SUP

JANUARY 2026

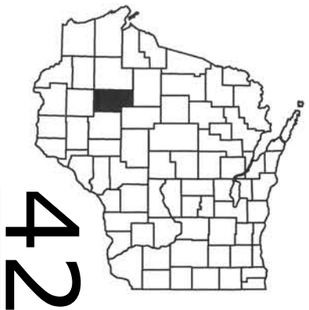
PROJECT ID: 1580-00-70

WITH: N/A

COUNTY: RUSK

ORDER OF SHEETS

TOTAL SHEETS = 94



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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CAMERON - LADYSMITH

LITTLE SOFT MAPLE CREEK BRIDGE, B-54-0131

USH 008

RUSK COUNTY

STATE PROJECT NUMBER
1580-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1580-00-70	WISC2026159	1

DESIGN DESIGNATION

A.A.D.T.	(2026)	=	2900
A.A.D.T.	(2046)	=	3400
D.H.V.		=	---
D.D.		=	60/40
T.		=	25.6%
DESIGN SPEED		=	60 MPH
ESALS		=	1,600,000

CONVENTIONAL SYMBOLS

PLAN

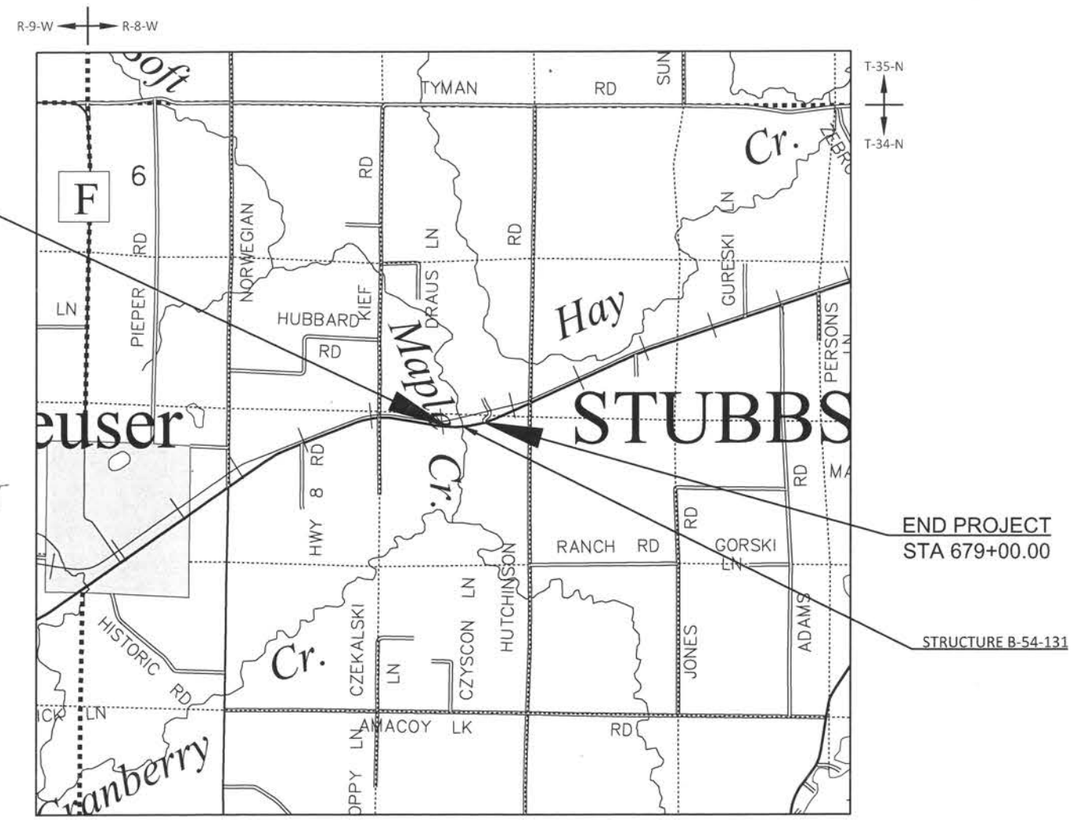
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'FB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.123 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), RUSK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012).

ORIGINAL PLANS PREPARED BY

AYRES

WISCONSIN
MARK R. PETERSEN
E - 36785
EAU CLAIRE
WI
PROFESSIONAL ENGINEER

DATE: 11/19/2025 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES, INC
Designer	AYRES ASSOCIATES, INC
Project Manager	ADAM HETRICK
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	JEFFREY OLSON

APPROVED FOR THE DEPARTMENT

DATE: 11/19/2025 Adam Hetrick (Signature)

E

FILE NAME : I:\41\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 11/19/2025 9:39 AM

PLOT BY : RESHESKE, CARRIE

PLOT NAME :

GENERAL NOTES

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

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL BY THE ENGINEER.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

SHRINKAGE OF EARTHWORK IS VARIABLE. AN AVERAGE FACTOR FOR EXCAVATION COMMON IS 30%.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATER BODY OR WETLAND.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EXISTING ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

UTILITY CONTACTS

SPECTRUM - COMMUNICATIONS
2016 18 3/4 STREET
RICE LAKE, WI 54868
ATTN: MICKEY BENIK
MOBILE: 715-210-3868
mickey.benik@charter.com

* DENOTES NOT A DIGGERS HOTLINE MEMBER

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

DNR CONTACT

DNR WEST CENTRAL REGOIN HQ
1300 WEST CLAIRMONT AVENUE
EAU CLAIRE, WI 54701
ATTN: LEAH NICOL
715-934-9014
leah.nicol@wisconsin.gov

DESIGN CONTACT

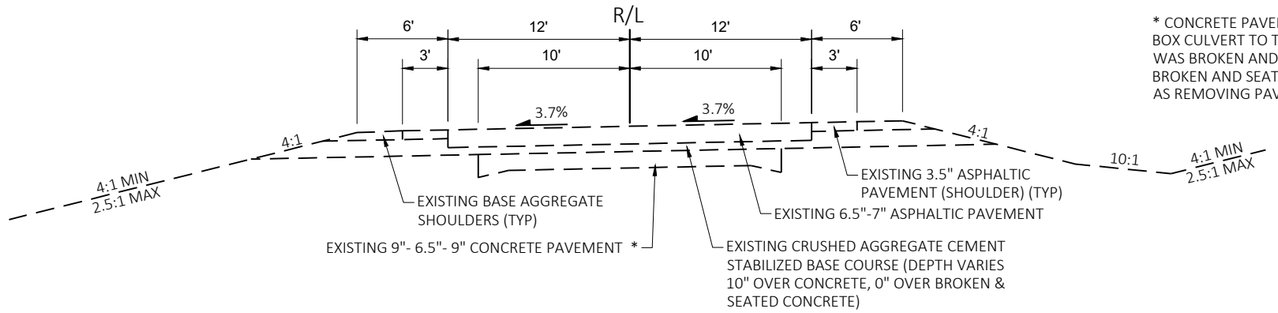
AYRES ASSOCIATES INC
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: MARK PETERSEN
715-834-3161
petersenm@ayresassociates.com

WISDOT DESIGN CONTACT

DEPARTMENT OF TRANSPORTATION
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
ATTN: PHILIP KEPPERS, PE
715-395-3027
philip.keppers@dot.wi.gov

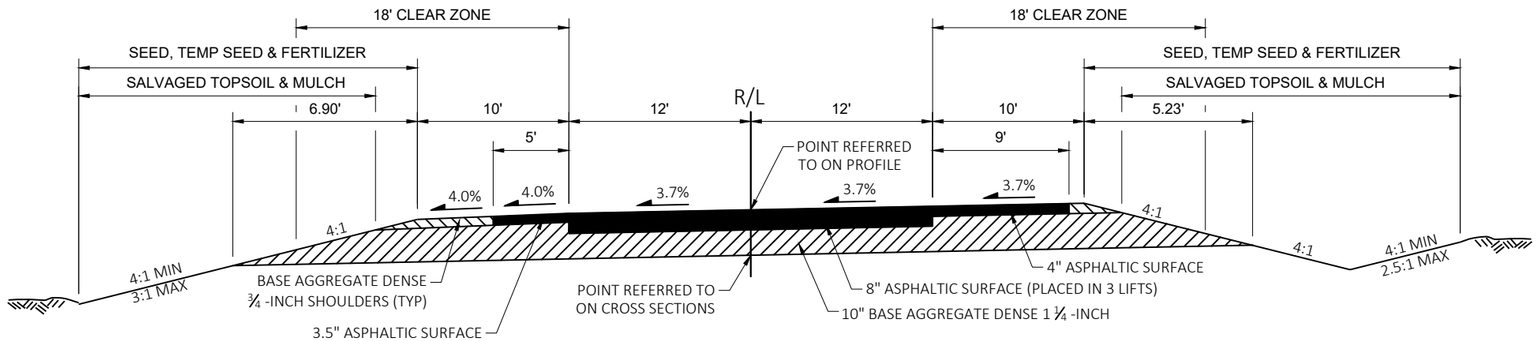
2

2



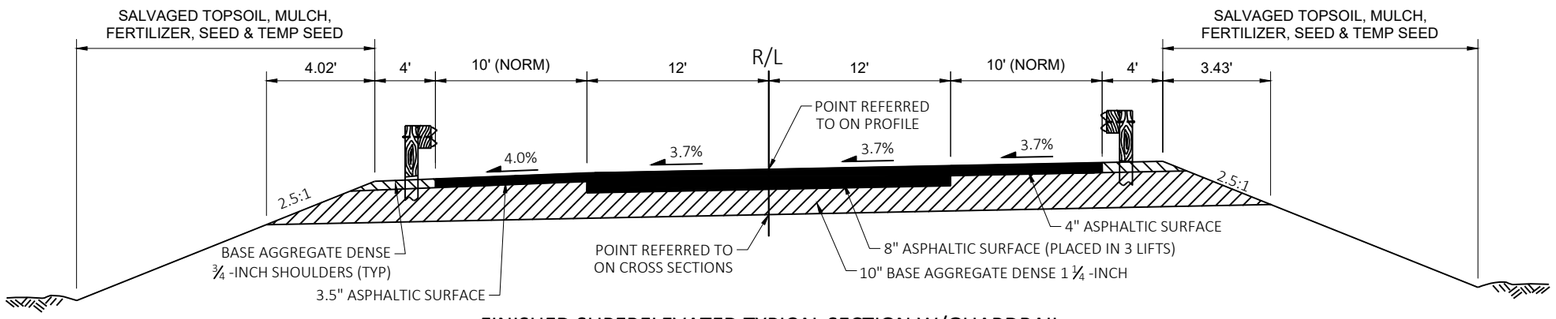
* CONCRETE PAVEMENT FROM 65' EAST OF BOX CULVERT TO THE END OF THE PROJECT WAS BROKEN AND SEATED. REMOVAL OF BROKEN AND SEATED CONCRETE PAID FOR AS REMOVING PAVEMENT.

EXISTING TYPICAL SECTION



FINISHED SUPERELEVATED TYPICAL SECTION

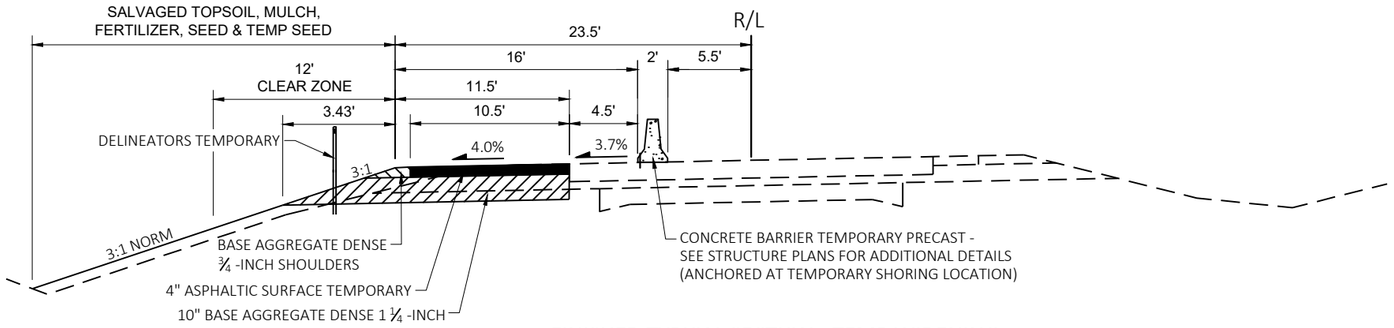
STA 672+50 - STA 673+75.07 RT
STA 677+30.57 - STA 679+00 RT
STA 672+50 - STA 674+36.87 LT
STA 677+93.77 - STA 679+00 LT



FINISHED SUPERELEVATED TYPICAL SECTION W/GUARDRAIL

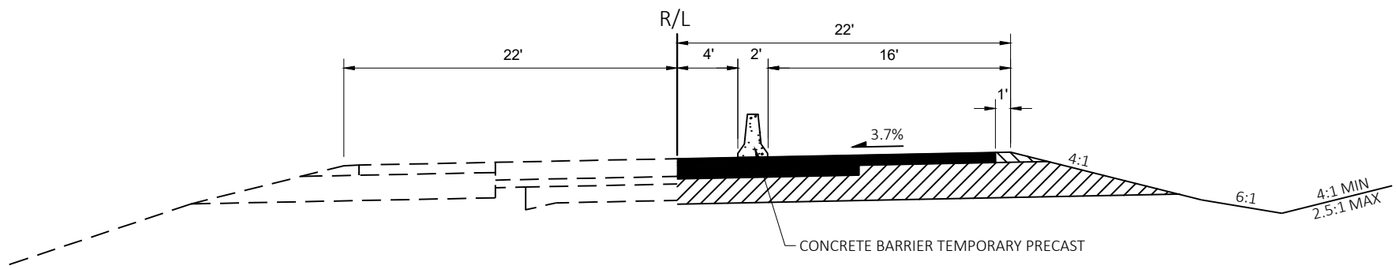
STA 673+75.07 - STA 677+30.57 RT
STA 674+36.87 - STA 677+93.77 LT

2



FINISHED TYPICAL SECTION - TEMP WIDENING

STA 671+50.00 - STA 680+00.00 LT
STAGE 2 TRAFFIC LAYOUT



STAGE 3 TRAFFIC LAYOUT

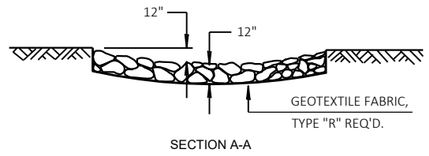
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	TYPICAL SECTIONS	SHEET 4	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020302-ts
PLOT DATE : 4/30/2020 9:03 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:10 FT

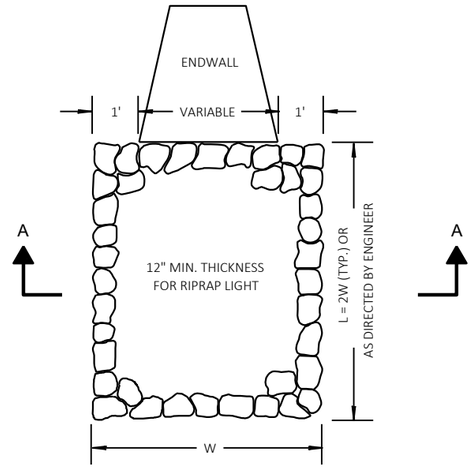
RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 3.255 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.826 ACRES



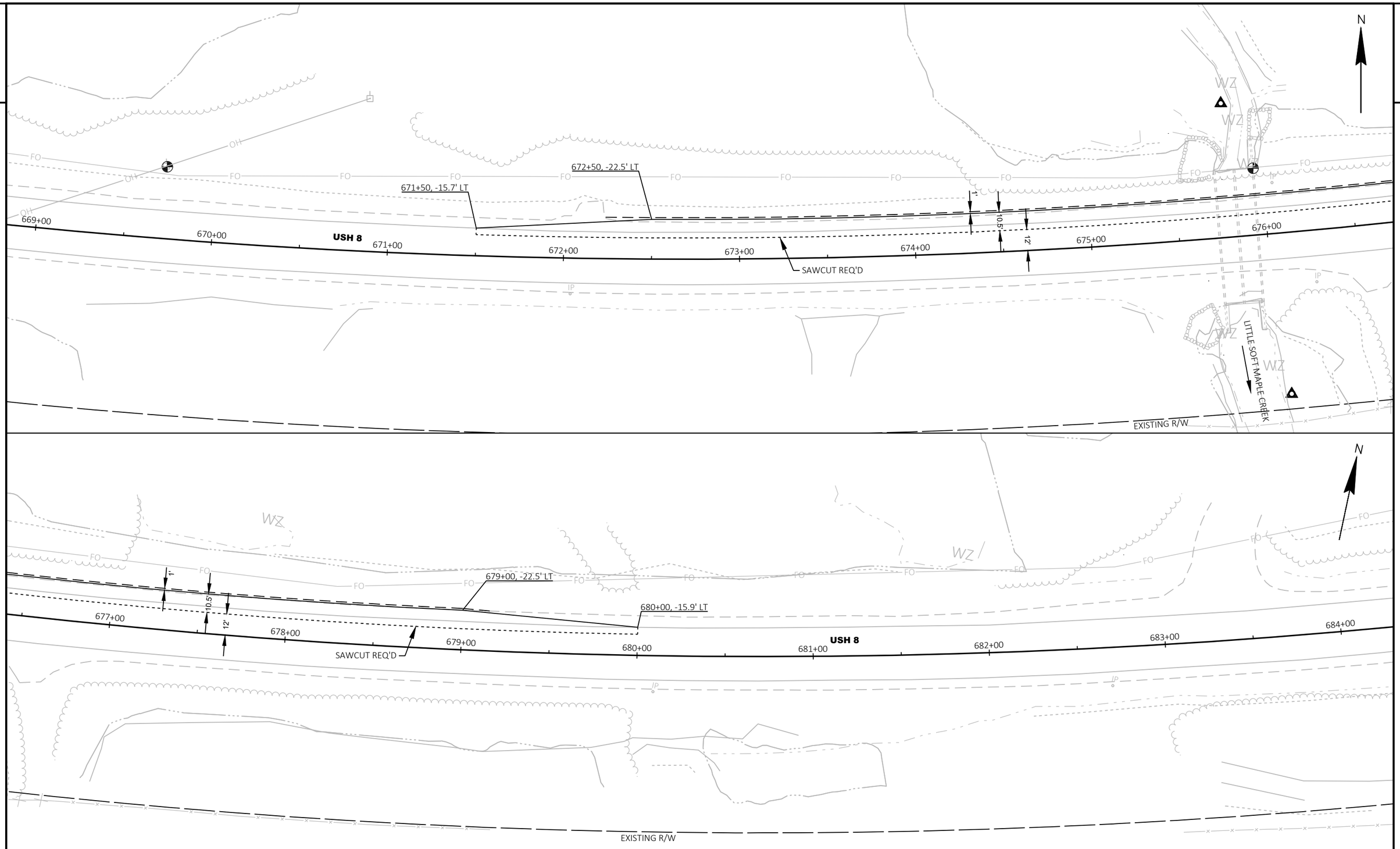
SECTION A-A



RIPRAP LIGHT TREATMENT AT CULVERTS

2

2



PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CONSTRUCTION DETAIL - TEMP WIDENING LAYOUT	SHEET 6	E

FILE NAME : I:\41\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021002-cd
PLOT DATE : 1/22/2024 12:00 PM
PLOT BY : RESHESKE, CARRIE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N

FINAL SLOPE INTERCEPT

TEMP WIDENING SLOPE INTERCEPT

WETLANDS

CP#1

BM#1

WETLANDS

FINAL SLOPE INTERCEPT

TEMP WIDENING SLOPE INTERCEPT

672+00

673+00

674+00

675+00

676+00

677+00

678+00

679+00

USH 8

FO

IP

WZ

LITTLE SOFT MAPLE CREEK

FINAL SLOPE INTERCEPT

CP#2

WETLANDS

FINAL SLOPE INTERCEPT

EXISTING R/W

WETLANDS

LEGEND

EROSION MAT CLASS II TYPE C

SILT FENCE

TURBIDITY BARRIER

TEMPORARY DITCH CHECK

PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	EROSION CONTROL - STAGE 1	SHEET 7	E

FILE NAME : I:\41\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001_ec

PLOT DATE : 7/15/2025 3:15 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

SLOPE INTERCEPT
SILT FENCE PLACED IN PREVIOUS STAGE
WETLANDS
CP#1
BM#1
WETLANDS
SLOPE INTERCEPT
SILT FENCE PLACED IN PREVIOUS STAGE
WZ
FO
672+00
673+00
674+00
675+00
676+00
677+00
678+00
679+00
USH 8
19+00
SLOPE INTERCEPT
LITTLE SOFT MAPLE CREEK
CP#2
WETLANDS
EXISTING R/W
SLOPE INTERCEPT
WETLANDS

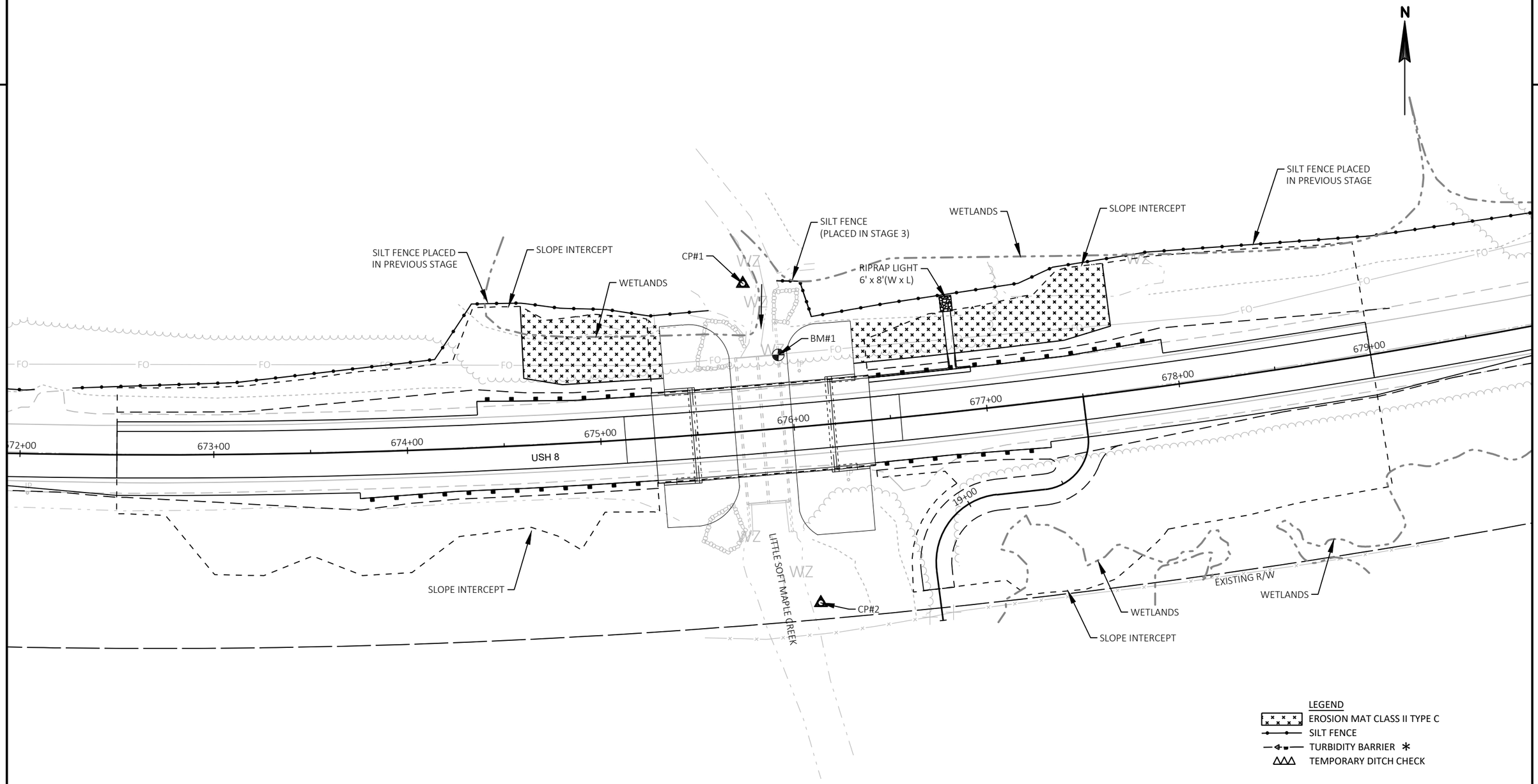
LEGEND
EROSION MAT CLASS II TYPE C
SILT FENCE
TURBIDITY BARRIER *
TEMPORARY DITCH CHECK

* NOT SHOWN ON PLAN SHEETS. BASED ON CONTRACTORS MEANS AND METHODS FOR STRUCTURE REMOVAL, USE TURBIDITY BARRIER TO ISOLATE WORK ARE FROM STREAM. MAINTAIN CHANNEL FLOW AT ALL TIMES. SEE SDD "TURBIDITY BARRIER" FOR ADDITIONAL INFORMATION.

PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	EROSION CONTROL - STAGE 2	SHEET 8	E

FILE NAME : I:\41\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 022002_ec
PLOT DATE : 7/15/2025 8:18 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- TURBIDITY BARRIER *
- TEMPORARY DITCH CHECK

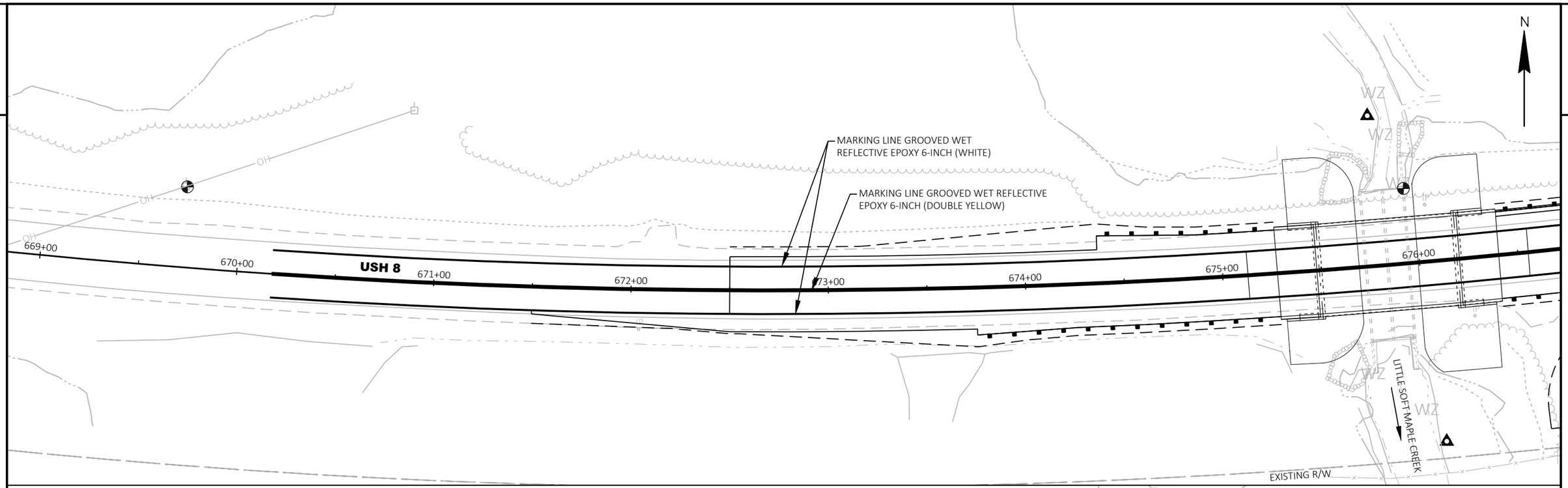
* NOT SHOWN ON PLAN SHEETS. BASED ON CONTRACTORS MEANS AND METHODS FOR STRUCTURE REMOVAL, USE TURBIDITY BARRIER TO ISOLATE WORK ARE FROM STREAM. MAINTAIN CHANNEL FLOW AT ALL TIMES. SEE SDD "TURBIDITY BARRIER" FOR ADDITIONAL INFORMATION.

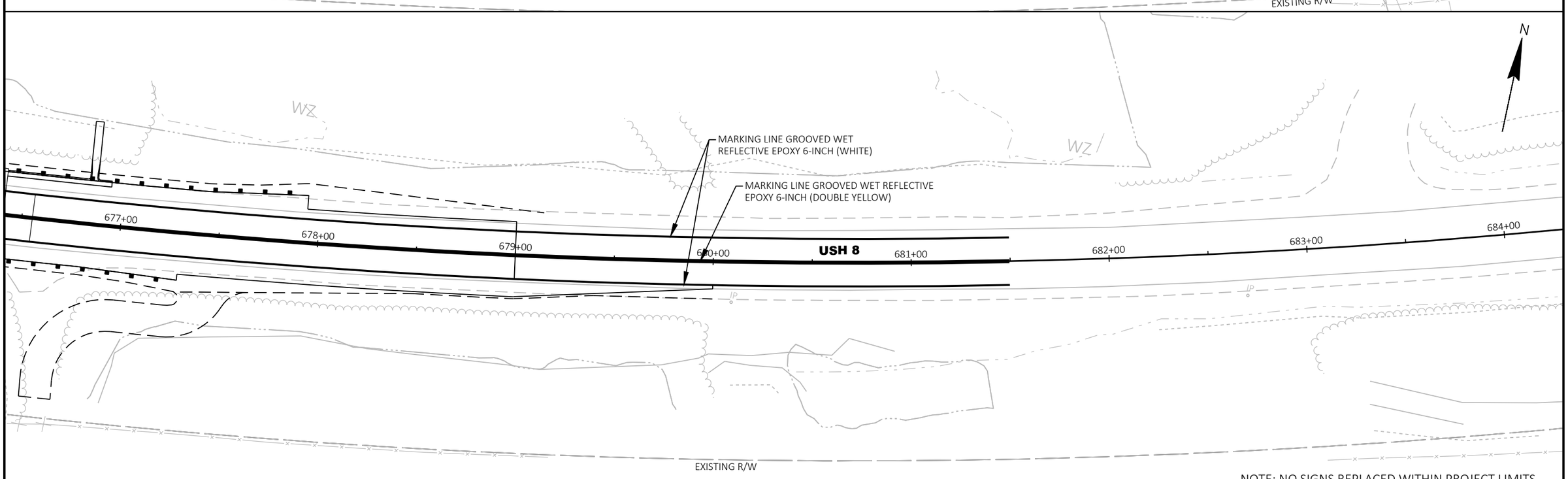
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	EROSION CONTROL - STAGE 3	SHEET 9	E

FILE NAME : I:\41\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\022003-EC.DWG
LAYOUT NAME - 022003_ec

PLOT DATE : 7/15/2025 8:21 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2





NOTE: NO SIGNS REPLACED WITHIN PROJECT LIMITS

PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	PAVEMENT MARKING	SHEET 10	E

FILE NAME : I:\41\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm

PLOT DATE : 12/28/2023 2:37 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

FLAGGING FOR STAGE 1 WIDENING WORK SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS" FOR ADDITIONAL INFORMATION.

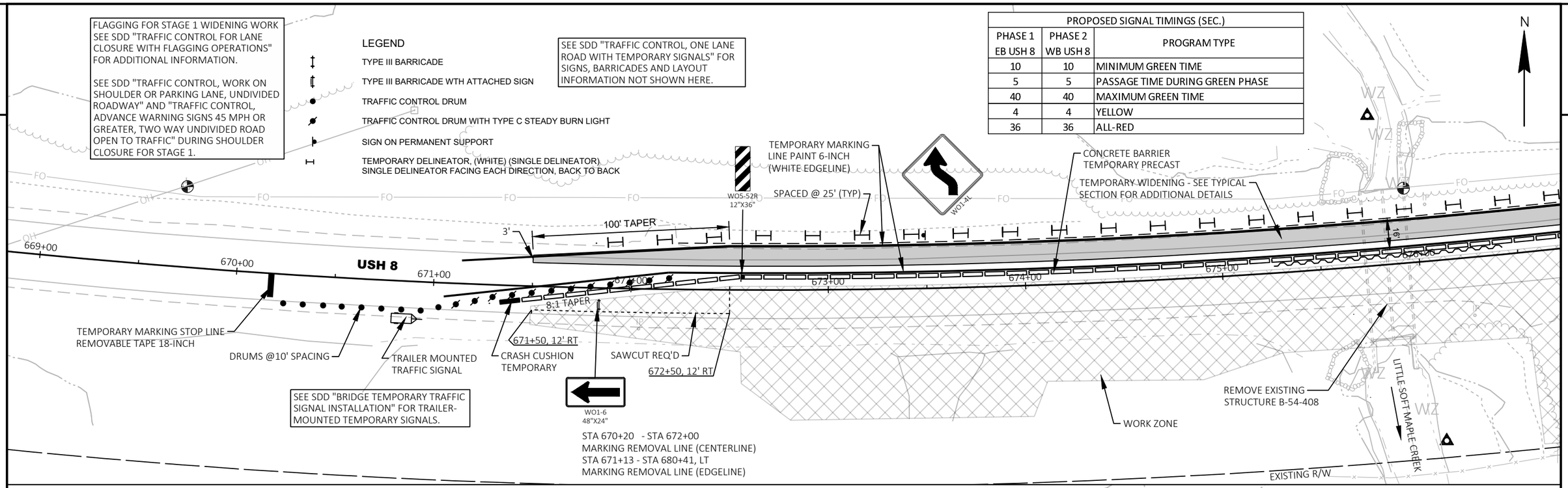
SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" AND "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" DURING SHOULDER CLOSURE FOR STAGE 1.

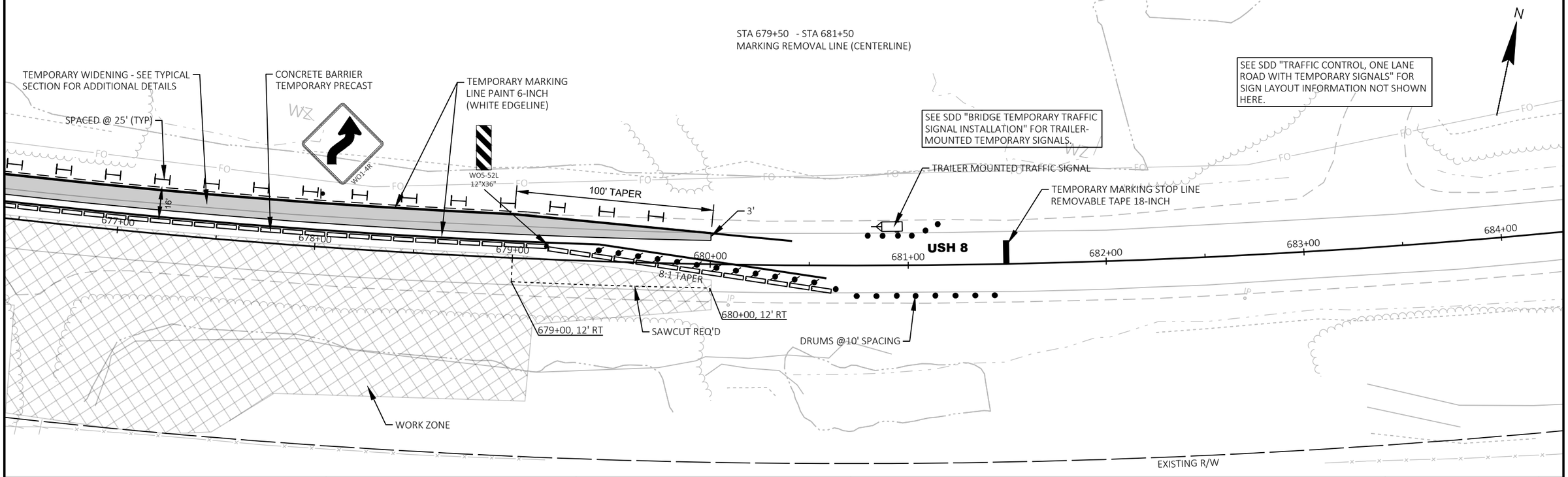
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- TEMPORARY DELINEATOR, (WHITE) (SINGLE DELINEATOR) SINGLE DELINEATOR FACING EACH DIRECTION, BACK TO BACK

SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGNS, BARRICADES AND LAYOUT INFORMATION NOT SHOWN HERE.

PROPOSED SIGNAL TIMINGS (SEC.)		
PHASE 1 EB USH 8	PHASE 2 WB USH 8	PROGRAM TYPE
10	10	MINIMUM GREEN TIME
5	5	PASSAGE TIME DURING GREEN PHASE
40	40	MAXIMUM GREEN TIME
4	4	YELLOW
36	36	ALL-RED





PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	TRAFFIC CONTROL - STAGE 2	SHEET 11	E

SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGNS, BARRICADES AND LAYOUT INFORMATION NOT SHOWN HERE.

N

REMOVE REMAINING EXISTING STRUCTURE B-54-408

WORK ZONE

DRUMS @10' SPACING

671+50, -15.7' LT

672+50, -15.2' LT

SAWCUT REQ'D

669+00 670+00 671+00 672+00 673+00 674+00 675+00 676+00

USH 8

3'

100' TAPER

16'

TEMPORARY MARKING STOP LINE
REMOVABLE TAPE 18-INCH
(INSTALLED STAGE 2)

TRAILER MOUNTED TRAFFIC SIGNAL

SEE SDD "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION" FOR TRAILER-MOUNTED TEMPORARY SIGNALS.

STA 671+25 - STA 672+50, RT
MARKING REMOVAL LINE (EDGELINE)

WO5-52L
12"X36"

WO1-4R

TEMPORARY MARKING LINE
PAINT 6-INCH (WHITE EDGELINE)

CONCRETE BARRIER
TEMPORARY PRECAST

LITTLE SOFT MAPLE CREEK

EXISTING R/W

N

SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR SIGN LAYOUT INFORMATION NOT SHOWN HERE.

SEE SDD "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION" FOR TRAILER-MOUNTED TEMPORARY SIGNALS.

WORK ZONE

DRUMS @10' SPACING

CRASH CUSHION TEMPORARY

TRAILER MOUNTED TRAFFIC SIGNAL

SAWCUT REQ'D
679+00, -16' LT

WO1-6
48"X24"

680+00, -16' LT

TEMPORARY MARKING STOP LINE
REMOVABLE TAPE 18-INCH
(INSTALLED STAGE 2)

677+00 678+00 679+00 680+00 681+00 682+00 683+00 684+00

USH 8

16'

3'

100' TAPER

CONCRETE BARRIER
TEMPORARY PRECAST

WO1-4L

WO5-52R
12"X36"

TEMPORARY MARKING
LINE PAINT 6-INCH
(WHITE EDGELINE)

STA 679+00 - STA 680+24, RT
MARKING REMOVAL LINE (EDGELINE)

EXISTING R/W

PROPOSED SIGNAL TIMINGS (SEC.)		
PHASE 1 EB USH 8	PHASE 2 WB USH 8	PROGRAM TYPE
10	10	MINIMUM GREEN TIME
5	5	PASSAGE TIME DURING GREEN PHASE
40	40	MAXIMUM GREEN TIME
4	4	YELLOW
36	36	ALL-RED

PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	TRAFFIC CONTROL - STAGE 3	SHEET 12	E

Estimate Of Quantities

1580-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. B-54-408	EACH	1.000	1.000
0008	204.0100	Removing Concrete Pavement	SY	1,444.000	1,444.000
0010	205.0100	Excavation Common	CY	2,027.000	2,027.000
0012	206.1001	Excavation for Structures Bridges (structure) 01. B-54-131	EACH	1.000	1.000
0014	208.0100	Borrow	CY	4,544.000	4,544.000
0016	210.1500	Backfill Structure Type A	TON	338.000	338.000
0018	213.0100	Finishing Roadway (project) 01. 1580-00-70	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	309.000	309.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,380.000	4,380.000
0024	312.0110	Select Crushed Material	TON	106.000	106.000
0026	415.0410	Concrete Pavement Approach Slab	SY	80.000	80.000
0028	455.0605	Tack Coat	GAL	241.000	241.000
0030	465.0105	Asphaltic Surface	TON	854.000	854.000
0032	465.0125	Asphaltic Surface Temporary	TON	202.000	202.000
0034	502.0100	Concrete Masonry Bridges	CY	402.000	402.000
0036	502.3200	Protective Surface Treatment	SY	578.000	578.000
0038	502.3210	Pigmented Surface Sealer	SY	112.000	112.000
0040	503.0137	Prestressed Girder Type I 36W-Inch	LF	426.000	426.000
0042	505.0400	Bar Steel Reinforcement HS Structures	LB	7,260.000	7,260.000
0044	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	52,280.000	52,280.000
0046	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	1,640.000	1,640.000
0048	505.0908	Bar Couplers No. 8	EACH	24.000	24.000
0050	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	12.000	12.000
0052	506.4000	Steel Diaphragms (structure) 01. B-54-131	EACH	5.000	5.000
0054	511.1200	Temporary Shoring (structure) 01. B-54-131	SF	1,700.000	1,700.000
0056	516.0500	Rubberized Membrane Waterproofing	SY	30.000	30.000
0058	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	1,320.000	1,320.000
0060	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	53.000	53.000
0062	602.3010	Concrete Surface Drains	CY	2.600	2.600
0064	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,890.000	1,890.000
0066	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,890.000	1,890.000
0068	606.0100	Riprap Light	CY	3.000	3.000
0070	606.0300	Riprap Heavy	CY	545.000	545.000
0072	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0074	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0076	614.0905	Crash Cushions Temporary	EACH	2.000	2.000
0078	614.2300	MGS Guardrail 3	LF	125.000	125.000
0080	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0082	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0084	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1580-00-70	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	130.000	130.000
0090	625.0500	Salvaged Topsoil	SY	7,426.000	7,426.000
0092	627.0200	Mulching	SY	9,280.000	9,280.000
0094	628.1504	Silt Fence	LF	1,350.000	1,350.000
0096	628.1520	Silt Fence Maintenance	LF	1,350.000	1,350.000
0098	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000

1580-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0102	628.2027	Erosion Mat Class II Type C	SY	2,045.000	2,045.000
0104	628.6005	Turbidity Barriers	SY	200.000	200.000
0106	628.7504	Temporary Ditch Checks	LF	20.000	20.000
0108	629.0210	Fertilizer Type B	CWT	6.000	6.000
0110	630.0120	Seeding Mixture No. 20	LB	420.000	420.000
0112	630.0200	Seeding Temporary	LB	200.000	200.000
0114	630.0500	Seed Water	MGAL	170.000	170.000
0116	633.1100	Delineators Temporary	EACH	80.000	80.000
0118	642.5201	Field Office Type C	EACH	1.000	1.000
0120	643.0300	Traffic Control Drums	DAY	6,700.000	6,700.000
0122	643.0420	Traffic Control Barricades Type III	DAY	125.000	125.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	225.000	225.000
0126	643.0715	Traffic Control Warning Lights Type C	DAY	3,050.000	3,050.000
0128	643.0900	Traffic Control Signs	DAY	3,150.000	3,150.000
0130	643.3165	Temporary Marking Line Paint 6-Inch	LF	3,748.000	3,748.000
0132	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	24.000	24.000
0134	643.5000	Traffic Control	EACH	1.000	1.000
0136	645.0111	Geotextile Type DF Schedule A	SY	94.000	94.000
0138	645.0120	Geotextile Type HR	SY	840.000	840.000
0140	645.0130	Geotextile Type R	SY	11.000	11.000
0142	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	4,520.000	4,520.000
0144	646.9000	Marking Removal Line 4-Inch	LF	1,938.000	1,938.000
0146	650.4500	Construction Staking Subgrade	LF	850.000	850.000
0148	650.5000	Construction Staking Base	LF	850.000	850.000
0150	650.6501	Construction Staking Structure Layout (structure) 01. B-54-131	EACH	1.000	1.000
0152	650.9911	Construction Staking Supplemental Control (project) 01. 1580-00-70	EACH	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	850.000	850.000
0156	661.0101	Temporary Traffic Signals for Bridges (structure) 01. B-54-131	EACH	1.000	1.000
0158	690.0150	Sawing Asphalt	LF	1,260.000	1,260.000
0160	690.0250	Sawing Concrete	LF	698.000	698.000
0162	715.0502	Incentive Strength Concrete Structures	DOL	2,424.000	2,424.000
0164	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0166	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0168	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0170	SPV.0060	Special 01. Temporary Bypass STA 675+84	EACH	1.000	1.000

3

CLEARING AND GRUBBING

STATION TO STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
674+00 - 680+00	USH 8	6	6
PROJECT TOTALS		**6**	**6**

NOTE: CUTTING TREES BY OTHERS. CLEARING STILL REQUIRED.

