SUP

MARCH 2021

PROJECT ID: 8595-00-71

WITH: NA

COUNTY: RUSK

30

ORDER OF SHEETS

TOTAL SHEETS = 64

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 27 - SHELDON

LITTLE JUMP RIVER BRIDGE B-54-0138

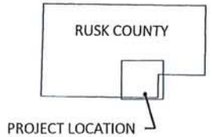
CTH D

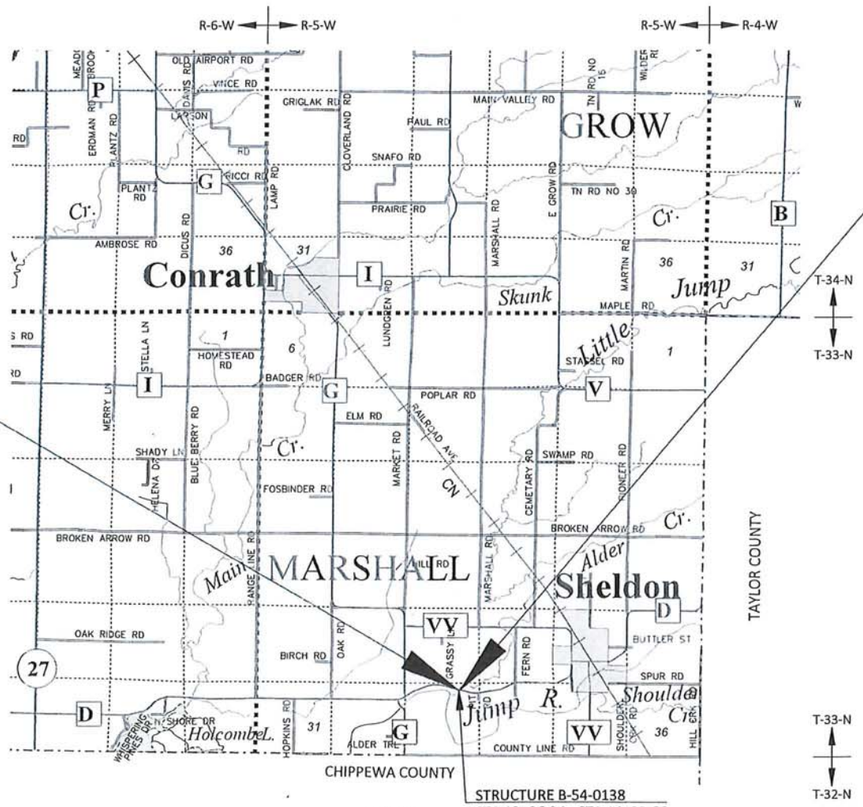
RUSK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8595-00-71	WISC 2021242	1

STATE PROJECT NUMBER

8595-00-71





BEGIN PROJECT
STA 12+75.00
Y = 505,204.32
X = 840,932.79

END PROJECT
STA 14+75.00
Y = 505,154.37
X = 841,126.46

STRUCTURE B-54-0138
STA 13+26.34 - STA 14+23.66

LAYOUT SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.038 MILES

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

DESIGN DESIGNATION

A.A.D.T.	2015	=	527
A.A.D.T.	2035	=	539
D.H.V.		=	N/A
D.D.		=	50/50
T.		=	10% MAX
DESIGN SPEED		=	55 MPH
ESALS		=	180,000

CONVENTIONAL SYMBOLS

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

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

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

ACCEPTED FOR
RUSK COUNTY
Date 10/22/20
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY
WISCONSIN PROFESSIONAL ENGINEER
JACOB A. FRIBERG
E-43328
RICE LAKE
WI
DATE: 10/22/2020
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COOPER ENGINEERING
Designer	COOPER ENGINEERING
Project Manager	MATTHEW VAN NATTA, PE
Regional Supervisor	ANDREW STENSLAND, PE
Regional Examiner	TOU YANG, PE

APPROVED FOR THE DEPARTMENT
DATE: 10/23/2020
Digitally signed by Matthew Van Natta
Location: WisDOT NWR-Superior
(Signature)

E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\010101_TI.DWG

PLOT DATE : 10/21/2020 2:20 PM

PLOT BY : JACOB FRIBERG

PLOT NAME :

LIST OF STANDARD ABBREVIATIONS

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

UTILITY CONTACTS

COMMUNICATIONS

CENTURYLINK
BRIAN HUHN
425 ELLINGSON AVENUE
HAWKINS, WI 54530
PHONE: (715) 532-0023
EMAIL: brian.huhn@centurylink.com

ELECTRIC

JUMP RIVER ELECTRIC
SAM HOWARD
1102 W. 9TH STREET NORTH
LADYSMITH, WI 54848
PHONE: (715) 532-5524
EMAIL: showard@jrec.com

ALL UTILITIES LISTED ARE MEMBERS OF DIGGERS HOTLINE

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

OTHER CONTACTS

DESIGN CONSULTANT

COOPER ENGINEERING
JACOB FRIBERG
2600 COLLEGE DRIVE
RICE LAKE, WI 54868
PHONE: (715) 234-7008
EMAIL: jfriberg@cooperengineering.net

RUSK COUNTY

HIGHWAY COMMISSIONER
SCOTT EMCH
N2711 STH 27
LADYSMITH, WI 54848
PHONE: (715) 532-2633
EMAIL: semch@ruskcountywi.us

COUNTY SURVEYOR
JOHN FITZL
311 MINER AVE. EAST
LADYSMITH, WI 54848
PHONE: (715) 532-2165
EMAIL: john@ruskcountywi.us

WDNR REGIONAL CONTACT

WDNR/WISDOT LIAISON
LEAH NICOL
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
PHONE: (715) 934-9014
EMAIL: Leah.Nicol@wisconsin.gov

GENERAL NOTES:

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

ACCESS TO ALL RESIDENCES & SIDE ROADS SHALL BE MAINTAINED DURING CONSTRUCTION.

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

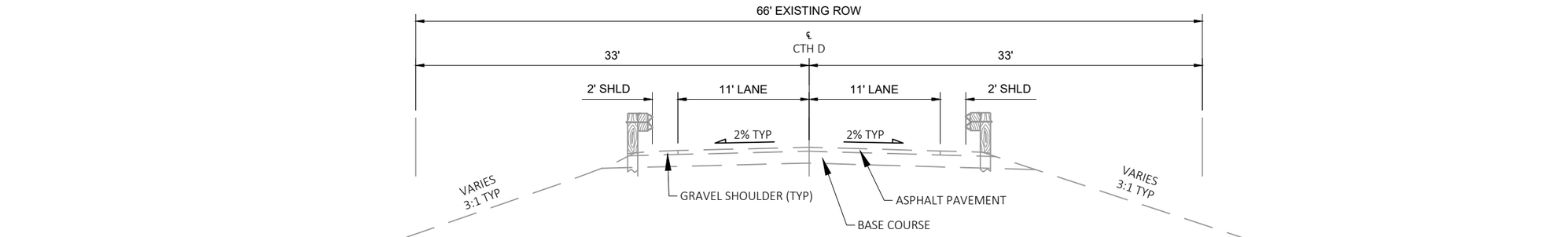
PAVEMENT MARKING SHALL MEET MUTCD STANDARDS.

CTH D WILL BE CLOSED DURING CONSTRUCTION AND NO DETOUR ROUTE WILL BE MARKED.

RUNOFF COEFFICIENT TABLE

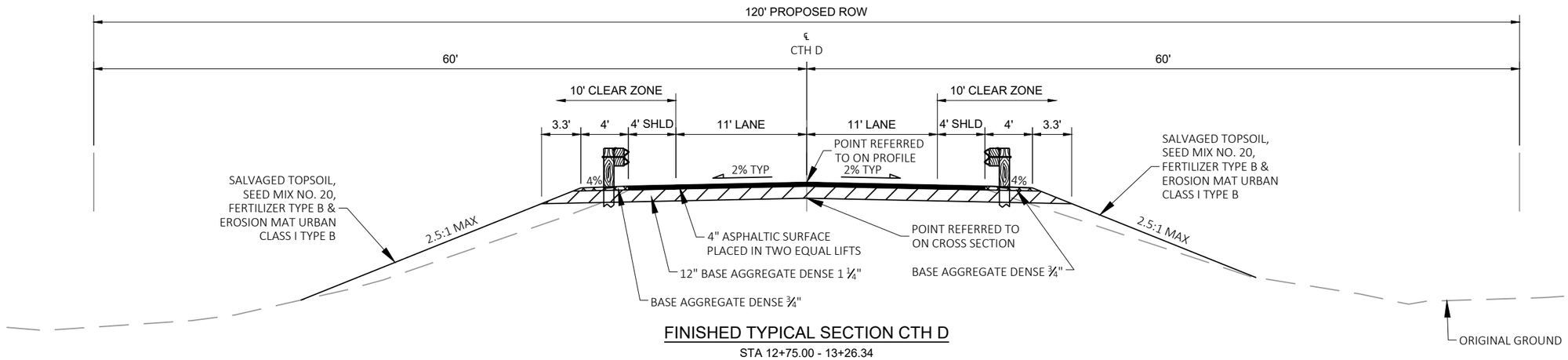
	HYDROLOGIC SOIL GROUP								
	A			B			C		
	SLOPE RANGE (%)			SLOPE RANGE (%)			SLOPE RANGE (%)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26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

TOTAL PROJECT AREA = 1.5 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.5 ACRES



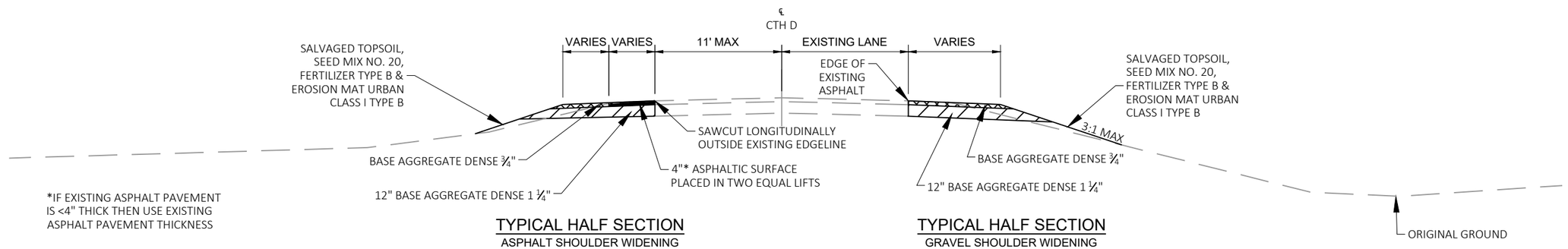
EXISTING TYPICAL SECTION CTH D

STA 12+75.00 - 13+26.34
STA 14+23.66 - 14+75.00



FINISHED TYPICAL SECTION CTH D

STA 12+75.00 - 13+26.34
STA 14+23.66 - 14+75.00



TYPICAL HALF SECTION

ASPHALT SHOULDER WIDENING
STA 11+93 - 12+75 RT
STA 12+43 - 12+75 LT
STA 14+75 - 14+91 RT
STA 14+75 - 15+67 LT

TYPICAL HALF SECTION

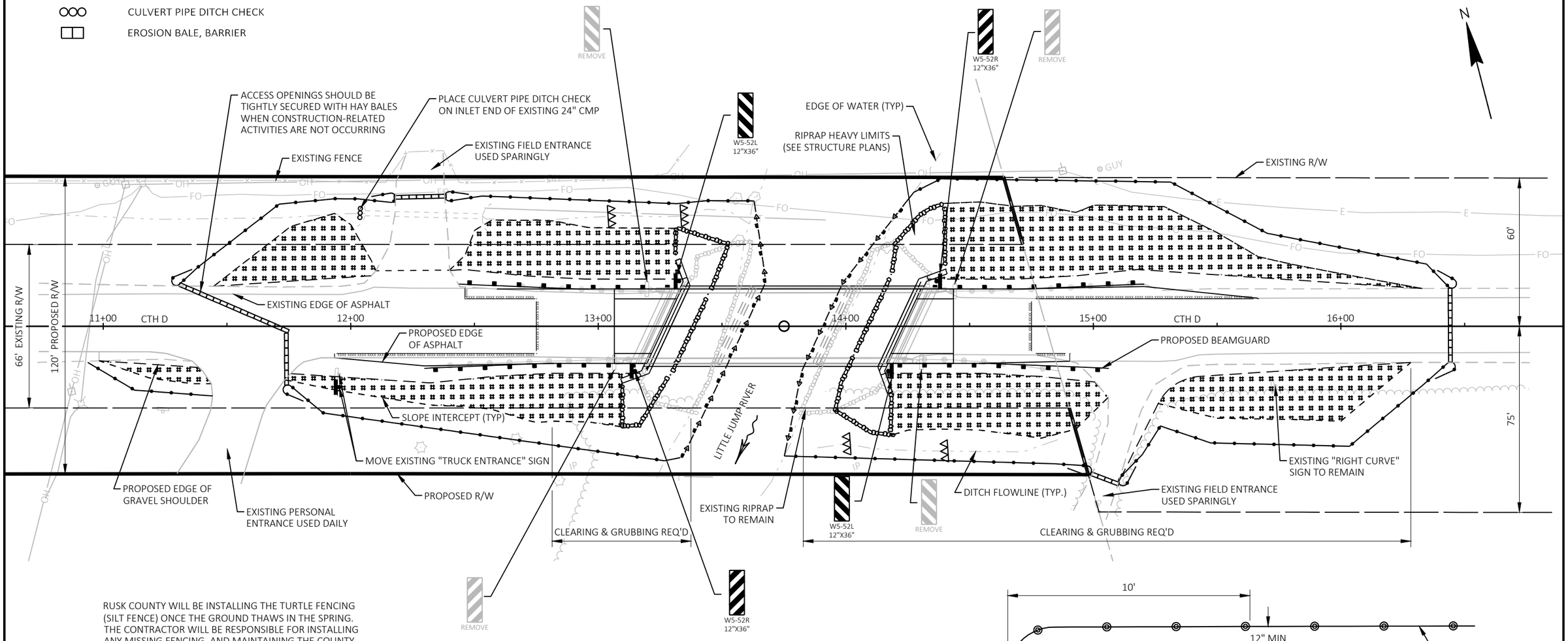
GRAVEL SHOULDER WIDENING
STA 10+98 - 11+44 RT
STA 11+45 - 12+10 LT
STA 11+73 - 11+93 RT
STA 12+40 - 12+43 LT
STA 14+91 - 15+06 RT
STA 15+25 - 16+28 RT
STA 15+67 - 16+33 LT

PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	TYPICAL SECTION	SHEET 3	E

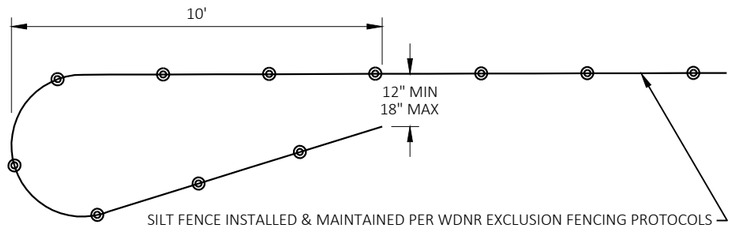
2

EROSION CONTROL LEGEND

- SILT FENCE (WOOD TURTLE EXCLUSION FENCING)
- RIP RAP HEAVY
- SLOPE INTERCEPT
- TURBIDITY BARRIER
- EROSION MAT URBAN CLASS I TYPE B
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- EROSION BALE, BARRIER



RUSK COUNTY WILL BE INSTALLING THE TURTLE FENCING (SILT FENCE) ONCE THE GROUND THAWS IN THE SPRING. THE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING ANY MISSING FENCING, AND MAINTAINING THE COUNTY INSTALLED FENCING.



SILT FENCE INSTALLED & MAINTAINED PER WDNR EXCLUSION FENCING PROTOCOLS
https://dnr.wi.gov/topic/erreview/documents/amphibianreptilefencingprotocol.pdf

TURTLE FENCE TURN-AROUND DETAIL

PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	EROSION CONTROL & PERMANENT SIGNING PLAN	SHEET 4	E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - EC & PS PLAN
PLOT DATE : 10/27/2020 1:09 PM
PLOT BY : JACOB FRIBERG
PLOT NAME :
PLOT SCALE : ##########

2

2

N

CTH VV
1 MILE

CTH G

STH 27
6 MILES

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 1000 FT
W20-3-C

ROAD CLOSED 500 FT
W20-3-D

JUMP RIVER

BRIDGE OUT
1 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3-B

CTH G

COORDINATE TRAFFIC CONTROL AS NEEDED
WITH PROJECT *8794-00-70 CTH G BRIDGE
DECK REPLACEMENT OVER JUMP RIVER

SEE CLOSURE
BARRICADE DETAIL E

BRIDGE OUT
R11-2-B
48"X30"

PROPOSED BRIDGE
WORK ZONE

LITTLE JUMP RIVER

PLACE EAST OF SW
QUADRANT DWY
SEE CLOSURE
BARRICADE DETAIL D

BRIDGE OUT
R11-2-B
48"X30"

SEE CLOSURE
BARRICADE DETAIL E

BRIDGE OUT
R11-2-B
48"X30"

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 1000 FT
W20-3-C

1000'

SHELDON
2 MILES

ROAD CLOSED 500 FT
W20-3-D

PIT ROAD

SEE CLOSURE
BARRICADE DETAIL D

BRIDGE OUT
R11-2-B
48"X30"

BRIDGE OUT
1 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3-B

PLACE BARRICADES AND SIGNS IMMEDIATELY WEST
OF INTERSECTION OF CTH D AND FERN ROAD.

BRIDGE OUT
2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3-B

PLACE BARRICADE AND SIGN IMMEDIATELY SOUTH OF
INTERSECTION OF CTH D AND CTH VV IN SHELDON.

REFER TO STANDARD DETAIL DRAWING "BARRICADES AND
SIGNS FOR MAINLINE CLOSURES" & "BARRICADES AND
SIGNS FOR VARIOUS CLOSURES" FOR MORE DETAIL

PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	TRAFFIC CONTROL OVERVIEW	SHEET 5	E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - 025001_tc

PLOT DATE : 9/18/2020 9:48 AM PLOT BY : JACOB FRIBERG PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

8595-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	5.000	5.000
0004	201.0205	Grubbing	STA	5.000	5.000
0006	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-54-0010	LS	1.000	1.000
0008	203.0700.S	Removing Old Structure Over Waterway With Debris Capture System (station) 01. 13+75	LS	1.000	1.000
0010	204.0165	Removing Guardrail	LF	305.000	305.000
0012	205.0100	Excavation Common	CY	330.000	330.000
0014	206.1000	Excavation for Structures Bridges (structure) 01. B-54-0138	LS	1.000	1.000
0016	208.0100	Borrow	CY	130.000	130.000
0018	210.1500	Backfill Structure Type A	TON	540.000	540.000
0020	213.0100	Finishing Roadway (project) 01. 8595-00-71	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	120.000	120.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	720.000	720.000
0026	415.0120	Concrete Pavement 12-Inch	SY	36.000	36.000
0028	415.0410	Concrete Pavement Approach Slab	SY	100.000	100.000
0030	455.0605	Tack Coat	GAL	25.000	25.000
0032	465.0105	Asphaltic Surface	TON	75.000	75.000
0034	502.0100	Concrete Masonry Bridges	CY	194.000	194.000
0036	502.3200	Protective Surface Treatment	SY	422.000	422.000
0038	503.0137	Prestressed Girder Type I 36W-Inch	LF	570.000	570.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	5,280.000	5,280.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	20,470.000	20,470.000
0044	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	12.000	12.000
0046	506.4000	Steel Diaphragms (structure) 01. B-54-0138	EACH	10.000	10.000
0048	513.4061	Railing Tubular Type M	LF	200.000	200.000
0050	516.0500	Rubberized Membrane Waterproofing	SY	15.000	15.000
0052	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	520.000	520.000
0054	606.0300	Riprap Heavy	CY	175.000	175.000
0056	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	165.000	165.000
0058	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0060	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8595-00-71	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	624.0100	Water	MGAL	10.000	10.000
0068	625.0500	Salvaged Topsoil	SY	1,635.000	1,635.000
0070	628.1104	Erosion Bales	EACH	55.000	55.000
0072	628.1504	Silt Fence	LF	300.000	300.000
0074	628.1520	Silt Fence Maintenance	LF	1,225.000	1,225.000

8595-00-71

Line	Item	Item Description	Unit	Total	Qty
0076	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0078	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0080	628.2008	Erosion Mat Urban Class I Type B	SY	1,635.000	1,635.000
0082	628.6005	Turbidity Barriers	SY	215.000	215.000
0084	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0086	628.7555	Culvert Pipe Checks	EACH	5.000	5.000
0088	629.0210	Fertilizer Type B	CWT	1.100	1.100
0090	630.0120	Seeding Mixture No. 20	LB	50.000	50.000
0092	630.0500	Seed Water	MGAL	50.000	50.000
0094	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0096	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0098	638.2102	Moving Signs Type II	EACH	1.000	1.000
0100	638.2602	Removing Signs Type II	EACH	4.000	4.000
0102	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0104	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	475.000	475.000
0110	643.0420	Traffic Control Barricades Type III	DAY	1,425.000	1,425.000
0112	643.0705	Traffic Control Warning Lights Type A	DAY	2,470.000	2,470.000
0114	643.0900	Traffic Control Signs	DAY	1,425.000	1,425.000
0116	643.5000	Traffic Control	EACH	1.000	1.000
0118	645.0111	Geotextile Type DF Schedule A	SY	90.000	90.000
0120	645.0120	Geotextile Type HR	SY	260.000	260.000
0122	646.1020	Marking Line Epoxy 4-Inch	LF	800.000	800.000
0124	650.4500	Construction Staking Subgrade	LF	453.000	453.000
0126	650.5000	Construction Staking Base	LF	397.000	397.000
0128	650.6500	Construction Staking Structure Layout (structure) 01. B-54-0138	LS	1.000	1.000
0130	650.7000	Construction Staking Concrete Pavement	LF	56.000	56.000
0132	650.9910	Construction Staking Supplemental Control (project) 01. 8595-00-71	LS	1.000	1.000
0134	650.9920	Construction Staking Slope Stakes	LF	453.000	453.000
0136	690.0150	Sawing Asphalt	LF	275.000	275.000
0138	715.0502	Incentive Strength Concrete Structures	DOL	1,860.000	1,860.000
0140	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0142	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0144	SPV.0090	Special 01. Flashing Stainless Steel	LF	182.000	182.000

3

CATEGORY	STATION	TO	STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA
0010	12+75	-	13+40	RT	2	2
0010	13+80	-	16+25	RT	3	3
				TOTAL 0010	5	5

CATEGORY	POST #1 STA	LOCATION	REMOVING GUARDRAIL 204.0165 LF	MGS THRIE BEAM TRANSITION 614.2500 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EA
0010	11+93	RT	84	39.4	1
0010	12+43	LT	69	39.4	1
0010	15+06	RT	66	39.4	1
0010	15+21	LT	86	39.4	1
		TOTAL 0010	305	157.6	4

3

CATEGORY	STATION	TO	STATION	SIDE	EXCAVATION COMMON 205.0100 CY	SALVAGED/ UNUSEABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	EXPANDED FILL (FACTOR = 1.25) CY	MASS ORDINATE +/- CY	BORROW 208.0100
0010	10+98	-	11+44	RT	10	0	10	1	2	8	
0010	11+44	-	12+10	LT	15	0	15	9	11	4	
0010	11+73	-	13+26	RT	70	10	60	30	38	22	
0010	12+40	-	13+32	LT	60	10	50	55	69	-19	
0010	14+18	-	15+04	RT	55	10	45	85	107	-62	36
0010	14+24	-	16+33	LT	90	15	75	135	169	-94	94
0010	15+25	-	16+28	RT	30	0	30	15	19	11	
				TOTAL 0010	330	45	285	330	415	-130	130

CATEGORY	STATION	TO	STATION	SIDE	ASPHALT THICKNESS (IN)	LAYERS	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	BASE AGGREGATE DENSE 1 1/4-INCH 305.0120 TON	CONCRETE PAVEMENT 12-INCH 415.0120 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	TACK COAT 455.0605 GAL	ASPHALTIC SURFACE 465.0105 TON	WATER 624.0100 MGAL	SAWING ASPHALT 690.0150 LF	REMARKS
0010	10+98	-	11+44	RT			5	25	-	-	-	-	0.3	-	
0010	11+45	-	12+10	LT			9	40	-	-	-	-	0.5	-	
0010	11+73	-	11+93	RT			3	15	-	-	-	-	0.2	-	
0010	11+93	-	12+75	RT	4.0	2	14	80	-	-	3	9	1.2	85	
0010	12+40	-	12+43	LT			2	5	-	-	-	-	0.1	-	
0010	12+43	-	12+75	LT	4.0	2	5	30	-	-	2	3	0.5	34	
0010	12+75	-	13+06	LT/RT	4.0	2	8	100	-	-	8	25	1.3	22	
0010	13+06	-	13+34	LT/RT			5	40	18	50	-	-	0.5	-	PLACE 4" B.A.D. UNDER CONCRETE
0010	14+16	-	14+44	LT/RT			5	40	18	50	-	-	0.5	-	PLACE 4" B.A.D. UNDER CONCRETE
0010	14+44		14+75	LT/RT	4.0	2	8	100	-	-	8	25	1.3	22	
0010	14+75		15+67	LT	4.0	2	16	90	-	-	3	8	1.3	92	
0010	14+75		14+91	RT	4.0	2	3	15	-	-	1	5	0.3	20	
0010	14+91		15+06	RT			3	10	-	-	-	-	0.2	-	
0010	15+25		16+28	RT			23	85	-	-	-	-	1.2	-	INCLUDES DRIVEWAY
0010	15+67		16+33	LT			11	45	-	-	-	-	0.6	-	
						TOTAL 0010	120	720	36	100	25	75	10	275	

PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	MISCELLANEOUS QUANTITIES	SHEET 8	E

CATEGORY	STATION	TO	STATION	SIDE	SALVAGED TOPSOIL 625.0500 SY	EROSION MAT URBAN CLASS I TYPE B 628.2008 SY	TEMPORARY DITCH CHECKS 628.7504 LF	CULVERT PIPE CHECKS 628.7555 EA	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIX NO. 20 630.0120 LB	SEED WATER 630.0500 MGAL
0010	10+98	-	11+44	RT	25	25			0.02	2	2
0010	11+44	-	12+10	LT	120	120	-	4	0.08	4	4
0010	11+73	-	13+17	RT	190	190	-	-	0.13	6	6
0010	12+40	-	13+34	LT	200	200	15	-	0.14	6	6
0010	14+16	-	15+04	RT	210	210	25	-	0.15	6	6
0010	14+33	-	16+33	LT	390	390	-	-	0.25	11	11
0010	15+25	-	16+28	RT	170	170	-	-	0.11	5	5
0010	UNDISTRIBUTED				330	330	10	1	0.22	10	10
				TOTAL 0010	1635	1635	50	5	1.1	50	50

CATEGORY	LOCATION	EROSION BALES 628.1104 EA	COUNTY INSTALLED SILT FENCE * LF	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF
0010	STA 11+25, RT	-	-	55	55
0010	WEST SIDE CTH D	23	-	-	-
0010	STA 11+75, LT	-	125	-	125
0010	F.E. NW SIDE	7	-	-	-
0010	STA 12+50, RT	-	170	-	170
0010	STA 13+00, LT	-	140	-	140
0010	STA 14+50, RT	-	110	-	110
0010	STA 15+00, LT	-	240	-	240
0010	P.E. NE SIDE	4	-	-	-
0010	STA 15+75, RT	-	140	-	140
0010	EAST SIDE CTH D	10	-	-	-
0010	UNDISTRIBUTED	11	-	245	245
	TOTAL 0010	55	925	300	1225

*FOR INFORMATION ONLY

CATEGORY	LOCATION	MOBILIZATIONS EROSION CONTROL 628.1905 EA	MOBILIZATIONS EMERGENCY EROSION CONTROL 628.1910 EA
0010	PROJECT	3	2
	TOTAL 0010	3	2

CATEGORY	LOCATION	TURBIDITY BARRIER 628.6005 SY	REMARKS
0010	B-54-138 WEST	115	120' LONG X 8.5' HIGH
0010	B-54-138 EAST	100	120' LONG X 7.5' HIGH
	TOTAL 0010	215	

CATEGORY	STATION	SIDE	POSTS WOOD 4x6-INCH x 12 FT 634.0612 EA	SIGNS TYPE II REFLECTIVE F 637.2230 SF	MOVING SIGNS TYPE II 638.2102 EA	REMOVING SIGNS TYPE II 638.2602 EA	REMOVING SMALL SIGN SUPPORTS 638.3000 EA	MOVING SMALL SIGN SUPPORTS 638.4000 EA	REMARKS
0010	11+95	RT	-	-	1	-	-	1	TRUCK ENTRANCE
0010	13+15	RT	1	3	-	1	1	-	W5-52R
0010	13+35	LT	1	3	-	1	1	-	W5-52L
0010	14+20	RT	1	3	-	1	1	-	W5-52L
0010	14+35	LT	1	3	-	1	1	-	W5-52R
	TOTAL 0010		4	12	1	4	4	1	

CATEGORY	STATION	TO	STATION	CONSTRUCTION STAKING SUBGRADE 650.4500 LF	CONSTRUCTION STAKING BASE 650.5000 LF	CONSTRUCTION STAKING CONCRETE PAVEMENT 650.7000 LF	CONSTRUCTION STAKING SLOPE STAKES 650.9920 LF
0010	10+98	-	13+06	208	208	-	208
0010	13+06	-	13+34	28	-	28	28
0010	14+16	-	14+44	28	-	28	28
0010	14+44	-	16+33	189	189	-	189
	TOTAL 0010			453	397	56	453

CATEGORY	DAYS	TRAFFIC CONTROL DRUMS 643.0300 #	DRUMS DAYS	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 #	BARRICADES TYPE III DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 #	WARNING LIGHTS TYPE A DAYS	TRAFFIC CONTROL SIGNS 643.0900 #	SIGNS DAYS	REMARKS
0010	95			3	285	4	380	1	95	ROAD CLOSED DETAIL D WEST SIDE
0010	95			3	285	4	380	1	95	ROAD CLOSED DETAIL D NORTH SIDE
0010	95			4	380	8	760	6	570	ADVANCED ROAD CLOSED DETAIL C WEST SIDE
0010	95			5	475	10	950	7	665	ADVANCED ROAD CLOSED DETAIL C EAST SIDE
0010	95	5	475							SHLD WORK OUTSIDE BARRICADES WEST SIDE
	TOTAL 0010		475		1,425		2,470		1,425	

CATEGORY	STATION	TO	STATION	SIDE	MARKING LINE EPOXY 4-INCH 646.1020 LF	MARKING LINE EPOXY 4-INCH, WHITE * LF	MARKING LINE EPOXY 4-INCH, YELLOW * LF	REMARKS
0010	12+75	-	14+75	LT	200	200	-	LT WHITE EDGELINE
0010	12+75	-	14+75	RT	200	200	-	RT WHITE EDGELINE
0010	12+75	-	14+75	CL	400	-	400	YELLOW CENTERLINE
				TOTAL 0010	800	400	400	

*FOR INFORMATION ONLY

PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	MISCELLANEOUS QUANTITIES	SHEET 9	E

TRANSPORTATION PROJECT PLAT NO: 8595-00-71 - 4.01

THAT PART OF THE NW-NE OF SECTION 33, T33N-R5W, TOWN OF MARSHALL
RUSK COUNTY, WISCONSIN

RELOCATION ORDER CTH D STH 27 - SHELDON LITTLE JUMP RIVER BRIDGE B-54-0138 RUSK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE RUSK COUNTY, WISCONSIN, HIGHWAY DEPARTMENT, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

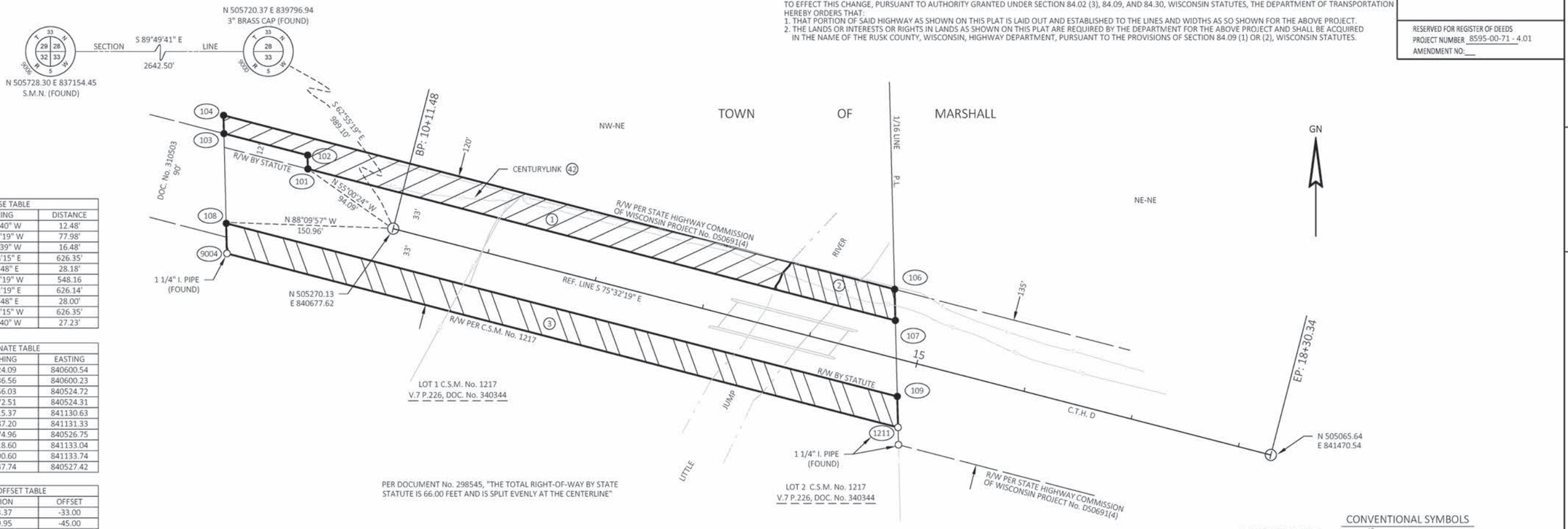
355321
JUDITH SRP
RUSK CO. REGISTER OF DEEDS
RECEIVED FOR RECORDING ON
05/26/2020 09:33 AM
CABINET: ENV:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8595-00-71 - 4.01
AMENDMENT NO:___

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	PLE, TLE ACRES
1	LARRY R. RINGER	FEE	0.31	0.41	0.72	-
2	VICTOR HAMILTON	FEE	0.07	0.09	0.16	-
3	MARIAN F. DERNOVSEK	FEE	0.38	0.47	0.85	-



PER DOCUMENT No. 298545, "THE TOTAL RIGHT-OF-WAY BY STATE STATUTE IS 66.00 FEET AND IS SPLIT EVENLY AT THE CENTERLINE"

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
101-102	N 1°25'40" W	12.48'
102-103	N 75°32'19" W	77.98'
103-104	N 1°25'39" W	16.48'
104-106	S 75°28'15" E	626.35'
106-107	S 1°25'48" E	28.18'
107-101	N 75°32'19" W	548.16
108-109	S 75°32'19" E	626.14'
109-1211	S 1°25'48" E	28.00'
1211-9004	N 75°28'15" W	626.35'
9004-108	N 1°25'40" W	27.23'

R/W COORDINATE TABLE		
POINT	NORTHING	EASTING
101	505324.09	840600.54
102	505336.56	840600.23
103	505356.03	840524.72
104	505372.51	840524.31
106	505215.37	841130.63
107	505187.20	841131.33
108	505274.96	840526.75
109	505118.60	841133.04
1211	505090.60	841133.74
9004	505247.74	840527.42

R/W STATION-OFFSET TABLE		
POINT	STATION	OFFSET
101	9+23.37	-33.00
102	9+19.95	-45.00
103	8+41.97	-45.00
104	8+37.46	-60.85
106	14+63.80	-60.11
107	14+71.52	-33.00
108	8+64.17	33.00
109	14+90.31	33.00
1211	14+97.98	59.93
9004	8+71.63	59.19

UTILITY INTERESTS REQUIRED		
UTILITY #	OWNER(S)	INTEREST REQ'D.
40	JUMP RIVER ELECTRIC COOP., INC.	RELEASE OF RIGHTS
41	WISCONSIN BELL, INC.	RELEASE OF RIGHTS
42	CENTURYLINK	RELEASE OF RIGHTS

UTILITY EASEMENT INFORMATION		
PARCEL #	COMPANY NAME	RECORDING DATA
1	JUMP RIVER ELECTRIC COOP., INC.	V.263 P.150
1	WISCONSIN BELL, INC.	V.256 P.255
1, 2	CENTURYLINK	-

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	1" (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	●(SET)	PROPERTY LINE	
R/W STANDARD	▲(SET)	LOT & TIE LINES	
SIGN	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT		CORPORATE LIMITS	
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISTION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RWB20	QUARTER LINE	
PARCEL NUMBER	102	SIXTEENTH LINE	
UTILITY INTEREST	40	EXISTING CENTERLINE	
SIGN NUMBER (OFF PREMISE)	21-1	PROPOSED REFERENCE LINE	
BUILDING		PARALLEL OFFSET	

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

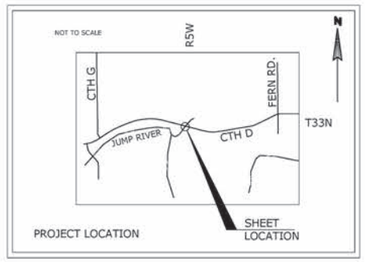
CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			
ELECTRIC TOWER			

SCALE, FEET
0 50 100



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM COORDINATES (WCCS), RUSK COUNTY, NAD83(2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

COOPER ENGINEERING COMPANY, INC.
2600 COLLEGE DRIVE, P.O. BOX 230
RICE LAKE, WI. 54868
(715)234-7008

I, WAYNE M. RADO, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF RUSK COUNTY HIGHWAY DEPARTMENT I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN WAYNE M. RADO S-1900 RICE LAKE WIS. LAND SURVEYOR

SIGNATURE: Wayne M Rado DATE: 5/26/20

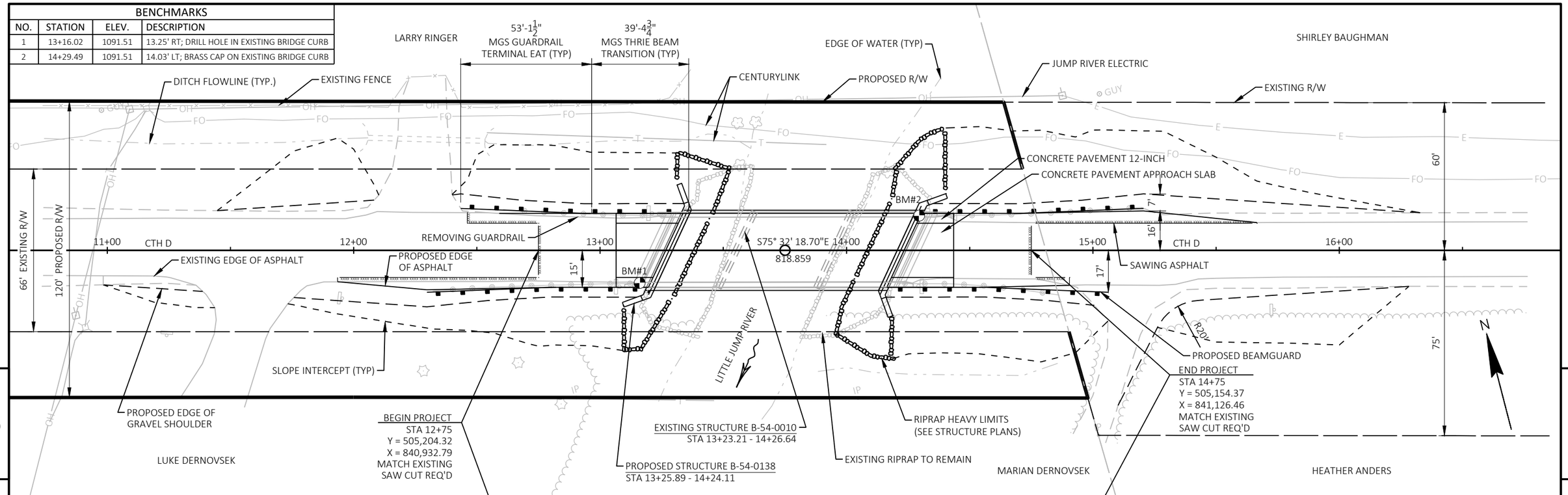
PRINT NAME: WAYNE M. RADO
AGENT FOR COOPER ENGINEERING CO., INC.

