

NEL
PROJECT ID: 9066-00-71
COUNTY: OCONTO

MAY 2016

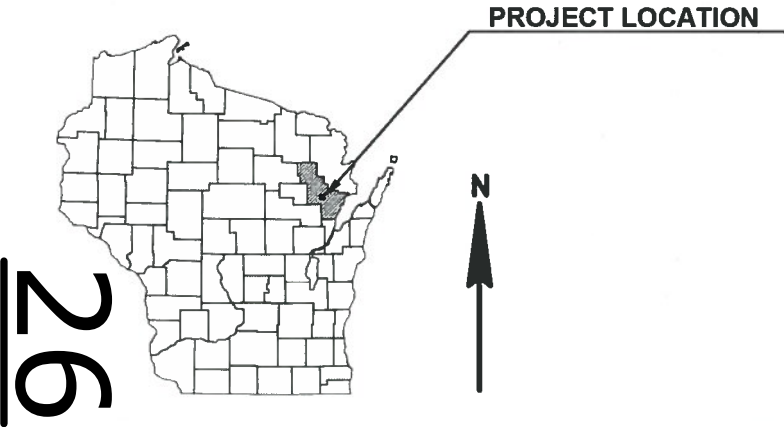
ORDER OF SHEETS

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

TOTAL SHEETS = 42

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
T BAGLEY, SLEETER ROAD
PESHTIGO BROOK BR APPROACH B42-130
LOC STR
OCONTO COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9066-00-71		

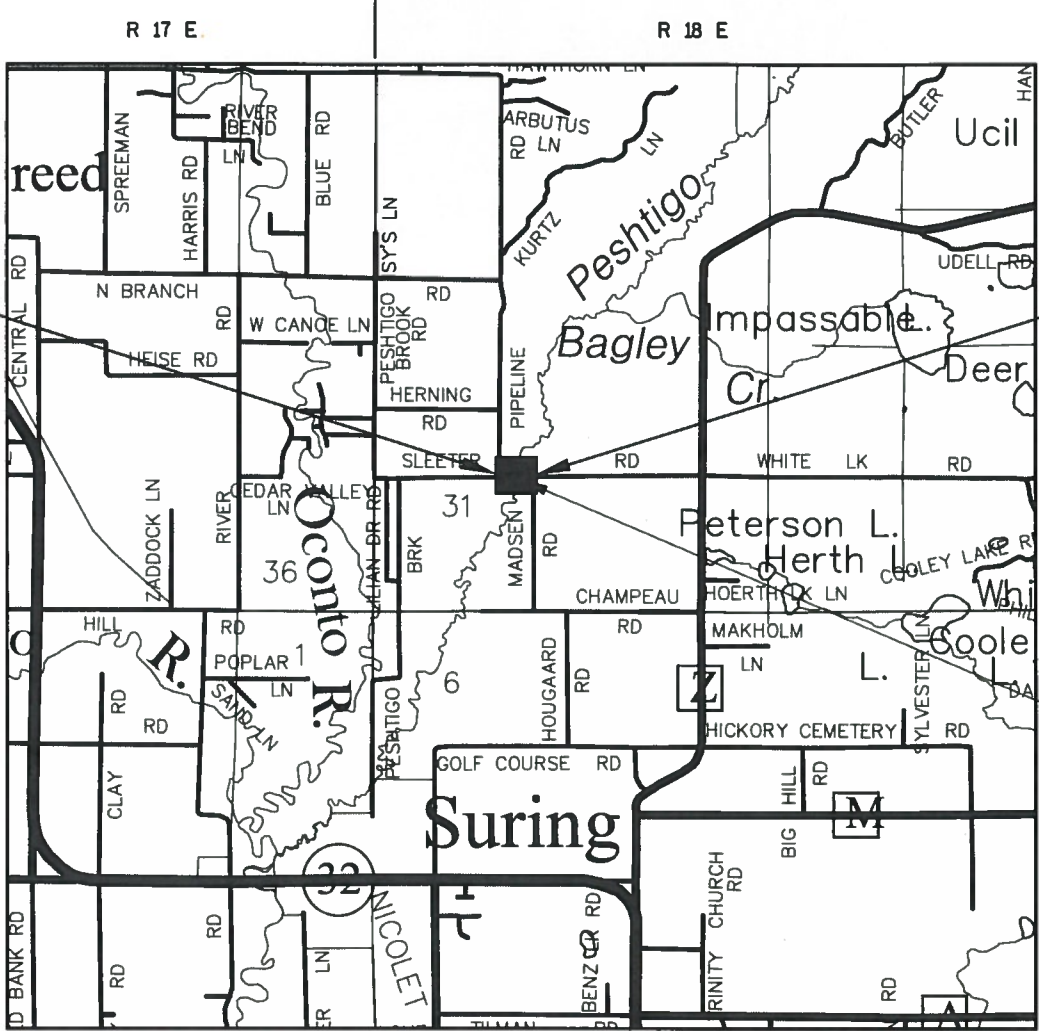


STATE PROJECT NUMBER
9066-00-71

DESIGN DESIGNATION

A.A.D.T.	2016	=	220
A.A.D.T.	2036	=	270
D.H.V.		=	59
D.D.		=	60/40
T.		=	4.3%
DESIGN SPEED		=	60 MPH
ESALS		=	22,000

CONVENTIONAL SYMBOLS	
PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	
PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



LAYOUT
SCALE 0 2 MILE
TOTAL NET LENGTH OF CENTERLINE = 0.023

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

ACCEPTED FOR
OCONTO COUNTY

1-21-16 Patrick J. Scanlon
DATE COUNTY HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

WISCONSIN
PHILLIP J. VERVILLE III
E36389
GREEN BAY, WI
PROFESSIONAL ENGINEER
1-18-16
(Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor AYRES ASSOCIATES
Designer AYRES ASSOCIATES
Management Consultant JT ENGINEERING

APPROVED FOR THE DEPARTMENT
DATE: 1/29/16
(Management Consultant Signature)

E

GENERAL NOTES

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

FILL EXPANSION FACTOR IS 30%.

CONSTRUCT 4-INCH 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.

PLACE EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN.

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 FERTILIZED, SEEDED, AND EROSION MAT AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THE ROADWAY CROSS SECTIONS ARE SUBGRADE ELEVATIONS AT THE CENTERLINE OF THE ROADWAY.

ALL ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88 (1991).

WISDOT WILL FURNISH A BENCHMARK MONUMENT TO BE SET BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER IN THE FIELD

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

*WISCONSIN PUBLIC SERVICE - ELECTRIC TELEPHONE 920-433-1703

700 N. ADAMS STREET
PO BOX 1210
GREEN BAY, WISCONSIN 54307
ATTENTION: LORI BUTRY
E-MAIL: LABUTRY@INTEGRYSGROUP.COM

*CENTURYLINK TELEPHONE 715-856-9138

HIGHWAY 180
PO BOX 260
WAUSAUKEE, WISCONSIN 54177
ATTENTION: RICK KLUSSENDORF
E-MAIL: rick.klussendorf@centurylink.com

*-MEMBER OF DIGGERS HOTLINE



Dial 811 or (800)242-8511

www.DiggersHotline.com

RUNOFF COEFFICIENT TABLE

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

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.12 ACRES
SOIL GROUP C

STANDARD ABBREVIATIONS

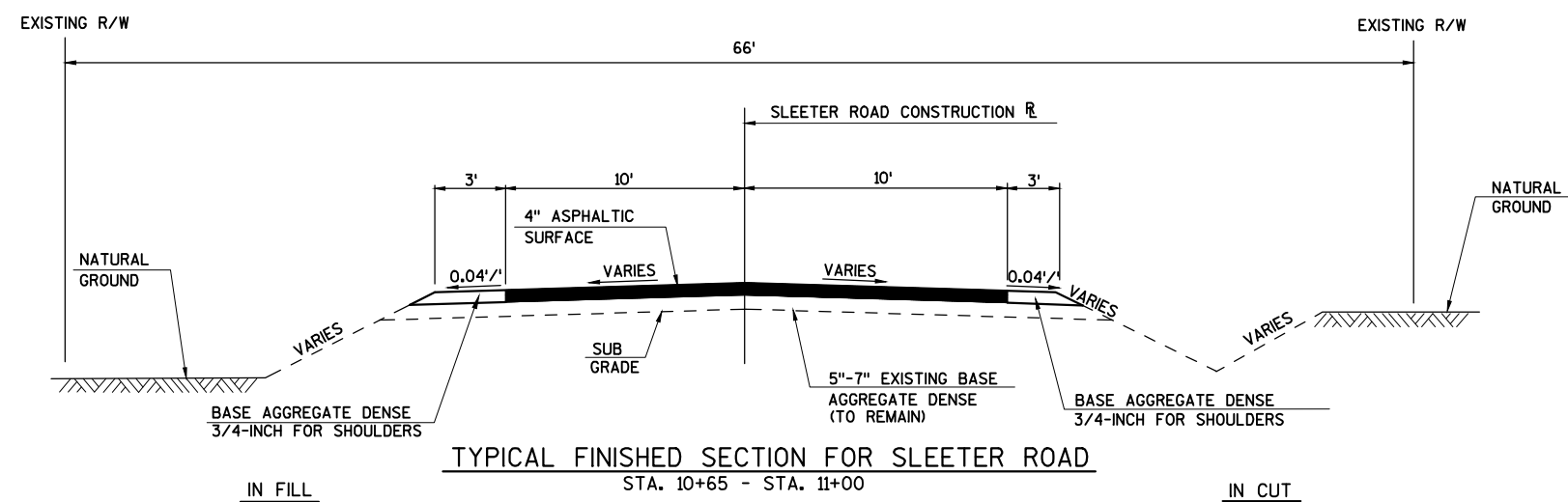
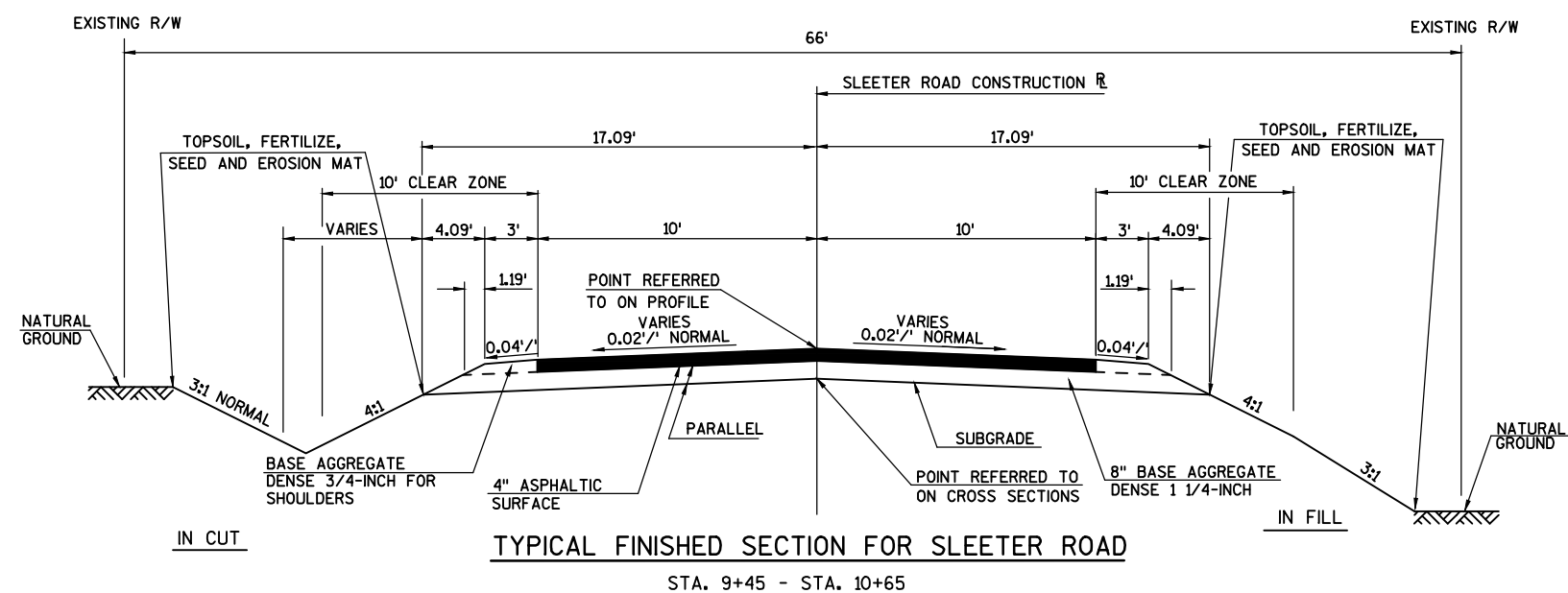
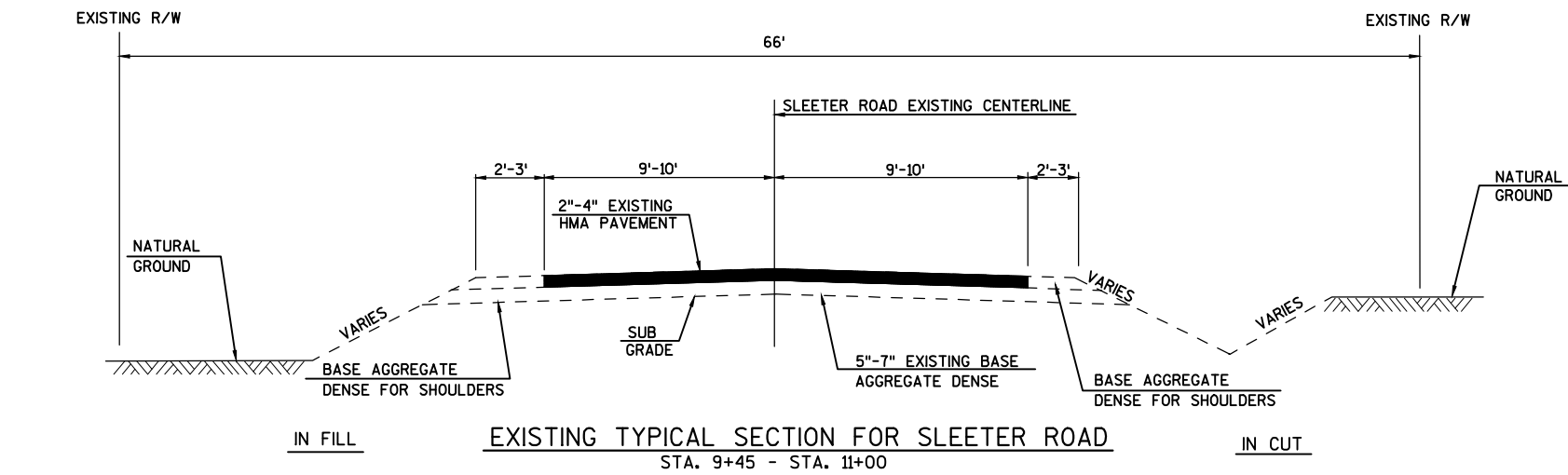
ADT	AVERAGE DAILY TRAFFIC	NC	NORMAL CROWN
AC	ASPHALT CEMENT	PT	POINT OF TANGENCY
AGG	AGGREGATE	PC	POINT OF CURVATURE
ASPH	ASPHALT	PI	POINT OF INTERSECTION
BM	BENCH MARK	PE	PRIVATE ENTRANCE
C/L	CENTERLINE	R	RADIUS
CONC	CONCRETE	REM	REMOVE
CMP	CORRUGATED METAL PIPE	R/L OR RL	REFERENCE LINE
CR.	CREEK	RCCP	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

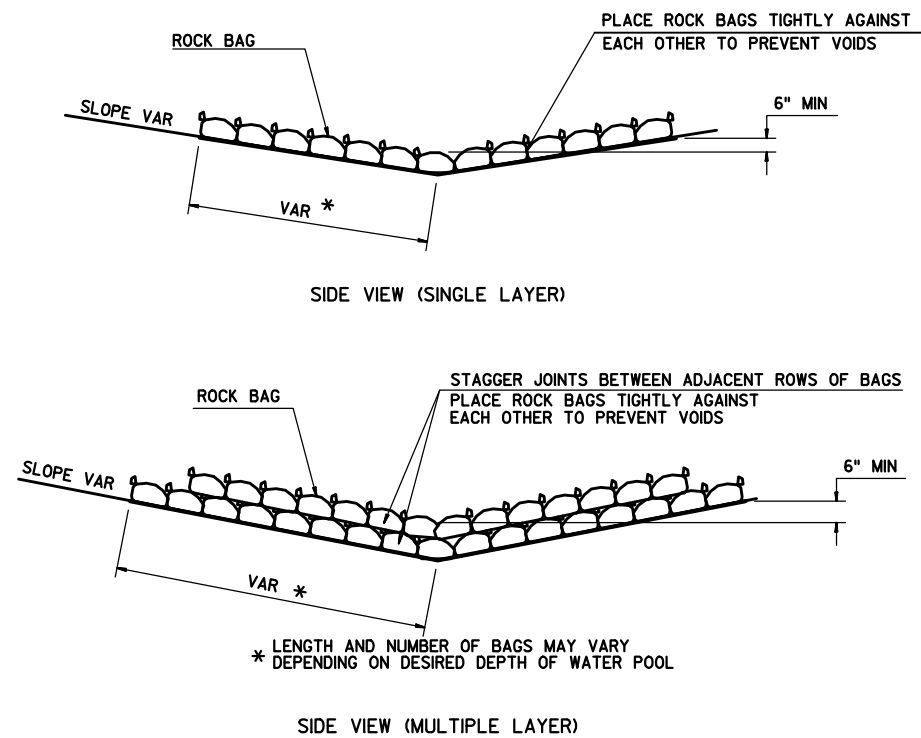
DEPARTMENT OF NATURAL RESOURCES

WDNR TELEPHONE 920-662-5119

P.O. BOX 10448
GREEN BAY, WISCONSIN 54307
ATTENTION: JIM DOPERALSKI
E-MAIL: JAMES.DOPERALSKI@WISCONSIN.GOV

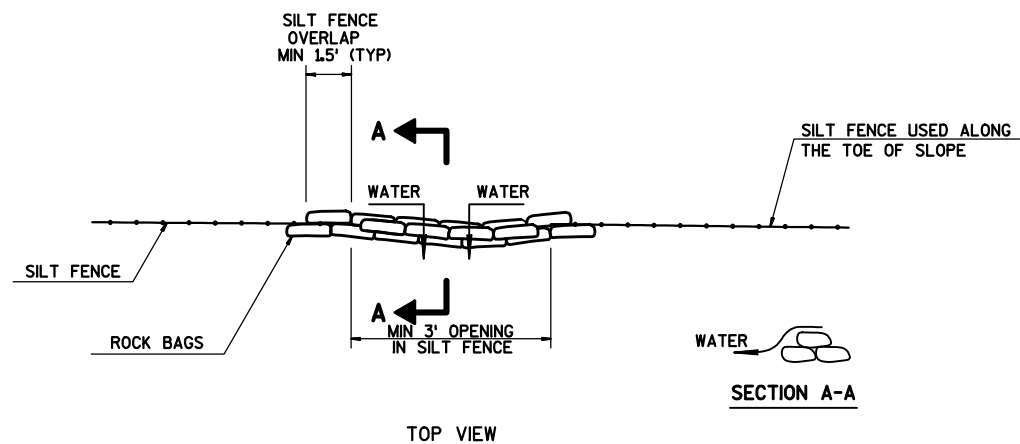
2





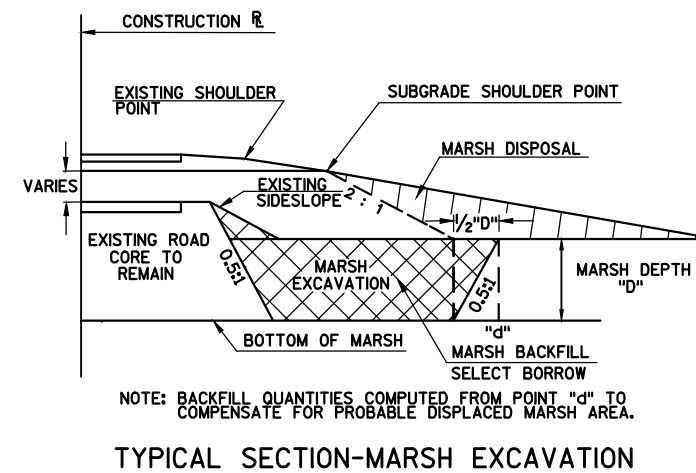
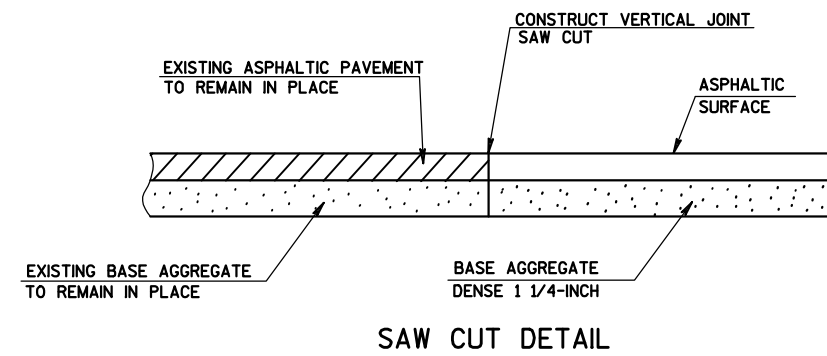
ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)



