NWL

PROJECT ID: 8817-00-70

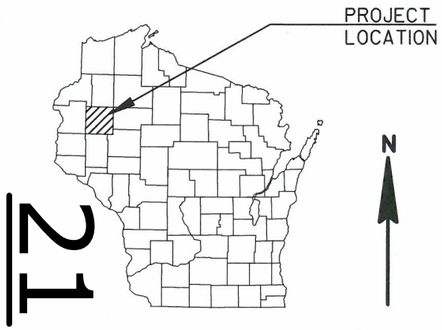
WITH: 8833-00-70

COUNTY: BARRON

FEB 2017

ORDER OF SHEETS

TOTAL SHEETS = 34



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH C - STH 48

SPRING CREEK BRIDGE B030200

CTH NN

BARRON COUNTY

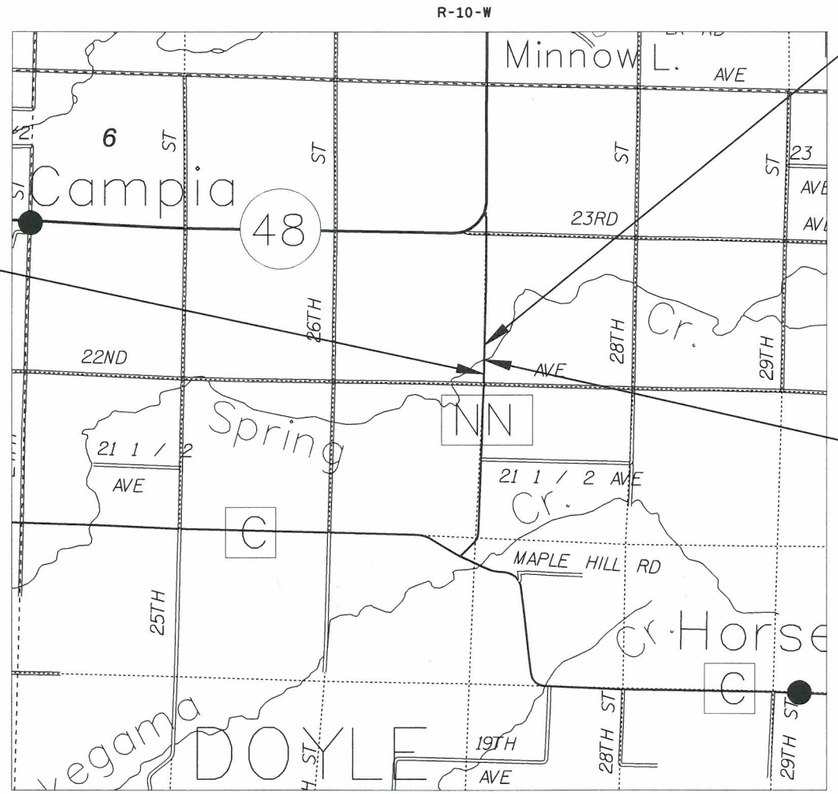
STATE PROJECT NUMBER
8817-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8817-00-70	WISC 2017035	1

DESIGN DESIGNATION

A.A.D.T.	(2017)	= 270
A.A.D.T.	(2037)	= 300
D.H.V.		= 86
D.D.		= 60/40
T.		= 10.8%
DESIGN SPEED		= 60 MPH
ESALS		= 51,100

BEGIN PROJECT
STA 8+75
Y= 142,996.928
X= 369,499.445



END PROJECT
STA 11+25
Y= 143,246.927
X= 369,498.890

STRUCTURE B030200

T-35-N

LAYOUT

SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.047 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BARRON COUNTY, NAD83 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
FENCE LINE		**UTILITIES**	
SLOPE INTERCEPT		OVERHEAD	OH
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		TELEVISION	TV
WOODED OR SHRUB AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

ACCEPTED FOR BARRON COUNTY

DATE: 7/18/16 (Signature)

Barron (Title of Offical)

ORIGINAL PLANS PREPARED BY

CORRE — Structural Environmental Municipal Transportation

1902 WARDEN ROAD
EAU CLAIRE, WI 54703
(608)828-1011
www.correinc.com

WISCONSIN KEVIN L. MEYER E-38309-006 ELK MOUND WI PROFESSIONAL ENGINEER

DATE: 7/18/16 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: CORRE, INC.

Designer: CORRE, INC.

Management Conultant: KNIGHT E/A, INC.

APPROVED FOR THE DEPARTMENT

DATE: 7/25/16

MANAGEMENT CONSULTANT SIGNATURE

E

UTILITY CONTACTS

* CENTURYLINK - COMMUNICATION LINE
KYLE SCHLAMPP
20 S. WILSON AVE.T
RICE LAKE, WI 54868
(715) 234-5573
KYLE.SCHLAMPP@CENTURYLINK.COM

* XCEL ENERGY - ELECTRICITY
STACEY HAUGEN
2911 S. PIONEER AVENUE
RICE LAKE, WI 54868
(715) 236-5721
STACEY.RAETHER@XCELENERGY.COM

* DENOTES UTILITIES THAT ARE DIGGERS HOTLINE MEMBERS

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

DNR CONTACT

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

CONSULTANT CONTACT

CORRE, INC.
1802 WARDEN STREET
EAU CLAIRE, WI 54703
KEVIN MEYER, P.E.
715-299-1894
kmeyer@correinc.com

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAVD 88.

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

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

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, AND SEEDED.

BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

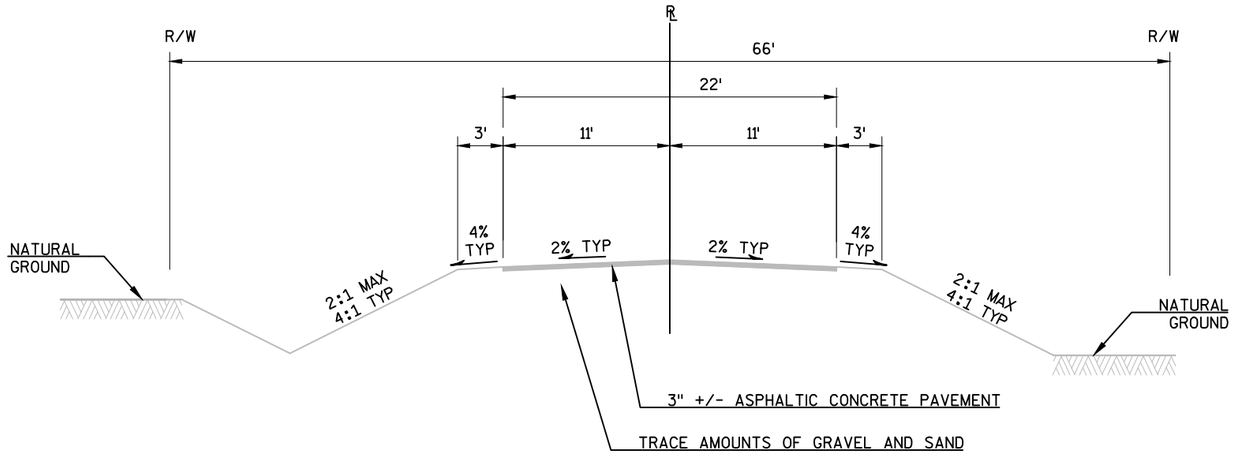
UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS, EXACT LOCATIONS WILL BE DETERMINED BY THE E.C.I.P AND APPROVED BY THE ENGINEER IN THE FIELD. SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS.

RUNOFF COEFFICIENT TABLE

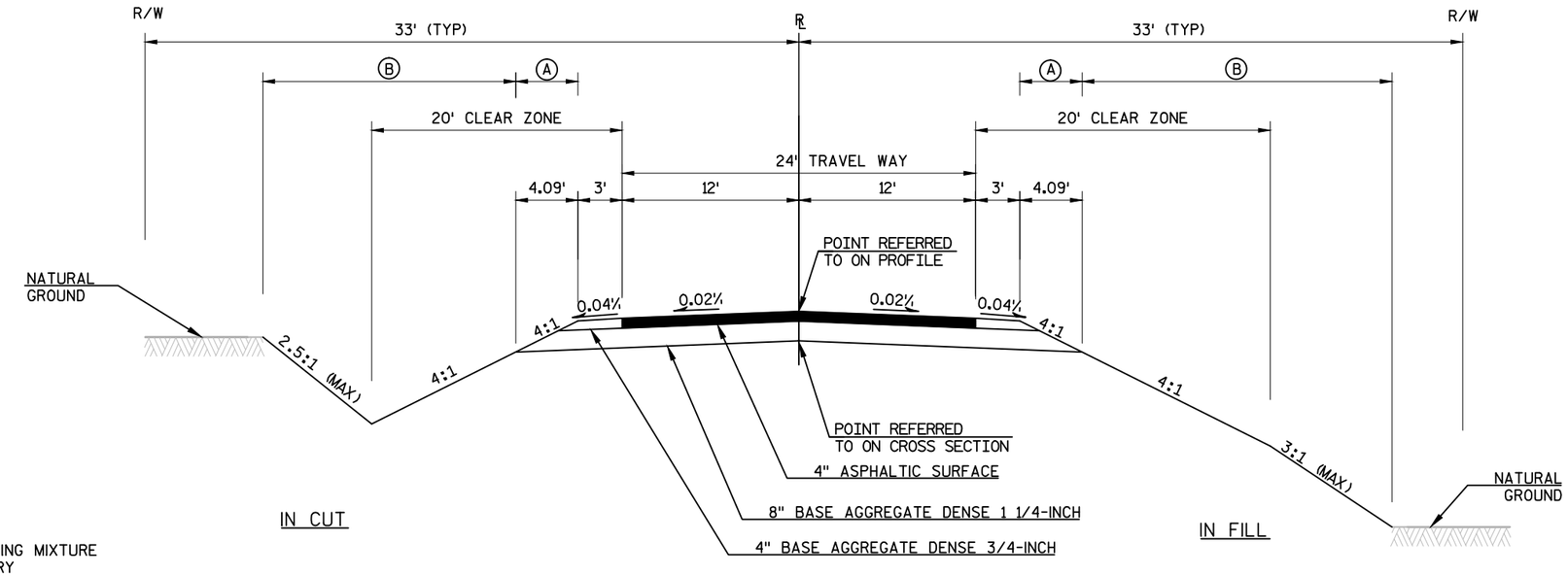
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 0.38 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES =0.28 ACRES



TYPICAL EXISTING SECTION - CTH NN

STA 8+75.00 - STA 9+84.28
STA 10+15.73 - STA 11+25.00



Ⓐ FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

Ⓑ SALVAGED TOPSOIL; MULCHING; FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

TYPICAL FINISHED SECTION - CTH NN

STA 8+75.00 - STA 9+79.75
STA 10+20.25 - STA 11+25.00

PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	TYPICAL SECTIONS: CTH NN	SHEET 3	E

FILE NAME : P:\WI - NW REGION\8817-00-00_BARRONCO_CTH NN\500_CADD\501_C3D\88170000\SHEETSPLAN\020301 TS.DWG
LAYOUT NAME - 020301 TS
PLOT DATE : 6/1/2016 2:49 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

N

CROPLAND

CROPLAND

P-03-0048
EXISTING
STRUCTURE

B-3-200
PROPOSED
STRUCTURE

EXISTING R/W

201A

201

203A

203

REMOVE

W5-52L
12"X36"

W5-52R
12"X36"

TV

OH

BP: 8+50.00

EP: 11+50.00

9+00

10+00

11+00

66'

CTH NN

N0° 07' 38"W

12'

12'

3'

3'

BEGIN PROJECT
STA 8+75
SAWCUT REQ'D
MATCH EXISTING
Y= 142,996.9275
X= 369,499.4450

END PROJECT
STA 11+25
SAWCUT REQ'D
MATCH EXISTING

202

202A

204

204A

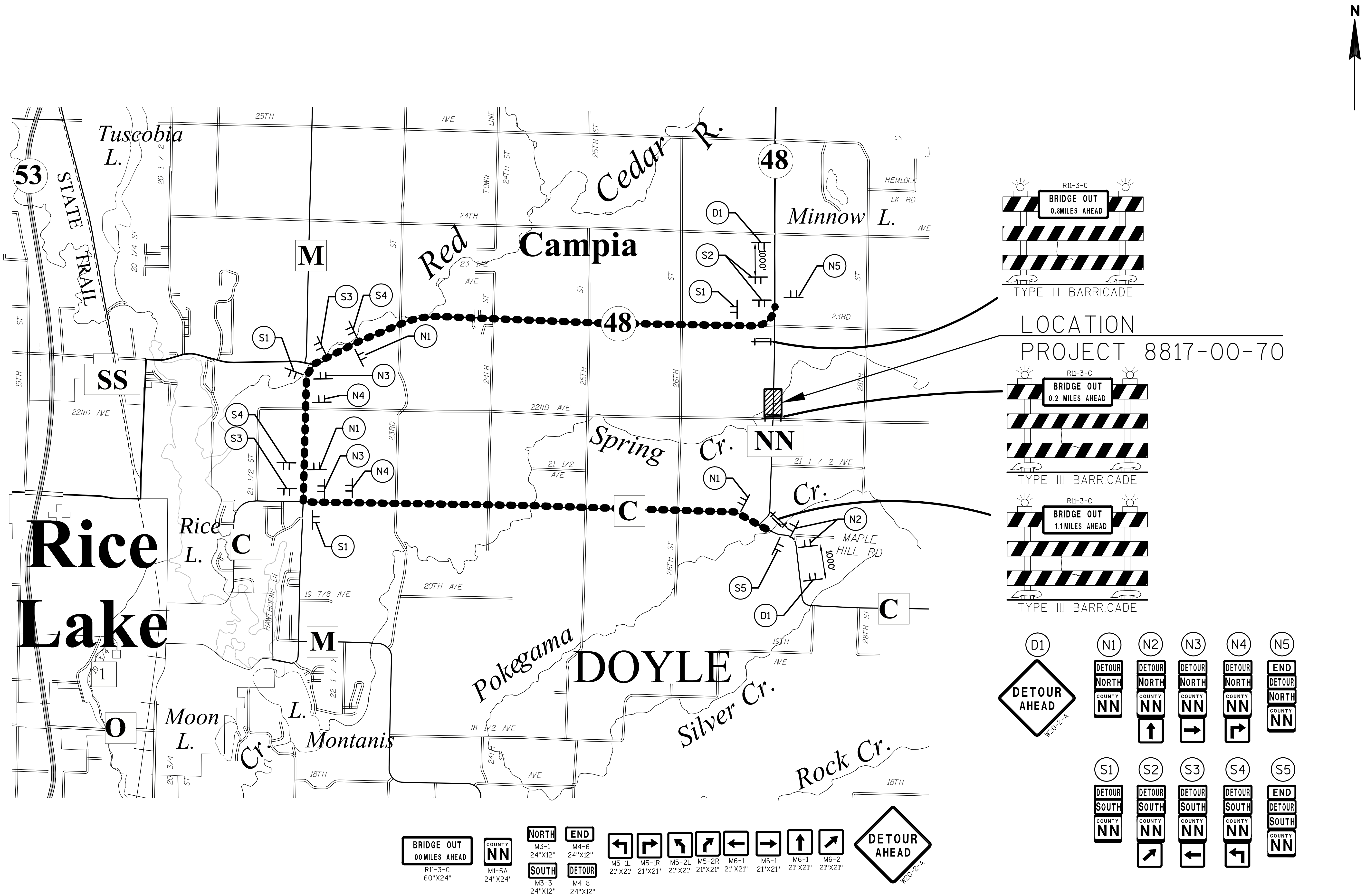
SPRING CREEK

NOTES:

FOR PAVEMENT MARKING DETAILS SEE SDD'S
"SIGNING & MARKING FOR TWO LANE BRIDGES"
"PAVEMENT MARKING (MAINLINE)"

PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	PERMANENT SIGNING AND MARKING: CTH NN	SHEET 4	E

2


N
Tuscobia L.
53
STATE TRAIL
48
Cedar R.
Minnow L.
Red
Campia
M
SS
22ND AVE
Spring
Cr.
NN
21 1/2 AVE
C
Rice L.
Rice Lake
19 7/8 AVE
20TH AVE
MAPLE HILL RD
1000'
Pokegama
DOYLE
Silver Cr.
Rock Cr.
Moon L.
L. Montanis
Cr.
O
18TH
18 1/2 AVE
LOCATION
PROJECT 8817-00-70
R11-3-C
BRIDGE OUT 0.8MILES AHEAD
TYPE III BARRICADE
BRIDGE OUT 0.2 MILES AHEAD
TYPE III BARRICADE
BRIDGE OUT 1.1 MILES AHEAD
TYPE III BARRICADE
D1
DETOUR AHEAD
W20-2-A
N1 N2 N3 N4 N5
DETOUR NORTH COUNTY NN
END DETOUR NORTH COUNTY NN
S1 S2 S3 S4 S5
DETOUR SOUTH COUNTY NN
END DETOUR SOUTH COUNTY NN
BRIDGE OUT 00 MILES AHEAD
R11-3-C 60"X24"
COUNTY NN
M1-5A 24"X24"
NORTH M3-1 24"X12"
SOUTH M3-3 24"X12"
END M4-6 24"X12"
DETOUR M4-8 24"X12"
M5-1L 21"X21"
M5-1R 21"X21"
M5-2L 21"X21"
M5-2R 21"X21"
M6-1 21"X21"
M6-1 21"X21"
M6-1 21"X21"
M6-2 21"X21"
DETOUR AHEAD
W20-2-A

2

PROJECT NO:8817-00-70	HWY:CTH NN	COUNTY:BARRON	DETOUR PLAN	SHEET 5	E

FILE NAME : P:\WI - NW REGION\8817-00-00_BARRONCO_CTH NN\500_CADD\501_C3D\88170000\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027001-DT
PLOT DATE : 6/1/2016 2:49 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:1 MI
WISDOT/CADDS SHEET 42

8817-00-70

Line	Item	Item Description	Unit	Total	Qty
0030	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00 Project 8817-00-70	LS	1.000	1.000
0050	205.0100	Excavation Common	CY	302.000	302.000
0060	206.1000	Excavation for Structures Bridges (structure) 01. B-03-0200	LS	1.000	1.000
0090	210.1500	Backfill Structure Type A	TON	320.000	320.000
0100	213.0100	Finishing Roadway (project) 01. 8817-00-70	EACH	1.000	1.000
0120	305.0110	Base Aggregate Dense 3/4-Inch	TON	66.000	66.000
0130	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	422.000	422.000
0170	455.0605	Tack Coat	GAL	40.000	40.000
0180	465.0105	Asphaltic Surface	TON	130.000	130.000
0200	502.0100	Concrete Masonry Bridges	CY	161.000	161.000
0210	502.3200	Protective Surface Treatment	SY	140.000	140.000
0220	502.3210	Pigmented Surface Sealer	SY	52.000	52.000
0230	505.0400	Bar Steel Reinforcement HS Structures	LB	4,010.000	4,010.000
0240	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	22,410.000	22,410.000
0250	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0270	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	250.000	250.000
0300	606.0300	Riprap Heavy	CY	175.000	175.000
0310	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0320	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0360	619.1000	Mobilization	EACH	0.500	0.500
0370	624.0100	Water	MGAL	30.000	30.000
0380	625.0500	Salvaged Topsoil	SY	740.000	740.000
0390	627.0200	Mulching	SY	205.000	205.000
0400	628.1504	Silt Fence	LF	520.000	520.000
0410	628.1520	Silt Fence Maintenance	LF	520.000	520.000
0420	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0430	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0440	628.2008	Erosion Mat Urban Class I Type B	SY	535.000	535.000
0450	628.6005	Turbidity Barriers	SY	76.000	76.000
0460	629.0210	Fertilizer Type B	CWT	0.500	0.500
0470	630.0120	Seeding Mixture No. 20	LB	14.000	14.000
0500	630.0200	Seeding Temporary	LB	20.000	20.000
0510	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0520	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0530	638.2602	Removing Signs Type II	EACH	4.000	4.000
0540	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0550	642.5201	Field Office Type C	EACH	0.500	0.500
0560	643.0100	Traffic Control (project) 01. 8817-00-70	EACH	1.000	1.000

8817-00-70

Line	Item	Item Description	Unit	Total	Qty
0580	643.0420	Traffic Control Barricades Type III	DAY	715.000	715.000
0590	643.0705	Traffic Control Warning Lights Type A	DAY	1,105.000	1,105.000
0600	643.0900	Traffic Control Signs	DAY	975.000	975.000
0620	643.2000	Traffic Control Detour (project) 01. 8817-00-70	EACH	1.000	1.000
0640	643.3000	Traffic Control Detour Signs	DAY	4,485.000	4,485.000
0650	645.0120	Geotextile Type HR	SY	260.000	260.000
0660	646.0106	Pavement Marking Epoxy 4-Inch	LF	575.000	575.000
0670	650.4500	Construction Staking Subgrade	LF	210.000	210.000
0680	650.5000	Construction Staking Base	LF	210.000	210.000
0700	650.6500	Construction Staking Structure Layout (structure) 01. B-03-0200	LS	1.000	1.000
0720	650.9910	Construction Staking Supplemental Control (project) 01. 8817-00-70	LS	1.000	1.000
0740	650.9920	Construction Staking Slope Stakes	LF	210.000	210.000
0750	690.0150	Sawing Asphalt	LF	48.000	48.000
0760	715.0502	Incentive Strength Concrete Structures	DOL	966.000	966.000
0770	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0780	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

STATION - STATION	Location	205.0100 Common Excavation (1) Cut (2)	205.0100 Common Excavation (1) EBS Excavation (3)	Salvaged/Unusable Pavement Material	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)
8+75 - 9+80	CTH NN	152	0	21	131	16	20	111
10+20 - 11+25	CTH NN	150	0	21	129	15	19	110
UNDISTRIBUTED		0	0	0	0	0	0	0
GRAND TOTALS =		302	0	42	260	31	39	221
TOTAL COMMON EXCAVATION =		302						

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.
3) EBS Excavation to be backfilled with Select Borrow material.
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
13) Expanded Fill. Factor = 1.25
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.

FINISHING ROADWAY

	213.0100 EACH	COMMENTS
CATEGORY CODE 0010		
ID 8817-00-70	1	
TOTAL	**1**	

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
CATEGORY CODE 0010			
8+75 - 9+80	Mainline	---	191
10+20 - 11+25	Mainline	---	191
8+75 - 9+80	SHOULDER, LT	14	---
8+75 - 9+80	SHOULDER, RT	14	---
10+20 - 11+25	SHOULDER, LT	14	---
10+20 - 11+25	SHOULDER, RT	14	---
-- - --	UNDISTRIBUTED	10	40
	TOTALS:	**66**	**422**

MOBILIZATION

CATEGORY	619.1000 EACH
0010	0.1
0020	0.4
TOTALS	**0.5**

WATER

LOCATION	624.0100 MGAL
CATEGORY CODE 0010	
BASE COMPACTION	30
TOTALS	**30**

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
CATEGORY CODE 0010			
8+75 - 9+80	MAINLINE	20	64
10+20 - 11+25	MAINLINE	20	64
	TOTALS	**40**	**130**

LANDSCAPING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEED MIX NO. 20 LBS	630.0200 SEED TEMPORARY LBS
CATEGORY CODE 0010							
8+75 - 9+80	LT	210	40	170	0.1	4	5.7
8+75 - 9+80	RT	210	80	130	0.1	4	5.7
10+20 - 11+25	LT	160	40	120	0.1	3	4.3
10+20 - 11+25	RT	160	45	115	0.1	3	4.3
	TOTALS	**740**	**205**	**535**	**0.5**	**14**	**20**

3

SILT FENCE

STATION		STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF	MOBILIZATIONS 628.1504 EROSION CONTROL EACH	MOBILIZATIONS 628.1910 EMERGENCY EROSION CONTROL EACH
CATEGORY CODE 0010							
8+75	-	9+80	LT	130	130	1	1
8+75	-	9+80	RT	130	130	--	--
10+20	-	11+25	LT	130	130	1	1
10+20	-	11+25	RT	130	130	--	--
			TOTALS	**520**	**520**	**2**	**2**

TURBIDITY BARRIER

LOCATION	628.6005 TURBIDITY BARRIER SY
CATEGORY CODE 0010	
SOUTH ABUTMENT	40
NORTH ABUTMENT	36
TOTALS	**76**

SIGNING ITEMS

STATION	LOCATION	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6X12 EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
CATEGORY CODE 0010					
9+70	RT	W5-52R	12" X 36"	1	3.0
9+70	LT	W5-52L	12" X 36"	1	3.0
10+30	RT	W5-52R	12" X 36"	1	3.0
10+30	LT	W5-52L	12" X 36"	1	3.0
		TOTALS		**4**	**12.0**

3

REMOVING SIGN ITEMS

STATION	LOCATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
CATEGORY CODE 0010			
9+70	RT	1	1
9+70	LT	1	1
10+30	RT	1	1
10+30	LT	1	1
TOTALS		**4**	**4**

TRAFFIC CONTROL ITEMS

LOCATION	643.0100 TRAFFIC CONTROL PROJECT	643.2000 TRAFFIC CONTROL DETOUR PROJECT	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS
CATEGORY CODE 0010										
PROJECT	1	1	11	715	17	1,105	15	975	69	4,485
TOTALS	**1**	**1**		**715**		**1,105**		**975**		**4,485**

SAWING PAVEMENT ITEMS

STATION	LOCATION	690.0150 ASPHALT LF
CATEGORY CODE 0010		
8+75	CTH NN	24
11+25	CTH NN	24
TOTALS		**48**

PAVEMENT MARKING ITEMS

STATION		STATION	LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF
CATEGORY CODE 0010					
8+75	-	11+25	CL	---	75
8+75	-	11+25	EDGELINE	500	---
			TOTALS	**500**	**75**
				575	

CONSTRUCTION STAKING ITEMS

STATION		STATION	LOCATION	650.4500 STAKING SUBGRADE LF	650.5000 STAKING BASE LF	650.6500* STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
*CATEGORY CODE 0010								
PROJECT			---	---	---	1	---	---
8+75	-	9+80	MAINLINE	105	105	---	1	105
10+20	-	11+25	MAINLINE	105	105	---	---	105
			TOTALS	**210**	**210**	**1**	**1**	**210**

* ALL STAKING ITEMS PART OF CATEGORY CODE 0010 OTHER THAN 650.6500 WHICH IS IN CATEGORY 0020

PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	MISCELLANEOUS QUANTITIES	SHEET NO: 9	E

LEGEND

- ###### EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- XXXX SAW CUT
- WETLAND IMPACT
- TURBIDITY BARRIER

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	7+18.62	SPIKE AT BASE OF PP, 38.13' LT	1225.34
2	9+84.42	'□' TOP OF WING, 16.08' LT	1223.66
3	10+85.65	SPIKE AT BASE OF PP, 37.64' LT	1224.93

CONTROL POINTS

NO.	STATION	DESCRIPTION	NORTHING	EASTING	ELEV.
1	5+00.00	SET PK NAIL ON CL CTH NN	142,622.01	369,500.51	1225.82
2	9+60.27	SET 12" SPIKE 25.5' RT	143,082.25	369,524.83	1224.94
3	14+99.27	SET PK NAIL ON CL CTH NN	143,621.94	369,498.87	1231.14

DENNIS L & MARY J KUCKO REVOCABLE TRUST AGGREMENT

CENTURYLINK

XCEL ENERGY

SLOPE INTERCEPTS, (TYP)

B-3-200 PROPOSED STRUCTURE

P-03-0048 EXISTING STRUCTURE

WETLANDS 10.7 SF

WETLANDS 144.7 SF

WETLANDS 24.0 SF

WETLANDS 62.9 SF

BM 1

BM 2

BM 3

BP: 8+50.00

EP: 11+50.00

+39.75 12.0 LT

+39.75 12.0 RT

+60.25 12.0 LT

+60.25 12.0 RT

R/W

33'

66'

9+00

10+00

11+00

CTH NN

℄ CTH NN

N0° 07' 38"W

10:1

3:1

12'

CP 1

CP 2

CP 3

JAMES R REUL

SPRING CREEK

TURBIDITY BARRIER

POTENTIAL ARCHAEOLOGICAL SITE,
SITE BEGINNING APPROXIMATELY 150-FEET SOUTH OF THE CREEK CHANNEL.
NO DISTURBANCE, BORROW OR WASTE DISPOSAL, OR STAGING OF EQUIPMENT OR SUPPLIES IN THIS AREA.

BEGIN PROJECT
STA 8+75
SAWCUT REQ'D
MATCH EXISTING
Y = 142,996.928
X = 369,499.445

END PROJECT
STA 11+25
SAWCUT REQ'D
MATCH EXISTING

YARDAGE SUMMARY
STA 8+75 TO 9+80
FILL = 20 CY
WASTE = 132 CY

YARDAGE SUMMARY
STA 10+20 TO 11+25
FILL = 18 CY
WASTE = 132 CY

K=304.87
VCL 180.00

VPI STA 8+75.00
VPI EL 1225.78
VPC EL 1225.81
VPC 8+85.00

VPI 9+75.00
VPI EL 1226.00

VPT EL 1226.73
VPT 10+65.00

VPI STA 11+25.00
VPI EL 1227.21

0.22%

0.81%

PROPOSED PROFILE ON ℄

EXISTING GROUND

OBSERVED WATER ELEV 1220.44 (4-22-15)

HIGH WATER 100 YR ELEV 1225.42

EXISTING ℄ ELEVATION

PROPOSED ℄ ELEVATION

1225.75
1225.78 1225.78
1225.82 1225.84
1225.82 1225.92
1225.81 1226.02
1225.84 1226.13
1212.33 1226.27
1226.46 1226.43
1226.67 1226.61
1226.84 1226.81
1227.01 1227.01
1227.21 1227.21
1227.41

STATION 10+00
STRUCTURE B-3-201 REQD
40.5' SINGLE SPAN CONCRETE FLAT SLAB
32' CLEAR ROADWAY WIDTH
0° SKEW

STATION 10+00
REMOVE STRUCTURE P-03-0048
SINGLE SPAN STEEL DECK GIRDER BRIDGE
32.5' OVERALL LENGTH
30.3' CLEAR WIDTH

1236 1232 1228 1224 1220 1216 1212 1208

7+00 7+25 7+50 7+75 8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00

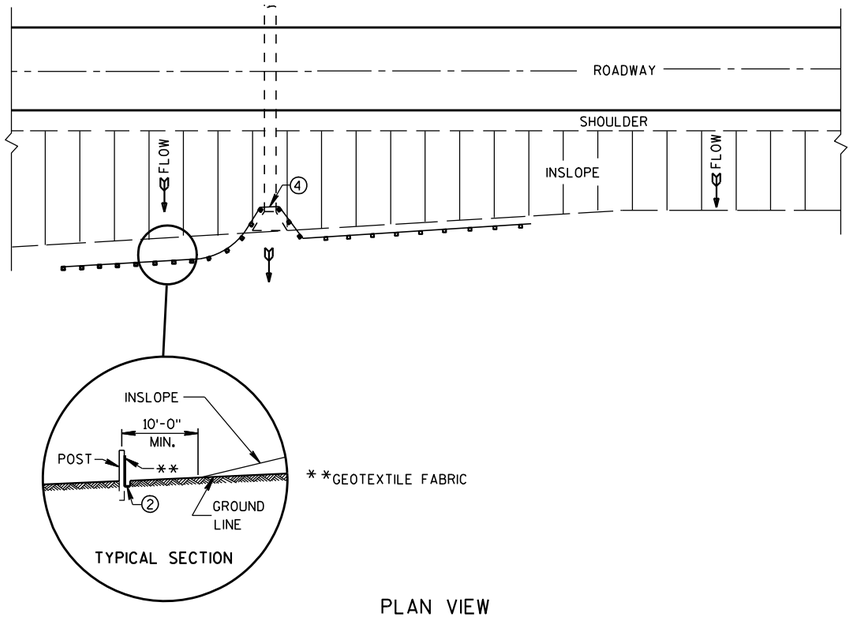
PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	PLAN AND PROFILE: CTH NN	SHEET 10	E

FILE NAME : P:\WI - NW REGION\8817-00-00_BARRONCO_CTH NN\500_CADD\501_C3D\88170000\SHEETSPLAN\050101 PP.DWG
LAYOUT NAME - 050101 PP

PLOT DATE : 7/8/2016 1:44 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:40 FT

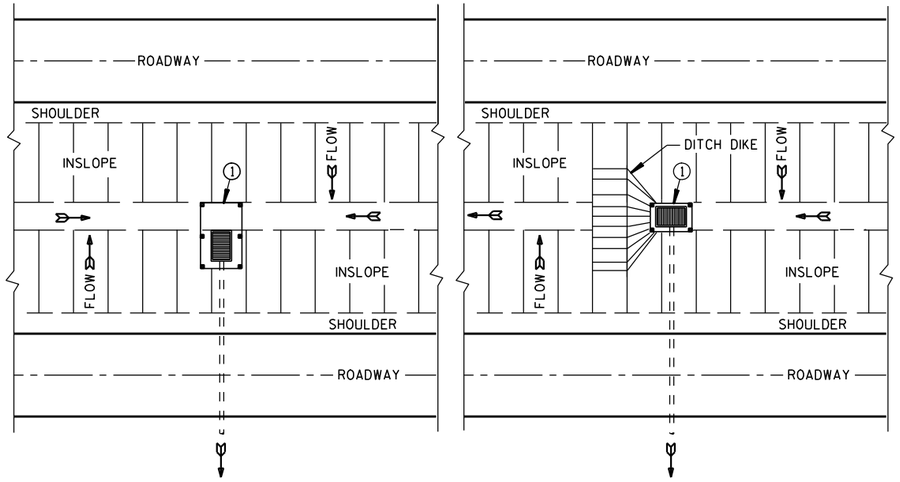
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)



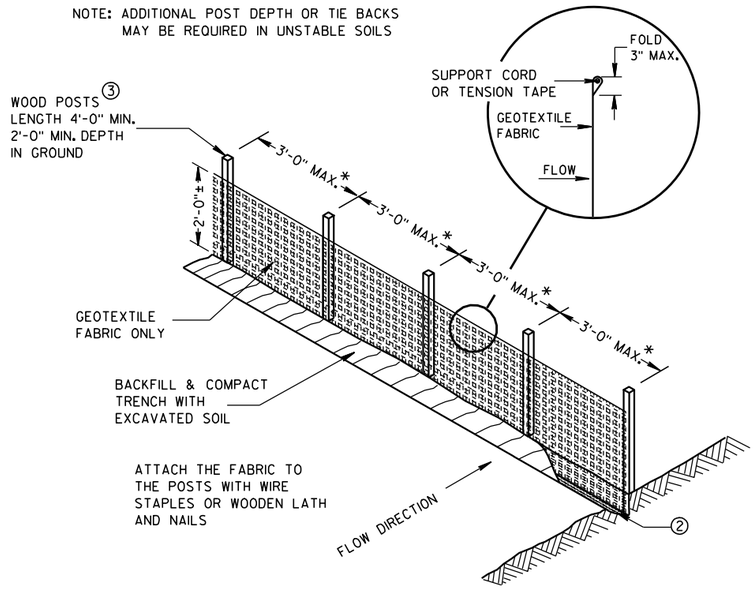
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



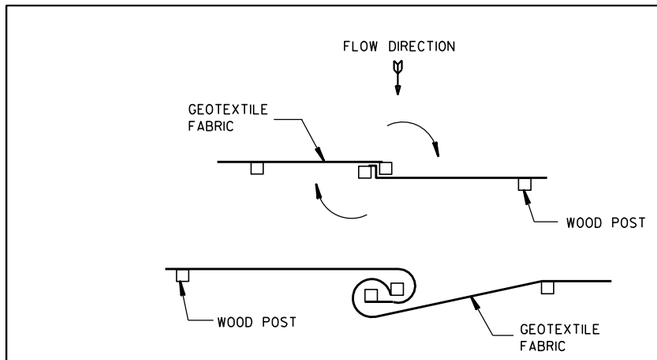
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



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

SILT FENCE

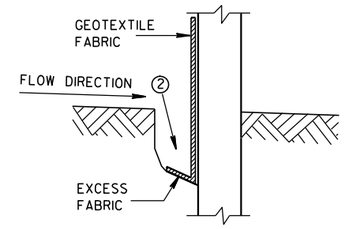


JOINING TWO LENGTHS OF SILT FENCE 5

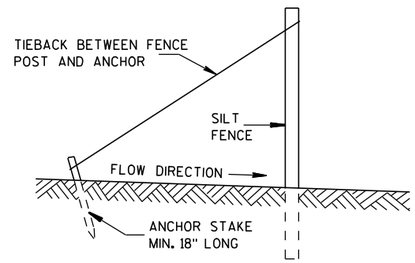
GENERAL NOTES

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 TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

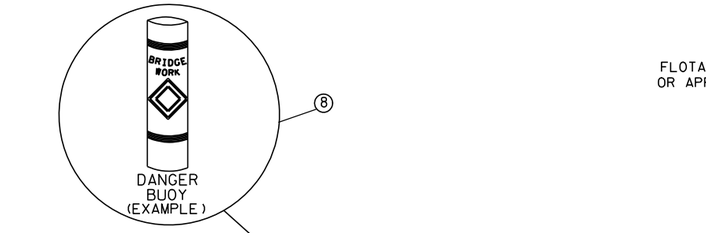
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

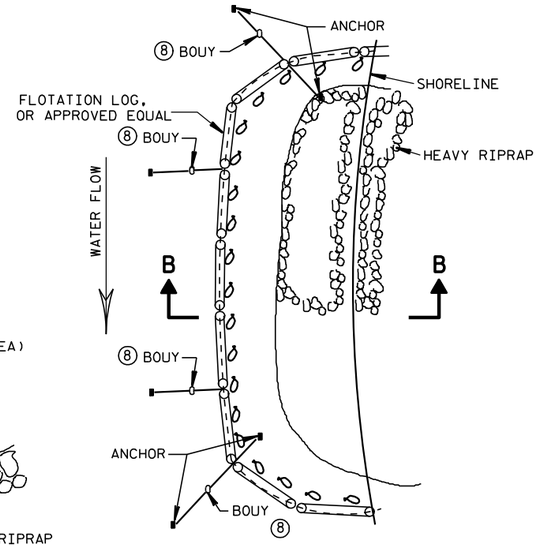
S.D.D. 8 E 9-6

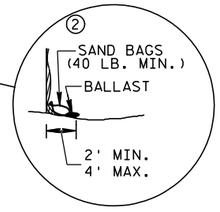
6

S.D.D. 8 E 9-6

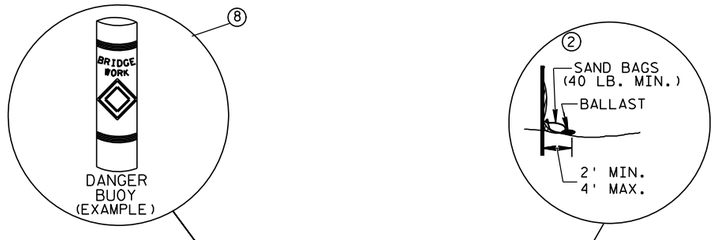


SECTION B-B

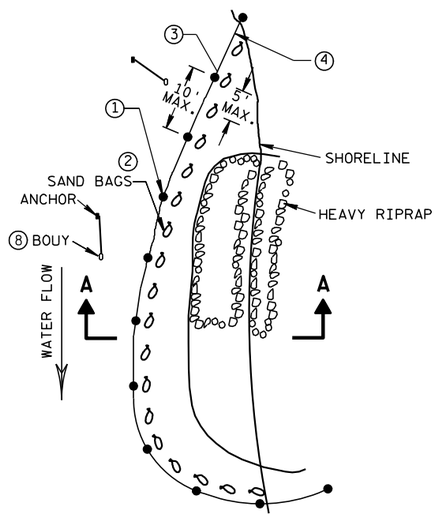




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

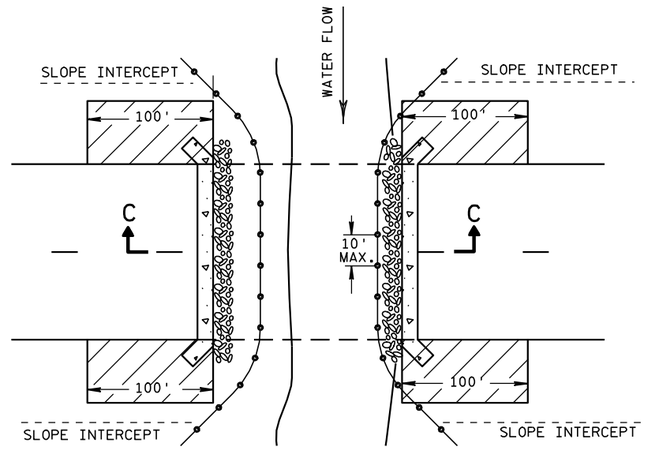
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

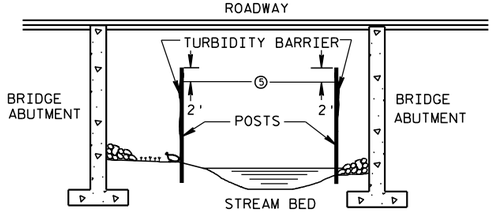
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

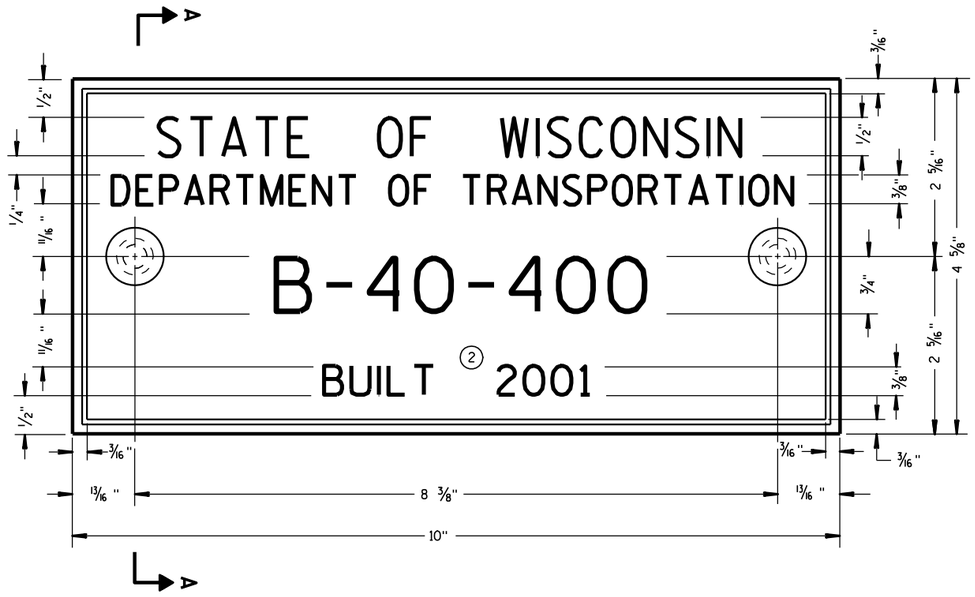
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

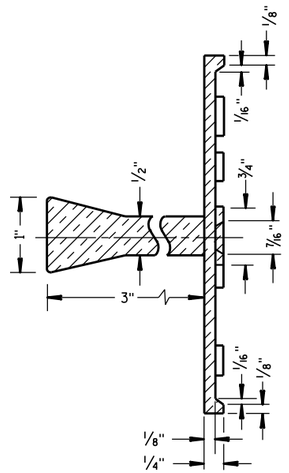
GENERAL NOTES

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.

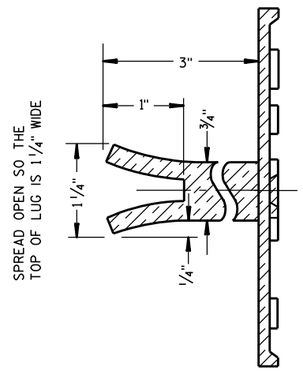
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

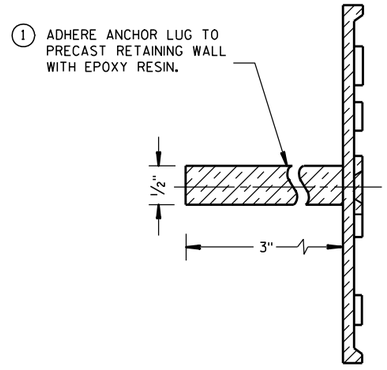
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES



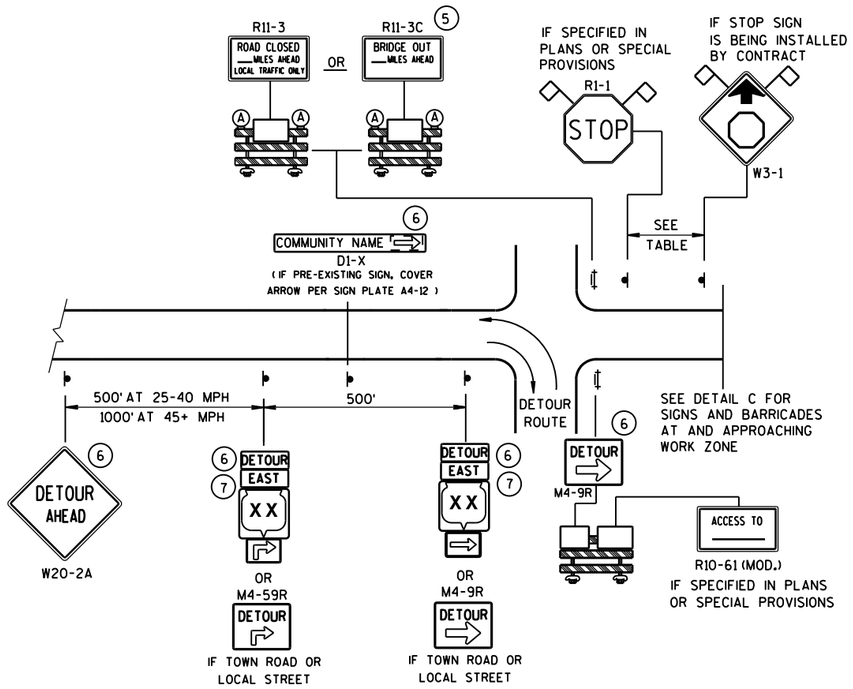
ALTERNATE LUG

(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	

6

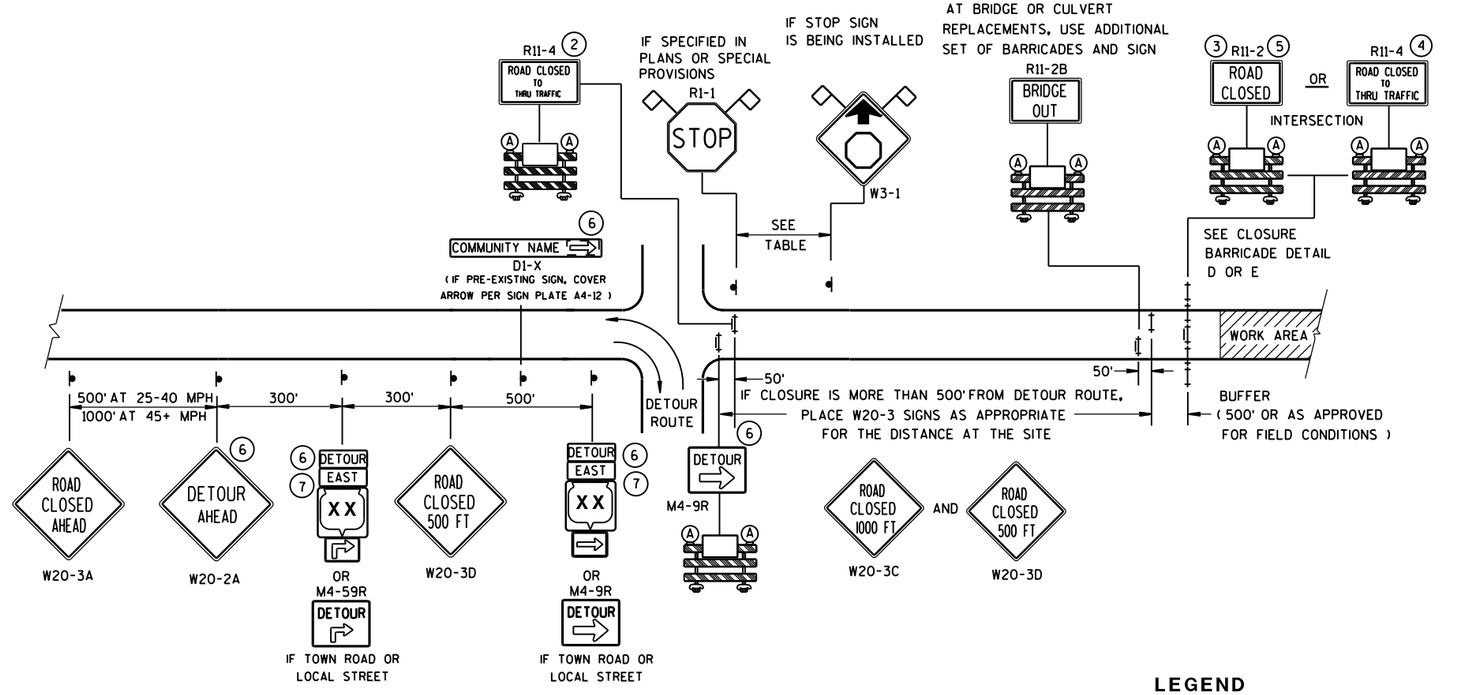
S.D.D. 12 A 3-10



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

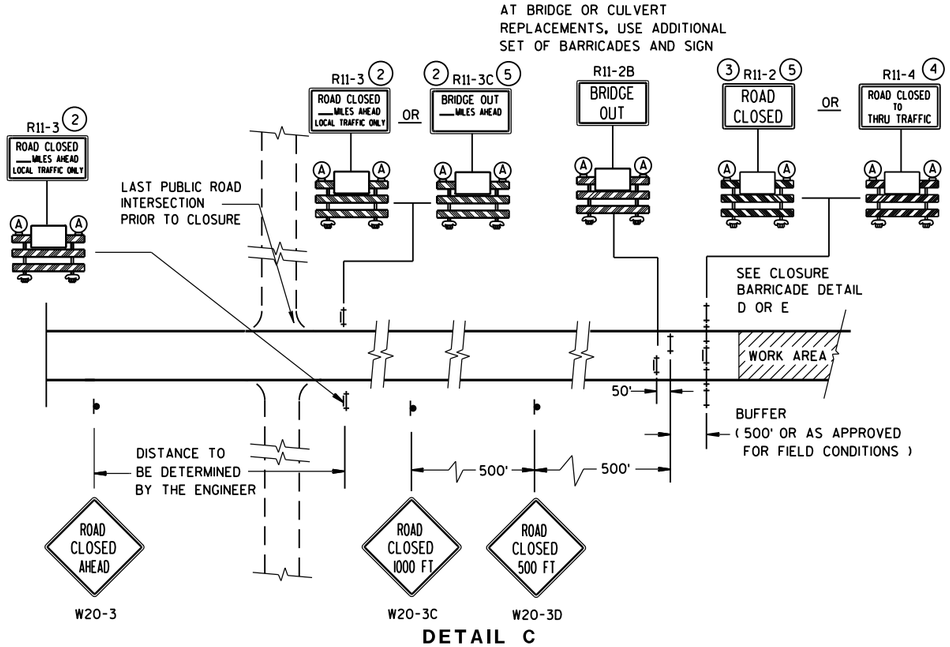
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

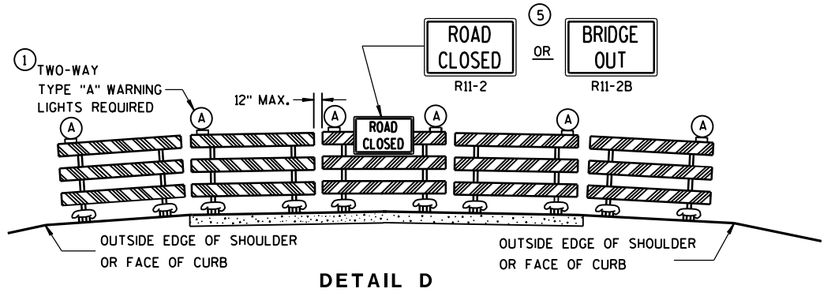
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

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

6

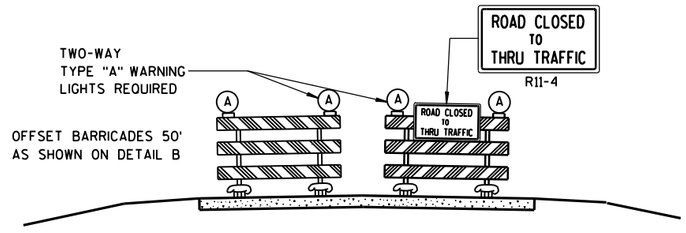
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

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

6

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

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

GENERAL NOTES

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

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

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

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

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

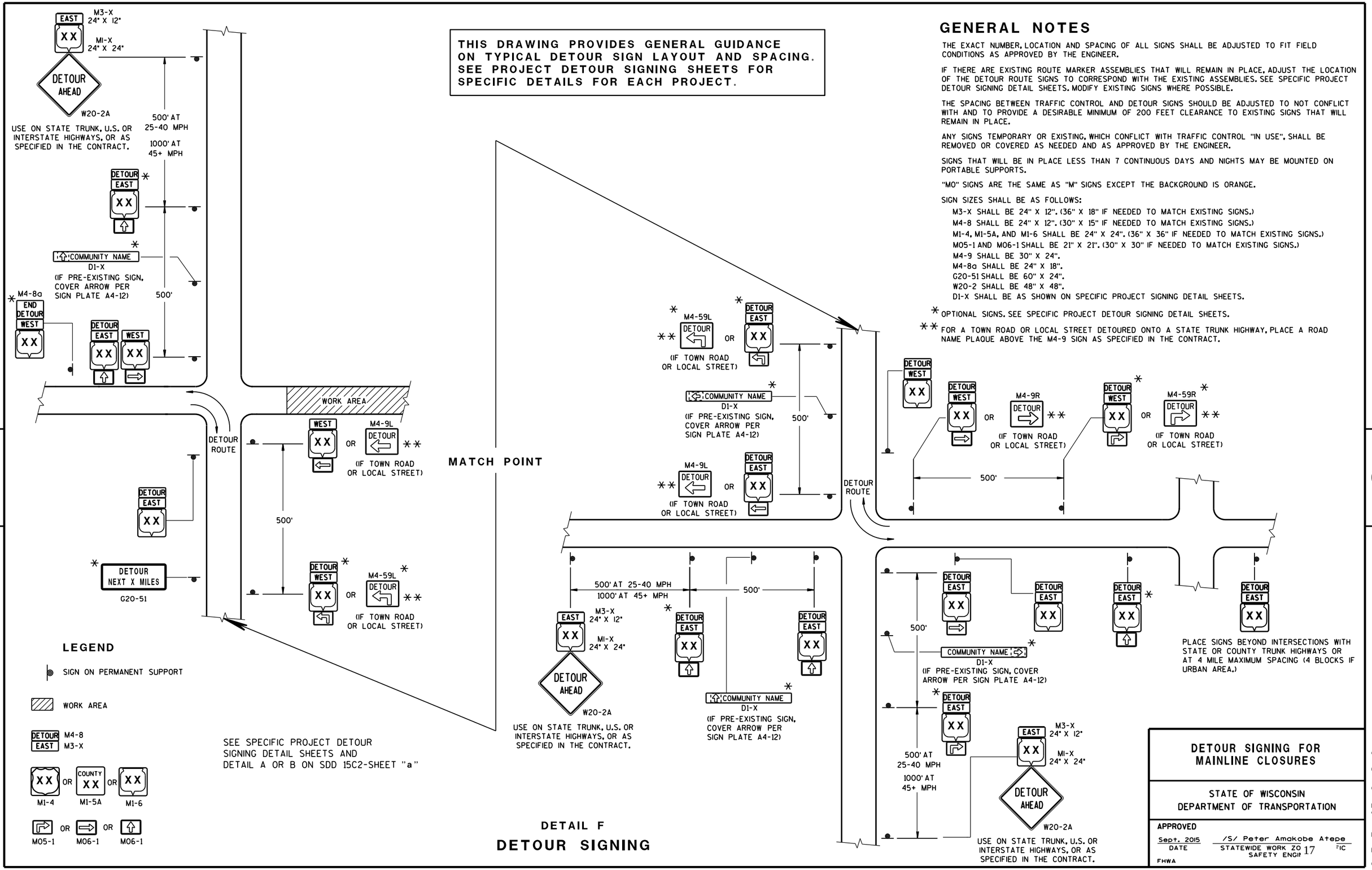
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

