WIS MAR 13

PROJECT ID: 1430-00-78

COUNTY: GREEN LAKE

ORDER OF SHEETS

TOTAL SHEETS = 64

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1430-00-78		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GREEN LAKE - FOND DU LAC COUNTY LINE

WEST JCT CTH A - CTH PP

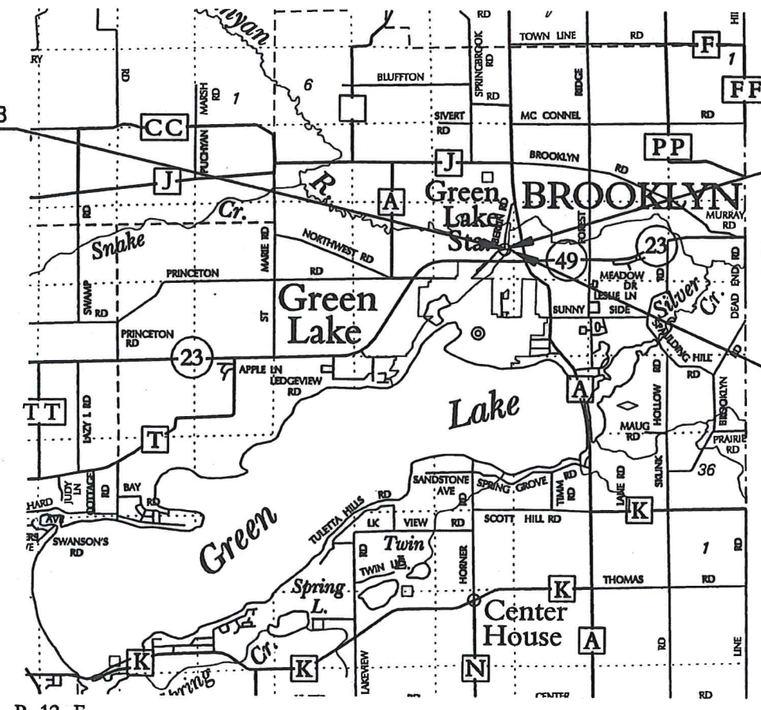
STH 23

GREEN LAKE COUNTY

STATE PROJECT NUMBER

1430-00-78

N



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.064 MI.

DESIGN DESIGNATION

A.A.D.T. (2013)	=	800
A.A.D.T. (2033)	=	1,000
D.H.V.	=	116
D.D.	=	62/38
T.	=	17.3%
DESIGN SPEED	=	35 MPH
ESALS	=	357,700

CONVENTIONAL SYMBOLS

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

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) GREEN LAKE COUNTY, COUNTY ZONE NAD 1983 (1997) ADJUSTMENT. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88.

ORIGINAL PLANS PREPARED BY

OMNNI ASSOCIATES

WISCONSIN
JUDITH ANN WILSON
E-22940
NEENAH, WI
PROFESSIONAL ENGINEER

10/29/12

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	OMNNI ASSOCIATES
Designer	OMNNI ASSOCIATES
Project Manager	DAN HOLLOWAY, P.E.
Regional Examiner	CHERYL SIMON, P.E.
Regional Supervisor	MICHAEL KRETSCHMER, P.E.
C.O. Examiner	WISDOT BPD

APPROVED FOR THE DEPARTMENT

DATE: 10/29/12 (Signature)

E

GENERAL NOTES

THE LOCATIONS 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.

DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED AS APPROXIMATE AND MEASURED IN THE FIELD FOR MATCHING PURPOSES.

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

ALL DISTURBED AREAS, NOT OTHERWISE SURFACED ARE TO BE TOPSOILED, FERTILIZED, TEMPORARY SEEDED, SEEDED AND COVERED WITH EROSION MAT.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

THE WISCONSIN DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR A MONUMENT WHICH SHALL BE SET IN THE STRUCTURE AS DESIGNATED BY THE ENGINEER.

DRIVEWAY AT EGBERT EXCAVATING IS HMA PAVEMENT 4" DEPTH TYPE E-1
- 1 3/4" UPPER LAYER (12.5 mm NOMINAL SIZE AGGREGATE)
- 2 1/4" LOWER LAYER (19 mm NOMINAL SIZE AGGREGATE)

CONTACTS

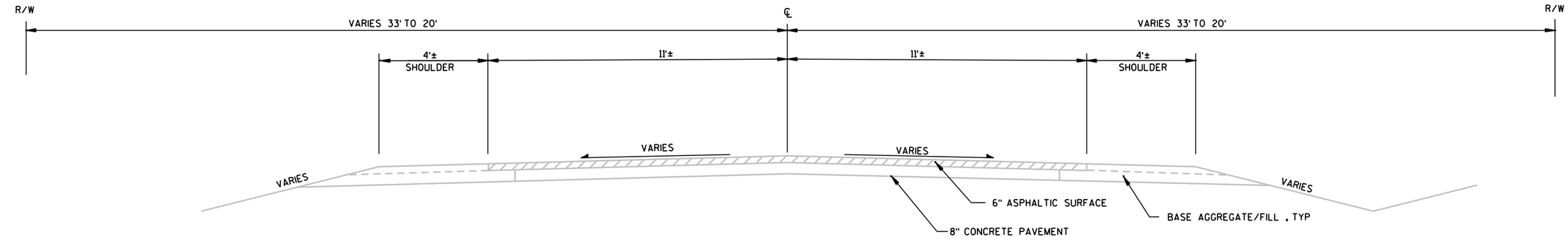
ELECTRIC & GAS	ALLIANT ENERGY LOCAL CONTACT: TOM WALTERS TELEPHONE: 920-748-4013 EMAIL: tomwalters@alliantenergy.com
TELEPHONE	CENTURYLINK LOCAL CONTACT: TIM KROEZE TELEPHONE: 920-326-2224 EMAIL: tim.kroeze@centurylink.com
DNR LIAISONS	BOBBI JO FISCHER DEPARTMENT OF NATURAL RESOURCES WAUTOMA SERVICE CENTER 427 EAST TOWER DRIVE, SUITE 100 WAUTOMA, WI 54982 TELEPHONE: 920-787-4686, EXT 3007 EMAIL: bobbi.fischer@wisconsin.gov
	ROBERT DAVIS WDNR DAM SAFETY ENGINEER FITCHBURG SERVICE CENTER 3911 FISH HATCHERY ROAD FITCHBURG, WI 53711 TELEPHONE: 608-275-3316 EMAIL: robert.davis@wisconsin.gov

DIGGERS HOTLINE
Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

EROSION CONTROL NOTES

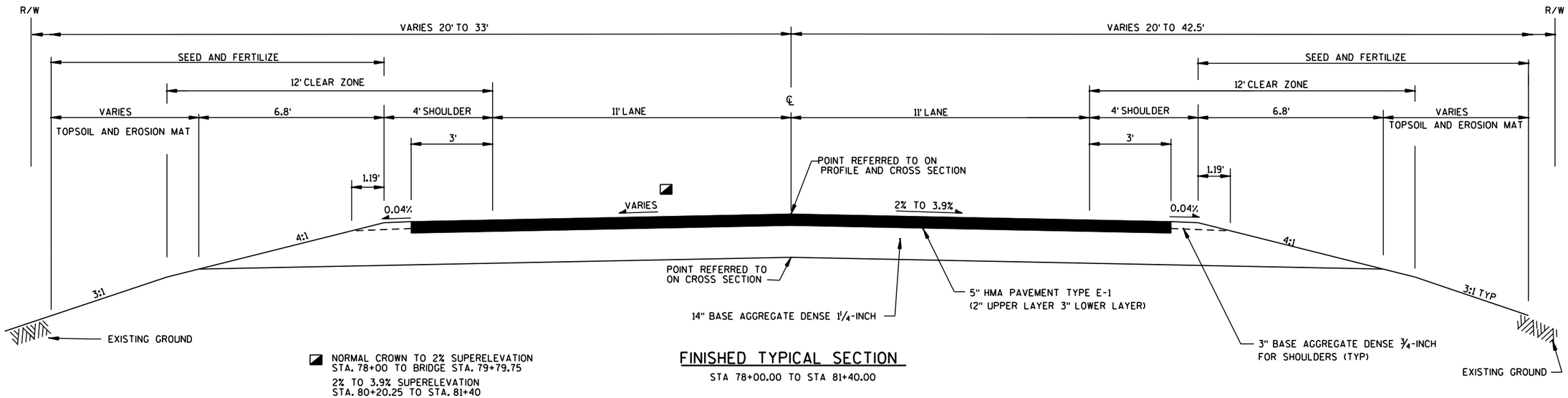
RUNOFF COEFFICIENTS FOR THIS PROJECT: EXISTING PAVEMENT 0.95, EXISTING SLOPES 0.30, NEW PAVEMENT 0.95, NEW SLOPES 0.30.

TOTAL PROJECT AREA = 0.672 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.482 ACRES



EXISTING TYPICAL SECTION

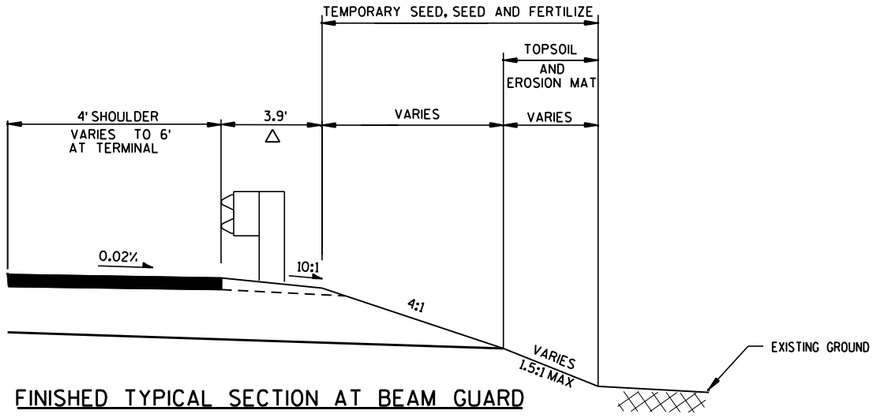
STA. 78+00 TO STA. 81+40



◪ NORMAL CROWN TO 2% SUPERELEVATION
STA. 78+00 TO BRIDGE STA. 79+79.75
2% TO 3.9% SUPERELEVATION
STA. 80+20.25 TO STA. 81+40

FINISHED TYPICAL SECTION

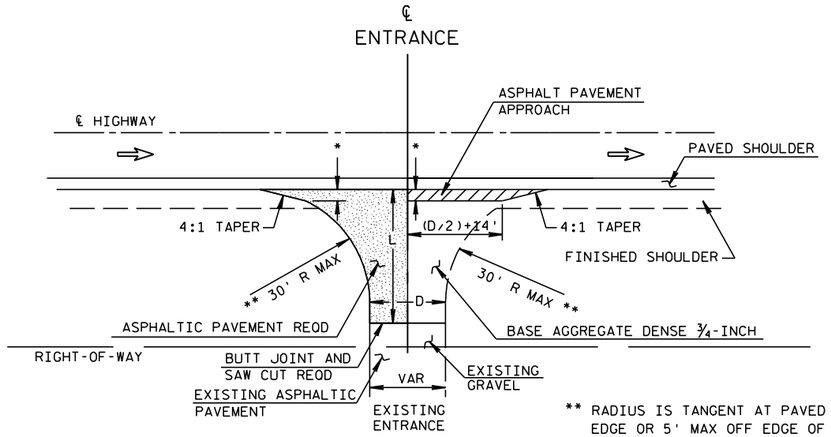
STA 78+00.00 TO STA 81+40.00



△ INCREASE TO 6'AT POST NO.1
OF ENERGY ABSORBING TERMINAL

FINISHED TYPICAL SECTION AT BEAM GUARD

PROJECT NO:1430-00-78	HWY:LAWSON DRIVE	COUNTY:GREEN LAKE	TYPICAL SECTIONS	SHEET 3	E	2.2



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

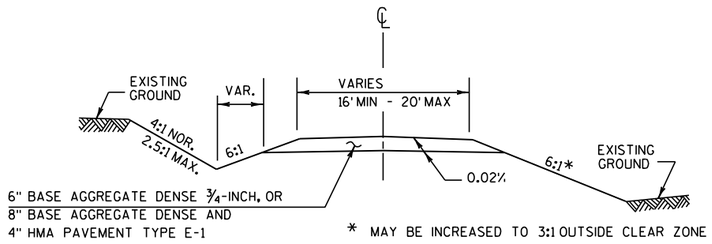
D=DRIVEWAY WIDTH
SEE PLAN AND PROFILE

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

* 3' MAX OR TO FINISHED SHOULDER WHICH EVER IS LESS.

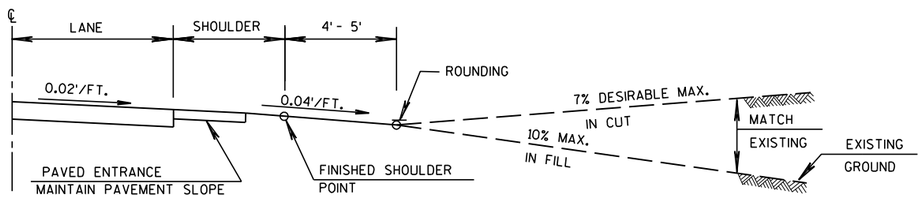
PLAN VIEW

NOTE: ONLY THE BASE AGGREGATE DENSE DRIVEWAY USED IN THIS CONTRACT



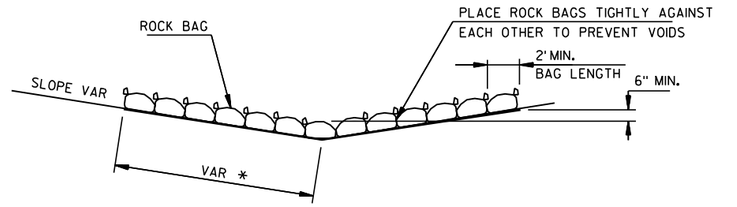
* MAY BE INCREASED TO 3:1 OUTSIDE CLEAR ZONE

TYPICAL CROSS SECTION

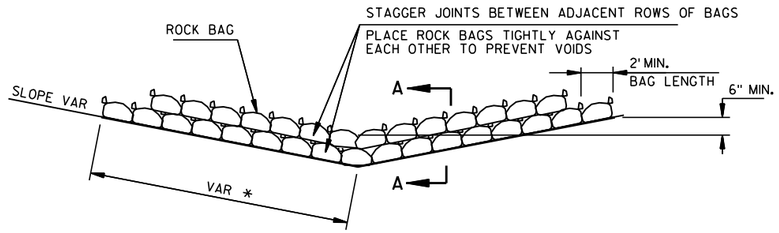


PROFILE VIEW

RURAL DRIVEWAY INTERSECTION DETAIL

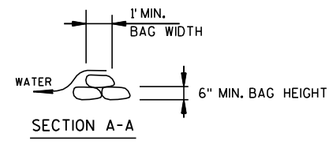


SIDE VIEW (SINGLE LAYER)



*LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL

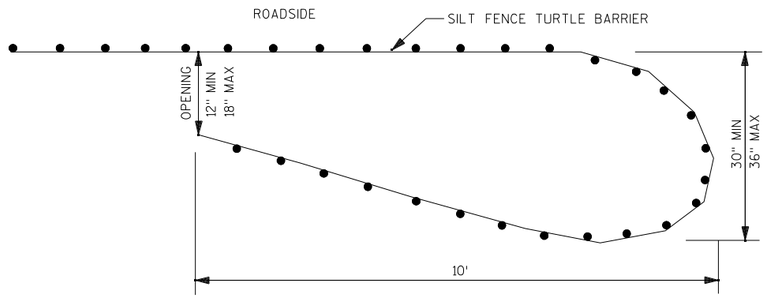
SIDE VIEW (MULTIPLE LAYER)



SECTION A-A

ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS



NOTES
THE PURPOSE OF THE SILT FENCE TURN AROUNDS ARE TO REDIRECT THE TURTLES AND SNAKES AWAY FROM THE ROADWAY. FENCING AND FENCING SUPPORTS SHALL BE TRENCHED IN A MINIMUM OF 4-INCHES ON UPSLOPE SIDE OF FENCE. SILT FENCE BARRIER POSTS FOR THE TURN-AROUND SHOULD BE ON THE INSIDE OF THE TURN-AROUND.

SILT FENCE TURN-AROUND DETAIL

2

2

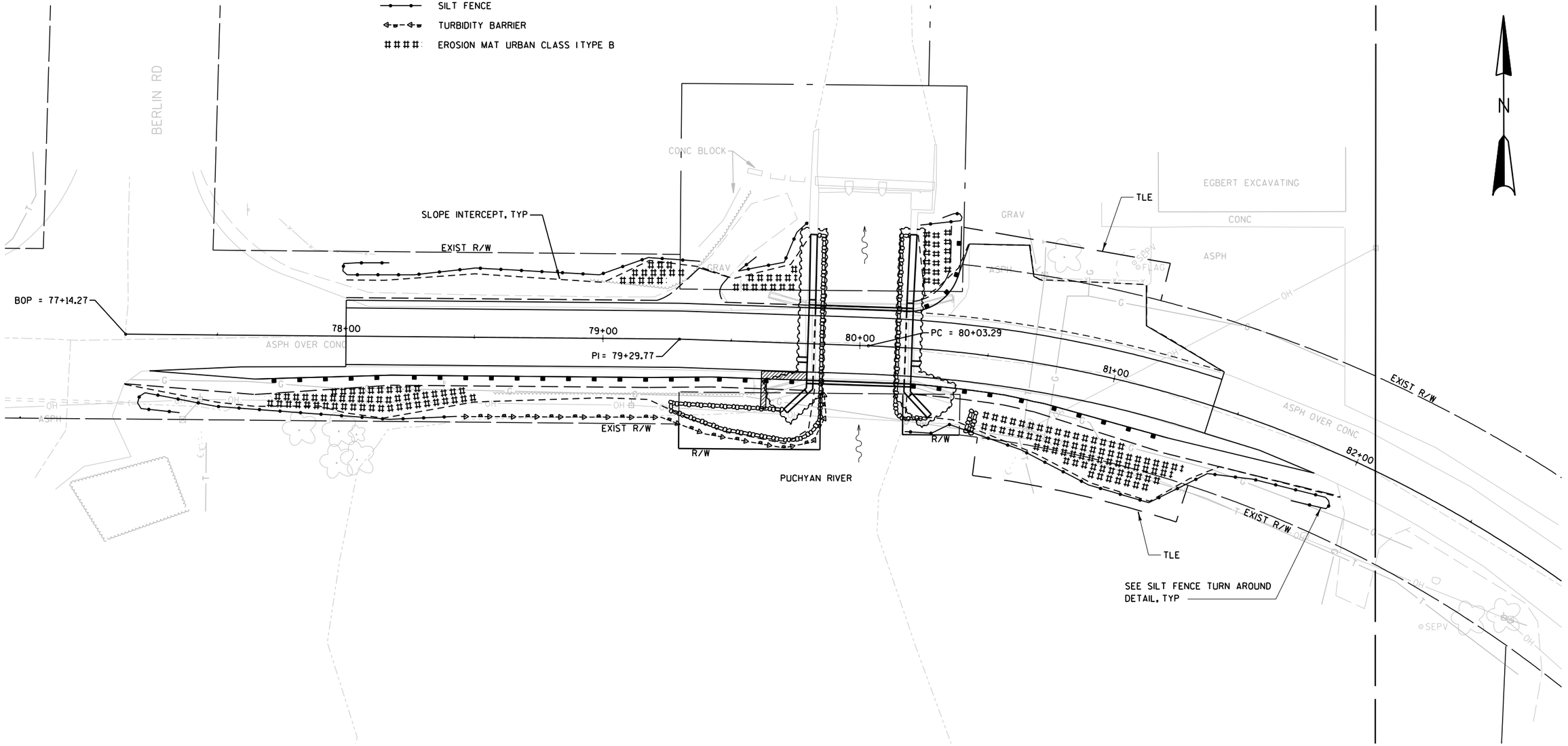
LEGEND

ROCK BAG DITCH CHECK

SILT FENCE

TURBIDITY BARRIER

EROSION MAT URBAN CLASS I TYPE B

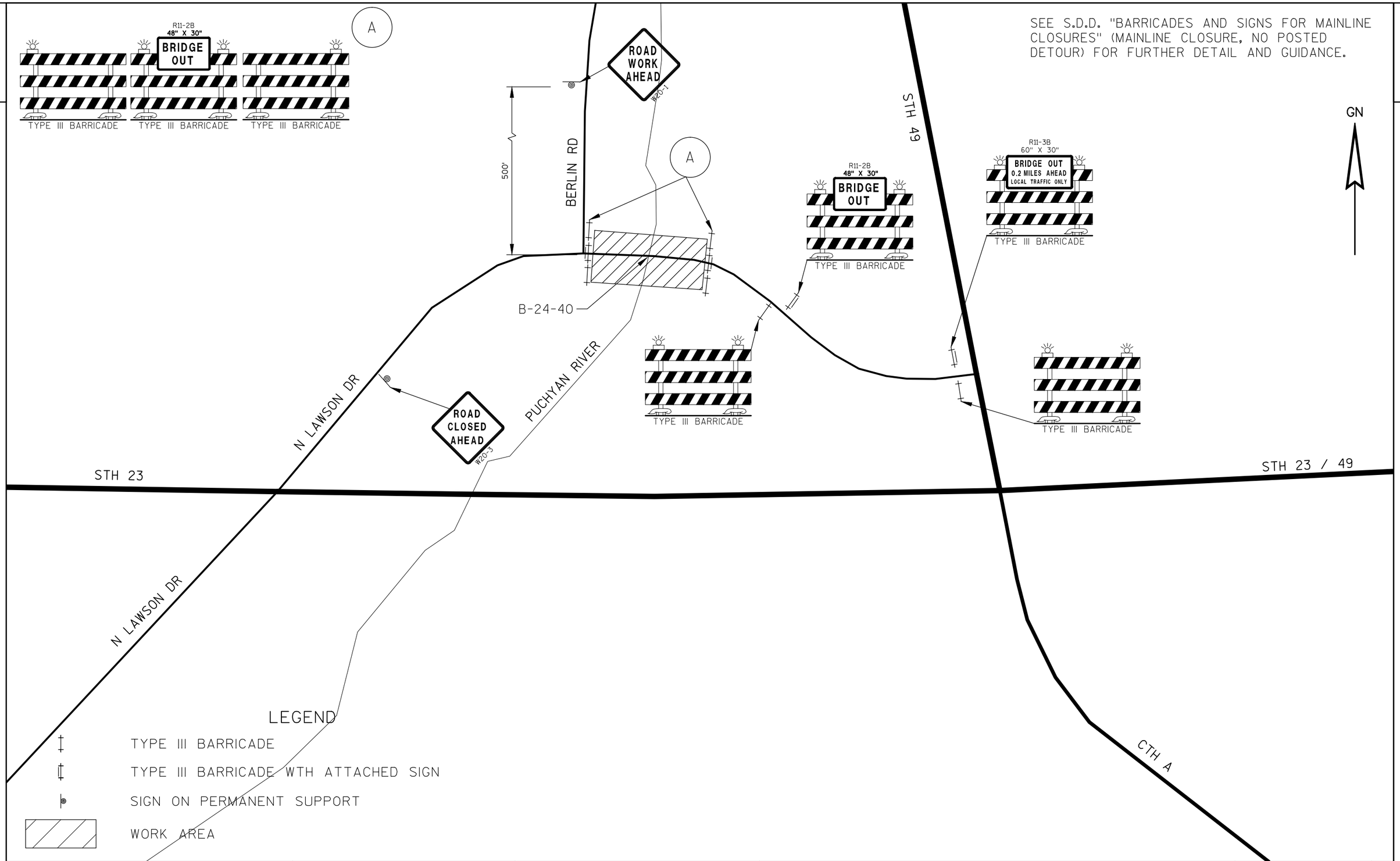


PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	EROSION CONTROL	SHEET 5	E	2.4

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\022001_ec.dgn PLOT DATE : 10/30/2012 10:37:13 AM PLOT BY : OMNNI - perryd PLOT NAME : PLOT SCALE : 40.0000 sf / IN.

WISDOT/CADDS SHEET 42

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" (MAINLINE CLOSURE, NO POSTED DETOUR) FOR FURTHER DETAIL AND GUIDANCE.



PROJECT NO:1430-00-78	HWY:LAWSON DRIVE	COUNTY:GREEN LAKE	TRAFFIC CONTROL	SHEET 6	E

FILE NAME : F:\TR\JOBS\E1983A11\SHEETS\PLAN\025001_TC.DWG Layout1 PLOT DATE : 10/30/2012 10:48 AM PLOT BY : OMNNI ASSOCIATES, INC - DAVE PERRY

DATE 18JAN13 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1430-00-78 QUANTITY
0010	201.0105	CLEARING	STA	2.000	2.000
0020	201.0205	GRUBBING	STA	2.000	2.000
0030	203.0200	REMOVING OLD STRUCTURE (STATION) 02. 200+10	LS	1.000	1.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 03. 300+10	LS	1.000	1.000
0050	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 80+00	LS	1.000	1.000
0060	204.0100	REMOVING PAVEMENT	SY	680.000	680.000
0070	205.0100	EXCAVATION COMMON **P**	CY	590.000	590.000
0080	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-24-40	LS	1.000	1.000
0090	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 02. R-24-09	LS	1.000	1.000
0100	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 03. R-24-10	LS	1.000	1.000
0110	206.5000	COFFERDAMS (STRUCTURE) 01. B-24-40	LS	1.000	1.000
0120	206.5000	COFFERDAMS (STRUCTURE) 02. R-24-09	LS	1.000	1.000
0130	206.5000	COFFERDAMS (STRUCTURE) 03. R-24-10	LS	1.000	1.000
0140	210.0100	BACKFILL STRUCTURE	CY	631.000	631.000
0150	213.0100	FINISHING ROADWAY (PROJECT) 01. 1430-00-78	EACH	1.000	1.000
0160	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	60.000	60.000
0170	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,400.000	1,400.000
0180	416.1010	CONCRETE SURFACE DRAINS	CY	2.500	2.500
0190	455.0105	ASPHALTIC MATERIAL PG58-28	TON	20.000	20.000
0200	455.0605	TACK COAT	GAL	31.000	31.000
0210	460.1101	HMA PAVEMENT TYPE E-1	TON	350.000	350.000
0220	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	220.000	220.000
0230	502.0100	CONCRETE MASONRY BRIDGES	CY	165.000	165.000
0240	502.1100	CONCRETE MASONRY SEAL	CY	407.000	407.000
0250	502.3200	PROTECTIVE SURFACE TREATMENT	SY	200.000	200.000
0260	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	60.000	60.000
0270	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	4,400.000	4,400.000
0280	505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	910.000	910.000
0290	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	16,280.000	16,280.000
0300	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	2,090.000	2,090.000
0310	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	21.000	21.000
0320	606.0300	RIPRAP HEAVY	CY	95.000	95.000
0330	614.0115	ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	EACH	1.000	1.000
0340	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000
0350	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	21.000	21.000
0360	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	25.000	25.000
0370	614.2300	MGS GUARDRAIL 3	LF	138.000	138.000
0380	614.2500	MGS THRIE BEAM TRANSITION	LF	79.000	79.000
0390	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	2.000	2.000
0400	619.1000	MOBILIZATION	EACH	1.000	1.000
0410	624.0100	WATER	MGAL	9.000	9.000
0420	625.0100	TOPSOIL **P**	SY	300.000	300.000
0430	628.1504	SILT FENCE	LF	700.000	700.000
0440	628.1520	SILT FENCE MAINTENANCE	LF	1,400.000	1,400.000

3

DATE 18JAN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1430-00-78 QUANTITY
0450	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
0460	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0470	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	300.000	300.000
0480	628.6005	TURBIDITY BARRIERS	SY	160.000	160.000
0490	628.7570	ROCK BAGS	EACH	25.000	25.000
0500	629.0210	FERTILIZER TYPE B	CWT	1.000	1.000
0510	630.0120	SEEDING MIXTURE NO. 20 **P**	LB	25.000	25.000
0520	630.0200	SEEDING TEMPORARY	LB	5.000	5.000
0530	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	4.000	4.000
0540	637.0202	SIGNS REFLECTIVE TYPE II	SF	12.000	12.000
0550	638.2102	MOVING SIGNS TYPE II	EACH	2.000	2.000
0560	638.2602	REMOVING SIGNS TYPE II	EACH	2.000	2.000
0570	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	2.000	2.000
0580	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0590	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1430-00-78	EACH	1.000	1.000
0600	643.0300	TRAFFIC CONTROL DRUMS	DAY	400.000	400.000
0610	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	1,000.000	1,000.000
0620	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	1,600.000	1,600.000
0630	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,000.000	1,000.000
0640	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	135.000	135.000
0650	646.0103	PAVEMENT MARKING PAINT 4-INCH	LF	680.000	680.000
0660	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	300.000	300.000
0670	650.5000	CONSTRUCTION STAKING BASE	LF	300.000	300.000
0680	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-24-40	LS	1.000	1.000
0690	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. R-24-09	LS	1.000	1.000
0700	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. R-24-10	LS	1.000	1.000
0710	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1430-00-78	LS	1.000	1.000
0720	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	430.000	430.000
0730	690.0150	SAWING ASPHALT	LF	220.000	220.000
0740	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	3,850.000	3,850.000
0750	999.1000.S	SEISMOGRAPH	LS	1.000	1.000
0760	SPV.0090	SPECIAL 01. BENTONITE WATERSTOP	LF	340.000	340.000
0770	SPV.0090	SPECIAL 02. PARAPET CONCRETE TYPE 'TX'	LF	81.000	81.000
0780	SPV.0105	SPECIAL 01. MONITORING LOWER GREEN LAKE DAM	LS	1.000	1.000

3

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CLEARING & GRUBBING

STATION	LOCATION	201.0105 CLEARING STATION	201.0205 GRUBBING STATION
78+00 - 80+00	LAWSON DRIVE	2	2
	TOTAL	**2**	**2**

REMOVING PAVEMENT

STATION	LOCATION	204.0100 SY**
78+00 - 79+80	LAWSON DRIVE	400
80+20 - 81+40	LAWSON DRIVE	280
	TOTAL	**680**

** QUANTITY BASED ON 20' EXISTING CONCRETE PAVEMENT WIDTH. ACTUAL WIDTH MAY VARY

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	EXCAVATION COMMON 205.0100 (1)		SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL	UNEXPANDED FILL	EXPANDED FILL	MASS ORDINATE +/- (14)	WASTE
			CUT	EBS EXCAVATION				Factor 1.30		
DIVISION 1	77+23 - 79+80	LAWSON WEST	370	0	0	370	11	14	356	360
	80+20 - 81+86	LAWSON EAST	220	0	0	220	0	0	220	220
DIVISION 1	**TOTALS**		**590**	0	0	590	11	14	576	580

1) CUT INCLUDES VOLUME REMOVED AS PART OF REMOVING PAVEMENT

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 AND WATER

STATION TO STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
78+00 - STRUCTURE *	LAWSON DRIVE	35	800	5.2
STRUCTURE - 81+40 *	LAWSON DRIVE	25	600	3.8
	TOTALS	**60**	**1,400**	**9**

* INCLUDES DRIVEWAYS

ASPHALTIC ITEMS

STATION TO STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON
78+00 - STRUCTURE	LAWSON DRIVE	10	15	175
STRUCTURE - 81+40	LAWSON DRIVE	10	16	175
	TOTALS	**20**	**31**	**350**

CONCRETE SURFACE DRAINS

STATION TO STATION	LOCATION	416.1010 CY
79+62.17 - STRUCTURE, RT	LAWSON DRIVE	2.5
	TOTAL	**2.5**

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STEEL PLATE BEAM GUARD

STATION TO STATION	LOCATION	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2 EACH	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
77+64.72- STRUCTURE, RT	LAWSON DRIVE	-	-	-	125	39.4	1
STRUCTURE - 80+38.00, LT	LAWSON DRIVE	1	20.65*	25**	-	-	-
STRUCTURE - 81+26.42, RT	LAWSON DRIVE	-	-	-	12.5	39.4	1
	TOTALS	**1**	**20.65**	**25**	**137.5**	**78.8**	**2**
	ROUNDED TOTALS	**1**	**21**	**25**	**138**	**79**	**2**

* SHOP BEND 20' RADIUS
** SHOP BEND 12.5' AT 20' RADIUS

EROSION CONTROL ITEMS

STATION TO STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7570 ROCK BAGS EACH
78+00 - STRUCTURE, LT	LAWSON DRIVE	190	380	-	-	40	-
77+20 - STRUCTURE, RT	LAWSON DRIVE	130	260	-	-	70	-
STRUCTURE - 81+00, LT	LAWSON DRIVE	40	80	-	-	30	-
STRUCTURE - 82+00, RT	LAWSON DRIVE	180	360	-	-	100	12
UNDISTRIBUTED	LAWSON DRIVE	160	320	4	2	60	13
	TOTALS	**700**	**1,400**	**4**	**2**	**300**	**25**

TURBIDITY BARRIER

STATION TO STATION	LOCATION	628.6005 SY
78+40 - 79+90	LAWSON DRIVE	160
	TOTAL	**160**

LANDSCAPING

STATION TO STATION	LOCATION	625.0100 TOPSOIL SY	630.0200 SEEDING TEMPORARY LB	630.0120 SEEDING NO 20 LB	629.0210 FERTILIZER TYPE B CWT
78+00 - STRUCTURE, LT	LAWSON DRIVE	40	---	4	0.2
77+20 - STRUCTURE, RT	LAWSON DRIVE	70	---	7	0.2
STRUCTURE - 81+00, LT	LAWSON DRIVE	30	---	1	0.2
STRUCTURE - 81+70, RT	LAWSON DRIVE	100	---	6	0.2
UNDISTRIBUTED	LAWSON DRIVE	60	5	7	0.2
	TOTALS	**300**	**5**	**25**	**1.0**

SIGNS REFLECTIVE TYPE II & POSTS WOOD

STATION	LOCATION	CODE	SIGN SIZE HORIZ X VERT IN X IN	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.0202 SIGNS REFLECTIVE TYPE II SF
79+77, LT	LAWSON DRIVE	W5-52L	12 X 36	1	3
79+77, RT	LAWSON DRIVE	W5-52R	12 X 36	1	3
80+23, LT	LAWSON DRIVE	W5-52R	12 X 36	1	3
80+23, RT	LAWSON DRIVE	W5-52L	12 X 36	1	3
			TOTALS	**4**	**12**

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

STATION	LOCATION	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
79+59, RT	LAWSON DRIVE	WEIGHT LIMIT	1	1
80+35, LT	LAWSON DRIVE	WEIGHT LIMIT	1	1
		TOTALS	**2**	**2**

MOVING SIGNS

FROM STATION	LOCATION	TO STATION	LOCATION	FACE DIR.	DESCRIPTION	638.2102 MOVING SIGNS TYPE II EACH	REMARKS
78+39 , RT	LAWSON DRIVE	78+39 , RT	LAWSON	EB	SPEED LIMIT	1	---
79+53 , LT	LAWSON DRIVE	79+53 , LT	LAWSON	EB	NO PARKING	1	---
					TOTALS	**2**	

TRAFFIC CONTROL

STAGE / LOCATION	SERVICE PERIOD DAYS	643.0300 DRUMS NO	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO	643.0900 SIGNS DAYS
LAWSON DRIVE BRIDGE CLOSURE	100		0	10	1,000	16	1,600	10	1,000
UNDISTRIBUTED			400						
PROJECT TOTALS			**400**		**1,000**		**1,600**		**1,000**

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6500 STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
77+20 - STRUCTURE	LAWSON DRIVE	180	180	---	---	260
STRUCTURE B-24-40	LAWSON DRIVE	---	---	1 (CAT 0020)	---	---
STRUCTURE R-24-09	LAWSON DRIVE	---	---	1	---	---
STRUCTURE R-24-10	LAWSON DRIVE	---	---	1	---	---
STRUCTURE - 81+90	LAWSON DRIVE	120	120	---	---	170
	TOTALS	**300**	**300**	**3**	**1**	**430**

SAWING ASPHALT

STATION TO STATION	LOCATION	690.0150 SAWING ASPHALT LF
77+20 - 78+00	LAWSON DRIVE	100
81+00 - 81+90	LAWSON DRIVE	120
	TOTAL	**220**

PAVEMENT MARKING PAINT

STATION	LOCATION	646.0103 4-INCH DOUBLE YELLOW LF
78+00 - 81+40	LAWSON DRIVE	680
	TOTAL	**680**

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)
R/W MONUMENT ○ =(SET)
R/W STANDARD △ =(SET)
SIGN ISIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT
PARCEL NUMBER (RWB20)
UTILITY PARCEL NUMBER (102)
SIGN NUMBER (OFF PREMISE) (92)
BUILDING (21-1)

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES		
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

TRANSPORTATION PROJECT PLAT NO: 1430-00-28 - 4.01

GREEN LAKE - FOND DU LAC COUNTY LINE (WEST JCT. CTH A - CTH PP)

THAT PART OF THE LOT 1, CSM 2750 AND LOT 1, CSM 1467, LOCATED IN NORHEAST QUARTER OF SOUTHEAST QUARTER OF SECTION 16, T16N, R13E, TOWN OF BROOKLYN, GREEN LAKE COUNTY, WISCONSIN

RELOCATION ORDER LAWSON DRIVE, GREEN LAKE COUNTY

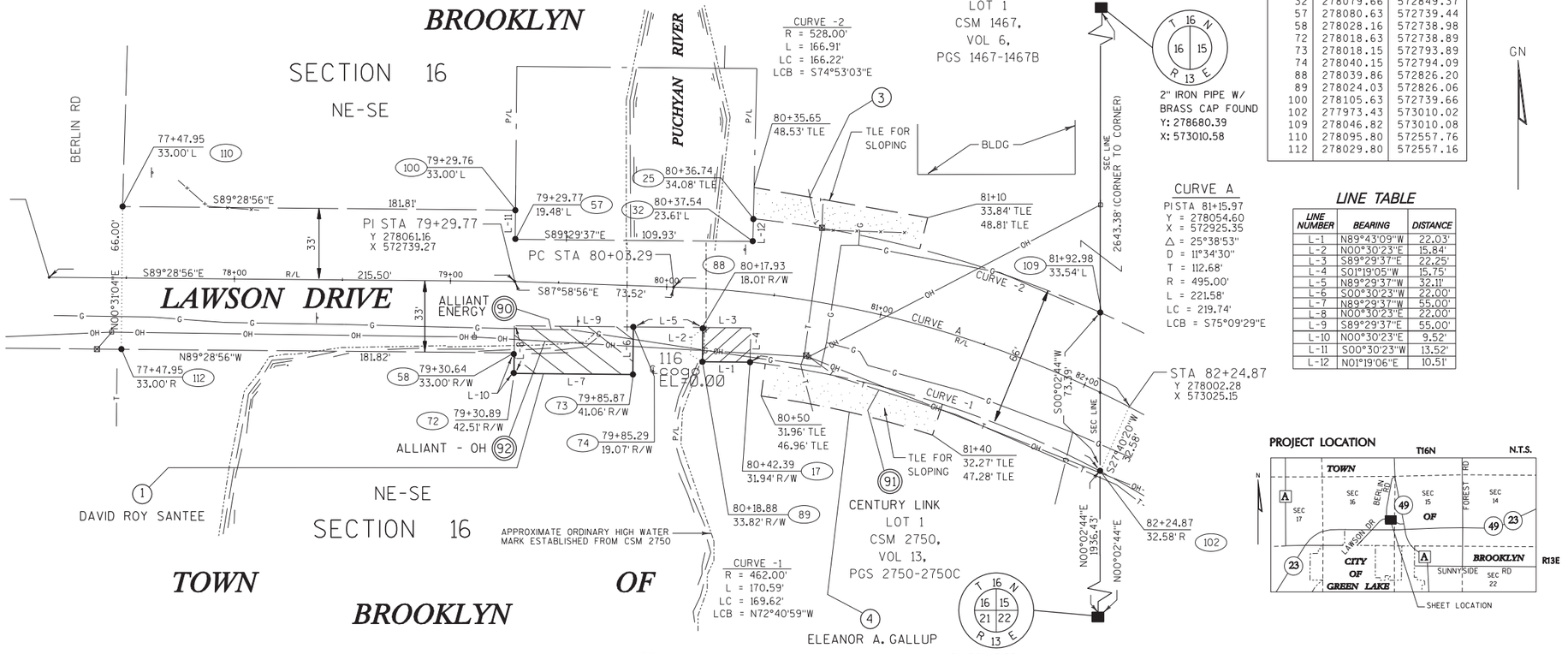
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE THE TOWN OF BROOKLYN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT __:__ M ON _____ AS DOCUMENT # _____ AND FILED IN _____

SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1430-00-28-4.01
AMENDMENT NO:



COORDINATE LIST

POINT NUMBER	NORTHING (Y)	EASTING (X)
17	278023.92	572848.08
25	278090.16	572849.61
32	278079.66	572849.37
57	278080.63	572739.44
58	278028.16	572738.98
72	278018.63	572738.89
73	278018.15	572793.89
74	278040.15	572794.09
88	278039.86	572826.20
89	278024.03	572826.06
100	278105.63	572739.66
102	277973.43	573010.02
109	278046.82	573010.08
110	278095.80	572557.76
112	278029.80	572557.16

CURVE A

PI STA 81+15.97
Y = 278054.60
X = 572925.35
△ = 25°38'53"
D = 11°34'30"
T = 112.68'
R = 495.00'
L = 221.58'
LC = 219.74'
LCB = S75°09'29"E

LINE TABLE

LINE NUMBER	BEARING	DISTANCE
L-1	N89°43'09"W	22.03'
L-2	N00°30'23"E	15.84'
L-3	S89°29'37"E	22.25'
L-4	S01°19'05"W	15.75'
L-5	N89°29'37"W	32.11'
L-6	S00°30'23"W	22.00'
L-7	N89°29'37"W	55.00'
L-8	N00°30'23"E	22.00'
L-9	S89°29'37"E	55.00'
L-10	N00°30'23"E	9.52'
L-11	S00°30'23"W	13.52'
L-12	N01°19'06"E	10.51'

PROJECT LOCATION

T16N N.T.S.

