

ORDER OF SHEETS

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

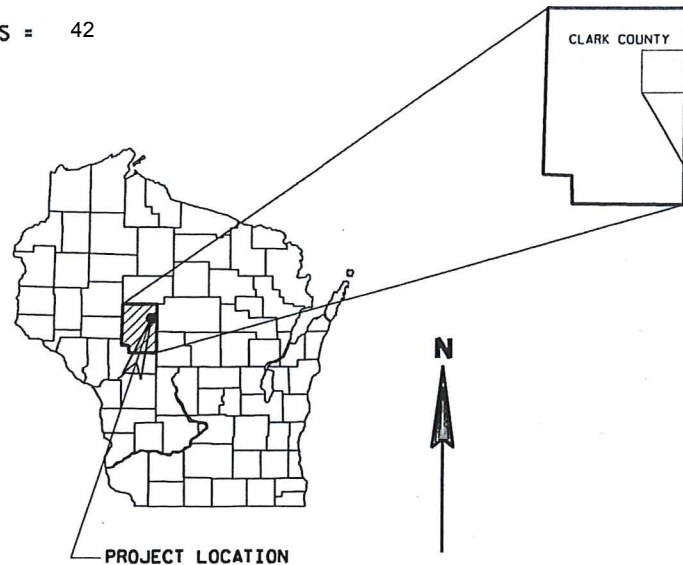
TOTAL SHEETS = 42

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T UNITY, RIPLINGER ROAD

S FORK POPPLE RIVER BRIDGE B100238

LOC STR
CLARK COUNTYSTATE PROJECT NUMBER
7842-00-70

DESIGN DESIGNATION

A.A.D.T. (2020)	= <100
A.A.D.T. (2040)	= <100
D.H.V.	= 10
D.	= 50/50
T.	= 5%
DESIGN SPEED	= 25 MPH
ESALS	= N/A

CONVENTIONAL SYMBOLS
PLAN

CORPORATE LIMITS	////
PROPERTY LINE	PL + 58.1
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	CAUTION

HIGH VOLTAGE

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---

GRADE ELEVATION

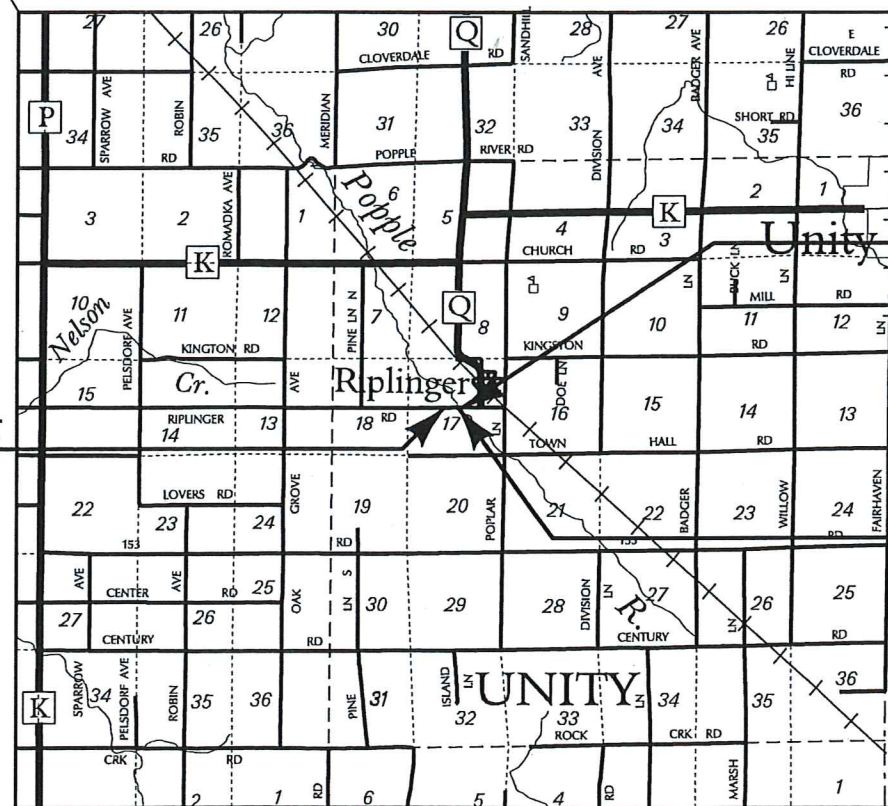
CULVERT (Profile View)

UTILITIES

OVERHEAD ELECTRIC	OH
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

BEGIN PROJECT

STA. 9+25

Y = 445336.59
X = 733780.44

R-1-W

R-1-E

R-1-E

R-2-E

LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.028 MI.

T-28-N
T-27-N

END PROJECT

STA. 10+75

Y = 445337.73
X = 733930.44

STRUCTURE B-10-238

T-27-N
T-26-N

STATE PROJECT

7842-00-70

FEDERAL PROJECT

PROJECT

WISC 2019760

CONTRACT

1

ACCEPTED FOR

Town of Unity

7-15-19 Wayne Hendrickson
Date Town Chairman

ORIGINAL PLANS PREPARED BY

AYRES ASSOCIATES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

DATE 7/12/2019

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor AYRES ASSOCIATES INC
Designer AYRES ASSOCIATES INC

Project Manager MATTHEW THORSEN

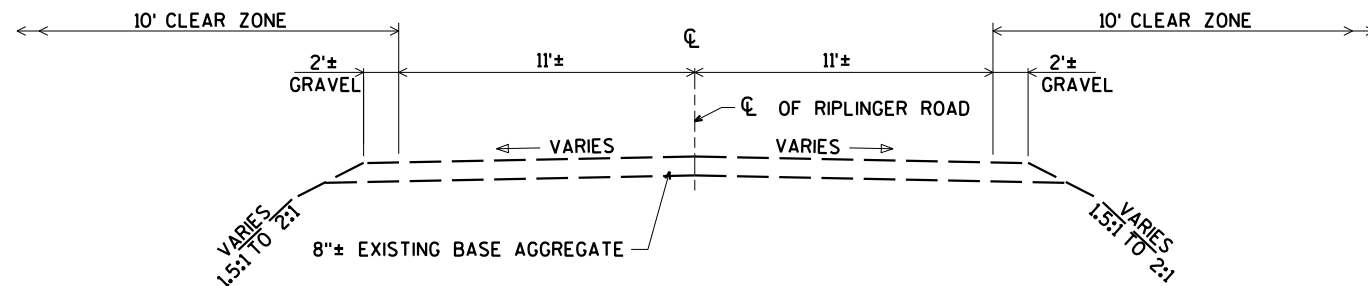
Regional Examiner NORTHWEST REGION

Regional Supervisor ANDREW STENSLAND

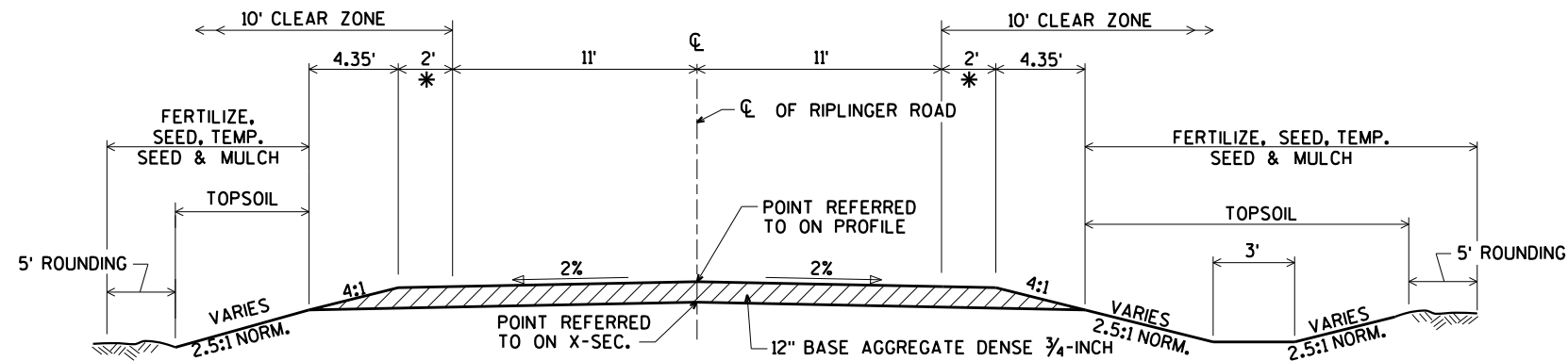
APPROVED FOR THE DEPARTMENT

DATE: 7/25/19 (Signature)

E



TYPICAL EXISTING SECTION



TYPICAL FINISHED SECTION

STA. 9+25 TO STA. 10+75

* BASE AGGREGATE SHOULDER SHALL BE 4.25 FEET WIDE AT THE ENDS OF THE BRIDGE WINGWALLS AND TAPER TO 2 FEET AT THE PROJECT LIMITS.

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

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

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND FIELD LOCATING ALL UTILITIES.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

SEED MIXTURE NO. 20 AND SEEDING TEMPORARY SHALL BE USED IN THE PROJECT AND SHALL BE PLACED AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

WETLANDS EXIST IN THE PROJECT AREA. NO DISTURBANCE IS ALLOWED OUTSIDE THE SLOPE INTERCEPTS.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER AS SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

UTILITIES

CLARK ELECTRIC COOPERATIVE
124 NORTH MAIN STREET
P.O. BOX 190
GREENWOOD, WI 54437
ATTN: RICK SUDA
715-267-6188
rsuda@cecoop.com

* * DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

DIGGERS HOTLINE

Dial **811** or (800)242-8511

www.DiggersHotline.com

**WISCONSIN DEPARTMENT OF
NATURAL RESOURCES CONTACT:**

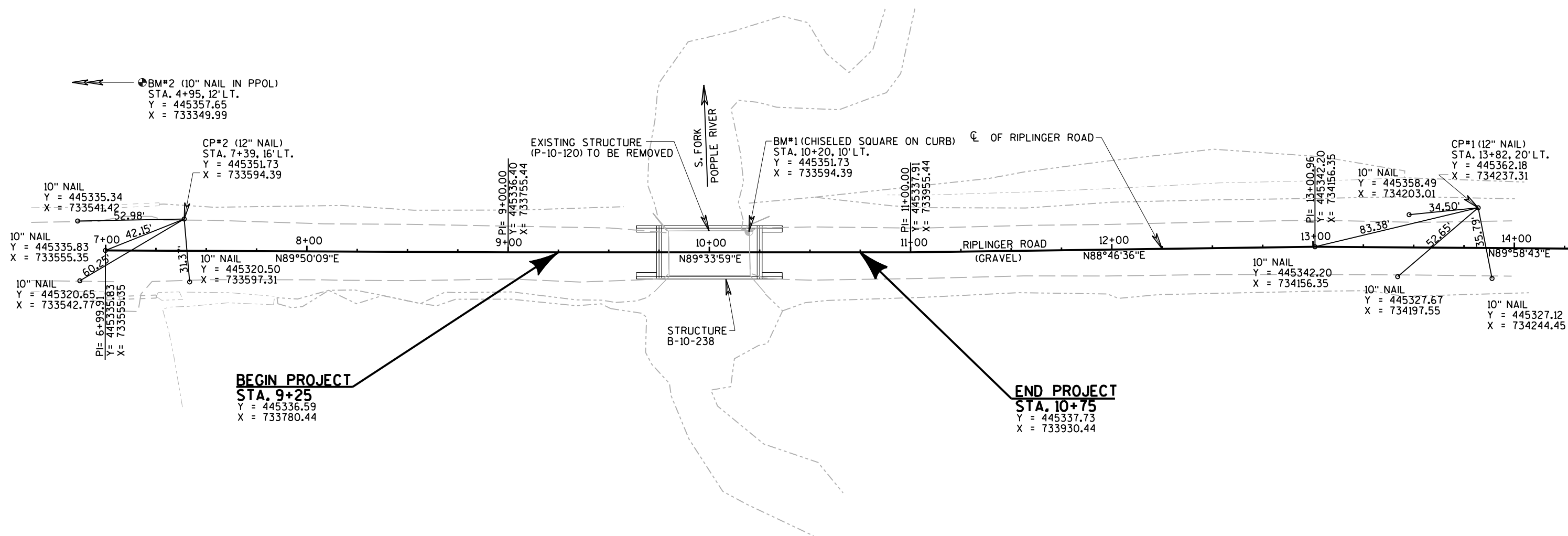
LEAH NICOL
1300 W CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
715-934-9014
leah.nicol@wisconsin.gov

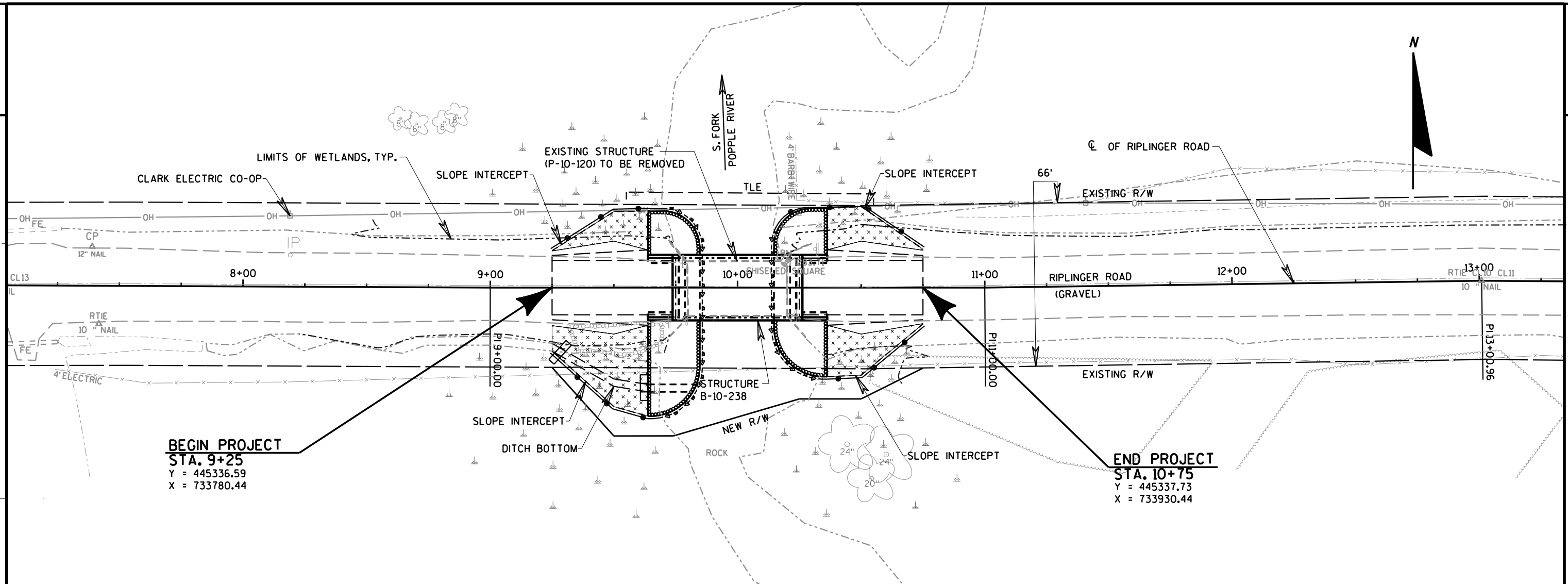
TOWN CONTACT

TOWN OF UNITY, CHAIRMAN
N11151 BADGER AVENUE
UNITY, WI 54488
ATTN: WAYNE HENDRICKSON
715.223.2071
715.429.0653
wayne.hendrickson@co.clark.wi.us

DESIGNER

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: DANIEL N. SYDOW
715-834-3161
sydowd@AyresAssociates.com





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

TOTAL PROJECT AREA = 0.283 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.195 ACRES

NOTE:
NO DISTURBANCE OR TOPSOIL STOCKPILING
IS ALLOWED OUTSIDE OF THE SLOPE
INTERCEPTS. WETLANDS EXIST IN THE
PROJECT AREA.

HIGH WATER₂ EL. 1276.2

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- TURBIDITY BARRIER
- RIPRAP HEAVY
- TEMPORARY DITCH CHECKS

Estimate Of Quantities

7842-00-70					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0205	Grubbing	STA	1.000	1.000
0006	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0008	205.0100	Excavation Common	CY	133.000	133.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-10-238	LS	1.000	1.000
0012	208.0100	Borrow	CY	112.000	112.000
0014	210.1500	Backfill Structure Type A	TON	290.000	290.000
0016	213.0100	Finishing Roadway (project) 01. 7842-00-70	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	240.000	240.000
0020	502.0100	Concrete Masonry Bridges	CY	187.000	187.000
0022	502.3200	Protective Surface Treatment	SY	195.000	195.000
0024	505.0400	Bar Steel Reinforcement HS Structures	LB	3,580.000	3,580.000
0026	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	23,760.000	23,760.000
0028	506.0105	Structural Steel Carbon	LB	470.000	470.000
0030	513.4061	Railing Tubular Type M	LF	167.000	167.000
0032	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0034	550.0500	Pile Points	EACH	12.000	12.000
0036	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	720.000	720.000
0038	606.0300	Riprap Heavy	CY	215.000	215.000
0040	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0042	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7842-00-70	EACH	1.000	1.000
0044	619.1000	Mobilization	EACH	1.000	1.000
0046	624.0100	Water	MGAL	10.000	10.000
0048	625.0100	Topsoil	SY	290.000	290.000
0050	627.0200	Mulching	SY	205.000	205.000
0052	628.1504	Silt Fence	LF	290.000	290.000
0054	628.1520	Silt Fence Maintenance	LF	580.000	580.000
0056	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0058	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0060	628.2027	Erosion Mat Class II Type C	SY	315.000	315.000
0062	628.6005	Turbidity Barriers	SY	215.000	215.000
0064	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0066	629.0210	Fertilizer Type B	CWT	0.400	0.400
0068	630.0120	Seeding Mixture No. 20	LB	10.000	10.000
0070	630.0200	Seeding Temporary	LB	10.000	10.000
0072	630.0300	Seeding Borrow Pit	LB	4.000	4.000
0074	630.0500	Seed Water	MGAL	11.000	11.000

Estimate Of Quantities

7842-00-70					
Line	Item	Item Description	Unit	Total	Qty
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0078	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0080	638.2602	Removing Signs Type II	EACH	6.000	6.000
0082	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,170.000	1,170.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	1,820.000	1,820.000
0090	643.0900	Traffic Control Signs	DAY	910.000	910.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	70.000	70.000
0096	645.0120	Geotextile Type HR	SY	420.000	420.000
0098	650.4500	Construction Staking Subgrade	LF	98.000	98.000
0100	650.6500	Construction Staking Structure Layout (structure) 01. B-10-238	LS	1.000	1.000
0102	650.9910	Construction Staking Supplemental Control (project) 01. 7842-00-70	LS	1.000	1.000
0104	650.9920	Construction Staking Slope Stakes	LF	98.000	98.000
0106	715.0502	Incentive Strength Concrete Structures	DOL	1,122.000	1,122.000

CLEARING AND GRUBBING

				201.0105	201.0205
				CLEARING	GRUBBING
STATION	TO	STATION	OFFSET	STA	STA
10+00	-	11+00	LT & RT	1	1
TOTALS				1	1

RIPLINGER ROAD EARTHWORK SUMMARY

From/To Station	Location	Excavation Common (1) (item # 205.0100)	Unexpanded Fill	Expanded Fill (2)	Mass Ordinate +/- (3)	Waste	Borrow (item #208.0100)	Comment:
		Cut		Factor 1.30				
8+50 - 11+00	RIPLINGER ROAD	133	188	245	-112	0	112	

- 1) Excavation Common is the Cut. Item number 205.0100.
- 2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor
- 3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
- 4) All quantities shown in CY.

BASE QUANTITIES

305.0110 BASE AGGREGATE DENSE 3/4-INCH			
STA	TO	STA	TON
9+25	--	9+73.75	115
10+26.25	--	10+75	115
UNDISTRIBUTED			10
TOTALS			240

WATER

624.0100 WATER MGAL	
PURPOSE	
COMPACTION	4
DUST CONTROL	6
TOTAL	10

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL ITEMS

				625.0100	627.0200	628.1504	628.1520	628.2027	629.0210	630.0120	630.0200	630.0300	630.0500
				TOPSOIL	MULCHING	SILT FENCE	SILT FENCE	EROSION MAT	FERTILIZER	SEEDING	SEEDING	SEEDING	SEED
							MAINTENANCE	CLASS II TYPE C	TYPE B	MIXTURE	TEMPORARY	BORROW	WATER
										NO. 20		PIT	
STA	TO	STA	LOCATION	SY	SY	LF	LF	SY	CWT	LB	LB	LB	MGAL
9+25	--	9+73.75	RT	105	45	55	110	115	0.1	4	4	0	3
9+25	--	9+73.75	LT	35	40	50	100	40	0.1	2	2		2
10+26.25	--	10+75	RT	50	40	55	110	55	0.1	3	3	0	2
10+26.25	--	10+75	LT	40	40	70	140	45	0.1	2	2		2
UNDISTRIBUTED				60	40	60	120	60	0.1	3	3	3	2
TOTALS				290	205	290	580	315	0.4	10	10	4	11

EROSION CONTROL MOBILIZATION ITEMS

		628.1905	628.1910
		MOBILIZATIONS	MOBILIZATIONS
		EROSION	EMERGENCY
		CONTROL	EROSION
			CONTROL
LOCATION	EACH	EACH	
ID 7842-00-70	4	4	
TOTALS	4	4	

TURBIDITY BARRIERS

		628.6005
		SY
LOCATION		
WEST ABUTMENT		100
EAST ABUTMENT		70
UNDISTRIBUTED		45
TOTAL		215

TEMPORARY DITCH CHECKS

		628.7504
		LF
LOCATION		
UNDISTRIBUTED		50
TOTAL		50

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGNING ITEMS

		634.0612	637.2230	638.2602	638.3000	
		POSTS WOOD	SIGNS TYPE II	REMOVING	REMOVING	
		4X6-INCH X 12-FT	REFLECTIVE F	SIGNS TYPE II	SMALL SIGN	
					SUPPORTS	
STATION	LOC	EACH	SF	EACH	EACH	SIGNAGE TYPE
9+72	RT	--	--	1	1	WEIGHT LIMIT 10 TONS
9+63	LT	1	3	--	--	W5-52L
9+63	RT	1	3	--	--	W5-52R
9+77	LT	--	--	1	1	W5-52L
9+79	RT	--	--	1	1	W5-52R
10+21	LT	--	--	1	1	W5-52R
10+23	RT	--	--	1	1	W5-52L
10+37	LT	1	3	--	--	W5-52R
10+37	RT	1	3	--	--	W5-52L
10+31	RT	--	--	1	1	WEIGHT LIMIT 10 TONS
TOTALS		4	12	6	6	

TRAFFIC CONTROL ITEMS

LOCATION	DURATION DAYS	643.0420		643.0705		643.0900	
		BARRICADES	TYPE III	WARNING LIGHTS	TYPE A	SIGNS	
		NO.	DAY	NO.	DAY	NO.	DAY
PER SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"	65	18	1,170	28	1,820	14	910
RIPLINGER ROAD	--	--	--	--	--	--	--
TOTALS			1,170		1,820		910

TRAFFIC CONTROL PLACEMENT SUBJECT TO ENGINEER APPROVAL

STAKING ITEMS

		650.4500	650.9920
		CONSTRUCTION	CONSTRUCTION
		STAKING	STAKING
		SUBGRADE	SLOPE
		STAKES	
CATEGORY	LOCATION	LF	LF
0010	9+25 - 10+75	98	98
TOTALS		98	98

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

R/W POINT TABLE		
POINT NAME	NORTHING	EASTING
100	445370.298	733780.186
101	445370.658	733906.615
102	445371.190	733930.184
103	445337.725	733930.437
104	445305.184	733930.683
105	445292.538	733905.781
106	445292.348	733880.781
107	445277.016	733830.017
108	445276.781	733805.897
109	445304.299	733780.686
110	445336.590	733780.441

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N89°50'13"E	126.43'
101-102	N88°42'26"E	23.58'
102-103	S00°26'01"E	33.47'
103-104	S00°26'01"E	32.54'
104-105	S63°04'37"W	27.93'
105-106	S89°33'59"W	25.00'
106-107	S73°11'39"W	53.03'
107-108	S89°26'31"W	24.12'
108-109	N42°29'42"W	37.32'
109-110	N00°26'01"W	32.29'
110-100	N00°26'01"W	33.71'

TLE POINT TABLE		
POINT NAME	NORTHING	EASTING
T200	445370.384	733810.188
T201	445375.429	733810.188
T202	445375.429	733910.188
T203	445370.738	733910.188

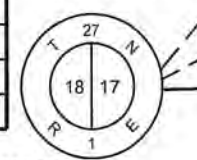
SCHEDULE OF LANDS AND INTERESTS REQUIRED		R/W (ACRES)			
PARCEL NO.	OWNER(S)	INTEREST REQUIRED	FEE	EXISTING	TOTAL
1	BENJAMIN B. NOLT AND MARTHA W. NOLT	FEE & TLE	0.046	0.153	0.199
2	LUANNE M. SCHWARZE, TRUSTEE OF THE LUANNE M. SCHWARZE IRREVOCABLE TRUST	FEE & TLE	0.010	0.075	0.085

