JULY 2021

Section No.

Section No.

Section No. Section No.

ORDER OF SHEETS

TOTAL SHEETS = 68

Typical Sections and Details Estimate of Quantities Miscellaneous Quantities

Computer Earthwork Data

Right of Way Plat

Plan and Profile Standard Detail Drawings

STATE OF WISCONSIN **DEPARTMENT OF TRANSPORTATION**

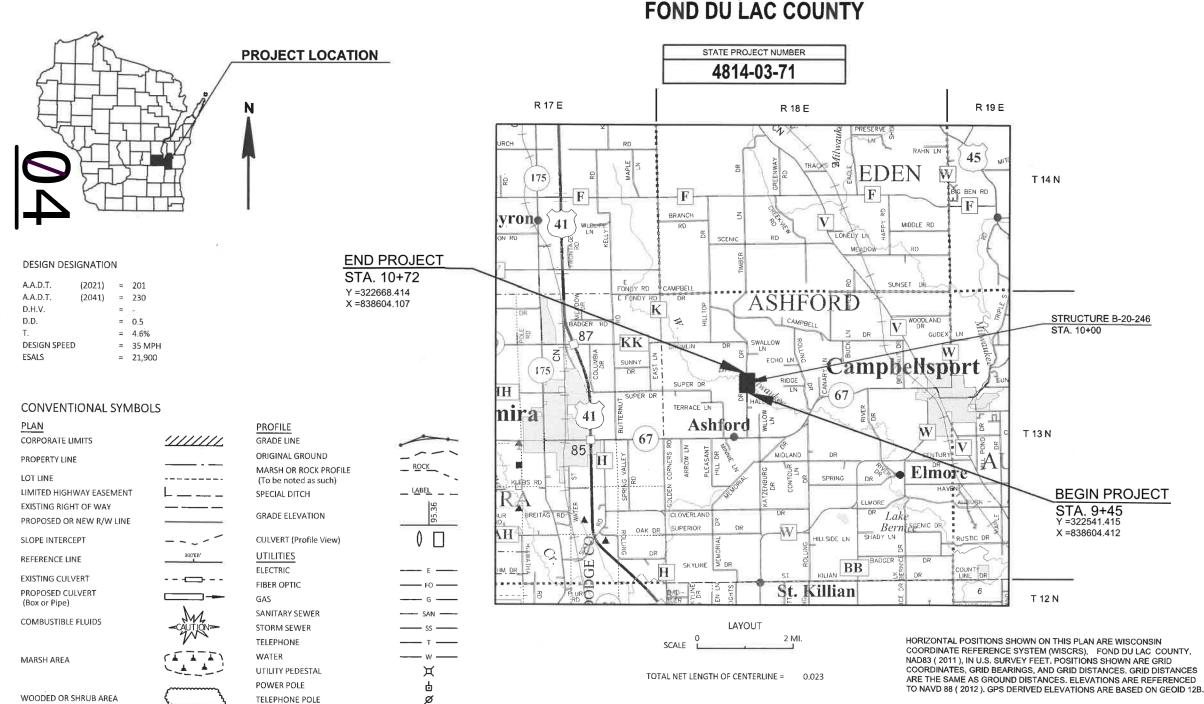
PLAN OF PROPOSED IMPROVEMENT

FEDERAL PROJECT STATE PROJECT PROJECT CONTRACT 4814-03-71

T ASHFORD, DRUMLIN ROAD

WEST BRANCH MILWAUKEE RIVER BRIDGE

LOCAL STREET **FOND DU LAC COUNTY**





DEPARTMENT OF TRANSPORTATION

Surveyor	AYRES
Designer	AYRES
Project Manager	BRIAN EDWARDS, PE
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	JAMES THOMPSON, PE

FILE NAME: I:\45\450482 DRUMLIN ROAD\C3D\SHEETSPLAN\010101 TI.DWG

1/14/2021 11:56 AM

PLOT BY: SCHAITEL, RYAN

PLOT NAME

GENERAL NOTES

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

CONSTRUCT ASPHALTIC SURFACE WITH A 1 3/4" UPPER LAYER AND A 2 1/4" LOWER LAYER.

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

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

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

EROSION CONTROL LOCATIONS AS SHOWN ON THE EROSION CONTROL PLAN ARE APPROXIMATE. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SUBGRADE SHOULDER POINTS ARE TO BE SEEDED AND EROSION MAT AS DIRECTED BY THE ENGINEER.

ALL ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88 (2012).

WISDOT WILL FURNISH A BENCHMARK MONUMENT TO BE SET BY THE CONTRACTOR.

SAW CUT LOCATIONS SHOWN ON THE PLAN ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD. THE LINE OF SUCH SAW CUTS WILL BE NEATLY DELINEATED THROUGH THE ASPHALT WITHOUT ANY DAMAGE TO THE REMAINING PORTION OF THE EXISTING PAVEMENT.

UTILITIES

* FRONTIER COMMUNICATIONS

TELEPHONE 920-583-3275

1700 INDUSTRIAL DR GREEN BAY, WI 54302 ATTENTION: RUSS RYAN E-MAIL: russell.w.ryan@ftr.com

* CHARTER COMMUNICATIONS

1515 W. WASHINGTON ST. WEST BEND, WI 53095 ATTENTION: NICK FRASER E-MAIL: nick.fraser@charter.com TELEPHONE 414-312-2652

* WE ENERGIES

500 S. 116TH ST. WEST ALLIS, WI 53214 ATTENTION: GREG BOERNER E-MAIL: gregory.boerner@we-energies.com TELEPHONE 618-409-5861

*-MEMBER OF DIGGERS HOTLINE



RUNOFF COEFFICIENT TABLE

		HYDROL	OGIC SOIL GROU	>									
	A				В			С			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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38	
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56	
MEDIAN STRIP-	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30	
TURF	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40	
SIDE SLOPE-			.25			.27			.28			.30	
TURF			.32			.34			.36			.38	
PAVEMENT:	•				•		•	•		•			
ASPHALT						.7095							
CONCRETE						.8095							
BRICK						.7080							
DRIVES, WALKS						.7585							
ROOFS	ROOFS				.7595	.7595							
GRAVEL ROADS, SH	HOULDERS	3				.4060							

TOTAL PROJECT AREA= 1.06 ACRES

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

SOIL GROUP B/D

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	NC	NORMAL CROWN
AC	ASPHALT CEMENT	PT	POINT OF TANGENCY
AGG	AGGREGATE	PC	POINT OF CURVATURE
ASPH	ASPHALT	PI	POINT OF INTERSECTION
BM	BENCH MARK	PE	PRIVATE ENTRANCE
C/L	CENTERLINE	R	RADIUS
CONC	CONCRETE	REM	REMOVE
CMP	CORRUGATED METAL PIPE	R/L OR RL	REFERENCE LINE
CR.	CREEK	RCCP	REINFORCED CONCRETE CULVERT PIPE
D	DEGREE OF CURVE	RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
DHV	DESIGN HOUR VOLUME	R.O.	RUNOUT
ESALS	EQUIVALENT SINGLE AXIS LOADS	R/W	RIGHT-OF-WAY
EXIST	EXISTING	STA	STATION
FE	FIELD ENTRANCE	SE	SUPER ELEVATION
HYD	HYDRANT	SS	STORM SEWER
IP	IRON PIPE OR PIN	T	TANGENT
L	LENGTH OF CURVE	TEL	TELEPHONE
LC	LONG CHORD OF CURVE	TLE	TEMPORARY LIMITED EASEMENT
LR	LENGTH OF RUNOFF	T	TRUCKS
MH	MANHOLE	VC	VERTICAL CURVE
		W	WELL

DEPARTMENT OF NATURAL RESOURCES

WDNR

TELEPHONE 920-360-3784

2984 SHAWANO AVE. GREEN BAY, WISCONSIN 54313 ATTENTION: JAY SCHIEFELBEIN E-MAIL: JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

Ε PROJECT NO: 4814-03-71 HWY: DRUMLIN ROAD COUNTY: FOND DU LAC **GENERAL NOTES** SHEET I:\45\450482 DRUMLIN ROAD\C3D\SHEETSPLAN\020101 GN.DWG PLOT DATE : FILE NAME : 5/4/2021 8:43 AM GARNICA, BRANDON 1 IN:20 FT

LAYOUT NAME - 020101 gn

PLOT NAME :

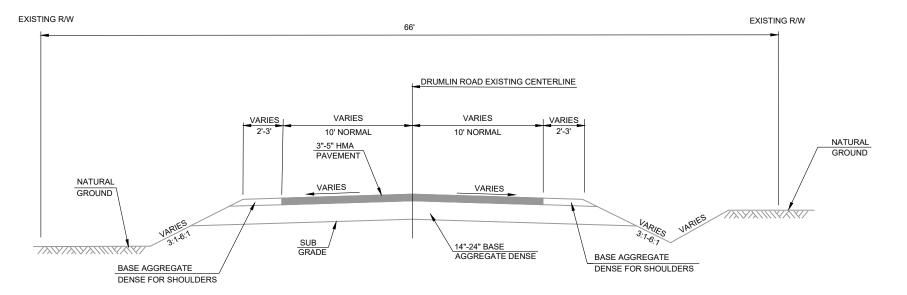
PLOT SCALE :

WISDOT/CADDS SHEET 42



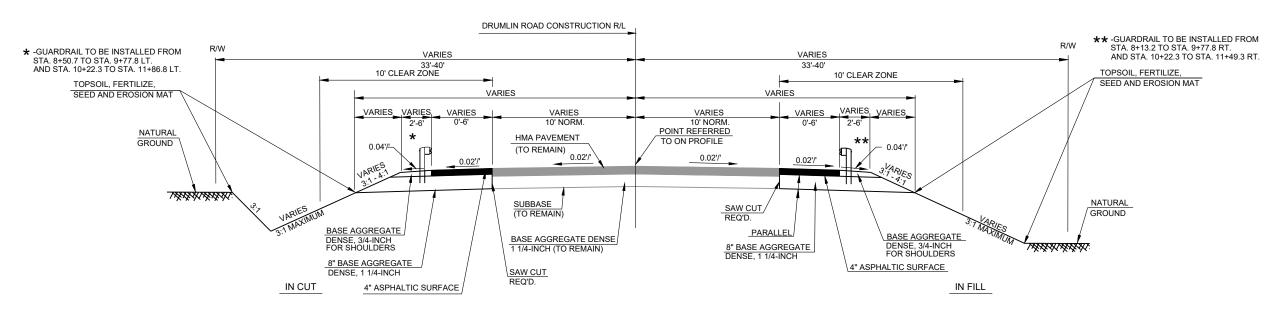


WISDOT/CADDS SHEET 42



EXISTING TYPICAL SECTION FOR DRUMLIN ROAD

STA. 6+63 - STA. 13+22



TYPICAL FINISHED SECTION FOR DRUMLIN ROAD

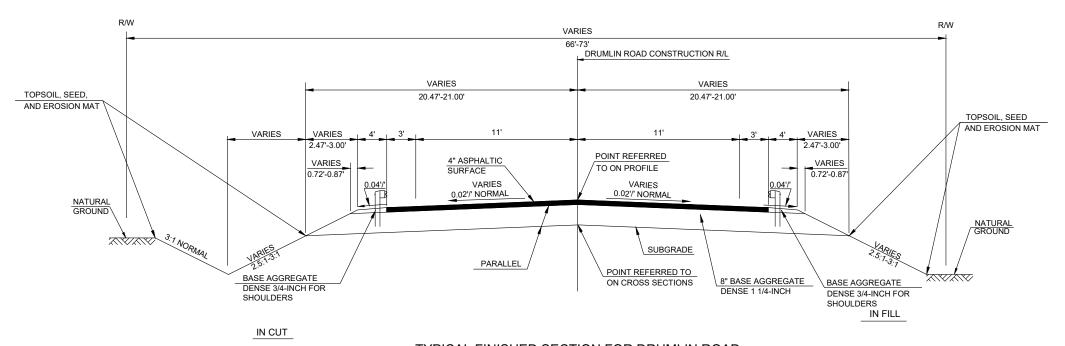
STA. 6+63 - STA. 9+45 RT. STA. 7+12 - STA. 9+45 LT. STA. 10+72 - STA. 12+69 RT. STA. 10+72 - STA. 13+22 LT.

Ε PROJECT NO: 4814-03-71 HWY: DRUMLIN ROAD COUNTY: FOND DU LAC TYPICAL SECTIONS SHEET FILE NAME : I:\45\450482 DRUMLIN ROAD\C3D\SHEETSPLAN\020301 TS.DWG 1/25/2021 1:38 PM GARNICA, BRANDON PLOT NAME : PLOT SCALE : 1 IN:200 FT

LAYOUT NAME - 020301 ts



2



TYPICAL FINISHED SECTION FOR DRUMLIN ROAD

STA. 9+45 - STA. 9+77.8 STA. 10+22.3 - STA. 10+72

> NOTE: CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT TO BE INSTALLED FOR CONCRETE SURFACE DRAINS. STA. 9+37.5 - STA. 9+77.75LT & RT.

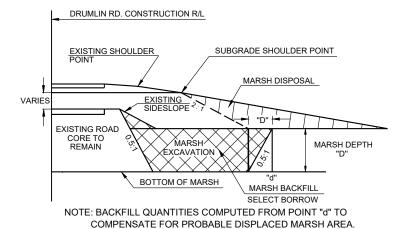
PROJECT NO: 4814-03-71 HWY: DRUMLIN ROAD COUNTY: FOND DU LAC

FILE NAME: 1:\45\450482 DRUMLIN ROAD\C3D\SHEETSPLAN\020301 TS.DWG

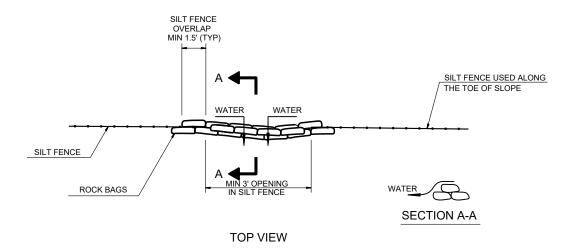
FILE NAME: 1:\45\450482 DRUMLIN ROAD\020301 TS.DWG

FILE NAME: 1:\45\450482 DRUMLIN RO

LAYOUT NAME - 020302 ts



TYPICAL SECTION-MARSH EXCAVATION



ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

PAID AS ROCK BAGS (SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)

COUNTY: FOND DU LAC Ε PROJECT NO: 4814-03-71 HWY: DRUMLIN ROAD CONSTRUCTION DETAILS SHEET

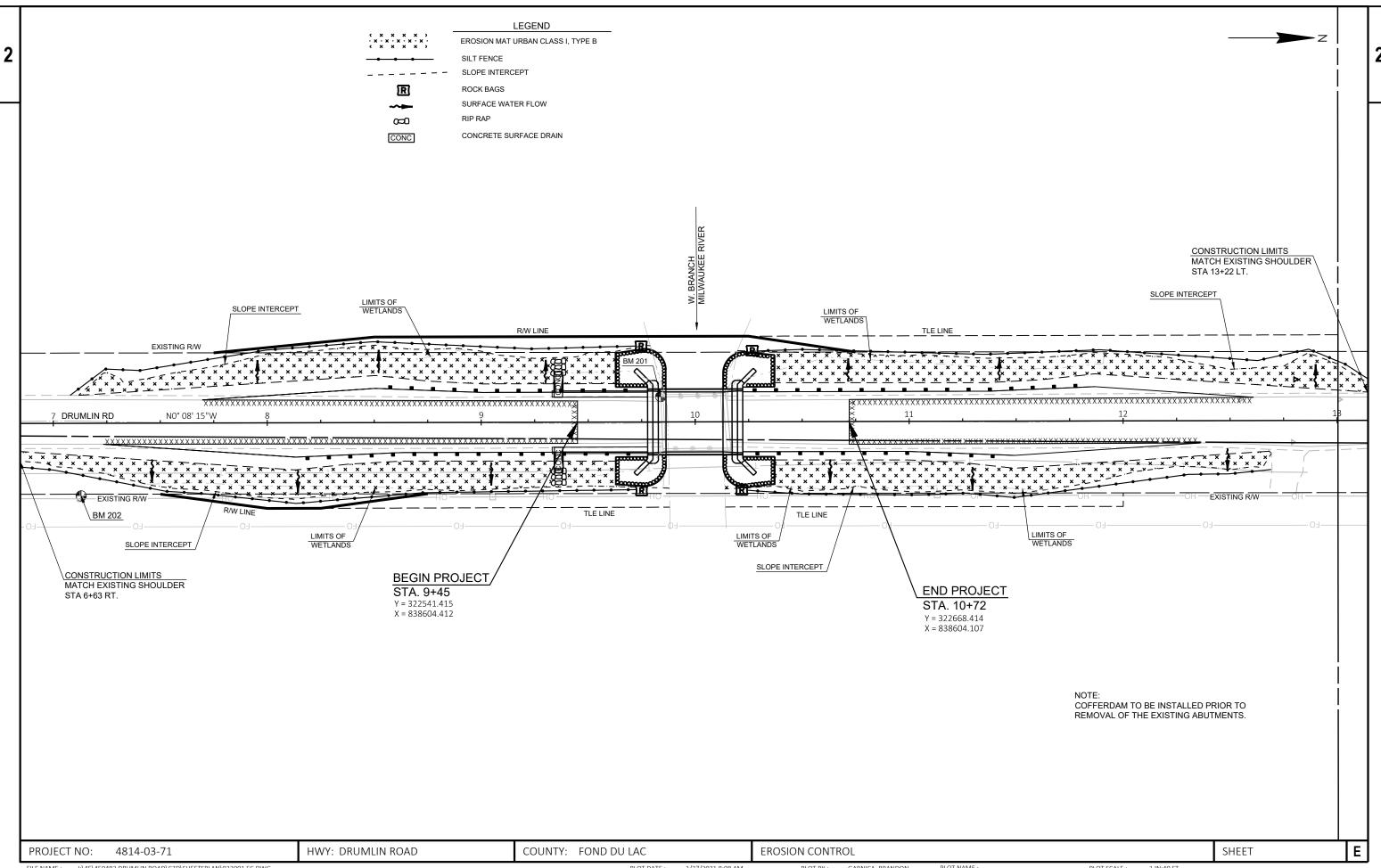
PLOT SCALE :

1 IN:200 FT

WISDOT/CADDS SHEET 42

FILE NAME : LAYOUT NAME - 021001 cd

I:\45\450482 DRUMLIN ROAD\C3D\SHEETSPLAN\021001 CD.DWG PLOT DATE : 1/25/2021 1:38 PM PLOT BY: GARNICA, BRANDON PLOT NAME :



FILE NAME: I:\45\450482 DRUMLIN ROAD\C3D\SHEETSPLAN\022001 EC.DWG PLOT DATE: 1/27/2021 8:08 AM PLOT BY: GARNICA, BRANDON PLOT NAME: 1 IN:40 FT WISDOT/CADDS SHEET 42
LAYOUT NAME - 022001 ec

					4814-03-71
Line	Item	Item Description	Unit	Total	Qty
0002		Abatement of Asbestos Containing Material (structure)	LS	1.000	1.000
2224		01. B-20-246			4 000
0004	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. Station 10+00	LS	1.000	1.000
0006	205.0100	Excavation Common	CY	218.000	218.000
8000	205.0400	Excavation Marsh	CY	141.000	141.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-20-246	LS	1.000	1.000
0012	206.5000	Cofferdams (structure) 01. B-20-246	LS	1.000	1.000
0014	208.0100	Borrow	CY	388.000	388.000
0016	208.1100	Select Borrow	CY	212.000	212.000
0018	210.1500	Backfill Structure Type A	TON	380.000	380.000
0020	213.0100	Finishing Roadway (project) 01. 4814-03-71	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	150.000	150.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	680.000	680.000
0026	416.1010	Concrete Surface Drains	CY	2.000	2.000
0028	450.4000	HMA Cold Weather Paving	TON	128.000	128.000
0030	455.0605	Tack Coat	GAL	7.700	7.700
0032	465.0105	Asphaltic Surface	TON	128.000	128.000
0032	502.0100	Concrete Masonry Bridges	CY	170.000	170.000
0034	502.3200	Protective Surface Treatment	SY	140.000	140.000
0038	502.3210	Pigmented Surface Sealer	SY	45.000	45.000
0038	502.3210	Bar Steel Reinforcement HS Structures	LB	45.000	45.000
0040	505.0400	Bar Steel Reinforcement HS Coated Structures		22,530.000	22,530.000
			LB		
0044	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0046	550.0500	Pile Points	EACH	14.000	14.000
0048	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	490.000	490.000
0050	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	78.000	78.000
0052	606.0200	Riprap Medium	CY	6.000	6.000
0054	606.0300	Riprap Heavy	CY	145.000	145.000
0056	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0058	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0060	614.2300	MGS Guardrail 3	LF	225.000	225.000
0062	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0064	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0066	619.1000	Mobilization	EACH	1.000	1.000
0068	624.0100	Water	MGAL	8.000	8.000
0070	625.0100	Topsoil	SY	1,200.000	1,200.000
0072	627.0200	Mulching	SY	200.000	200.000
0074	628.1504	Silt Fence	LF	1,430.000	1,430.000
0074	020.1504	Our Leuce	LF	1,430.000	1,430.000

0130

715.0502 Incentive Strength Concrete Structures

Estimate Of Quantities

					4814-03-71	
Line	Item	Item Description	Unit	Total	Qty	
0076	628.1520	Silt Fence Maintenance	LF	2,860.000	2,860.000	
0078	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000	
0800	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000	
0082	628.2008	Erosion Mat Urban Class I Type B	SY	1,630.000	1,630.000	
0084	628.7570	Rock Bags	EACH	75.000	75.000	
0086	629.0210	Fertilizer Type B	CWT	0.900	0.900	
0088	630.0120	Seeding Mixture No. 20	LB	33.000	33.000	
0090	630.0200	Seeding Temporary	LB	38.000	38.000	
0092	630.0300	Seeding Borrow Pit	LB	5.000	5.000	
0094	630.0500	Seed Water	MGAL	32.000	32.000	
0096	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000	
0098	637.2230	Signs Type II Reflective F	SF	12.000	12.000	
0100	638.2602	Removing Signs Type II	EACH	4.000	4.000	
0102	638.3000	Removing Small Sign Supports	EACH	4.000	4.000	
0104	642.5001	Field Office Type B	EACH	1.000	1.000	
0106	643.0420	Traffic Control Barricades Type III	DAY	1,332.000	1,332.000	
0108	643.0705	Traffic Control Warning Lights Type A	DAY	2,072.000	2,072.000	
0110	643.0900	Traffic Control Signs	DAY	1,036.000	1,036.000	
0112	643.5000	Traffic Control	EACH	1.000	1.000	
0114	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000	
0116	645.0120	Geotextile Type HR	SY	310.000	310.000	
0118	650.4500	Construction Staking Subgrade	LF	615.000	615.000	
0120	650.5000	Construction Staking Base	LF	615.000	615.000	
0122	650.6500	Construction Staking Structure Layout (structure) 01. B-20-246	LS	1.000	1.000	
0124	650.9910	Construction Staking Supplemental Control (project) 01. 4814-03-71		1.000	1.000	
0126	650.9920	Construction Staking Slope Stakes	LF	615.000	615.000	
0128	690.0150	Sawing Asphalt	LF	791.000	791.000	

