SUP

MAY 2020

PROJECT ID: 8844-00-71

WITH: N/A

COUNTY: BURNETT

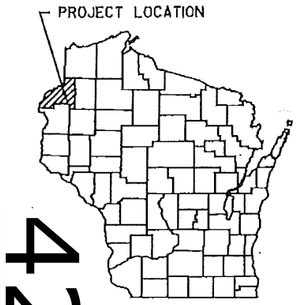
42

ORDER OF SHEETS

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

TOTAL SHEETS = 52

PROJECT LOCATION



N

DESIGN DESIGNATION 8844-00-71

A.A.D.T.	2020	=	245
A.A.D.T.	2040	=	270
D.H.V.		=	33
D.D.		=	50/50
T.		=	6%
DESIGN SPEED		=	55 MPH
ESALS		=	37,000

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
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SIREN - CTH X

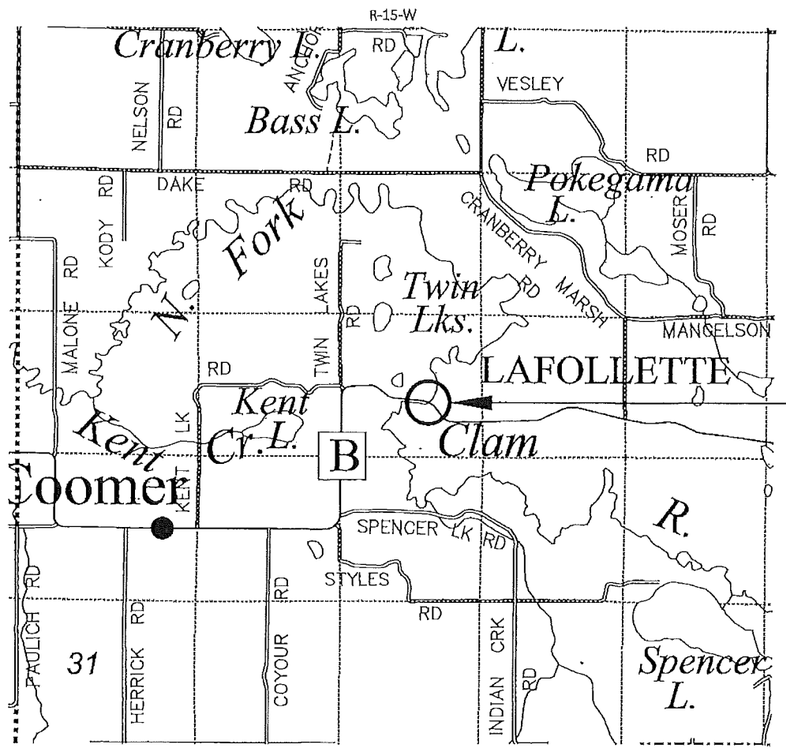
N FK CLAM RIVER BRIDGE B-07-0005

CTH B

BURNETT COUNTY

STATE PROJECT NUMBER
8844-00-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8844-00-71	———	—



LAYOUT

SCALE 0 1.0 MI

TOTAL NET LENGTH OF CENTERLINE = 0.042 MI

BEGIN CONSTRUCTION
STA 6+28.87

BEGIN PROJECT
STA 8+90.00
Y = 144684.781
X = 269597.049

STRUCTURE B-07-0005
STA 10+00.00

END PROJECT
STA 11+10.00
Y = 144593.674
X = 269796.571

END CONSTRUCTION
STA 12+72.59

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BURNETT 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 (2001). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR
COUNTY OF
BURNETT

DATE: 2/3/2020 (Signature)

Highway Commissioner (Title)

ORIGINAL PLANS PREPARED BY

Cedar corporation

MENOMONIE - MADISON - GREEN BAY - CEDARBURG
www.cedarcorp.com
800-472-7372

WISCONSIN
TROY L PETERSON
E-31102
MENOMONIE
WI
PROFESSIONAL ENGINEER

2-3-2020

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CEDAR CORPORATION
Designer	CEDAR CORPORATION
Project Manager	MATTHEW VAN NATTA
Regional Examiner	WISDOT
Regional Supervisor	WISDOT

APPROVED FOR THE DEPARTMENT

DATE: 2/4/2020 (Signature)

E

FILE NAME: I:\CLIENTS-MENO\W\W3901 WDOT NW REGION - SUPERIOR\006 8844-00-01 CTH X, N FK CLAM RIVER BRIDGE, SIREN B-07-0005, CTH B BURNETT CO\88440001\SHEETSPLAN\010101-TI.DWG PLOT DATE: 1/30/2020 5:47 PM PLOT BY: NICK THOMPSON PLOT NAME:

GENERAL NOTES

THE BENCHMARK IS REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), BURNETT COUNTY.

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

SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. SILT FENCE TO BE PLACED PRIOR TO CONSTRUCTION.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

THE 4" OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2.25" LOWER LAYER AND A 1.75" UPPER LAYER.

BEARINGS REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), BURNETT COUNTY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE SALVAGED TOPSOIL, FERTILIZED, SEEDED, TEMPORARY SEEDED, AND COVERED WITH EROSION MAT OR AS DIRECTED BY THE ENGINEER. USE SEE MIX NO. 10.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE OF THE SLOPE INTERCEPTS. DO NOT STORE OR STOCKPILE MATERIALS IN WETLANDS

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

DNR CONTACT

DNR NORTHERN REGION HEADQUARTERS
810 W. MAPLE STREET
SPOONER, WI 54801
ATTN: AMY CRONK
PH: (715) 635-4229
EMAIL: amy.cronk@wisconsin.gov

DESIGN CONSULTANT CONTACT

CEDAR CORPORATION
604 WILSON AVENUE
MENOMONIE, WI 54751
ATTN: TROY PETERSON, P.E.
PH: (715) 235-9081
EMAIL: troy.peterson@cedarcorp.com

WISCONSIN DOT CONTACT

WISDOT NORTHWEST REGION OFFICE
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
ATTN: MATTHEW VAN NATTA, P.E.
PH: (715) 392-7934
EMAIL: matthew.vannatta@dot.wi.gov

MUNICIPALITY CONTACT

BURNETT COUNTY HIGHWAY DEPARTMENT
8150 STATE ROAD 70
SIREN, WI 54872
ATTN: MICHAEL HOEFS, P.E.; HIGHWAY COMMISSIONER
PH: (715) 349-2285
EMAIL: mhoefs@burnettcounty.org

UTILITIES CONTACT(S)

COMMUNICATION
SIREN TELEPHONE COMPANY
7723 MAIN STREET
SIREN, WI 54872
ATTN: KENT BASSETT
PH: (715) 349-2224
EMAIL: kentbass@sirentel.net

ELECTRIC
POLK-BURNETT ELECTRIC COOPERATIVE
1001 STATE HIGHWAY 35
CENTURIA, WI 54824
ATTN: JASON EVENSON
PH: (715) 646-3401
EMAIL: jevenson@polkburnett.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com
**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS.

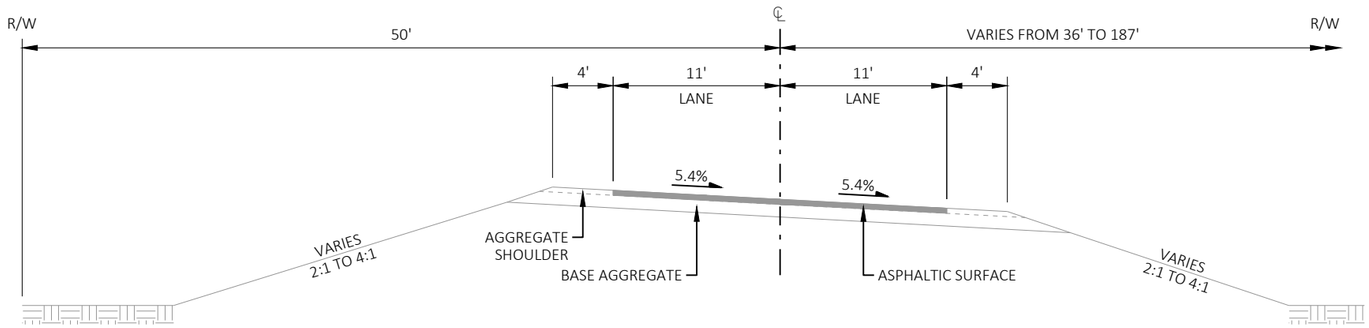
STANDARD ABBREVIATIONS

ABUT	ABUTMENT	OFF	OFFSET
AGG	AGGREGATE	PC	POINT OF CURVATURE
ET AL	AND OTHERS	PI	POINT OF INTERSECTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	PT	POINT OF TANGENCY
BF	BACK FACE	POL	POINT ON LINE
BM	BENCHMARK	PE	PRIVATE ENTRANCE
C/L OR ℄	CENTERLINE	PL	PROPERTY LINE
Δ	CENTRAL ANGLE OR DELTA	PSI	POUNDS/SQUARE INCH
CLR	CLEAR	PROP	PROPOSED
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCTION	RR	RAILROAD
COR	CORNER	REBAR	REINFORCEMENT BAR
CMP	CORRUGATED METAL PIPE	REQ'D	REQUIRED
CTH	COUNTY TRUNK HIGHWAY	RT	RIGHT
CR	CREEK	RHF	RIGHT-HAND FORWARD
CFS	CUBIC FEET/SECOND	R/W	RIGHT-OF-WAY
CULV	CULVERT	RD	ROAD
D	DEGREE OF CURVE	SEC	SECTION
DHV	DESIGN HOUR VOLUME	S	SOUTH
DIA	DIAMETER	SE	SOUTHEAST
E	EAST	SW	SOUTHWEST
EL	ELEVATION	STH	STATE TRUNK HIGHWAY
EST	ESTIMATED	STA	STATION
FPS	FEET PER SECOND	SE	SUPER ELEVATION
FE	FIELD ENTRANCE	T	TANGENT
FT	FOOT (FEET)	TEL	TELEPHONE
FTG	FOOTING	TEMP	TEMPORARY
FDN	FOUNDATION	TI	TEMPORARY INTEREST
FF	FRONT FACE	TLE	TEMPORARY LIMITED EASEMENT
IP	IRON PIN	TL OR T/L	TRANSIT LINE
LT	LEFT	T	TRUCKS
LHF	LEFT-HAND FORWARD	TYP	TYPICAL
L	LENGTH OF CURVE	U/G	UNDERGROUND
LF	LINEAR FOOT	USH	UNITED STATES HIGHWAY
MAX	MAXIMUM	VAR	VARIABLE
MI	MILE	V	VELOCITY
MIN	MINIMUM	VPC	VERTICAL POINT OF CURVATURE
NC	NORMAL CROWN	VPI	VERTICAL POINT OF INTERSECTION
N	NORTH	VPT	VERTICAL POINT OF TANGENCY
NE	NORTHEAST	W	WEST
NW	NORTHWEST	YB	YARD
NO	NUMBER		

RUNOFF COEFFICIENT TABLE

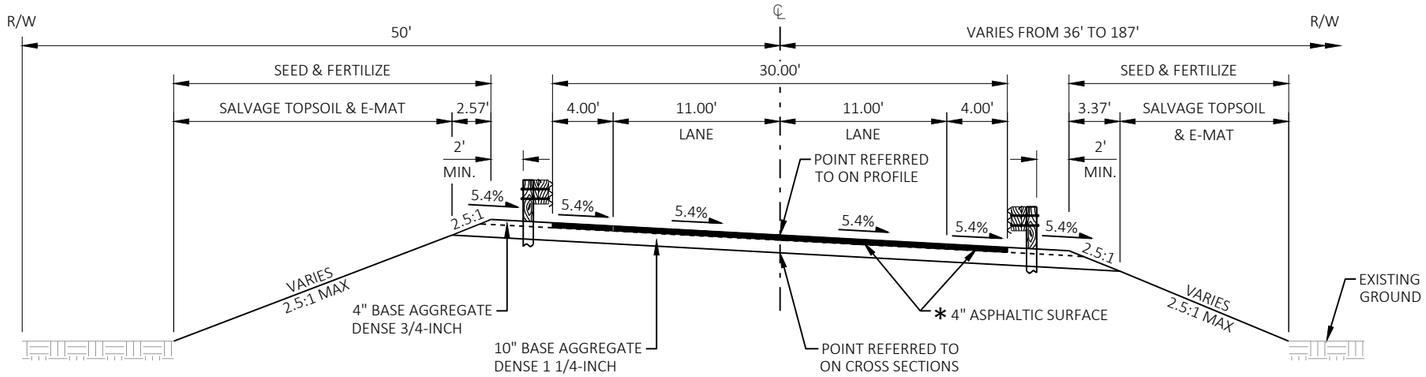
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15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

TOTAL PROJECT AREA = 0.36 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.36 ACRES



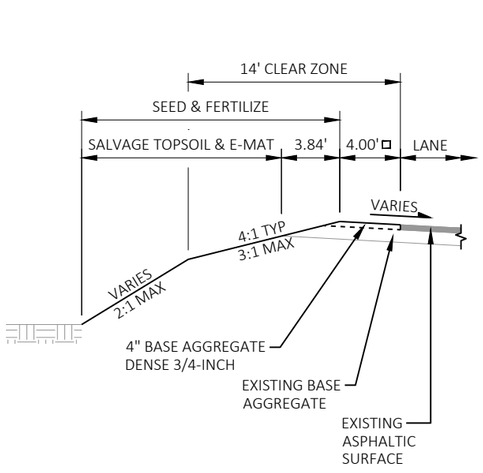
TYPICAL EXISTING SECTION

STA 6+28.87 TO STA 12+72.59



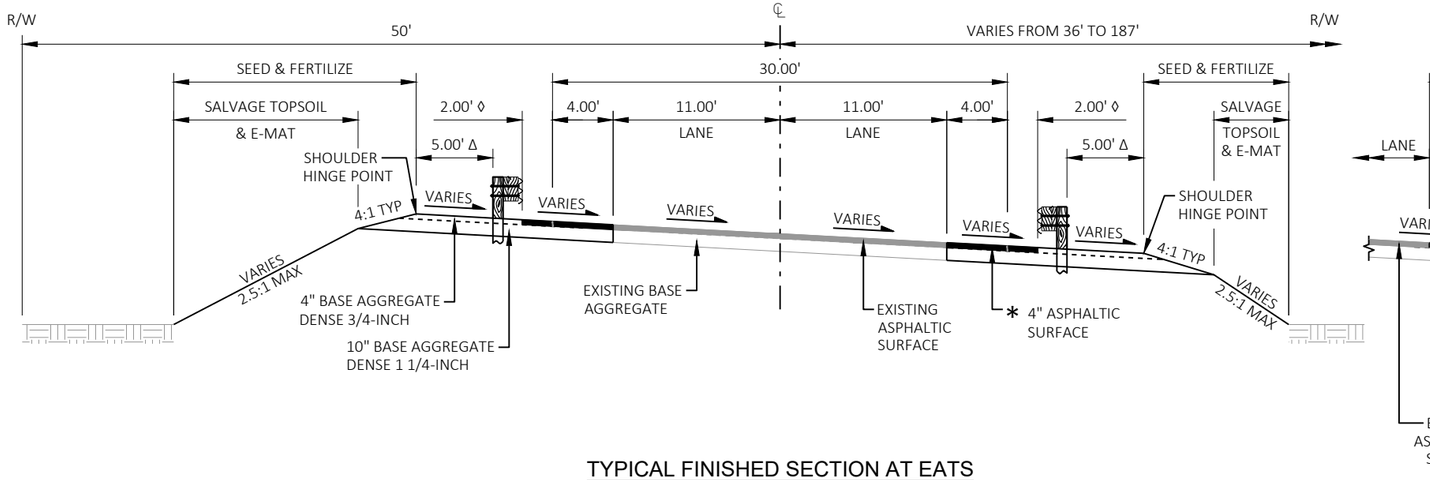
TYPICAL FINISHED SECTION

STA 8+90.00 TO STA 9+39.94
STA 10+61.78 TO STA 11+10.00



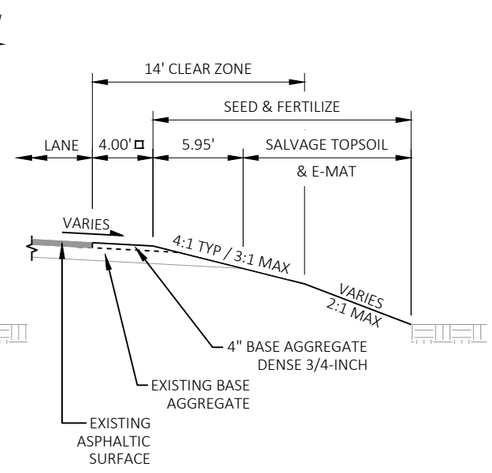
TYPICAL FINISHED SECTION AT TAPERED SHOULDERS

STA 7+53.43 TO 8+49.63 LT
STA 11+67.60 TO STA 12+72.59 LT



TYPICAL FINISHED SECTION AT EATS

STA 8+49.63 TO 8+90.00 LT
STA 7+48.75 TO 8+90.00 RT
STA 11+10.00 TO STA 11+67.60 LT
STA 11+10.00 TO STA 11+56.39 RT



TYPICAL FINISHED SECTION AT TAPERED SHOULDERS

STA 6+28.87 TO 7+48.75 RT
STA 11+56.39 TO STA 12+64.85 RT

GENERAL NOTES

ENGINEER TO FIELD VERIFY EXISTING GRAVEL FOR SHOULDER CORRECTIONS.

* 4" ASPHALTIC SURFACE
(1.75-INCH UPPER LAYER)
(2.25-INCH LOWER LAYER)

Δ SHOULDER INCREASES TO 5' AT BACK OF POST NO. 1 OF ENERGY ABSORBING TERMINAL.

◊ AGGREGATE SHOULDER INCREASES FROM 0' AT POST 9 TO A 2' OFFSET FROM FACE OF RAIL AT POST 1 (TERMINAL)

□ AGGREGATE SHOULDER TAPERS FROM HINGE POINT AT POST 1 (TERMINAL) TO STATION MATCH POINT OF 4'-0".

2

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	TYPICAL SECTIONS	SHEET 3	E

Estimate Of Quantities

8844-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-7-5	LS	1.000	1.000
0004	203.0700.S	Removing Old Structure Over Waterway With Debris Capture System (station) 01. 10+00	LS	1.000	1.000
0006	204.0165	Removing Guardrail	LF	427.000	427.000
0008	205.0100	Excavation Common	CY	164.000	164.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-7-5	LS	1.000	1.000
0012	209.0200.S	Backfill Controlled Low Strength	CY	10.000	10.000
0014	213.0100	Finishing Roadway (project) 01. 8844-00-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	155.000	155.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	642.000	642.000
0020	455.0605	Tack Coat	GAL	28.000	28.000
0022	465.0105	Asphaltic Surface	TON	121.000	121.000
0024	502.0100	Concrete Masonry Bridges	CY	135.000	135.000
0026	502.3101	Expansion Device	LF	36.000	36.000
0028	502.3200	Protective Surface Treatment	SY	433.000	433.000
0030	502.4205	Adhesive Anchors No. 5 Bar	EACH	38.000	38.000
0032	502.4206	Adhesive Anchors No. 6 Bar	EACH	24.000	24.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	33,740.000	33,740.000
0036	506.2610	Bearing Pads Elastomeric Laminated	EACH	4.000	4.000
0038	506.4000	Steel Diaphragms (structure) 01. B-7-5	EACH	6.000	6.000
0040	506.7050.S	Removing Bearings (structure) 01. B-7-5	EACH	4.000	4.000
0042	513.4061	Railing Tubular Type M	LF	261.000	261.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	2.000	2.000
0046	606.0300	Riprap Heavy	CY	45.000	45.000
0048	614.2300	MGS Guardrail 3	LF	188.000	188.000
0050	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0052	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0054	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8844-00-71	EACH	1.000	1.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	6.000	6.000
0060	625.0500	Salvaged Topsoil	SY	991.000	991.000
0062	628.1504	Silt Fence	LF	979.000	979.000
0064	628.1520	Silt Fence Maintenance	LF	1,179.000	1,179.000
0066	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0068	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0070	628.2004	Erosion Mat Class I Type B	SY	1,459.000	1,459.000
0072	628.6005	Turbidity Barriers	SY	188.000	188.000
0074	629.0210	Fertilizer Type B	CWT	0.600	0.600

8844-00-71

Line	Item	Item Description	Unit	Total	Qty
0076	630.0110	Seeding Mixture No. 10	LB	28.000	28.000
0078	630.0200	Seeding Temporary	LB	56.000	56.000
0080	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0082	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0084	638.2602	Removing Signs Type II	EACH	4.000	4.000
0086	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0088	642.5001	Field Office Type B	EACH	1.000	1.000
0090	643.0420	Traffic Control Barricades Type III	DAY	960.000	960.000
0092	643.0705	Traffic Control Warning Lights Type A	DAY	1,680.000	1,680.000
0094	643.0900	Traffic Control Signs	DAY	960.000	960.000
0096	643.5000	Traffic Control	EACH	1.000	1.000
0098	646.1020	Marking Line Epoxy 4-Inch	LF	440.000	440.000
0100	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0102	650.5000	Construction Staking Base	LF	100.000	100.000
0104	650.6500	Construction Staking Structure Layout (structure) 01. B-07-5	LS	1.000	1.000
0106	650.9910	Construction Staking Supplemental Control (project) 01. 8844-00-71	LS	1.000	1.000
0108	650.9920	Construction Staking Slope Stakes	LF	644.000	644.000
0110	690.0150	Sawing Asphalt	LF	435.000	435.000
0112	715.0502	Incentive Strength Concrete Structures	DOL	810.000	810.000
0114	SPV.0090	Special 01. Flashing Stainless Steel	LF	119.000	119.000

DIVISION	STATIONING	LOCATION	205.0100 COMMON EXCAVATION (CY)	SALVAGED / UNUSABLE PAVEMENT MATERIAL (1)	AVAILABLE MATERIAL (CY) (2)	UNEXPANDED FILL	EXPANDED FILL	MASS ORDINATE +/- (3)
			CUT				FACTOR 1.30	
1	8+90 - 9+40	WEST APPROACH	76	22	54	4	5	50
DIVISION 1 SUBTOTAL			76	22	54	4	5	50
2	10+62 - 11+10	EAST APPROACH	88	22	66	0	0	66
DIVISION 2 SUBTOTAL			88	22	66	0	0	66
GRAND TOTAL(S)			164	44	120	4	5	116
TOTAL COMMON EXCAVATION =			164					

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) THE MASS ORDINATE = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.

AREA MEASURED IN CIVIL 3D
CUT = (SF AREA x LENGTH) x 1 CY / 27 CF
FILL = (SF AREA x LENGTH) x 1 CY / 27 CF x 1.3

REMOVING GUARDRAIL

STATION - STATION	LOCATION	204.0165 LF
8+32 - 9+50	LT	118
8+09 - 9+29	RT	120
11+02 - 11+92	LT	90
10+54 - 11+53	RT	99
ITEM TOTAL(S)		427

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
6+28.87 - 8+90	RT	48	158
7+53.43 - 8+90	LT	21	82
8+90 - 9+40	-	12	130
10+61 - 11+10	-	11	128
11+10.00 - 12+74.44	RT	31	58
11+10.00 - 12+88.91	LT	32	92
ITEM TOTAL(S)		155	648

3

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605* TACK COAT GAL	465.0105 ASPHALT TON
6+29 - 9+40	CTH B	16	68
10+61 - 12+89	CTH B	12	53
ITEM TOTAL(S)		28	121

*APPLICATION RATE = 0.050 GAL/SY

MGS GUARDRAIL

STATION - STATION	LOCATION	614.2300 MGS GUARD RAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARD RAIL TERMINAL EAT EACH
7+53 - 9+53	LT	25	40	1
7+49 - 9+32	RT	113	40	1
10+68 - 11+68	LT	25	40	1
10+53 - 11+56	RT	25	40	1
ITEM TOTAL(S)		188	160	4

3

WATER

STATION - STATION	LOCATION	624.0100 MGAL	REMARKS
6+28.87 - 12+88.91	CTH B	6	BASE COMPACTION DUST CONTROL
ITEM TOTAL(S)		6	

SALVAGED TOPSOIL, FERTILIZER, AND SEEDING

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
6+30 - 9+50	RT	292	0.2	8	16	10
6+30 - 9+50	LT	415	0.2	12	24	12
10+50 - 12+89	RT	174	0.1	5	10	6
10+50 - 12+89	LT	110	0.1	3	6	5
ITEM TOTAL(S)		991	0.6	28	56	33

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS 1 TYPE B SY	628.6005 TURBIDITY BARRIER SY	REMARKS
6+29 - 9+27	RT	258	308	456	--	
7+53 - 9+52	LT	231	281	524	--	
9+62		--	--	--	108	
10+46		--	--	--	80	
10+25 - 12+74	RT	246	296	258	--	
10+71 - 12+89	LT	244	294	221	--	
ITEM TOTAL(S)		979	1179	1459	188	

MOBILIZATIONS

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
8844-00-71	3	2
ITEM TOTAL(S)	3	2

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	MISCELLANEOUS QUANTITIES	SHEET 7	E

SIGNING QUANTITIES

LOCATION	SIGN CODE	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
NW BRIDGE CORNER	W5-52 R	3	1	1	1
SW BRIDGE CORNER	W5-52 L	3	1	1	1
NE BRIDGE CORNER	W5-52 L	3	1	1	1
SE BRIDGE CORNER	W5-52 R	3	1	1	1
ITEM TOTAL(S)		12	4	4	4

TRAFFIC CONTROL

STATION - STATION	DURATION DAYS	643.5000 TRAFFIC CONTROL EACH	NO	643.0420 BARRICADES TYPE III DAYS	NO	643.0705 WARNING LIGHTS TYPE A DAYS	NO	643.0900 SIGNS DAYS
6+28 - 12+89	60	1	16	960	28	1680	16	960
ITEM TOTAL(S)		1		960		1680		960

PAVEMENT MARKING

STATION - STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	REMARKS
8+90 - 11+10	CENTER LINE	220	DOUBLE YELLOW
8+90 - 11+10	EDGE LINE	220	WHITE
ITEM TOTAL(S)		440	

CONSTRUCTION STAKING

STATION - STATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6500 STRUCTURE LS	650.9910 SUPPLIMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
6+29 - 12+89	100	100	1.0	1.0	522
ITEM TOTAL(S)	100	100	1.0	1.0	522

SAWING

STATION - STATION	LOCATION	690.0150 ASPHALT LF
6+73 - 8+90	RT/LT	267
8+90		22
11+10 - 11+70	RT/LT	124
11+10		22
ITEM TOTAL(S)		435

BENCHMARKS			
NO	STA	DESCRIPTION	ELEV
1	10+13±	SPINDLE IN POWER POLE (@ 109.8' RT)	978.63'
2	6+90±	SPINDLE IN POWER POLE (@ 33.6' LT)	972.66'
3	9+52±	CHISELED MARK ON NW WING WALL (@ 16.6' LT)	980.21'
4	10.53±	CHISELED MARK ON SE WING WALL (@ 16.4' RT)	981.25'
5	10+50±	BRASS DISK ON SE CORNER OF BRIDGE DECK (@14.9' RT)	981.32'

SHEILA M. JORDAN
DANIEL L. & JANICE M. LANGENFELD
WOODED
EDGE OF WATER
NORTH FORK CLAM RIVER
EXISTING STRUCTURE B-07-0005 DECK TO BE REPLACED
SLOPE INTERCEPT
SIREN TELEPHONE CO. (ACTIVE LINE)
EX R/W
CP2, SET 12" SPIKE
STA 7+90.25, 20.4' LT
X = 269503.5534
Y = 144727.9174
BM3
53.125' EAT
12.5' MGS
39.4' TRANSITION
BEGIN CONSTRUCTION
STA 6+28.87
MATCH EXIST
10:1
BM2
CURVE 2
10+00
9+00
8+00
CTH B ASPHALT
CURVE 1
7+00
39.4' TRANSITION
87.5' MGS
53.125' EAT
RIPRAP HEAVY
SIREN TELEPHONE CO. LINE TO BE ABANDONED AND REMOVED
EDGE OF WATER
EX R/W
SLOPE INTERCEPT
MATCH EXIST
SIREN TELEPHONE CO. (ABANDONED LINE)
BEGIN PROJECT
STA 8+90.00
Y=144684.781
X=269597.049
MATCH EXISTING SAW CUT REQ'D
POLK-BURNETT ELECTRIC CO-OP
CP3, SET 12" SPIKE
STA 9+87.17, 94.8' RT
X = 269650.1275
Y = 144564.3064
BM1
FIELD
NEIL J. WALLIN
EDGE OF WATER
EX R/W
CP1, MAG IN ASPH
STA 10+88.20, 29.6' LT
X = 269793.1134
Y = 144630.5312
SIREN TELEPHONE CO. (ABANDONED LINE)
MATCH EXIST
SLOPE INTERCEPT
END CONSTRUCTION
STA 12+88.91
SIREN TELEPHONE CO. (ACTIVE LINE)
RIPRAP HEAVY
39.4' TRANS.
12.5' MGS
53.125' EAT
11+00
BM4
12+00
CURVE 3
10:1
39.4' TRANSITION
12.5' MGS
53.125' EAT
BM5
WOODED
SIREN TELEPHONE CO. (ABANDONED LINE)
SIREN TELEPHONE CO. (ACTIVE LINE)
GRAVEL DRIVEWAY
SLOPE INTERCEPT
END PROJECT
STA 11+10.00
Y=144593.674
X=269796.571
MATCH EXISTING SAW CUT REQ'D
FIELD
N