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

R/W PROJECT NUMBER 7842-00-00	SHEET NUMBER 4.01	TOTAL SHEETS 1
CONSTRUCTION PROJECT NUMBER		
PLAT OF RIGHT OF WAY REQUIRED FOR TOWN OF UNITY, RIPLINGER ROAD S FORK POPPLE RIVER BRIDGE B-10-0238		
LOCAL STREET		CLARK COUNTY

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
100-T200	N89°50'13"E	30.00'
T200-T201	N00°00'00"E	5.04'
T201-T202	N90°00'00"E	100.00'
T202-T203	S00°00'00"E	4.69'
T203-101	S88°42'26"W	3.57'
101-T200	S89°50'13"W	96.43'

WEST 1/4 CORNER SECTION 17
BRASS CAP MONUMENT
Y = 445320.137
X = 731228.382



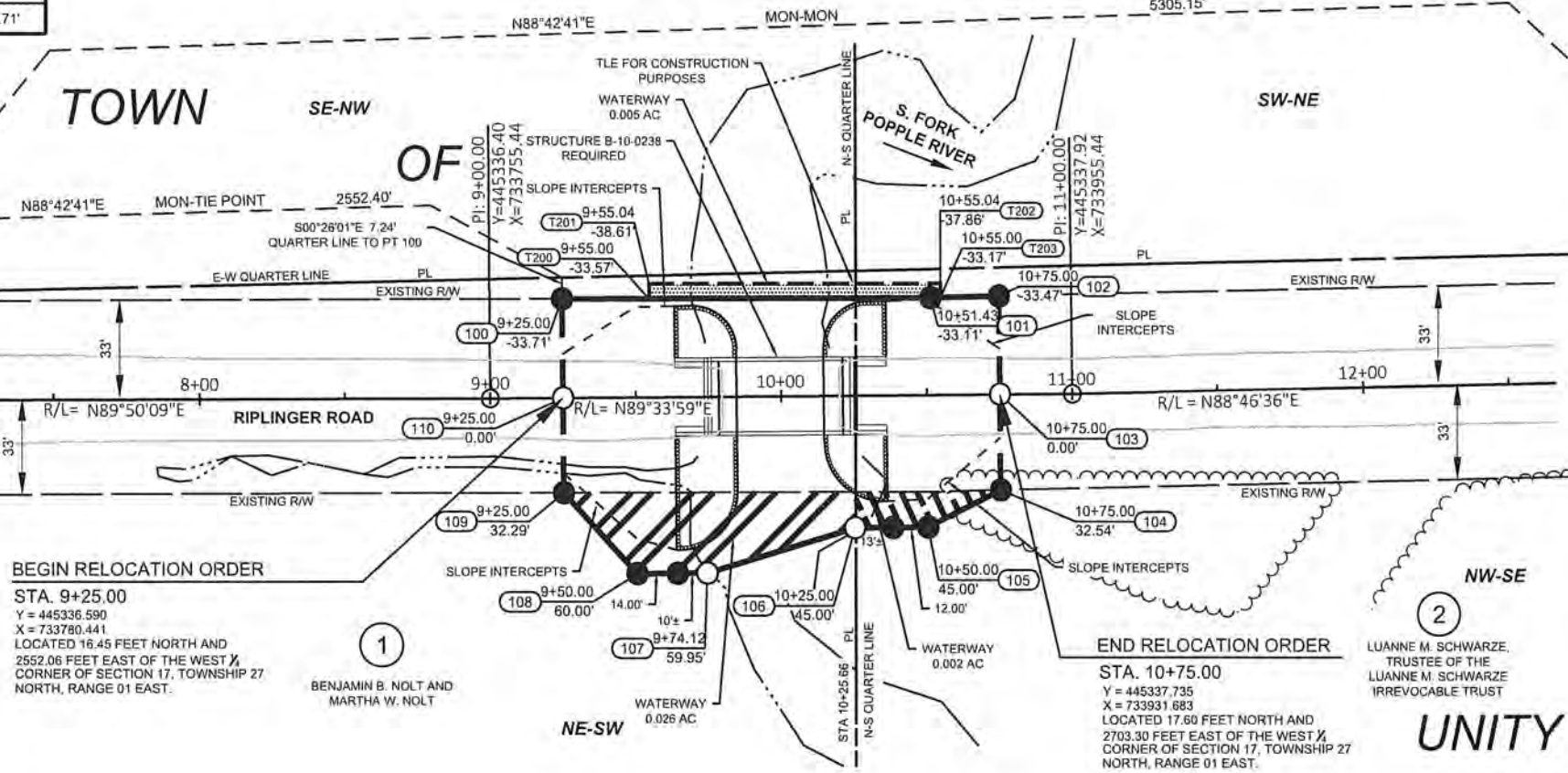
CONVENTIONAL UTILITY SYMBOLS	
WATER	---
GAS	---
TELEPHONE	---
OVERHEAD TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
ELECTRIC TOWER	---

POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL



EAST 1/4 CORNER SECTION 17
BRASS CAP MONUMENT
Y = 445439.437
X = 736532.192

CONVENTIONAL ABBREVIATIONS	
ACCESS RIGHTS	AR
ACRES	AC
AHEAD	AH
ALUMINUM	ALUM
AND OTHERS	ET AL
BACK	BR
BLOCK	BLK
CENTERLINE	C/L
CERTIFIED SURVEY MAP	CSM
CONCRETE	CONC
COUNTY	CO
COUNTY TRUNK HIGHWAY	CTH
DISTANCE	DIST
CORNER	COR
DOCUMENT NUMBER	DOC
EASEMENT	EASE
EXISTING	EX
GAS VALVE	GV
GRID NORTH	GN
HIGHWAY EASEMENT	HE
IDENTIFICATION	ID
LAND CONTRACT	LC
LEFT	LT
MONUMENT	MON
NATIONAL GEODETTIC SURVEY	NGS
NUMBER	NO
OUTLET	OL
PAGE	PAGE
POINT OF TANGENCY	PT
PROPERTY LINE	PL
RECORDED AS	RECORDED AS
REEL / IMAGE	R/I
REFERENCE LINE	R/L
PERMANENT LIMITED EASEMENT	P/LE
POINT OF BEGINNING	P/OB
POINT OF CURVATURE	P/OC
POINT OF COMPOUND CURVE	P/CC
POINT OF INTERSECTION	P/IS
REMAINING	REM
RESTRICTIVE DEVELOPMENT EASEMENT	RDE
RIGHT	RT
RIGHT OF WAY	R/W
SECTION	SEC
SEPTIC VENT	SEPV
SQUARE FEET	SF
STATE TRUNK HIGHWAY	STH
STATION	STA
TELEPHONE PEDESTAL	TP
TEMPORARY LIMITED EASEMENT	TLE
TRANSPORTATION PROJECT PLAT	TPP
UNITED STATES HIGHWAY	USH
VOLUME	V



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), CLARK COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (3/4"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS./LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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

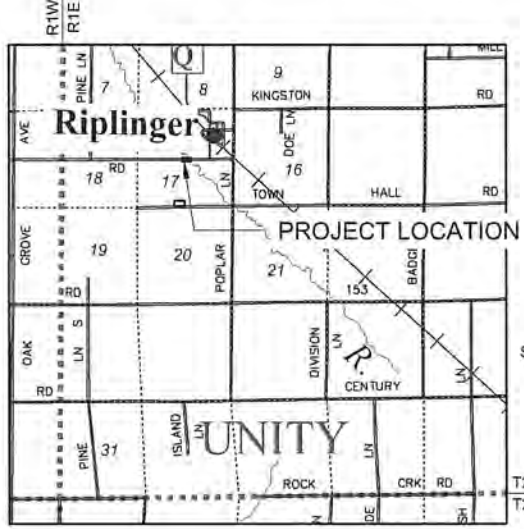
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

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

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. 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.

EXISTING HIGHWAY RIGHT-OF-WAY FOR RIPLINGER ROAD SHOWN HEREIN HAS BEEN ESTABLISHED BY TOWN OF UNITY ROAD ORDER DATED MAY 18, 1891, ESTABLISHED TO BE 66 FEET IN WIDTH, AND IS CENTERED ON THE EXISTING CENTERLINE OF THE TRAVELED WAY.

CONVENTIONAL SYMBOLS	
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
NEW REFERENCE LINE	---
NEW R/W LINE	---
EXISTING R/W LINE	---
PROPERTY LINE	---
LOT, TIE, AND OTHER MINOR LINES	---
SLOPE INTERCEPT	---
CORPORATE LIMITS	---
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	---
TEMP. LIMITED EASEMENT AREA	---
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	---
TRANSMISSION STRUCTURES	---
BUILDING	---
BUILDING (TO BE REMOVED)	---
BRIDGE	---
PARCEL NUMBER	25
UTILITY NUMBER	40
SECTION CORNER	---
NOTATION FOR COMBUSTIBLE FLUIDS	---
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	---
ACCESS CONTROLLED BY ACQUISITION	---
NO ACCESS (BY STATUTORY AUTHORITY)	---
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	---
NO ACCESS (NEW HIGHWAY)	---
NATIONAL GEODETTIC SURVEY MONUMENT	---
SIXTEENTH CORNER MONUMENT	---
PARALLEL OFFSETS	---



TOTAL NET LENGTH OF CENTERLINE = 0.028 MI.

REVISION DATE

APPROVED FOR
TOWN OF UNITY
6-10-19 Wayne Handrich
DATE TOWN CHAIRMAN

PLAT PREPARED BY
AVRES ASSOCIATES

THE SURVEY IS PREPARED AT THE REQUEST OF THE TOWN OF UNITY.

THE FIELD SURVEY WAS PERFORMED IN MAY 2018.

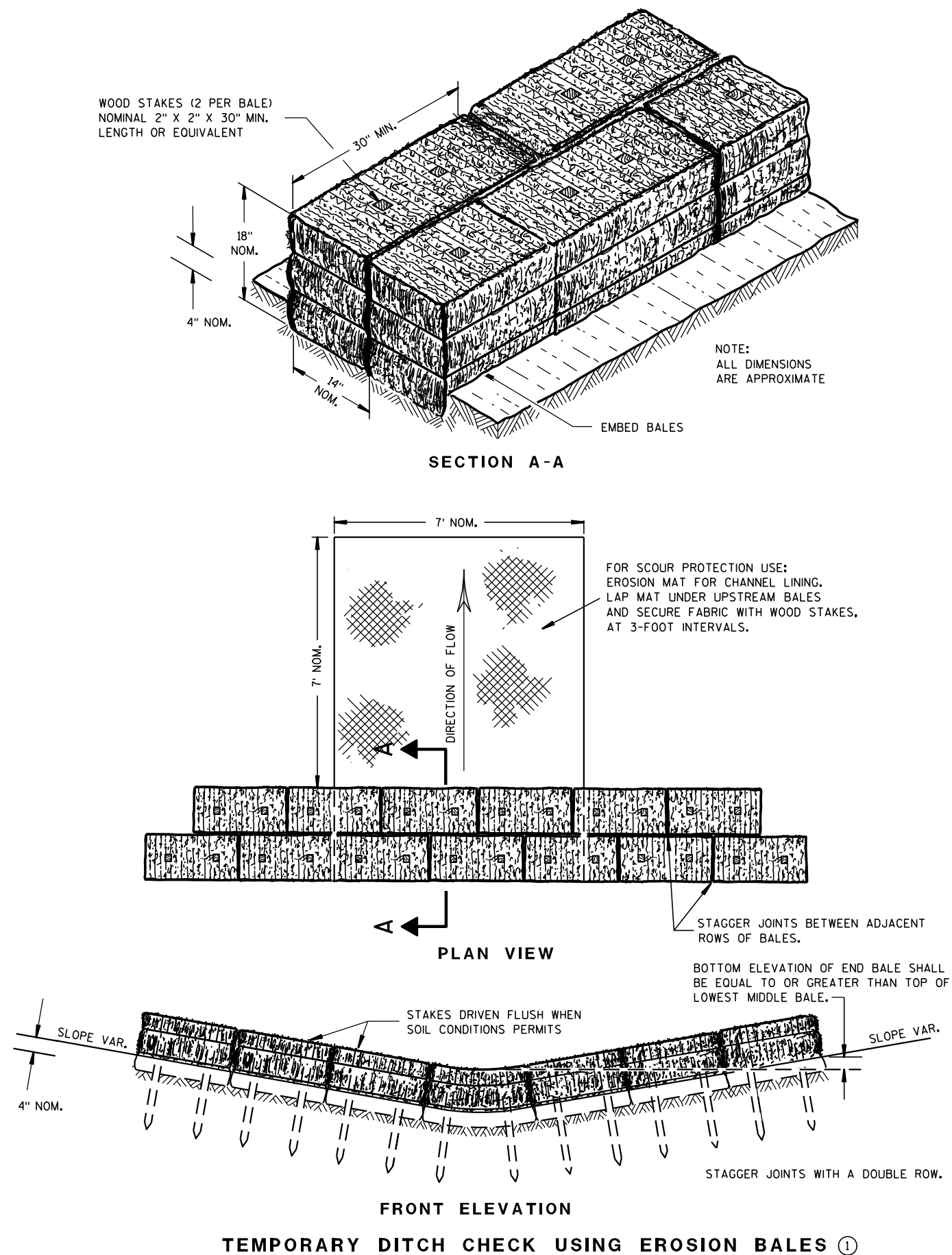
THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.



CHRISTOPHER R. BADTKE, P.L.S.
S-3150
DATE 06-05-2019

Standard Detail Drawing List

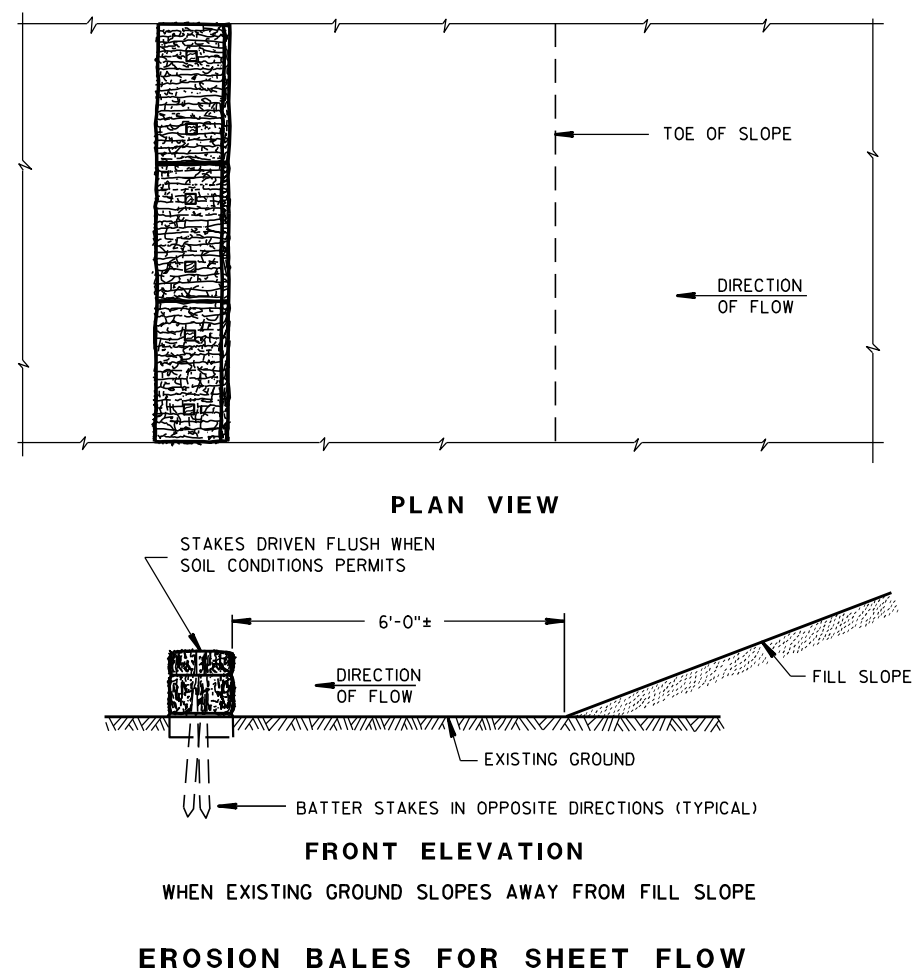
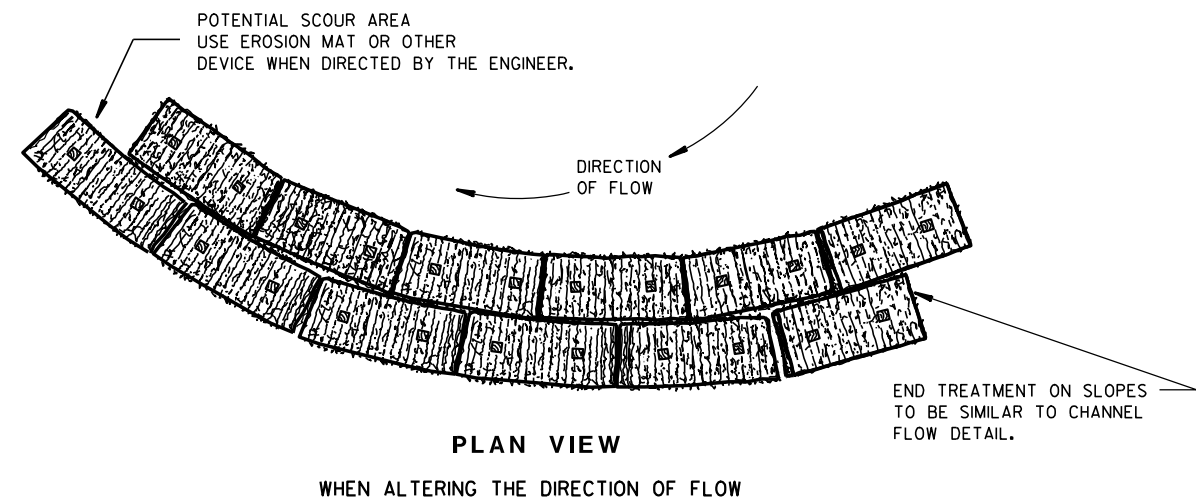
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



- 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.

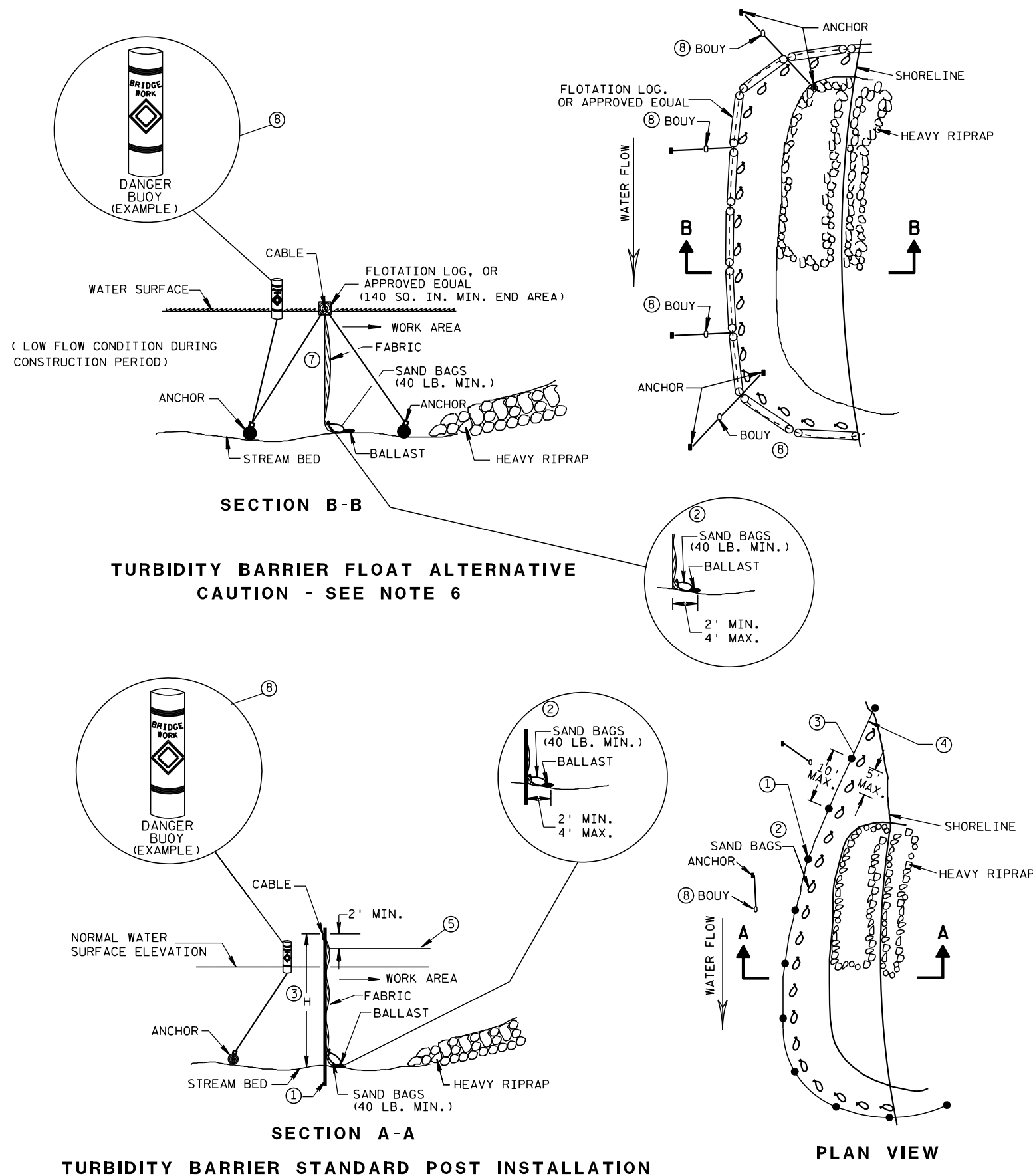


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

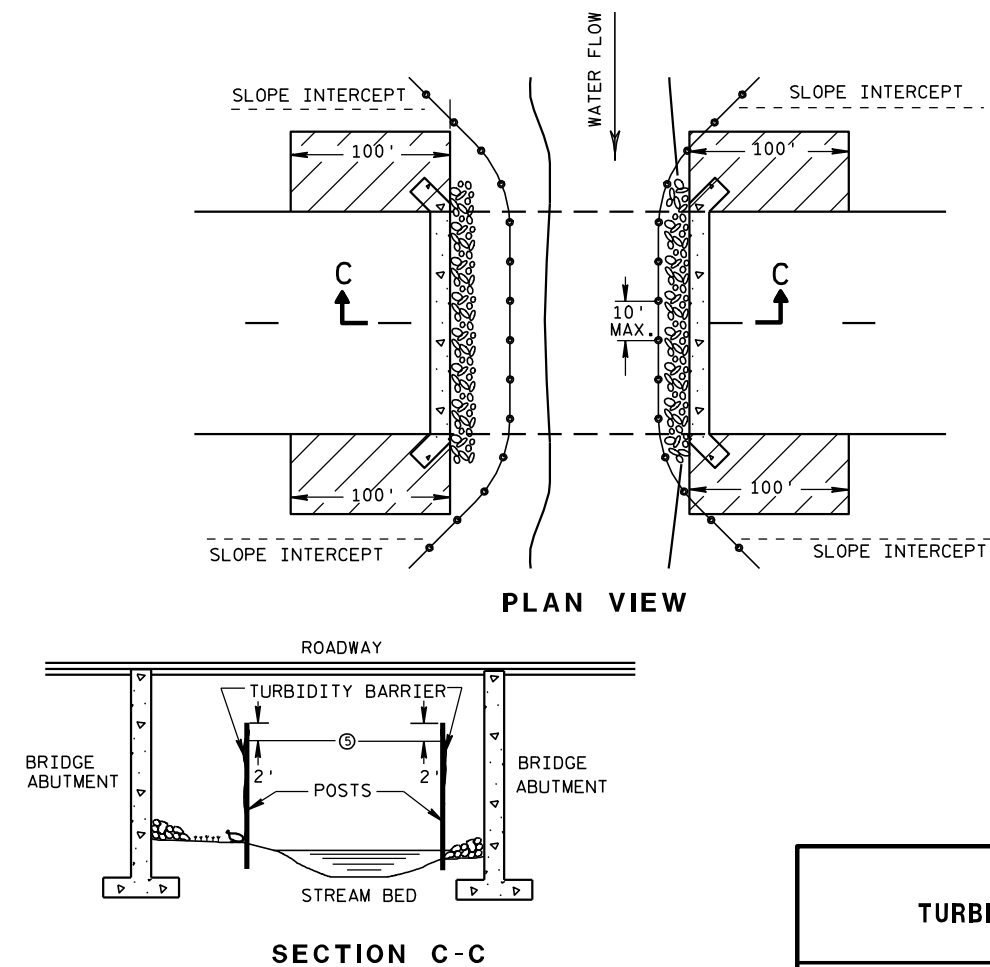


GENERAL NOTES

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

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

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



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

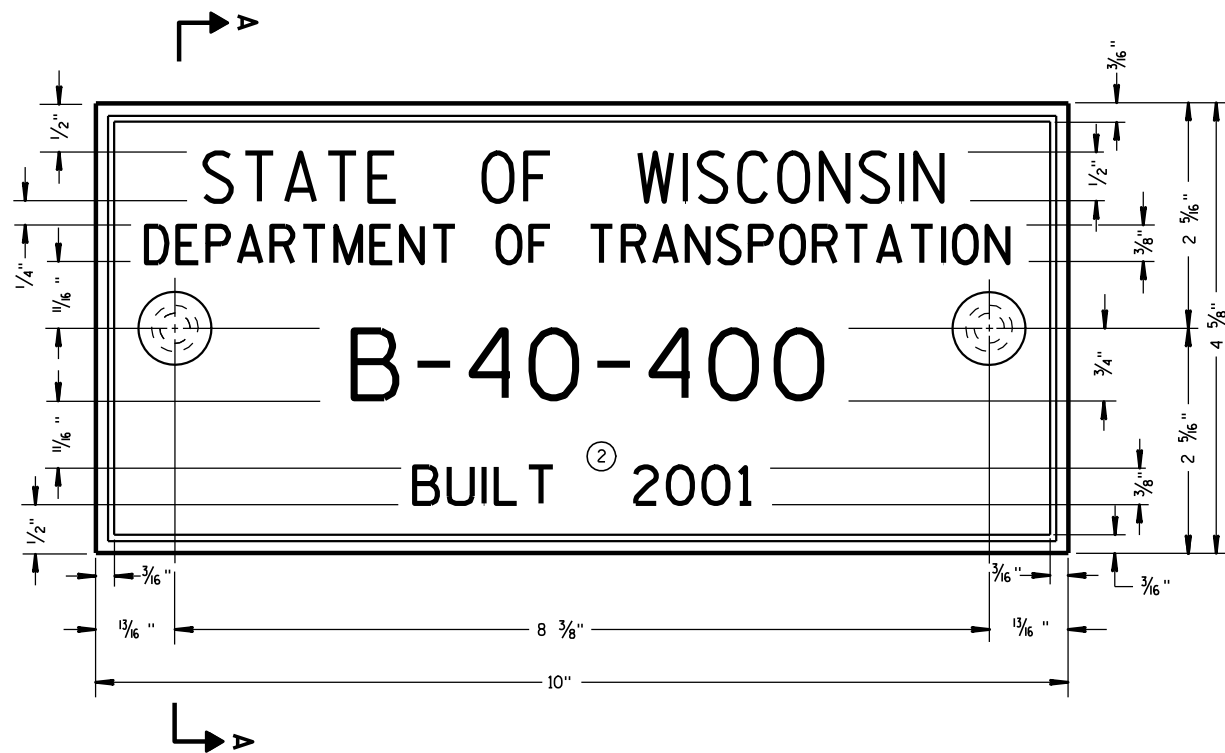
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