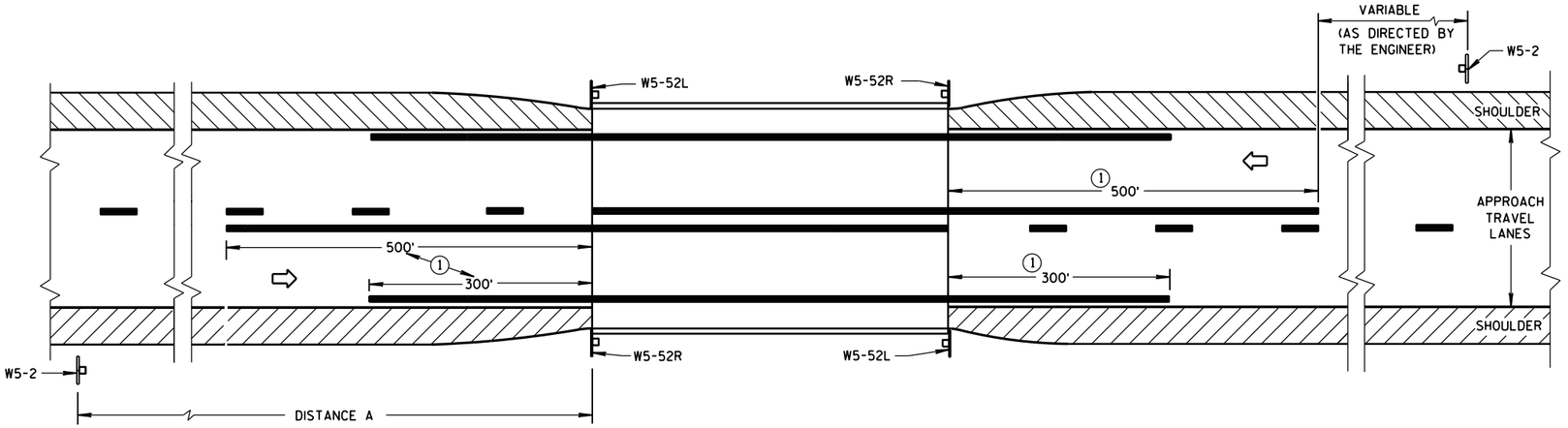
Sept. 2015 — DATE

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

FHWA

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

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



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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

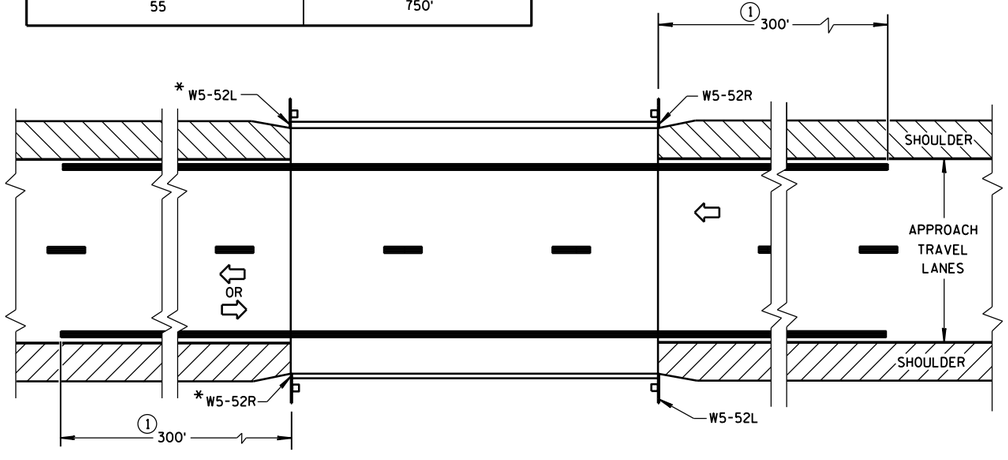
DISTANCE TABLE

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

SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

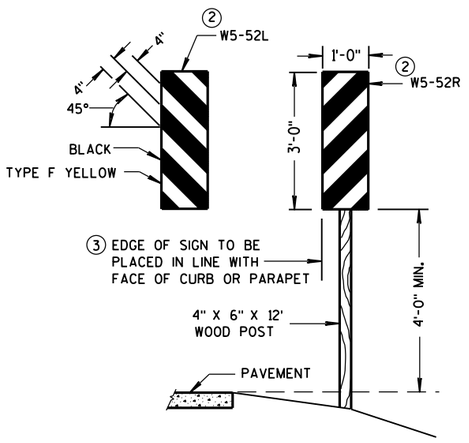


*OMIT ON ONE-WAY TRAVELLED WAYS

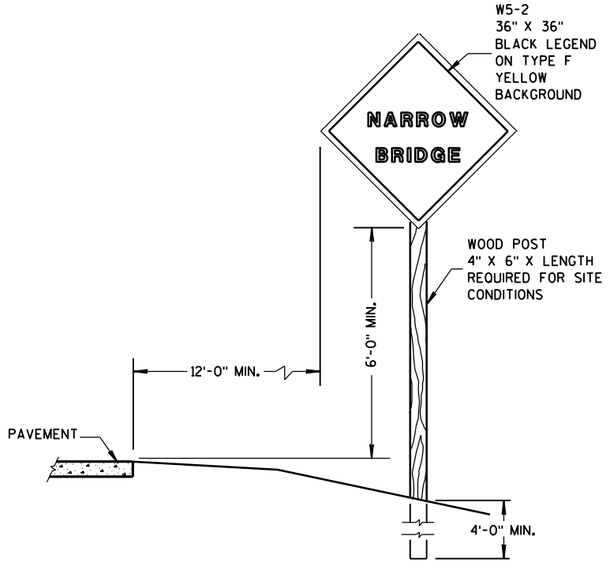
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

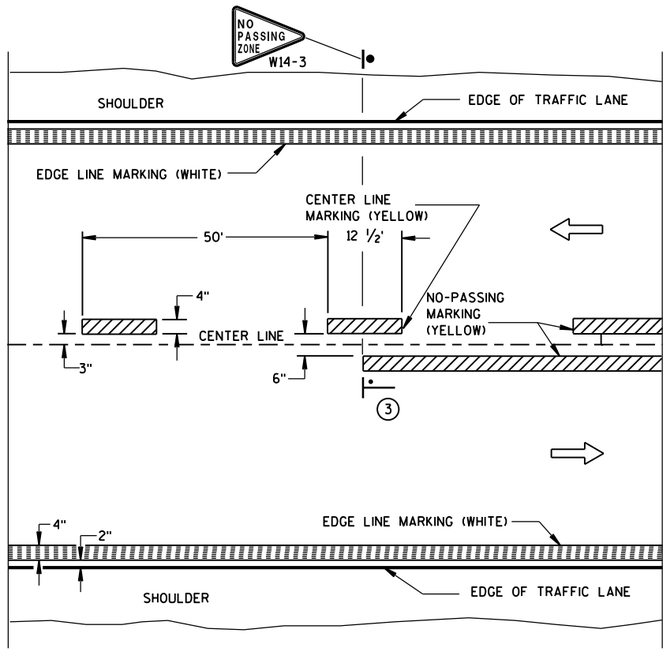
3-2014 DATE

/S/ Travis Feltes STATE TRAFFIC ENGINEER

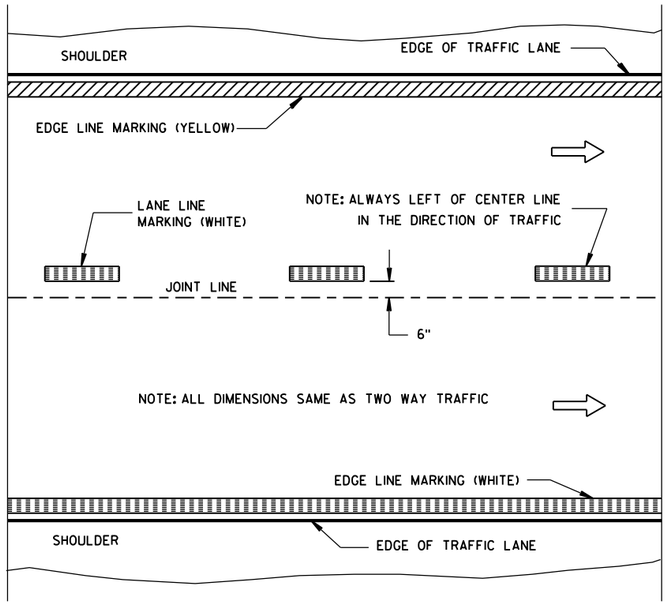
FHWA

6

S.D.D. 15 C 6-7

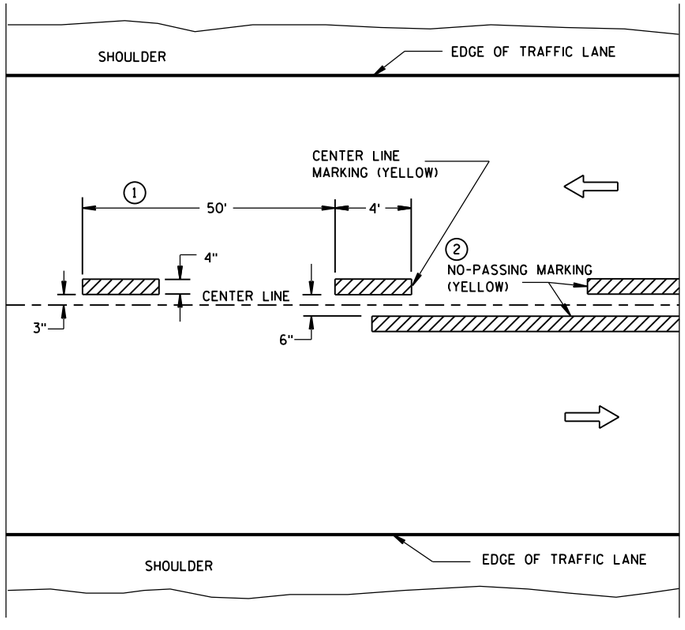


TWO WAY TRAFFIC

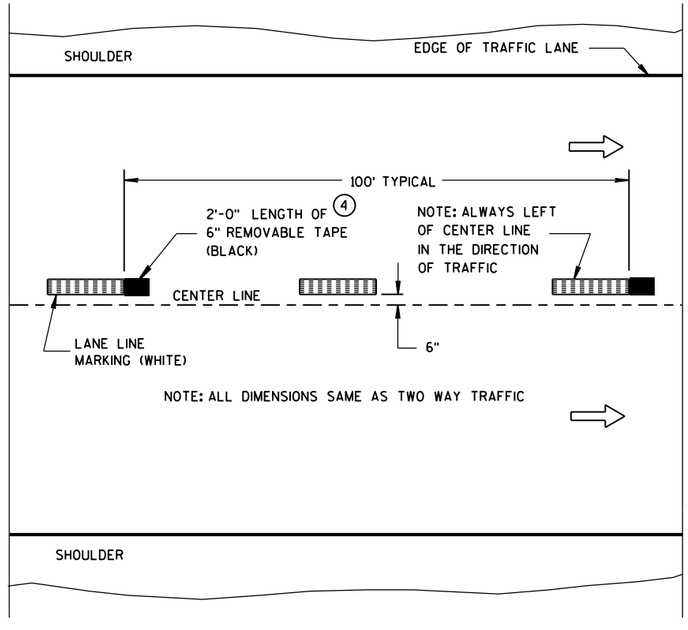


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

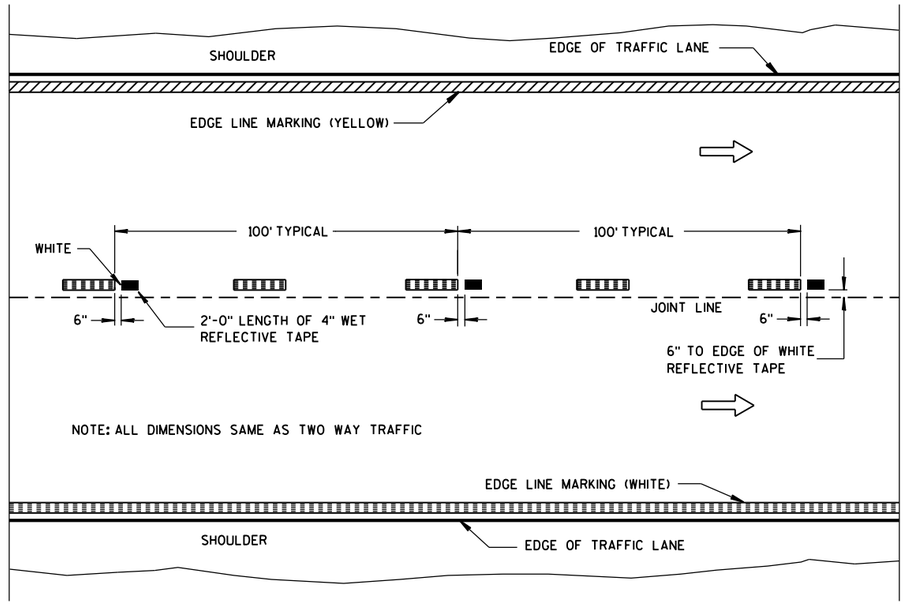
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

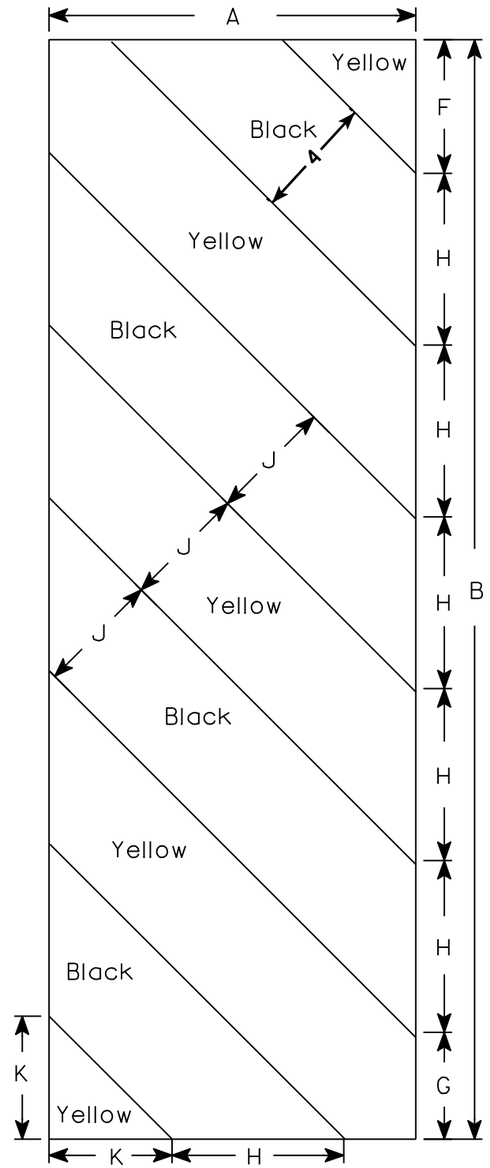
FHWA

6

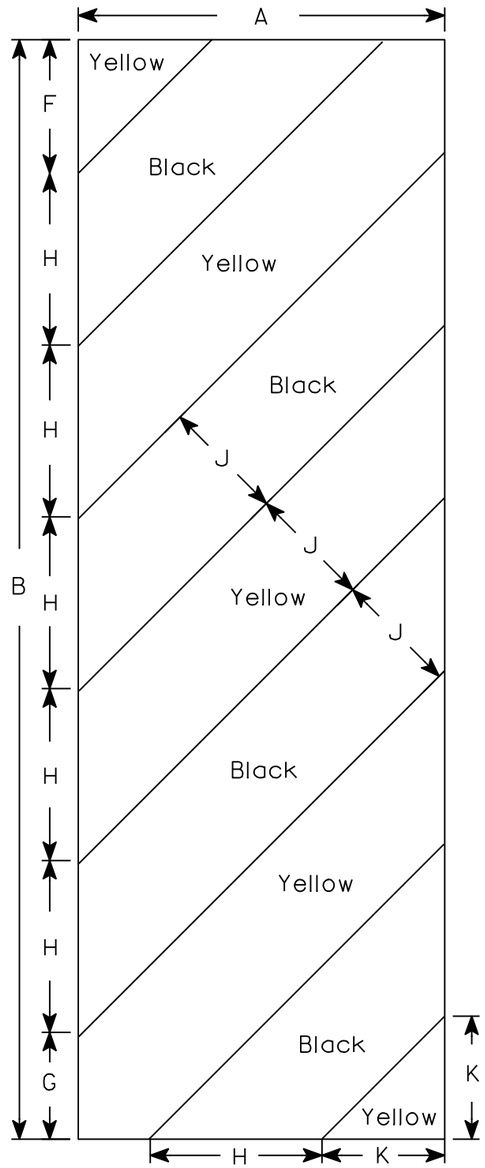
S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

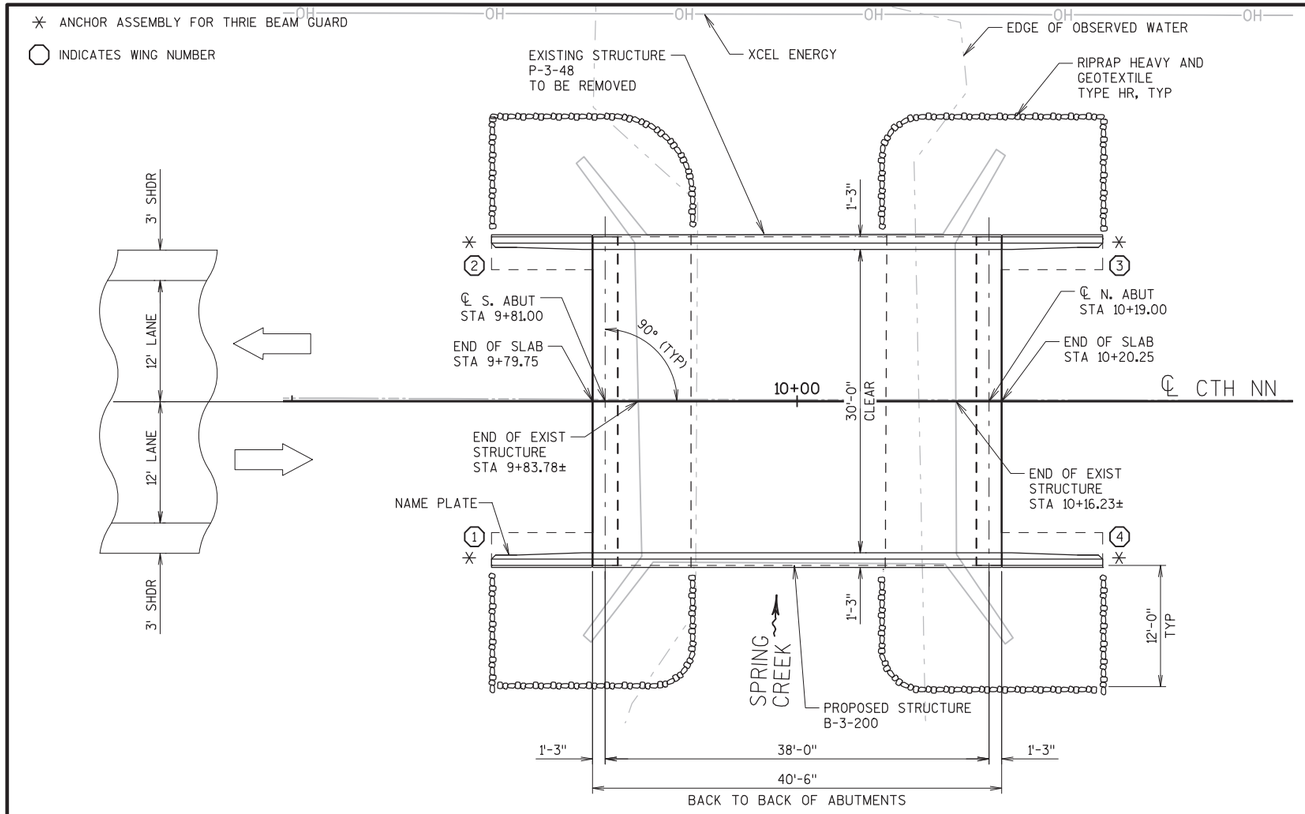
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

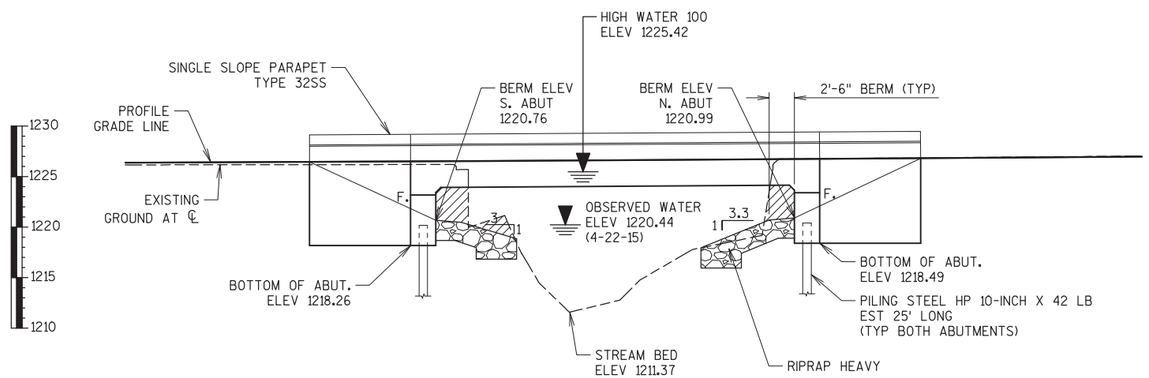
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 20 | E



PLAN

SINGLE SPAN CONCRETE FLAT SLAB BRIDGE



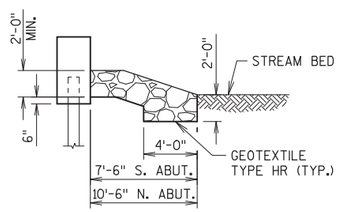
AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES"

ELEVATION

(LOOKING WEST)

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	7+18.62	SPIKE AT BASE OF PP, 38.13' LT	1225.34
3	10+85.65	SPIKE AT BASE OF PP, 37.64' LT	1224.93



RIPRAP DETAIL

WISCONSIN
ERIC T. PRICE
E-39027
MADISON
WI
PROFESSIONAL ENGINEER

7/19/16

STATE PROJECT NUMBER

8817-00-70

DESIGN DATA

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — 1.10
OPERATIONAL RATING FACTOR — 1.42
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTRUCTURE — f'c = 4,000 psi
ALL OTHER — f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 psi

TRAFFIC DATA

ADT (2017) = 270
ADT (2037) = 300
DESIGN SPEED = 60 MPH

FOUNDATION DATA

ABUTMENTS SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180* TONS PER PILE AS REQUIRED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 25' LONG AT THE ABUTMENTS.

* 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.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} — 1,800 cfs
VELOCITY — 7.00 fps
HIGH WATER — EL. 1225.42
WATERWAY AREA — 257 ft²
DRAINAGE AREA — 12.0 mi²
SCOUR CRITICAL CODE — 5
OVERTOPPING FREQUENCY — N/A

2 YEAR FREQUENCY
Q_2 — 420 cfs
HIGH WATER — EL. 1222.26

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/09/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-3-200

CTH NN OVER SPRING CREEK

COUNTY: BARRON
TOWN/~~CITY/VILLAGE~~: DOYLE
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ETP	BH	PKF	ETP

GENERAL PLAN

SHEET 1 OF 8

21

BRIDGE OFFICE CONTACT
WILLIAM DREHER, P.E.
TELEPHONE: (608) 266-8489

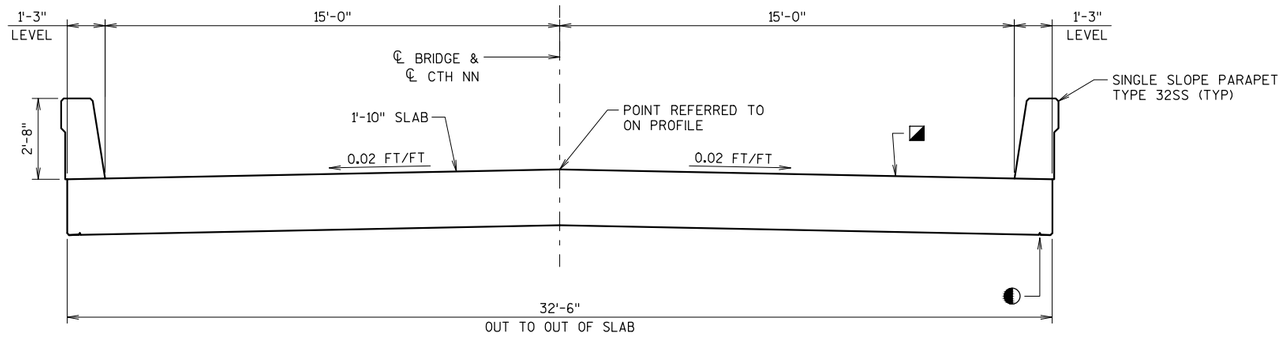
CONSULTANT CONTACT
ERIC PRICE, P.E.
TELEPHONE: (608) 826-6146

8

8

STATE PROJECT NUMBER

8817-00-70



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

LEGEND

◐ 3/4" V-GROOVE. TERMINATE 6" FROM FRONT FACE OF ABUTMENTS.

◪ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

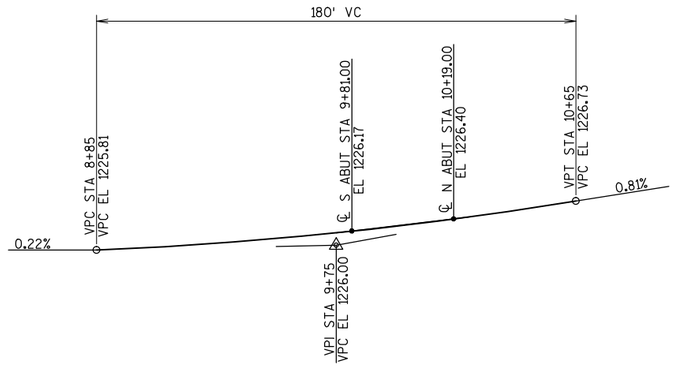
THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ENTIRE INSIDE FACE AND TOP SURFACE OF THE PARAPETS ON THE WINGS AND SUPERSTRUCTURE.

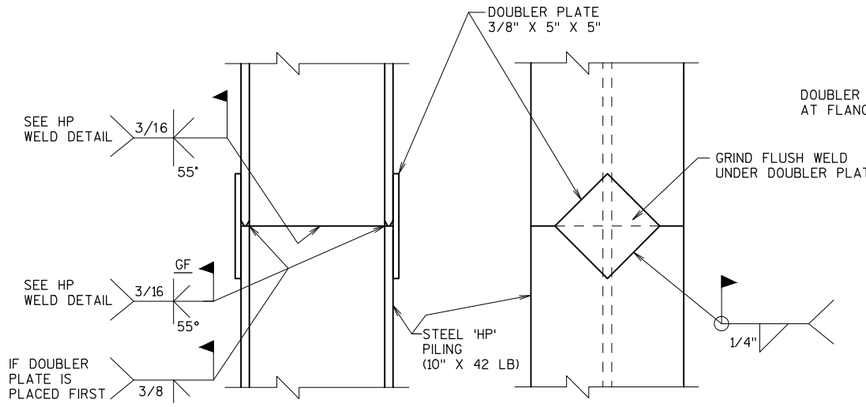
THE EXISTING STRUCTURE P-3-48, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE, 32.5 FT. LONG WITH A 30.3 FT. CLEAR ROADWAY WIDTH.

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

THE QUANTITY FOR BACKFILL STRUCTURE TYPE B, BID ITEM 210.2100, IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISDOT BRIDGE MANUAL.



PROFILE GRADE LINE



STEEL 'HP' PILING

STEEL 'HP' PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.

HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	SOUTH ABUT	NORTH ABUT	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 10+00	LS	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-3-200	LS	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	160	160	———	320
502.0100	CONCRETE MASONRY BRIDGES	CY	33	33	95	161
502.3200	PROTECTIVE SURFACE TREATMENT	SY	———	———	140	140
502.3210	PIGMENTED SURFACE SEALER	SY	9	9	34	52
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,005	2,005	———	4,010
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,895	1,895	18,620	22,410
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	———	20
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	125	125	———	250
606.0300	RIPRAP HEAVY	CY	80	95	———	175
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70	70	———	140
645.0120	GEOTEXTILE TYPE HR	SY	120	140	———	260
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	———	———	———	4
	NON-BID ITEMS					
	FILLER	SIZE	———	———	———	½" & ¾"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-3-200

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

TYPICAL SECTION & QUANTITIES

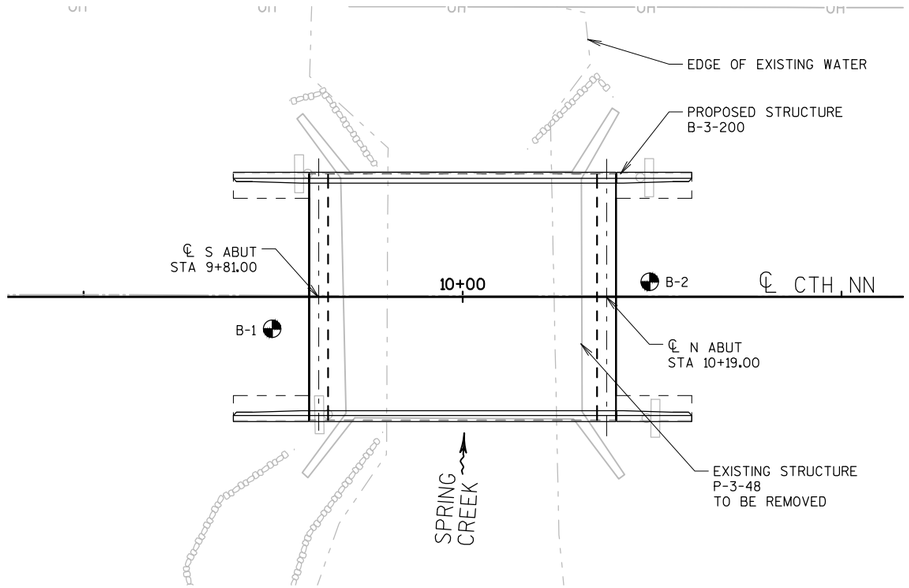
SHEET 2 OF 8

22

8

8

FILE NAME : P:±WI - NW REGION±8817-00-00_BARRONCO_CTH NN±500_CADD±503_STRUCTURES±502.4_FINAL±080201-CS.DWG PLOT DATE : 7/19/2016 11:53 AM PLOT BY : BOBBY JONES

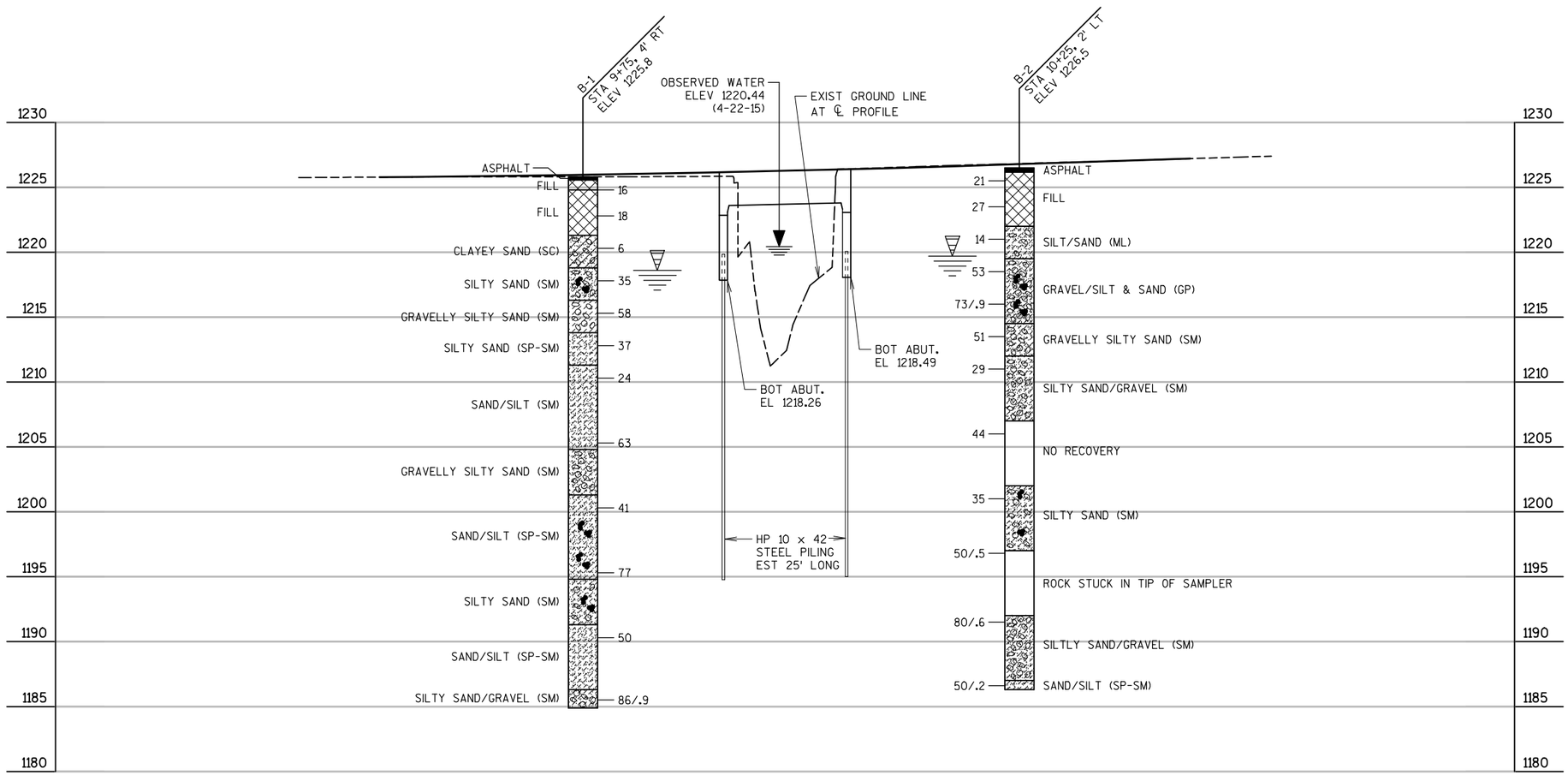


N

SOIL BORINGS COMPLETED BY:

AMERICAN ENGINEERING TESTING, INC.
1837 COUNTY HIGHWAY OO
CHIPPEWA FALLS, WI 54729
(715) 861-5045

JUNE 2, 2015



STATE PROJECT NUMBER

8817-00-70

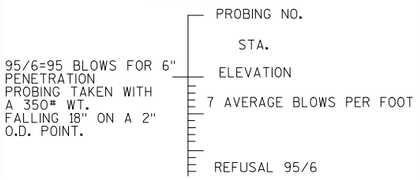
ABBREVIATIONS

F— FINE M—MEDIUM C— COARSE
WS— WEATHERED SO — SOUND

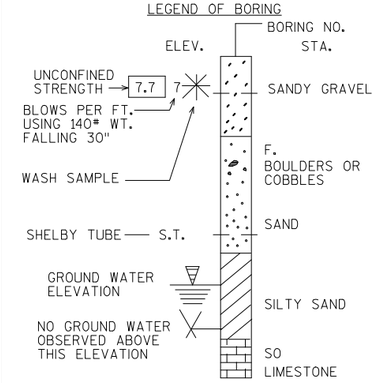
MATERIAL SYMBOLS

ASPHALT, SILT, SANDSTONE
SAND, FILL, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-3-200

DRAWN BY PKF | PLANS CK'D. ETP

SUBSURFACE EXPLORATION

SHEET 3 OF 8

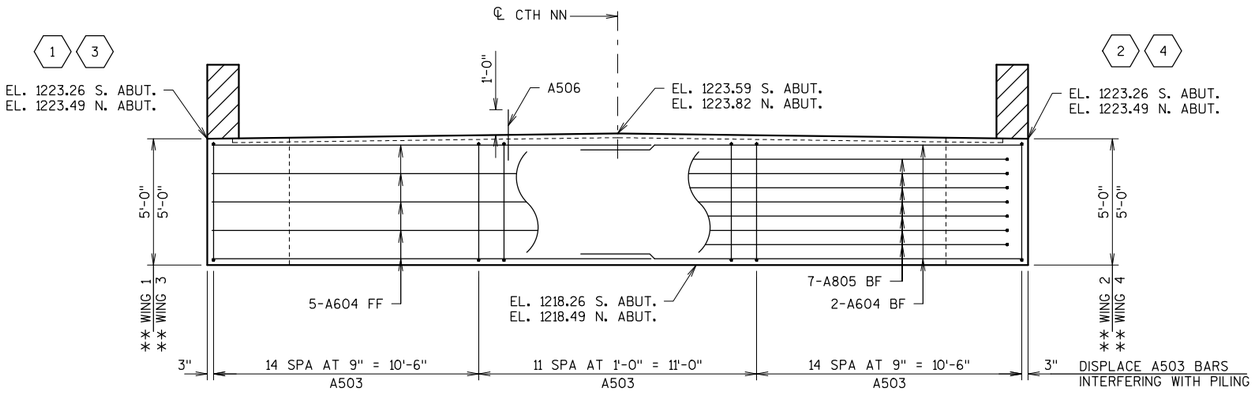
23

8

8

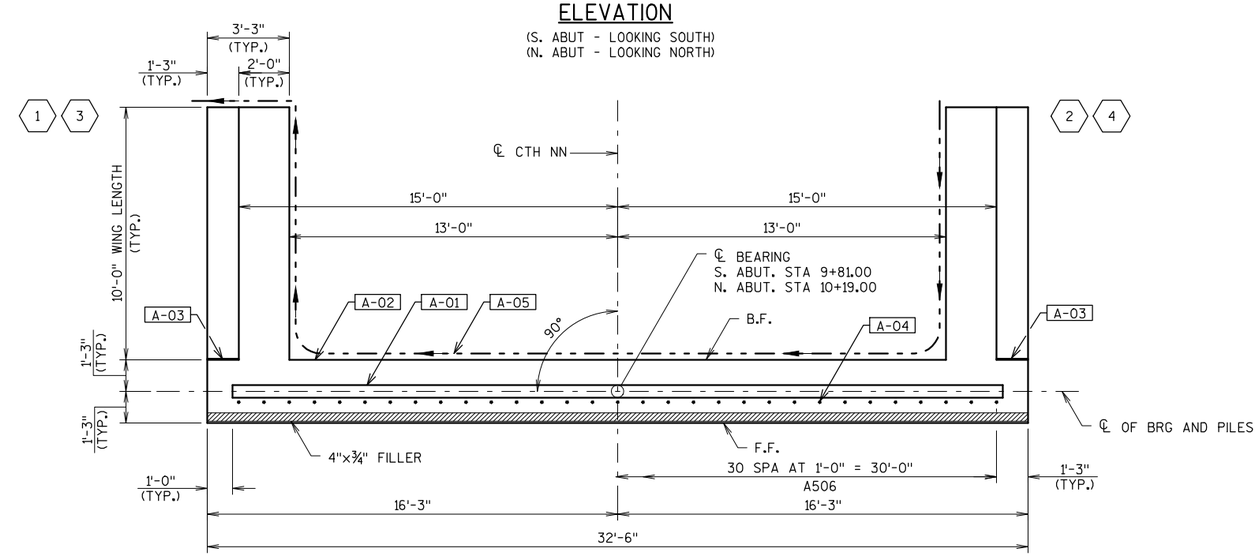
STATE PROJECT NUMBER

8817-00-70



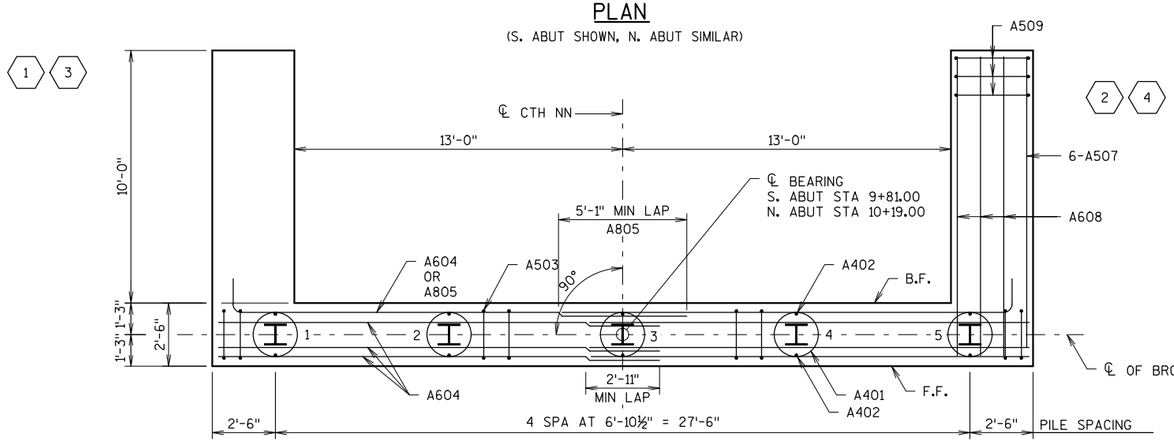
ELEVATION

(S. ABUT - LOOKING SOUTH)
(N. ABUT - LOOKING NORTH)



PLAN

(S. ABUT SHOWN, N. ABUT SIMILAR)



PILE PLAN

(S. ABUT SHOWN, N. ABUT SIMILAR)

NOTES

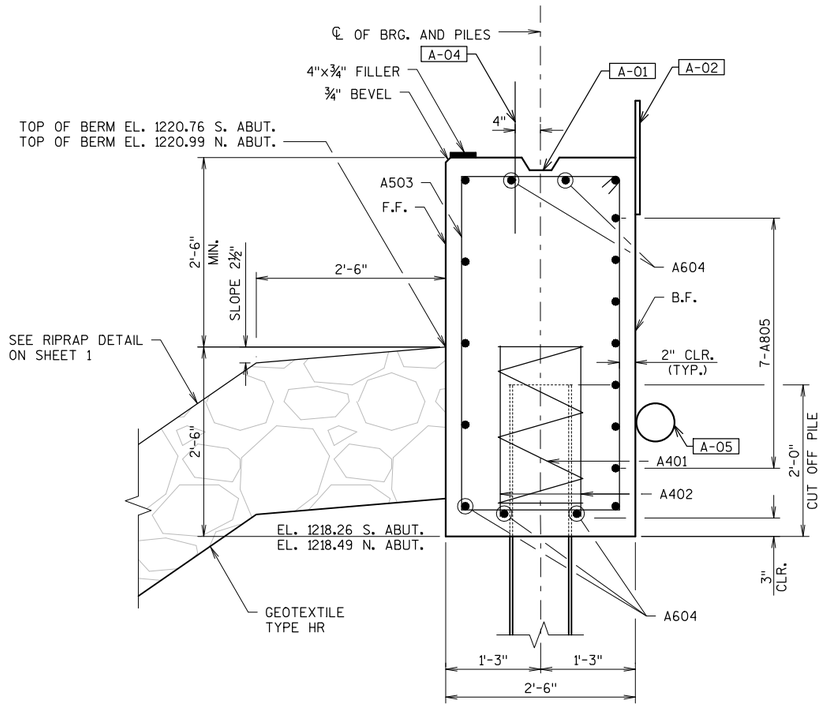
ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED 25'-0" LONG AT BOTH ABUTMENTS. SEE SHEET 2 FOR PILE SPLICE DETAILS.

LEGEND

- ◯ INDICATES WING NUMBER
- A-01 KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".
- A-02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- A-03 ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- A-04 A506 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- A-05 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD INCIDENTAL TO "PIPE UNDERDRAIN WRAPPED 6-INCH".
- ** ELEVATIONS AND DIMENSIONS ARE GIVEN AT THE ℄ OF BEARING. FOR WING DETAILS AND ELEVATIONS, SEE SHEET 5.

F.F. - FRONT FACE
B.F. - BACK FACE



SECTION THRU BODY

HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-200

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

ABUTMENTS

SHEET 4 OF 8

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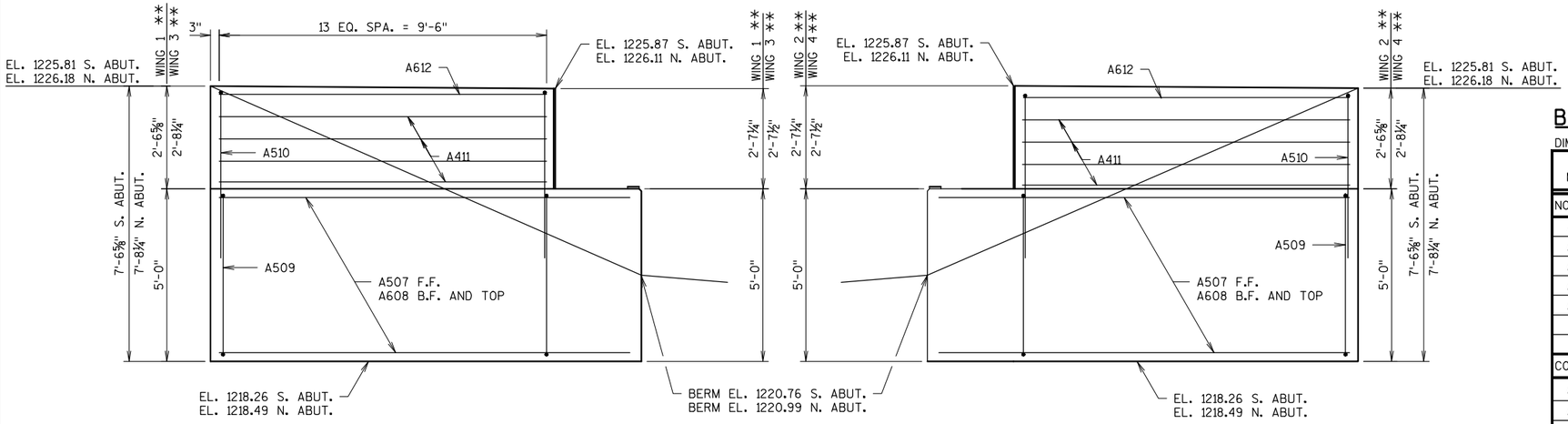
FILE NAME : P:±WI - NW REGION±8817-00-00_BARRONCO_CTH NN±500_CADD±503_STRUCTURES±502.4_FINAL±080401-SA CTH NN.DWG PLOT DATE : 7/19/2016 11:19 AM PLOT BY : BOBBY JONES

STATE PROJECT NUMBER

8817-00-70



ELEVATION WINGS 1 AND 3

ELEVATION WINGS 2 AND 4

BILL OF BARS - BOTH ABUTMENTS

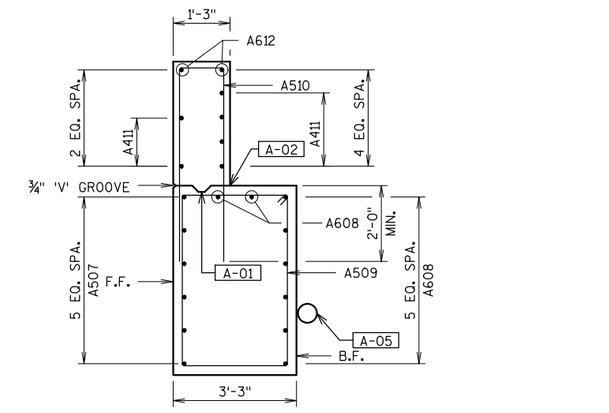
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 4,010 LBS
A401	10	28'-0"	X		ABUT. BODY - AT PILES - 1 PER PILE	VERT.
A402	20	2'-3"			ABUT. BODY - AT PILES - 2 PER PILE	VERT.
A503	80	13'-10"	X		ABUT. BODY - STIRRUPS	VERT.
A604	44	17'-7"			ABUT. BODY - TOP, BTM & F.F.	HORIZ.
A805	28	19'-7"	X		ABUT. BODY - B.F.	HORIZ.
COATED BARS						TOTAL WEIGHT = 2,550 LBS
A506	62	2'-0"			ABUT. BODY - TOP	VERT.
A507	24	12'-2"			WINGS - F.F.	HORIZ.
A608	32	11'-11"			WINGS - TOP, BTM & B.F.	HORIZ.
A509	44	15'-4"	X		WINGS - STIRRUPS	VERT.
A510	56	9'-8"	X		WINGS - TOP	VERT.
A411	24	9'-7"			WINGS - F.F. & B.F.	HORIZ.
A612	8	9'-7"			WINGS - TOP	HORIZ.

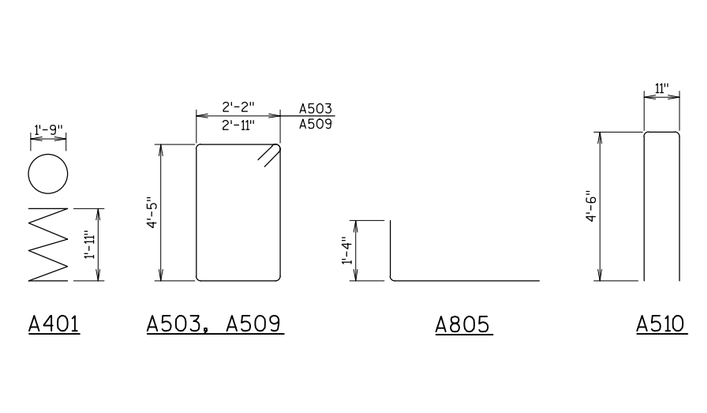
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
TABLE INCLUDES BOTH ABUTMENTS.

NOTES

SEEE SHEET 4 FOR APPLICABLE NOTES



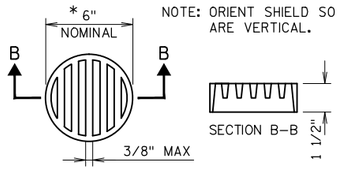
PLAN WINGS 1 AND 3



PLAN WINGS 2 AND 4

TYPICAL SECTION THRU WINGS

A401 A503, A509 A805 A510



* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

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 OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-200

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

ABUTMENT DETAILS

SHEET 5 OF 8

25

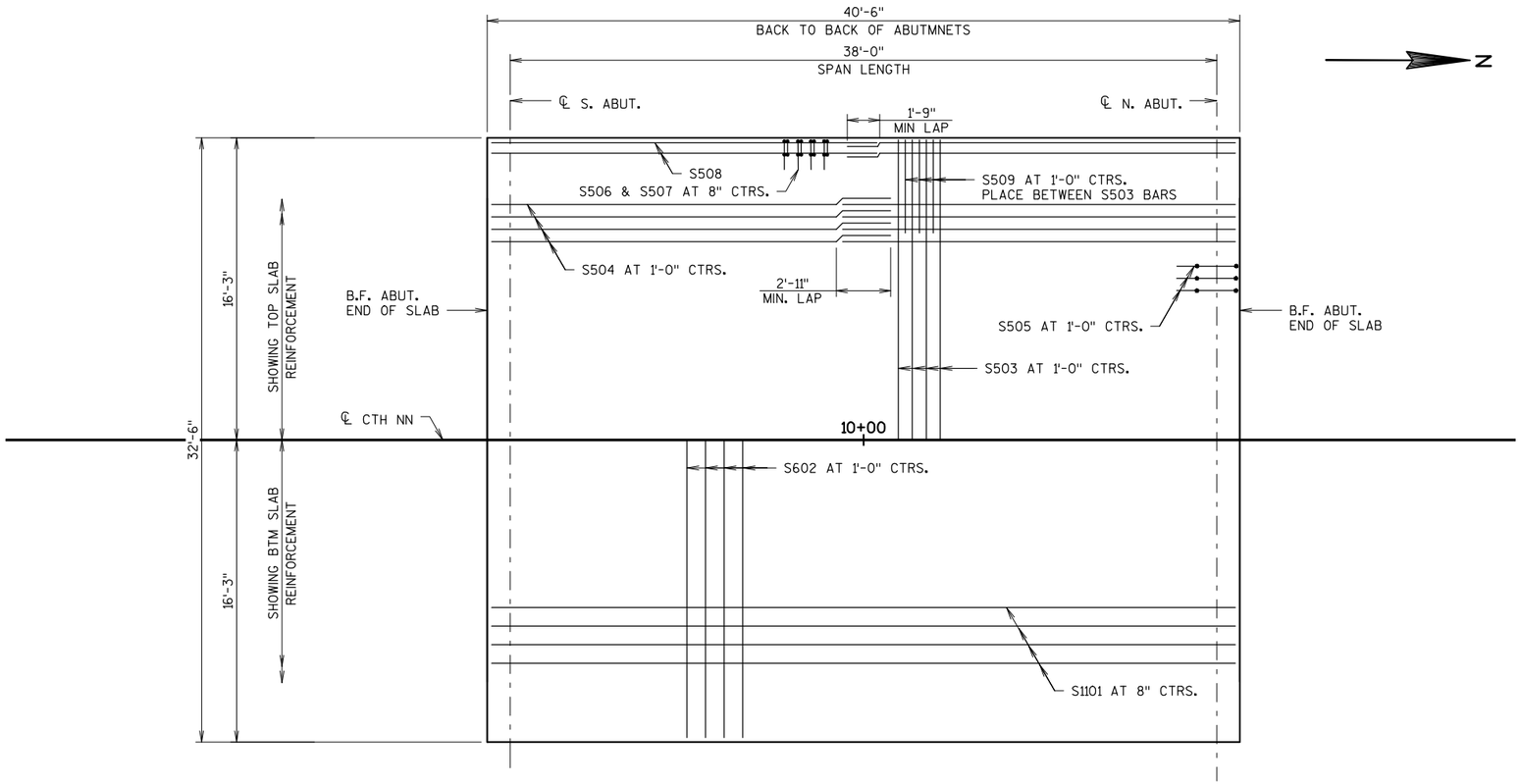
8

8

STATE PROJECT NUMBER

8817-00-70

PLAN



NOTES

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO ℄ OF SUBSTRUCTURE UNITS.

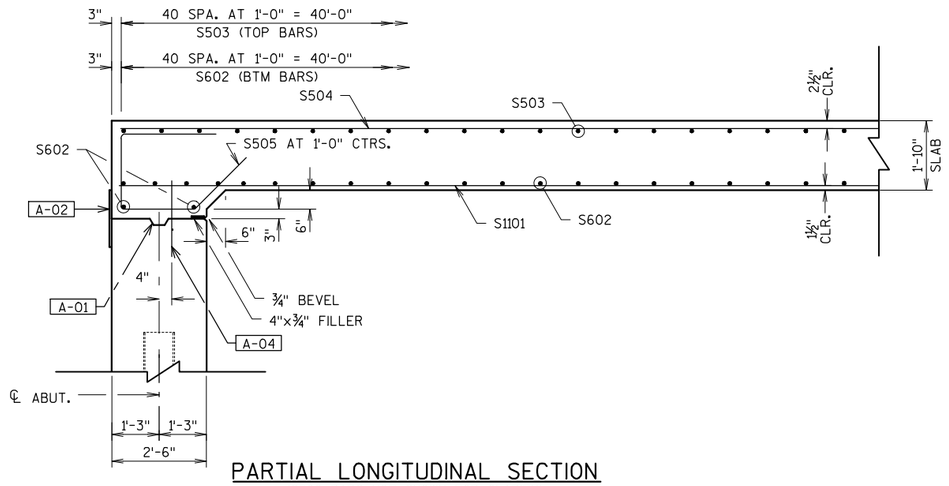
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

LEGEND

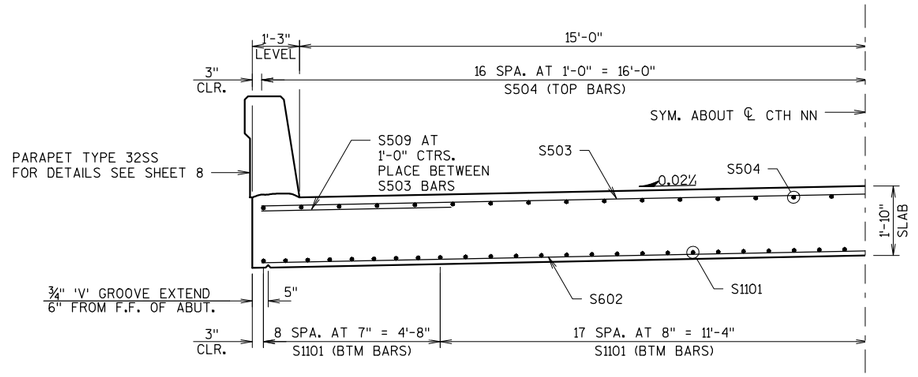
A-01	KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".
A-02	18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
A-04	A506 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

F.F. - FRONT FACE
B.F. - BACK FACE



PARTIAL LONGITUDINAL SECTION

(S509 BARS NOT SHOWN FOR CLARITY)



TYPICAL SECTION THRU SLAB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-200

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SUPERSTRUCTURE

SHEET 6 OF 8

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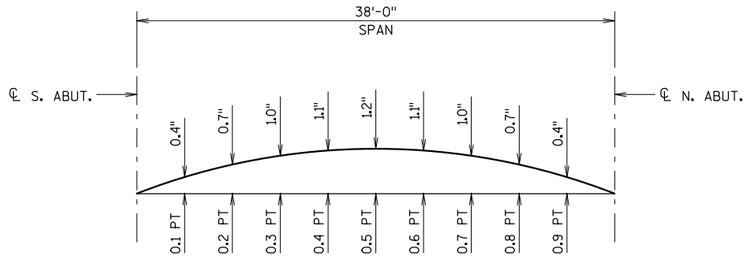
FILE NAME : P:\±WI - NW REGION±8817-00-00_BARRONCO_CTH NN±500_CADD±503_STRUCTURES±502.4_FINAL±080401-SA CTH NN.DWG PLOT DATE : 7/19/2016 11:49 AM PLOT BY : BOBBY JONES



CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄.

