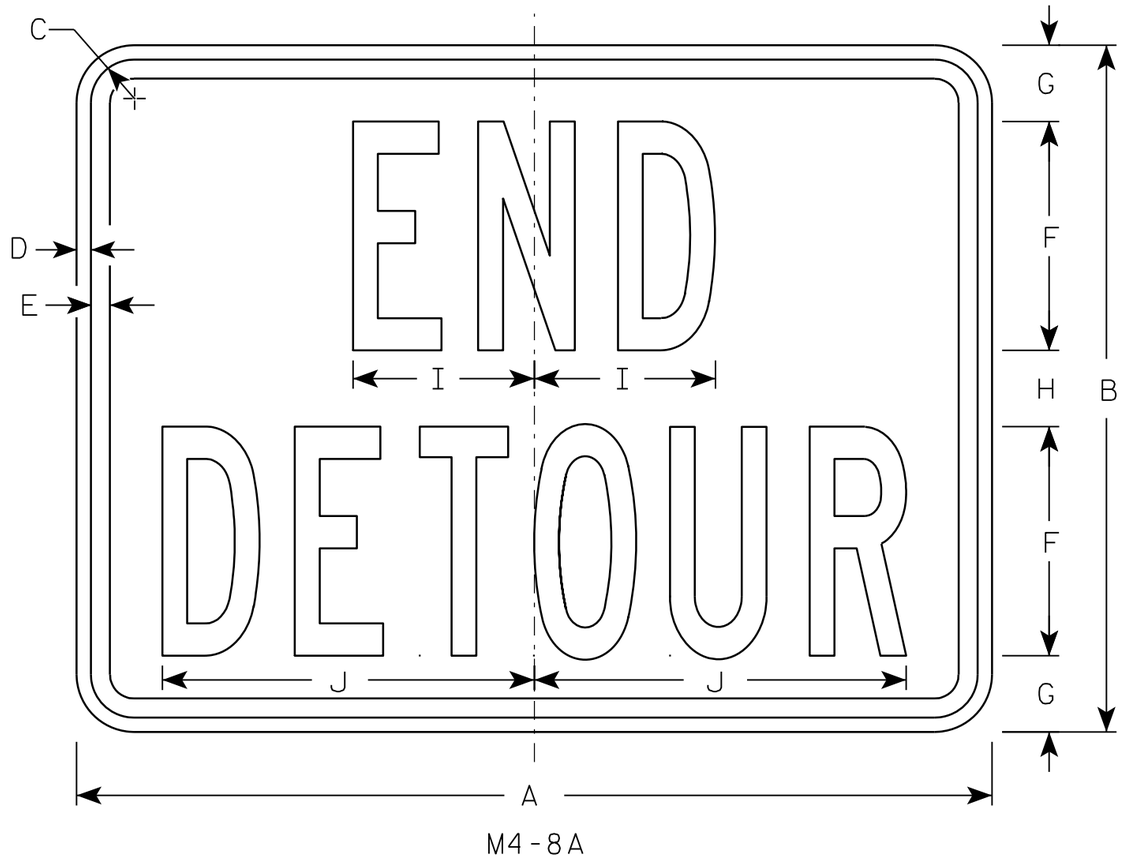
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 117	E



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

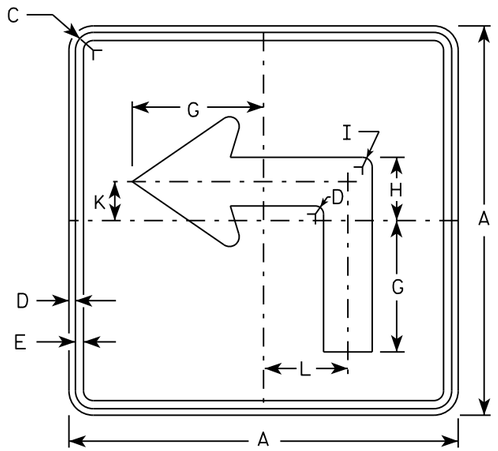
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

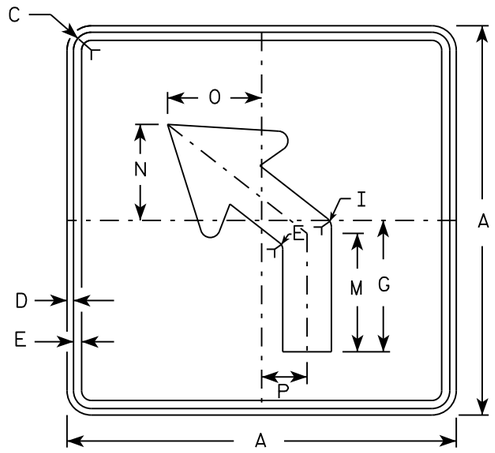
APPROVED Matthew R Rauch
for State Traffic Engineer

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

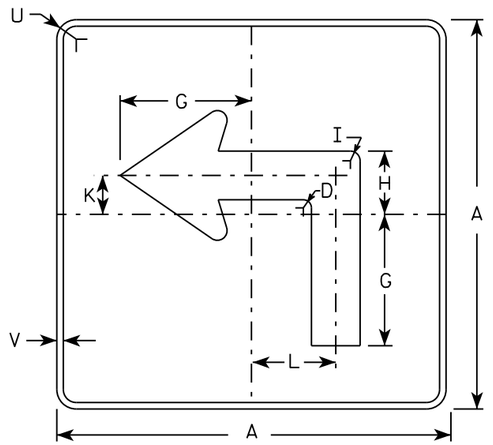
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E



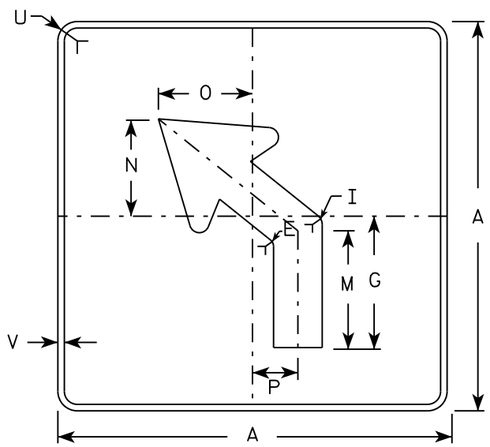
M5-1L
MM5-1L
MO5-1L
MP5-1L



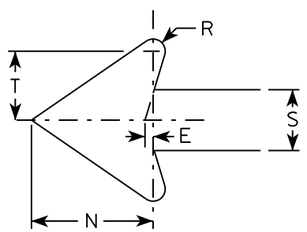
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

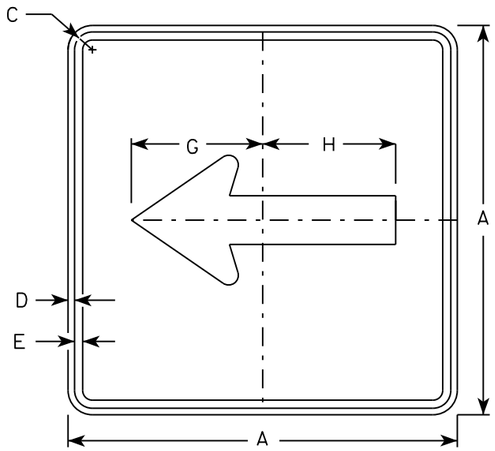
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

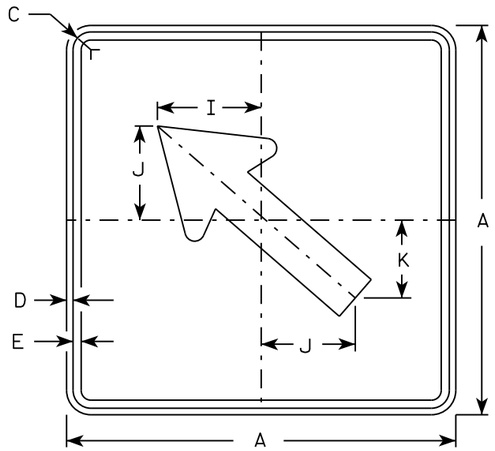
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



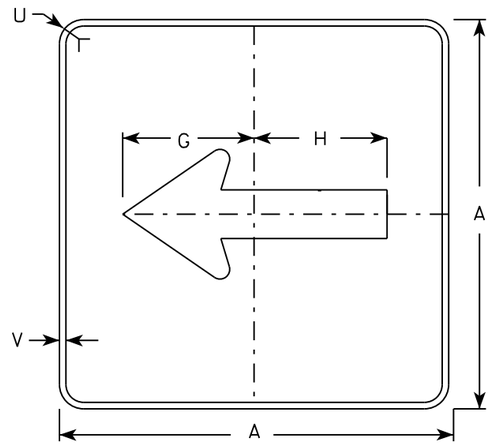
M6-1
MM6-1
MO6-1
MP6-1



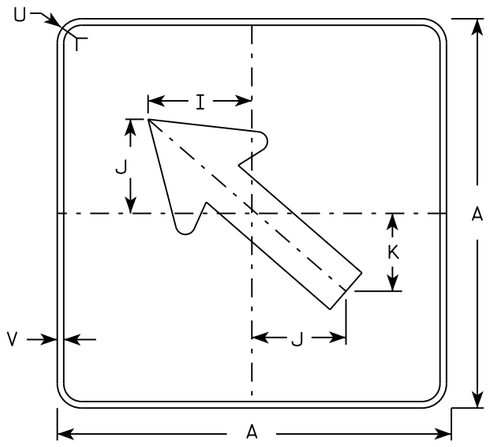
M6-2
MM6-2
MO6-2
MP6-2

NOTES

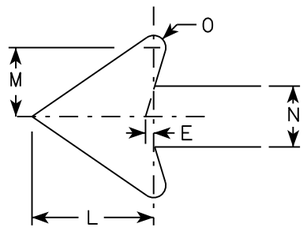
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



MB6-2
MK6-2
MN6-2
MR6-2



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

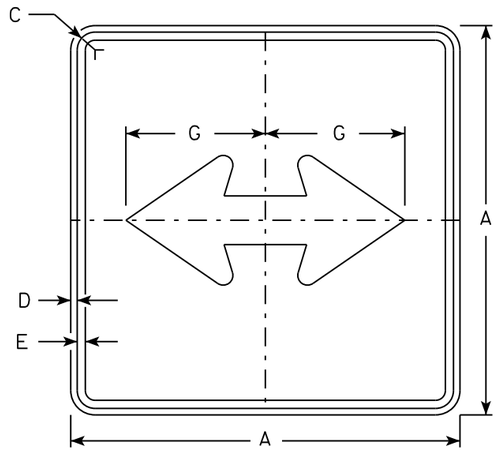
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

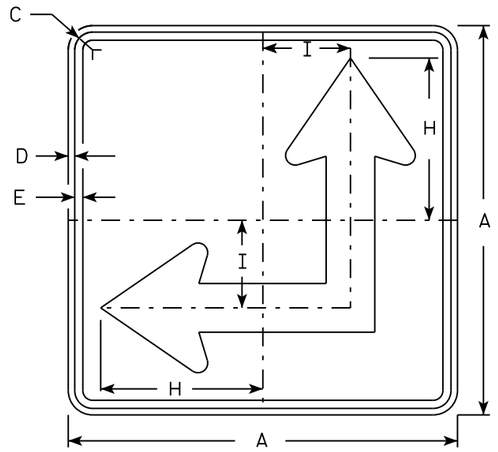
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 120 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



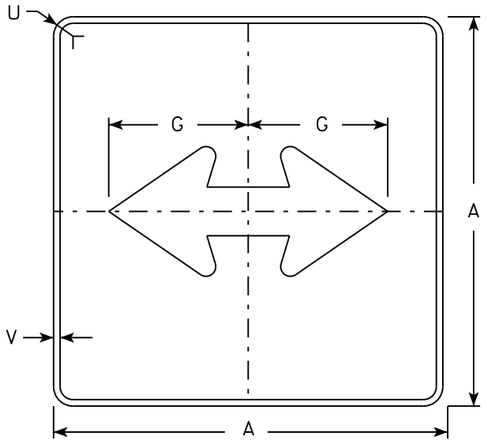
M6-4
MM6-4
MO6-4
MP6-4



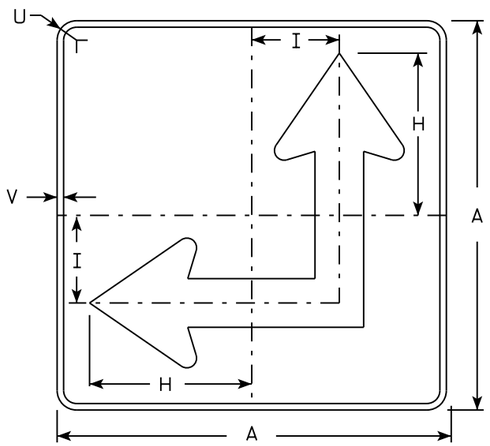
M6-6
MM6-6
MO6-6
MP6-6

NOTES

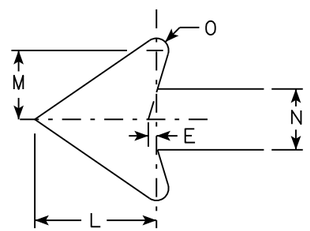
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background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

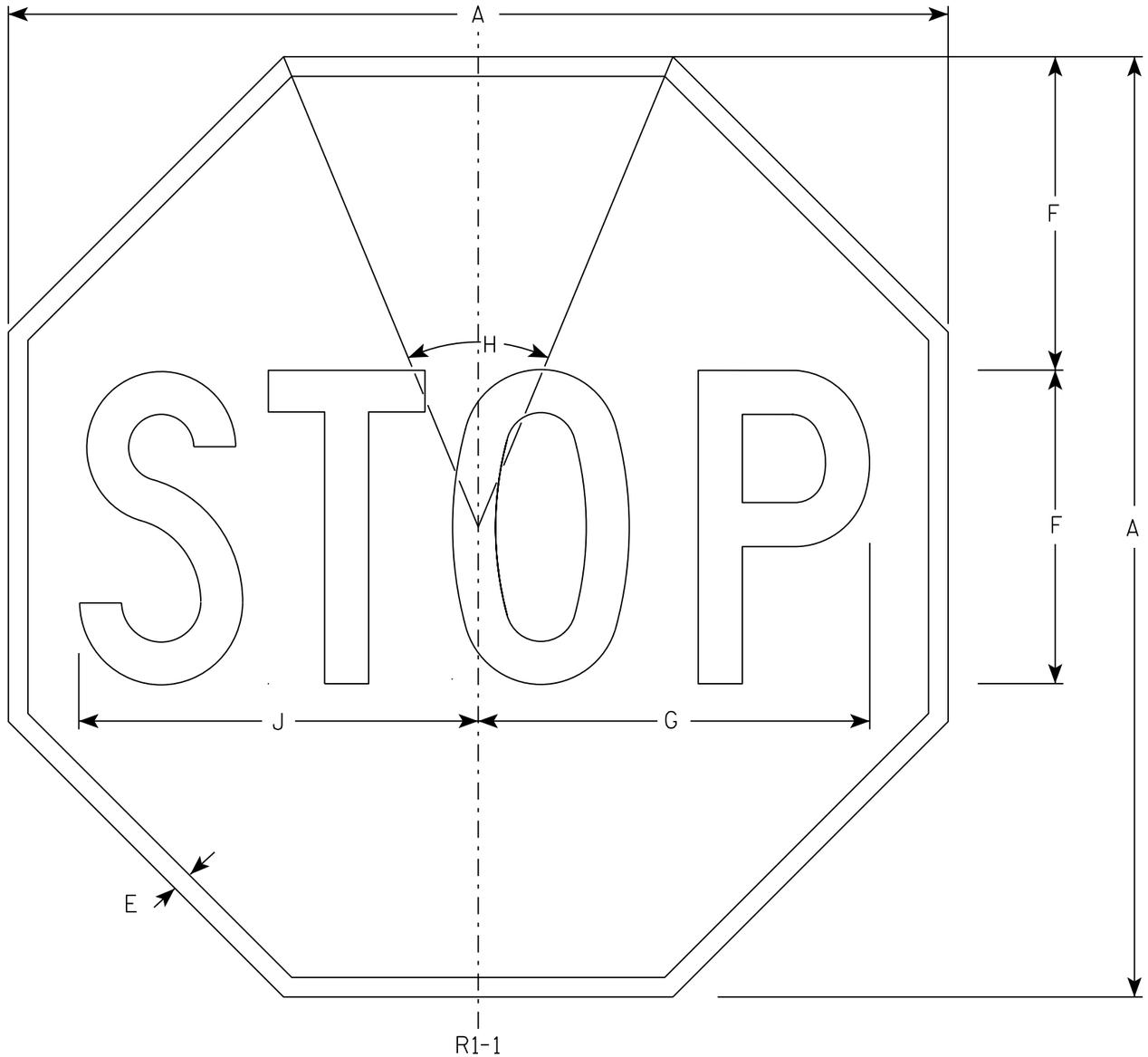
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 121 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

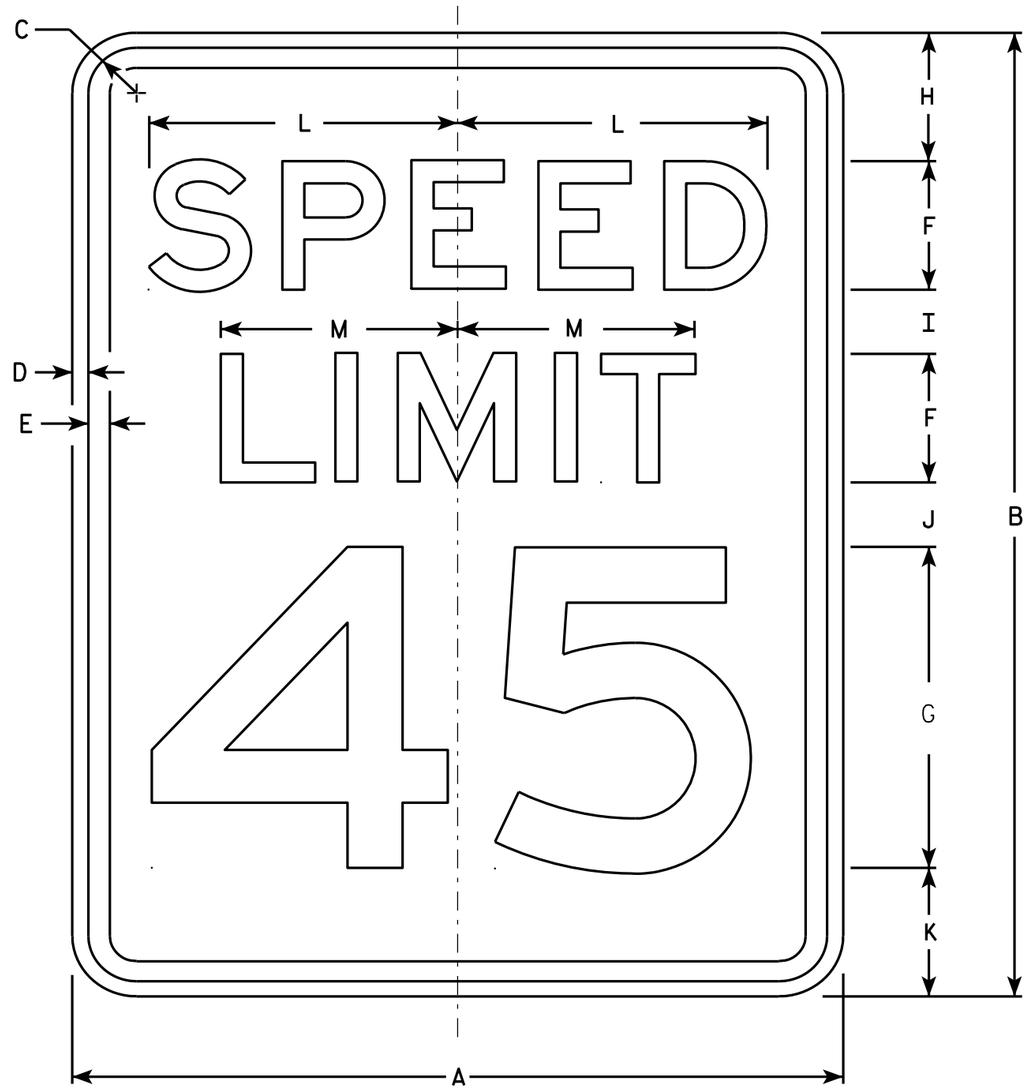
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 122 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



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

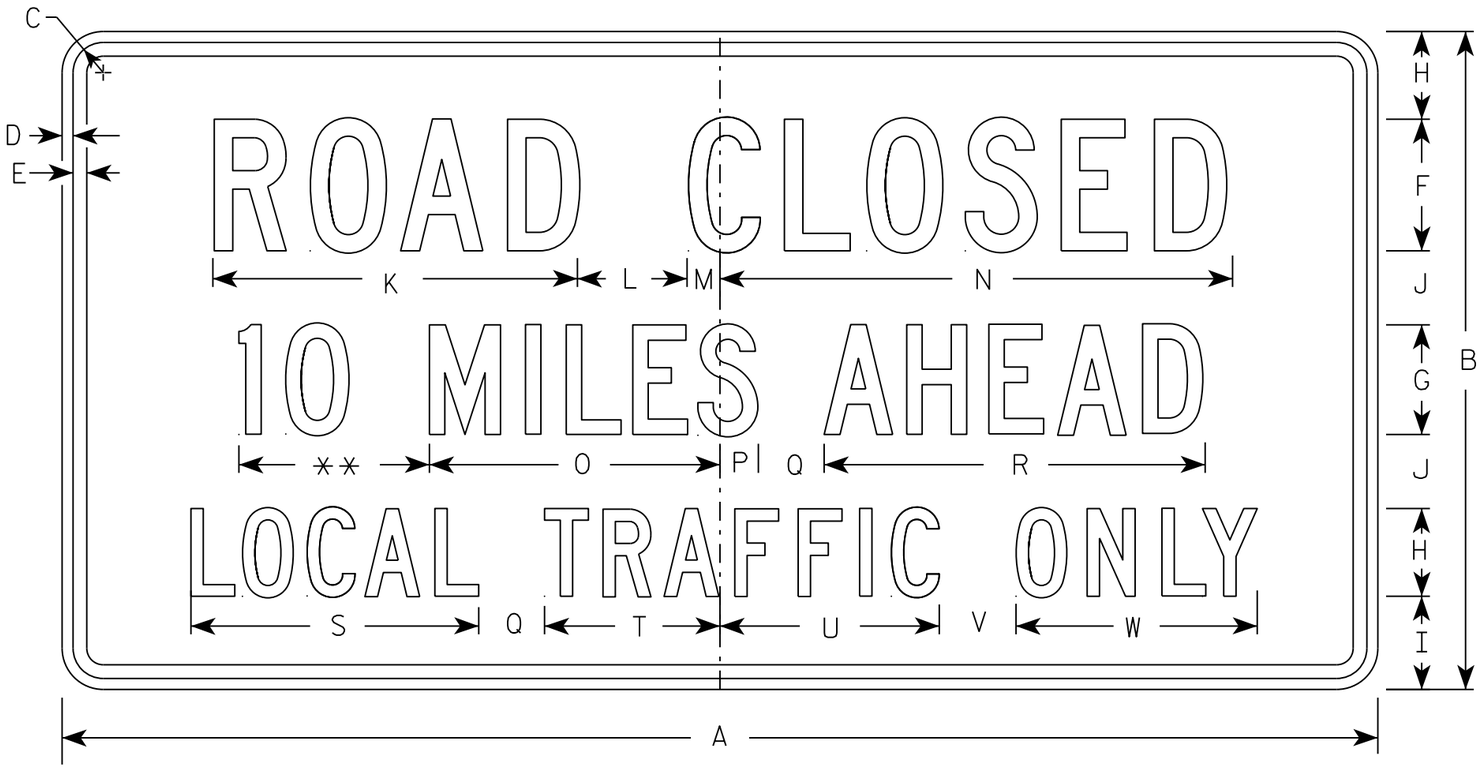
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 123 | E

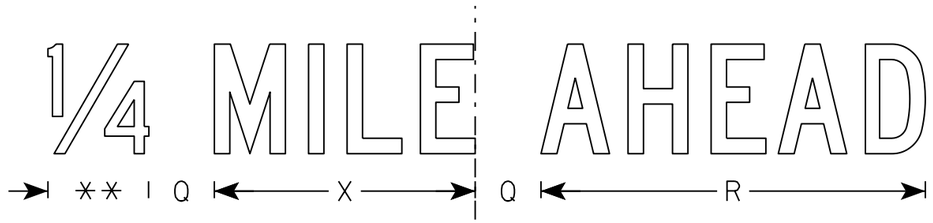
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

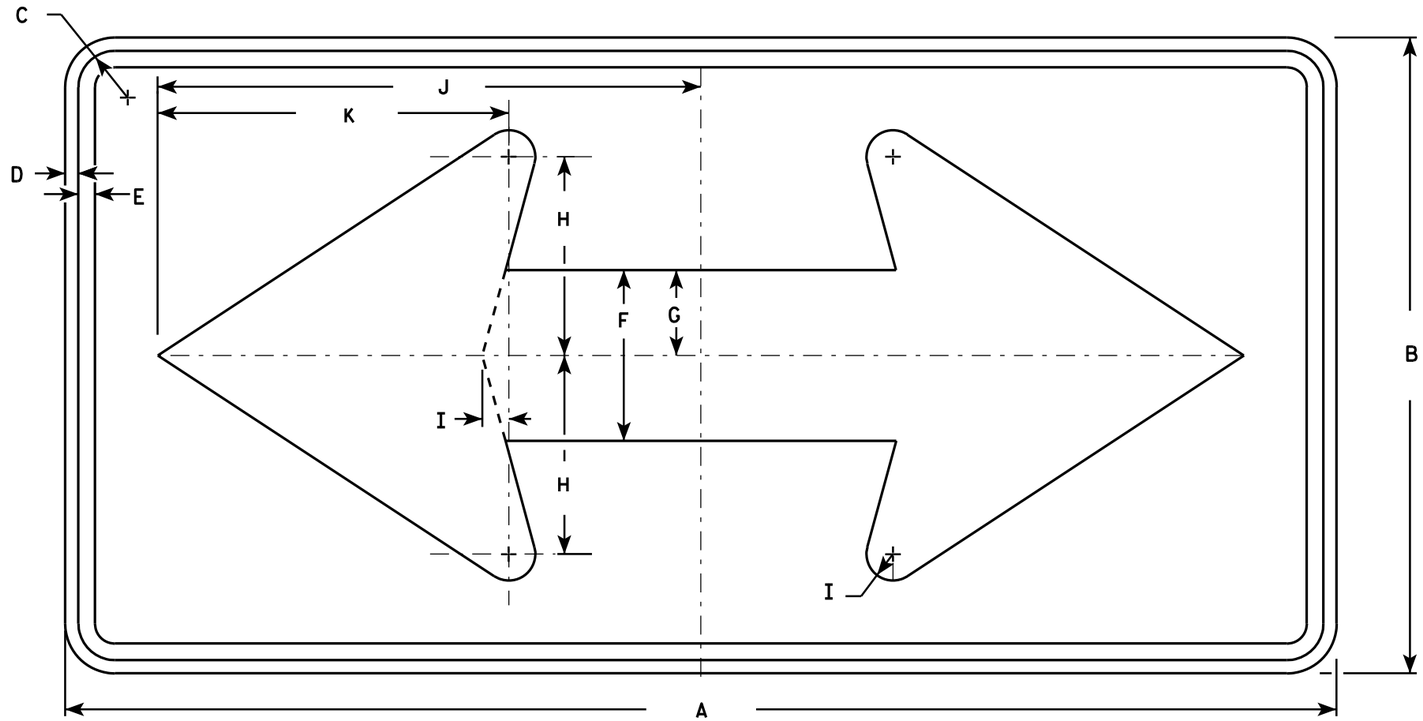
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/17 PLATE NO. R11-3.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 124	E



