MAD

NOVEMBER 2022

PROJECT ID: 5978-00-74

WITH: N/A

COUNTY: SAUK

ORDER OF SHEETS

TOTAL SHEETS = 44

19

N

DESIGN DESIGNATION

A.A.D.T.	2023	=	175
A.A.D.T.	2043	=	260
D.H.V.		=	23.4
D.D.		=	60/40
T.		=	10% (ASSUMED)
DESIGN SPEED		=	30 M.P.H.
ESALS		=	80,300

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF IRONTON, MARSHALL ROAD

CARR VALLEY BRANCH BRIDGE, B-56-0244

LOC STR

SAUK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5978-00-74	WISC 2023067	1

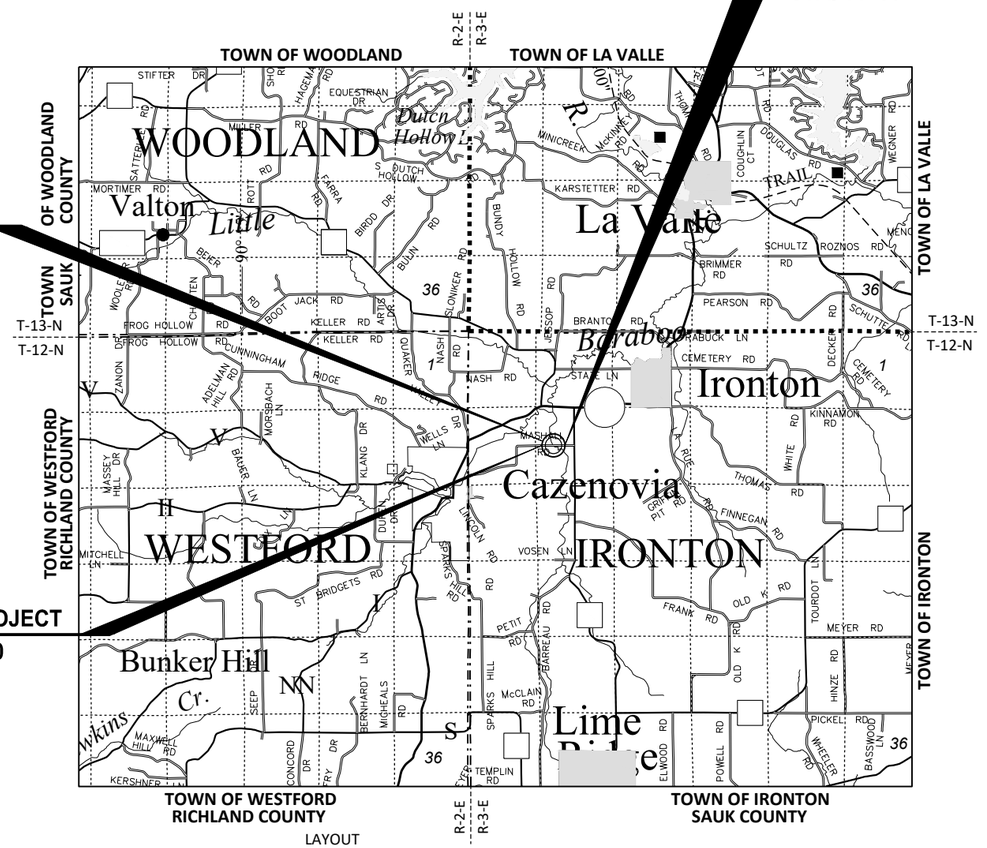
STATE PROJECT NUMBER

5978-00-74

END PROJECT
STA. 11+50

STRUCTURE B-56-0244

BEGIN PROJECT
STA. 10+00
Y=260,261.83
X=537,391.91



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.028 MI

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

ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

ACCEPTED FOR

TOWN of IRONTON

7-18-2022 (Date) (Town Chairman)

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, inc

Engineers - Architects - Surveyors

WISCONSIN ROBERT B. HANOLD E-45655 PRAIRIE DU SAC WI PROFESSIONAL ENGINEER

07/14/2022

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JEWELL ASSOCIATES ENGINEERS, INC.
Designer	JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager	ZACHARY PEARSON, P.E.
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, P.E.

APPROVED FOR THE DEPARTMENT

DATE 07/18/22 (Signature)

E

GENERAL NOTES

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

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

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. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UNLESS SHOWN OTHERWISE, DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE NO. 70), AND MULCHED (WEED FREE) AS DIRECTED BY THE ENGINEER. ALL POST CONSTRUCTION WET AREAS SHALL BE SEEDED WITH SEEDING MIXTURE NO. 60. DO NOT FERTILIZE WETLAND AREAS.

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

SILT FENCE AND TURBIDITY BARRIERS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE AND TURBIDITY BARRIERS SHALL BE PLACED PRIOR TO CONSTRUCTION AND SHALL BE IN PLACE PRIOR TO STRUCTURE REMOVAL.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT OR STOCKPILE MATERIALS BEYOND THE EXISTING STREAMBANK FROM STA. 10+00 LT. - STA. 10+50 LT., STA. 10+67 LT. - STA. 11+50 LT., STA. 10+00 RT. - STA. 10+80 RT., AND STA. 10+99 RT. - STA. 11+50 RT.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

CURVE DATA IS BASED ON THE ARC DEFINITIONS.

4-INCHES OF ASPHALTIC SURFACE IS RECOMMENDED BE CONSTRUCTED WITH A 2 ¼-INCH LOWER LAYER AND 1 ¾-INCH UPPER LAYER.

CONTACTS

TOWN OF IRONTON:

JERRY WHITE, TOWN OF IRONTON CHAIRPERSON
S3175 WHITE ROAD
REEDSBURG, WI 53959
PHONE: (608) 434-1995
EMAIL: krdairy@live.com

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: ROBERT HANOLD, P.E.
PHONE: (608) 588-7484
CELL: (608) 606-3568
EMAIL: robert.hanold@jewellassoc.com

WISCONSIN DEPT. OF TRANSPORTATION

WISDOT PROJECT MANAGER
2101 WRIGHT ST.
MADISON, WI 53704
ATTN: ZACHARY PEARSON, P.E.
PHONE: (608) 246-5319
EMAIL: zachary.pearson@dot.wi.gov

DNR LIAISON:

DNR SOUTH WEST REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ANDY BARTA
PHONE: (608) 235-2955
EMAIL: andrew.barta@wisconsin.gov

UTILITIES

ELECTRIC

ALLIANT ENERGY
ATTN: MIKE LONG
E4445 COMMERCE AVE.
HILLPOINT, WI 53913
PHONE: (608) 356-0608
EMAIL: michaellong@alliantenergy.com

TELEPHONE

LA VALLE TELEPHONE COOPERATIVE
ATTN: JOSH LIEN
S1421 STH 33
P.O. BOX 28
LA VALLE, WI 53941
PHONE: (608) 985-7201
EMAIL: joshl@rgtc.coop

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

***UTILITY NOT PART OF DIGGERS HOTLINE**

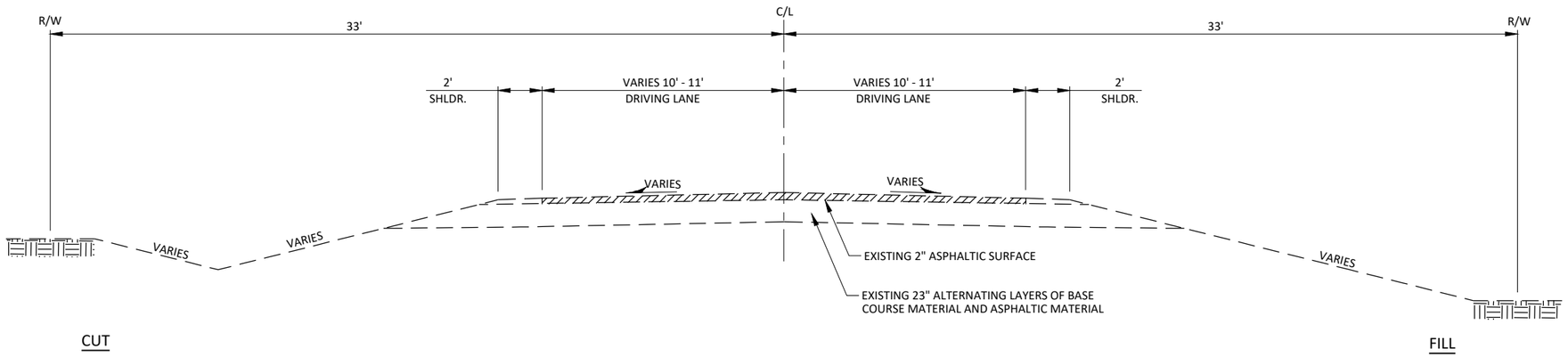
LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment	INV	Invert	RDWY	Roadway
AC	Acre	IP	Iron Pipe or Pin	SALV	Salvaged
AGG	Aggregate	IRS	Iron Rod Set	SAN S	Sanitary Sewer
AH	Ahead	JT	Joint	SEC	Section
<	Angle	JCT	Junction	SHLDR	Shoulder
ASPH	Asphaltic	LHF	Left-Hand Forward	SHR	Shrinkage
AVG	Average	L	Length of Curve	SW	Sidewalk
ADT	Average Daily Traffic	LIN FT or LF	Linear Foot	S	South
BAD	Base Aggregate Dense	LC	Long Chord of Curve	SQ	Square
BK	Back	MH	Manhole	SF or SQ FT	Square Feet
BF	Back Face	MB	Mailbox	SY or SQ YD	Square Yard
BM	Bench Mark	ML or M/L	Match Line	STD	Standard
BR	Bridge	N	North	SDD	Standard Detail Drawings
C or C/L	Center Line	Y	North Grid Coordinate	STH	State Trunk Highways
CC	Center to Center	O.A.L.	Overall Length	STA	Station
CTH	County Trunk Highway	OD	Outside Diameter	SS	Storm Sewer
CR	Creek	PLE	Permanent Limited Easement	SG	Subgrade
CR	Crushed	PT	Point	SE	Superelevation
CY or CU YD	Cubic Yard	PC	Point of Curvature	SL or S/L	Survey Line
CP	Culvert Pipe	PI	Point of Intersection	SV	Septic Vent
C & G	Curb and Gutter	PRC	Point of Reverse Curvature	T	Tangent
D	Degree of Curve	PT	Point of Tangency	TEL	Telephone
DHV	Design Hour Volume	POC	Point On Curve	TEMP	Temporary
DIA	Diameter	POT	Point on Tangent	TI	Temporary Interest
E	East	PVC	Polyvinyl Chloride	TLE	Temporary Limited Easement
X	East Grid Coordinate	PCC	Portland Cement Concrete	t	Ton
ELEC	Electric (al)	LB	Pound	T or TN	Town
EL or ELEV	Elevation	PSI	Pounds Per Square Inch	TRANS	Transition
ESALS	Equivalent Single Axle Loads	PE	Private Entrance	TL or T/L	Transit Line
EBS	Excavation Below Subgrade	R	Radius	T	Trucks (percent of)
ESTR	Existing Sign to Remain	RR	Railroad	TYP	Typical
FF	Face to Face	R	Range	UNCL	Unclassified
FE	Field Entrance	RL or R/L	Reference Line	UG	Underground Cable
F	Fill	RP	Reference Point	USH	United States Highway
FG	Finished Grade	RCCP	Reinforced Concrete Culvert Pipe	VAR	Variable
FL or F/L	Flow Line			V	Velocity or Design Speed
FT	Foot	REQ'D	Required	VERT	Vertical
FTG	Footing	RES	Residence or Residential	VC	Vertical Curve
GN	Grid North	RW	Retaining Wall	VOL	Volume
HT	Height	RT	Right	WM	Water Main
CWT	Hundredweight	RHF	Right-Hand Forward	WV	Water Valve
HYD	Hydrant	R/W	Right-of-Way	W	West
INL	Inlet	R	River	WB	Westbound
ID	Inside Diameter	RD	Road	YD	Yard

	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											

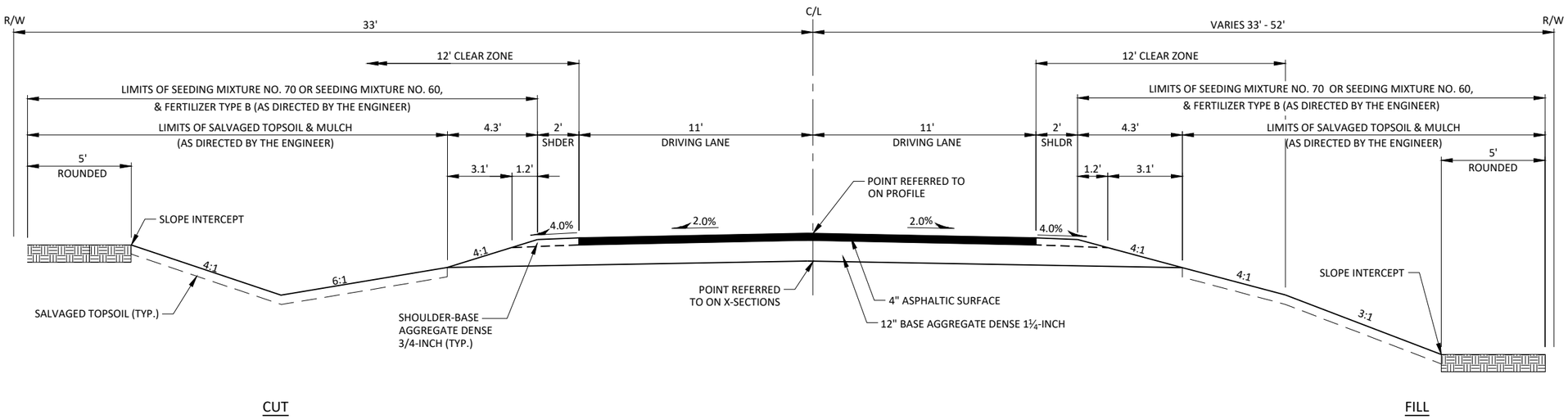
TOTAL PROJECT AREA= 0.27 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.20 ACRES

2



TYPICAL EXISTING SECTION

MARSHALL ROAD
STA. 10+00 - STA. 11+50



TYPICAL FINISHED SECTION

MARSHALL ROAD
STA. 10+00 - STA. 11+50

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	TYPICAL EXISTING SECTION AND TYPICAL FINISHED SECTION	SHEET 3	E

FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\SHEETSPLAN\TYPICALS\W11648_TYPICALS.DWG
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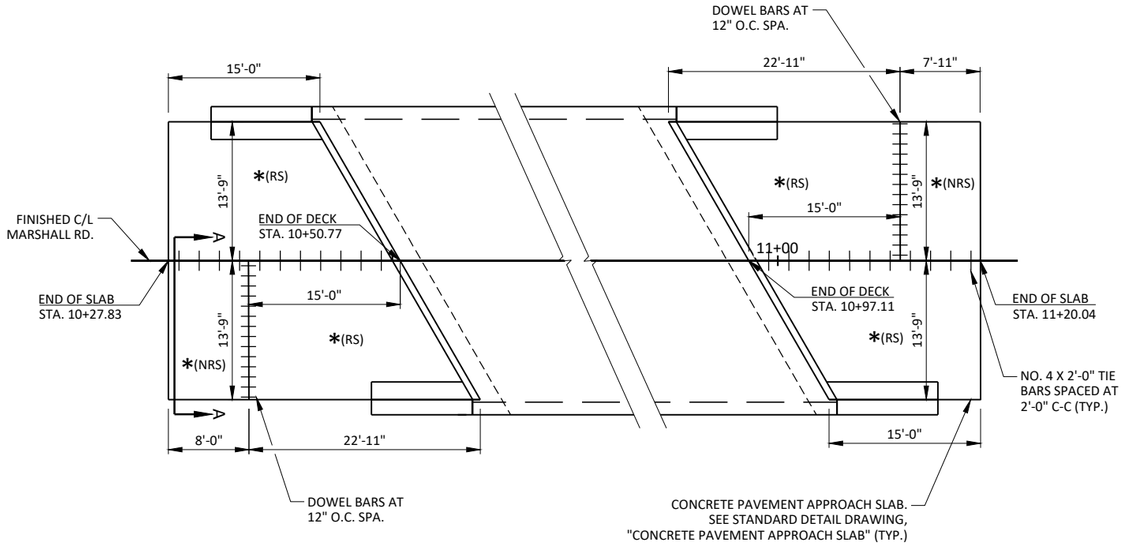
PLOT BY : COLTON PEPER
PLOT SCALE : 1" = 1'
LAYOUT : LAYOUT1

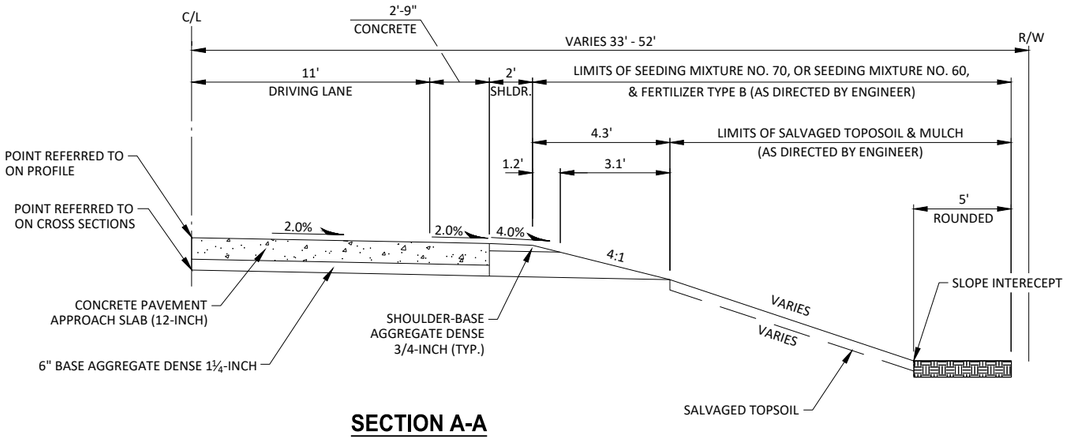


STRUCTURE APPROACH DETAILS

LEGEND

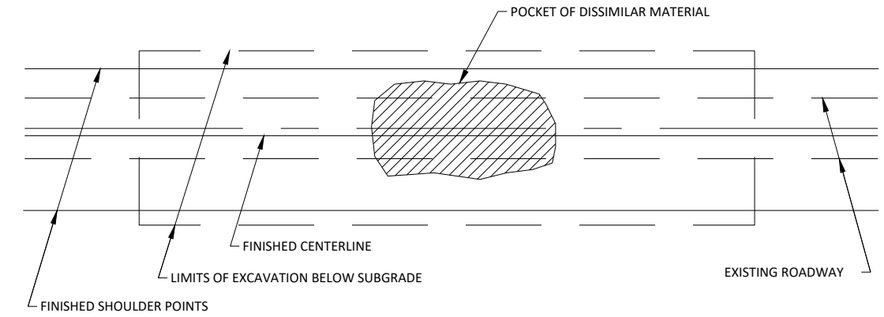
* (RS) = REINFORCED CONCRETE SLAB

* (NRS) = NON-REINFORCED CONCRETE SLAB

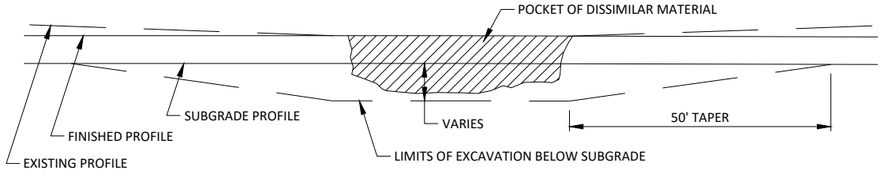


SECTION A-A

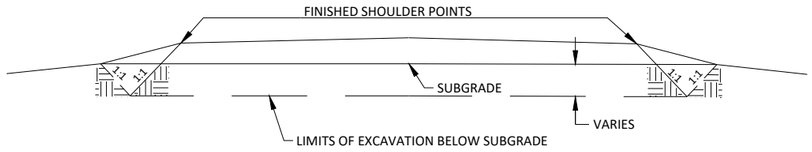
FILL



PLAN VIEW



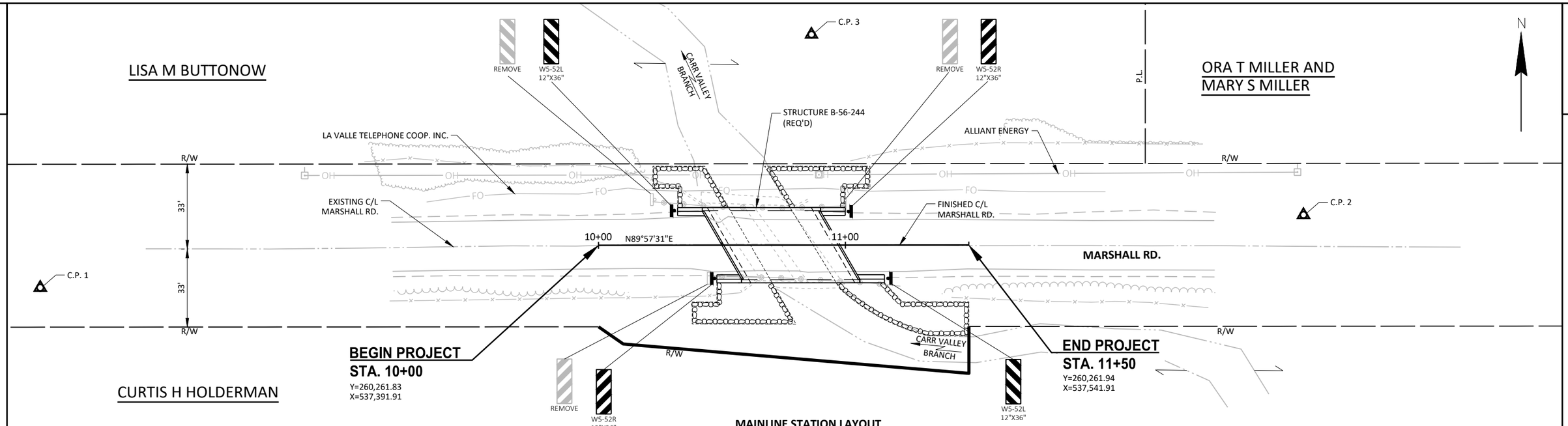
PROFILE VIEW



CROSS SECTION VIEW

1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

EXCAVATION BELOW SUBGRADE (E.B.S.) DETAIL

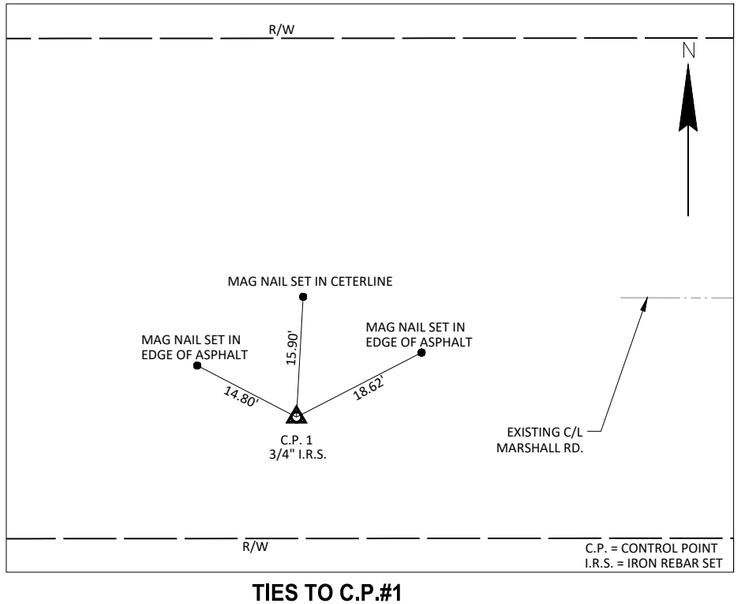


MAINLINE STATION LAYOUT

STATION	Y	X	COMMENTS
10+00	260,261.83	537,391.91	BEGIN PROJECT
10+50	260,261.87	537,441.91	-
10+50.77	260,261.87	537,442.68	END OF DECK
10+97.11	260,261.90	537,489.02	END OF DECK
11+00	260,261.90	537,491.91	-
11+50	260,261.94	537,541.91	END PROJECT

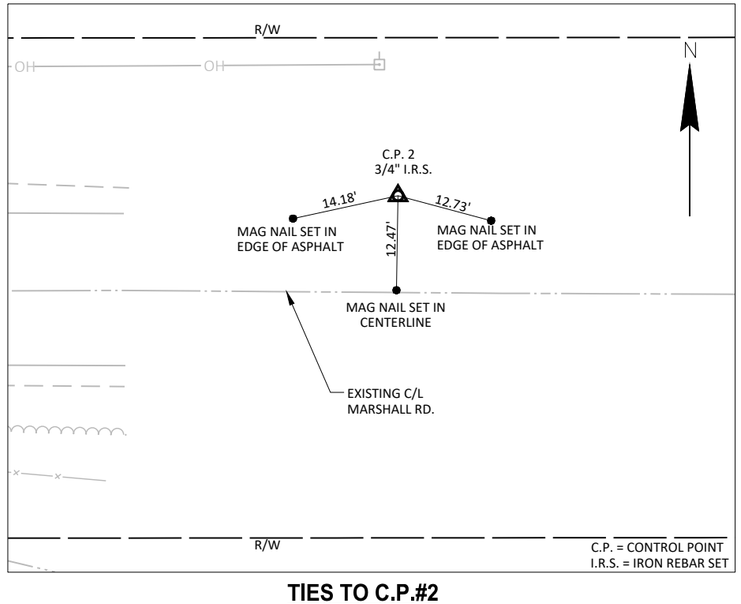
CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X
1	7+75	¾" IRON REBAR SET, 15.9' RT.	260,244.68	537,165.78
2	12+86	¾" IRON REBAR SET, 12.5' LT.	260,274.19	537,677.46
3	10+86	¾" IRON REBAR SET, 85.4' LT.	260,347.28	537,478.16