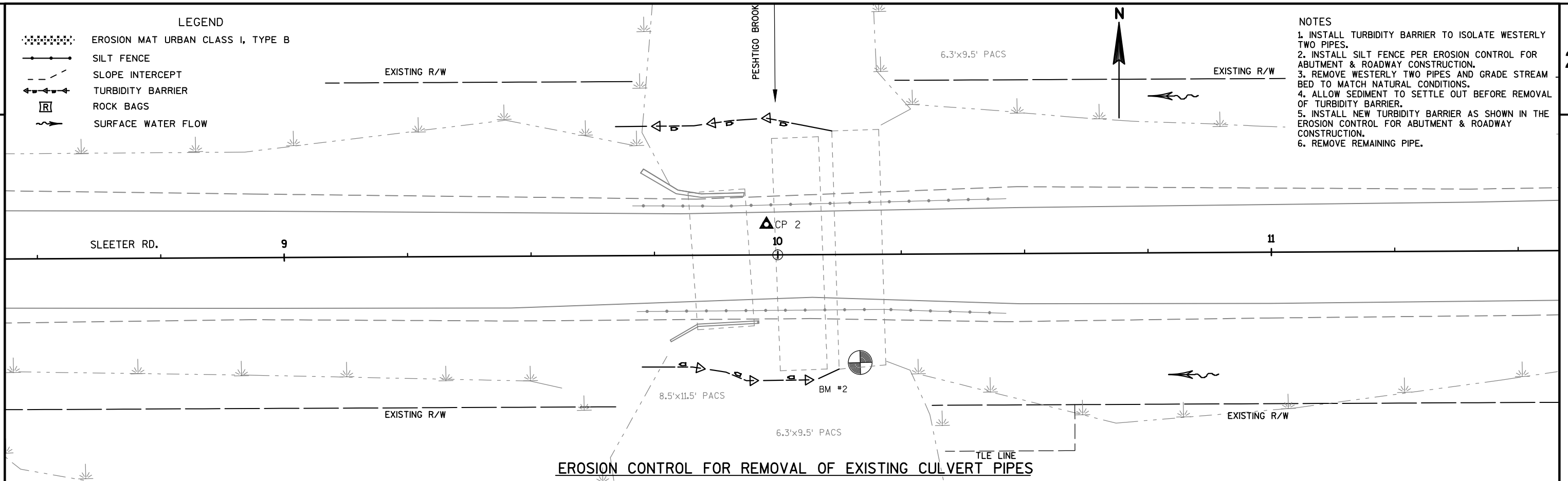
ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

PAID AS ROCK BAGS
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)

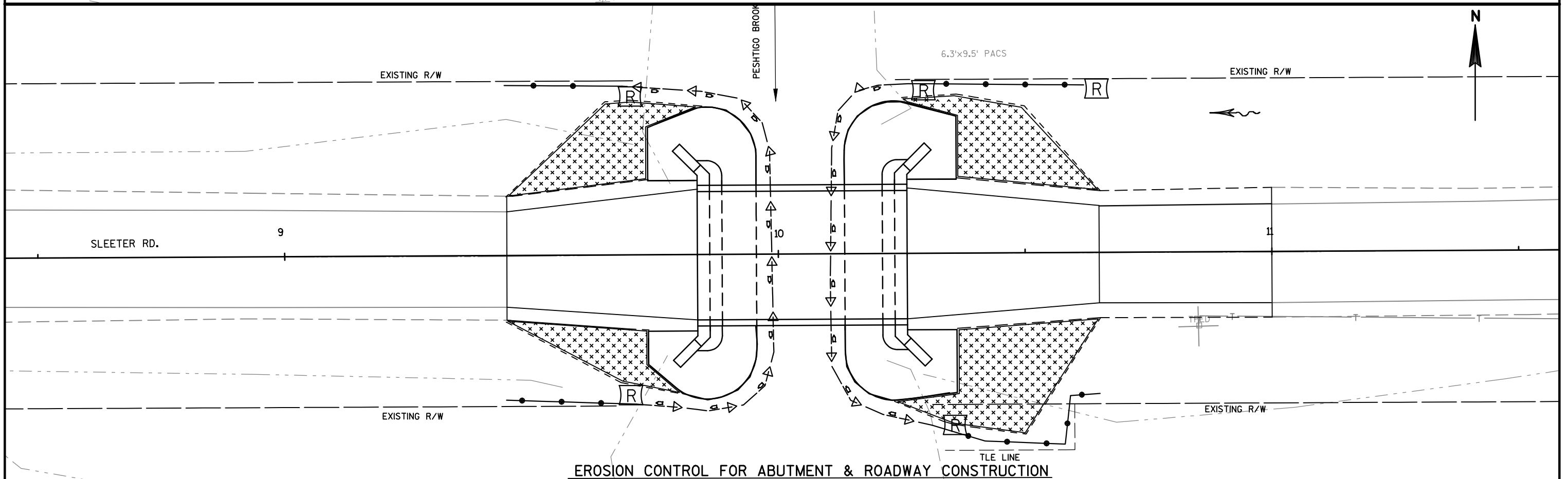


2

- LEGEND
- EROSION MAT URBAN CLASS I, TYPE B
 - SILT FENCE
 - SLOPE INTERCEPT
 - TURBIDITY BARRIER
 - ROCK BAGS
 - SURFACE WATER FLOW



2



PROJECT NO: 9066-00-71

HWY: SLEETER ROAD

COUNTY: OCONTO

EROSION CONTROL PLAN

SHEET

E

FILE NAME : N:\C3D\45039900 SLEETER ROAD\ SHEETSP\PLAN\022001_EC.DWG
LAYOUT NAME - *****

PLOT DATE : 12/18/2015 9:50 AM

PLOT BY : VERVILLE, PHILLIP

PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

DATE 01MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE					9066-00-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTI TY
0010	201.0205	Grubbing	STA	2.000	2.000
0020	203.0500.S	Removing Old Structure Over Waterway (station) 01. 10+00	LS	1.000	1.000
0030	204.0110	Removing Asphaltic Surface	SY	78.000	78.000
0040	205.0100	Excavation Common **P**	CY	60.000	60.000
0050	205.0400	Excavation Marsh	CY	60.000	60.000
0060	206.1000	Excavation for Structures Bridges (structure) 01. B-42-130	LS	1.000	1.000
0070	208.0100	Borrow **P**	CY	40.000	40.000
0080	208.1100	Select Borrow	CY	90.000	90.000
0090	210.0100	Backfill Structure	CY	180.000	180.000
0100	213.0100	Finishing Roadway (project) 01. 9066-00-71	EACH	1.000	1.000
0110	305.0110	Base Aggregate Dense 3/4-Inch	TON	20.000	20.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	135.000	135.000
0130	455.0605	Tack Coat	GAL	16.000	16.000
0140	465.0105	Asphaltic Surface	TON	70.000	70.000
0150	502.0100	Concrete Masonry Bridges	CY	137.000	137.000
0160	502.3200	Protective Surface Treatment	SY	160.000	160.000
0170	505.0400	Bar Steel Reinforcement HS Structures	LB	4,240.000	4,240.000
0180	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	16,600.000	16,600.000
0190	513.4061	Railing Tubular Type M (structure) 01. B-42-130	LF	90.000	90.000
0200	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0210	550.0500	Pile Points	EACH	10.000	10.000
0220	550.2104	Piling CIP Concrete 10 3/4 X 0.25-Inch	LF	625.000	625.000
0230	606.0300	Riprap Heavy	CY	150.000	150.000
0240	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0250	614.0920	Salvaged Rail	LF	150.000	150.000
0260	619.1000	Mobilization	EACH	1.000	1.000
0270	624.0100	Water	MGAL	2.000	2.000
0280	625.0100	Topsoil	SY	420.000	420.000
0290	628.1504	Silt Fence	LF	155.000	155.000
0300	628.1520	Silt Fence Maintenance	LF	310.000	310.000
0310	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0320	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0330	628.2008	Erosion Mat Urban Class I Type B	SY	520.000	520.000
0340	628.6005	Turbidity Barriers	SY	215.000	215.000
0350	628.7570	Rock Bags	EACH	70.000	70.000
0360	629.0210	Fertilizer Type B	CWT	0.300	0.300
0370	630.0120	Seeding Mixture No. 20	LB	12.000	12.000
0380	630.0200	Seeding Temporary	LB	6.000	6.000
0390	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0400	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0410	638.2602	Removing Signs Type II	EACH	3.000	3.000
0420	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0430	642.5001	Field Office Type B	EACH	1.000	1.000
0440	643.0100	Traffic Control (project) 01. 9066-00-71	EACH	1.000	1.000
0450	643.0420	Traffic Control Barricades Type III	DAY	840.000	840.000
0460	643.0705	Traffic Control Warning Lights Type A	DAY	1,080.000	1,080.000
0470	643.0900	Traffic Control Signs	DAY	480.000	480.000
0480	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0490	645.0120	Geotextile Fabric Type HR	SY	320.000	320.000
0500	650.4500	Construction Staking Subgrade	LF	77.000	77.000

DATE 01MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE					9066-00-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0510	650.5000	Construction Staking Base	LF	77.000	77.000
0520	650.6500	Construction Staking Structure Layout (structure) 01. B-42-130	LS	1.000	1.000
0530	650.8000	Construction Staking Resurfacing Reference	LF	35.000	35.000
0540	650.9910	Construction Staking Supplemental Control (project) 01. 9066-00-71	LS	1.000	1.000
0550	650.9920	Construction Staking Slope Stakes	LF	77.000	77.000
0560	690.0150	Sawing Asphalt	LF	40.000	40.000
0570	715.0502	Incentive Strength Concrete Structures	DOL	822.000	822.000

GRUBBING

STATION	TO	STATION	LOCATION	201.0205 GRUBBING STA
9+45	-	10+65	SLEETER ROAD	2
TOTAL				2

REMOVING ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	204.0110 QUANTITY SY
10+65	-	11+00	SLEETER ROAD	78
TOTAL				78

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (item #205.0100)	Unusable Pavement Material (4)	Available Material (5)	Excavation Marsh (6)	Expanded Marsh Backfill (10)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Borrow (item #208.0100)	Comment:
			Cut (2)			(item #205.0400)	Factor 1.50		Factor 1.30			
1	9+45 - 9+82.75 10+25.25 - 10+65	SLEETER ROAD SLEETER ROAD	30	4	26	60	90	30	38	-12	12	
			30	3	27	0	0	42	55	-28	28	
Division 1 Total			60	7	53	60	90	72	93	-40	40	

- 2) Unsuable Pavement Material is included in Cut
- 4) Unusable Pavement Material = Existing Asphaltic Pavement
- 5) Available Material = Cut - Unusuable Pavement Material
- 6) Marsh Excavation - to be backfilled w ith Select Borrow Material. Item Number 208.1100
- 10) Expanded Marsh Backfill - This is to be filled w ith Select Borrow material. Marsh Backfill Factor = 1.5. Item Number 208.1100.
- 13) Expanded Fill. Factor = 1.3 Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor
- 14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material w ithin the Division. Minus indicates a shortage of material w ithin the Division.

BASE AGGREGATE DENSE AND WATER

STATION	TO	STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL
9+45	-	9+82.75	SLEETER ROAD	7	65	1
10+25.25	-	11+00	SLEETER ROAD	13	70	1
TOTALS				20	135	2

ASPHALTIC SURFACE & TACK COAT

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
9+45	-	9+82.75	SLEETER ROAD	6	25
10+25.25	-	11+00	SLEETER ROAD	10	45
TOTALS				16	70

SALVAGED RAIL

STATION	TO	STATION	LOCATION	614.0920 QUANTITY LF
9+71	-	10+45	SLEETER ROAD	150
TOTAL				150

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

TOPSOIL, FERTILIZER, AND SEED

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB
9+45	-	9+82.25	SLEETER ROAD	180	0.1	5	2.5
10+25.25	-	10+65	SLEETER ROAD	240	0.2	7	3.5
TOTALS				420	0.3	12	6

*NOTE: - FERTILIZER NOT TO BE PLACED WITHIN 20' OF THE PESHTIGO BROOK.

EROSION MAT

STATION	TO	STATION	LOCATION	URBAN CLASS I TYPE B 628.2008 SY
9+45	-	9+82.25	SLEETER ROAD	180
10+25.25	-	10+65	SLEETER ROAD	240
UNDISTRIBUTED				100
TOTAL				520

ROCK BAGS

STATION	LOCATION	628.7570 EACH
9+70	SLEETER ROAD, LT & RT	20
10+30	SLEETER ROAD, LT	10
10+35	SLEETER ROAD, RT	10
10+65	SLEETER ROAD, LT	10
UNDISTRIBUTED		20
TOTAL		70

REMOVING SIGNS & SUPPORTS

STATION	LOCATION	638.2602 SIGNS TYPE II EACH	638.3000 SMALL SIGN SUPPORTS EACH
9+71	SLEETER ROAD	2	2
10+46	SLEETER ROAD, LT	1	1
TOTALS		3	3

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF
9+45	-	9+70	SLEETER ROAD, LT	25	50
9+45	-	9+75	SLEETER ROAD, RT	30	60
10+35	-	10+65	SLEETER ROAD, LT	30	60
10+35	-	10+65	SLEETER ROAD, RT	40	80
UNDISTRIBUTED				30	60
TOTALS				155	310

TURBIDITY BARRIERS

STATION	LOCATION	628.6005 SY	REMARKS
NORTH SIDE	SLEETER ROAD	31	CULVERT REMOVAL
SOUTH SIDE	SLEETER ROAD	32	CULVERT REMOVAL
WEST ABUTMENT	SLEETER ROAD	76	ABUTMENT CONSTRUCTION
EAST ABUTMENT	SLEETER ROAD	76	ABUTMENT CONSTRUCTION
TOTAL		215	

SIGNS REFLECTIVE TYPE II AND WOOD POSTS

STATION	LOCATION	634.0612 WOOD POSTS 4"x6"x12' EACH	637.2230 SIGNS W5-52L SF	SIGN CODE
NE QUADRANT	SLEETER ROAD	1	3	W5-52L
NW QUADRANT	SLEETER ROAD	1	3	W5-52R
SE QUADRANT	SLEETER ROAD	1	3	W5-52L
SW QUADRANT	SLEETER ROAD	1	3	W5-52R
TOTALS		4	12	

TRAFFIC CONTROL SUMMARY

LOCATION	APPROXIMATE SERVICE DAYS	643.0420 BARRICADES TYPE III		643.0705 WARNING LIGHTS TYPE A		643.0900 SIGNS		643.1050 SIGNS PCMS		
		NO. IN SERVICE	DAYS	NO. IN SERVICE	DAYS	NO. IN SERVICE	DAYS	NO. IN SERVICE	DAYS	
SLEETER RD/PESHTIGO BROOK RD	60	1	60	2	120	1	60	-	-	BRIDGE OUT 3/4 MILES AHEAD LOCAL TRAFFIC ONLY
WEST WORK ZONE LIMITS	60	2	120	2	120	4	240	1	7	BRIDGE OUT STAGGER - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
WEST WORK ZONE LIMITS	60	5	300	6	360	1	60	-	-	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL D
EAST WORK ZONE LIMITS	60	5	300	6	360	1	60	1	7	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL D
SLEETER RD/CTH Z	60	1	60	2	120	1	60	-	-	BRIDGE OUT 1.3 MILES AHEAD LOCAL TRAFFIC ONLY
TOTALS			840		1,080		480		14	

CONSTRUCTION STAKING

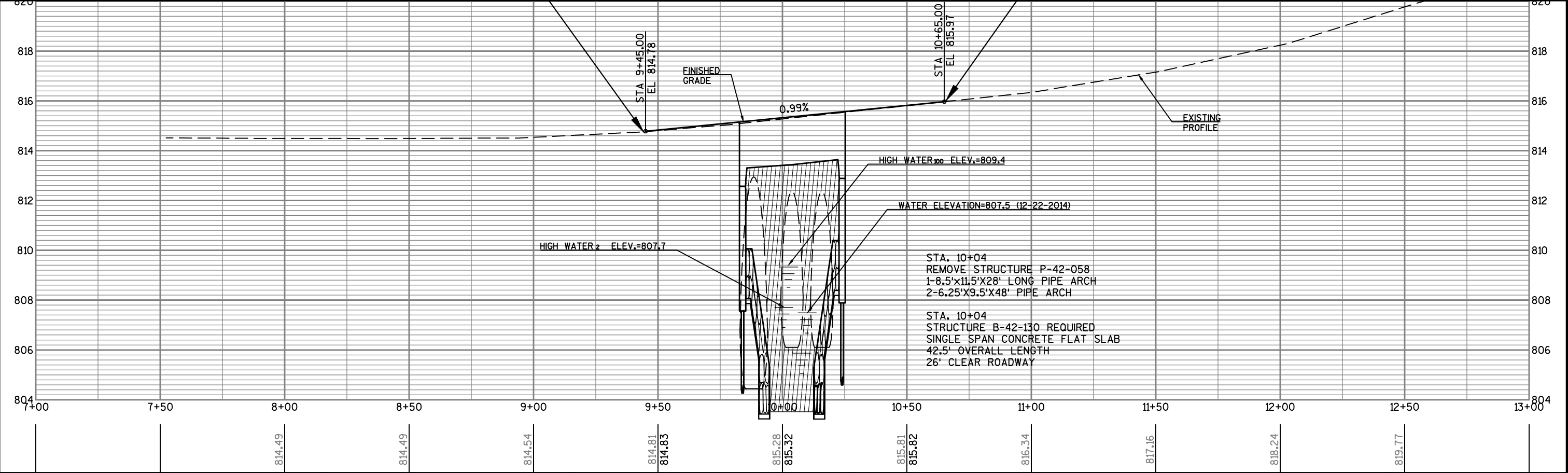
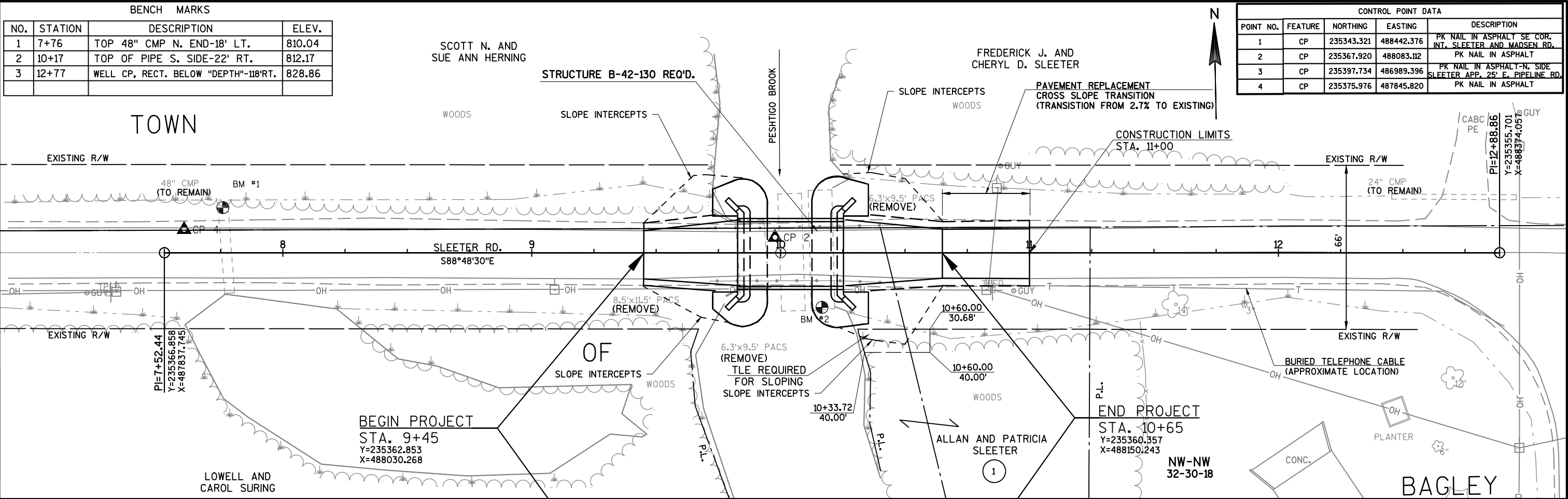
STATION	TO	STATION	LOCATION	650.4500	650.5000	650.6500	650.6500	650.9910	650.9920	GROUP CODE
				SUBGRADE LF	BASE LF	STRUCTURE LAYOUT LS	RESURFACE REFERENCE LS	SUPPLEMENTAL CONTROL LS	SLOPE STAKES LF	
9+45	-	9+82.25	SLEETER ROAD	37	37	-	-	1	37	0010
10+25.25	-	11+00	SLEETER ROAD	40	40	-	35	-	40	0010
SUBTOTALS				77	77	0	35	1	77	0010
10+00				SLEETER ROAD	-	-	1	-	-	0020
SUBTOTALS				0	0	1	0	0	0	0020
TOTALS				77	77	1	35	1	77	

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
9+45	SLEETER ROAD	20
11+00	SLEETER ROAD	20
TOTAL		40

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	7+76	TOP 48" CMP N. END-18' LT.	810.04
2	10+17	TOP OF PIPE S. SIDE-22' RT.	812.17
3	12+77	WELL CP, RECT. BELOW "DEPTH"-118' RT.	828.86

CONTROL POINT DATA				
POINT NO.	FEATURE	NORTHING	EASTING	DESCRIPTION
1	CP	235343.321	488442.376	PK NAIL IN ASPHALT SE COR. INT. SLEETER AND MADSEN RD.
2	CP	235367.920	488083.112	PK NAIL IN ASPHALT
3	CP	235397.734	486989.396	PK NAIL IN ASPHALT-N. SIDE SLEETER APP. 25' E. PIPELINE RD.
4	CP	235375.976	487845.820	PK NAIL IN ASPHALT



PROJECT NO: 9066-00-71	HWY: SLEETER ROAD	COUNTY: OCONTO	PLAN AND PROFILE: SLEETER ROAD	SHEET	E
------------------------	-------------------	----------------	--------------------------------	-------	---

Standard Detail Drawing List

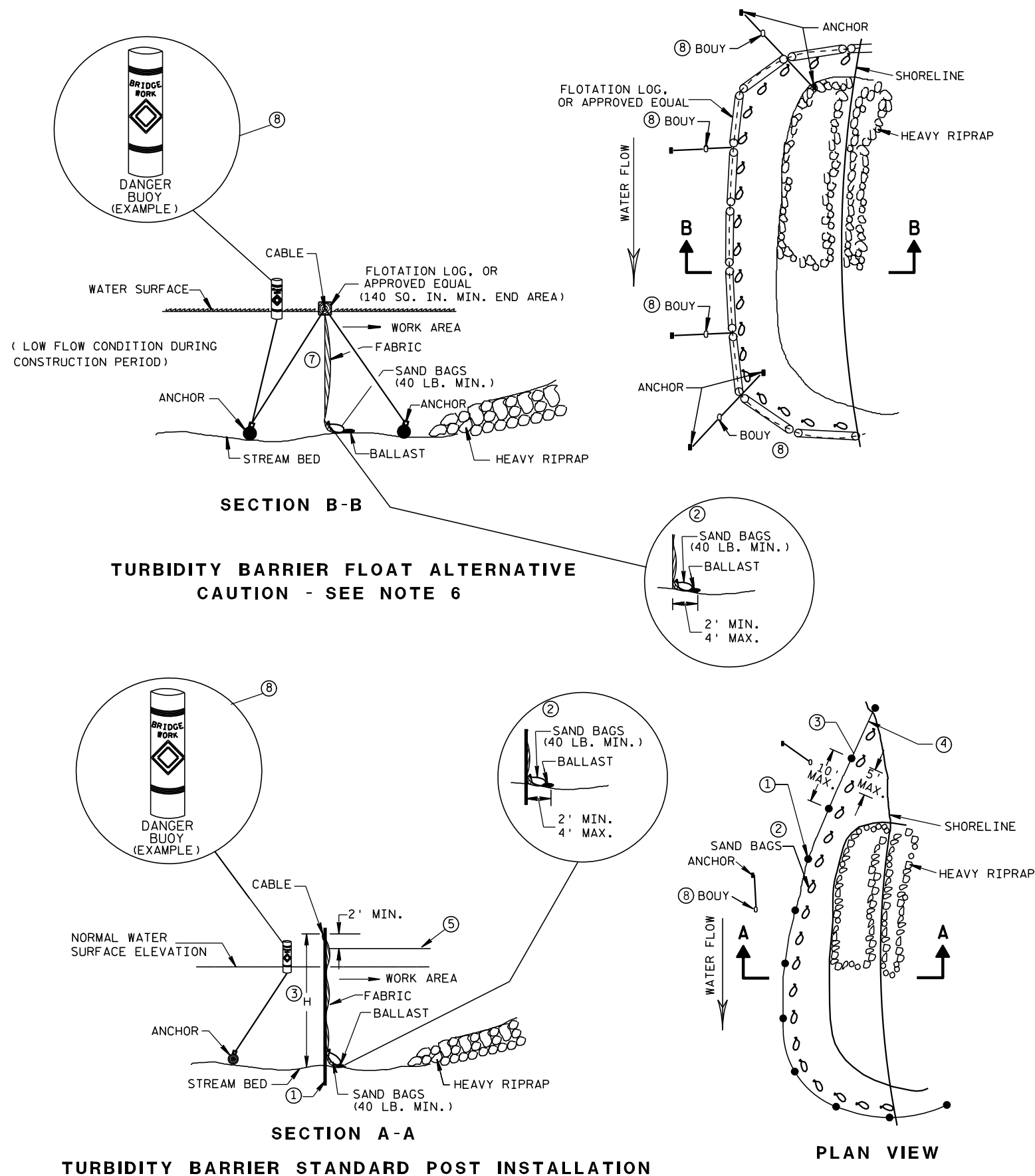
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES



- 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 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Canestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER

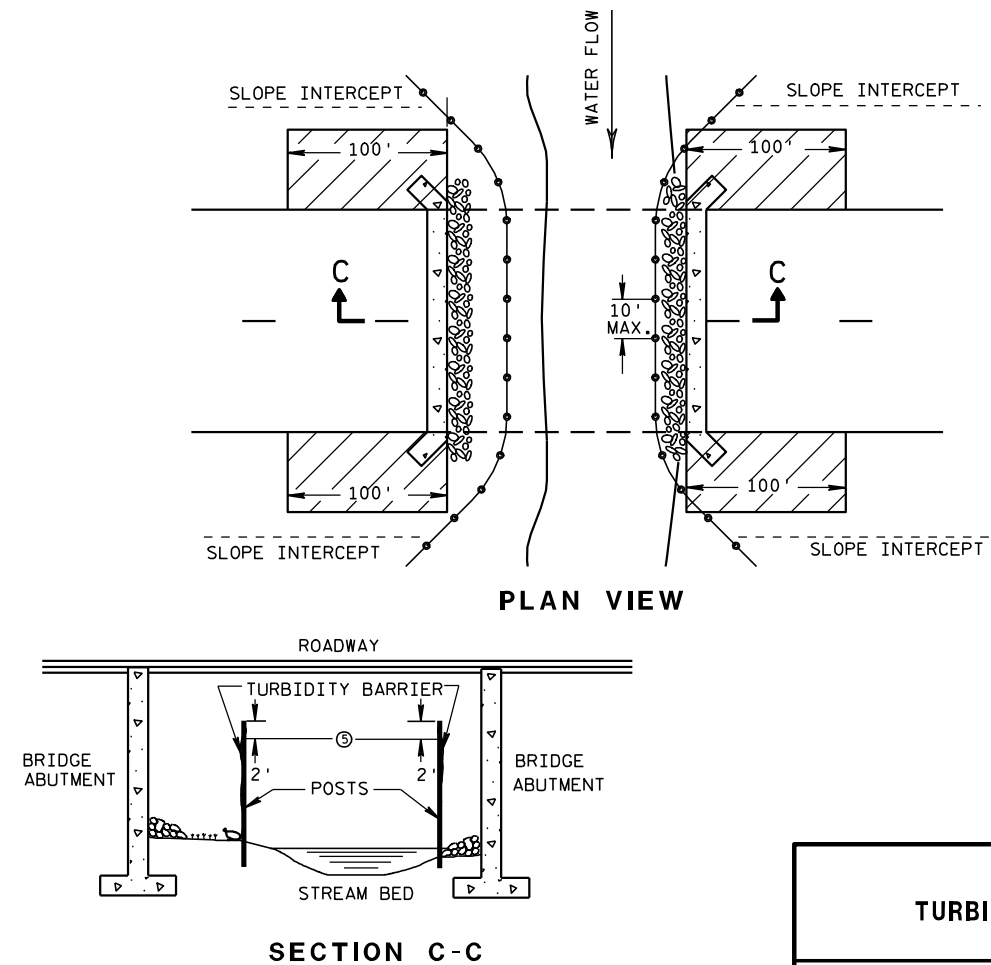


GENERAL NOTES

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

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 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 BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

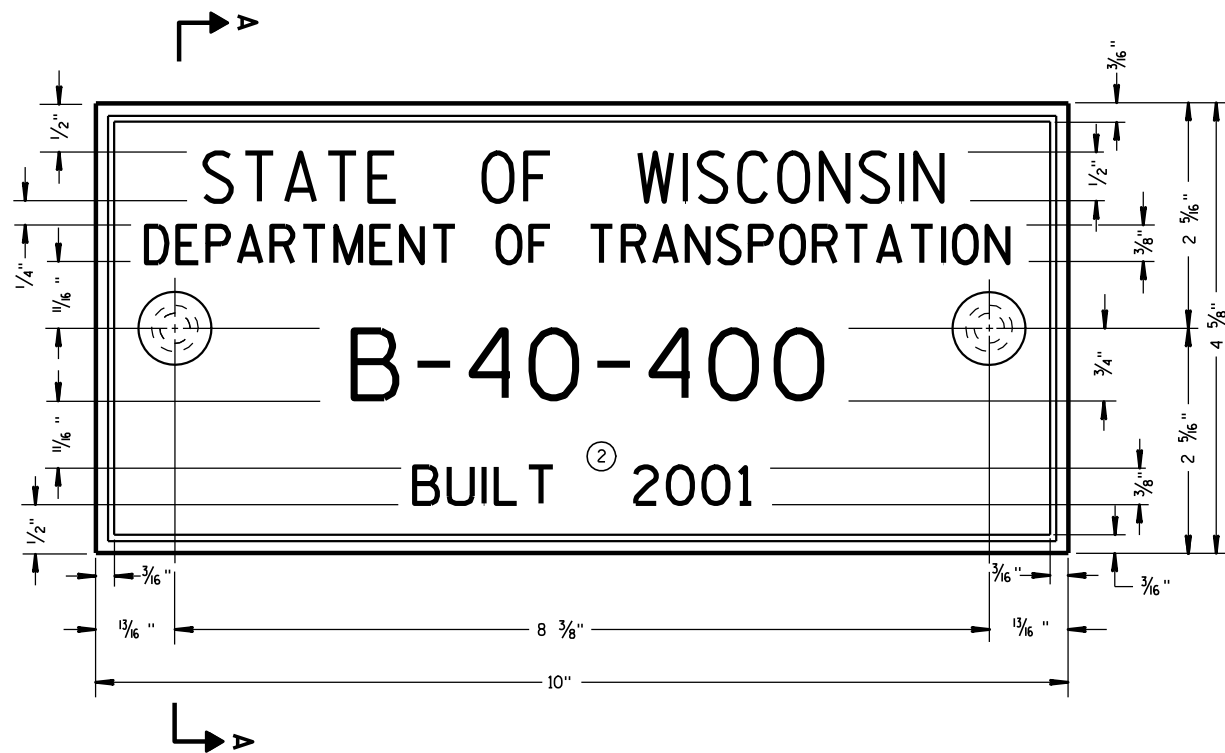
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

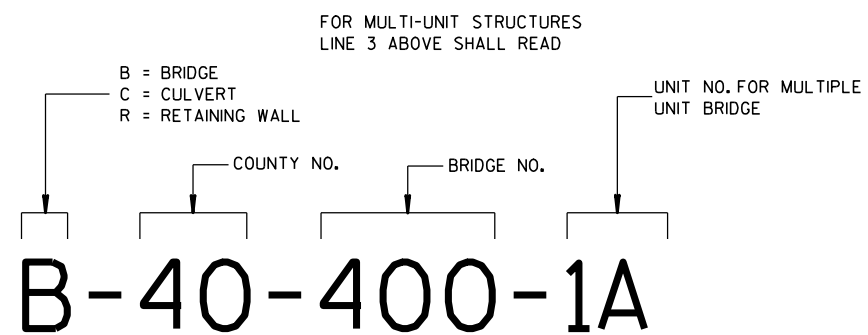
6/04/02
DATE

FHWA

/S/ Beth Connestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



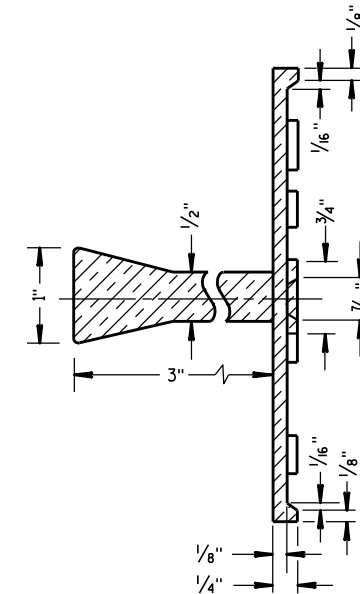
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

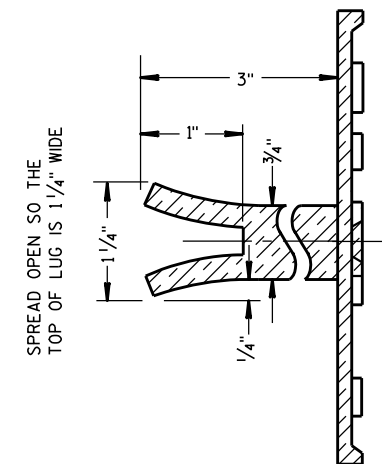
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

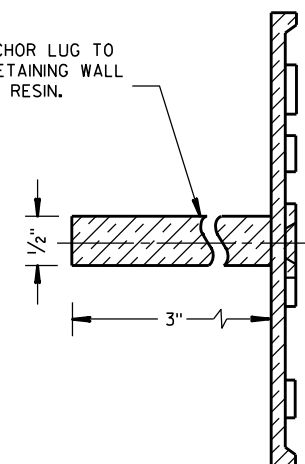


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

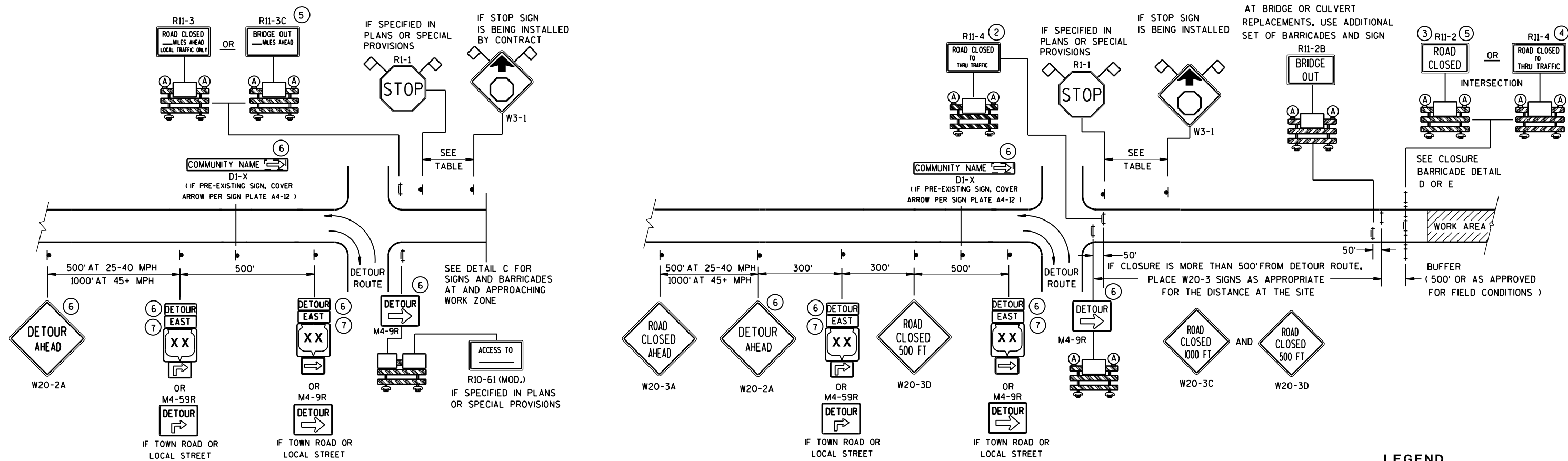
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

FHWA

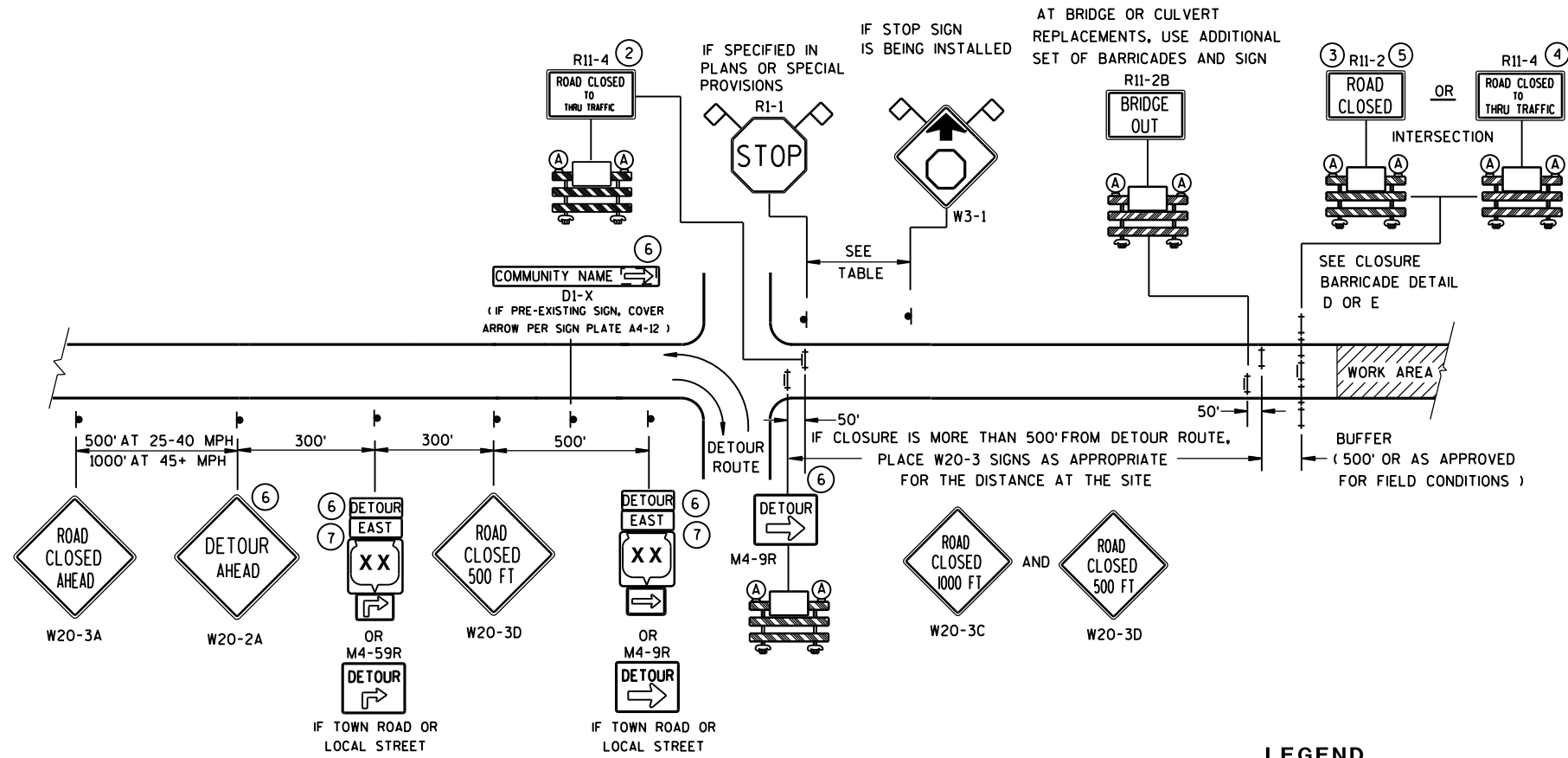
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

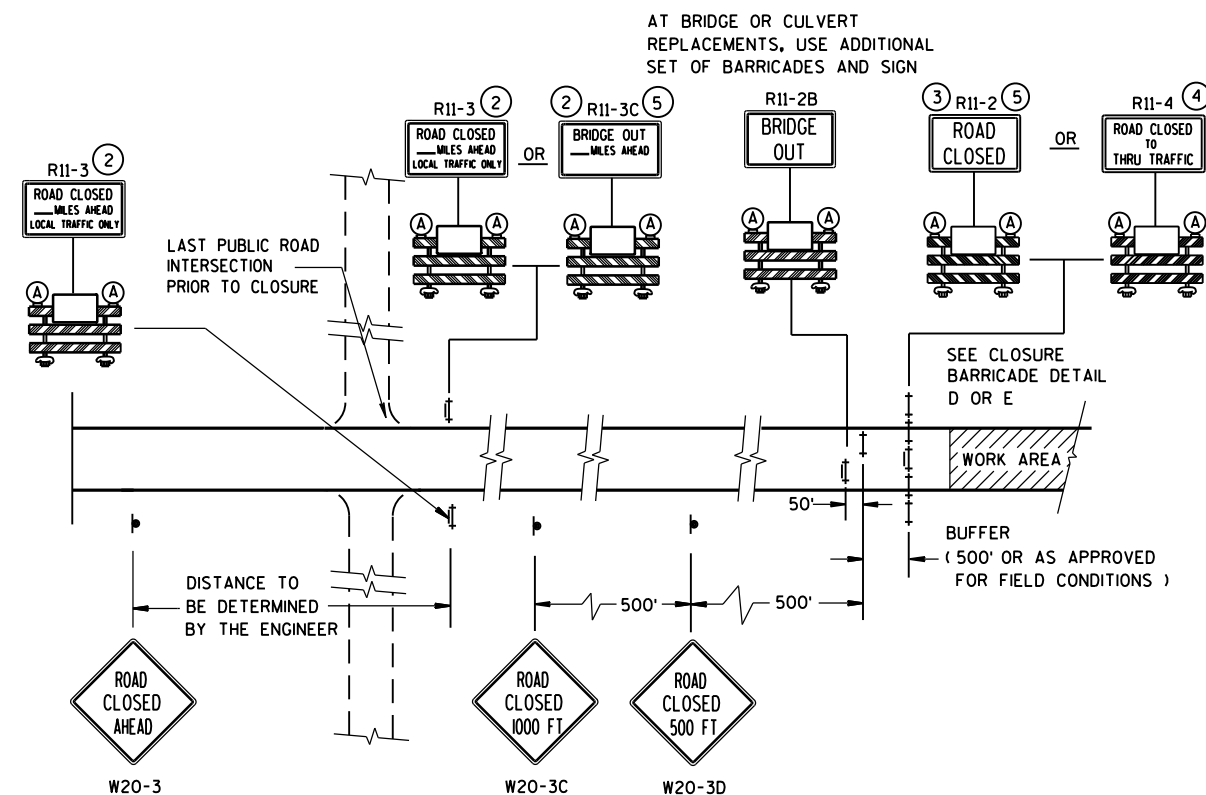
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR














WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

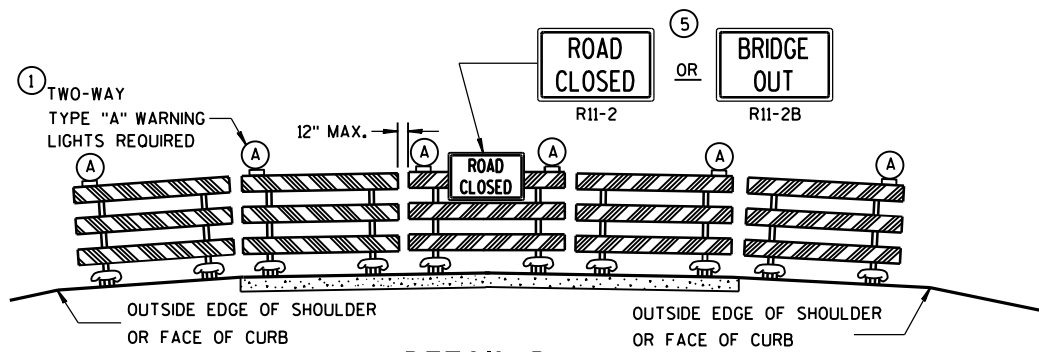
MAINLINE CLOSURE, NO POSTED DETOUR

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

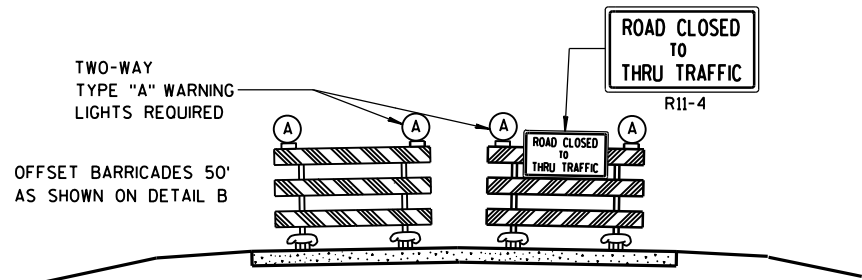
- ## LEGEND
- | | | | | |
|---|---------------------------------------|---|----|---|
|  | SIGN ON PERMANENT SUPPORT | | | |
|  | TYPE III BARRICADE | | | |
|  | TYPE III BARRICADE WITH ATTACHED SIGN | | | |
|  | TYPE "A" WARNING LIGHT (FLASHING) | | | |
|  | WORK AREA | | | |
|  | M4-8 | | | |
|  | M3-X | | | |
|  | OR |  | OR |  |
| M1-4 | | M1-5A | | M1-6 |
|  | OR |  | | |
| M05-1 | | M06-1 | | |
|  | FLAGS, 16" X 16" MIN., (ORANGE) | | | |

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

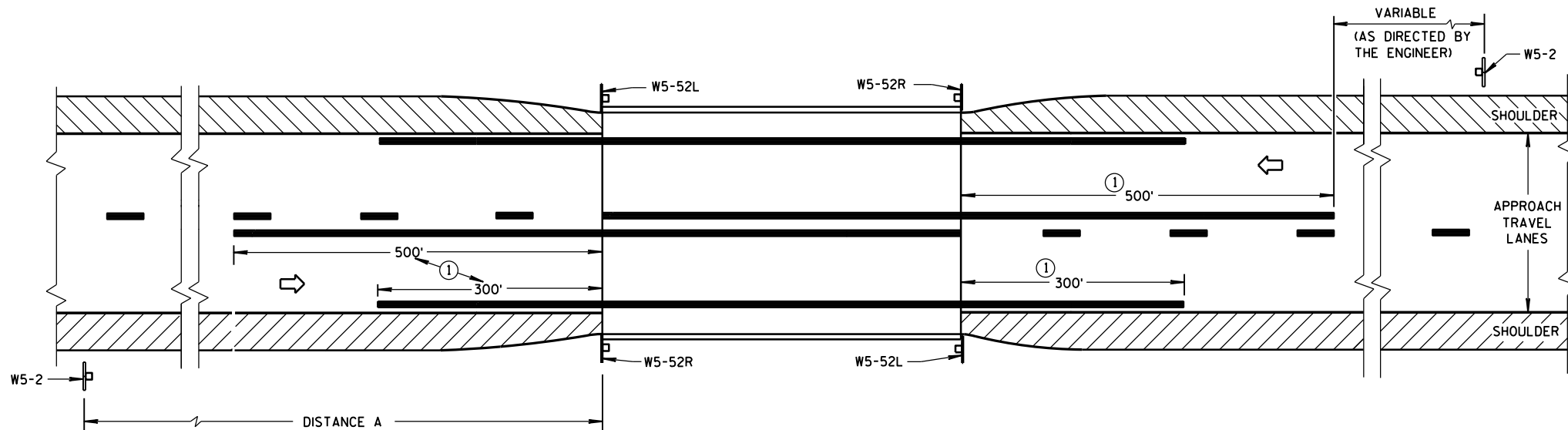
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36"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

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



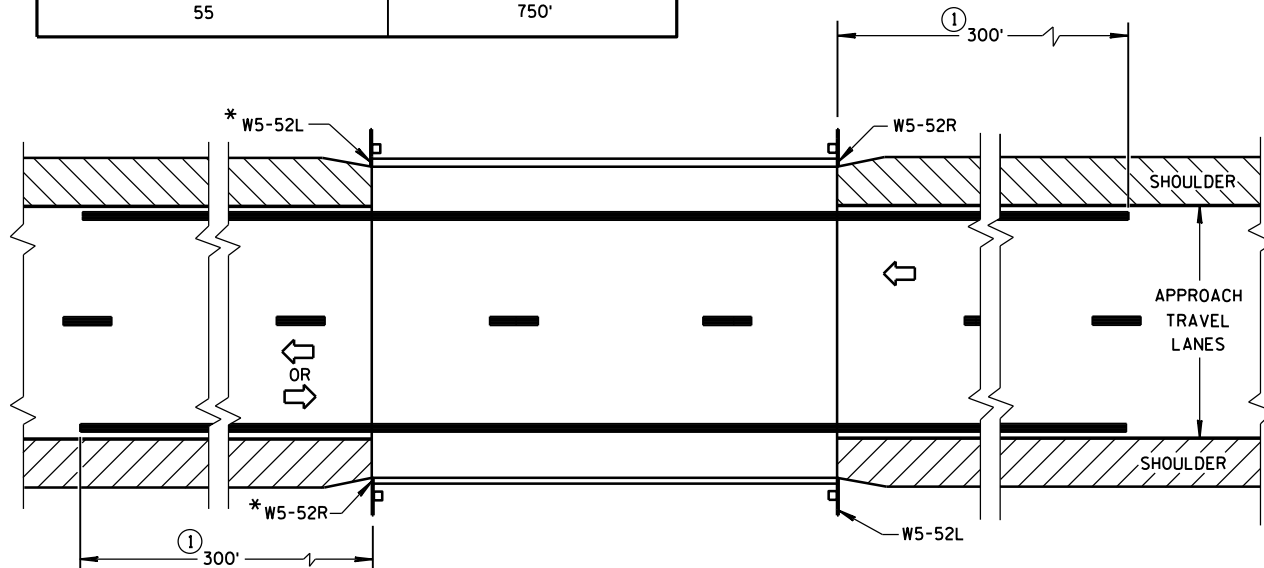
SITUATION 1

WARRANTING CRITERIA:

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

DISTANCE TABLE

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

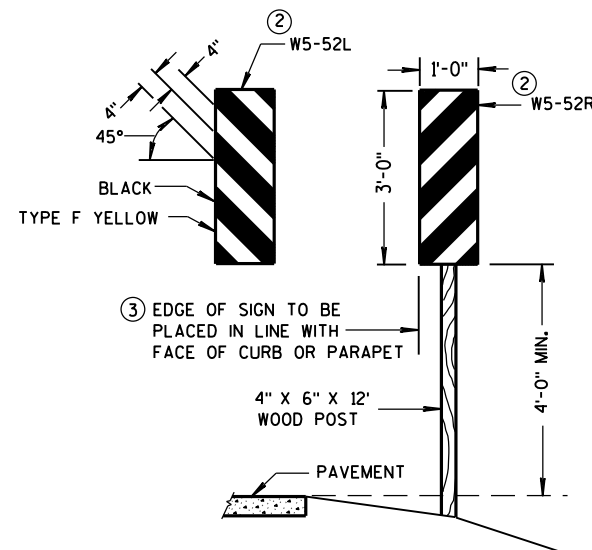


*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

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



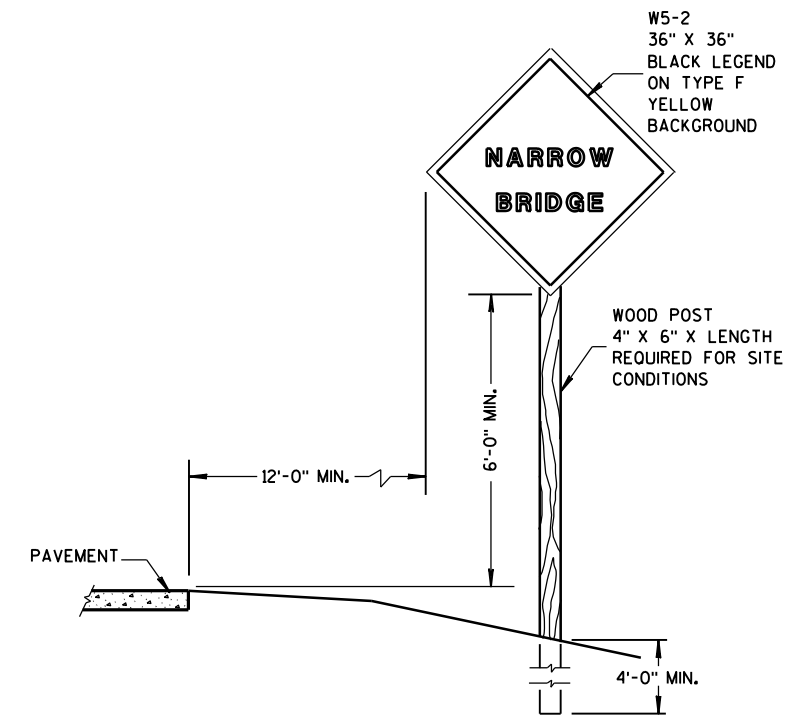
OBJECT MARKER PLACEMENT

GENERAL NOTES

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

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

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

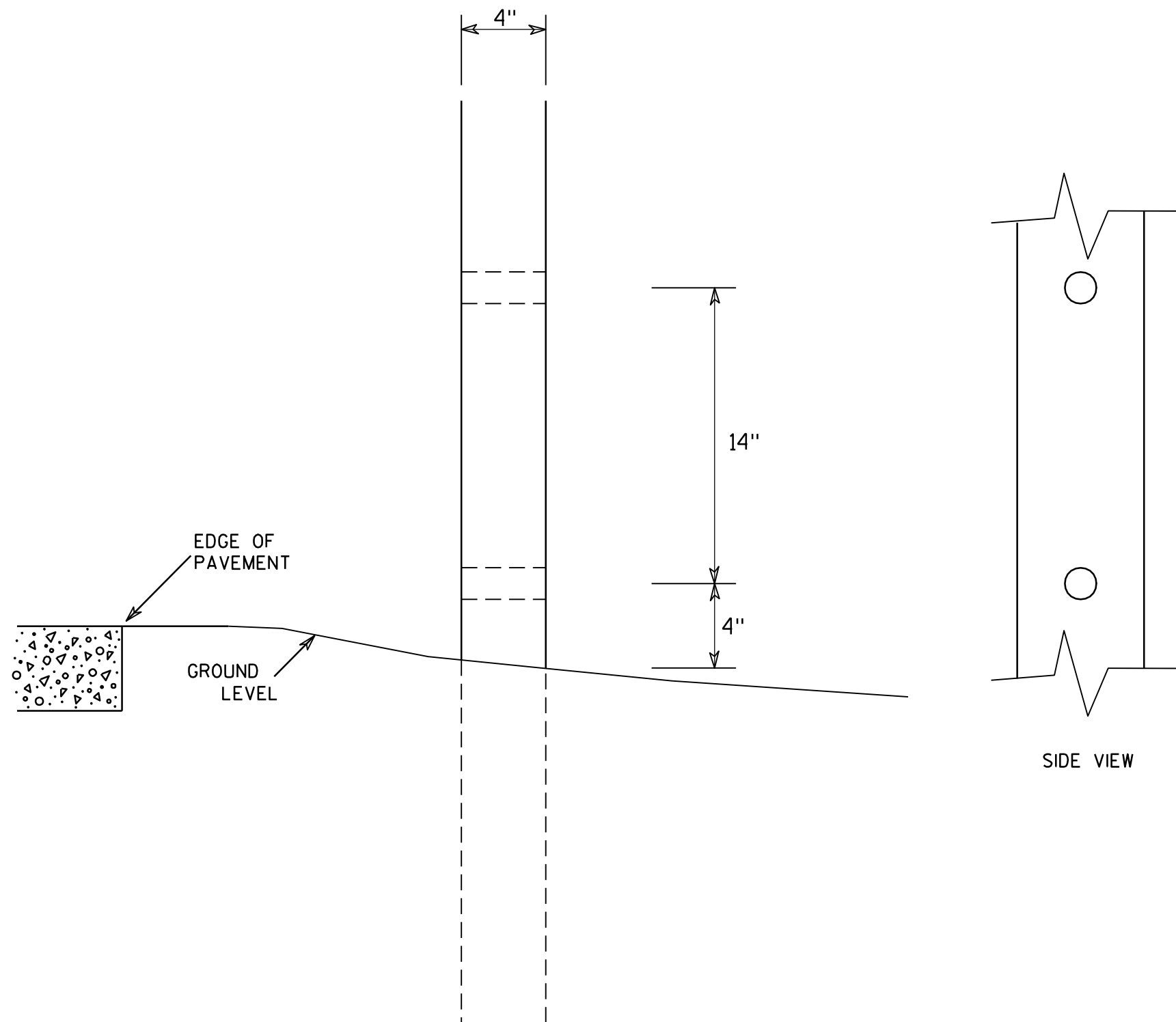
APPROVED

3-2014
DATE

FHWA

/S/ Travis Fettes
STATE TRAFFIC ENGINEER OF DESIGN

7



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

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

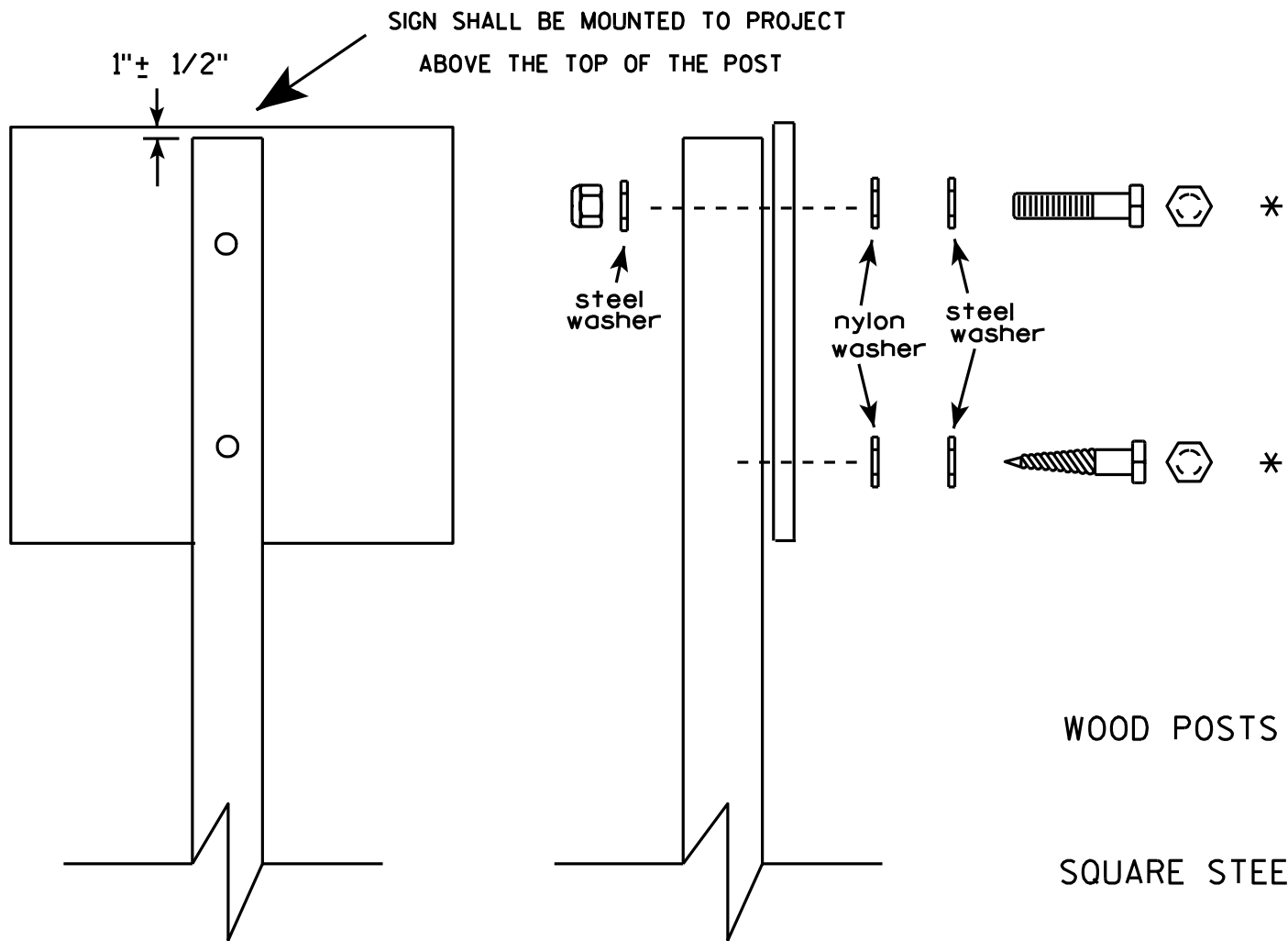
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

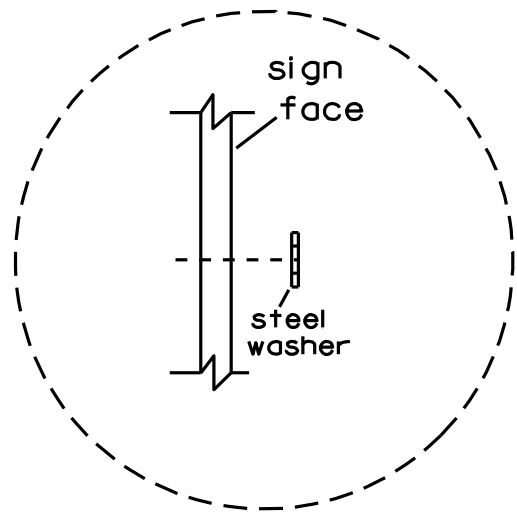


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

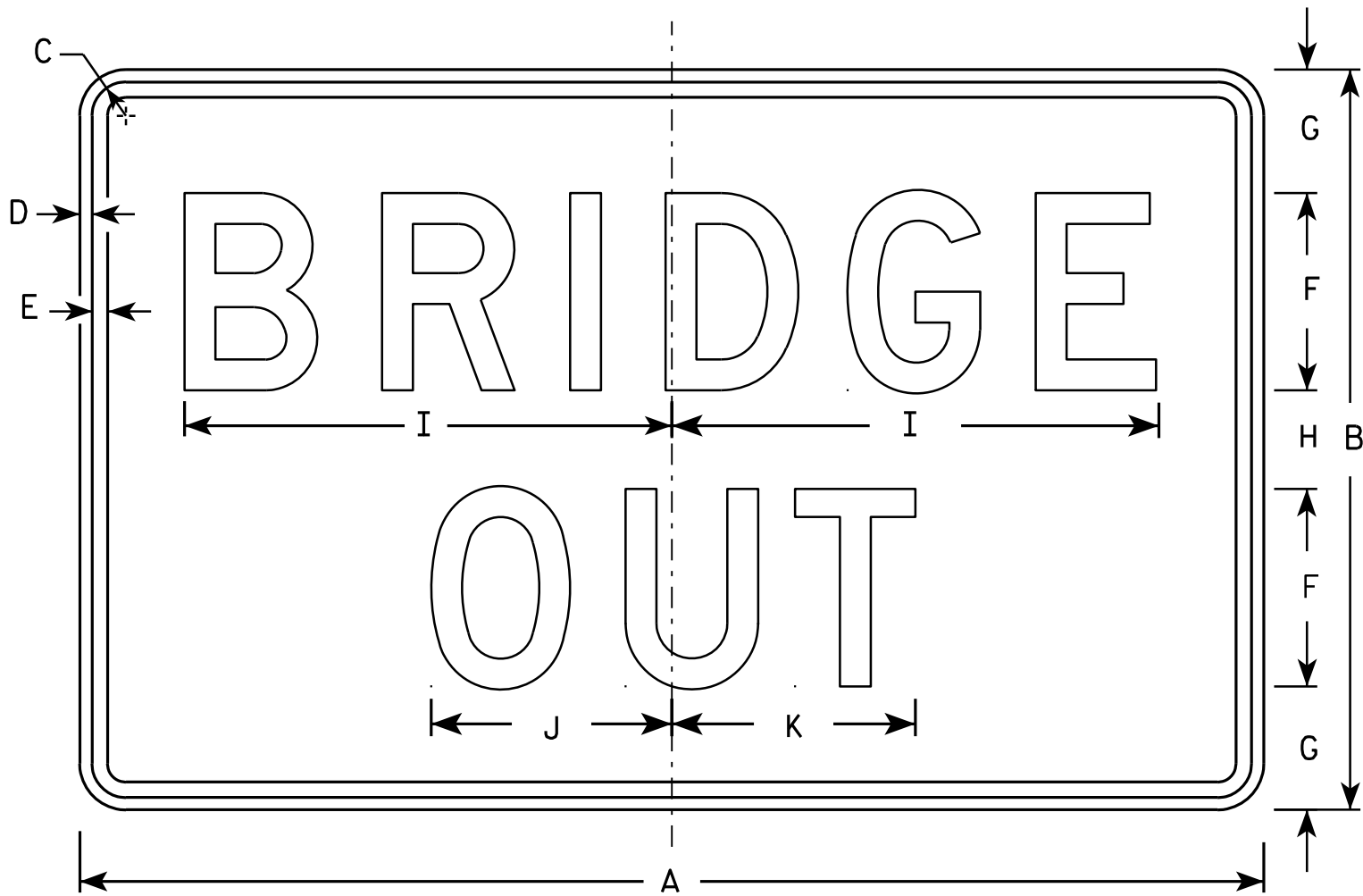
- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7



R11-2B

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0

PROJECT NO:

SHEET NO:

E

STANDARD SIGN

R11-2B

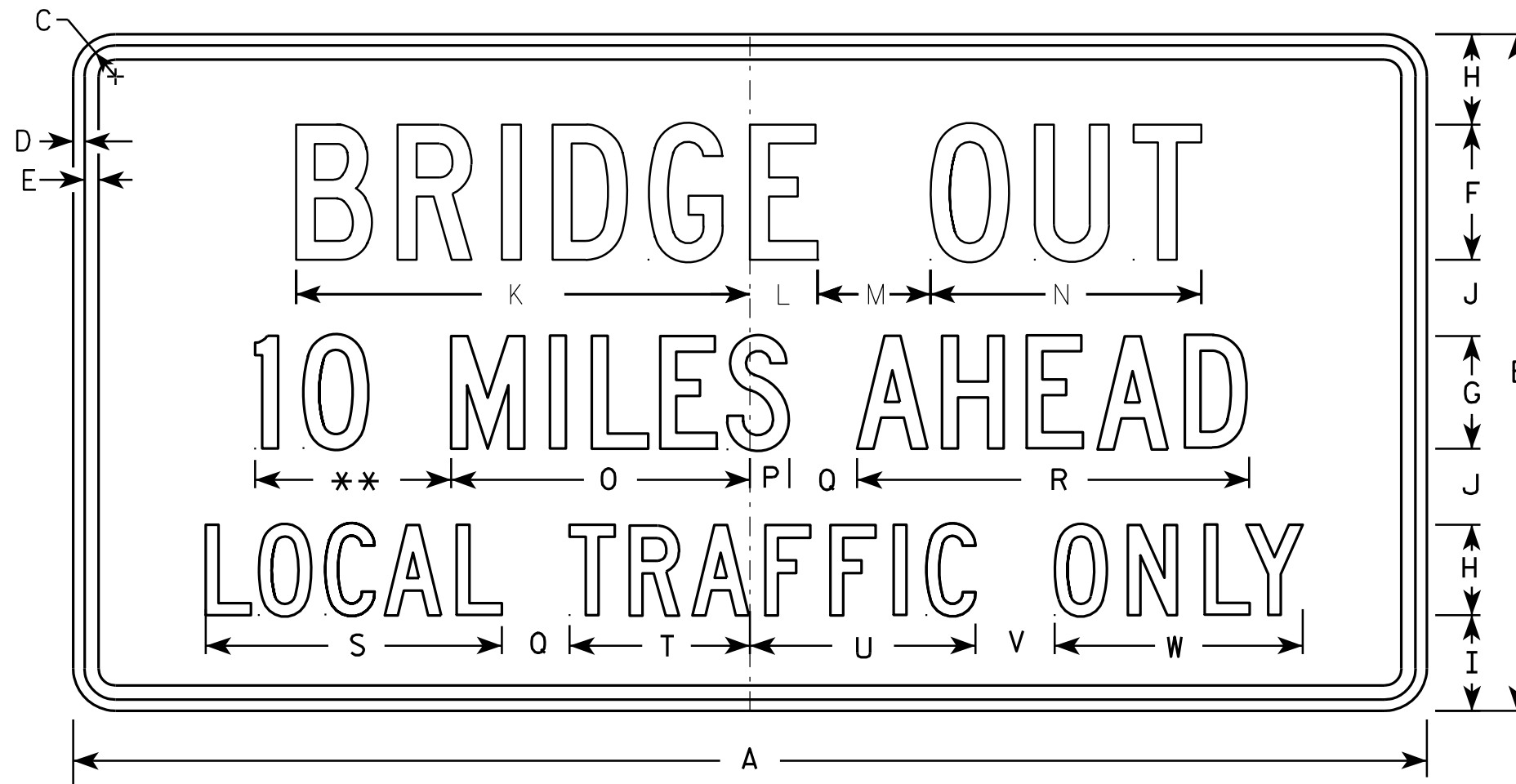
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

DATE 4/1/11

For State Traffic Engineer

PLATE NO. R11-2B.2



R11-3B

NOTES

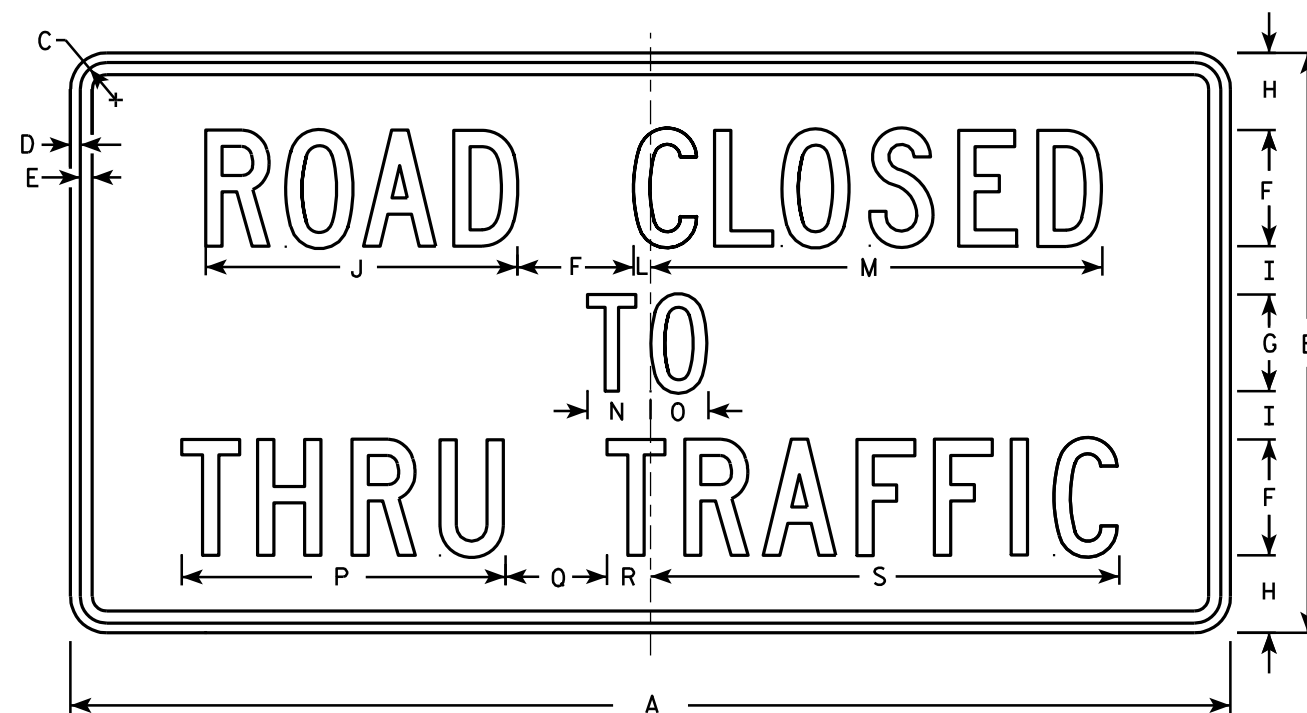
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	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 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	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				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	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				12.5
3																											
4																											
5																											

STANDARD SIGN R11-3B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-3B.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---



R11-4

NOTES

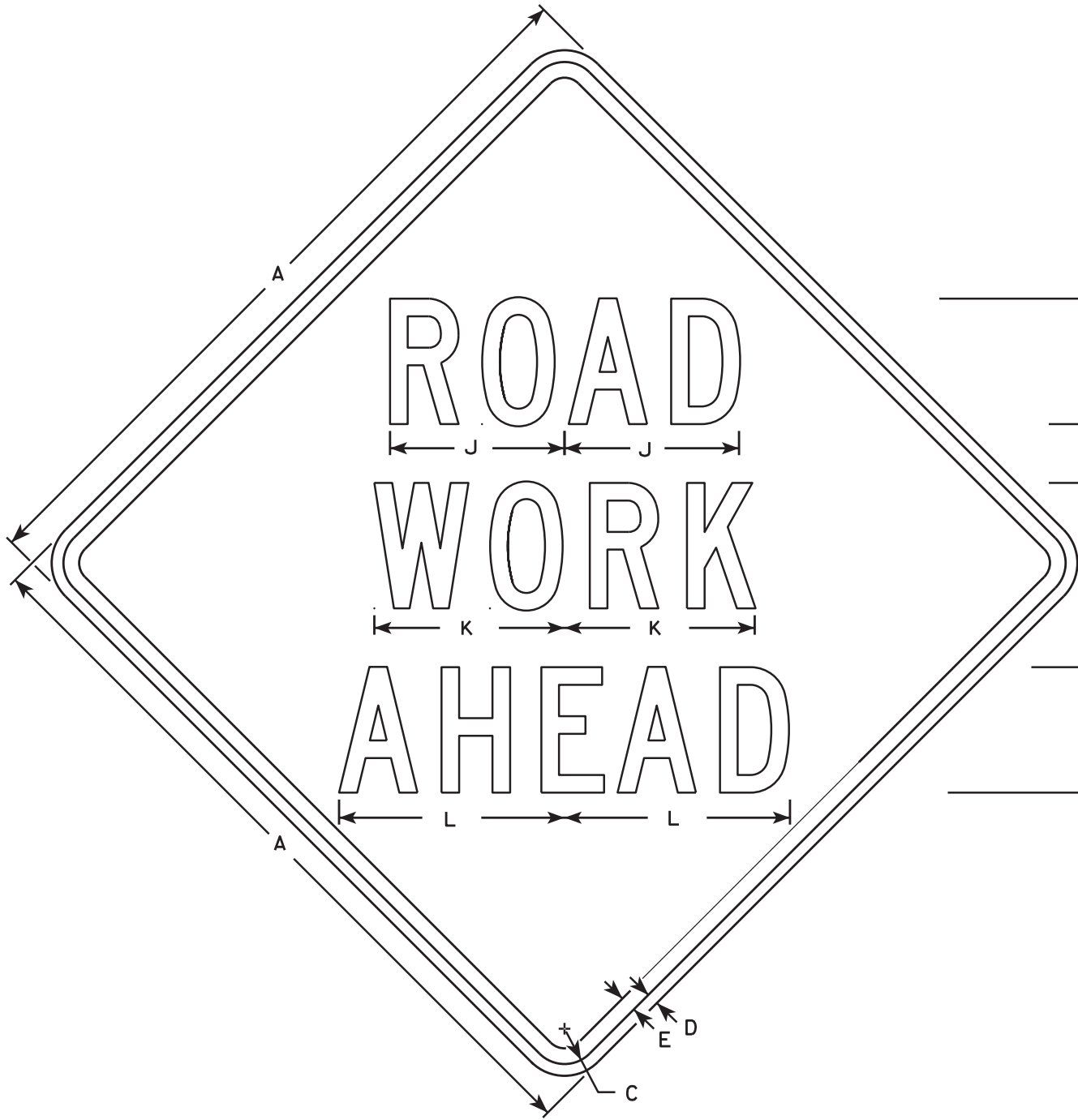
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

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	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

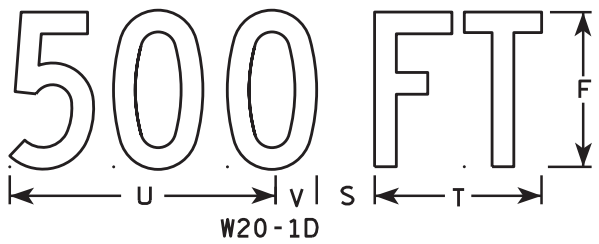
STANDARD SIGN	
R11 - 4	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-4.3

PROJECT NO:	HWY:	COUNTY:	SHEET NO:		E
-------------	------	---------	-----------	--	---

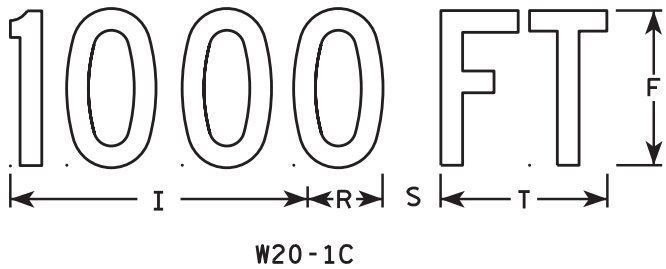
7



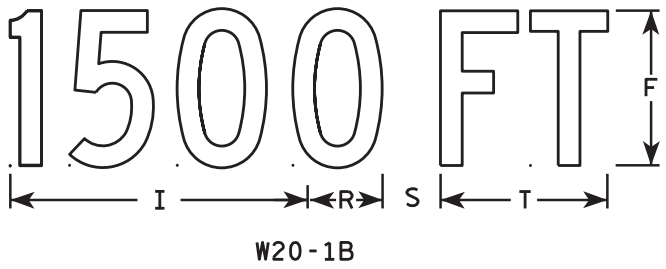
W20-1A



W20-1D



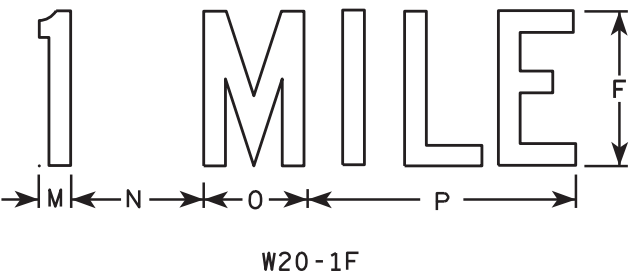
W20-1C



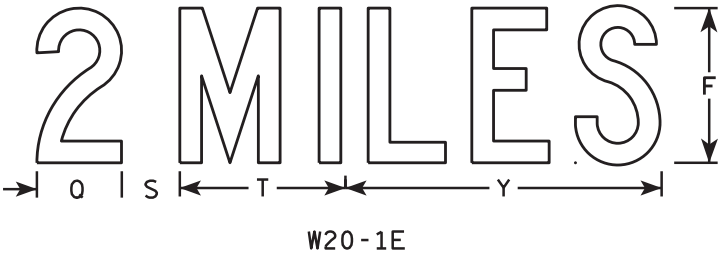
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

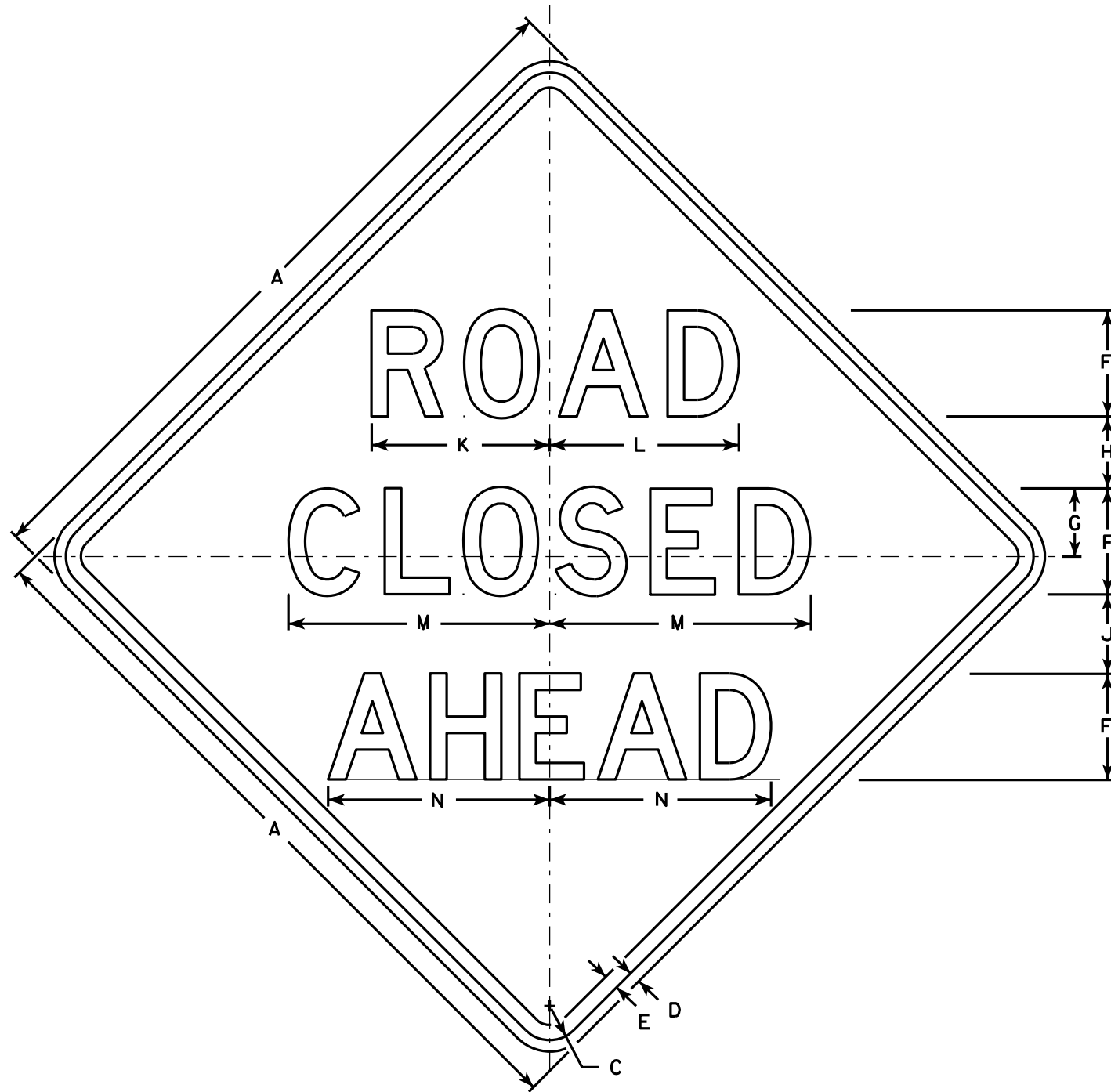
1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

PROJECT NO:

SHEET NO:

E



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

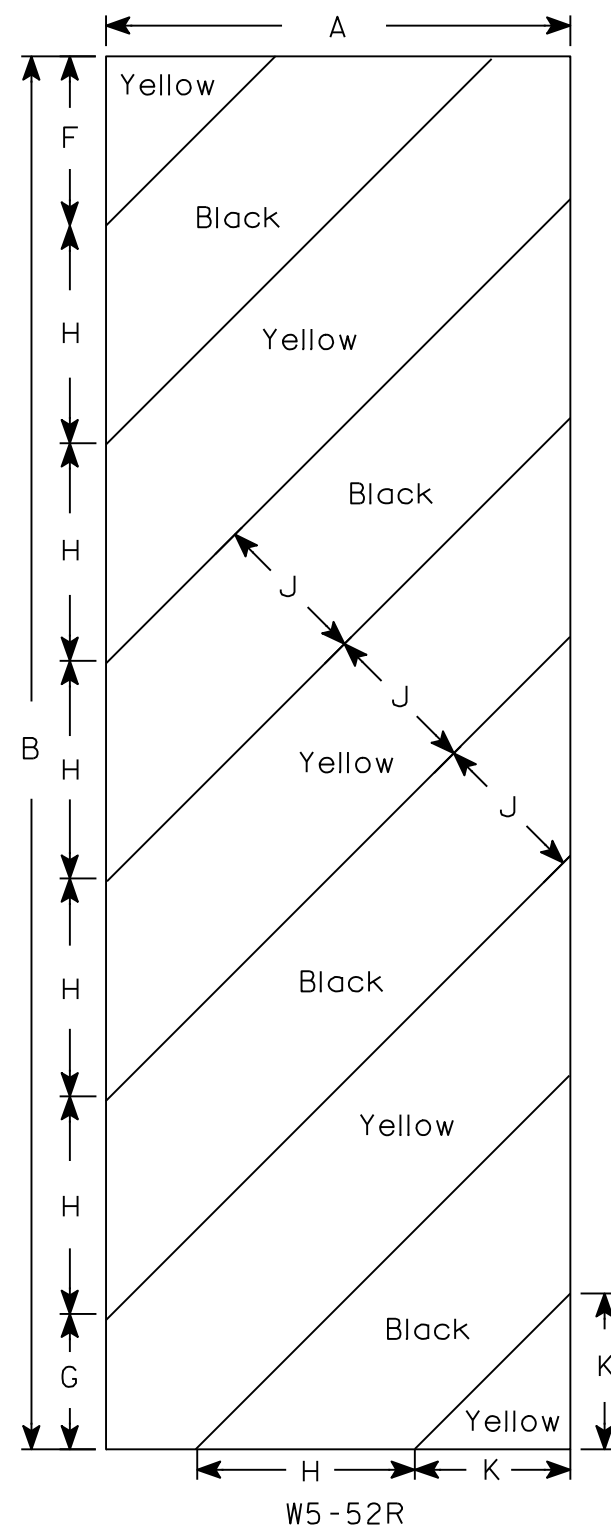
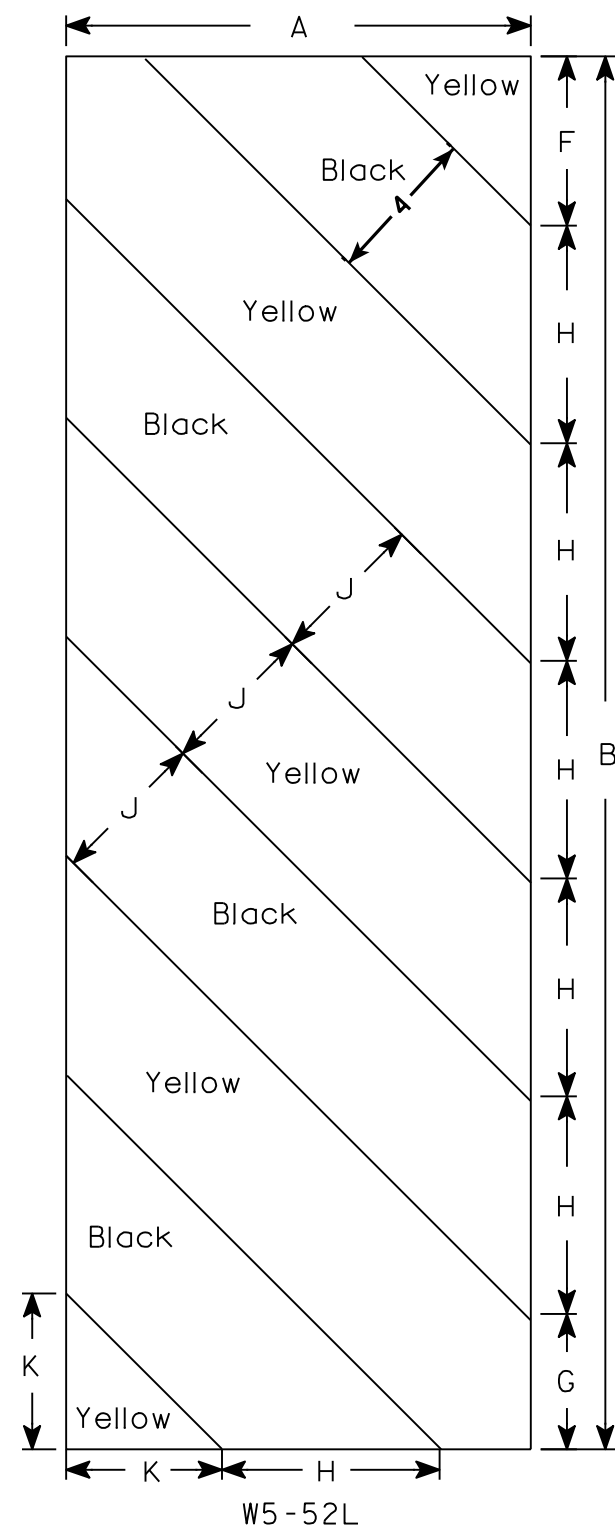
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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.

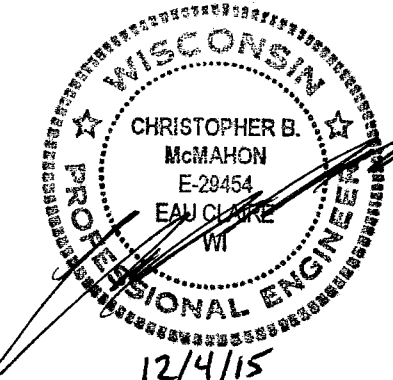
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

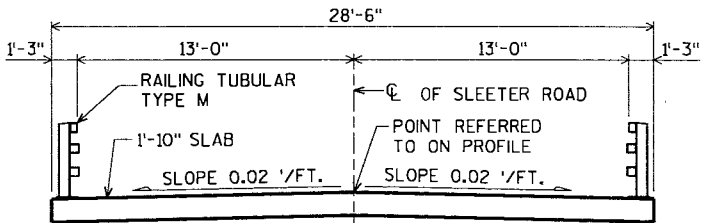
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489
CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161



TYPICAL SECTION THRU ROADWAY

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.13
OPERATING RATING FACTOR: 1.46
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/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) f_y = 60,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FLOOD
DRAINAGE AREA = 89.8 sq. mi.
WATERWAY AREA = 77 sq. ft.
 $V = 7.8$ f.p.s.
 $Q_{100} = 600$ c.f.s.
HIGH WATER₁₀₀ EL. 809.4
HIGH WATER₂ EL. 807.7
RDWY. OVERFLOW = N/A
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (1991)

FOUNDATION DATA:

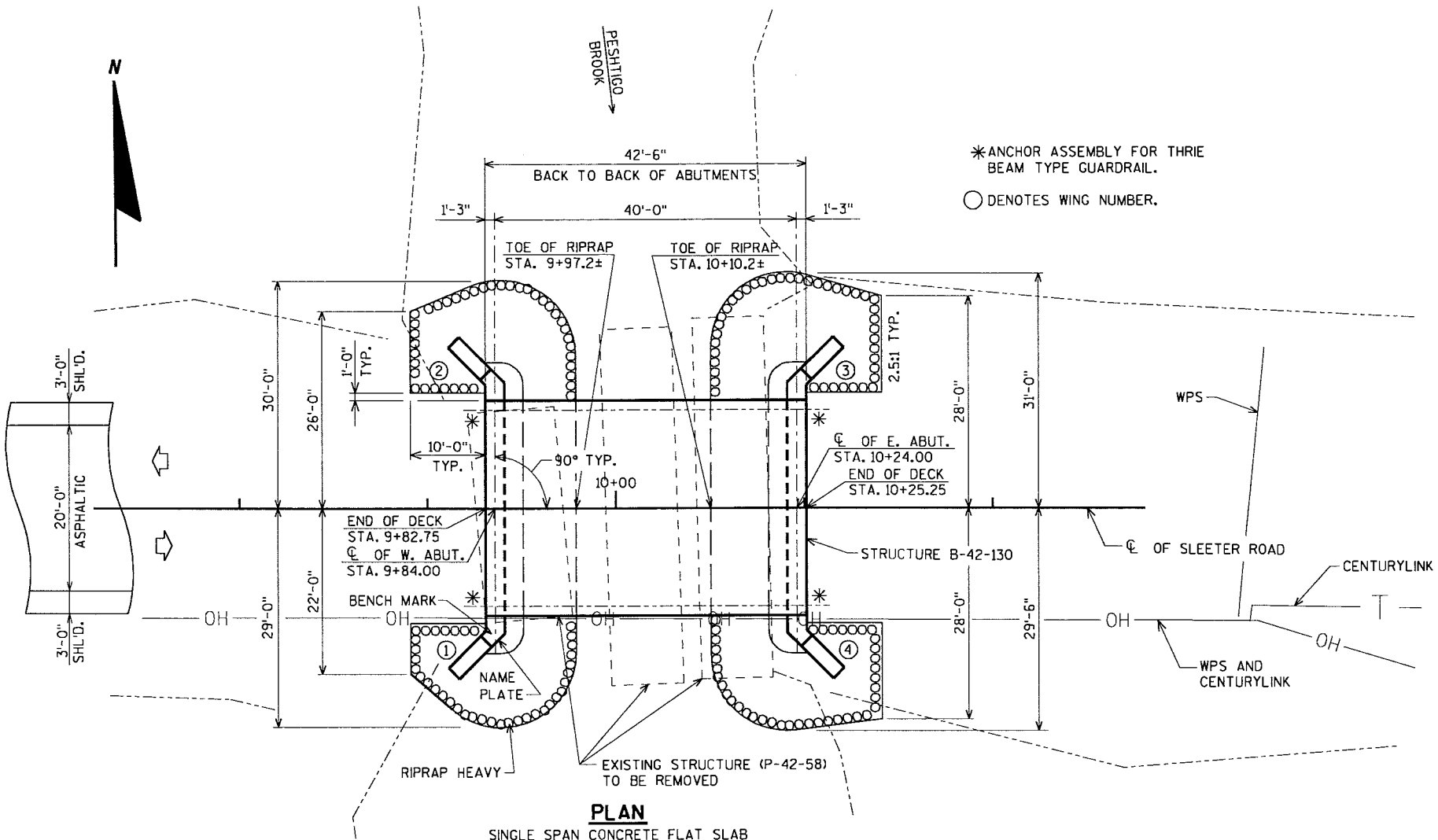
ABUTMENTS TO BE SUPPORTED ON 10 3/4" ϕ x 0.25" CIP CONCRETE PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS # PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 65'-0" WEST ABUTMENT AND 60'-0" EAST ABUTMENT.

#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. = 220 (2018)
A.D.T. = 270 (2038)
R.D.S. = 60 M.P.H.

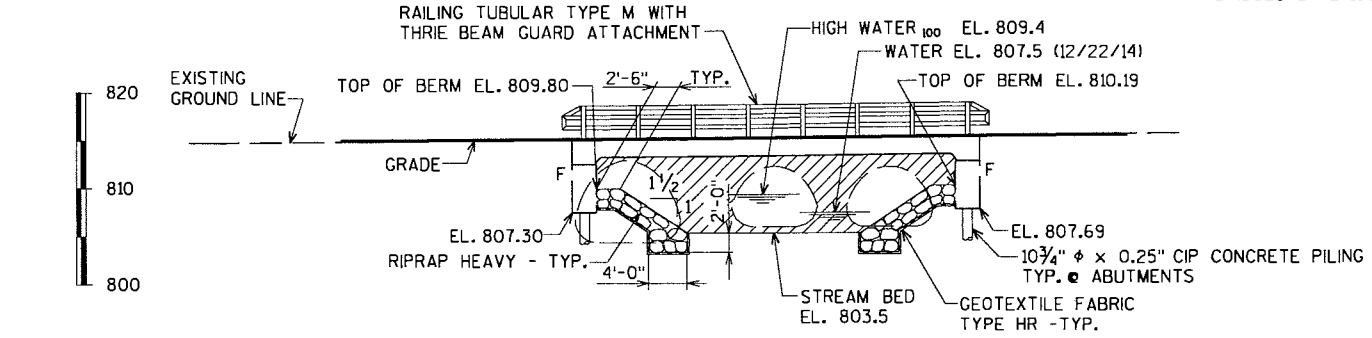
*ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.
O DENOTES WING NUMBER.



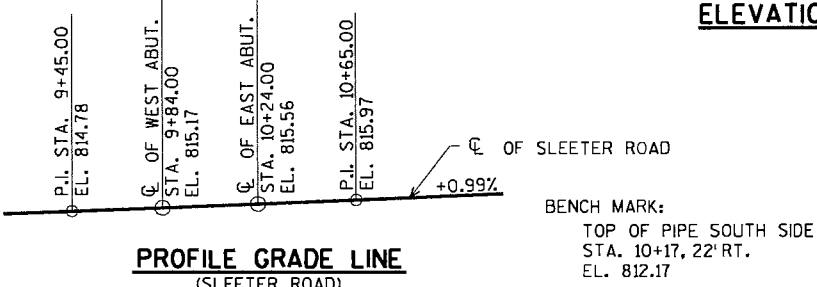
PLAN

SINGLE SPAN CONCRETE FLAT SLAB

COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-42-130".



ELEVATION



PROFILE GRADE LINE (SLEETER ROAD)

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT WING DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT WING DETAILS
8. ABUTMENT BILL OF BARS
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE DETAILS
11. RAILING TUBULAR TYPE M

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY AYRES ASSOCIATES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i>	SDR 02/08/16	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-42-130			
SLEETER ROAD OVER PESHTIGO BROOK			
COUNTY	OCONTO	TOWN/CITY/VILLAGE	BAGLEY
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JWZ	DESIGN CK'D.	AEB
DRAWN BY	CJM	PLANS CK'D.	CBM
GENERAL PLAN			SHEET 1 OF 11

\$PREFNAME\$
U:\45-0399.00 - Oconto County - Sleeter Road\BRIDGE\450399 GP.dgn

DATE: _____
CHECKED BY: _____
BACK CHECKED BY: _____
DATE: _____
CORRECTED BY: _____

8

8

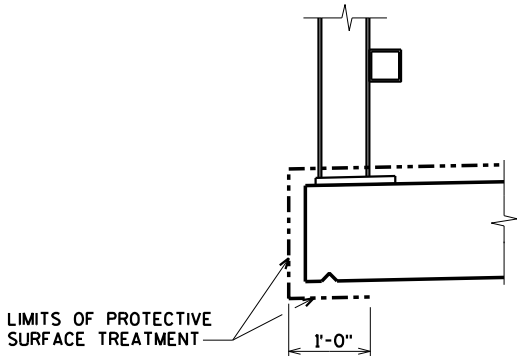
\$PRNAME\$
U:\45-0399,00 - Oconto County - Sleeper Road\BRIDGE\450399 CP.dgn

STATE PROJECT NUMBER

9066-00-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STATION 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-42-130	LS	-----	-----	-----	1
210.0100	BACKFILL STRUCTURE	CY	90	90	-----	180
502.0100	CONCRETE MASONRY BRIDGES	CY	25	25	87	137
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	160	160
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,120	2,120	-----	4,240
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	730	730	15,140	16,600
513.4061	RAILING TUBULAR TYPE M B-42-130	LF	-----	-----	90	90
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	9	-----	18
550.0500	PILE POINTS	EACH	5	5	-----	10
550.2104	PILING CIP CONCRETE 10¾ x 0.25-INCH	LF	325	300	-----	625
606.0300	RIPRAP HEAVY	CY	70	80	-----	150
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70	70	-----	140
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	150	170	-----	320
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

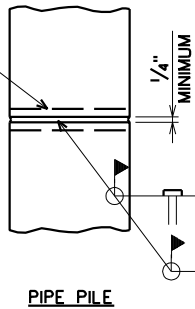


PROTECTIVE SURFACE TREATMENT DETAIL

GENERAL NOTES

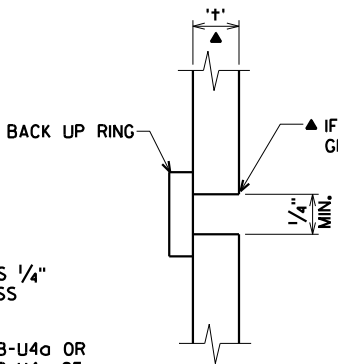
DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION 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 FABRIC 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 SUBSTRUCTURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.
THE EXISTING STRUCTURE, P-42-58, TO BE REMOVED, CONSISTS OF THREE ADJACENT CORRUGATED STEEL PIPES. (1 - 8.5' x 11.5' x 28' LONG PIPE ARCH AND 2 - 6.25' x 9.5' x 48' LONG PIPE ARCHES)
AT BACKFACE 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.
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.
THE QUANTITY OF BACKFILL STRUCTURE, BID ITEM 210.0100, IS CALCULATED BASED ON APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL.

BACK UP RING
⅜" MIN. THICKNESS
FOR SMAW AND ¼" MIN.
THICKNESS FOR FCAW



PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



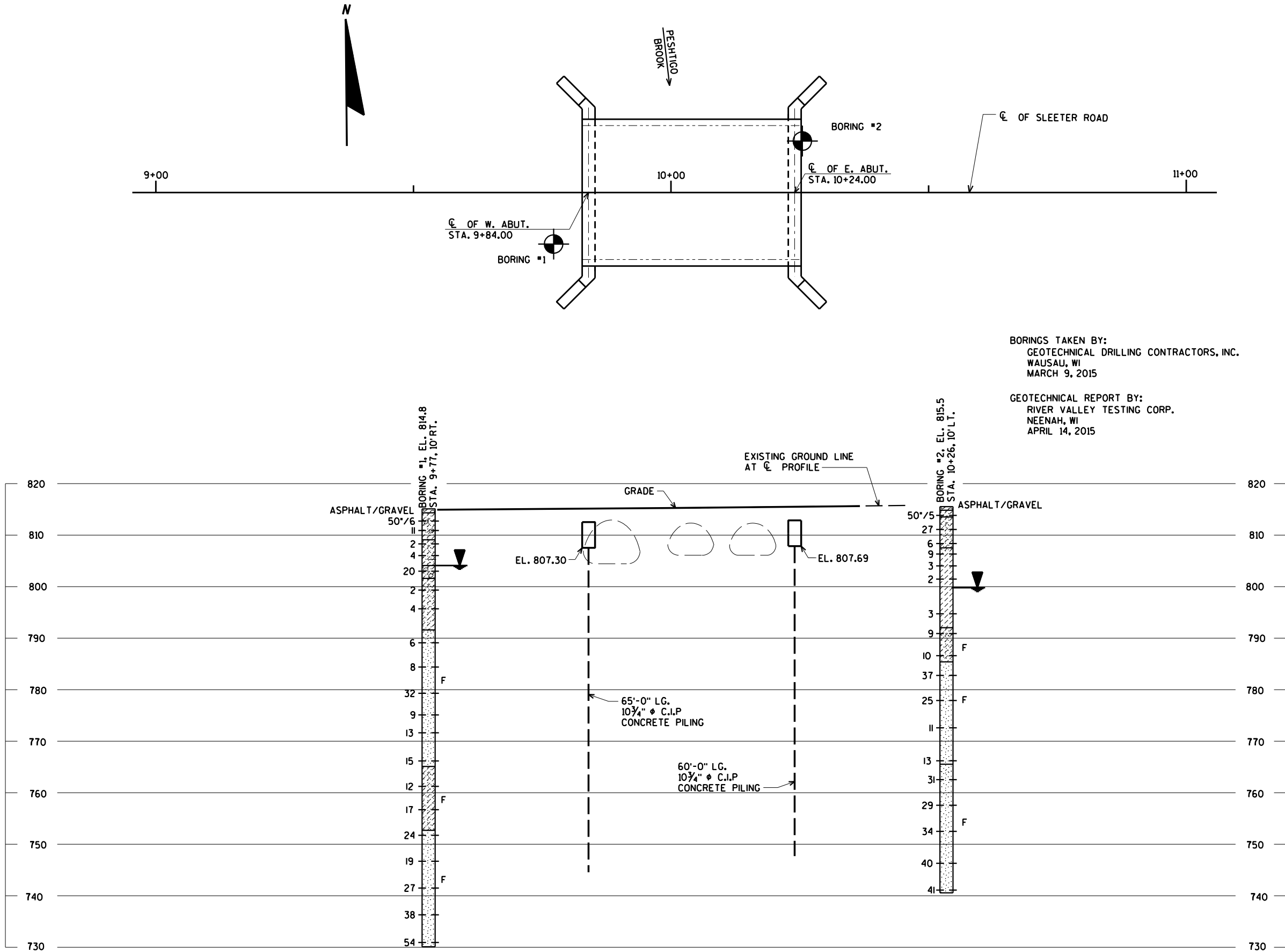
CIP PILE WELD DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
DRAWN BY		CJM	PLANS CK'D. JCK
QUANTITIES AND NOTES		SHEET 2 OF 11	

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

\$PRNAME\$
U:\45-0399.00 - Oconto County - Sleeter Road\BRIDGE\450399 soils.dgn

8



BORINGS TAKEN BY:
GEOTECHNICAL DRILLING CONTRACTORS, INC.
WAUSAU, WI
MARCH 9, 2015

GEOTECHNICAL REPORT BY:
RIVER VALLEY TESTING CORP.
NEENAH, WI
APRIL 14, 2015

STATE PROJECT NUMBER

9066-00-71

ABBREVIATIONS

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

MATERIAL SYMBOLS

TOPSOIL SILT SANDSTONE
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/6=95 BLOWS FOR 6"
PENETRATION
PROBING TAKEN WITH
A 350# WT.
FALLING 18" ON A 2"
O.D. POINT.

LEGEND OF BORING

ELEV. BORING NO.
STA.

UNCONFINED STRENGTH 7.7 7

BLOWS PER FT. USING 140# WT. FALLING 30"

WASH SAMPLE

SHELBY TUBE — S.T.

GROUND WATER ELEVATION

NO GROUND WATER OBSERVED ABOVE THIS ELEVATION

SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO
LIMESTONE

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
DRAWN BY		CJM	PLANS CK'D. JCK
SUBSURFACE EXPLORATION		SHEET 3 OF 11	





THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY 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

- F.F. DENOTES FRONT FACE

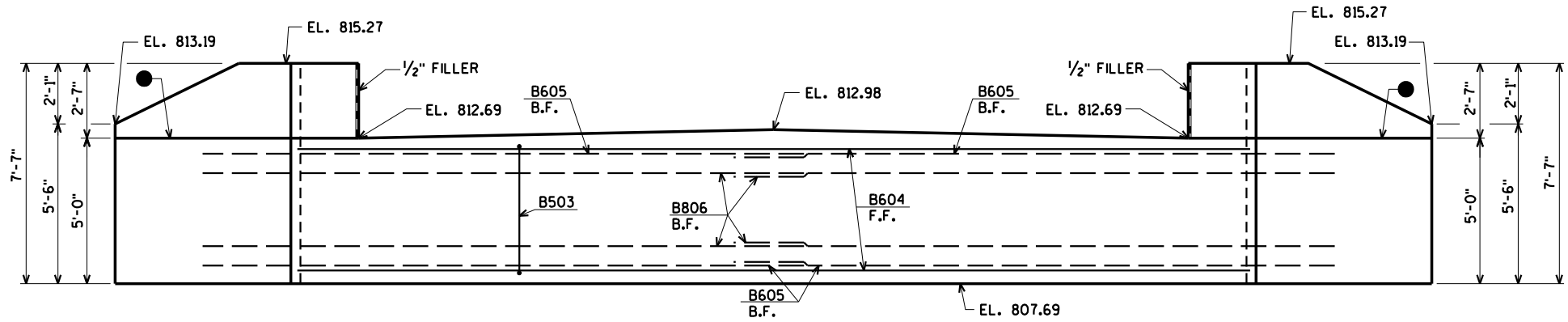
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
	DRAWN BY	CLS	PLANS CK'D. JCK
WEST ABUTMENT WING DETAILS		SHEET 5 OF 1	

\$PRNAME\$
U:\45-0399,00 - Oconto County - Sleeter Road\BRIDGE\450399_ea.dgn

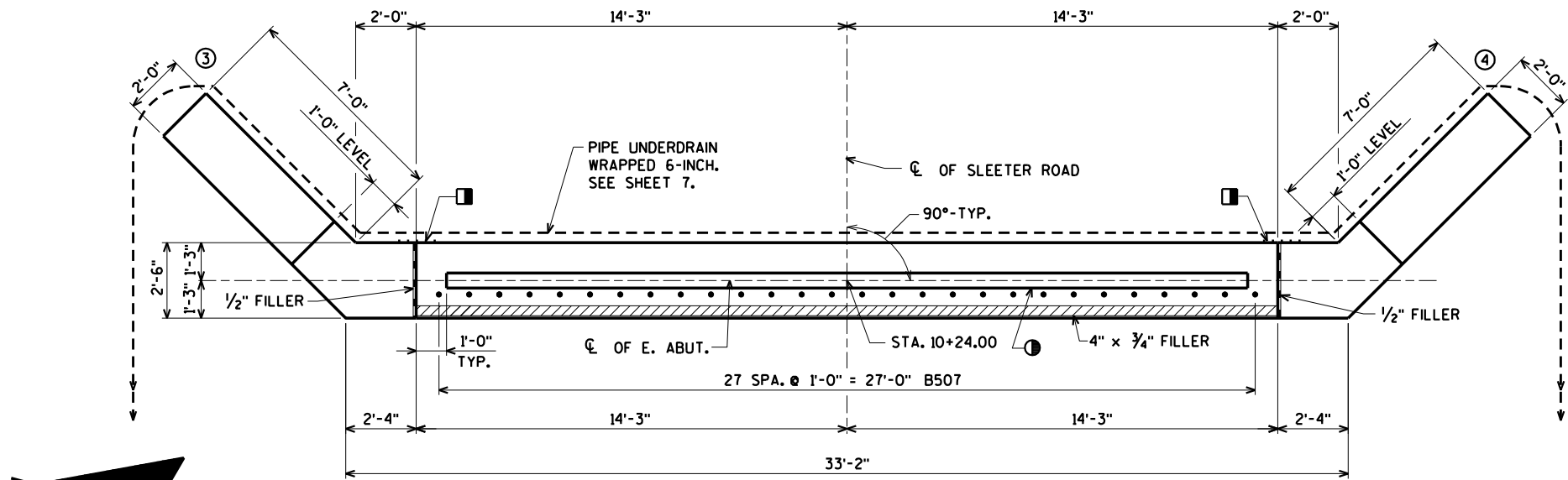
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF
1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

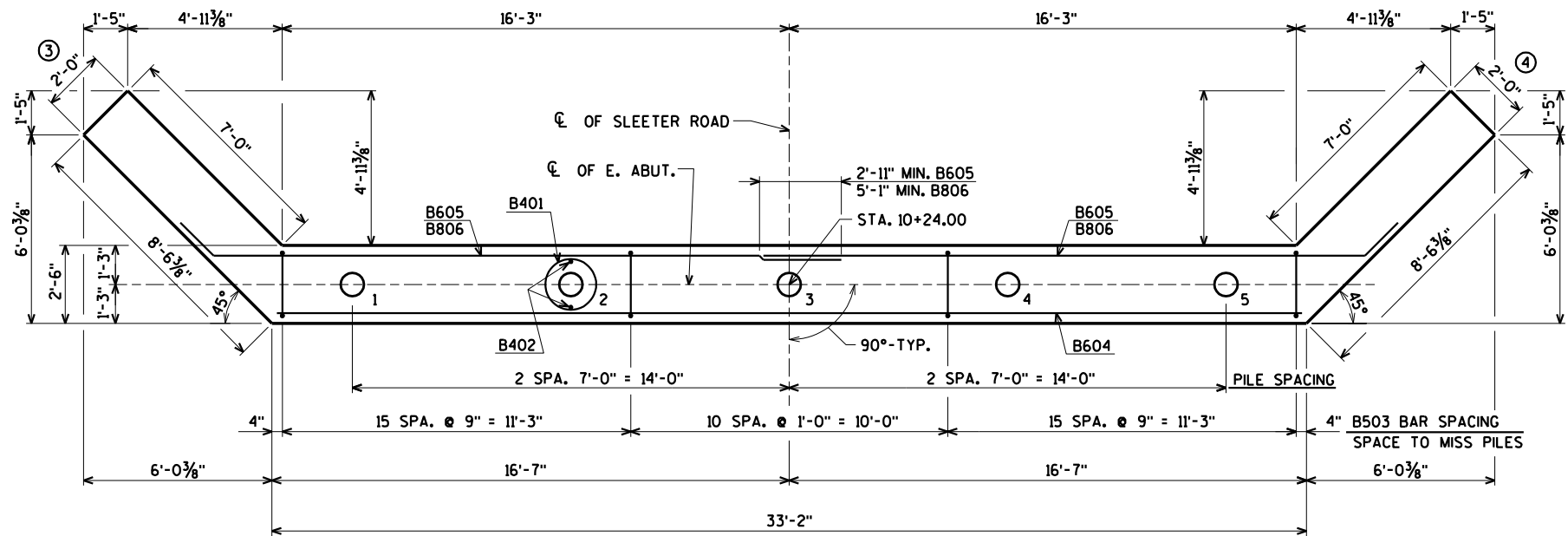
9066-00-71



ELEVATION
(LOOKING EAST)



PLAN



PILE LAYOUT

- OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.
 - ① KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
 - VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.
- FOR PILE SPLICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
DRAWN BY		CLS	PLANS CK'D. JCK
EAST ABUTMENT		SHEET 6 OF 11	

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com



THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY 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

- F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
		DRAWN BY	CLS
		PLANS CK'D.	JCK
EAST ABUTMENT WING DETAILS		SHEET 7 OF 1	

\$PRNAME\$
U:\45-0399,00 - Oconto County - Sleeper Road\BRIDGE\450399_wa.dgn

BILL OF BARS - WEST ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	2,120# UNCOATED 730# COATED
							LOCATION
A401		5	28-0	X			BODY @ PILES
A402		10	2-3				BODY @ PILES
A503		41	13-10	X			BODY VERT.
A604		9	32-11				BODY HORIZ. F.F.
A605		4	21-6	X			BODY HORIZ. B.F.
A806		14	22-7	X			BODY HORIZ. B.F.
A507	X	28	2-0				BODY DOWELS
A408	X	24	8-7	X		⊗	WINGS 1 & 2 VERT. E.F.
A409	X	8	9-8	X			WINGS 1 & 2 VERT. E.F.
A510	X	10	9-8	X			WINGS 1 & 2 HORIZ. F.F.
A711	X	10	11-3	X			WINGS 1 & 2 HORIZ. B.F.
A412	X	4	8-2				WINGS 1 & 2 HORIZ. E.F.
A413	X	4	6-3				WINGS 1 & 2 HORIZ. E.F.
A414	X	4	4-4				WINGS 1 & 2 HORIZ. E.F.
A415	X	4	8-6	X			WINGS 1 & 2 DIAG. E.F.
A416	X	8	8-5	X			WINGS 1 & 2 HORIZ.
A417	X	14	4-1				WINGS 1 & 2 VERT.

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

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

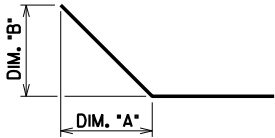
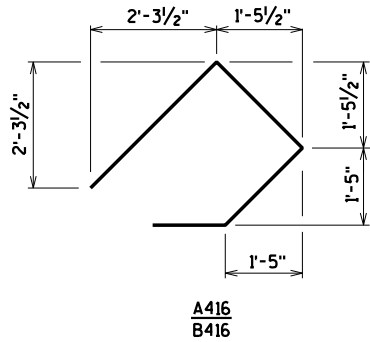
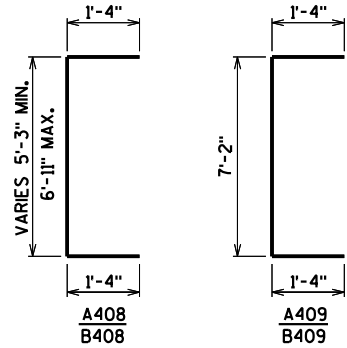
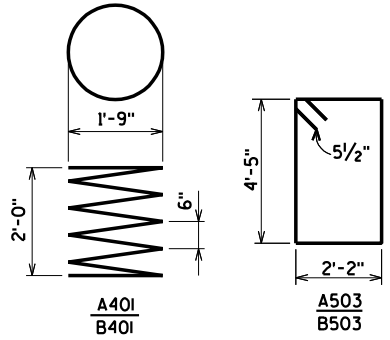
BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
A408	4 SERIES OF 6	7'-9" TO 9'-5"
B408	4 SERIES OF 6	7'-9" TO 9'-5"

BUNDLE AND TAG EACH SERIES SEPARATELY.

BILL OF BARS - EAST ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	2,120# UNCOATED 730# COATED
							LOCATION
B401		5	28-0	X			BODY @ PILES
B402		10	2-3				BODY @ PILES
B503		41	13-10	X			BODY VERT.
B604		9	32-11				BODY HORIZ. F.F.
B605		4	21-6	X			BODY HORIZ. B.F.
B806		14	22-7	X			BODY HORIZ. B.F.
B507	X	28	2-0				BODY DOWELS
B408	X	24	8-7	X		⊗	WINGS 3 & 4 VERT. E.F.
B409	X	8	9-8	X			WINGS 3 & 4 VERT. E.F.
B510	X	10	9-8	X			WINGS 3 & 4 HORIZ. F.F.
B711	X	10	11-3	X			WINGS 3 & 4 HORIZ. B.F.
B412	X	4	8-2				WINGS 3 & 4 HORIZ. E.F.
B413	X	4	6-3				WINGS 3 & 4 HORIZ. E.F.
B414	X	4	4-4				WINGS 3 & 4 HORIZ. E.F.
B415	X	4	8-6	X			WINGS 3 & 4 DIAG. E.F.
B416	X	8	8-5	X			WINGS 3 & 4 HORIZ.
B417	X	14	4-1				WINGS 3 & 4 VERT.



BAR NO.	DIM. "A"	DIM. "B"
A605	1'-0 3/4"	1'-0 3/4"
A806	1'-0 3/4"	1'-0 3/4"
A510	1'-0 3/4"	1'-0 3/4"
A711	1'-0 3/4"	1'-0 3/4"
A415	5'-9"	2'-0"
B605	1'-0 3/4"	1'-0 3/4"
B806	1'-0 3/4"	1'-0 3/4"
B510	1'-0 3/4"	1'-0 3/4"
B711	1'-0 3/4"	1'-0 3/4"
B415	5'-9"	2'-0"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
DRAWN BY		CLS	PLANS CK'D. JCK
ABUTMENT BILL OF BARS			SHEET 8 OF 11

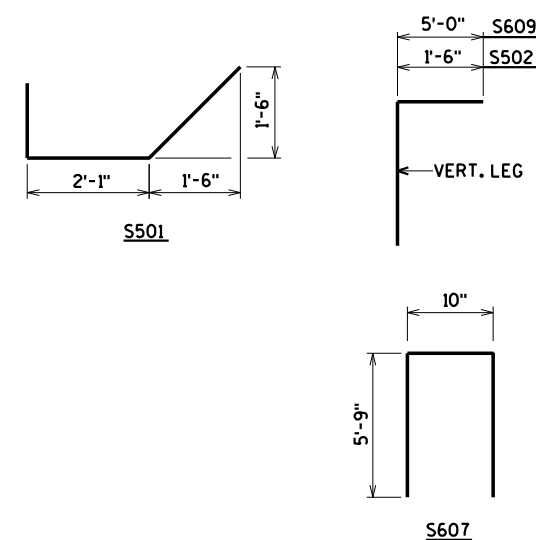
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com



CROSS SECTION THRU ROADWAY

[illegible]

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

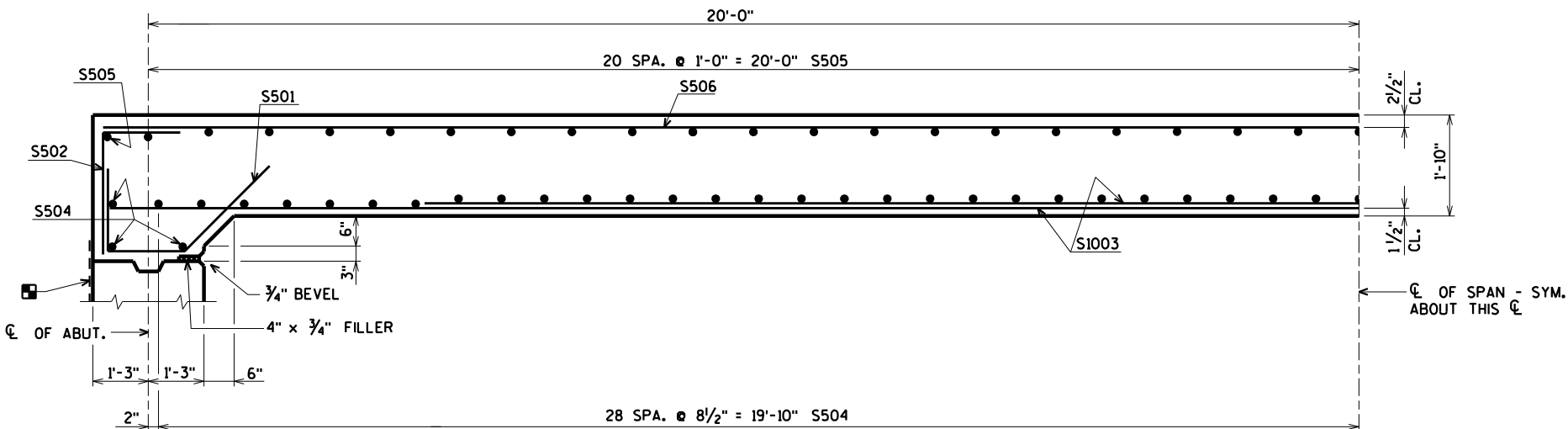


PLAN

\$PRNAME\$
U:\45-0399,00 - Oconto County - Sleeter Road\BRIDGE\450399 sup.dgn

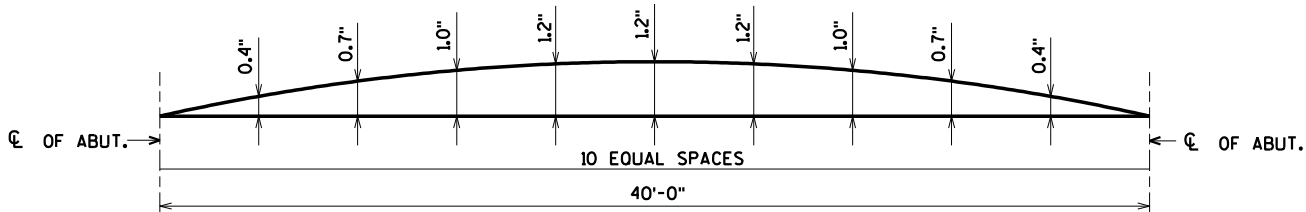
STATE PROJECT NUMBER

9066-00-71



18" RUBBERIZED MEMBRANE WATERPROOFING

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.

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

TOP OF DECK ELEVATIONS

LOCATION	CL. OF W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. OF E. ABUT.
N. EDGE OF SLAB	814.88	814.92	814.96	815.00	815.04	815.08	815.12	815.16	815.20	815.24	815.27
CL. OF STRUCTURE	815.17	815.21	815.25	815.29	815.33	815.36	815.40	815.44	815.48	815.52	815.56
S. EDGE OF SLAB	814.88	814.92	814.96	815.00	815.04	815.08	815.12	815.16	815.20	815.24	815.27

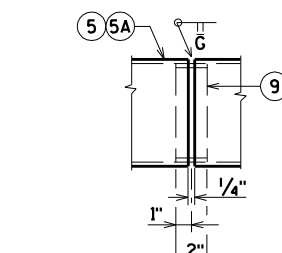
ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

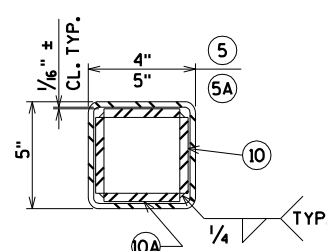
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-42-130			
DRAWN BY	CLS	PLANS CK'D.	JCK
SUPERSTRUCTURE DETAILS			SHEET 10 OF 11

- ① W6 x 25 with 1/8" x 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1/4" x 1 3/4" x 1'-8" WITH 1 3/8" x 1 3/8" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - 1/8" 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. ~~USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)~~
- ④ 5/8" x 1" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/8" DIA. HOLES FOR ANCHOR BOLTS NO. 3
- ⑤ TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/8" x 1 5/8" x 1 5/8" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- ⑦ 1/2" THK. BACK-UP PLATE WITH 2 - 7/8" x 1 1/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- ⑧ 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- ⑨ SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- ⑩ 3/8" x 3 5/8" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A 3/8" x 2 5/8" x 2'-4" PLATE USED IN NO. 5. 3/8" x 3 5/8" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ 7/8" ϕ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER, USE 1 3/4" x 1 1/4" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 5/8" x 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
- ⑫ 7/8" DIA. x 1 1/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
- ⑬ 3/8" x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- ⑭ 7/8" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- ⑮ 1" ϕ HOLES IN TUBES NO. 5A FOR 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

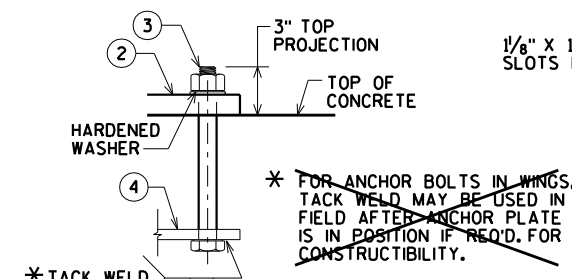
1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-42-130" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR 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 $\frac{1}{8}$ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. ~~RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.~~
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION, PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. ~~WHEN PAINTING IS REQUIRED, ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 3 & 4) SHALL BE PAINTED OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.~~
11. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).
12. PLACE FIRST BOTTOM LONGITUDINAL BAR CLEAR OF DRIP GROOVE.



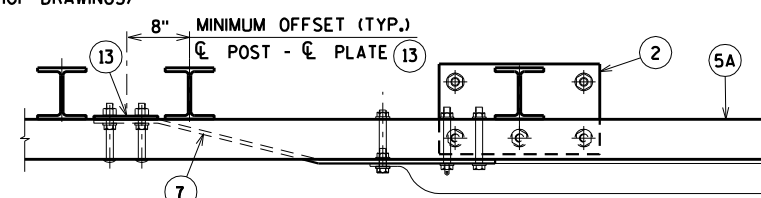
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN
ON THE SHOP DRAWINGS)



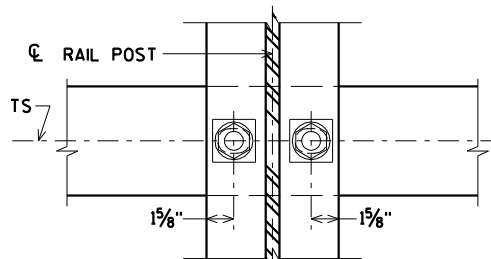
SECTION B



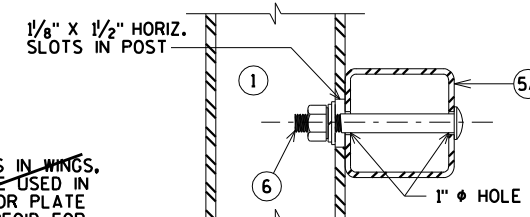
ANCHOR BOLTS



TOP VIEW AT END POST
(THREE BEAM RAIL ATTACHMENT)



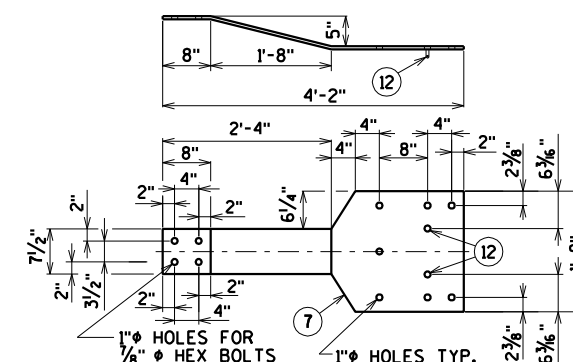
SECTION THRU POST WEB



SECTION THRU RAIL

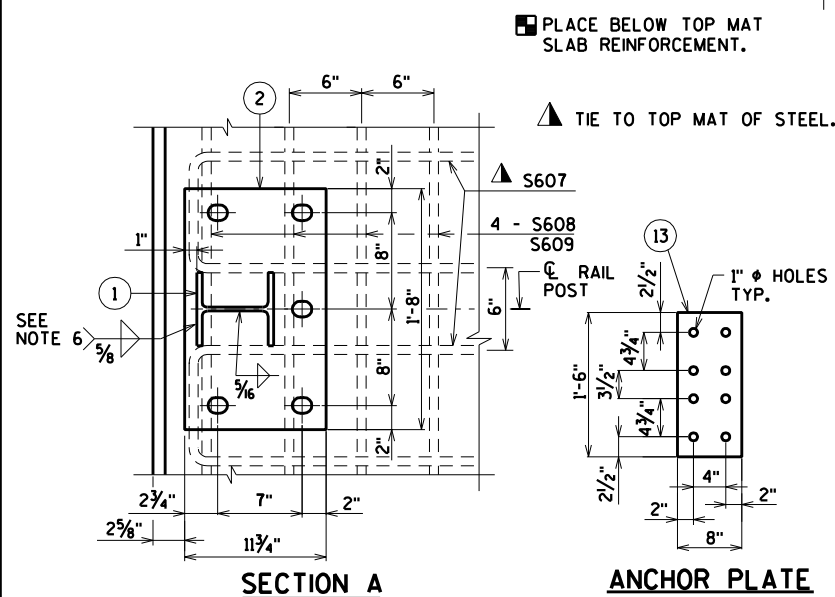
NOTE: CONNECTIONS AT LOWER RAILS SHOWN.
CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

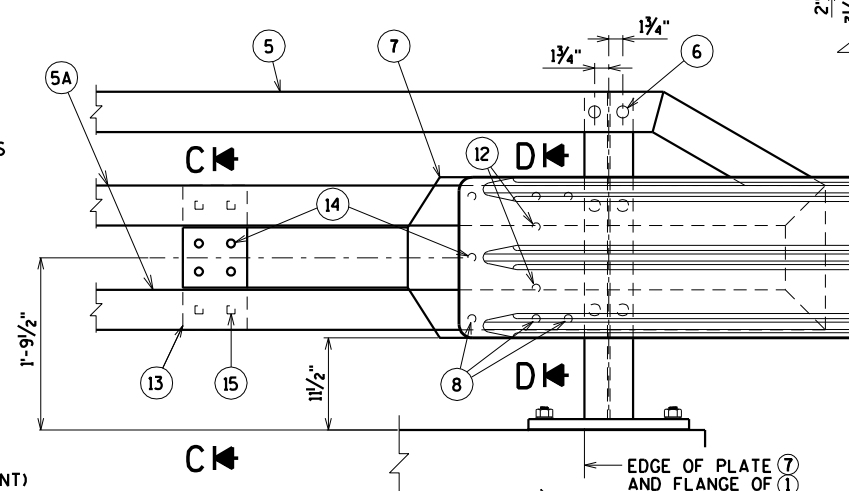


BACK-UP PLATE DETAIL
(AT BEAM GUARD ATTACHMENT)

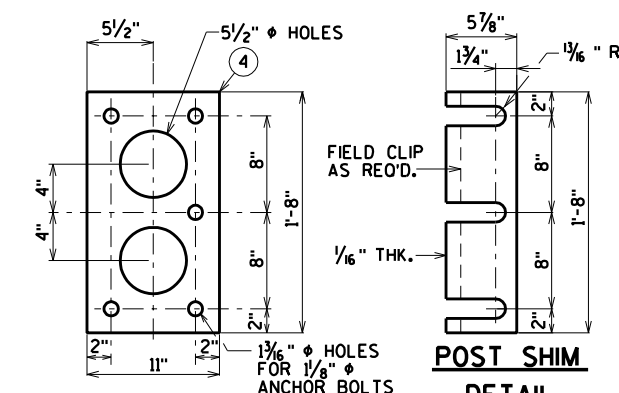
GENERAL NOTES



ANCHOR PLATE
(AT BEAM GUARD ATTACHMENT)

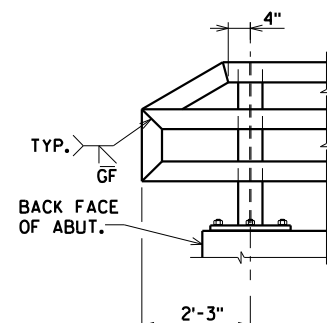


DETAIL AT END POST
(THREE BEAM RAIL ATTACHMENT)



**POST SHIM
DETAIL**

ANCHOR PLATE
(AT RAIL TO DECK CONNECTION)



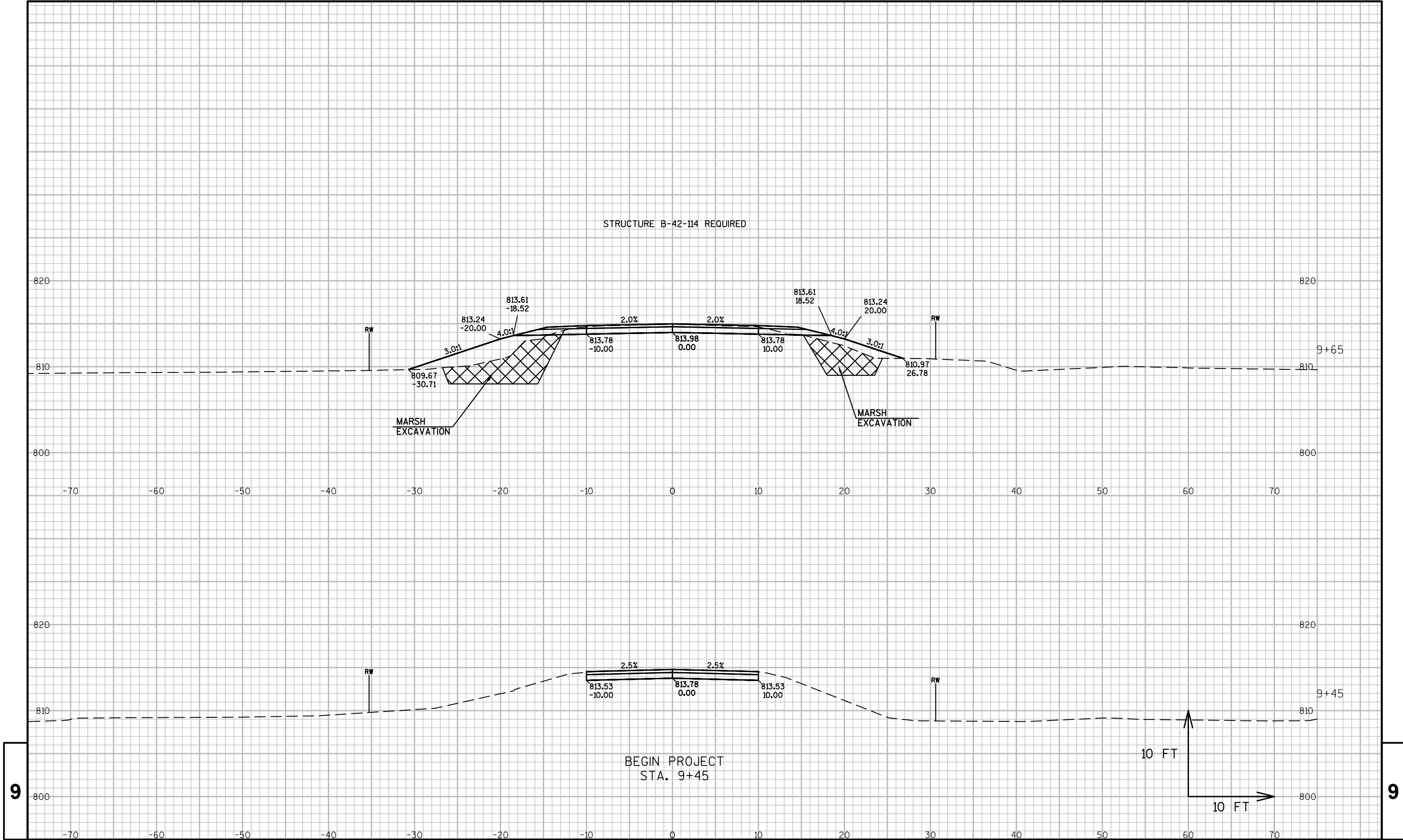
PART ELEVATION OF RAILING

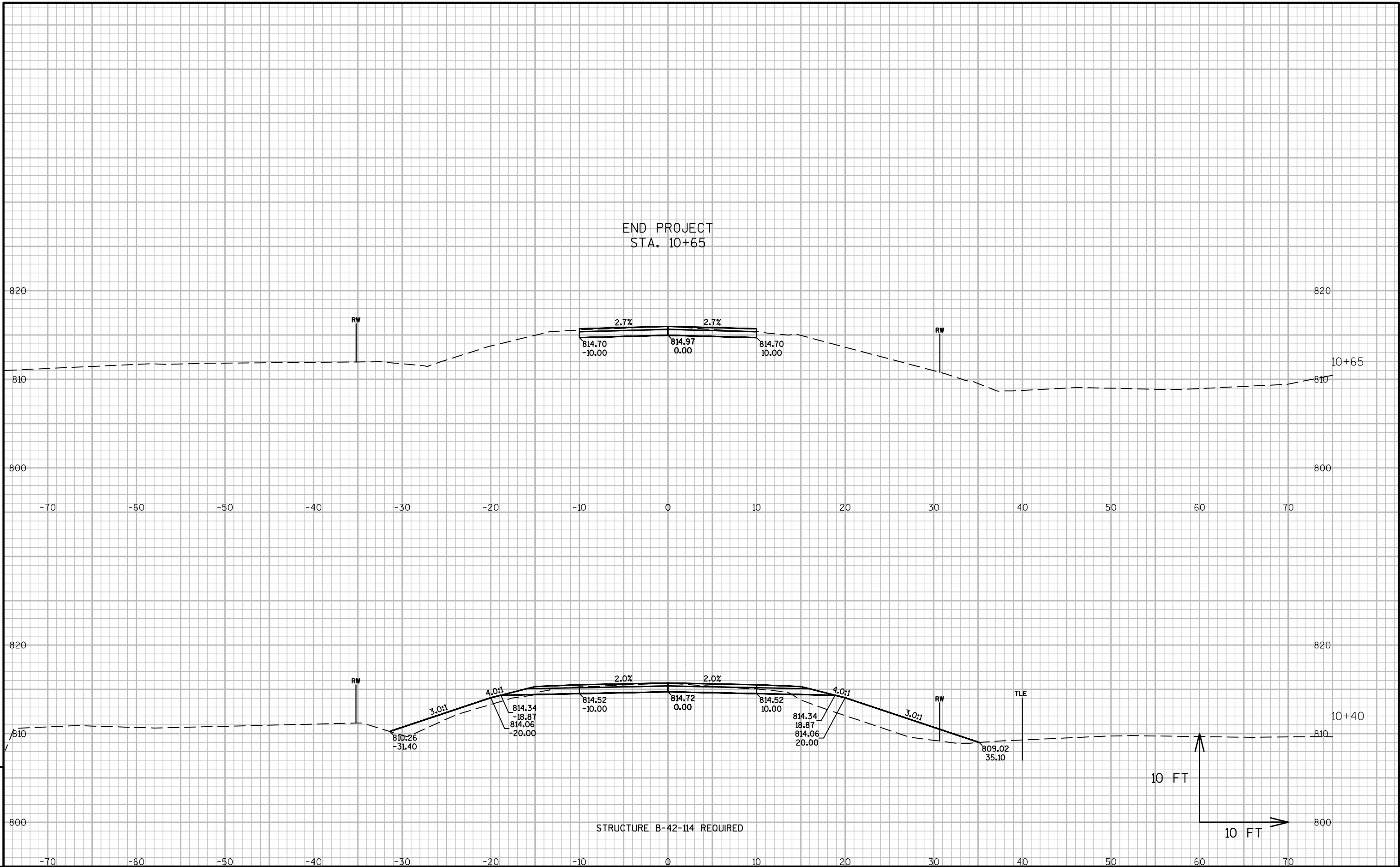
EARTHWORK - SLEETER ROAD

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			Mass Ordinate
	Cut	Unusable Pavement Material	Fill	Marsh Exc	Cut Note 1	Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Cut 1.00 Note 1	Expanded Fill 1.30	Expanded Marsh Backfill 1.50 Note 4	
9+45.00	20.0	2.5	0.0	0.0								
9+65.00	22.4	2.5	28.6	58.6	16	2	11	22	16	14	33	0
9+82.75	22.4	2.5	28.6	58.6	15	2	19	39	30	38	90	-11
10+25.25	20.3	2.5	42.1	0.0								
10+40.00	20.3	2.5	42.1	0.0	11	1	23	0	42	68	90	-31
10+65.00	20.0	2.5	0.0	0.0	19	2	19	0	60	93	90	-40

TOTALS: 60 7 72 60

Notes:	
1 - Cut	Cut includes existing asphalt and base material.
2 - Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Material volume
4 - Expanded Marsh Backfill	Will be backfilled with Select Borrow
7 - Mass Ordinate	Cut - (Unusable Pavement Material)-(Fill * Fill Factor)
7 - Mass Ordinate	Mass Ordinate does not include Marsh Excavation



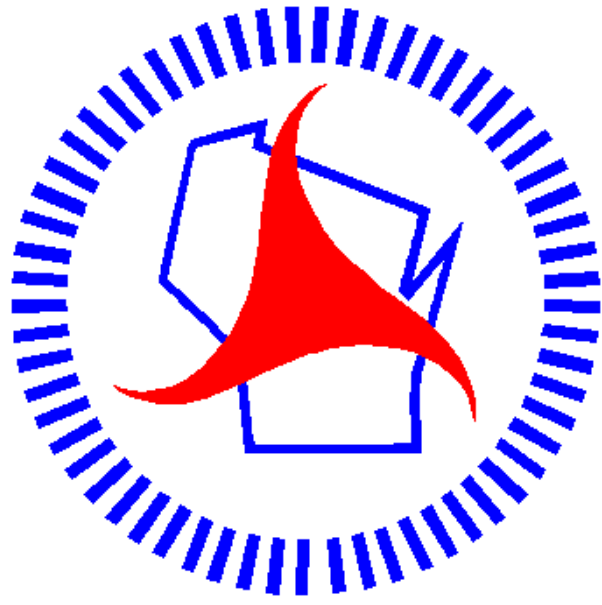


9

9

PROJECT NO: 9066-00-71	HWY: SLEETER ROAD	COUNTY: OCONTO	CROSS SECTIONS: SLEETER ROAD	SHEET	E
------------------------	-------------------	----------------	------------------------------	-------	---

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>