HORIZONTAL CURVE 1 DATA		HORIZONTAL CURVE 2 DATA		HORIZONTAL CURVE 3 DATA	
PI	7+74.60	PI	10+04.08	PI	12+50.06
Y	144710.725	Y	144668.735	Y	144510.381
X	269484.666	X	269710.284	X	269909.058
Δ	3°33'24"	Δ	28°00'00"	Δ	7°00'00"
D	7°00'00"	D	7°00'00"	D	7°00'00"
T	25.41'	T	204.08'	T	50.06'
L	50.81'	L	400.00'	L	100.00'
R	818.51'	R	818.51'	R	818.51'
PC	7+49.19	PC	8+00.00	PC	12+00.00
Y	144713.816	Y	144706.075	Y	144541.574
X	269459.441	X	269509.651	X	269869.902
PT	8+00.00	PT	12+00.00	PT	13+00.00
Y	144706.075	Y	144541.574	Y	144474.648
X	269.509.651	X	269869.902	X	269944.120
BK	S83°00'50.6"E	BK	S79°27'26.1"E	BK	S51°27'26.0"E
AH	S79°27'26.1"E	AH	S51°27'26.0"E	AH	S44°27'25.9"E

HIGH WATER$_{100}$ EL 975.50 (5-1977)
℄ W. ABUTMENT PVI. STA. 9+41.36 ELEVATION. 979.27'
℄ PIER PVI. STA. 10+00.00 ELEVATION 980.79'
℄ E. ABUTMENT STA. 10+58.64 ELEV. 982.31'
PROPOSED NEW DECK
EXISTING ℄ PROFILE
FINISHED ℄ PROFILE
2.62%
2.60%
2.14%
* 36"
OBSERVED WATER EL 969.86± (10-16-19)
EXISTING PIER TO BE SALVAGED
EXISTING ABUTMENT TO BE SALVAGED
EXISTING ABUTMENT TO BE SALVAGED
ADD & RE-SLOPE RIPRAP HEAVY
* EXISTING 36" GIRDERS TO BE SALVAGED
EXISTING ℄ ELEVATION
FINISHED ℄ ELEVATION

STATION 10+00
REMOVE DECK - STRUCTURE B-07-0005
TWO SPAN CONCRETE DECK GIRDER BRIDGE
TUBULAR RAILING, TYPE F
121.8' OVERALL LENGTH
32.0' OVERALL WIDTH
SKEW 30°

STATION 10+00
INSTALL DECK - STRUCTURE B-07-0005
TWO SPAN CONCRETE DECK GIRDER BRIDGE
TUBULAR RAILING, TYPE M
121.8' OVERALL LENGTH
32.5' OVERALL WIDTH
SKEW 30°

LEGEND
- SILT FENCE
- TURBIDITY BARRIER
- SEEDING, FERTILIZER & EROSION MAT AREA. * DO NOT APPLY SEEDING TO WETLANDS
- RIPRAP REPLACEMENT
- WETLAND AREAS
- ARCHAEOLOGICALLY SENSITIVE SITE

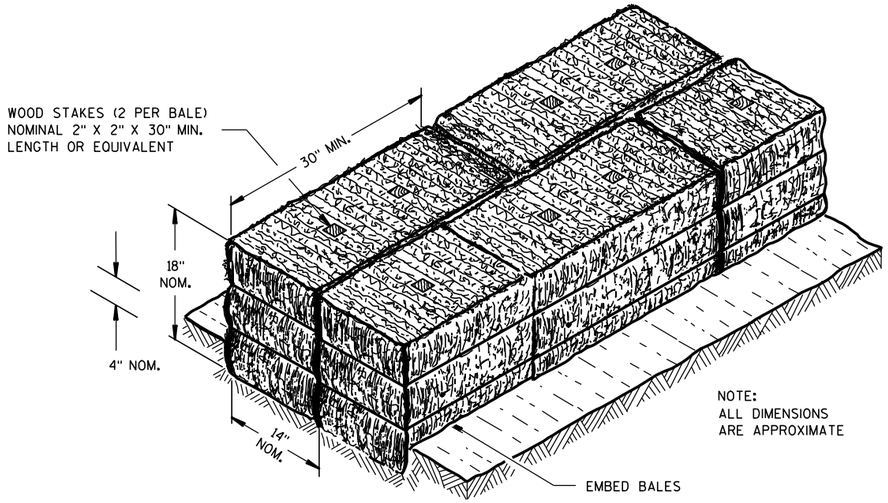
974.74	974.69	974.85	975.27	975.99	976.98	978.14	970.33	964.67	971.57	983.20	984.32	985.91	987.59	988.88
6+25	6+50	7+00	7+50	8+00	8+50	978.19 9+00	979.49 9+50	980.79 10+00	10+50	982.09	983.20 11+00	11+50	12+00	12+50	13+00	13+50	13+75

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	PLAN & PROFILE	SHEET 9 E

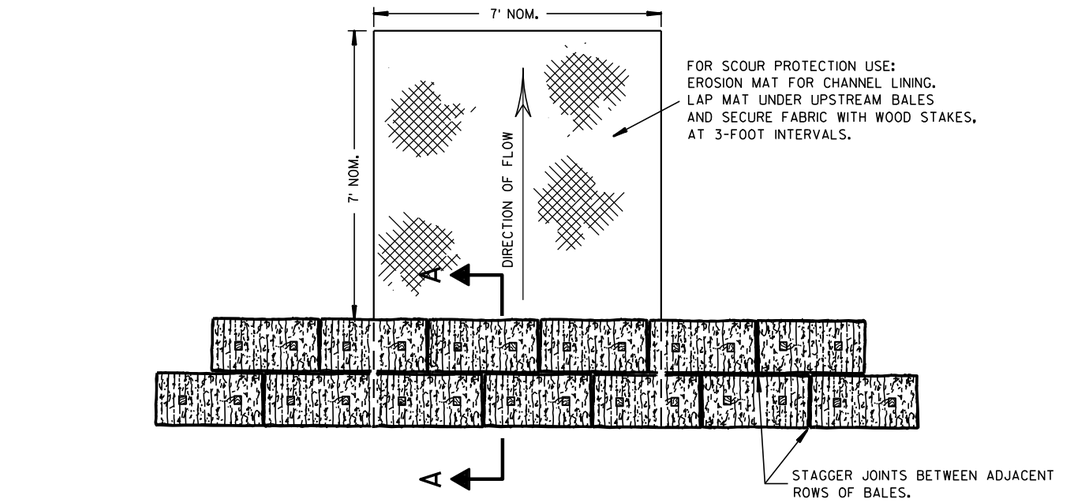
FILE NAME : I:\CLIENTS-MENO\W\W3901 WDOT NW REGION - SUPERIOR\006 8844-00-01 CTH X, N FK CLAM RIVER BRIDGE, SIREN B-07-0005, CTH B BURNETT CO\88440001\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - Plan & Profile
PLOT DATE : 3/24/2020 11:06 AM
PLOT BY : NICK THOMPSON
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

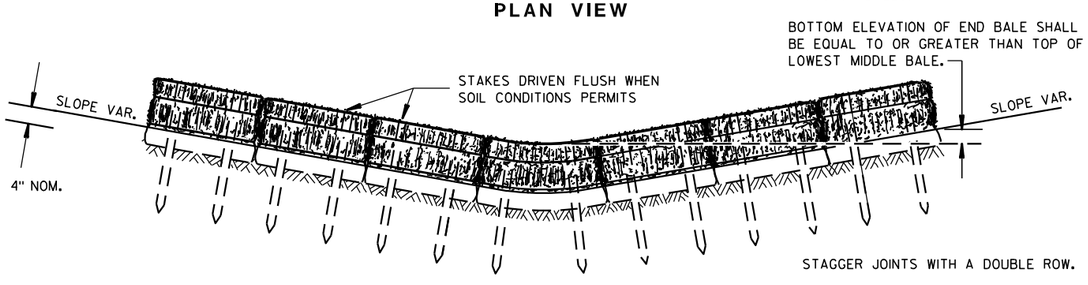
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL 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)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
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



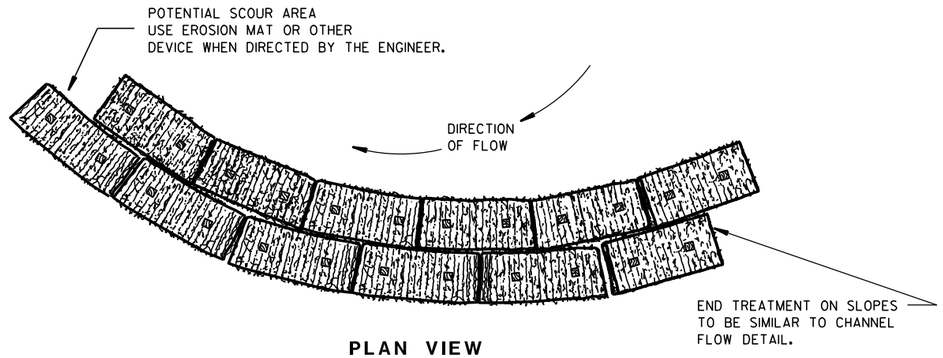
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

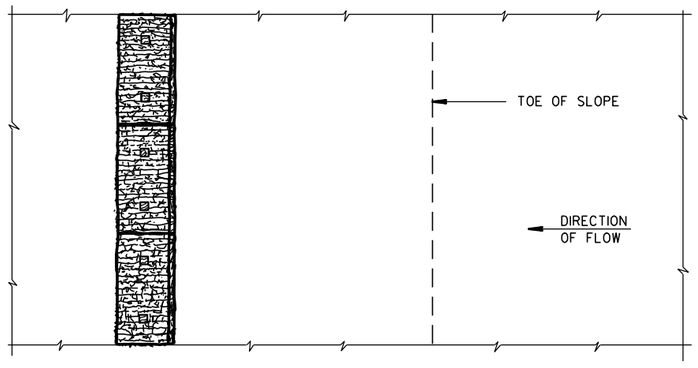
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

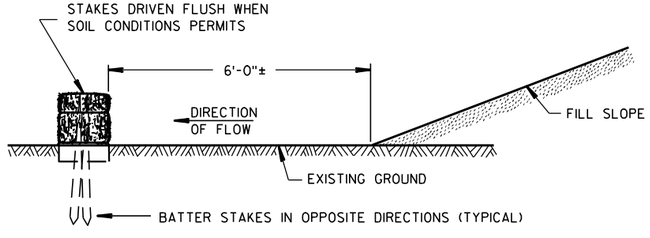


PLAN VIEW

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

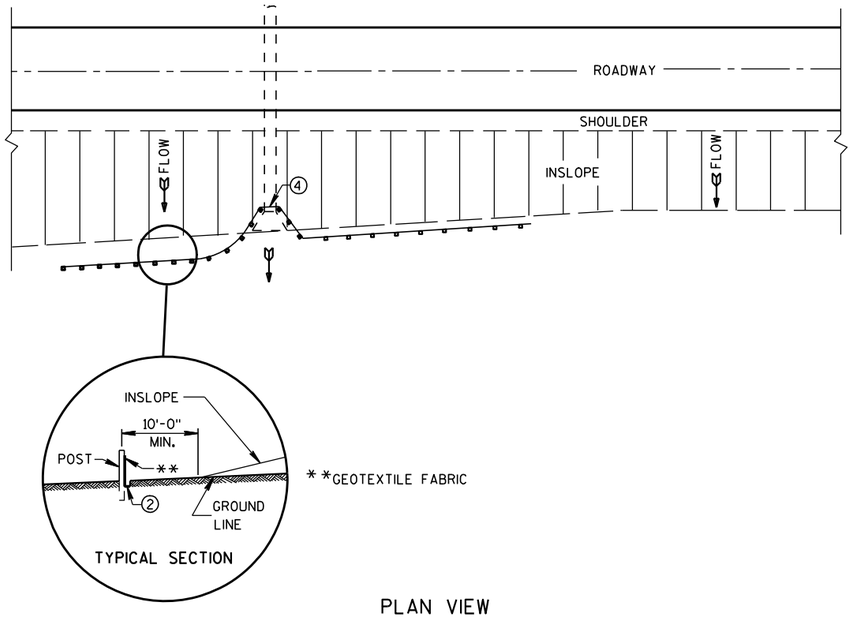
FHWA

6

S.D.D. 8 E 8-3

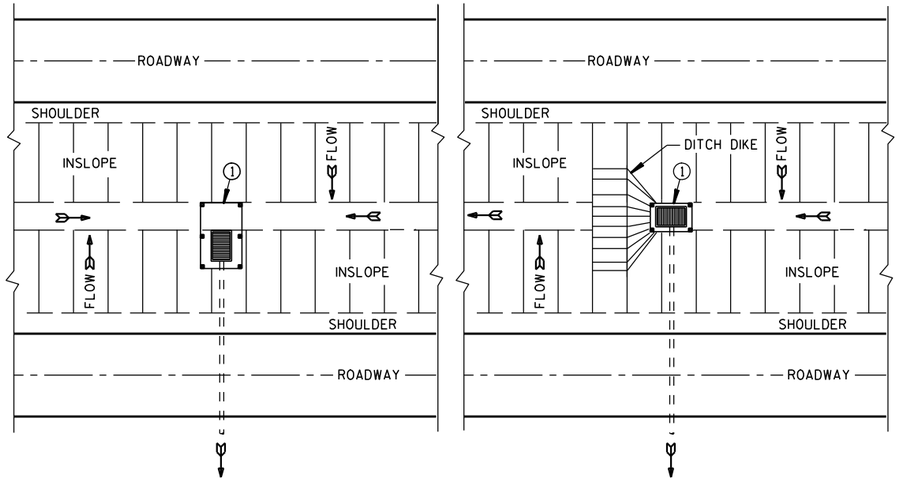
6

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.

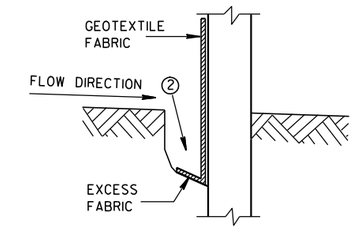
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

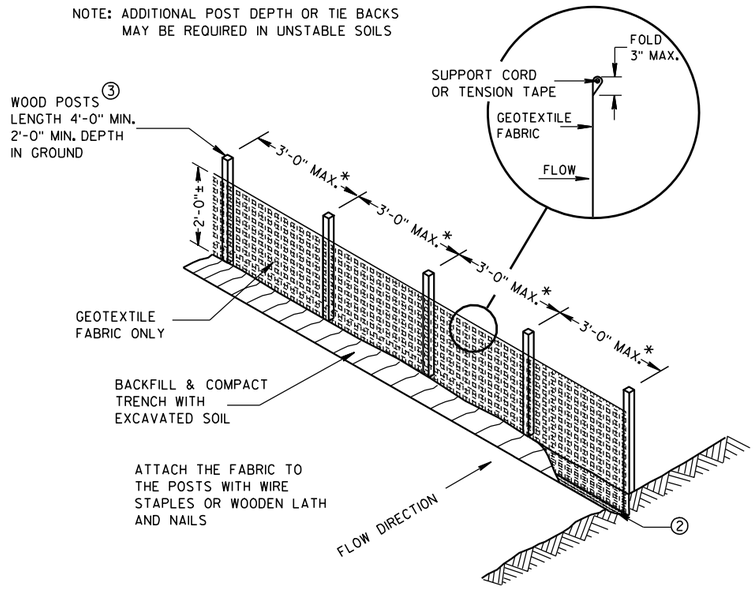
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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.

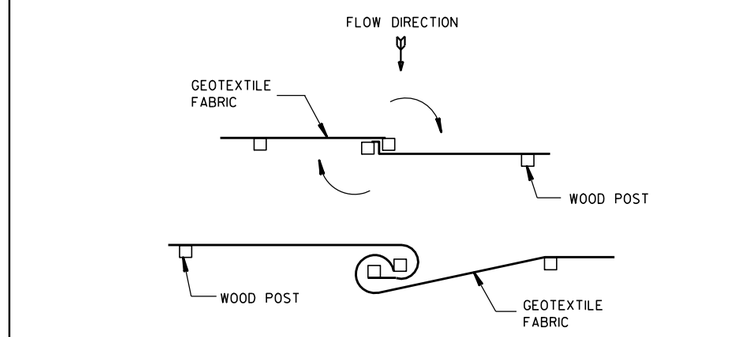


TRENCH DETAIL

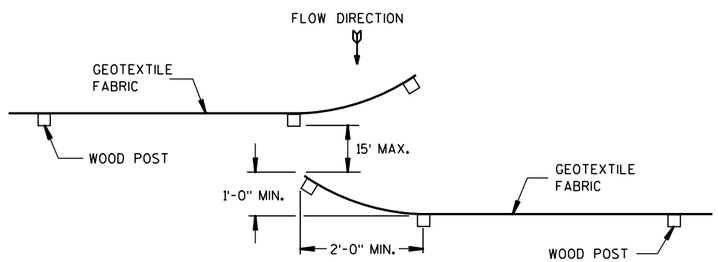


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

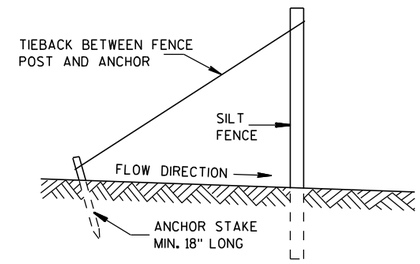


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

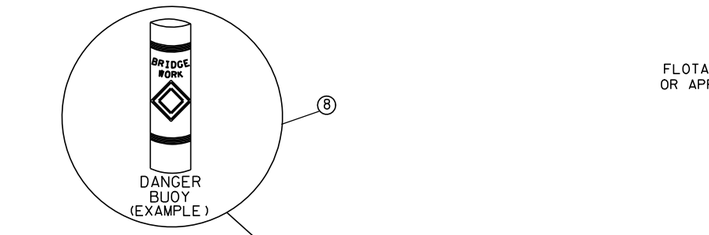
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

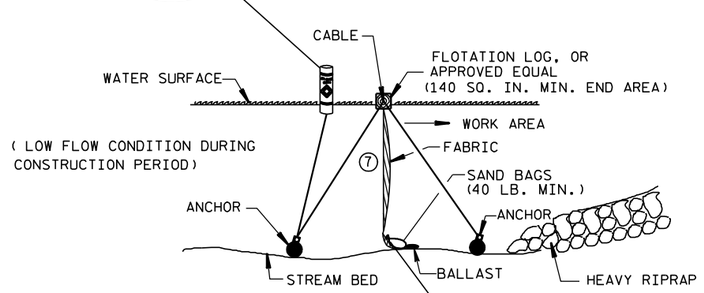
6

S.D.D. 8 E 9-6

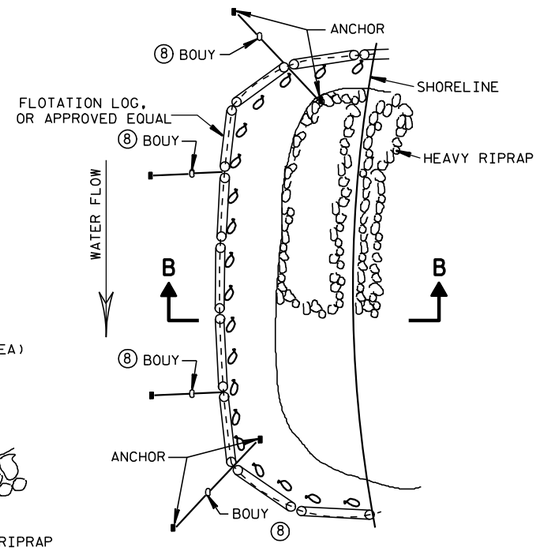
6

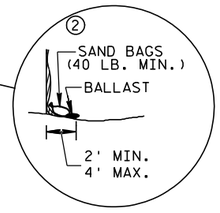
S.D.D. 8 E 9-6



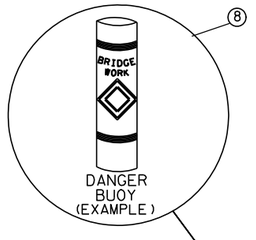


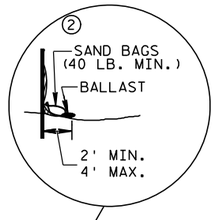
SECTION B-B

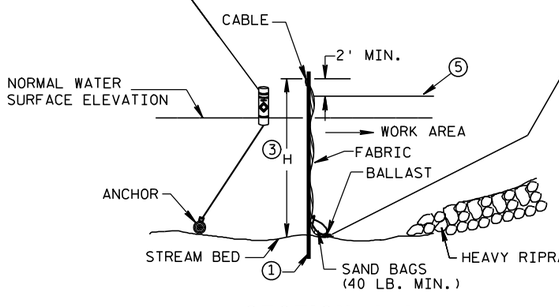




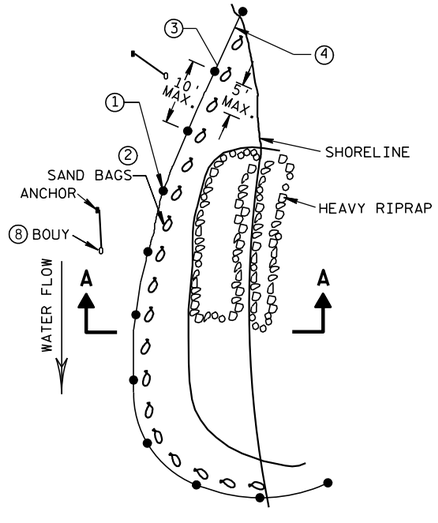
TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6







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.

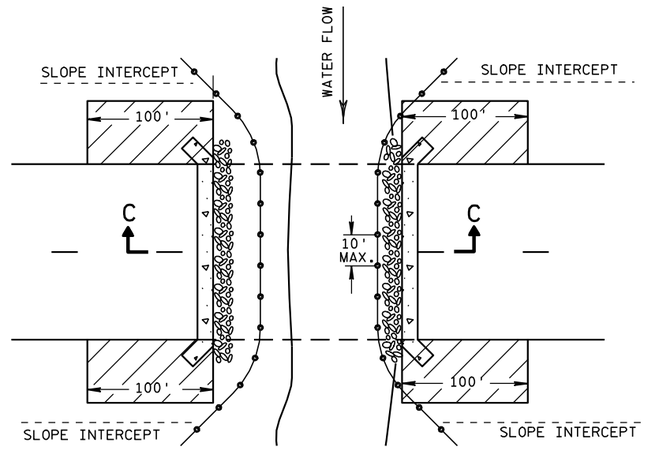
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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.

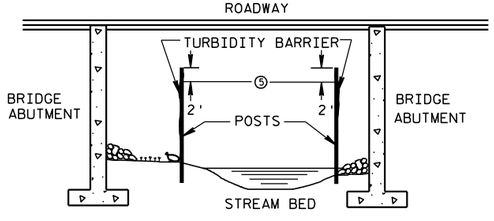
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

6

S.D.D. 8 E 11-2

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

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

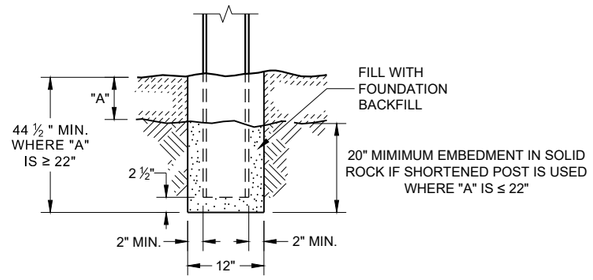
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

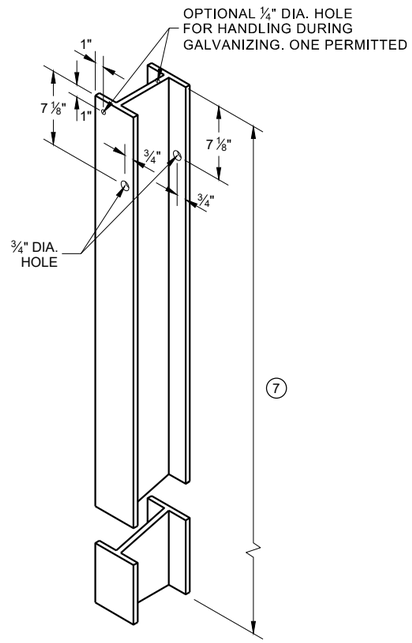
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

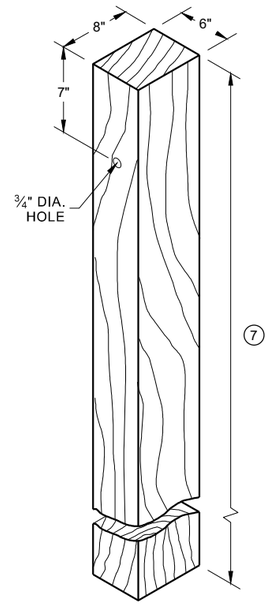
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



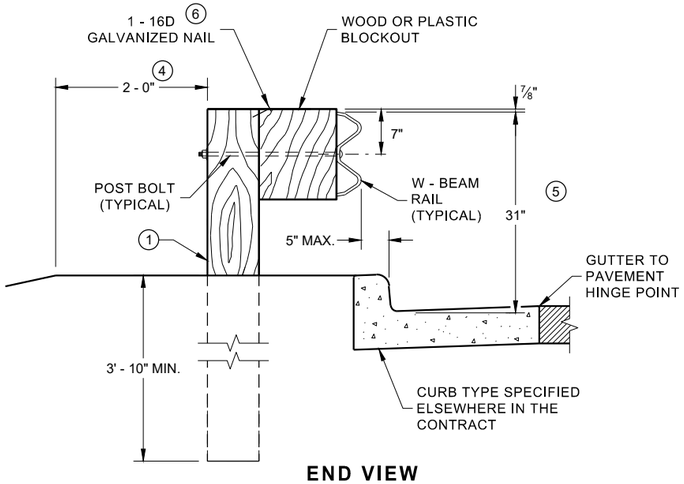
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



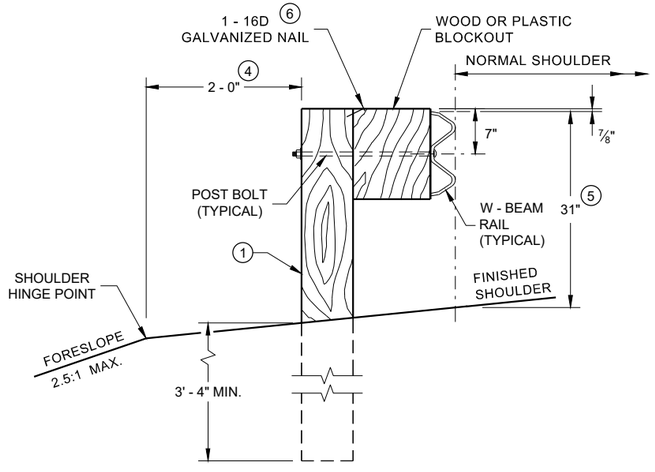
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



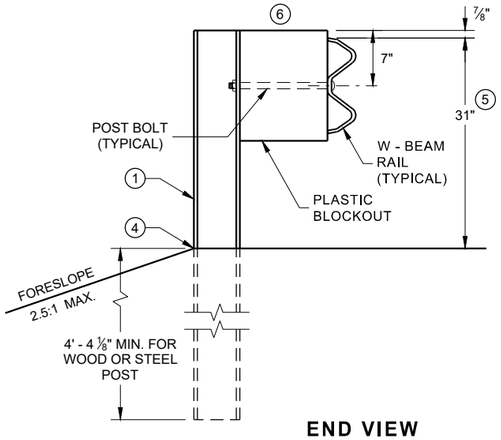
WOOD POST (6" X 8") NOMINAL (1)



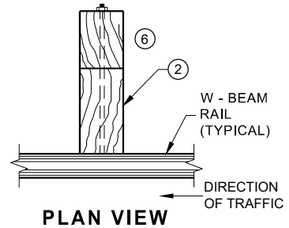
END VIEW
LOCATED ALONG A CURBED ROADWAY



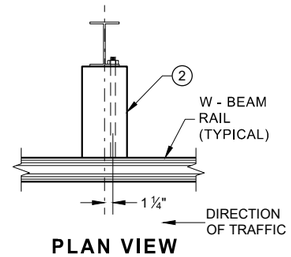
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



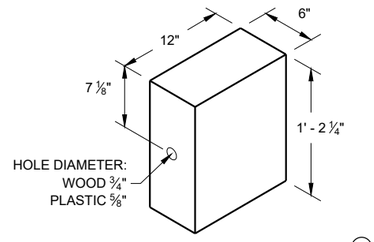
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



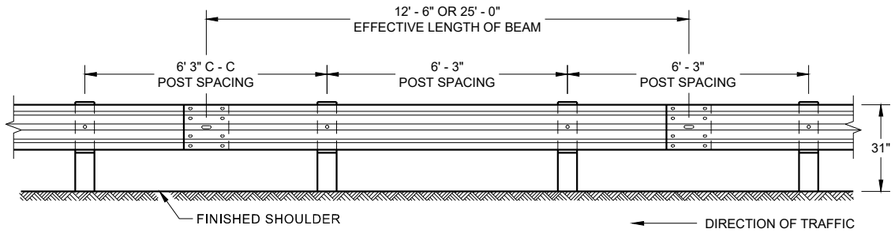
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

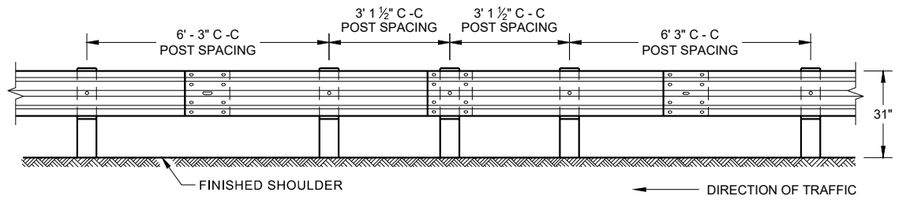
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 06a