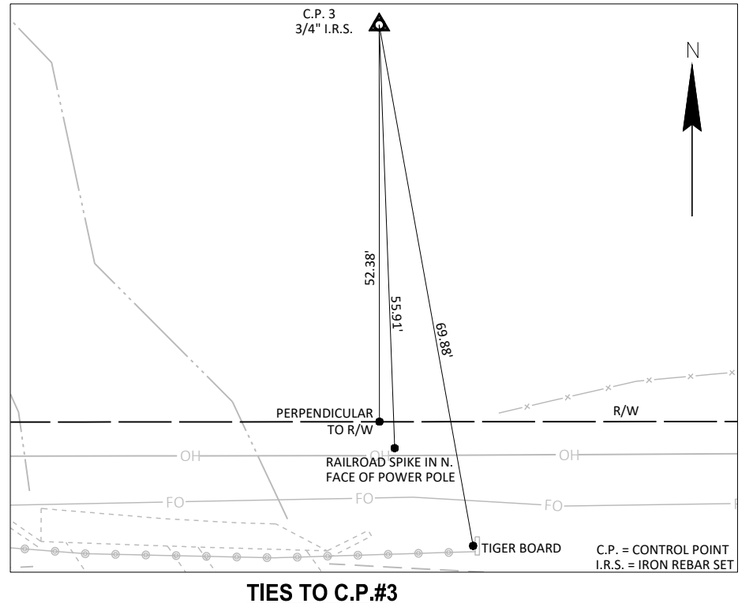
TIES TO C.P.#1

STA. 7+75; 15.9' RT.
Y = 260,244.68
X = 537,165.78



TIES TO C.P.#2

STA. 12+86; 12.5' LT.
Y = 260,274.19
X = 537,677.46



TIES TO C.P.#3

STA. 10+86; 85.4' LT.
Y = 260,347.28
X = 537,478.16

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	ALIGNMENT AND TIES & PERMANENT SIGNING	SHEET 5	E

FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\SHEETSPLAN\DETAILS\59780074_ALIGN & TIES.DWG
PLOT DATE : 5/17/2022 3:12:15 PM
PLOT BY : COLTON PEPER
PLOT SCALE : 1" = 1'
LAYOUT : LAYOUT1

Estimate Of Quantities

5978-00-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. P-56-0916	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	140.000	140.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-56-0244	EACH	1.000	1.000
0012	208.0100	Borrow	CY	40.000	40.000
0014	210.1500	Backfill Structure Type A	TON	290.000	290.000
0016	213.0100	Finishing Roadway (project) 01. 5978-00-74	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	14.000	14.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	215.000	215.000
0022	415.0410	Concrete Pavement Approach Slab	SY	150.000	150.000
0024	455.0605	Tack Coat	GAL	8.000	8.000
0026	465.0105	Asphaltic Surface	TON	38.000	38.000
0028	502.0100	Concrete Masonry Bridges	CY	173.000	173.000
0030	502.3200	Protective Surface Treatment	SY	210.000	210.000
0032	505.0400	Bar Steel Reinforcement HS Structures	LB	4,320.000	4,320.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	23,670.000	23,670.000
0036	513.4061	Railing Tubular Type M	LF	141.000	141.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0040	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	400.000	400.000
0042	606.0300	Riprap Heavy	CY	225.000	225.000
0044	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
0046	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5978-00-74	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	1.000	1.000
0050	624.0100	Water	MGAL	4.000	4.000
0052	625.0500	Salvaged Topsoil	SY	390.000	390.000
0054	627.0200	Mulching	SY	390.000	390.000
0056	628.1504	Silt Fence	LF	280.000	280.000
0058	628.1520	Silt Fence Maintenance	LF	560.000	560.000
0060	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0062	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0064	628.6005	Turbidity Barriers	SY	375.000	375.000
0066	629.0210	Fertilizer Type B	CWT	1.000	1.000
0068	630.0160	Seeding Mixture No. 60	LB	3.000	3.000
0070	630.0170	Seeding Mixture No. 70	LB	2.000	2.000
0072	630.0200	Seeding Temporary	LB	8.000	8.000
0074	630.0300	Seeding Borrow Pit	LB	1.000	1.000
0076	630.0500	Seed Water	MGAL	11.000	11.000
0078	633.5100	Markers ROW	EACH	4.000	4.000
0080	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0082	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0084	638.2602	Removing Signs Type II	EACH	3.000	3.000
0086	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0088	642.5001	Field Office Type B	EACH	1.000	1.000
0090	643.0420	Traffic Control Barricades Type III	DAY	1,170.000	1,170.000
0092	643.0705	Traffic Control Warning Lights Type A	DAY	1,820.000	1,820.000
0094	643.0900	Traffic Control Signs	DAY	910.000	910.000
0096	643.5000	Traffic Control	EACH	1.000	1.000
0098	645.0111	Geotextile Type DF Schedule A	SY	60.000	60.000

Estimate Of Quantities

5978-00-74

Line	Item	Item Description	Unit	Total	Qty
0100	645.0120	Geotextile Type HR	SY	435.000	435.000
0102	650.4500	Construction Staking Subgrade	LF	102.000	102.000
0104	650.5000	Construction Staking Base	LF	102.000	102.000
0106	650.6501	Construction Staking Structure Layout (structure) 01. B-56-0244	EACH	1.000	1.000
0108	650.9911	Construction Staking Supplemental Control (project) 01. 5978-00-74	EACH	1.000	1.000
0110	650.9920	Construction Staking Slope Stakes	LF	102.000	102.000
0112	690.0150	Sawing Asphalt	LF	40.000	40.000
0114	715.0502	Incentive Strength Concrete Structures	DOL	1,038.000	1,038.000
0116	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0118	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+70	EACH	1.000	1.000

ALL ITEMS 010 UNLESS OTHERWISE NOTED

3

CLEARING & GRUBBING

STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
10+00 - 11+50	MAINLINE	2	2
	TOTALS =	2	2

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	205.0100 EXCAVATION COMMON CUT (CY)	AVAILABLE MATERIAL (CY) (1)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (2)	MASS ORDINATE +/- (CY) (3)	208.0100 BORROW FILL (CY)
STA. 10+00 - STA. 11+50	MAINLINE	140	140	144	180	-40	40
	TOTALS =	140	140	144	180	-40	40

NOTES:
1.) AVAILABLE MATERIAL = CUT
2.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
3.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

WATER

STATION-STATION	LOCATION	624.0100 (MGAL)
10+00 - 11+50	MAINLINE	4
	TOTALS =	4

3

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)
10+00 - 11+50	MAINLINE	14	215
	TOTALS =	14	215

CONCRETE PAVEMENT APPROACH SLAB

STATION - STATION	LOCATION	415.0410 (SY)
10+28 - 10+51	MAINLINE	75
10+97 - 11+20	MAINLINE	75
	TOTALS =	150

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
10+00 - 11+50	MAINLINE	8	38
	TOTALS =	8	38

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0170 SEEDING MIXTURE NO. 70 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0300 SEEDING BORROW PIT (LB)	630.0500 SEED WATER (MGAL)
10+00 - 11+50	MAINLINE	310	310	0.5	2	1	-	-	9
UNDISTRIBUTED	-	80	80	0.4	1	1	8	-	1.5
BORROW PIT	-	-	-	0.1	-	-	-	1	0.5
	TOTALS =	390	390	1.0	3	2	8	1	11

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
5978-00-74	3	2
TOTALS =	3	2

MARKERS ROW

PT. NO.	STATION	OFFSET FROM FINISHED C/L	633.5100 (EACH)
1	10+00	33' RT.	1
4	11+50.01	33' RT.	1
5	11+50	52' RT.	1
6	10+10	40' RT.	1
	TOTALS =		4

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
10+00 - 10+39	MAINLINE, LT	40	80
10+00 - 10+83	MAINLINE, RT	100	200
10+69- 11+50	MAINLINE, LT	85	170
UNDISTRIBUTED	-	55	110
TOTALS =		280	560

TURBIDITY BARRIERS

LOCATION	628.6005 TURBIDITY BARRIERS (SY)
EAST RIVER BANK	118
WEST RIVER BANK	182
UNDISTRIBUTED	75
	375

FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\PSE\QUANTITIES\MISC QTYS\W11648_MISC QTYS.DWG
PLOT DATE : 8/26/2022
PLOT TIME : 9:43:27 AM
PLOT BY : COLTON PEPER
PLOT SCALE : 1" = 1'

ALL ITEMS 010 UNLESS OTHERWISE NOTED

3

PERMANENT SIGNING

APPROX. STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	SIGN SIZE	634.0612 POSTS WOOD 4X6-INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
10+23	MAINLINE, LT	W5-52L	BRIDGE HASH MARKS	12X36	---	---	1	1
10+32	MAINLINE, LT	W5-52L	BRIDGE HASH MARKS	12X36	1	3.00	---	---
10+46	MAINLINE, RT.	W5-52R	BRIDGE HASH MARKS	12X36	---	---	1	1
10+48	MAINLINE, RT	W5-52R	BRIDGE HASH MARKS	12X36	1	3.00	---	---
10+99	MAINLINE, LT.	W5-52R	BRIDGE HASH MARKS	12X36	---	---	1	1
11+00	MAINLINE, LT.	W5-52R	BRIDGE HASH MARKS	12X36	1	3.00	---	---
11+16	MAINLINE, RT.	W5-52L	BRIDGE HASH MARKS	12X36	1	3.00	---	---
				TOTALS =	4	12.00	3	3

TRAFFIC CONTROL

	TRAFFIC CONTROL			
LOCATION	643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0900 SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
PROJECT	1170	1820	910	1
TOTALS =	1170	1820	910	1

3

CONSTRUCTION STAKING

STATION -STATION	LOCATION	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	*650.6501 STRUCTURE LAYOUT (B-56-244) (EACH)	650.9911 SUPPLEMENTAL CONTROL (5978-00-74) (EACH)	650.9920 SLOPES STAKES (LF)
10+00 - 11+50	MAINLINE	102	102	-	-	102
-	PROJECT	-	-	1	1	-
	TOTAL =	102	102	1	1	102

*CATEGORY 020

SAWING ASPHALT

STATION	LOCATION	690.0150 (L.F.)
10+00	MAINLINE	20
11+50	MAINLINE	20
	TOTAL =	40

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	MISCELLANEOUS QUANTITIES	SHEET 9	E

FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\PSE\QUANTITIES\MISC QTYS\W11648_MISC QTYS.DWG
LAYOUT :
PLOT DATE : 8/26/2022
PLOT TIME : 9:48:20 AM
PLOT BY : COLTON PEPER
PLOT SCALE : 1" = 1'

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	RESTRICTIVE 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	NGS		
NUMBER	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

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
ELECTRIC TOWER	⊠

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 — CULVERT

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)

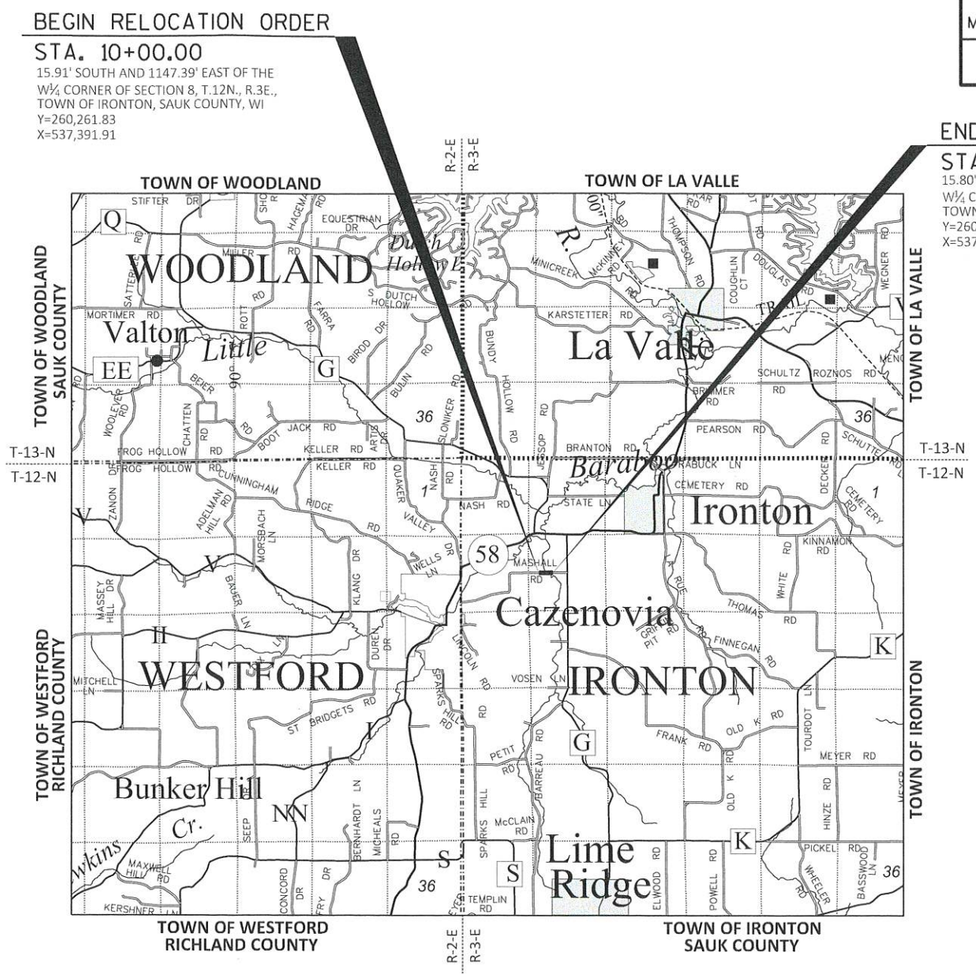
	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

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

BEGIN RELOCATION ORDER
STA. 10+00.00
15.91' SOUTH AND 1147.39' EAST OF THE W¼ CORNER OF SECTION 8, T.12N., R.3E., TOWN OF IRONTON, SAUK COUNTY, WI
Y=260,261.83
X=537,391.91

END RELOCATION ORDER
STA. 11+50.00
15.80' SOUTH AND 1297.39' EAST OF THE W¼ CORNER OF SECTION 8, T.12N., R.3E., TOWN OF IRONTON, SAUK COUNTY, WI
Y=260,261.94
X=537,541.91



N

LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.028 MI.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SAUK COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

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

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE TOWN OF IRONTON.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5978-00-04	4.01	2
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT-OF-WAY REQUIRED FOR
TOWN OF IRONTON, MARSHALL ROAD
(CARR VALLEY BRANCH BRIDGE, B-56-0244)

MARSHALL ROAD — SAUK COUNTY

CONSTRUCTION PROJECT NUMBER
5978-00-74

RECEIVED
MAY 26 2022
SAUK COUNTY CLERK
BARABOO, WISCONSIN

JEWELL
associates engineers, inc.
Engineers - Architects - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
FAX : 608.588.9322

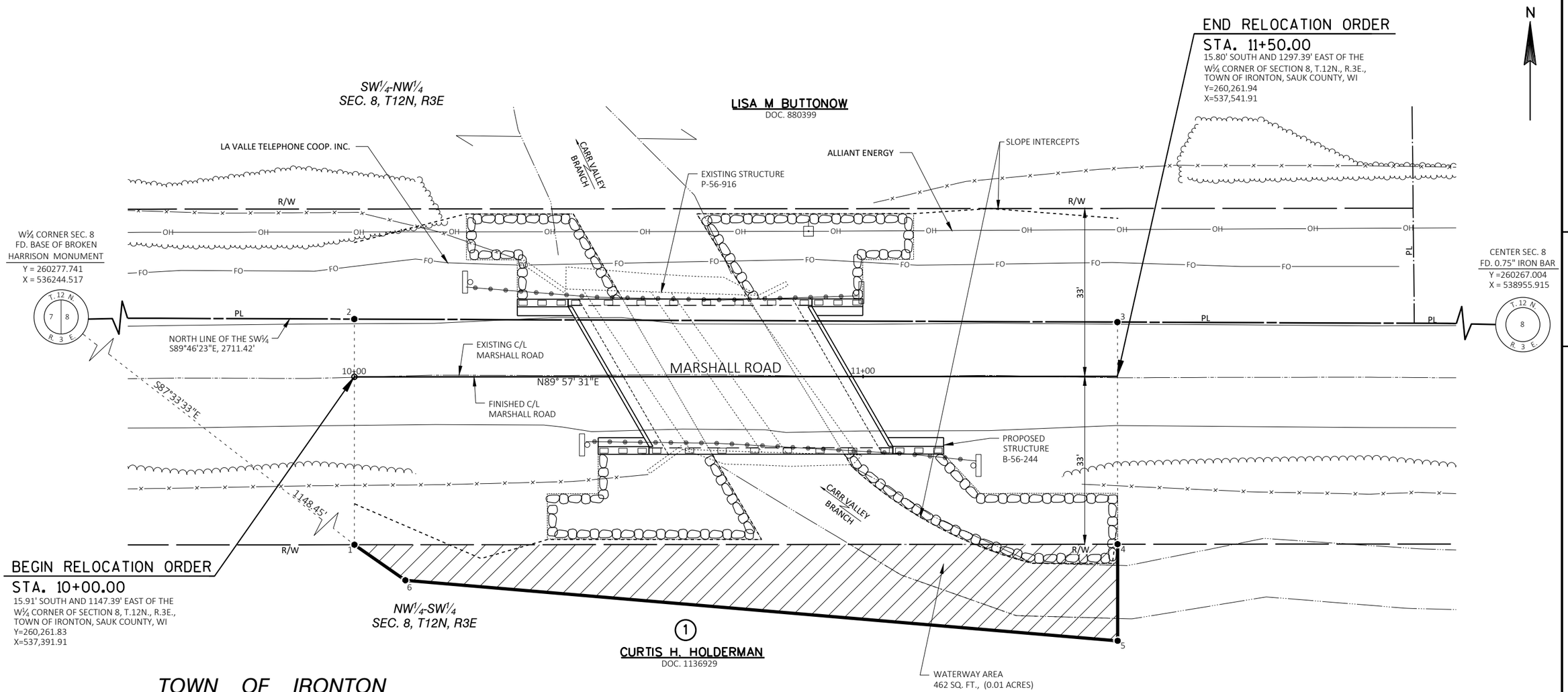
I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR TOWN OF IRONTON, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
WESLEY L KRAEMER
S-3026
SPRING GREEN WIS.
LAND SURVEYOR
5-9-2022

REVISION DATE

APPROVED FOR TOWN OF IRONTON
DATE: 5-18-22 (NAME/TITLE)

10 E



NOTE: EXISTING C/L OF MARSHALL ROAD BASED ON C/L OF EXISTING PAVEMENT

EXISTING RIGHT-OF-WAY FOR MARSHALL ROAD BASED ON THE C/L OF EXISTING PAVEMENT AND WIS. STATUTE 82.31(2)

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW	EXISTING	TOTAL
1	CURTIS H. HOLDERMAN	FEE	0.04	0.15	0.19

NOTE: AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM THE TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO TOWN OF IRONTON.

COORDINATE TABLE - NEW R/W POINTS

PT#	STATION	OFFSET	Y	X
1	10+00.00	33.00 R	260228.831	537391.929
2	10+00.00	11.37 L	260273.197	537391.897
3	11+50.00	10.66 L	260272.603	537541.898
4	11+50.00	33.00 R	260228.939	537541.929
5	11+50.00	52.00 R	260209.939	537541.943
6	10+10.00	40.00 R	260221.838	537401.934

RIGHT OF WAY LINE TABLE

POINT TO POINT	BEARING	DISTANCE
1 TO 2	N00° 02' 29"W	44.37'
2 TO 3	S89° 46' 23"E	150.00'
3 TO 4	S00° 02' 29"E	43.66'
4 TO 5	S00° 02' 29"E	19.00'
5 TO 6	N85° 08' 32"W	140.51'
6 TO 1	N55° 02' 58"W	12.21'

REVISION DATE

DATE _____

GRID FACTOR _____

SCALE. FEET 0 10 20

HWY: MARSHALL ROAD

COUNTY: SAUK

STATE R/W PROJECT NUMBER 5978-00-00

CONSTRUCTION PROJECT NUMBER 5978-00-74

PLAT SHEET 4.02

PS&E SHEET 11

E

LEGEND

- DIRECTION OF FLOW
- XXXXXXXXX SAWING ASPHALT
- SILT FENCE
- TURBIDITY BARRIER
- EDGE OF WATER
- WETLANDS
- HEAVY RIPRAP OVER GEOTEXTILE TYPE HR

N

CLEARING AND GRUBBING REQ'D
STA. 10+00 - 11+50

REMOVING FENCE BY OTHERS
STA. 10+00 - 10+33 LT.

REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-56-916
TWO 38.5 FOOT LONG PIPE CULVERTS WITH CONCRETE HEADWALLS.
28.0' CLEAR ROADWAY WIDTH
37.2' OVERALL LENGTH

LISA M BUTTONOW

ORA T MILLER AND
MARY S MILLER

CARR VALLEY BRANCH

BM 3

P.L.

SLOPE INTERCEPTS

ALLIANT ENERGY

LA VALLE TELEPHONE COOP. INC.

BM 11

R/W

OH

FO

EXISTING C/L
MARSHALL ROAD

FINISHED C/L
MARSHALL ROAD

BM 2

33'

(ASPHALT)

MARSHALL ROAD

10+00

11+00

BM 1

POST

CONCRETE PAVEMENT
APPROACH SLAB (TYP.)

STRUCURE B-56-244
(REQ'D)

FEE REQ'D

BEGIN PROJECT
STA. 10+00.00
Y=260,261.83
X=537,391.91

END PROJECT
STA. 11+50.00
Y=260,261.94
X=537,541.91

CURTIS H HOLDERMAN

REMOVING FENCE BY OTHERS
STA. 10+00 - 10+59 RT.
STA. 11+42 - 11+50 RT.

5

5

4.07%

-0.57%

L=130.00
K=37.14

PI STA 10+70.00
EL 914.17

HIGH WATER$_{100}$
EL = 913.86

FINISHED C/L PROFILE
MARSHALL ROAD

EXISTING C/L PROFILE
MARSHALL ROAD

STA. 10+00
EL. 917.02
MATCH EXISTING

PC STA 10+05.00
EL 916.82

PT STA 11+35.00
EL 913.81

STA. 11+50
EL. 913.72
MATCH EXISTING

STA. 10+50
STRUCTURE B-56-244 REQ'D
SINGLE SPAN REINFORCED
CONCRETE FLAT SLAB STRUCTURE
CLEAR ROADWAY WIDTH = 28.0'
O.A.L. = 47.9'
SKEW = 30° RHF

EXISTING C/L ELEVATION

FINISHED C/L ELEVATION

OBSERVED WATER
EL. 904.89
(08-04-21)

PROPOSED STREAMBED
UPSTREAM EL = 901.40
DOWNSTREAM EL = 900.73

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	7+75	3/4" IRON REBAR SET, 15.9' RT.	932.82
2	12+86	3/4" IRON REBAR SET, 12.5' LT.	913.09
3	10+86	3/4" IRON REBAR SET, 85.4' LT.	910.04
11	10+88	RR SPIKE IN N. FACE POWERPOLE, 29.5' LT.	908.17

EARTHWORK SUMMARY

		MAINLINE
EXCAVATION COMMON	=	140 C.Y.
FILL	=	144 C.Y.
FILL EXPANSION (25%)	=	180 C.Y.
BORROW	=	40 C.Y.