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

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

EQUALS TOP OF SLAB FALSEWORK ELEVATION.

TOP OF DECK ELEVATIONS

LOCATION	℄ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF N. ABUT.
WEST EDGE	1225.87	1225.89	1225.91	1225.94	1225.96	1225.98	1226.00	1226.03	1226.05	1226.07	1226.10
℄ STRUCTURE	1226.17	1226.19	1226.21	1226.24	1226.26	1226.28	1226.30	1226.33	1226.35	1226.37	1226.40
EAST EDGE	1225.87	1225.89	1225.91	1225.94	1225.96	1225.98	1226.00	1226.03	1226.05	1226.07	1226.10

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

SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	S. ABUT.	0.5	N. ABUT.
WEST EDGE			
℄ STRUCTURE			
EAST EDGE			

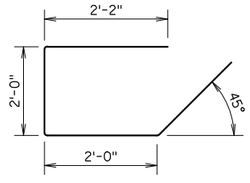
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

BILL OF BARS - SUPERSTRUCTURE

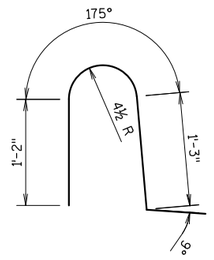
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 18,620 LBS	
S1101	51	40'-2"			SLAB - BTM	LONGIT.
S602	45	32'-2"			SLAB - BTM	TRANS.
S503	41	32'-2"			SLAB - TOP	TRANS.
S504	66	21'-7"			SLAB - TOP	LONGIT.
S505	66	8'-2"	X		SLAB - AT ABUTMENTS	VERT.
S506	122	4'-5"	X		PARAPETS	VERT.
S507	122	5'-0"	X		PARAPETS	VERT.
S508	24	21'-0"			PARAPETS	LONGIT.
S509	80	5'-0"			SLAB - TOP	TRANS.

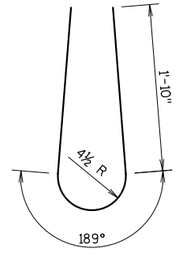
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.



S505



S506



S507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-200

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SUPERSTRUCTURE DETAILS

SHEET 7 OF 8

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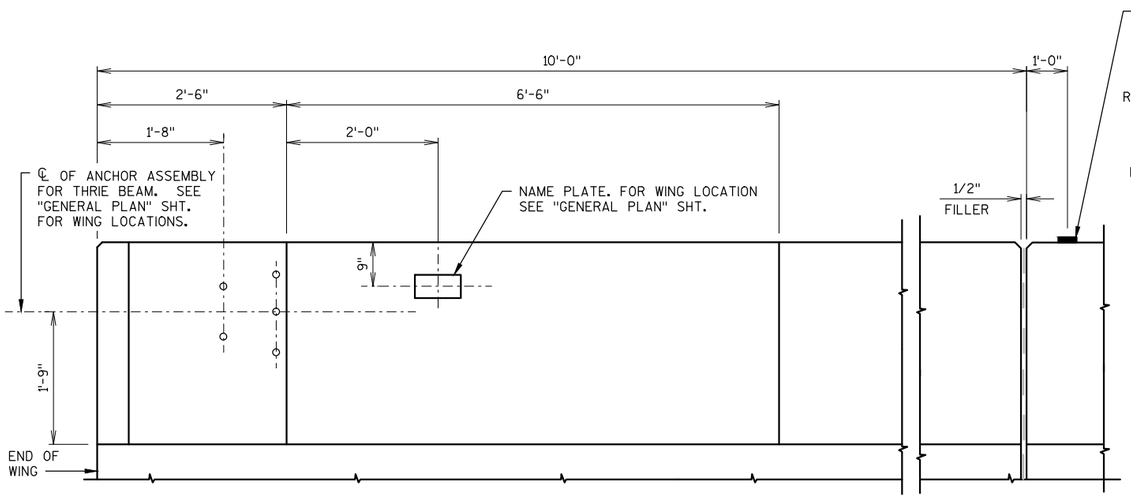
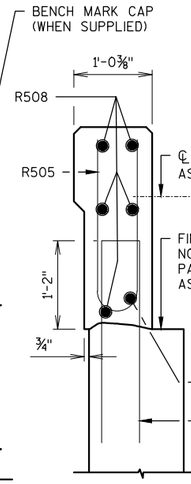
8

STATE PROJECT NUMBER

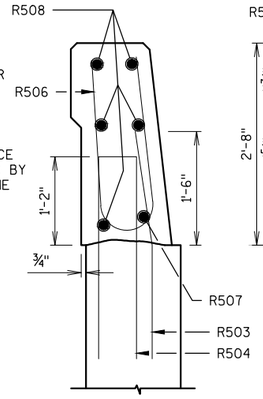
8817-00-70



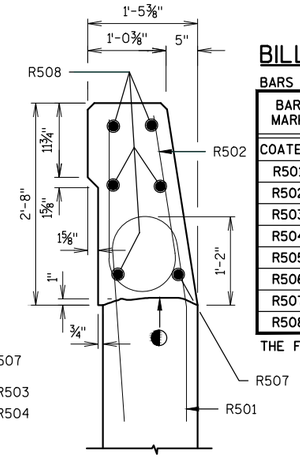
INSIDE ELEVATION



SECTION A



SECTION B



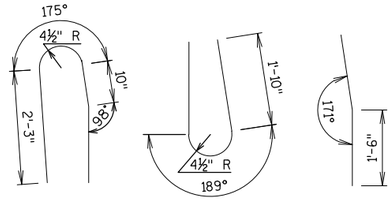
SECTION C

BILL OF BARS - SUPERSTRUCTURE

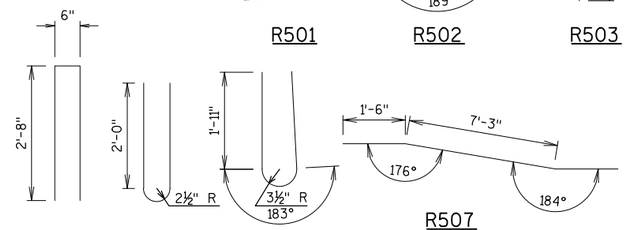
BARS SHOWN ARE FOR 1 WING ONLY

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 310 LBS	
R501	2	5'-10"	X		PARAPET	VERT.
R502	2	5'-0"	X		PARAPET	VERT.
R503	12	3'-0"	X		PARAPET	VERT.
R504	17	5'-7"	X		PARAPET	VERT.
R505	11	4'-9"	X		PARAPET	VERT.
R506	6	4'-10"	X		PARAPET	VERT.
R507	1	9'-6"	X		PARAPET	HORIZ.
R508	5	9'-6"			PARAPET	HORIZ.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

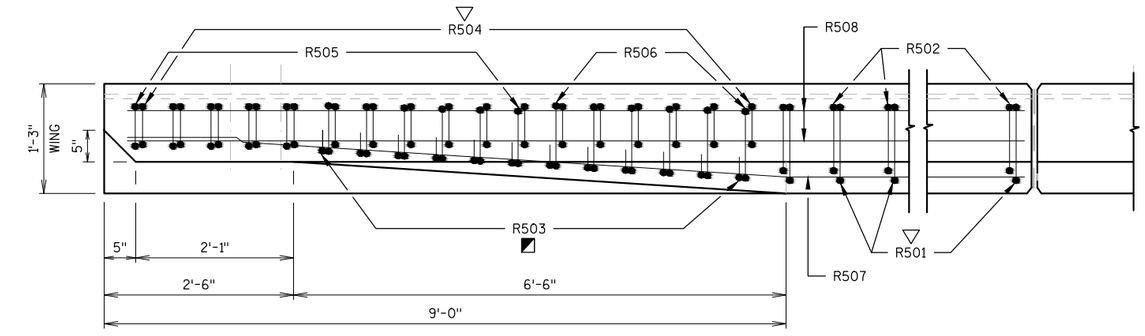


R501 R502 R503

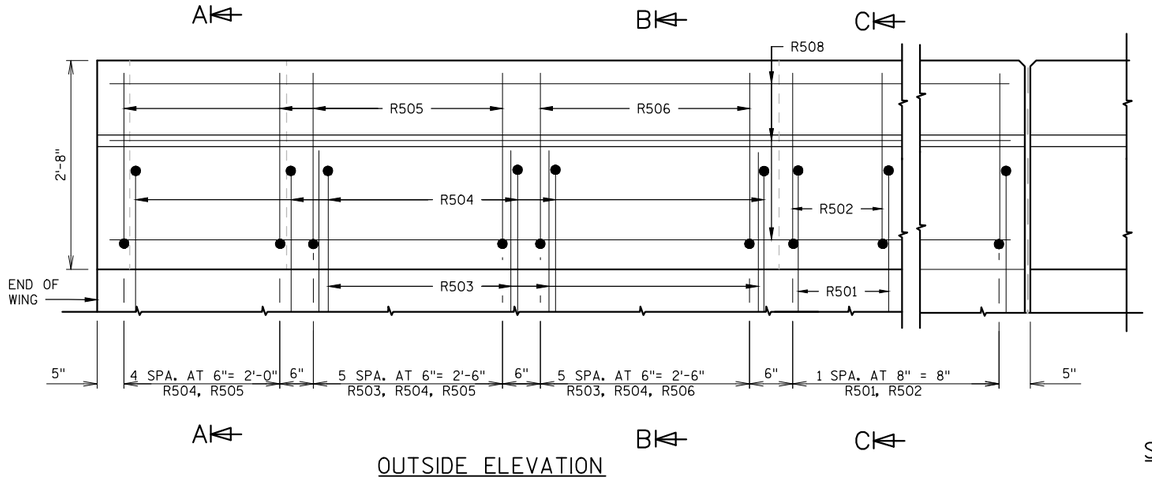


R507

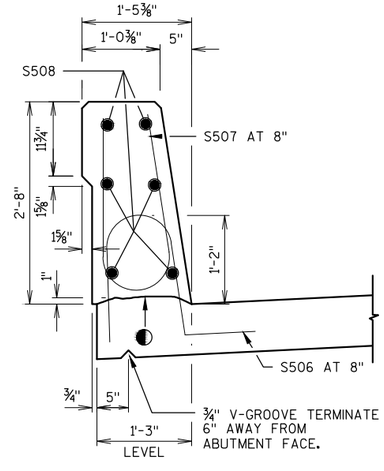
R504 R505 R506



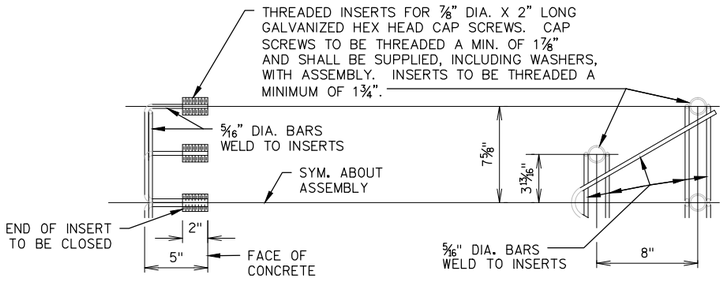
PLAN



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE



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.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◩ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-200

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

SINGLE SLOPE PARAPET 32SS

SHEET 8 OF 8

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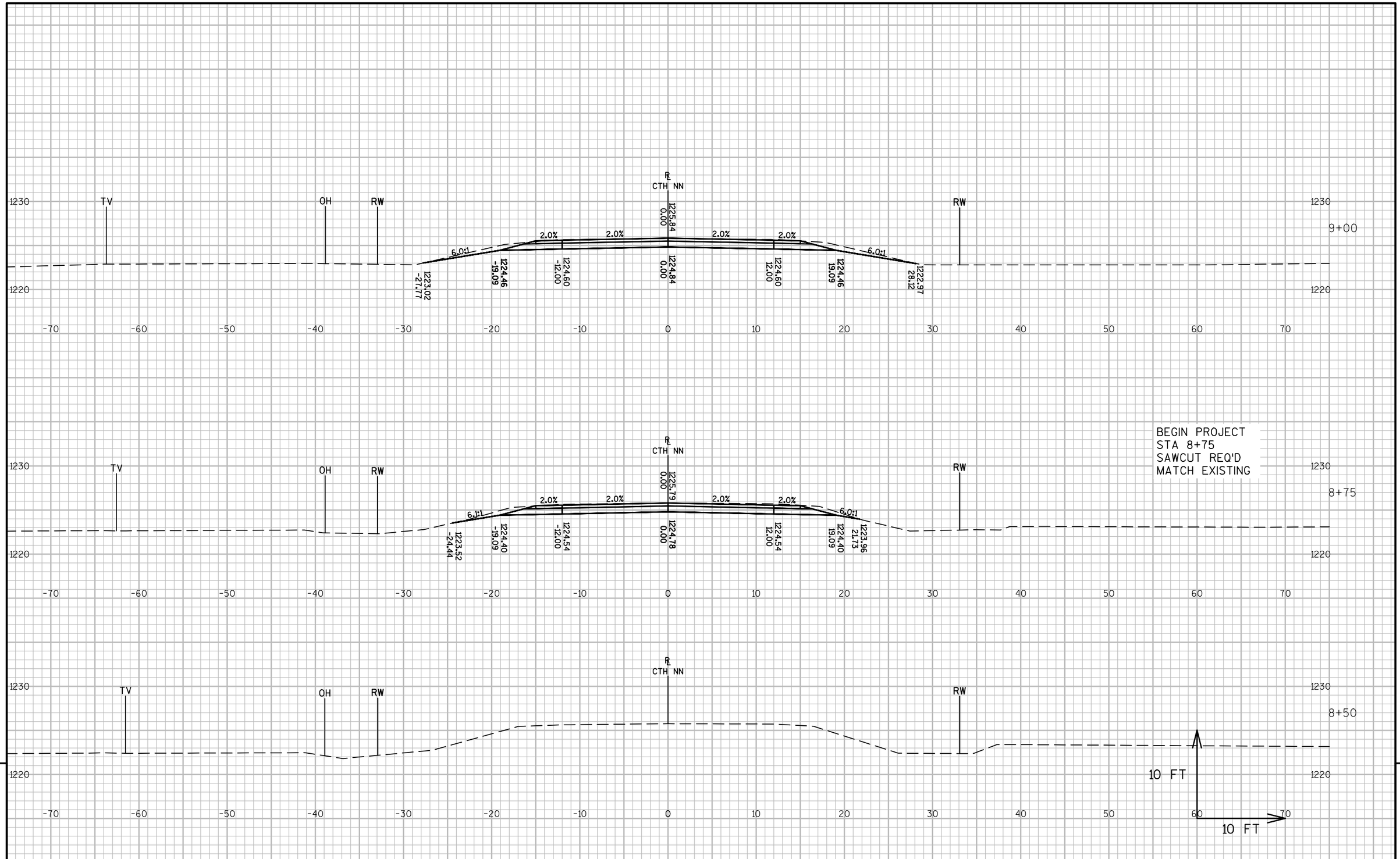
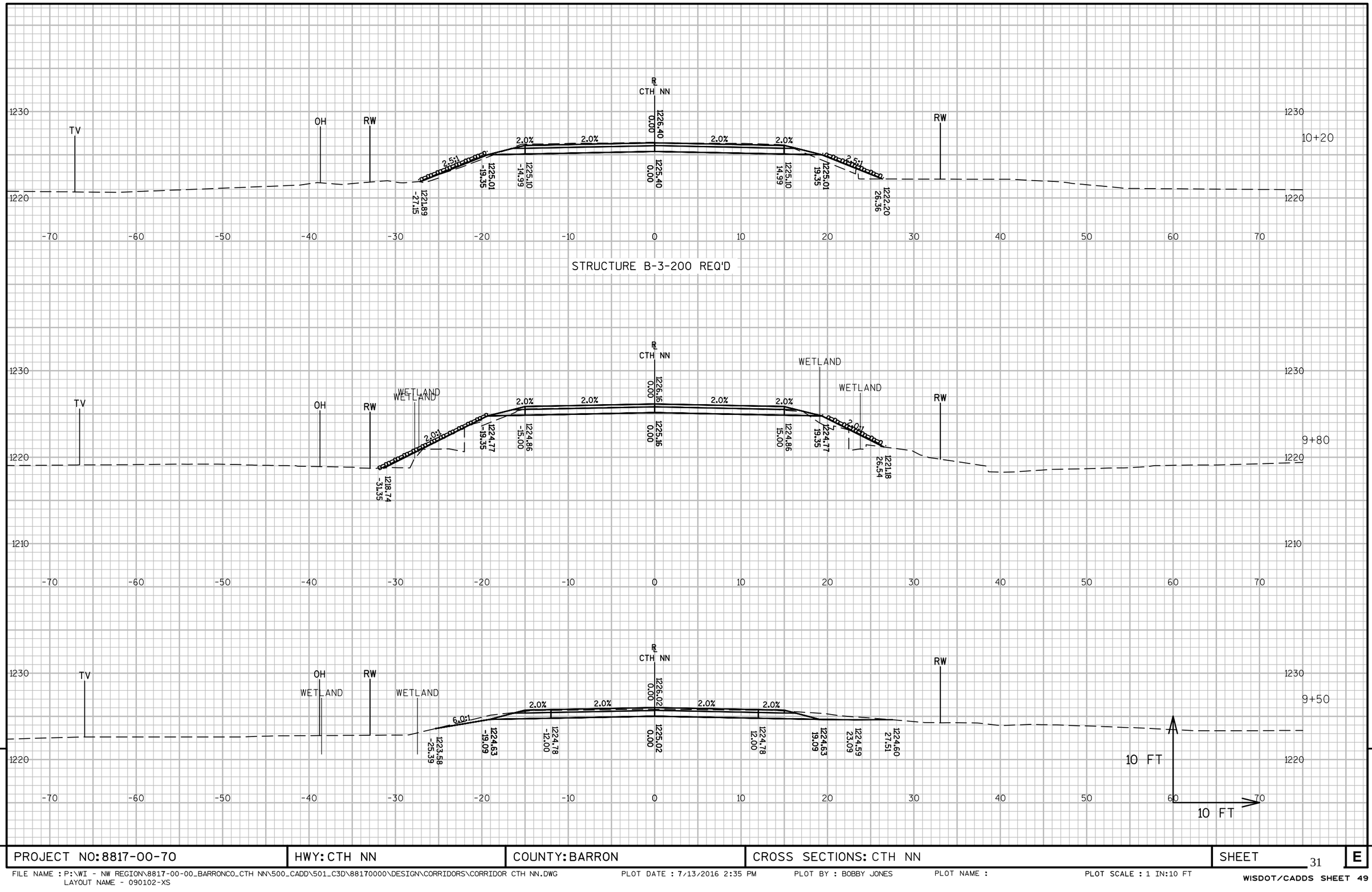
STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut (1, 2)	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS (3)	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25 (6)	Cumulative Vol (CY) Expanded EBS Backfill 1.30 (5)	Cumulative Vol (CY) Reduced EBS in Fill 0.80 (4)	Mass Ordinate (7)
08+75.01	0.00	40.69	5.50	1.66	0	0	0	0	0	0	0	0.00	0.00
09+00	24.99	42.52	5.50	0.00	39	5	1	0	39	1	0	0.00	32.45
09+25	25.00	41.79	5.50	0.00	39	5	0	0	78	1	0	0.00	66.39
09+50	25.00	42.37	5.50	0.00	39	5	0	0	116	1	0	0.00	100.26
09+79.75	29.75	22.73	5.50	26.94	36	6	15	0	152	20	0	0.00	111.52
STRUCTURE B-3-200													
10+20.35	0.00	36.29	5.50	22.06	0	0	0	0	152	20	0	0.00	111.52
10+50	29.65	41.14	5.50	0.85	43	6	13	0	195	35	0	0.00	132.27
10+75	25.00	39.58	5.50	1.64	37	5	1	0	232	37	0	0.00	163.10
11+00	25.00	37.31	5.50	0.00	36	5	1	0	268	38	0	0.00	192.66
11+25	25.00	36.66	5.50	0.56	34	5	0	0	302	38	0	0.00	221.49
					302	43	30	0					

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unusable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material.
4) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
5) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
6) Expanded Fill. Factor = 1.25 Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor
7) 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.
8) Use 260 CY of material from Division 1. Borrow Excavation item number 208.0100

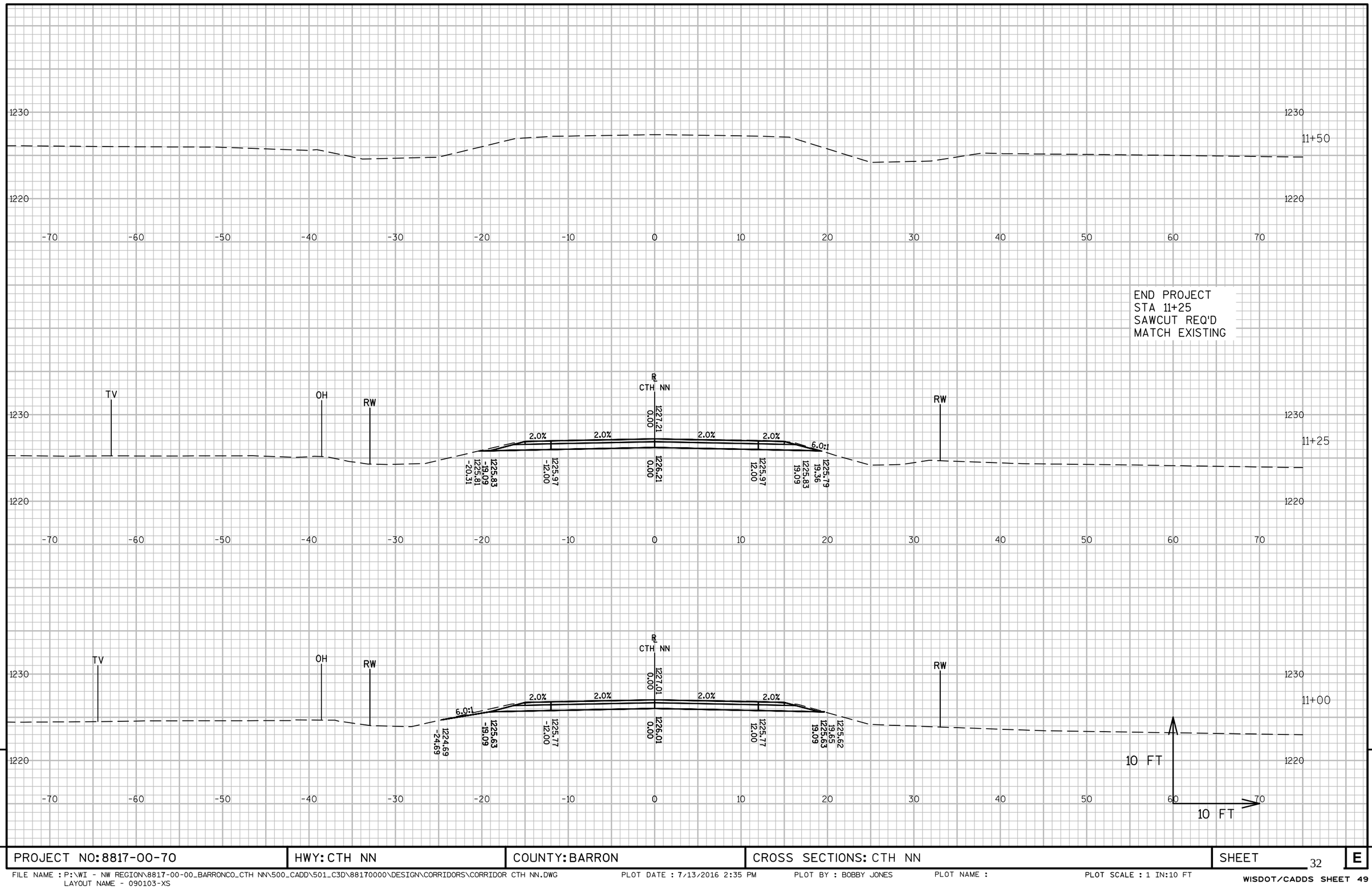


PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	CROSS SECTIONS: CTH NN	SHEET 30	E



PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	CROSS SECTIONS: CTH NN	SHEET 31	E

FILE NAME : P:\WI - NW REGION\8817-00-00_BARRONCO_CTH NN\500_CADD\501_C3D\88170000\DESIGN\CORRIDORS\CORRIDOR CTH NN.DWG
LAYOUT NAME - 090102-XS
PLOT DATE : 7/13/2016 2:35 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

9

PROJECT NO: 8817-00-70	HWY: CTH NN	COUNTY: BARRON	CROSS SECTIONS: CTH NN	SHEET 32	E

FILE NAME : P:\WI - NW REGION\8817-00-00_BARRONCO_CTH NN\500_CADD\501_C3D\88170000\DESIGN\CORRIDORS\CORRIDOR CTH NN.DWG
LAYOUT NAME - 090103-XS
PLOT DATE : 7/13/2016 2:35 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

NWL

PROJECT ID: 8833-00-70

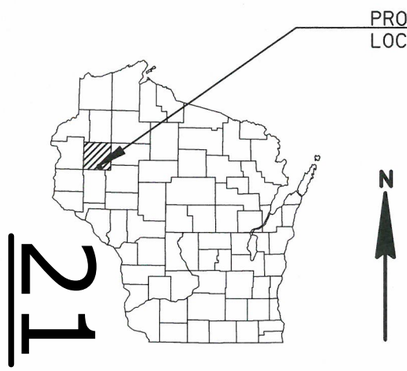
WITH: 8817-00-70

COUNTY: BARRON

FEB 2017

ORDER OF SHEETS

TOTAL SHEETS = 70



DESIGN DESIGNATION

A.A.D.T.	(2017)	= 1100
A.A.D.T.	(2037)	= 1300
D.H.V.	(2037)	= 187
D.D.		= 60/40
T.		= 19.7%
DESIGN SPEED		= 55 MPH
ESALS		= 520,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
FENCE LINE		**UTILITIES**	
SLOPE INTERCEPT		OVERHEAD	OH
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		TELEVISION	TV
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

DALLAS - CHETEK

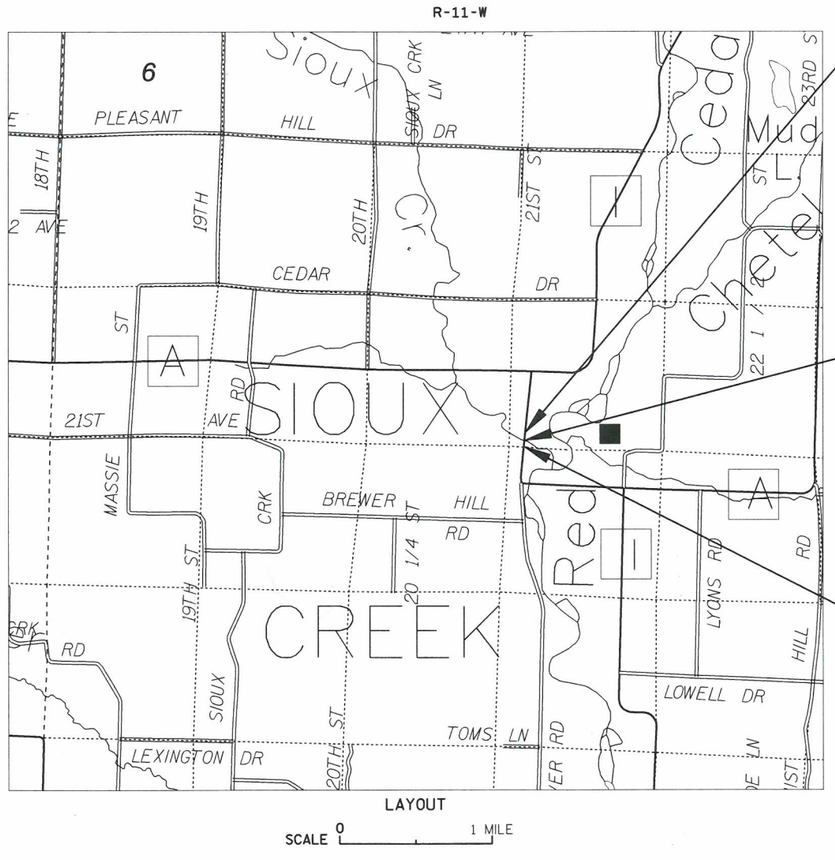
SIOUX CREEK BRIDGE B030201

CTH A

BARRON COUNTY

STATE PROJECT NUMBER
8833-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8833-00-70	WISC 2017036	1



LAYOUT

SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.066 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BARRON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR BARRON COUNTY

DATE: 7/18/16 (Signature)

Barron (Highway Commissioner)

ORIGINAL PLANS PREPARED BY

CORRE Structural Environmental Municipal Transportation

1802 WARDEN ROAD
EAU CLAIRE, WI 54703
(608)828-1011
www.correinc.com

DATE: 7/18/16 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: CORRE, INC.

Designer: CORRE, INC.

Management Consultant: KNIGHT E/A, INC.

APPROVED FOR THE DEPARTMENT

DATE: 7/25/16

MANAGEMENT CONSULTANT SIGNATURE

E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\SHEETSPLAN\010101 TI.DWG
LAYOUT NAME - 010101 TI

PLOT DATE : 7/11/2016 4:16 PM

PLOT BY : BOBBY JONES

PLOT NAME :

UTILITY CONTACTS

* BARRON ELECTRIC COOPERATIVE - ELECTRIC
DALLAS SLOAN
1434 N. STH 25
P.O. BOX 40
BARRON, WI 54812
(715) 537-3171
dsloan@barronelectric.com

* MOSAIC TELECOM AS
CHIBARDUN TELEPHONE COOOPERATIVE, INC. - COMMUNICATION LINE
PAT MC MANUS
401 S. 1ST STREET
P.O. BOX 664
CAMERON, WI 54822
(715) 458-5400
pmcmanus@mosaictelecom.com

* XCEL ENERGY - ELECTRIC
DAWN SCHULTZ
1414 W HAMILTON AVENUE
P.O. BOX 8
EAU CLAIRE, WI 54702
(715) 737-2482
Dawn.schultz@xcelenergy.com

* DENOTES UTILITIES THAT ARE DIGGERS HOTLINE MEMBERS

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

DNR CONTACT

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

CONSULTANT CONTACT

CORRE, INC.
1802 WARDEN STREET
EAU CLAIRE, WI 54703
KEVIN MEYER, P.E.
715-299-1894
kmeyer@correinc.com

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAVD 88.

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

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

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, AND SEEDED.

BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

5.5-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED UTILIZING MINIMUM OF TWO LIFTS.

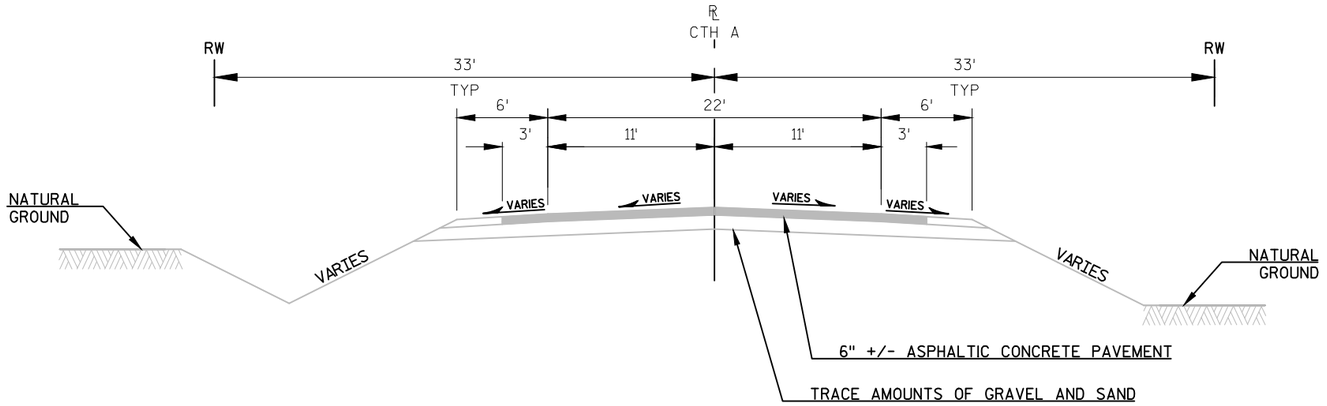
UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS, EXACT LOCATIONS WILL BE DETERMINED BY THE E.C.I.P AND APPROVED BY THE ENGINEER IN THE FIELD. SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS.

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.64 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.59 ACRES



TYPICAL EXISTING SECTION - CTH A

STA 8+20.00 - STA 9+73.75
STA 10+26.25 - STA 11+70.00

RESTORATIONS NOTES:

FOR MGS GUARDRAIL DETAILS SEE DETAILS ON CONSTRUCTION DETAIL SHEET

(A) FERTILIZER TYPE B; SEEDING MIXTURE NO. 40 AND 60; SEEDING TEMPORARY

(B) SALVAGED TOPSOIL; MULCHING; FERTILIZER TYPE B; SEEDING MIXTURE NO. 40 AND 60; SEEDING TEMPORARY

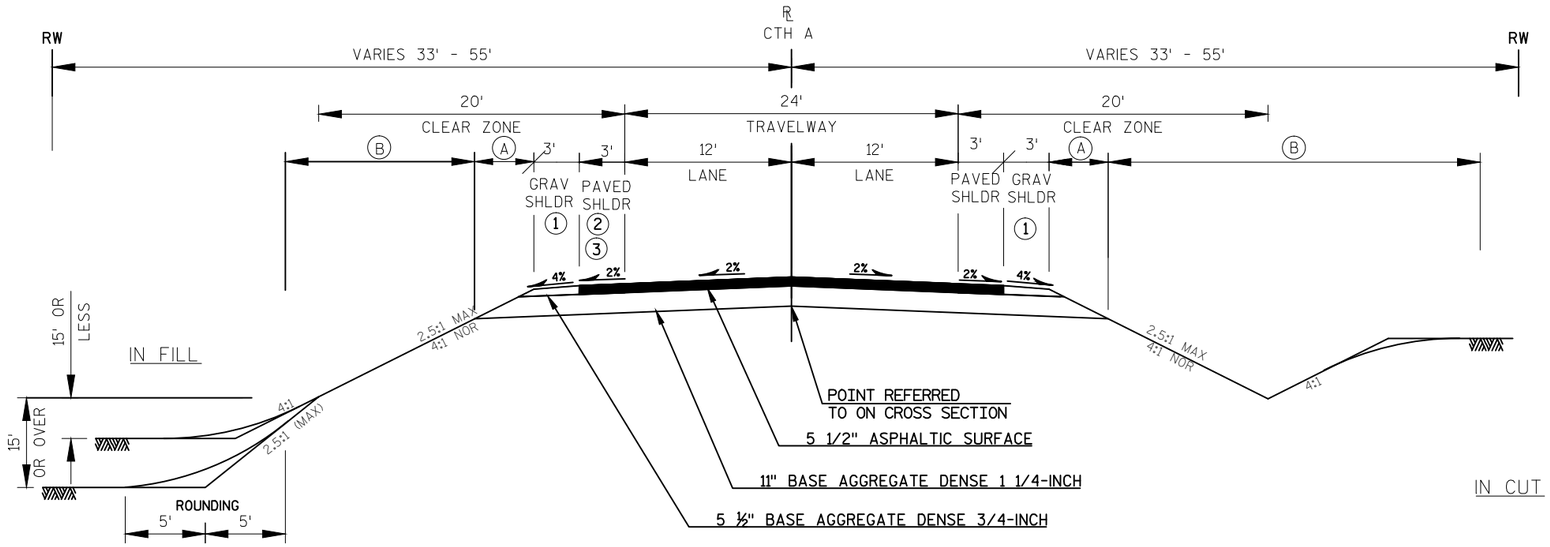
NOTES:

(1) MGS GUARDRAIL 3
STA 8+69.38, RT TO STA 9+55.53, RT
STA 10+45.27, RT TO STA 11+22.58, RT

STA 8+77.42, LT TO STA 9+55.53, LT
STA 10+45.27, LT TO STA 11+30.61, LT

(2) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
STA 8+71.30, LT TO STA 9+77.77, LT

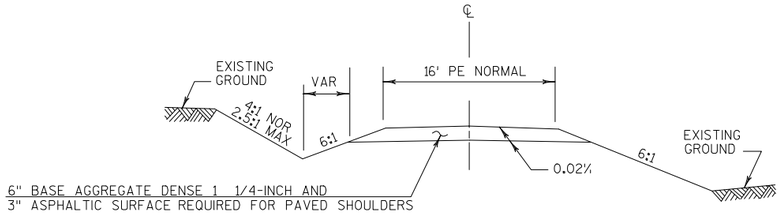
(3) DEPRESSED CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
DRIVEWAY LIMITS DETERMINED BY THE ENGINEER IN THE FIELD.



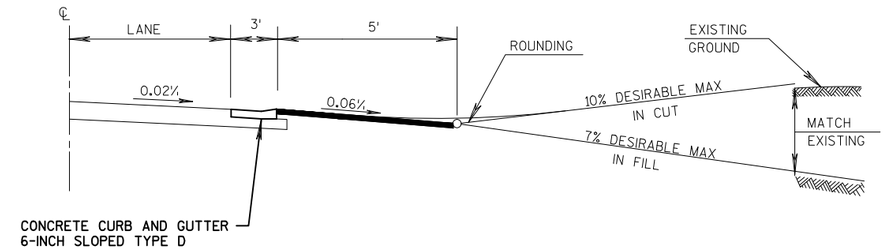
TYPICAL FINISHED SECTION - CTH A

STA 8+20.00 - STA 9+74.40
STA 10+25.60 - STA 11+70.00

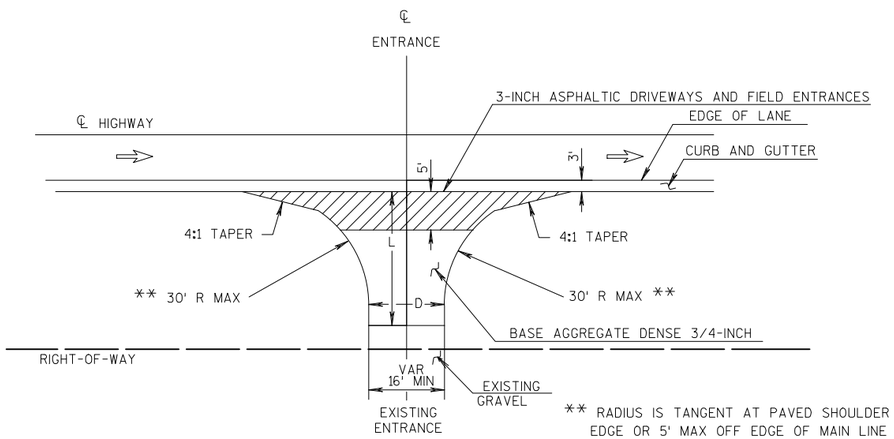
PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	TYPICAL SECTIONS: CTH A	SHEET 3	E



TYPICAL CROSS SECTION



PROFILE VIEW



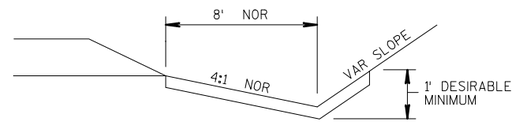
** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

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

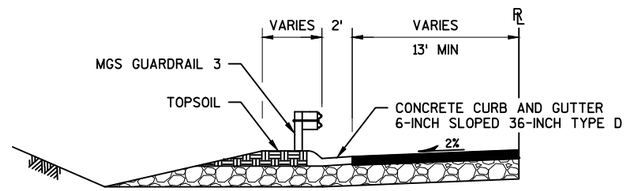
D=DRIVEWAY WIDTH
D=20'TYP (PE's & FE's) (16'MIN-24'MAX)

PLAN VIEW

URBAN DRIVEWAY INTERSECTION DETAIL (PE)

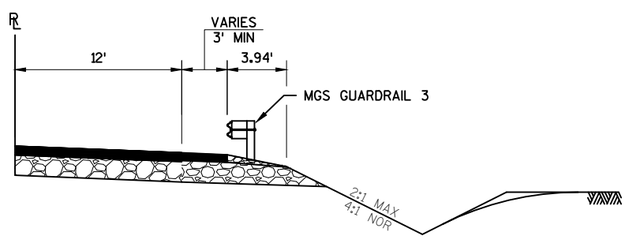


EROSION MAT DETAIL FOR DITCHES



FOR DETAILS SEE
SDD: CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
CONCRETE CURB AND GUTTER 36" (6" SLOPED CURB)
DRIVEWAY ENTRANCE CURB

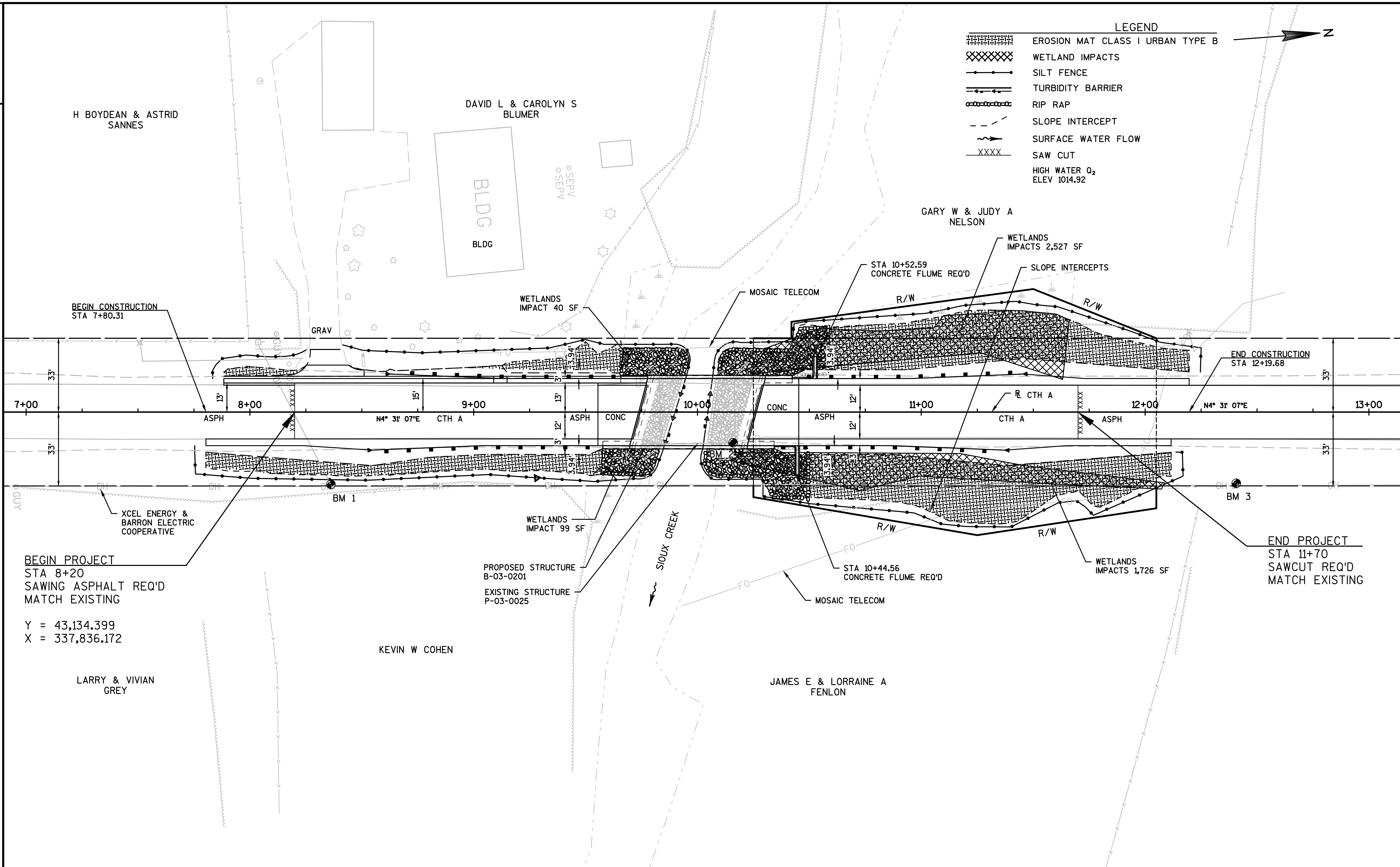
HALF TYPICAL FINISHED BEAMGUARD WITH CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D CURB



HALF TYPICAL FINISHED BEAMGUARD SECTION

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CONSTRUCTION DETAILS: CTH A	SHEET 4	E

2



LEGEND
EROSION MAT CLASS I URBAN TYPE B
WETLAND IMPACTS
SILT FENCE
TURBIDITY BARRIER
RIP RAP
SLOPE INTERCEPT
SURFACE WATER FLOW
SAW CUT
HIGH WATER Q_2 ELEV 1014.92
N
H BOYDEAN & ASTRID SANNES
DAVID L & CAROLYN S BLUMER
BLDG
GARY W & JUDY A NELSON
WETLANDS IMPACTS 2,527 SF
STA 10+52.59 CONCRETE FLUME REQ'D
SLOPE INTERCEPTS
MOSAIC TELECOM
WETLANDS IMPACT 40 SF
BEGIN CONSTRUCTION STA 7+80.31
END CONSTRUCTION STA 12+19.68
GRAV
R/W
7+00
8+00
9+00
10+00
11+00
12+00
13+00
ASPH
CONC
CTH A
N4° 31' 07"E
℄ CTH A
33'
13'
15'
12'
BM 1
BM 2
BM 3
XCEL ENERGY & BARRON ELECTRIC COOPERATIVE
WETLANDS IMPACT 99 SF
SIOUX CREEK
PROPOSED STRUCTURE B-03-0201
EXISTING STRUCTURE P-03-0025
STA 10+44.56 CONCRETE FLUME REQ'D
MOSAIC TELECOM
WETLANDS IMPACTS 1,726 SF
BEGIN PROJECT
STA 8+20
SAWING ASPHALT REQ'D
MATCH EXISTING
Y = 43,134.399
X = 337,836.172
END PROJECT
STA 11+70
SAWCUT REQ'D
MATCH EXISTING
KEVIN W COHEN
LARRY & VIVIAN GREY
JAMES E & LORRAINE A FENLON

2

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	EROSION CONTROL	SHEET 5	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-EC
PLOT DATE : 7/19/2016 9:11 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1:1

2

2

H BOYDEAN & ASTRID SANNES

DAVID L & CAROLYN S BLUMER

GARY W & JUDY A NELSON

N

BLDG

SEPV

SEPV

W5-52L 12"X36"

REMOVE

201

201A

P-03-0025 EXISTING STRUCTURE

B-03-0201 PROPOSED STRUCTURE

REMOVE

203A

W5-52R 12"X36"

203

GUY

FO

9+00

10+00

11+00

OH

BEGIN PROJECT
STA 8+20
SAWCUT REQ'D
MATCH EXISTING

202

202A

W5-52R 12"X36"

REMOVE

SIOUX CREEK

204A

204

REMOVE

W5-52L 12"X36"

END PROJECT
STA 11+70
SAWCUT REQ'D
MATCH EXISTING

NOTES:

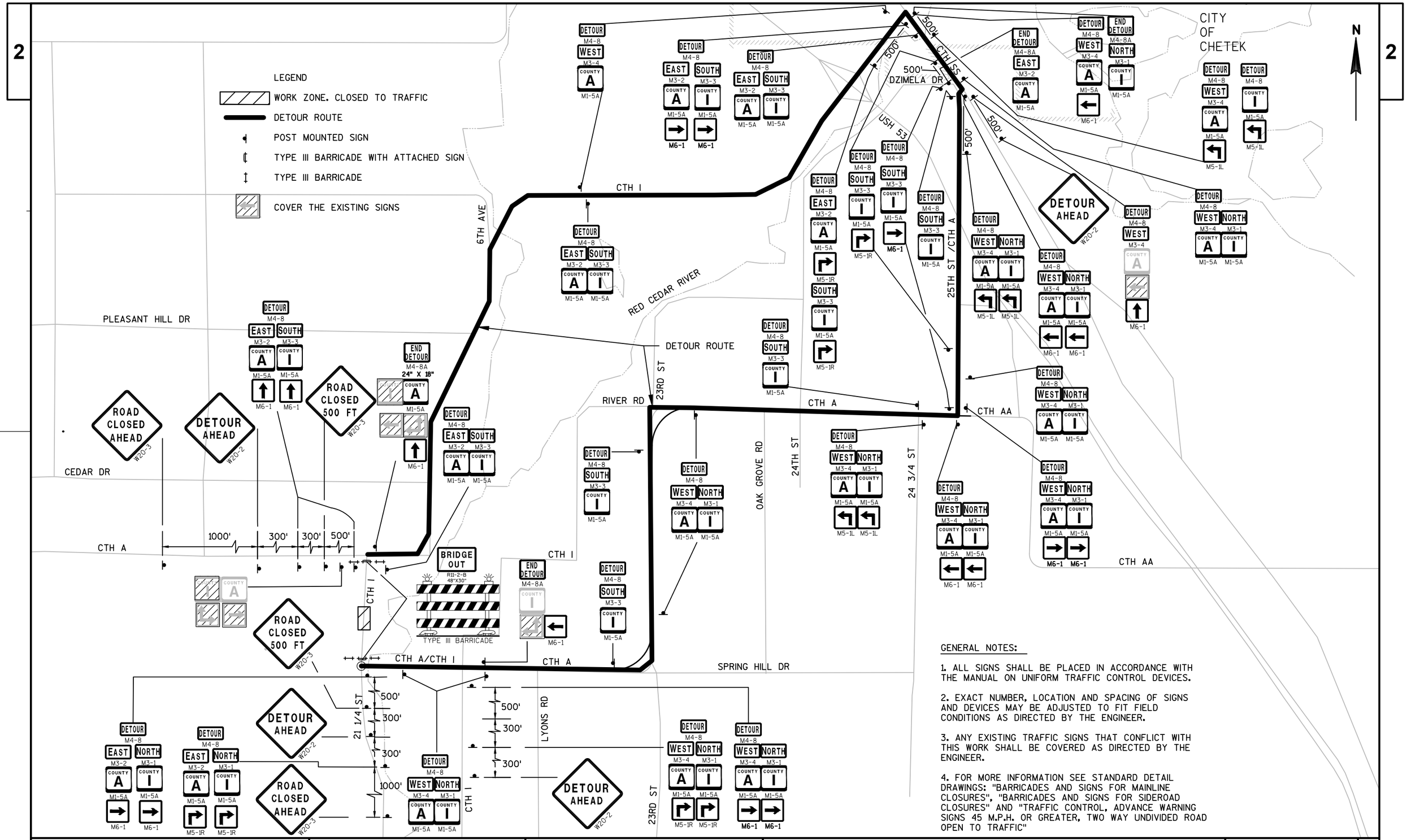
FOR PAVEMENT MARKING DETAILS SEE SDD'S
"SIGNING & MARKING FOR TWO LANE BRIDGES"
"PAVEMENT MARKING (MAINLINE)"

LARRY & VIVIAN GREY

KEVIN W COHEN

JAMES E & LORRAINE A FENLON

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	PERMANENT SIGNING AND MARKING: CTH A	SHEET 6	E



GENERAL NOTES:

1. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

2. EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

3. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

4. FOR MORE INFORMATION SEE STANDARD DETAIL DRAWINGS: "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" AND "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

PROJECT NO:8833-00-00	HWY:CTH A	COUNTY:BARRON	DETOUR: CTH A	SCALE, FEET 0 1500 3000	SHEET 7	E

8833-00-70

Line	Item	Item Description	Unit	Total	Qty
0010	201.0105	Clearing	STA	3.000	3.000
0020	201.0205	Grubbing	STA	3.000	3.000
0040	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 02. 10+00 Project 8833-00-70	LS	1.000	1.000
0050	205.0100	Excavation Common	CY	262.000	262.000
0070	206.1000	Excavation for Structures Bridges (structure) 02. B-03-0201	LS	1.000	1.000
0080	208.0100	Borrow	CY	532.000	532.000
0090	210.1500	Backfill Structure Type A	TON	340.000	340.000
0110	213.0100	Finishing Roadway (project) 02. 8833-00-70	EACH	1.000	1.000
0120	305.0110	Base Aggregate Dense 3/4-Inch	TON	99.000	99.000
0130	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,068.000	1,068.000
0140	415.0120	Concrete Pavement 12-Inch	SY	21.000	21.000
0150	415.0410	Concrete Pavement Approach Slab	SY	104.000	104.000
0160	416.1010	Concrete Surface Drains	CY	4.600	4.600
0170	455.0605	Tack Coat	GAL	138.000	138.000
0180	465.0105	Asphaltic Surface	TON	311.000	311.000
0190	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	2.000	2.000
0200	502.0100	Concrete Masonry Bridges	CY	235.000	235.000
0210	502.3200	Protective Surface Treatment	SY	175.000	175.000
0220	502.3210	Pigmented Surface Sealer	SY	64.000	64.000
0230	505.0400	Bar Steel Reinforcement HS Structures	LB	4,040.000	4,040.000
0240	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	35,530.000	35,530.000
0250	516.0500	Rubberized Membrane Waterproofing	SY	22.000	22.000
0260	550.0020	Pre-Boring Rock or Consolidated Materials	LF	140.000	140.000
0270	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	120.000	120.000
0280	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	10.000	10.000
0290	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	165.000	165.000
0300	606.0300	Riprap Heavy	CY	345.000	345.000
0310	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0320	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0330	614.2300	MGS Guardrail 3	LF	50.000	50.000
0340	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0350	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0360	619.1000	Mobilization	EACH	0.500	0.500
0370	624.0100	Water	MGAL	40.000	40.000
0380	625.0500	Salvaged Topsoil	SY	1,620.000	1,620.000
0390	627.0200	Mulching	SY	624.000	624.000
0400	628.1504	Silt Fence	LF	880.000	880.000
0410	628.1520	Silt Fence Maintenance	LF	880.000	880.000

8833-00-70

Line	Item	Item Description	Unit	Total	Qty
0420	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0430	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0440	628.2008	Erosion Mat Urban Class I Type B	SY	1,041.000	1,041.000
0450	628.6005	Turbidity Barriers	SY	76.000	76.000
0460	629.0210	Fertilizer Type B	CWT	1.000	1.000
0480	630.0140	Seeding Mixture No. 40	LB	17.000	17.000
0490	630.0160	Seeding Mixture No. 60	LB	18.000	18.000
0500	630.0200	Seeding Temporary	LB	43.000	43.000
0510	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0520	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0530	638.2602	Removing Signs Type II	EACH	4.000	4.000
0540	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0550	642.5201	Field Office Type C	EACH	0.500	0.500
0570	643.0100	Traffic Control (project) 02. 8833-00-70	EACH	1.000	1.000
0580	643.0420	Traffic Control Barricades Type III	DAY	966.000	966.000
0590	643.0705	Traffic Control Warning Lights Type A	DAY	1,104.000	1,104.000
0600	643.0900	Traffic Control Signs	DAY	966.000	966.000
0610	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000
0630	643.2000	Traffic Control Detour (project) 02. 8833-00-70	EACH	1.000	1.000
0640	643.3000	Traffic Control Detour Signs	DAY	13,524.000	13,524.000
0650	645.0120	Geotextile Type HR	SY	425.000	425.000
0660	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,760.000	1,760.000
0670	650.4500	Construction Staking Subgrade	LF	388.000	388.000
0680	650.5000	Construction Staking Base	LF	388.000	388.000
0690	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	175.000	175.000
0710	650.6500	Construction Staking Structure Layout (structure) 02. B-03-0201	LS	1.000	1.000
0730	650.9910	Construction Staking Supplemental Control (project) 02. 8833-00-70	LS	1.000	1.000
0740	650.9920	Construction Staking Slope Stakes	LF	388.000	388.000
0750	690.0150	Sawing Asphalt	LF	44.000	44.000
0760	715.0502	Incentive Strength Concrete Structures	DOL	966.000	966.000
0770	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0780	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0790	SPV.0035	Special 01. SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR INTERSTITIAL SPACE	CY	8.000	8.000

Division	From/To Station	Location	Common Excavation (1)	(item # 205.0100)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Reduced EBS in Fill (6)	Expanded EBS Backfill (7)	Unexpanded Fill	Expanded Fill (8)	Mass Ordinate +/- (9)	Borrow
			Cut (2)	EBS Excavation (3)			Factor 0.80	Factor 1.30		Factor 1.25		
Division 1												(item #208.0100)
CTH A Mainline	7+80.31 TO 12+19.68		262	0	145	117	0	0	520	649	-532	532
Division 1 Subtotal			262	0	145	117	0	0	520	649	-532	532
Grand Total			262	0	145	117	0	0	520	649	-532	532
Total Common Exc				262								