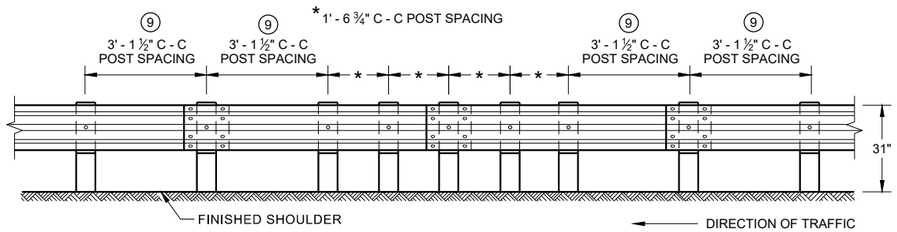
SDD 14B42 - 06a



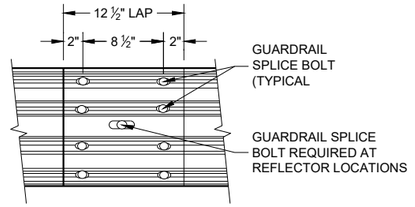
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

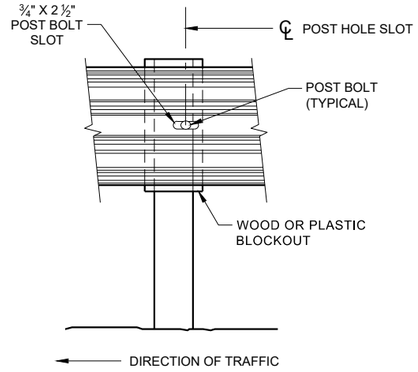
GENERAL NOTES

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

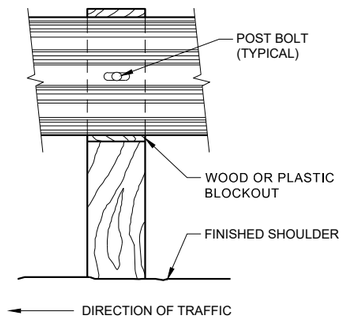
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

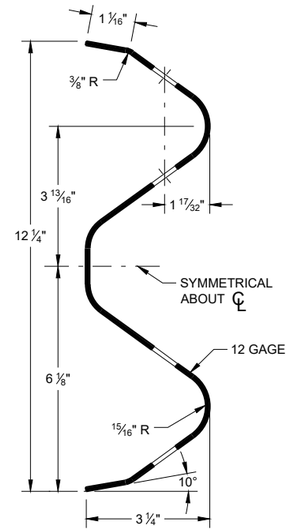
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



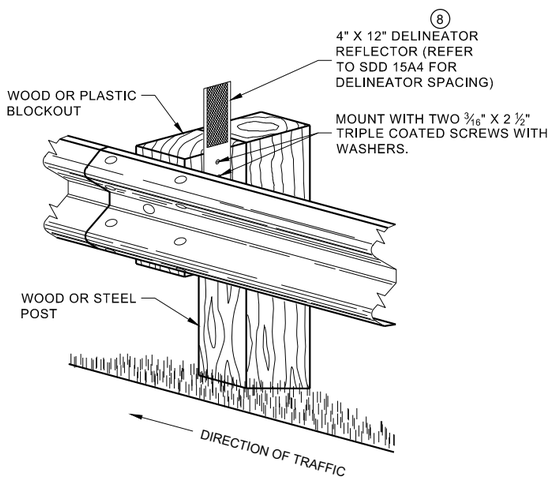
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



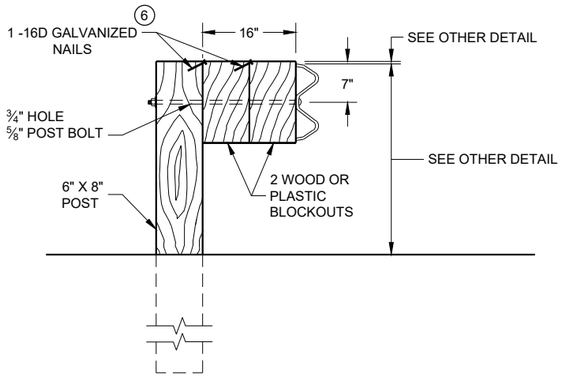
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

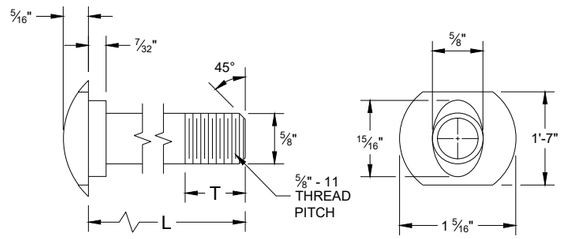


DETAIL FOR 16" BLOCKOUT DEPTH

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

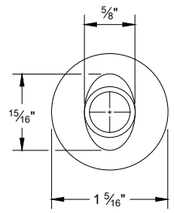
NOTE:

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

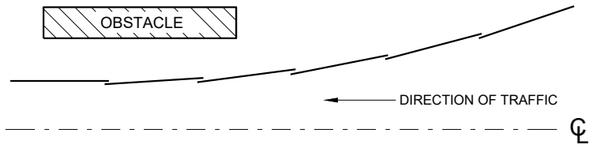


POST BOLT TABLE

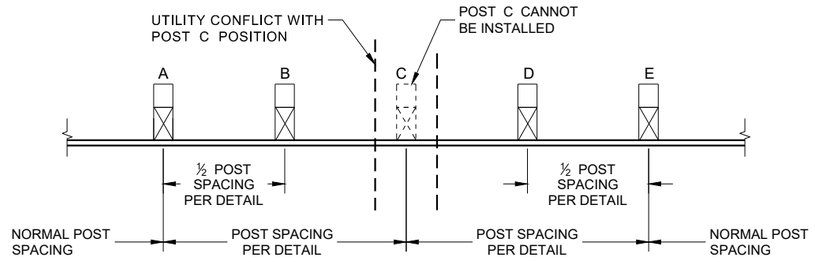
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



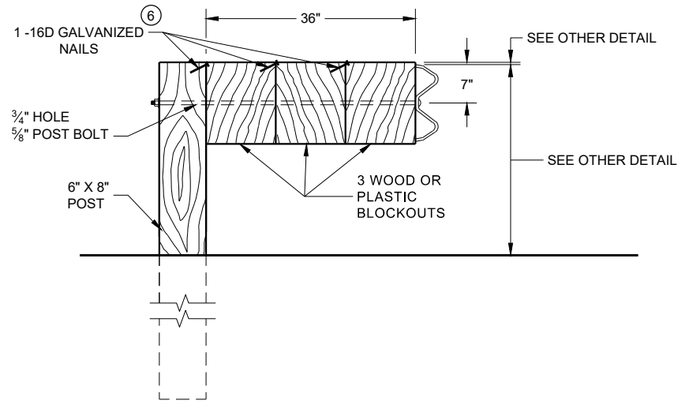
ALTERNATE BOLT HEAD



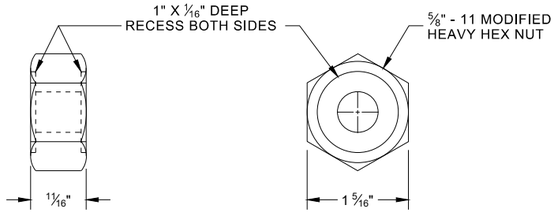
PLAN VIEW
BEAM LAPPING DETAIL



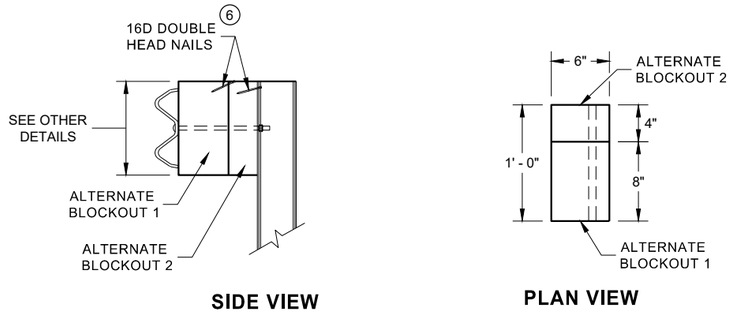
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

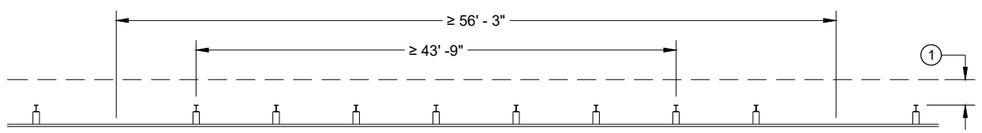
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

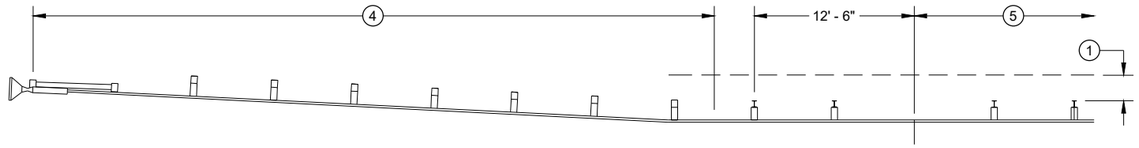
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

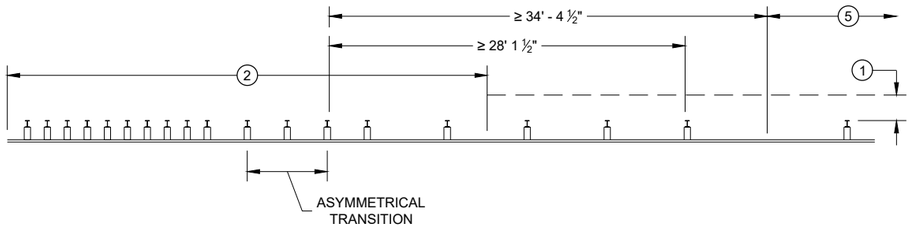
SDD 14B42 - 06c



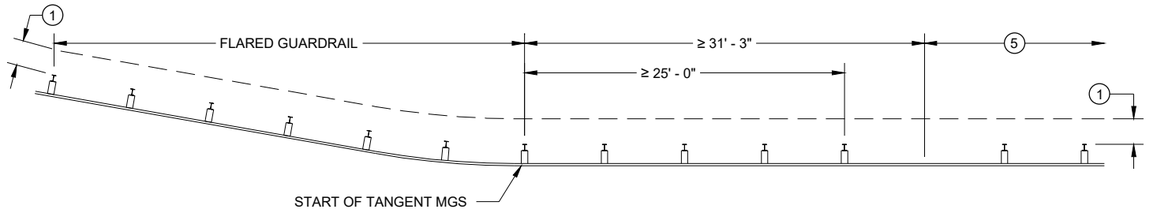
MISSING POST IN NORMAL BEAM GUARD RUN



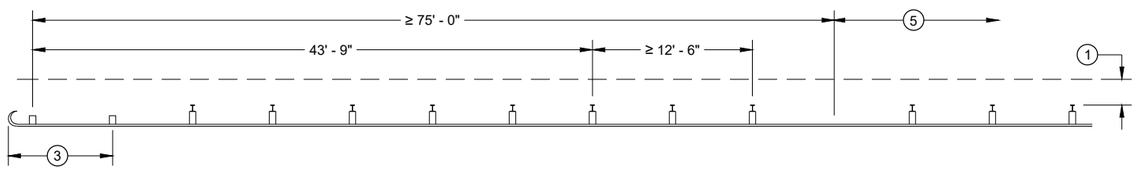
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



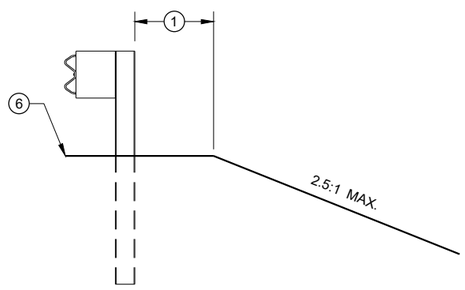
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 14B42 - 06d

SDD 14B42 - 06d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

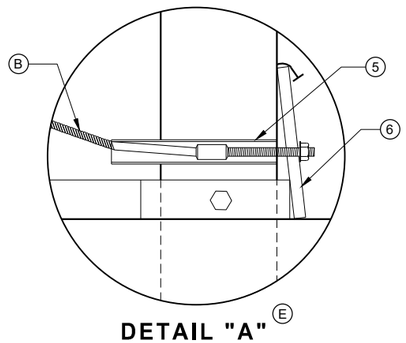
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

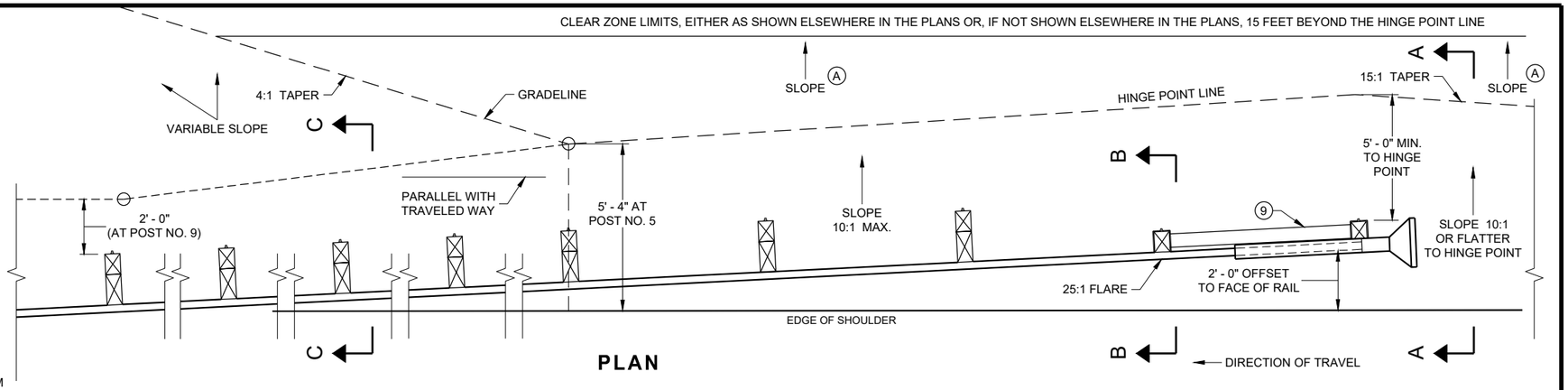
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

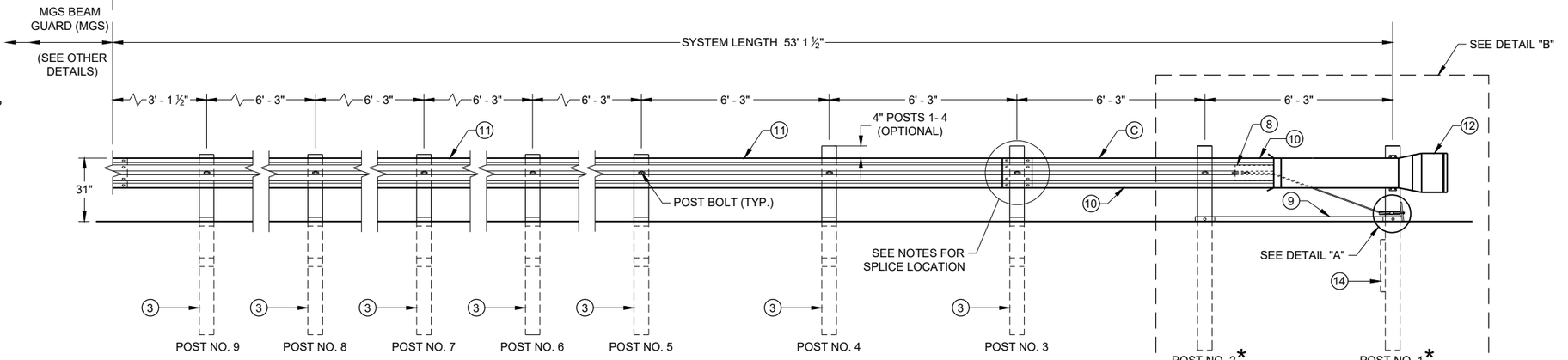
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



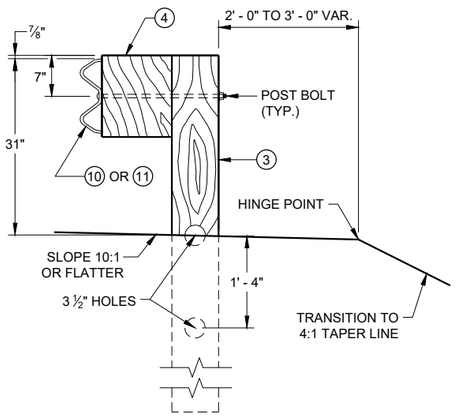
DETAIL "A" (E)



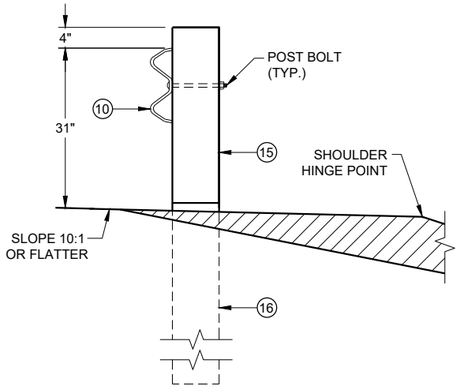
PLAN



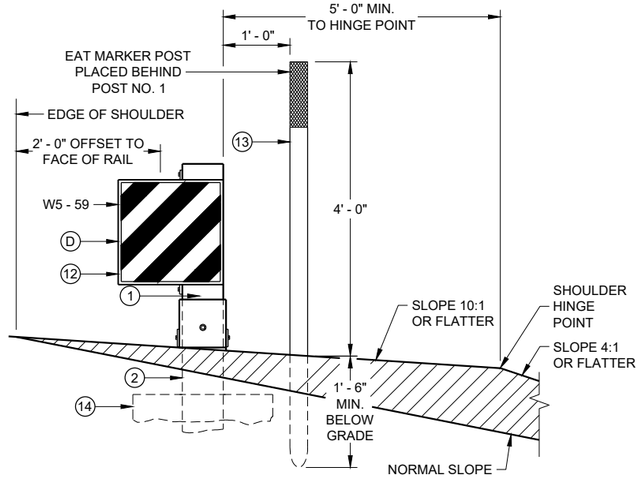
ELEVATION



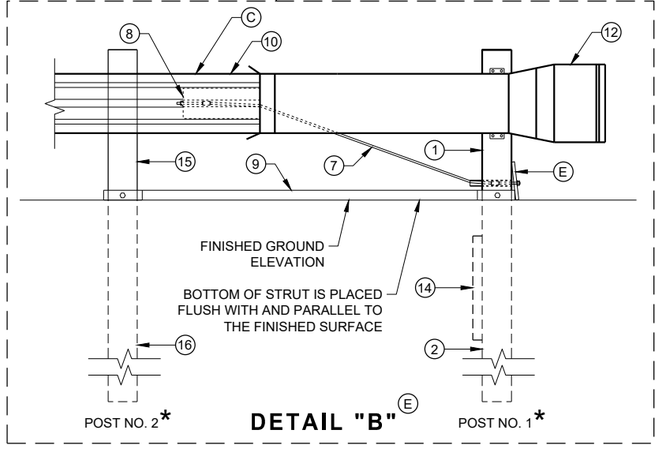
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



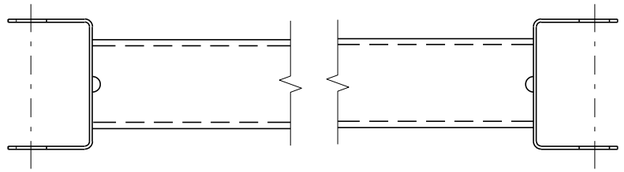
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

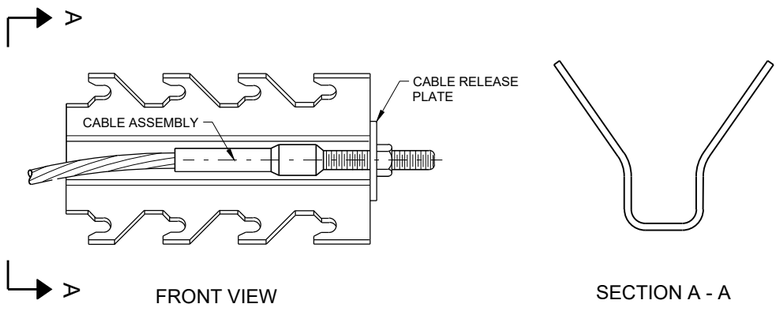
SDD 14B44 - 04a



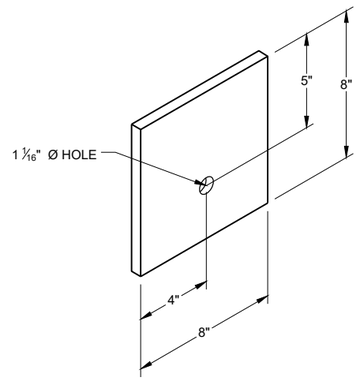
GENERIC GROUND STRUT (9) (E)

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

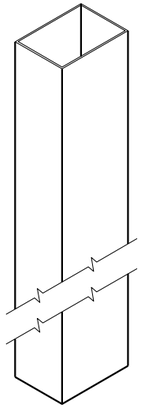
6

SDD 14B44 - 04b

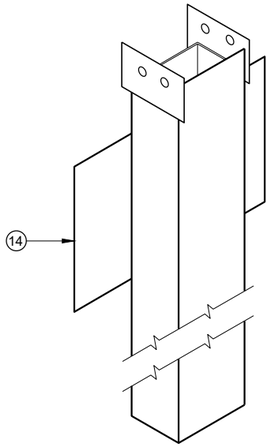
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

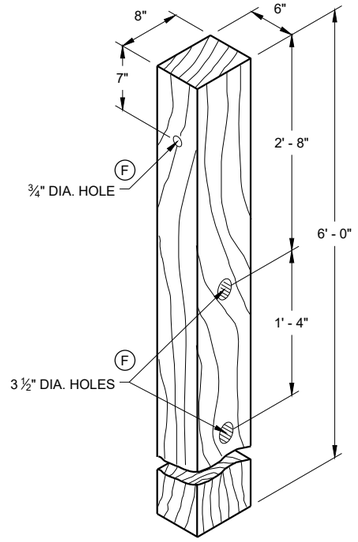
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



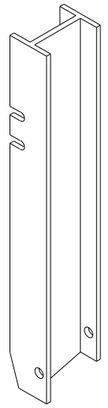
UPPER POST NO. 1 (1) (E)



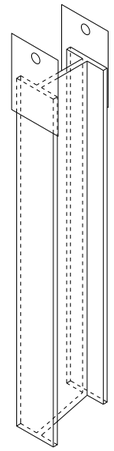
LOWER POST NO. 1 (2) (E)



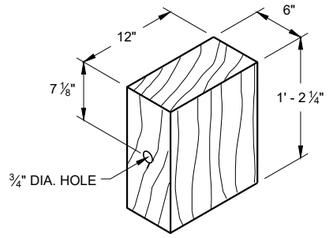
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



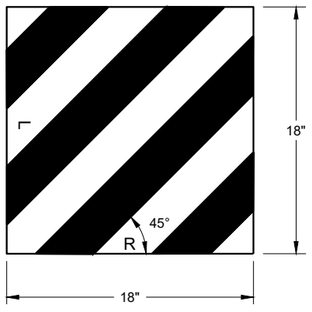
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

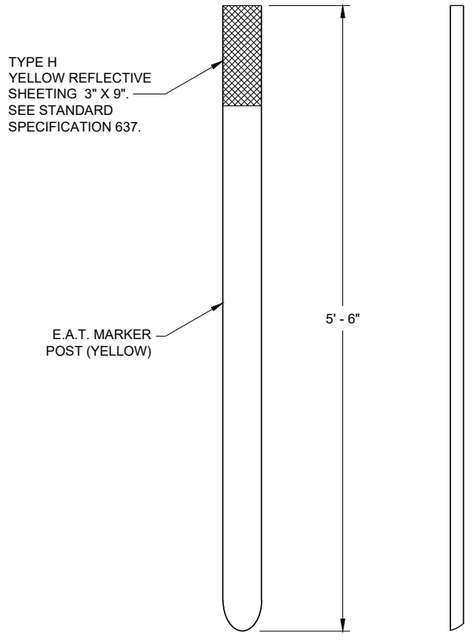


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



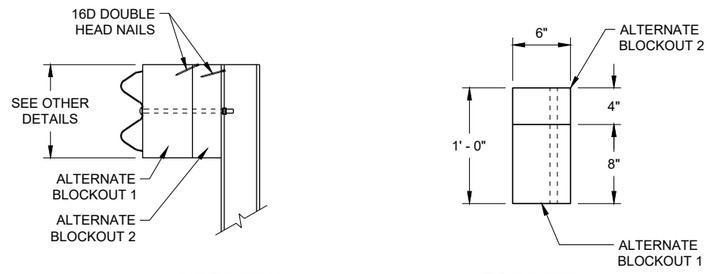
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

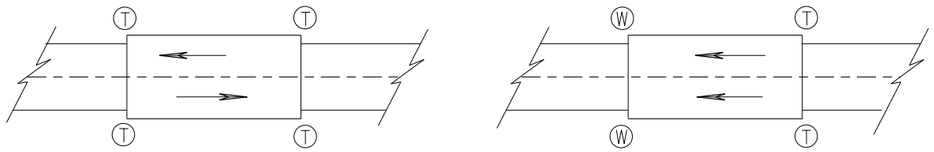
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

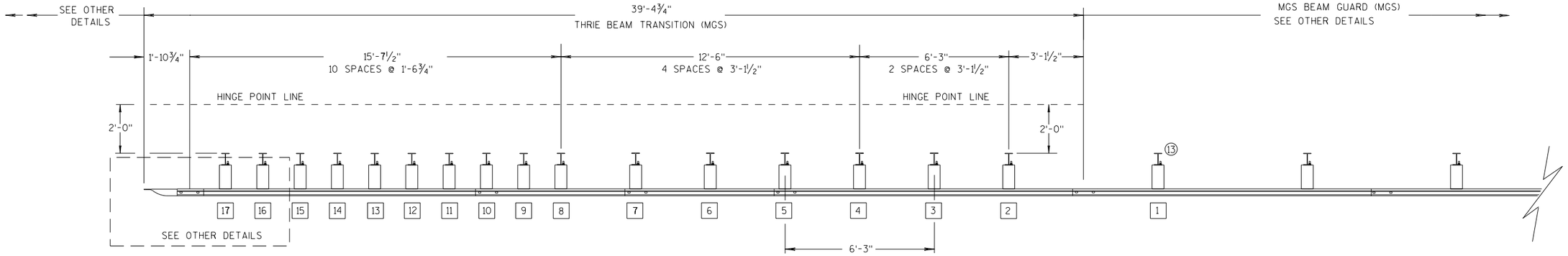
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

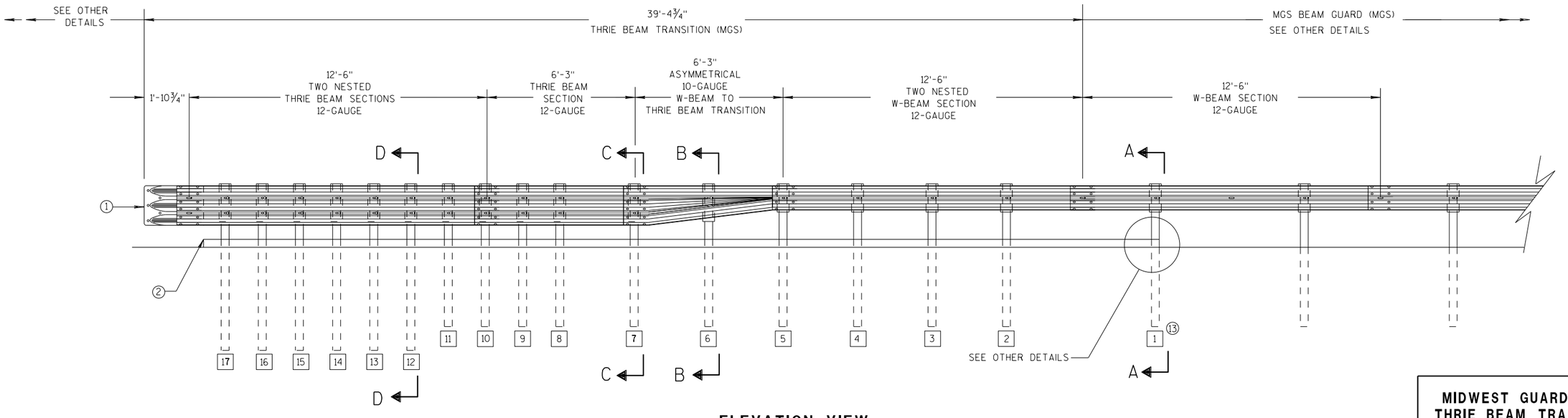
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

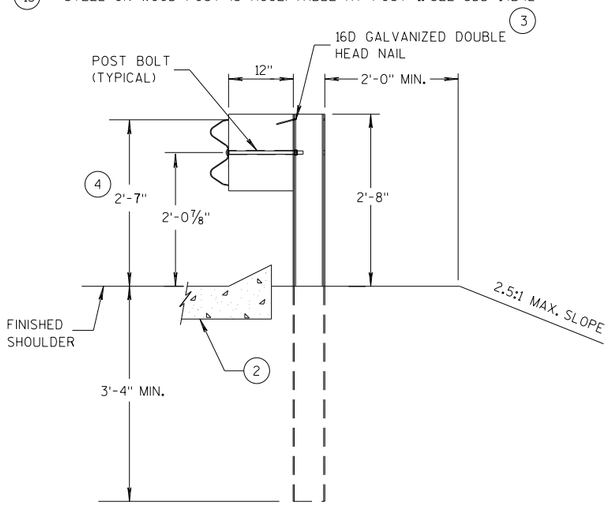
GENERAL NOTES

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

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

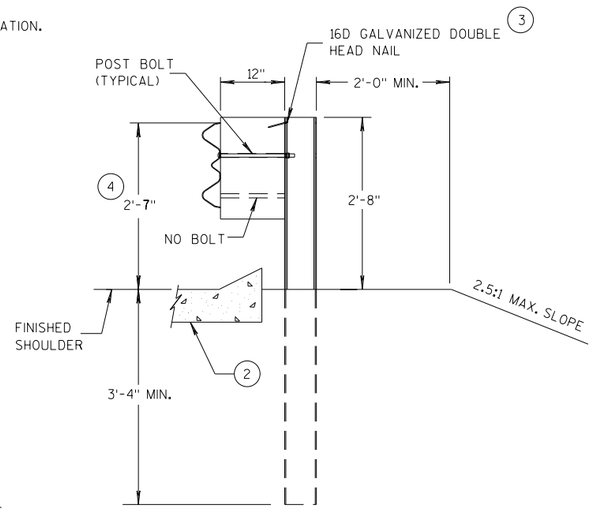
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