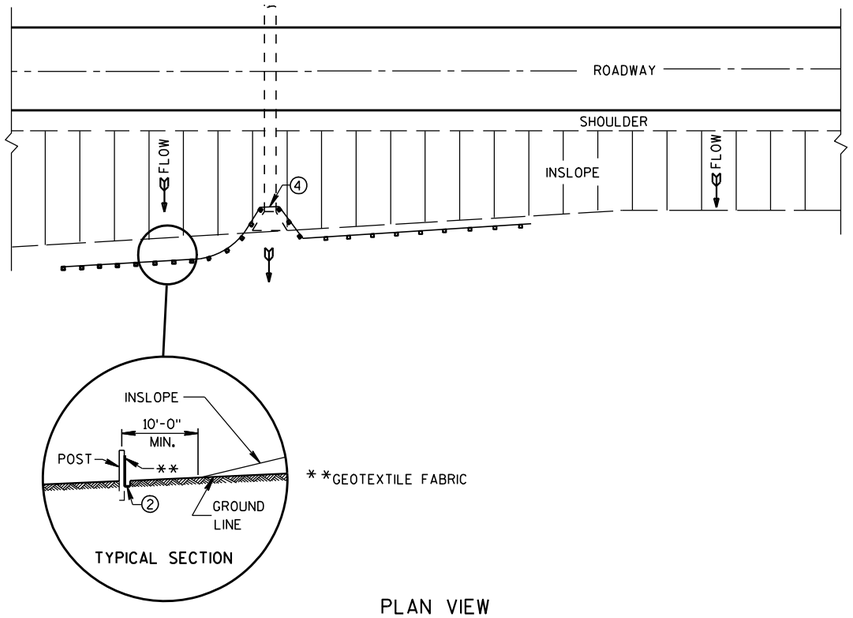
8+00	8+20	8+40	8+60	8+80	9+00	9+20	9+40	9+60	9+80	10+00	10+20	10+40	10+60	10+80	11+00	11+20	11+40	11+50	11+60	11+80	12+00	12+20	12+40	12+60	12+80	13+00	13+20	13+40	13+60
921.40					920.01			918.80		917.86	917.02	916.24	915.55	914.92	914.46	914.21	913.93	913.78	913.72	913.66	913.56	913.47	913.45	913.44					
											917.02	916.24	915.56	914.99	914.52	914.17	913.92	913.78	913.72										

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	PLAN AND PROFILE: MAINLINE	SHEET	12	E

Standard Detail Drawing List

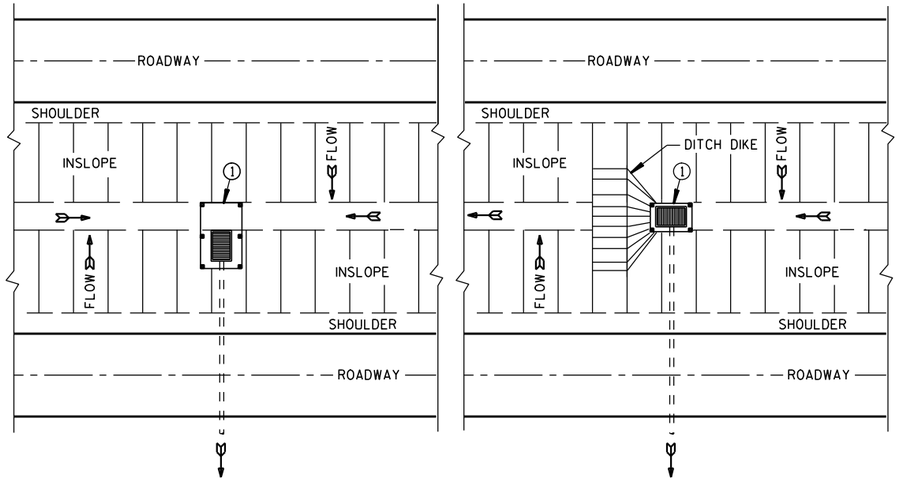
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-10	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



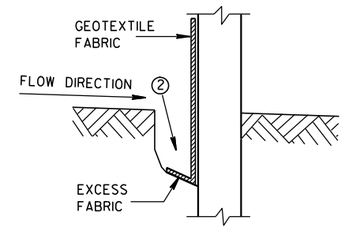
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

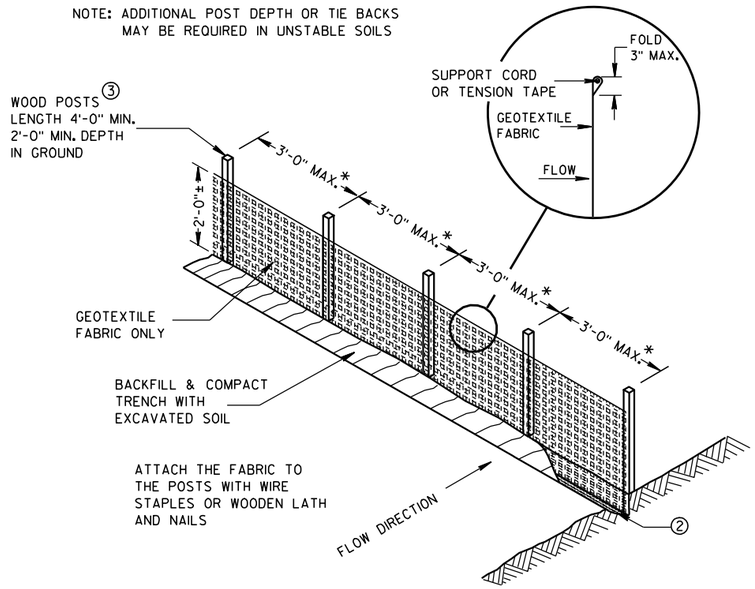
GENERAL NOTES

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

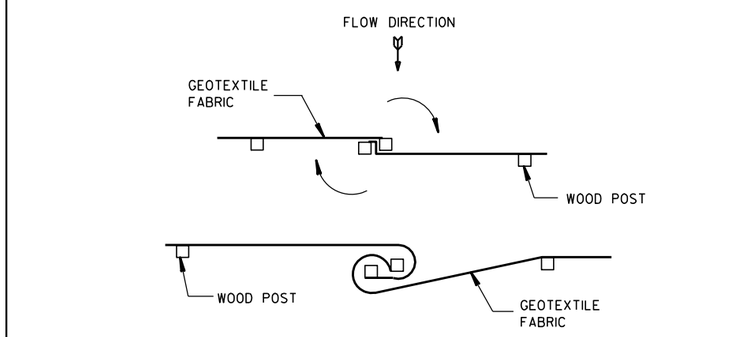
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



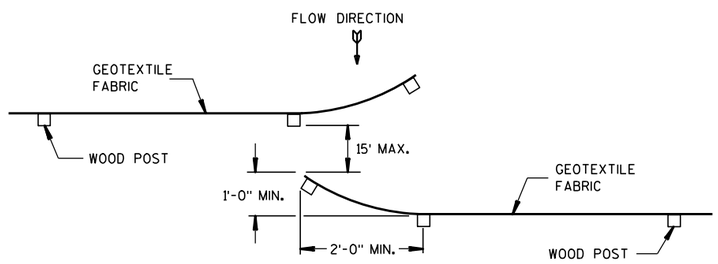
TRENCH DETAIL



SILT FENCE

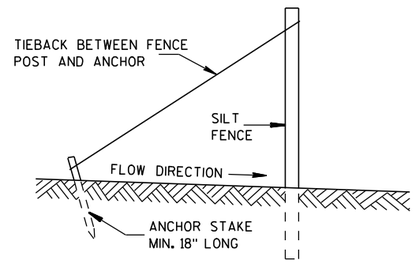


TWIST METHOD



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

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S.D.D. 8 E 9-6

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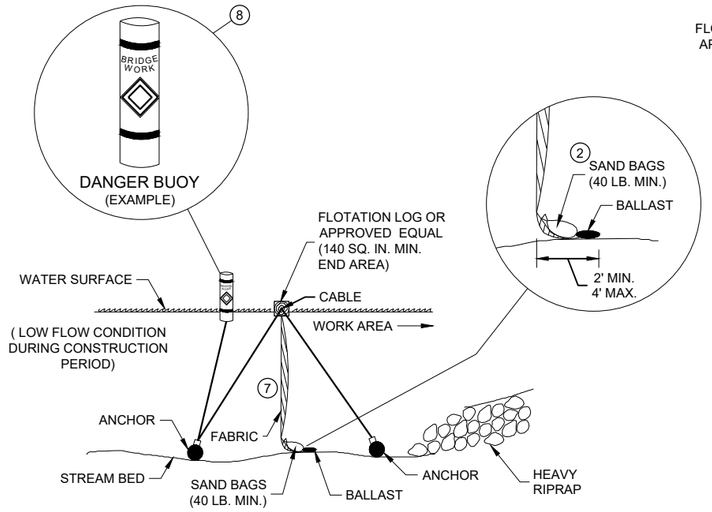
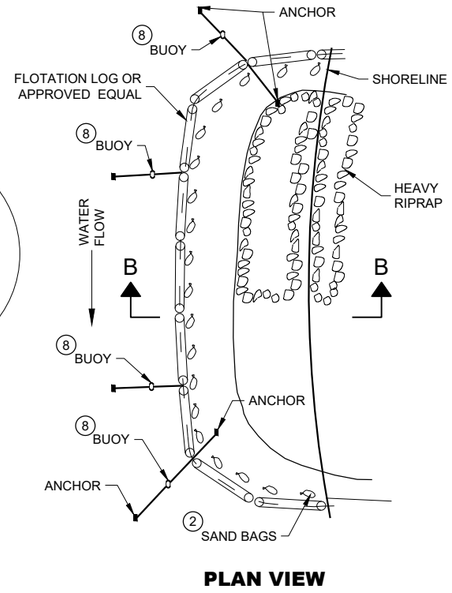
S.D.D. 8 E 9-6

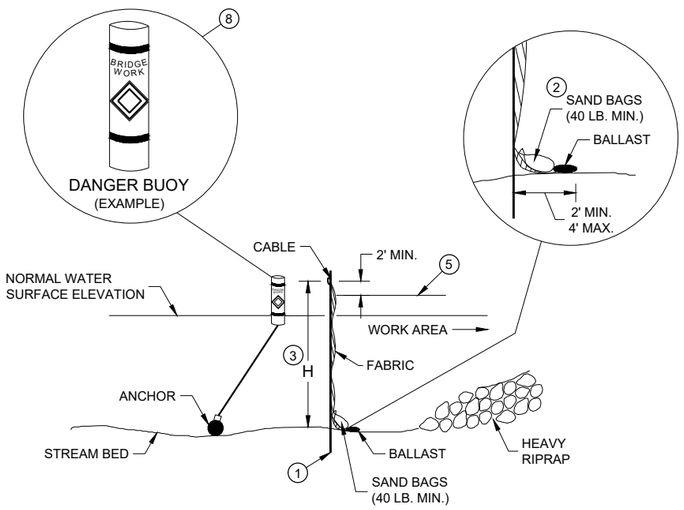


SECTION B - B

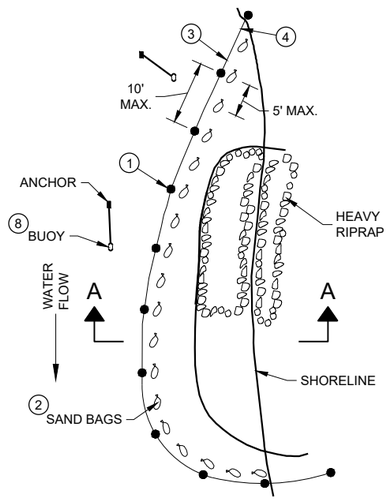


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

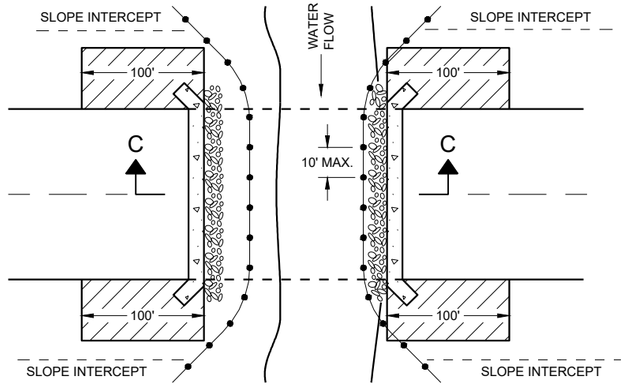
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

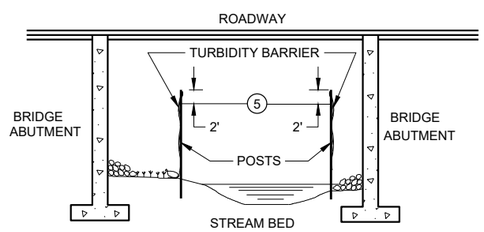
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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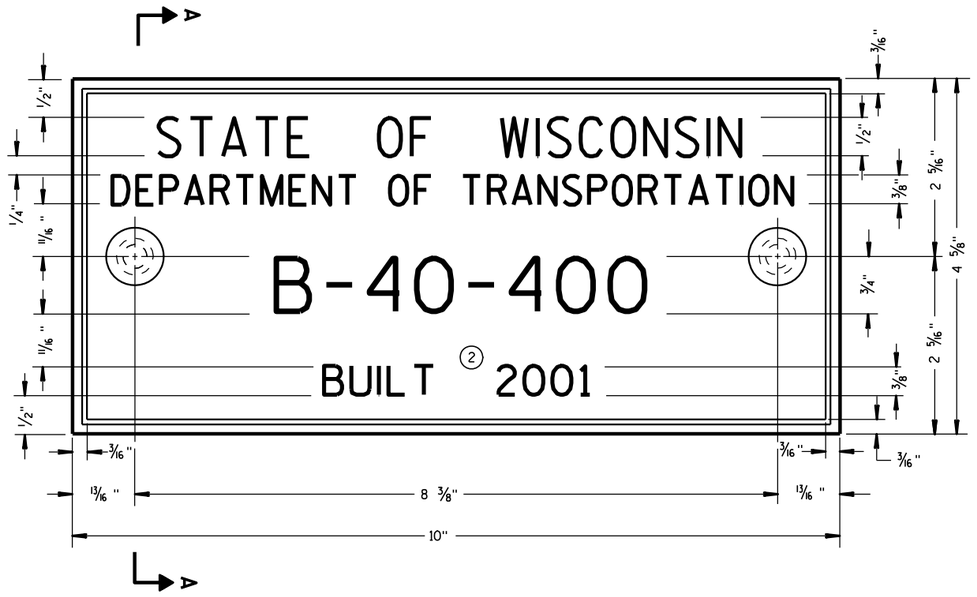
SDD 08E11 - 02



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

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

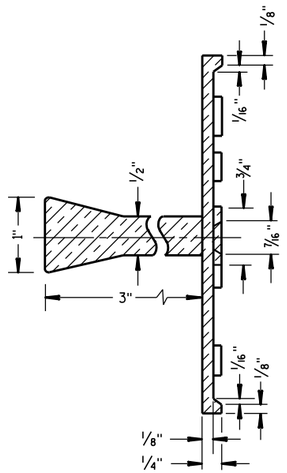
GENERAL NOTES

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.

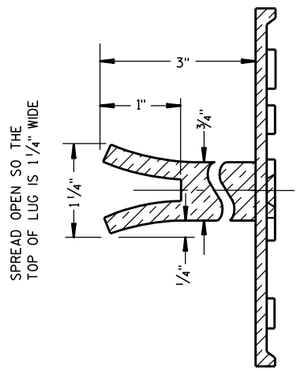
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

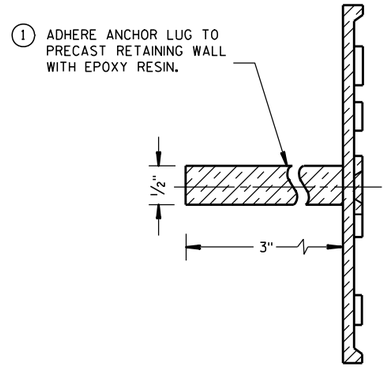
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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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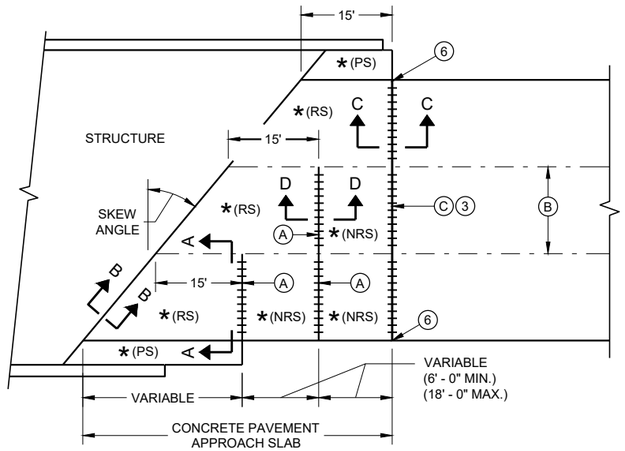
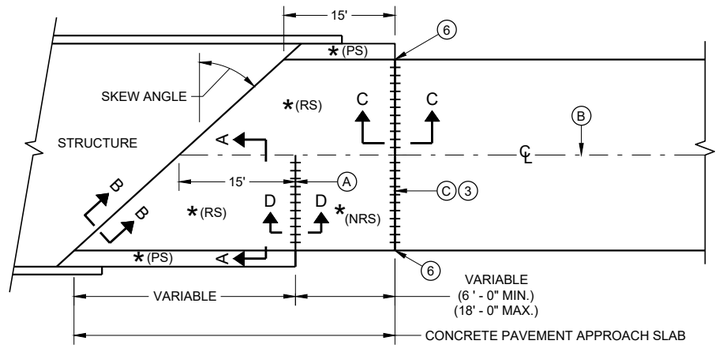
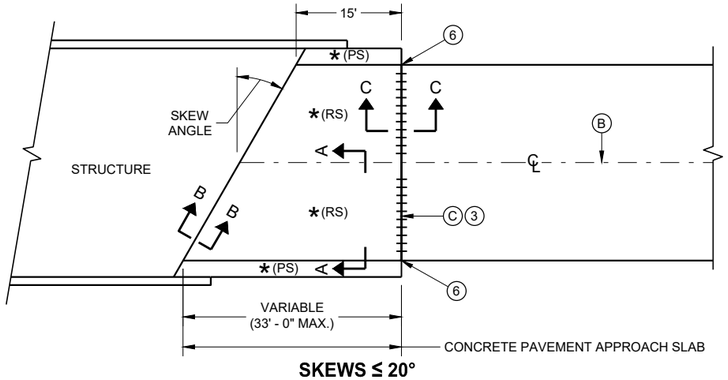
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

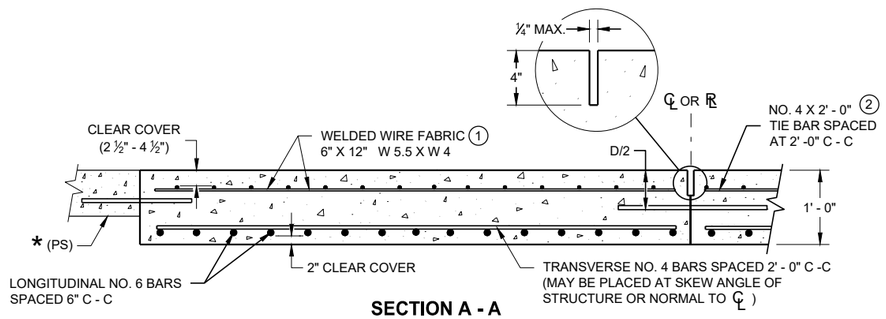
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

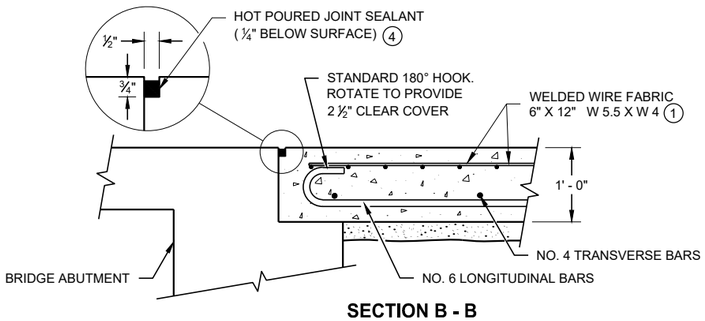
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

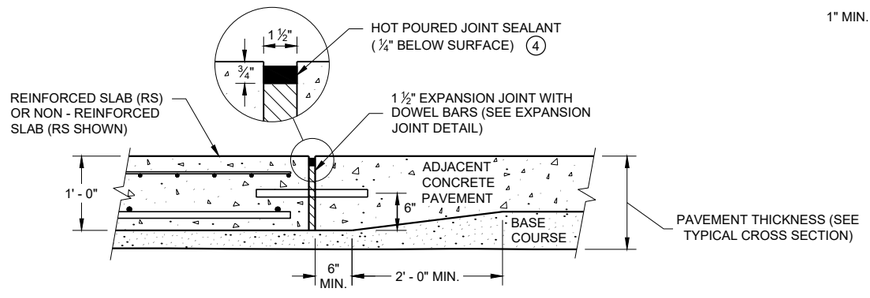
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

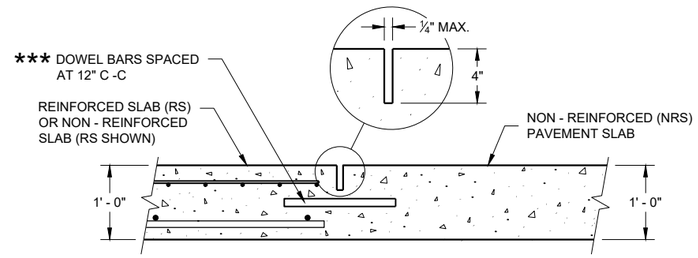
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

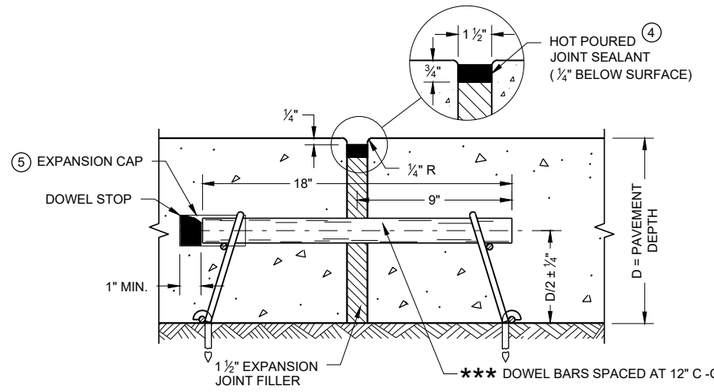
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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

FHWA

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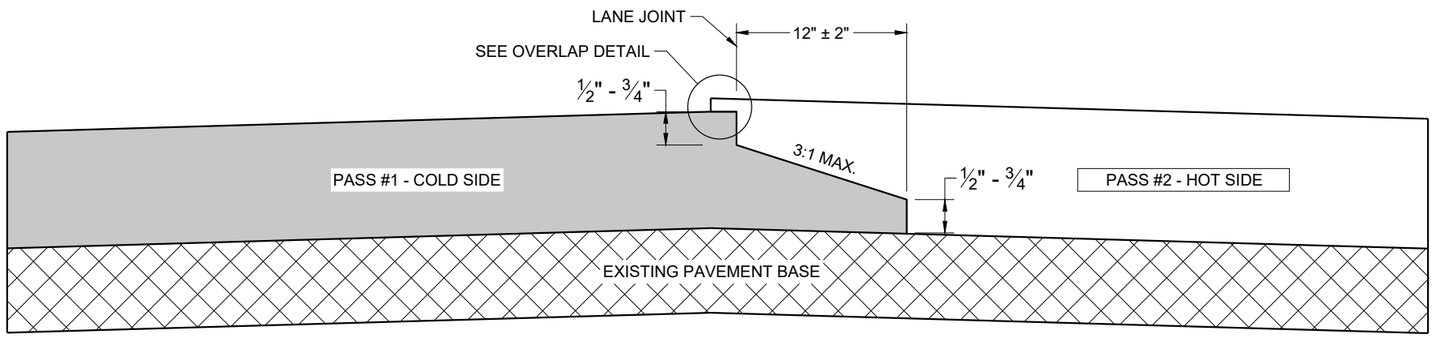
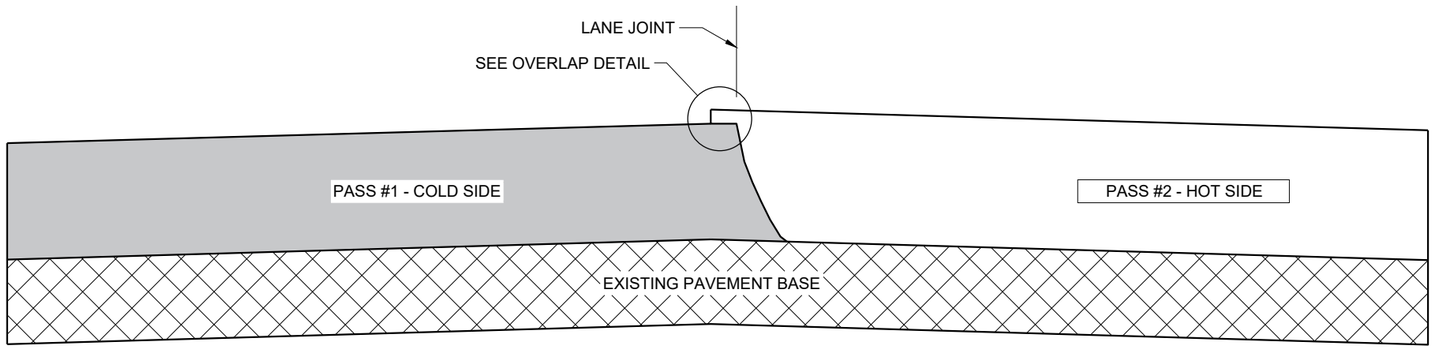
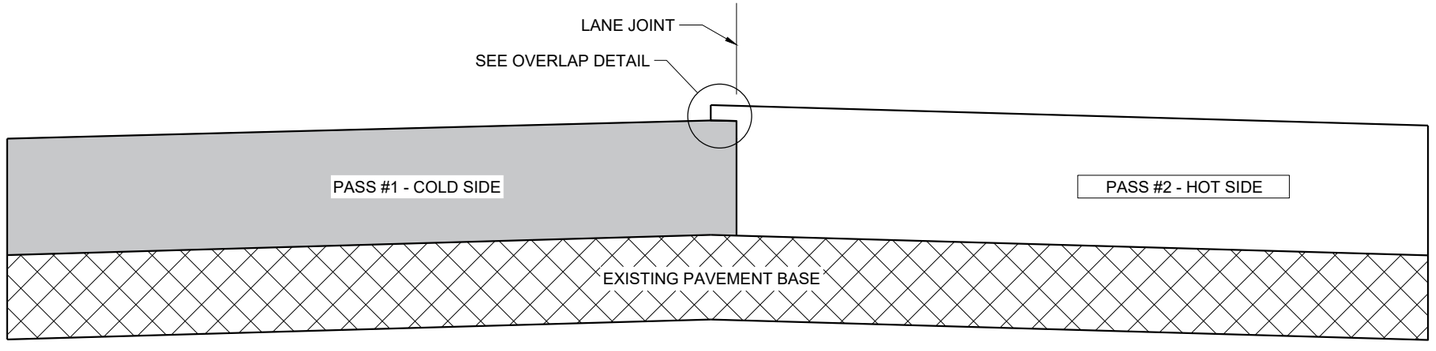
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