966.000

DOL

966.000

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (item#205.0100) Cut (2)	Unusable Pavement Material (4)	Available Material (5)	Excavation Marsh (6)	Expanded Marsh Backfill (10) (item#208.1100) Factor 1.50	Unexpanded Fill	Expanded Fill (13) Factor 1.30	Mass Ordinate +/- (14)	Borrow (item #208.0100)	Comment:
1	7+11.8 - 9+45	DRUMLIN RD (SW SHOULDER)	32	0	32	27	41	103	134	-102	102	
	6+62.93 - 9+45	DRUMLIN RD (SE SHOULDER)	41	0	41	38	57	102	133	-92	92	
	9+45 - 10+72	DRUMLIN RD	73	20	53	27	41	126	164	-111	111	
	10+72 - 13+22.31	DRUMLIN RD (NW SHOULDER)	33	0	33	49	74	78	101	-68	68	
	10+72 - 12+68.55	DRUMLIN RD (NE SHOULDER)	39	0	39	0	0	42	55	-16	16	
Division 1 Totals	1		218	20	198	141	212	451	586	-388	388	

- 2) Unsuable Pavement Material is included in Cut
- 4) Unusable Pavement Material = Existing Asphaltic Pavement. Backfill any areas below subgrade with borrow.
- 5) Available Material = Cut Unusuable Pavement Material
- 6) Marsh Excavation. To be backfilled with Select Borrow Material as shown in cross sections.
- 10) Expanded Marsh Backfill This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item Number 208.1100
- 13) Expanded Fill. Factor = 1.3 Expanded Fill = Unexpanded Fill * Fill Factor
- 14) The Mass Ordinate + or Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE & WATER

				305.0110 BASE	305.0120 BASE	624.0100					<u>ASPHALTI</u>	C SURFACE		
STATION	то	STATION	LOCATION	AGGREGATE DENSE 3/4-INCH TON	AGGREGATE DENSE 1 1/4-INCH TON	WATER MGAL	REMARKS	STATION	то	STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING	455.0605 TACK COAT	465.0105 ASPHALTI SURFACE
6+63	_	9+78	DRUMLIN RD	_	332	4						TON	GAL	TON
6+63	-	9+78	DRUMLIN RD, RT	42	-	-	SHOULDER	7+23	-	9+78	DRUMLIN DR	62	3.7	62
7+12	-	9+78	DRUMLIN RD, LT	35	-	-	SHOULDER	10+22	-	12+61	DRUMLIN DR	66	4.0	66
10+22	-	12+69	DRUMLIN RD, RT	34	-	-	SHOULDER							
10+22	-	13+22	DRUMLIN RD, LT	39	-	-	SHOULDER	٦	TOTAL	S		128	7.7	128
10+22	-	13+22	DRUMLIN RD	-	348	4								
T	OTALS	S		150	680	8								

CONCRETE SURFACE DRAIN ITEMS	CONCRETE CURB & GUTTER	<u>GUA RDRA IL</u>

STATION	LOCATION	416.1010 CONCRETE SURFACE DRAIN CY	606.0200 RIPRAP MEDIUM CY	645.0130 GEOTEXTILE TYPE HR SY	STATION	то	STATION	LOCATION	601.0588 4-INCH SLOPED 36-INCH TYPE TBT LF	STATION	то	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
9+36	DRUMLIN RD, LT	1	3	5	9+39	-	9+78	DRUMLIN RD, LT	39	8+13.2	-	9+78.0	DRUMLIN RD, RT	75.0	39.4	1
9+36	DRUMLIN RD, RT	1	3	5	9+39	-	9+78	DRUMLIN RD, RT	39	8+50.7	-	9+78.0	DRUMLIN RD, LT	37.5	39.4	1
										10+22.0	-	11+49.3	DRUMLIN RD, RT	37.5	39.4	1
TOTALS		2	6	10		TOTAL	-		78	10+22.0	-	11+86.8	DRUMLIN RD, LT	75.0	39.4	1
NOTE: FINAL PL	ACEMENT OF FLUME MU	ST MAINTAIN THE MINI	MUM POST S	SEPARATION DISTANC	ES.					7	OTAL	S		225	157.6	4

PROJECT NUMBER: 4814-03-71 HWY: DRUMLIN ROAD COUNTY: FOND DU LAC MISCELLANEOUS QUANTITIES SHEET NO: **E**

TOPSOIL, FERTILIZER, AND SEED

STATION	то	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCH SY	629.0210 FERTILIZER TY PE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL
6+69	_	9+88	DRUMLIN RD, RT	284	-	0.2	8	8	-	8
7+15	-	9+80	DRUMLIN RD, LT	252	-	0.2	7	7	-	7
10+14	-	12+68	DRUMLIN RD, RT	173	=	0.1	5	5	=	5
10+19	-	13+15	DRUMLIN RD, LT	229	-	0.1	6	6	-	6
UND	ISTRIBI	UTED	BORROW PIT	-	200	0.1	-	5	5	-
UND	ISTRIBI	UTED	ENTIRE PROJECT	262	-	0.2	7	7	-	6
-	TOTAL	S		1,200	200	0.9	33	38	5	32

MOBILIZATIONS EROSION CONTROL

	628.1905	628.1910
	MOBILIZATIONS	MOBILIZATIONS
	EROSION CONROL	EMERGENCY
LOCATION		EROSION CONTROL
	EACH	EACH
DRUMLIN RD	5	3
TOTALS	5	3

EROSION MAT

STATION	то	STATION	LOCATION	EROSION MAT URBAN CLASS I TYPE B 628.2008 SY
6+63	_	9+63	DRUMLIN RD, RT	373
7+12	-	9+63	DRUMLINRD, LT	331
10+37	-	12+69	DRUMLIN RD, RT	263
10+37	-	13+22	DRUMLIN RD, LT	343
LINID	ISTRIBI	ITED		320

SILT FENCE

_	STATION	то	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF
	6+60	-	9+75	DRUMLIN RD, RT	318	636
	7+08	-	9+75	DRUMLIN RD, LT	272	544
	10+25	-	12+69	DRUMLIN RD, RT	247	494
	10+25	-	13+25	DRUMLIN RD, LT	310	620
	UNDI	STRIBL	ЛED	DRUMLIN RD	283	566
_						
	-	TOTAL			1,430	2,860

ROCK BAGS

STATION	LOCATION	628.7570 EACH
9+75 10+25 UNDISTRIBUTED	DRUMLIN RD, RT & LT DRUMLIN RD, RT & LT DRUMLIN RD	30 30 15
TOTAL		75

REMOVING SIGNS & SUPPORTS

STATION	LOCATION	638.2602 SIGNS TY PE II EACH	638.3000 SMALL SIGN SUPPORTS EACH	REMARKS
9+84	DRUMLIN RD, LT	1	1	BRIDGE SIGN
	,	I	ı	
9+86	DRUMLIN RD, RT	1	1	BRIDGE SIGN
10+14	DRUMLIN RD, LT	1	1	BRIDGE SIGN
10+16	DRUMLIN RD, RT	1	1	BRIDGE SIGN
TOTALS		4	4	

SIGNS REFLECTIVE TYPE II AND WOOD POSTS

STATION	LOCATION	634.0612 WOOD POSTS 4"x6"x12'		2230 SNS W5-52R
	====:	EACH	SF	SF
SW QUADRANT	DRUMLIN RD	1	3	-
SE QUADRANT	DRUMLIN RD	1	-	3
NW QUADRANT	DRUMLIN RD	1	-	3
NE QUADRANT	DRUMLIN RD	1	3	-
SUBTOTALS		4	6	6
TOTA	ıLS	4	1	12

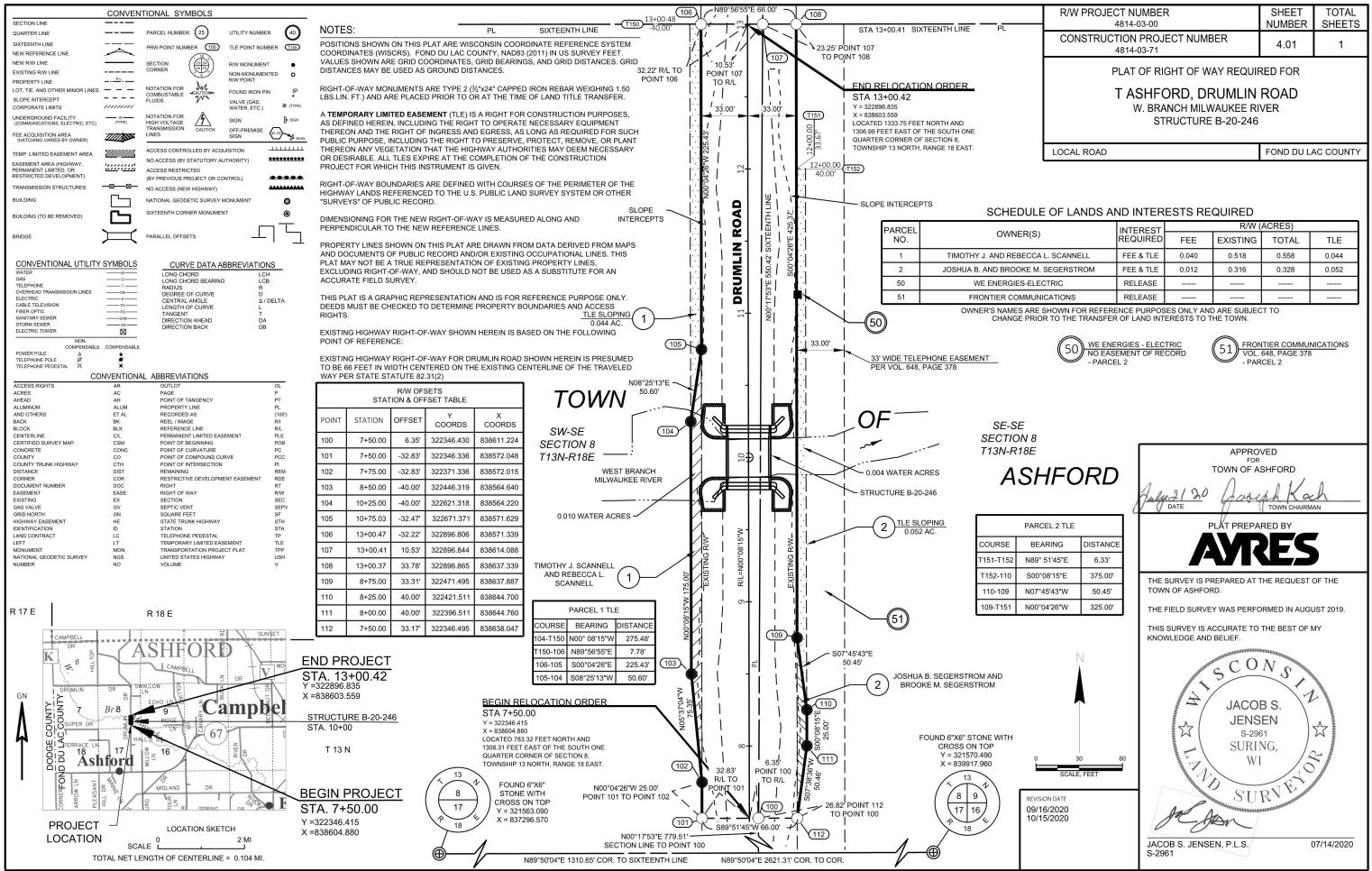
PROJECT NUMBER: 4814-03-71 HWY: DRUMLIN ROAD COUNTY: FOND DU LAC MISCELLANEOUS QUANTITIES SHEET NO: **E**

TRAFFIC CONTROL SUMMARY

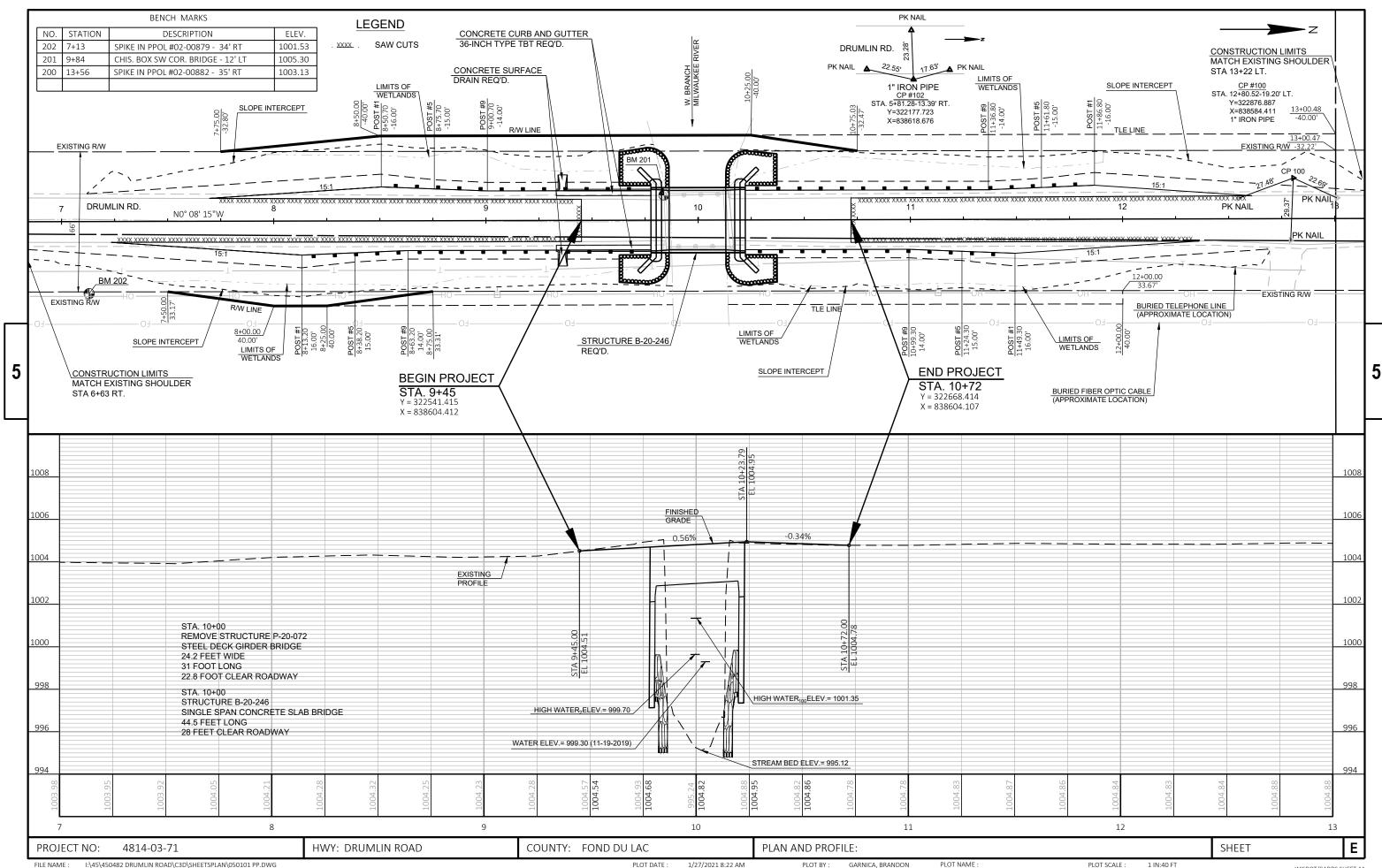
	APPROXIMATE	643.04 BARRIC TYPE	ADES	643.07 WARNING TYPE	LIGHTS	643.0 SIG		REMA RKS
LOCATION	SERVICE DAYS	NO. IN SERVICE	DAYS	NO. IN SERVICE	DAYS	NO. IN SERVICE	DAYS	
DRUMLIN RD / STH 67	74	4	296	8	592	6	444	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
SOUTH WORK ZONE LIMITS	74	5	370	6	444	1	74	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL D
NORTH WORK ZONE LIMITS	74	5	370	6	444	1	74	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL D
DRUMLIN RD / TIMBERLANE DR	74	4	296	Q	592	6	444	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C

CONSTRUCTION STAKING

	SAWI	NG ASPHALT		CATEGORY	STATION	то	STATION	LOCATION	650.4500 SUBGRADE	650.5000 BASE	650.6500 STRUCTURE LAYOUT	650.9910 SUPPLEMENTAL CONTROL	650 SL ST/
STATION	STATION	LOCATION	690.0150						LF	LF	LS	4814-03-71 LS	
			LF	0010	6+63	-	9+78	DRUMLIN RD	315	315	-	1	3
9+45 -	9+29	DRUMLIN RD	417	0010	10+22	-	13+22	DRUMLIN RD	300	300	-	-	3
0+72 -	12+61	DRUMLIN RD	374	0010	SU	BTOTA	ALS		615	615	-	1	6
	TOTAL		791	0020		10+00	ı	B-20-246	-	-	1	-	
				0020	SU	BTOTA	ALS		-	-	1	-	
					7	OTAL	S		615	615	1	1	6

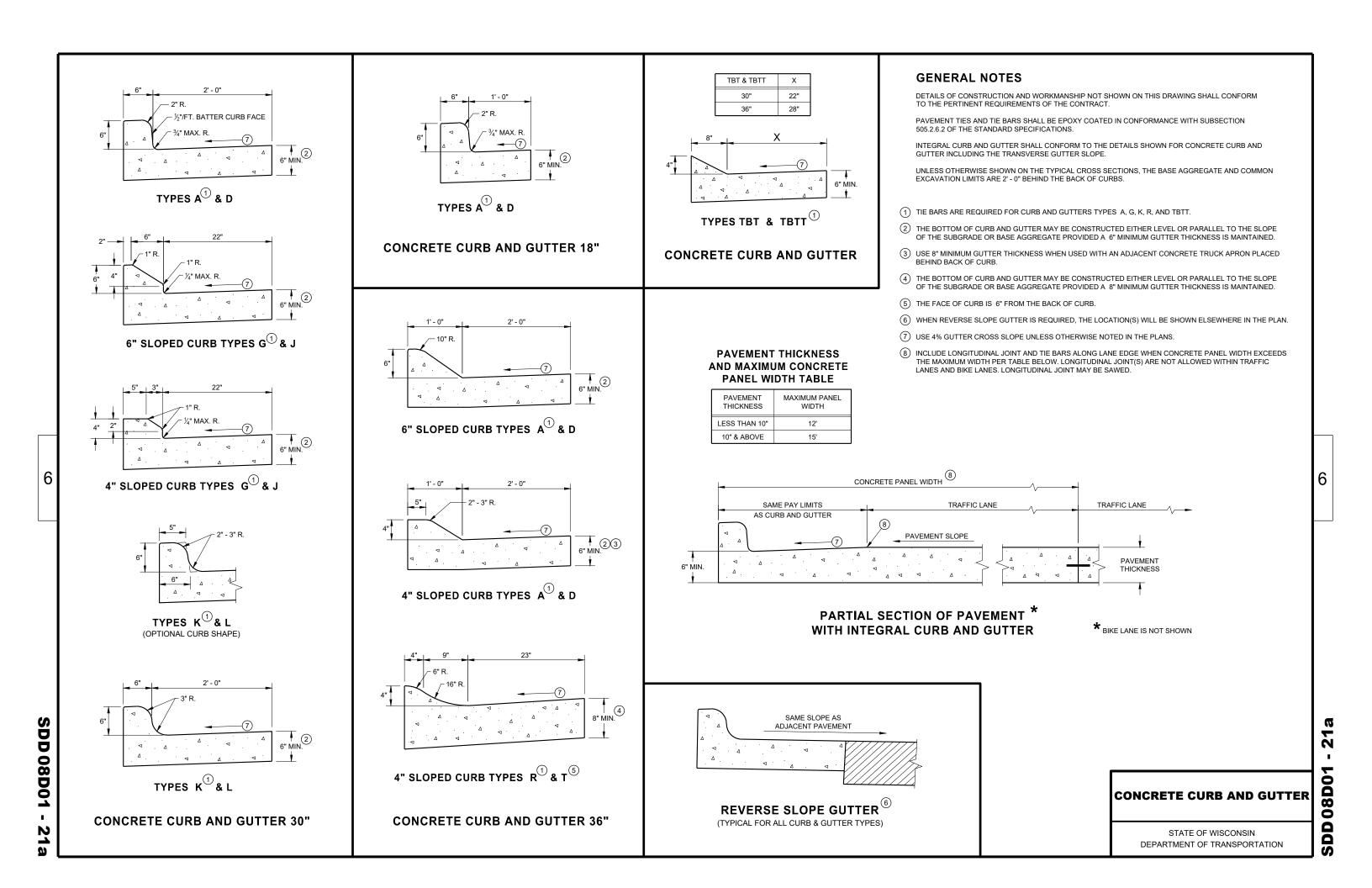


PLOT NAME



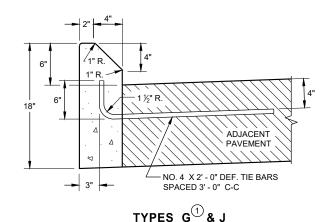
Standard Detail Drawing List

08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07в	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14в42-06в	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15С02-08В	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15С11-08В	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

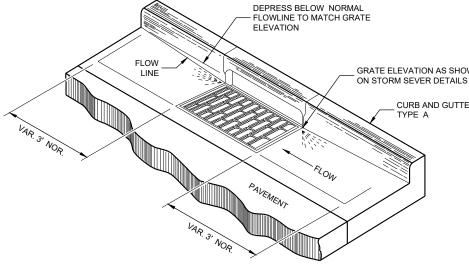


½"/FT. BATTER, FACE OF CURB (ABOVE ADJACENT PAVEMENT) ADJACENT PAVEMENT - NO. 4 X 2' - 0" DEF. TIE BARS

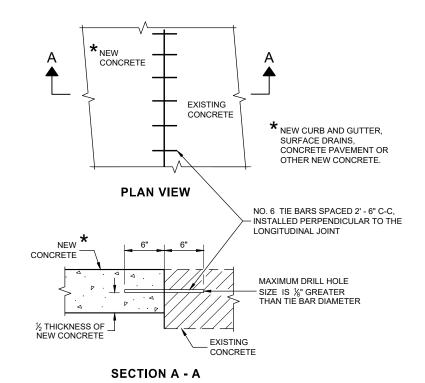
TYPES A D



CONCRETE CURB



GRATE ELEVATION AS SHOWN ON STORM SEVER DETAILS CURB AND GUTTER **DETAIL OF CURB AND GUTTER AT INLETS** (TYPICAL H INLET COVER SHOWN)



TIE BARS DRILLED INTO EXISTING PAVEMENT

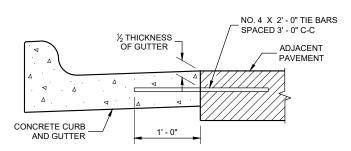
GENERAL NOTES

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

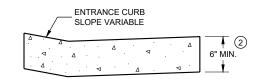
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- 1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- 2 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- 9 REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION $^{\scriptsize{\scriptsize{\scriptsize{\scriptsize{\scriptsize{1}}}}}}$