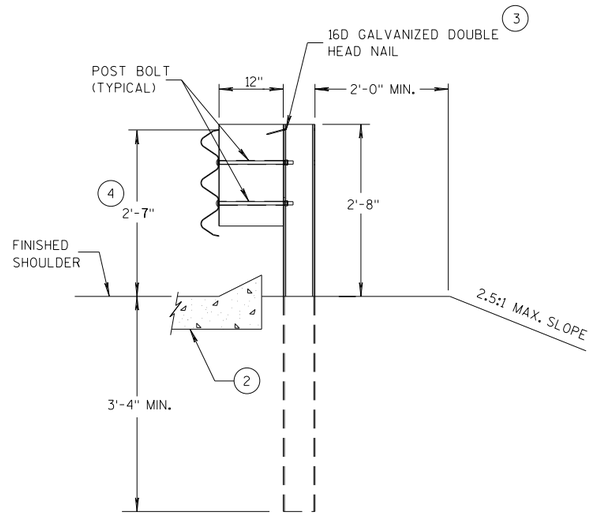
SECTION A-A (13)

POSTS 1-5



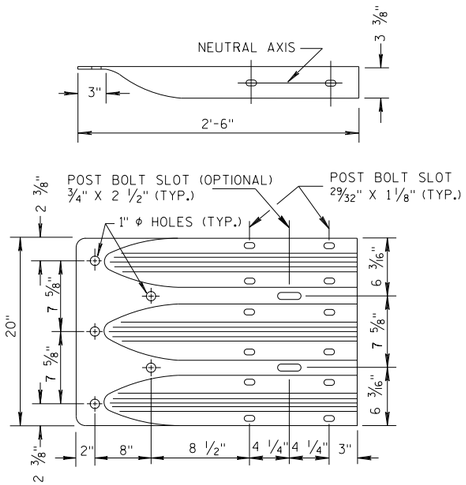
SECTION B-B

POST 6

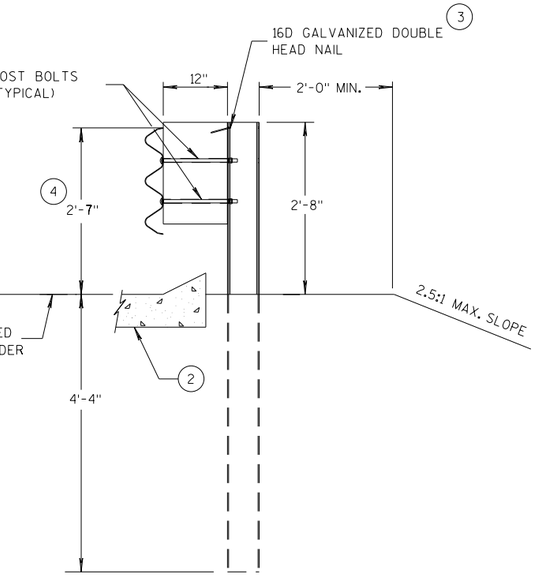


SECTION C-C

POSTS 7-11

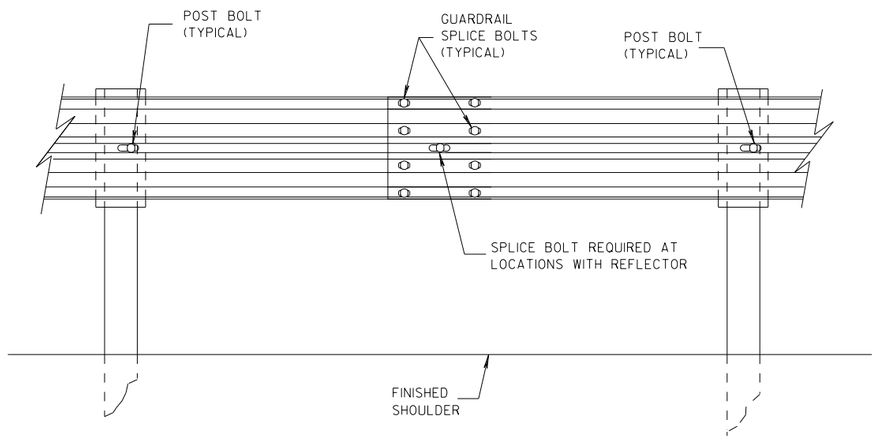


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

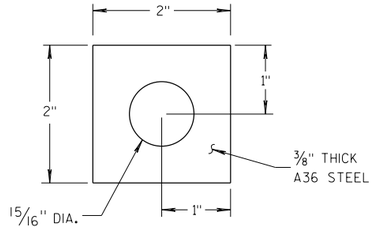
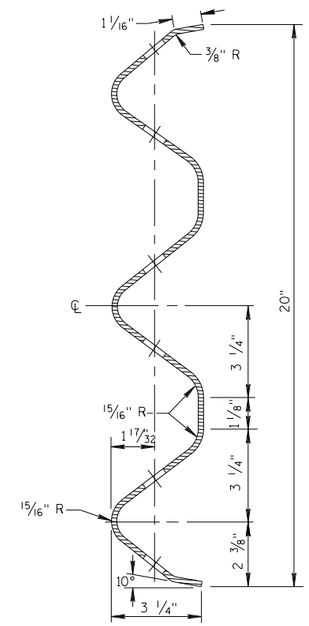


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

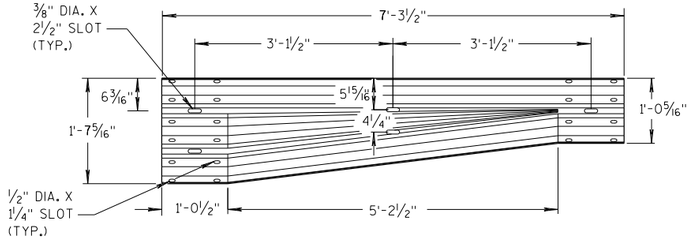
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 22

6

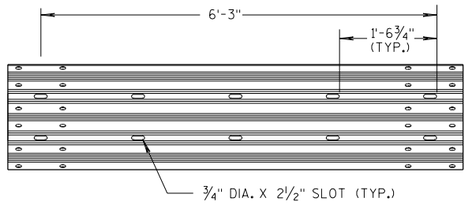
S.D.D. 14 B 45-5b

6

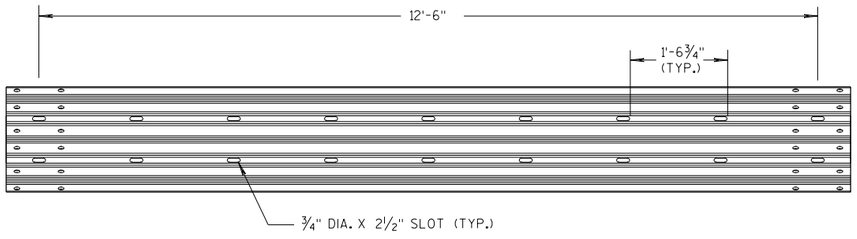
S.D.D. 14 B 45-5b



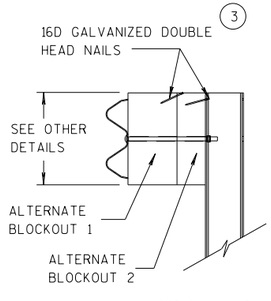
W-BEAM TO THRIE BEAM TRANSITION SECTION



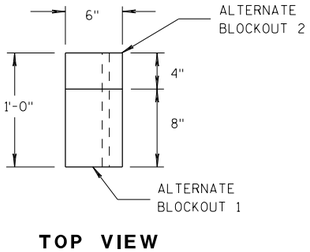
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

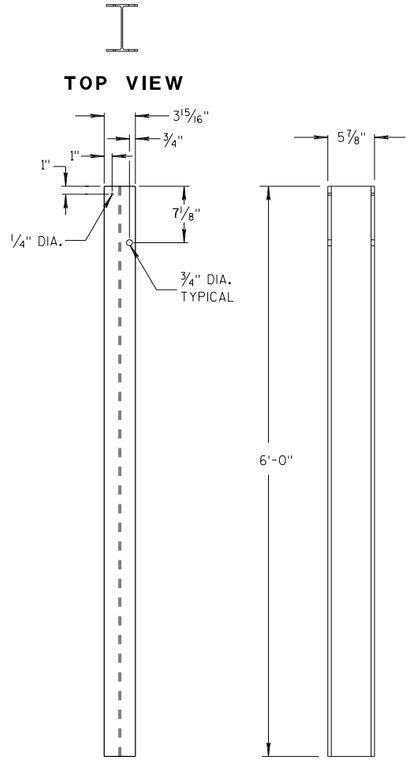


SIDE VIEW



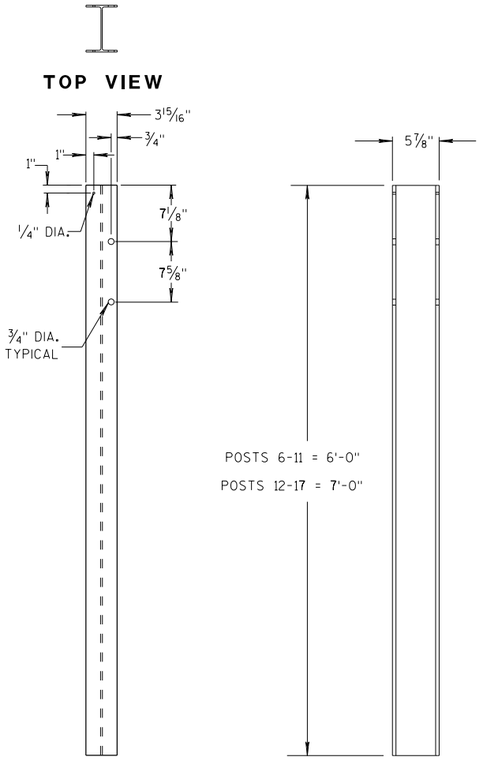
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



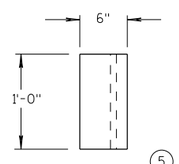
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

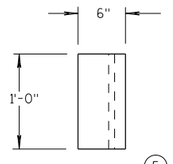


FRONT VIEW SIDE VIEW

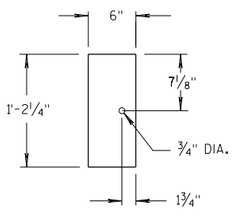
STEEL POSTS 6-17



TOP VIEW (5)

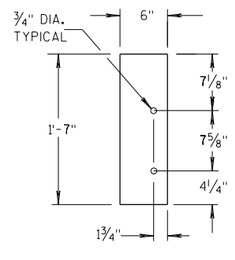


TOP VIEW (5)



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)

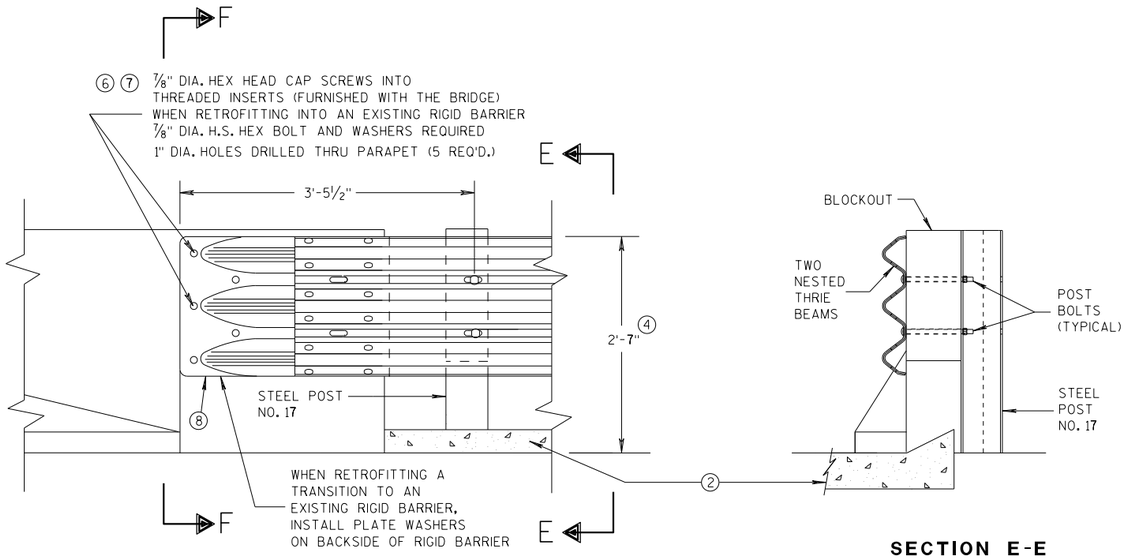
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 23

6

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

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

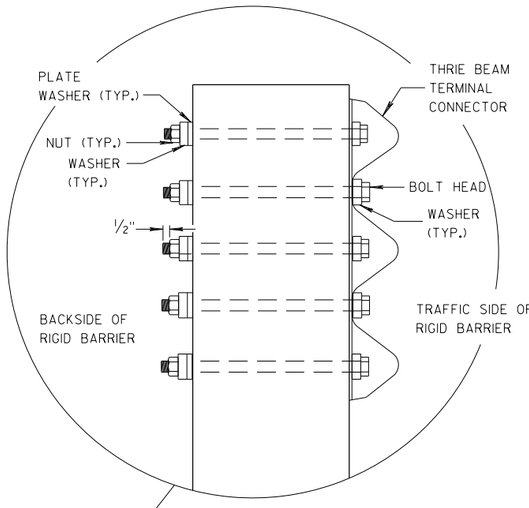
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

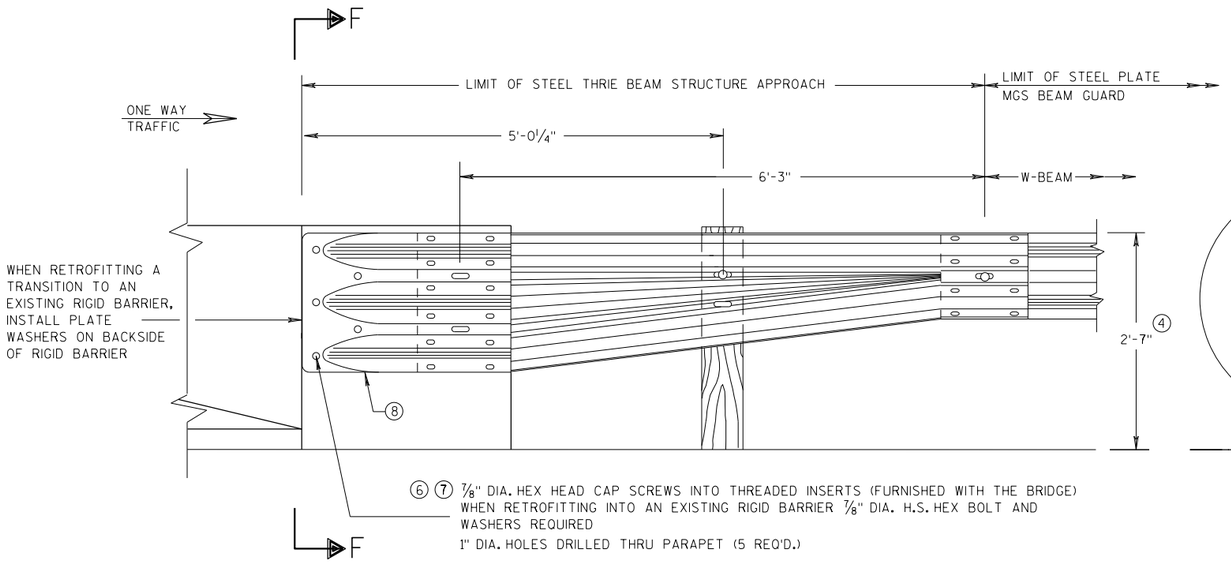
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

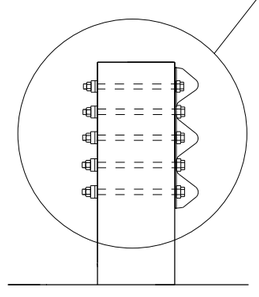
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

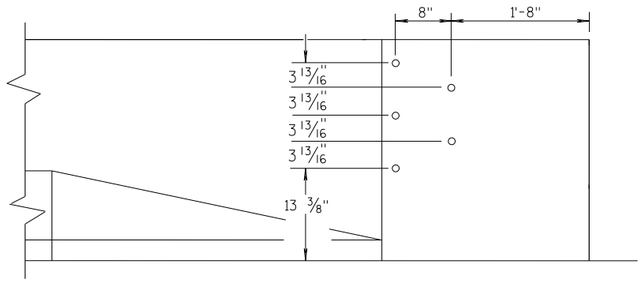




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[UNIT SUPERVIS
NT
FHWA

6

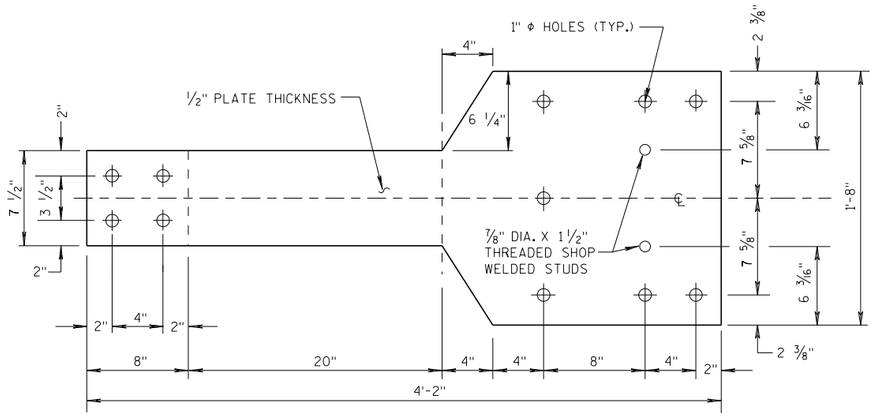
S.D.D. 14 B 45-5d

6

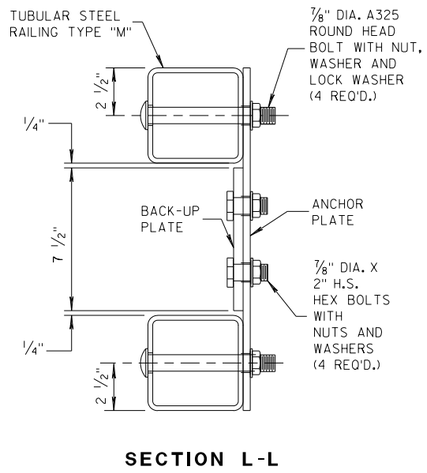
S.D.D. 14 B 45-5d

GENERAL NOTES

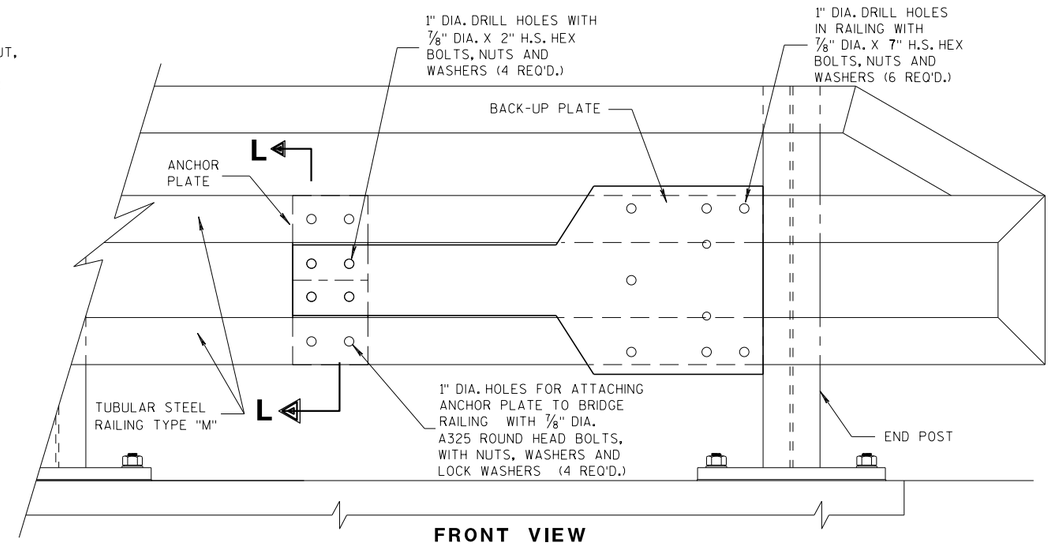
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



FRONT VIEW

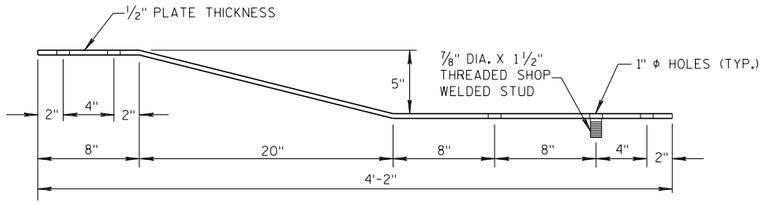


SECTION L-L



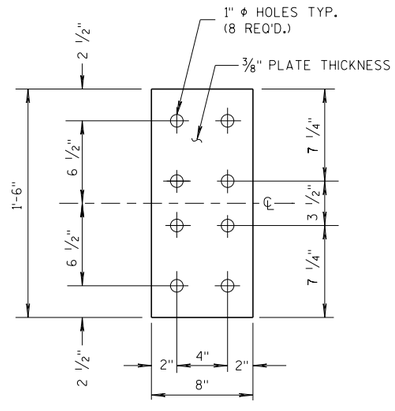
FRONT VIEW

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



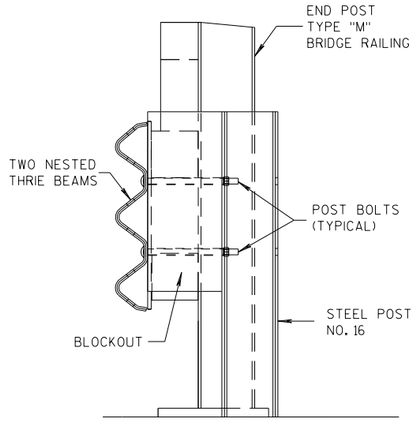
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

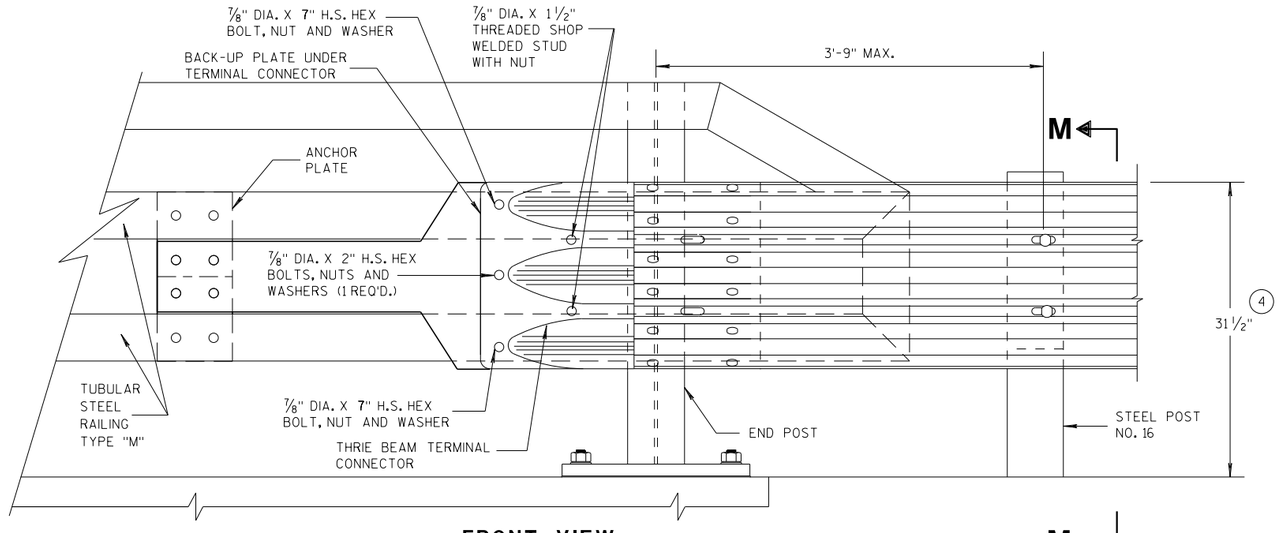


FRONT VIEW

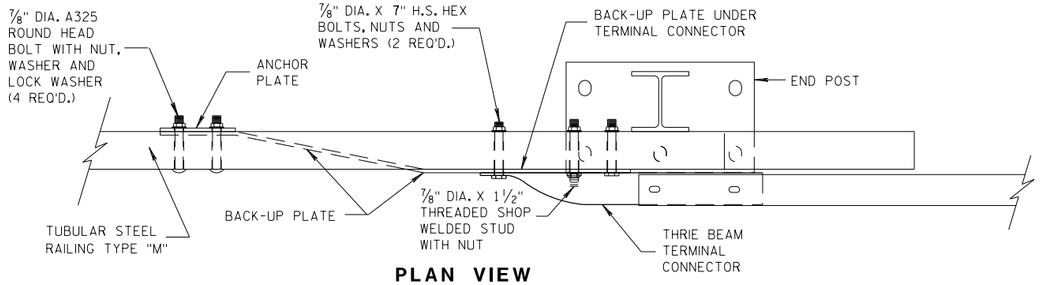
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

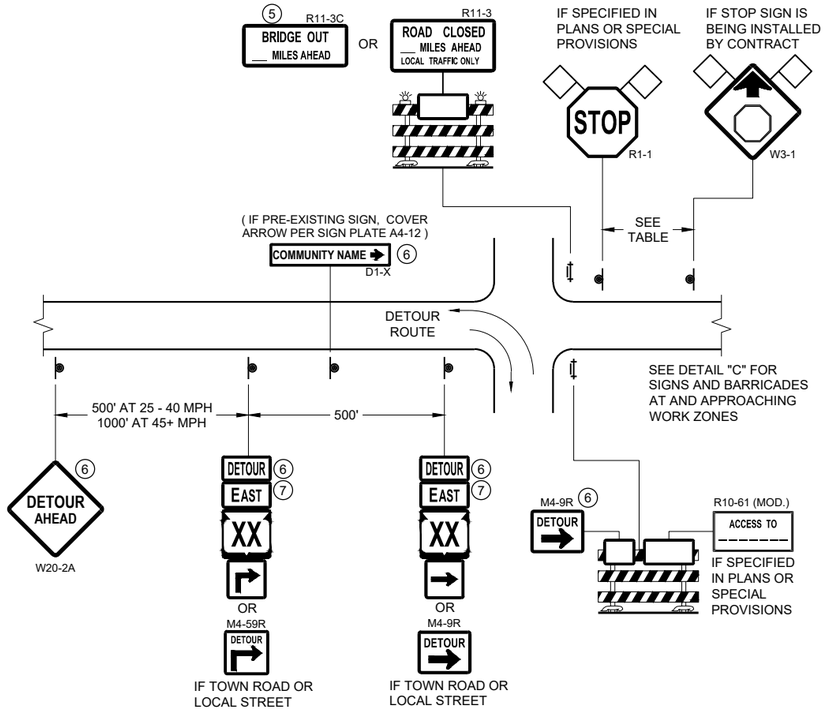
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

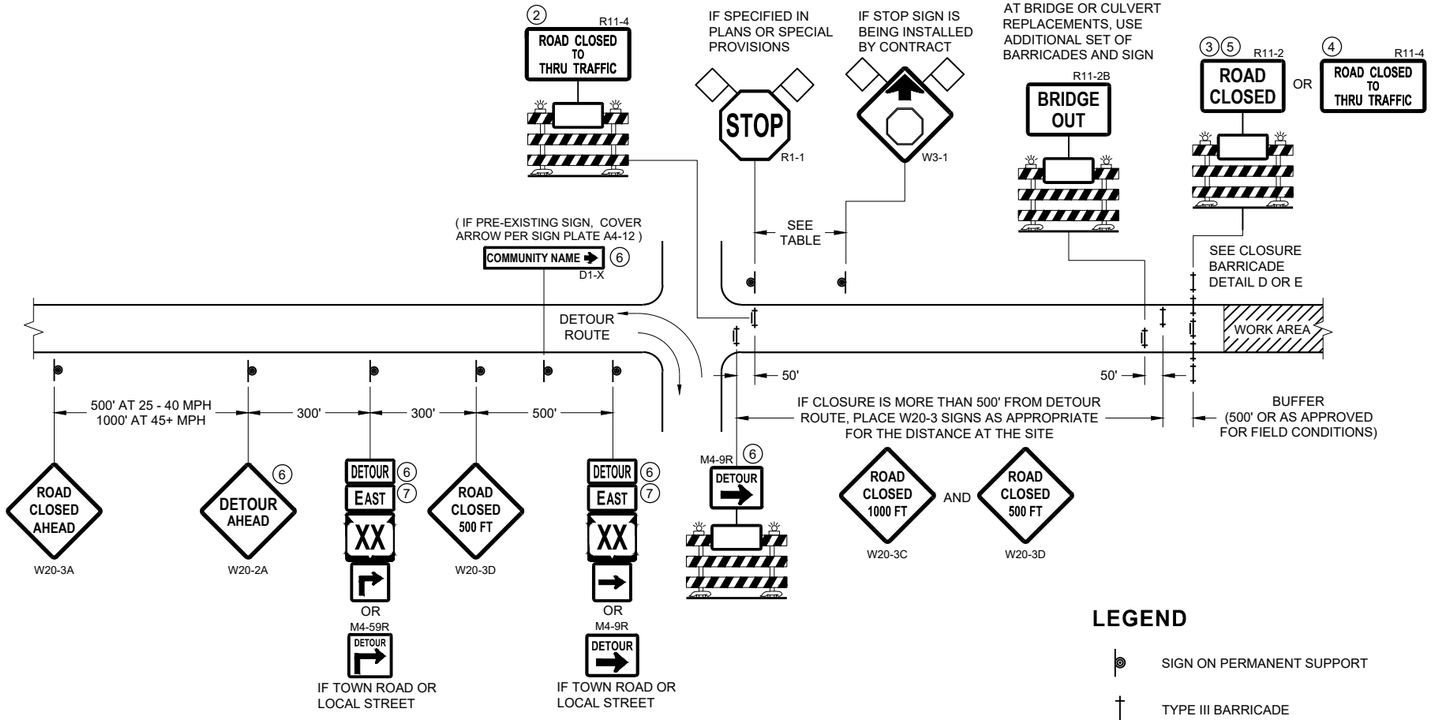
6

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

6

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



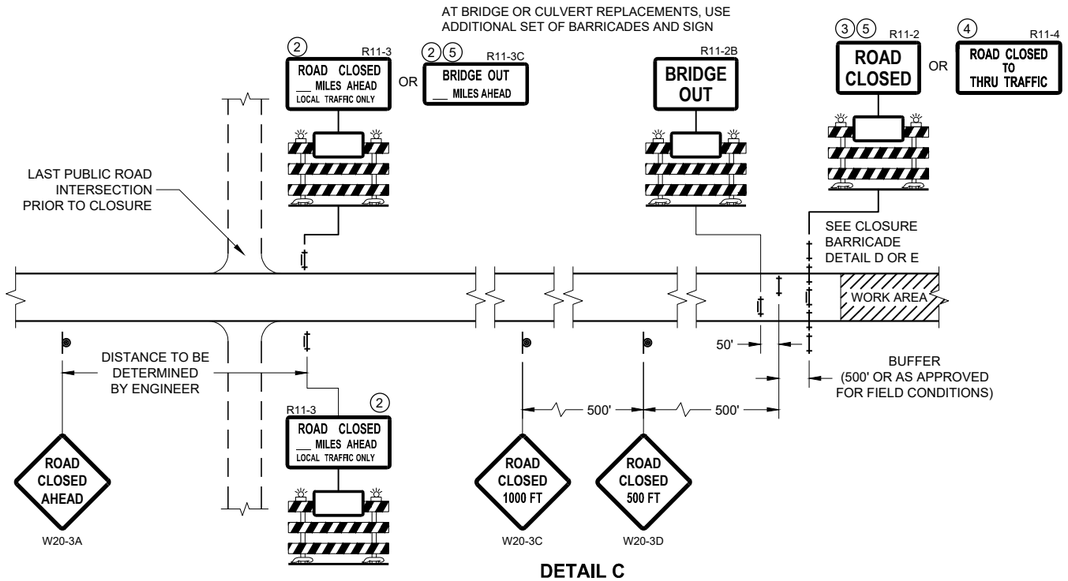


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

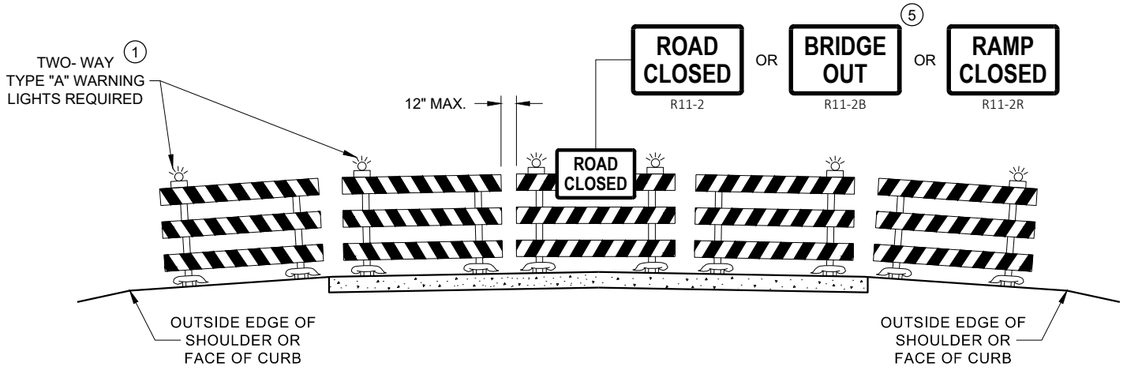
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

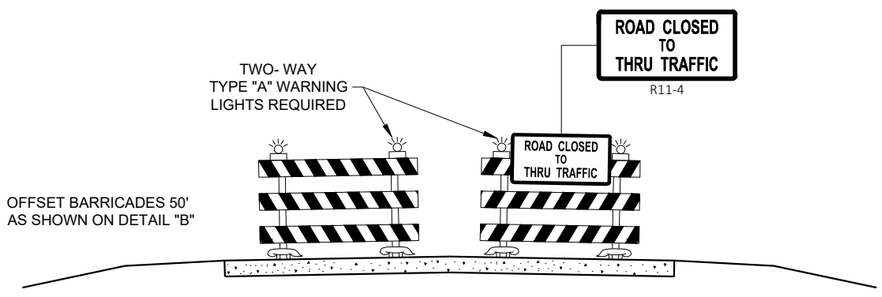
6

SDD 15C02 - 07a

SDD 15C02 - 07a



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

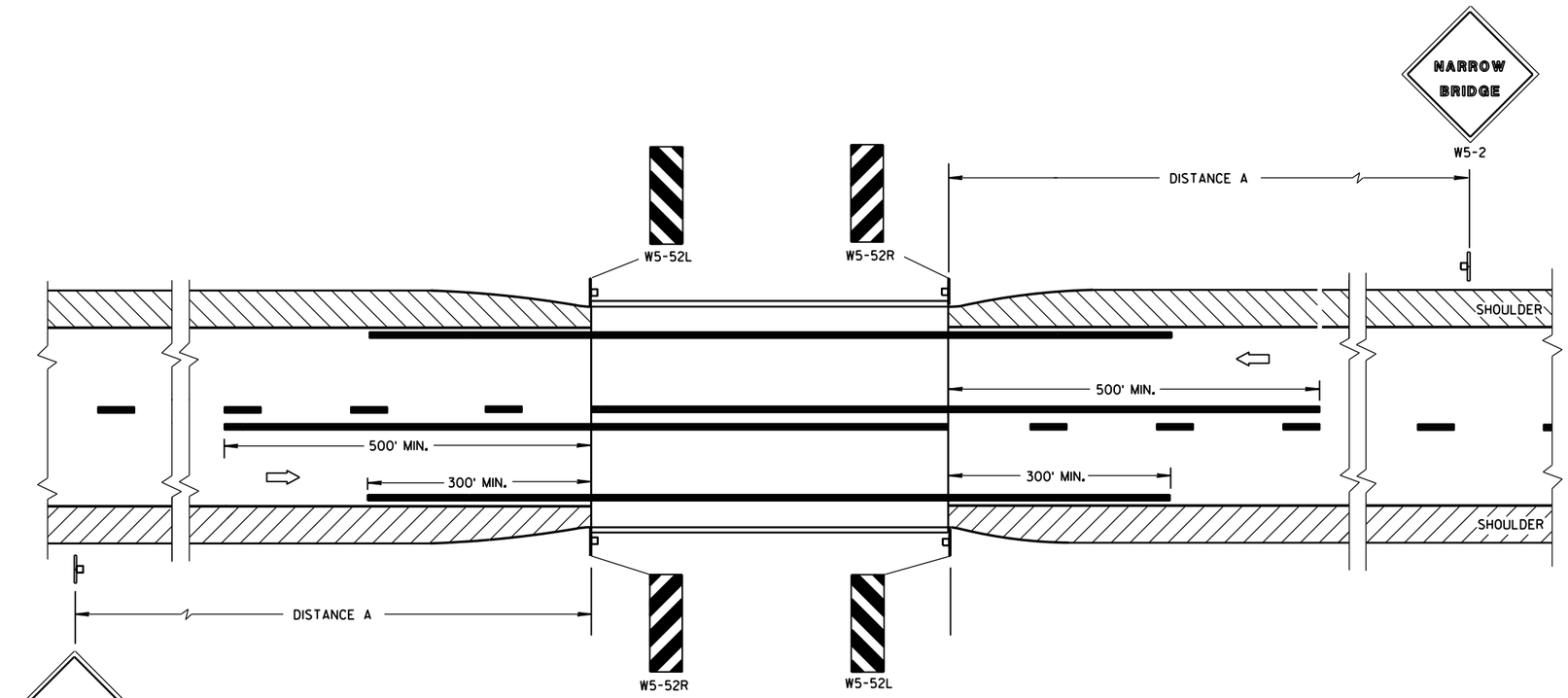
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 07b

6

SDD 15C02 - 07b



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

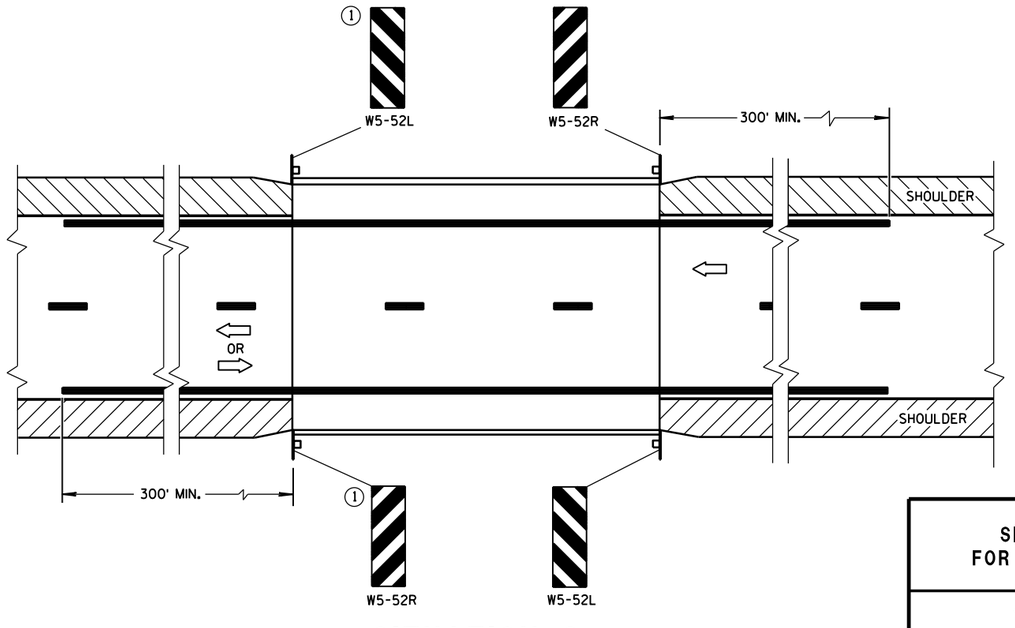
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

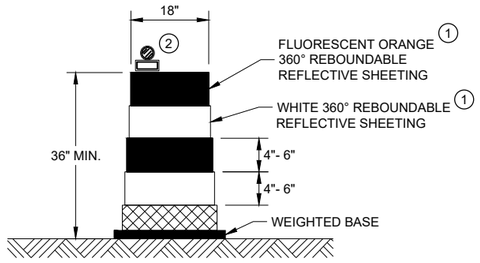
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

6

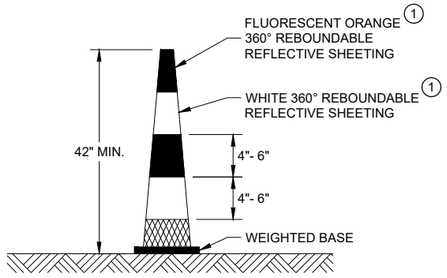
S.D.D. 15 C 6-9

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.

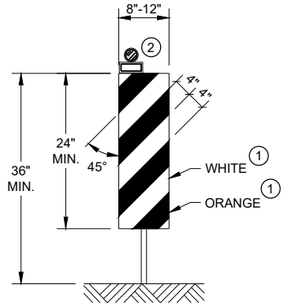


DRUM



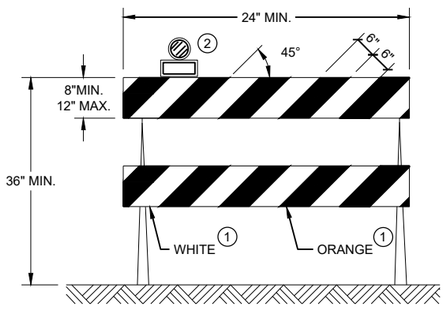
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



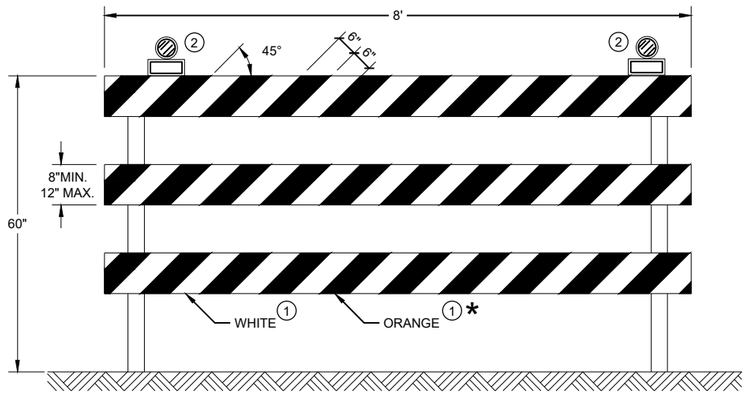
VERTICAL PANEL

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

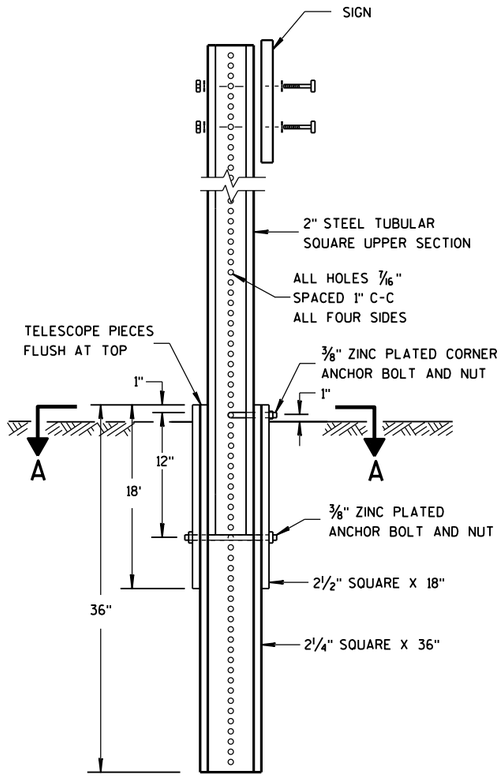
FHWA

6

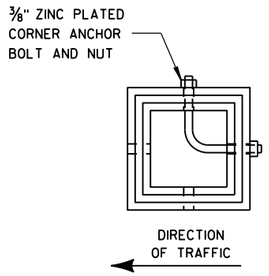
SDD 15C11 - 07b

6

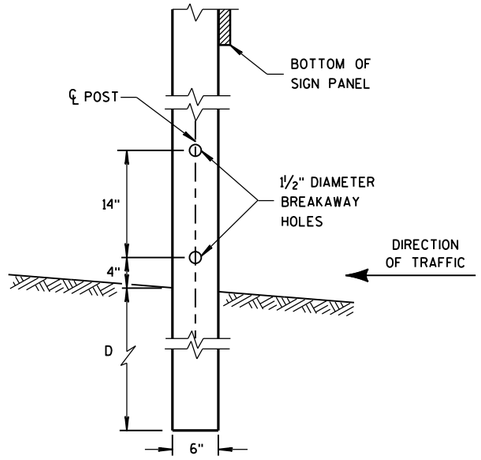
SDD 15C11 - 07b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



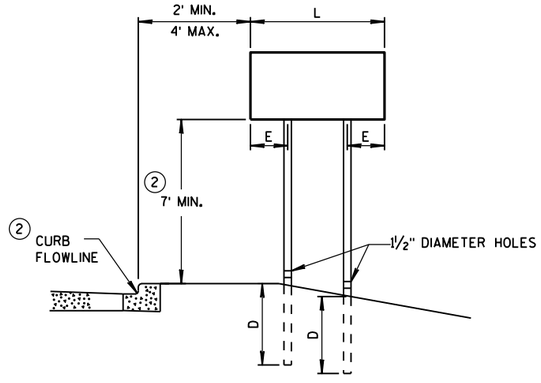
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

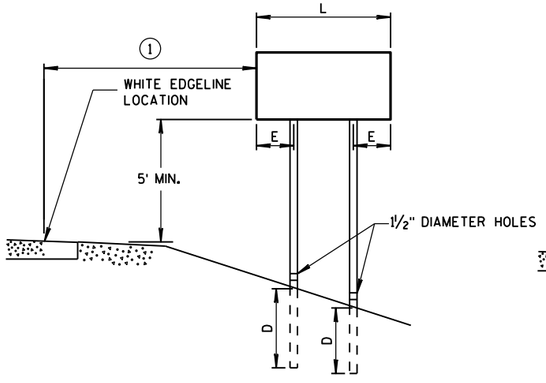
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

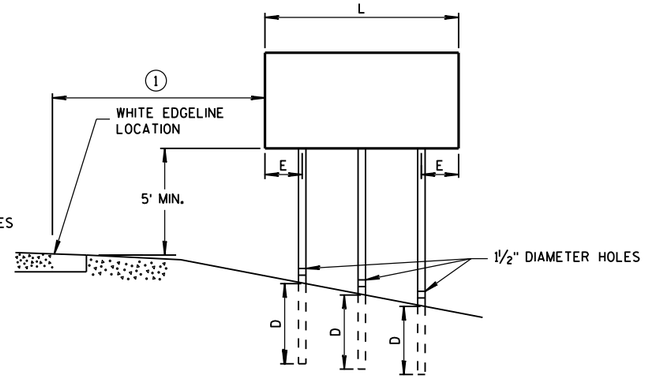
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

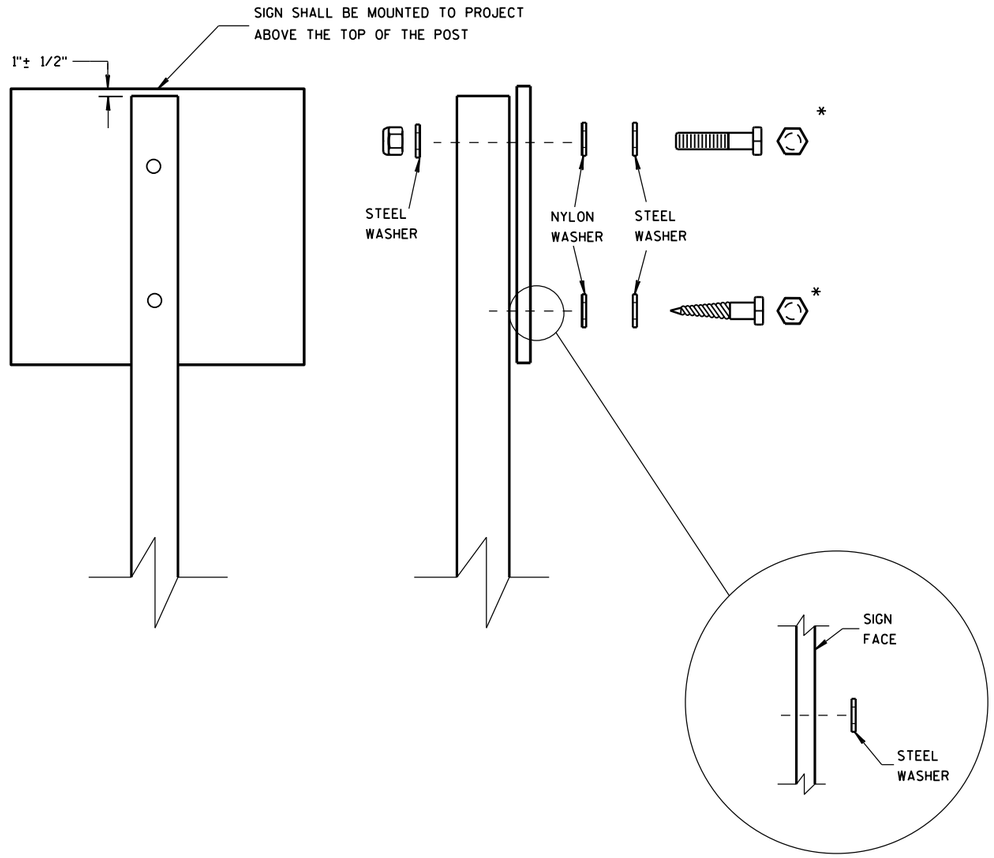
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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



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

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

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

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

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

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

LAG SCREWS - 3/8" X 3"

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

6

6

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

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

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

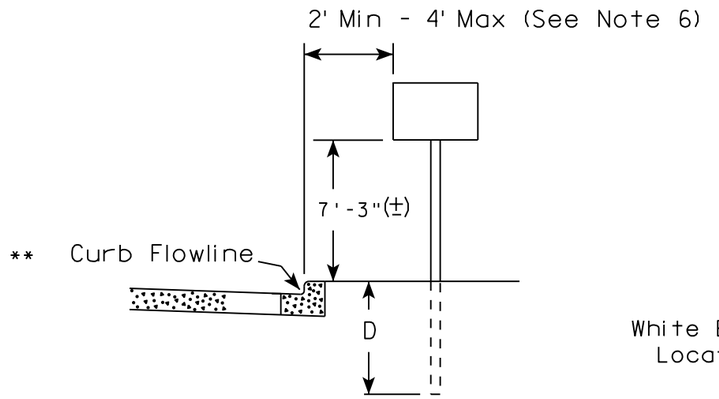
APPROVED

June 2017
DATE

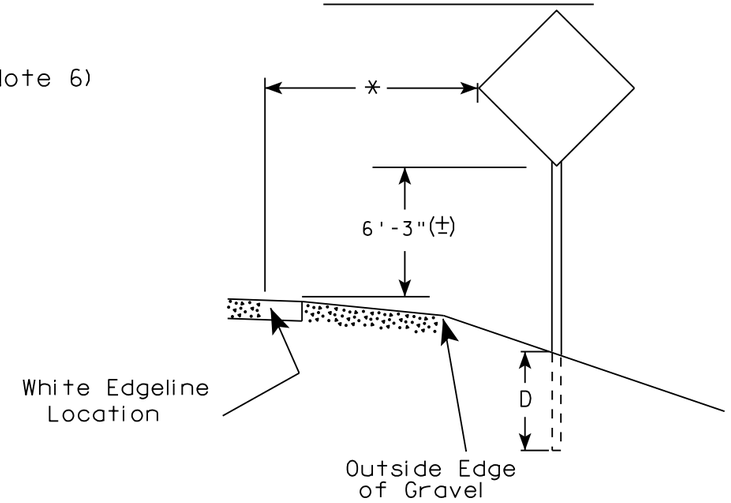
/S/ Andrew Heldtke
WORK ZONE ENG

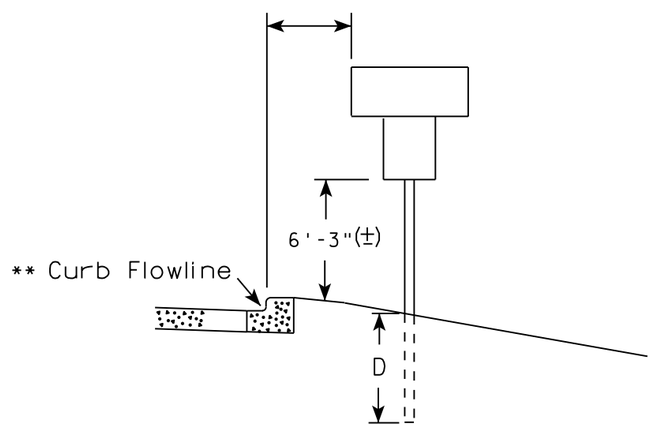
FHWA

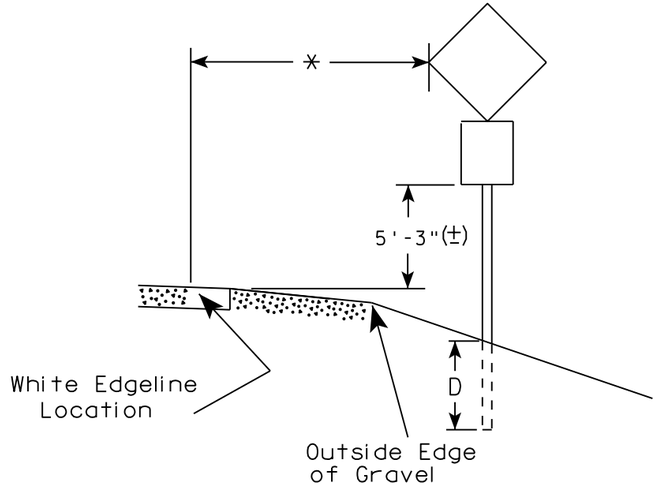
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

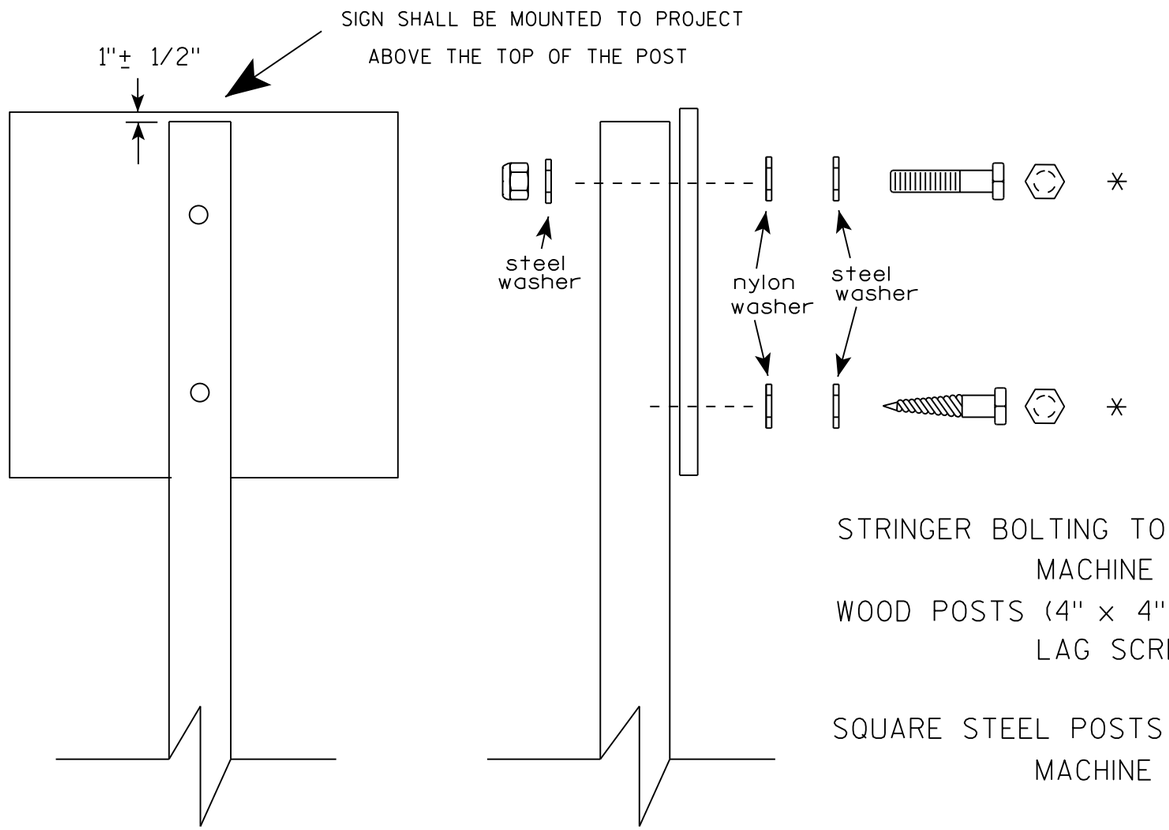
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	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.

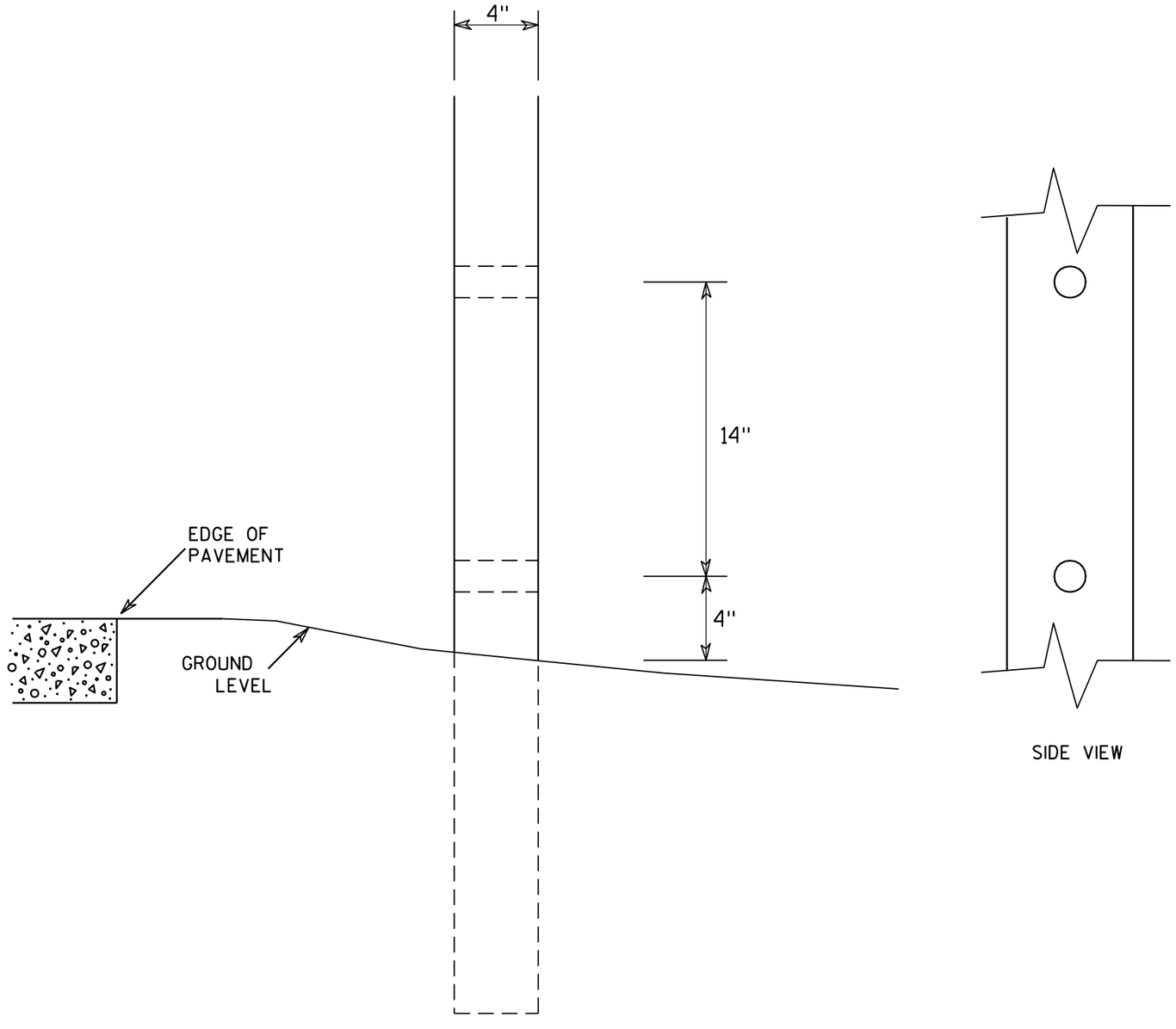
ATTACHMENT OF SIGNS TO POSTS

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



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

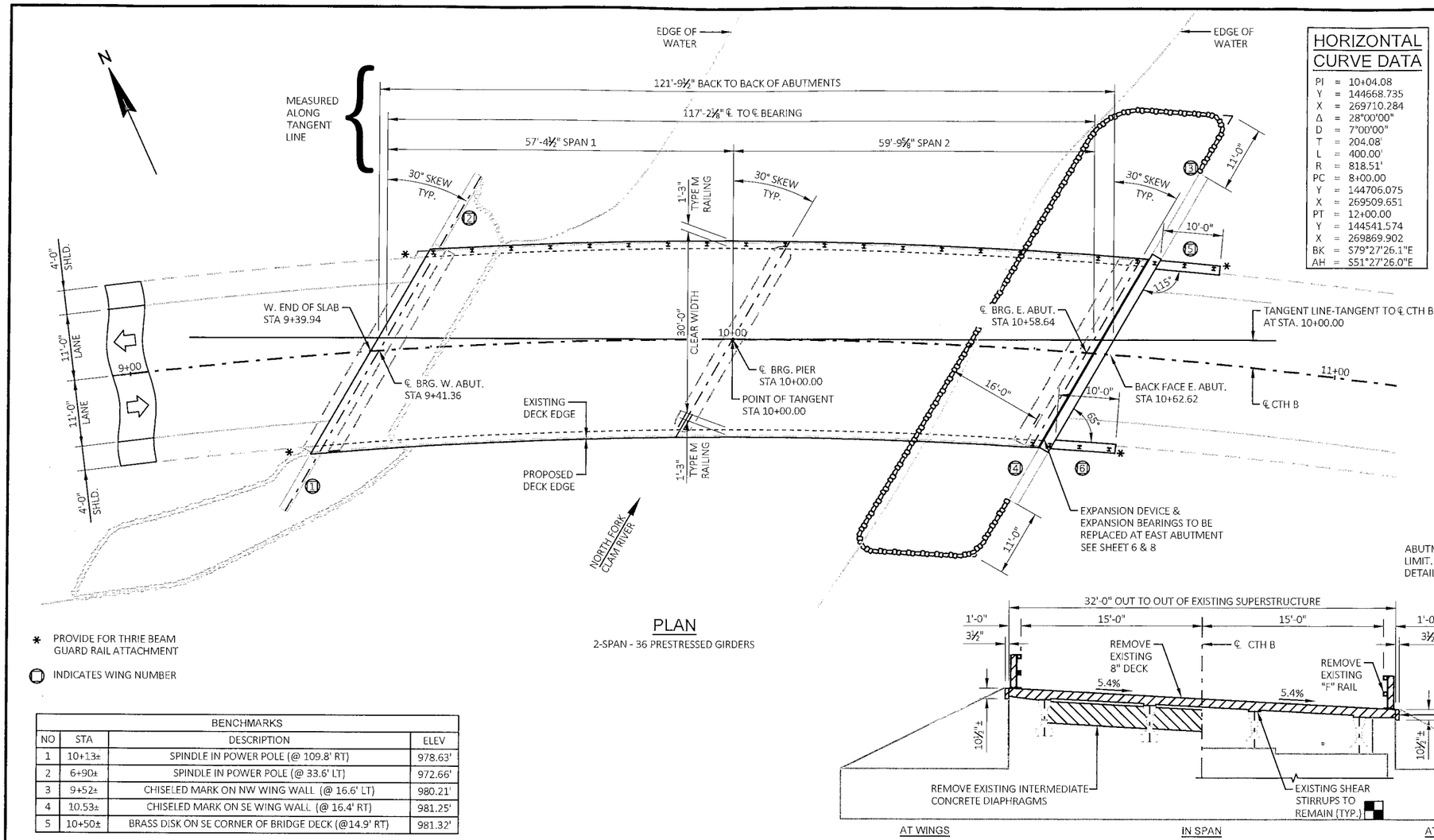
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 34	E

STATE PROJECT NUMBER
8844-00-71



PLAN

2-SPAN - 36 PRESTRESSED GIRDERS

HORIZONTAL CURVE DATA		
PI	=	10+04.08
Y	=	144668.735
X	=	269710.284
Δ	=	28°00'00"
D	=	7°00'00"
T	=	204.08'
L	=	400.00'
R	=	818.51'
PC	=	8+00.00
Y	=	144706.075
X	=	269509.651
PT	=	12+00.00
Y	=	144541.574
X	=	269869.902
BK	=	S79°27'26.1"E
AH	=	S51°27'26.0"E

DESIGN DATA

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

LIVE LOAD:

DESIGN LOADING	HS20
INVENTORY RATING	HS18
OPERATING RATING	HS30
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

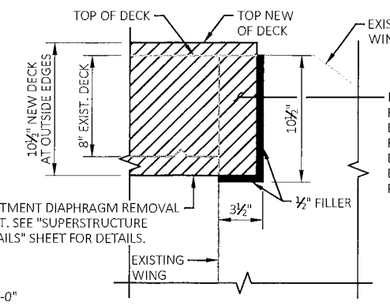
MATERIAL PROPERTIES:

CONCRETE MASONRY

DECK	f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 PSI

TRAFFIC DATA

AADT (2020)	245
AADT (2040)	270
DESIGN SPEED	55 MPH

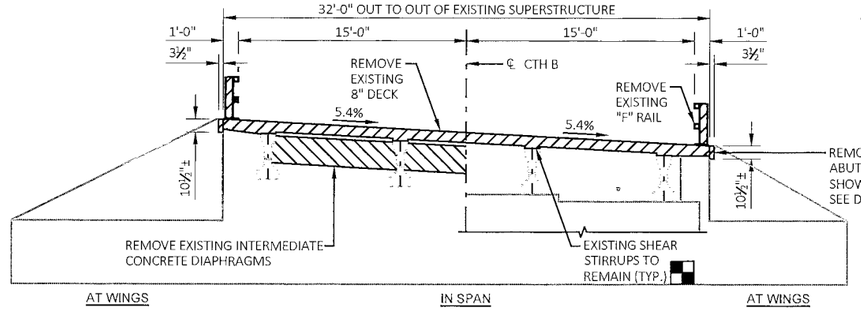


DETAIL A

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

⬡ INDICATES WING NUMBER

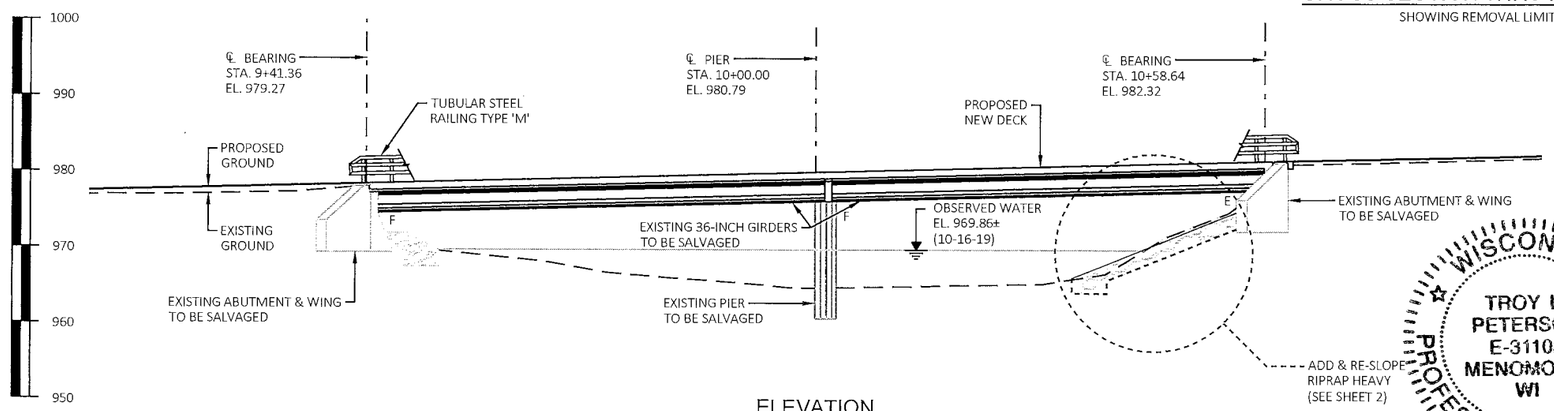
BENCHMARKS			
NO	STA	DESCRIPTION	ELEV
1	10+13±	SPINDLE IN POWER POLE (@ 109.8' RT)	978.63'
2	6+90±	SPINDLE IN POWER POLE (@ 33.6' LT)	972.66'
3	9+52±	CHISELED MARK ON NW WING WALL (@ 16.6' LT)	980.21'
4	10.53±	CHISELED MARK ON SE WING WALL (@ 16.4' RT)	981.25'
5	10+50±	BRASS DISK ON SE CORNER OF BRIDGE DECK (@14.9' RT)	981.32'



CROSS SECTION THRU ROADWAY

SHOWING REMOVAL LIMITS

CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE SHEAR STIRRUPS AND TOP GIRDER FLANGE, THE ENGINEER WILL INSPECT THE GIRDERS PRIOR TO PLACING NEW DECK.



EXCAVATION IN THESE AREAS SHALL BE INCLUDED IN EXCAVATION FOR STRUCTURE (TYP.)

ELEVATION

NORMAL TO NORTH FORK CLAM RIVER (LOOKING DOWNSTREAM)

LIST OF DRAWINGS

1. DECK REPLACEMENT
2. CROSS SECTION, QUANTITIES, & NOTES
3. SUPERSTRUCTURE CROSS SECTION
4. EAST ABUTMENT WING DETAILS
5. SUPERSTRUCTURE
6. SUPERSTRUCTURE DETAILS
7. EXPANSION BEARINGS
8. INTERMEDIATE STEEL DIAPHRAGMS
9. EXPANSION DEVICE
10. RAILING TUBULAR TYPE M

WISCONSIN PROFESSIONAL ENGINEER
TROY L. PETERSON
E-31102
MENOMONIE
WI
3-19-2020

BRIDGE OFFICE CONTACT
WILLIAM DREHER
(608) 266-8489

CONSULTANT CONTACT
TROY L. PETERSON
(715) 235-9081

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
Cedar corporation
www.cedarcorp.com 800-472-7372

ACCEPTED William C. Dreher 03/23/20
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-7-5

CTH B OVER N FK CLAM RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
BURNETT	LA FOLLETTE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TLP	DWM	NJT	TLP

DECK REPLACEMENT

SHEET 1 OF 10

35

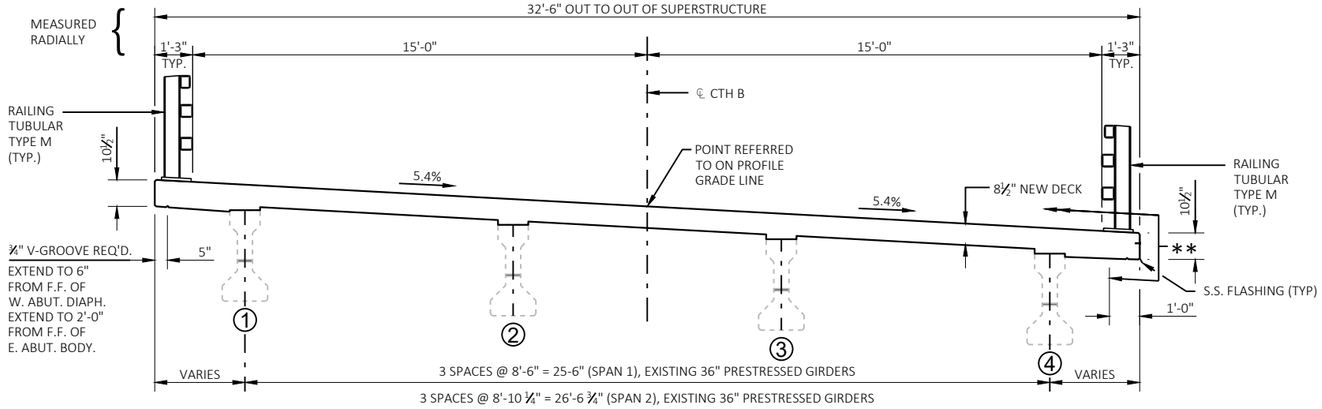
I.D. 8844-00-71

DATE: March 2020

SCALE = 1:1

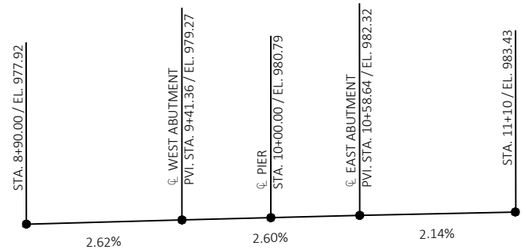
8

8



CROSS SECTION THRU ROADWAY

LOOKING UP STATION

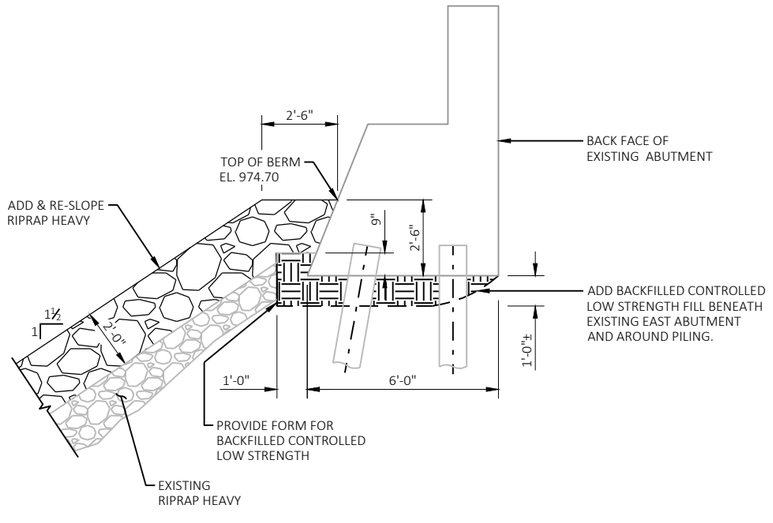


PROFILE GRADE LINE - CTH B

NOT TO SCALE

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT.	EAST ABUT.	PIER	SUPER.	TOTALS
203.0700.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS CAPTURE SYSTEM STA 10+00	LS	-	-	-	1	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-7-5	LS	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-7-5	LS	-	-	-	-	1
209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	-	10	-	-	10
502.0100	CONCRETE MASONRY BRIDGES	CY	-	16.5	-	118.5	135.0
502.3101	EXPANSION DEVICE	LF	-	-	-	36	36
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	433	433
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EA	-	38	-	-	38
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EA	-	24	-	-	24
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	1490	-	32250	33740
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EA	-	4	-	-	4
506.4000	STEEL DIAPHRAGMS B-7-5	EA	-	-	-	6	6
506.7050.S	REMOVING BEARINGS	EA	-	4	-	-	4
513.4061	RAILING TUBULAR TYPE M	LF	-	-	-	261	261
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	1	1	-	-	2
606.0300	RIPRAP HEAVY	CY	-	45	-	-	45
SPV.0090.01	FLASHING STAINLESS STEEL	LF	-	-	-	119	119
	NON-BID ITEMS						
	FILLER	SIZE	-	-	-	-	½" X ¾"



CROSS SECTION THRU EAST ABUTMENT SCOUR REPAIR

LOOKING FROM UPSTREAM

STATE PROJECT NUMBER

8844-00-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ALL ELEVATIONS ARE IN FEET.

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

THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE EAST ABUTMENT SHALL HAVE RIPRAP HEAVY ADDED TO THE EXISTING RIPRAP TO THE EXTENT SHOWN ON SHEET 2.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

** PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP OF DECK, EDGE OF DECK, AND OUTSIDE 1'-0" OF THE UNDERSIDE OF THE SLAB.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

UTILIZE BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

VARIATIONS TO THE NEW GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE SUPERSTRUCTURE CROSS SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

CROSS SECTION, QUANTITIES, & NOTES

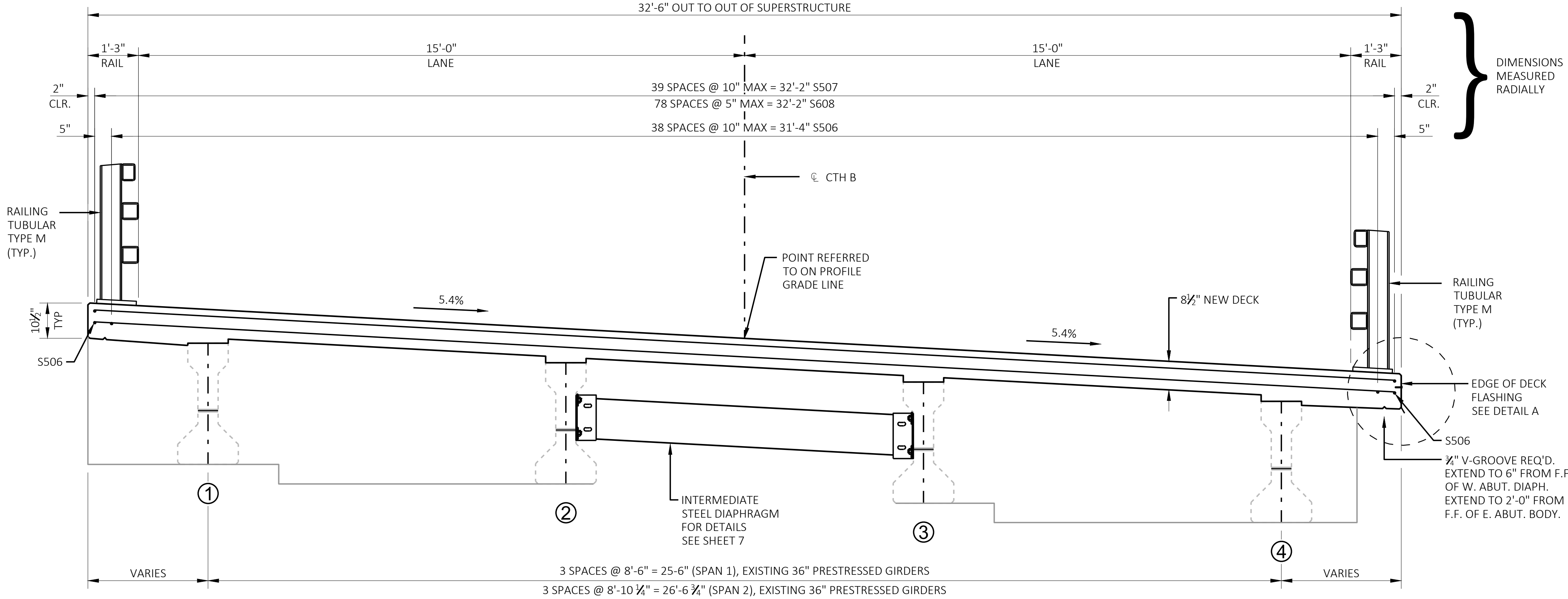
SHEET 2 OF 10

36

SCALE = 1:1

8

8



AT EXISTING ABUTMENT   IN SPAN   AT EXISTING PIER

CROSS SECTION THRU ROADWAY

LOOKING UP STATION

BILL OF BARS

32250# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	348	32-2			SLAB TRANS. TOP & BOTTOM
S502	X	30	17-3		☒	SLAB TRANS. BOTTOM
S503	X	30	16-8		☒	SLAB TRANS. TOP
S504	X	30	16-2		☒	SLAB TRANS. BOTTOM
S505	X	30	16-8		☒	SLAB TRANS. TOP
S506	X	123	41-8			SLAB LONG. BOTTOM
S507	X	80	34-8			SLAB LONG. TOP
S608	X	79	52-2			SLAB LONG. TOP OVER PIER
S409	X	21	10-0	X		SLAB LONG. BOTTOM OVER PIER
S410	X	18	8-2			SLAB TRANS. BOTTOM OVER PIER
S711	X	18	8-3			EAST DIAPHRAGM TRANS.
S412	X	27	4-6	X		EAST DIAPHRAGM STIRRUP
S513	X	15	7-10			TRANS. AT PAVING BLOCK
S514	X	37	4-6	X		STIRRUP AT PAVING BLOCK
S515	X	4	35-6			TRANS. AT PAVING BLOCK
✱ S516	X	38	2-8	X		VERTICAL AT PAVING BLOCK
S617	X	140	6-0			TRANS. AT INTERNAL RAIL POSTS
S618	X	12	12-0	X		TRANS. AT END RAIL POSTS
S619	X	16	4-6	X		LONG. AT END RAIL POSTS
S620	X	70	12-0	X		TRANS. AT INTERNAL RAIL POSTS
S421	X	6	7-10			TRANS. AT JOINT BETWEEN GIRDERS

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

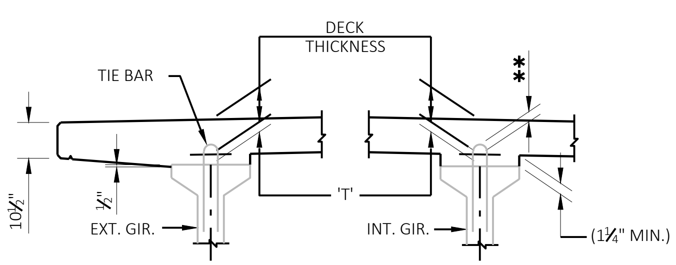
☒ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTH.

✱ ADHESIVE ANCHOR

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQUIRED	LENGTH
S502	1 SERIES OF 30	2-10 TO 31-8
S503	1 SERIES OF 30	2-3 TO 31-1
S504	1 SERIES OF 30	1-3 TO 31-1
S505	1 SERIES OF 30	1-10 TO 31-6



DECK HAUNCH DETAIL

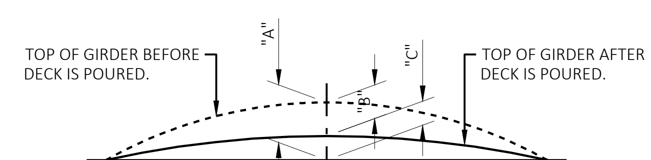
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

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

TO DETERMINE 'T', ELEV. OF TOP OF GIRDERS 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'

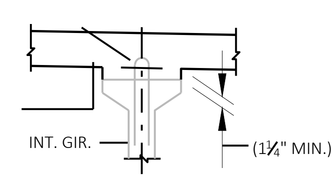
NOTE: AN AVERAGE HAUNCH ('T') OF 2" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



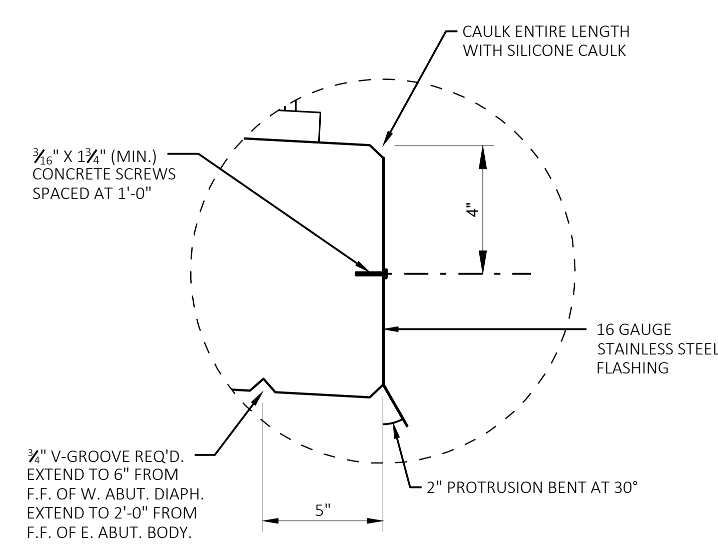
DEAD LOAD DEFLECTION DIAGRAM

GIRDER DEAD LOAD DEFLECTION (IN.)

SPAN	GIRDER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
1	1-4	5/16	9/16	13/16	15/16	1	15/16	13/16	9/16	5/16
2	1-4	5/16	5/8	13/16	1	1	1	13/16	5/8	5/16



GIRDER HAUNCH DETAIL



DETAIL A

RAILING NOT SHOWN FOR CLARITY

DECK FLASHING NOTES

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

FLASHING SHALL BE INSTALLED AFTER PROTECTIVE SURFACE TREATMENT APPLICATION.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

EXTEND FLASHING TO FRONT FACE OF ABUTMENT WINGWALL.

TOP OF FLASHING TO BEING APPROXIMATELY 1-INCH BELOW TOP OF DECK/SLAB SURFACE.

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

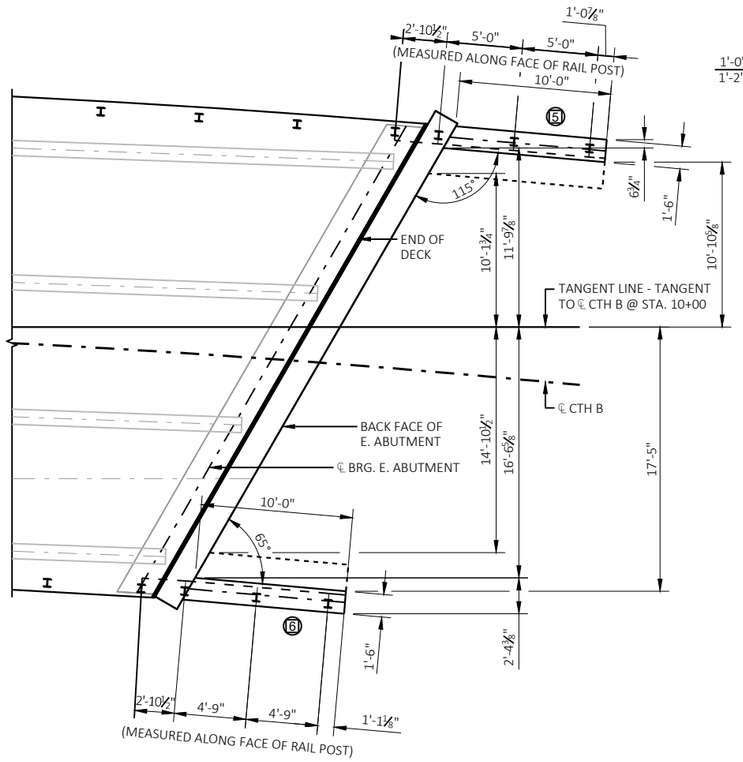
DRAWN BY NJT   PLANS CK'D. TLP

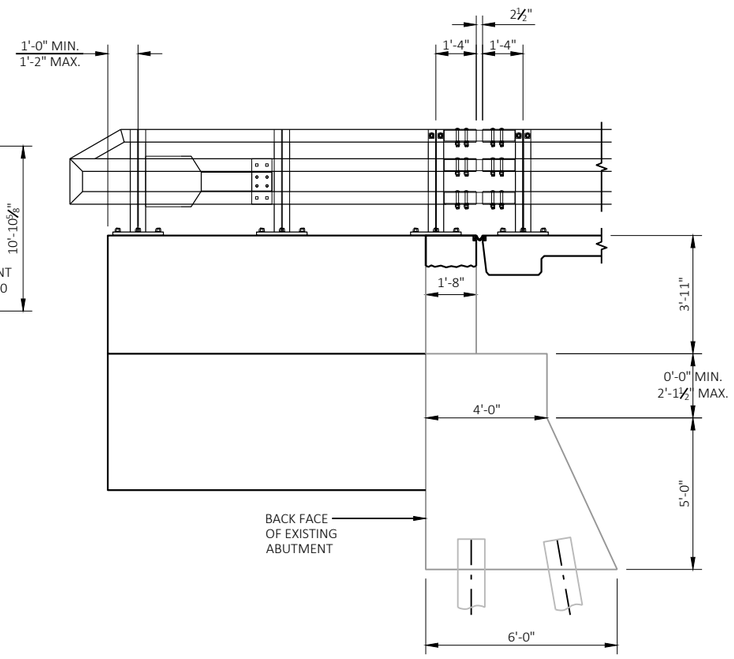
SUPERSTRUCTURE CROSS SECTION

8   8

SCALE = 1:1

STATE PROJECT NUMBER
8844-00-71





EAST ABUTMENT ELEVATION

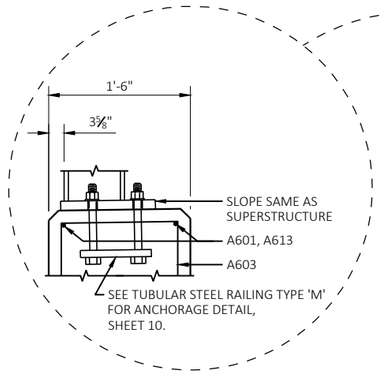
BILL OF BARS

1490# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A601	X	2	9-7			WING HORIZONTAL TOP
A402	X	8	9-7			WING HORIZONTAL TOP
A603	X	28	14-0	X		WING VERTICAL TOP
A504	X	22	14-6	X		WING STIRRUP BOTTOM
✱ A605	X	5	10-10			WING 5 HORIZONTAL F.F. BOTTOM
✱ A606	X	1	11-3			WING 5 HORIZONTAL BOTTOM
✱ A607	X	1	11-8			WING 5 HORIZONTAL BOTTOM
✱ A608	X	5	12-2			WING 5 HORIZONTAL B.F. BOTTOM
✱ A609	X	5	11-4			WING 6 HORIZONTAL F.F. BOTTOM
✱ A610	X	1	10-11			WING 6 HORIZONTAL BOTTOM
✱ A611	X	1	10-6			WING 6 HORIZONTAL BOTTOM
✱ A612	X	5	10-0			WING 6 HORIZONTAL B.F. BOTTOM
A613	X	2	10-1			WING HORIZONTAL TOP
A414	X	8	10-1			WING HORIZONTAL TOP

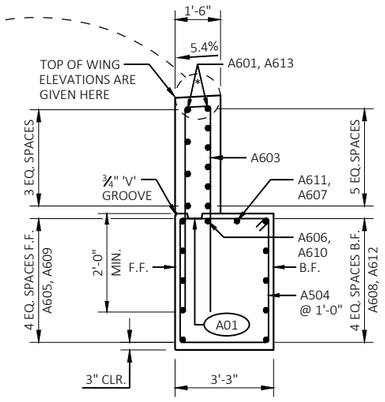
NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

✱ ADHESIVE ANCHOR #6 BAR, EMBED 1'-0" IN CONCRETE. ANCHOR SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

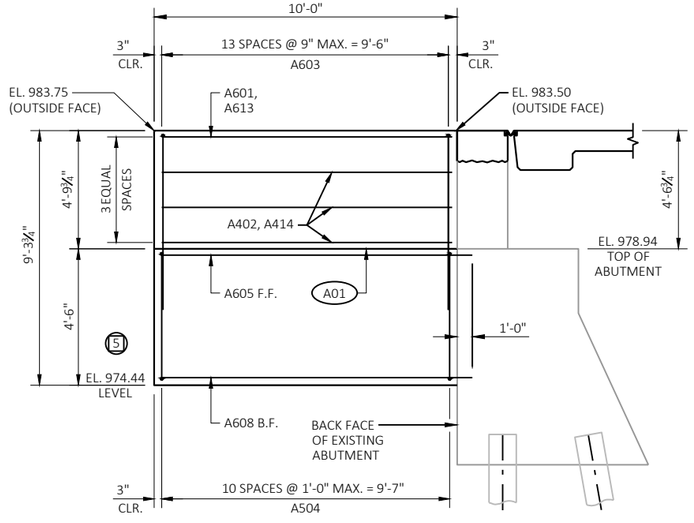


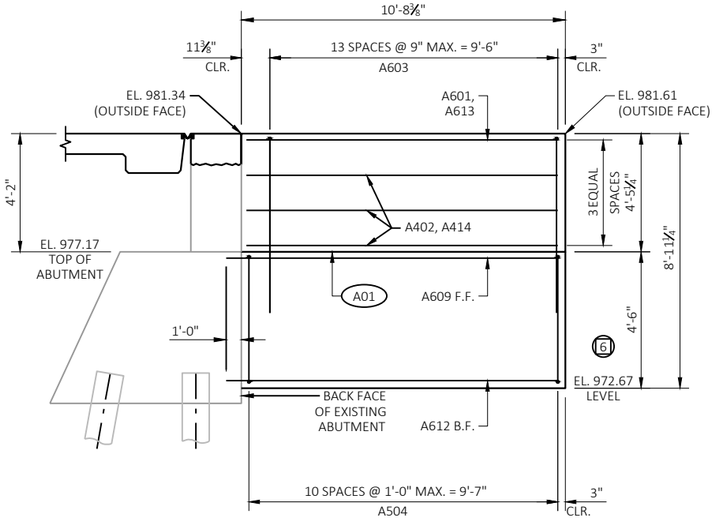
* SPACE A603 BARS TO MISS ANCHORS FOR RAIL POSTS

SECTION AT TOP OF WING

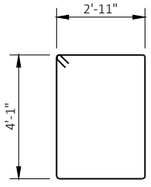


TYPICAL SECTION THRU WINGS

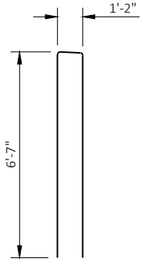




EAST ABUTMENT WINGS



A504



A603

NOTE: B.F. = BACK FACE
F.F. = FRONT FACE

LEGEND

- ⬡ INDICATES WING NUMBER
- (A01) OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6. (18" R.M.W. AT B.F. AND 3/4" 'V' GROOVE AT F.F. OF WING WALL IF JOINT IS USED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

EAST ABUTMENT WING DETAILS

SHEET 4 OF 10

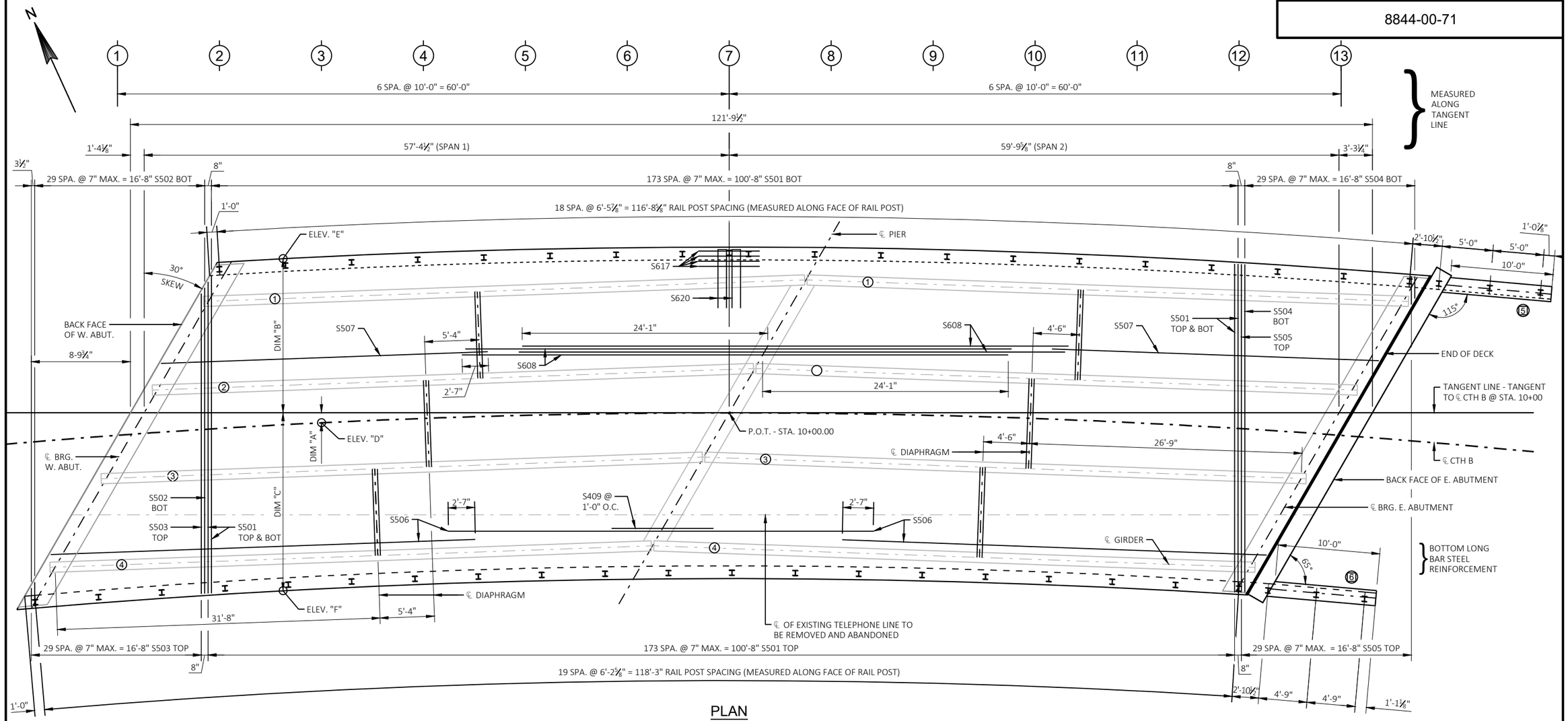
38

SCALE = 1:1

8

8

STATE PROJECT NUMBER
8844-00-71



PLAN

DECK ELEVATIONS OVER GIRDERS

GIRDER 1	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
T.O.D. ELEV.	979.50	979.65	979.79	979.94	980.09	980.24	980.40	980.55	980.71	980.87	981.03	981.18	981.32	981.47	981.62	981.77	981.92	982.08	982.24	982.40	982.56

GIRDER 2	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
T.O.D. ELEV.	978.91	979.05	979.20	979.34	979.49	979.64	979.80	979.95	980.11	980.27	980.44	980.58	980.72	980.87	981.02	981.17	981.32	981.48	981.64	981.80	981.96

GIRDER 3	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
T.O.D. ELEV.	978.29	978.46	978.60	978.75	978.90	979.05	979.20	979.36	979.51	979.67	979.84	979.98	980.12	980.27	980.42	980.57	980.72	980.88	981.04	981.20	981.36

GIRDER 4	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
T.O.D. ELEV.	977.72	977.86	978.00	978.15	978.30	978.45	978.60	978.76	978.91	979.07	979.24	979.38	979.52	979.67	979.82	979.97	980.12	980.28	980.44	980.60	980.76

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

TABLE OF OFFSETS & ELEVATIONS

POINT	1	2	3	4	5	6	7	8	9	10	11	12	13
DIM. "A"	2'-2 1/2"	1'-6 1/4"	11 3/4"	6 5/8"	2 7/8"	3/4"	0	3/4"	2 7/8"	6 5/8"	11 3/4"	1'-6 1/4"	2'-2 1/2"
DIM. "B"	-	14'-9"	15'-3 1/2"	15'-8 1/2"	16'-0 1/8"	16'-2 1/4"	16'-3"	16'-2 1/4"	16'-0 1/8"	15'-8 1/2"	15'-3 1/2"	14'-9"	14'-1 1/8"
DIM. "C"	18'-6"	17'-9 3/4"	17'-3"	16'-9 3/4"	16'-6"	16'-3 3/4"	16'-3"	16'-3 3/4"	16'-6"	16'-9 3/4"	17'-3"	17'-9 3/4"	-
ELEV. "D"	979.33	979.51	979.77	980.03	980.29	980.55	980.81	981.07	981.33	981.59	981.86	982.12	983.23
ELEV. "E"	-	980.42	980.67	980.93	981.18	981.44	981.69	981.95	982.20	982.46	982.71	982.97	983.21
ELEV. "F"	978.48	978.61	978.87	979.14	979.40	979.67	979.93	980.20	980.47	980.73	981.00	981.26	-

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE

SHEET 5 OF 10

39

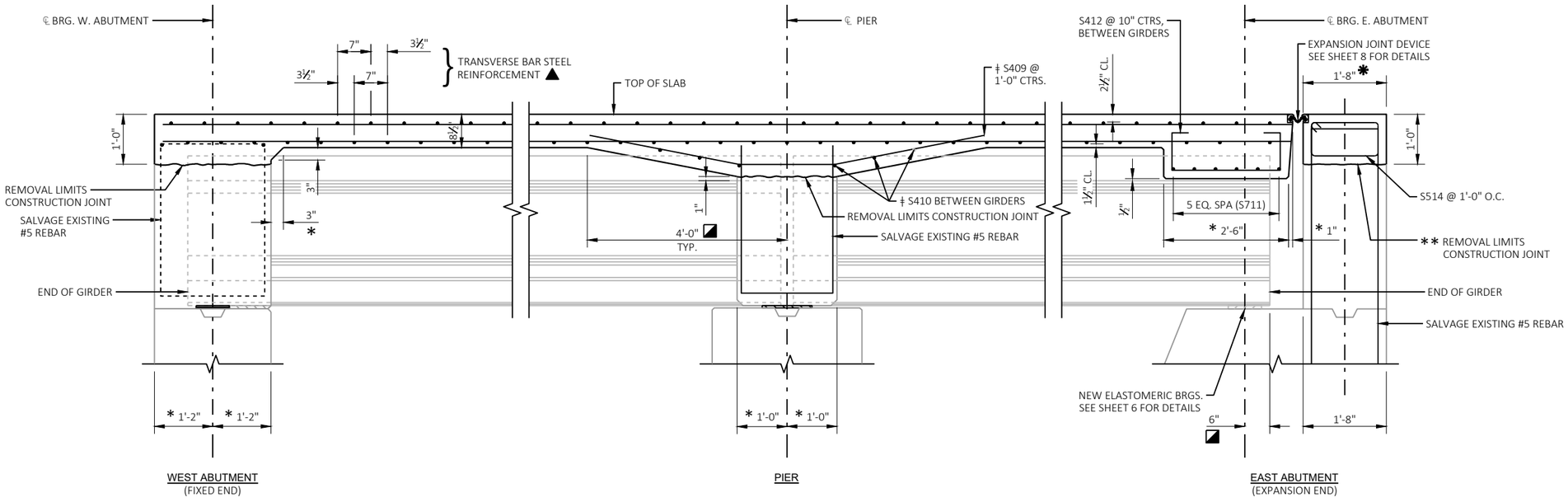
SCALE = 1:1

STATE PROJECT NUMBER

8844-00-71

GENERAL NOTES

- ◪ DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER
- * DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.
- ǂ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO CL GIRDERS.
- ▲ DIMENSIONS MEASURED ALONG TANGENT LINE
- ** POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.

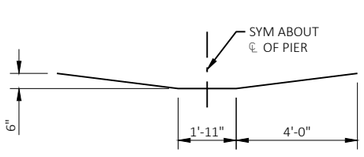


WEST ABUTMENT (FIXED END)

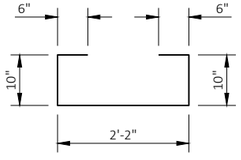
PIER

EAST ABUTMENT (EXPANSION END)

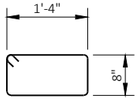
PART LONGITUDINAL SECTION



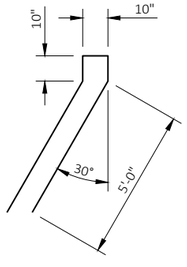
S409



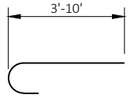
S412



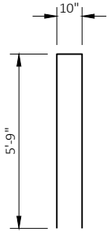
S514



S618



S619



S620

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE DETAILS

SHEET 6 OF 10

40

SCALE = 1:1

8

8

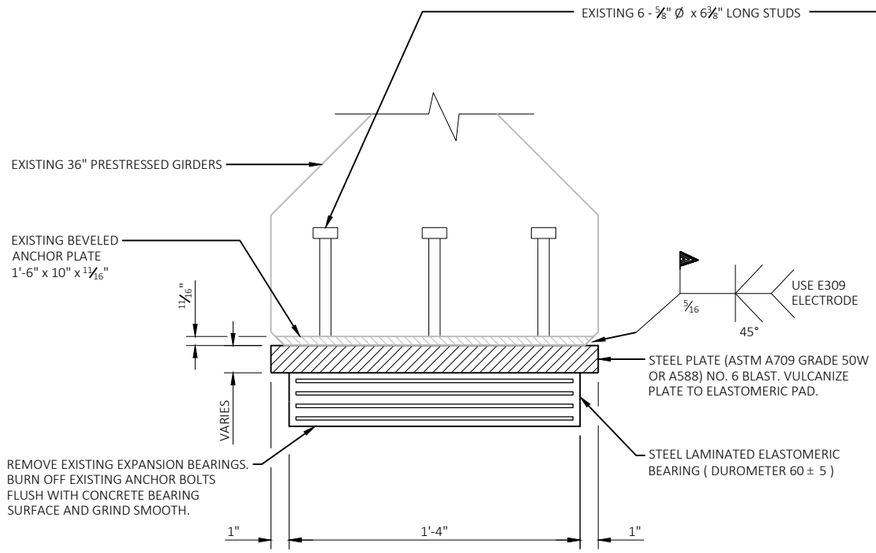
GENERAL NOTES

ON BEARING REPLACEMENTS, COMPRESSION LOAD AND ADHESION TESTS WILL BE WAIVED WHERE BEARINGS ARE DETAILED TO MEET HEIGHT REQUIREMENTS.

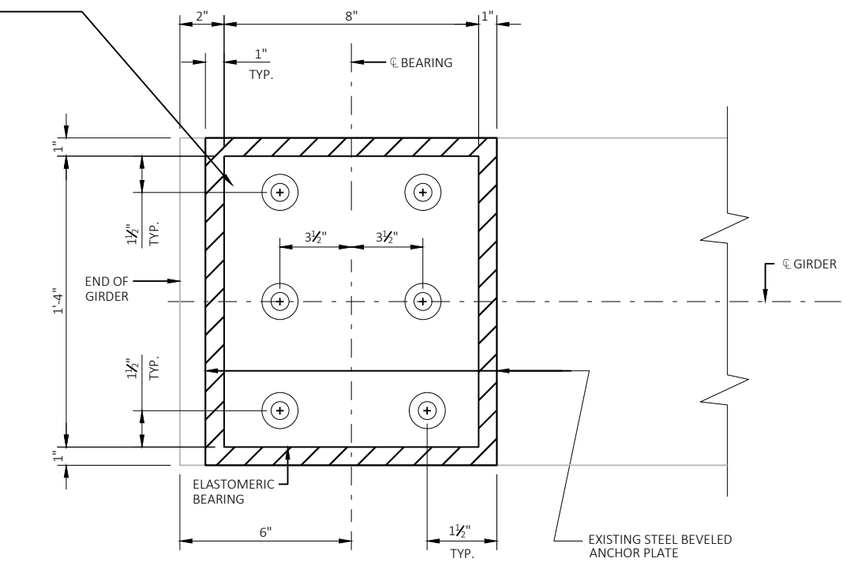
ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATE SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

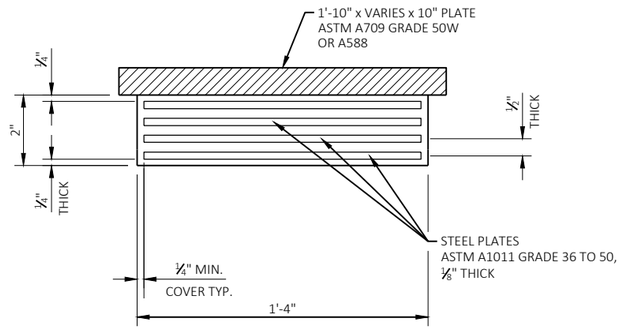
ALL PLACE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.



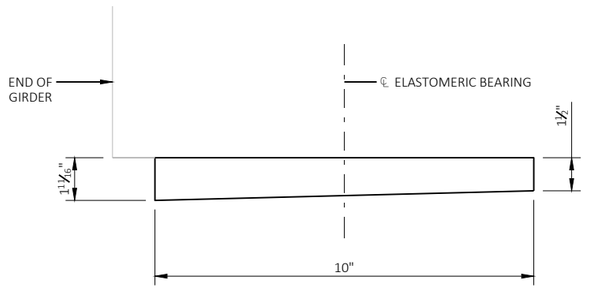
END VIEW



PLAN VIEW



SECTION THRU ELASTOMERIC BEARING



SECTION THRU ELASTOMERIC BEARING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

EXPANSION BEARINGS

SHEET 7 OF 10

41

SCALE = 1:1

8

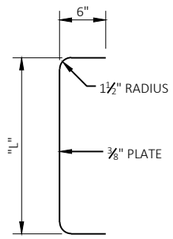
8

STATE PROJECT NUMBER

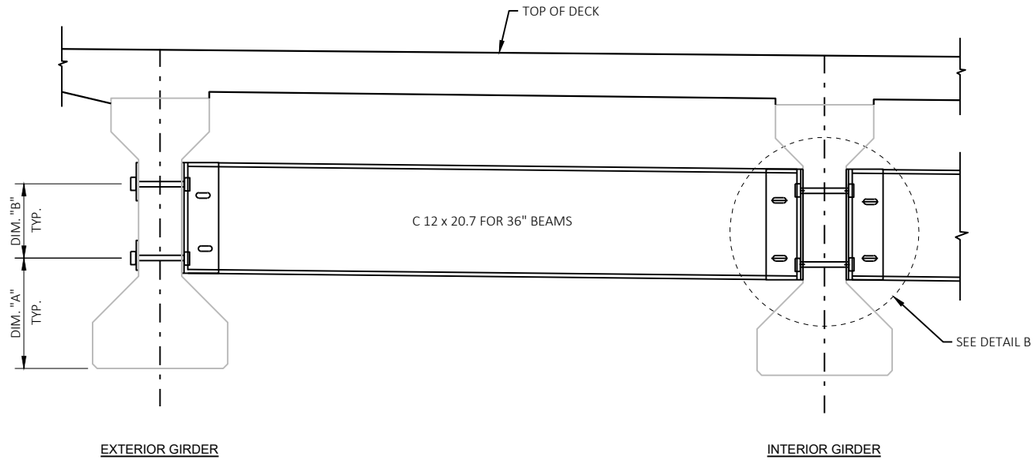
8844-00-71

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	*DIM. "X"
36"	1'-2⅞"	9⅞"	1'-1½"	3¼"



SECTION THRU ALTERNATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

GENERAL NOTES

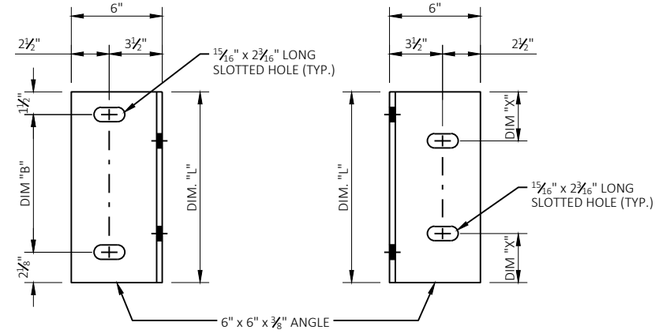
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-7-5", EACH.

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.

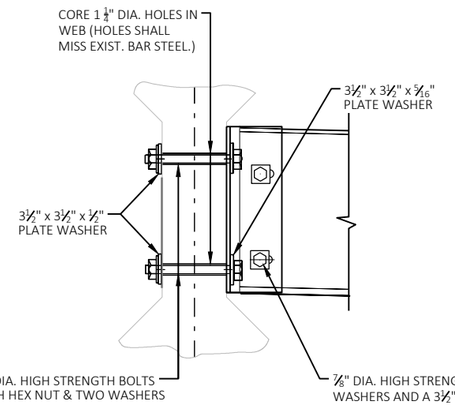
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



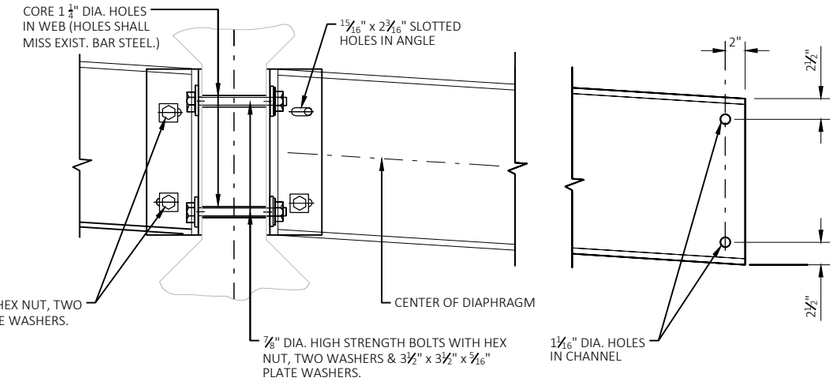
BEAM FACE DIAPHRAGM FACE

DIAPHRAGM SUPPORT

*DIM "X" = 2½" FOR ALTERNATE PLATE DIAPHRAGM



(FOR EXTERIOR GIRDERS & STAGGERED DIAPHRAGMS)



(FOR CONTINUOUS LINE OF DIAPHRAGMS)

DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

INTERMEDIATE STEEL DIAPHRAGMS

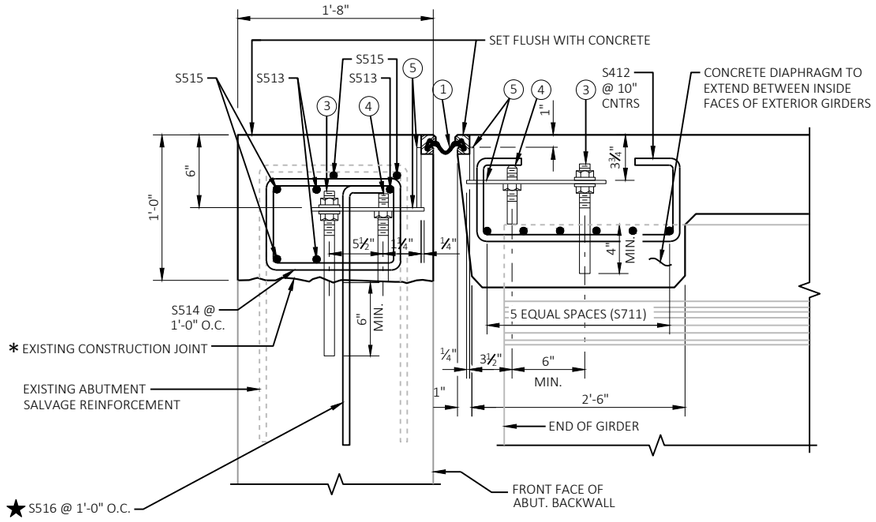
SHEET 8 OF 10

42

SCALE = 1:1

8

8

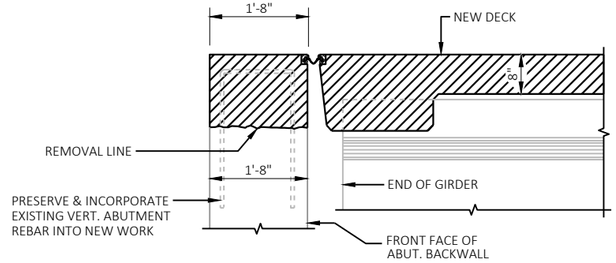


SECTION THRU JOINT AT EAST ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.

★ ADHESIVE ANCHOR EMBED 1'-6" IN CONCRETE. TURN 10" LEG TO FIT.



SECTION THRU EXISTING EXPANSION JOINT

EAST ABUTMENT

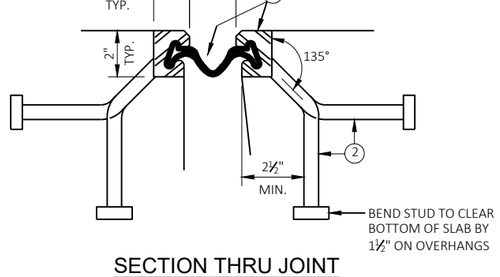
NEW WORK

STATE PROJECT NUMBER

8844-00-71

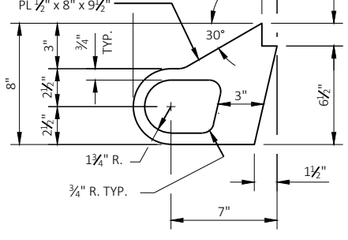
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅜"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅜"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾"ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½"ϕ HOLE FOR NO. 3 AND 1"ϕ HOLE FOR NO. 4.