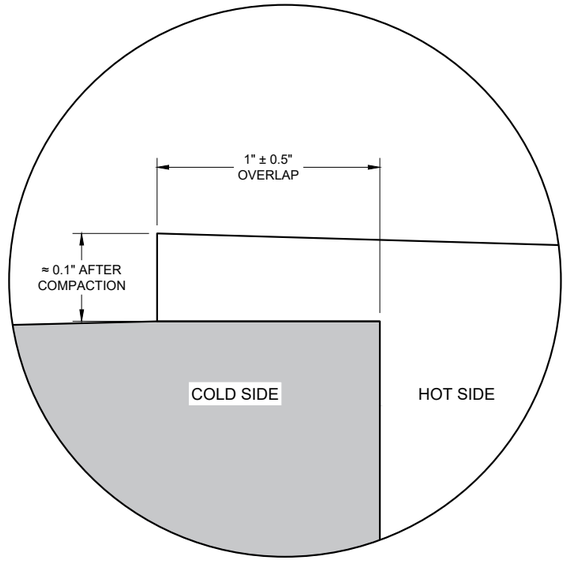
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

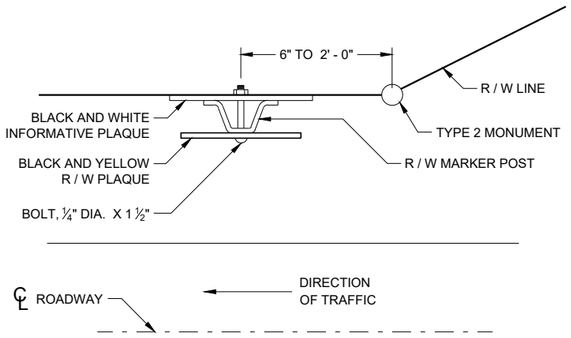
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

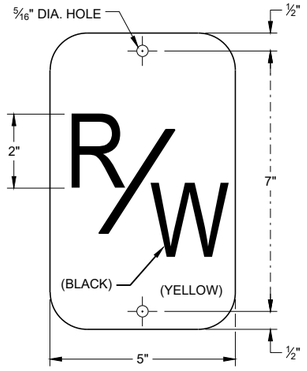
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

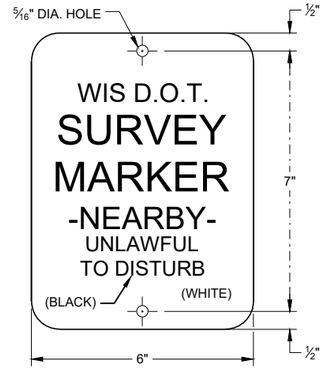


PLAN VIEW
STEEL MARKER POST



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

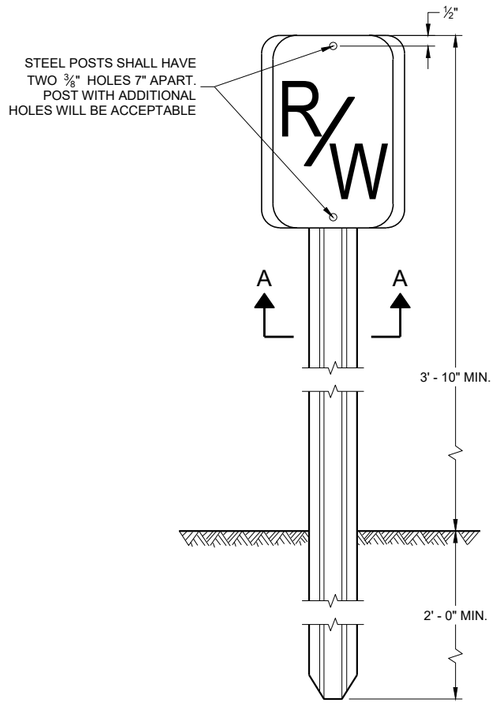
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

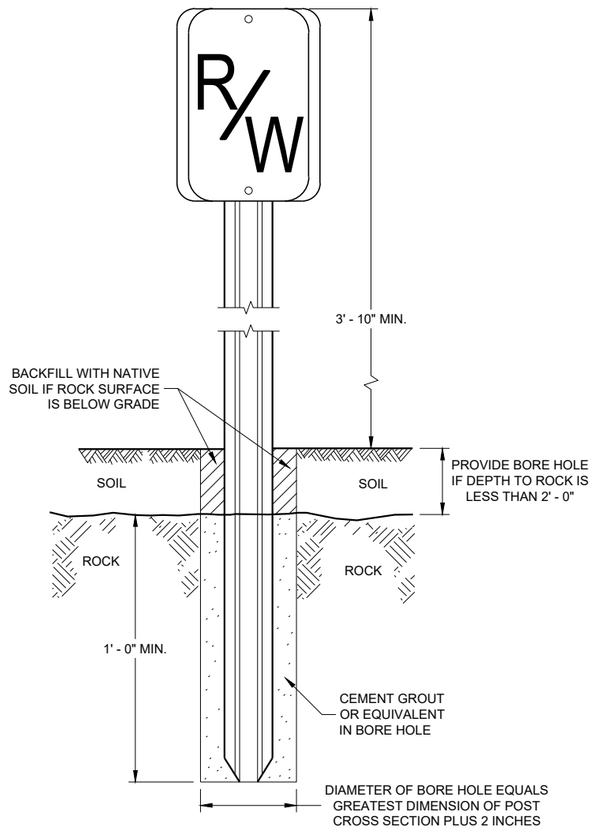
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFROMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

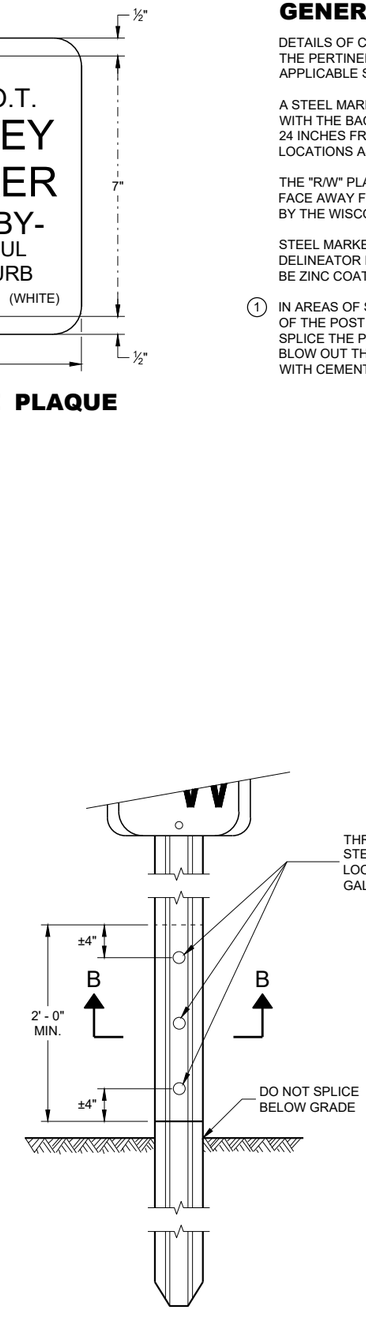
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



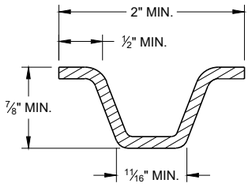
FRONT VIEW
STEEL MARKER POST



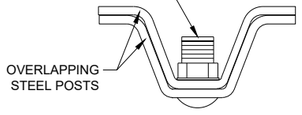
FRONT VIEW
ROCK INSTALLATION (1)



FRONT VIEW
SPLICE DETAIL



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



SECTION B - B

MARKER POST
FOR RIGHT - OF - WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016
DATE
/S/ Ray Kumapayi
CHIEF SURVEYING AND MA
ENGINEER

FHWA

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SDD 15A01 - 13a

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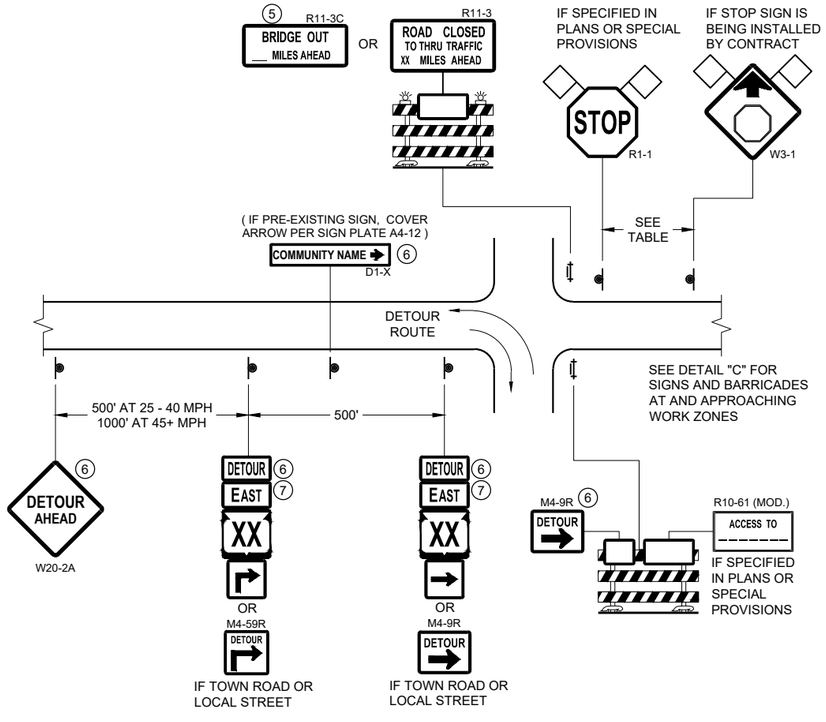
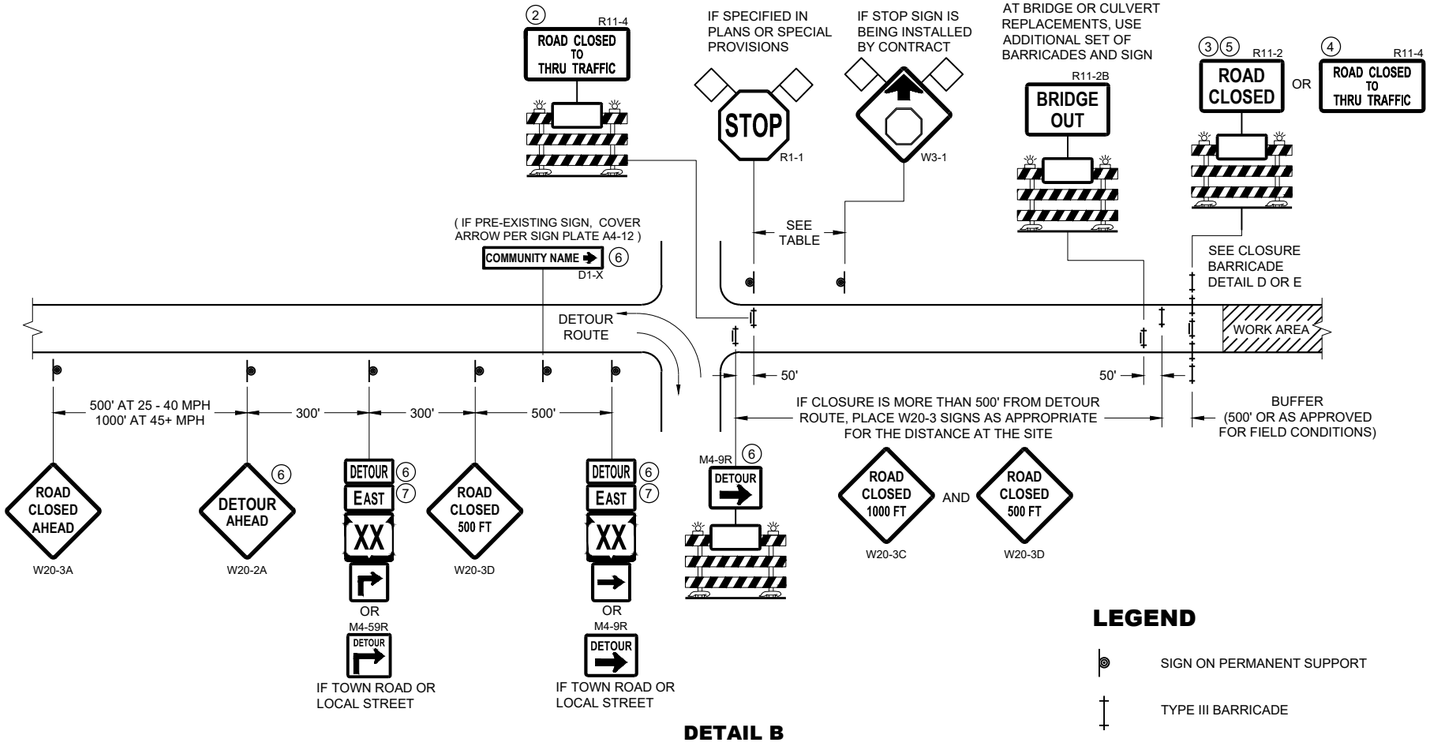
SDD15A01 - 13a



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



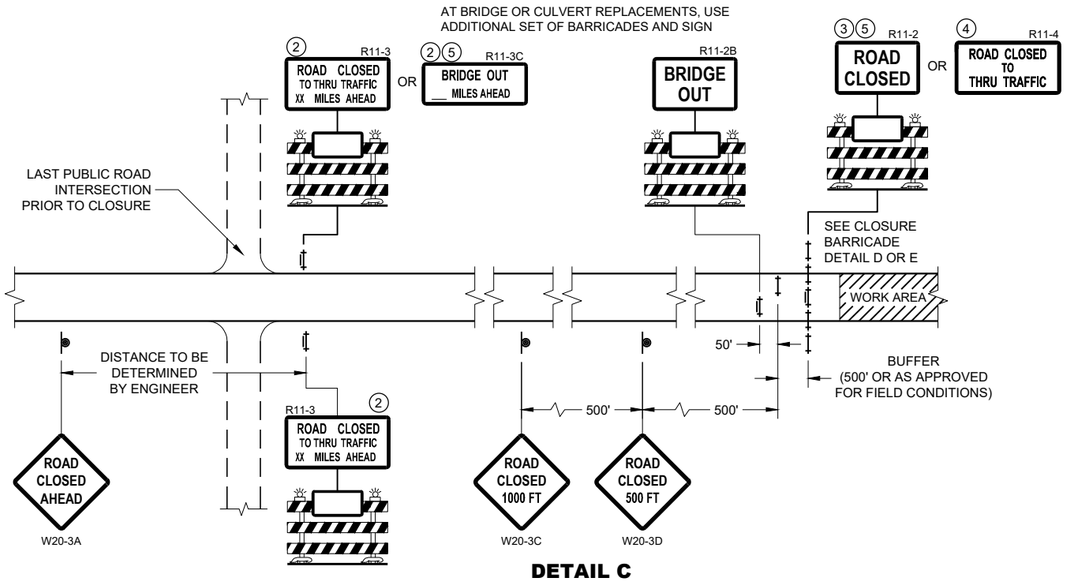
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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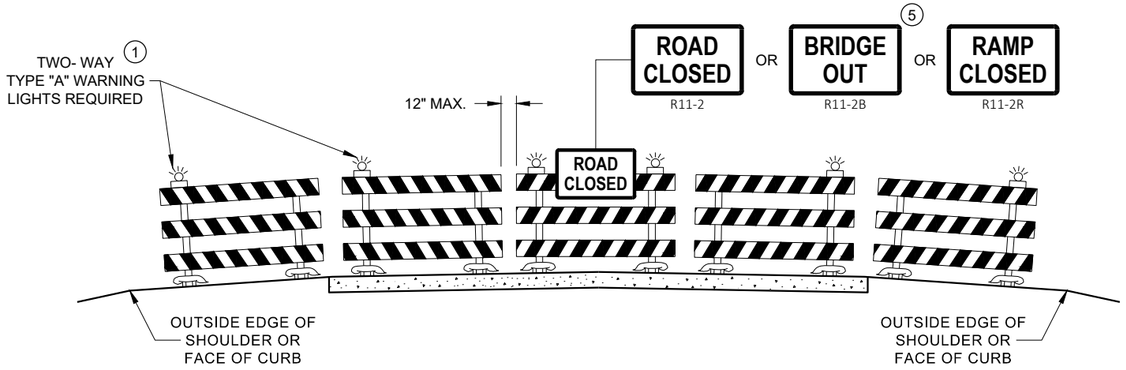
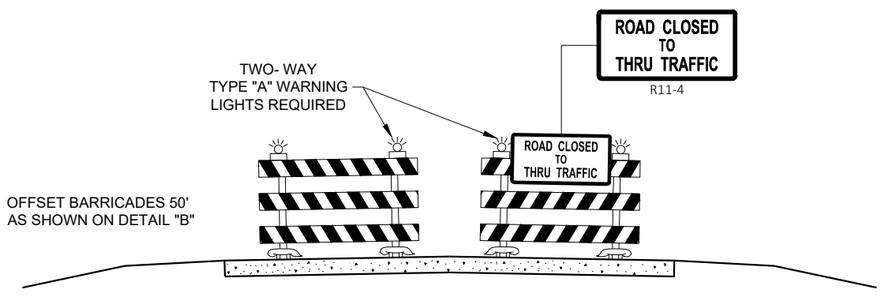
SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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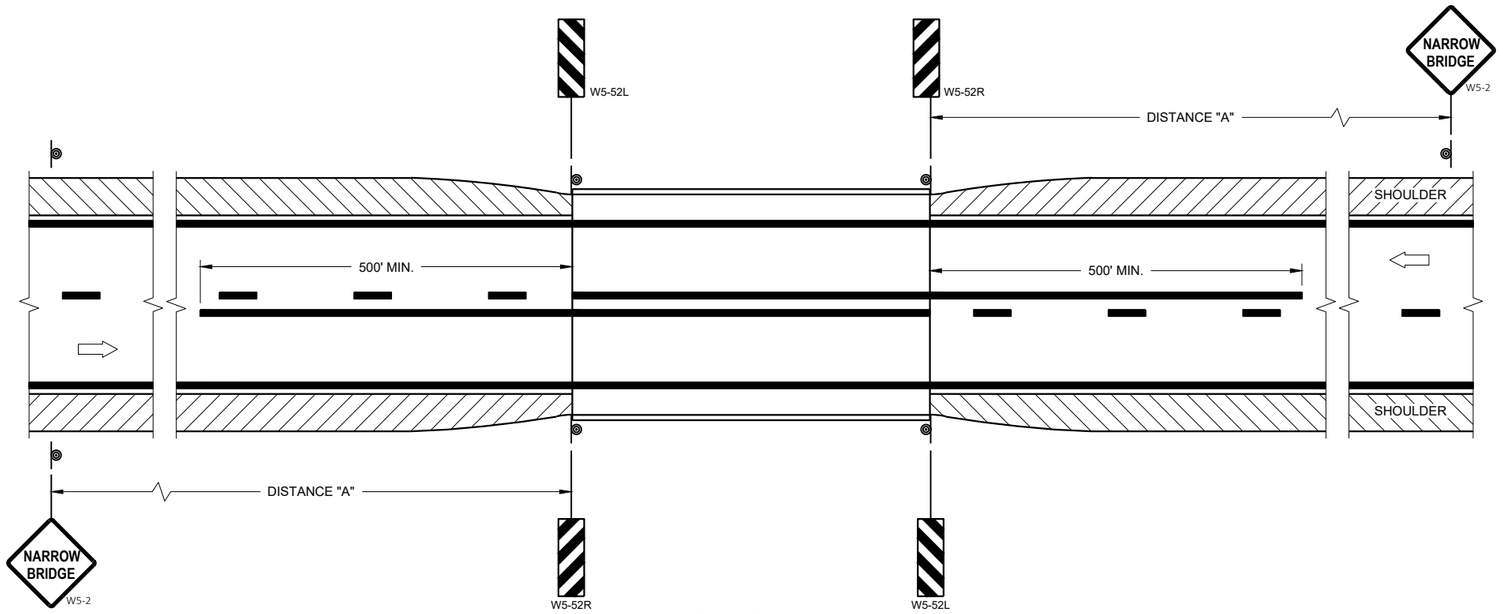
SDD 15C02 - 08b

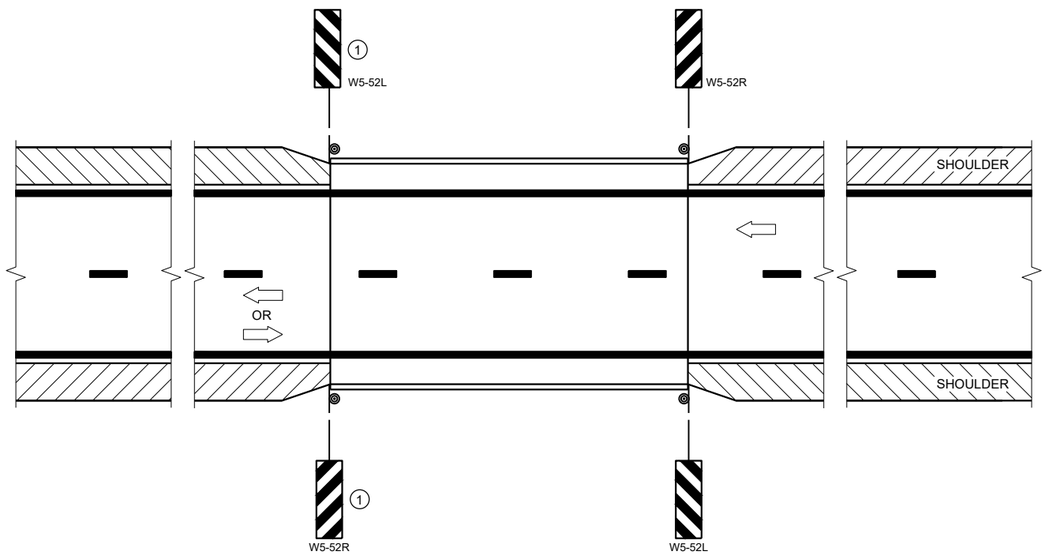
6

SDD 15C02 - 08b



SITUATION 1

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



SITUATION 2

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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

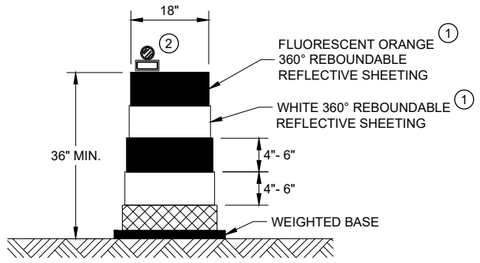
APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER
FHWA

6

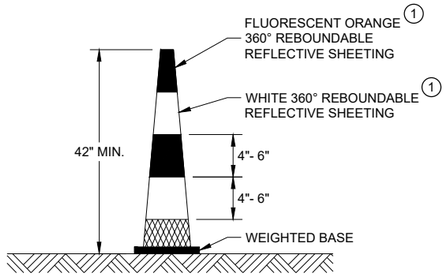
SDD 15C06 - 10

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

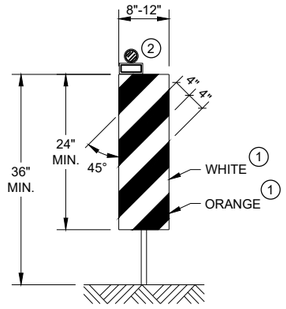


DRUM



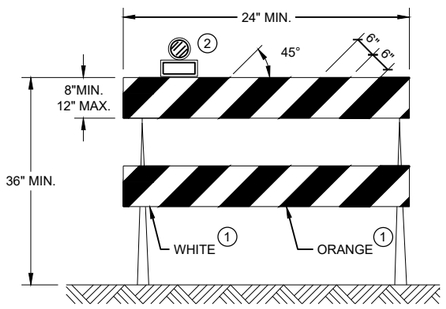
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



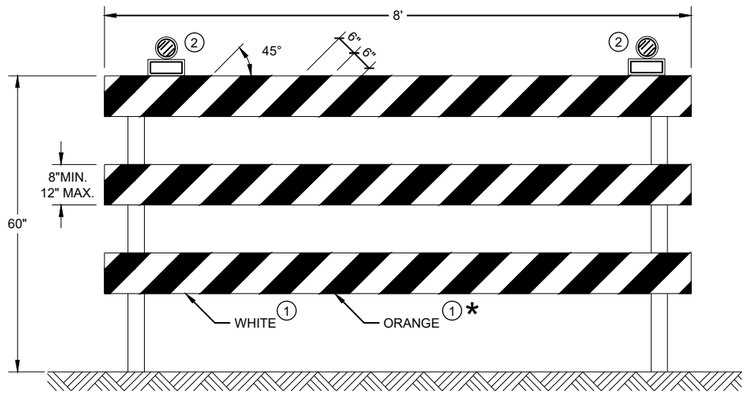
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD15C11 - 09b

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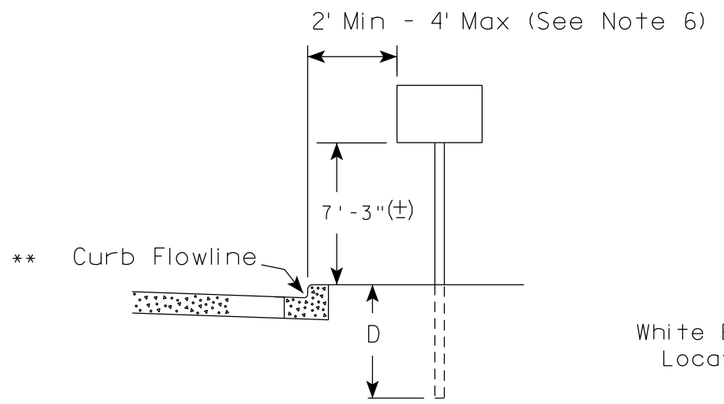
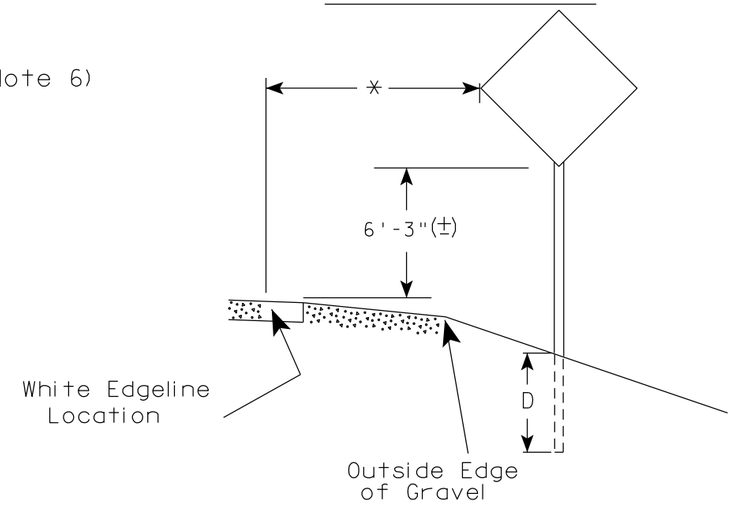
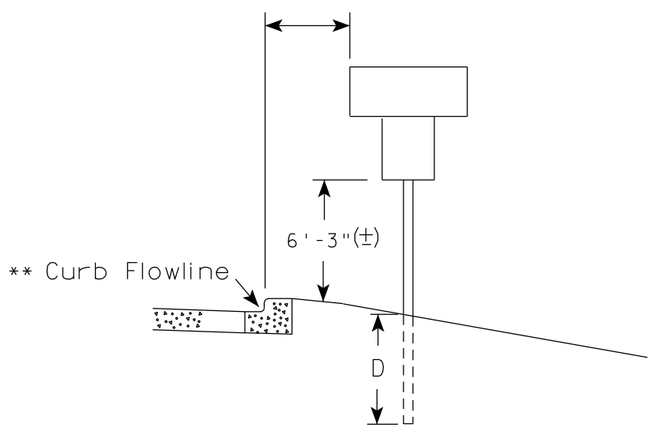
SDD15C11 - 09b

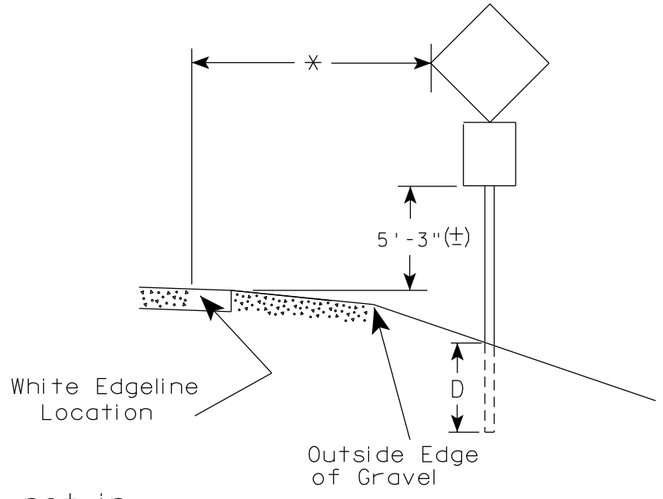
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

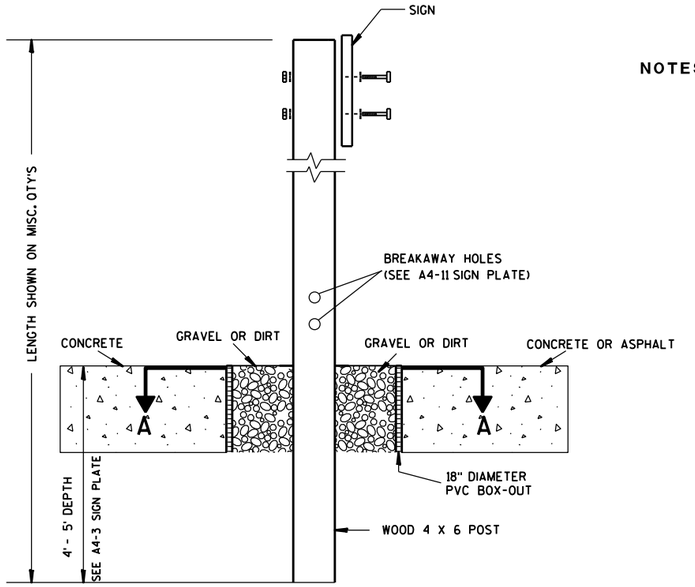
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

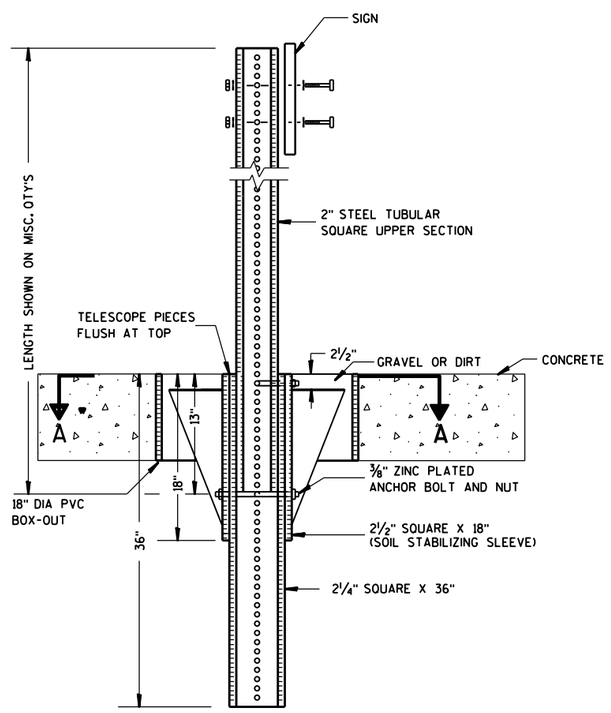
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	E



ELEVATION VIEW

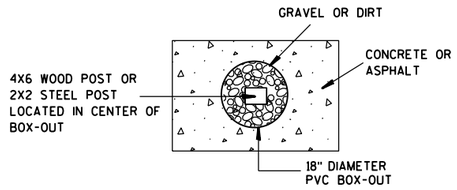
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

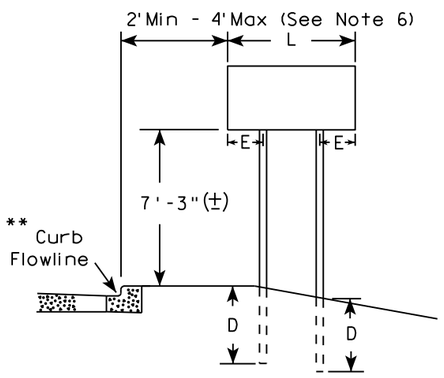
APPROVED Matthew R Rauch
for State Traffic Engineer

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

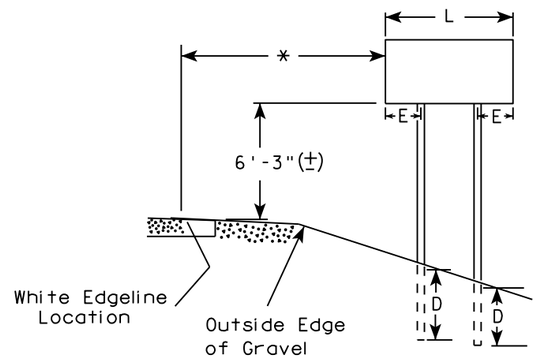
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

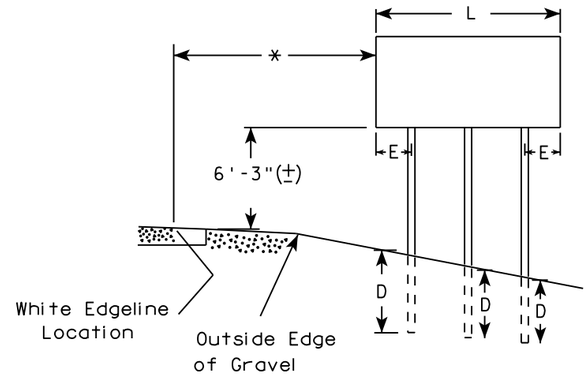
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

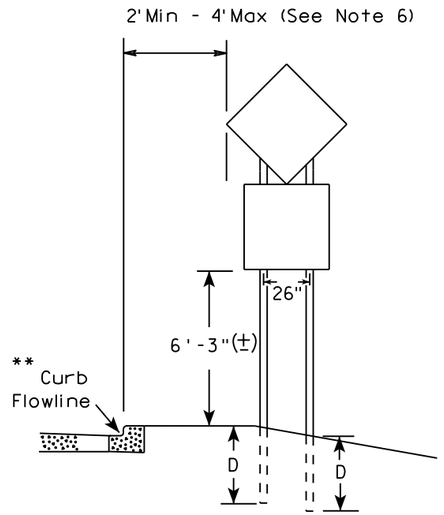
URBAN AREA



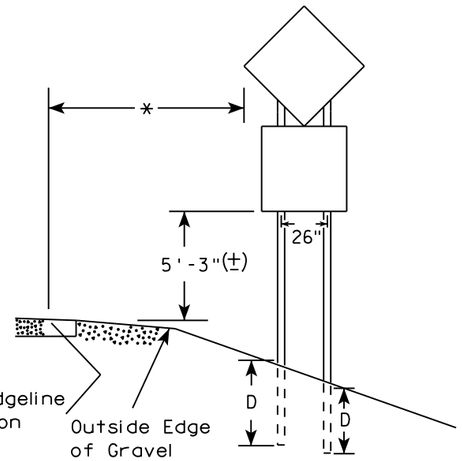
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

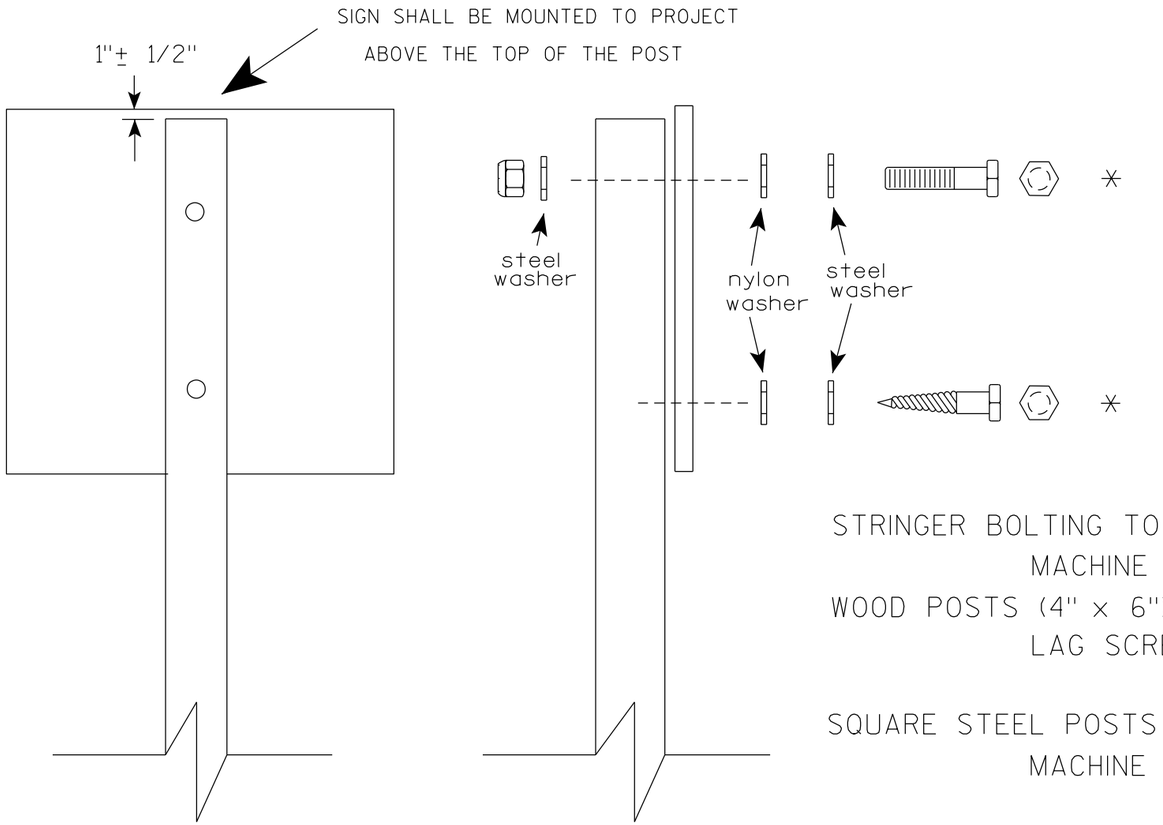
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 26	E



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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

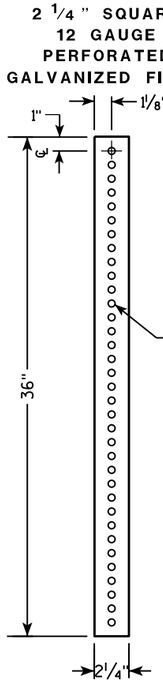
SHEET NO: 27 E

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

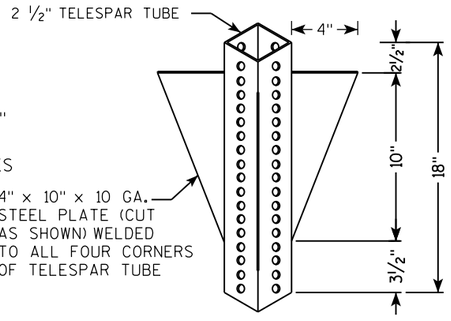
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

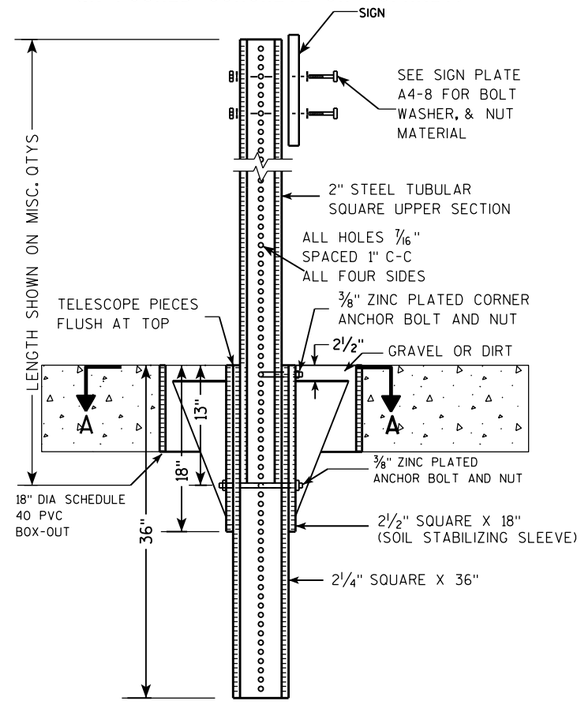
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



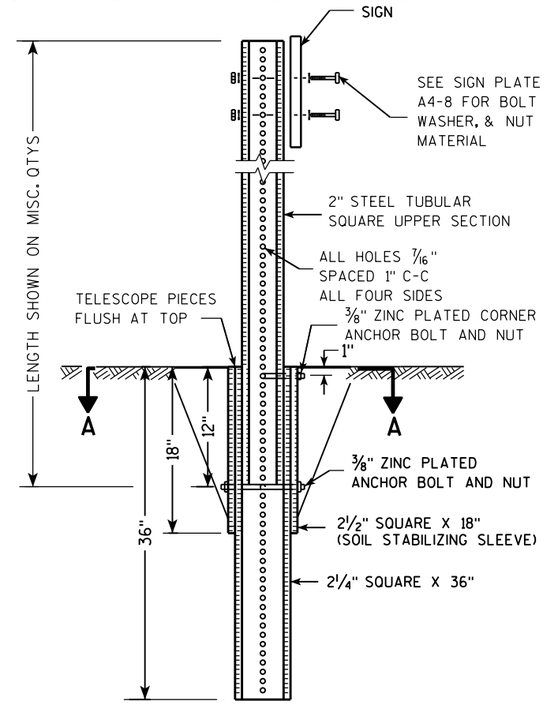
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

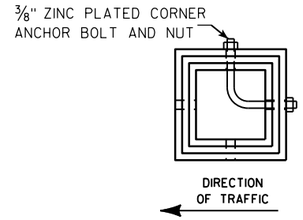


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

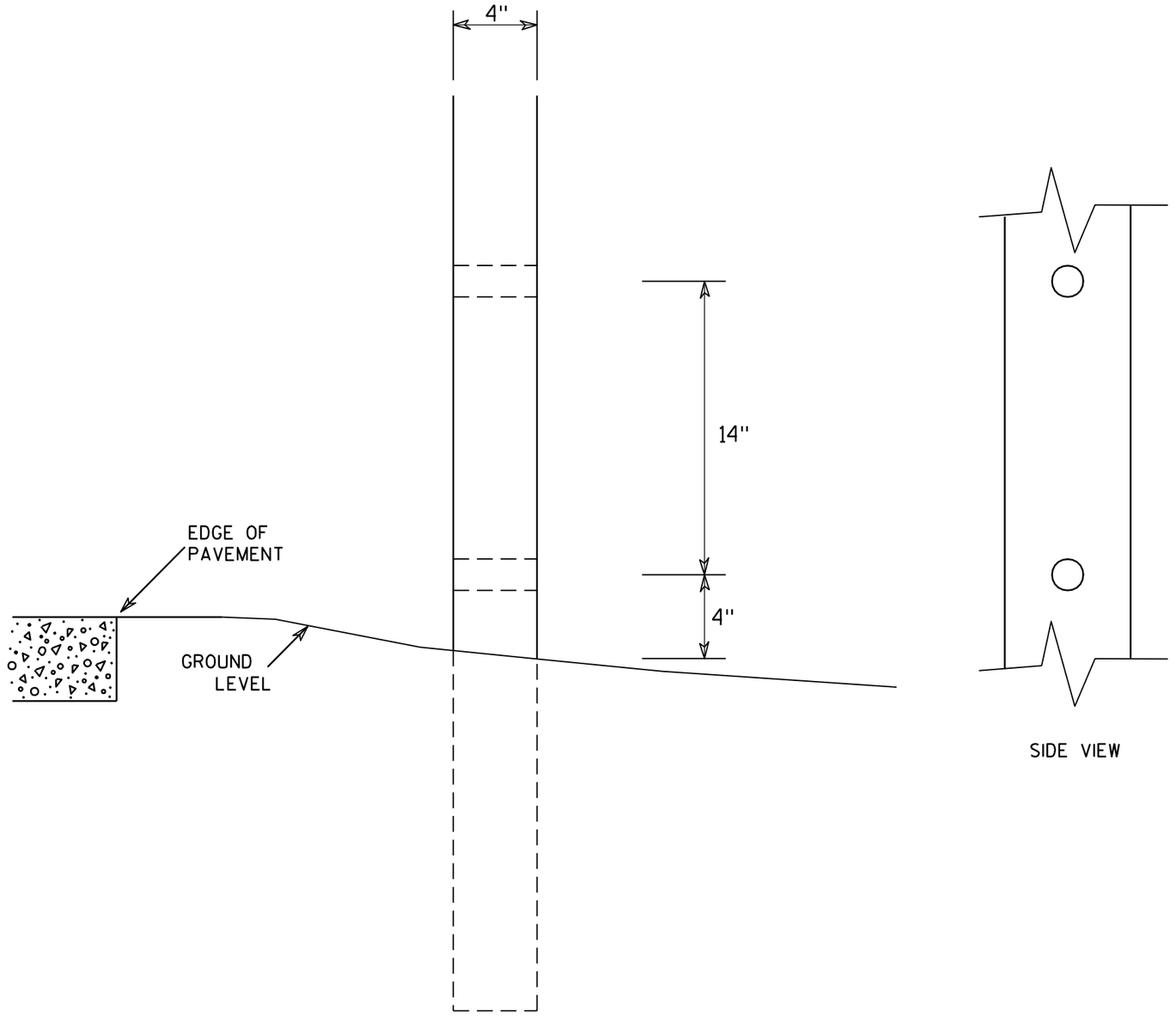
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

7

7

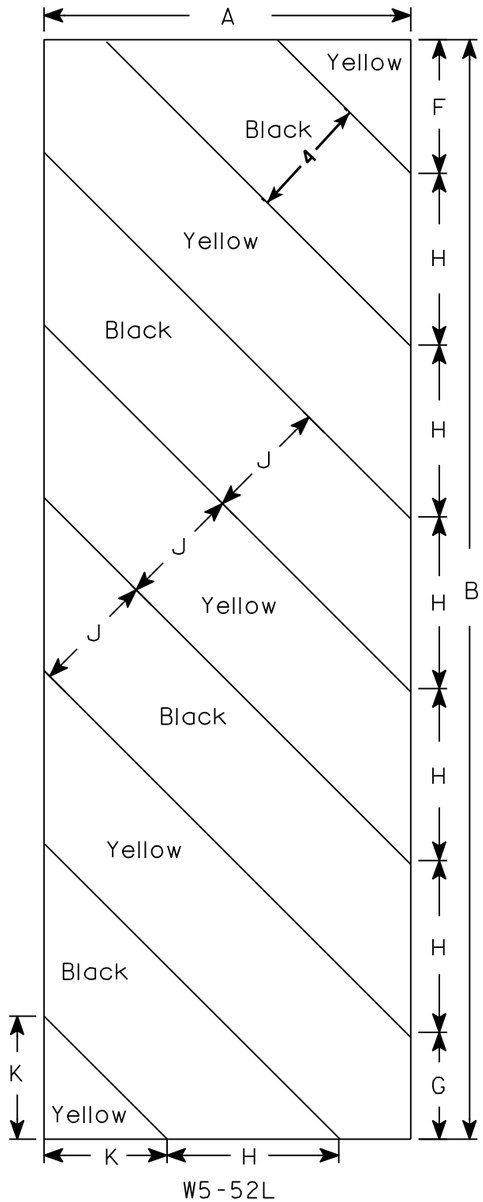
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

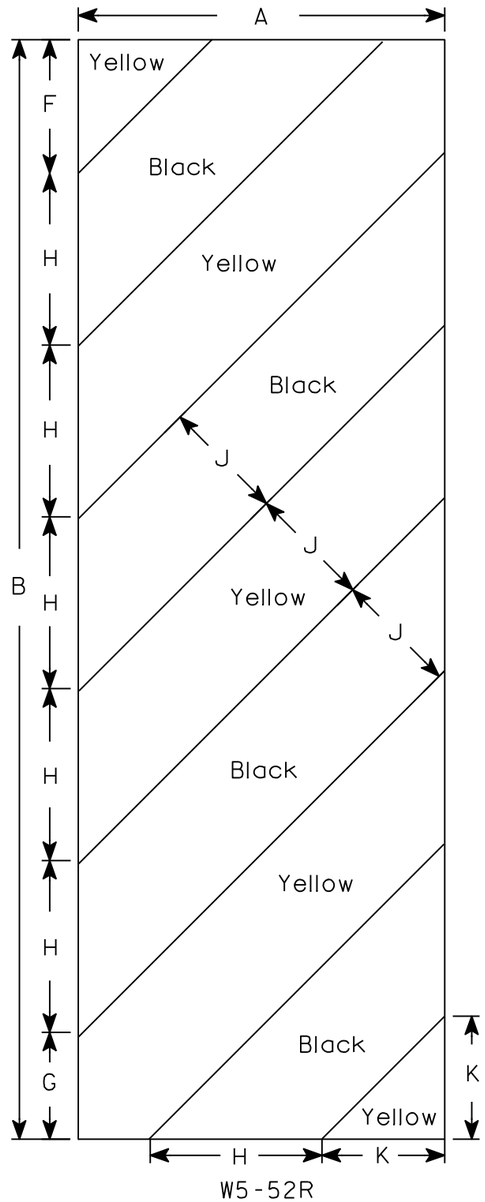
APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 29	E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 30	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

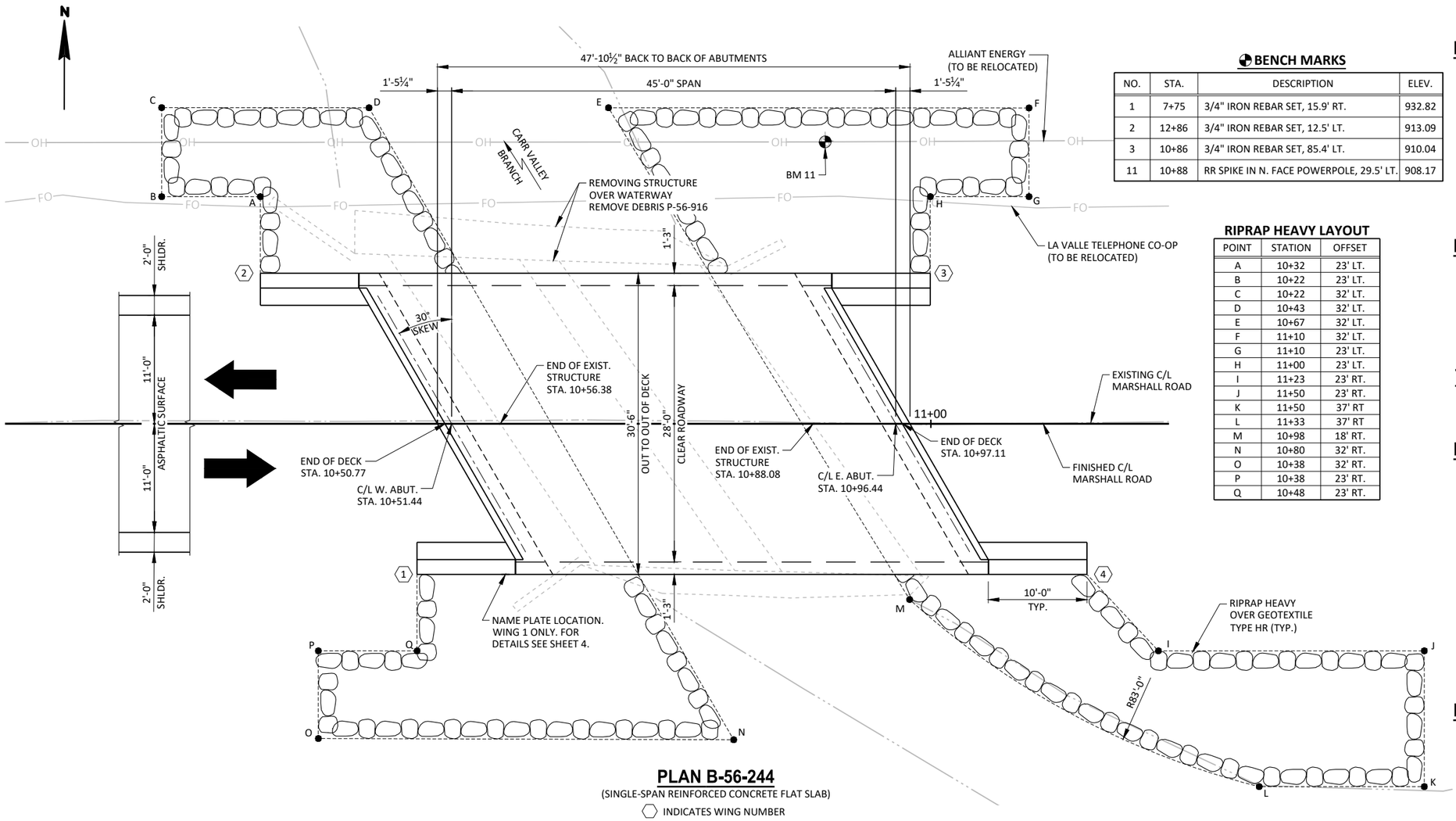
WISDOT/CADDS SHEET 42

7

7

STATE PROJECT NUMBER

5978-00-74



PLAN B-56-244

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB)

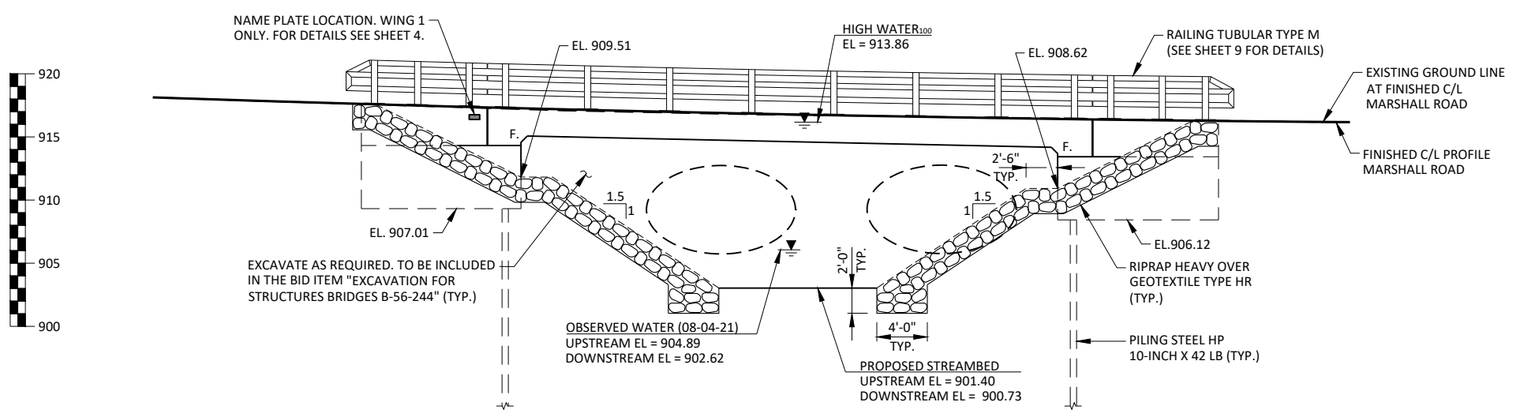
⬡ INDICATES WING NUMBER

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	7+75	3/4" IRON REBAR SET, 15.9' RT.	932.82
2	12+86	3/4" IRON REBAR SET, 12.5' LT.	913.09
3	10+86	3/4" IRON REBAR SET, 85.4' LT.	910.04
11	10+88	RR SPIKE IN N. FACE POWERPOLE, 29.5' LT.	908.17

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	10+32	23' LT.
B	10+22	23' LT.
C	10+22	32' LT.
D	10+43	32' LT.
E	10+67	32' LT.
F	11+10	32' LT.
G	11+10	23' LT.
H	11+00	23' LT.
I	11+23	23' RT.
J	11+50	23' RT.
K	11+50	37' RT
L	11+33	37' RT
M	10+98	18' RT.
N	10+80	32' RT.
O	10+38	32' RT.
P	10+38	23' RT.
Q	10+48	23' RT.



ELEVATION

(NORMAL TO CARR VALLEY BRANCH)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.17
OPERATING RATING FACTOR — RF=1.52
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUPERSTRUCTURE — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 40 FT PILE LENGTHS AT BOTH 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.

TRAFFIC DATA

A.D.T. (2023) — 175
A.D.T. (2043) — 260
DESIGN SPEED — 30 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 9.33 SQ. MI.
Q_{100} TOTAL — 2,150 C.F.S.
THROUGH STRUCTURE — 1,987 C.F.S.
OVERTOPPING ROADWAY — 163 C.F.S.
VELOCITY - THROUGH STRUCTURE — 7.3 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE — 271 SQ. FT.
HIGH WATER$_{100}$ ELEVATION — 913.86
SCOUR CRITICAL CODE — 5

EROSION CONTROL
Q_2 — 275 C.F.S.
VELOCITY$_2$ — 2.4 F.P.S.
HIGH WATER$_2$ ELEVATION — 907.83

DESIGN ROADWAY OVERFLOW FREQUENCY
ROADWAY OVERFLOW FREQUENCY — 96 YEARS
Q_{96} — 2,102 C.F.S.
HIGH WATER$_{96}$ ELEVATION — 912.72

LIST OF DRAWINGS

WISCONSIN PROFESSIONAL ENGINEER
PATRICK T. BOLAND
E-36303
HILLPOINT WIS.
Patrick Boland 8-26-22

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Architects - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
OFFICE: (608) 588-7484
www.JewellAssoc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED — SDR — 08/26/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-56-244

MARSHALL ROAD OVER CARR VALLEY BRANCH

COUNTY: SAUK — TOWN/~~CITY/VILLAGE~~: IRONTON
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

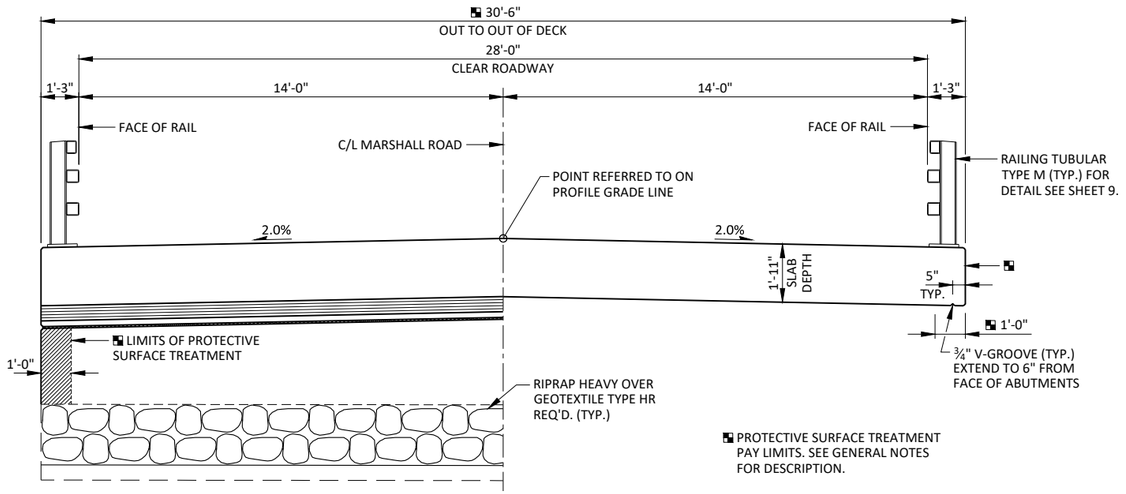
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
PTB	PMF	PTB	PMF

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
AARON BONK, PE
(608) 261-0261

GENERAL PLAN

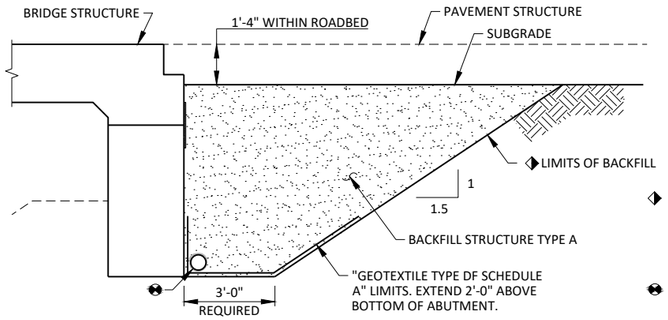
SHEET 1 OF 9
31



AT ABUTMENT **IN SPAN**

PROPOSED CROSS-SECTION THROUGH ROADWAY

LOOKING EAST



BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-56-244". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

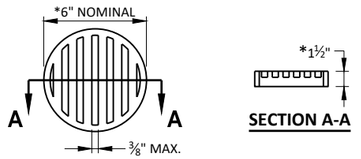
PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

BACKFILL STRUCTURE DETAIL

(TYPICAL AT ABUTMENTS. ABUTMENT BODY SHOWN - WING WALLS SIMILAR)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT.	SUPER	E. ABUT.	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-56-916	EACH	--	--	--	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-56-244	EACH	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	145	--	145	290
502.0100	CONCRETE MASONRY BRIDGES	CY	33.4	107.1	32.5	173
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	210	--	210
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,170	--	2,150	4,320
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,410	20,900	1,360	23,670
513.4061	RAILING TUBULAR TYPE M	LF	--	141	--	141
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	--	7	14
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	200	--	200	400
606.0300	RIPRAP HEAVY	CY	115	--	140	255
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100	--	100	200
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	30	--	30	60
645.0120	GEOTEXTILE TYPE HR	SY	195	--	240	435
	NON-BID ITEMS					
	FILLER	SIZE				½" & ¾"
	NAME PLATE					



RODENT SCREEN

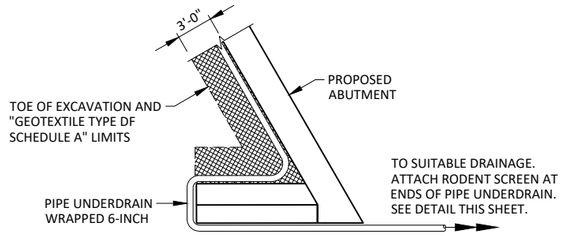
NOTES:

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

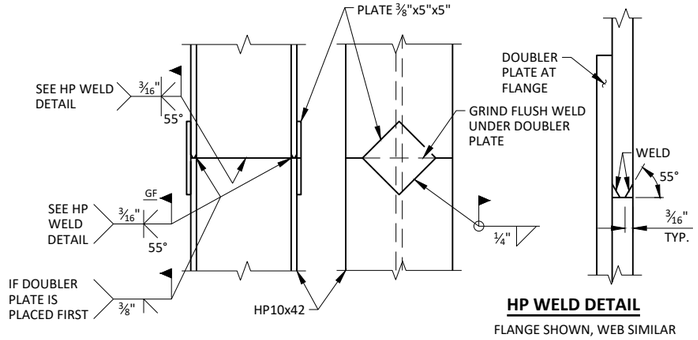
ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF THE RODENT SCREEN, PIPE COUPLING, AND SCREWS ARE INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN 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 THE SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



PIPE UNDERDRAIN DETAIL

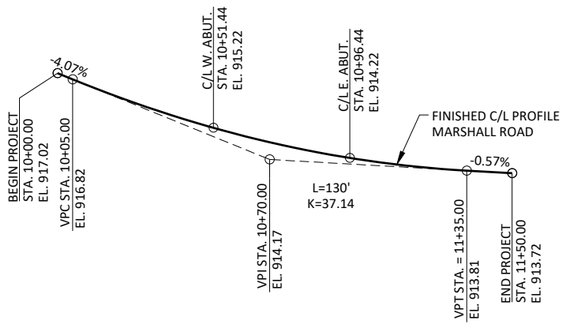


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.



PROFILE GRADE LINE

MARSHALL ROAD

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION MI53, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE THIS SHEET FOR DETAIL.

ANY EXCAVATION BELOW THE ABUTMENT AND ASSOCIATED ABUTMENT BEDDING MATERIALS REQUIRE THE APPROVAL OF THE ENGINEER IN THE FIELD.

AT THE DECK, APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK (CONCRETE MATERIAL ONLY), THE SIDES OF THE DECK, THE EXTERIOR 12" OF THE UNDERSIDE OF THE DECK, AND THE HORIZONTAL AND VERTICAL FACES OF THE PAVING NOTCH. AT THE ABUTMENTS, APPLY TO THE TOP AND EXTERIOR EXPOSED FACES OF WINGS AND THE FRONT FACE OF ABUTMENTS TO 12" PAST THE EDGE OF SLAB. SEE THIS SHEET FOR DETAIL.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-56-244" SHALL BE THE EXISTING GROUNDLINE.

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

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

THE EXISTING STRUCTURE (P-56-916) CONSISTS OF TWO 11.8' x 7' METAL PIPE ARCH CULVERTS WITH CONCRETE HEADWALLS AND CONCRETE APRONS. THE CULVERTS HAVE A LENGTH OF 38.5'. THE EXISTING STRUCTURE INCLUDING CULVERTS, HEADWALLS, AND APRONS SHALL BE REMOVED.

STATE PROJECT NUMBER
5978-00-74

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

DRAWN BY PTB | PLANS CK'D. PMF

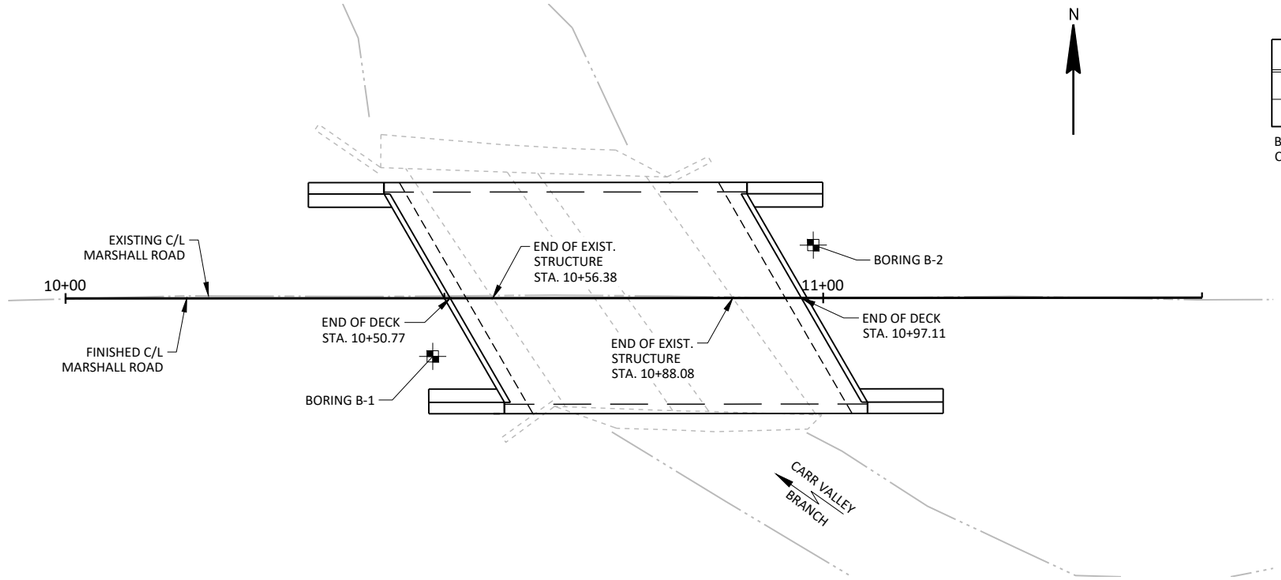
CROSS SECTION AND QUANTITIES

SHEET 2 OF 9

32

8

8



PLAN B-56-244

SOIL BORINGS

BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	10/27/20	260,254.2	537,744.4
B-2	10/27/20	260,268.9	537,490.6

BORINGS & REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.
4203 SCHOFIELD AVE. SUITE 1
SCHOFIELD, WI 54476

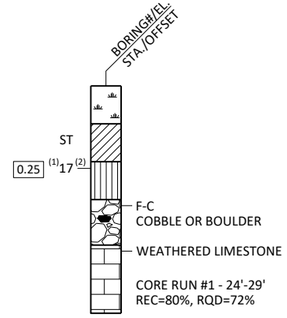
STATE PROJECT NUMBER

5978-00-74

MATERIAL SYMBOLS

Asphalt, Topsoil, Peat, Concrete, Fill, Gravel, Sand, Clay, Silt, Boulders or Cobbles, Limestone, Bedrock (unknown), Shale, Sandstone, Igneous/meta

LEGEND OF BORING



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

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

GROUND WATER ELEVATIONS

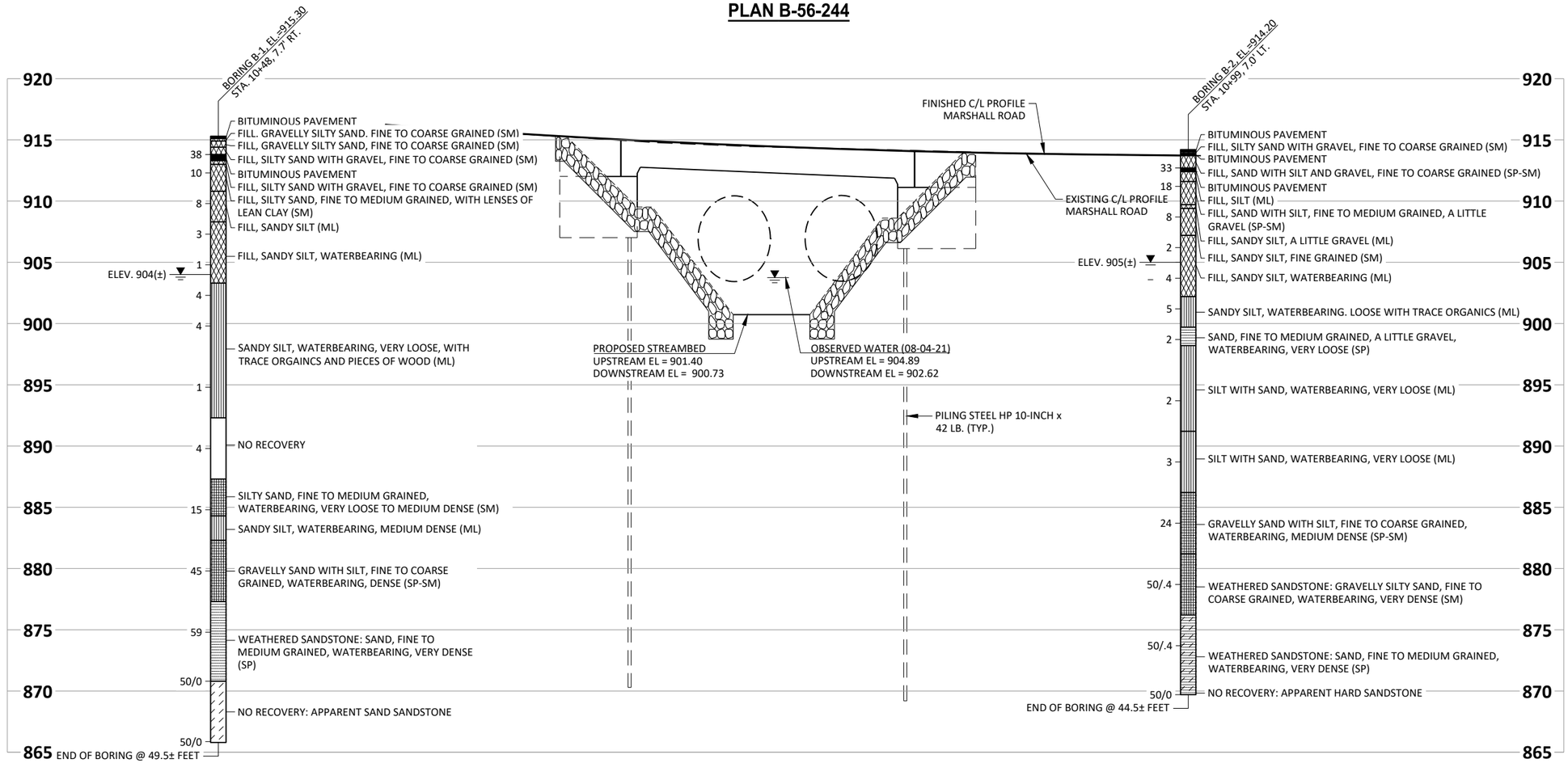
AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

DRAWN BY PTB | PLANS CK'D. PMF

SUBSURFACE EXPLORATION

SHEET 3 OF 9

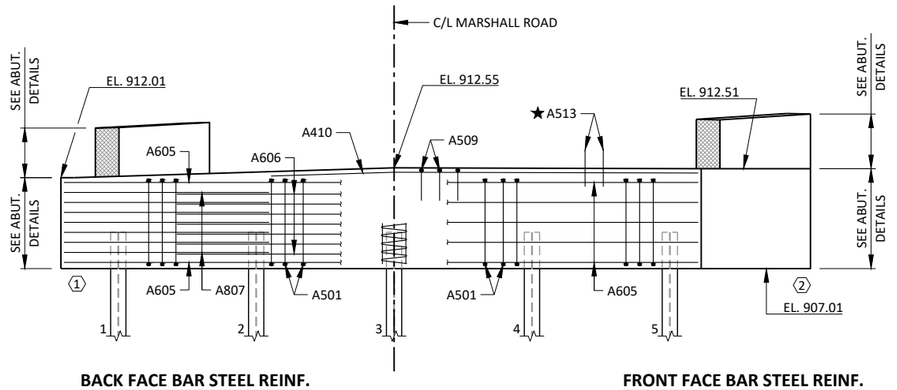
33

8

FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\STRUCTURE\CAD FILES\FINALS\W11648_03_SUBSURFACE EXPLORATION.DWG
PLOT DATE : 5/31/2022 4:11:56 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'
LAYOUT : LAYOUT

STATE PROJECT NUMBER

5978-00-74

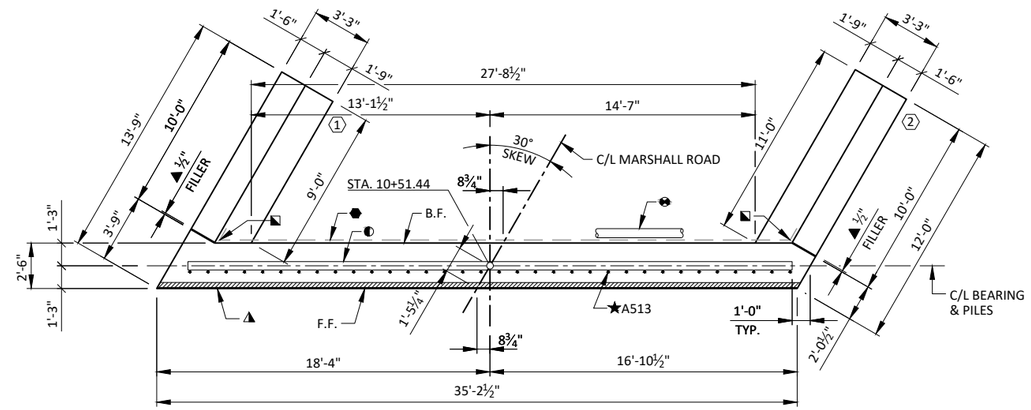


BACK FACE BAR STEEL REINF.

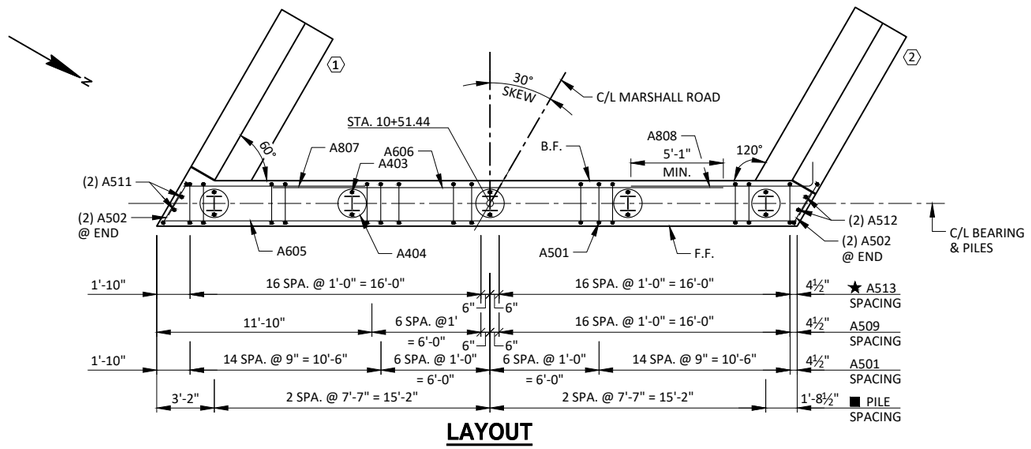
FRONT FACE BAR STEEL REINF.

ELEVATION

(WEST ABUTMENT LOOKING WEST)



PLAN



LAYOUT

NOTES

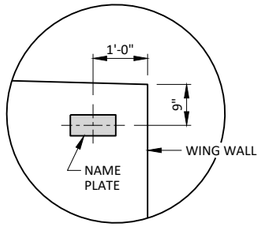
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING (NEGLECTING THE KEYED CONSTRUCTION JOINT).

SPACE REINFORCEMENT TO MISS PILING

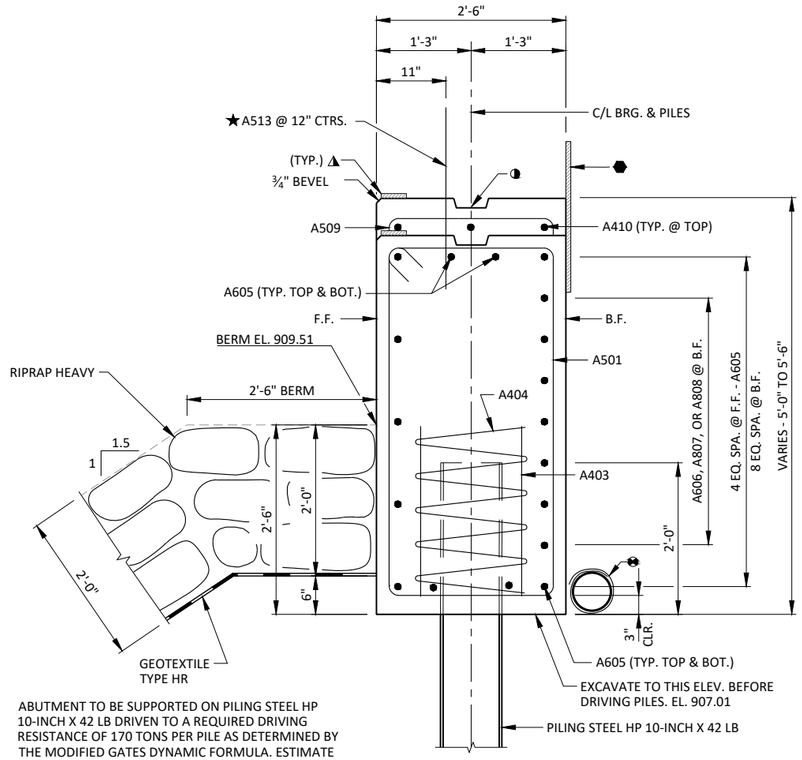
F.F. - FRONT FACE

B.F. - BACK FACE



NAME PLATE DETAIL

(WING 1 ONLY)



ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 40 FT. PILE LENGTHS AT WEST ABUTMENT.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◭ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ★ A513 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- ■ PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- ⬬ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ⬡ INDICATES WING NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

DRAWN BY PTB | PLANS CK'D. PMF

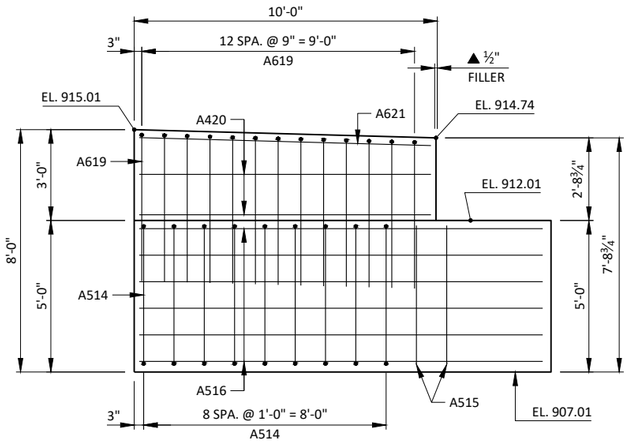
WEST ABUTMENT

SHEET 4 OF 9

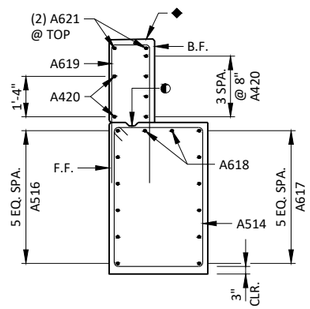
34

8

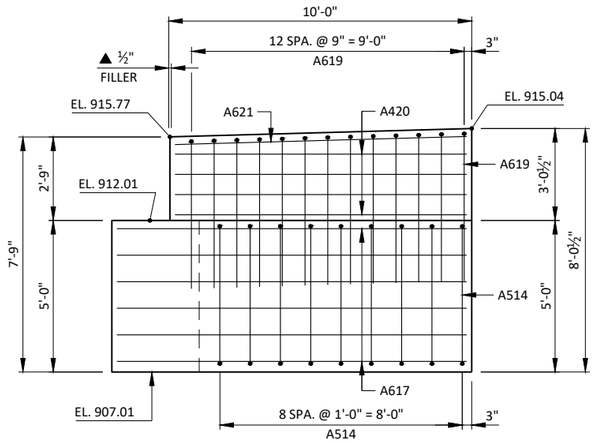
8



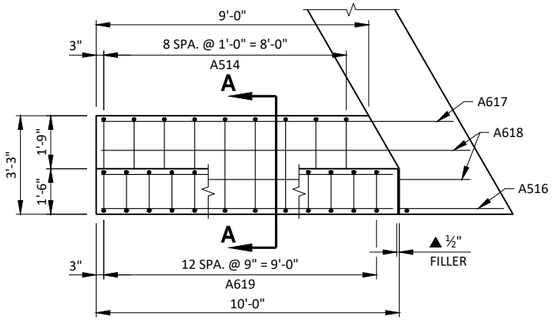
F.F. ELEVATION - WING 1



SECTION A-A



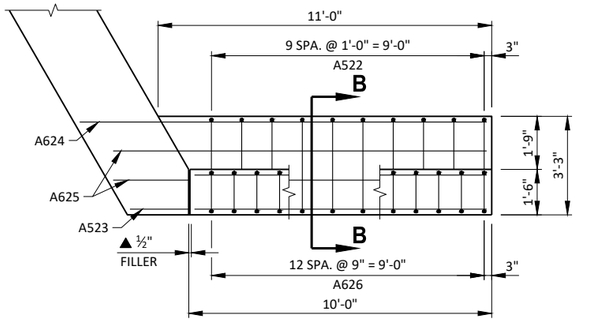
B.F. ELEVATION - WING 1



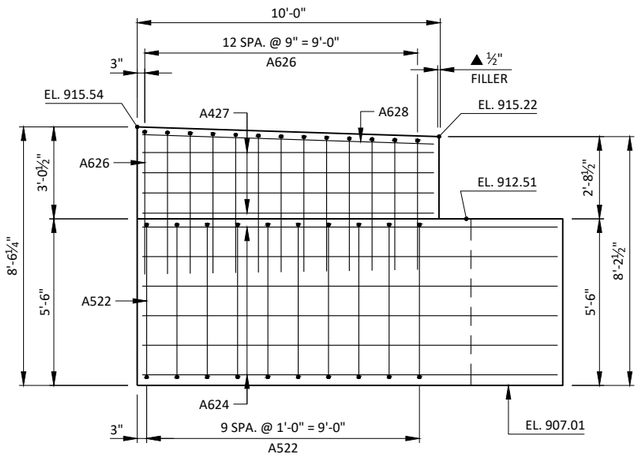
PLAN VIEW - WING 1

LEGEND

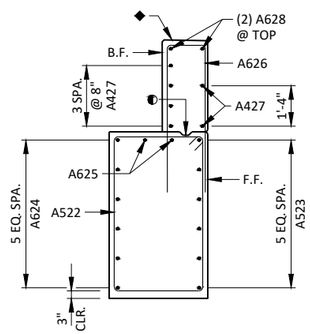
- ◐ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. ¾-INCH "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◆ SLOPE SAME AS SUPERSTRUCTURE.



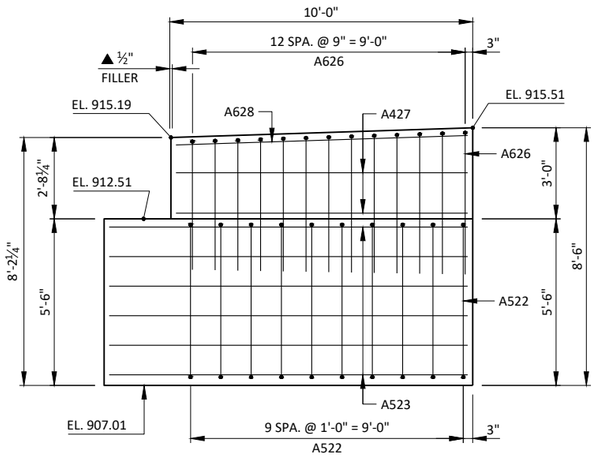
PLAN VIEW - WING 2



B.F. ELEVATION - WING 2



SECTION B-B



F.F. ELEVATION - WING 2

STATE PROJECT NUMBER

5978-00-74

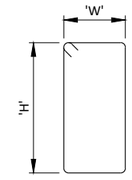
BILL OF BARS
WEST ABUTMENT

1,410 LB (COATED)
2,170 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
A501	41	14-2	X		BODY -VERT. - STIRRUP
A502	4	7-10	X		BODY - VERT. - STIRRUP AT ENDS
A403	10	2-3			BODY - VERT. - 2 PER PILE
A404	5	28-0	X		BODY - SPIRAL - 1 PER PILE
A605	11	34-10			BODY - HORIZ. - F.F. & TOP
A606	7	24-10			BODY - HORIZ. - B.F.
A807	7	10-0	X		BODY - HORIZ. - B.F. - END
A808	7	11-2	X		BODY - HORIZ. - B.F. - END
A509	24	4-11	X		BODY - VERT. - TOP
A410	3	23-6			BODY - HORIZ. - TOP
A511	2	4-7			BODY - VERT. - END
A512	2	5-1			BODY - VERT. - END
A513	34	2-0		X	BODY - VERT. - DOWELS
A514	9	15-8	X	X	WING 1- VERT. - STIRRUP
A515	2	4-7		X	WING 1- VERT. - F.F.
A516	6	13-3		X	WING 1- HORIZ. - F.F.
A617	6	11-7		X	WING 1 - HORIZ. - B.F.
A618	2	12-2		X	WING 1- HORIZ. - TOP
A619	13	10-8	X	X	WING 1 - VERT. - TOP
A420	6	9-7		X	WING 1 - HORIZ. - F.F. & B.F. - TOP
A621	2	9-7		X	WING 1 - HORIZ. - TOP
A522	10	16-8	X	X	WING 2 - VERT. - STIRRUP
A523	6	11-9		X	WING 2 - HORIZ. - F.F.
A624	6	13-5		X	WING 2 - HORIZ. - B.F.
A625	2	12-3		X	WING 2 - HORIZ. - TOP
A626	13	10-8	X	X	WING 2 - VERT. - TOP
A427	6	9-7		X	WING 2 - HORIZ. - F.F. & B.F. - TOP
A628	2	9-7		X	WING 2 - HORIZ. - TOP

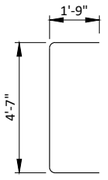
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

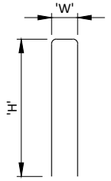


A501, A514, A522

BAR MARK	'W'	'H'
A501	2-2	4-7
A514	2-11	4-7
A522	2-11	5-1



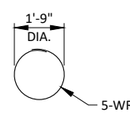
A502



A509, A619, A626

BAR MARK	'W'	'H'
A509	2-2	1-6
A619	1-2	4-11
A626	1-2	4-11

A808



A404

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

DRAWN BY: PTB | PLANS CK'D.: PMF

WEST ABUTMENT DETAILS

SHEET 5 OF 9

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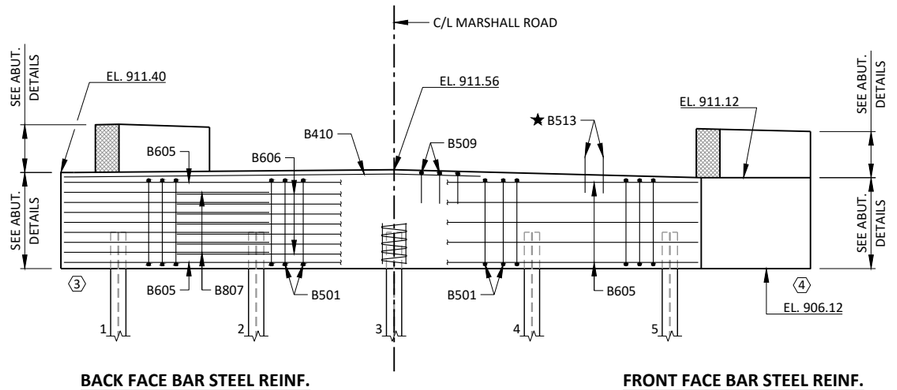
FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\STRUCTURE\CAD FILES\FINALS\W11648_04_ABUTMENTS.DWG
PLOT DATE : 5/31/2022 4:12:13 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'
LAYOUT : WEST ABUTMENT DETAILS

STATE PROJECT NUMBER

5978-00-74

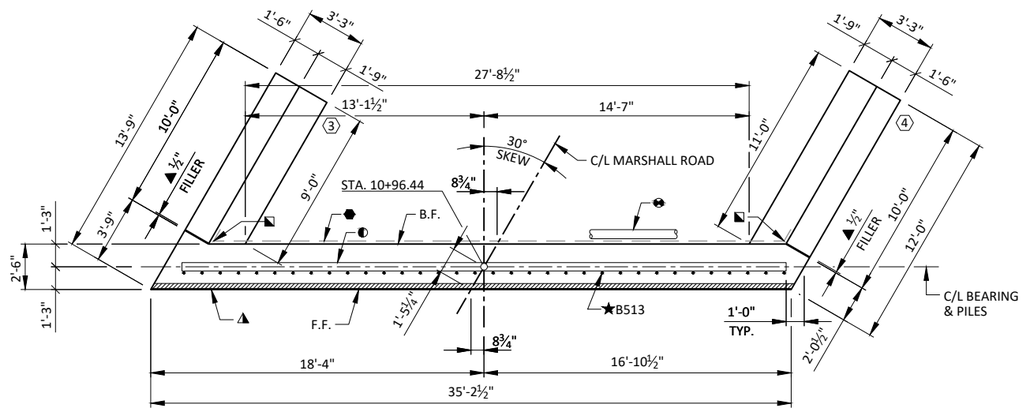


BACK FACE BAR STEEL REINF.

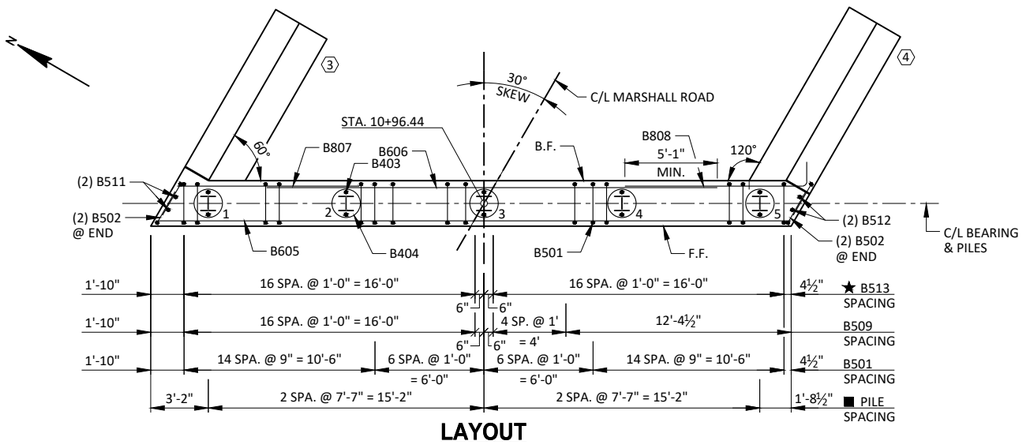
FRONT FACE BAR STEEL REINF.

ELEVATION

(EAST ABUTMENT LOOKING EAST)



PLAN



LAYOUT

NOTES

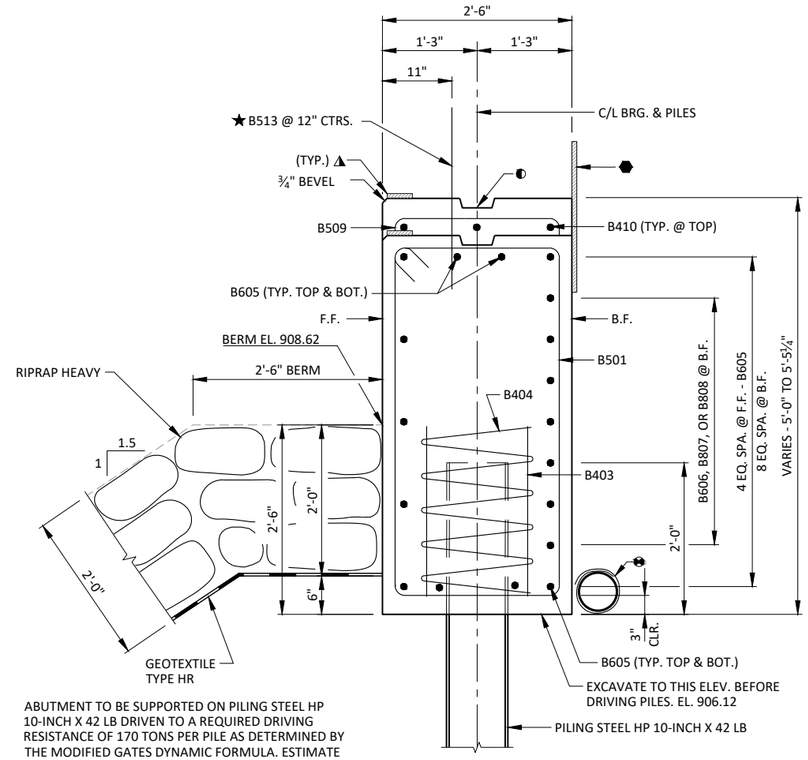
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 7 FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING (NEGLECTING THE KEYED CONSTRUCTION JOINT).

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE



ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 40 FT. PILE LENGTHS AT EAST ABUTMENT.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◐ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◭ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ★ B513 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- ■ PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- 🕶 PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ⬡ INDICATES WING NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

DRAWN BY PTB | PLANS CK'D. PMF

EAST ABUTMENT

SHEET 6 OF 9

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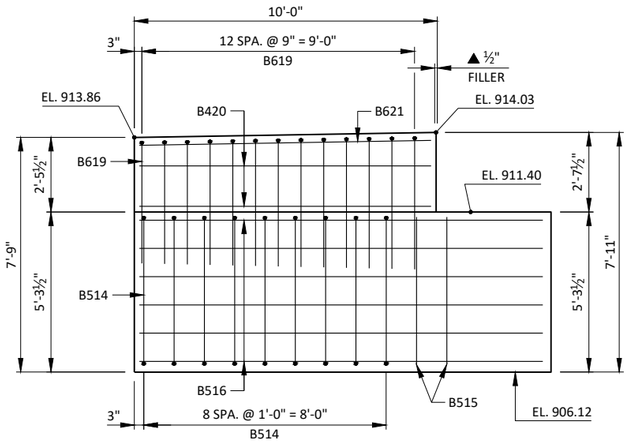
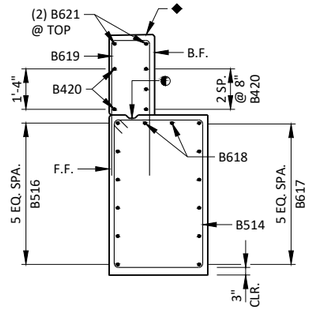
8

STATE PROJECT NUMBER

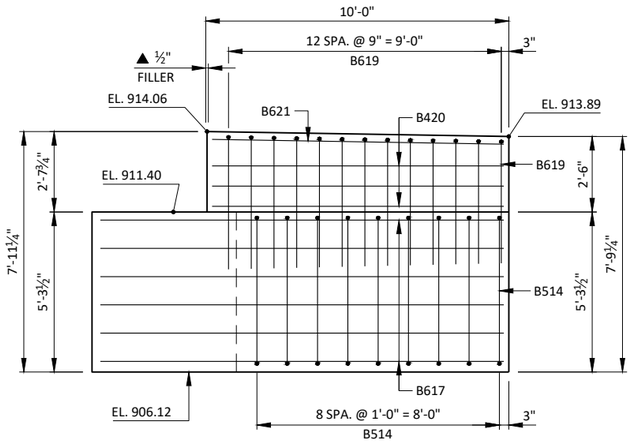
5978-00-74



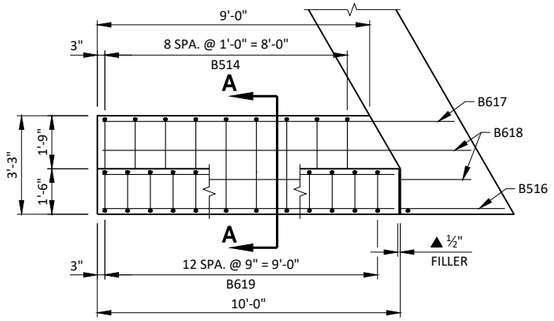
F.F. ELEVATION - WING 3



SECTION A-A



B.F. ELEVATION - WING 3



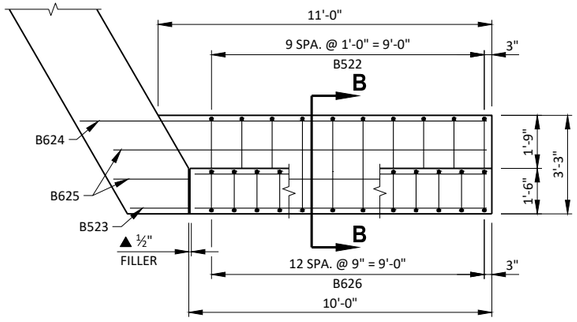
PLAN VIEW - WING 3

LEGEND

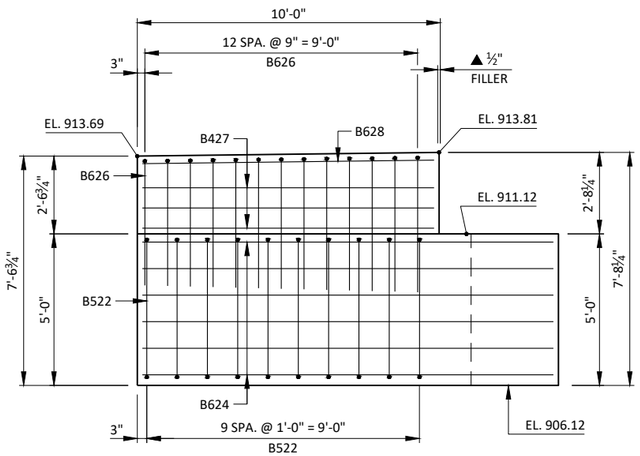
◐ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. ¾-INCH "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)

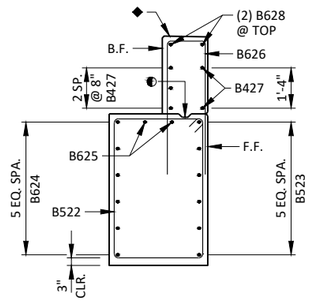
◆ SLOPE SAME AS SUPERSTRUCTURE.



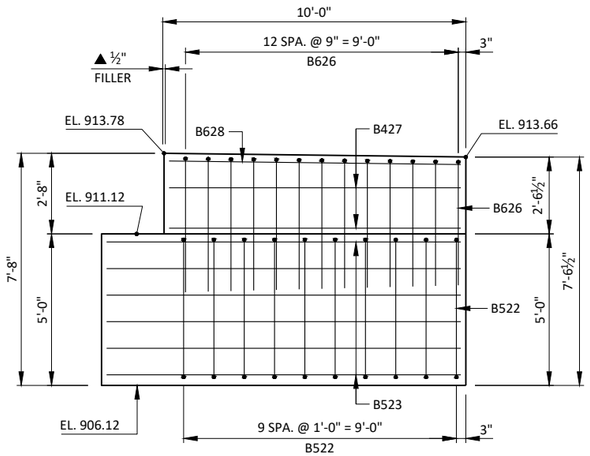
PLAN VIEW - WING 4



B.F. ELEVATION - WING 4



SECTION B-B



F.F. ELEVATION - WING 4

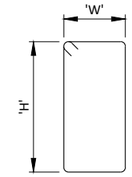
BILL OF BARS
EAST ABUTMENT

1,360 LB (COATED)
2,150 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
B501	41	14-2	X		BODY -VERT. - STIRRUP
B502	4	7-10	X		BODY - VERT. - STIRRUP AT ENDS
B403	10	2-3			BODY - VERT. - 2 PER PILE
B404	5	28-0	X		BODY - SPIRAL - 1 PER PILE
B605	11	34-10			BODY - HORIZ. - F.F. & TOP
B606	7	24-10			BODY - HORIZ. - B.F.
B807	7	10-0			BODY - HORIZ. - B.F. - END
B808	7	11-2	X		BODY - HORIZ. - B.F. - END
B509	22	4-11	X		BODY - VERT. - TOP
B410	3	21-6			BODY - HORIZ. - TOP
B511	2	4-10			BODY - VERT. - END
B512	2	4-7			BODY - VERT. - END
B513	34	2-0		X	BODY - VERT. - DOWELS
B514	9	16-2	X	X	WING 1- VERT. - STIRRUP
B515	2	4-10		X	WING 1- VERT. - F.F.
B516	6	13-3		X	WING 1- HORIZ. - F.F.
B617	6	11-7		X	WING 1 - HORIZ. - B.F.
B618	2	12-2		X	WING 1- HORIZ. - TOP
B619	13	9-10	X	X	WING 1 - VERT. - TOP
B420	5	9-7		X	WING 1 - HORIZ. - F.F. & B.F. - TOP
B621	2	9-7		X	WING 1 - HORIZ. - TOP
B522	10	15-8	X	X	WING 2 - VERT. - STIRRUP
B523	6	11-9		X	WING 2 - HORIZ. - F.F.
B624	6	13-5		X	WING 2 - HORIZ. - B.F.
B625	2	12-3		X	WING 2 - HORIZ. - TOP
B626	13	9-10	X	X	WING 2 - VERT. - TOP
B427	5	9-7		X	WING 2 - HORIZ. - F.F. & B.F. - TOP
B628	2	9-7		X	WING 2 - HORIZ. - TOP

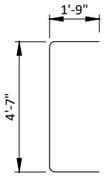
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

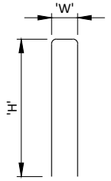


B501, B514, B522

BAR MARK	'W'	'H'
B501	2-2	4-7
B514	2-11	4-10
B522	2-11	4-7



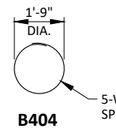
B502



B509, B619, B626

BAR MARK	'W'	'H'
B509	2-2	1-6
B619	1-2	4-6
B626	1-2	4-6

B808



B404

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

DRAWN BY: PTB | PLANS CK'D.: PMF

EAST ABUTMENT DETAILS

SHEET 7 OF 9

37

8

8

STATE PROJECT NUMBER

5978-00-74

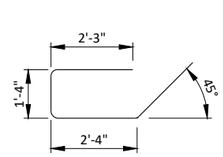
BILL OF BARS
SUPERSTRUCTURE

20,900 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	62	7-11	X	X	ENDS OF DECK
S502	62	3-6	X	X	ENDS OF DECK
S503	20	45-11		X	SLAB - TOP - LONGIT.
S504	4	47-6		X	SLAB - TOP - LONGIT. AT EDGES
S505	47	34-10		X	SLAB - TOP - TRANS.
S506	69	34-10		X	SLAB - BOTTOM - TRANS. & AT ABUT.
S1107	59	42-0		X	SLAB - BOTTOM - LONGIT.
S1108	2	47-6		X	SLAB - BOTTOM - LONGIT. - EDGES
S609	48	6-0		X	RAIL POSTS - INTERIOR
S610	16	4-7	X	X	RAIL POSTS - CORNERS
S611	32	12-0	X	X	RAIL POSTS

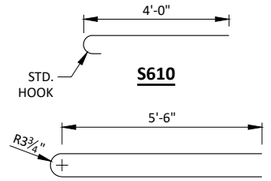
NOTES: THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



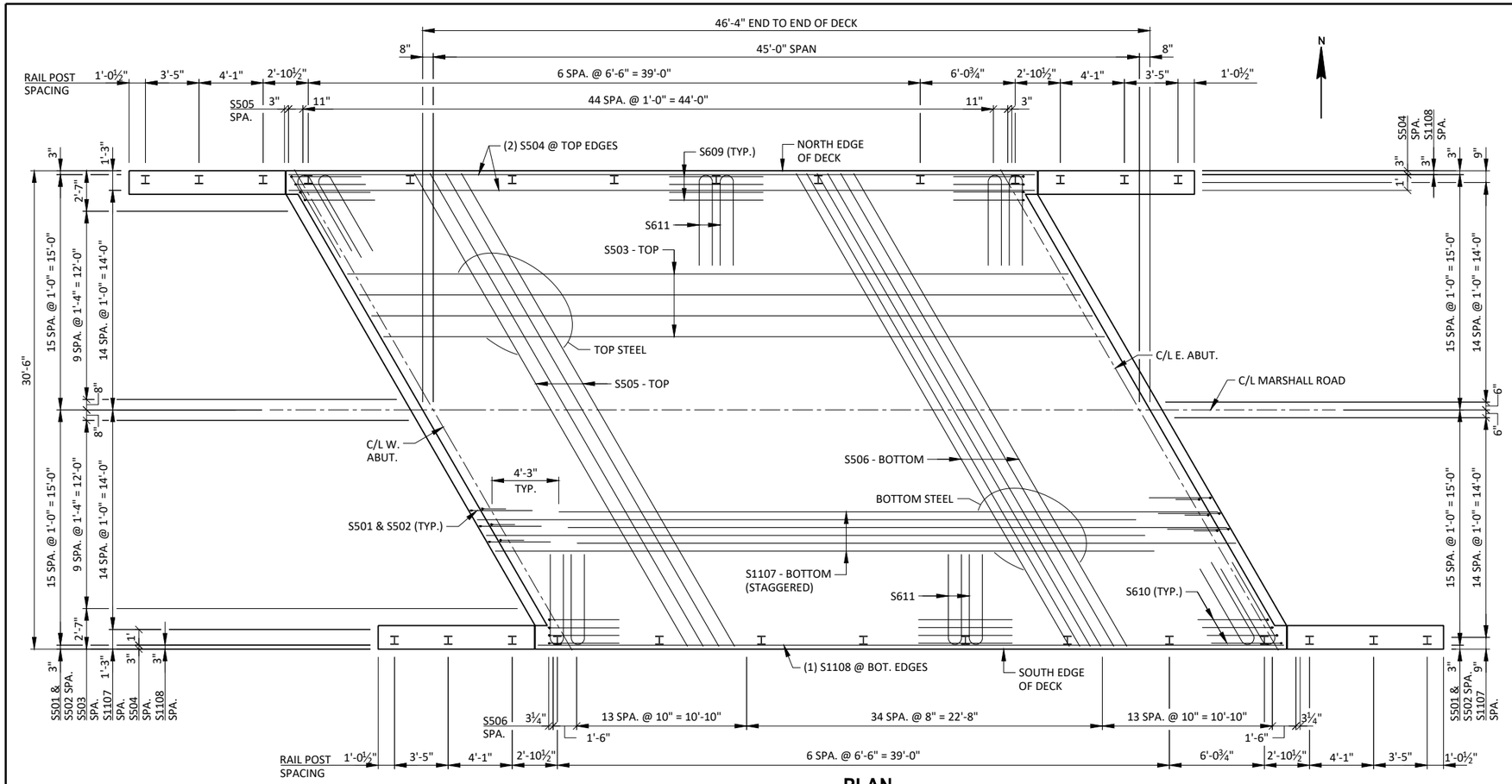
S501

S502



S610

S611



PLAN

TOP OF DECK ELEVATIONS

	C/L W. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L E. ABUT.
N. EDGE	915.17	915.04	914.91	914.78	914.67	914.55	914.45	914.34	914.25	914.16	914.07
C/L	915.22	915.09	914.98	914.86	914.76	914.65	914.56	914.47	914.38	914.30	914.22
S. EDGE	914.68	914.56	914.46	914.35	914.26	914.16	914.08	914.00	913.92	913.85	913.79

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

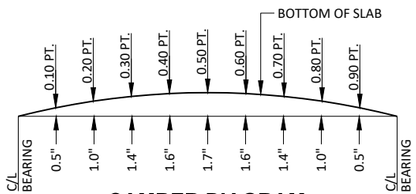
PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

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

SURVEY TOP OF DECK ELEVATIONS

	W. ABUT.	0.50 PT.	E. ABUT.
NORTH EDGE OF DECK			
CENTER LINE			
SOUTH EDGE OF DECK			

PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE EDGE OF DECK AND CENTER LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

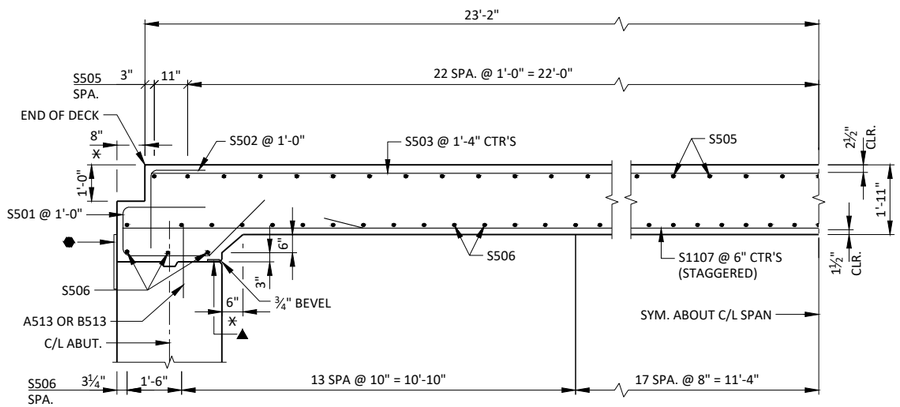


CAMBER DIAGRAM

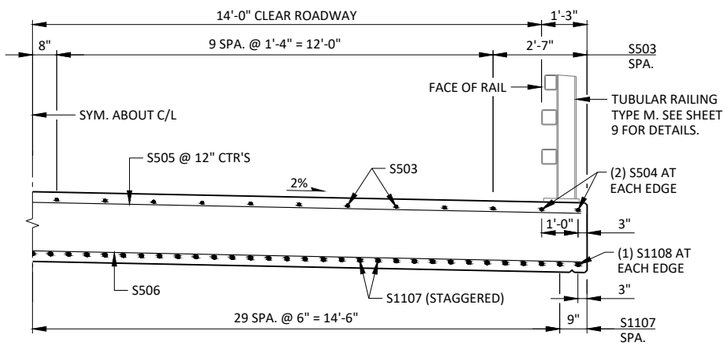
CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB OR CENTER LINE FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE
-SLAB THICKNESS
+CAMBER
+FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (COMPUTED BY CONTRACTOR)
=TOP OF SLAB FALSEWORK ELEVATION.



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY



PARTIAL CROSS SECTION THROUGH ROADWAY

LEGEND

- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ✕ DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ✕✕ SEE SHEET 4 OR SHEET 6 FOR PLACEMENT OF ABUTMENT BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

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SUPERSTRUCTURE

SHEET 8 OF 9

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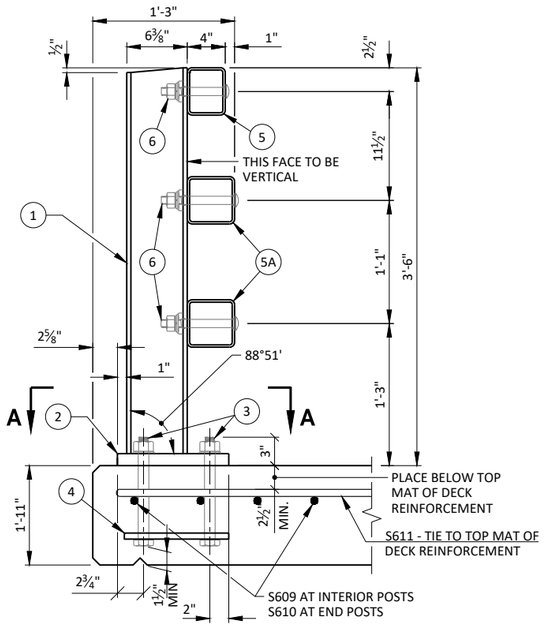
8

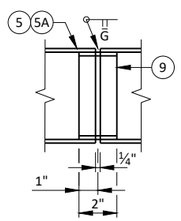
8

STATE PROJECT NUMBER

5978-00-74

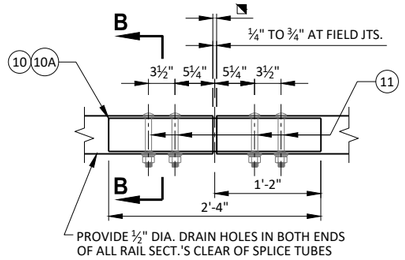


SECTION THROUGH RAILING ON DECK



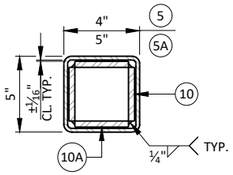
SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



FIELD ERECTION JOINT DETAIL

◥ RDWY. OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT & (¼" TO ¾") OPENING FOR A1 ABUTMENT.



SECTION B-B

LEGEND

① W6x25 WITH 1⅛" x 1½" HORIZONTAL SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

② PLATE 1¼"x11¾"x1'-8" WITH 1 1/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.

③ ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG.

④ ⅝"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.

⑤ TSS 5x4x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑤A TSS 5x5x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

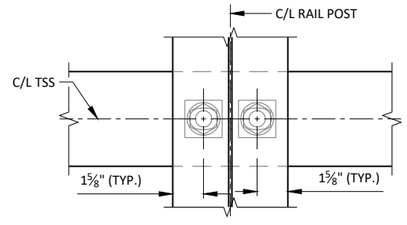
⑥ ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16"x1⅝"x1⅝" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).

⑨ SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

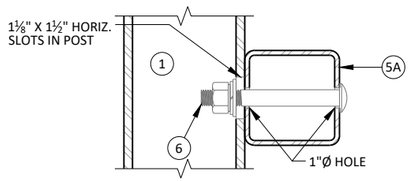
⑩ ⅜"x3⅜"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

⑩A ⅜"x2⅝"x2'-4" PLATE USED IN NO. 5, ⅜"x3⅜"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

⑪ ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16"x1¼" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND 15/16"x2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.



SECTION THROUGH POST WEB



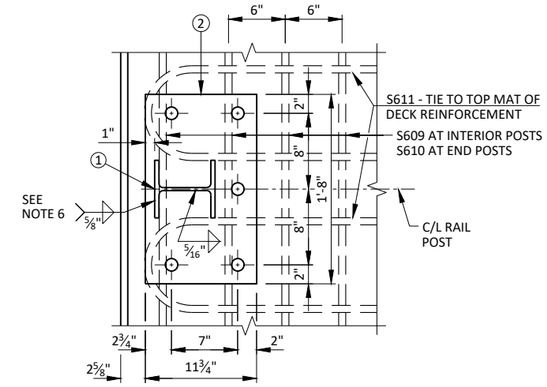
SECTION THROUGH RAIL

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

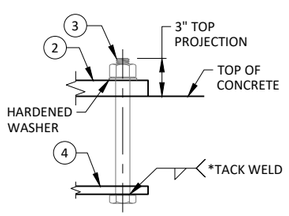
TYPICAL RAIL TO POST CONNECTIONS

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

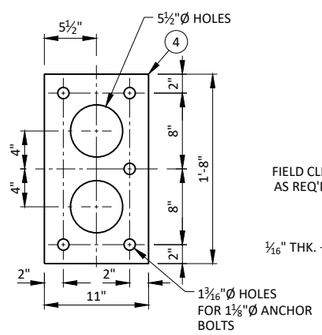


SECTION A-A



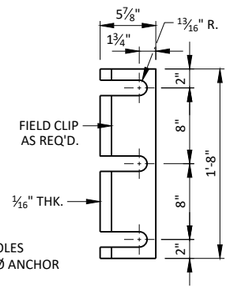
ANCHOR BOLTS

* ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.

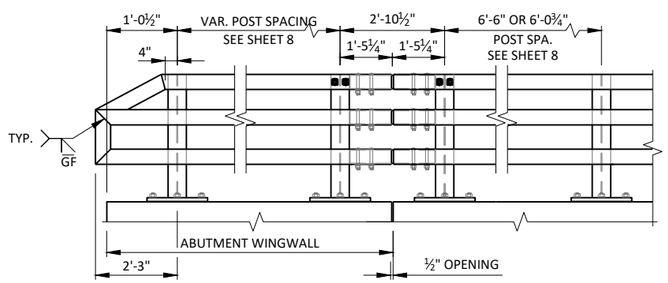


ANCHOR PLATE

AT RAIL TO DECK CONNECTION



POST SHIM DETAIL



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-244

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TUBULAR RAILING TYPE M

SHEET 9 OF 9

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EARTHWORK-MARSHALL ROAD

STATION	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) CUT NOTE 1	INCREMENTAL VOL (CY) FILL NOTE 2	INCREMENTAL VOL (CY) FILL (25%) NOTE 3	CUMMULATIVE VOLUME (CY) CUT 1.00 NOTE 1	CUMMULATIVE VOLUME (CY) FILL	CUMMULATIVE VOLUME (CY) FILL (25%) NOTE 3	CUMMULATIVE VOLUME (CY) MASS ORDINATE NOTE 4
10+00	0	0	21	22	28	21	22	28	-7
10+25	46	48	42	46	58	63	68	85	-22
10+50	46	48	52	52	65	115	120	150	-35
10+98	52	51	25	24	30	140	144	180	-40
11+25	52	51	0	0	0	140	144	180	-40
COLUMN TOTALS =			140	144	180				-40

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - FILL 25%	(UNEXPANDED FILL)*1.25
4 - MASS ORDINATE	CUT + ROCK (10%) +REDUCED MARSH (60%) - FILL (25%)

9

9

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	EARTHWORK	SHEET 40	E

STRUCTURE
B-56-244
REQ'D

RAILING TUBULAR
TYPE M (TYP.)

2.0%
FG=915.22
2.0%
SG=913.89

VARIES
32.00
908.62
RW
VARIES
RIPRAP HEAVY OVER
GEOTEXTILE TYPE HR (TYP.)
FO
RW
OH

10+51

920
910
900
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

10+25

RW
OH
FO
-23.00
913.87
4.0:1
4.0%
2.0%
FG=916.06
2.0%
4.0%
4.0:1
23.00
913.88
SG=914.72
-21.28
914.30
-13.66
914.45
13.57
914.45
21.36
914.30
3.0:1
-32.00
907.29
VARIES
35.73
909.64
RW

920
910
905
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

BEGIN PROJECT
STA. 10+00
MATCH EXISTING

10+00

RW
OH
FO
RW

920
910
905
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

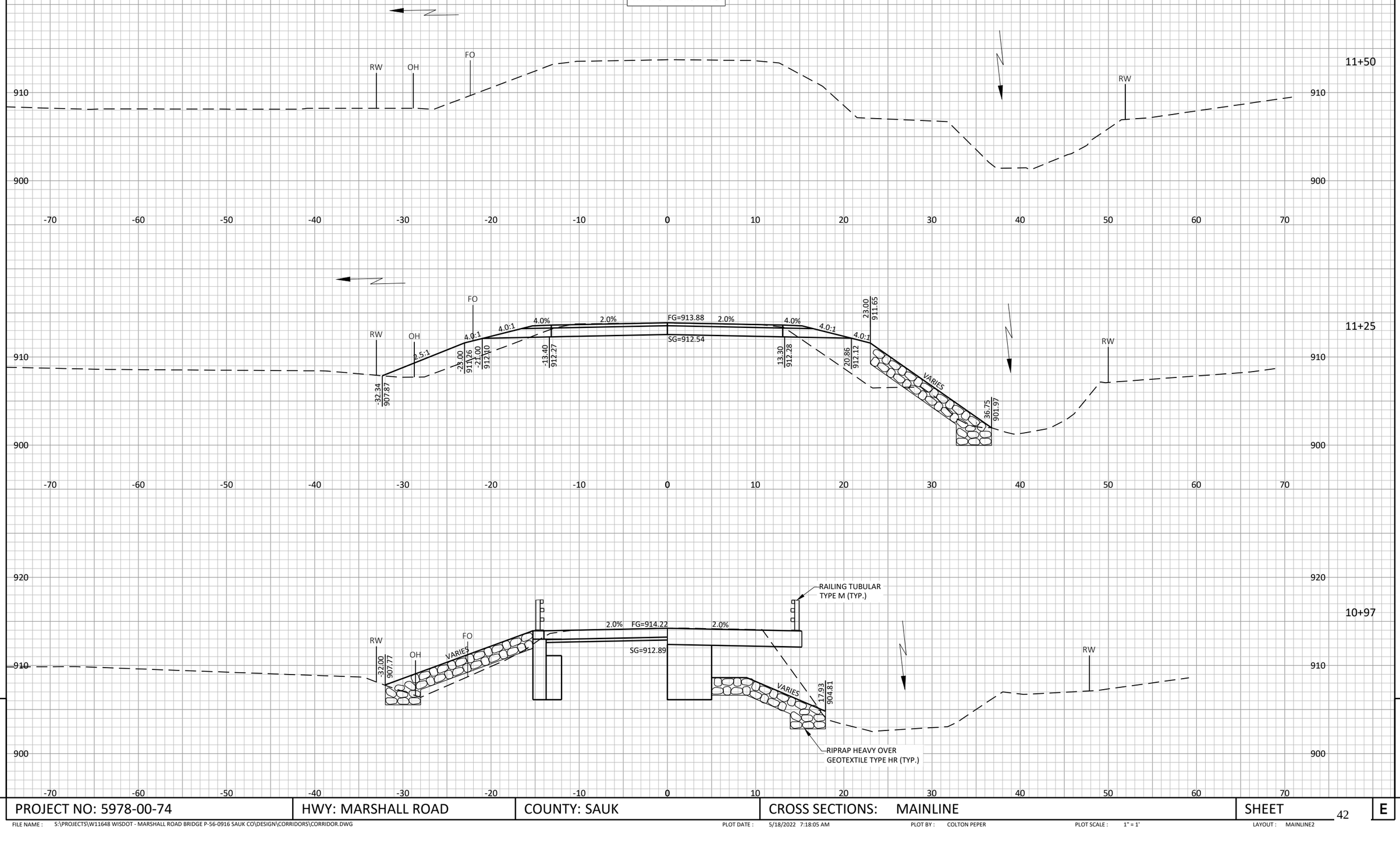
9

9

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	CROSS SECTIONS: MAINLINE	SHEET 41	E

FILE NAME : S:\PROJECTS\W11648 WISDOT - MARSHALL ROAD BRIDGE P-56-0916 SAUK CO\DESIGN\CORRIDORS\CORRIDOR.DWG
PLOT DATE : 5/17/2022 4:17:48 PM
PLOT BY : COLTON PEPER
PLOT SCALE : 1" = 1'
LAYOUT : MAINLINE1

END PROJECT
STA. 11+50
MATCH EXISTING



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9

PROJECT NO: 5978-00-74	HWY: MARSHALL ROAD	COUNTY: SAUK	CROSS SECTIONS: MAINLINE	SHEET 42	E

Notes

Wisconsin Department of Transportation

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