NOTES:

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, (GREEN LAKE COUNTY) COUNTY ZONED, NAD 1983 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 1-INCH BY 24-INCH IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

A TEMPORARY LIMITED EASEMENT (TLE), IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OF DESIRABLE. ALL TLE'S EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

SCHEDULE OF LANDS & INTERESTS

PARCEL	OWNER	INTEREST REQUIRED	R/W NEW	R/W EXISTING	REQUIRED TOTAL	TLE AREA
1	DAVID ROY SANTEE	FEE	0.03 AC	——	0.03 AC	——
3	EGBERT EXCAVATING, INC	TLE	——	——	——	0.03 AC
4	ELEANOR A. GALLUP	FEE TLE	0.01 AC	——	0.01 AC	0.03 AC

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
90	ALLIANT ENERGY – GAS	RELEASE OF RIGHTS
91	CENTURY LINK	RELEASE OF RIGHTS
92	ALLIANT ENERGY – OH	RELEASE OF RIGHTS

OMNNI ASSOCIATES
OMNNI ASSOCIATES
ONE SYSTEMS DRIVE
APPLETON, WI 54914-3654
PHONE (920) 735-6900
FAX (920) 830-6100

I, DAVID A. YURK, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 1430-00-28 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) David A. Yurk DATE 5-22-12
(PRINTED NAME) DAVID A. YURK
(REGISTRATION NO.) S-2648

WISCONSIN DAVID A. YURK S-2648 OMNNI ASSOCIATES LAND SURVEYOR

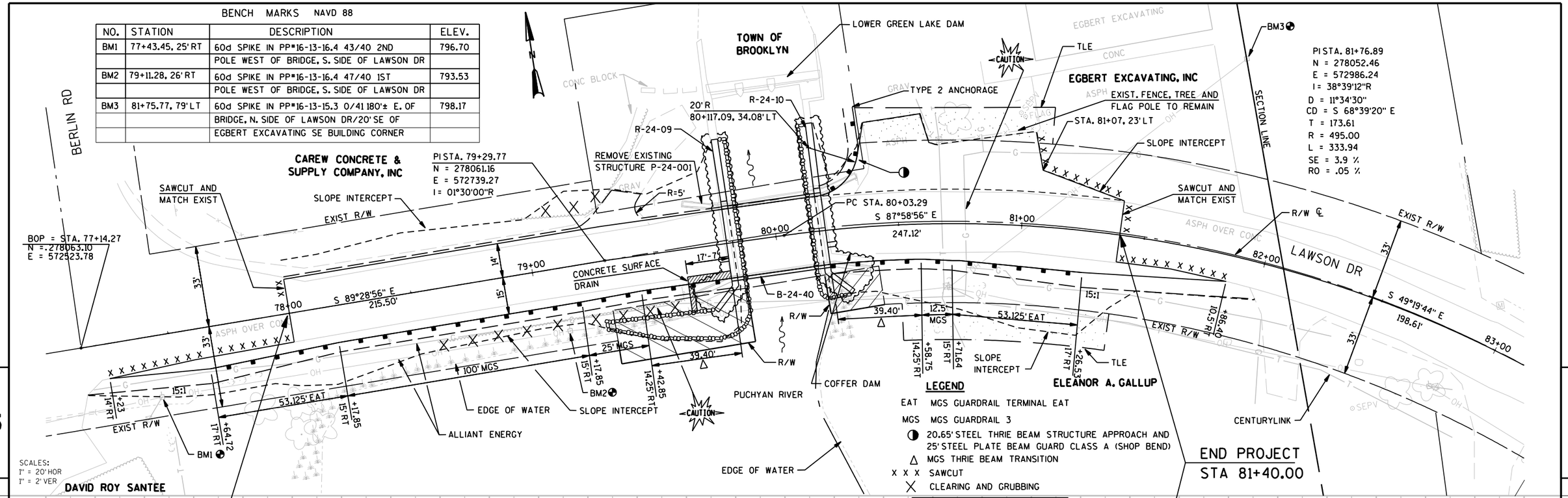
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

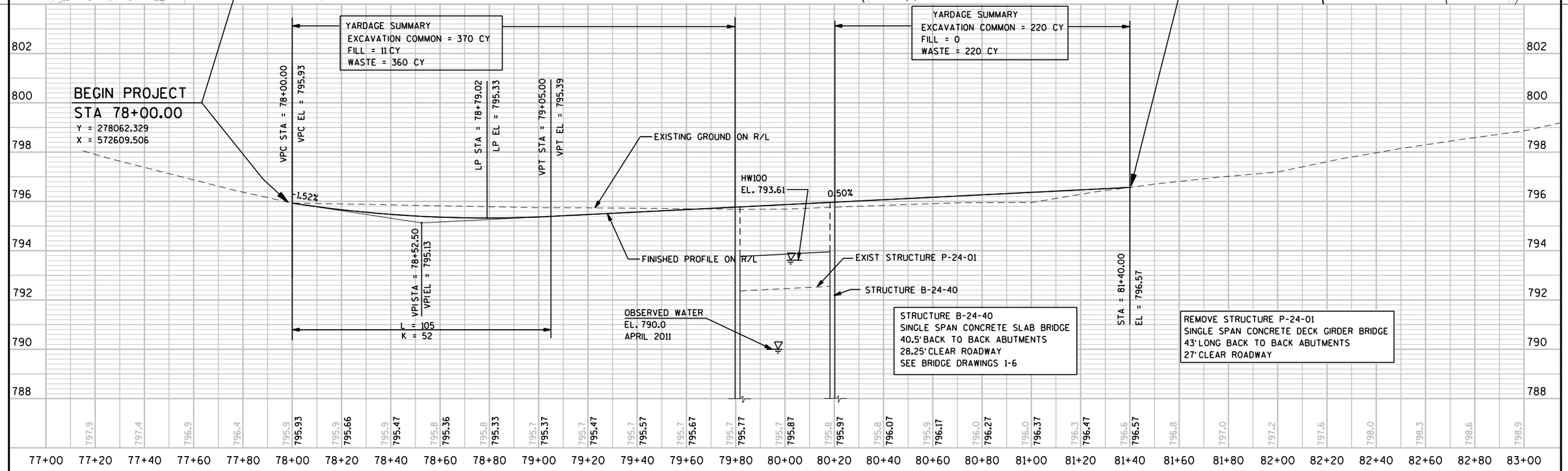
(SIGNATURE) _____ DATE 5-30-2012
(PRINTED NAME) BRENT STELLA

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

BENCH MARKS NAVD 88

NO.	STATION	DESCRIPTION	ELEV.
BM1	77+43.45, 25'RT	60d SPIKE IN PP*16-13-16.4 43/40 2ND	796.70
		POLE WEST OF BRIDGE, S. SIDE OF LAWSON DR	
BM2	79+11.28, 26'RT	60d SPIKE IN PP*16-13-16.4 47/40 1ST	793.53
		POLE WEST OF BRIDGE, S. SIDE OF LAWSON DR	
BM3	81+75.77, 79'LT	60d SPIKE IN PP*16-13-15.3 0/41 180'± E. OF	798.17
		BRIDGE, N. SIDE OF LAWSON DR/20'SE OF	
		EGBERT EXCAVATING SE BUILDING CORNER	





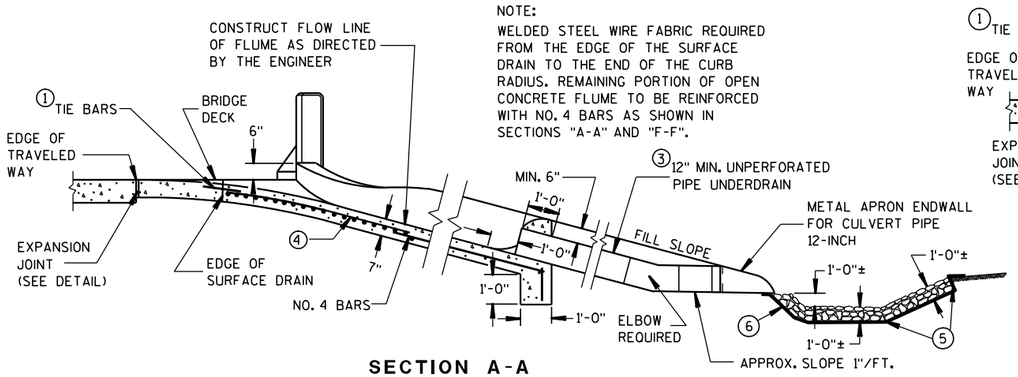
PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	PLAN & PROFILE: LAWSON DRIVE	SHEET 13	E	5.1

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\050101_pp.dgn PLOT DATE : 10/30/2012 9:06:04 AM PLOT BY : OMNNI - perryd PLOT NAME : PLOT SCALE : 2.0000 ft / IN.

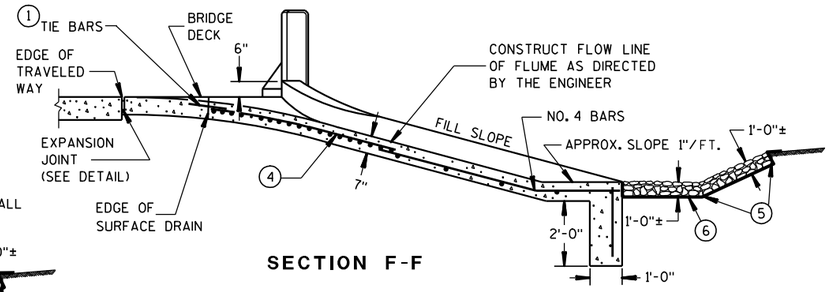
WISDOT/CADDS SHEET 40

Standard Detail Drawing List

08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B20-10A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-10B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-02A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-05	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-15A	PAVEMENT MARKING (MAINLINE)
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



SECTION A-A



SECTION F-F

GENERAL NOTES

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

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

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

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

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

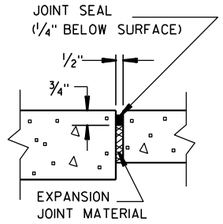
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

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

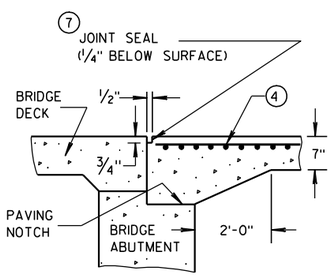
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

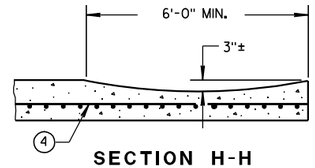
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



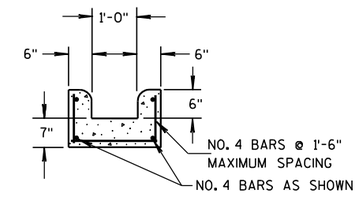
EXPANSION JOINT DETAIL



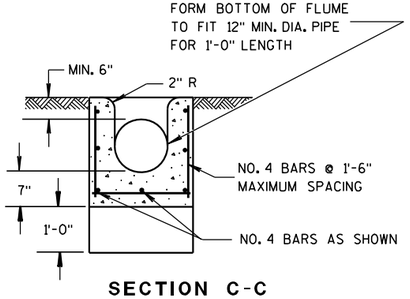
SECTION D-D



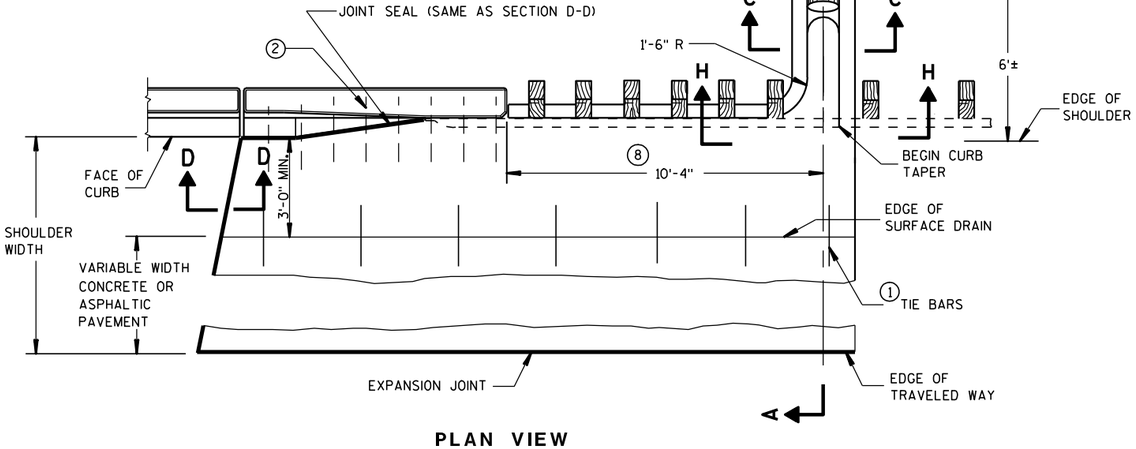
SECTION H-H



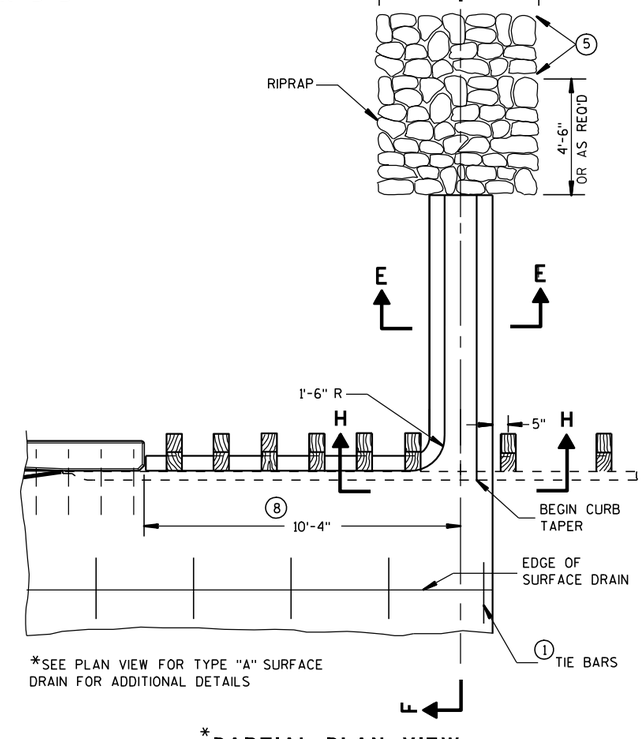
SECTION E-E



SECTION C-C

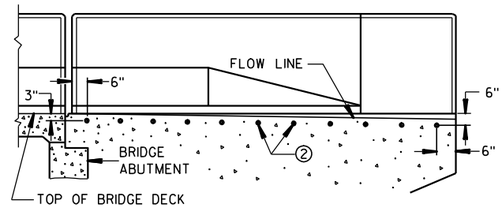


PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"



LOCATION OF
TIE BARS IN WINGWALL

CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

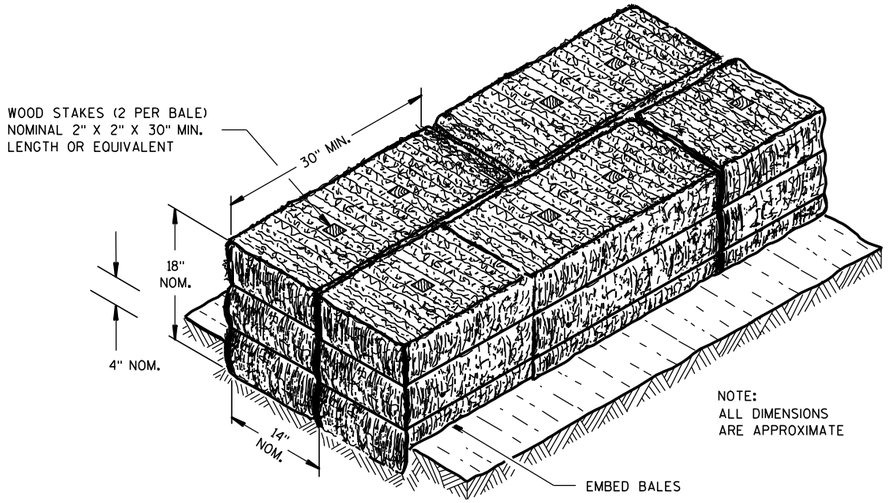
APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

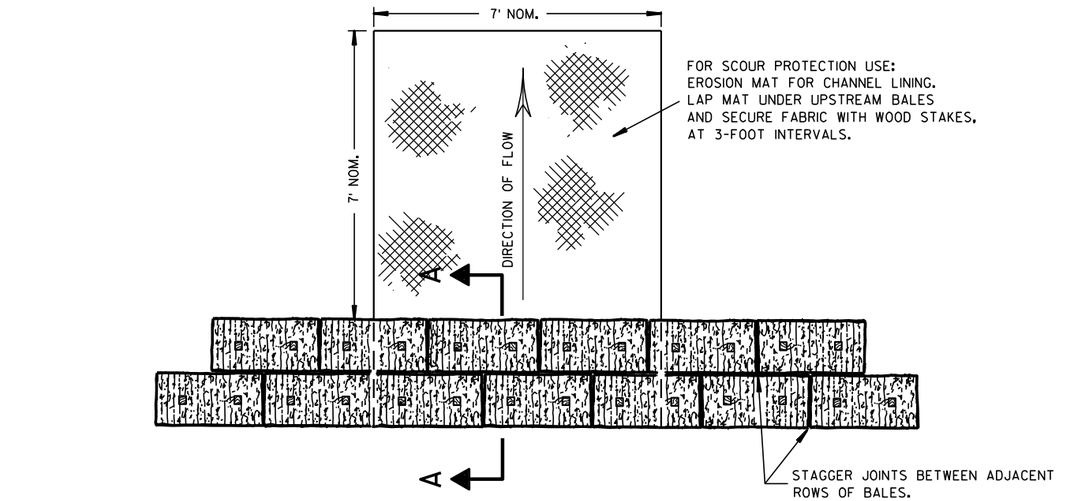
S.D.D. 8 D 2-6

6

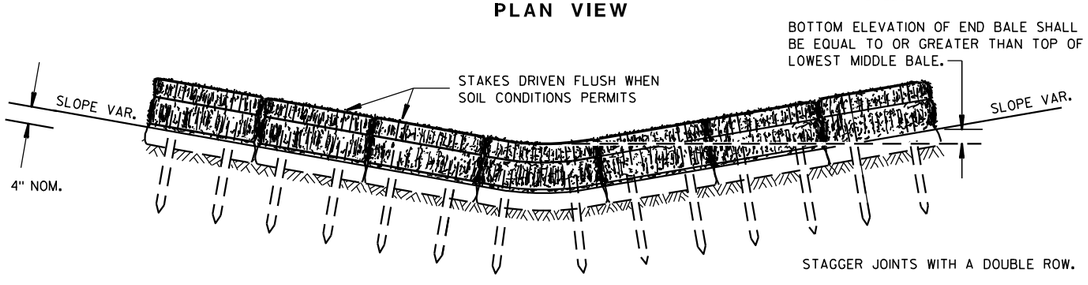
S.D.D. 8 D 2-6



SECTION A-A



PLAN VIEW



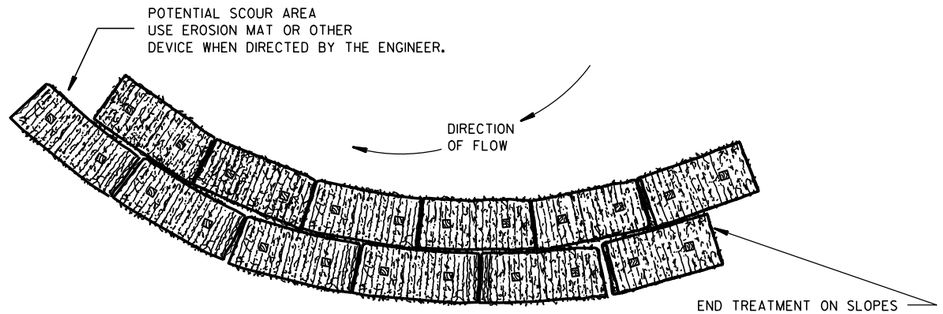
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

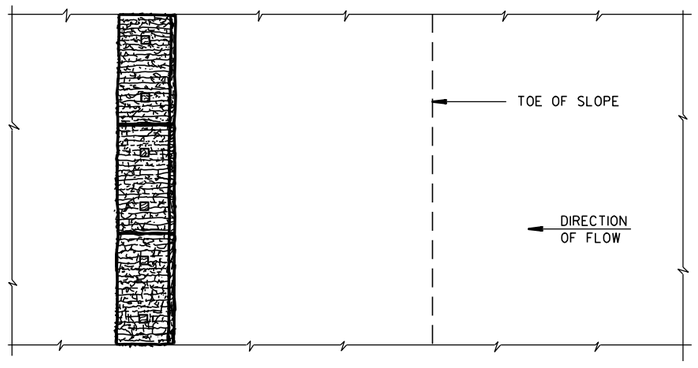
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

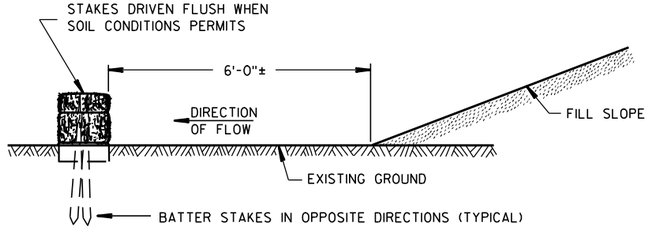


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 8-3

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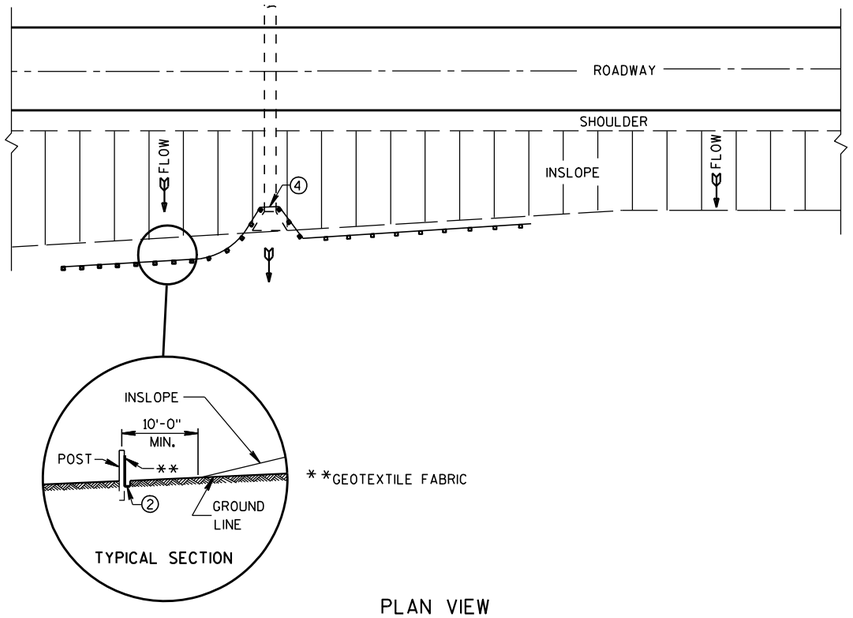
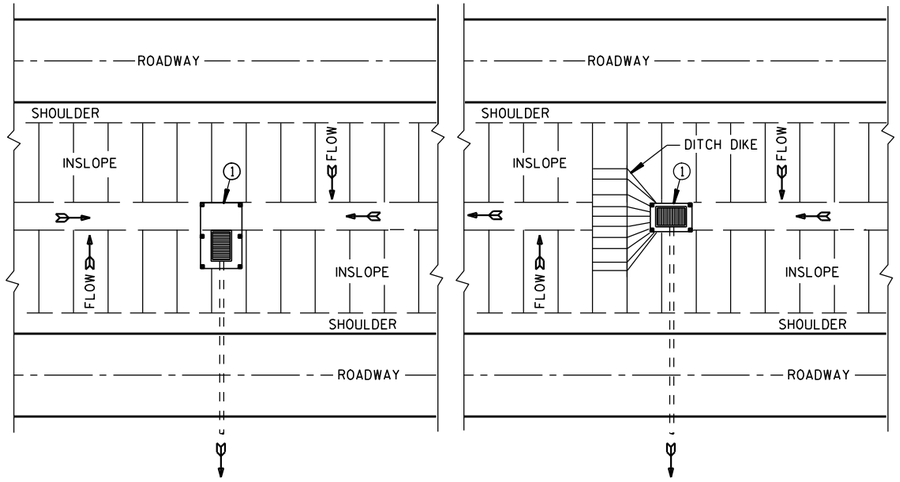
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



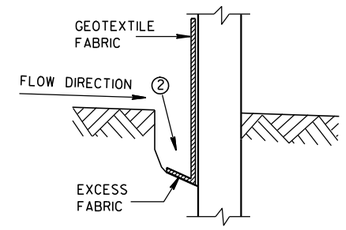
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

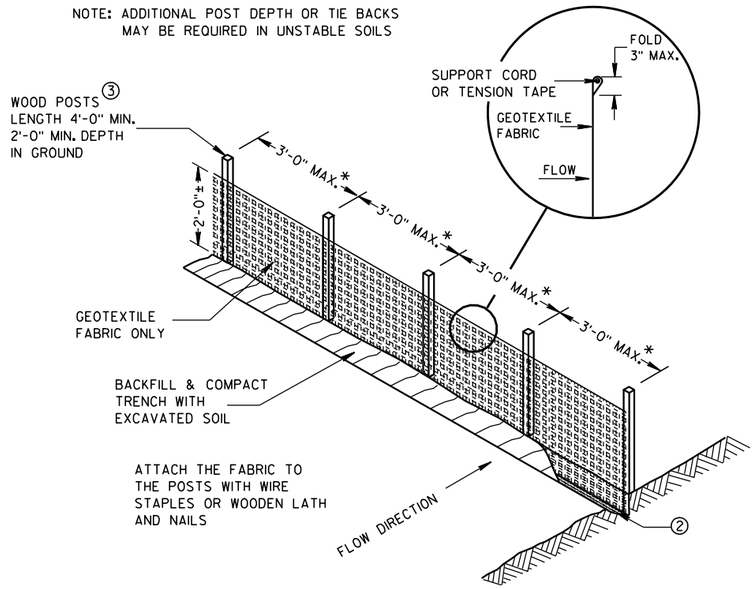
GENERAL NOTES

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

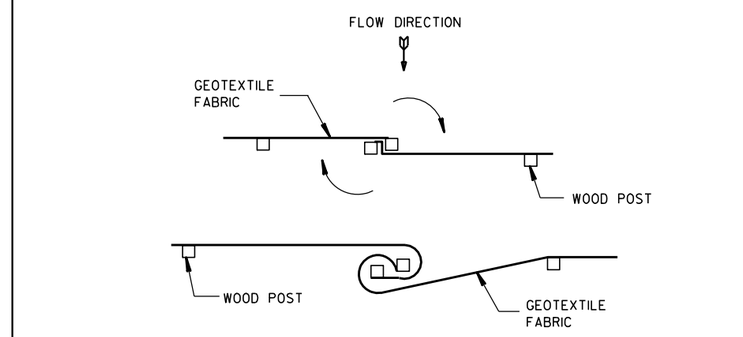
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



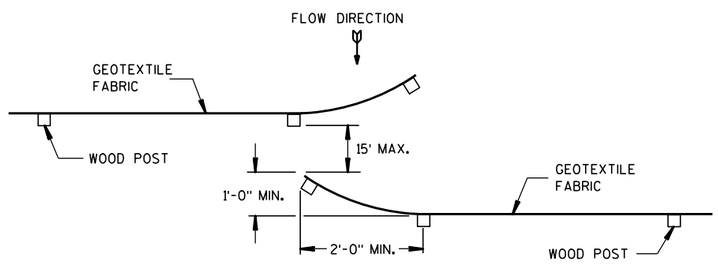
TRENCH DETAIL



SILT FENCE

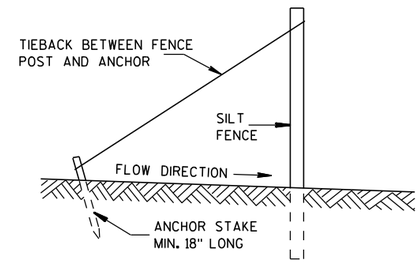


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

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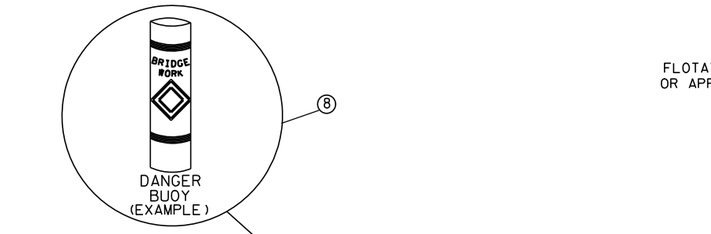
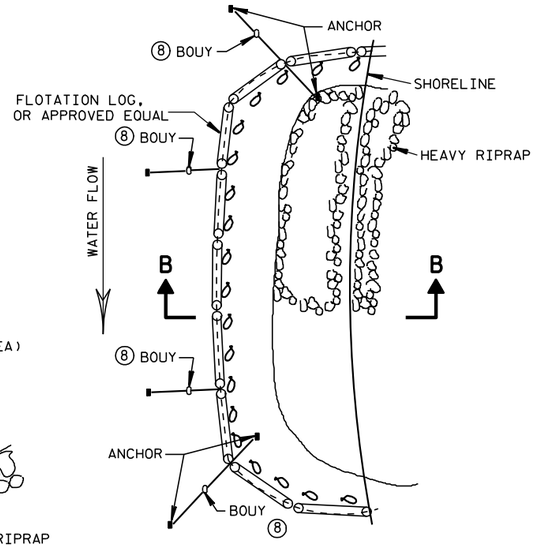
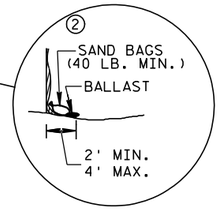
S.D.D. 8 E 9-6

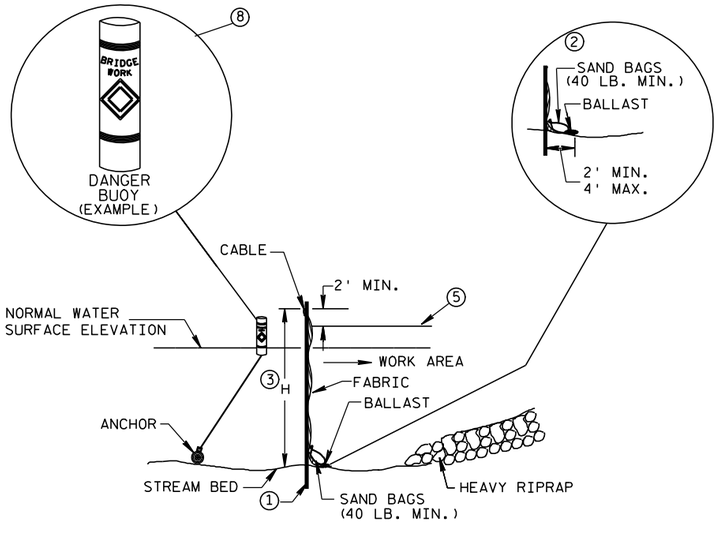


SECTION B-B

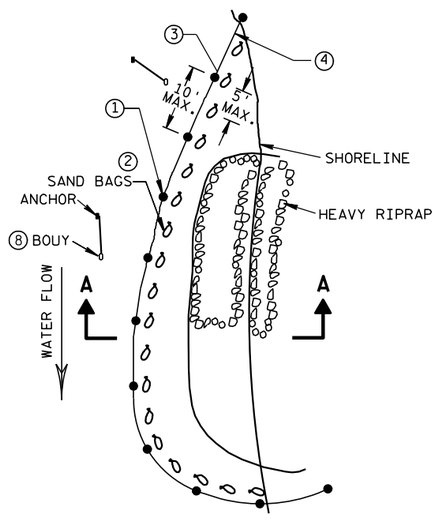




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

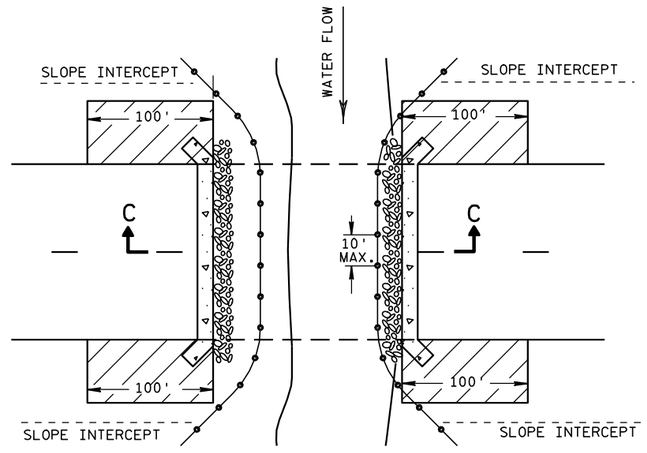
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

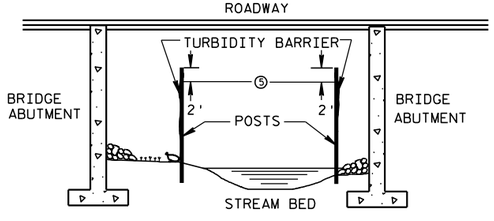
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 11-2

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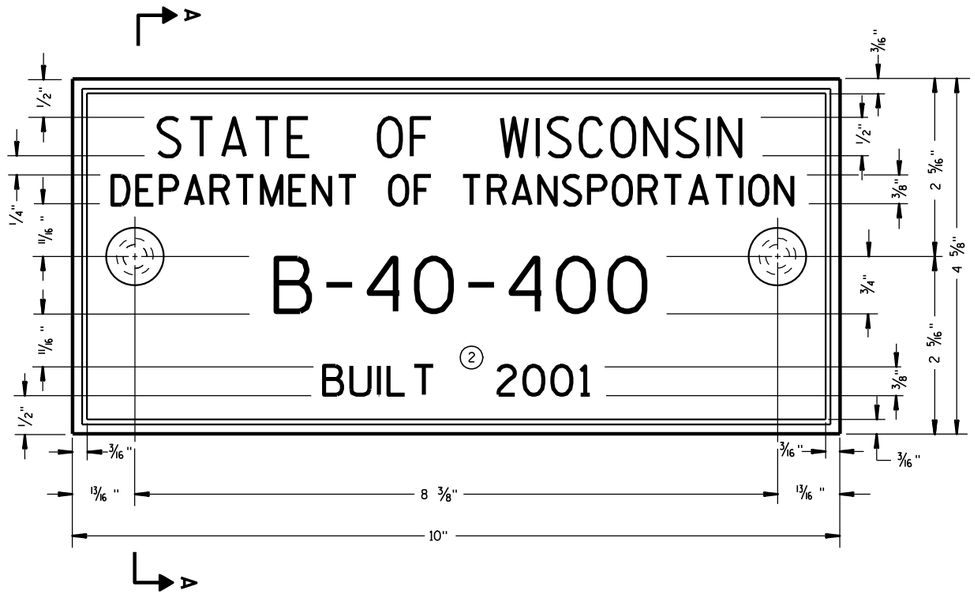
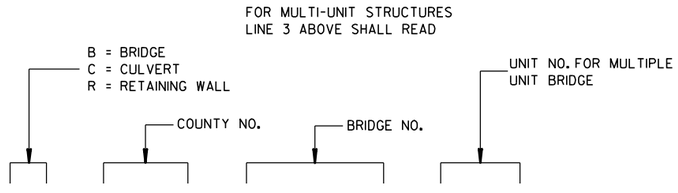
S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

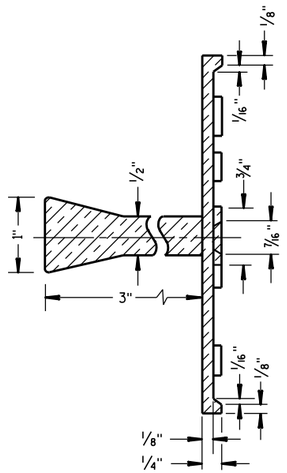
GENERAL NOTES

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

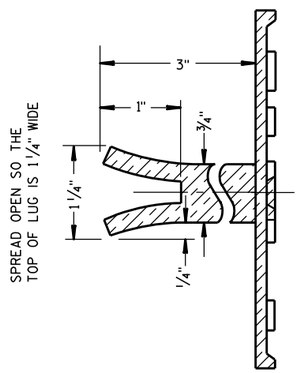
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

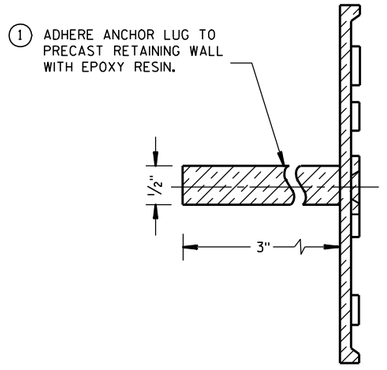
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10

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.

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

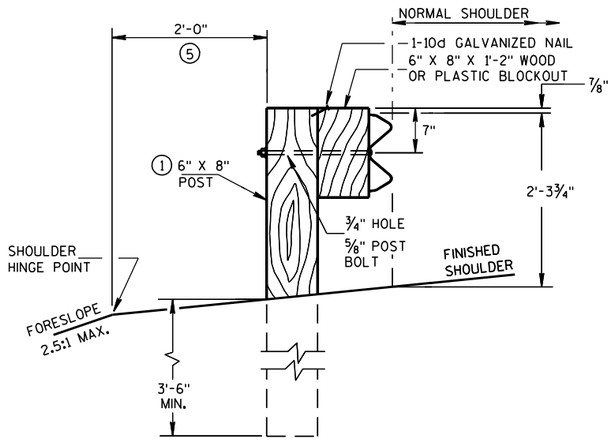
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

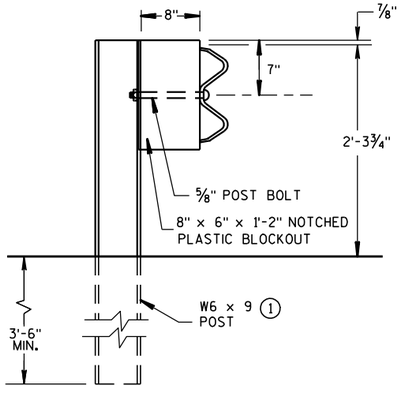
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

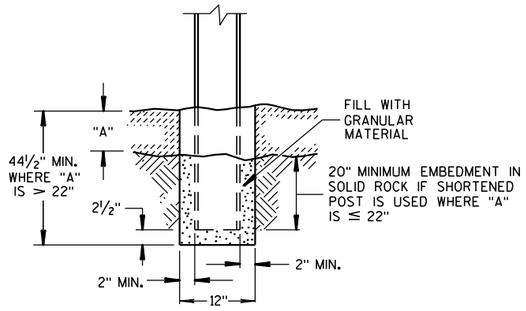
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



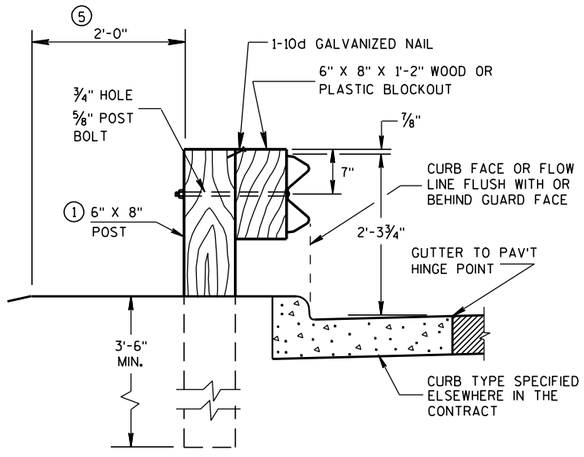
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



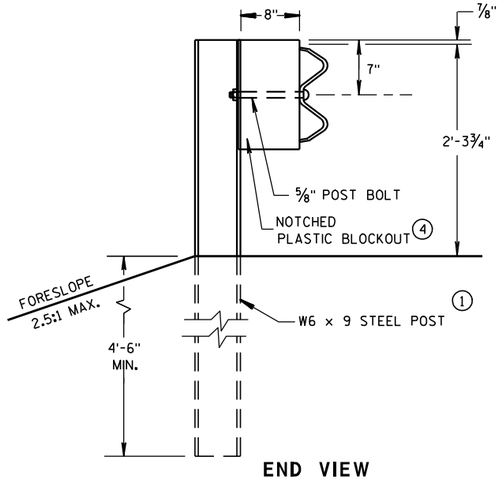
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



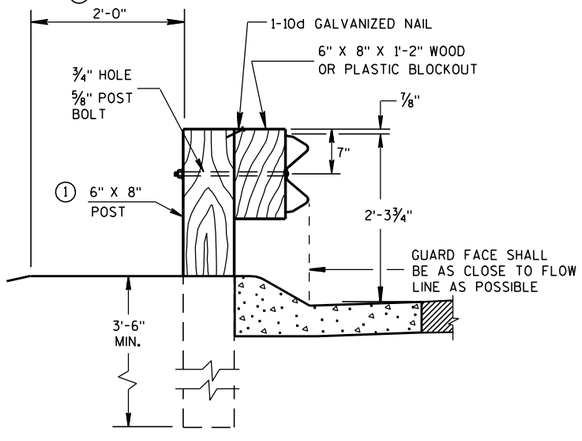
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



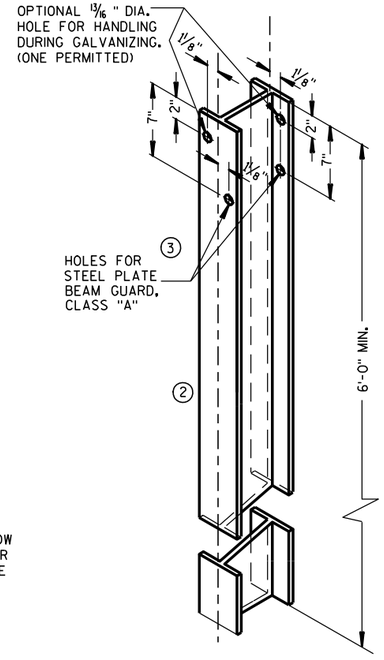
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

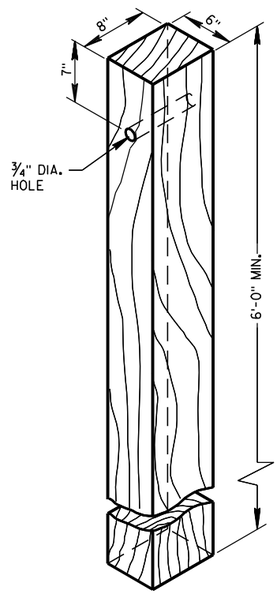


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

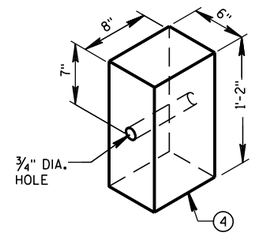


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

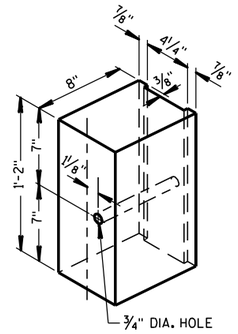
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



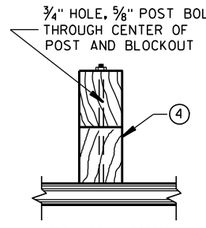
WOOD POST
(6"X8") NOMINAL



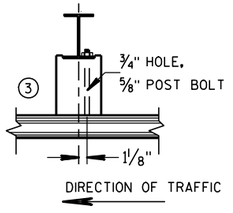
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



(1)
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



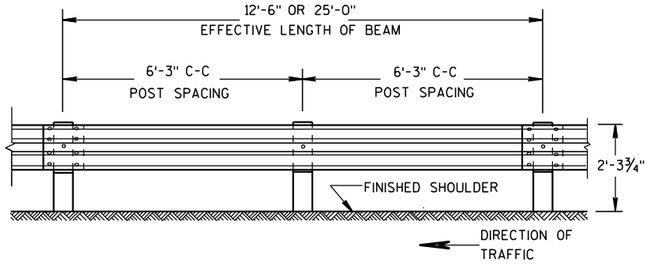
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

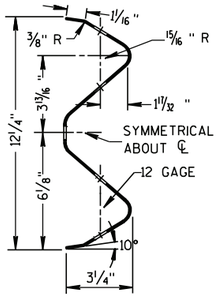
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

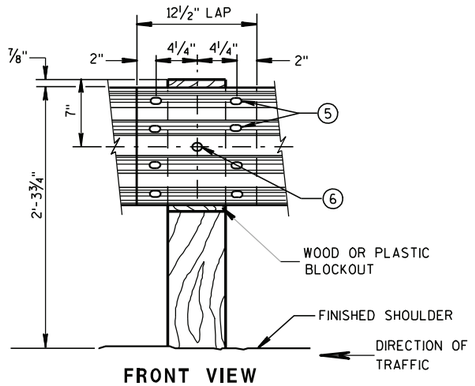


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

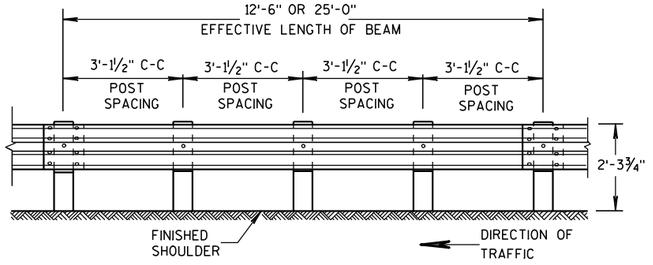


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

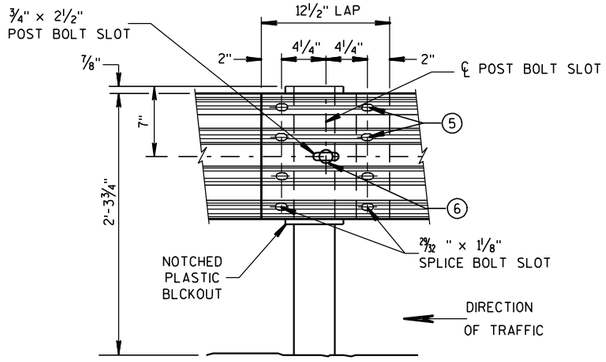
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

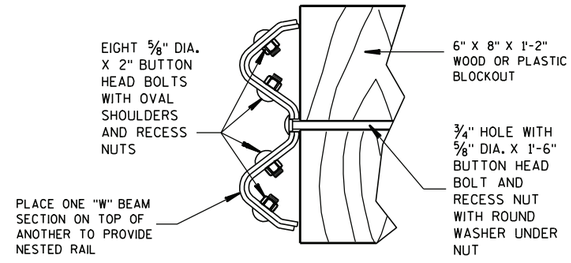
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

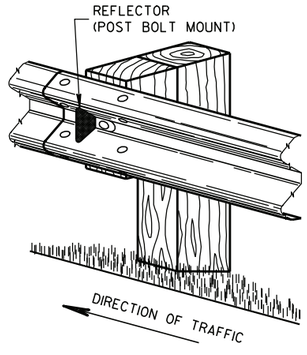


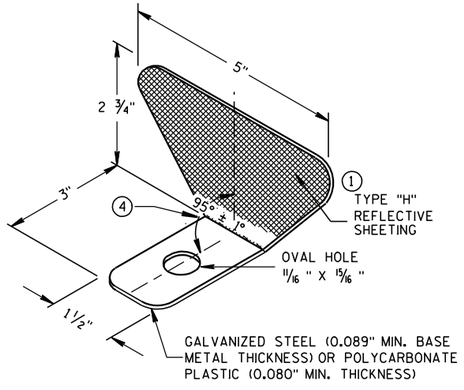
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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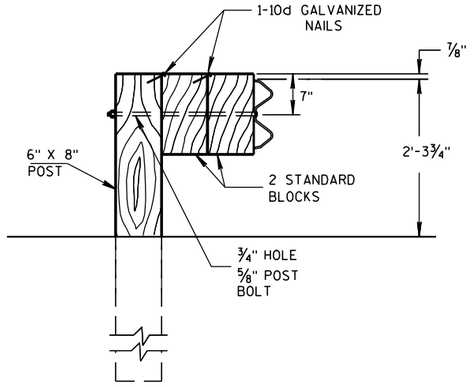
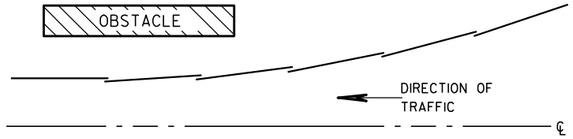
S.D.D. 14 B 15-7b

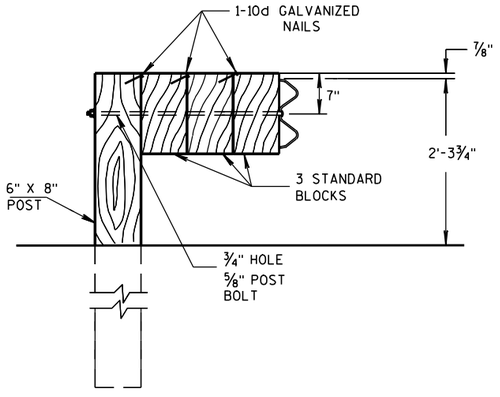


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

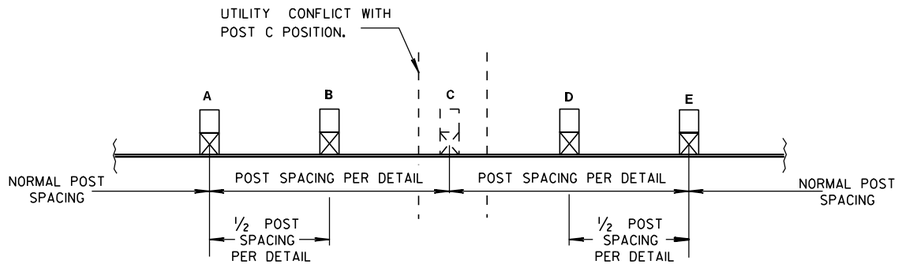


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/11	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

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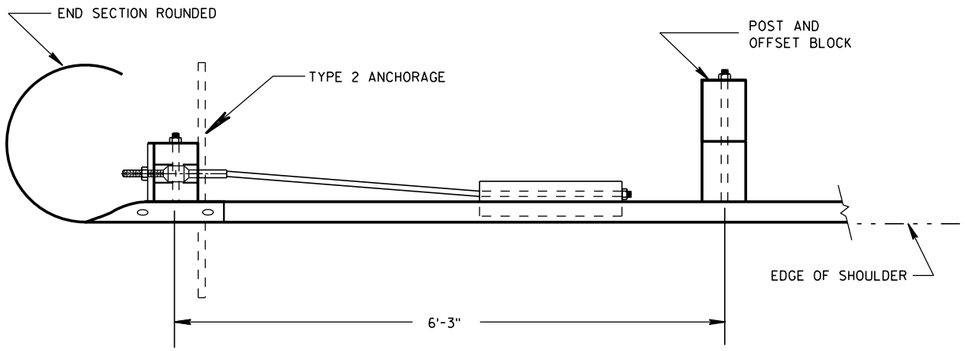
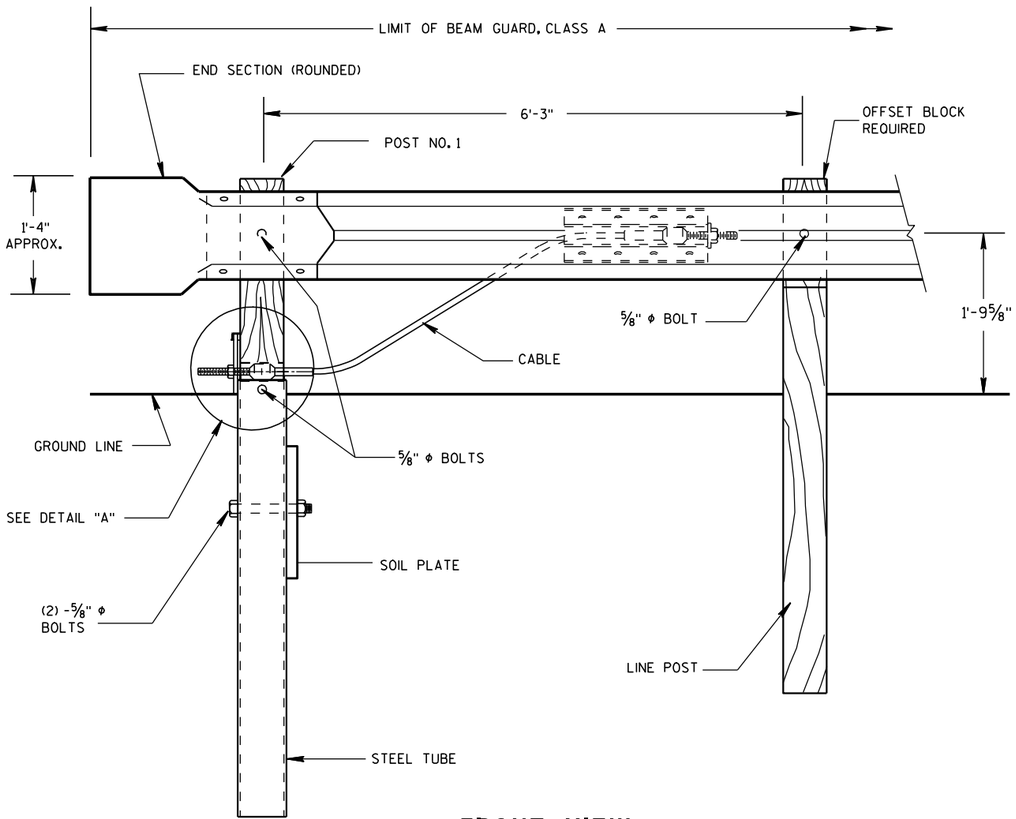


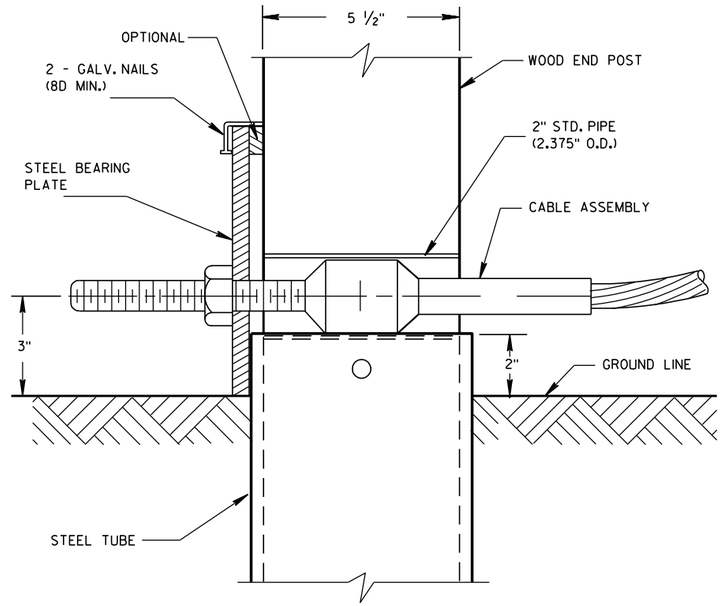
PLAN VIEW



FRONT VIEW

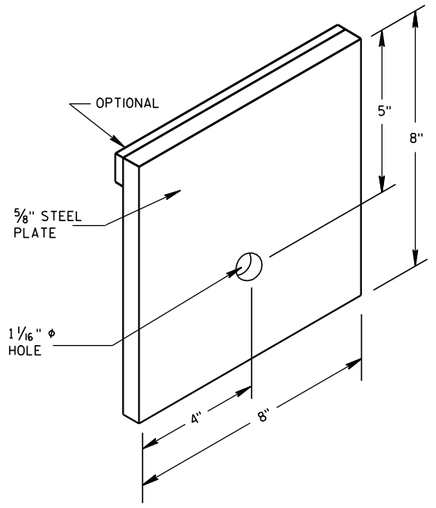
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 16-4a

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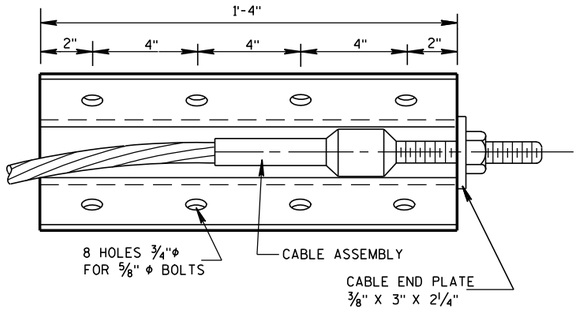
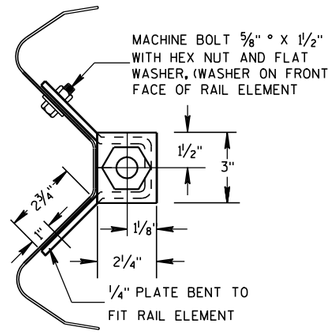
S.D.D. 14 B 16-4a

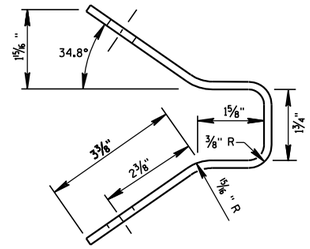


FRONT VIEW

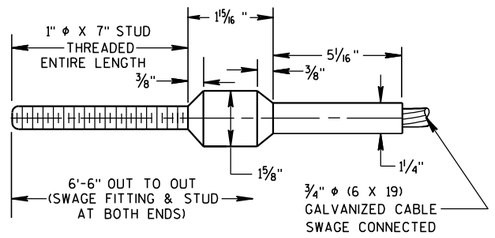


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP
A MINIMUM BREAKING STRENGTH OF 40,000 LB
(TIGHTEN UNTIL TAUT)

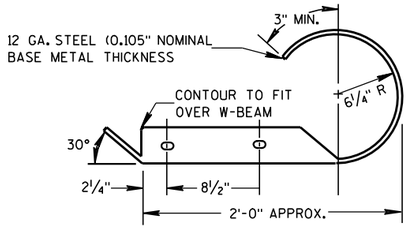
GENERAL NOTES

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

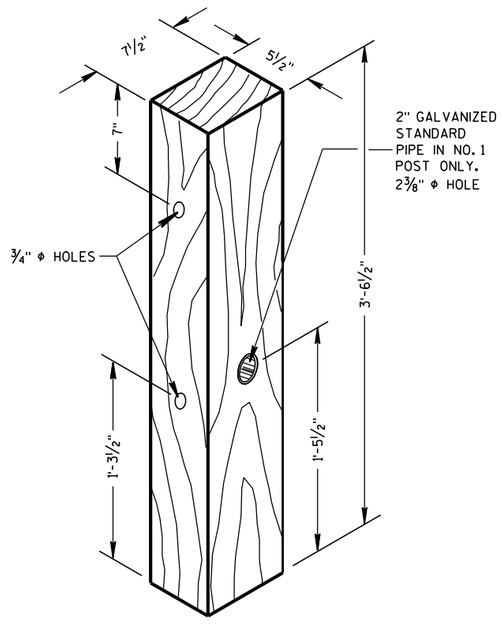
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

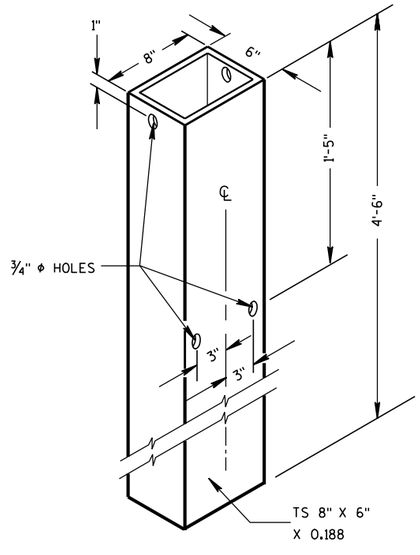
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

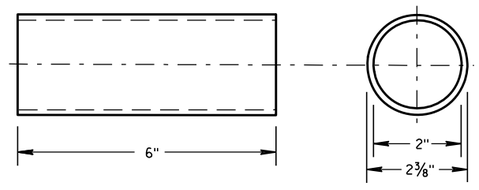


WOOD BREAKAWAY POST



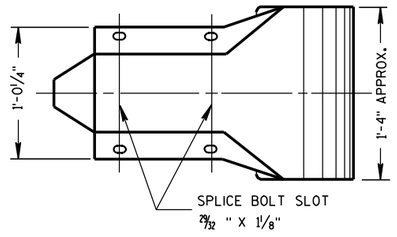
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

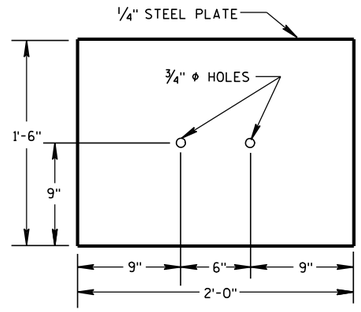


BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



FRONT VIEW
W BEAM END SECTION ROUNDED



SOIL PLATE

ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/21/2007 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
24
FHWA

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S.D.D. 14 B 16-4b

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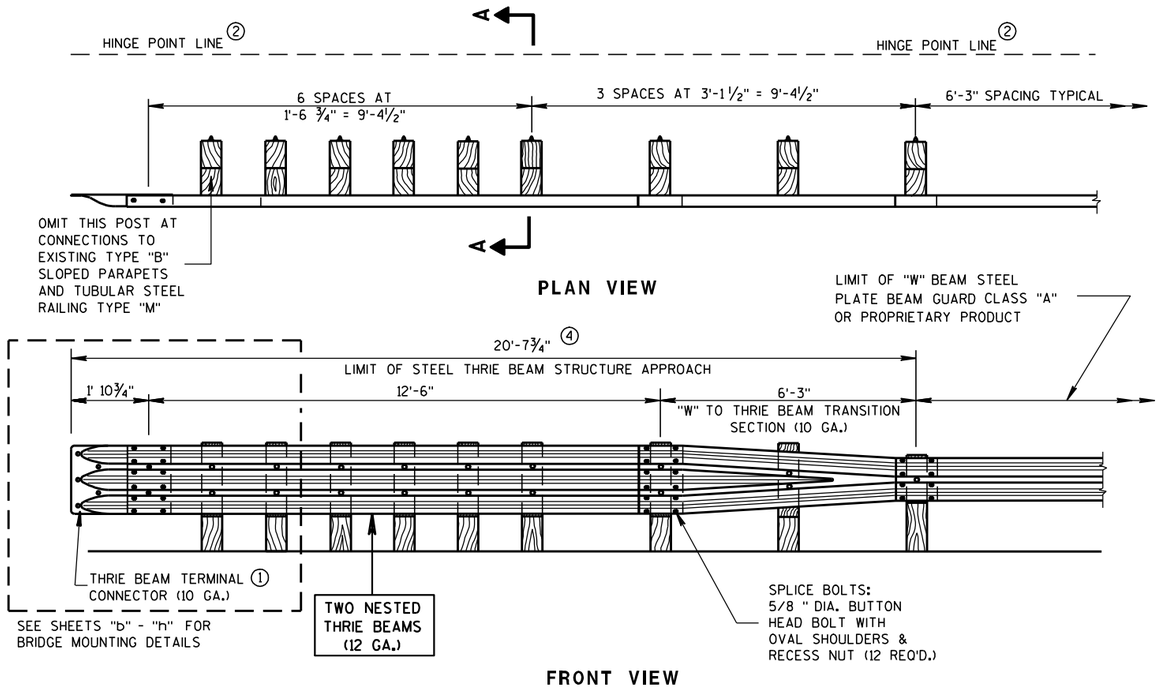
S.D.D. 14 B 16-4b



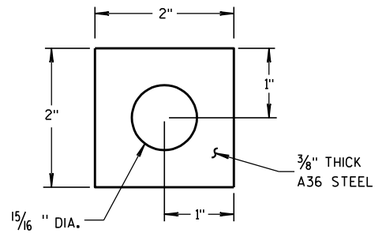


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

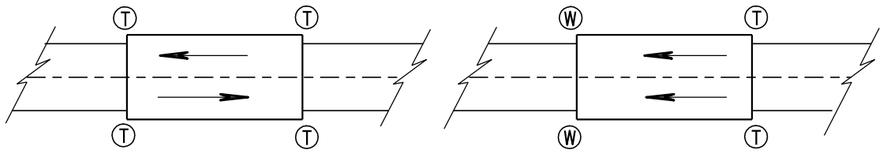
IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY, (SEE SDD 14 B 15 - a).

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

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



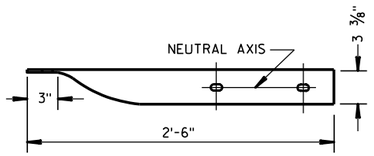
TWO WAY TRAFFIC

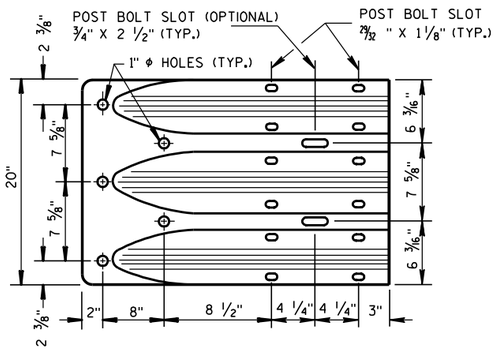
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

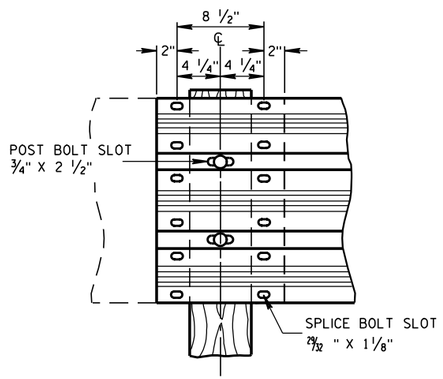
(W) W-BEAM CONNECTION WHEN REQUIRED

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

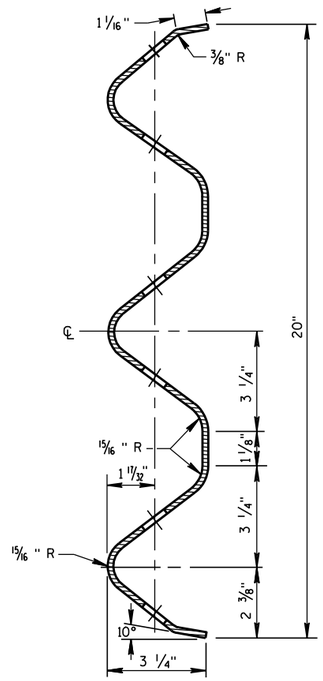




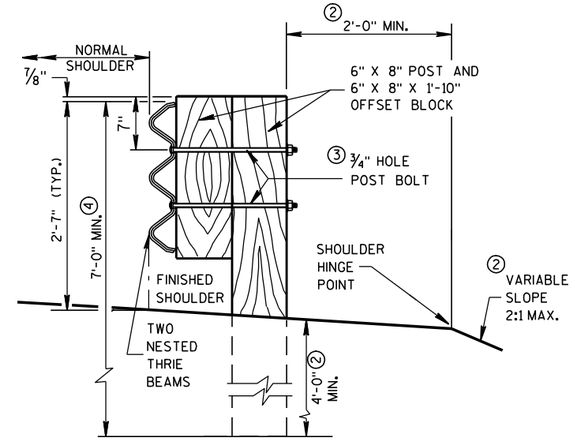
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-8-2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]25
ENGINEER

FHWA

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S.D.D. 14 B 20-10a

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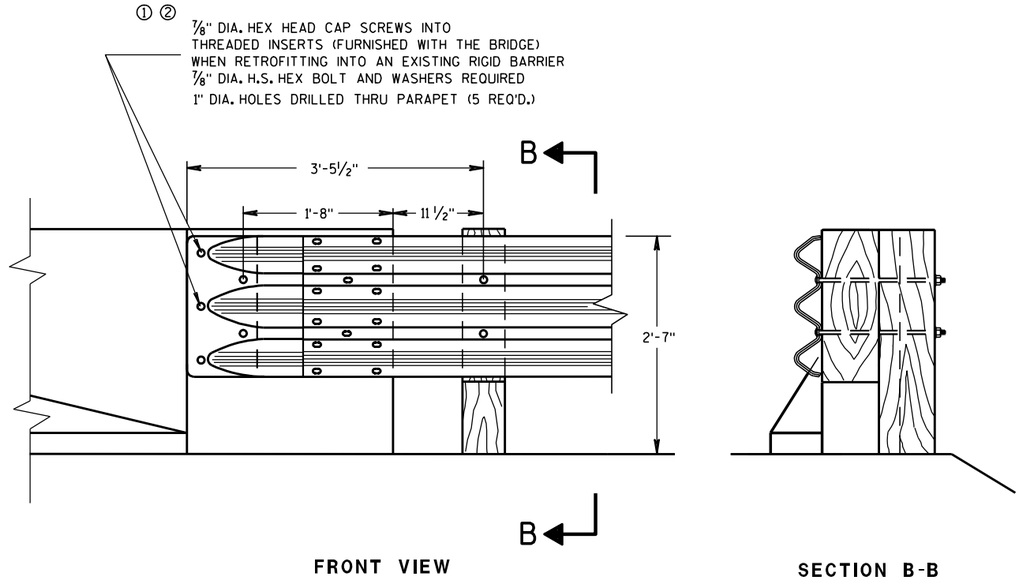
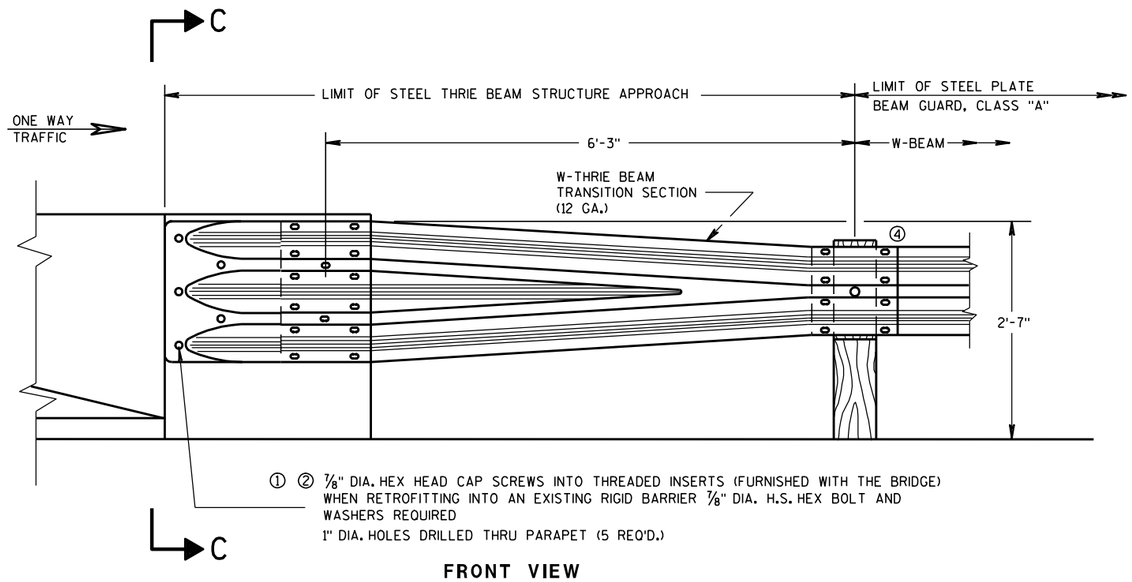
S.D.D. 14 B 20-10a



FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

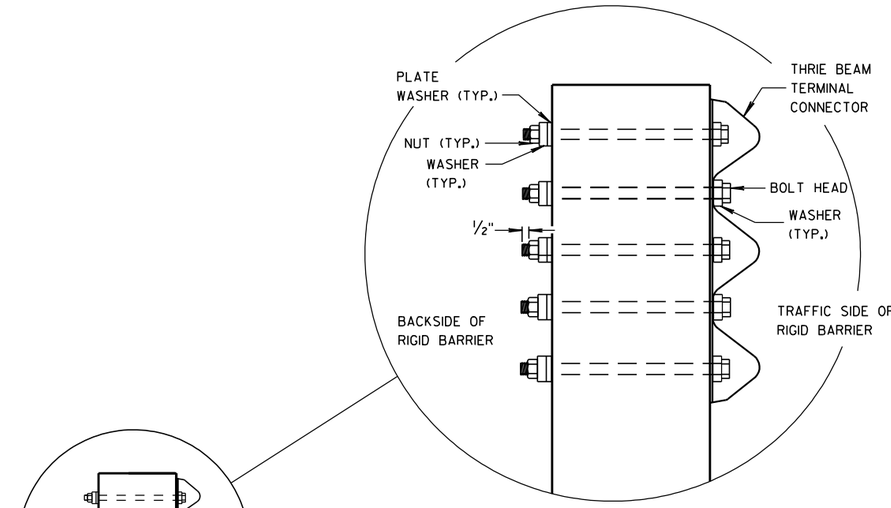
① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAM STRUCTURAL APPROACH".

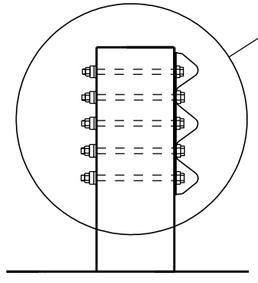
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C-C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-8-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 20-10b

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S.D.D. 14 B 20-10b

GENERAL NOTES

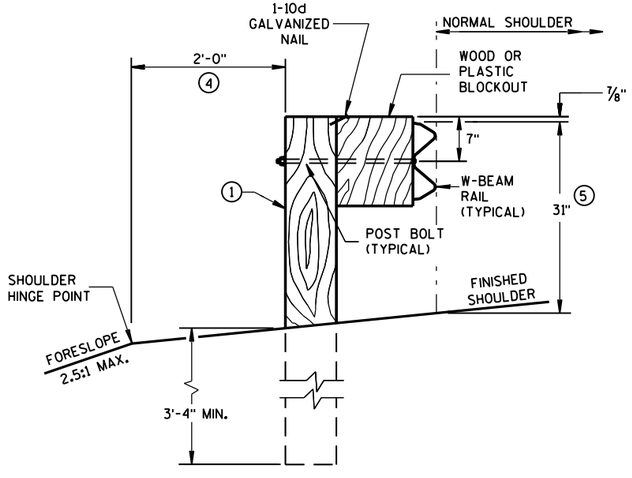
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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

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

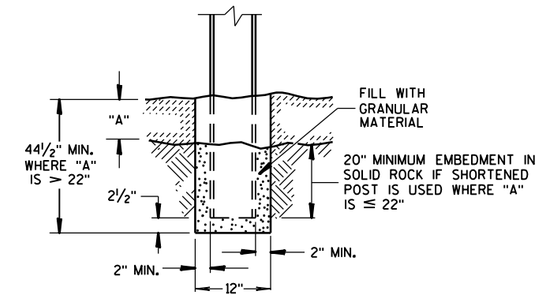
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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



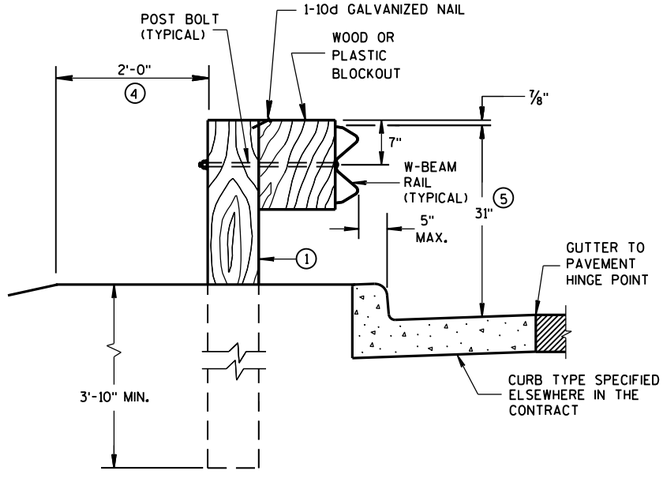
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



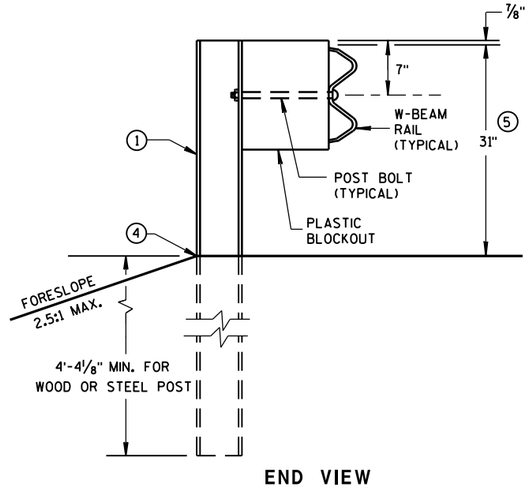
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



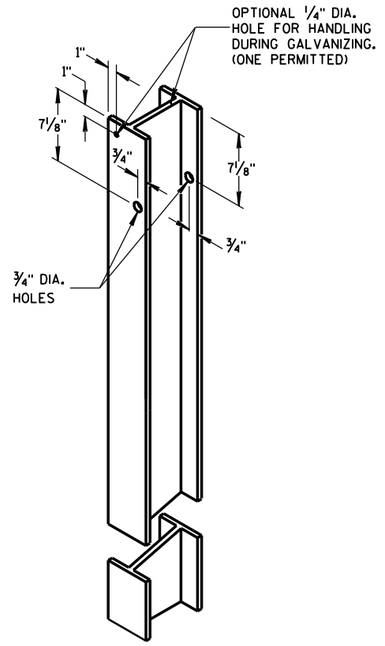
END VIEW

LOCATED ALONG A CURBED ROADWAY

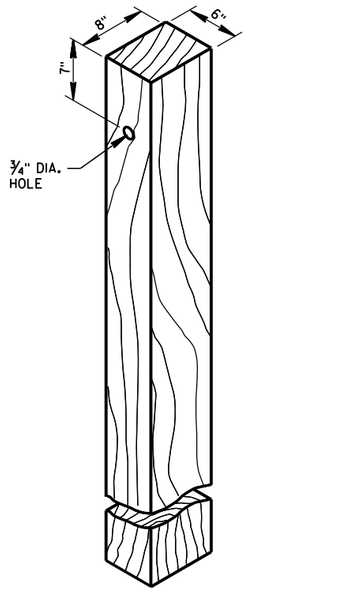


END VIEW

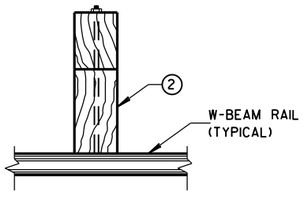
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



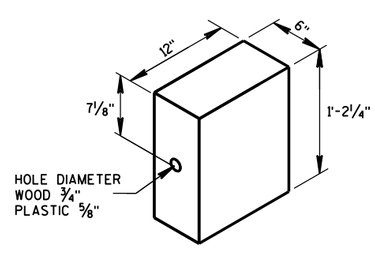
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



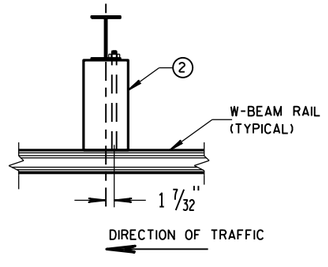
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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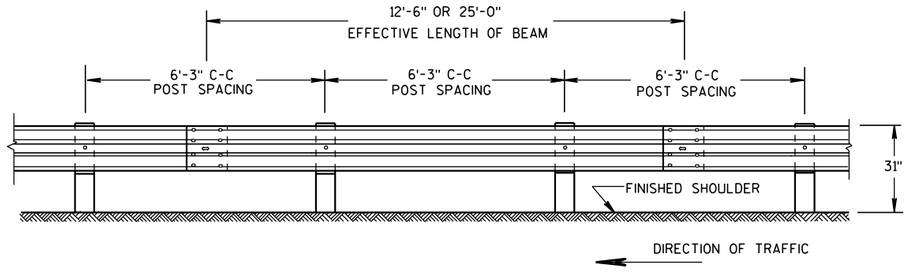
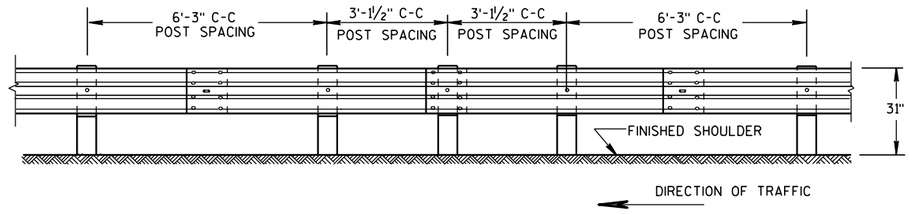
S.D.D. 14 B 42-2a



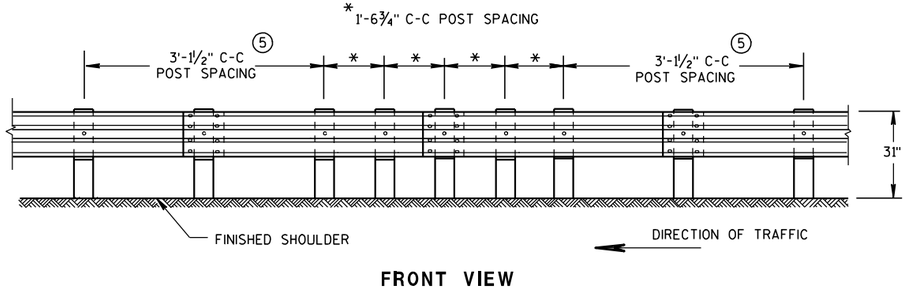
FRONT VIEW

POST SPACING STANDARD INSTALLATION



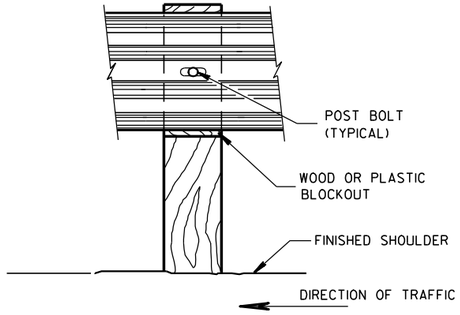
FRONT VIEW

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

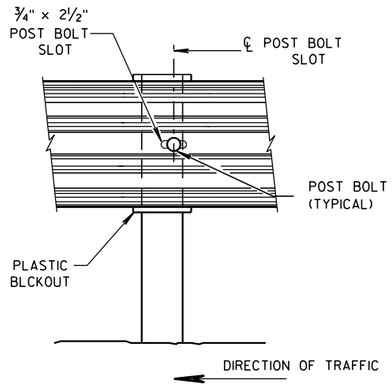


FRONT VIEW

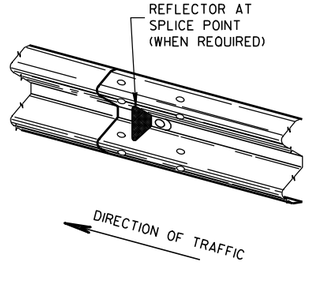
QUARTER POST SPACING (QS)

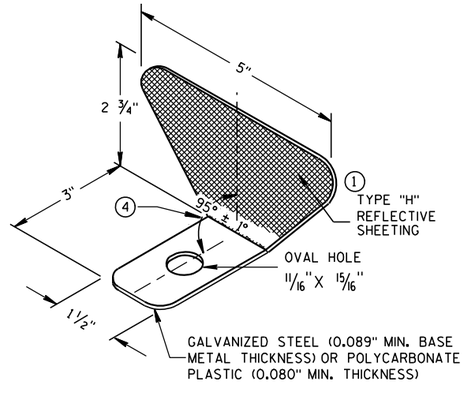


FRONT VIEW AT WOOD POST

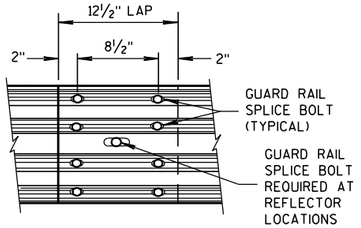


FRONT VIEW AT STEEL POST



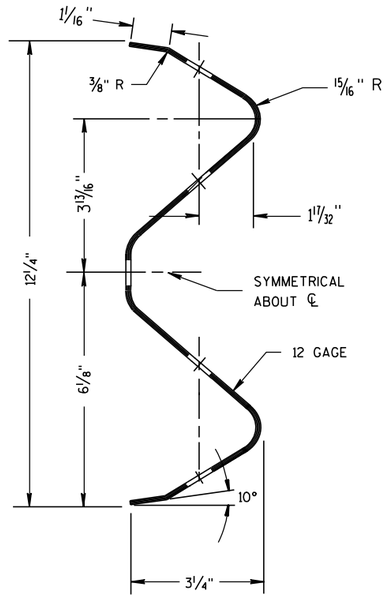


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

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

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

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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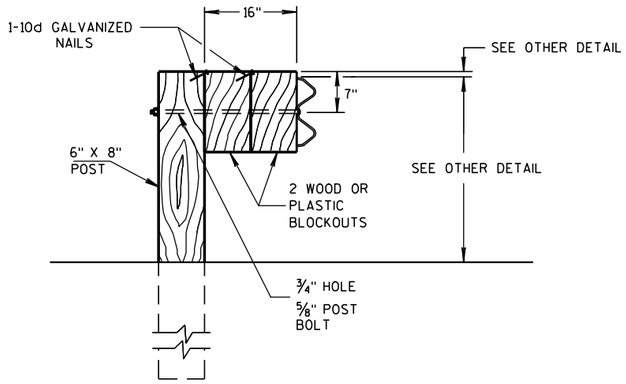
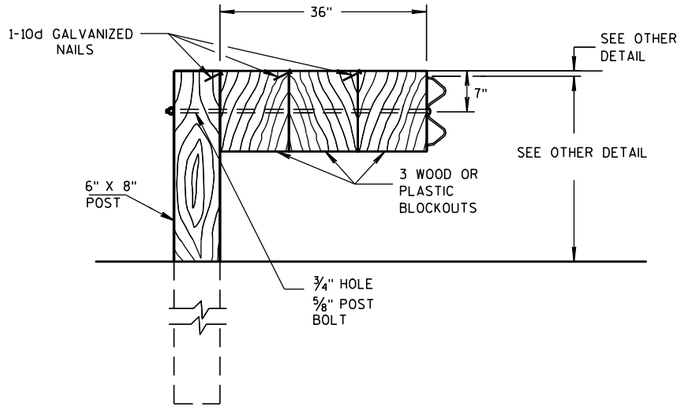


DETAIL FOR 16" BLOCKOUT DEPTH

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.

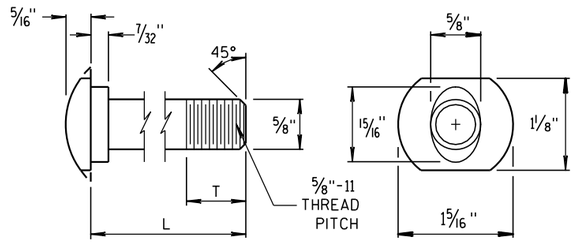


DETAIL FOR 36" BLOCKOUT DEPTH

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.

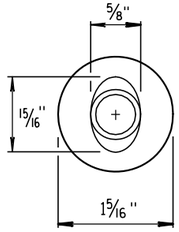
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

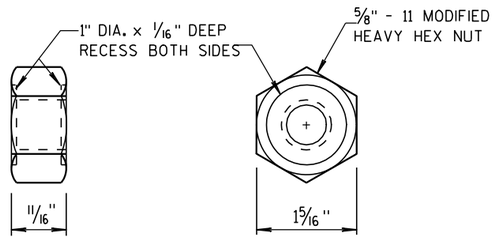


POST BOLT TABLE

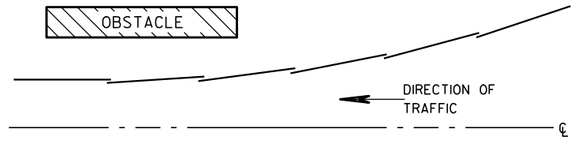
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

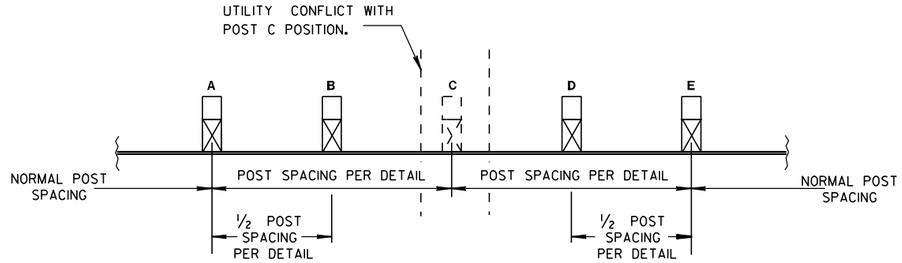


POST BOLT AND RECESS NUT

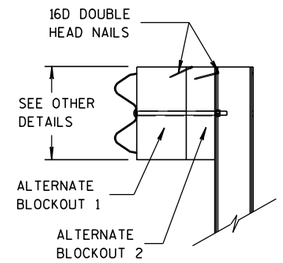


PLAN VIEW

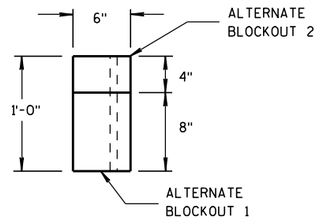
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 42-2c

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S.D.D. 14 B 42-2c

GENERAL NOTES

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

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

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

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

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

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

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

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

SEE SDD 14B42 FOR MORE INFORMATION.

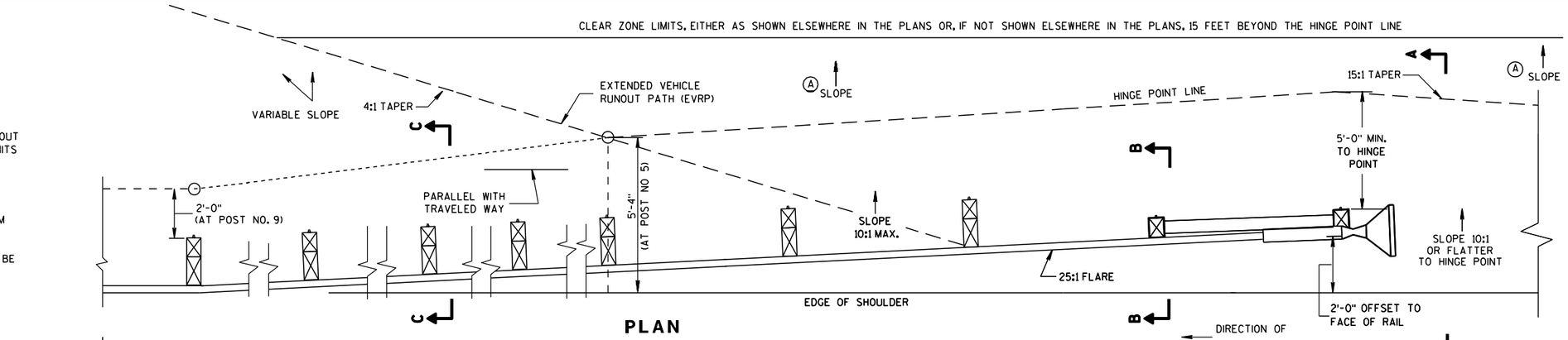
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

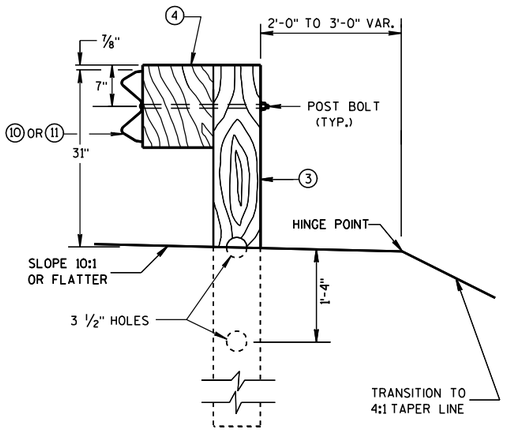
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

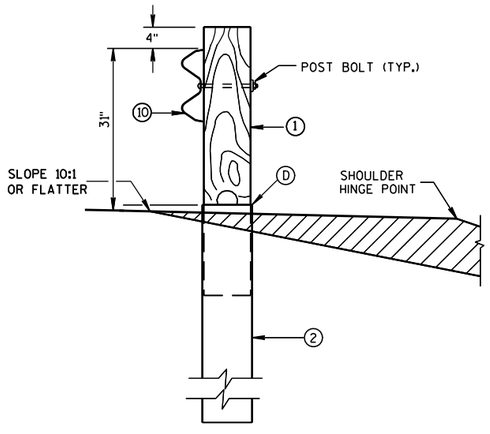
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

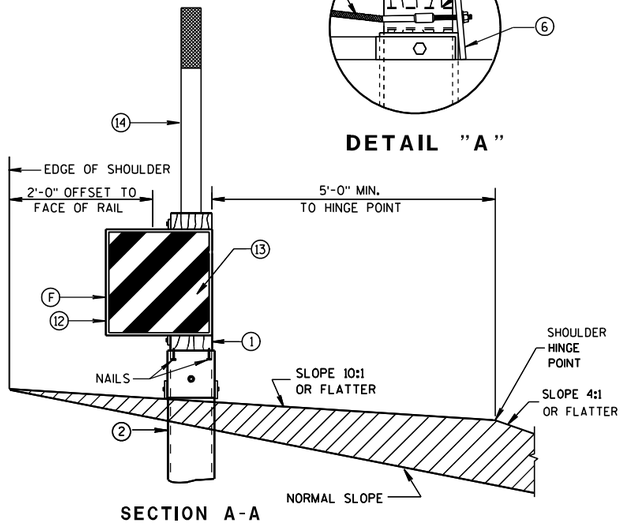




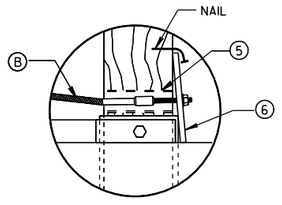
SECTION C-C
TYPICAL AT POST NOS. 3-9



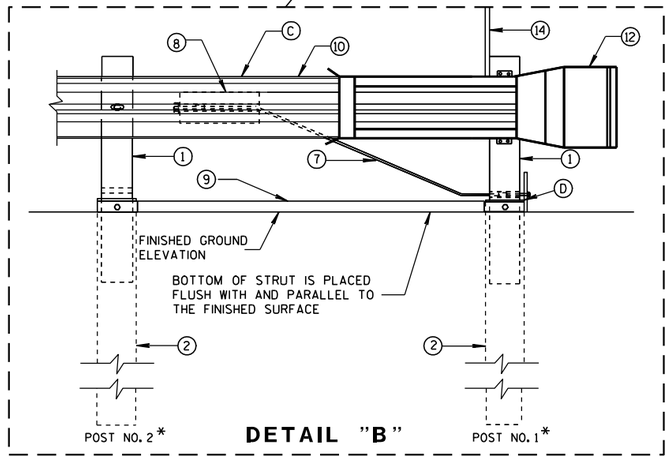
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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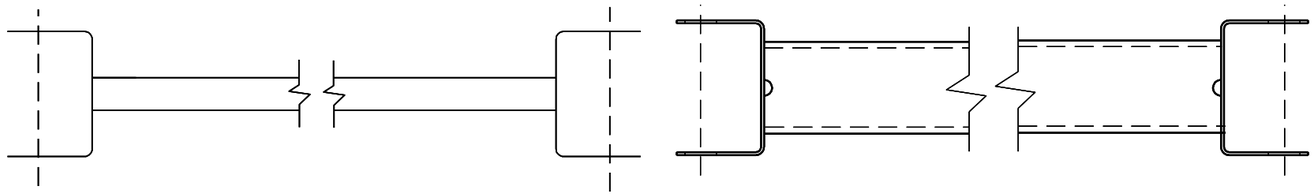

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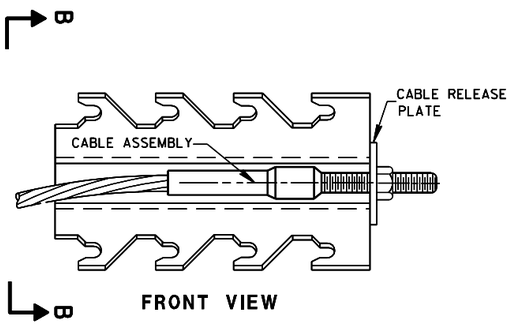
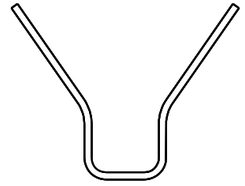
GENERIC GROUND STRUT

BILL OF MATERIALS

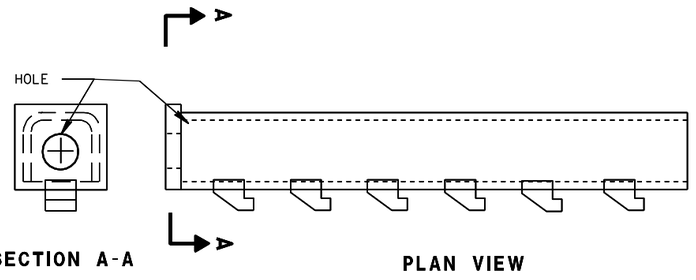
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND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



FRONT VIEW



SECTION B-B

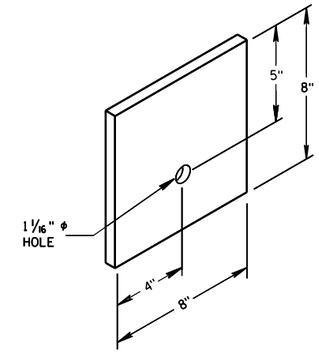


SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX

⑧ Ⓗ



BEARING PLATE

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MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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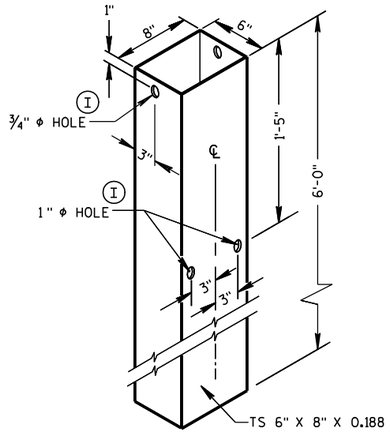
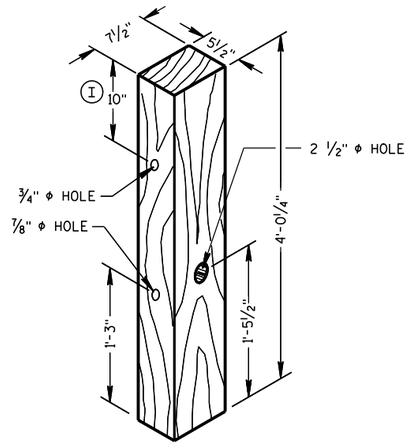
S.D.D. 14 B 44-1b

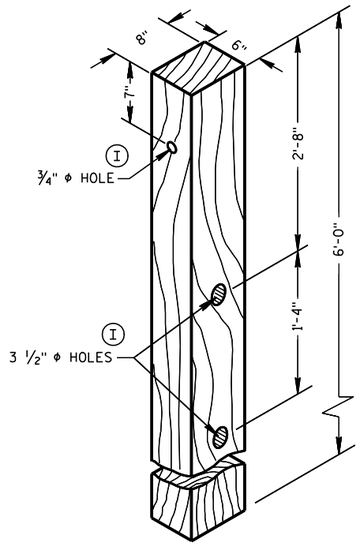


FOUNDATION TUBE (2)



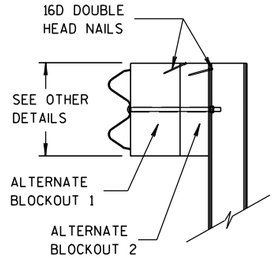
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

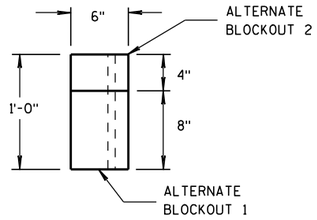


POSTS NUMBER 3-9

WOOD CRT POST (3)

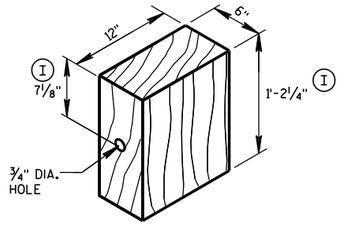


SIDE VIEW



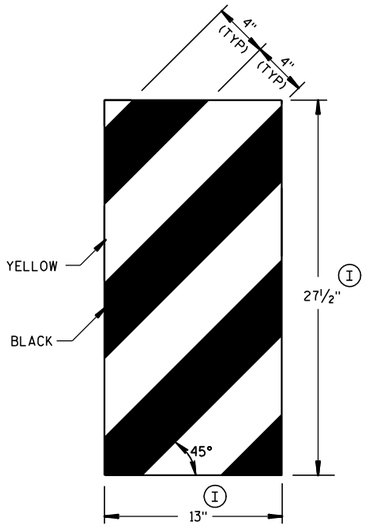
TOP VIEW

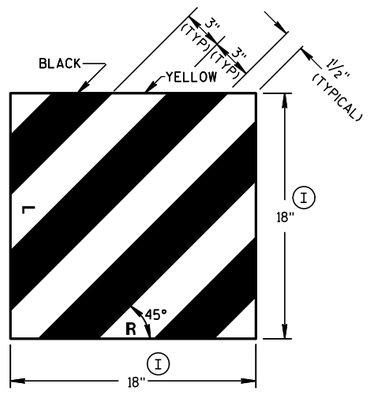
ALTERNATE WOOD BLOCKOUT DETAIL



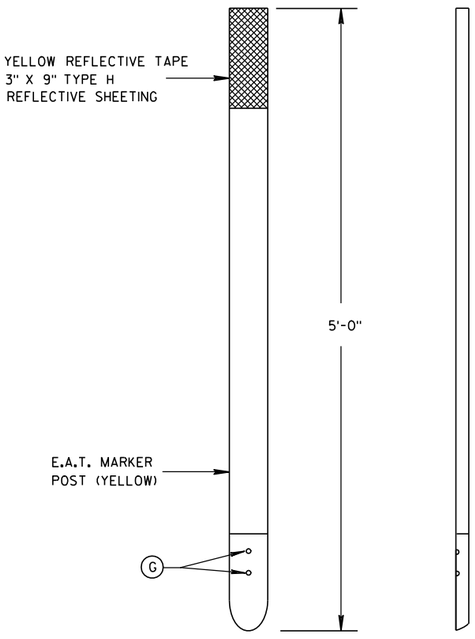
WOOD BLOCKOUT (4)

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





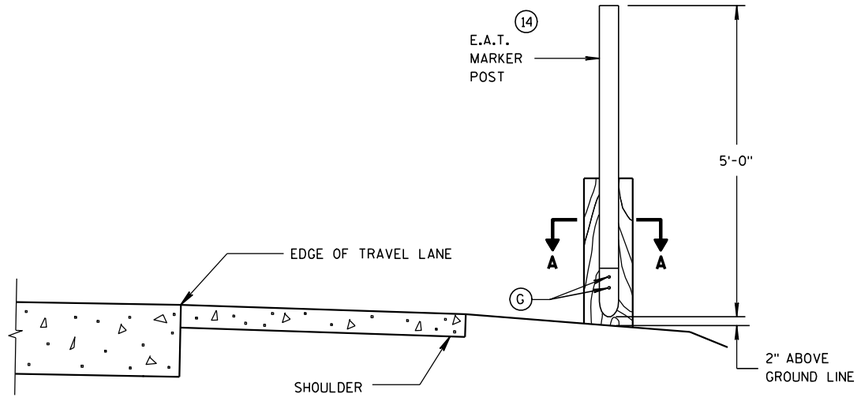
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

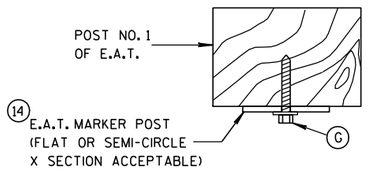
SIDE VIEW

E.A.T. MARKER POST (14)



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

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



SECTION A-A

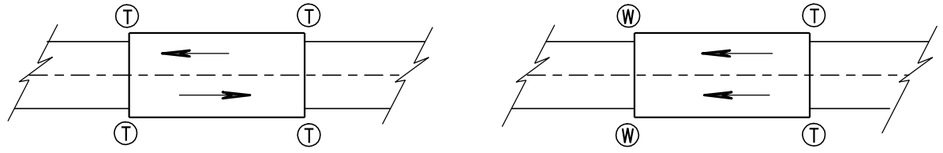
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

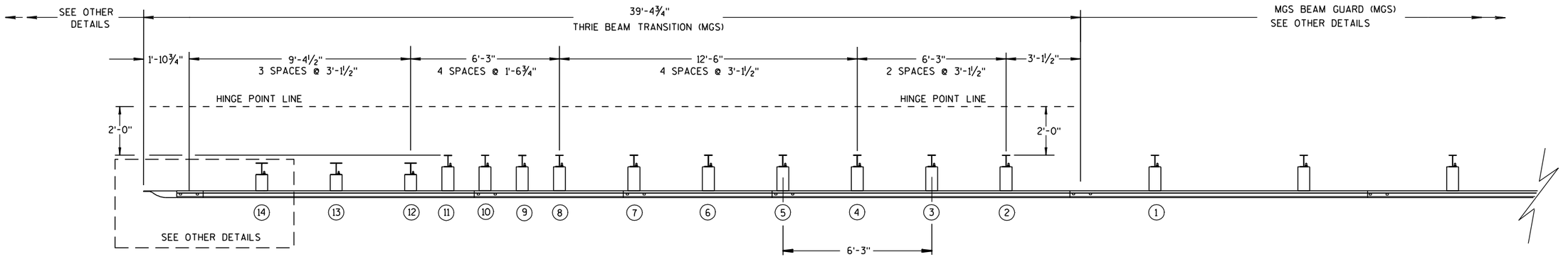
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED DURING EXCAVATION, SEE STANDARD DETAIL DRAWING 14 B 42.

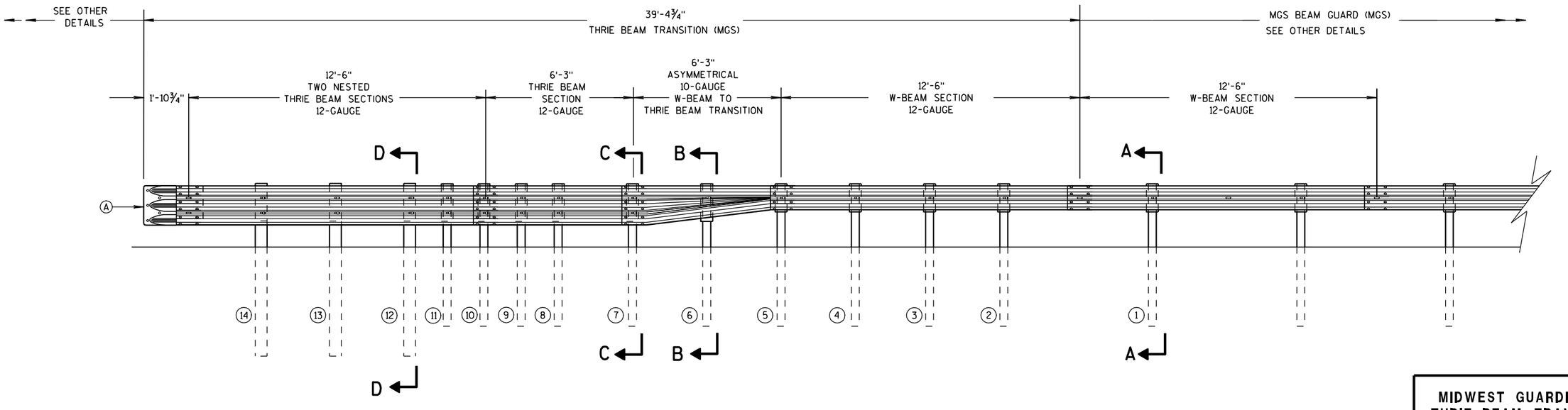
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

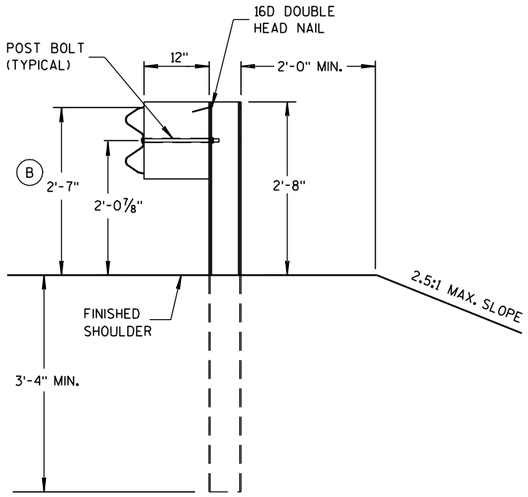
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-2a

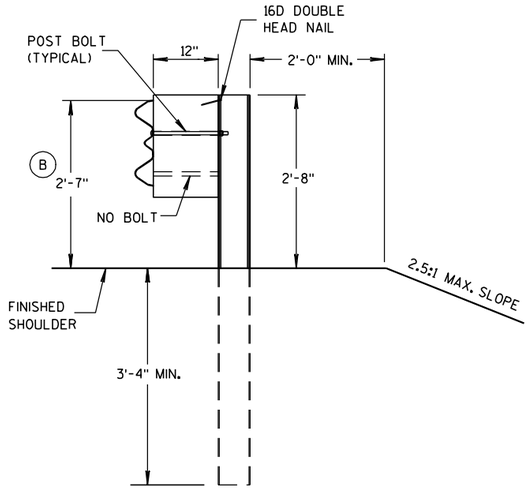
GENERAL NOTES

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



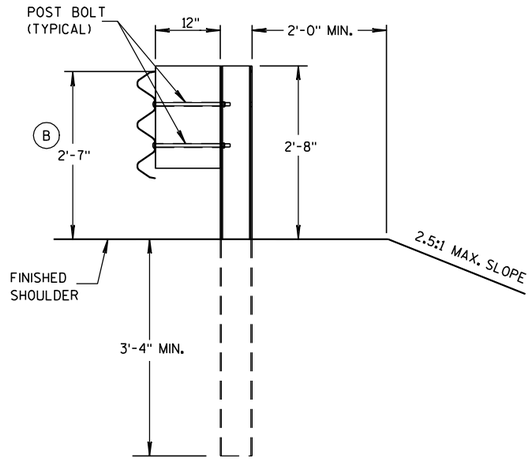
SECTION A-A

POSTS 1-5



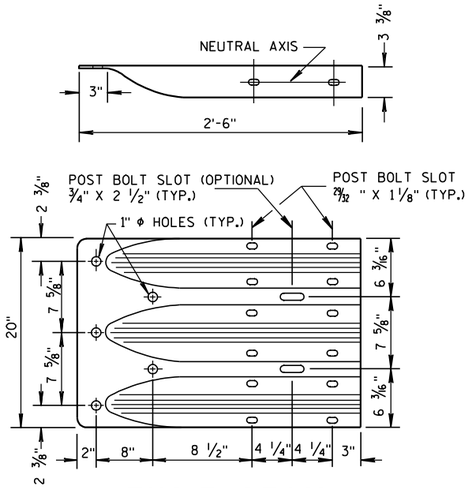
SECTION B-B

POST 6

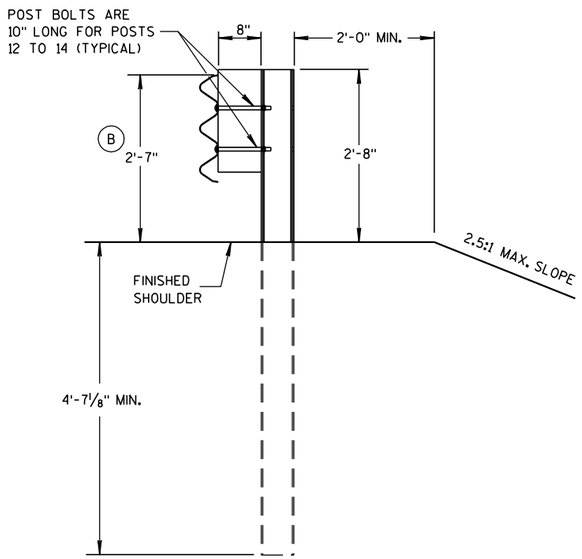


SECTION C-C

POSTS 7-11

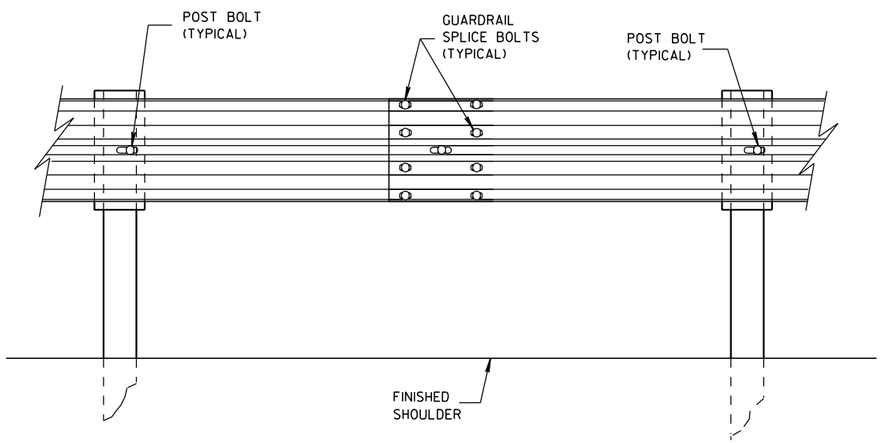


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

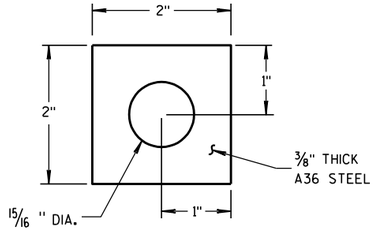
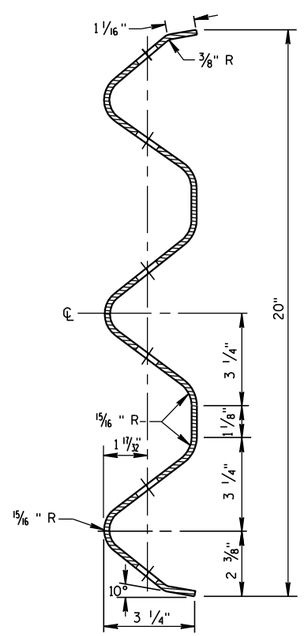


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

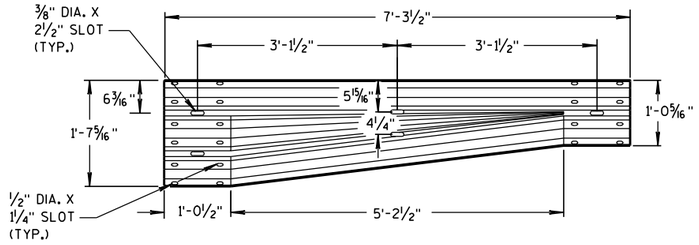
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

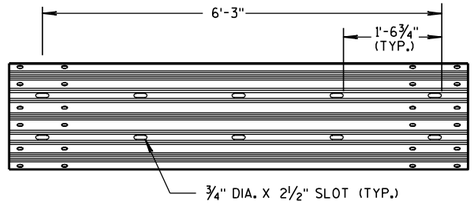
S.D.D. 14 B 45-2b

6

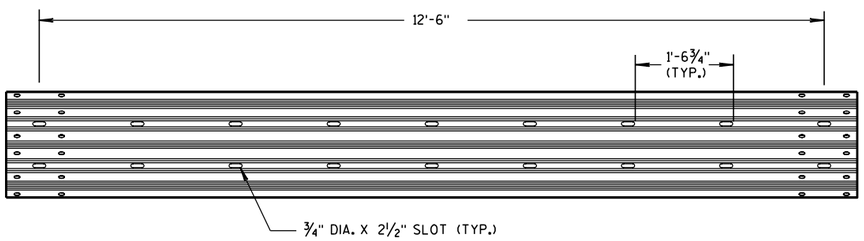
S.D.D. 14 B 45-2b



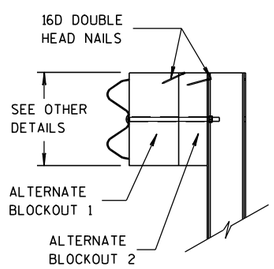
W-BEAM TO THRIE BEAM TRANSITION SECTION



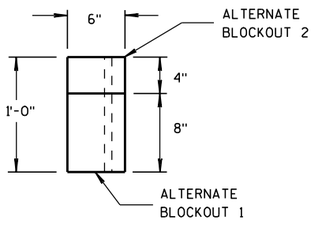
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