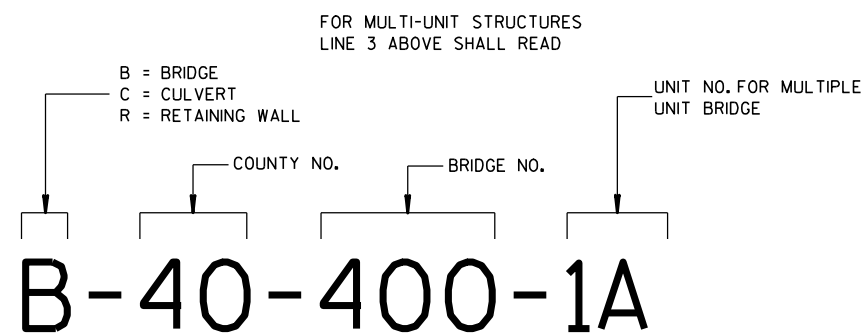
6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



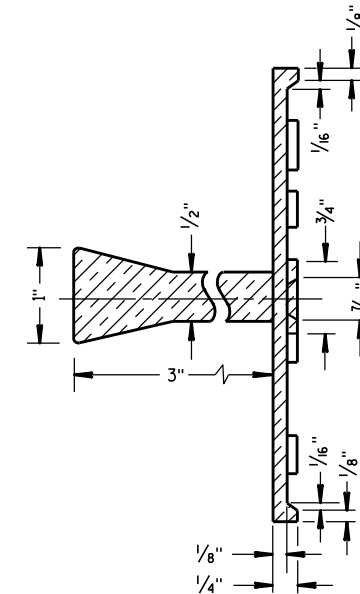
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

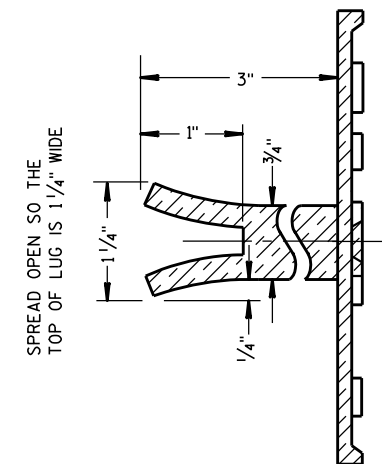
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

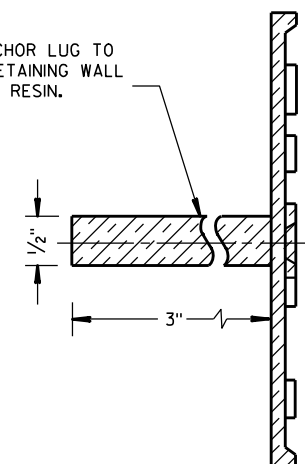


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

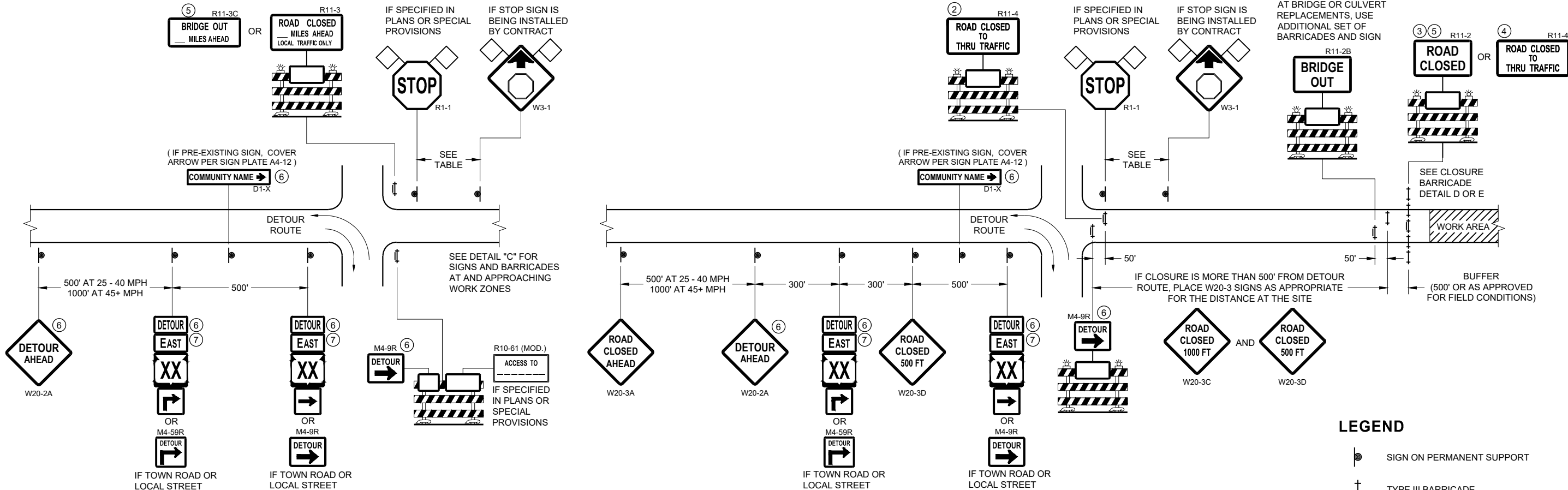
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

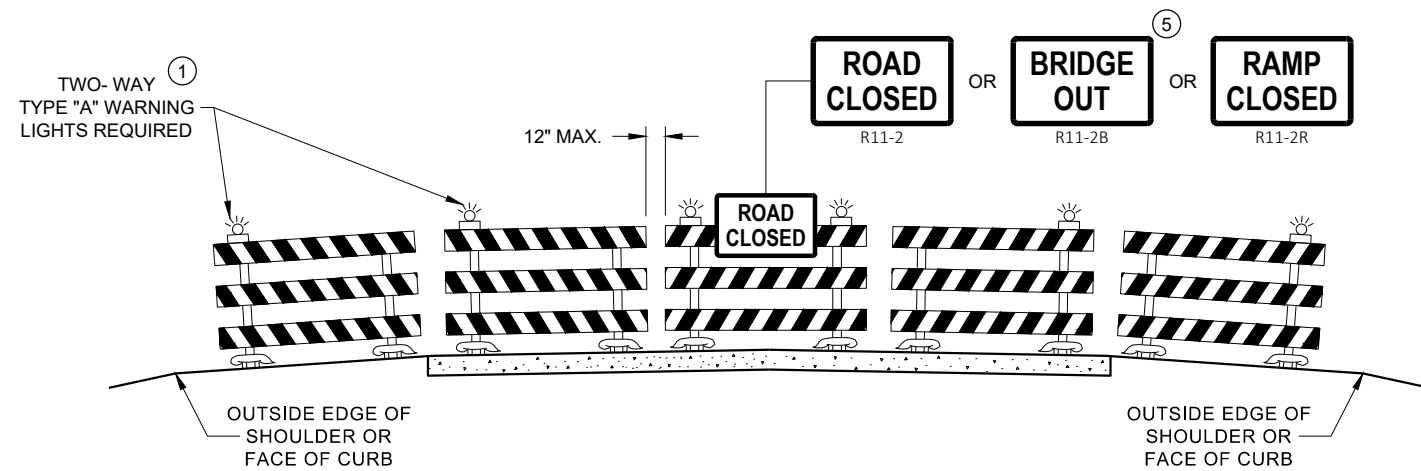
SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

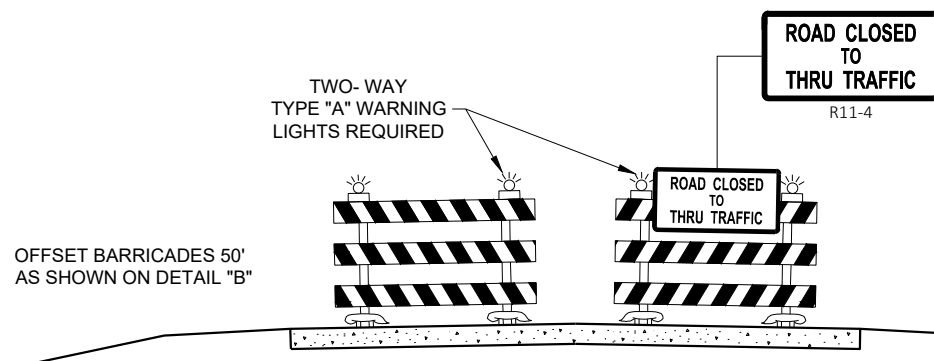
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

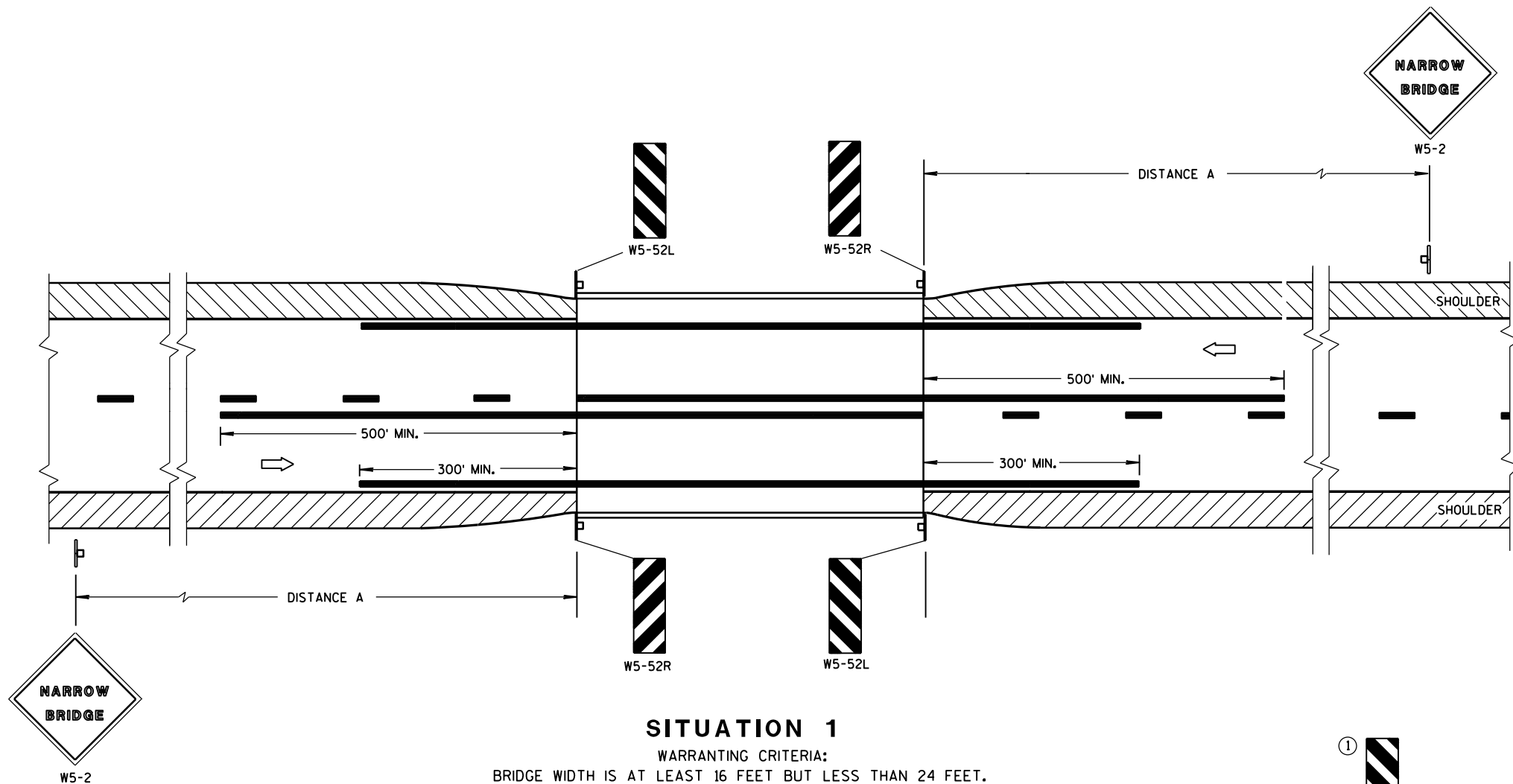
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



SITUATION 1

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

DISTANCE TABLE

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

GENERAL NOTES

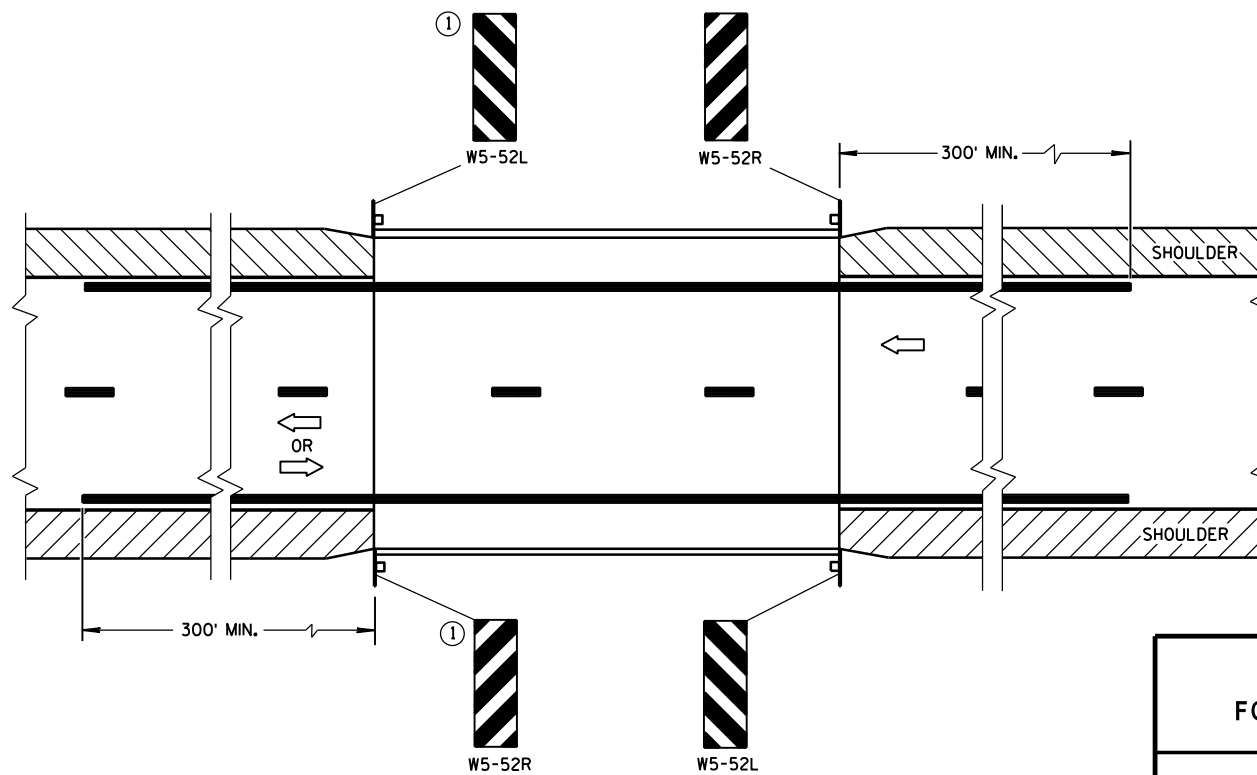
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

① OMIT ON ONE-WAY TRAVELLED WAYS.

➡ DIRECTION OF TRAFFIC



SITUATION 2

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

SIGNING & MARKING FOR TWO LANE BRIDGES

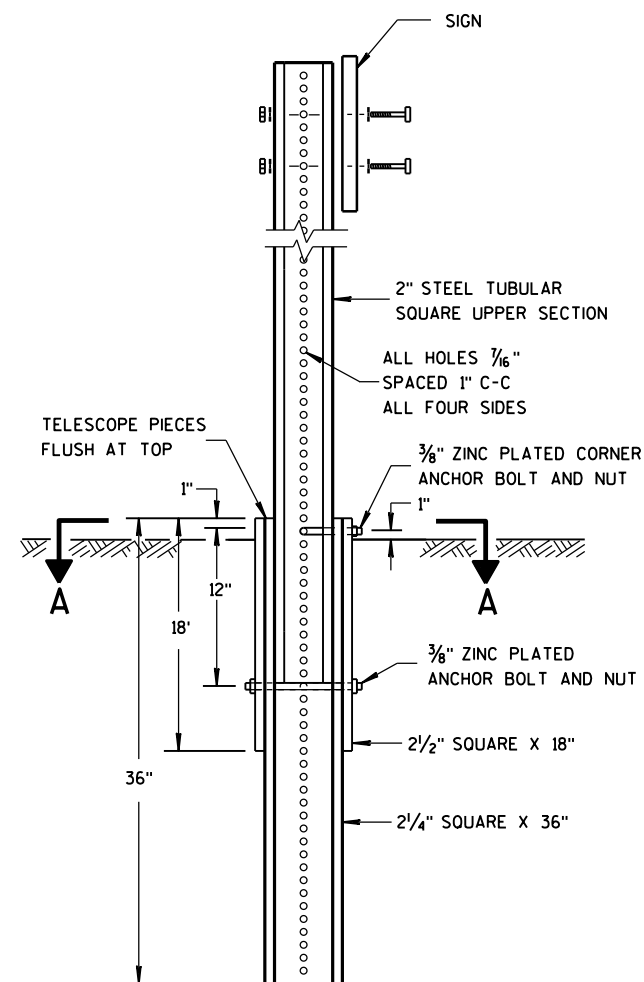
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

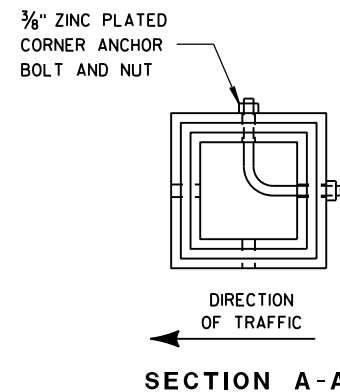


DETAIL OF TUBULAR
STEEL SIGN POST

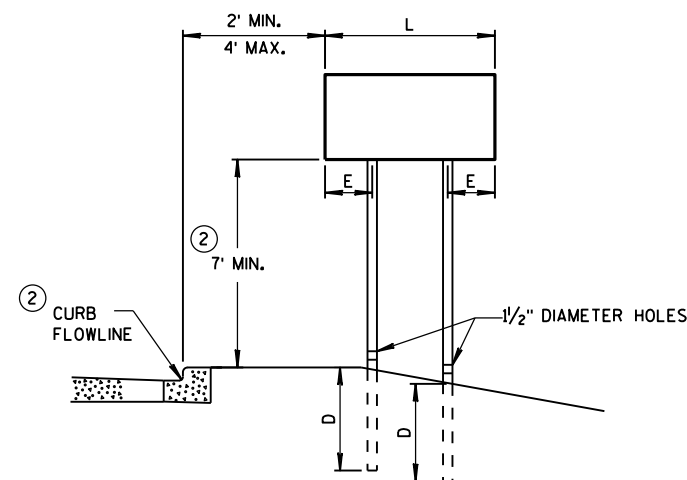
TUBULAR STEEL POSTS

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

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



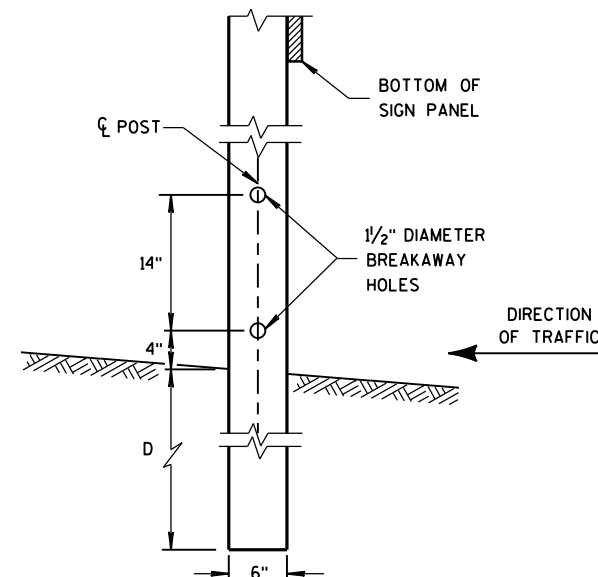
SECTION A-A



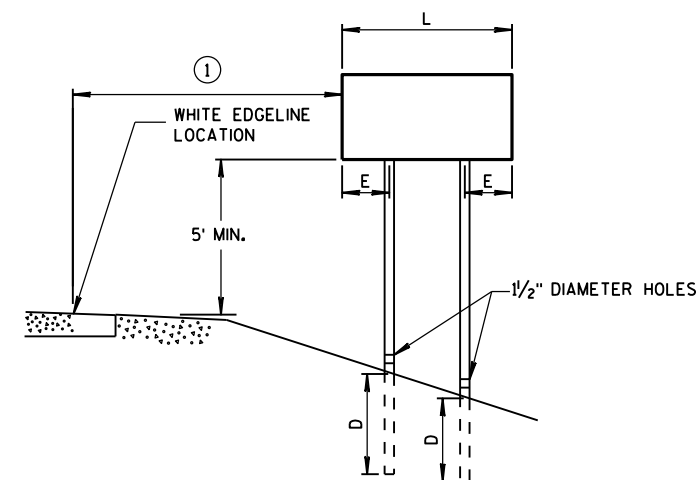
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