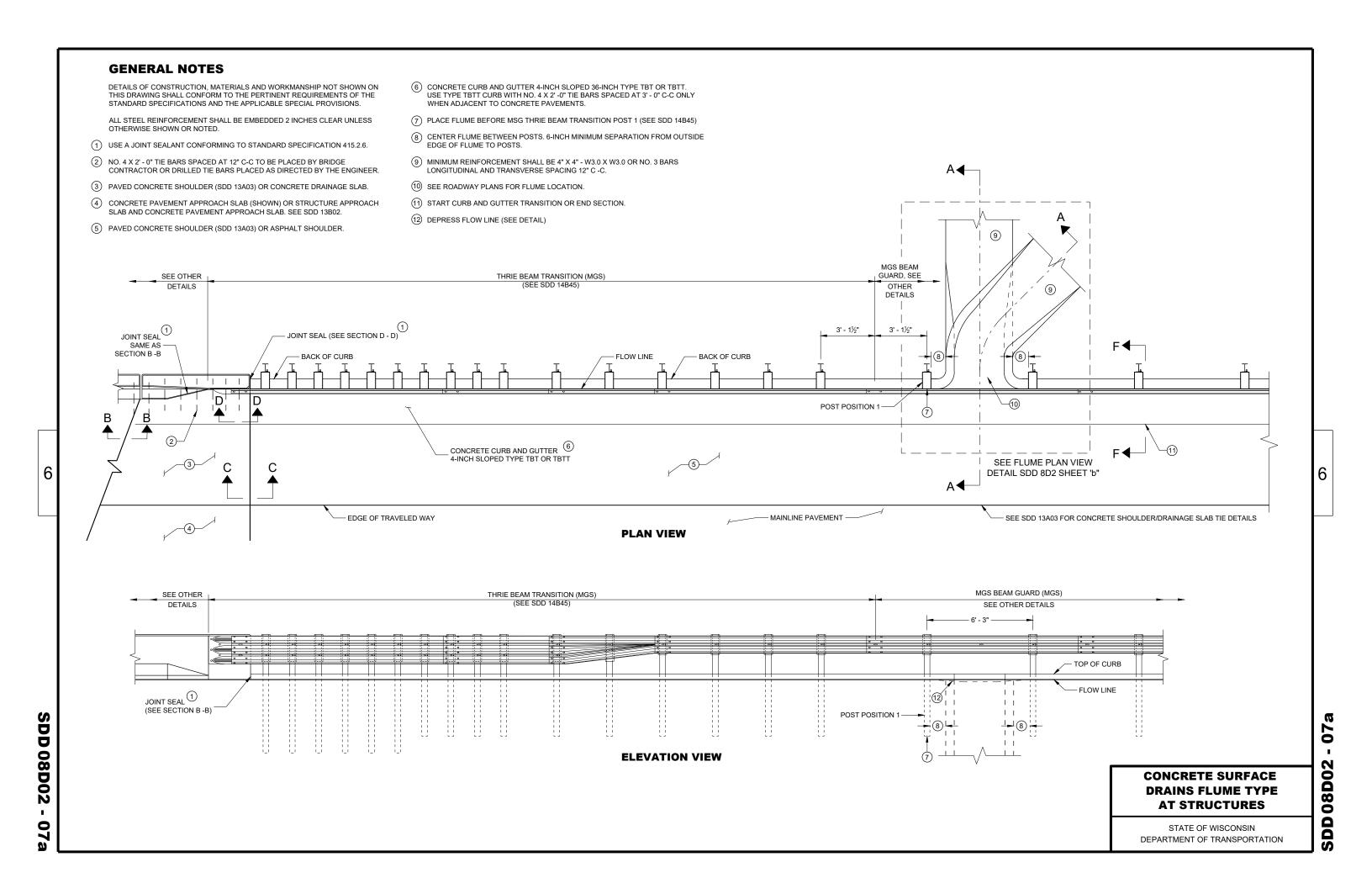
DRIVEWAY ENTRANCE CURB® (WHEN DIRECTED BY THE ENGINEER)

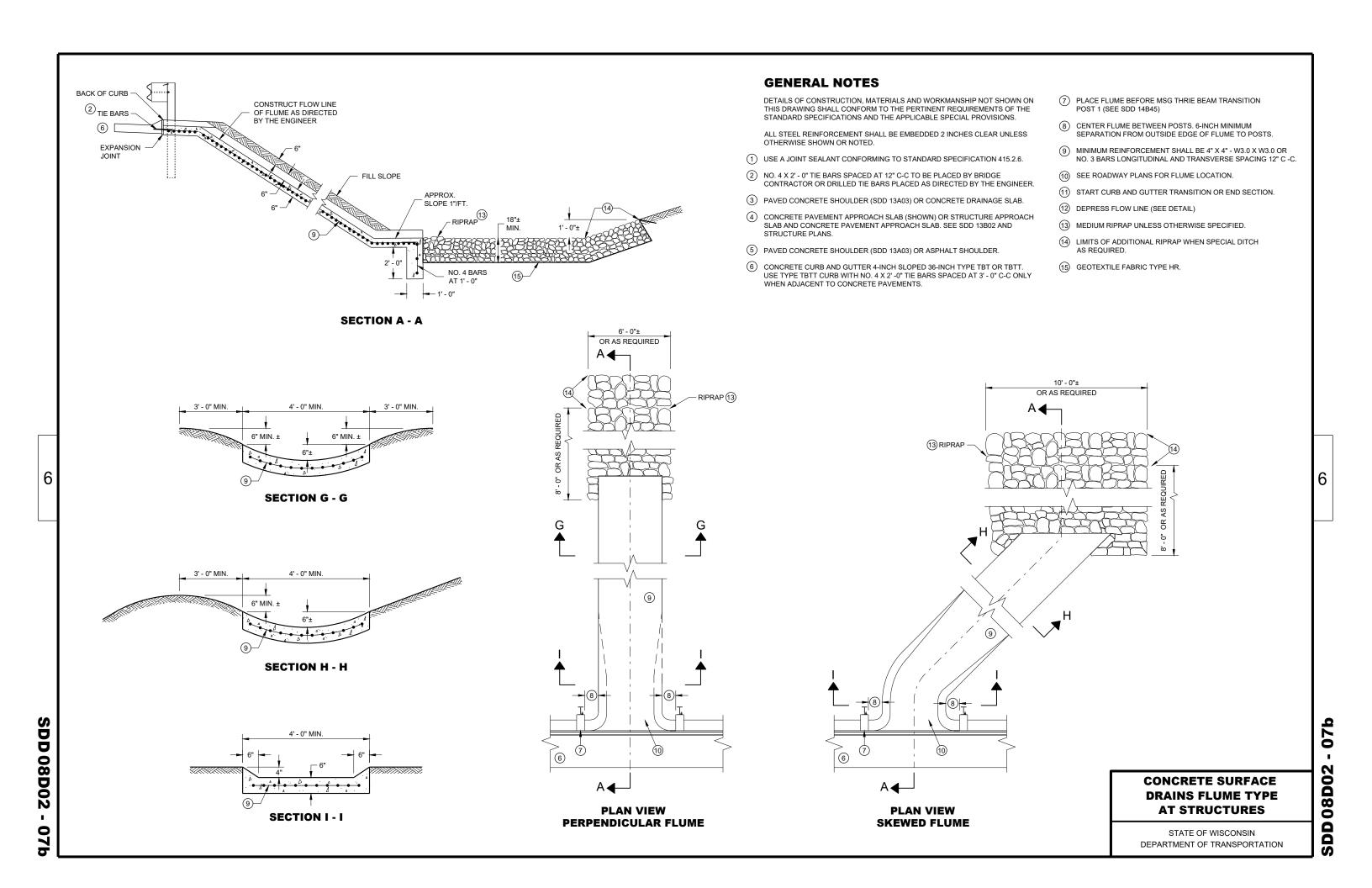
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

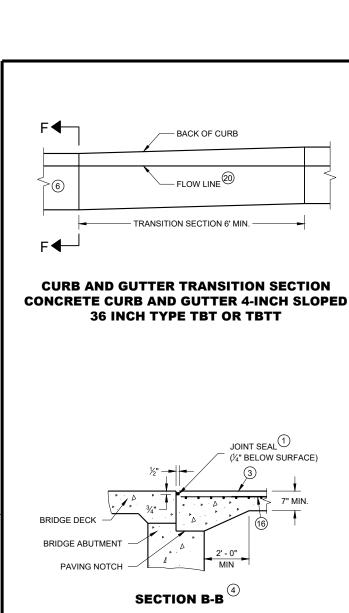
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

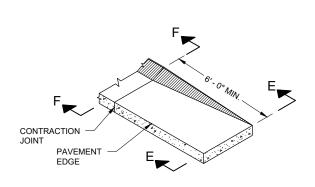
APPROVED /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER February 2020 DATE

N **08DO**,

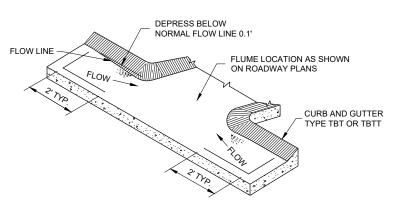




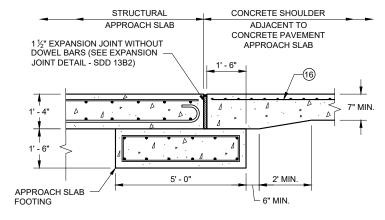




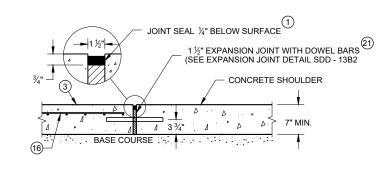
CURB AND GUTTER END SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



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



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



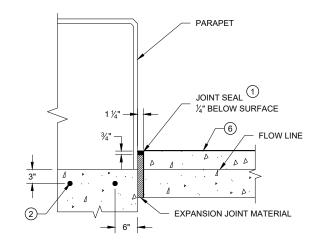
SECTION C - C JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS

GENERAL NOTES

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

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS

- (1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- (2) NO. 4 X 2' 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- (3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- (4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- (5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- (6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- 7 PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- 8 CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- 9 MINIMUM REINFORCEMENT SHALL BE 4" X 4" W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
- (10) SEE ROADWAY PLANS FOR FLUME LOCATION.
- (11) START CURB AND GUTTER TRANSITION OR END SECTION.
- (12) DEPRESS FLOW LINE (SEE DETAIL)
- (13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- (14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- (15) GEOTEXTILE FABRIC TYPE HR.
- (16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- (7) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- (18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- (19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- 20 MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- (21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.

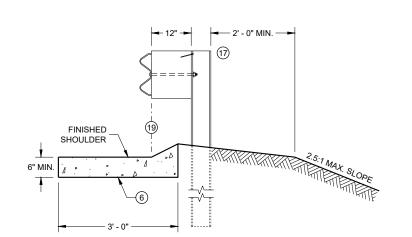


SECTION D - D

2' - 0" MIN. — **FINISHED** SHOULDER 6" MIN

SECTION E - E

SECTION F - F



CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED February 2020 DATE

/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

SDD 08D02 0

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TYPICAL APPLICATION OF SILT FENCE

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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.

- \bigcirc 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 11/8" X 11/8" OF OAK OR HICKORY.
- 4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- (5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Cannestra

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

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D.D. 8 E 9





TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

GENERAL NOTES

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

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

- 1 EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- (2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SPREAD OPEN SO THE TOP OF LUG IS 11/4" WIDE

SECTION A-A

ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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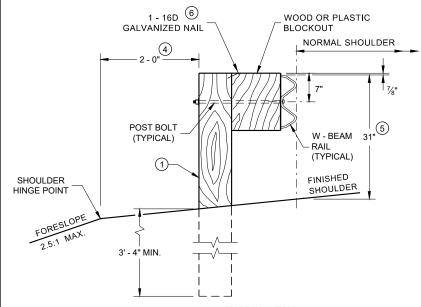
3/26/IO /S/ SCOT BECKET

CHIEF STRUCTURAL DEVELOPMENT ENGINEER

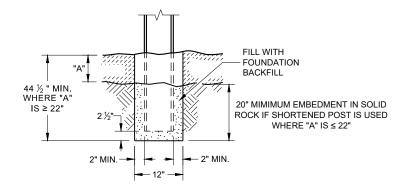
D.D. 12 A

3-10

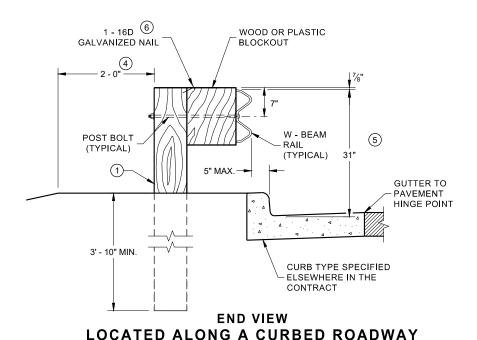
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- 3 IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- 4 WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- $_{\mbox{\scriptsize (5)}}$ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 $^3\!4''$ TO 32".
- (6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

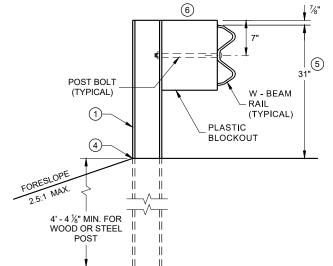


END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION

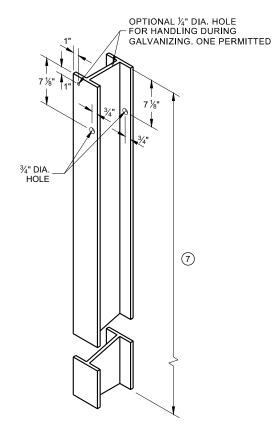


SETTING STEEL OR WOOD POST IN ROCK

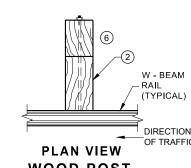




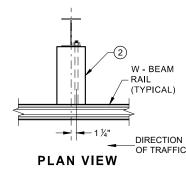




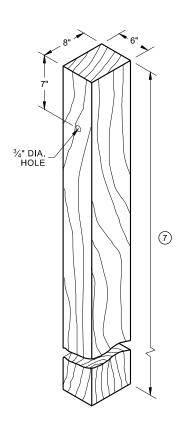
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) ①



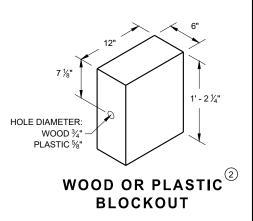
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL



MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SD

DIRECTION OF TRAFFIC **FRONT VIEW** HALF POST SPACING (HS) AND

HALF POST SPACING WITH LONGER POSTS (K)

3' 1½" C -C 3' 1½" C - C POST SPACING POST SPACING

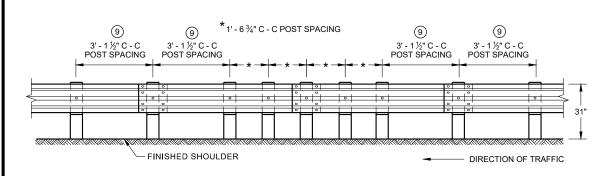
6' 3" C - C

POST SPACING

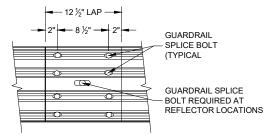
6' - 3" C -C

POST SPACING

FINISHED SHOULDER



FRONT VIEW **QUARTER POST SPACING (QS)**



FRONT VIEW MID-SPAN BEAM SPLICE

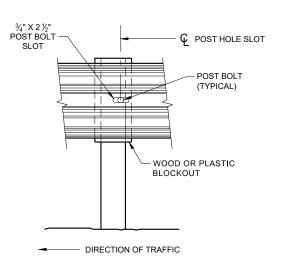
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

GENERAL NOTES

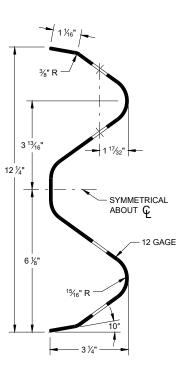
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

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

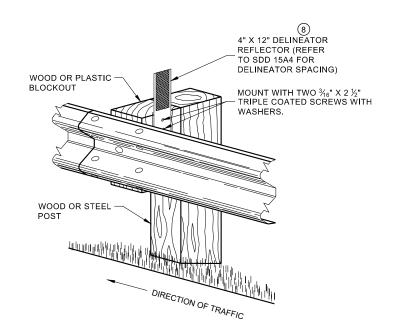


POST BOLT WOOD OR PLASTIC BLOCKOUT FINISHED SHOULDER — DIRECTION OF TRAFFIC



FRONT VIEW AT STEEL POST

FRONT VIEW AT WOOD POST



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

SECTION THRU W-BEAM RAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

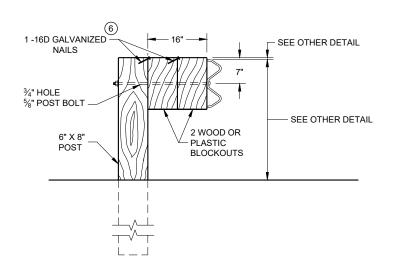
> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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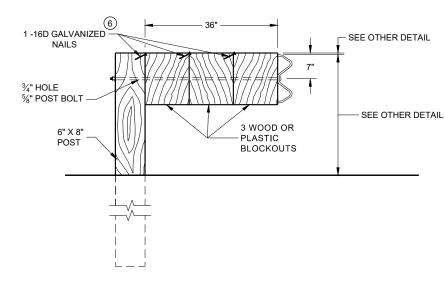
SDD

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DETAIL FOR 16" BLOCKOUT DEPTH

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



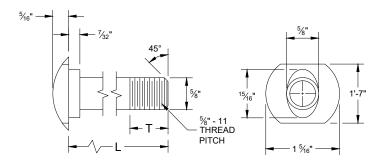
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

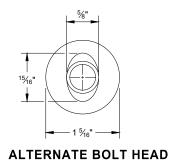
NOTE:

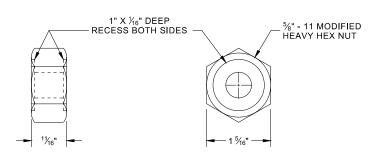
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
- 2. IF THE BOLT EXTENDS MORE THAN $\mbox{\ensuremath{\mbox{\sc M}}}\mbox{\sc "}\mbox{\sc FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.}$



POST BOLT TABLE

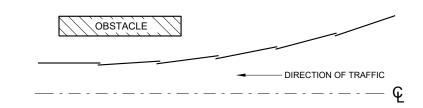
L	T (MIN.)
1 1⁄4"	1 1/4"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



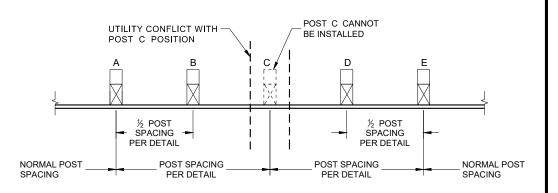


POST BOLT, SPLICE BOLT **AND RECESS NUT**

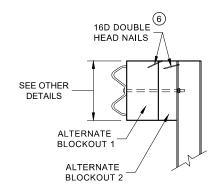
WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D (6) GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

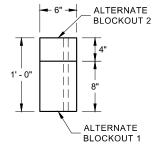


PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

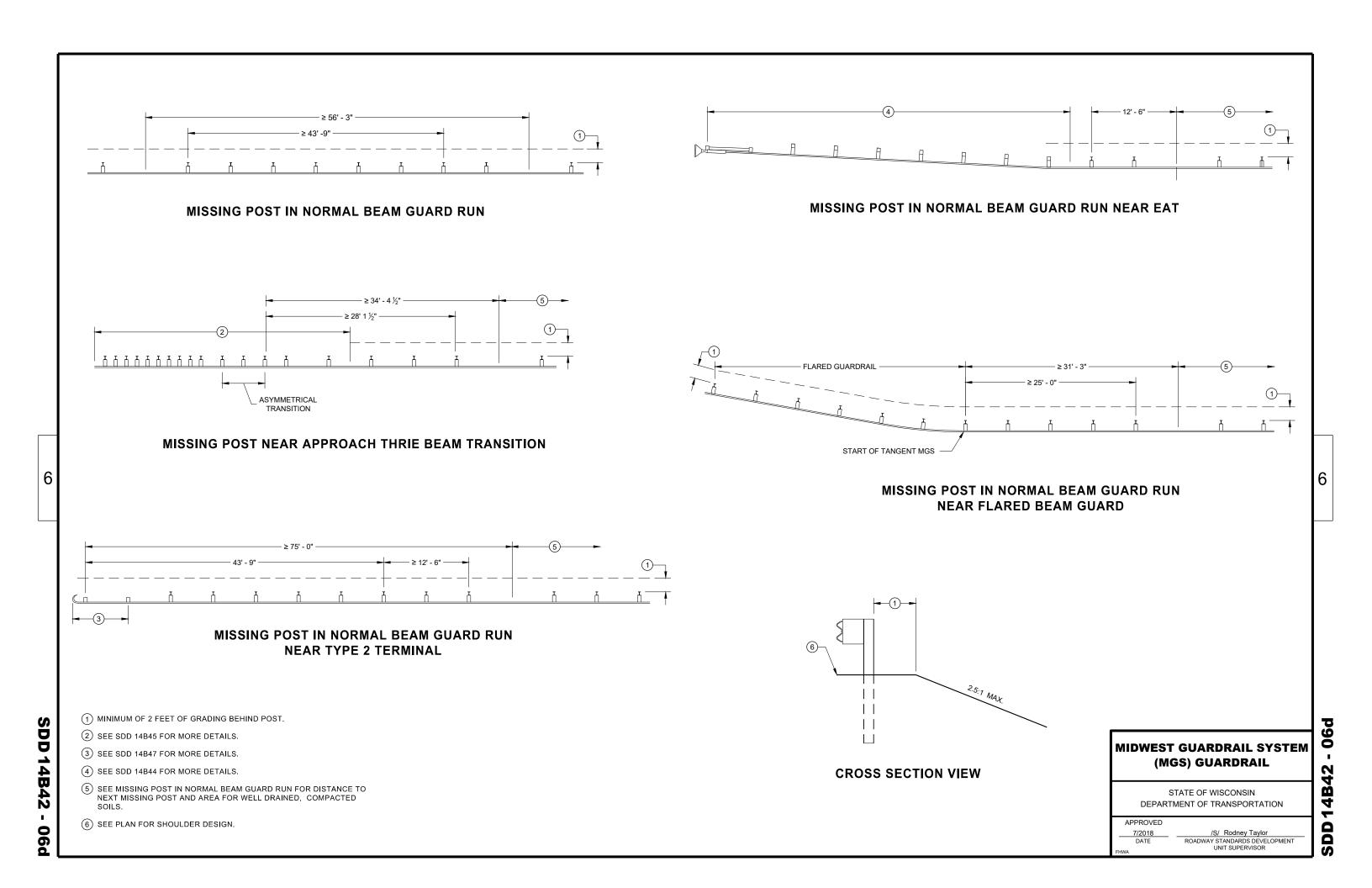
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

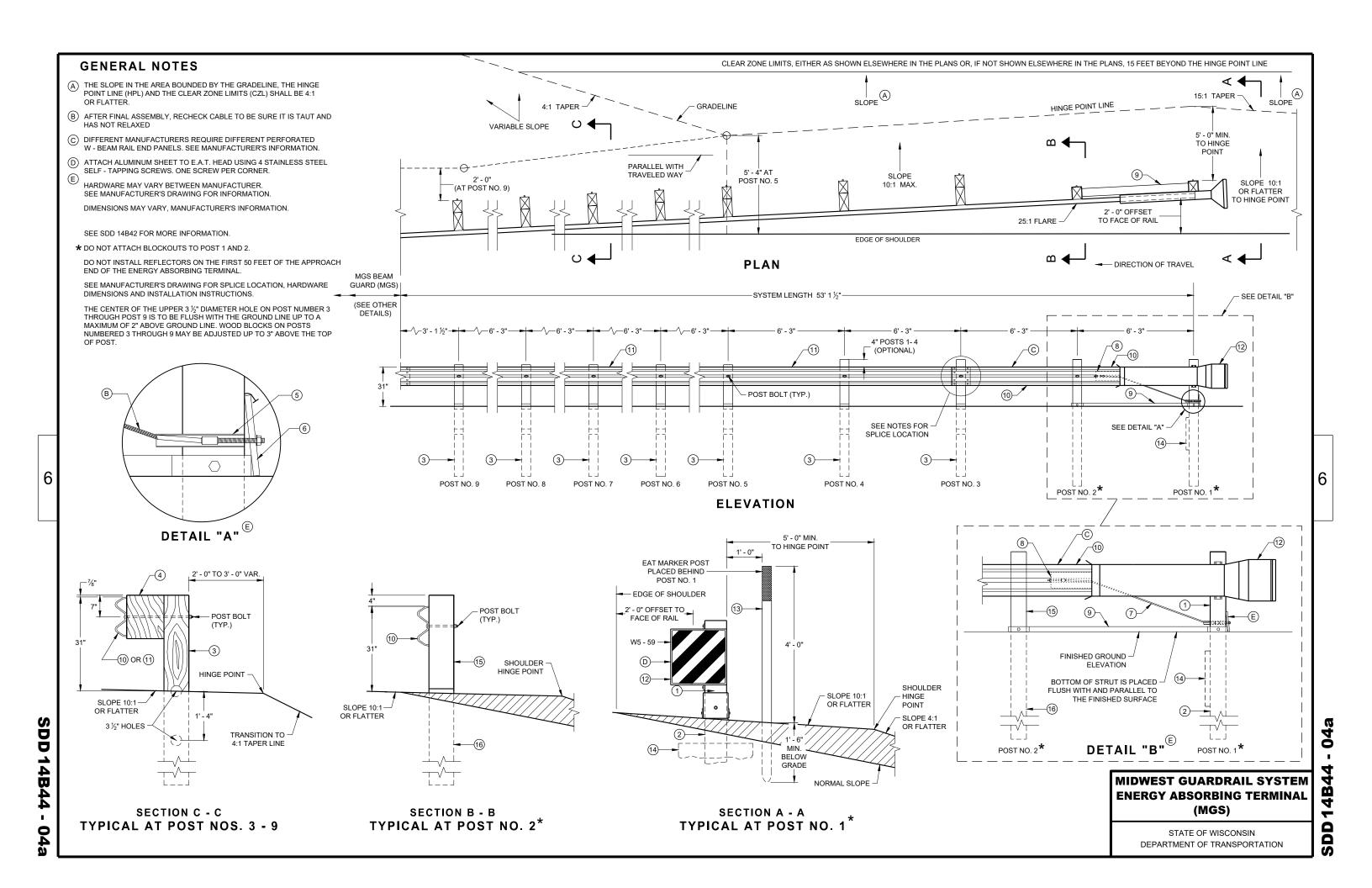
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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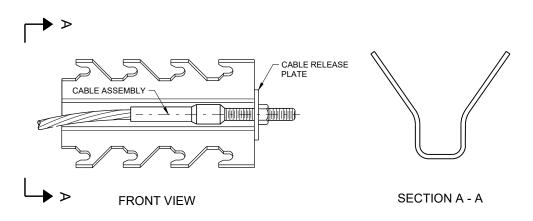
SD

PLAN VIEW

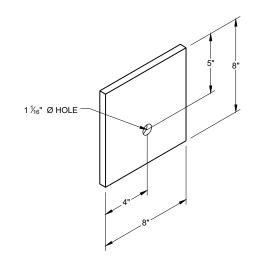




GENERIC GROUND STRUT



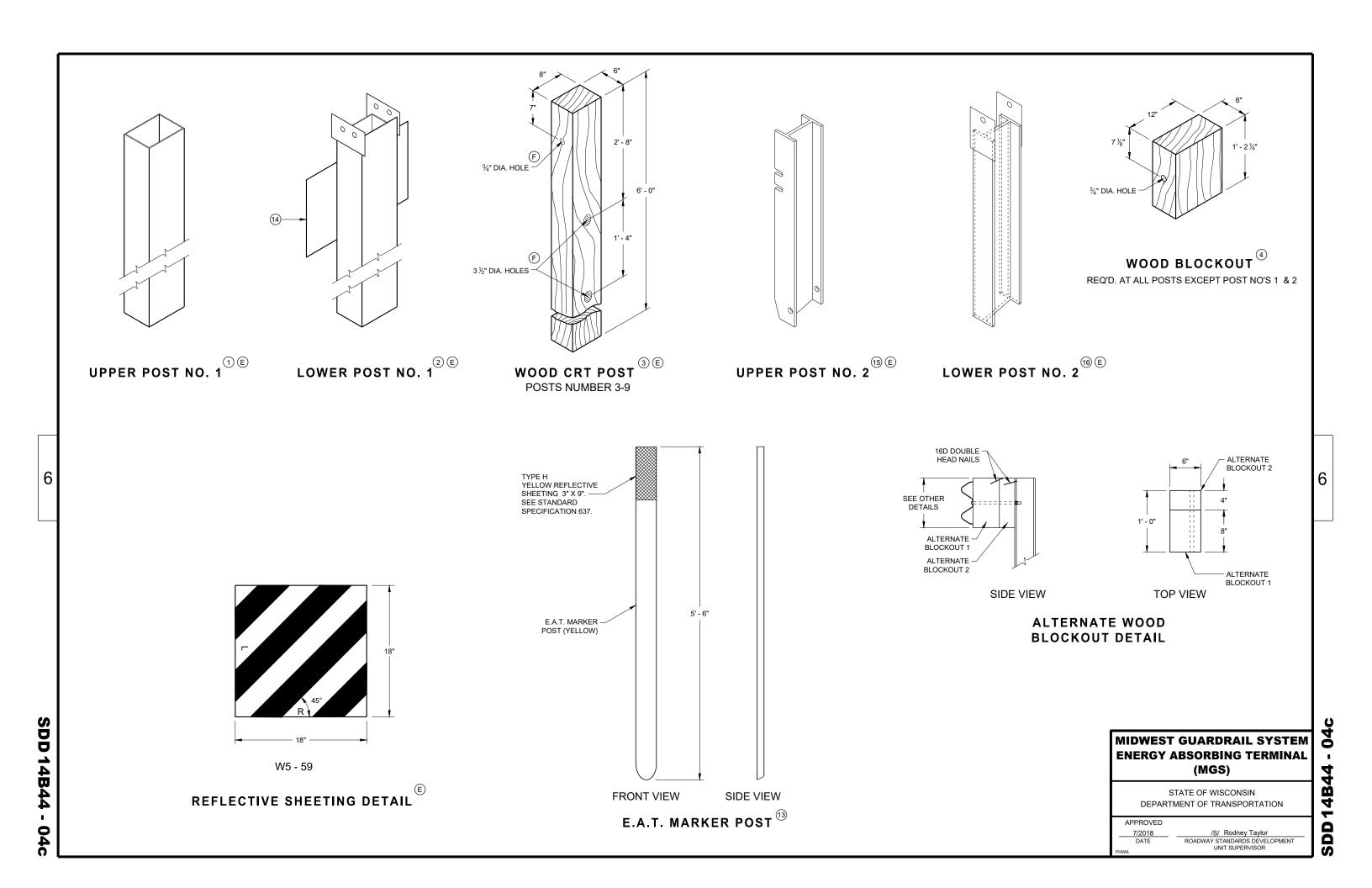
GENERIC ANCHOR CABLE BOX ^{(9) (E)}

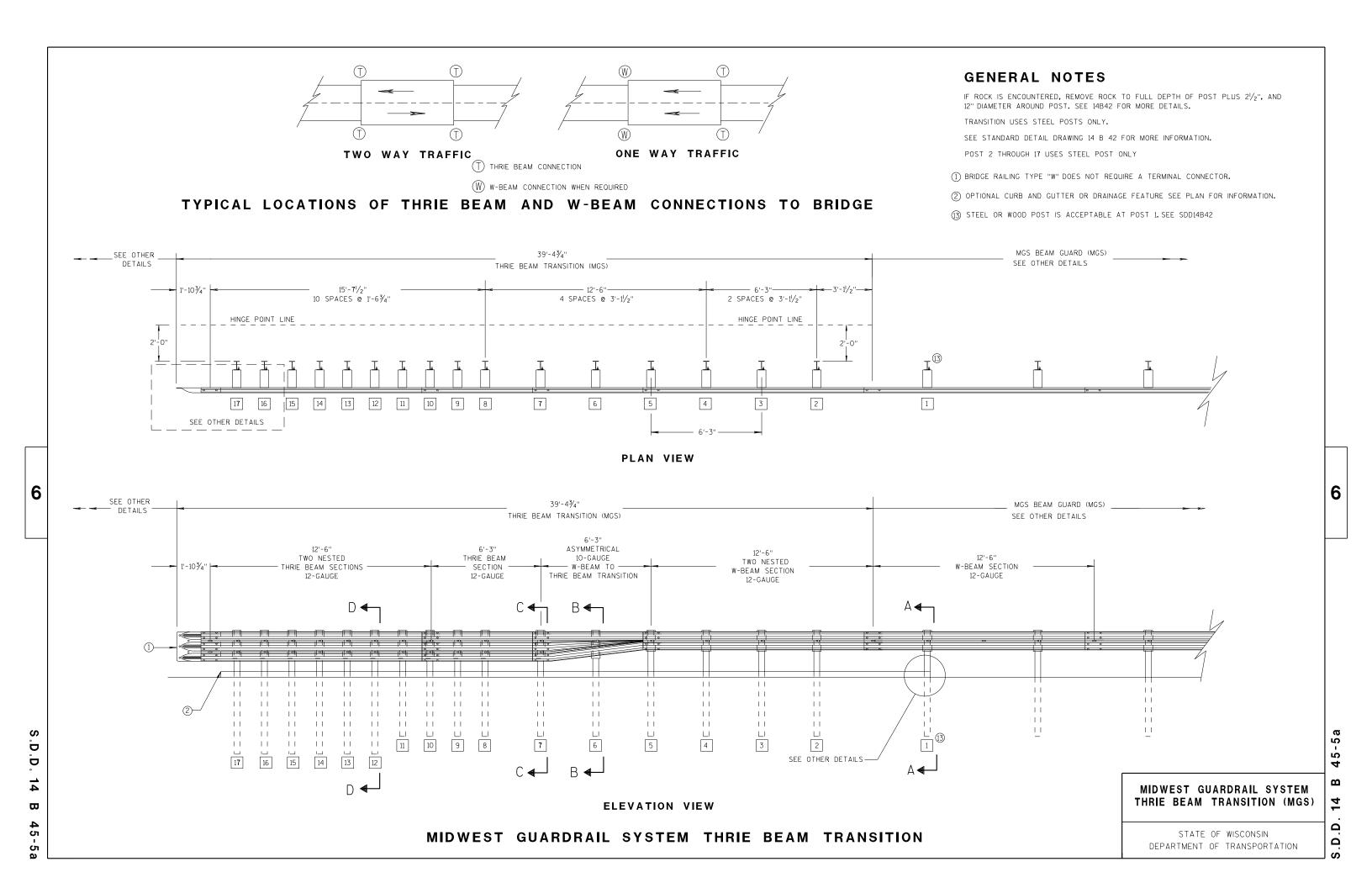


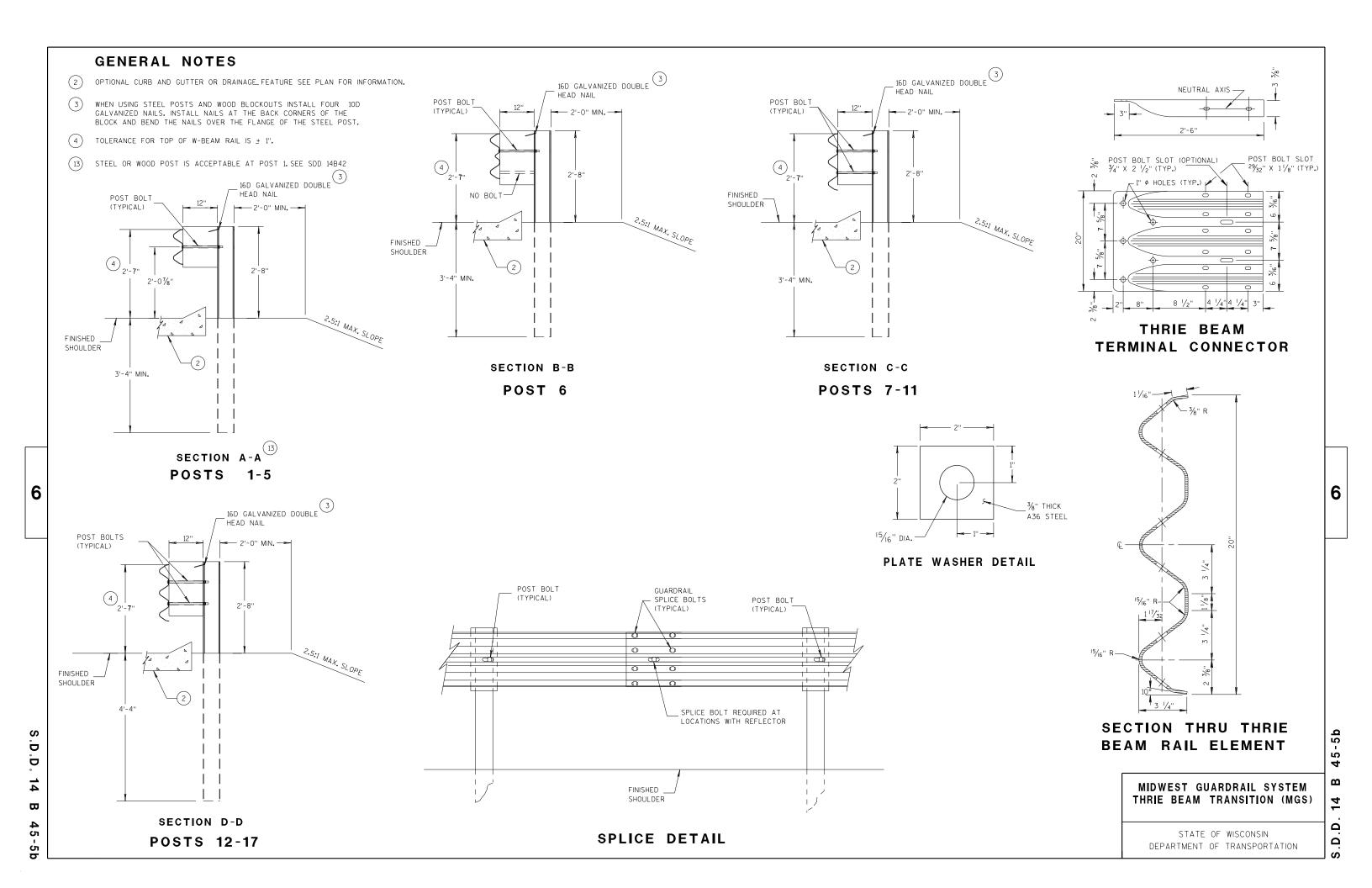
BEARING PLATE

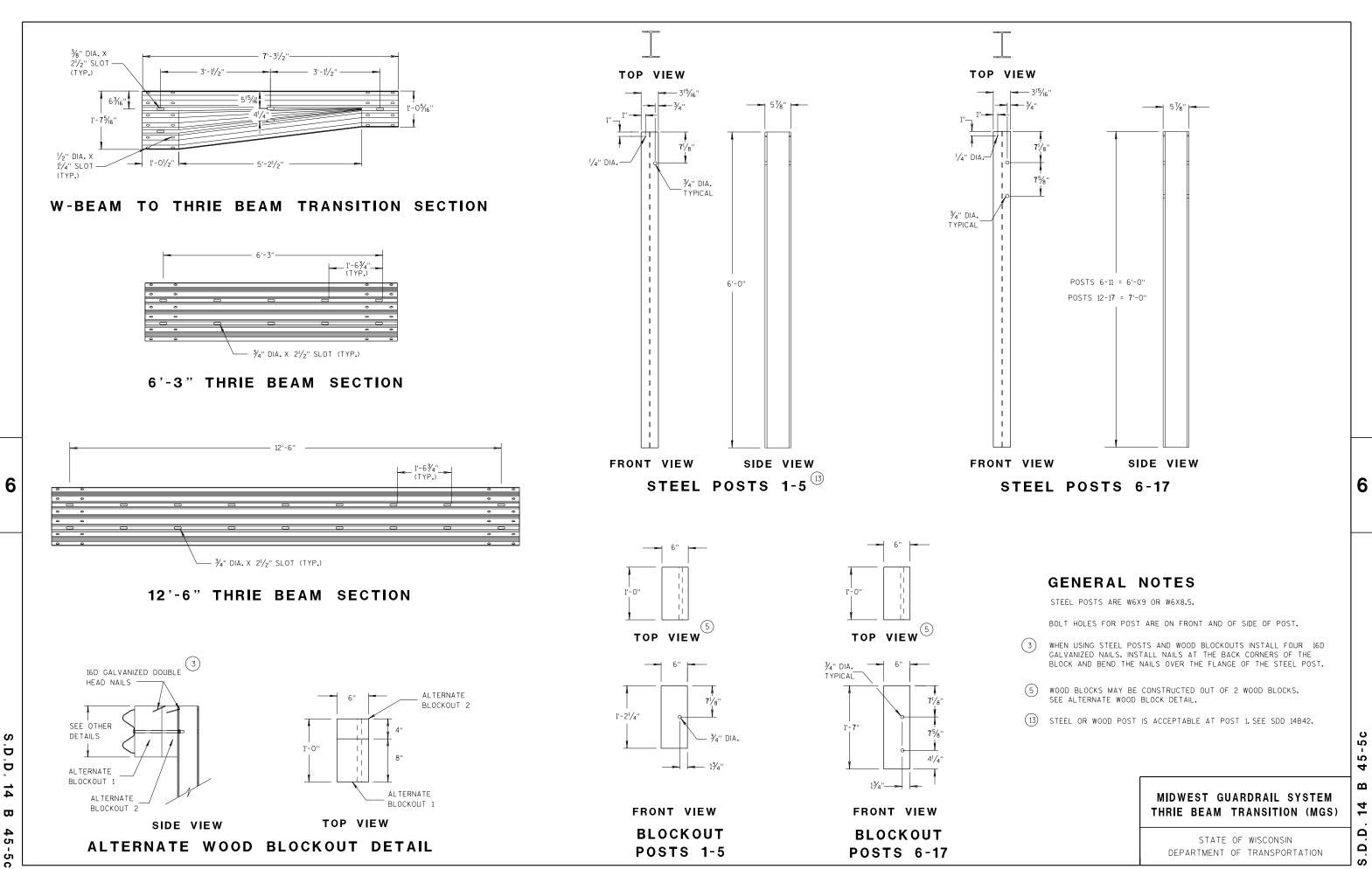
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

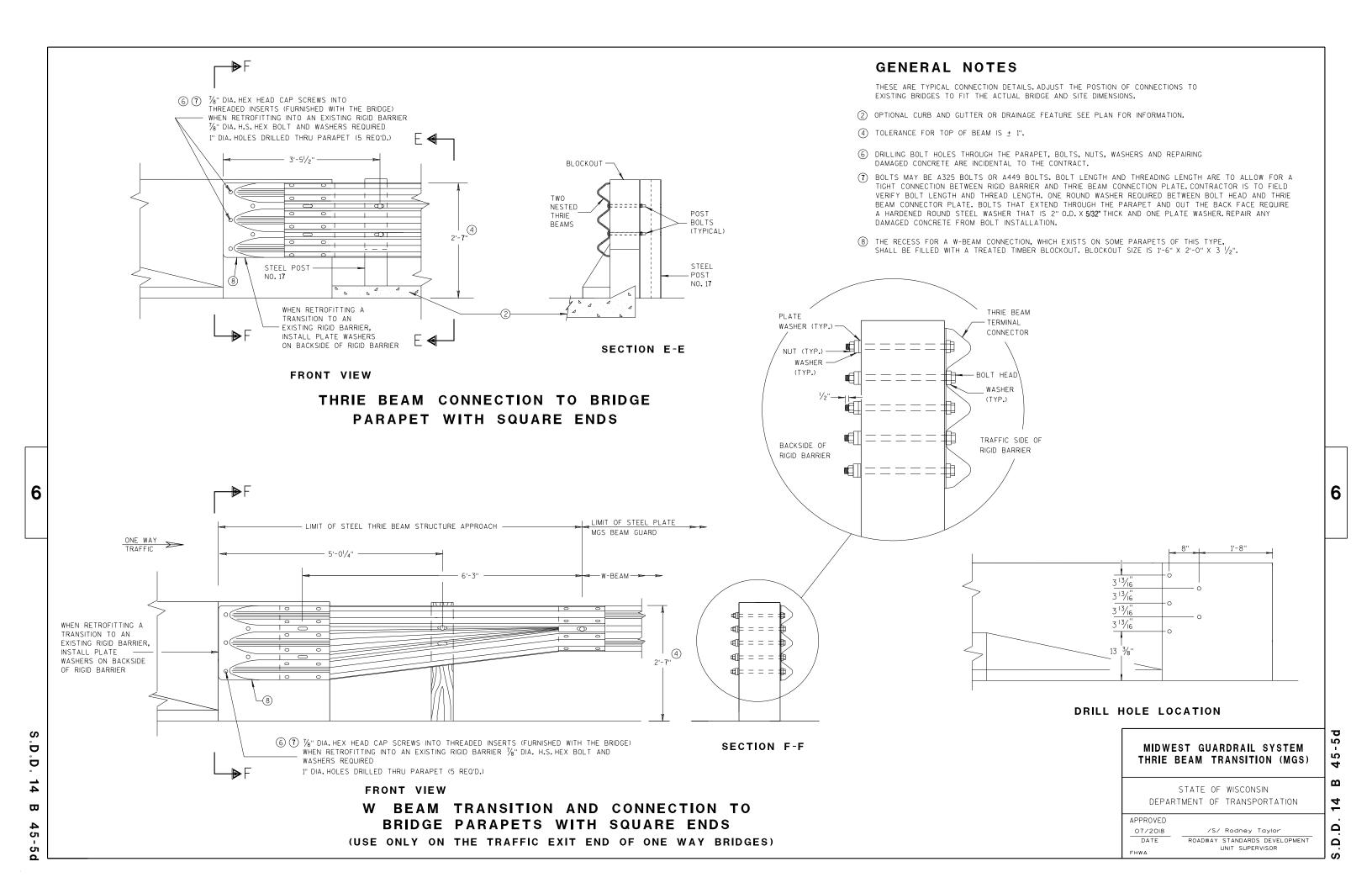
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

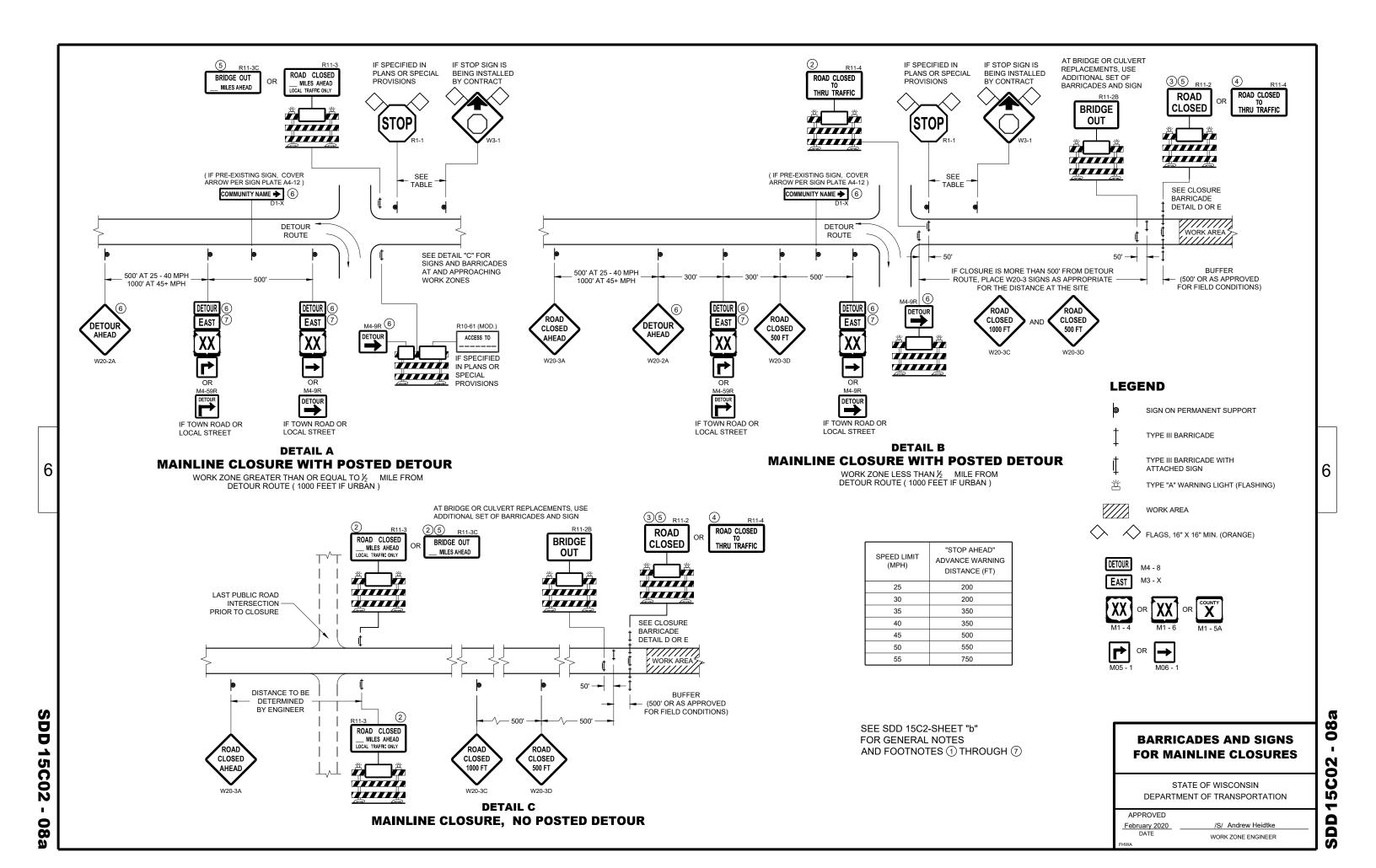


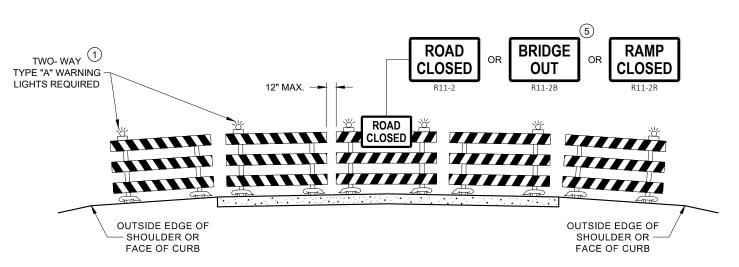




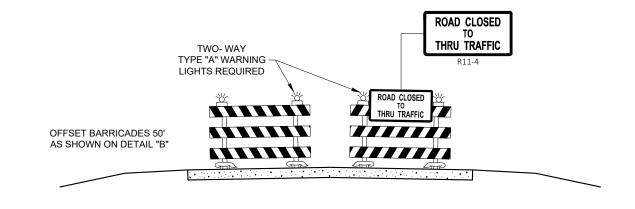








DETAIL D ROAD CLOSURE BARRICADE DETAIL APPROACH VIEW



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

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"

- 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**
- THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- (3) FOR ROAD CLOSURE <u>WITHOUT</u> 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
- "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

WORK ZONE ENGINEER

0

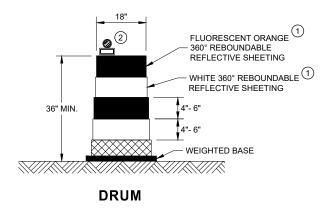
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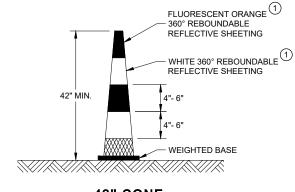
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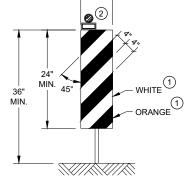


GENERAL NOTES

- (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.



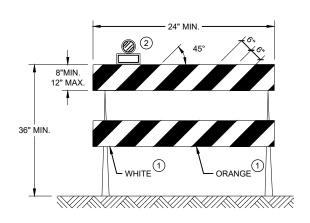




42" CONE DO NOT USE IN TAPERS ½ SPACING OF DRUMS

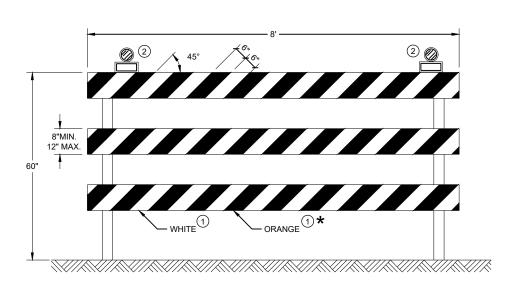
VERTICAL PANEL

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

08

SDD 15C

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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



TUBULAR STEEL POSTS

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

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SO.FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE). SIGNS LARGER THAN 27 SO.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH**

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

4" X 6" WOOD POST

POST SPACING REQUIREM	MENTS	NUMBER OF	
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2	٤
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

RURAL AREA

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

-11

D D 15 D ∞

6

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6

- 11/2" DIAMETER HOLES

Ω

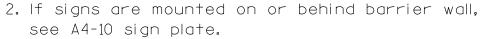
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

> /S/ Andrew Heidtke WORK ZONE ENGINEER

APPROVED

June 2017 DATE



The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (\pm). 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" (\pm).

- 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 $5'-3''(\frac{+}{2})$.
- 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'' (\pm) or as directd by the Engineer.

2' Min - 4' Max (See Note 6)

** Curb Flowline

D
White Edgeline Location

*

6'-3"(±)

D |

Outside Edge

of Gravel

White Edgeline
Location

Outside Edge
of Gravel

d.

POST EMBEDMENT DEPTH

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

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.

HWY:

* 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.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

Matther & Rawk For State Traffic Engineer

DATE 5/13/2020 PLATE NO. _A4-3.22

SHEET NO:

Ε

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.dgn

PROJECT NO:

PLOT DATE: 13-MAY 2020 1:04

COUNTY:

PLOT BY : mscj9h

PLOT NAME :

PLOT SCALE: \$\$.....plo†scale.....\$\$ WISDOT/CADDS SHEET 42

APPROVED



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

Nather R Raw
For State Traffic Engineer

DATE <u>8/11/16</u>

PLATE NO. <u>44-8.8</u>

PROJECT NO:

FILE NAME : C:\CAFfiles\Projects\tr stdplote\A48 DCN

PLOT DATE . 11-416-2016 11:35

PINT RY * \$\$ nintuser \$\$

SHEET NO:

| | |



NOTES

- 1. Sign is Type II Type H Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - White Message - Black

- 3. Message Series D
- 4. 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.

C —		\
D A E A		$ \begin{array}{c c} G & \hline & F & \hline & B & \hline & G & G & G & \hline & G & G & G & G & \hline & G & G & G & G & \hline & G & G & G & G & G & G \\ & G & G & G & G & G & G $
	R11-2B	

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	M	N	0	Р	0	R	S	T	U	V	W	X	Y	Z	Areg sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
2M	48	30	1 %	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
4	48	30	1 %	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0

STANDARD SIGN R11-2B

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-2B.2

SHEET NO:

PROJECT NO:



- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. 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.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

R11-3B

** See Note 5

HWY:

D ➤

E→

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	T	U	٧	w	Х	Υ	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 ¾	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4 . 5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 %	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 1/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 %	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 1/8			12.5
3																											
4																											
5																											

COUNTY:

STANDARD SIGN R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew & Rawh DATE 3/21/17 PLATE NO. R11-3B.3

SHEET NO:

PLOT BY: \$\$...plotuser...\$\$ PLOT NAME:

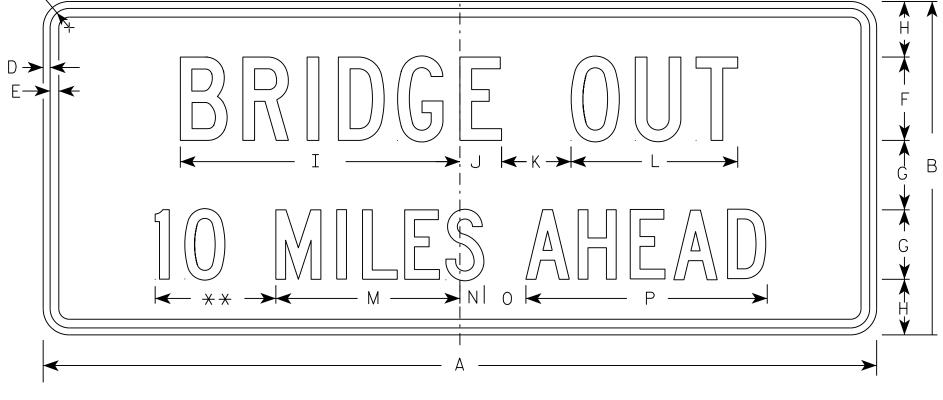
PROJECT NO:



- 1. Sign is Type II Type H Reflective
- 2. Color:

Background - White Message - Black

- 3. Message Series C
- 4. 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.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5

1/4 MILF AH

SIZE	Α	В	С	D	E	F	G	Н	I	٦	K	L	М	N	0	Р	Q	R	S	Т	C	٧	W	Х	Υ	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 ¾		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 1/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 1/8									10.0
3																											
4																											
5																											

STANDARD SIGN R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch
For State Traffic Engineer

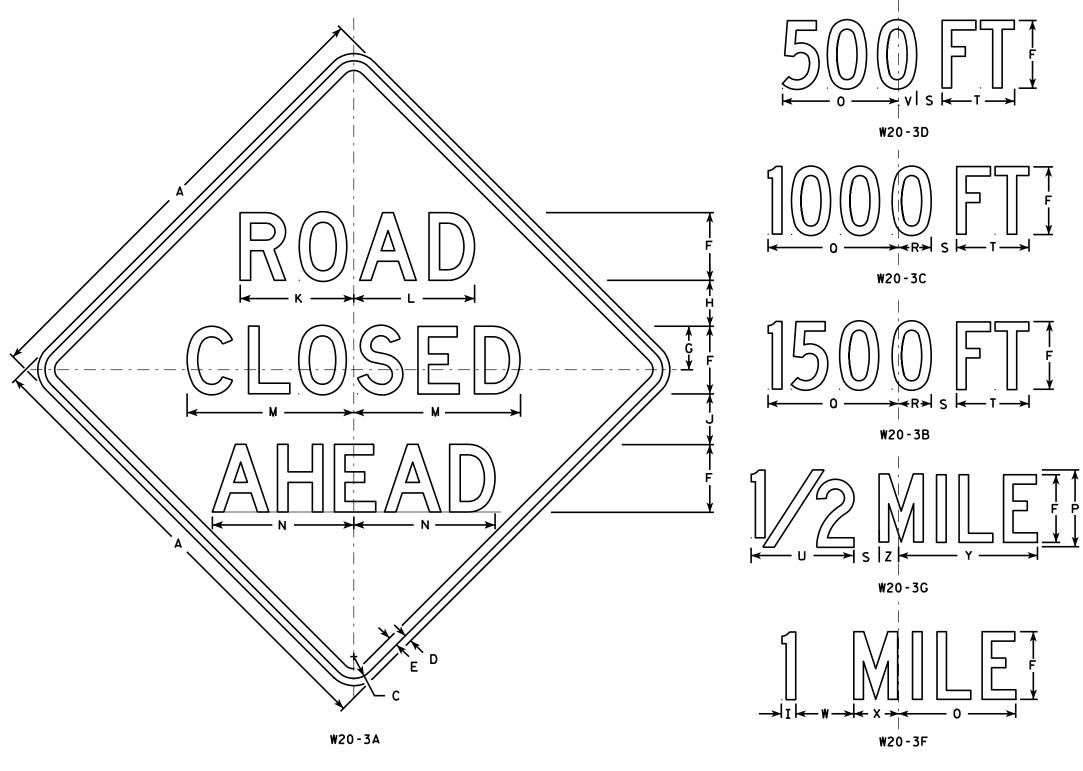
DATE <u>7/28/16</u>

PLATE NO. R11-3C.3

SHEET NO:

PROJECT NO:





NOTES

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Orange Message - Black

- 3. Message Series see note 5
- 4. 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.
- 5. Lines 1 and 2 are Series D. Line 3 is Series D for AHEAD and Series C for all other distances.

1 % 5/8 ¾ 8 3/8 8 7/8 12 1/2 5 % 1 3/8 4 1/2 36 3 1/2 10 3/4 1 3/4 8 4 \(\frac{5}{8} \) 14 \(\frac{3}{8} \) 2 \(\frac{3}{8} \) 16.0 3/4 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 7 1/2 10 5/8 1 7/8 2M 3/4 4 \\ 14 \\ 38 \ 2 \\ 38 \ 16.0 48 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 7 1/2 10 % 1 % 4 1/2 4 3/4 1 1/2 5 1/4 11 3/4 12 1/2 17 1/4 14 5/8 3/4 13 1/2 3 3/8 2 5/8 7 1/2 10 5/8 1 3/8 4 % | 14 % | 2 % | 16.0 48 3/4 4 1/2 4 3/4 1 1/2 5 1/4 11 3/4 12 1/2 17 1/4 14 5/8 13 1/2 3 3/8 2 5/8 4 \\ 14 \\ 38 \ 2 \\ 38 \ 16.0 7 1/2 10 5/8 1 7/8 48 5 4 5/8 14 3/8 2 3/8 16.0 3/4 2 1/4 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 13 1/2 3 3/8 2 5/8 7 1/2 10 5/8 1 3/8 48

COUNTY:

STANDARD SIGN W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer DATE 3/18/11

PLATE NO. W20-3.7

SHEET NO:

PROJECT NO: FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN HWY:

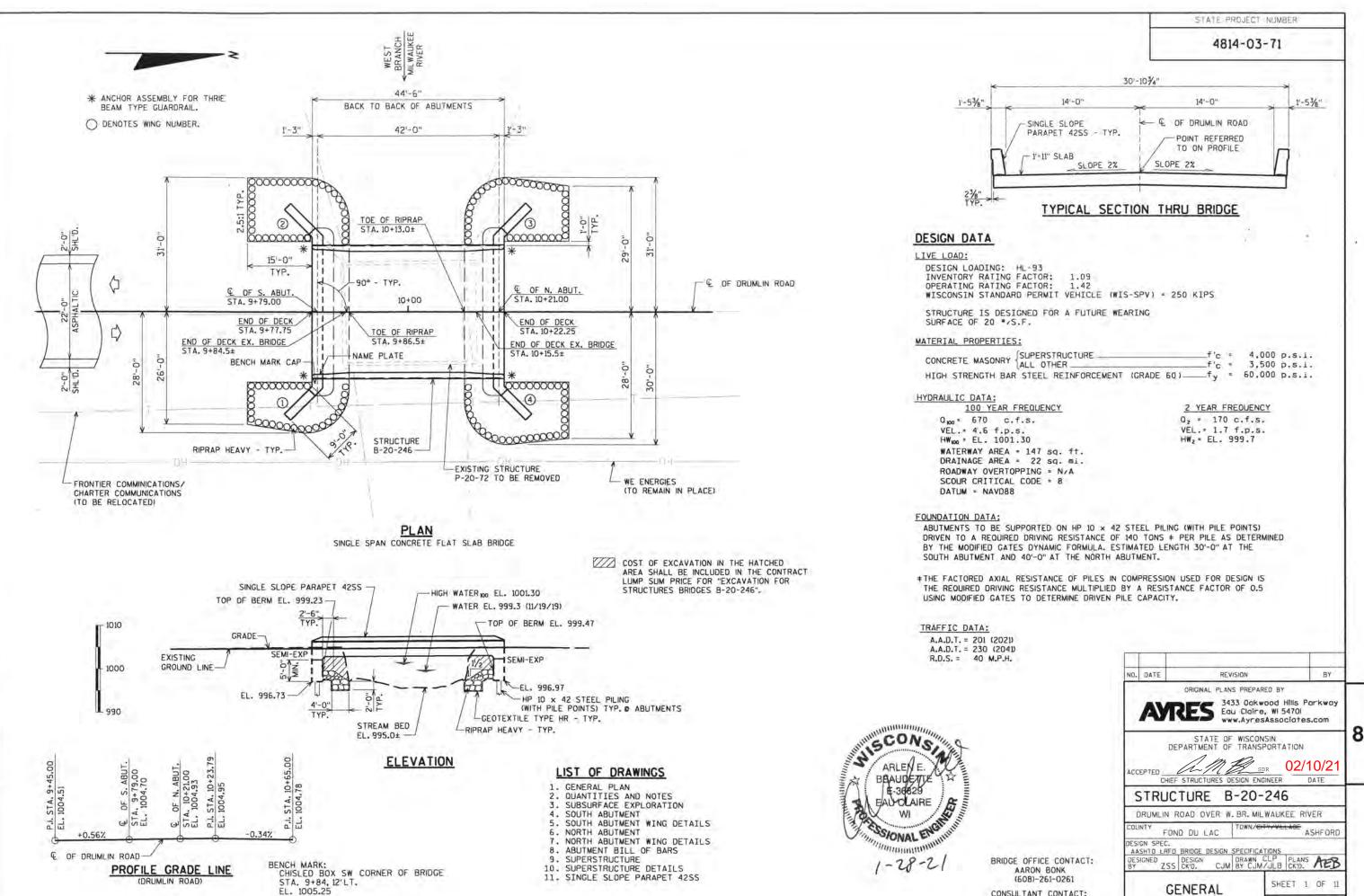
PLOT DATE: 18-MAR-2011 12:08

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: 9.931739:1.000000

WISDOT/CADDS SHEET 42



C:#Users+marcumc+Desktop+450482 gp.dgn

DATE: DATE: DATE:

8

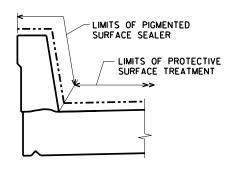
CONSULTANT CONTACT: ARLEN BEAUDETTE

GENERAL PLAN (715)-834-3161 I.D. DATE:

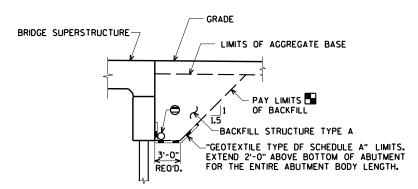
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL	CATEGORY 0020	CATEGORY 0030
203.0210.5	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-20-246	LS				1	1	
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS				1	1	
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-20-246	LS				1	1	
206.5000	COFFERDAMS B-20-246	LS				1	1	
210.1500	BACKFILL STRUCTURE TYPE A	TON	190	190		380	360	20
502.0100	CONCRETE MASONRY BRIDGES	CY	28	28	114	170	161	9
502.3200	PROTECTIVE SURFACE TREATMENT	SY			140	140	130	10
502.3210	PIGMENTED SURFACE SEALER	SY			45	45	45	
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,270	2,270		4,540	4,240	300
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,330	1,330	19,870	22,530	21,430	1,100
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	6		12	12	
550.0500	PILE POINTS	EACH	7	7		14	14	
550.1100	PILING STEEL HP 10-INCH X 42-LB	LF	210	280		490	490	
606.0300	RIPRAP HEAVY	CY	70	75	-	145	145	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	75		150	145	5
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH			4	4	4	
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	50		100	100	
645.0120	GEOTEXTILE TYPE HR	SY	145	155	-	300	300	
	NON-BID ITEMS							
	FILLER	SIZE				1/2" & 3/4"		

CATEGORY 0030 IS FOR AN ADDITIONAL 2'-0" OF BRIDGE WIDTH

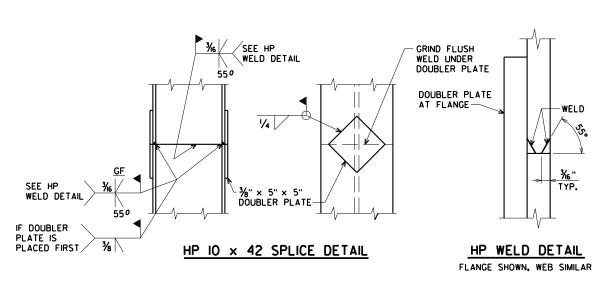


PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAIL



BACKFILL STRUCTURE LIMITS

- BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 8.



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-246

SHEET 2 OF 11

PLANS CK'D.

СВМ

QUANTITIES AND NOTES

3433 Oakwood Hills Parkway Eau Claire, WI 54701

GENERAL NOTES DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE. JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS. SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE

SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-20-246" SHALL BE THE EXISTING GROUNDLINE.

THE EXISTING STRUCTURE, P-20-72, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE ON MASONRY ABUTMENTS. 31.0 FT. LONG WITH A 22.6 FT. CLEAR ROADWAY WIDTH.

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.

PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET. BEVEL EXPOSED EDGES OF CONCRETE 34" UNLESS NOTED

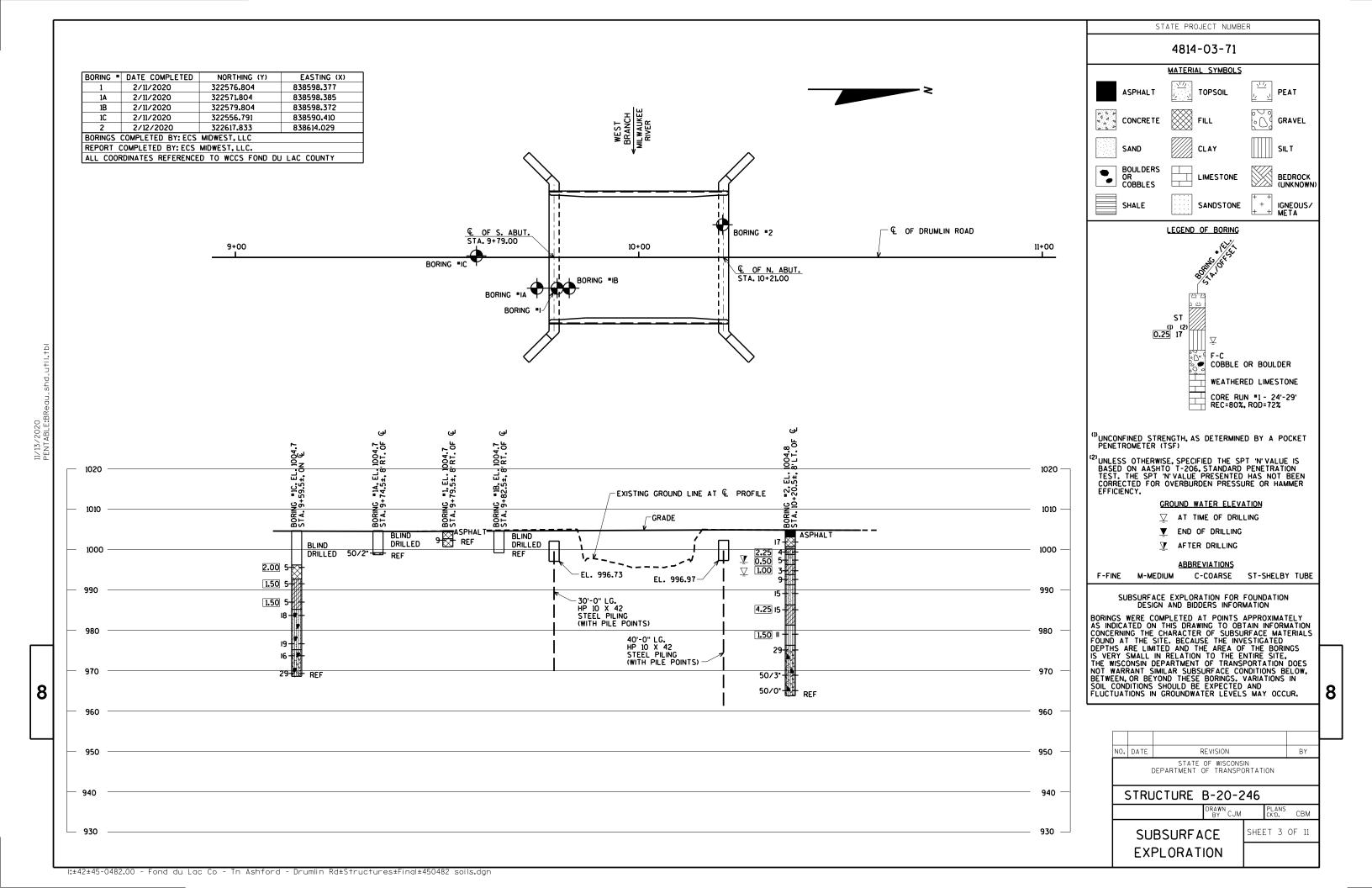
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-O" ABOVE BOTTOM OF ABUTMENT.

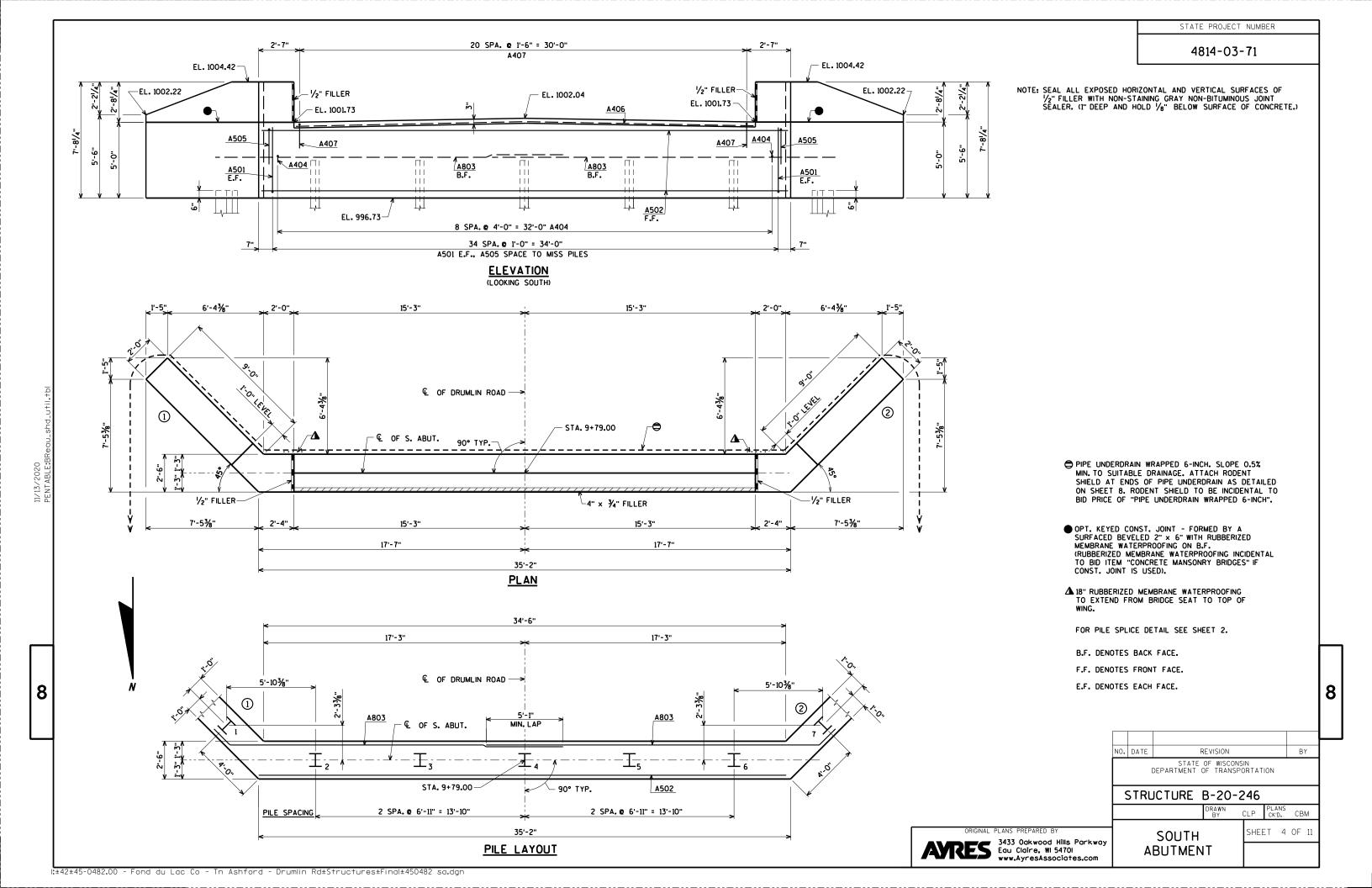
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATIONS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

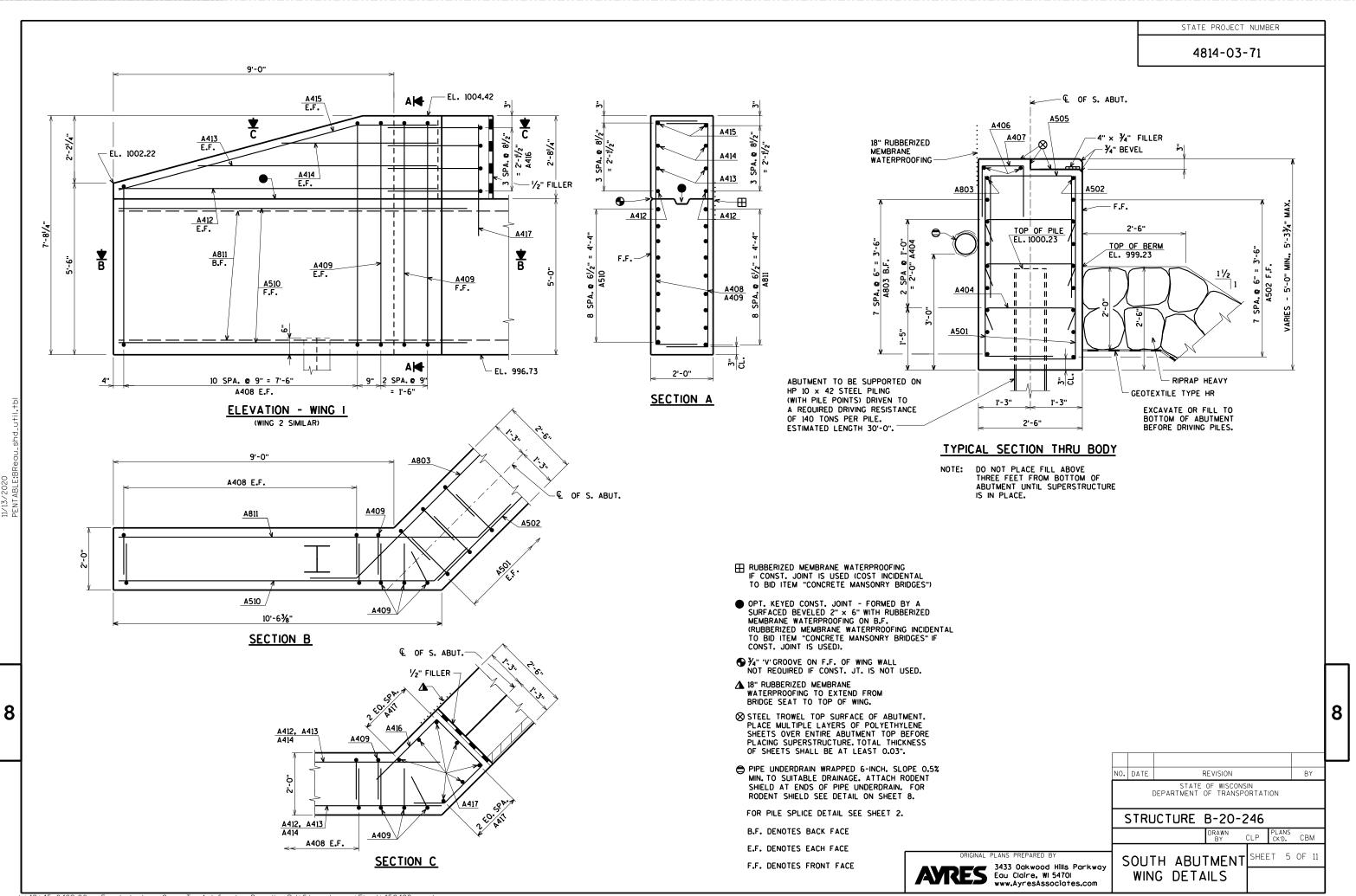
EXTENT OF BELOW GRADE SUBSTRUCTURES ARE NOT KNOWN.
REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW
SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO THE "REMOVING OLD STRUCTURE" BID ITEM.

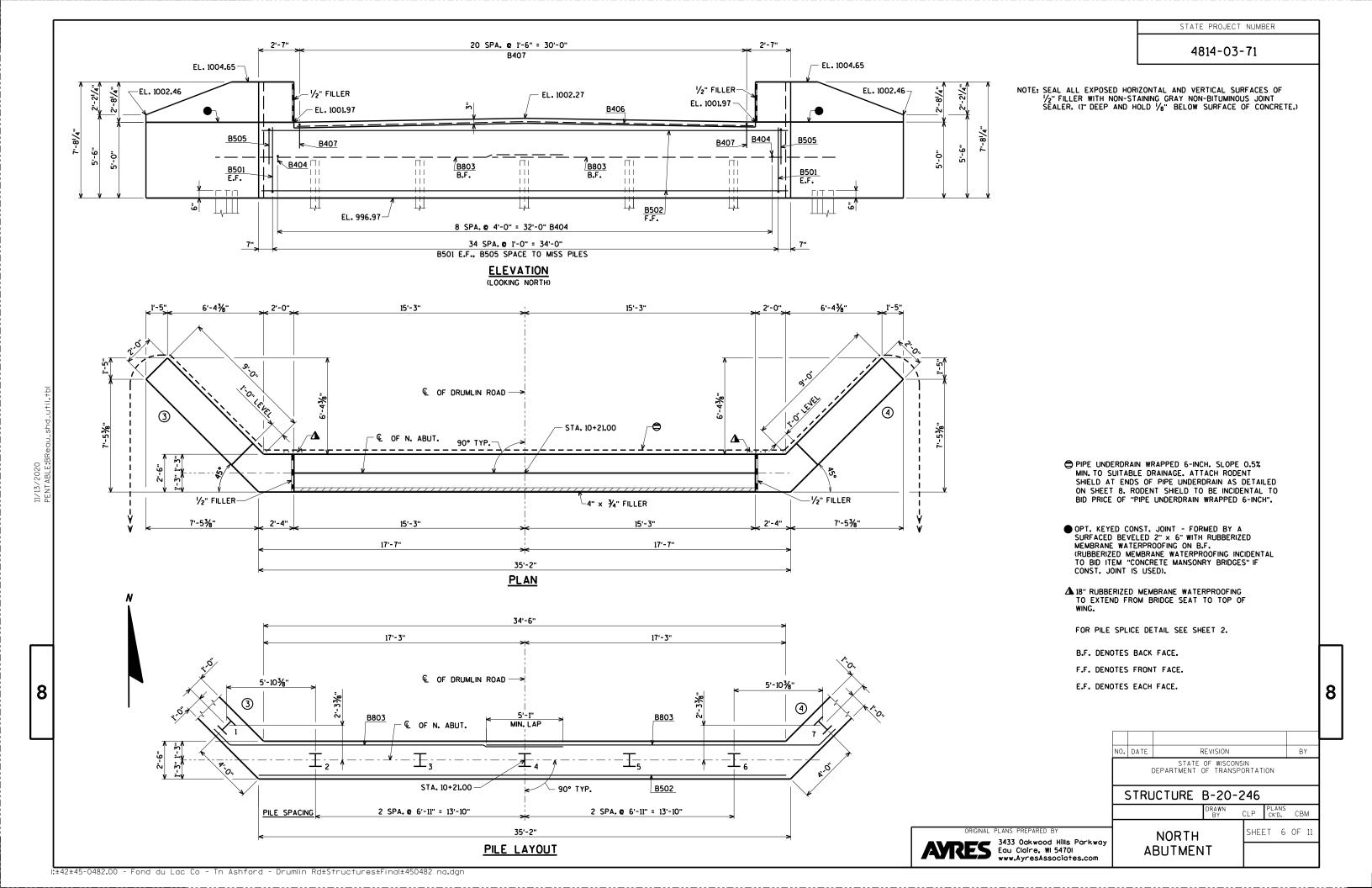
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD

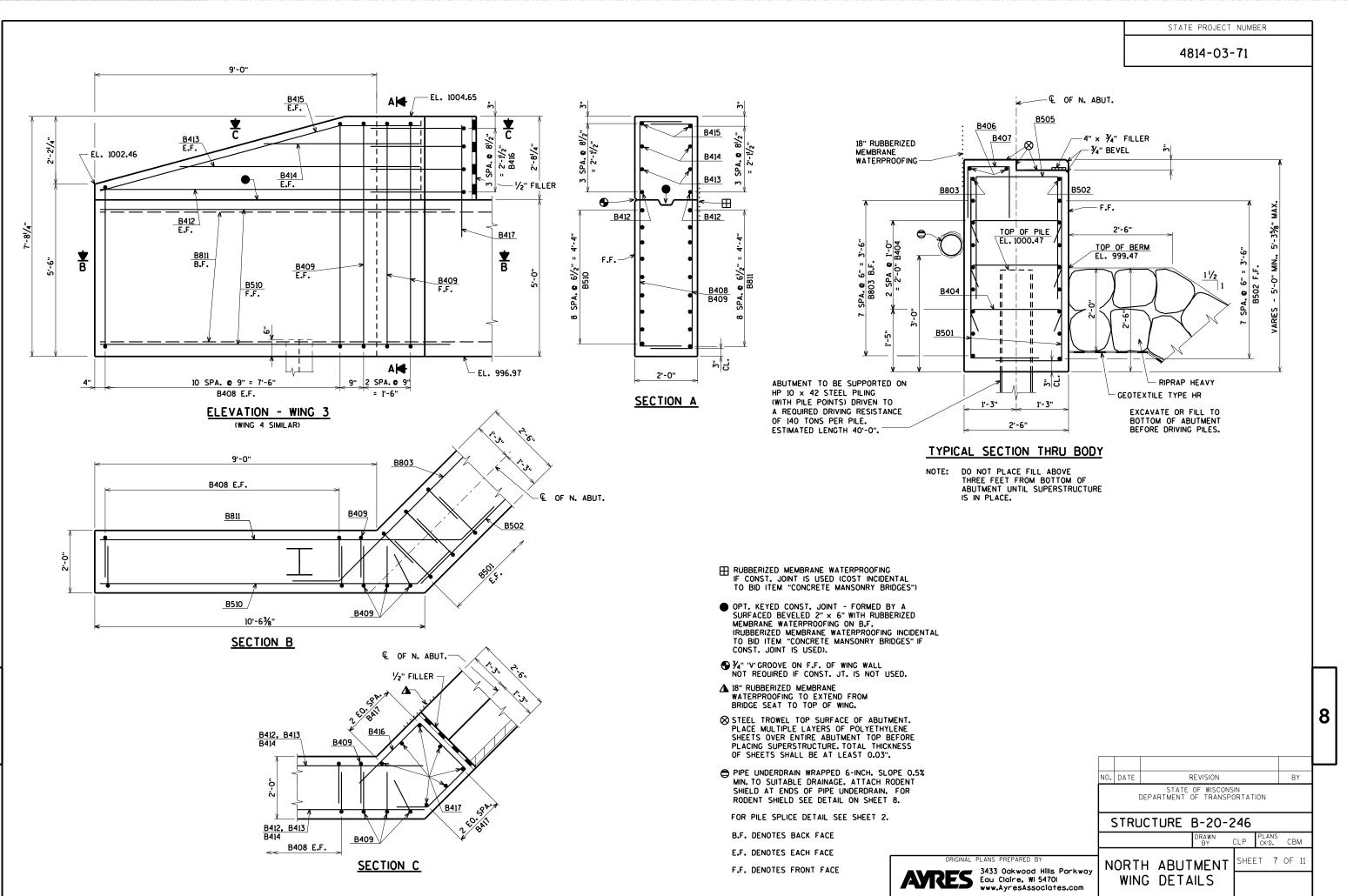
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BILL OF BARS - SOUTH ABUTMENT

DILL		JF DF	<u>иио -</u>	_	<u> </u>	U	IN ADUIMENI
o Q	D BAR	NO. REO'D.	LENGTH	BAR)LED	SERIES	1,330" COATED 2,270" UNCOATED
BAR	COATED	NO. F		BENT	-	BAR	LOCATION
A501		70	5-9	X			BODY VERT. E.F.
A502		9	34-11				BODY HORIZ. F.F.
A803		18	23-7	×			BODY HORIZ. B.F.
A404		27	2-9	×			BODY TIES
A505		35	6-9	×			BODY VERT. TOP
A406		2	30-2				BODY HORIZ. @ TOP NOTCH
A407		21	3-9	×			BODY VERT. @ TOP NOTCH
A408	Х	44	8-8	×		8	WINGS 1 & 2 VERT. E.F
A409	Х	8	9-9	×			WINGS 1 & 2 VERT. E.F.
A510	Х	18	11-7	×			WINGS 1 & 2 HORIZ. F.F.
A811	Х	18					WINGS 1 & 2 HORIZ. B.F.
A412	Х	4	10-3				WINGS 1 & 2 HORIZ. E.F.
A413	X	4	8-0				WINGS 1 & 2 HORIZ. E.F.
A414	X	4	5-4				WINGS 1 & 2 HORIZ. E.F.
A415	Х	4	10-6	×			WINGS 1 & 2 DIAG. E.F.
A416	Х	8	8 - 8	×			WINGS 1 & 2 HORIZ.
A417	Х	14	4-0				WINGS 1 & 2 VERT.
	\Box				\Box		
						ı	

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

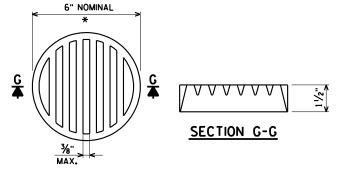
E.F. DENOTES EACH FACE.

NO.	D BAR	REO'D.	-ENGTH	BAR	BUNDLED	SERIES	1,330" COATED 2,270" UNCOATED
BAR	COATED	NO. F	ΓEΝ	BENT	NN8	BAR	
B501		70	5-9	Х			BODY VERT. E.F.
B502		9	34-11				BODY HORIZ. F.F.
B803		18	23-7	×			BODY HORIZ. B.F.
B404		27	2-9	×			BODY TIES
B505		35	6-9	×			BODY VERT. TOP
B406		2	30-2				BODY HORIZ. @ TOP NOTCH
B407		21	3-9	×			BODY VERT. @ TOP NOTCH
B408	X	44	8-8	×		8	WINGS 3 & 4 VERT. E.F
B409	X	8	9-9	×			WINGS 3 & 4 VERT. E.F.
B510	X	18	11-7				WINGS 3 & 4 HORIZ. F.F.
B811	Х	18	13-2				WINGS 3 & 4 HORIZ. B.F.
B412	Х	4	10-3				WINGS 3 & 4 HORIZ. E.F.
B413	Х	4	8-0				WINGS 3 & 4 HORIZ. E.F.
B414	Х	4	5-4				WINGS 3 & 4 HORIZ. E.F.
B415	х	4	10-6				WINGS 3 & 4 DIAG. E.F.
B416	Х	8	8-8	X			WINGS 3 & 4 HORIZ.
B417	х	14	4-0				WINGS 3 & 4 VERT.

BAR SERIES TABLE

BAR MARK	NO REO'D.	LENGTH
A408	2 SERIES OF 11	7'-8" TO 9'-8"
B408	2 SERIES OF 11	7'-8" TO 9'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY.



