

MAD

PROJECT ID: 5658-00-76
WITH: N/A

COUNTY: DANE

JANUARY 2018

ORDER OF SHEETS

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

TOTAL SHEETS = 80



DESIGN DESIGNATION

A.A.D.T. (2015)	= 5,200
A.A.D.T. (2038)	= 7,100
D.H.V. (2038)	= 8.1
D.D. (2038)	= 60/40
T.	= 9.7%
DESIGN SPEED	= 30 MPH
ESALS	= 2,500,000

CONVENTIONAL SYMBOLS

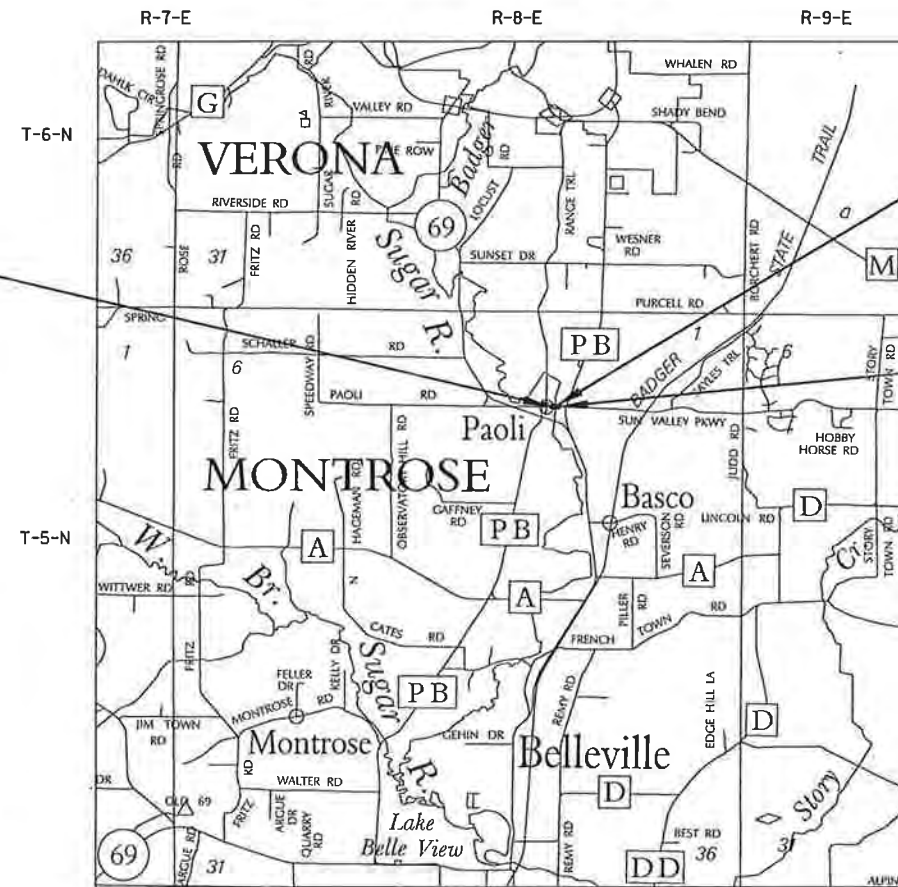
PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	
HIGH VOLTAGE	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
STH 69 - USH 151
(SUGAR RIVER BRIDGE B-13-0682)
CTH PB
DANE COUNTY

STATE PROJECT NUMBER
5658-00-76

BEGIN PROJECT
STA. 98+40.00
X=783,521.58
Y=429,891.23



STRUCTURE
B-13-682

END PROJECT
STA. 101+00.00

LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.049 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Dane County Zone, NAD 83 (2011)

Elevations shown on this plan are referenced to the North American Vertical Datum of 1988 NAVD 88 (2011).

STATE PROJECT

5658-00-76

FEDERAL PROJECT

PROJECT

WISC 2018040

CONTRACT

1

ACCEPTED FOR
DANE COUNTY

Date: 7/19/17
Signature and Title of Official

ORIGINAL PLANS PREPARED BY:

SA
STRAND
ASSOCIATES
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715
(608) 251-4843



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor STRAND ASSOCIATES, INC.

Designer STRAND ASSOCIATES, INC.

Management Consultant KL ENGINEERING, INC

APPROVED FOR THE DEPARTMENT

DATE: 7/19/17
Signature and Title of Official

GENERAL NOTES

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

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

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

THE LOCATION OF PROPSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE APPROVED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

A SAWED JOINT SHALL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION.

WETLANDS EXIST IN THE PROJECT AREA. DO NOT DISTURB AREAS OUTSIDE THE SLOPE INTERCEPTS.

ASPHALT BID/MIX SPECIFICATIONS

	THICKNESS	BID/MIX SPECIFICATIONS
UPPER LAYER	2-INCH	4 MT 58-28S
LOWER LAYER	2.5-INCH	3 MT 58-28S
LOWER LAYER	2.5-INCH	3 MT 58-28S

UTILITIES

ALLIANT ENERGY

MATT RICHARDSON
2147 COUNTY ROAD PB
VERONA, WI 53593-9225
PH: (608) 845-1144
mattrichardson@alliantenergy.com

ATC

TONY MARCINIAK
P.O. BOX 47
WAUKESHA, WI 53187-0047
PH: 262-506-6814
amarcinlake@atclic.com

DE-ENERGIZING REQUEST
DOUG VOSBERG
PH (MOBILE): 608-438-7650
PH (OFFICE): 608-877-7650
dvosberg@atclic.com

FRONTIER COMMUNICATIONS

ED STIEBER
100 COMMUNICATIONS DRIVE
SUN PRAIRIE, WI 53590
PH: 608-837-1410
edward.o.stieber@ftr.com

MADISON GAS & ELECTRIC

TIM STATZ
P.O. BOX 1231
MADISON, WI 53701-1231
PH: (608) 252-4727
tstatz@mgc.com

TDS TELECOM

JERRY MYERS
525 JUNCTION ROAD
MADISON, WI 53717
PH: (608) 664-4404
jerry.myers@tdstelecom.com

OTHER CONTACTS

DESIGN CONSULTANT

SARA GRIMME
STRAND ASSOCIATES, INC.
910 W WINGRA DR
MADISON, WI 53715
PH: (608) 251-4843
sara.grimme@strand.com

DANE COUNTY DIVISION OF HIGHWAYS/DEPUTY COMMISSIONER

PAMELA DUNPHY
DANE COUNTY
2302 FISH HATCHERY ROAD
PH: (608) 266-4036
dunphy@countyofdane.com

WISDNR

ERIC HEGGELUND
DNR SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PH: (608) 275-3301
eric.heggelund@wisconsin.gov

** NOT A MEMBER OF DIGGERS HOTLINE

DIGGERS



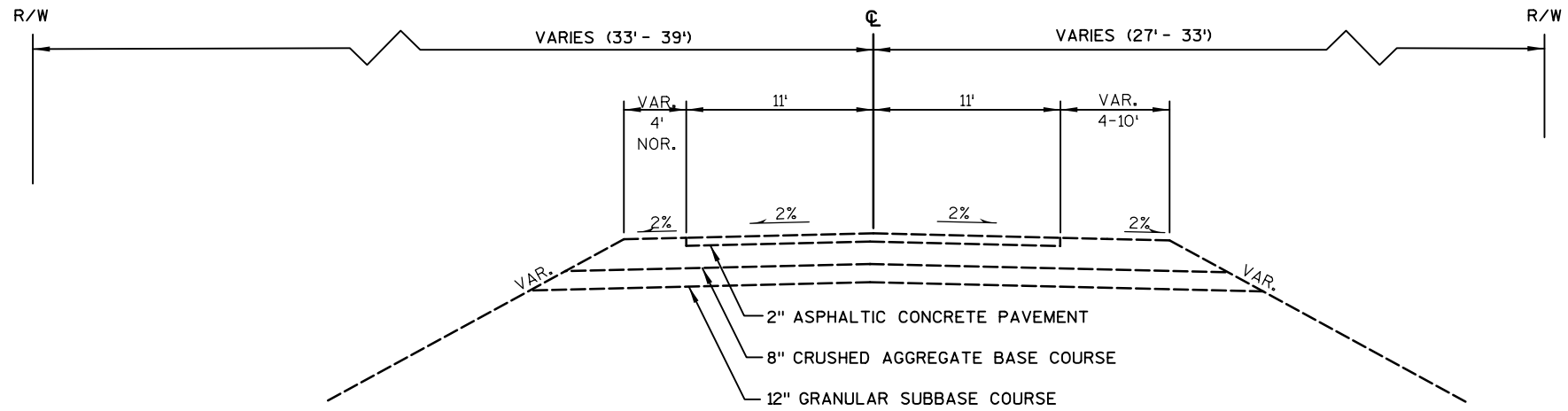
HOTLINE

Dial  or (800)242-8511

www.DiggersHotline.com

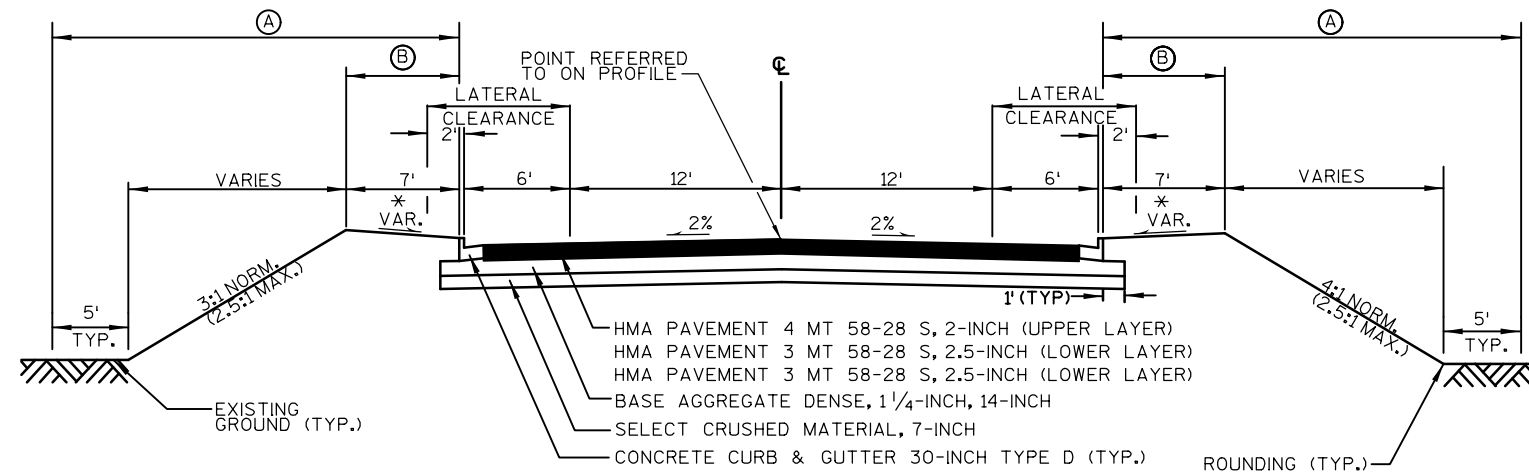
2

2



EXISTING TYPICAL SECTION

CTH PB



PROPOSED ROADWAY TYPICAL SECTION

STA. 98+40.00 - STA. 99+10.42
STA. 100+94.58 - STA. 101+00.00

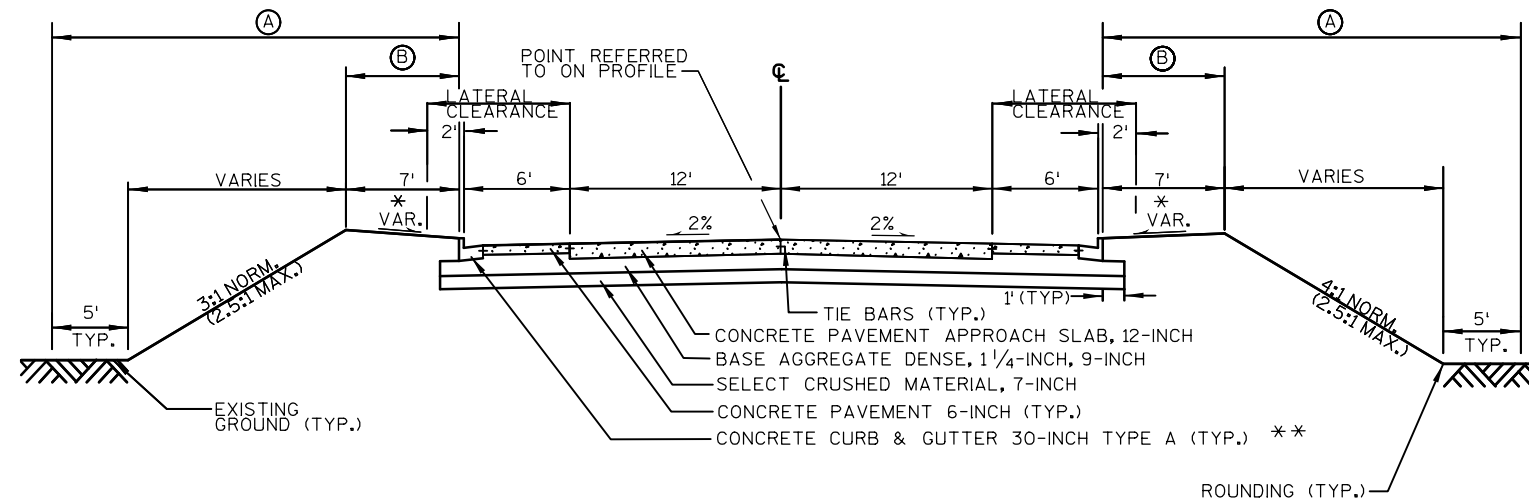
* 1.5% TO -1.5% STA 98+50 TO STA 99+00
-1.5% TO 1.5% STA 100+73.00 TO STA 100+98.00

** CONCRETE CURB & GUTTER 30-INCH TYPE A

STA. 99+20.42 - STA. 99+25.42 TRANSITION GUTTER SLOPE FROM 6.25% TO 2%

④ SALVAGED TOPSOIL;
FERTILIZER TYPE B;
AND SEEDING MIXTURE NO. 20.

⑧ EROSION MAT
URBAN CLASS I TYPE A



PROPOSED ROADWAY TYPICAL SECTION

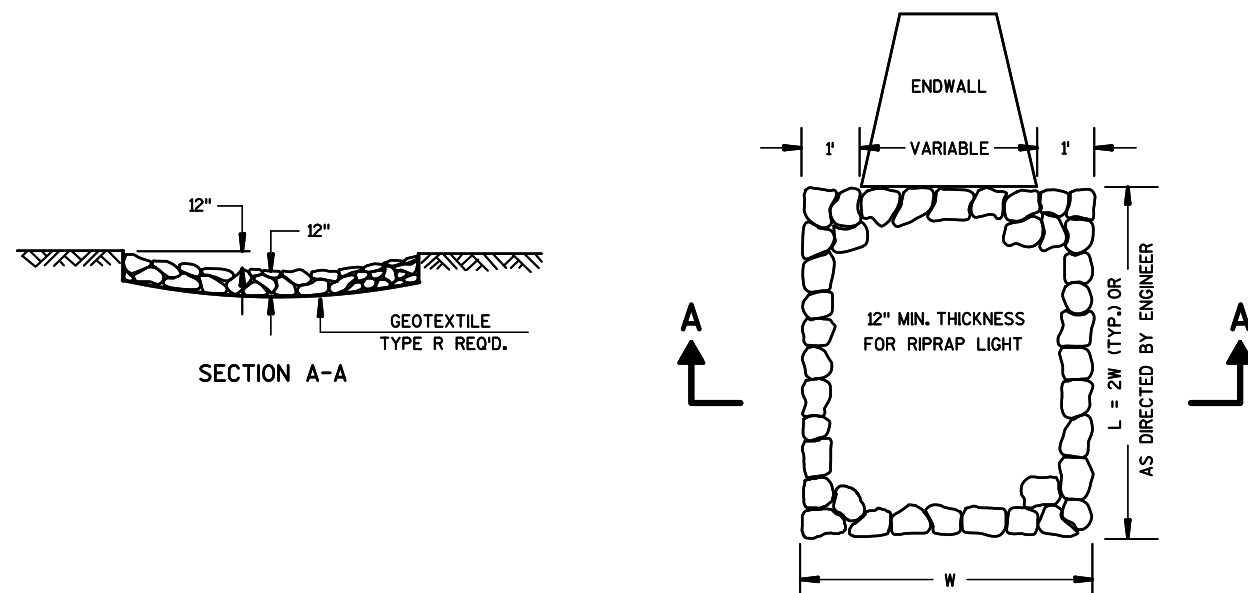
STA. 99+10.42 - STA 99+25.42
STA. 99+25.42 - STA 100+79.58 (B-13-682)
STA. 100+79.58 - STA 100+94.58

RUNOFF COEFFICIENT TABLE

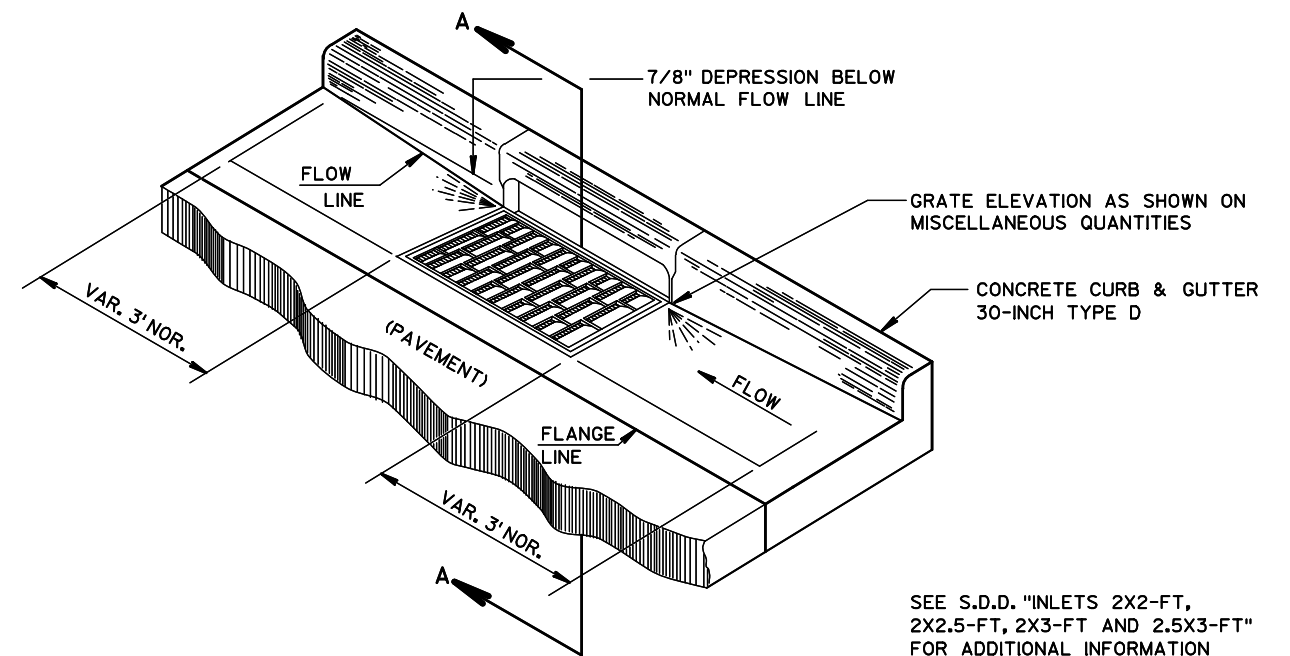
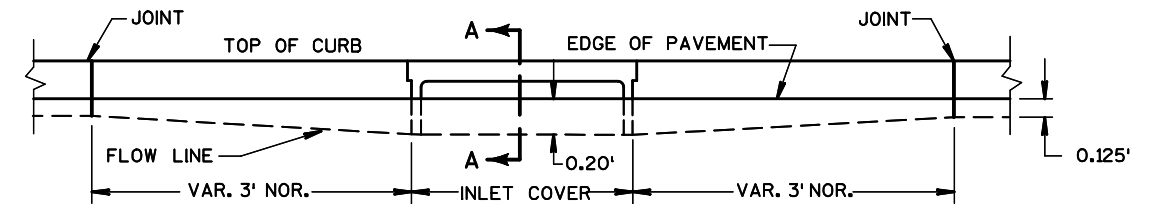
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34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

TOTAL PROJECT AREA = 0.6 ACRES

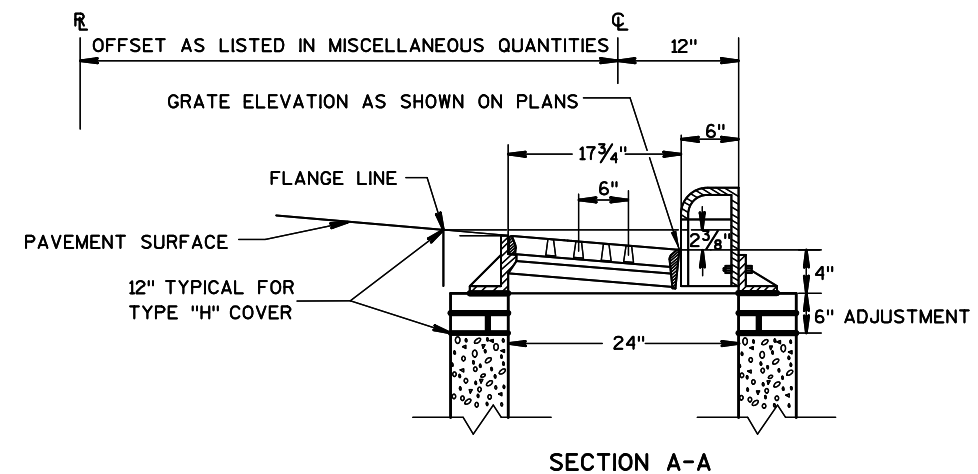
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.5 ACRES

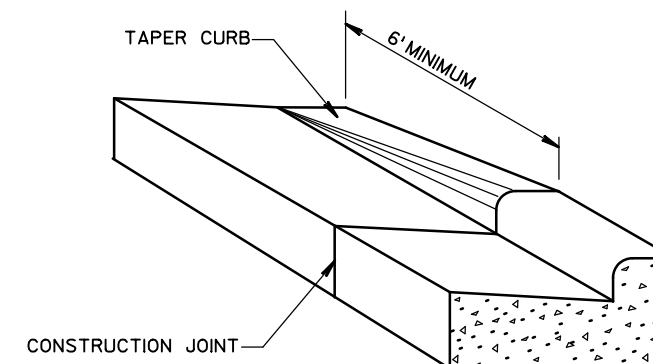
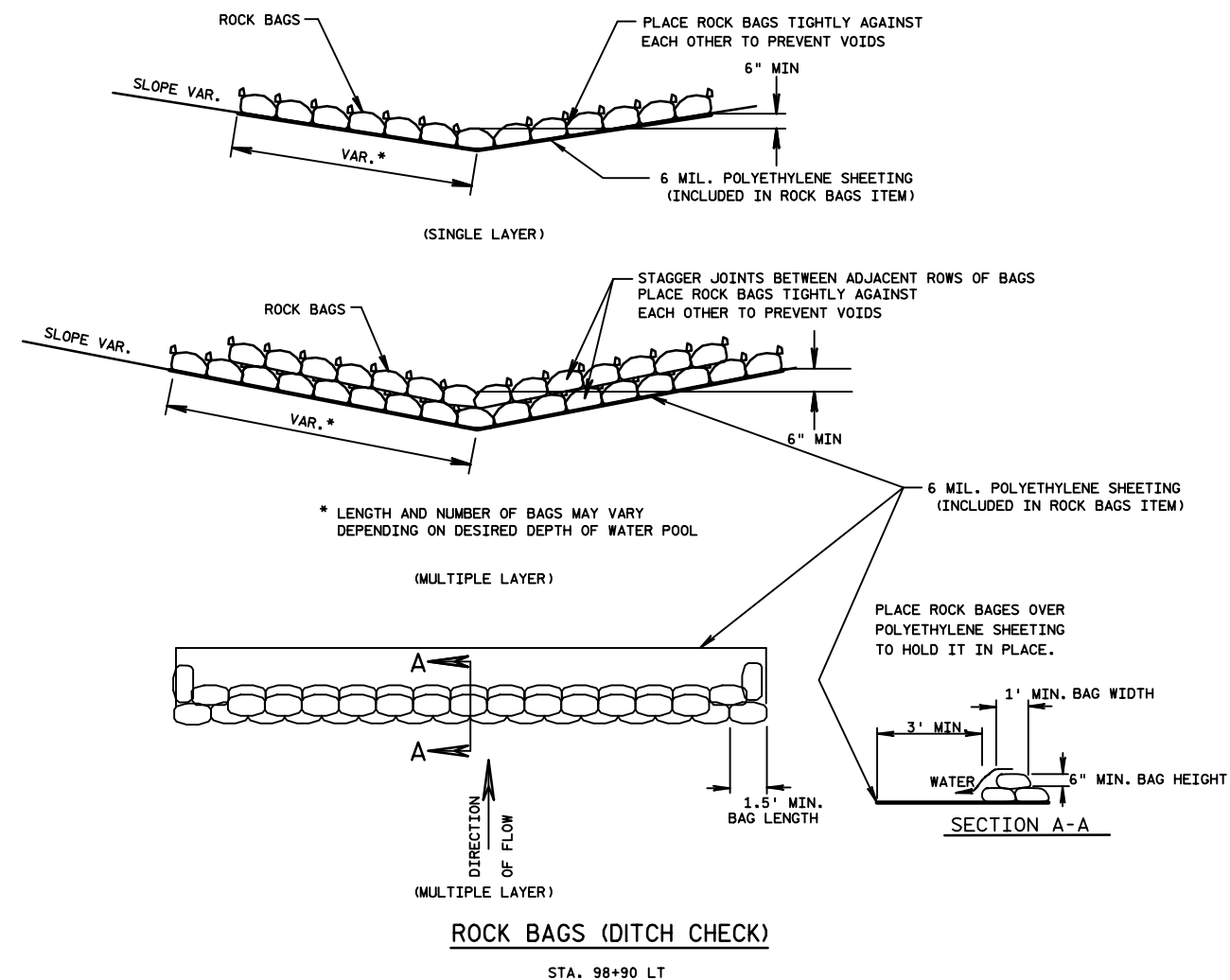


RIPRAP LIGHT TREATMENT AT CULVERTS



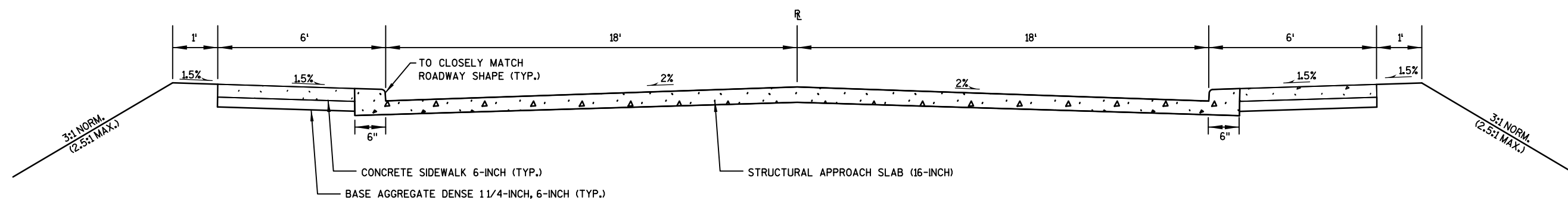
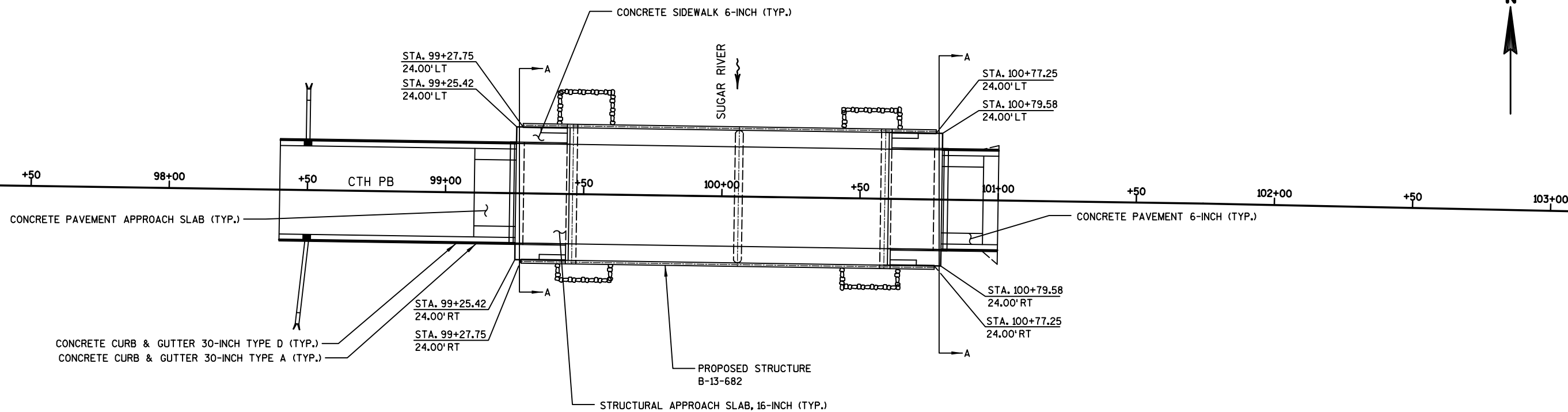
SEE S.D.D. "INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT" FOR ADDITIONAL INFORMATION

DETAIL OF CURB AND GUTTER AT INLETS
(TYPE 2X3-FT-H INLET SHOWN)



DETAIL OF CURB & GUTTER TERMINI

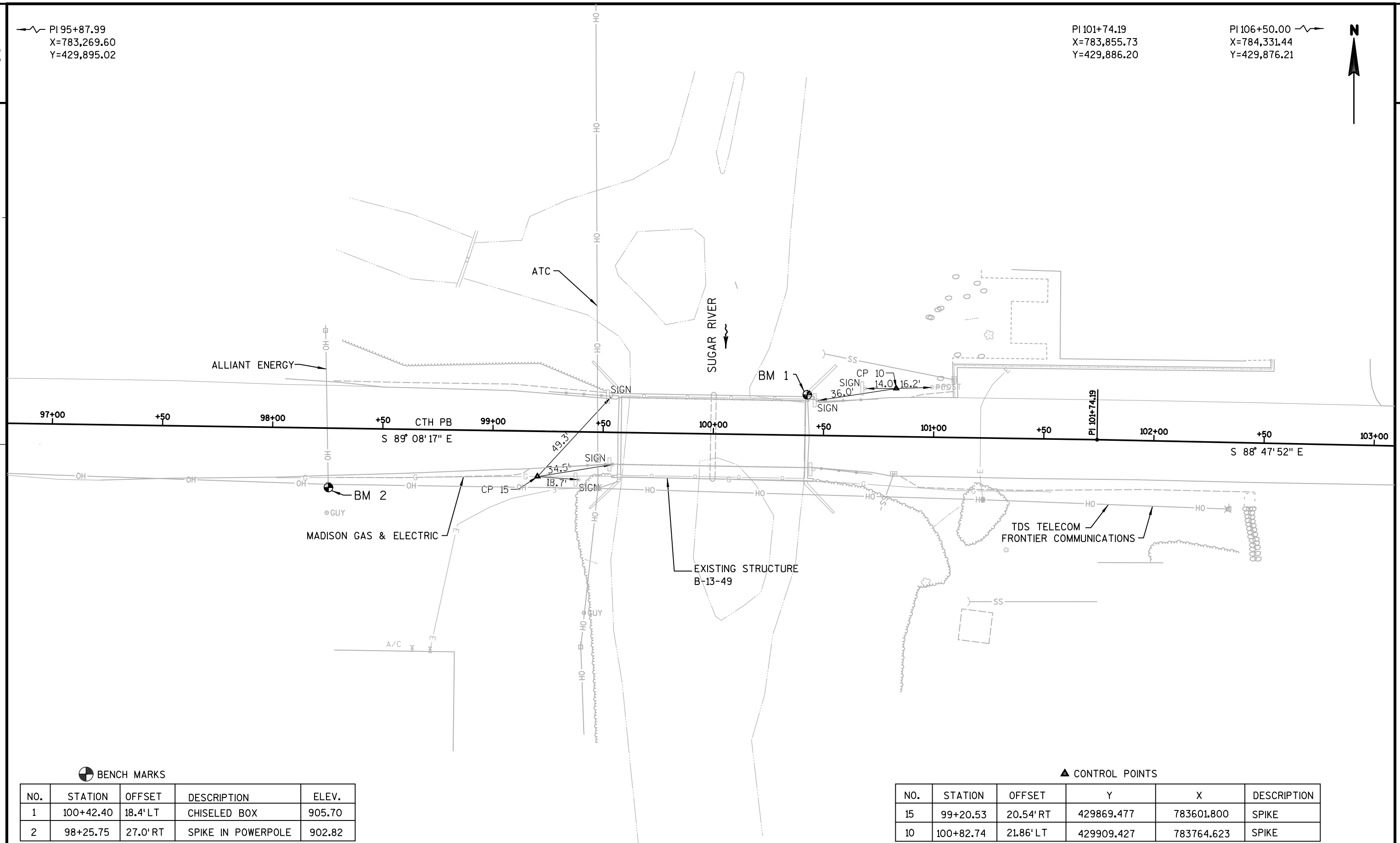
STA 98+40 LT
STA 98+40 RT
STA 101+00 LT
STA 101+00 RT



CONCRETE SIDEWALK 6-INCH
ADJACENT TO STRUCTURAL APPROACH SLAB

NOTE: SEE STRUCTURE PLANS
FOR REINFORCING INFORMATION

PI 106+50.00
X=784,331.44
Y=429,876.21



NO.	STATION	OFFSET	DESCRIPTION	ELEV.
1	100+42.40	18.4' LT	CHISELED BOX	905.70
2	98+25.75	27.0' RT	SPIKE IN POWERPOLE	902.82

NO.	STATION	OFFSET	Y	X	DESCRIPTION
15	99+20.53	20.54' RT	429869.477	783601.800	SPIKE
10	100+82.74	21.86' LT	429909.427	783764.623	SPIKE

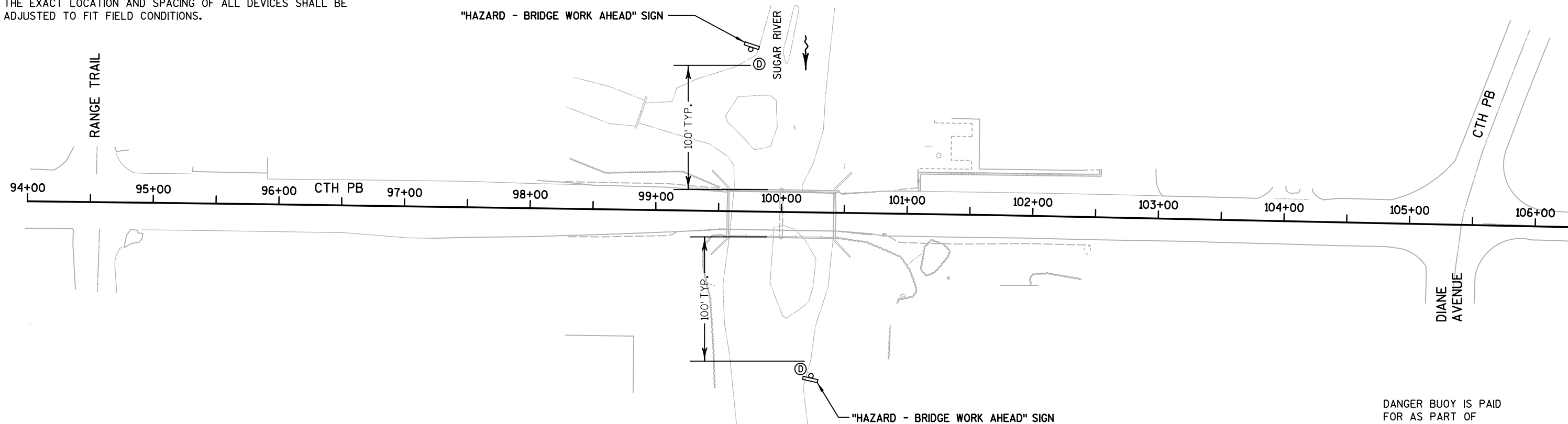
MAINTAIN BOAT TRAFFIC AT ALL TIMES ON THE SUGAR RIVER THROUGH THE WORK ZONE. SUGAR RIVER CAN BE CLOSED TO BOAT TRAFFIC DURING SPECIFIC CONSTRUCTION TASKS OR WHEN APPROVED BY THE ENGINEER (SEE SPECIAL PROVISIONS).

PLACE "RIVER CLOSED" SIGNS WHEN SUGAR RIVER IS CLOSED TO BOAT TRAFFIC. PLACE SIGN UPSTREAM OF THE BRIDGE AT THE PAOLI BOAT LAUNCH AND DOWNSTREAM OF THE BRIDGE (LOCATION TO BE DIRECTED BY THE ENGINEER).

ACCESS UNDER EITHER SPAN 1 OR 2 TO BE DETERMINED BY CONTRACTOR'S OPERATIONS AND AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION AND SPACING OF ALL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

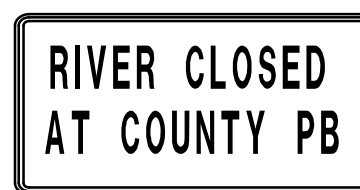
"HAZARD - BRIDGE WORK AHEAD" SIGN



DANGER BUOY IS PAID FOR AS PART OF "TRAFFIC CONTROL"

LEGEND

- ① DANGER BUOY
- Ⓟ SIGN ON POST



66" X 30"

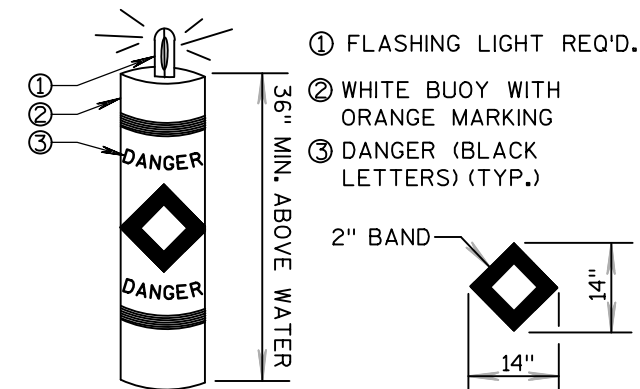
RIVER CLOSED
TRAFFIC CONTROL SIGNS
FIXED MESSAGE

FOR USE WHEN SUGAR RIVER
CLOSED TO BOAT TRAFFIC
(SEE SPECIAL PROVISIONS)
NOT TO SCALE

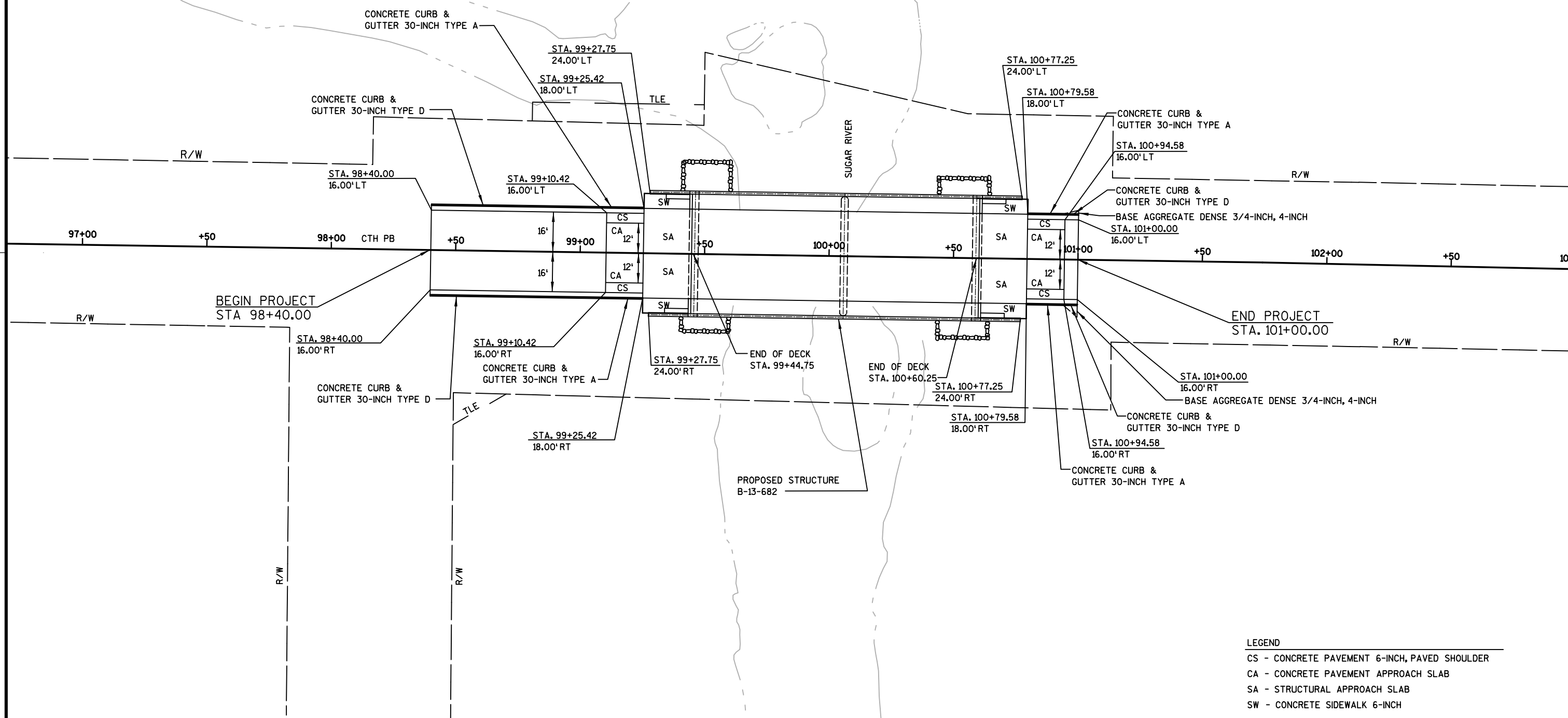


36" X 24"

HAZARD SIGN DETAIL
NOT TO SCALE

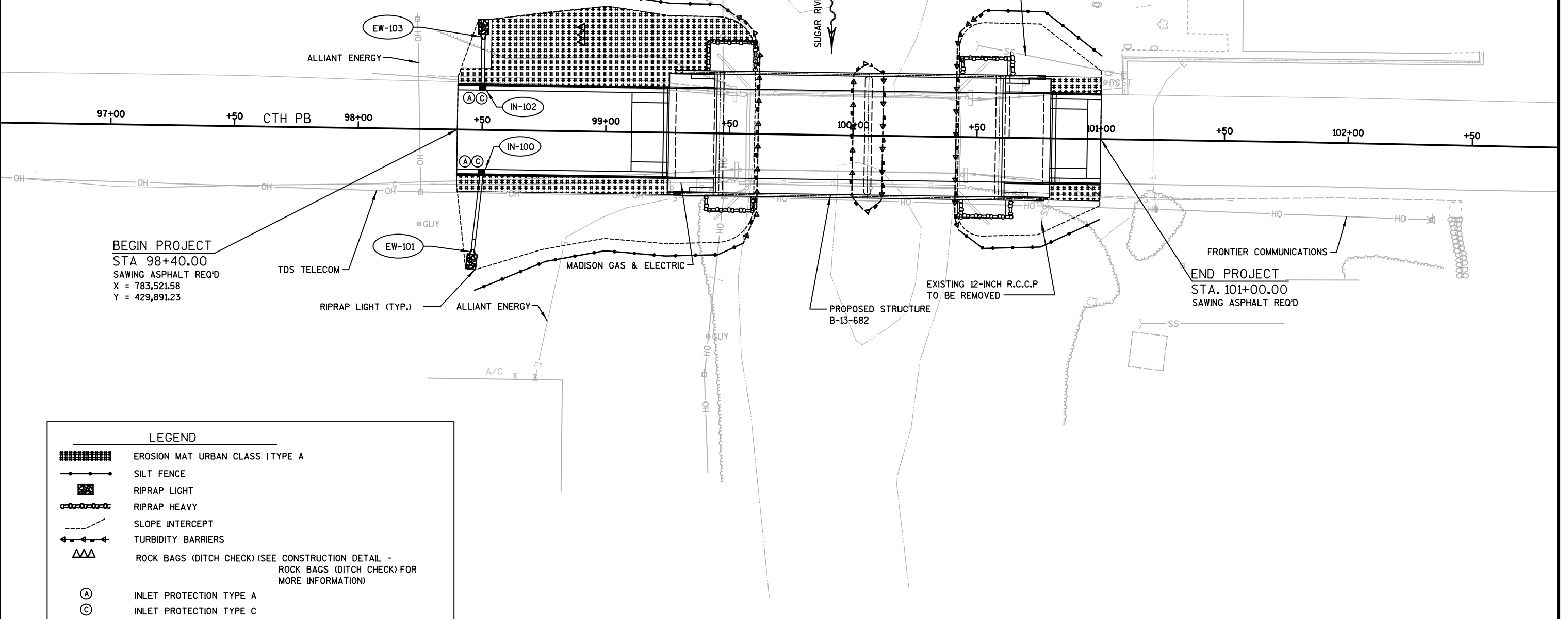
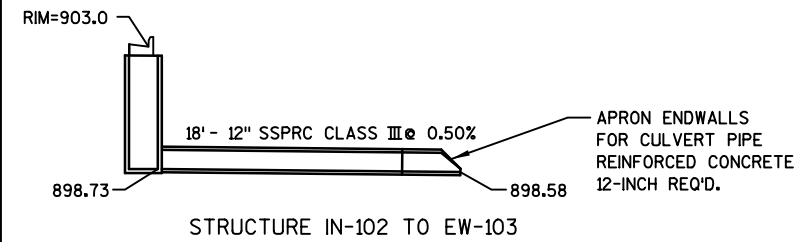
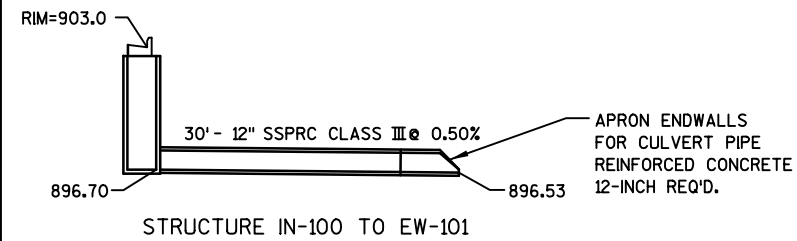


TYPICAL DANGER
BUOY DETAIL



2

2



PROJECT NO:5658-00-76

HWY:CTH PB

COUNTY: DANE

EROSION CONTROL AND STORM SEWER DETAIL

SHEET

E

FILE NAME : S:\MAD\1100--1199\1124\014\Micros\PLAN\022001.ec.dgn

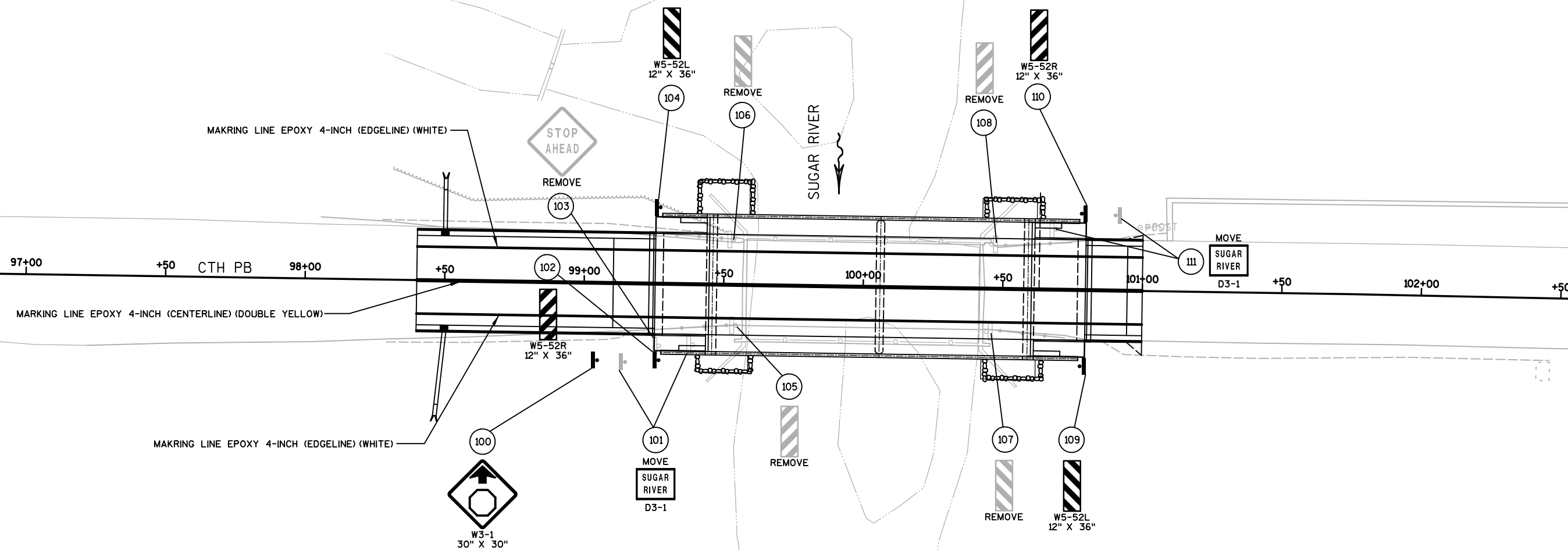
PLOT DATE : 7/5/2017

PLOT BY : _username_

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

WISDOT/CADDs SHEET 42



- PROPOSED SIGN ON WOOD POST
- EXISTING SIGN ON WOOD POST
- == EXPOXY 4-INCH CENTERLINE (DOUBLE YELLOW)
- EXPOXY 4-INCH EDGELINE (WHITE)
- (xxx) DESIGNATES SIGN ITEM NUMBER

Estimate Of Quantities

5658-00-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing **P**	STA	3.000	3.000
0004	201.0205	Grubbing **P**	STA	3.000	3.000
0006	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 100+00	LS	1.000	1.000
0008	204.0165	Removing Guardrail **P**	LF	111.000	111.000
0010	205.0100	Excavation Common	CY	100.000	100.000
0012	206.1000	Excavation for Structures Bridges (structure) 01. B-13-682	LS	1.000	1.000
0014	208.0100	Borrow	CY	440.000	440.000
0016	210.1500	Backfill Structure Type A	TON	388.000	388.000
0018	213.0100	Finishing Roadway (project) 01. 5658-00-76	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	1.000	1.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	341.000	341.000
0024	312.0110	Select Crushed Material	TON	168.000	168.000
0026	415.0060	Concrete Pavement 6-Inch **P**	SY	26.000	26.000
0028	415.0410	Concrete Pavement Approach Slab **P**	SY	80.000	80.000
0030	455.0605	Tack Coat **P**	GAL	14.000	14.000
0032	460.2000	Incentive Density HMA Pavement	DOL	80.000	80.000
0034	460.6223	HMA Pavement 3 MT 58-28 S	TON	90.000	90.000
0036	460.6224	HMA Pavement 4 MT 58-28 S	TON	30.000	30.000
0038	502.0100	Concrete Masonry Bridges **P**	CY	526.000	526.000
0040	502.3200	Protective Surface Treatment **P**	SY	818.000	818.000
0042	502.3210	Pigmented Surface Sealer	SY	96.000	96.000
0044	503.0128	Prestressed Girder Type I 28-Inch **P**	LF	1,024.000	1,024.000
0046	505.0400	Bar Steel Reinforcement HS Structures	LB	10,050.000	10,050.000
0048	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	63,710.000	63,710.000
0050	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	650.000	650.000
0052	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	36.000	36.000
0054	506.4000	Steel Diaphragms (structure) 01. B-13-682	EACH	16.000	16.000
0056	513.7016	Railing Steel Type C3 (structure) 01. B-13-682	LF	299.000	299.000
0058	516.0500	Rubberized Membrane Waterproofing **P**	SY	24.000	24.000
0060	517.1015.S	Concrete Staining Multi-Color (structure) 01. B-13-682	SF	1,760.000	1,760.000
0062	517.1050.S	Architectural Surface Treatment (structure) 01. B-13-682	SF	1,760.000	1,760.000
0064	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0066	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	950.000	950.000
0068	601.0409	Concrete Curb & Gutter 30-Inch Type A **P**	LF	60.000	60.000
0070	601.0411	Concrete Curb & Gutter 30-Inch Type D **P**	LF	152.000	152.000
0072	602.0415	Concrete Sidewalk 6-Inch **P**	SF	480.000	480.000
0074	606.0100	Riprap Light	CY	2.600	2.600