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

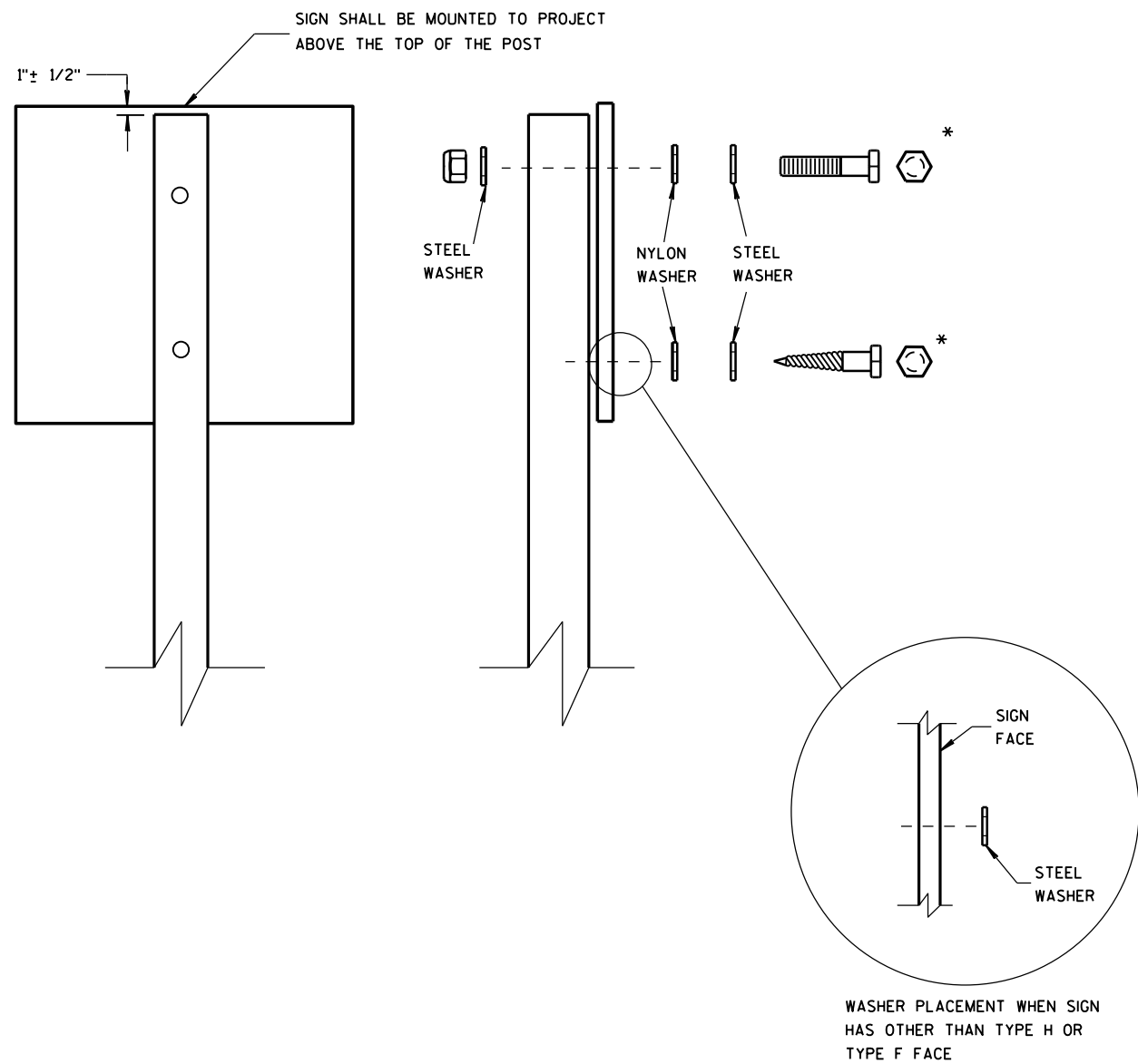
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

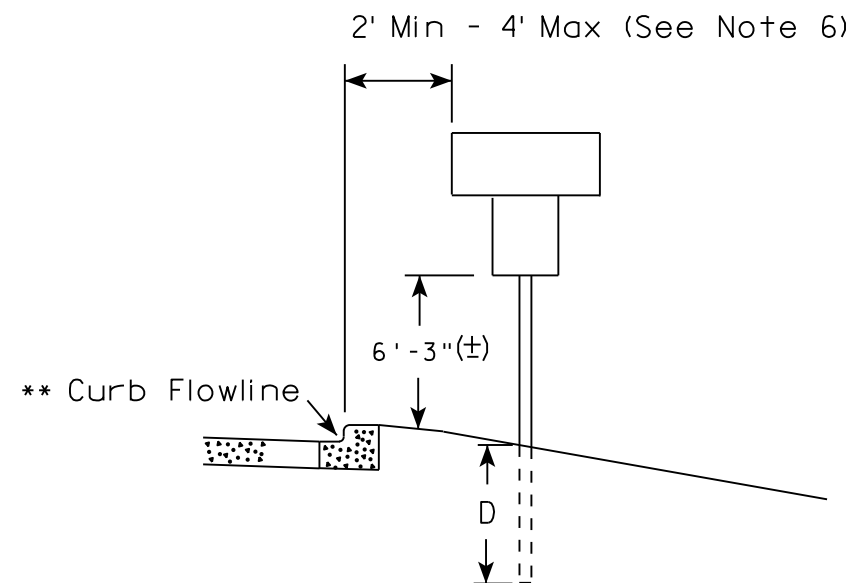
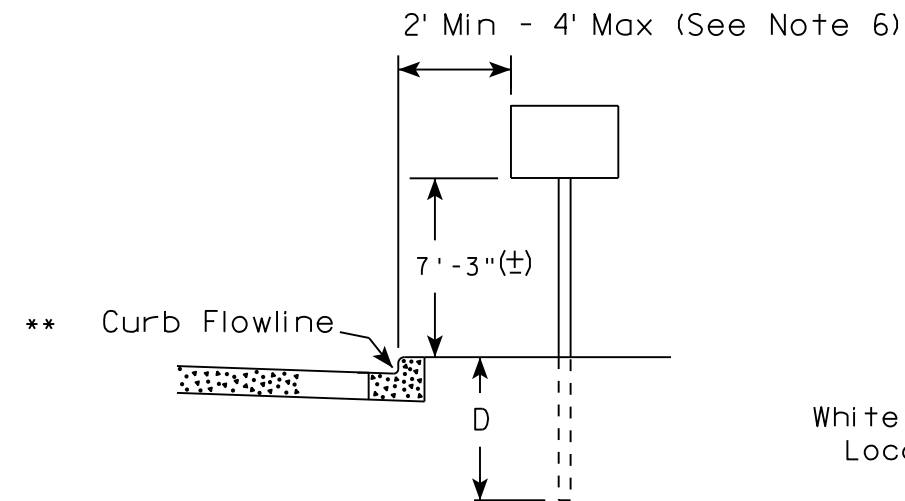
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

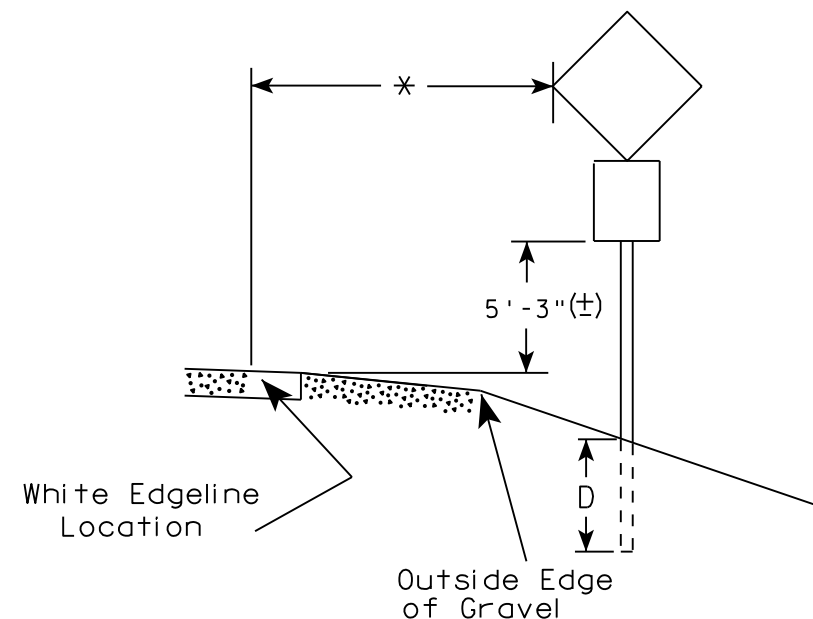
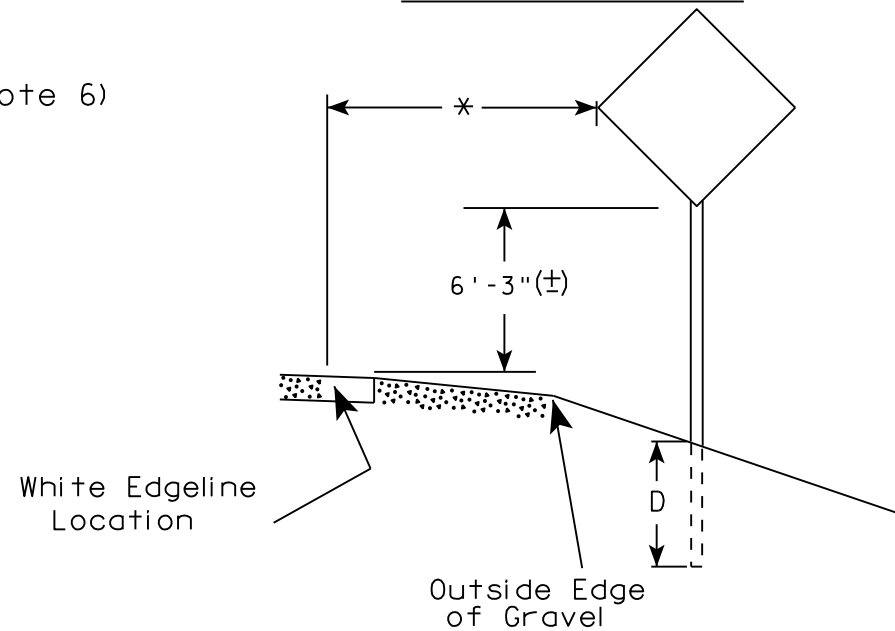
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	

URBAN AREA



✱✱ 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.

RURAL AREA (See Note 2)



* 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.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

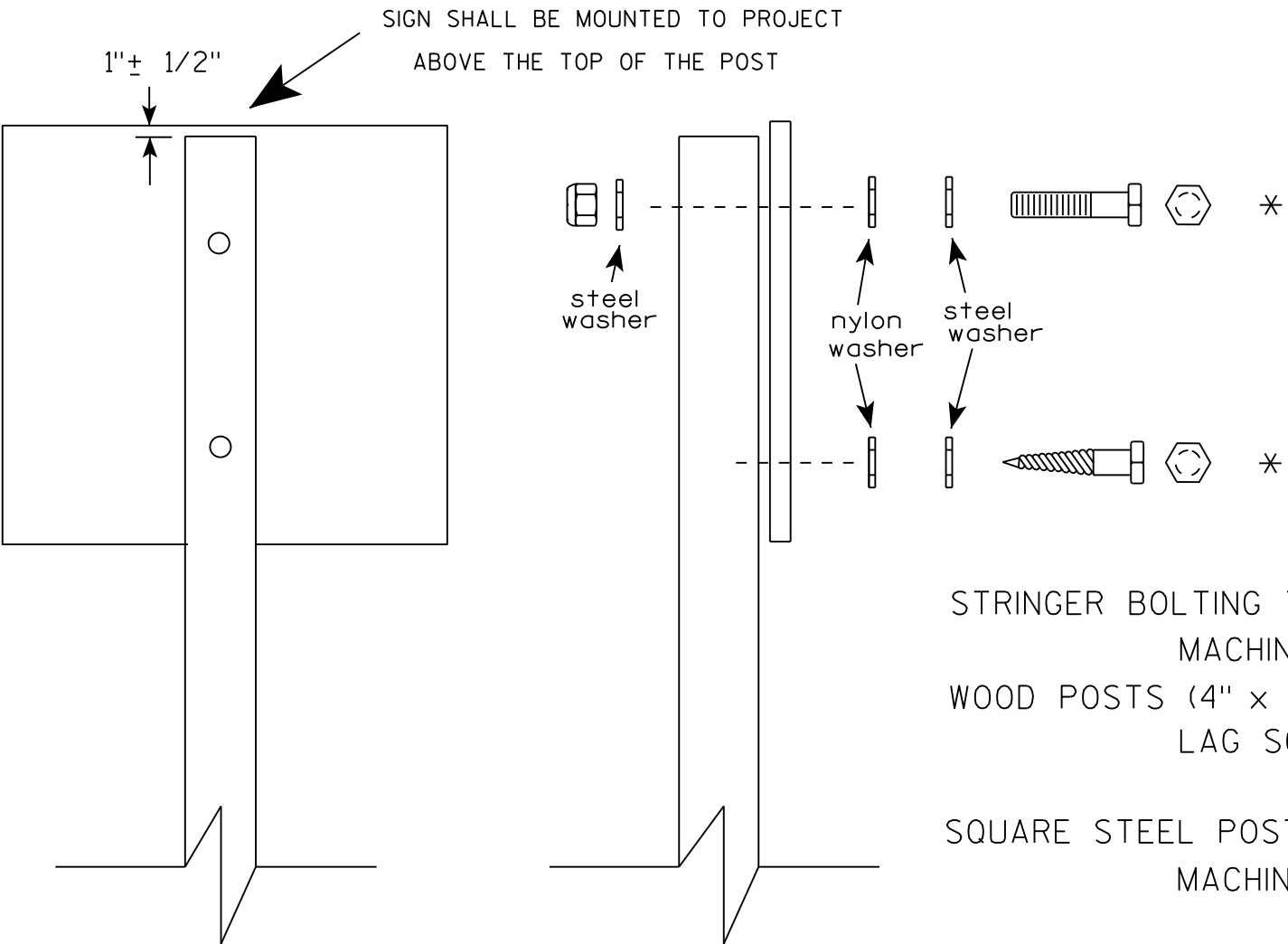
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21



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

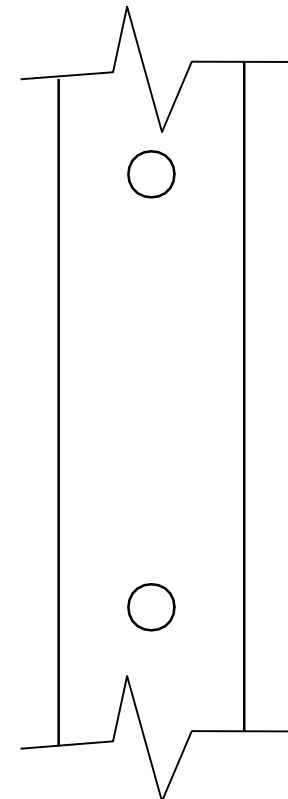
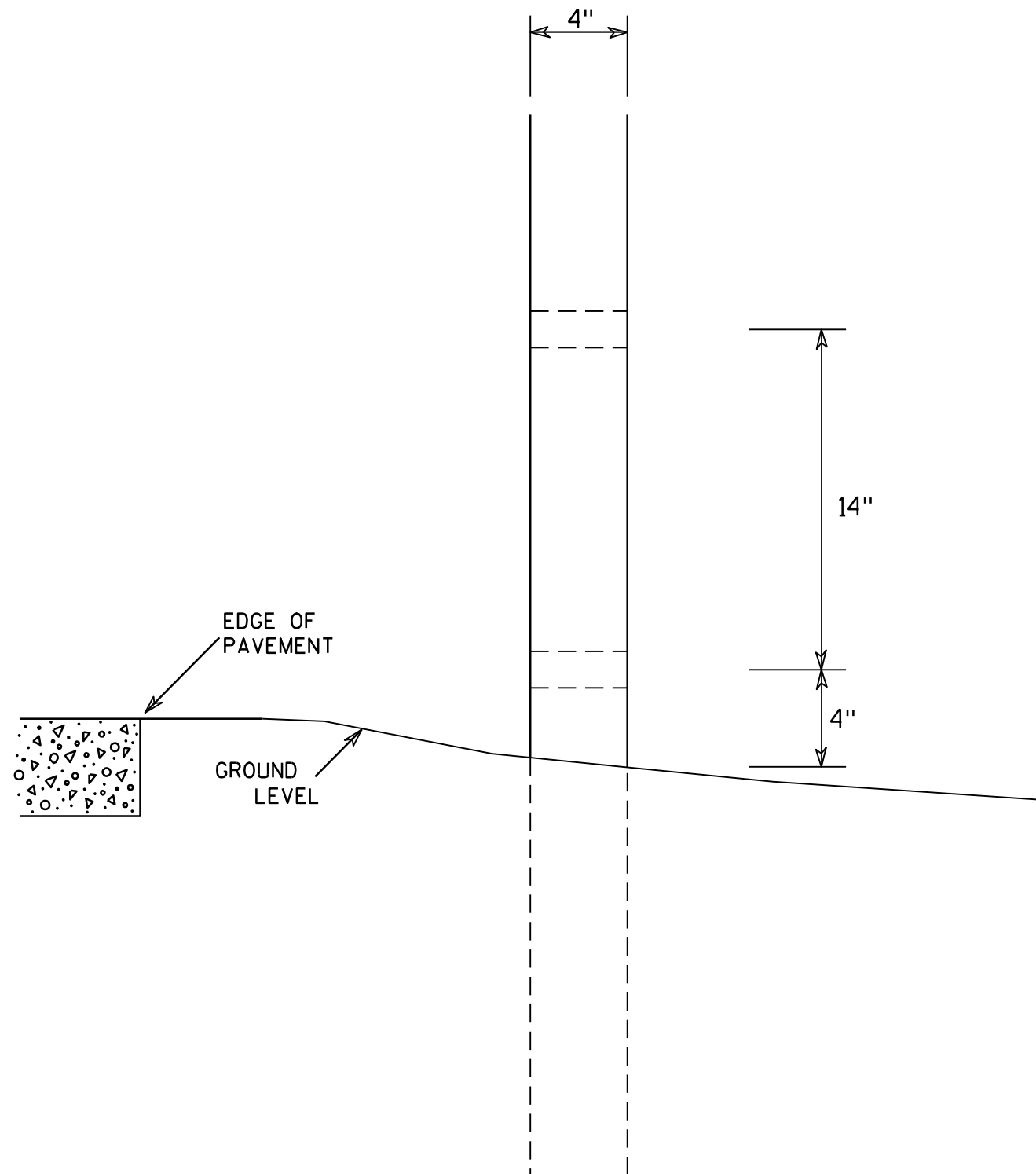
- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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 - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

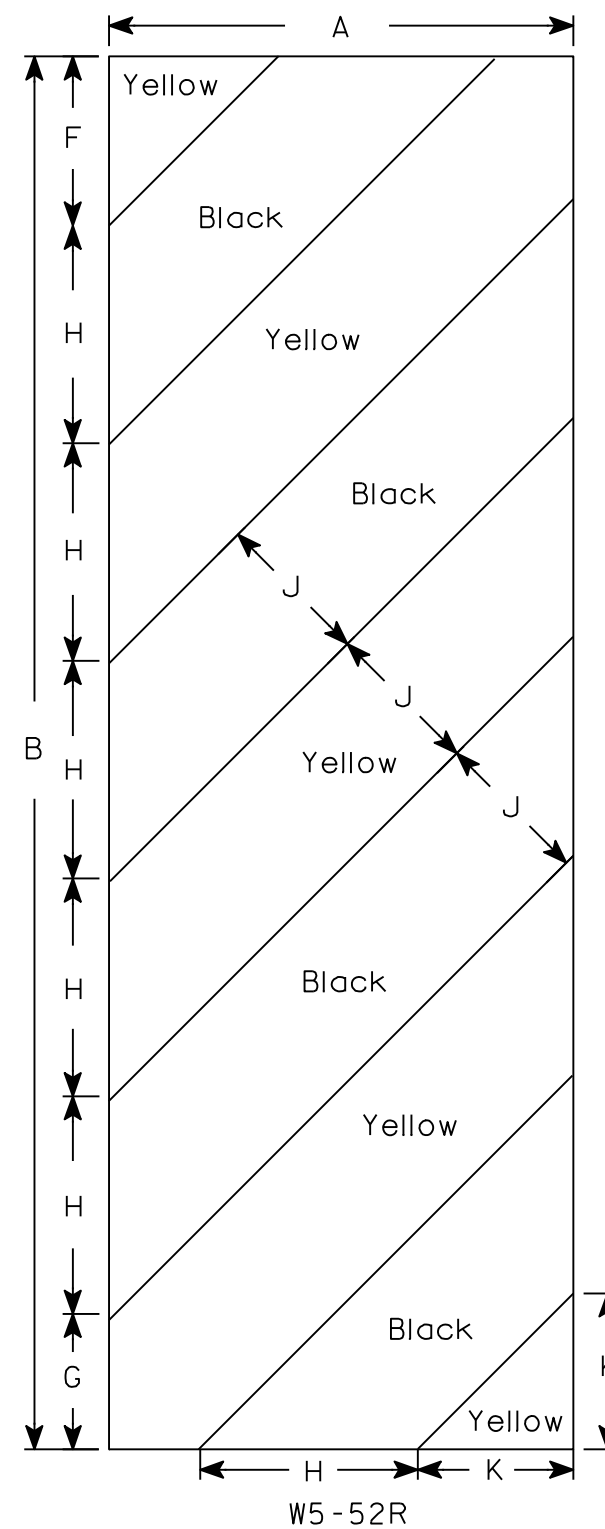
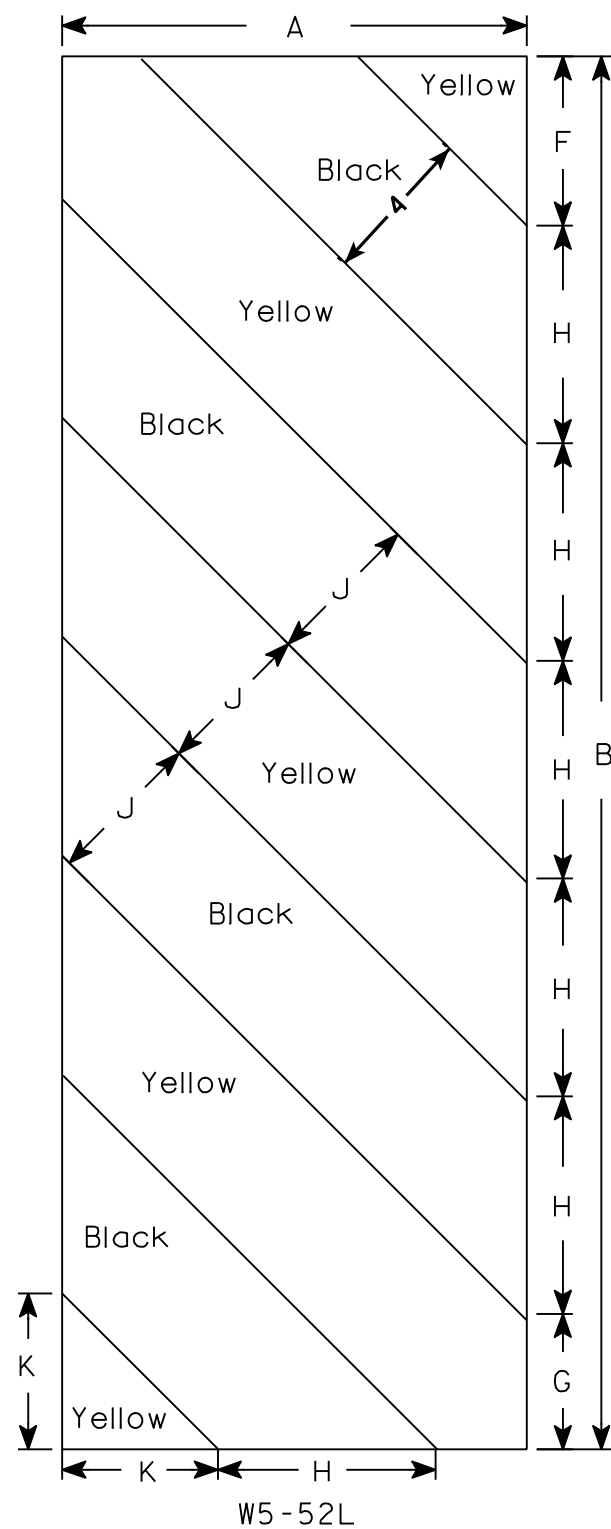
PROJECT NO: 7842-00-70

HWY: RIPLINGER ROAD

COUNTY: CLARK

SHEET NO:

E



NOTES

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

[illegible]

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

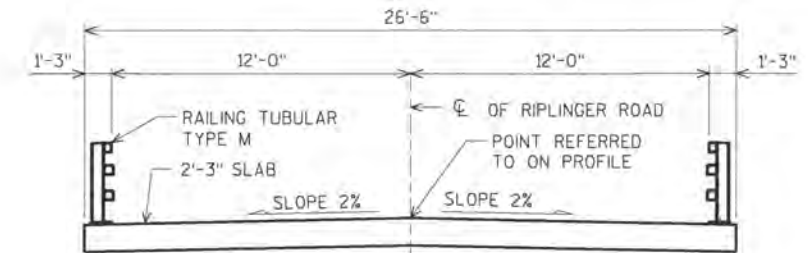
PROJECT NO: 7842-00-70

HWY: RIPLINGER ROAD

COUNTY: CLARK

SHEET NO:

E



DESIGN DATA

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.11
OPERATING RATING FACTOR: 1.44
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 "S.F.