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.
3) EBS Excavation to be backfilled with Select Borrow material.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
7) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
8) Expanded Fill. Factor = 1.25 **Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor**
9) 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.
10) Use 117 CY of material from Division 1. Borrow Excavation item number 208.0100

CLEARING AND GRUBBING ITEMS

STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CATEGORY CODE 0010			
9+00 - 9+75	LT & RT	1	1
10+50 - 12+00	LT & RT	2	2
TOTALS		**3**	**3**

FINISHING ROADWAY

	213.0100 EACH
CATEGORY CODE 0010	
ID 8833-00-70	1
TOTAL	**1**

CONCRETE PAVEMENT 12-INCH

LOCATION	415.0120 SY
CATEGORY CODE 0010	
SW QUAD	3
SE QUAD	5
NW QUAD	5
NE QUAD	8
TOTAL	**21**

CONCRETE PAVEMENT APPROACH SLAB

STATION - STATION	LOCATION	415.0410 SY
CATEGORY CODE 0010		
9+56 - 9+74	CTH A	52
10+26 - 10+45	CTH A	52
TOTAL		**104**

CONCRETE SURFACE DRAINS

LOCATION	416.1010 CY
CATEGORY CODE 0010	
NW QUAD	2.2
NE QUAD	2.4
TOTAL	**4.6**

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
CATEGORY CODE 0010			
7+80 - 8+20	WIDENING RT	---	33
7+80 - 9+58	SHOULDER RT	29	---
7+88 - 8+20	WIDENING LT	---	10
8+20 - 9+74	MAINLINE	---	472
10+24 - 12+12	SHOULDER RT	31	---
10+26 - 11+70	MAINLINE	---	441
10+42 - 12+20	SHOULDER LT	29	---
11+70 - 12+20	WIDENING LT	---	41
11+70 - 12+12	WIDENING RT	---	31
-- - --	UNDISTRIBUTED	10	40
TOTALS:		**99**	**1,068**

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES TON
CATEGORY CODE 0010				
7+80 - 8+20	WIDENING RT	2	4	---
7+88 - 8+20	WIDENING LT	1	2	---
8+20 - 9+74	MAINLINE	67	151	2
10+26 - 11+70	MAINLINE	64	145	---
11+70 - 12+20	WIDENING LT	2	5	---
11+70 - 12+12	WIDENING RT	2	4	---
TOTALS		**138**	**311**	**2**

CONCRETE CURB AND GUTTER

STATION - STATION	LOCATION	601.0555 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
CATEGORY CODE 0010				
7+80 - 9+55	LT	---	165	165
9+55 - 9+65	LT	10	---	10
TOTALS		**10**	**165**	**175**

*POUR DRIVEWAY CURBHEAD FROM 7+80 TO 9+13

MOBILIZATION

CATEGORY	619.1000 EACH
0010	0.1
0020	0.4
TOTALS	**0.5**

3

MGS GUARDRAIL ITEMS

STATION	-	STATION	LOCATION	614.2300 GUARDRAIL 3 LF	614.2500 THRIE BEAM TRANSITION LF	614.2610 TERMINAL EAT EACH
CATEGORY CODE 0010						
8+62	-	9+69	LT	12.5	39	1
8+54	-	9+61	RT	12.5	39	1
10+41	-	11+45	LT	12.5	39	1
10+33	-	11+37	RT	12.5	39	1
TOTALS				**50**	**156**	**4**

LANDSCAPING ITEMS

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEED MIX NO. 40 LBS	630.0160 SEED MIX NO. 60 LBS	630.0200 SEED TEMPORARY LBS
CATEGORY CODE 0010										
7+88	-	9+80	LT	200	148	52	0.1	5	---	5
7+80	-	9+80	RT	270	138	132	0.2	7	---	7
10+20	-	12+20	LT	500	137	363	0.3	---	7	14
10+20	-	12+10	RT	450	51	399	0.3	---	6	12
UNDISTRIBUTED				200	150	95	0.1	5	5	5
TOTALS				**1,620**	**624**	**1,041**	**1**	**17**	**18**	**43**

3

WATER

LOCATION	624.0100 MGAL
CATEGORY CODE 0010	
BASE COMPACTION	40
TOTALS	**40**

SILT FENCE

STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF	MOBILIZATIONS 628.1905 EROSION CONTROL EACH	MOBILIZATIONS 628.1910 EMERGENCY EROSION CONTROL EACH
CATEGORY CODE 0010							
7+80	-	9+80	LT	210	210	1	1
7+80	-	9+80	RT	210	210	--	--
10+20	-	11+25	LT	230	230	1	1
10+20	-	11+25	RT	230	230	--	--
TOTALS				**880**	**880**	**2**	**2**

SIGNING ITEMS

STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6X12 EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
CATEGORY CODE 0010						
9+55	RT	202	W5-52R	12" X 36"	1	3.0
9+65	LT	201	W5-52L	12" X 36"	1	3.0
10+35	RT	204	W5-52L	12" X 36"	1	3.0
10+45	LT	203	W5-52R	12" X 36"	1	3.0
TOTALS					**4**	**12.0**

TURBIDITY BARRIER

LOCATION	628.6005 TURBIDITY BARRIER SY
CATEGORY CODE 0020	
SOUTH ABUTMENT	38
NORTH ABUTMENT	38
TOTALS	**76**

REMOVING SIGN ITEMS

STATION	LOCATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
CATEGORY CODE 0010			
9+75	RT	1	1
9+70	LT	1	1
10+25	RT	1	1
10+25	LT	1	1
TOTALS		**4**	**4**

PAVEMENT MARKING ITEMS

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF
CATEGORY CODE 0010					
7+80	-	12+20	CL	---	880
7+80	-	12+20	EDGELINE	880	
TOTALS				**880**	**880**
				1,760	

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	MISCELLANEOUS QUANTITIES	SHEET NO: 12	E

3

TRAFFIC CONTROL ITEMS

LOCATION	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.0920 COVERING SIGNS TYPE II EACH	643.0920 COVERING SIGNS TYPE II CYCLES	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS
CATEGORY CODE 0010										
PROJECT	14	910	16	1,040	14	910	2	1	196	12,740
TOTALS		**910**		**1,040**		**910**	**2**			**12,740**

SAWING PAVEMENT ITEMS

STATION	LOCATION	690.0150 ASPHALT LF
CATEGORY CODE 0010		
8+20	CTH A	22
11+70	CTH A	22
	TOTALS	**44**

3

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 STAKING SUBGRADE LF	650.5000 STAKING BASE LF	650.6500* STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY CODE 0010						
7+80 - 9+74	MAINLINE	194	194	1	1	194
10+26 - 12+20	MAINLINE	194	194			194
	TOTALS	**388**	**388**	**1**	**1**	**388**

* ALL STAKING ITEMS PART OF CATERGORY CODE 0010 OTHER THAN 650.6500 WHICH IS CATEGORY 0020

R/W PROJECT NUMBER 8833-00-00	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER N/A	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

DALLAS - CHETEK
SIOUX CREEK BRIDGE B-03-0201

CTH A — BARRON COUNTY

CONSTRUCTION PROJECT NUMBER 8833-00-70

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER (25)
UTILITY NUMBER (40)
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BARRON COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE REBAR AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

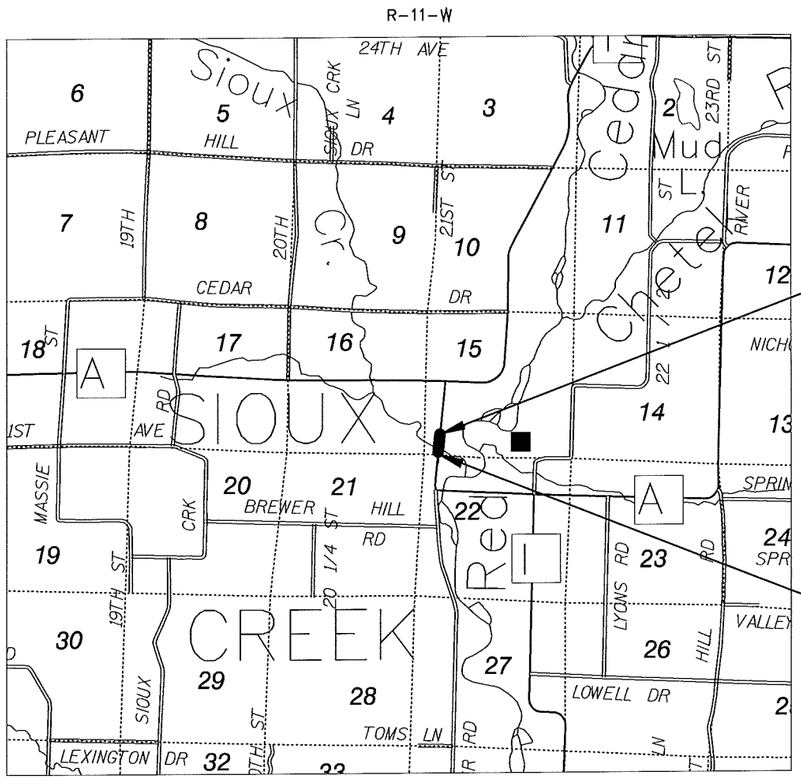
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS

CAUTION
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

N



END RELOCATION ORDER
PROJECT
STA 12+50.00
527.36' EAST AND 439.44' NORTH OF THE SOUTHWEST CORNER, SEC 15, T32N, R11W

BEGIN RELOCATION ORDER
PROJECT
STA 10+00.00
507.67' EAST AND 190.22' NORTH OF THE SOUTHWEST CORNER, SEC 15, T32N, R11W

LAYOUT
SCALE 0 — 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.047 MI

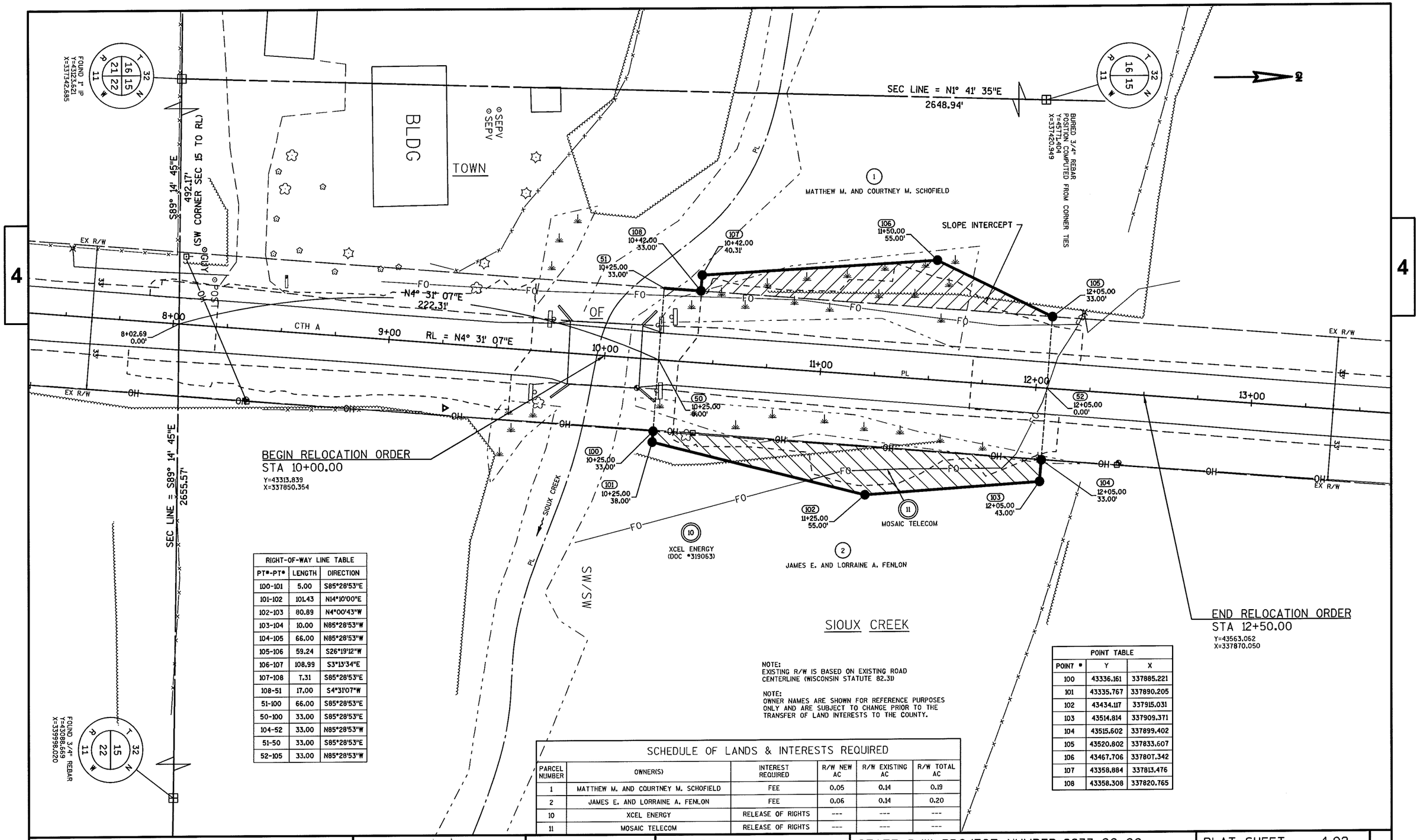
CORRE
1802 WARDEN STREET
EAU CLAIRE, WI 54703
(608)828-1011
www.correinc.com

WISCONSIN BRYON J. MOTSZKO S-2846 MENOMONIE, WI LAND SURVEYOR

I, BRYON J. MOTSZKO, REGISTERED LAND SURVEYOR, S-2846, HEREBY CERTIFY THAT I HAVE SURVEYED THE LAND DESCRIBED HEREON AND THAT THE MAP HEREON IS A CORRECT REPRESENTATION OF THAT SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Bryon Motszko — 5/5/16
SIGNATURE — DATE

REVISION DATE	BARRON COUNTY HIGHWAY DEPARTMENT
	APPROVED FOR THE DEPARTMENT DATE: 5/11/16 (Signature)



RIGHT-OF-WAY LINE TABLE		
PT•-PT•	LENGTH	DIRECTION
100-101	5.00	S85°28'53"E
101-102	101.43	N14°10'00"E
102-103	80.89	N4°00'43"W
103-104	10.00	N85°28'53"W
104-105	66.00	N85°28'53"W
105-106	59.24	S26°19'12"W
106-107	108.99	S3°13'34"E
107-108	T.31	S85°28'53"E
108-51	17.00	S4°31'07"W
51-100	66.00	S85°28'53"E
50-100	33.00	S85°28'53"E
104-52	33.00	N85°28'53"W
51-50	33.00	S85°28'53"E
52-105	33.00	N85°28'53"W

POINT TABLE		
POINT •	Y	X
100	43336.161	337885.221
101	43335.767	337890.205
102	43434.117	337915.031
103	43514.814	337909.371
104	43515.602	337899.402
105	43520.802	337833.607
106	43467.706	337807.342
107	43358.884	337813.476
108	43358.308	337820.765

NOTE:
EXISTING R/W IS BASED ON EXISTING ROAD CENTERLINE (WISCONSIN STATUTE 82.31)

NOTE:
OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W NEW AC	R/W EXISTING AC	R/W TOTAL AC
1	MATTHEW M. AND COURTNEY M. SCHOFIELD	FEE	0.05	0.14	0.19
2	JAMES E. AND LORRAINE A. FENLON	FEE	0.06	0.14	0.20
10	XCEL ENERGY	RELEASE OF RIGHTS	---	---	---
11	MOSAIC TELECOM	RELEASE OF RIGHTS	---	---	---

REVISION DATE	DATE 5/5/16	SCALE, FEET 0 20 40	HWY: CTH A	STATE R/W PROJECT NUMBER 8833-00-00	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: BARRON	CONSTRUCTION PROJECT NUMBER 8833-00-70	PS&E SHEET E

FILE NAME : 040101-RP.DWG
LAYOUT NAME - 040101-RP

PLOT DATE : 4/21/2016 4:20 PM PLOT BY : BRYON MOTSZKO, PE, PLOT NAME : PLOT SCALE : 1 IN:40 FT

STA 8+33.69, LT
RECONSTRUCT BAD PE REQ'D

BLDG

WETLANDS

CONCRETE PAVEMENT 12-INCH
STA 9+65.73 TO STA 9+77.19, LT
STA 9+57.69 TO STA 9+69,73 RT

CONCRETE PAVEMENT 12-INCH
STA 10+29.51 TO STA 10+42.31, LT
STA 10+2308 TO STA 10+34.23, RT

N

LEGEND
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- XXXX SAW CUT
- REMOVE TREE

STA 7+80.31, LT TO 9+12.60, LT
CONCRETE CURB AND GUTTER 6- INCH
SLOPED 36-INCH TYPE D, DRIVEWAY CURB

STA 9+12.60, LT TO 9+77.77, LT
CONCRETE CURB AND GUTTER 6-INCH
SLOPED 36-INCH TYPE D

STA 10+52.59
CONCRETE
SURFACE DRAIN
REQ'D

WETLANDS

SLOPE INTERCEPTS

+50.00 / 55.0 LT

+42.00 / 40.3 LT

+25.00 / 33.0 LT

+05.00 / 33.0 LT

BEGIN CONSTRUCTION
STA 7+80.31

3-INCH ASPHALTIC SURFACE

GRAV

+62.60 / 17.0 LT

MGS GUARDRAIL TERMINAL EAT, TYP

+12.60 / 15.0 LT

MGS THRIE BEAM TRANSITION, TYP

3-FT WILDLIFE PROTECTION PASSAGE

MOSAIC TELECOM

R/W

+95.43 / 15.0 LT

+45.43 / 17.0 LT

END CONSTRUCTION
STA 12+19.68

7+00 | 8+00 | 9+00 | 10+00 | 11+00 | 12+00 | 13+00

CP 1 | CP 2 | CP 3

ASPH | CTH A | N4° 31' 07"E

CONC

BM 1 | BM 2 | BM 3

+54.57 / 17.0 RT

+04.57 / 15.0 RT

+87.40 / 15.0 RT

+37.40 / 17.0 RT

+25.00 / 38.0 RT

+25.00 / 33.0 RT

+25.00 / 55.0 RT

+05.00 / 43.0 RT

+05.00 / 33.0 RT

XCEL ENERGY & BARRON ELECTRIC COOPERATIVE

ASPHALTIC SURFACE, TYP

WETLANDS

BASE AGGREGATE DENSE 3/4-INCH, TYP

PROPOSED STRUCTURE B-3-201

EXISTING STRUCTURE P-03-0025

SIOUX CREEK

CONCRETE BRIDGE APPROACH

STA 10+44.56
CONCRETE SURFACE DRAIN REQ'D

MOSAIC TELECOM

BEGIN PROJECT
STA 8+20
SAWING ASPHALT REQ'D
MATCH EXISTING
Y = 43,134.399
X = 337,836.172

END PROJECT
STA 11+70
SAWCUT REQ'D
MATCH EXISTING

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	8+36.15	SPIKE AT PP BASE, 32.38' RT	1025.02
2	10+15.92	NE DECK CORNER, 13.72' RT	1020.51
3	12+40.79	SPIKE AT PP BASE, 31.85' RT	1025.77

CONTROL POINTS

NO.	STATION	DESCRIPTION	NORTHING	EASTING	ELEV.
1	4+99.30	SET PK NAIL ON CL CTH A	42,814.66	337,811.28	1026.08
2	9+28.15	SET 12" SPIKE 29.5' RT	43,239.89	337,874.06	1019.64
3	14+99.27	SET PK NAIL ON CL CTH A	43,811.53	337,890.06	1026.26

YARDAGE SUMMARY
EXCAVATION COMMON = 132 CY
FILL = 66 CY
WASTE = 66 CY

VCL = 350.00
K = 115.13

VPC STA 8+20.00
VPC EL 1024.86

VPI STA 9+95.00
VPI EL 1021.12

VPT STA 11+70.00
VPT EL 1022.69

-2.14%

0.90%

HIGH WATER 100 YR
ELEV 1020.85

PROPOSED PROFILE ON ℄

OBSERVED WATER
ELEV 1011.35 (4-22-15)

STREAM BED ELEV 1007.45

EXISTING GROUND

3-FT WILDLIFE PROTECTION PASSAGE

EXISTING ℄ ELEVATION

PROPOSED ℄ ELEVATION

1026.09 1025.96 1025.82 1025.54 1025.24 1024.76 1024.75 1024.27 1024.26 1023.47 1023.81 1022.69 1023.43 1022.02 1023.09 1021.36 1022.81 1020.86 1022.59 1009.47 1022.42 1020.69 1022.30 1021.03 1022.24 1021.25 1022.23 1021.47 1022.27 1021.87 1022.37 1022.29 1022.53 1022.79 1023.29 1023.79 1024.29 1024.61 1024.91

7+00 | 7+25 | 7+50 | 7+75 | 8+00 | 8+25 | 8+50 | 8+75 | 9+00 | 9+25 | 9+50 | 9+75 | 10+00 | 10+25 | 10+50 | 10+75 | 11+00 | 11+25 | 11+50 | 11+75 | 12+00 | 12+25 | 12+50 | 12+75 | 13+00

1036 | 1032 | 1028 | 1024 | 1020 | 1016 | 1012 | 1008

YARDAGE SUMMARY
EXCAVATION COMMON = 130 CY
FILL = 583 CY
BORROW = 453 CY

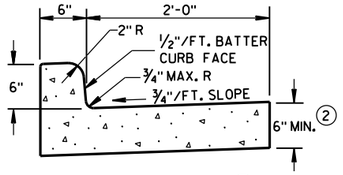
STATION 10+00
STRUCTURE B-3-201 REQ'D
52.5' SINGLE SPAN CONCRETE FLAT SLAB
30' CLEAR ROADWAY WIDTH
15° LHF SKEW

STATION 10+00
REMOVE STRUCTURE P-03-0025
SINGLE SPAN BRIDGE
34' OVERALL LENGTH
30' OVERALL WIDTH

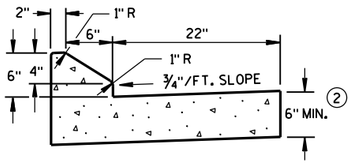
PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	PLAN AND PROFILE: CTH A	SCALE, FEET 0 20 40	SHEET 16	E

Standard Detail Drawing List

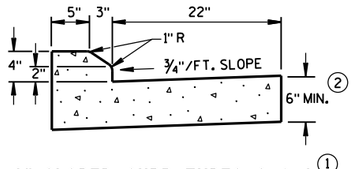
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13A03-06	CONCRETE PAVEMENT SHOULDERS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)



TYPES A & D ①

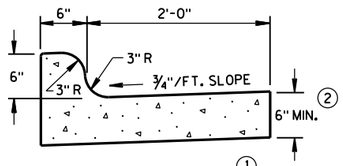


6" SLOPED CURB TYPES G & J ①

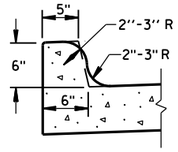


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

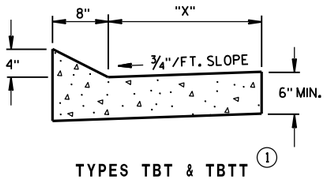


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

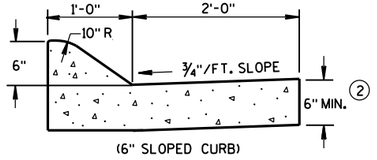
CONCRETE CURB & GUTTER 30"



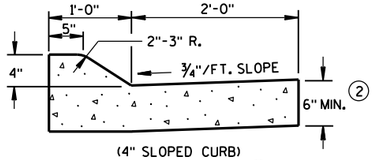
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

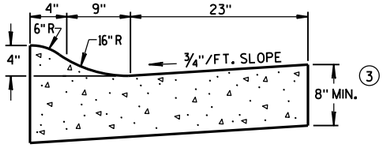


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

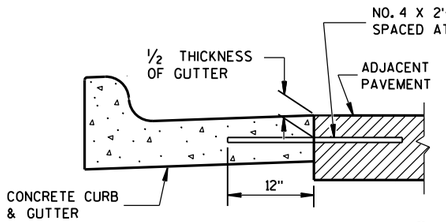
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

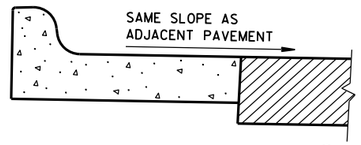
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

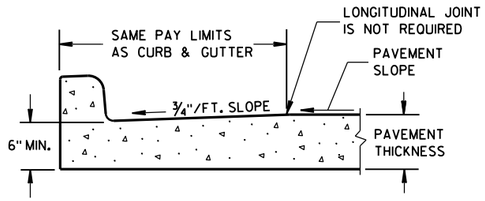
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



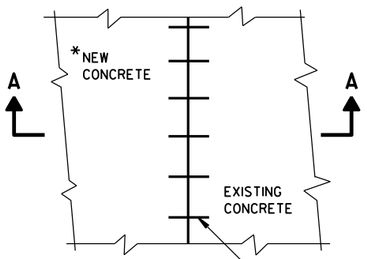
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

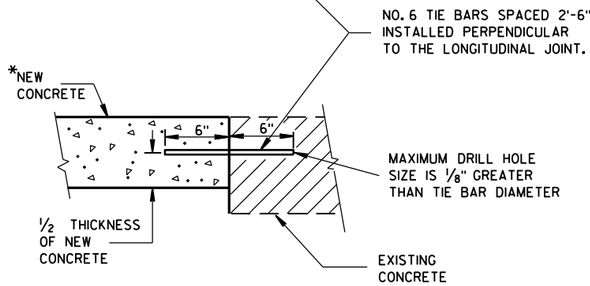


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



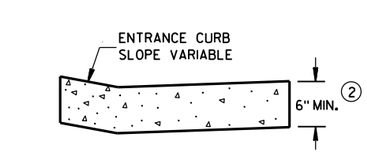
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

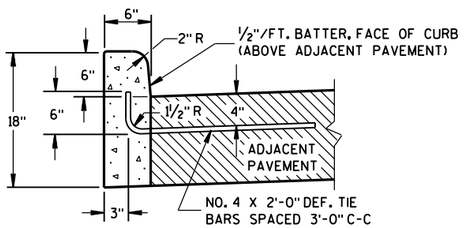


SECTION A-A

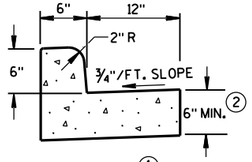
TIE BARS DRILLED
INTO EXISTING PAVEMENT



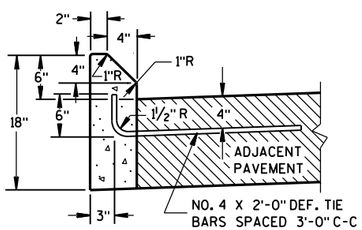
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



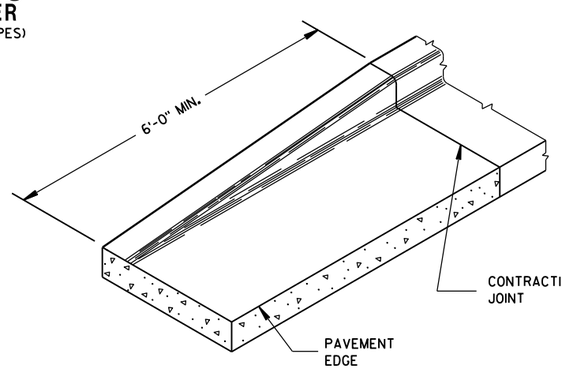
① TYPES A & D



① TYPES A & D
CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

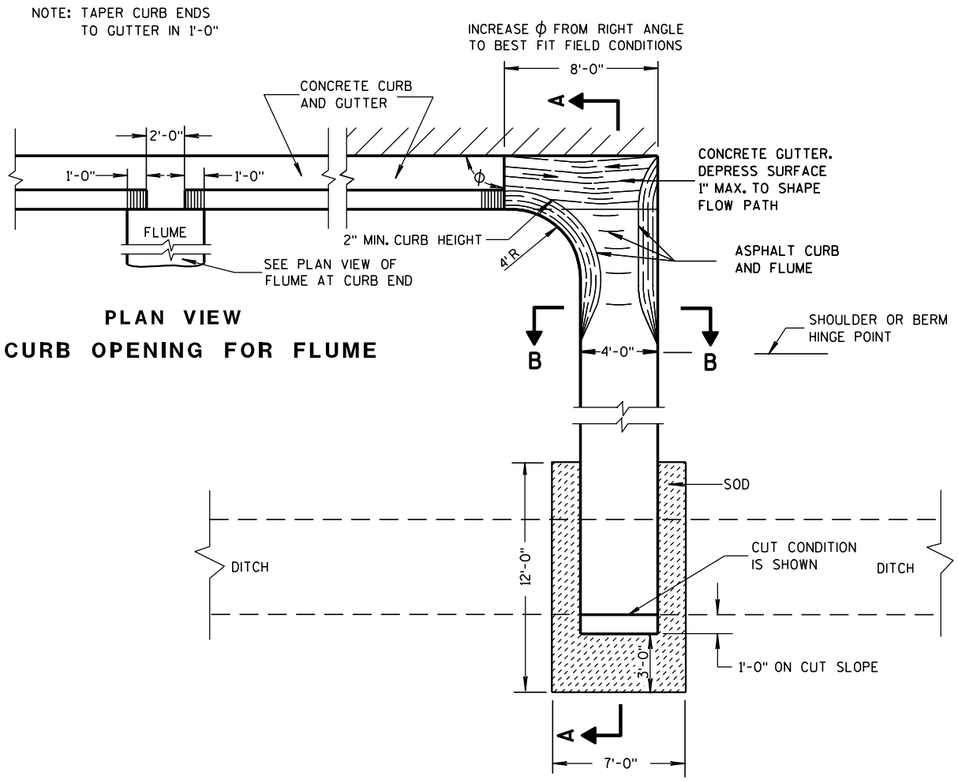
6

S.D.D. 8 D 1-18

6

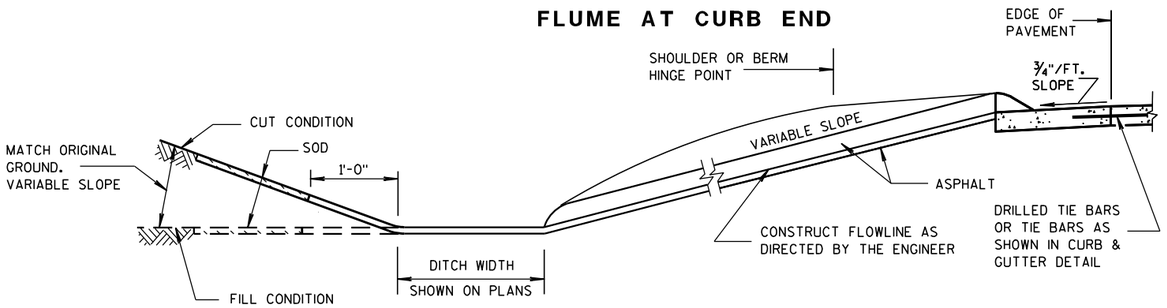
S.D.D. 8 D 1-18

ASPHALTIC FLUME

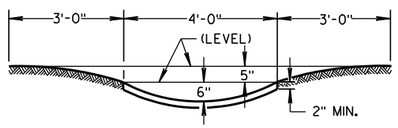


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

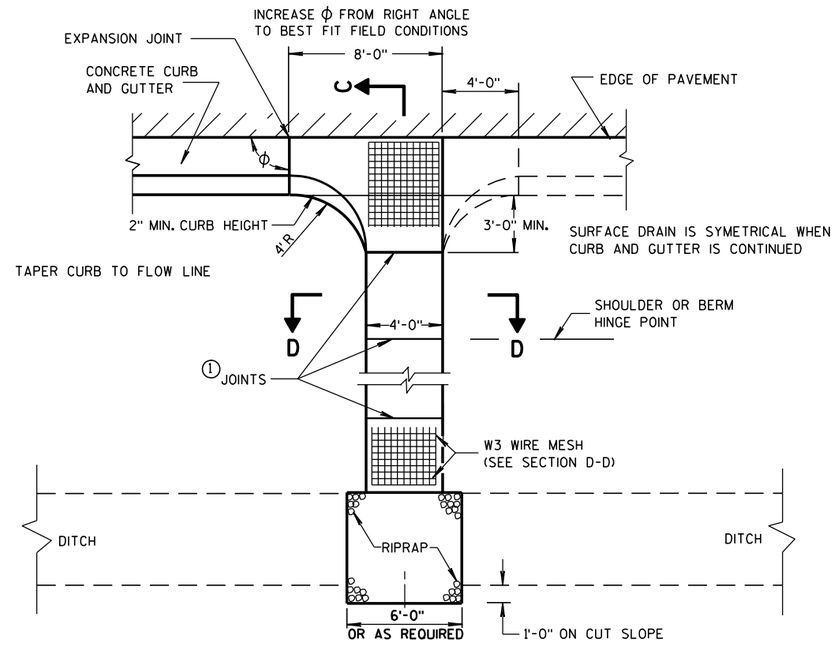
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

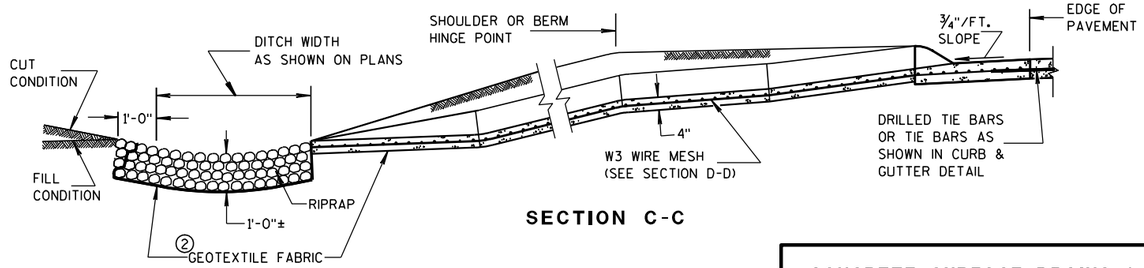
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

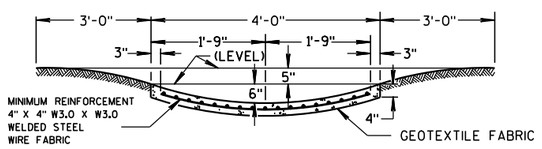
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT

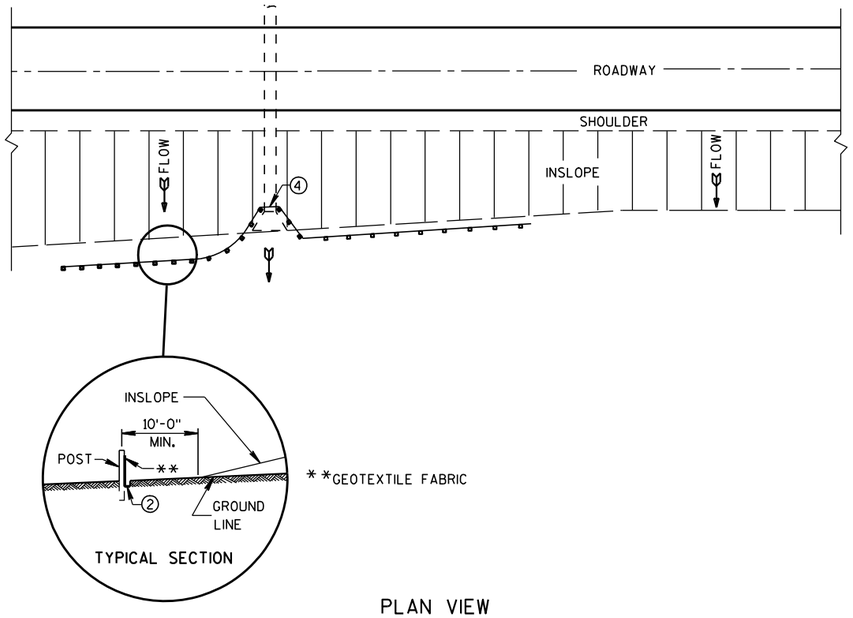
FHWA

6

S.D.D. 8 D 4-5

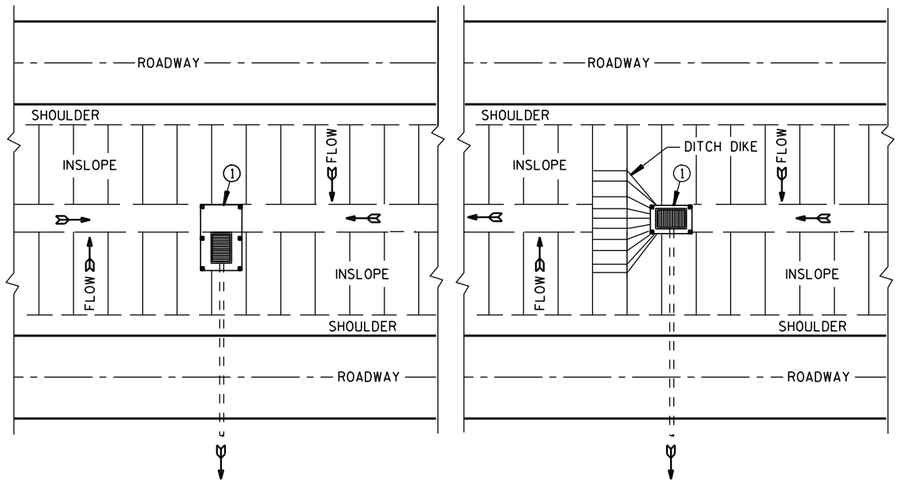
6

S.D.D. 8 D 4-5



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



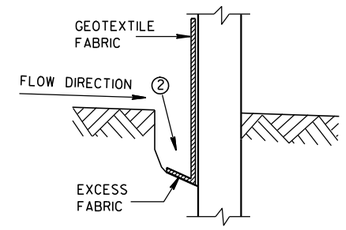
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

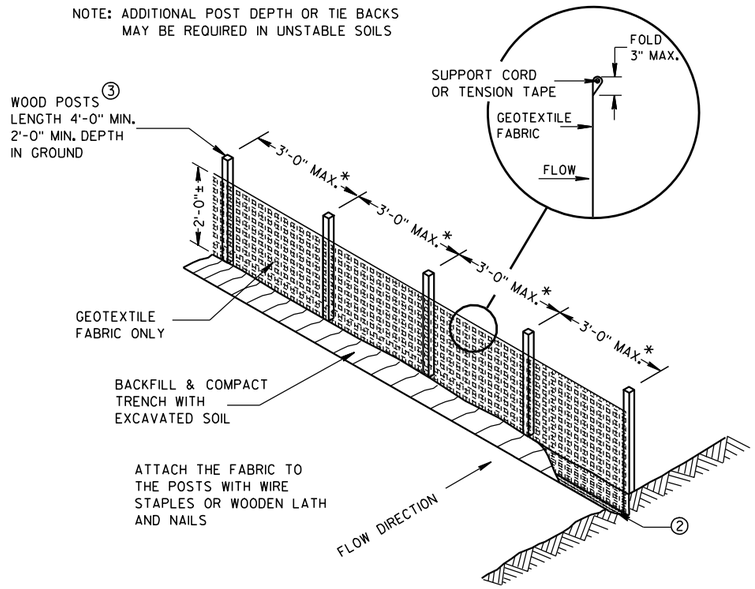
GENERAL NOTES

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

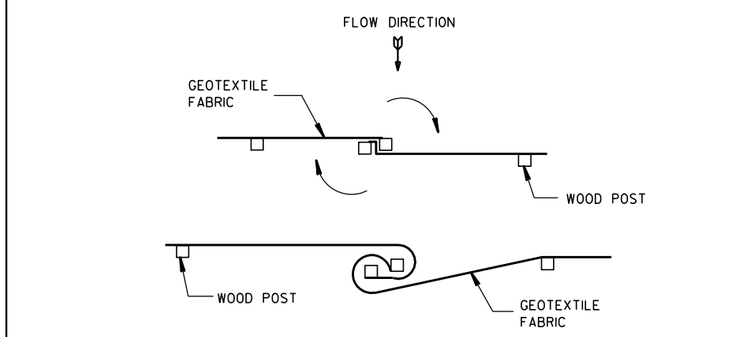
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



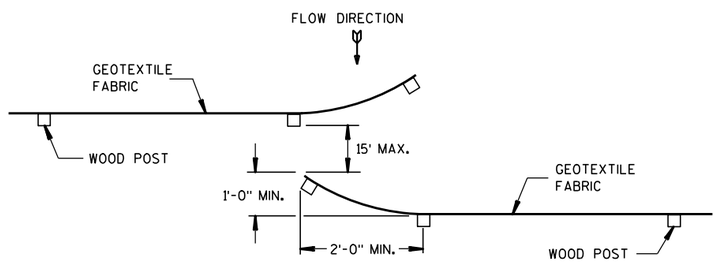
TRENCH DETAIL



SILT FENCE

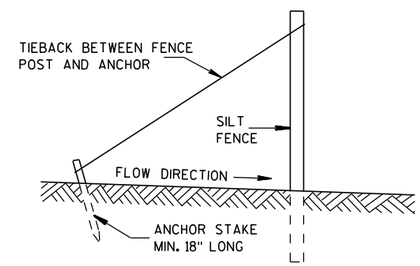


TWIST METHOD



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

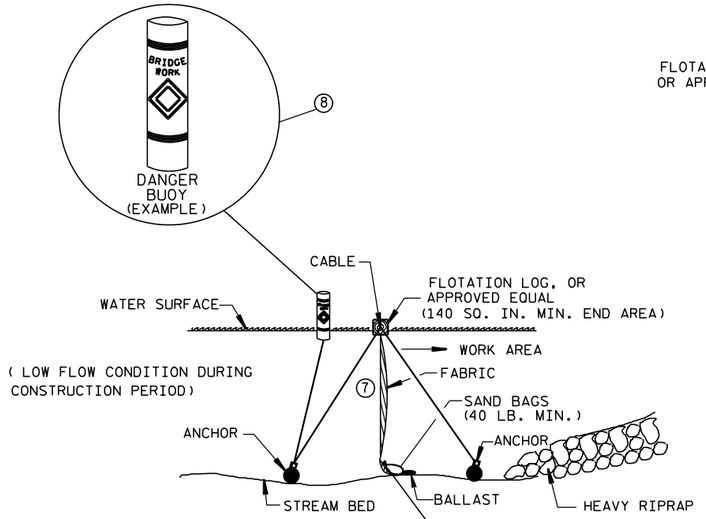
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

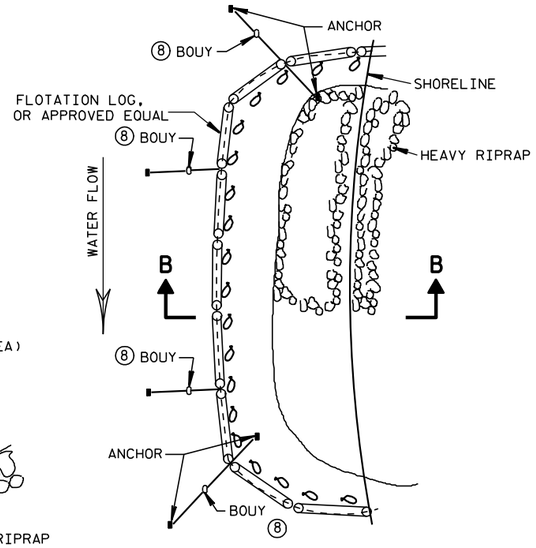
S.D.D. 8 E 9-6

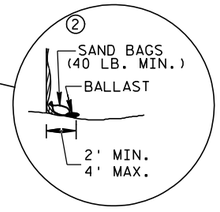
6

S.D.D. 8 E 9-6

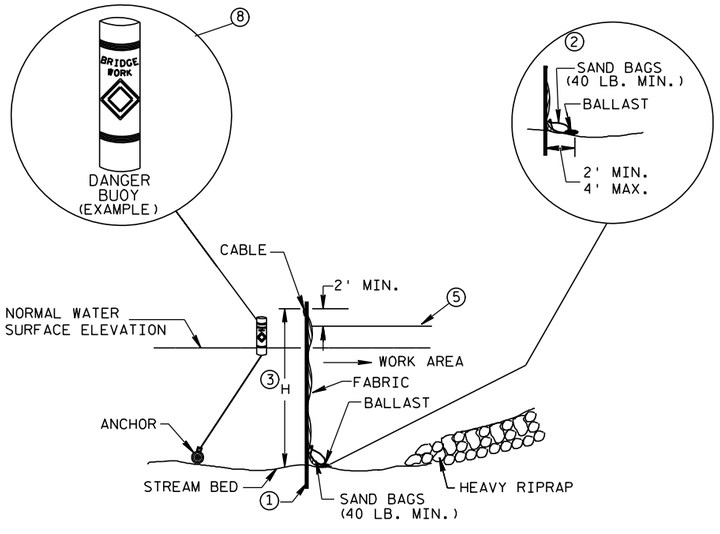


SECTION B-B

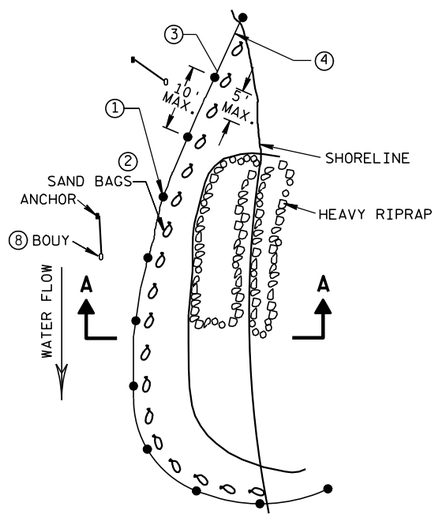




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

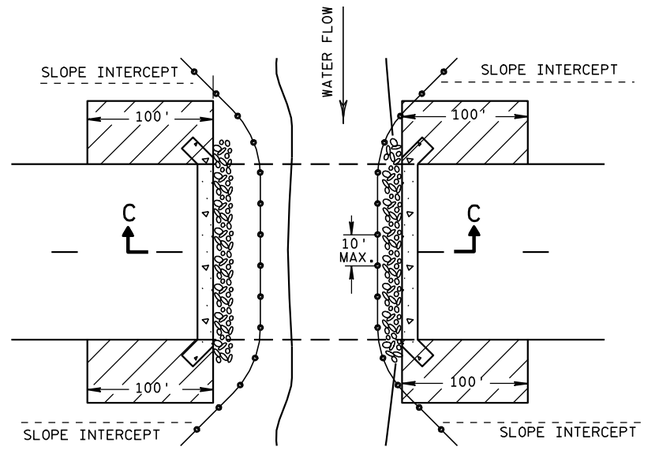
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

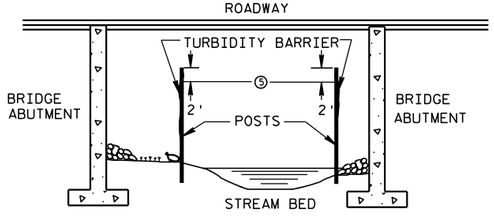
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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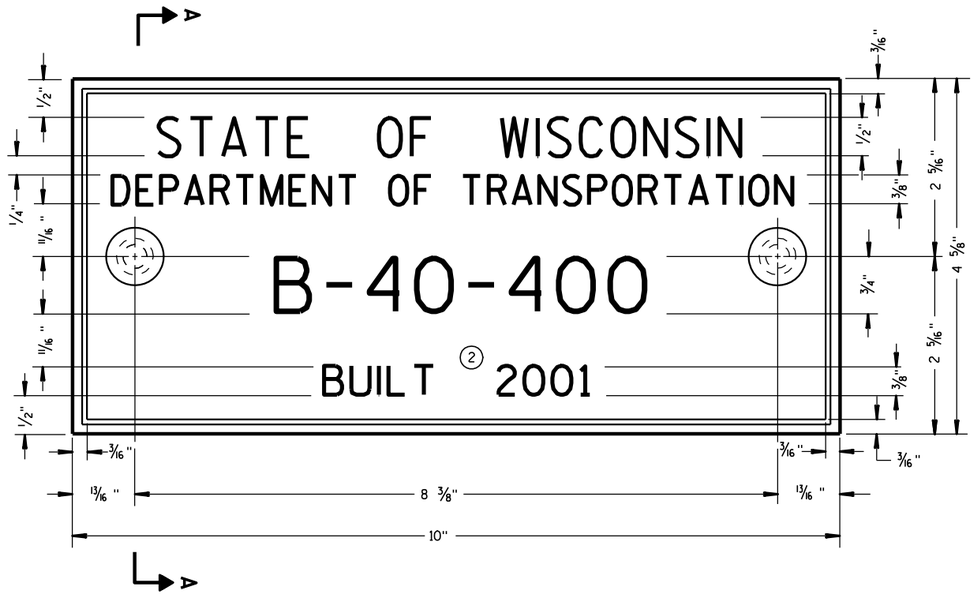
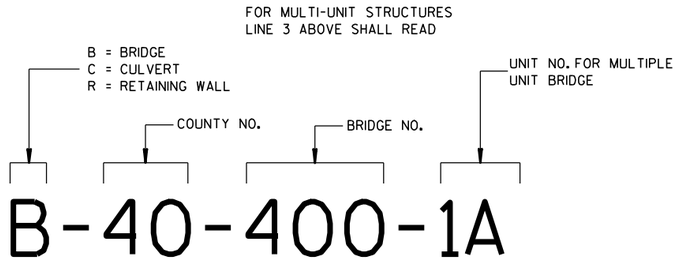
S.D.D. 8 E 11-2



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

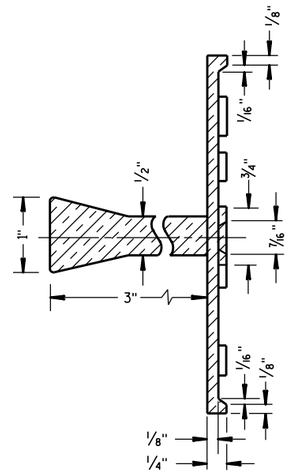
GENERAL NOTES

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.

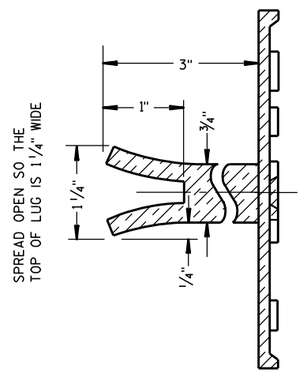
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

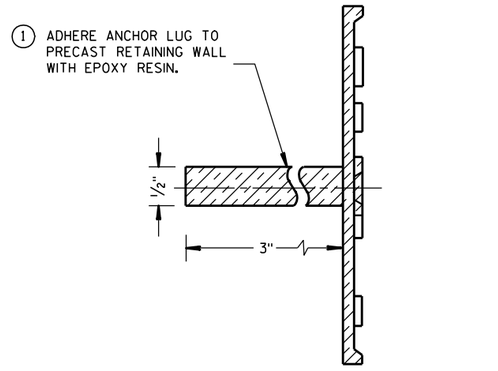
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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 DEVELOPMENT ENGINEER

FHWA

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S.D.D. 12 A 3-10

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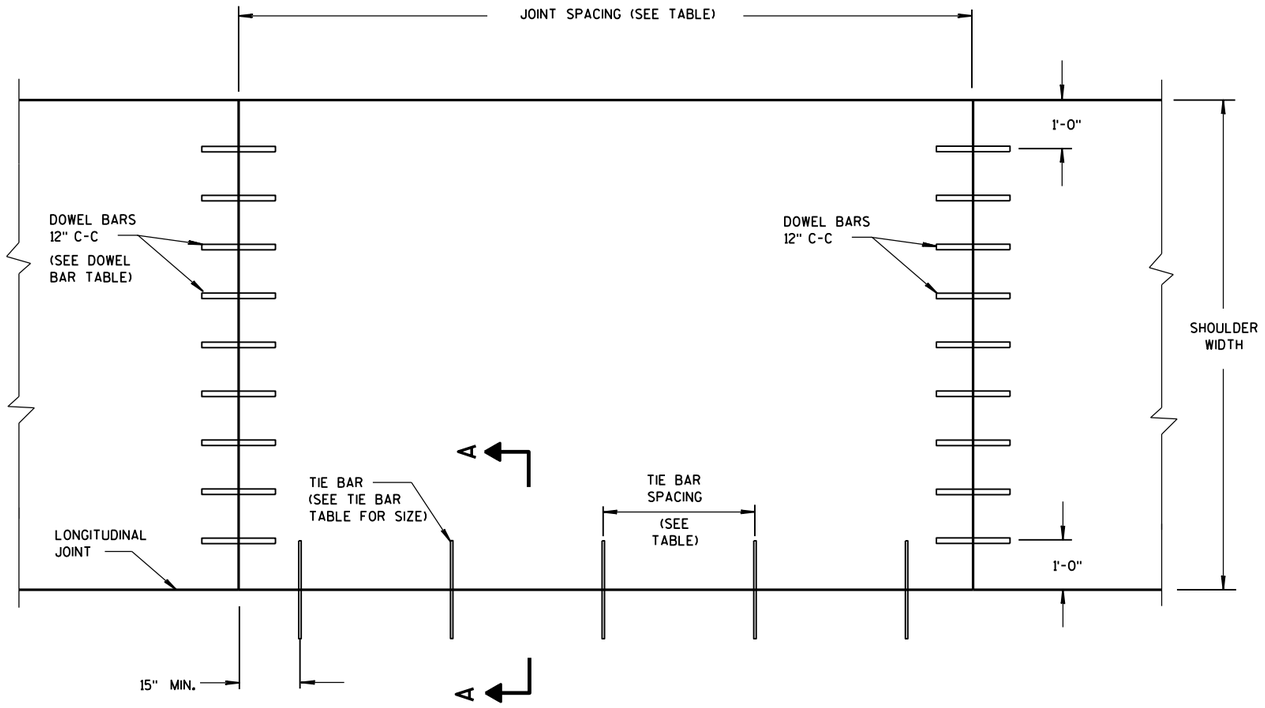
S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

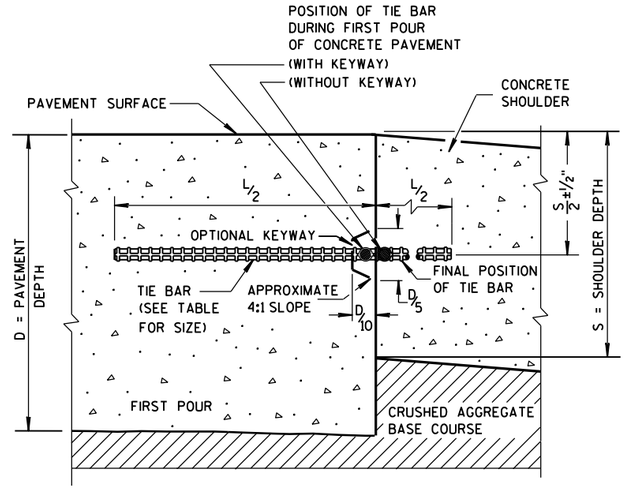
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

S.D.D. 13 A 3-6

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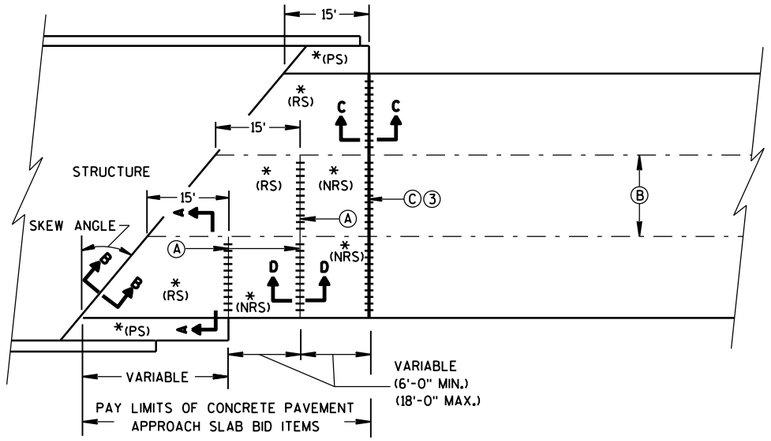
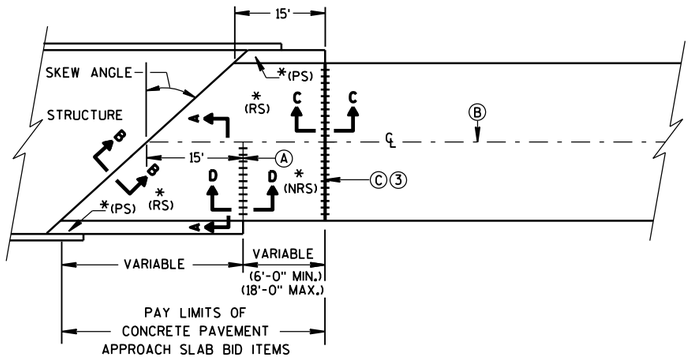
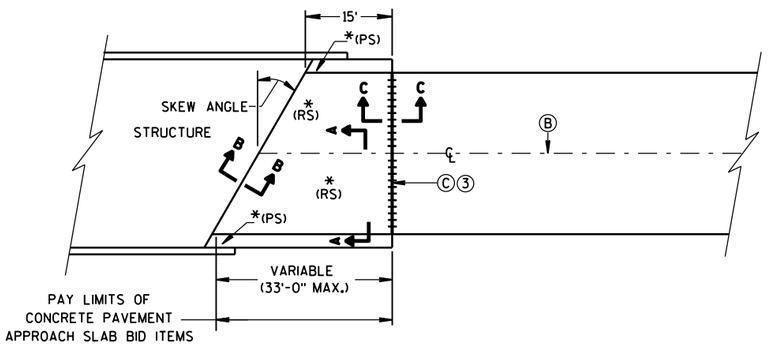
S.D.D. 13 A 3-6



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

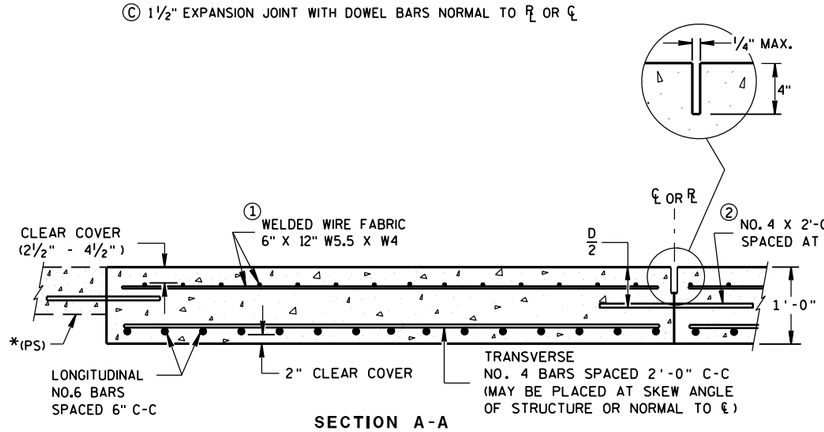
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

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

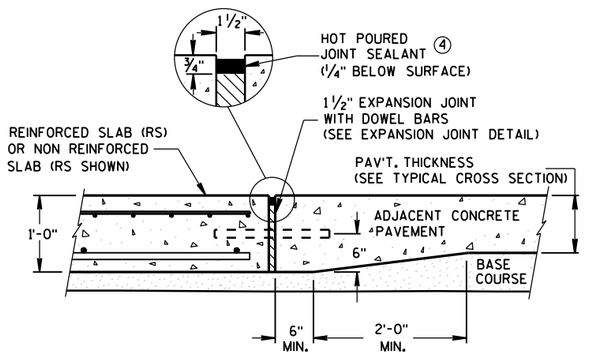
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

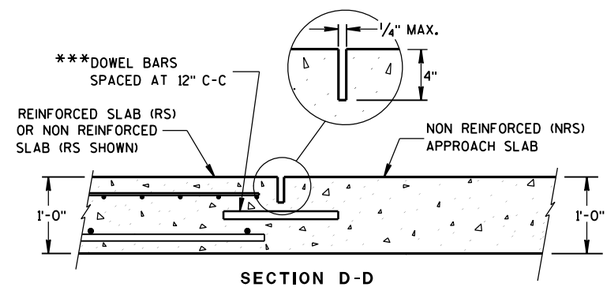
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

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.