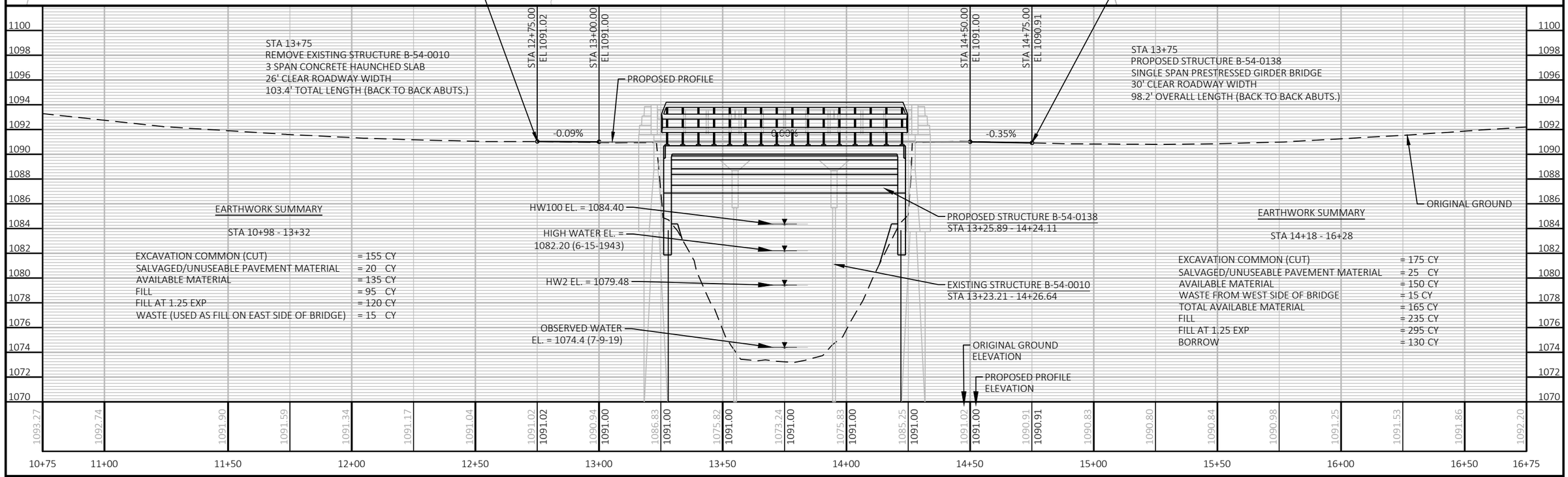
REGISTRATION NUMBER: S-1900

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE RUSK COUNTY HIGHWAY DEPARTMENT
Scott R. Emch
SIGNATURE: 2020.05.26 09:20:42 -05'00' DATE:

PRINT NAME: SCOTT R. EMCH, HIGHW[illegible] IONER

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	13+16.02	1091.51	13.25' RT; DRILL HOLE IN EXISTING BRIDGE CURB
2	14+29.49	1091.51	14.03' LT; BRASS CAP ON EXISTING BRIDGE CURB

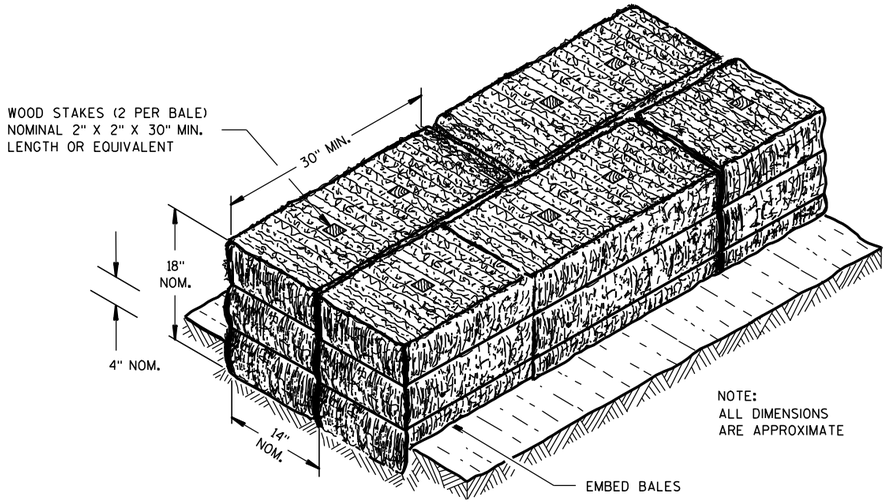




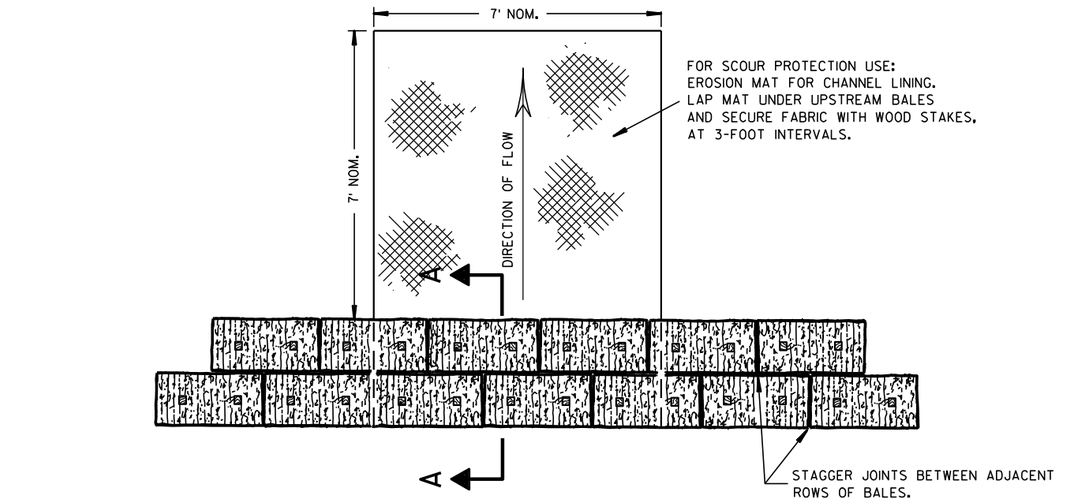
PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	PLAN AND PROFILE: CTH D	SHEET 11	E

Standard Detail Drawing List

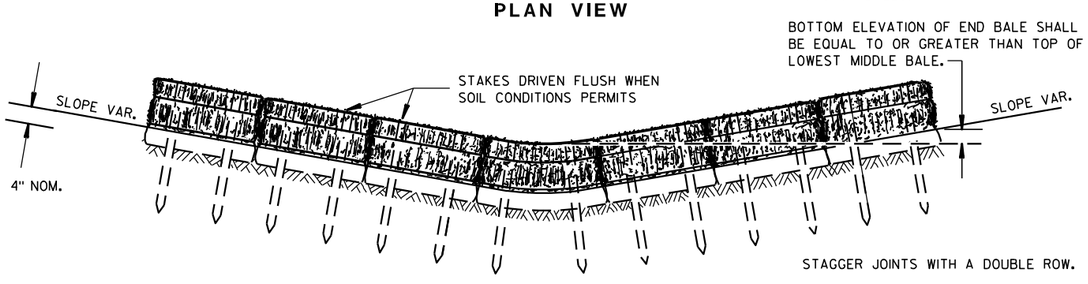
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08E15-01	CULVERT PIPE CHECK
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



SECTION A-A



PLAN VIEW



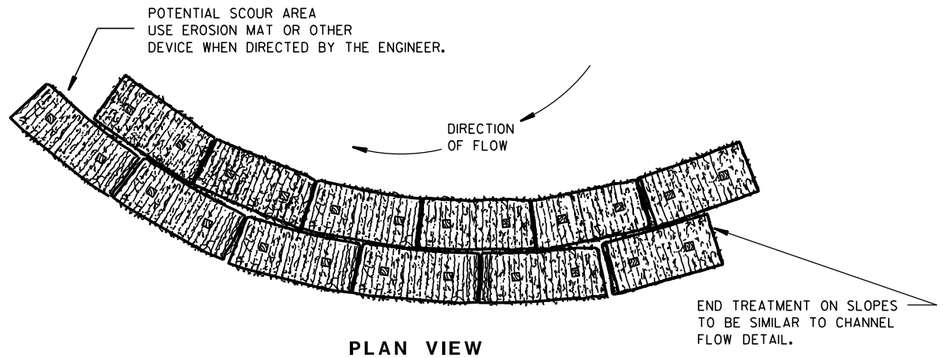
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

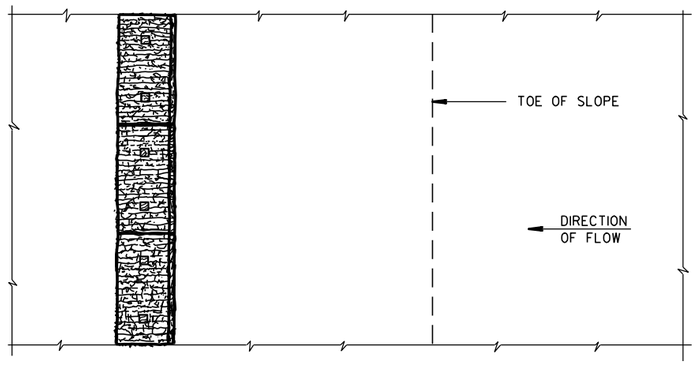
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

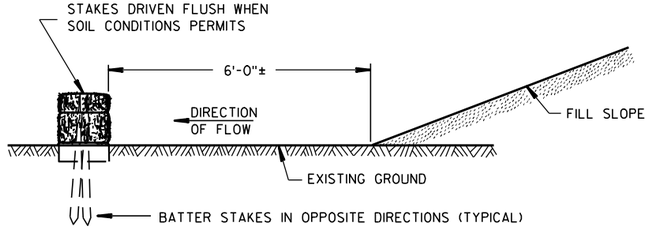


PLAN VIEW

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

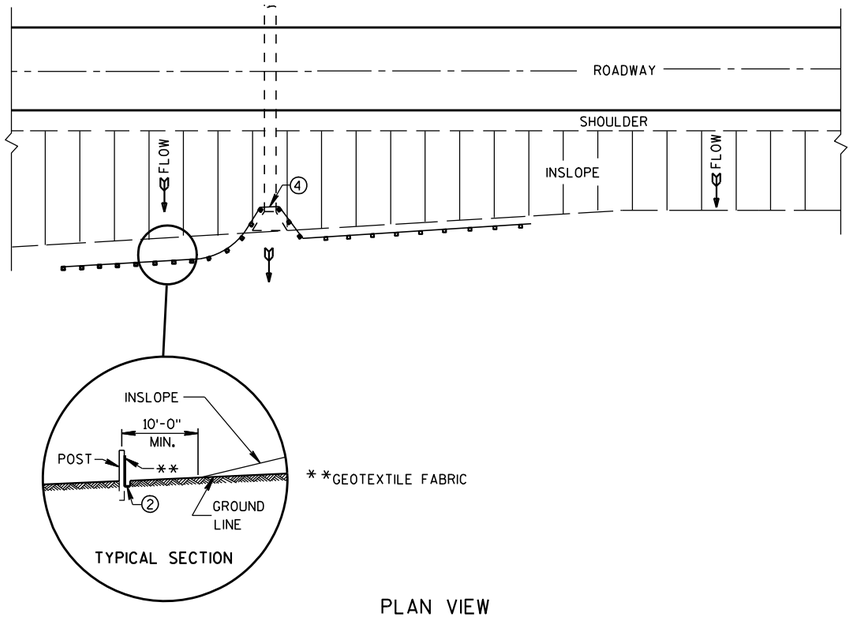
FHWA

6

S.D.D. 8 E 8-3

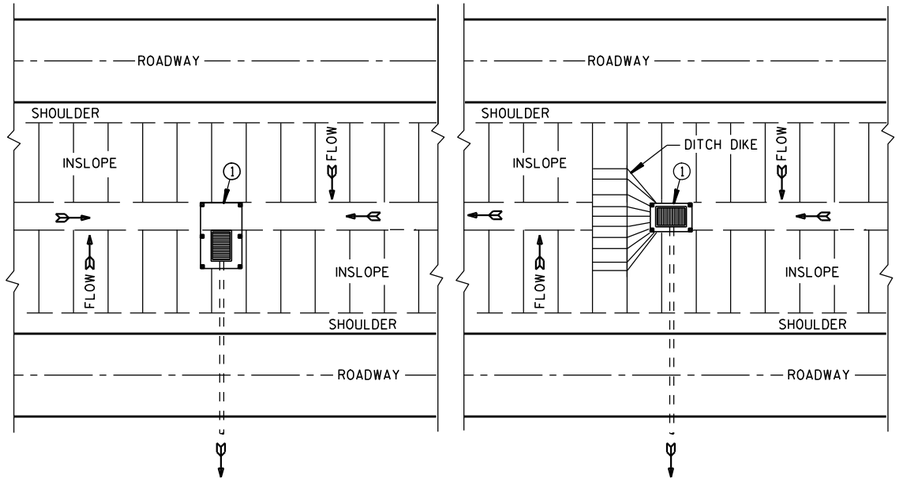
6

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.

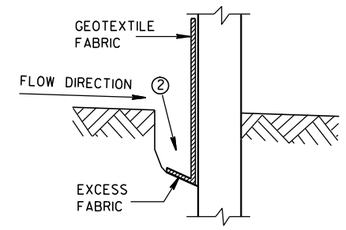
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

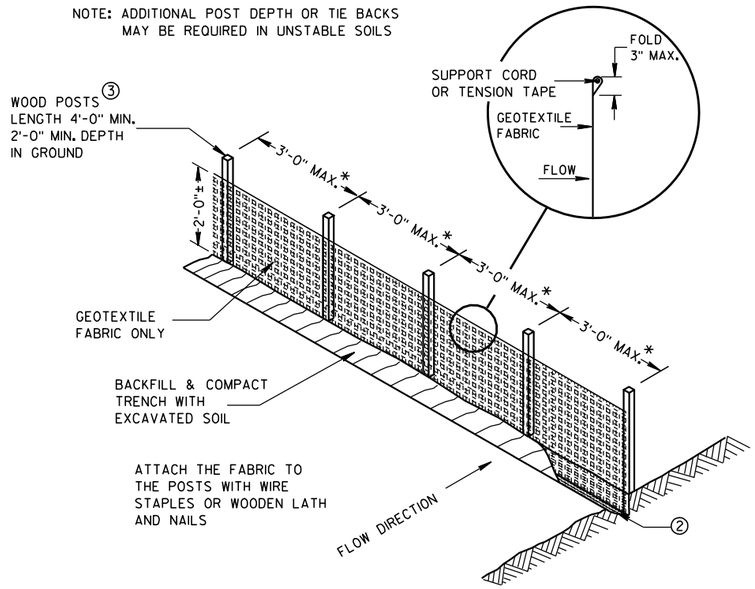
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

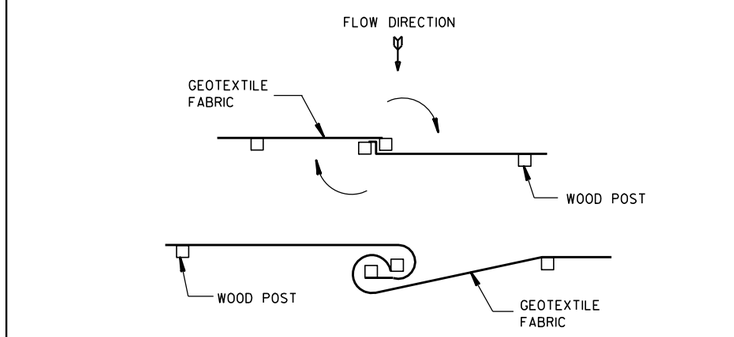
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



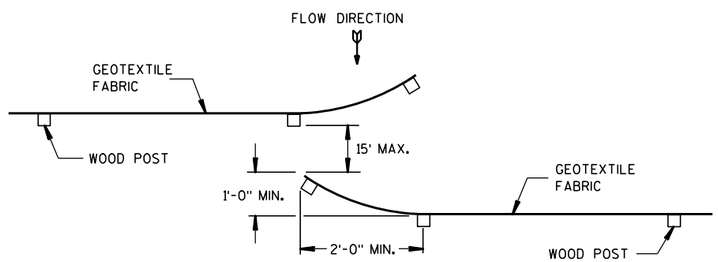
TRENCH DETAIL



SILT FENCE

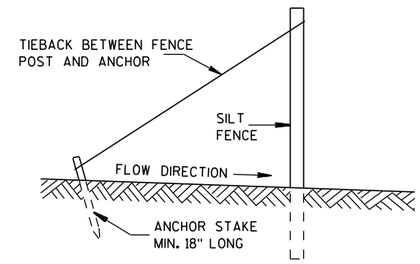


TWIST METHOD



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

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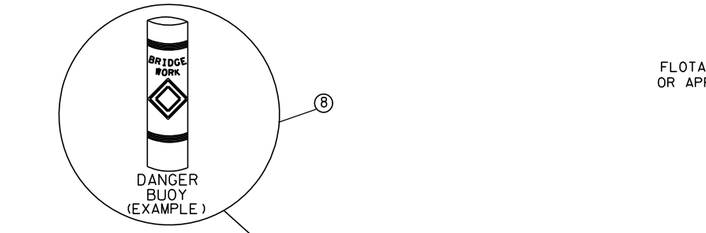
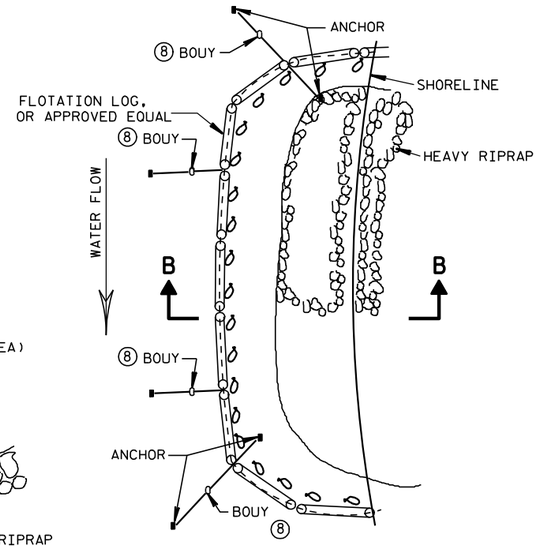
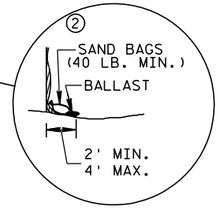
S.D.D. 8 E 9-6

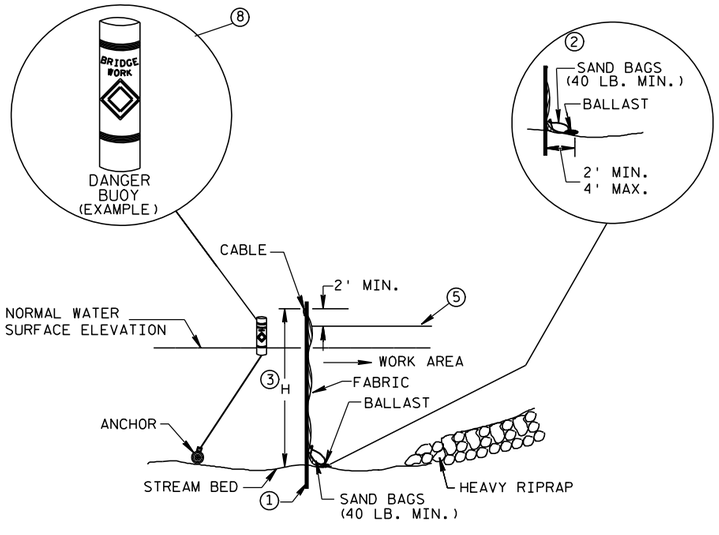


SECTION B-B

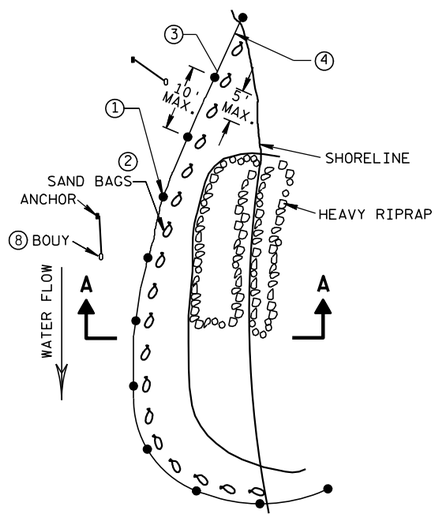




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT 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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

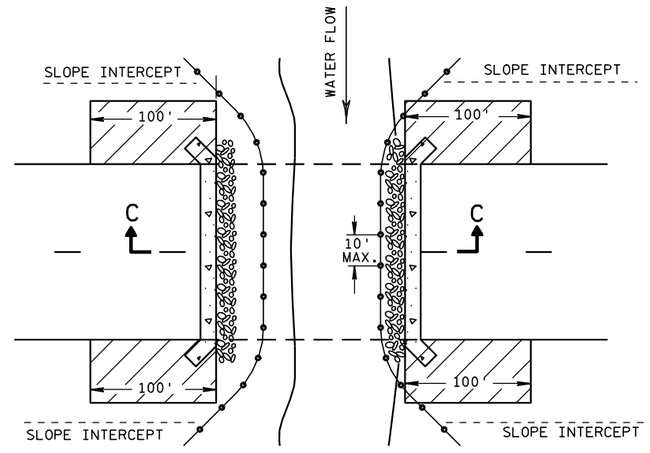
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

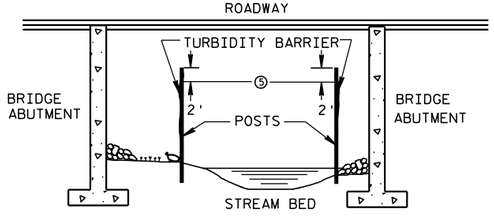
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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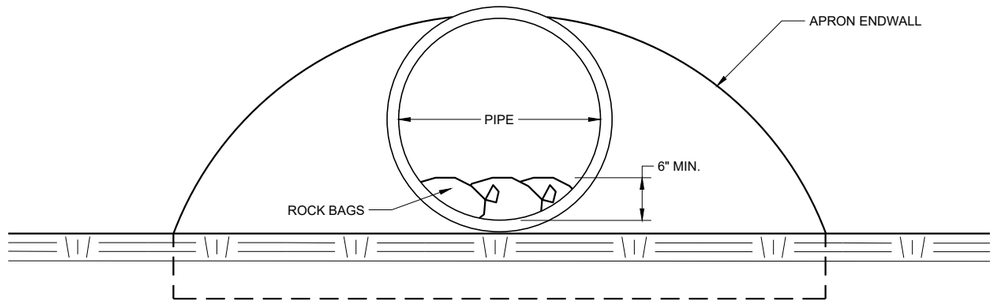
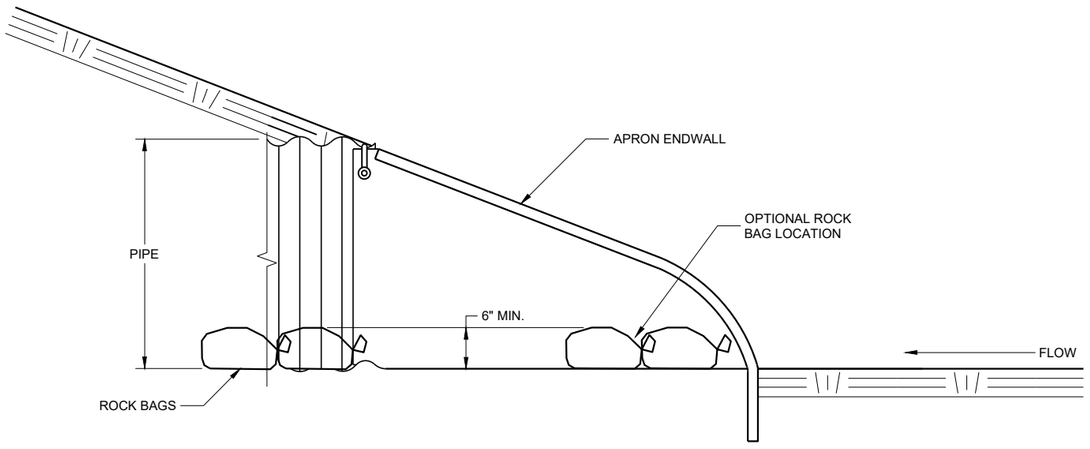
S.D.D. 8 E 11-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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SDD 08E15 - 01

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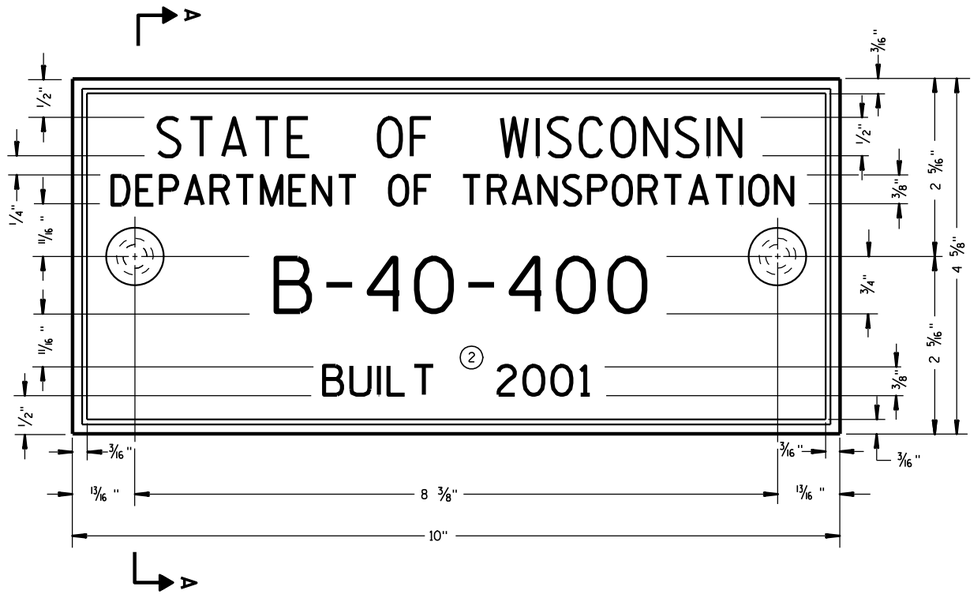
SDD 08E15 - 01



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

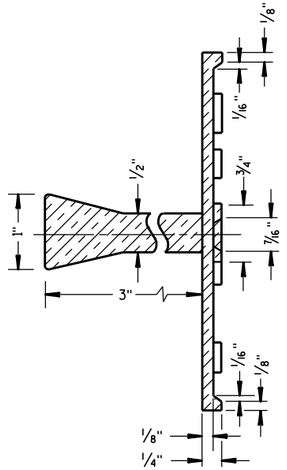
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

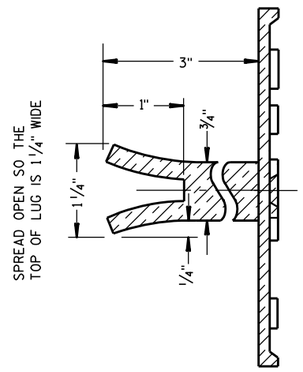
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

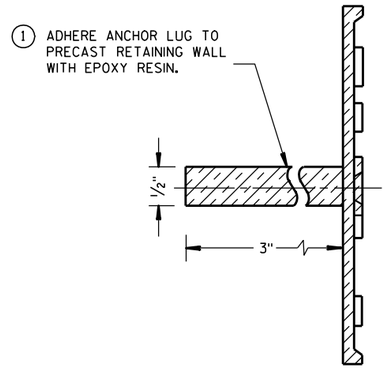
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

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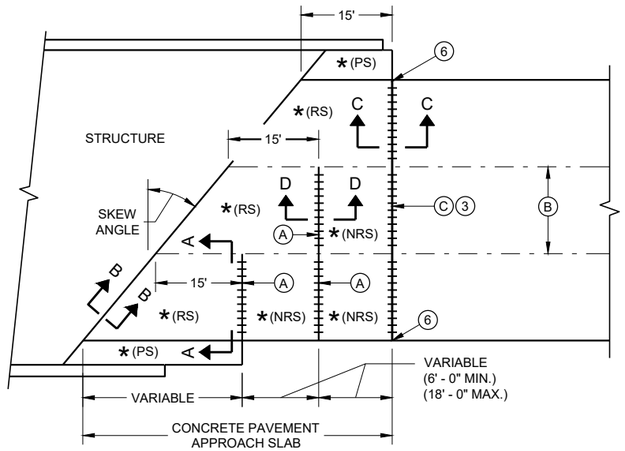
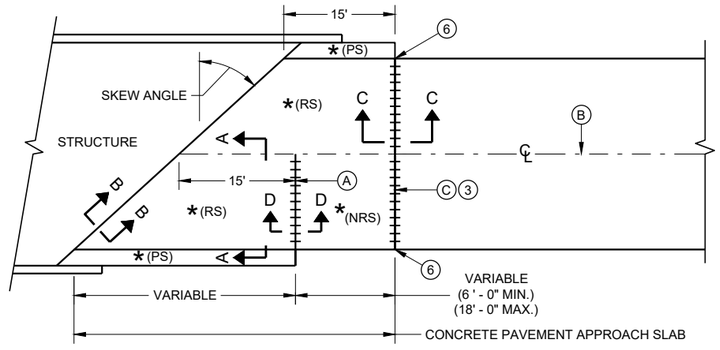
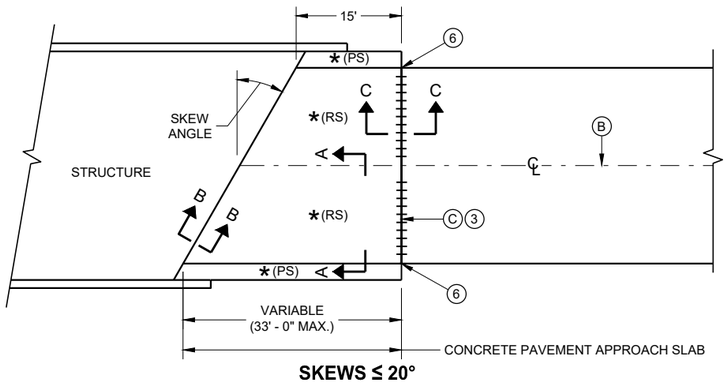
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

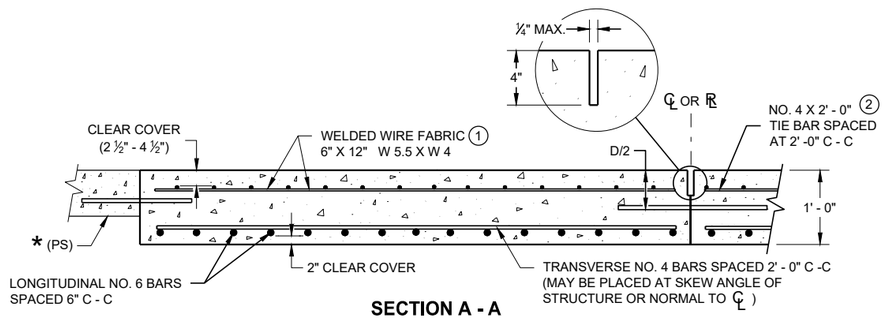
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

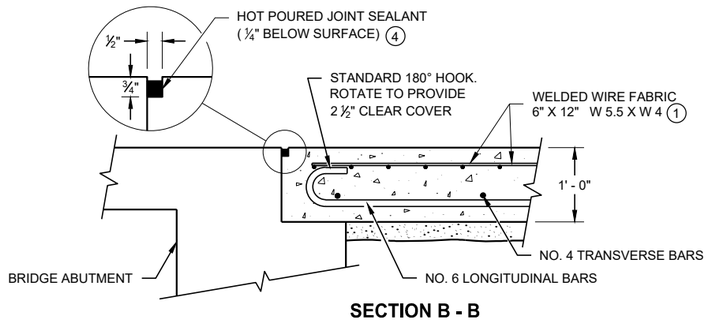
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

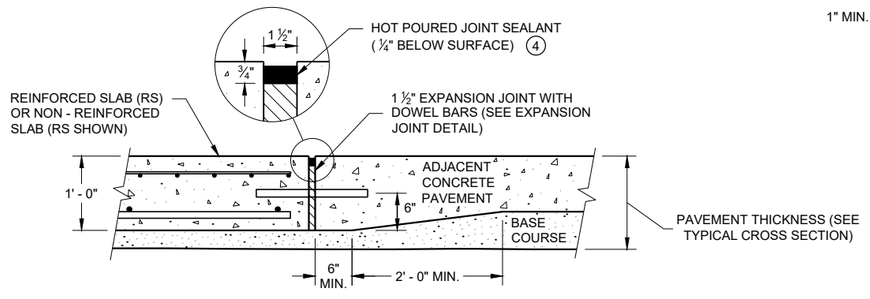
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

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

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

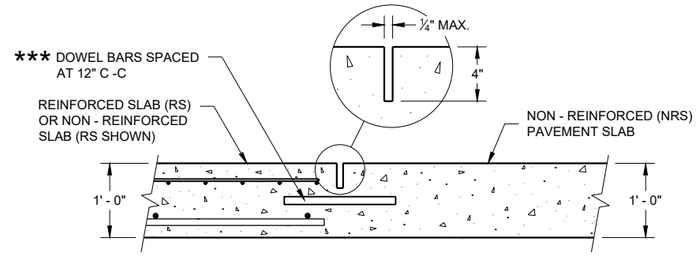
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

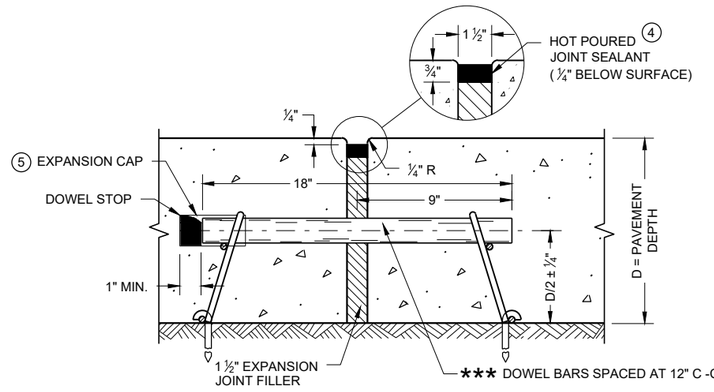
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

FHWA

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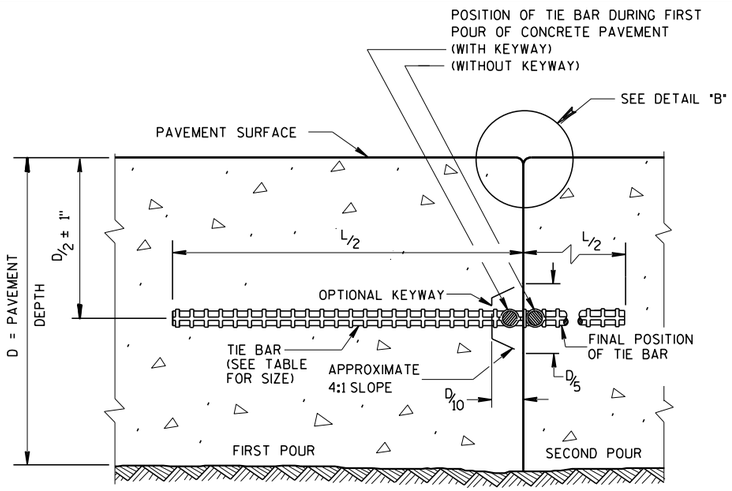
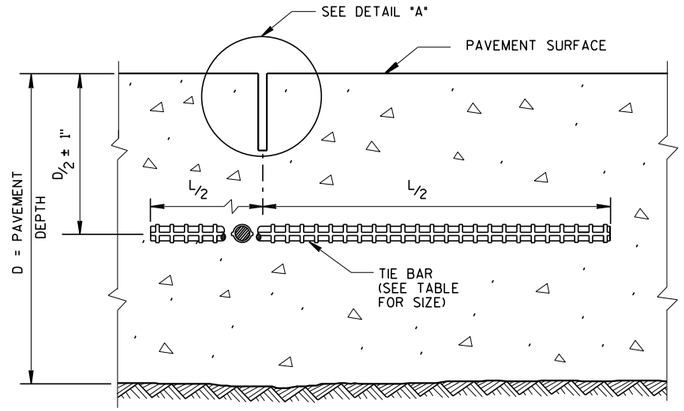
SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp — PAVEMENT SUPE
FHWA