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.

2 YEAR FREQUENCY
$$Q_2 = 420 \text{ c.f.s.}$$

VEL. = 3.39 f.p.s.

$$HW_2 = EL. 1276.16$$

DATUM = NAVD88 (2012)

WEST ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ± PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 55'-0".

EAST ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ± PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 65'-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.

A.D.T. = <100 (2020)
A.D.T. = <100 (2040)
R.D.S. = 25 M.P.H.

NO.	DATE	REVISION	BY
-----	------	----------	----

ORIGINAL PLANS PREPARED BY

AYRES
ASSOCIATES

3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/05/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

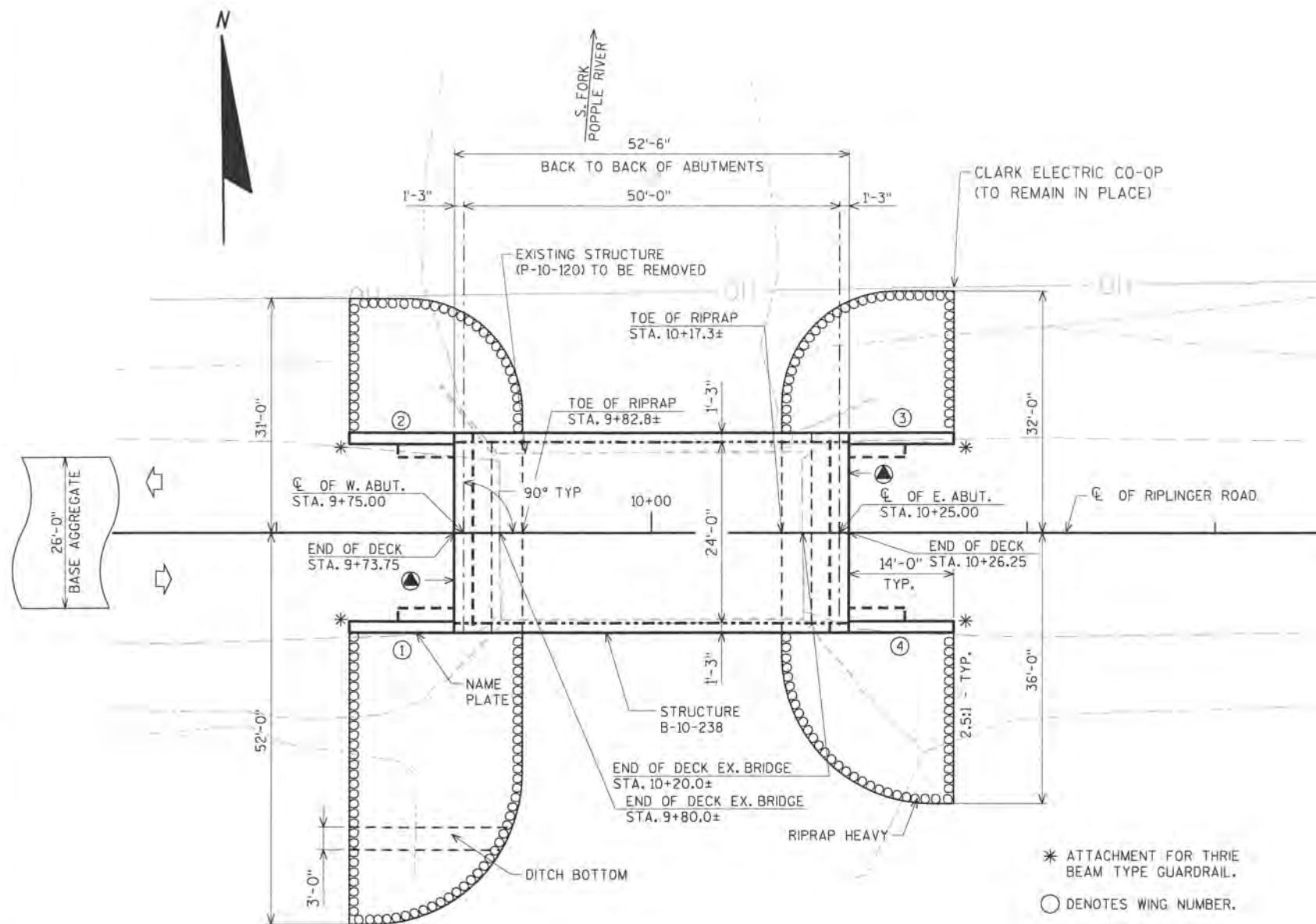
STRUCTURE B-10-238

RIPLINGER ROAD OVER S. FORK POPPLE RIVER			
COUNTY	CLARK	TOWN/CITY/VILLAGE	UNITY

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS					
DESIGNED BY	ZSS	DESIGN C.K.D.	JLB	DRAWN BY	JLB
				PLANS C.K.D.	BNS

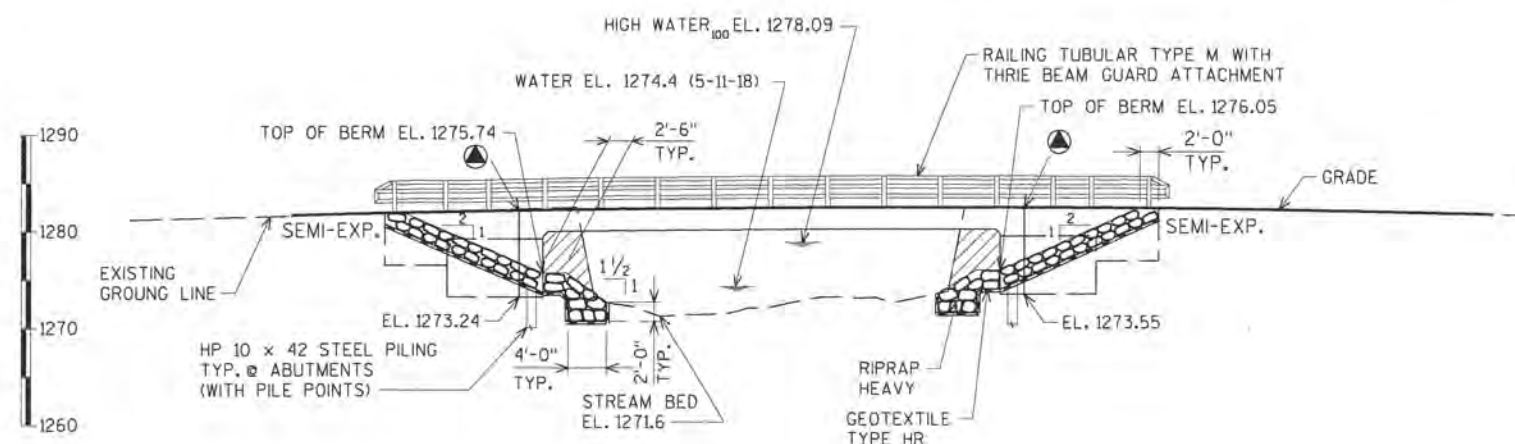
GENERAL PLAN

SHEET 1 OF 13




PLAN

SINGLE-SPAN CONCRETE FLAT SLAB



ELEVATION

 COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-10-238".

LIST OF DRAWINGS

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



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

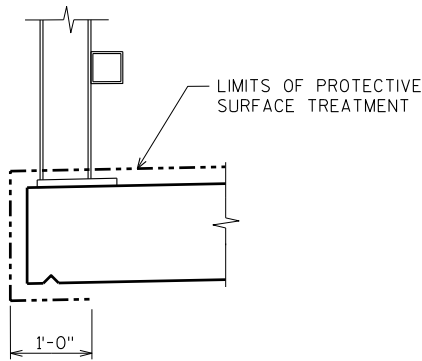
CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

\$PRNAME\$
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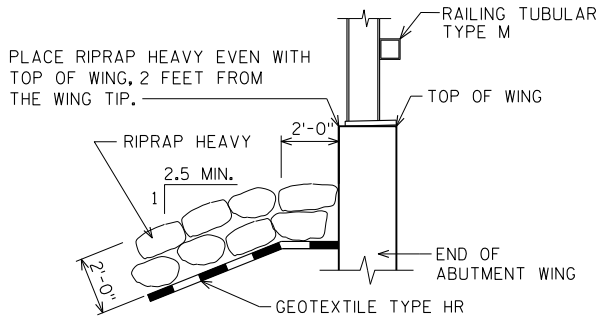
8

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-10-238	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	145	145	-----	290
502.0100	CONCRETE MASONRY BRIDGES	CY	33	33	121	187
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	195	195
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,790	1,790	-----	3,580
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,600	1,610	20,550	23,760
506.0105	STRUCTURAL STEEL CARBON	LB	-----	-----	470	470
513.4061	RAILING TUBULAR TYPE M	LF	31	31	105	167
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	8	-----	16
550.0500	PILE POINTS	EACH	6	6	-----	12
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	330	390	-----	720
606.0300	RIPRAP HEAVY	CY	115	100	-----	215
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	75	-----	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	35	35	-----	70
645.0120	GEOTEXTILE TYPE HR	SY	225	195	-----	420
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"



PROTECTIVE SURFACE TREATMENT DETAIL



TYPICAL FILL SECTION AT WING TIPS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-10-238" SHALL BE THE EXISTING GROUNDLINE.

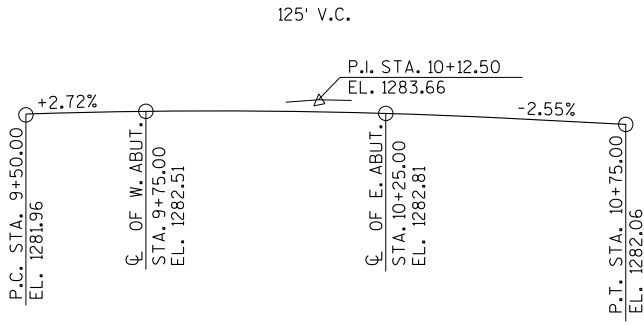
THE EXISTING STRUCTURE, P-10-120, TO BE REMOVED, IS A SINGLE-SPAN STEEL DECK GIRDER BRIDGE ON TIMBER ABUTMENTS 40-FT. LONG WITH A 20-FT. CLEAR ROADWAY WIDTH.

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

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

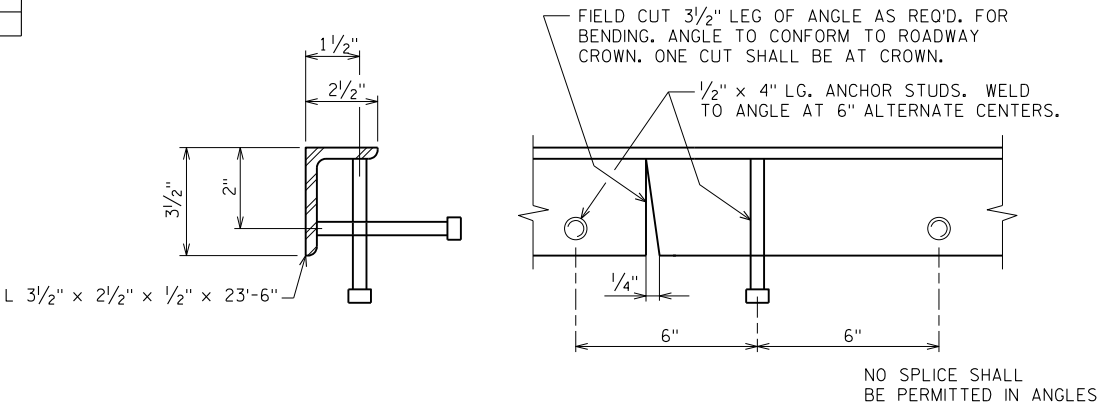
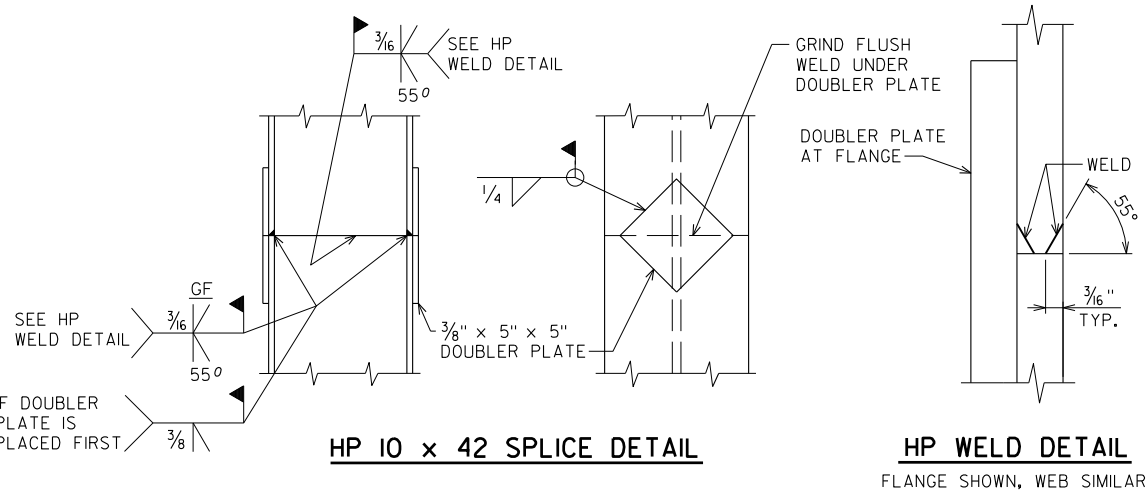
BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

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.



PROFILE GRADE LINE
(RIPLINGER ROAD)

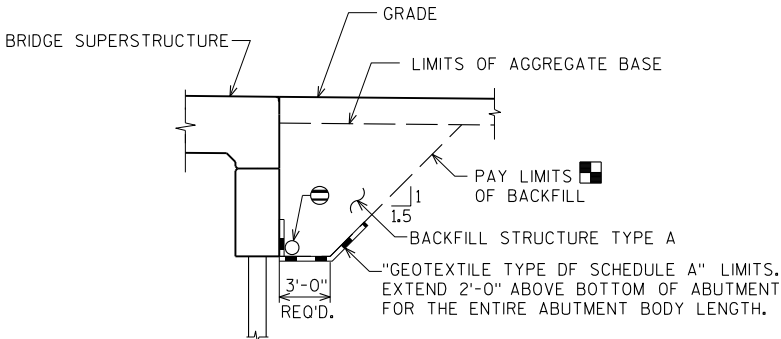
BENCH MARK:
CHISELED SQUARE ON CURB
STA. 10+20, 10' LT.
EL. 1283.71



PROTECTION ANGLE DETAIL

(ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL STEEL CARBON". (NO PAINT REQ'D.)

SANDBLAST PROTECTION ANGLE AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.



BACKFILL STRUCTURE LIMITS THRU ABUTMENT

- BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 5.

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
	DRAWN BY	JLB	PLANS CK'D. ZSS
QUANTITIES AND NOTES		SHEET 2 OF 13	

\$PRNAME\$
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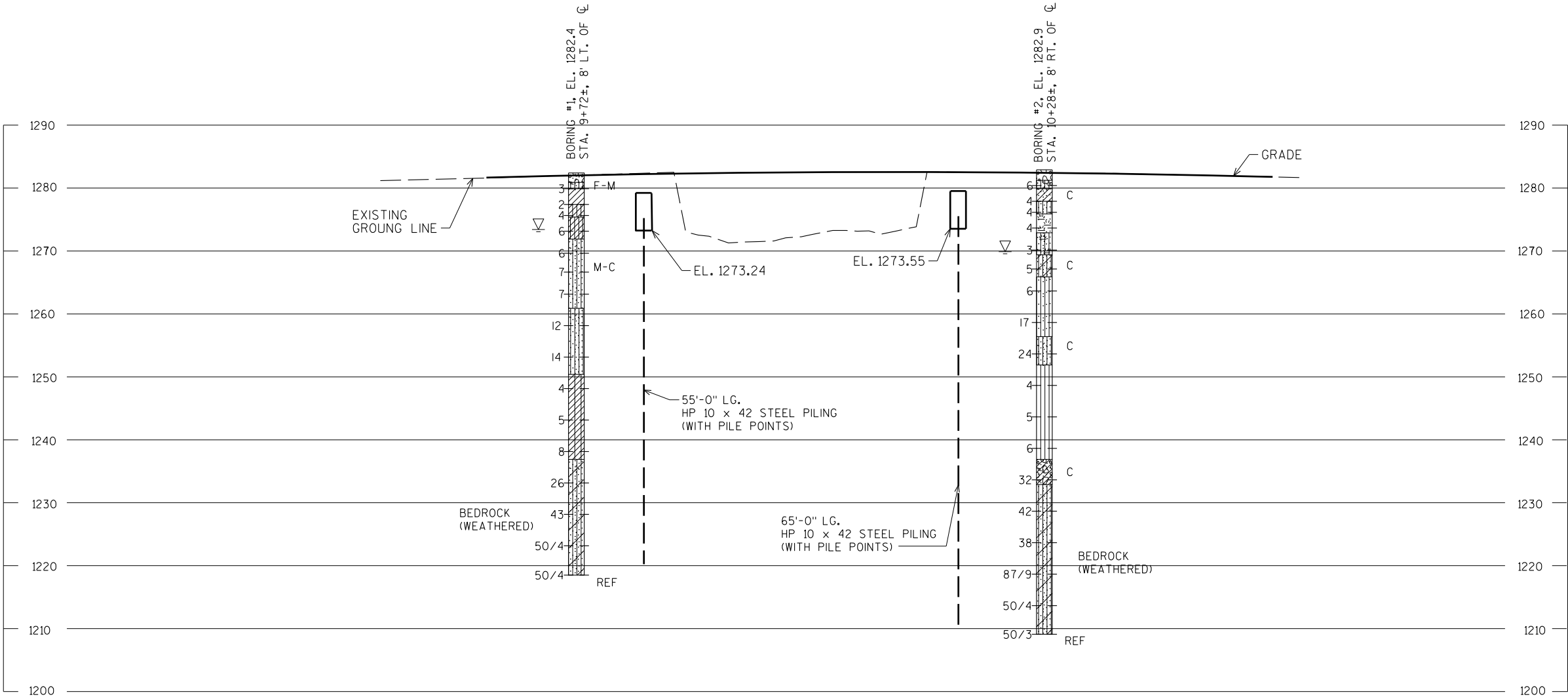
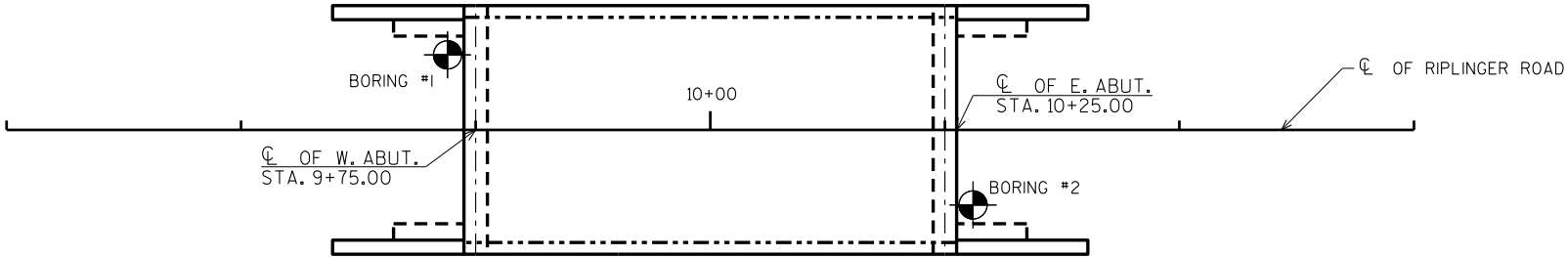
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	09/12/18	445344.94	733827.18
2	09/12/18	445329.37	733883.62

BORINGS COMPLETED BY: GEOTECHNICAL DRILLING CONTRACTORS, LLC.

REPORT COMPLETED BY: ECS MIDWEST, LLC.

ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) CLARK COUNTY

S. FORK
POPPLE RIVER



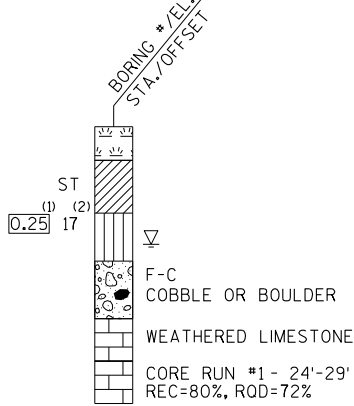
STATE PROJECT NUMBER

7842-00-70

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.

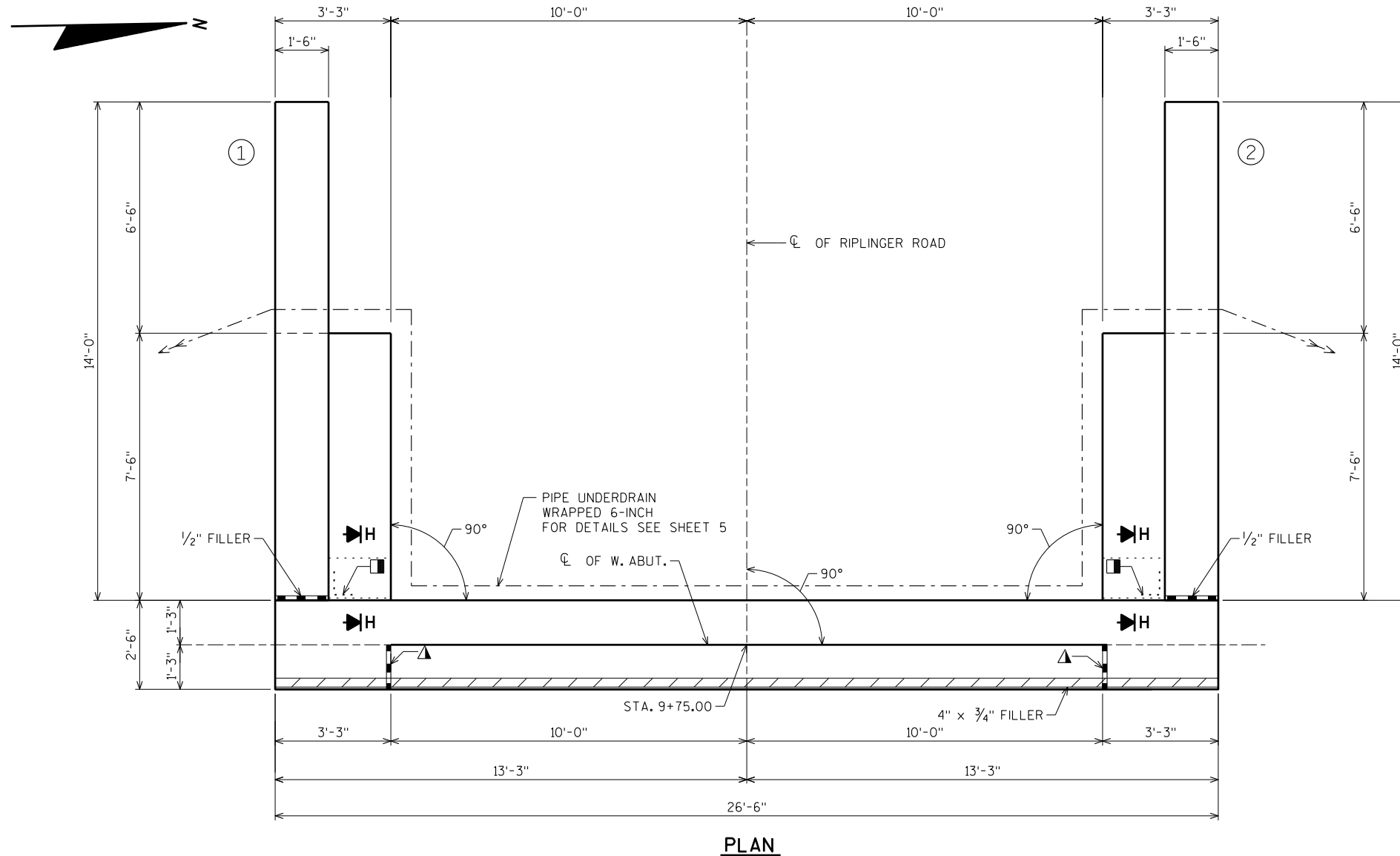
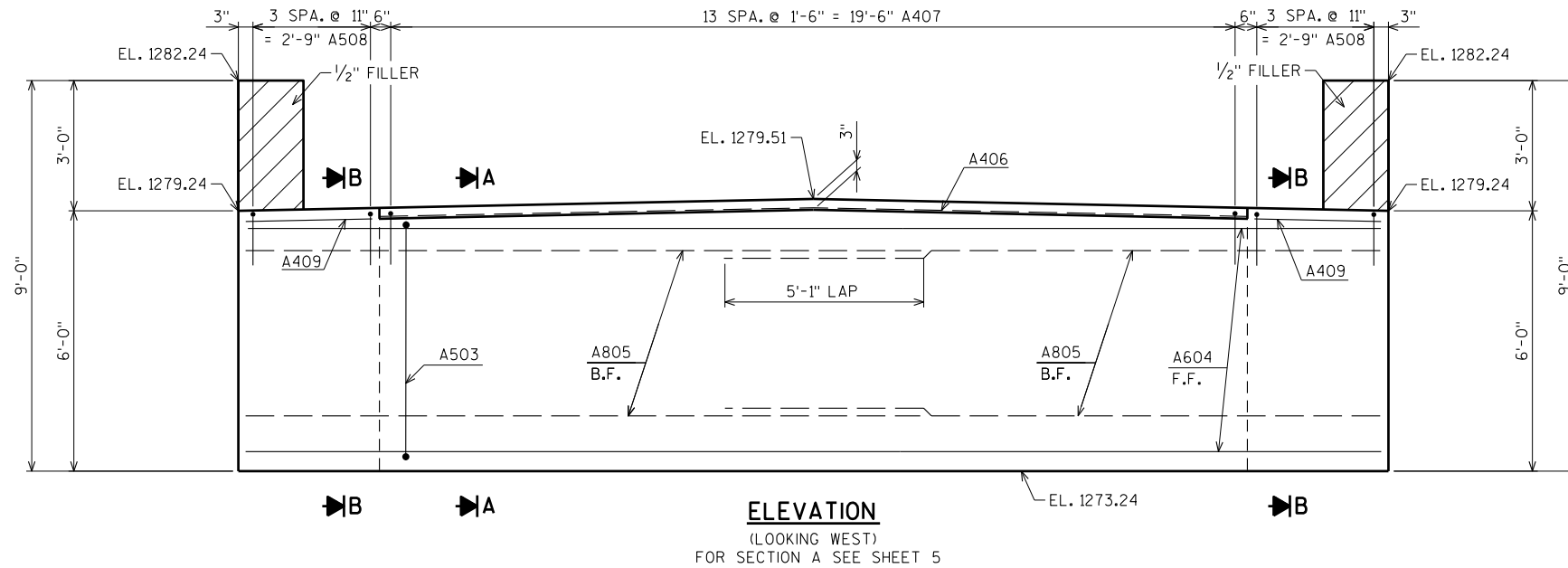
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
SUBSURFACE EXPLORATION		SHEET 3 OF 13	

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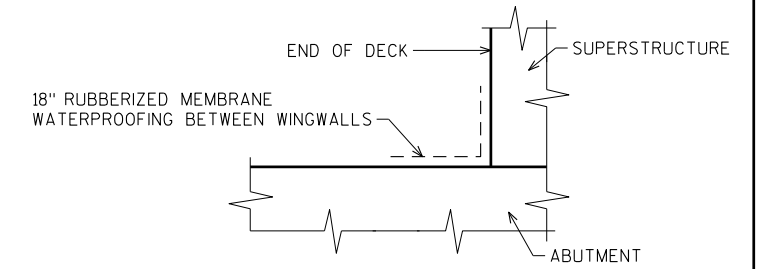
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NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF
1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT
SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

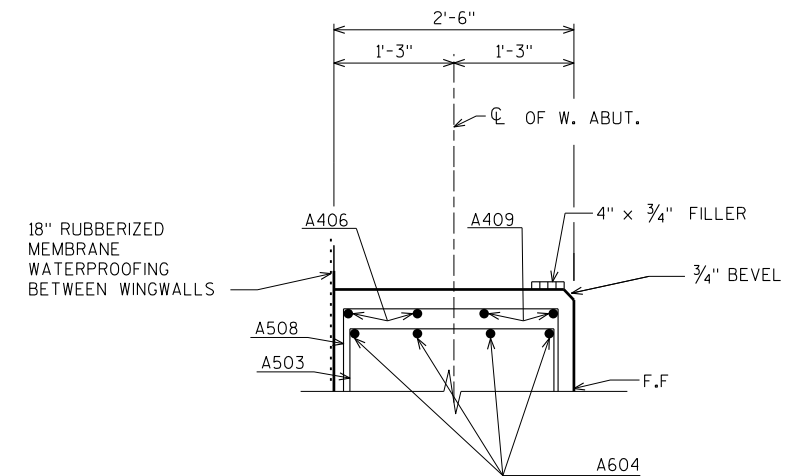


STATE PROJECT NUMBER

7842-00-70



SECTION H



SECTION B

▲ 3/4" CORK FILLER ON VERTICAL
FACE ONLY

■ VERTICAL 18" RUBBERIZED MEMBRANE
WATERPROOFING TO EXTEND FROM
BRIDGE SEAT TO TOP OF WING WALL.

B.F. DENOTES BACK FACE
E.F. DENOTES EACH FACE
F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
WEST ABUTMENT		SHEET 4 OF 13	

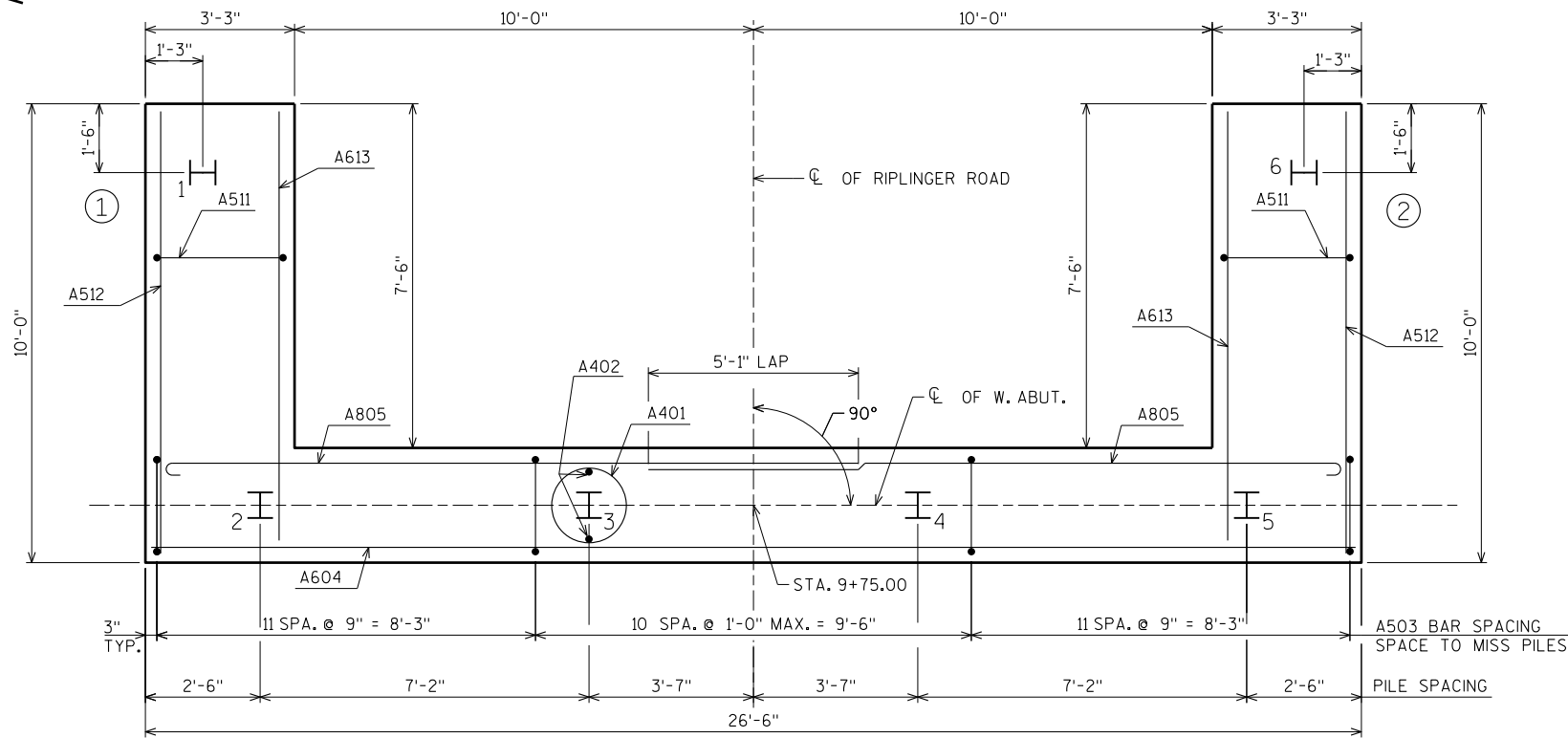
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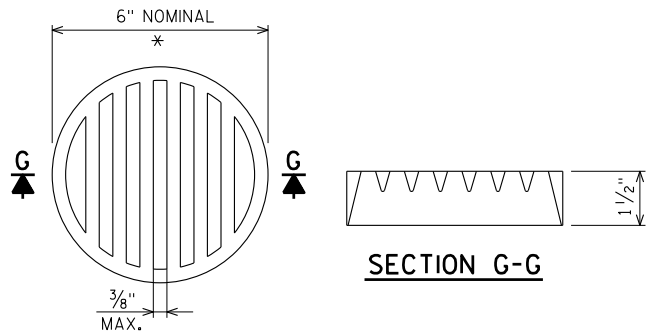
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STATE PROJECT NUMBER

7842-00-70



PILE LAYOUT



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

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

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

RODENT SHIELD DETAIL

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

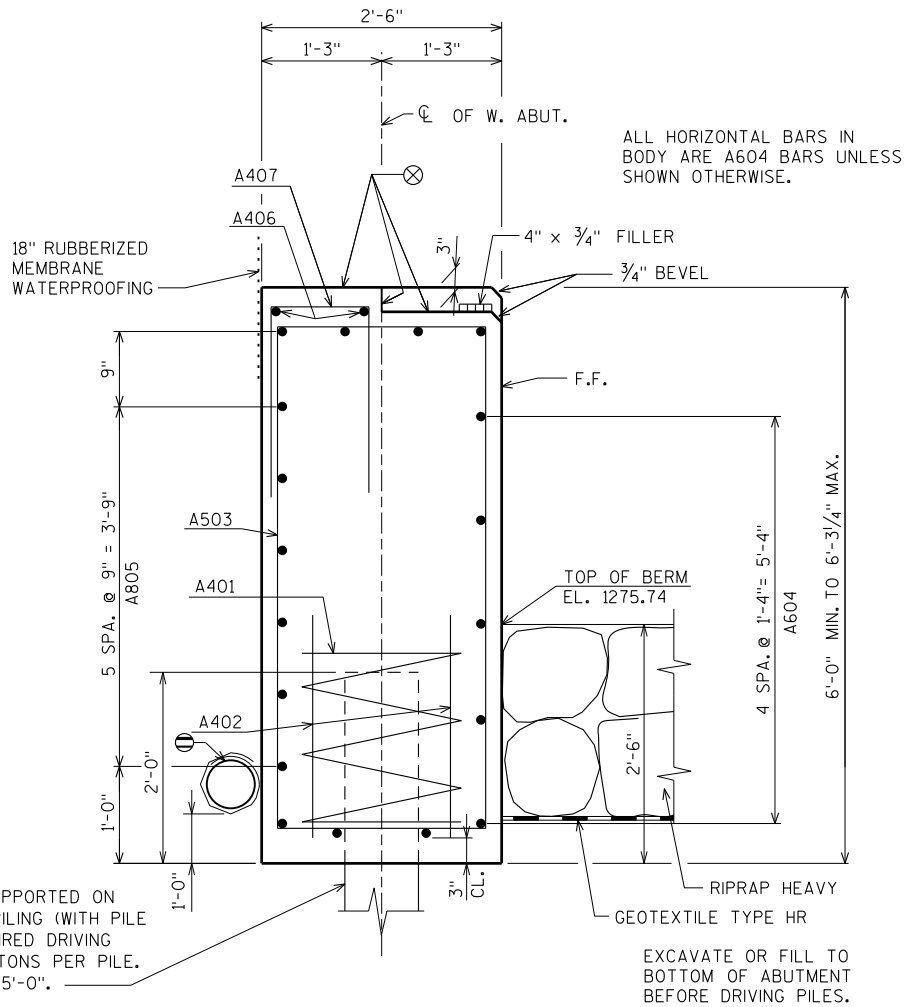
⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE



SECTION A

SEE SHEET 4 FOR LOCATION OF SECTION A

ALL HORIZONTAL BARS IN BODY ARE A604 BARS UNLESS SHOWN OTHERWISE.

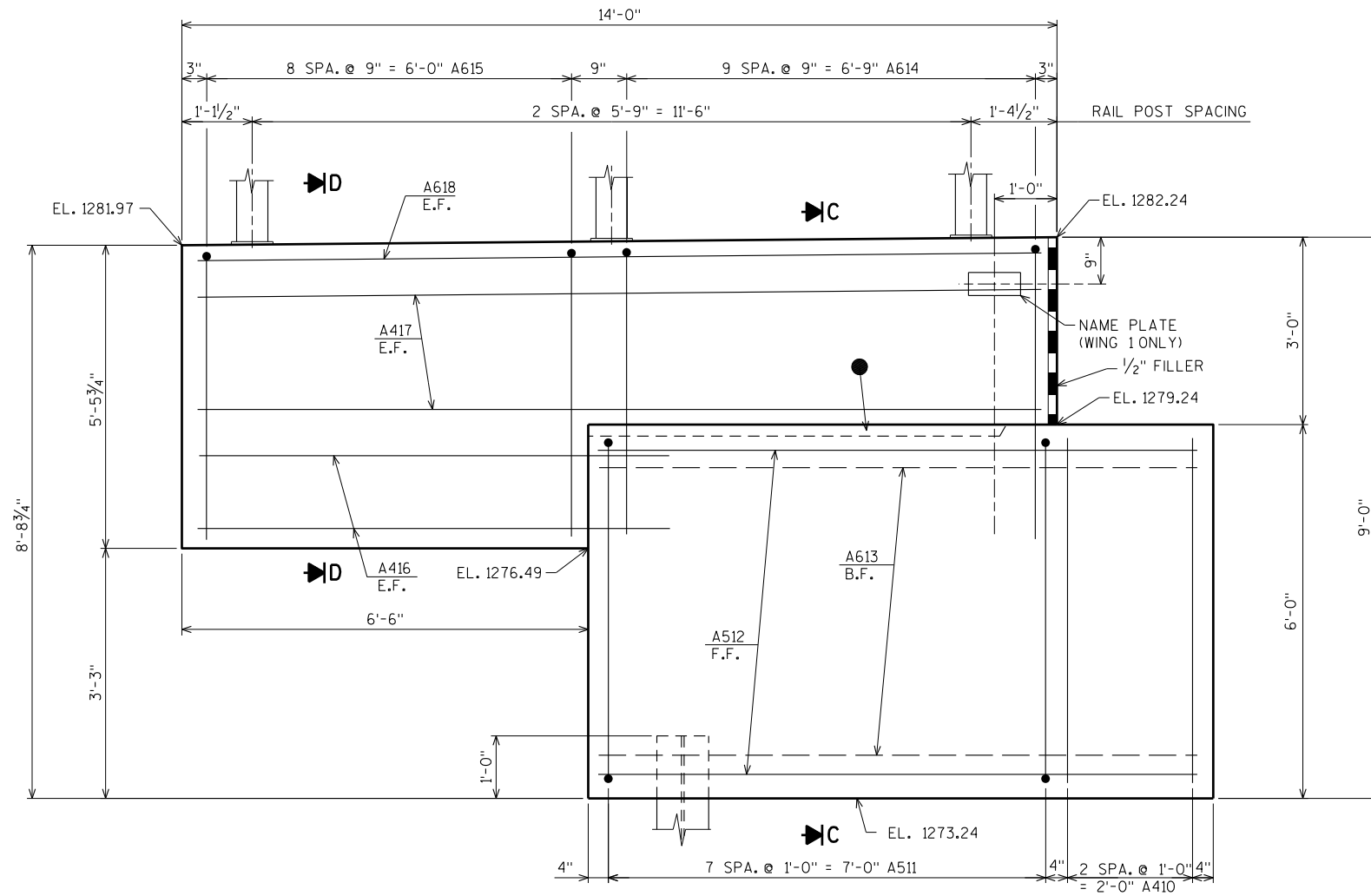
EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

8

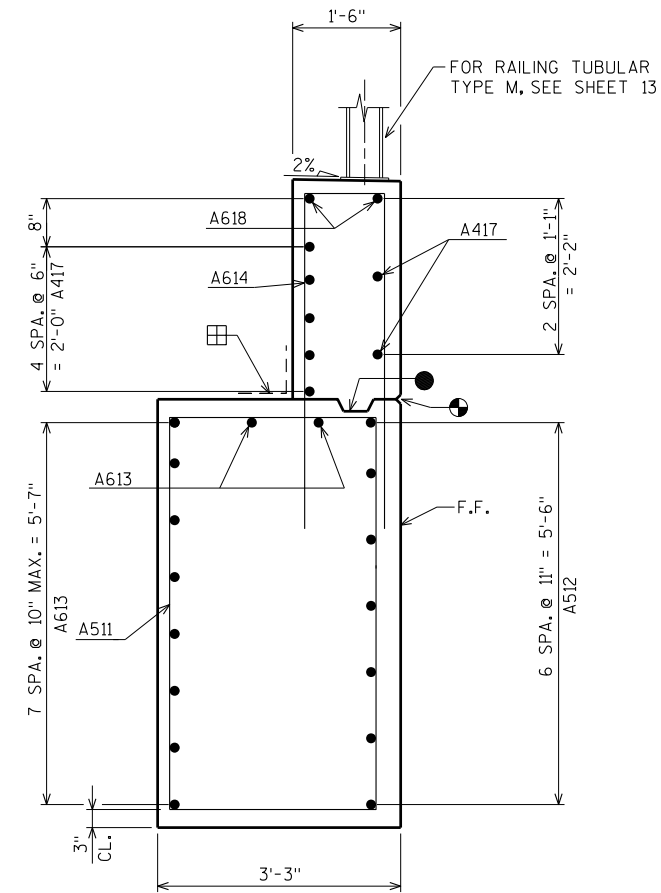
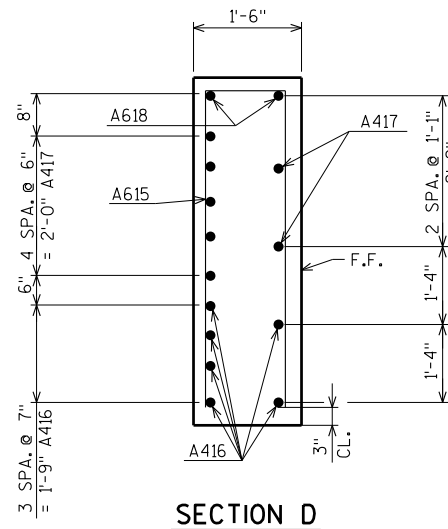
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
WEST ABUTMENT DETAILS		SHEET 5 OF 13	

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8



ELEVATION - WING 1
(WING 2 SIMILAR)



SECTION C

3/4" V-GROOVE ON FRONT FACE ONLY.

OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY.

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

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

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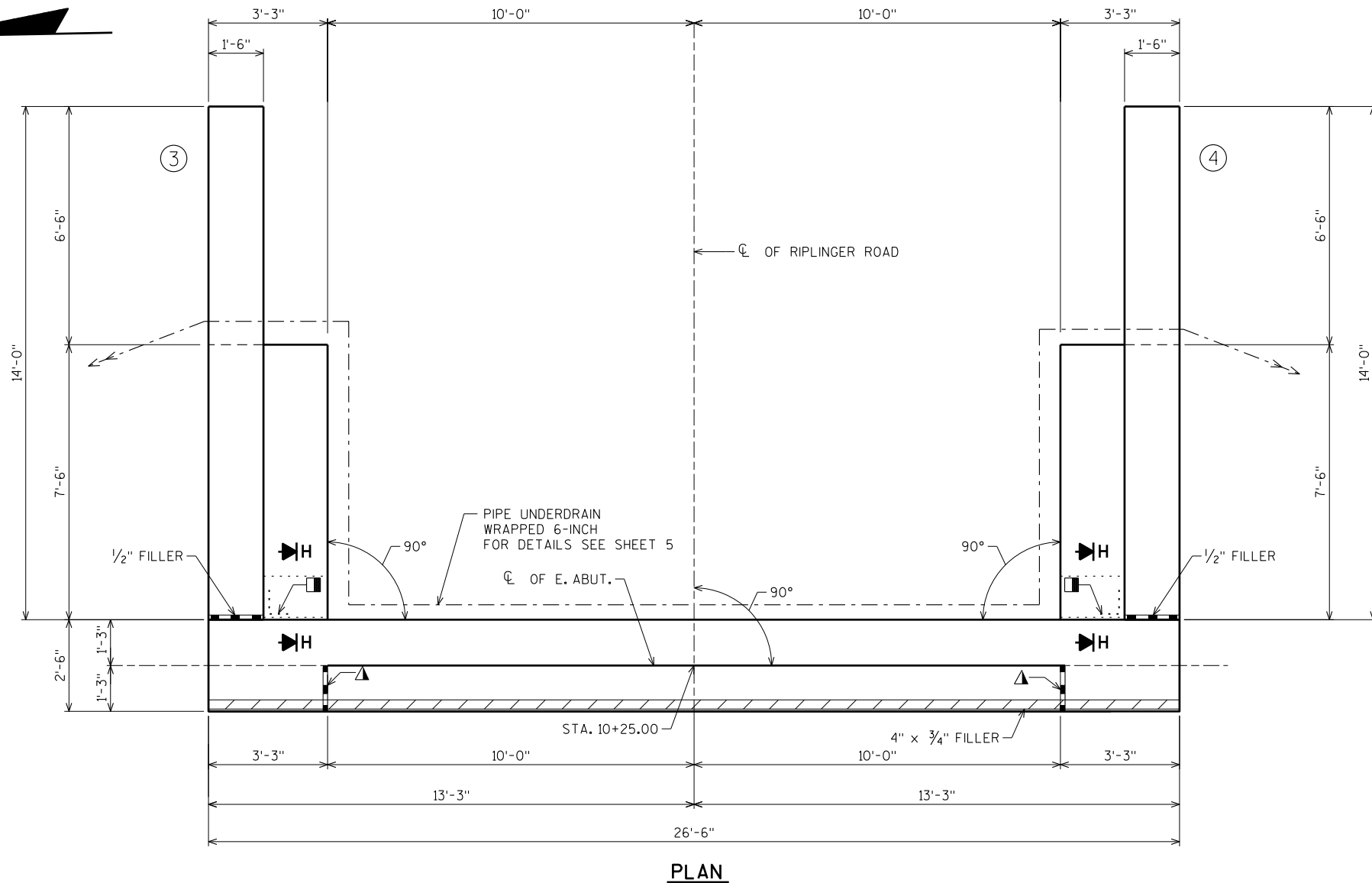
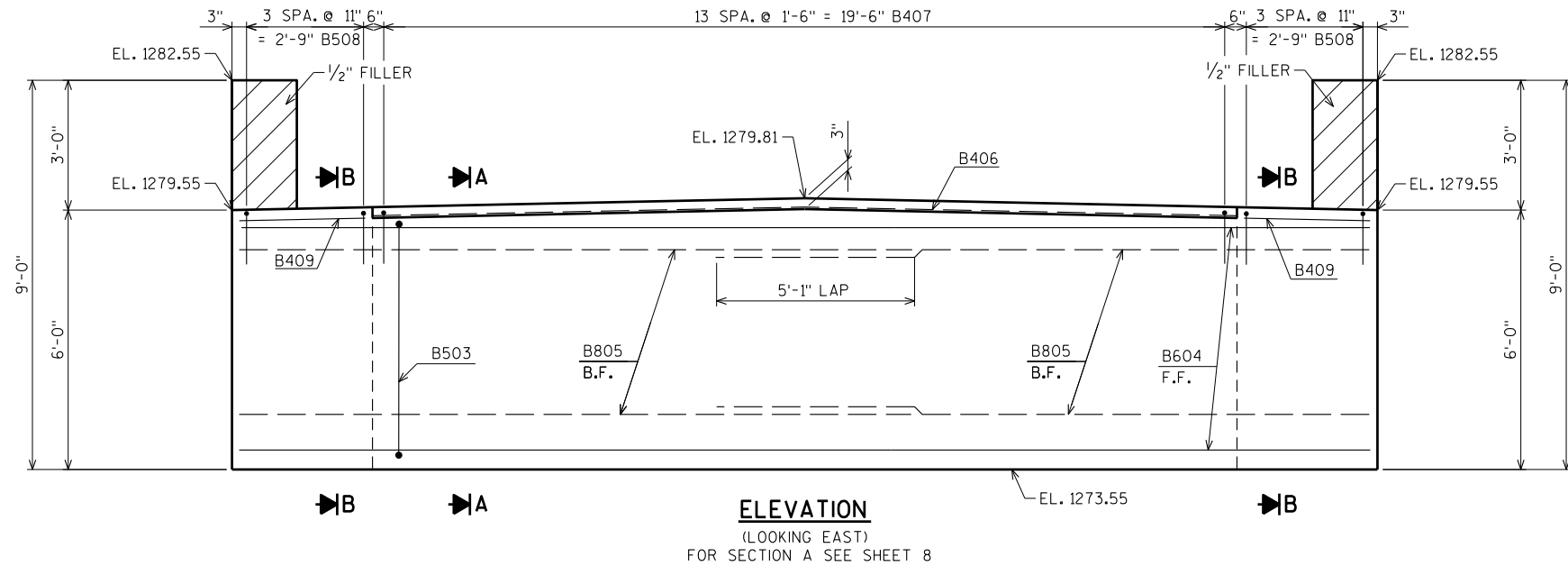
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
WEST ABUTMENT WING DETAILS			SHEET 6 OF 13

8

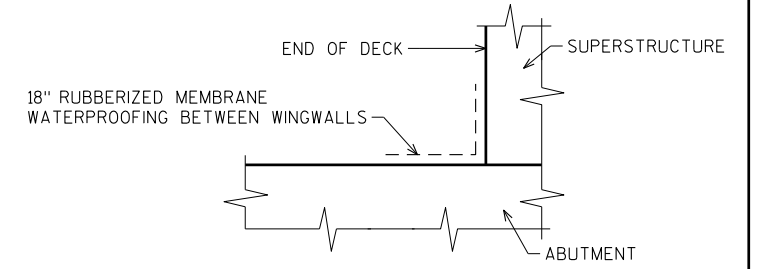
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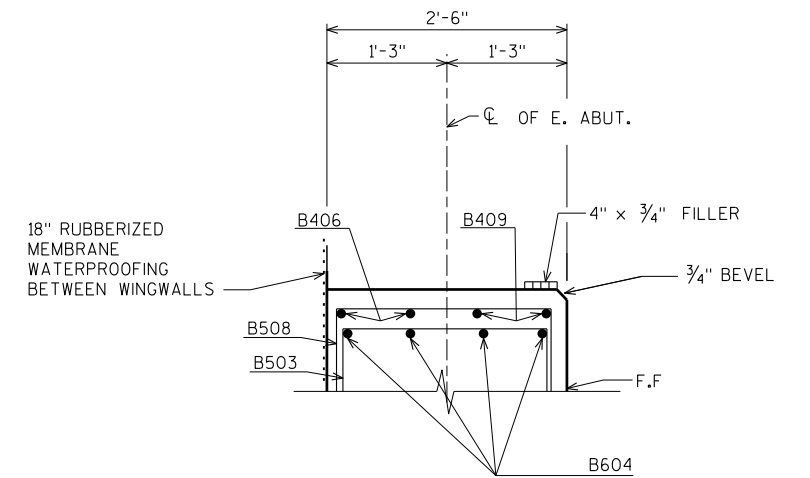
NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF
1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT
SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).



PLAN



SECTION H



SECTION B

▲ 3/4" CORK FILLER ON VERTICAL
FACE ONLY

■ VERTICAL 18" RUBBERIZED MEMBRANE
WATERPROOFING TO EXTEND FROM
BRIDGE SEAT TO TOP OF WING WALL.

B.F. DENOTES BACK FACE
E.F. DENOTES EACH FACE
F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
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EAST ABUTMENT		SHEET 7 OF 13	

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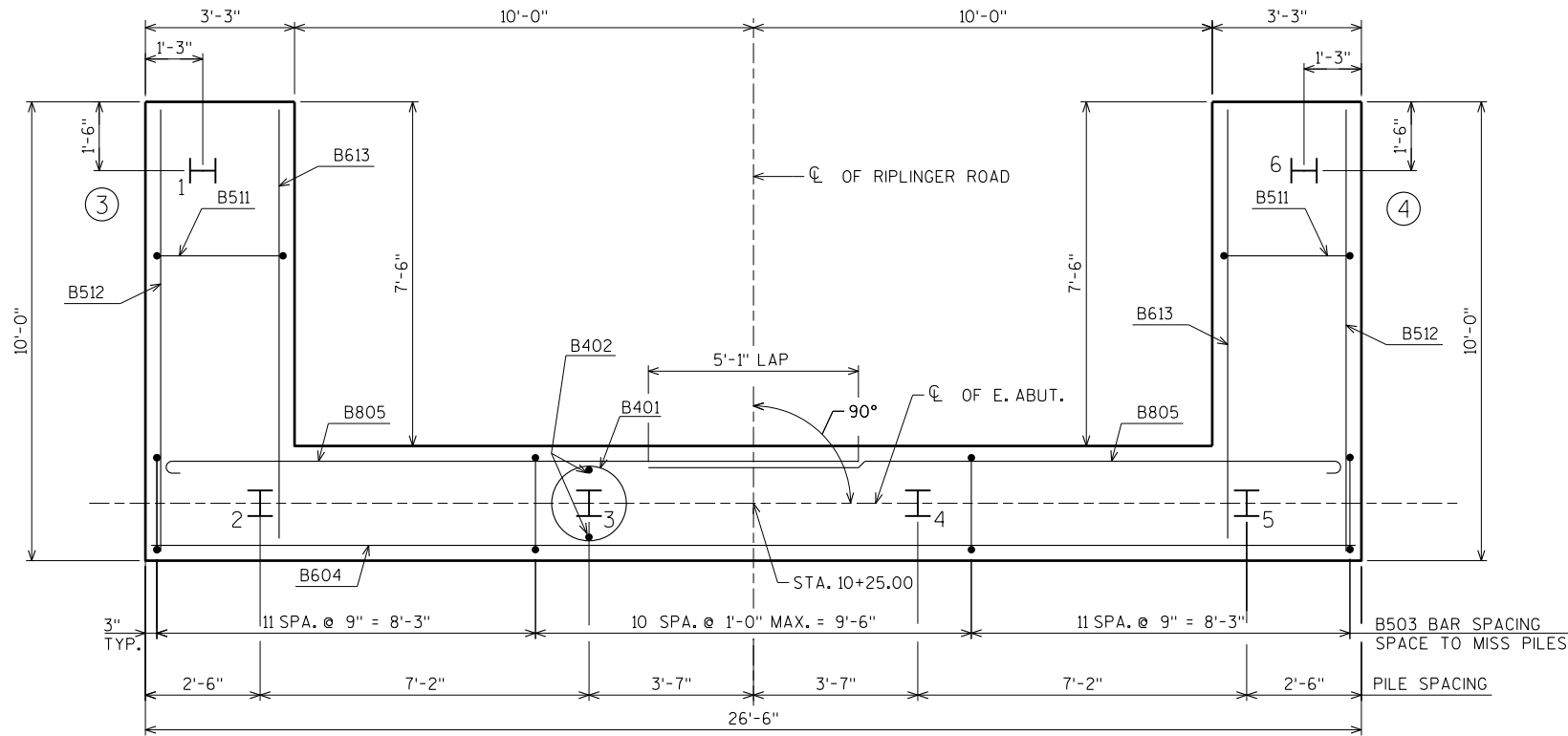
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8

STATE PROJECT NUMBER

7842-00-70



PILE LAYOUT

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

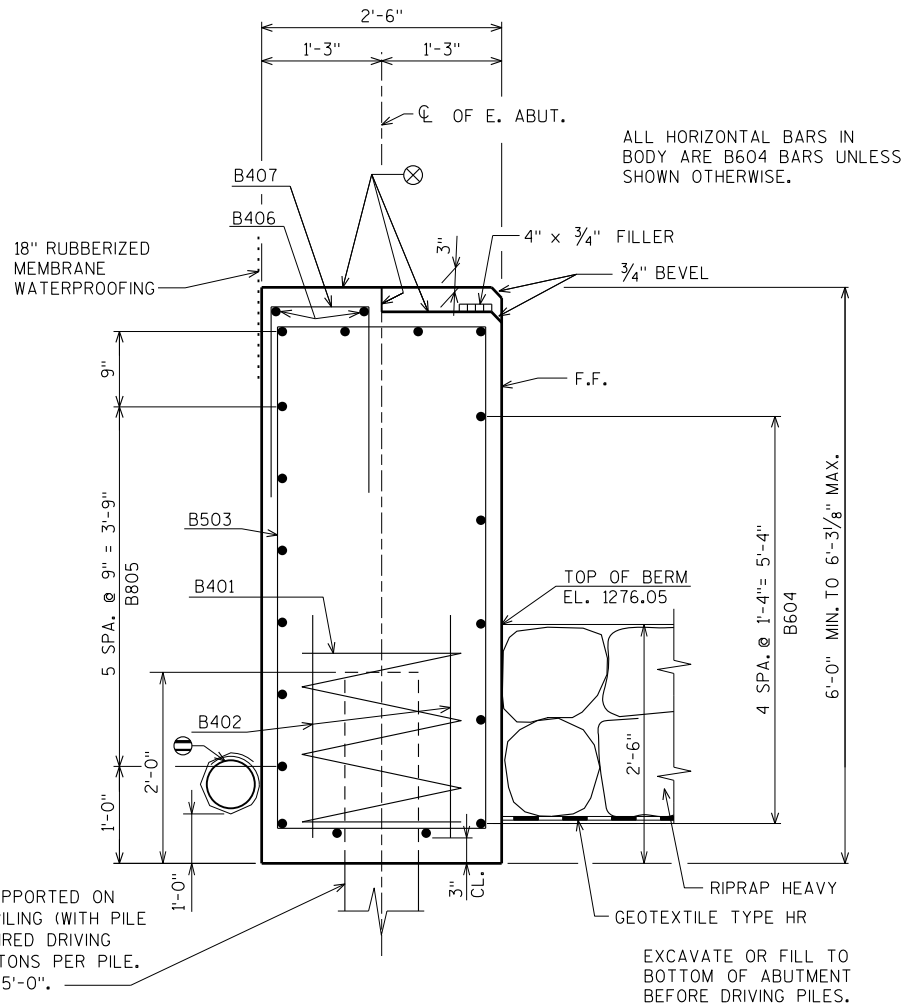
⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE



SECTION A

SEE SHEET 7 FOR LOCATION OF SECTION A

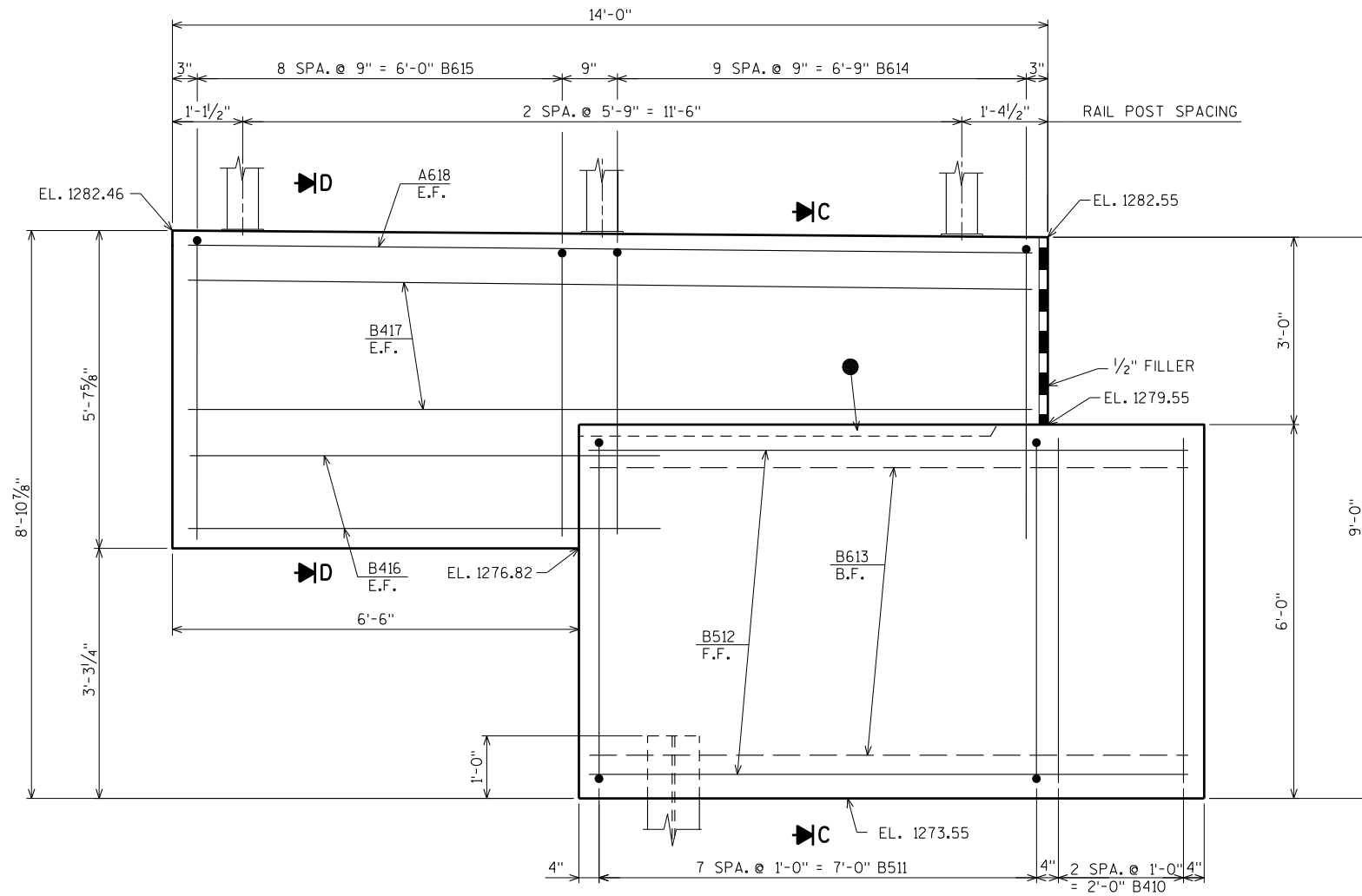
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
EAST ABUTMENT DETAILS		SHEET 8 OF 13	

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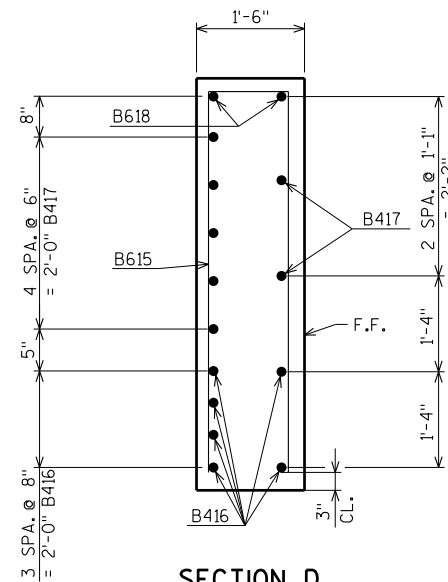
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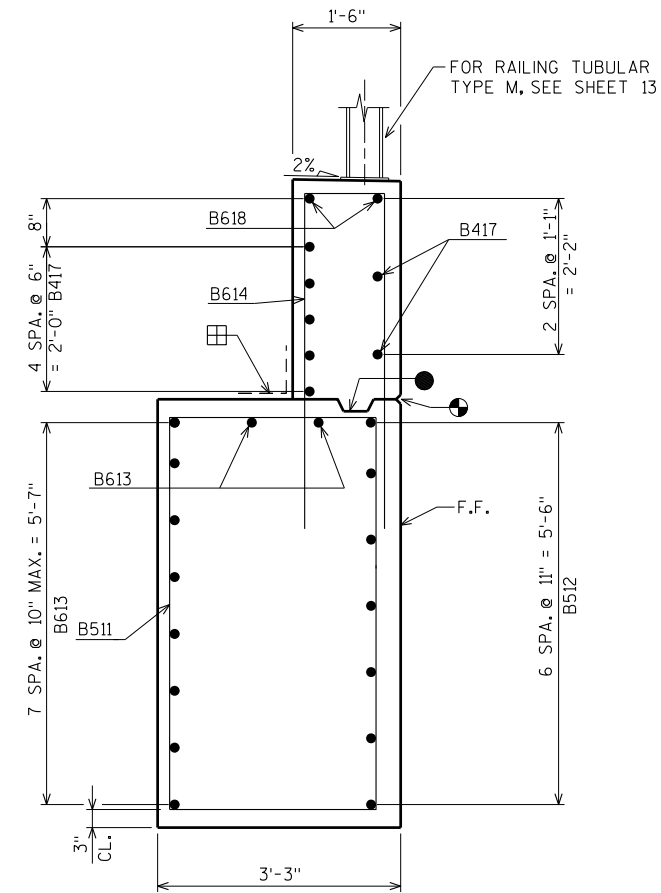
8



ELEVATION - WING 3
(WING 4 SIMILAR)



SECTION D



SECTION C

3/4" V-GROOVE ON FRONT FACE ONLY.

OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY.

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

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
EAST ABUTMENT WING DETAILS			SHEET 9 OF 13

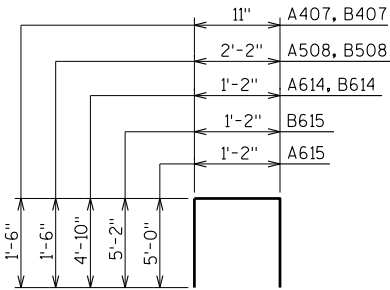
8

BILL OF BARS - EAST ABUTMENT

[illegible][illegible]

The technical drawing illustrates three different types of lifting equipment, each with specific dimensions and labels.

- A401, B401:** This diagram shows a vertical assembly. At the top is a circular component with a diameter of 1'-9". Below it is a coiled spring or cable with a total height of 2'-0". The bottom section has a width of 6".
- A503, B503:** This diagram shows a vertical assembly with a total height of 2'-2". It features a horizontal section at the top with a width of 2'-11". Below this is a vertical section with a height of 5'-4". The bottom section has a width of 5'-7".
- A511, B511:** This diagram shows a vertical assembly with a total height of 2'-11". It features a horizontal section at the top with a width of 5'-1/2". Below this is a vertical section with a height of 5'-4". The bottom section has a width of 5'-7".
- A805, B805:** This diagram shows a horizontal assembly with a total length of 15'-8". It features a vertical section at the left end with a height of 5'-4". The bottom section has a width of 5'-7".



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STATE PROJECT NUMBER

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BILL OF BARS

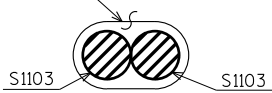
BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	20,550# COATED
							LOCATION
S501	X	54	5-7	X			SLAB @ ABUT.
S502	X	54	4-0	X			SLAB @ ABUT.
S1103	X	55	45-10				SLAB LONG. BOT.
S504	X	83	26-2				SLAB TRANS. BOT.
S505	X	53	26-2				SLAB TRANS. TOP
S506	X	27	52-2				SLAB LONG. TOP
S607	X	36	12-0	X			SLAB @ RAIL POSTS
S608	X	56	6-0				SLAB @ INT. RAIL POSTS
S609	X	16	6-0	X			SLAB @ END RAIL POSTS
S410	X	42	3-3	X			SLAB VERT. @ ABUT. NOTCH
S411	X	4	19-7				SLAB TRANS. @ ABUT. NOTCH

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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.

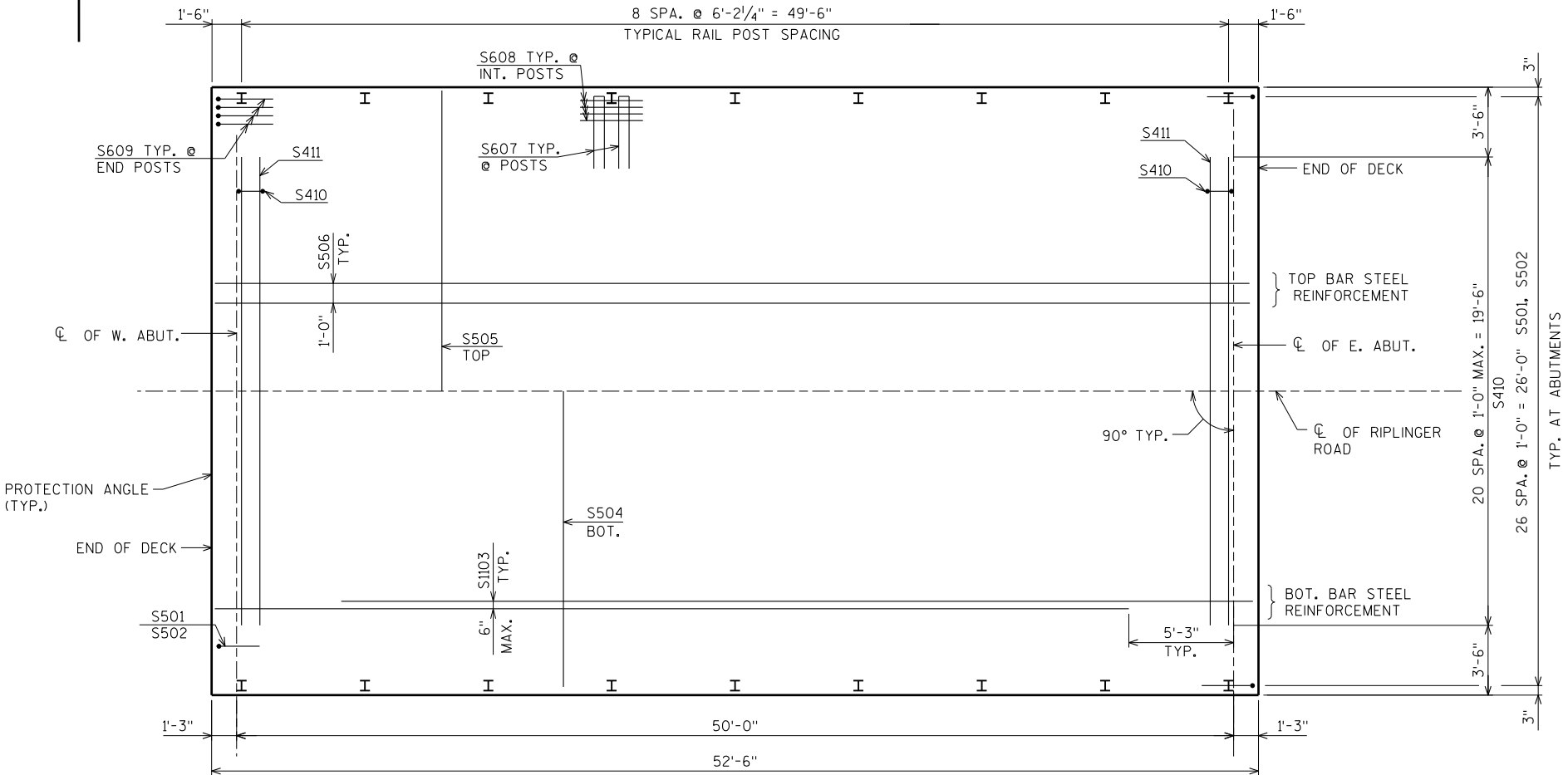
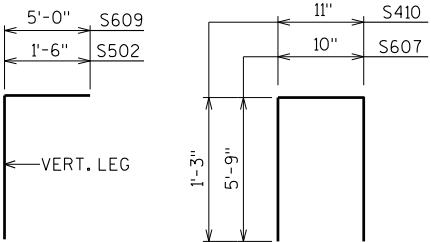
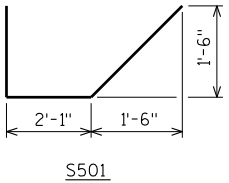
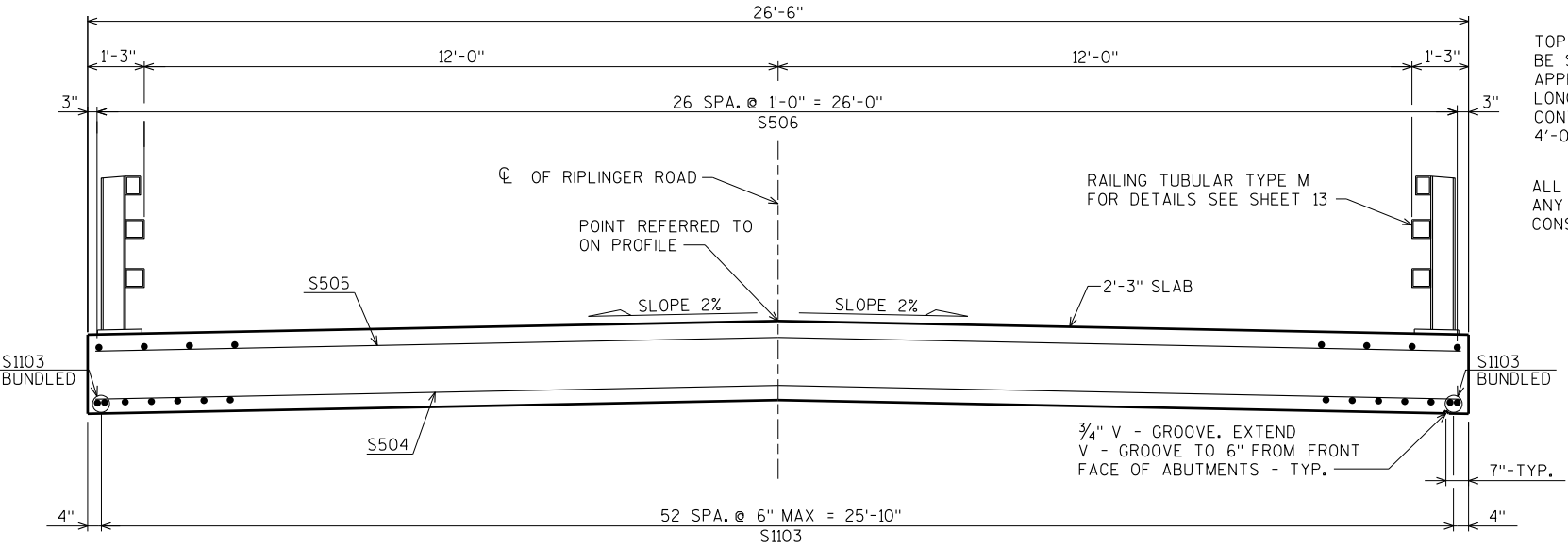
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

WIRE BARS TOGETHER
@ 2'-0" CENTERS



BUNDLING DETAIL

CROSS SECTION THRU BRIDGE
(LOOKING EAST)



PLAN

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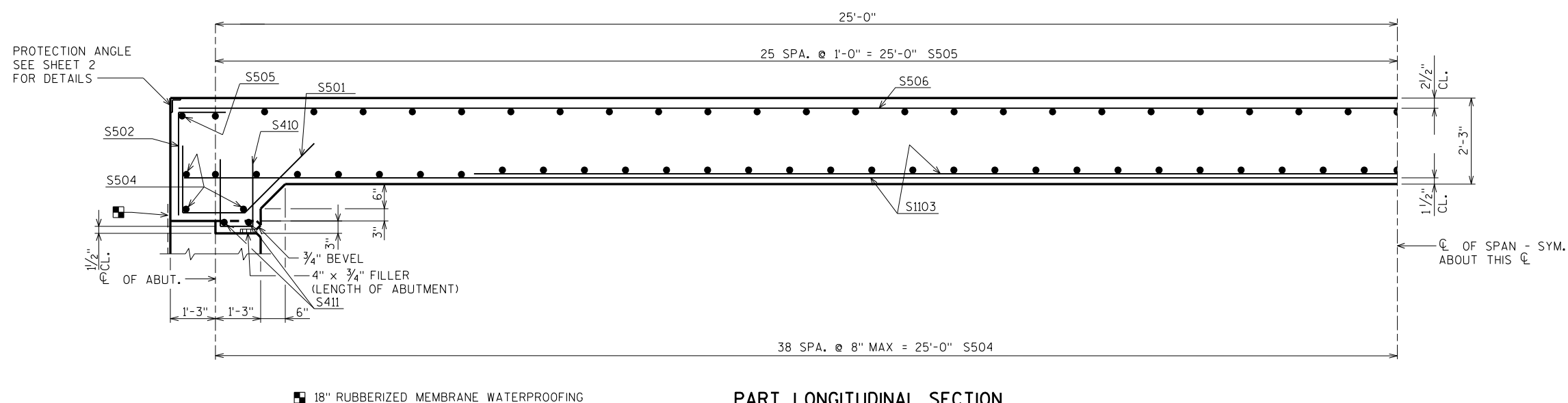
NO.	DATE	REVISION	BY
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STRUCTURE B-10-238			
DRAWN BY JLB		PLANS CK'D. ZSS	
SUPERSTRUCTURE			SHEET 11 OF 13

8



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

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE \mathbb{C} OF ABUTMENTS, AND AT $1/2$ PT. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR \mathbb{C} .



PART LONGITUDINAL SECTION

TOP OF DECK ELEVATIONS

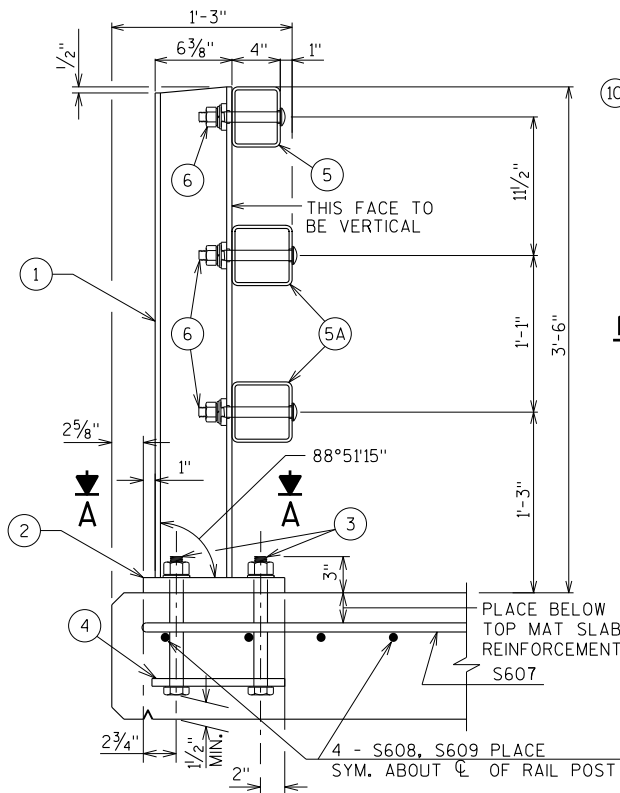
LOCATION	℄ OF W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF E. ABUT.
N. EDGE OF SLAB	1282.24	1282.32	1282.39	1282.45	1282.49	1282.53	1282.55	1282.57	1282.57	1282.56	1282.55
℄ OF RIPLINGER ROAD	1282.51	1282.59	1282.65	1282.71	1282.76	1282.79	1282.82	1282.83	1282.84	1282.83	1282.81
S. EDGE OF SLAB	1282.24	1282.32	1282.39	1282.45	1282.49	1282.53	1282.55	1282.57	1282.57	1282.56	1282.55

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

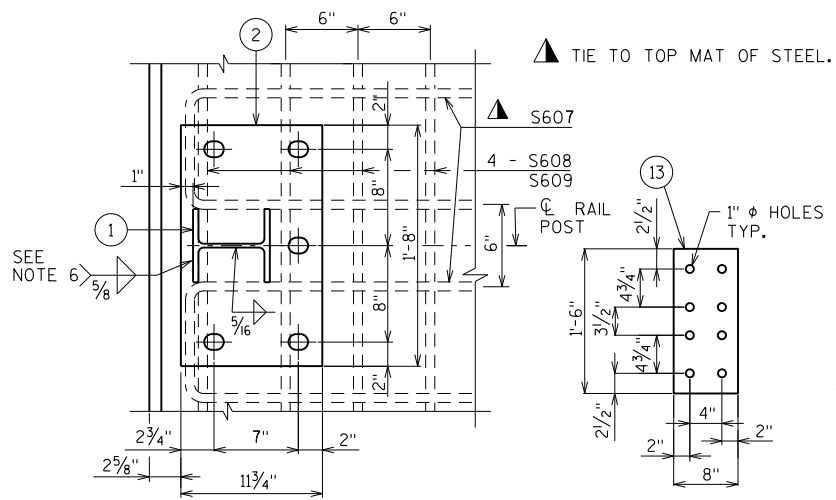
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
		DRAWN BY JLB	PLANS CK'D. ZSS
SUPERSTRUCTURE DETAILS		SHEET 12 OF 13	

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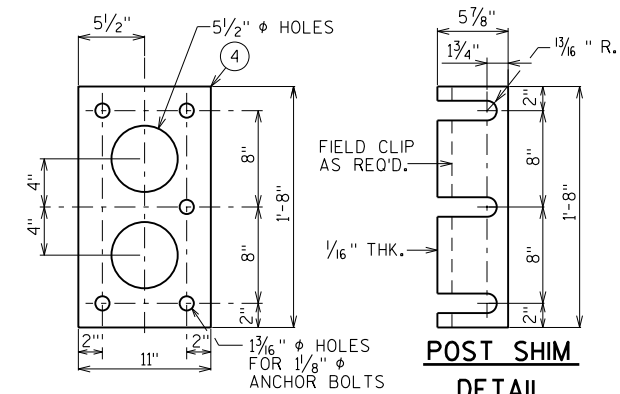
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SECTION THRU RAILING ON DECK

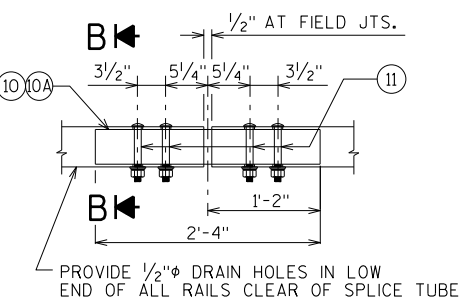


SECTION A

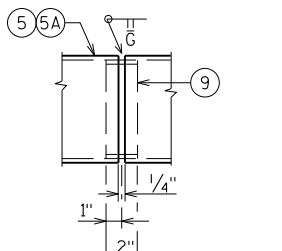


ANCHOR PLATE

(AT RAIL TO DECK CONNECTION)

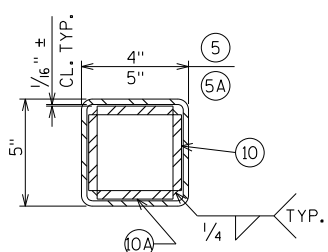


FIELD ERECTION JOINT DETAIL

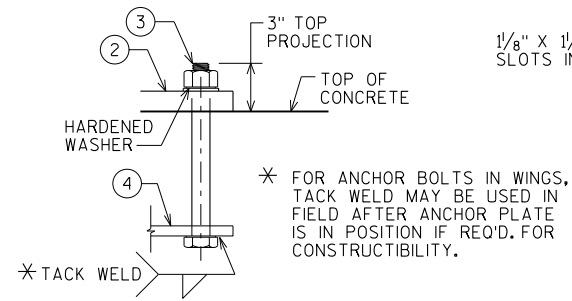


SHOP RAIL SPLICE DETAIL

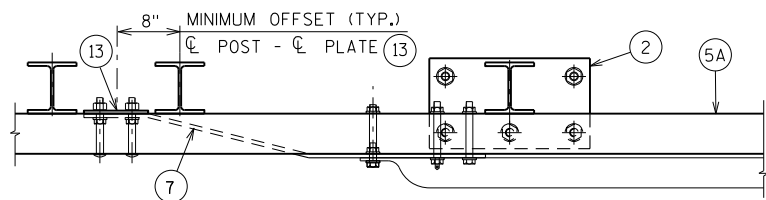
(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



SECTION B

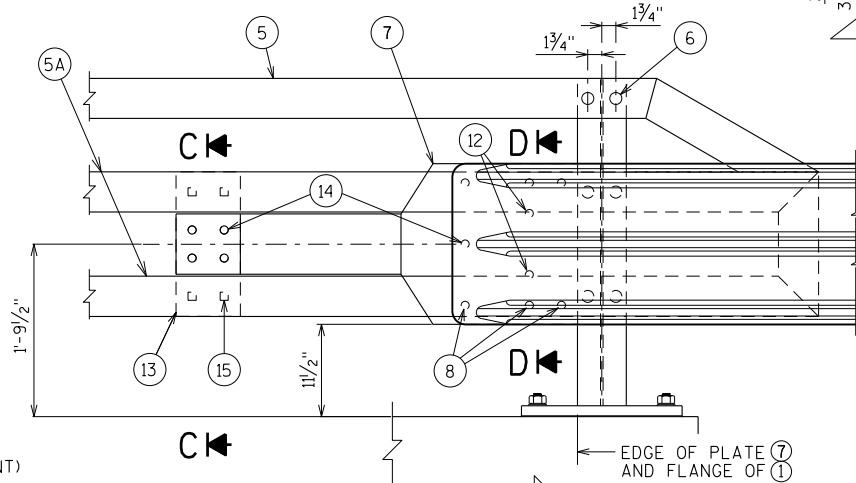


ANCHOR BOLTS



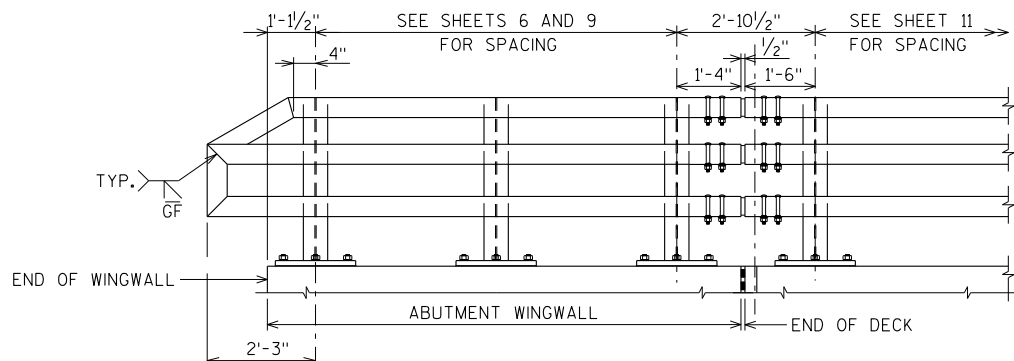
TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)

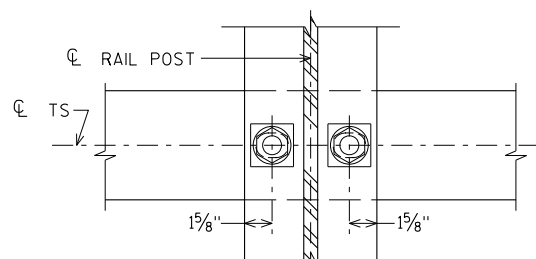


DETAIL AT END POST

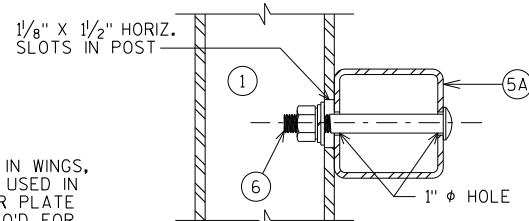
(THRIE BEAM RAIL ATTACHMENT)



PART ELEVATION OF RAILING



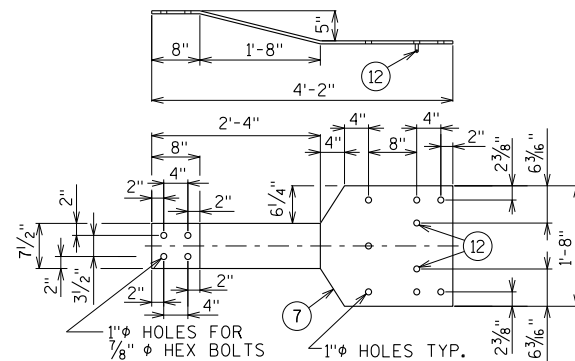
SECTION THRU POST WEB



SECTION THRU RAIL

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

TYPICAL RAIL TO POST CONNECTIONS



BACK-UP PLATE DETAIL

(AT BEAM GUARD ATTACHMENT)

GENERAL NOTES

- BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- 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.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
- RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
- ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- 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.
- 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.
- 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.
- WHEN PAINTING IS REQUIRED, ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 3 & 4) SHALL BE PAINTED OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.

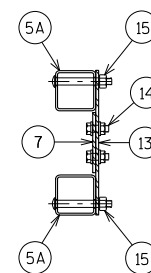
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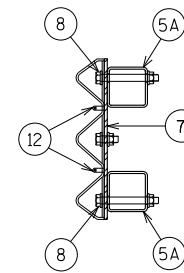
7842-00-70

LEGEND

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



SECTION C

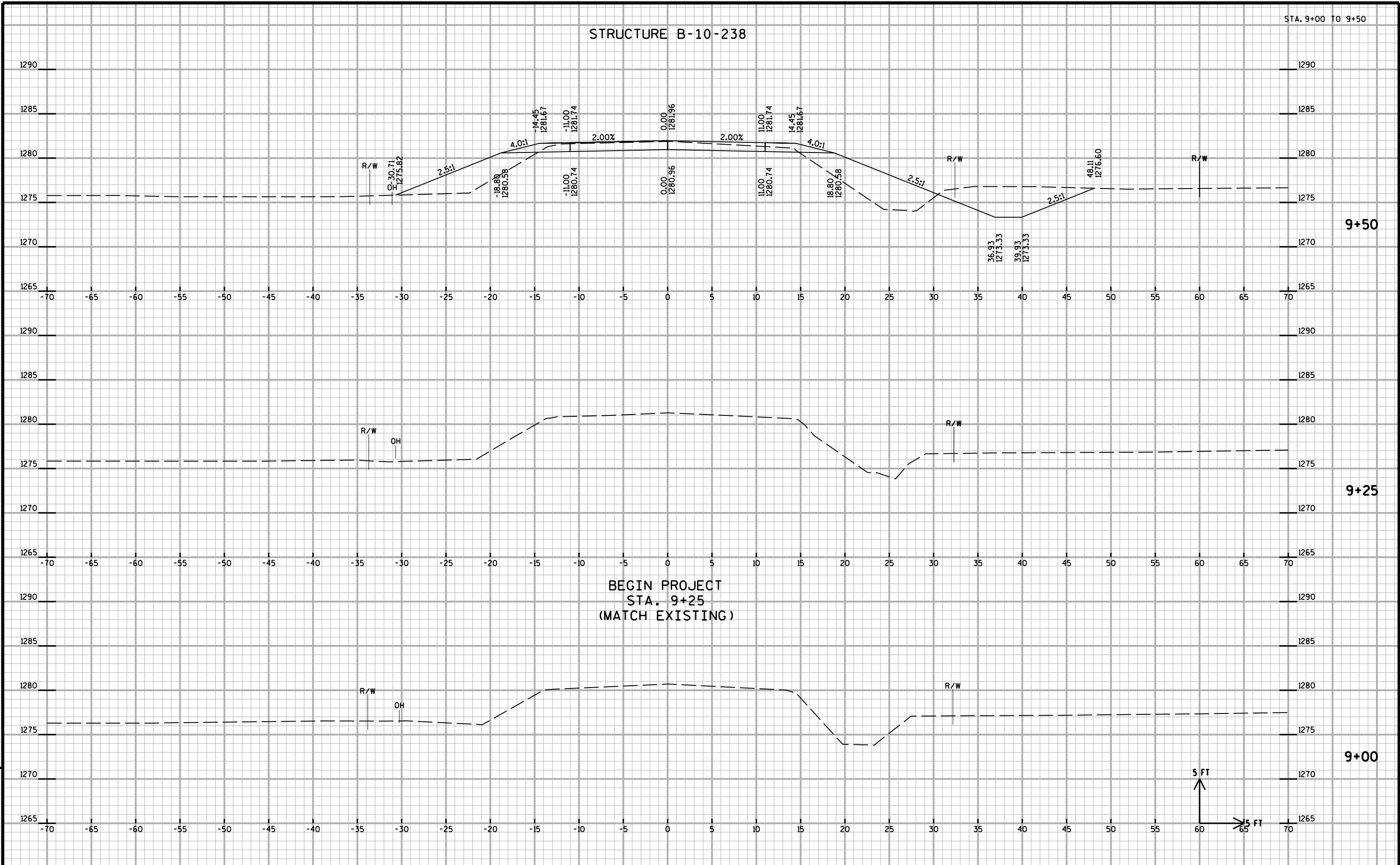


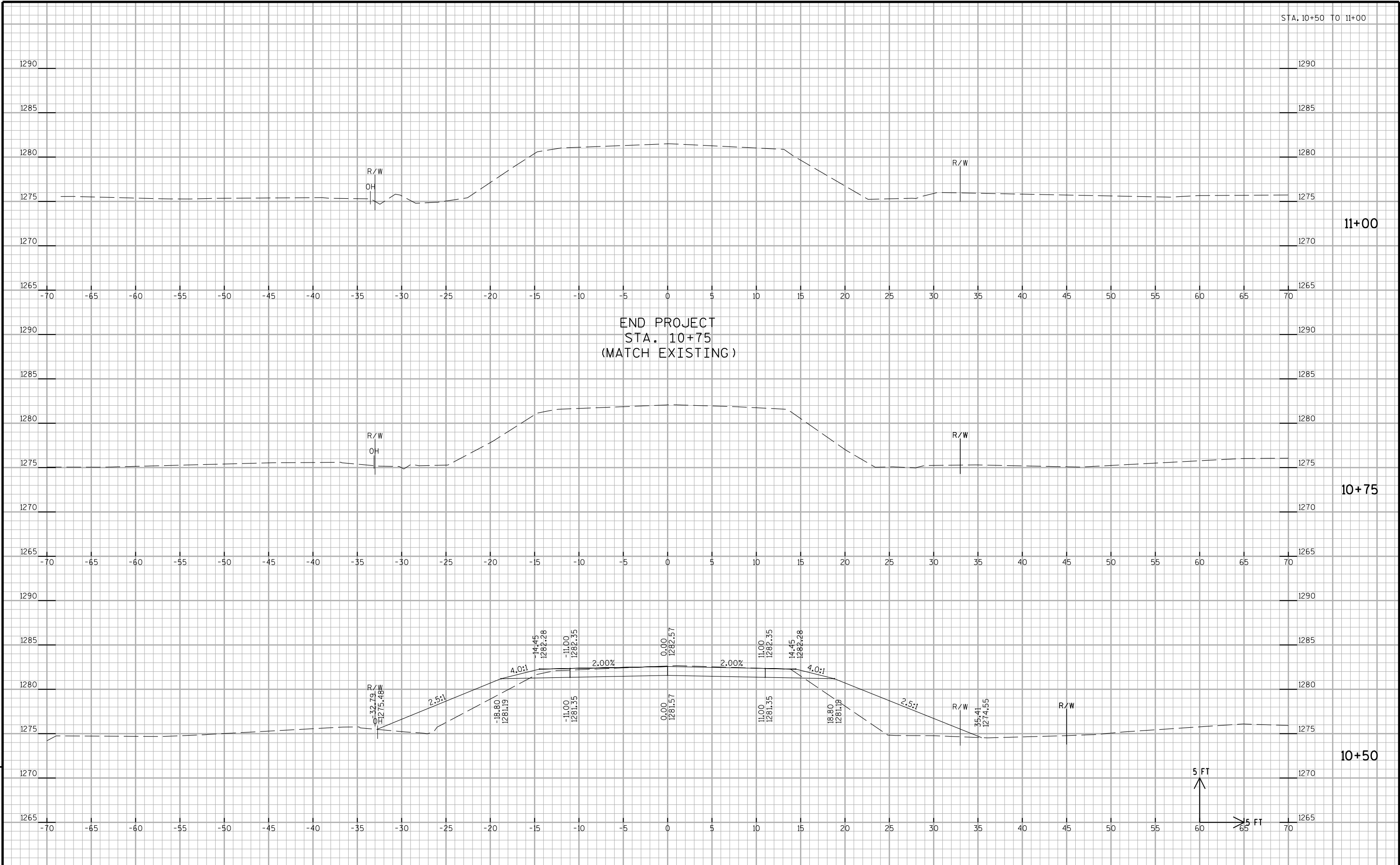
SECTION D

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-238			
DRAWN BY		JLB	PLANS CK'D. ZSS
RAILING TUBULAR TYPE M		SHEET 13 OF 13	

RIPLINGER ROAD COMPUTER EARTHWORK								
Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.30	
9+25	--	2.4	0.0	--	--	--	--	--
9+50	25	59.8	68.1	29	32	29	42	-13
9+73.75	24	59.8	68.1	53	60	82	120	-38
B-10-0238	--	--	--	--	--	--	--	--
10+26.25	--	28.3	72.0	--	--	--	--	--
10+50	24	28.3	72.0	25	63	107	202	-95
10+75	25	28.5	0.0	26	33	133	245	-112
				133	188			

Note 1 - Cut	Cut includes existing asphalt pavement. Assumed to be reused as fill outside the 1:1 road core.
Note 2 - Fill	Volume needed to be filled.
Note 3 - Mass Ordinate	(Cut) - (Fill * 1.30)





PROJECT NO: 7842-00-70

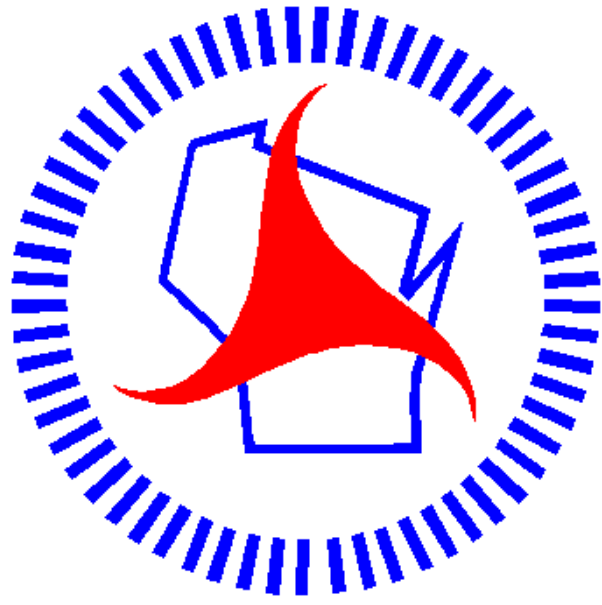
HWY: RIPLINGER ROAD

COUNTY: CLARK

CROSS SECTIONS

SHEET

E



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