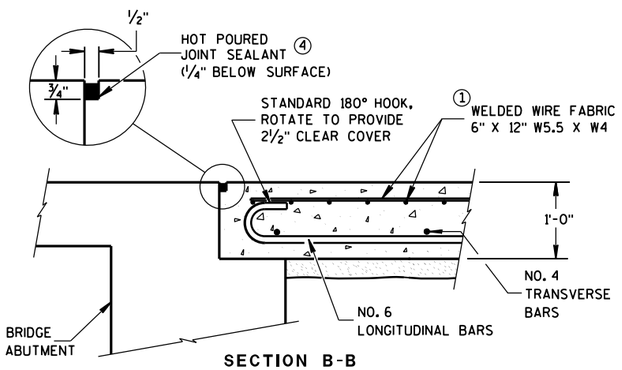
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

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

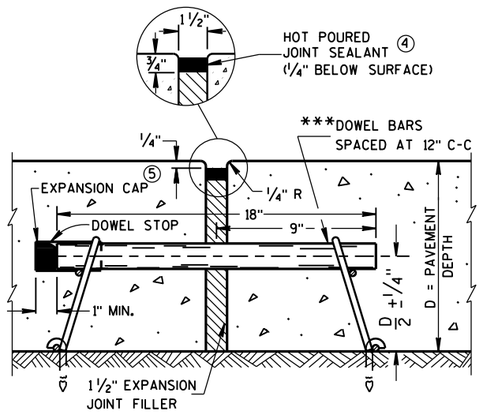
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

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.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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S.D.D. 13 B 2-8a

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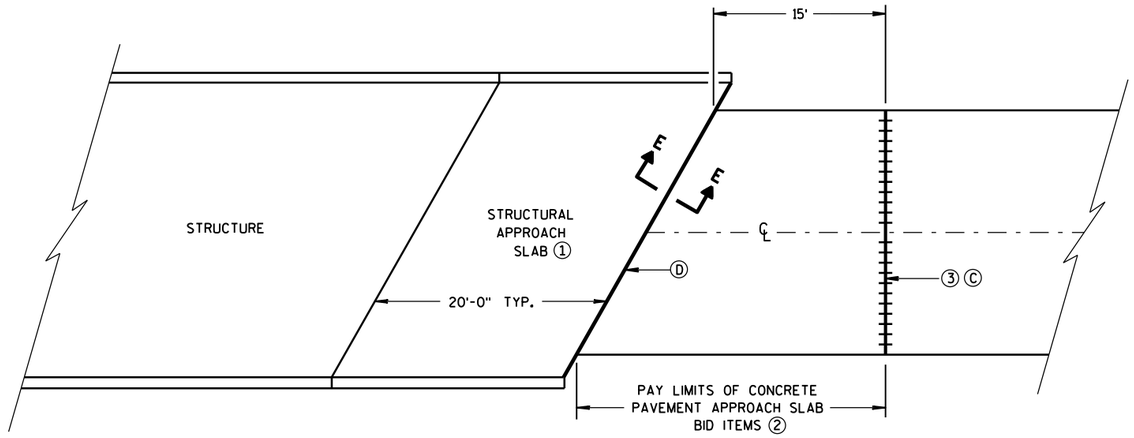
S.D.D. 13 B 2-8a



GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

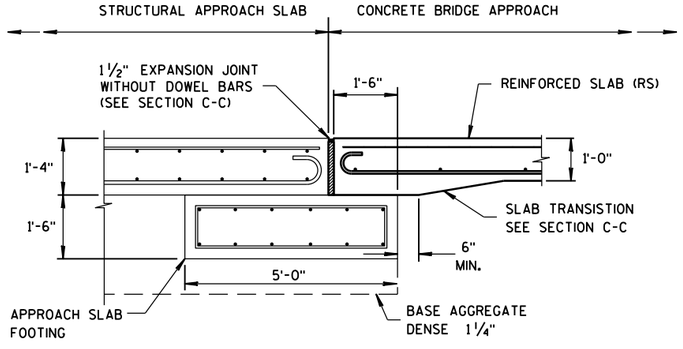
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

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

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERVISOR
FHWA

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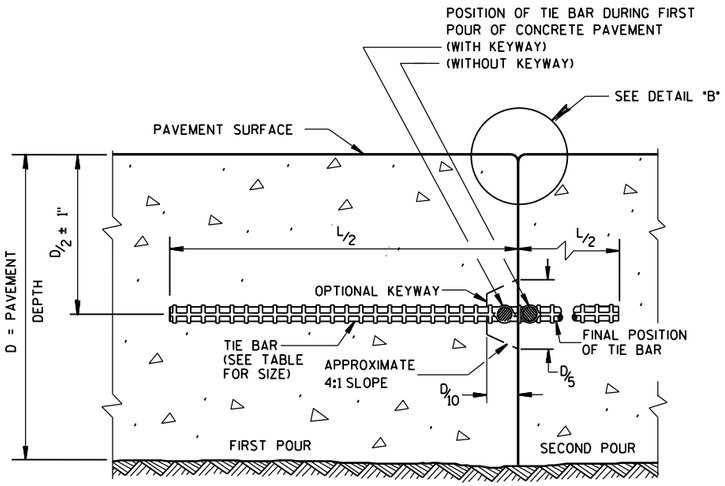
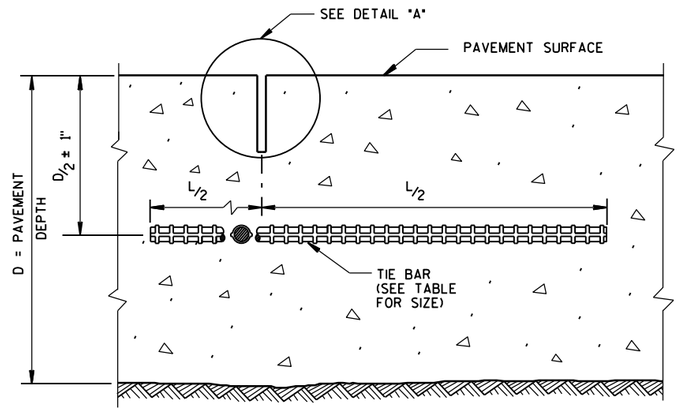
S.D.D. 13 B 2-8b



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

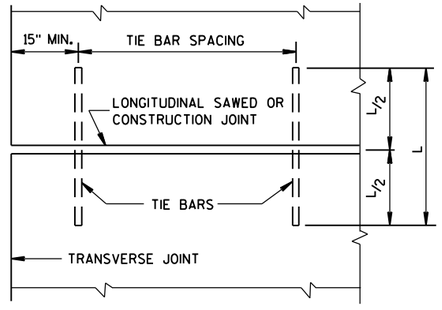
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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S.D.D. 13 C 1-18

GENERAL NOTES

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

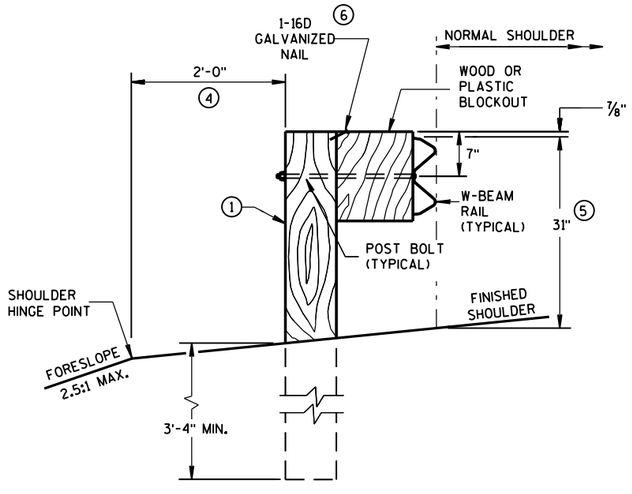
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

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

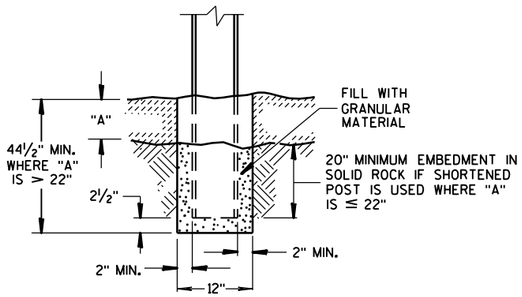
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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



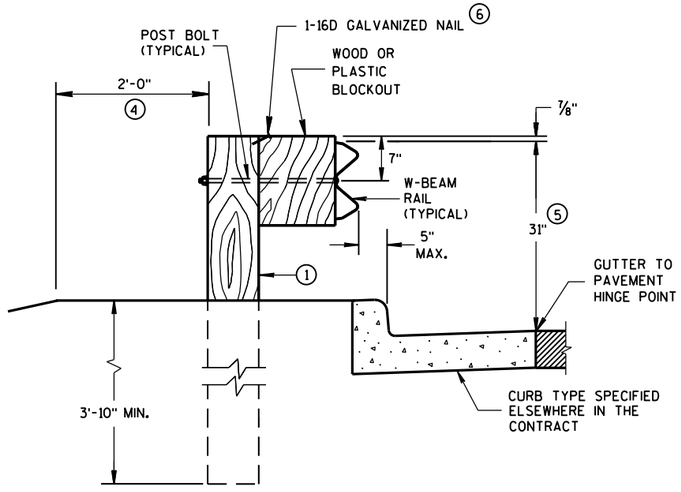
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



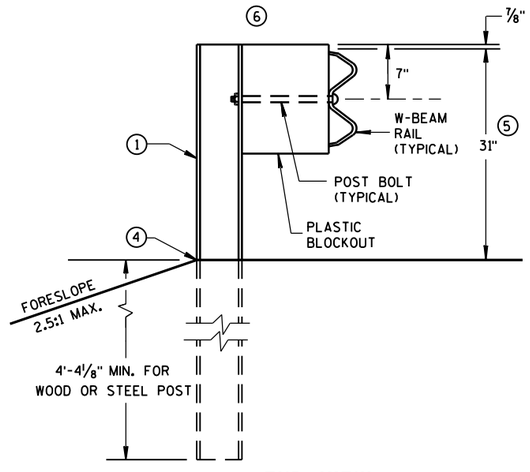
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



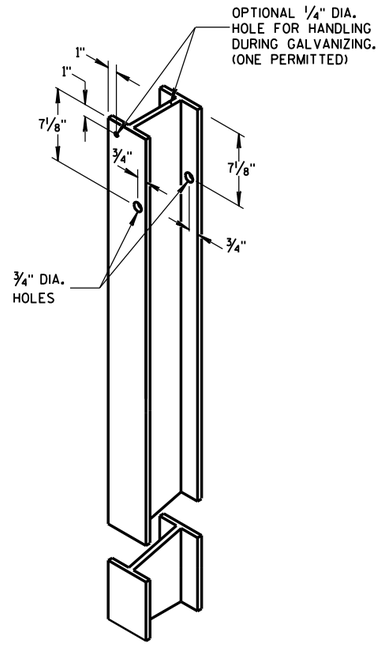
END VIEW

LOCATED ALONG A CURBED ROADWAY

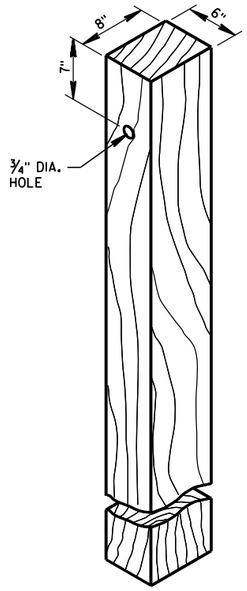


END VIEW

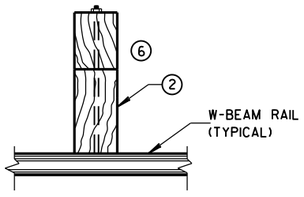
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



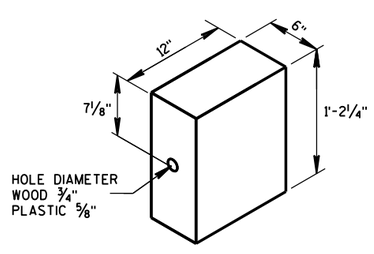
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



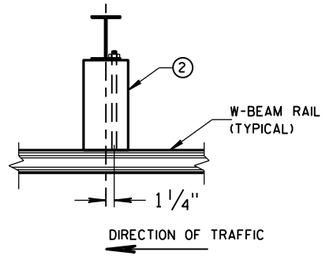
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



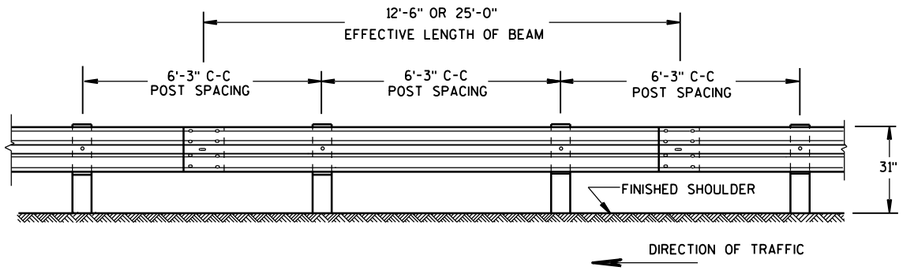
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

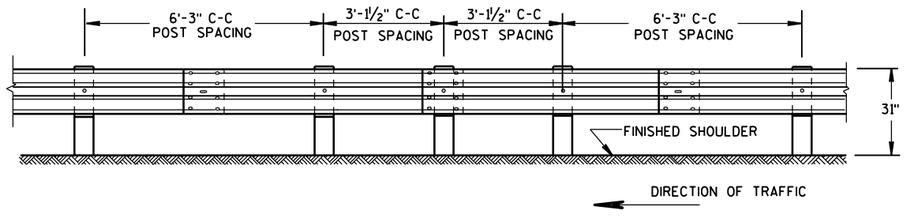
6

S.D.D. 14 B 42-3a



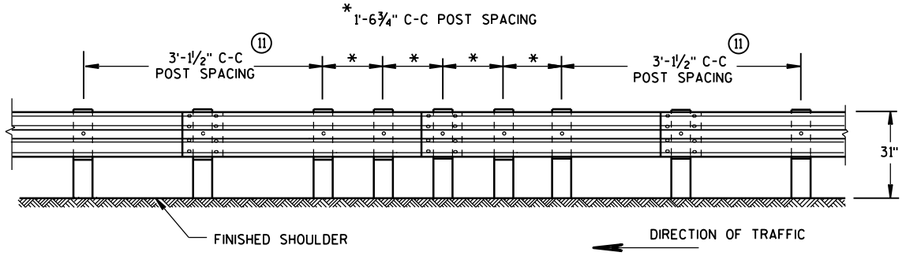
FRONT VIEW

POST SPACING STANDARD INSTALLATION



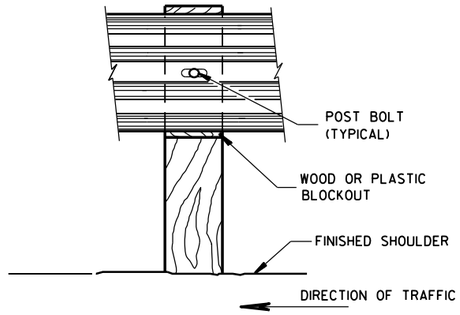
FRONT VIEW

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

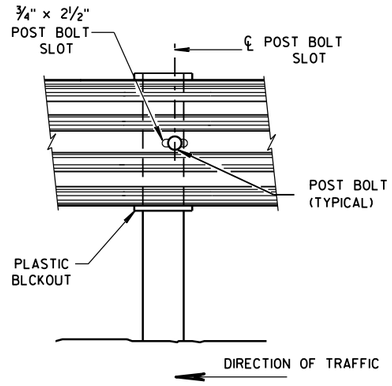


FRONT VIEW

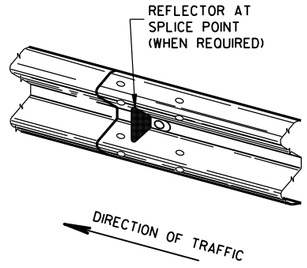
QUARTER POST SPACING (QS)

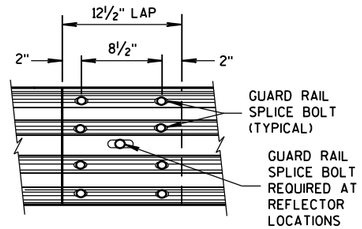


FRONT VIEW AT WOOD POST



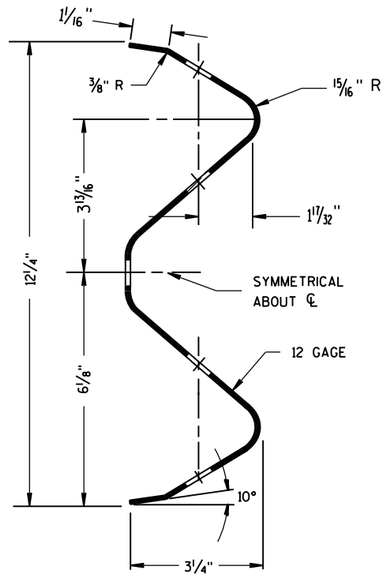
FRONT VIEW AT STEEL POST



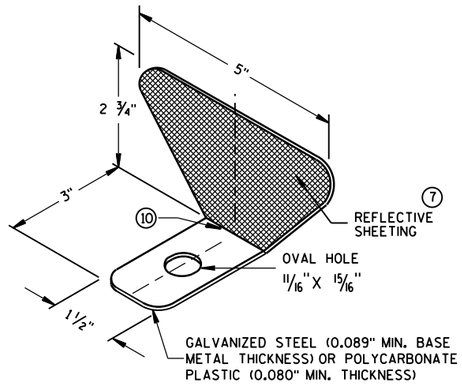


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

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

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

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

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

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

POST BOLTS ARE A 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.

REFLECTOR SPACING ⑧

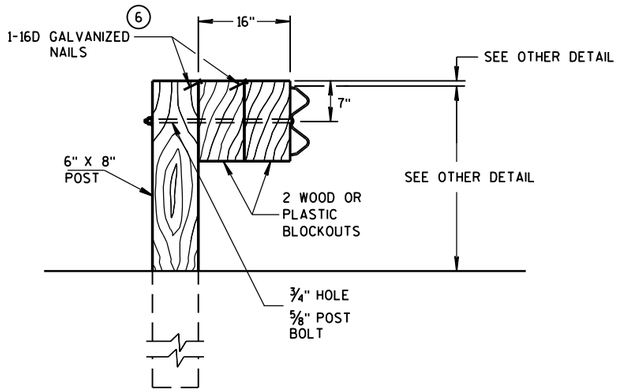
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

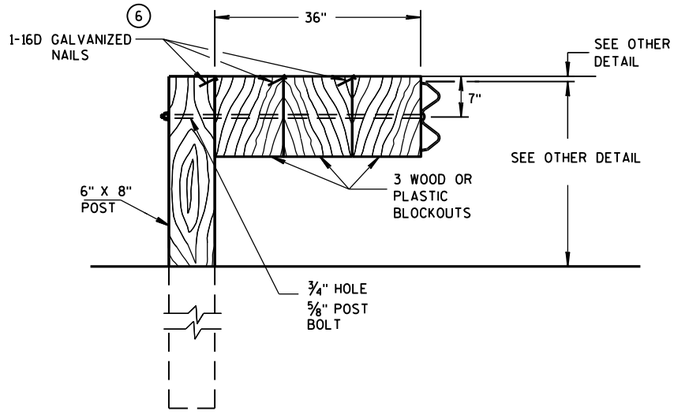
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

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

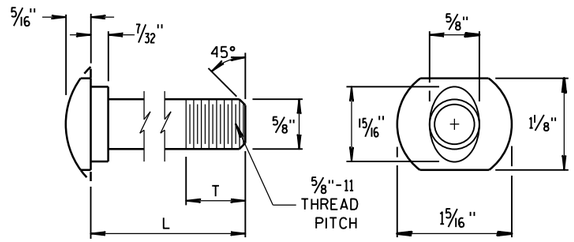


DETAIL FOR 36" BLOCKOUT DEPTH

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

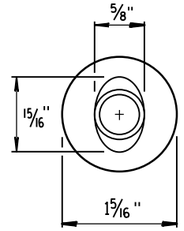
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

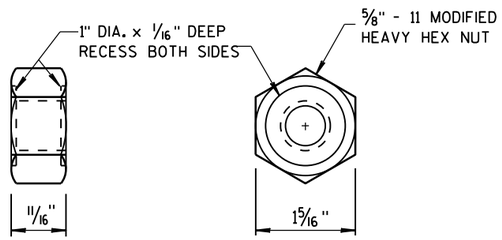


POST BOLT TABLE

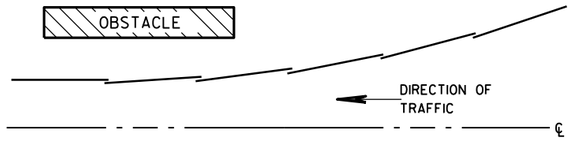
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

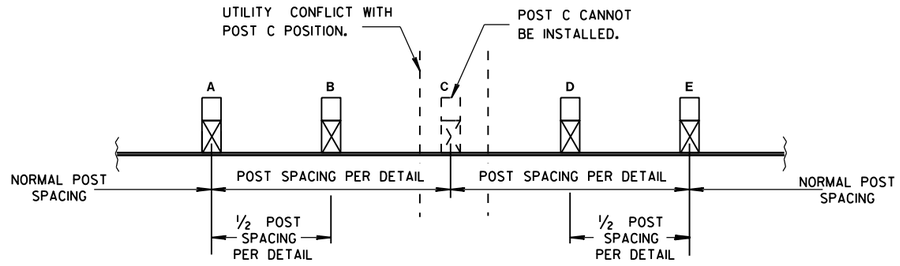


POST BOLT AND RECESS NUT

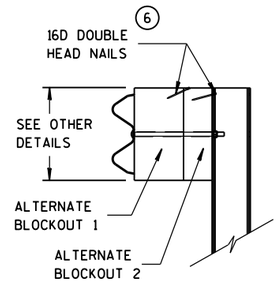


PLAN VIEW

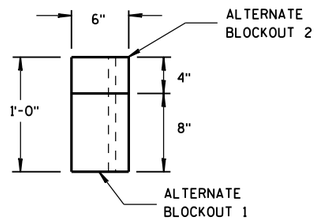
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 14 B 42-3c

GENERAL NOTES

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

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

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

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

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

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

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

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

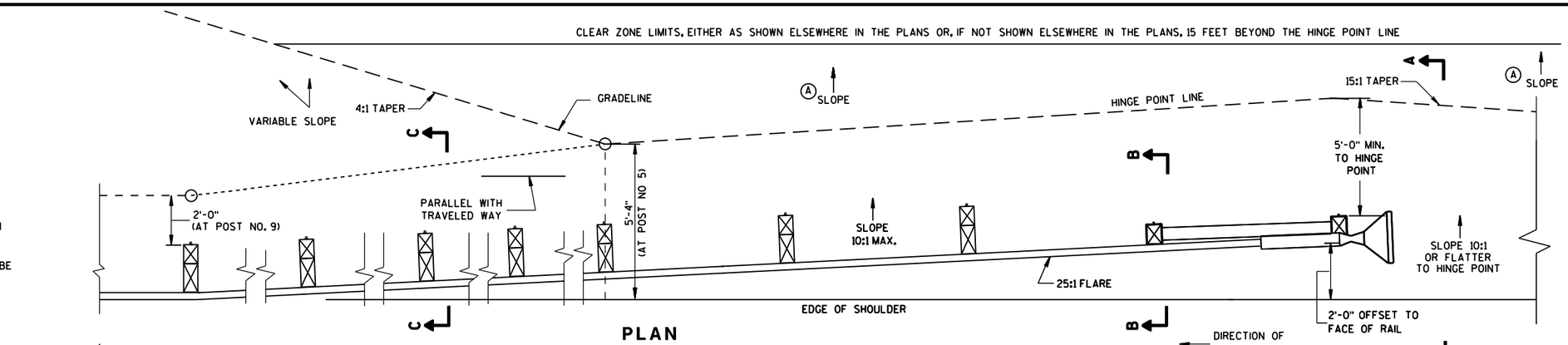
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

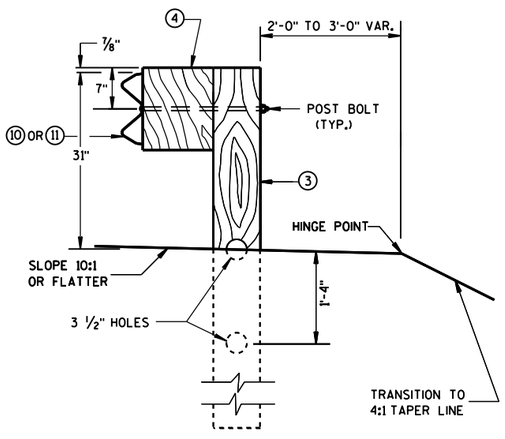
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

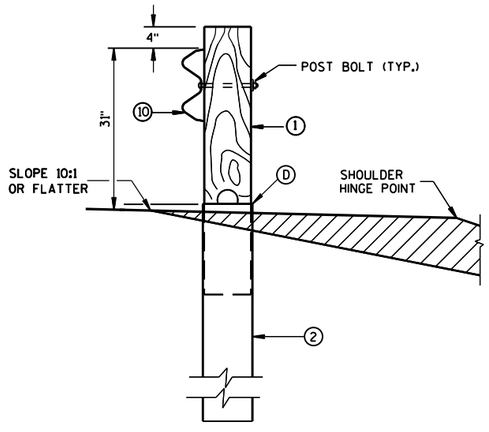
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



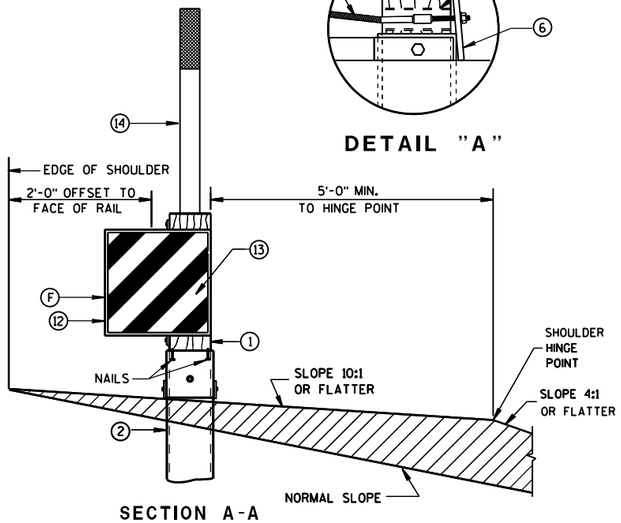
ELEVATION



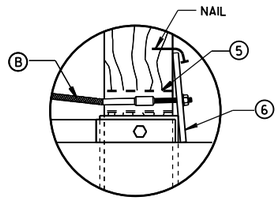
SECTION C-C
TYPICAL AT POST NOS. 3-9



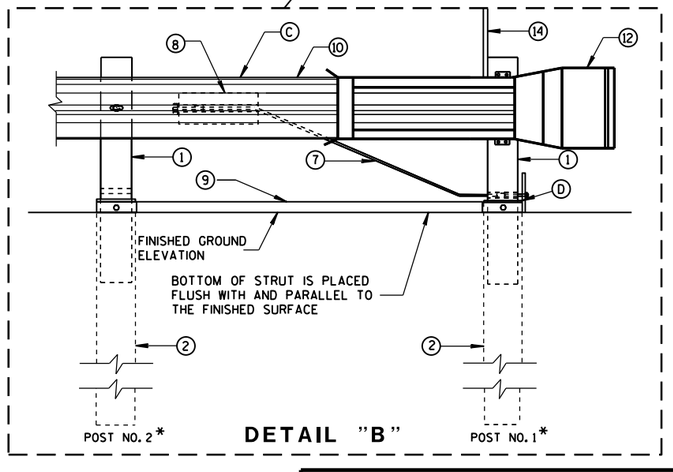
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



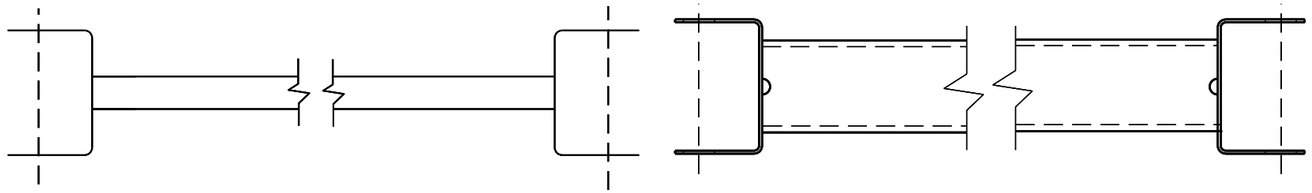
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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

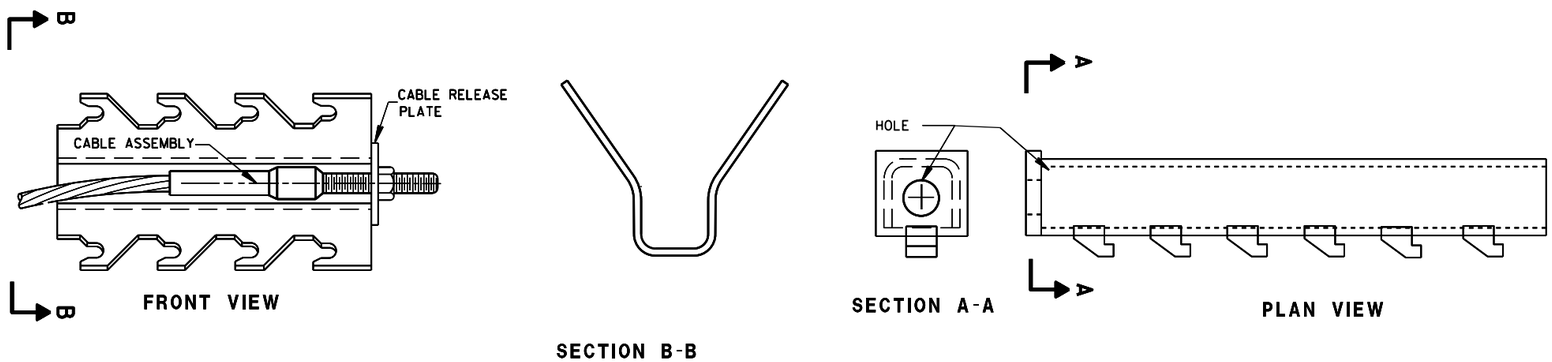
S.D.D. 14 B 44-2a



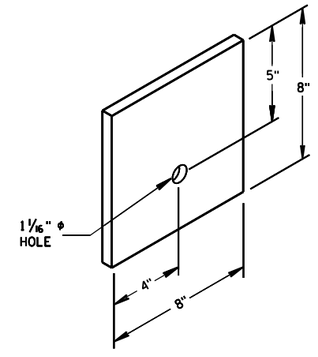
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)

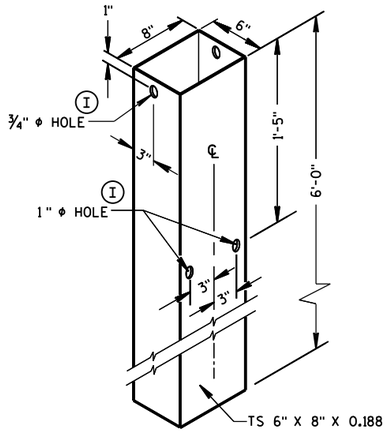


BEARING PLATE (6)

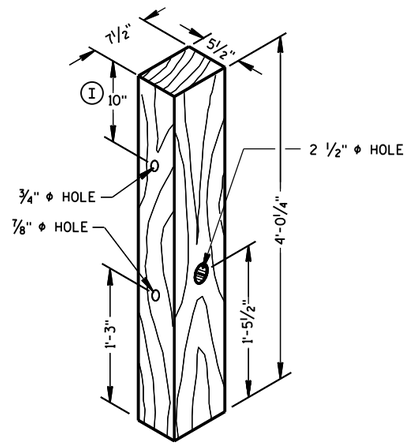
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 44-2b

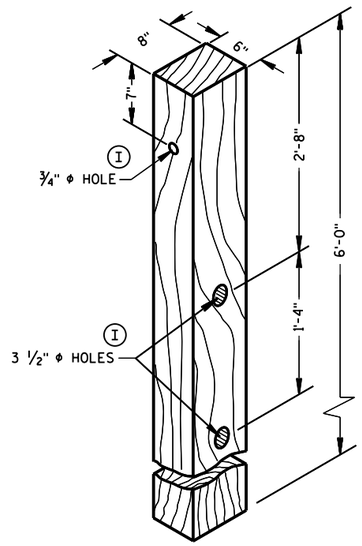


FOUNDATION TUBE (2)



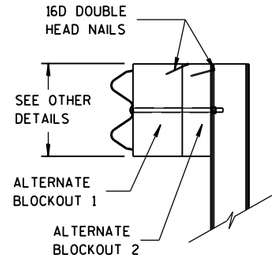
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

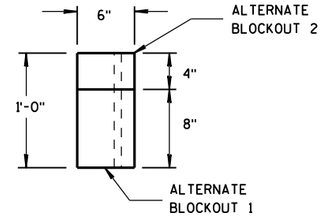


POSTS NUMBER 3-9

WOOD CRT POST (3)

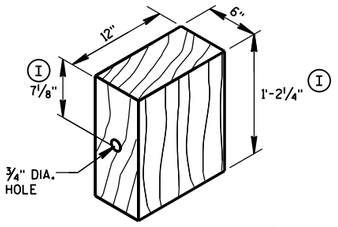


SIDE VIEW



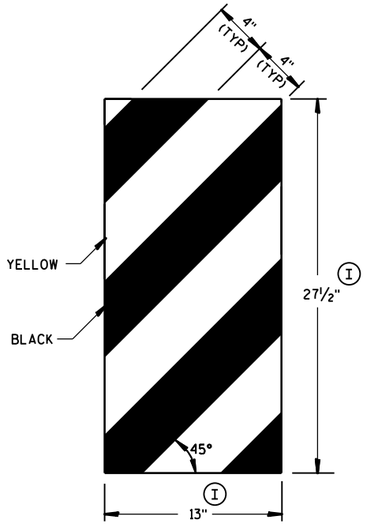
TOP VIEW

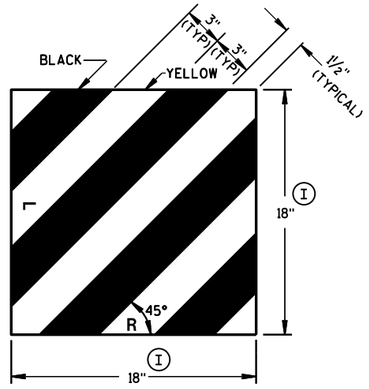
ALTERNATE WOOD BLOCKOUT DETAIL



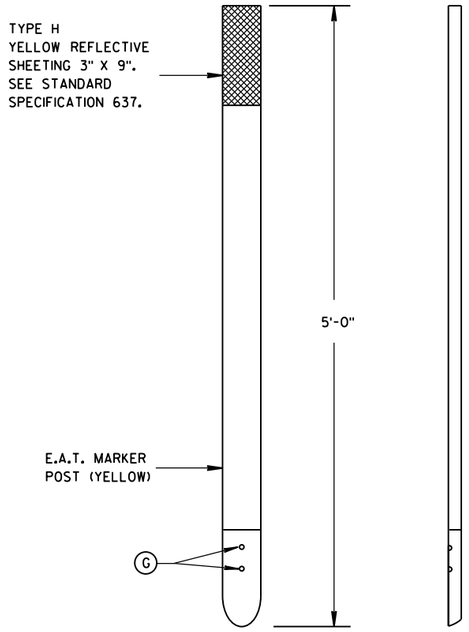
WOOD BLOCKOUT (4)

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





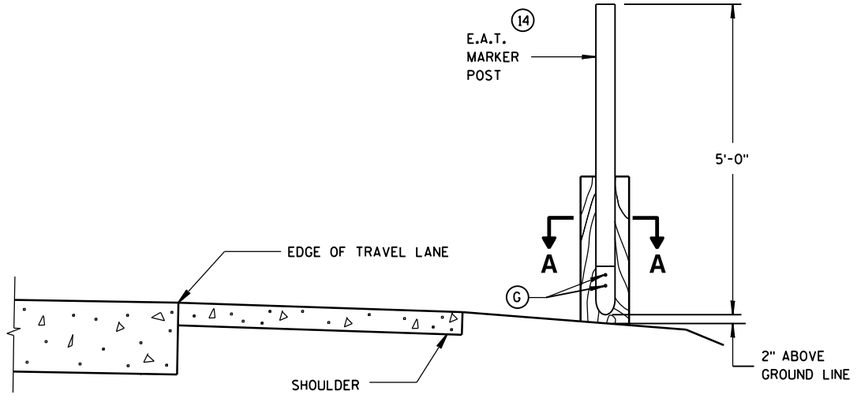
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

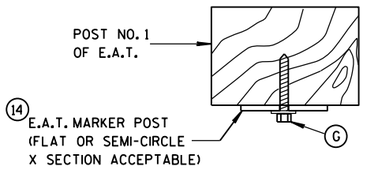
SIDE VIEW

E.A.T. MARKER POST (14)



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

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

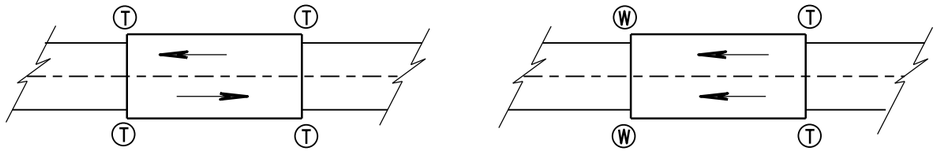


SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

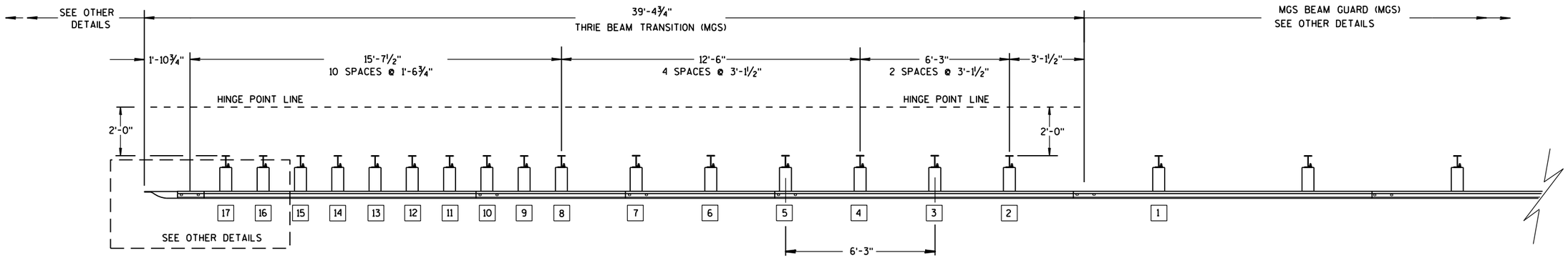
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

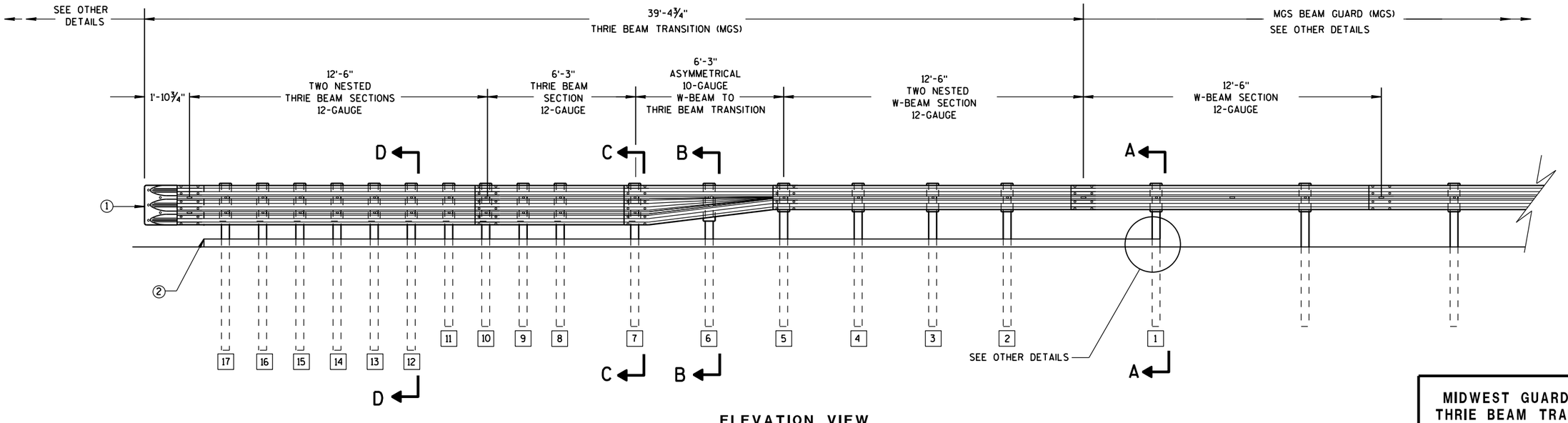
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

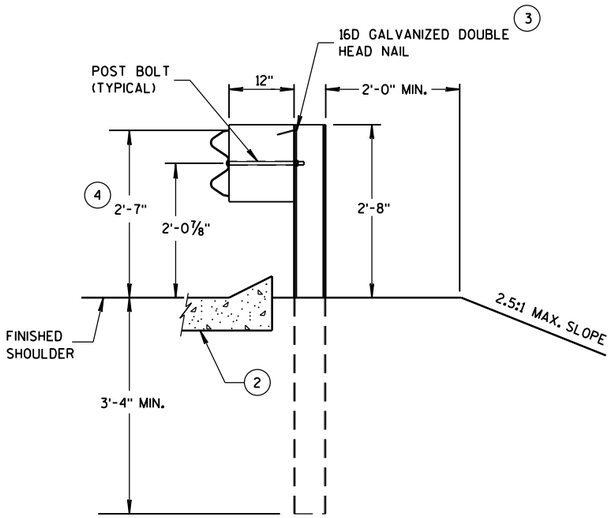
S.D.D. 14 B 45-4a

GENERAL NOTES

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

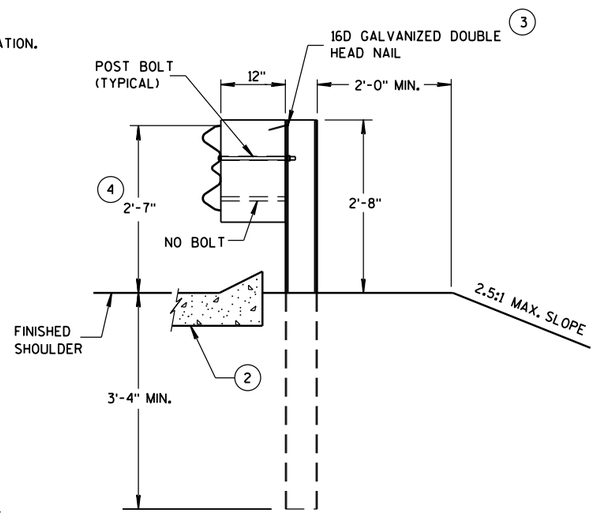
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



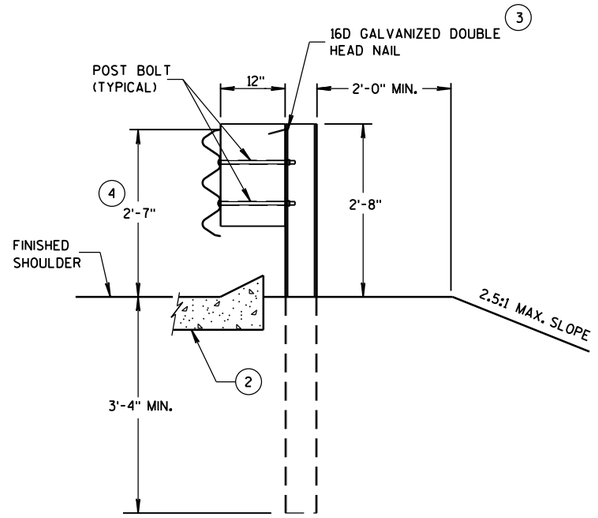
SECTION A-A

POSTS 1-5



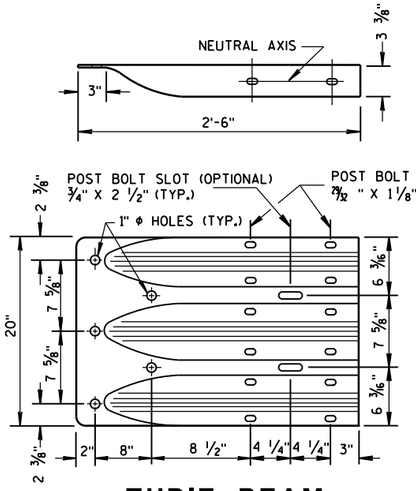
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

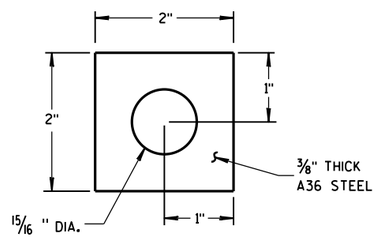
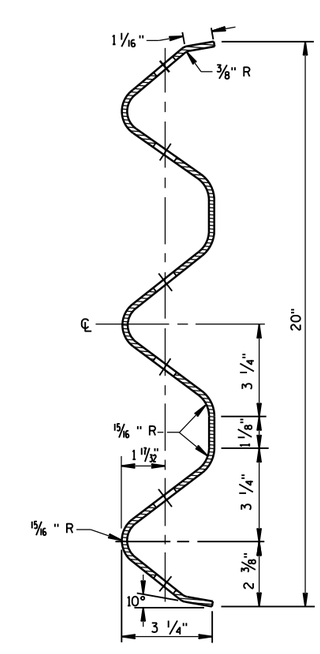
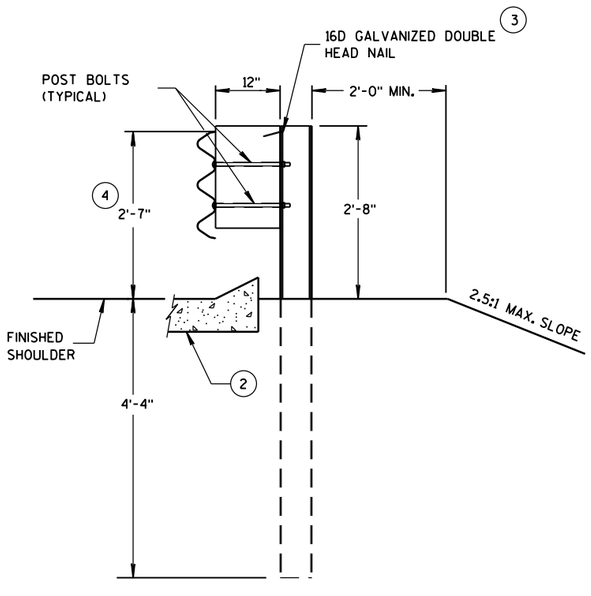


PLATE WASHER DETAIL

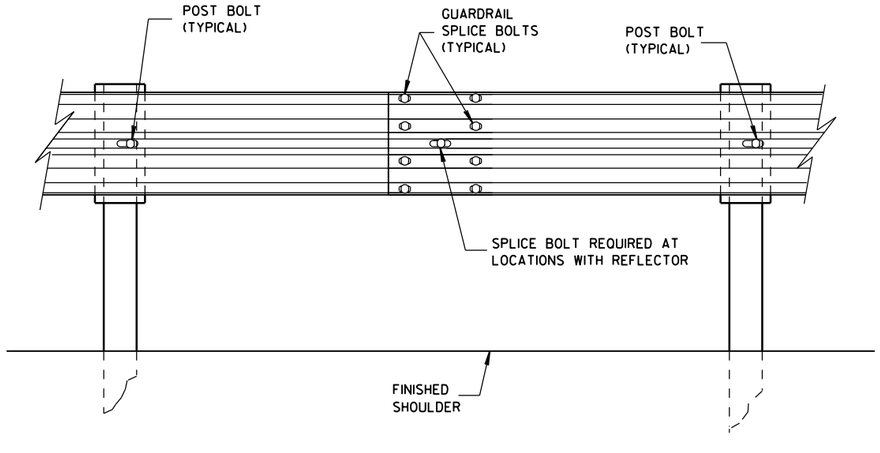


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



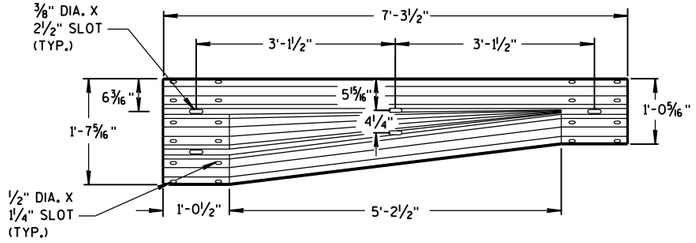
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

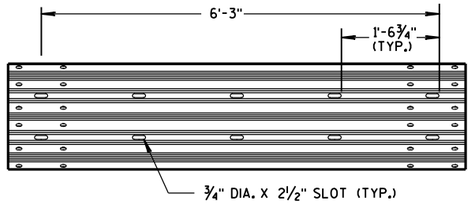
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

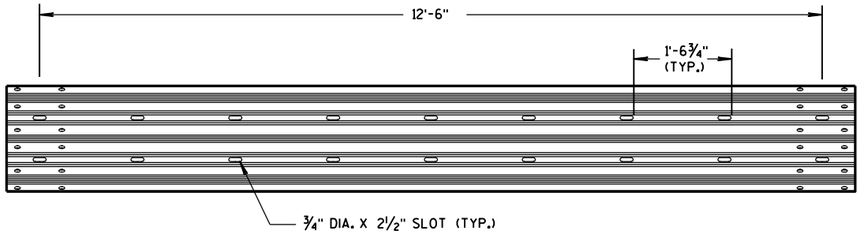
S.D.D. 14 B 45-4b



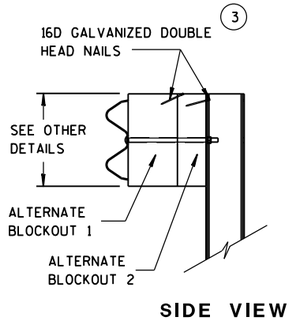
W-BEAM TO THRIE BEAM TRANSITION SECTION



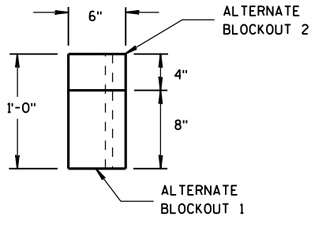
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

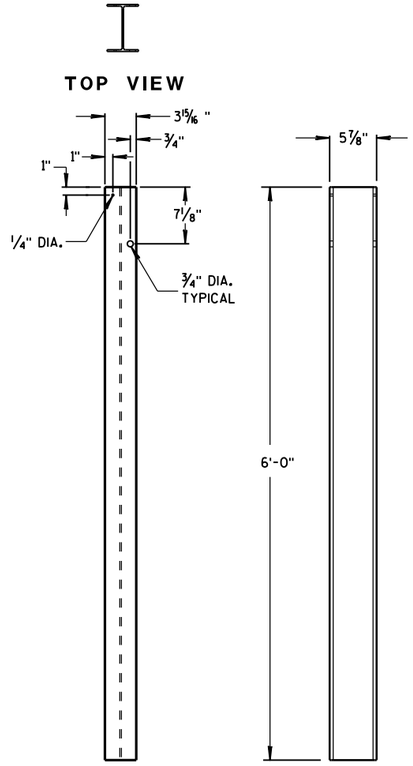


SIDE VIEW



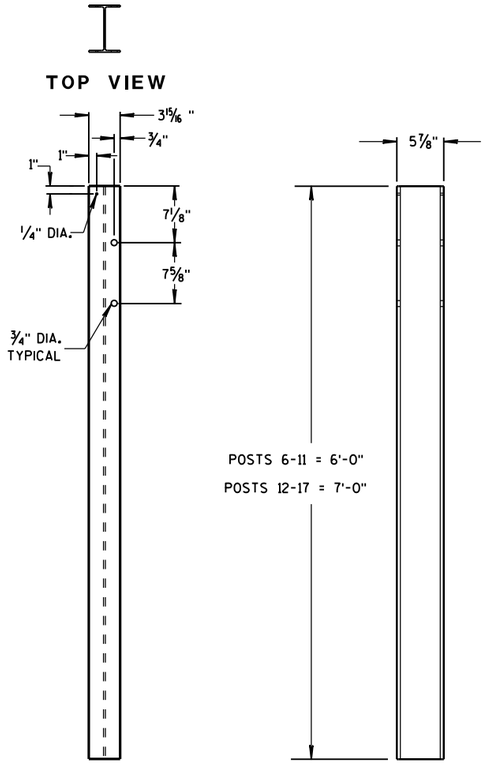
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



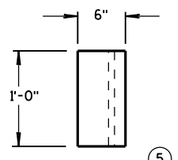
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

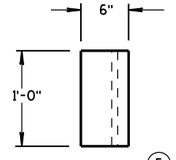


FRONT VIEW SIDE VIEW

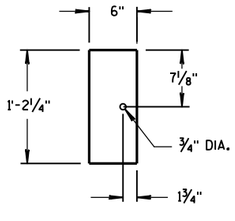
STEEL POSTS 6-17



TOP VIEW (5)