REMOVING CONCRETE PAVEMENT

STATION TO STATION	LOCATION	204.0100 SY
672+50 - 679+00	USH 8	1444
PROJECT TOTAL		**1444**

FINISHING ROADWAY

PROJECT	213.0100 EACH
1580-00-70	1
PROJECT TOTAL	**1**

BASE AGGREGATE DENSE

STATION TO STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
671+50 - 675+45	SHOULDER, RT	43	520
672+50 - 675+45	SHOULDER, LT	44	480
672+50 - 675+45	MAINLINE	---	453
676+20 - 179+00	MAINLINE	---	415
676+20 - 680+00	SHOULDER, RT	37	472
676+20 - 679+00	SHOULDER, LT	38	382
671+50 - 680+00	TEMP WIDENING	32	709
	DRIVEWAY	76	---
UNDISTRIBUTED		39	659
PROJECT TOTALS		**309**	**4090**

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1) CUT (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.30	MASS ORDINATE +/- (14)	208.0100 BORROW
DIVISION 1								
USH 8	672+50/679+00	1,630	730	900	2,367	3,077	-2,177	2,177
USH 8 TEMPORARY	672+00/680+50	378	0	378	984	1,279	-901	901
USH 8 DRWY	18+50/19+75	19	0	19	1,142	1,485	-1,466	1,466
DIVISION 1 SUBTOTAL		2,027	730	1,297	4,493	5,841	-4,544	4,544
GRAND TOTAL		2,027	730	1,297	4,493	5,841	-4,544	4,544
	TOTAL COMMON EXC	2,027						

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.3
EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

CONCRETE PAVEMENT APPROACH SLAB

STATION TO STATION	415.0410 SY
675+12.82 - 675+27.82	40
676+40.32 - 676+55.32	40
PROJECT TOTAL	**80**

CONCRETE SURFACE DRAIN ITEMS

STATION	LOCATION	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	602.3010 SURFACE DRAIN CY	606.0100 RIPRAP LIGHT CY	645.0130 GEOTEXTILE TYPE R SY
676+85	LT	53	2.6	3	11
PROJECT TOTALS		**53**	**2.6**	**3**	**11**

ASPHALTIC SURFACE ITEMS

STATION TO STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	455.0605 TACK COAT GAL
671+50 - 675+15	SHOULDER, RT	80	---	18
672+50 - 675+15	SHOULDER, LT	44	---	12
672+50 - 675+12.82	MAINLINE	315	---	70
676+55.32 - 679+00	MAINLINE	293	---	66
676+40 - 680+50	SHOULDER, RT	75	---	17
676+50 - 679+50	SHOULDER, LT	47	---	12
671+50 - 680+00	TEMP WIDENING	---	202	46
PROJECT TOTALS		**854**	**202**	**241**

CONCRETE BARRIER TEMPORARY PRECAST & CRASH CUSHIONS TEMPORARY

STATION TO STATION	STAGE	603.8000 CONCRETE TEMPORARY DELIVERED LF	603.8125 BARRIER PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK FT	OBJECT PATTERN	CRASH LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH SHIELDS
671+27 - 680+54	2	940	940	1	4	OM-3R	TL-3	UNIDIRECTIONAL	LT	TEMPORARY BARRIER END
671+10 - 680+46	3	950	950	1	4	OM-3R	TL-3	UNIDIRECTIONAL	RT	TEMPORARY BARRIER END
PROJECT TOTALS		**1890**	**1890**	**2**						

MGS GUARDRAIL

STATION TO STATION	LOCATION	614.2300 GUARDRAIL 3 LF	614.2500 THRIE BEAM TRANSITION LF	614.2610 TERMINAL EAT EACH
673+75.07 - 675+28.14	RT	62.5	39.4	1
674+36.87 - 675+28.14	LT	---	39.4	1
676+40 - 677+30.57	RT	---	39.4	1
676+40 - 677+93.77	LT	62.5	39.4	1
PROJECT TOTALS		**125.0**	**157.6**	**4**

MOBILIZATION

PROJECT	619.1000 EACH
1580-00-70	1
PROJECT TOTAL	**1**

WATER

LOCATION	USE	624.0100 MGAL	630.0500 SEED WATER MGAL
PROJECT LIMITS	SEEDING	---	170
PROJECT LIMITS	DUST CONTROL	40	---
PROJECT LIMITS	COMPACTION	90	---
PROJECT TOTALS		**130**	**170**

SALVAGED TOPSOIL, MULCHING, FERTILIZER, & SEEDING

STATION TO STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB
672+50 - 679+00	MAINLINE	4586	4586	2.9	207	---
671+50 - 680+00	TEMP WIDENING	2840	2840	1.8	128	---
UNDISTRIBUTED		---	1854	1.3	85	200
PROJECT TOTALS		**7426**	**9280**	**6.0**	**420**	**200**

SILT FENCE

STATION TO STATION	LOCATION	STAGE	628.1504 LF	628.1520 MAINTENANCE LF
671+50 - 672+05	TEMP WIDENING	1	55	55
672+25 - 680+00	TEMP WIDENING	1	725	725
675+91 - 679+00	RT	2	305	305
675+90 - 676+07	LT	3	32	32
UNDISTRIBUTED			233	233
PROJECT TOTALS			**1350**	**1350**

MOBILIZATIONS EROSION CONTROL

PROJECT	628.1905 EACH
1580-00-70	8
PROJECT TOTAL	**8**

MOBILIZATIONS EMERGENCY EROSION CONTROL

PROJECT	628.1910 EACH
1580-00-70	5
PROJECT TOTAL	**5**

EROSION MAT CLASS II TYPE C

STATION TO STATION	LOCATION	STAGE	628.2027 SY
674+45 - 675+85	TEMP WIDENING	1	365
673+80 - 675+35	RT	2	295
676+35 - 677+55	RT	2	406
674+60 - 675+35	LT	3	273
676+30 - 677+70	LT	3	370
UNDISTRIBUTED			336
PROJECT TOTAL			**2045**

TEMPORARY DITCH CHECKS

STATION	LOCATION	STAGE	628.7504 LF
675+30	RT	2	14
UNDISTRIBUTED			6
PROJECT TOTAL			**20**

TRAFFIC CONTROL ITEMS

PROJECT	LOCATION	643.0300 DRUMS EACH	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAY	642.0705 WARNING LIGHTS TYPE A EACH	642.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS EACH	643.0900 SIGNS DAY
1580-00-70	STAGE 1	20	500	---	---	---	---	---	---	8	200
1580-00-70	STAGE 2	49	2450	1	50	2	98	24	1200	14	700
1580-00-70	STAGE 3	51	2550	1	50	2	102	25	1250	14	700
ADVANCED WARNING		---	---	---	---	---	---	---	---	8	1000
UNDISTRIBUTED		---	1200	---	25	---	25	---	600	---	550
PROJECT TOTALS			**6700**		**125**		**225**		**3050**		**3150**

FIELD OFFICE TYPE C

PROJECT	642.5201 EACH
1580-00-70	1
PROJECT TOTAL	**1**

TEMPORARY MARKING LINE

STATION TO STATION	DESCRIPTION	STAGE	643.3165 PAINT 6-INCH WHITE LF	643.3850 STOP LINE REMOVABLE TAPE 18-INCH LF
671+15 - 680+45	LT & RT EDGELINE	2	1878	24
671+07 - 680+42	LT & RT EDGELINE	3	1870	---
PROJECT TOTALS			**3748**	**24**

TURBIDITY BARRIERS

PROJECT	628.6005 SY
1580-00-70	200
PROJECT TOTAL	**200**

DELINEATORS TEMPORARY

STATION TO STATION	LOCATION	STAGE	633.1100 EACH
671+90 - 679+75	LT	2	64
UNDISTRIBUTED			16
PROJECT TOTAL			**80**

3

TRAFFIC CONTROL

PROJECT	643.5000 EACH
1580-00-70	1
PROJECT TOTAL	**1**

MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH

STATION TO STATION	DESCRIPTION	646.2040 WHITE LF	646.2040 YELLOW LF
670+20 - 681+50	CENTERLINE	---	2260
670+20 - 681+50	EDGELINE, RT & LT	2260	---
SUBTOTALS		**2260**	**2260**
PROJECT TOTAL		**4520**	

MARKING REMOVAL LINE 4-INCH

STATION TO STATION	DESCRIPTION	STAGE	646.9000 LF
670+20 - 672+00	DBL CENTERLINE	2	360
671+13 - 680+41	LT, EDGELINE	2	928
679+50 - 681+50	DBL CENTERLINE	2	400
671+25 - 672+50	RT, EDGELINE	3	125
679+00 - 680+25	RT, EDGELINE	3	125
PROJECT TOTAL			**1938**

TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (B-54-131)

LOCATION	661.0101 EACH
LITTLE SOFT MAPLE CREEK	1
PROJECT TOTAL	**1**

CONSTRUCTION STAKING

STATION TO STATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF	650.6501 STRUCTURE LAYOUT EACH
B-54-131	---	---	---	1
671+50 - 680+00	850	850	850	---
PROJECT TOTALS	**850**	**850**	**850**	1

STAKING INCLUDES TEMPORARY AND PERMANENT WORK

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

PROJECT	650.9911.01 EACH
1580-00-70	1

SAWING

STATION TO STATION	LOCATION	STAGE	690.0150 ASPHALT LF	690.0250 CONCRETE LF
671+50 - 680+00	TEMP WIDENING	1	856	---
671+50 - 672+50	RT	2	102	---
672+50 - 679+00	RT	2	---	674
679+00 - 680+00	RT	2	102	---
671+50 - 672+50	LT	3	100	12
679+00 - 680+00	LT	3	100	12
PROJECT TOTALS			**1260**	**698**

TEMPORARY BYPASS STA 675+84

STATION	LOCATION	SPV.0060.01 EACH
675+84	USH 8	1
PROJECT TOTAL		**1**

3

PI STA = 678+02.23
Y = 552220.38
X = 744880.15
DELTA = 34°00'02"
D = 0°45'00"
T = 1167.82'
L = 2266.70'
R = 3819.72'
PC STA = 666+34.40
Y = 552414.05
X = 743728.50
PT STA = 689+01.10
Y = 552703.83
X = 745943.21
BK = S80°27'15"E
AH = N65°32'43"E
SE = 3.7%
LR = 99.00'

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	675+95.0	1116.42	BRASS MONUMENT, 37.9' LT
2	669+71.7	1120.76	RR SPIKE IN PPOL, 40.8' LT

EAT TAPER - STA 673+16.87, 22' LT
EAT POST 1 - STA 674+36.87, 24' LT
EAT POST 5 - STA 674+61.87, 23' LT
EAT POST 9 - STA 674+86.87, 22' LT

STA 676+85, 22' LT
CONCRETE SURFACE
DRAIN (FLUME TYPE)

STA 676+41 - STA 676+94
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH
TYPE TBT

EAT POST 9 - STA 677+43.77, 22' LT
EAT POST 5 - STA 677+68.77, 23' LT
EAT POST 1 - STA 677+93.77, 24' LT
EAT TAPER - STA 679+13.77, 22' LT

SLOPE INTERCEPT
WETLANDS
CP#1
BM#1
SPECTRUM
(HAS NOT BEEN
FIELD VERIFIED)
672+00
673+00
674+00
675+00
676+00
677+00
678+00
679+00
USH 8
STRUCTURE B-54-131
SEE STRUCTURE PLANS
SLOPE INTERCEPT
LITTLE SOFT MAPLE CREEK
CP#2
WETLANDS
SLOPE INTERCEPT
WETLANDS
N

BEGIN PROJECT
STA 672+50.00
Y = 552361.21
X = 744341.16
MATCH EXISTING
SAWCUT REQ'D

EAT TAPER - STA 672+55.07, 22' RT
EAT POST 1 - STA 673+75.07, 24' RT
EAT POST 5 - STA 674+00.07, 23' RT
EAT POST 9 - STA 674+25.07, 22' RT

EXISTING R/W

EAT POST 9 - STA 676+80.57, 22' RT
EAT POST 5 - STA 677+05.57, 23' RT
EAT POST 1 - STA 677+30.57, 24' RT
EAT TAPER - STA 678+50.57, 22' RT

STA 677+50
CONSTRUCT PE RT
(SEE PLAN & PROFILE DRIVEWAY
FOR ADDITIONAL INFORMATION)

END PROJECT
STA 679+00.00
MATCH EXISTING
SAWCUT REQ'D

5

5

VCL = 400.00
K = 195.01

EXISTING PROFILE
-0.55%
FINISHED PROFILE
1.50%
VPT STA 680+32.07
VPT EL 1125.00
VPI STA 678+32.07
VPI EL 1122.00
VPC STA 676+32.07
VPC EL 1123.10

STA 675+84.07
STRUCTURE B-54-131 REQ'D
1-SPAN 36W PRESTRESSED GIRDER
44'-2" CLEAR ROADWAY
74'-6" OVERALL LENGTH
0° SKEW

EXISTING 2-CELL BOX CULVERT
B-54-408 TO BE REMOVED

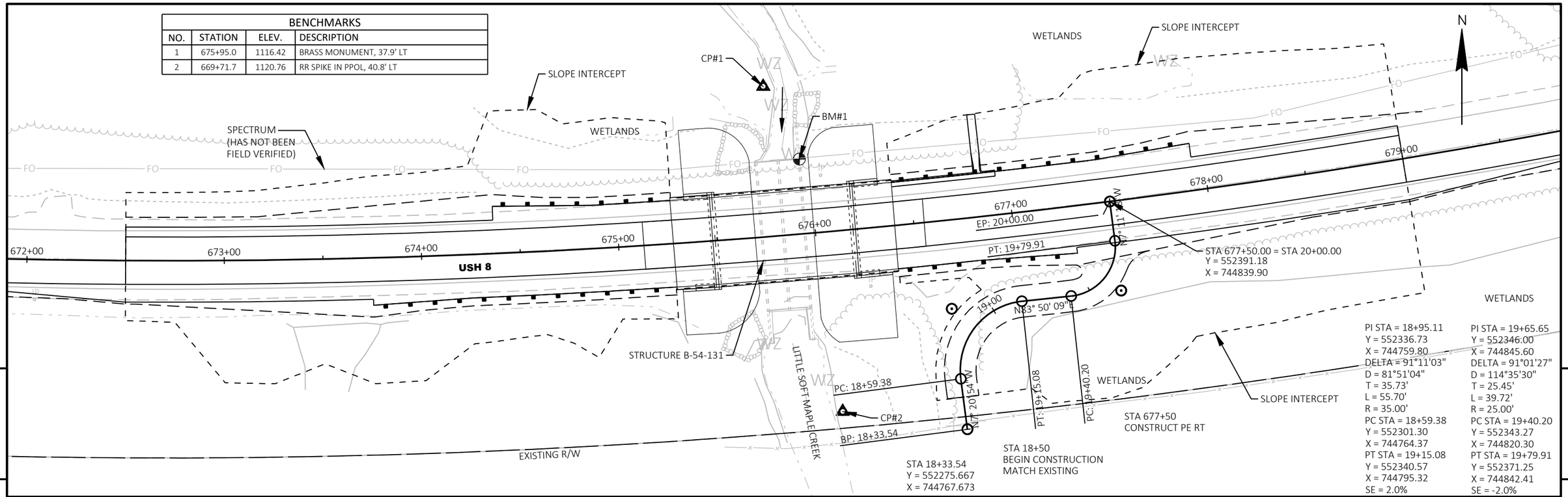
1140
1135
1130
1125
1120
1115
1110
1105
1100

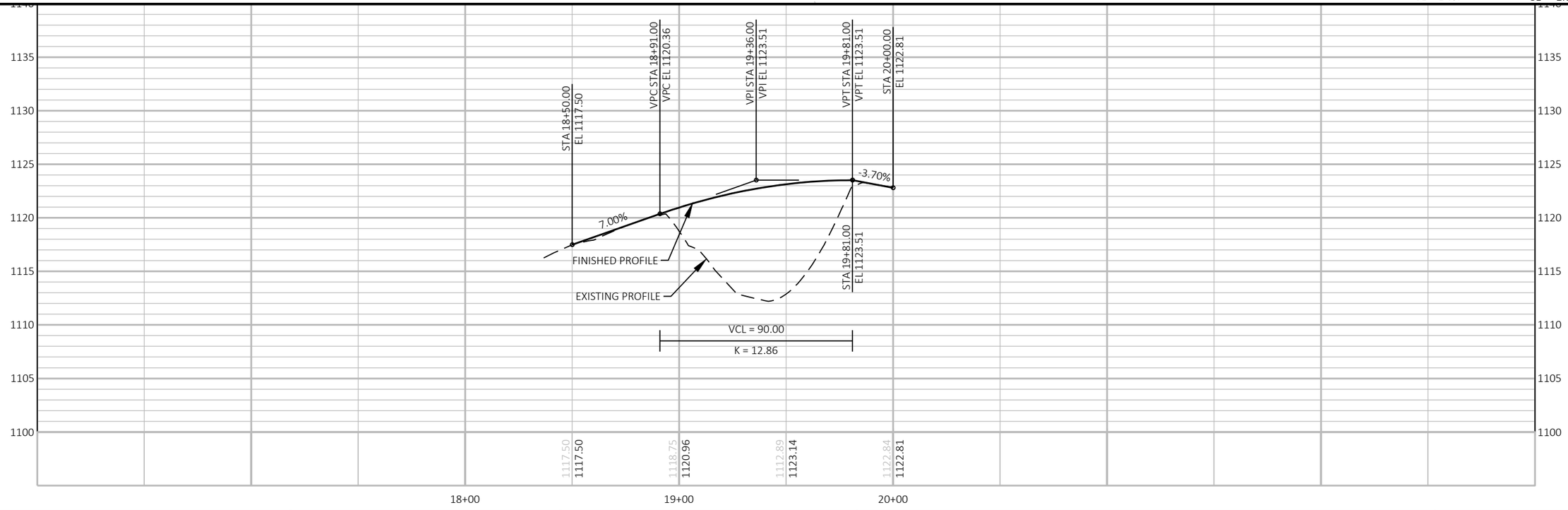
1125.20 1125.24 1125.21 1125.09 1124.93 1124.88 1124.66 1124.63 1124.38 1124.29 1124.11 1124.06 1123.83 1123.70 1123.55 1123.36 1123.28 1123.06 1123.01 1122.82 1122.85 1122.84 1122.81 1122.88 1122.90 1123.11 1123.12 1123.47 1123.47 1123.90

673+00 674+00 675+00 676+00 677+00 678+00 679+00 679+50

PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	PLAN AND PROFILE:	SHEET 18	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	675+95.0	1116.42	BRASS MONUMENT, 37.9' LT
2	669+71.7	1120.76	RR SPIKE IN PPOL, 40.8' LT





PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	PLAN AND PROFILE: DRIVEWAY	SHEET 19	E

Standard Detail Drawing List

08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	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)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D33-09	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

6

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

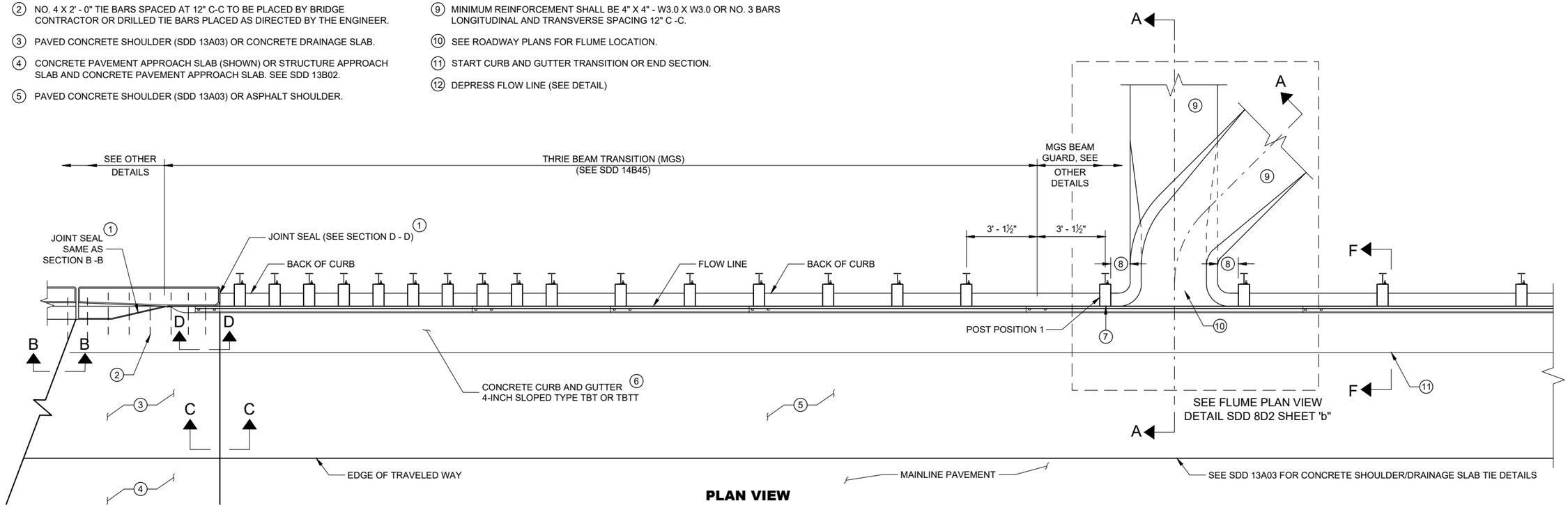
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

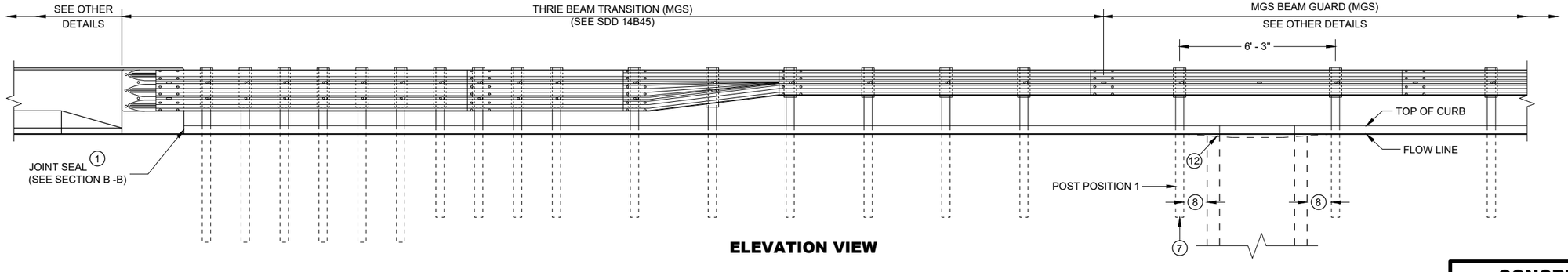
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



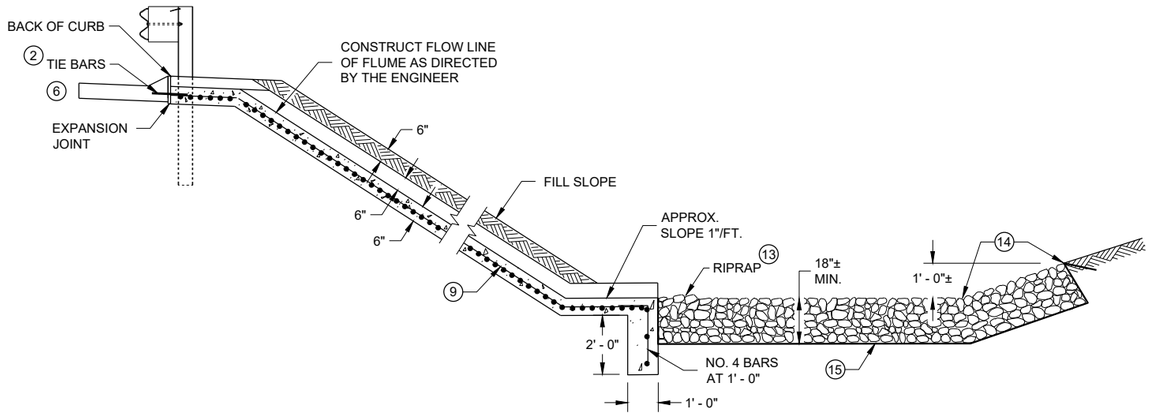
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

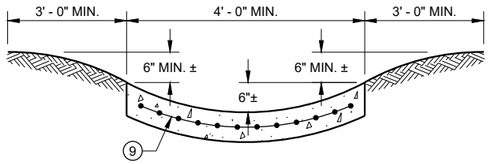
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 08a

SDD 08D02 - 08a



SECTION A - A



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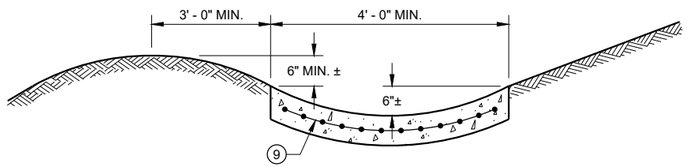

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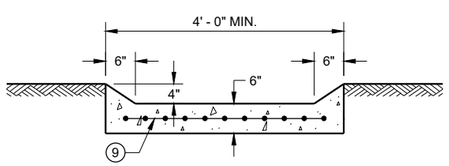
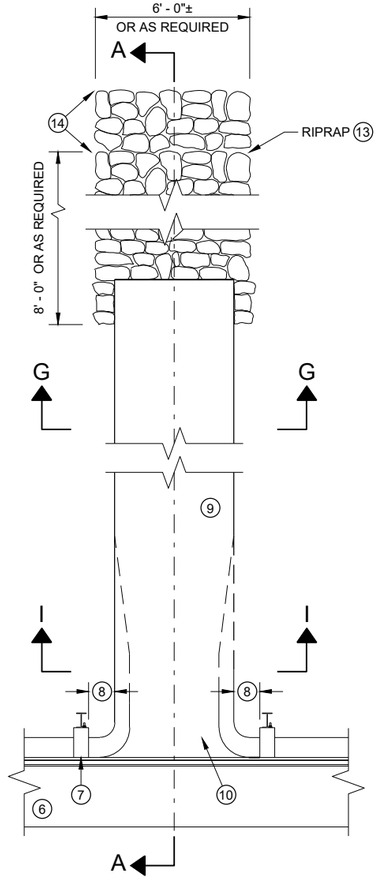
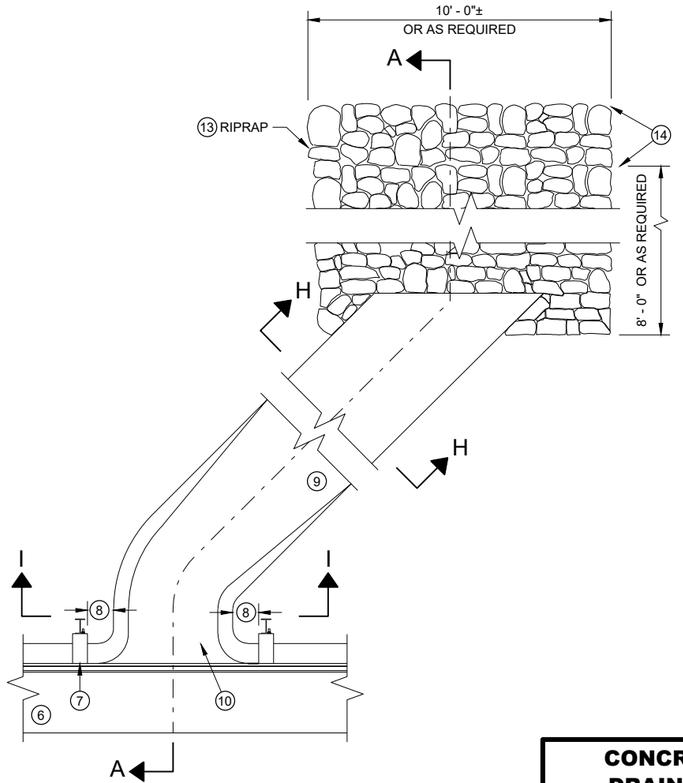


SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.

(15) GEOTEXTILE TYPE HR.

6

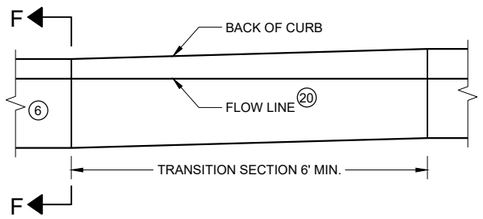
6

SDD 08D02 - 08b

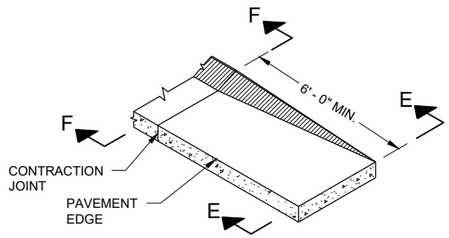
SDD 08D02 - 08b

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

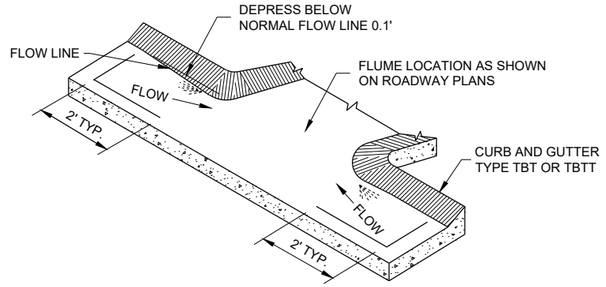
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**

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.

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(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

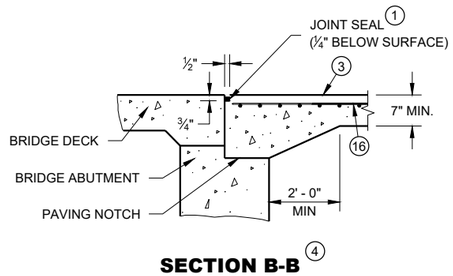
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

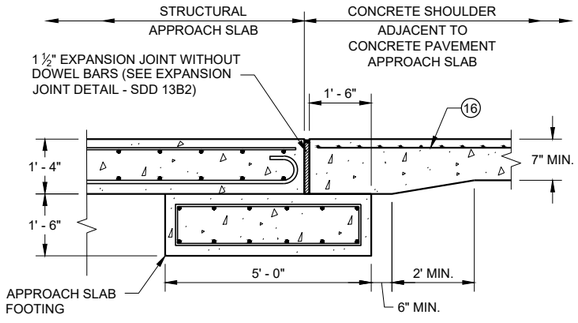
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

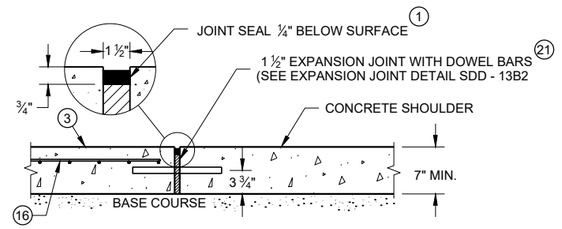
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



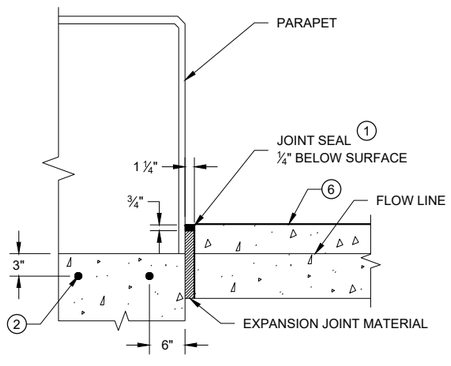
SECTION B-B (4)



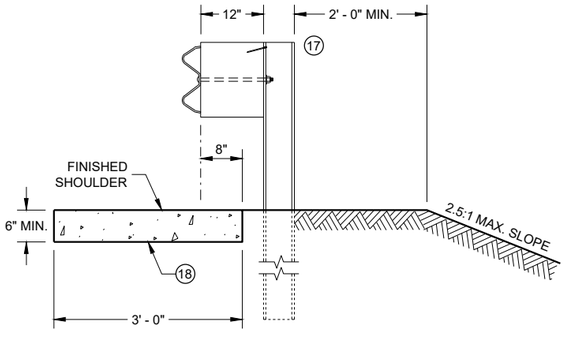
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



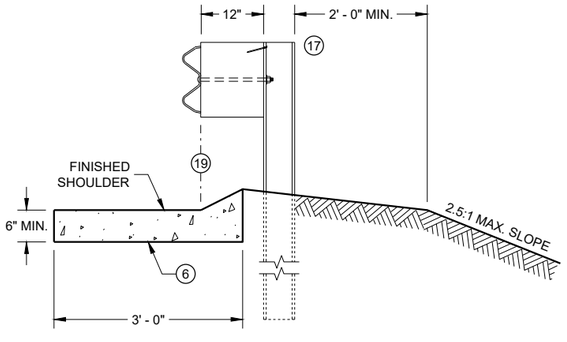
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 08D02 - 08c

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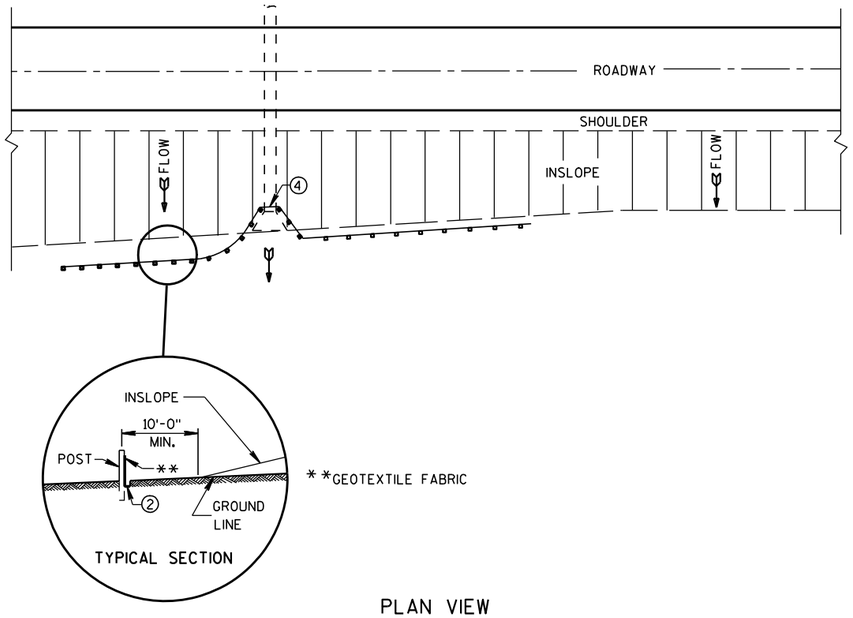
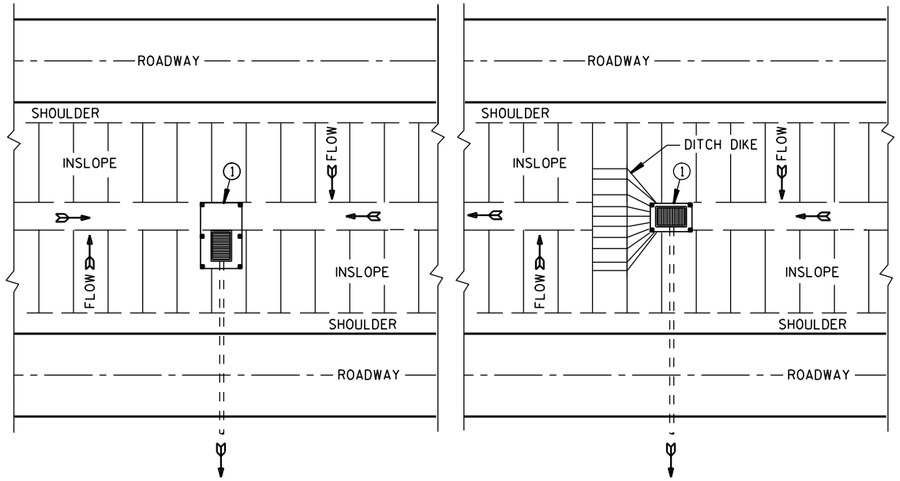
SDD 08D02 - 08c



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



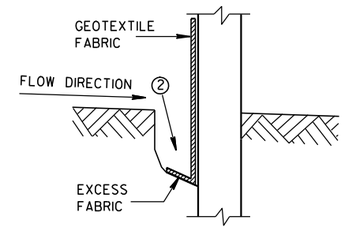
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

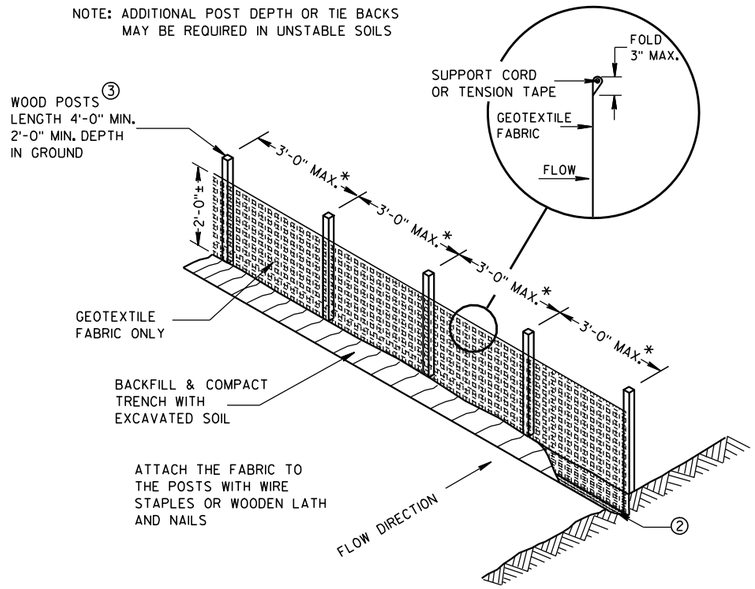
GENERAL NOTES

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

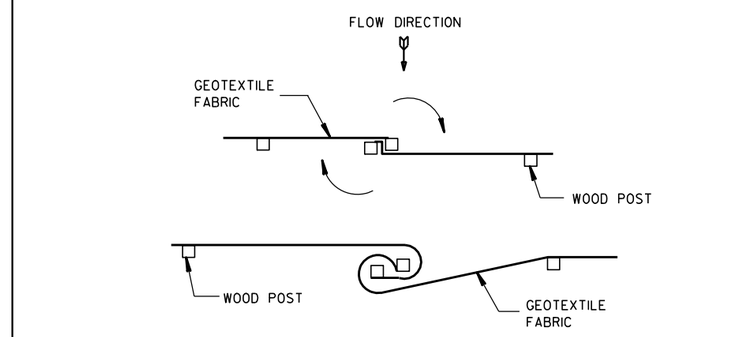
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



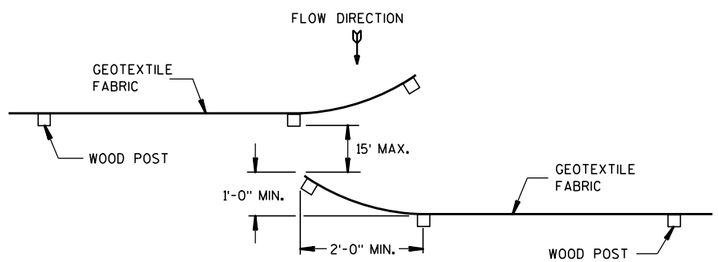
TRENCH DETAIL



SILT FENCE

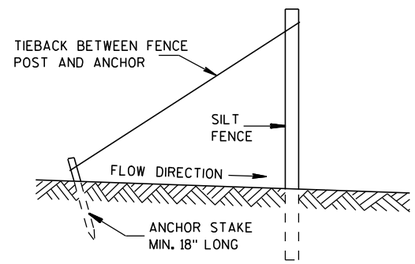


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

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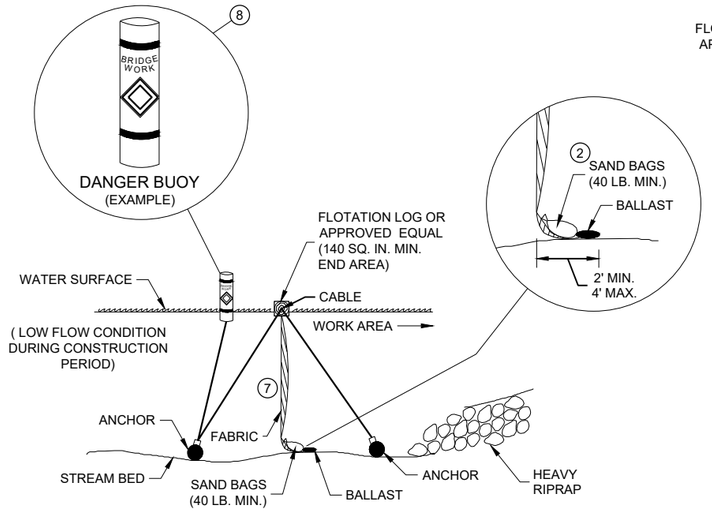
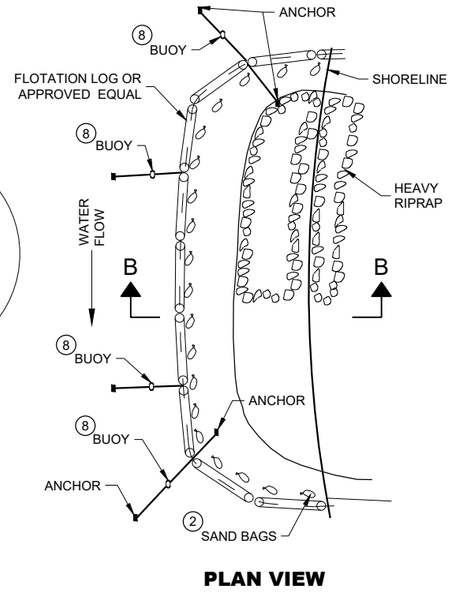
S.D.D. 8 E 9-6

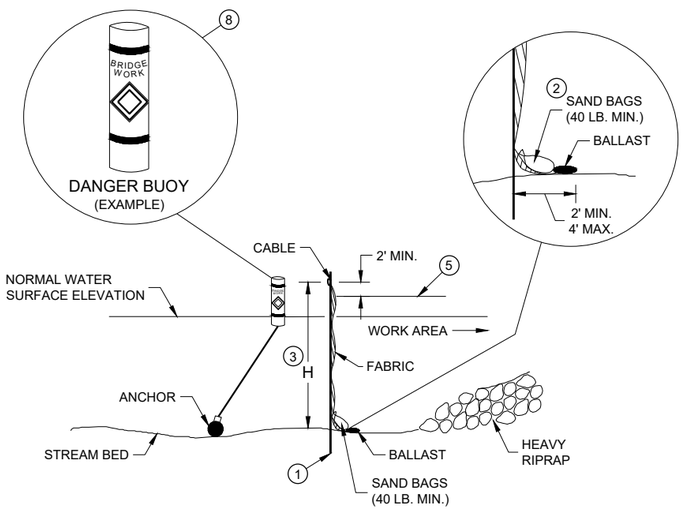


SECTION B - B

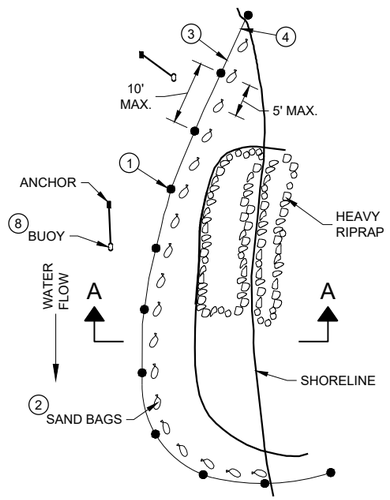


PLAN VIEW

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) SAND BAGS 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 FEET, POST SPACING MAY NEED TO BE DECREASED.

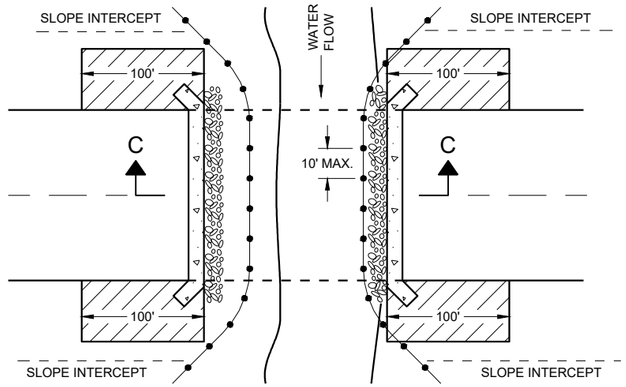
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

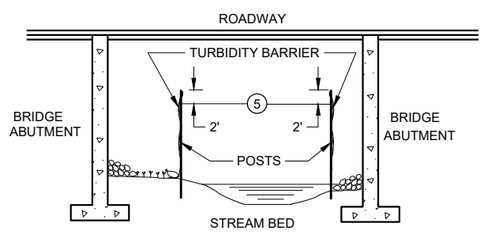
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(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
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

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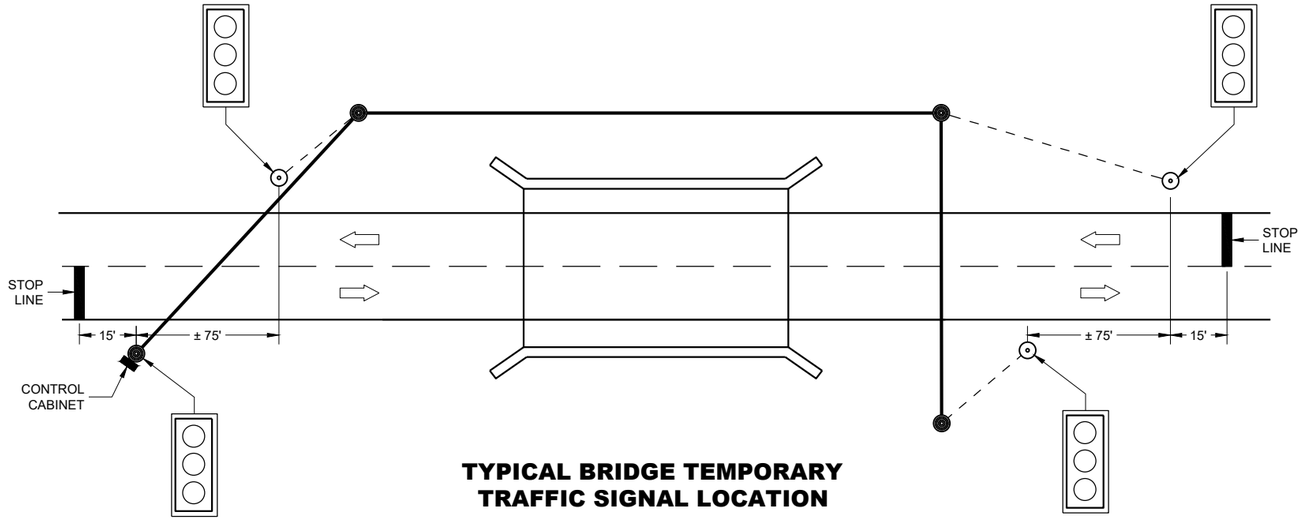
SDD 08E11 - 02



TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREADAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- DIRECTION OF TRAFFIC
- LED TRAFFIC SIGNAL WITH BACKPLATE (3-12")

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

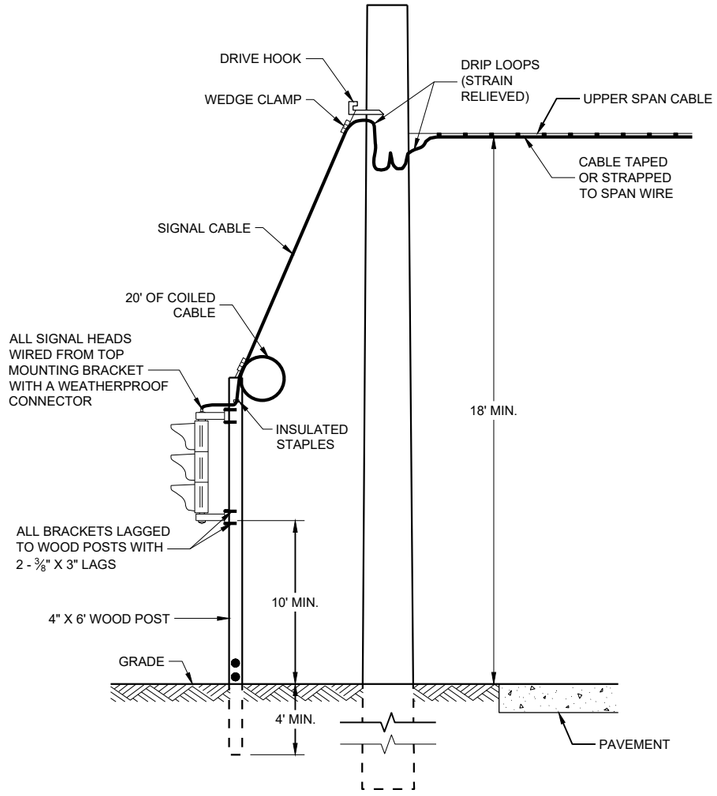
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

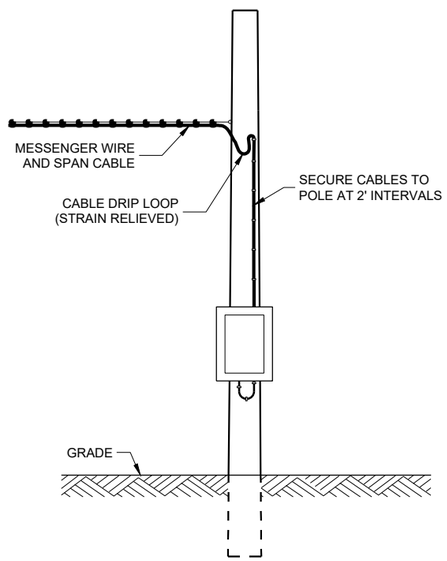
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.

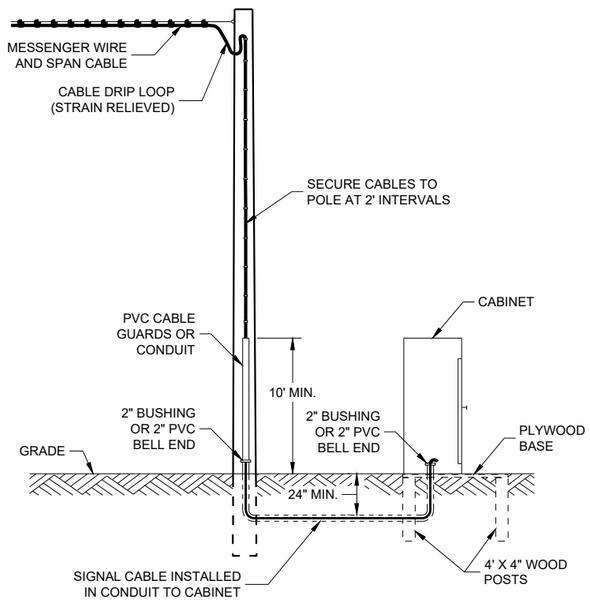
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD09G02 - 05a

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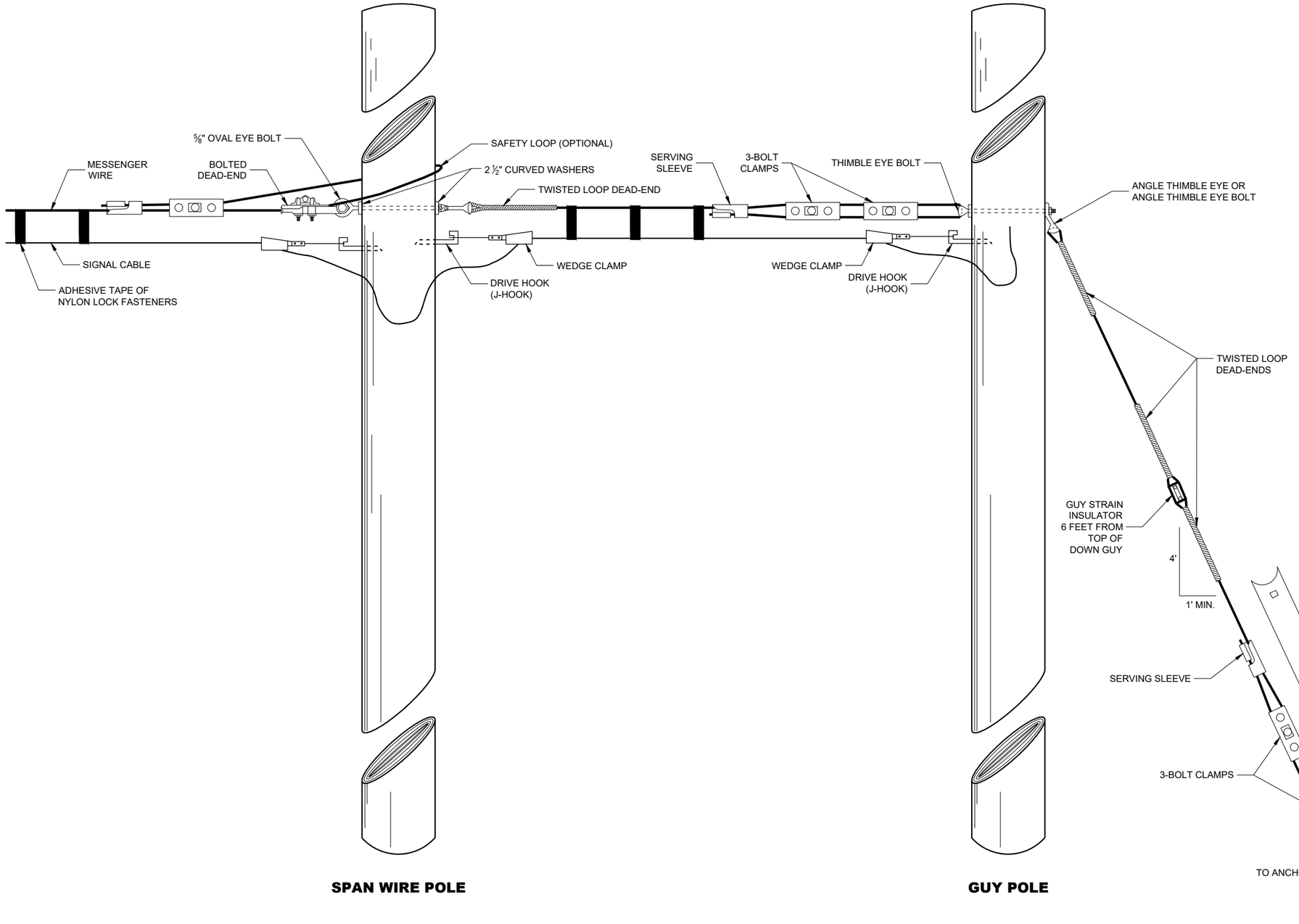
SDD09G02 - 05a

GENERAL NOTES

USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD09G02 - 05b

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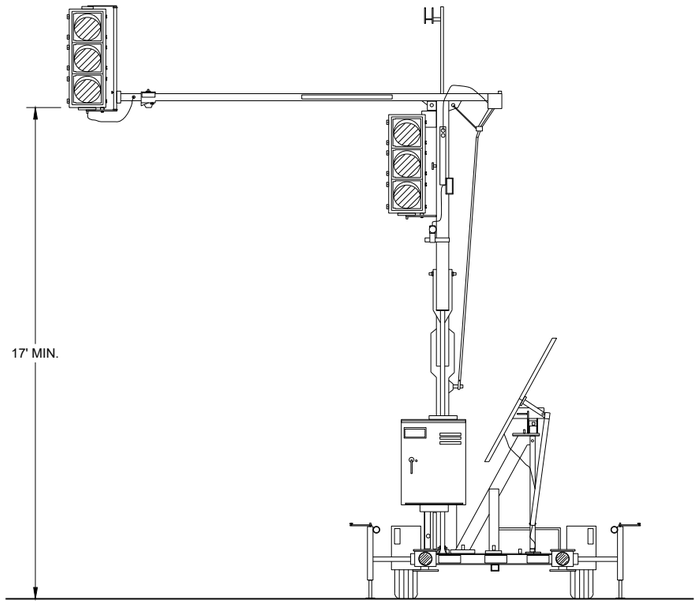
SDD09G02 - 05b

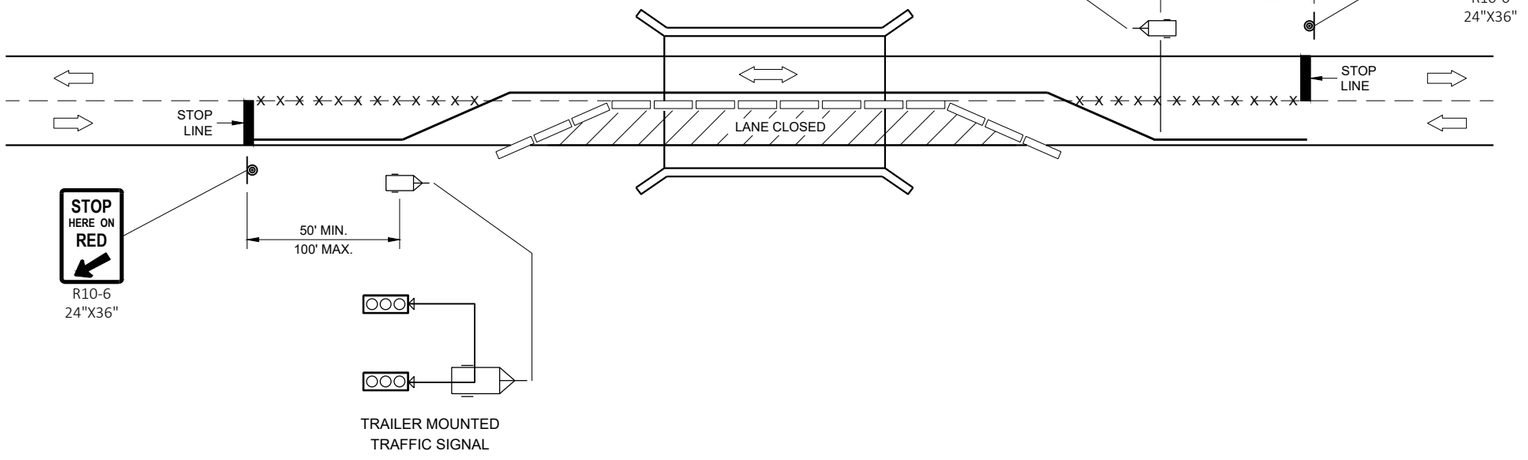


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

DETAIL OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

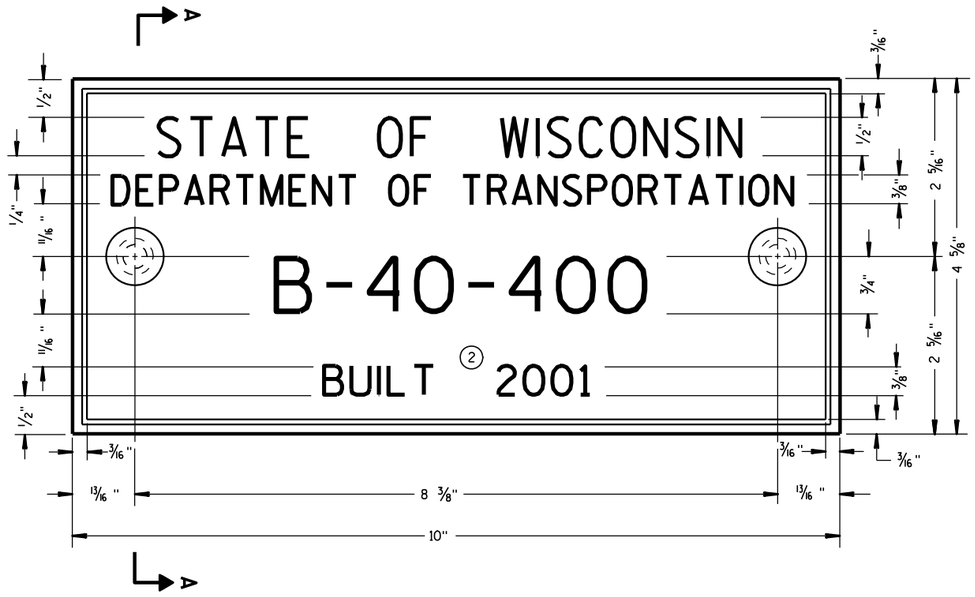
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD09G02 - 05c

SDD09G02 - 05c



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

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

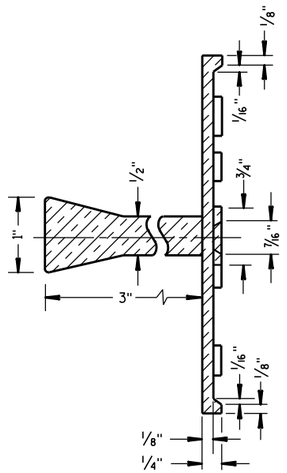
GENERAL NOTES

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

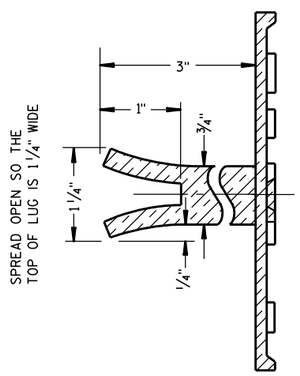
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

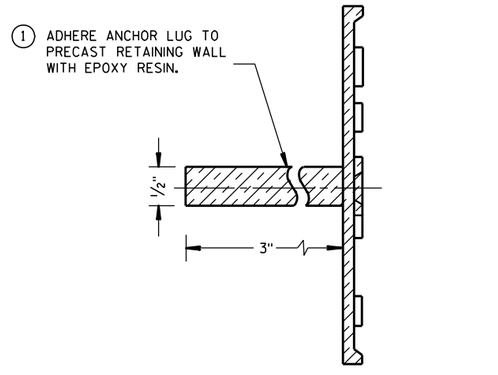
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

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S.D.D. 12 A 3-10

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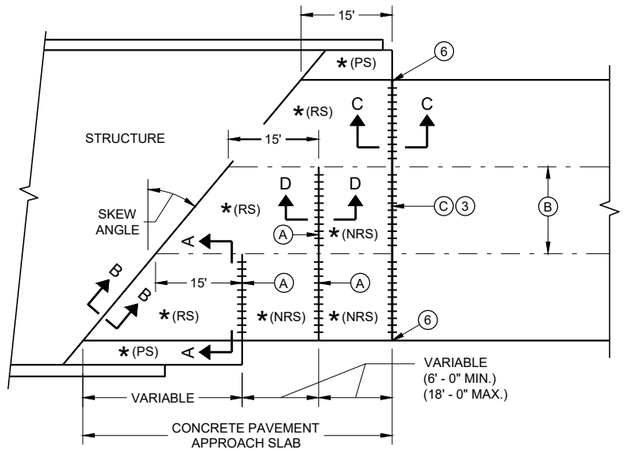
S.D.D. 12 A 3-10



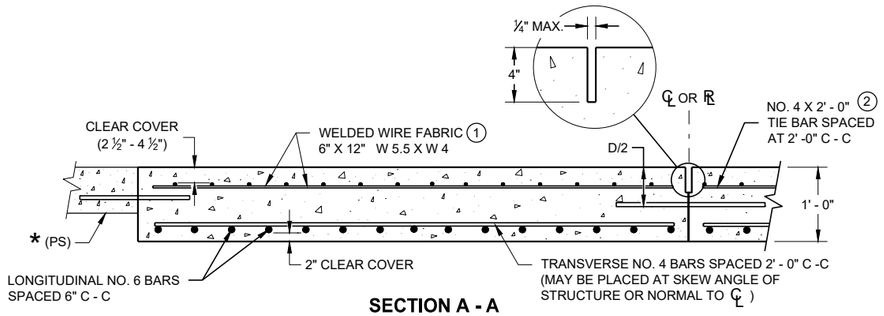
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

(RS) = REINFORCED CONCRETE SLAB

(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

(NRS) - NON - REINFORCED CONCRETE SLAB

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



SECTION A - A
REINFORCEMENT POSITIONING DETAIL

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

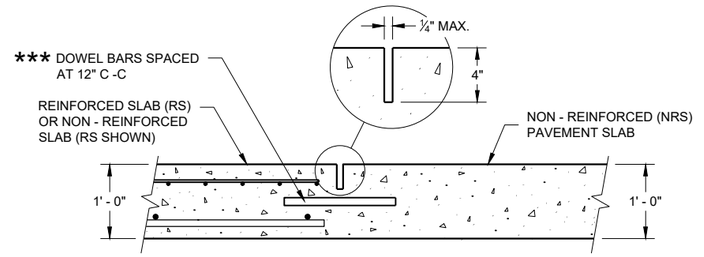
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

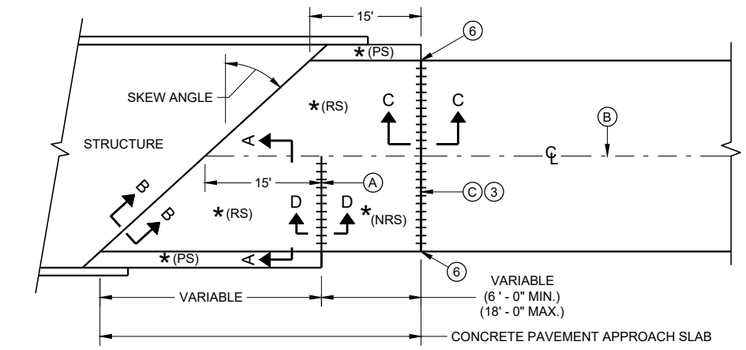
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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

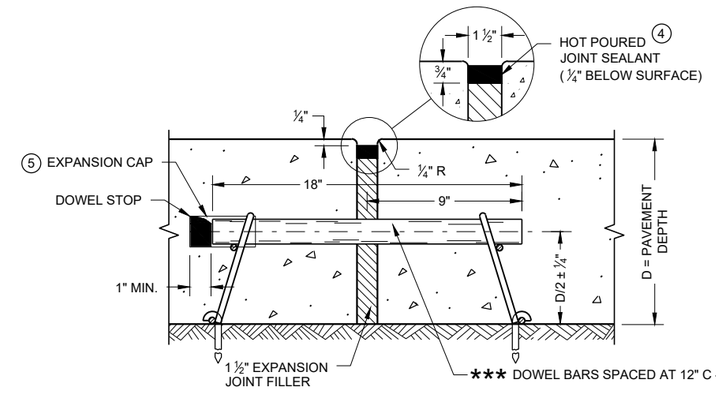


SECTION D - D
CONTRACTION JOINT

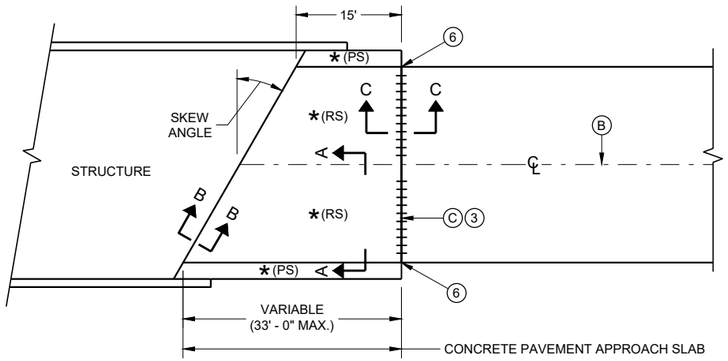


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

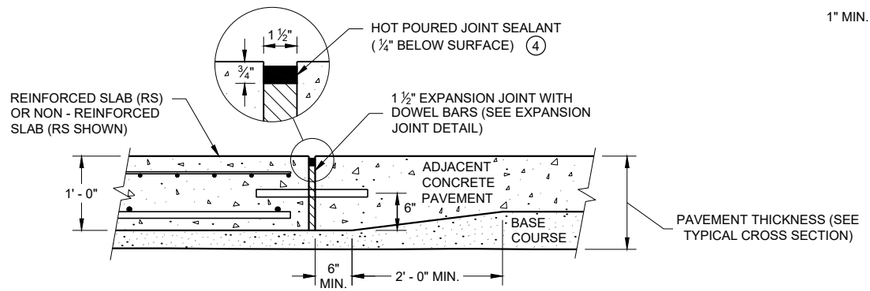


EXPANSION JOINT DETAIL



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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

FHWA

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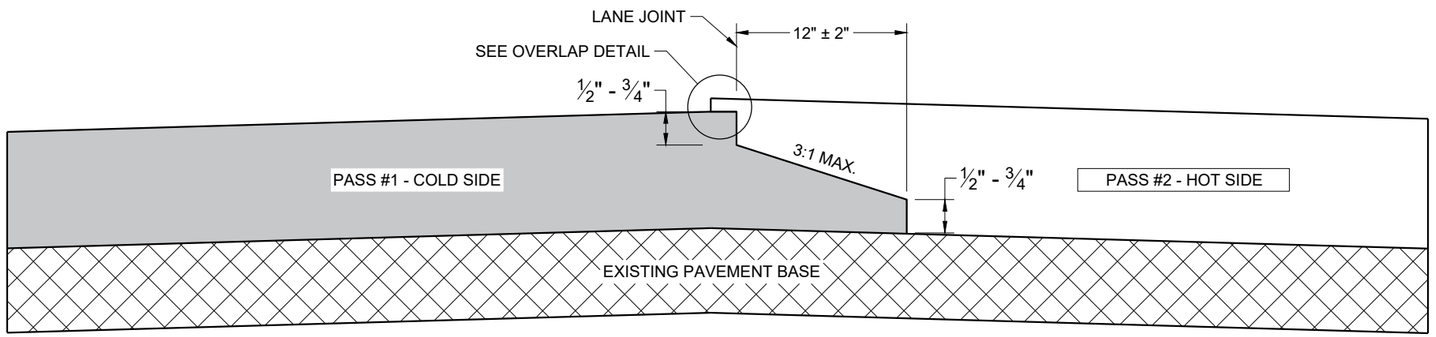
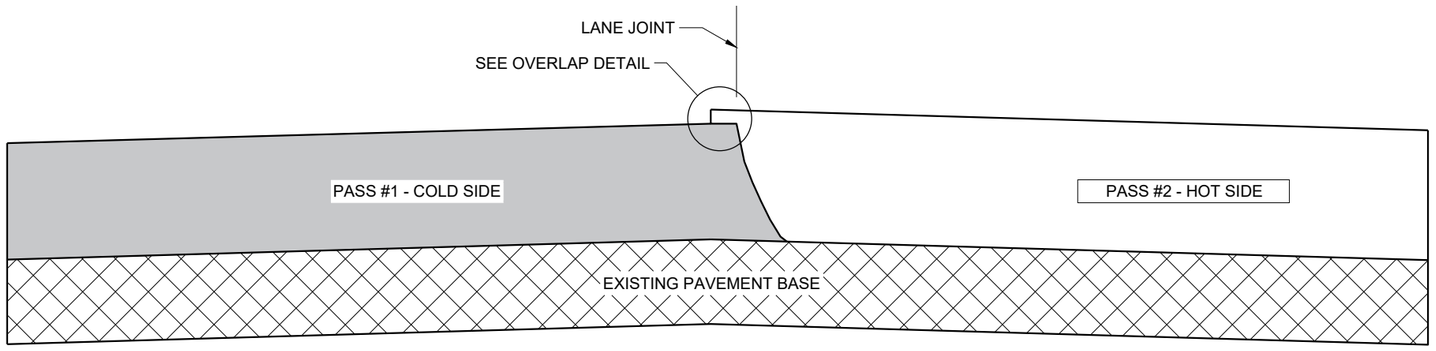
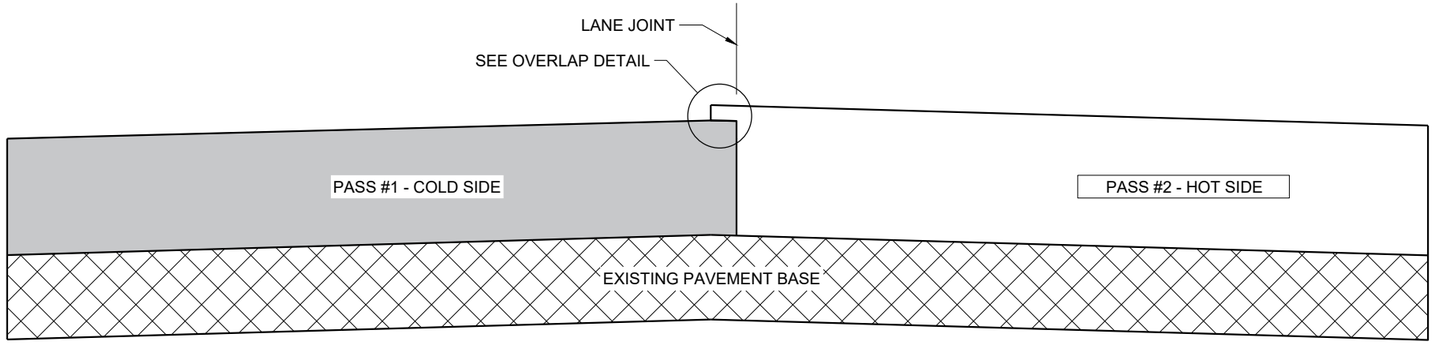
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

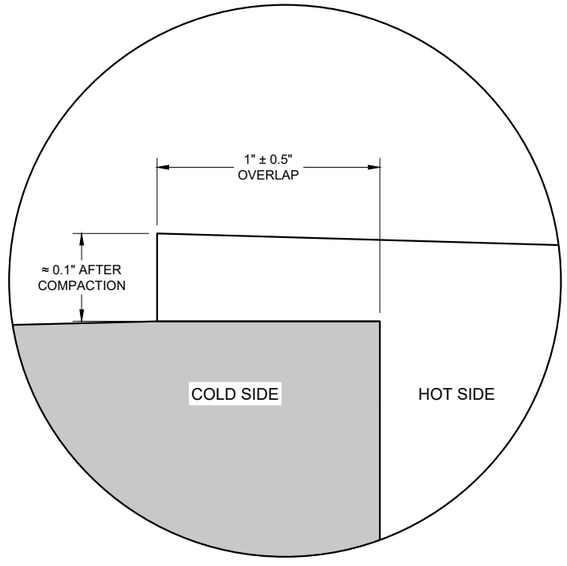
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

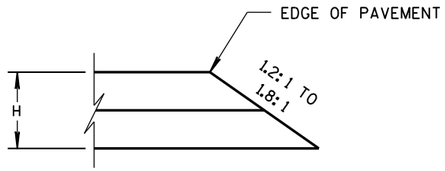
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

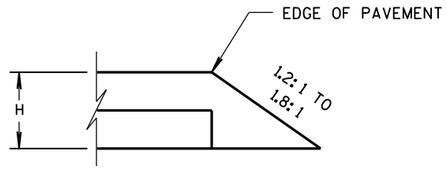
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



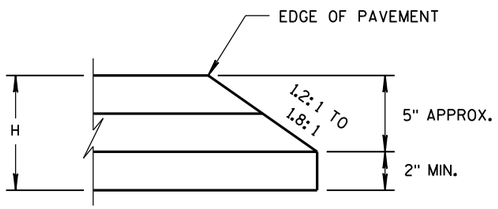
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



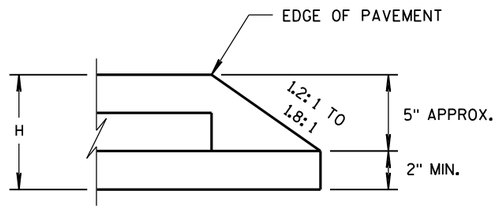
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

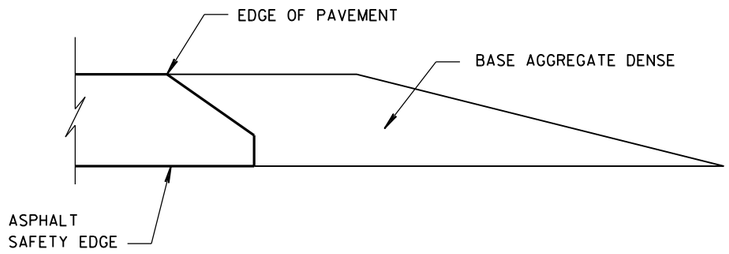
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

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

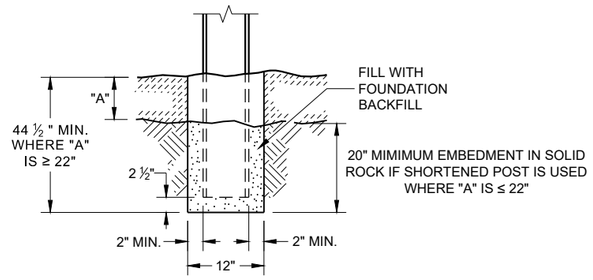
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

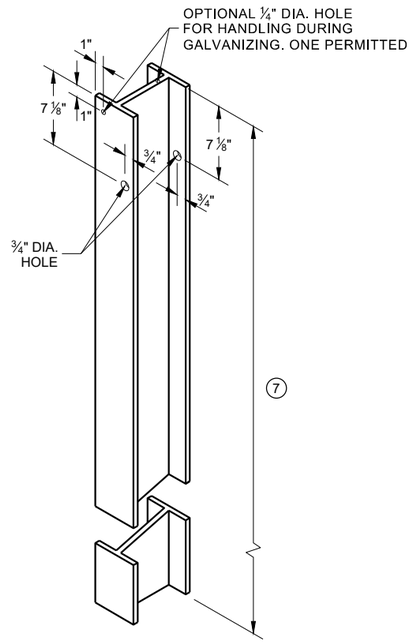
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

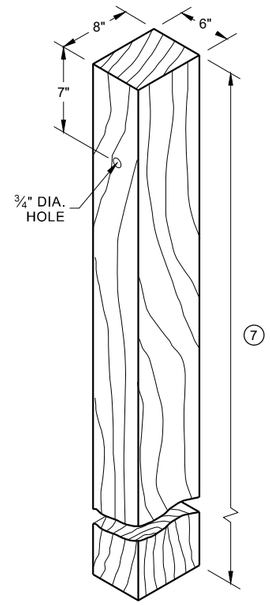
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



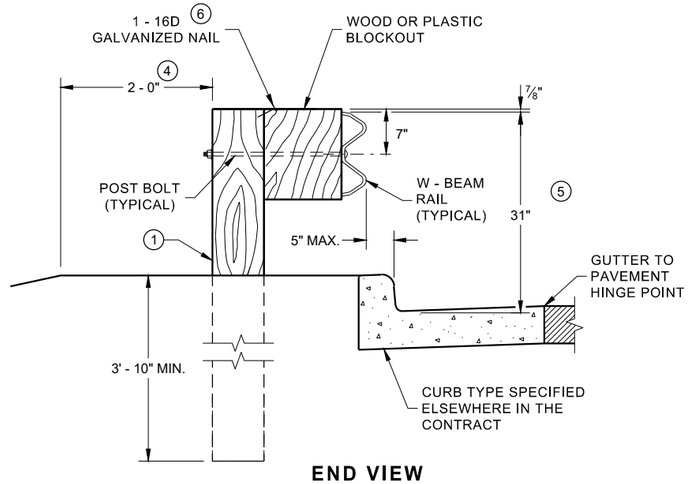
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



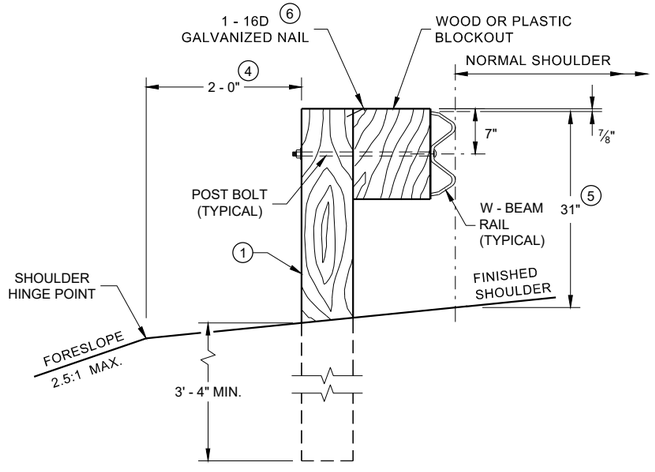
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



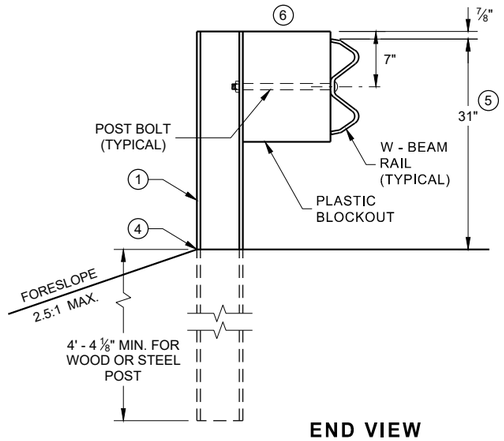
WOOD POST (6" X 8") NOMINAL (1)



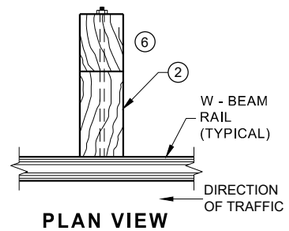
END VIEW
LOCATED ALONG A CURBED ROADWAY



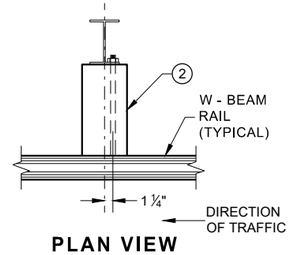
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



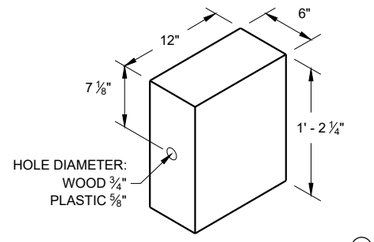
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

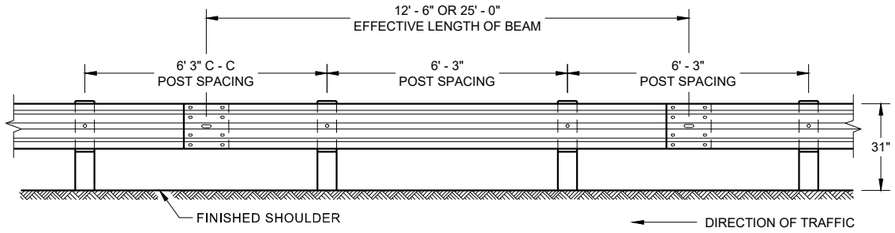
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

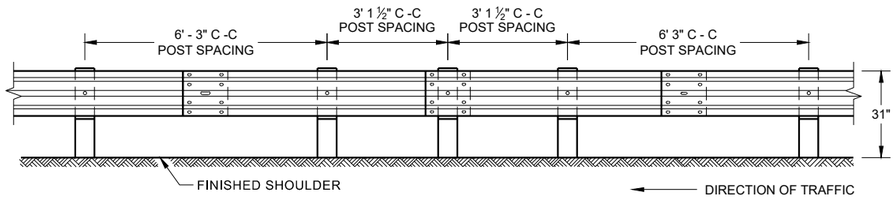
SDD 14B42 - 07a

6

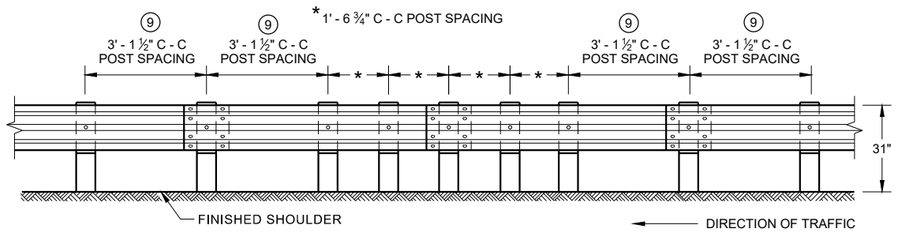
SDD 14B42 - 07a



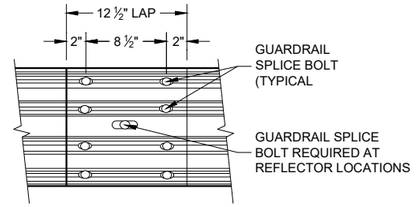
FRONT VIEW
POST SPACING STANDARD INSTALLATION



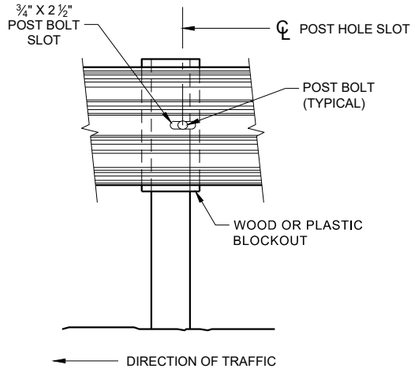
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



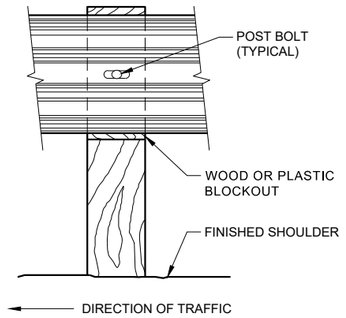
FRONT VIEW
QUARTER POST SPACING (QS)



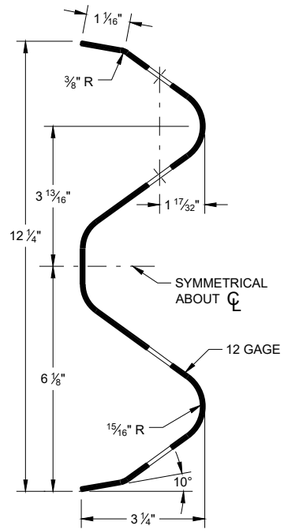
FRONT VIEW
MID-SPAN BEAM SPLICE



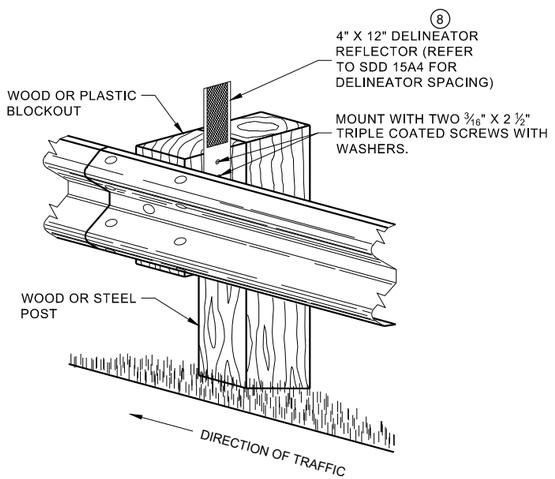
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

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.

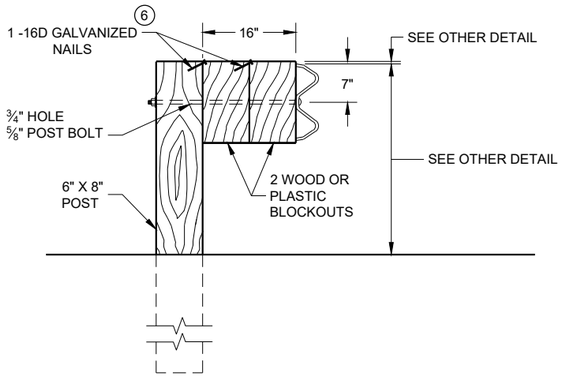
POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

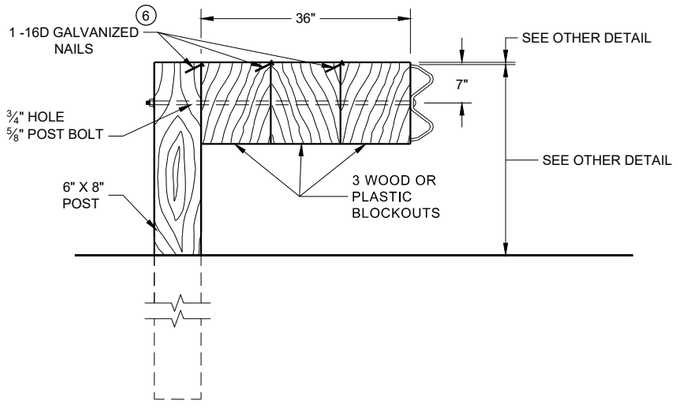
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b



DETAIL FOR 16" BLOCKOUT DEPTH

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



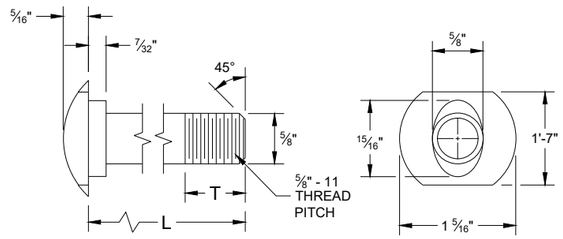
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

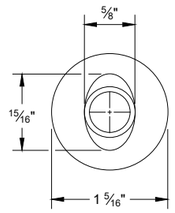
NOTE:

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

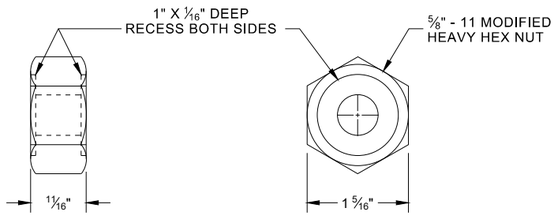


POST BOLT TABLE

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

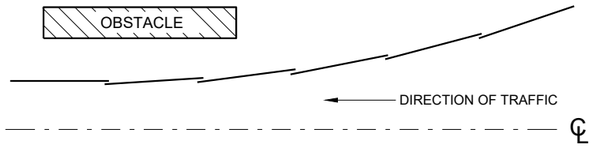


ALTERNATE BOLT HEAD

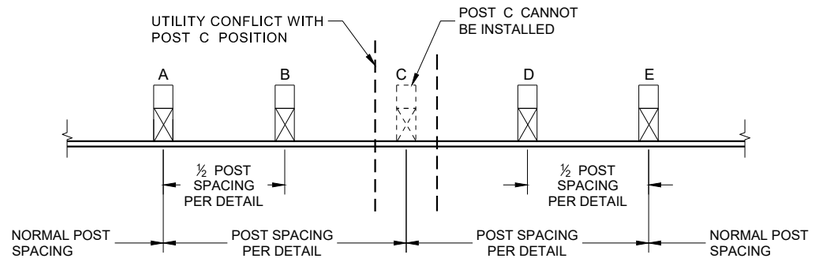


POST BOLT, SPLICE BOLT AND RECESS NUT

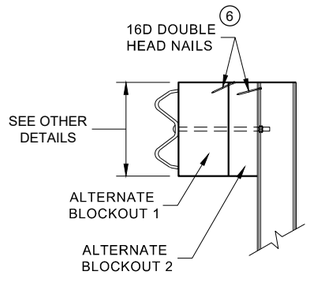
6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



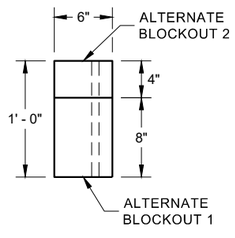
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

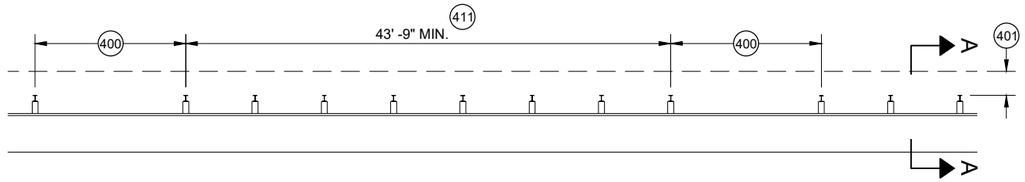
6

SDD 14B42 - 07c

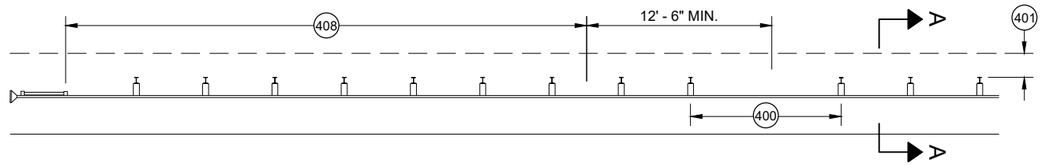
6

SDD 14B42 - 07c

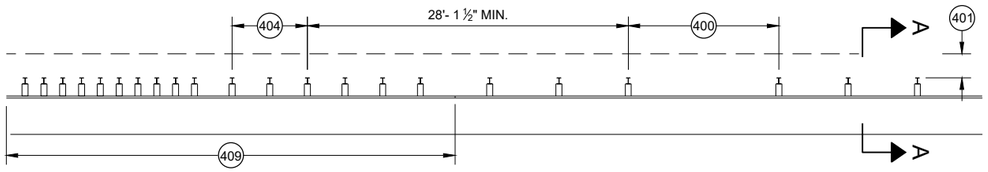
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



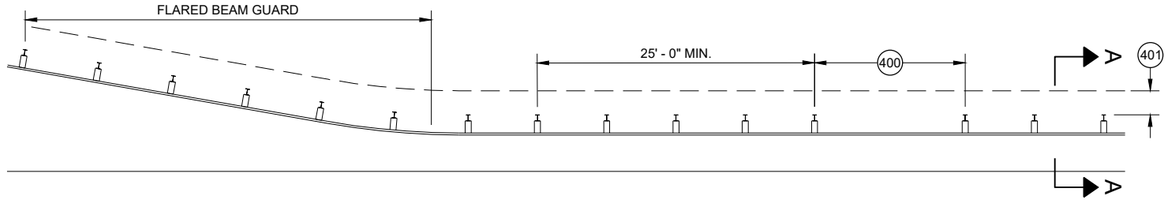
MISSING POST IN MGS GUARDRAIL



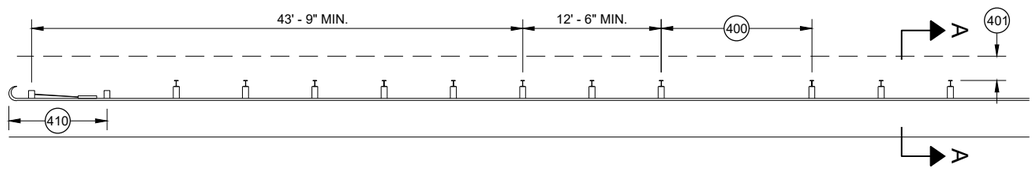
MISSING POST IN MGS GUARDRAIL NEAR EAT



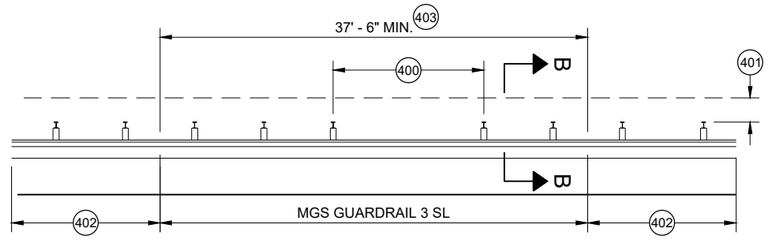
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

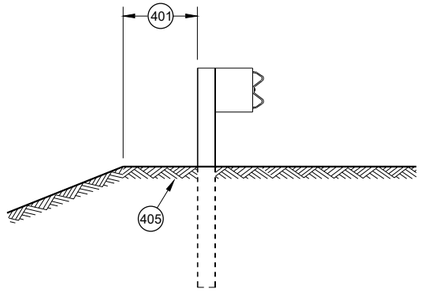


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

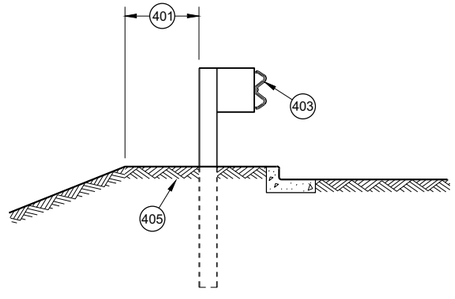


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

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SDD 14B42 - 07d

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

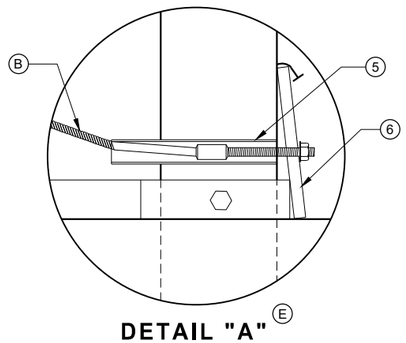
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

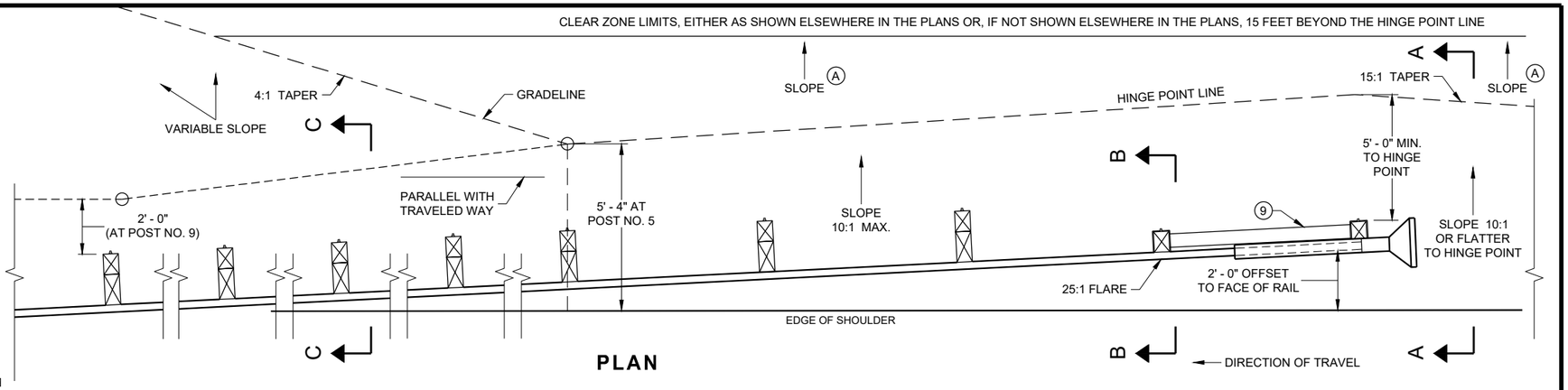
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

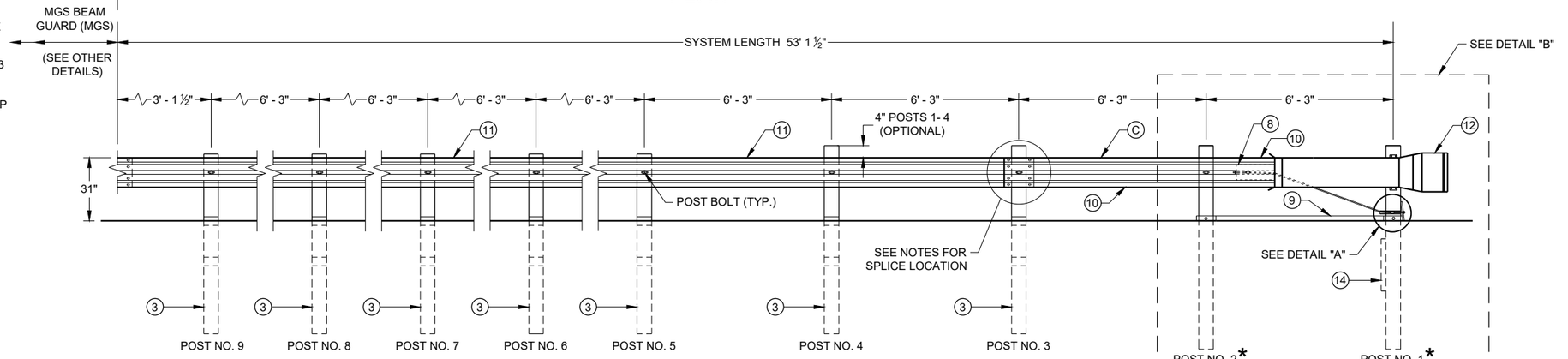
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



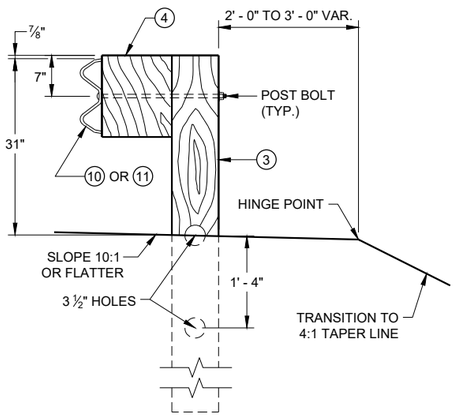
DETAIL "A" (E)



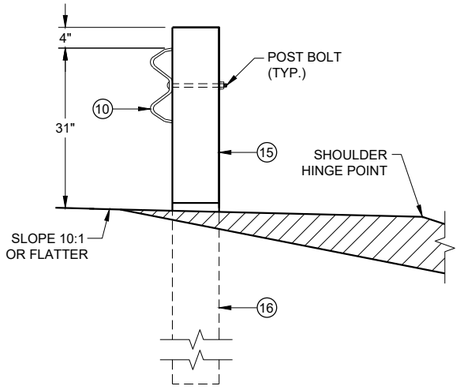
PLAN



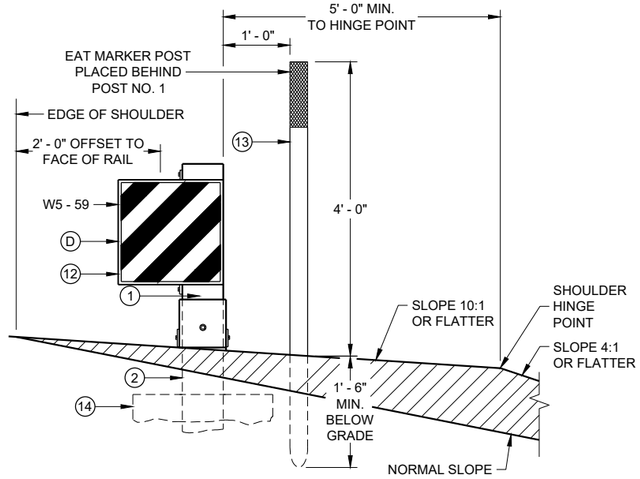
ELEVATION



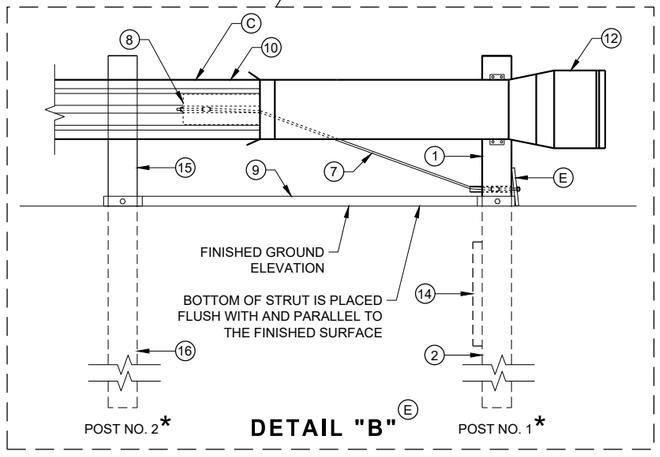
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



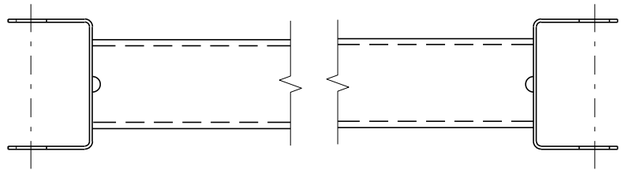
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

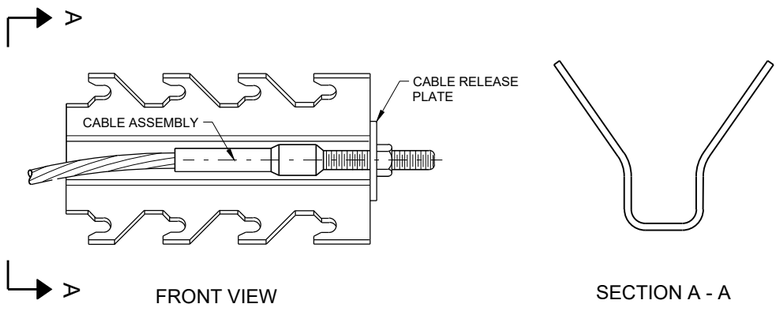
SDD 14B44 - 04a



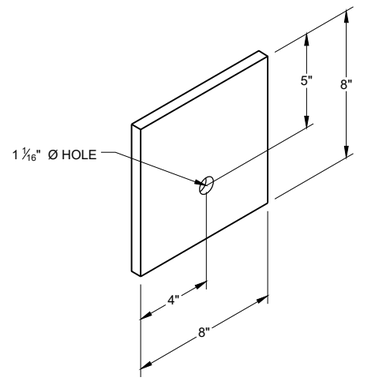
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

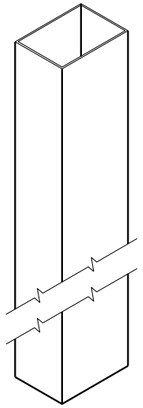
6

SDD 14B44 - 04b

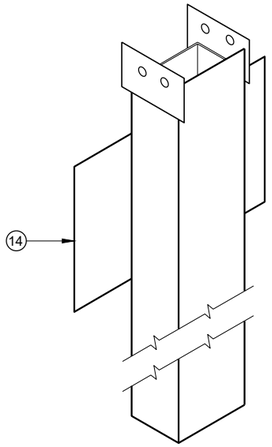
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

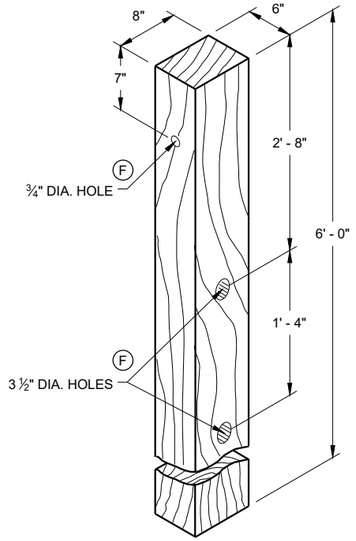
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



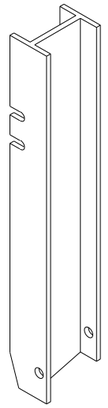
UPPER POST NO. 1 (1) (E)



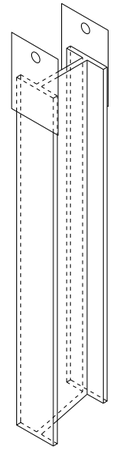
LOWER POST NO. 1 (2) (E)



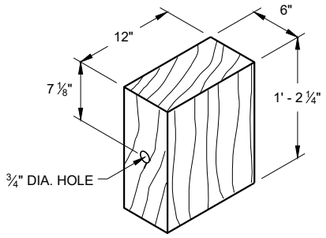
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



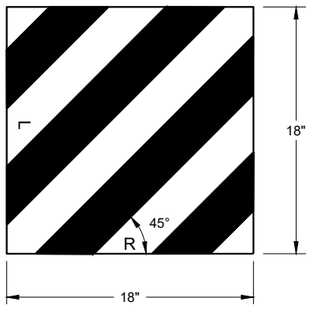
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

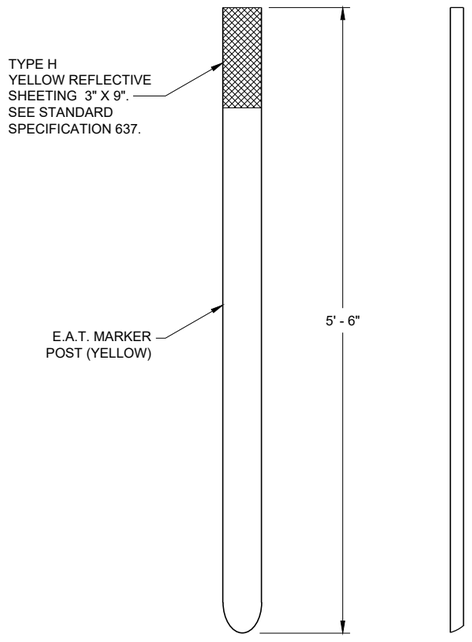


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



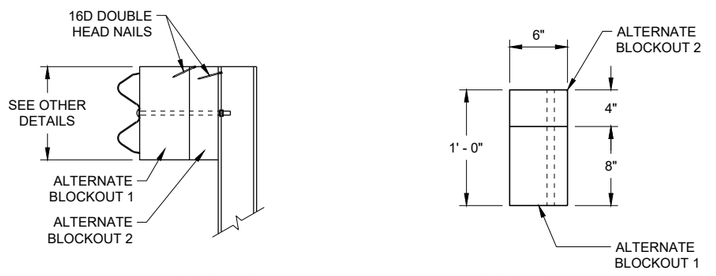
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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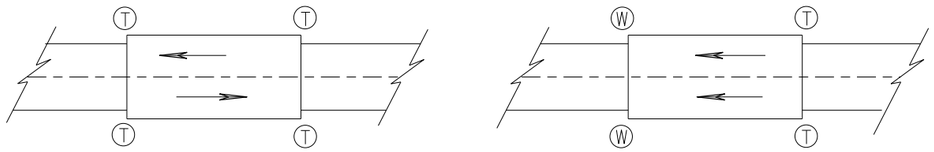
SDD 14B44 - 04c



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.

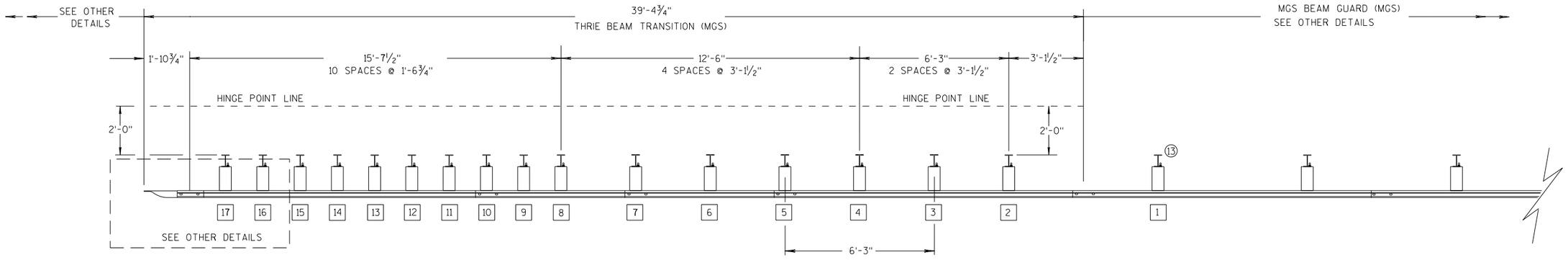
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

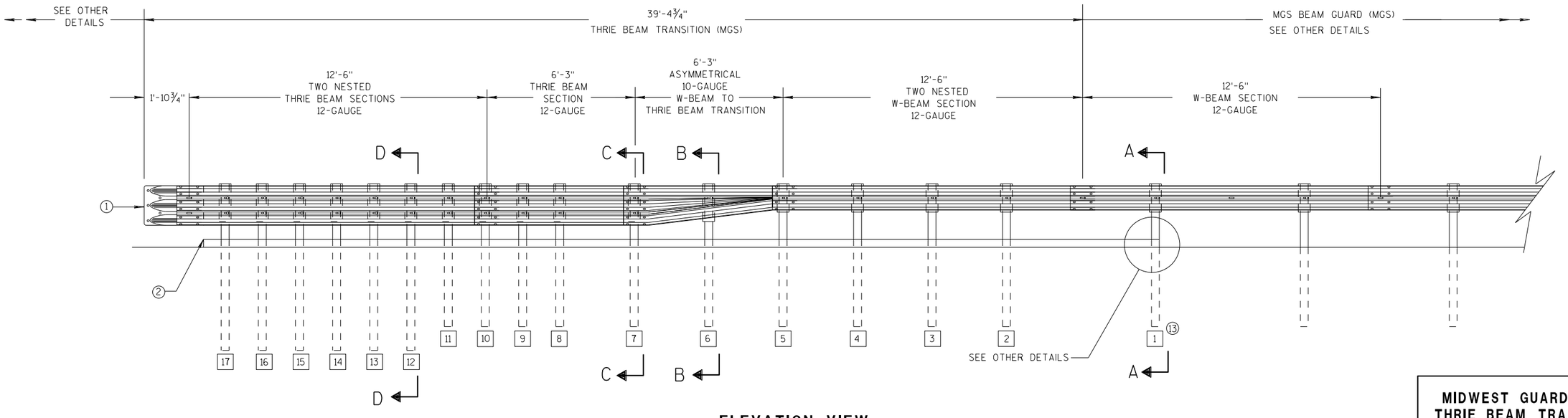
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

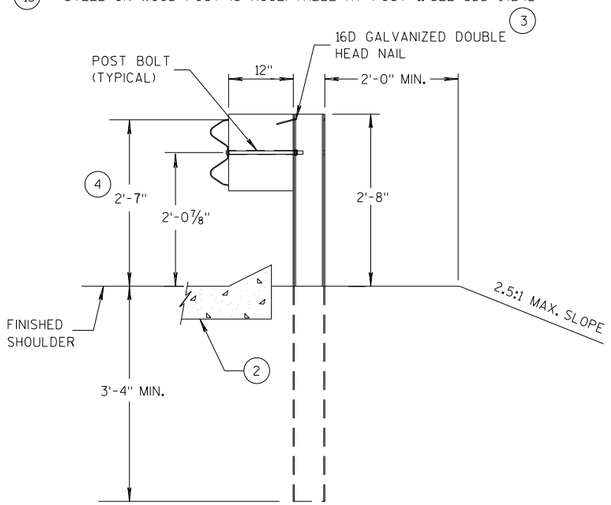
GENERAL NOTES

(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.

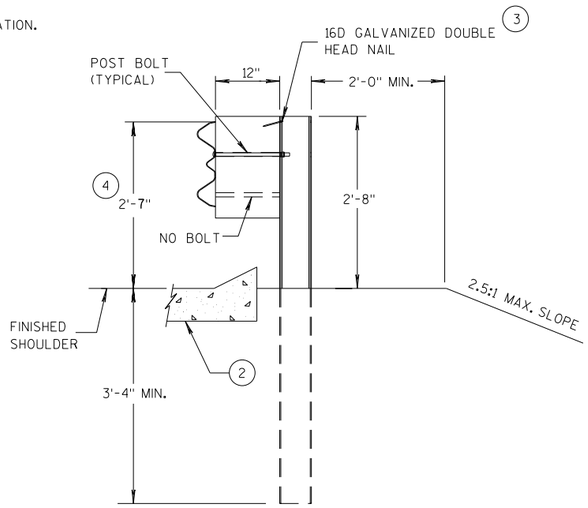
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



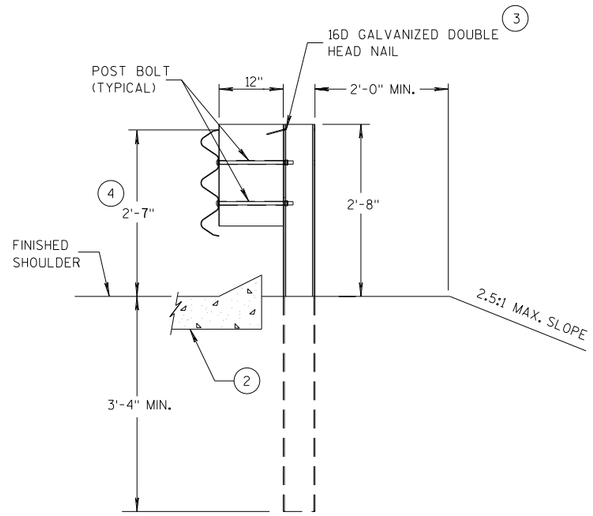
SECTION A-A (13)

POSTS 1-5



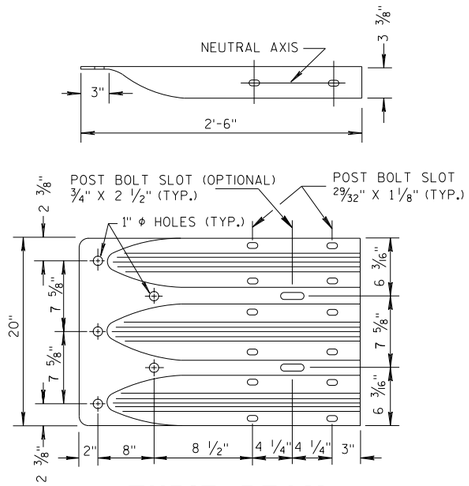
SECTION B-B

POST 6

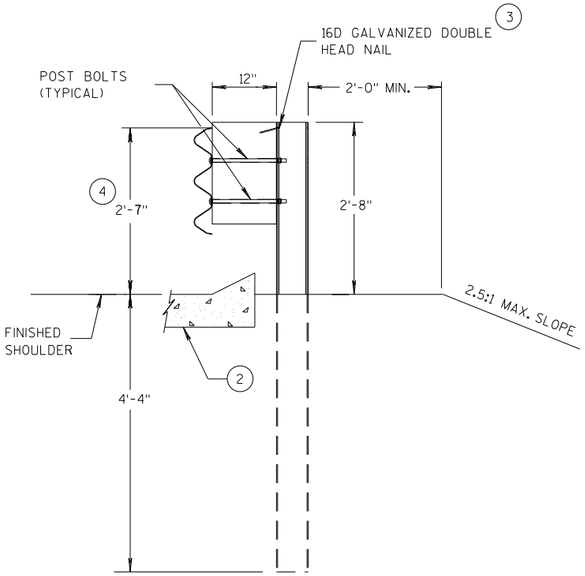


SECTION C-C

POSTS 7-11

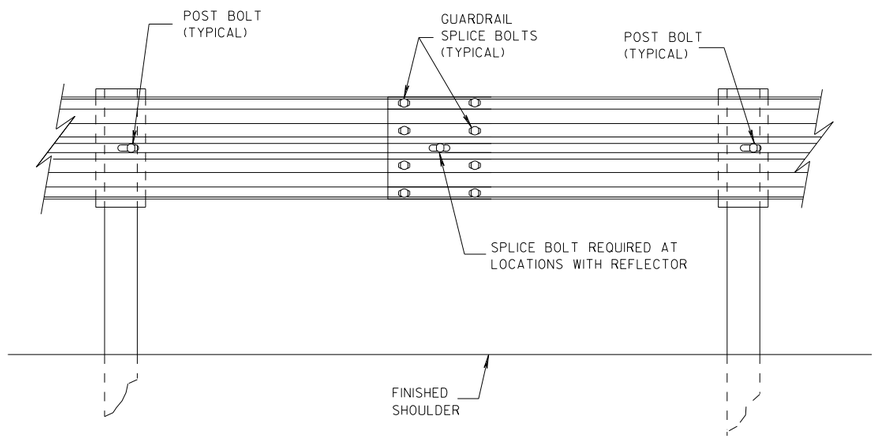


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

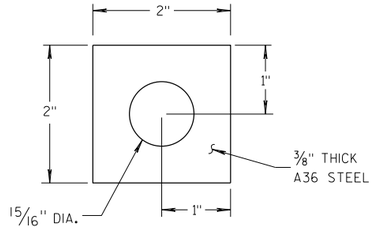
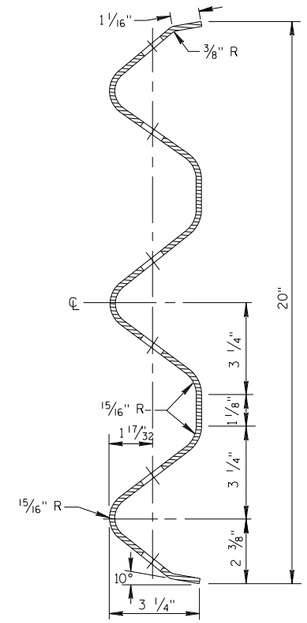


PLATE WASHER DETAIL



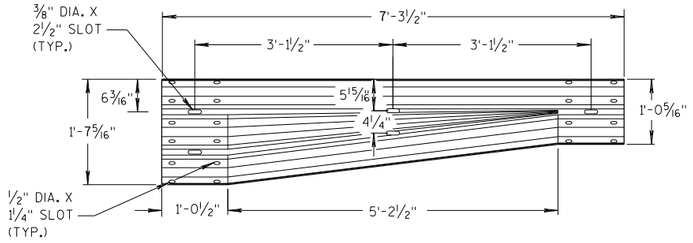
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

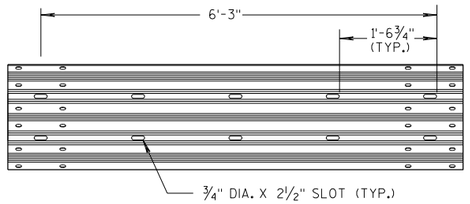
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

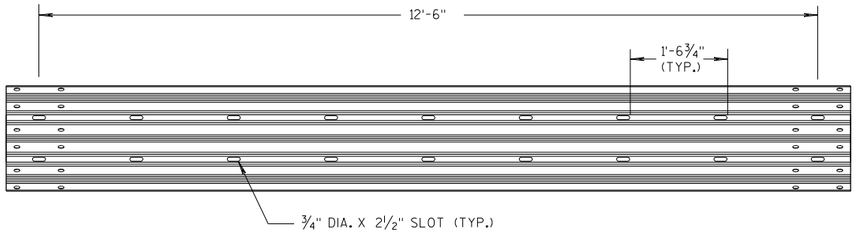
S.D.D. 14 B 45-5b



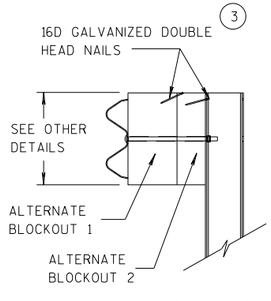
W-BEAM TO THRIE BEAM TRANSITION SECTION



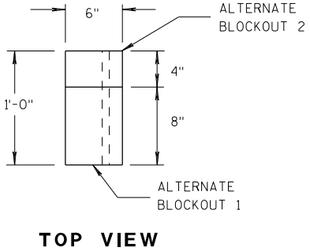
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

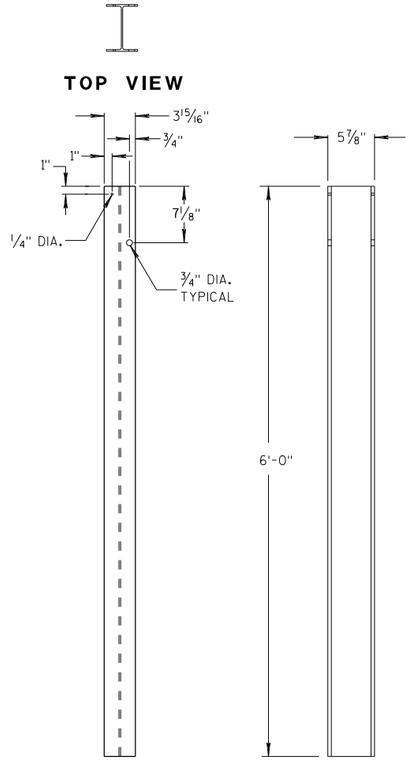


SIDE VIEW

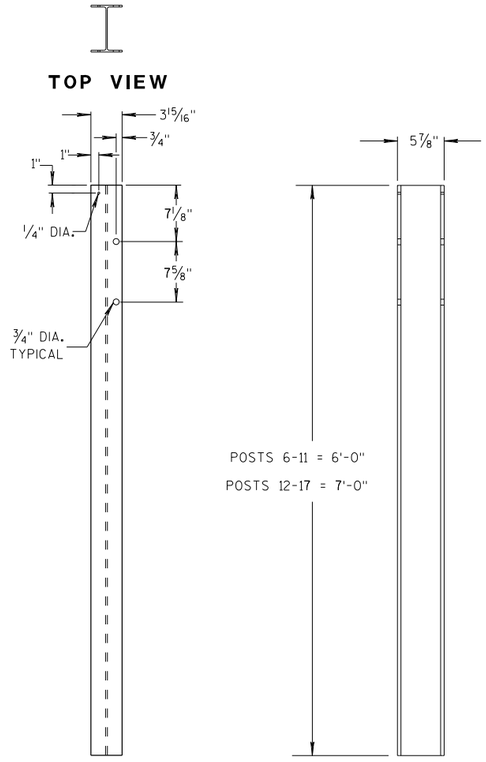


TOP VIEW

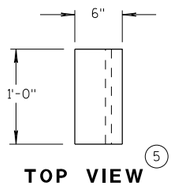
ALTERNATE WOOD BLOCKOUT DETAIL



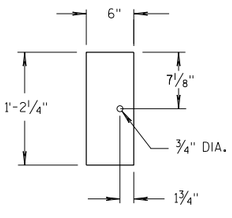
STEEL POSTS 1-5 (13)



STEEL POSTS 6-17

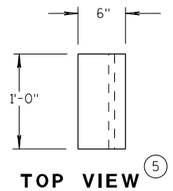


TOP VIEW (5)

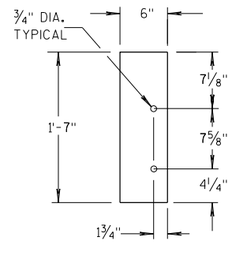


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

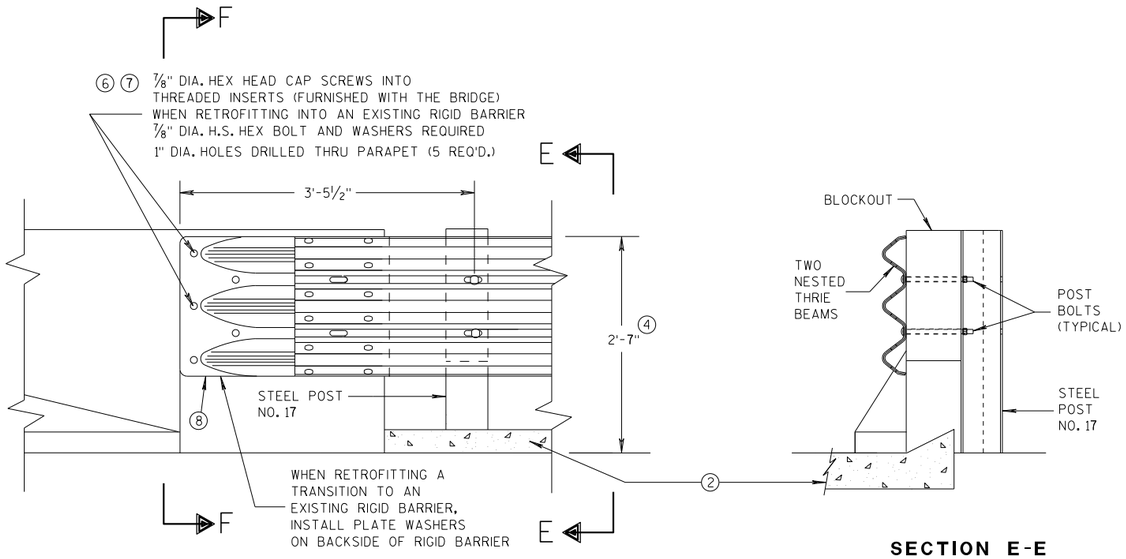
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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



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.

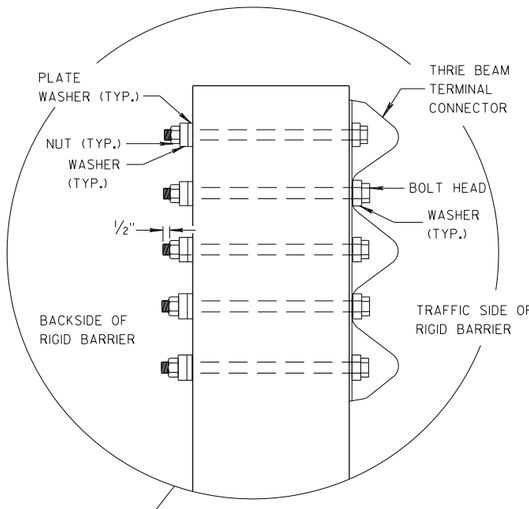
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

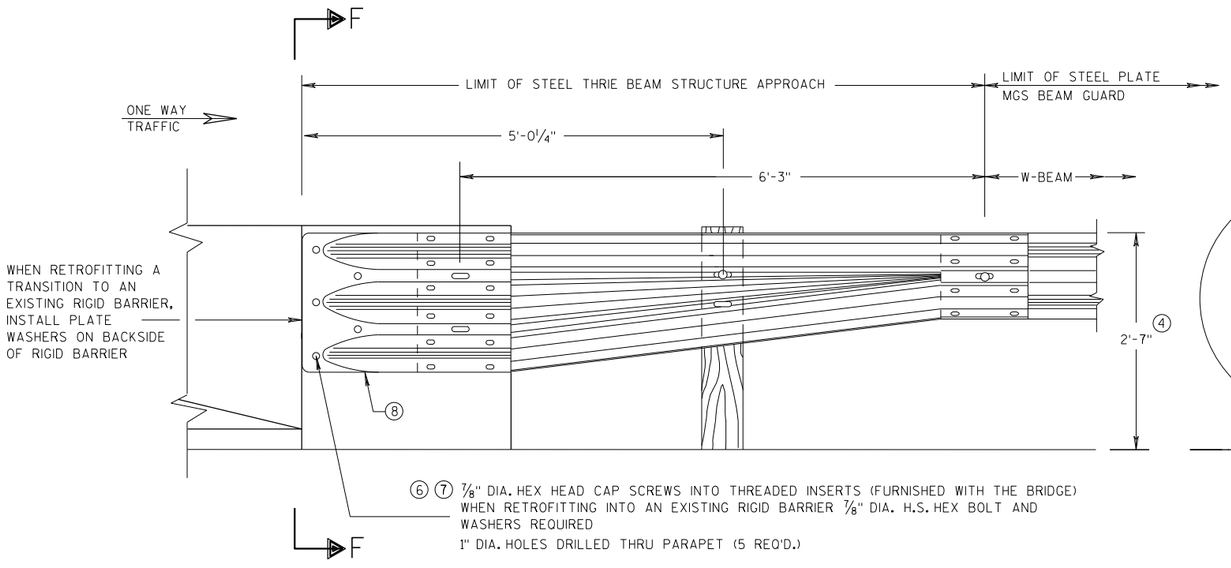
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

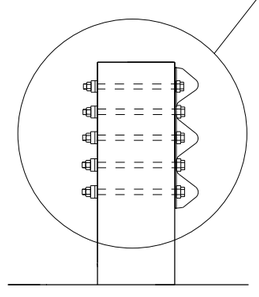
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" 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".

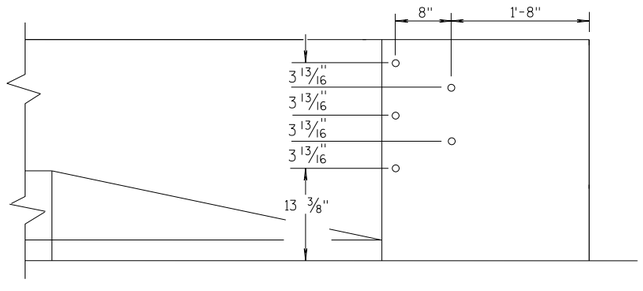




FRONT VIEW



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 SUPERVI
NT
FHWA

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

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

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.

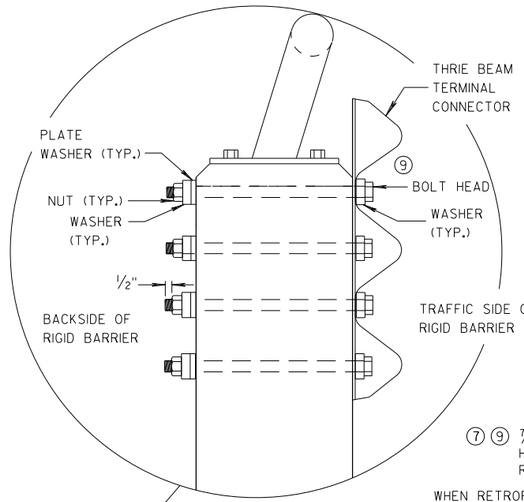
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

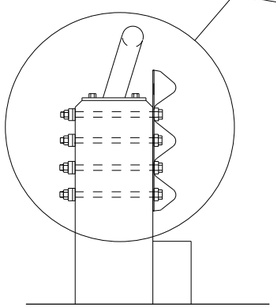
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

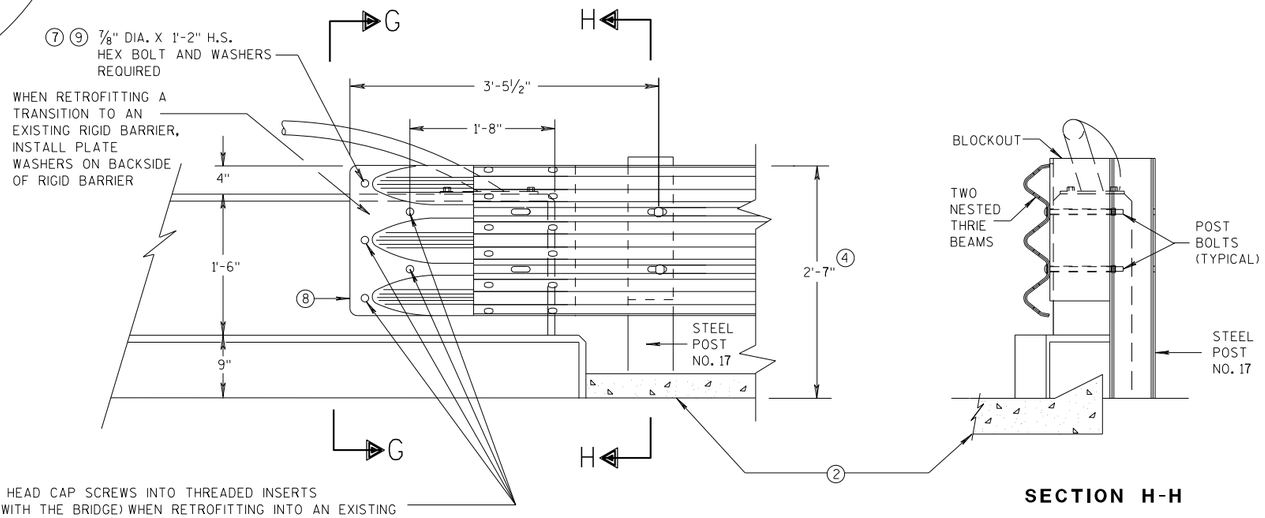
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

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





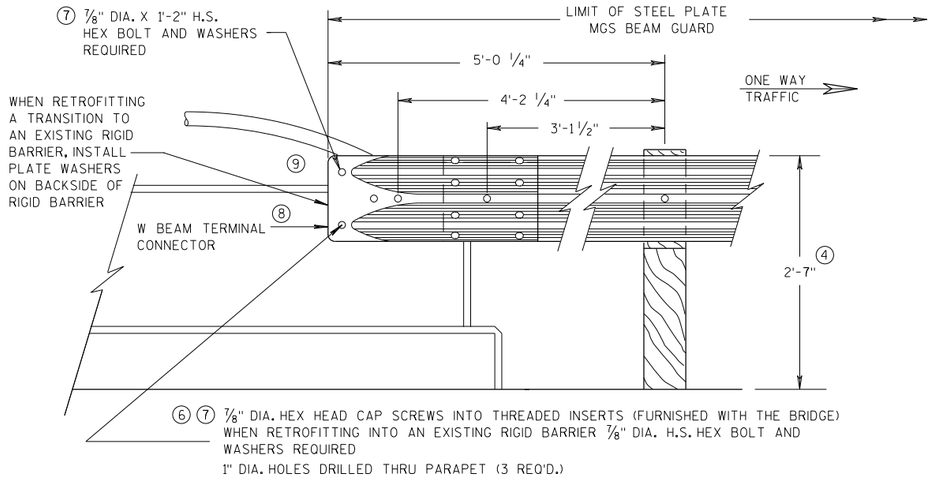
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

6

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

GENERAL NOTES

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

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

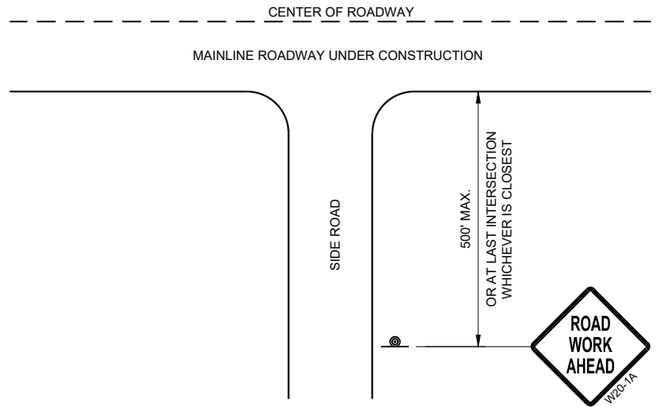
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



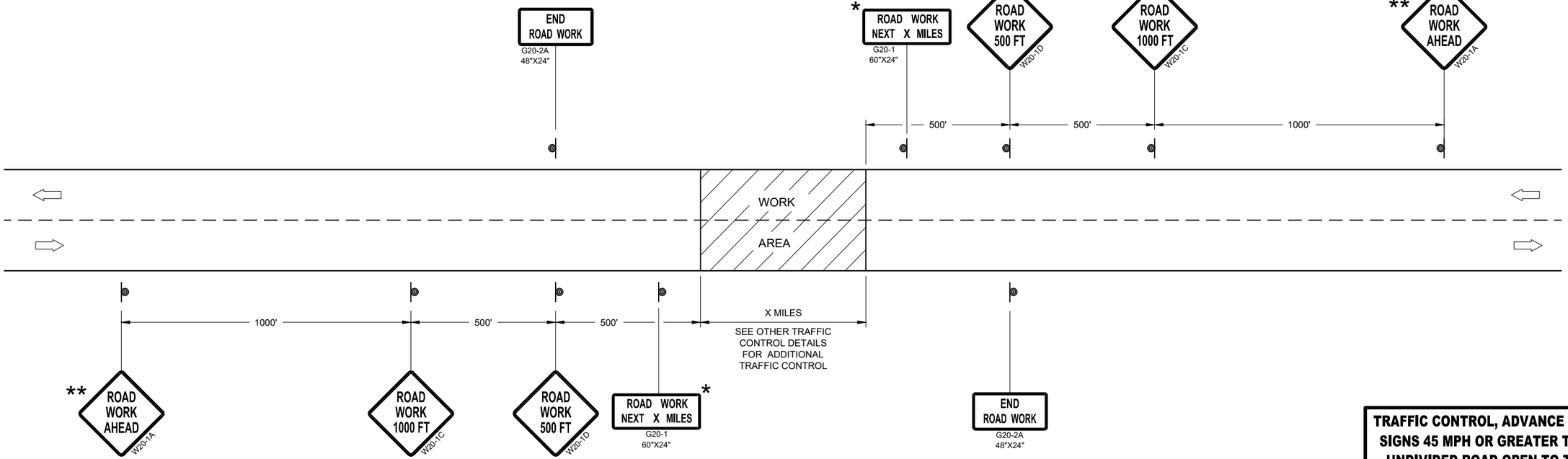
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

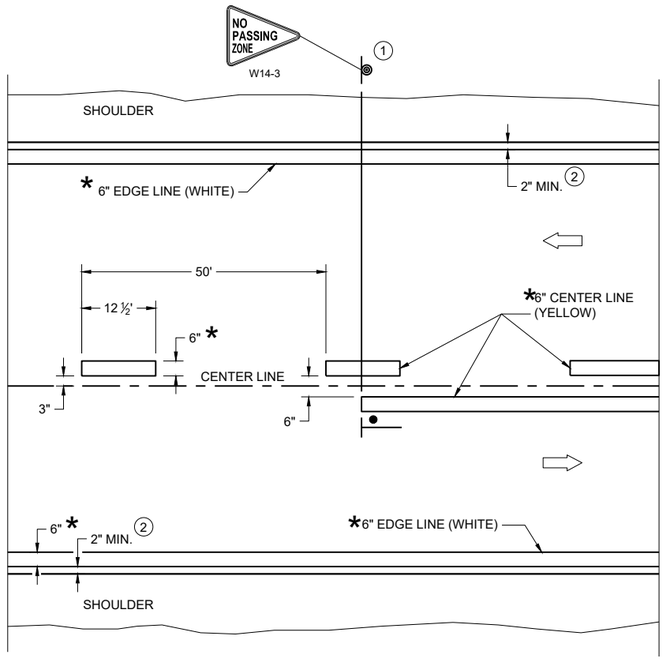
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

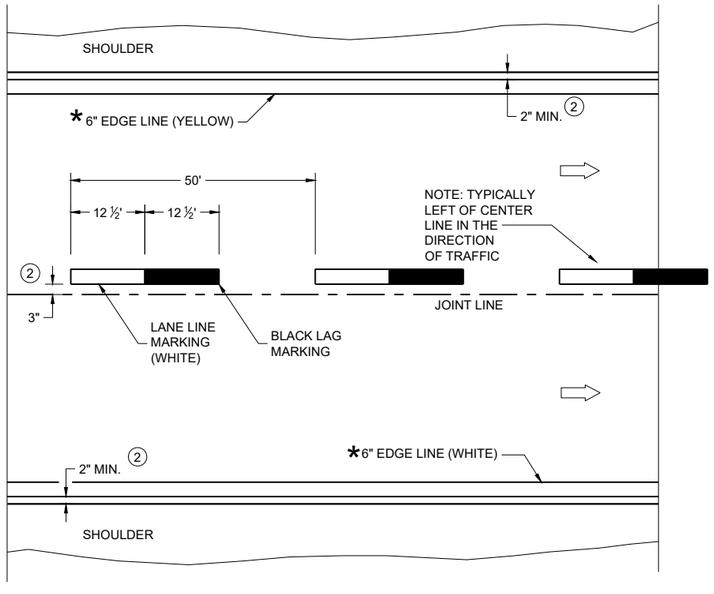
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

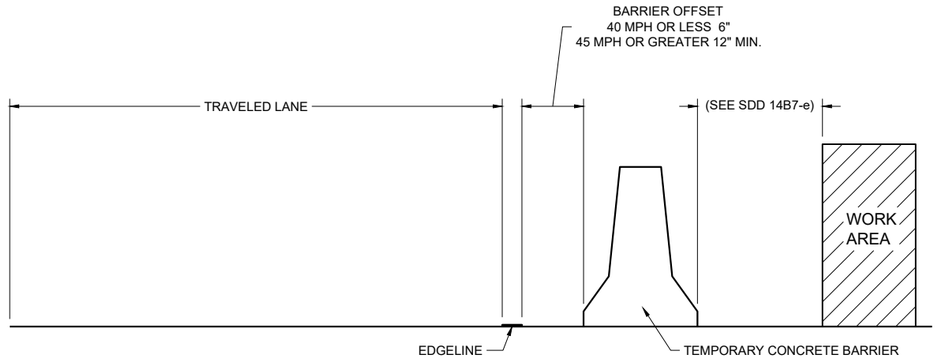
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-24a

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

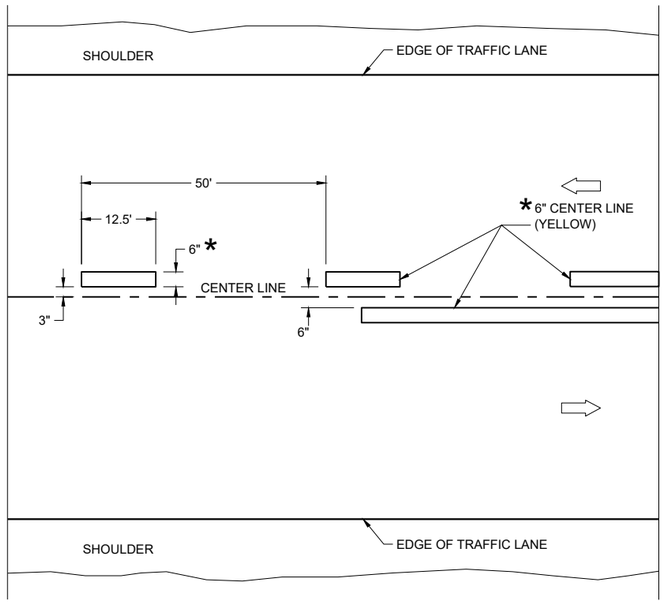
GENERAL NOTES

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

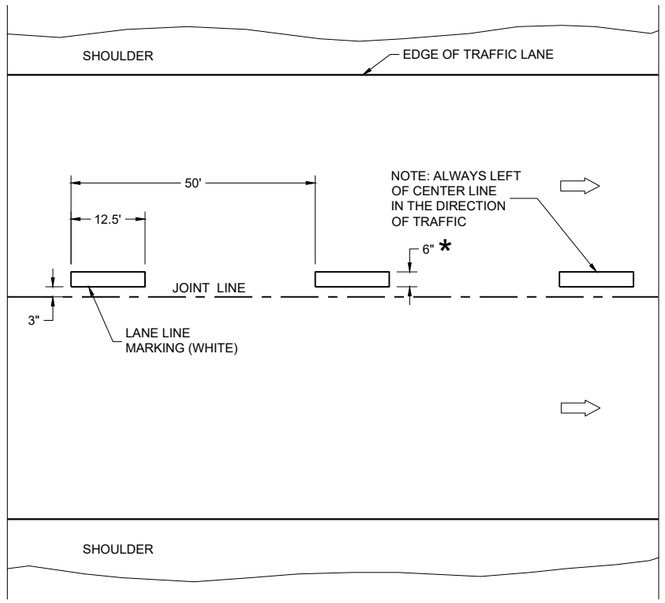
LEGEND

DIRECTION OF TRAFFIC

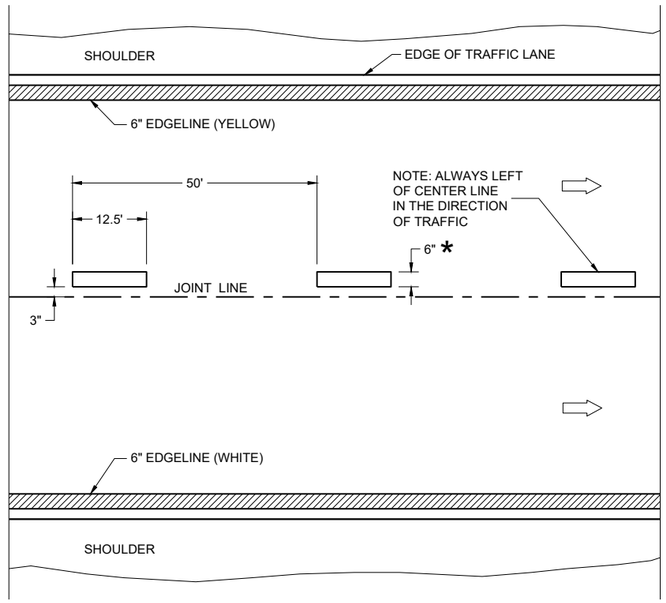
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6

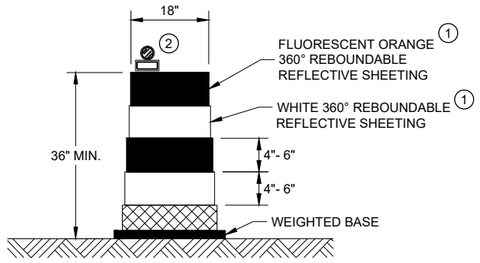
SDD 15C08-24b

6

SDD 15C08-24b

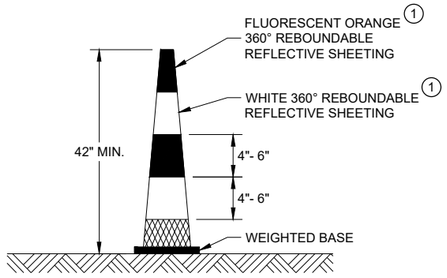
GENERAL NOTES

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

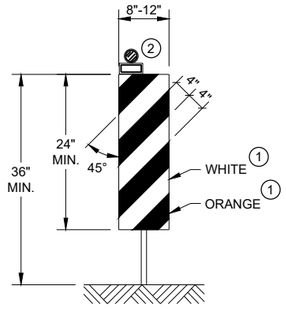
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

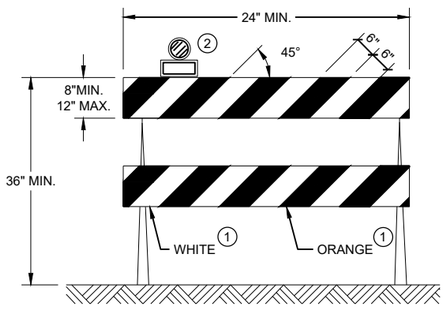
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



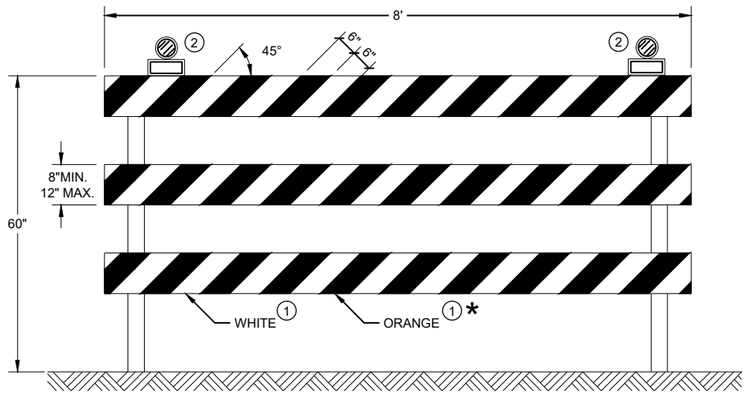
VERTICAL PANEL

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
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

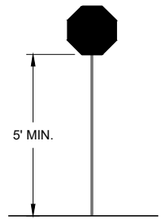
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



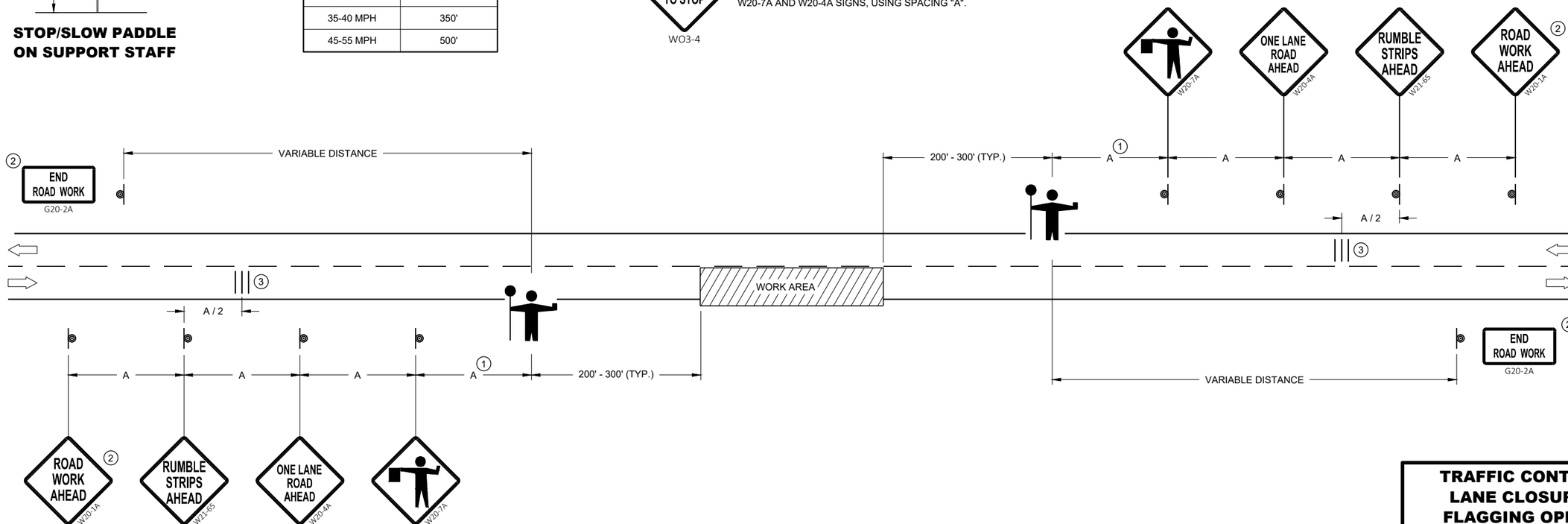
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a

LEGEND

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

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

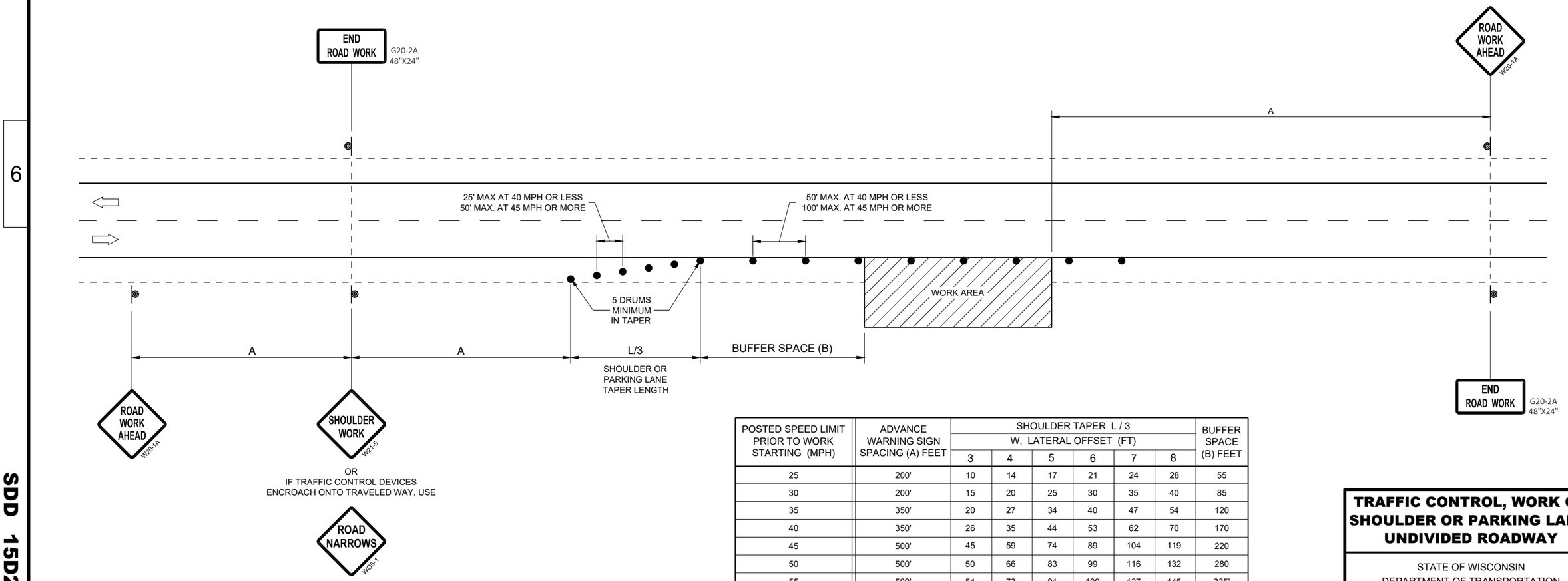
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

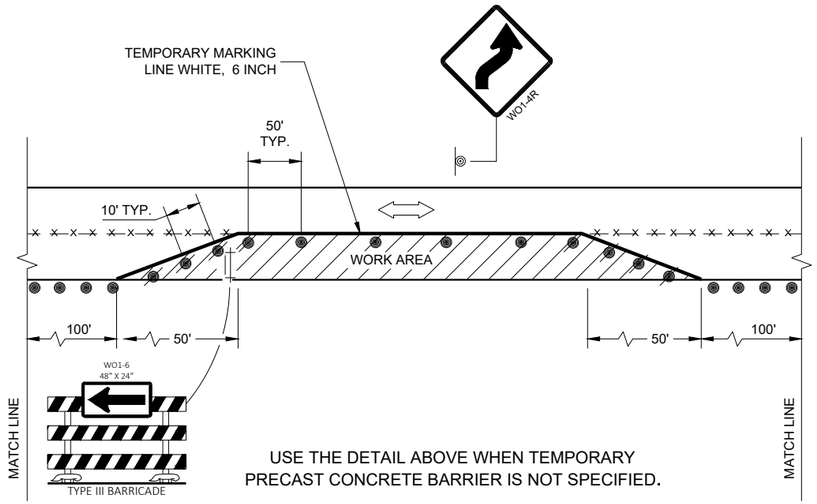
FHWA

SDD 15D28 - 04

SDD 15D28 - 04

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

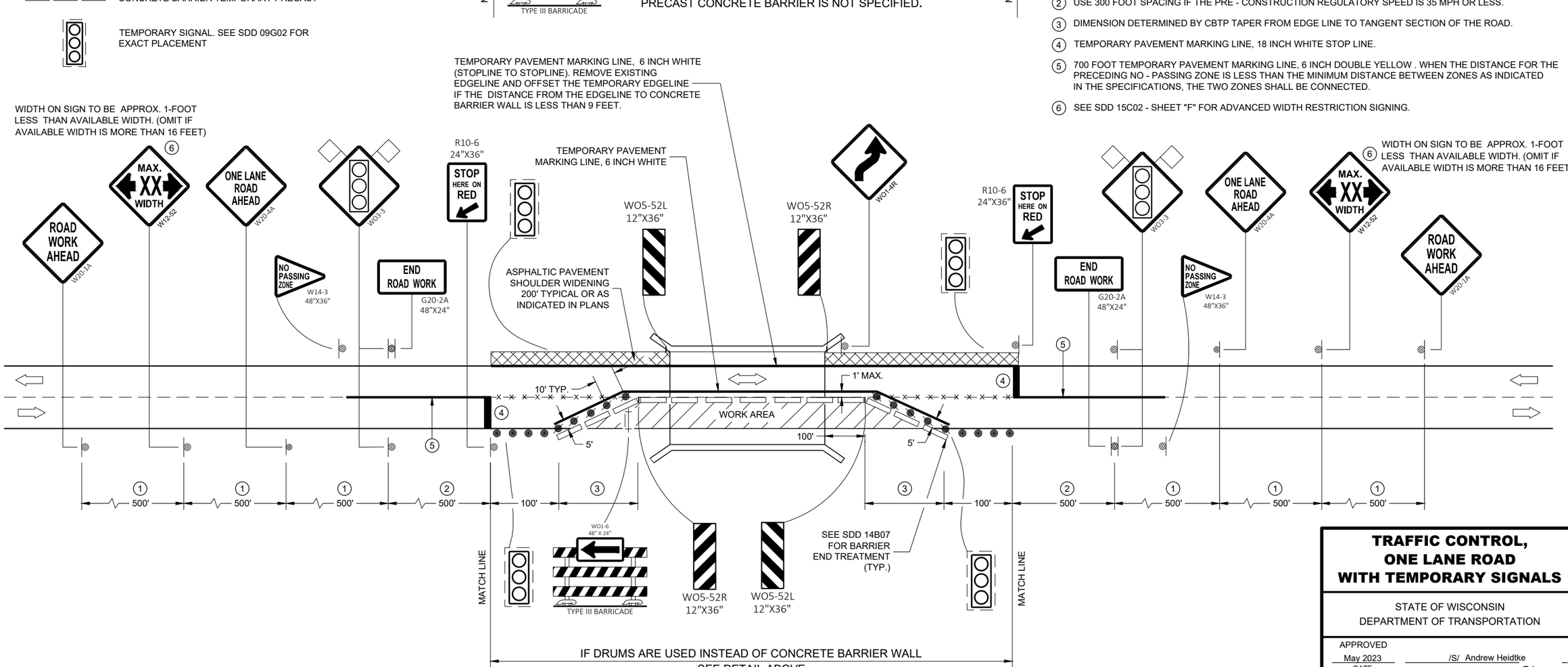
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

REMOVE PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT MARKING LINES IF THE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

INSTALL OVERHEAD TEMPORARY SIGNAL HEADS ABOVE THE MIDDLE OF THE TRAVEL LANE THEY ARE CONTROLLING.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
3. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
4. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
5. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
6. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

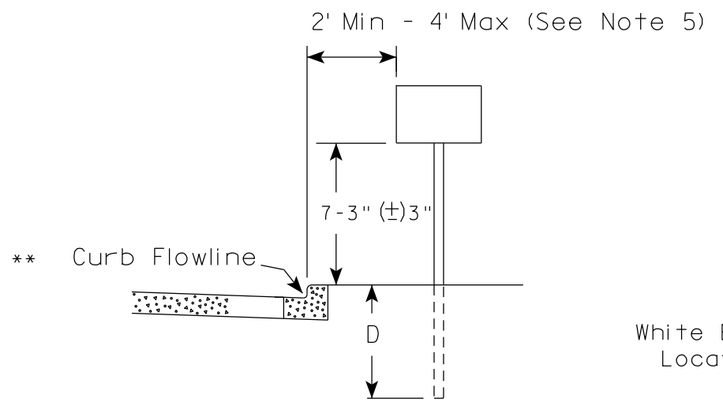
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

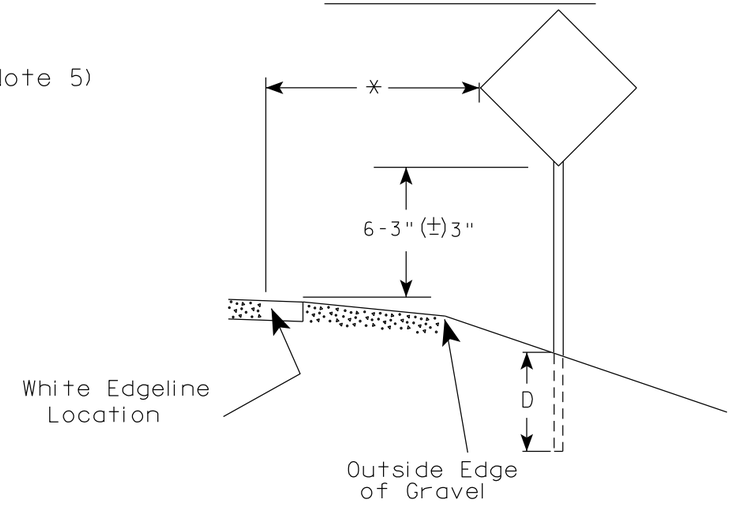
FHWA

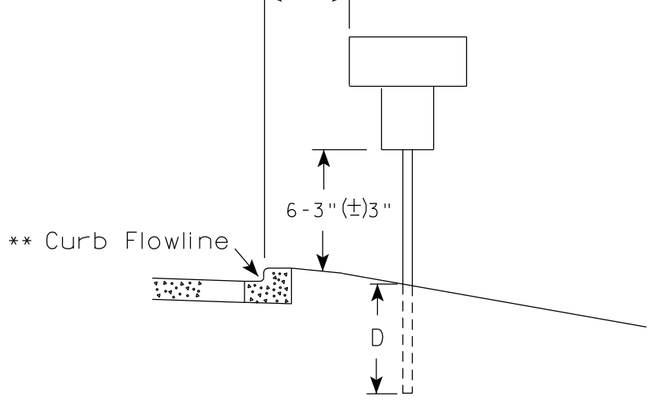
6 SDD 15D33-09

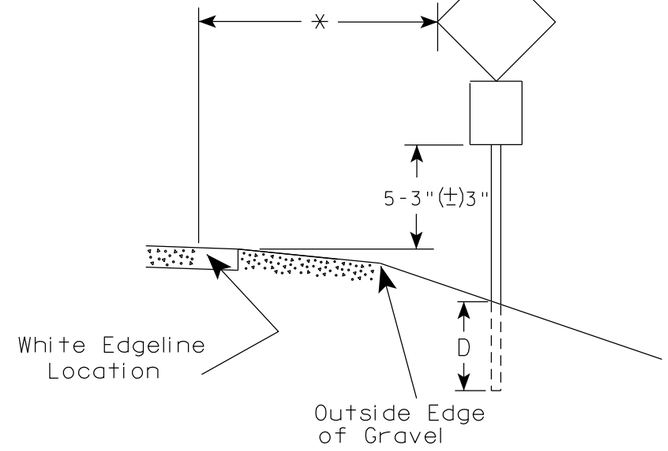
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

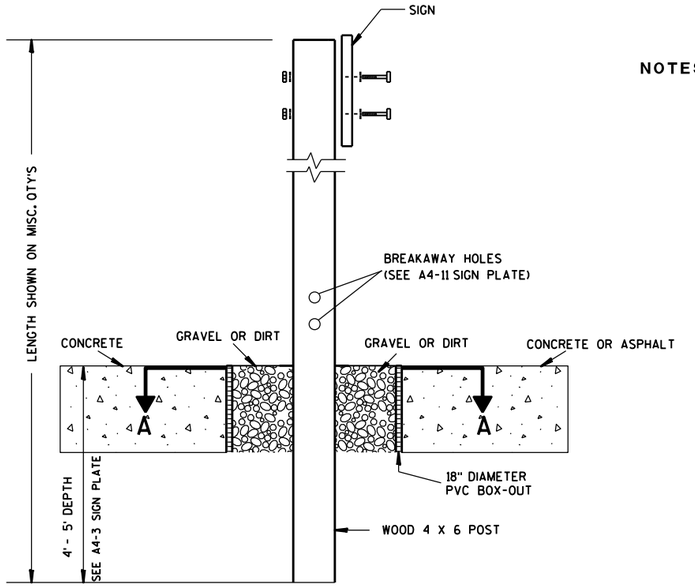
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

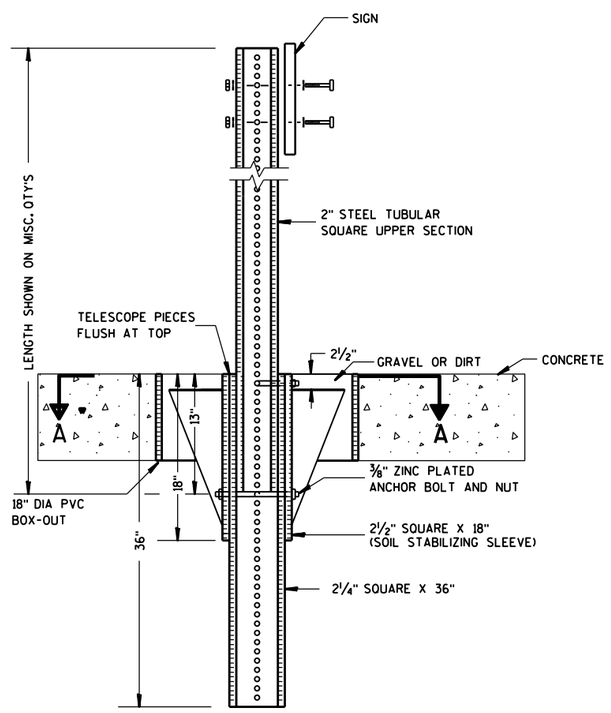
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 52	E



ELEVATION VIEW

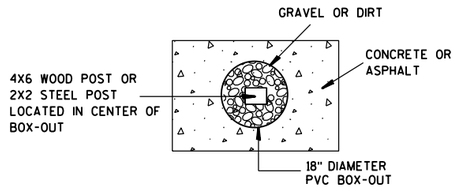
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

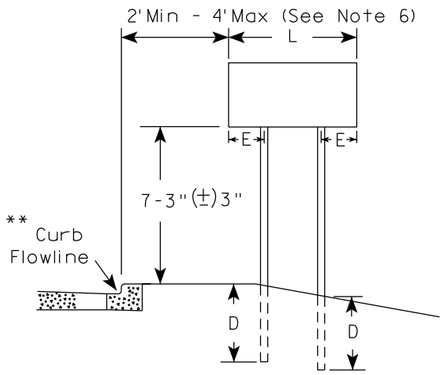
APPROVED Matthew R Rauch
for State Traffic Engineer

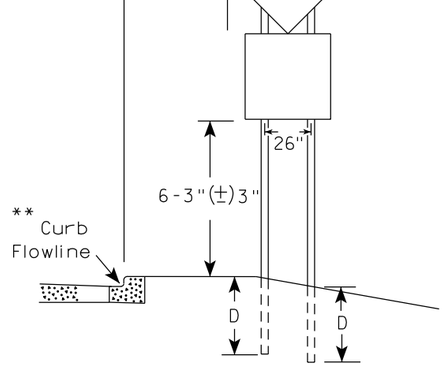
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

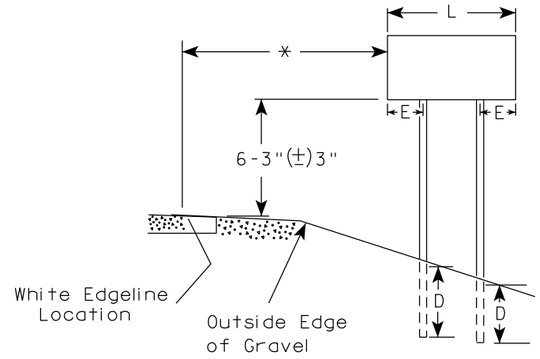
URBAN AREA

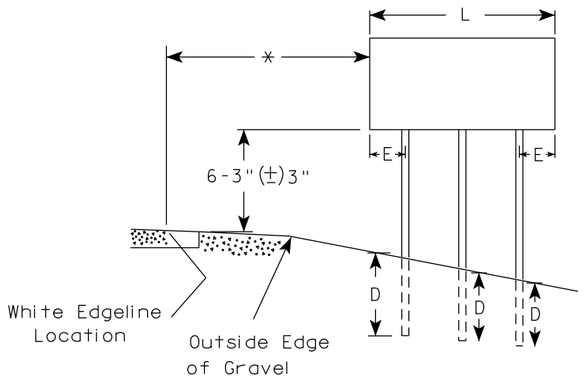


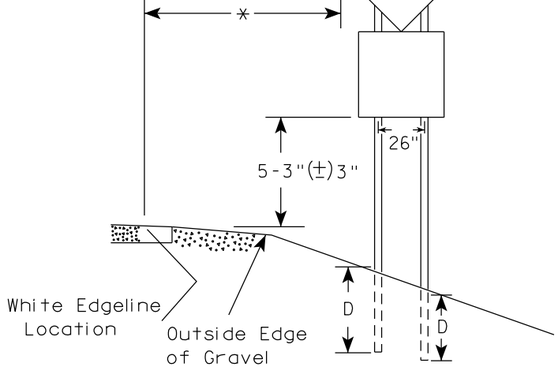


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

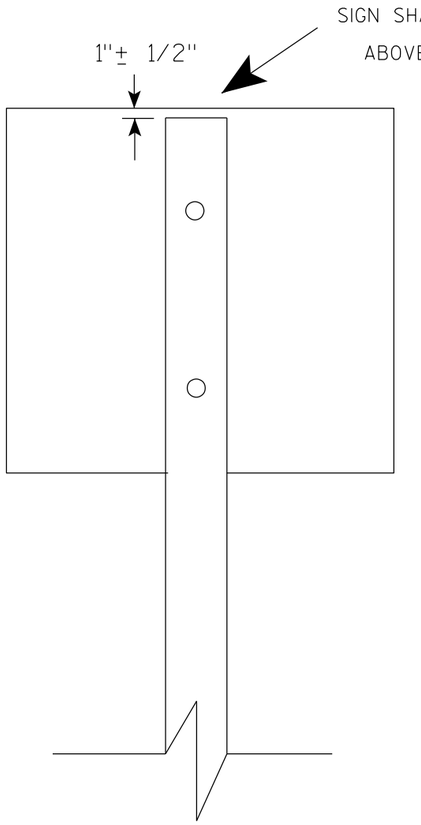
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

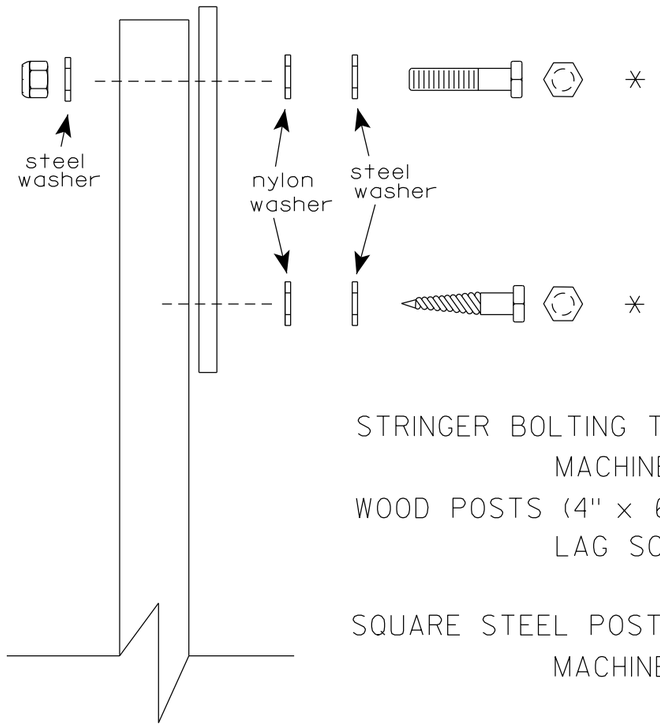
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 54	E





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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 55 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

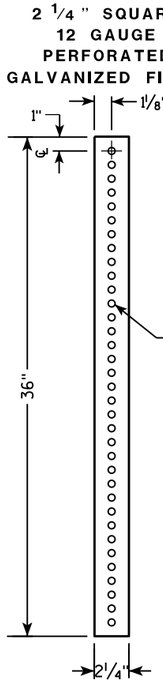
WISDOT/CADDS SHEET 42

7

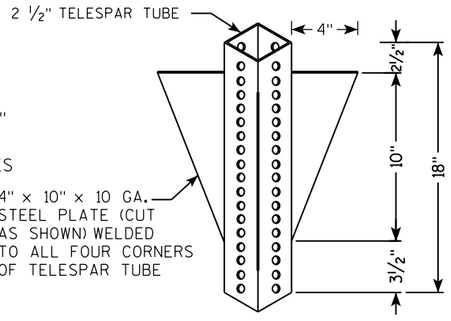
7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

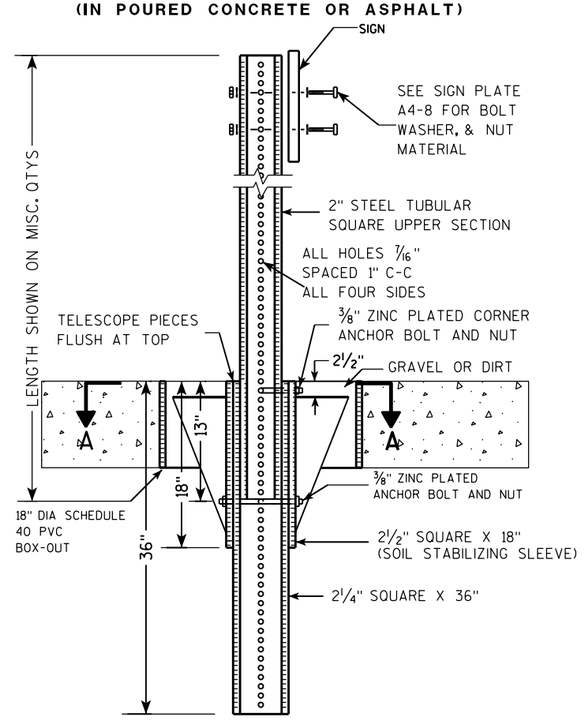
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



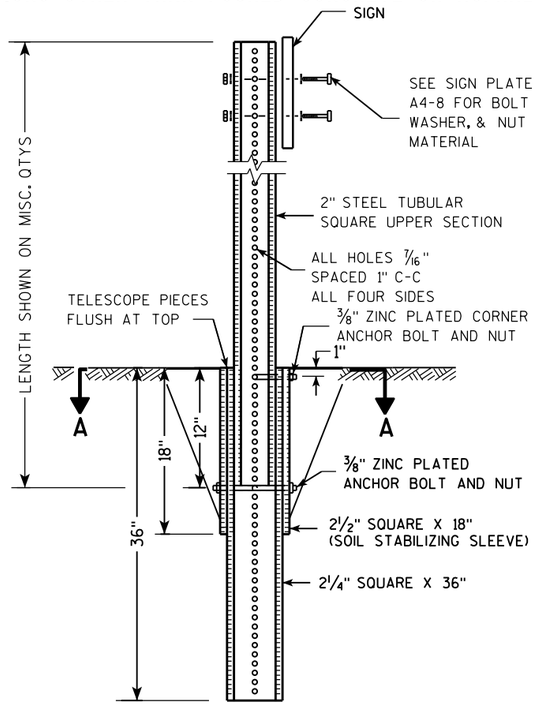
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

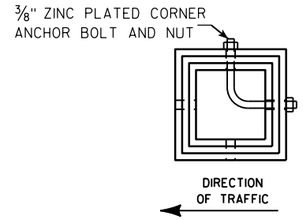


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

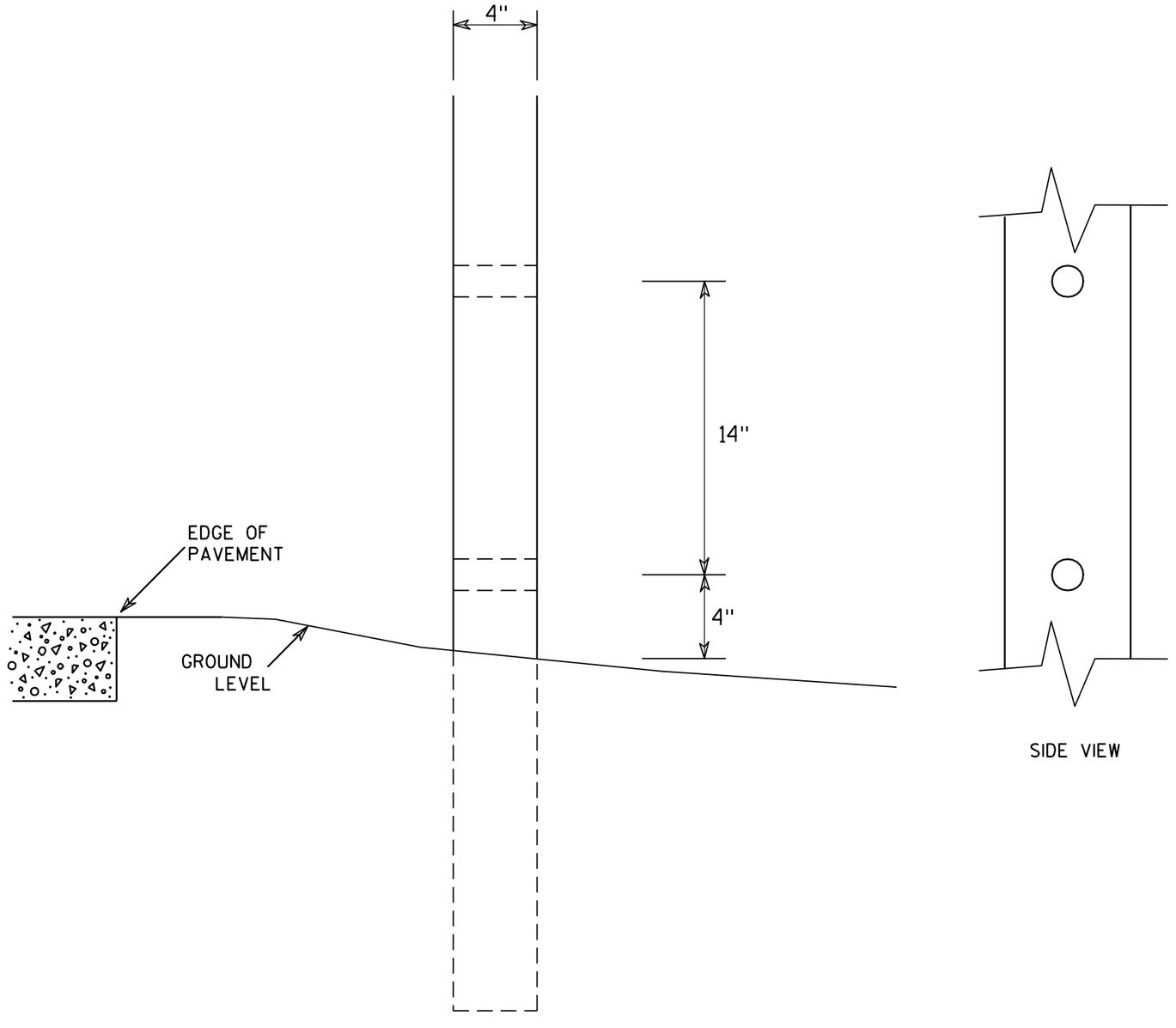
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

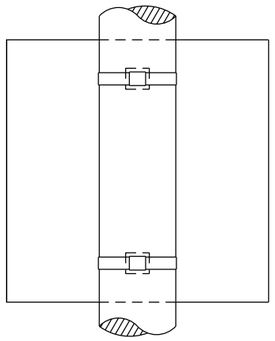
APPROVED Chester J Spang for State Traffic Engineer

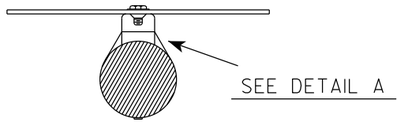
DATE 3/27/97 PLATE NO. A4-11.2

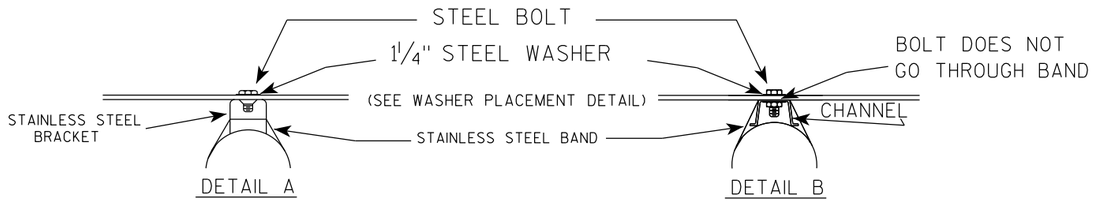
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 57	E

BANDING

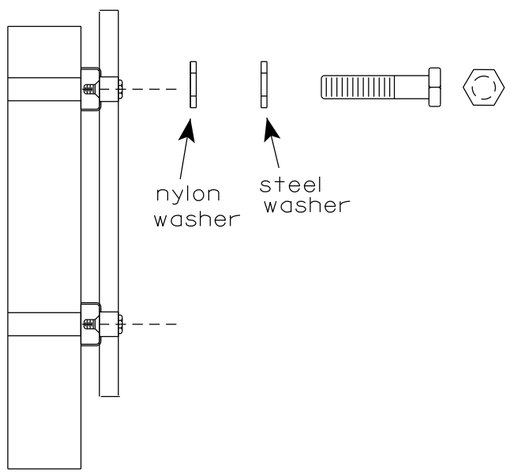
SINGLE SIGN







WASHER PLACEMENT

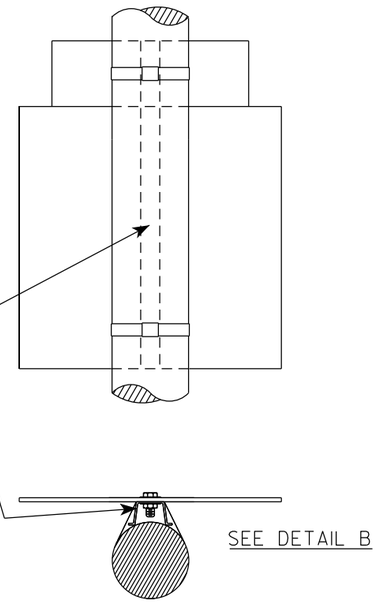


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

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

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

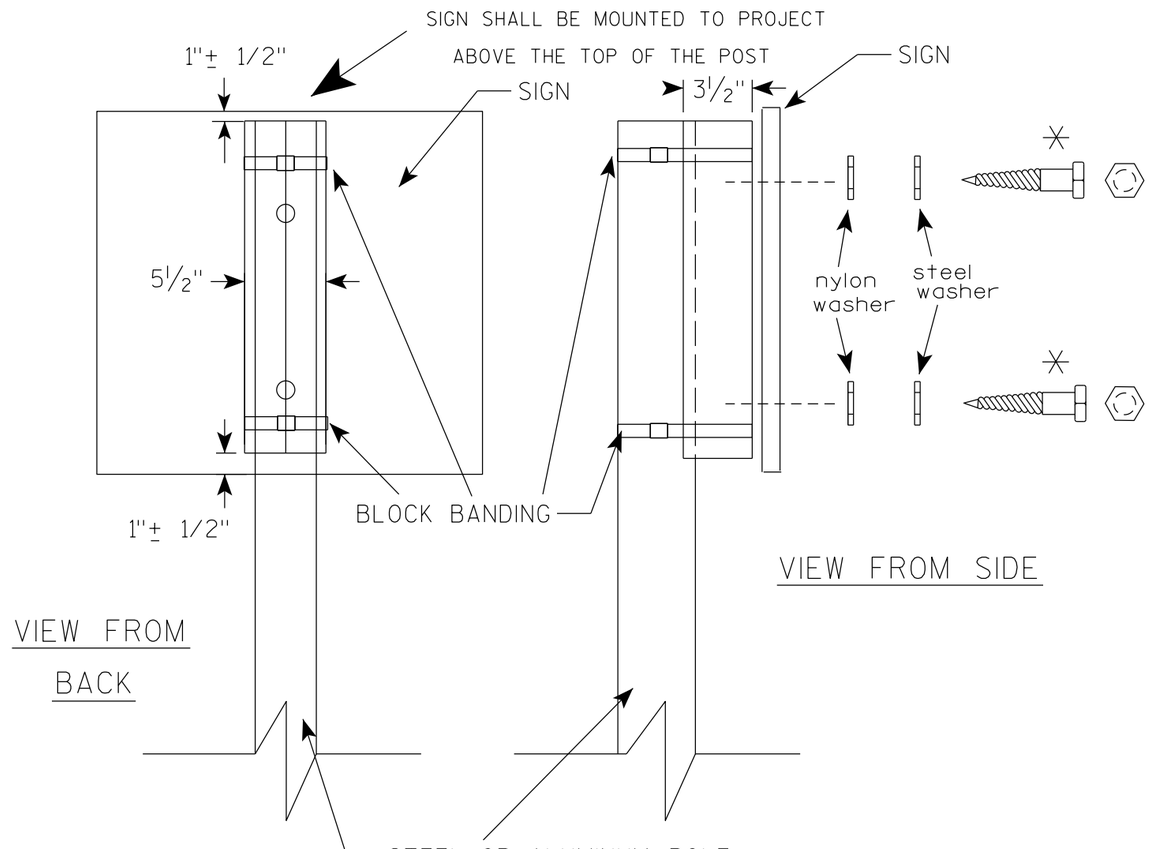
DATE 6/10/19 PLATE NO. A5-9.4

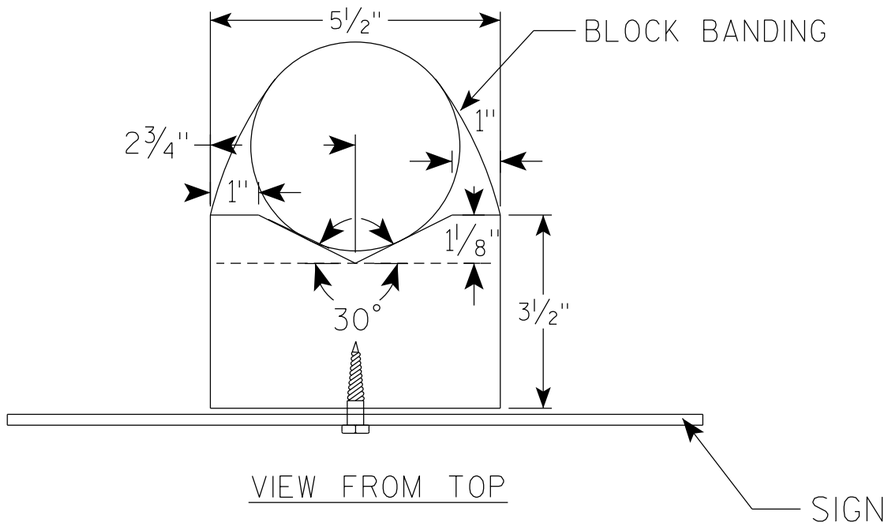
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 58	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

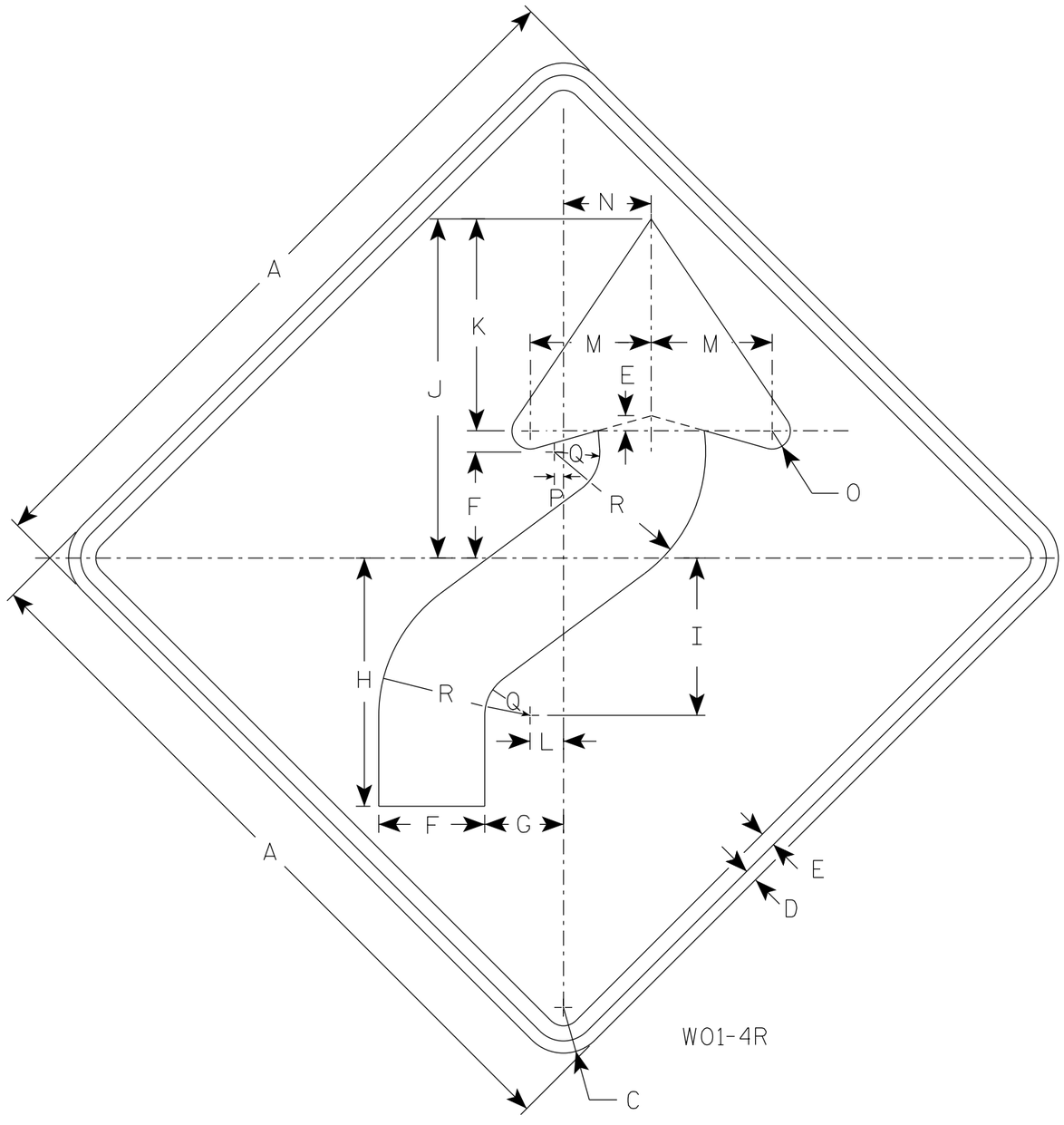
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 59 E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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

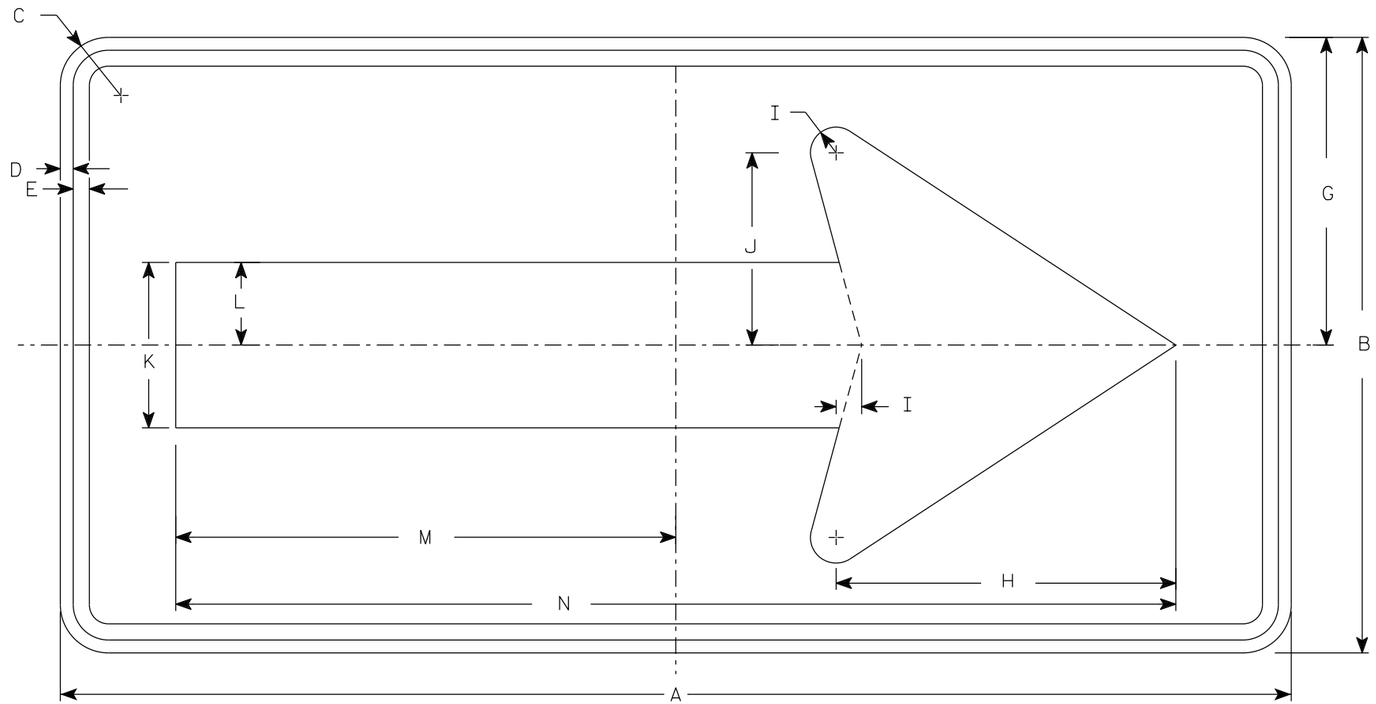
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

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



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

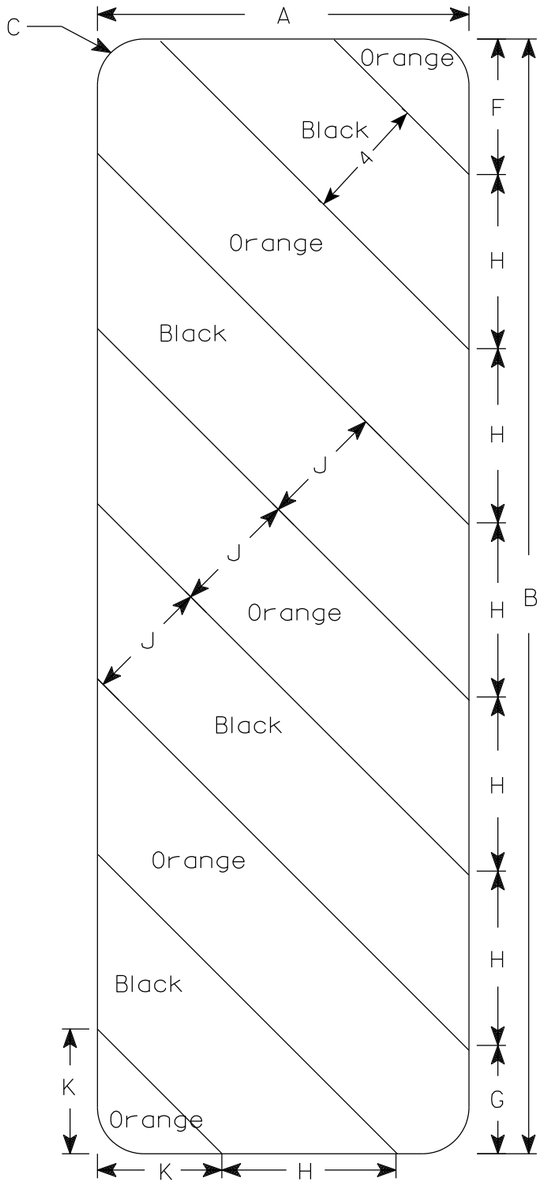
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

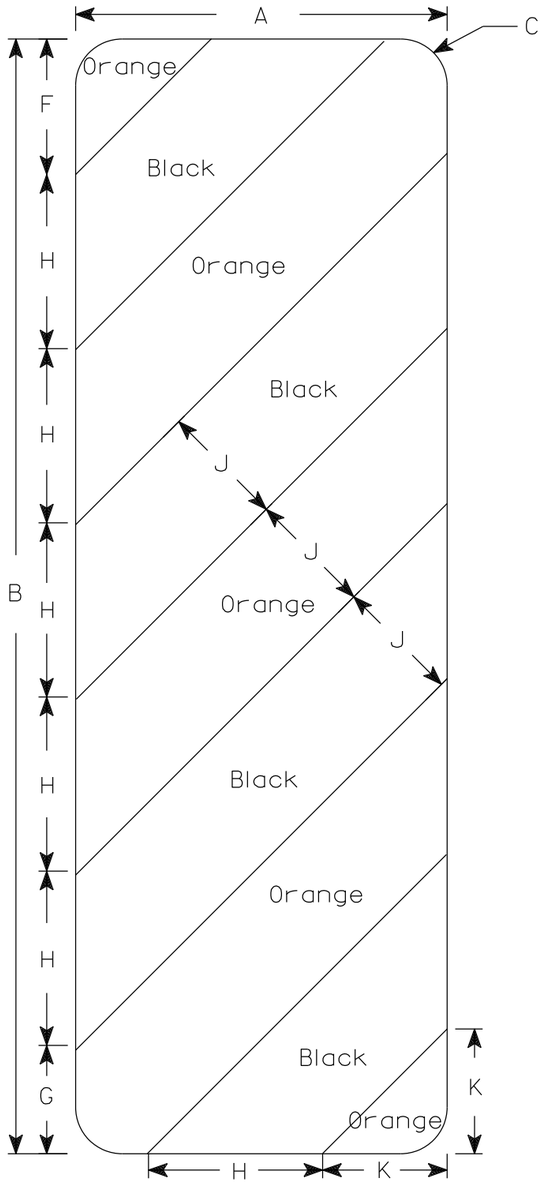
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

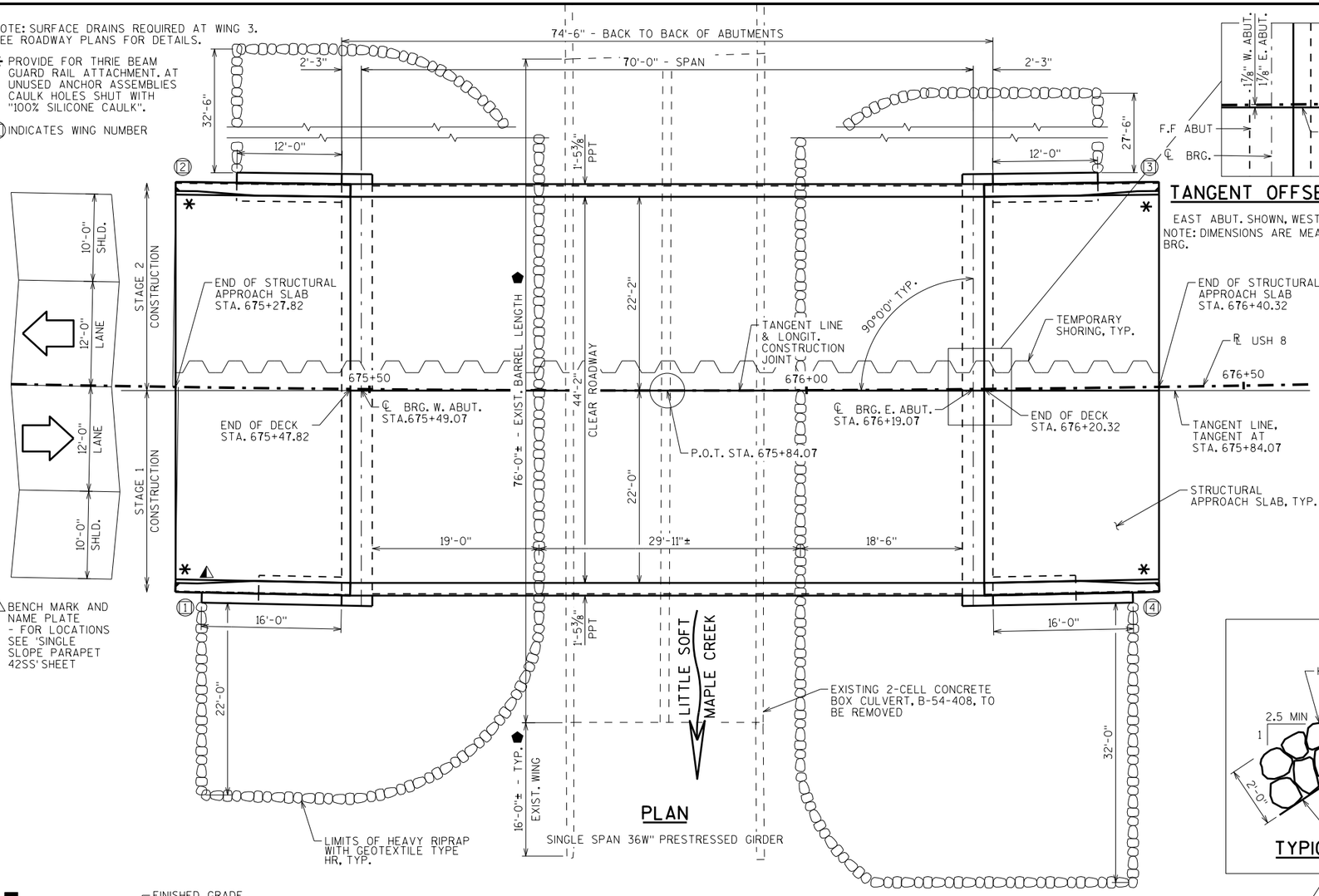
DATE 3/13/2024 PLATE NO. W05-52.2

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

NOTE: SURFACE DRAINS REQUIRED AT WING 3.
SEE ROADWAY PLANS FOR DETAILS.

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

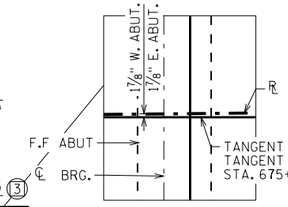
(n) INDICATES WING NUMBER



PLAN

SINGLE SPAN 36W" PRESTRESSED GIRDER

BENCH MARK AND NAME PLATE - FOR LOCATIONS SEE 'SINGLE SLOPE PARAPET 42SS' SHEET



TANGENT OFFSET DETAIL

EAST ABUT. SHOWN, WEST ABUT. SIMILAR
NOTE: DIMENSIONS ARE MEASURED ALONG ℄ BRG.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.16
OPERATING RATING FACTOR: RF = 1.51
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

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

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE & STRUCTURAL APPROACH SLAB — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.
STAINLESS, GRADE 60 — fy = 60,000 P.S.I.

36W" PRESTRESSED GIRDERS:
CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 10¾" DIA. X 0.365" CIP PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 55'-0" LONG. AT WEST ABUT.
ESTIMATED 55'-0" LONG. AT EAST ABUT.

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

TRAFFIC VOLUME

USH 8

ADT = 3,900 (2042)
R.D.S. = 60 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 1800 C.F.S.
$VEL._{100}$ = 8.24 F.P.S.
$HW._{100}$ = EL. 1114.1
WATERWAY AREA = 639 SQ. FT.
DRAINAGE AREA = 9.1 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

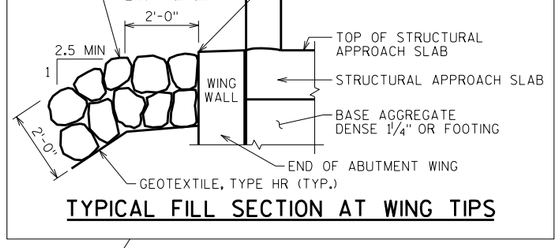
2 YEAR FREQUENCY

Q_2 = 400 C.F.S.
$VEL._2$ = 4.16 F.P.S.
$HW._2$ = EL. 1109.7

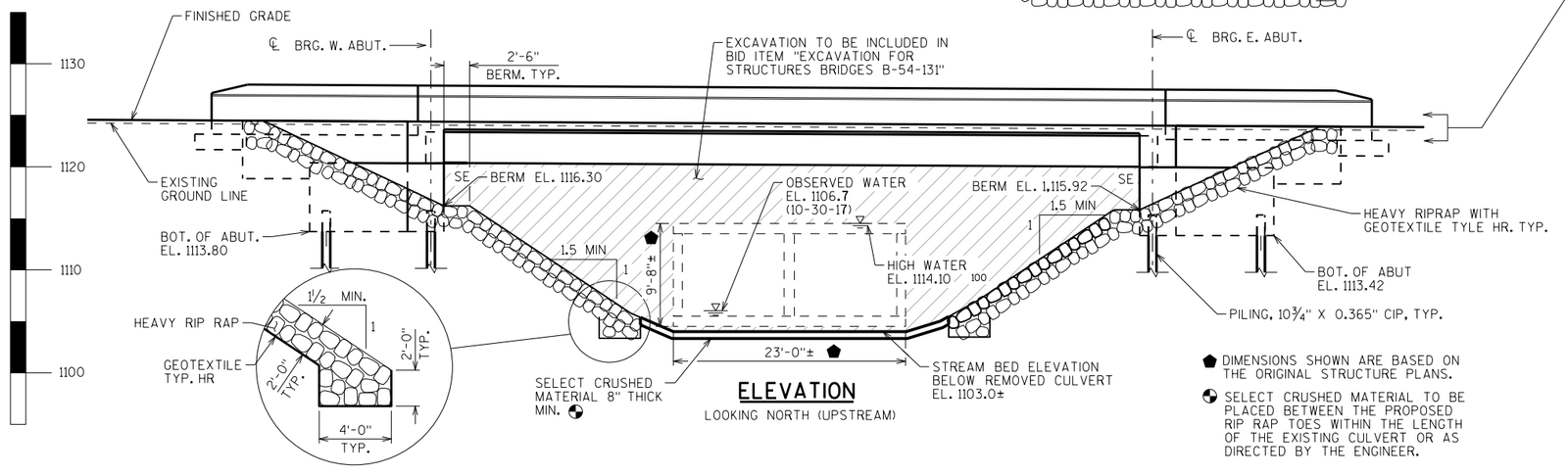
CURVE DATA

USH 8

P.I. = 678+02.23
△ = 34°00'02"
D = 0°45'00"
T = 1167.82
L = 2266.70
R = 3819.72
S.E. = 3.7%
P.C. = 666+34.40
P.T. = 689+01.10



TYPICAL FILL SECTION AT WING TIPS



ELEVATION

LOOKING NORTH (UPSTREAM)

⬟ DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

◔ SELECT CRUSHED MATERIAL TO BE PLACED BETWEEN THE PROPOSED RIP RAP TOES WITHIN THE LENGTH OF THE EXISTING CULVERT OR AS DIRECTED BY THE ENGINEER.

LIST OF DRAWINGS

STATE PROJECT NUMBER
1580-00-70

STRUCTURE DESIGN CONTACTS:

ENGELS VARGAS (608) 267-7111
KYLE BUSCH (608) 267-0465

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED KHB 7/28/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-54-131

USH 8 OVER LITTLE SOFT MAPLE CREEK

COUNTY	TOWN
RUSK	STUBBS

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
EJV	DMB	EJV	DMB

GENERAL PLAN

SHEET 1 OF 15

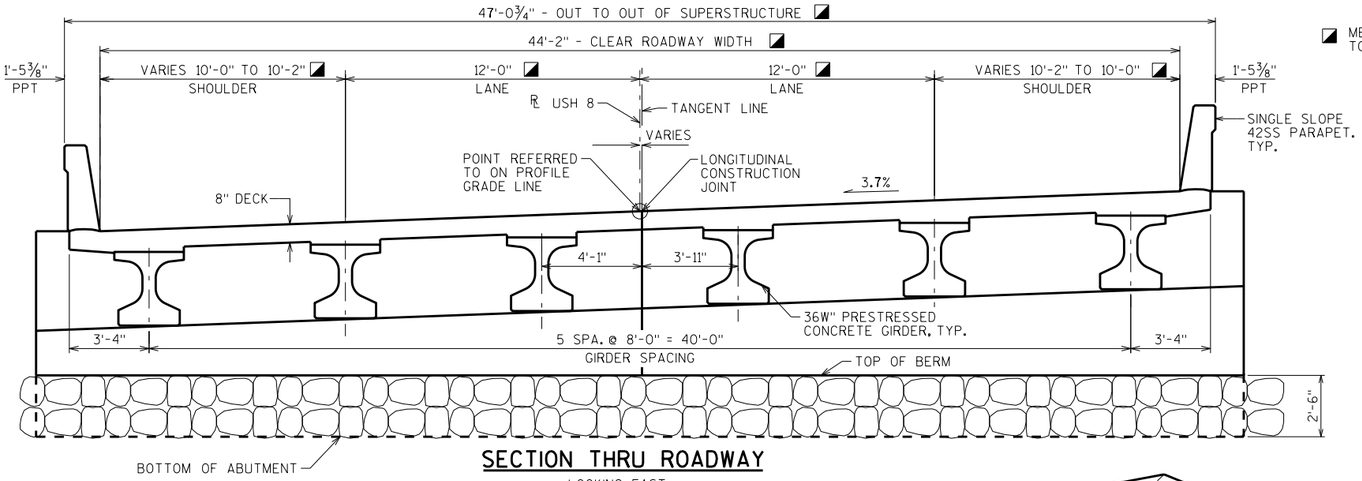
63

I.D. 1580-00-00A DATE: MAY 2023

SCALE = 7.00

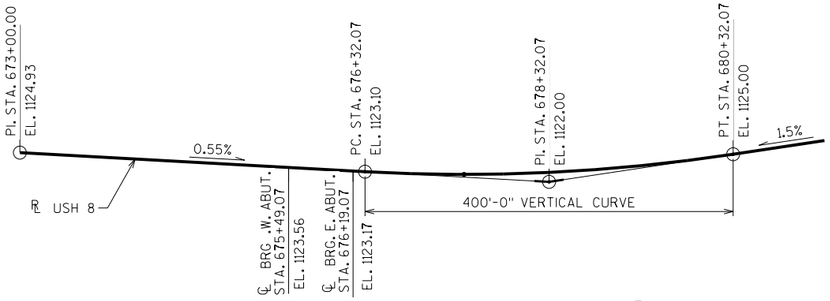
8

8

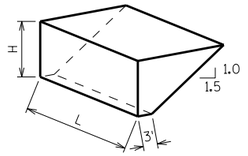


SECTION THRU ROADWAY

LOOKING EAST



PROFILE GRADE LINE - ℄ USH 8

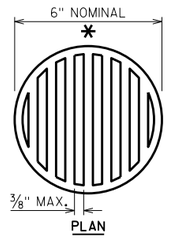


ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	W. STRUCT. APP.	WEST ABUT.	EAST ABUT.	E. STRUCT. APP.	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS B-54-408	EACH	———	———	———	———	———	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-54-131	EACH	———	———	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	———	———	169	169	———	338
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	———	145	———	———	145	290
312.0110	SELECT CRUSHED MATERIAL	TON	106	———	———	———	———	106
502.0100	CONCRETE MASONRY BRIDGES	CY	157.5	64.8	57.3	57.2	64.8	402
502.3200	PROTECTIVE SURFACE TREATMENT	SY	356	111	———	———	111	578
502.3210	PIGMENTED SURFACE SEALER	SY	72	20	———	———	20	112
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	426	———	———	———	———	426
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	———	———	3630	3630	———	7260
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	26800	11000	1740	1740	11000	52280
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1640	———	———	———	———	1640
505.0908	BAR COUPLERS NO.8	EACH	———	12	———	———	12	24
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	———	6	6	———	12
506.4000	STEEL DIAPHRAGMS B-54-131	EACH	5	———	———	———	———	5
511.1200	TEMPORARY SHORING B-54-131	SF	———	———	———	———	———	1700
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	———	15	15	———	30
550.2106	PILING CIP CONCRETE 10 3/4 X 0.365-IN	LF	———	———	660	660	———	1320
606.0300	RIPRAP HEAVY	CY	———	———	265	280	———	545
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	———	90	90	———	180
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	———	2	———	———	2	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	———	———	47	47	———	94
645.0120	GEOTEXTILE TYPE HR	SY	———	———	405	435	———	840
	NON-BID ITEMS							
	FILLER	SIZE	———	———	———	———	———	½", ¾", 1½"

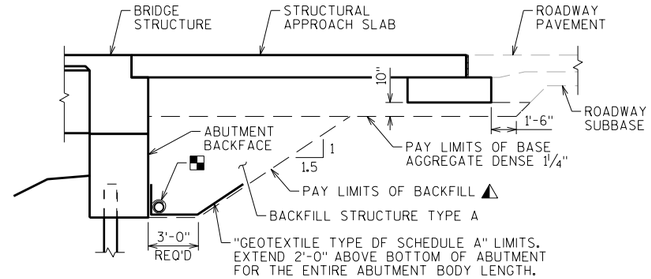


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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



TYPICAL SECTION THRU ABUTMENT

◭ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

▪ PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-54-131" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A. ALSO EXCLUDED IS THE "BASE AGGREGATE DENSE 1 1/4-INCH" AS DETAILED ON THE STRUCTURAL APPROACH SLAB SHEETS.

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

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND APPROACH SLAB SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON APPROACH SLABS.

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

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "36W PRESTRESSED GIRDER DETAILS 2" SHEET.

EXCAVATION REQUIRED TO REMOVE EXISTING STRUCTURE AND SHAPE STREAMBED IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BIRDGES B-54-131".

STATE PROJECT NUMBER
1580-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

CROSS SECTION & QUANTITIES

SHEET 2

64

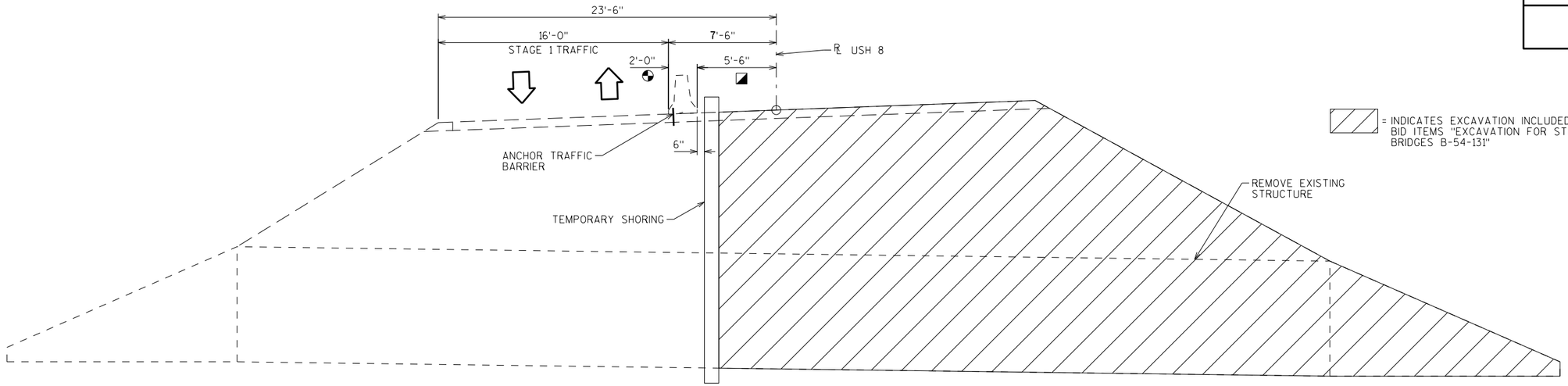
8

8

SCALE = 3.00

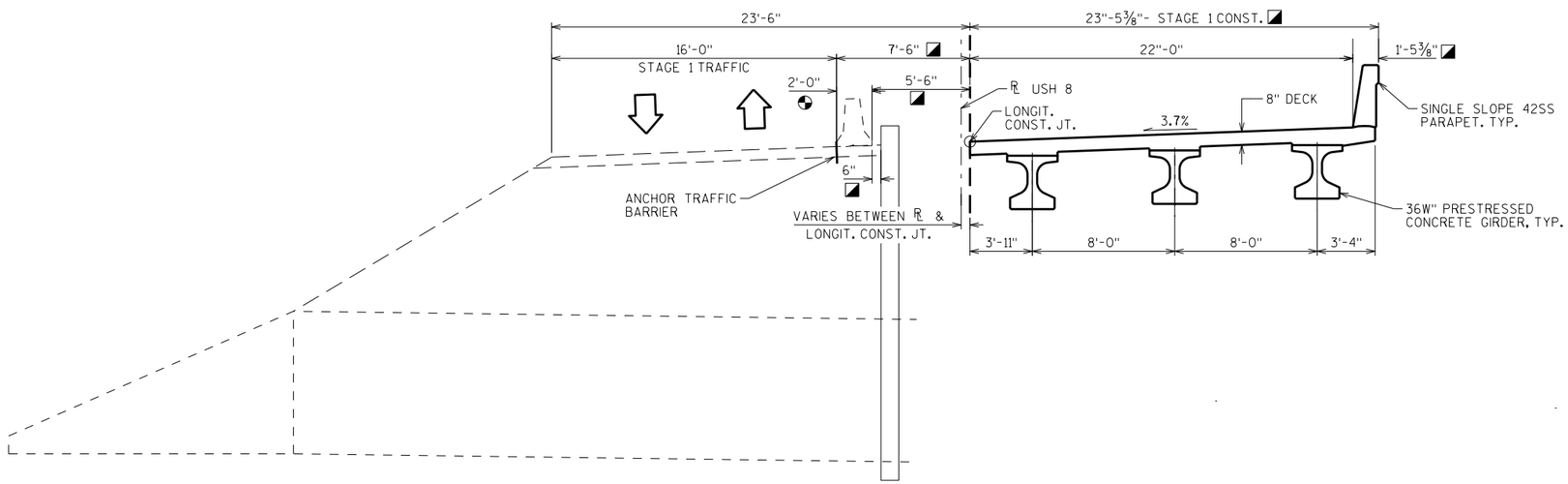
STATE PROJECT NUMBER

1580-00-70



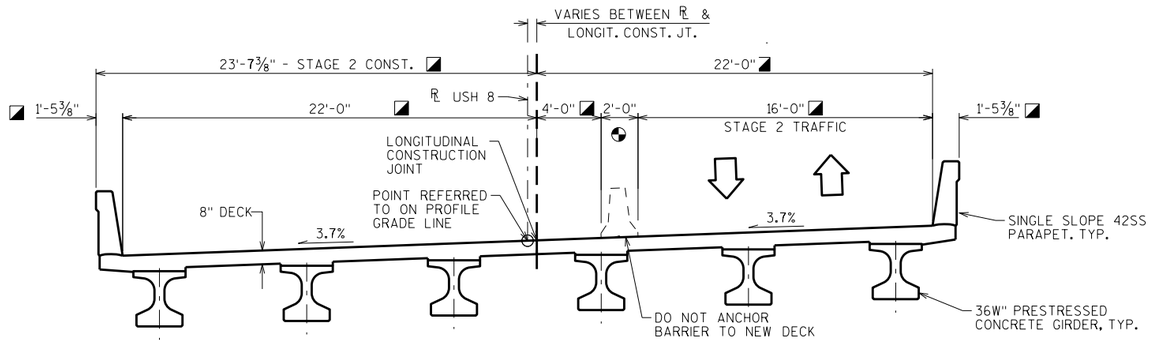
STAGE 1 REMOVAL

LOOKING EAST



STAGE 1 CONSTRUCTION

LOOKING EAST



STAGE 2 CONSTRUCTION

LOOKING EAST

NOTE

STAGE 2 REMOVAL NOT DEPICTED. REMOVAL CONSISTS OF EXCAVATING AND REMOVING REMAINDER OF EXISTING STRUCTURE PRIOR TO STAGE 2 CONSTRUCTION

◪ = MEASURED PERPENDICULAR TO TANGENT LINE

◓ = TEMPORARY TRAFFIC BARRIER PAID FOR UNDER ROADWAY BID ITEMS. SEE ROADWAY PLANS FOR MORE INFORMATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

CONSTRUCTION STAGING

SHEET 3

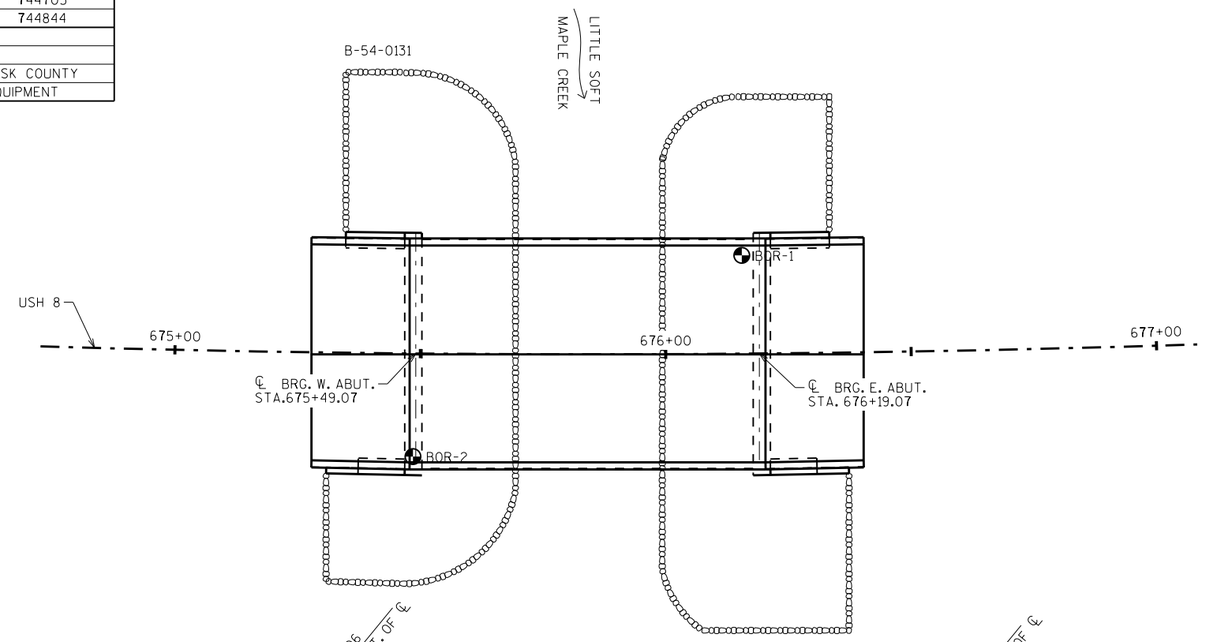
65

SCALE = 4.00

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	7/31/2019	552403	744703
2	8/6/2019	552414	744844
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) RUSK COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



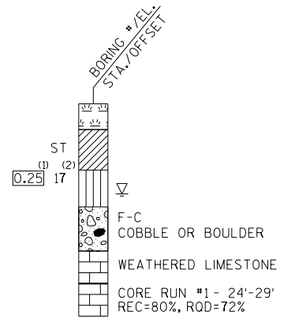
STATE PROJECT NUMBER

1580-00-70

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▼ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY TLP | PLANS CK'D. DMB

SUBSURFACE EXPLORATION

SHEET 4

66

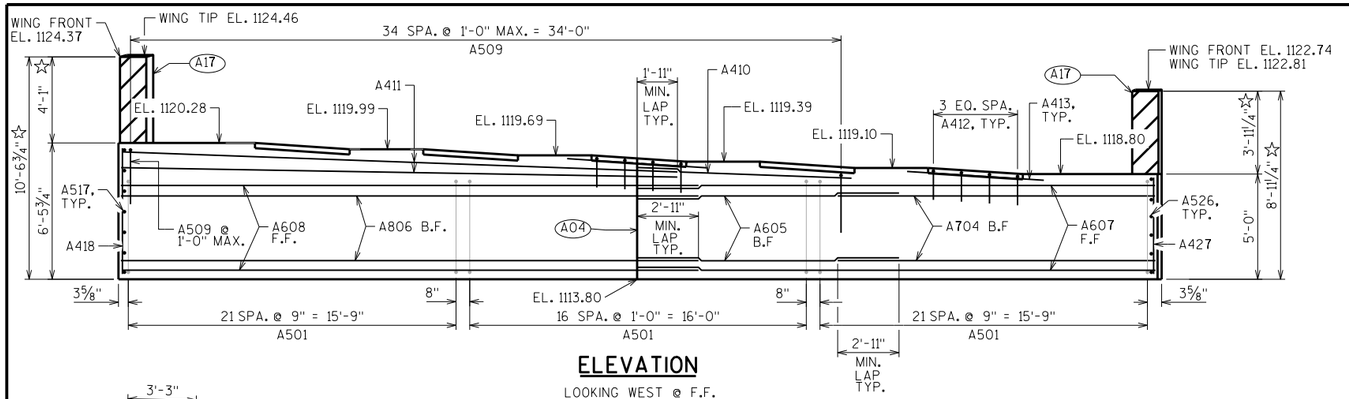
SCALE = 15.00

8

8

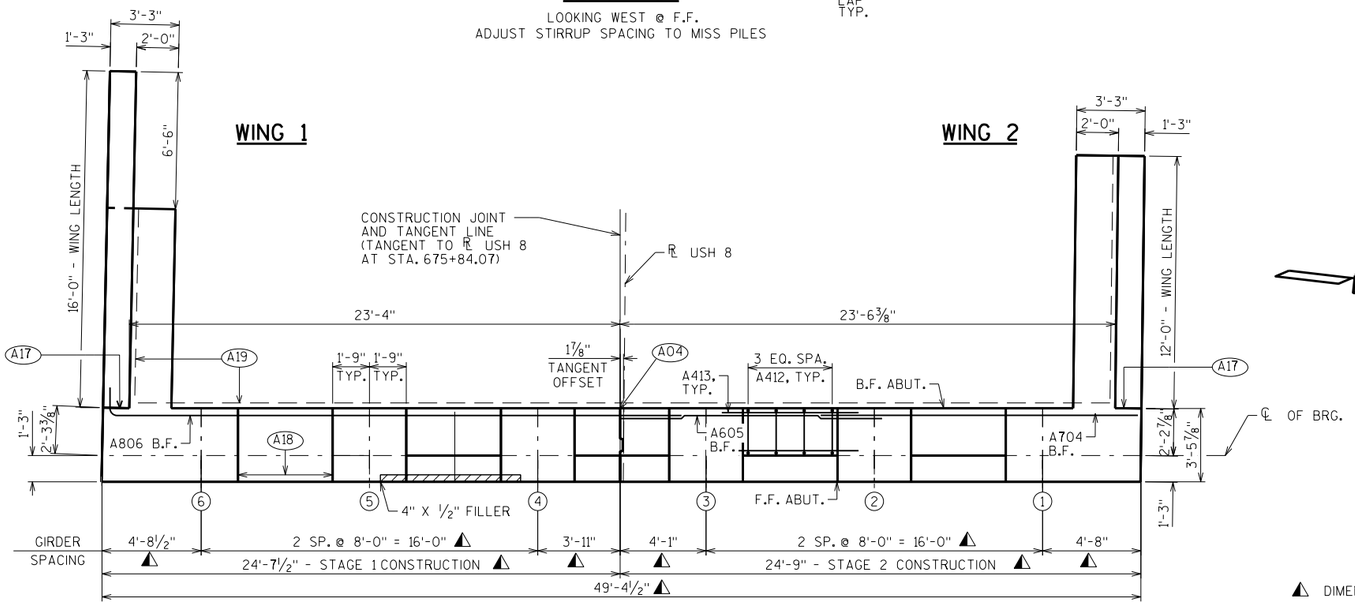
STATE PROJECT NUMBER

1580-00-70

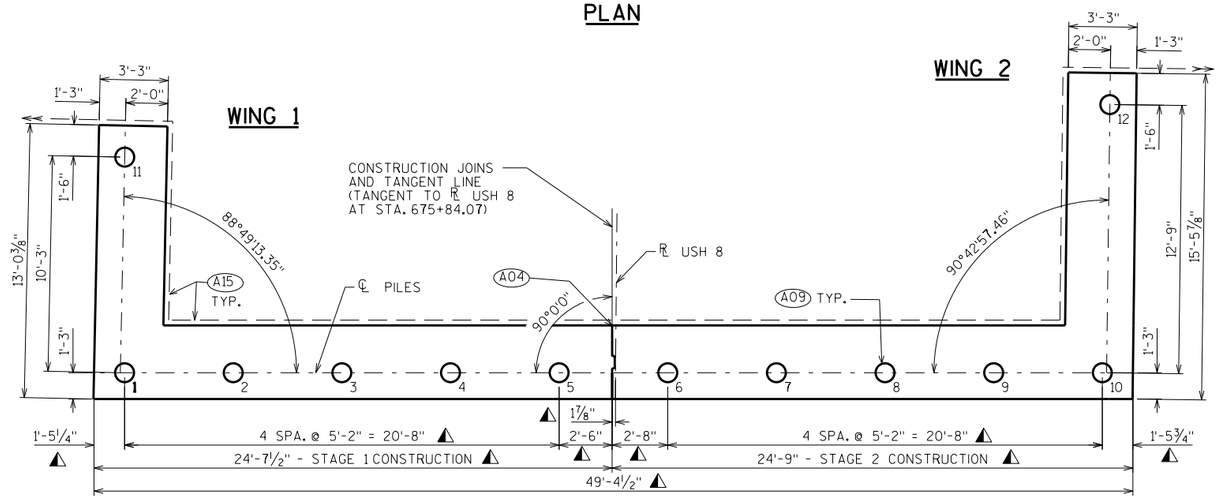


ELEVATION

LOOKING WEST @ F.F.
ADJUST STIRRUP SPACING TO MISS PILES



PLAN



PILE PLAN

- ◭ DIMENSIONS MEASURED ALON ℄ BEARING.
- ◯ INDICATES GIRDER NUMBER.
- ☆ MEASURED AT F.F. ABUT.

(A04) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE.

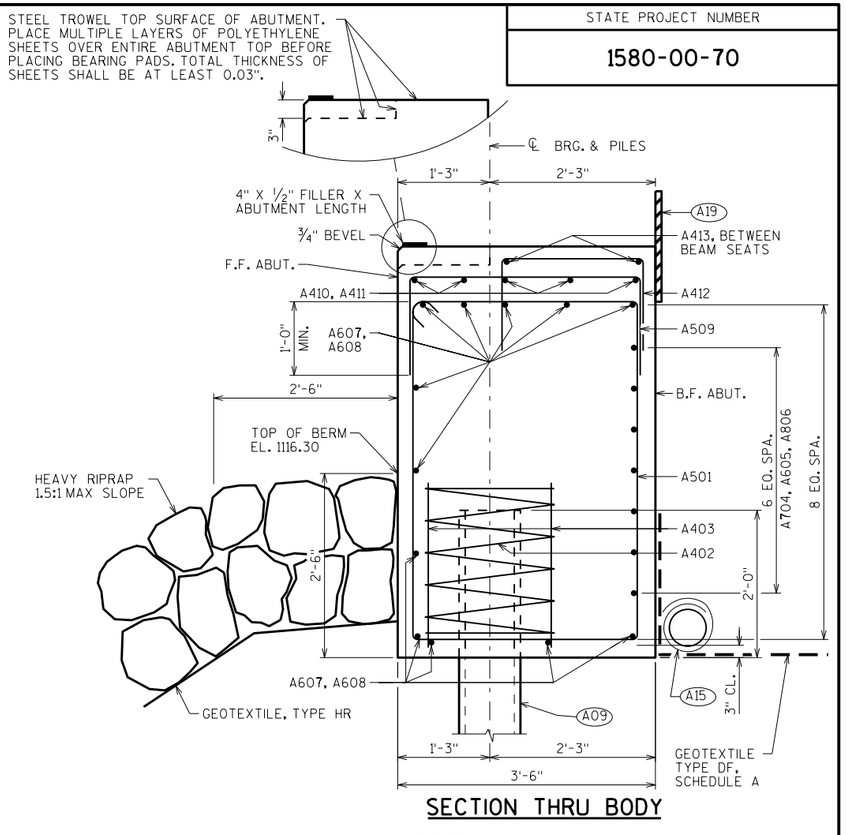
(A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.365" CIP CONCRETE PILING, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

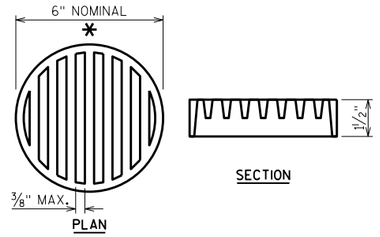
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



SECTION THRU BODY



RODENT SHIELD DETAIL

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

WEST ABUTMENT

SHEET 5

67

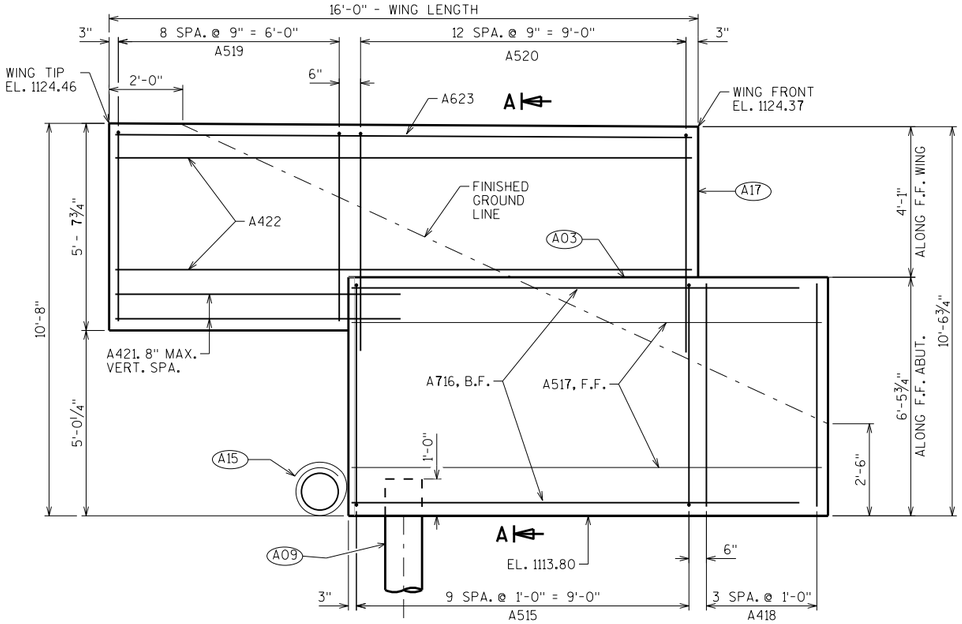
8

8

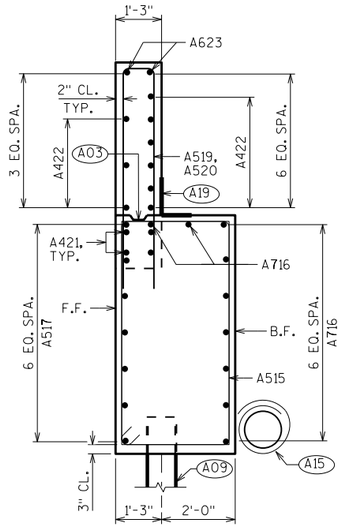
SCALE = 3.50

STATE PROJECT NUMBER

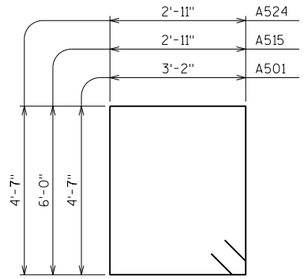
1580-00-70



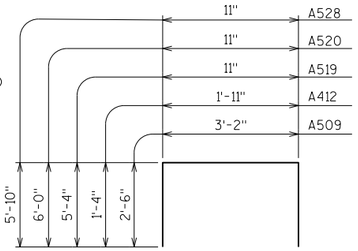
WING 1 ELEVATION



WING 1 SECTION A-A



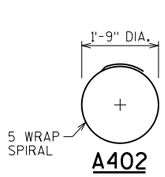
A501, A515, A524,



A509, A412, A519, A520, A528

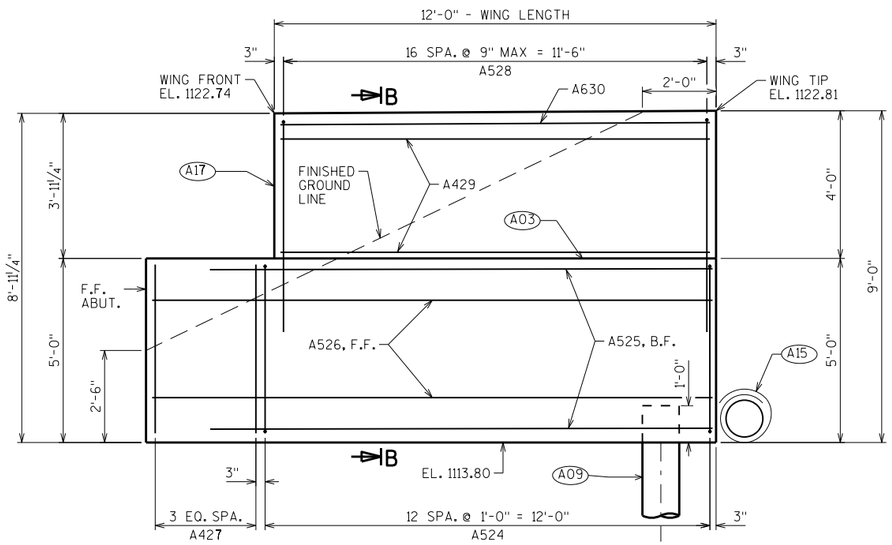
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		61	15'-8"	X		BODY - STIRRUPS
A402		10	28'-0"	X		PILES - 1 PER BODY PILE
A403		20	2'-3"			PILES - 2 PER BODY PILE
A704		7	15'-0"			BODY - HORIZONTAL - B.F. - STAGE 2
A605		7	12'-5"			BODY - HORIZONTAL - B.F. - STAGE 2
A806		7	28'-5"	X		BODY - HORIZONTAL - B.F. - STAGE 1
A607		12	24'-7"			BODY - HORIZONTAL - F.F. - STAGE 2
A608		12	27'-5"			BODY - HORIZONTAL - F.F. - STAGE 1
A509		35	7'-11"	X		BODY - VERT. - OVER GIRDS. 3-6
A410		5	10'-2"			BODY - HORIZ. - OVER GIRDS. 3, STAGE 2
A411		10	26'-5"			BODY - HORIZ. - OVER GIRDS. 4-6, STAGE 1
A412		20	4'-5"	X		BODY - VERTICAL - BTWN BEAM SEATS
A413		10	6'-6"			BODY - HORIZONTAL - BTWN BEAM SEATS
A515	X	10	18'-6"	X		WING 1 - STIRRUPS - LOWER WING
A716	X	9	12'-1"			WING 1 - HORIZONTAL - B.F. - LOWER WING
A517	X	7	12'-8"			WING 1 - HORIZONTAL - F.F. - LOWER WING
A418	X	4	6'-0"			WING 1 - BODY VERTICAL ENDS
A519	X	9	11'-4"	X		WING 1 - VERTICAL - UPPER WING
A520	X	13	12'-8"	X		WING 1 - VERTICAL - UPPER WING
A421	X	4	7'-9"			WING 1 - HORIZONTAL - UPPER WING
A422	X	9	15'-8"			WING 1 - HORIZONTAL - UPPER WING
A623	X	2	15'-8"			WING 1 - HORIZONTAL - UPPER WING TOP
A524	X	13	15'-8"	X		WING 2 - STIRRUPS - LOWER WING
A525	X	9	13'-7"			WING 2 - HORIZONTAL - B.F. - LOWER WING
A526	X	6	15'-1"			WING 2 - HORIZONTAL - F.F. - LOWER WING
A427	X	4	4'-7"			WING 2 - BODY - VERTICAL ENDS
A528	X	17	12'-4"	X		WING 2 - VERTICAL - UPPER WING
A429	X	9	11'-8"			WING 2 - HORIZONTAL - UPPER WING
A630	X	2	11'-8"			WING 2 - HORIZONTAL - UPPER WING TOP

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

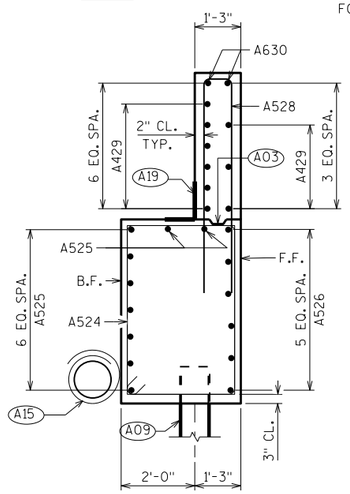


A402

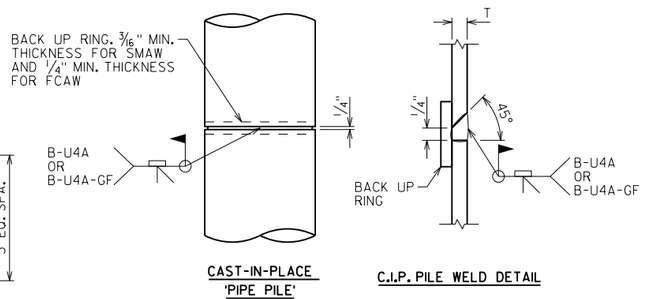
A806



WING 2 ELEVATION



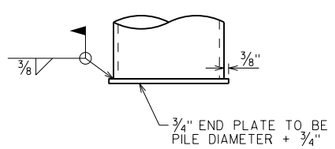
WING 2 SECTION B-B



CAST-IN-PLACE 'PIPE PILE'

C.I.P. PILE WELD DETAIL

PILE DETAILS



END PLATE DETAIL

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.365" CIP CONCRETE PILING, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

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WEST ABUTMENT DETAILS

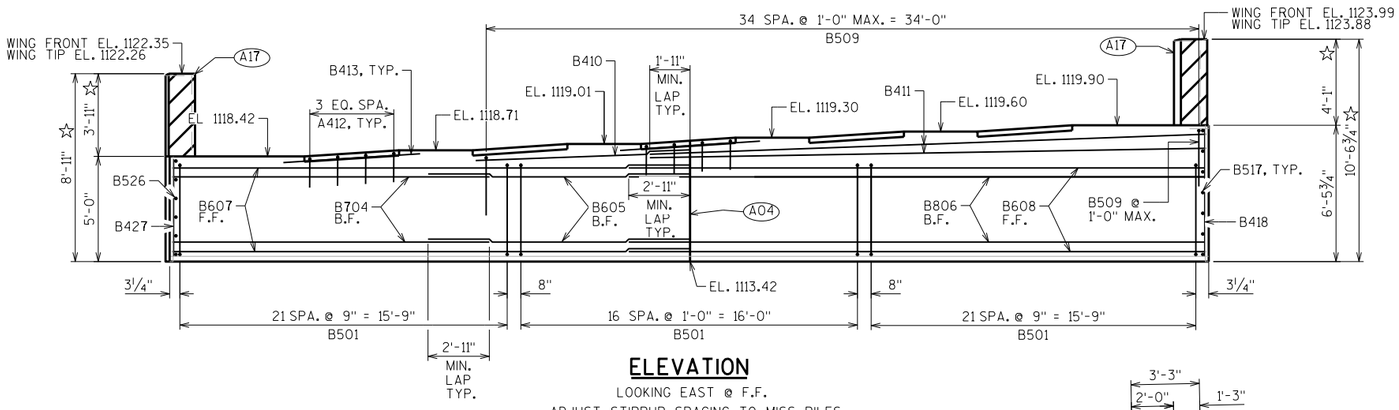
SHEET 6

68

8

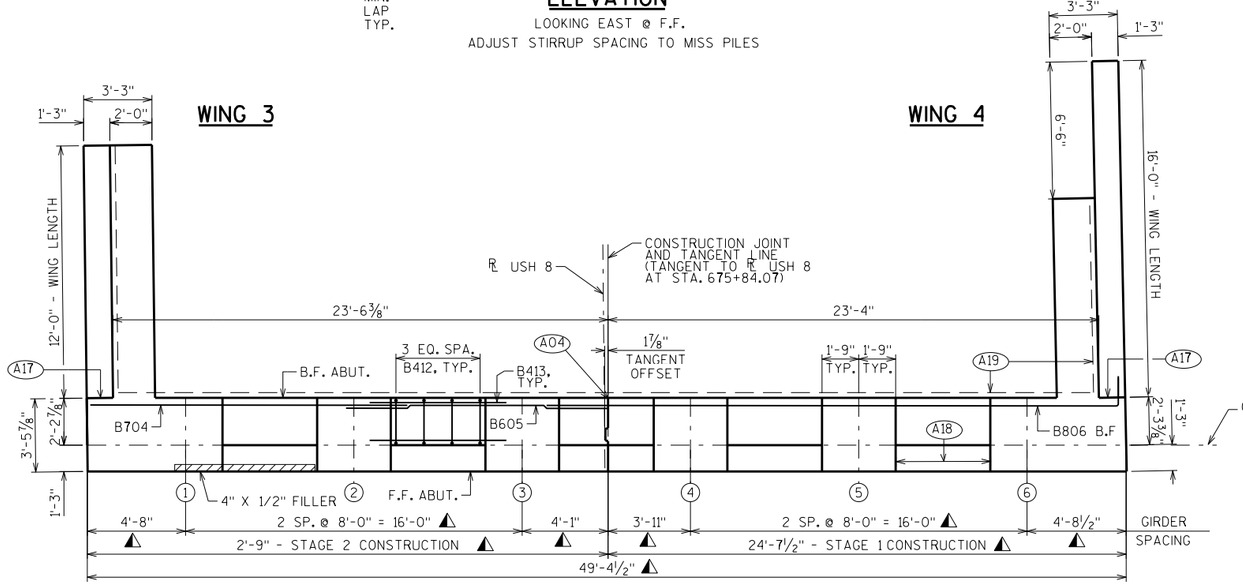
8

SCALE = 2.00

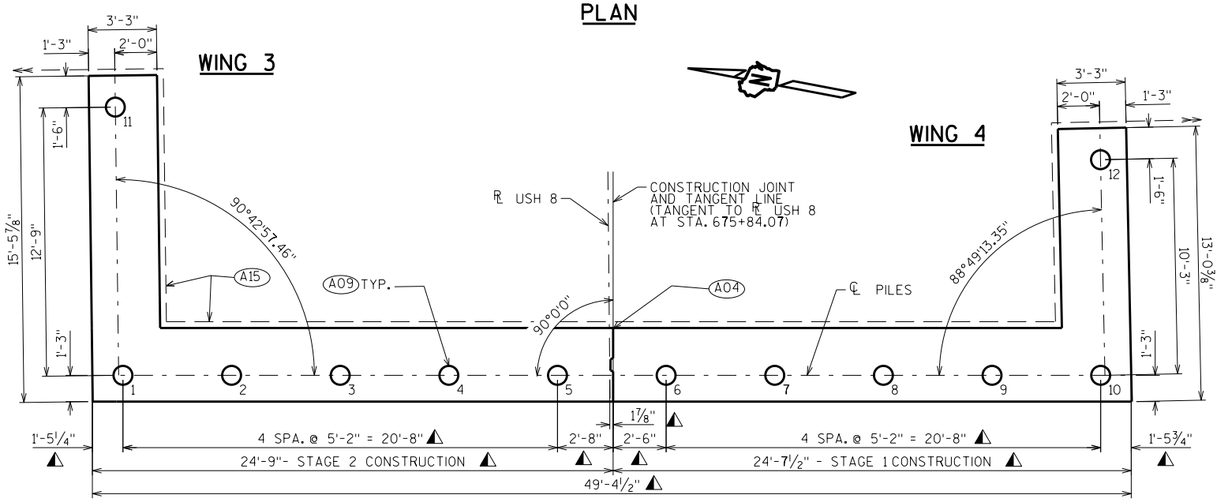


ELEVATION

LOOKING EAST @ F.F.
ADJUST STIRRUP SPACING TO MISS PILES



PLAN



PILE PLAN

- ◭ DIMENSIONS MEASURED ALON ℄ BEARING.
- ◯ INDICATES GIRDER NUMBER.
- ☆ MEASURED AT F.F. ABUT.

(A04) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE.

(A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.365" CIP CONCRETE PILING, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

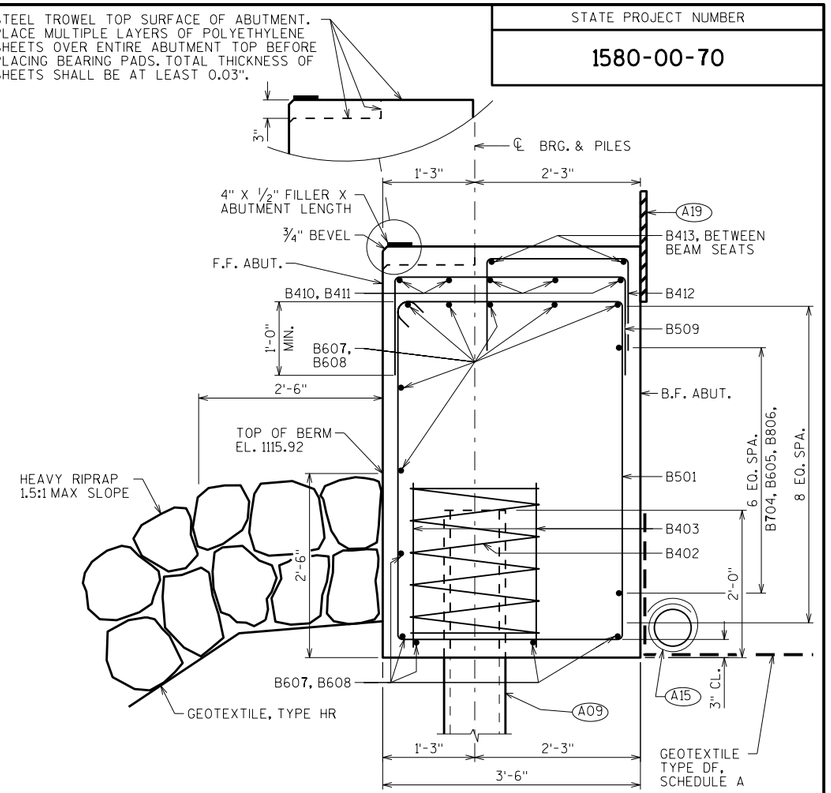
(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

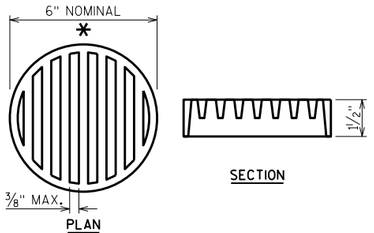
(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



SECTION THRU BODY



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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

STATE PROJECT NUMBER

1580-00-70

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

EAST ABUTMENT

SHEET 7

69

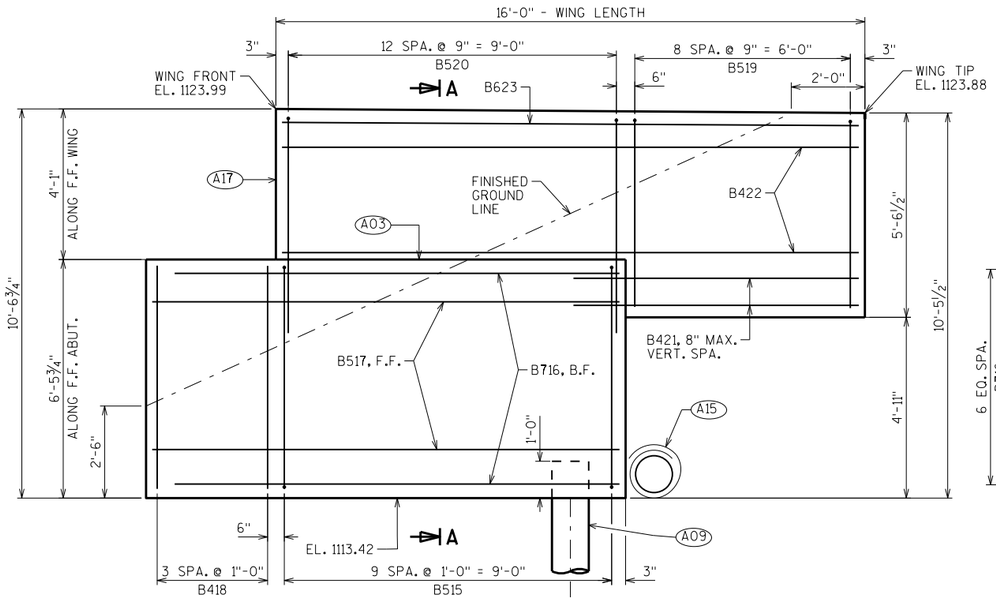
8

8

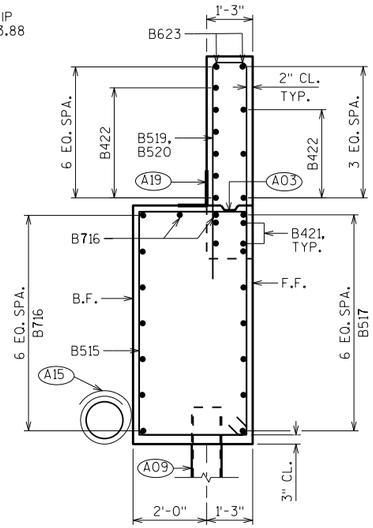
SCALE = 3.50

STATE PROJECT NUMBER

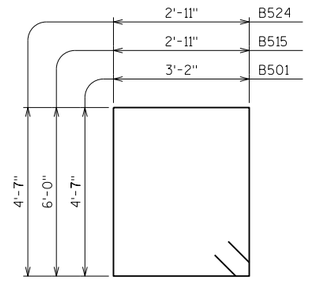
1580-00-70



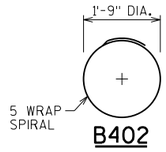
WING 4 ELEVATION



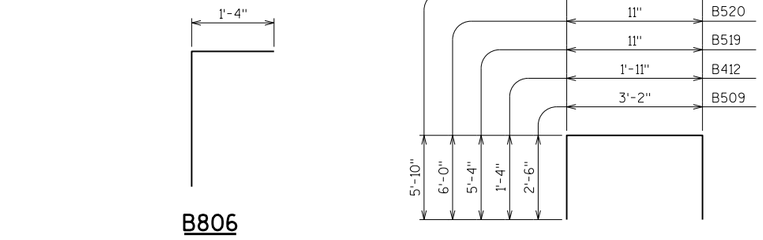
WING 4 SECTION A-A



B501, B515, B524,

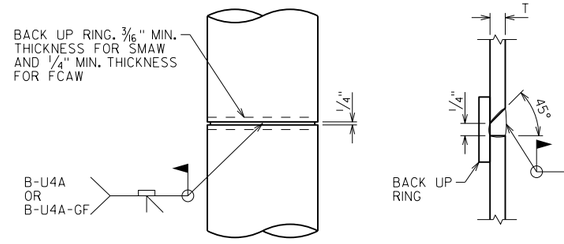


B402



B806

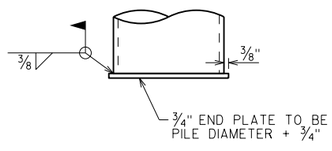
B509, B412, B519, B520, B528



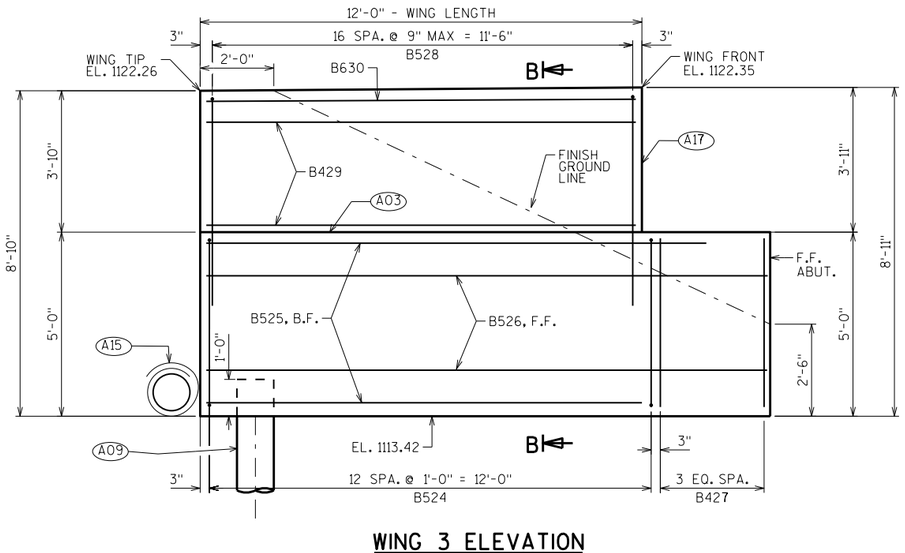
CAST-IN-PLACE 'PIPE PILE'

C.I.P. PILE WELD DETAIL

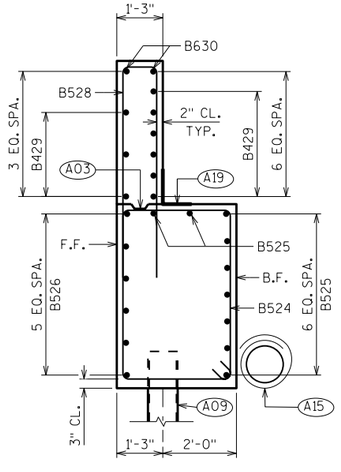
PILE DETAILS



END PLATE DETAIL



WING 3 ELEVATION



WING 3 SECTION B-B

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		61	15'-8"	X		BODY - STIRRUPS
B402		10	28'-0"	X		PILES - 1 PER BODY PILE
B403		20	2'-3"			PILES - 2 PER BODY PILE
B704		7	15'-0"			BODY - HORIZONTAL - B.F. - STAGE 2
B605		7	12'-6"			BODY - HORIZONTAL - B.F. - STAGE 2
B806		7	28'-5"	X		BODY - HORIZONTAL - B.F. - STAGE 1
B607		12	24'-7"			BODY - HORIZONTAL - F.F. - STAGE 2
B608		12	27'-5"			BODY - HORIZONTAL - F.F. - STAGE 1
B509		35	7'-11"	X		BODY - VERT. - OVER GIRDS. 3-6
B410		5	10'-3"			BODY - HORIZ. - OVER GIRDS. 3, STAGE 2
B411		10	26'-5"			BODY - HORIZ. - OVER GIRDS. 4-6, STAGE 1
B412		20	4'-5"	X		BODY - VERTICAL - BTWN BEAM SEATS
B413		10	6'-6"			BODY - HORIZONTAL - BTWN BEAM SEATS
B515	X	10	18'-6"	X		WING 4 - STIRRUPS - LOWER WING
B716	X	9	12'-1"			WING 4 - HORIZONTAL - B.F. - LOWER WING
B517	X	7	12'-8"			WING 4 - HORIZONTAL F.F. - LOWER WING
B418	X	4	6'-0"			WING 4 - BODY VERTICAL ENDS
B519	X	9	11'-4"	X		WING 4 - VERTICAL - UPPER WING
B520	X	13	12'-8"	X		WING 4 - VERTICAL - UPPER WING
B421	X	4	7'-9"			WING 4 - HORIZONTAL - UPPER WING
B422	X	9	15'-8"			WING 4 - HORIZONTAL - UPPER WING
B623	X	2	15'-8"			WING 4 - HORIZONTAL - UPPER WING TOP
B524	X	13	15'-8"	X		WING 3 - STIRRUPS - LOWER WING
B525	X	9	13'-7"			WING 3 - HORIZONTAL - B.F. - LOWER WING
B526	X	6	15'-1"			WING 3 - HORIZONTAL - F.F. - LOWER WING
B427	X	4	4'-7"			WING 3 - BODY - VERTICAL ENDS
B528	X	17	12'-4"	X		WING 3 - VERTICAL - UPPER WING
B429	X	9	11'-8"			WING 3 - HORIZONTAL - UPPER WING
B630	X	2	11'-8"			WING 3 - HORIZONTAL - UPPER WING TOP

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A09) SUPPORT ABUTMENT ON 10 3/4" DIA. X 0.365" CIP CONCRETE PILING, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

EAST ABUTMENT DETAILS

SHEET 8

70

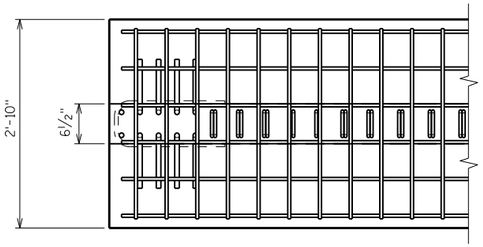
SCALE = 2.00

8

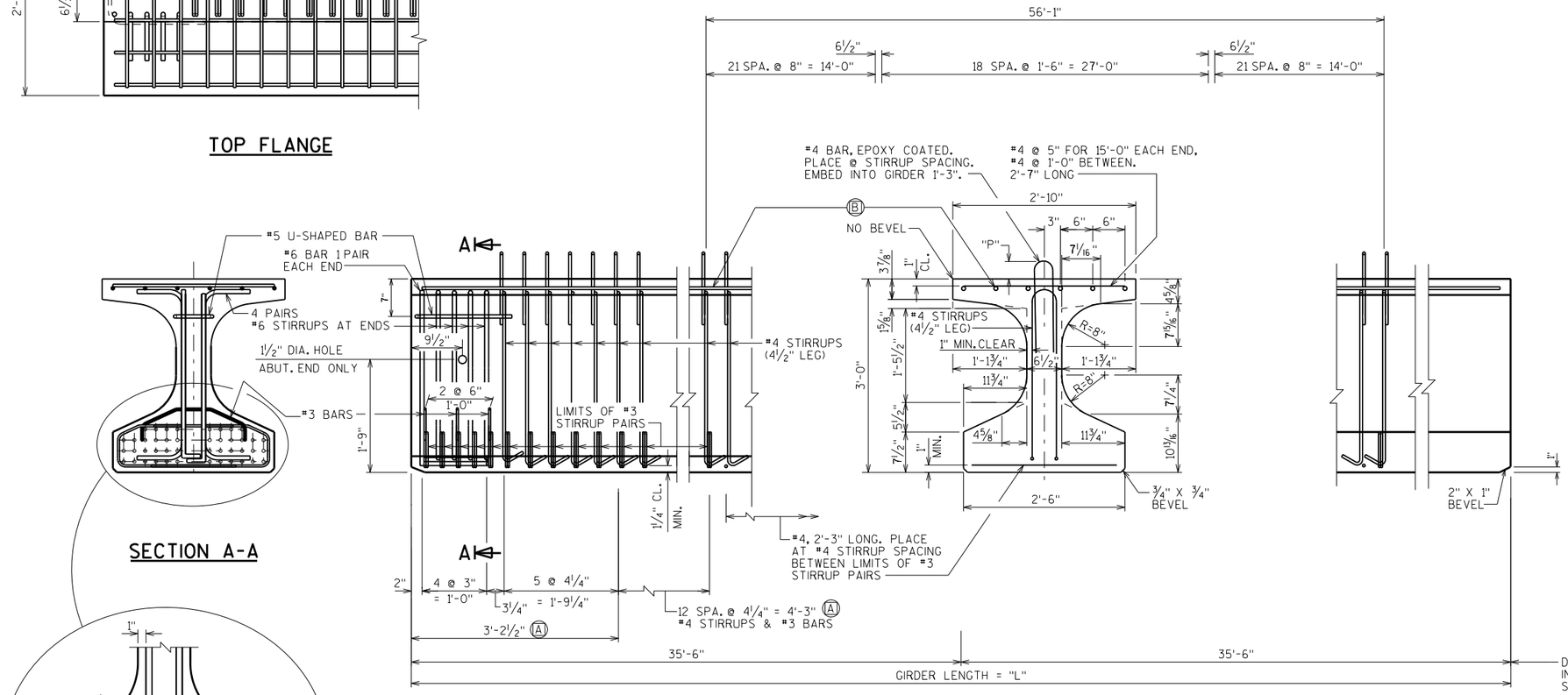
8

STATE PROJECT NUMBER

1580-00-70



TOP FLANGE

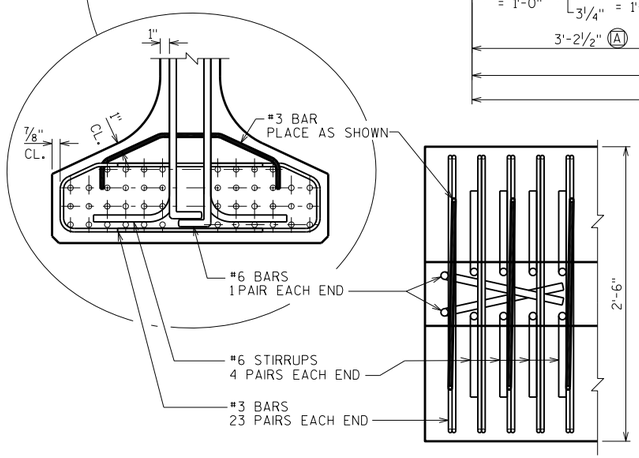


SECTION A-A

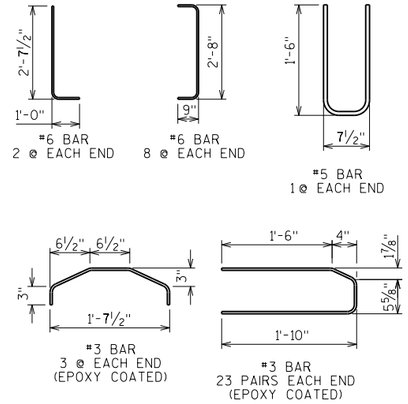
SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

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



BOTTOM FLANGE



NOTES

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

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

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

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

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

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

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

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

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

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

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (P.S.I.)	"P" (IN.) 1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	1-6	71'-0"	0.3	0.5	0.7	0.8	0.8	0.8	0.7	0.5	0.3	8,000	7	7	7	0.6	22	6,400	32	11	14	4	--	--

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

36W" PRESTRESSED GIRDER DETAILS 1

SHEET 9

71

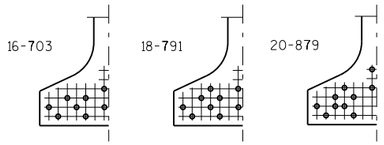
SCALE = 1.0

8

8

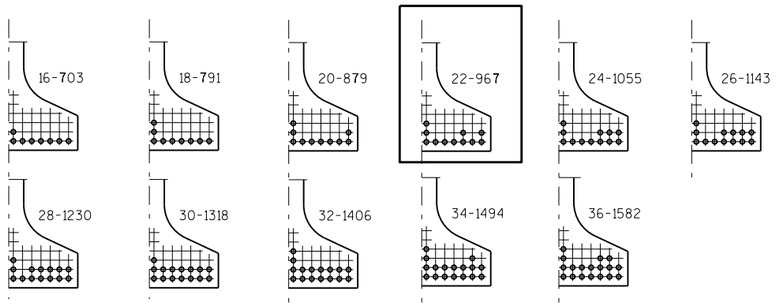
STATE PROJECT NUMBER

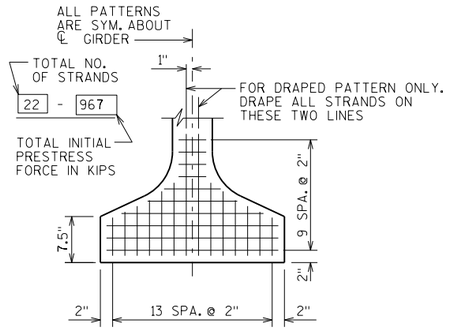
1580-00-70



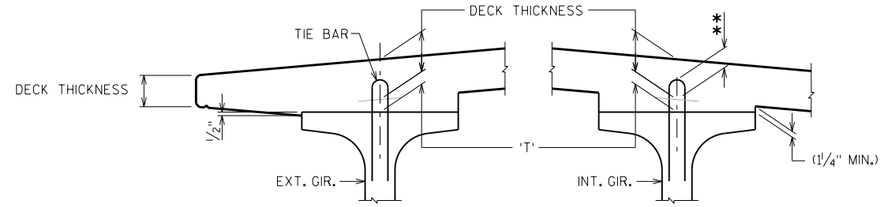
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6" DIA. STRANDS





TYP. STRAND PATTERN



DECK HAUNCH DETAIL

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

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

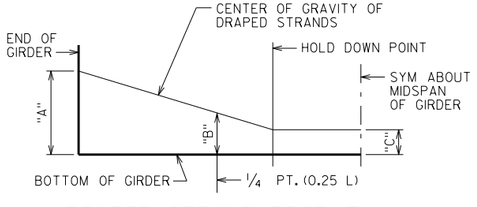
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

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

NOTE: AN AVERAGE HAUNCH ('T') OF 3.1 INCHES WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" DIA. STRANDS



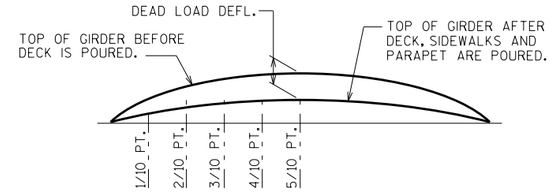
DRAPED STRAND PROFILE

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

SPAN	CAMBER (IN.) *
1	1.9"

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

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DEAD LOAD DEFLECTION DIAGRAM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

36W" PRESTRESSED GIRDER DETAILS 2

SHEET 10

72

SCALE = 1.0

STATE PROJECT NUMBER
1580-00-70

NOTES

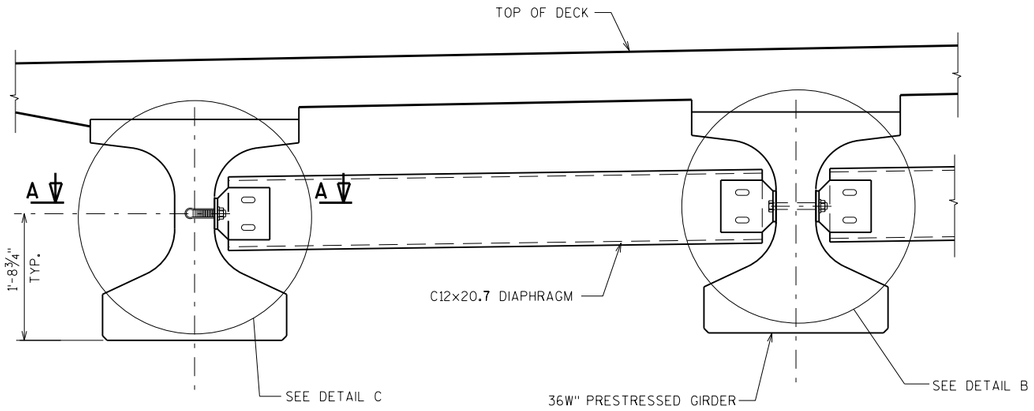
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-54-131", EACH.

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.

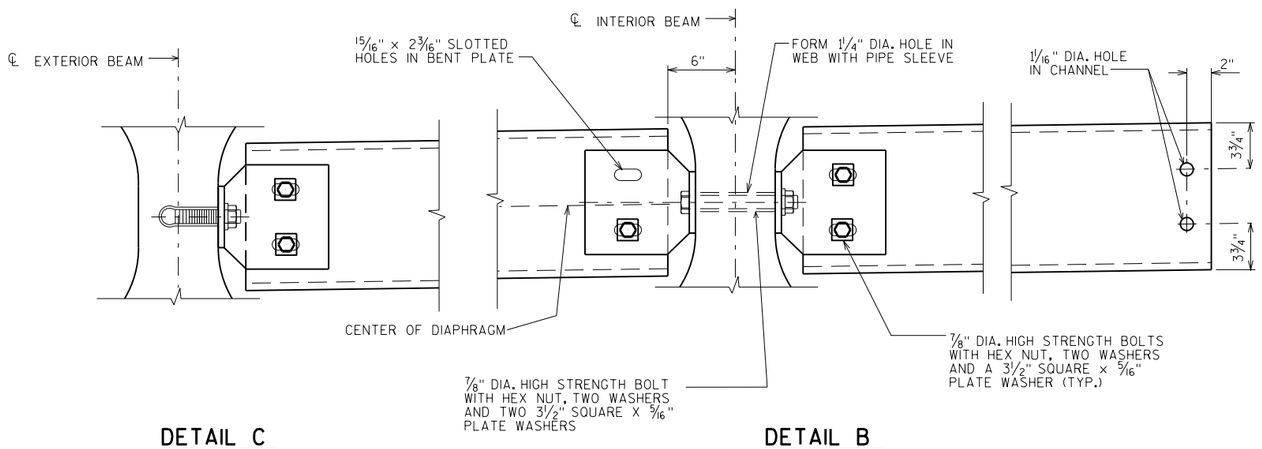
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



EXTERIOR GIRDER

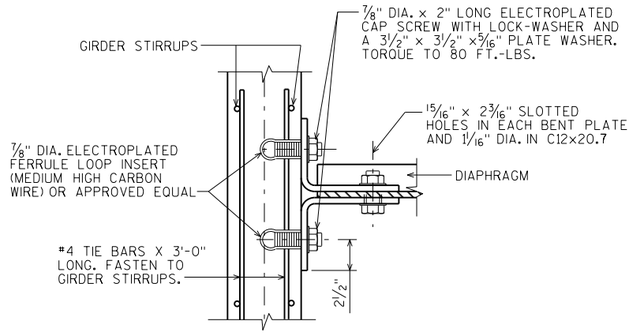
INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM



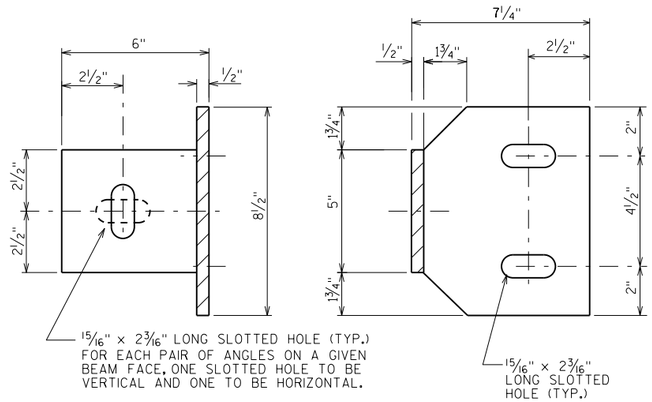
DETAIL C

DETAIL B



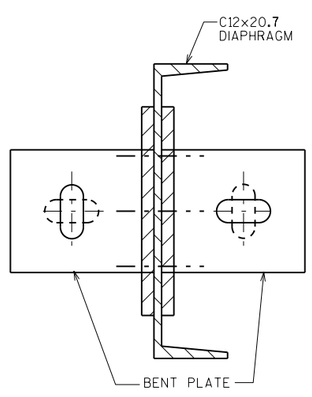
SECTION A-A

(FOR EXTERIOR ATTACHMENT)



BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

STEEL DIAPHRAGM

SHEET 11

73

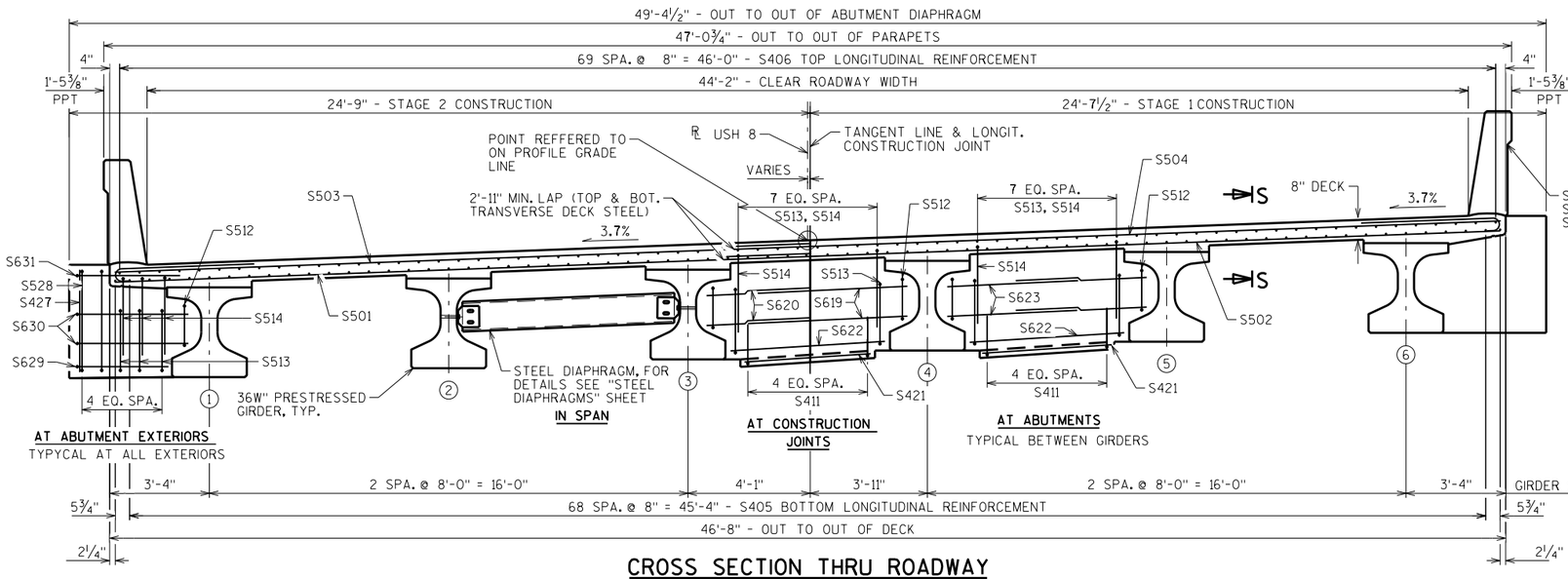
SCALE = 1.00

8

8

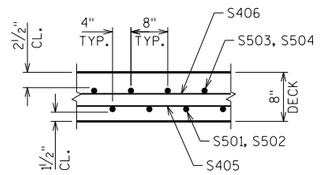
STATE PROJECT NUMBER

1580-00-70

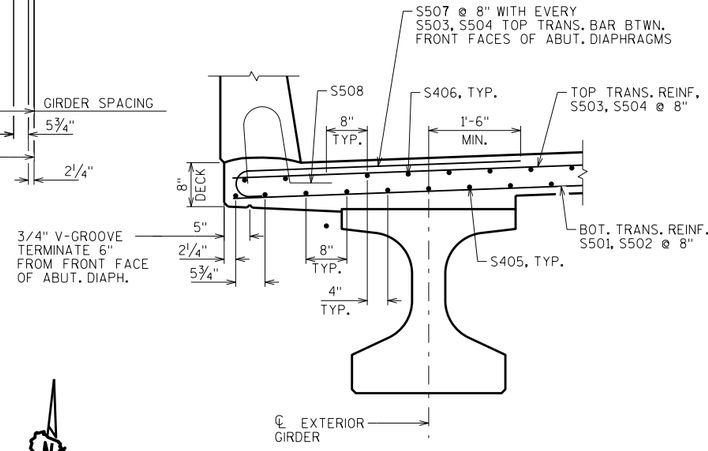


CROSS SECTION THRU ROADWAY

LOOKING EAST

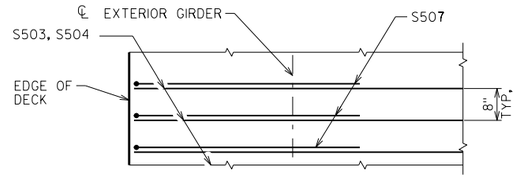


SECTION S-S



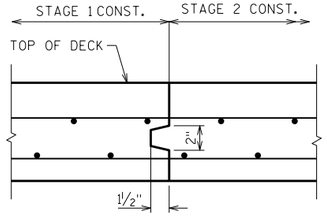
EDGE OF DECK DETAIL

(TYP. AT BOTH EDGES)

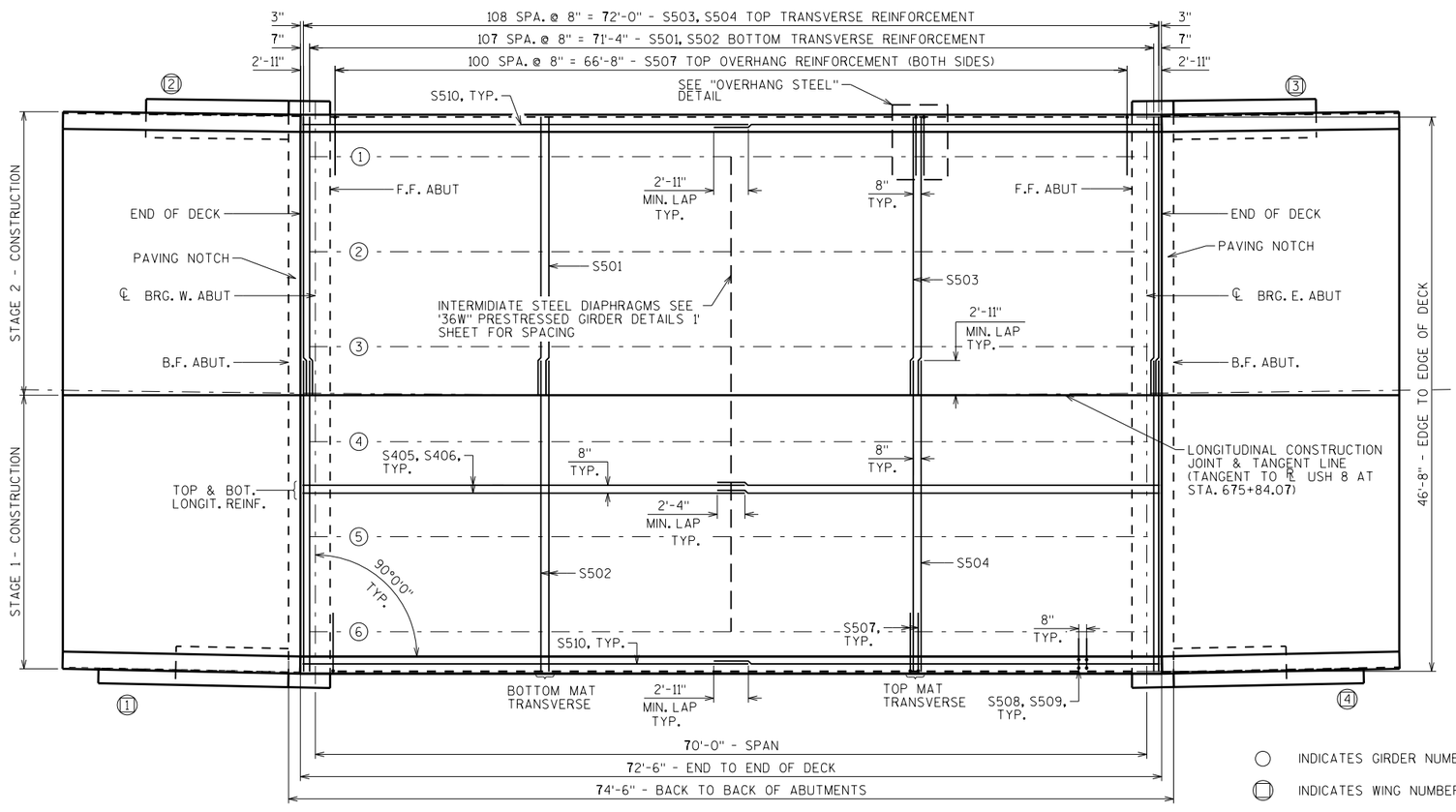


OVERHANG STEEL DETAIL

(TYP. AT BOTH EDGES)



SECTION THRU LONGIT. JOINT



PLAN

○ INDICATES GIRDER NUMBER

▢ INDICATES WING NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

SUPERSTRUCTURE

SHEET 12

74

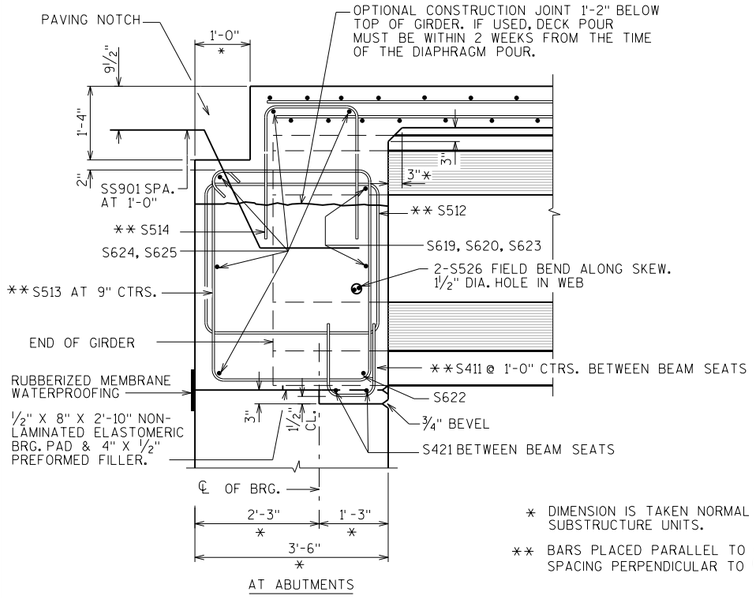
8

8

SCALE = 6.00

STATE PROJECT NUMBER

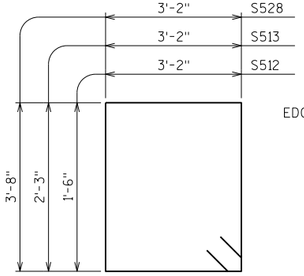
1580-00-70



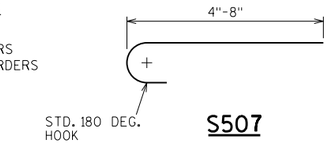
PART LONGIT. SECTION

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

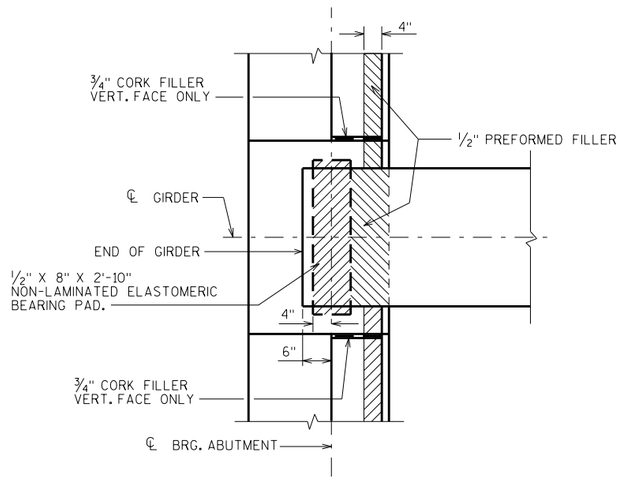
** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS



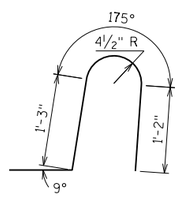
S512, S513, S528



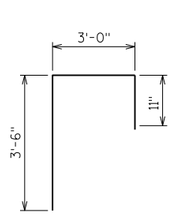
S507



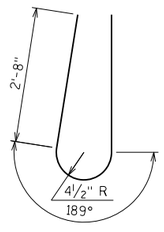
BEARING PAD DETAIL



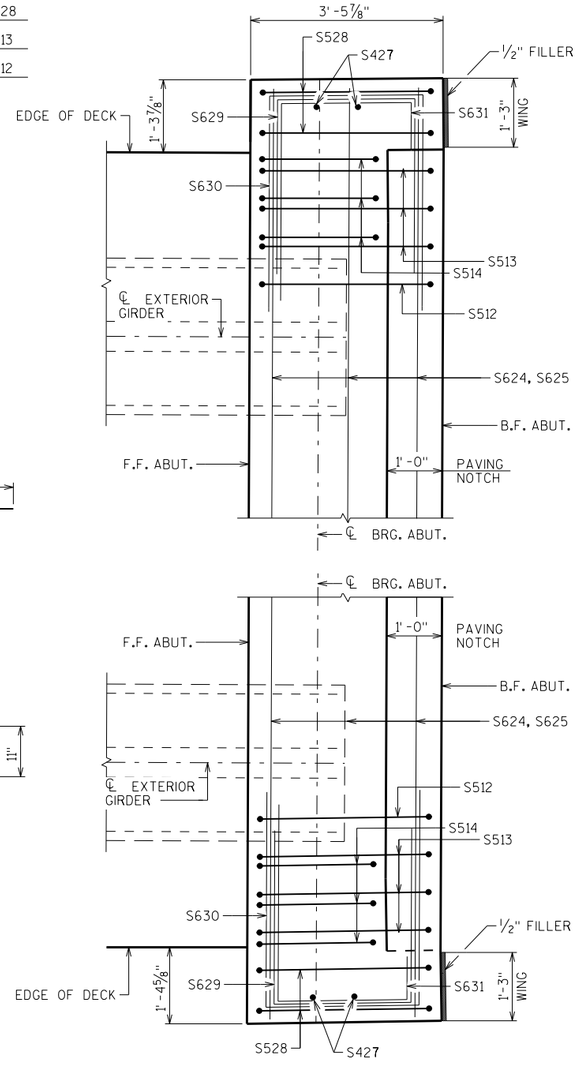
S508



S631



S509



ABUTMENT DIAPHRAGM PLAN DETAIL

EAST ABUTMENT SHOWN. WEST ABUTMENT SIMILAR

BILL OF BARS

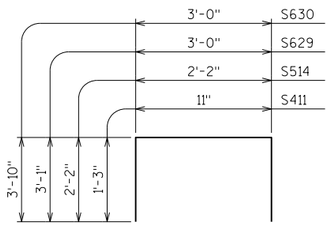
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	108	23'-3"			DECK TRANS. - BOTTOM - STAGE 2
S502	X	108	26'-0"			DECK TRANS. - BOTTOM - STAGE 1
S503	X	109	23'-3"			DECK TRANS. - TOP - STAGE 2
S504	X	109	26'-0"			DECK TRANS. - TOP - STAGE 1
S405	X	142	37'-3"			DECK LONG. BOTTOM
S406	X	140	37'-3"			DECK LONG. TOP
S507	X	202	5'-3"	X		DECK TRANS. - TOP EDGE
S508	X	218	4'-5"	X		42SS PARAPET - VERT.
S509	X	218	6'-8"	X		42SS PARAPET - VERT.
S510	X	32	37'-7"			42SS PARAPET - HORIZ.
S411	X	50	3'-3"	X		ABUT. DIAPH. - VERT. - BTWN GIR.
S512	X	24	10'-0"	X		ABUT. DIAPH. AT GIRDS - STIRRUPS
S513	X	92	11'-6"	X		ABUT. DIAPH. - STIRRUP
S514	X	92	6'-3"	X		ABUT. DIAPH. - VERT. - BTWN GIR.
S619	X	4	5'-6"			ABUT. DIAPH. - BTWN GIR. HORIZ. STAGE 1
S620	X	4	3'-5"			ABUT. DIAPH. - BTWN GIR. HORIZ. STAGE 2
S421	X	20	4'-2"			ABUT. DIAPH. - BTWN GIR. HORIZONTAL
S622	X	10	5'-2"			ABUT. DIAPH. - BTWN GIR. HORIZONTAL
S623	X	32	4'-7"			ABUT. DIAPH. - BTWN GIR. HORIZONTAL
S624	X	10	26'-7"			ABUT. DIAPH. - HORIZ. STAGE 1
S625	X	10	24'-6"			ABUT. DIAPH. - HORIZ. STAGE 2
S526	X	24	6'-0"			ABUT. DIAPH. - HORIZ. - THRU GIR.
S427	X	8	3'-8"			ABUT. DIAPH. - VERT. - EXTERIOR WING
S528	X	8	14'-4"	X		ABUT. DIAPH. STIRRUP - EXTERIOR WING
S629	X	4	8'-10"	X		ABUT. DIAPH. - EXTERIOR WING HORIZ. - BOT.
S630	X	8	10'-4"	X		ABUT. DIAPH. - EXTERIOR WING HORIZ.
S631	X	4	7'-1"	X		ABUT. DIAPH. - EXTERIOR WING HORIZ. - TOP
SS901		96	5'-0"	X		ABUT.DIAPH./APPROACH SLAB TIE

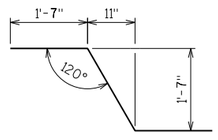
STAINLESS STEEL

TOP OF DECK ELEVATIONS

	CL BRG. W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CL BRG. E. ABUT.
N. EOD/GUTTER LINE	1122.75	1122.71	1122.67	1122.63	1122.59	1122.55	1122.51	1122.47	1122.43	1122.40	1122.36
GIRDER 1	1122.82	1122.78	1122.74	1122.70	1122.66	1122.63	1122.59	1122.55	1122.51	1122.47	1122.44
GIRDER 2	1123.12	1123.08	1123.04	1123.00	1122.96	1122.92	1122.88	1122.84	1122.81	1122.77	1122.73
GIRDER 3	1123.42	1123.37	1123.33	1123.30	1123.26	1123.22	1123.18	1123.14	1123.10	1123.07	1123.03
TANGENT/CONST. JT.	1123.57	1123.53	1123.49	1123.45	1123.41	1123.37	1123.33	1123.29	1123.25	1123.22	1123.18
GIRDER 4	1123.71	1123.67	1123.63	1123.59	1123.55	1123.51	1123.47	1123.44	1123.40	1123.36	1123.33
GIRDER 5	1124.01	1123.97	1123.93	1123.89	1123.85	1123.81	1123.77	1123.73	1123.70	1123.66	1123.62
GIRDER 6	1124.30	1124.26	1124.22	1124.18	1124.14	1124.11	1124.07	1124.03	1123.99	1123.96	1123.92
S. EOD/GUTTER LINE	1124.37	1124.34	1124.30	1124.26	1124.22	1124.18	1124.14	1124.11	1124.07	1124.03	1123.99



S411, S514, S629, S630



SS901

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

SUPERSTRUCTURE DETAILS

SHEET 13

75

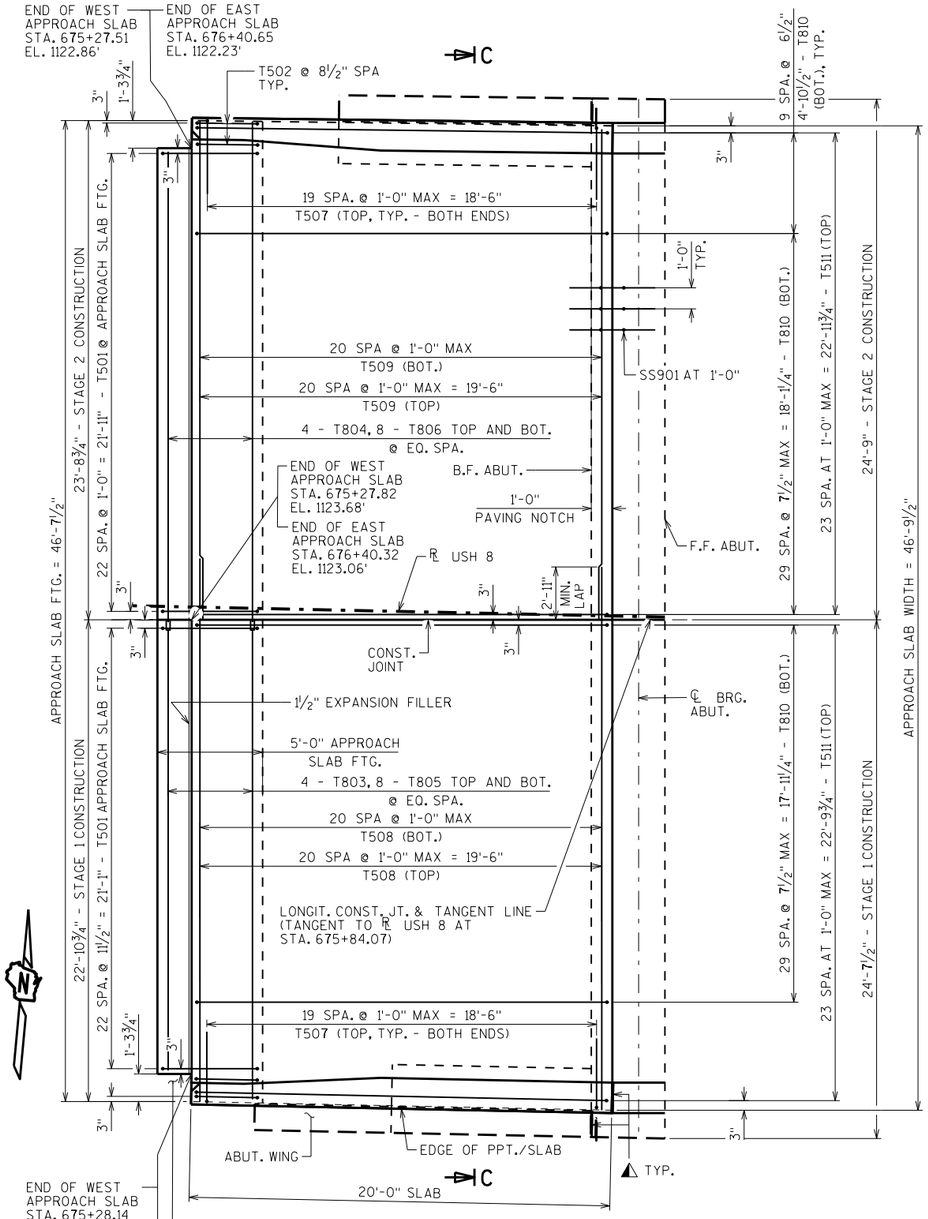
SCALE = 1.33

8

8

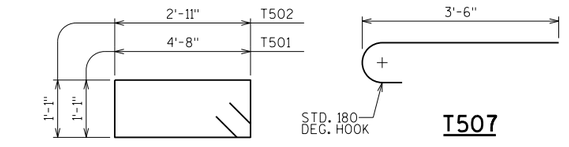
STATE PROJECT NUMBER

1580-00-70



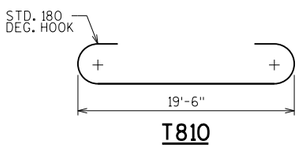
PLAN

WEST APPROACH SLAB SHOWN
EAST APPROACH SLAB SIMILAR



T501, T502

T507

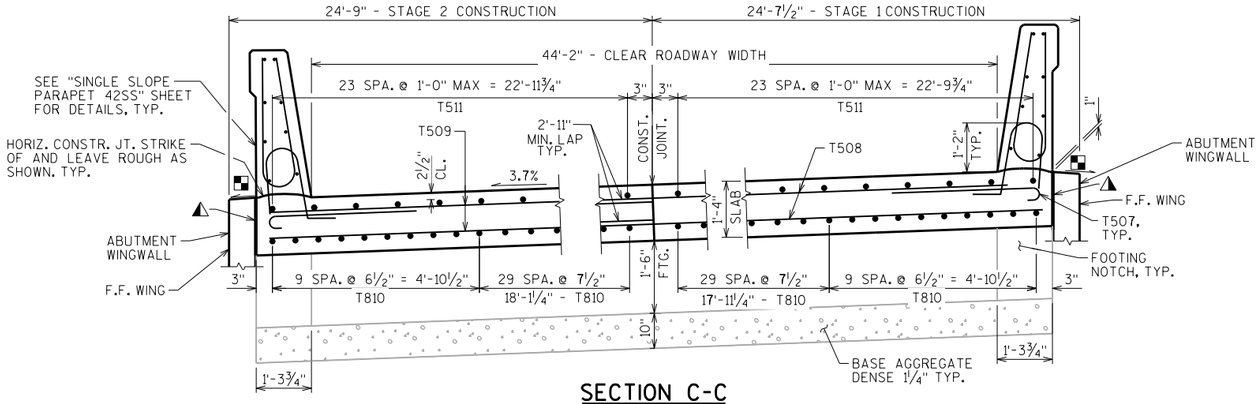


T810

BILL OF BARS

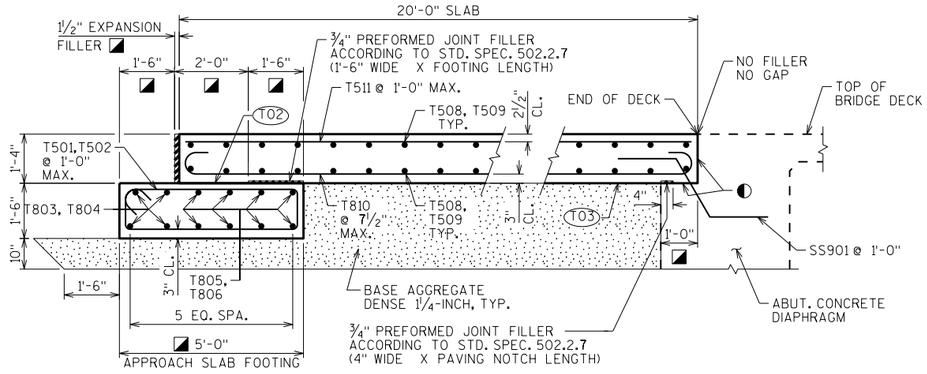
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D. WEST	NO. REQ'D. EAST	LENGTH	BENT	BAR SERIES	LOCATION
T501	X	46	46	12'-2"	X		APPROACH SLAB FOOTING - STIRRUP
T502	X	4	4	8'-8"	X		APPROACH SLAB FOOTING - STIRRUP - END
T803	X	4	4	21'-5"			APPROACH SLAB FOOTING - TRANS. - END - STAGE 1
T804	X	4	4	22'-3"			APPROACH SLAB FOOTING - TRANS. - END - STAGE 2
T805	X	8	8	22'-8"			APPROACH SLAB FOOTING - TRANS. STAGE 1
T806	X	8	8	23'-6"			APPROACH SLAB FOOTING - TRANS. STAGE 2
T507	X	40	40	4'-1"	X		APPROACH SLAB - TRANS. - TOP - WING
T508	X	42	42	26'-1"			APPROACH SLAB - TRANS. STAGE 1
T509	X	42	42	23'-6"			APPROACH SLAB - TRANS. STAGE 2
T810	X	78	78	21'-4"	X		APPROACH SLAB - LONG. - BOTTOM
T511	X	48	48	19'-8"			APPROACH SLAB - LONG. - TOP

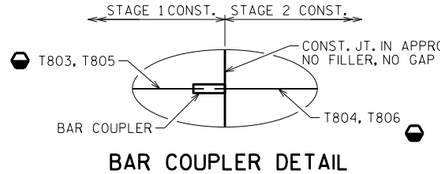


SECTION C-C

(LOOKING EAST)
WINGS NOT SHOWN FOR CLARITY



SECTION THRU APPROACH SLAB



BAR COUPLER DETAIL

BAR LENGTH HAS BEEN COMPUTED TO ℄ OF CONSTRUCTION JOINT AND SHALL BE MODIFIED TO BAR COUPLER MANUFACTURER RECOMMENDATIONS. BAR COUPLERS REQUIRED ON STAGE 1 SIDE OF CONSTRUCTION JOINT.

◐ APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH SURFACES PRIOR TO POURING STRUCTURAL APPROACH SLAB.

◪ MEASURED NORMAL TO ABUTMENT

◭ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NONSUSTAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE)

◩ SLOPE TO DRAIN

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

STRUCTURAL APPROACH SLAB

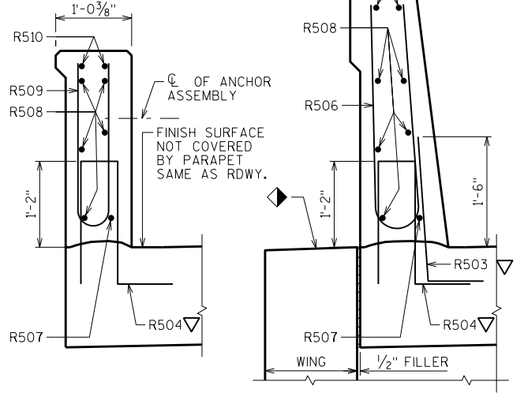
SHEET 14

76

8

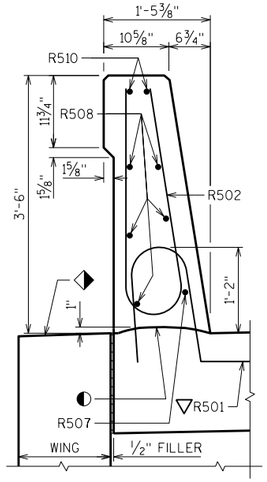
8

SCALE = 3.50

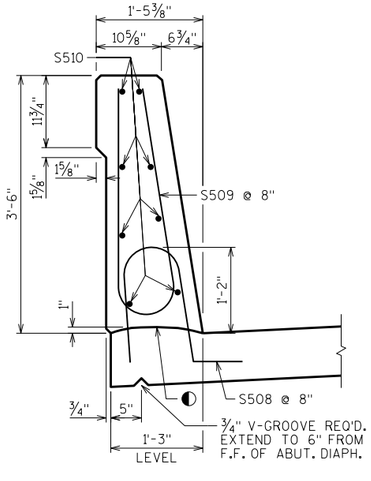


SECTION A-A

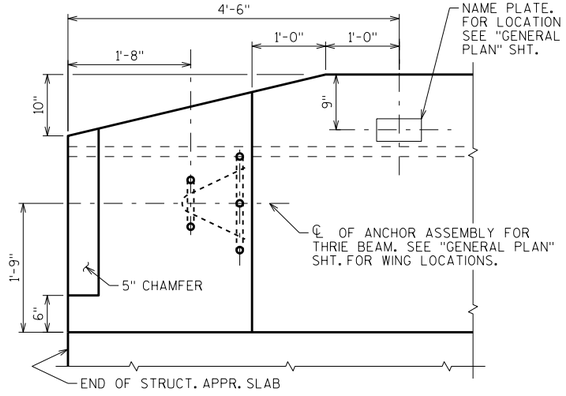
SECTION B-B



SECTION C-C

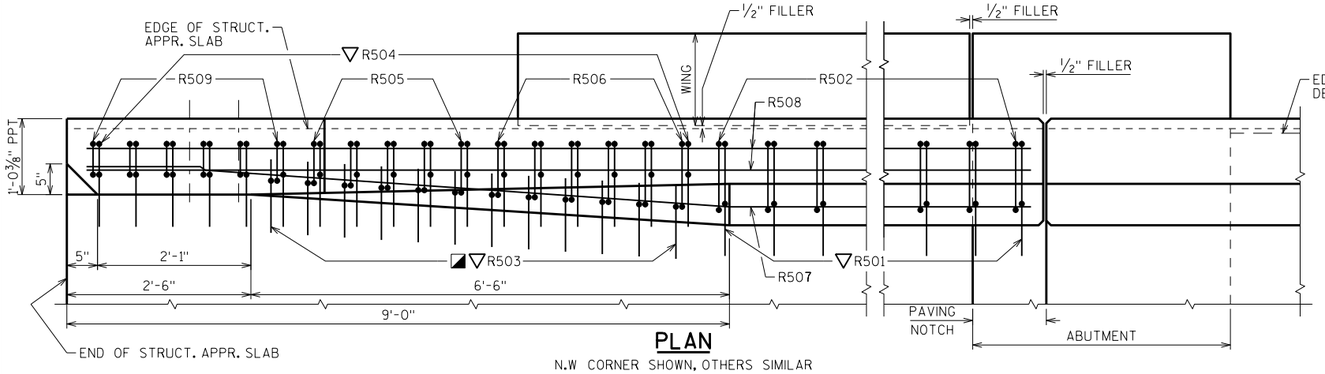


SECTION THRU PARAPET ON DECK



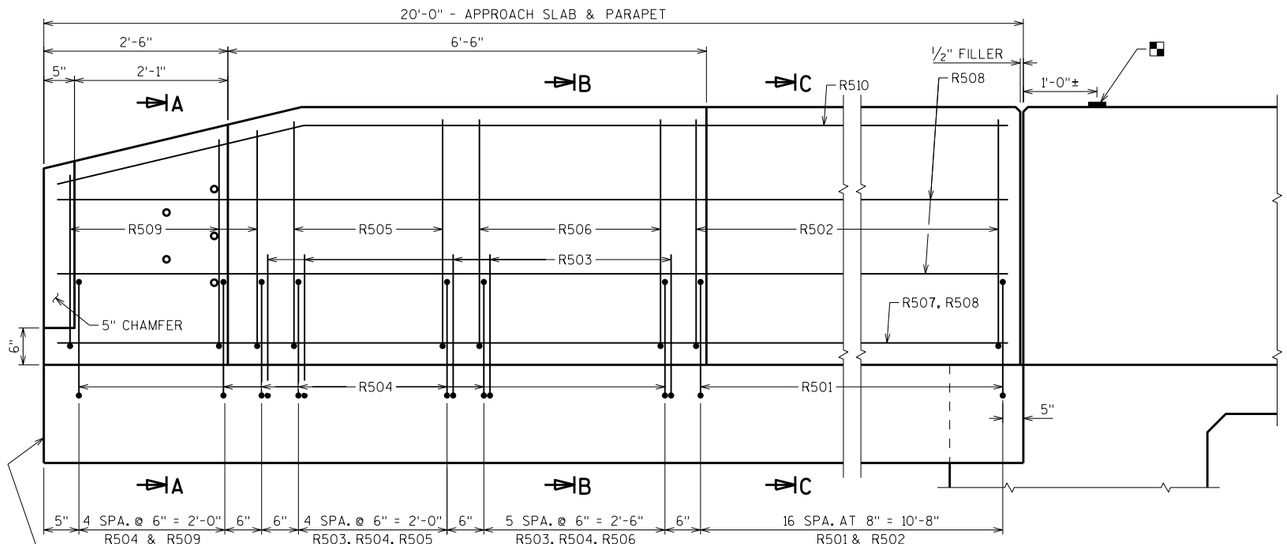
PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET



PLAN

N.W CORNER SHOWN, OTHERS SIMILAR



INSIDE ELEVATION

NW CORNER SHOWN, OTHERS SIMILAR
WING & STRUCTURAL APPROACH SLAB FOOTING NOT SHOWN FOR CLARITY

STATE PROJECT NUMBER

1580-00-70

BILL OF BARS

FOR ABUTMENT PARAPETS

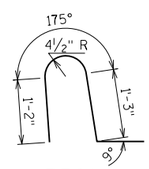
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4'-5"	X		PARAPET VERT.
R502	X	34	34	6'-8"	X		PARAPET VERT.
R503	X	24	24	2'-9"	X		PARAPET VERT.
R504	X	34	34	4'-4"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-6"	X		PARAPET HORIZ.
R508	X	10	10	19'-6"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	4	19'-6"	X		PARAPET HORIZ.

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

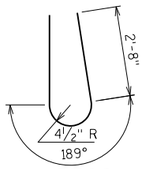
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

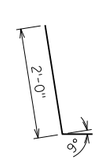
BUNDLE AND TAG EACH SERIES SEPARATELY.



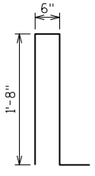
R501



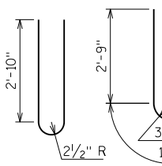
R502



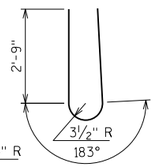
R503



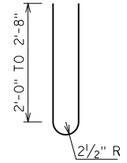
R504



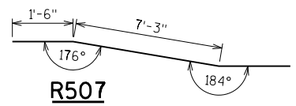
R505



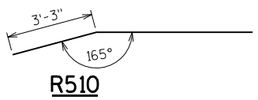
R506



R509



R507



R510

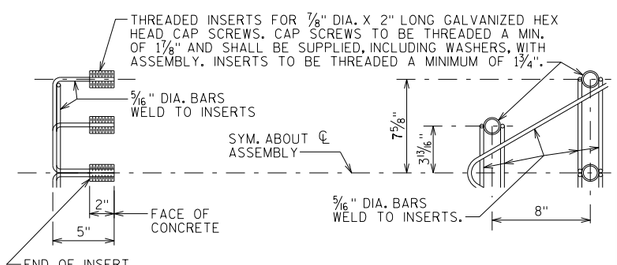
BENCH MARK CAP. FOR LOCATION SEE 'GENERAL PLAN' SHEET

◐ CONST. JOINT - STRIKE OFF AS SHOWN

◆ SLOPE FOR DRAINAGE

◪ USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-54-131

DRAWN BY EJV | PLANS CK'D. DMB

SINGLE SLOPE PARAPET 42SS

SHEET 15

77

SCALE = 1.00

8

8

USH 8

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
672+50	68.42	11.05	0.00	0.00	0.00	0.00	0.00
673+00	115.04	14.31	170.00	23.00	170.00	29.90	140.10
673+16.87	128.69	14.48	76.00	9.00	246.00	41.60	204.40
673+50	89.38	18.49	134.00	20.00	380.00	67.60	312.40
673+75.07	126.23	22.04	100.00	19.00	480.00	92.30	387.70
674+00.07	123.87	21.74	116.00	20.00	596.00	118.30	477.70
674+25.07	77.36	21.77	93.00	20.00	689.00	144.30	544.70
674+36.87	76.06	57.31	34.00	17.00	723.00	166.40	556.60
674+61.87	74.15	114.96	70.00	80.00	793.00	270.40	522.60
674+86.87	75.89	67.82	69.00	85.00	862.00	380.90	481.10
675+00	71.45	65.78	36.00	32.00	898.00	422.50	475.50
675+27.82	66.58	0.00	71.00	34.00	969.00	466.70	502.30
675+83.87	0.00	0.00	69.00	0.00	1038.00	466.70	571.30
STRUCTURE							
676+40.32	62.27	0.00	0.00	0.00	1335.00	466.70	571.30
676+50	67.30	9.07	23.00	2.00	1061.00	469.30	591.70
676+80.57	64.26	29.92	74.00	22.00	1135.00	497.90	637.10
677+00	60.78	131.37	45.00	58.00	1180.00	573.30	606.70
677+05.57	60.23	181.15	12.00	32.00	1192.00	614.90	577.10
677+30.57	61.42	293.93	56.00	220.00	1248.00	900.90	347.10
677+43.77	61.50	276.44	30.00	139.00	1278.00	1081.60	196.40
677+50	61.50	256.79	14.00	62.00	1292.00	1162.20	129.80
677+68.77	61.33	233.04	43.00	170.00	1335.00	1383.20	-48.20
677+93.77	61.02	334.21	57.00	263.00	1392.00	1725.10	-333.10
678+00	61.00	327.36	14.00	76.00	1406.00	1823.90	-417.90
678+50.57	60.51	253.20	114.00	544.00	1520.00	2531.10	-1011.10
679+00	59.45	205.89	110.00	420.00	1630.00	3077.10	-1447.10

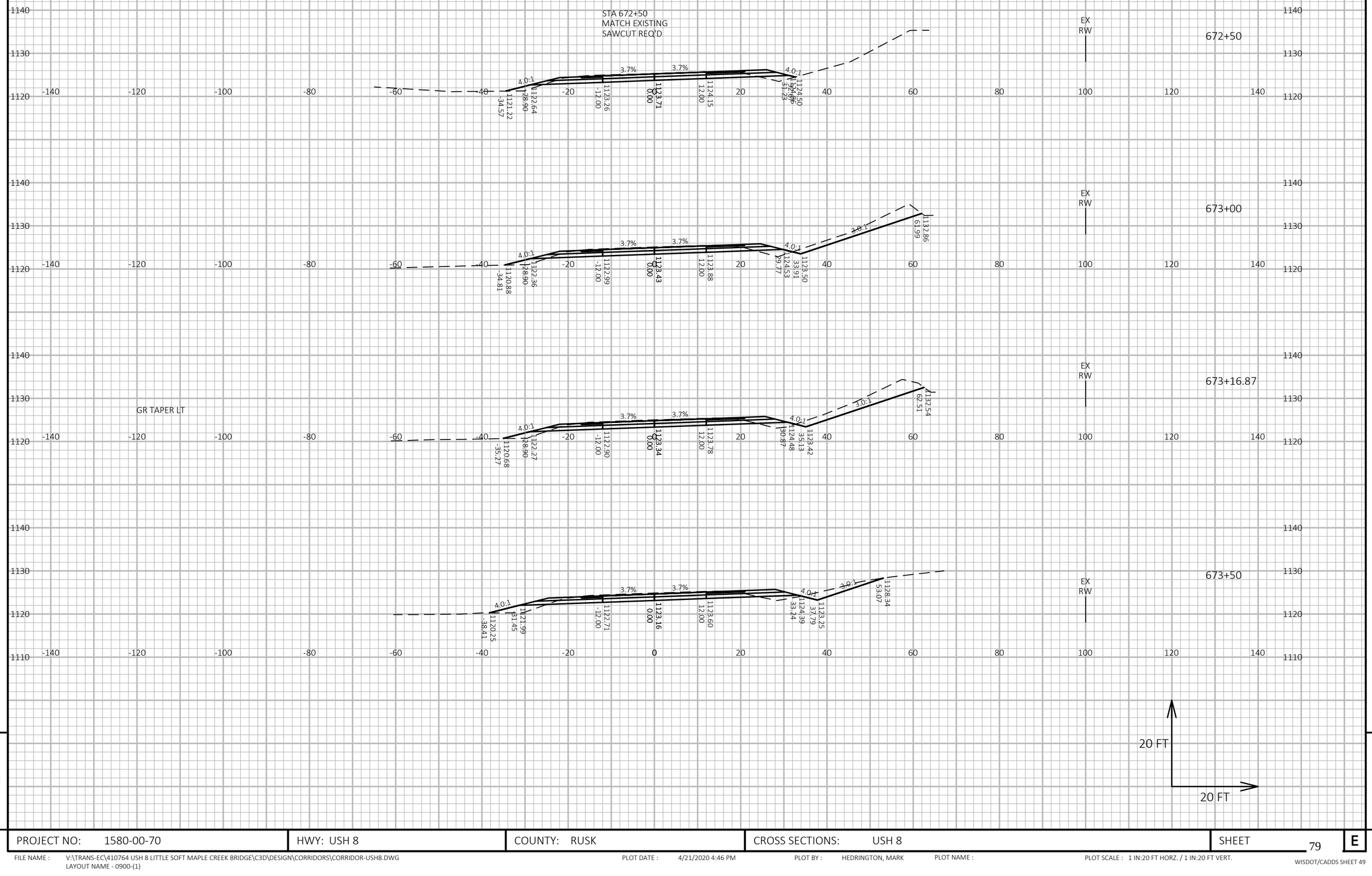
USH 8 TEMPORARY

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
672+00	14.26	0.45	0.00	0.00	0.00	0.00	0.00
672+50	13.32	4.20	26.00	4.00	26.00	5.20	20.80
673+00	11.86	6.10	23.00	10.00	49.00	18.20	30.80
673+50	12.39	7.09	22.00	12.00	71.00	33.80	37.20
674+00	13.93	3.06	24.00	9.00	95.00	45.50	49.50
674+50	15.60	0.89	27.00	4.00	122.00	50.70	71.30
675+00	13.88	50.44	27.00	48.00	149.00	113.10	35.90
675+50	13.47	36.92	25.00	81.00	174.00	218.40	-44.40
675+83.87	13.06	9.35	17.00	29.00	191.00	256.10	-65.10
676+00	13.07	12.51	8.00	7.00	199.00	265.20	-66.20
676+50	12.36	13.91	24.00	24.00	223.00	296.40	-73.40
677+00	10.42	35.36	21.00	46.00	244.00	356.20	-112.20
677+50	11.26	53.54	20.00	82.00	264.00	462.80	-198.80
678+00	11.37	58.34	21.00	104.00	285.00	598.00	-313.00
678+50	10.71	57.35	20.00	107.00	305.00	737.10	-432.10
679+00	10.46	59.57	20.00	108.00	325.00	877.50	-552.50
679+50	9.99	56.44	19.00	107.00	344.00	1016.60	-672.60
680+00	9.13	50.04	18.00	99.00	362.00	1145.30	-783.30
680+50	7.63	60.90	16.00	103.00	378.00	1279.20	-901.20

NOTE:
MASS ORDINATE DOES NOT INCLUDE FILL MATERIAL REQUIRED FOR UNUSABLE PAVEMENT MATERIAL. SEE EARTHWORK SUMMARY.

USH 8 DRWY

STATION	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
	CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.30	MASS ORDINATE
18+50	9.22	8.10	0.00	0.00	0.00	0.00	0.00
18+75	12.22	30.71	10.00	18.00	10.00	23.40	-13.40
19+00	3.45	135.36	7.00	77.00	17.00	123.50	-106.50
19+25	0.00	461.67	2.00	276.00	19.00	482.30	-463.30
19+50	0.00	556.94	0.00	472.00	19.00	1095.90	-1076.90
19+75	0.00	88.99	0.00	299.00	19.00	1484.60	-1465.60



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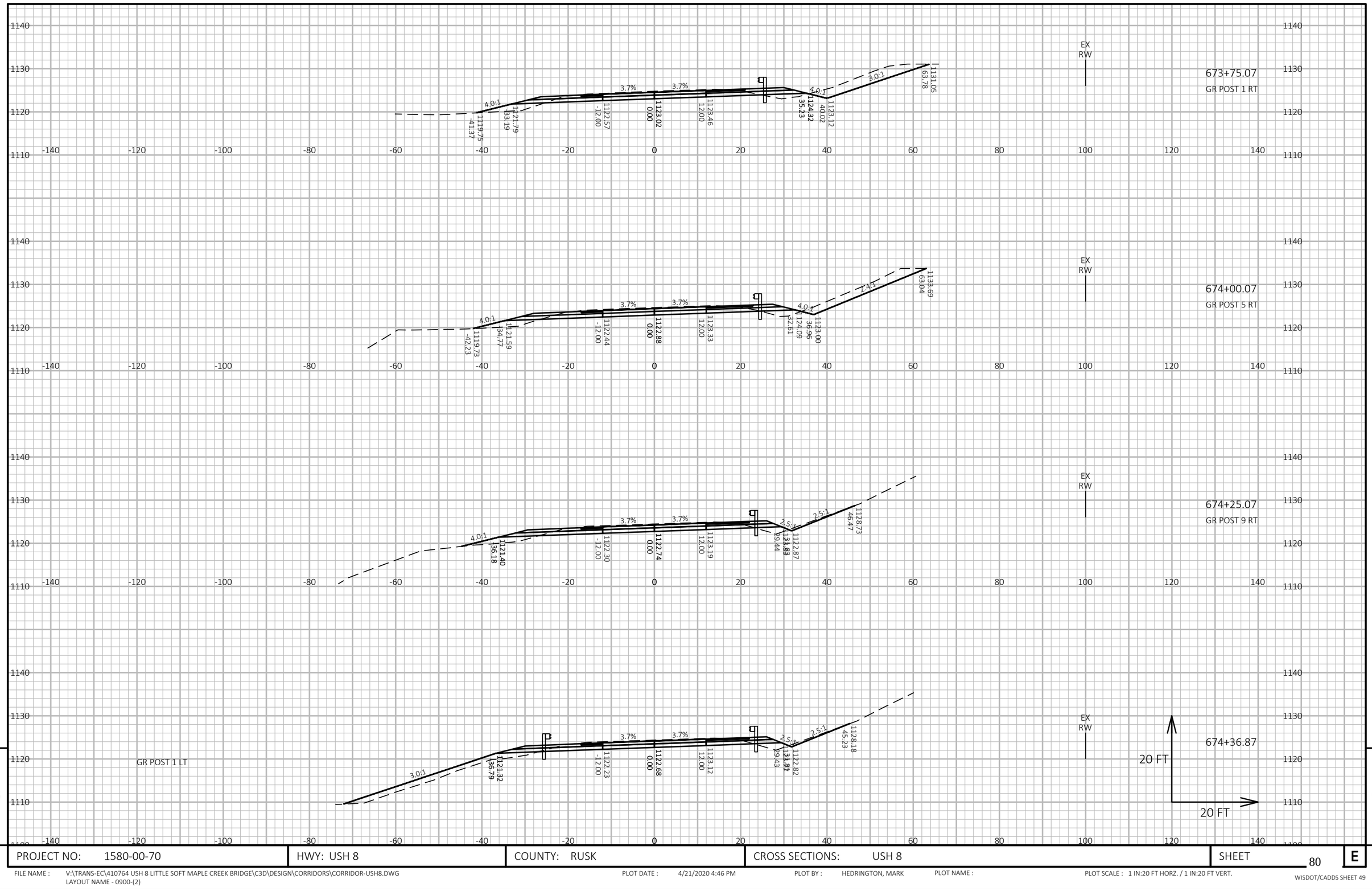
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 79	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8.DWG
LAYOUT NAME - 0900-(1)

PLOT DATE : 4/21/2020 4:46 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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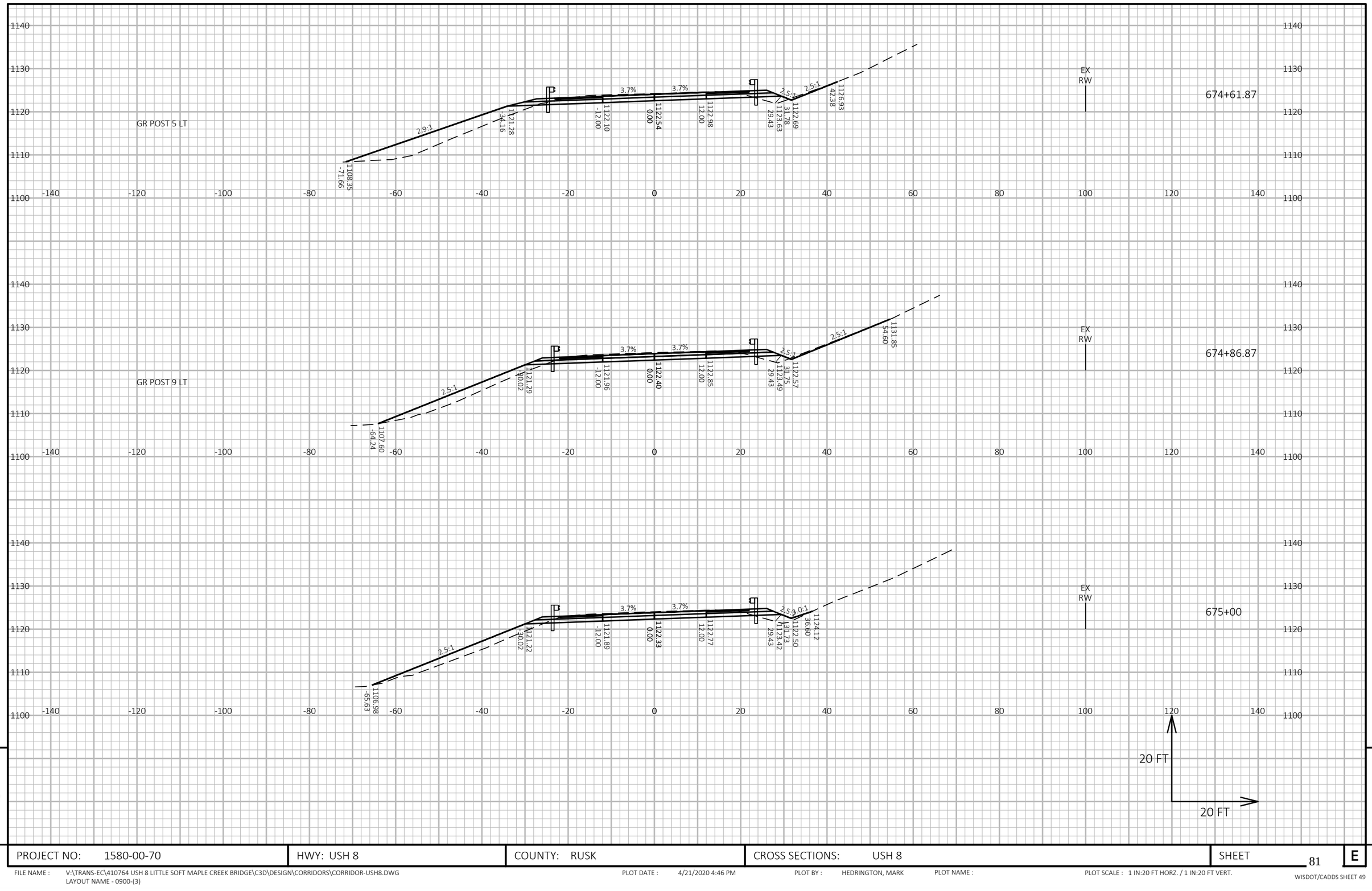
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 80	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8.DWG
LAYOUT NAME - 0900-(2)

PLOT DATE : 4/21/2020 4:46 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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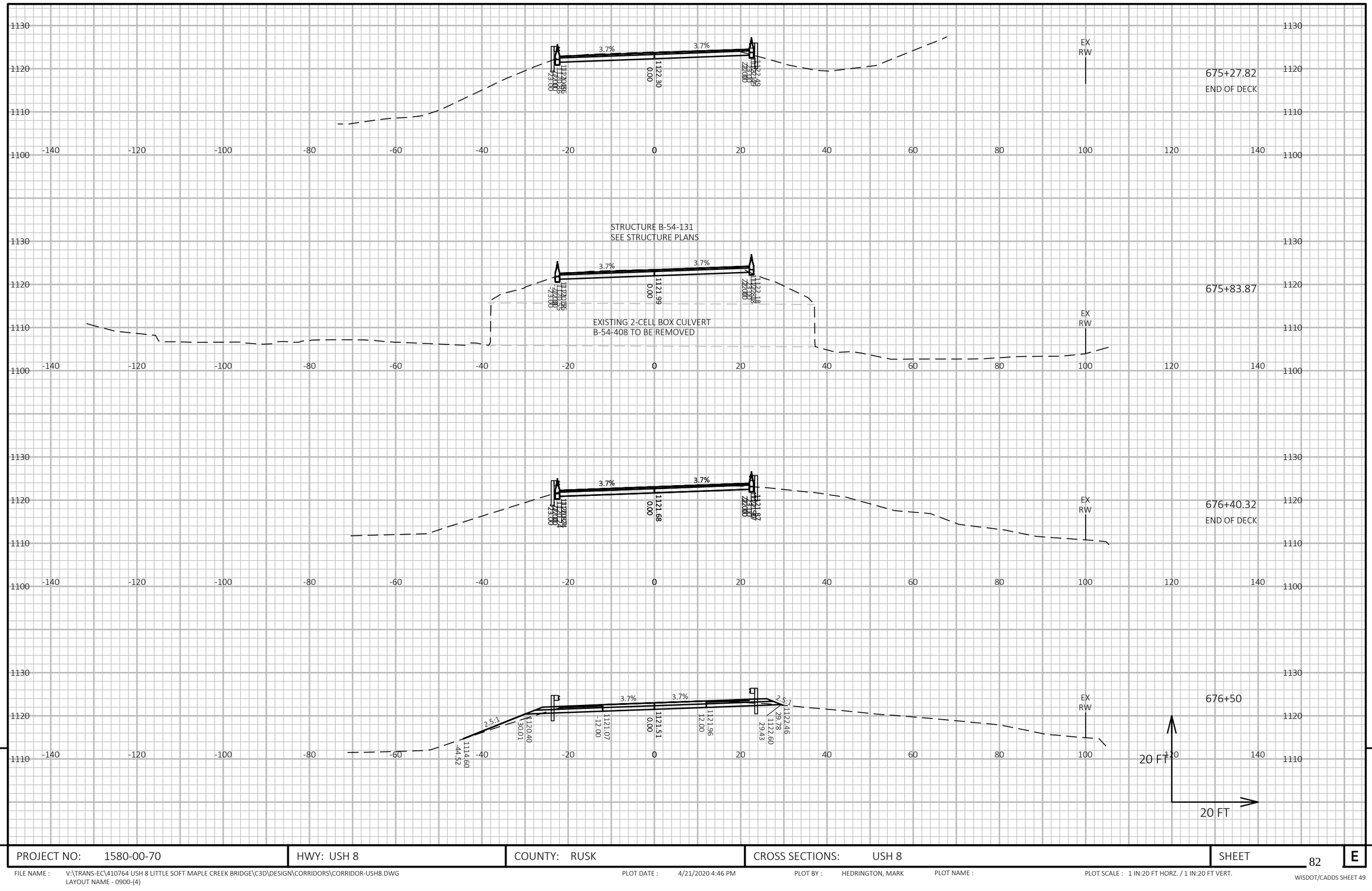
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 81	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8.DWG
LAYOUT NAME - 0900-(3)

PLOT DATE : 4/21/2020 4:46 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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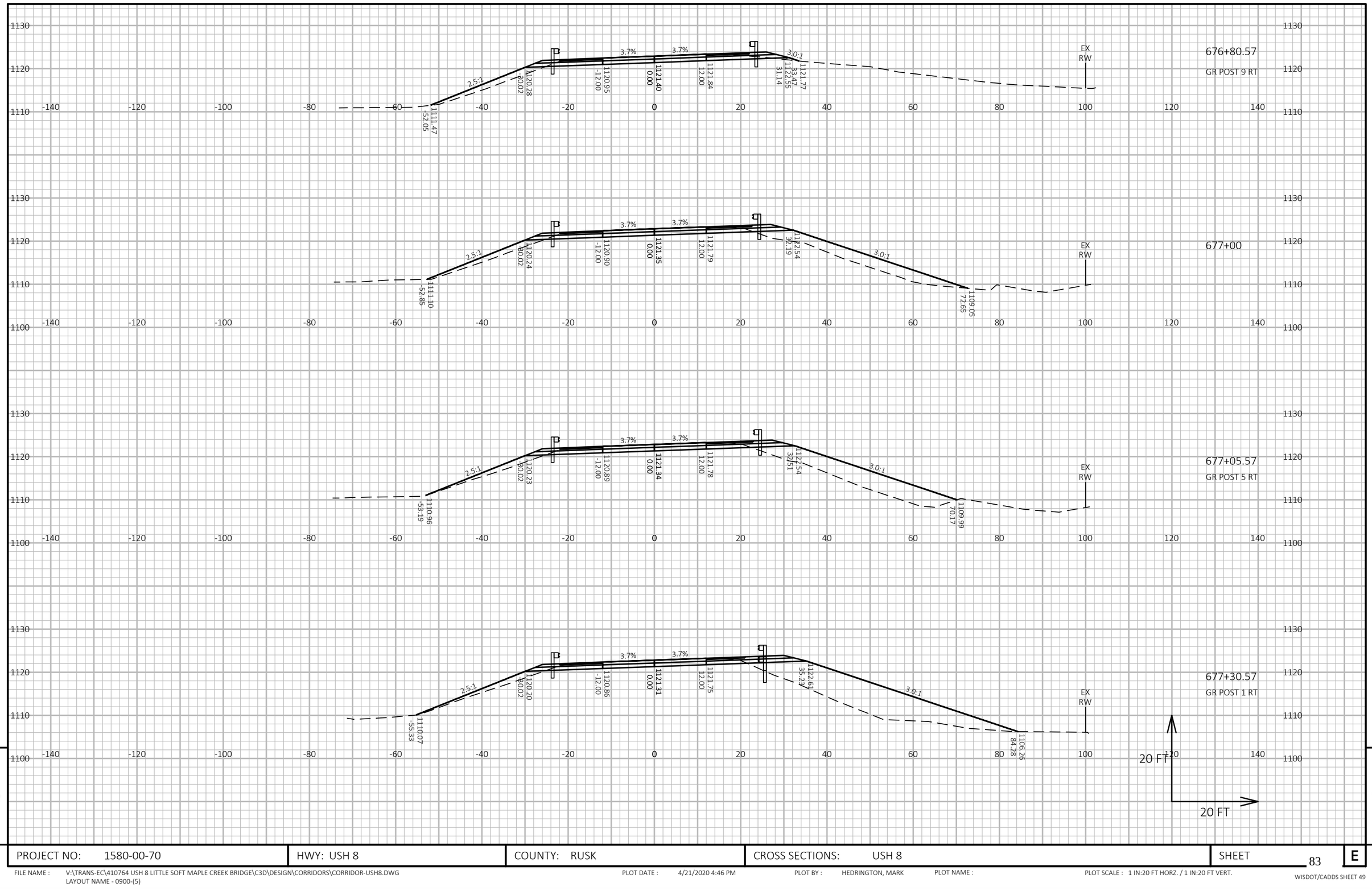
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 82	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8.DWG
LAYOUT NAME - 0900-(4)

PLOT DATE : 4/21/2020 4:46 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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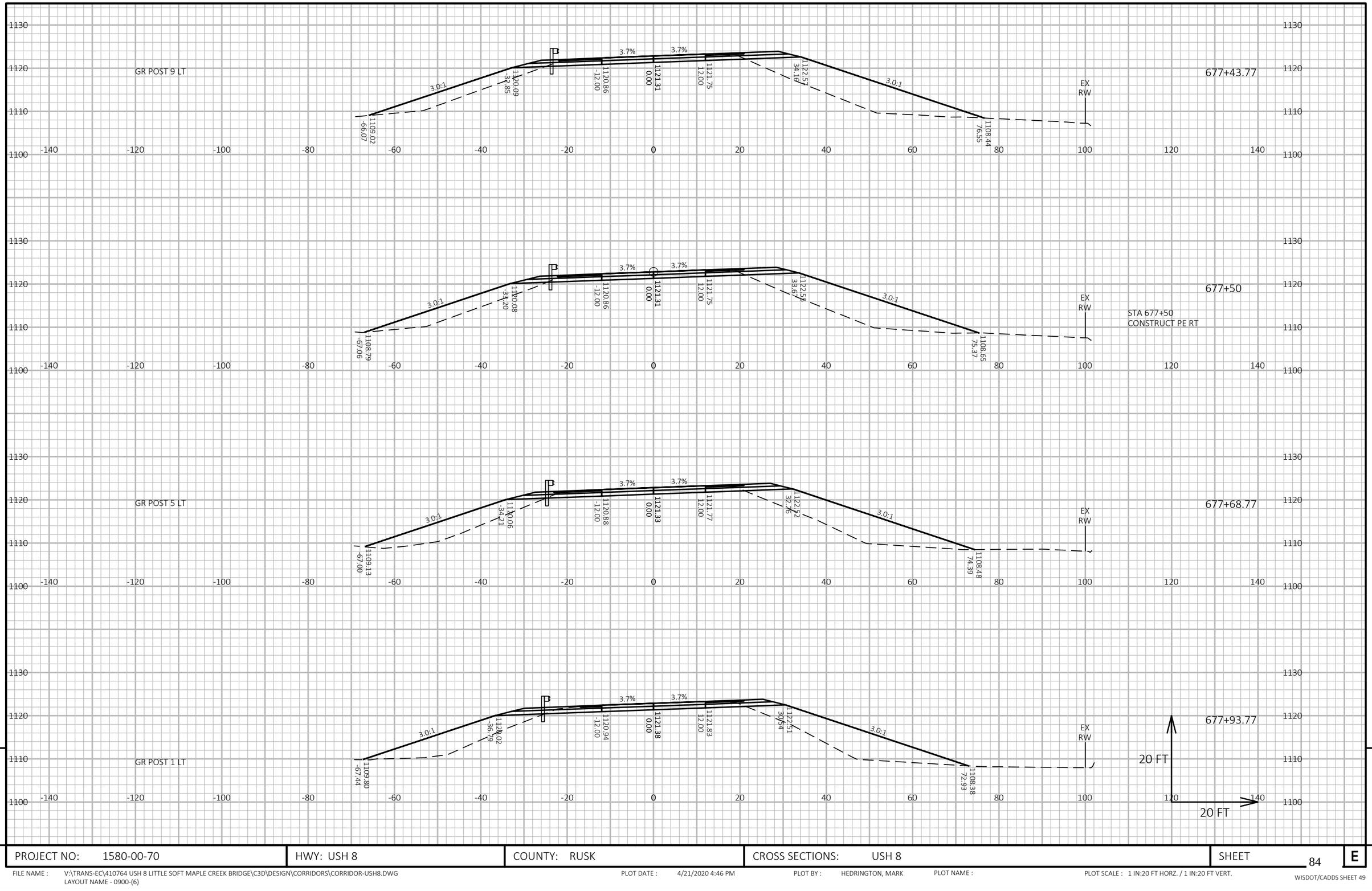
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 83	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8.DWG
LAYOUT NAME - 0900-(5)

PLOT DATE : 4/21/2020 4:46 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

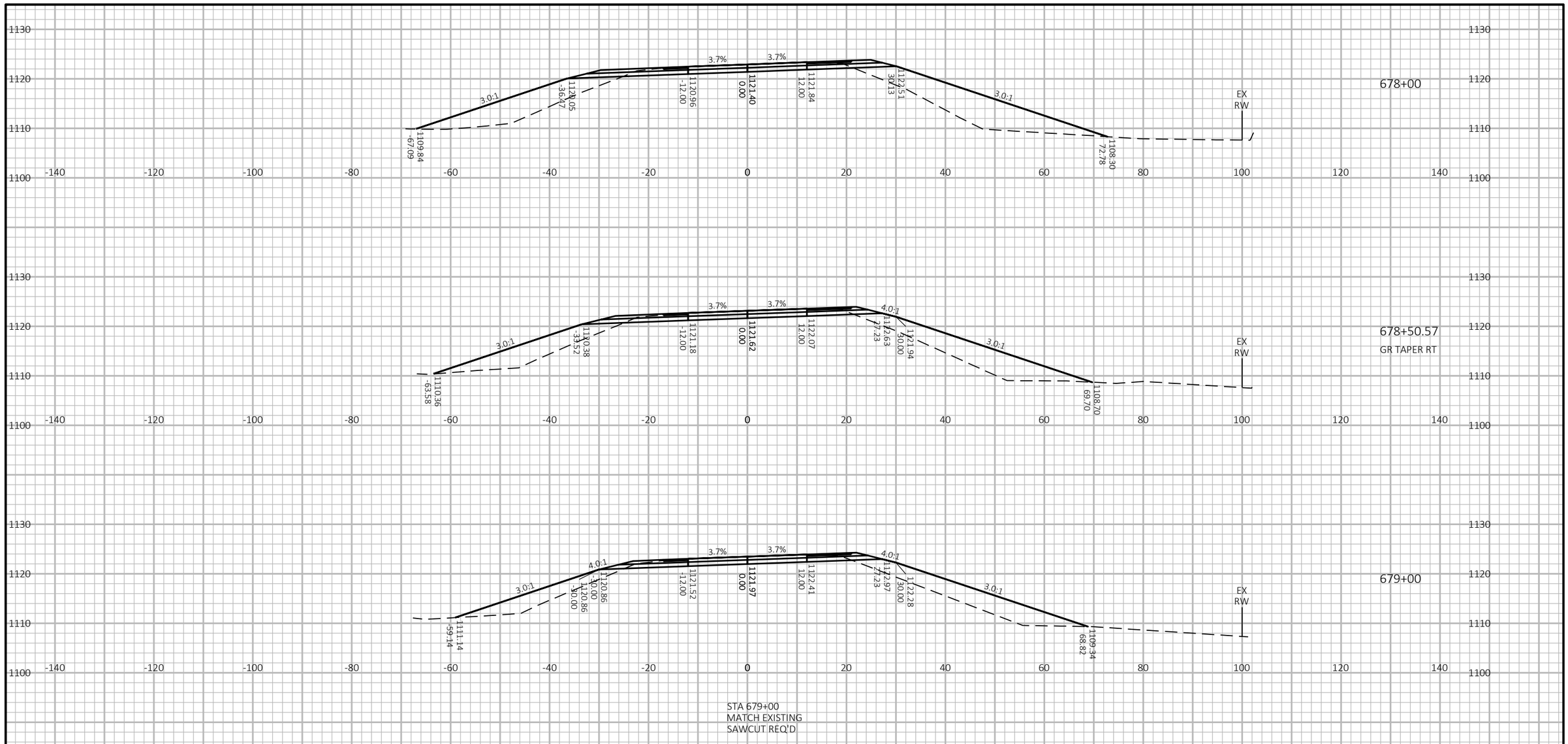


PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 84	E

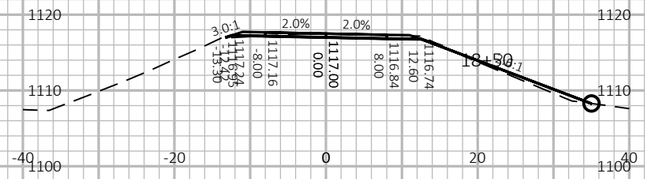
FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8.DWG
LAYOUT NAME - 0900-(6)

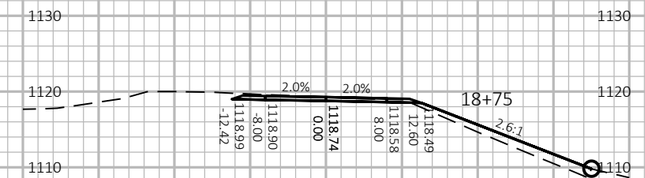
PLOT DATE : 4/21/2020 4:46 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

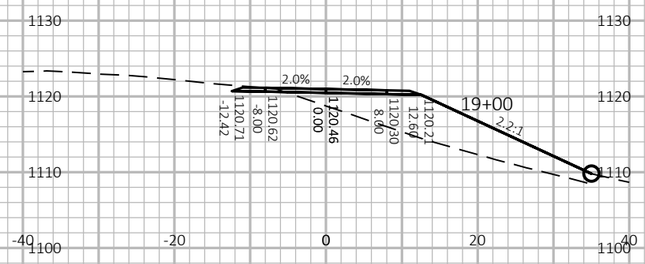
WISDOT/CADDS SHEET 49

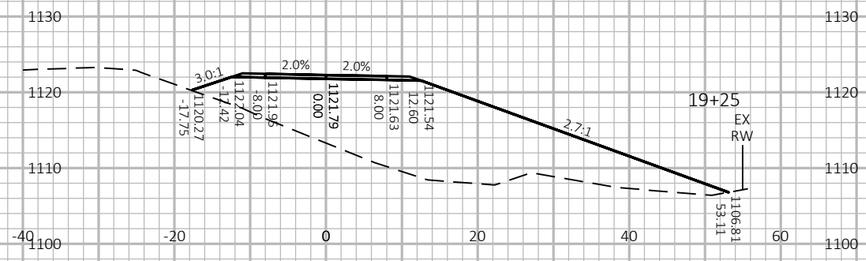


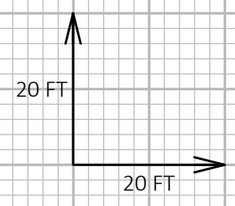
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: USH 8	SHEET 85	E











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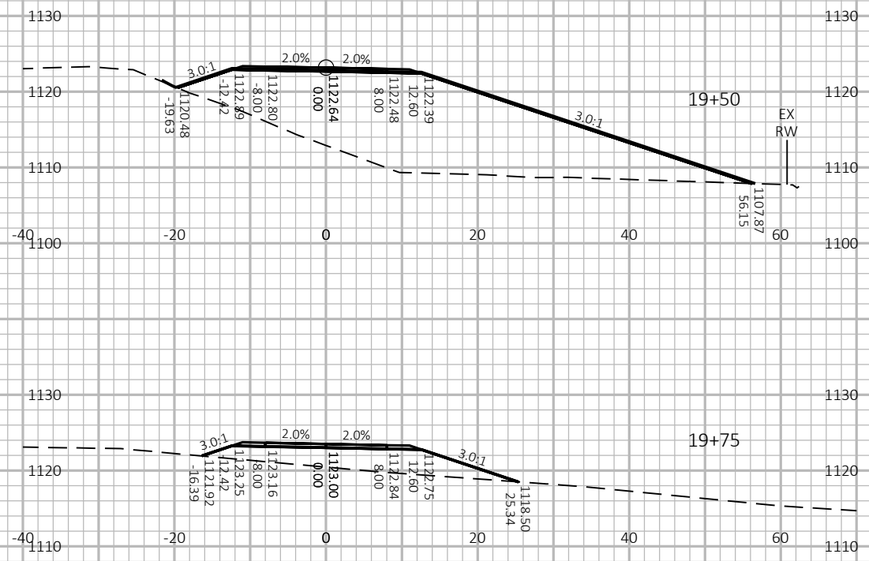
9

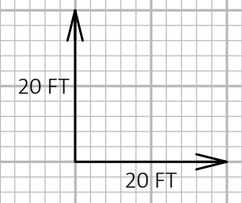
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: DRWY	SHEET 86	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8-DRWY.DWG
LAYOUT NAME - 0901-(1)

PLOT DATE : 2/27/2020 4:08 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49





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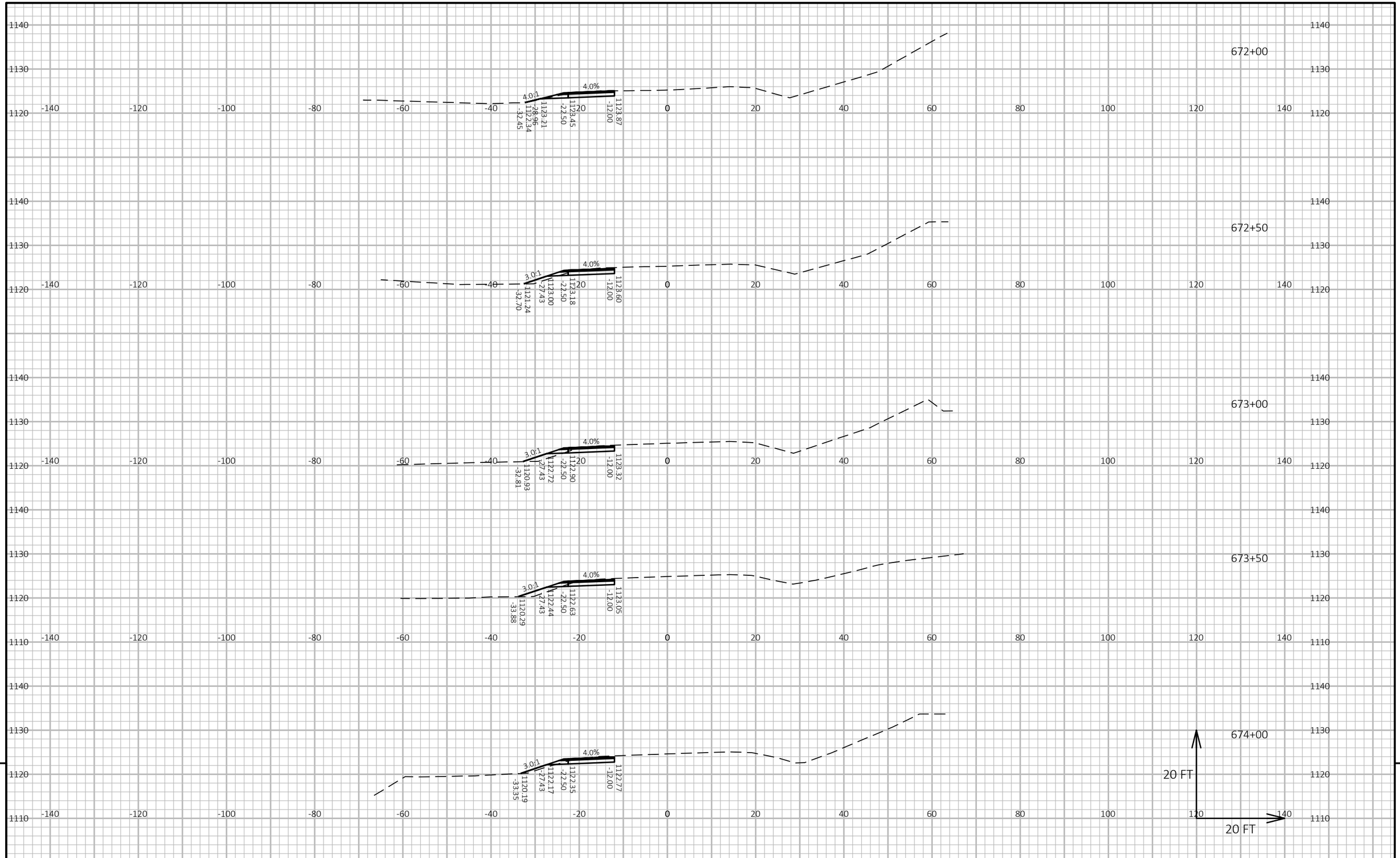
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: DRWY	SHEET 87	E

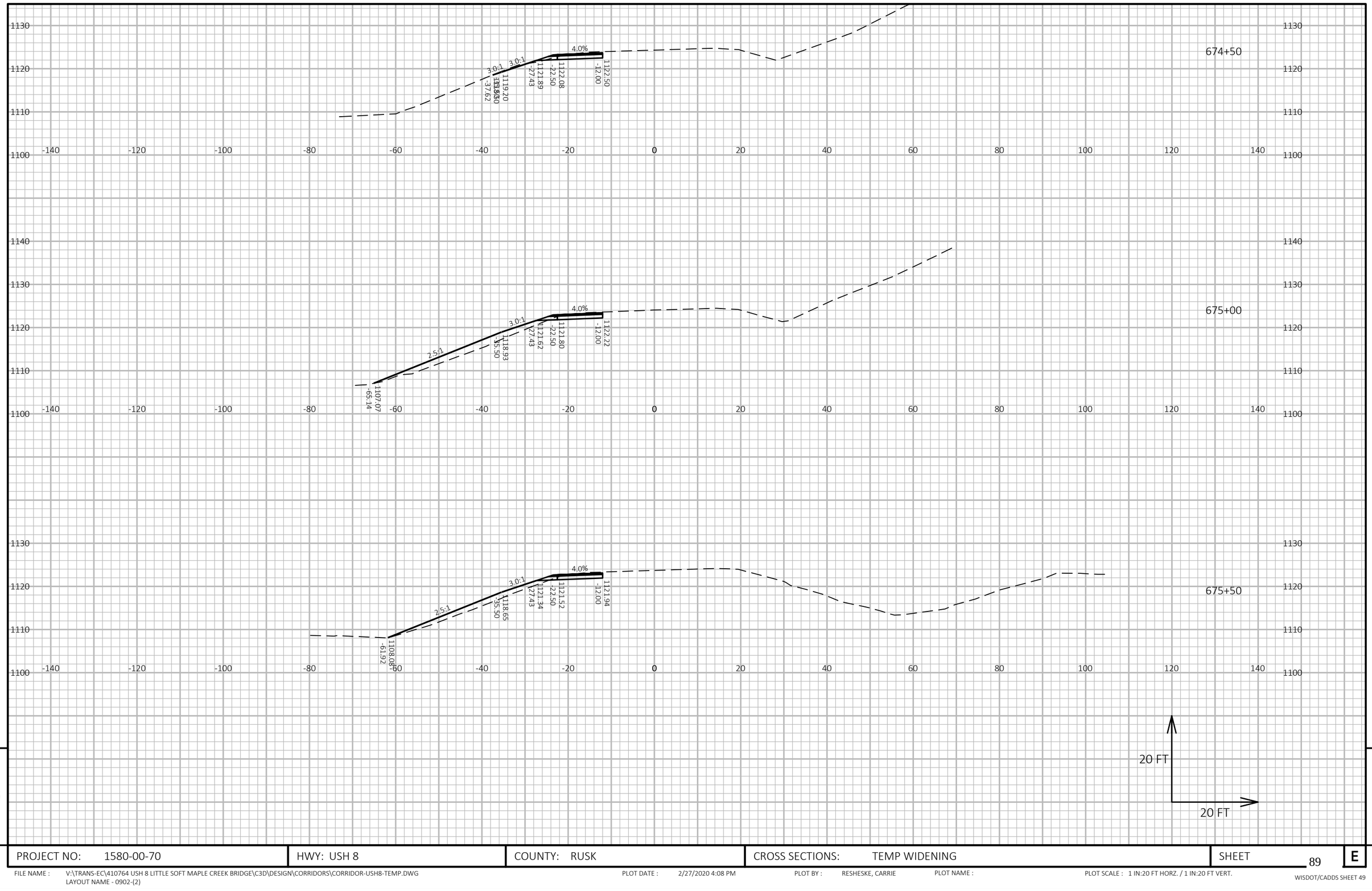


PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: TEMP WIDENING	SHEET 88	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8-TEMP.DWG
LAYOUT NAME - 0902-(1)

PLOT DATE : 2/27/2020 4:08 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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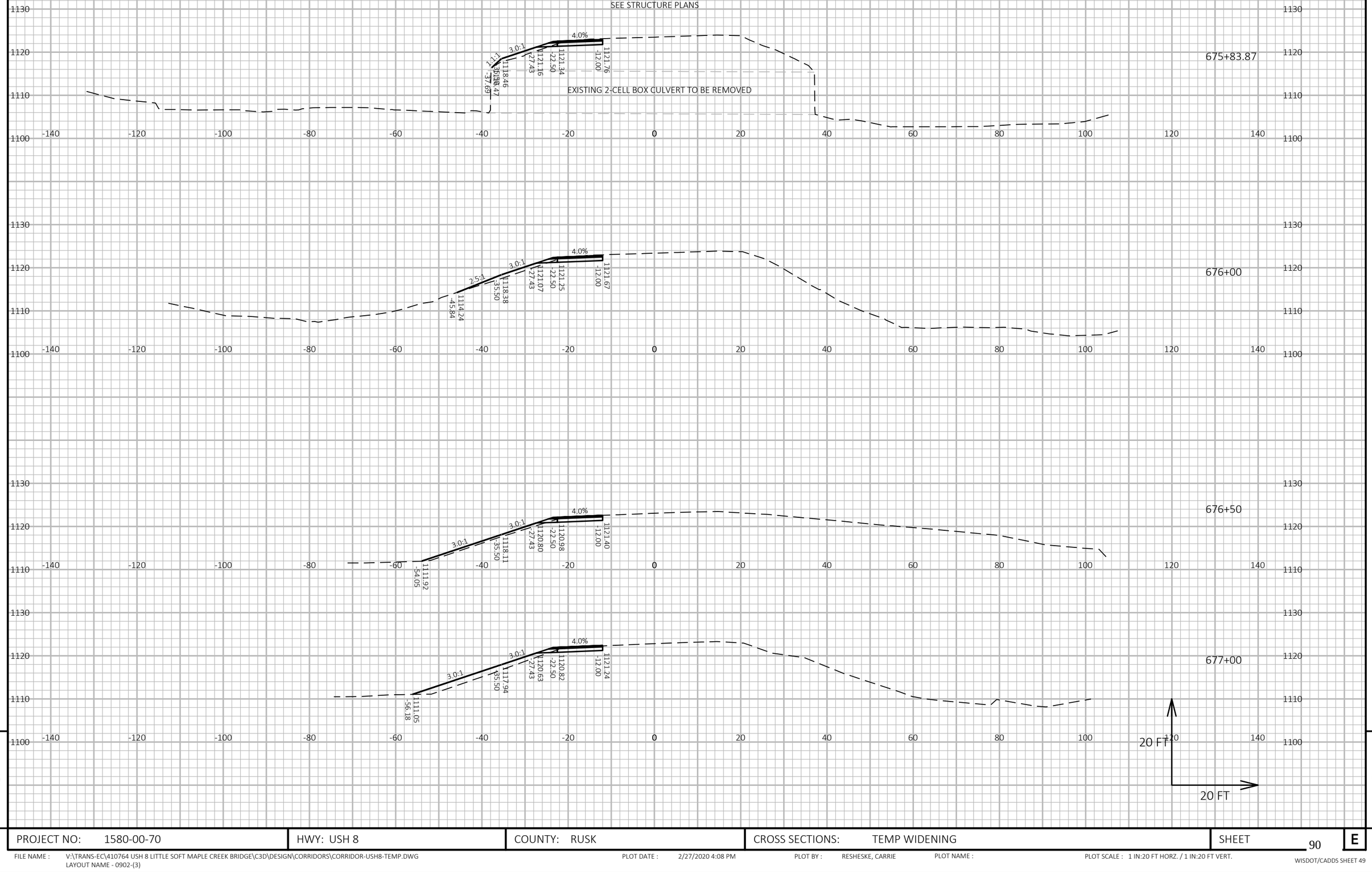
9

PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: TEMP WIDENING	SHEET 89	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8-TEMP.DWG
LAYOUT NAME - 0902-(2)

PLOT DATE : 2/27/2020 4:08 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

STRUCTURE B-54-131
SEE STRUCTURE PLANS



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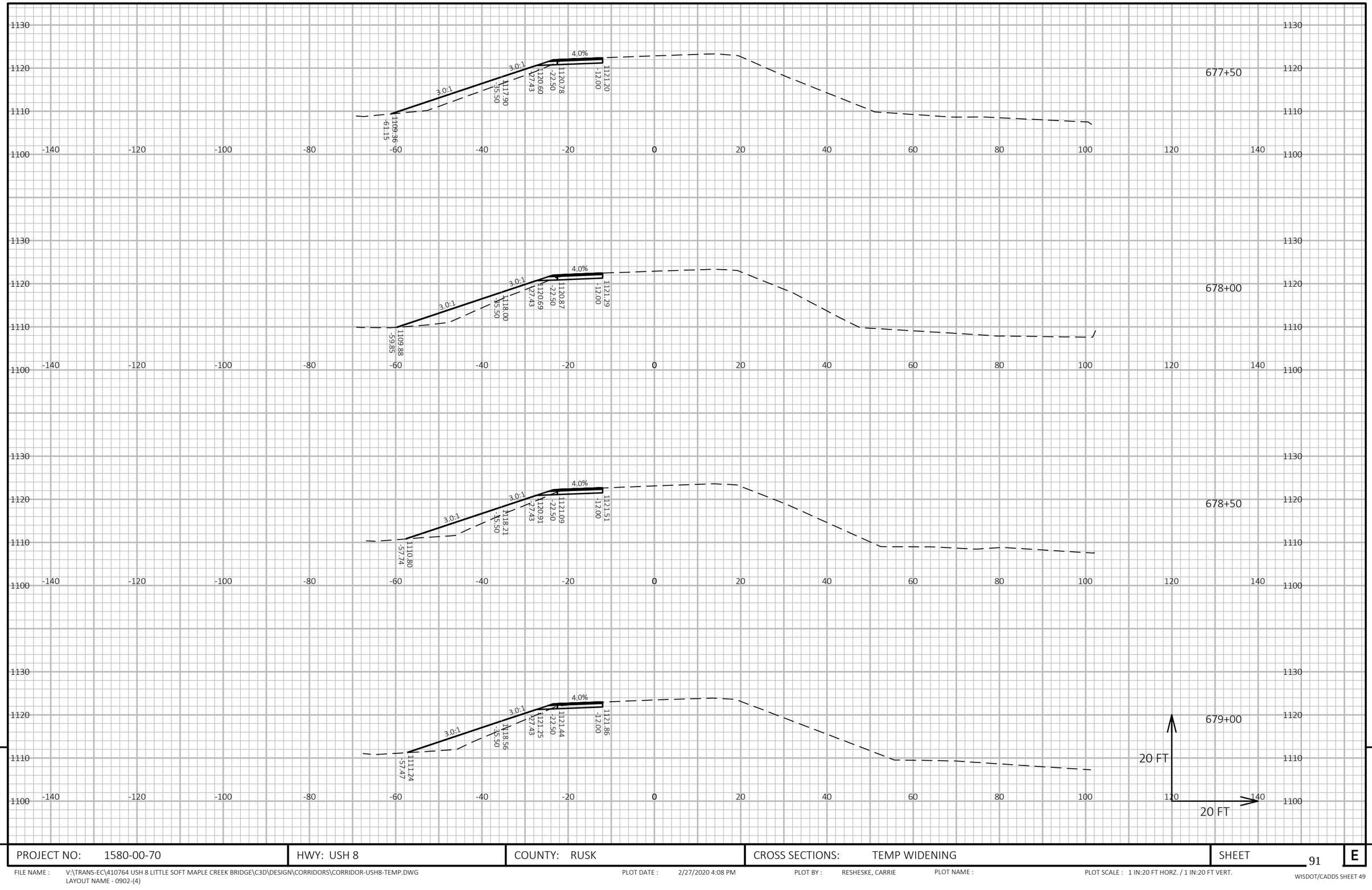
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: TEMP WIDENING	SHEET 90	E



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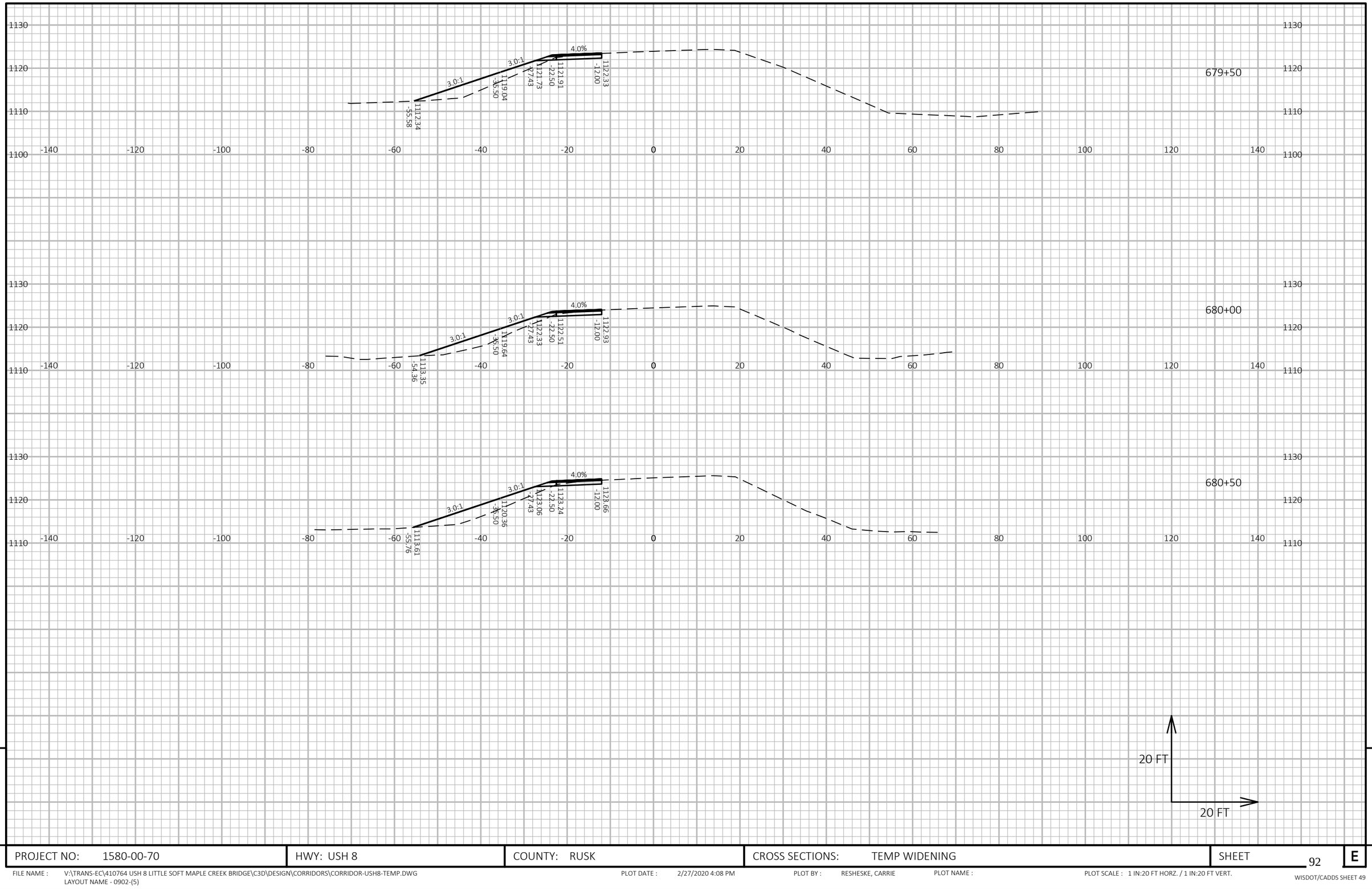
PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: TEMP WIDENING	SHEET 91	E

FILE NAME : V:\TRANS-EC\410764 USH 8 LITTLE SOFT MAPLE CREEK BRIDGE\C3D\DESIGN\CORRIDORS\CORRIDOR-USH8-TEMP.DWG
LAYOUT NAME - 0902-(4)

PLOT DATE : 2/27/2020 4:08 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 1580-00-70	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: TEMP WIDENING	SHEET 92	E

Notes

Wisconsin Department of Transportation

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