W1-7

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

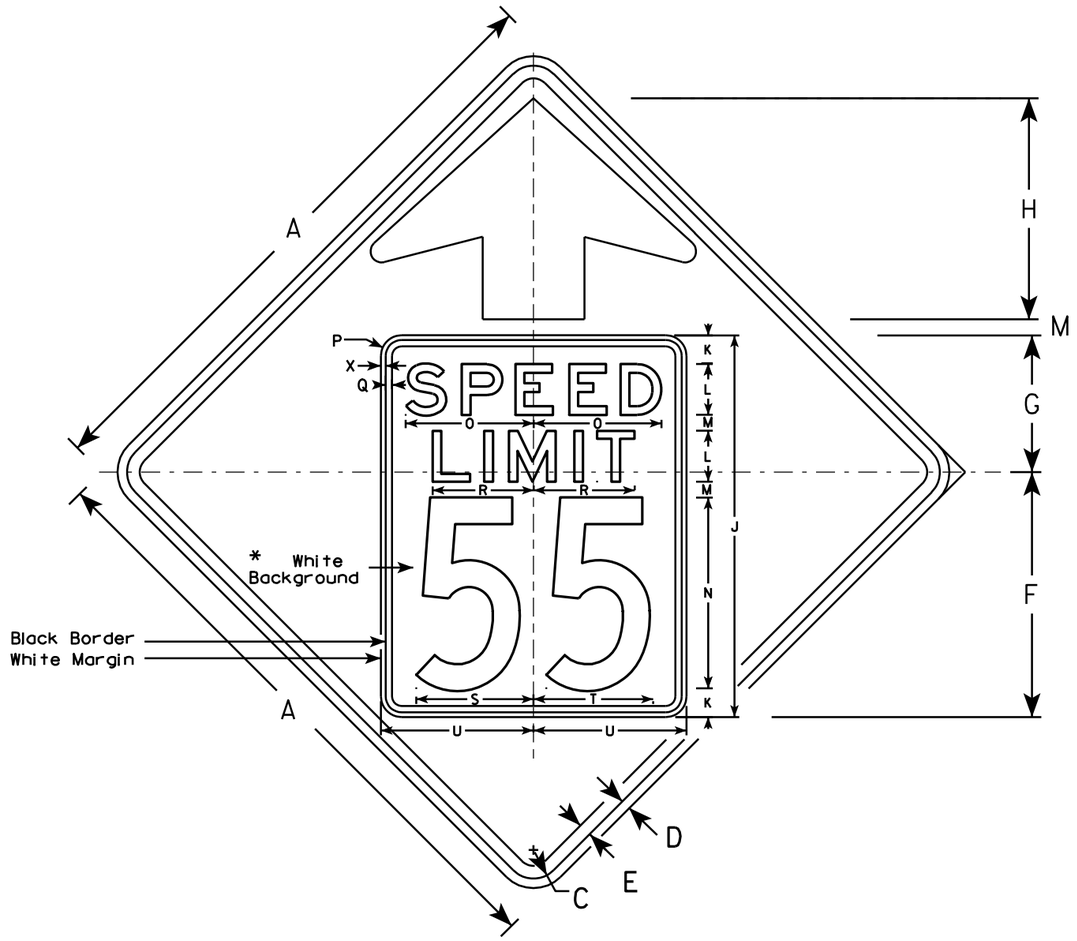
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 125 | E

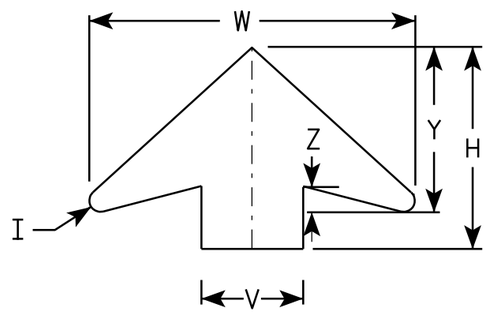


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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

STANDARD SIGN
W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 126 E

W4-4P

NOTES

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

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

STANDARD SIGN
W4-4P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

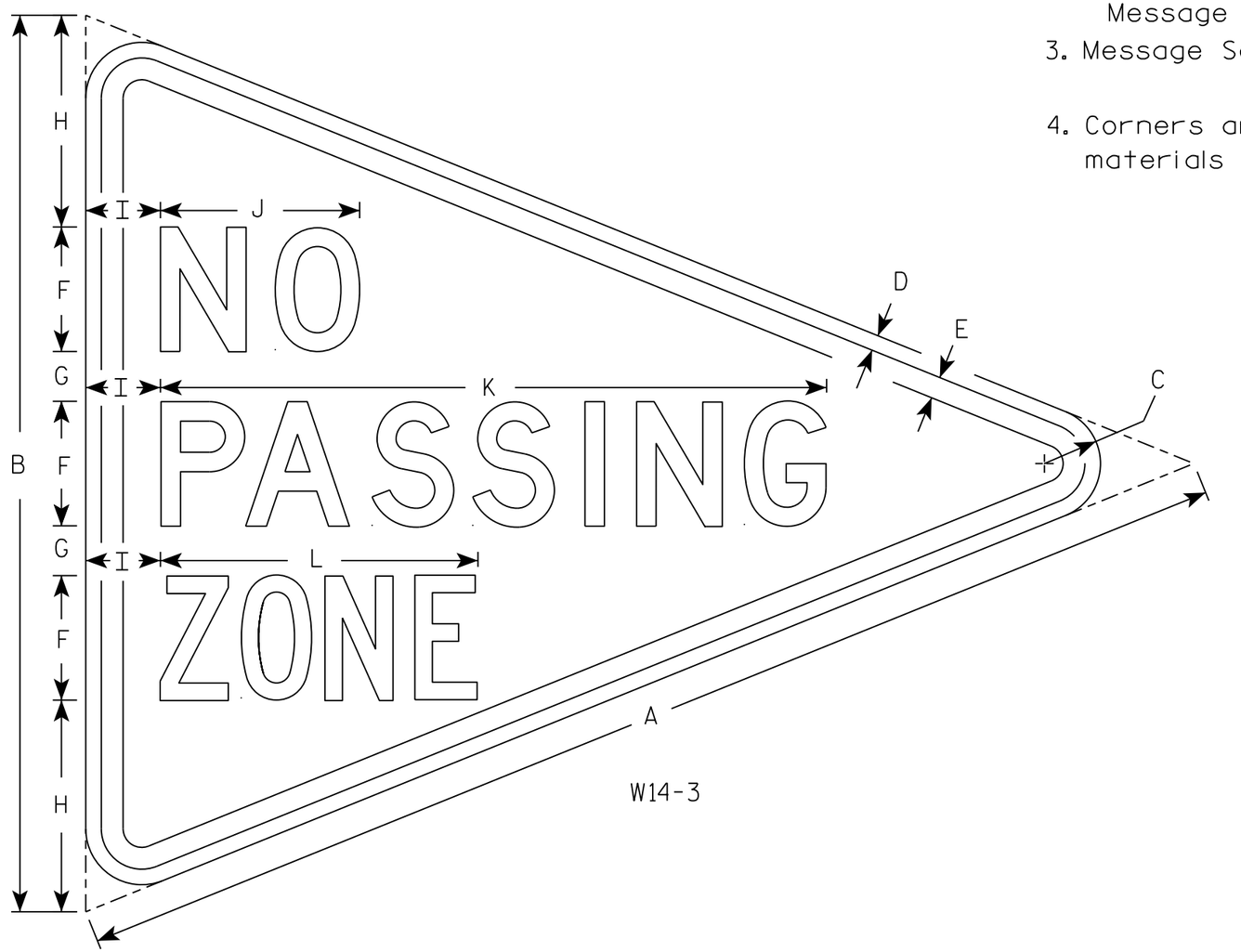
DATE 03/12/13 PLATE NO. W4-4P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 127 | E

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

NOTES

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



W14-3

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

STANDARD SIGN
W14-3

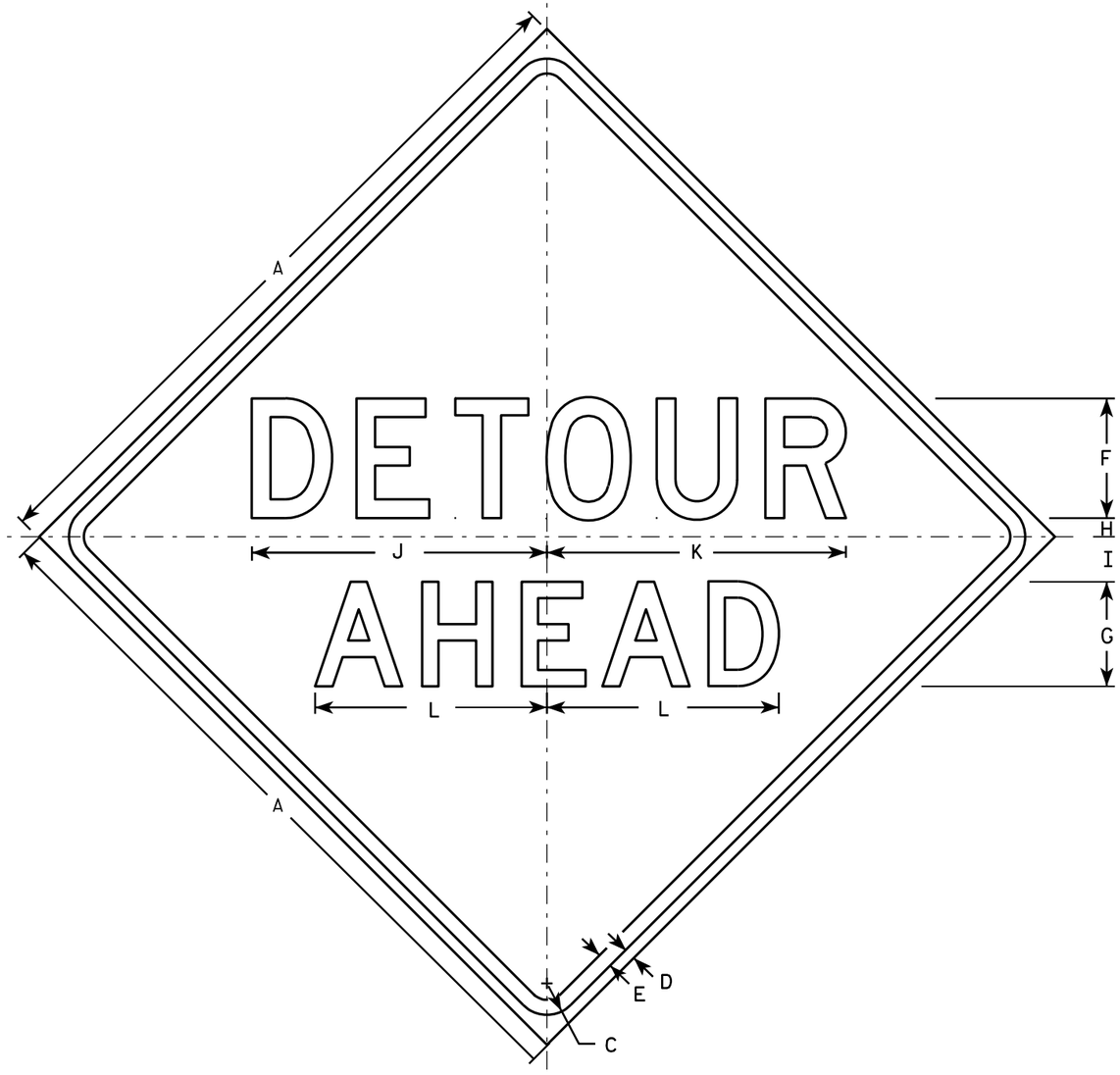
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

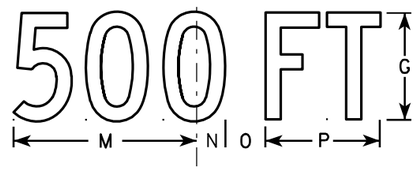
DATE 3/21/17 PLATE NO. W14-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 128 | E

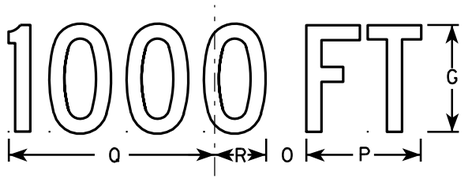
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W143.DGN PLOT DATE : 21-MAR-2017 08:48 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 5.650195:1.000000 WISDOT/CADDS SHEET 42



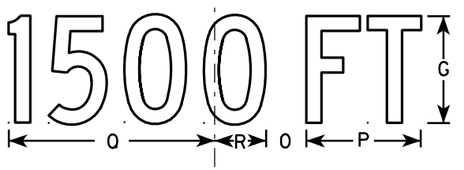
W20-2A



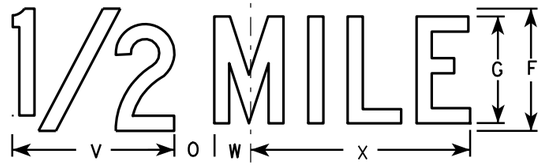
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

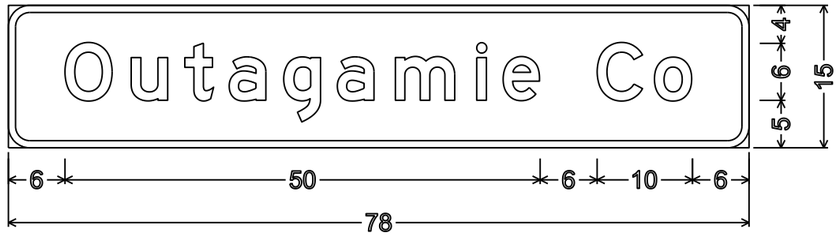
DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 129 E

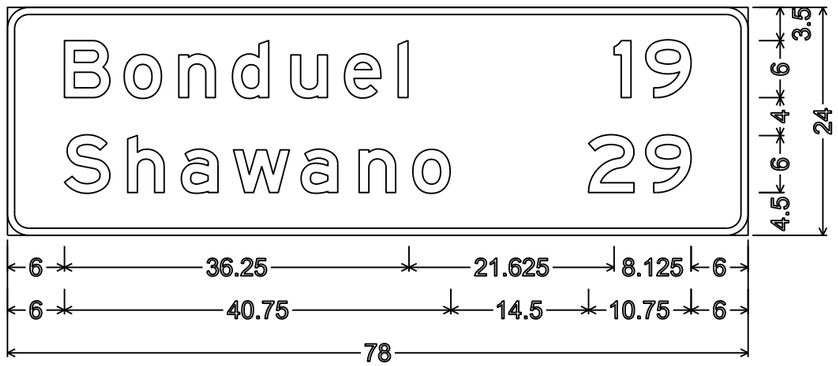
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42

NOTES

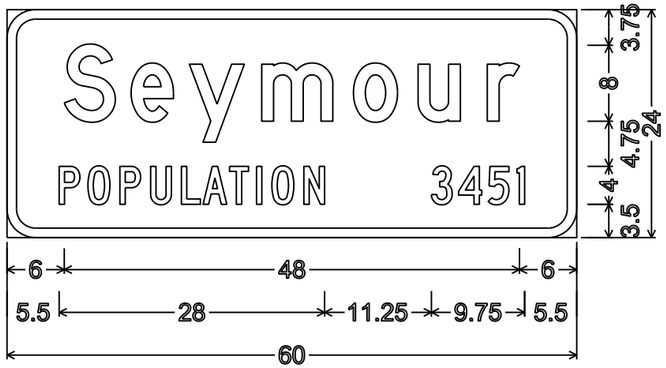
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



I2-2; 2.250" Radius, 0.750" Border



D2-2; 2.250" Radius, 0.750" Border



I2-3;
3.000" Radius, 1.000" Border,
"Seymour" D; "POPULATION" C; "3451" C

7

7

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET NO: 130	E

FILE NAME : C:\CAEfiles\Projects\tr_d3\3441a117.DGN PLOT DATE : 25-JAN-2017 11:19 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 15.953580:1.000000 WISDOT/CADDS SHEET 42

EARTHWORK SUMMARY

CATEGORY 0010

From/To Station	Location	****205.0100 Common Excavation (1) Cut (2) CY	**** Available Material (5) CY	**** Unexpanded Fill CY	**** Expanded Fill (13) CY	**** Mass Ordinate +/- (14) CY	**** Waste CY	****208.0100 Borrow CY	Comment:
130+45 - 135+55	STH 55	42	42	77	96	-54	0	54	BEAMGUARD
305+23 - 309+65	STH 55	30	30	27	34	-4	0	4	BEAMGUARD
334+96 - 340+57	STH 55	110	110	5	7	104	104	0	BEAMGUARD
	SUBTOTAL	183	183	110	137	46	104	58	
	PROJECT TOTALS	**183**						**58**	

**** FOR INFORMATION ONLY

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(5) Available Material = Cut - Salvaged/Unusuable Pavement Material

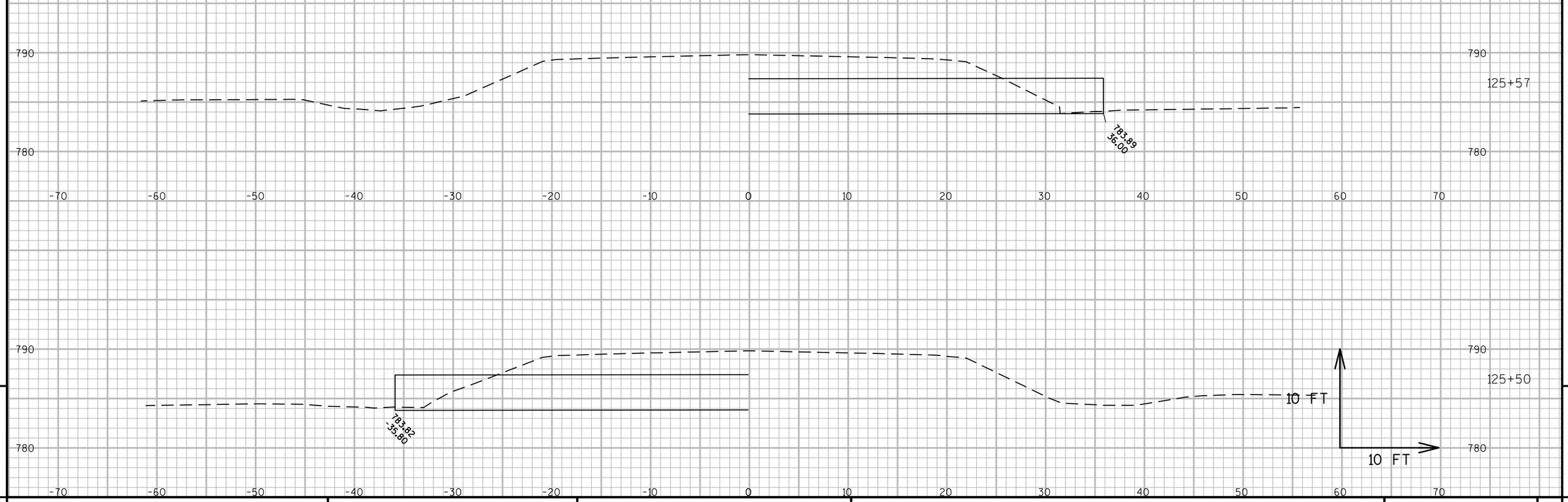
(13) Expanded Fill Factor = 1.5

(14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	Mass Ordinate
						1.00	1.25	
				Note 1	Note 3	Note 1		Note 8
130+44.9	0.00	4.25	0.00	0	0	0	0	0
130+53.94	9.04	2.21	24.90	1	4	1	5	-4
130+69.34	15.40	2.12	27.76	1	15	2	24	-22
130+82.16	12.82	1.88	12.61	1	10	3	36	-33
131+00	17.84	1.61	13.90	1	9	4	47	-42
131+09.49	9.49	1.50	2.86	1	3	5	51	-46
131+32.3	22.81	3.35	3.87	2	3	7	54	-47
131+57.22	24.92	4.03	2.51	3	3	10	58	-47
131+81.87	24.65	1.35	0.73	2	1	13	60	-47
132+00	18.13	1.38	0.42	1	0	14	60	-46
132+08.86	8.86	1.44	0.22	0	0	14	60	-46
132+30.57	21.71	0.90	0.26	1	0	15	61	-45
133+09.38	78.80	0.00	0.00	1	0	17	61	-44
133+16.83	7.45	4.62	0.00	1	0	17	61	-44
133+57.21	40.38	3.90	0.00	6	0	24	61	-37
133+82.22	25.01	3.10	8.03	3	4	27	66	-39
134+21.68	39.46	3.20	11.26	5	14	31	83	-52
134+63.02	41.34	4.48	0.60	6	9	37	95	-57
135+00.06	37.04	1.08	0.51	4	1	41	96	-54
135+54.5	54.44	0.00	0.00	1	1	42	96	-54

STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	Mass Ordinate
						1.00	1.25	
				Note 1	Note 3	Note 1		Note 8
305+23.87	16969.38	0.00	0.00	0	0	0	96	-54
305+88.24	64.36	0.61	2.54	1	3	1	100	-57
306+00	11.76	0.46	1.74	0	1	1	101	-58
306+69.06	69.06	6.72	0.00	9	2	10	104	-52
307+80.99	111.94	0.00	0.00	14	0	24	104	-38
307+99.99	18.99	1.14	0.47	0	0	24	104	-38
308+32.2	32.22	1.13	2.21	1	2	26	106	-38
308+63.91	31.71	0.52	11.34	1	8	27	116	-47
309+00	36.09	1.15	2.23	1	9	28	127	-57
309+32.2	32.20	0.95	0.71	1	2	29	130	-58
309+64.68	32.48	1.03	0.00	1	0	30	130	-58

STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	Mass Ordinate
						1.00	1.25	
				Note 1	Note 3	Note 1		Note 8
334+96.51(2)	2531.83	0.00	0.00	48	0	48	130	-9
336+00(2)	103.49	0.44	1.66	1	3	49	134	-12
336+40.13(2)	40.13	1.84	0.33	2	1	51	136	-12
336+79.57(2)	39.45	2.76	0.08	3	0	54	136	-10
337+06.72(2)	27.15	5.90	0.00	4	0	59	136	-5
337+68.96(2)	62.24	0.00	0.00	7	0	65	136	2
337+94.68(2)	25.72	2.00	0.00	1	0	66	136	3
338+44.63(2)	49.95	2.68	0.00	4	0	71	136	7
339+07.15(2)	62.52	4.53	0.16	8	0	79	137	15
339+57.24(2)	50.09	6.55	0.07	10	0	89	137	25
340+00(2)	42.76	7.77	0.00	11	0	101	137	36
340+25.34(2)	25.35	5.34	0.00	6	0	107	137	42
340+57.21(2)	31.86	0.52	0.00	3	0	110	137	46



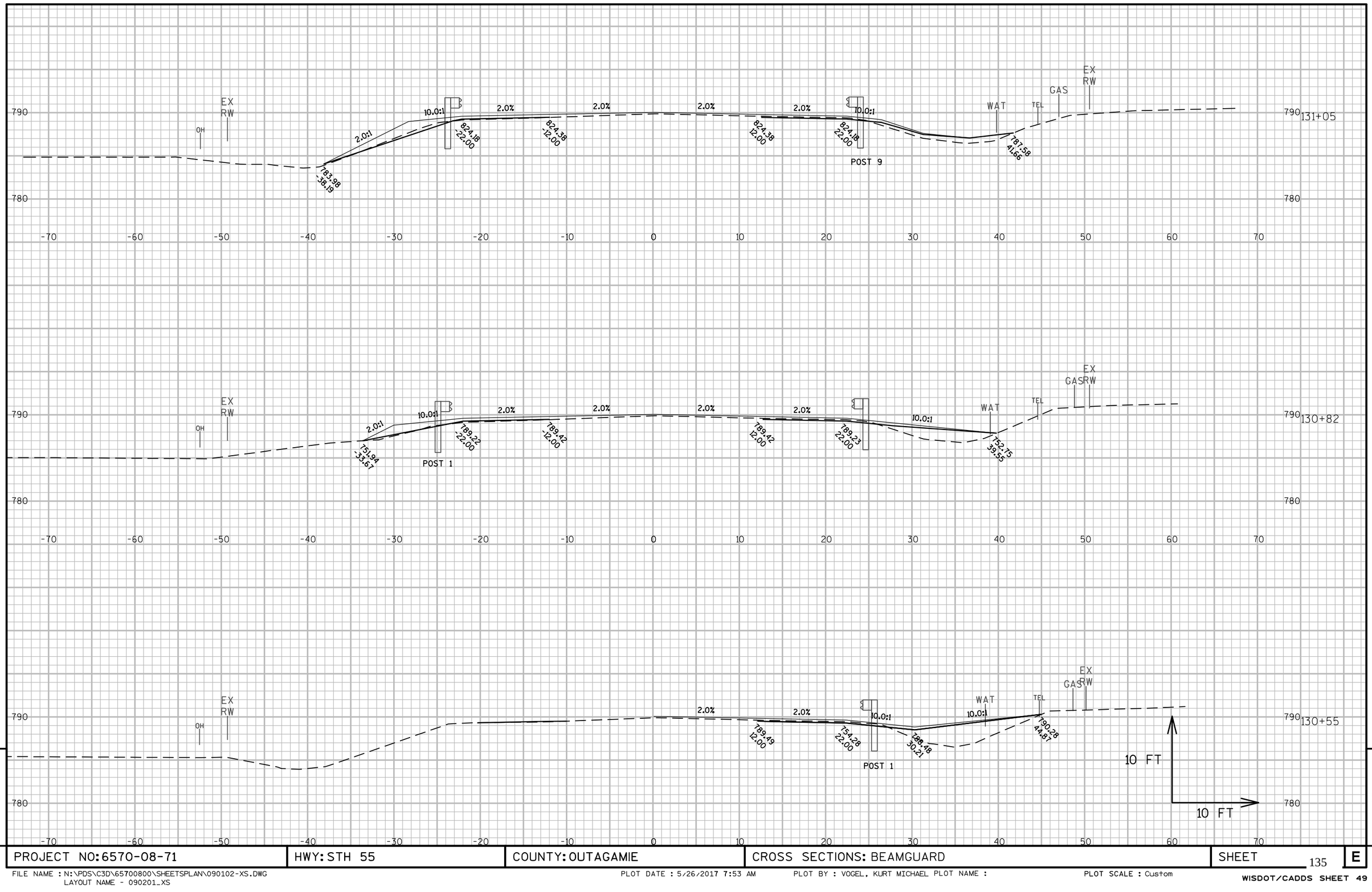
9

9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: CULVERT PIPE	SHEET 134	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - SECTION SHEET - (100)

PLOT DATE : 3/15/2017 3:40 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

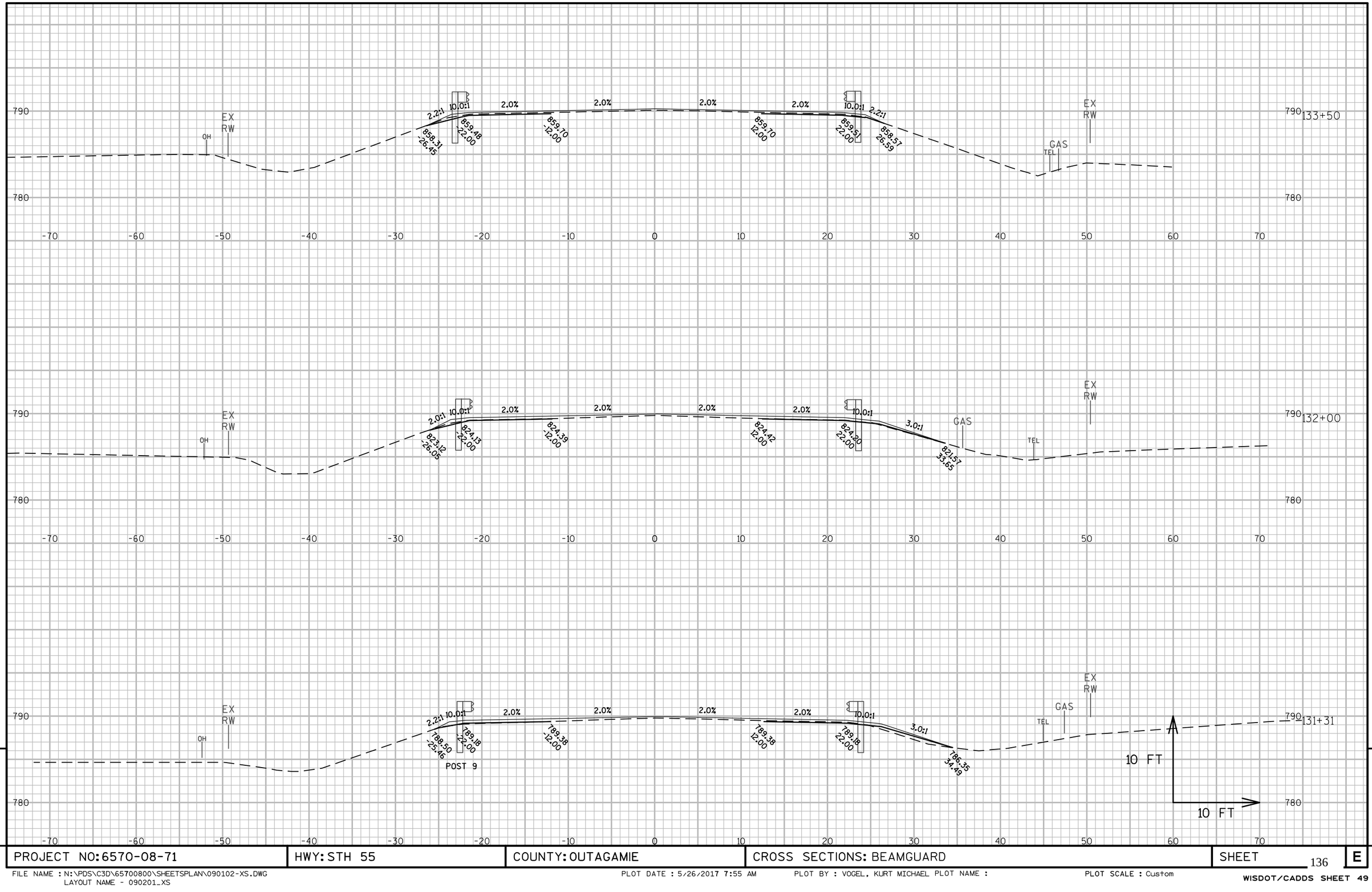
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 135	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 5/26/2017 7:53 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 49



9

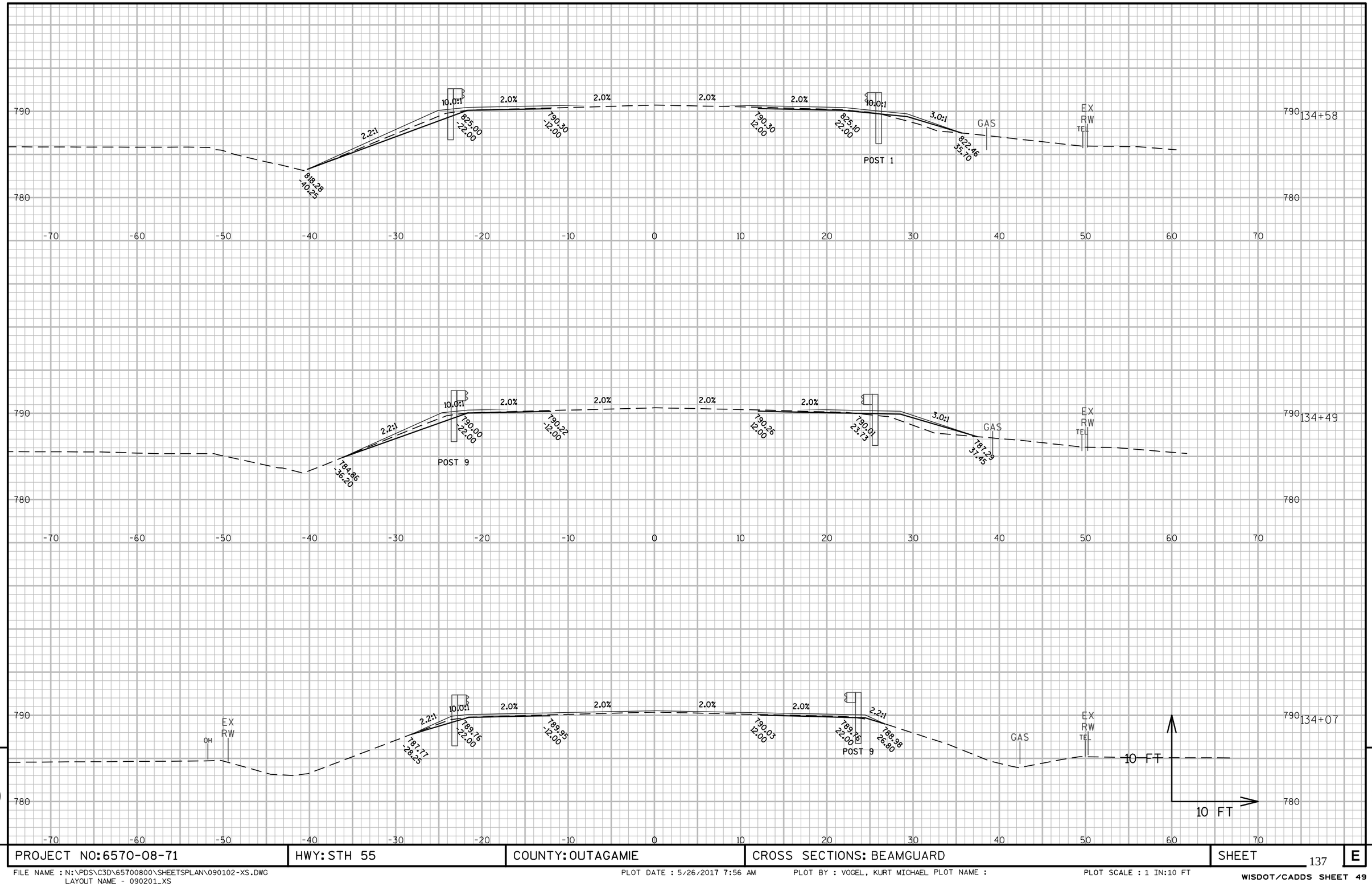
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 136	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 5/26/2017 7:55 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 49



9

9

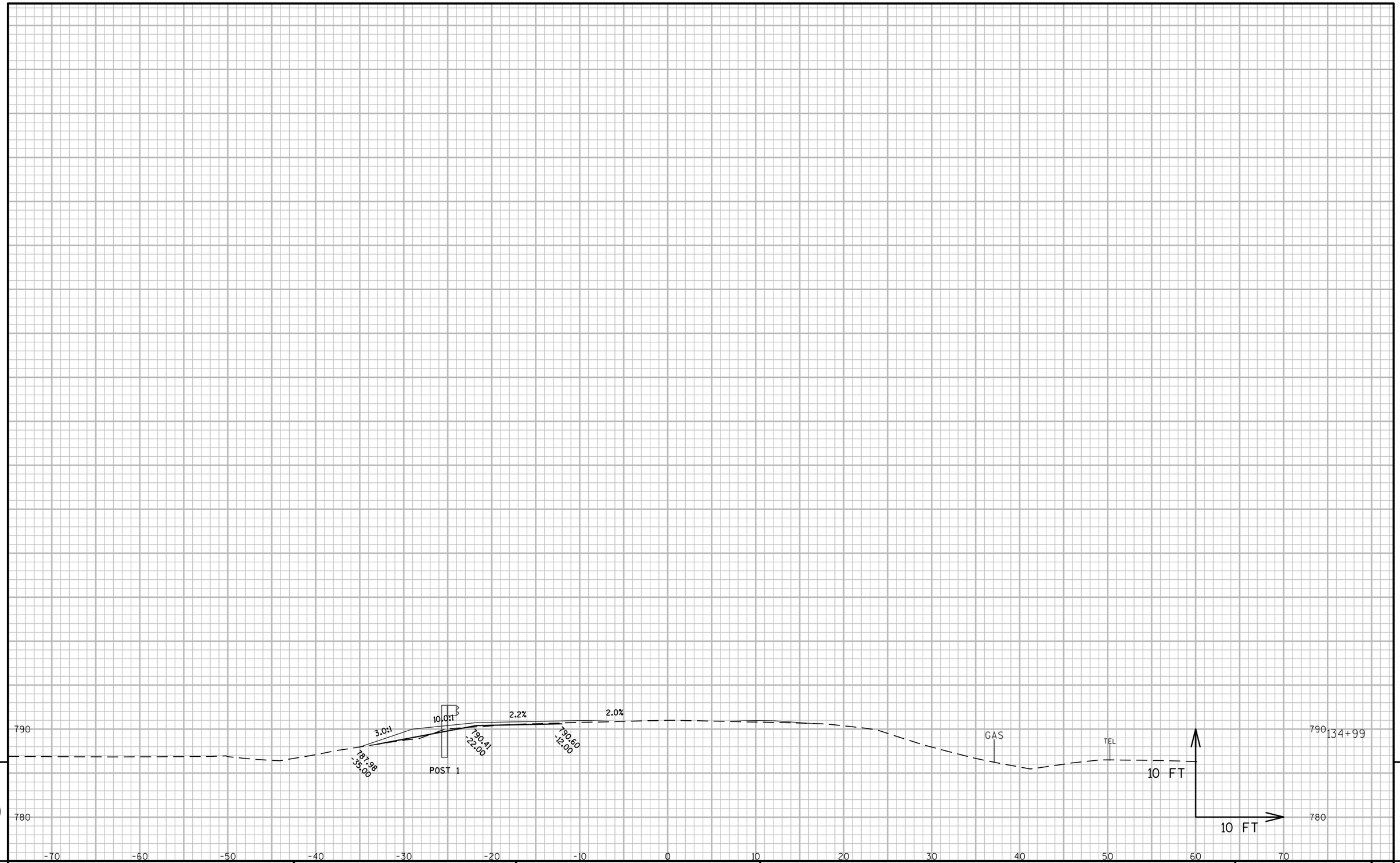
PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 137	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 5/26/2017 7:56 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

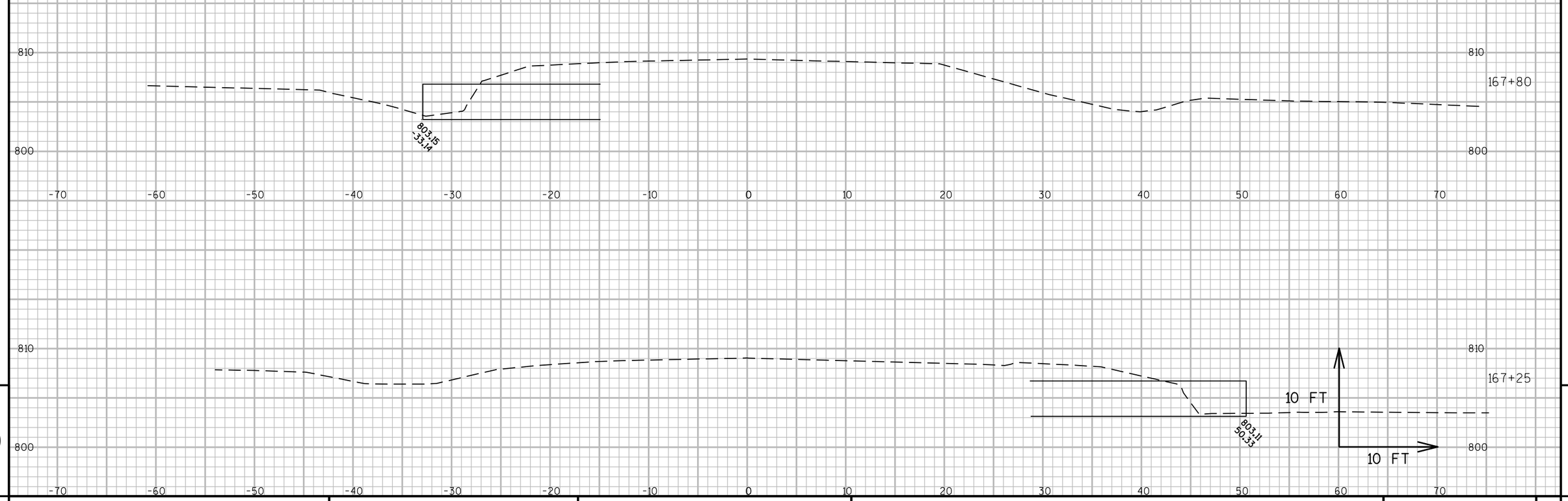
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 138	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 5/26/2017 7:57 AM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 49



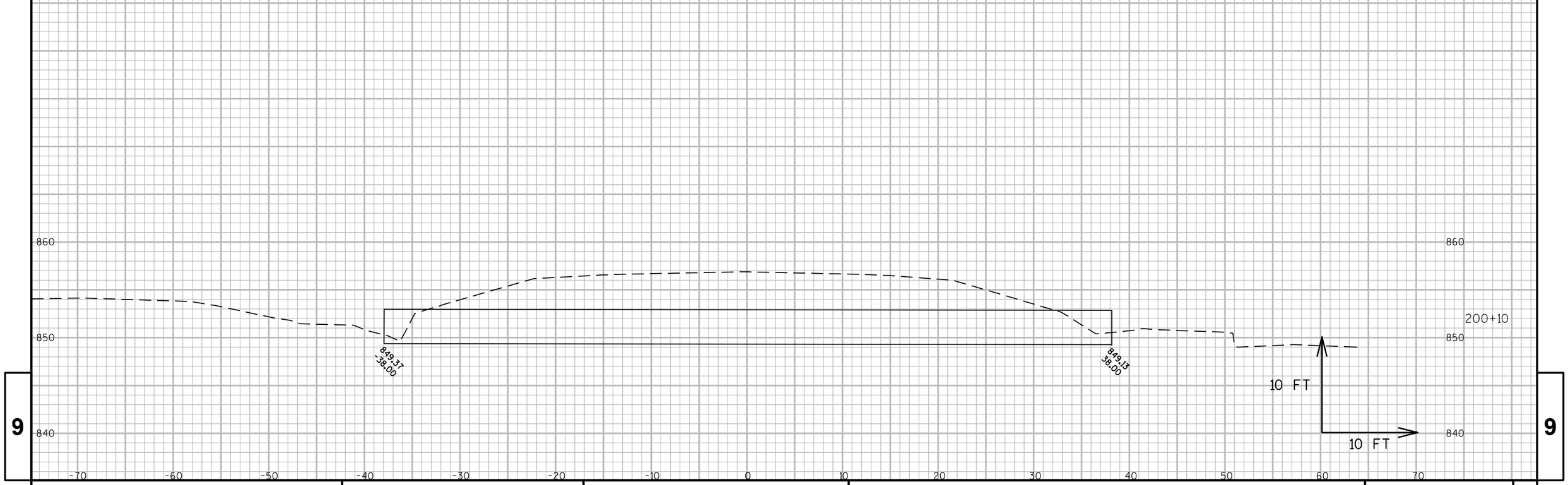
9

9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: CULVERT PIPE	SHEET 139	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - SECTION SHEET - (101)

PLOT DATE : 3/15/2017 3:41 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

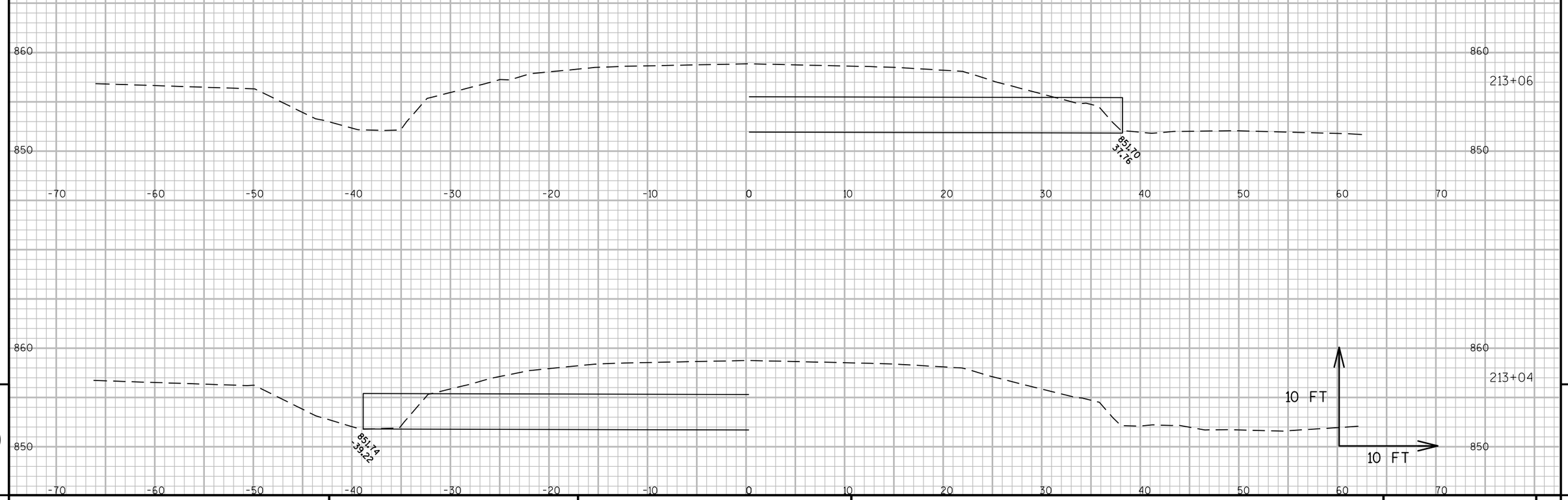
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: CULVERT PIPE	SHEET 140	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 3/15/2017 3:42 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

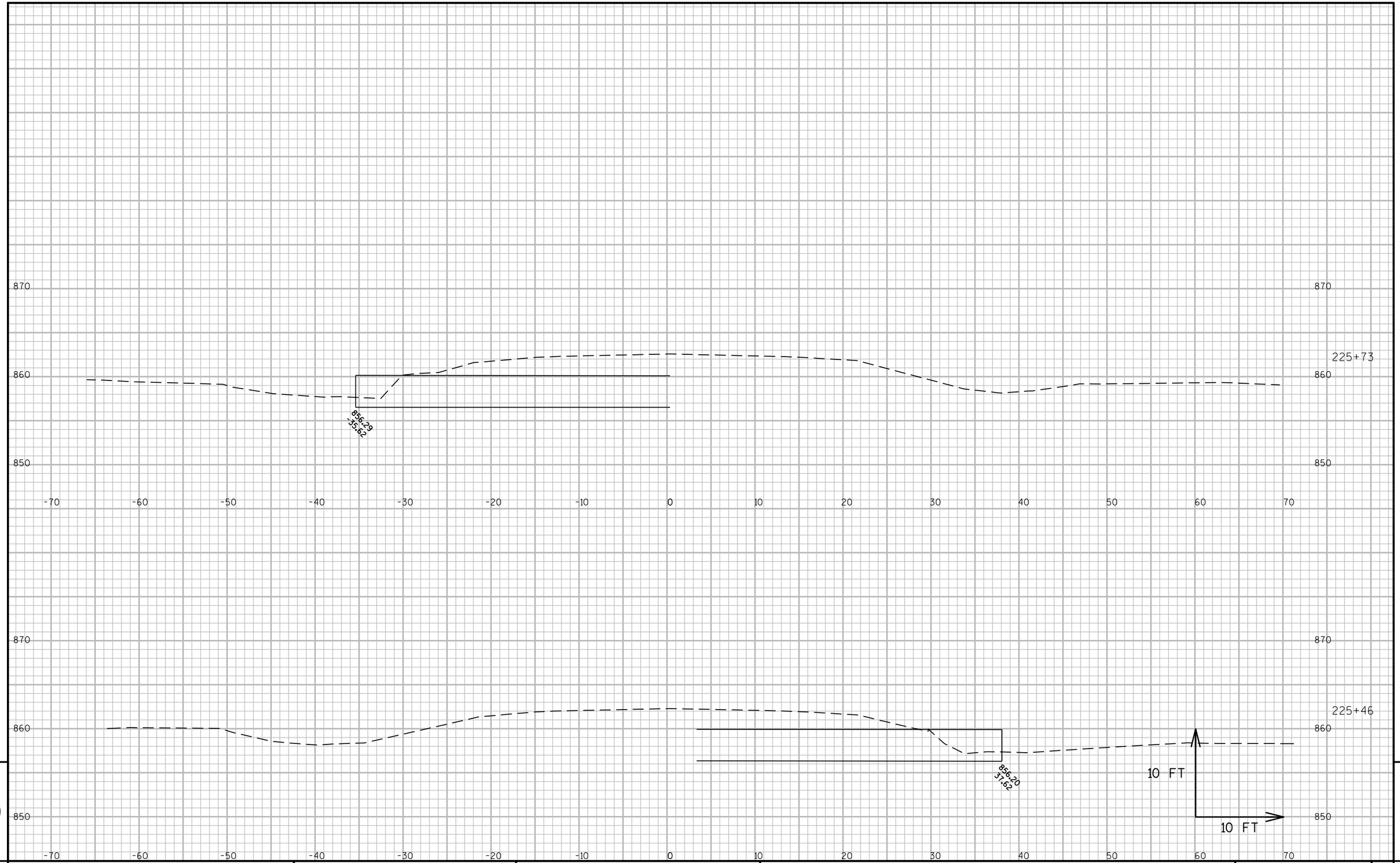
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: CULVERT PIPE	SHEET 141	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 3/15/2017 3:43 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

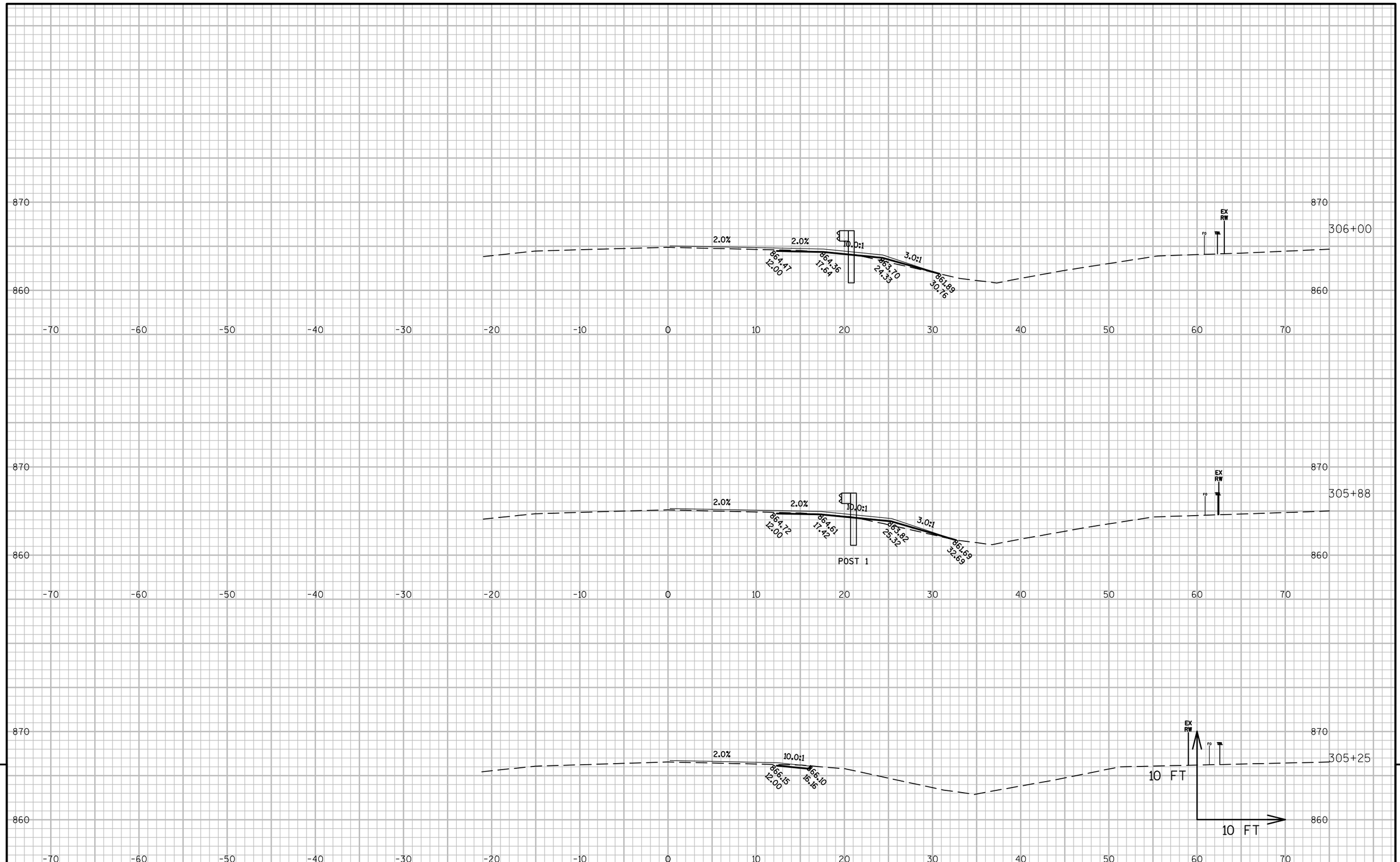
PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: CULVERT PIPE	SHEET 142	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 3/15/2017 3:43 PM

PLOT BY : VOGEL, KURT MICHAEL PLOT NAME :

PLOT SCALE : 1 IN:10 FT



9

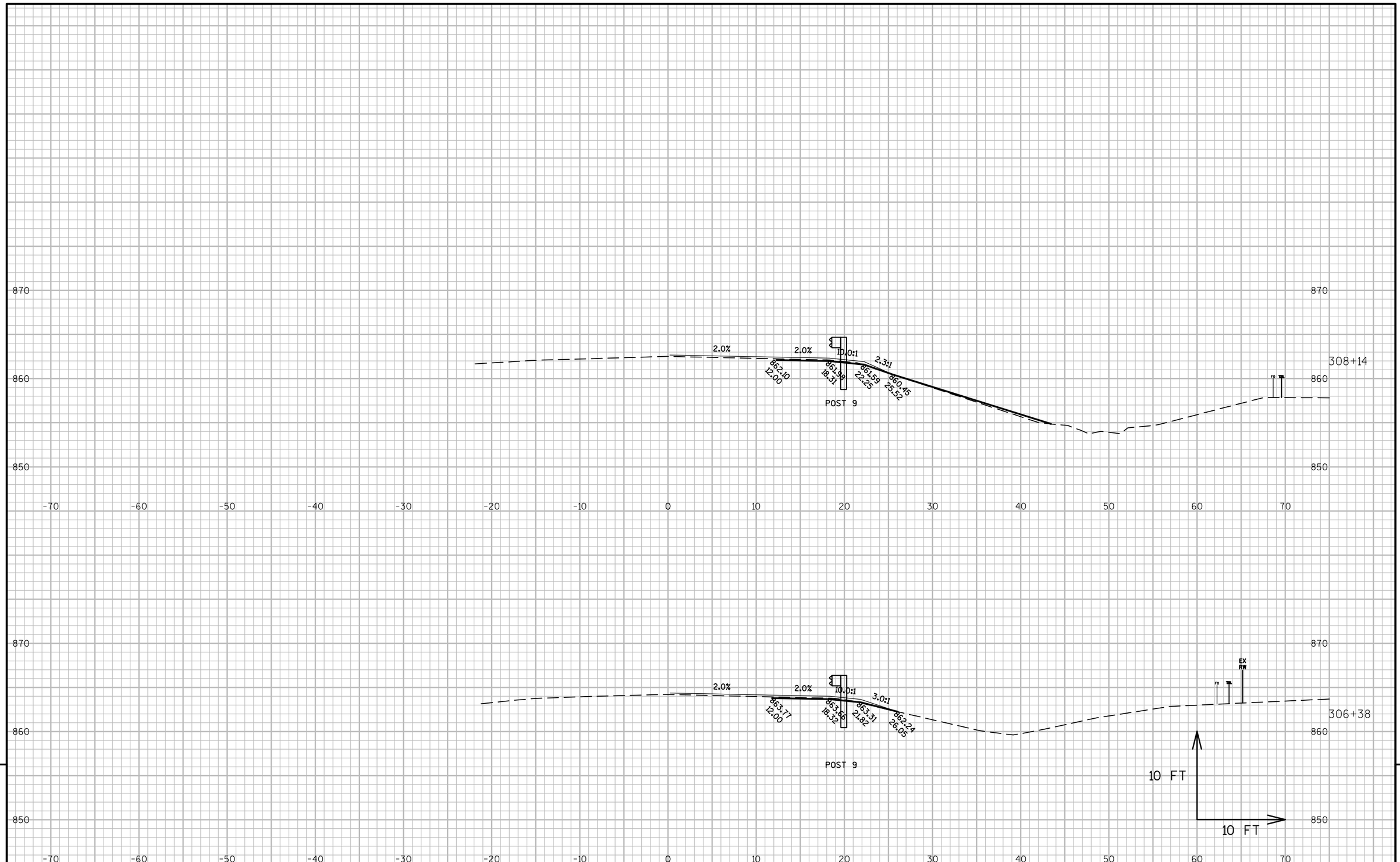
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 68	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:30 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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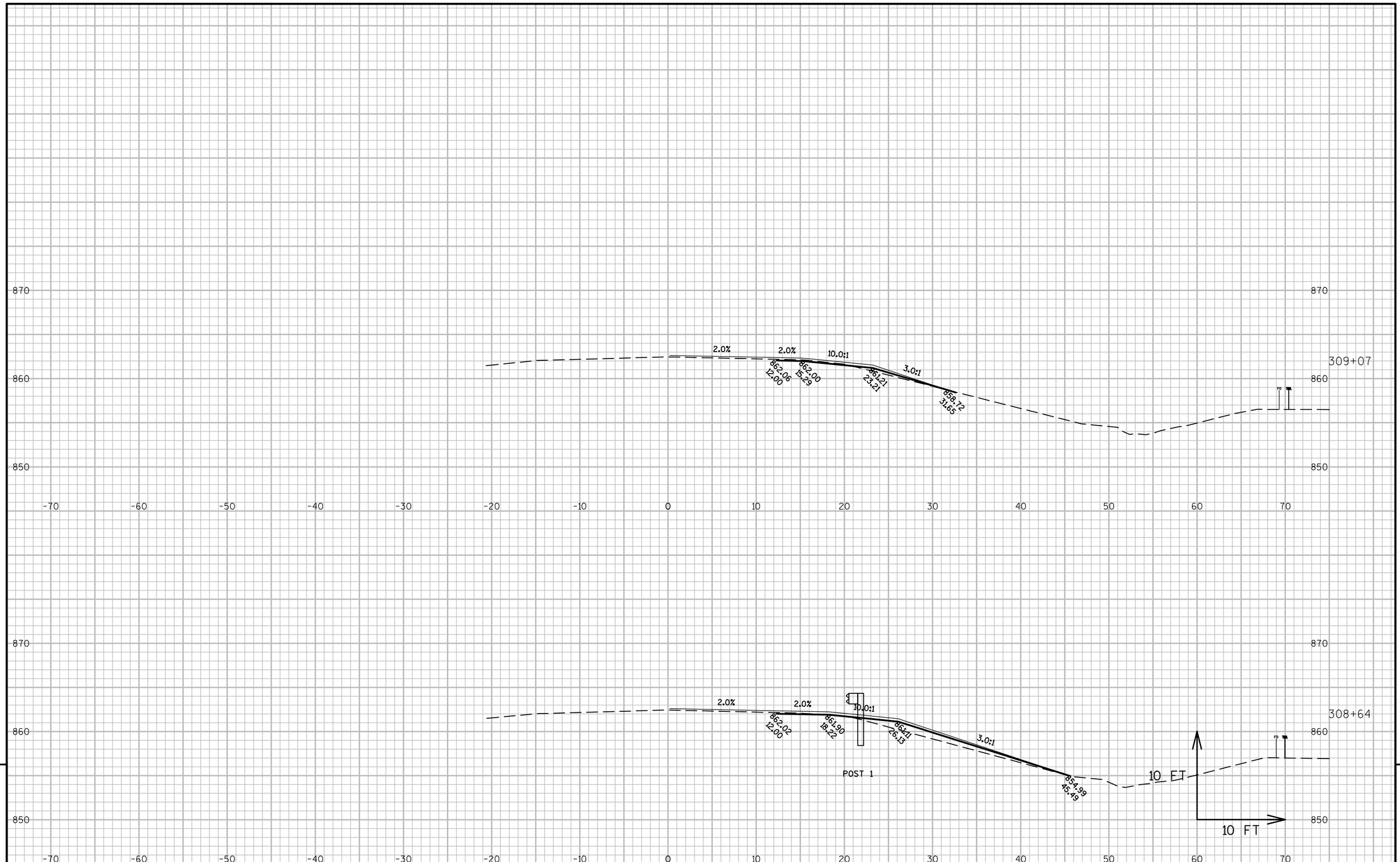
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 69	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:31 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



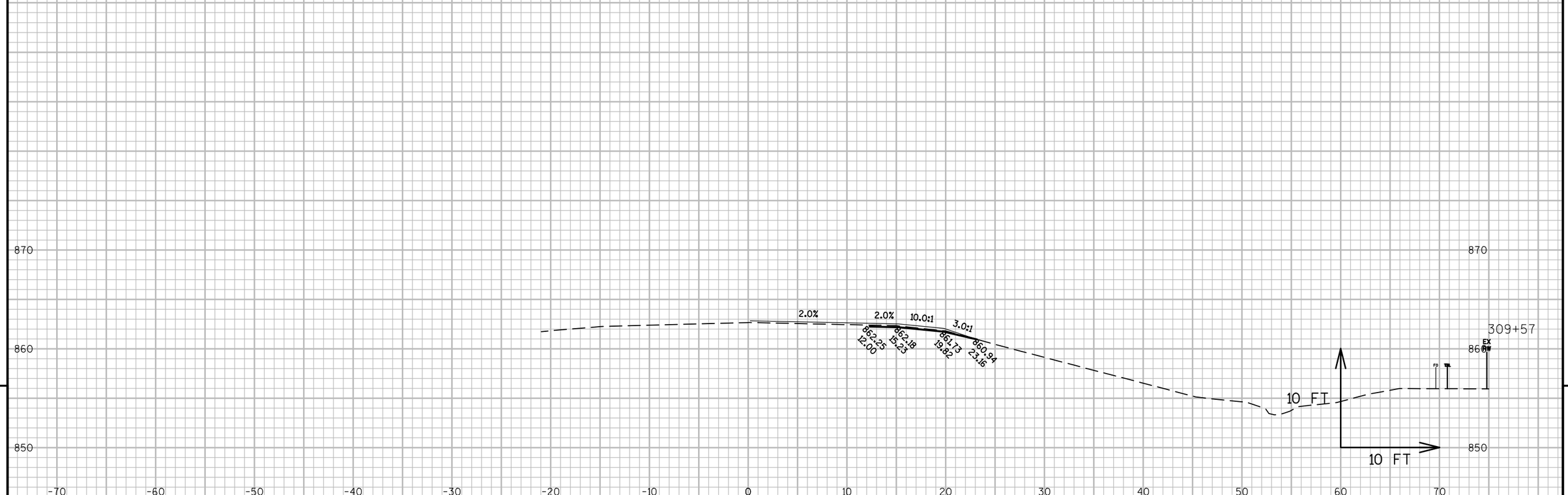
9

9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 70	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:32 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT



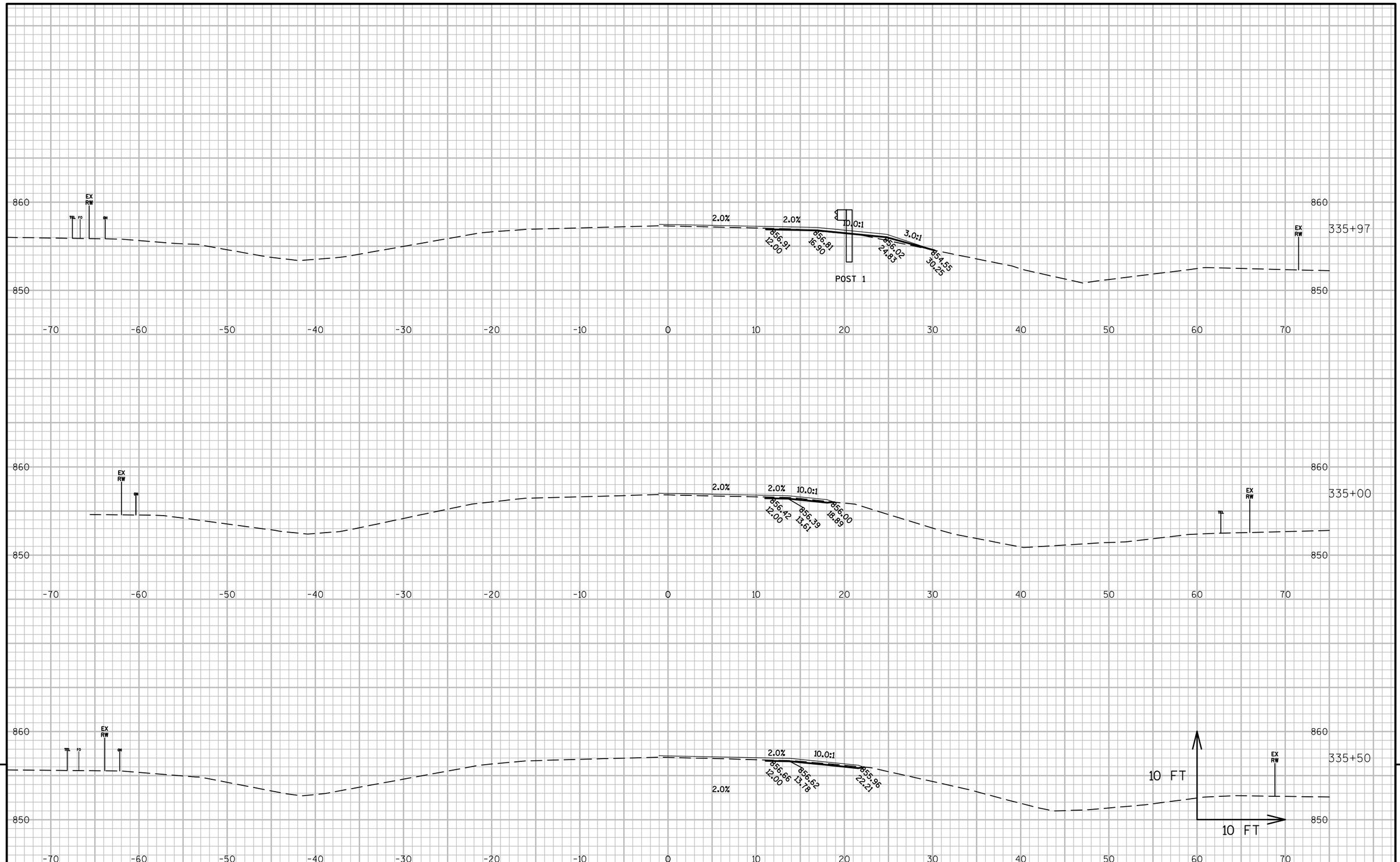
9

9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 71	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:34 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

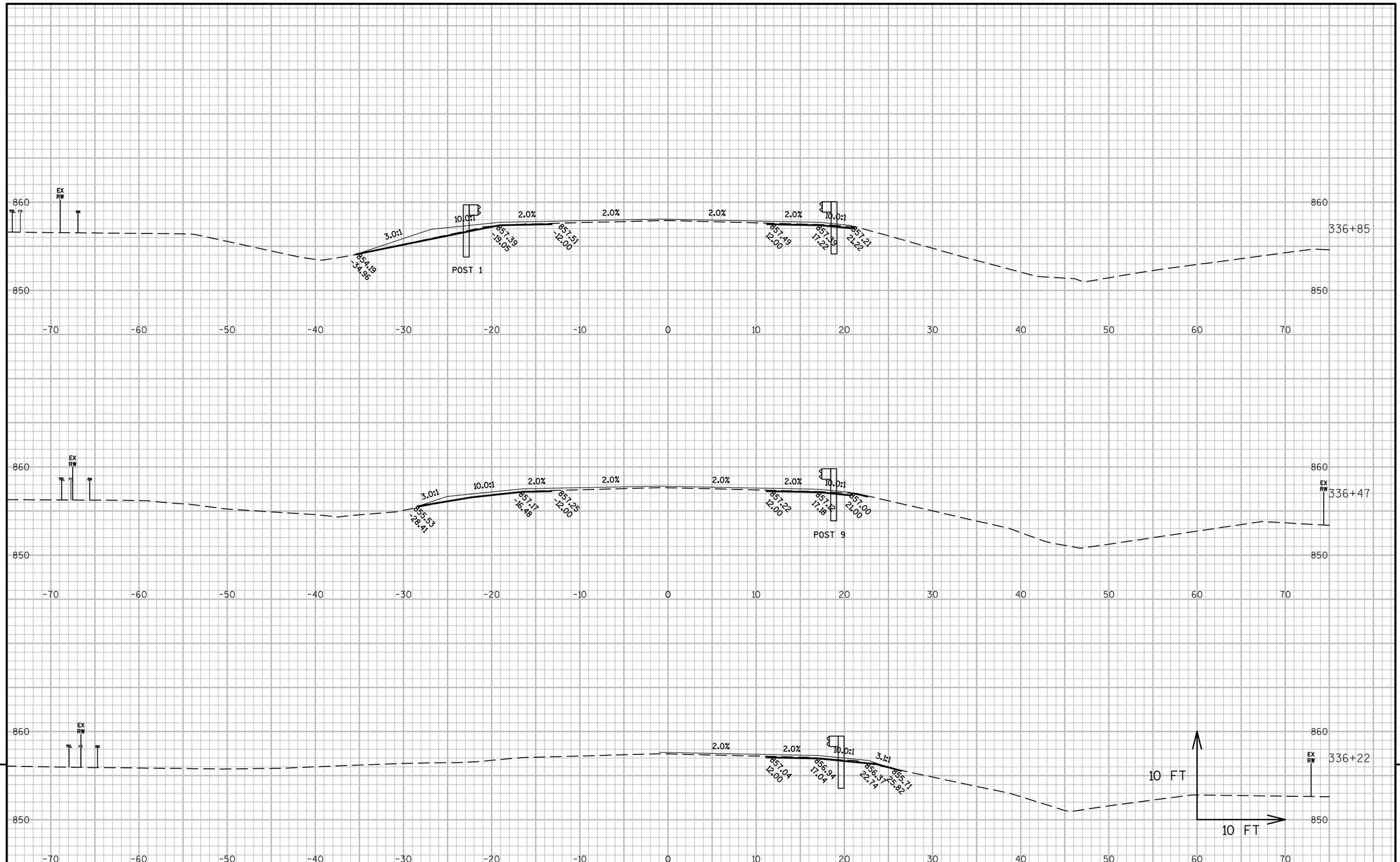


PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 72	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:50 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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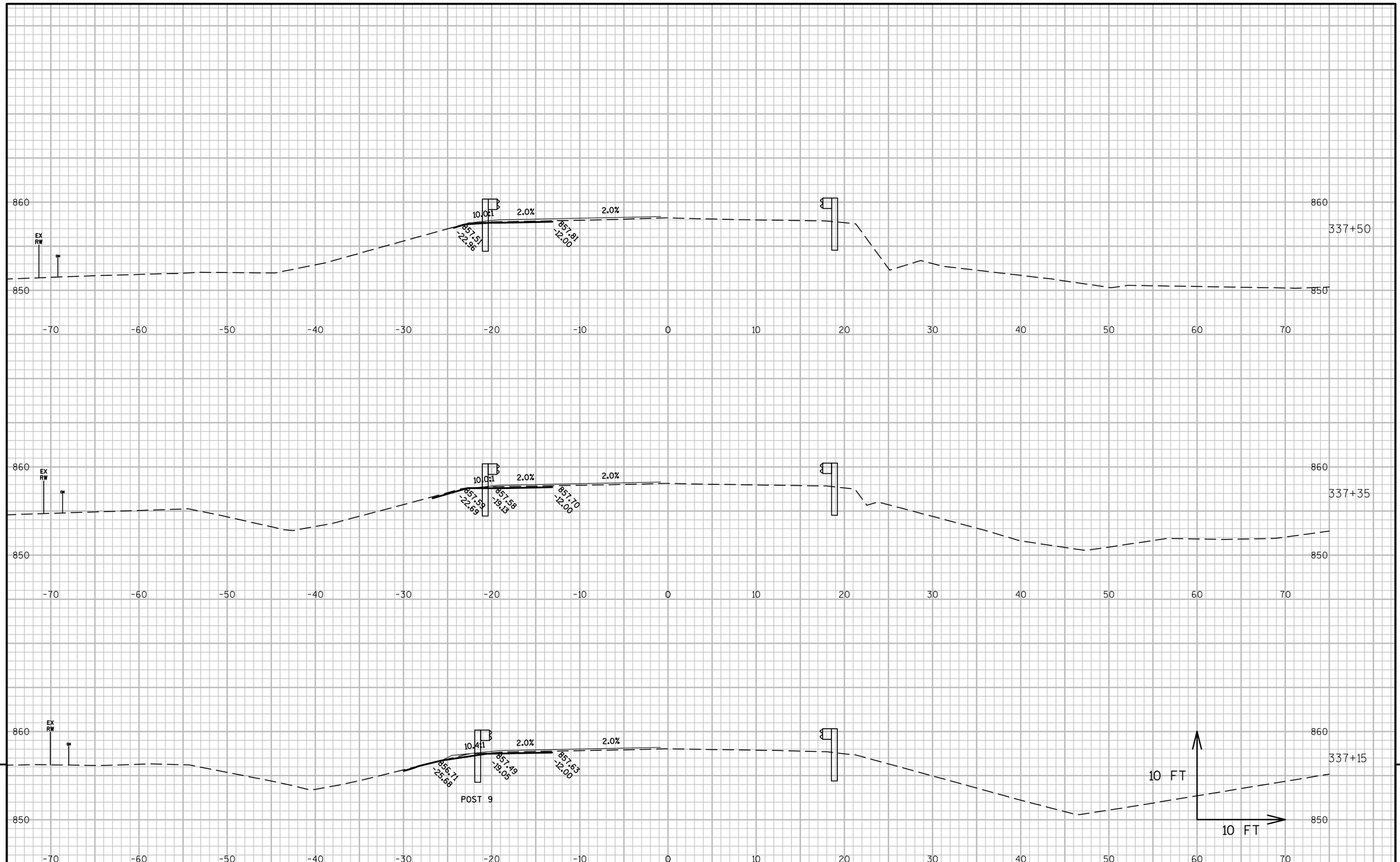
PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 73	E

148

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:51 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

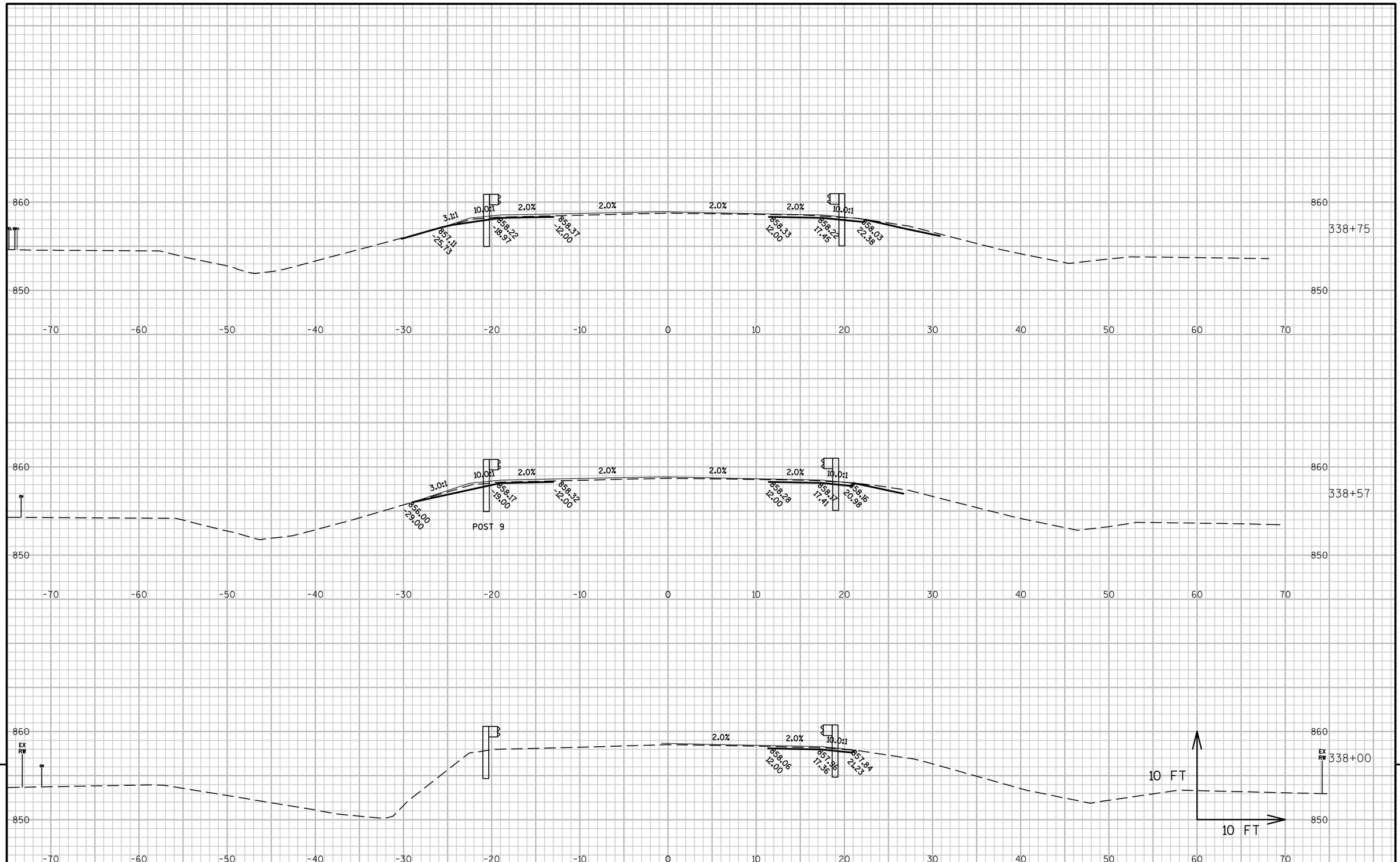
WISDOT/CADDS SHEET 49



FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:52 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

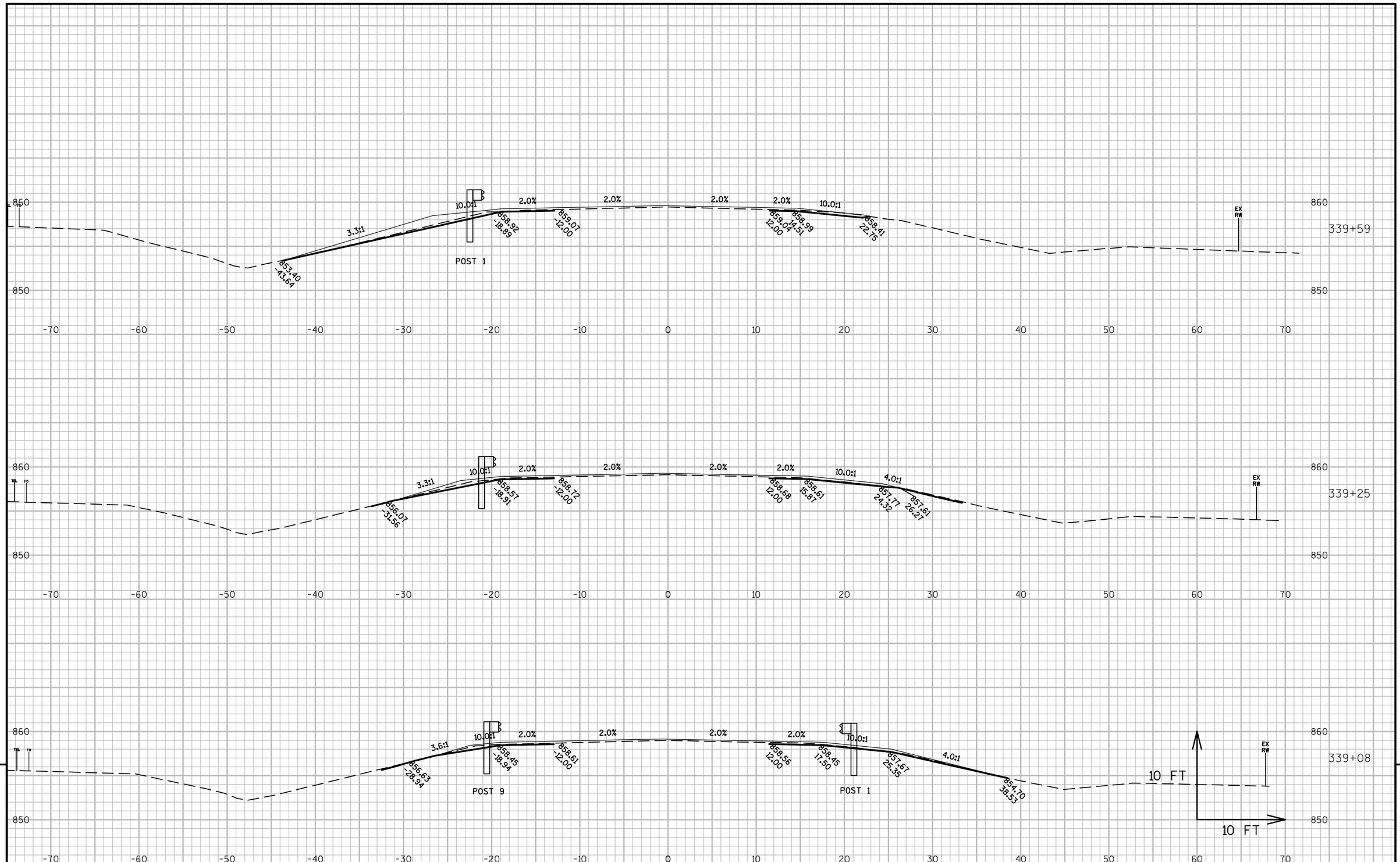
9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 75 150	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:53 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME :

PLOT SCALE : 1 IN:10 FT



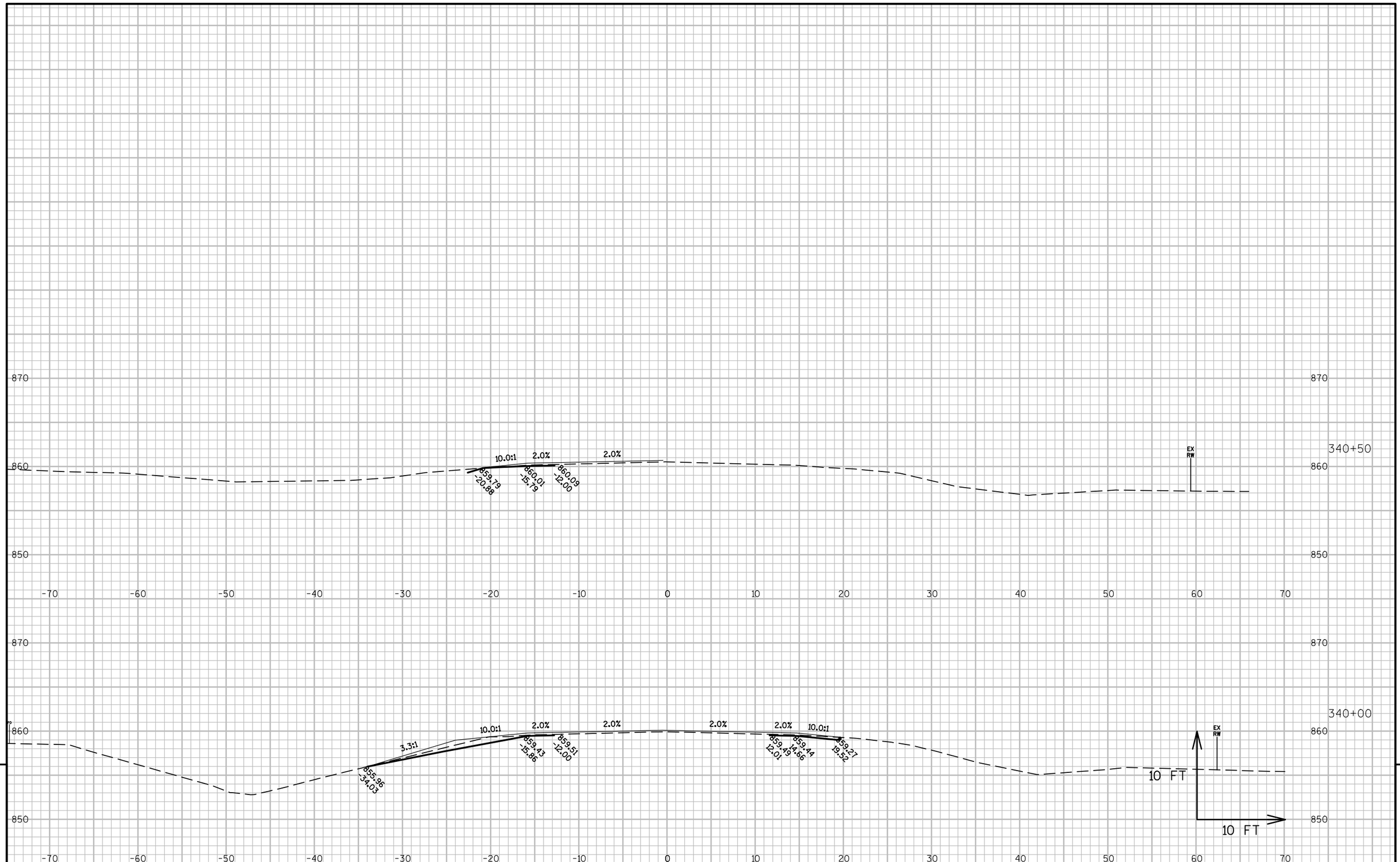
9

9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 76	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:54 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

9

PROJECT NO: 6570-08-71	HWY: STH 55	COUNTY: OUTAGAMIE	CROSS SECTIONS: BEAMGUARD	SHEET 77	E

FILE NAME : N:\PDS\C3D\65700800\SHEETSPLAN\090102-XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 10/3/2016 3:55 PM PLOT BY : VOGEL, KURT MICHAEL PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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