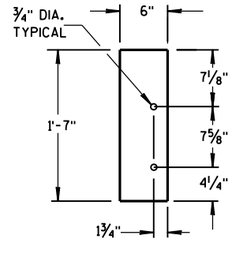


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

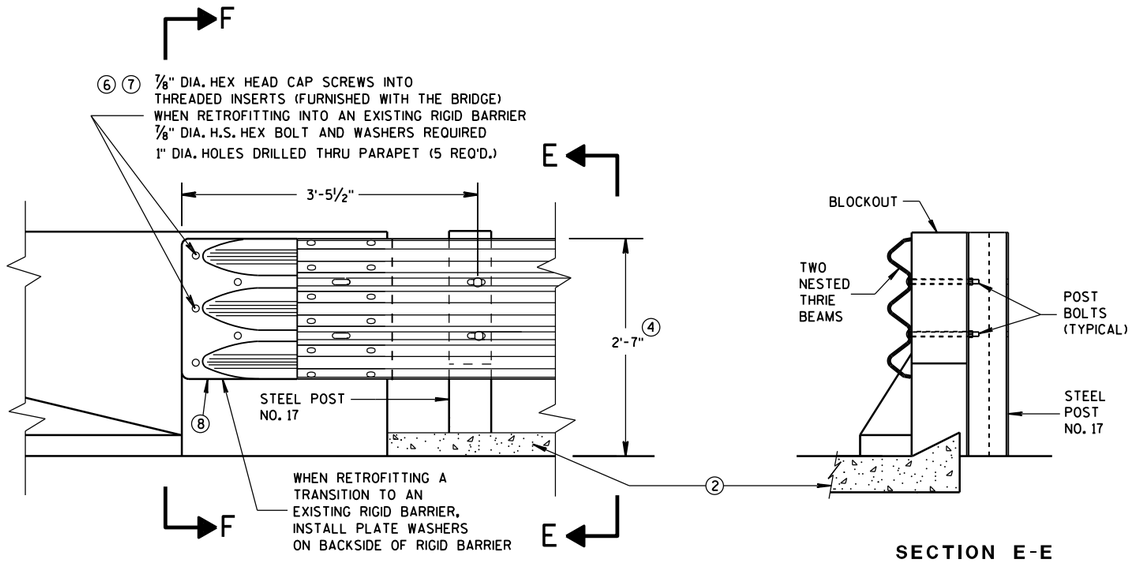
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

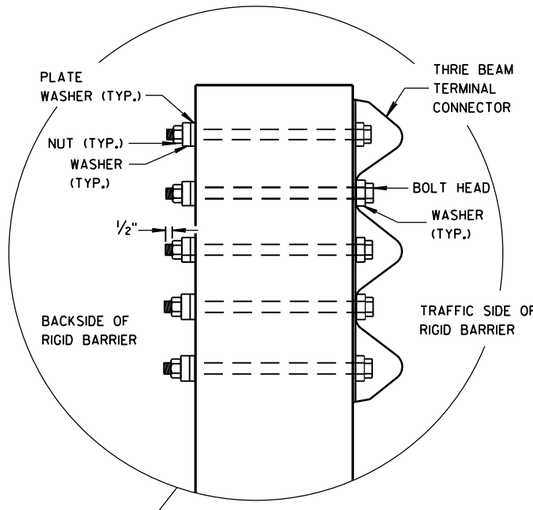
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

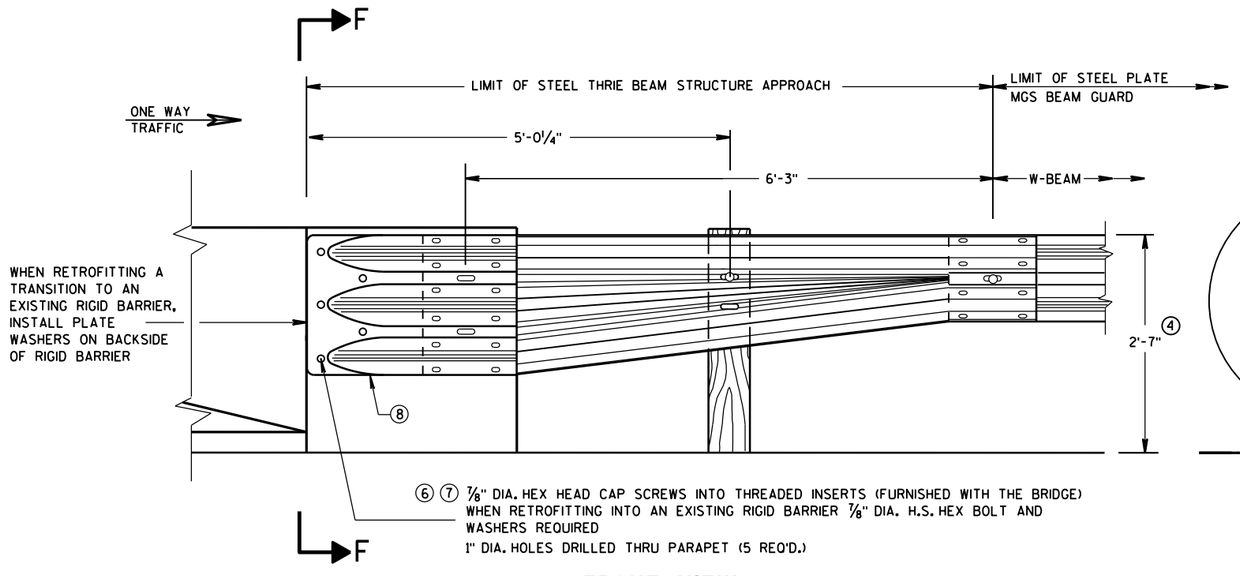
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

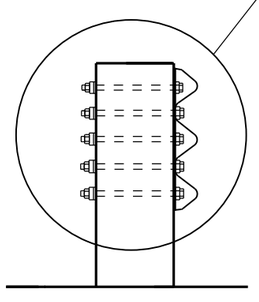
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

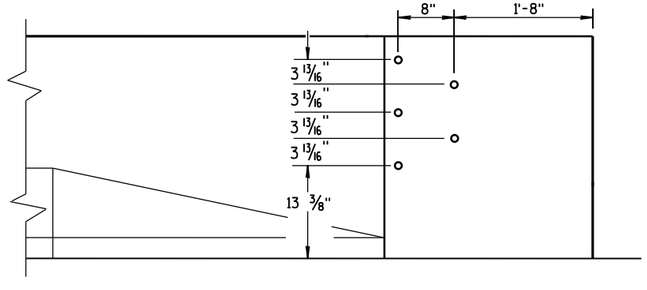




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

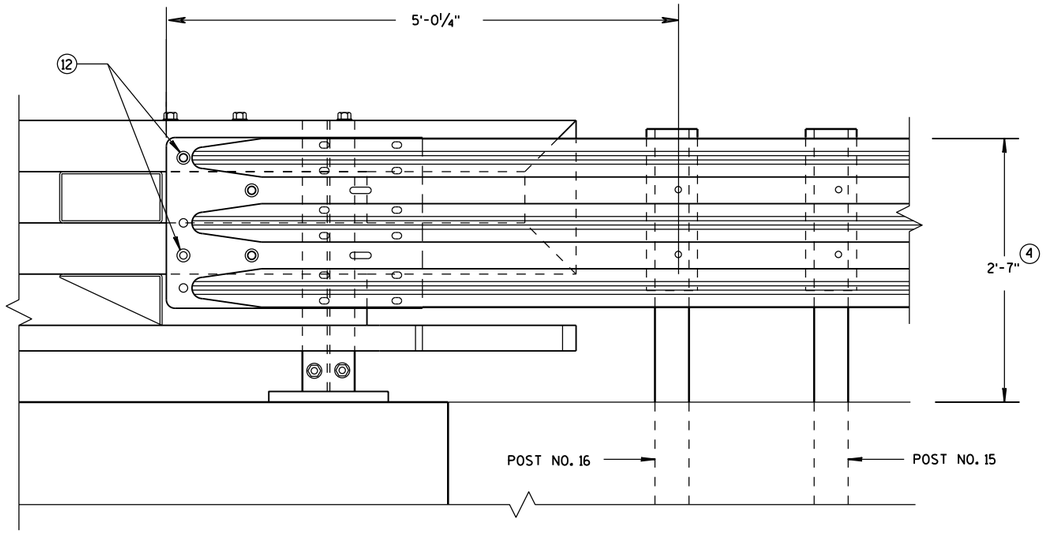
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

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

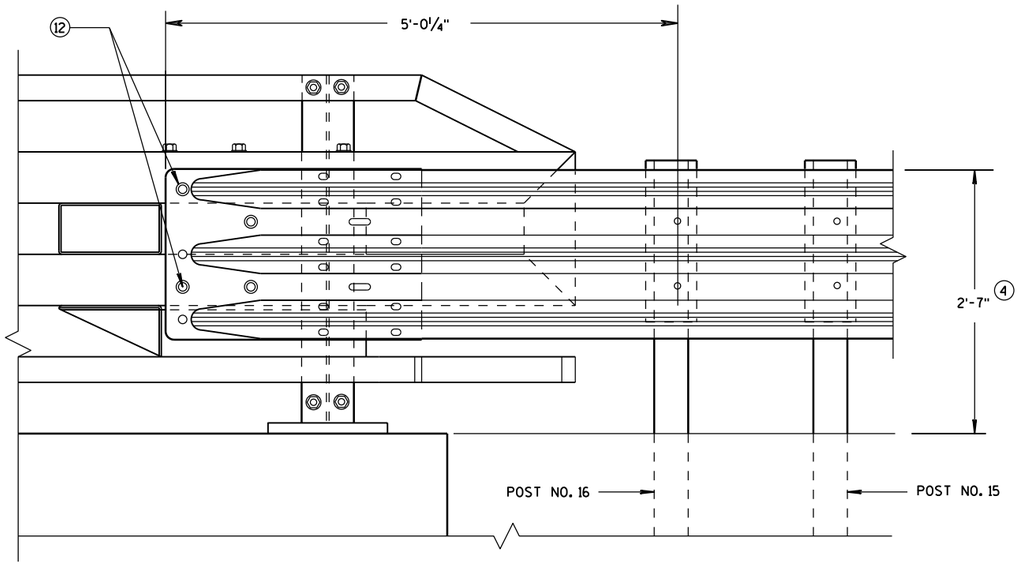
6

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



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D 37 NT
ENGINEER

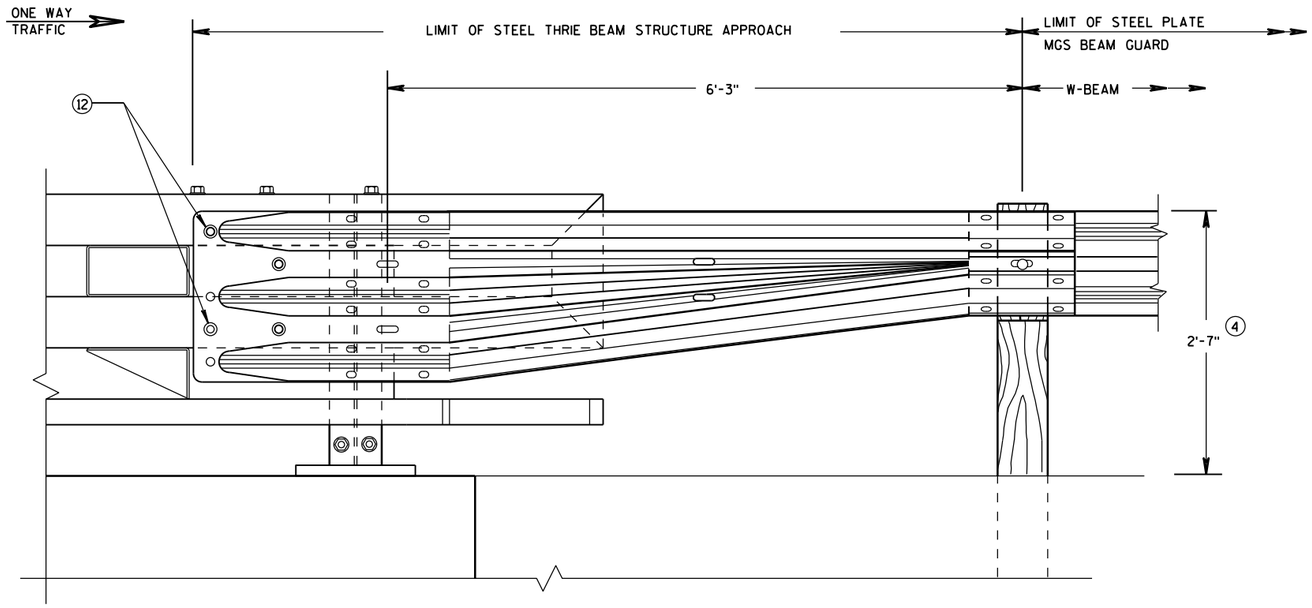
FHWA

6

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

6

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



FRONT VIEW

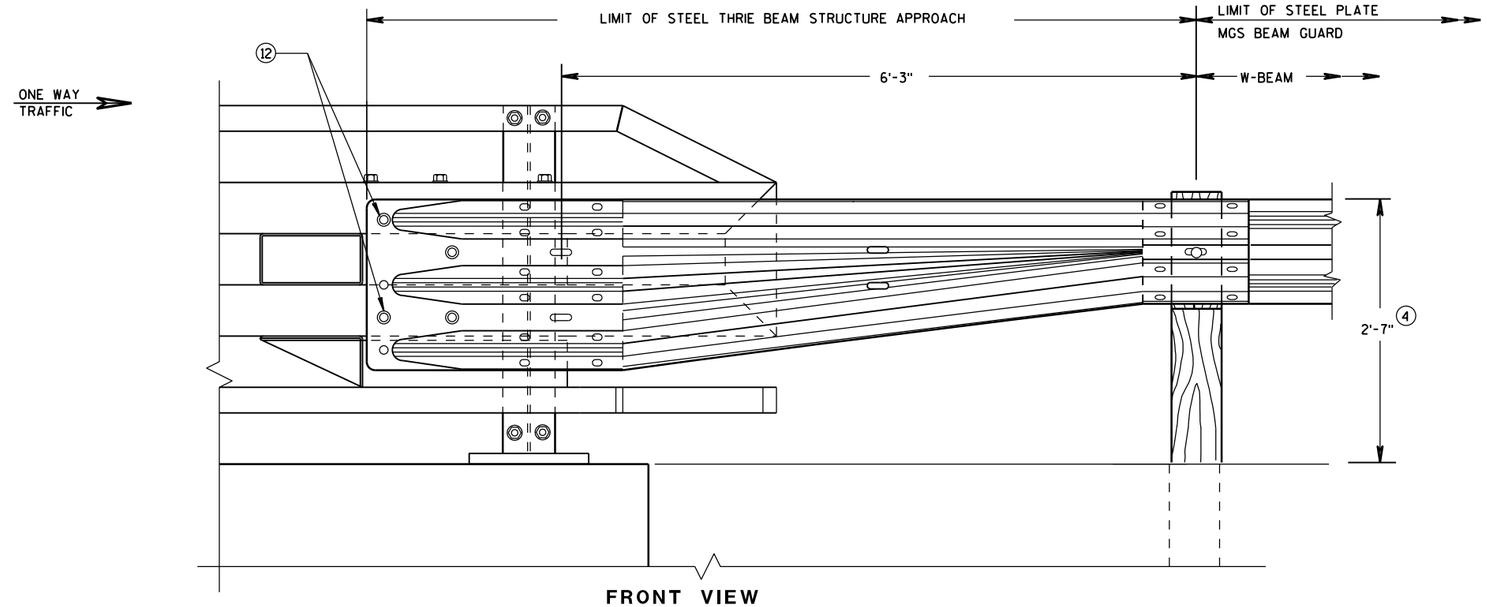
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

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



FRONT VIEW

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

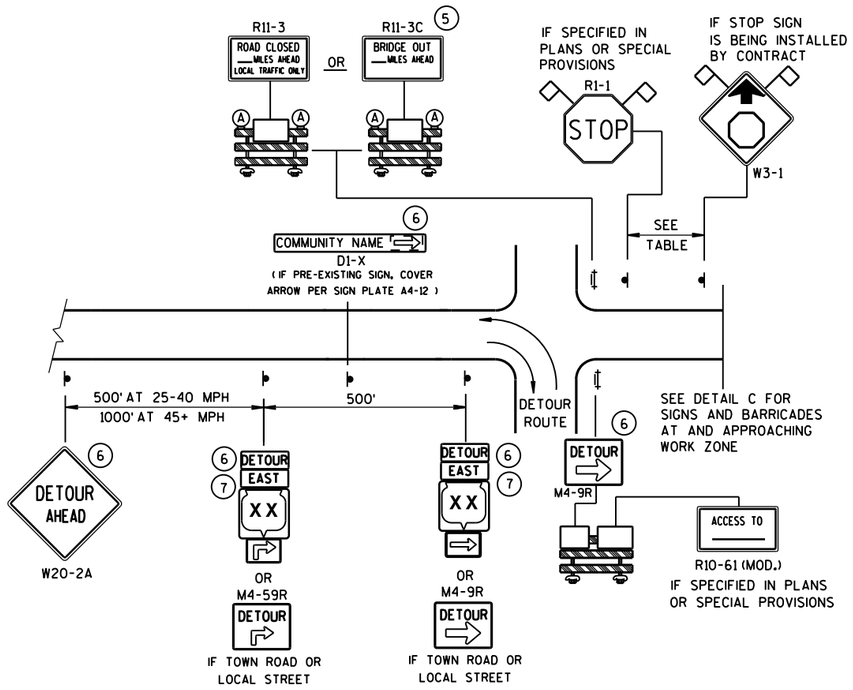
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

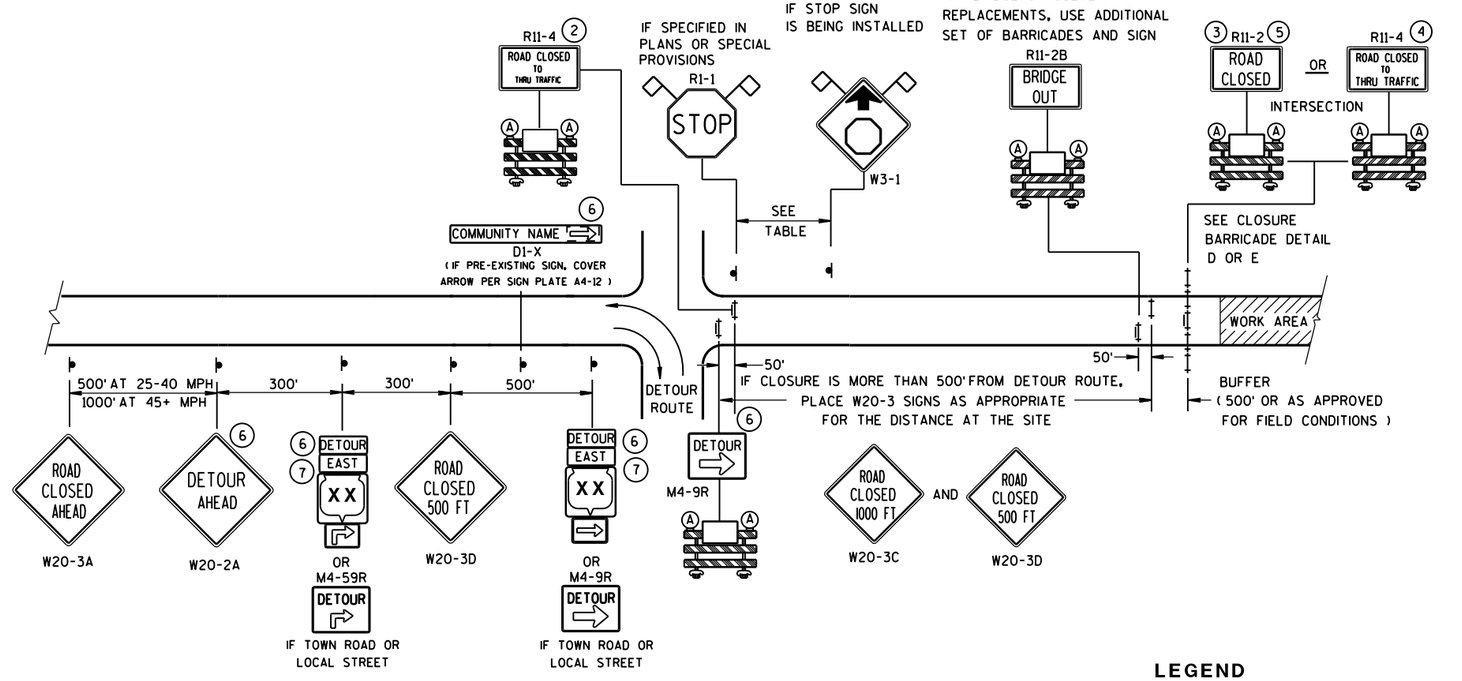
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 45-4L



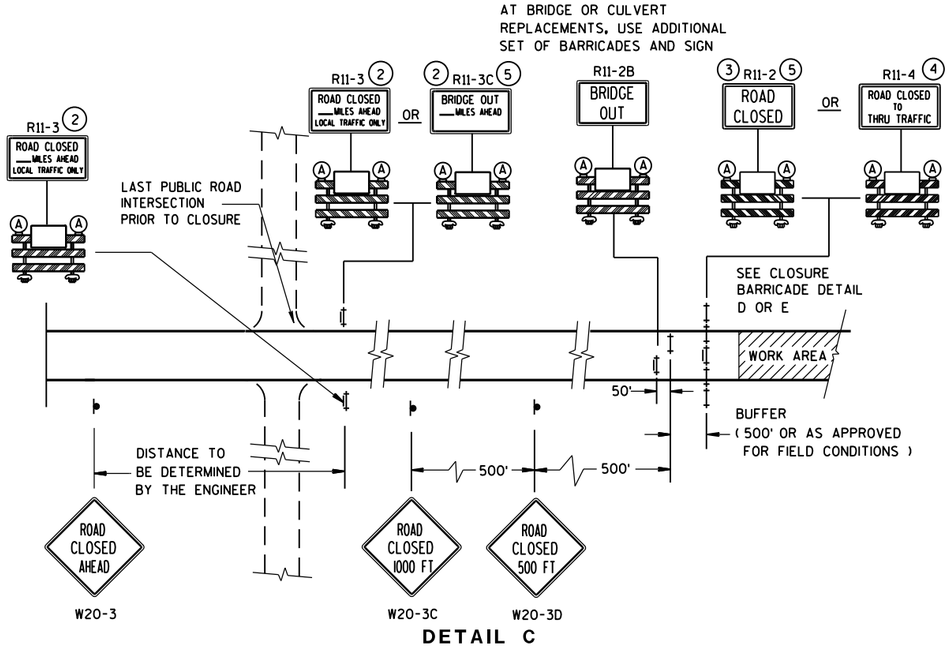
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

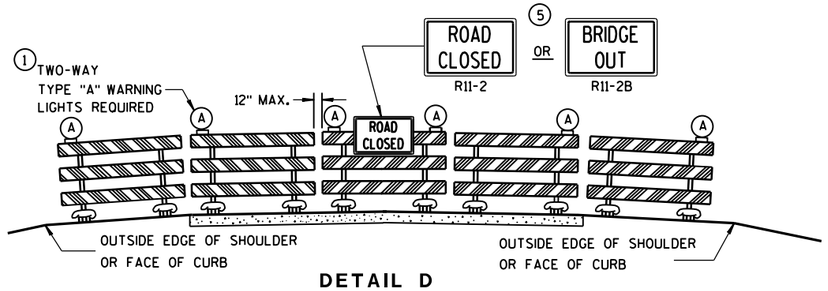
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

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

6

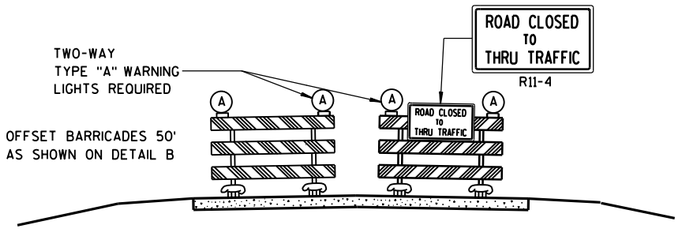
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

6

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

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

GENERAL NOTES

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

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

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

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

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

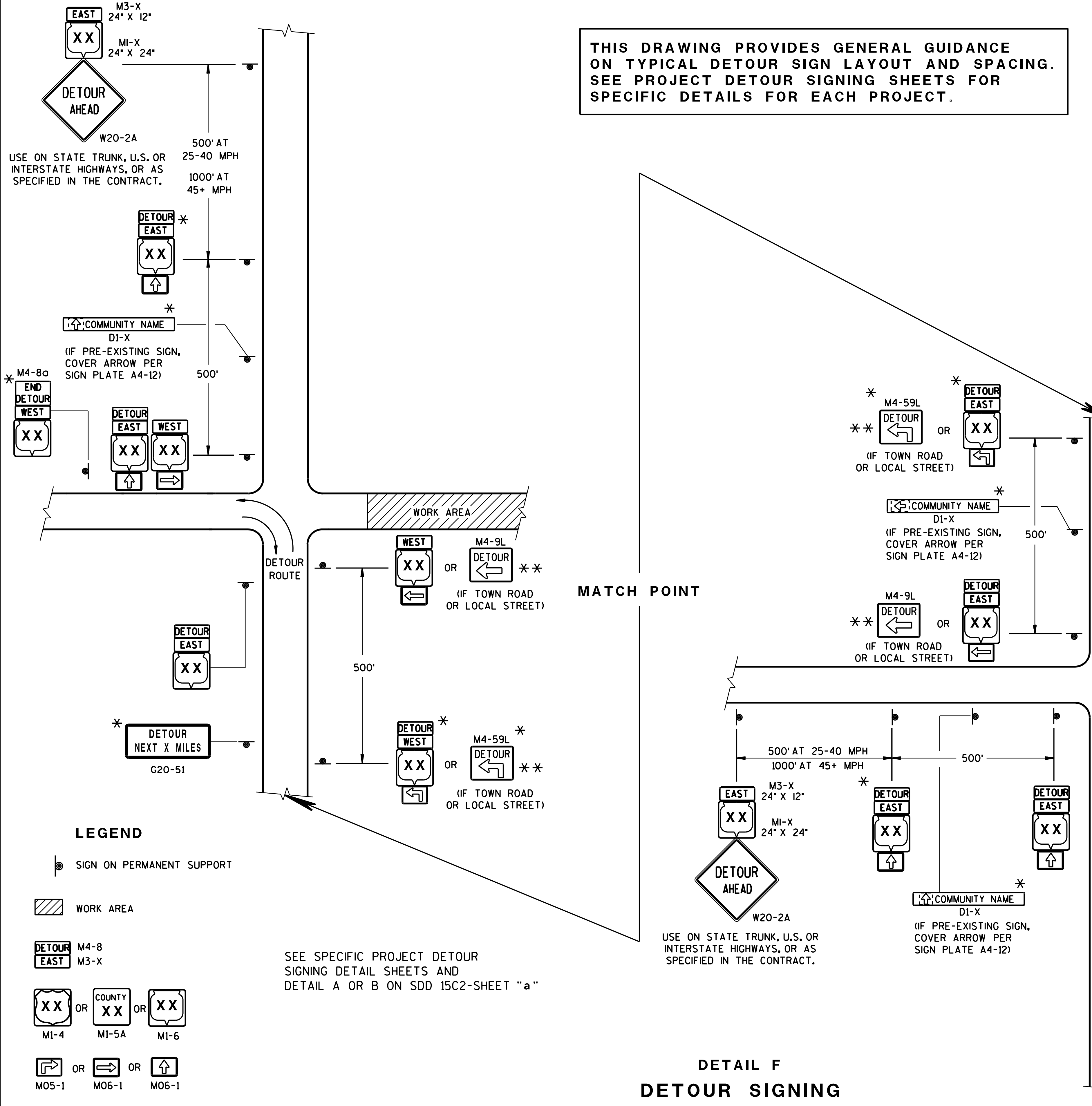
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

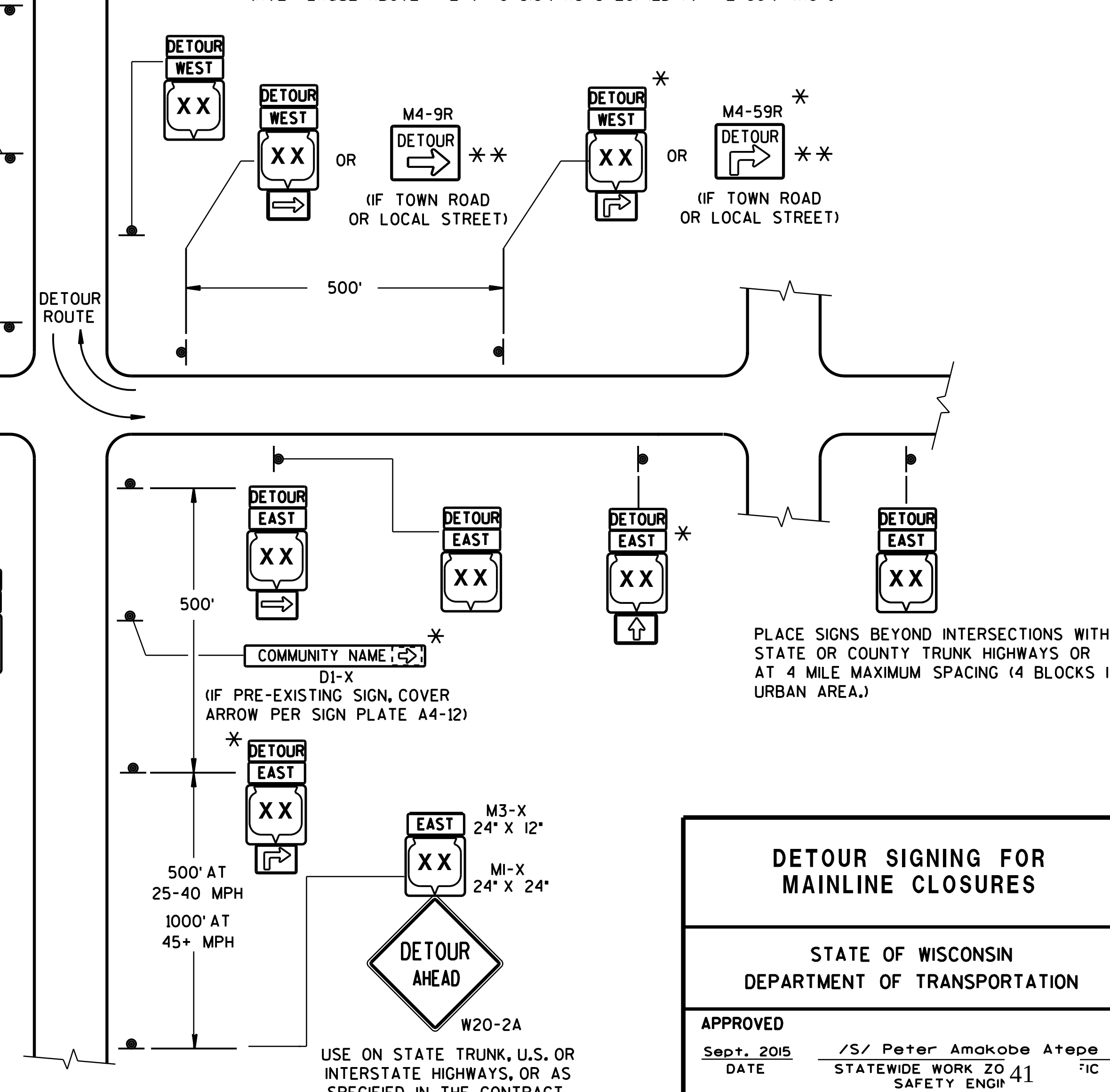
SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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



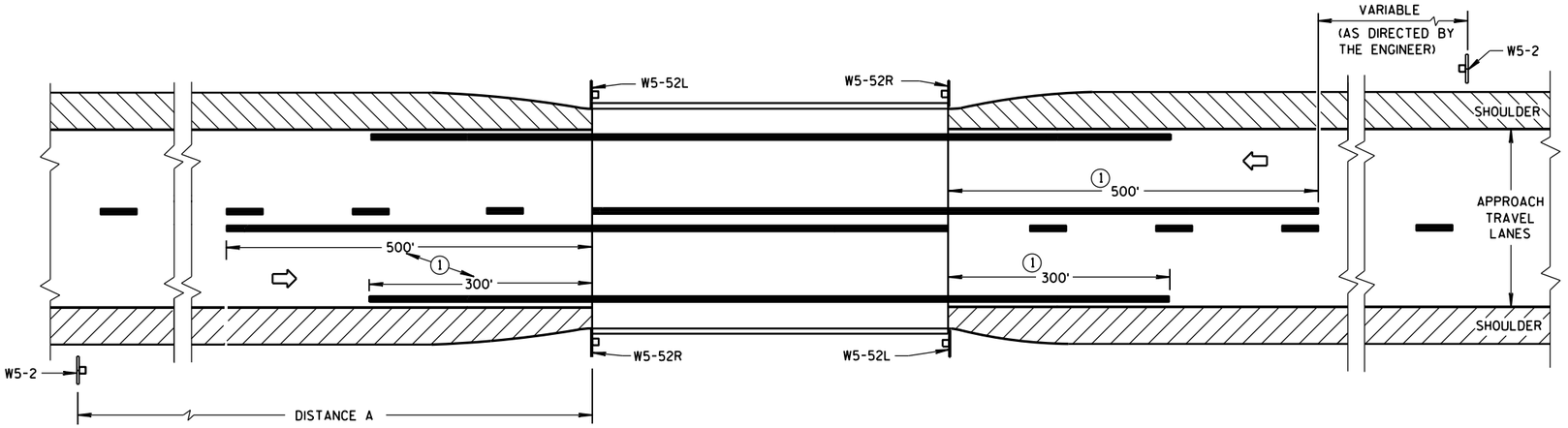


DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

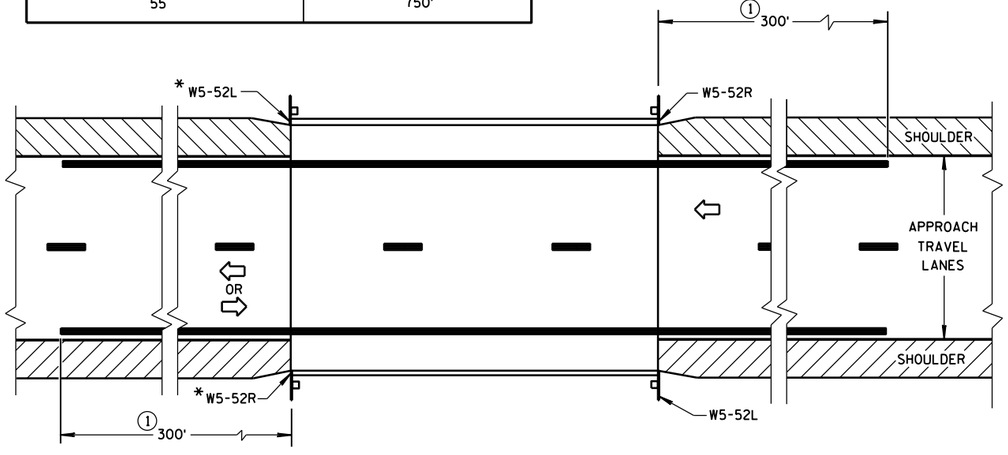
DISTANCE TABLE

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

SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

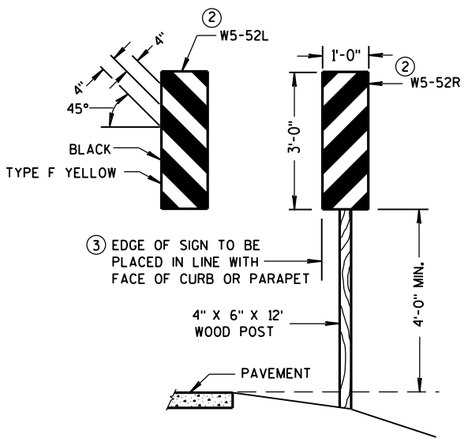


*OMIT ON ONE-WAY TRAVELLED WAYS

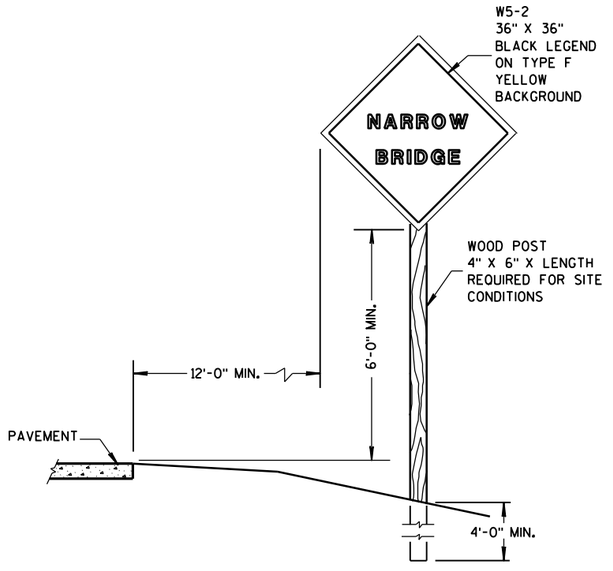
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

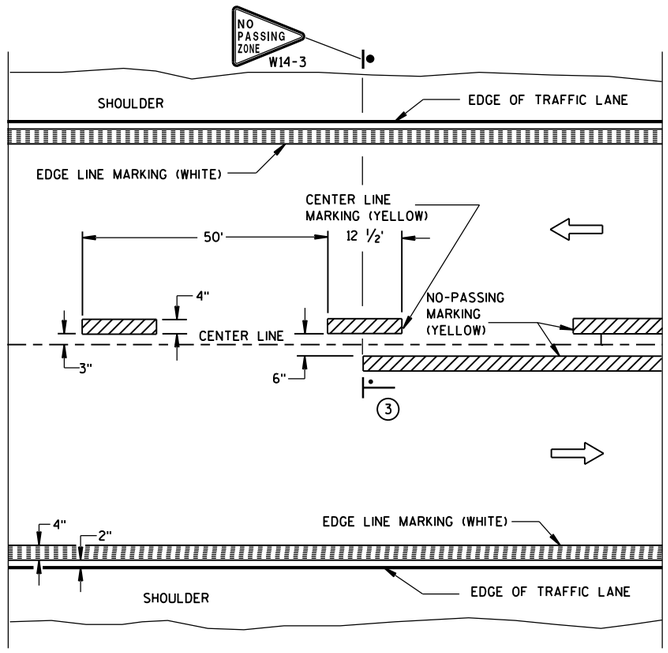
3-2014 DATE

/S/ Travis Feltes STATE TRAFFIC ENGINEER

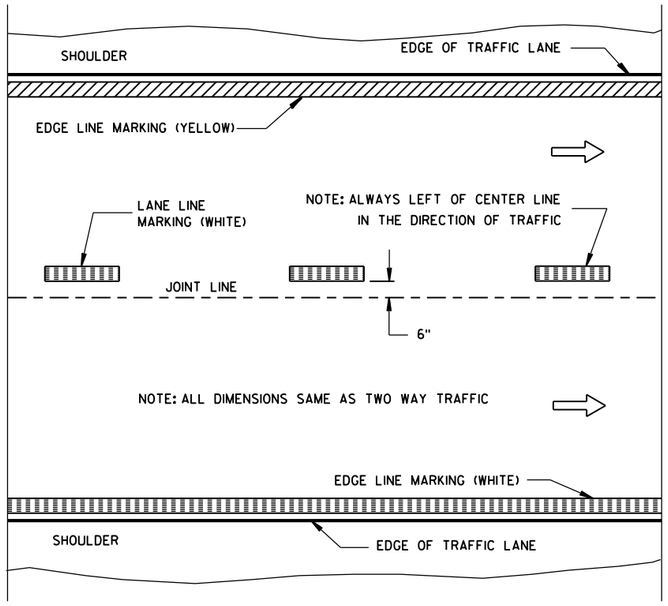
FHWA

6

S.D.D. 15 C 6-7

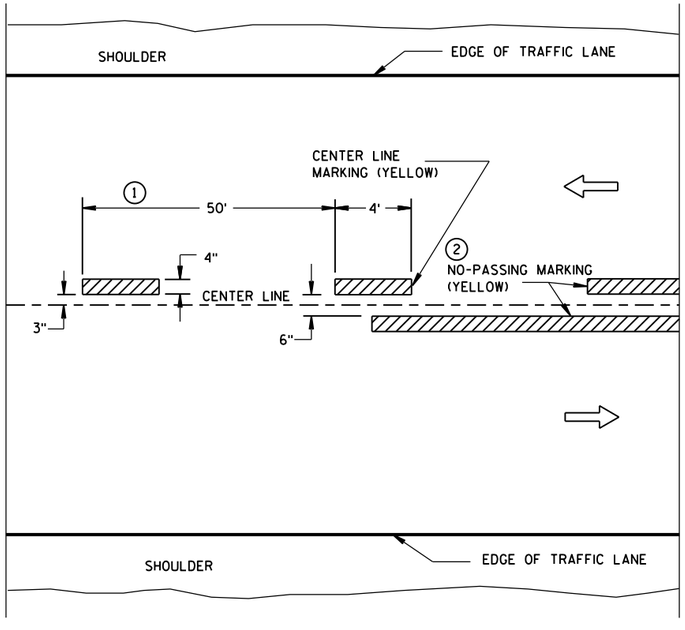


TWO WAY TRAFFIC

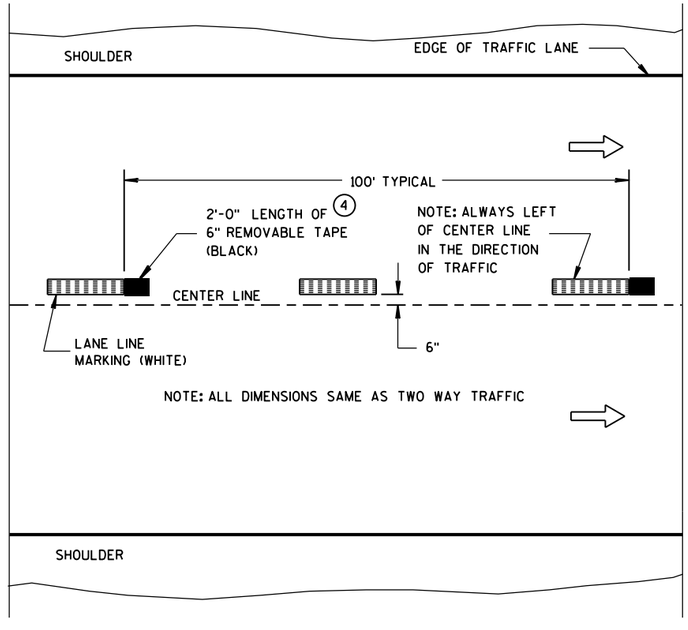


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

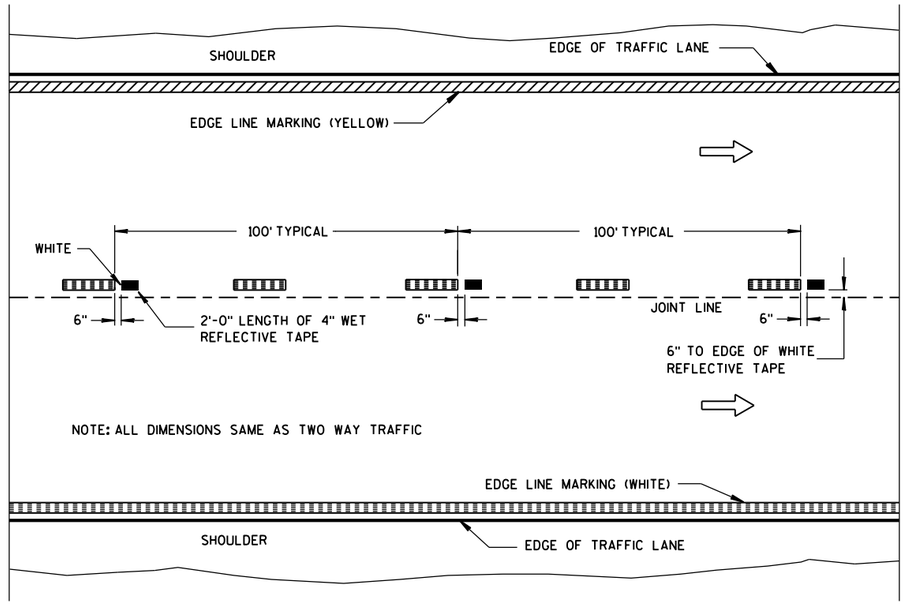
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

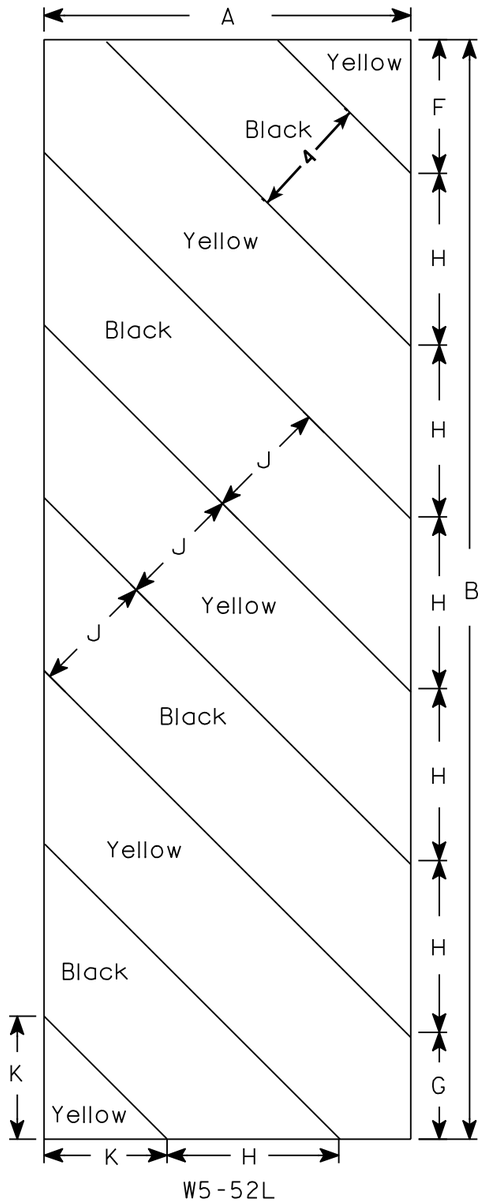
FHWA

6

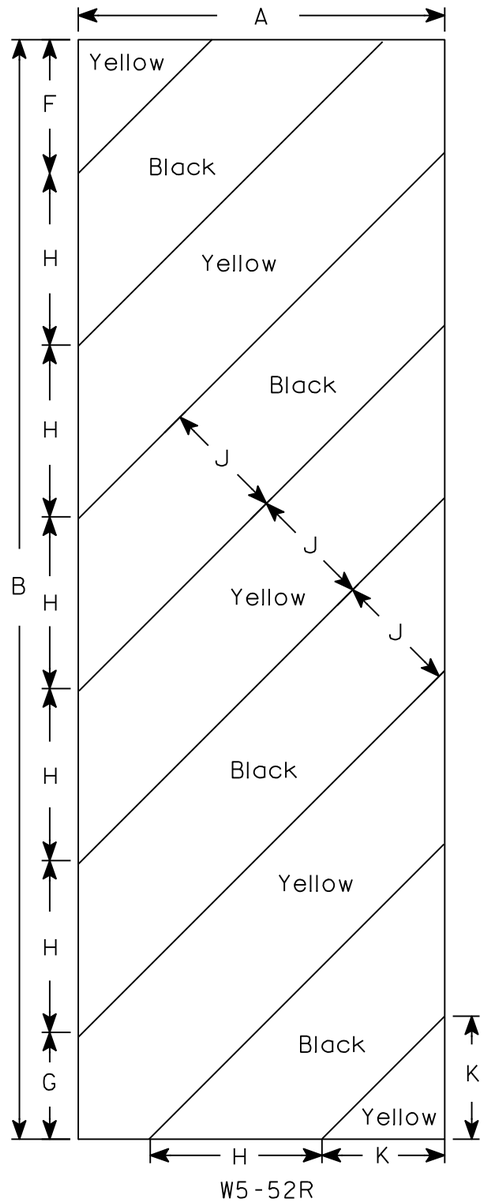
S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

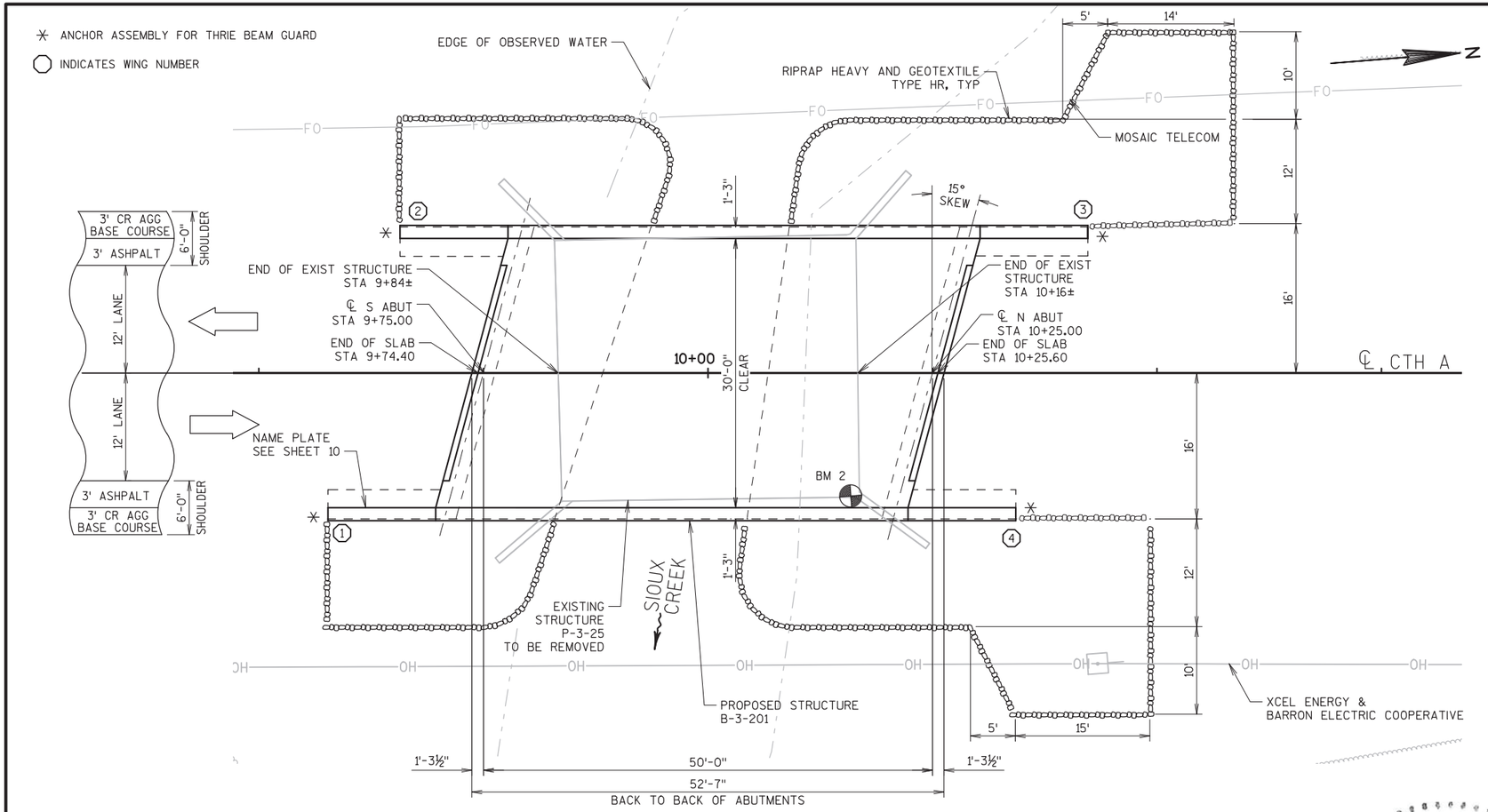
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 44	E

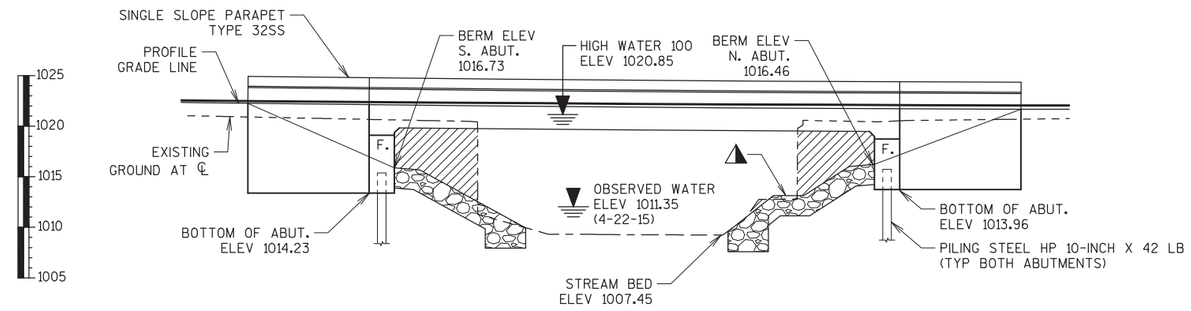
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

7



PLAN

SINGLE SPAN CONCRETE FLAT SLAB BRIDGE



AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES"

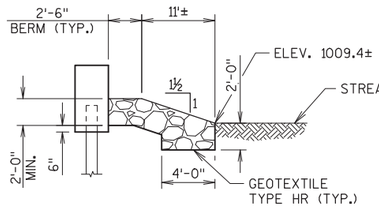
PLACE "SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR INTERSTITIAL SPACE" TO FILL VOIDS AT ALL RIPRAP HEAVY AS DESCRIBED IN THE SPECIAL PROVISIONS.

ELEVATION

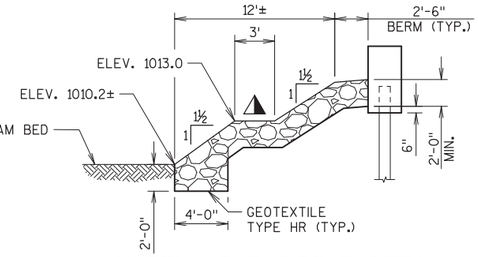
(LOOKING WEST)

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	8+36.15	SPIKE AT PP BASE, 32.38' RT	1025.02
2	10+15.92	CHISELED SQUARE AT NEW CORNER, 13.72' RT	1020.51



SOUTH ABUT RIPRAP DETAIL



NORTH ABUT RIPRAP DETAIL

7/19/16

STATE PROJECT NUMBER

8833-00-70

DESIGN DATA

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	1.26
OPERATIONAL RATING FACTOR	1.63
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTRUCTURE	f'c = 4,000 psi
ALL OTHER	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

TRAFFIC DATA

ADT (2017) = 1,100
ADT (2037) = 1,300
DESIGN SPEED = 60 MPH

FOUNDATION DATA

ABUTMENTS SUPPORTED ON PILING STEEL HP10-INCH x 42LB STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180* TONS PER PILE AS REQUIRED BY THE MODIFIED GATES DYNAMIC FORMATION. ESTIMATED 12' LONG AT THE SOUTH ABUTMENT AND 16' AT THE NORTH ABUTMENT. PREBORE A MINIMUM OF 3 FEET INTO SOUND ROCK.