Estimate Of Quantities

5658-00-76

Line	Item	Item Description	Unit	Total	Qty
0076	606.0300	Riprap Heavy	CY	178.000	178.000
0078	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch **P**	LF	48.000	48.000
0080	611.0624	Inlet Covers Type H **P**	EACH	2.000	2.000
0082	611.3230	Inlets 2x3-FT **P**	EACH	2.000	2.000
0084	612.0406	Pipe Underdrain Wrapped 6-Inch **P**	LF	248.000	248.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	1.800	1.800
0090	625.0500	Salvaged Topsoil	SY	1,000.000	1,000.000
0092	627.0200	Mulching	SY	1,910.000	1,910.000
0094	628.1504	Silt Fence	LF	360.000	360.000
0096	628.1520	Silt Fence Maintenance	LF	720.000	720.000
0098	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0100	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0102	628.2006	Erosion Mat Urban Class I Type A	SY	488.000	488.000
0104	628.6005	Turbidity Barriers	SY	410.000	410.000
0106	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0108	628.7015	Inlet Protection Type C	EACH	2.000	2.000
0110	628.7570	Rock Bags	EACH	15.000	15.000
0112	629.0210	Fertilizer Type B	CWT	1.200	1.200
0114	630.0120	Seeding Mixture No. 20	LB	34.000	34.000
0116	630.0300	Seeding Borrow Pit	LB	9.000	9.000
0118	633.5200	Markers Culvert End	EACH	2.000	2.000
0120	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	5.000	5.000
0122	637.2230	Signs Type II Reflective F	SF	18.250	18.250
0124	638.2102	Moving Signs Type II	EACH	2.000	2.000
0126	638.2602	Removing Signs Type II	EACH	5.000	5.000
0128	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0130	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0132	642.5201	Field Office Type C	EACH	1.000	1.000
0134	643.0420	Traffic Control Barricades Type III	DAY	1,540.000	1,540.000
0136	643.0705	Traffic Control Warning Lights Type A	DAY	2,200.000	2,200.000
0138	643.0900	Traffic Control Signs	DAY	12,870.000	12,870.000
0140	643.1000	Traffic Control Signs Fixed Message	SF	27.500	27.500
0142	643.5000	Traffic Control 01. 5658-00-76	EACH	1.000	1.000
0144	645.0111	Geotextile Type DF Schedule A	SY	88.000	88.000
0146	645.0120	Geotextile Type HR **P**	SY	351.000	351.000
0148	645.0130	Geotextile Type R	SY	6.000	6.000
0150	646.1020	Marking Line Epoxy 4-Inch	LF	1,040.000	1,040.000
0152	650.4000	Construction Staking Storm Sewer	EACH	4.000	4.000

Estimate Of Quantities

5658-00-76

Line	Item	Item Description	Unit	Total	Qty
0154	650.4500	Construction Staking Subgrade **P**	LF	105.000	105.000
0156	650.5000	Construction Staking Base **P**	LF	75.000	75.000
0158	650.5500	Construction Staking Curb Gutter and Curb & Gutter **P**	LF	210.000	210.000
0160	650.6500	Construction Staking Structure Layout (structure) 01. B- 13-682	LS	1.000	1.000
0162	650.7000	Construction Staking Concrete Pavement **P**	LF	30.000	30.000
0164	650.9910	Construction Staking Supplemental Control (project) 01. 5658-00-76	LS	1.000	1.000
0166	650.9920	Construction Staking Slope Stakes	LF	145.000	145.000
0168	690.0150	Sawing Asphalt **P**	LF	44.000	44.000
0170	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0172	715.0502	Incentive Strength Concrete Structures	DOL	3,156.000	3,156.000
0174	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	400.000	400.000
0176	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	275.000	275.000
0178	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Contaminated Soil	TON	2,595.000	2,595.000

BASE AGGREGATE SUMMARY						
CATEGORY	STATION - STATION	LOCATION	305.0110	305.0120	312.0110	624.0100
			BASE	BASE	SELECT	
			AGGREGATE	AGGREGATE	CRUSHED	
			DENSE 3/4-INCH	DENSE 1 1/4-INCH	MATERIAL	WATER
			TON	TON*	TON	MGAL*
0010	98+40.00 - 99+45.42	LT & RT	0	270	135	0.5
	100+59.58 - 101+00.00	LT & RT	1	55	33	0.1
		TOTALS	1	325	168	0.6

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE PAVEMENT				
CATEGORY	STATION - STATION	LOCATION	415.0060	415.0410
			CONCRETE PAVEMENT	CONCRETE PAVEMENT
			6-INCH	APPROACH SLAB
			SY	SY
0010	99+10.42 - 99+25.42	LT & RT	13	40
	100+79.58 - 100+94.58	LT & RT	13	40
		TOTALS	26	80

ASPHALTIC ITEMS					
CATEGORY	STATION - STATION	LOCATION	455.0605	460.6223	460.6224
			TACK	HMA	HMA
			COAT	PAVEMENT	PAVEMENT
			GAL	3 MT 58-28 S	4 MT 58-28 S
0010	98+40.00 - 99+10.42	LT & RT	13	69	28
	100+94.58 - 101+00.00	LT & RT	1	5	2
		TOTALS	14	74	30

CONCRETE CURB & GUTTER				
CATEGORY	STATION - STATION	LOCATION	601.0409	601.0411
			30-INCH	30-INCH
			TYPE A	TYPE D
			LF	LF
0010	98+40.00 - 99+10.42	LT & RT	---	141
	99+10.42 - 99+25.42	LT & RT	30	---
	100+79.58 - 100+94.58	LT & RT	30	---
	100+94.58 - 101+00.00	LT & RT	---	11
		TOTALS	60	152

CONCRETE SIDEWALK				
CATEGORY	STATION - STATION	LOCATION	602.0415	305.0120
			CONCRETE	BASE
			SIDEWALK	AGGREGATE
			6-INCH	DENSE 1 1/4-INCH
			SF	TON*
0010	99+25 - 99+45	LT & RT	240	8
	100+60 - 100+74	LT & RT	240	8
		TOTALS	480	16

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

RIPRAP LIGHT				STORM SEWER SUMMARY									
CATEGORY	STATION	LOCATION	606.0100 CY	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF		522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH		633.5200 MARKERS CULVERT END EACH		650.4000 JOINT TIES REQ'D EACH**		CONSTRUCTION STAKING STORM SEWER EACH*	
				FROM STRUCTURE	TO STRUCTURE								
0010	98+50	RT	1.3	100	101	30	1	1	6	1			
	98+50	LT	1.3	102	103	18	1	1	6	1			
		TOTAL	2.6										
				TOTALS		48	2	2	12	2			

*ADDITIONAL QUANTITIES LISTED ELSEWHERE
** NON-BID ITEM (FOR INFORMATION ONLY)

INLETS SUMMARY									
CATEOGRY	STATION	LOCATION	STRUCTURE NO.	611.3230 INLETS 2X3-FT EACH	611.0624 INLET COVERS TYPE H EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH*	GRATE ELEVATION FT	TOP OF STRUCTURE ELEVATION FT	DEPTH FT
0010	98+50	17.5' RT	100	1	1	1	903.0	902.17	5.47
	98+50	17.5' LT	102	1	1	1	903.0	902.17	3.44
		TOTALS		2	2	2			

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

MOBILIZATION		
CATEGORY	PROJECT I.D.	619.1000 EACH
0010	5658-00-76	1

FINISHING ITEMS							
CATEGORY	STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	603.0300 SEEDING BORROW PIT LB
0010	98+50 - 99+45.42	LT & RT	780	780	0.5	21	---
	100+59.58 - 101+00.00	LT & RT	220	220	0.1	6	---
	UNDISTRIBUTED		---	250	0.2	7	---
	BORROW PIT		---	660	0.4	---	9
	TOTALS		1,000	1,910	1.2	34	9

SILT FENCE				
CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
0010	98+48 - 99+56	RT	112	224
	99+00 - 99+51	LT	53	106
	100+43 - 101+00	RT	62	124
	100+46 - 101+00	LT	61	122
	UNDISTRIBUTED	---	72	144
	TOTALS		360	720

3

MOBILIZATIONS EROSION CONTROL	
CATEGORY	628.1905 EACH
0010	2

MOBILIZATIONS EMERGENCY EROSION CONTROL	
CATEGORY	628.1910 EACH
0010	2

EROSION MAT SUMMARY			
			628.2006 EROSION MAT URBAN CLASS I TYPE A
CATEGORY	STATION - STATION	LOCATION	SY
0010	98+40 - 99+59	LT	300
	98+40 - 99+31	RT	60
	100+74 - 101+00	LT	15
	100+74 - 101+00	RT	15
	UNDISTRIBUTED	---	98
TOTAL			488

INLET PROTECTION					
CATEGORY	STATION	LOCATION	STRUCTURE NO.	628.7005 TYPE A	628.7015 TYPE C
				EACH	EACH
0010	98+50	15.5' RT	100	1	1
	98+50	15.5' LT	102	1	1
	TOTALS			2	2

TURBIDITY BARRIERS			
CATEGORY	STATION	LOCATION	628.6005 SY
0010	99+60	LT & RT	98
	100+00	LT & RT	226
	100+42	LT & RT	86
TOTAL			410

ROCK BAGS			
CATEGORY	STATION	LOCATION	628.7570 EACH
0010	98+90	LT	12
		UNDISTRIBUTED	3
		TOTAL	15

PERMANENT SIGNING QUANTITIES										
CATEGORY	STATION	LOCATION	SIGN CODE	SIGN MESSAGE	SIGN (W x H) IN X IN	637.2230 SIGNS TYPE II	634.0612 POSTS WOOD 4X6-INCH X12-FT	638.2102 MOVING SIGNS TYPE II	638.4000 MOVING SMALL SIGN SUPPORTS	REMARKS
						REFLECTIVE F SF	EACH	EACH	EACH	
0010	99+27	LT	W5-52L	CLEARANCE STRIPE	12X36	3.00	1	---	---	INSTALL AT END OF BRIDGE
	99+27	RT	W5-52R	CLEARANCE STRIPE	12X36	3.00	1	---	---	INSTALL AT END OF BRIDGE
	100+78	LT	W5-52L	CLEARANCE STRIPE	12X36	3.00	1	---	---	INSTALL AT END OF BRIDGE
	100+78	RT	W5-52R	CLEARANCE STRIPE	12X36	3.00	1	---	---	INSTALL AT END OF BRIDGE
	99+05	RT	W3-1	STOP AHEAD	30x30	6.25	1	---	---	INSTALL AT 99+05 RT
	99+15	RT	D3-1	SUGAR RIVER	---	---	---	1	1	RE-INSTALL AT 9+15 RT
	100+90	LT	D3-1	SUGAR RIVER	---	---	---	1	1	RE-INSTALL AT 100+90 LT
	TOTALS					18.25	5	2	2	

PROJECT NO:5658-00-76

HWY:CTH PB

COUNTY:DANE

MISCELLANEOUS QUANTITIES

SHEET

E

FILE NAME : \$\$....designfile....\$\$

PLOT DATE : \$\$...plottingdate...\$\$

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

PLOT NAME :

PLOT SCALE : \$\$.....plotscale.....\$\$

3

			638.2602	638.3000
			REMOVING	REMOVING
			SIGNS	SMALL
		SIGN	TYPE II	SIGN SUPPORTS
CATEGORY	LOCATION	MESSAGE	EACH	EACH

CATEGORY	PROJECT I.D.	642.5201 EACH
----------	--------------	------------------

		643.5000
CATEGORY	PROJECT I.D.	EACH

3

[illegible]

CATEGORY	STATION	LOCATION	645,0130 SY
----------	---------	----------	----------------

CATEGORY	STATION - STATION	LOCATION	LF	LF	REMARKS
			646.1020	646.1020	
			EPOXY	EPOXY	
			4-INCH	4-INCH	
			(WHITE)	(YELLOW)	

PROJECT NO: 5658-00-76	HWY: CTH PB	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET	E
------------------------	-------------	--------------	--------------------------	-------	---

CONSTRUCTION STAKING SUMMARY							
			650.4500	650.5000	650.5500	650.7000	650.9920
			SUBGRADE	BASE	CURB GUTTER AND CURB & GUTTER	CONCRETE PAVEMENT	SLOPE STAKES
CATEGORY	STATION - STATION	LOCATION	LF	LF	LF	LF	LF
0010	98+40 - 99+25	LT & RT	85	70	170	15	105
		LT & RT	20	5	40	15	40
	100+80 - 101+00						
		TOTALS	105	75	210	30	145

SAWING ASPHALT			
			690.0150
CATEGORY	STATION	LOCATION	LF
0010	98+40 101+00	LT & RT	22
		LT & RT	22
		TOTALS	44

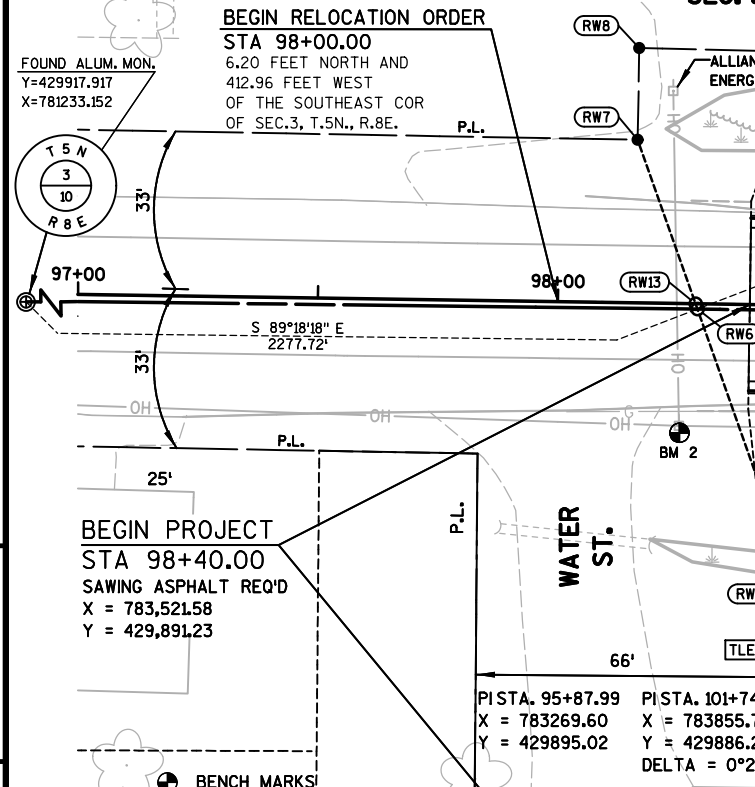
CONTAMINATED SOIL SUMMARY				
			(1) SPV.0195.01 EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL	EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL
CATEGORY	STATION	LOCATION	CY	TON
0030	98+40.00 - 99+45.42	LT & RT	401	682
		LT & RT	103	174
	100+59.58 - 101+00.00	LT & RT	493**	838
		LT & RT	530**	901
		TOTALS	1527	2595

1) EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL = SALVAGED/UNUSABLE MATERIALS X 1.7
**WITHIN LIMITS OF EXCAVATION FOR STRUCTURES BRIDGES B-13-0682

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

EXISTING R/W FOR CTH PB BASED ON PREVIOUS PROJECT: S1118(2)
ALSO KNOWN AS DANE COUNTY HIGHWAY JOB NO:400-20

EXISTING R/W FOR WATER STREET BASED ON PAOLIPLAT AND DOC. 1254929



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	ALLIANT ENERGY	RELEASE OF RIGHTS
102	WISCONSIN TELEPHONE	RELEASE OF RIGHTS

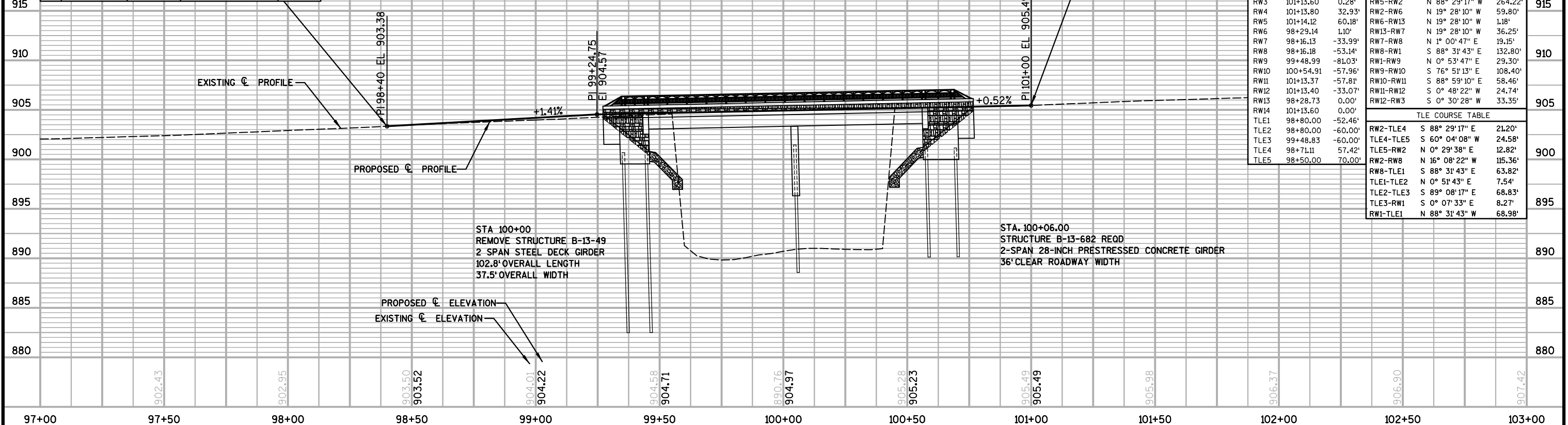
MAP DATE: 3/10/17

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W NEW	S.F. REQUIRED EXISTING TOTAL	TLE S.F.
1	WILLIAM H. HASTINGS	TLE	---	---	545
2	MICHAEL A. JACOBS	TLE	---	---	136

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
1	100+42.40	18.4' LT	CHISELED BOX	905.70
2	98+25.75	27.0' RT	SPIKE IN POWERPOLE	902.82

STATION & OFFSET TABLE			R/W COURSE TABLE		
RW1	99+48.97	-51.73'	RW3-RW4	S 0° 30' 28" W	32.66'
RW2	98+49.91	57.18'	RW4-RW5	S 0° 11' 51" W	27.25'
RW3	101+13.60	0.28'	RW5-RW2	N 88° 29' 17" W	264.22'
RW4	101+13.80	32.93'	RW2-RW6	N 19° 28' 10" W	59.80'
RW5	101+14.12	60.18'	RW6-RW13	N 19° 28' 10" W	1.18'
RW6	98+29.14	1.10'	RW13-RW7	N 19° 28' 10" W	36.25'
RW7	98+16.13	-33.99'	RW7-RW8	N 1° 00' 47" E	19.15'
RW8	98+16.18	-53.14'	RW8-RW1	S 88° 31' 43" E	132.80'
RW9	99+48.99	-81.03'	RW1-RW9	N 0° 53' 47" E	29.30'
RW10	100+54.91	-57.96'	RW9-RW10	S 76° 51' 13" E	108.40'
RW11	101+13.37	-57.81'	RW10-RW11	S 88° 59' 10" E	58.46'
RW12	101+13.40	-33.07'	RW11-RW12	S 0° 48' 22" W	24.74'
RW13	98+28.73	0.00'	RW12-RW3	S 0° 30' 28" W	33.35'
RW14	101+13.60	0.00'	TLE COURSE TABLE		
TLE1	98+80.00	-52.46'	RW2-TLE4	S 88° 29' 17" E	21.20'
TLE2	98+80.00	-60.00'	TLE4-TLE5	S 60° 04' 08" W	24.58'
TLE3	99+48.83	-60.00'	TLE5-RW2	N 0° 29' 38" E	12.82'
TLE4	98+71.11	57.42'	RW2-RW8	N 16° 08' 22" W	115.36'
TLE5	98+50.00	70.00'	RW8-TLE1	S 88° 31' 43" E	63.82'
			TLE1-TLE2	N 0° 51' 43" E	7.54'
			TLE2-TLE3	S 89° 08' 17" E	68.83'
			TLE3-RW1	S 0° 07' 33" E	8.27'
			RW1-TLE1	N 88° 31' 43" W	68.98'



PROJECT NO: 5658-00-76

HWY: CTH PB

COUNTY: DANE

PLAN & PROFILE

SHEET

E

FILE NAME : S:\MAD\1100--1199\1124\014\Micros\PLAN\050101.pp.dgn

PLOT DATE : 7/6/2017

PLOT BY : _username_

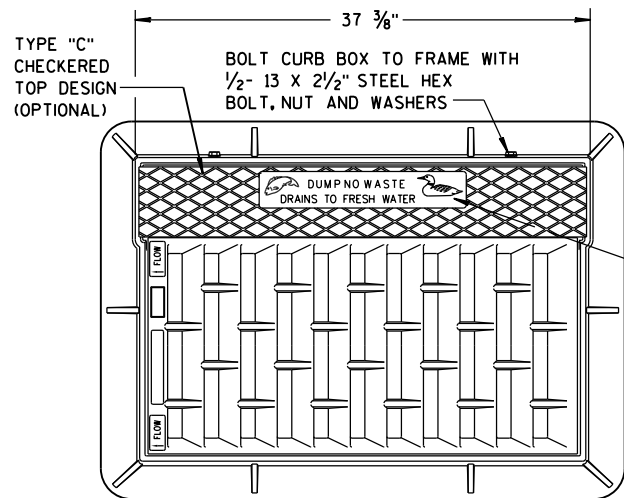
PLOT NAME :

PLOT SCALE : \$\$.....plotScale.....\$\$

WISDOT/CADS SHEET 30

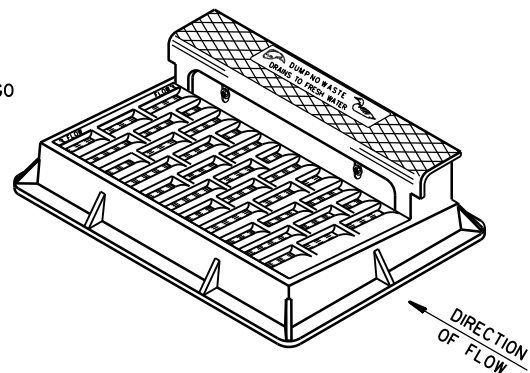
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13A03-06	CONCRETE PAVEMENT SHOULDERS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-18A	LONGITUDINAL MARKING (MAINLINE)

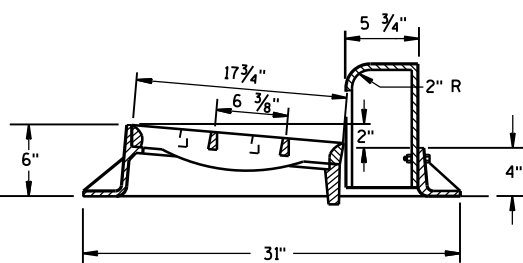
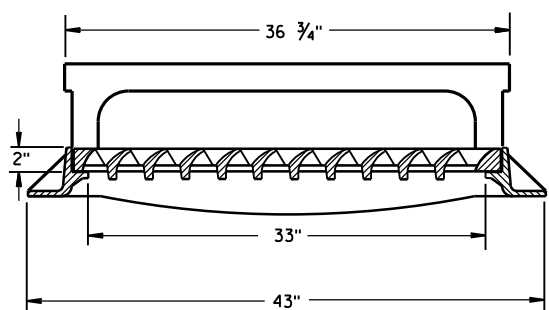
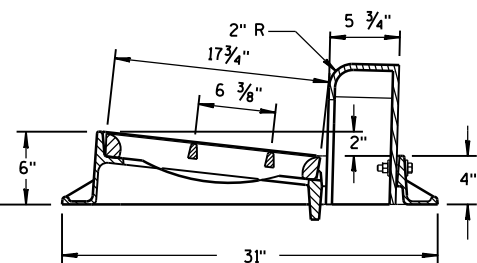
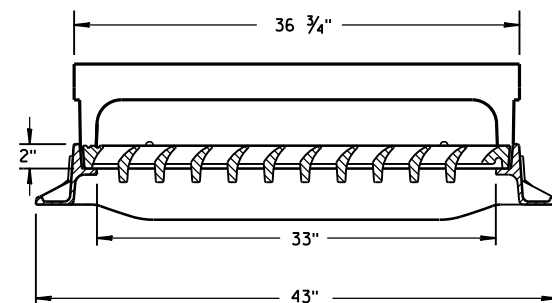
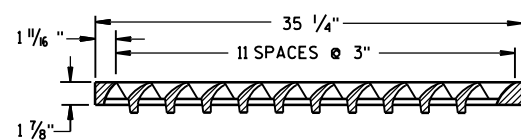


SEE LOGO
DETAIL

NOTE:
GRATE IS REVERSIBLE.

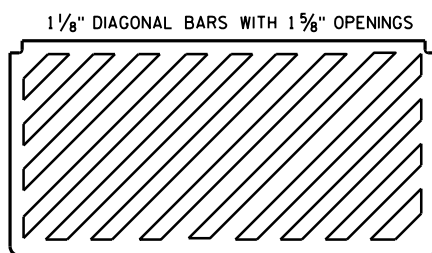


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



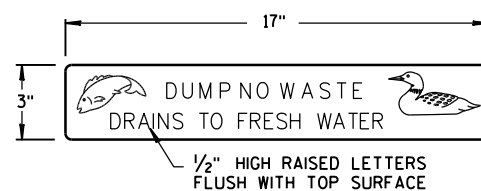
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

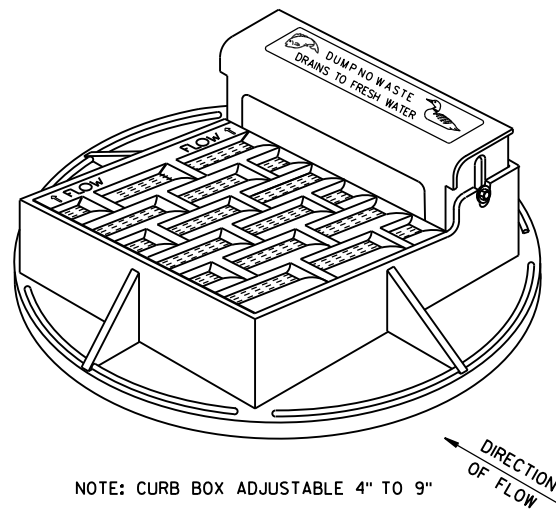


**SPECIAL GRATE FOR
TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

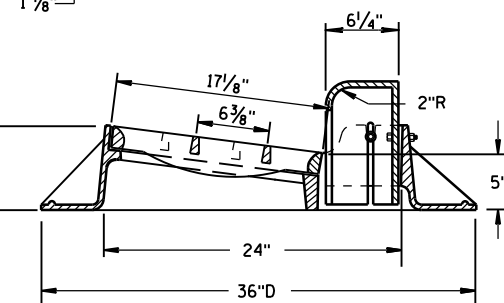
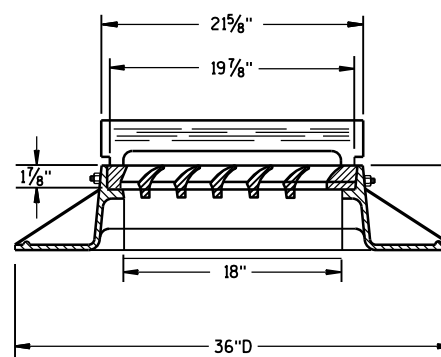
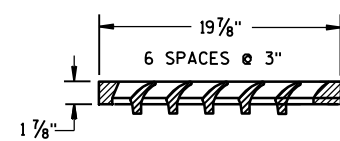
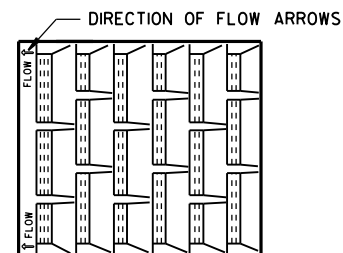


LOGO DETAIL

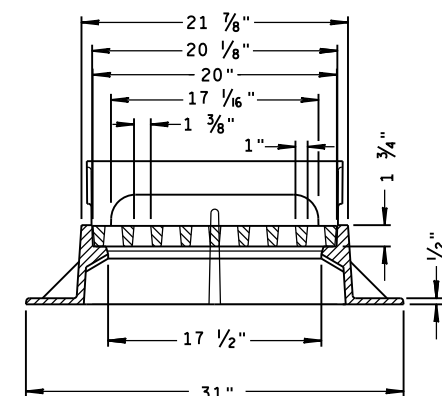
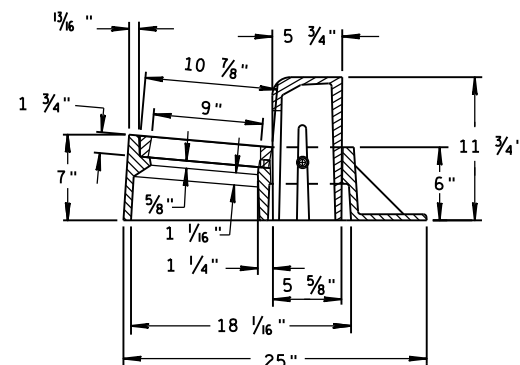


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

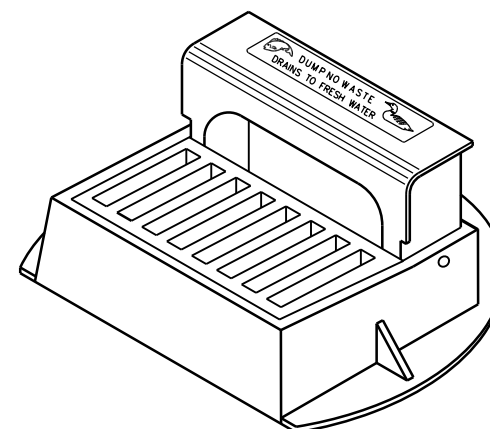
NOTE:
GRATE IS REVERSIBLE.



TYPE "A"



TYPE "Z"



**INLET COVERS
TYPE A, H, A-S, H-S & Z**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
11-27-13
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

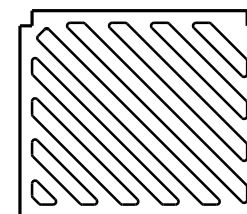
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

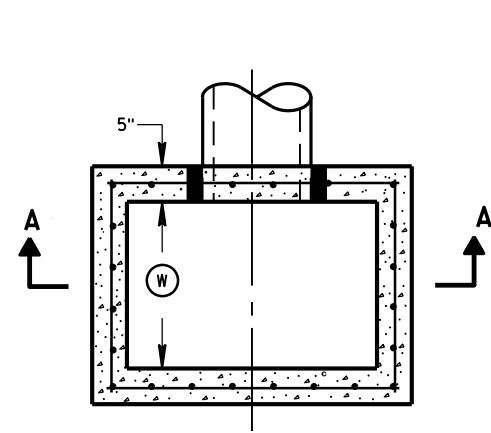
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

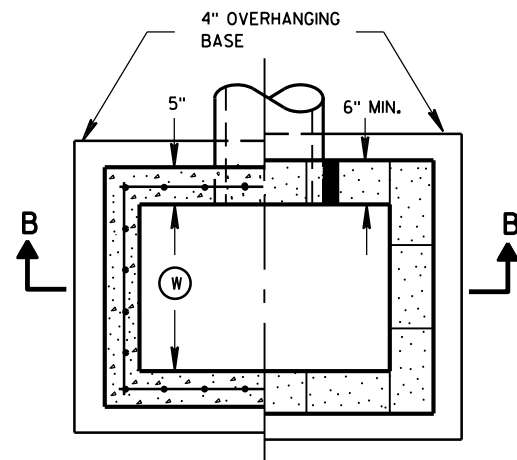


**SPECIAL GRATE FOR
TYPE "A" COVER**

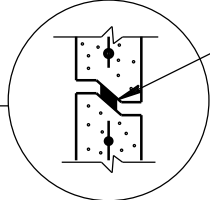
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



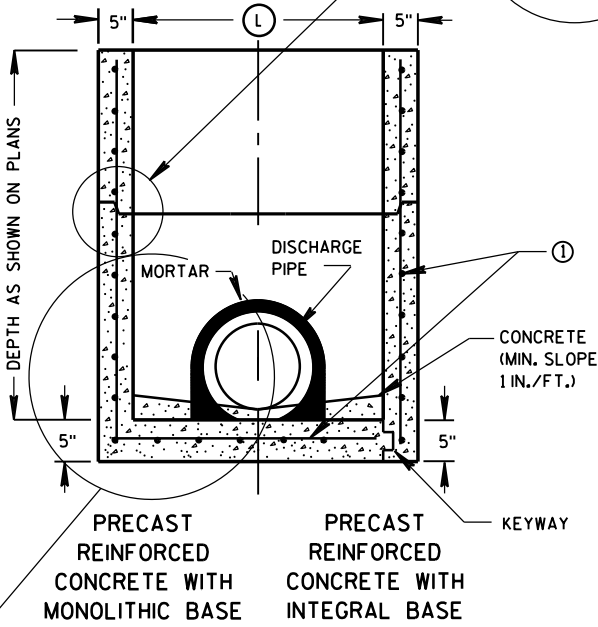
PLAN VIEW



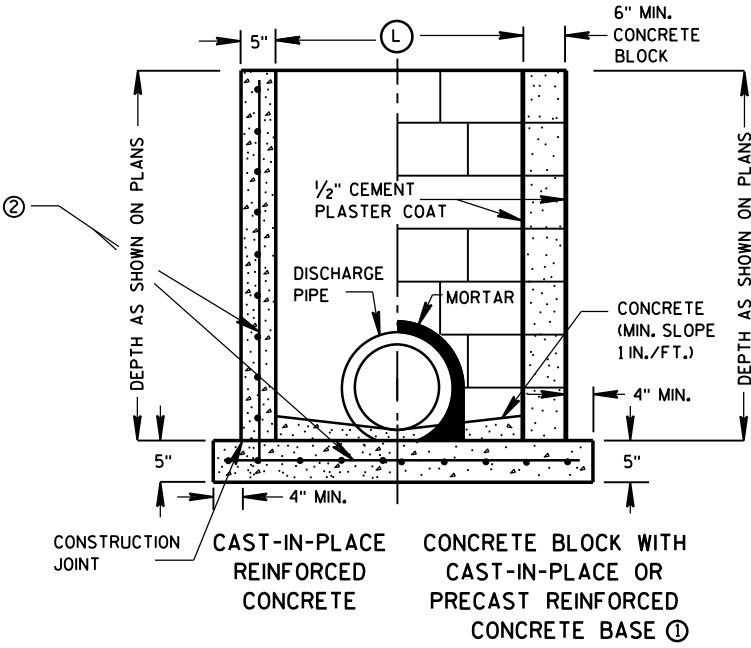
PLAN VIEW



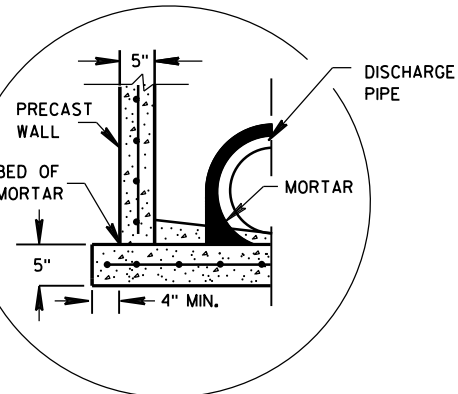
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

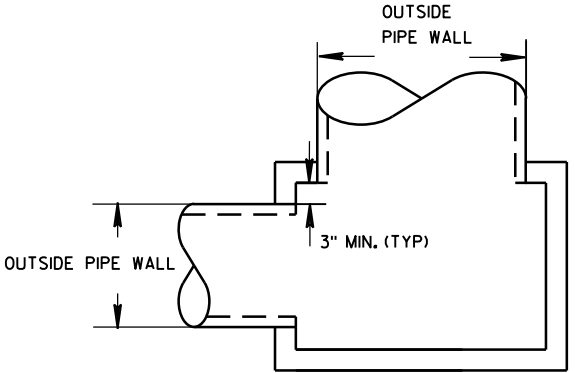
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	WIDTH ① (FT)	INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
		LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



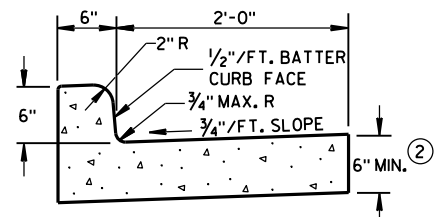
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

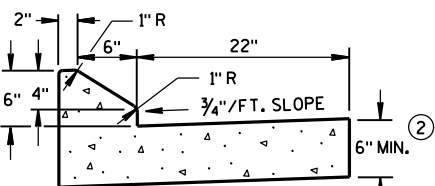
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

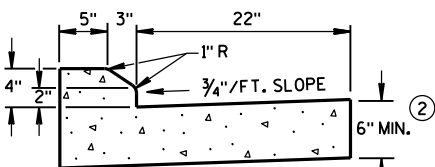
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



TYPES A & D ①

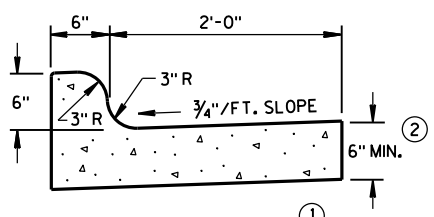


6" SLOPED CURB TYPES G & J ①



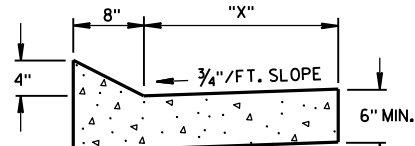
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



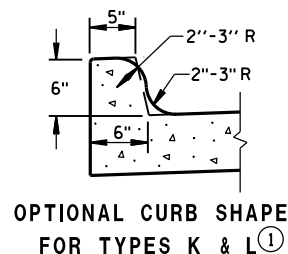
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

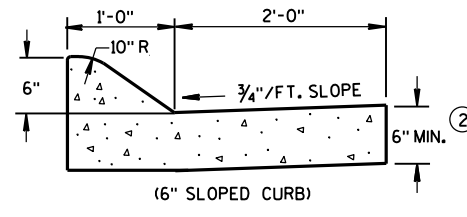


TYPES TBT & TBTT ①
CONCRETE CURB & GUTTER

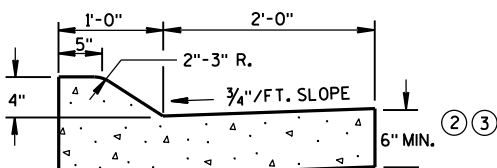
TBT & TBTT	"X"
30"	22"
36"	28"



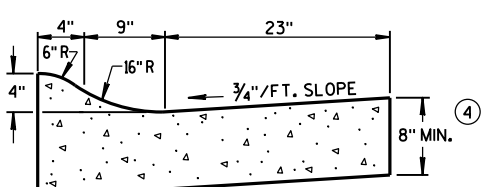
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



(6" SLOPED CURB)

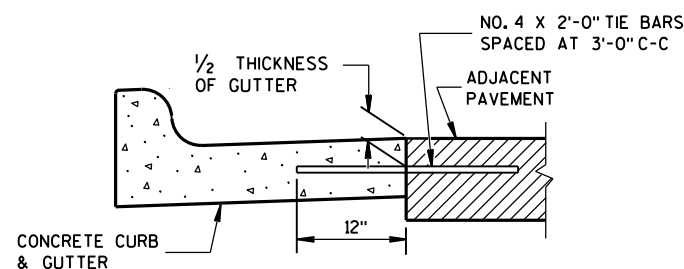


(4" SLOPED CURB)
TYPES A & D ①

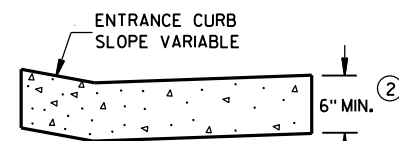


4" SLOPED CURB TYPES R & T ① ⑤

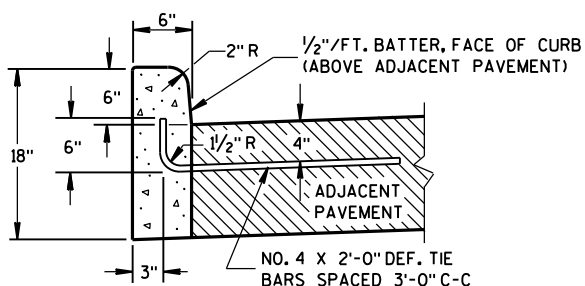
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

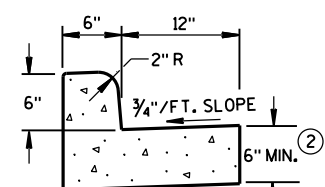


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

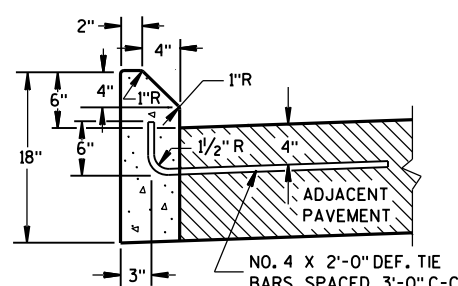


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

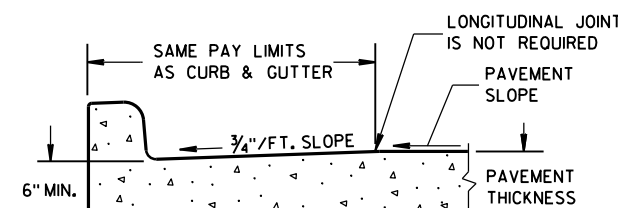
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

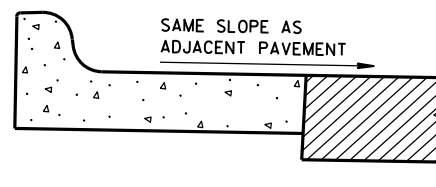
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

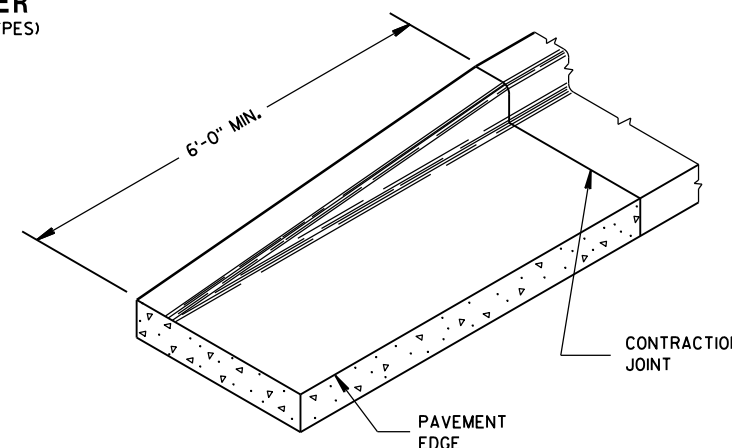
- TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



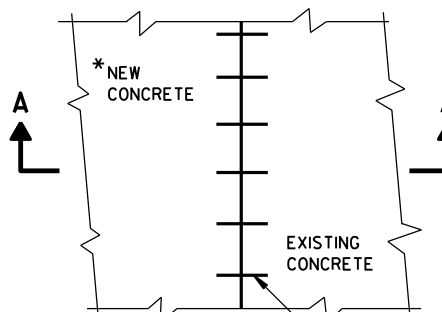
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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



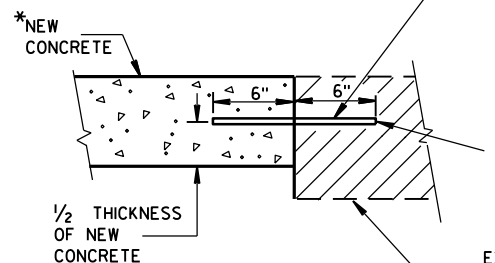
END SECTION CURB & GUTTER



PLAN VIEW

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

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.



SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

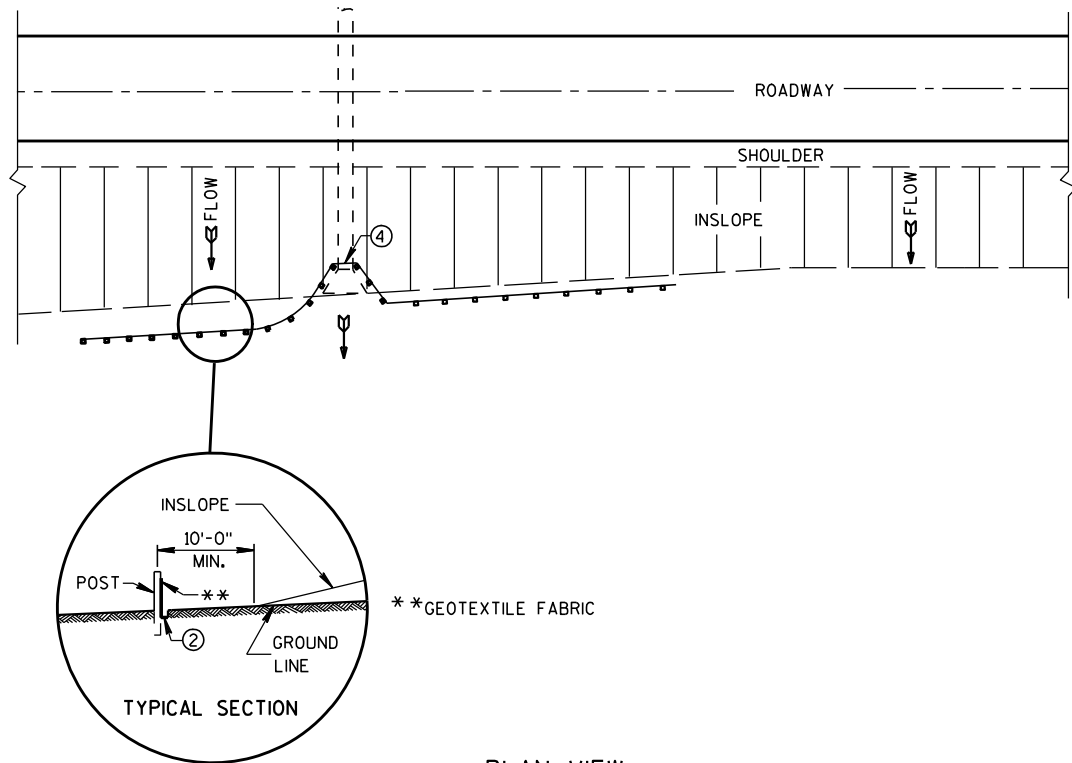
EXISTING CONCRETE

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

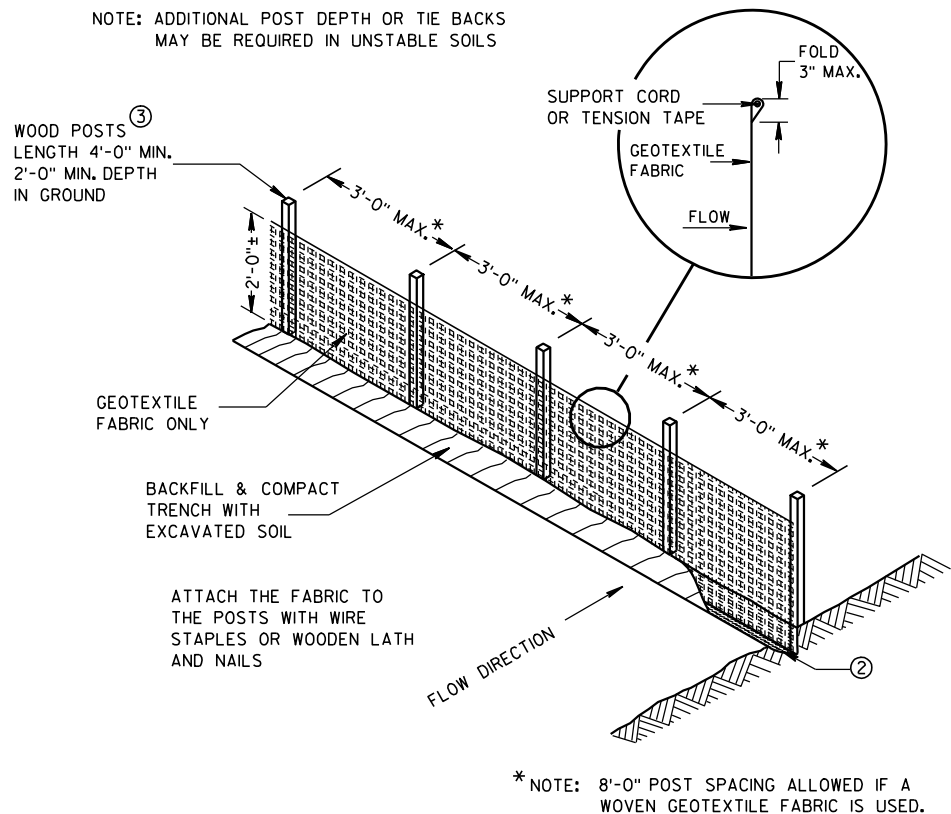
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016
DATE
FHWA

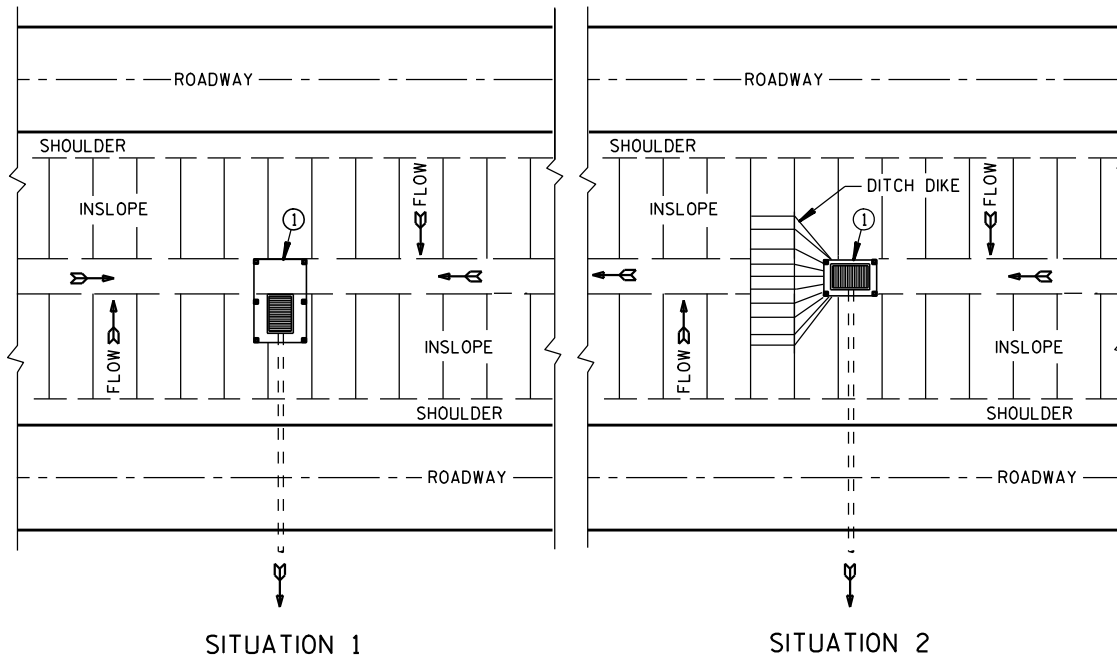
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



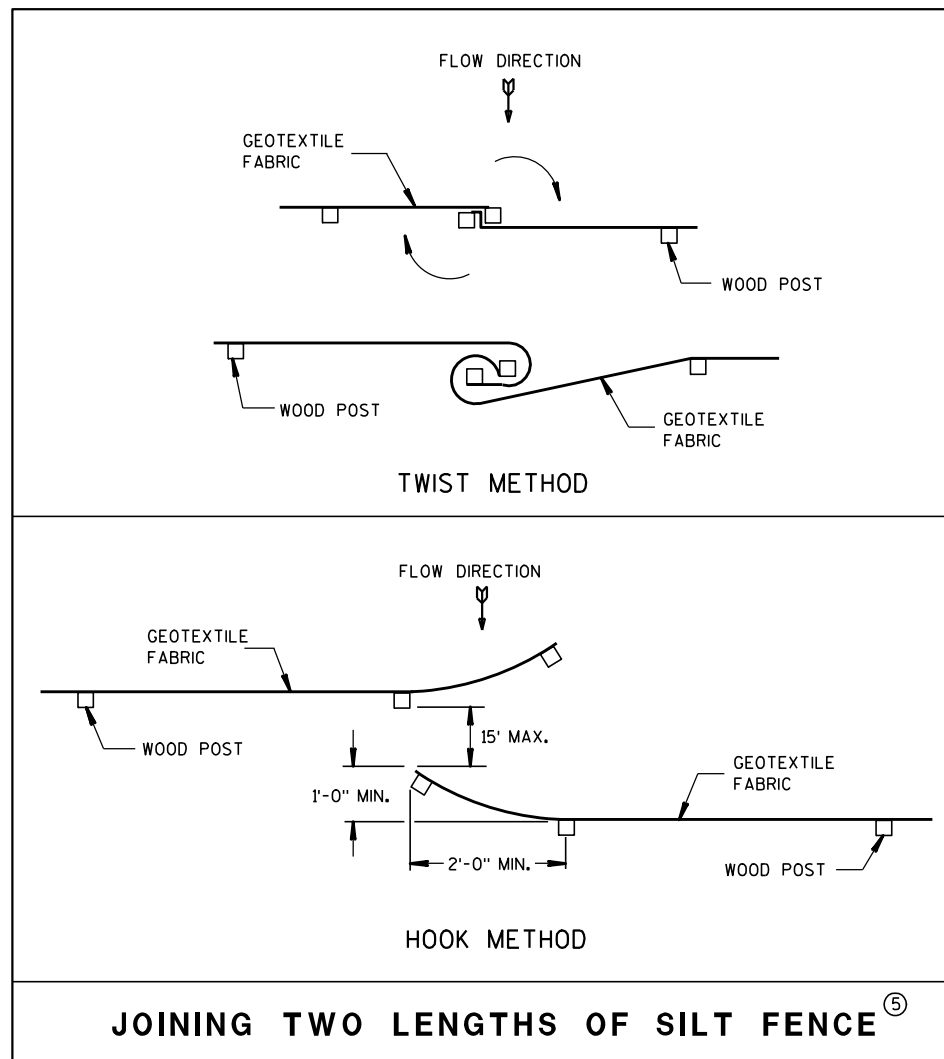
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

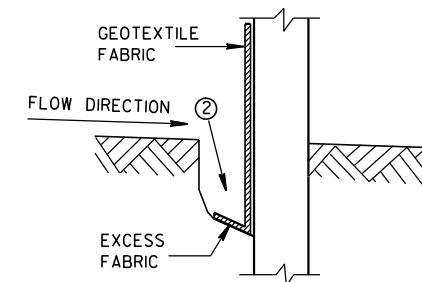


JOINING TWO LENGTHS OF SILT FENCE^⑤

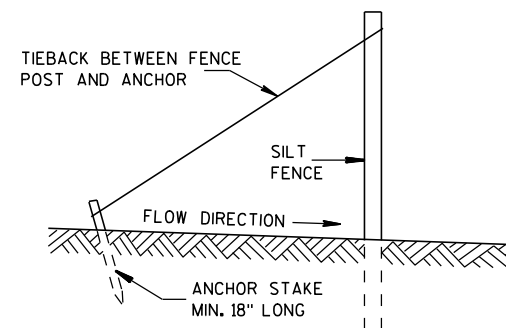
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

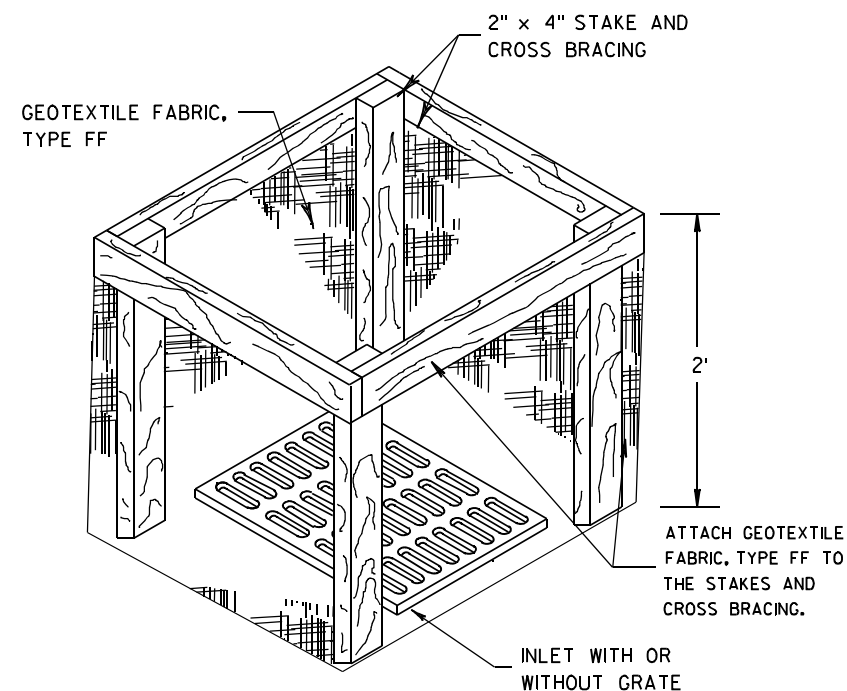
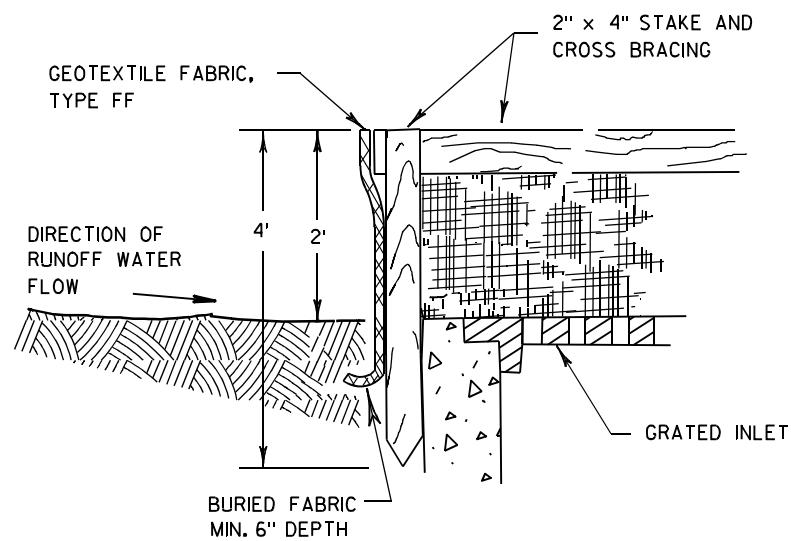


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

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



INLET PROTECTION, TYPE A

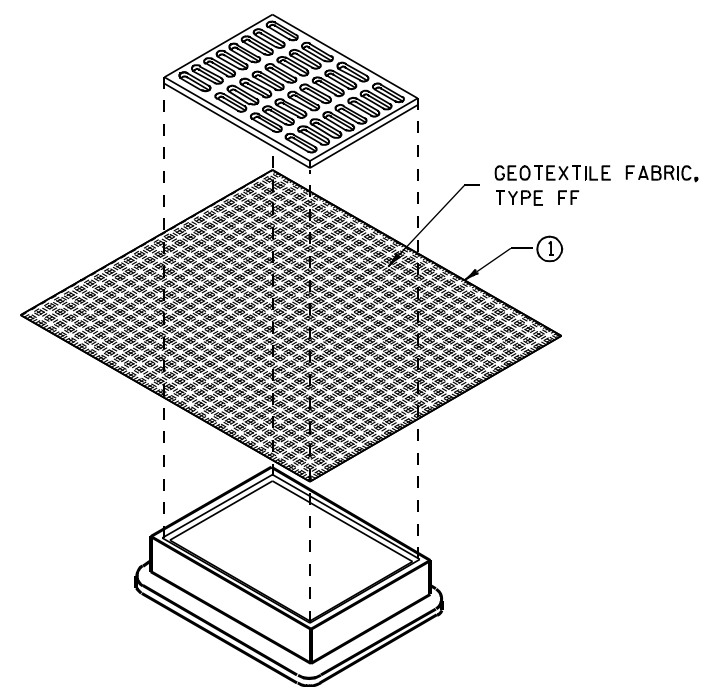
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

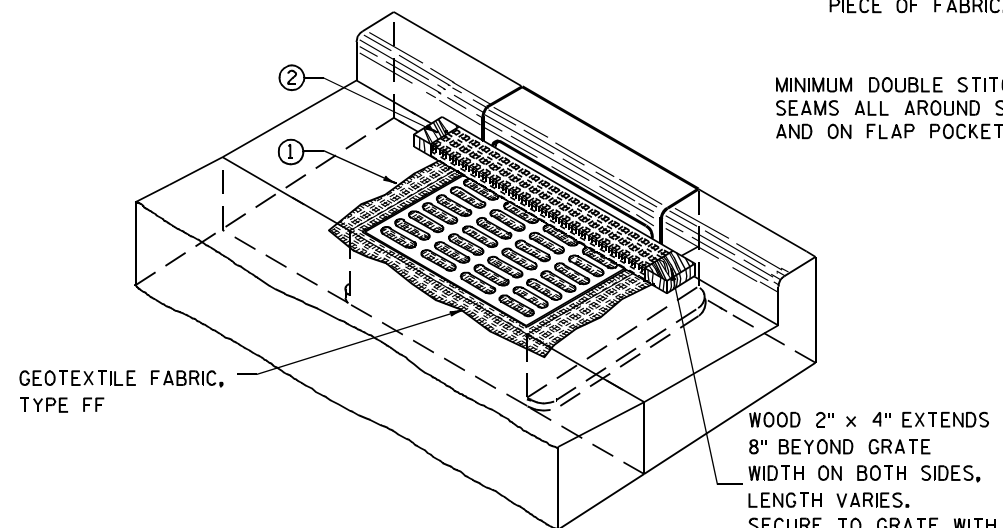
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

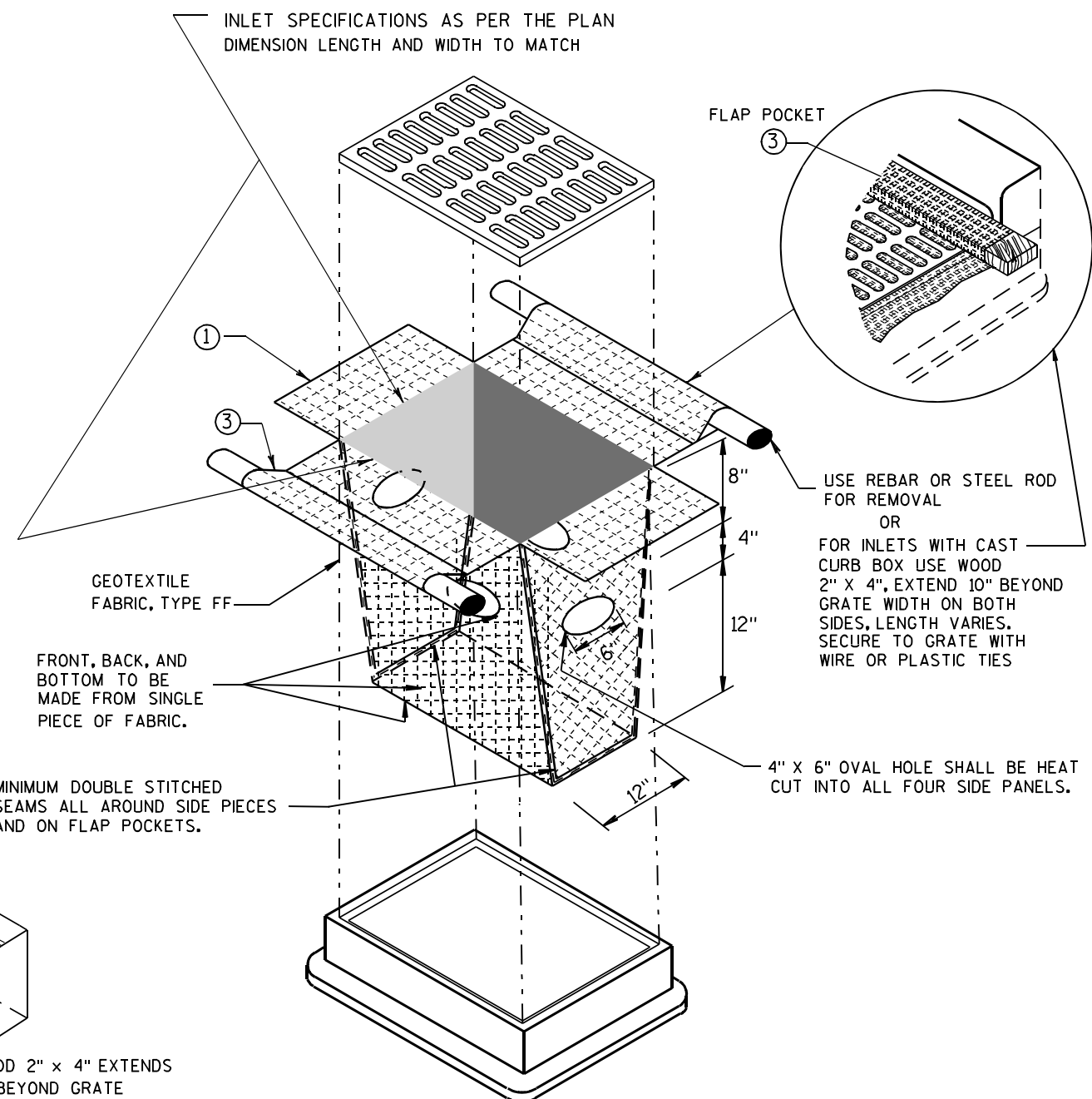
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLower THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



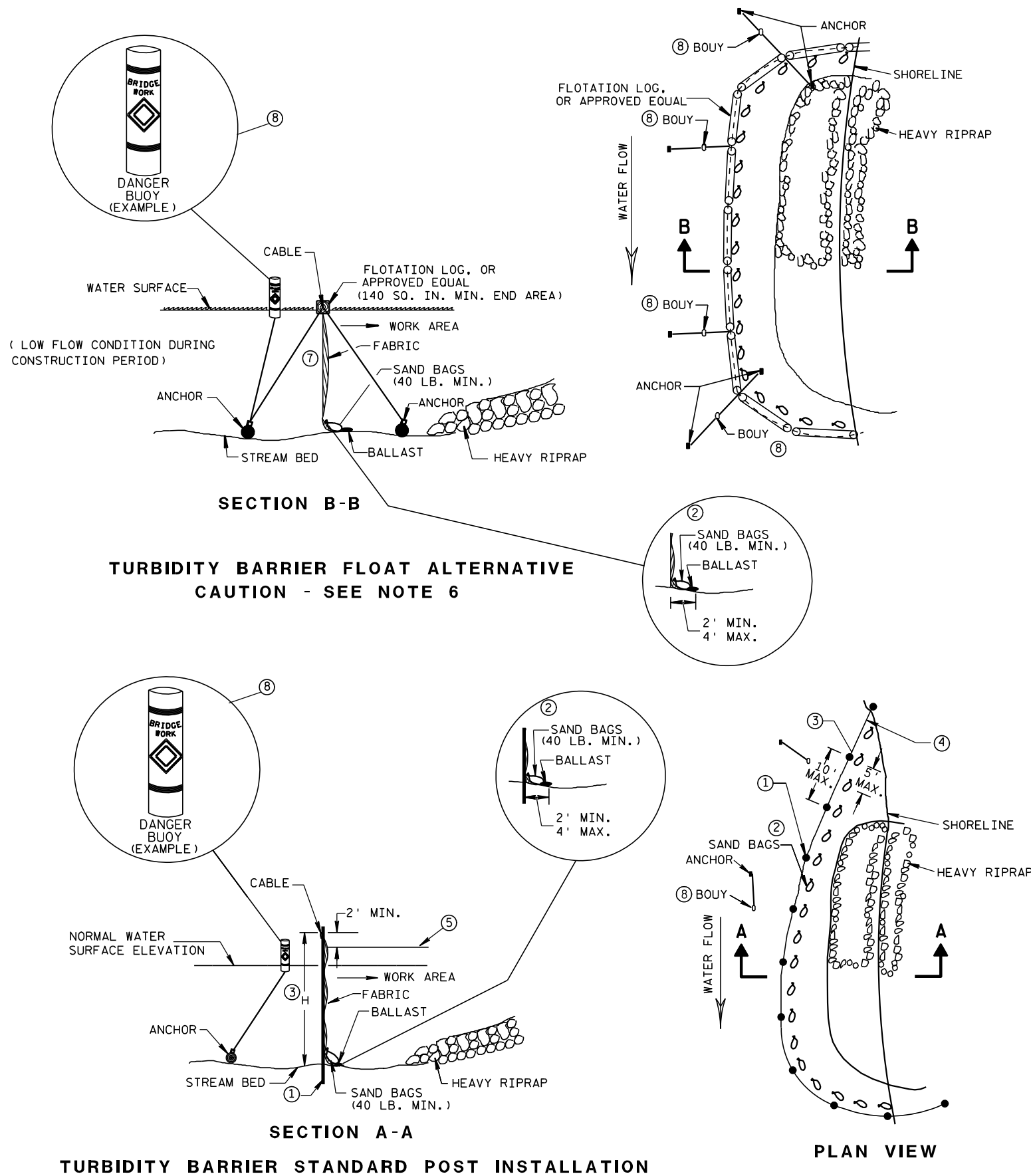
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

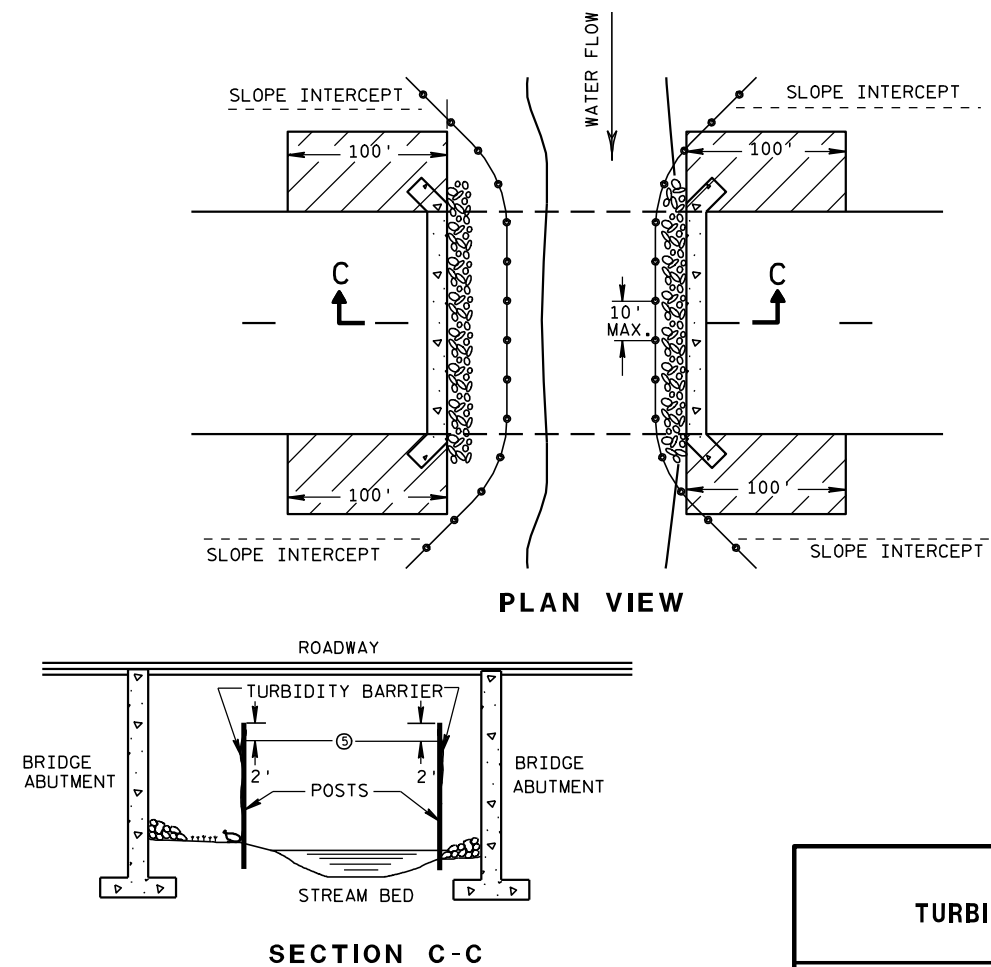


GENERAL NOTES

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

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

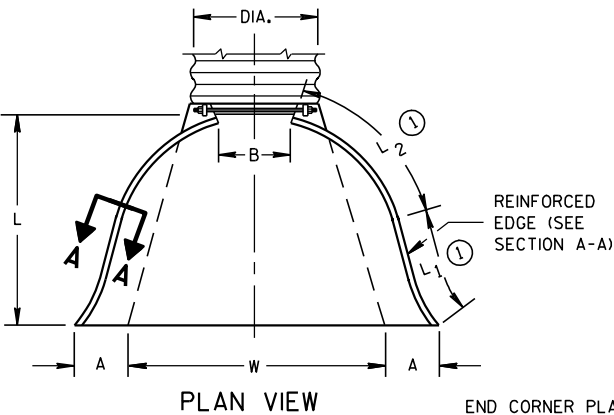
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

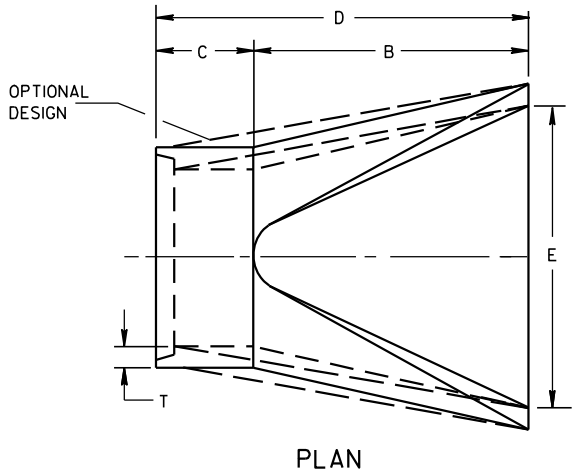
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



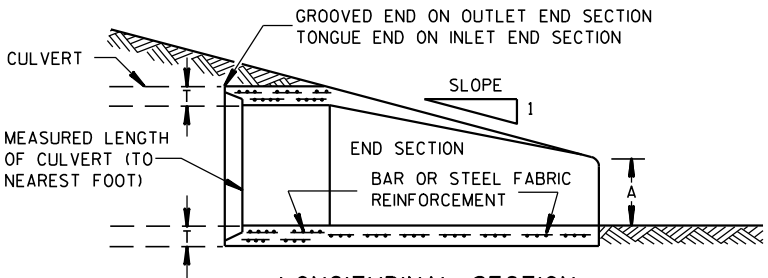
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 2/5 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

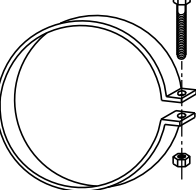
* MINIMUM
** MAXIMUM



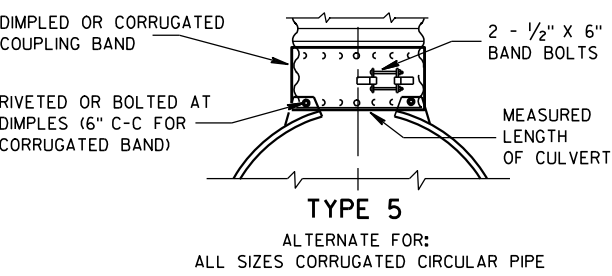
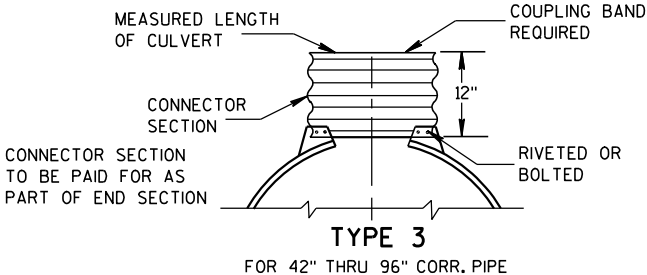
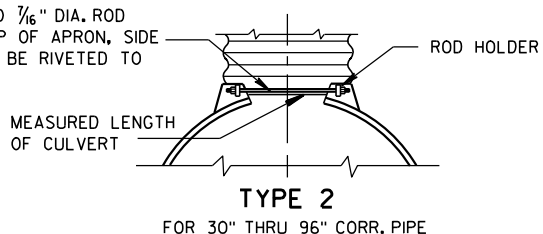
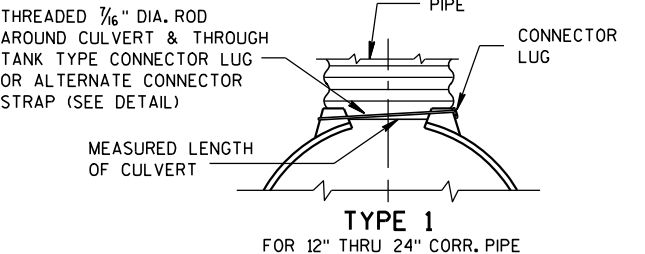
LONGITUDINAL SECTION
CONCRETE ENDWALLS



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



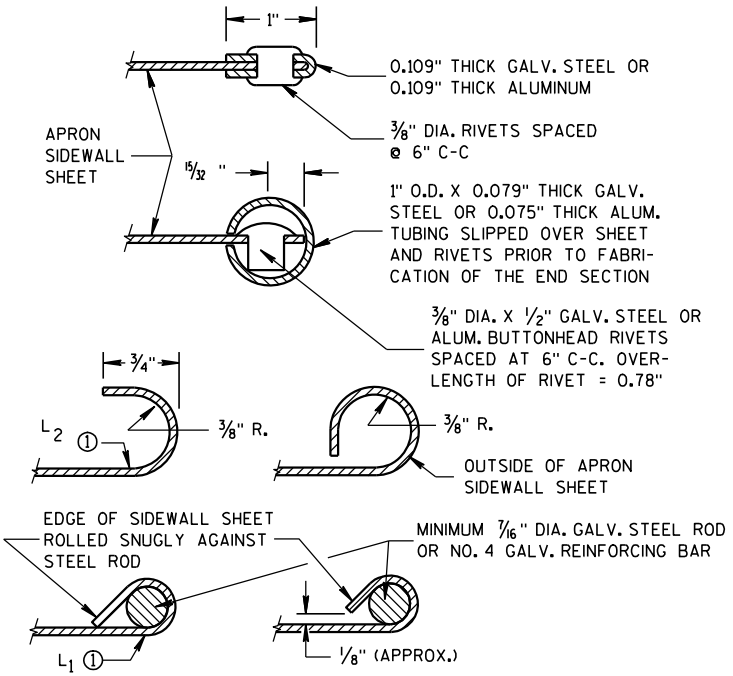
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION 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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

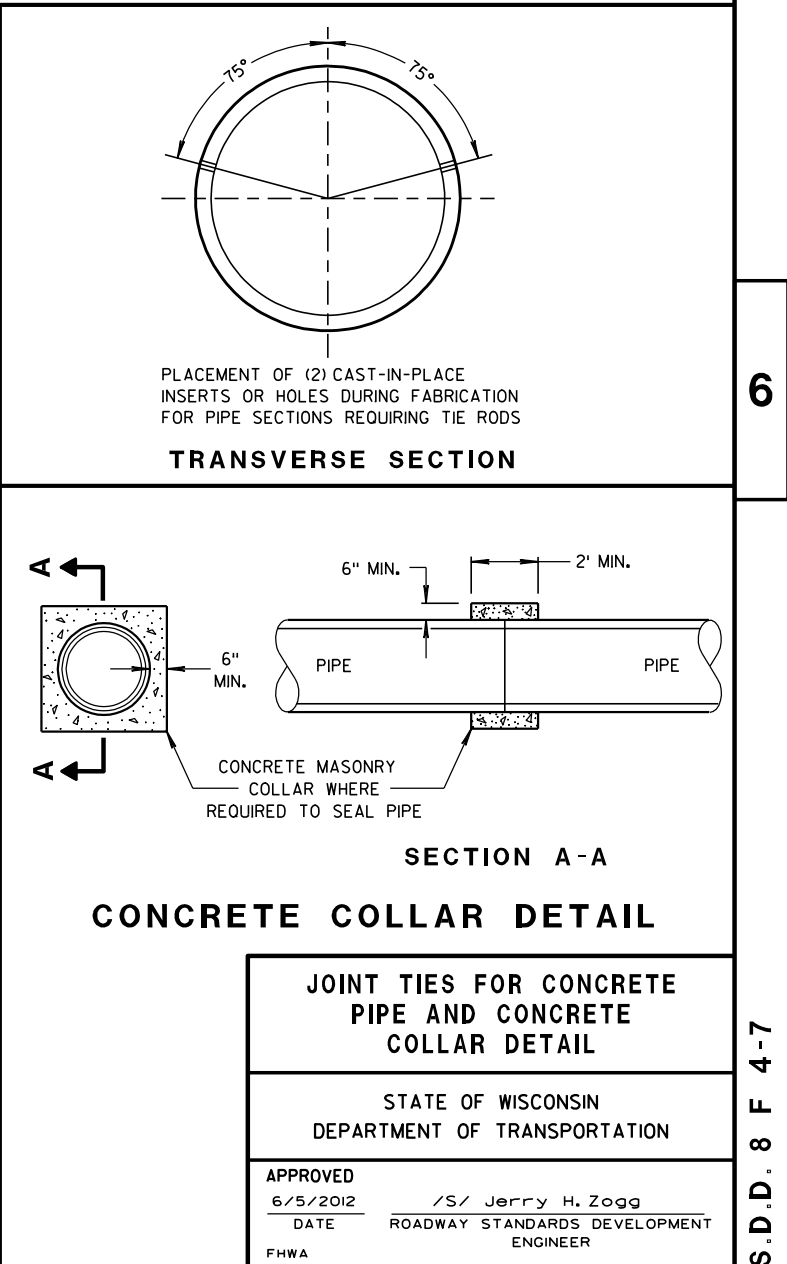
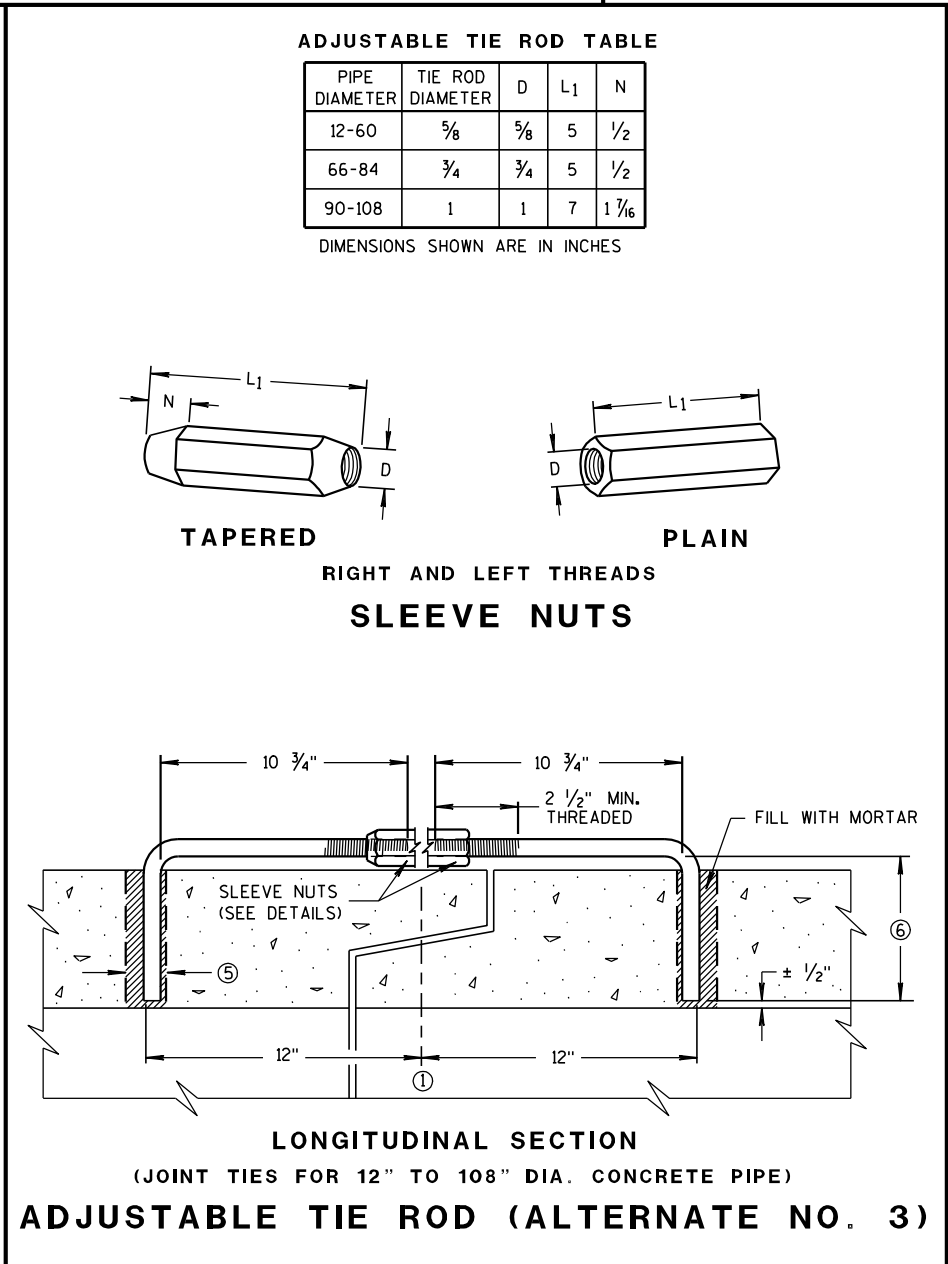
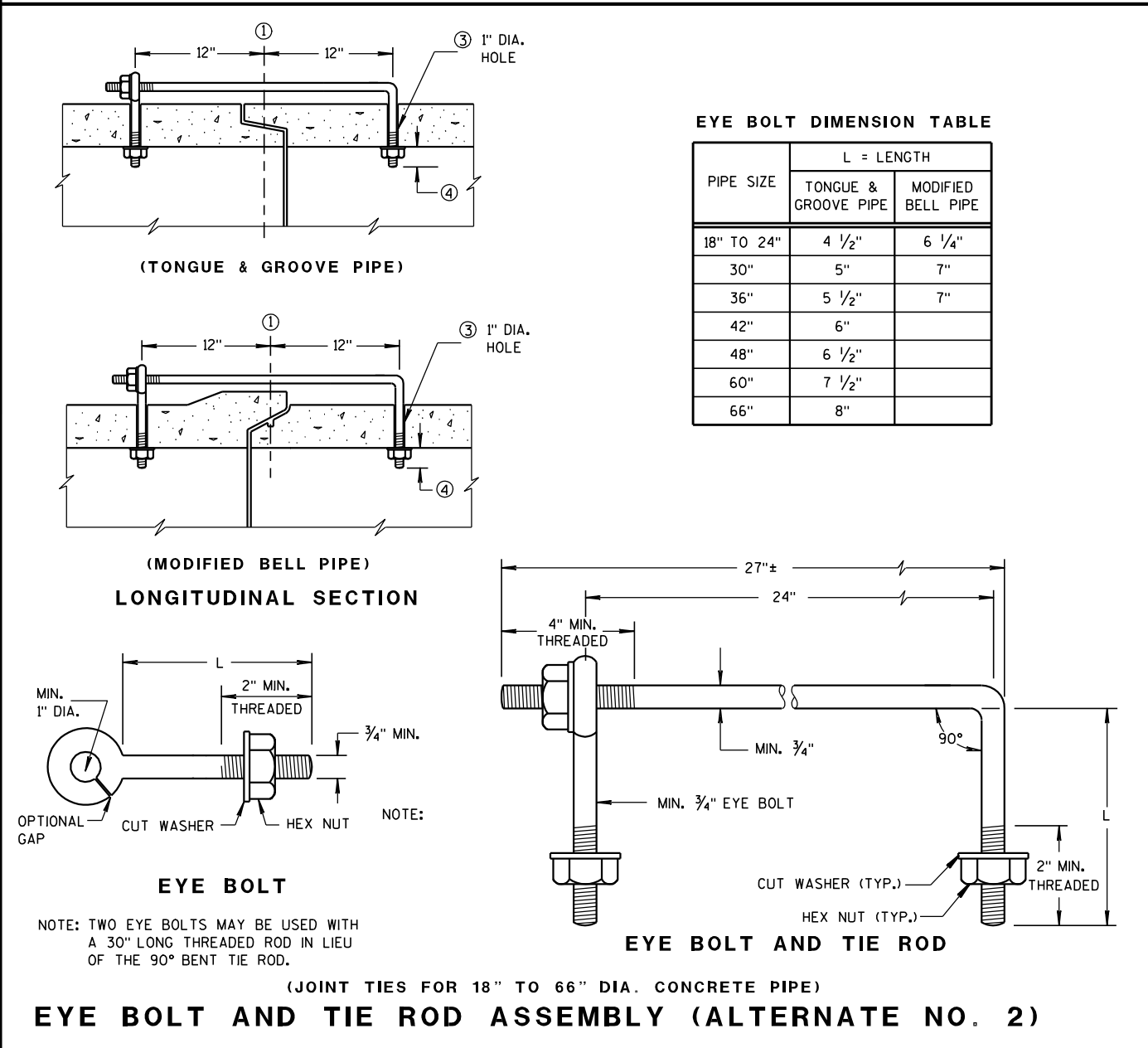
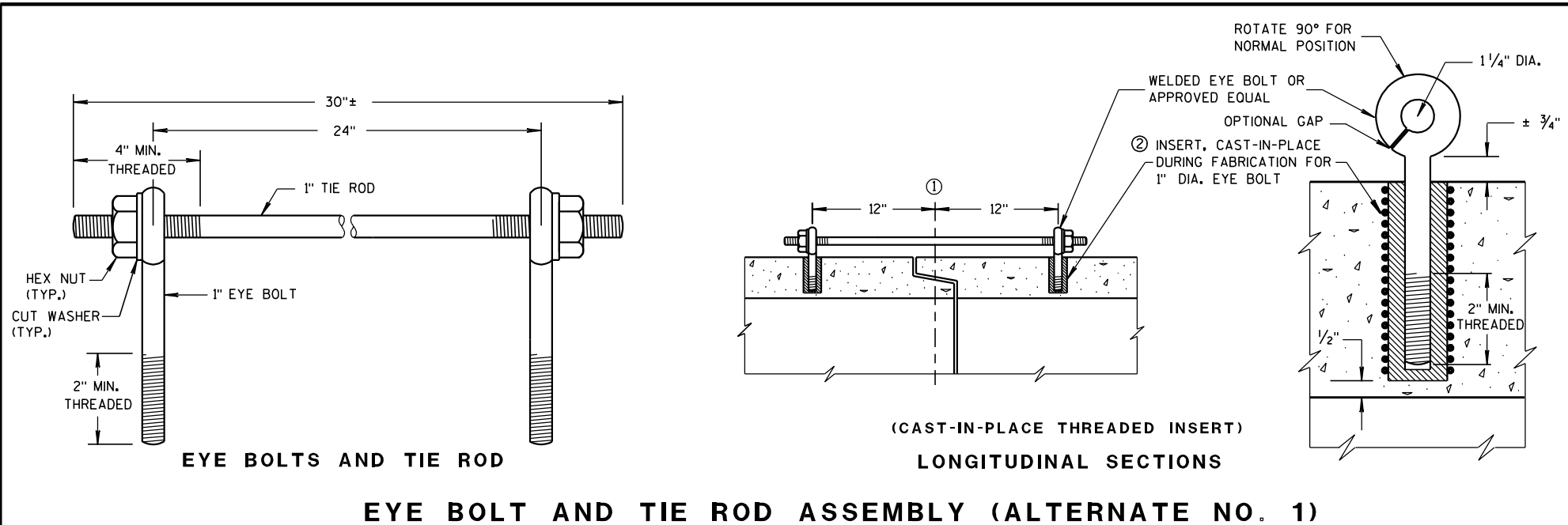
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

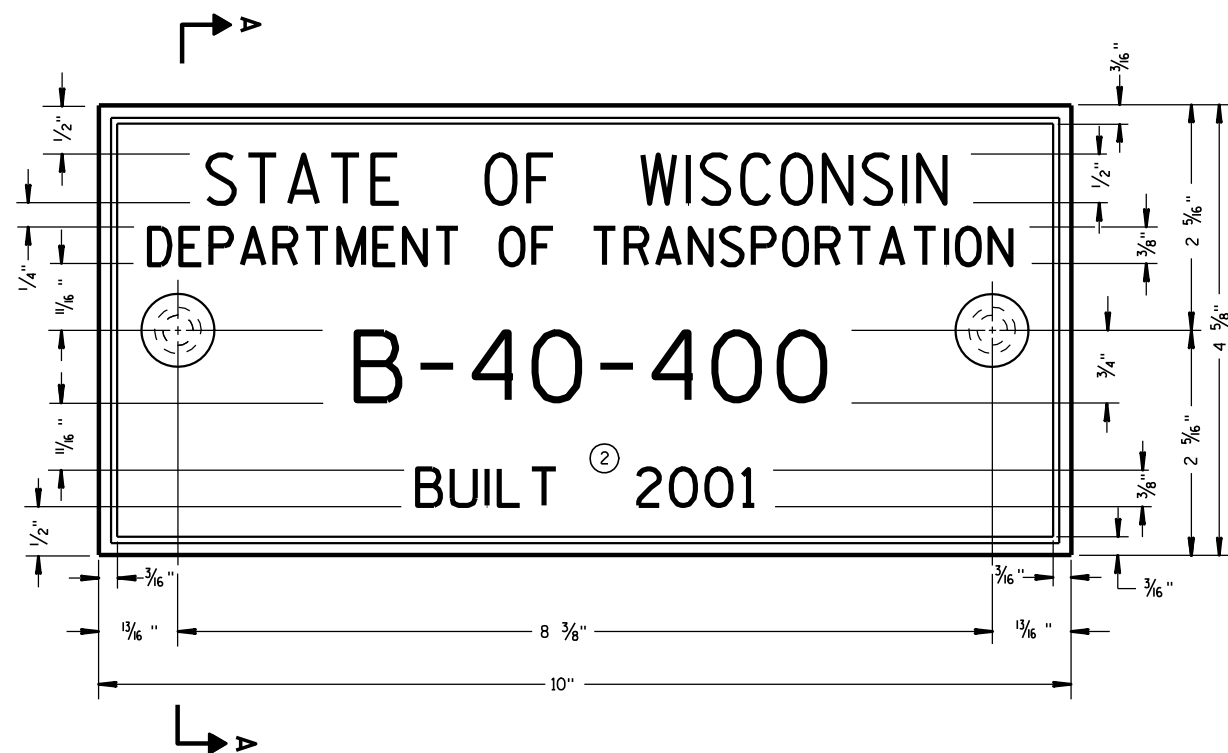
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

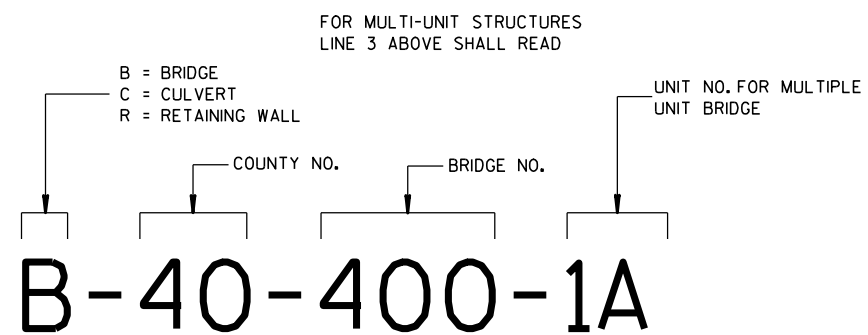
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	





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



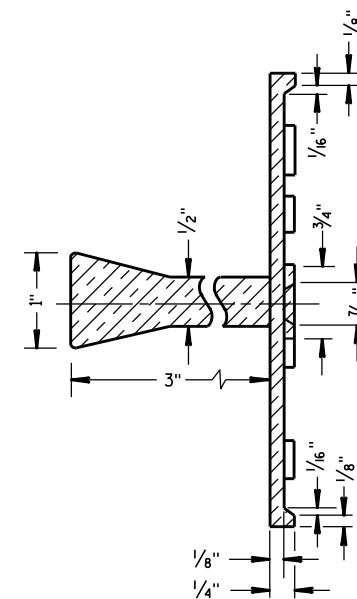
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

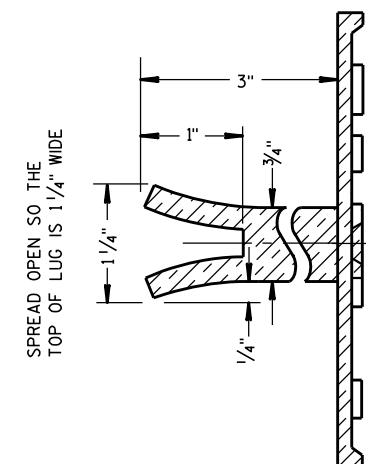
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

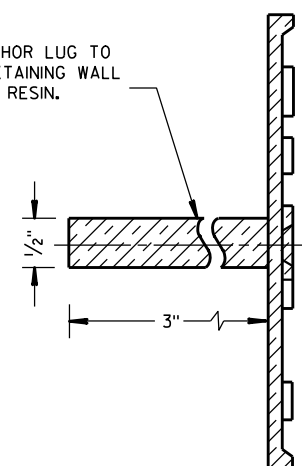


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

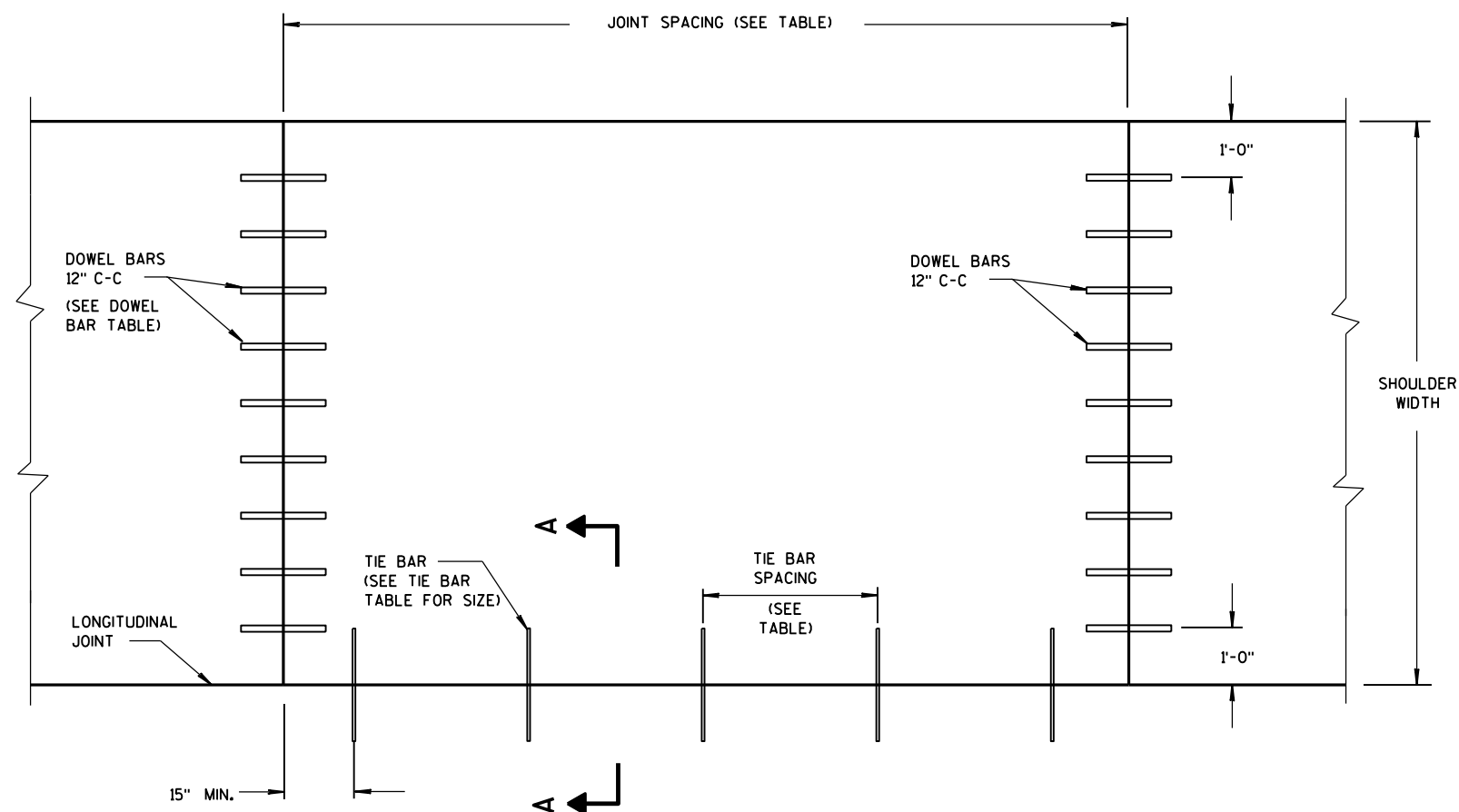
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



PLAN VIEW
CONCRETE PAVEMENT SHOULDER

TIE BAR TABLE

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

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

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

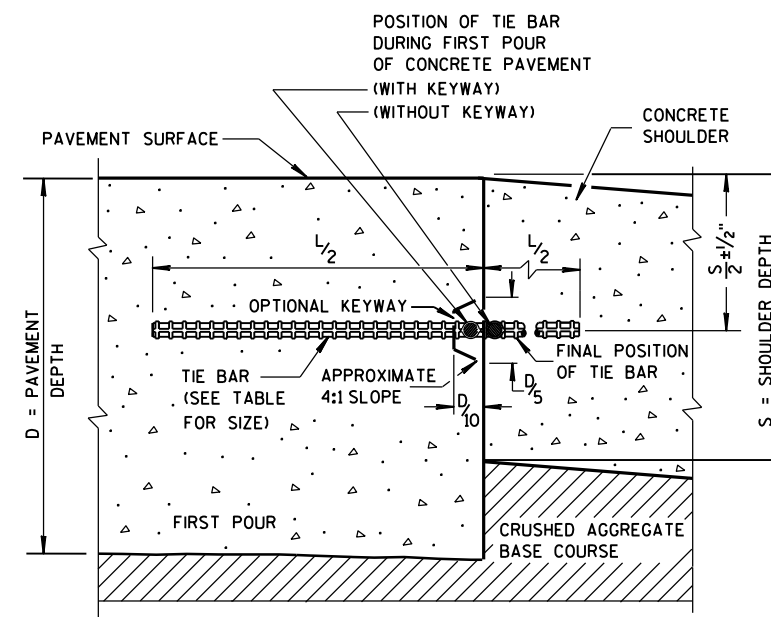
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

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

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



SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

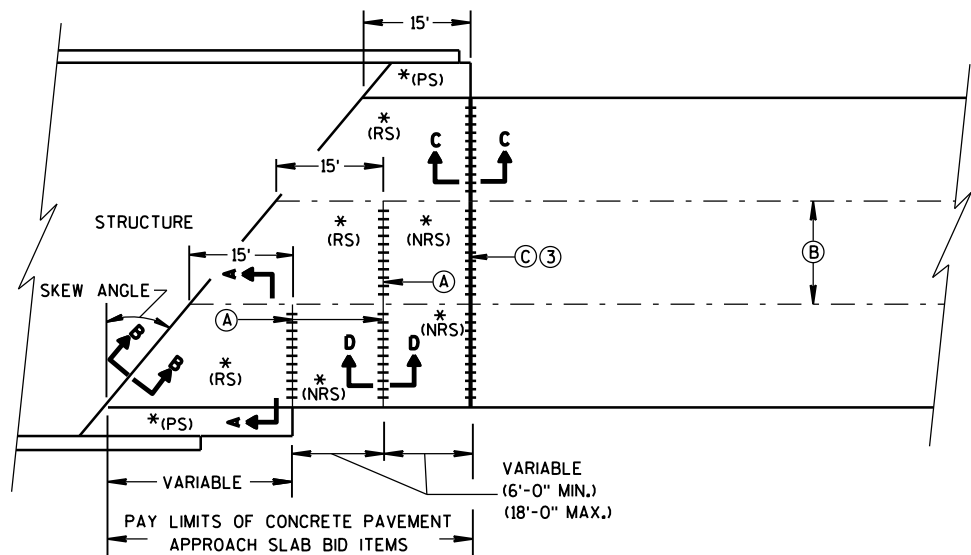
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

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

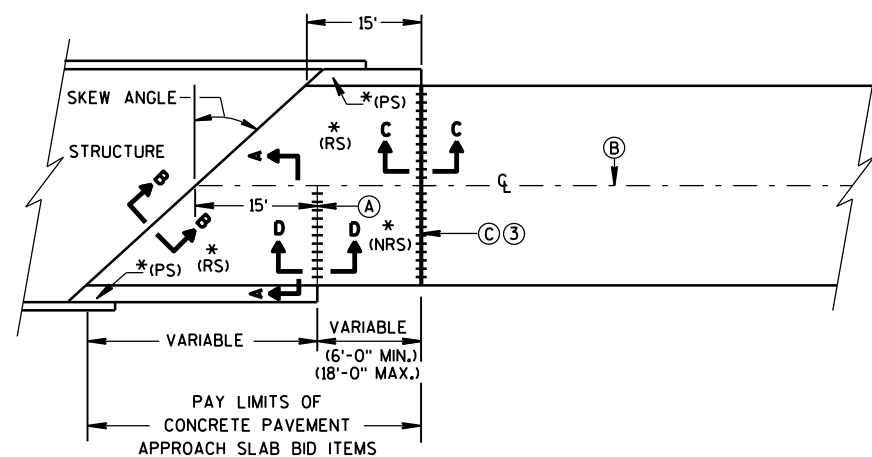
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

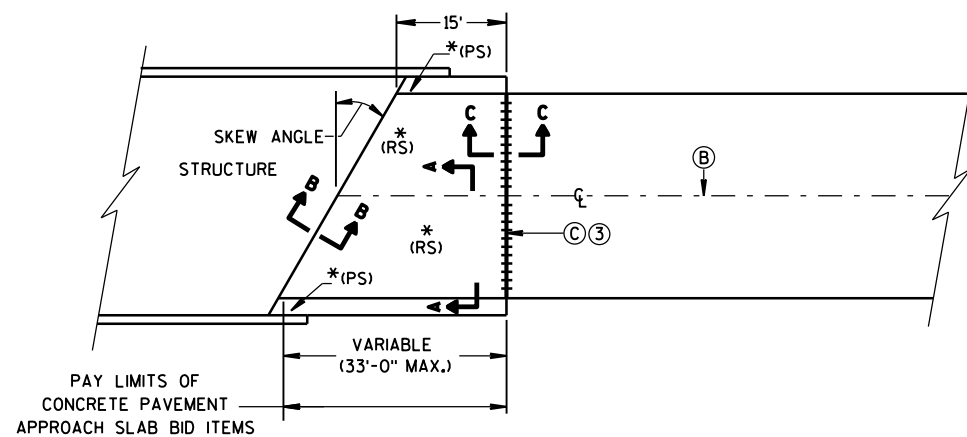
APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



**SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)**



**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**

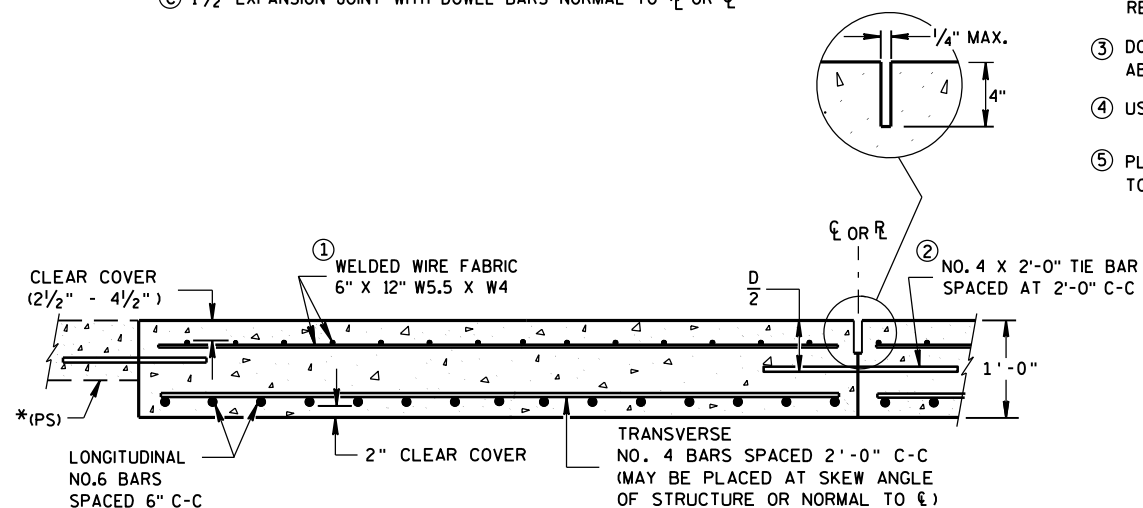


**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT**

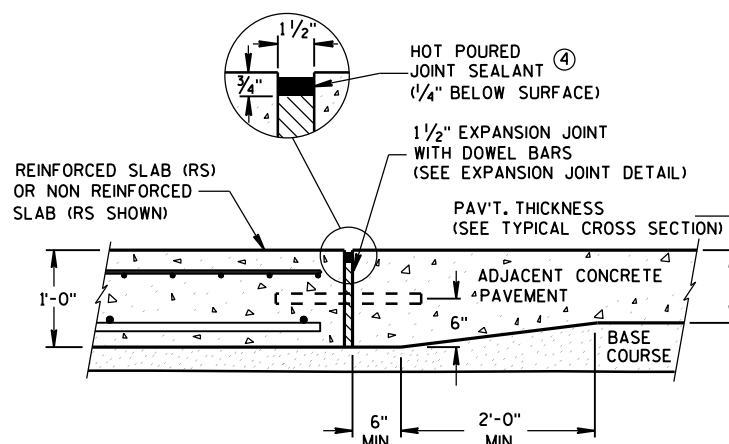
* (RS) = REINFORCED CONCRETE SLAB
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
* (NRS) = NON-REINFORCED CONCRETE SLAB

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

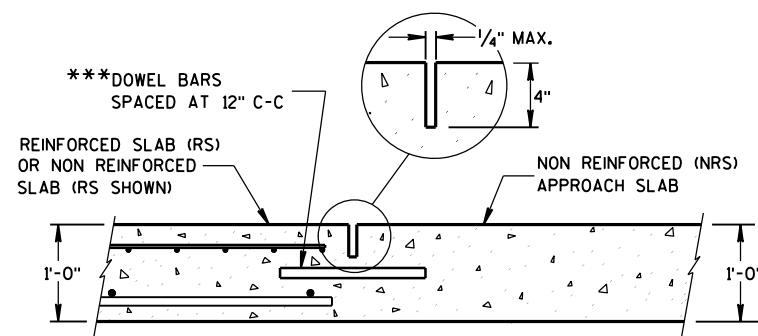
- (A) STANDARD CONTRACTION JOINT NORMAL TO ℓ OR ℓ_c
(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
(C) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℓ OR ℓ_c



**SECTION A-A
REINFORCEMENT POSITIONING DETAIL**



**SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



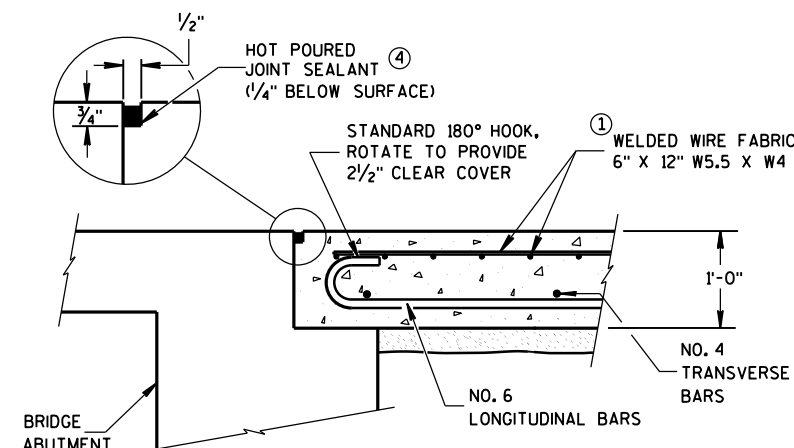
**SECTION D-D
CONTRACTION JOINT**

GENERAL NOTES

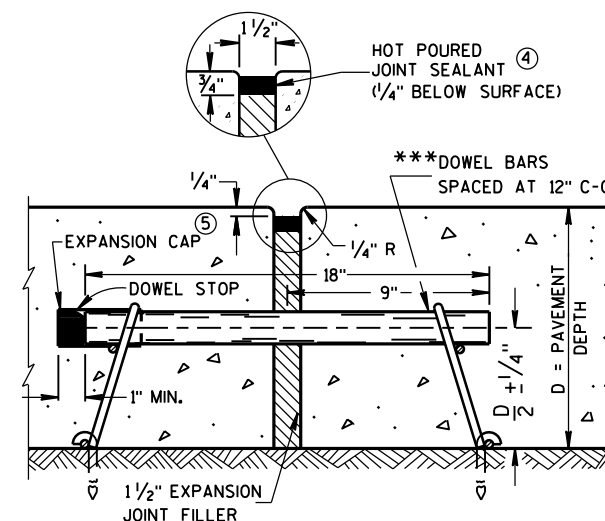
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



**SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT**



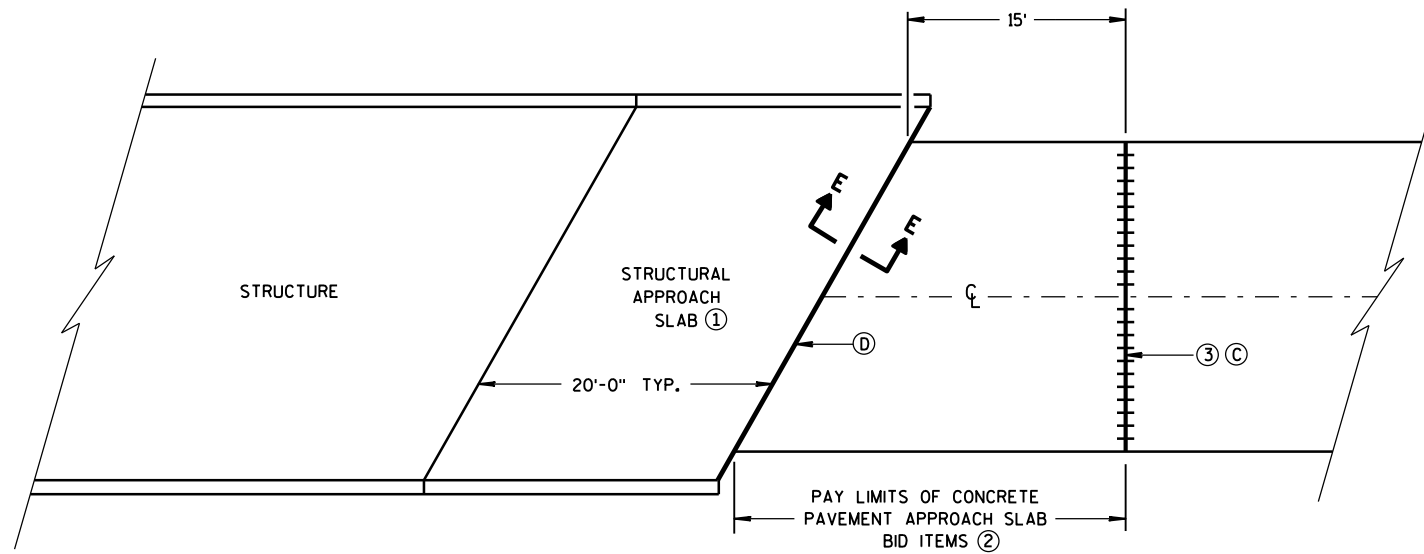
EXPANSION JOINT DETAIL

**CONCRETE PAVEMENT
APPROACH SLAB**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
June, 2015
DATE
FWHA

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

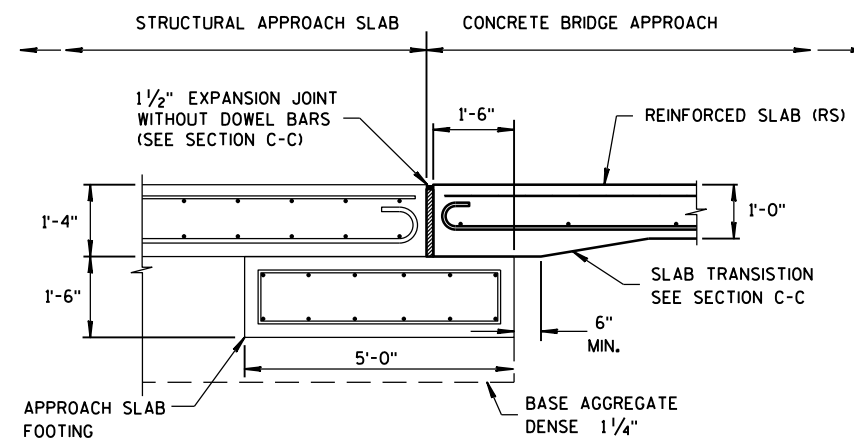
**BRIDGE APPROACHES****GENERAL NOTES**

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

- ① SEE BRIDGE PLAN.
- ② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

③ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R_L OR C_L

④ 1½" EXPANSION JOINT (NO DOWELS)

**SECTION E-E****FOOTING DETAIL**

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

**STRUCTURAL APPROACH SLAB
AND CONCRETE PAVEMENT
APPROACH SLAB**

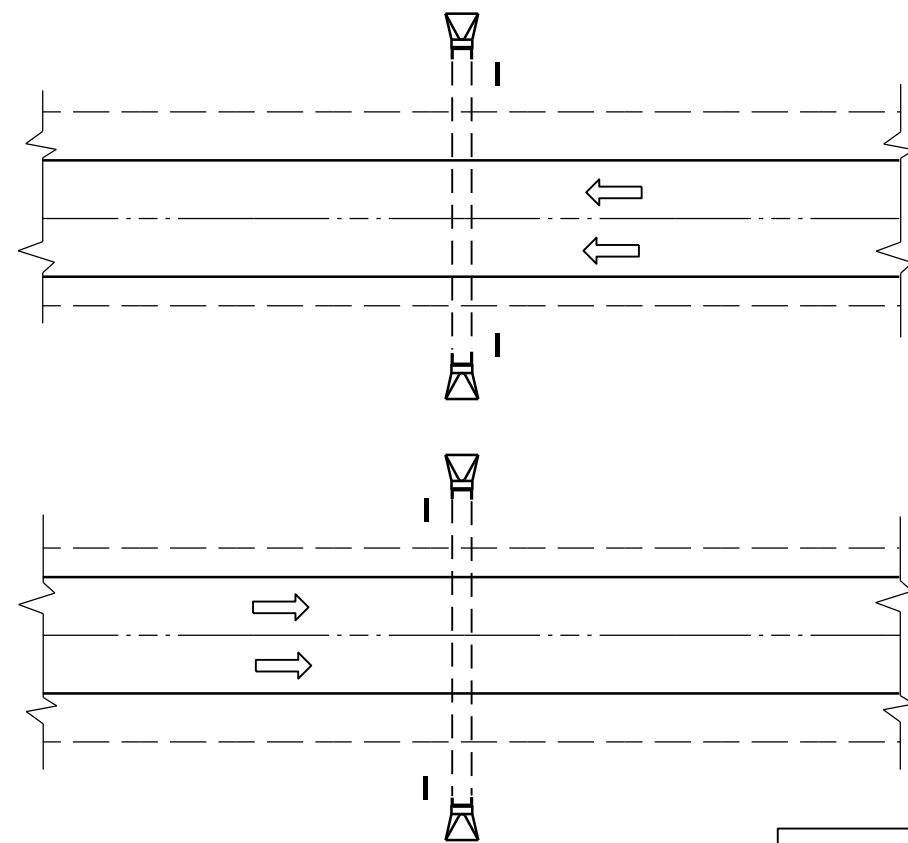
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED

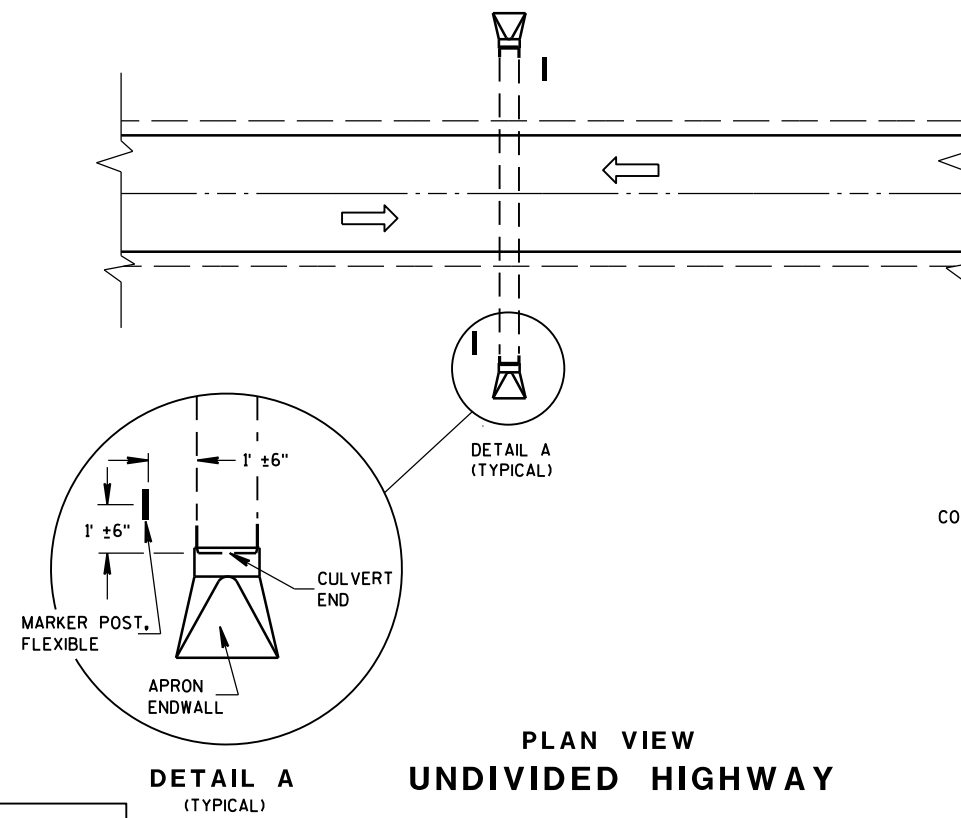
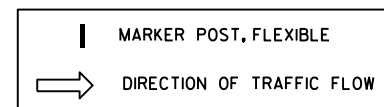
June, 2015
DATE

FHWA

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



PLAN VIEW
DIVIDED HIGHWAY

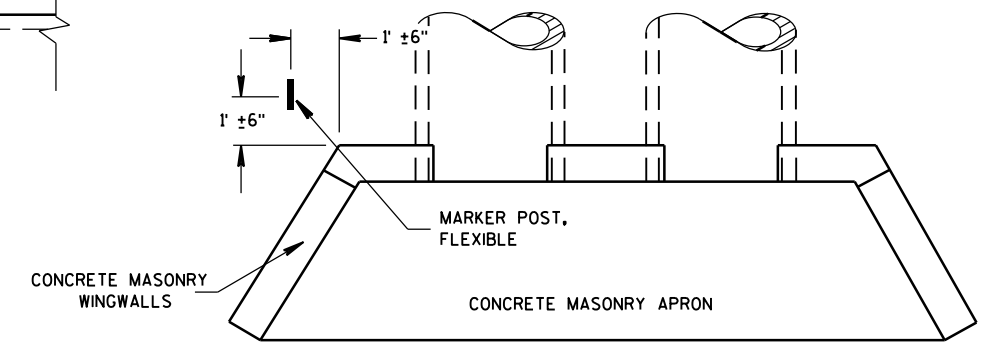


PLAN VIEW
UNDIVIDED HIGHWAY

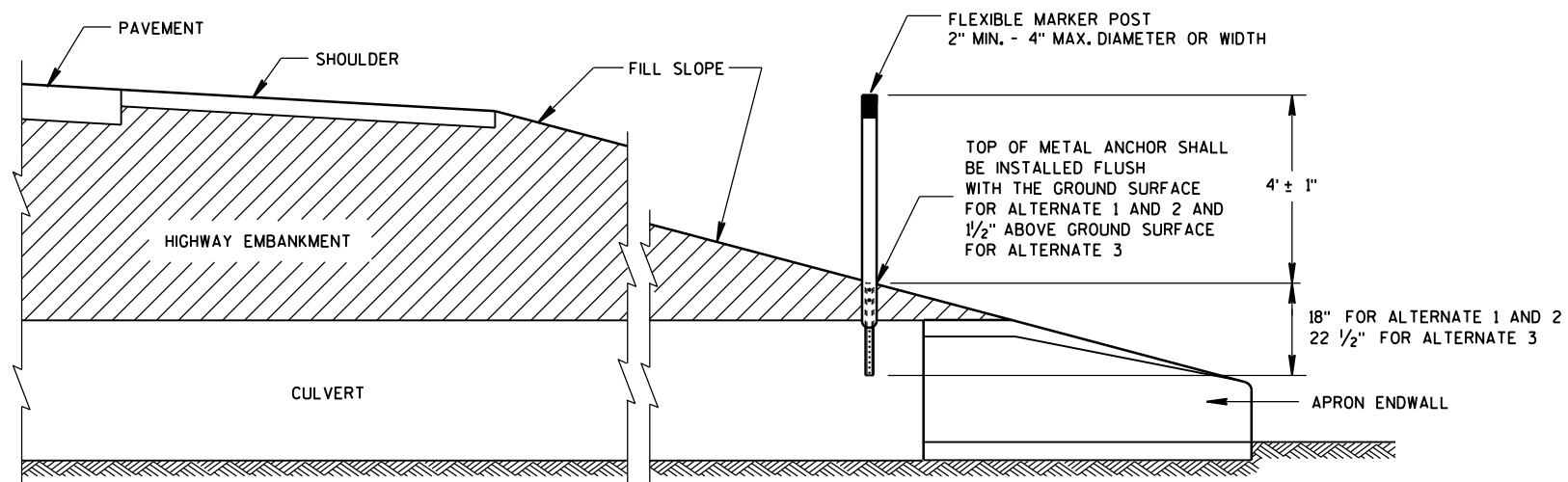
FLEXIBLE MARKER POST LOCATION

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.



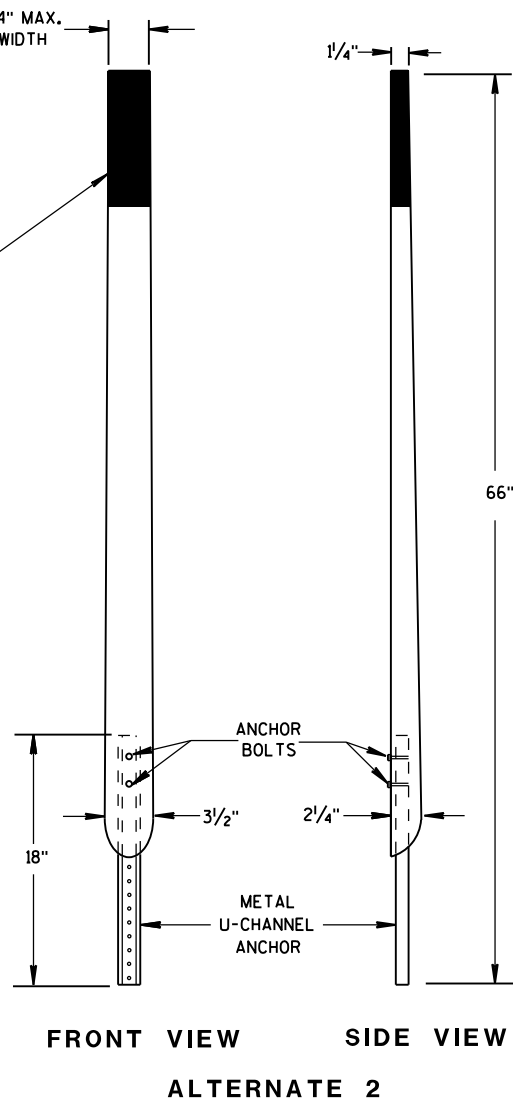
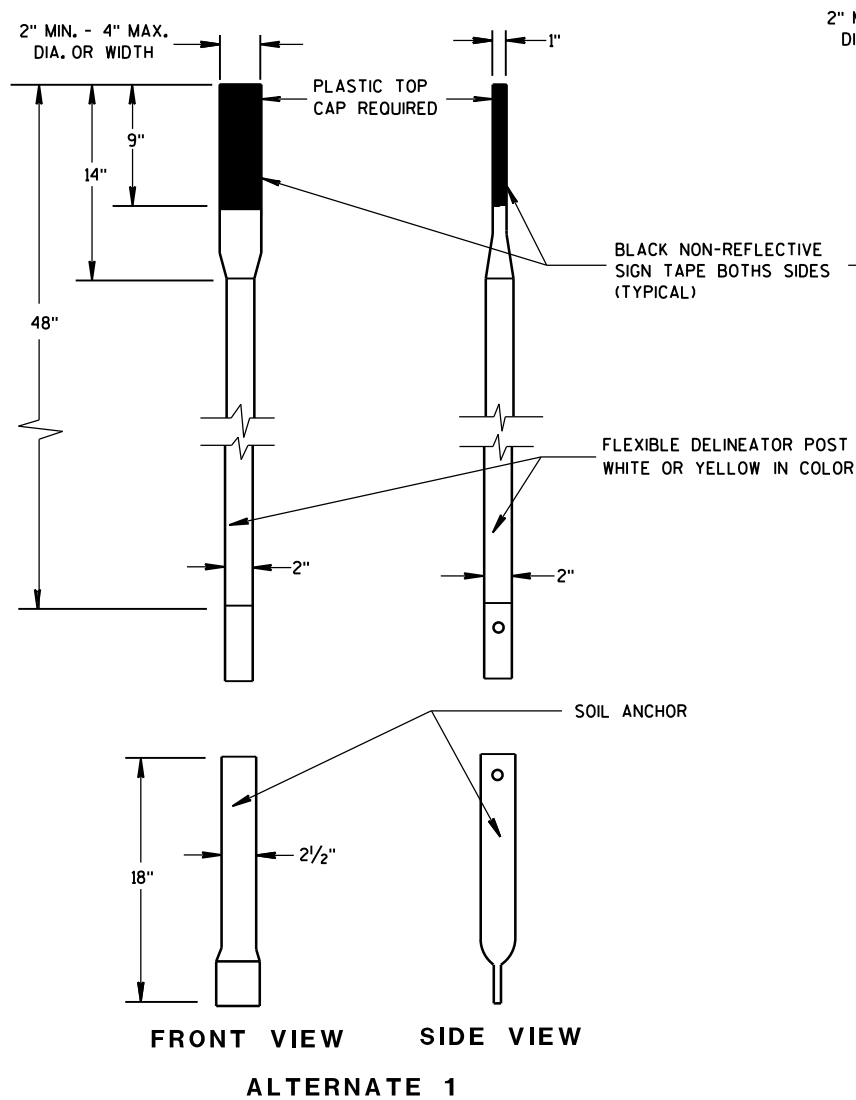
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



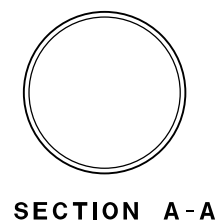
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

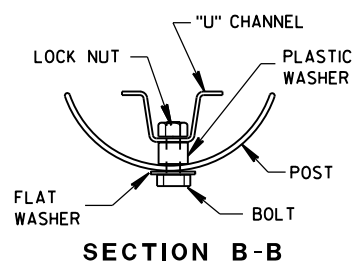
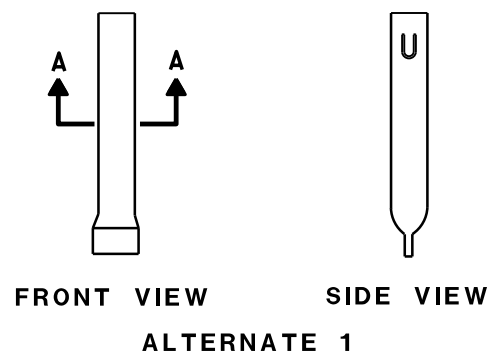
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



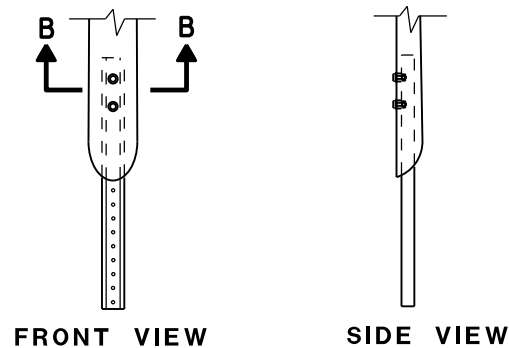
FLEXIBLE MARKER POSTS



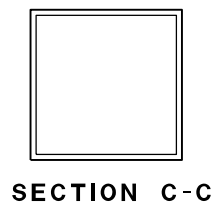
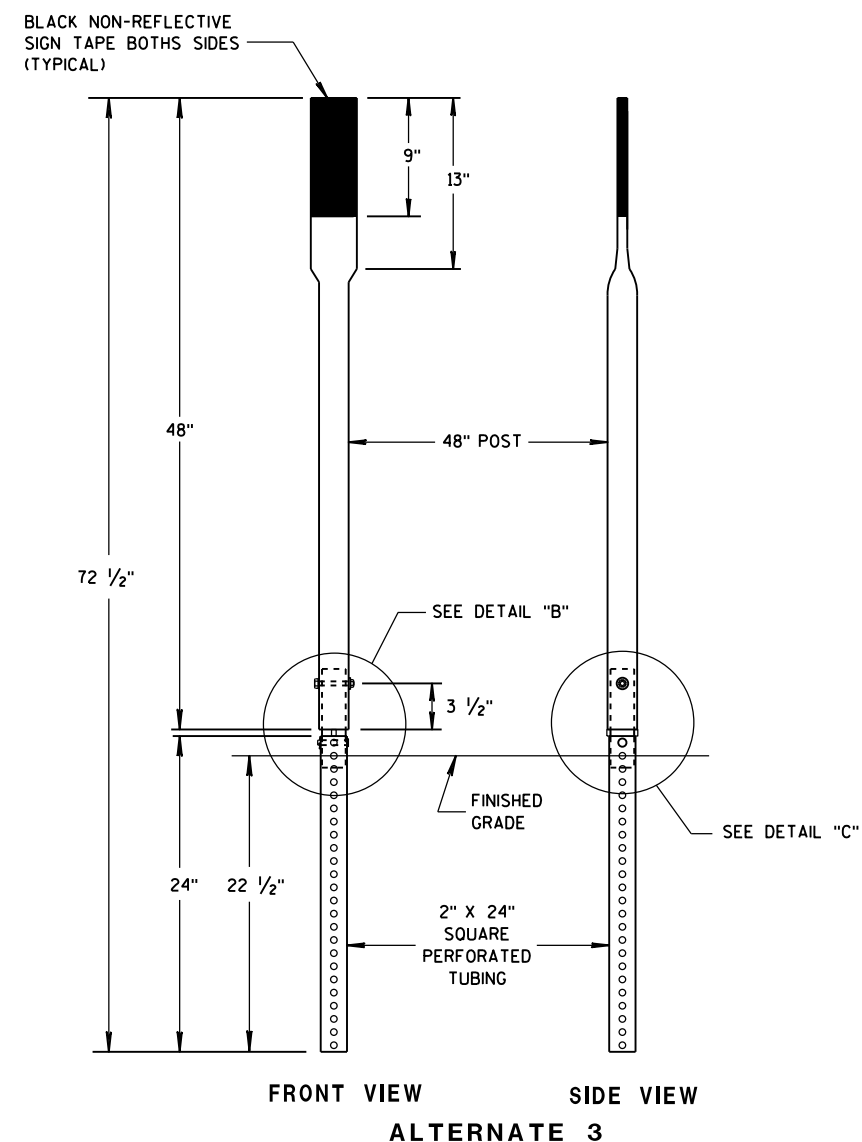
SECTION A-A



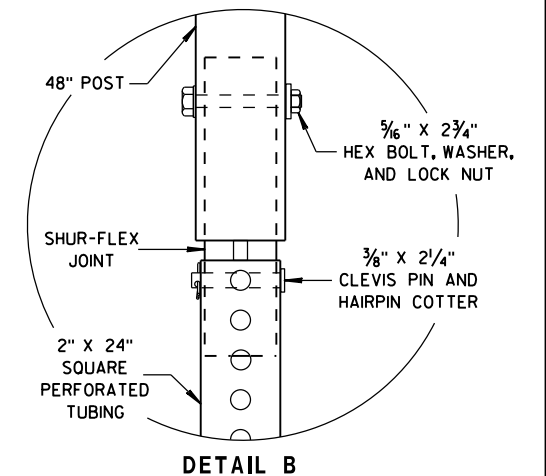
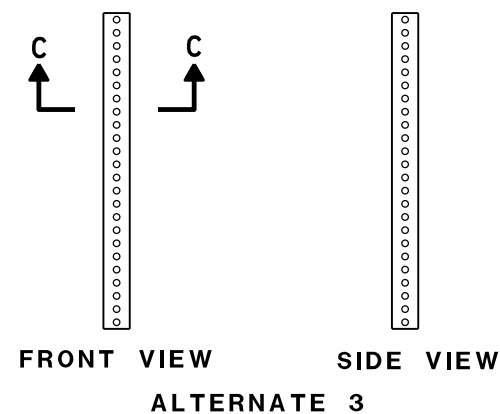
SECTION B-B



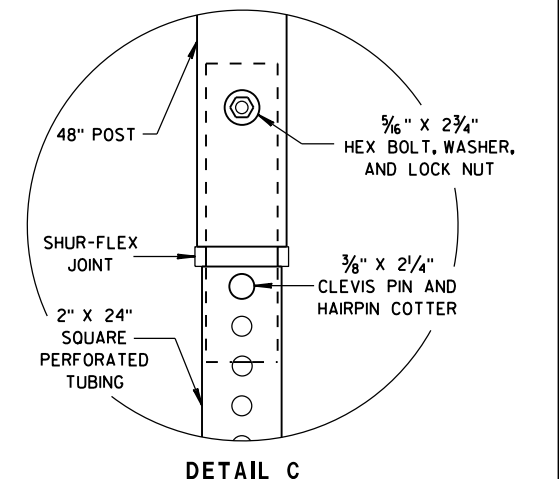
FLEXIBLE MARKER POST ANCHORS



SECTION C-C



DETAIL B

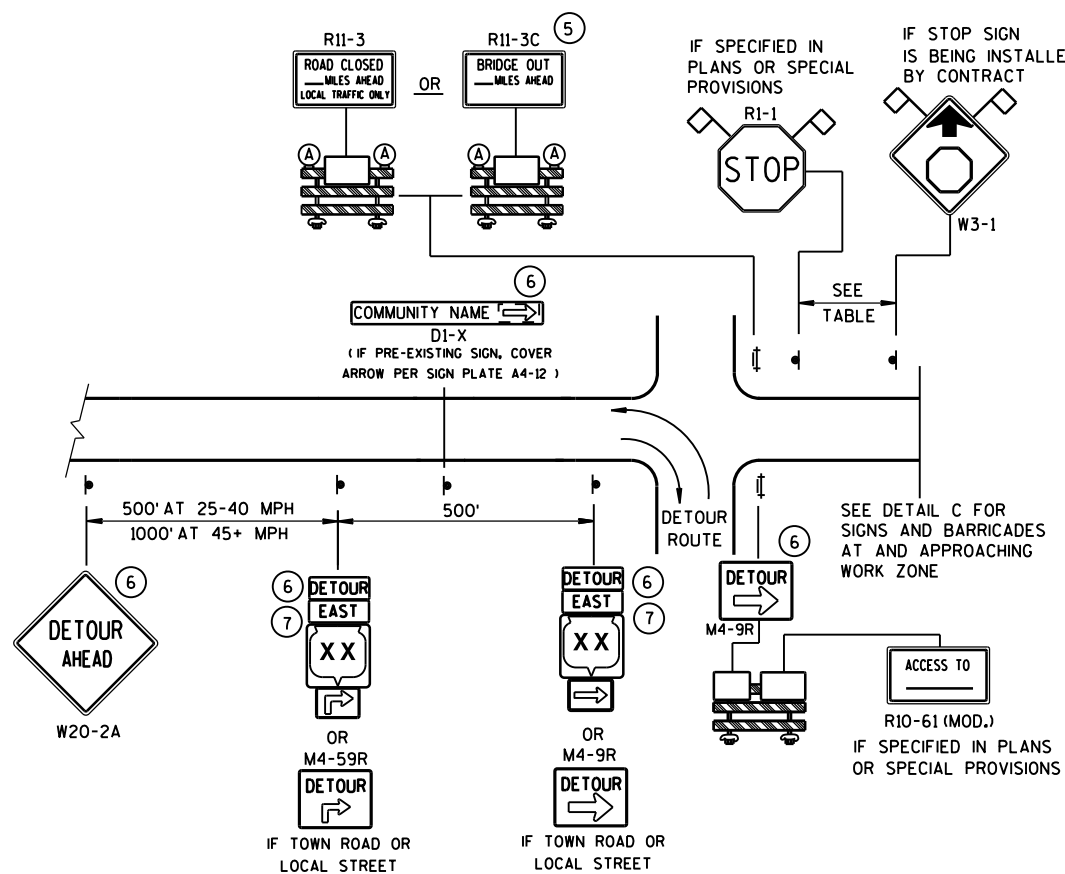


DETAIL C

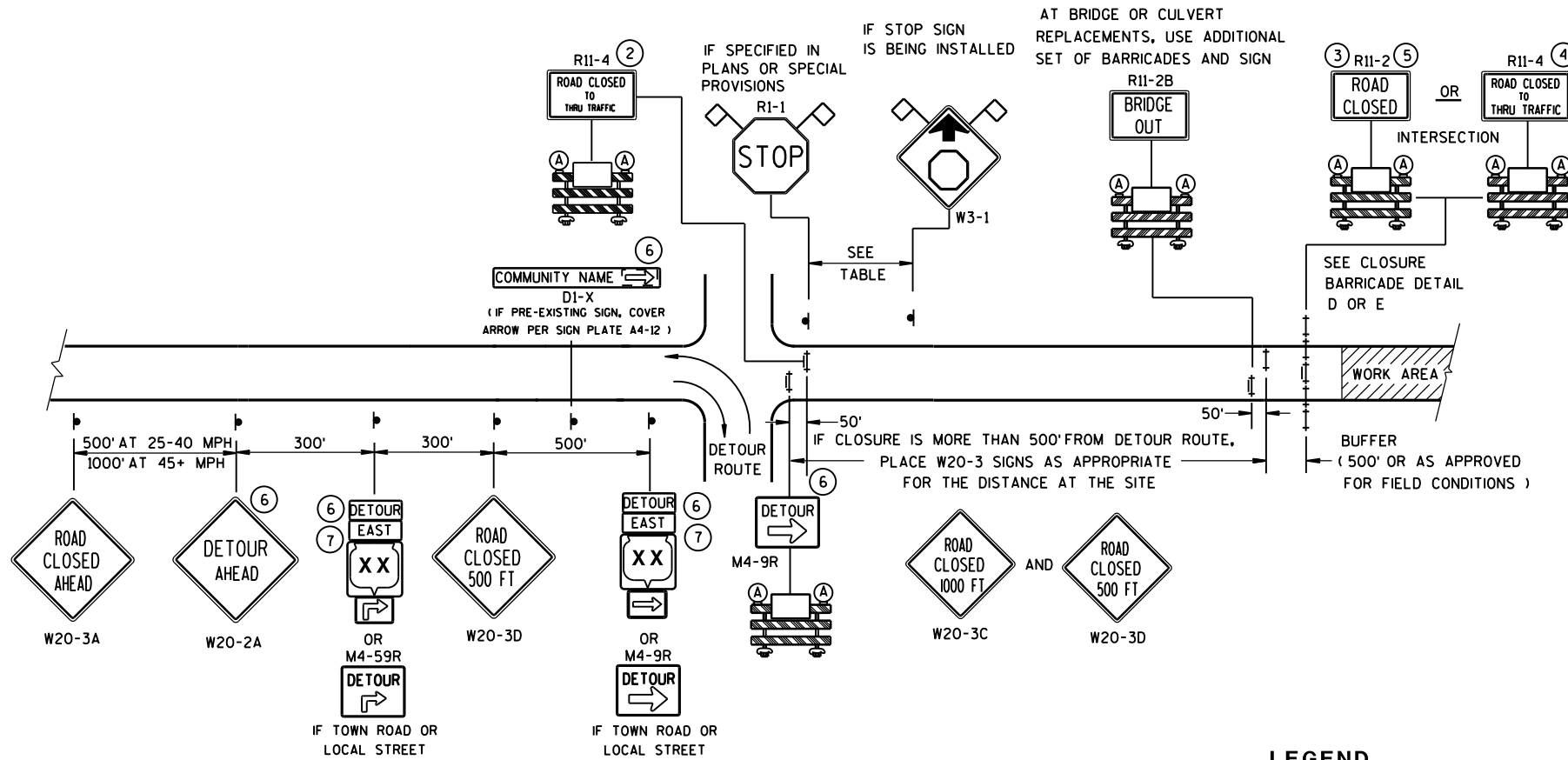
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

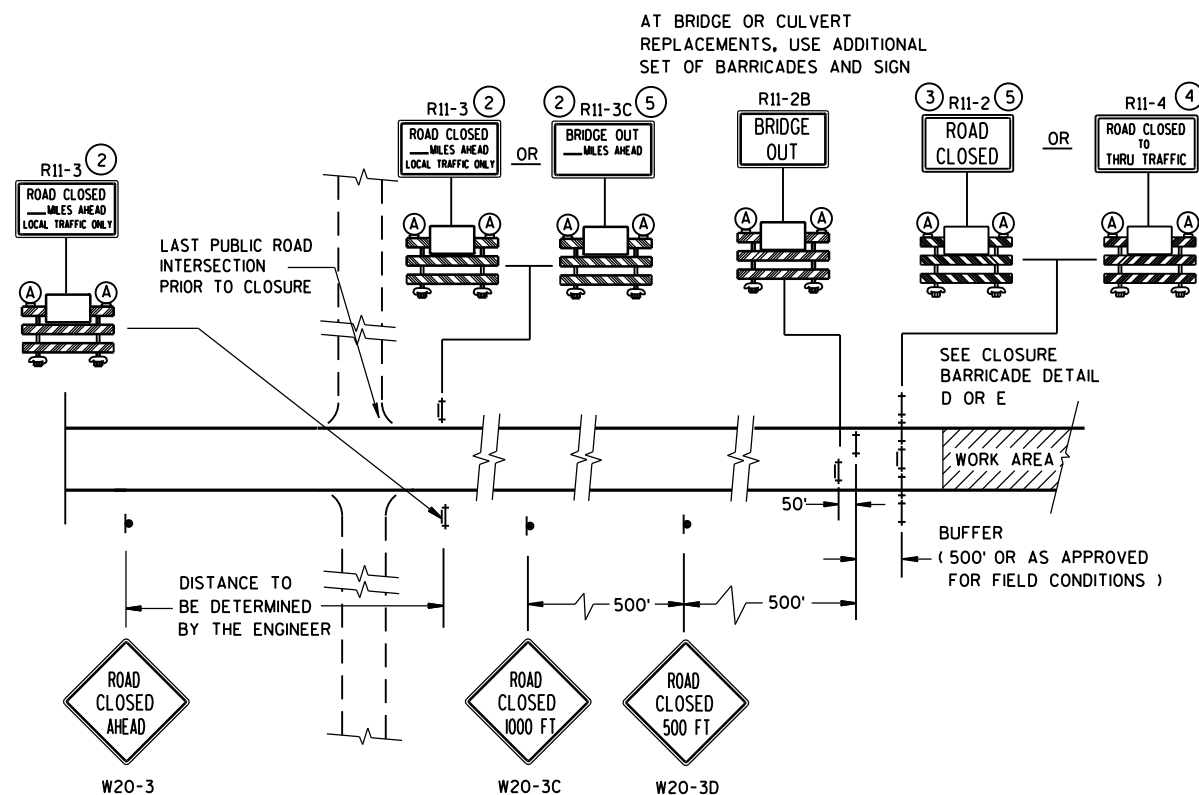
APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

- SIGN ON PERMANENT SUPPORT
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

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

M05-1 OR M06-1

FLAGS, 16" X 16" MIN., (ORANGE)

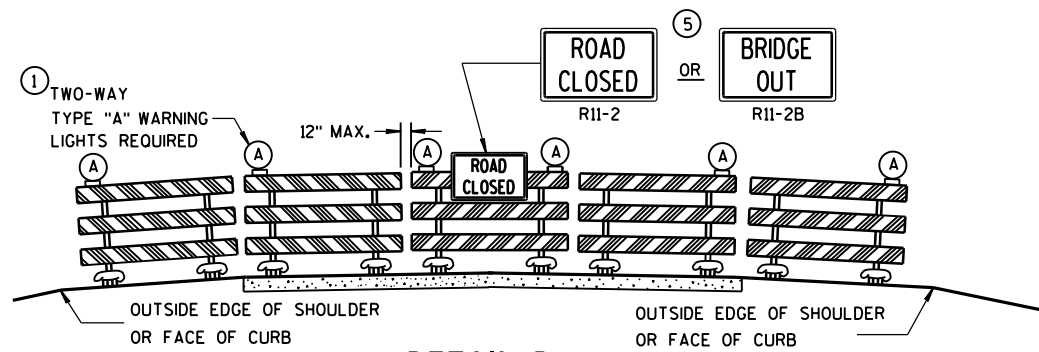
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

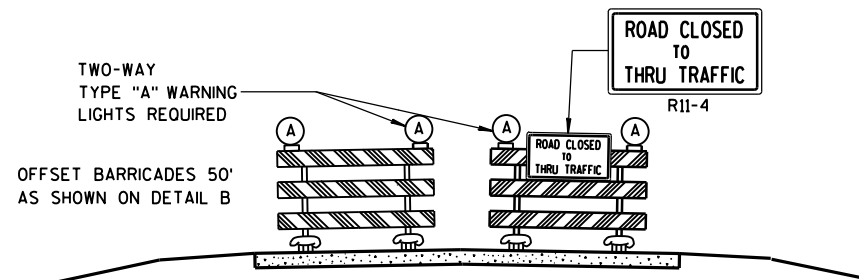
**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

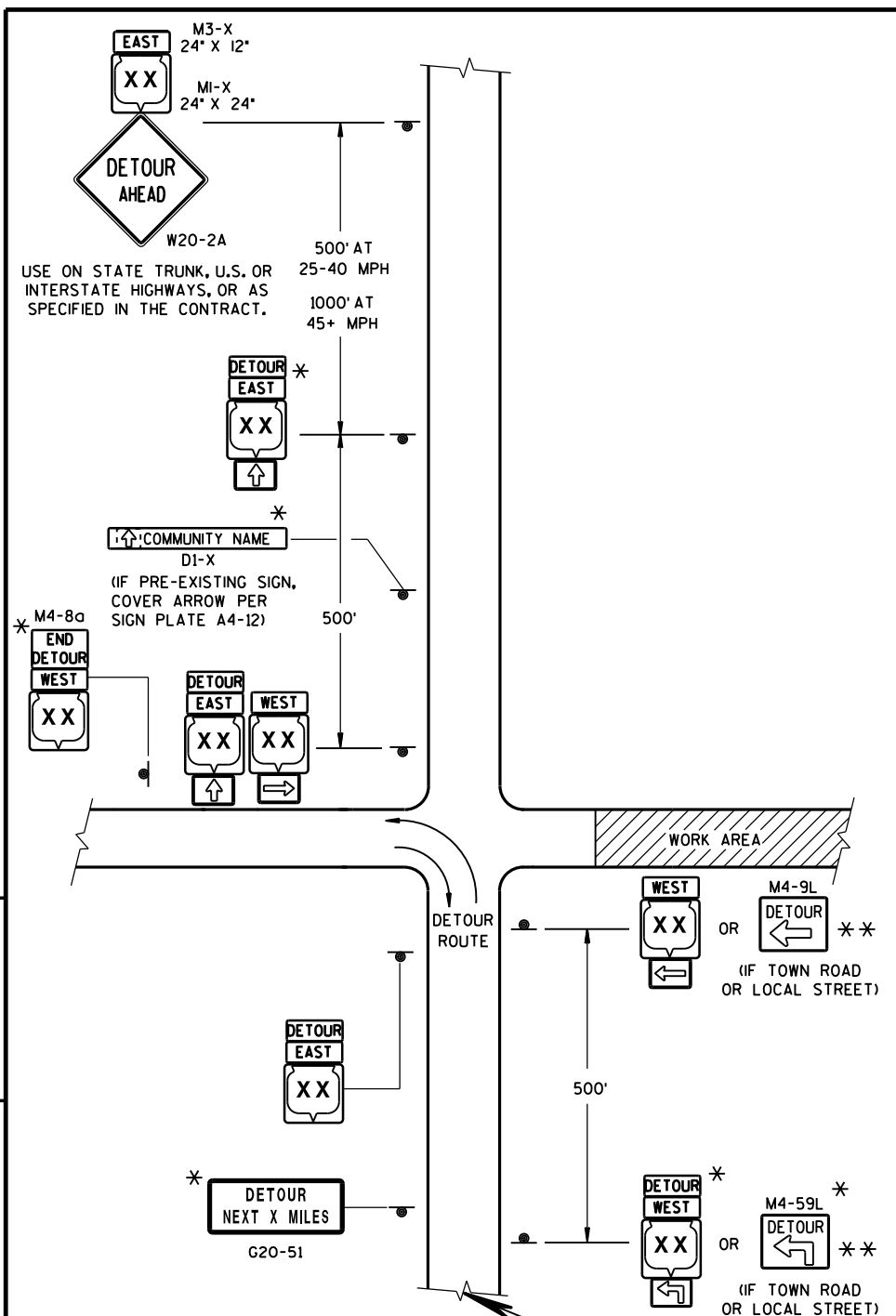
R1-1 SHALL BE 36" X 36".

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

MATCH POINT

DETAIL F
DETOUR SIGNING

GENERAL NOTES

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

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

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

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

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

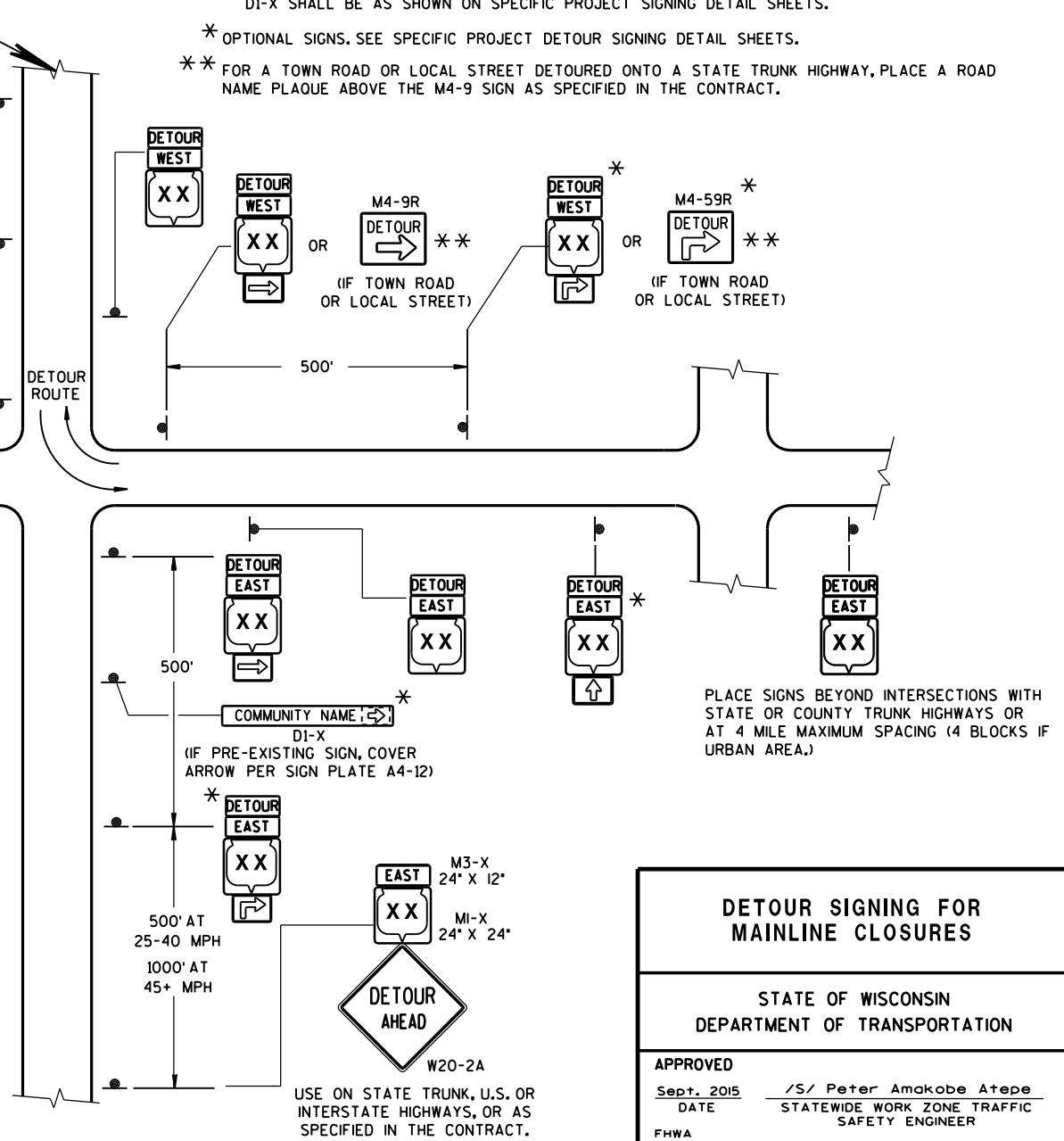
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

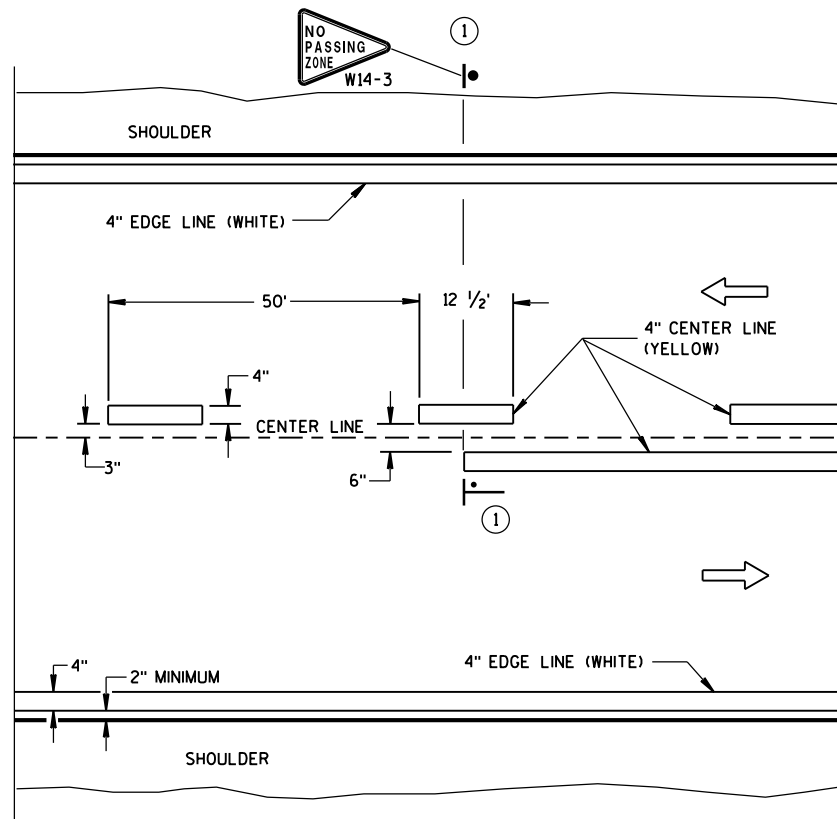
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO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

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

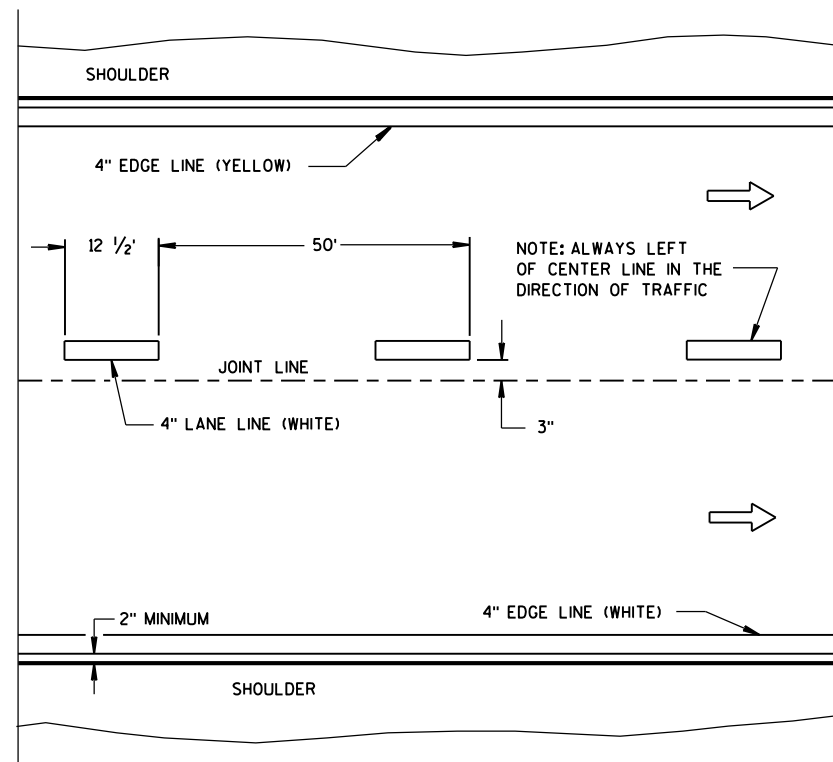
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
Sept. 2015 DATE	
FHWA	

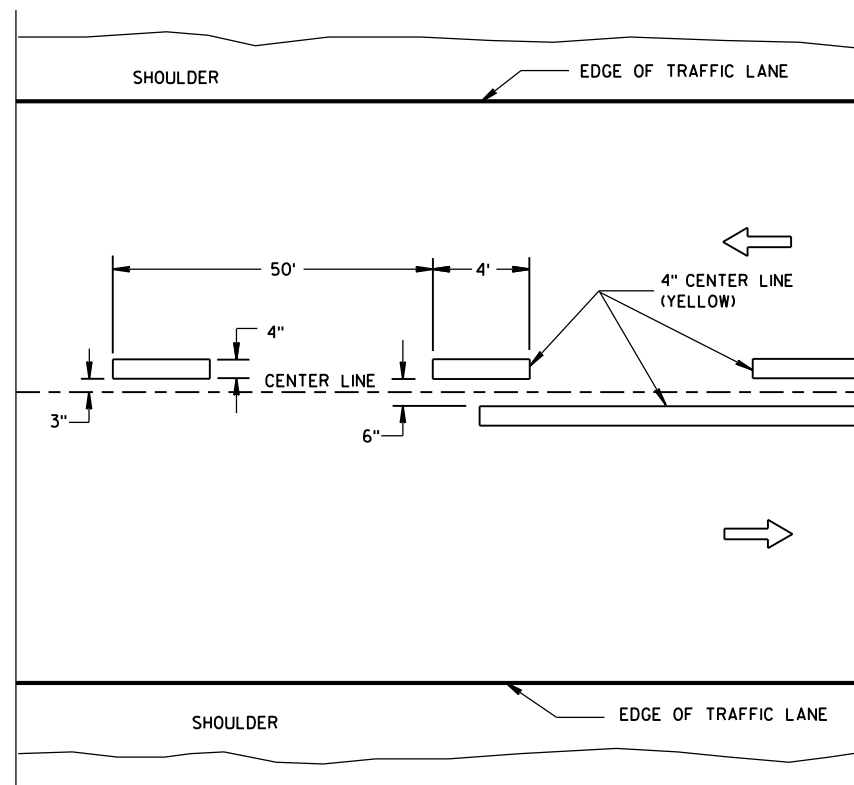


TWO WAY TRAFFIC

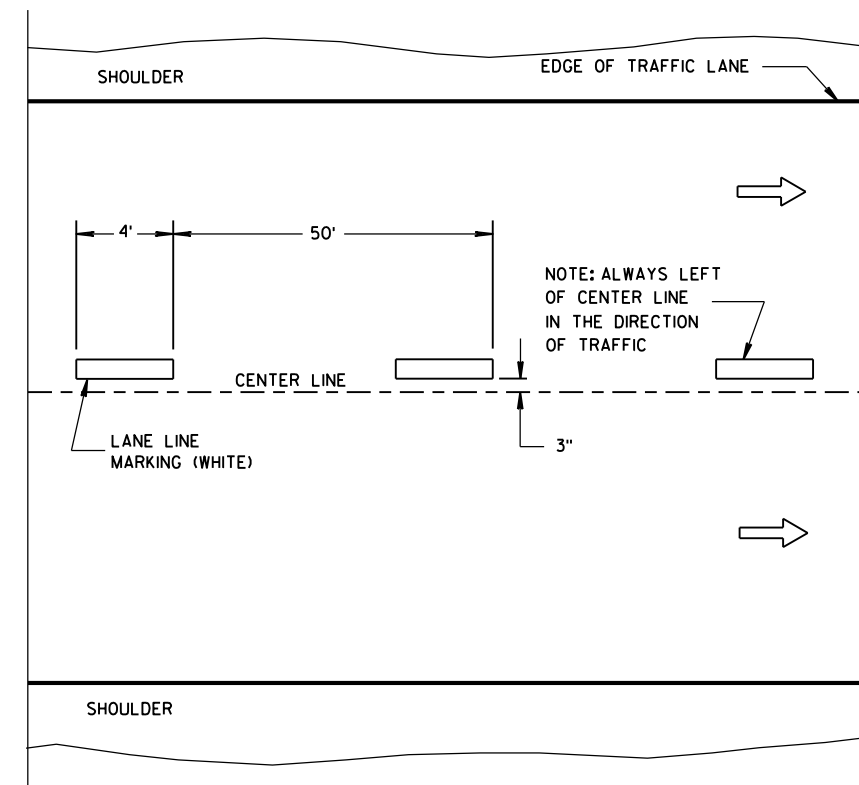


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

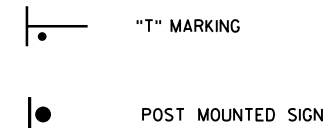
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

LEGEND

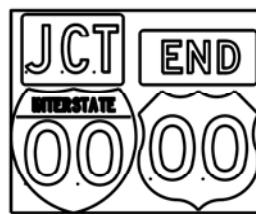


LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MARKING ENGINEER
FHWA	

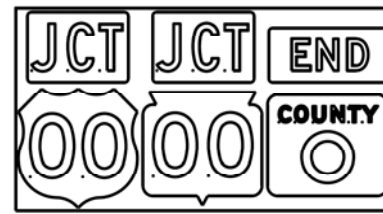
TYPICAL ASSEMBLIES



J1-1



J1-2



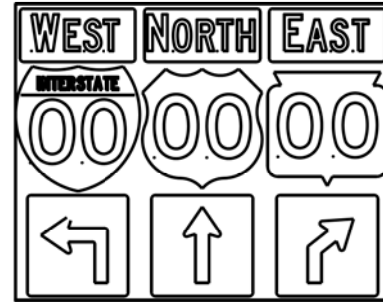
J1-3



J2-1



J2-2



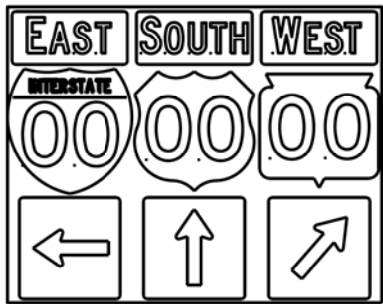
J2-3



J3-1



J3-2



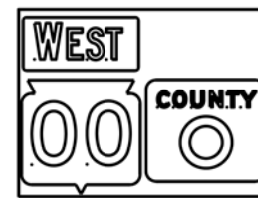
J3-3



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

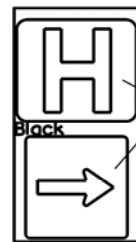


J22-1



JV

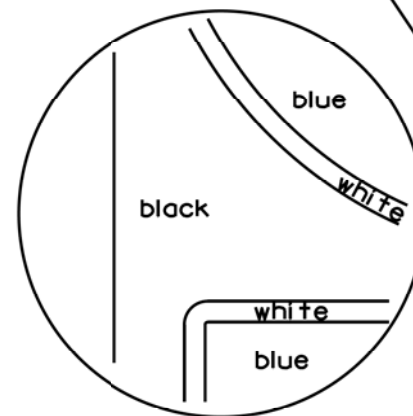
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

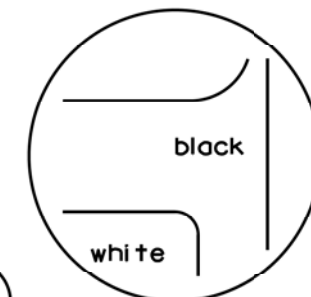
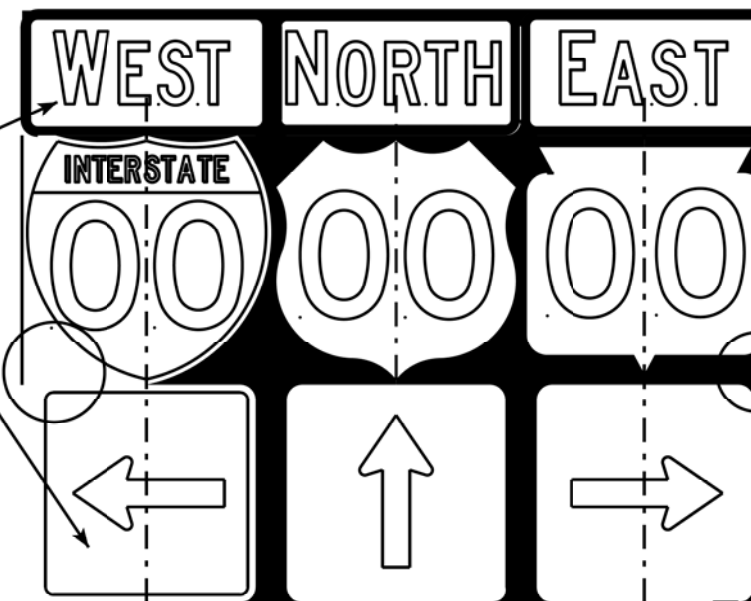
Blue Background

[blue background
with interstate]



NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.



[black background]

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 2/06/14

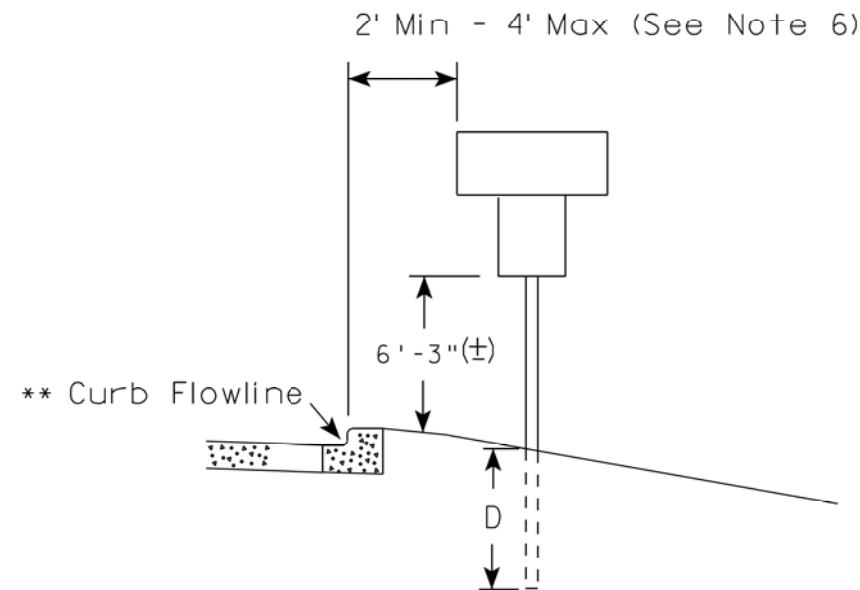
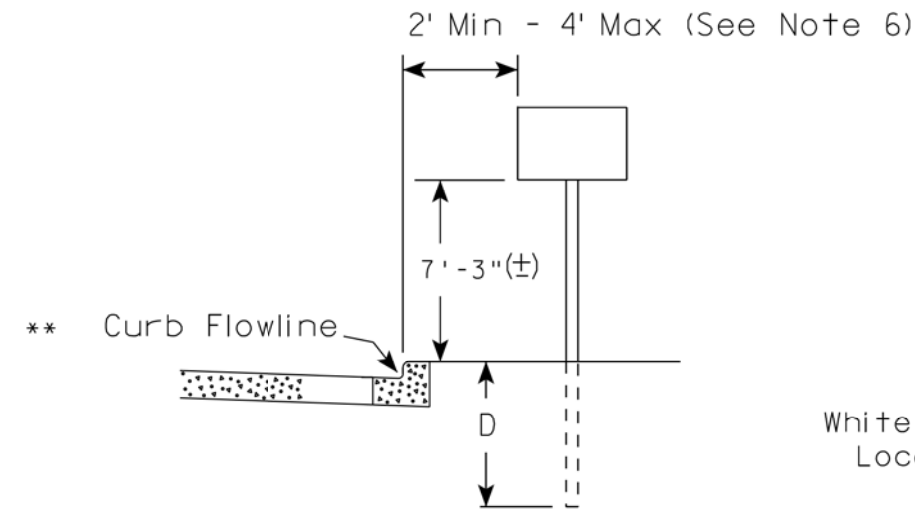
PLATE NO. A2-1S.8

PROJECT NO:

SHEET NO:

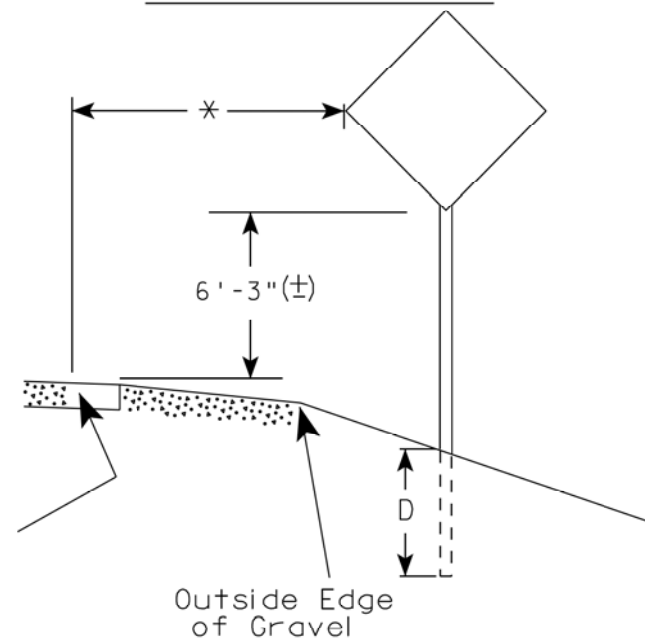
E

URBAN AREA

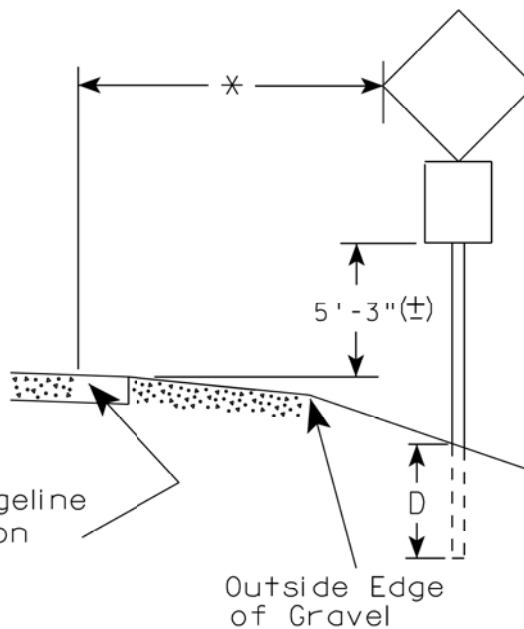


White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location



Outside Edge
of Gravel

POST EMBEDMENT DEPTH

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

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

* 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 20 sq.ft or larger, 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 (A2-1S) 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 signs 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), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 7/23/15

PLATE NO. A4-3.20

PROJECT NO:

HWY:

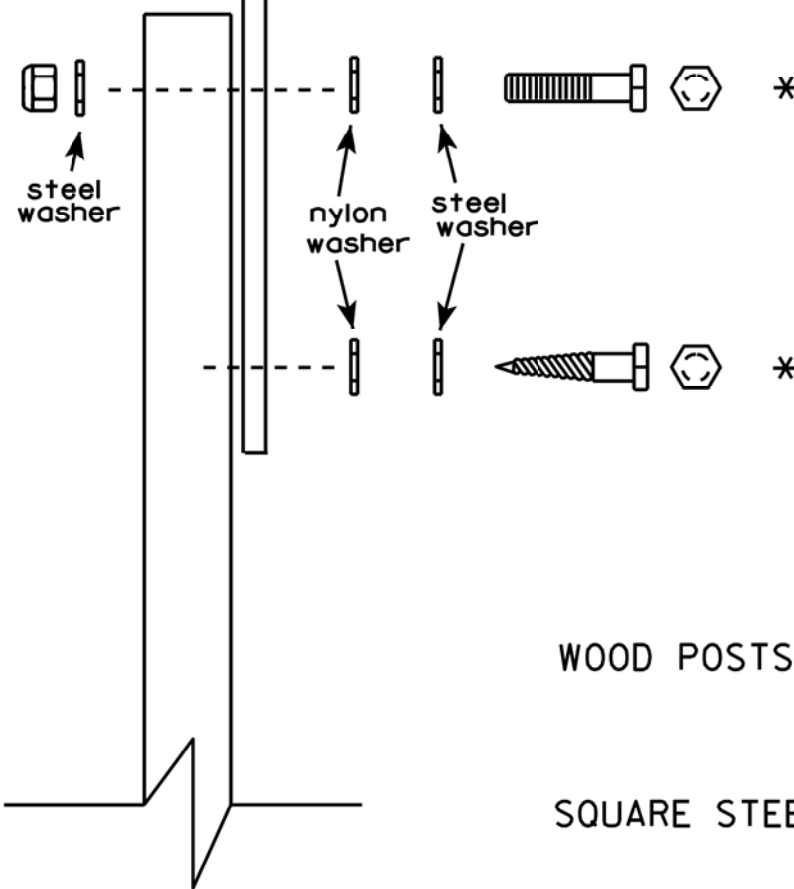
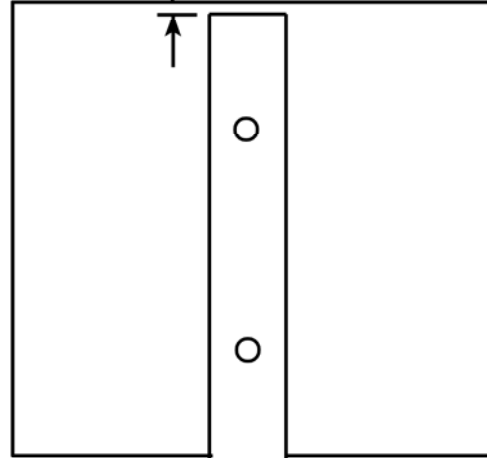
COUNTY:

SHEET NO:

E

SIGN SHALL BE MOUNTED TO PROJECT
ABOVE THE TOP OF THE POST

1" ± 1/2"



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

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

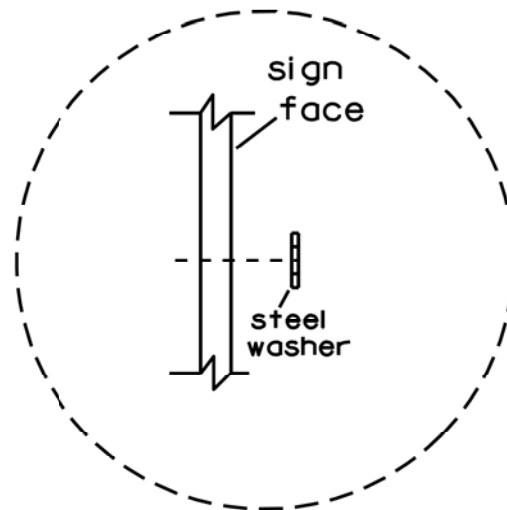
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL

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

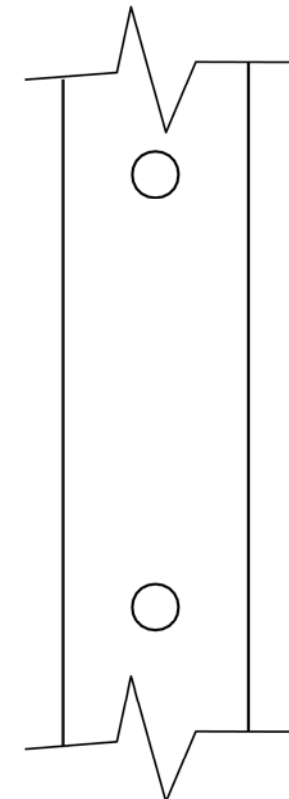
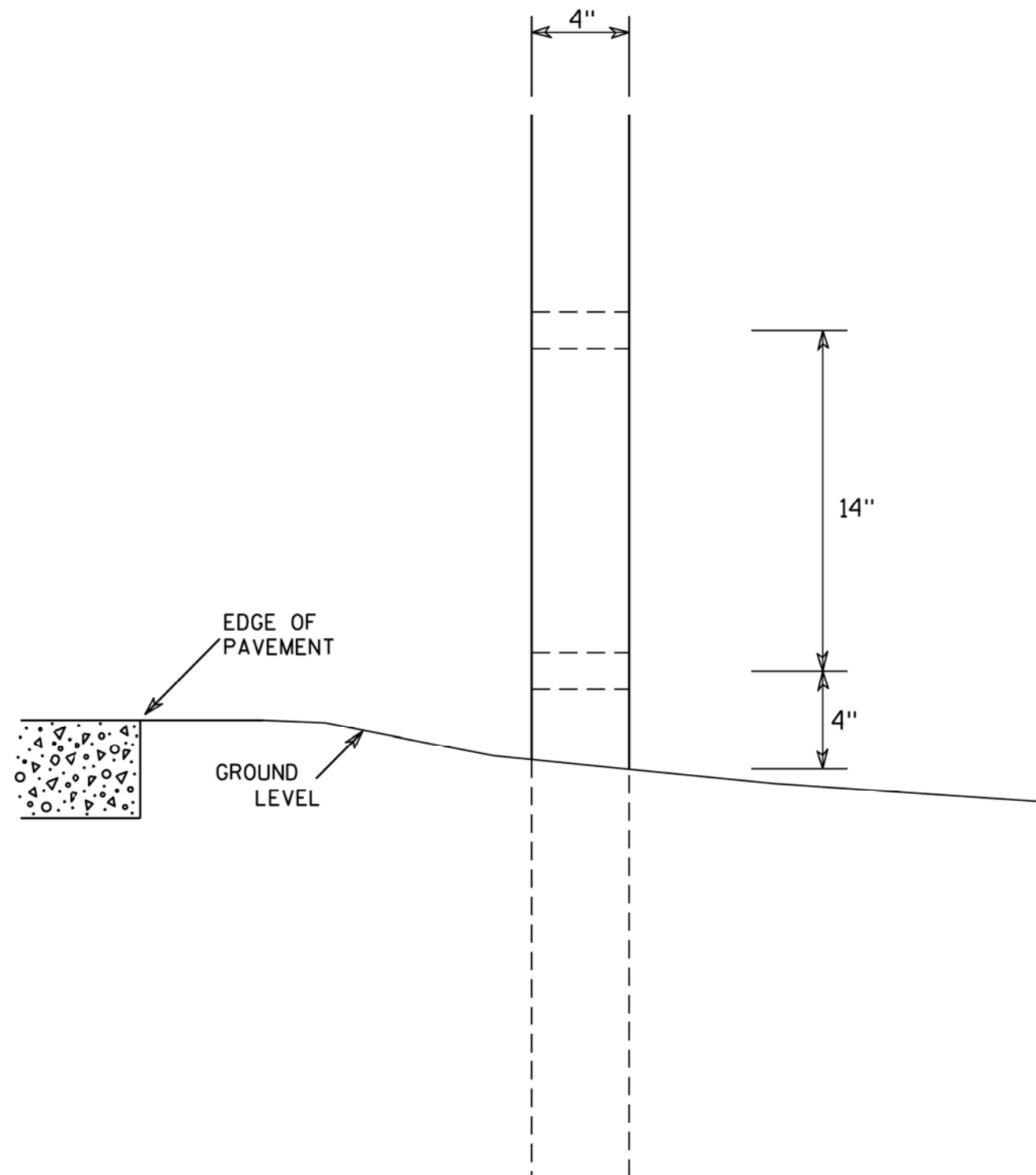
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

SHEET NO:

E



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.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

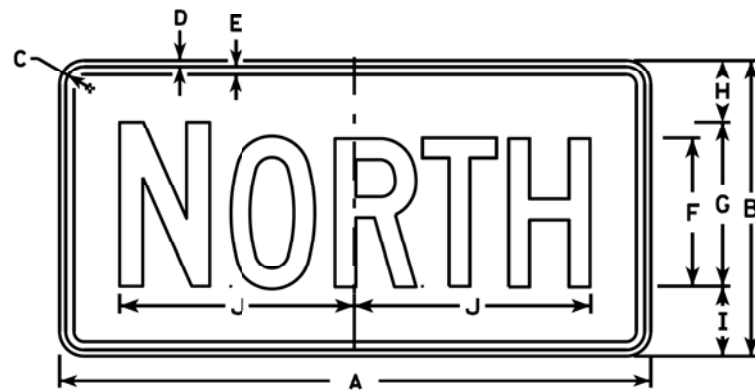
HWY:

COUNTY:

SHEET NO:

E

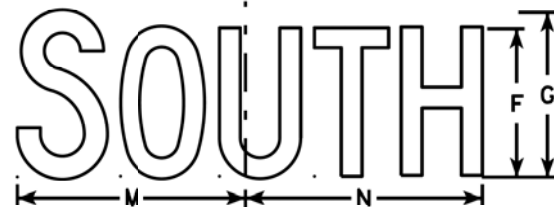




M3-1
MM3-1
MP3-1



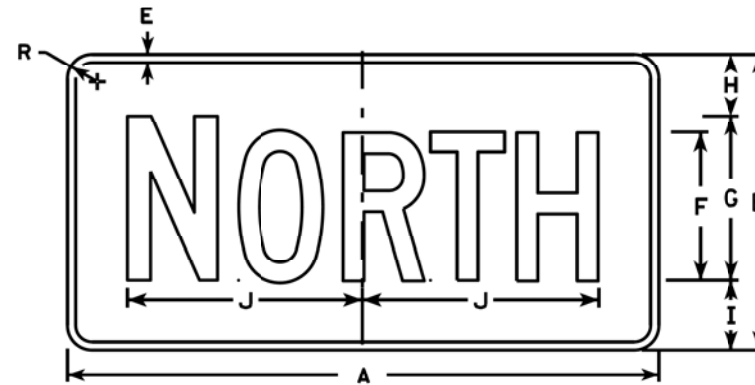
M3-2
MM3-2
MP3-2



M3-3
MM3-3
MP3-3



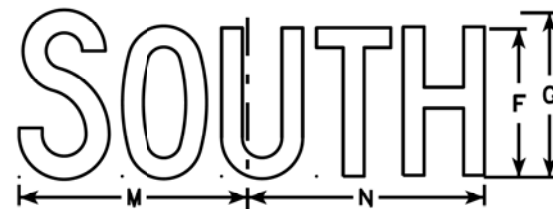
M3-4
MM3-4
MP3-4



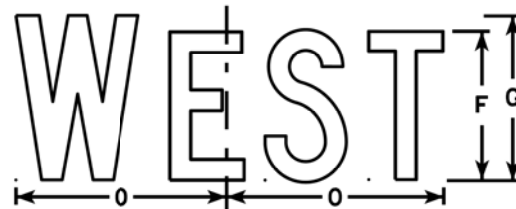
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

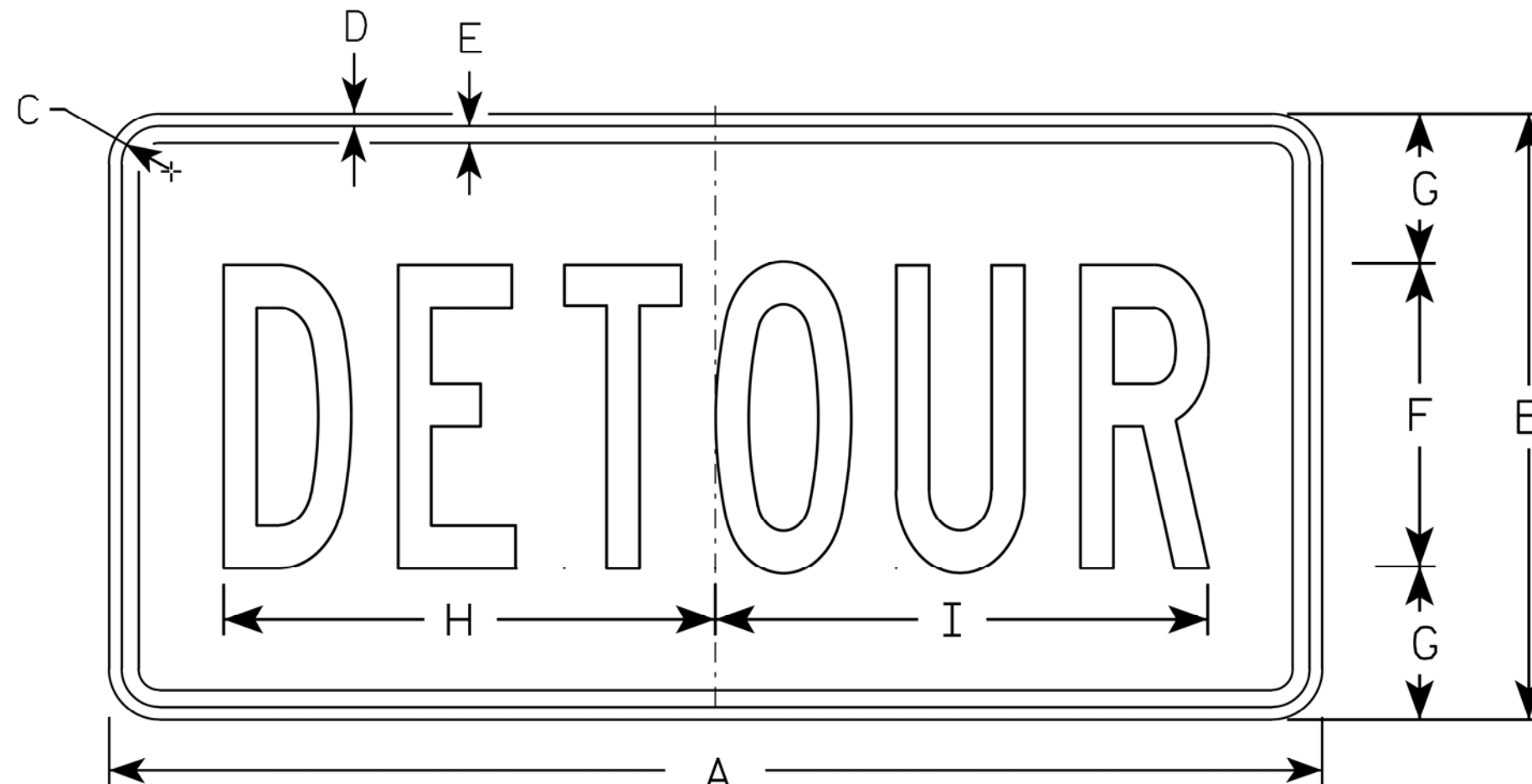
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14



M4-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

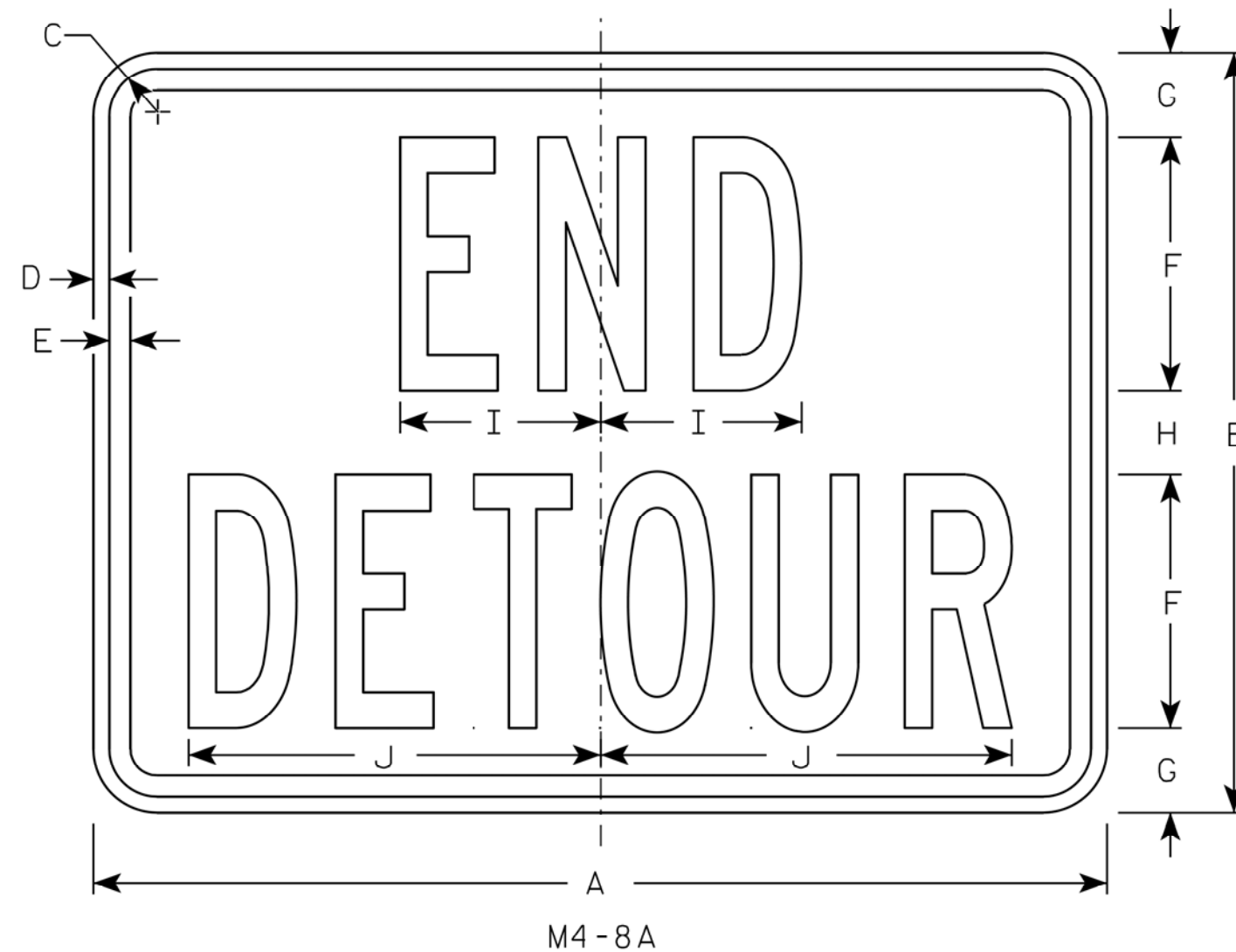
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

STANDARD SIGN M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

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

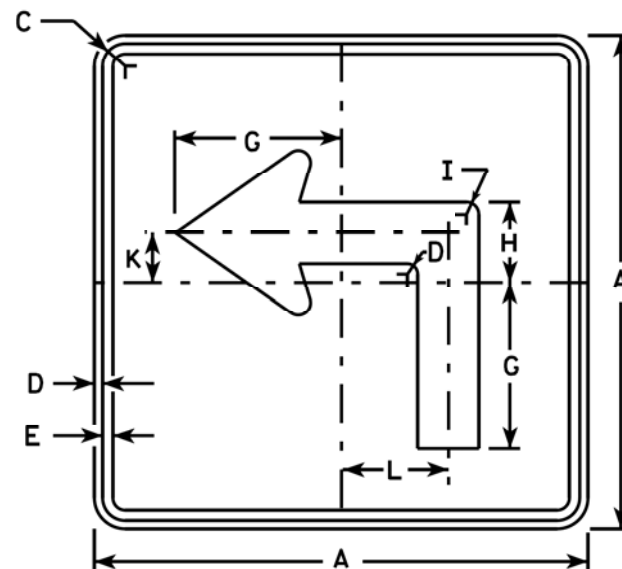
STANDARD SIGN

M4-8A

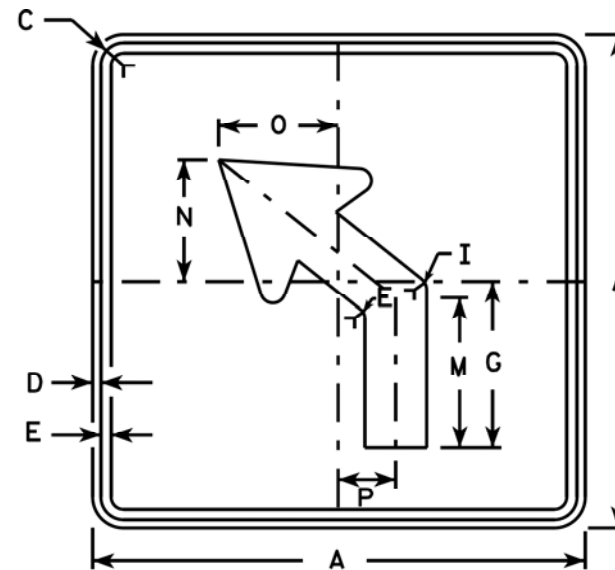
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

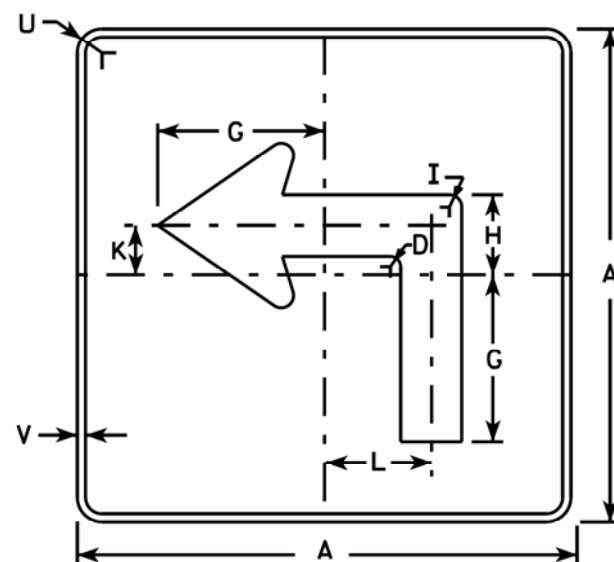
DATE 3/9/11 PLATE NO. M4-8A.2



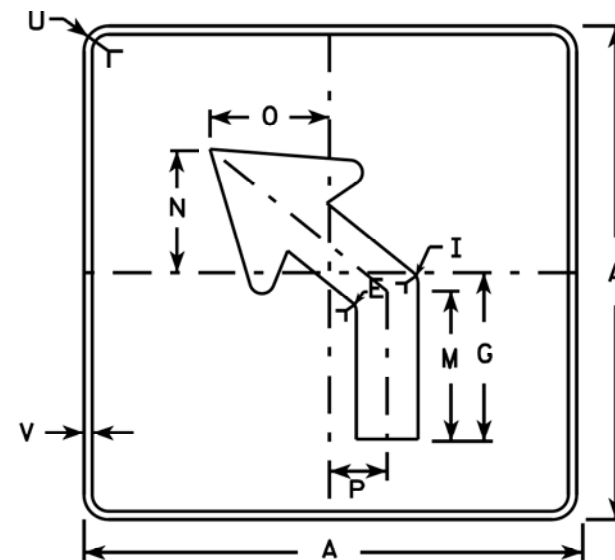
M5-1L
MM5-1L
M05-1L
MP5-1L



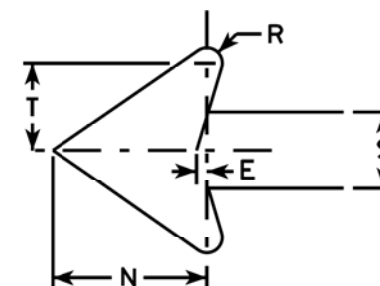
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White
Message - Black

MB5-1 and MB5-2 Background - Blue
Message - White

MK5-1 and MK5-2 Background - Green
Message - White

MM5-1 and MM5-2 Background - White
Message - Green

MN5-1 and MN5-2 Background - Brown
Message - White

M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black

MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue

MR5-1 and MR5-2 Background - Brown
Message - Yellow
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

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																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

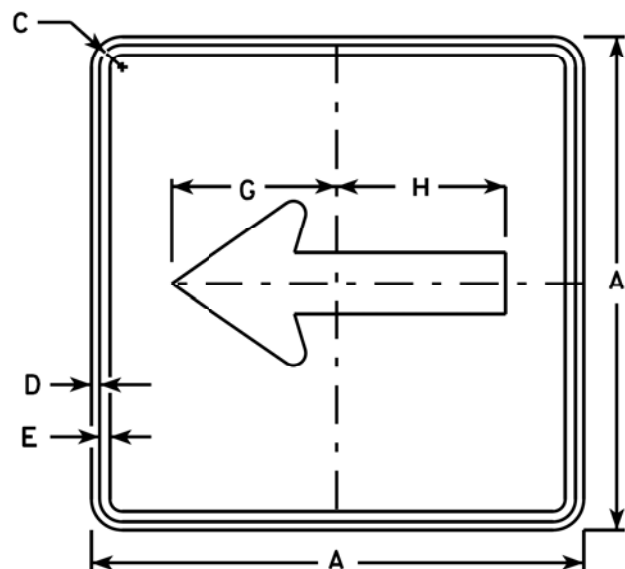
E

STANDARD SIGN
M5-1 & M5-2

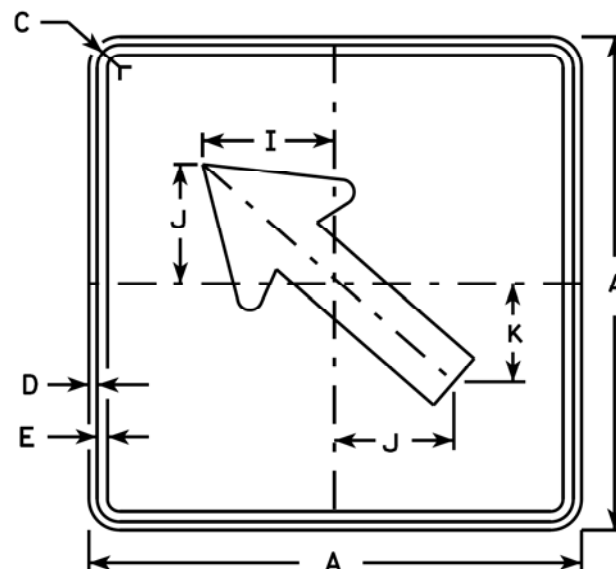
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

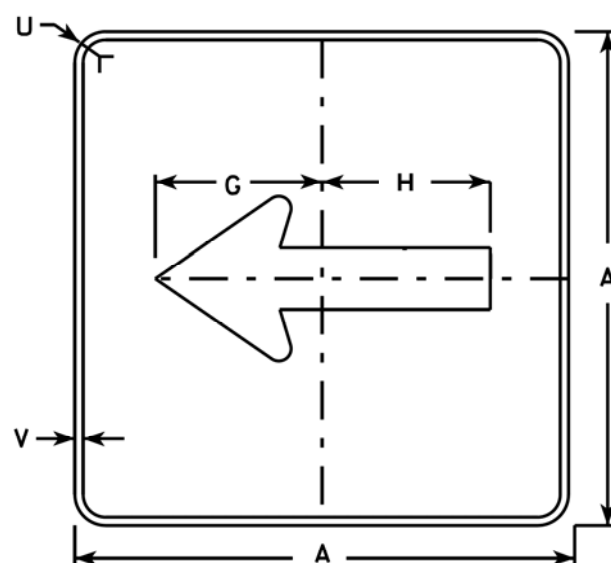
DATE 10/15/15 PLATE NO. M5-1.13



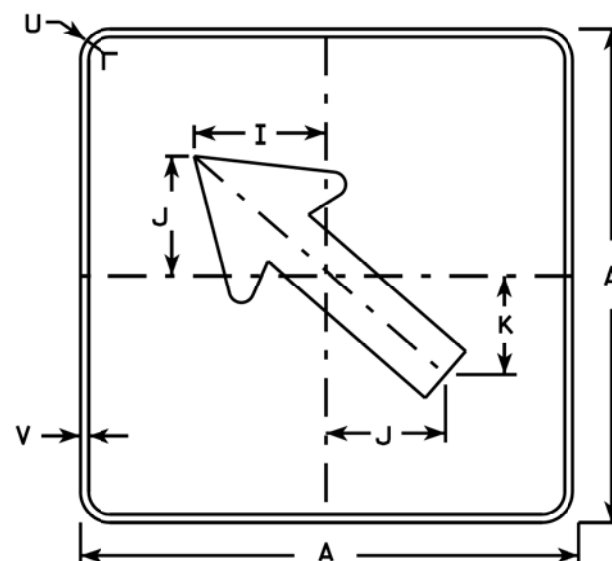
M6-1
MM6-1
M06-1
MP6-1



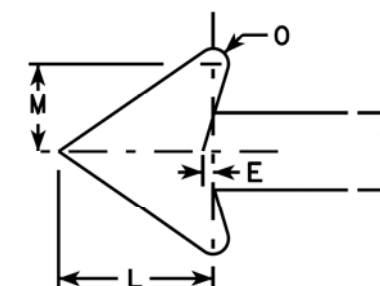
M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:
 - Background - See note 4
 - Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White
Message - Black
 - MB6-1 and MB6-2 Background - Blue
Message - White
 - MK6-1 and MK6-2 Background - Green
Message - White
 - MM6-1 and MM6-2 Background - White
Message - Green
 - MN6-1 and MN6-2 Background - Brown
Message - White
 - M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
 - MP6-1 and MP6-2 Background - White
Message - Blue
 - MR6-1 and MR6-2 Background - Brown
Message - Yellow

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																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

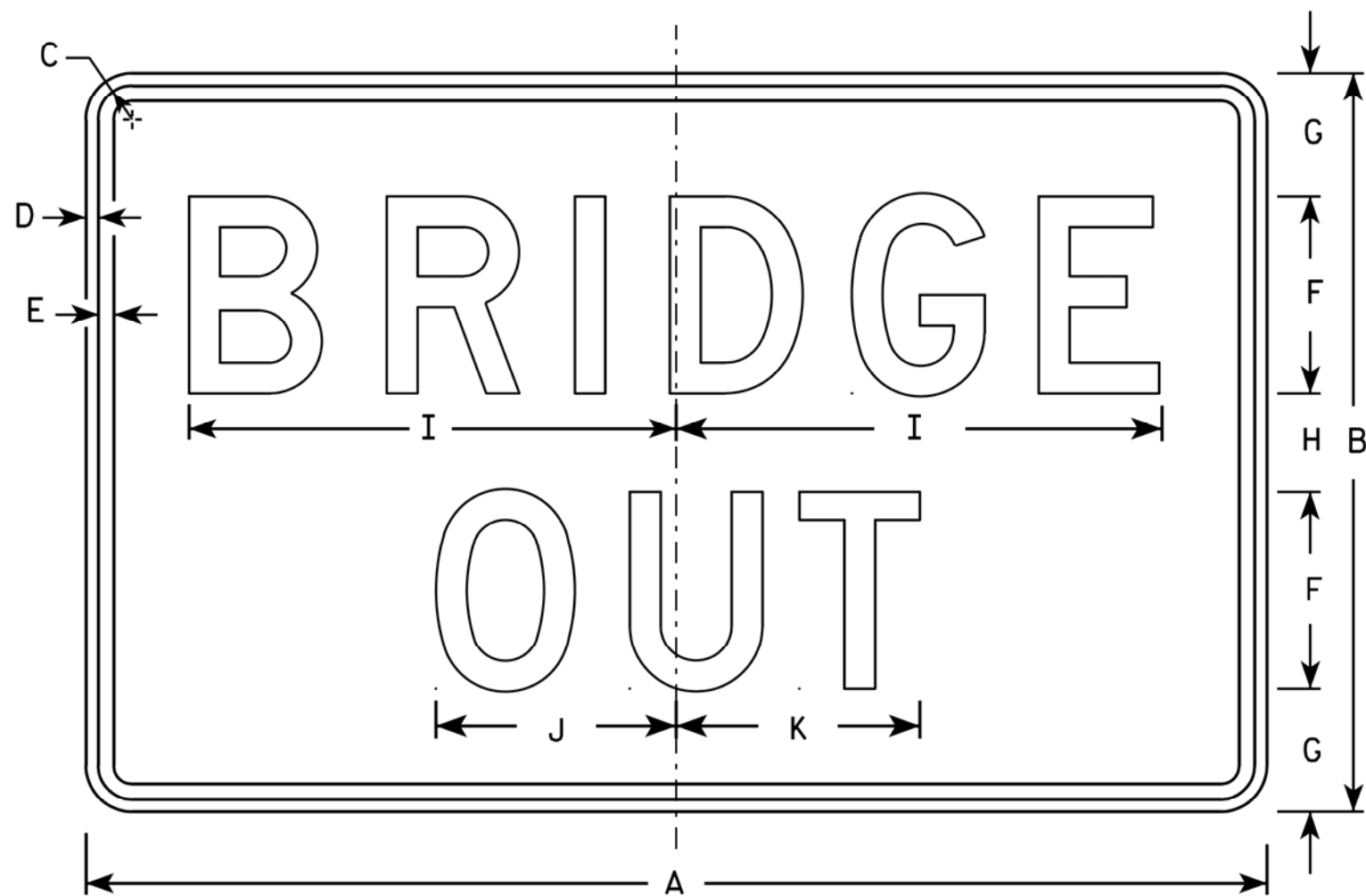
E

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



R11-2B

NOTES

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

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

PROJECT NO:

STANDARD SIGN
R11-2B

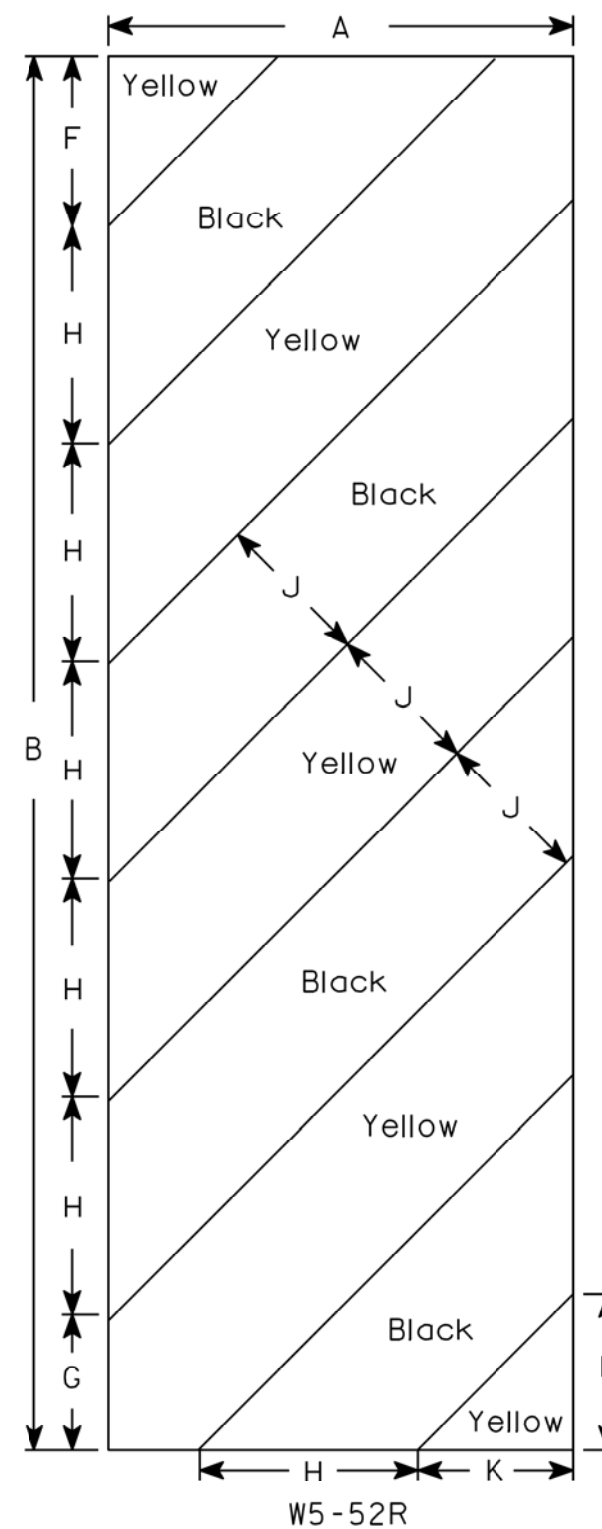
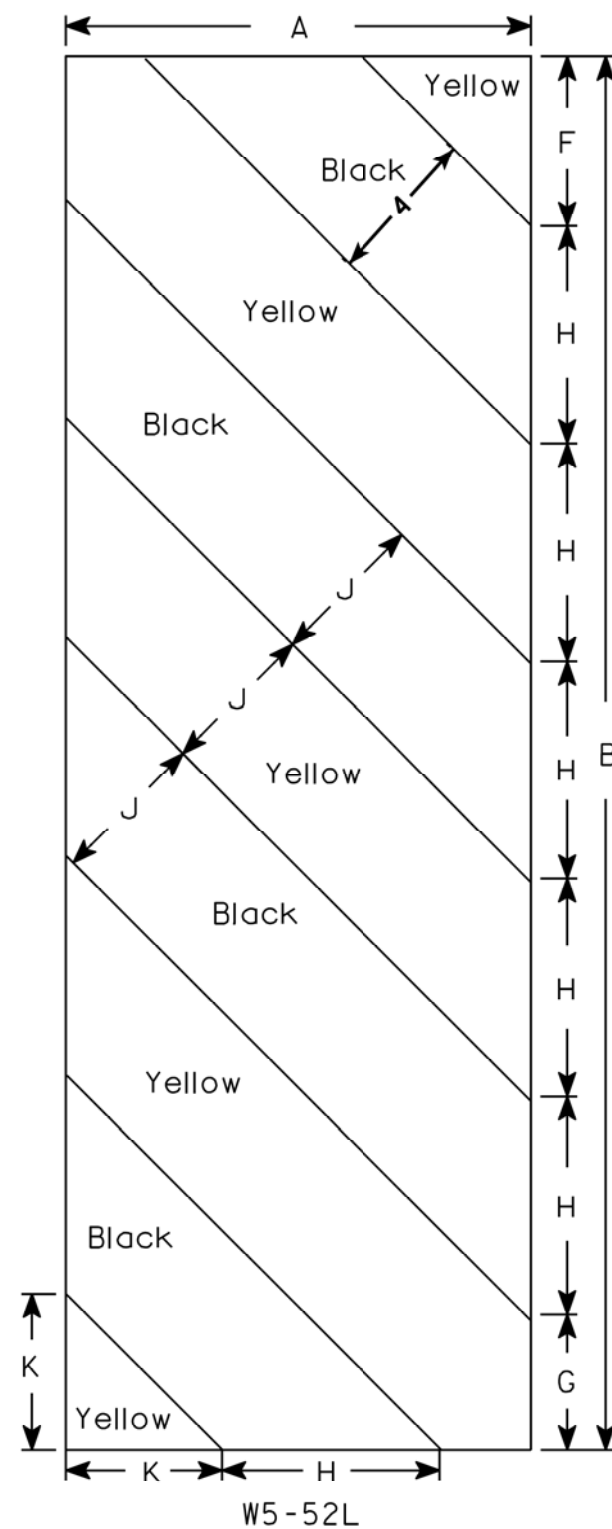
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

SHEET NO:

E

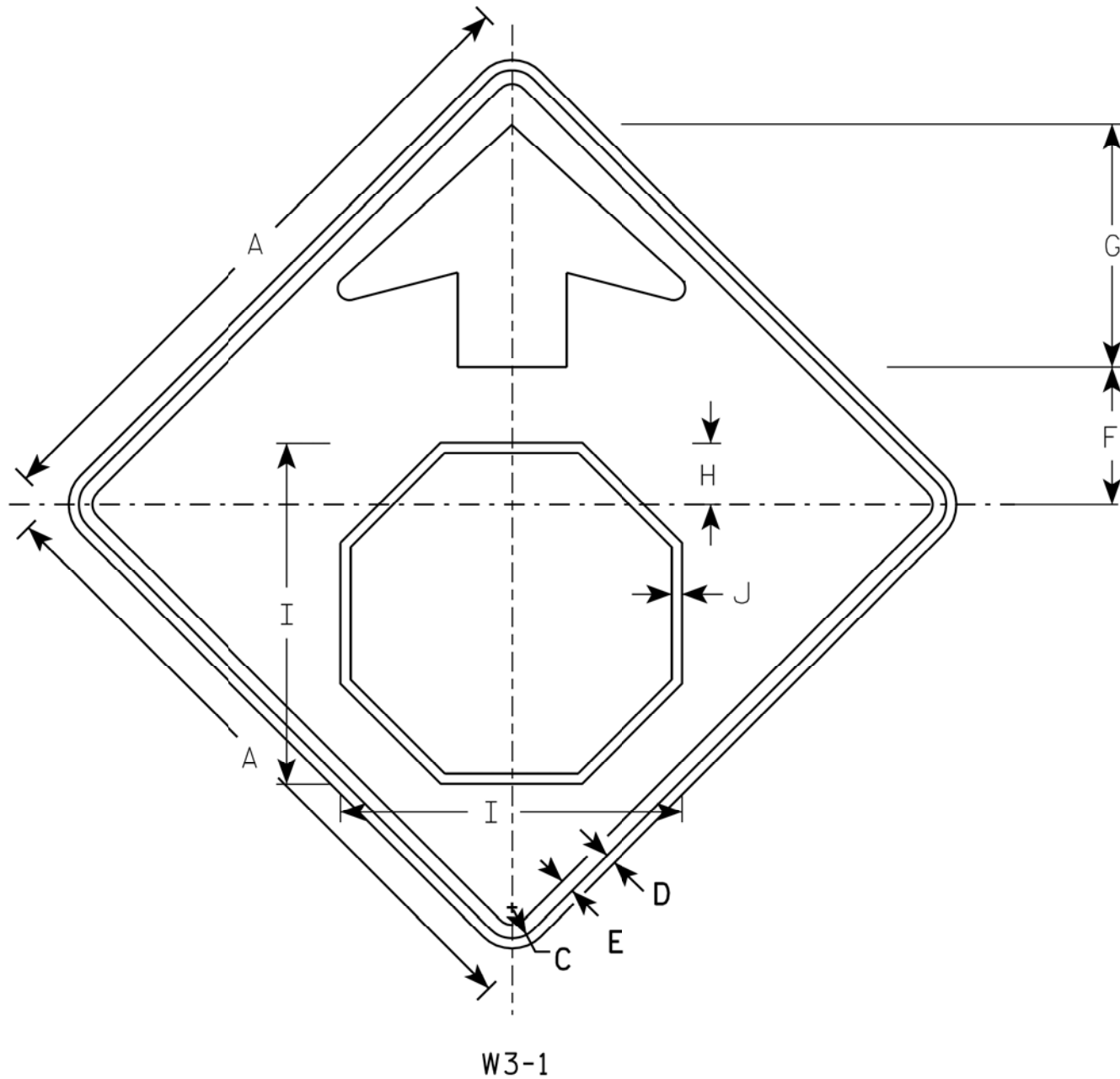


NOTES

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

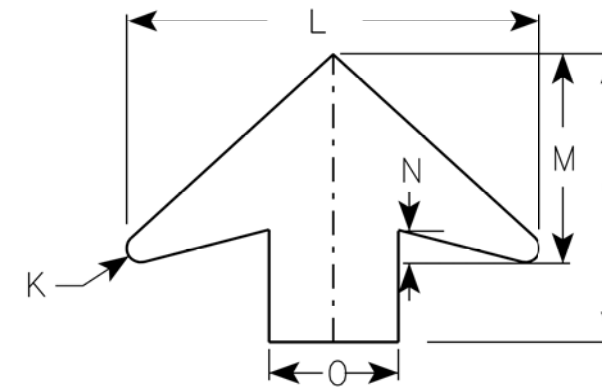
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

STANDARD SIGN	
W5-52L & W5-52R	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 5/29/12	PLATE NO. W5-52.9



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

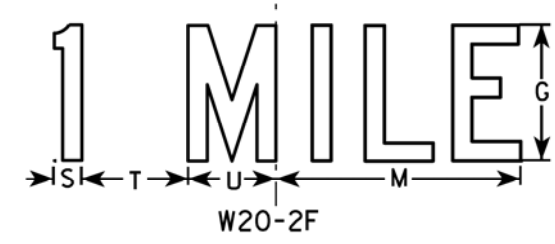
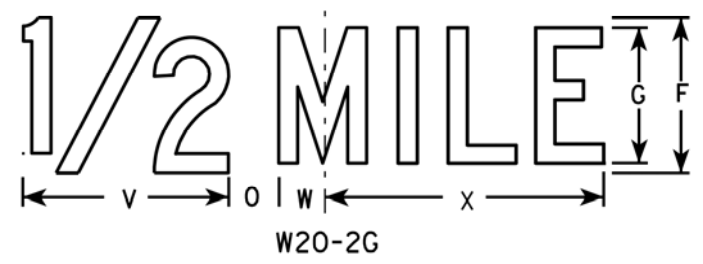
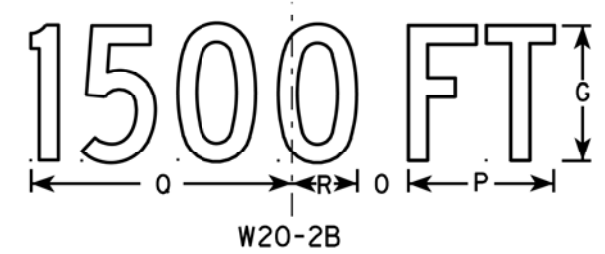
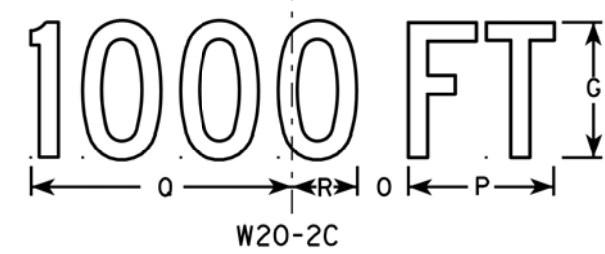
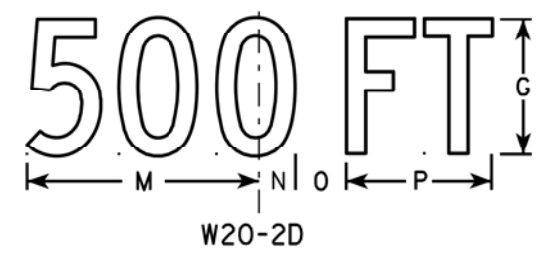
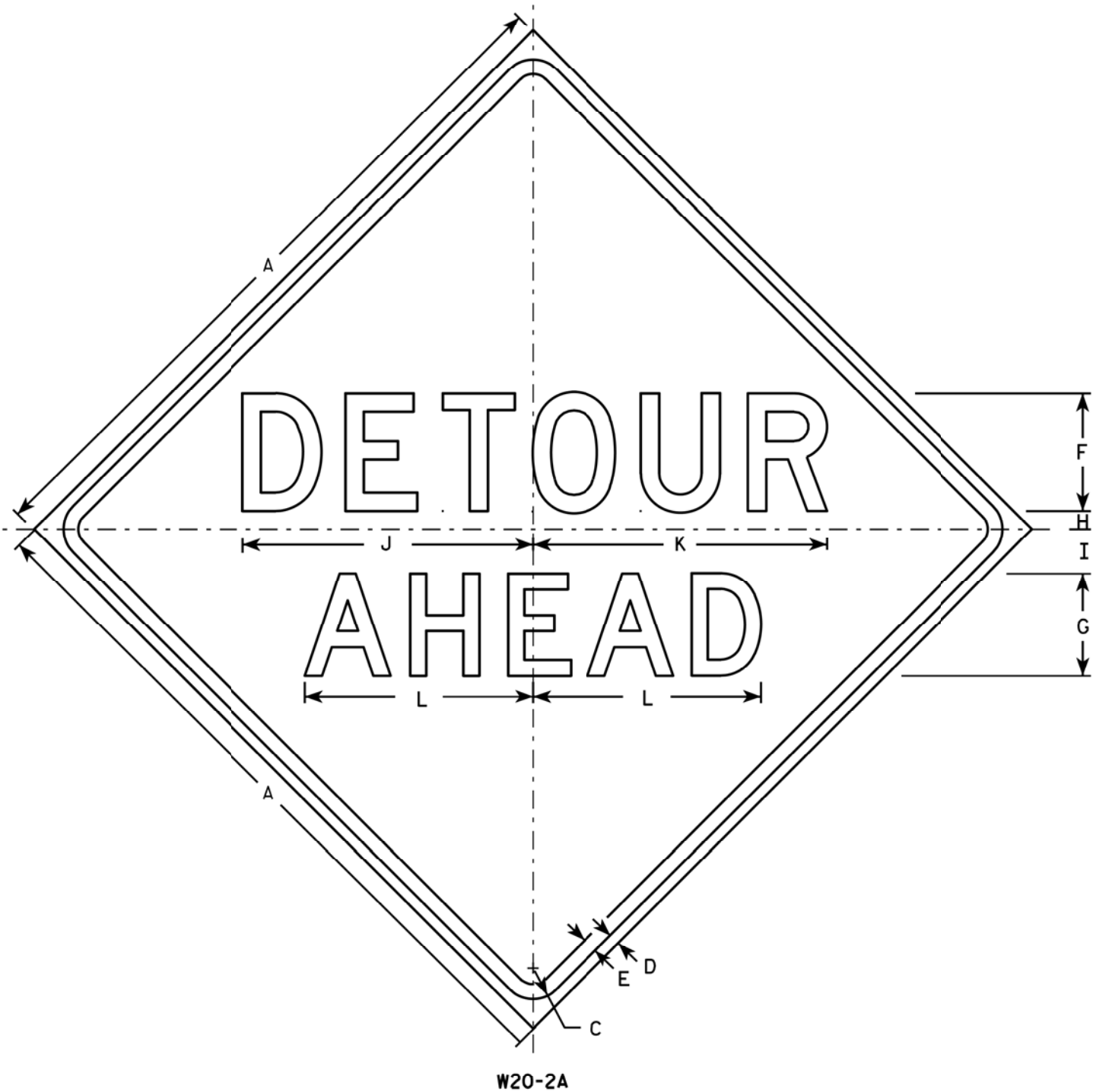
PROJECT NO:

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO:



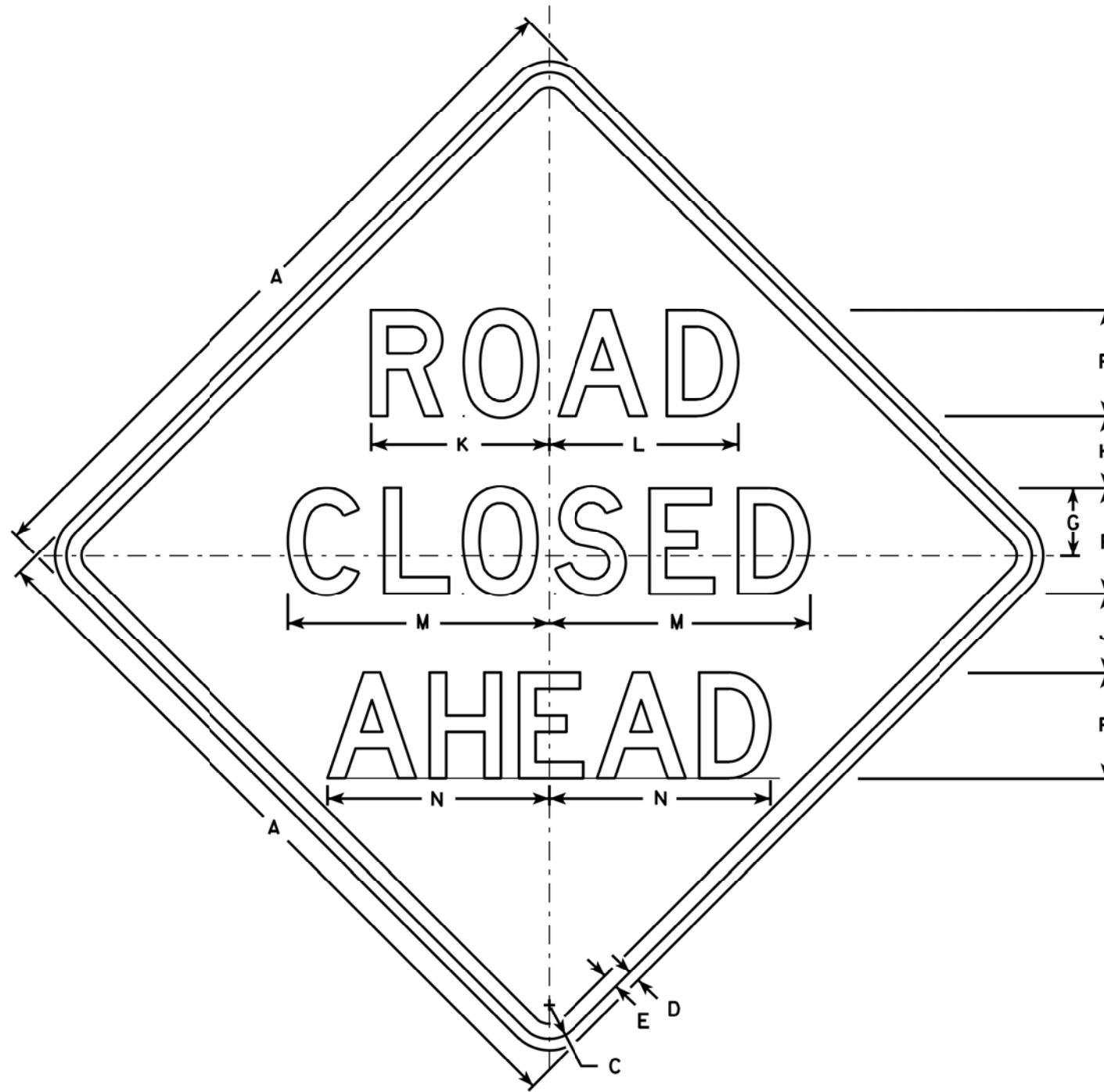
NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for STATE Traffic Engineer
DATE 3/18/11 PLATE NO. W20-2.6



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

DESIGN DATA

STRUCTURE DESIGNED FOR A FUTURE
WEARING SURFACE OF 20 #/S.F.

LIVE LOAD:

DESIGN LOADING _____ HL-93
INVENTORY RATING FACTOR _____ RF = 1.08
OPERATING RATING FACTOR _____ RF = 1.40
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE SUPERSTRUCTURE _____ f'_c = 4,000 PSI
CONCRETE SUBSTRUCTURE _____ f'_c = 3,500 PSI
HIGH STRENGTH BAR _____
STEEL REINFORCEMENT _____ f_y = 60,000 PSI
28-INCH PRESTRESSED GIRDERS _____
CONCRETE MASONRY _____ f_y = 8,000 PSI
PRESTRESSING STRANDS = 0.5-INCH DIA.
WITH ULTIMATE TENSILE STRENGTH OF
270,000 PSI.

TRAFFIC DATA:

A.D.T. (2018) : 5,400
A.D.T. (2038) : 7,100
DESIGN SPEED: 30 MPH

FOUNDATION DATA:

ABUTMENTS AND PIERS TO BE SUPPORTED ON HP 10x42 STEEL PILING
DRIVEN TO THE FOLLOWING REQUIRED DRIVING RESISTANCES PER PILE
AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION.WEST ABUTMENT _____ 180 TON*
PIER _____ 180 TON*
EAST ABUTMENT _____ 170 TON** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED
FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY
A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO
DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:

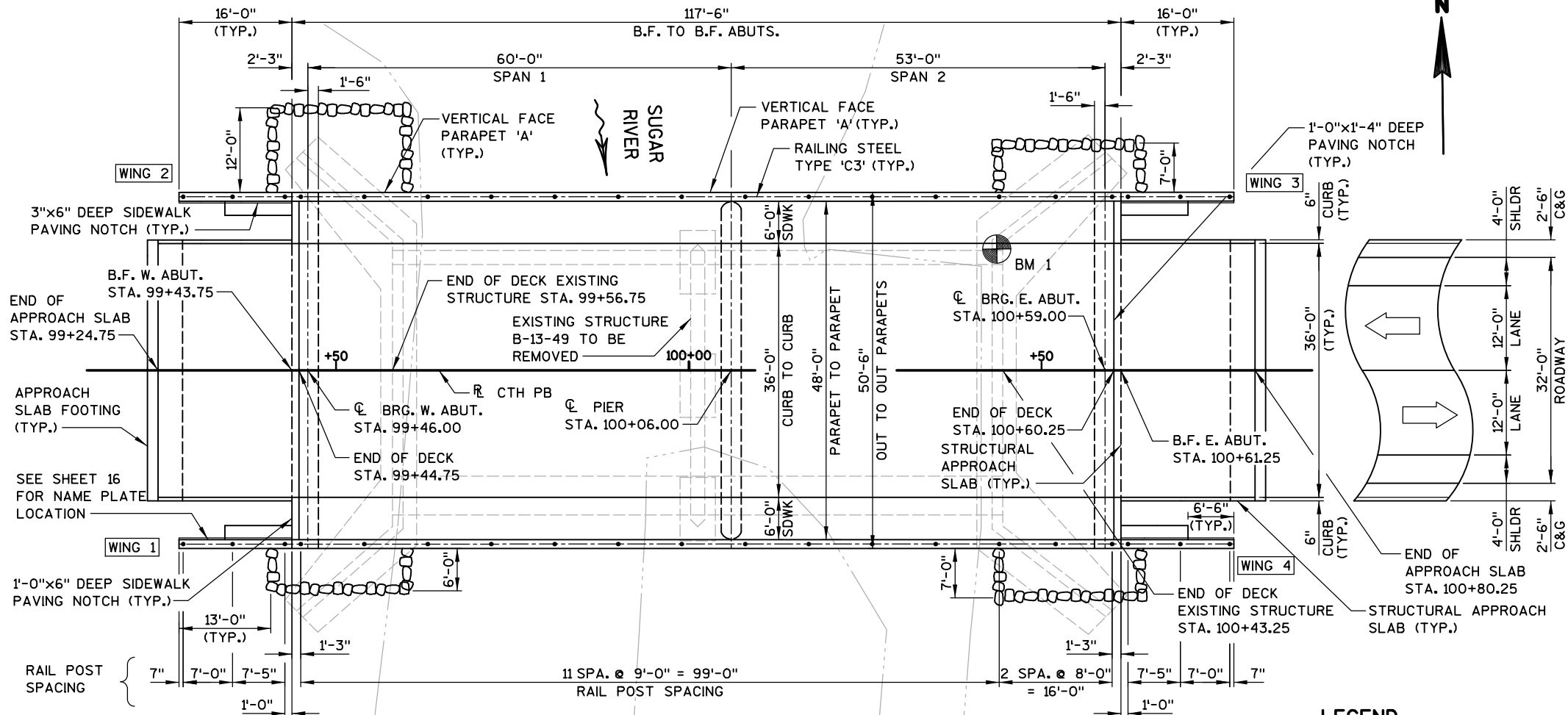
WEST ABUTMENT _____ 40 FEET
PIER _____ 30 FEET
EAST ABUTMENT _____ 25 FEET

HYDRAULIC DATA

Q₁₀₀ _____ 4,100 C.F.S.
VELOCITY _____ 5.76 F.P.S.
HW₁₀₀ ELEV. _____ 899.14 FT.
WATERWAY AREA (BRIDGE) _____ 712 S.F.
DRAINAGE AREA _____ 89 SQ. MI.
SCOUR CRITICAL CODE _____ 5
ROADWAY OVERTOPPING FREQUENCY _____ N/A
Q₂ _____ 1,812 C.F.S.
HW₂ _____ 896.07 FT.
Q₂ VELOCITY _____ 4.0 F.P.S.

LIST OF DRAWINGS

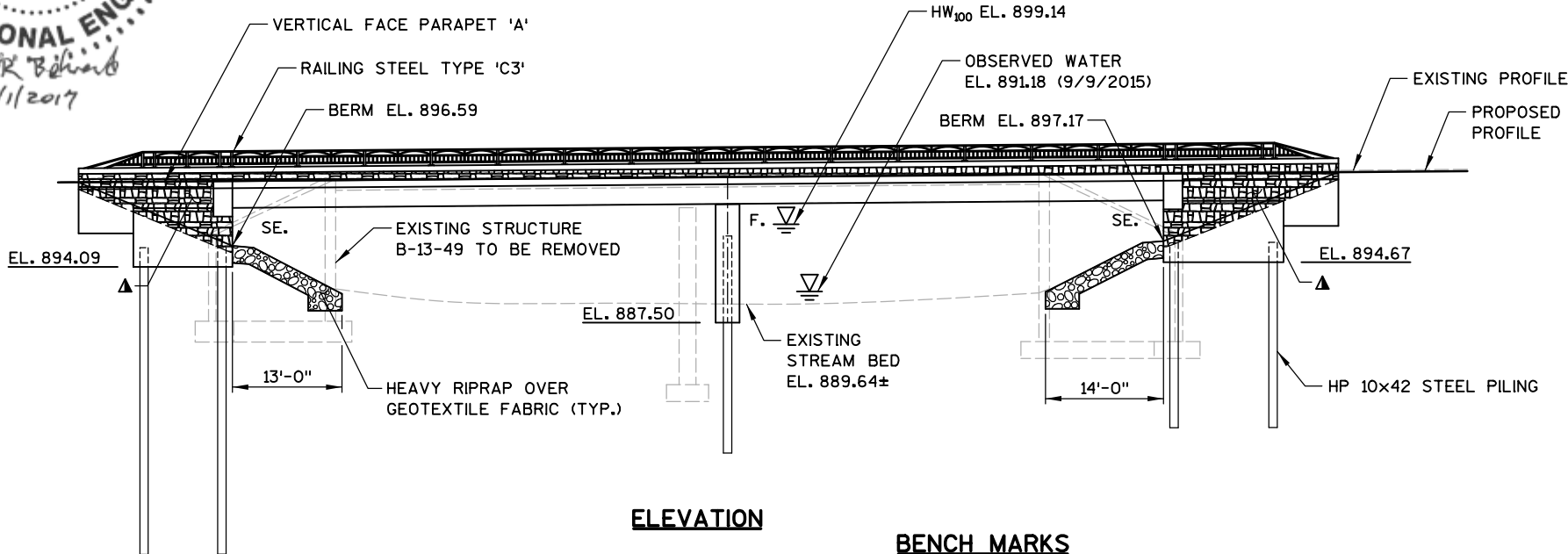
1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES,
NOTES AND DETAILS
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. PIER
9. 28" PRESTRESSED GIRDER DETAILS
10. STEEL DIAPHRAGMS
11. SUPERSTRUCTURE PLAN
12. SUPERSTRUCTURE SECTION
13. SUPERSTRUCTURE DETAILS - 1
14. SUPERSTRUCTURE DETAILS - 2
15. STRUCTURAL APPROACH SLAB
16. VERTICAL FACE PARAPET 'A'
17. RAILING STEEL TYPE 'C3'
18. AESTHETIC DETAILS

DESIGN CONTACT:
KEITH BEHREND (608) 251-4843BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 261-8205

PLAN

(2-SPAN 28-INCH PRESTRESSED GIRDER)

LEGEND

ARCHITECTURAL SURFACE
TREATMENT AND CONCRETE
STAINING MULTI-COLOR. SEE
AESTHETIC DETAILS SHEET.

ELEVATION

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 1	100+42.40, 18.38' LT	CHISELED BOX ON TOP SURFACE OF EXISTING CONCRETE CURB	905.70



NO.	DATE	REVISION	BY
 910 WEST WINGRA DRIVE MADISON, WISCONSIN 53715 (608)-251-4843 (608) 251-8655 FAX WWW.STRAND.COM			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> ^{SE}		08/31/17 DATE	
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-13-682			
CTH PB OVER SUGAR RIVER			
COUNTY	DANE	TOWN/CITY/VILLAGE	MONTROSE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	KRB	DESIGN CK'D.	DDR
DRAWN BY	DTH	PLANS CK'D.	DJW
GENERAL PLAN			SHEET 1 OF 18

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

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

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-13-682" SHALL BE THE EXISTING GROUND LINE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

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

THE EXISTING STRUCTURE B-13-0049, A TWO-SPAN STEEL GIRDER BRIDGE, IS TO BE REMOVED.

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

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

BAR DIMENSIONS FOR BENDING ARE OUT-TO-OUT OF BARS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH HEIGHT SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

NON-LAMINATED ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING STREAMBED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

LEGEND

3/4" V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS.

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

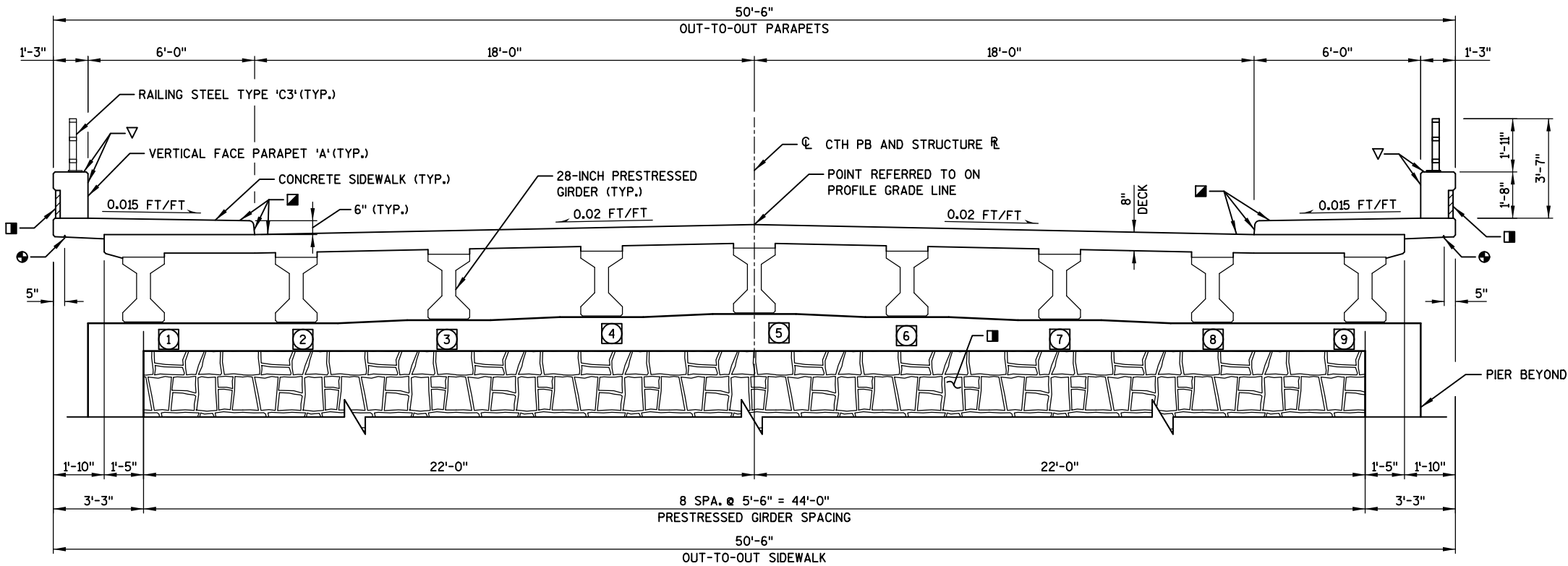
COAT WITH "PIGMENTED SURFACE SEALER" AS PER THE STANDARD SPECIFICATIONS.

ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE AESTHETIC DETAILS SHEET. 2" MAX RELIEF.

GIRDER NUMBER

BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

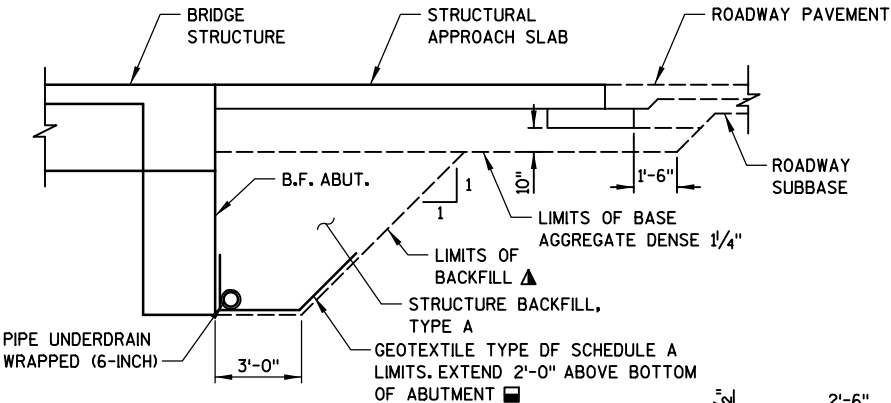
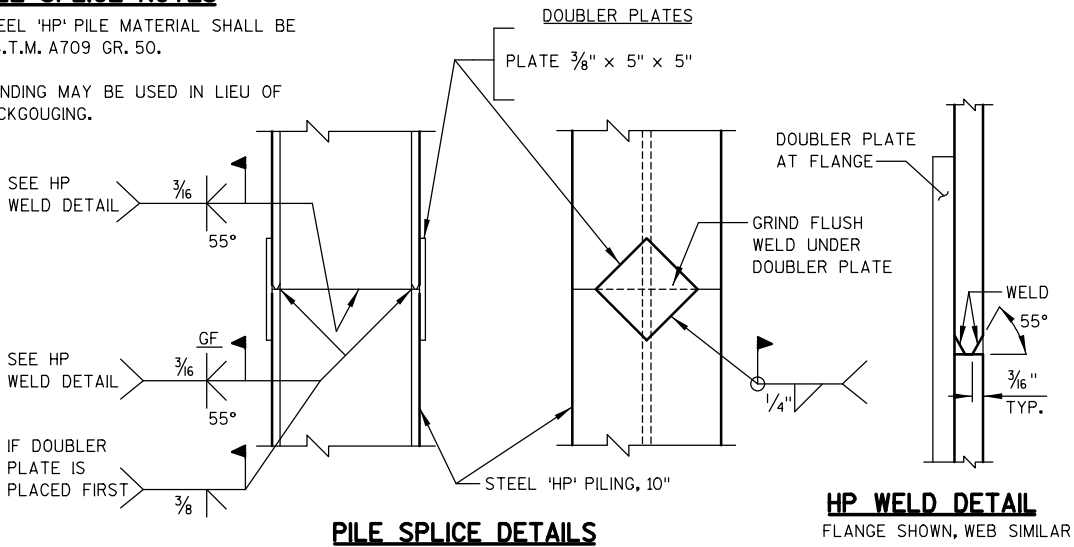
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEARING MATERIALS REQUIRE ENGINEERS APPROVAL.



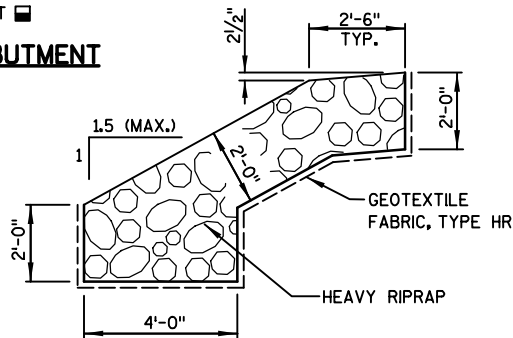
PILE SPLICE NOTES

STEEL 'HP' PILE MATERIAL SHALL BE A.S.T.M. A709 GR. 50.

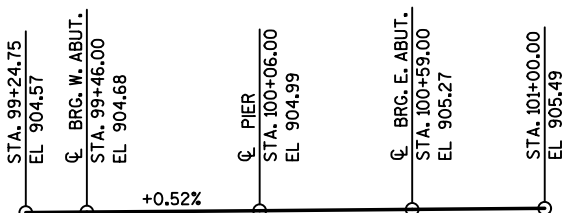
GRINDING MAY BE USED IN LIEU OF BACKGOUING.



TYPICAL SECTION THRU ABUTMENT



RIPRAP HEAVY DETAIL



PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES

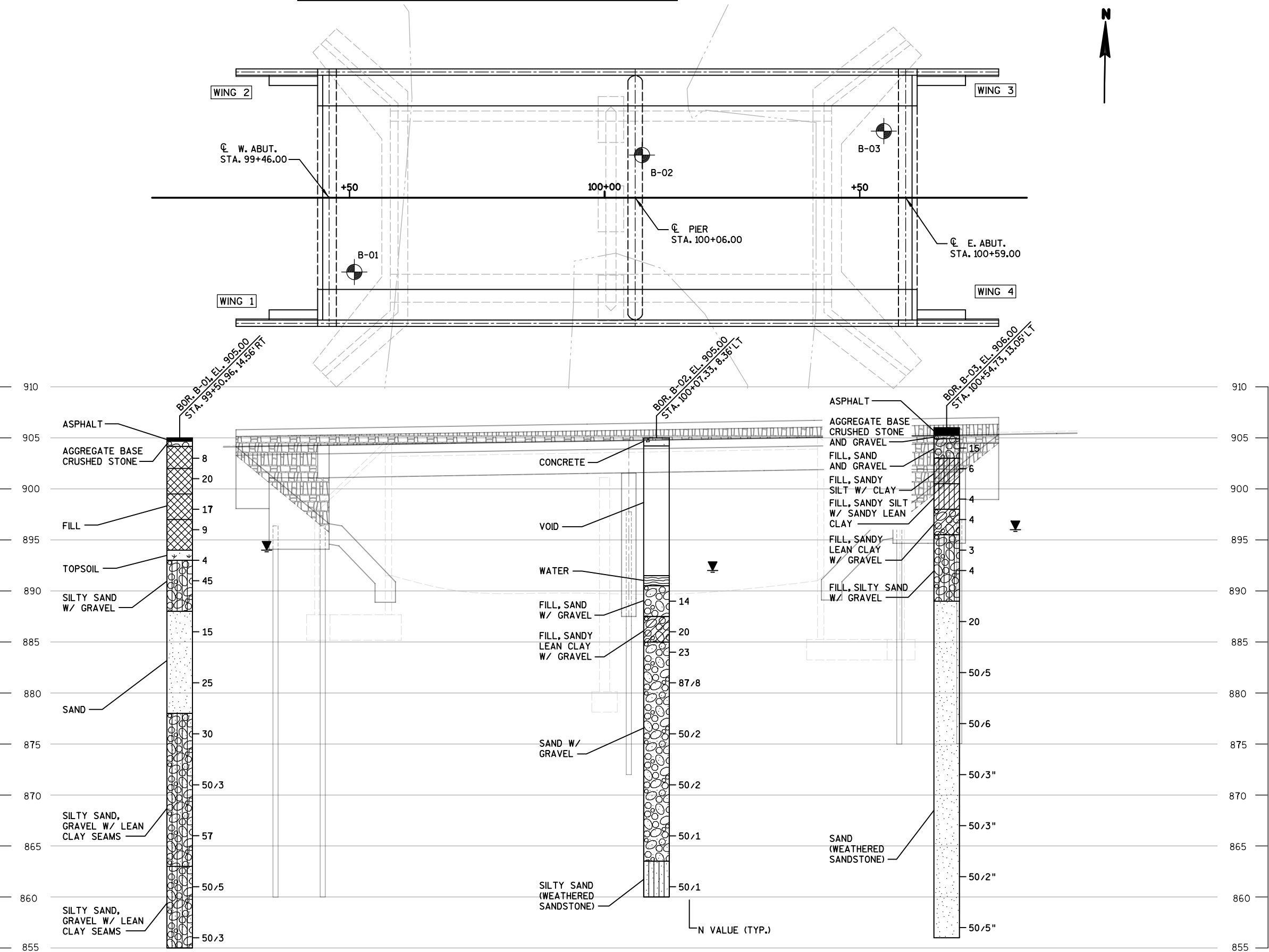
NO.	BID ITEM	UNIT	WEST ABUT.	PIER	EAST ABUT.	SUPERS.	APPROACH SLABS	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MIN. DEBRIS STA 100+00	LS	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-13-682	LS	-	-	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	194	-	194	-	-	388
502.0100	CONCRETE MASONRY BRIDGES	CY	59	72	59	242	94	526
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	648	170	818
502.3210	PIGMENTED SURFACE SEALER	SY	10	-	10	76	-	96
503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	-	-	-	1024	-	1024
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3640	2770	3640	-	-	10050
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2560	70	2560	43560	14960	63710
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	-	-	-	-	650	650
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	9	18	9	-	-	36
506.4000	STEEL DIAPHRAGMS B-13-682	EACH	-	-	-	16	-	16
513.7016	RAILING STEEL TYPE C3 B-13-682	LF	32	-	32	235	-	299
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	-	12	-	-	24
517.1015.S	CONCRETE STAINING MULTI-COLOR B-13-682	SF	428	585	428	319	-	1760
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-13-682	SF	428	585	428	319	-	1760
550.1100	PIILING STEEL HP 10-INCH X 42 LB.	LF	400	300	250	-	-	950
606.0300	RIPRAP HEAVY	CY	90	-	88	-	-	178
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	124	-	124	-	-	248
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	44	-	44	-	-	88
645.0120	GEOTEXTILE TYPE HR	SY	177	-	174	-	-	351
NON-BID ITEMS								
	FILLER	SIZE	1/2" & 3/4"	3/4"	1/2" & 3/4"	-	3/4"	1/2" & 3/4"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTJ	PLANS CK'D. DJW
CROSS SECTION, QUANTITIES, NOTES & DETAILS			SHEET 2

BORINGS PERFORMED AND REPORT COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES (PSI)
821 CORPORATE COURT
WAUKESHA, WI 53189

BORINGS WERE PERFORMED ON 12/09/15 AND
12/10/2015.

BORING	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	12/09/15	429,874.99	783,632.31
2	12/10/15	429,897.07	783,689.02
3	12/09/15	429,901.06	783,736.48
BORINGS COMPLETED BY: PSI			
REPORT COMPLETED BY: PSI			
ALL COORDINATES REFERENCED TO DANE COUNTY COORDINATE SYSTEM			



STATE PROJECT NUMBER		
5658-00-76		
MATERIAL SYMBOLS		
ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING

BORING * REL. STA./OFF-SET

ST (1) 0.25 (2) 17

F-C COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1- 24'-29' REC=80%, ROD=72%

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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▽ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTH	PLANS CKD. DJW
SUBSURFACE EXPLORATION		SHEET 3	

NOTES

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER 1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE. EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INSIDE FACE. COLOR SHALL MATCH BASE COLOR OF CONCRETE STAINING MULTI-COLOR AT FORM LINED SURFACES. COLOR SHALL BE GRAY ELSEWHERE.

ADJUST A501 BARS INTERFERING WITH PILES.

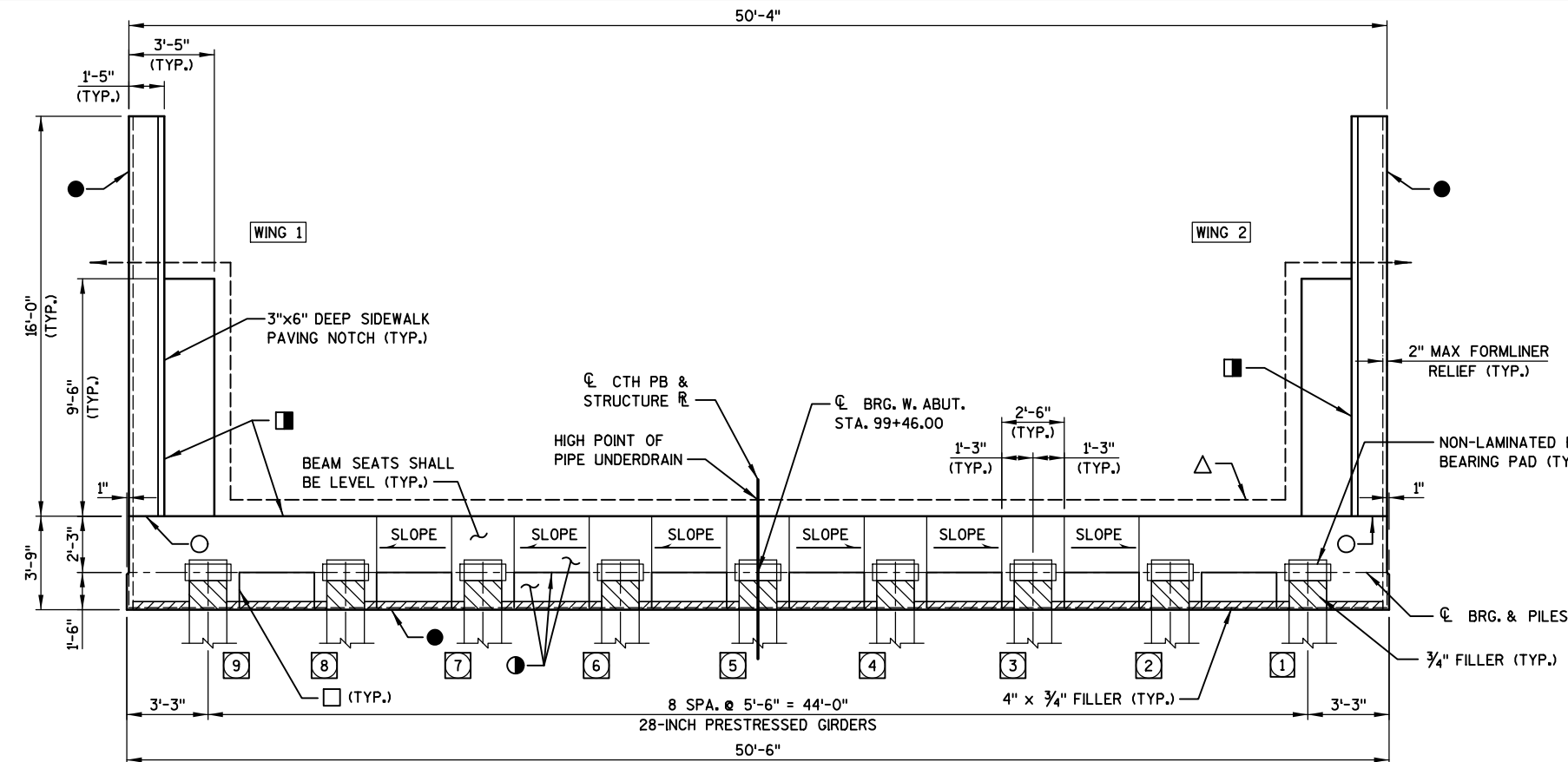
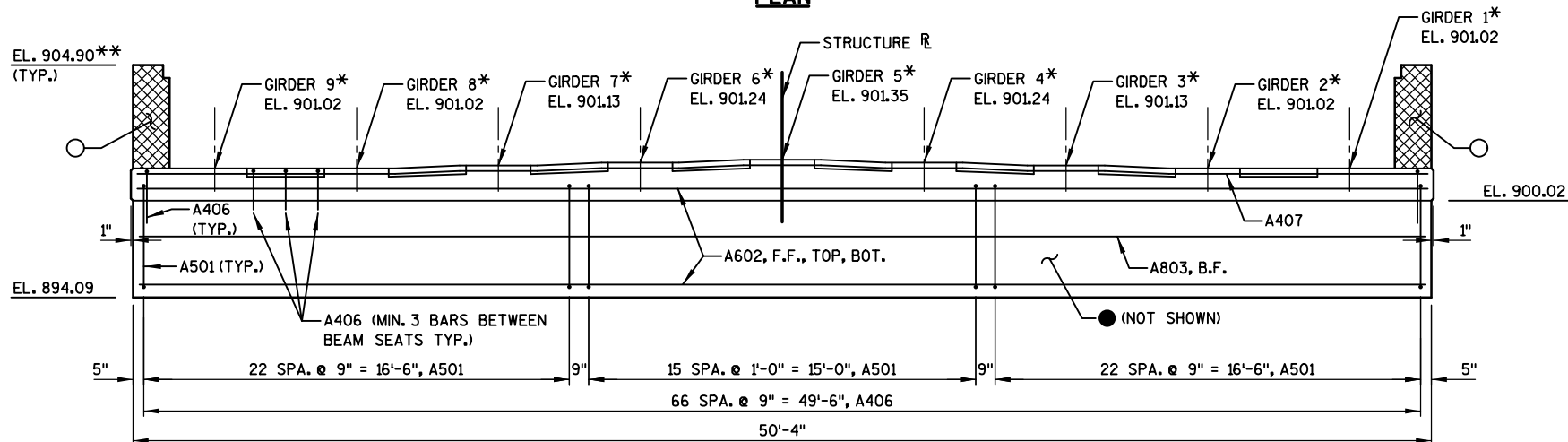
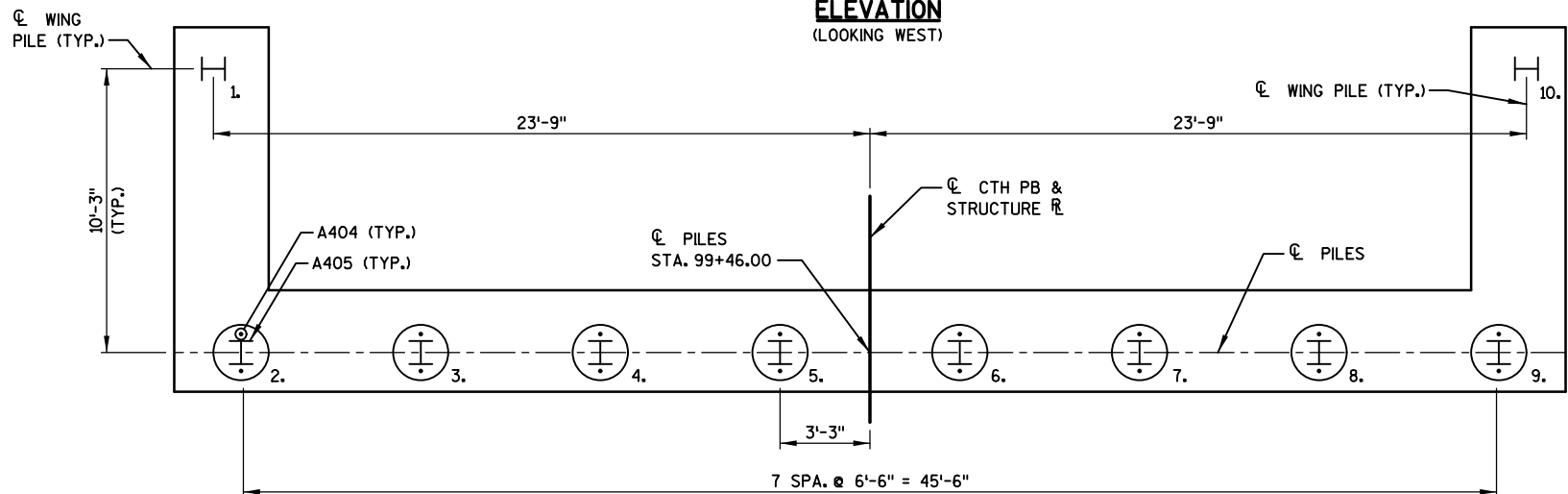
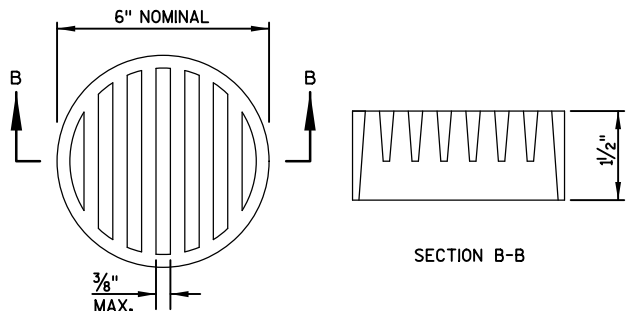
SEE SHEET 2 FOR PILE SPLICE DETAILS.

SEE SHEET 5 FOR REINFORCING DETAILS.

WEST ABUTMENT TO BE SUPPORTED ON PILING STEEL 10-INCH X 42 LB WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT WEST ABUTMENT. ESTIMATED 40 FEET LONG EACH.

LEGEND

- 1/2" FILLER. EXTEND FROM ABUT. SEAT TO TOP OF WING. INCLUDED IN WING LENGTH.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- # INDICATES GIRDER NUMBER.
- * ELEVATION GIVEN AT C. BRG.
- ** ELEVATION GIVEN AT B.F. ABUTMENT.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE. SEE DETAIL THIS SHEET.
- 3/4" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE SHEET 18 FOR DETAILS.
- ① STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

**PLAN****ELEVATION**
(LOOKING WEST)**PILE PLAN****NOTES:**

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

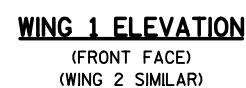
THE RODENT SHIELD, PIPE COUPLING AND ATTACHMENT SCREWS SHALL BE INCLUDED WITH BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

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

RODENT SHIELD DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		OTH	PLANS CK'D. DJW
WEST ABUTMENT			SHEET 4

- ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE SHEET 18 FOR DETAILS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4.
- ▲ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



UNCOATED: 3,640 LBS
COATED: 2,150 LBS

MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
A501	62	19'-3"	X		BODY - VERT. - STIRRUPS
A602	12	49'-8"			BODY - F.F., TOP, BTM. - HORIZ.
A803	7	51'-11"	X		BODY - B.F. - HORIZ.
A404	16	2'-3"			BODY - PILES - VERT.
A405	8	28'-0"	X		BODY - PILES - SPIRAL
A406	66	5'-9"	X		BODY - TOP - VERT.
A407	3	49'-8"			BODY - TOP - HORIZ.
A508	20	19'-5"	X	X	WINGS - LOWER - STIRRUPS
A509	16	12'-8"		X	WINGS - LOWER - F.F. - HORIZ
A710	18	12'-8"		X	WINGS - LOWER - B.F. & TOP - HORIZ
A511	26	11'-2"	X	X	WINGS - UPPER - VERT.
A512	18	12'-2"	X	X	WINGS - UPPER - VERT.
A413	20	15'-8"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
A414	20	7'-9"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
A415	44	4'-6"	X	X	WINGS - UPPER - SIDEWALK NOTCH - VERT.
A616	4	15'-8"		X	WINGS - UPPER - SIDEWALK NOTCH - HORIZ.

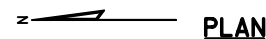


SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER 1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE. EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INSIDE FACE. COLOR SHALL MATCH BASE COLOR OF CONCRETE STAINING MULTI-COLOR AT FORM LINED SURFACES. COLOR SHALL BE GRAY ELSEWHERE.

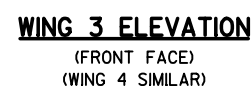
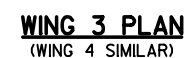
SEE SHEET 5 FOR REINFORCING DETAILS.

EAST ABUTMENT TO BE SUPPORTED ON PILING STEEL
10-INCH X 42 LB WITH A REQUIRED DRIVING
RESISTANCE OF 170 TONS PER PILE AT WEST
ABUTMENT. ESTIMATED 25 FEET LONG EACH.

- 1/2" FILLER. EXTEND FROM ABUT. SEAT TO TOP OF WING. INCLUDED IN WING LENGTH.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ⊞ INDICATES GIRDER NUMBER.
- * ELEVATION GIVEN AT C BRG.
- ** ELEVATION GIVEN AT B.F. ABUTMENT.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH ROBERT SHIELD AT ENDS OF PIPE. SEE DETAIL ON SHEET 4.
- 3/4" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE SHEET 18 FOR DETAILS.
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



- ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE SHEET 18 FOR DETAILS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4.
- ▲ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



UNCOATED: 3,640 LBS
COATED: 2,150 LBS

MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
B501	62	19'-3"	X		BODY - VERT. - STIRRUPS
B602	12	49'-8"			BODY - F.F., TOP, BTM. - HORIZ.
B803	7	51'-11"	X		BODY - B.F. - HORIZ.
B404	16	2'-3"			BODY - PILES - VERT.
B405	8	28'-0"	X		BODY - PILES - SPIRAL
B406	66	5'-9"	X		BODY - TOP - VERT.
B407	3	49'-8"			BODY - TOP - HORIZ.
B508	20	19'-5"	X	X	WINGS - LOWER - STIRRUPS
B509	16	12'-8"		X	WINGS - LOWER - F.F. - HORIZ
B710	18	12'-8"		X	WINGS - LOWER - B.F. & TOP - HORIZ
B511	26	11'-2"	X	X	WINGS - UPPER - VERT.
B512	18	12'-2"	X	X	WINGS - UPPER - VERT.
B413	20	15'-8"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
B414	20	7'-9"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
B415	44	4'-6"	X	X	WINGS - UPPER - SIDEWALK NOTCH - VERT.
B616	4	15'-8"		X	WINGS - UPPER - SIDEWALK NOTCH - HORIZ.



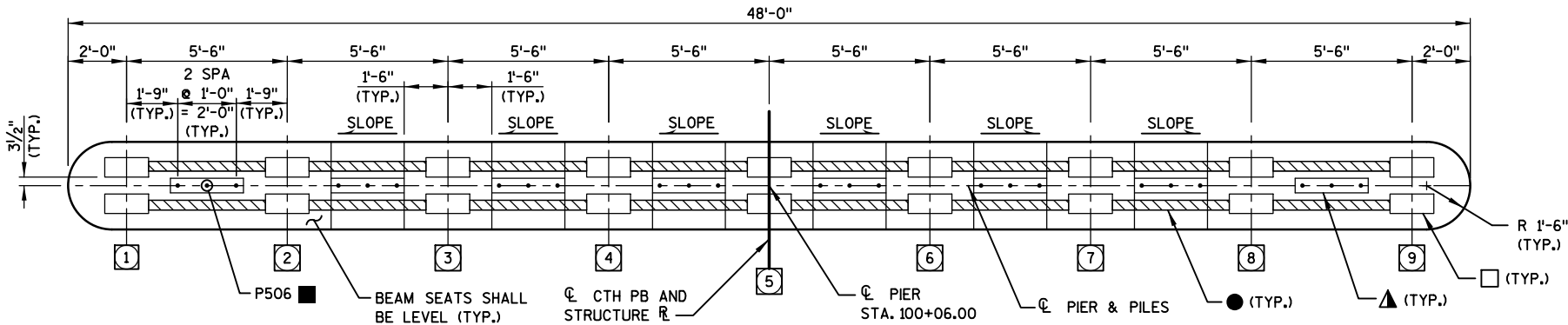
PIER

UNCOATED: 2,770 LBS

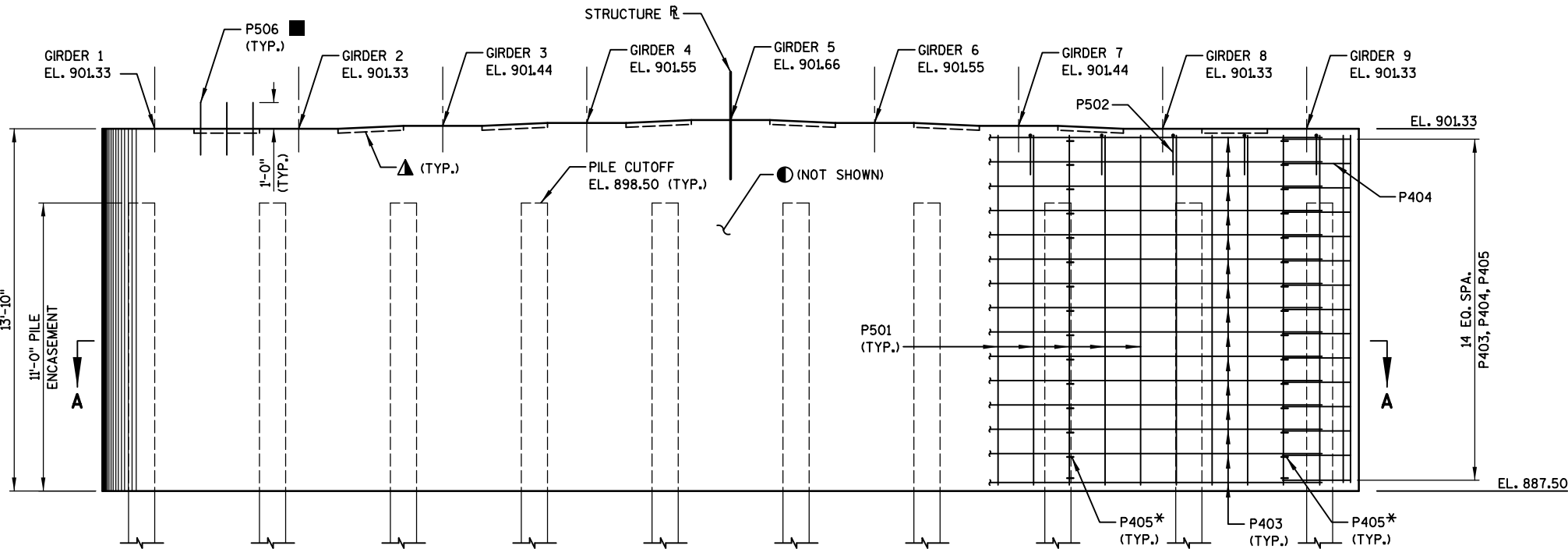
BILL OF BARS

COATED: 70 LBS

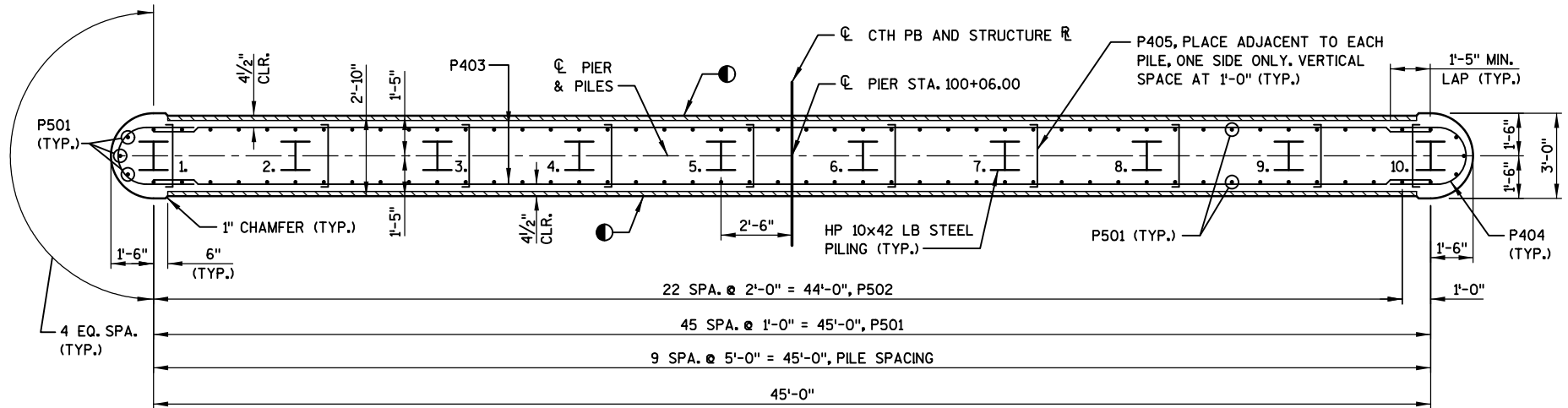
MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
P501	98	13'-5"			PIER - VERT.
P502	23	4'-5"	X		PIER - STIRRUPS - TOP - VERT.
P403	30	45'-0"			PIER - SIDES - HORIZ.
P404	30	6'-1"	X		PIER - ENDS - HORIZ.
P405	150	2'-8"	X		PIER - TIES - HORIZ.
P506	32	2'-0"		X	PIER - DOWELS - VERT.



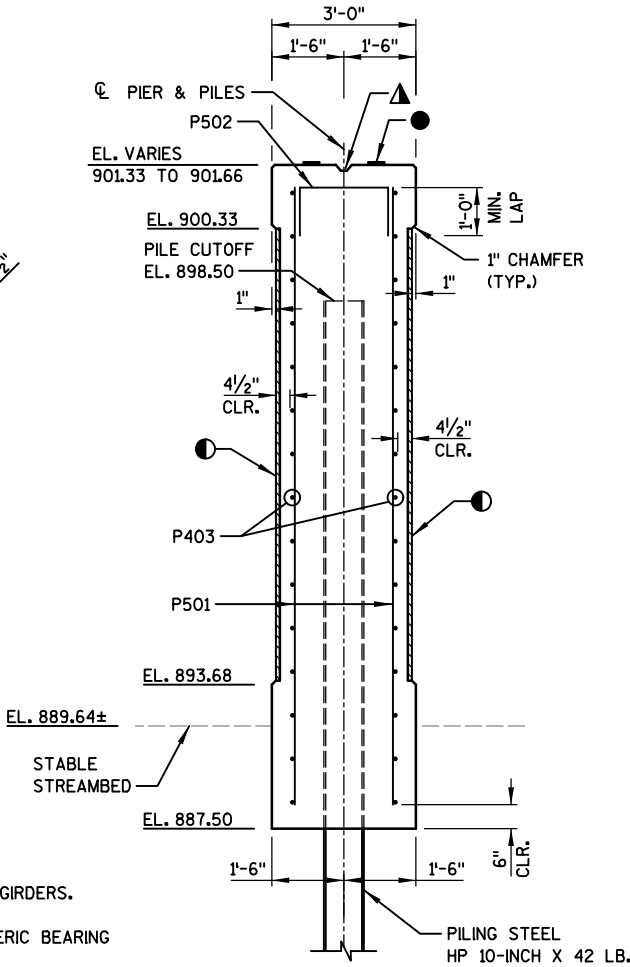
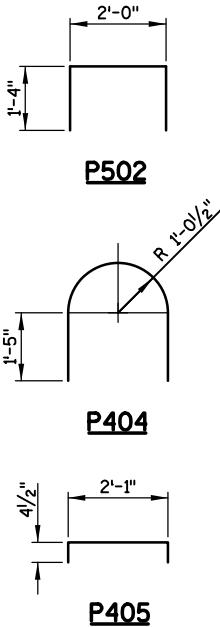
PIER TOP PLAN



ELEVATION
(LOOKING EAST)



SECTION A-A



TYPICAL SECTION THRU PIER

LEGEND

- # INDICATES GIRDER NUMBER.
- 4"x3/4" PREFORMED FILLER BETWEEN GIRDERS.
- 1/2"x8"x18" NON-LAMINATED ELASTOMERIC BEARING PAD.
- ▲ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET AS TAKEN PLACE. (TYP.)
- * ADJACENT TO EACH PILE, ONE SIDE ONLY.
- ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE AESTHETIC DETAILS SHEET.

NOTES

SEE SHEET 2 FOR PILE SPLICE DETAILS.

PIER TO BE SUPPORTED ON PILING STEEL 10-INCH X 42 LB WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT PIER. ESTIMATED 30 FEET LONG EACH.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		OTH	PLANS CK'D. DJW
PIER		SHEET 8	

GENERAL NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF WISDOT STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

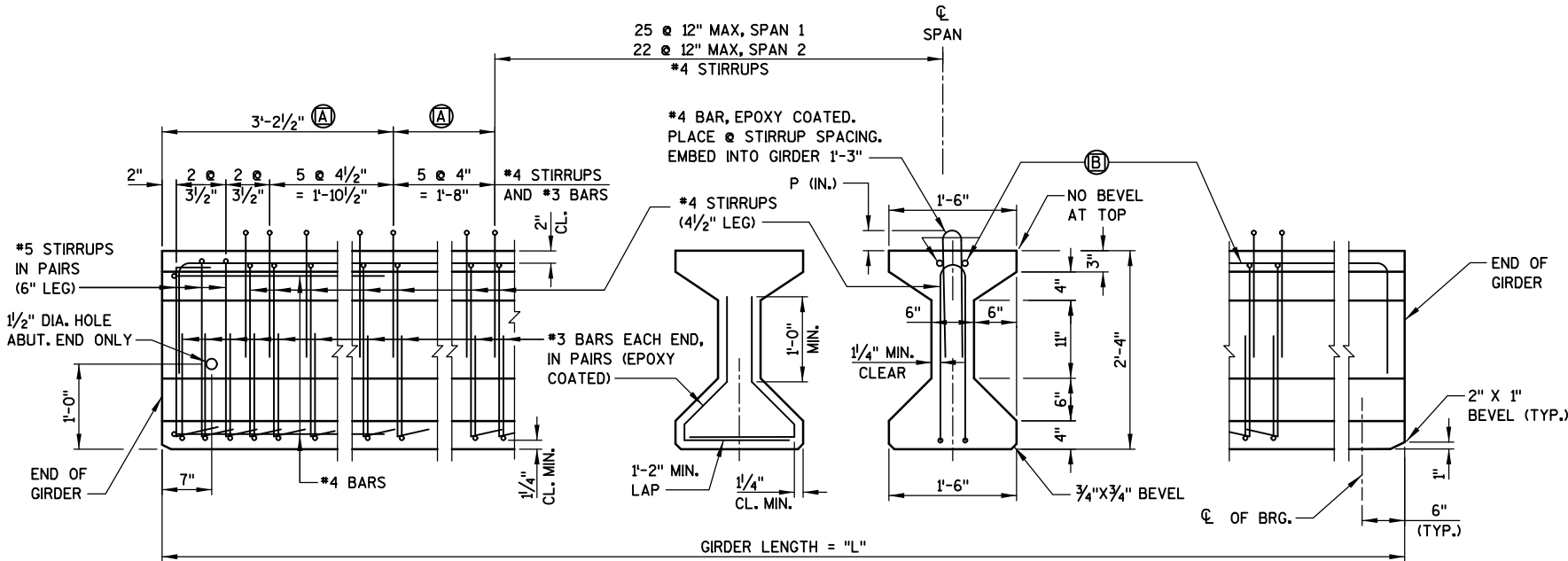
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.5" DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

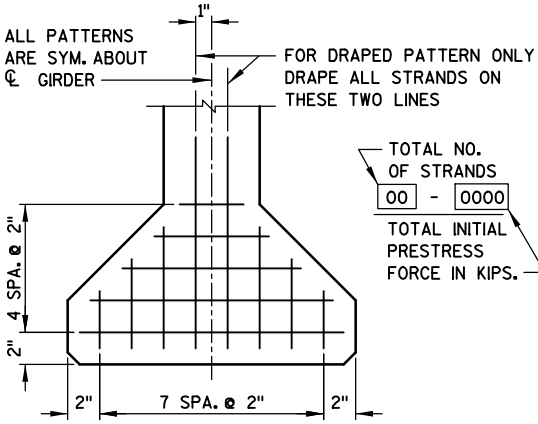
BEND EACH END OF #4 STIRRUPS 4 1/2" AND #5 STIRRUPS 6".

FOR DIAPHRAGM INSERT & CONNECTOR DETAILS SEE "STEEL DIAPHRAGM" SHEET.

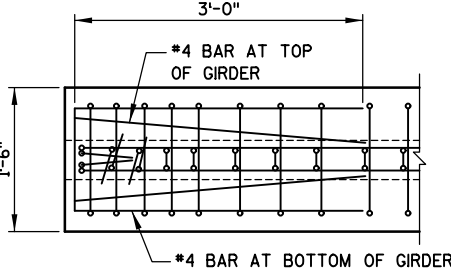


SIDE VIEW & TYPICAL SECTION IN SPAN

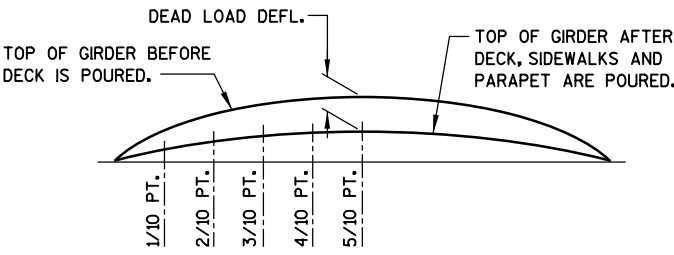
- (A) DETAIL TYP. AT EACH END
- (B) 2-BARS (NO. 5) BEND DOWN 16 BAR DIA. AT ENDS



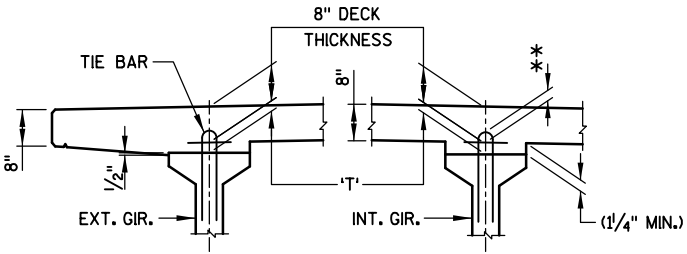
TYP. STRAND PATTERN



TOP VIEW OF GIRDER ENDS



DEAD LOAD DEFLECTION DIAGRAM



DECK HAUNCH DETAIL

IF 1/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE ENGINEER IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, ** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT CL OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

- TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
- + DEAD LOAD DEFLECTION
- DECK THICKNESS
- = HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2 1/2" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	1.55
2	1.03

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA																								
SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (P.S.I.)	"P" (IN.) 1ST 1/3 OF GIRDER	"P" (IN.) MID 1/3 OF GIRDER	"P" (IN.) END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN					UNDRAPED PATTERN		
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'cl (P.S.I.)	(IN.)				TOTAL NO. OF STRANDS	f'cl (P.S.I.)
																			"A"	"B" MIN.	"B" MAX.	"C"		
1	1,9	60'-4 1/2"	0.23	0.46	0.63	0.74	0.78	0.73	0.62	0.44	0.22	8000	7.25	7.00	7.00	0.50	18	6800	23.0	12.5	9.5	5.0	--	--
1	2-8	60'-4 1/2"	0.30	0.58	0.81	0.95	0.99	0.94	0.79	0.56	0.28	8000	7.25	7.00	7.25	0.50	18	6800	23.0	12.5	9.5	5.0	--	--
2	1,9	53'-4 1/2"	0.13	0.26	0.37	0.44	0.46	0.44	0.38	0.27	0.14	8000	7.25	7.00	7.25	0.50	14	6800	24.0	12	9	4.0	--	--
2	2-8	53'-4 1/2"	0.17	0.34	0.47	0.56	0.59	0.56	0.48	0.35	0.18	8000	7.25	7.00	7.25	0.50	14	6800	24.0	12	9	4.0	--	--

ARRANGEMENT AT CL SPAN FOR GIRDERS WITH DRAPED 0.5" DIA. STANDS

NOTES

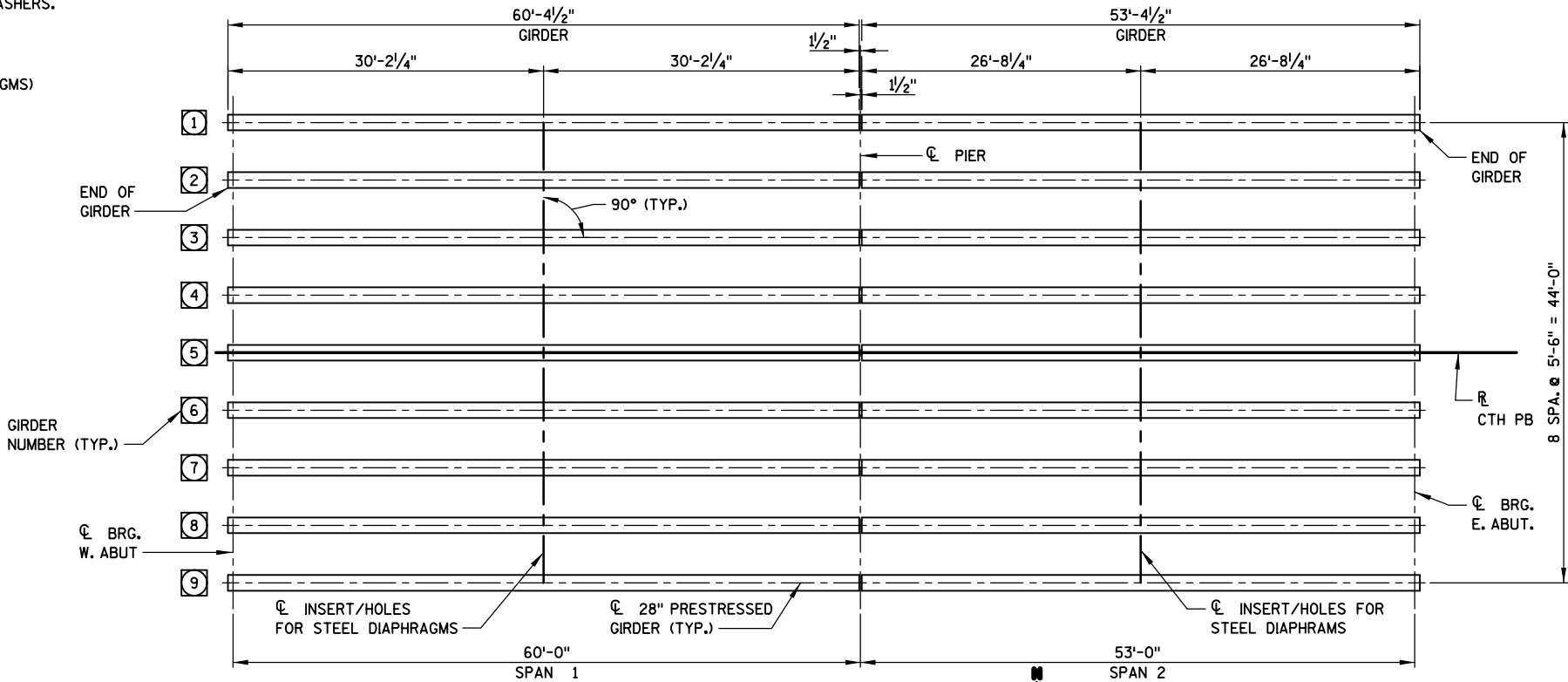
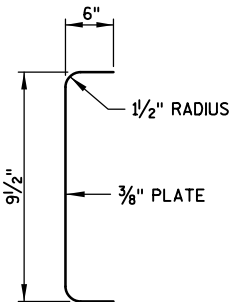
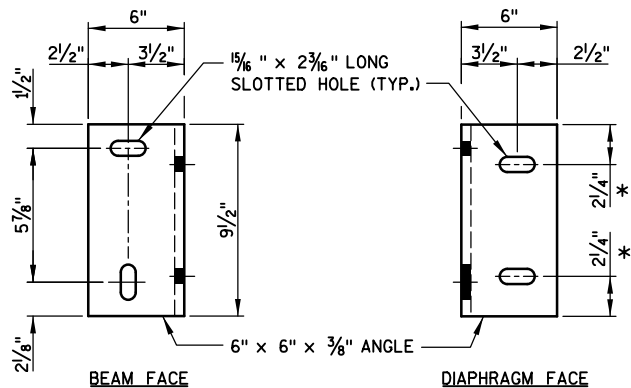
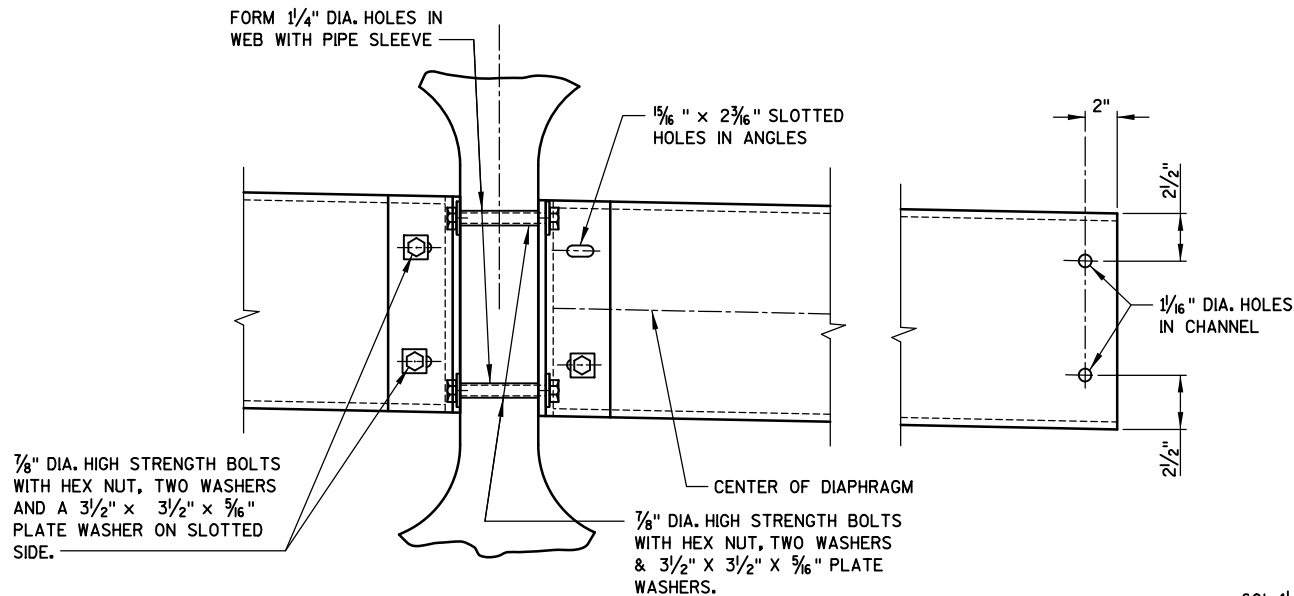
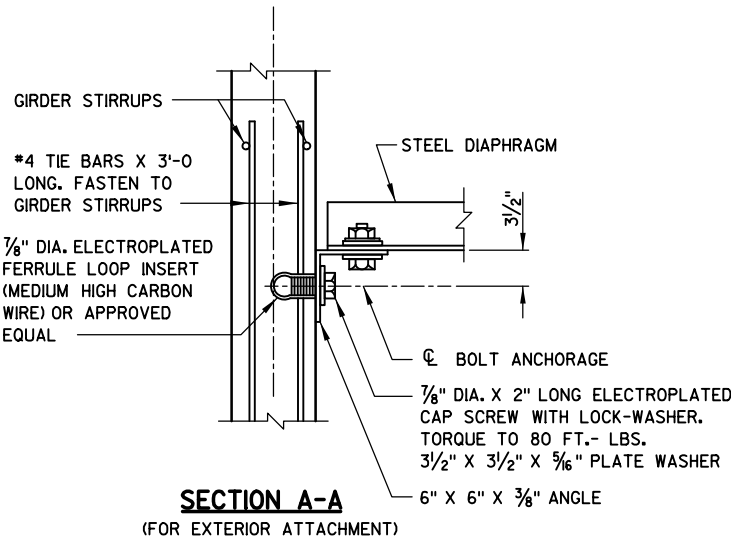
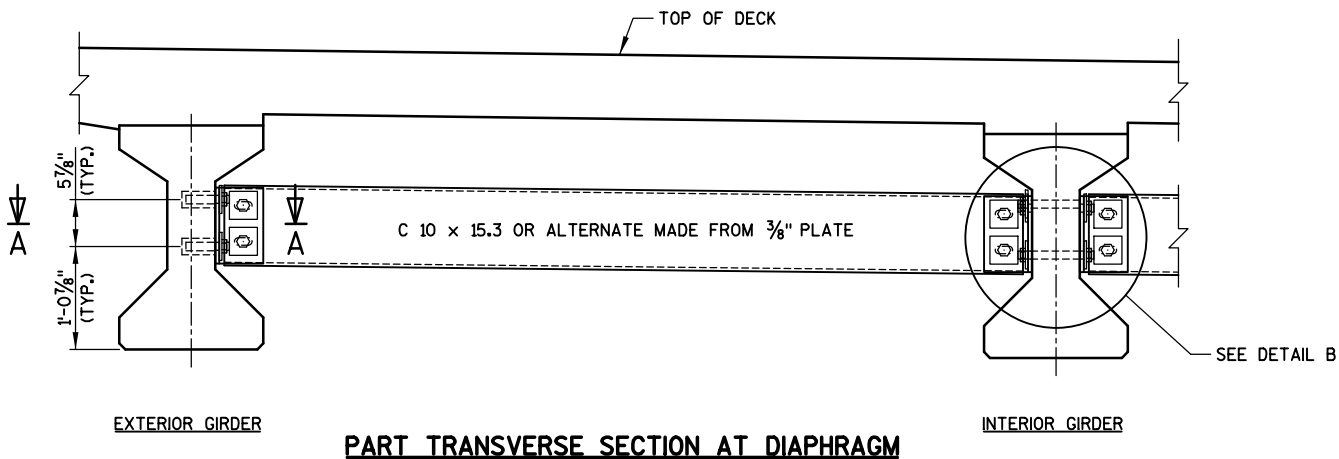
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-682", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

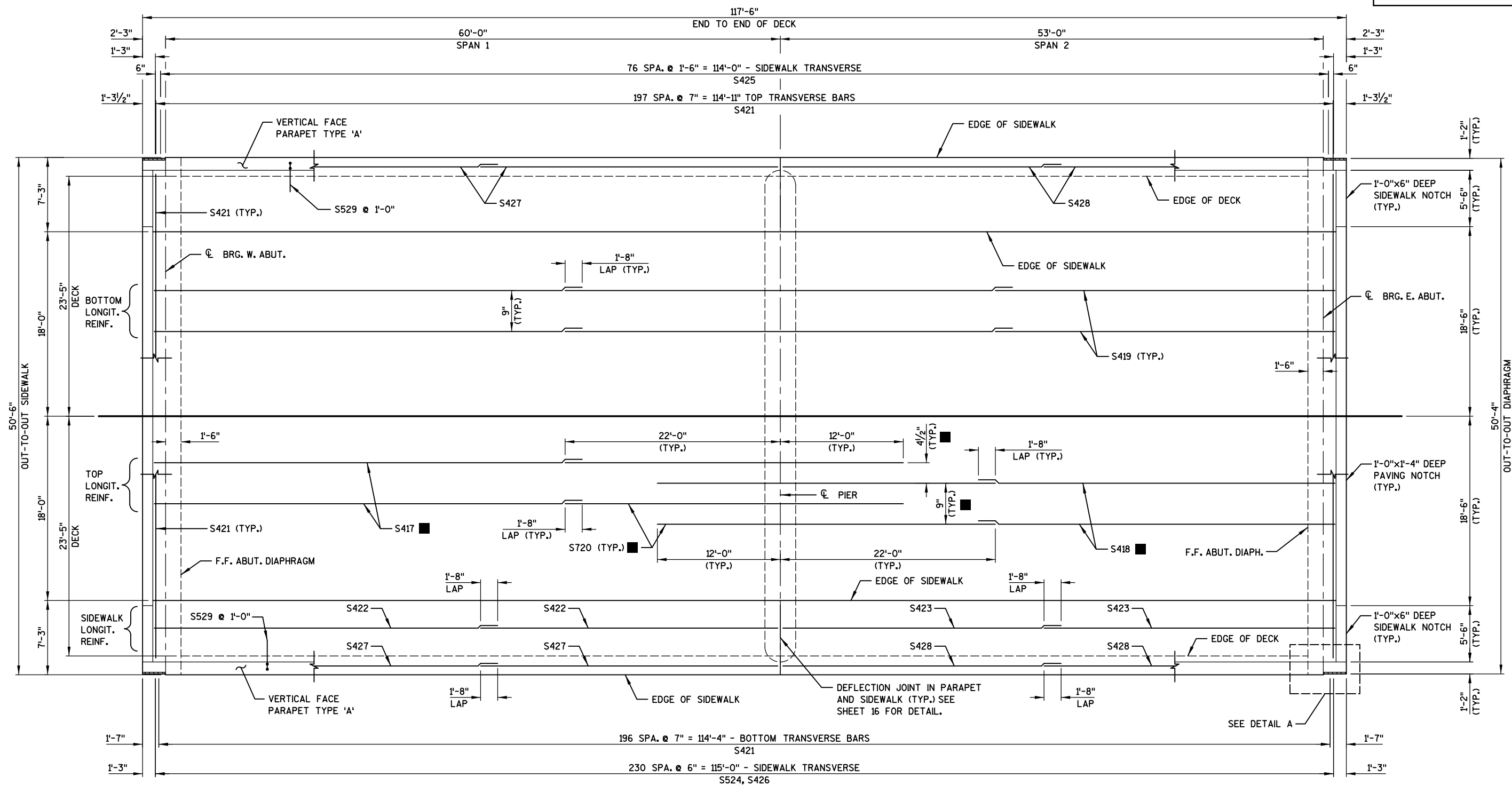
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

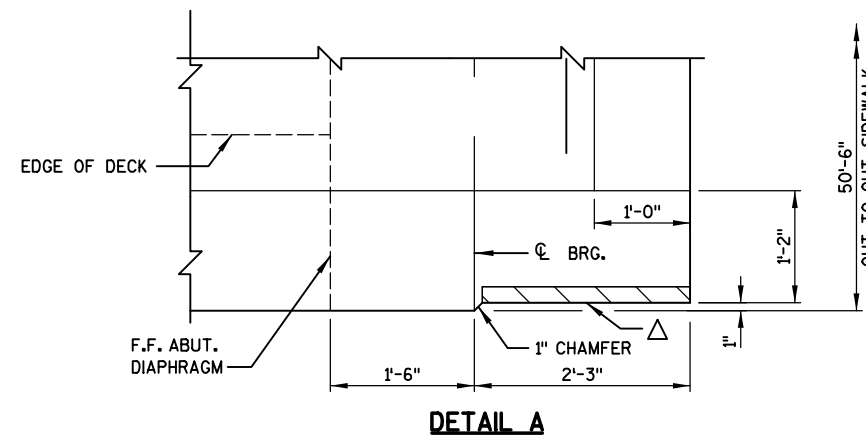
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		OTH	PLANS CK'D. DJW
STEEL DIAPHRAGMS		SHEET 10	



PLAN



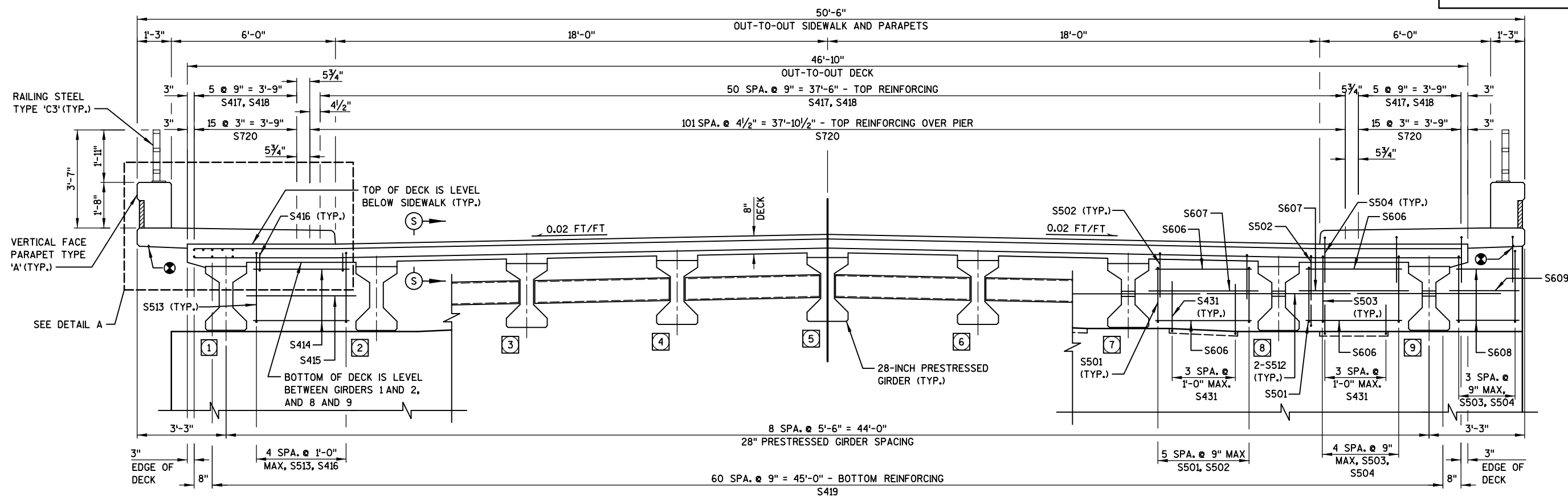
DETAIL A

LEGEND

△ ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE AESTHETICS DETAILS SHEET. 2" MAX RELIEF.

■ SEE SHEET 12 FOR SPACING OF TOP MAT LONGITUDINAL BARS AT EDGES OF DECK.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTH	PLANS CK'D. DJW
SUPERSTRUCTURE PLAN			SHEET 11



**CONCRETE DIAPHRAGM
AT PIER**

**IN-SPAN STEEL
DIAPHRAGMS**

**CROSS SECTION THRU DECK
(LOOKING EAST)**

**TYP. BTWN.
GIRDERS**

**TYP. BTWN.
GIRDERS @ SDWK**

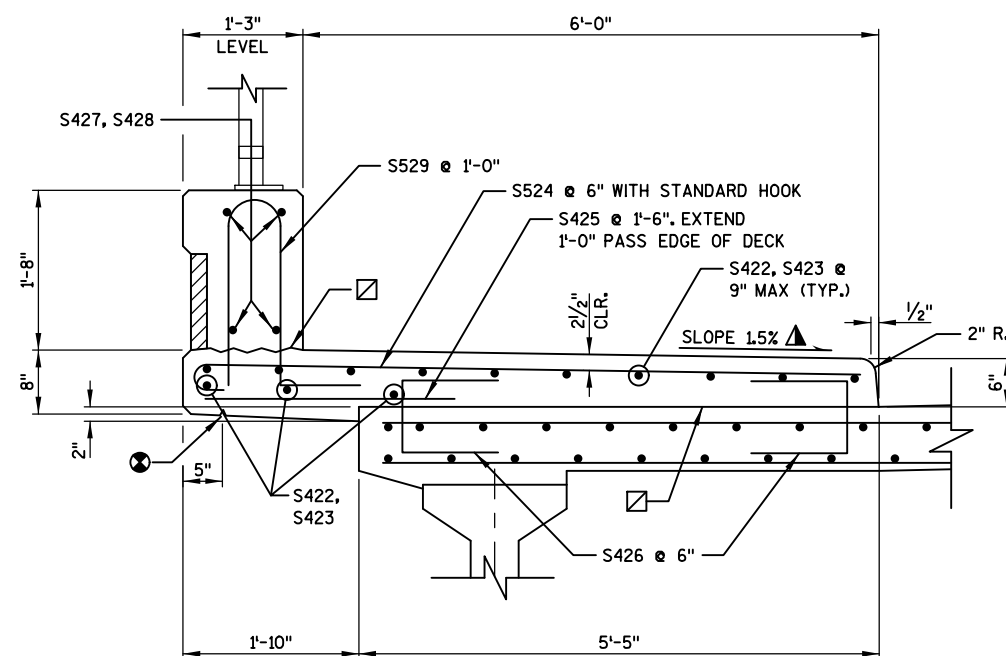
**CONCRETE DIAPHRAGM
AT ABUTMENT**

NOTES

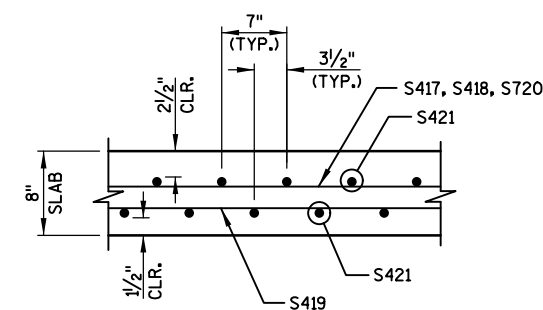
SEE SHEET 14 FOR REINFORCING DETAILS.

LEGEND

- # INDICATES GIRDER NUMBER.
- 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. DIAPH.
- ± 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH. TOP OF DECK SLAB LEVEL.



DETAIL A



SECTION S-S

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTH	PLANS CK'D. DJW
SUPERSTRUCTURE SECTION		SHEET 12	

SEE SHEET 14 FOR REINFORCING DETAILS.

SS901. SEE STRUCTURAL APPROACH SLAB
DETAILS SHEET. ADJUST SPACINGS AS
NECESSARY TO AVOID CONFLICTS WITH
PRESTRESSED GIRDERS.

- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6".

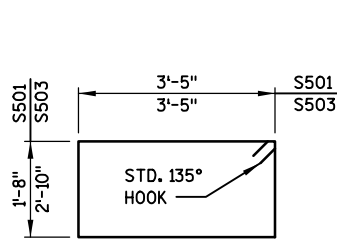


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
		DRAWN BY	DTH
		PLANS CK'D.	DJW
SUPERSTRUCTURE DETAILS - 1			SHEET 13

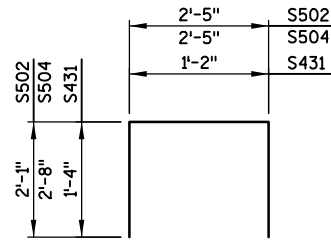
SUPERSTRUCTURE
BILL OF BARS

COATED: 43,560 LBS

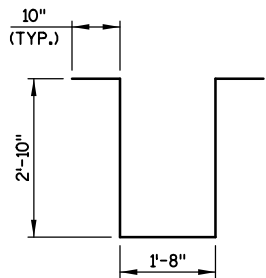
MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
S501	76	10'-9"	X	X	ABUT. DIAPHRAGM - VERT.
S502	76	6'-4"	X	X	ABUT. DIAPHRAGM - VERT.
S503	36	13'-1"	X	X	ABUT. DIAPHRAGM - VERT. - AT SIDEWALK
S504	36	7'-6"	X	X	ABUT. DIAPHRAGM - VERT. - AT SIDEWALK
S605	20	26'-0"		X	ABUT. DIAPHRAGM - HORIZ. - B.F., TOP
S606	32	3'-8"		X	ABUT. DIAPHRAGM - HORIZ. - F.F.
S607	16	4'-8"		X	ABUT. DIAPHRAGM - HORIZ. - F.F.
S608	8	2'-1"		X	ABUT. DIAPHRAGM - HORIZ. - F.F. - ENDS
S609	4	2'-7"		X	ABUT. DIAPHRAGM - HORIZ. - F.F. - ENDS
S610	4	6'-8"		X	ABUT. DIAPHRAGM - HORIZ. - ENDS
S611	8	6'-8"		X	ABUT. DIAPHRAGM - HORIZ. - ENDS - SIDEWALK
S512	36	6'-0"		X	ABUT. DIAPHRAGM - HORIZ. - GIRDER ENDS
S513	40	8'-6"	X	X	PIER DIAPHRAGM - VERT.
S414	64	3'-8"		X	PIER DIAPHRAGM - HORIZ.
S415	16	4'-8"		X	PIER DIAPHRAGM - HORIZ.
S416	40	10'-5"	X	X	PIER DIAPHRAGM - HORIZ.
S417	64	40'-9"		X	SLAB - LONG. - TOP - SPAN 1
S418	64	33'-9"		X	SLAB - LONG. - TOP - SPAN 2
S419	189	39'-6"		X	SLAB - LONG. - TOP - BOTTOM
S720	134	34'-0"		X	SLAB - LONG. - TOP - AT PIER
S421	395	46'-6"		X	SLAB - TRANS. - TOP AND BOTTOM
S422	52	31'-4"		X	SIDEWALK - LONG. - SPAN 1
S423	52	27'-10"		X	SIDEWALK - LONG. - SPAN 2
S524	462	7'-5"	X	X	SIDEWALK - TRANS. - HOOK
S425	158	2'-8"		X	SIDEWALK - TRANS.
S426	924	2'-7"	X	X	SIDEWALK - VERT.
S427	16	31'-10"		X	PARAPET - LONG. - SPAN 1
S428	16	28'-4"		X	PARAPET - LONG. - SPAN 2
S529	236	4'-11"	X	X	PARAPET - VERT.
S430	32	2'-8"	X	X	ABUT. DIAPHRAGM - HORIZ. - BTWN BEAM SEATS
S431	64	3'-8"	X	X	ABUT. DIAPHRAGM - VERT. - BTWN BEAM SEATS



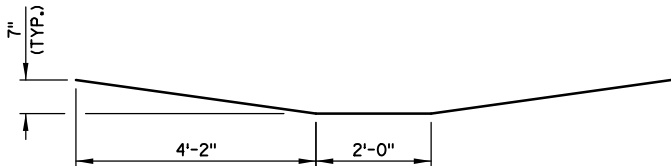
S501, S503



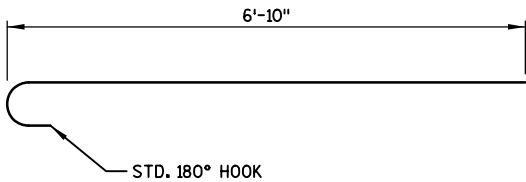
S502, S504, S431



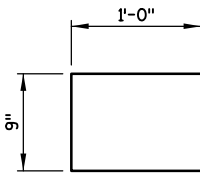
S513



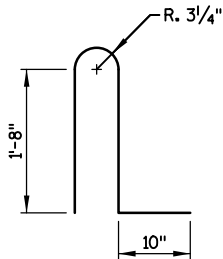
S416



S524



S426



S529

TOP OF DECK ELEVATIONS

LOCATION	STATION	EDGES OF DECK	GIRDERS 1 & 9	GUTTER LINES	GIRDERS 2 & 8	GIRDERS 3 & 7	GIRDERS 4 & 6	GIRDER 5
		23.42' LT/RT	22.00' LT/RT	18.00' LT/RT	16.50' LT/RT	11.00' LT/RT	5.50' LT/RT	@ REF. LINE
C/L W. ABUT.	99+46.00	904.32	904.32	904.32	904.35	904.46	904.57	904.68
0.1L POINT	99+52.00	904.35	904.35	904.35	904.38	904.49	904.60	904.71
0.2L POINT	99+58.00	904.38	904.38	904.38	904.41	904.52	904.63	904.74
0.3L POINT	99+64.00	904.41	904.41	904.41	904.44	904.55	904.66	904.77
0.4L POINT	99+70.00	904.45	904.45	904.45	904.48	904.59	904.70	904.81
0.5L POINT	99+76.00	904.48	904.48	904.48	904.51	904.62	904.73	904.84
0.6L POINT	99+82.00	904.51	904.51	904.51	904.54	904.65	904.76	904.87
0.7L POINT	99+88.00	904.54	904.54	904.54	904.57	904.68	904.79	904.90
0.8L POINT	99+94.00	904.57	904.57	904.57	904.60	904.71	904.82	904.93
0.9L POINT	100+00.00	904.60	904.60	904.60	904.63	904.74	904.85	904.96
C/L PIER	100+06.00	904.63	904.63	904.63	904.66	904.77	904.88	904.99
0.1L POINT	100+11.30	904.66	904.66	904.66	904.69	904.80	904.91	905.02
0.2L POINT	100+16.60	904.69	904.69	904.69	904.72	904.83	904.94	905.05
0.3L POINT	100+21.90	904.72	904.72	904.72	904.75	904.86	904.97	905.08
0.4L POINT	100+27.20	904.74	904.74	904.74	904.77	904.88	904.99	905.10
0.5L POINT	100+32.50	904.77	904.77	904.77	904.80	904.91	905.02	905.13
0.6L POINT	100+37.80	904.80	904.80	904.80	904.83	904.94	905.05	905.16
0.7L POINT	100+43.10	904.83	904.83	904.83	904.86	904.97	905.08	905.19
0.8L POINT	100+48.40	904.85	904.85	904.85	904.88	904.99	905.10	905.21
0.9L POINT	100+53.70	904.88	904.88	904.88	904.91	905.02	905.13	905.24
C/L E. ABUT.	100+59.00	904.91	904.91	904.91	904.94	905.05	905.16	905.27

ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.

STATE PROJECT NUMBER

5658-00-76

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTH	PLANS CK'D. DJW
SUPERSTRUCTURE DETAILS - 2			SHEET 14

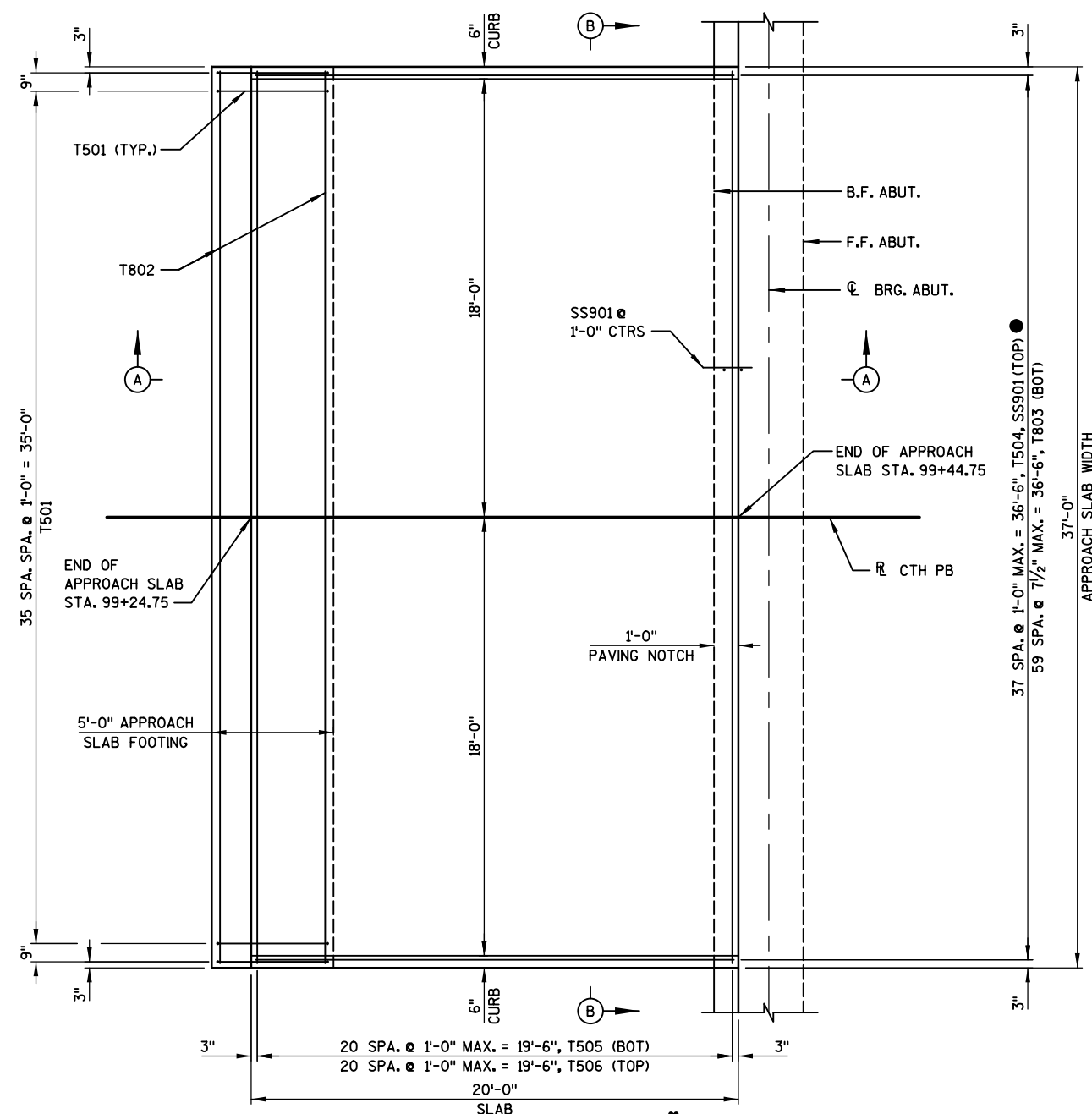
COATED: 14,960 LBS

MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
T501	76	12'-0"	X	X	APPROACH SLAB FTG. - STIRRUP
T802	24	36'-8"		X	APPROACH SLAB FTG. - TRANS.
T803	120	21'-6"	X	X	APPROACH SLAB LONG. - BOT.
T504	76	19'-8"		X	APPROACH SLAB LONG. - TOP
T505	42	36'-8"		X	APPROACH SLAB TRANS. - BOT.
T506	42	36'-8"		X	APPROACH SLAB TRANS. - TOP

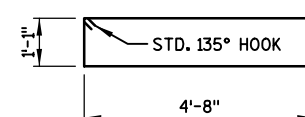
COATED: 650 LBS

MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
SS901	38	5'-0"	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

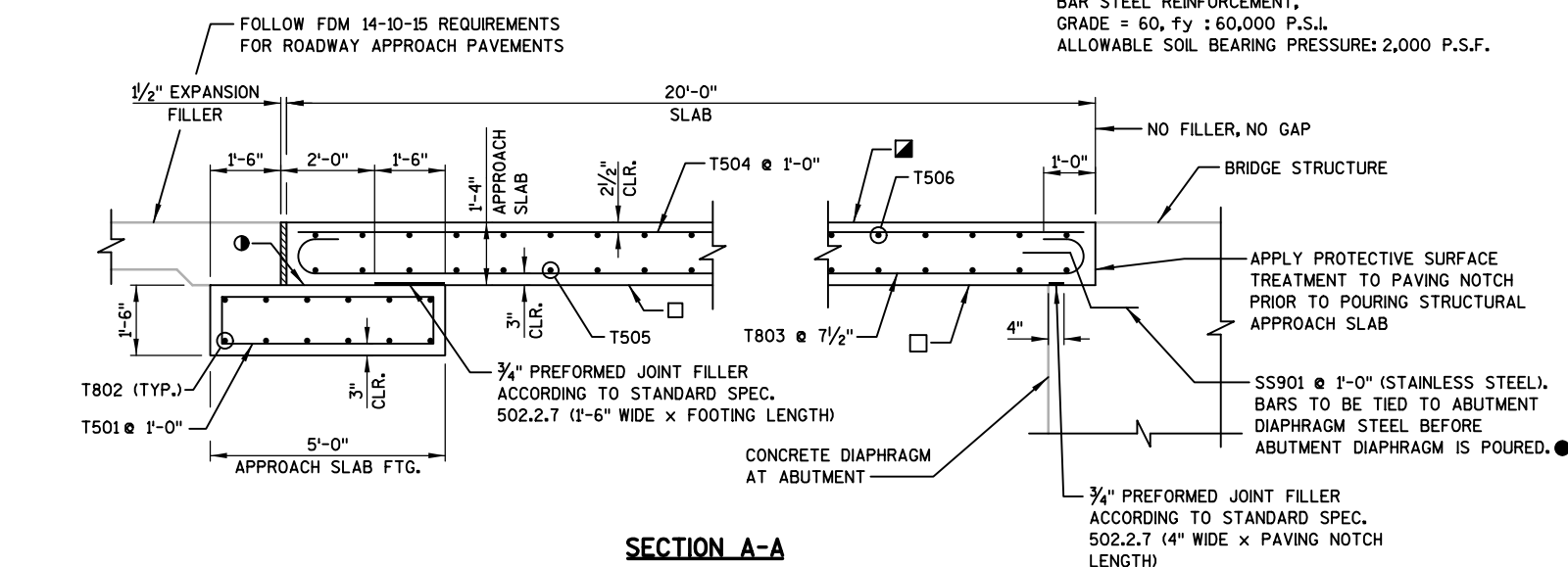
CONCRETE STRENGTH, f'_c : 4,000 P.S.I.
BAR STEEL REINFORCEMENT,
GRADE = 60, f_y : 60,000 P.S.I.
ALLOWABLE SOIL BEARING PRESSURE: 2,000 P.S.F.



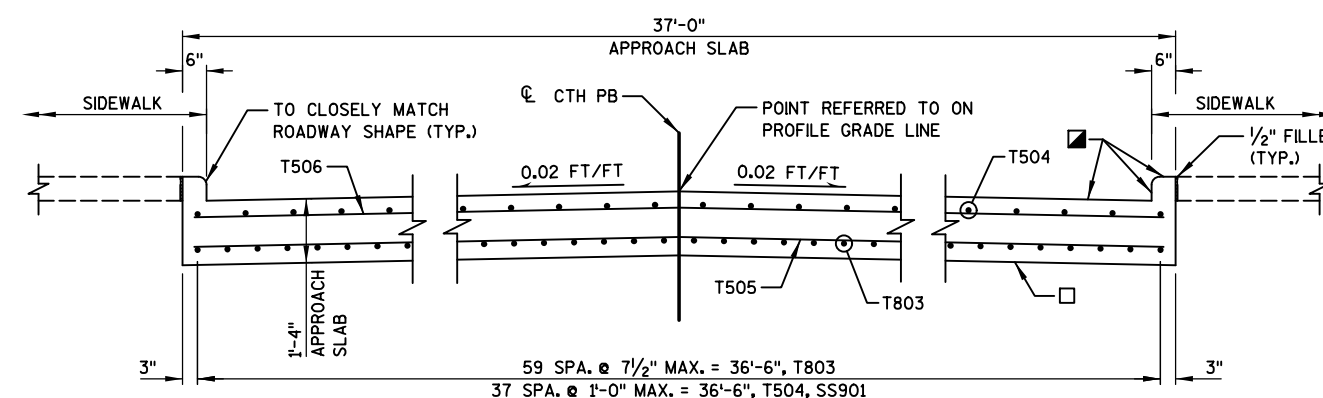
APPROACH SLAB PLAN
(WEST SIDE SHOWN, EAST SIMILAR)



T501



SECTION A-A

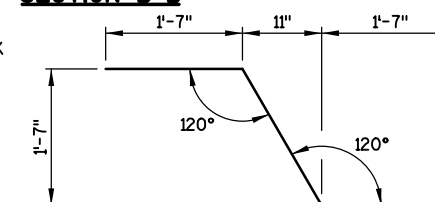


STD. 180° HOOK

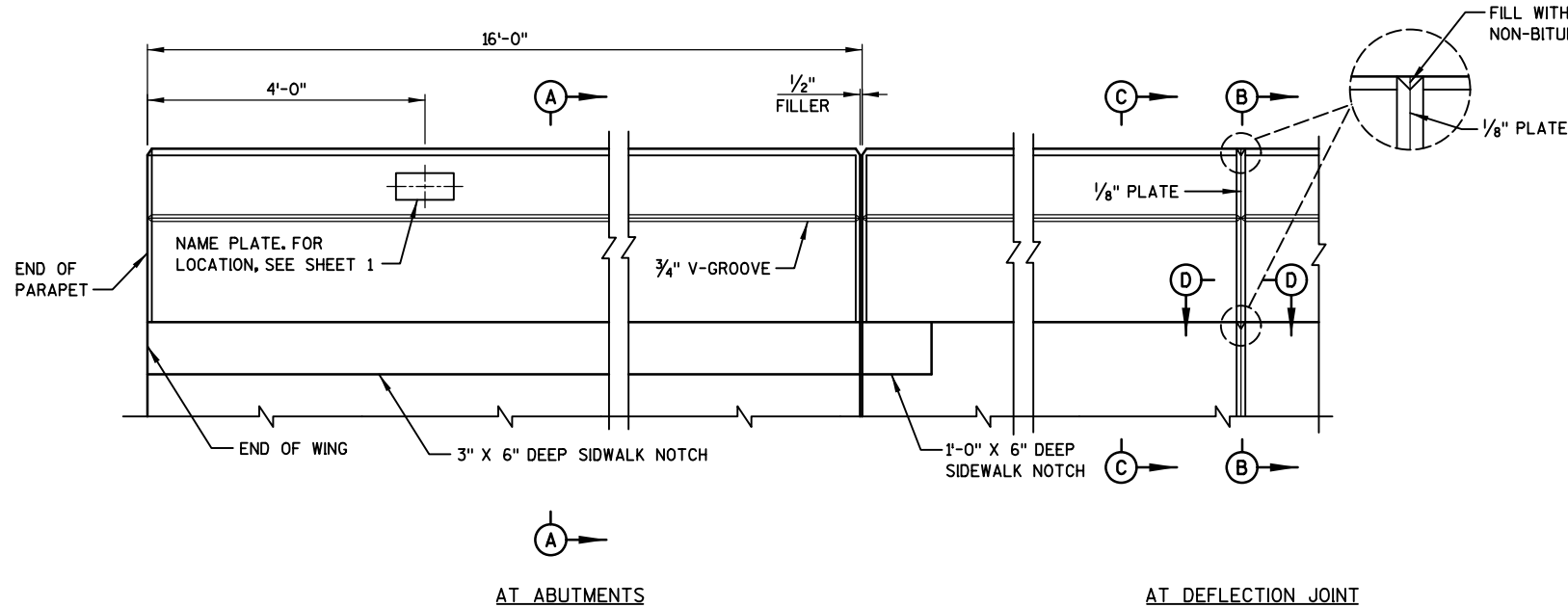
19'-8"

12'-0"

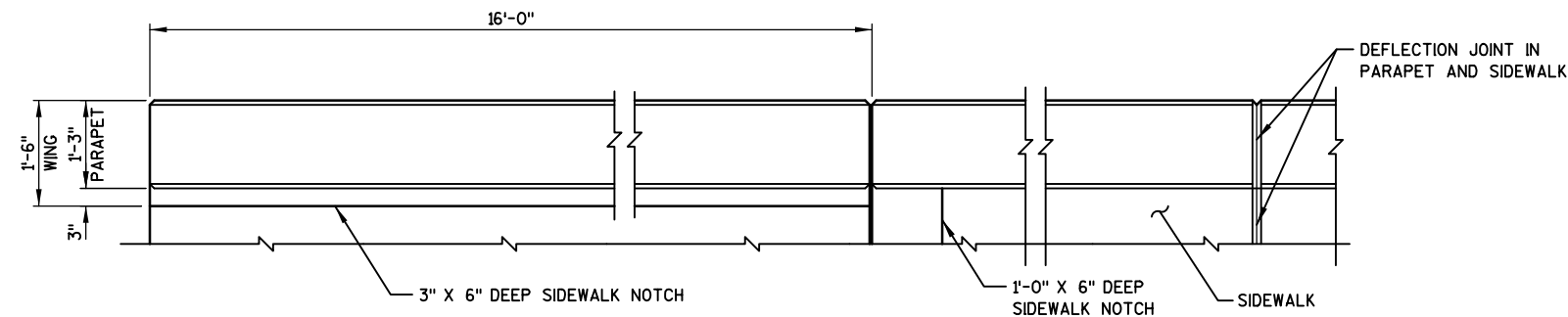
T803

SS901

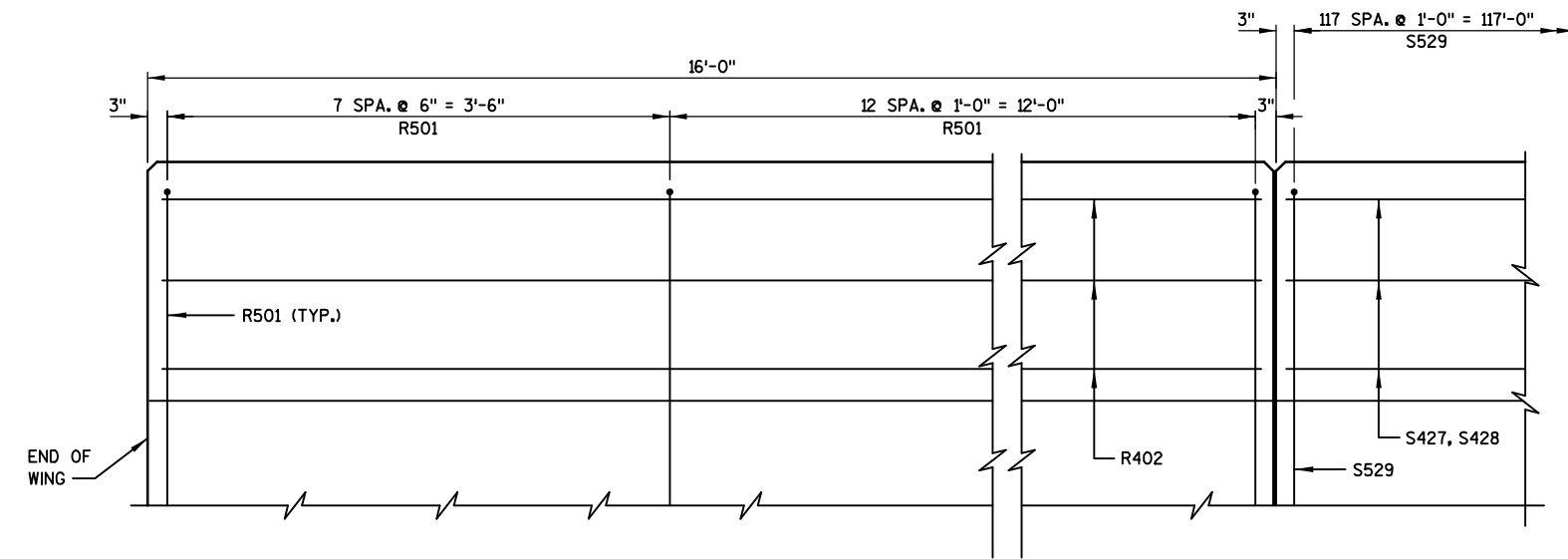
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAW BY		DTH	PLANS CK'D. DJW
STRUCTURAL APPROACH SLAB		SHEET 15	



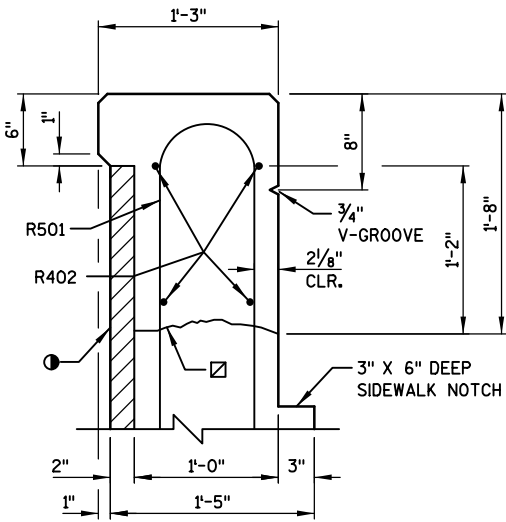
INSIDE ELEVATION OF PARAPET



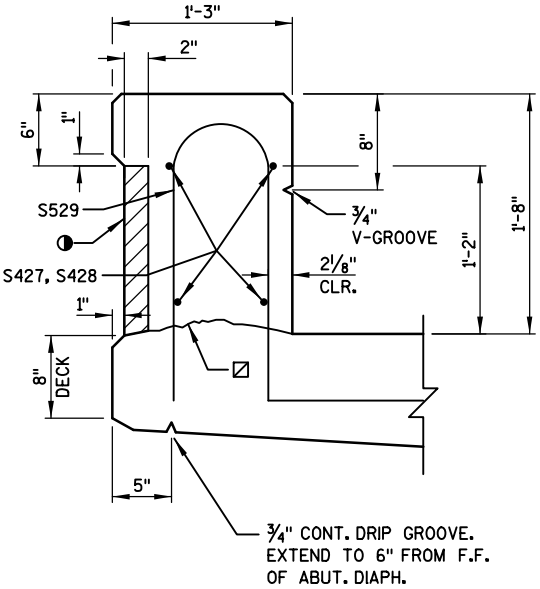
PLAN



ELEVATION SHOWING PARAPET REINFORCEMENT



SECTION A-A



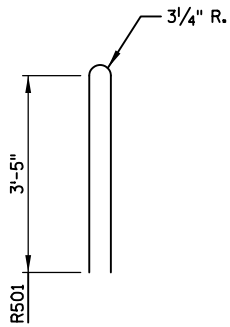
SECTION C-C

VERTICAL FACE PARAPET 'A'

BILL OF BARS

COATED: 820 LBS

MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
R501	80	7'-9"	X	X	PARAPET - VERT.
R402	16	15'-8"		X	PARAPET - HORIZ.



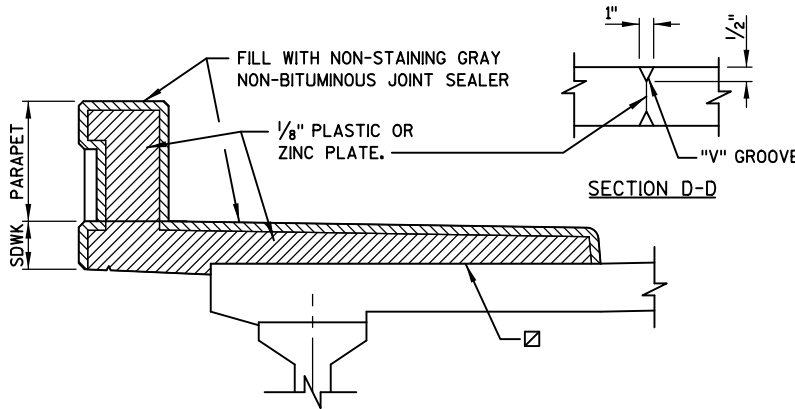
R501

NOTES

RAILING NOT SHOWN.
WING LENGTHS INCLUDE 1/2" FILELR.

LEGEND

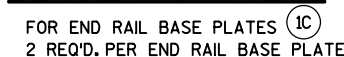
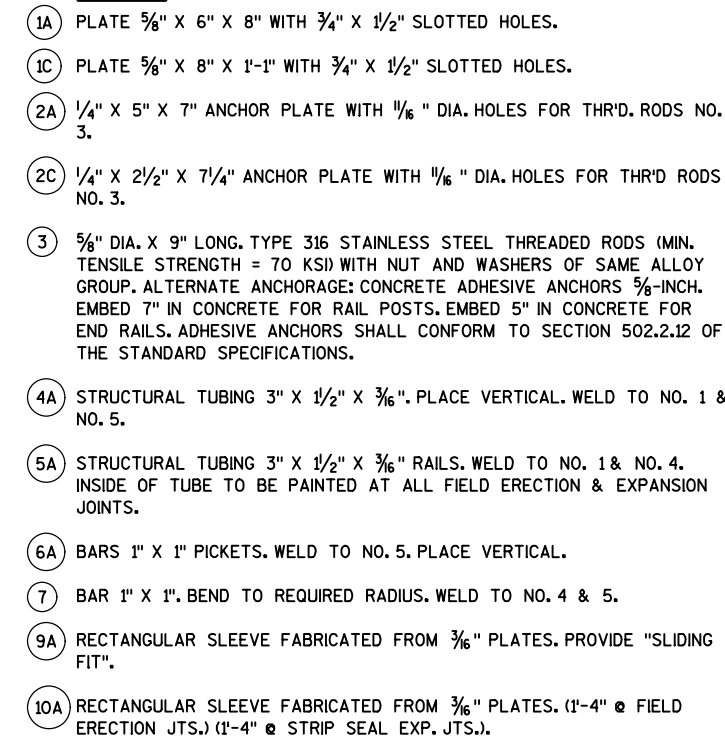
- ☒ HORIZ. CONST. JOINT-STRIKE OFF AS SHOWN & LEAVE ROUGH.
- ☒ ARCHITECTURAL SURFACE TREATMENT



SECTION B-B

NOTES
WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR PLASTIC PLATE CUT AS SHOWN IN THE "DEFLECTION JOINT DETAIL". IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

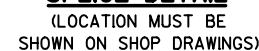
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		OTH	PLANS CK'D. DJW
VERTICAL FACE PARAPET 'A'		SHEET 16	



NOTE: ANCHOR PLATES NOT REQ'D. WHEN
ADHESIVE ANCHORS ARE USED.



☆ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



END RAIL SHIM DETAIL
(2 SETS PER POST)

TOUCH-UP PAINTING TO BE DONE
AT COMPLETION OF STEEL RAILING
INSTALLATION TO THE
SATISFACTION OF THE ENGINEER AT
NO EXTRA COST.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTH	PLANS CK'D. DJW
RAILING STEEL TYPE 'C3'			SHEET 17

NOTES

FORMLINER COURSING ON ABUTMENTS AND WINGS SHALL BE LEVEL.

FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO TOP OF PARAPET.

THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.

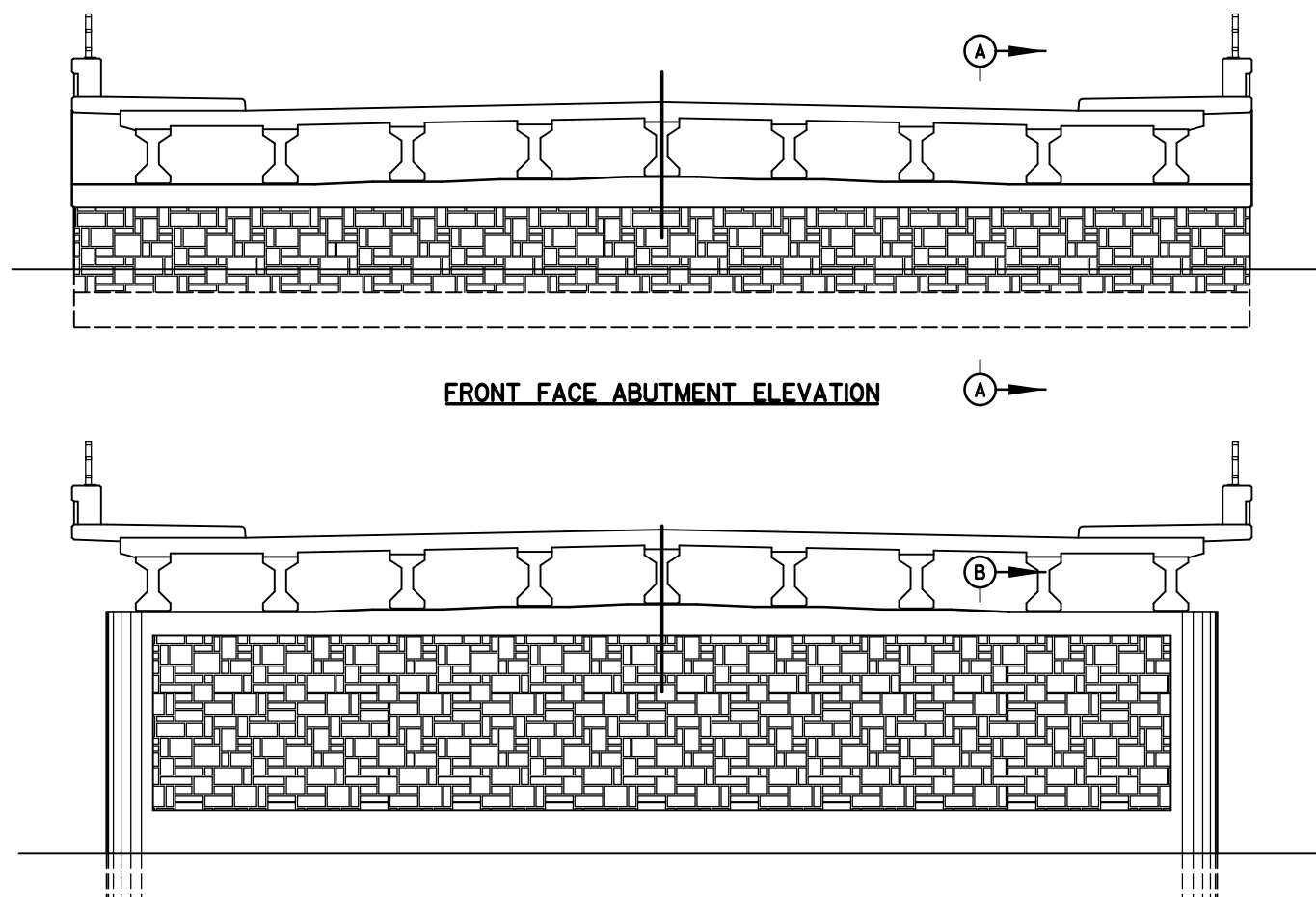
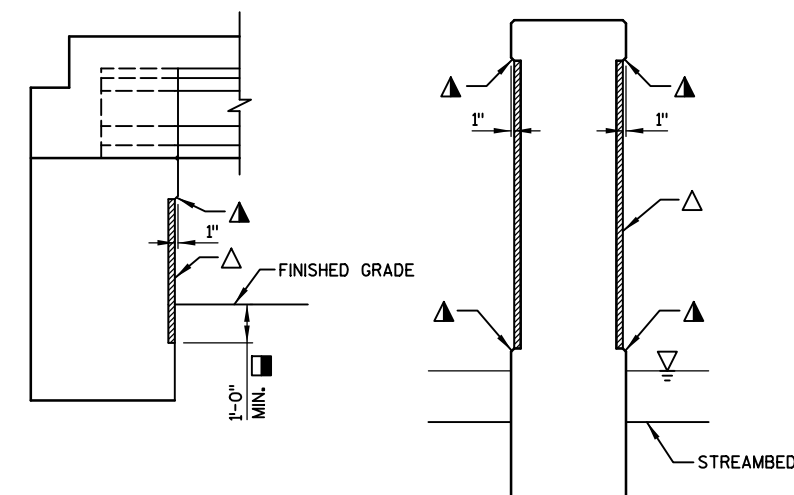
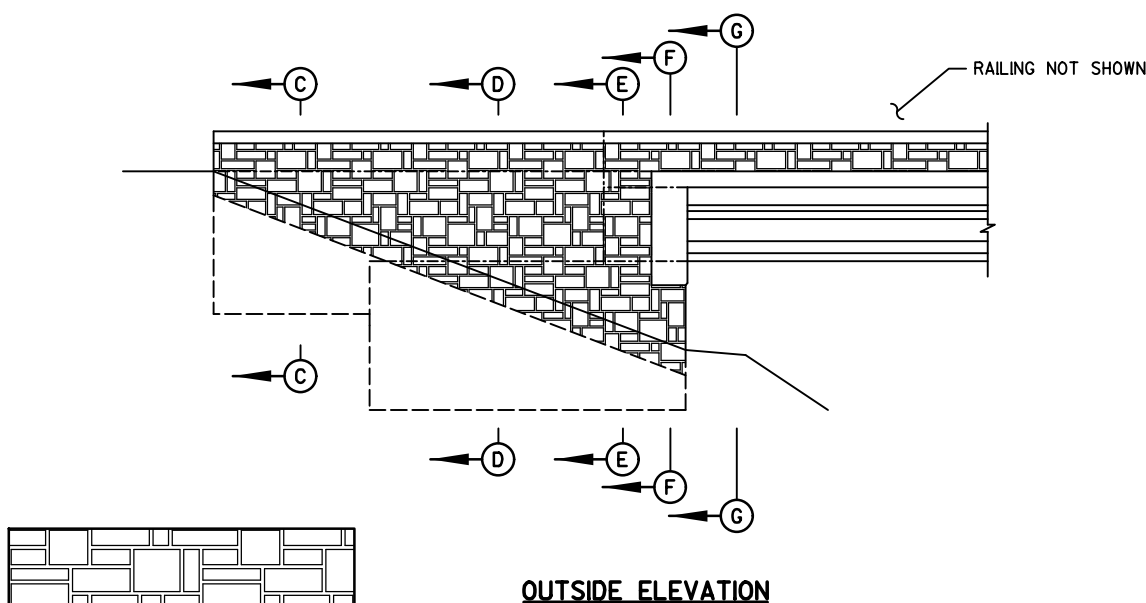
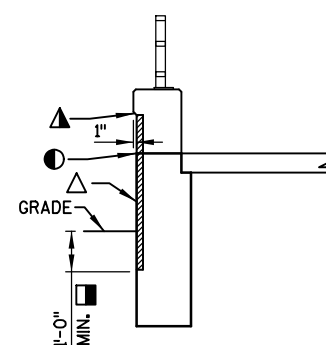
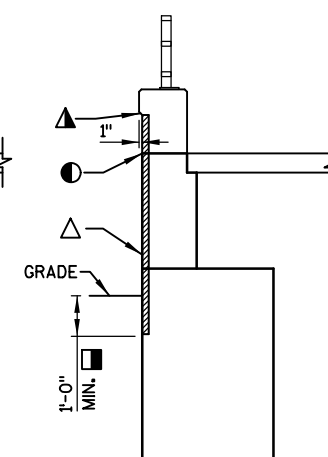
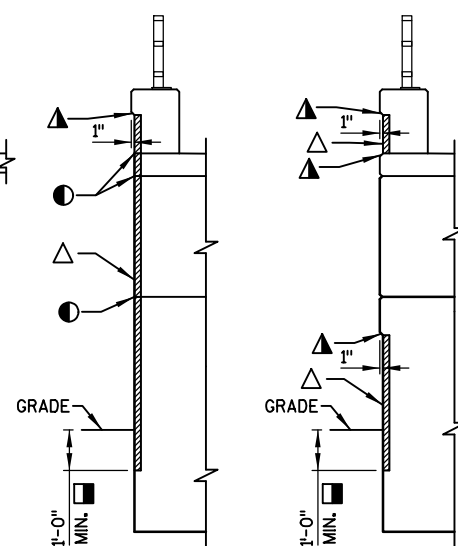
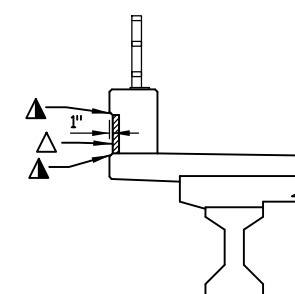
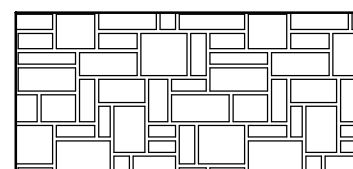
THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAPAROUND/MATCH FORMLINER PATTERN AT CORNERS.

FORMLINER COURSING ON PIERS SHALL BE LEVEL.

LEGEND

- △ ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. SEE FORMLINER DETAILS THIS SHEET FOR ARCHITECTURAL SURFACE TREATMENT.
- PAY LIMITS FOR "ARCHITECTURAL SURFACE TREATMENT B-13-682" AND "CONCRETE STAINING MULTI-COLOR B-13-682" ARE TO 1'-0" BELOW FINISHED GRADE.
- THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS. AFTER FORMS ARE REMOVED, ROUTE OUT 1/2" WIDE X 5/8" DEEP CONCRETE CENTERED ON CONSTRUCTION JOINT AND CAULK. HOLD CAULK 1/8" BELOW SURFACE OF CONCRETE. COLOR OF CAULK SHALL MATCH BASE COLOR OF CONCRETE STAINING MULTI-COLOR.
- ▲ 1" CHAMFER.

**FRONT FACE ABUTMENT ELEVATION****PIER ELEVATION****SECTION A-A****SECTION B-B****OUTSIDE ELEVATION****SECTION C-C****SECTION D-D****SECTION E-E****SECTION F-F****SECTION G-G**

RUSTIC ASHLAR
FORMLINER THICKNESS = 3"
SIZE = 8" TO 32"
MAX. RELIEF = 2"

FORMLINER DETAILS

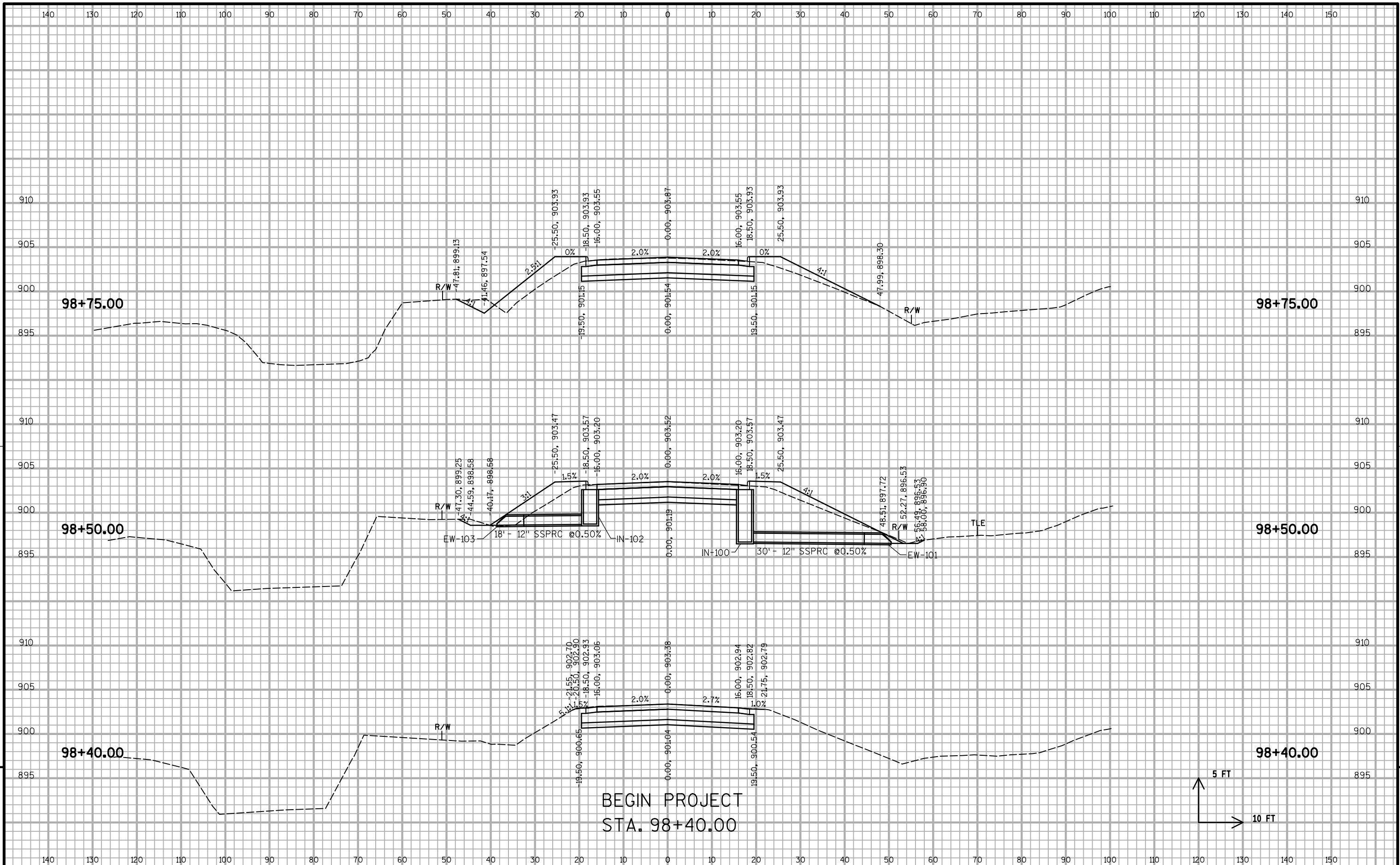
SEE SPECIAL PROVISION "CONCRETE STAINING MULTICOLOR" FOR FURTHER INFORMATION.

RUSTIC ASHLAR BASE COLOR *33727.
RUSTIC ASHLAR ACCENT COLORS *33697, *33798.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-13-682			
DRAWN BY		DTH	PLANS CK'D. DJW
AESTHETIC DETAILS		SHEET 18	

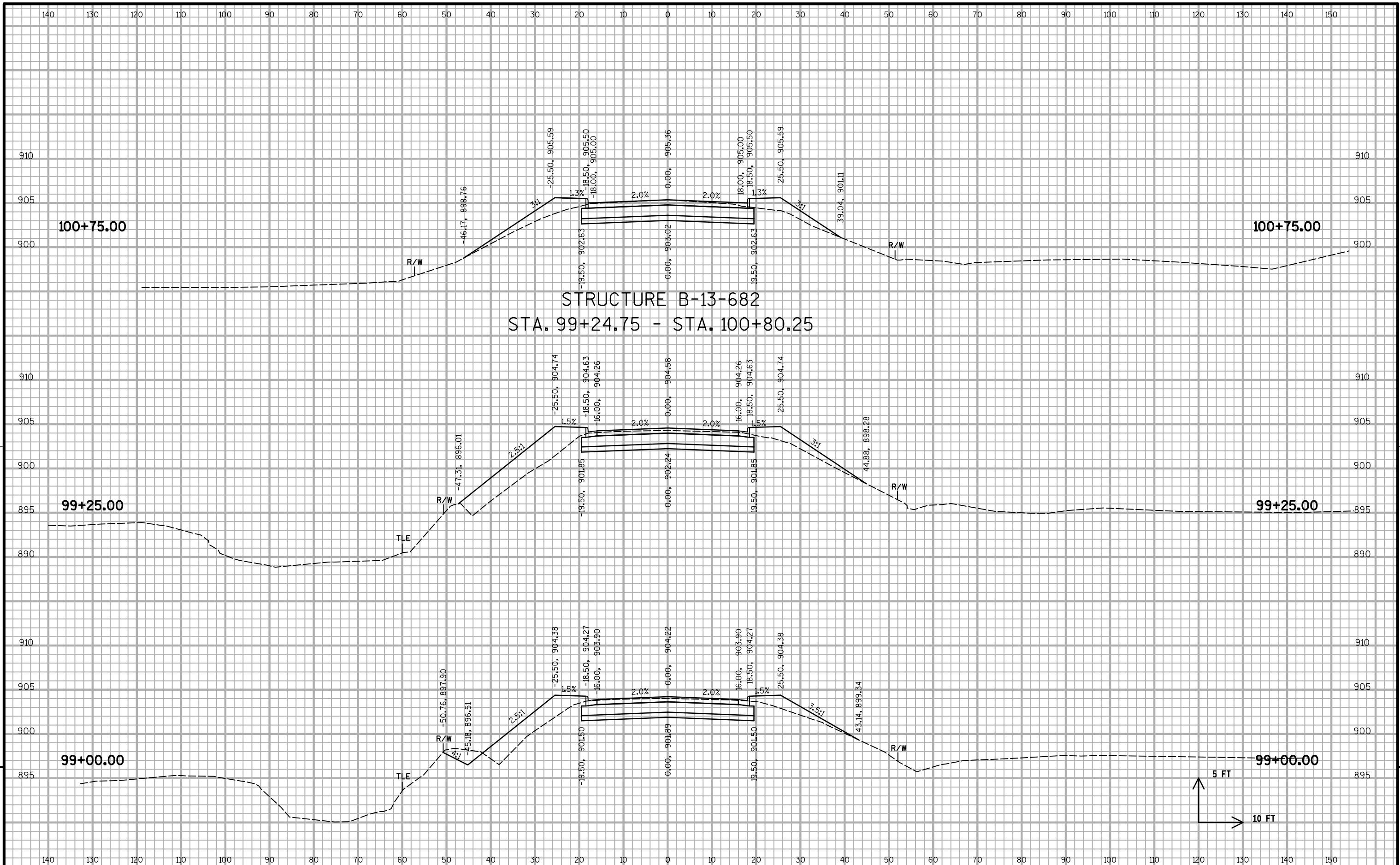
EARTHWORK SUMMARY											MASS ORDINATE
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	UNEXPANDED FILL	CUT 1.00	FILL 1.25	
98+40.00	9840.00		90	90	0						
98+50.00	9850.00	10.00	281	281	144	69	69	27	69	34	-34
98+75.00	9875.00	35.00	94	94	51	174	174	90	243	146	-146
99+00.00	9900.00	25.00	94	94	62	87	87	52	330	211	-211
99+25.00	9925.00	25.00	82	82	91	81	81	71	411	300	-300
99+45.42	9945.42	20.42	82	82	91	62	62	69	473	386	-386
BRIDGE											
100+59.58	10059.58		86	86	43						
100+75.00	10075.00	15.42	86	86	43	49	49	24	49	30	-30
101+00.00	10100.00	25.00	89	89	3	81	81	21	130	56	-56

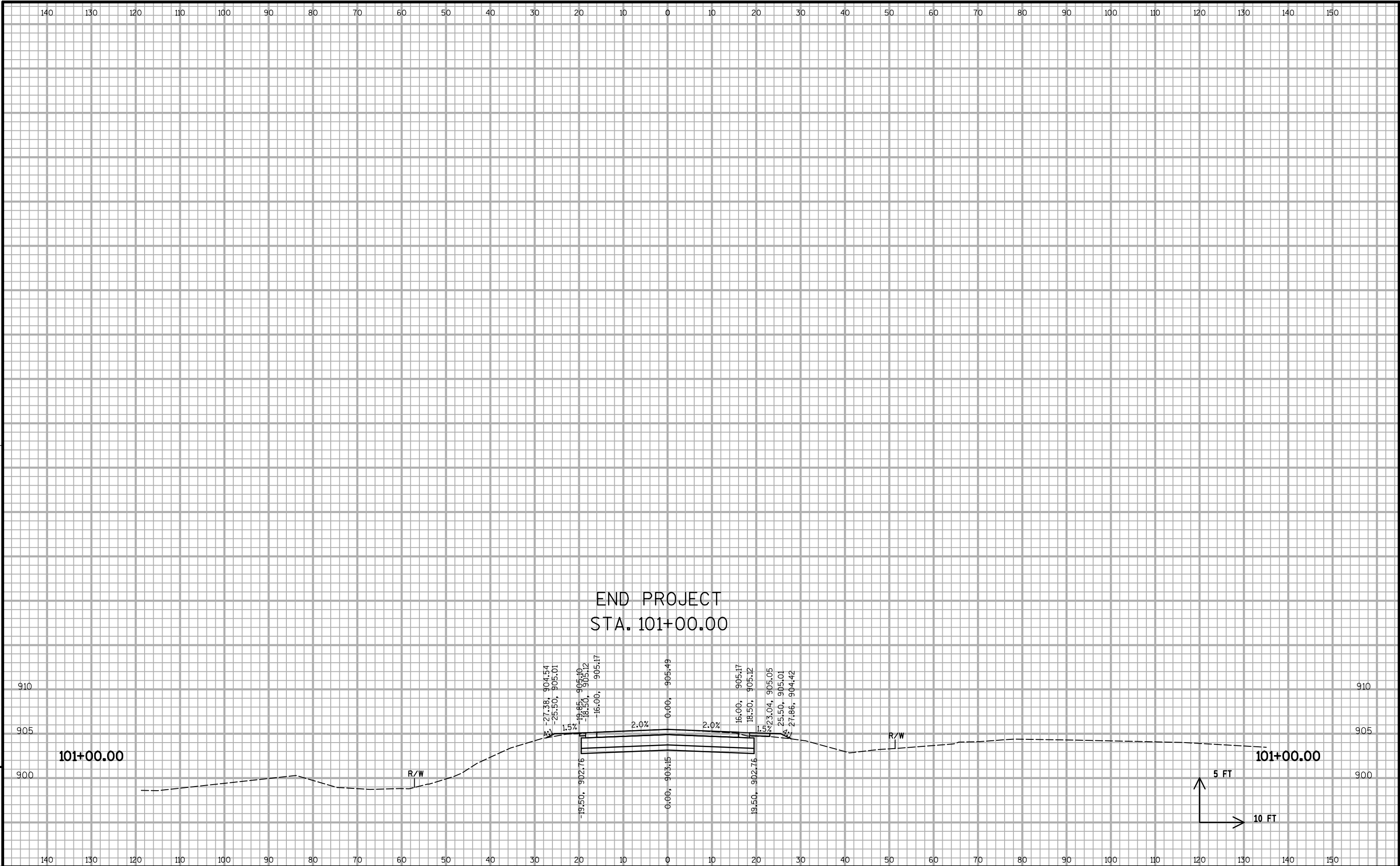
NOTES:
1 - CUT: CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL: ALL EXCAVATED MATERIAL
3 - FILL: DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE: FILL*FILL FACTOR



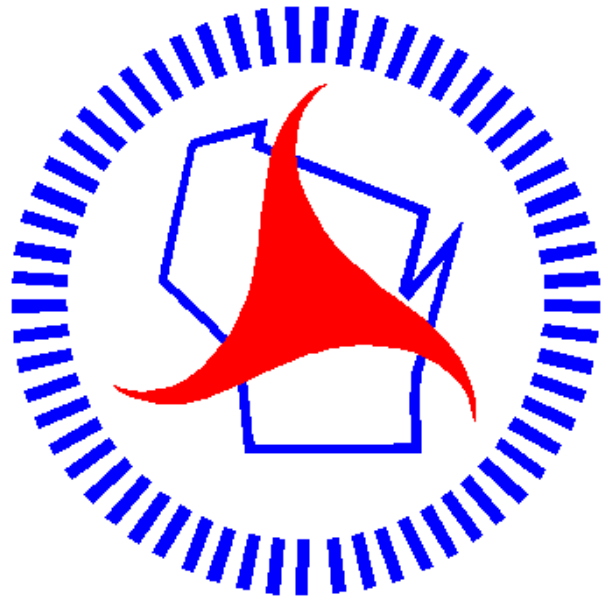
9

9





Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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