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

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

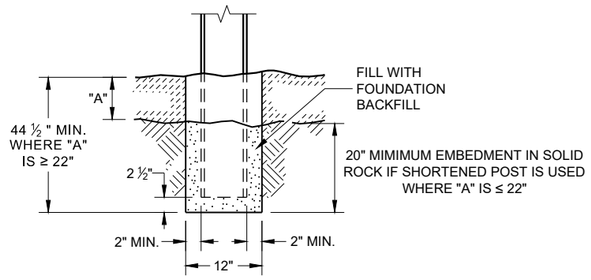
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

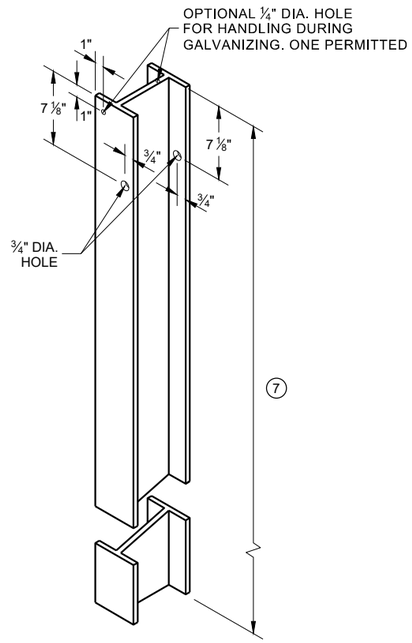
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

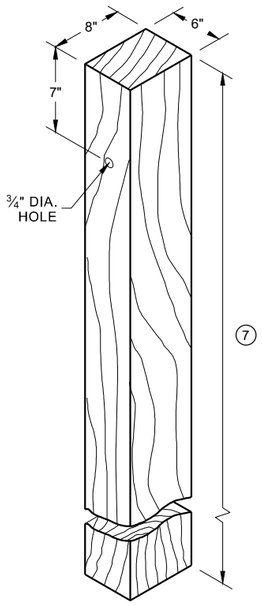
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



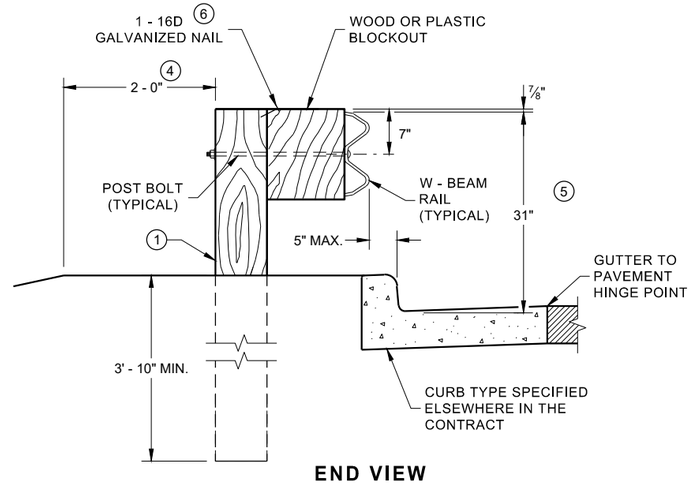
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



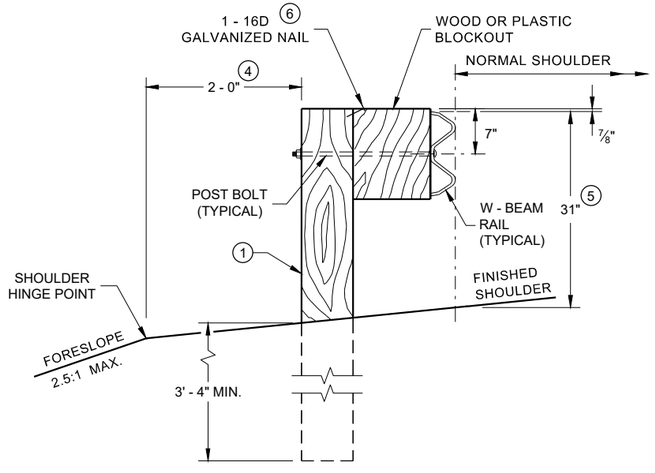
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



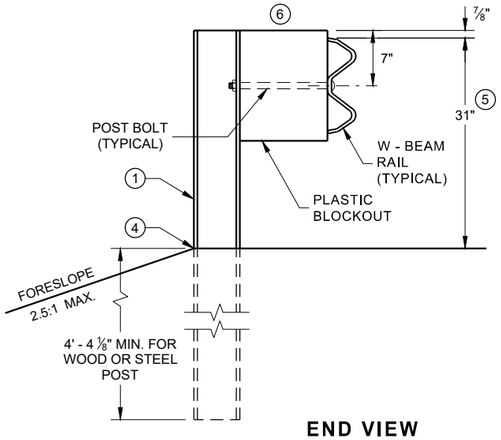
WOOD POST (6" X 8") NOMINAL (1)



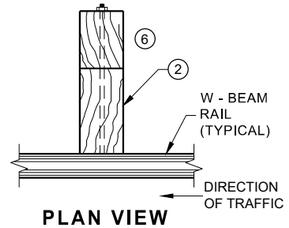
END VIEW
LOCATED ALONG A CURBED ROADWAY



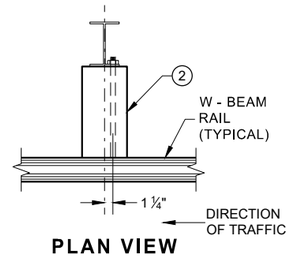
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



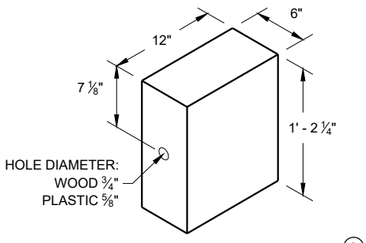
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

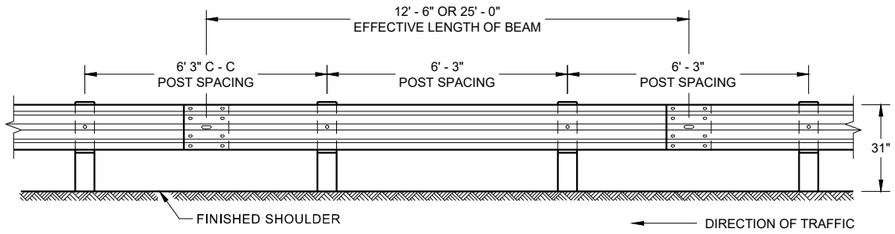


WOOD OR PLASTIC BLOCKOUT (2)

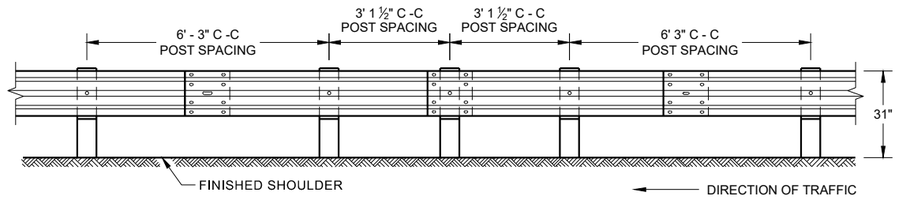
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

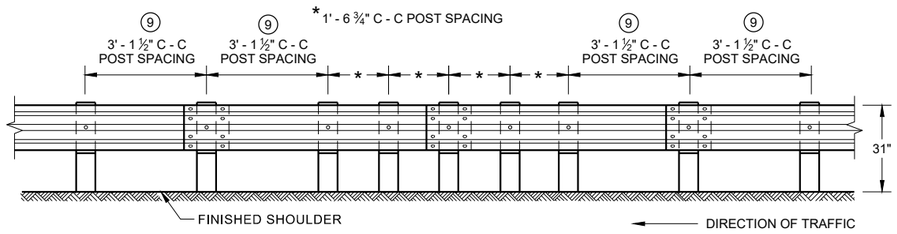
6
SDD 14B42 - 06a



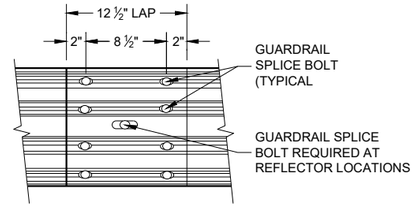
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

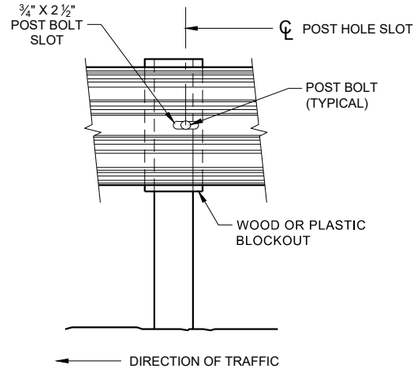
GENERAL NOTES

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

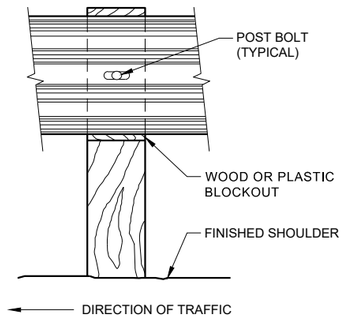
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

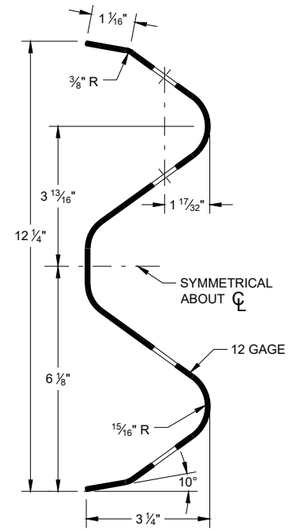
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



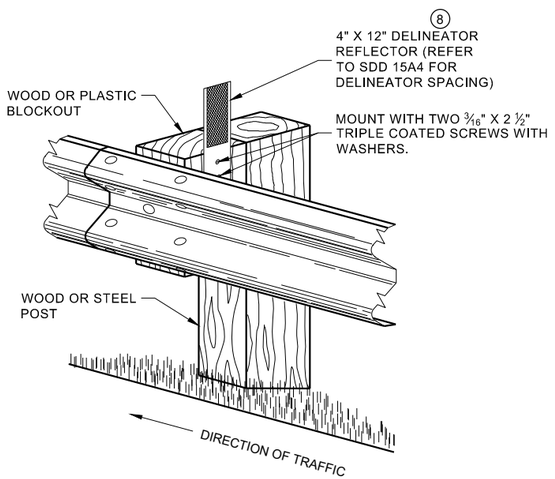
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

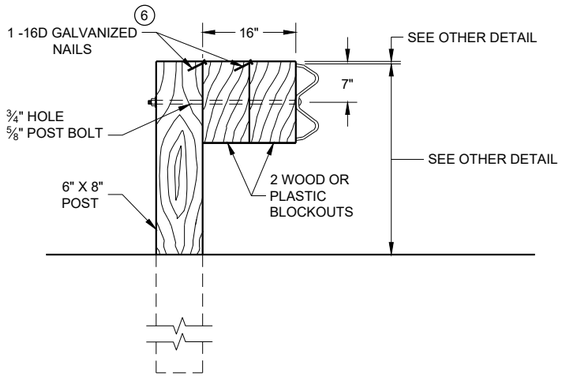


ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

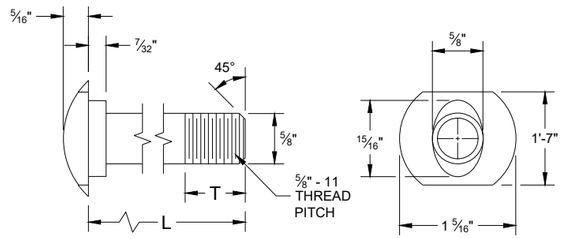


DETAIL FOR 16" BLOCKOUT DEPTH

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

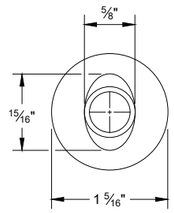
NOTE:

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

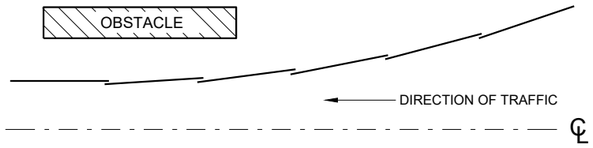


POST BOLT TABLE

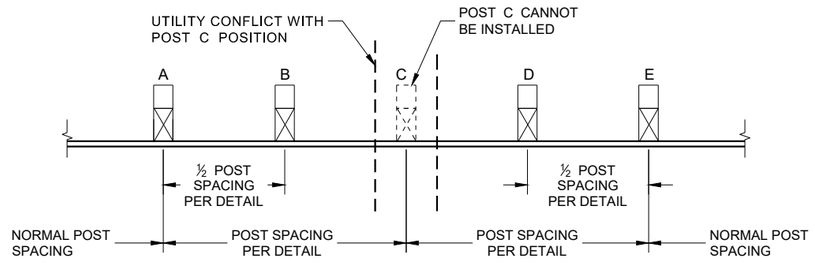
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



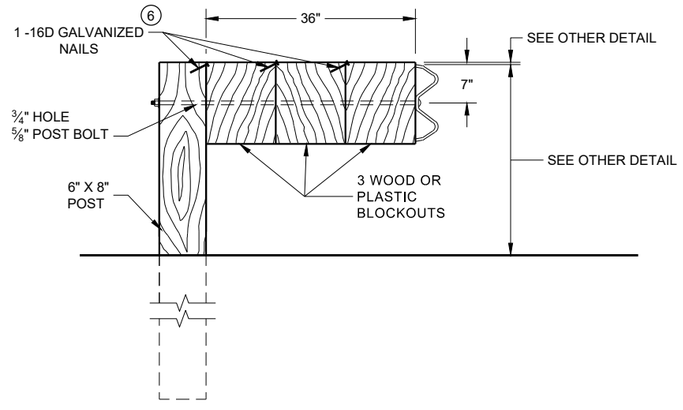
ALTERNATE BOLT HEAD



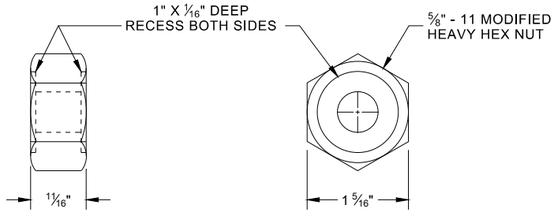
PLAN VIEW
BEAM LAPPING DETAIL



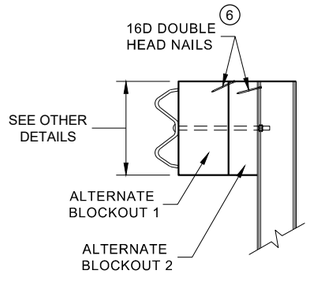
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



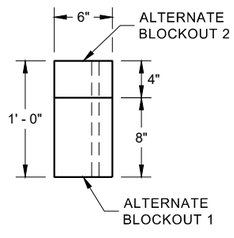
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

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

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

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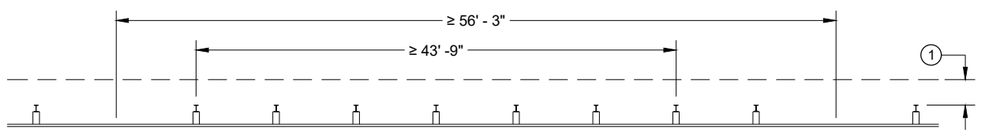
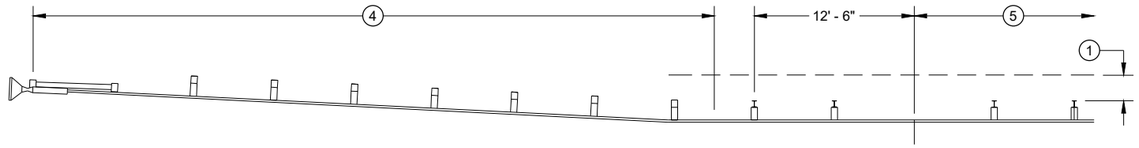
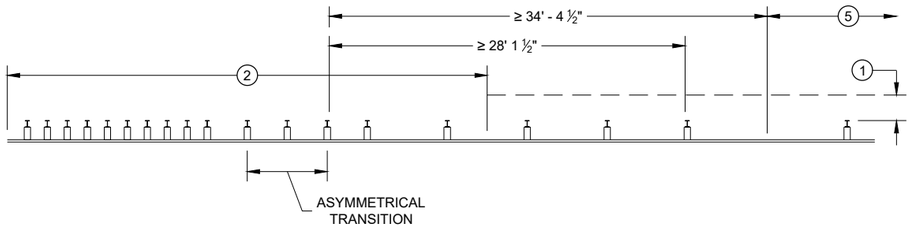
SDD 14B42 - 06c



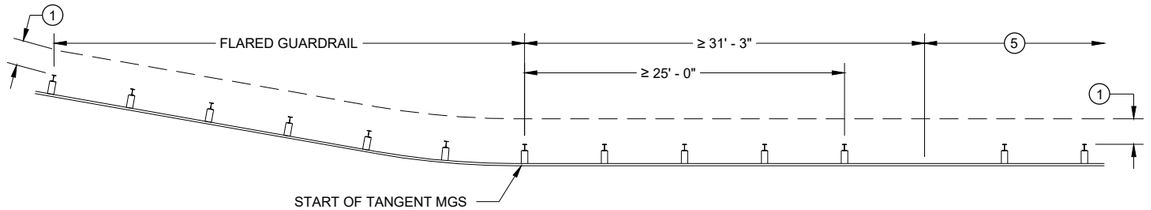
MISSING POST IN NORMAL BEAM GUARD RUN



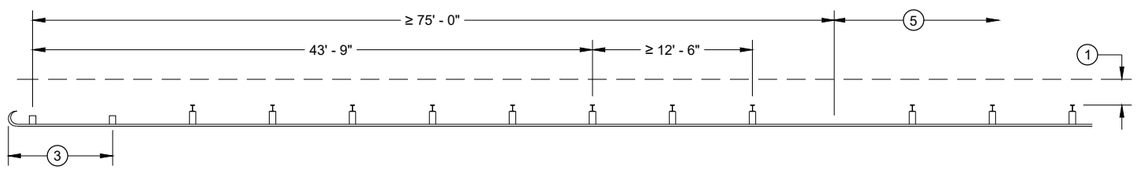
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



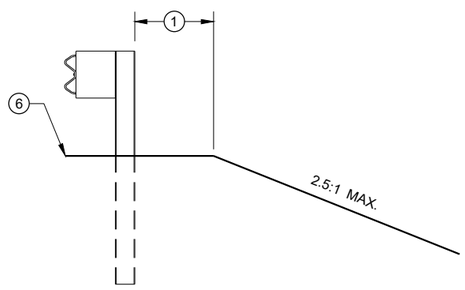
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B42 - 06d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

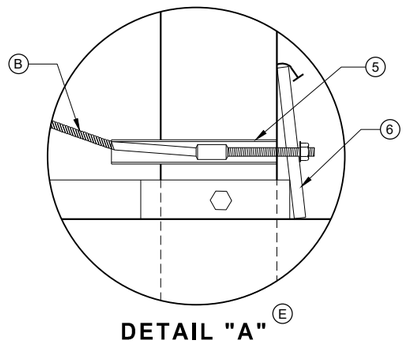
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

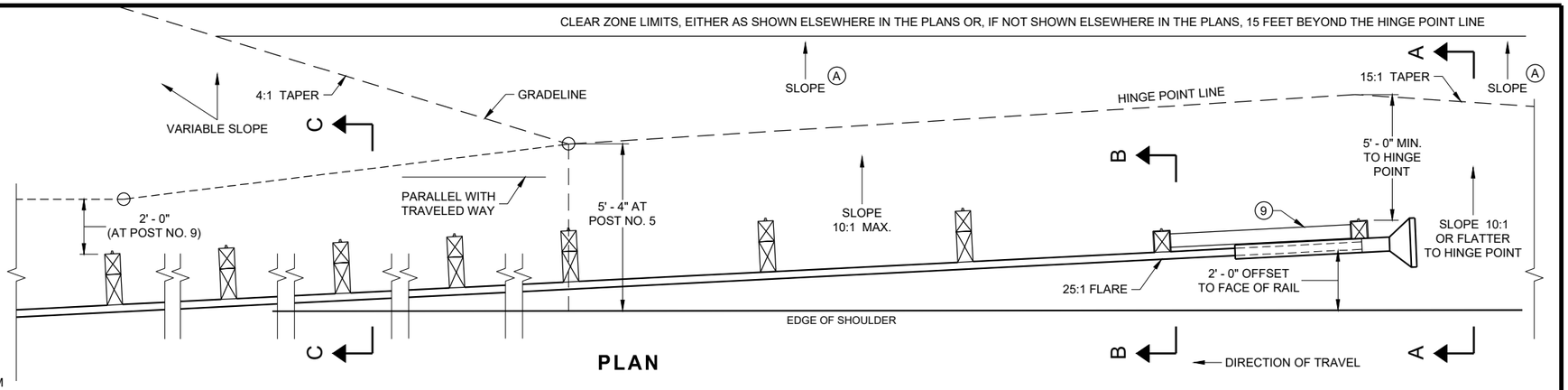
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

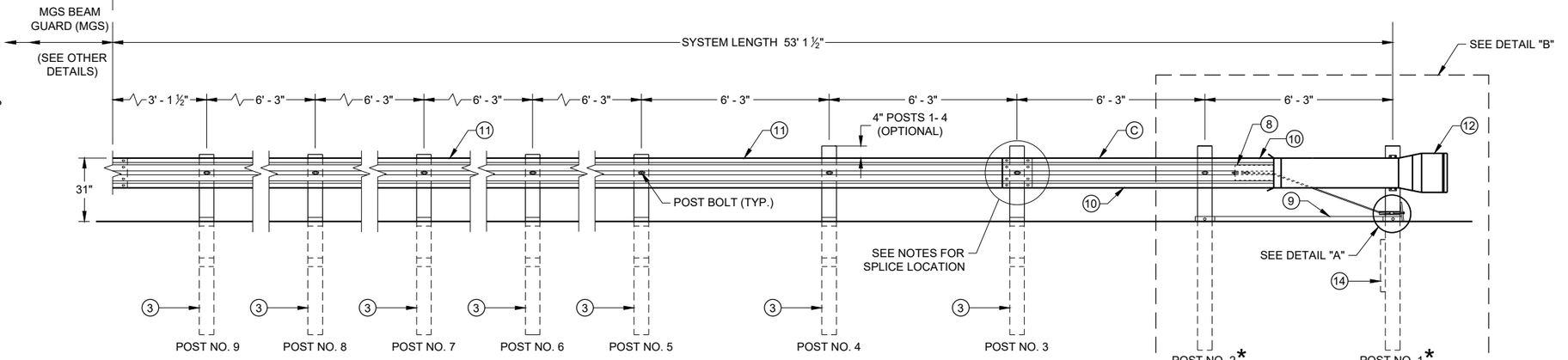
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



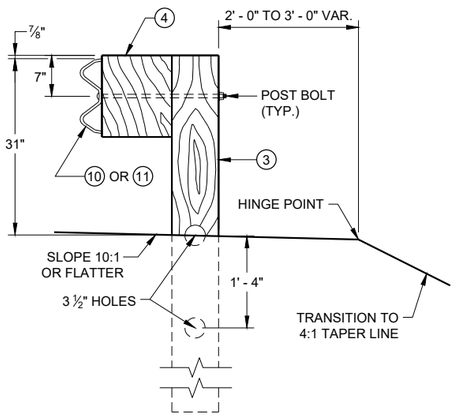
DETAIL "A" (E)



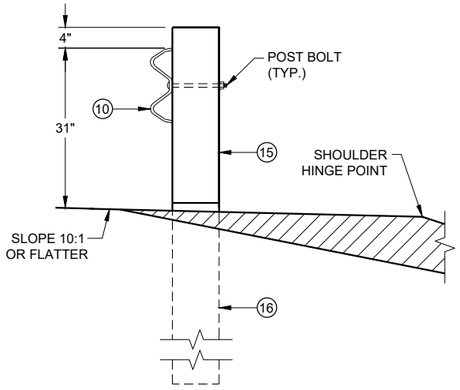
PLAN



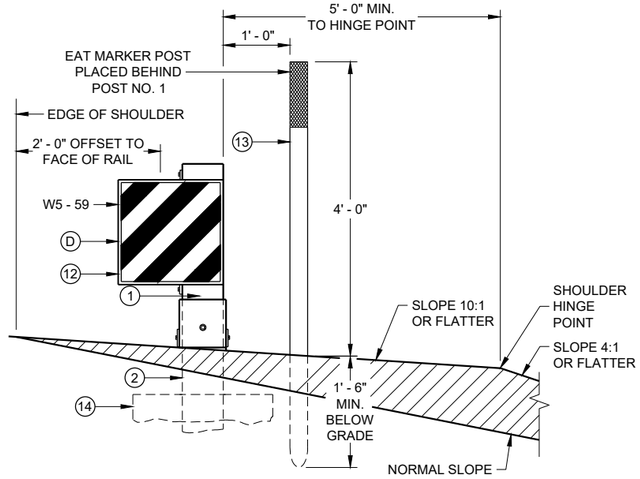
ELEVATION



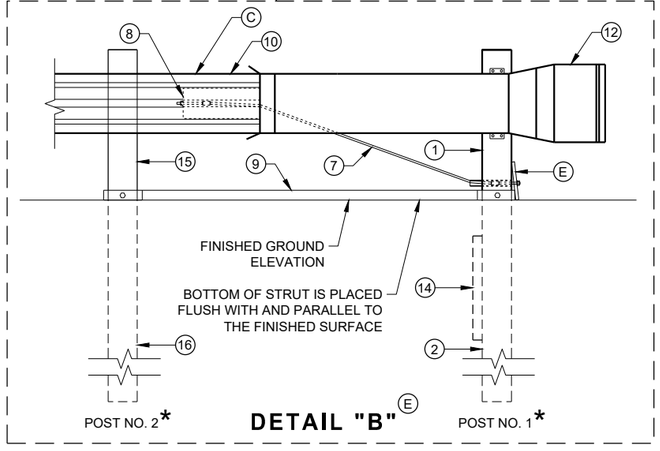
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



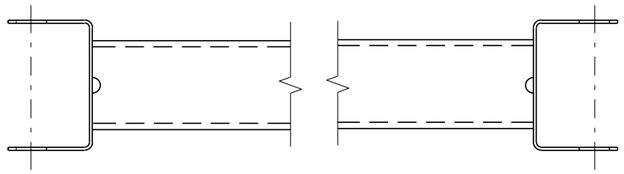
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

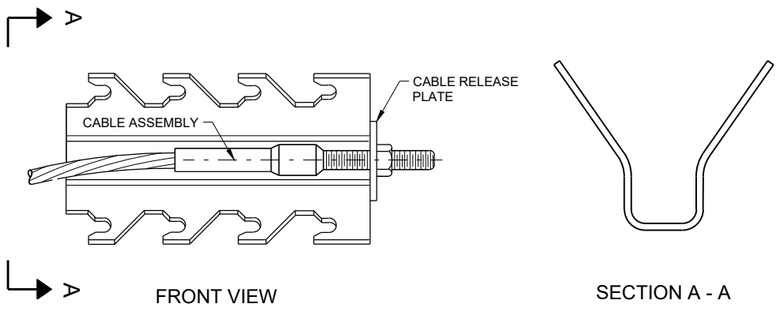
SDD 14B44 - 04a



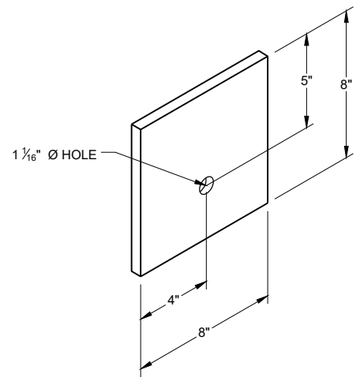
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

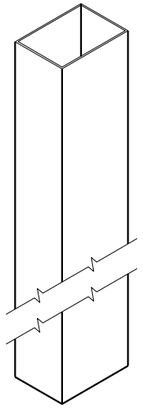
6

SDD 14B44 - 04b

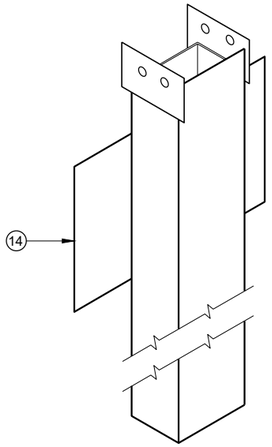
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

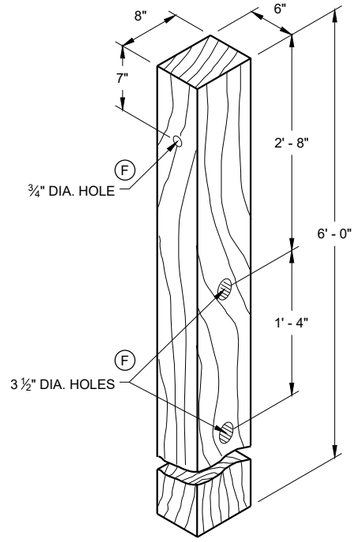
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



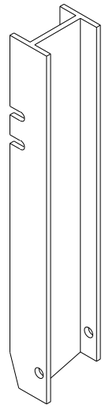
UPPER POST NO. 1 (1) (E)



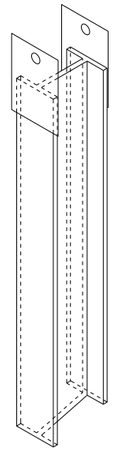
LOWER POST NO. 1 (2) (E)



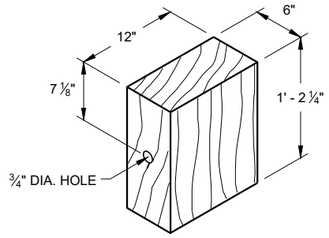
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



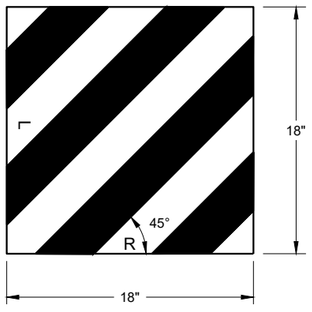
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)



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



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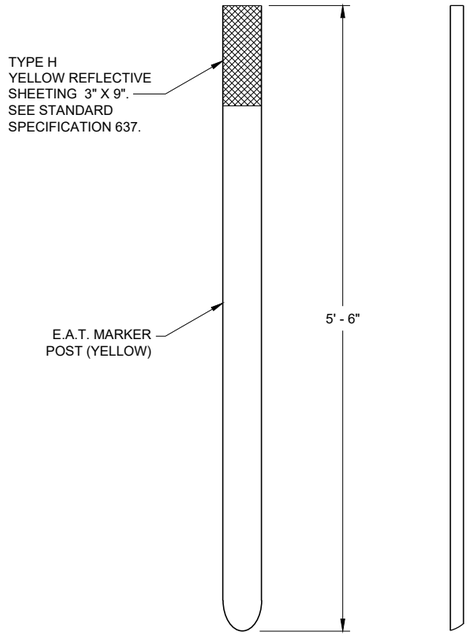
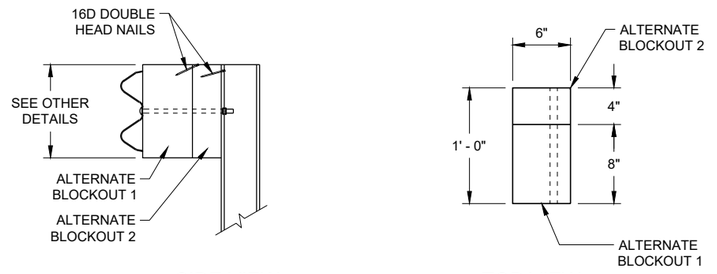
REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

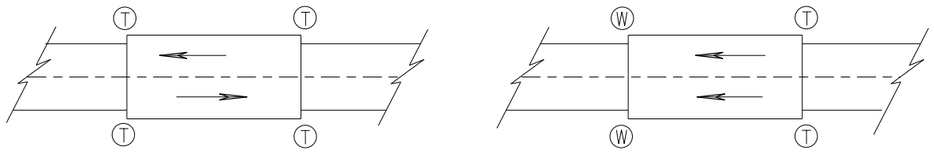
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

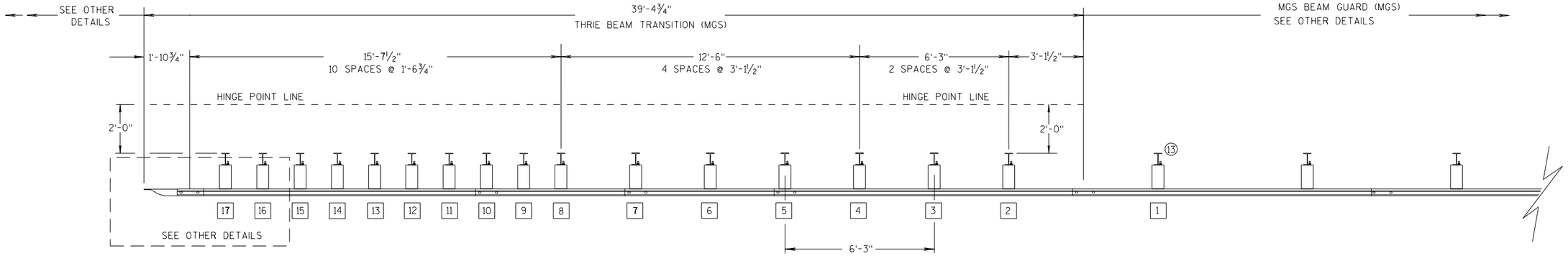
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

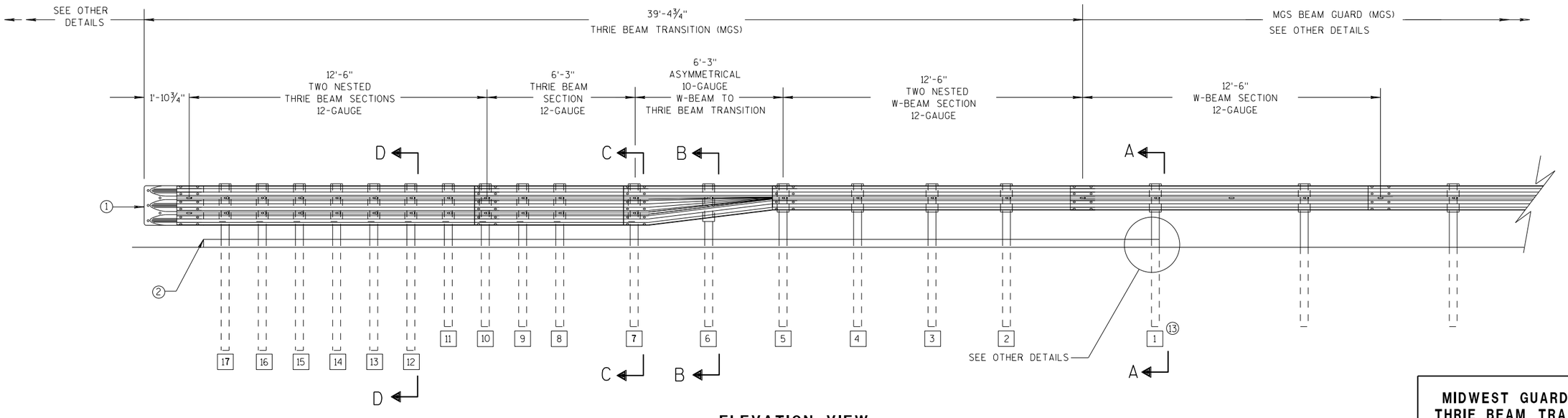
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

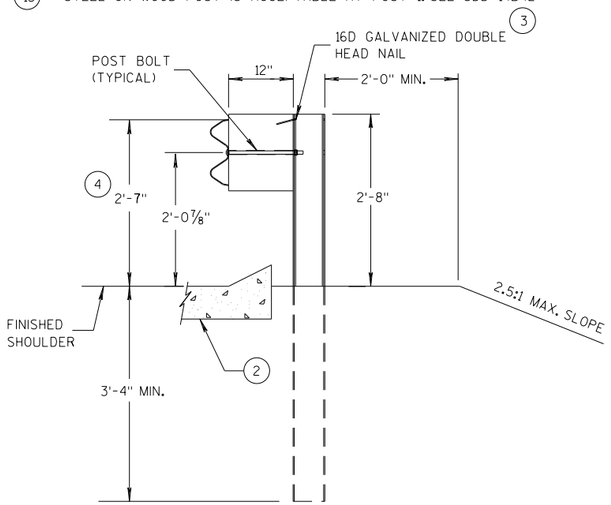
GENERAL NOTES

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

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

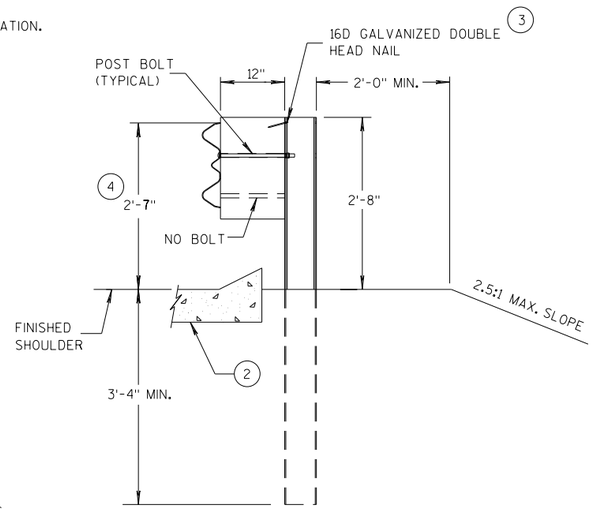
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



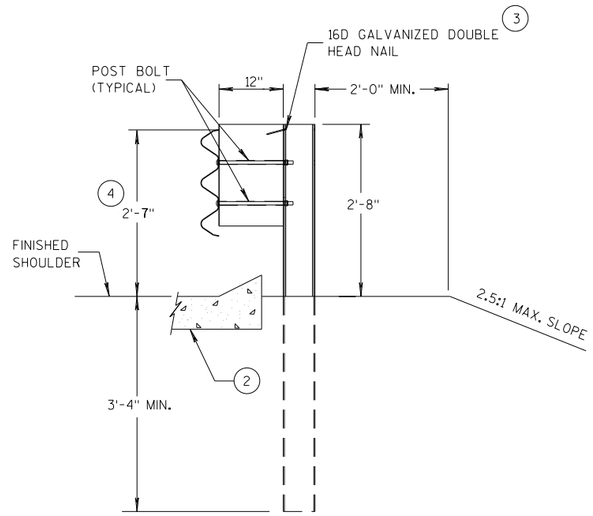
SECTION A-A (13)

POSTS 1-5



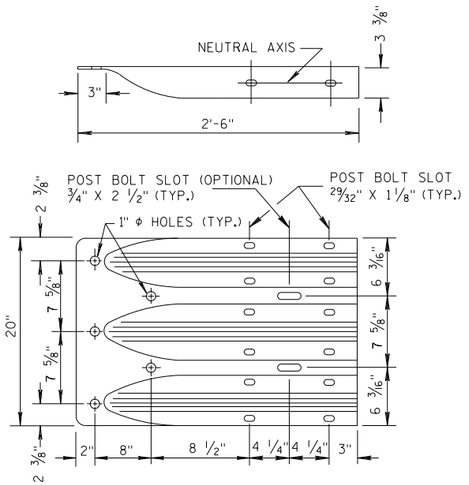
SECTION B-B

POST 6

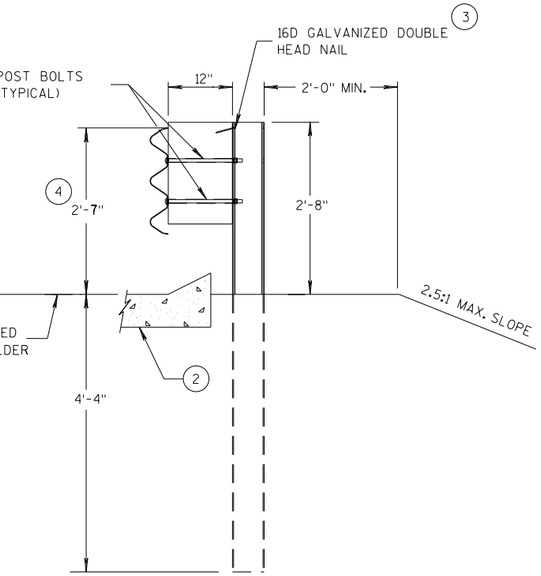


SECTION C-C

POSTS 7-11

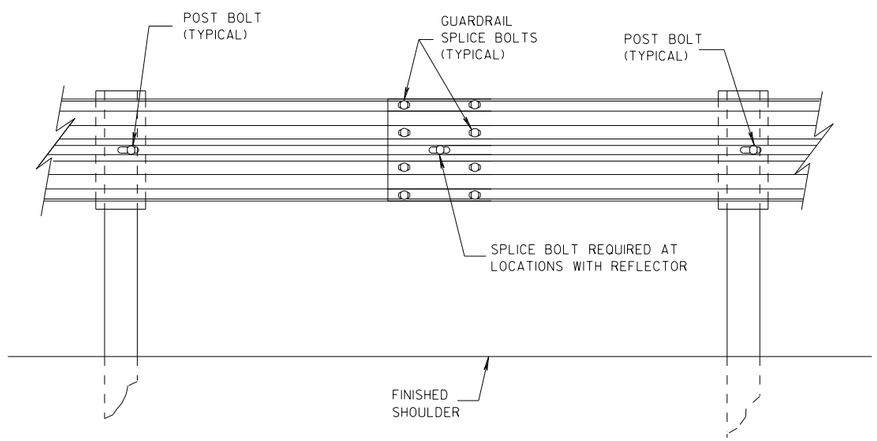


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

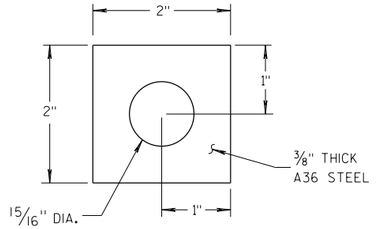
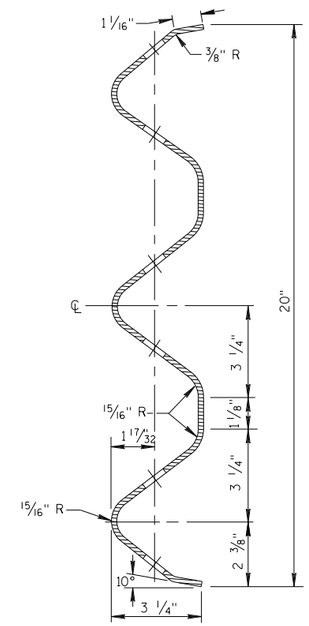


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

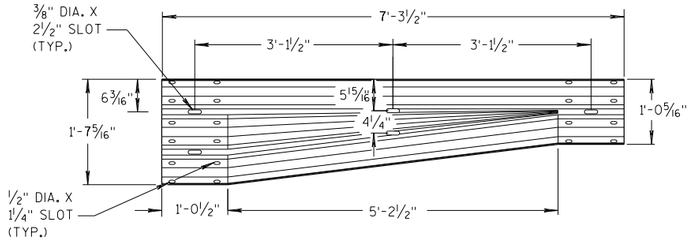
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 28

6

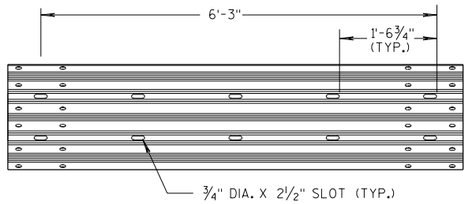
S.D.D. 14 B 45-5b

6

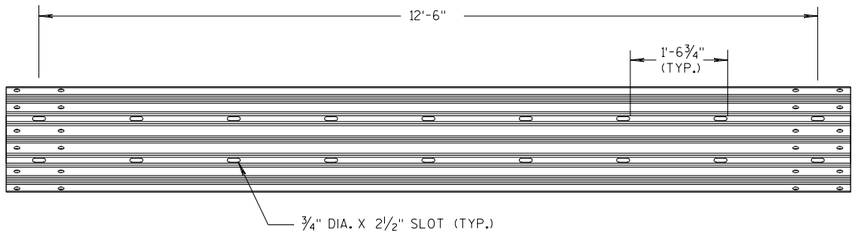
S.D.D. 14 B 45-5b



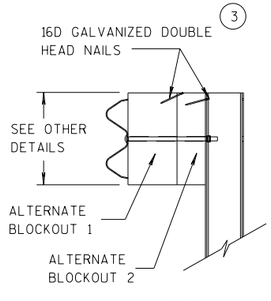
W-BEAM TO THRIE BEAM TRANSITION SECTION



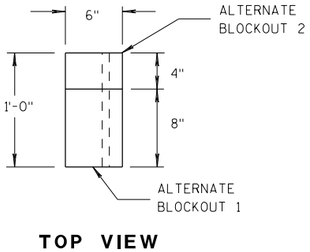
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

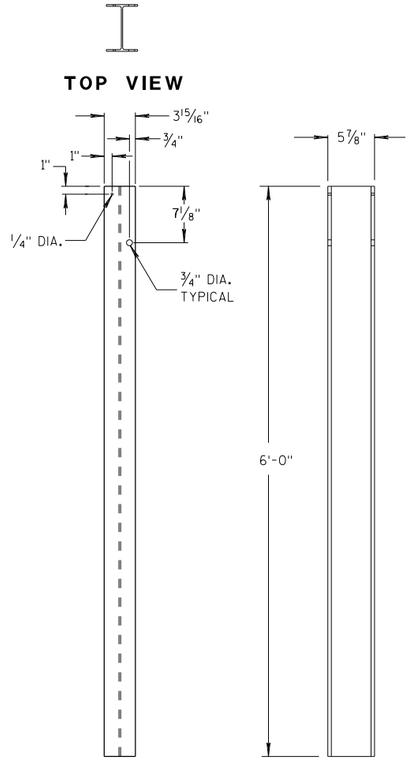


SIDE VIEW



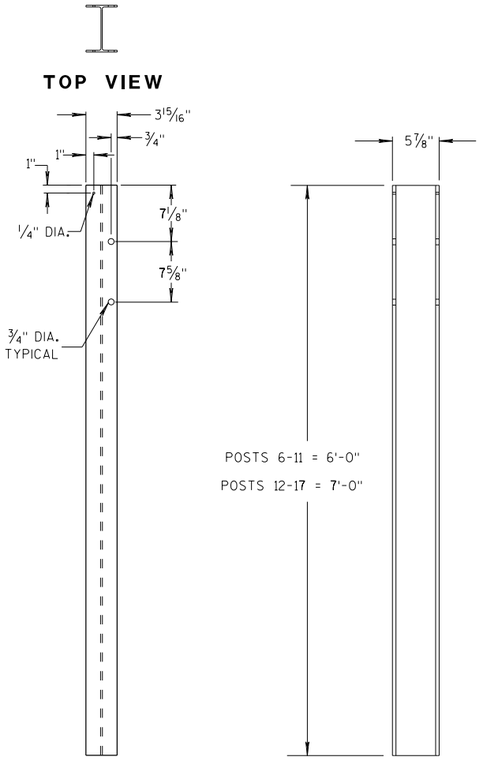
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



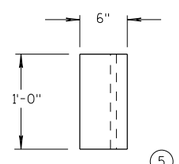
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

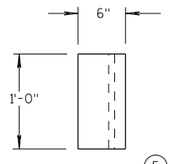


FRONT VIEW SIDE VIEW

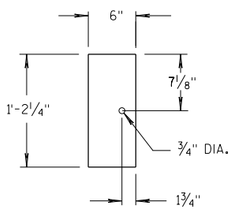
STEEL POSTS 6-17



TOP VIEW (5)

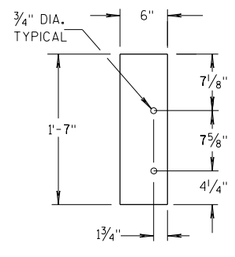


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

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

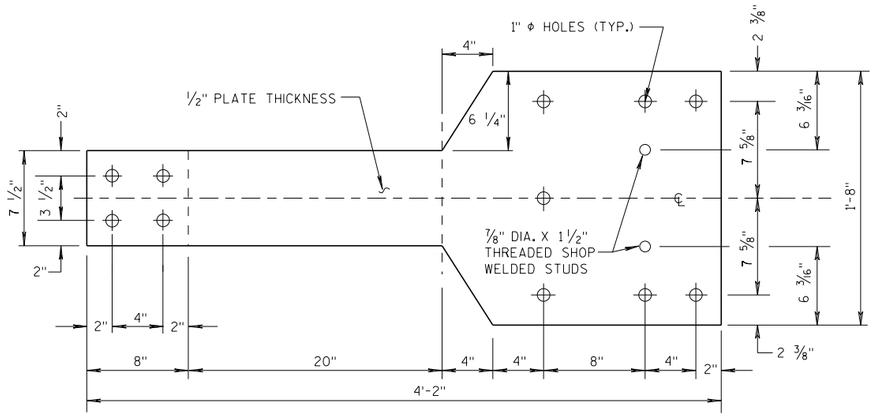
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

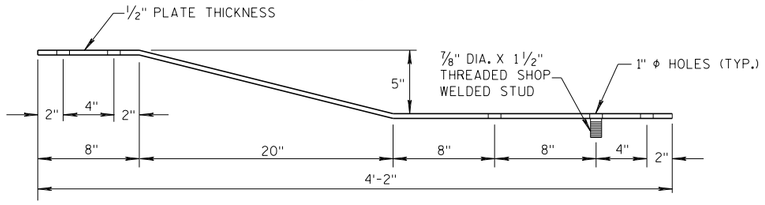
6
S.D.D. 14 B 45-5c

GENERAL NOTES

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

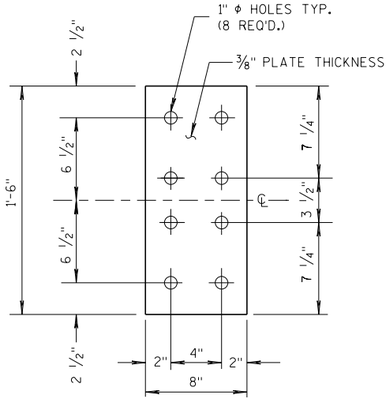


FRONT VIEW



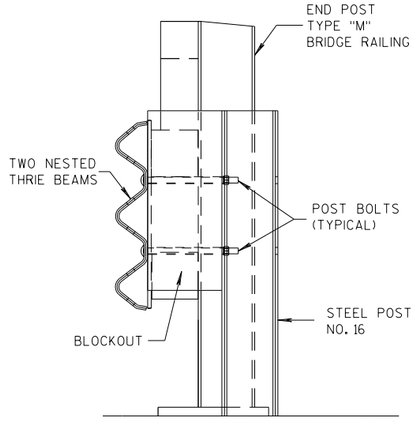
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

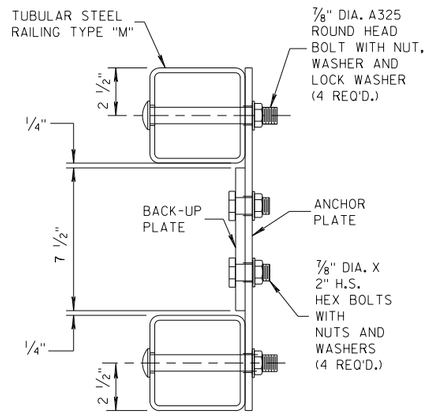


FRONT VIEW

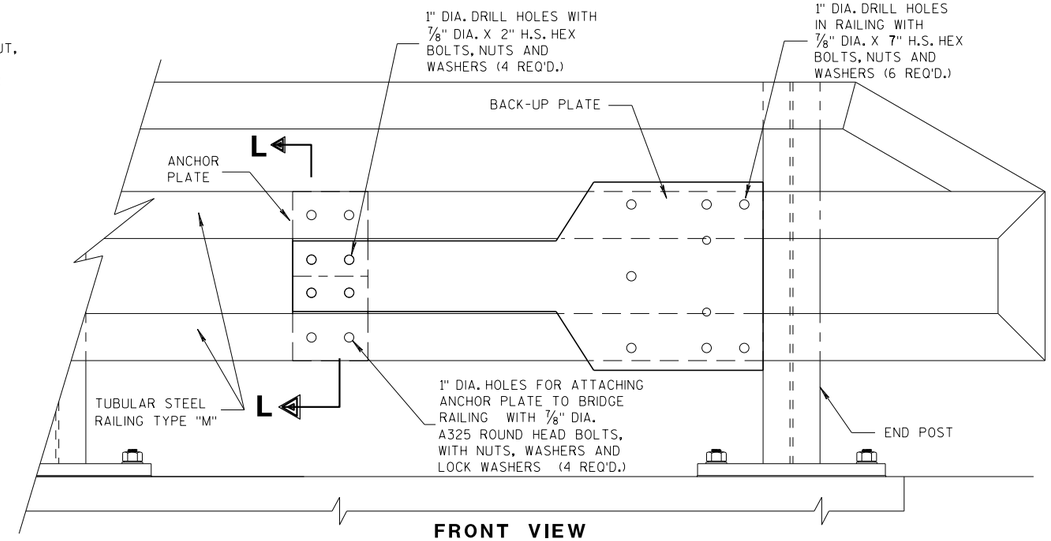
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

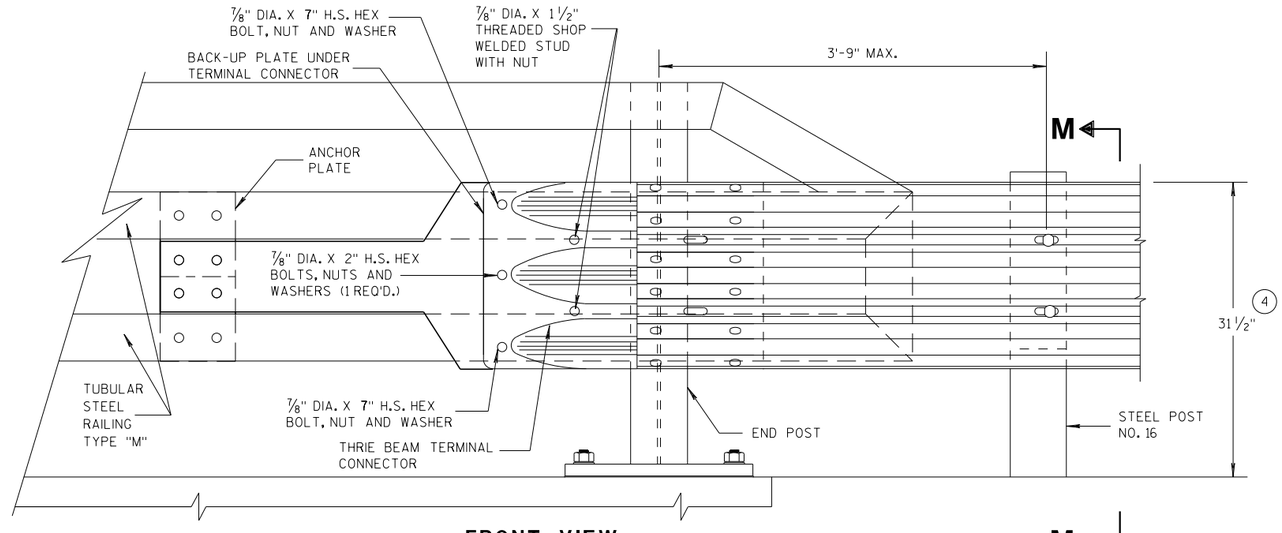


SECTION L-L

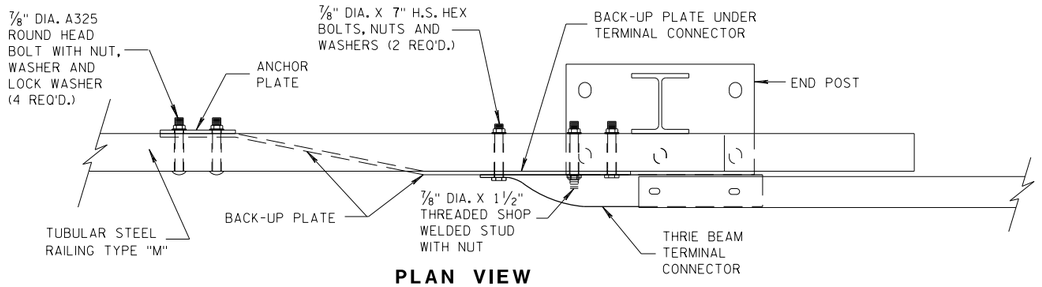


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

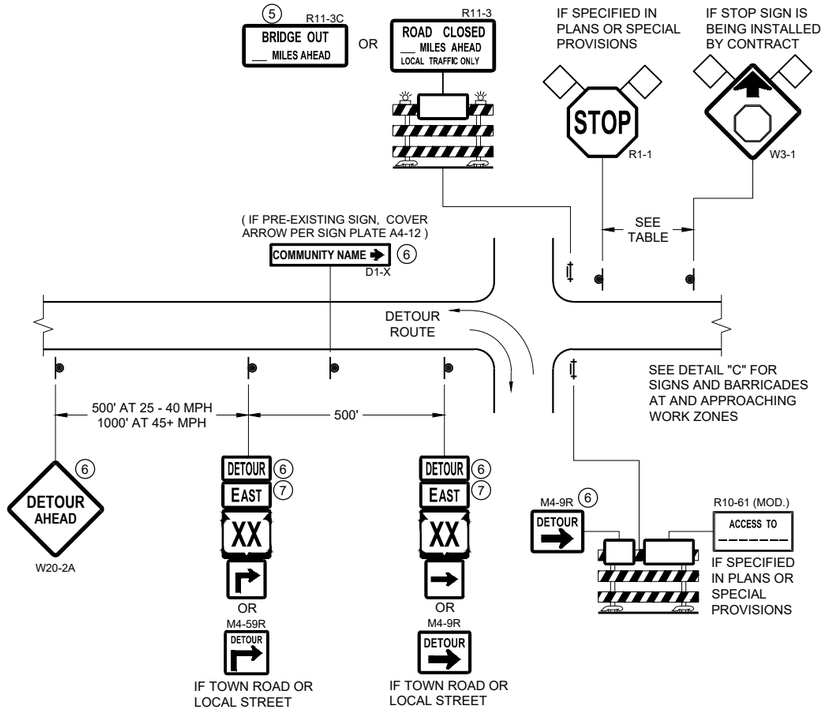
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

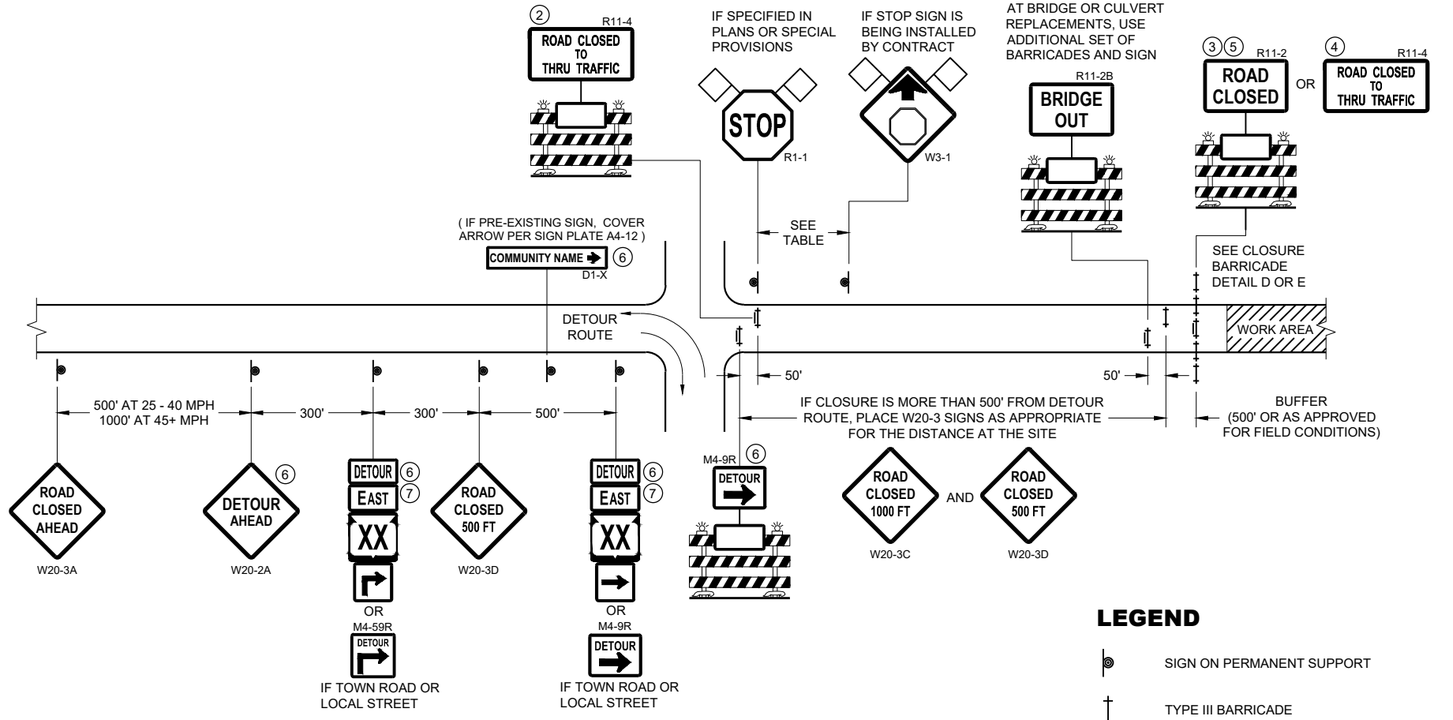
6

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

6

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



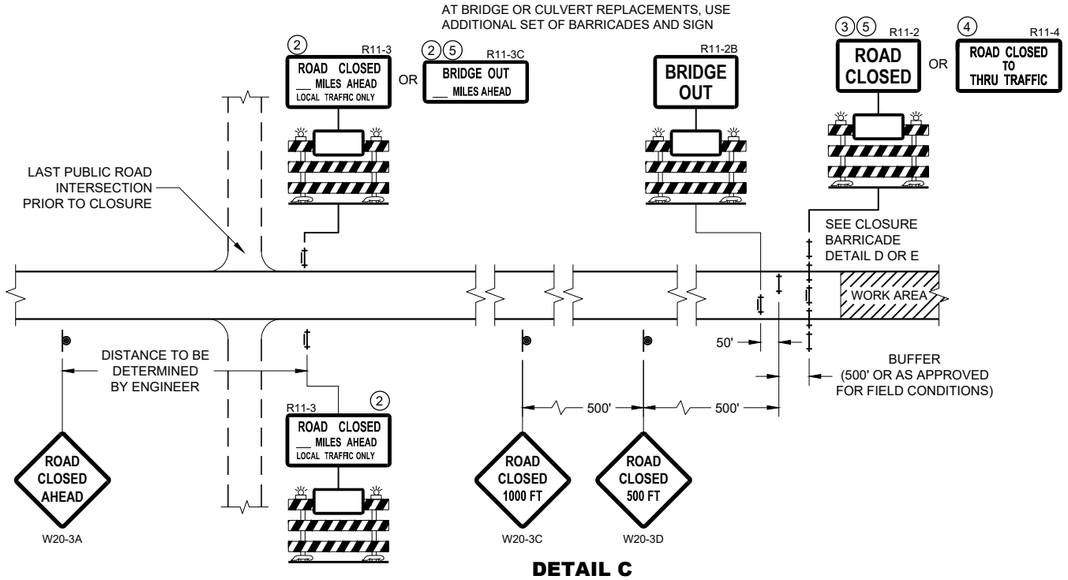


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

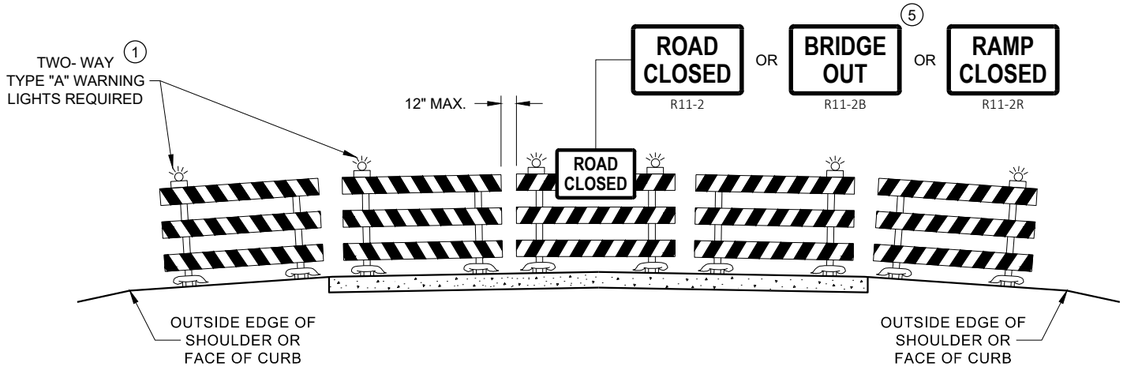
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

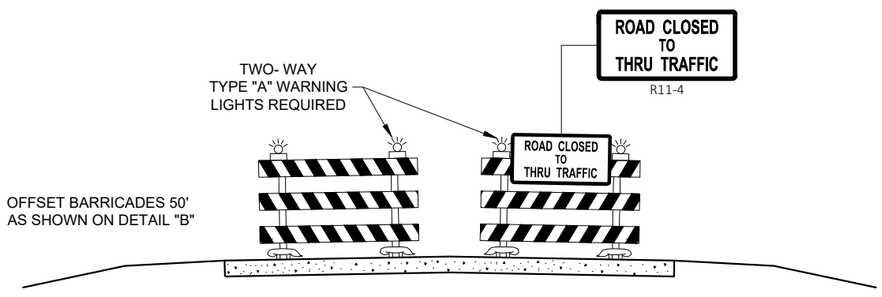
6

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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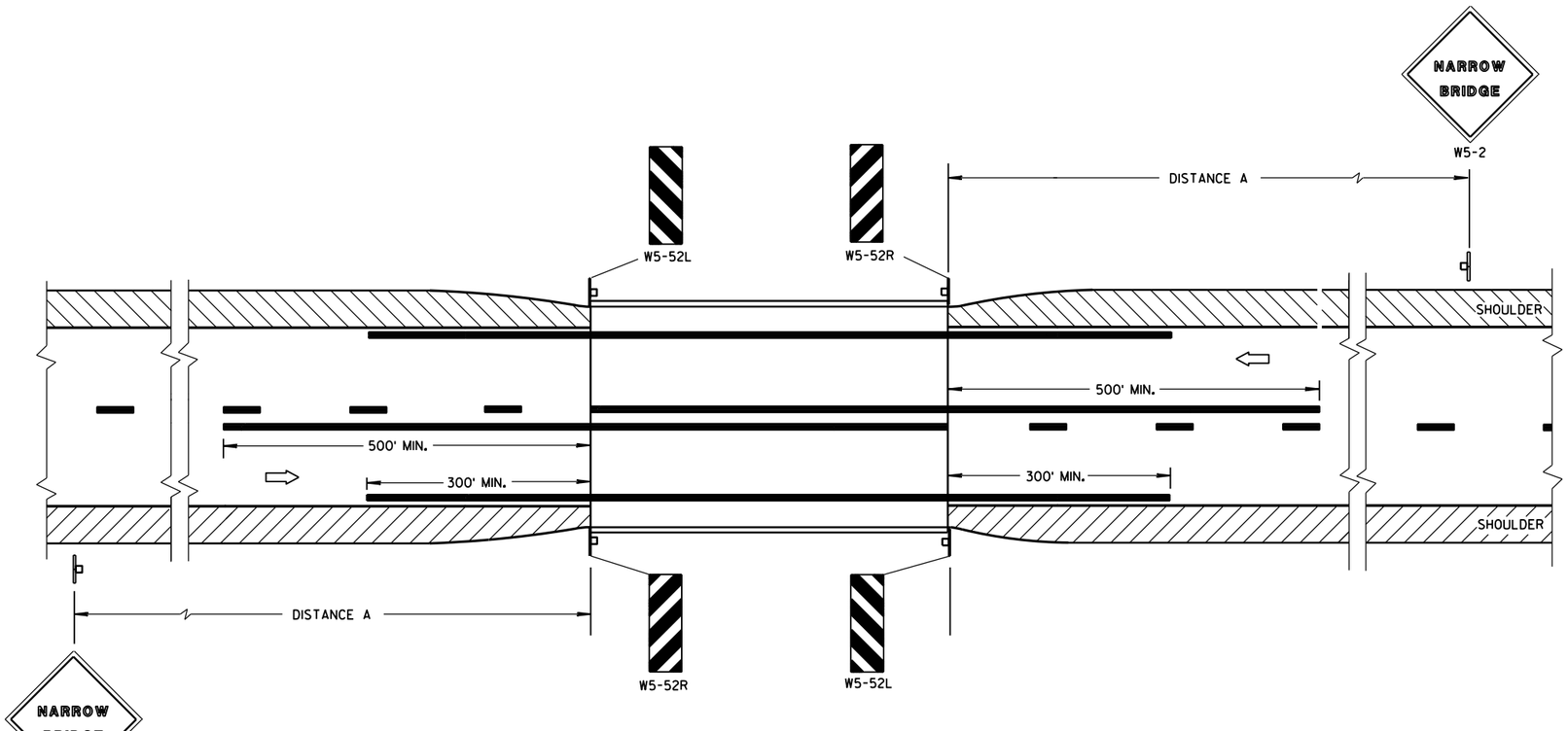
SDD 15C02 - 08b

6

SDD 15C02 - 08b



SITUATION 1

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

DISTANCE TABLE

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

GENERAL NOTES

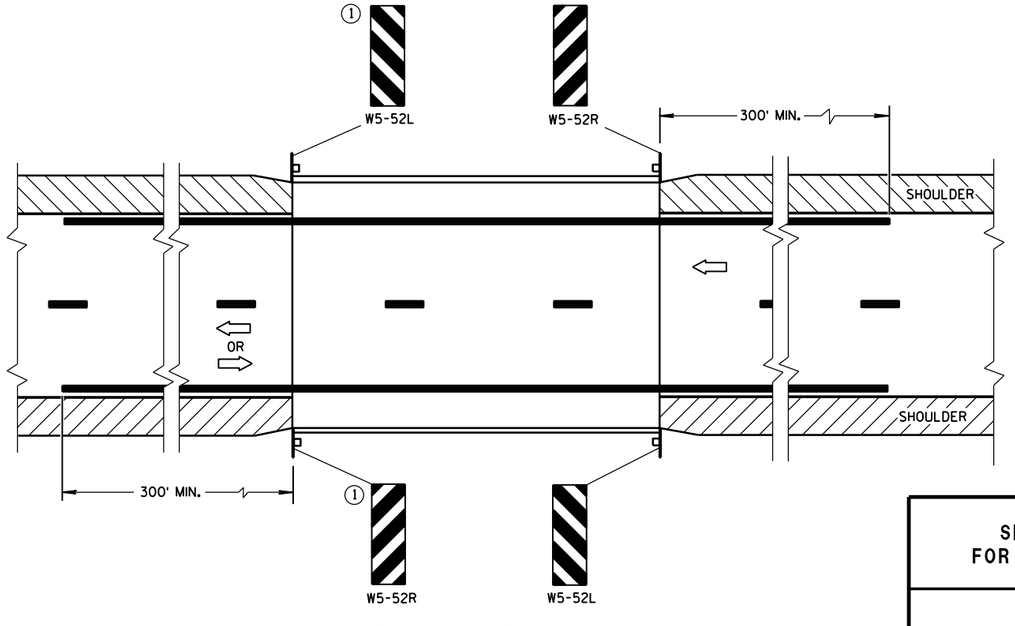
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

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

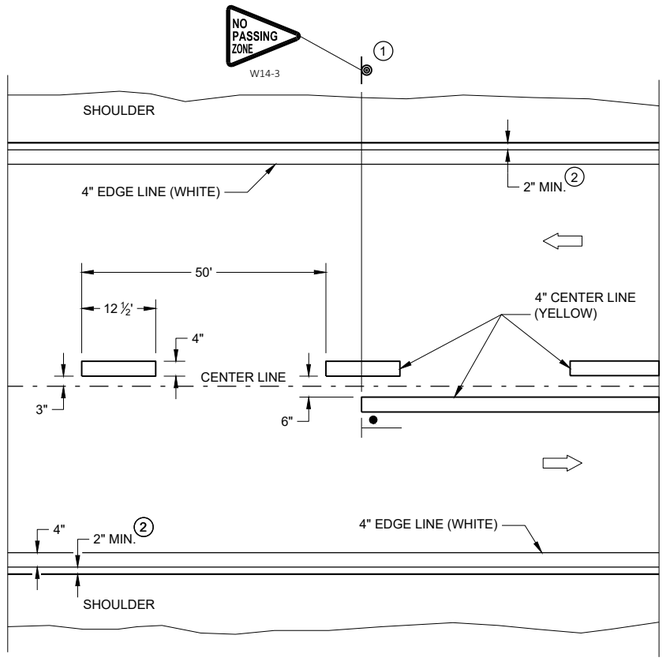
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

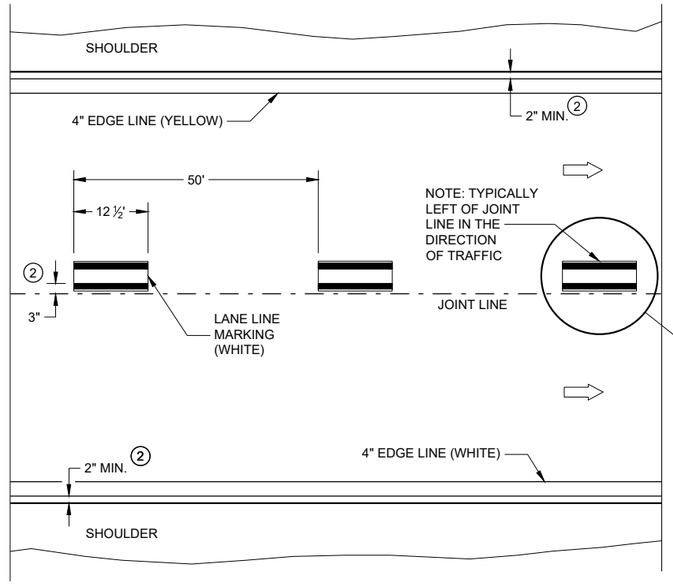
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

6

S.D.D. 15 C 6-9

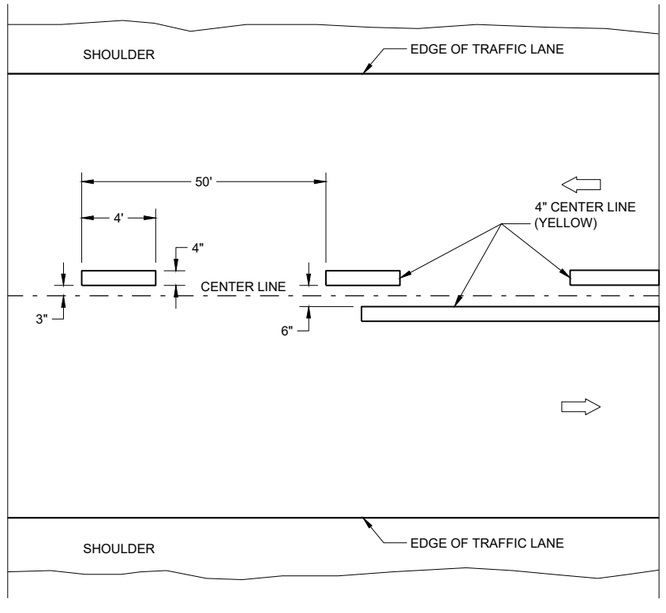


TWO WAY TRAFFIC

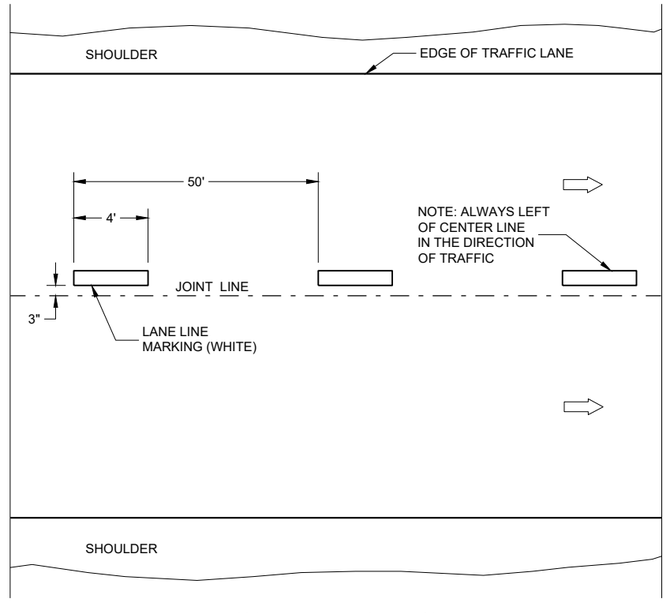


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

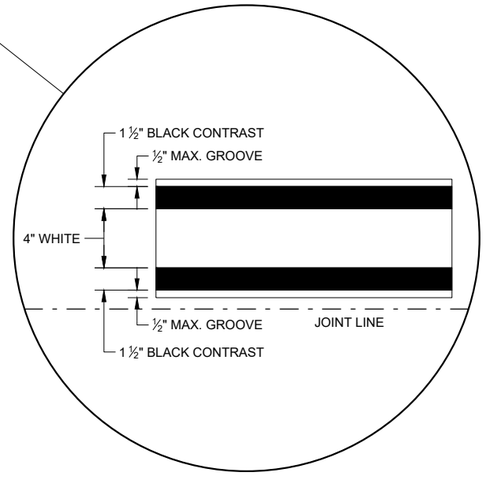
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

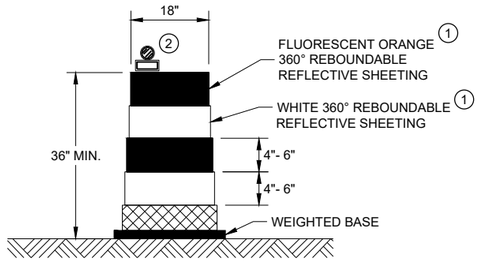
SDD 15C08 - 20a

SDD 15C08 - 20a

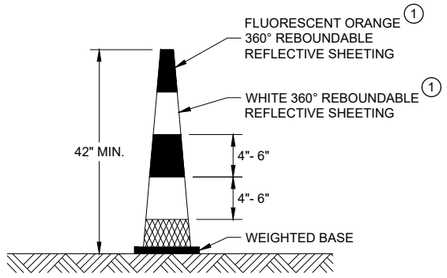
GENERAL NOTES

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

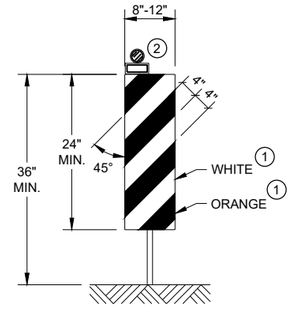


DRUM



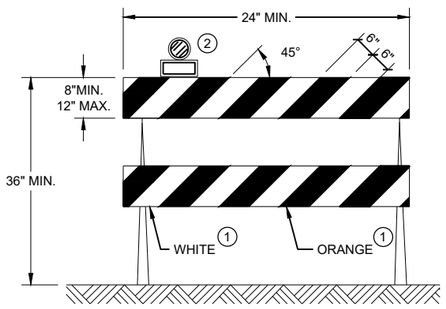
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



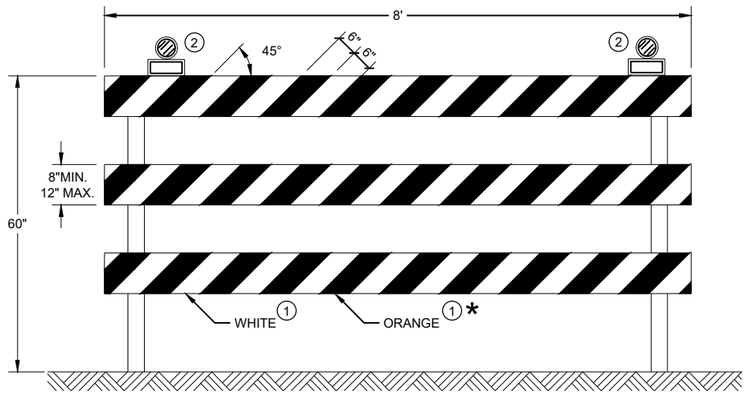
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

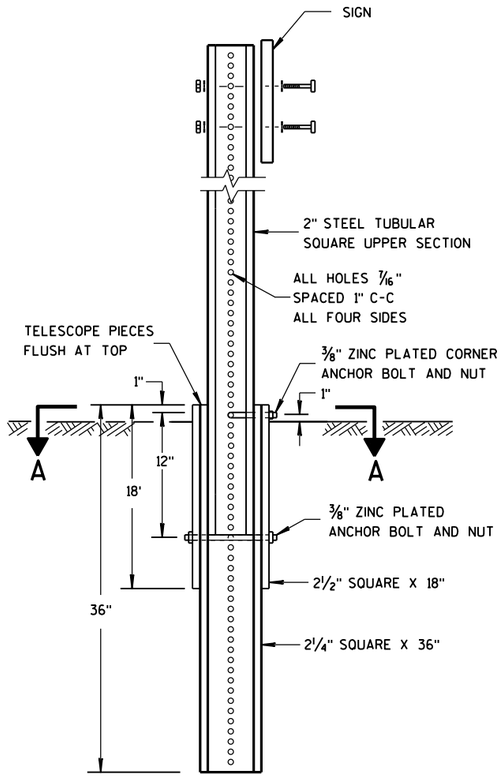
FHWA

6

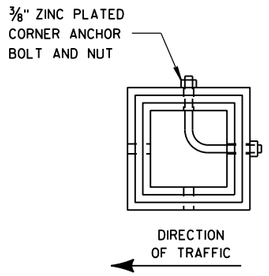
SDD 15C11 - 07b

6

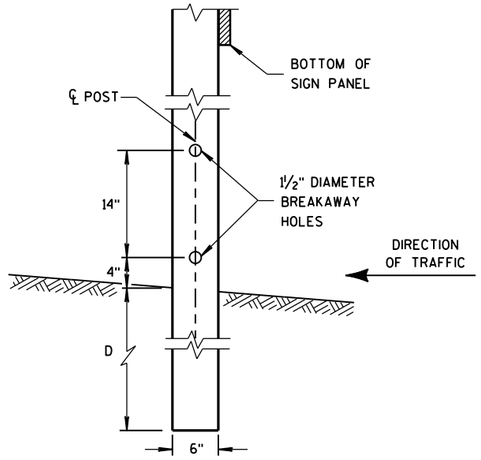
SDD 15C11 - 07b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



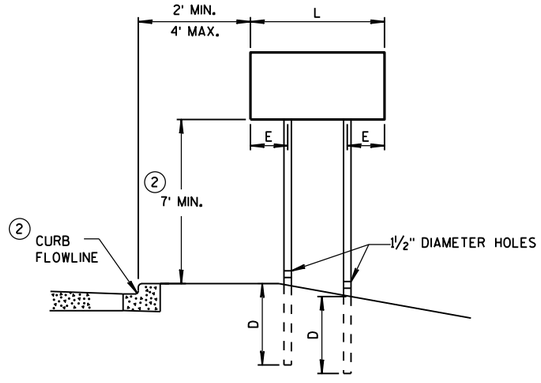
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

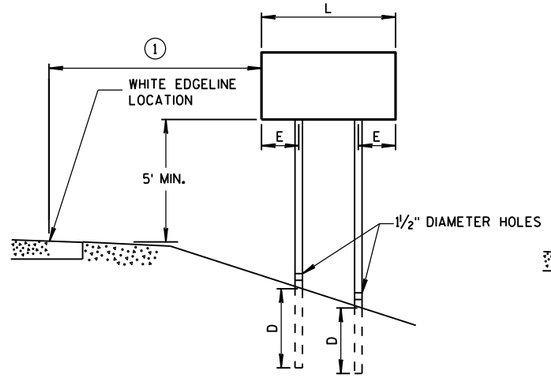
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

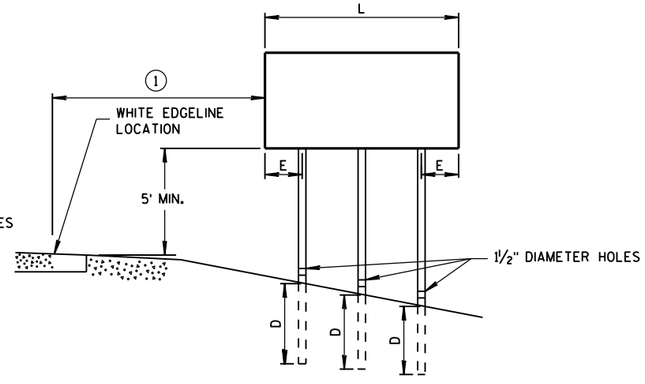
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

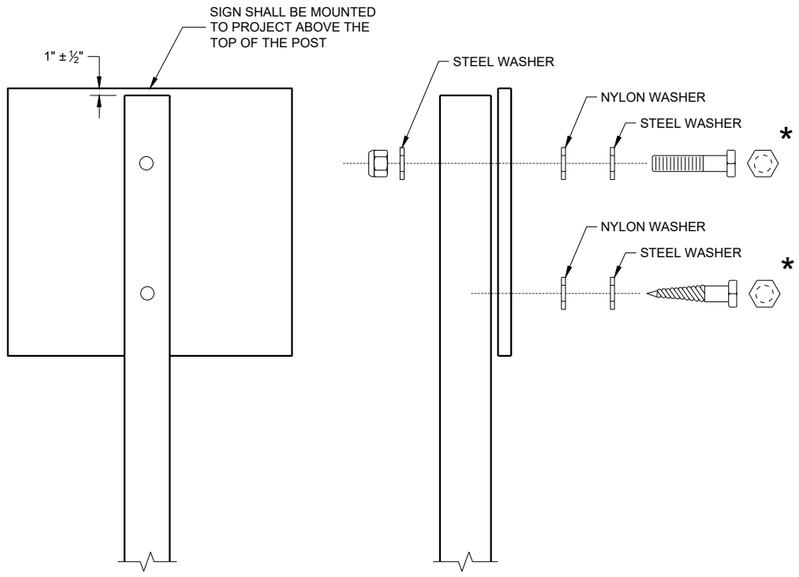
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



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

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

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

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

6

6

SDD 15D38 - 02b

SDD15D38 - 02b

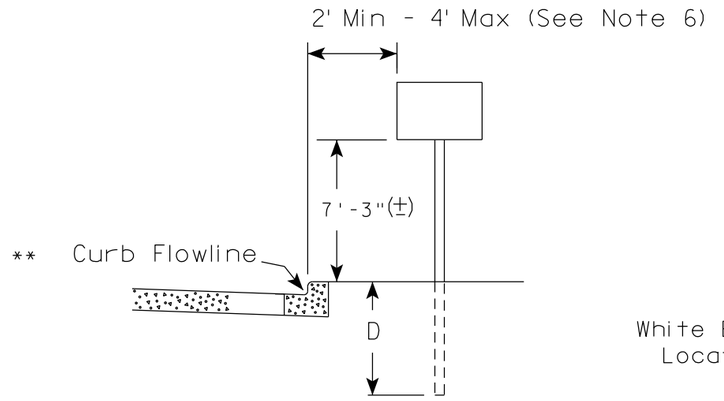
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

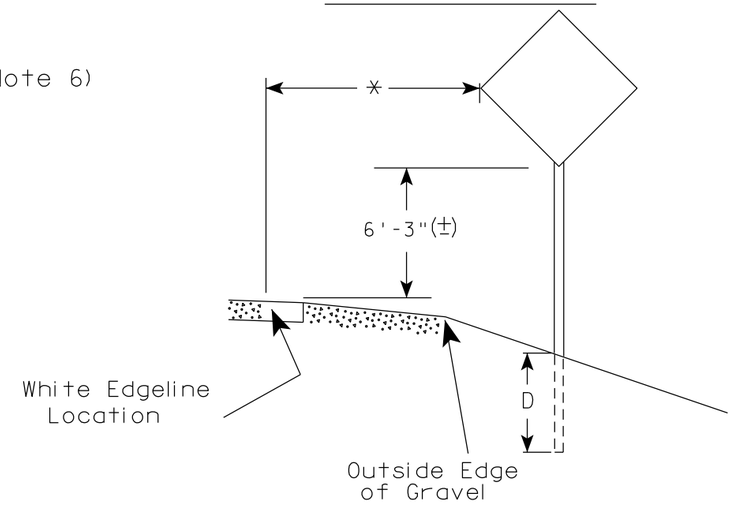
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

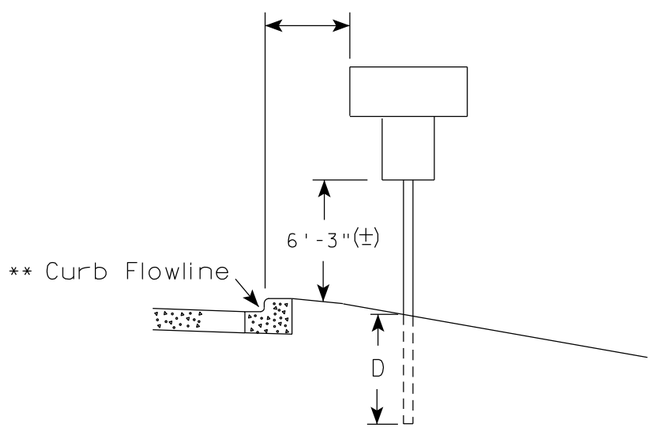
FHWA

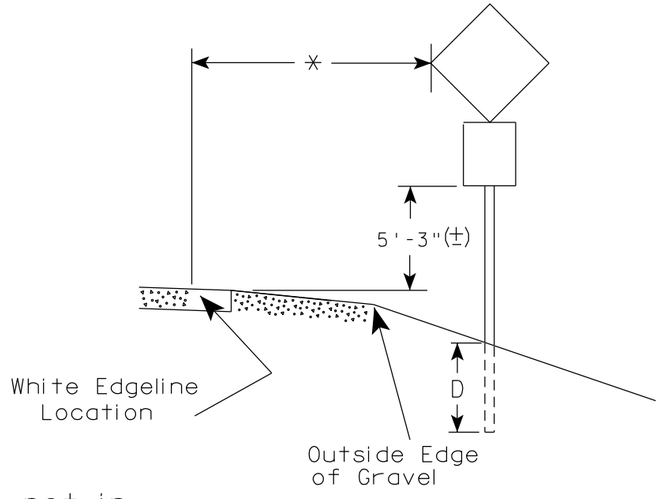
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

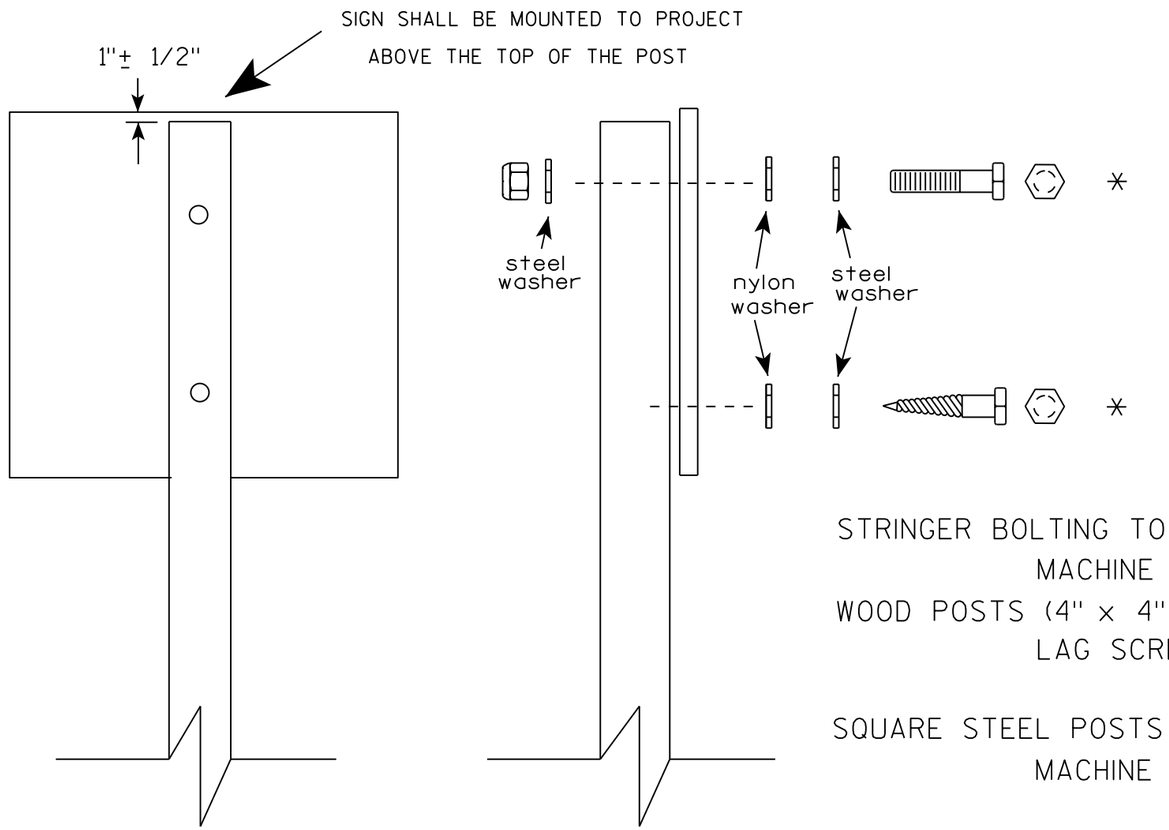
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 38	E



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

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

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

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

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

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

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

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

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

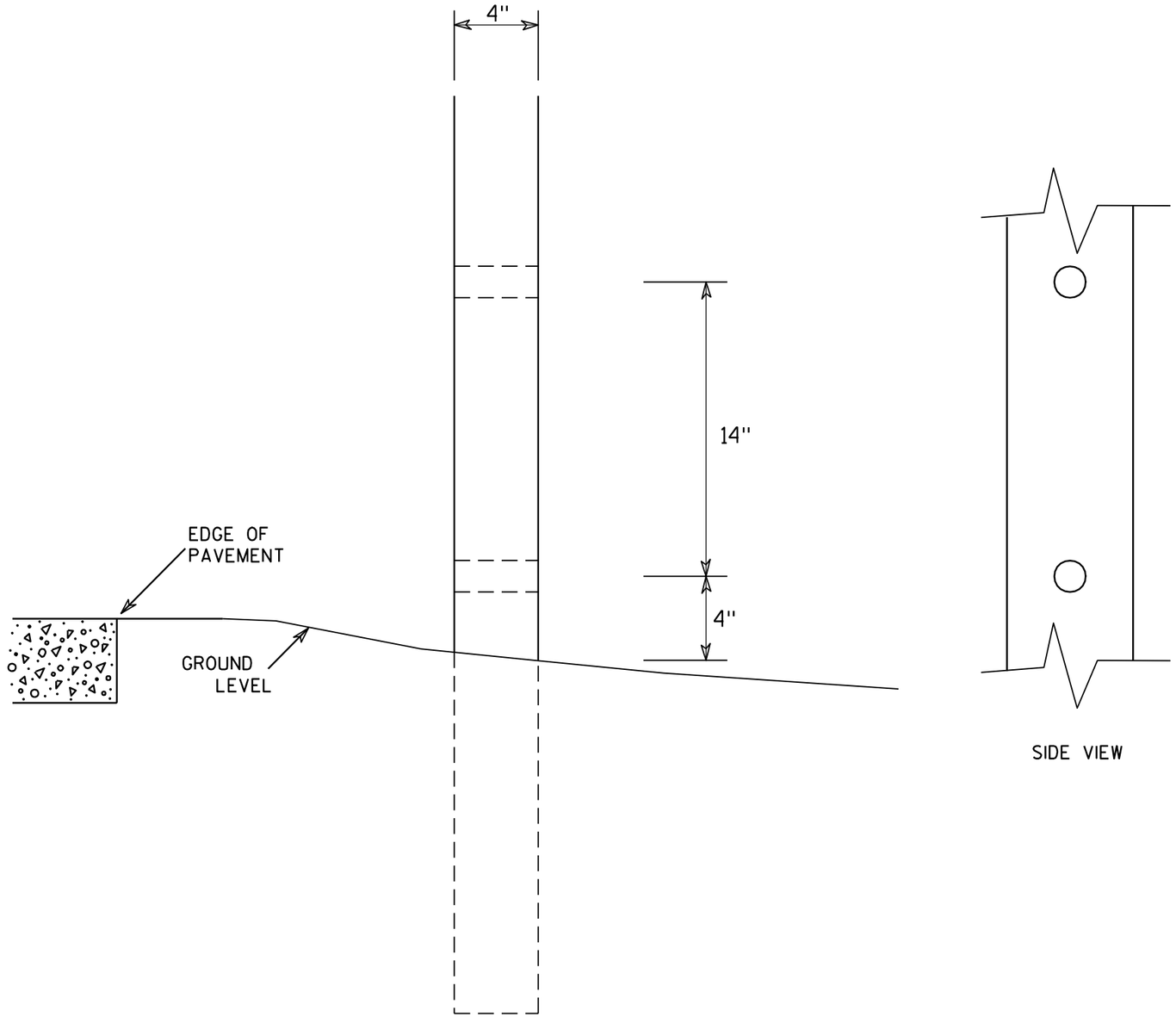
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: SHEET NO: E

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



SIDE VIEW

GENERAL NOTES

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

7

7

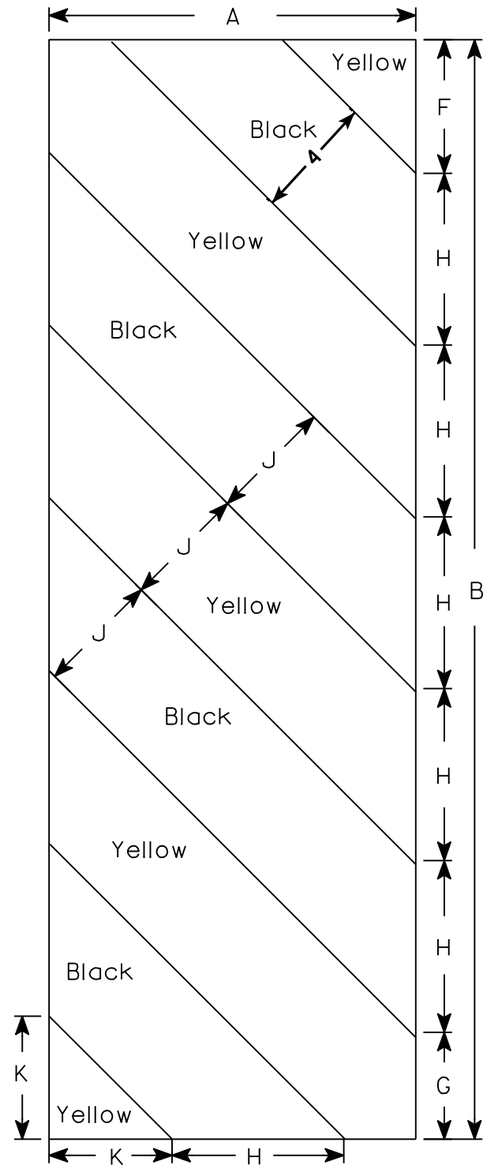
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

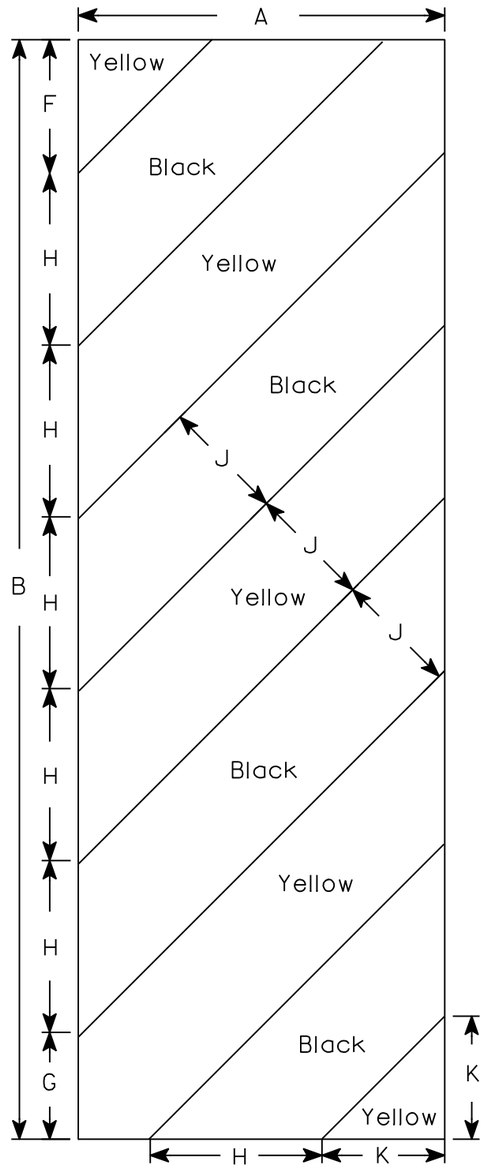
APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 40	E



W5-52L



W5-52R

NOTES

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

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

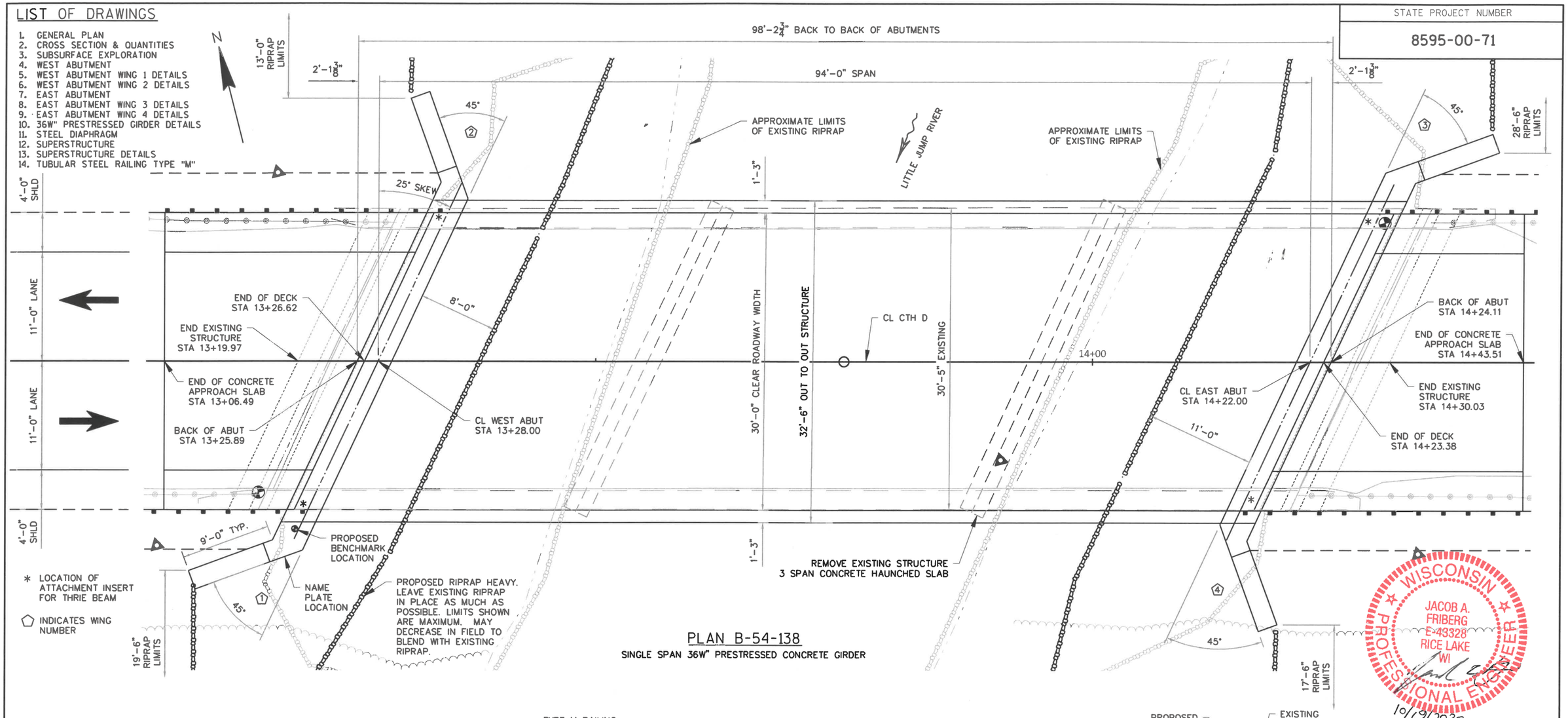
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 41	E

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT WING 1 DETAILS
6. WEST ABUTMENT WING 2 DETAILS
7. EAST ABUTMENT
8. EAST ABUTMENT WING 3 DETAILS
9. EAST ABUTMENT WING 4 DETAILS
10. 36W" PRESTRESSED GIRDER DETAILS
11. STEEL DIAPHRAGM
12. SUPERSTRUCTURE
13. SUPERSTRUCTURE DETAILS
14. TUBULAR STEEL RAILING TYPE "M"

STATE PROJECT NUMBER

8595-00-71

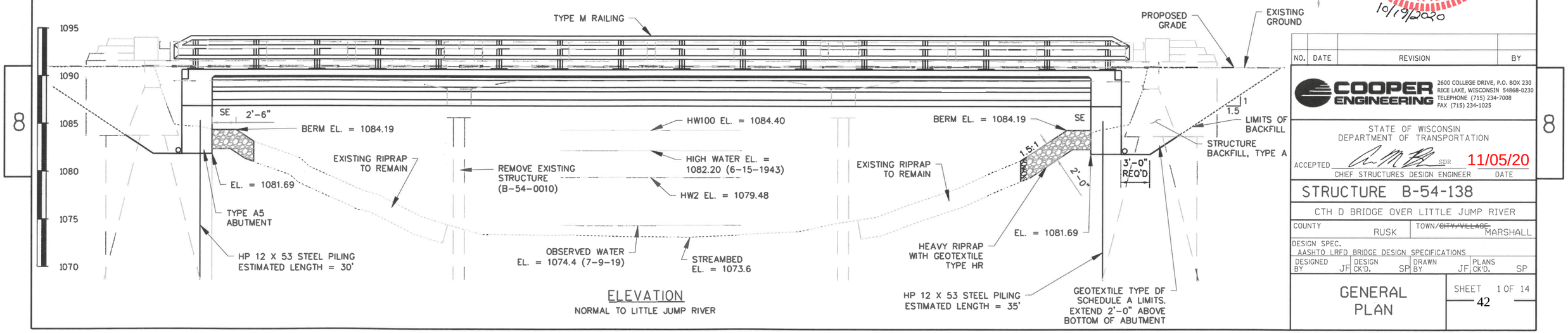


* LOCATION OF ATTACHMENT INSERT FOR THRIE BEAM

⬠ INDICATES WING NUMBER

PLAN B-54-138

SINGLE SPAN 36W" PRESTRESSED CONCRETE GIRDER



ELEVATION

NORMAL TO LITTLE JUMP RIVER

WISCONSIN PROFESSIONAL ENGINEER
JACOB A. FRIBERG
E-43328
RICE LAKE WI
10/19/2020

NO.	DATE	REVISION	BY

COOPER ENGINEERING
2600 COLLEGE DRIVE, P.O. BOX 230
RICE LAKE, WISCONSIN 54868-0230
TELEPHONE (715) 234-7008
FAX (715) 234-1025

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/05/20
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-54-138

CTH D BRIDGE OVER LITTLE JUMP RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
RUSK	MARSHALL

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JF	SP	JF	SP

GENERAL PLAN

SHEET 1 OF 14

STATE PROJECT NUMBER

8595-00-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-54-0138" SHALL BE THE EXISTING GROUNDLINE.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

AT THE BACKFACE OF THE ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE, SIDE, AND 1'-0" UNDERSIDE OF CONCRETE DECK.

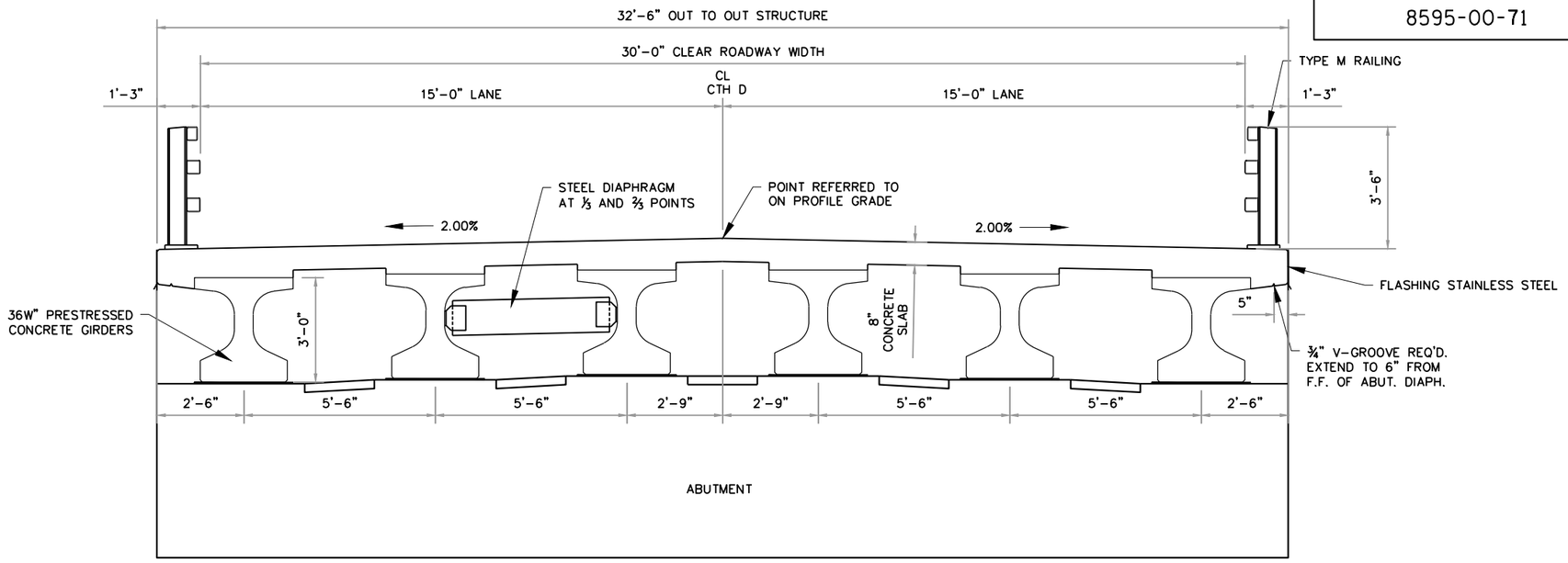
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENT.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW NEW BRIDGE AND CURRENT CONSTRUCTION YEAR.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

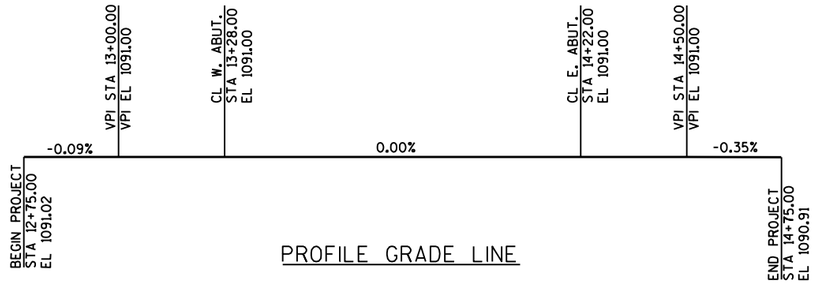
ELEVATIONS SHOWN ON THE PLANS ARE REFERENCES TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

THE COORDINATE SYSTEM FOR THIS PROJECT IS WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) – RUSK COUNTY.



PROPOSED CROSS SECTION THRU BRIDGE

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	13+16.02	1091.51	13.25' RT; DRILL HOLE IN EXISTING BRIDGE CURB
2	14+29.49	1091.51	14.03' LT; BRASS CAP ON EXISTING BRIDGE CURB



PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (B 54 0010)	LS				1
203.0700.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM (STA 13+75)	LS	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-54-138)	LS	0.5	0.5	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	270	270	-	540
502.0100	CONCRETE MASONRY BRIDGES	CY	38	38	118	194
502.3200	PROTECTIVE SURFACE TREATMENT	SY	17	17	388	422
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-	-	570	570
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,640	2,640	-	5,280
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,540	1,540	17,390	20,470
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EA	6	6	-	12
506.4000	STEEL DIAPHRAGMS (B-54-138)	EA	-	-	10	10
513.4062	RAILING TUBULAR TYPE M	LF	-	-	200	200
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7.5	7.5	-	15
550.1120	PILING STEEL HP 12 INCH X 53 LB	LF	240	280		520
606.0300	RIPRAP HEAVY	CY	70	105	-	175
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	85	-	165
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	45	45	-	90
645.0120	GEOTEXTILE TYPE HR	SY	100	160	-	260
SPV.0090.01	FLASHING STAINLESS STEEL	LF			182	182
NON-BID ITEM	4" X 1/2" PERFORMED JOINT FILLER	LF	36	36	-	72
NON-BID ITEM	1/2" PERFORMED JOINT FILLER (BENEATH GIRDERS)	SF	9	9	-	18
NON-BID ITEM	3" X 3/4" CORK FILLER AT BEAM SEATS	LF	15	15	-	30

DESIGN DATA

LIVE LOADS:
DESIGN LOADING = HL-93
INVENTORY RATING FACTOR = 1.03
OPERATING RATING FACTOR = 1.64
MAX. STD. PERMIT VEHICLE LOAD = 250 KIPS

STRUCTURE IS DESIGNED FOR FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT

MATERIAL PROPERTIES:
CONCRETE MASONRY SUBSTRUCTURE -------- F'C = 3,500 PSI
CONCRETE MASONRY SUPERSTRUCTURE ----- F'C = 4,000 PSI
PRESTRESSED CONCRETE GIRDERS --------- F'C = 8,000 PSI
PRESTRESSED STEEL ---------- Fpu = 270,000 PSI
BAR STEEL REINFORCEMENT (GRADE 60) ---- FY = 60,000 PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 12 X 53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 190 TONS* (MIN) PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 30'-0" LONG WEST ABUT. & 35'-0" LONG EAST ABUT..

* THE FACTOR AXIAL RESISTANCE OF THE PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING THE MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

A.D.T. (2015) = 527
A.D.T. (2035) = 539
R.D.S. = 55 MPH

HYDRAULIC DATA

100 YEAR FREQUENCY
Q100 = 5,230 CFS
VEL. = 9.9 FPS
HW100 ELEV. = 1084.40
WATERWAY AREA = 912 SF
DRAINAGE AREA = 75.3 SQ.MI.
ROADWAY OVERTOPPING = NA
SCOUR CODE = 8

2 YEAR FREQUENCY
Q2 = 1,520 CFS
VEL. = 5.6 FPS
HW2 ELEV. = 1079.48

CONTACTS

BRIDGE OFFICE:
CONTACT: AARON BONK
PHONE: (608) 261-0261

CONSULTANT:
CONTACT: COOPER ENGINEERING
PHONE: (715) 234-7008

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

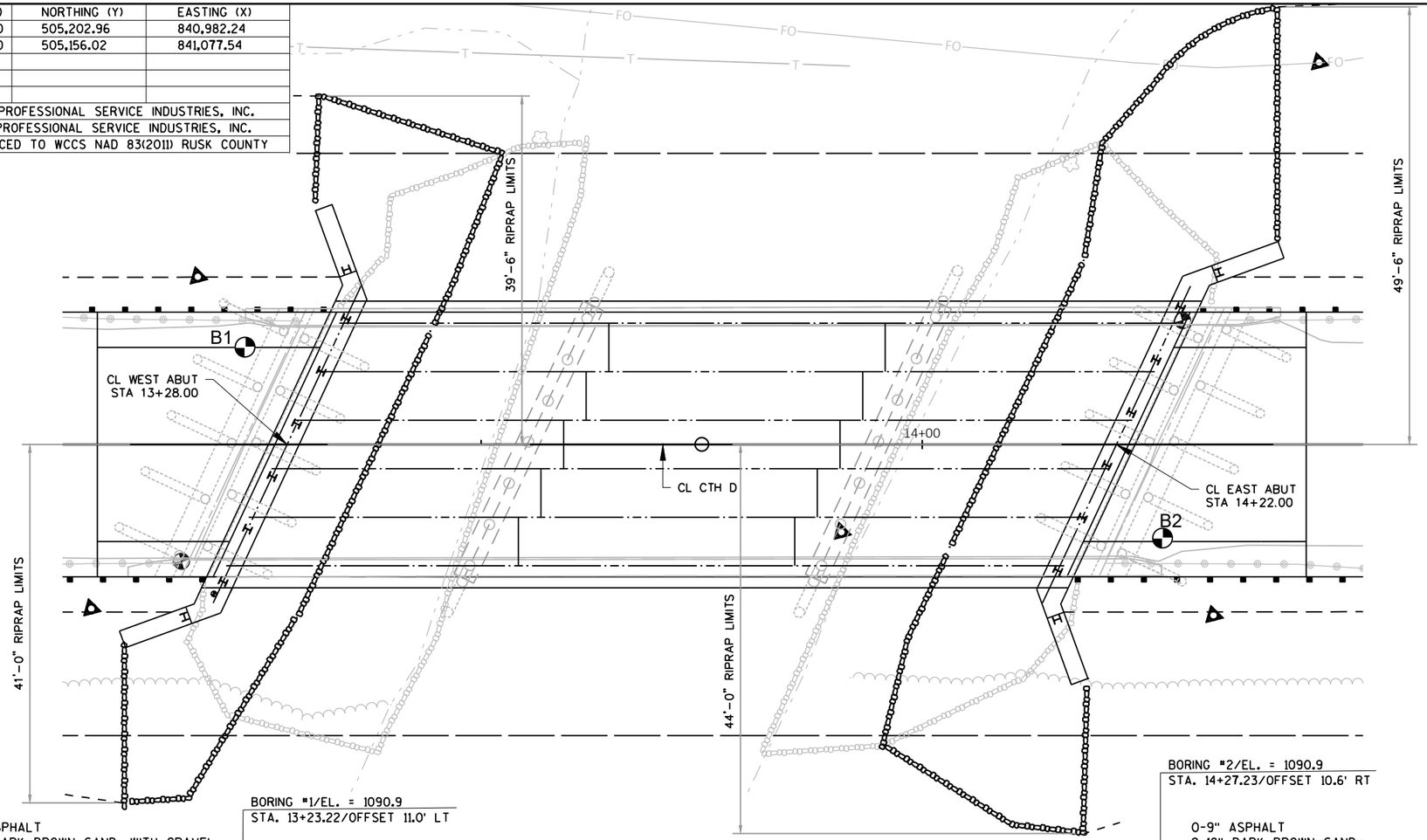
STRUCTURE B-54-138

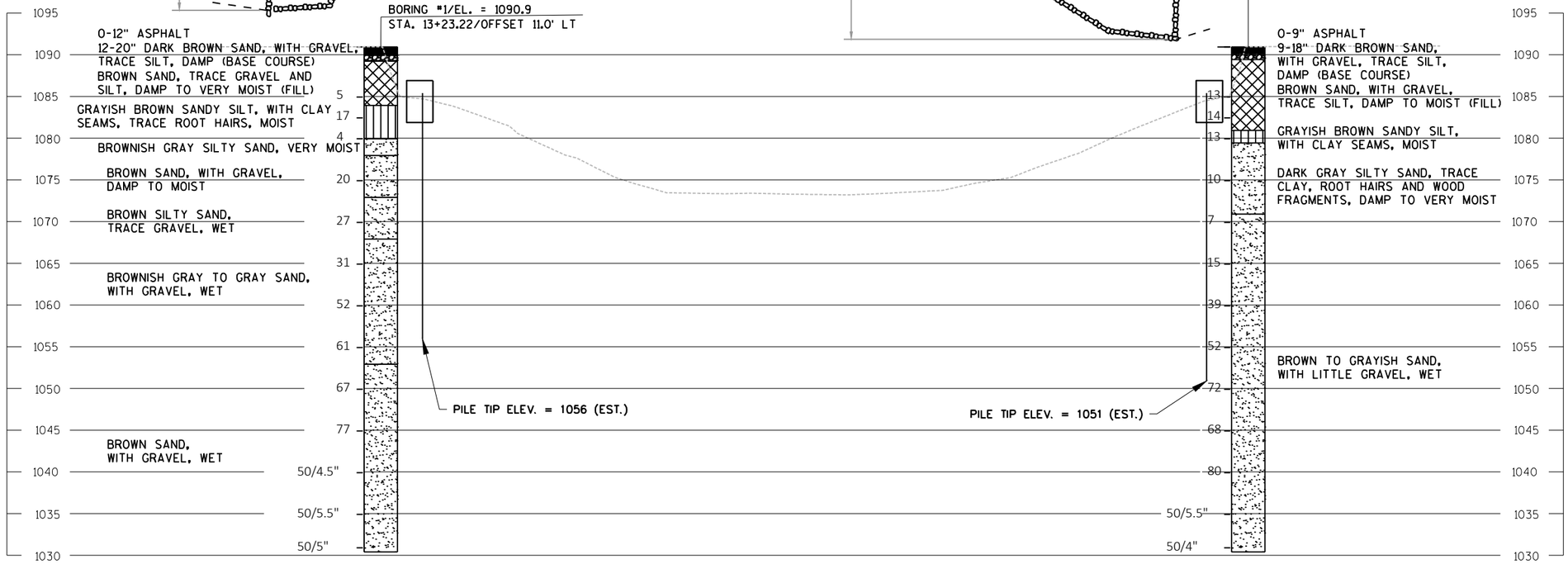
DRAWN BY JF | PLANS CK'D. SP

CROSS SECTION & QUANTITIES

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	JANUARY 13, 2020	505,202.96	840,982.24
2	JANUARY 13, 2020	505,156.02	841,077.54

BORINGS COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC.
REPORT COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC.
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) RUSK COUNTY





STATE PROJECT NUMBER

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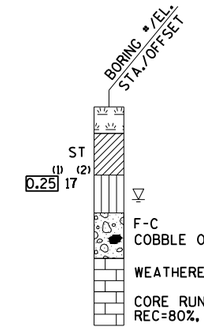
MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, WE DO NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

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SUBSURFACE EXPLORATION

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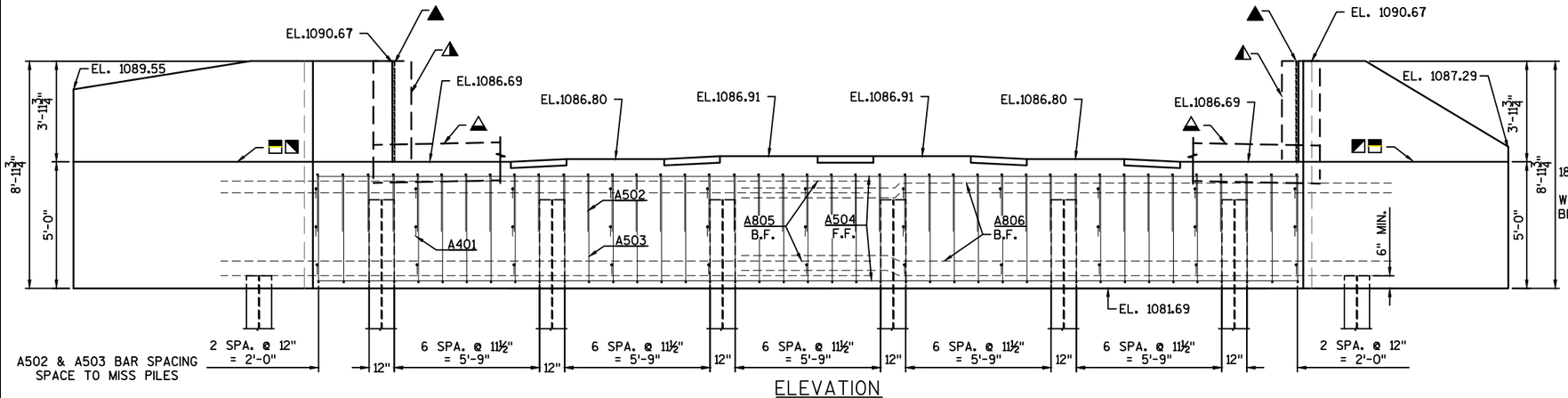
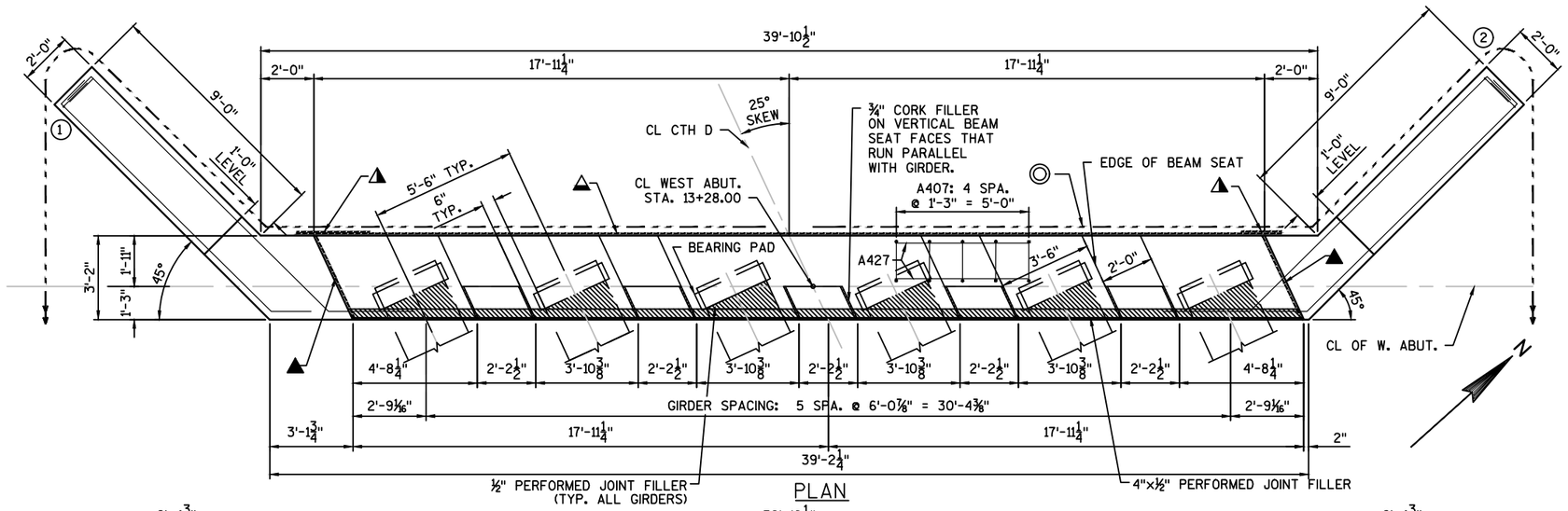
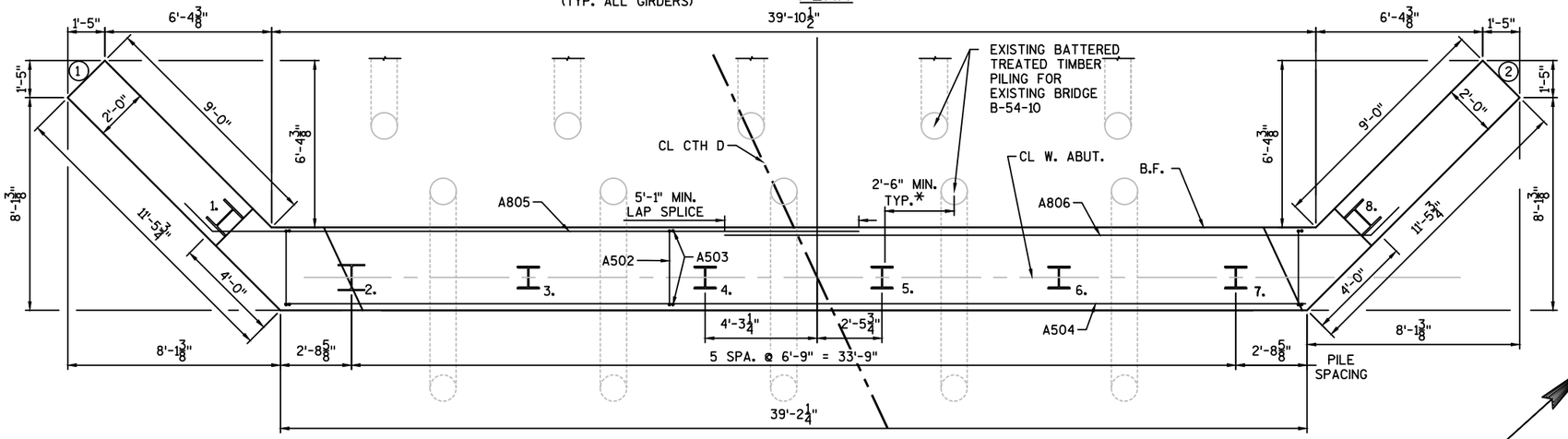


ELEVATION

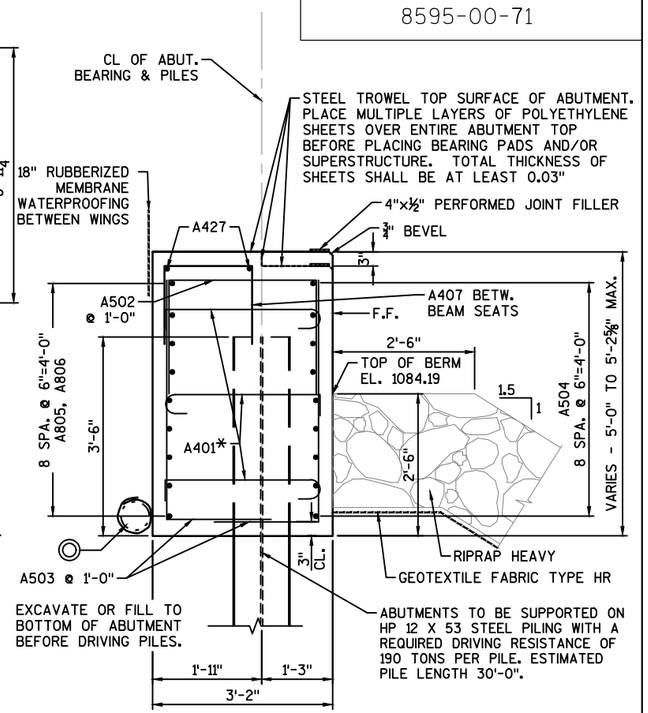


PLAN



PILE LAYOUT

*FIELD ADJUST PROPOSED PILING IF NECESSARY TO MAINTAIN MIN. CLEARANCE PER DIRECTION OF THE ENGINEER.



TYP. SECTION THRU ABUTMENT BODY

*(3) A401 TIE BARS AT 4'-0" HORIZ. SPA. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

LEGEND

① INDICATES WING NUMBER

◎ PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.

▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

◭ VERT. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.

△ HORIZ. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND BETWEEN WINGS.

◓ OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED, POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE 18" RMW ON BACK FACE OF WING. COST OF RMW INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".

◥ 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.

F.F. = FRONT FACE B.F. = BACK FACE CL. = CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

DRAWN BY DAN | PLANS CK'D. JAF

WEST ABUTMENT

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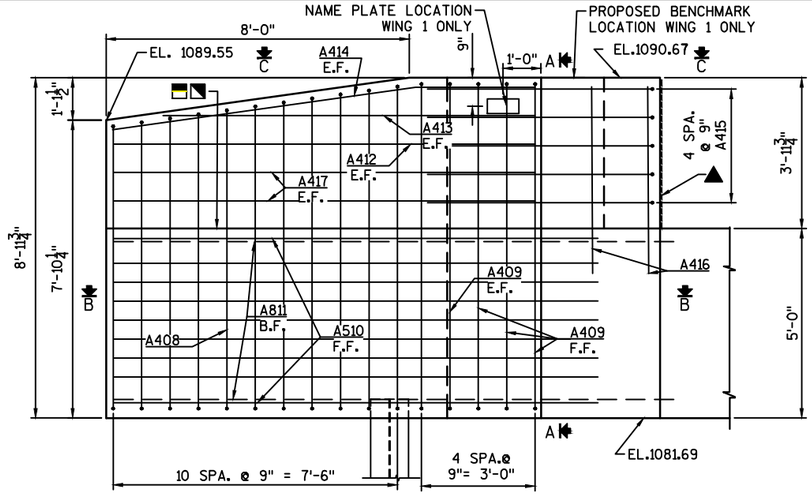
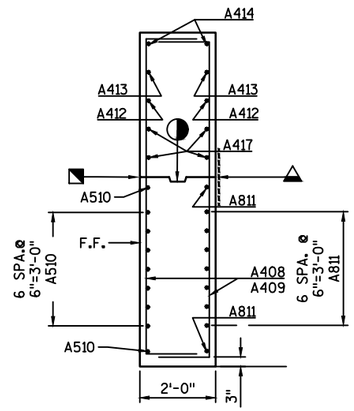
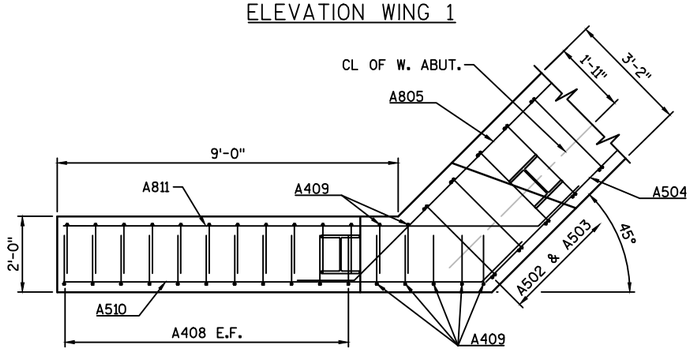


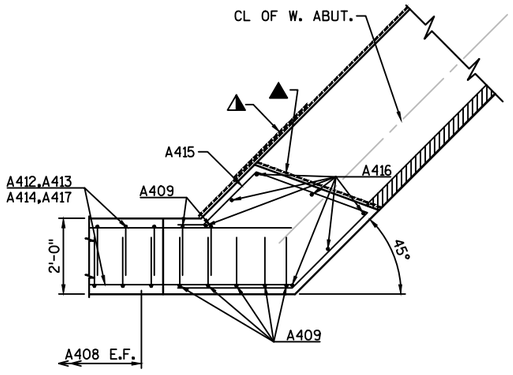
ELEVATION WING 1



SECTION A



SECTION B



SECTION C

LEGEND

(1) INDICATES WING NUMBER

KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6.

PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.

1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

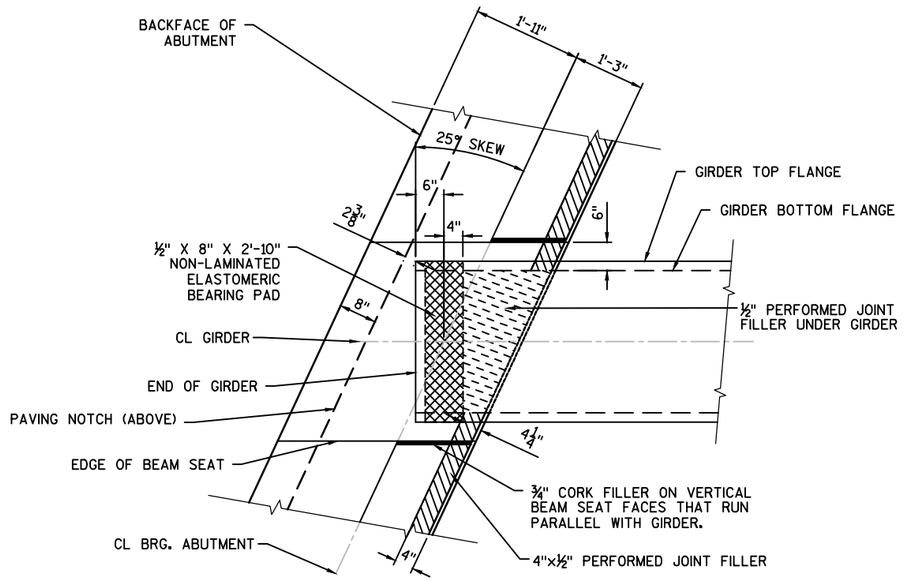
VERT. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.

HORIZ. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND BETWEEN WINGS.

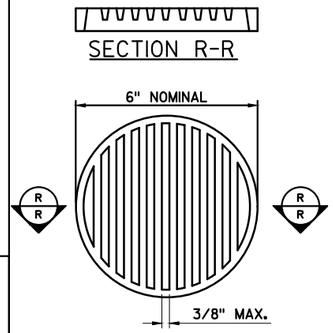
OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED, POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE 18" RMW ON BACK FACE OF WING. COST OF RMW INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".

3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.

F.F. = FRONT FACE B.F. = BACK FACE CL. = CLEAR



BEARING PAD DETAIL



RODENT SHIELD

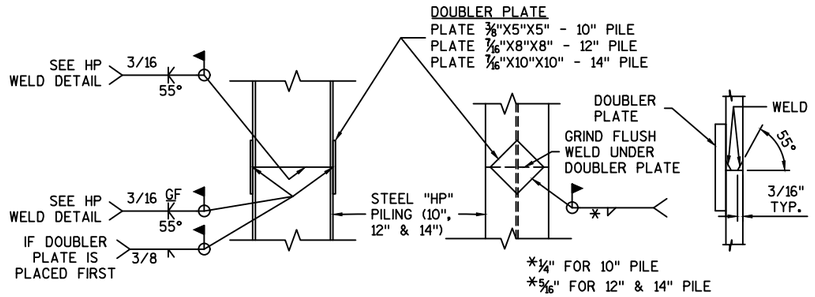
DIMENSIONS ARE APPROX.. THE GRATE IS SIZED TO FIT INTO PIPE COUPLING.

RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO.10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

SECTION R-R



H PILE SPLICE DETAIL HP WELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

DRAWN BY DAN | PLANS CK'D. JAF

WEST ABUTMENT WING 1 DETAILS

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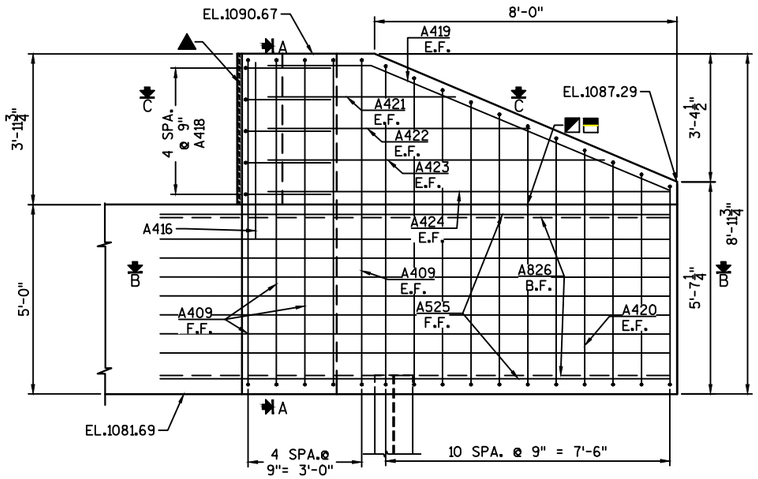
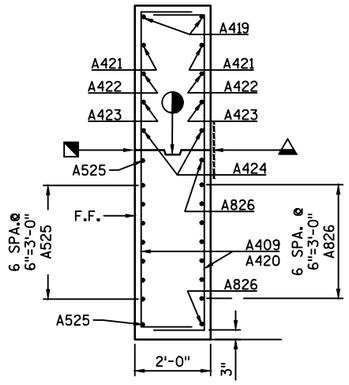
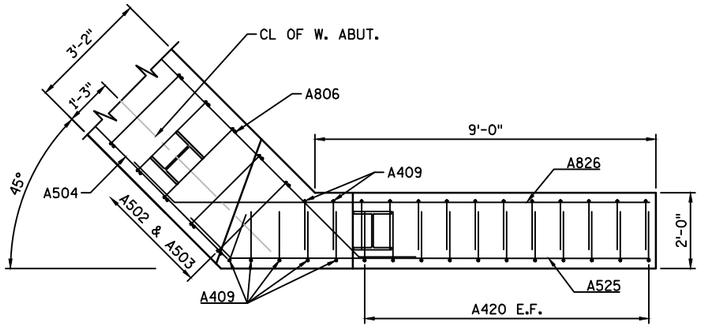


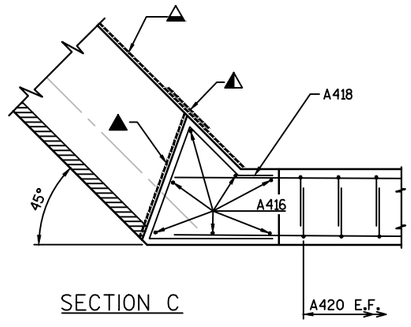
ELEVATION WING 2



SECTION A



SECTION B



SECTION C

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		33	3'-8"	X		ABUT. BODY TIE BARS
A502		41	6'-9"	X		ABUT. BODY HORIZ. TOP
A503		82	6'-3"	X		ABUT. BODY VERT.
A504		9	38-10"			ABUT. BODY HORIZ. F.F.
A805		9	26'-3"	X		ABUT. BODY HORIZ. B.F.
A806		9	26'-3"	X		ABUT. BODY HORIZ. B.F.
A407		25	4'-6"	X		ABUT. BODY VERT. BETW. SEATS
A408	X	22	10'-5"	X	X	WING 1 VERT. E.F. ◧
A409	X	14	11'-0"	X		WINGS 1 & 2 VERT. E.F.
A510	X	9	12'-6"	X		WING 1 HORIZ. F.F.
A811	X	9	14'-0"	X		WING 1 HORIZ. B.F.
A412	X	2	11'-1"			WING 1 HORIZ. E.F.
A413	X	2	9'-9"			WING 1 HORIZ. E.F.
A414	X	2	11'-2"	X		WING 1 DIAGONAL E.F.
A415	X	5	11'-4"	X		WING 1 HORIZ.
A416	X	14	5'-0"			WINGS 1 & 2 VERT.
A417	X	4	11'-1"			WING 1 HORIZ. E.F.
A418	X	5	9'-0"	X		WING 2 HORIZ.
A419	X	2	10'-6"	X		WING 2 DIAGONAL E.F.
A420	X	22	9'-3"	X	X	WING 2 VERT. E.F. ◧
A421	X	2	4'-11"			WING 2 HORIZ. E.F.
A422	X	2	6'-11"			WING 2 HORIZ. E.F.
A423	X	2	8'-11"			WING 2 HORIZ. E.F.
A424	X	2	10'-6"			WING 2 HORIZ. E.F.
A525	X	9	12'-6"	X		WING 2 HORIZ. F.F.
A826	X	9	14'-0"	X		WING 2 HORIZ. B.F.
A427		10	5'-0"			ABUT. BODY HORIZ. BETW. SEATS

NOTES:
1. BAR TABLE APPLIES TO WEST ABUTMENT ONLY.
2. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

◧ LENGTH SHOWN IS AN AVERAGE LENGTH TO BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

LEGEND

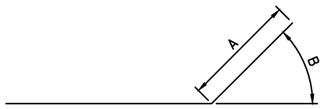
- (1) INDICATES WING NUMBER
- ◑ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6.
- ◎ PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.
- ◭ VERT. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.
- △ HORIZ. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND BETWEEN WINGS.
- ◨ OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED, POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE 18" RMW ON BACK FACE OF WING. COST OF RMW INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".
- ◹ 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.

F.F. = FRONT FACE B.F. = BACK FACE CL. = CLEAR

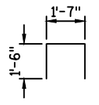
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
A408	2 SERIES OF 11	9'-11" TO 10'-11"
A420	2 SERIES OF 11	7'-8" TO 10'-10"

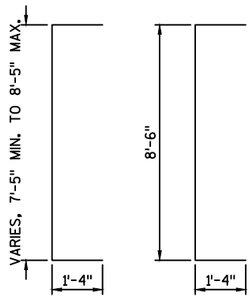
BUNDLE AND TAG EACH SERIES SEPARATELY



MARK	A	B
A805	1'-6"	45°
A806	1'-6"	45°
A510	11-0"	45°
A811	12'-6"	45°
A414	8'-1"	8°
A419	8'-6"	23°
A525	11'-0"	45°
A826	12'-6"	45°



A407



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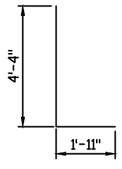

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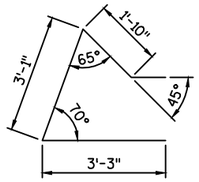

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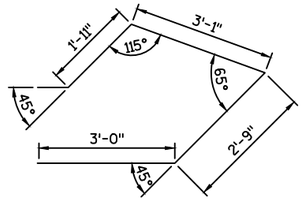

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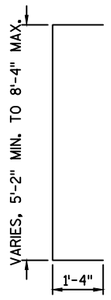

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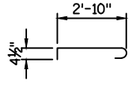

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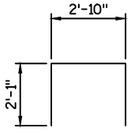

A502

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WEST ABUTMENT WING 2 DETAILS

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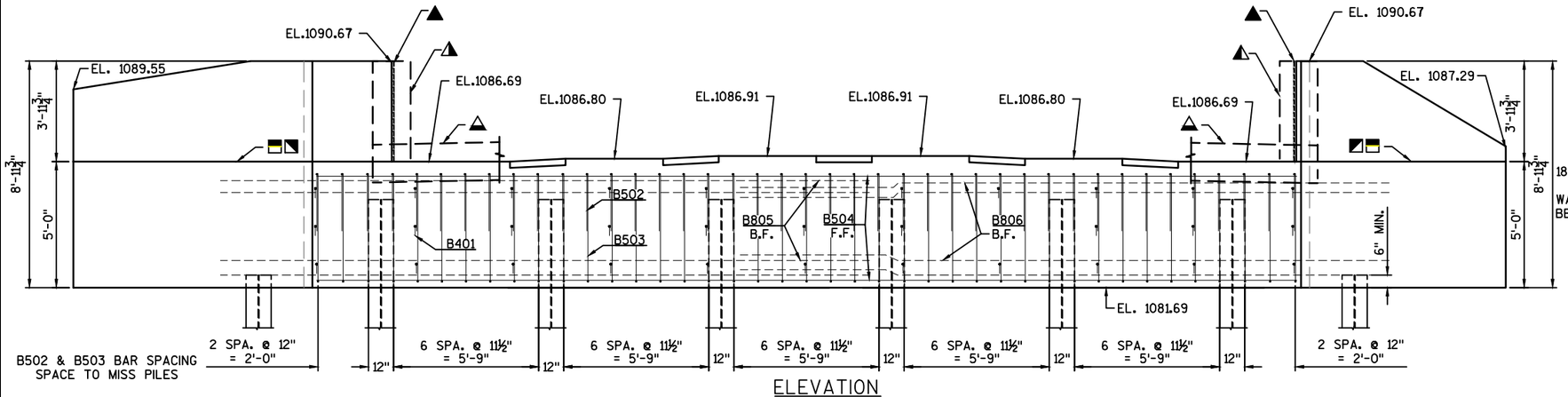

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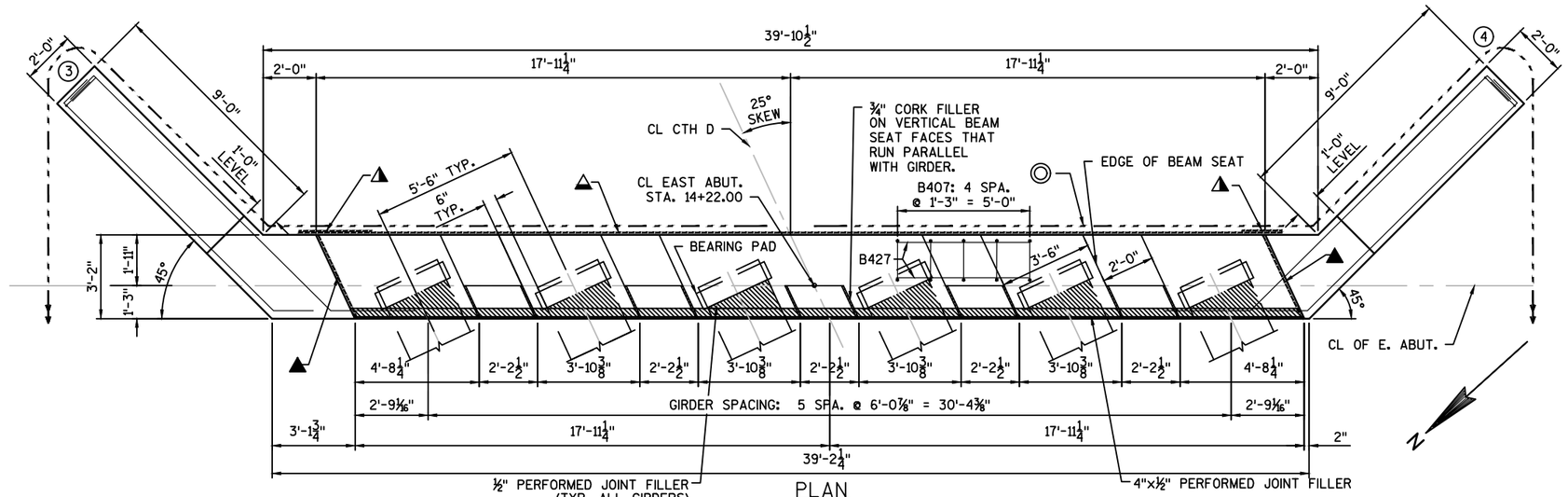

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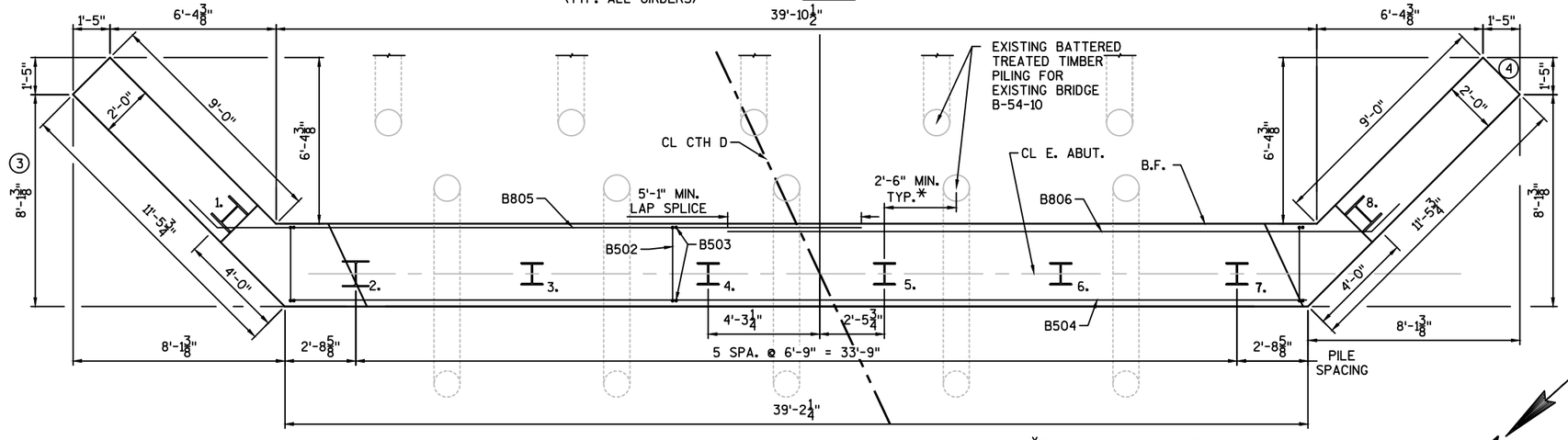
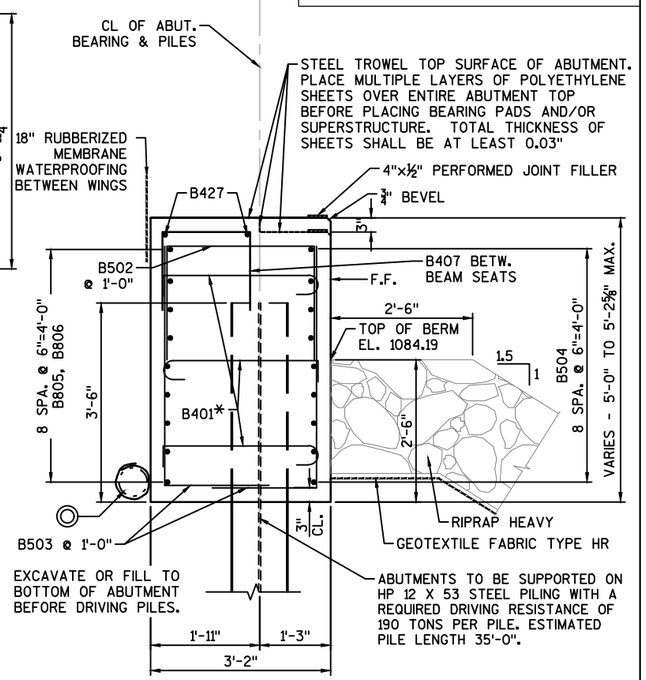


PILE LAYOUT

*FIELD ADJUST PROPOSED PILING IF NECESSARY TO MAINTAIN MIN. CLEARANCE PER DIRECTION OF THE ENGINEER.



TYP. SECTION THRU ABUTMENT BODY

*(3) B401 TIE BARS AT 4'-0" HORIZ. SPA. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

LEGEND

① INDICATES WING NUMBER

◎ PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.

▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

◭ VERT. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.

△ HORIZ. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND BETWEEN WINGS.

◨ OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED, POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE 18" RMW ON BACK FACE OF WING. COST OF RMW INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".

◥ 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.

F.F. = FRONT FACE B.F. = BACK FACE CL. = CLEAR

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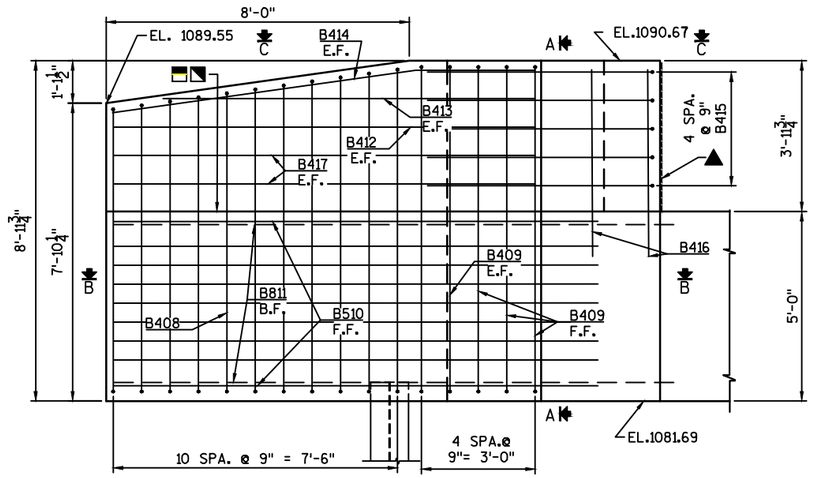
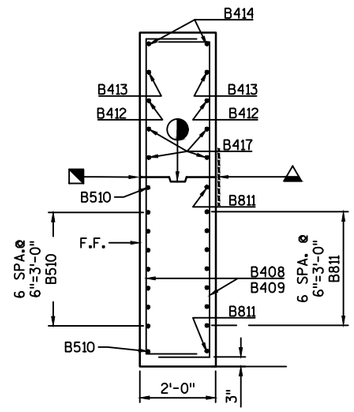
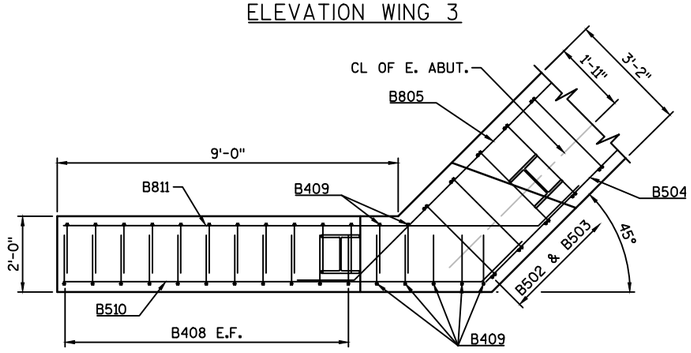


ELEVATION WING 3



SECTION A



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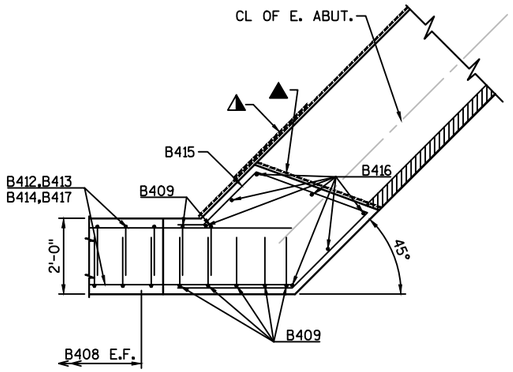


SECTION C

LEGEND

(1) INDICATES WING NUMBER

KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6.

PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.

1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

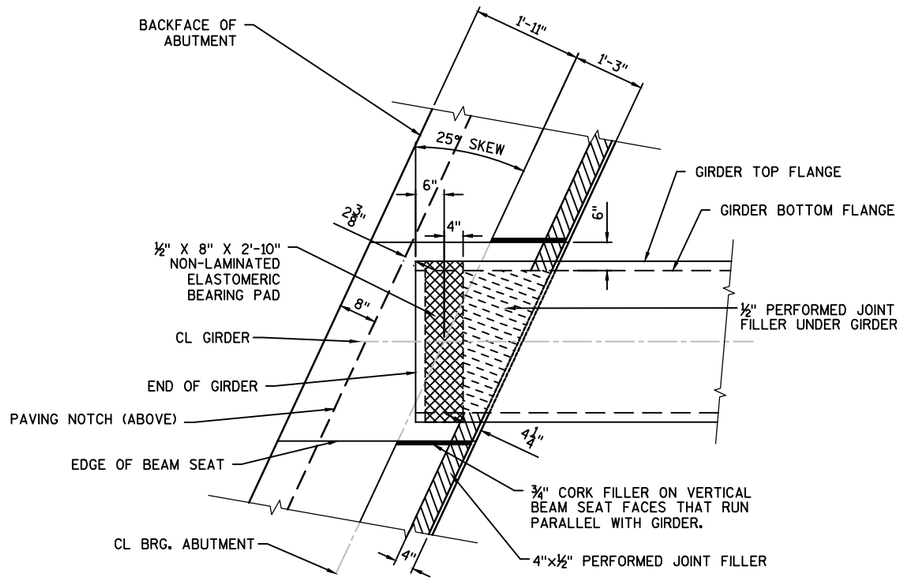
VERT. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.

HORIZ. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND BETWEEN WINGS.

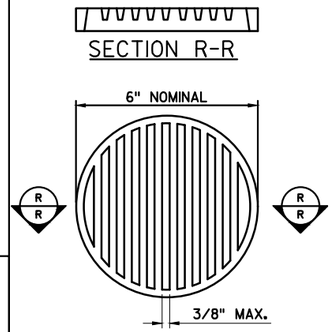
OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED, POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE 18" RMW ON BACK FACE OF WING. COST OF RMW INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".

3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.

F.F. = FRONT FACE B.F. = BACK FACE CL. = CLEAR



BEARING PAD DETAIL



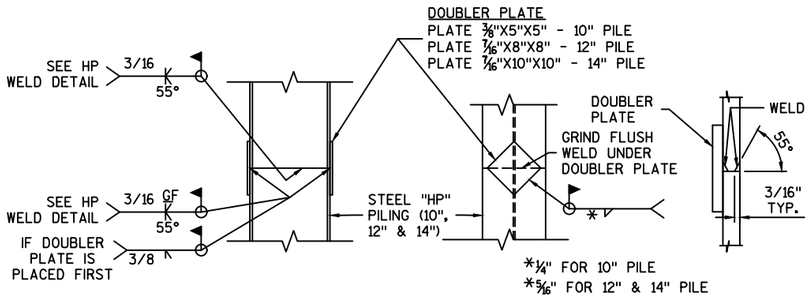
RODENT SHIELD

DIMENSIONS ARE APPROX.. THE GRATE IS SIZED TO FIT INTO PIPE COUPLING.

RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO.10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



H PILE SPLICE DETAIL HP WELD DETAIL

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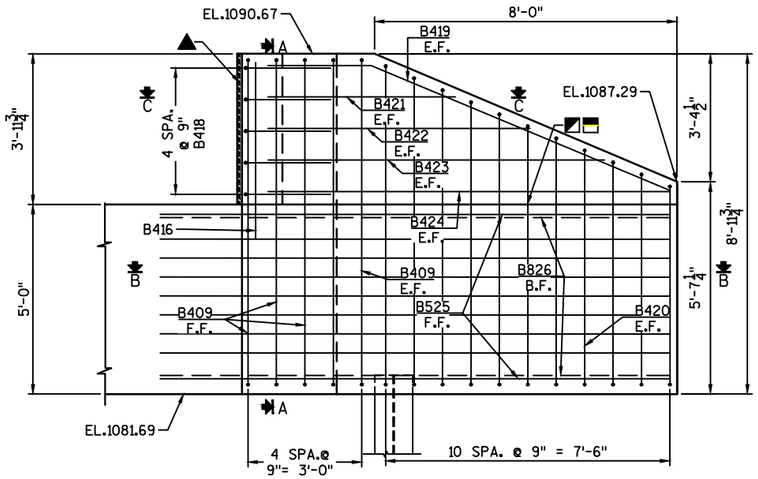
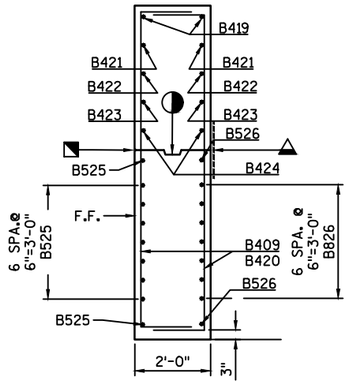
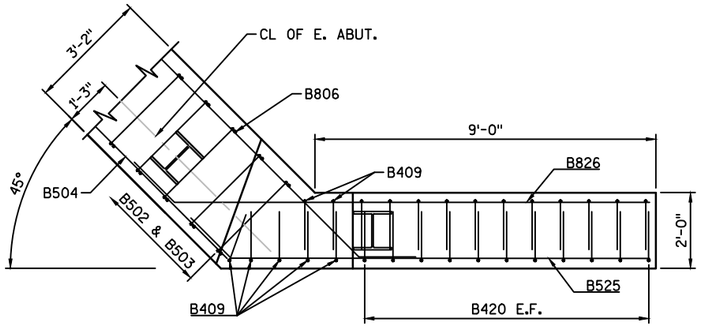


ELEVATION WING 4



SECTION A



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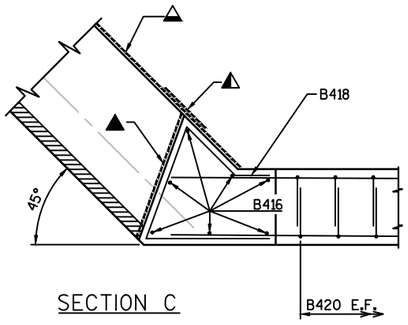


SECTION C

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401		33	3'-8"	X		ABUT. BODY TIE BARS
B502		41	6'-9"	X		ABUT. BODY HORIZ. TOP
B503		82	6'-3"	X		ABUT. BODY VERT.
B504		9	38-10"			ABUT. BODY HORIZ. F.F.
B805		9	26'-3"	X		ABUT. BODY HORIZ. B.F.
B806		9	26'-3"	X		ABUT. BODY HORIZ. B.F.
B407		25	4'-6"	X		ABUT. BODY VERT. BETW. SEATS
B408	X	22	10'-5"	X	X	WING 3 VERT. E.F. ◧
B409	X	14	11'-0"	X		WINGS 3 & 4 VERT. E.F.
B510	X	9	12'-6"	X		WING 3 HORIZ. F.F.
B811	X	9	14'-0"	X		WING 3 HORIZ. B.F.
B412	X	2	11'-1"			WING 3 HORIZ. E.F.
B413	X	2	9'-9"			WING 3 HORIZ. E.F.
B414	X	2	11'-2"	X		WING 3 DIAGONAL E.F.
B415	X	5	11'-4"	X		WING 3 HORIZ.
B416	X	14	5'-0"			WINGS 3 & 4 VERT.
B417	X	4	11'-1"			WING 3 HORIZ. E.F.
B418	X	5	9'-0"	X		WING 4 HORIZ.
B419	X	2	10'-6"	X		WING 4 DIAGONAL E.F.
B420	X	22	9'-3"	X	X	WING 4 VERT. E.F. ◧
B421	X	2	4'-11"			WING 4 HORIZ. E.F.
B422	X	2	6'-11"			WING 4 HORIZ. E.F.
B423	X	2	8'-11"			WING 4 HORIZ. E.F.
B424	X	2	10'-6"			WING 4 HORIZ. E.F.
B525	X	9	12'-6"	X		WING 4 HORIZ. F.F.
B826	X	9	14'-0"	X		WING 4 HORIZ. B.F.
B427		10	5'-0"			ABUT. BODY HORIZ. BETW. SEATS

NOTES:
1. BAR TABLE APPLIES TO EAST ABUTMENT ONLY.
2. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

◧ LENGTH SHOWN IS AN AVERAGE LENGTH TO BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

LEGEND

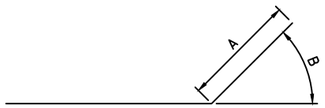
- (1) INDICATES WING NUMBER
- ◑ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6.
- ◎ PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.
- ◭ VERT. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.
- △ HORIZ. 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING (RMW), EXTEND BETWEEN WINGS.
- ◘ OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED, POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE 18" RMW ON BACK FACE OF WING. COST OF RMW INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".
- ◹ 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.

F.F. = FRONT FACE B.F. = BACK FACE CL. = CLEAR

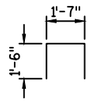
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
B408	2 SERIES OF 11	9'-11" TO 10'-11"
B420	2 SERIES OF 11	7'-8" TO 10'-10"

BUNDLE AND TAG EACH SERIES SEPARATELY



MARK	A	B
B805	1'-6"	45°
B806	1'-6"	45°
B510	11-0"	45°
B811	12'-6"	45°
B414	8'-1"	8°
B419	8'-6"	23°
B525	11'-0"	45°
B826	12'-6"	45°



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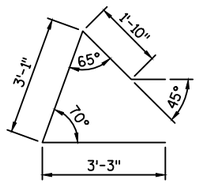

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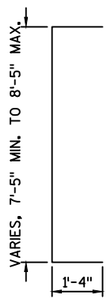

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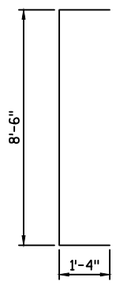

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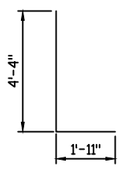

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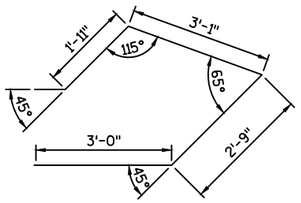

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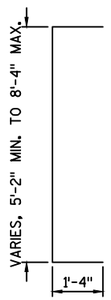

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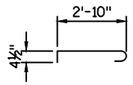

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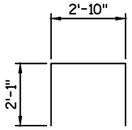

B502

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EAST ABUTMENT WING 4 DETAILS

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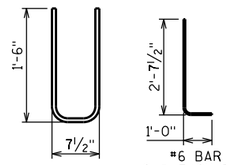
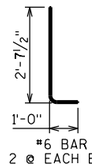
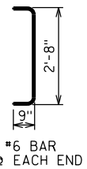
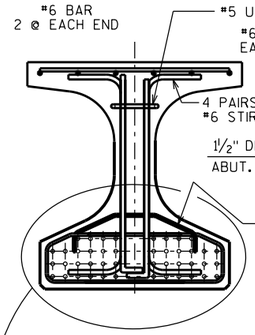
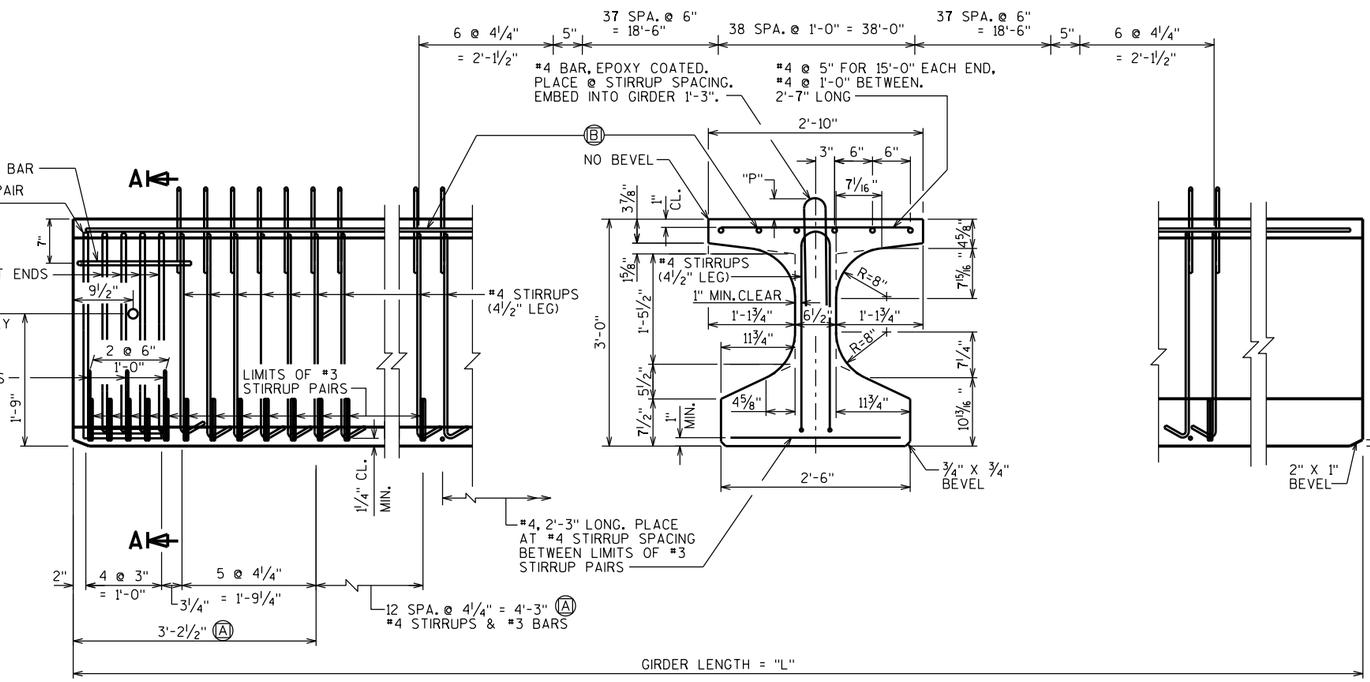








SECTION A-A



NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR *4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON ACCEPTANCE OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

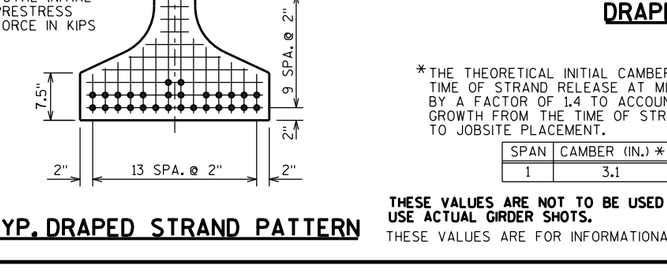
PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

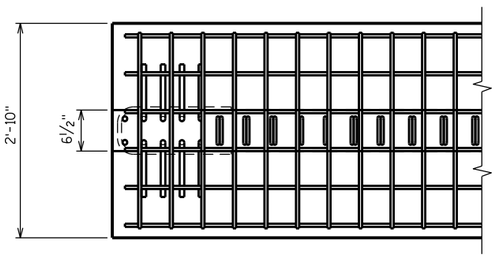
SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

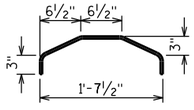
Ⓑ 6 *4 BARS, FULL LENGTH, MIN. LAP = 1'-11"

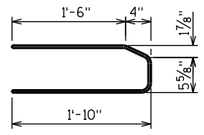


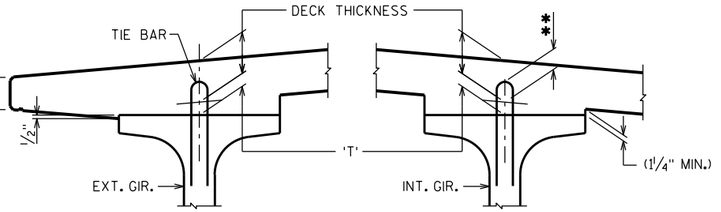
BOTTOM FLANGE



TOP FLANGE







DECK HAUNCH DETAIL

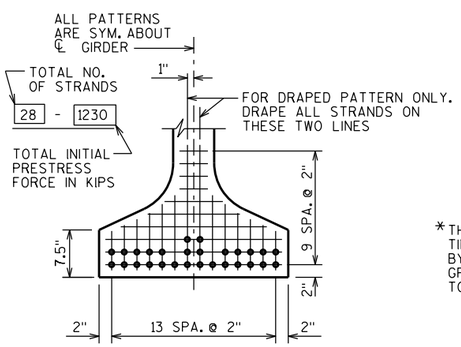
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

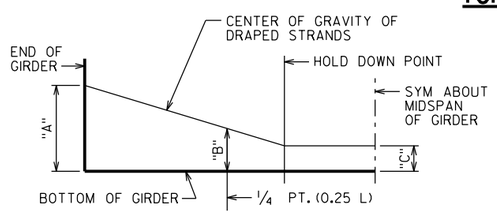
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

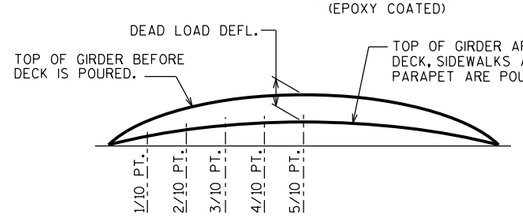
NOTE: AN AVERAGE HAUNCH ('T') OF 2⅞" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



TYP. DRAPED STRAND PATTERN



DRAPED STRAND PROFILE



DEAD LOAD DEFLECTION DIAGRAM

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.1

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (P.S.I.)	"P" (IN.) 1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1 & 6	95	0.5	0.9	1.2	1.4	1.5	1.4	1.2	0.9	0.5	8000	7	7	7	0.6	28	6800	32	11	14	4
1	2-5	95	0.5	0.9	1.3	1.5	1.6	1.5	1.3	0.9	0.5	8000	7	7	7	0.6	28	6800	32	11	14	4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

DRAWN BY JAF | PLANS CK'D. SKP

36W" PRESTRESSED GIRDER DETAILS

SHEET 10 OF 14
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SCALE =

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NOTES

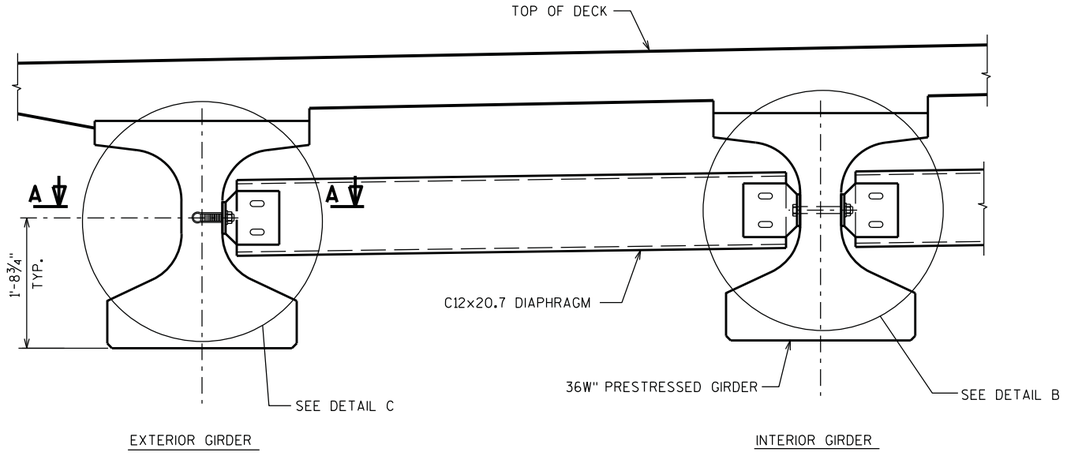
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-54-138", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

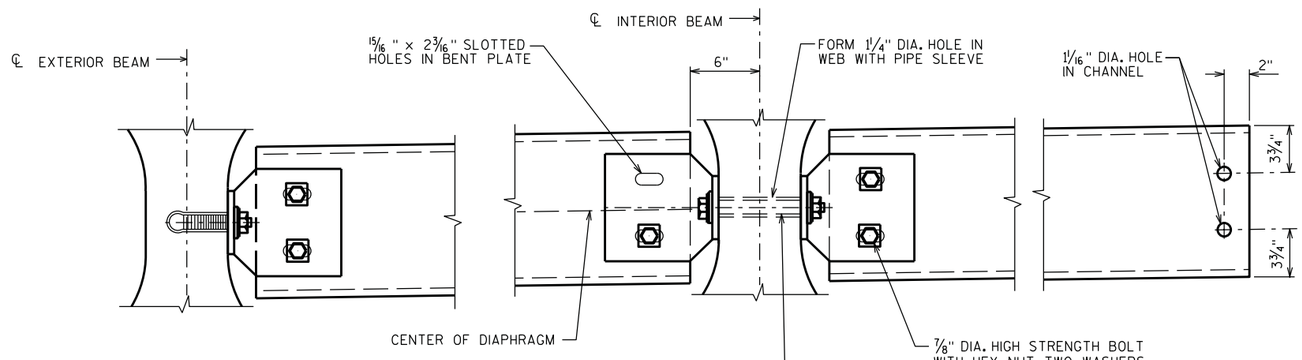
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

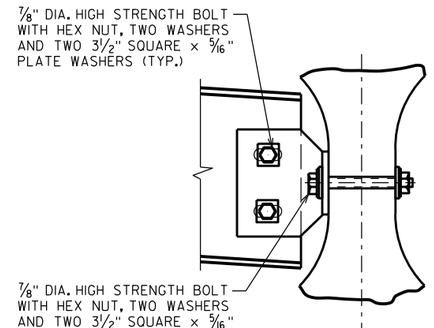


PART TRANSVERSE SECTION AT DIAPHRAGM

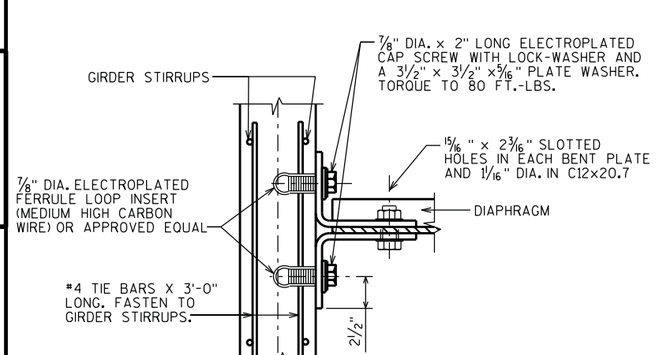


DETAIL C

DETAIL B

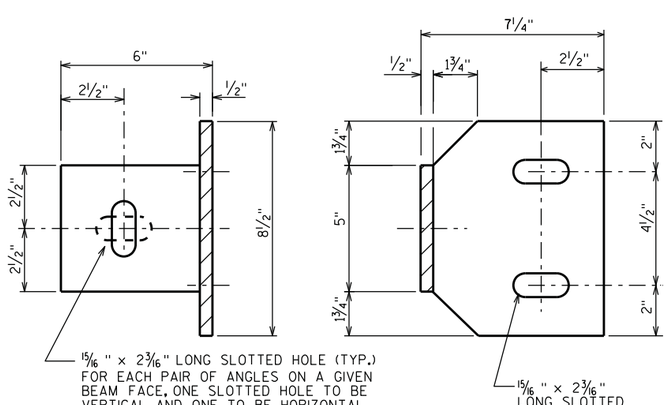


SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°



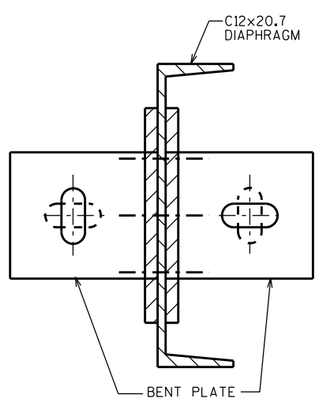
SECTION A-A

(FOR EXTERIOR ATTACHMENT)



BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

DRAWN BY JAF | PLANS CK'D. SP

STEEL DIAPHRAGM

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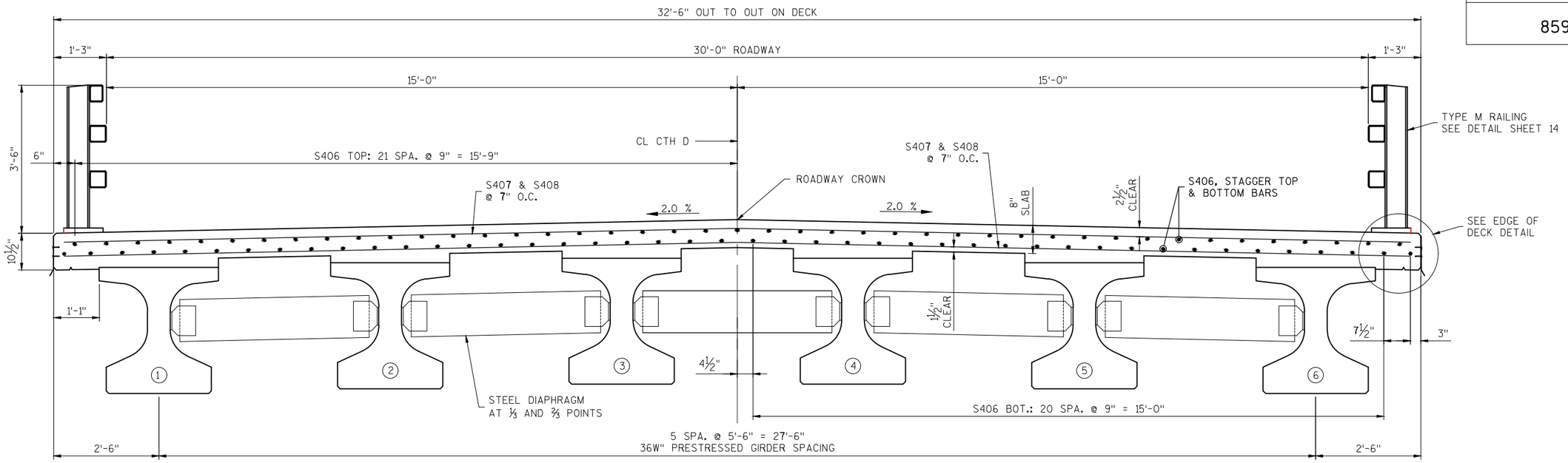


GENERAL NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" ℄. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" ℄.

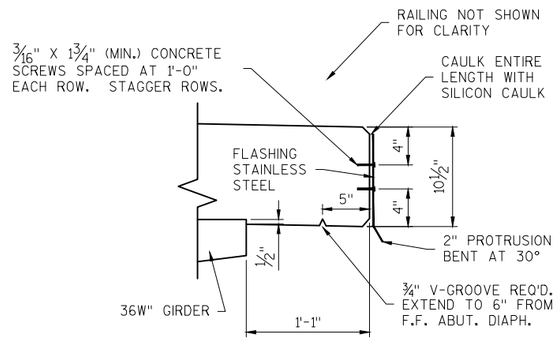
TRANSVERSE BARS SHALL BE PLACED PERPENDICULAR TO THE ℄ OF GIRDERS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND C/L.

CROSS SECTION THRU BRIDGE

LOOKING EAST



NOTES

THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK, AND 3/16" CONCRETE SCREWS.

FLASHING TO BE INSTALLED AFTER PROTECTIVE SURFACE TREATMENT APPLICATION.

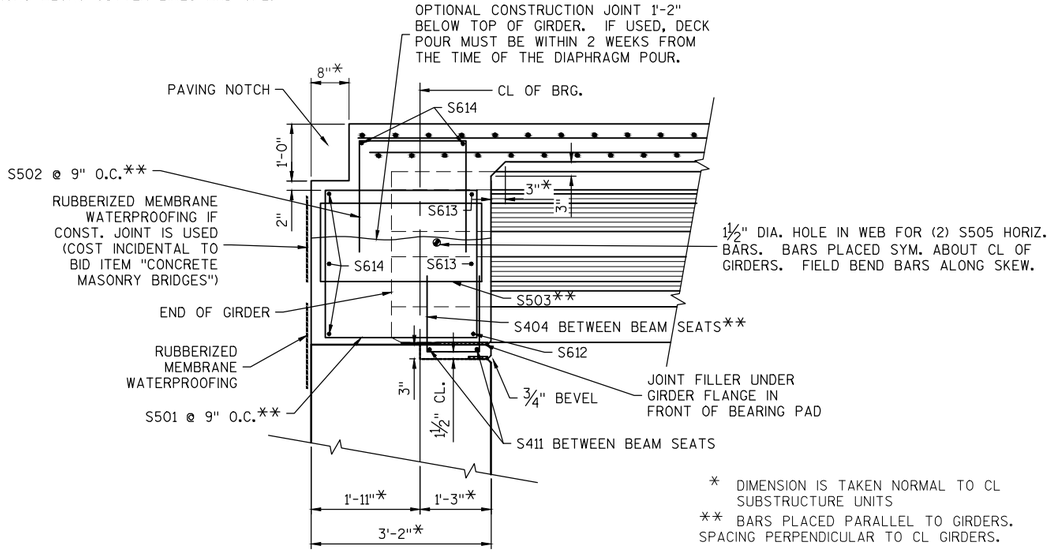
CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

EXTEND FLASHING TO B.F. ABUTMENT DIAPHRAGM.

TOP OF FLASHING TO BEGIN APPROX. 1-INCH BELOW TOP OF DECK/SLAB SURFACE.

THE FLASHING IS TO BE CONSTANT HEIGHT BASED ON THE THINNEST SLAB DEPTH OVER THE BRIDGE LENGTH.

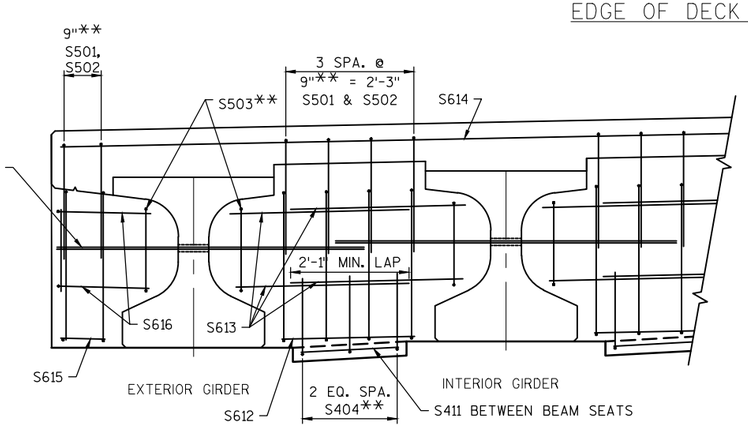
EDGE OF DECK DETAIL



* DIMENSION IS TAKEN NORMAL TO CL SUBSTRUCTURE UNITS

** BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO CL GIRDERS.

SECTION THROUGH DIAPHRAGM AT ABUTMENT



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

DRAWN BY DAN | PLANS CK'D. JAF

SUPERSTRUCTURE

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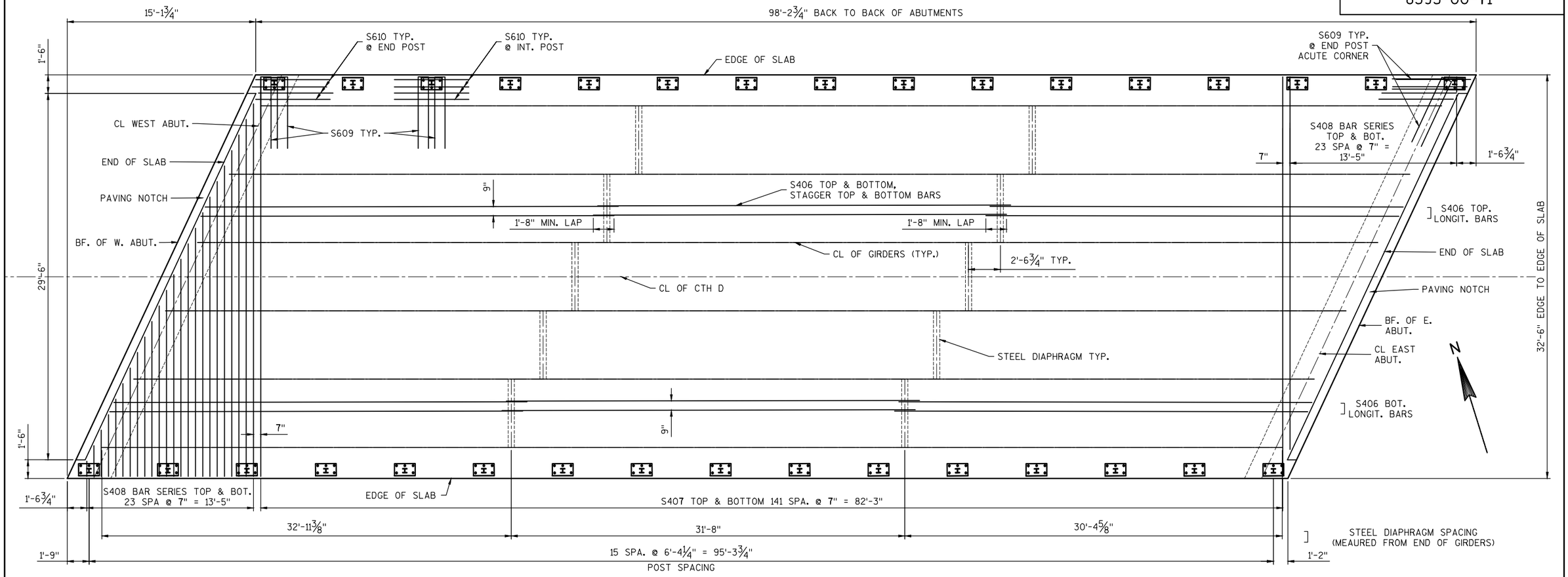
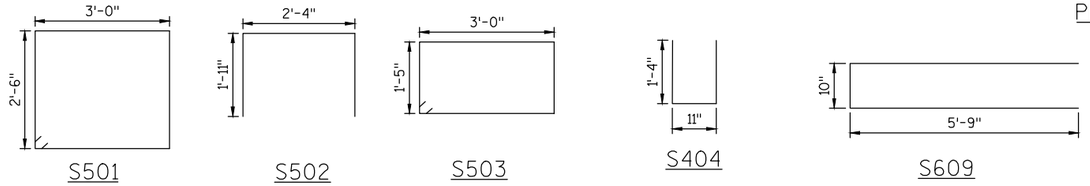


PLAN

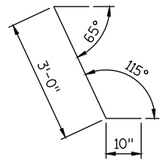


TOP OF DECK ELEVATIONS

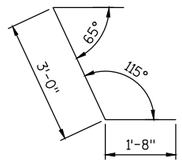
LOCATION	C/L BRG. W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	C/L BRG. E. ABUT.
N. EDGE OF DECK	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67
CL GIRDER 1	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72
CL GIRDER 2	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83
CL GIRDER 3	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94
CL CROWN CTH D	1091.00	1091.00	1091.00	1091.00	1091.00	1091.00	1091.00	1091.00	1091.00	1091.00	1091.00
CL GIRDER 4	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94	1090.94
CL GIRDER 5	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83	1090.83
CL GIRDER 6	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72	1090.72
S. EDGE OF DECK	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67	1090.67

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONC. (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION.



S615



S616

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	48	11'-8"	X		DIAPHRAGM @ ABUTS. - STIRRUP
S502	X	48	5'-11"	X		DIAPHRAGM @ ABUTS. - VERTICAL
S503	X	24	9'-6"	X		DIAPHRAGM @ ABUTS. - GIRDER STIRRUP
S404	X	30	3'-5"	X		DIAPHRAGM @ ABUTS. - VERTICAL
S505	X	24	6'-0"			DIAPHRAGM @ ABUTS. - THRU GIRDER
S406	X	261	33'-3"			SLAB, TOP & BOTTOM, LONGIT.
S407	X	284	32'-0"			SLAB, TOP & BOTTOM, TRANSVERSE
S408	X	96	15'-6"		X	SLAB, TOP & BOTTOM, TRANSVERSE ◧
S609	X	64	12'-0"	X		SLAB, TRANS., 2 PER RAIL POST
S610	X	128	6'-0"			SLAB, LONG., 4 PER RAIL POST
S411	X	20	1'-10"			DIAPHRAGM @ ABUTS. - HORIZ.
S612	X	10	2'-7"			DIAPHRAGM @ ABUTS. - HORIZ.
S613	X	40	3'-2"			DIAPHRAGM @ ABUTS. - HORIZ.
S614	X	10	35'-5"			DIAPHRAGM @ ABUTS. - HORIZ.
S615	X	4	4'-4"	X		DIAPHRAGM @ ABUTS. - HORIZ. AT END
S616	X	8	6'-0"	X		DIAPHRAGM @ ABUTS. - HORIZ. AT END

NOTES:
-THE FIRST OR FIRST TWO DIGITS THE OF A BAR MARK SIGNIFIES BAR SIZE.
-DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
-EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT.

◧ LENGTH SHOWN IS AN AVERAGE LENGTH TO BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
S408	4 SERIES OF 24	1'-2" TO 29'-10"

BUNDLE AND TAG EACH SERIES SEPARATELY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-0138

DRAWN BY DAN | PLANS CK'D. JAF

SUPERSTRUCTURE DETAILS

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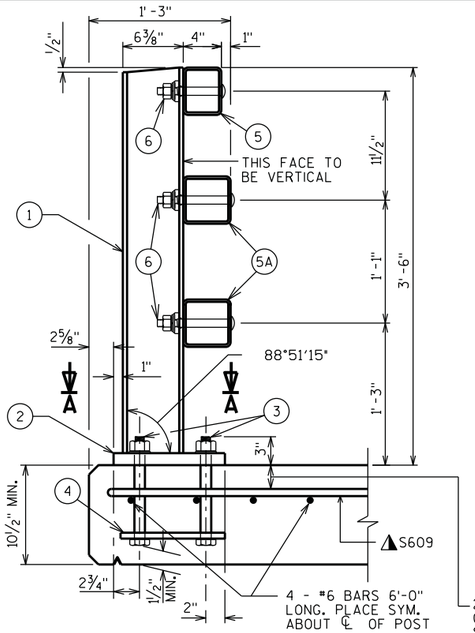
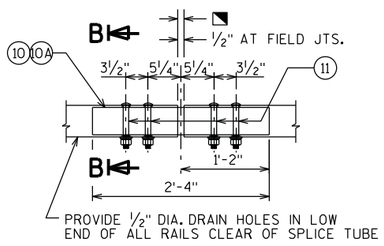
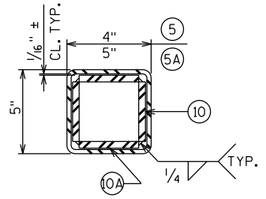


SECTION THRU RAILING ON DECK

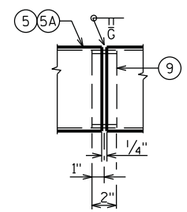
2½" FOR SLABS ON GIRDERS; FOR OTHER STRUCTURES, PLACE BELOW TOP MAT SLAB REINFORCEMENT.



FIELD ERECTION JOINT DETAIL

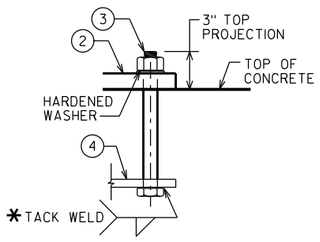


SECTION B-B

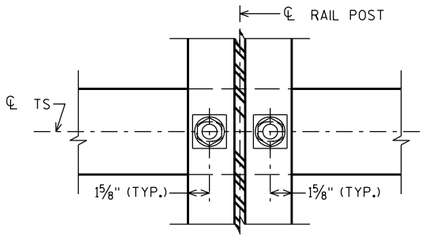


SHOP RAIL SPLICE DETAIL

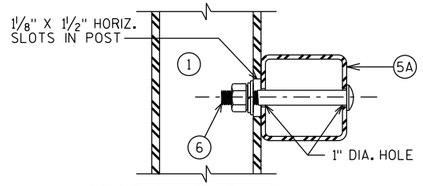
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



ANCHOR BOLTS



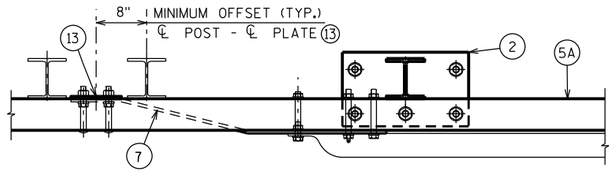
SECTION THRU POST WEB



SECTION THRU RAIL

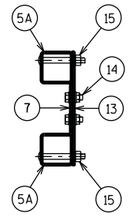
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



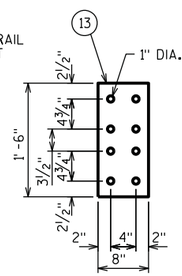
TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



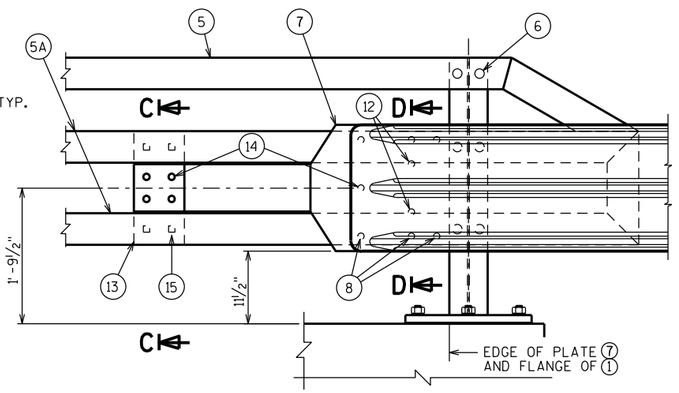
SECTION C-C

SECTION A-A



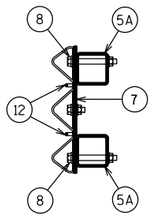
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

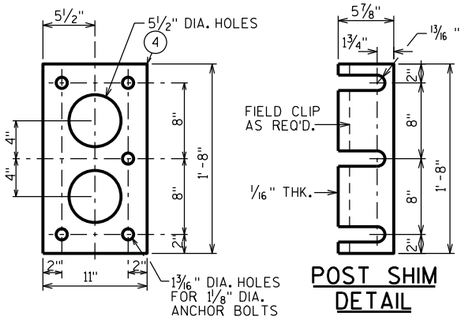


DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT



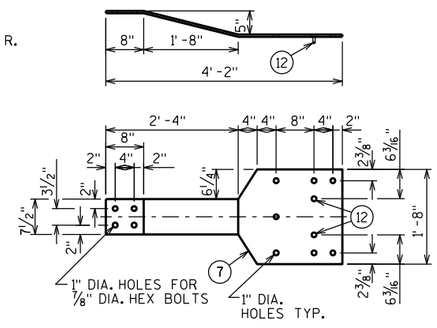
SECTION D-D



ANCHOR PLATE

AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT

PART ELEVATION OF RAILING

LEGEND

1. W6 x 25 WITH 1⅛" X 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1¼" × 11¾" × 1'-8" WITH 1⅝" X 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
3. ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
4. ⅝" × 11" × 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 × 4 × 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 × 5 × 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1⅝" X 1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16 " X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15/16 " X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
12. ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.

△ TIE TO TOP MAT OF STEEL.

* FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

◹ RDWY. OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT & ½" OPENING FOR A1 ABUTMENT.

STATE PROJECT NUMBER

8595-00-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-54-138

DRAWN BY JAF | PLANS CK'D. SP

TUBULAR STEEL RAILING TYPE 'M'

SHEET 14 OF 14

55

8

8

SCALE =

CTH D

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/ UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25 NOTE 4	MASS ORDINATE NOTE 5
10+98	0	7.80	0.00	0.00	0	0	0	0	0	0
11+45	47	7.13	0.00	0.00	13	0	0	13	0	13
11+93	48	15.17	0.00	8.28	20	0	7	33	9	24
12+30	37	7.80	0.59	6.28	16	0	10	49	21	28
12+43	13	15.76	0.55	5.82	6	1	3	55	25	29
12+55	12	18.54	2.93	27.53	8	1	7	63	34	27
12+68	13	18.72	2.75	31.56	9	1	14	72	51	18
12+75	7	49.45	8.82	32.72	9	1	8	81	61	16
12+80	5	48.08	8.80	35.24	9	2	6	90	69	15
12+93	13	45.95	8.74	28.64	23	4	15	113	88	16
13+06	13	43.06	8.67	16.75	21	4	11	134	101	19
13+26	20				21	6	14	155	120	15
BRIDGE								155	120	15
14+24	0				0	0	0	155	120	15
14+44	20	41.38	8.95	92.27	30	8	68	185	206	-49
14+56	12	41.55	8.57	45.25	18	4	31	203	245	-74
14+71	15	45.56	8.54	40.15	24	5	24	227	275	-85
14+75	4	48.12	8.52	54.56	7	2	7	234	283	-88
14+81	6	17.93	2.50	50.17	7	1	12	241	298	-97
14+96	15	29.21	0.62	24.83	13	1	21	254	325	-112
15+06	10	9.50	0.62	24.89	7	1	9	261	336	-117
15+21	15	9.33	0.62	23.31	5	1	13	266	352	-129
15+67	46	16.34	0.59	15.27	22	1	33	288	393	-149
16+28	61	17.81	0.00	0.07	39	1	17	327	415	-133
16+33	5	10.12	0.00	0.06	3	0	0	330	415	-130
				COLUMN TOTAL	330	45	330			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED FILL	(FILL) x (FILL FACTOR)
5 - MASS ORDINATE	[CUT - SALVAGED PAVT - (FILL x FILL FACTOR)]

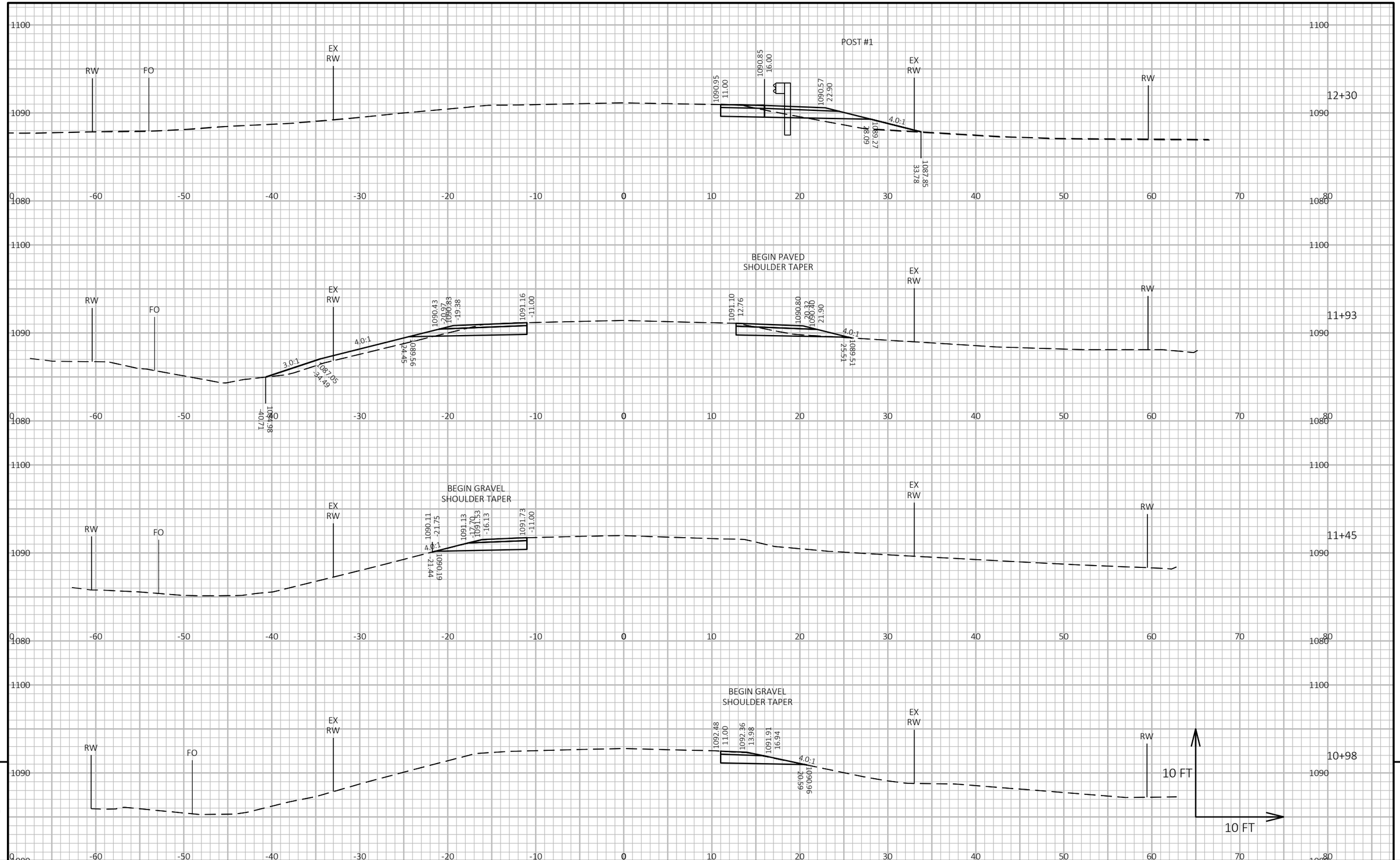
9

9

PROJECT NO: 8595-00-71 | HWY: CTH D | COUNTY: RUSK | EARTHWORK DATA | SHEET 56 | E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\090100_EW.DWG
LAYOUT NAME - EARTHWORK DATA

PLOT DATE : 10/23/2020 12:34 PM PLOT BY : JACOB FRIBERG PLOT NAME : PLOT SCALE : 1" = 1'

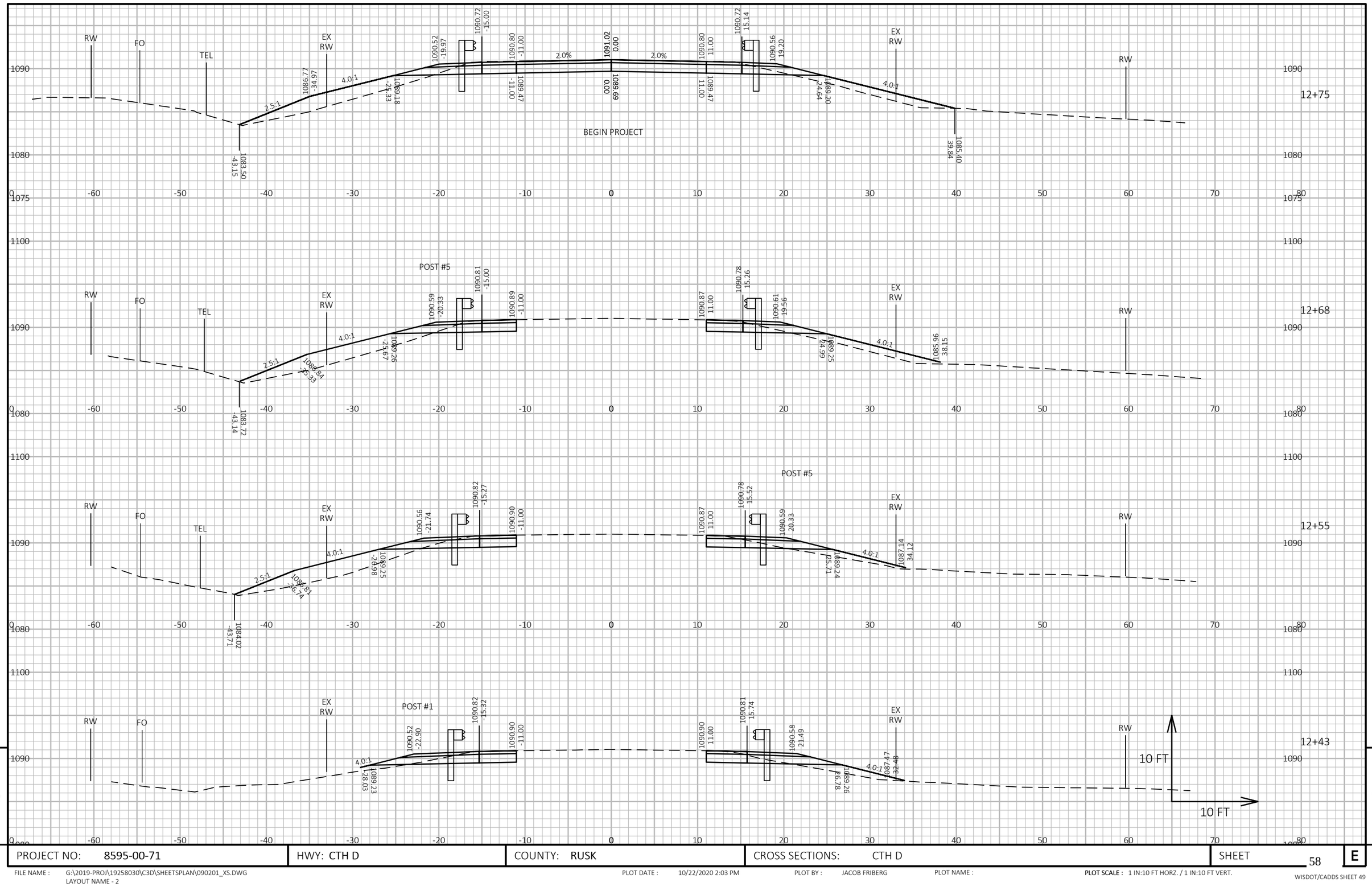


PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	CROSS SECTIONS: CTH D	SHEET 57	E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 1

PLOT DATE : 10/22/2020 2:03 PM PLOT BY : JACOB FRIBERG PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	CROSS SECTIONS: CTH D	SHEET 58	E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 2

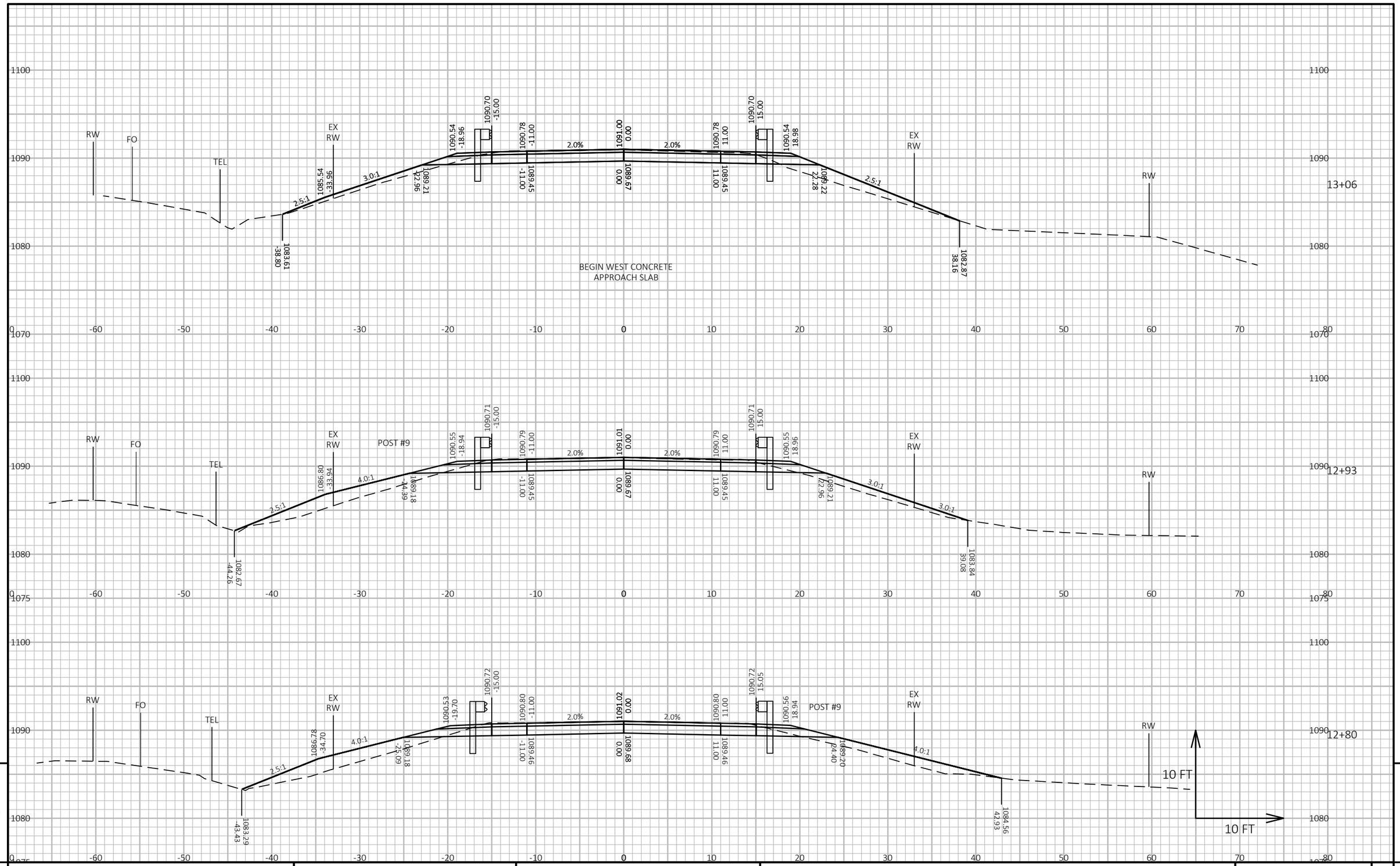
PLOT DATE : 10/22/2020 2:03 PM

PLOT BY : JACOB FRIBERG

PLOT NAME :

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

WISDOT/CADDS SHEET 49

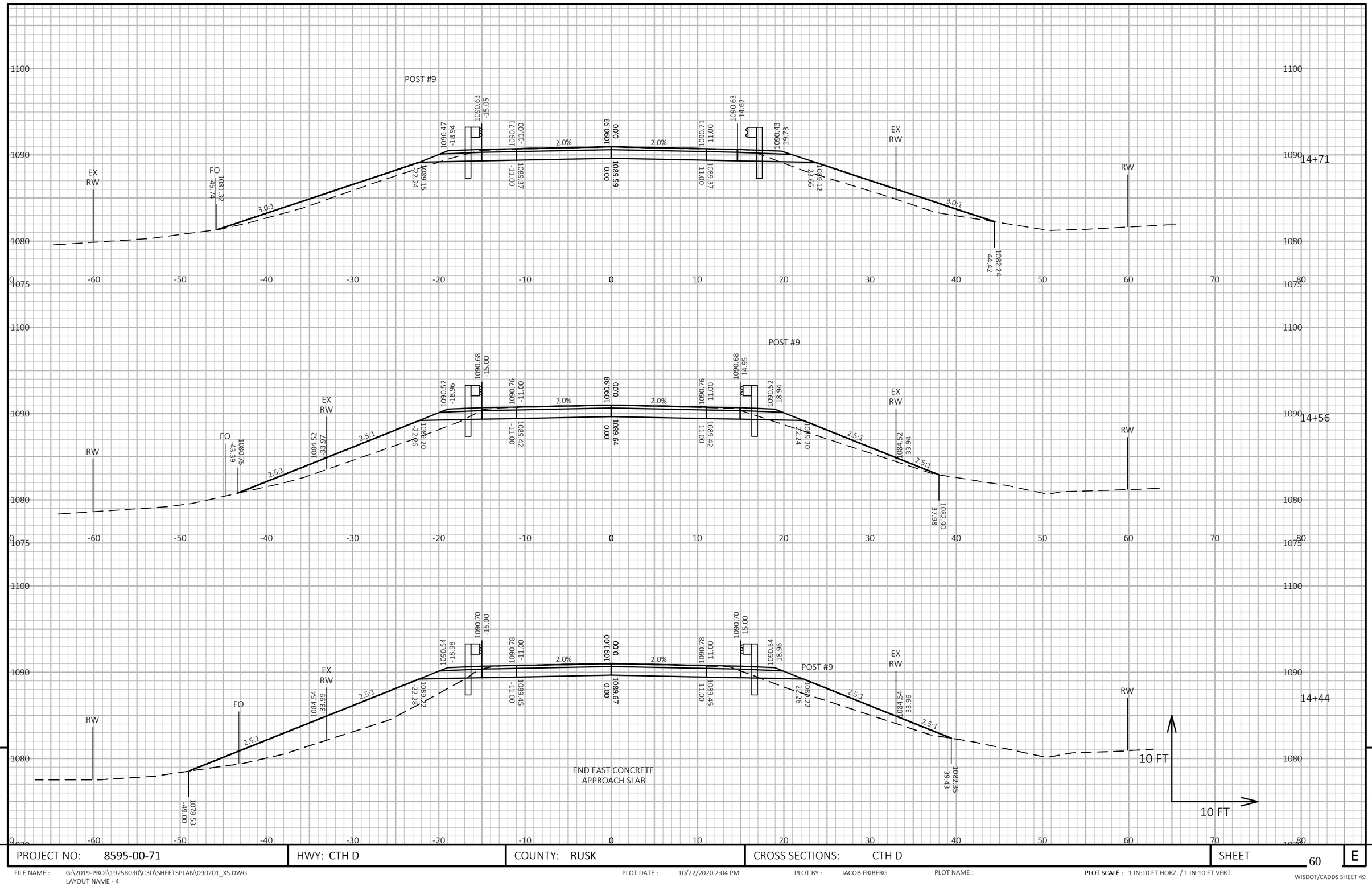


PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	CROSS SECTIONS: CTH D	SHEET 59	E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 3

PLOT DATE : 10/22/2020 2:03 PM PLOT BY : JACOB FRIBERG PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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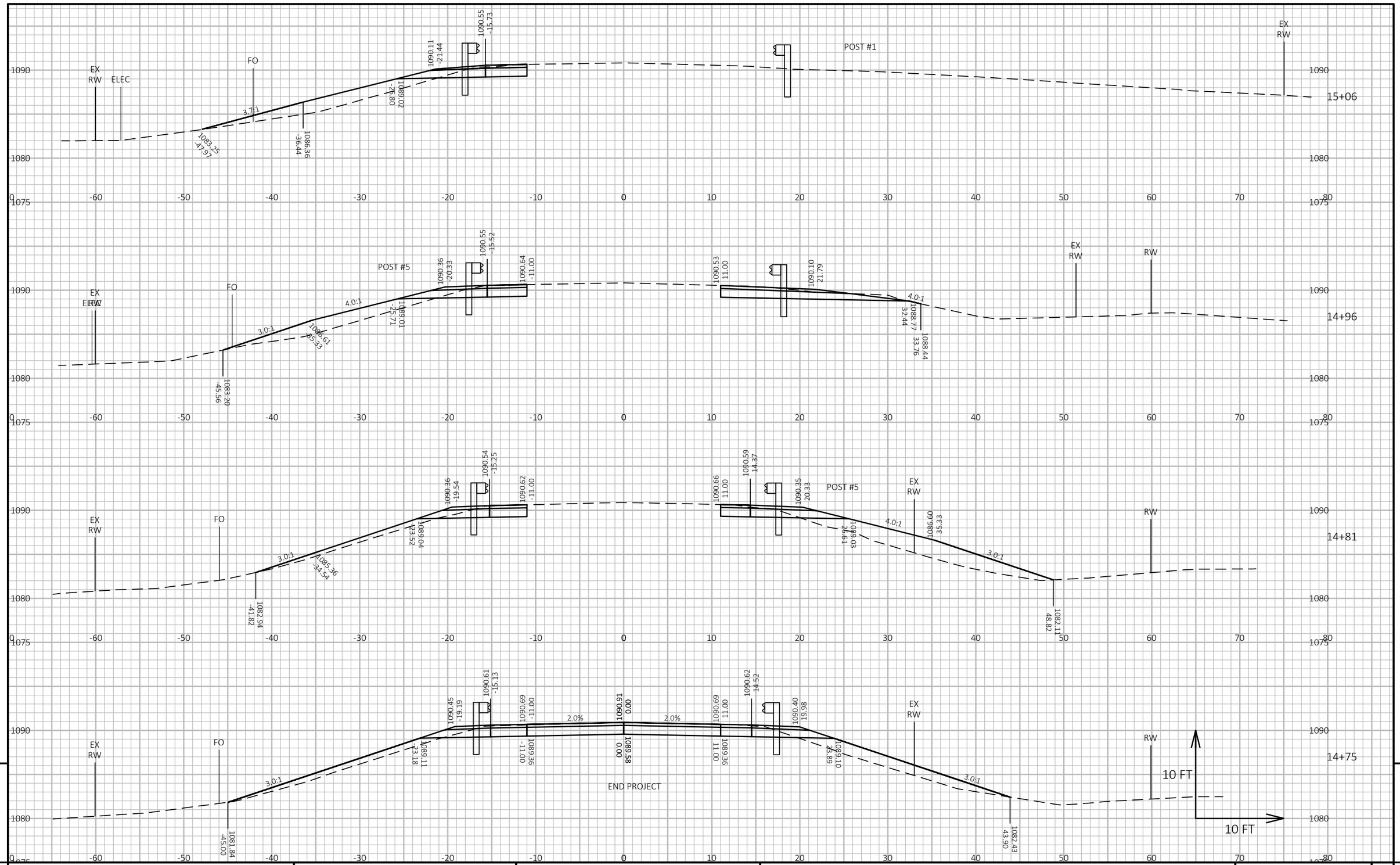
FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 4

PLOT DATE : 10/22/2020 2:04 PM PLOT BY : JACOB FRIBERG PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	CROSS SECTIONS: CTH D	SHEET 61	E

FILE NAME : G:\2019-PROJ\19258030\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 5

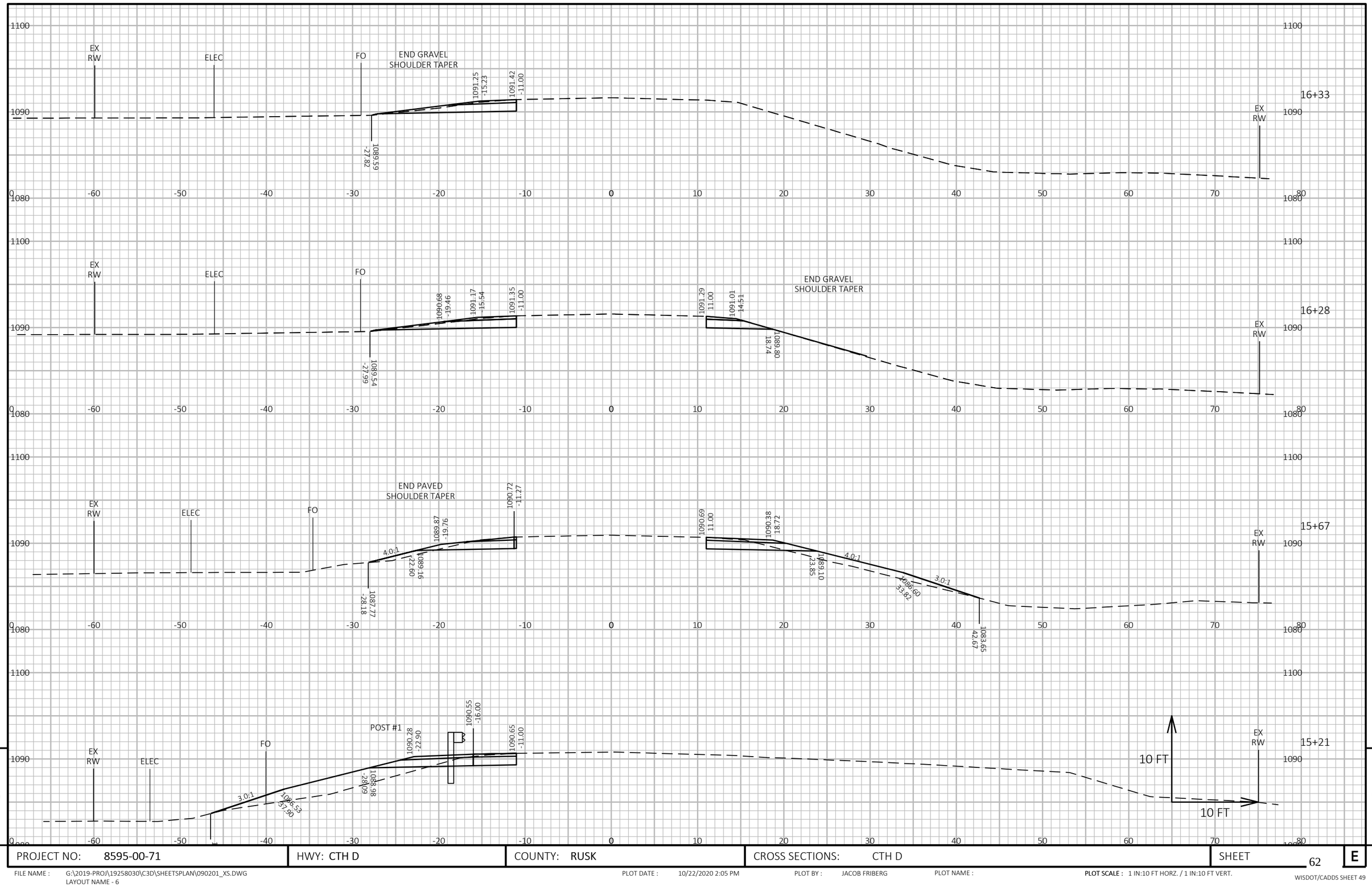
PLOT DATE : 10/22/2020 2:04 PM

PLOT BY : JACOB FRIBERG

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 8595-00-71	HWY: CTH D	COUNTY: RUSK	CROSS SECTIONS: CTH D	SHEET 62	E

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LAYOUT NAME - 6

PLOT DATE : 10/22/2020 2:05 PM

PLOT BY : JACOB FRIBERG

PLOT NAME :

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

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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