* 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.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100}	1,325 cfs
VELOCITY	3.85 fps
HIGH WATER	EL. 1020.85
WATERWAY AREA	344 ft²
DRAINAGE AREA	11.2 mi²
SCOUR CRITICAL CODE	5
OVERTOPPING FREQUENCY	N/A

2 YEAR FREQUENCY

Q_2	335 cfs
HIGH WATER	EL. 1014.92

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/09/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-3-201

CTH A OVER SIOUX CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
BARRON	SIOUX CREEK

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ETP	BH	PKF	ETP

GENERAL PLAN

SHEET 1 OF 10

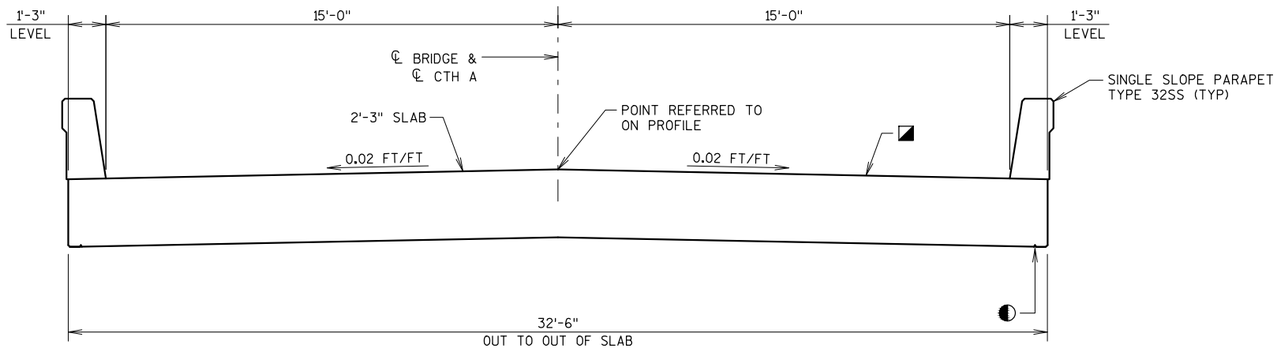
45

BRIDGE OFFICE CONTACT
WILLIAM DREHER, P.E.
TELEPHONE: (608) 266-8489

CONSULTANT CONTACT
ERIC PRICE, P.E.
TELEPHONE: (608) 826-6146

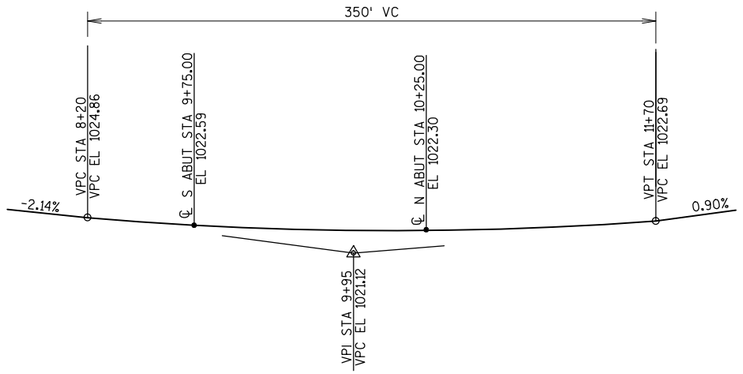
STATE PROJECT NUMBER

8833-00-70



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



PROFILE GRADE LINE

LEGEND

◐ 3/4" V-GROOVE. TERMINATE 6" FROM FRONT FACE OF ABUTMENTS.

◪ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ENTIRE INSIDE FACE AND TOP SURFACE OF THE PARAPETS ON THE WINGS AND SUPERSTRUCTURE.

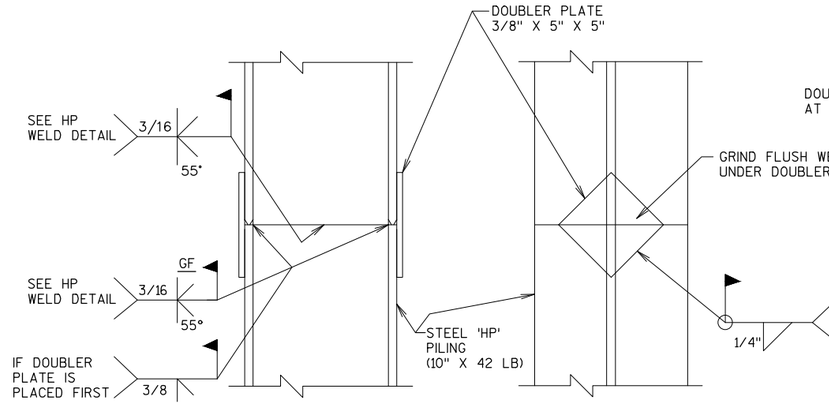
THE EXISTING STRUCTURE P-3-25, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE, 32.0 FT. LONG WITH A 26.1 FT. CLEAR ROADWAY WIDTH.

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

THE QUANTITY FOR BACKFILL STRUCTURE TYPE B, BID ITEM 210.2100, IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISDOT BRIDGE MANUAL.

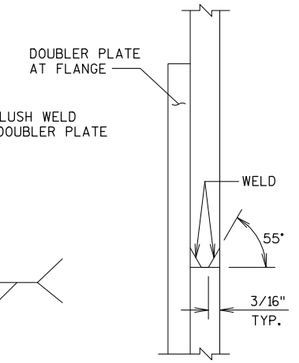
TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	SOUTH ABUT	NORTH ABUT	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 10+00	LS	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-3-201	LS	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	170	170	———	340
502.0100	CONCRETE MASONRY BRIDGES	CY	38	38	159	235
502.3200	PROTECTIVE SURFACE TREATMENT	SY	———	———	175	175
502.3210	PIGMENTED SURFACE SEALER	SY	10	10	44	64
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,020	2,020	———	4,040
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,250	2,240	31,040	35,530
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	11	———	22
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	60	80	———	140
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	70	50	———	120
606.0300	RIPRAP HEAVY	CY	115	230	———	345
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	80	———	160
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	———	———	———	4
645.0120	GEOTEXTILE TYPE HR	SY	140	285	———	425
SPV.0035	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR INTERSTITIAL SPACE	CY	———	8	———	8
	NON-BID ITEMS					
	FILLER	SIZE	———	———	———	½" & ¾"



STEEL 'HP' PILING

STEEL 'HP' PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

TYPICAL SECTION & QUANTITIES

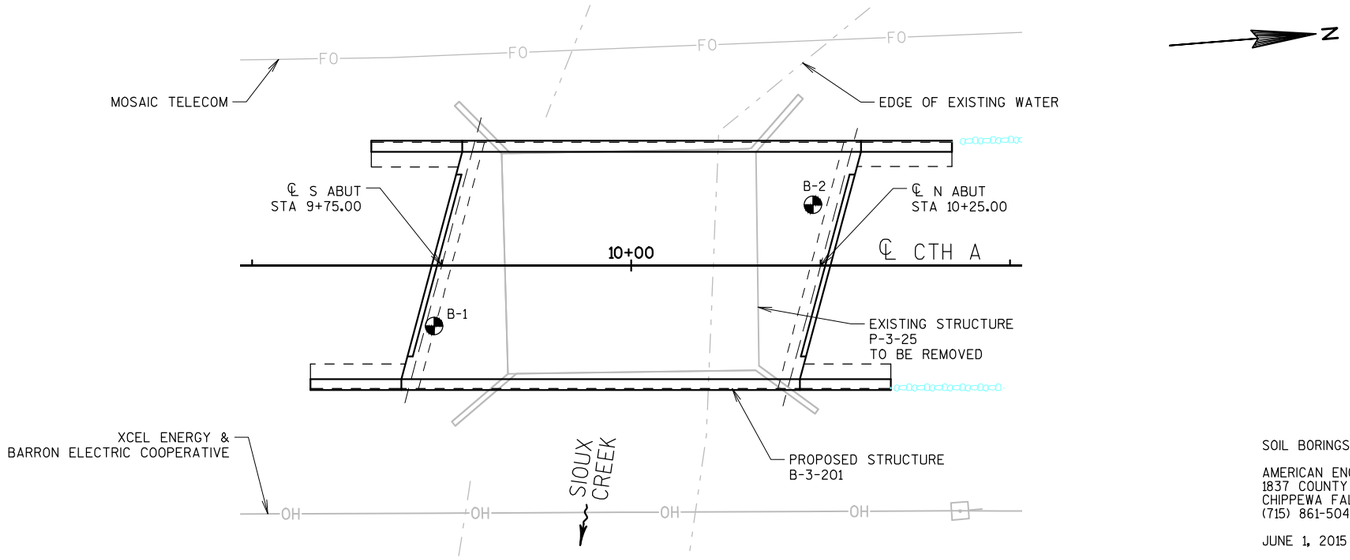
SHEET 2 OF 10

46

8

8

FILE NAME : P:±WI - NW REGION±8833-00-00_BARRONCO_CTH A±500_CADD±503_STRUCTURES±502.4_FINAL±080201 CS_CTH A.DWG PLOT DATE : 7/19/2016 10:36 AM PLOT BY : BOBBY JONES

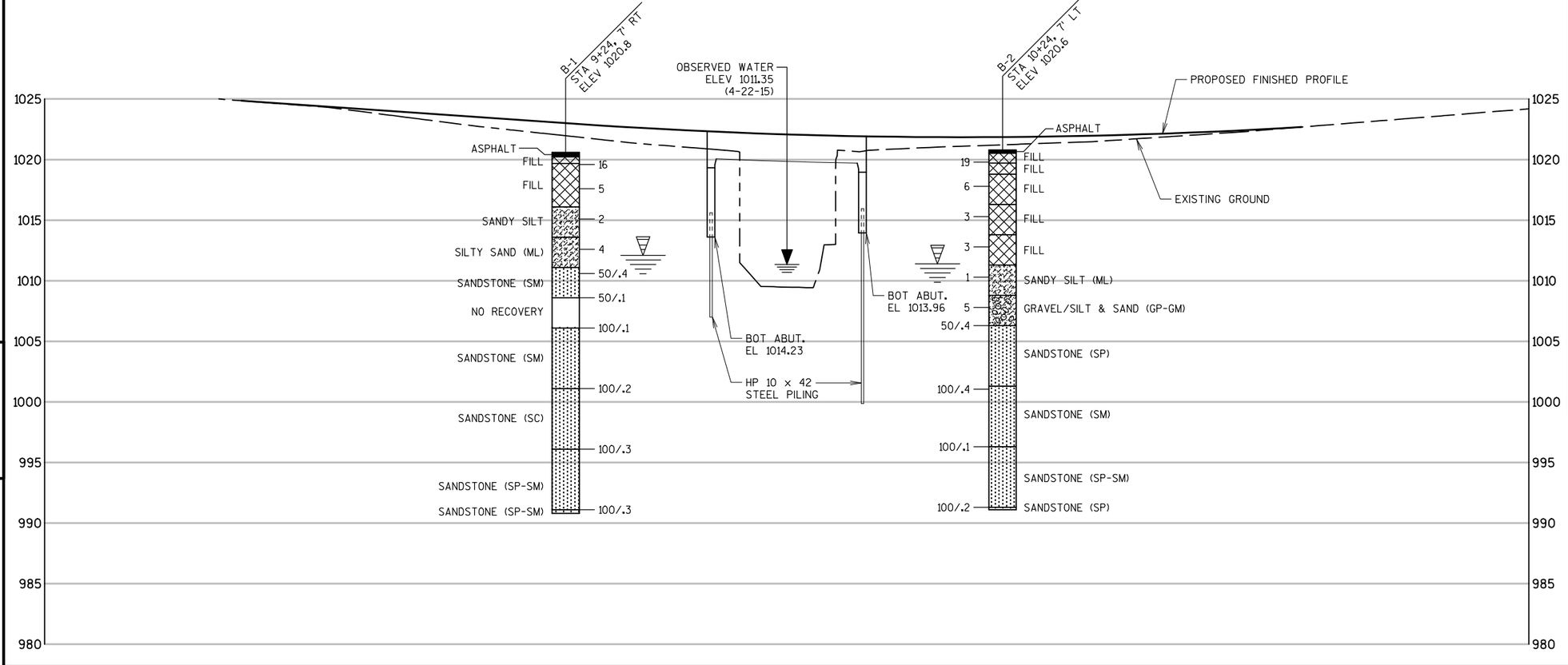


N

SOIL BORINGS COMPLETED BY:

AMERICAN ENGINEERING TESTING, INC.
1837 COUNTY HIGHWAY OO
CHIPPEWA FALLS, WI 54729
(715) 861-5045

JUNE 1, 2015



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STATE PROJECT NUMBER

8833-00-70

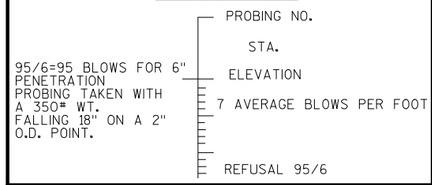
ABBREVIATIONS

F— FINE M—MEDIUM C— COARSE
WS— WEATHERED SO — SOUND

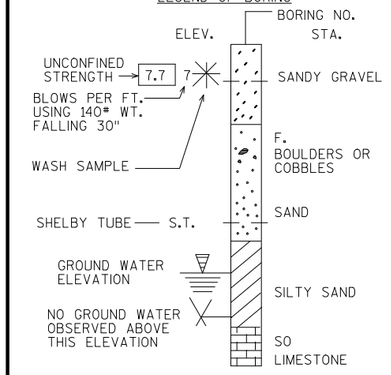
MATERIAL SYMBOLS

ASPHALT, SILT, SANDSTONE
SAND, FILL, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-3-201

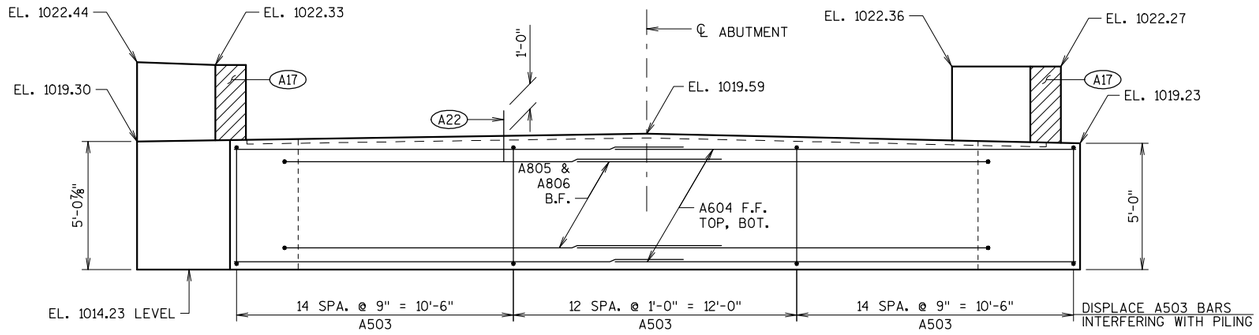
DRAWN BY PKF | PLANS CK'D. ETP

SUBSURFACE EXPLORATION

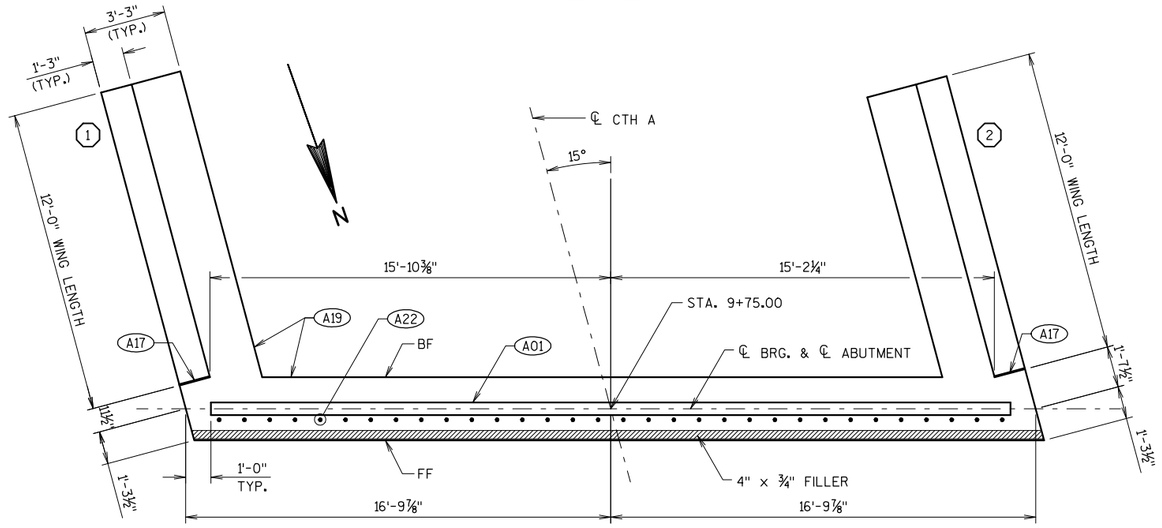
SHEET 3 OF 10

47

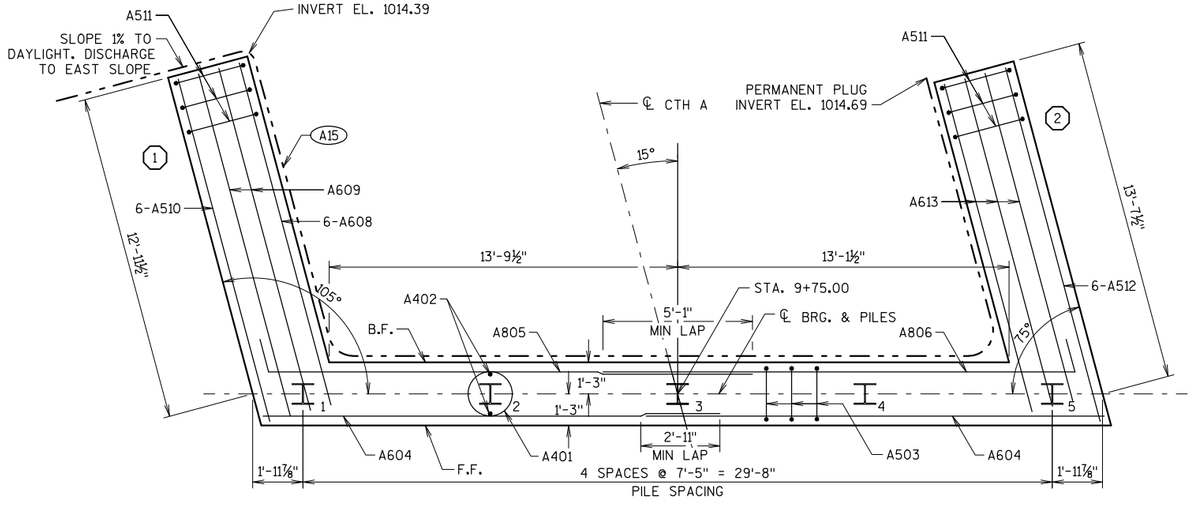
FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\503_STRUCTURES\502.4_FINAL\080301-SX.DWG PLOT DATE : 7/19/2016 10:36 AM PLOT BY : BOBBY JONES



ELEVATION
(LOOKING SOUTH)



PLAN

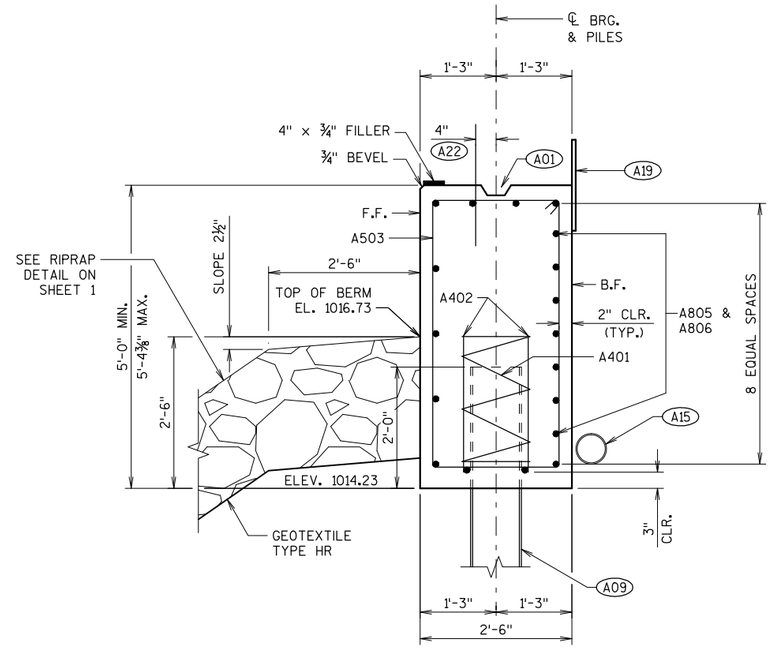


PILE PLAN

LEGEND

- ⬡ INDICATES WING NUMBER
- (A01) KEYED CONST. JOINT FORMED BY BEVELED 2" × 6".
- (A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH × 42 LB, ESTIMATED 12 FEET LONG DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2. PREBORE A MINIMUM OF 3 FEET INTO SOUND ROCK.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A22) A507 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

STATE PROJECT NUMBER

8833-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SOUTH ABUTMENT

SHEET 4 OF 10

48

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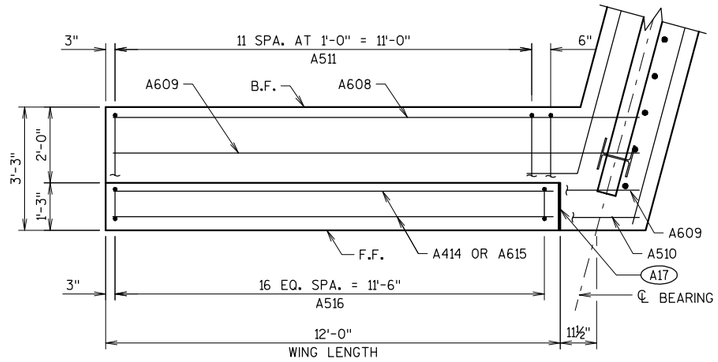
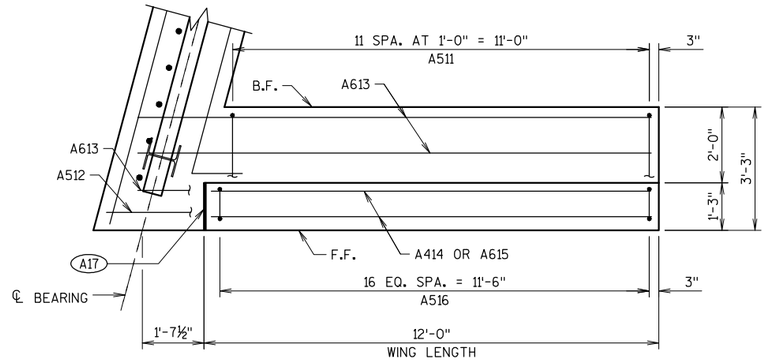
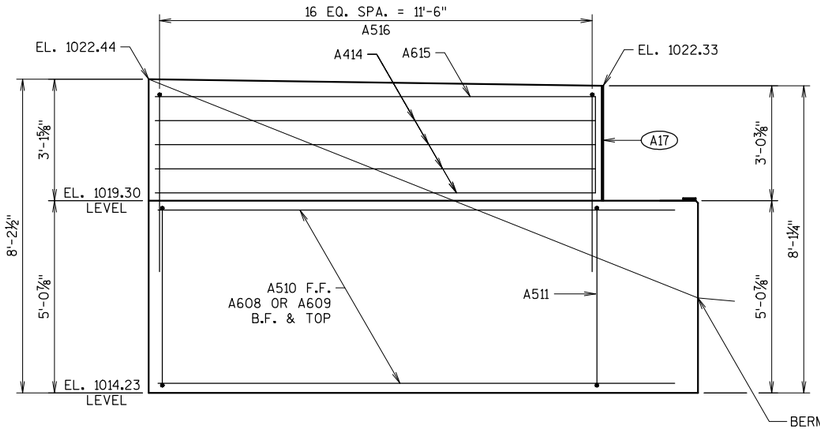
FILE NAME : P:±WI - NW REGION±8833-00-00_BARRONCO_CTH A±500_CADD±503_STRUCTURES±502.4_FINAL±080401 SA_CTH A.DWG PLOT DATE : 7/19/2016 10:36 AM PLOT BY : BOBBY JONES



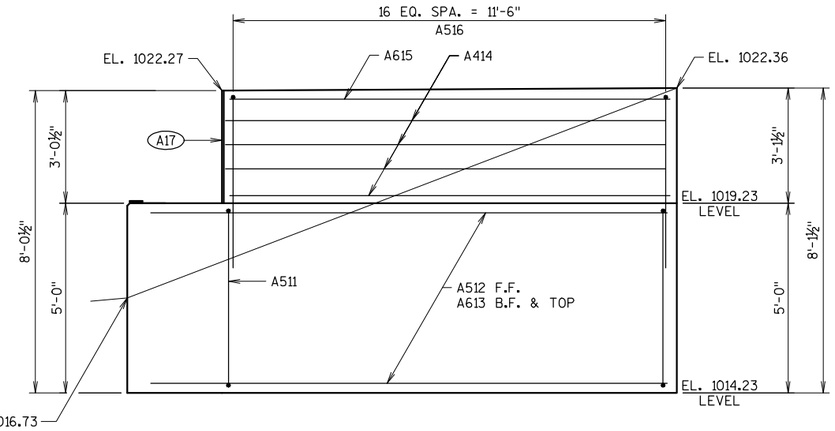
PLAN WING 1



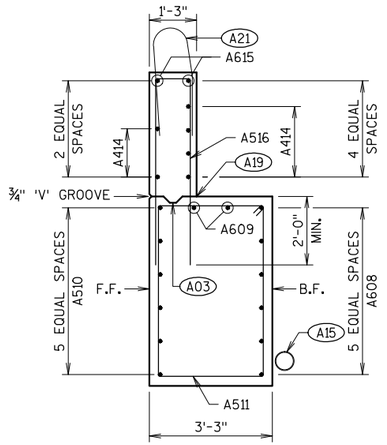
PLAN WING 2



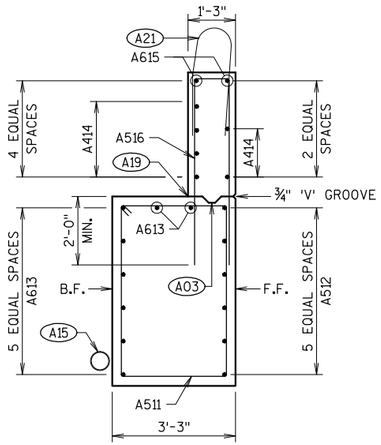
ELEVATION WING 1



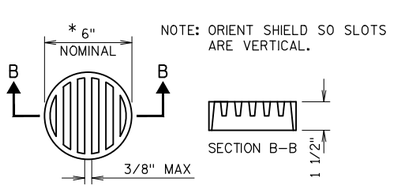
ELEVATION WING 2



SECTION THRU WING 1



SECTION THRU WING 2

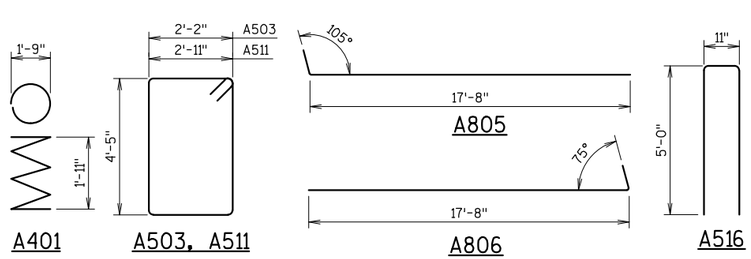


* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

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 OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



BILL OF BARS - SOUTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 2,020 LBS
A401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE VERT.
A402	10	2'-3"			BODY - AT PILES - 2 PER PILE VERT.
A503	41	13'-10"	X		BODY - STIRRUPS VERT.
A604	22	18'-2"			BODY - B.F. & F.F. HORIZ.
A805	7	19'-0"	X		BODY - B.F. HORIZ.
A806	7	19'-0"	X		BODY - B.F. HORIZ.
COATED BARS					TOTAL WEIGHT = 1,530 LBS
A507	32	2'-0"			BODY - TOP VERT.
A608	6	14'-5"			WING 1 - B.F. HORIZ.
A609	2	13'-11"			WING 1 - TOP HORIZ.
A510	6	13'-11"			WING 1 - F.F. HORIZ.
A511	25	15'-4"	X		WINGS 1 & 2 - STIRRUPS VERT.
A512	6	14'-7"			WING 2 - F.F. HORIZ.
A613	8	13'-7"			WING 2 - B.F. & TOP HORIZ.
A414	12	11'-7"			WINGS 1 & 2 - B.F. & F.F. HORIZ.
A615	4	11'-7"			WINGS 1 & 2 - TOP HORIZ.
A516	34	10'-8"	X		WINGS 1 & 2 VERT.

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

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". (18" RUBBERIZED MEMBRANE WATERPROOFING AT BF & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS SEE SHEET 10.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

SOUTH ABUTMENT DETAILS

SHEET 5 OF 10

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STATE PROJECT NUMBER

8833-00-70

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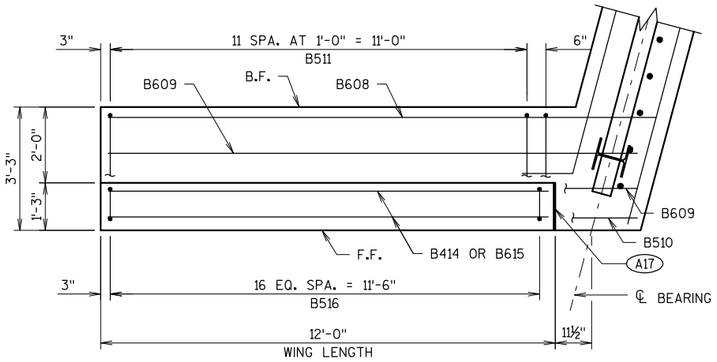
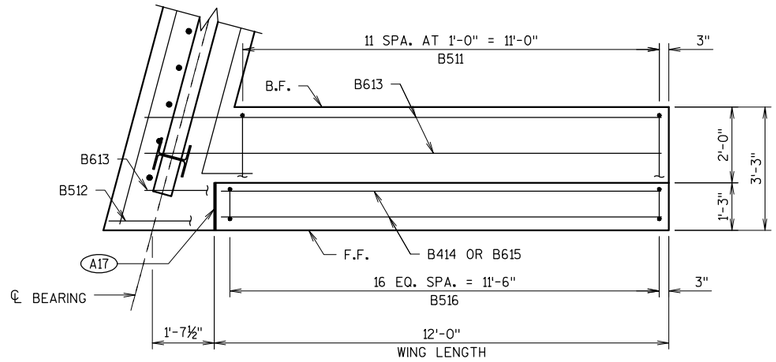
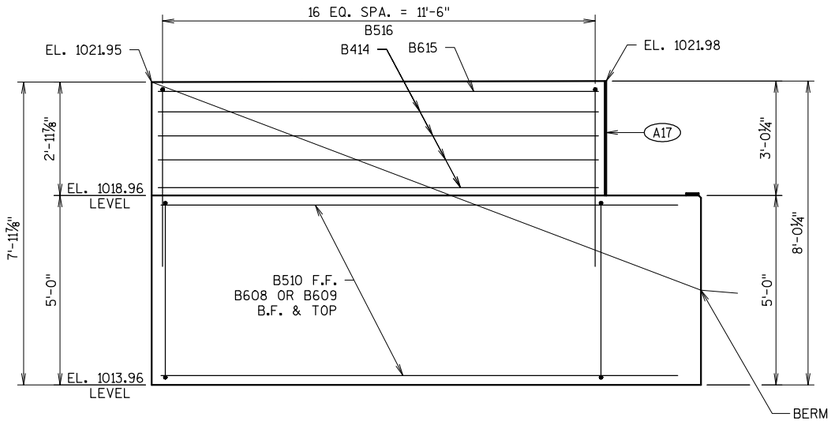


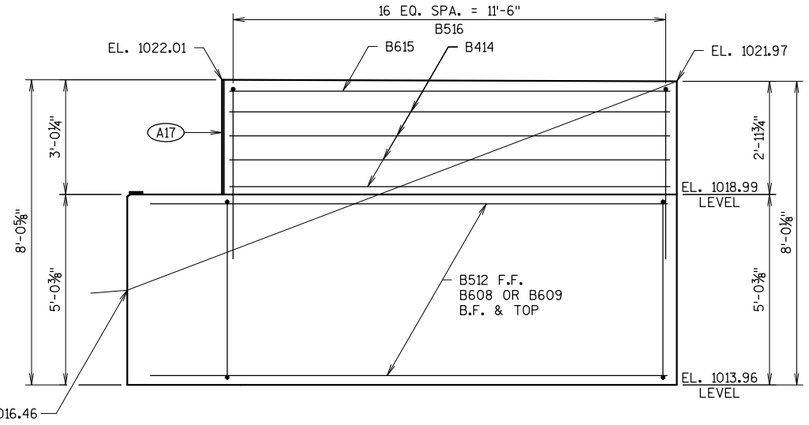
PLAN WING 3



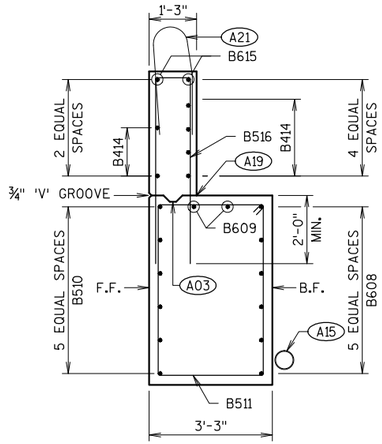
PLAN WING 4



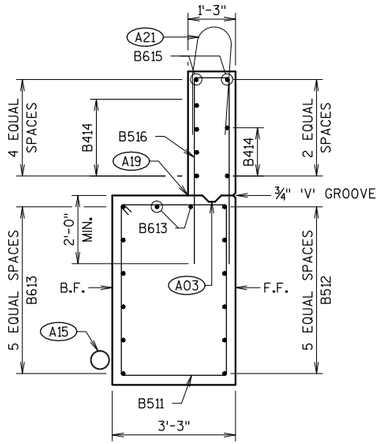
ELEVATION WING 3



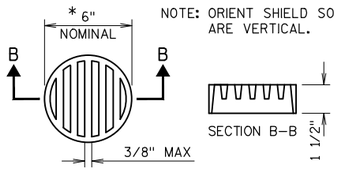
ELEVATION WING 4



SECTION THRU WING 3



SECTION THRU WING 4



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RODENT SHIELD DETAIL

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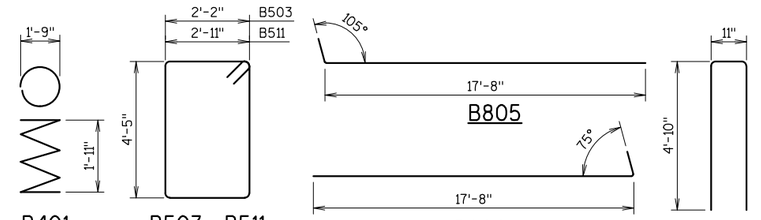

STATE PROJECT NUMBER

8833-00-70

BILL OF BARS - NORTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 2,020 LBS
B401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE VERT.
B402	10	2'-3"			BODY - AT PILES - 2 PER PILE VERT.
B503	41	13'-10"	X		BODY - STIRRUPS VERT.
B604	22	18'-2"			BODY - B.F. & F.F. HORIZ.
B805	7	19'-0"	X		BODY - B.F. HORIZ.
B806	7	19'-0"	X		BODY - B.F. HORIZ.
COATED BARS					TOTAL WEIGHT = 1,520 LBS
B507	32	2'-0"			BODY - TOP VERT.
B608	6	14'-5"			WING 3 - B.F. HORIZ.
B609	2	13'-11"			WING 3 - TOP HORIZ.
B510	6	13'-11"			WING 3 - F.F. HORIZ.
B511	25	15'-4"	X		WINGS 3 & 4 - STIRRUPS VERT.
B512	6	14'-7"			WING 4 - F.F. HORIZ.
B613	8	13'-7"			WING 4 - B.F. & TOP HORIZ.
B414	12	11'-7"			WINGS 3 & 4 - B.F. & F.F. HORIZ.
B615	4	11'-7"			WINGS 3 & 4 - TOP HORIZ.
B516	34	10'-4"	X		WINGS 3 & 4 VERT.

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

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". (18" RUBBERIZED MEMBRANE WATERPROOFING AT BF & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS SEE SHEET 10.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

NORTH ABUTMENT DETAILS

SHEET 7 OF 10

50

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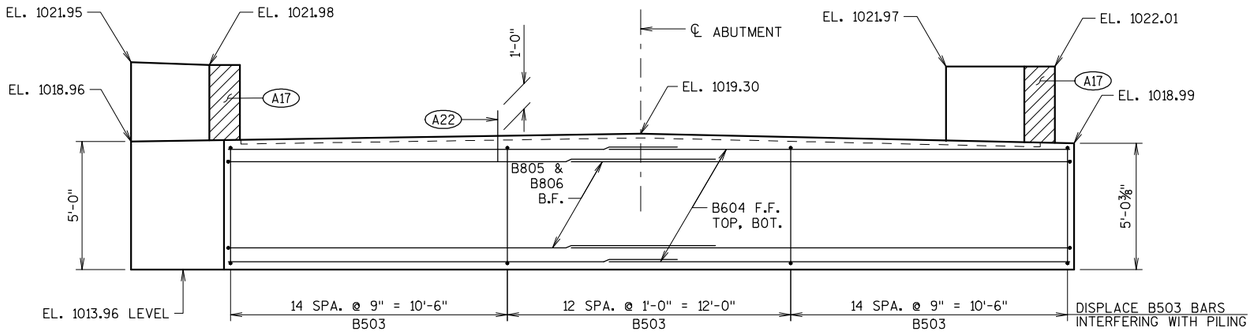
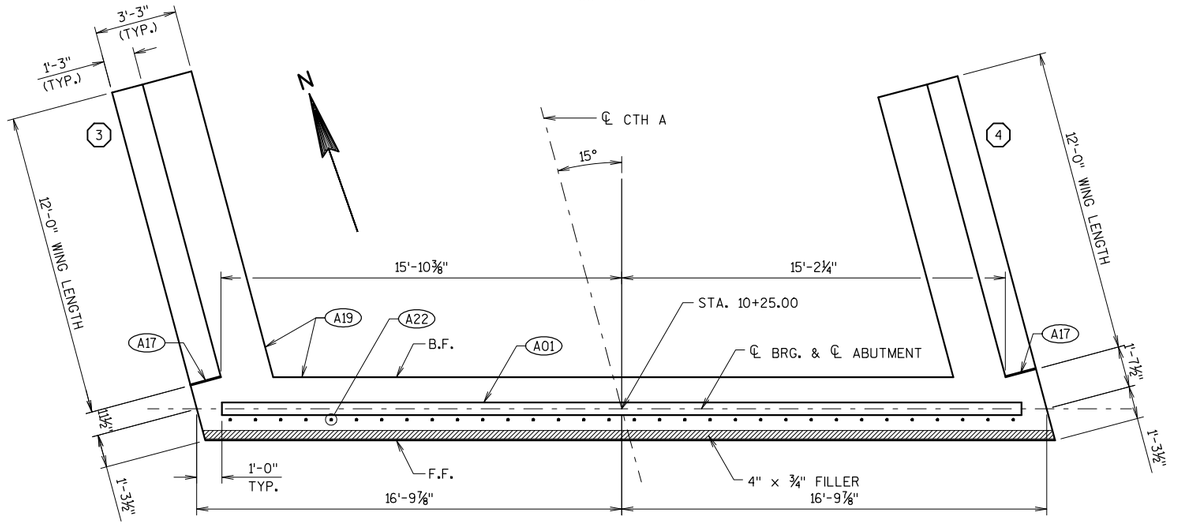
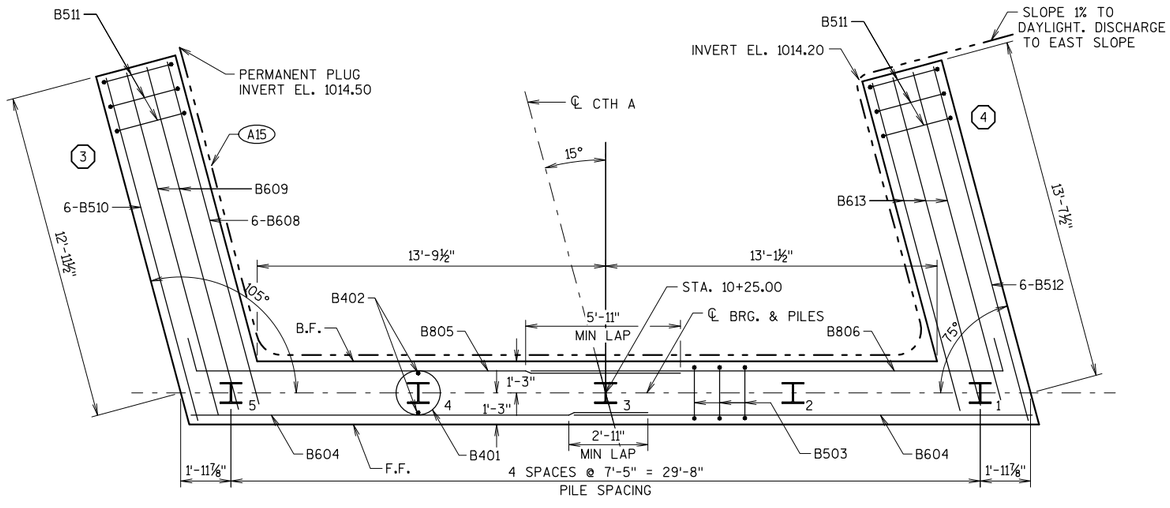


ELEVATION
(LOOKING NORTH)



PLAN



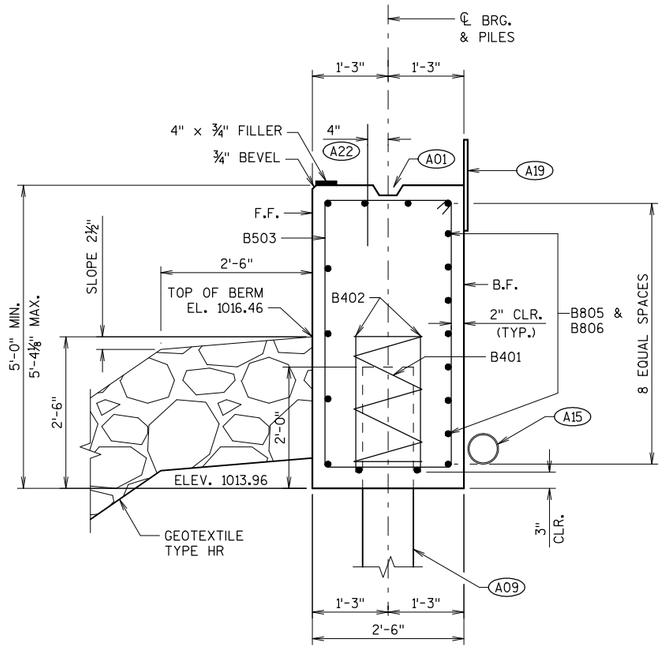
PILE PLAN

LEGEND

- ⬡ INDICATES WING NUMBER
- (A01) KEYED CONST. JOINT FORMED BY BEVELED 2" × 6".
- (A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH × 42 LB, ESTIMATED 16 FEET LONG DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2. PREBORE A MINIMUM OF 3 FEET INTO SOUND ROCK.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A22) B507 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE B604 BARS

STATE PROJECT NUMBER

8833-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

NORTH ABUTMENT

SHEET 6 OF 10

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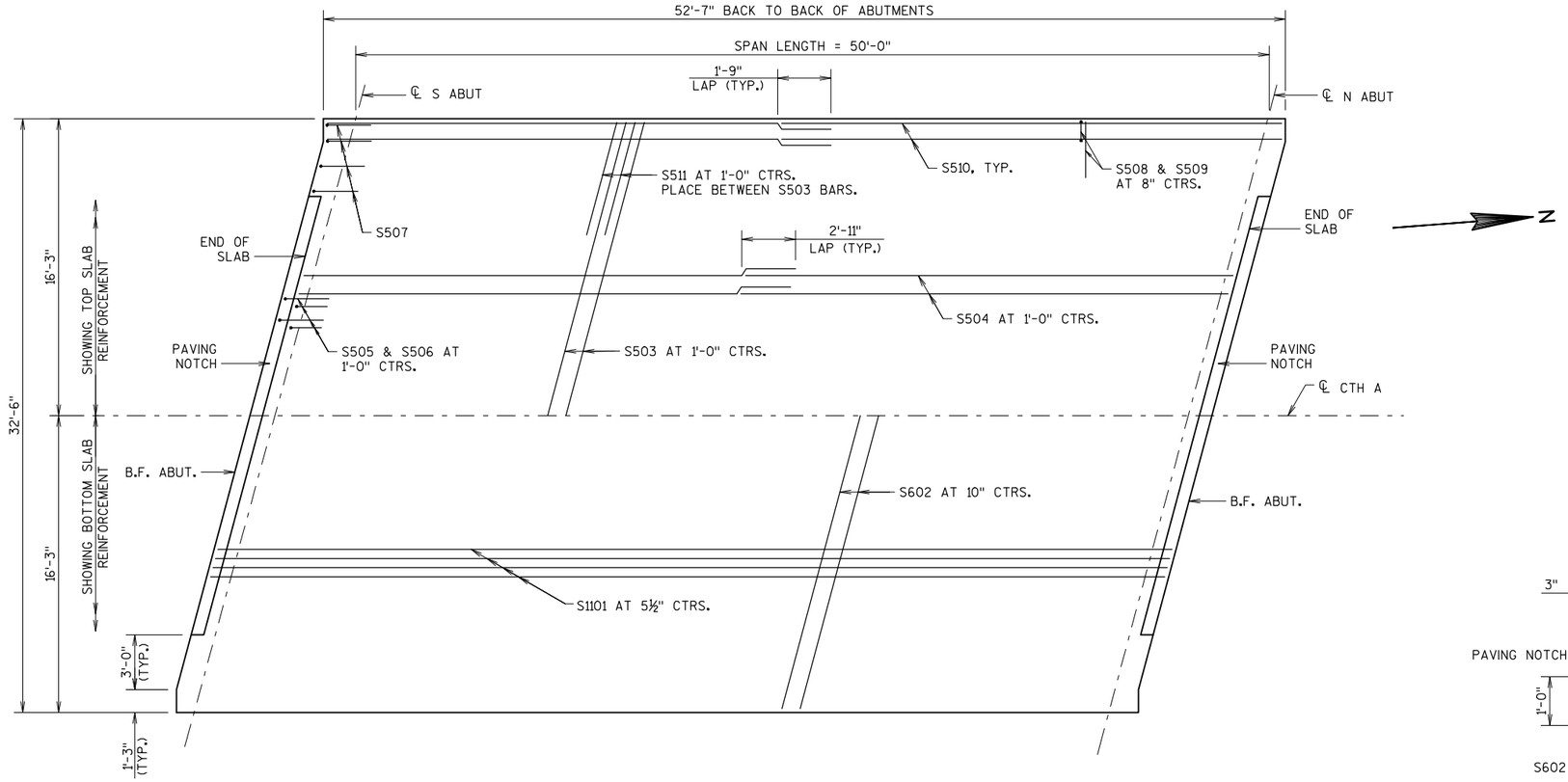
8

STATE PROJECT NUMBER
8833-00-70



PLAN

NOTES

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

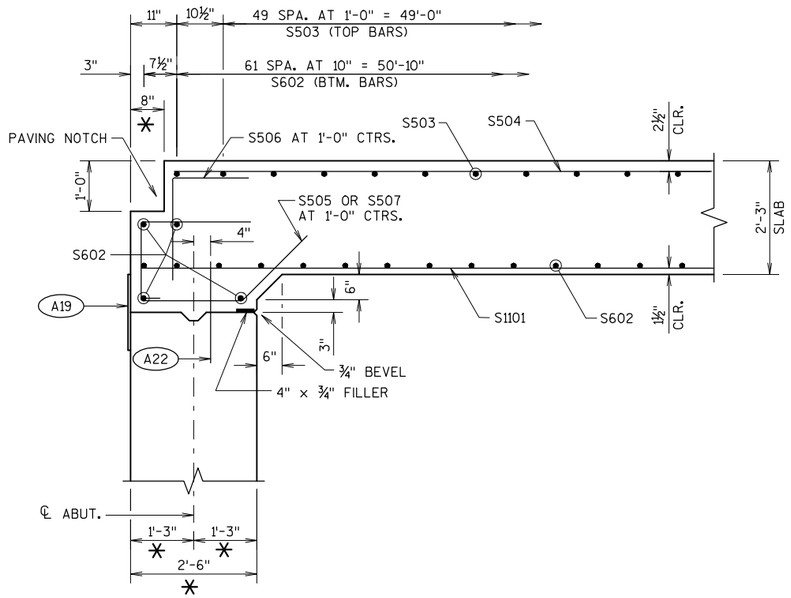
PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

LEGEND

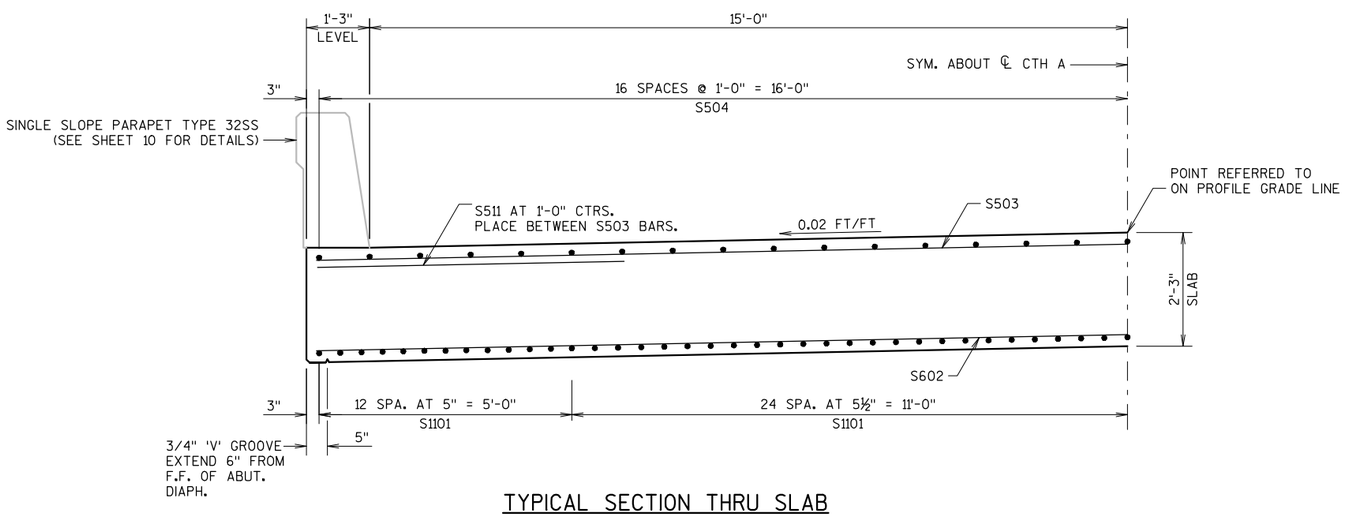
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A507 OR B507 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

✳ DIMENSION IS NORMAL TO ℄ SUBSTRUCTURE.



PARTIAL LONGITUDINAL SECTION
(S511 BARS NOT SHOWN FOR CLARITY)



TYPICAL SECTION THRU SLAB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SUPERSTRUCTURE

SHEET 8 OF 10

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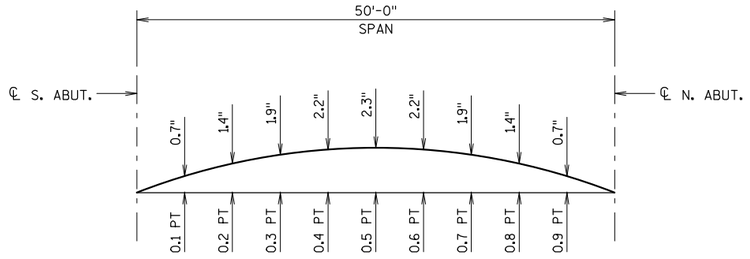
8

8

FILE NAME : P:±WI - NW REGION±8833-00-00_BARRONCO_CTH A±500_CADD±503_STRUCTURES±502.4_FINAL±080602 SUPER_CTH A.DWG PLOT DATE : 7/19/2016 10:37 AM PLOT BY : BOBBY JONES



CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄.

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

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

EQUALS TOP OF SLAB FALSEWORK ELEVATION.

TOP OF DECK ELEVATIONS

LOCATION	℄ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF N. ABUT.
WEST EDGE	1022.23	1022.19	1022.16	1022.12	1022.09	1022.07	1022.04	1022.02	1022.99	1022.98	1021.96
℄ STRUCTURE	1022.59	1022.55	1022.51	1022.48	1022.45	1022.42	1022.39	1022.36	1022.34	1022.32	1022.30
EAST EDGE	1022.30	1022.26	1022.22	1022.18	1022.15	1022.12	1022.09	1022.06	1022.03	1022.01	1022.99

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

SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	S. ABUT.	0.5	N. ABUT.
WEST EDGE			
℄ STRUCTURE			
EAST EDGE			

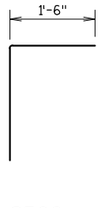
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

BILL OF BARS - SUPERSTRUCTURE

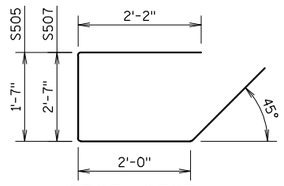
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 31,040 LBS
S1101	73	52'-3"			SLAB - BTM	LONGIT.
S602	72	33'-3"			SLAB - BTM	TRANS.
S503	52	33'-3"			SLAB - TOP	TRANS.
S504	66	27'-7"			SLAB - TOP	LONGIT.
S505	50	7'-7"	X		SLAB - AT PAVING NOTCH	VERT.
S506	50	3'-7"	X		SLAB - AT PAVING NOTCH	VERT.
S507	16	8'-7"	X		SLAB - OUTSIDE PAVING NOTCH	VERT.
S508	158	4'-5"	X		PARAPETS	VERT.
S509	158	5'-0"	X		PARAPETS	VERT.
S510	24	27'-0"			PARAPETS	LONGIT.
S511	102	5'-0"			SLAB - TOP	TRANS

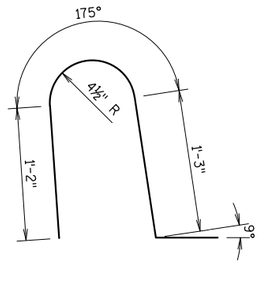
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.



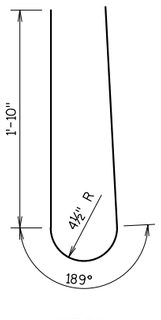
S506



S505, S507



S508



S509

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SUPERSTRUCTURE DETAILS

SHEET 9 OF 10

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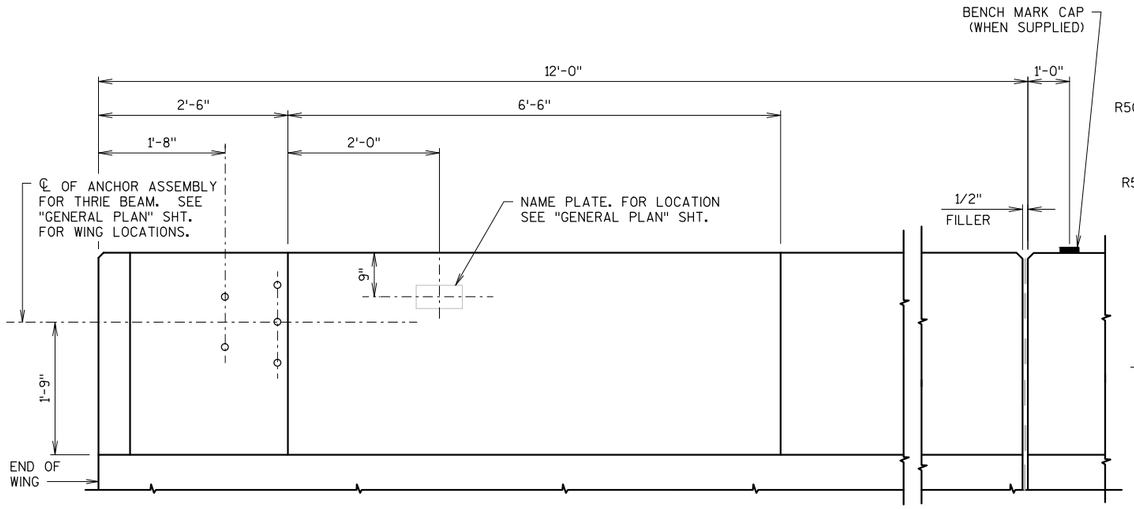
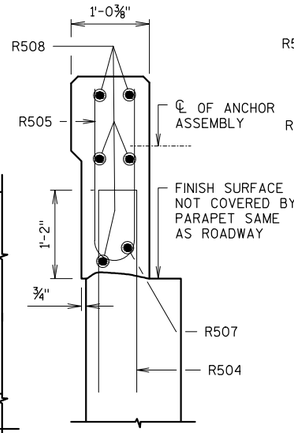
STATE PROJECT NUMBER

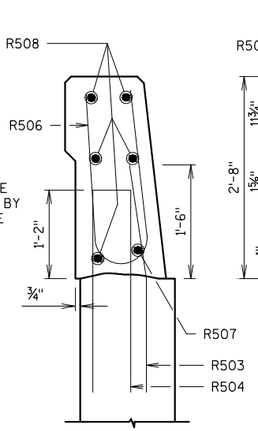
8833-00-70



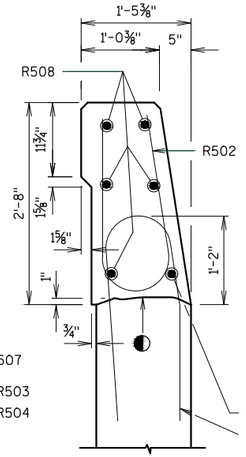
INSIDE ELEVATION



SECTION A



SECTION B



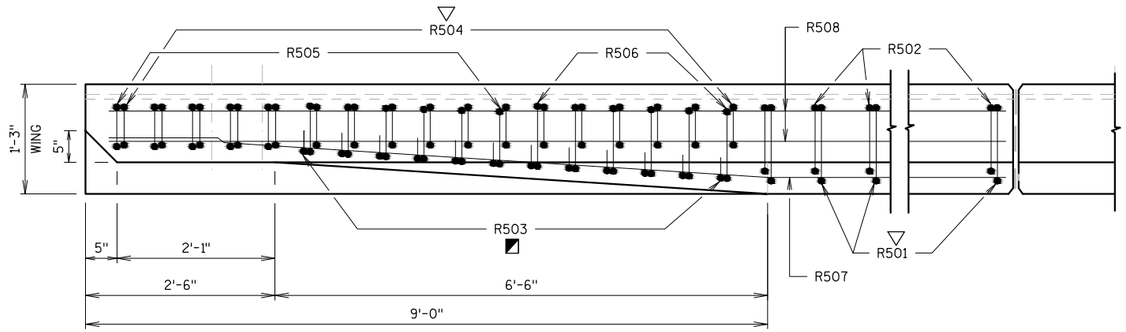
SECTION C

BILL OF BARS - PARAPET

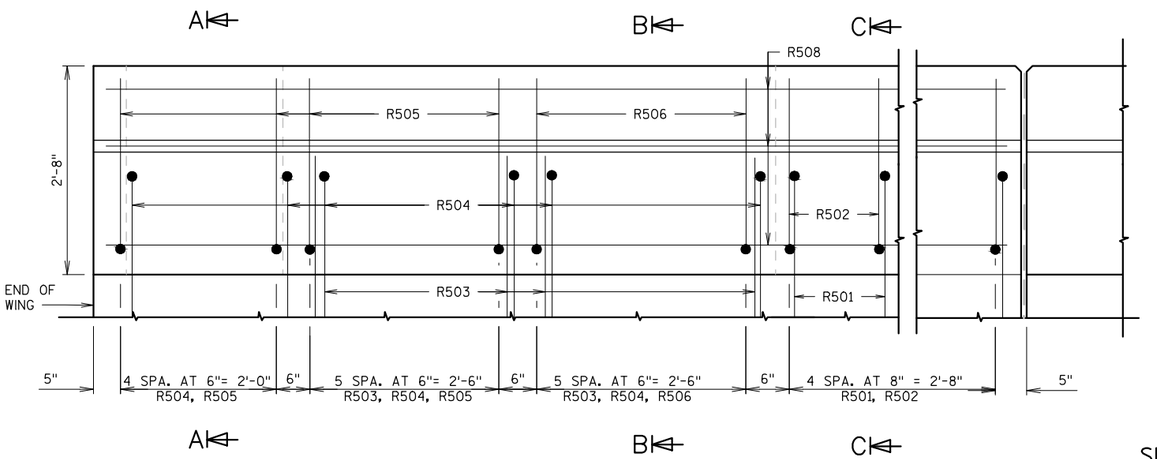
BARS SHOWN ARE FOR 1 WING ONLY

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 360 LBS	
R501	5	5'-10"	X		PARAPET	VERT.
R502	5	5'-0"	X		PARAPET	VERT.
R503	12	3'-0"	X		PARAPET	VERT.
R504	17	5'-7"	X		PARAPET	VERT.
R505	11	4'-9"	X		PARAPET	VERT.
R506	6	4'-10"	X		PARAPET	VERT.
R507	1	11'-6"	X		PARAPET	HORIZ.
R508	5	11'-6"			PARAPET	HORIZ.

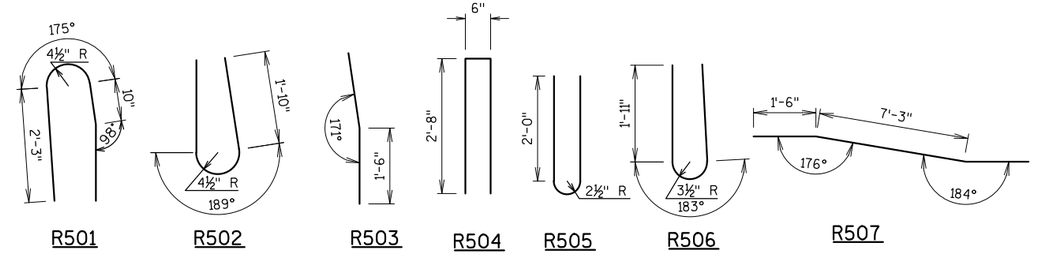
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.



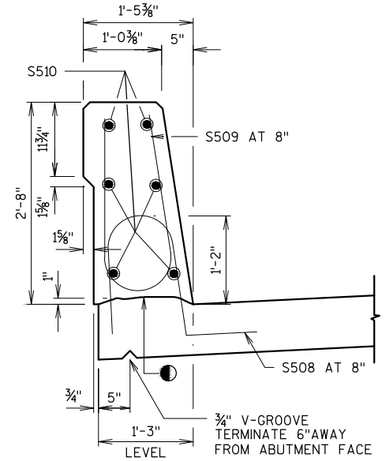
PLAN



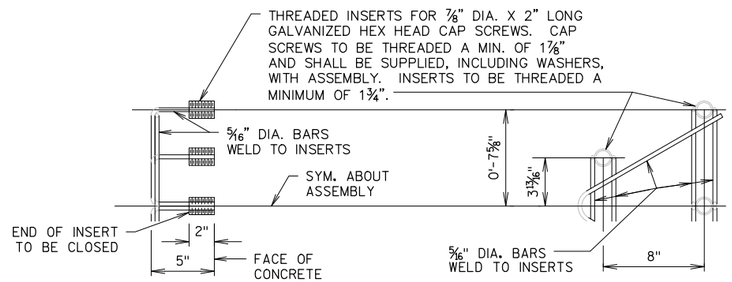
OUTSIDE ELEVATION



R501 R502 R503 R504 R505 R506 R507



SECTION THRU PARAPET ON BRIDGE



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.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◩ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-3-201

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

SINGLE SLOPE PARAPET 32SS

SHEET 10 OF 10

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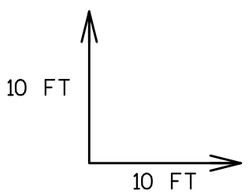
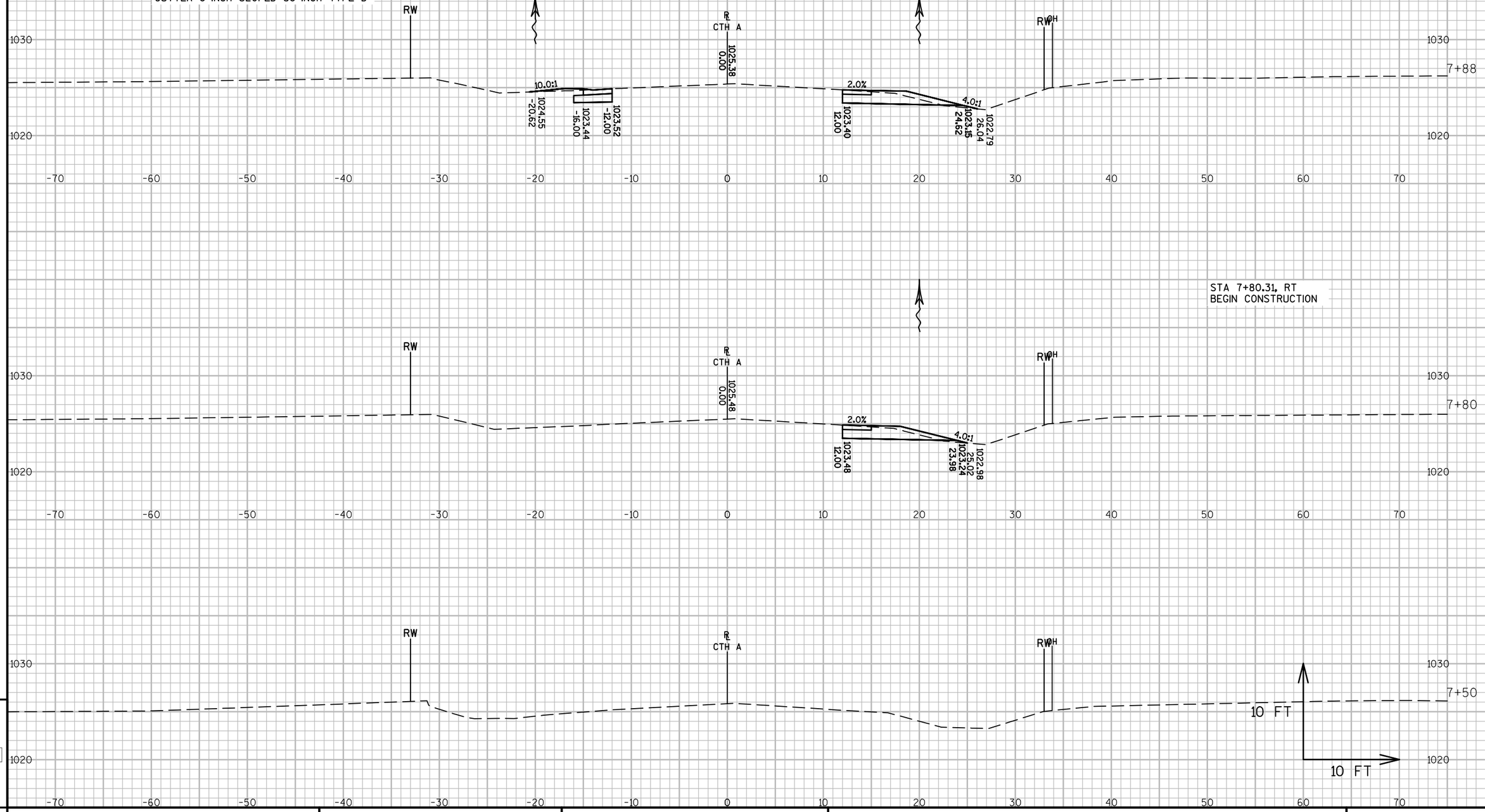
STATION	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut (1,2)	Salvaged/Unusable Pavement Material	Fill	EBS (3)	Cut 1.00	Expanded Fill 1.25 (6)	Expanded EBS Backfill 1.30 (5)	Reduced EBS in Fill 0.80 (4)	(7)
07+80.31	0.00	9.45	11.00	0.29	0.00	0	0	0	0	0	0	0	0.00	0.00
07+88.35	8.04	14.82	11.00	0.64	0.00	4	3	0	0	4	0	0	0.00	0.17
08+00	11.65	16.35	11.00	0.74	0.00	7	5	0	0	10	1	0	0.00	1.77
08+20	20.00	37.68	11.00	1.23	0.00	20	8	1	0	30	1	0	0.00	12.72
08+33.69	13.69	38.83	11.00	1.30	0.00	19	6	1	0	50	2	0	0.00	25.74
08+50	16.31	37.79	11.00	0.08	0.00	23	7	0	0	73	3	0	0.00	41.72
08+54.57	4.57	35.54	11.00	0.18	0.00	6	2	0	0	79	3	0	0.00	46.03
08+62.6	8.04	31.40	11.00	0.87	0.00	10	3	0	0	89	3	0	0.00	52.53
08+79.57	16.96	23.19	11.00	2.29	0.00	17	7	1	0	106	4	0	0.00	61.52
08+87.6	8.04	19.26	11.00	3.43	0.00	6	3	1	0	113	5	0	0.00	63.50
09+00	12.40	13.71	11.00	3.97	0.00	8	5	2	0	120	7	0	0.00	63.90
09+04.57	4.57	12.01	11.00	4.65	0.00	2	2	1	0	122	8	0	0.00	63.30
09+12.6	8.04	9.22	11.00	8.29	0.00	3	3	2	0	125	11	0	0.00	60.78
09+50	37.40	0.00	11.00	39.66	0.00	6	15	33	0	132	52	0	0.00	10.42
09+57.69	7.69	0.00	11.00	37.90	0.00	0	3	11	0	132	66	0	0.00	-6.51
STRUCTURE B-3-201														
10+42.31	0.00	1.02	11.00	55.65	0.00	0	0	0	0	132	66	0	0.00	-6.51
10+50	7.69	1.51	11.00	72.85	0.00	0	3	18	0	132	89	0	0.00	-32.15
10+87.4	37.40	10.57	11.00	87.05	0.00	8	15	111	0	141	227	0	0.00	-177.43
10+95.43	8.04	12.54	11.00	96.81	0.00	3	3	27	0	144	262	0	0.00	-211.48
11+00	4.57	13.62	11.00	103.69	0.00	2	2	17	0	146	283	0	0.00	-232.32
11+12.4	12.40	18.23	11.00	119.03	0.00	7	5	51	0	153	347	0	0.00	-293.96
11+20.43	8.04	21.68	11.00	120.53	0.00	6	3	36	0	159	391	0	0.00	-335.88
11+37.4	16.96	28.48	11.00	114.45	0.00	16	7	74	0	175	483	0	0.00	-419.28
11+45.43	8.04	31.80	11.00	97.22	0.00	9	3	32	0	184	523	0	0.00	-452.98
11+50	4.57	33.54	11.00	82.75	0.00	6	2	15	0	190	542	0	0.00	-468.33
11+70	20.00	42.21	11.00	43.87	0.00	28	8	47	0	218	601	0	0.00	-507.04
12+00	30.00	16.36	11.00	14.38	0.00	33	12	32	0	250	641	0	0.00	-527.18
12+11.65	11.65	17.57	11.00	9.82	0.00	7	5	5	0	258	647	0	0.00	-531.13
12+19.68	8.03	10.44	11.00	0.71	0.00	4	3	2	0	262	649	0	0.00	-532.19
						262	145	520	0					

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.
3) EBS Excavation to be backfilled with Select Borrow material.
4) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
5) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
6) Expanded Fill. Factor = 1.25 Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor
7) 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.
8) Use 117 CY of material from Division 1. Borrow Excavation item number 208.0100



STA 7+88.35, LT
BEGIN CONSTRUCTION

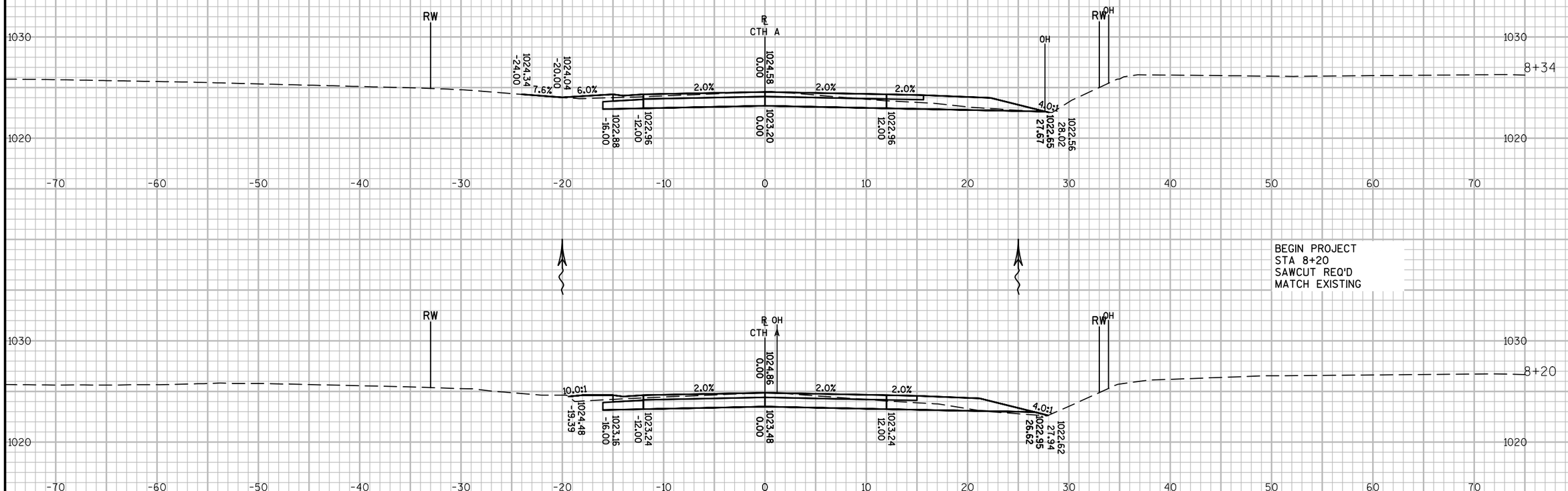
BEGIN CONCRETE DRIVEWAY CURB AND
GUTTER 6-INCH SLOPED 36-INCH TYPE D



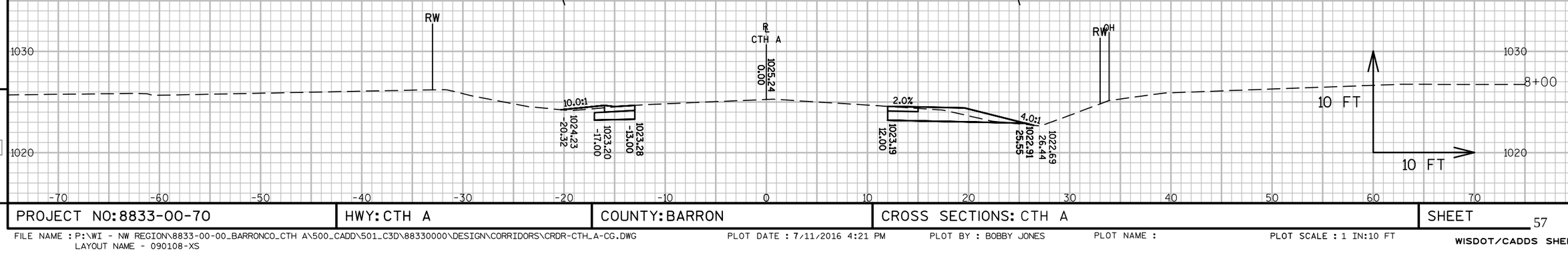
STA 7+80.31, RT
BEGIN CONSTRUCTION

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 56	E

STA 8+33.69, LT
DRIVEWAY REQ'D

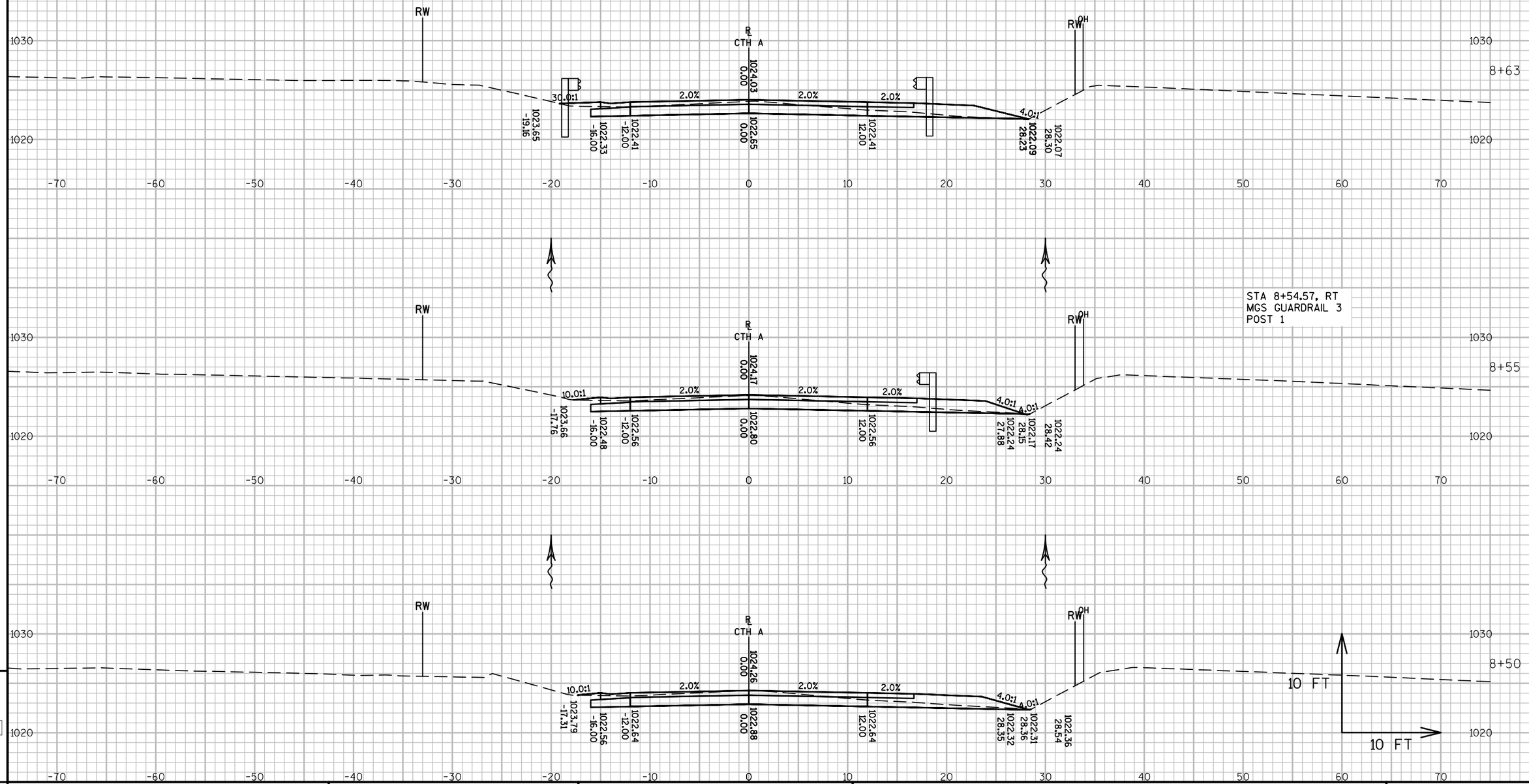


BEGIN PROJECT
STA 8+20
SAWCUT REQ'D
MATCH EXISTING



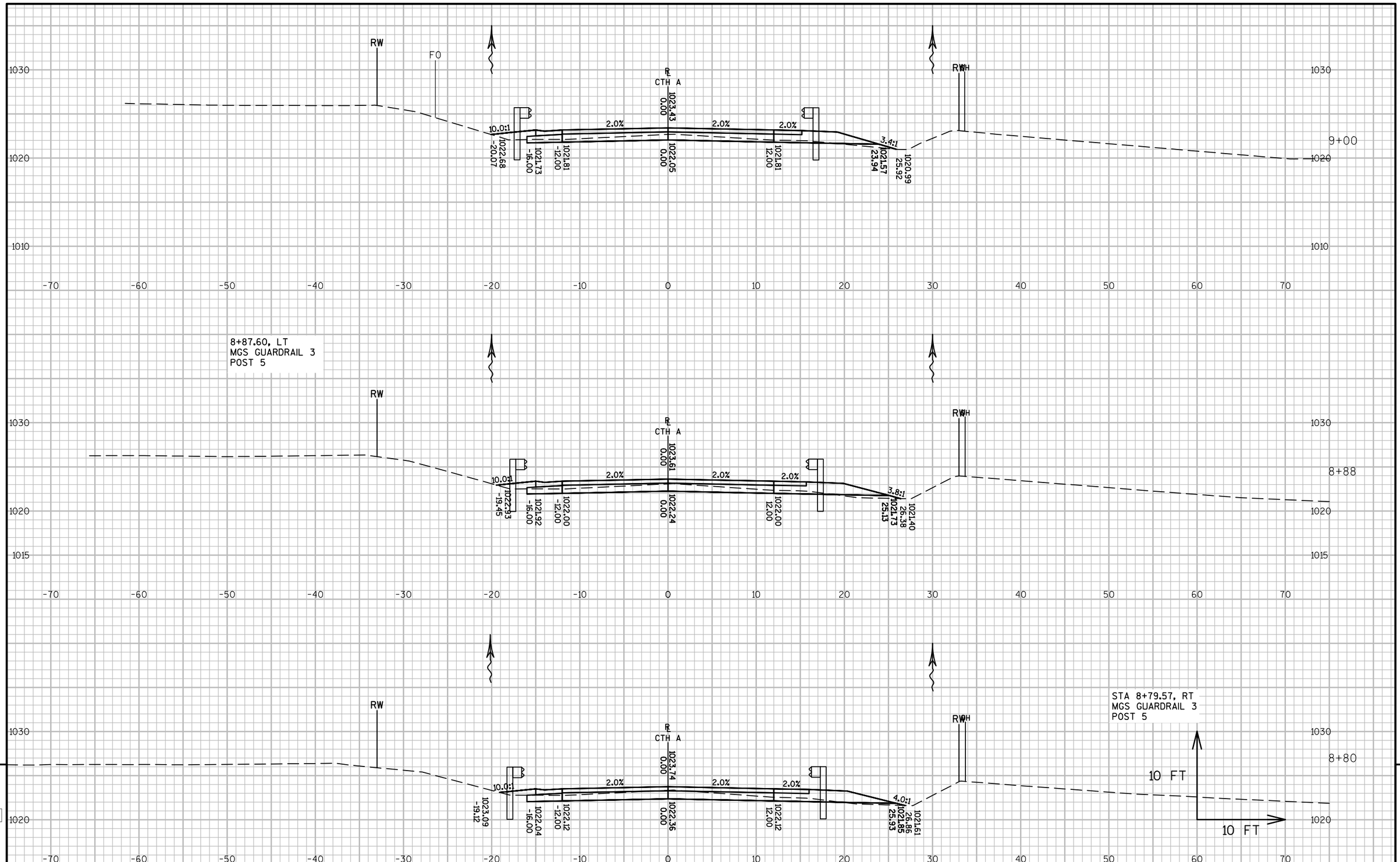
PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 57	E

STA 8+62.60, LT
MGS GUARDRAIL 3
POST 1

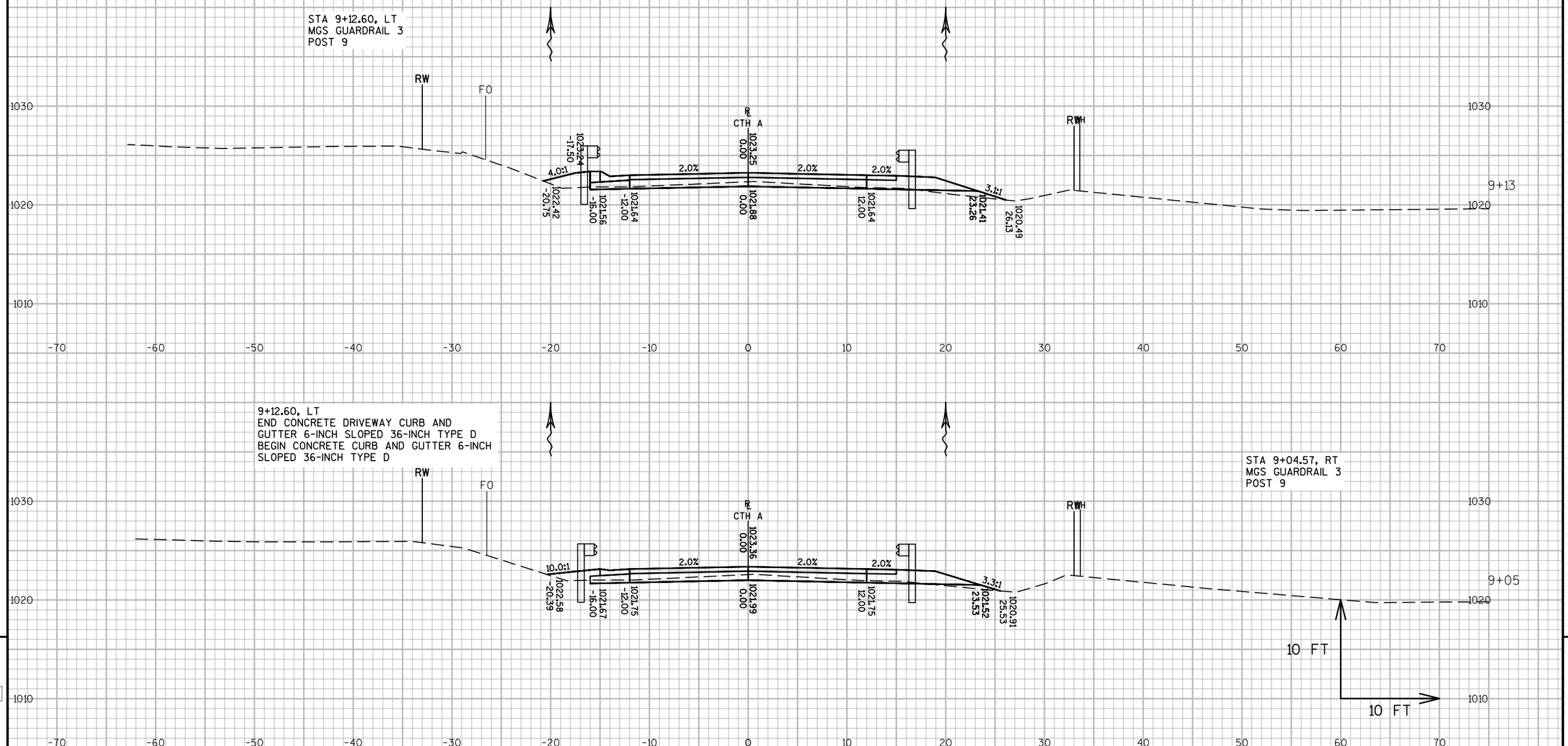


STA 8+54.57, RT
MGS GUARDRAIL 3
POST 1

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 58	E

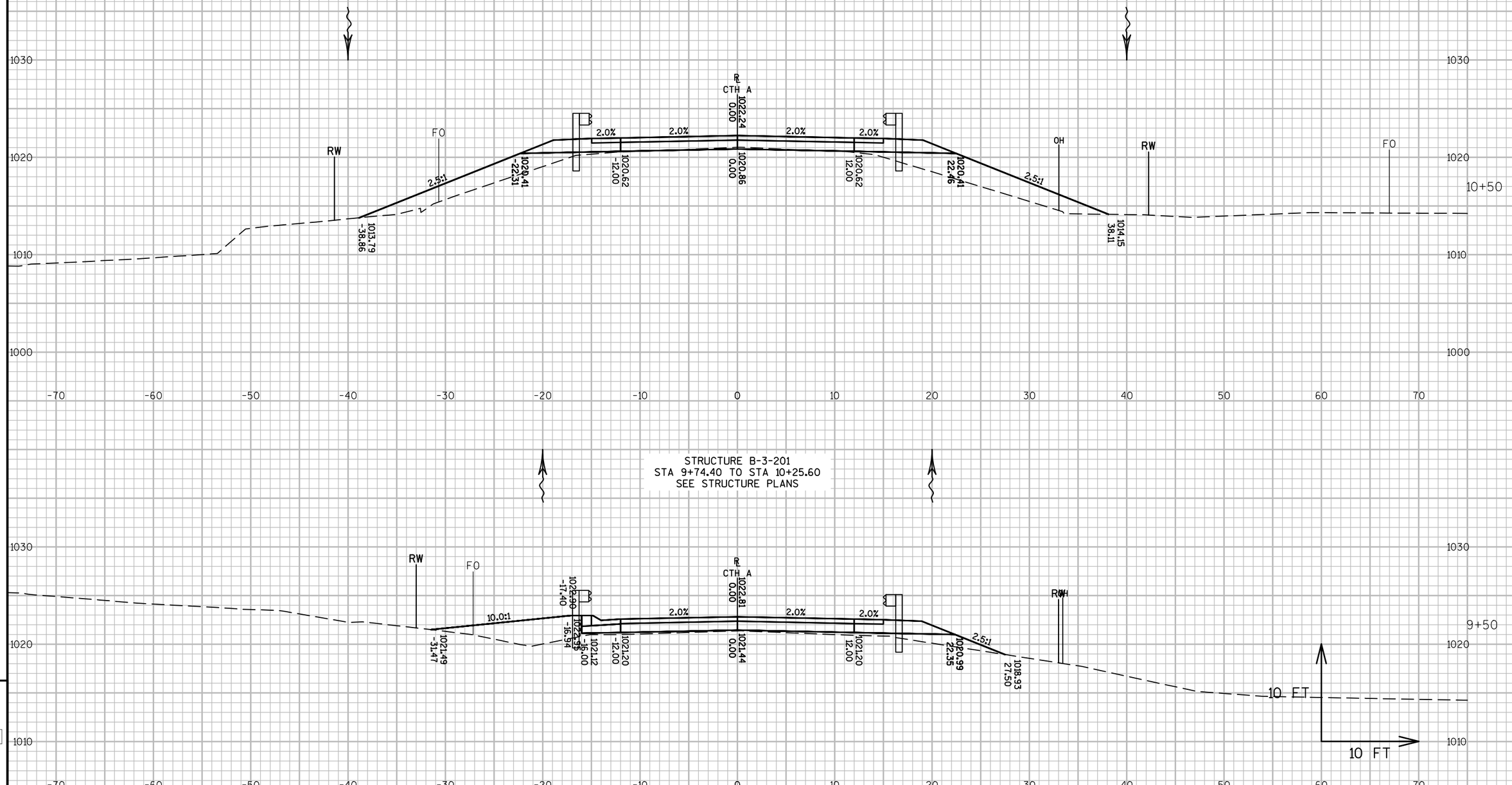


PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 59	E



PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 60	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\DESIGN\CORRIDORS\CRDR-CTH_A-CG.DWG
LAYOUT NAME - 090111-XS
PLOT DATE : 7/11/2016 4:21 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

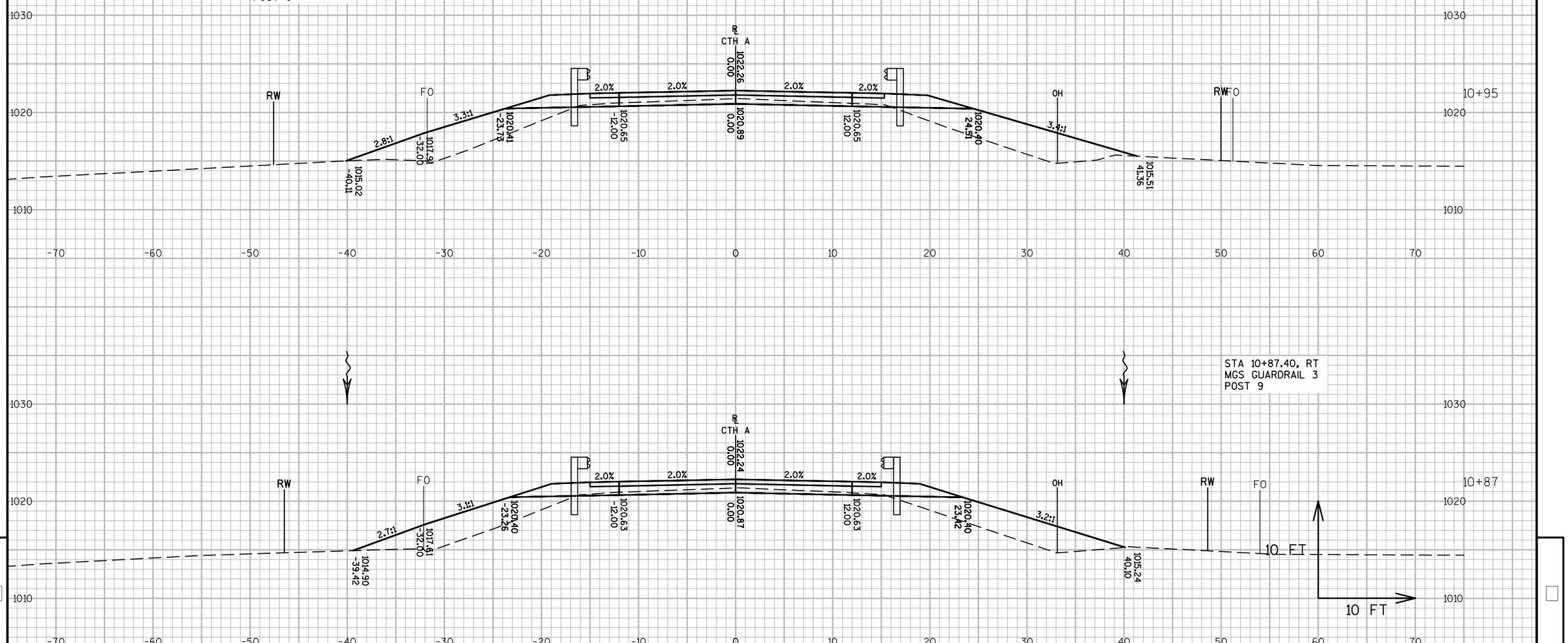


PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 61	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\DESIGN\CORRIDORS\CRDR-CTH_A-CG.DWG
LAYOUT NAME - 090112-XS

PLOT DATE : 7/11/2016 4:21 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

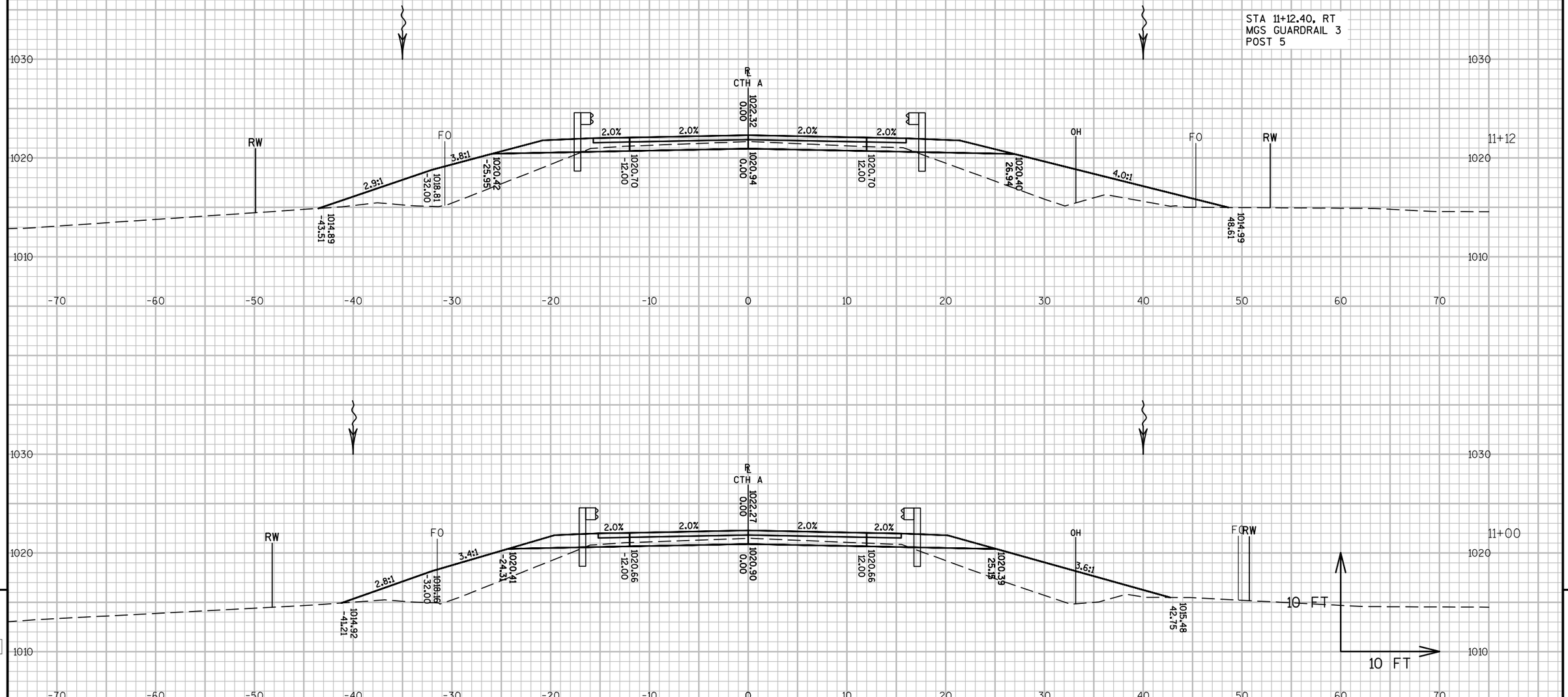
STA 10+95.43, LT
MGS GUARDRAIL 3
POST 9



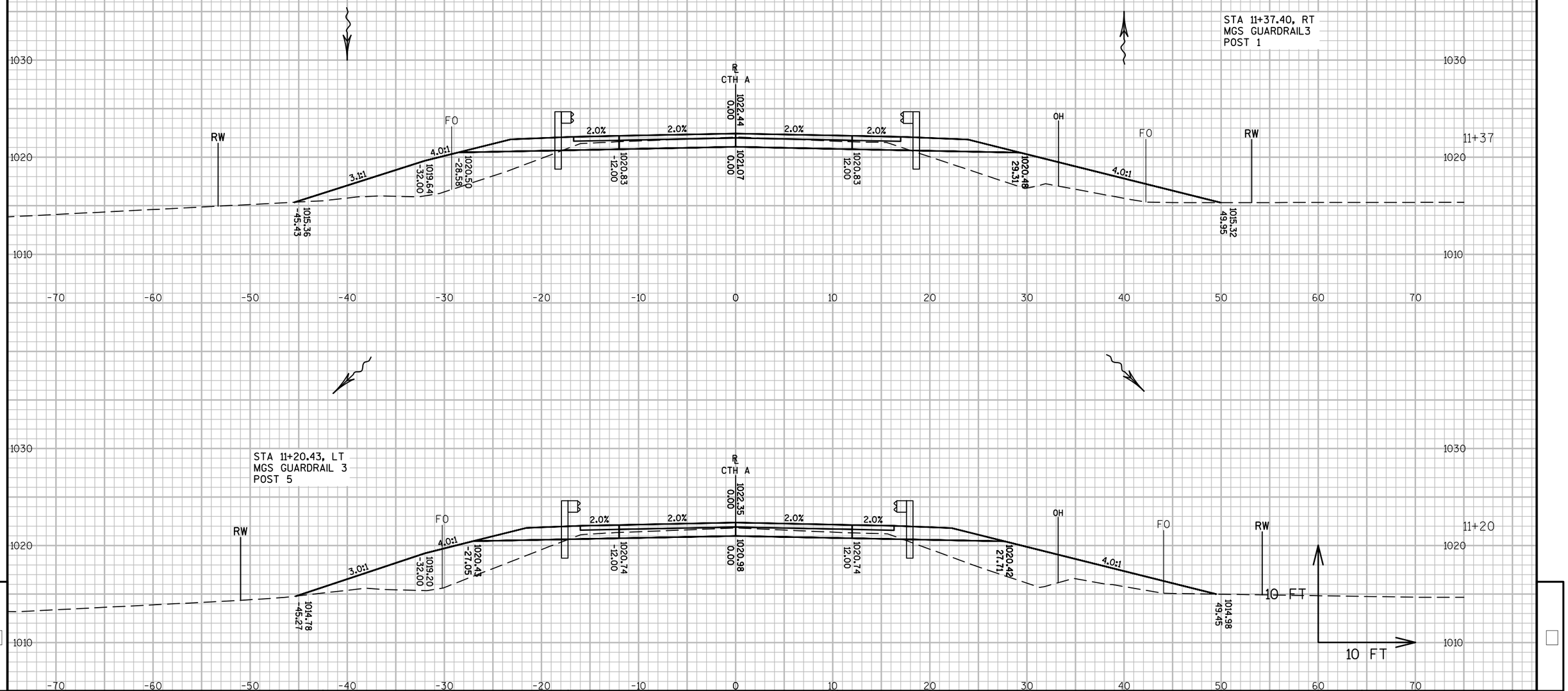
STA 10+87.40, RT
MGS GUARDRAIL 3
POST 9

PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 62	E

STA 11+12.40, RT
MGS GUARDRAIL 3
POST 5



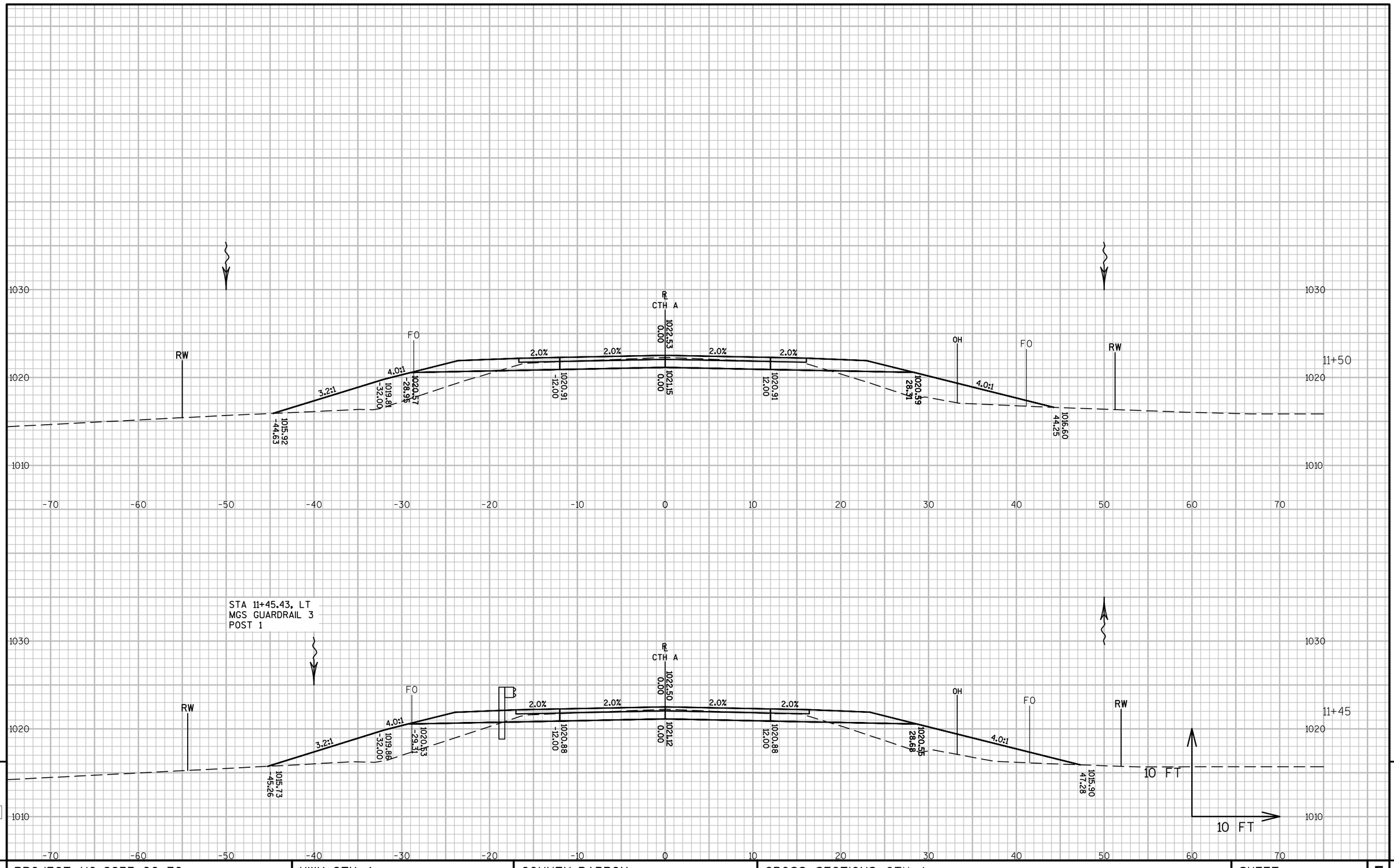
PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 63	E



PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 64	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\DESIGN\CORRIDORS\CRDR-CTH_A-CG.DWG
LAYOUT NAME - 090115-XS

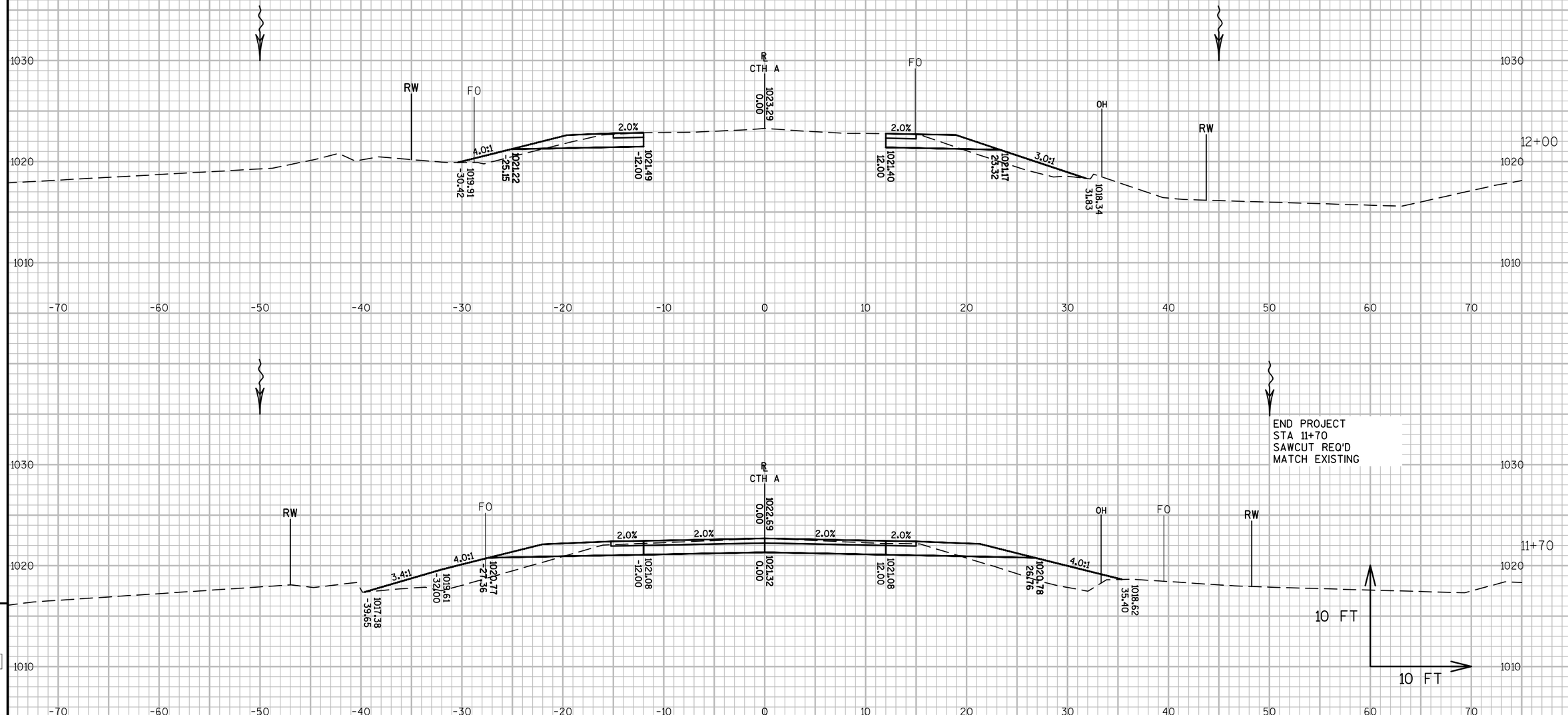
PLOT DATE : 7/11/2016 4:21 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 65	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\DESIGN\CORRIDORS\CRDR-CTH_A-CG.DWG
LAYOUT NAME - 090116-XS

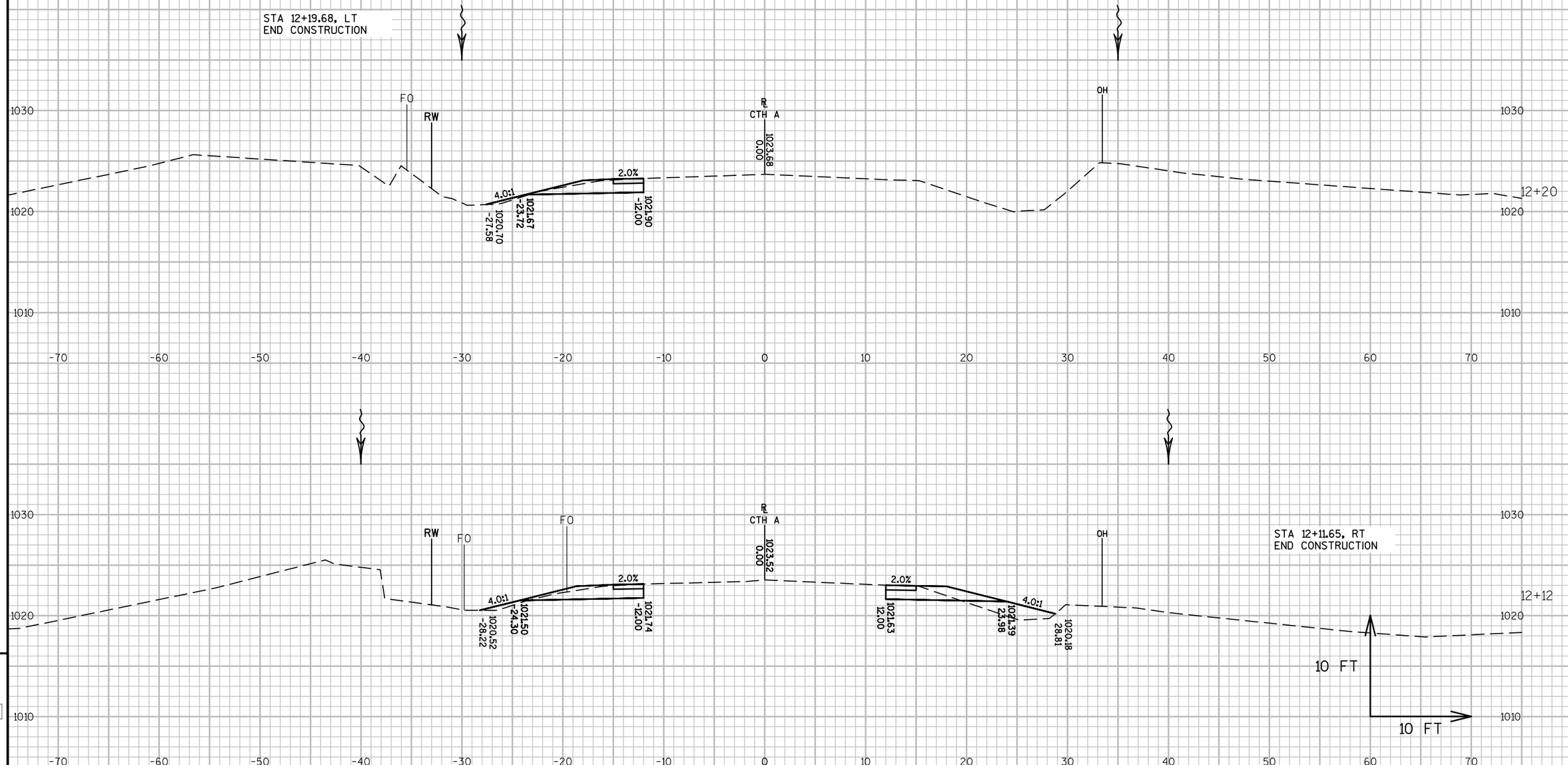
PLOT DATE : 7/11/2016 4:21 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 66	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\DESIGN\CORRIDORS\CRDR-CTH_A-CG.DWG
LAYOUT NAME - 090117-XS

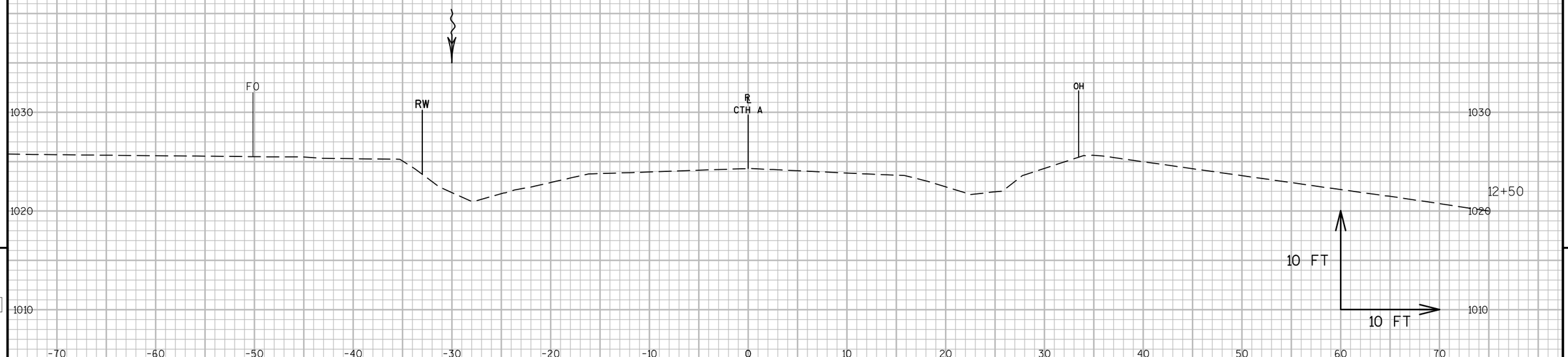
PLOT DATE : 7/11/2016 4:21 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 67	E

FILE NAME : P:\WI - NW REGION\8833-00-00_BARRONCO_CTH A\500_CADD\501_C3D\88330000\DESIGN\CORRIDORS\CRDR-CTH_A-CG.DWG
LAYOUT NAME - 090118-XS

PLOT DATE : 7/11/2016 4:21 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 8833-00-70	HWY: CTH A	COUNTY: BARRON	CROSS SECTIONS: CTH A	SHEET 68	E

Notes

Wisconsin Department of Transportation

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