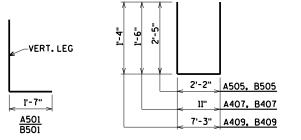
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

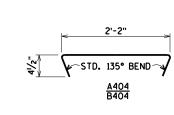
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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

RODENT SHIELD DETAIL

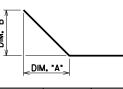
BILL OF BARS - NORTH ABUTMENT



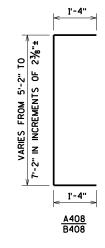


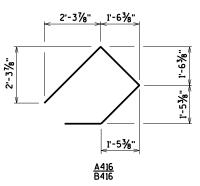
STATE PROJECT NUMBER

4814-03-71



BAR NO.	DIM. "A"	DIM. "B"
4007	3/	
A803	1'-0¾"	1'-0¾
A510	1'-0¾"	1'-0¾
A811	1'-0¾"	1'-0¾
A415	8'-0"	2'-2"
B803	1'-0¾"	1'-0¾
B510	1'-0¾"	1'-0¾
B811	1'-0¾"	1'-0¾
B415	8'-0"	2'-2"





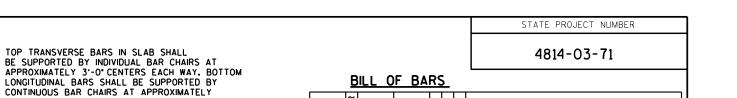


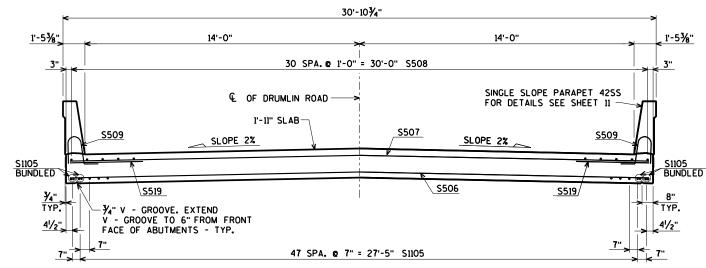
ABUTMENT

BILL OF BARS

8

ATRES 3433 Oakwood Hills Parkway Eau Claire, WI 5470I www.AyresAssociates.com





TYPICAL SECTION THRU BRIDGE

BAR SERIES TABLE

S1105

WIRE BARS TOGETHER

2'-0" CENTERS

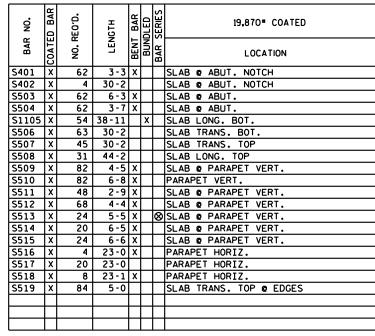
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT

CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

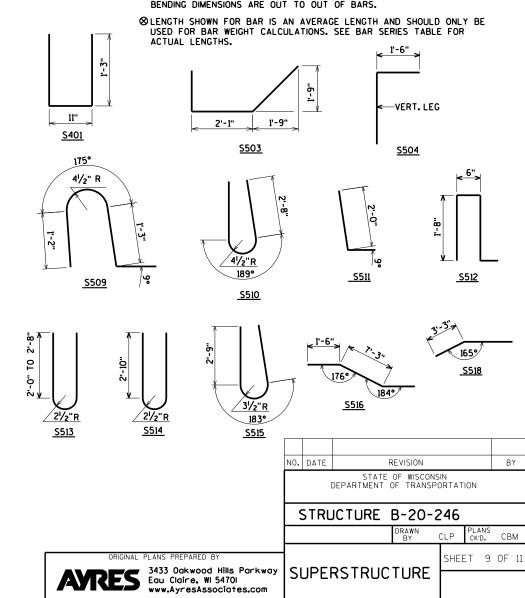
	BAR MARK	NO REO'D.	LENGTH
ĺ	S513	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

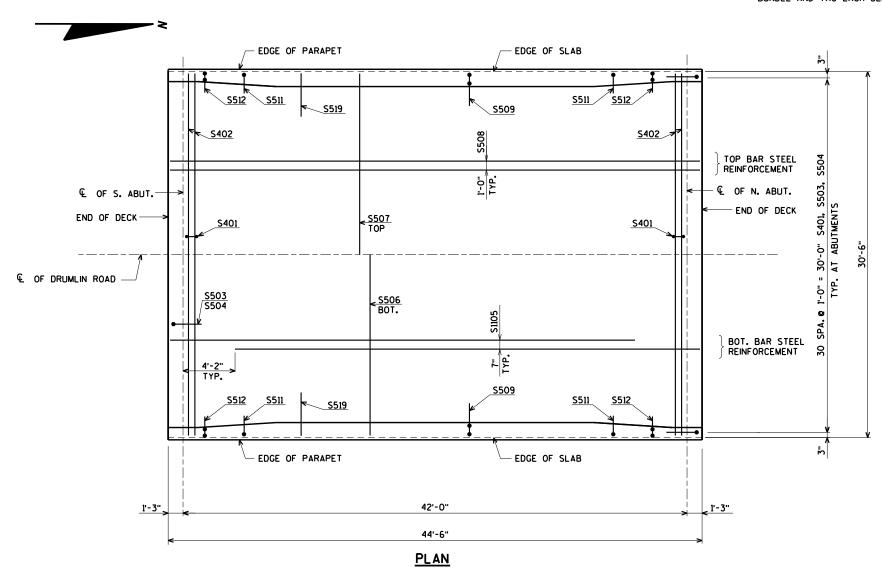
BUNDLING DETAIL



BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

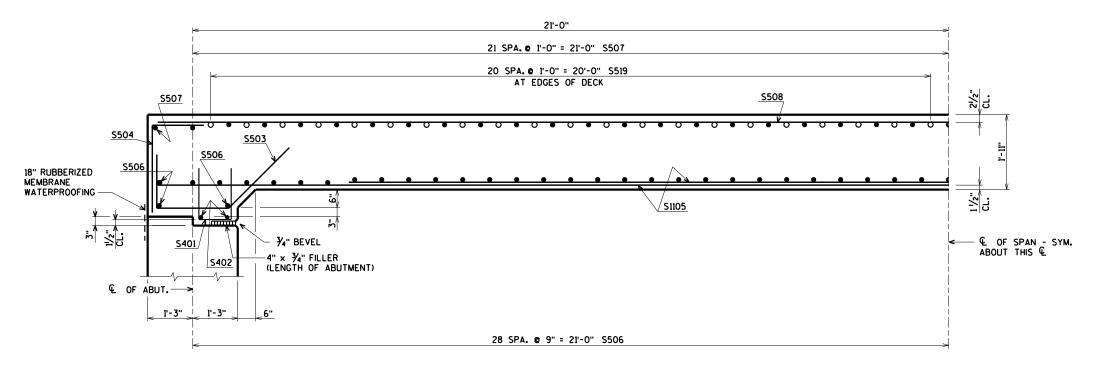


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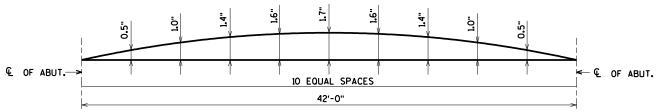


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4814-03-71



PART LONGITUDINAL SECTION



CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TOP OF SLAB ELEVATIONS

	LOCATION	€ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	€ OF N. ABUT.
	W. EDGE OF SLAB	1004.42	1004.44	1004.47	1004.49	1004.51	1004.54	1004.56	1004.58	1004.61	1004.63	1004.65
	€ OF STRUCTURE	1004.70	1004.72	1004.75	1004.77	1004.79	1004.82	1004.84	1004.86	1004.89	1004.91	1004.93
Į	E. EDGE OF SLAB	1004.42	1004.44	1004.47	1004.49	1004.51	1004.54	1004.56	1004.58	1004.61	1004.63	1004.65

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

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	€ OF S. ABUT.	5/10 PTS.	€ OF N. ABUT.
W.GUTTER			
€ OF STRUCTURE			
E. GUTTER			

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

ORIGINAL PLANS PREPARED BY

3433 Oakwood Hills Parkway
Eau Claire, WI 5470I
www.AyresAssociates.com

NO. DATE REVISION BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-20-246

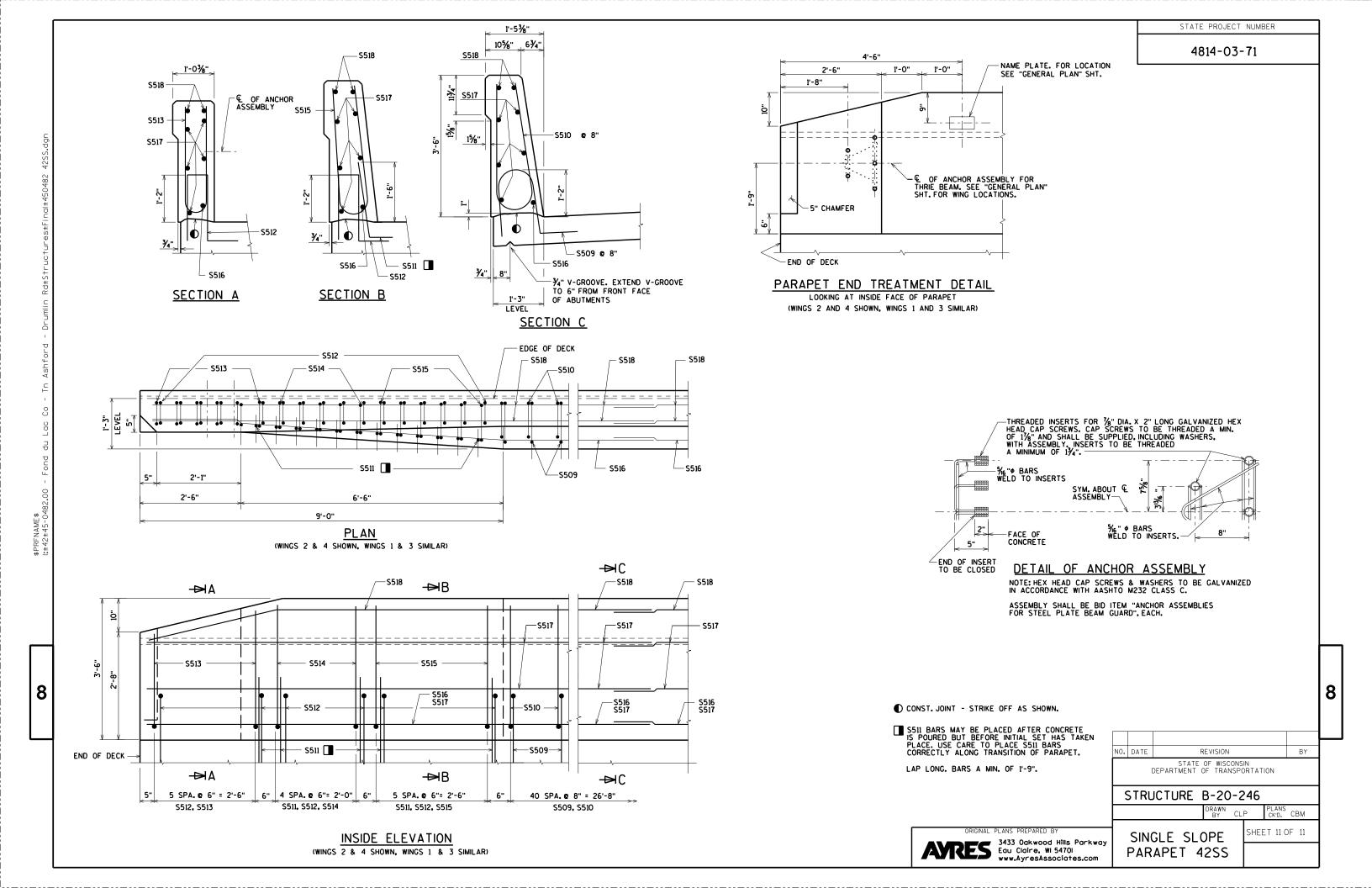
DRAWN
BY

CLP
PLANS
CKD. CBM

SUPERSTRUCTURE
DETAILS

SHEET 10 OF 11

| |:±42±45-0482.00 - Fond du Lac Co - Tn Ashford - Drumlin Rd±Structures±Final±450482 sup.dgn 8



	AREA (SF	=)			Increme	ntal Vol (CY) (Unadjusted	d)		Cumulativ	re Vol (CY)		
		Unusable				Unusable				Expanded	Expanded	
	Cut	Pavement Material	Fill	Marsh Exc	Cut	Pavement Material	Fill	Marsh Exc	Cut	Fill	Marsh Backfill	Mass Ordinate
STATION									1.00	1.30	1.50	
					Note 1	Note 2	Note 3		Note 1		Note 4	Note 8
6+62.93	5.79	0.00	0.00	0.00	0	0	0	0	0	0	0	0
7+00	5.14	0.00	0.11	0.00	8	0	0	0	8	0	0	7
7+11.8	4.98	0.00	0.29	0.00	2	0	0	0	10	0	0	10
7+50	3.64	0.00	7.44	0.00	6	0	5	0	16	7	0	8
8+00	3.01	0.00	22.39	12.31	6	0	28	11	22	43	17	-21
8+13.2	3.11	0.00	24.24	15.37	1	0	11	7	23	58	27	-35
8+38.2	3.41	0.00	15.01	0.00	3	0	18	7	26	82	38	-55
8+50	3.54	0.00	12.79	0.00	2	0	6	0	28	90	38	-62
8+50.7	3.54	0.00	12.70	0.00	0	0	0	0	28	90	38	-62
8+63.2	3.65	0.00	10.71	0.00	2	0	5	0	30	97	38	-67
8+75.7	3.80	0.00	7.12	0.00	2	0	4	0	31	102	38	-71
9+00	3.92	0.00	8.41	0.00	3	0	7	0	35	111	38	-77
9+00.7	3.92	0.00	8.35	0.00	0	0	0	0	35	112	38	-77
9+45	3.31	0.00	11.07	15.00	6	0	16	12	41	132	56	-92

0 102 38 41

EARTHWORK - SW SHOULDER

	AREA (SF)				Increme	ntal Vol (CY) (Unadjuste	d)		Cumulativ	/e Vol (CY)		
		Unusable				Unusable				Expanded	Expanded	Ī
	Cut	Pavement Material	Fill	Marsh Exc	Cut	Pavement Material	Fill	Marsh Exc	Cut	Fill	Marsh Backfil	Mass Ordinate
STATION									1.00	1.30	1.50	
					Note 1	Note 2	Note 3		Note 1		Note 4	Note 8
7+11.8	4.04	0.00	0.00	0.00	0	0	0	0	0	0	0	0
7+50	4.19	0.00	0.70	0.00	6	0	0	0	6	1	0	5
8+00	3.83	0.00	8.66	0.00	7	0	9	0	13	12	0	1
8+13.2	3.88	0.00	11.89	0.00	2	0	5	0	15	18	0	-3
8+38.2	3.91	0.00	19.17	0.00	4	0	14	0	19	37	0	-18
8+50	4.02	0.00	22.19	13.19	2	0	9	3	20	49	4	-28
8+50.7	4.01	0.00	22.41	13.45	0	0	1	0	21	50	5	-29
8+63.2	3.75	0.00	19.23	0.00	2	0	10	3	22	62	10	-40
8+75.7	3.58	0.00	16.43	0.00	2	0	8	0	24	73	10	-49
9+00	3.27	0.00	15.87	0.00	3	0	15	0	27	92	10	-65
9+00.7	3.28	0.00	15.79	0.00	0	0	0	0	27	92	10	-65
9+45	2.99	0.00	23.36	25.00	5	0	32	21	32	134	40	-102

32 0 103 27

Notes:	
1 - Cut	Cut includes Unusable Pavement material
2 - Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill
8 - Mass Ordinate	Cut - Unusable Pavt - (Fill * Fill Factor)
8 - Mass Ordinate	Mass Ordinate does not include Marsh Excavation

PROJECT NUMBER: 4814-03-71

HWY: DRUMLIN ROAD

COUNTY: FOND DU LAC

COMPUTER EARTHWORK DATA

SHEET:

EARTHWORK - DRUMLIN ROAD

	AREA (SF	-)			Increme	ntal Vol (CY) (Unadjuste	d)		Cumulativ	ve Vol (CY)		
		Unusable				Unusable				Expanded	Expanded	
	Cut	Pavement Material	Fill	Marsh Exc	Cut	Pavement Material	Fill	Marsh Exc	Cut	Fill	Marsh Backfill	Mass Ordinate
STATION									1.00	1.30	1.50	
					Note 1	Note 2	Note 3		Note 1		Note 4	Note 8
9+45	26.33	6.67	40.28	25.22	0	0	0	0	0	0	0	0
9+50	27.63	6.67	38.07	40.84	5	1	7	6	5	9	9	-6
9+77.75	27.63	6.67	44.45	0.00	28	7	42	21	33	65	41	-39
B-20-246												-39
10+22.25	20.60	6.67	46.00	0.00	0	0	0	0	33	65	0	-39
10+50	20.60	6.67	46.00	0.00	21	7	47	0	55	126	0	-86
10+72	23.92	6.67	25.05	0.00	18	5	29	0	73	164	0	-111

EARTHWORK - NE SHOULDER

126 27

73 20

	AREA (SF)				Increme	ntal Vol (CY) (Unadjusted	d)		Cumulativ	e Vol (CY)		
		Unusable				Unusable				Expanded	Expanded	
	Cut	Pavement Material	Fill	Marsh Exc	Cut	Pavement Material	Fill	Marsh Exc	Cut	Fill	Marsh Backfill	Mass Ordinate
STATION									1.00	1.30	1.50	
					Note 1	Note 2	Note 3		Note 1		Note 4	Note 8
10+72	11.28	0.00	9.09	0.00	0	0	0	0	0	0	0	0
10+86.8	2.70	0.00	9.50	0.00	4	0	5	0	4	7	0	-3
10+99.3	2.95	0.00	12.88	0.00	1	0	5	0	5	13	0	-8
11+00	2.97	0.00	13.05	0.00	0	0	0	0	5	14	0	-9
11+24.3	3.82	0.00	10.80	0.00	3	0	11	0	8	28	0	-19
11+36.8	4.39	0.00	11.40	0.00	2	0	5	0	10	34	0	-24
11+49.3	4.96	0.00	11.37	0.00	2	0	5	0	12	41	0	-29
11+50	5.00	0.00	11.08	0.00	0	0	0	0	12	42	0	-29
11+61.8	5.62	0.00	6.44	0.00	2	0	4	0	15	47	0	-32
11+86.8	6.06	0.00	2.67	0.00	5	0	4	0	20	52	0	-32
12+00	6.36	0.00	0.75	0.00	3	0	1	0	23	53	0	-30
12+50	6.38	0.00	0.00	0.00	12	0	1	0	35	54	0	-19
12+68.55	4.87	0.00	0.00	0.00	4	0	0	0	39	54	0	-15

0 42 39

Notes:	
1 - Cut	Cut includes Unusable Pavement material
2 - Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill
8 - Mass Ordinate	Cut - Unusable Pavt - (Fill * Fill Factor)
8 - Mass Ordinate	Mass Ordinate does not include Marsh Excavation

PROJECT NUMBER: 4814-03-71

HWY: DRUMLIN ROAD

COUNTY: FOND DU LAC

COMPUTER EARTHWORK DATA

SHEET:

EARTHWORK - NW SHOULDER

	AREA (SF	=)			Increme	ntal Vol (CY) (Unadjuste	d)		Cumulativ	ve Vol (CY)		
		Unusable				Unusable				Expanded	Expanded	
	Cut	Pavement Material	Fill	Marsh Exc	Cut	Pavement Material	Fill	Marsh Exc	Cut	Fill	Marsh Backfill	Mass Ordinate
STATION									1.00	1.30	1.50	
					Note 1	Note 2	Note 3		Note 1		Note 4	Note 8
10+72	10.61	0.00	15.78	0.00	0	0	0	0	0	0	0	0
10+86.8	1.77	0.00	13.45	0.00	3	0	8	0	3	10	0	-7
10+99.3	2.05	0.00	12.53	0.00	1	0	6	0	4	18	0	-14
11+00	2.07	0.00	12.48	0.00	0	0	0	0	4	19	0	-14
11+24.3	2.53	0.00	10.63	0.00	2	0	10	0	6	32	0	-26
11+36.8	2.48	0.00	11.87	13.89	1	0	5	3	8	39	5	-31
11+49.3	2.49	0.00	12.24	20.18	1	0	6	8	9	46	17	-37
11+50	2.49	0.00	12.24	20.55	0	0	0	1	9	47	17	-38
11+61.8	2.51	0.00	11.96	25.03	1	0	5	10	10	53	32	-44
11+86.8	0.00	0.00	23.82	22.72	1	0	17	22	11	75	66	-64
12+00	3.15	0.00	10.89	0.00	1	0	8	6	12	86	74	-74
12+50	4.35	0.00	1.15	0.00	7	0	11	0	19	101	74	-82
12+68.55	4.92	0.00	0.01	0.00	3	0	0	0	22	101	74	-79
13+00	7.09	0.00	0.00	0.00	7	0	0	0	29	101	74	-72
13+22.31	3.45	0.00	0.00	0.00	4	0	0	0	33	101	74	-68

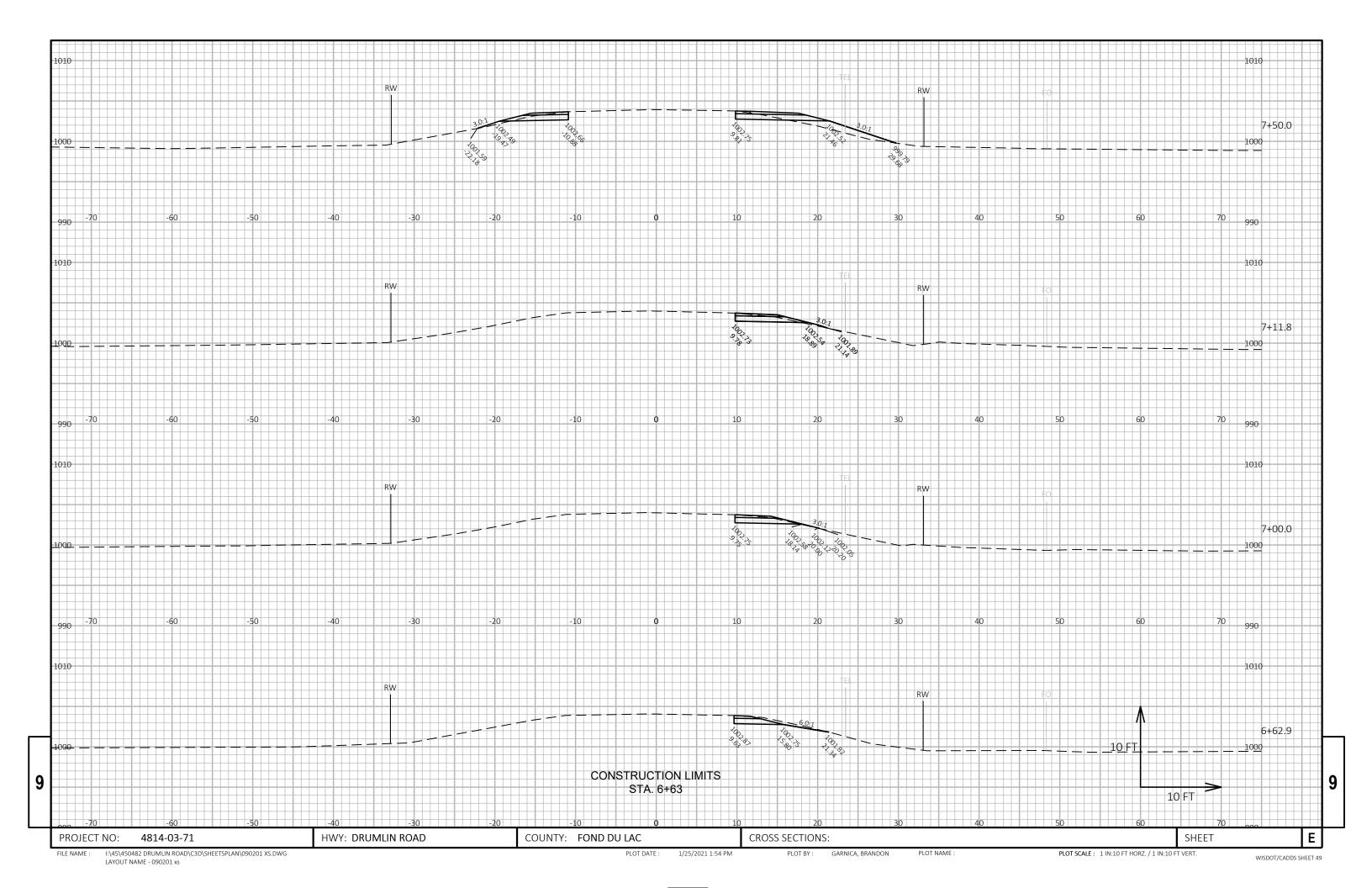
33 0 78 49

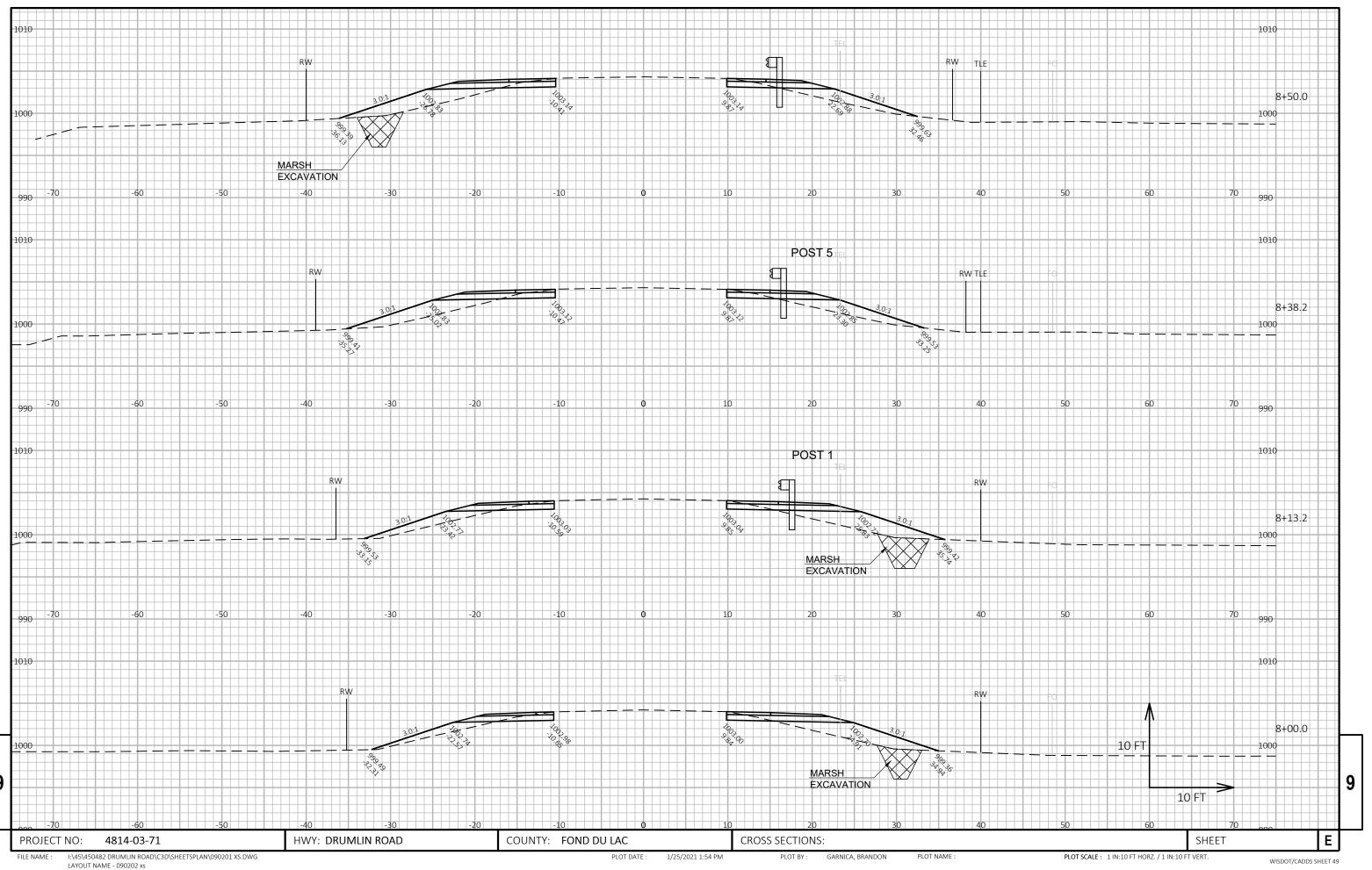
Notes:	
	Cut includes Unusable Pavement material
2 - Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill
	Cut - Unusable Pavt - (Fill * Fill Factor)
8 - Mass Ordinate	Mass Ordinate does not include Marsh Excavation

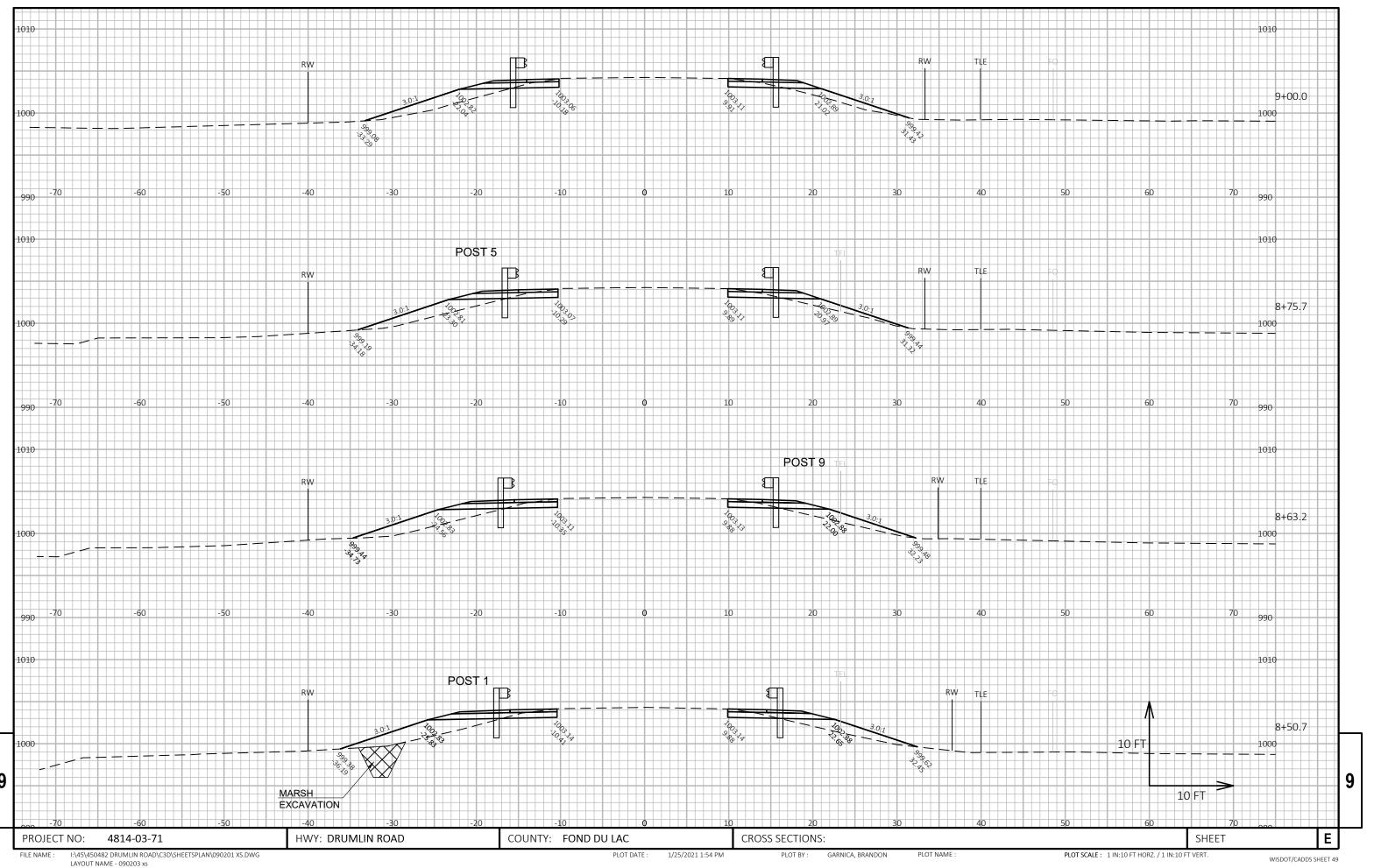
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9

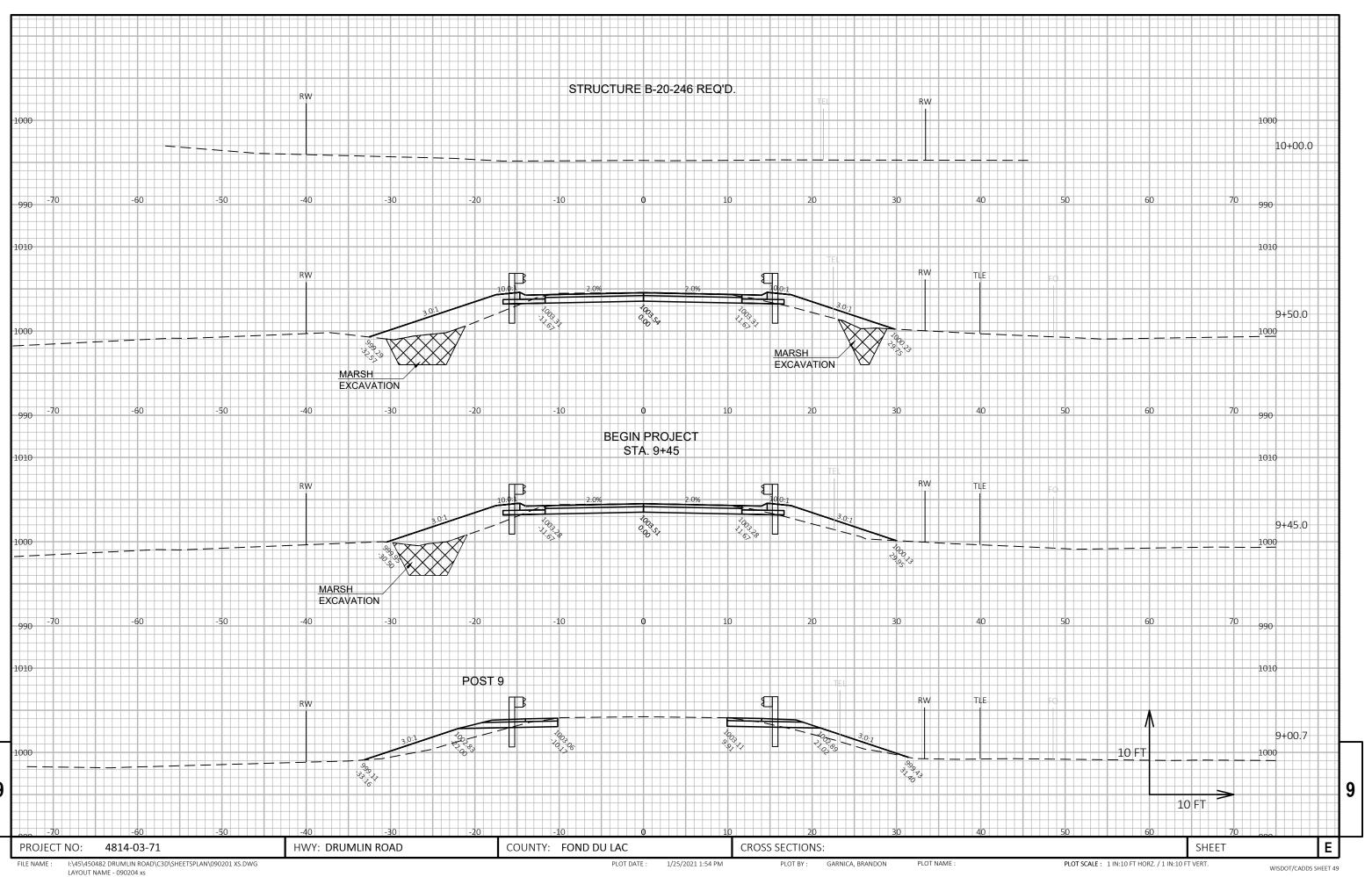
PROJECT NUMBER: 4814-03-71 HWY: DRUMLIN ROAD COUNTY: FOND DU LAC COMPUTER EARTHWORK DATA SHEET:

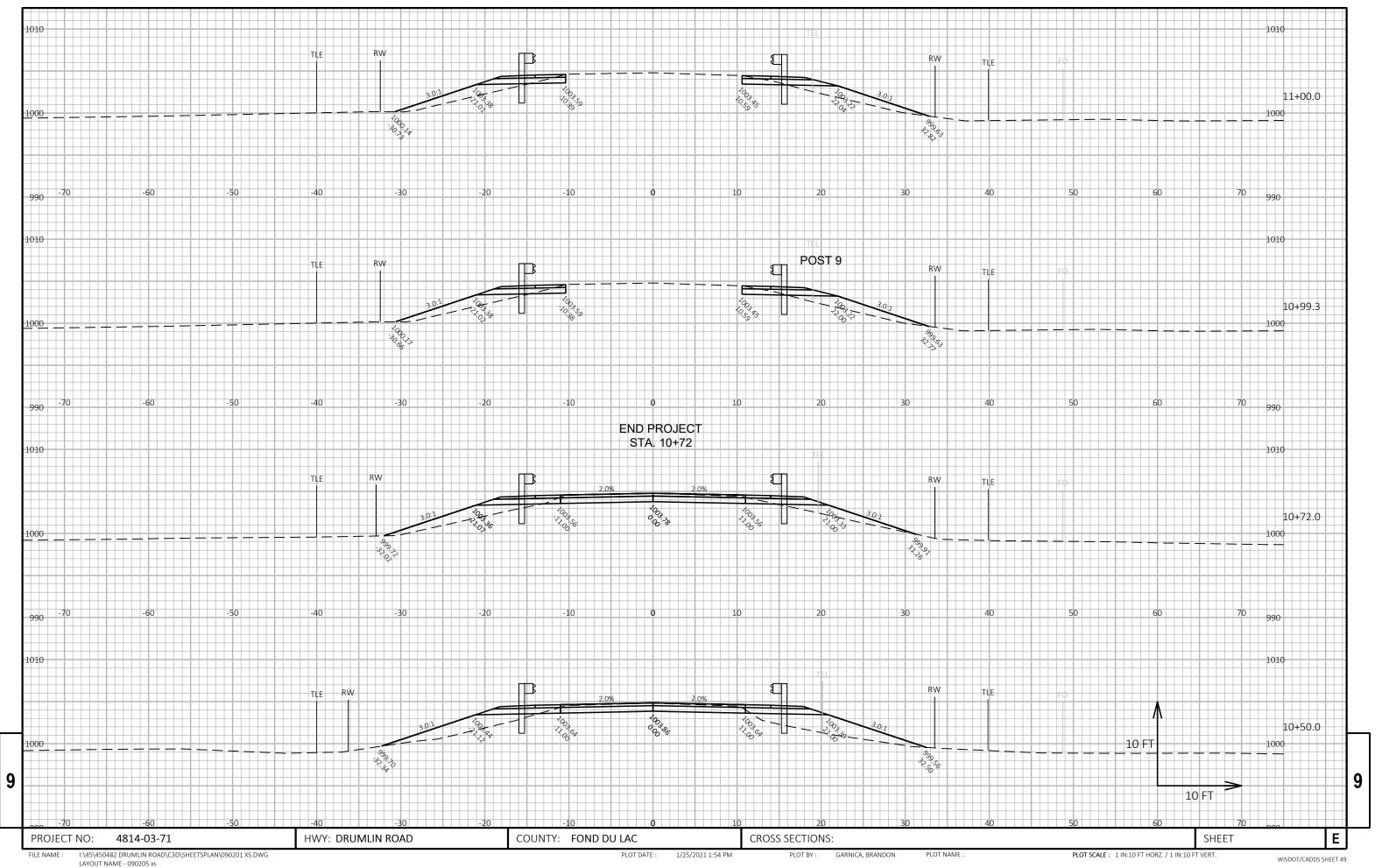


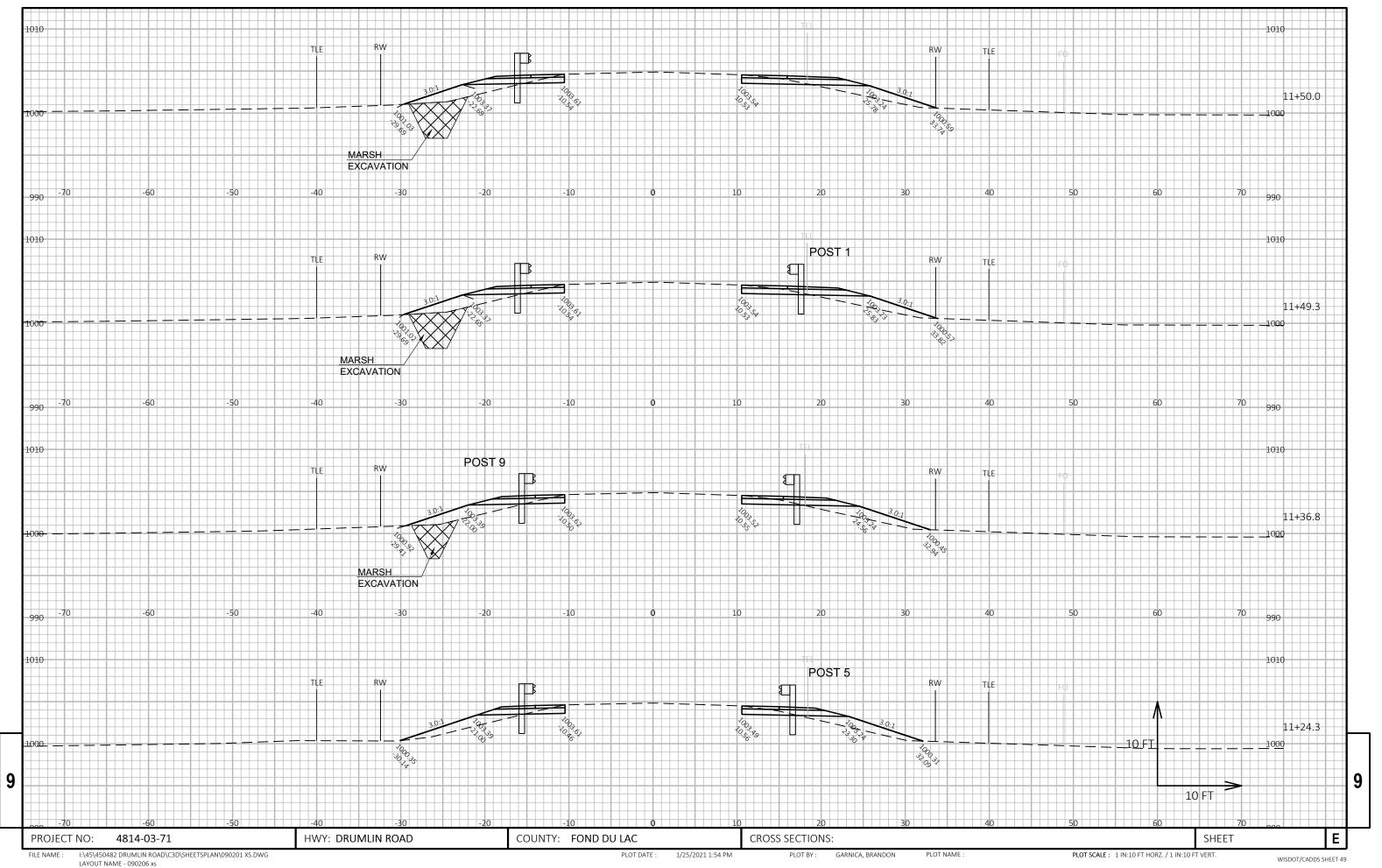


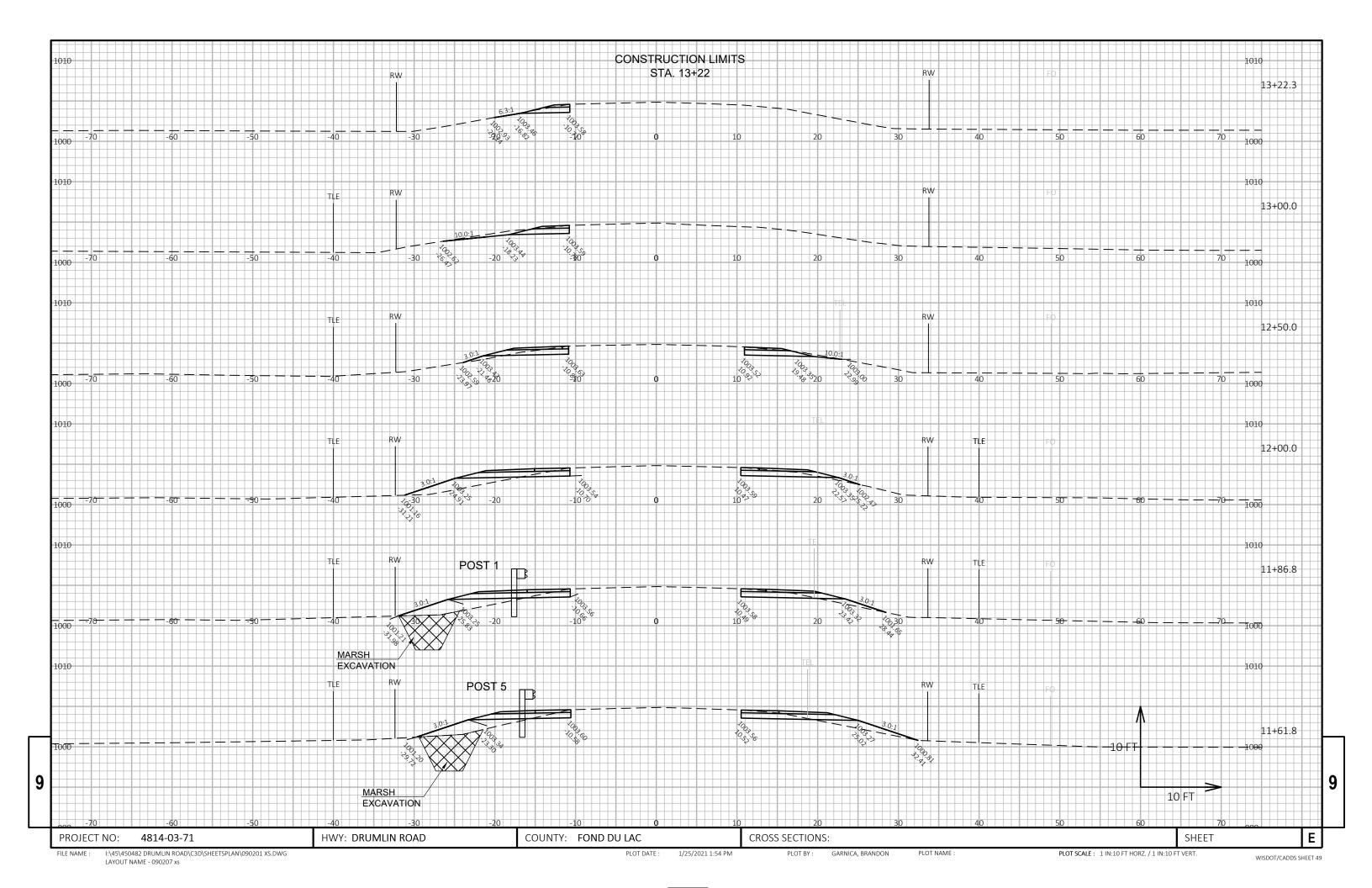


LAYOUT NAME - 090203 xs











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