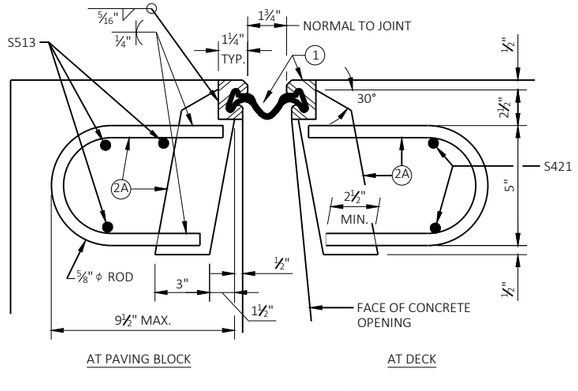
SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



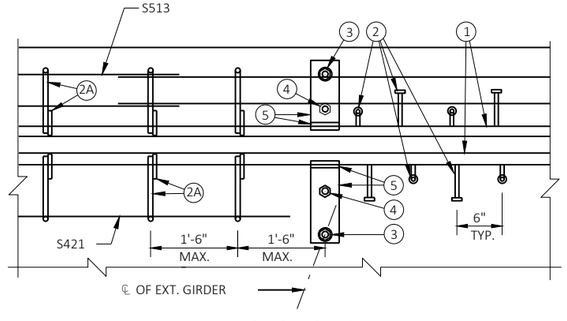
ALTERNATE STRIP SEAL ANCHOR

S516



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-7-5".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

EXPANSION DEVICE

SHEET 9 OF 10

43

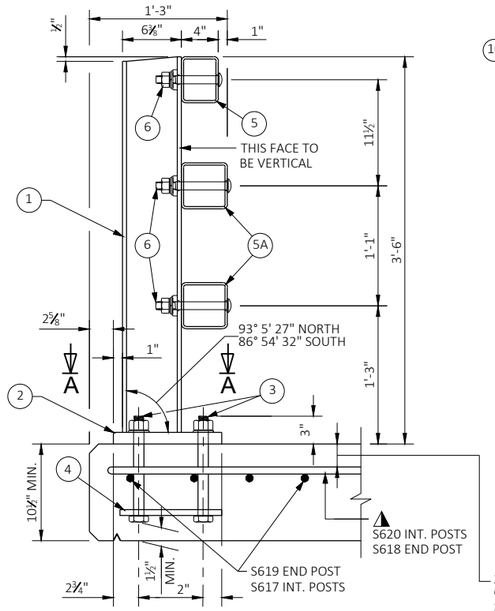
SCALE = 1:1

8

8

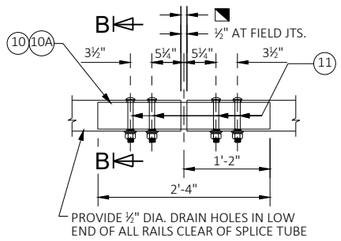
STATE PROJECT NUMBER

8844-00-71

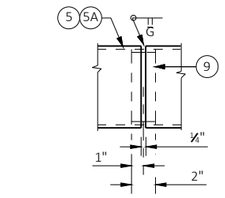


SECTION THRU RAILING ON DECK

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

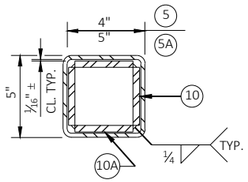


FIELD ERECTION JOINT DETAIL

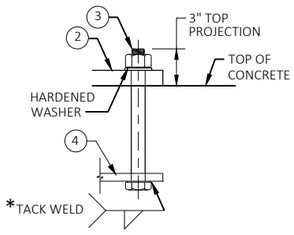


SHOP RAIL SPLICE DETAIL

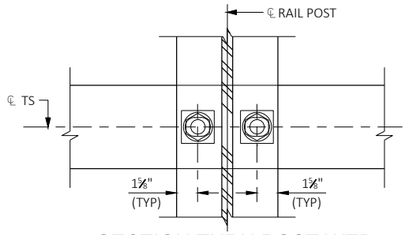
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



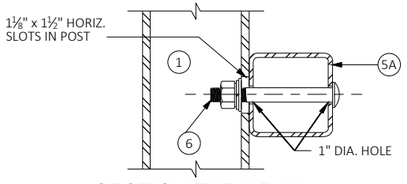
SECTION B-B



ANCHOR BOLTS



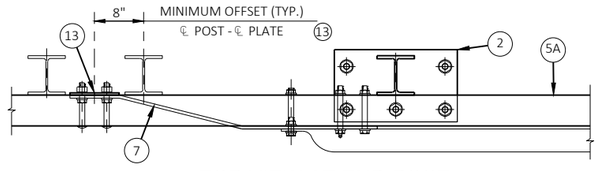
SECTION THRU POST WEB



SECTION THRU RAIL

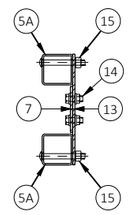
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

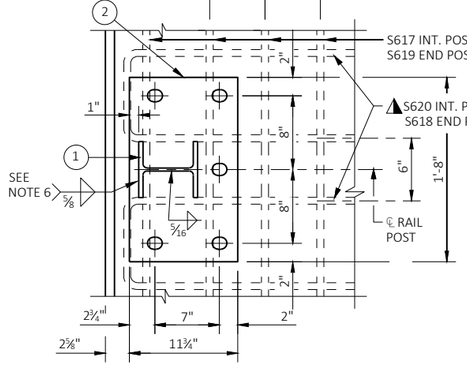


TOP VIEW AT END POST

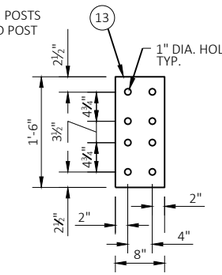
THRIE BEAM RAIL ATTACHMENT



SECTION C-C

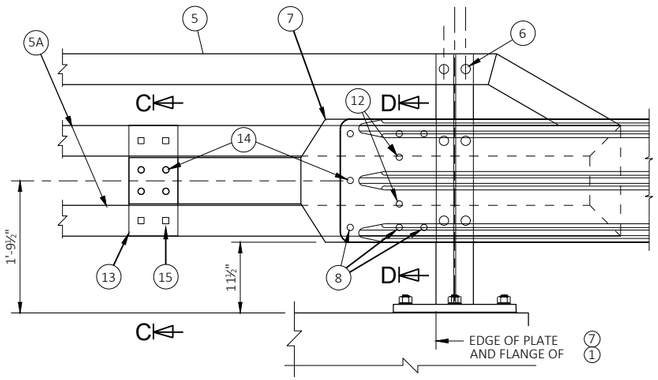


SECTION A-A



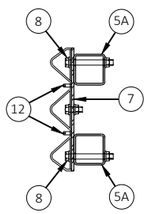
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

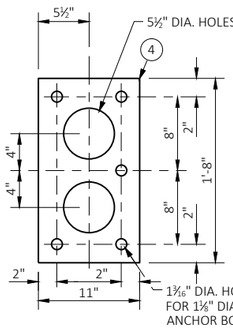


DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT

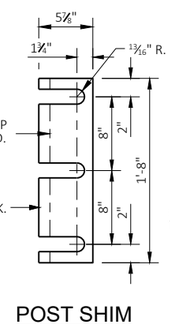


SECTION D-D

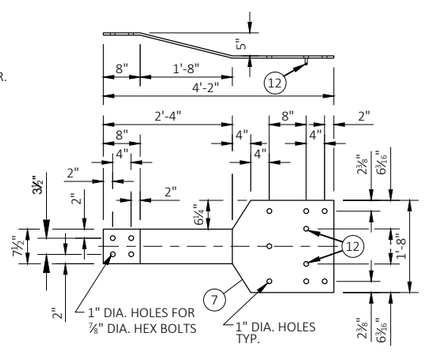


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

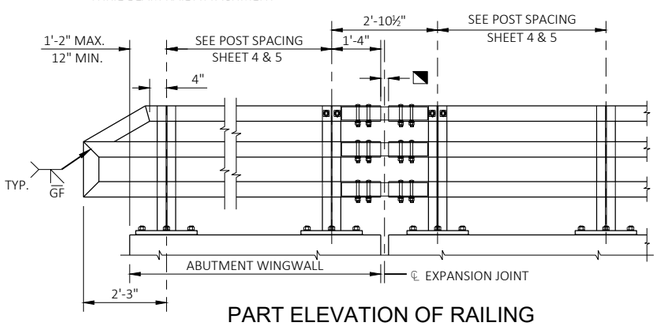


POST SHIM DETAIL



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" x 11¾" x 1'-8" WITH 1³⁄₁₆" x 1⅜" 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" & PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. 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. ¾" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1³⁄₁₆" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ³⁄₁₆" x 1⅜" x 1⅛" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THICK 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 3⅜" x 2' - 4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ¾" x 2⅜" x 2' - 4" PLATE USED IN NO. 5, ⅜" x 3⅜" 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. LONGITUDINAL SLOTTED HOLES AT EXPOSED 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.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

△ 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-5

DRAWN BY NJT | PLANS CK'D. TLP

RAILING TUBULAR TYPE M

SHEET 10 OF 10

44

SCALE = 1:1

INCREMENTAL VOLUME

		END AREA			COMMON				FILL		
STATION	DISTANCE FT	COMMON SF	FILL SF	SALVAGED/UNUSABLE PAVEMENT MATERIAL SF (1)	RAW CY	1.0 ADJ CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY (2)	RAW CY	1.3 ADJ CY	MASS HAUL CY (3)
8+90	0	40.4	7.3	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9+00	10	40.7	1.5	7.3	15.0	15.0	2.7	12.3	1.6	2.1	10.2
9+40	40	40.7	1.5	7.3	60.3	60.3	10.9	49.4	2.2	2.9	46.6
BRIDGE GAP											
10+62	0	49.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+80	18	49.0	0.0	7.3	32.7	32.7	4.9	27.8	0.0	0.0	27.8
11+10	30	49.1	0.0	7.3	54.5	54.5	8.1	46.3	0.0	0.0	46.3
				COLUMN TOTALS:		162.5	26.6	135.9	3.8	5.0	130.9

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON.

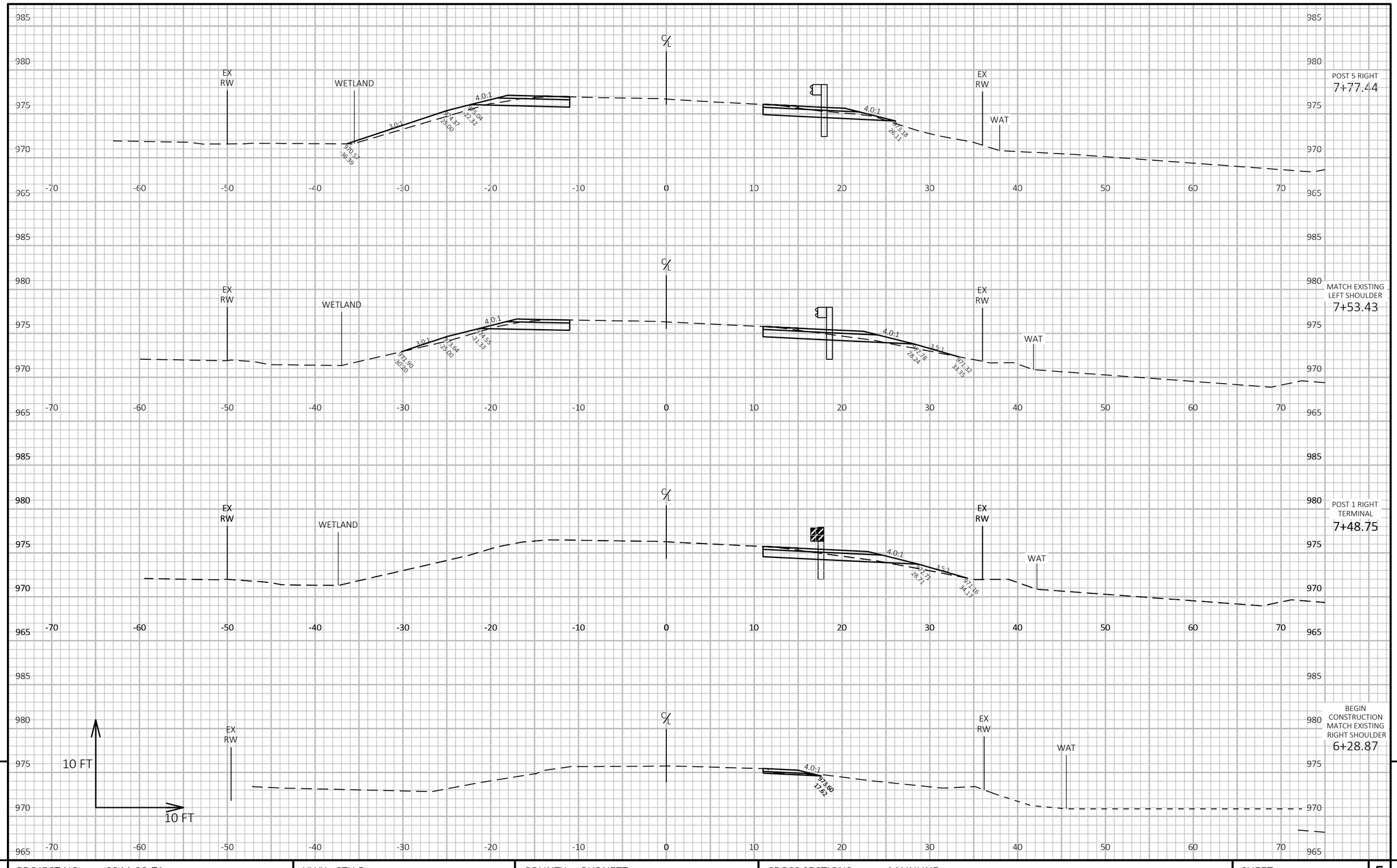
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL

3) THE MASS HAUL = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.

9

9

PROJECT NO: 8844-00-71 | HWY: BURNETT | COUNTY: CTH B | EARTHWORK TABULATIONS | SHEET 45 | E

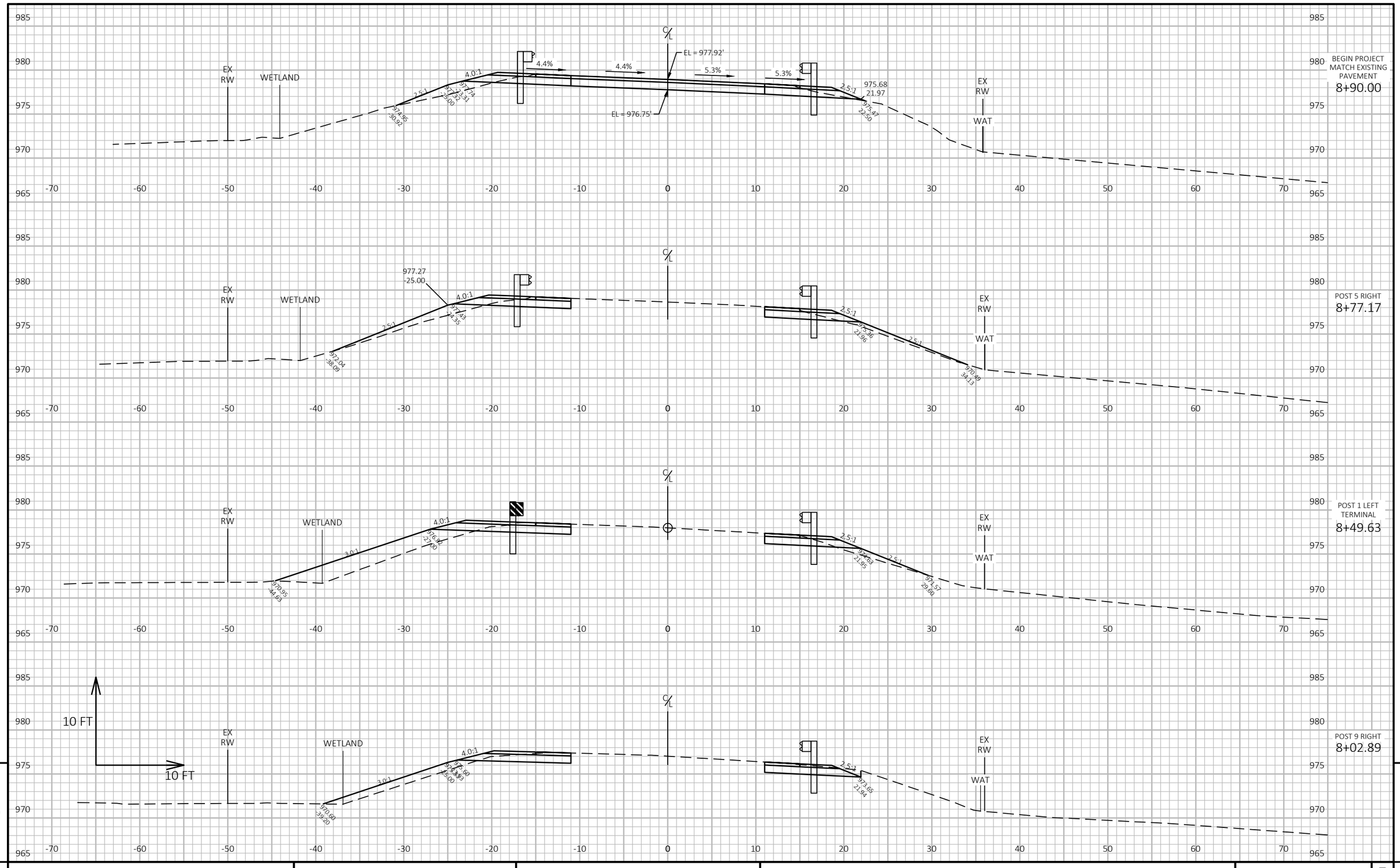


9

9

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	CROSS SECTIONS: MAINLINE	SHEET 46	E

FILE NAME : I:\CLIENTS-MENO\W\W3901 WDOT NW REGION - SUPERIOR\006 8844-00-01 CTH X, N FK CLAM RIVER BRIDGE, SIREN B-07-0005, CTH B BURNETT CO\88440001\SHEETSPLAN\090201-XS.DWG PLOT DATE : 2/3/2020 10:00 AM PLOT BY : NICK THOMPSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 1
WISDOT/CADDS SHEET 49

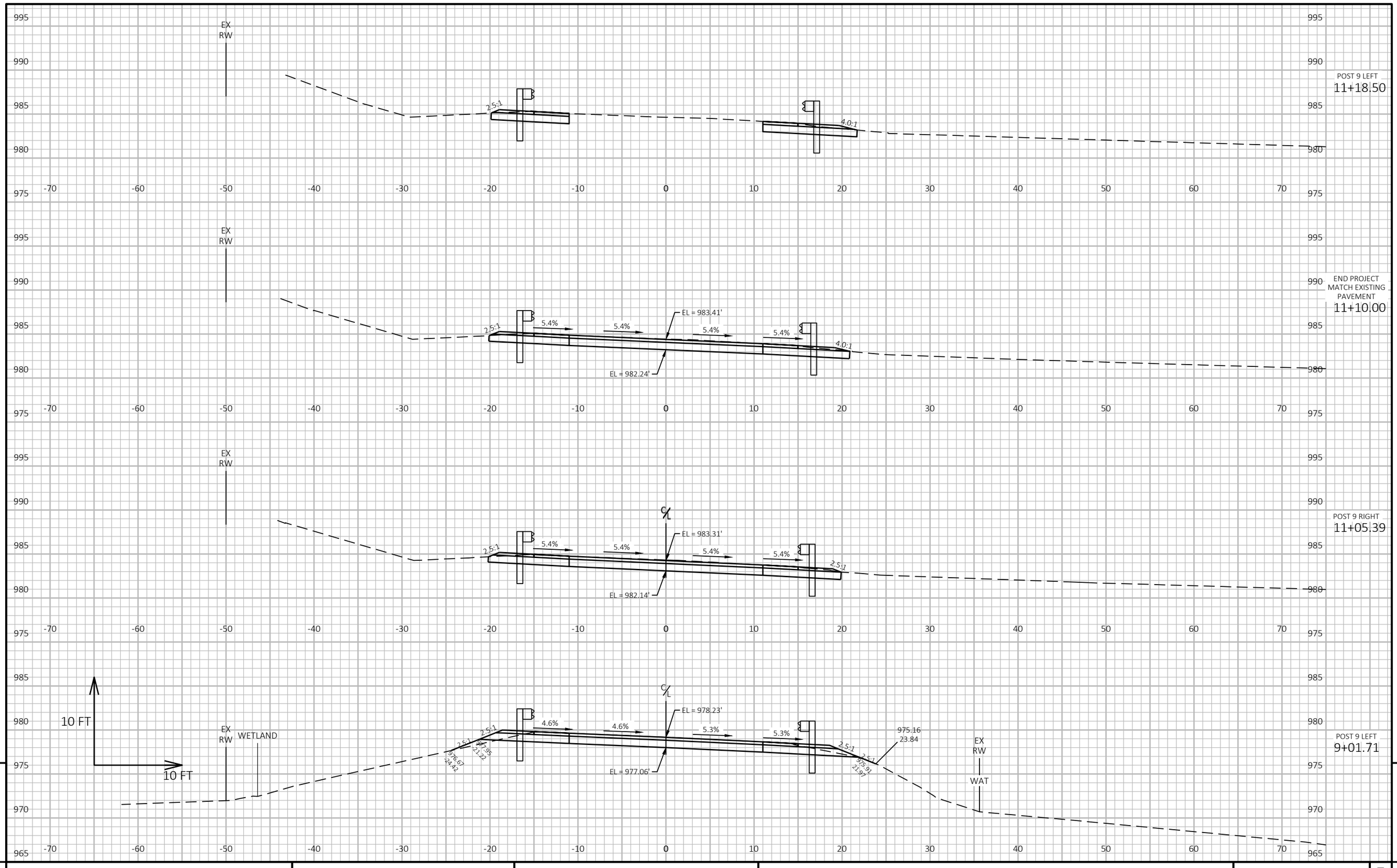


9

9

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	CROSS SECTIONS: MAINLINE	SHEET 47	E

FILE NAME : I:\CLIENTS-MENO\W\W3901 WDOT NW REGION - SUPERIOR\006 8844-00-01 CTH X, N FK CLAM RIVER BRIDGE, SIREN B-07-0005, CTH B BURNETT CO\88440001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 2
PLOT DATE : 2/3/2020 10:00 AM
PLOT BY : NICK THOMPSON
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

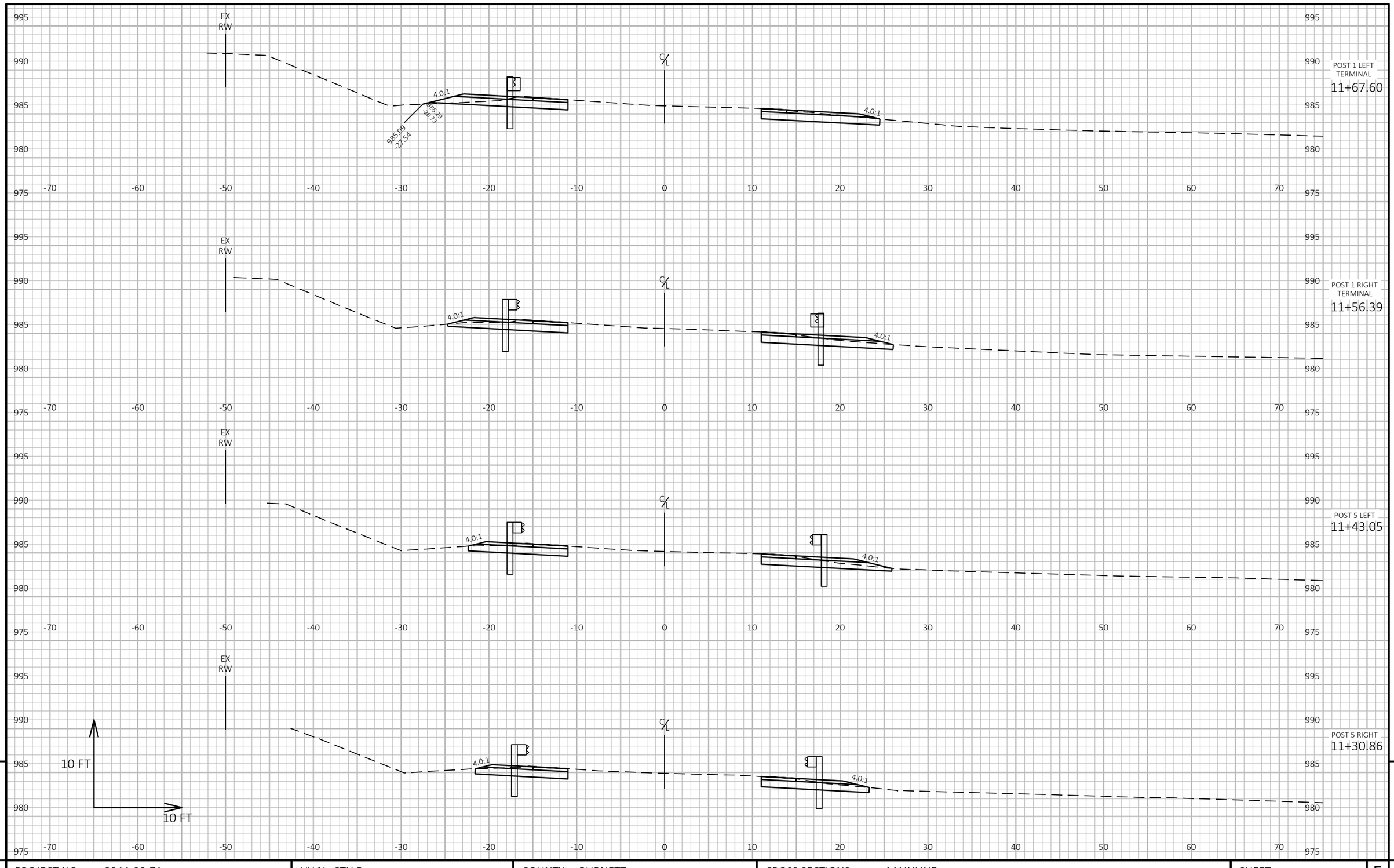


9

9

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	CROSS SECTIONS: MAINLINE	SHEET 48	E

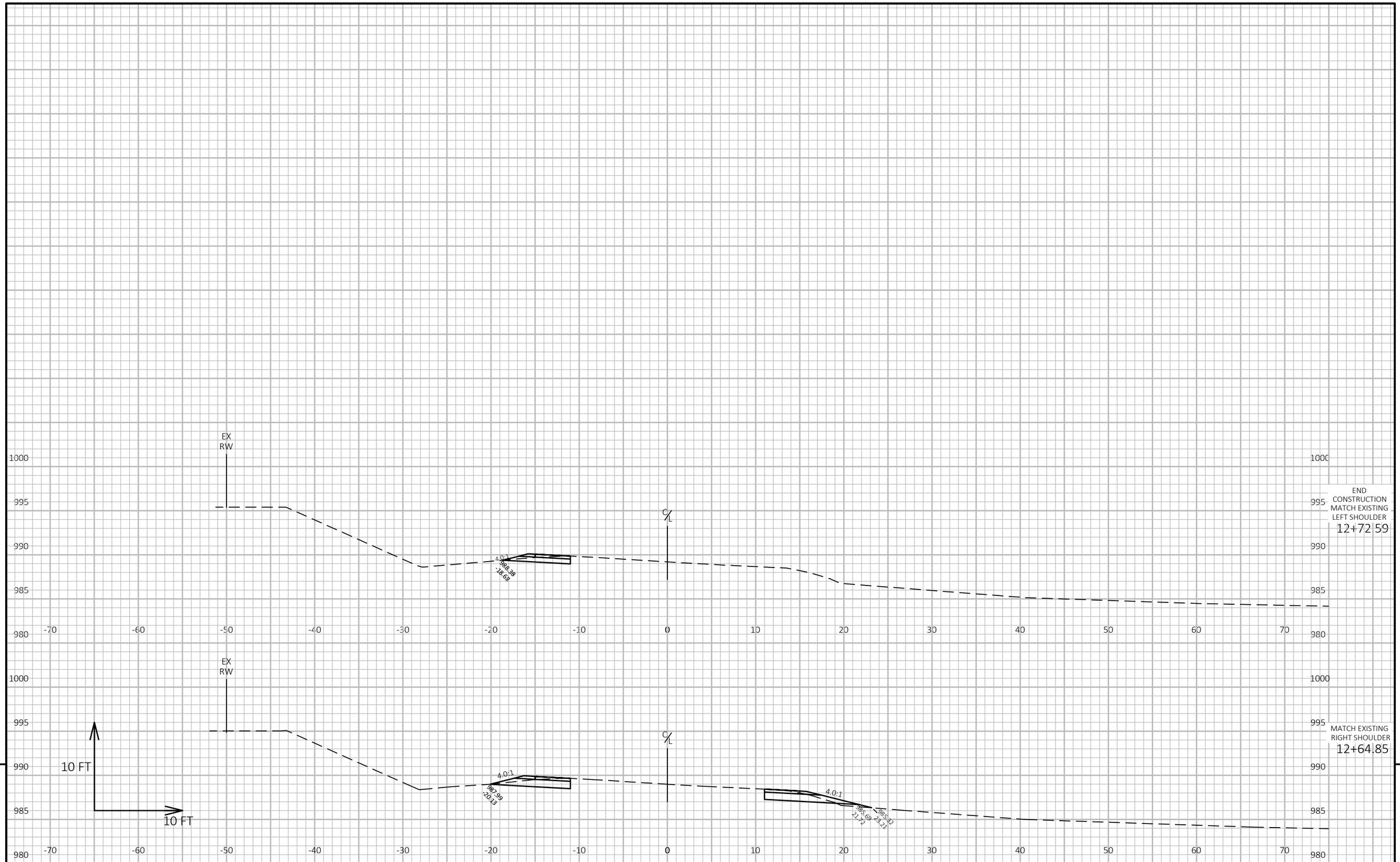
FILE NAME : I:\CLIENTS-MENO\W\W3901 WDOT NW REGION - SUPERIOR\006 8844-00-01 CTH X, N FK CLAM RIVER BRIDGE, SIREN B-07-0005, CTH B BURNETT CO\88440001\SHEETSPLAN\090201-XS.DWG PLOT DATE : 2/3/2020 10:00 AM PLOT BY : NICK THOMPSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 3



9

9

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	CROSS SECTIONS: MAINLINE	SHEET 49	E



9

9

PROJECT NO: 8844-00-71	HWY: CTH B	COUNTY: BURNETT	CROSS SECTIONS: MAINLINE	SHEET 50	E

FILE NAME : I:\CLIENTS-MENO\W\W3901 WDOT NW REGION - SUPERIOR\006 8844-00-01 CTH X, N FK CLAM RIVER BRIDGE, SIREN B-07-0005, CTH B BURNETT CO\88440001\SHEETSPLAN\090201-XS.DWG PLOT DATE : 2/3/2020 10:00 AM PLOT BY : NICK THOMPSON PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 5

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov