

ORDER OF SHEETS

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

TOTAL SHEETS = 52



05

DESIGN DESIGNATION

A.A.D.T.	2024	=	40
A.A.D.T.	2044	=	45
D.H.V.	2044	=	10
D.D.		=	50/50
T.		=	12.5%
DESIGN SPEED		=	45 MPH
ESALS		=	7,300

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

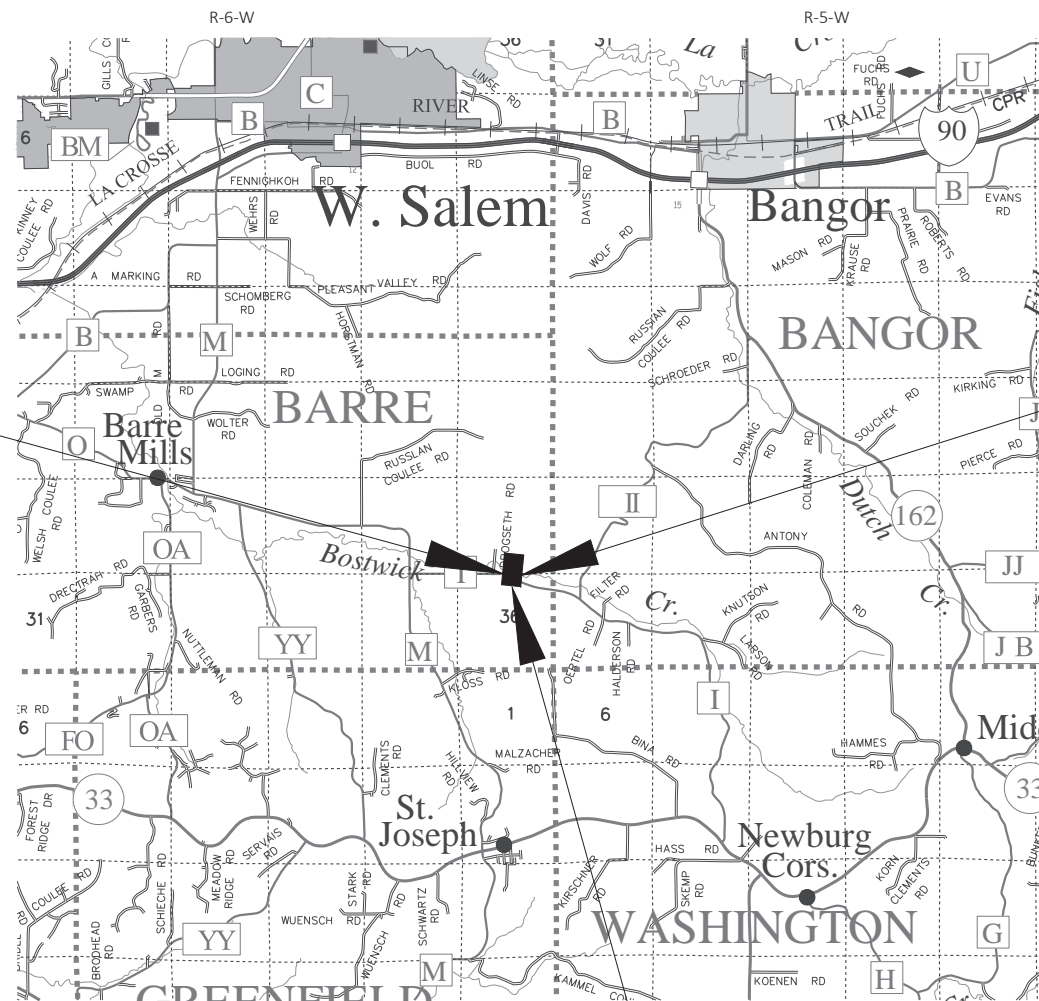
TOWN OF BARRE, DROGSETH ROAD

BOSTWICK CREEK BRIDGE B-32-0231

LOC STR

LA CROSSE COUNTY

STATE PROJECT NUMBER
5346-00-71



END PROJECT
STA. 21+50
Y = 137,919.10
X = 500,109.84

BEGIN PROJECT
STA. 18+05
Y = 137,575.21
X = 500,082.21

LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 0.065 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) (LA CROSSE) COUNTY, IN U.S. SURVEY FEET.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88 (1996 ADJUSTED) SYSTEM, UTILIZING BENCHMARK REFERENCES AT THE PROJECT SITE SET BY THE CONSULTANT USING GPS METHODS.

STATE PROJECT

5346-00-71

FEDERAL PROJECT

PROJECT

WISC 2024252

CONTRACT

1

ACCEPTED FOR

LA CROSSE COUNTY

Date 10-17-23 Joe Langeberg
HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY



1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664



DATE: 10/16/23
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	Surveyor	MSA PROFESSIONAL SERVICES INC.
Designer	MSA PROFESSIONAL SERVICES INC.	
Project Manager	DELLA KOENIG	
Regional Examiner	REGIONAL EXAMINER	
Regional Supervisor	KYLE HEMP	

APPROVED FOR THE DEPARTMENT
DATE: 10/30/2023

E

PROJECT ID: 5346-00-71

COUNTY: LA CROSSE

WITH: N/A

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT -OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED OR COVERED WITH EROSION MAT AS DIRECTED BY 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 AREA THAT ARE NOT SHOWN.

TREES WITHIN THE PROJECT LIMITS WILL BE CUT DOWN BY OTHERS PRIOR TO THE START OF CONSTRUCTION. REMOVE ALL DOWN TREES AND GRUB STUMPS WITHIN THE EXISTING RIGHT-OF-WAY, PROPOSED RIGHT-OF-WAY, AND TEMPORARY LIMITED EASEMENTS FROM STATION 18+50 TO STATION 21+50. NO OTHER TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE 4" ASPHALTIC SURFACE SHALL CONSIST OF A 1 3/4" UPPER UPPER LAYER WITH 12.5 MM NOMINAL SIZE AGGREGATE AND A 2 1/4" LOWER LAYER WITH A 19.0 MM NOMINAL SIZE AGGREGATE.

SILT FENCE AND TURBIDITY BARRIER TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION OR BRIDGE REMOVAL.

WETLANDS ARE PRESENT ON THE CREEK BANKS. AREAS OUTSIDE THE SLOPE INTERCEPTS SHALL NOT BE DISTURBED IN THIS AREA.

STANDARD ABBREVIATIONS

AP	ACCESS POINT	INTERS	INTERSECTION
AC	ACRES	INV	INVERT
AGG	AGGREGATE	JT	JOINT
ASPH	ASPHALTIC	LT	LEFT
BL	BASELINE	LF	LINEAR FOOT
BM	BENCHMARK	MH	MANHOLE
CB	CATCH BASIN	MP	MARKER POST
CL	CENTER LINE	MB	MESSAGE BOAD
CONC	CONCRETE	NOM	NORMAL
CO	COUNTY	NB	NORTHBOUND
CABC	CRUSHED AGGREGATE BASE COURSE	PAVT	PAVEMENT
CY	CUBIC YARD	PERM	PERMANENT
CULV	CULVERT	PU	PIPE UNDERDRAIN
CP	CULVERT PIPE	PCC	PORTLAND CEMENT CONCRETE
C&G	CURB AND GUTTER	PE	PRIVATE ENTRANCE
DIA	DIAMETER	PROJ	PROJECT
DWY	DRIVEWAY	PL	PROPERTY LINE
EB	EASTBOUND	RL	REFERENCE LINE
ELEV	ELEVATION	RT	RIGHT
EW	ENDWALL	R/W	RIGHT OF WAY
ENT	ENTRANCE	RDWY	ROADWAY
EXC	EXCAVATION	SHLDR	SHOULDER
FP	FENCE POST	SB	SOUTHBOUND
FERT	FERTILIZER	SS	STORM SEWER
F	FILL	TEL	TELEPHONE
FG	FINISHED GRADE	TEMP	TEMPORARY
FL	FLOW LINE	TER	TERRACE
FO	FIBER OPTIC	TV	TELEVISION
FT	FOOT	UG	UNDERGROUND
HYD	HYDRANT	VOL	VOLUME
INL	INLET	W	WESTBOUND
		WB	WESTBOUND

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC
 ATTN: LEAH J. RHODES, P.E.
 1702 PANKRATZ STREET
 MADISON, WI 53704
 PHONE: 608-355-8945
 EMAIL: lrhodes@msa-ps.com

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
 ATTN: KAREN KALVELAGE
 ENVIRONMENTAL REVIEW AND ANALYSIS SPECIALIST
 3550 MORMON COULEE ROAD
 LA CROSSE, WI 54601
 PHONE: 608-785-9115
 EMAIL: karen.kalvelage@wisconsin.gov

UTILITIES

COMMUNICATIONS

BRIGHTSPEED
 ATTN: BRIAN STELPLUGH
 1905 WARD AVENUE
 LA CROSSE, WI 54601
 PHONE: (OFFICE): 980-376-1557
 PHONE: (MOBILE): 608-780-1238
 EMAIL: brian.stelplugh@brightspeed.com

ELECTRICITY

XCEL ENERGY
 ATTN: JASON MCROBERTS
 3215 COMMERCE STREET
 LA CROSSE, WI 54603
 PHONE: (OFFICE): 608-789-3689
 PHONE: (MOBILE): 715-577-1132
 EMAIL: jason.l.mcroberts@xcelenergy.com

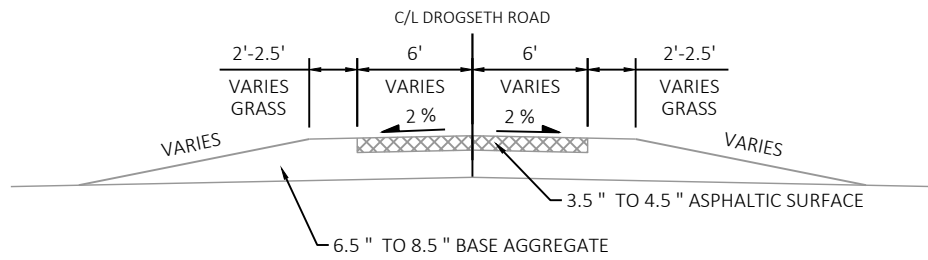
RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
MEDIAN STRIP TURF	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25 0.32	0.30 0.40
SIDE SLOPE TURF			0.25			0.27			0.28			0.30 0.38
PAVEMENT:	0.40 - 0.60											
ASPHALT:	0.70 - 0.95											
CONCRETE:	0.80 - 0.95											
BRICK:	0.70 - 0.80											
DRIVES, WALKS:	0.75 - 0.85											
ROOFS:	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

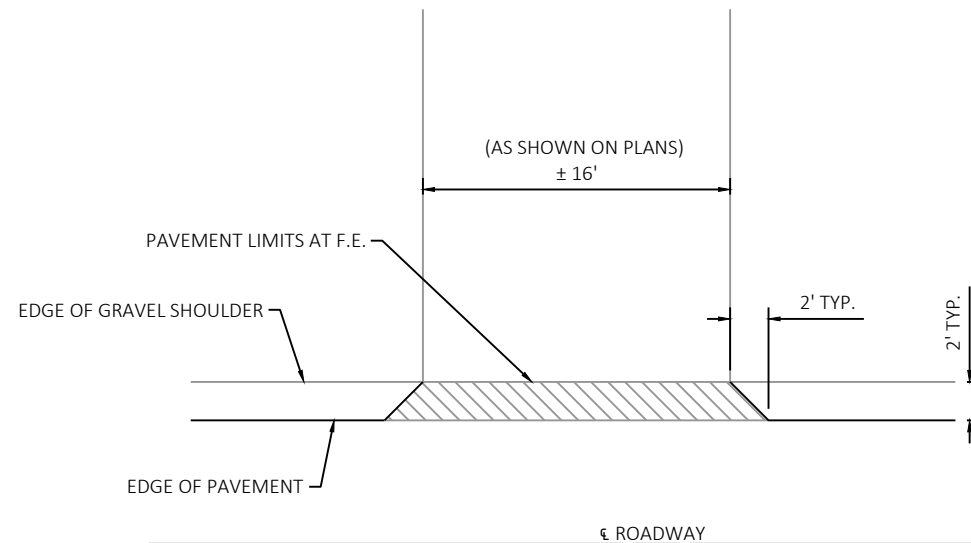
TOTAL PROJECT AREA = 0.93 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.58 ACRES

* DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

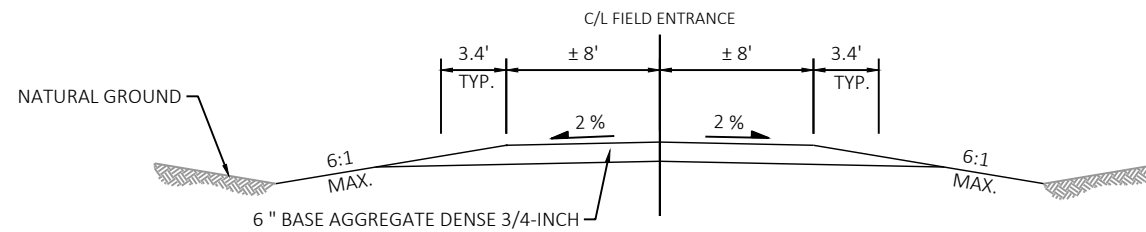
DIGGERS HOTLINE
 Dial **811** or (800)242-8511
 www.DiggersHotline.com



TYPICAL EXISTING SECTION



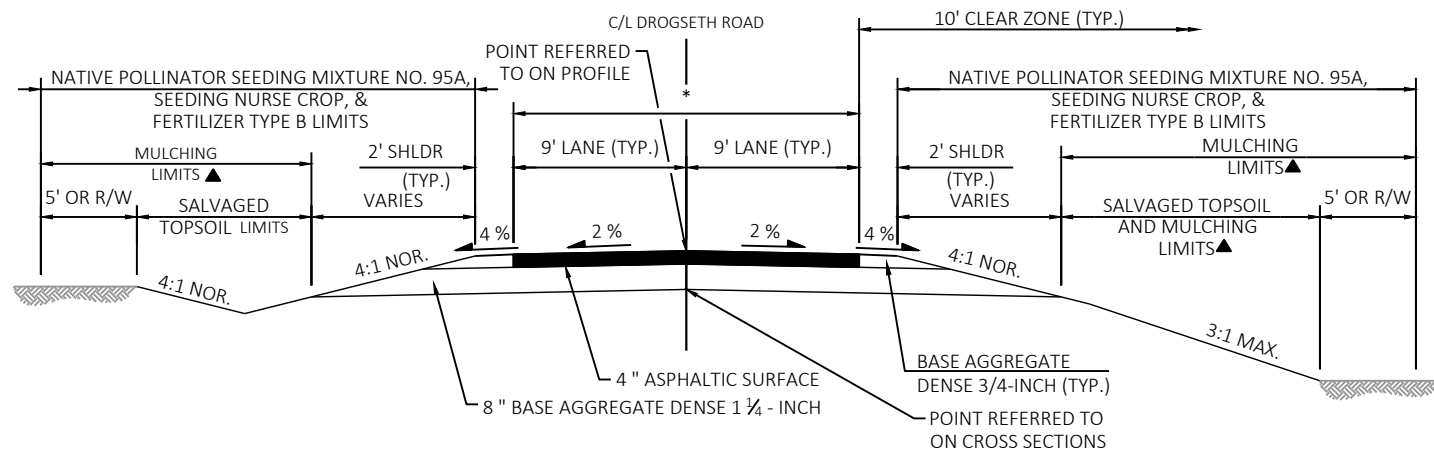
FIELD ENTRANCE PLAN



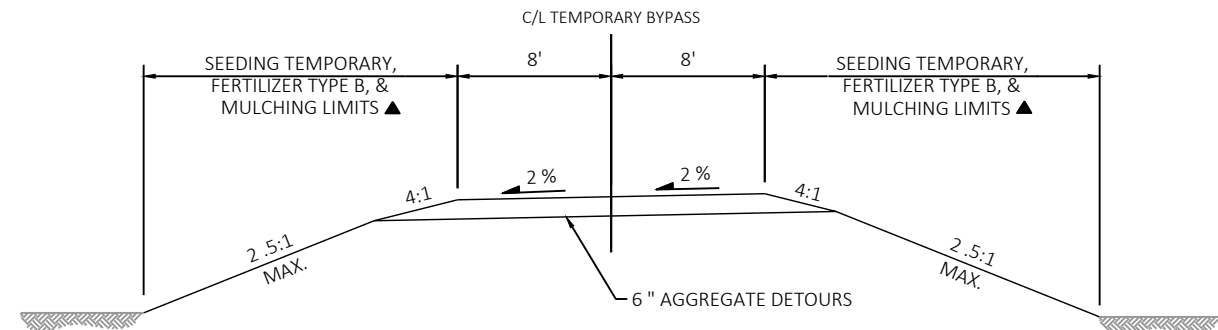
FIELD ENTRANCE TYPICAL SECTION

FIELD ENTRANCE DETAIL

STA. 21+20. LT.



TYPICAL FINISHED SECTION



TYPICAL SECTION TEMPORARY BYPASS

* THE ASPHALTIC SURFACE WIDTH SHALL TAPER FROM 24.0' AT THE ENDS OF THE BRIDGE TO 18.0' AT STATION 19+25 AND STATION 20+75. THE ASPHALTIC SURFACE WIDTH SHALL TAPER FROM 18.0' AT STATION 18+50 AND STATION 21+00 TO MATCH EXISTING CONDITIONS AT THE ENDS OF THE PROJECT.

▲ SEE PLAN AND PROFILE SHEETS FOR EROSION MAT URBAN CLASS I TYPE B LOCATIONS. DO NOT PLACE MULCH AT THOSE LOCATIONS.

Estimate Of Quantities

5346-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-32-0903	EACH	1.000	1.000
0008	204.0170	Removing Fence	LF	213.000	213.000
0010	205.0100	Excavation Common	CY	1,199.000	1,199.000
0012	205.0506.S	Excavation, Hauling, and Disposal of Creosote Contaminated Soil	TON	180.000	180.000
0014	206.1001	Excavation for Structures Bridges (structure) 01. B-32-0231	EACH	1.000	1.000
0016	208.0100	Borrow	CY	671.000	671.000
0018	210.1500	Backfill Structure Type A	TON	484.000	484.000
0020	213.0100	Finishing Roadway (project) 01. 5346-00-71	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	57.000	57.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	469.000	469.000
0026	305.0410	Aggregate Detours	TON	253.000	253.000
0028	455.0605	Tack Coat	GAL	31.000	31.000
0030	465.0105	Asphaltic Surface	TON	137.000	137.000
0032	502.0100	Concrete Masonry Bridges	CY	184.000	184.000
0034	502.3200	Protective Surface Treatment	SY	223.000	223.000
0036	505.0400	Bar Steel Reinforcement HS Structures	LB	4,540.000	4,540.000
0038	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	21,190.000	21,190.000
0040	511.1200	Temporary Shoring (structure) 01. B-32-0231	SF	400.000	400.000
0042	513.4061	Railing Tubular Type M	LF	100.000	100.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0046	526.0101	Temporary Structure (station) 01. 10+00	EACH	1.000	1.000
0048	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	580.000	580.000
0050	606.0300	Riprap Heavy	CY	245.000	245.000
0052	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0054	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5346-00-71	EACH	1.000	1.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	15.000	15.000
0060	625.0500	Salvaged Topsoil	SY	1,840.000	1,840.000
0062	627.0200	Mulching	SY	2,595.000	2,595.000
0064	628.1504	Silt Fence	LF	697.000	697.000
0066	628.1520	Silt Fence Maintenance	LF	697.000	697.000
0068	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0070	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0072	628.2008	Erosion Mat Urban Class I Type B	SY	615.000	615.000
0074	628.6005	Turbidity Barriers	SY	506.000	506.000
0076	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0078	629.0210	Fertilizer Type B	CWT	1.700	1.700
0080	630.0200	Seeding Temporary	LB	10.000	10.000
0082	630.0400	Seeding Nurse Crop	LB	22.000	22.000
0084	630.0500	Seed Water	MGAL	78.000	78.000
0086	633.1100	Delineators Temporary	EACH	28.000	28.000
0088	633.5100	Markers ROW	EACH	8.000	8.000
0090	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0092	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0094	642.5001	Field Office Type B	EACH	1.000	1.000
0096	643.0300	Traffic Control Drums	DAY	2,432.000	2,432.000
0098	643.0420	Traffic Control Barricades Type III	DAY	1,520.000	1,520.000
0100	643.0705	Traffic Control Warning Lights Type A	DAY	912.000	912.000

Estimate Of Quantities

5346-00-71

Line	Item	Item Description	Unit	Total	Qty
0102	643.0715	Traffic Control Warning Lights Type C	DAY	1,216.000	1,216.000
0104	643.0900	Traffic Control Signs	DAY	3,214.000	3,214.000
0106	643.5000	Traffic Control	EACH	1.000	1.000
0108	645.0111	Geotextile Type DF Schedule A	SY	102.000	102.000
0110	645.0120	Geotextile Type HR	SY	445.000	445.000
0112	650.4500	Construction Staking Subgrade	LF	727.000	727.000
0114	650.5000	Construction Staking Base	LF	727.000	727.000
0116	650.6501	Construction Staking Structure Layout (structure) 01. B-32-0231	EACH	1.000	1.000
0118	650.9911	Construction Staking Supplemental Control (project) 01. 5346-00-71	EACH	1.000	1.000
0120	650.9920	Construction Staking Slope Stakes	LF	727.000	727.000
0122	690.0150	Sawing Asphalt	LF	25.000	25.000
0124	715.0502	Incentive Strength Concrete Structures	DOL	1,104.000	1,104.000
0126	999.2005.S	Maintaining Bird Deterrent System (station) 01. 20+00	EACH	1.000	1.000
0128	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	325.000	325.000
0130	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	250.000	250.000
0132	SPV.0085	Special 01. Native Pollinator Seeding Mixture No. 95A	LB	7.000	7.000

3

3

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	18+50	-	21+50	LT & RT	3	3
TOTAL 0010					3	3

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	204.0170 REMOVING FENCE LF
0010	19+06	-	19+68	LT	97
0010	20+31	-	21+29	LT	116
TOTAL 0010					213

EXCAVATION COMMON AND BORROW

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	FILL CY (1)	EXPANDED FILL CY (2)	WASTE CY	BORROW CY
BYPASS CONSTRUCTION									
0010	7+50	-	12+10	BYPASS CONSTRUCTION	15	322	419	-404	404
0010	7+50	-	12+10	BYPASS CONSTRUCTION	7	210	274	-267	267
SUBTOTAL					22	532	693	-671	671
DROGSETH ROAD									
0010	18+05	-	19+65	DROGSETH ROAD	302	27	35	267	-275
0010	20+35	-	21+50	DROGSETH ROAD	255	18	23	232	-230
0010	18+05	-	21+50	UNUSABLE PAVEMENT	---	---	---	---	46
SUBTOTAL					557	45	58	499	0
BYPASS REMOVAL									
0010	7+50	-	12+10	BYPASS REMOVAL	372	0	0	372	-372
0010	7+50	-	12+10	BYPASS REMOVAL	248	0	0	248	-248
SUBTOTAL					620	0	0	620	0
TOTAL 0010					1,199	577	751	448	671

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.

(2) - FILL EXPANSION 30%

(3) - EXISTING PAVEMENT IS INCLUDED IN EXCAVATION COMMON TOTALS. SEE EARTHWORK TABLE.

EXCAVATION, HAULING, AND DISPOSAL OF CREOSOTE CONTAMINATED SOIL

CATEGORY	STATION	TO	STATION	LOCATION	205.0506.S EXCAVATION, HAULING, AND DISPOSAL OF CREOSOTE CONTAMINATED SOIL TON
0010	9+65	-	9+80	LT & RT	90
0010	10+20	-	10+35	LT & RT	90
TOTAL 0010					180

AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4- INCH TON	305.0410 AGGREGATE DETOURS TON	624.0100 WATER MGAL
0010	7+50	-	9+84	TEMP BYPASS	---	---	142	3
0010	10+16	-	12+10	TEMP BYPASS	---	---	111	2
0010	18+05	-	19+76	DROGSETH ROAD	25	261	---	5
0010	20+24	-	21+50	DROGSETH ROAD	17	208	---	4
0010	21+08	-	21+28	FE, LT	15	---	---	1
TOTAL 0010					57	469	253	15

ASPHALT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	THICKNESS (INCHES)	TACK COAT GAL	455.0605	465.0105 ASPHALTIC SURFACE TON
0010	18+05	-	19+76	LOWER LAYER	2.25	---	---	44
0010	18+05	-	19+76	UPPER LAYER	1.75	18	---	34
0010	20+24	-	21+50	LOWER LAYER	2.25	---	---	33
0010	20+24	-	21+50	UPPER LAYER	1.75	13	---	26
TOTAL 0010							31	137

RESTORATION AND EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	629.0210 FERTILIZER TYPE B CWT	630.0200 SEEDING TEMPORARY LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL	SPV.0085.01 SPECIAL (01. NATIVE POLLINATOR SEEDING MIXTURE NO. 95A) LB	REMARKS
TEMPORARY STRUCTURE														
0010	7+50	-	9+85	LT	---	125	57	8	0.1	3	---	5	---	TEMP BYPASS CONSTRUCT
0010	8+45	-	9+85	RT	---	72	---	8	0.1	1	---	2	---	TEMP BYPASS CONSTRUCT
0010	10+15	-	11+15	RT	---	52	---	8	0.1	1	---	2	---	TEMP BYPASS CONSTRUCT
0010	10+15	-	12+10	LT	---	150	22	8	0.1	3	---	4	---	TEMP BYPASS CONSTRUCT
0010	18+05	-	19+76	RT	179	289	32	---	0.2	---	3	8	1	
0010	20+24	-	21+50	RT	145	106	134	8	0.1	---	2	6	1	
0010	17+55	-	20+00	LT	681	748	142	---	0.3	---	7	20	2	
0010	20+00	-	22+05	LT	467	534	105	---	0.3	---	5	15	1	
0010	UNDISTRIBUTED				368	519	123	10	0.4	2	5	16	2	
TOTAL 0010					1,840	2,595	615	50	1.7	10	22	78	7	

EROSION CONTROL BARRIERS

MOBILIZATIONS EROSION CONTROL

MARKERS ROW

CATEGORY	STATION	TO	STATION	LOCATION	628.1504	628.1520	628.6005
					SILT FENCE LF	SILT FENCE MAINTENANCE LF	TURBIDITY BARRIERS SY
0010	7+50	-	9+74	LT	220	220	---
0010	18+05	-	19+64	RT	161	161	---
0010	---	-	---	SOUTH STREAM BANK	---	---	252
0010	---	-	---	NORTH STREAM BANK	---	---	254
0010	20+35	-	21+50	RT	120	120	---
0010	10+13	-	22+00	LT	196	196	---
TOTAL 0010					697	697	506

CATEGORY	LOCATION	628.1905	628.1910
		MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT 5346-00-71	8	3
TOTAL 0010		8	3

CATEGORY	LOCATION	633.5100
		MARKERS ROW EACH
0010	PROJECT 5346-00-71	8
TOTAL 0010		8

TRAFFIC CONTROL ITEMS

SAWING ASPHALT

CATEGORY	LOCATION	DAYS	633.1100	643.0300	643.0420	643.0705	643.0715	643.0900			
			DELINEATORS TEMPORARY EACH	TRAFFIC CONTROL DRUMS EACH	TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL BARRICADES TYPE III EACH	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY
0010	S. END - BYPASS CONSTR. (STAGE 1)	28	---	---	---	---	---	7	196		
0010	N. END - BYPASS CONSTR (STAGE 1)	28	---	---	---	---	---	7	196		
0010	TEMP BYPASS S. APPROACH (STAGE 2)	76	14	16	1,216	10	760	8	608	17	1,292
0010	TEMP BYPASS N. APPROACH (STAGE 2)	76	14	16	1,216	10	760	8	608	17	1,292
0010	S. END - BYPASS REMOVAL (STAGE 3)	17	---	---	---	---	---	---	---	7	119
0010	N. END - BYPASS REMOVAL (STAGE 3)	17	---	---	---	---	---	---	---	7	119
TOTAL 0010			28	2,432	1,520	912	1,216	3,214			

CATEGORY	STATION	LOCATION	690.0150
			SAWING ASPHALT LF
0010	18+05	DROGSETH ROAD	12
0010	21+50	DROGSETH ROAD	13
TOTAL 0010			25

NOTES:
 STAGE 1 & 3 - SEE SDD TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC
 STAGE 1 & 3 - SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
 STAGE 2 - SEE SDD TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
 STAGE 2 - SEE SDD TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

SIGNING ITEMS

CONSTRUCTION STAKING ITEMS

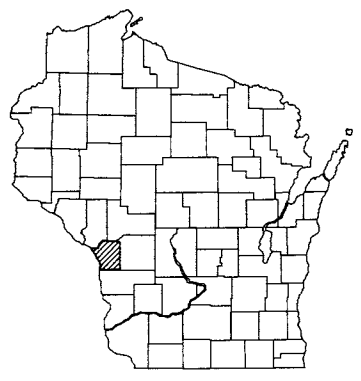
BIRD DETERRENT SYSTEMS

CATEGORY	STATION	LOCATION	634.0612	637.2230	REMARKS
			POSTS WOOD 4X6-INCH X 12-FT EACH	SIGNS TYPE II REFLECTIVE F SF	
0010	19+75	LT	1	3	W5-52L
0010	19+75	RT	1	3	W5-52R
0010	20+24	LT	1	3	W5-52L
0010	20+24	RT	1	3	W5-52R
TOTAL 0010			4	12	

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.9920
					CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING SLOPE STAKES LF
0010	7+50	-	9+85	TEMPORARY BYPASS	235	235	235
0010	10+15	-	12+10	TEMPORARY BYPASS	195	195	195
0010	18+05	-	19+76	DROGSETH ROAD	171	171	171
0010	20+24	-	21+50	DROGSETH ROAD	126	126	126
TOTAL 0010					727	727	727

CATEGORY	STATION	LOCATION	999.2005.S.01
			MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. 20+00) EACH
0010	20+00	P-32-0903	1
TOTAL 0010			1

R/W PROJECT NUMBER 5346-00-01	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR TOWN OF BARRE, DROGSETH ROAD (BOSTWICK CREEK BRIDGE B-32-0231)		
LOC STR	LA CROSSE COUNTY	
CONSTRUCTION PROJECT NUMBER 5346-00-71		



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1 INCH UNLESS NOTED)	IP
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	---	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	---	NO ACCESS (BY STATUTORY AUTHORITY)		NON COMPENSABLE	
PROPERTY LINE	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)		NO ACCESS (NEW HIGHWAY)	
LOT, TIE & OTHER MINOR LINES	---	NO ACCESS (NEW HIGHWAY)		PARCEL NUMBER (25)	UTILITY NUMBER (40)
SLOPE INTERCEPT	---	PARALLEL OFFSETS			
CORPORATE LIMITS	---				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING TO BE REMOVED	---				
BRIDGE	---				
CULVERT	---				

CONVENTIONAL ABBREVIATIONS

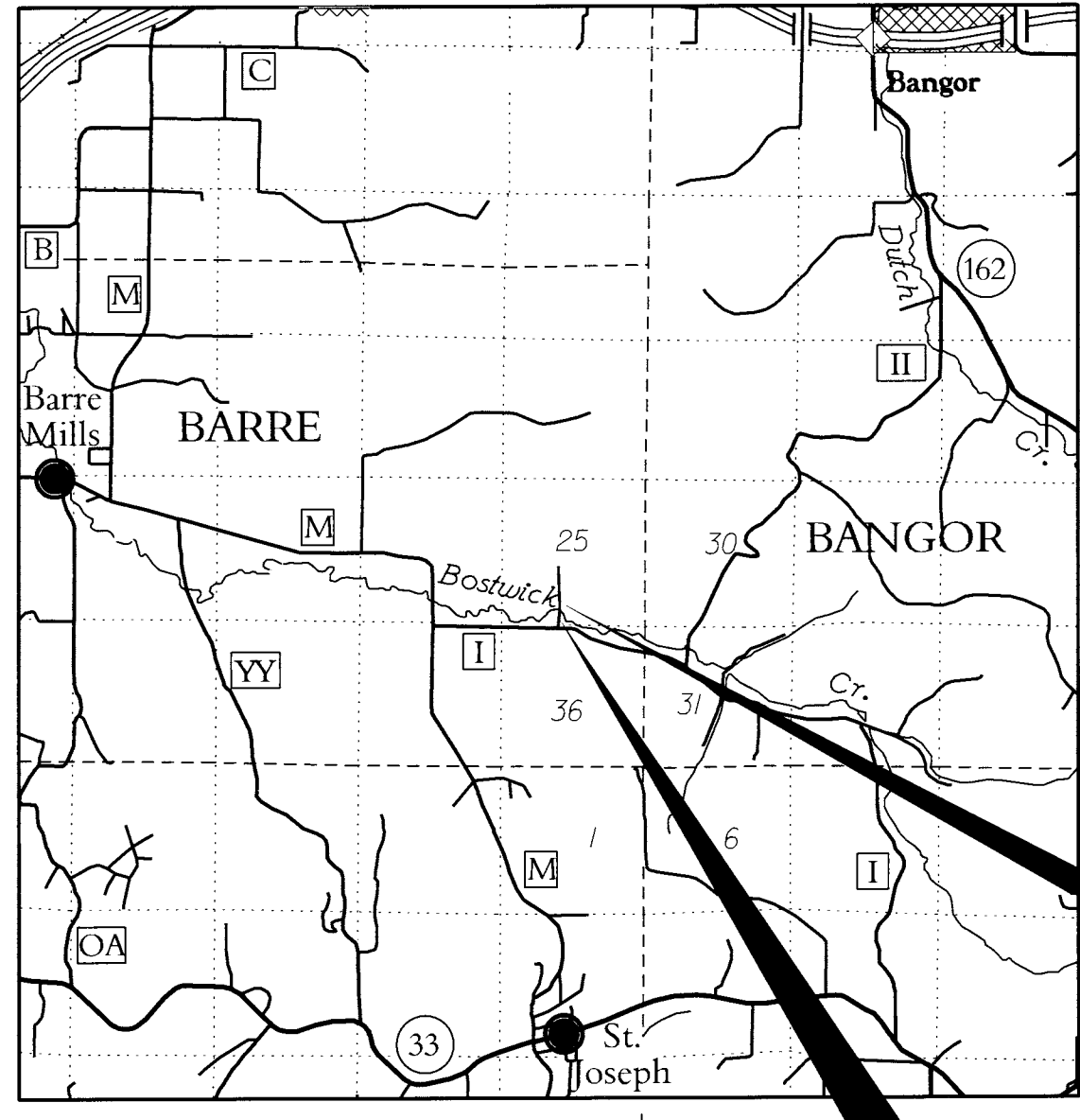
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TTP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
ELECTRIC TOWER	---



T-16-N
T-15-N

END RELOCATION ORDER
STA. 21+75.00
Y = 137,944.02
X = 500,111.84

BEGIN RELOCATION ORDER
STA. 17+60.00
Y = 137,530.35
X = 500,078.61

641.99' WEST OF AND 475.37' NORTH OF THE SOUTH QUARTER CORNER OF SECTION 25, T-16-N, R-6-W.

TOTAL NET LENGTH OF CENTERLINE = 0.078 MI.

NOTES:

- POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), LA CROSSE 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.
- ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.
- RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.
- FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.
- DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.
- A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLE)S ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
- AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.
- PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM FIELD/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.
- PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE PLAN DETAIL PAGES.
- INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON DETAIL SHEETS.

ORIGINAL PLAT PREPARED BY:

ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
3702 PANKRATZ STREET, MADISON WI 53704
(608) 242-7779 www.msa-ps.com

WISCONSIN LAND SURVEYOR

BRADLEY L. TISDALE
S-2824
WAUNAKEE WI

07/18/2023
Date

Bradley L. Tisdale
Signature

REVISION DATE

APPROVED FOR TOWN OF BARRE

7-20-2023 *Curt Bry*
DATE: (Signature)

SCHEDULE OF LANDS & INTERESTS REQUIRED

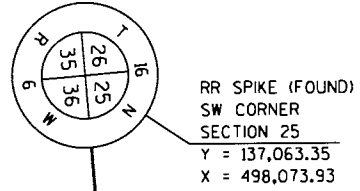
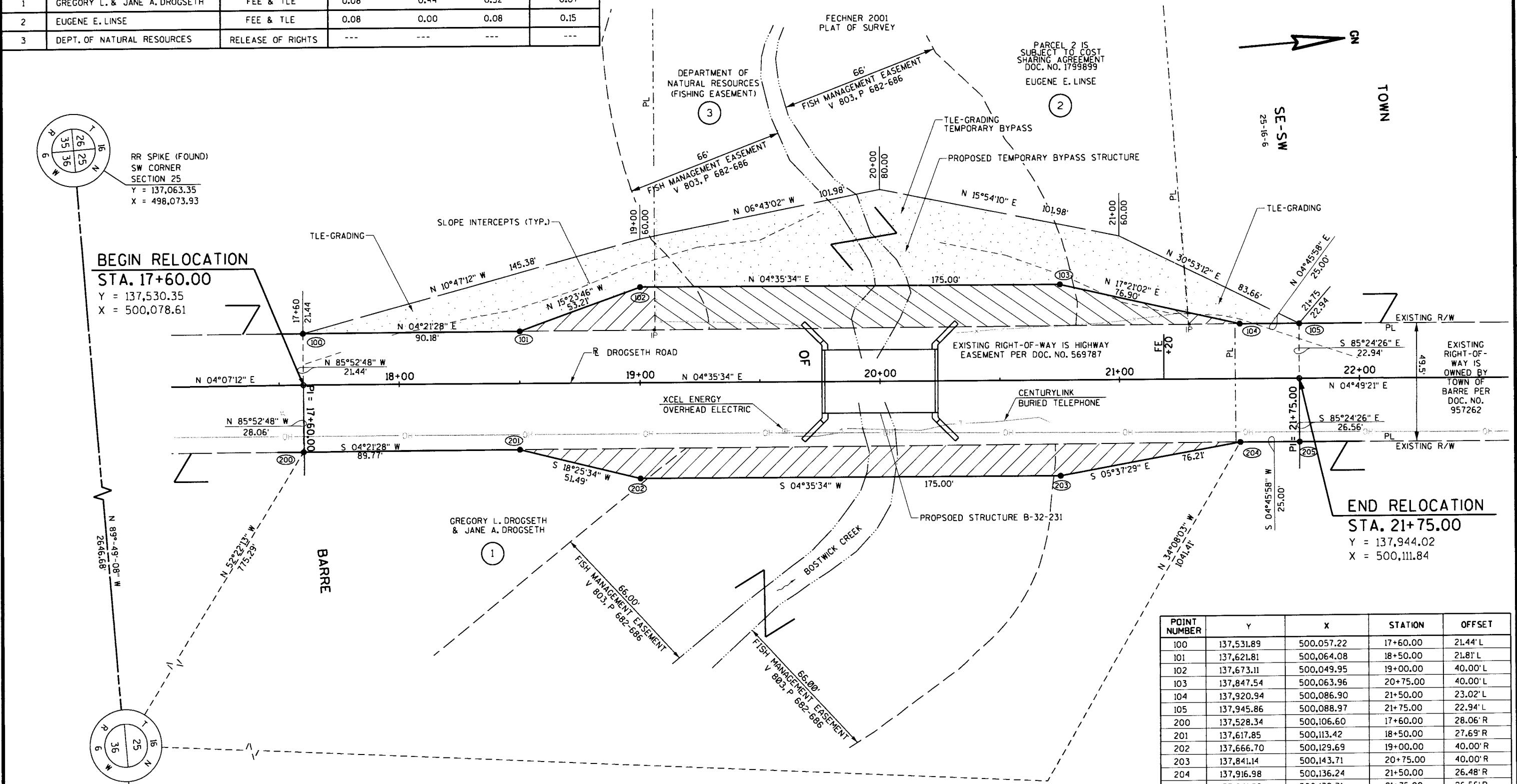
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	GREGORY L. & JANE A. DROGSETH	FEE & TLE	0.08	0.44	0.52	0.07
2	EUGENE E. LINSE	FEE & TLE	0.08	0.00	0.08	0.15
3	DEPT. OF NATURAL RESOURCES	RELEASE OF RIGHTS	---	---	---	---

NOTE: EXISTING HIGHWAY R/W ESTABLISHED FROM V 239, P 245, DOC #569787 (HE), V 726, P 442 (FEE), PLAN 32 OF DROGSETH ROAD AND BRIDGE AND OTHER PLATS OF SURVEY.

PISTA. = 17+60.00
Y = 137530.35
X = 500078.61
I = 00°28'22"R

PISTA. = 21+75.00
Y = 137944.02
X = 500111.84
I = 00°13'47"R



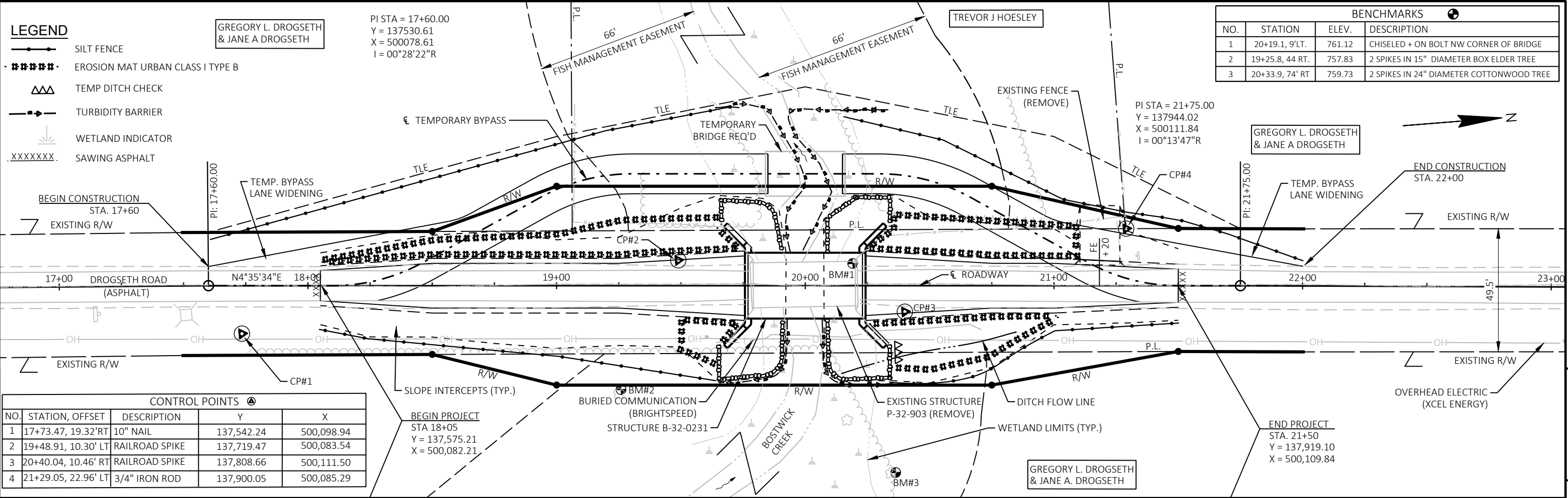
BEGIN RELOCATION
STA. 17+60.00
Y = 137,530.35
X = 500,078.61

END RELOCATION
STA. 21+75.00
Y = 137,944.02
X = 500,111.84

POINT NUMBER	Y	X	STATION	OFFSET
100	137,531.89	500,057.22	17+60.00	21.44' L
101	137,621.81	500,064.08	18+50.00	21.81' L
102	137,673.11	500,049.95	19+00.00	40.00' L
103	137,847.54	500,063.96	20+75.00	40.00' L
104	137,920.94	500,086.90	21+50.00	23.02' L
105	137,945.86	500,088.97	21+75.00	22.94' L
200	137,528.34	500,106.60	17+60.00	28.06' R
201	137,617.85	500,113.42	18+50.00	27.69' R
202	137,666.70	500,129.69	19+00.00	40.00' R
203	137,841.14	500,143.71	20+75.00	40.00' R
204	137,916.98	500,136.24	21+50.00	26.48' R
205	137,941.89	500,138.31	21+75.00	26.56' R

NOTE: INVERSING BETWEEN COORDINATES, IN CLOSE PROXIMITY WITH EACH OTHER, MAY NOT REPLICATE THE BEARINGS AND DISTANCES SHOWN ON THIS PLAT.

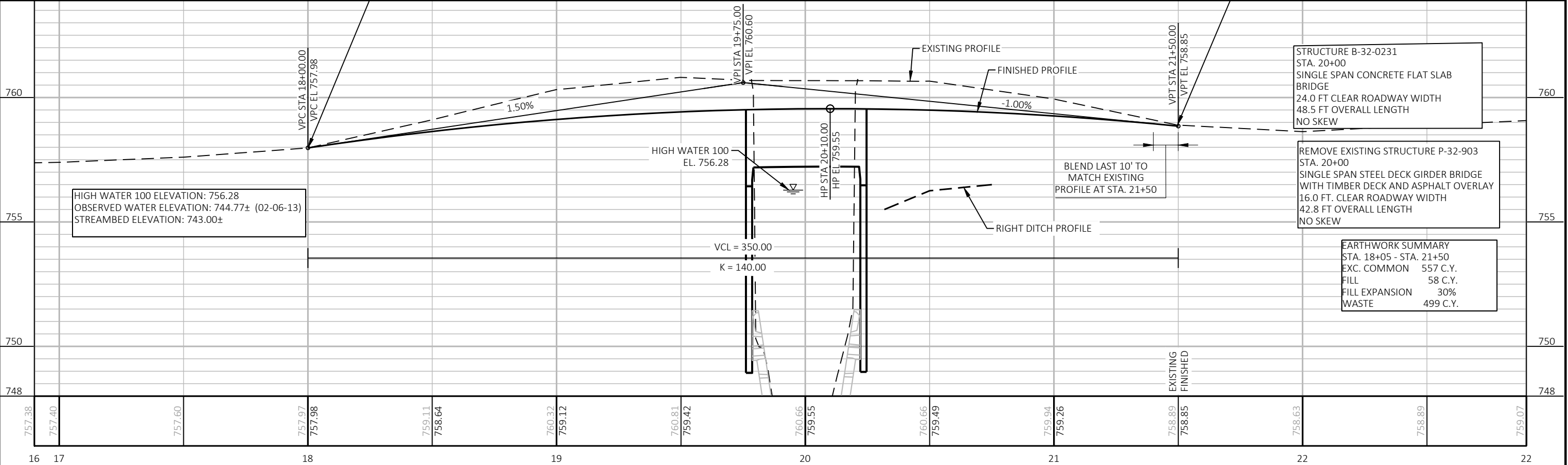
REVISION DATE	DATE: 2/14/2023	SCALE, FEET 0 20 40	HWY: LOC STR	STATE R/W PROJECT NUMBER: 5346-00-01	PLAT SHEET 4.02
	GRID FACTOR N/A		COUNTY: LA CROSSE	CONSTRUCTION PROJECT NUMBER: 5346-00-71	PS&E SHEET E



BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	20+19.1, 9'LT.	761.12	CHISELED + ON BOLT NW CORNER OF BRIDGE
2	19+25.8, 44 RT.	757.83	2 SPIKES IN 15" DIAMETER BOX ELDER TREE
3	20+33.9, 74' RT	759.73	2 SPIKES IN 24" DIAMETER COTTONWOOD TREE

- LEGEND**
- SILT FENCE
 - EROSION MAT URBAN CLASS I TYPE B
 - △△△ TEMP DITCH CHECK
 - TURBIDITY BARRIER
 - ▽ WETLAND INDICATOR
 - XXXXXXX SAWING ASPHALT

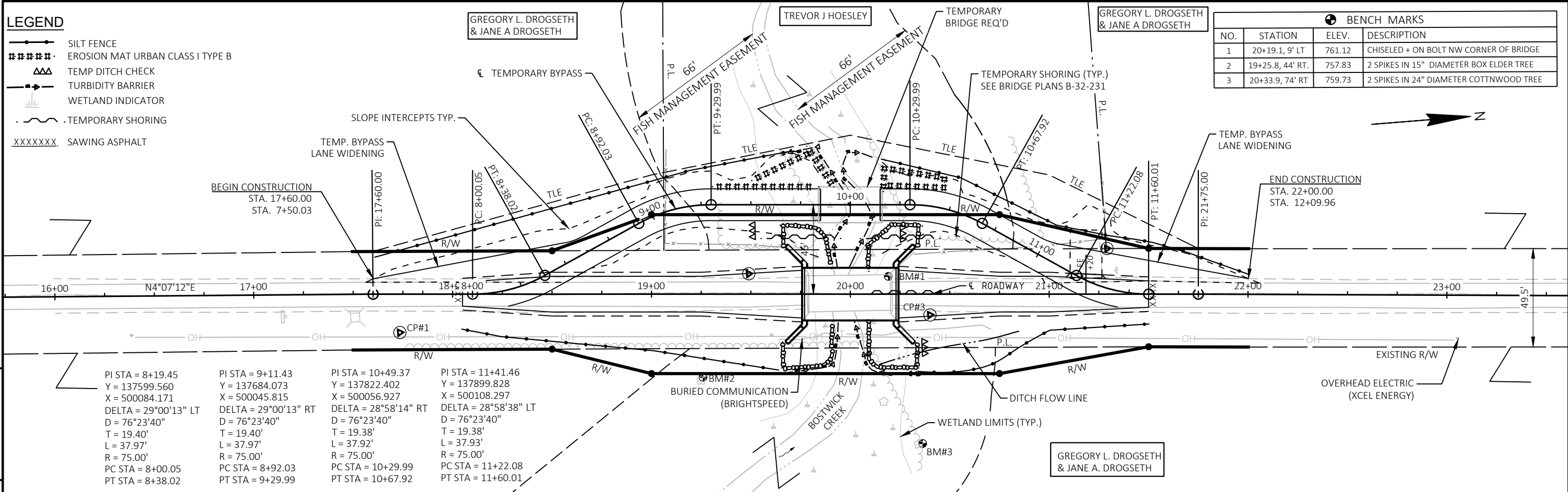
CONTROL POINTS				
NO.	STATION, OFFSET	DESCRIPTION	Y	X
1	17+73.47, 19.32' RT	10" NAIL	137,542.24	500,098.94
2	19+48.91, 10.30' LT	RAILROAD SPIKE	137,719.47	500,083.54
3	20+40.04, 10.46' RT	RAILROAD SPIKE	137,808.66	500,111.50
4	21+29.05, 22.96' LT	3/4" IRON ROD	137,900.05	500,085.29



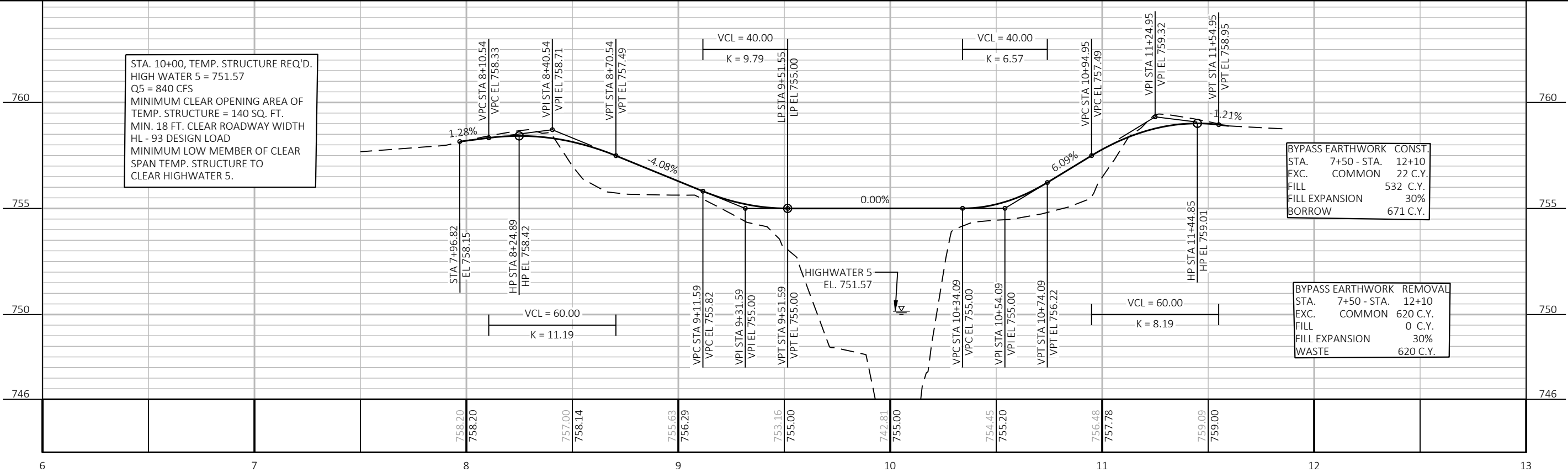
LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- TEMP DITCH CHECK
- TURBIDITY BARRIER
- WETLAND INDICATOR
- TEMPORARY SHORING
- SAWING ASPHALT

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	20+19.1, 9' LT	761.12	CHISELED + ON BOLT NW CORNER OF BRIDGE
2	19+25.8, 44' RT.	757.83	2 SPIKES IN 15" DIAMETER BOX ELDER TREE
3	20+33.9, 74' RT	759.73	2 SPIKES IN 24" DIAMETER COTTWOOD TREE



PI STA = 8+19.45 Y = 137599.560 X = 500084.171 DELTA = 29°00'13" LT D = 76°23'40" T = 19.40' L = 37.97' R = 75.00' PC STA = 8+00.05 PT STA = 8+38.02	PI STA = 9+11.43 Y = 137684.073 X = 500045.815 DELTA = 29°00'13" RT D = 76°23'40" T = 19.40' L = 37.97' R = 75.00' PC STA = 8+92.03 PT STA = 9+29.99	PI STA = 10+49.37 Y = 137822.402 X = 500056.927 DELTA = 28°58'14" RT D = 76°23'40" T = 19.38' L = 37.92' R = 75.00' PC STA = 10+29.99 PT STA = 10+67.92	PI STA = 11+41.46 Y = 137899.828 X = 500108.297 DELTA = 28°58'38" LT D = 76°23'40" T = 19.38' L = 37.93' R = 75.00' PC STA = 11+22.08 PT STA = 11+60.01
---	---	--	--



STA. 10+00, TEMP. STRUCTURE REQ'D.
HIGH WATER 5 = 751.57
Q5 = 840 CFS
MINIMUM CLEAR OPENING AREA OF TEMP. STRUCTURE = 140 SQ. FT.
MIN. 18 FT. CLEAR ROADWAY WIDTH
HL - 93 DESIGN LOAD
MINIMUM LOW MEMBER OF CLEAR SPAN TEMP. STRUCTURE TO CLEAR HIGHWATER 5.

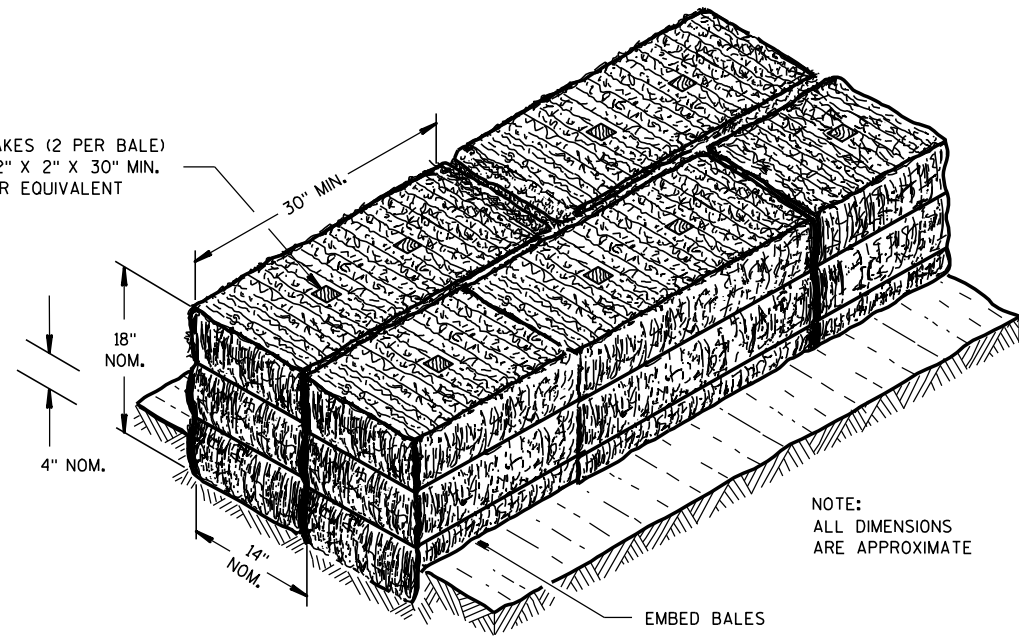
BYPASS EARTHWORK CONST.
STA. 7+50 - STA. 12+10
EXC. COMMON 22 C.Y.
FILL 532 C.Y.
FILL EXPANSION 30%
BORROW 671 C.Y.

BYPASS EARTHWORK REMOVAL
STA. 7+50 - STA. 12+10
EXC. COMMON 620 C.Y.
FILL 0 C.Y.
FILL EXPANSION 30%
WASTE 620 C.Y.

Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A01-13B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
15A04-07A	FLEXIBLE DELINEATOR POST
15A04-07C	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A04-07E	DELINEATOR POST WITH REFLECTIVE SHEETING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D31-05	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

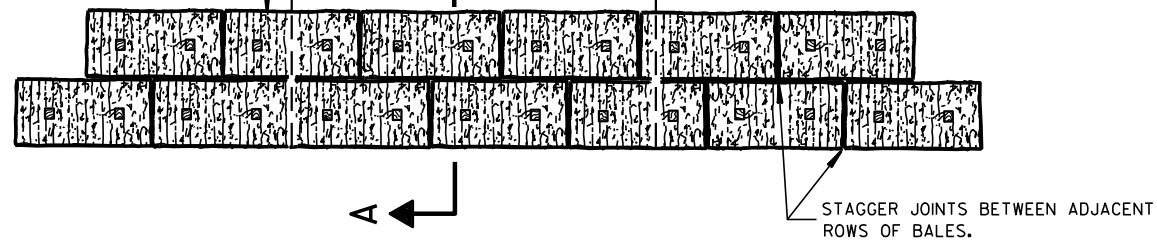
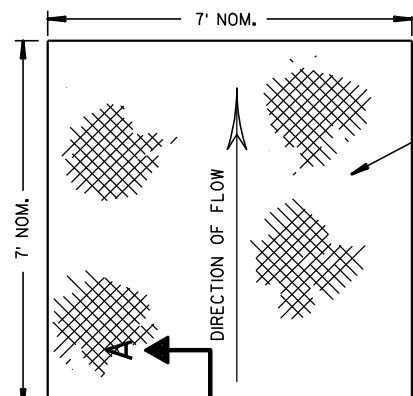
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

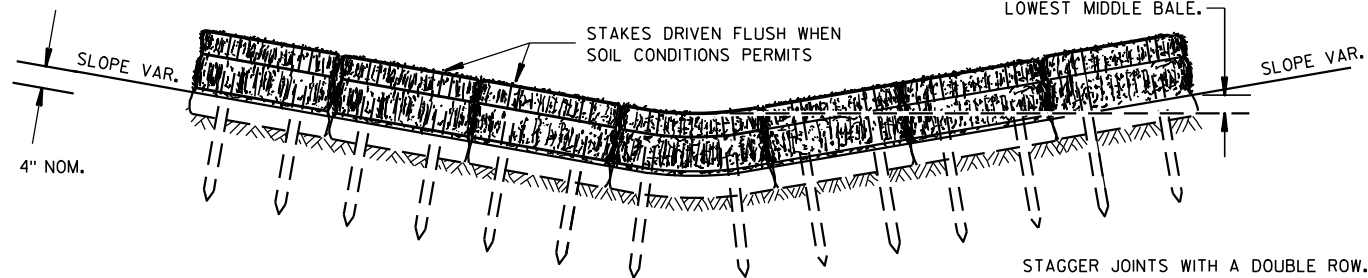
EMBED BALES

SECTION A-A



PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL BE EQUAL TO OR GREATER THAN TOP OF LOWEST MIDDLE BALE.



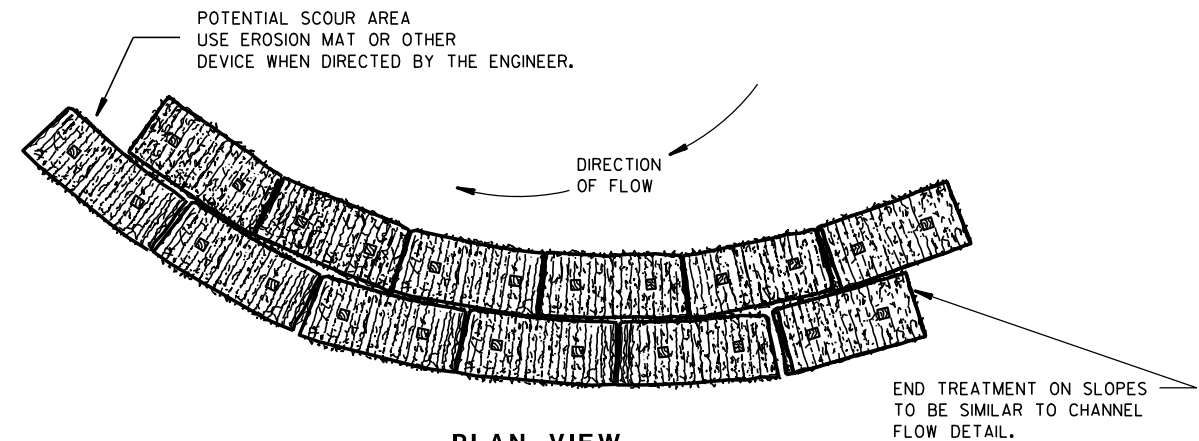
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

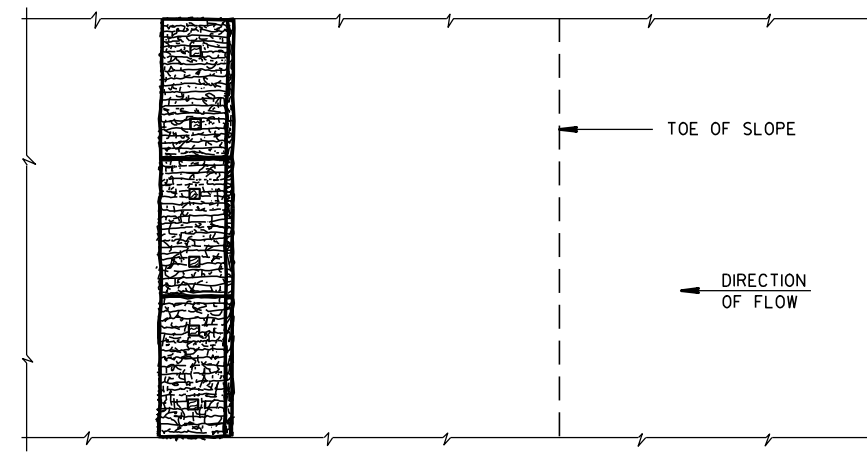
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

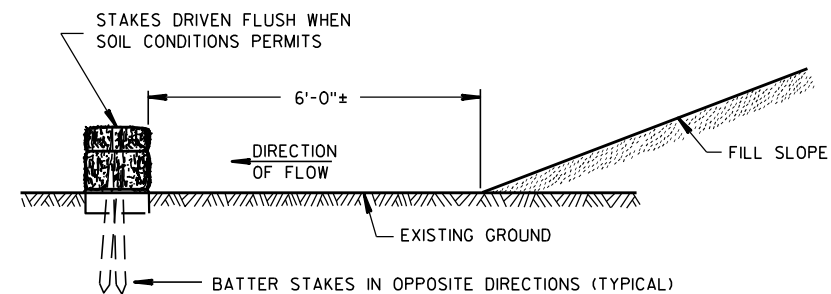


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

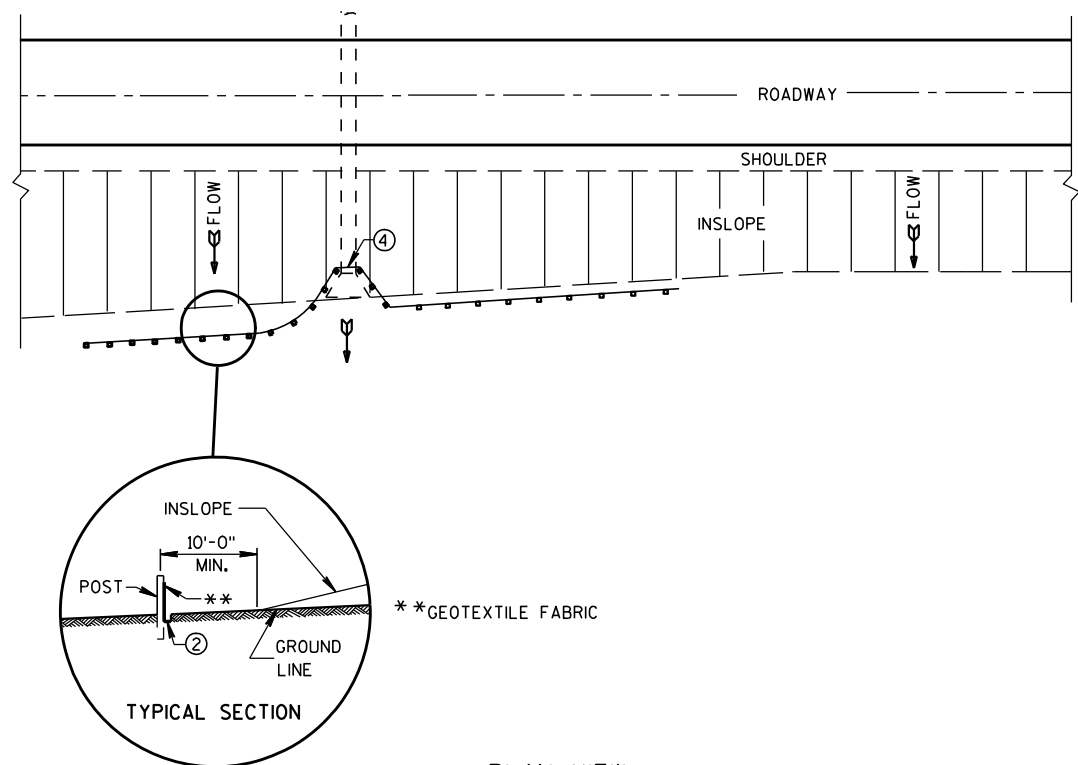
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

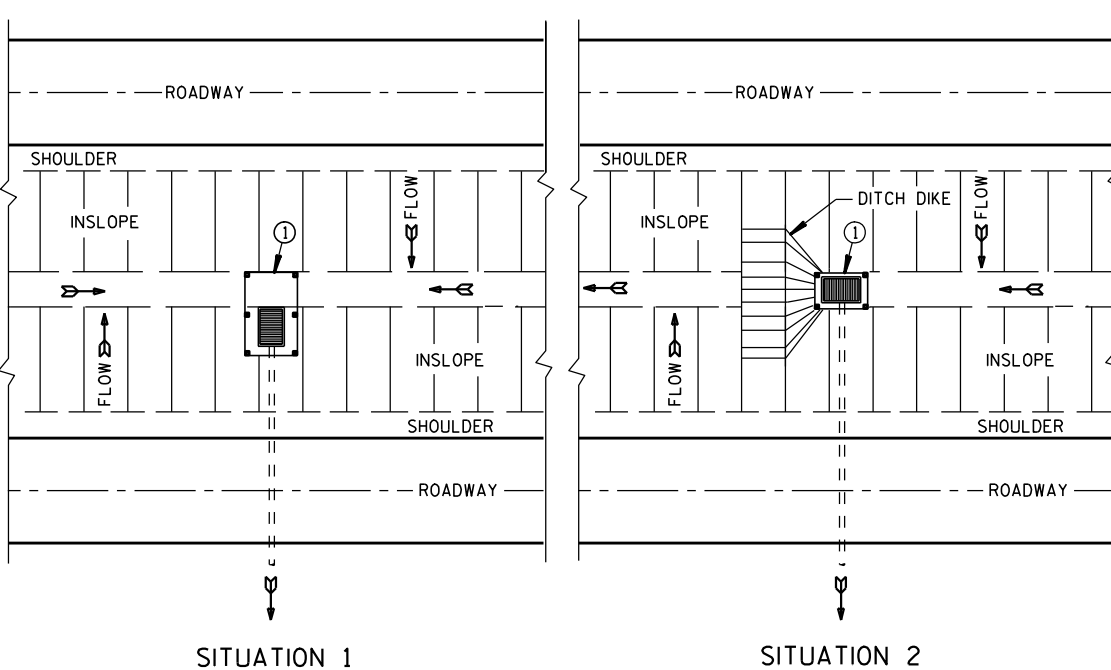
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

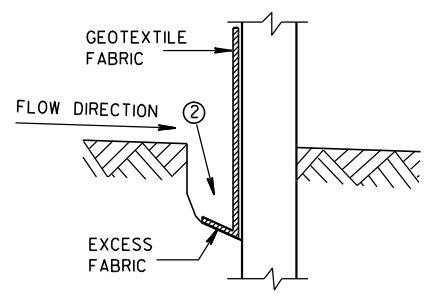


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

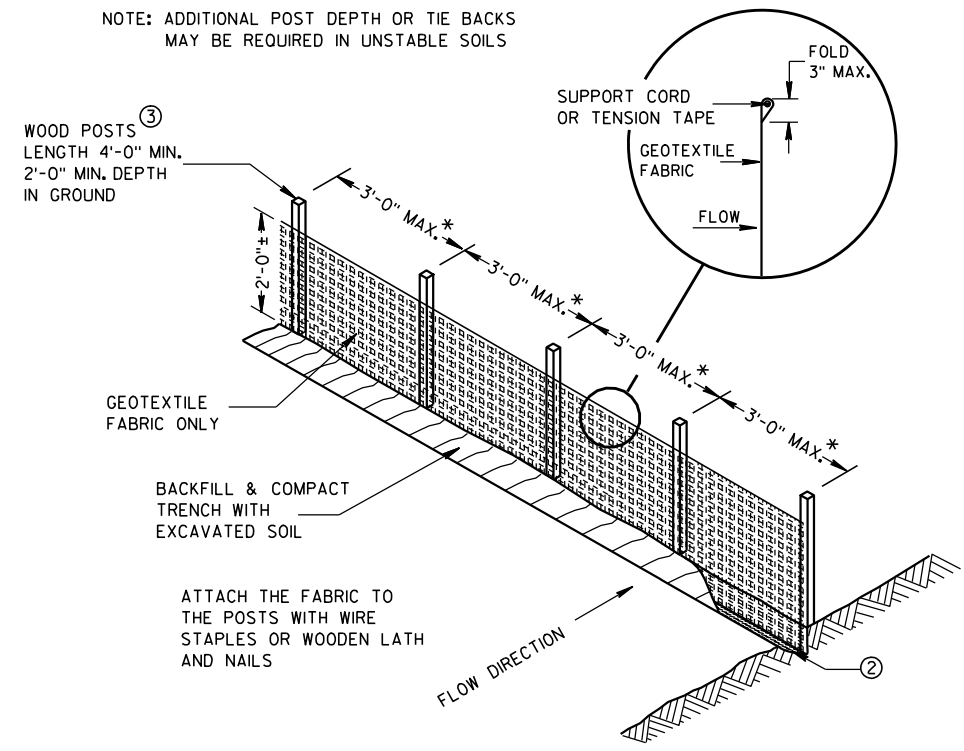
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



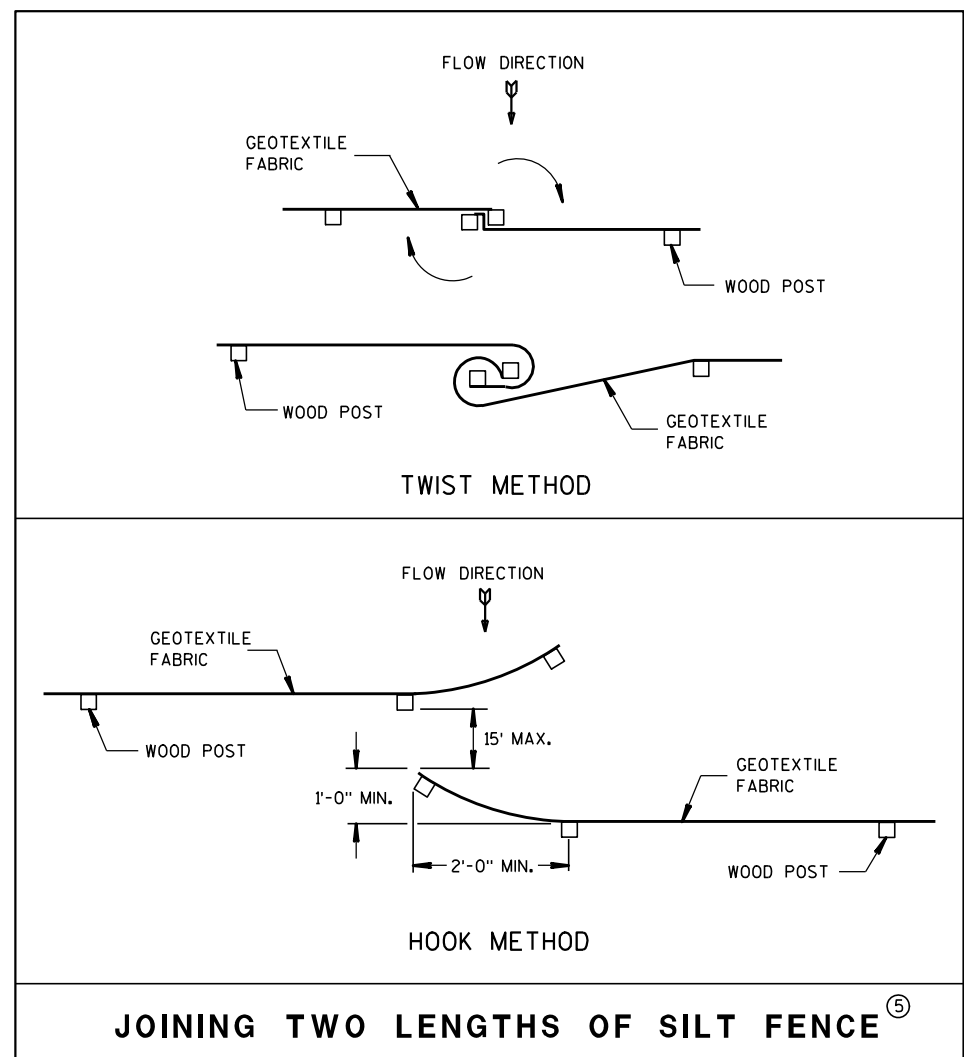
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

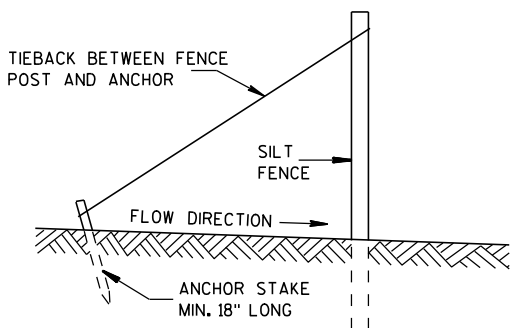


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

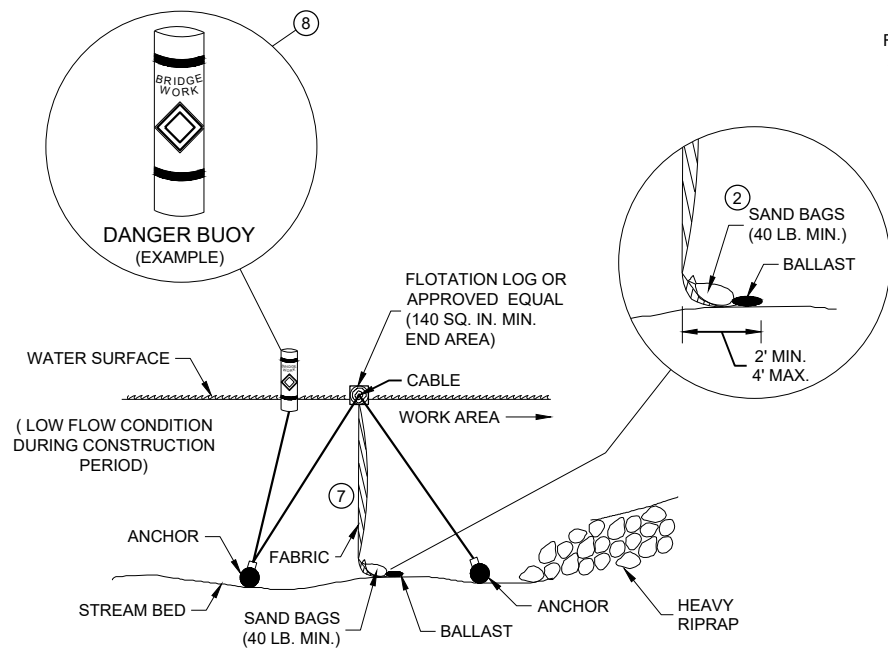


JOINING TWO LENGTHS OF SILT FENCE ⑤



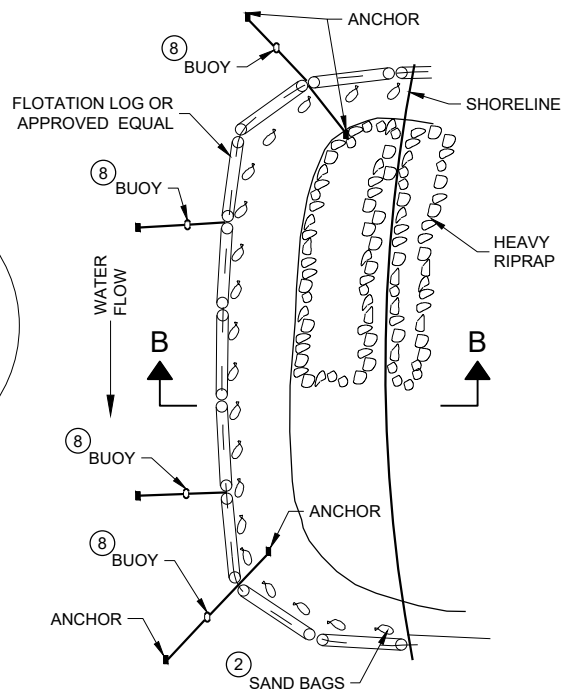
SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

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

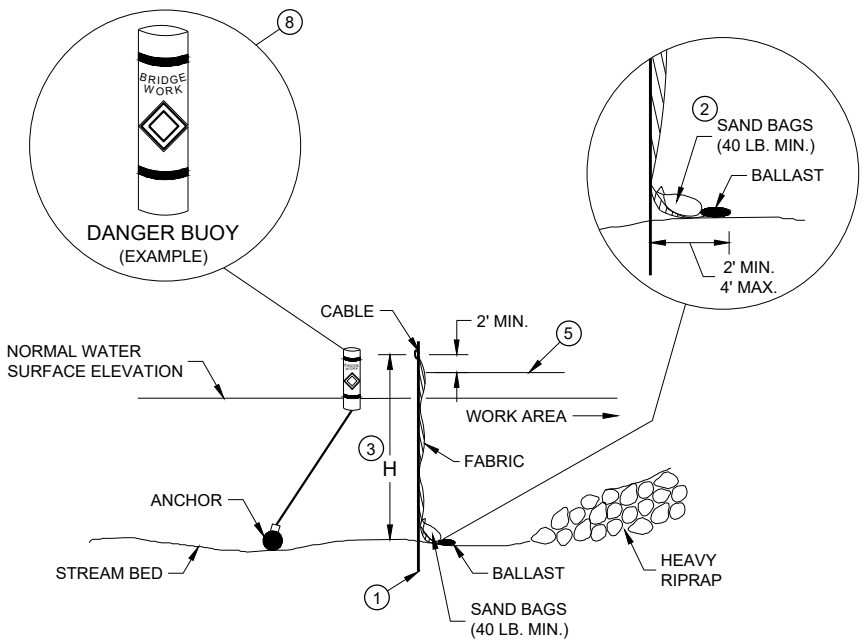


SECTION B - B

**TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6**

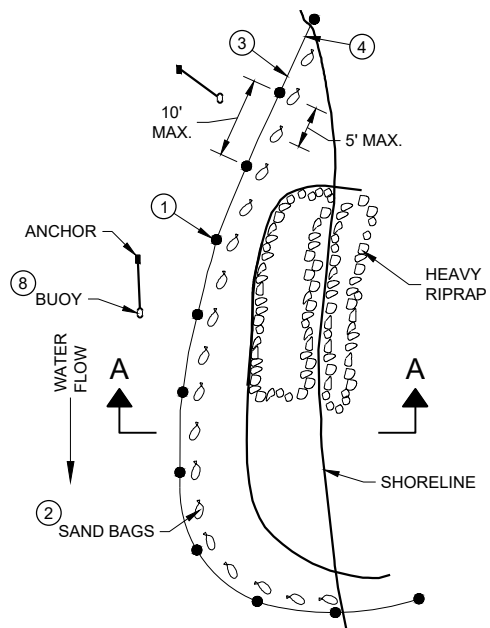


PLAN VIEW



SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW

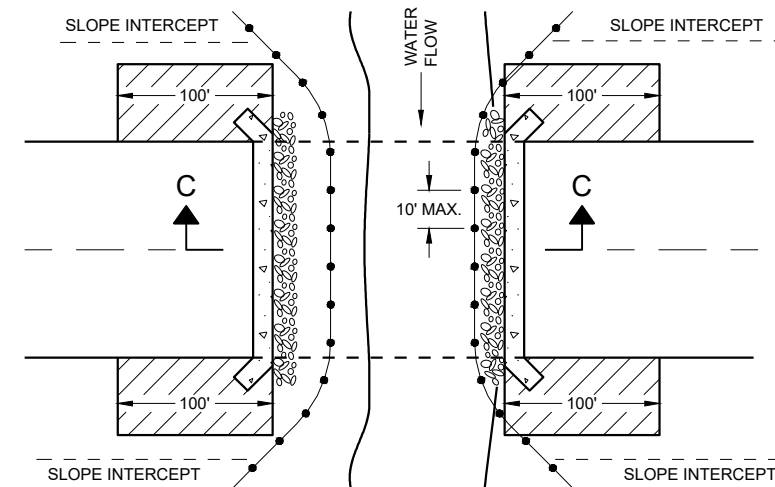
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

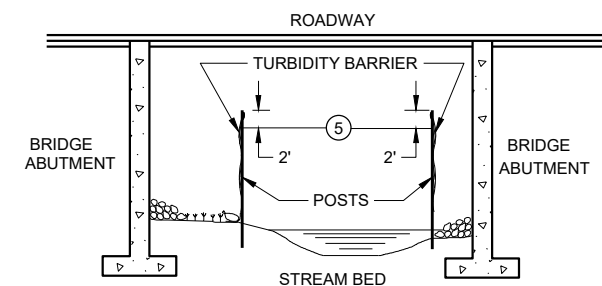
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

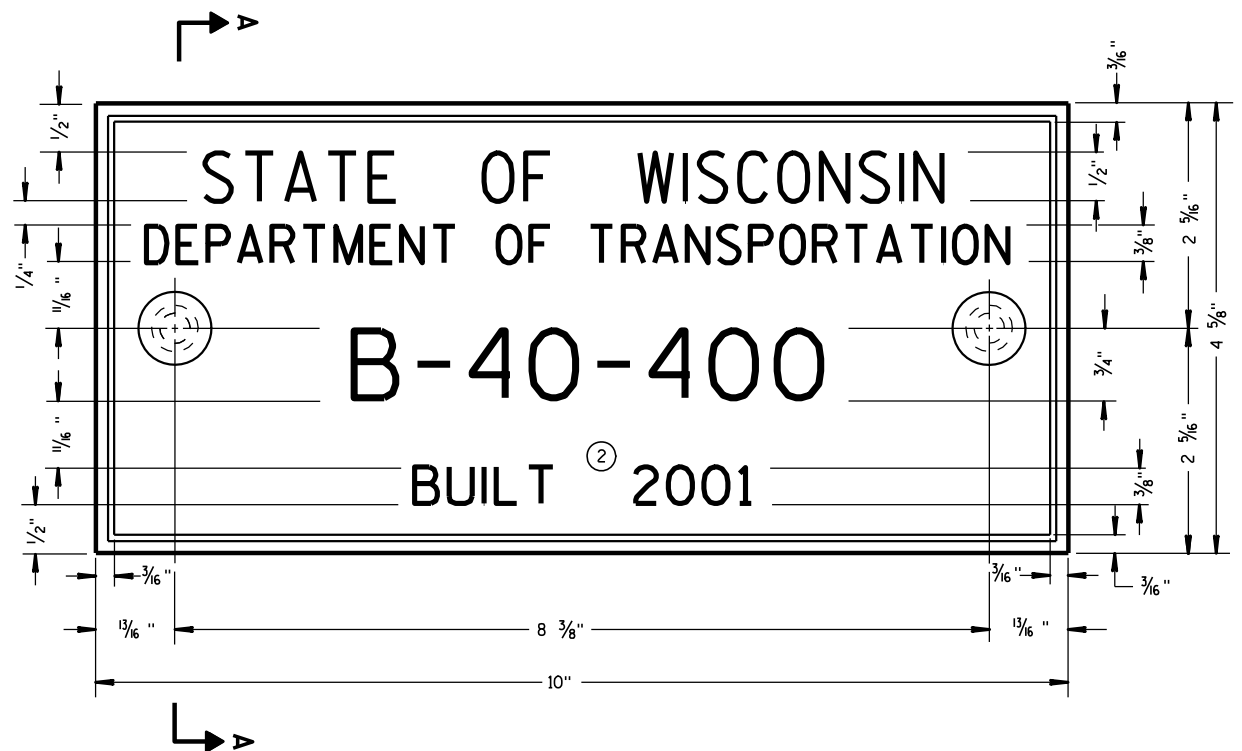
**TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES**

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



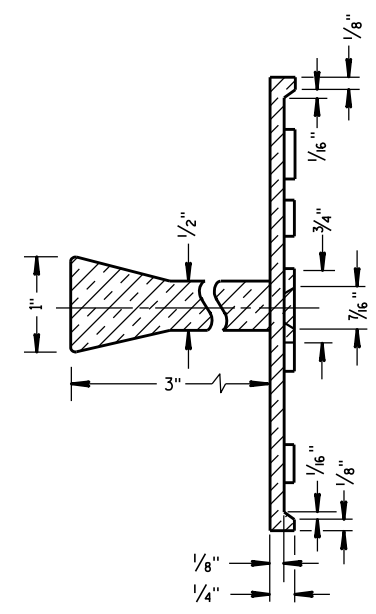
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

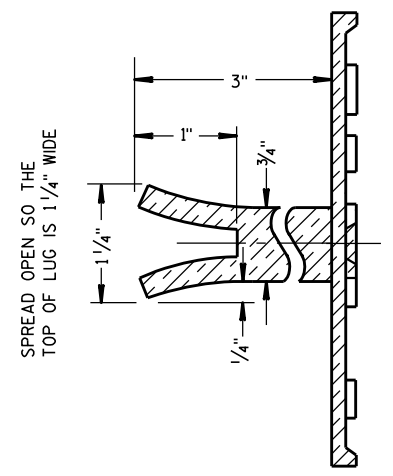
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.



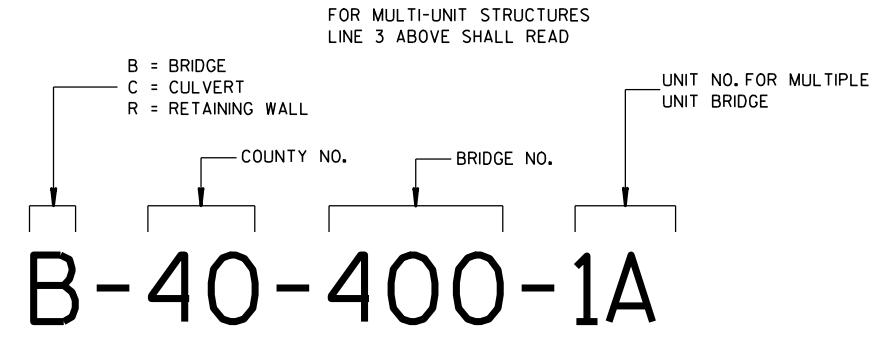
SECTION A-A



ALTERNATE LUG

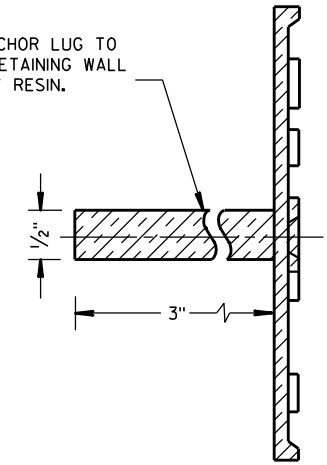
6

6



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

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

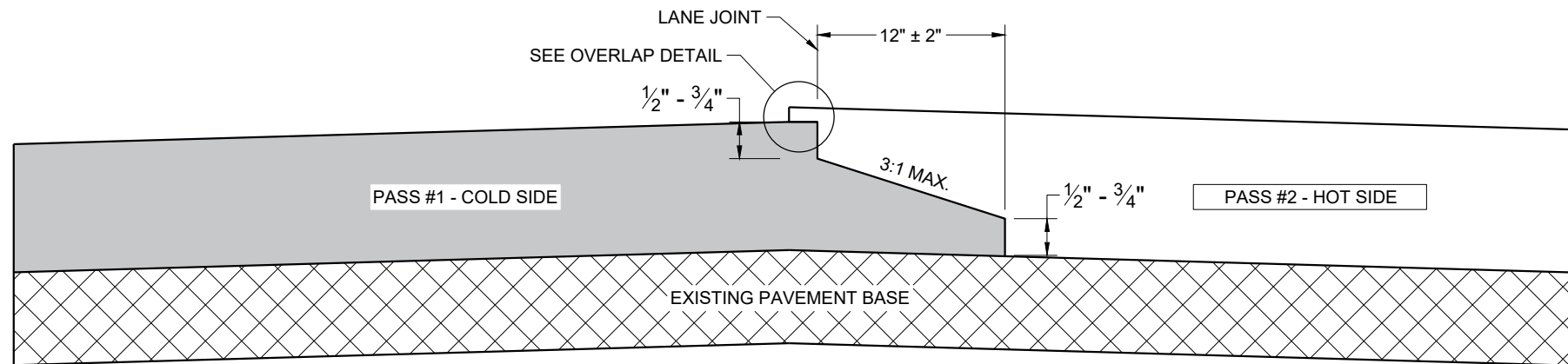


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

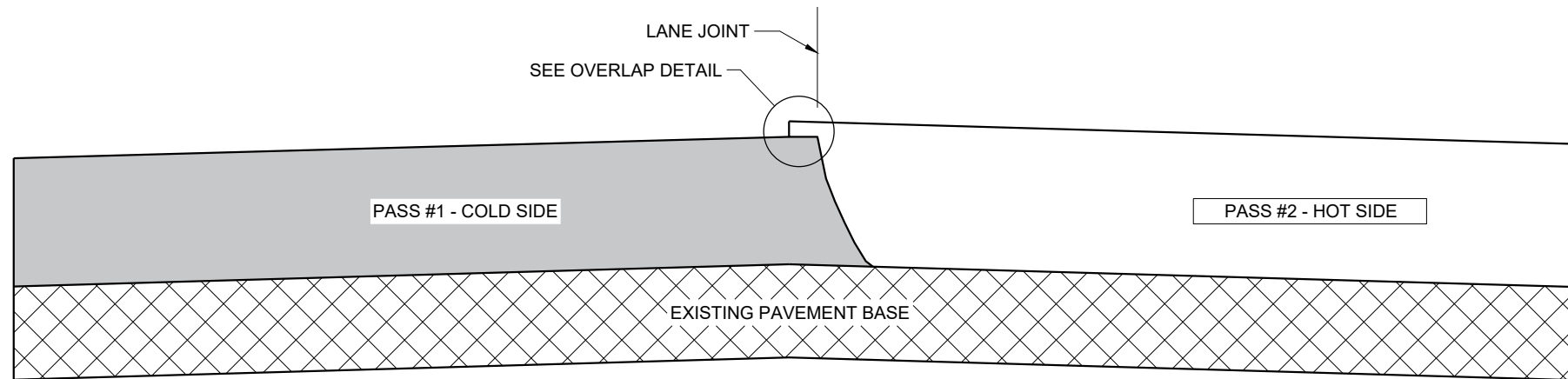
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

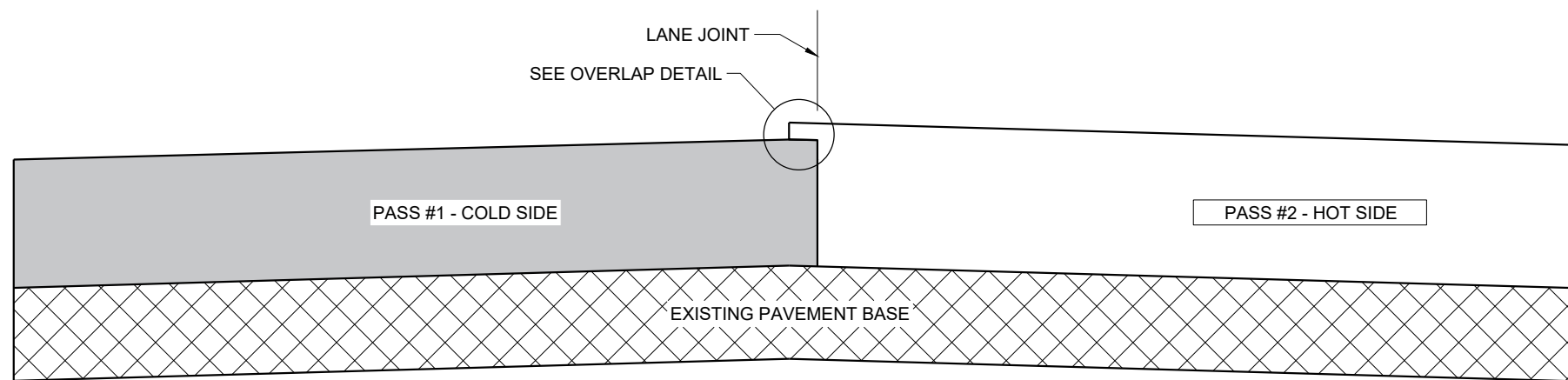
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

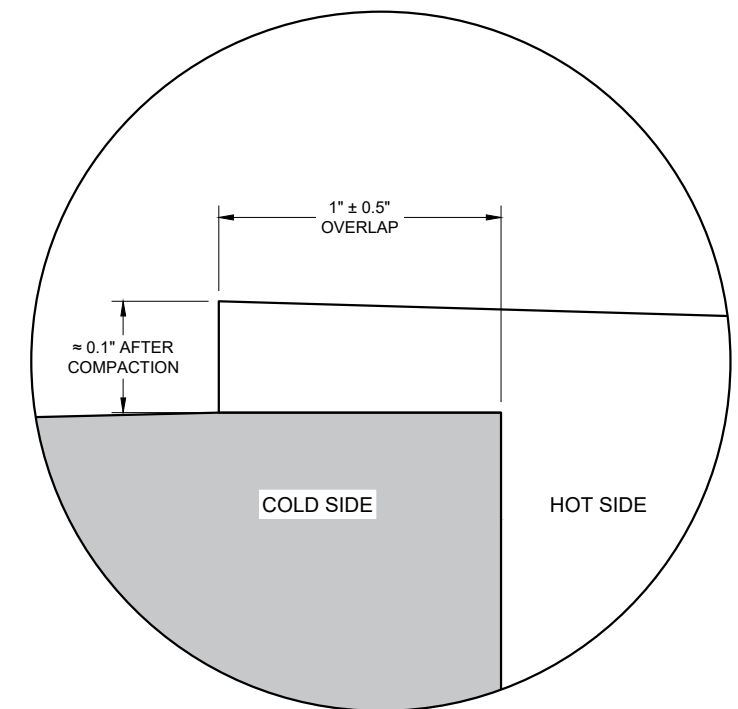
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

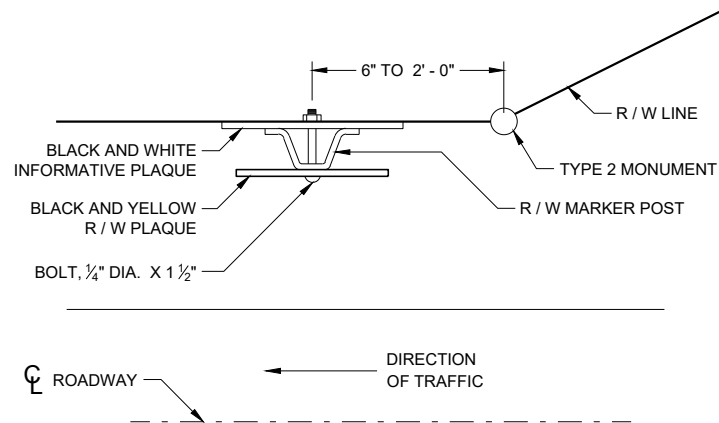
SDD 13C19 - 03

SDD 13C19 - 03

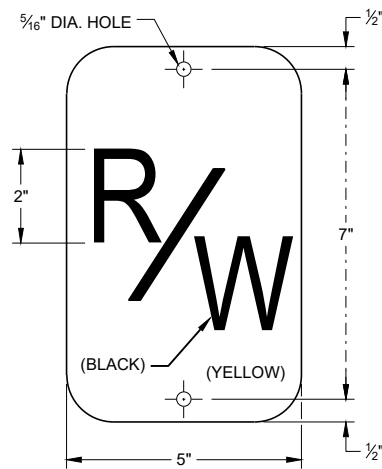
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 DATE /S/ Steven Hefel
HMA PAVEMENT ENGINEER
FHWA

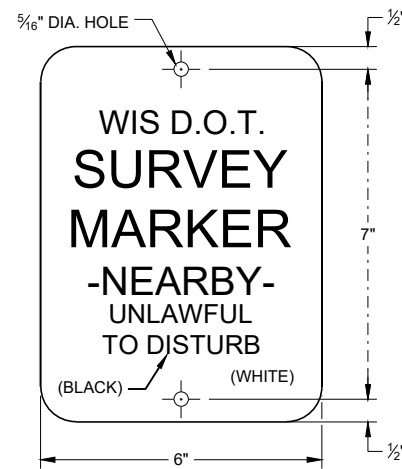


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

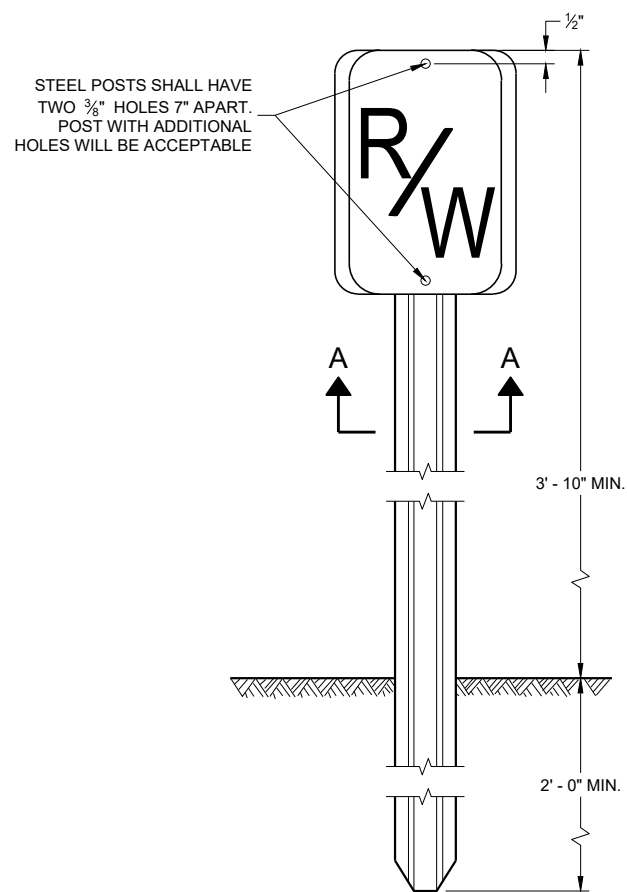
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

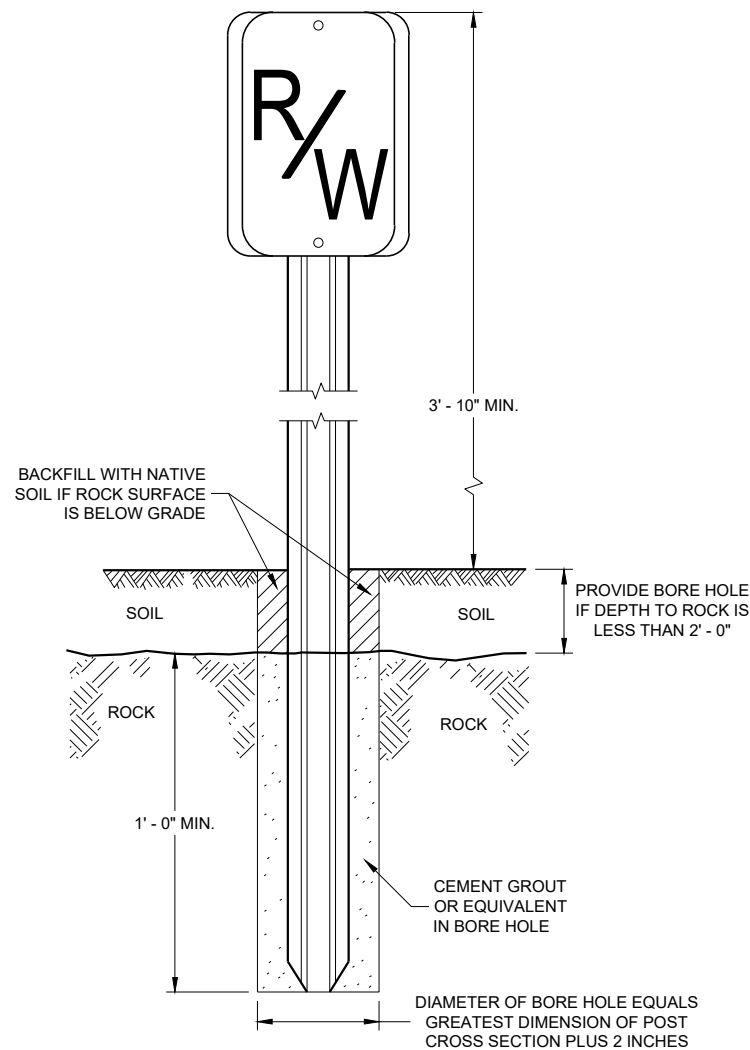
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

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

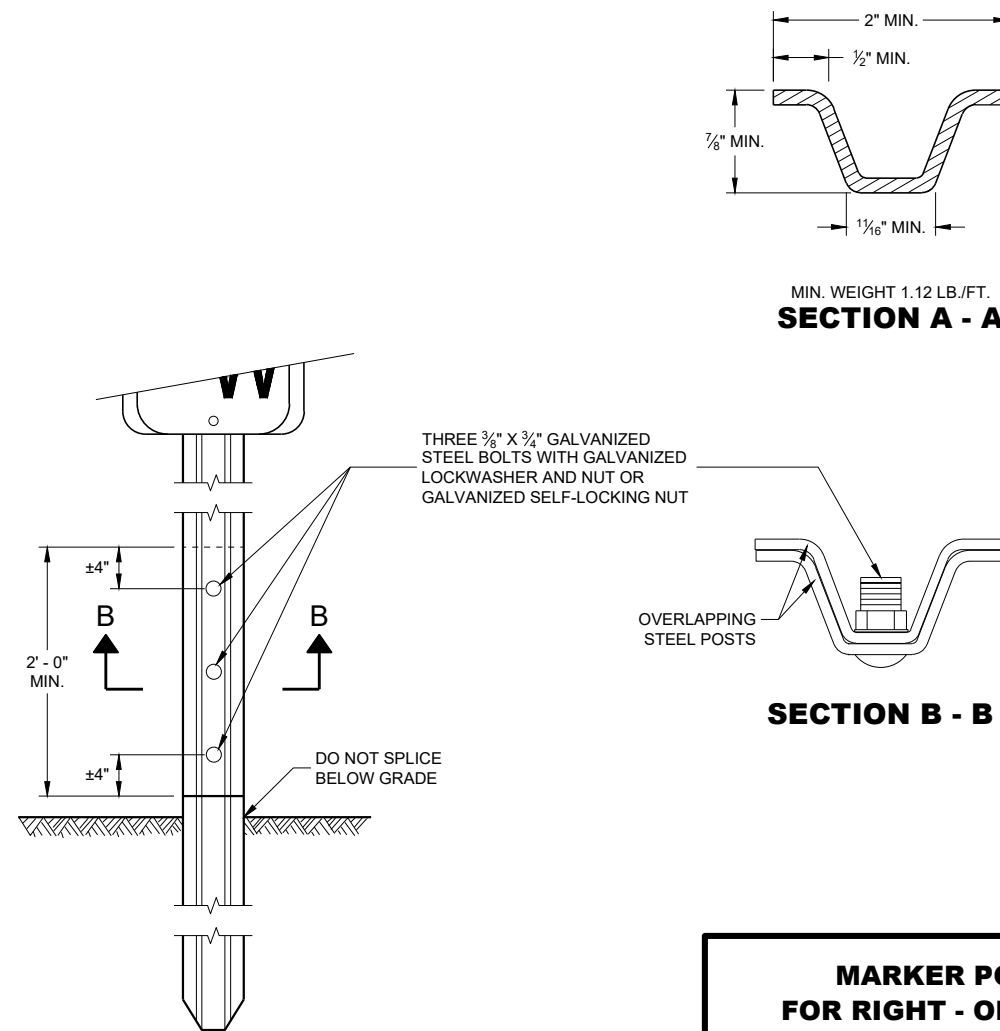
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL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



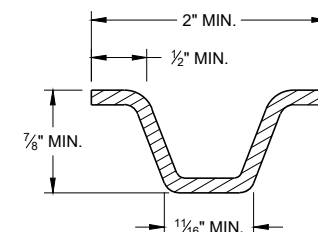
**FRONT VIEW
STEEL MARKER POST**



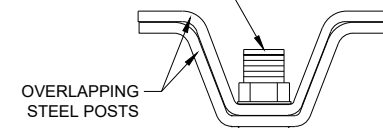
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



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



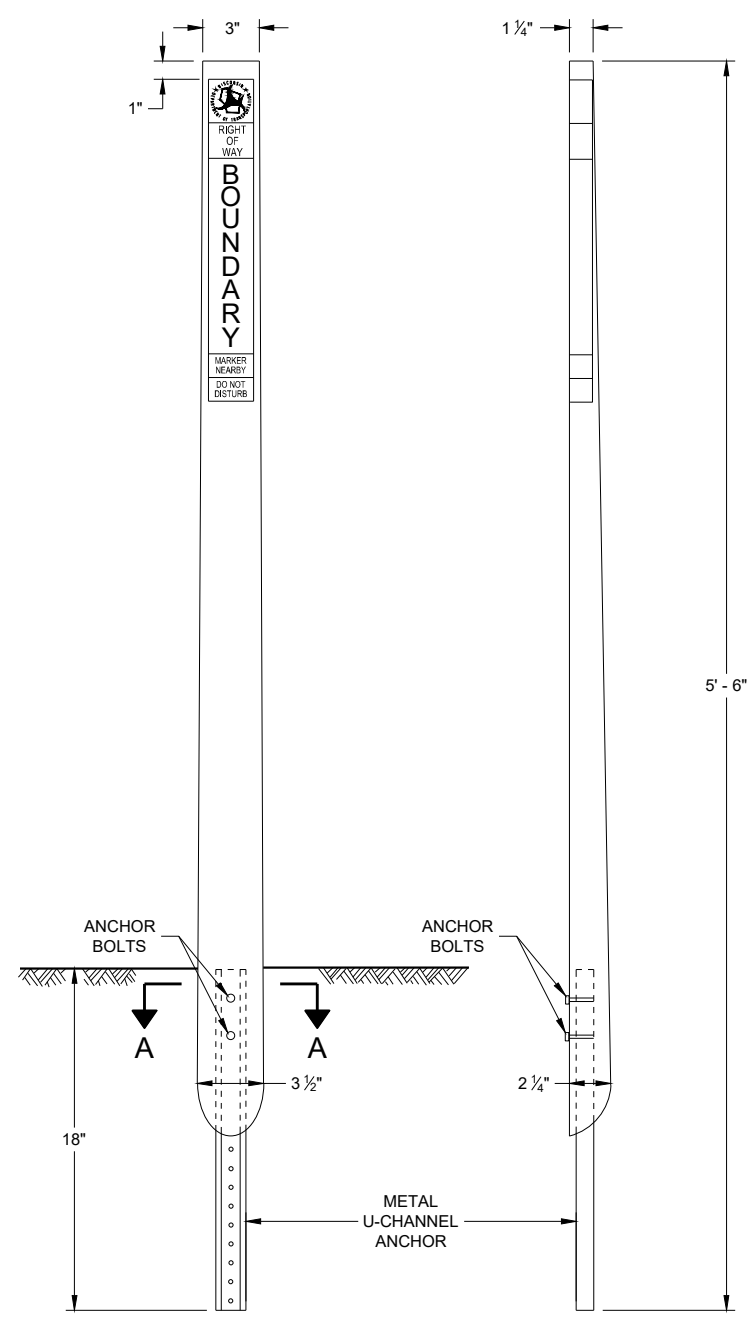
SECTION B - B

**MARKER POST
FOR RIGHT - OF - WAY**

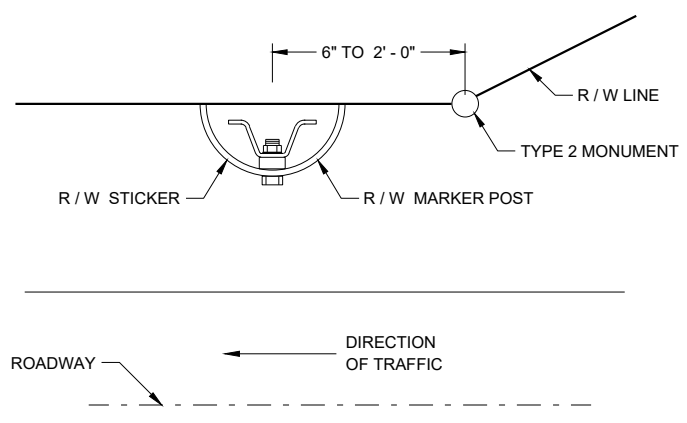
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

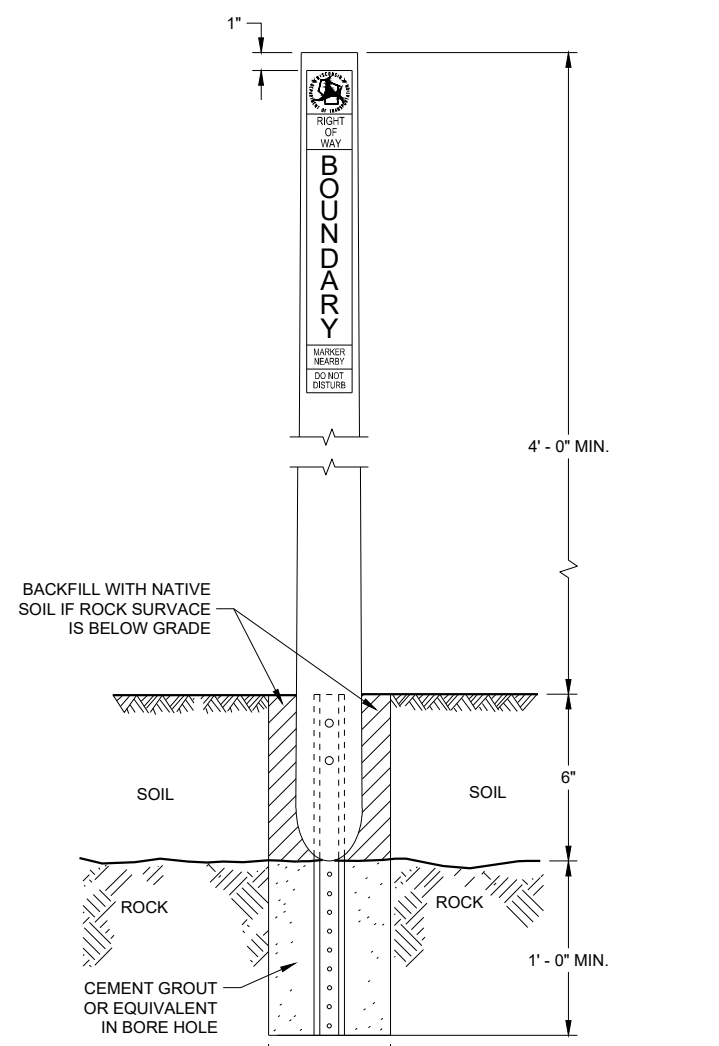
FHWA



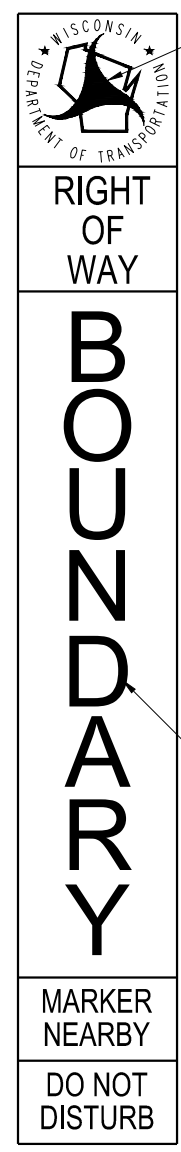
FRONT VIEW **SIDE VIEW**
FLEXIBLE MARKER POST FOR RIGHT-OF-WAY ①



PLAN VIEW



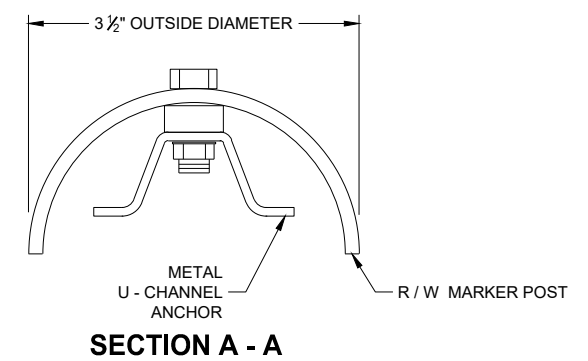
FRONT VIEW ① ②
ROCK INSTALLATION



RIGHT-OF-WAY STICKER
 THE RIGHT-OF-WAY STICKER SHALL BE ATTACHED 1" FROM THE TOP OF THE RIGHT-OF-WAY POST PRIOR TO DELIVERY.

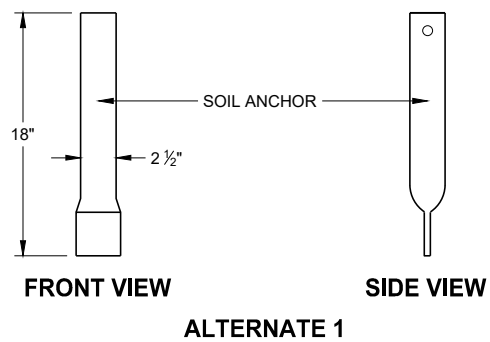
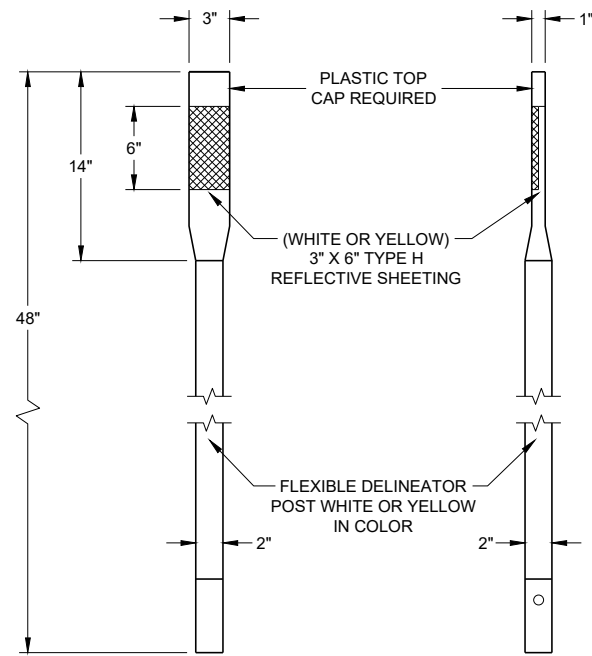
GENERAL NOTES

- DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- A FLEXIBLE MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- THE RIGHT-OF-WAY STICKER DIMENSIONS SHALL BE 2 1/4" X 17" AND THE STICKER SHALL BE MADE OF A NON-REFLECTIVE VINYL MATERIAL. THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.
- INSTALL PER DEPTH OF MANUFACTURER'S RECOMMENDATION BUT NOT LESS THAN 18 INCHES BELOW GRADE FROM THE BOTTOM OF THE METAL U-CHANNEL ANCHOR.
- ① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.
 - ② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4' - 0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

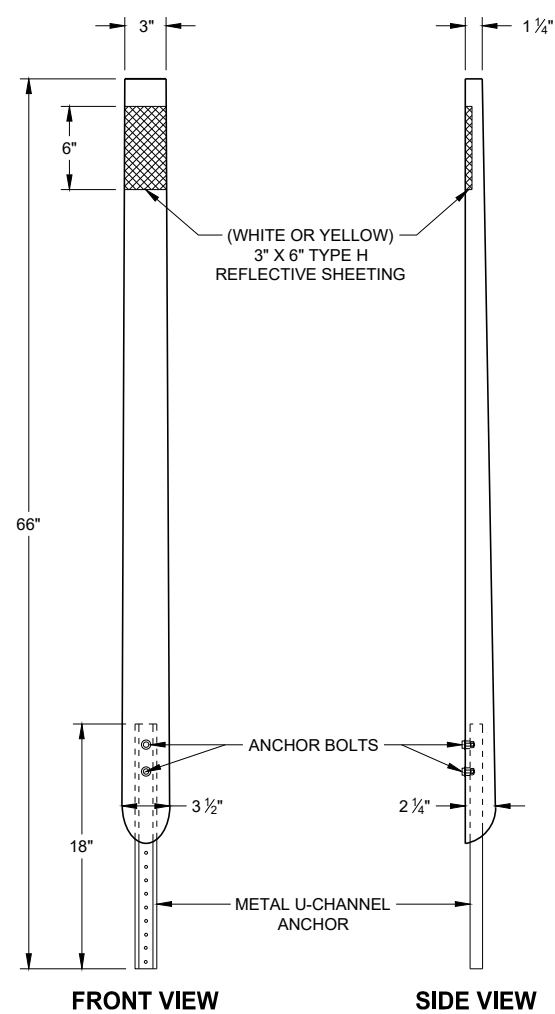
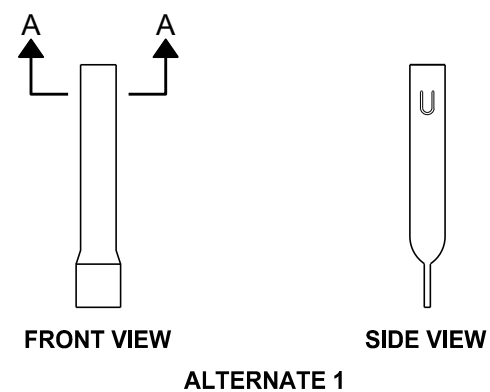


SECTION A - A

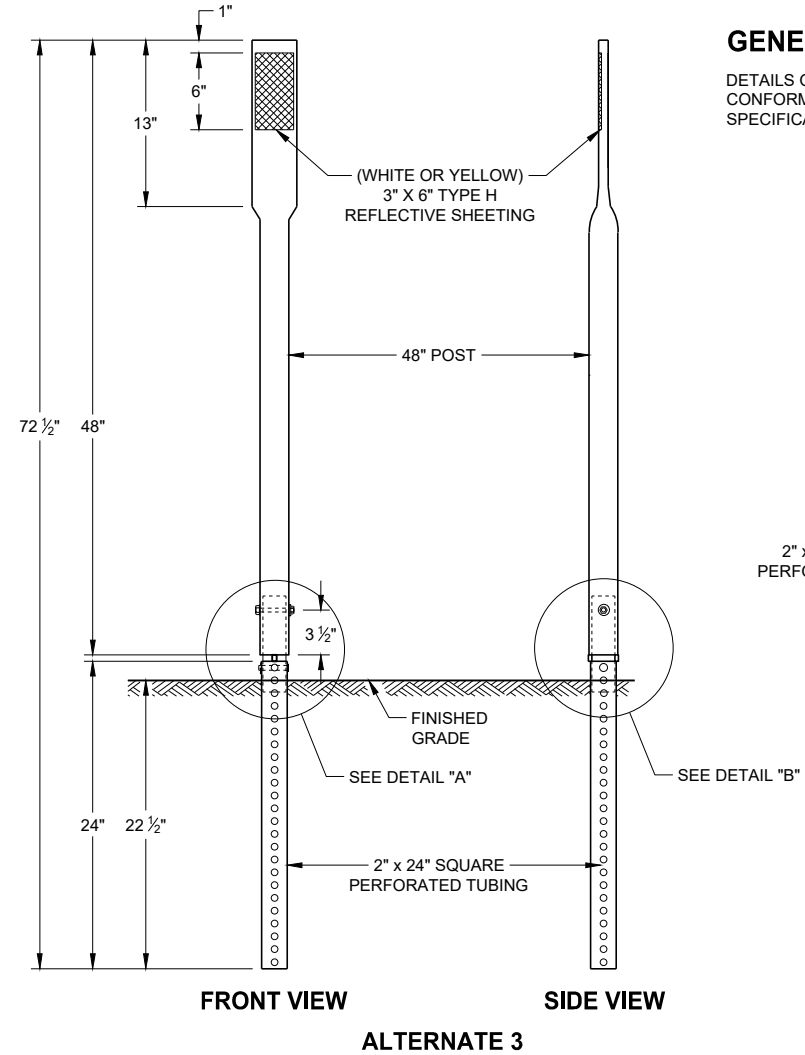
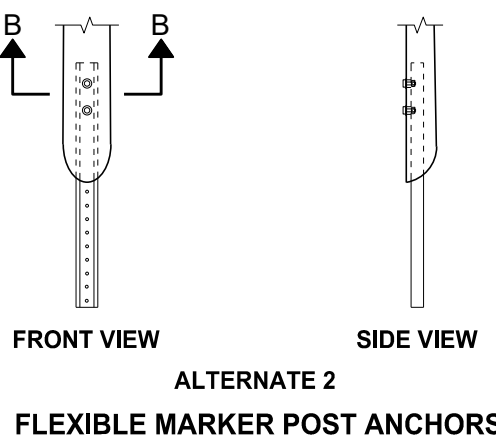
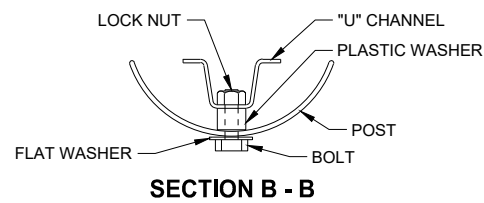
FLEXIBLE MARKER POST FOR RIGHT - OF - WAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2/16/2016 DATE	/s/ Ray Kumapayil CHIEF SURVEYING AND MAPPING ENGINEER
FHWA	



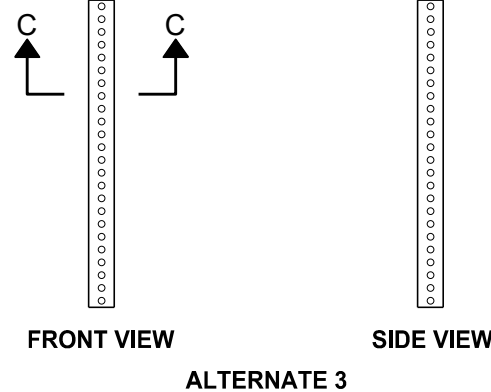
SECTION A - A



FLEXIBLE DELINEATOR POSTS

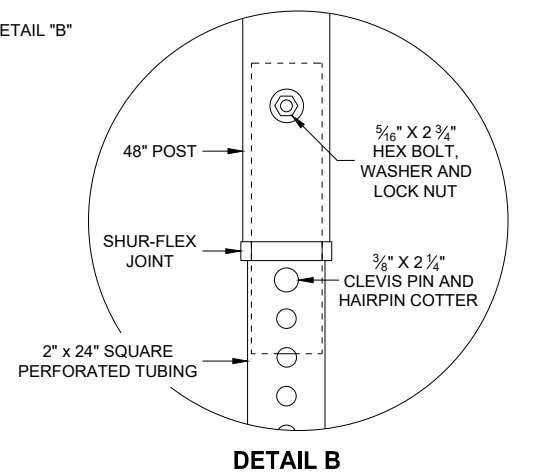
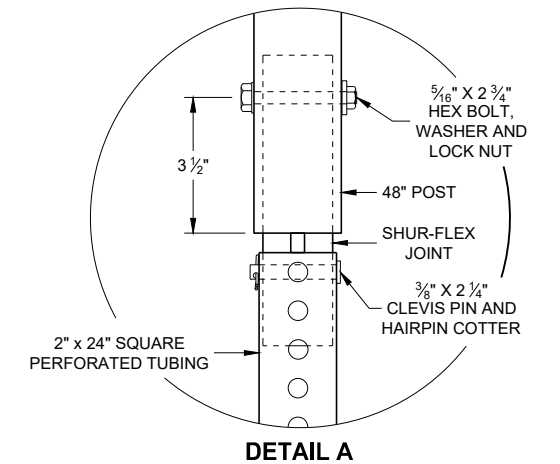


SECTION C - C



GENERAL NOTES

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



REFLECTOR SPACING TABLE

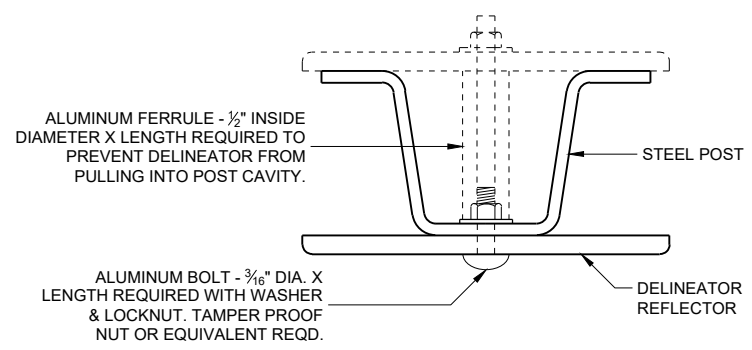
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

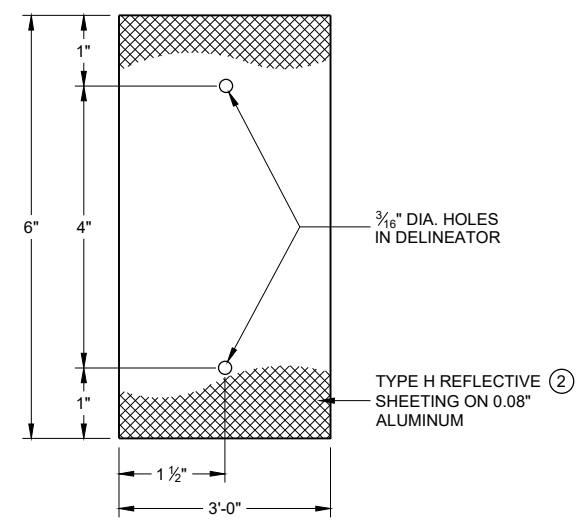
FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

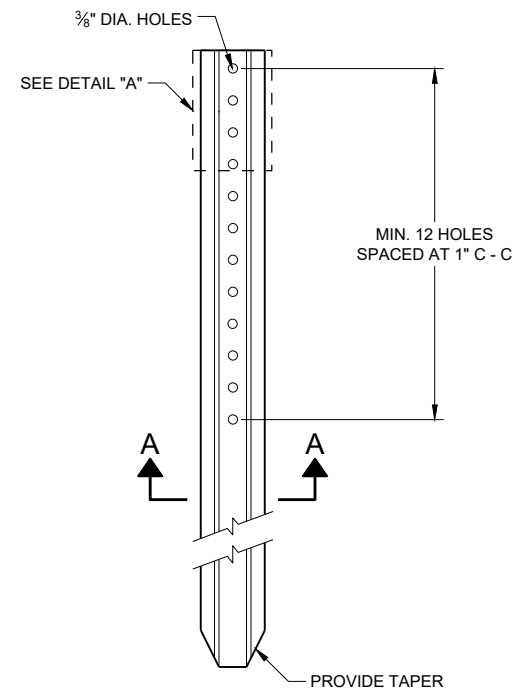
APPROVED
November 2021 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER
FHWA



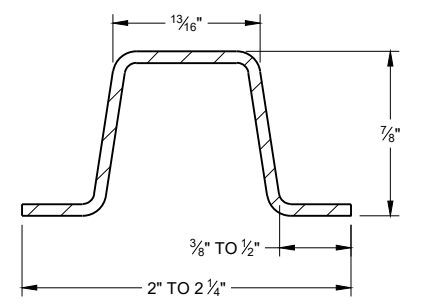
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



SECTION A - A
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

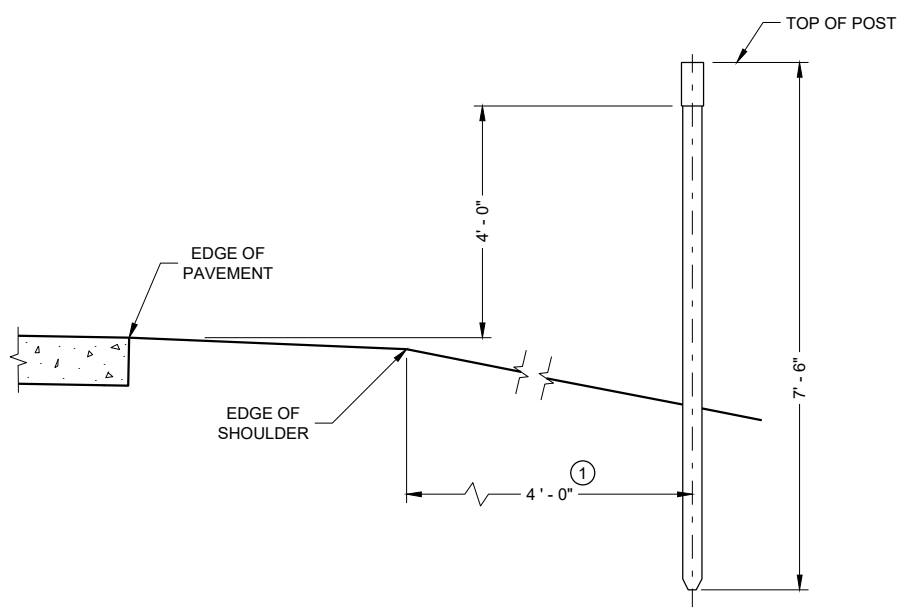
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

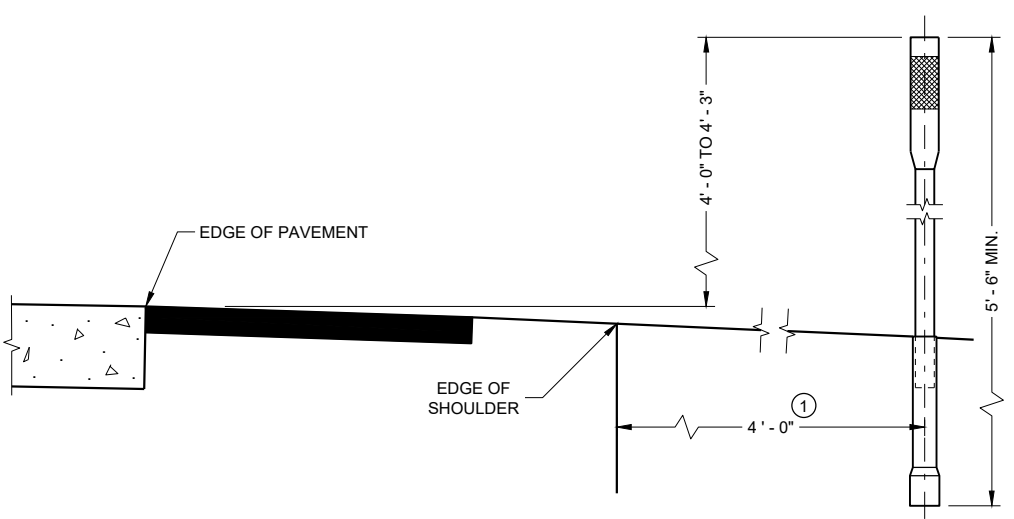
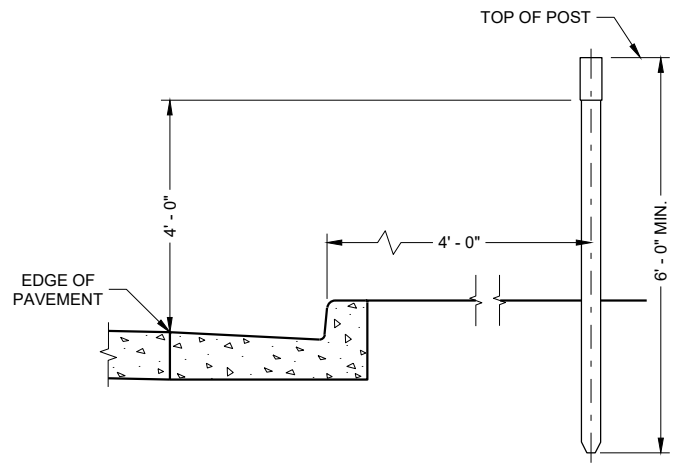
GENERAL NOTES

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

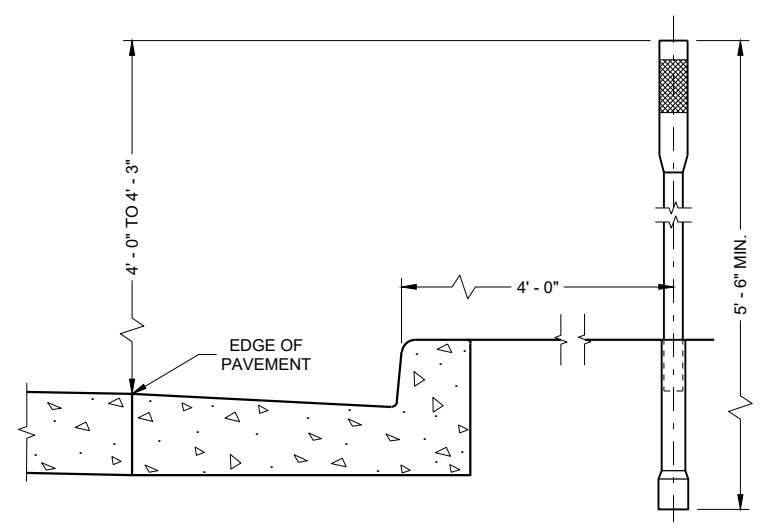
- ① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
- ② FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.



TYPICAL INSTALLATIONS OF DELINEATOR POSTS



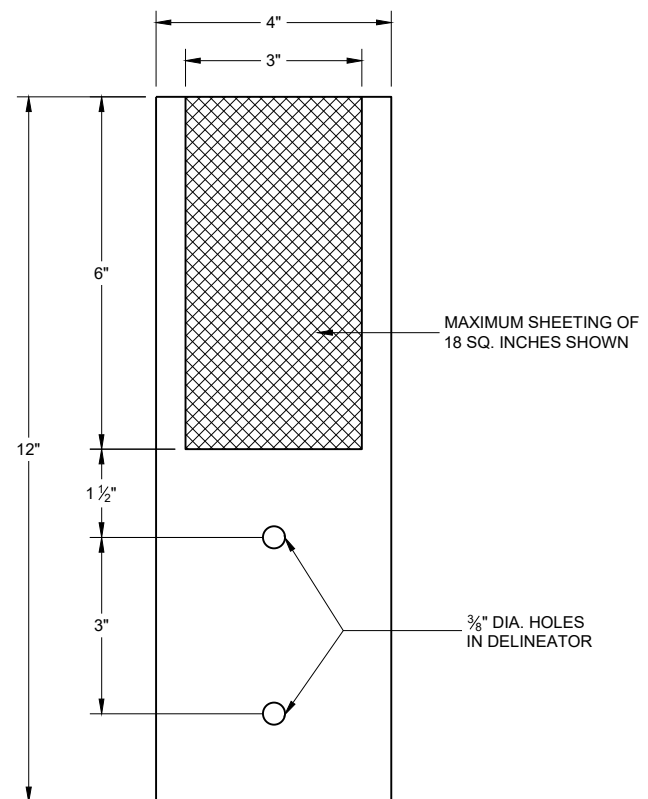
TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS



DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



**4" x 12" DELINEATOR
WITH REFLECTIVE SHEETING**

DELINEATOR WITH REFLECTIVE SHEETING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2021 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
<small>FHWA</small>	

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

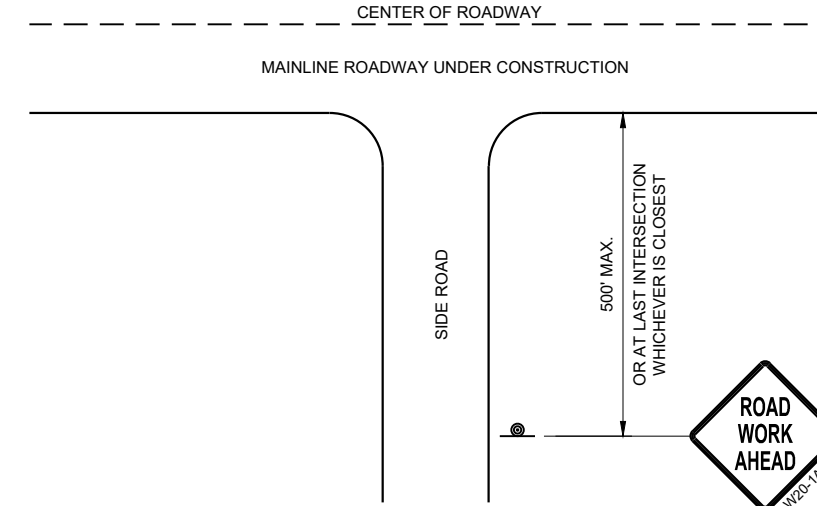
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

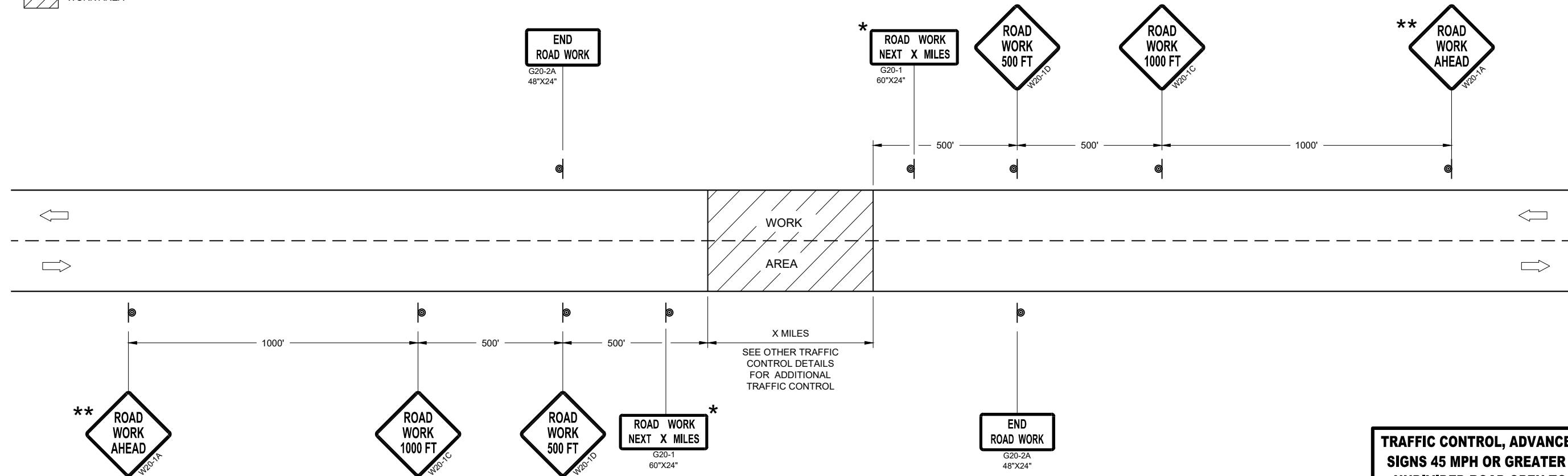
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



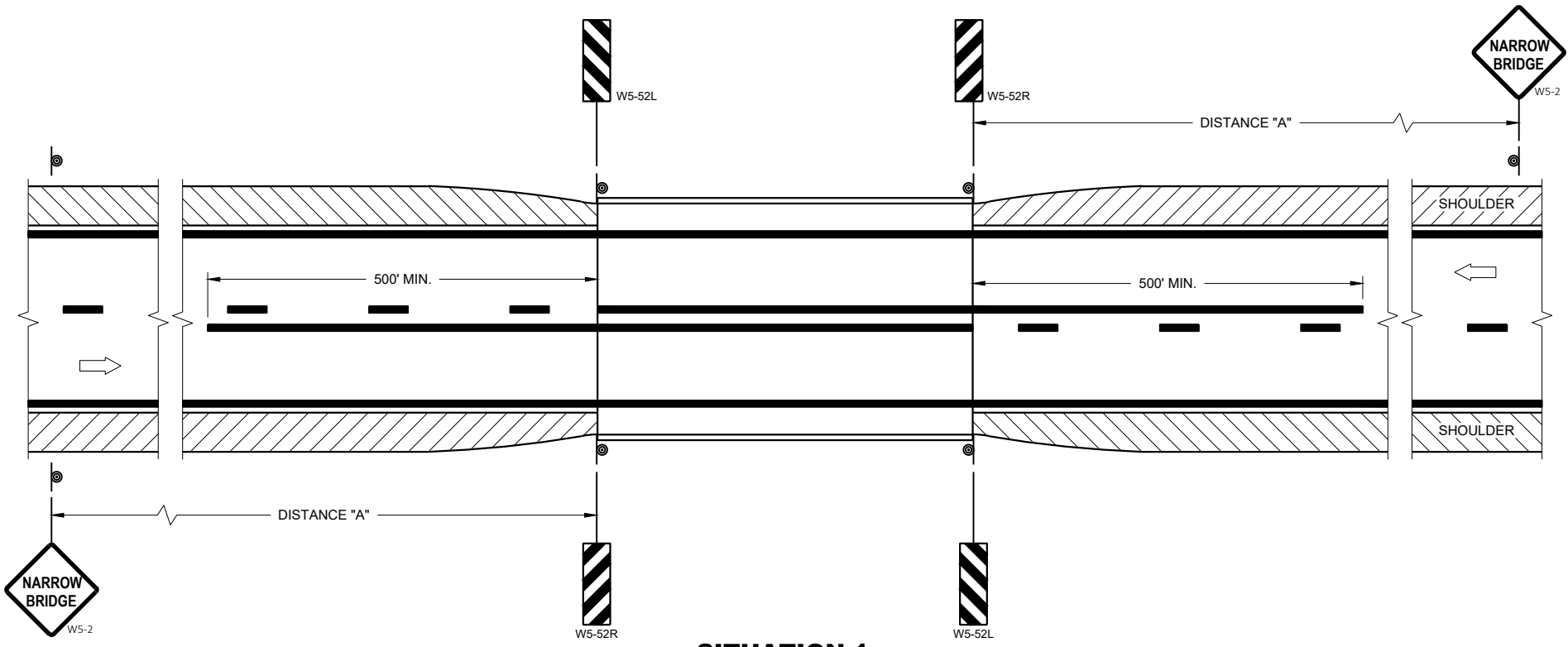
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

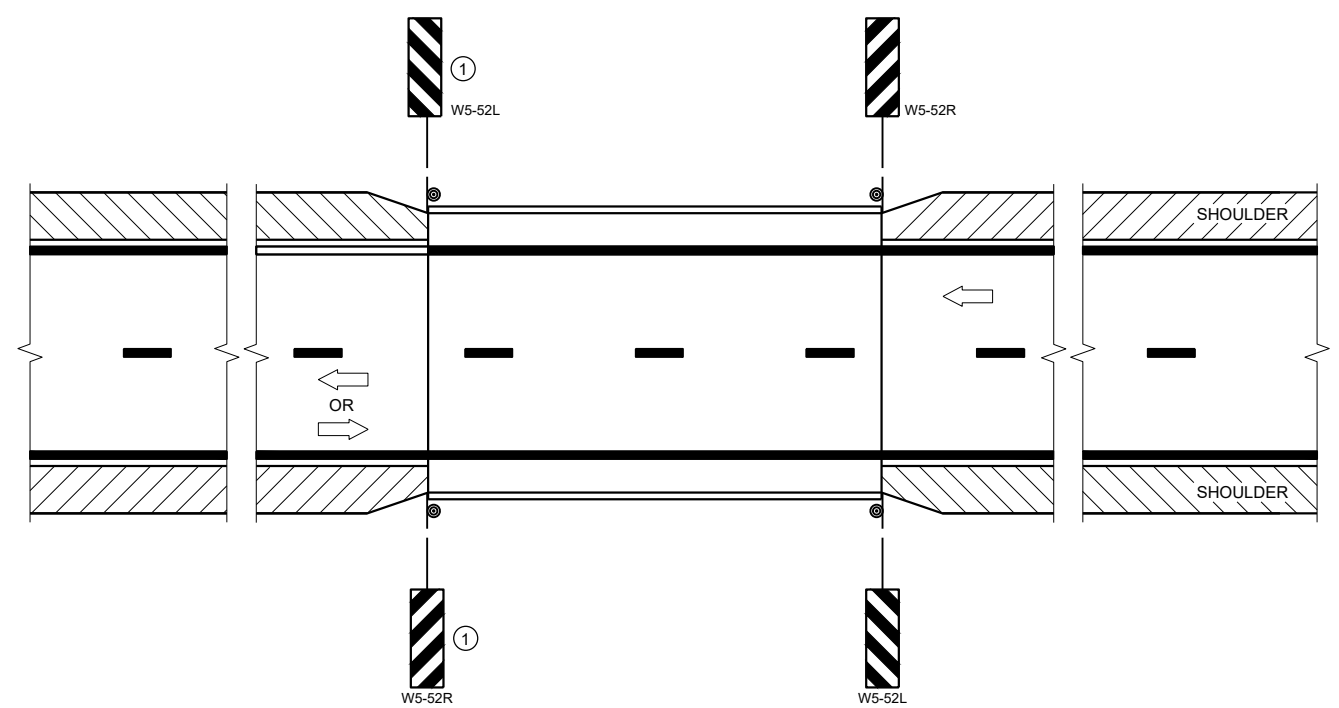
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE July 2018 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



SITUATION 1
 WARRANTING CRITERIA:
 BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC

DISTANCE TABLE

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

6

6

SDD 15C06-12

SDD 15C06-12






SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2023 /S/ Jeannie Silver
 DATE STATE SIGNING AND MARKING ENGINEER

FHWA

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

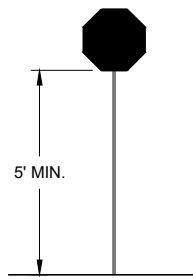
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

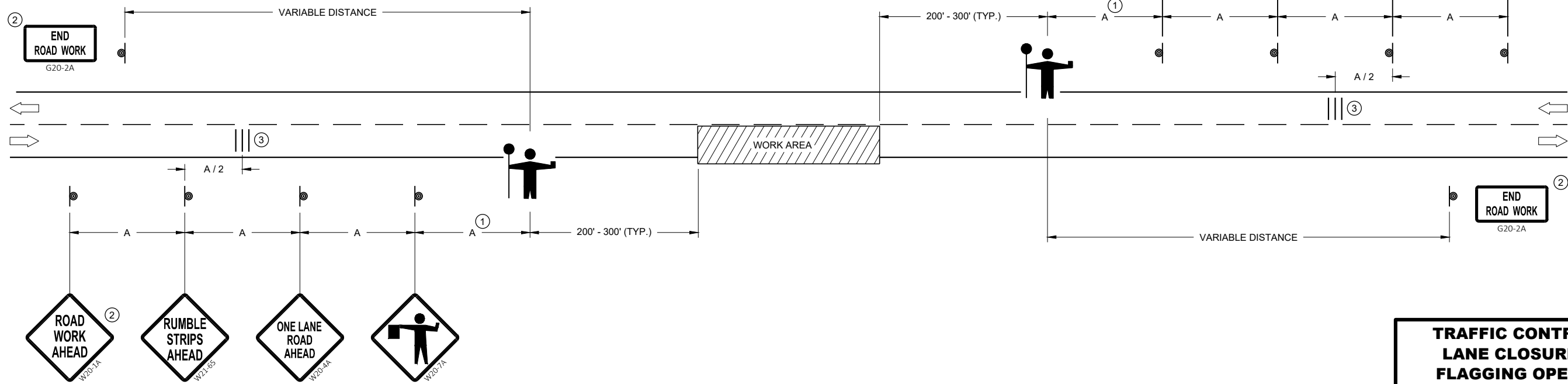
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W03-4

USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA

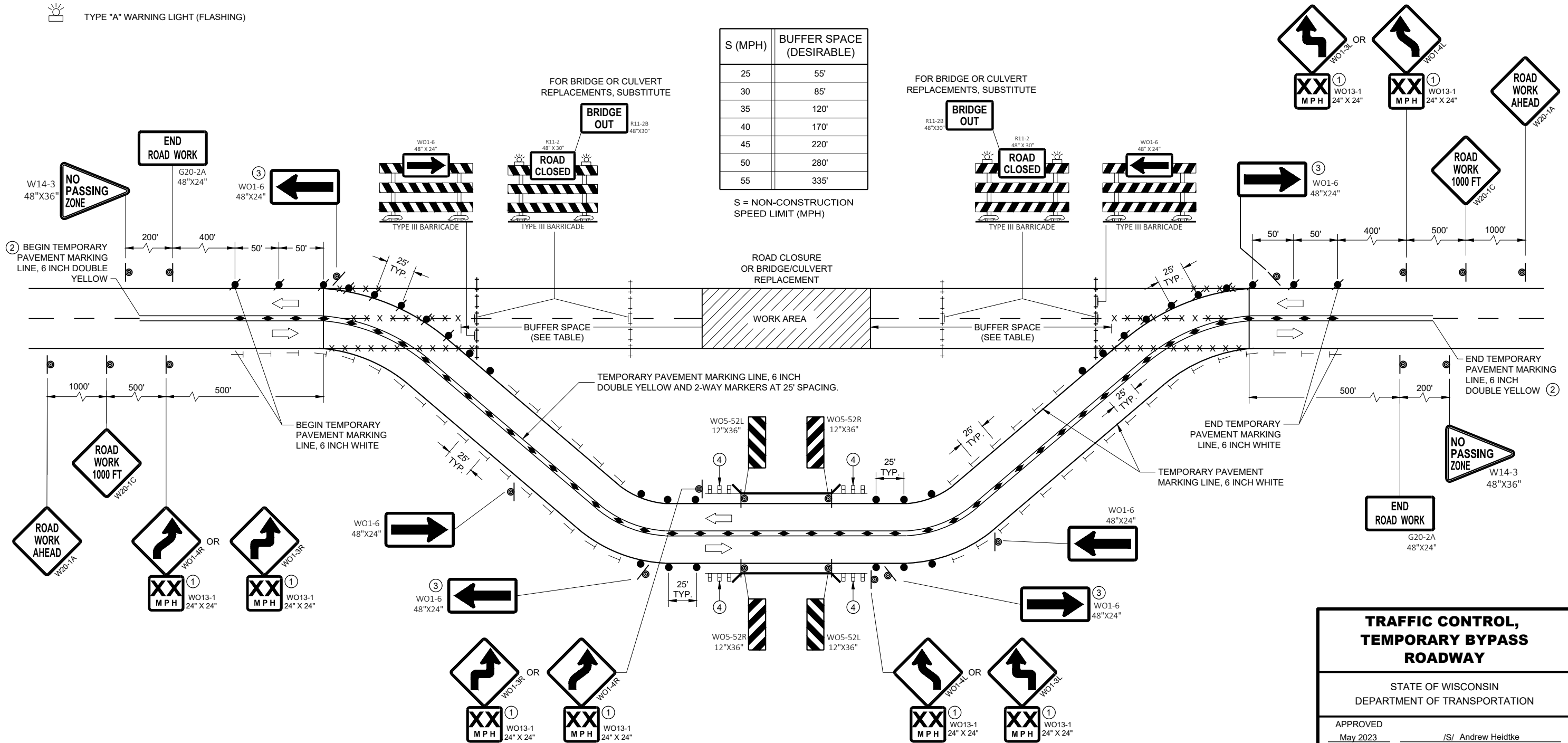
GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
 "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
 ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
 THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.
 SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.
 EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

- ① IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.
- ② WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- ③ OMIT THESE WO1-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.
- ④ TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

S (MPH)	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)



**TRAFFIC CONTROL,
TEMPORARY BYPASS
ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
 May 2023 _____ /S/ Andrew Heidtke
 DATE _____ WORK ZONE ENGINEER

FHWA

6

6

SDD 15D31-05

SDD 15D31-05

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

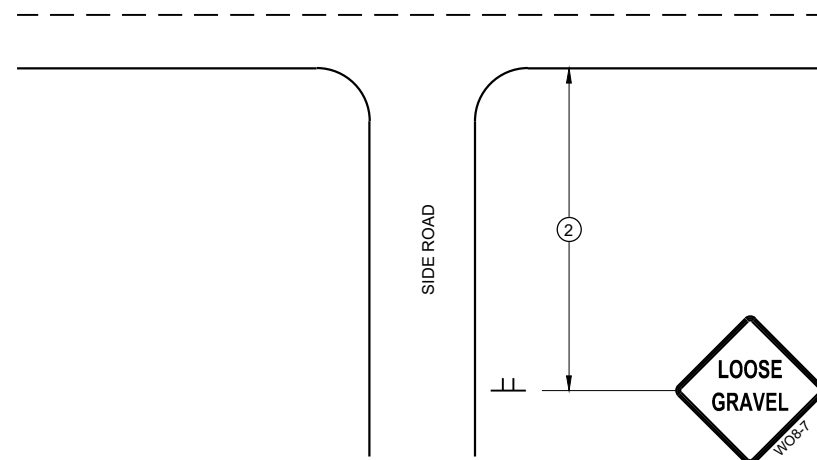
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

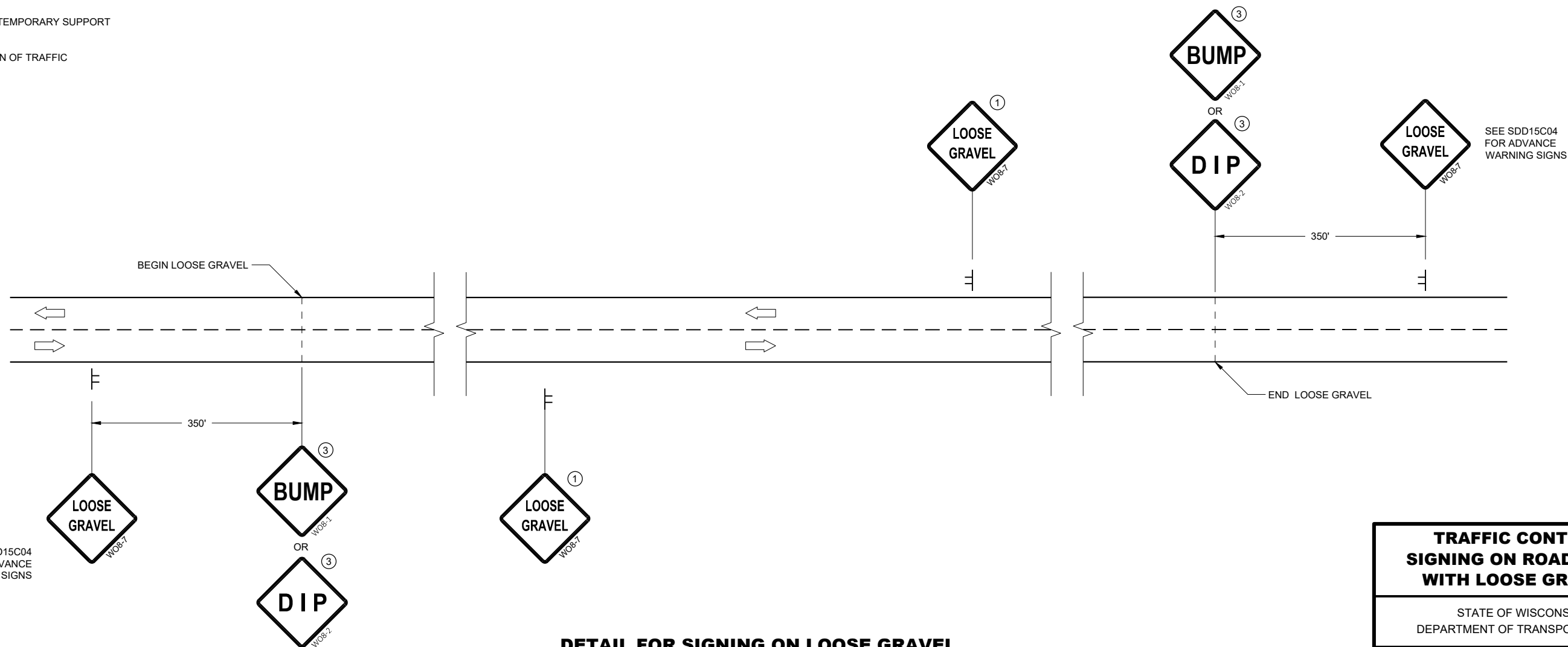
LEGEND

⊥ SIGN ON TEMPORARY SUPPORT

➡ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

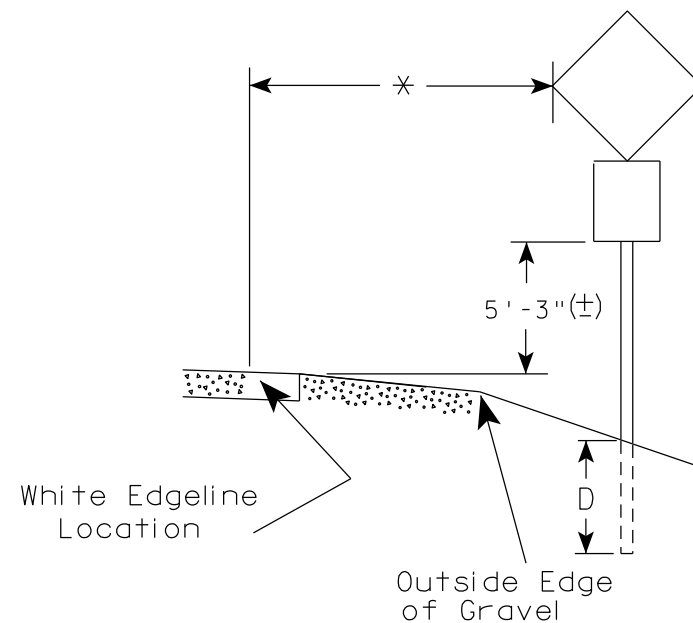
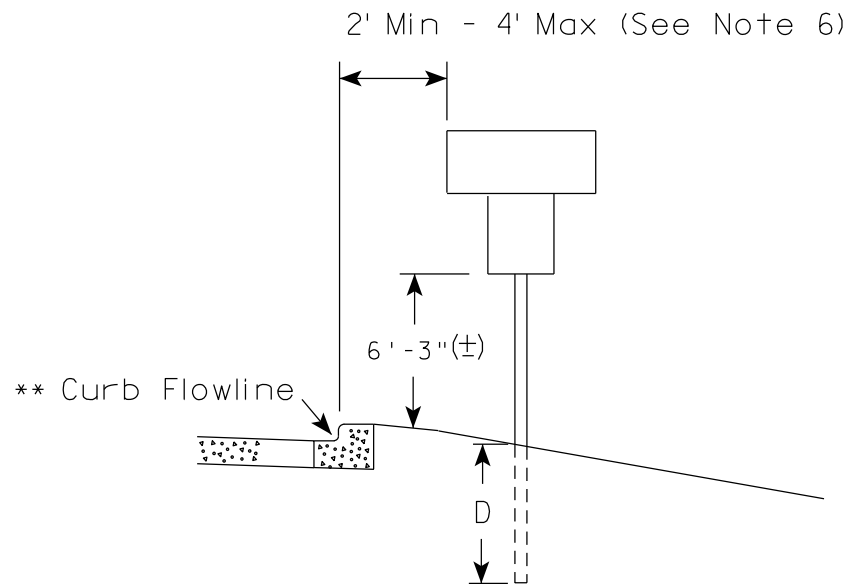
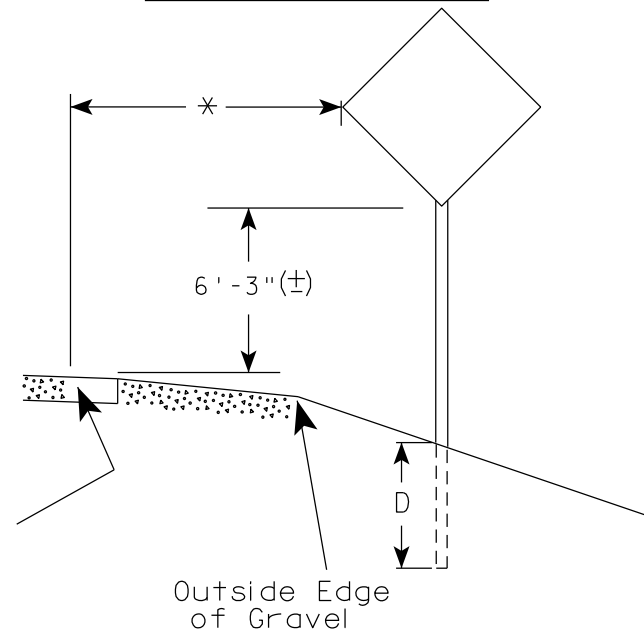
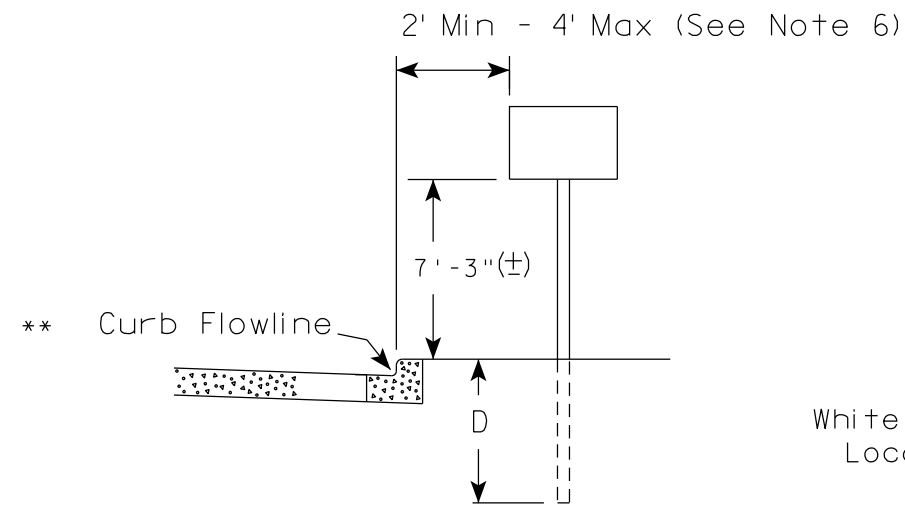
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

URBAN AREA

RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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

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

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



ELEVATION VIEW

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

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



ELEVATION VIEW

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



PLAN VIEW

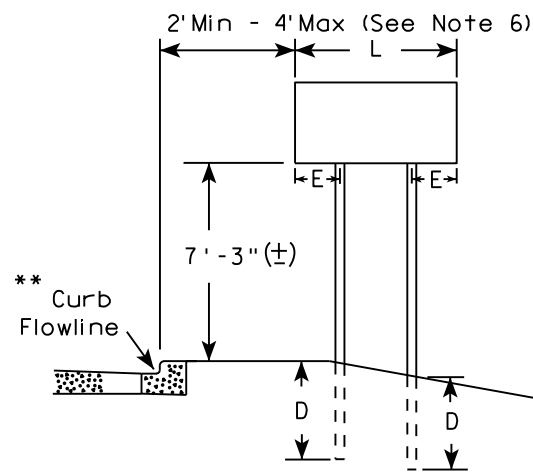
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
DATE <u>1/27/14</u>	PLATE NO. <u>A4-3B.1</u>

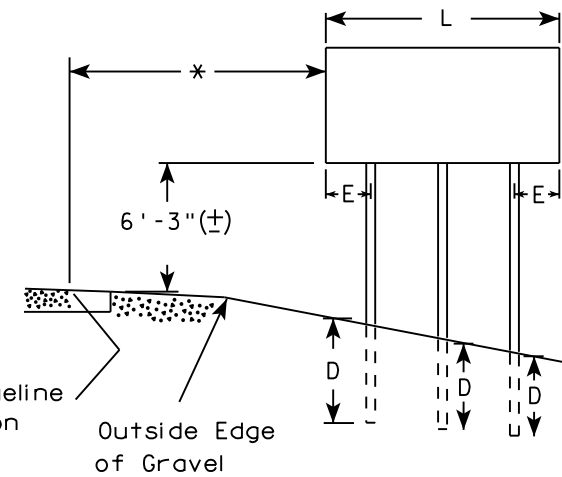
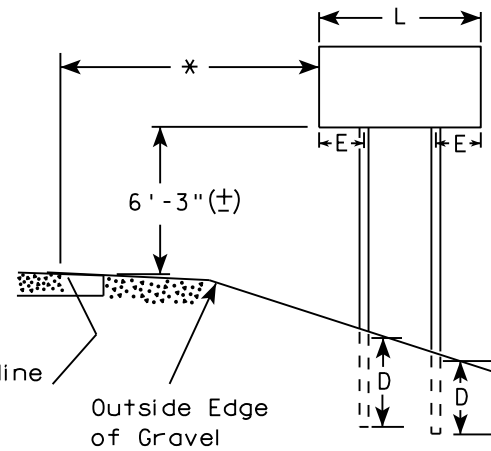
GENERAL NOTES

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

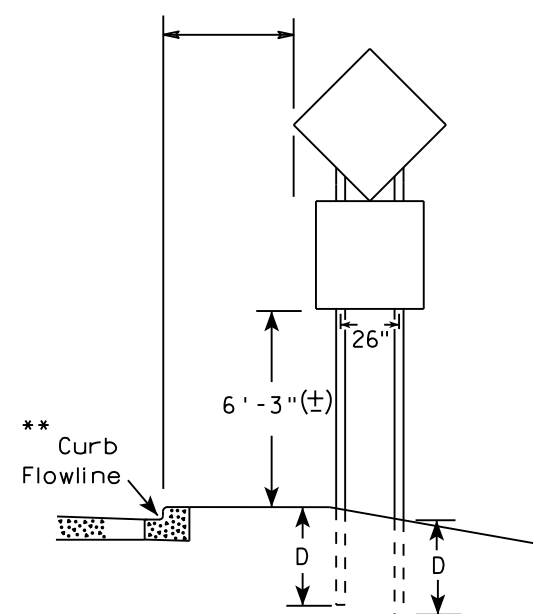
URBAN AREA



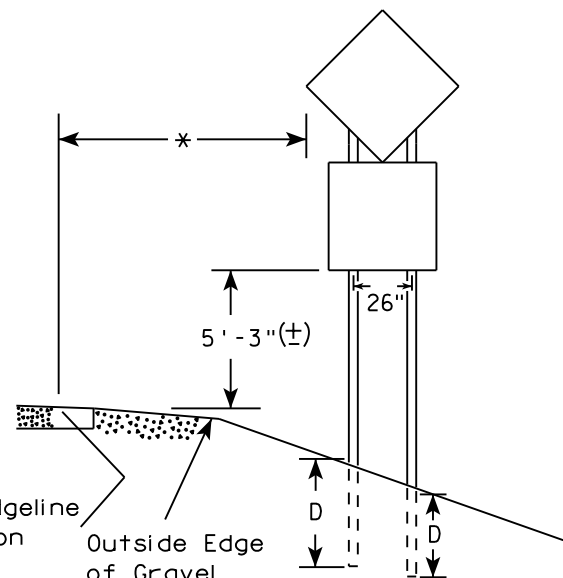
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

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

POST EMBEDMENT DEPTH

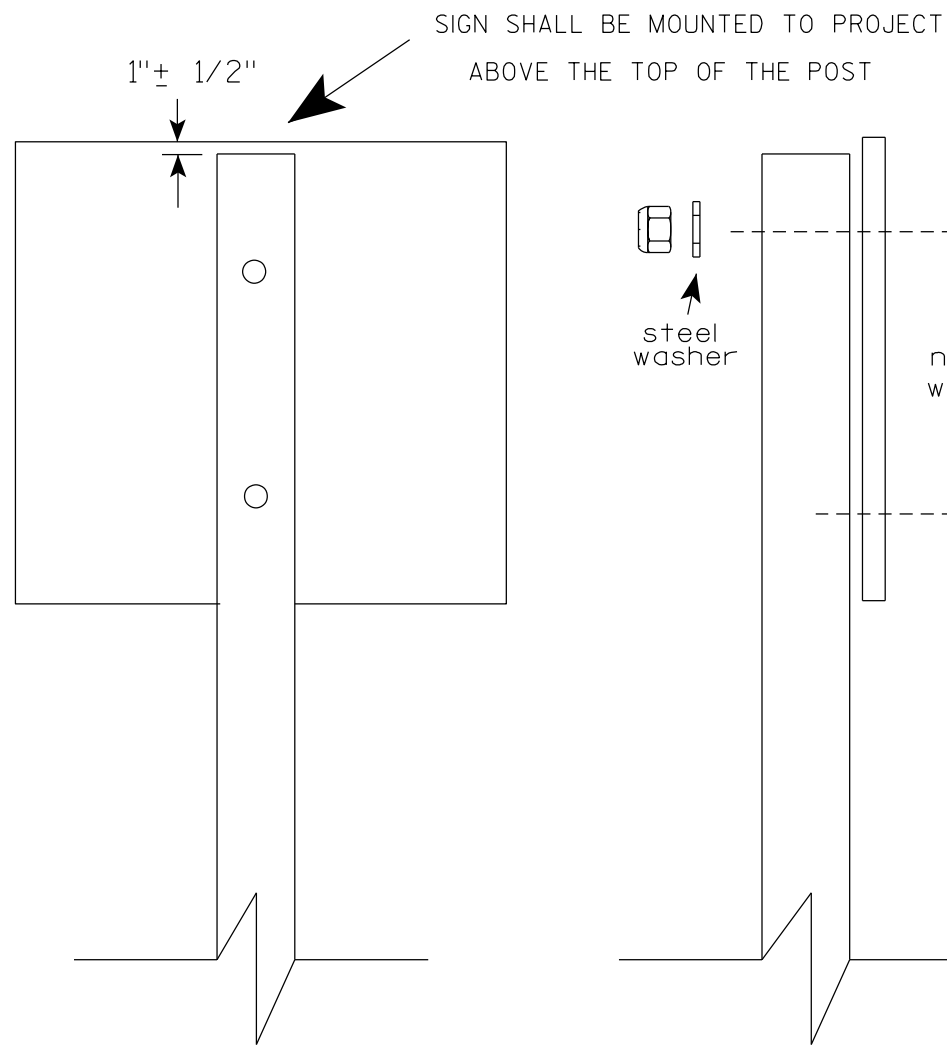
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

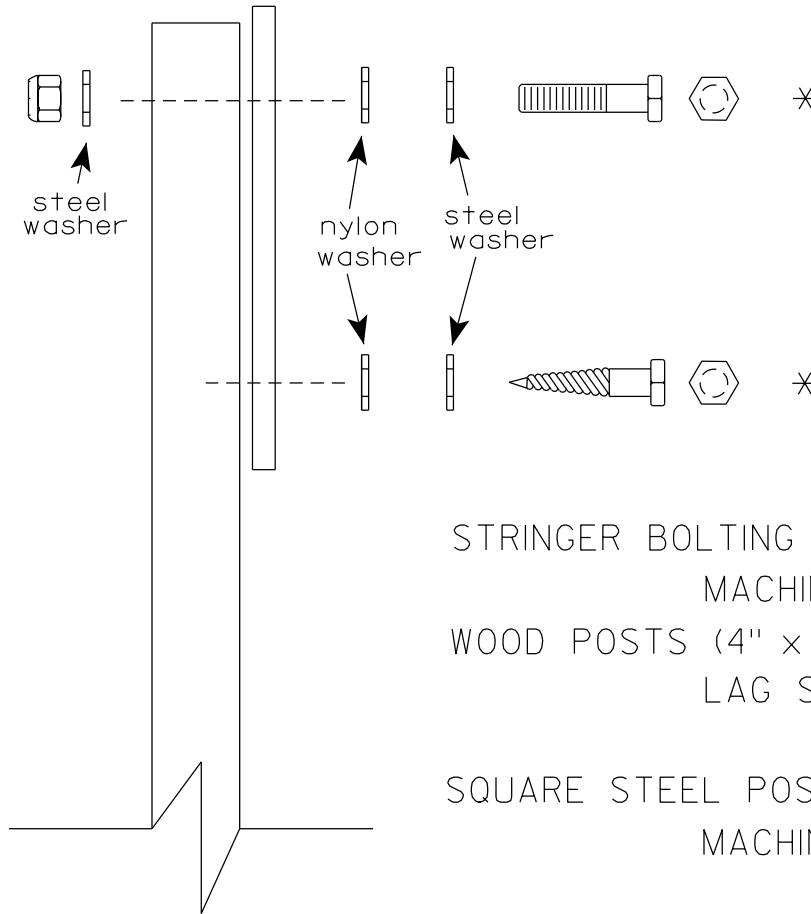
DATE 8/21/17 PLATE NO. A4-4.15



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

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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



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

MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS
TO POSTS

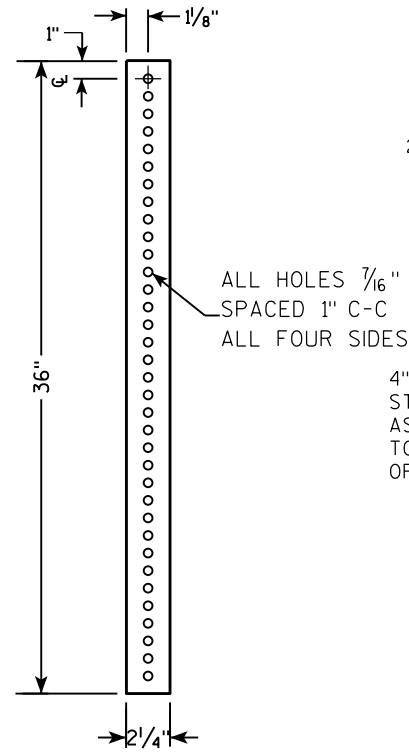
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

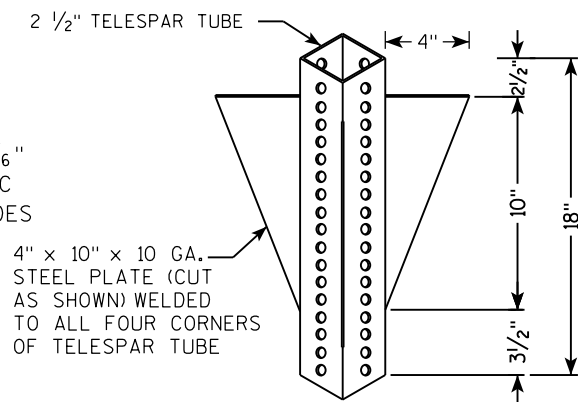
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

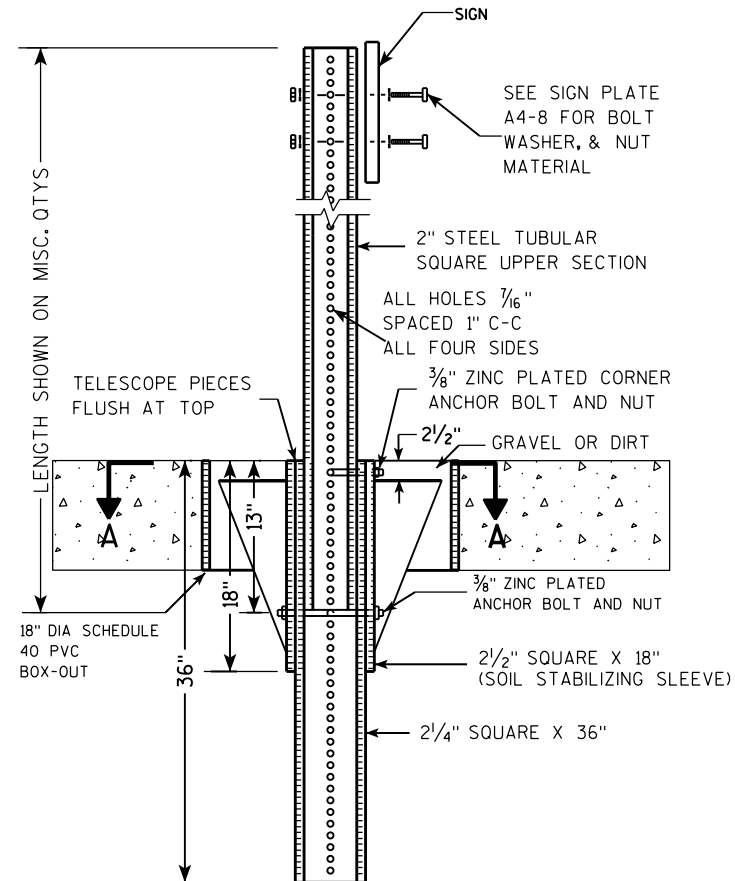
**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



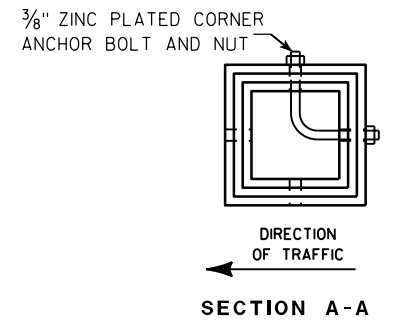
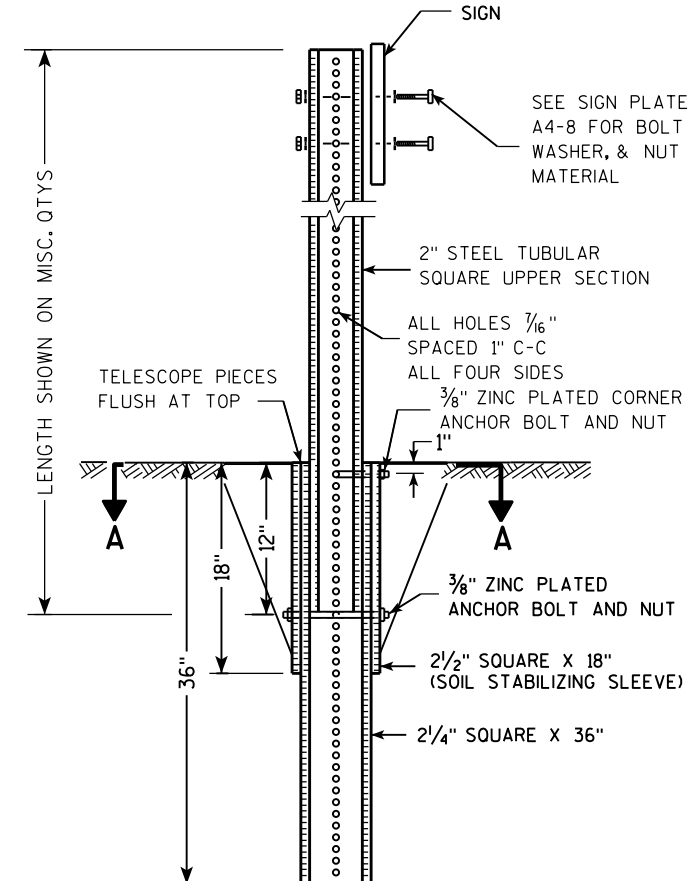
**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

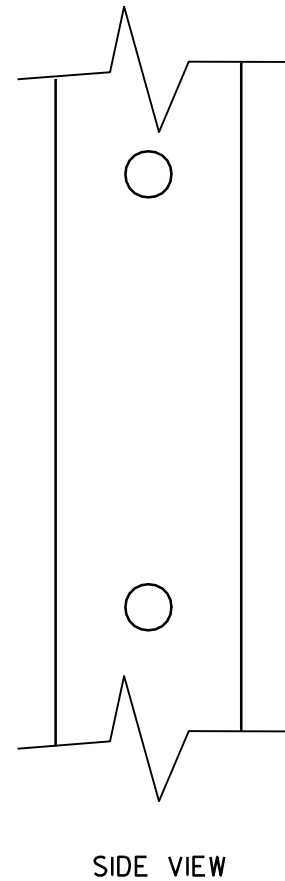
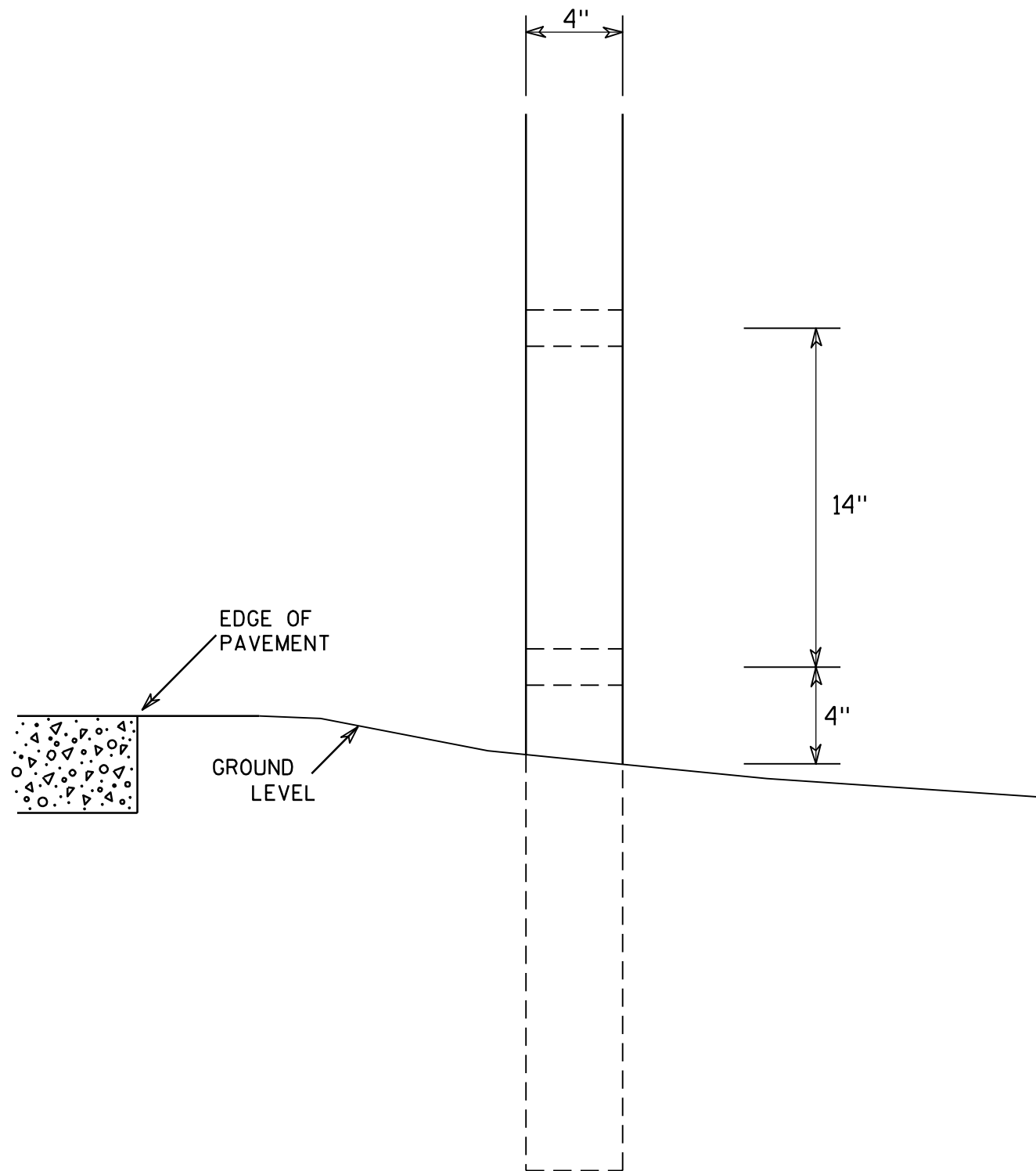
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



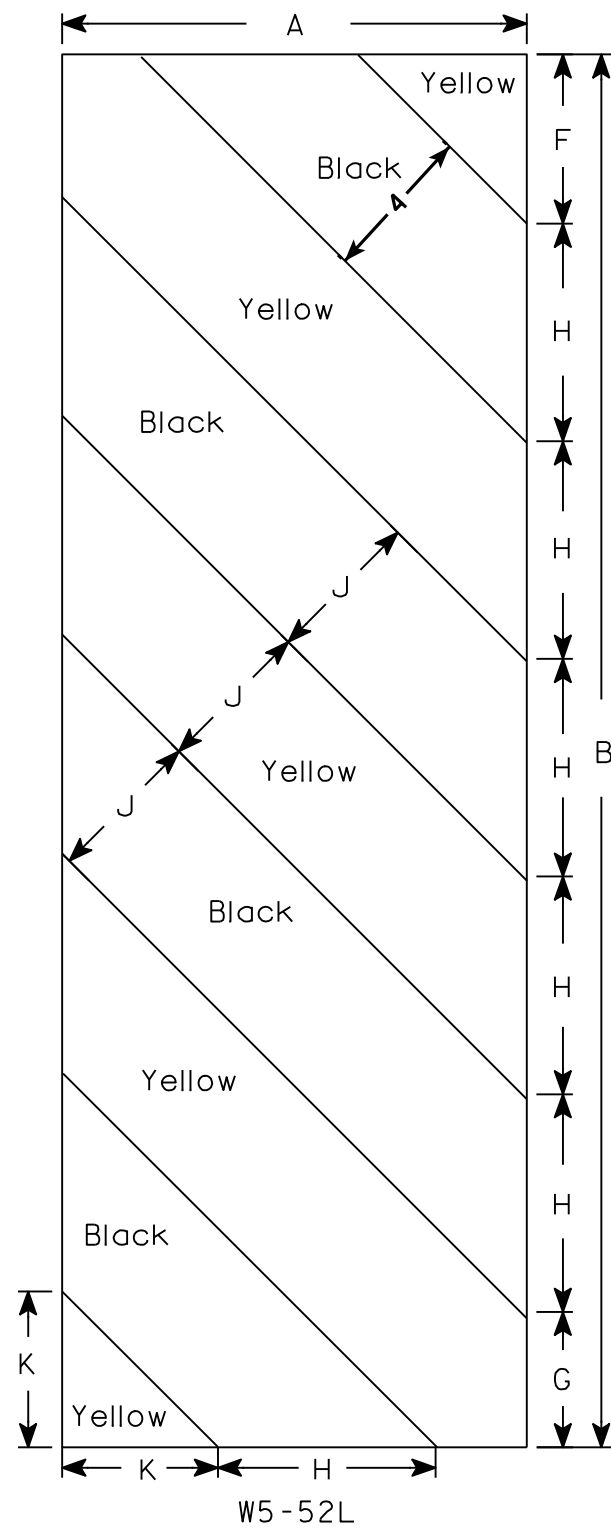
GENERAL NOTES

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

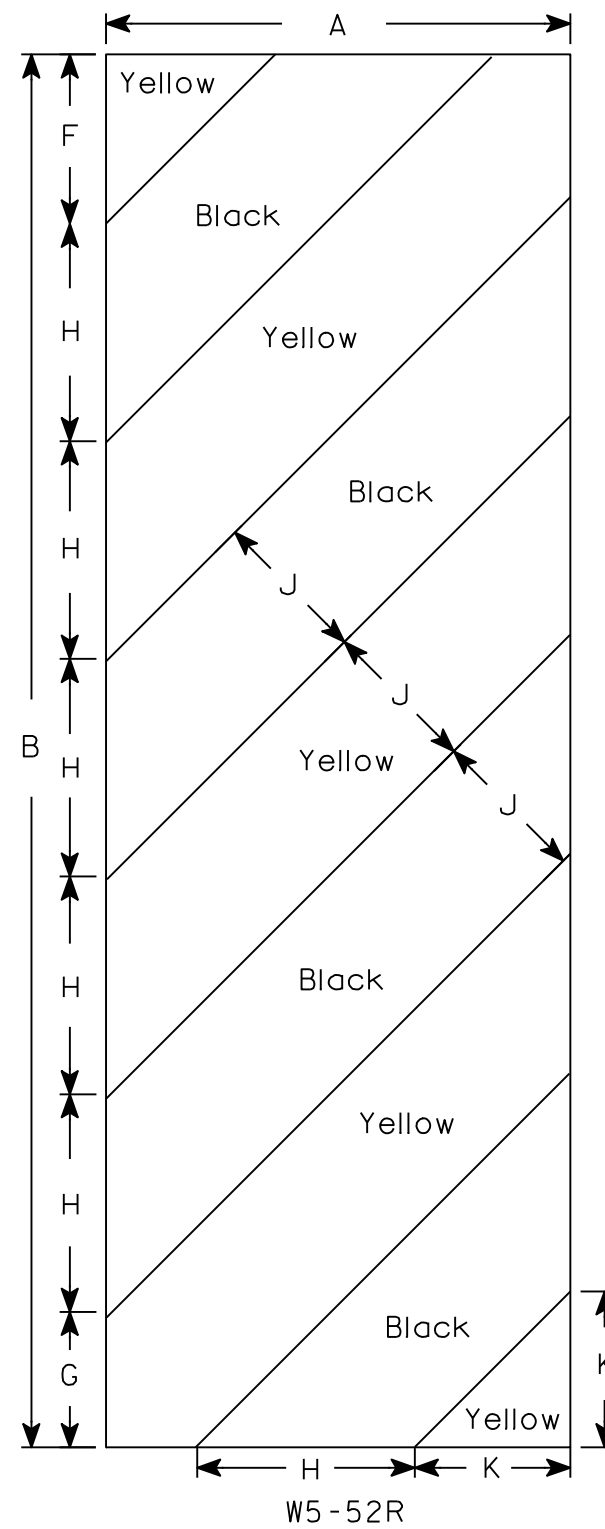
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>



W5-52L



W5-52R

NOTES

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

7

7

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

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING : HL-93
 INVENTORY RATING FACTOR : 1.08
 OPERATIONAL RATING FACTOR : 1.40
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS.
 STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

TRAFFIC DATA:
 A.A.D.T. (2024) = 40
 A.A.D.T. (2044) = 45
 R.D.S. = 45 MPH

MATERIAL PROPERTIES:
 CONCRETE MASONRY, SUPERSTRUCTURE $f'_c = 4,000$ P.S.I.
 ALL OTHER $f'_c = 3,500$ P.S.I.
 HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 $f_y = 60,000$ P.S.I.

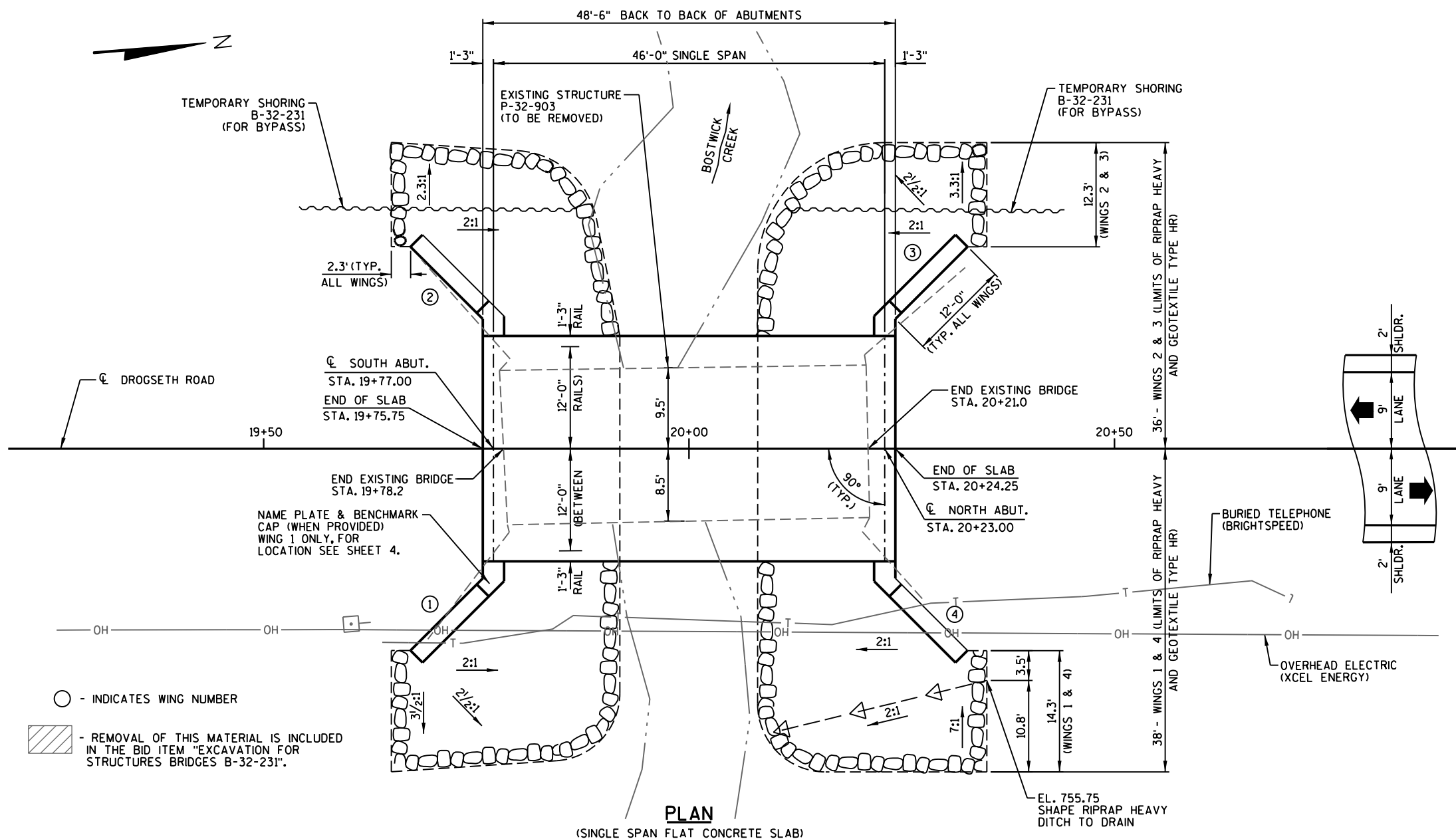
FOUNDATION DATA:
 ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED ABUT. BODY PILE LENGTHS ARE 50'-0". ESTIMATED WING PILE LENGTHS ARE 45'-0".

* 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.

HYDRAULIC DATA:
100 YEAR FREQUENCY
 DRAINAGE AREA 12.6 SQ. MI.
 Q₁₀₀ 3,180 C.F.S.
 VELOCITY 9.2 FT./SEC.
 WATERWAY AREA 346 SQ. FT.
 SCOUR CRITICAL CODE 5
 HIGH WATER 100 ELEVATION 756.28
 O₂ ELEVATION (440 C.F.S.) 749.59
ROADWAY OVERFLOW DESIGN FREQUENCY
 OVERTOPPING FREQUENCY > 100 YEARS

LIST OF DRAWINGS

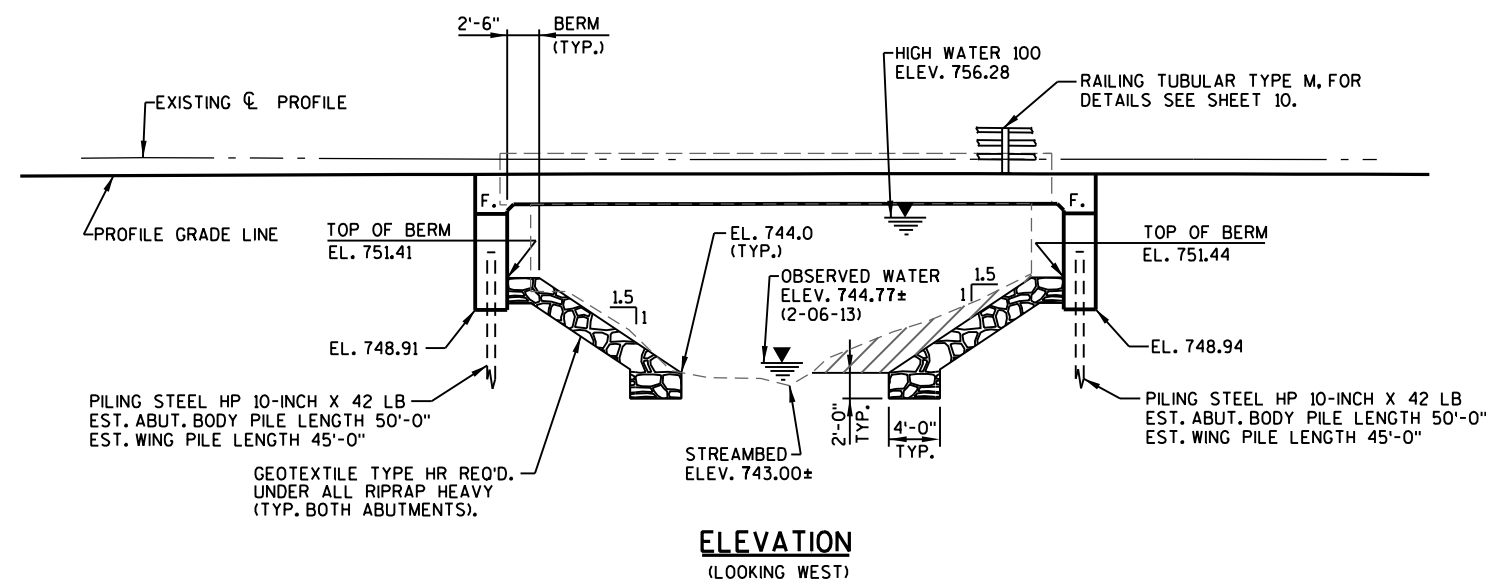
- | | |
|--------------------------------------|----------------------------|
| 1. GENERAL PLAN | |
| 2. CROSS SECTION, QUANTITIES & NOTES | |
| 3. SUBSURFACE EXPLORATION | |
| 4. SOUTH ABUTMENT | |
| 5. SOUTH ABUTMENT DETAILS | CONSULTANT DESIGN CONTACT: |
| 6. NORTH ABUTMENT | LEAH RHODES |
| 7. NORTH ABUTMENT DETAILS | (608) 355-8945 |
| 8. SUPERSTRUCTURE | BRIDGE OFFICE CONTACT: |
| 9. SUPERSTRUCTURE DETAILS | AARON BONK |
| 10. RAILING TUBULAR TYPE M | (608) 261-0261 |



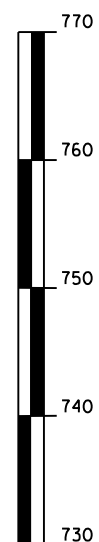
○ - INDICATES WING NUMBER
 ▨ - REMOVAL OF THIS MATERIAL IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-32-231".



8/31/2023



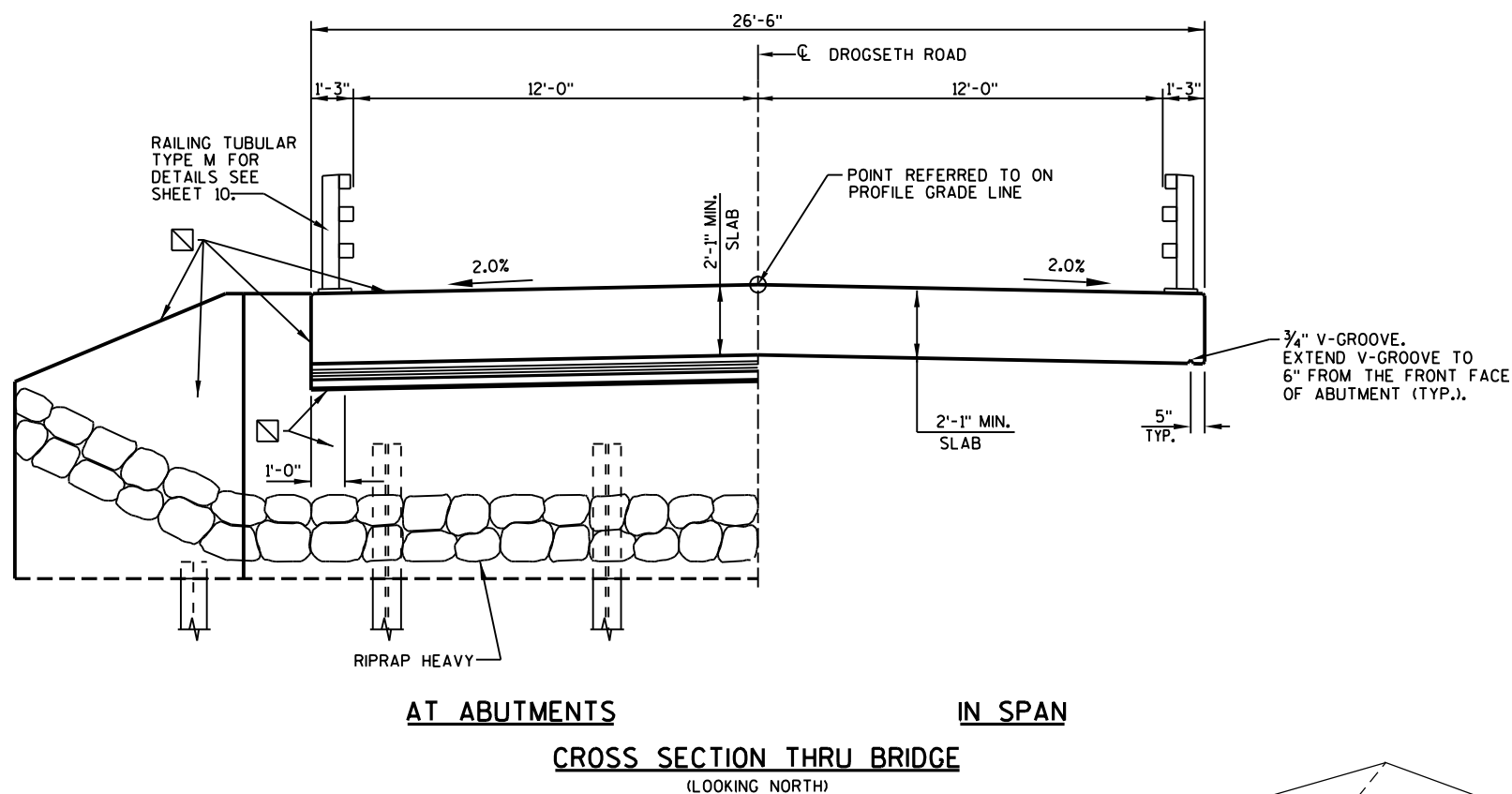
ELEVATION
(LOOKING WEST)



8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 11/14/23 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-32-231 DROGSETH ROAD OVER BOSTWICK CREEK			
COUNTY LA CROSSE		TOWN/CITY/VILLAGE BARRE	
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DESIGNED BY DHW DESIGN CK'D. JRS DRAWN BY RLR PLANS CK'D. DHW			
GENERAL PLAN			SHEET 1 OF 10



AT ABUTMENTS **IN SPAN**
CROSS SECTION THRU BRIDGE
 (LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

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

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" FOR THE ABUTMENTS.

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

THIS STRUCTURE WILL REPLACE EXISTING STRUCTURE P-32-903, AN 18' WIDE BY 42.8 FT. LONG STEEL DECK GIRDER BRIDGE WITH TIMBER DECK SUPPORTED ON TIMBER BACKED TIMBER PILE ABUTMENTS.

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

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

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

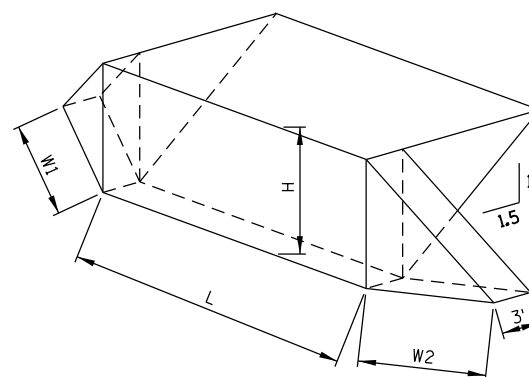
DO NOT PLACE FILL ABOVE 3'-0" FROM THE BOTTOM OF ABUTMENT UNTIL THE SUPERSTRUCTURE IS IN PLACE.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

☐ - PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP AND EDGES OF SLAB, TO THE OUTSIDE 1'-0" OF THE UNDERSIDE OF SLAB, TO THE TOPS OF WINGS, AND TO THE EXPOSED FRONT FACES OF WINGS AND ABUTMENTS TO 1'-0" IN FROM THE EDGE OF SLAB.

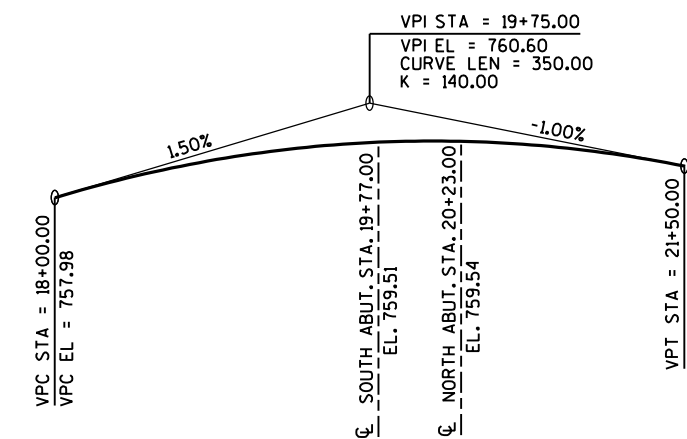
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (96 ADJUSTED). BENCHMARK REFERENCES AT THE PROJECT SITE WERE SET BY THE CONSULTANT USING GPS TECHNOLOGY.

FOR DETAILS OF TEMPORARY BYPASS AND TEMPORARY BRIDGE, SEE ROAD PLANS.

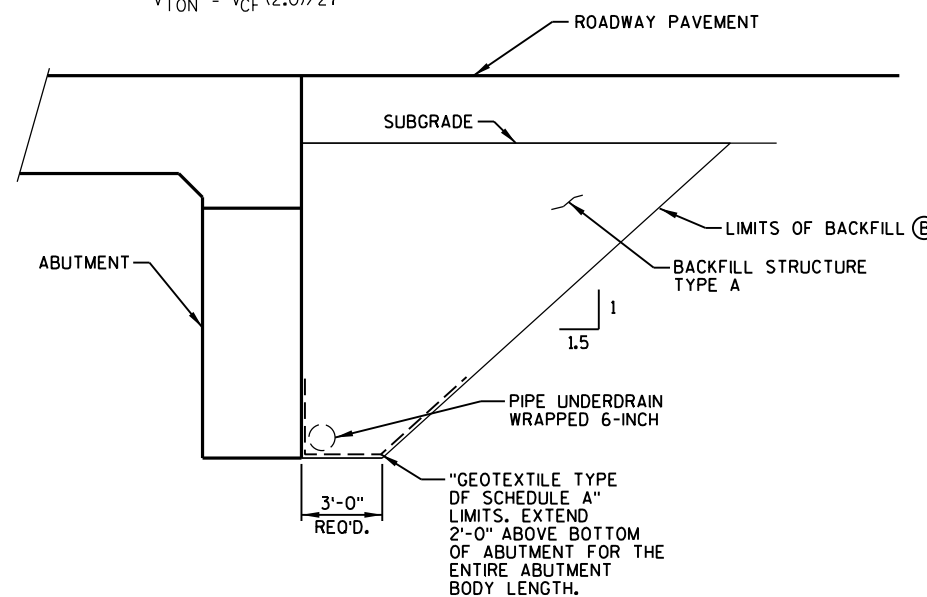


ABUTMENT BACKFILL DIAGRAM

L = OUT-TO-OUT OF ABUTMENT (FT)
 H = AVERAGE ABUTMENT FILL HEIGHT (FT)
 W1 = WING 1 LENGTH (FT)
 W2 = WING 2 LENGTH (FT)
 $V_{CF} = (L)(3.0)(H) + (L)(0.5)(1.5H)(H) + (0.5)(H)(W1+W2)(3.0)$
 $V_{TON} = V_{CF} (2.0) / 27$



PROFILE GRADE LINE - DROGSETH ROAD



STRUCTURE BACKFILL DETAIL

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTAL
203.0260.01	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-32-903	EACH	-	-	-	1
206.1001.01	EXCAVATION FOR STRUCTURES BRIDGES (B-32-231)	EACH	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	242	242	-	484
502.0100	CONCRETE MASONRY BRIDGES	CY	40.4	40.4	103.0	184
502.3200	PROTECTIVE SURFACE TREATMENT	SY	25	25	173	223
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,270	2,270	-	4,540
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,920	1,920	17,350	21,190
511.1200.01	TEMPORARY SHORING B-32-231	SF	200	200	-	400
513.4061	RAILING TUBULAR TYPE M	LF	-	-	100	100
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	6	-	12
550.1100	PILING STEEL HP (10-INCH X 42 LB)	LF	290	290	-	580
606.0300	RIPRAP HEAVY	CY	120	125	-	245
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	90	-	180
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	51	51	-	102
645.0120	GEOTEXTILE TYPE HR	SY	220	225	-	445
NON-BID ITEMS						
	CORK FILLER	SIZE				3/4"
	PREFORMED FILLER	SIZE				1/2" & 3/4"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY		RLR	
PLANS CK'D.		DHW	
CROSS SECTION, QUANTITIES & NOTES			SHEET 2 OF 10



BOSTWICK CREEK

EXISTING STRUCTURE P-32-903 (TO BE REMOVED)

CL SOUTH ABUT. STA. 19+77.00

CL NORTH ABUT. STA. 20+23.00

CL DROGSETH ROAD

19+50

20+00

20+50

BORING #1

BORING #2

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1-27-2016	137744.3	500099.8
2	1-27-2016	137794.8	500095.8

BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.
 REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.
 ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) LACROSSE COUNTY

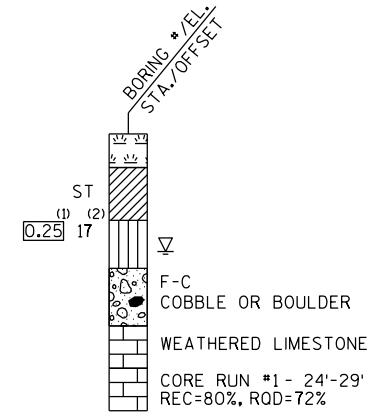
STATE PROJECT NUMBER

5346-00-71

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

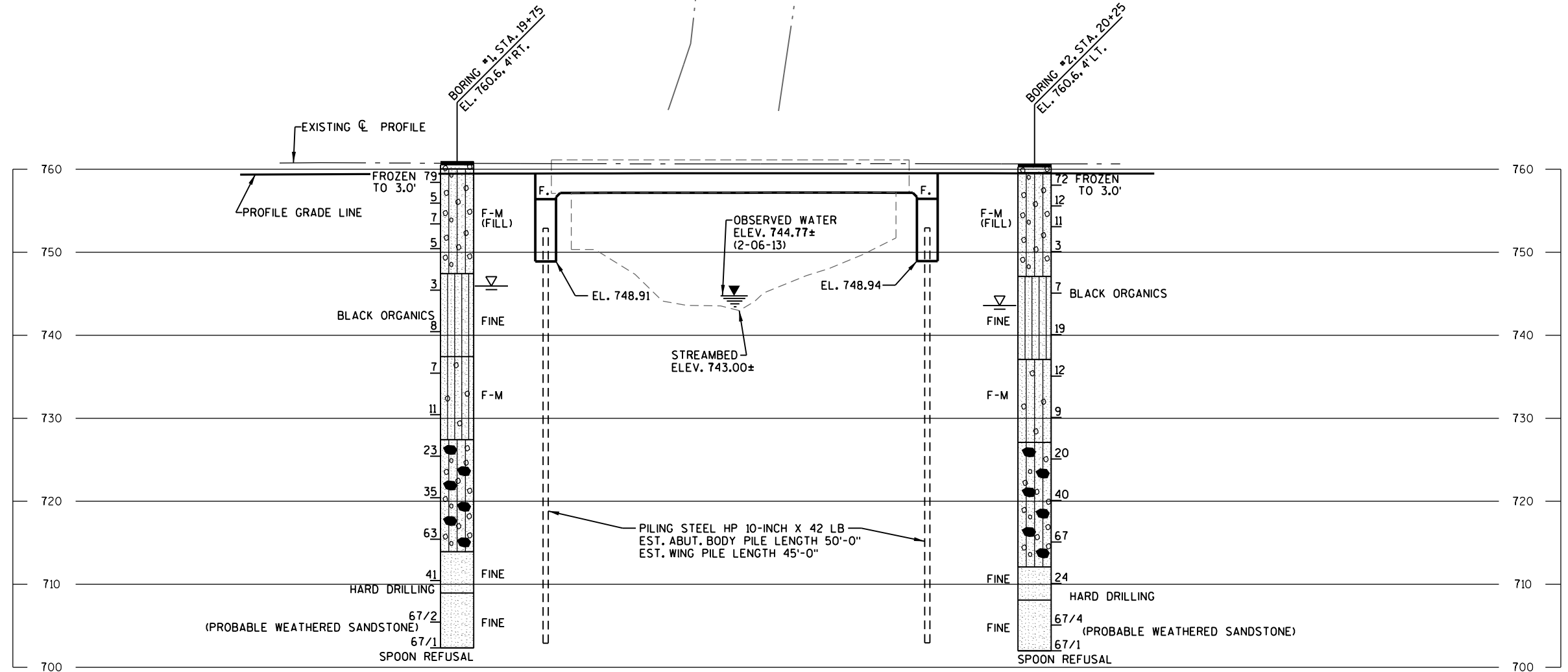
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

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.

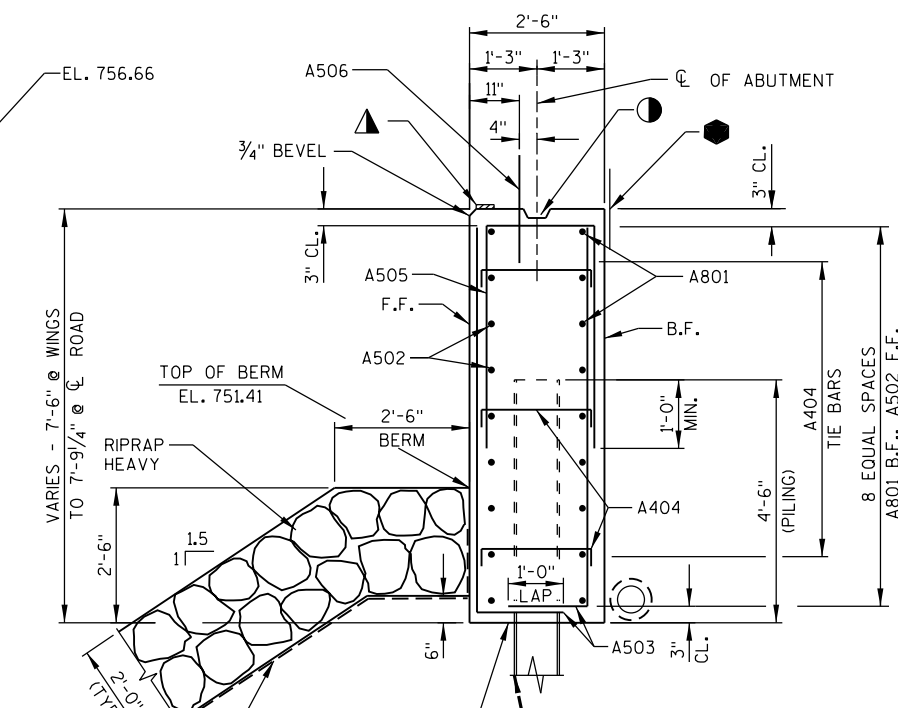
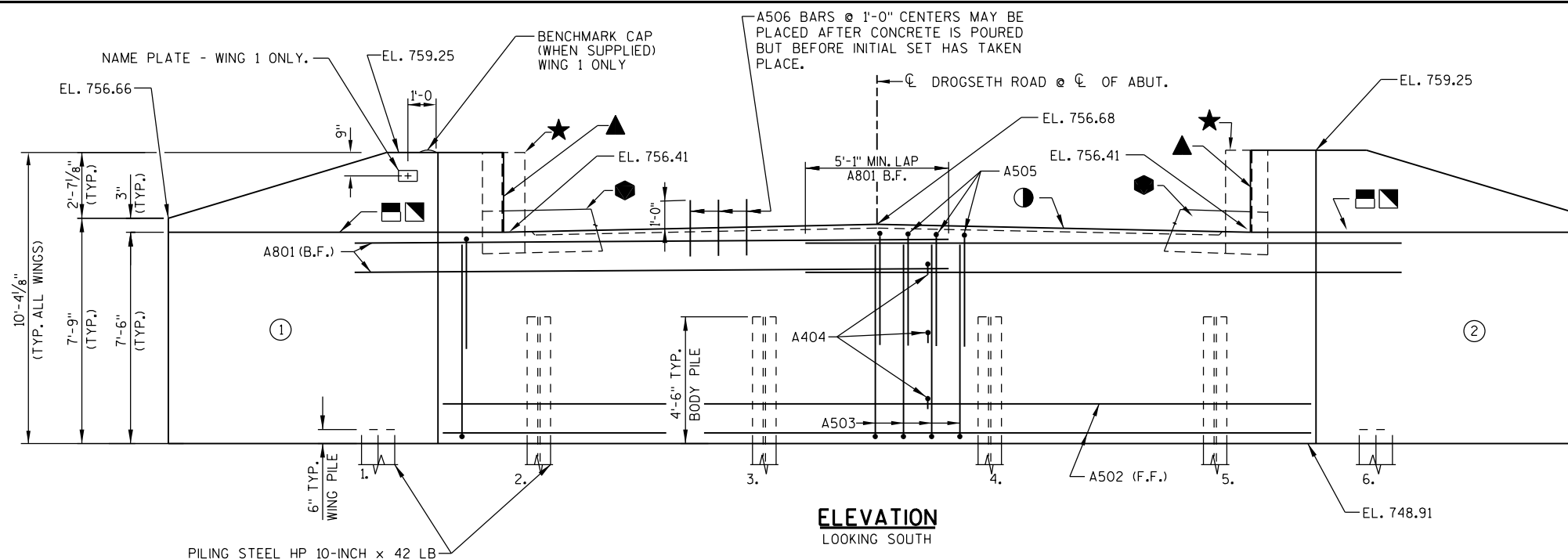
8

8



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY		RLR	PLANS CK'D. DHW
SUBSURFACE EXPLORATION		SHEET 3 OF 10	

FOR WING DETAILS SEE SHEET 5.

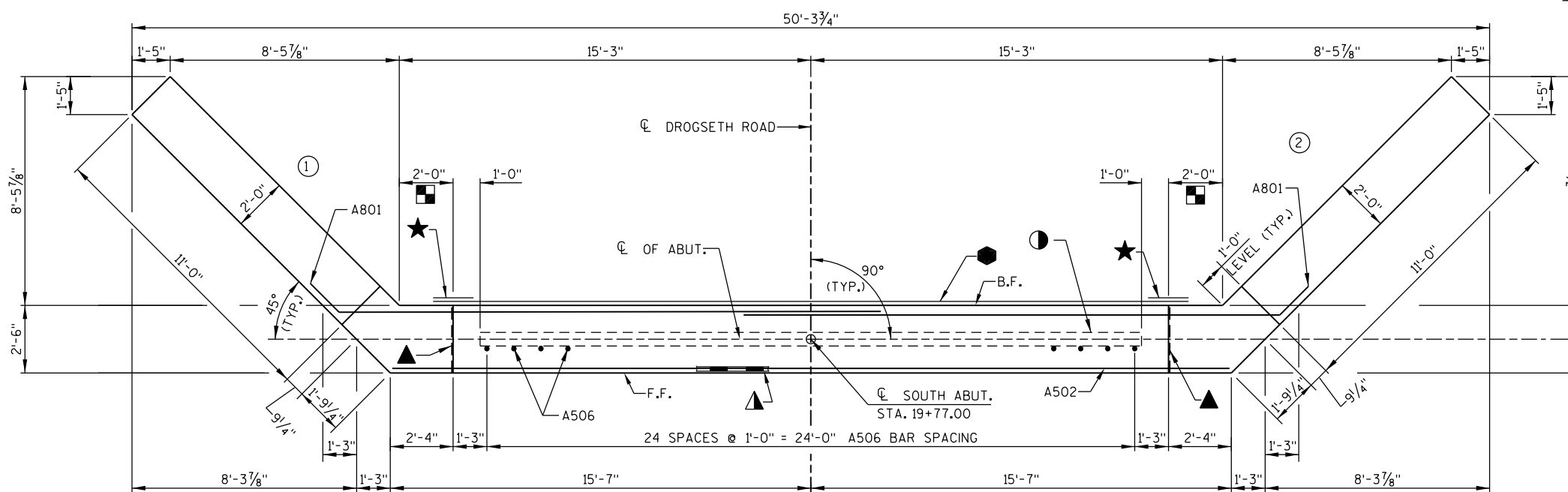


ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED ABUT. BODY PILE LENGTHS ARE 50'-0". ESTIMATED WING PILE LENGTHS ARE 45'-0". SEE SHEET 7 FOR PILE SPLICE DETAILS.

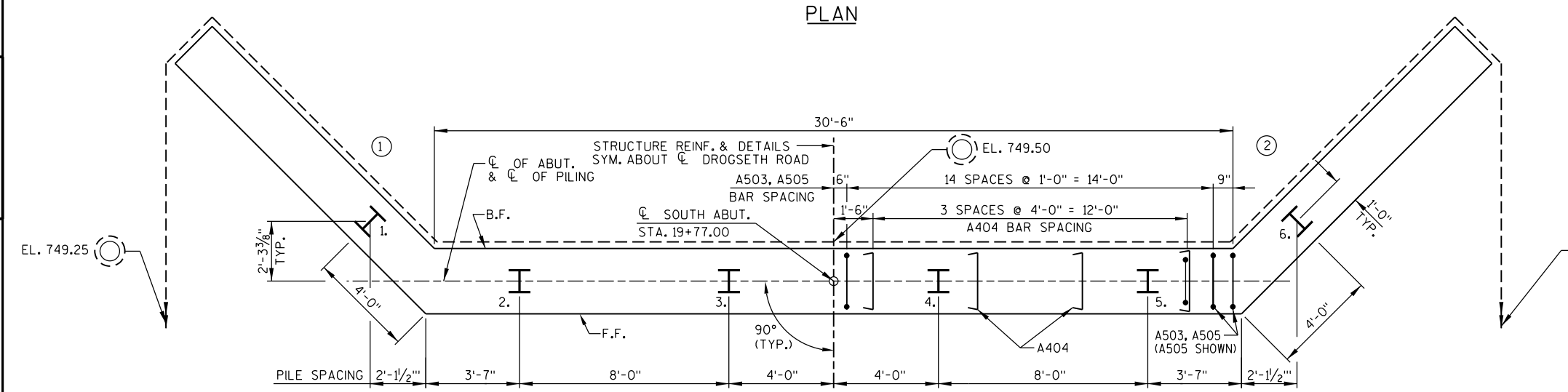
TYPICAL SECTION THRU ABUTMENT

LEGEND

- INDICATES WING NUMBER
- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ▲ 4" x 3/4" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.
- HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS.
- OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2 X 6. IF JOINT IS USED, PLACE ● ON B.F. OF WING. COST OF ● INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".
- ▣ 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.
- PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR RODENT SHIELD DETAILS, SEE SHEET 5.
- F.F.— FRONT FACE B.F.— BACK FACE CL.— CLEAR
- DIMENSION INCLUDES 1/2" FILLER.



PLAN



PILE PLAN

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY		RLR	PLANS CK'D. DHW
SOUTH ABUTMENT			SHEET 4 OF 10

UNCOATED 2270 LBS.
COATED 1920 LBS.

BILL OF BARS (SOUTH ABUT.)

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
A801	-	18	21'-6"	X		ABUTMENT BODY - B.F. - HORIZ.
A502	-	9	31'-0"			ABUTMENT BODY - F.F. - HORIZ.
A503	-	64	8'-6"	X		ABUTMENT BODY - F.F. & B.F. - VERT.
A404	-	24	2'-9"	X		ABUTMENT BODY - TIES - HORIZ.
A505	-	32	9'-11"	X		ABUTMENT BODY - TOP - VERT.
A506	25	-	2'-0"			ABUTMENT BODY - TOP - DOWEL - VERT.
A807	18	-	16'-2"	X		WINGS - B.F. - HORIZ.
A408	8	-	8'-0"	X	⊠	WINGS - B.F. - HORIZ.
A409	4	-	13'-6"	X		WINGS - F.F. & B.F. - TOP - HORIZ.
A410	72	-	13'-2"	X		WINGS - TOP & BOTTOM - VERT.
A411	6	-	12'-4"	X		WINGS - TOP - VERT.
A512	18	-	14'-8"	X		WINGS - F.F. - HORIZ.
A413	8	-	9'-6"	X	⊠	WINGS - F.F. - HORIZ.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

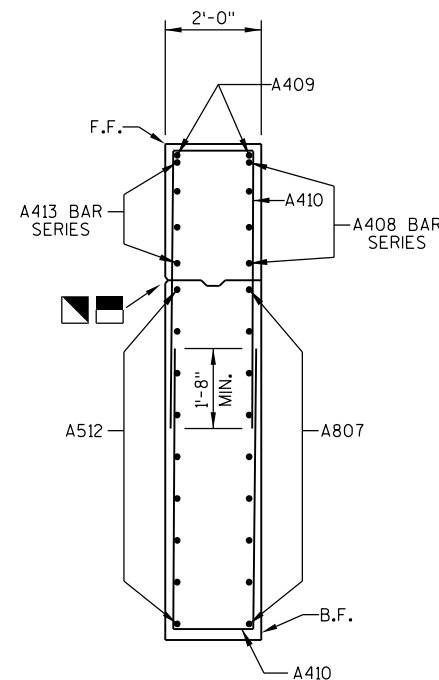
⊠ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.

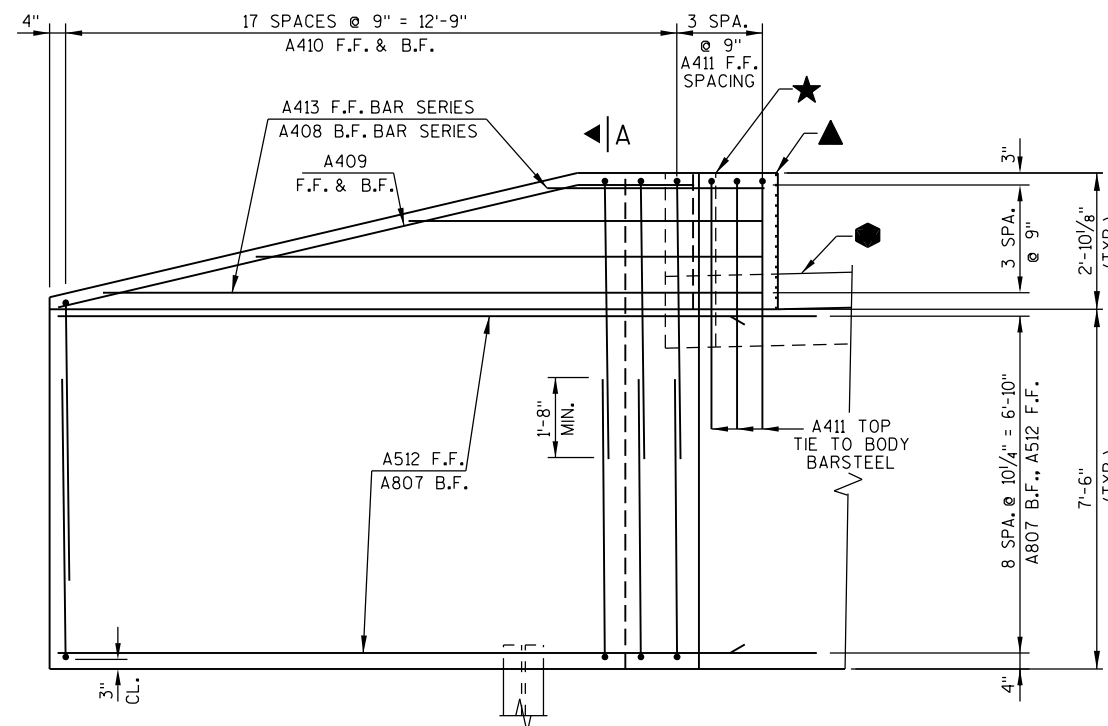
BAR MARK	NO. REQ'D.	LENGTH
A408	2 SERIES OF 4	3'-3" TO 12'-9"
A413	2 SERIES OF 4	4'-9" TO 14'-3"

BAR SERIES TABLE

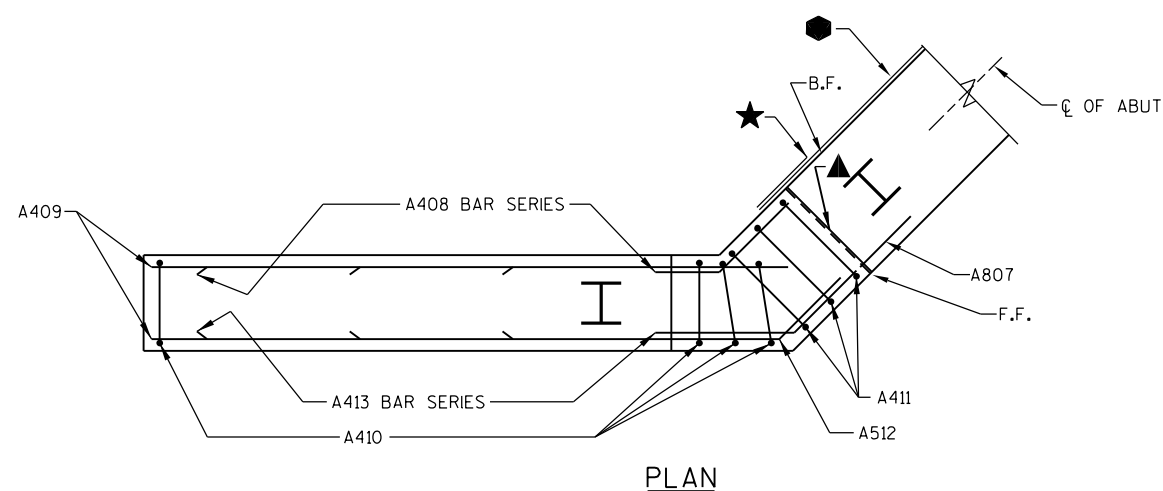
MARK	A	B	MARK	C	D
A801 A807 A512	1'-6"	45°	A404	4 1/2"	2'-2"
A408	1'-10"	45°	A505	4'-0"	2'-2"
A409	2'-5"	14°	A410	5'-10"	1'-8"
A413	2'-0"	45°	A411	5'-2"	2'-2"



SECTION A-A THRU WING

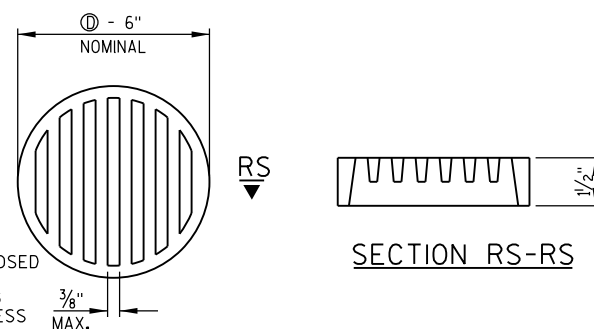


ELEVATION
(LOOKING AT F.F. OF WINGS)



PLAN

NOTE:
WING 1 SHOWN,
WING 2 SIMILAR.



RODENT SHIELD

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

RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

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

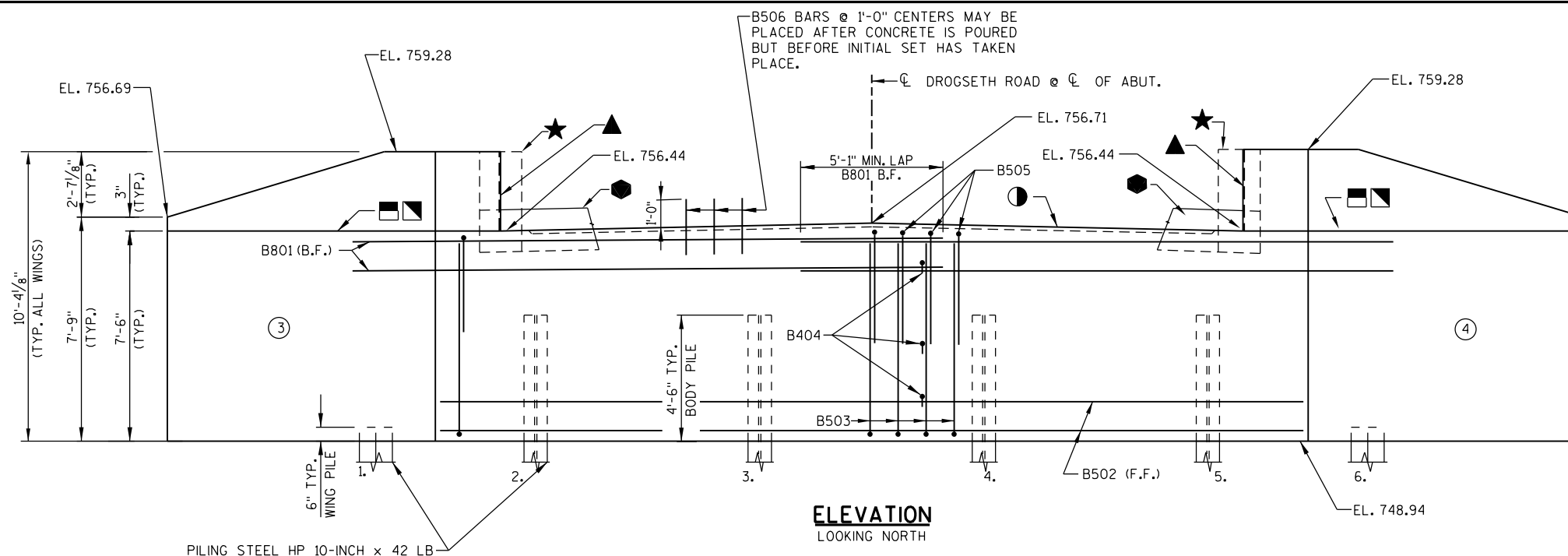
SEE LEGEND ON SHEET 4 FOR DESCRIPTION OF



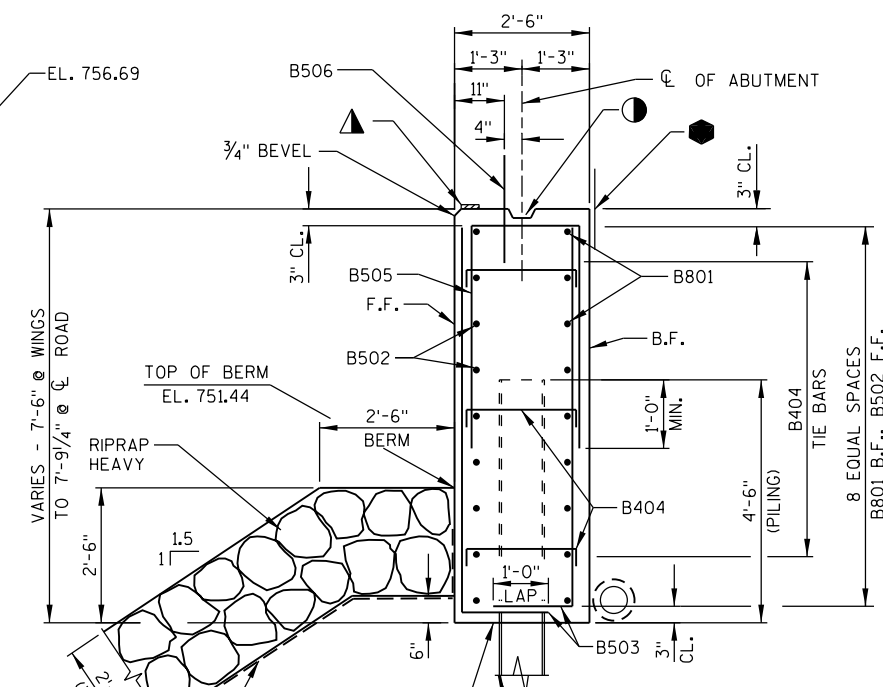
A503

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY RLR		PLANS CK'D. DHW	
SOUTH ABUTMENT DETAILS		SHEET 5 OF 10	

FOR WING DETAILS SEE SHEET 7.



ELEVATION
LOOKING NORTH



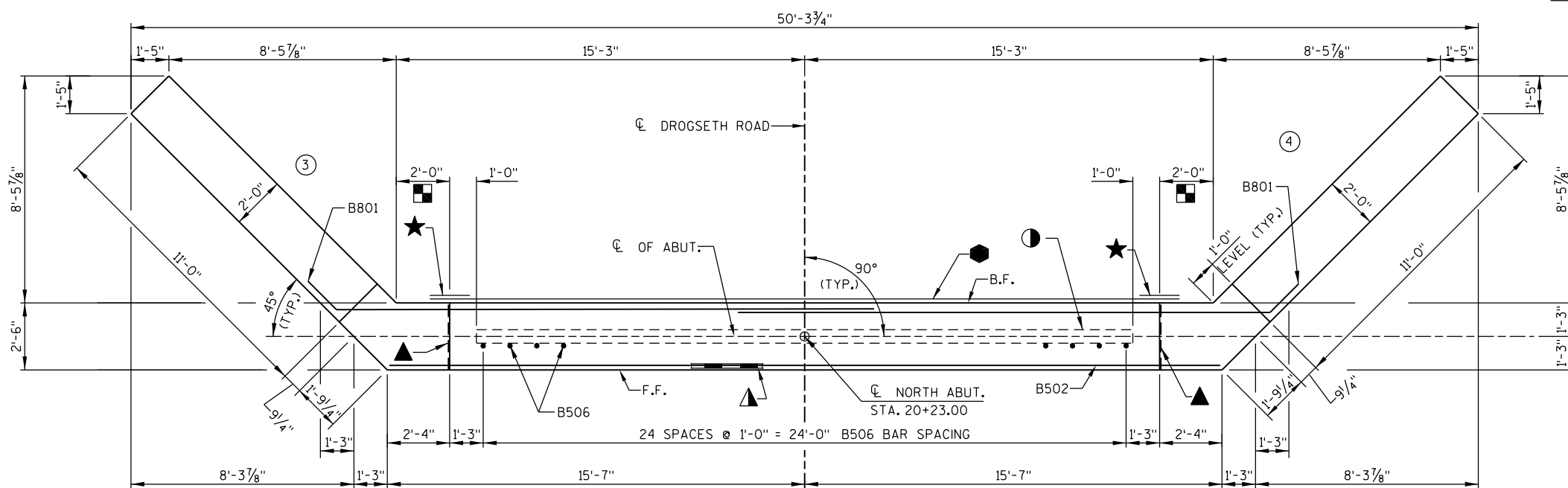
EXCAVATE TO THIS LINE BEFORE DRIVING PILING
GEOTEXTILE TYPE HR (TYP.)

ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED ABUT. BODY PILE LENGTHS ARE 50'-0". ESTIMATED WING PILE LENGTHS ARE 45'-0". SEE SHEET 7 FOR PILE SPLICE DETAILS.

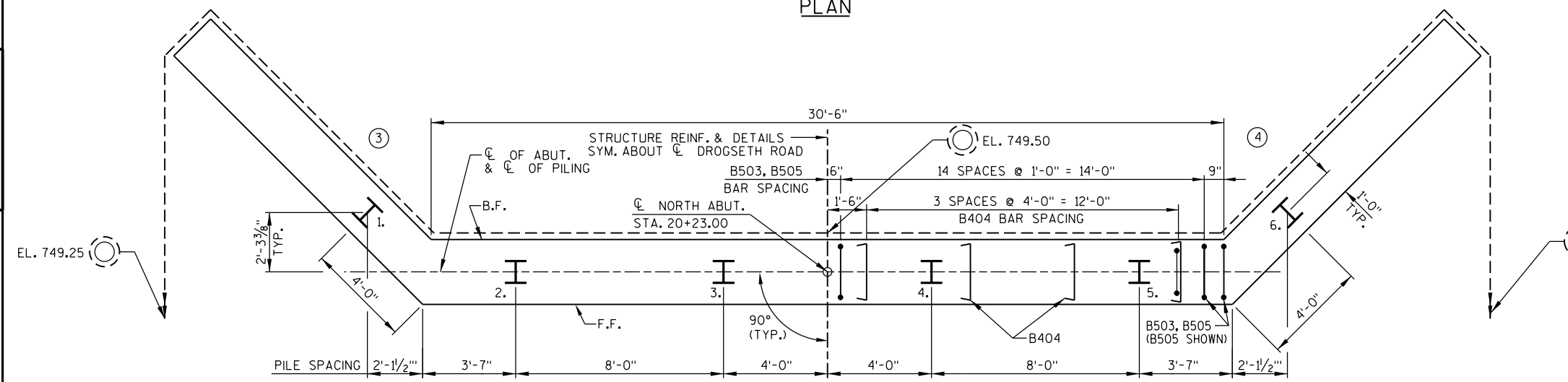
TYPICAL SECTION THRU ABUTMENT

LEGEND

- INDICATES WING NUMBER
- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ▲ 4" x 3/4" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.
- HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS.
- OPTIONAL KEYED CONST. JOINT ON WING FORMED BY BEVELED 2 X 6. IF JOINT IS USED, PLACE ● ON B.F. OF WING. COST OF ● INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".
- ▣ 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONSTRUCTION JOINT IS USED.
- PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR RODENT SHIELD DETAILS, SEE SHEET 5.
- F.F.— FRONT FACE B.F.— BACK FACE CL.— CLEAR
- DIMENSION INCLUDES 1/2" FILLER.



PLAN



PILE PLAN

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY		PLANS CK'D.	
RLR		DHW	
NORTH ABUTMENT			SHEET 6 OF 10

UNCOATED 2270 LBS.
COATED 1920 LBS.

BILL OF BARS (NORTH ABUT.)

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
B801	-	18	21'-6"	X		ABUTMENT BODY - B.F. - HORIZ.
B502	-	9	31'-0"			ABUTMENT BODY - F.F. - HORIZ.
B503	-	64	8'-6"	X		ABUTMENT BODY - F.F. & B.F. - VERT.
B404	-	24	2'-9"	X		ABUTMENT BODY - TIES - HORIZ.
B505	-	32	9'-11"	X		ABUTMENT BODY - TOP - VERT.
B506	25	-	2'-0"			ABUTMENT BODY - TOP - DOWEL - VERT.
B807	18	-	16'-2"	X		WINGS - B.F. - HORIZ.
B408	8	-	8'-0"	X	◇	WINGS - B.F. - HORIZ.
B409	4	-	13'-6"	X		WINGS - F.F. & B.F. - TOP - HORIZ.
B410	72	-	13'-2"	X		WINGS - TOP & BOTTOM - VERT.
B411	6	-	12'-4"	X		WINGS - TOP - VERT.
B512	18	-	14'-8"	X		WINGS - F.F. - HORIZ.
B413	8	-	9'-6"	X	◇	WINGS - F.F. - HORIZ.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

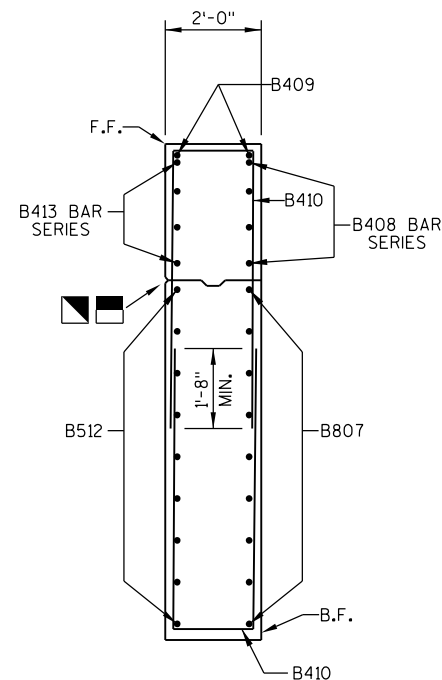
◇ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.

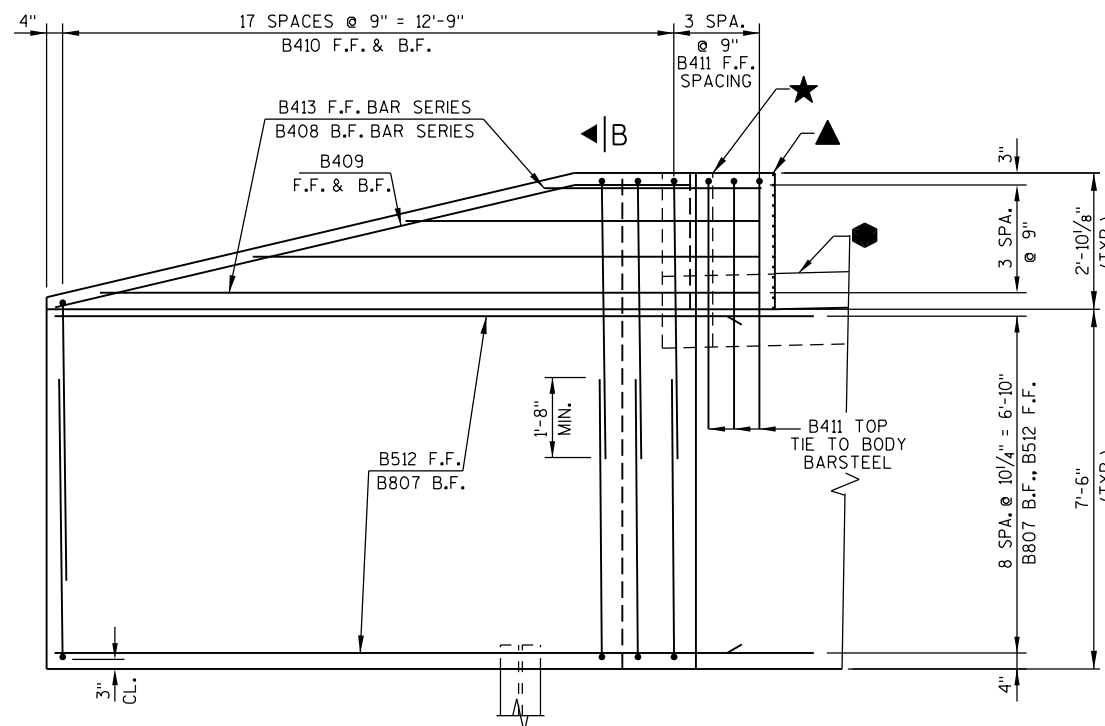
BAR MARK	NO. REQ'D.	LENGTH
B408	2 SERIES OF 4	3'-3" TO 12'-9"
B413	2 SERIES OF 4	4'-9" TO 14'-3"

BAR SERIES TABLE

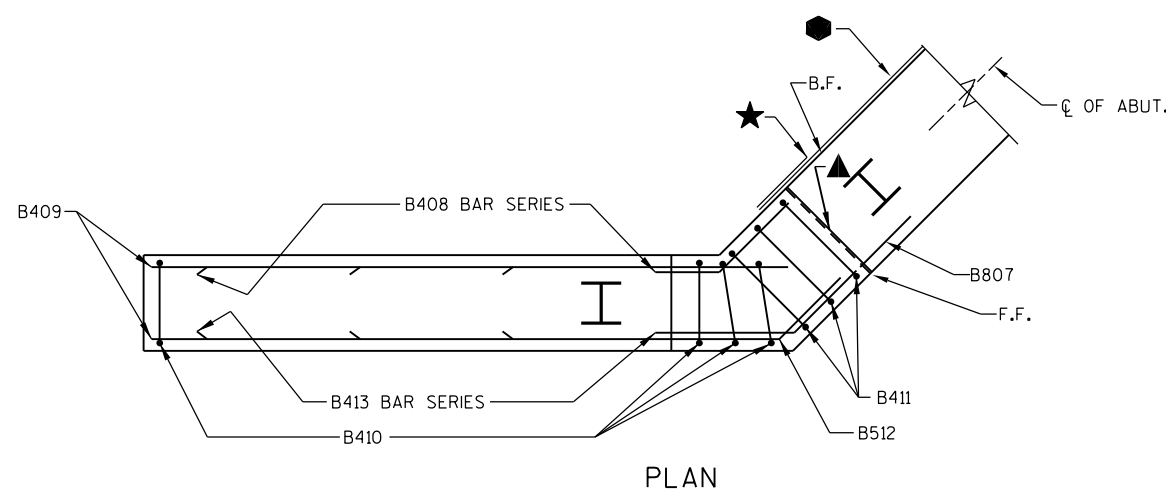
MARK	A	B	MARK	C	D
B801			B404	4/2"	2'-2"
B807	1'-6"	45°	B505	4'-0"	2'-2"
B512			B410	5'-10"	1'-8"
B408	1'-10"	45°	B411	5'-2"	2'-2"
B409	2'-5"	14°			
B413	2'-0"	45°			



SECTION B-B THRU WING

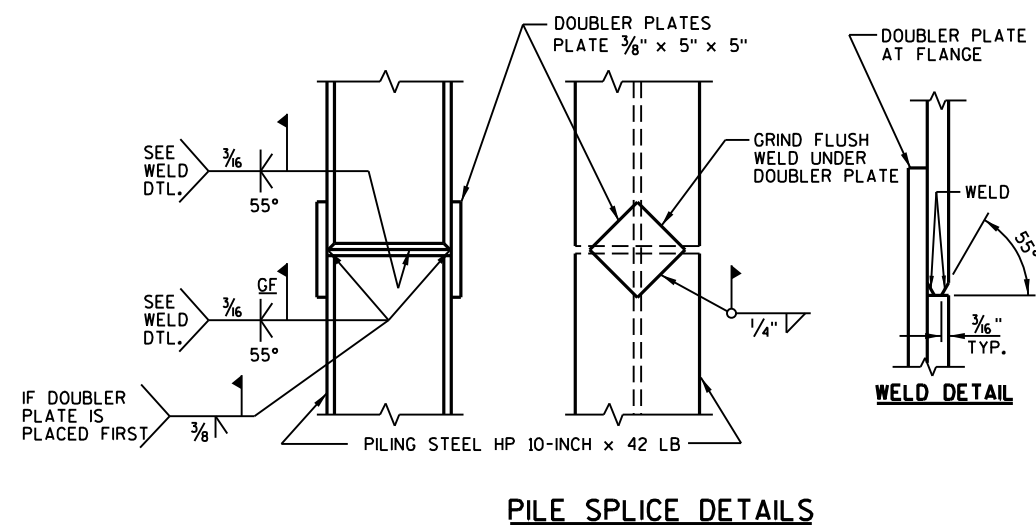


ELEVATION
(LOOKING AT F.F. OF WINGS)



PLAN

NOTE:
WING 3 SHOWN,
WING 4 SIMILAR.



PILE SPLICE DETAILS

SEE LEGEND ON SHEET 6 FOR DESCRIPTION OF
▲ ★ ● ◻ ◻ ▲

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-231

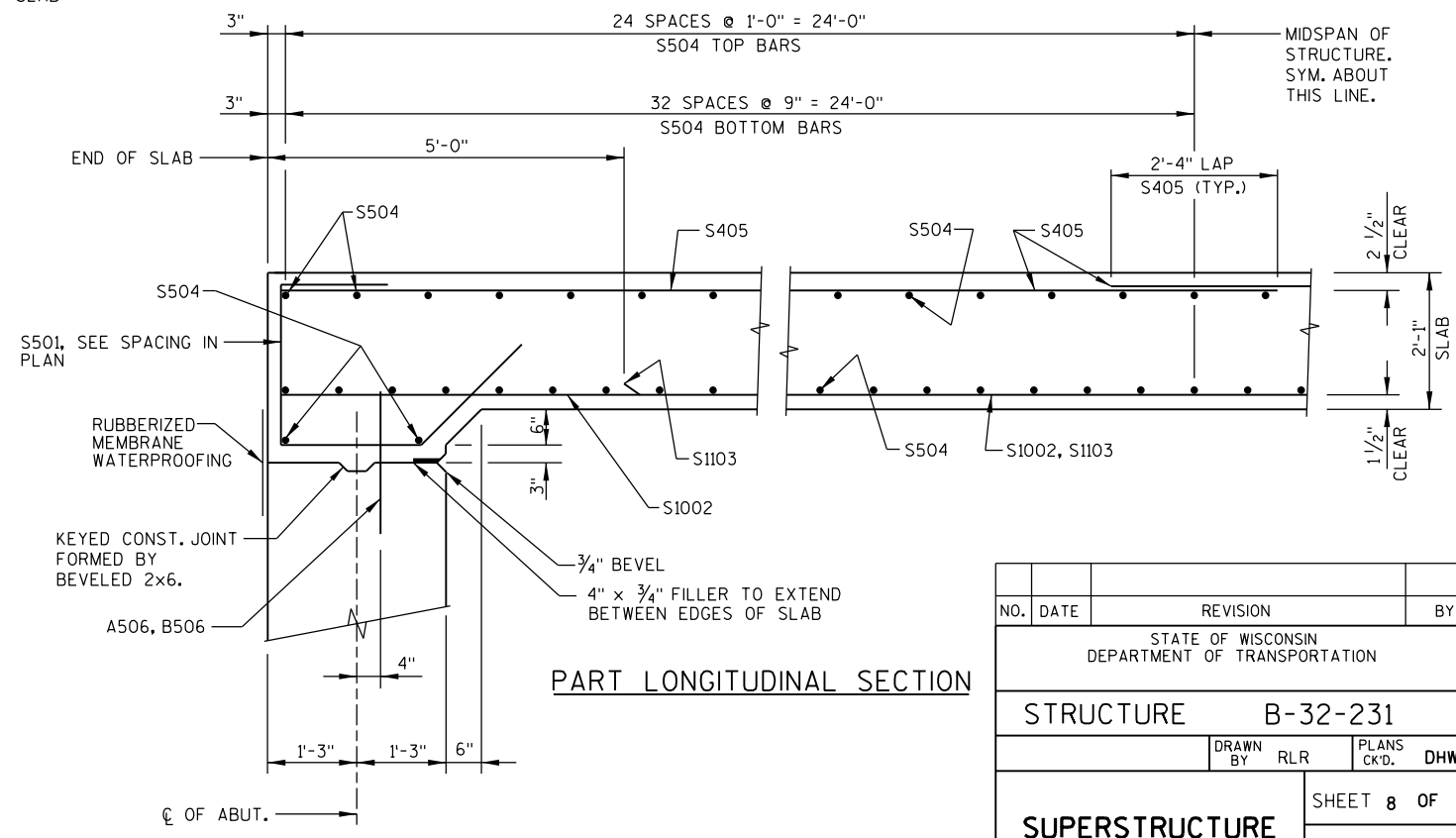
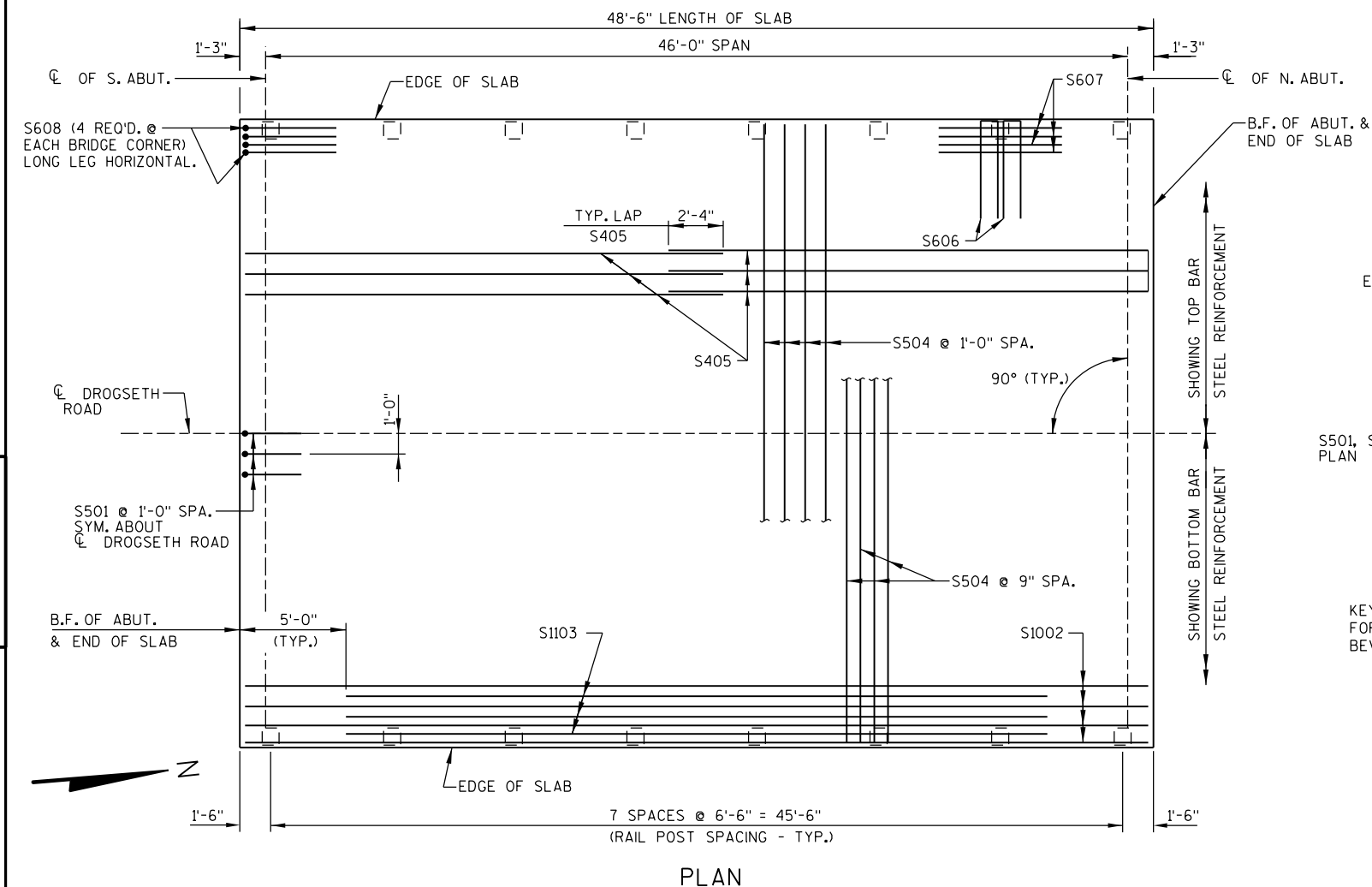
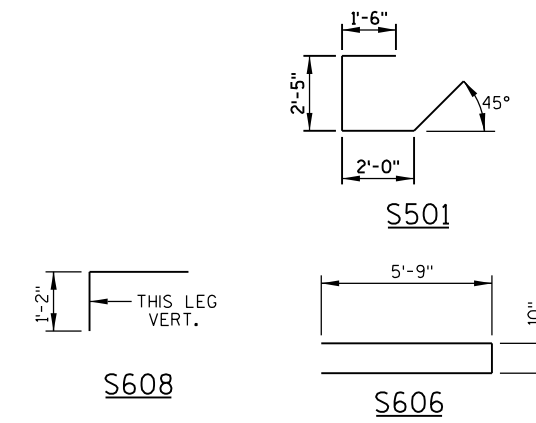
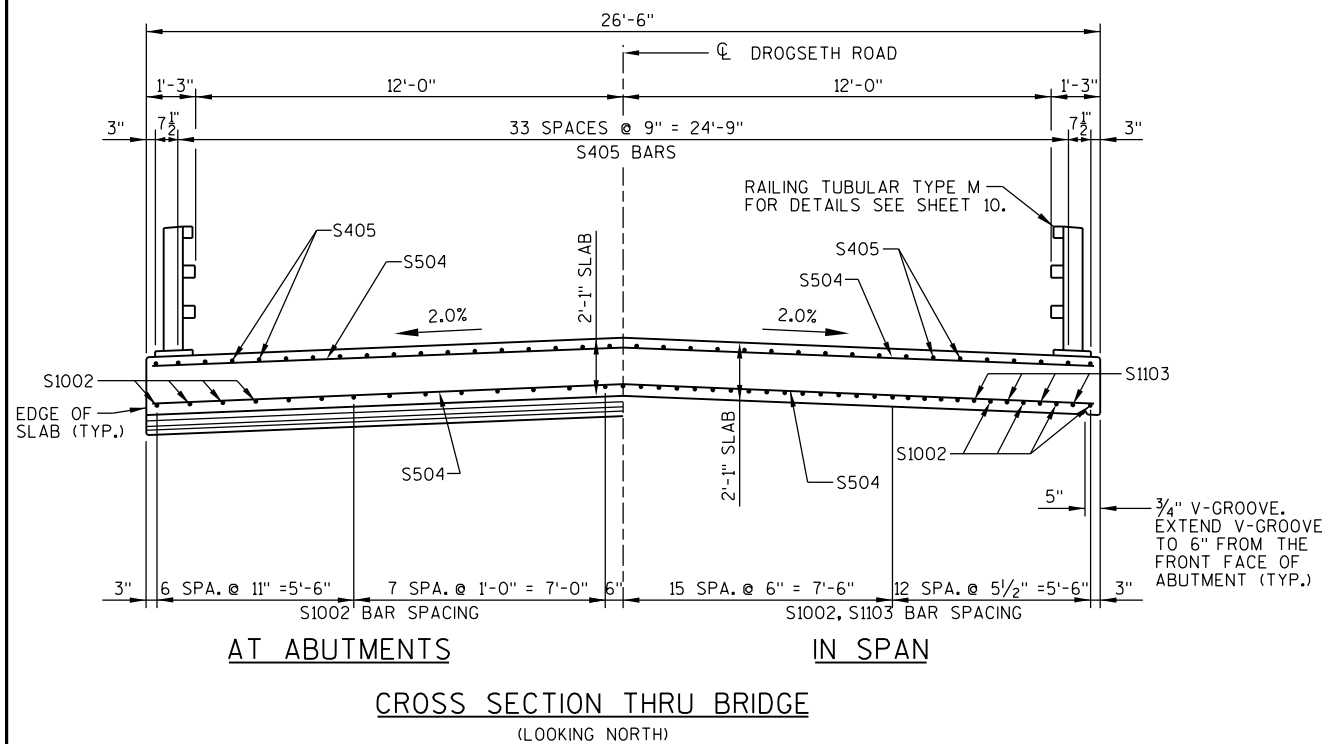
DRAWN BY RLR PLANS CK'D. DHW

NORTH ABUTMENT DETAILS SHEET 7 OF 10

BILL OF BARS (COATED) 17,350 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
S501	54	7'-9"	X	DIAPHRAGM @ ABUTS. - LONGIT.
S1002	28	48'-2"		SLAB BOTTOM - LONGIT.
S1103	27	38'-6"		SLAB BOTTOM - LONGIT.
S504	118	26'-2"		SLAB TOP & BOTTOM - TRANS.
S405	72	25'-3"		SLAB TOP - LONGIT.
S606	32	12'-0"	X	SLAB TOP @ RAIL POST, 2 PER POST
S607	48	6'-0"		SLAB TOP @ RAIL POST, 4 PER POST
S608	16	6'-0"	X	SLAB TOP @ RAIL END POST AS NOTED

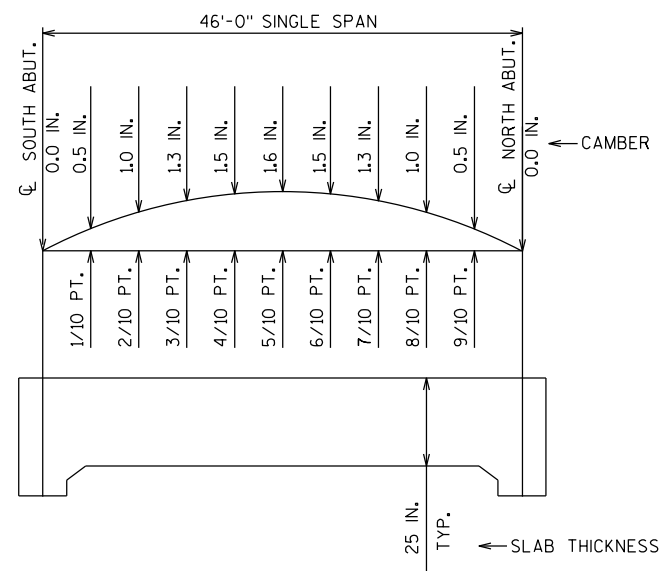
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY		PLANS CK'D.	
RLR		DHW	
SUPERSTRUCTURE			SHEET 8 OF 10

8

8



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.

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

SURVEY TOP OF SLAB ELEVATIONS

	℄ SOUTH ABUTMENT	5/10 PT.	℄ NORTH ABUTMENT
WEST EDGE OF SLAB			
℄ DROGSETH ROAD			
EAST EDGE OF SLAB			

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

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

- TOP OF SLAB ELEVATION AT FINAL GRADE
- MINUS --- SLAB THICKNESS
- PLUS --- CAMBER
- PLUS --- FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
- EQUALS = TOP OF SLAB FALSEWORK ELEVATION

TOP OF SLAB ELEVATIONS

	C/L BRG SOUTH ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	C/L BRG WEST ABUT.
WEST EDGE OF SLAB	759.25	759.26	759.26	759.27	759.28	759.28	759.28	759.28	759.28	759.28	759.28
C/L DROGSETH ROAD	759.51	759.52	759.53	759.54	759.54	759.55	759.55	759.55	759.55	759.55	759.54
EAST EDGE OF SLAB	759.25	759.26	759.26	759.27	759.28	759.28	759.28	759.28	759.28	759.28	759.28

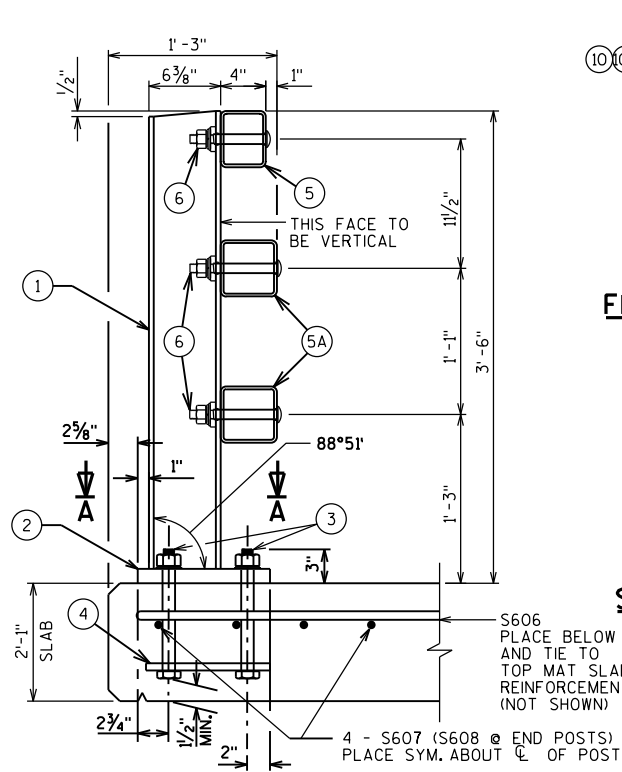
NOTES

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

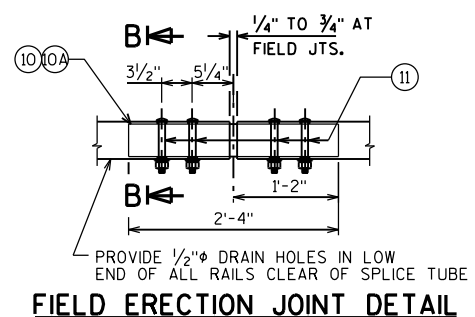
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

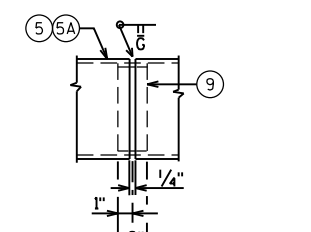
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY EKK		PLANS CK'D. LJR	
SUPERSTRUCTURE DETAILS		SHEET 9 OF 10	



SECTION THRU RAILING ON SLAB

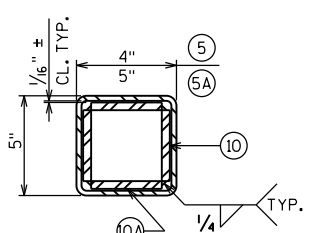


FIELD ERECTION JOINT DETAIL

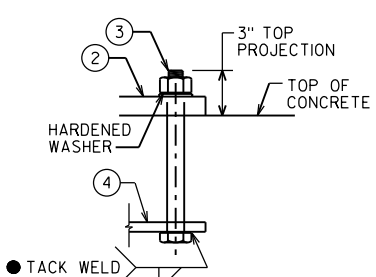


SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

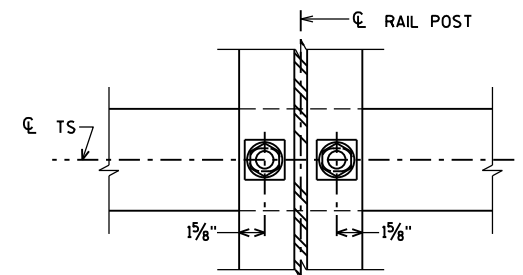


SECTION B-B

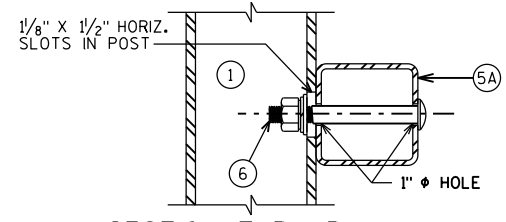


ANCHOR BOLTS

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



SECTION THRU POST WEB



SECTION THRU RAIL

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

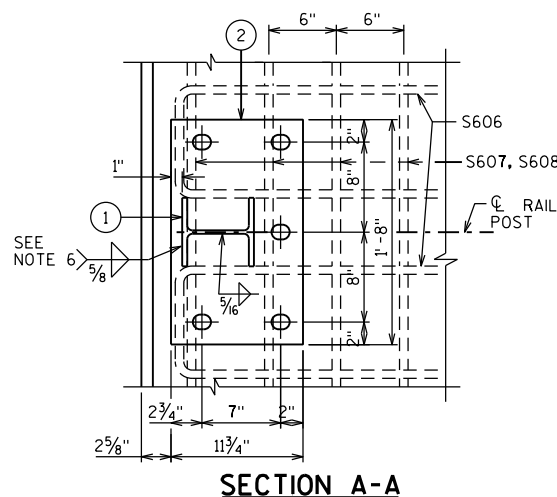
TYPICAL RAIL TO POST CONNECTIONS

LEGEND

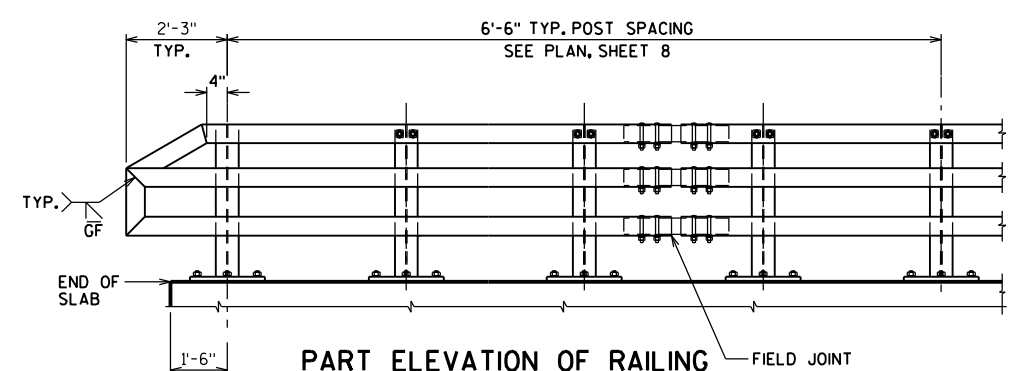
- ① W6 x 25 WITH 1/8" X 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1/4" x 11 3/4" x 1'-8" WITH 1/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ ASTM A449 - 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-3" LONG.
- ④ 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
- ⑤ TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1 5/8" X 1 5/8" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
- ⑨ SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- ⑩ 3/8" X 3 5/8" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A 3/8" X 2 5/8" X 2'-4" PLATE USED IN NO. 5, 3/8" X 3 5/8" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ 7/8" A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 5/8" X 1/4" LONGIT. SLOTTED HOLES AT FIELD JOINTS IN PLATE NO. 10A.

GENERAL NOTES

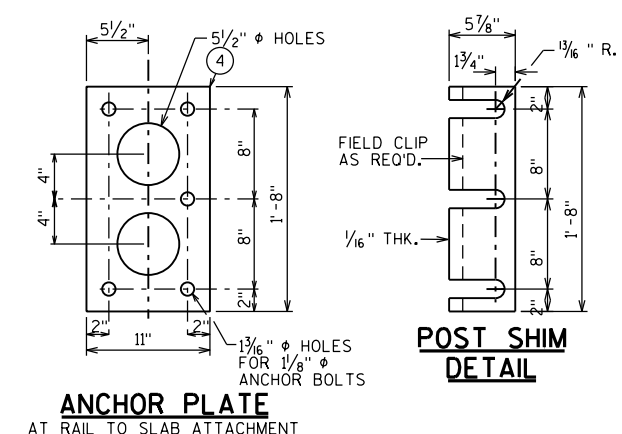
1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-32-231" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. PAINTING IS NOT REQUIRED.



SECTION A-A



PART ELEVATION OF RAILING



ANCHOR PLATE AT RAIL TO SLAB ATTACHMENT

POST SHIM DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-231	
DRAWN BY		PLANS CK'D.	
RLR		DHW	
RAILING TUBULAR TYPE M			SHEET 10 OF 10

TEMPORARY BYPASS CONSTRUCTION EARTHWORK SUMMARY

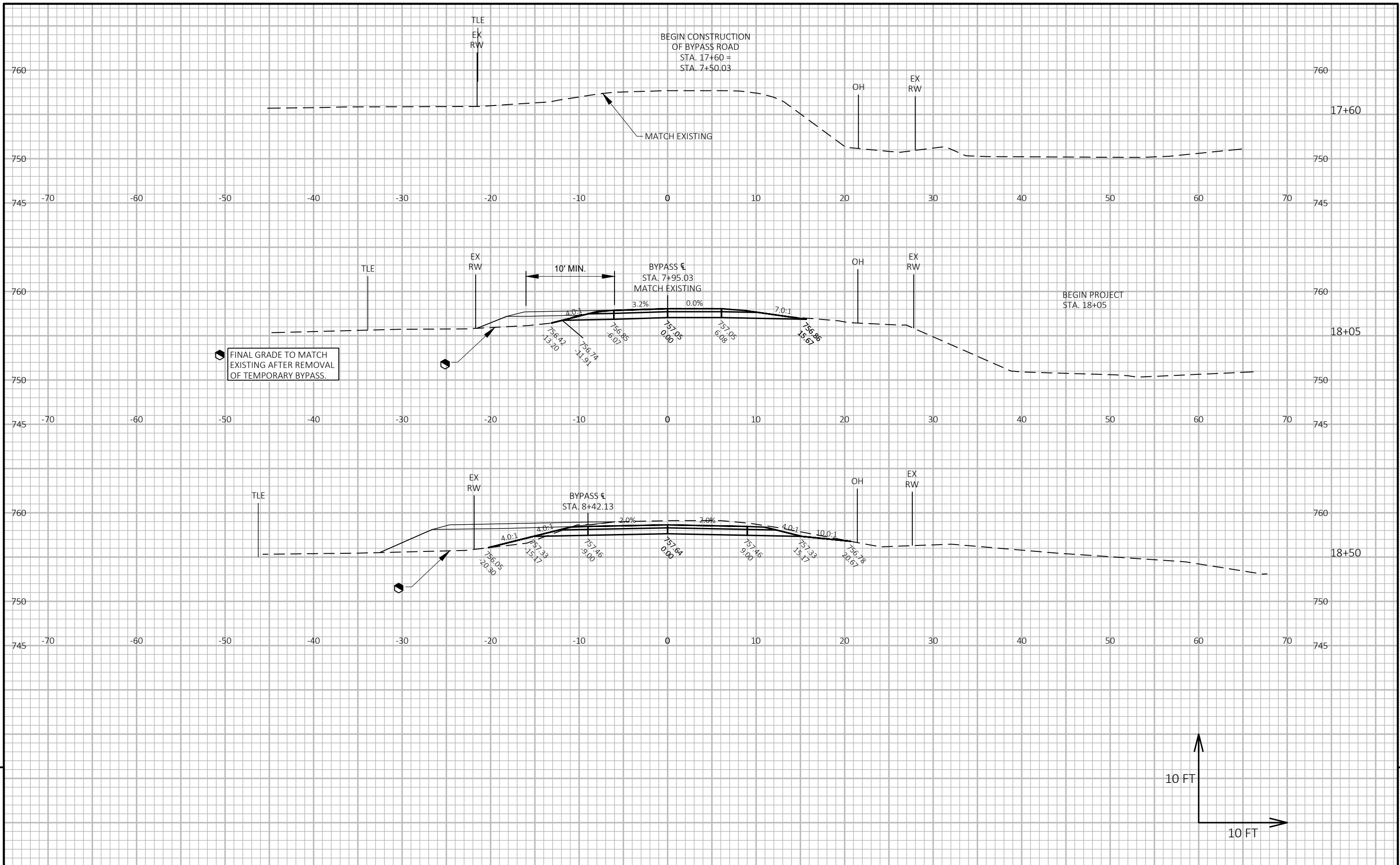
STA	EXCAVATION		EXPANDED		BORROW
	COMMON CY	FILL (1) CY	FILL (2) CY	WASTE CY	
17+60.00	-	-	-	-	-
	1.00	7.00	9.00	-8.00	8.00
18+05.00	-	-	-	-	-
	0.00	36.00	47.00	-47.00	47.00
18+50.00	-	-	-	-	-
	3.00	37.00	48.00	-45.00	45.00
19+00.00	-	-	-	-	-
	5.00	4.00	5.00	0.00	0.00
19+25.00	-	-	-	-	-
	6.00	115.00	150.00	-144.00	144.00
19+65.00	-	-	-	-	-
	0.00	123.00	160.00	-160.00	160.00
19+84.00	-	-	-	-	-
TEMPORARY STRUCTURE STATION 10+00					
20+16.00	-	-	-	-	-
	1.00	100.00	130.00	-129.00	129.00
20+35.00	-	-	-	-	-
	2.00	7.00	9.00	-7.00	7.00
20+50.00	-	-	-	-	-
	2.00	12.00	16.00	-14.00	14.00
20+75.00	-	-	-	-	-
	0.00	50.00	65.00	-65.00	65.00
21+20.00	-	-	-	-	-
	1.00	29.00	38.00	-37.00	37.00
21+50.00	-	-	-	-	-
	1.00	12.00	16.00	-15.00	15.00
22+00.00	-	-	-	-	-
SUBTOTALS					
S. APPROACH	15.00	322.00	419.00	-404.00	404.00
N. APPROACH	7.00	210.00	274.00	-267.00	267.00
TOTALS	22.00	532.00	693.00	-671.00	671.00
(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY. (2) - FILL EXPANSION 30%					

DROGSETH ROAD EARTHWORK SUMMARY

STA	EXCAVATION		EXPANDED		BORROW
	COMMON CY	FILL (1) CY	FILL (2) CY	WASTE CY	
18+05.00	-	-	-	-	-
	49.00	0.00	0.00	49.00	-49.00
18+50.00	-	-	-	-	-
	95.00	0.00	0.00	95.00	-95.00
19+00.00	-	-	-	-	-
	62.00	0.00	0.00	62.00	-62.00
19+25.00	-	-	-	-	-
	96.00	27.00	35.00	61.00	-61.00
19+65.00	-	-	-	-	-
STRUCTURE B-32-0231					
20+35.00	-	-	-	-	-
	45.00	14.00	18.00	27.00	-27.00
20+50.00	-	-	-	-	-
	83.00	4.00	5.00	78.00	-78.00
20+75.00	-	-	-	-	-
	94.00	0.00	0.00	94.00	-94.00
21+20.00	-	-	-	-	-
	33.00	0.00	0.00	33.00	-33.00
21+50.00	-	-	-	-	-
SUBTOTALS					
S. APPROACH	302.00	27.00	35.00	267.00	-267.00
N. APPROACH	255.00	18.00	23.00	232.00	-232.00
UNUSABLE PAVEMENT (3)					
TOTALS	557.00	45.00	58.00	499.00	-453.00
(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY. (2) - FILL EXPANSION 30% (3) - EXISTING PAVEMENT BASED ON AVE THK OF 4.0"					

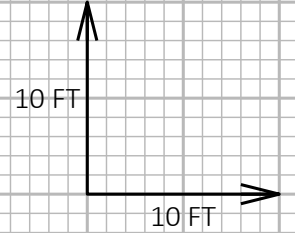
TEMPORARY BYPASS REMOVAL EARTHWORK SUMMARY

STA	EXCAVATION		EXPANDED		BORROW
	COMMON CY	FILL (1) CY	FILL (2) CY	WASTE CY	
17+60.00	-	-	-	-	-
	11.00	0.00	0.00	11.00	-11.00
18+05.00	-	-	-	-	-
	46.00	0.00	0.00	46.00	-46.00
18+50.00	-	-	-	-	-
	52.00	0.00	0.00	52.00	-52.00
19+00.00	-	-	-	-	-
	12.00	0.00	0.00	12.00	-12.00
19+25.00	-	-	-	-	-
	123.00	0.00	0.00	123.00	-123.00
19+65.00	-	-	-	-	-
	128.00	0.00	0.00	128.00	-128.00
19+84.00	-	-	-	-	-
TEMPORARY STRUCTURE STATION 10+00					
20+16.00	-	-	-	-	-
	104.00	0.00	0.00	104.00	-104.00
20+35.00	-	-	-	-	-
	10.00	0.00	0.00	10.00	-10.00
20+50.00	-	-	-	-	-
	20.00	0.00	0.00	20.00	-20.00
20+75.00	-	-	-	-	-
	63.00	0.00	0.00	63.00	-63.00
21+20.00	-	-	-	-	-
	35.00	0.00	0.00	35.00	-35.00
21+50.00	-	-	-	-	-
	16.00	0.00	0.00	16.00	-16.00
22+00.00	-	-	-	-	-
SUBTOTALS					
S. APPROACH	372.00	0.00	0.00	372.00	-372.00
N. APPROACH	248.00	0.00	0.00	248.00	-248.00
TOTALS	620.00	0.00	0.00	620.00	-620.00
(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY. (2) - FILL EXPANSION 30%					

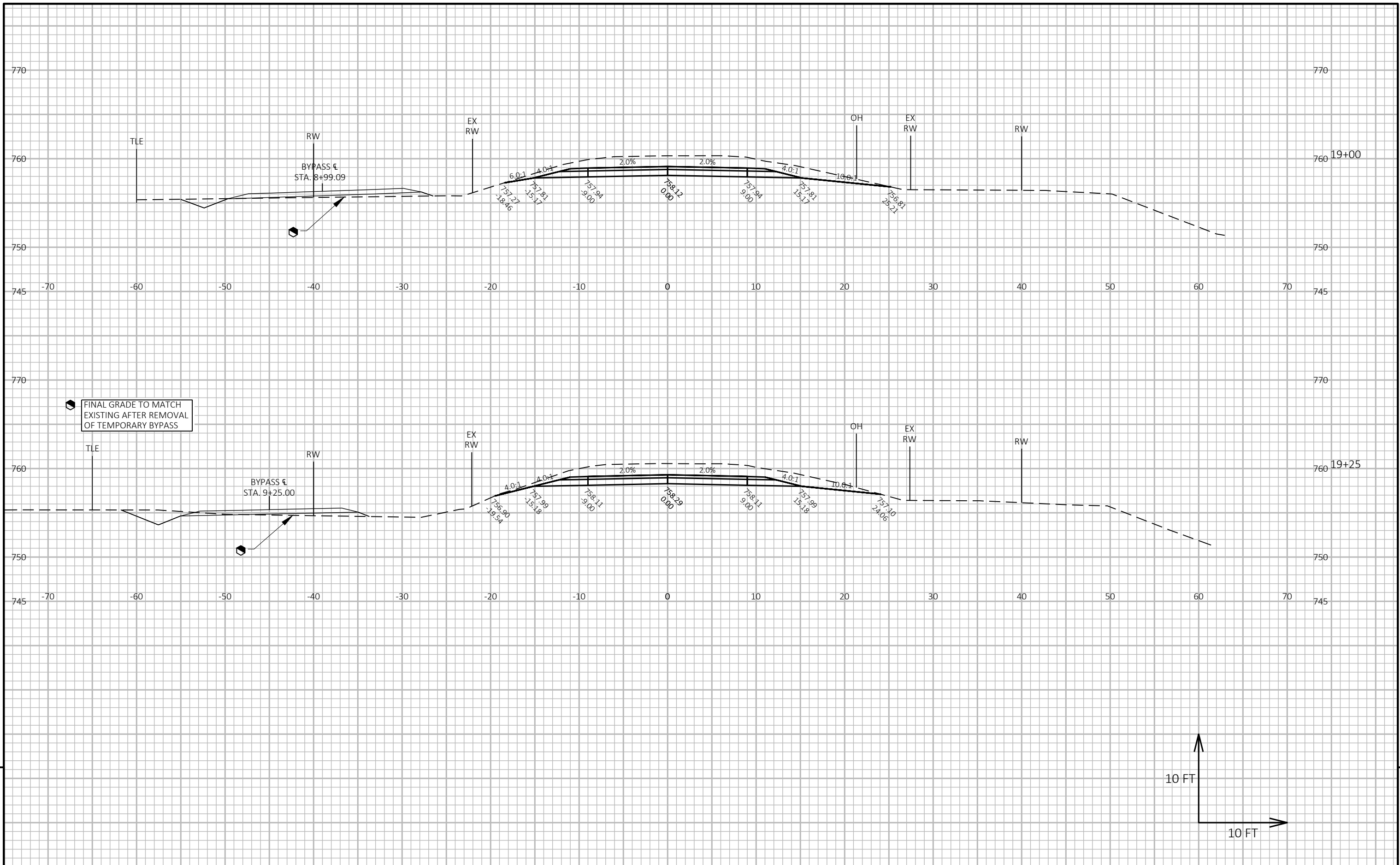


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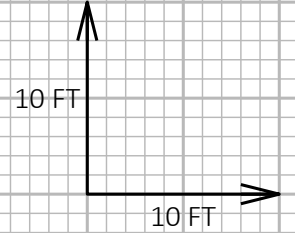


PROJECT NO: 5346-00-71	HWY: LOC STR	COUNTY: LA CROSSE	CROSS SECTIONS: DROGSETH ROAD	SHEET	E
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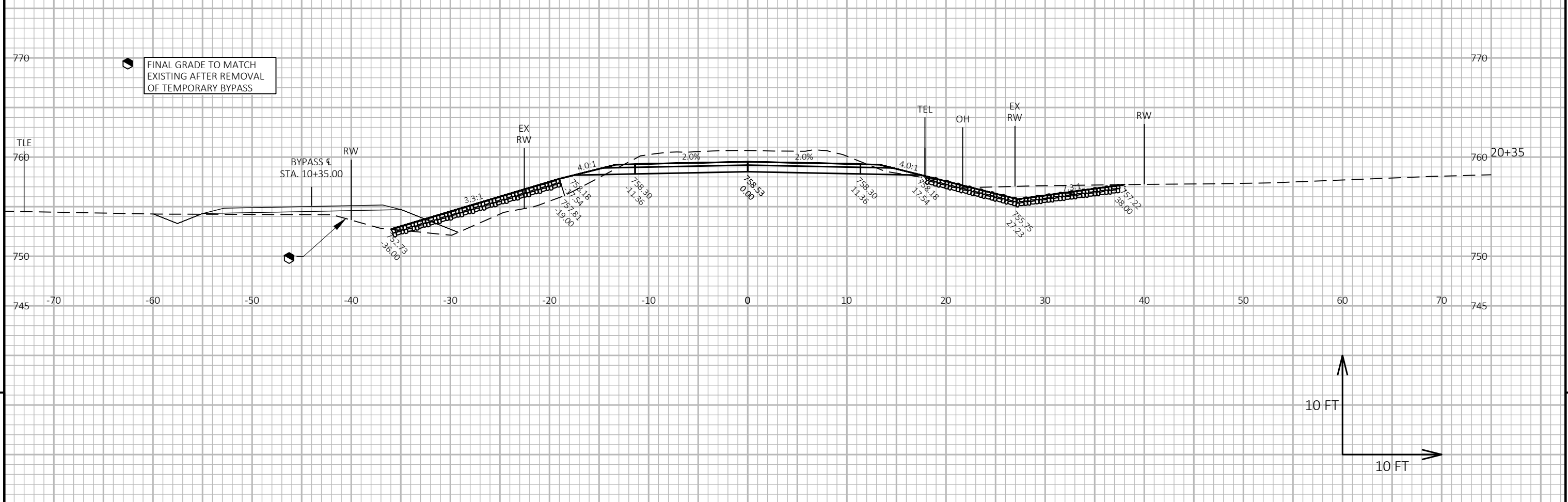
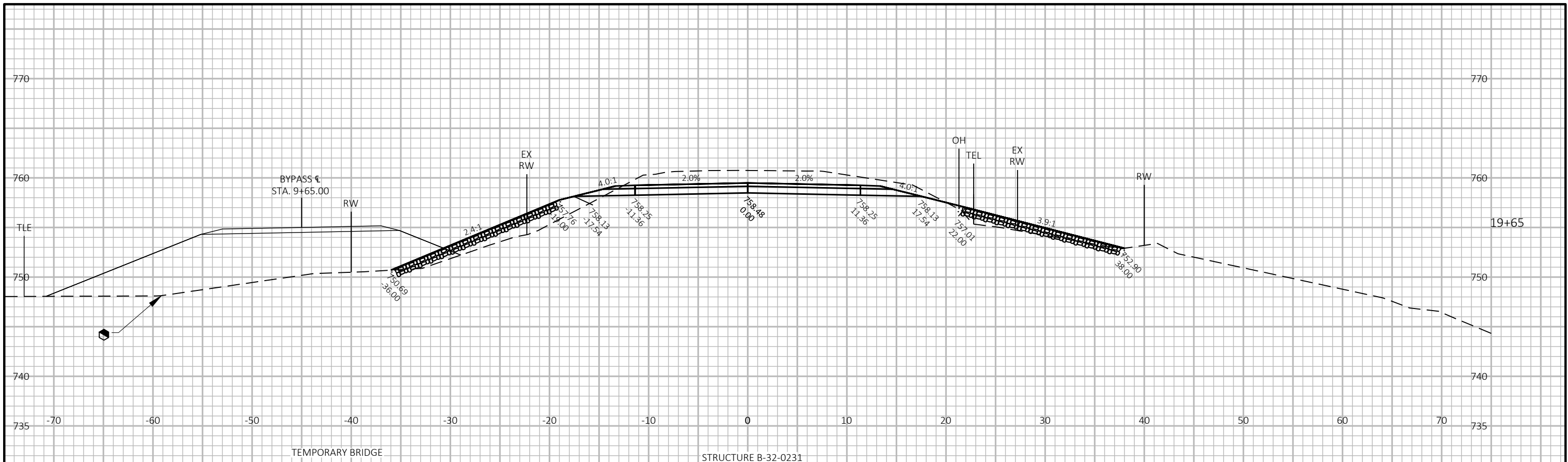


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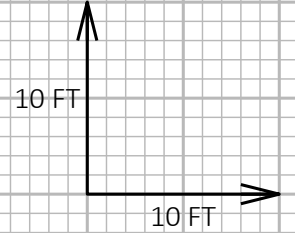
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PROJECT NO: 5346-00-71	HWY: LOC STR	COUNTY: LA CROSSE	CROSS SECTIONS: DROGSETH ROAD	SHEET	E
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FINAL GRADE TO MATCH EXISTING AFTER REMOVAL OF TEMPORARY BYPASS

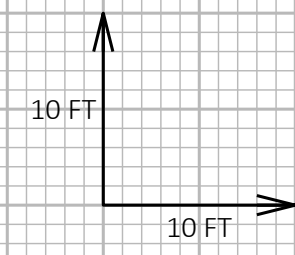
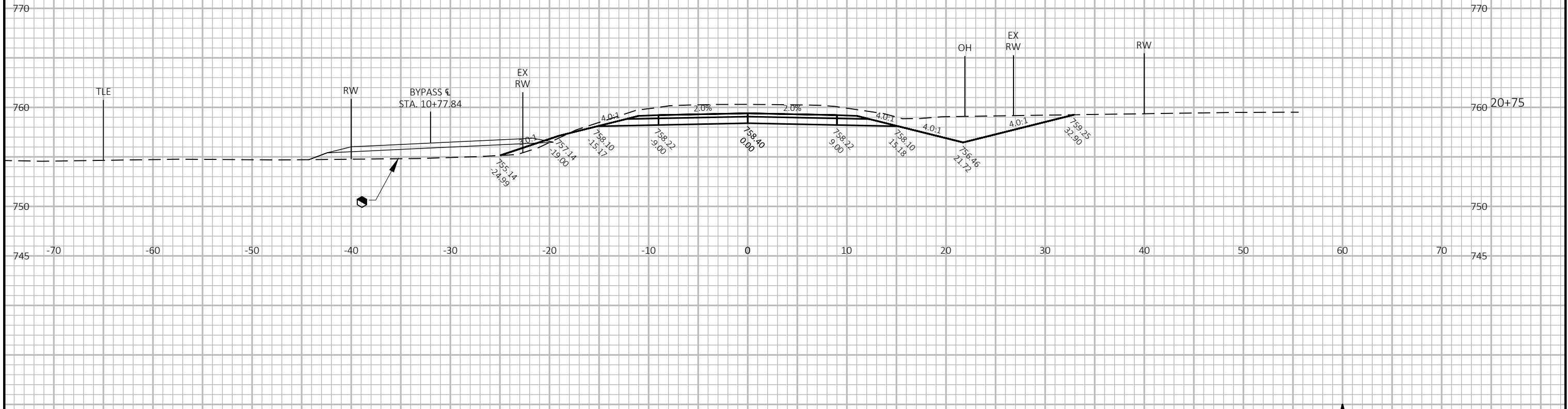
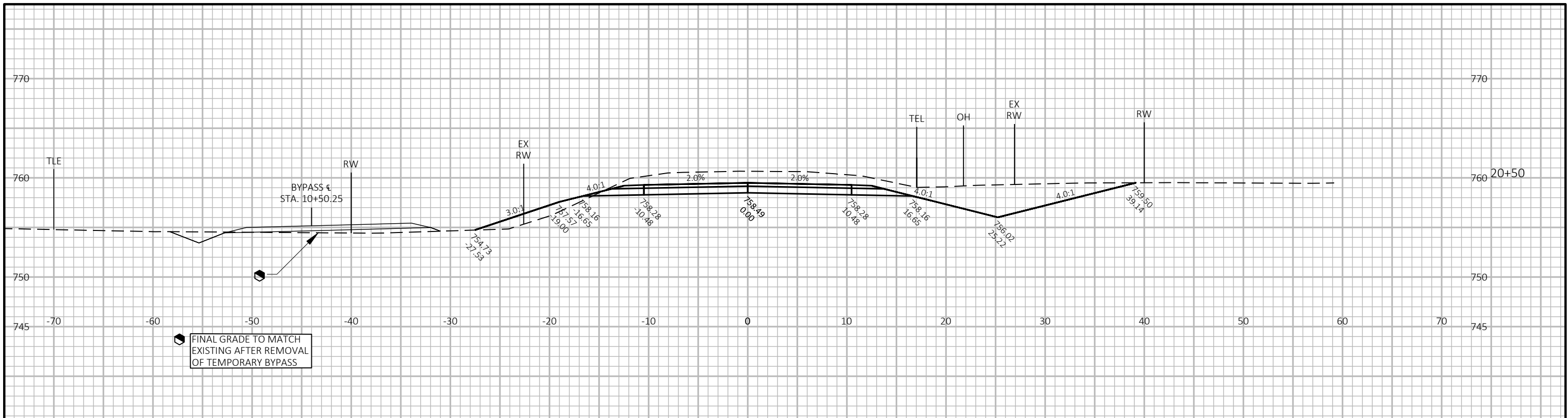


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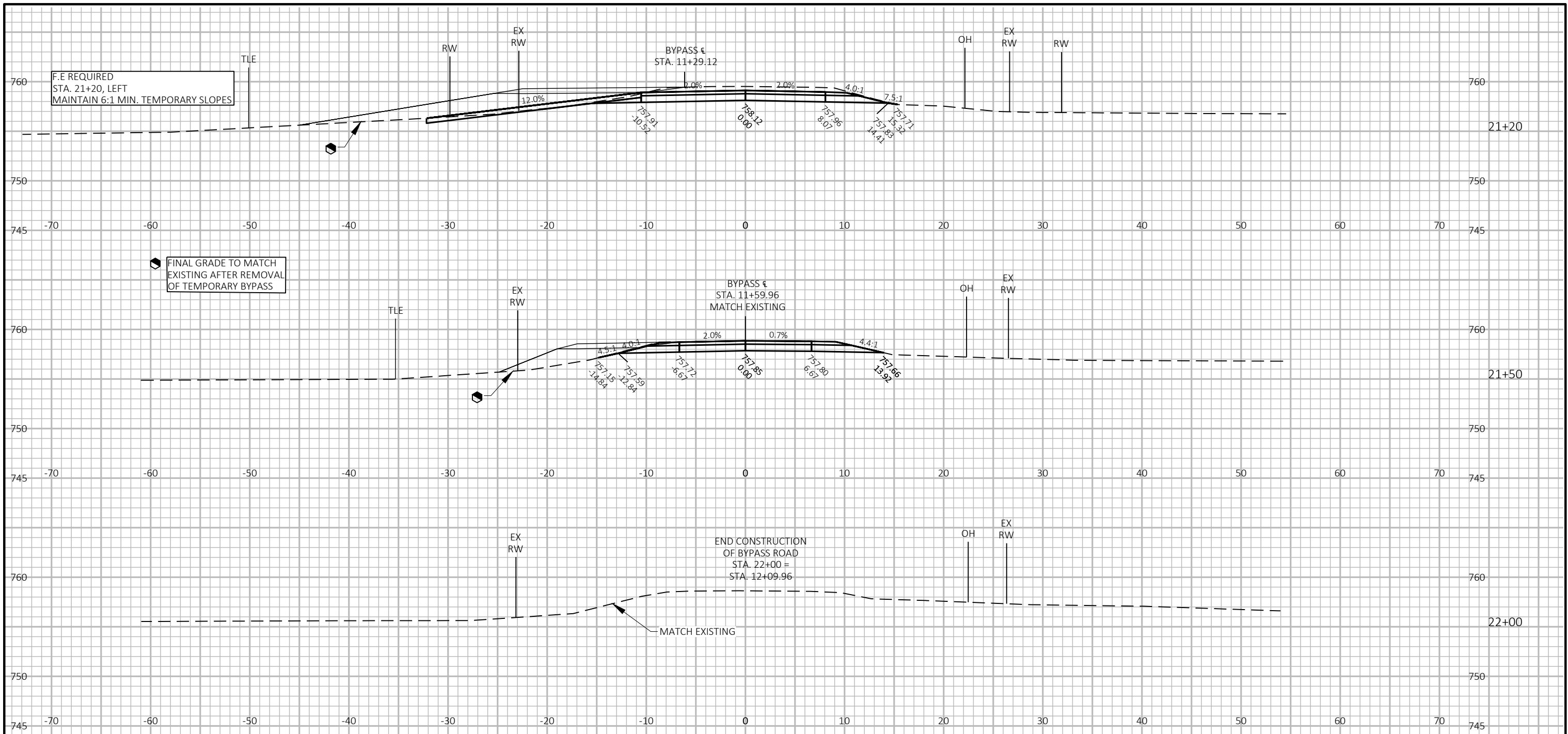
PROJECT NO: 5346-00-71 HWY: LOC STR COUNTY: LA CROSSE CROSS SECTIONS: DROGSETH ROAD SHEET E

FILE NAME: \\MSA-PS.COM\F\PROJECTS\92005\92605\9262\09262006\CADD\WDOT\AUTOCAD FILES\SHEETS\PLAN\090201-XS.DWG PLOT DATE: 8/22/2023 8:18 AM PLOT BY: CONNOR GIRTEN PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



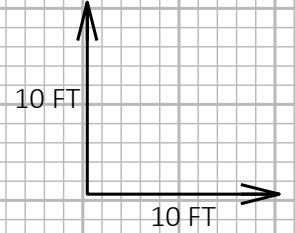
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F.E REQUIRED
STA. 21+20, LEFT
MAINTAIN 6:1 MIN. TEMPORARY SLOPES

FINAL GRADE TO MATCH
EXISTING AFTER REMOVAL
OF TEMPORARY BYPASS



Notes



Wisconsin Department of Transportation

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