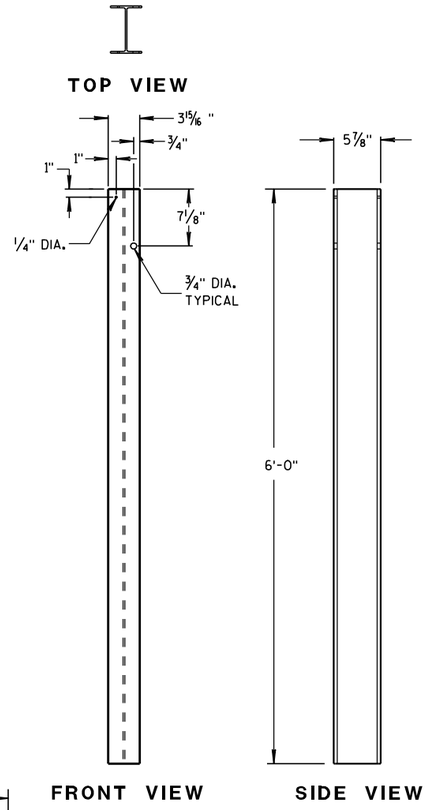


SIDE VIEW

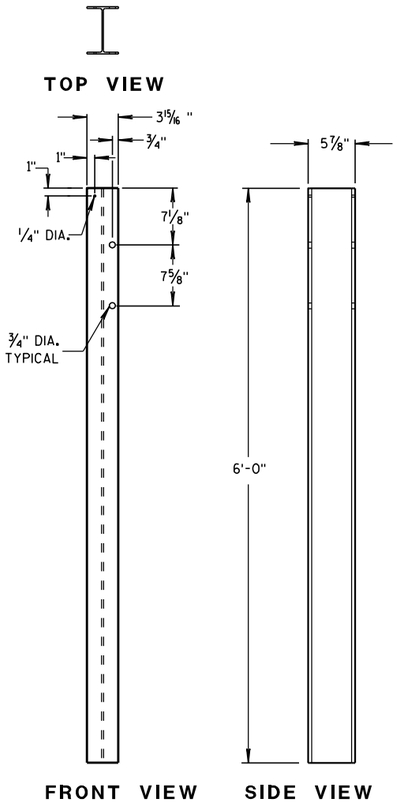


TOP VIEW

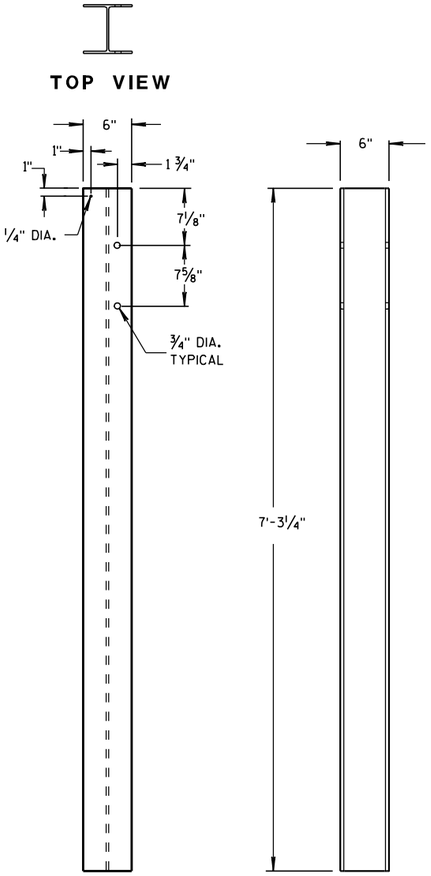
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

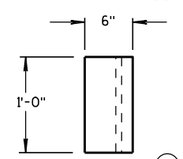


STEEL POSTS 6-11

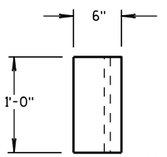


STEEL POSTS 12-14

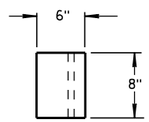
1. WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



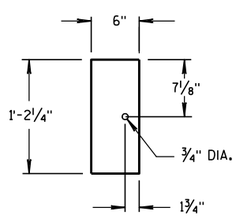
TOP VIEW (1)



TOP VIEW (1)

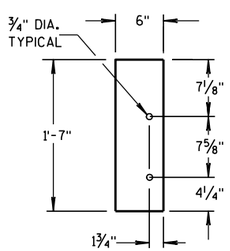


TOP VIEW



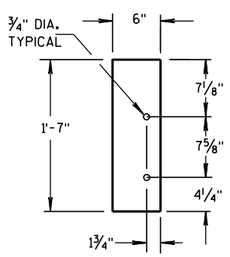
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

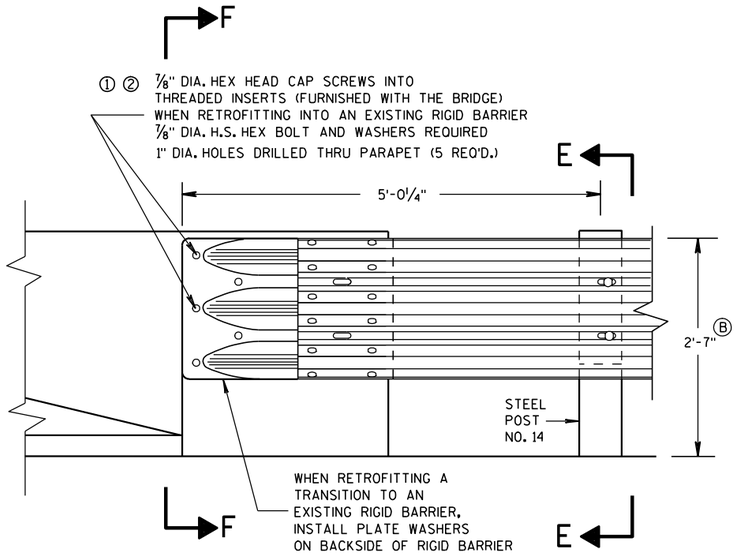
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

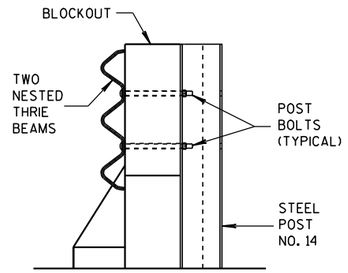
S.D.D. 14 B 45-2c

6

S.D.D. 14 B 45-2c



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

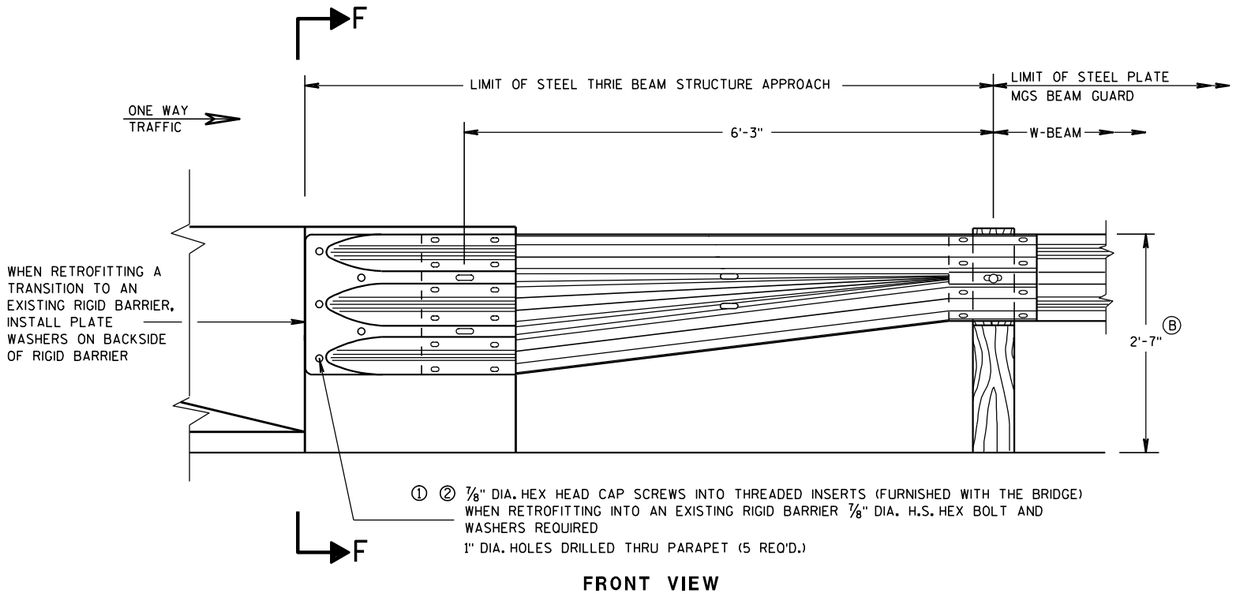
① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAMSTRUCTURAL APPROACH".

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

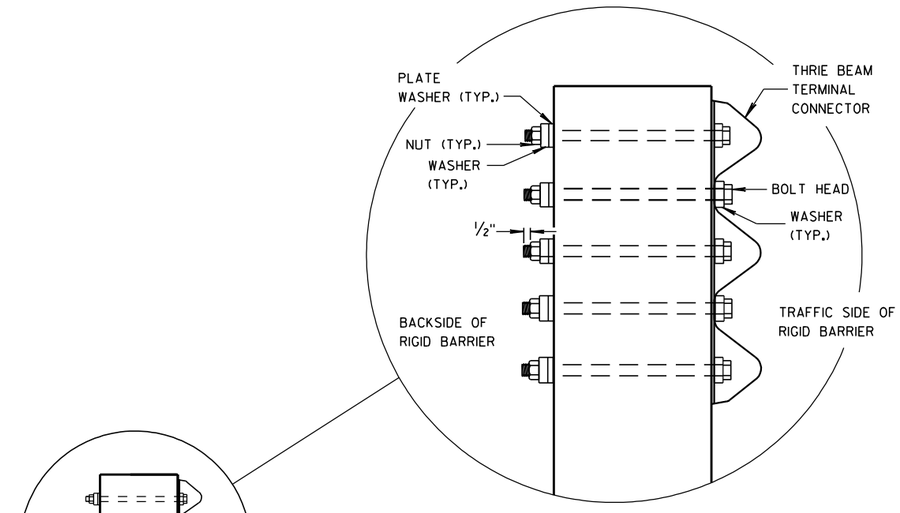
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

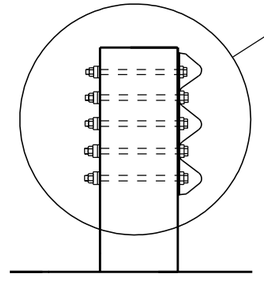
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/8/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

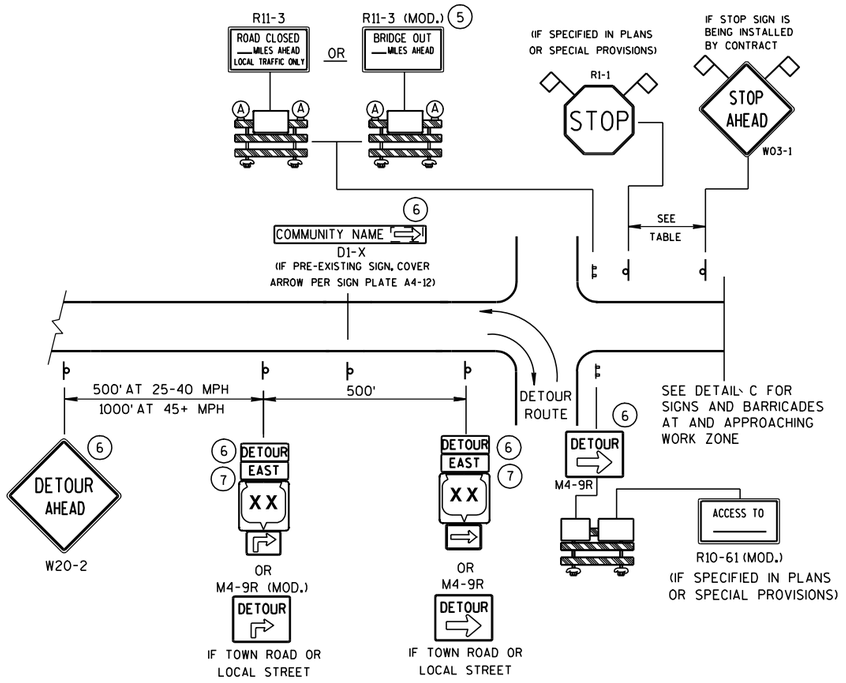
FHWA

6

S.D.D. 14 B 45-2d

6

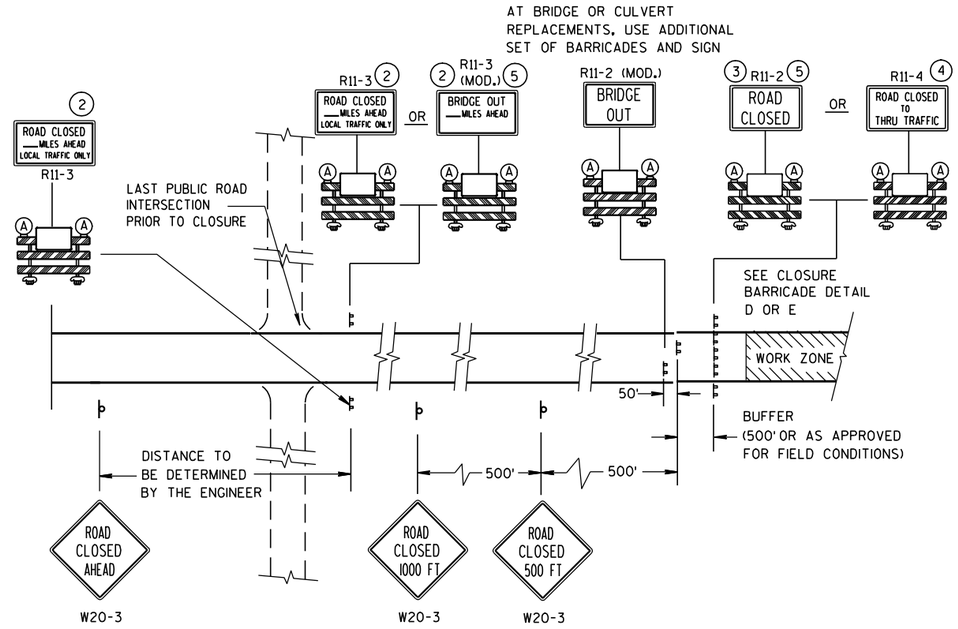
S.D.D. 14 B 45-2d



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

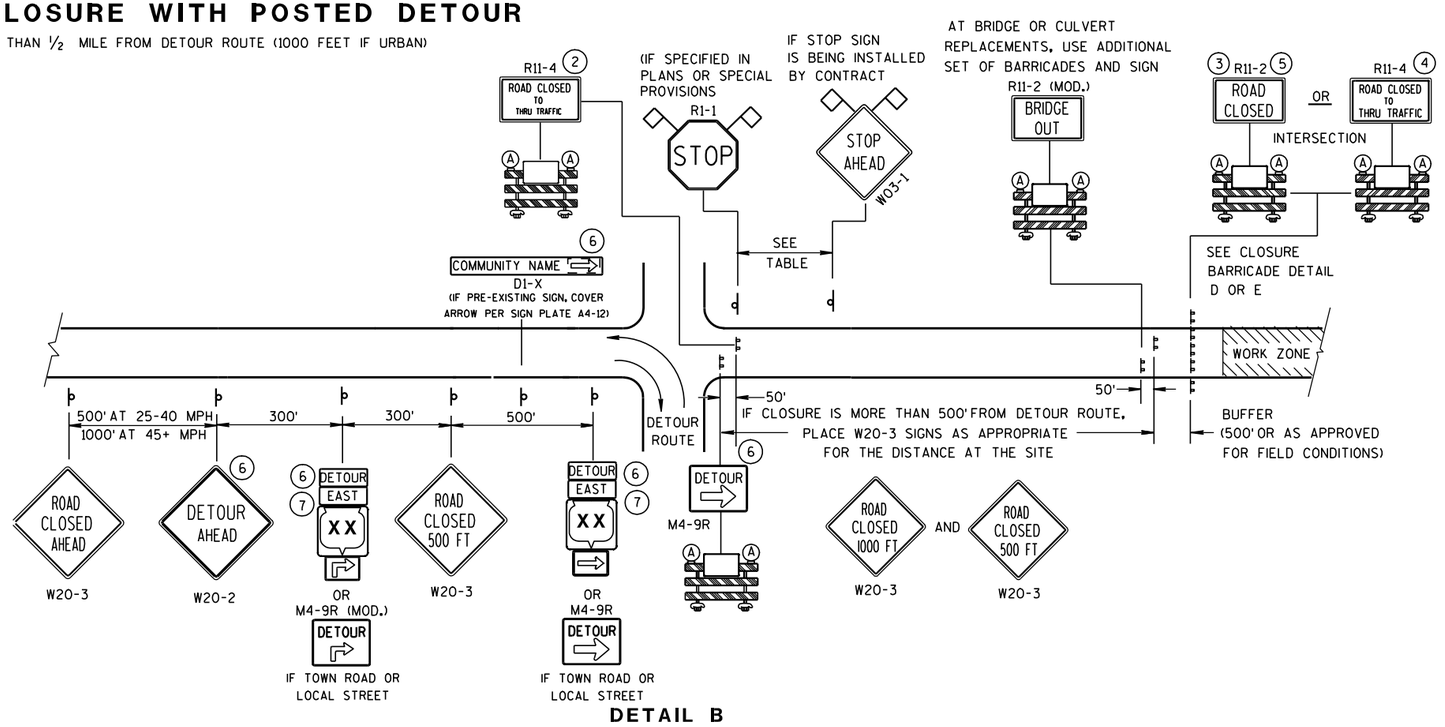


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

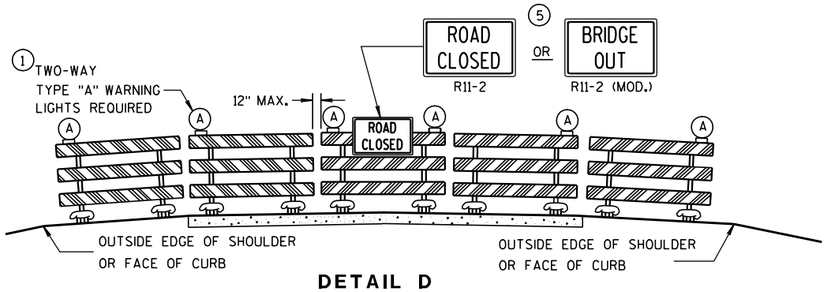
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

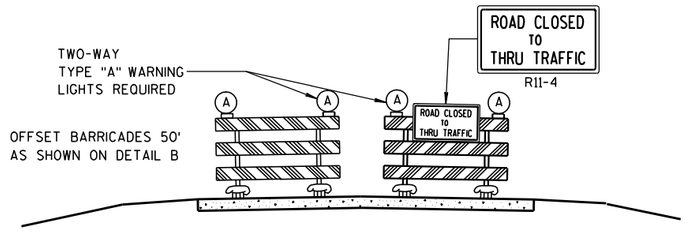
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"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 AND 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

APPROVED

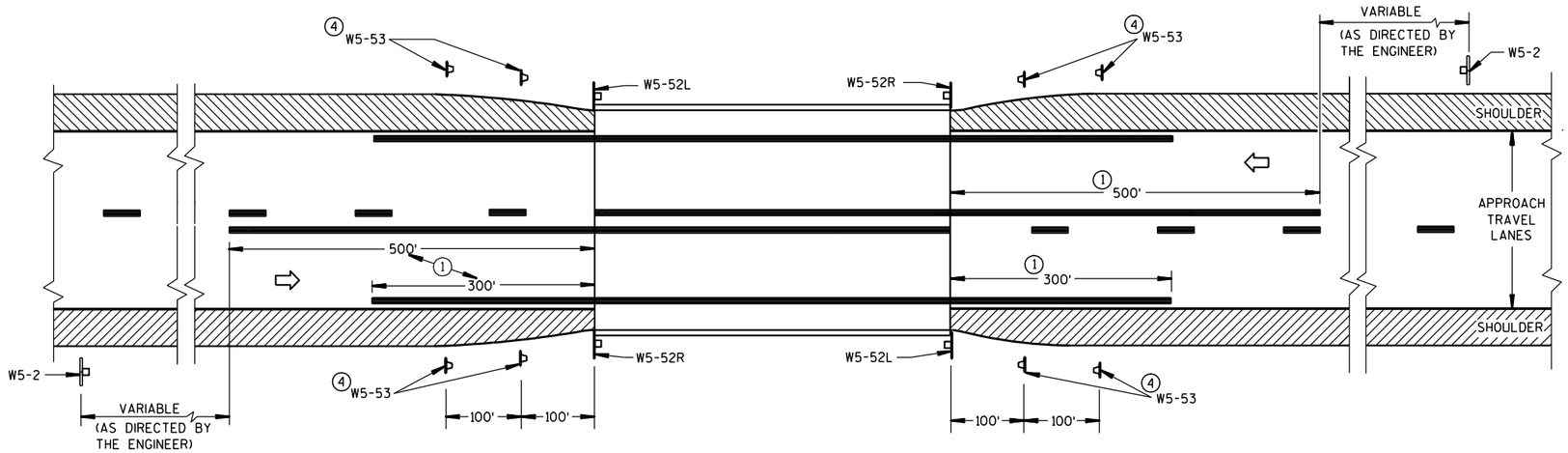
9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

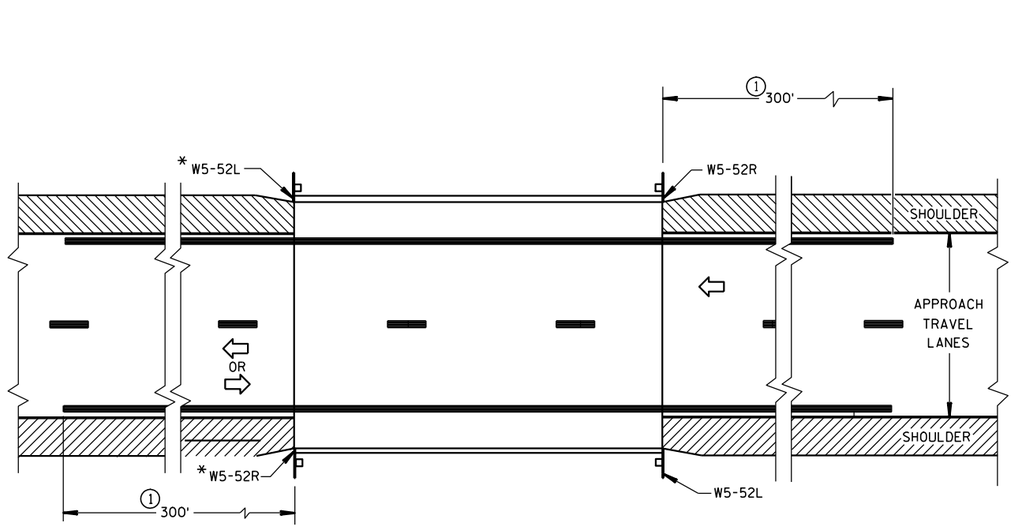
S.D.D. 15 C 2-4b



SITUATION 1

WARRANTING CRITERION:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET

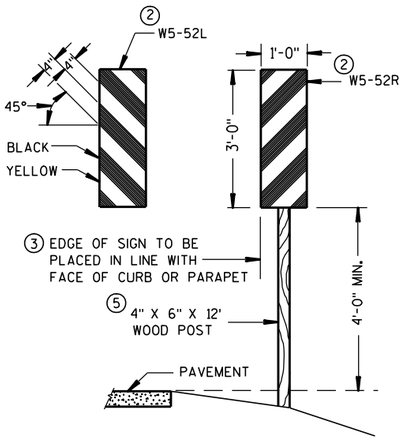


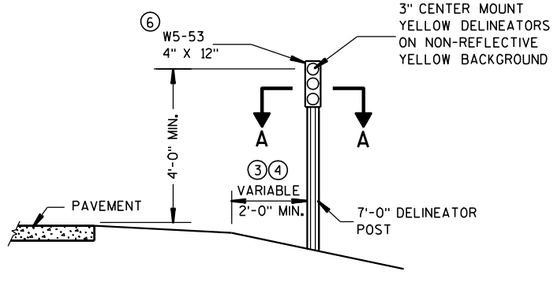
*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

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





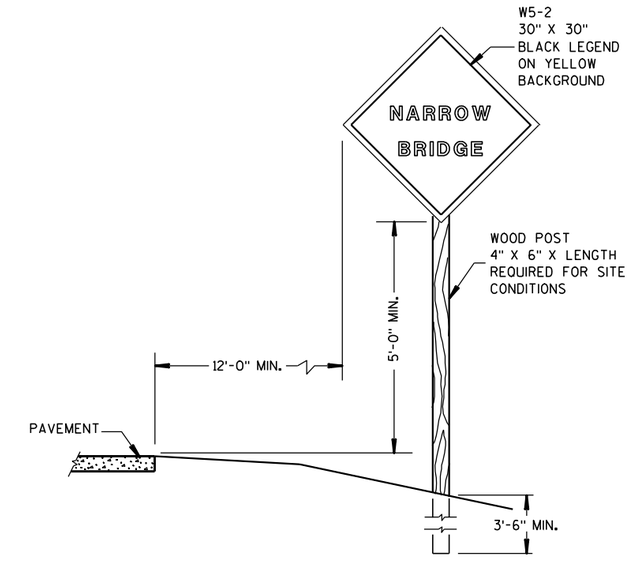
OBJECT MARKER PLACEMENT

GENERAL NOTES

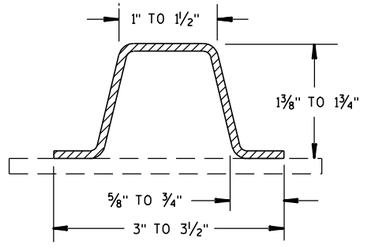
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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 H REFLECTIVE SHEETING.
3. LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.
4. OBJECT MARKERS (W5-53) SHALL BE LOCATED ALONG A LINE FLARED AWAY FROM THE BRIDGE CORNER TO DELINEATE THE NARROWING OF THE SHOULDER OR BERM.
5. A 12 FOOT DELINEATOR POST MAY BE USED INSTEAD OF A WOOD POST.
6. NON-BID ITEM. INCIDENTAL TO OTHER ITEMS.



SIGN PLACEMENT



SECTION A-A

(MINIMUM WEIGHT 1.9 LBS. PER FT. AFTER GALVANIZING)

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. [illegible] — STATE TRAFFIC ENGINEER

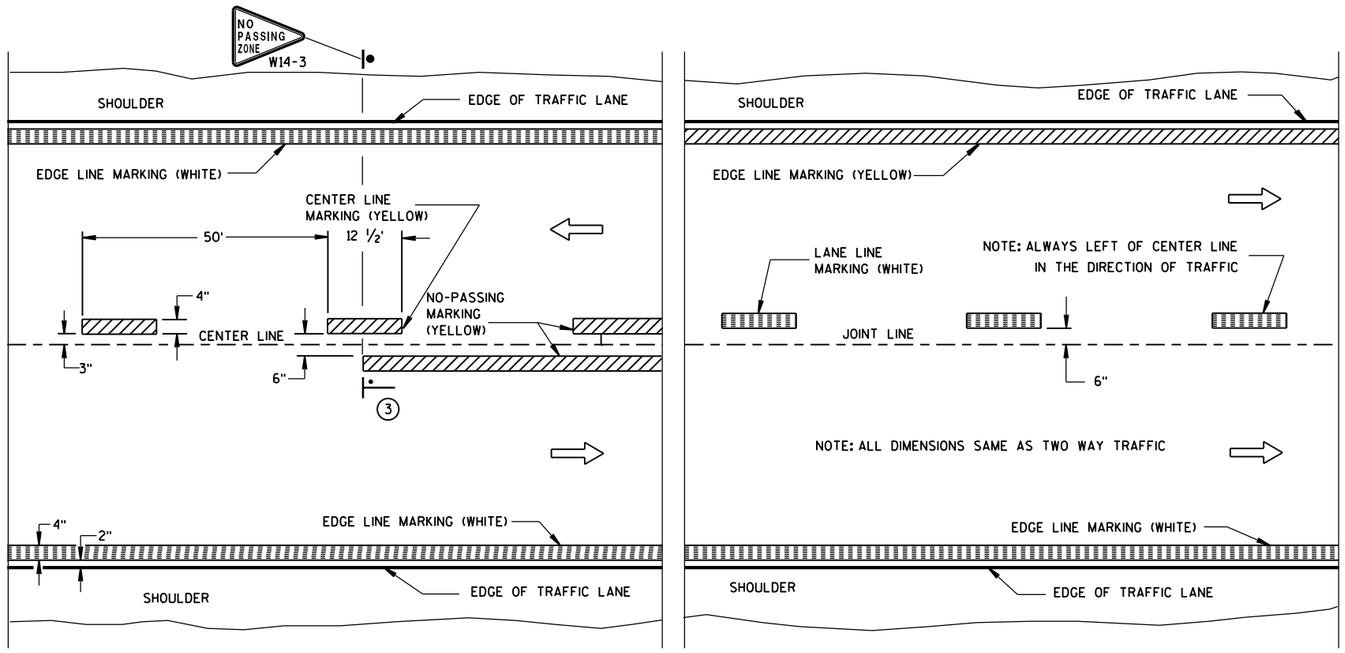
FHWA

6

S.D.D. 15 C 6-5

6

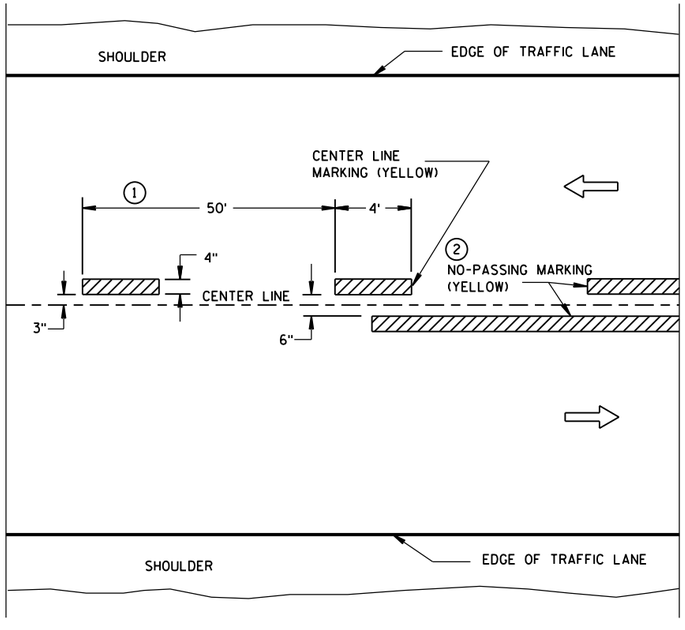
S.D.D. 15 C 6-5



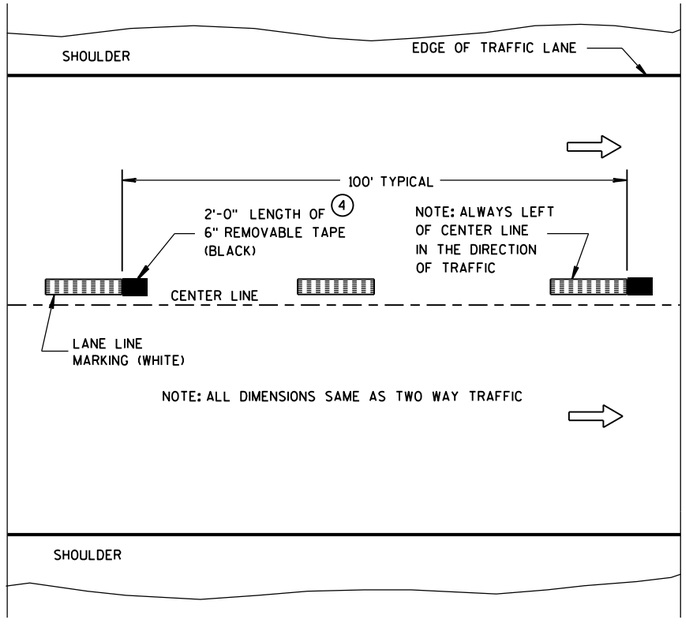
TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

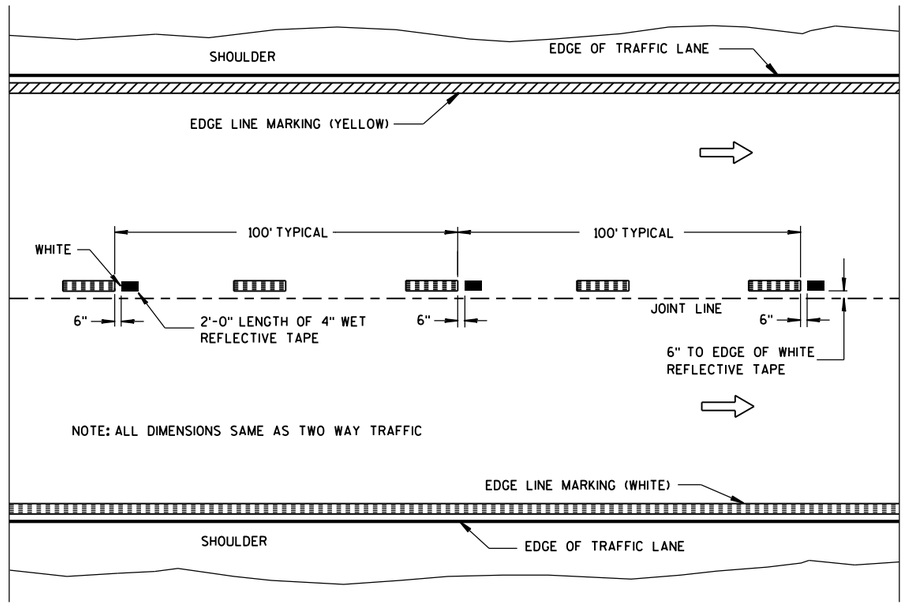
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

6

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

GENERAL NOTES

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

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

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

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

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.

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

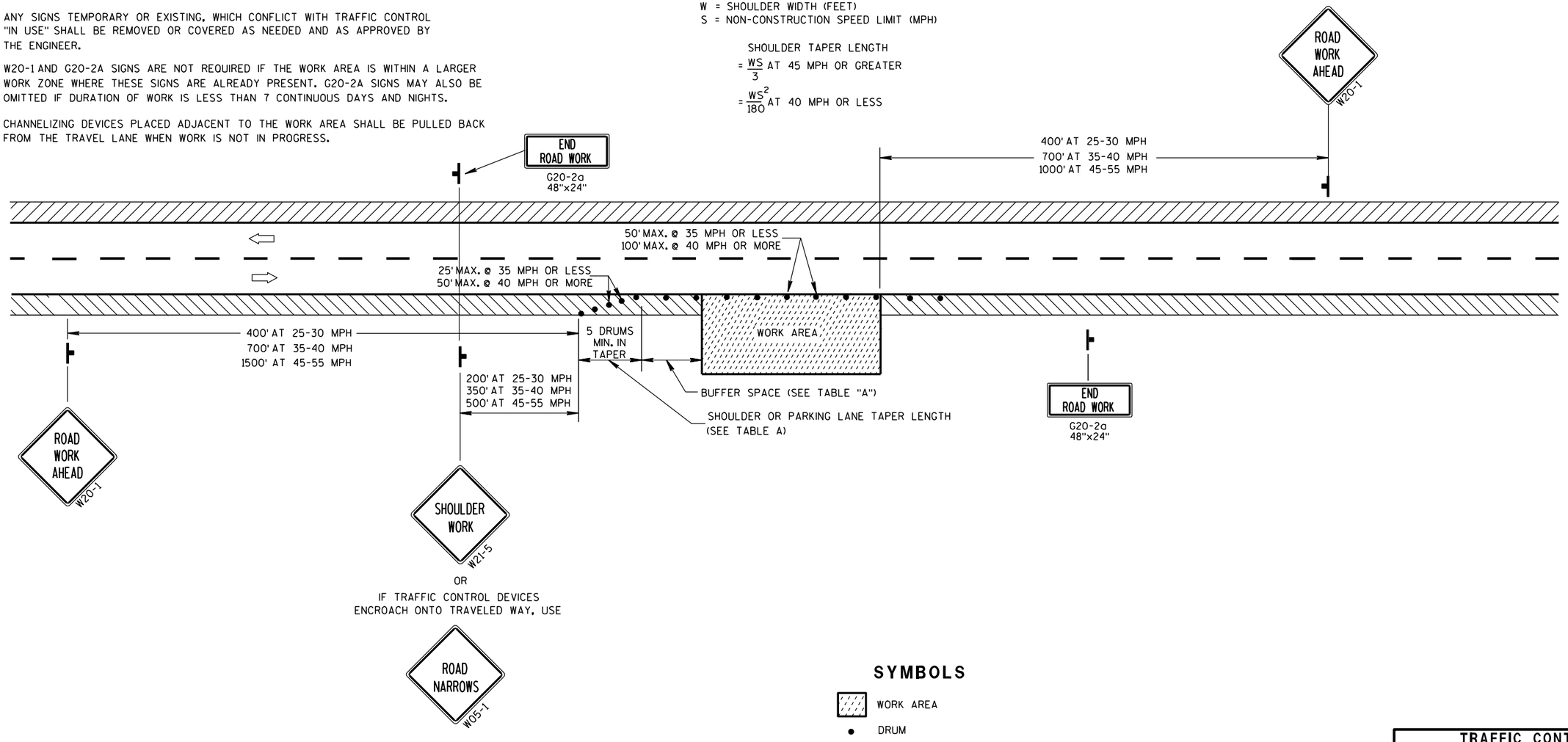
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

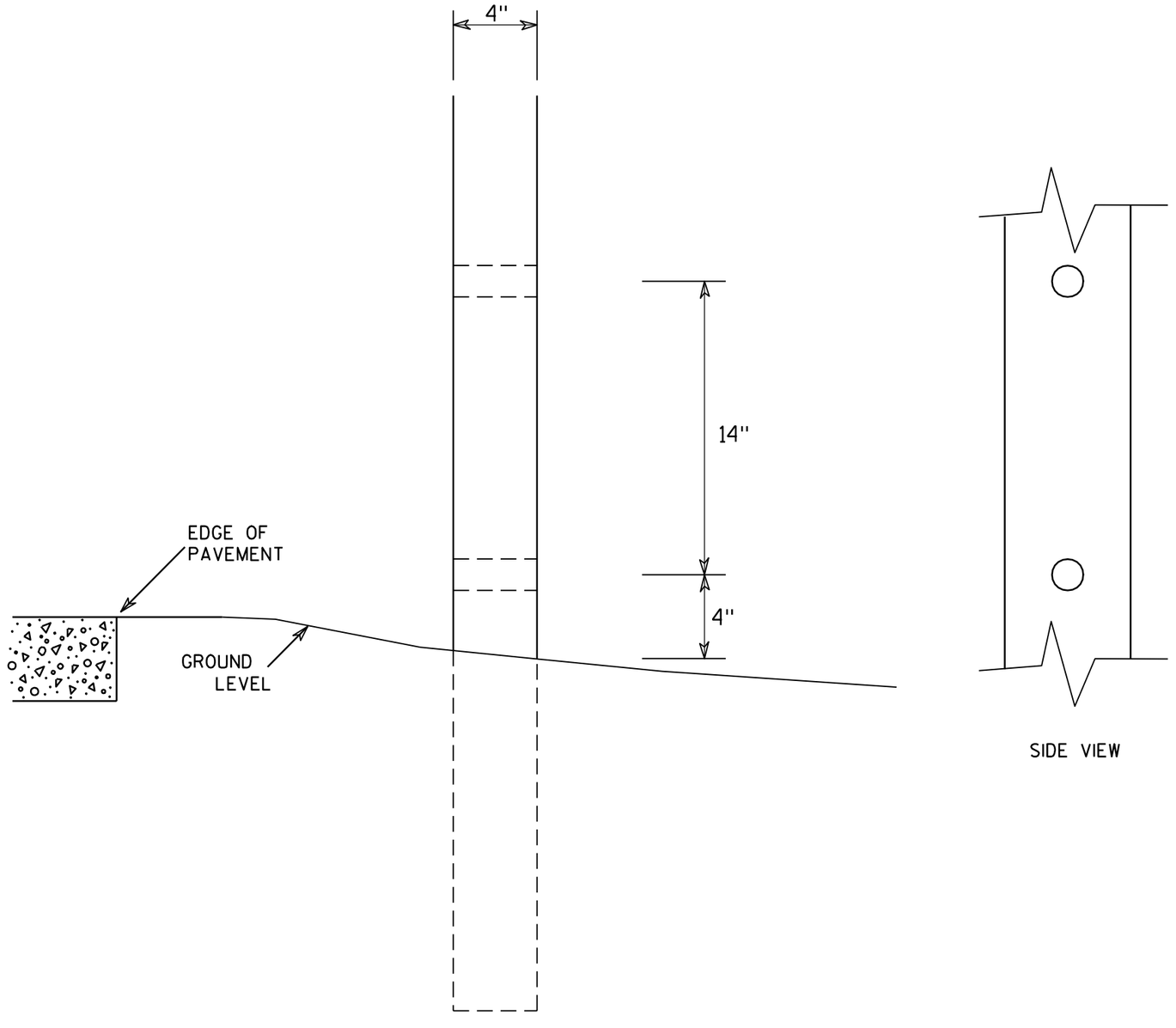
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] NEER
FHWA

6
S.D.D. 15 D 28-1



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

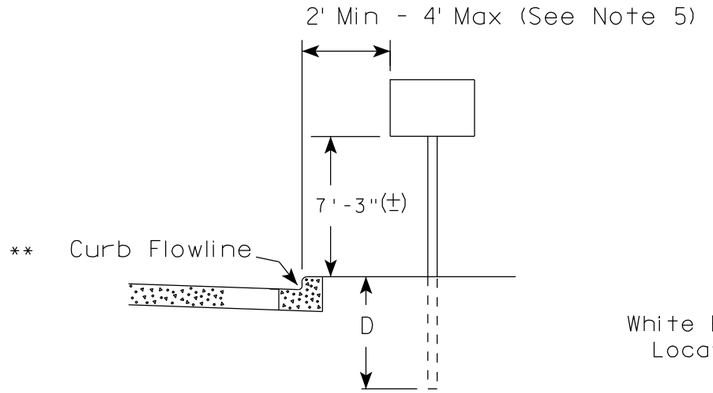
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

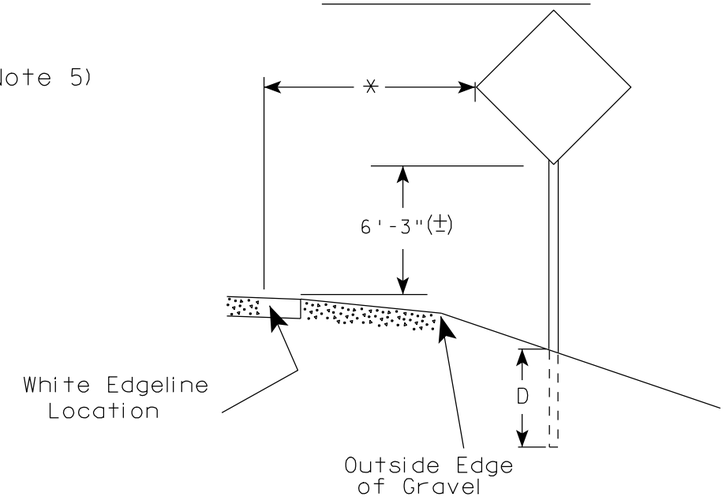
DATE 3/27/97 PLATE NO. A4-11.2

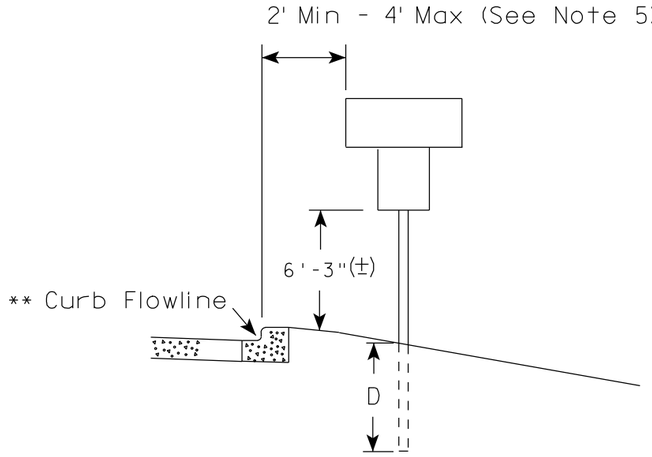
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	E

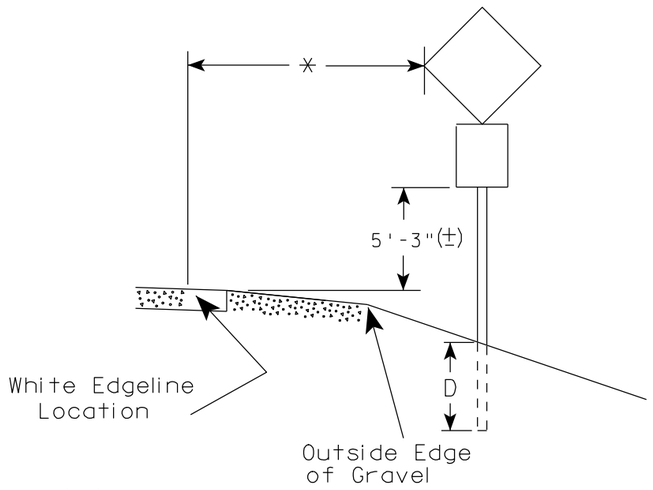
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
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 J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

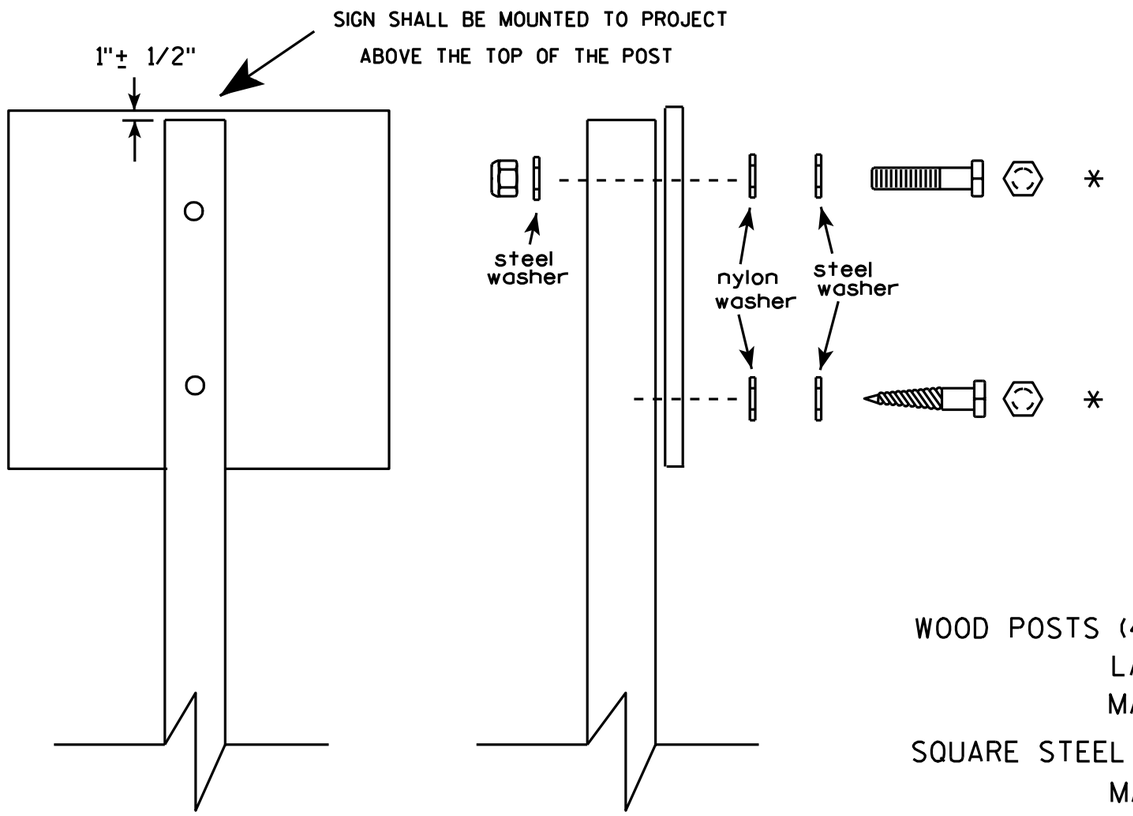
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 43	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

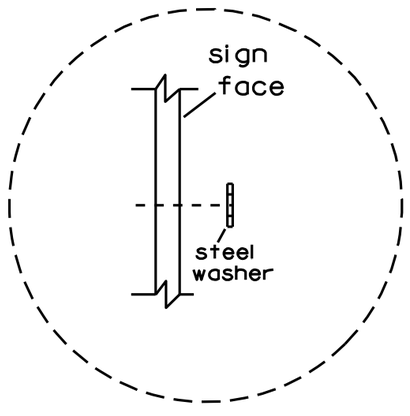
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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 Matthew R Rauch
for State Traffic Engineer

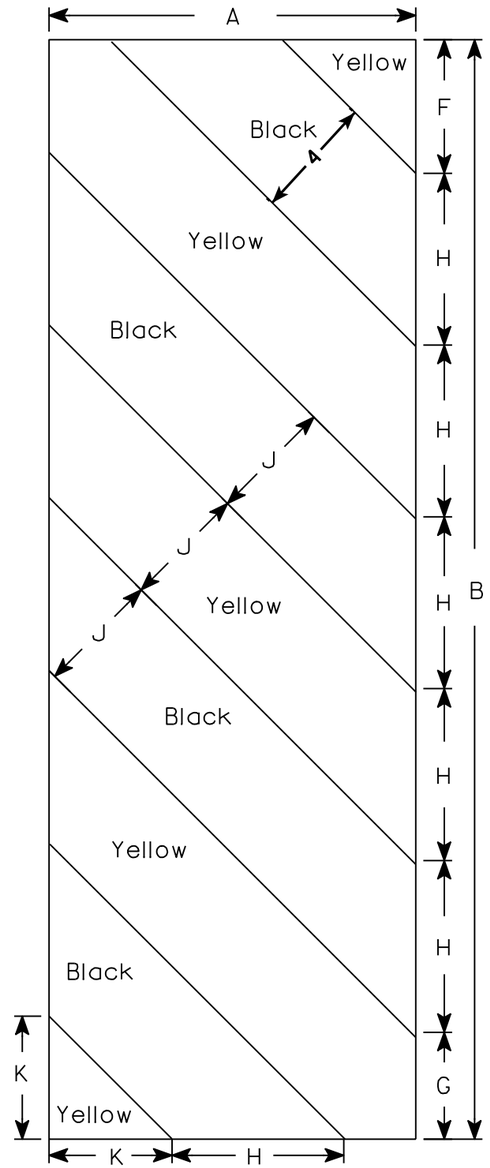
DATE 3/23/10 PLATE NO. A4-8.7

7

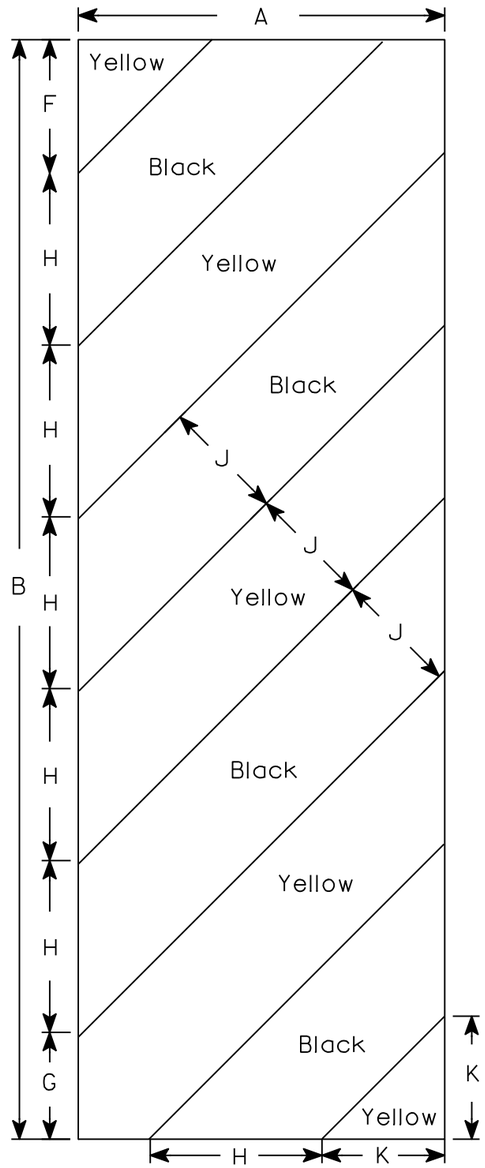
7

PROJECT NO:

SHEET NO: 44 E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

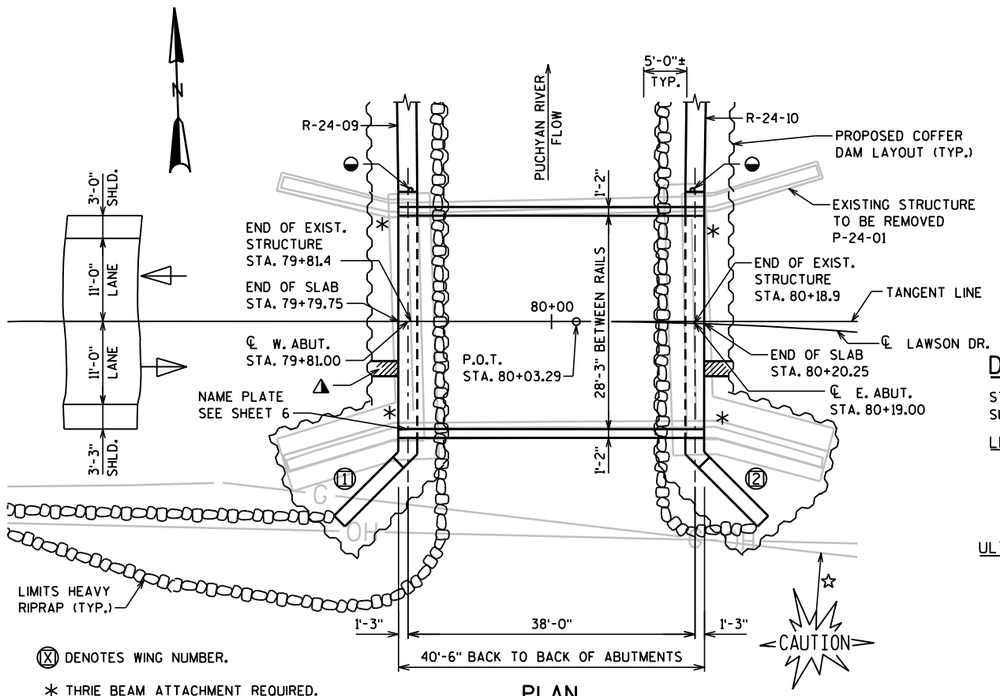
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 45	E



PLAN

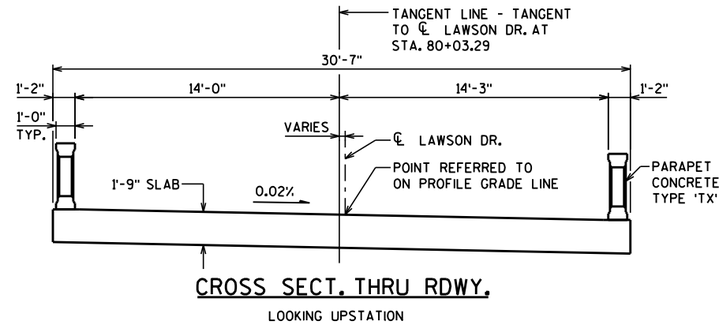
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE

ⓧ DENOTES WING NUMBER.

✳ THRIE BEAM ATTACHMENT REQUIRED. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH 100% SILICONE CAULK.

⚠ ANTI-SEEPAGE WALL. 5 FEET OF COFFERDAM EACH SIDE OF WALL TO REMAIN IN PLACE.

◒ BENTONITE WATERSTOP



CROSS SECT. THRU RDWY.

LOOKING UPSTATION

DESIGN DATA

STRUCTURE IS DESIGNED FOR FUTURE WEARING SURFACE OF 20#/SQ. FT.

LIVE LOAD:

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF= 1.15
OPERATING RATING FACTOR	RF= 1.49
MAX. STD. PERMIT VEHICLE LOAD	250 KIPS

ULTIMATE DESIGN STRESSES:

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

FOUNDATION DATA

THE ABUTMENT FOOTINGS TO BE SUPPORTED ON SPREAD FOOTINGS WITH A MINIMUM ALLOWABLE ROCK BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.

HYDRAULIC DATA

Q_{100}	1,300 C.F.S.
VELOCITY	5.64 F.P.S.
HIGH WATER	EL. 793.61 (100 YEAR)
HIGH WATER	EL. 790.77 (2 YEAR)
WATERWAY AREA	230 S.F.
DRAINAGE AREA	106.5 SQ. MILES
OVERTOPPING FREQUENCY	N/A
SCOUR CRITICAL CODE	8

CONSULTANT CONTACT

KRISTOFER OLSON
OMNNI ASSOCIATES, INC.
(920) 735-6900

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

THE SLOPE OF FILL AT THE UPSTREAM FACE OF BRIDGE AND THE CHANNEL BOTTOM INSIDE THE COFFERDAM SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR' TO THE EXTENT SHOWN ON THIS SHEET.

THIS BRIDGE WILL REPLACE THE EXISTING CAST IN PLACE CONCRETE GIRDER BRIDGE SUPPORTED ON CONCRETE RETAINING ABUTMENTS. THE STRUCTURE WAS BUILT IN 1926.

AT THE BACKFACE OF ABUTMENTS, ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

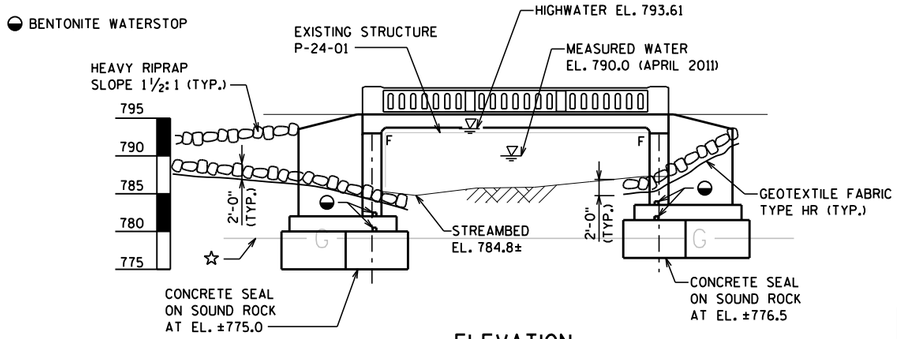
PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF SLAB AND ROADSIDE FACE AND TOP OF CONCRETE PARAPET.

THE NORMAL WATER LEVEL MAINTAINED BY THE LOWER GREEN LAKE DAM IS BETWEEN 789.6 AND 789.85.

INFORMATION ON THESE DRAWINGS RELATED TO THE EXISTING BRIDGE IS BASED UPON AVAILABLE DRAWINGS FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION. NO GUARANTY OR WARRANTY IS MADE THAT THE INFORMATION IS ALL INCLUSIVE OR TOTALLY ACCURATE. THEREFORE, THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF THE ACTUAL CONDITIONS TO BE ENCOUNTERED.

COFFERDAM SHALL EXTEND TO BEDROCK AND SHALL BE INSTALLED USING VIBRATORY EQUIPMENT. DIFFICULT DRIVING ANTICIPATED DUE TO PRESENCE OF COBBLES AND BOULDERS. A CLAY LINER MAY BE REQUIRED TO SEAL COFFERDAM (INCIDENTAL TO COFFERDAM CONSTRUCTION).

STATE PROJECT NUMBER
1430-00-78



ELEVATION

☆ GAS LINE TO BE RELOCATED FURTHER SOUTH PRIOR TO CONSTRUCTION. 4" PLASTIC LINE TO BE ABANDONED IN PLACE.

BENCH MARKS (NAVD 88)

NO.	DESCRIPTION	ELEV.
1	60D SPIKE IN PP# 16-13-16.4 2ND POLE WEST OF BRIDGE STA 77+43.5, 25'± RT	796.70
2	60D SPIKE IN PP# 16-13-16.4 1ST POLE WEST OF BRIDGE STA 79+11.6, 26'± RT	793.53
3	60D SPIKE IN PP# 16-13-15.3 180'± EAST OF BRIDGE STA 81+75.7, 79'± LT	798.17

LIST OF DRAWINGS

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STA 80+00)	LS	---	---	---	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-24-40)	LS	---	---	---	1
206.5000	COFFER DAMS (B-24-40)	LS	---	---	---	1
210.0100	BACKFILL STRUCTURE	CY	---	280	260	540
502.0100	CONCRETE MASONRY BRIDGES	CY	84.5	42.5	38.0	165
502.1100	CONCRETE MASONRY SEAL	CY	---	144	144	288
502.3200	PROTECTIVE SURFACE TREATMENT	SY	200	---	---	200
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	---	2300	2100	4,400
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	14600	890	790	16,280
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	9	8	17
606.0300	RIPRAP HEAVY	CY	---	70	25	95
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	4	---	---	4
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	---	100	35	135
SPV.0090.01	BENTONITE WATERSTOP	LF	---	109	108	217
SPV.0090.02	PARAPET CONCRETE TYPE 'TX'	LF	81	---	---	81
	NON-BID ITEMS					
	FILLER	SIZE	——	½"	¾"	1½"

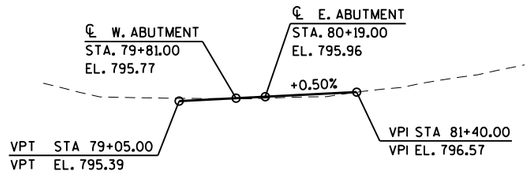
TRAFFIC DATA

ADT = 800 (2013)
1,000 (2033)
RDS = 35 M.P.H.

CURVE DATA

LAWSON DRIVE

P.I. = STA 81+76.89
△ = 38°39'12"
T = 173.61
L = 333.94
R = 495.00
S.E. = 3.9%
P.C. = STA 80+03.29
P.T. = STA 83+37.23



PROFILE GRADE LINE

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
OMNNI ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 10/24/12
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-24-40

LAWSON DR OVER PUCHYAN RIVER

COUNTY	TOWN
GREEN LAKE	BROOKLYN

DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 4th EDITION — LOAD HL-93

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KRO	JAW	BRE	KRO

GENERAL PLAN

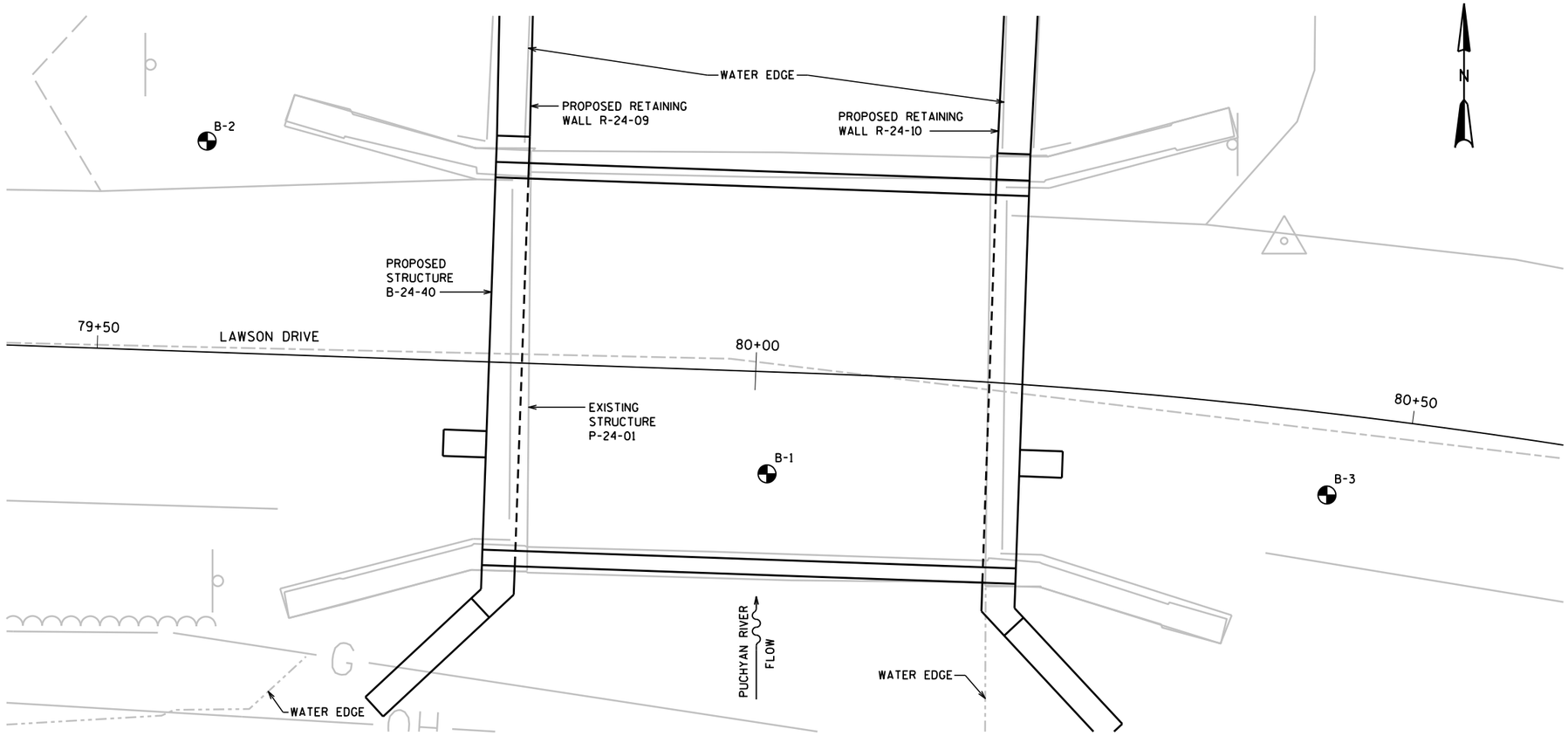
SHEET 1 OF 6

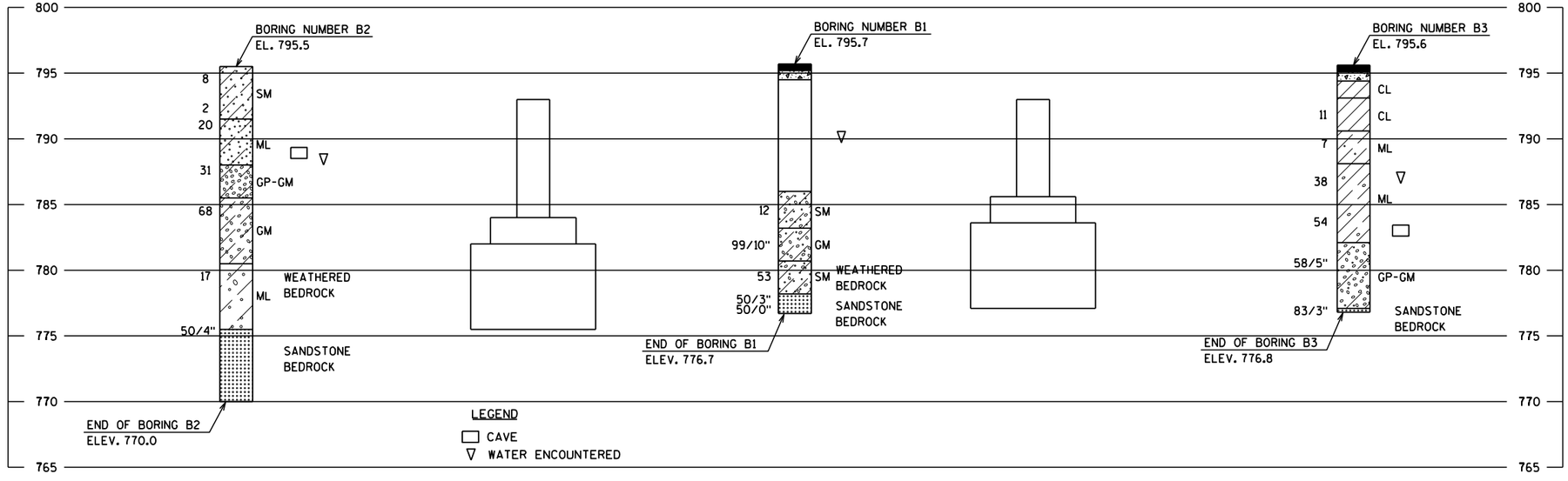
46

8

8

STATE PROJECT NUMBER
1430-00-78





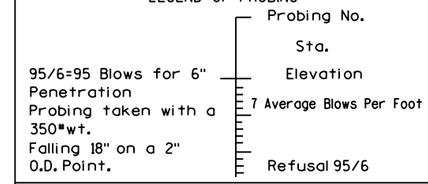
ABBREVIATIONS

F — Fine M — Medium C — Coarse
Ws — Weathered So — Sound

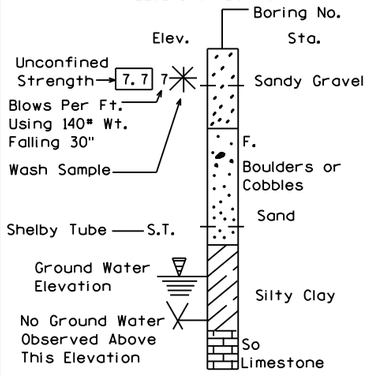
MATERIAL SYMBOLS

Topsoil, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rock

LEGEND OF PROBING



LEGEND OF BORING



Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 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 Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-24-40

DRAWN BY BRE | PLANS CK'D. KRO

SUBSURFACE EXPLORATION

SHEET 2 OF 6

8

8

FILE NAME : F:±TR±JOBS±E1983A11±Sheets±Bridge±B-24-40 02 sub explr.dgn PLOT BY : epleyb PLOT DATE: 10/22/2012 3:18:09 PM

STATE PROJECT NUMBER
1430-00-78

NOTES

☆ OPTIONAL KEYED CONST. JOINT - FORMED BY A BEVELED 2" X 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

◆ A508 BARS @ 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

◭ KEYED CONST. JOINT - FORMED BY A BEVELED 2" X 6".

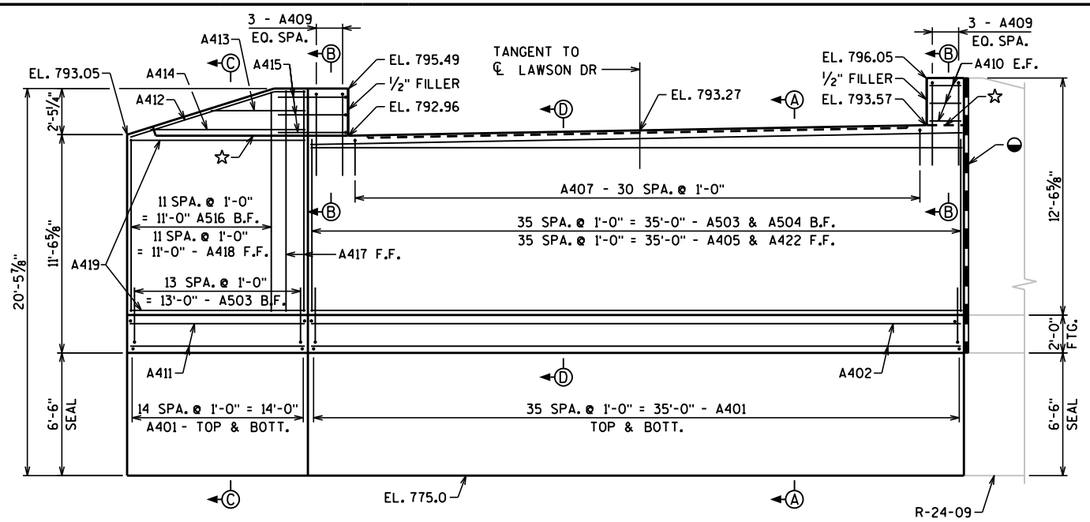
▬ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◒ BENTONITE WATERSTOP - TO BE PLACED AT BASE OF ABUTMENT BODY AND WINGWALL, AND BETWEEN ABUTMENT BODY AND RETAINING WALL R-24-9 FROM TOP OF SEAL TO TOP OF RETAINING WALL.

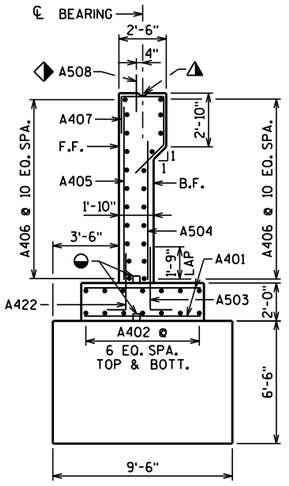
(X) DENOTES WING NUMBER

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. 1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

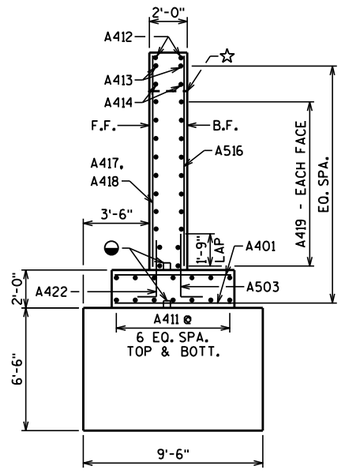
THE ABUTMENT FOOTINGS TO BE SUPPORTED ON SPREAD FOOTINGS WITH A MINIMUM ALLOWABLE ROCK BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.



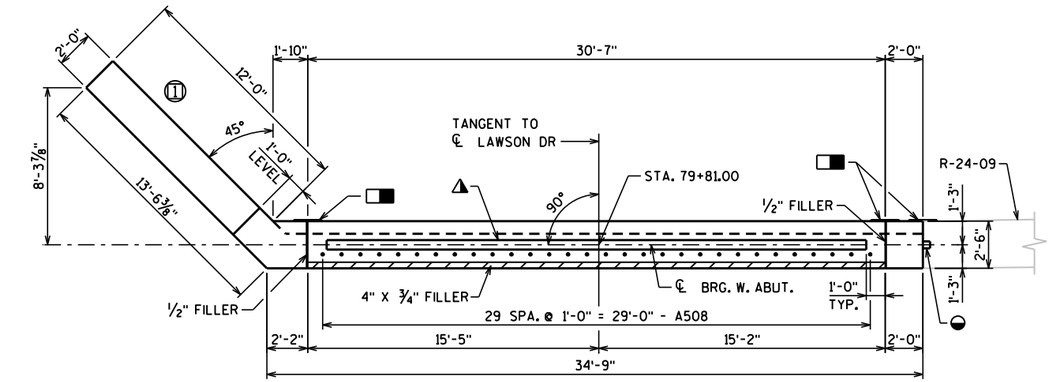
ELEVATION
(LOOKING WEST)



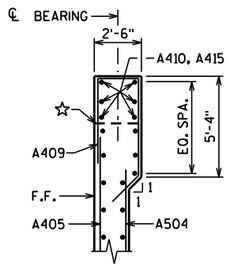
SECTION A-A



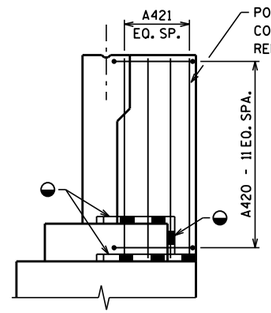
SECTION C-C



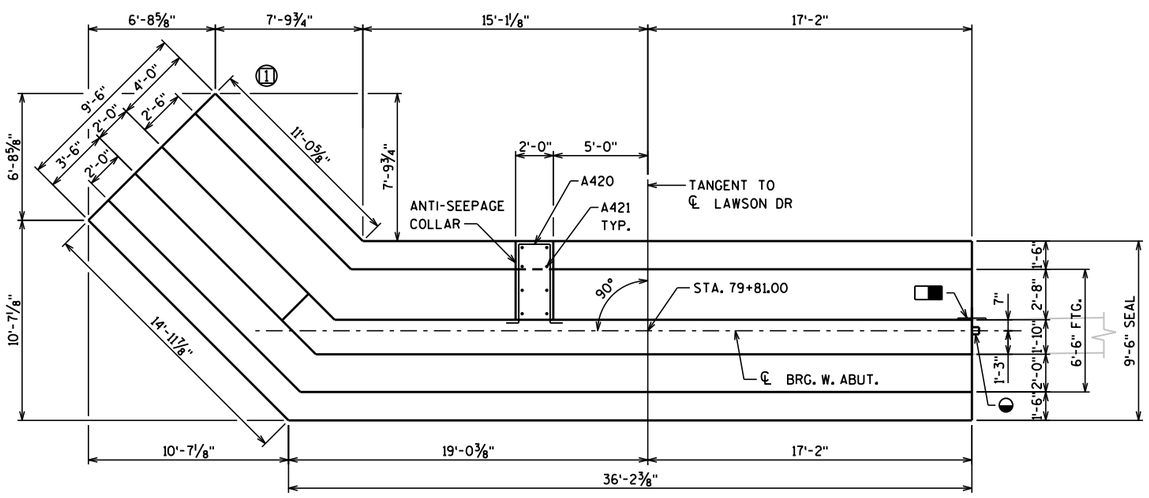
PLAN



SECTION B-B



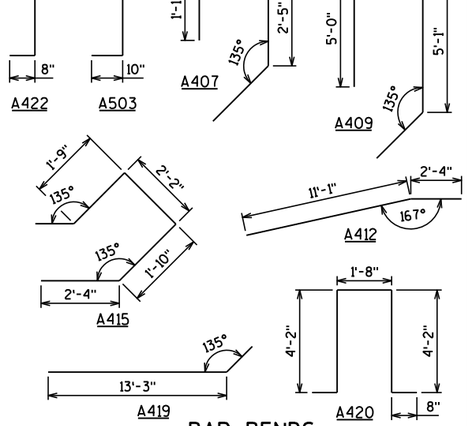
SECTION D-D
AT ANTI-SEEPAGE COLLAR



FOOTING LAYOUT

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
A401		102	6'-2"			FOOTING - HORIZONTAL
A402		14	35'-10"			FOOTING - HORIZONTAL
A503		50	4'-5"		X	FOOTING DOWEL
A504		36	7'-6"			BODY - VERTICAL, B.F.
A405		36	9'-2"			BODY - VERTICAL, F.F.
A406		22	34'-5"			BODY - HORIZONTAL, F.F, B.F.
A407		31	8'-2"		X	BODY - VERTICAL, TOP
A508	X	30	2'-0"			BODY - VERTICAL DOWEL
A409	X	6	13'-11"		X	BODY - VERTICAL, TOP
A410	X	6	1'-8"			BODY - HORIZONTAL, TOP
A411		14	14'-8"			FOOTING - HORIZONTAL
A412	X	2	13'-5"		X	WING 1 - HORIZONTAL, TOP
A413	X	2	6'-10"			WING 1 - HORIZONTAL
A414	X	2	11'-4"			WING 1 - HORIZONTAL
A415	X	3	8'-9"		X	WING 1 - HORIZONTAL, TOP
A516	X	12	10'-5"	△		WING 1 - VERTICAL
A417	X	2	11'-8"			WING 1 - VERTICAL
A418	X	12	10'-5"	△		WING 1 - VERTICAL
A419	X	20	15'-4"		X	WING 1 - HORIZONTAL
A420	X	12	11'-0"		X	ANTI-SEEPAGE COLLAR
A421	X	8	11'-5"			ANTI-SEEPAGE COLLAR
A422	X	48	3'-11"		X	FOOTING DOWEL



BAR BENDS

BAR SERIES

BAR MARK	NO. REQ'D.	LENGTH
A516	1 SERIES OF 12	9'-2" TO 11'-8"
A418	1 SERIES OF 12	9'-2" TO 11'-8"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-24-40

DRAWN BY BRE | PLANS CK'D. KRO

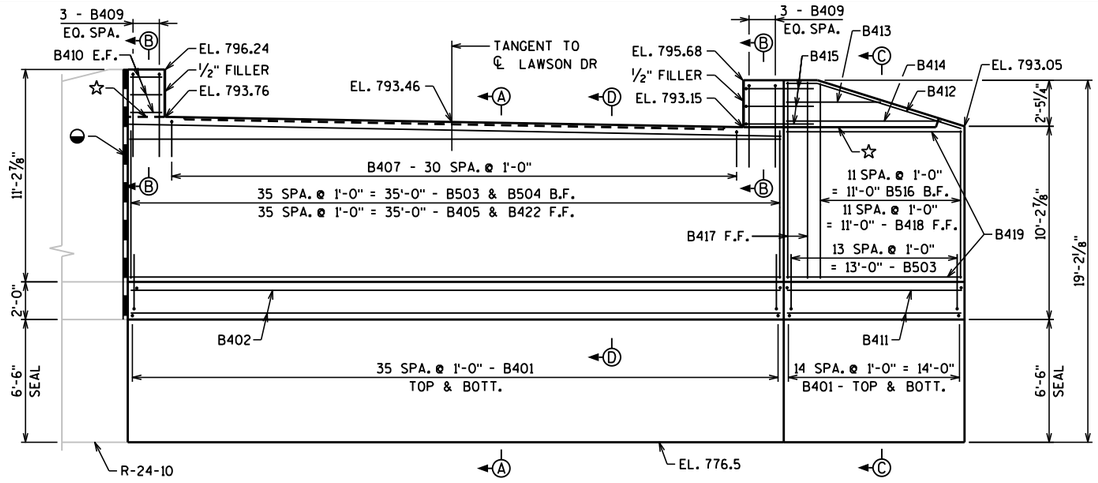
WEST ABUTMENT

SHEET 3 OF 6

48

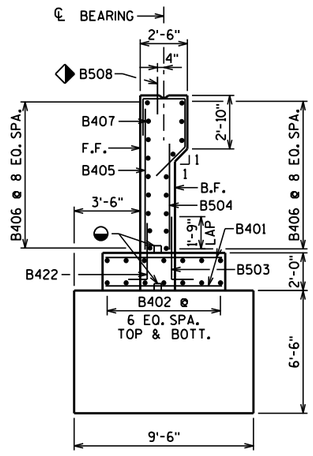
8

8

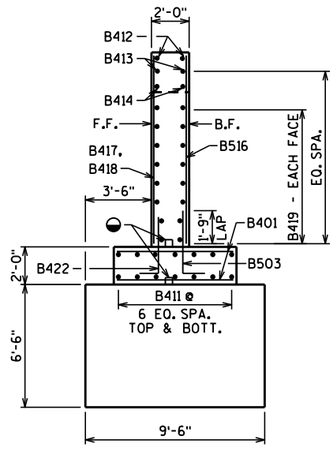


ELEVATION

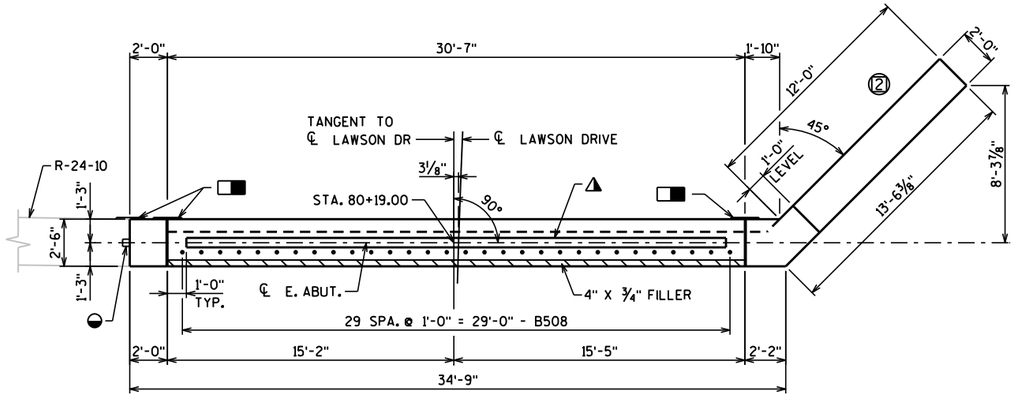
(LOOKING EAST)



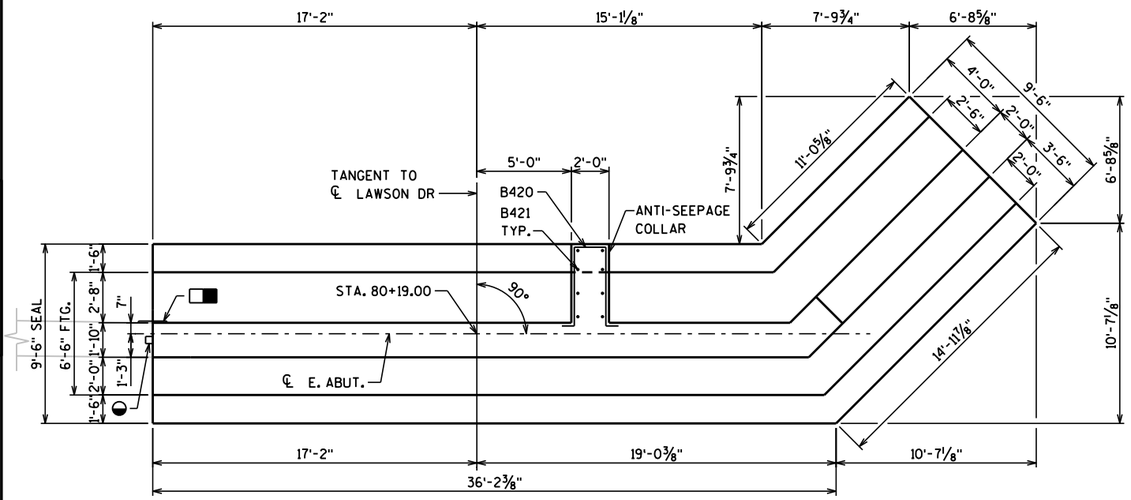
SECTION A-A



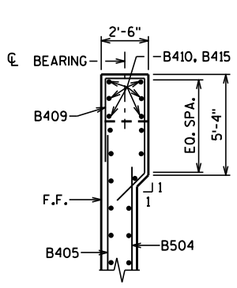
SECTION C-C



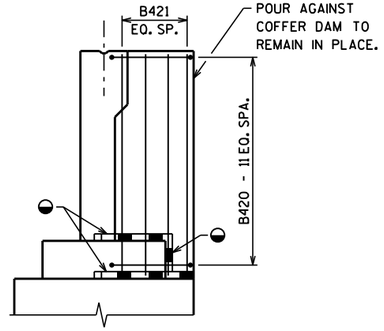
PLAN



FOOTING LAYOUT



SECTION B-B



SECTION D-D

AT ANTI-SEEPAGE COLLAR

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
B401		102	6'-2"			FOOTING - HORIZONTAL
B402		14	35'-10"			FOOTING - HORIZONTAL
B503		50	4'-5"		X	FOOTING DOWEL
B504		36	5'-9"			BODY - VERTICAL, B.F.
B405		36	7'-10"			BODY - VERTICAL, F.F.
B406		18	34'-5"			BODY - HORIZONTAL, F.F, B.F.
B407		31	8'-2"		X	BODY - VERTICAL, TOP
B508	X	30	2'-0"			BODY - VERTICAL DOWEL
B409	X	6	13'-11"		X	BODY - VERTICAL, TOP
B410	X	6	1'-8"			BODY - HORIZONTAL, TOP
B411		14	14'-0"			FOOTING - HORIZONTAL
B412	X	2	13'-5"		X	WING 2 - HORIZONTAL, TOP
B413	X	2	6'-10"			WING 2 - HORIZONTAL
B414	X	2	11'-4"			WING 2 - HORIZONTAL
B415	X	3	8'-9"		X	WING 2 - HORIZONTAL, TOP
B516	X	12	9'-1"	△		WING 2 - VERTICAL
B417	X	2	10'-4"			WING 2 - VERTICAL
B418	X	12	9'-1"	△		WING 2 - VERTICAL
B419	X	16	13'-2"		X	WING 2 - HORIZONTAL
B420	X	12	11'-0"		X	ANTI-SEEPAGE COLLAR
B421	X	8	9'-11"			ANTI-SEEPAGE COLLAR
B422	X	48	3'-11"		X	FOOTING DOWEL

NOTES

☆ OPTIONAL KEYED CONST. JOINT - FORMED BY A BEVELED 2" X 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

◆ B508 BARS @ 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

◭ KEYED CONST. JOINT - FORMED BY A BEVELED 2" X 6".

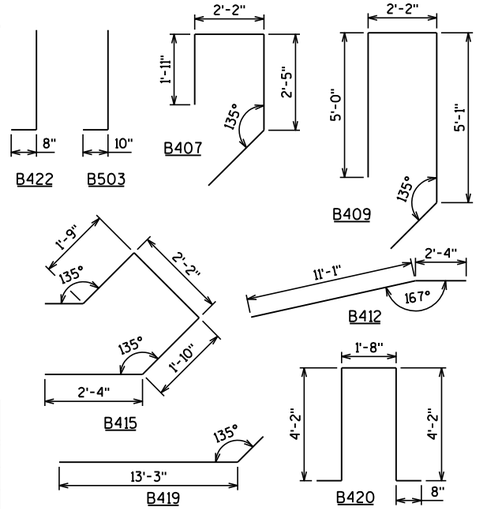
▬ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◒ BENTONITE WATERSTOP - TO BE PLACED AT BASE OF ABUTMENT BODY AND WINGWALL, AND BETWEEN ABUTMENT BODY AND RETAINING WALL R-24-9 FROM TOP OF SEAL TO TOP OF RETAINING WALL.

Ⓧ DENOTES WING NUMBER

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. 1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.

THE ABUTMENT FOOTINGS TO BE SUPPORTED ON SPREAD FOOTINGS WITH A MINIMUM ALLOWABLE ROCK BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.



BAR BENDS

BAR SERIES

BAR MARK	NO. REQ'D.	LENGTH
B516	1 SERIES OF 12	7'-11" TO 10'-3"
B418	1 SERIES OF 12	7'-11" TO 10'-3"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-24-40

DRAWN BY BRE | PLANS CK'D. KRO

EAST ABUTMENT

SHEET 4 OF 6

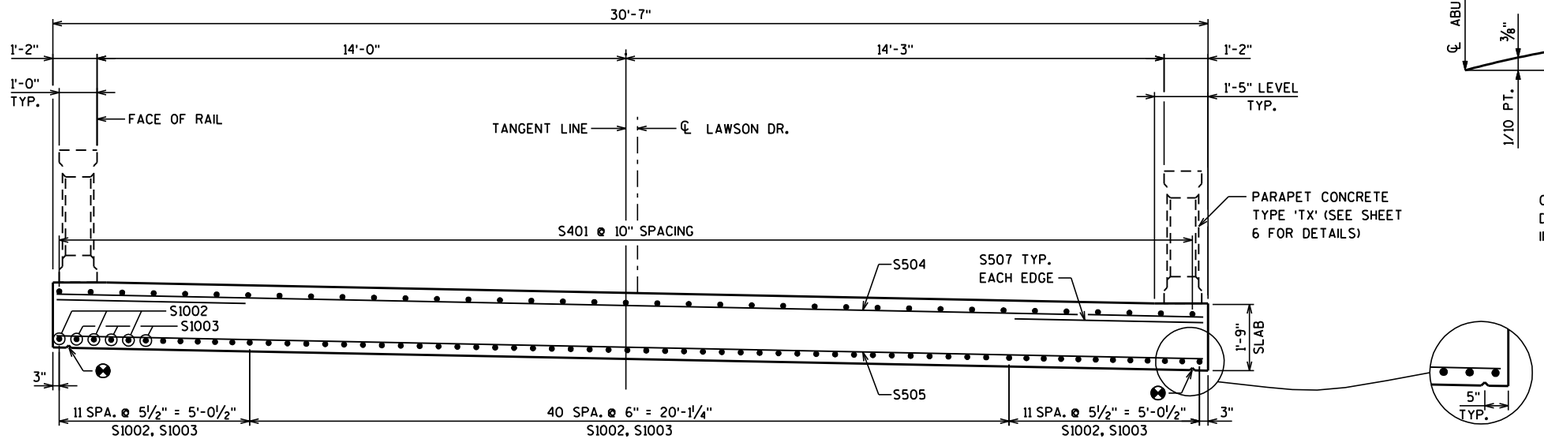
49

STATE PROJECT NUMBER
1430-00-78

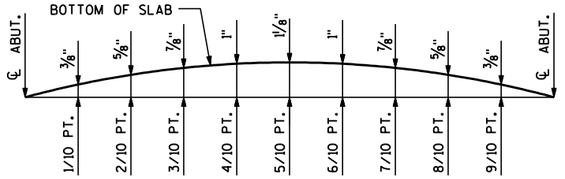
8

8

STATE PROJECT NUMBER
1430-00-78



CROSS SECTION THRU ROADWAY

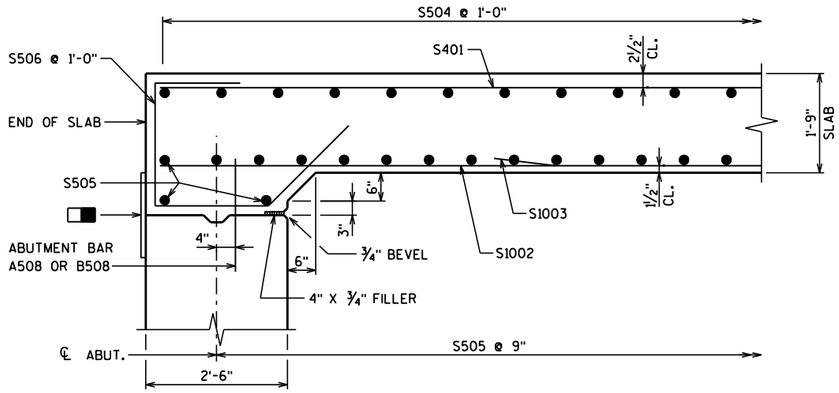


CAMBER DIAGRAM

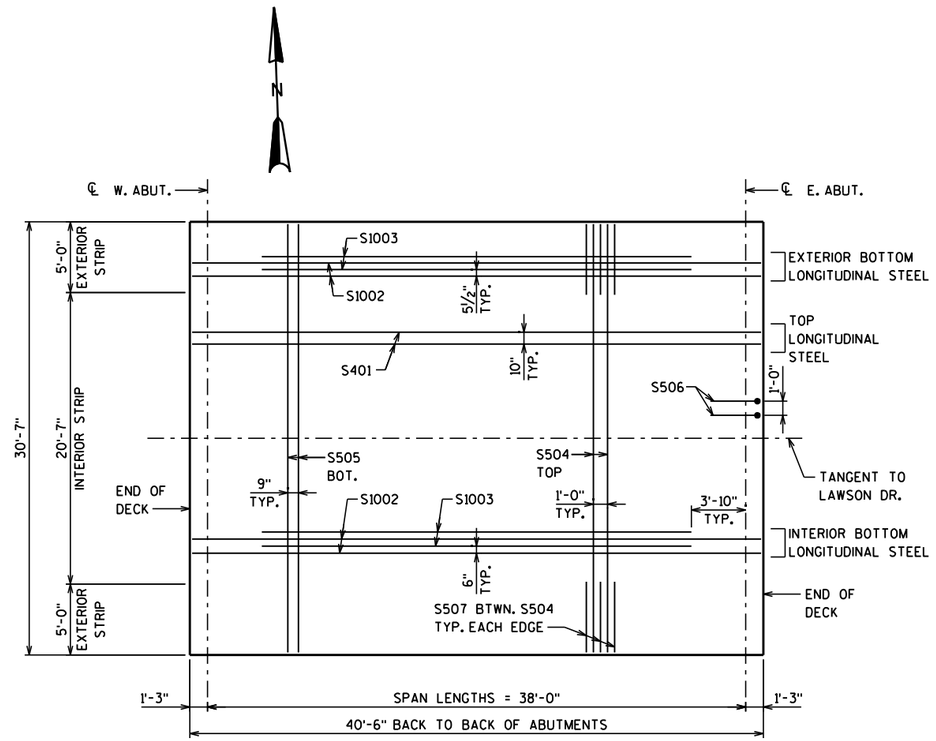
CAMBER SPAN AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

BILL OF BARS

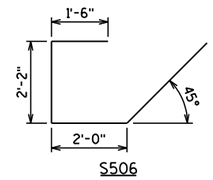
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S401	X	38	40'-0"		LONGITUDINAL TOP
S1002	X	32	40'-0"		LONGITUDINAL BOTTOM
S1003	X	31	30'-4"		LONGITUDINAL BOTTOM
S504	X	41	30'-3"		TRANSVERSE TOP
S505	X	58	30'-3"		TRANSVERSE BOTTOM
S506	X	62	7'-6"	X	AT END OF SLAB
S507	X	80	5'-0"		TRANSVERSE TOP BELOW PARAPETS



LONG. SECTION THRU RDWY.



PLAN



BAR BEND DIAGRAMS

TOP OF DECK ELEVATIONS

LOCATION	W.ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E.ABUT.
N. EDGE	796.05	796.07	796.09	796.11	796.13	796.15	796.17	796.19	796.20	796.22	796.24
C/L	795.77	795.79	795.81	795.83	795.85	795.87	795.89	795.91	795.92	795.94	795.96
S. EDGE	795.49	795.51	795.53	795.54	795.56	795.58	795.60	795.62	795.64	795.66	795.68

NOTES

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE C/L OF SUBSTRUCTURE UNITS.

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

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

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

▬ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

⊗ ¾" V-GROOVE. EXTEND V-GROOVE TO THE FILLET ADJACENT TO THE ABUTMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-24-40

DRAWN BY BRE | PLANS CK'D. KRO

SUPERSTRUCTURE

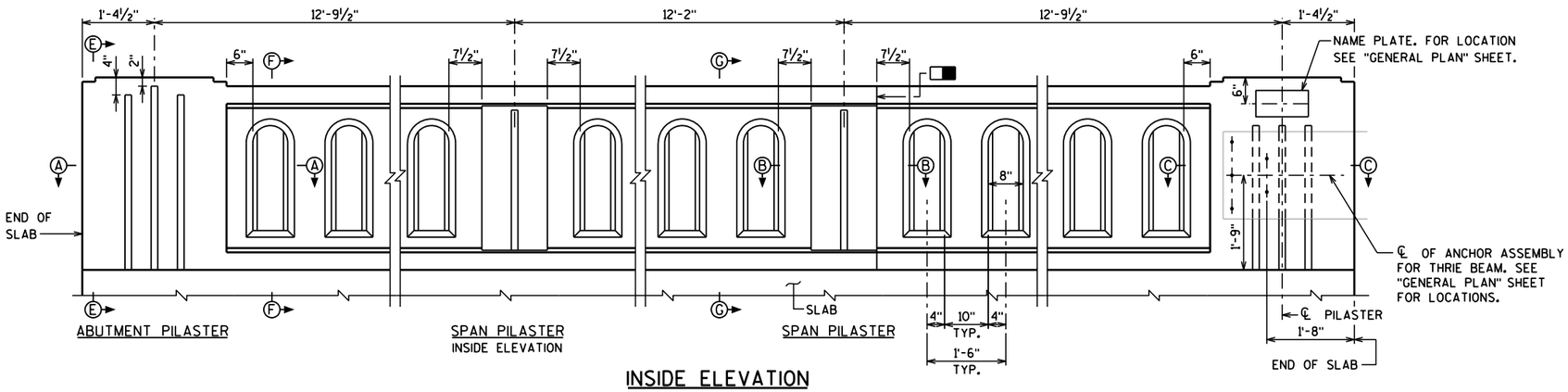
SHEET 5 OF 6

50

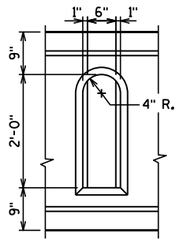
8

8

STATE PROJECT NUMBER
1430-00-78



INSIDE ELEVATION



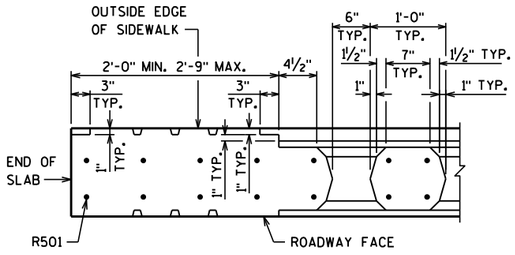
WINDOW DETAILS

NOTES

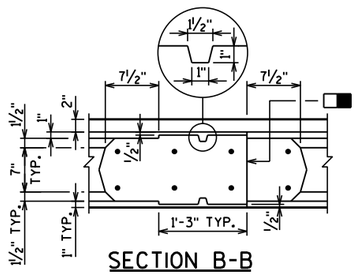
BID ITEM SHALL BE "PARAPET CONCRETE TYPE 'TX'", WHICH SHALL INCLUDE ALL ITEMS SHOWN.

◐ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

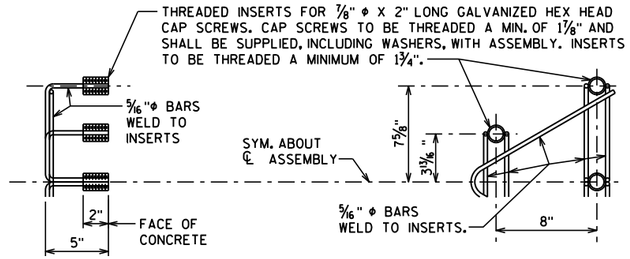
◨ OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9" (#5 BARS), 2'-7" (#7 BARS).



SECTION A-A



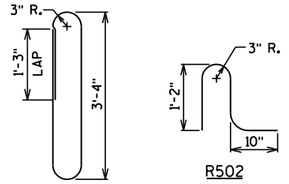
SECTION B-B



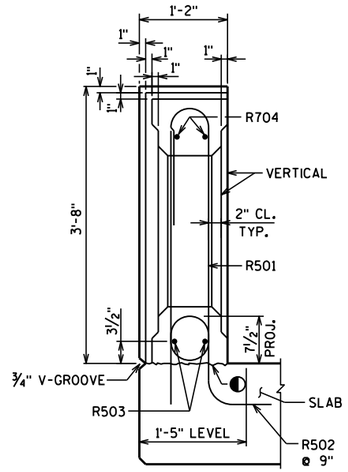
DETAIL OF ANCHOR ASEMBLY

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

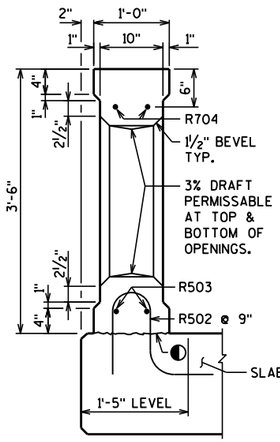
ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLY FOR STEEL PLATE BEAM GUARD", EACH.



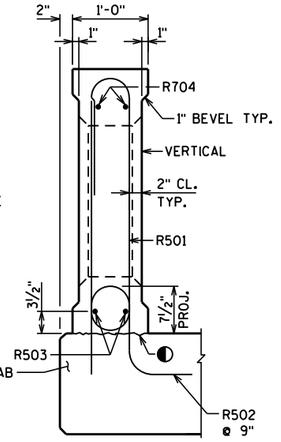
R501 R502



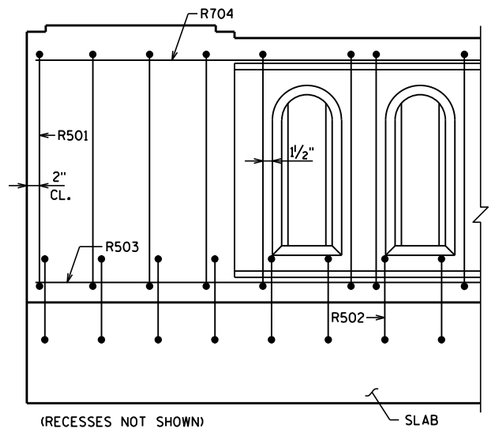
SECTION E-E



SECTION F-F



SECTION G-G



ON BRIDGE

OUTSIDE ELEVATION SHOWING TYPICAL REINFORCEMENT PLACEMENT

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
R501	X	108	8'-6"	X	PARAPET VERTICAL
R502	X	108	3'-4"	X	PARAPET VERTICAL
R503	X	4	40'-2"		PARAPET HORIZ. BOTT.
R704	X	4	40'-2"		PARAPET HORIZ. TOP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-24-40

DRAWN BY BRE | PLANS CK'D. KRO

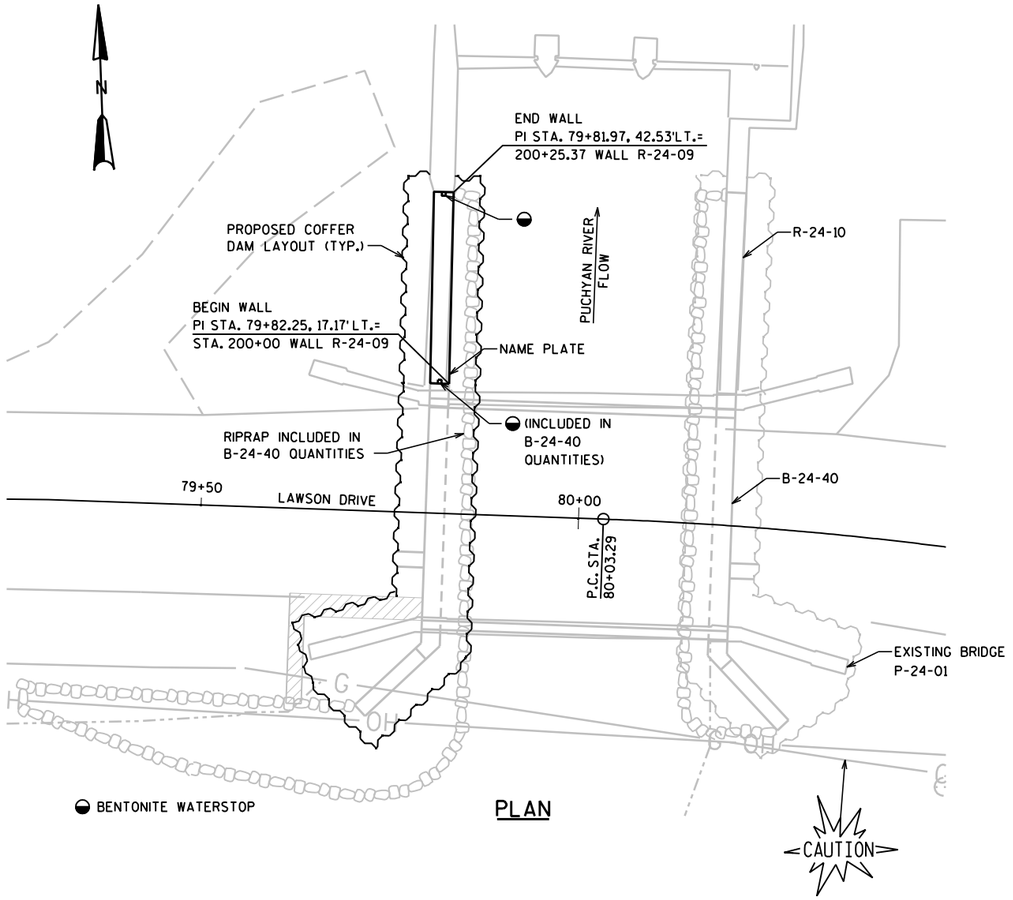
VERTICAL FACE PARAPET 'TX'

SHEET 6 OF 6

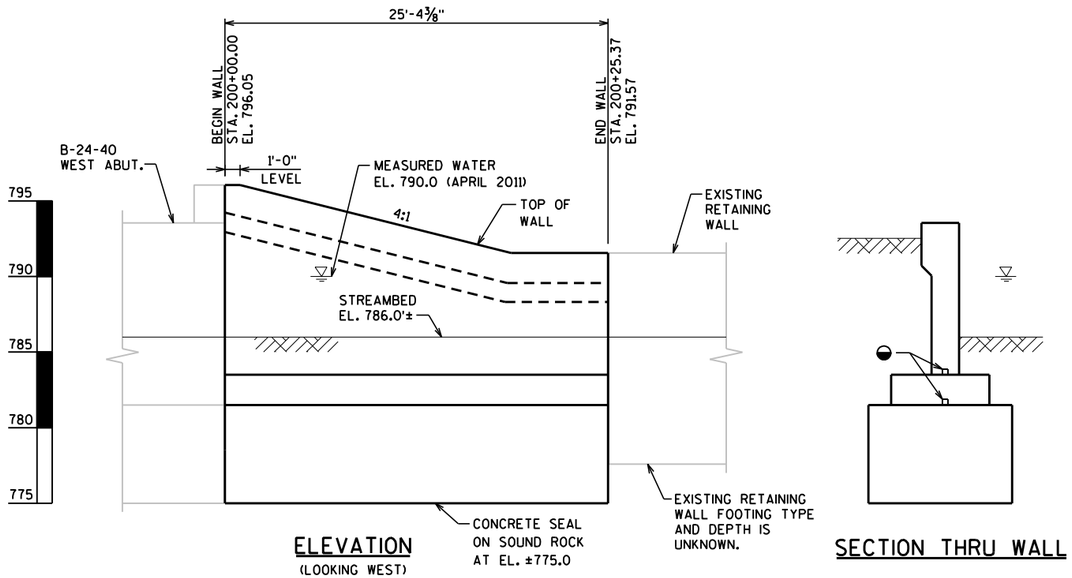
8

8

FILE NAME : F:±TR±JOBS±E1983A11±Sheets±Bridge±B-24-40 06 parapet.dgn PLOT BY : epleyb PLOT DATE: 10/22/2012 3:18:12 PM



PLAN



ELEVATION
(LOOKING WEST)

SECTION THRU WALL

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (TRAFFIC) —— 240 P.S.F.

MATERIAL PROPERTIES

CONCRETE MASONRY —— f'c = 3,500 psi

HIGH STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 —— fy = 60,000 psi

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

CONSULTANT CONTACT

OMNNI ASSOCIATES
KRISTOFER OLSON
(920) 735-6900

CURVE DATA

LAWSON DRIVE

P.I. = STA 81+76.89
△ = 38°39'12"
T = 173.61
L = 333.94
R = 495.00
S.E. = 3.9%
P.C. = STA 80+03.29
P.T. = STA 83+37.23

LIST OF DRAWINGS

1. GENERAL PLAN
2. SUBSURFACE EXPLORATION
3. WALL DETAILS

BENCH MARKS

NO.	DESCRIPTION	ELEV.
1	60D SPIKE IN PP* 16-13-16.4 2ND POLE WEST OF BRIDGE STA 77+43.5, 25'± RT	796.70
2	60D SPIKE IN PP* 16-13-16.4 1ST POLE WEST OF BRIDGE STA 79+11.6, 26'± RT	793.53
3	60D SPIKE IN PP* 16-13-15.3 180'± EAST OF BRIDGE STA 81+75.7, 79'± LT	798.17

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	QUANT.
203.0200	REMOVING OLD STRUCTURE (STA 200+10)	LS	1
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALL (R-24-09)	LS	1
206.5000	COFFER DAMS (R-24-09)	LS	1
210.0100	BACKFILL STRUCTURE	CY	48
502.1100	CONCRETE MASONRY SEAL	CY	58
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	31
505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	450
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	1060
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
SPV.0090.01	BENTONITE WATERSTOP	LF	61
	NON-BID ITEMS		
	NAME PLATE		

STATE PROJECT NUMBER
1430-00-78

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURE.

LENGTH OF RETAINING WALL IS MEASURED ALONG THE FRONT FACE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

BACKFILL THE FRONT FACE OF WALLS BEFORE THE BACK FACE.

WALL GEOMETRY AND OFFSETS ARE MEASURED TO THE FRONT FACE OF RETAINING WALL.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK INDICATE THE SIZE OF BAR.

THERE ARE NO PLANS FOR THE EXISTING RETAINING WALL. THE WALL IS ASSUMED TO BE A GRAVITY RETAINING WALL ON SPREAD FOOTINGS. CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS.

COFFERDAM SHALL EXTEND TO BEDROCK AND SHALL BE INSTALLED USING VIBRATORY EQUIPMENT. DIFFICULT DRIVING ANTICIPATED DUE TO PRESENCE OF COBBLES AND BOULDERS. A CLAY LINER MAY BE REQUIRED TO SEAL COFFERDAM (INCIDENTAL TO COFFERDAM CONSTRUCTION).

FOUNDATION DATA

RETWINING WALLS TO BE SUPPORTED ON SPREAD FOOTINGS ON SOUND BEDROCK WITH A MINIMUM BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.

WISCONSIN
KRISTOFER R. OLSON
E-35236
APPLETON, WI
PROFESSIONAL ENGINEER

Kristofer Olson

10/23/12

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
OMNNI ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR — 11/06/12
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-24-09

LAWSON DR OVER PUCHYAN RIVER

COUNTY	TOWN
GREEN LAKE	BROOKLYN
DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 4th EDITION	LOAD HL-93
DESIGNED BY KRO / DESIGN CK'D. JAW	DRAWN BY BRE / PLANS CK'D. KRO

GENERAL PLAN

SHEET 1 OF 3

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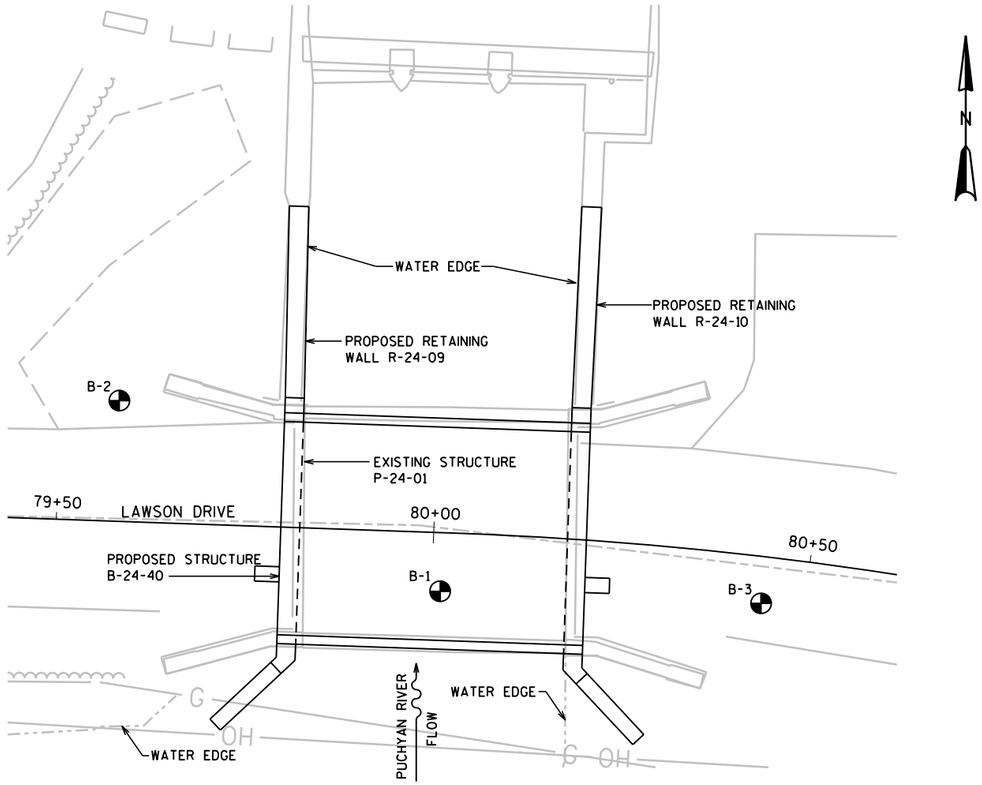
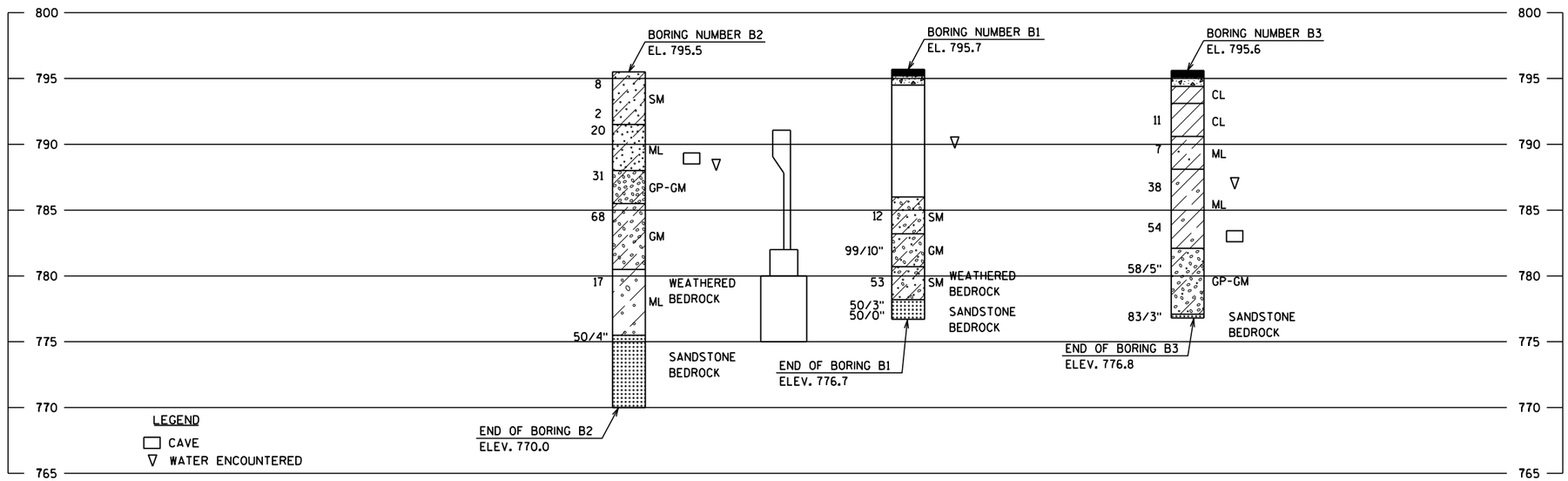
8

8

STATE PROJECT NUMBER
1430-00-78





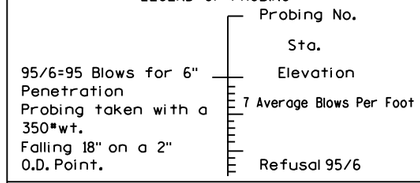
ABBREVIATIONS

F — Fine M — Medium C — Coarse
Ws — Weathered So — Sound

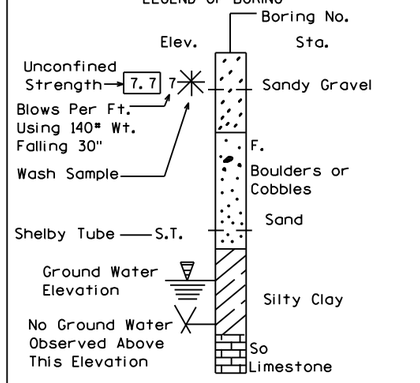
MATERIAL SYMBOLS

Topsoil, Sand, Gravel, Silt, Peat, Clay, Sandstone, Limestone, Igneous Rock

LEGEND OF PROBING



LEGEND OF BORING



Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 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 Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-24-09

DRAWN BY BRE | PLANS CK'D. KRO

SUBSURFACE EXPLORATION

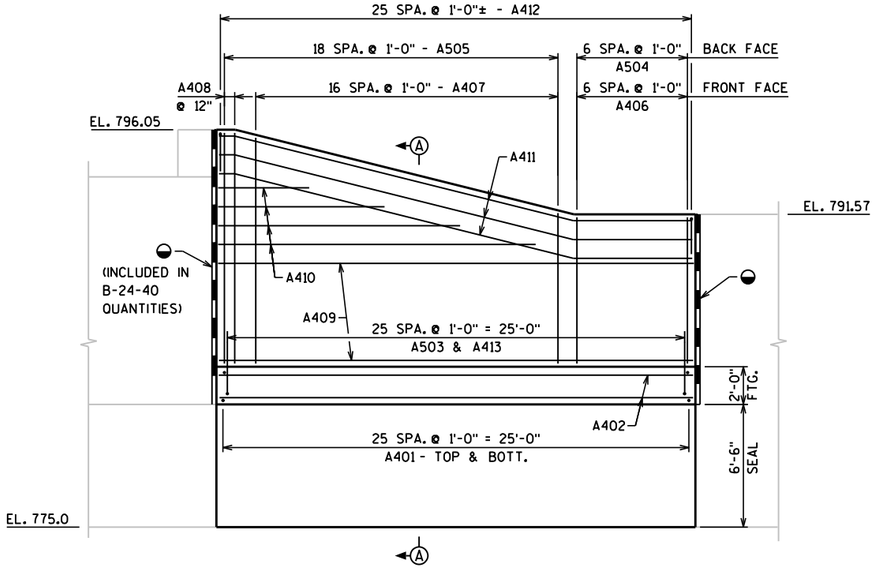
SHEET 2 OF 3

53

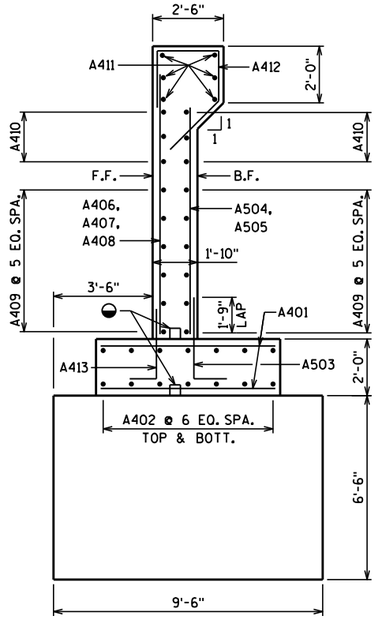
8

8

STATE PROJECT NUMBER
1430-00-78



ELEVATION
(LOOKING WEST)

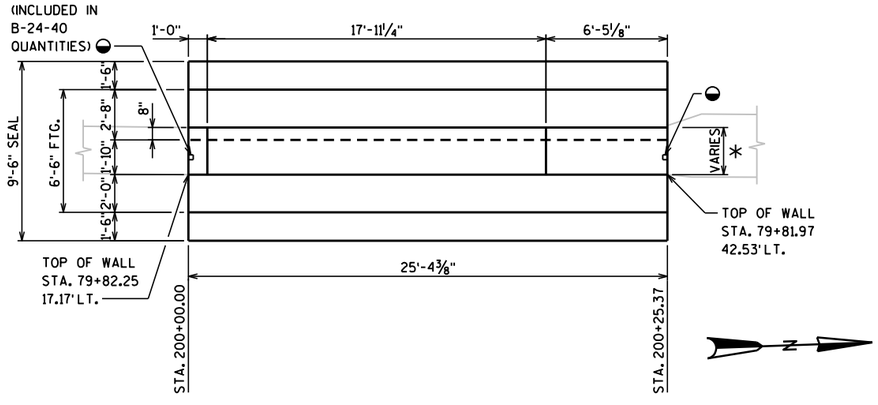


SECTION A-A

NOTES

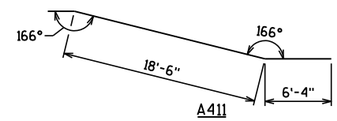
THE RETAINING WALL FOOTINGS TO BE SUPPORTED ON SPREAD FOOTINGS WITH A MINIMUM ALLOWABLE ROCK BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.

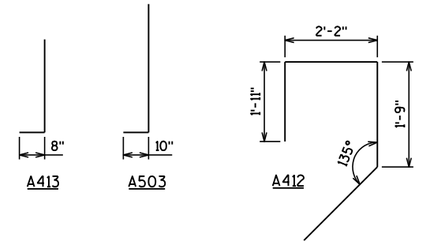
◒ BENTONITE WATERSTOP



PLAN

* WIDTH AT TOP OF WALL TO MATCH EXISTING RETAINING WALL.





BAR BENDS

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
A401		52	6'-2"			FOOTING - HORIZONTAL
A402		14	25'-0"			FOOTING - HORIZONTAL
A503	X	26	4'-5"		X	FOOTING DOWEL
A504	X	7	6'-0"			BODY - VERTICAL, B.F.
A505	X	19	8'-5"	△		BODY - VERTICAL, B.F.
A406	X	7	7'-9"			BODY - VERTICAL, F.F.
A407	X	17	9'-11"	△		BODY - VERTICAL, F.F.
A408	X	2	12'-2"			BODY - VERTICAL, F.F.
A409	X	12	25'-0"			BODY - HORIZONTAL
A410	X	8	10'-10"	△		BODY - HORIZONTAL
A411	X	6	25'-7"		X	BODY - HORIZONTAL, TOP
A412	X	26	8'-0"		X	BODY - VERTICAL, TOP
A413	X	26	3'-11"		X	FOOTING DOWEL

BAR SERIES

BAR MARK	NO. REQ'D.	LENGTH
A505	1 SERIES OF 19	6'-1" TO 10'-7"
A407	1 SERIES OF 17	7'-11" TO 11'-11"
A410	2 SERIES OF 4	4'-10" TO 16'-10"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-24-09

DRAWN BY BRE | PLANS CK'D. KRO

WALL DETAILS

SHEET 3 OF 3

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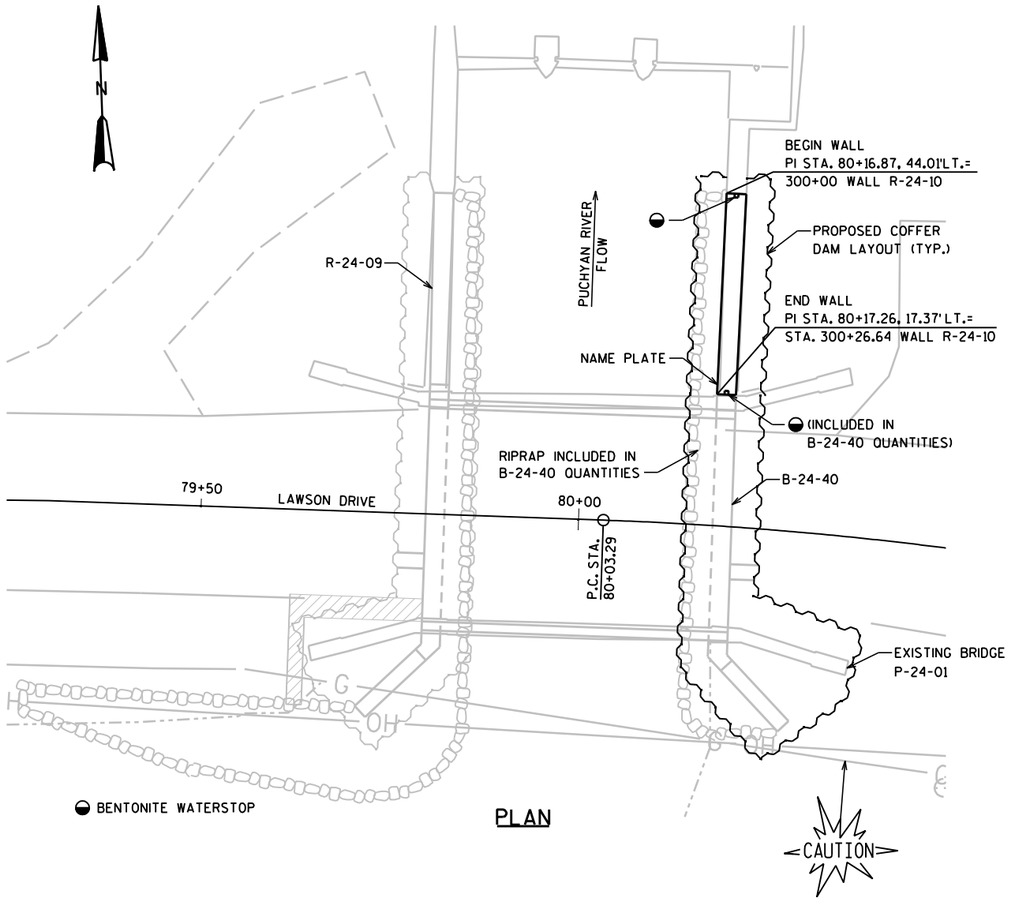
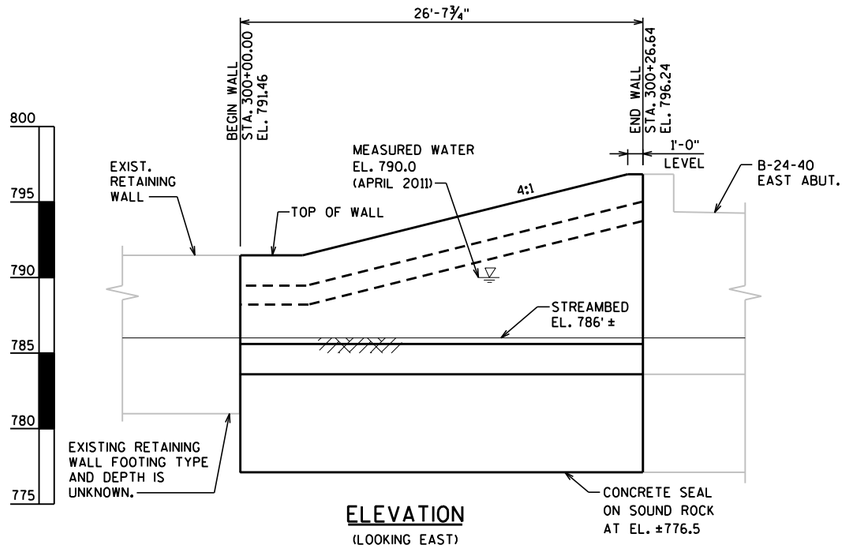
8

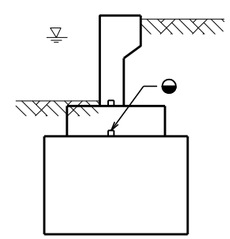
8



PLAN



ELEVATION
(LOOKING EAST)



SECTION THRU WALL

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (TRAFFIC) —— 240 P.S.F.

MATERIAL PROPERTIES

CONCRETE MASONRY —— f'c = 3,500 psi

HIGH STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 —— fy = 60,000 psi

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

CONSULTANT CONTACT

OMNNI ASSOCIATES
KRISTOFER OLSON
(920) 735-6900

CURVE DATA

LAWSON DRIVE

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L = 333.94
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3. WALL DETAILS

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BACKFILL THE FRONT FACE OF WALLS BEFORE THE BACK FACE.

WALL GEOMETRY AND OFFSETS ARE MEASURED TO THE FRONT FACE OF RETAINING WALL.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK INDICATE THE SIZE OF BAR.

THERE ARE NO PLANS FOR THE EXISTING RETAINING WALL. THE WALL IS ASSUMED TO BE A GRAVITY RETAINING WALL ON SPREAD FOOTINGS. CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS.

COFFERDAM SHALL EXTEND TO BEDROCK AND SHALL BE INSTALLED USING VIBRATORY EQUIPMENT. DIFFICULT DRIVING ANTICIPATED DUE TO PRESENCE OF COBBLES AND BOULDERS. A CLAY LINER MAY BE REQUIRED TO SEAL COFFERDAM (INCIDENTAL TO COFFERDAM CONSTRUCTION).

FOUNDATION DATA

RETAINING WALLS TO BE SUPPORTED ON SPREAD FOOTINGS ON SOUND BEDROCK WITH A MINIMUM BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.

WISCONSIN
KRISTOFER R. OLSON
E-35236
APPLETON, WI
PROFESSIONAL ENGINEER

10/23/12

BENCH MARKS

NO.	DESCRIPTION	ELEV.
1	60D SPIKE IN PP* 16-13-16.4 2ND POLE WEST OF BRIDGE STA 77+43.5, 25'± RT	796.70
2	60D SPIKE IN PP* 16-13-16.4 1ST POLE WEST OF BRIDGE STA 79+11.6, 26' ± RT	793.53
3	60D SPIKE IN PP* 16-13-15.3 180'± EAST OF BRIDGE STA 81+75.7, 79' ± LT	798.17

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	QUANT.
203.0200	REMOVING OLD STRUCTURE (STA 300+10)	LS	1
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALL (R-24-10)	LS	1
206.5000	COFFER DAMS (R-24-10)	LS	1
210.0100	BACKFILL STRUCTURE	CY	43
502.1100	CONCRETE MASONRY SEAL	CY	61
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	29
505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	460
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	1030
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
SPV.0090.01	BENTONITE WATERSTOP	LF	62
	NON-BID ITEMS		
	NAME PLATE		

STATE PROJECT NUMBER
1430-00-78

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
OMNI ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 11/06/12
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-24-10

LAWSON DR OVER PUCHYAN RIVER

COUNTY	TOWN
GREEN LAKE	BROOKLYN

DESIGN SPEC.	LOAD
AASHTO LRFD DESIGN SPEC. 4th EDITION	HL-93

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KRO	JAW	BRE	KRO

GENERAL PLAN

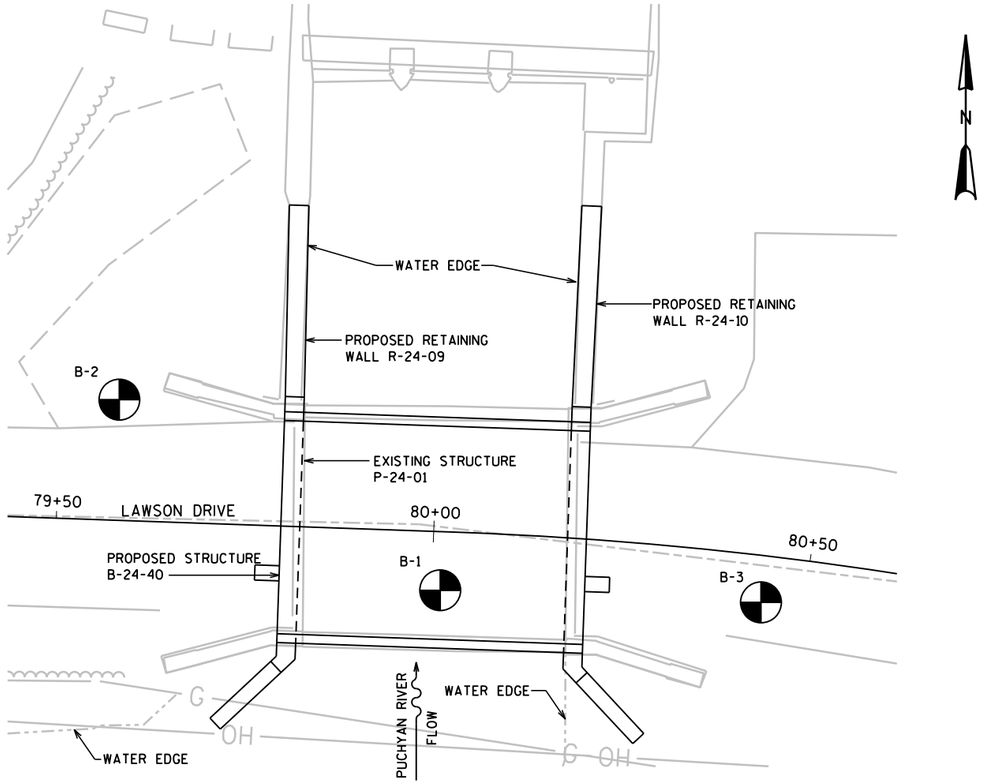
SHEET 1 OF 3

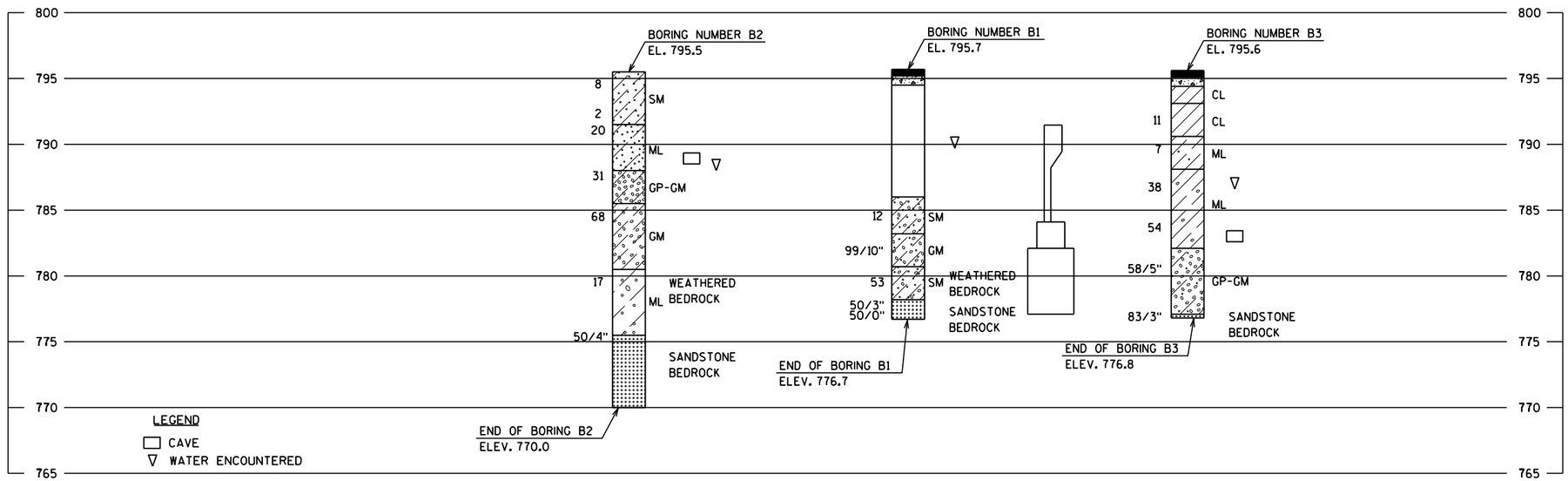
55

8

8

STATE PROJECT NUMBER
1430-00-78





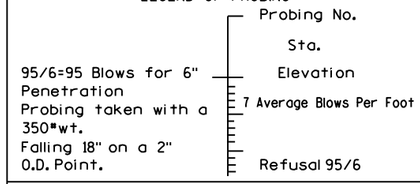
ABBREVIATIONS

F — Fine M — Medium C — Coarse
Ws — Weathered So — Sound

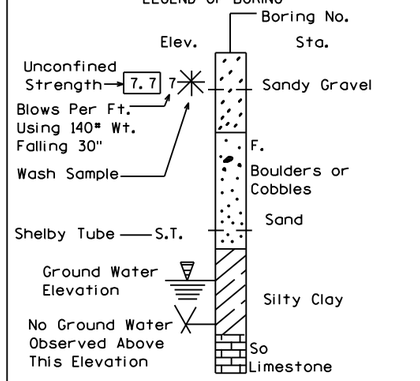
MATERIAL SYMBOLS

Topsoil, Sand, Gravel, Silt, Peat, Clay, Sandstone, Limestone, Igneous Rock

LEGEND OF PROBING



LEGEND OF BORING



Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 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 Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-24-10

DRAWN BY BRE | PLANS CK'D. KRO

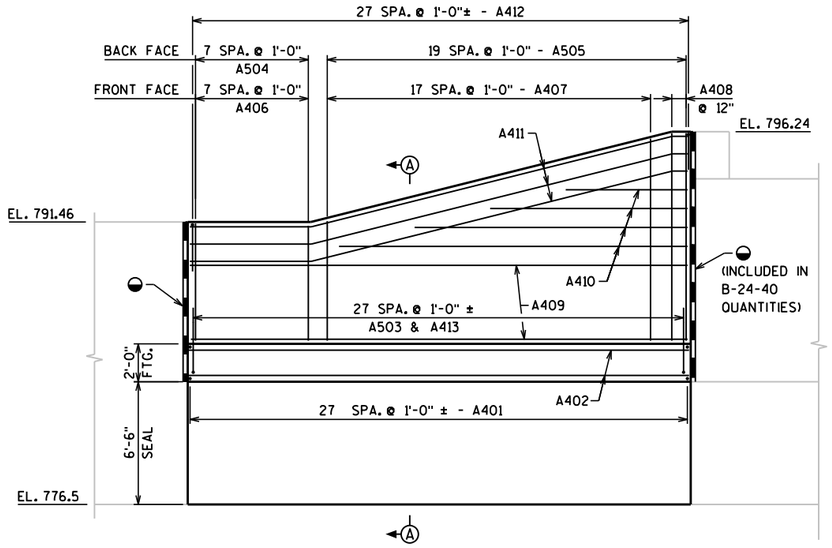
SUBSURFACE EXPLORATION

SHEET 2 OF 3

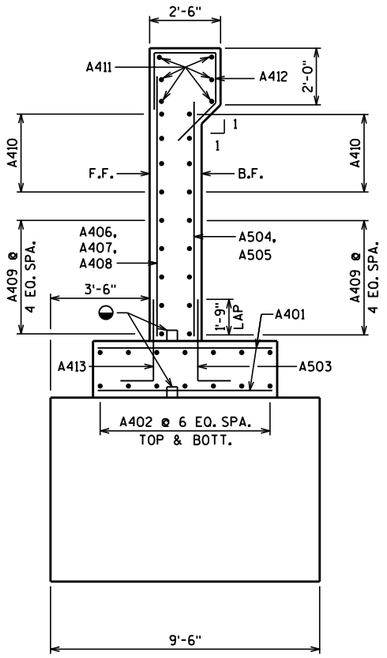
56

8

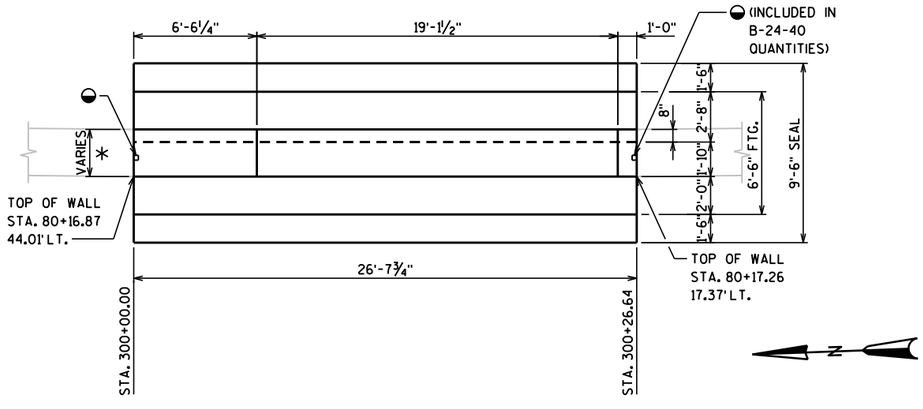
8



ELEVATION
(LOOKING WEST)



SECTION A-A



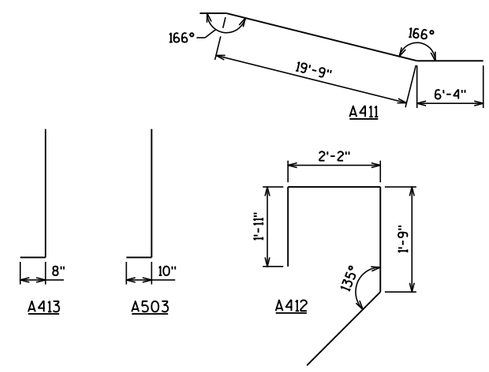
PLAN

* WIDTH AT TOP OF WALL TO MATCH EXISTING RETAINING WALL.

NOTES

THE RETAINING WALL FOOTINGS TO BE SUPPORTED ON SPREAD FOOTINGS WITH A MINIMUM ALLOWABLE ROCK BEARING CAPACITY OF 10 TONS PER SQUARE FOOT.

◒ BENTONITE WATERSTOP



BAR BENDS

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
A401		52	6'-2"			FOOTING - HORIZONTAL
A402		14	26'-3"			FOOTING - HORIZONTAL
A503	X	26	4'-5"		X	FOOTING DOWEL
A504	X	8	4'-9"			BODY - VERTICAL, B.F.
A505	X	20	7'-4"	△		BODY - VERTICAL, B.F.
A406	X	8	6'-1"			BODY - VERTICAL, F.F.
A407	X	18	8'-6"	△		BODY - VERTICAL, F.F.
A408	X	2	10'-11"			BODY - VERTICAL, F.F.
A409	X	10	26'-3"			BODY - HORIZONTAL
A410	X	8	12'-6"	△		BODY - HORIZONTAL
A411	X	6	26'-11"		X	BODY - HORIZONTAL, TOP
A412	X	28	8'-0"		X	BODY - VERTICAL, TOP
A413	X	26	3'-11"		X	FOOTING DOWEL

BAR SERIES

BAR MARK	NO. REQ'D.	LENGTH
A505	1 SERIES OF 20	5'-0" TO 9'-8"
A407	1 SERIES OF 18	6'-4" TO 10'-8"
A410	2 SERIES OF 4	6'-6" TO 18'-6"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-24-10

DRAWN BY BRE | PLANS CK'D. KRO

WALL DETAILS

SHEET 3 OF 3

57

8

8

LAWSON DRIVE - WEST

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.3	
77+23.00	0	0	0	0	0	0	0	0	0
77+50.00	16	0	0	8	0	0	8	0	8
77+64.72	15	0	1	8	0	0	16	0	16
77+89.72	14	0	1	13	0	1	30	2	28
78+00.00	14	0	1	5	0	0	35	2	33
78+00.00	36	0	1	0	0	0	35	2	33
78+14.72	52	0	9	24	0	3	59	6	54
78+50.00	59	0	0	73	0	6	132	13	118
79+00.00	51	0	0	102	0	0	234	13	220
79+17.85	45	0	0	32	0	0	265	13	252
79+36.61	44	0	1	31	0	0	296	14	283
79+50.00	57	0	0	25	0	0	321	14	307
79+72.00	42	0	0	40	0	0	362	14	348
79+79.75	48	0	0	13	0	0	375	14	360
ENDS ABRUPTLY	0	0	0	0	0	0	375	14	360
STRUCTURE	0		0	0	0	0	375	14	360

LAWSON DRIVE - EAST

STATION	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.3	
STRUCTURE	0	0	0	0	0	0	0	0	0
BEGINS ABRPUTLY	0	0	0	0	0	0	0	0	0
80+20.25	47	0	0	0	0	0	0	0	0
80+50.00	31	0	0	43	0	0	43	0	43
80+74.85	37	0	0	31	0	0	74	0	74
81+00.64	62	0	0	47	0	0	122	0	122
81+26.53	54	0	0	56	0	0	177	0	177
81+40.00	28	0	0	20	0	0	198	0	198
81+40.00	17	0	0	0	0	0	198	0	198
81+50.00	17	0	0	6	0	0	204	0	204
81+86.40	0	0	0	11	0	0	215	0	215

5 FEET 0 5

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

800 795 790

78 + 00

ORIGINAL EL =795.93
DESIGN EL =795.93

-15.00 795.38 -14.00 795.42 -11.00 795.53
-21.83 795.05
R/W
-4.91% -4% -3.64% -3.64% -1.17%
-21.83 793.55
0.00 794.34
11.00 795.80 -2% 15.66 795.71 -10% 20.30 795.24 GAS -4:1 -4:1
25.09 794.05
29.81 792.86
R/W

BEGINS ABRUPTLY
STA. 78+00.00

77 + 89.72

ORIGINAL EL =796.12
DESIGN EL =796.16

R/W
11.98 795.89 -2% 16.06 795.81 EAT POST #5 -10% GAS 23.08 795.11 -4:1 27.21 794.07
11.98 794.27
27.21 793.92
R/W

77 + 64.72

ORIGINAL EL =796.75
DESIGN EL =796.75

R/W
17.00 GAS 796.15 EAT POST #1
12.20 796.25 -2% -4% 23.00 795.91 4:1 27.58 794.77
12.20 794.61
27.58 794.26
R/W

77 + 50

ORIGINAL EL =797.13
DESIGN EL =797.13

R/W
12.80 796.64 -2% GAS -4% 21.90 796.33 4:1 26.15 795.27
12.80 795.02
26.15 794.72
R/W

BEGIN CONSTRUCTION
STA. 77+23.00

805

77 + 15

ORIGINAL EL =798.05

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

9

9

PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	CROSS SECTIONS: LAWSON DRIVE	SHEET 59	E	9.2

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\090201_xs.dgn PLOT DATE : 8/2/2012 2:20:17 PM PLOT BY : OMNNI- perryd PLOT NAME : PLOT SCALE : 2.00 " / IN.

WISDOT/CADDS SHEET 21

5 FEET 0 5

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

795 790 785

79 + 36.61 DWY

-27.93 794.24 | -10:1 | R/W | -14.00 795.66 | -11.00 795.63 | +0.75% | +0.75% | ORIGINAL EL =795.73 **DESIGN EL =795.55** | -2% | 11.00 795.33 | -2% | 14.52 795.26 | -10% | 18.42 794.87 | GAS | -3:1 | -1.50:1 | 28.58 789.46 | R/W

-27.93 793.49 | -14.00 794.07 | 0.00 793.96 | 22.50 793.51

79 + 17.85

R/W -30.50 793.76 | -50:1 | -15.00 795.33 | -14.00 795.37 | -11.00 795.49 | -4.7:1 | -4% | -4% | ORIGINAL EL =795.74 **DESIGN EL =795.46** | +0.33% | -2% | 11.00 795.24 | -2% | 15.00 795.16 | -10% | 18.90 794.77 | GAS | -3:1 | -1.50:1 | 23.38 793.14 | R/W

-21.57 793.94 | 0.00 793.87 | 22.98 793.41

79 + 00

R/W | -21.83 794.10 | -5.60:1 | -15.00 795.32 | -14.00 795.36 | -11.00 795.36 | -4% | -0.07% | -0.07% | ORIGINAL EL =795.75 **DESIGN EL =795.37** | -2% | 11.00 795.15 | -2% | 15.00 795.07 | -10% | 18.90 794.68 | GAS | -3:1 | R/W

-21.83 793.76 | 0.00 793.78 | 22.98 793.32

78 + 50

R/W | -24.73 794.56 | -4% | -21.83 794.68 | 4% | -15.00 795.20 | -14.00 795.24 | -11.00 795.28 | -4:1 | -4% | 1.20% | -1.20% | ORIGINAL EL =795.84 **DESIGN EL =795.41** | 2% | 11.00 795.19 | -2% | 15.00 795.11 | -10% | 18.90 794.72 | GAS | -3:1 | -3:1 | 25.16 792.63 | R/W

-21.83 793.56 | 0.00 793.82 | 22.98 793.36

78 + 14.72

R/W | -21.83 794.69 | -6.3% | 4:1 | -15.00 795.35 | -14.00 795.39 | -11.00 795.51 | -4% | -4% | -2% | ORIGINAL EL =795.91 **DESIGN EL =795.73** | -2% | 11.00 795.51 | -2% | 15.12 795.42 | EAT POST #9 | -10% | 20.75 794.86 | GAS | -3:1 | -2.50:1 | R/W

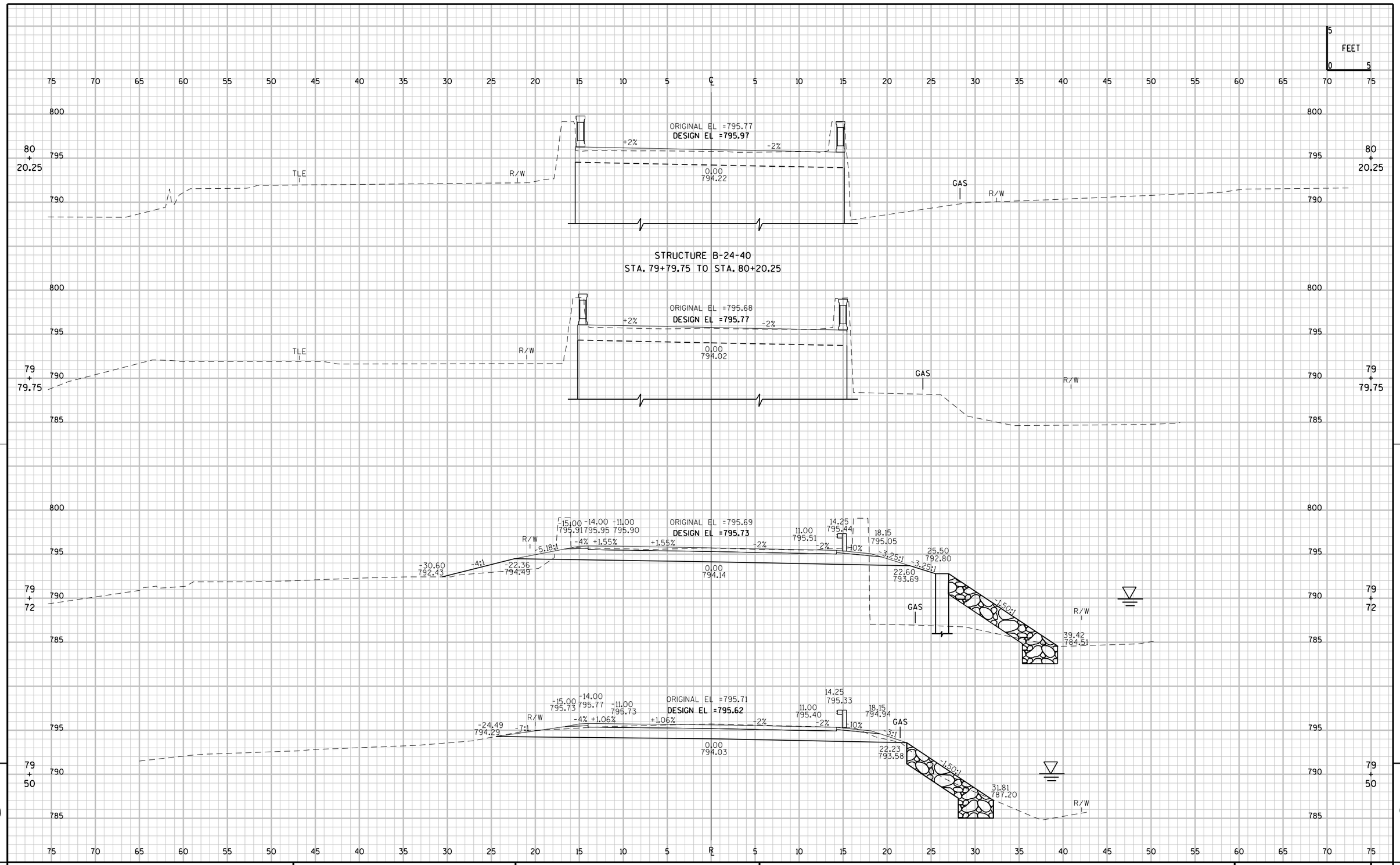
-21.83 793.70 | 0.00 794.14 | 24.39 793.65 | 31.75 790.70

9

PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	CROSS SECTIONS: LAWSON DRIVE	SHEET 60	E	9.3

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\090202_xs.dgn PLOT DATE : 8/2/2012 2:26:53 PM PLOT BY : OMNNI - perryd PLOT NAME : PLOT SCALE : 2.00 " / IN.

WISDOT/CADDS SHEET 21



PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	CROSS SECTIONS: LAWSON DRIVE	SHEET 61	E	9.4

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\090203_xs.dgn PLOT DATE : 8/2/2012 2:32:21 PM PLOT BY : OMNNI- perryd PLOT NAME : PLOT SCALE : 2.00 " / IN.

WISDOT/CADDS SHEET 21

5 FEET 0 5

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

ENDS ABRUPTLY
STA. 81+40.00

81 + 40

GAS R/W
-14.00 -11.00
796.92 796.84
+2.48% +2.48% -7.20%
-14.00 795.33
0.00 794.98
ORIGINAL EL =796.57
DESIGN EL =796.57
11.00 795.78 -7.20%
16.18 795.41 -7.20%
22.27 794.97 GAS
24.70 794.36 4:1 +4:1
30.00 795.69 R/W TEL
TLE
24.70 793.47

81 + 26.53 DWY

R/W GAS
-17.30 -14.00 -11.00
796.91 797.05 796.93
-4.22% +3.90% +3.90% -3.90%
-17.30 796.16
-14.00 795.46
0.00 794.91
ORIGINAL EL =796.39
DESIGN EL =796.50
11.00 796.07 -3.90%
17.00 795.84 EAT POST #1
-10% GAS 25.02 795.04 4:1 -4:1
R/W TEL +4:1
42.60 796.11 TLE
30.24 793.73
31.67 793.37

81 + 00.64 DWY

TLE
-37.80 R/W -1.1% GAS
796.39 -23.00 796.56 -4%
-37.80 795.40
-23.00 795.57
-14.00 -11.00
796.92 796.80
+3.90% +3.90% -3.90%
-14.00 795.33
0.00 794.78
ORIGINAL EL =795.96
DESIGN EL =796.37
11.00 795.94 -3.90%
16.79 795.72 EAT POST #5
-10% 23.50 795.05 GAS 3.56:1 -4:1
R/W TEL +4:1
TLE
42.01 796.25
28.38 793.68
30.05 793.26

80 + 74.85 DWY

TLE
-33.20 795.77 R/W -6.48%
-33.20 794.78
-23.00 796.43 -4%
-23.00 795.44
-14.00 796.79 -11.00 796.67
+3.90% +3.90% -3.90%
-14.00 795.20
0.00 794.65
ORIGINAL EL =795.96
DESIGN EL =796.24
11.00 795.81 -3.90%
15.00 795.66 EAT POST #9
-10% 21.09 795.05 4:1 -4:1
TEL GAS R/W +4:1
TLE
35.63 794.84
26.86 793.61
28.78 793.13

80 + 50 DWY

TLE -43.60 795.10 R/W -5.39%
-43.60 794.11
-23.00 796.21 -4%
-23.00 795.22
-14.00 796.57 -11.00 796.50
+2.17% +3.48% -3.49%
-14.00 795.02
0.00 794.53
ORIGINAL EL =795.88
DESIGN EL =796.12
11.00 795.74 -3.49%
14.18 795.63
-10% 18.08 795.24 4:1 -4:1
GAS R/W +4:1
TLE
24.29 793.68
27.01 793.00
29.29 793.57

9

9

PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	CROSS SECTIONS: LAWSON DRIVE	SHEET 62	E	9.5

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\090204_xs.dgn PLOT DATE : 10/30/2012 10:40:14 AM PLOT BY : OMNNI- perryd PLOT NAME : PLOT SCALE : 2.00 " / IN.

WISDOT/CADDS SHEET 21

5
FEET
0 5

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

800
795
790
82 + 00
R/W
ORIGINAL EL =797.20
GAS
R/W
TEL

END CONSTRUCTION
STA. 81+86.40

800
795
790
81 + 50
R/W
GAS
ORIGINAL EL =796.70
11.00
795.72
-3.90%
15.35
795.55
-4.58%
21.50
795.26
GAS
11.00
794.13
21.50
793.67
R/W
TEL

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 ℄ 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

9

9

PROJECT NO: 1430-00-78	HWY: LAWSON DRIVE	COUNTY: GREEN LAKE	CROSS SECTIONS: LAWSON DRIVE	SHEET 63	E	9.6

FILE NAME : F:\TR\JOBS\E1983A11\Sheets\Plan\090205_xs.dgn PLOT DATE : 8/2/2012 2:53:31 PM PLOT BY : OMNNI - perryd PLOT NAME : PLOT SCALE : 2.00 " / IN.

WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov