GRE

DECEMBER 2019

PROJECT ID: 9246-08-71

WITH: 9246-09-71

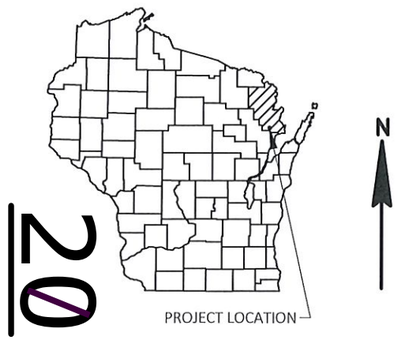
COUNTY: MARINETTE

2020

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 (Includes Erosion Control Plans)
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



PROJECT LOCATION

N

DESIGN DESIGNATION

A.A.D.T.	(2020)	=	60
A.A.D.T.	(2040)	=	90
D.H.V.		=	11
D.D.		=	60/40
T.		=	9.4%
DESIGN SPEED		=	30 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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T POUND, NORTH 1ST ROAD

LITTLE PESHTIGO RIVER BRIDGE

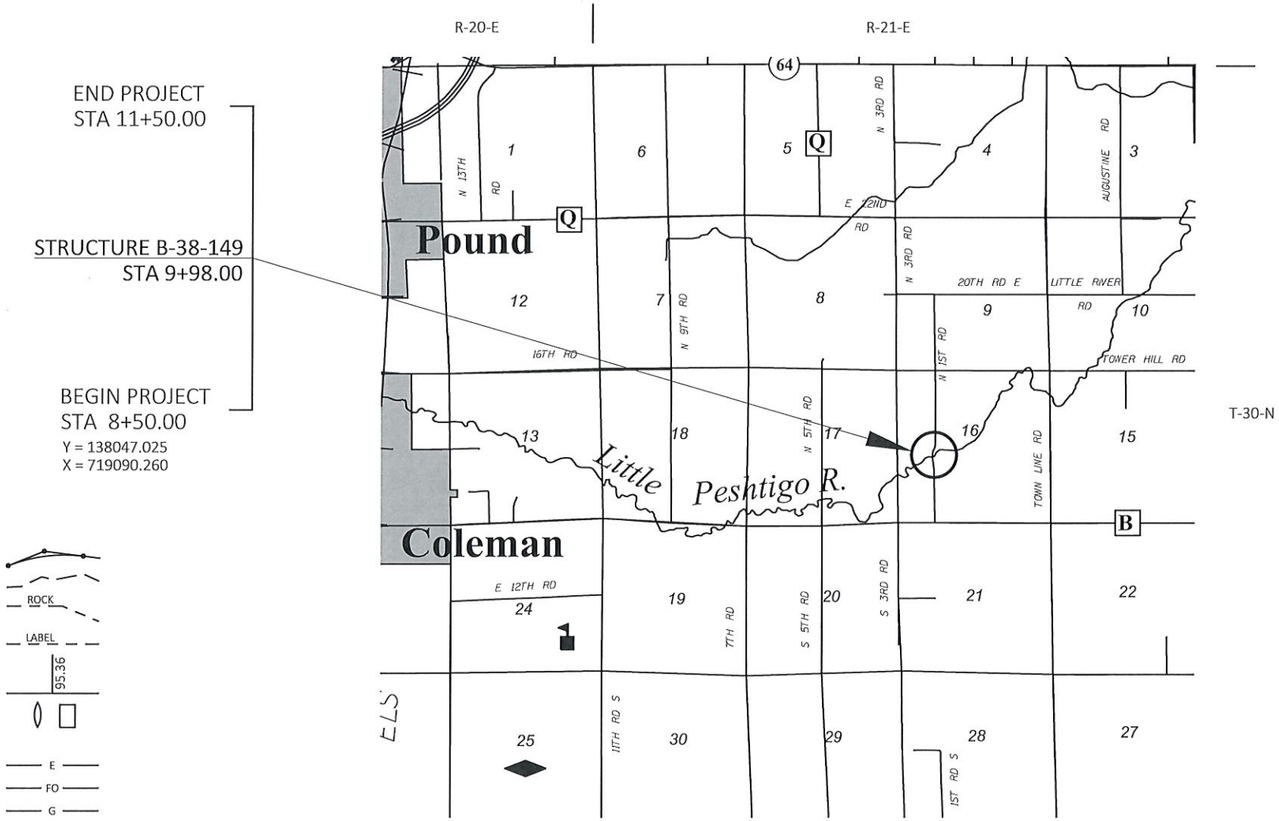
LOC STR

MARINETTE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9246-08-71		

STATE PROJECT NUMBER

9246-08-71



END PROJECT
STA 11+50.00

STRUCTURE B-38-149
STA 9+98.00

BEGIN PROJECT
STA 8+50.00
Y = 138047.025
X = 719090.260

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.057 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MARINETTE COUNTY, NAD88 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR
TOWN OF
POUND

DATE: 7/24/19 (Signature)

Town Chairman (Title)

ORIGINAL PLANS PREPARED BY

Cedar corporation

CEDARBURG - GREEN BAY - MADISON - MENOMONIE
www.cedarcorp.com
800-472-7372

WISCONSIN
DENNIS W. MACK
E-35295
EAU CLAIRE
WI
PROFESSIONAL ENGINEER

DATE: 7/23/19 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CEDAR CORPORATION
Designer	CEDAR CORPORATION
Regional Examiner	WISDOT
Regional Supervisor	WISDOT

APPROVED FOR THE DEPARTMENT

DATE: 7/26/19 (Signature)

E

GENERAL NOTES

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.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

THE 4" OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2.25" LOWER LAYER AND A 1.75" UPPER LAYER.

BEARINGS REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MARINETTE COUNTY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE FERTILIZED AND SEEDED AS DIRECTED BY THE ENGINEER.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE OF THE SLOPE INTERCEPTS. DO NOT STORE OR STOCKPILE MATERIALS IN WETLANDS

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

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920) 412-0165
JIM DOPERALSKI
james.doperalski@wisconsin.gov

UTILITIES

CENTURYLINK
2425 MARY STREET
MARINETTE, WI 54143
(715) 735-0059
PETE JOHNSON
peter.s.johnson@centurylink.com

WISCONSIN PUBLIC SERVICE CORPORATION
2850 SOUTH ASHLAND AVENUE
GREEN BAY, WI 54304
(920) 617-5167
RANDY STEIER
randy.steier@wisconsinpublicservice.com
UtilitiesRelocation@wisconsin.publicservice.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com
**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS.

2

STANDARD ABBREVIATIONS

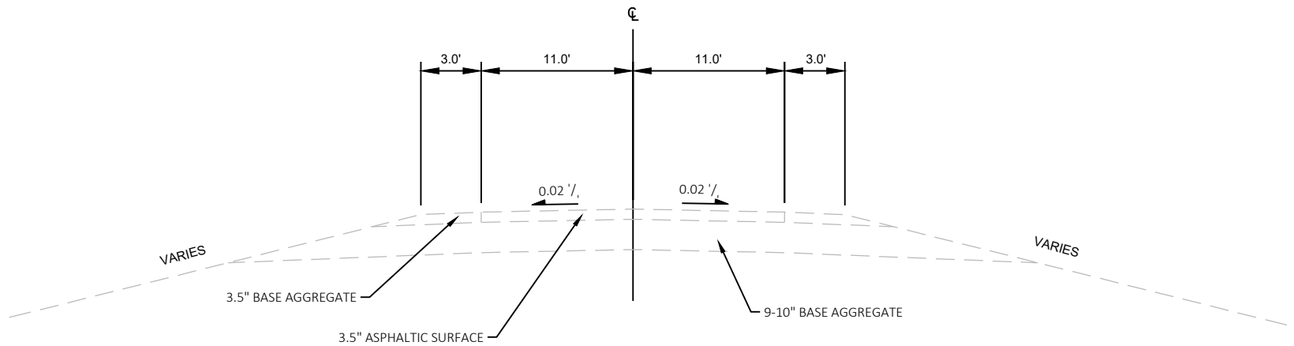
ABUT	ABUTMENT	OFF	OFFSET
AGG	AGGREGATE	PC	POINT OF CURVATURE
ET AL	AND OTHERS	PI	POINT OF INTERSECTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	PT	POINT OF TANGENCY
BF	BACK FACE	POL	POINT ON LINE
BM	BENCHMARK	PE	PRIVATE ENTRANCE
C/L OR ℄	CENTERLINE	PL	PROPERTY LINE
Δ	CENTRAL ANGLE OR DELTA	PSI	POUNDS/SQUARE INCH
CLR	CLEAR	PROP	PROPOSED
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCTION	RR	RAILROAD
COR	CORNER	REBAR	REINFORCEMENT BAR
CMP	CORRUGATED METAL PIPE	REQ'D	REQUIRED
CTH	COUNTY TRUNK HIGHWAY	RT	RIGHT
CR	CREEK	RHF	RIGHT-HAND FORWARD
CFS	CUBIC FEET/SECOND	R/W	RIGHT-OF-WAY
CULV	CULVERT	RD	ROAD
D	DEGREE OF CURVE	SEC	SECTION
DHV	DESIGN HOUR VOLUME	S	SOUTH
DIA	DIAMETER	SE	SOUTHEAST
E	EAST	SW	SOUTHWEST
EL	ELEVATION	STH	STATE TRUNK HIGHWAY
EST	ESTIMATED	STA	STATION
FPS	FEET PER SECOND	SE	SUPER ELEVATION
FE	FIELD ENTRANCE	T	TANGENT
FT	FOOT (FEET)	TEL	TELEPHONE
FTG	FOOTING	TEMP	TEMPORARY
FDN	FOUNDATION	TI	TEMPORARY INTEREST
FF	FRONT FACE	TLE	TEMPORARY LIMITED EASEMENT
IP	IRON PIN	TL OR T/L	TRANSIT LINE
LT	LEFT	T	TRUCKS
LHF	LEFT-HAND FORWARD	TYP	TYPICAL
L	LENGTH OF CURVE	U/G	UNDERGROUND
LF	LINEAR FOOT	USH	UNITED STATES HIGHWAY
MAX	MAXUMUM	VAR	VARIABLE
MI	MILE	V	VELOCITY
MIN	MINIMUM	VPC	VERTICAL POINT OF CURVATURE
NC	NORMAL CROWN	VPI	VERTICAL POINT OF INTERSECTION
N	NORTH	VPT	VERTICAL POINT OF TANGENCY
NE	NORTHEAST	W	WEST
NW	NORTHWEST	YB	YARD
NO	NUMBER		

RUNOFF COEFFICIENT TABLE

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

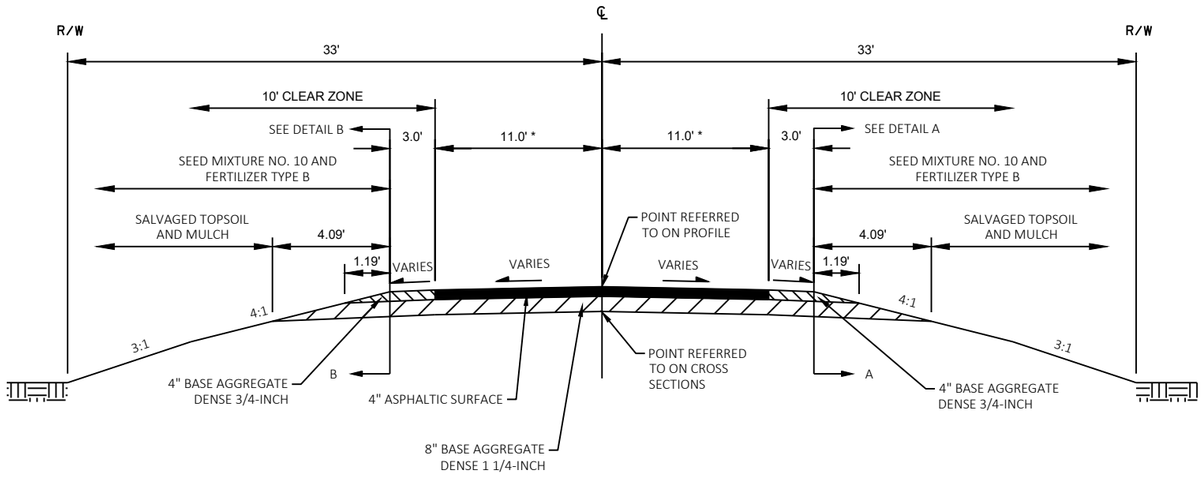
TOTAL PROJECT AREA = 0.43 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.43 ACRES

SUPERELEVATION TABLE		
STATION	CROSS SLOPE	
	LT ('/')	RT ('/')
8+50.00	-0.02	-0.02
8+86.00	0.00	-0.02
9+22.00	0.02	-0.02
9+58.00	0.04	-0.04
9+71.00	0.047	-0.047
10+30.00	0.047	-0.047
10+43.00	0.04	-0.04
10+79.00	0.02	-0.02
11+15.00	0.00	-0.02
11+50.00	-0.02	-0.02



TYPICAL EXISTING SECTION
NORTH 1ST ROAD

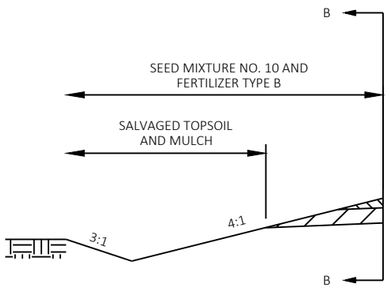
STA 8+50.00 TO STA 9+78.51
STA 10+22.53 TO STA 11+50.00



TYPICAL FINISHED SECTION
NORTH 1ST ROAD

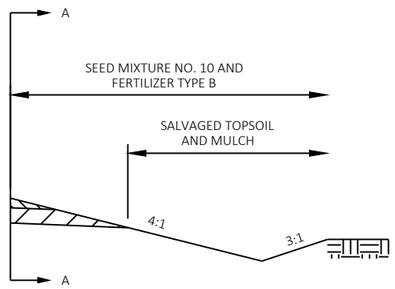
STA 8+50.00 TO STA 9+75.00
STA 10+25.00 TO STA 11+50.00

* THE ASPHALT TAPERS FROM 23.5' WIDE AT THE ENDS OF THE BRIDGE TO 22.0' WIDE - 58.0' FROM THE ENDS OF THE BRIDGE WINGS.



DITCH DETAIL B

STA 8+75.00 TO STA 9+35.00

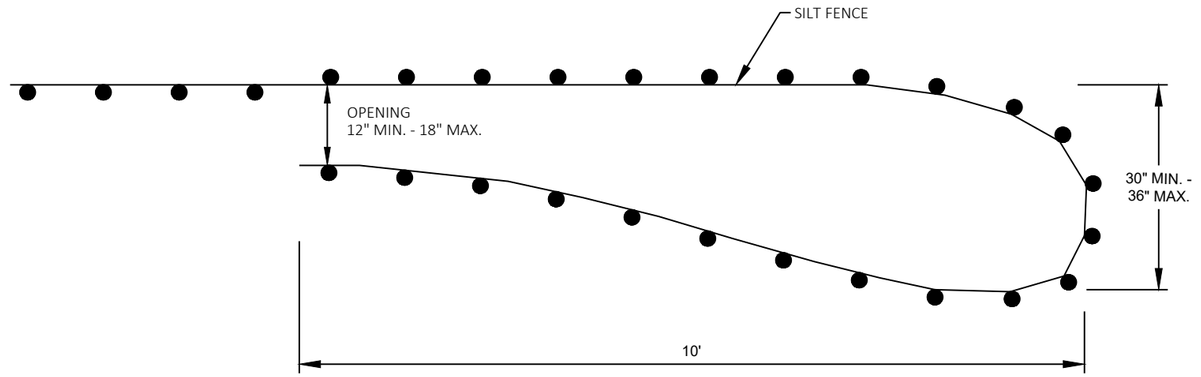


DITCH DETAIL A

STA 8+75.00 TO STA 9+35.00

PROJECT NO: 9246-08-71	HWY: LOCAL STREET	COUNTY: MARINETTE	TYPICAL SECTIONS	SHEET 3	E

2



PLAN VIEW

GENERAL NOTES:

THE PURPOSE OF THE TURTLE TURN-AROUNDS ARE TO REDIRECT THE TURTLES AWAY FROM THE CONSTRUCTION ZONE. DESIGN SHOULD ALSO INCLUDE TRENCHED-IN SEDIMENT FENCING AND FENCING SUPPORTS ON THE UPSLOPE SIDE OF THE FENCE. SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND.

TEMPORARY TURTLE TURN-AROUND DETAIL

9246-08-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0008	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0012	205.0100	Excavation Common	CY	286.000	286.000
0014	206.1000	Excavation for Structures Bridges (structure) 01. B-38-149	LS	1.000	1.000
0018	208.0100	Borrow	CY	152.000	152.000
0020	210.1500	Backfill Structure Type A	TON	260.000	260.000
0022	213.0100	Finishing Roadway (project) 01. 9246-08-71	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	40.000	40.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	415.000	415.000
0030	455.0605	Tack Coat	GAL	30.000	30.000
0032	465.0105	Asphaltic Surface	TON	136.000	136.000
0034	502.0100	Concrete Masonry Bridges	CY	189.000	189.000
0036	502.3200	Protective Surface Treatment	SY	190.000	190.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	3,360.000	3,360.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	24,390.000	24,390.000
0042	513.4061	Railing Tubular Type M	LF	158.000	158.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0052	550.0500	Pile Points	EACH	10.000	10.000
0054	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	325.000	325.000
0056	606.0300	Riprap Heavy	CY	115.000	115.000
0058	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	170.000	170.000
0060	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9246-08-71	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	0.500	0.500
0066	624.0100	Water	MGAL	7.000	7.000
0068	625.0500	Salvaged Topsoil	SY	780.000	780.000
0070	627.0200	Mulching	SY	780.000	780.000
0072	628.1504	Silt Fence	LF	595.000	595.000
0074	628.1520	Silt Fence Maintenance	LF	595.000	595.000
0076	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0078	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0080	628.6005	Turbidity Barriers	SY	200.000	200.000
0084	629.0210	Fertilizer Type B	CWT	0.600	0.600
0086	630.0110	Seeding Mixture No. 10	LB	13.000	13.000
0088	630.0200	Seeding Temporary	LB	25.000	25.000
0090	630.0500	Seed Water	MGAL	13.200	13.200
0096	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000

9246-08-71

Line	Item	Item Description	Unit	Total	Qty
0098	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0100	638.2602	Removing Signs Type II	EACH	6.000	6.000
0102	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0104	642.5001	Field Office Type B	EACH	0.500	0.500
0108	643.0420	Traffic Control Barricades Type III	DAY	700.000	700.000
0110	643.0705	Traffic Control Warning Lights Type A	DAY	1,200.000	1,200.000
0114	643.0900	Traffic Control Signs	DAY	700.000	700.000
0116	643.5000	Traffic Control	EACH	0.500	0.500
0120	645.0111	Geotextile Type DF Schedule A	SY	50.000	50.000
0122	645.0120	Geotextile Type HR	SY	230.000	230.000
0124	650.4500	Construction Staking Subgrade	LF	250.000	250.000
0126	650.5000	Construction Staking Base	LF	250.000	250.000
0130	650.6500	Construction Staking Structure Layout (structure) 01. B-38-149	LS	1.000	1.000
0134	650.9910	Construction Staking Supplemental Control (project) 01. 9246-08-71	LS	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	250.000	250.000
0140	690.0150	Sawing Asphalt	LF	44.000	44.000
0142	715.0502	Incentive Strength Concrete Structures	DOL	1,134.000	1,134.000
0144	SPV.0090	Special 01. Flashing Stainless Steel	LF	105.000	105.000

3

CLEARING & GRUBBING

STATION	TO	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
8+00	-	12+00	4.0	4.0
ITEM TOTALS			4.0	4.0

FINISHING ROADWAY

PROJECT	213.0100 EACH
9246-08-71	1
ITEM TOTAL	1

DIVISION	STATIONING	LOCATION	205.0100 COMMON EXCAVATION (CY)	SALVAGED / UNUSABLE PAVEMENT MATERIAL (1)	AVAILABLE MATERIAL (CY) (2)	UNEXPANDED FILL	EXPANDED FILL	MASS ORDINATE +/- (3)	208.0100 BORROW (CY)
			CUT				FACTOR 1.30		
1	8+50 - 9+72	SOUTH APPROACH	143	30	113	106	138	-25	25
DIVISION 1 SUBTOTAL			143	30	113	106	138	-25	25
2	10+24 - 11+50	NORTH APPROACH	143	30	113	185	240	-127	127
DIVISION 2 SUBTOTAL			143	30	113	185	240	-127	127
GRAND TOTAL			286	60	226	291	378	-152	152
TOTAL COMMON EXCAVATION =			286						152

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON.
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) THE MASS ORDINATE = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.

3

BASE AGGREGATE DENSE

STATION - STATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
8+50 - 9+72	20	205
10+24 - 11+50	20	210
ITEM TOTAL	40	415

ASPHALTIC SURFACE

STATION - STATION	455.0605* TACK COAT GAL	465.0105 TON
8+50 - 9+72	15	67
10+24 - 11+50	15	69
ITEM TOTAL	30	136

* APPLICATION RATE = 0.050 GAL/SY

WATER

STATION - STATION	624.0100 MGAL	REMARKS
8+50 - 11+50	7	COMPACTION & DUST CONTROL
ITEM TOTALS	7	

SALVAGED TOPSOIL, MULCHING, FERTILIZER, AND SEEDING

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
8+50 - 9+72	RT/LT	312	312	0.3	6	11	5.3
10+24 - 11+50	RT/LT	468	468	0.3	7	14	7.9
ITEM TOTAL		780	780	0.6	13	25	13.2

MOBILIZATIONS

PROJECT	619.1000 MOBILIZATION EACH	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
9246-08-71	0.5	2	2
ITEM TOTALS	0.5	2	2

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6005 TURBIDITY BARRIER SY	REMARKS
8+50 - 9+67	LT	150	150	--	
8+50 - 9+49	RT	140	140	--	
9+84		--	--	100	
10+12		--	--	100	
10+21 - 11+50	LT	170	170	--	
10+46 - 11+50	RT	135	135	--	
ITEM TOTALS		595	595	200	

FIELD OFFICE

PROJECT	642.5001 TYPE B EACH
9246-08-71	0.50
ITEM TOTAL	0.50

SIGNING QUANTITIES

LOCATION	SIGN CODE	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
NW BRIDGE CORNER	W5-52-R	3.0	1	1	1	
SW BRIDGE CORNER	W5-52-L	3.0	1	1	1	
NE BRIDGE CORNER	W5-52-L	3.0	1	1	1	
SE BRIDGE CORNER	W5-52-R	3.0	1	1	1	
STATION 3+30 RT	WO5-2	---	---	1	1	NARROW BRIDGE
STATION 15+80 LT	WO5-2	---	---	1	1	NARROW BRIDGE
ITEM TOTAL		12.0	4	6	6	

TRAFFIC CONTROL

LOCATION	643.5 TRAFFIC CONTROL EACH	DURATION DAYS	643.042 BARRICADES TYPE III NO.	643.042 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS
PROJECT 9246-08-71	0.5	50	14	700	24	1200	14	700
ITEM TOTAL	0.5	50		700		1200		700

TRAFFIC CONTROL PLACEMENT SUBJECT TO ENGINEERS APPROVAL

3

3

CONSTRUCTION STAKING

STATION - STATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6500 STRUCTURE LAYOUT (B-38-0149) LS	650.9910 SUPPLEMENTAL CONTROL EACH	650.9920 SLOPE STAKES LF
8+50 - 11+50	250	250	1	--	250
PROJECT 9246-08-71	--	--	--	1	--
ITEM TOTAL	250	250	1	1	250

SAWING

STATION	LOCATION	690.0150 ASPHALT LF
8+50	BEGIN	22
11+50	END	22
ITEM TOTAL		44

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE (P.L.)
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
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
SECTION CORNER (18, 23, 24, 16, 15, 9)
NOTATION FOR COMBUSTABLE FLUIDS — CAUTION
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES — CAUTION
UTILITY NUMBER 40
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.) (TYPE)
SIGN
OFF-PREMISE SIGN #1-25 SIGN

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARINETTE COUNTY, NAD83 1991 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 ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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

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 (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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.

CONVENTIONAL UTILITY SYMBOLS

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

	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

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

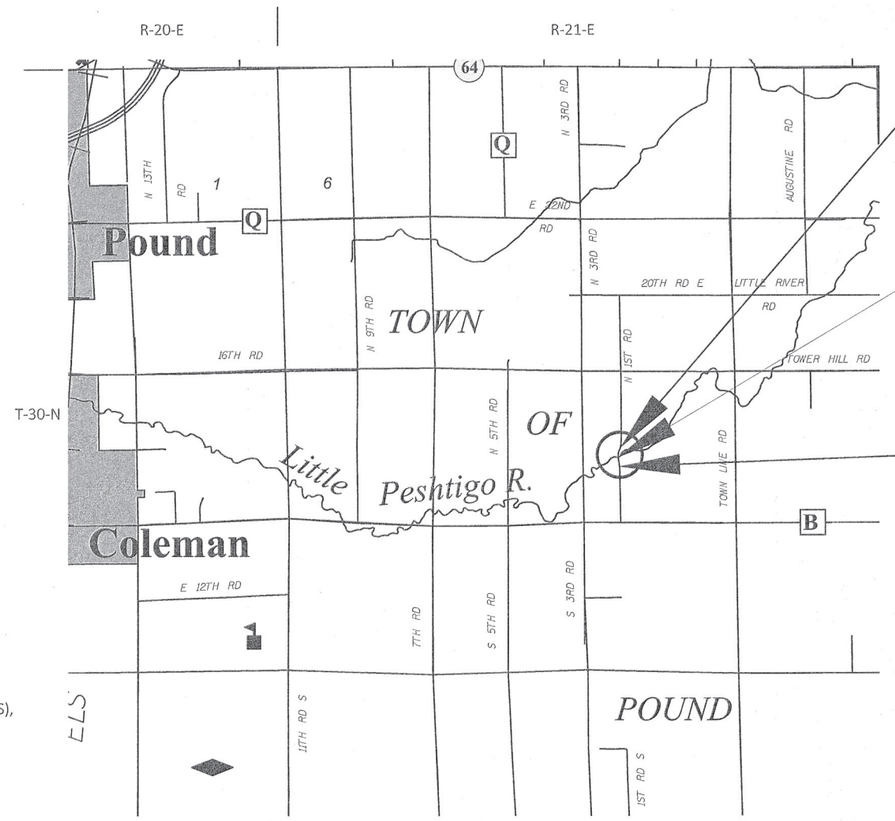
CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
9246-08-00		
CONSTRUCTION PROJECT NUMBER 9246-08-71	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

T POUND, NORTH 1ST ROAD
LITTLE PESHTIGO RIVER BRIDGE

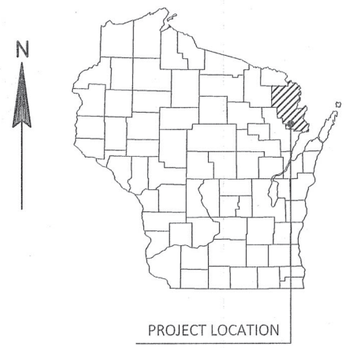
LOCAL STREET	MARINETTE



END RELOCATION ORDER
STA 13+15.22
Y = 138,497.182
X = 719,148.823
1276.32 FEET EAST AND 88.16 FEET SOUTH OF THE WEST QUARTER CORNER OF SEC. 16, T30N, R21E

STRUCTURE B-38-0149
STA 9+98.00

BEGIN RELOCATION ORDER
STA 7+00.00
Y = 137,898.171
X = 719,108.412
1287.16 FEET EAST AND 1946.89 FEET NORTH OF THE SOUTHWEST CORNER OF SEC. 16, T30N, R21E



LAYOUT
SCALE 0 — 1

TOTAL NET LENGTH OF CENTERLINE = 0.117 MI

REVISION DATE

ACCEPTED FOR
TOWN of POUND
7-19-18 (Date)
Gerald Herwy (Signature & Title of Official) Chairman

ORIGINAL PLAT PREPARED BY
Cedar corporation
CEDARBURG - GREEN BAY - MADISON - MENOMONIE
www.cedarcorp.com
800-472-7372

WISCONSIN
DUSTIN J. LaBLONDE
S 3096
MENOMONIE
WI
LAND SURVEYOR

THIS SURVEY IS PREPARED AT THE REQUEST OF THE TOWN. THE FIELD SURVEY WAS PERFORMED IN DECEMBER OF 2016. THIS SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE: 06/15/18 (Signature)

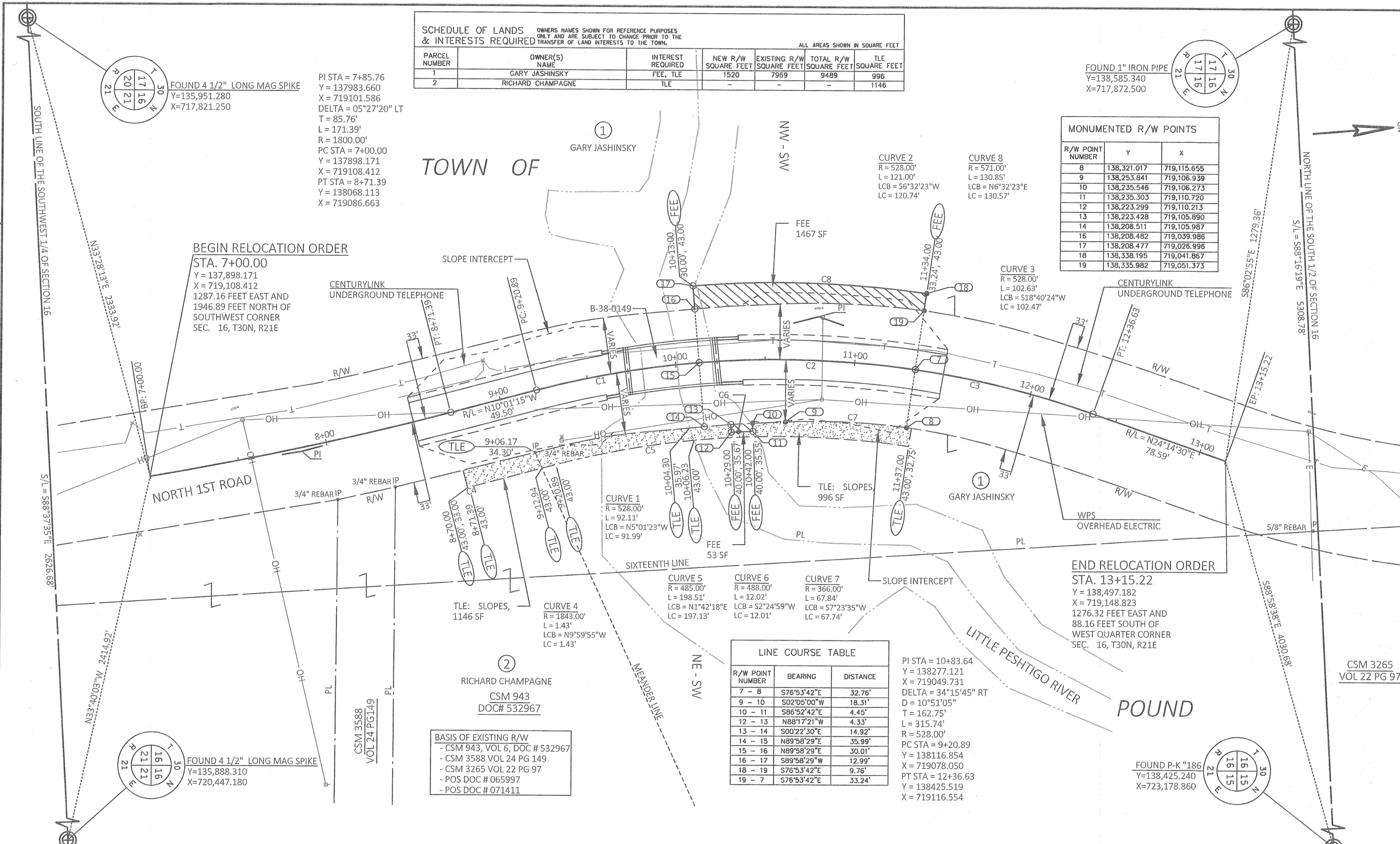
617094

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

ALL AREAS SHOWN IN SQUARE FEET

PARCEL NUMBER	OWNER(S) NAME	INTEREST REQUIRED	NEW R/W SQUARE FEET	EXISTING R/W SQUARE FEET	TOTAL R/W SQUARE FEET	TLE SQUARE FEET
1	GARY JASHINSKY	FEE, TLE	1520	7969	9489	996
2	RICHARD CHAMPAGNE	TLE	–	–	–	1146



FOUND 4 1/2" LONG MAG SPIKE
Y=135,951.280
X=717,821.250
PI STA = 7+85.76
Y = 137983.660
X = 719101.586
DELTA = 05°27'20" LT
T = 85.76'
L = 171.39'
R = 1800.00'
PC STA = 7+00.00
Y = 137898.171
X = 719108.412
PT STA = 8+71.39
Y = 138068.113
X = 719086.663
TOWN OF
① GARY JASHINSKY
NW - SW
FOUND 1" IRON PIPE
Y=138,585.340
X=717,872.500
CURVE 2
R = 528.00'
L = 121.00'
LCB = S6°32'23"W
LC = 120.74'
CURVE 8
R = 571.00'
L = 130.85'
LCB = N6°32'23"E
LC = 130.57'
FEE 1467 SF
CURVE 3
R = 528.00'
L = 102.63'
LCB = S18°40'24"W
LC = 102.47'
SOUTH LINE OF THE SOUTHWEST 1/4 OF SECTION 16
N33°28'13"E 2333.92'
BEGIN RELOCATION ORDER
STA. 7+00.00
Y = 137,898.171
X = 719,108.412
1287.16 FEET EAST AND
1946.89 FEET NORTH OF
SOUTHWEST CORNER
SEC. 16, T30N, R21E
SLOPE INTERCEPT
CENTURYLINK
UNDERGROUND TELEPHONE
B-38-0149
NORTH 1ST ROAD
R/L = N10°01'15"W 49.50'
R/L = N24°14'30"E 78.59'
END RELOCATION ORDER
STA. 13+15.22
Y = 138,497.182
X = 719,148.823
1276.32 FEET EAST AND
88.16 FEET SOUTH OF
WEST QUARTER CORNER
SEC. 16, T30N, R21E
NORTH LINE OF THE SOUTH 1/2 OF SECTION 16
S/L = S88°16'19"E 5308.78'
S86°02'55"E 1279.36'
S/L = S88°37'35"E 2626.68'
TLE: SLOPES, 996 SF
TLE: SLOPES, 1146 SF
FEE 53 SF
WPS
OVERHEAD ELECTRIC
① GARY JASHINSKY
SIXTEENTH LINE
CURVE 1
R = 528.00'
L = 92.11'
LCB = N5°01'23"W
LC = 91.99'
CURVE 4
R = 1843.00'
L = 1.43'
LCB = N9°59'55"W
LC = 1.43'
CURVE 5
R = 485.00'
L = 198.51'
LCB = N1°42'18"E
LC = 197.13'
CURVE 6
R = 488.00'
L = 12.02'
LCB = S2°24'59"W
LC = 12.01'
CURVE 7
R = 366.00'
L = 67.84'
LCB = S7°23'35"W
LC = 67.74'
SLOPE INTERCEPT
LITTLE PESHTIGO RIVER
POUND
NE - SW
MEANDER LINE
② RICHARD CHAMPAGNE
CSM 943
DOC# 532967
CSM 3588 VOL 24 PG149
N33°40'03"W 2414.92'
S88°58'38"E 4030.68'
CSM 3265
VOL 22 PG 97
FOUND 4 1/2" LONG MAG SPIKE
Y=135,888.310
X=720,447.180
FOUND P-K "186
Y=138,425.240
X=723,178.860
PI STA = 10+83.64
Y = 138277.121
X = 719049.731
DELTA = 34°15'45" RT
D = 10°51'05"
T = 162.75'
L = 315.74'
R = 528.00'
PC STA = 9+20.89
Y = 138116.854
X = 719078.050
PT STA = 12+36.63
Y = 138425.519
X = 719116.554

MONUMENTED R/W POINTS

R/W POINT NUMBER	Y	X
8	138,321.017	719,115.655
9	138,253.841	719,106.939
10	138,235.546	719,106.273
11	138,235.303	719,110.720
12	138,223.299	719,110.213
13	138,223.428	719,105.890
14	138,208.511	719,105.987
16	138,208.482	719,039.986
17	138,208.477	719,026.996
18	138,338.195	719,041.867
19	138,335.982	719,051.373

LINE COURSE TABLE

R/W POINT NUMBER	BEARING	DISTANCE
7 - 8	S76°53'42"E	32.76'
9 - 10	S02°05'00"W	18.31'
10 - 11	S86°52'42"E	4.45'
12 - 13	N88°17'21"W	4.33'
13 - 14	S00°22'30"E	14.92'
14 - 15	N89°58'29"E	35.99'
15 - 16	N89°58'29"E	30.01'
16 - 17	S89°58'29"W	12.99'
18 - 19	S76°53'42"E	9.76'
19 - 7	S76°53'42"E	33.24'

BASIS OF EXISTING R/W
- CSM 943, VOL 6, DOC # 532967
- CSM 3588 VOL 24 PG 149
- CSM 3265 VOL 22 PG 97
- POS DOC # 065997
- POS DOC # 071411

REVISION DATE	DATE 6-15-18	SCALE, FEET 0 25 50	HWY: LOCAL STREET	STATE R/W PROJECT NUMBER 9246-08-00	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9246-08-71	PS&E SHEET E

FILE NAME : 040102-RP.DWG
LAYOUT NAME - 040102_rp
PLOT DATE : 6/27/2018 9:48 AM PLOT BY : BRYAN GREISCH PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

617094

EROSION CONTROL LEGEND
- SILT FENCE
- TURBIDITY BARRIER

PI STA = 7+22.11
Y = 137920.432
X = 719112.758
DELTA = 9°31'31"
D = 3°10'59"
T = 149.97'
L = 299.25'
R = 1800.00'
PC STA = 5+72.15
Y = 137770.468
X = 719114.055
PT STA = 8+71.39
Y = 138068.113
X = 719086.663
BK = N00°29'43.6"W
AH = N10°01'14.7"W

GARY JASHINSKY
PO BOX 188
COLEMAN, WI 54112

BENCHMARKS			
NO	STA.	DESCRIPTION	ELEV.
1	7+54±	MAG ON POWER POLE, 19' LT.	656.68
2	10+05±	CHISELED SQUARE IN CONCRETE DECK, 14' RT.	658.21
3	10+83±	MAG ON POWER POLE, 24 RT.	657.25
4	12+19±	BLACK CROSS ON CMP, 17' LT.	657.89

N

GARY JASHINSKY
PO BOX 188
COLEMAN, WI 54112

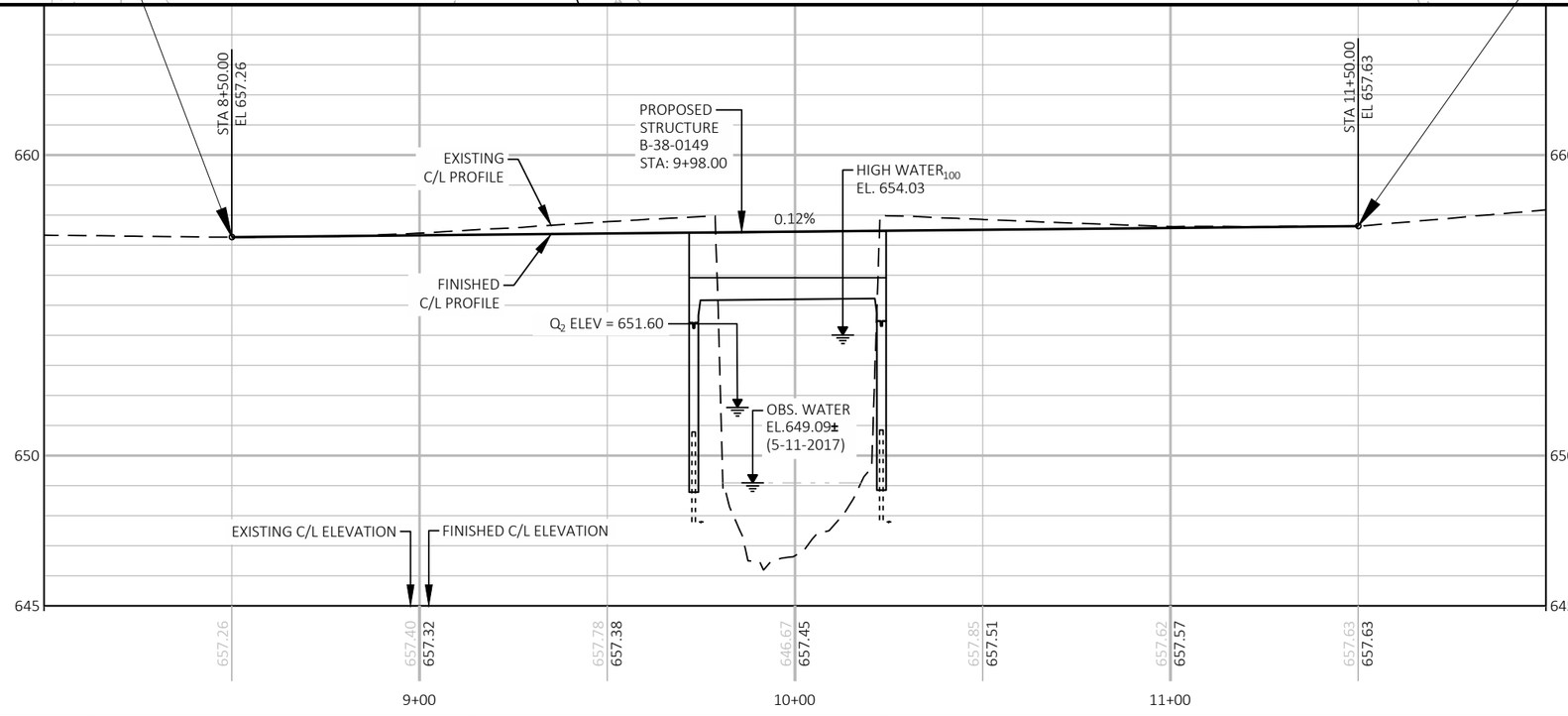
EDGE OF WATER
WETLAND BOUNDARY
LITTLE PESHTIGO RIVER
CP9
MAG IN ASPH
Y = 138233.507
X = 719060.225
SLOPE INTERCEPT
R/W
PROPOSED STRUCTURE B-38-0149
STA: 9+98.00
PC: 9+20.89
PT: 12+36.63
CENTURYLINK
WPS
BM1
BM2
BM3
BM4
7+00
8+00
9+00
10+00
11+00
12+00
N10° 01' 15"W
NORTH 1ST RD
N24° 14' 30"E
200'
CP6, MAG IN ASPH
Y = 138149.444
X = 719084.755
CP7, MAG IN ASPH
Y = 138016.393
X = 719106.305
EXISTING STRUCTURE P-38-0101 TO BE REMOVED
PI STA = 10+83.64
Y = 138277.121
X = 719049.731
DELTA = 34°15'45"
D = 10°51'05"
T = 162.75'
L = 315.74'
R = 528.00'
PC STA = 9+20.89
Y = 138116.854
X = 719078.050
PT STA = 12+36.63
Y = 138425.519
X = 719116.554
BK = N10°01'14.7"W
AH = N24°14'30.3"E
TLE
SLOPE INTERCEPT
WETLAND BOUNDARY
SEE TURTLE TURN-AROUND DETAIL (TYP.)
W1-2R 30"X30" 30 MPH W13-1 18"X18"
W1-2L 30"X30" 30 MPH W13-1 18"X18"

BEGIN PROJECT
STA 8+50.00
X = 719090.260
Y = 138047.025
MATCH EXISTING
SAWCUT REQ'D

END PROJECT
STA 11+50.00
MATCH EXISTING
SAWCUT REQ'D

RICHARD CHAMPAGNE
N3010 NORTH 1ST RD
POUND, WI 54161

GERALD HEROUX
KATHIE HEROUX
N3104 NORTH 1ST RD
POUND, WI 54161



STATION 10+00
REMOVE STRUCTURE P-38-0101
SINGLE SPAN CONCRETE DECK GIRDER BRIDGE
43.8' OVERALL LENGTH
24.5' OVERALL WIDTH
SKEW 0°

STATION 9+98
STRUCTURE B-38-0149 REQUIRED
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
52.5' OVERALL LENGTH
26.5' OVERALL WIDTH
SKEW 0°

PROJECT NO: 9246-08-71	HWY: LOCAL STREET	COUNTY: MARINETTE	PLAN AND PROFILE: NORTH 1ST ROAD	SHEET 13	E

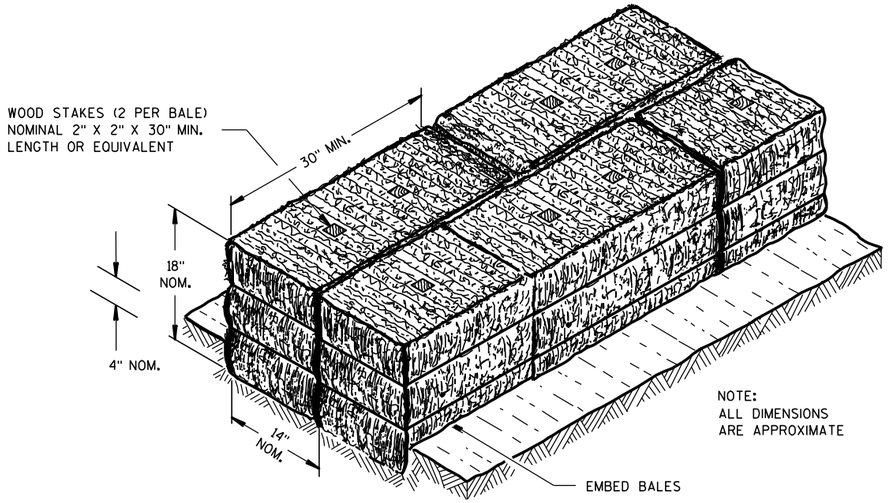
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

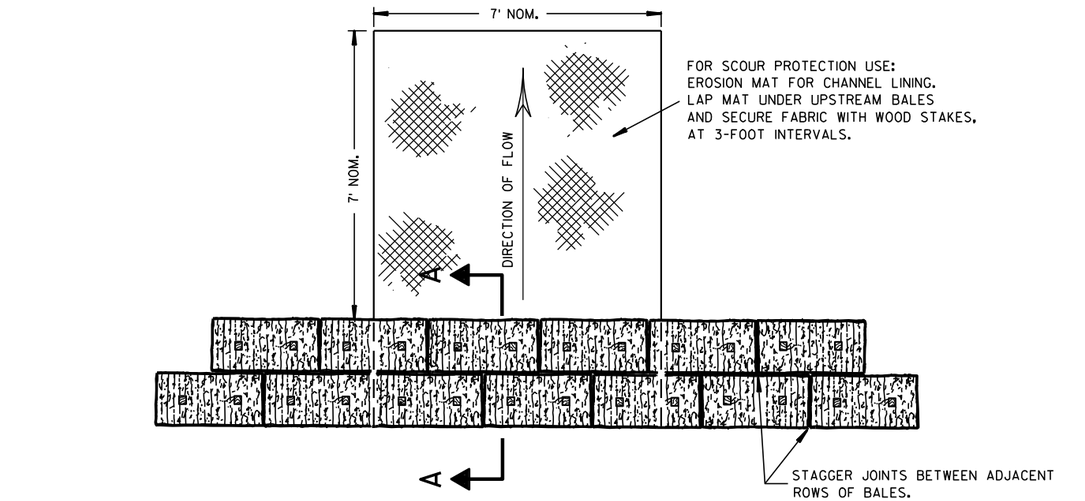
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
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

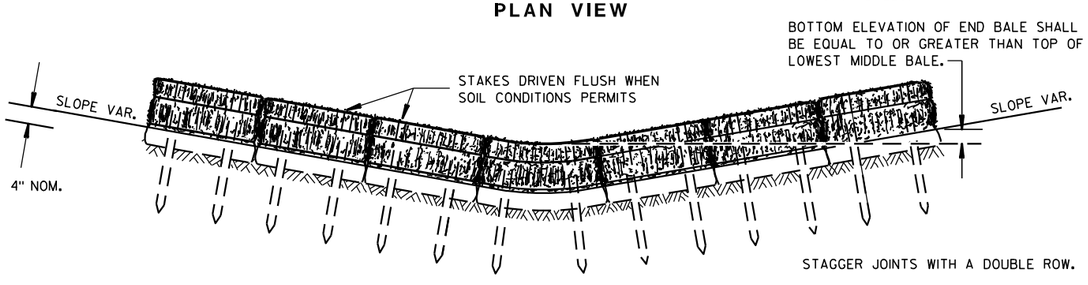
6



SECTION A-A



PLAN VIEW



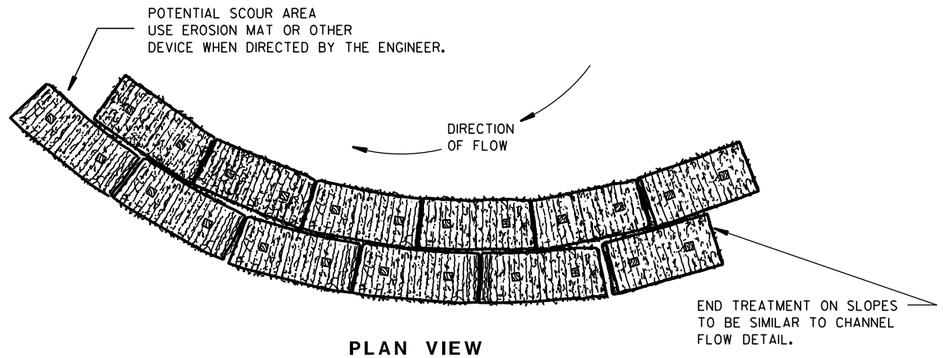
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

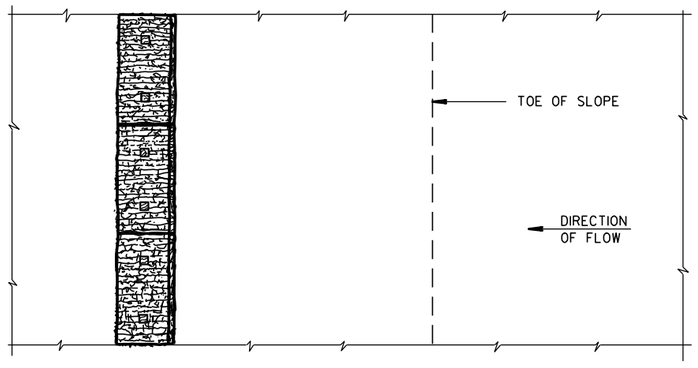
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

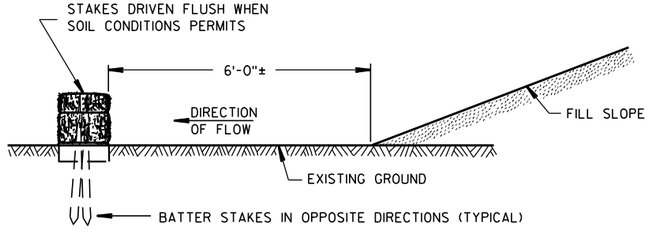


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

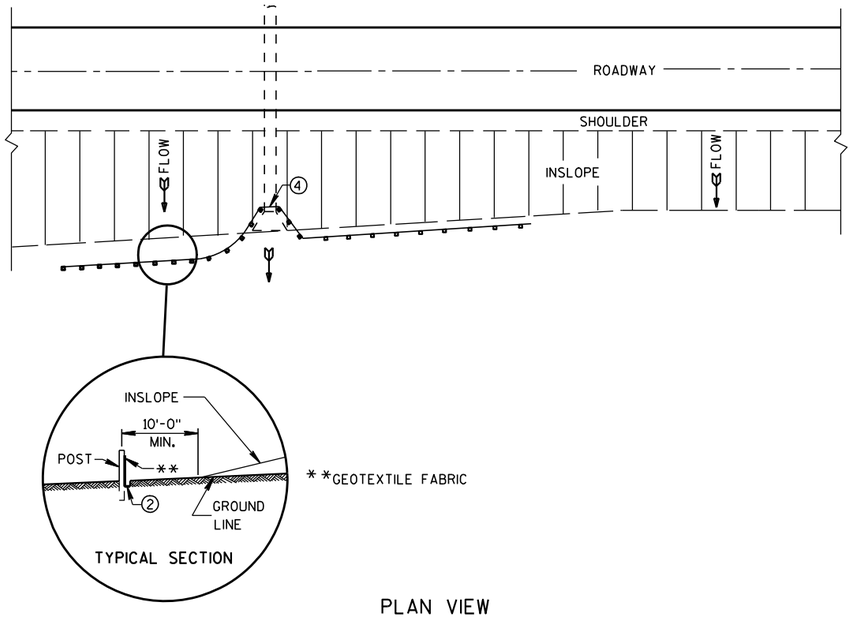
FHWA

6

S.D.D. 8 E 8-3

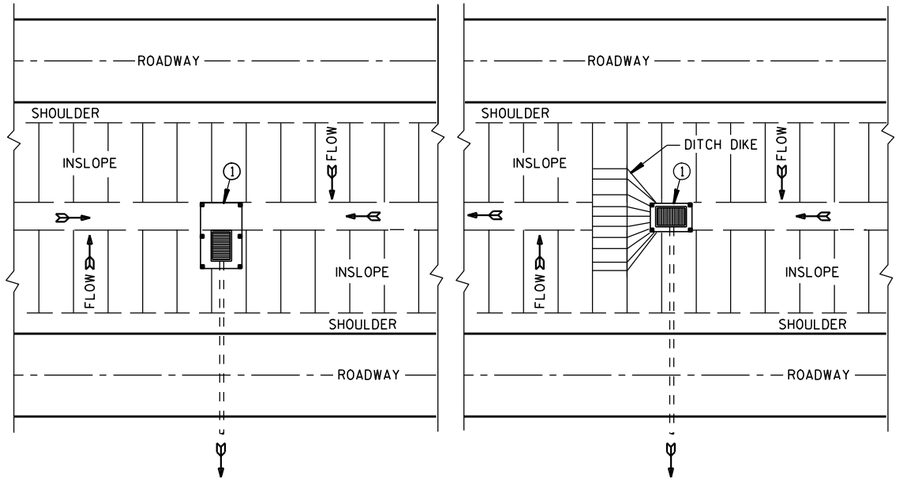
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

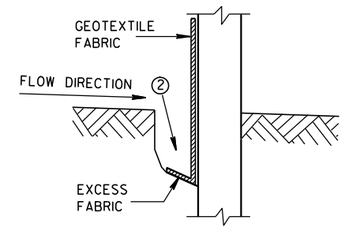
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

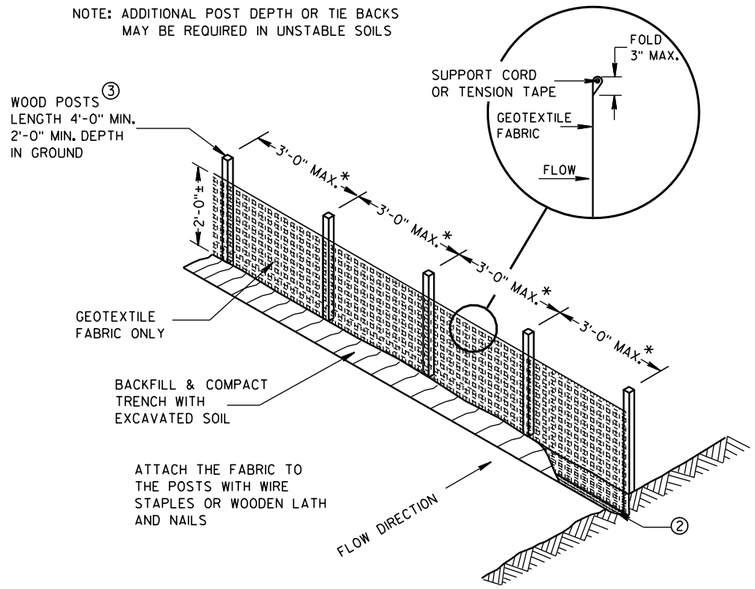
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

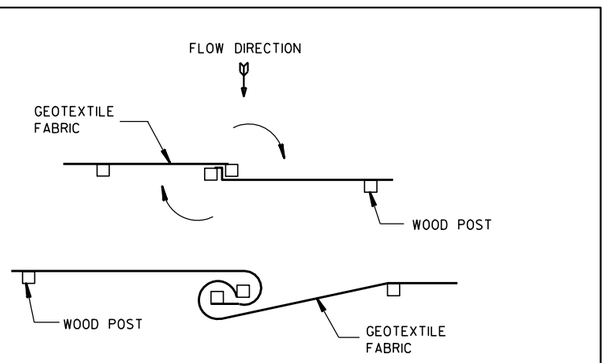
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



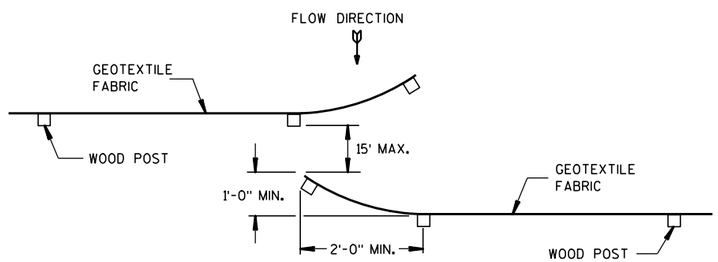
TRENCH DETAIL



SILT FENCE

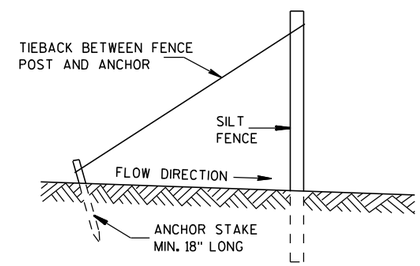


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

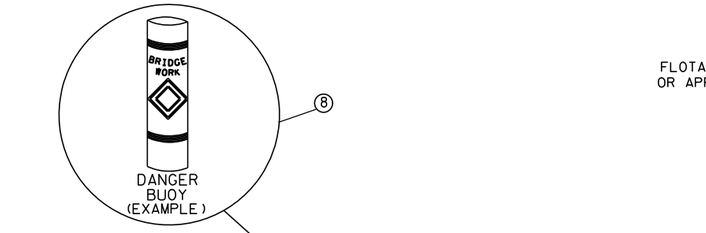
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

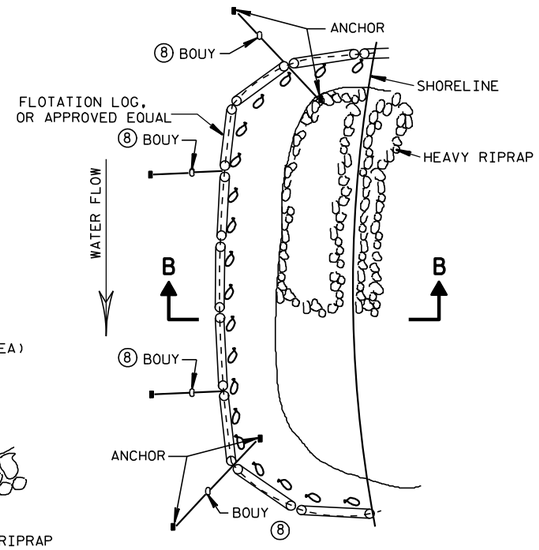
S.D.D. 8 E 9-6

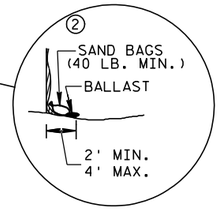
6

S.D.D. 8 E 9-6

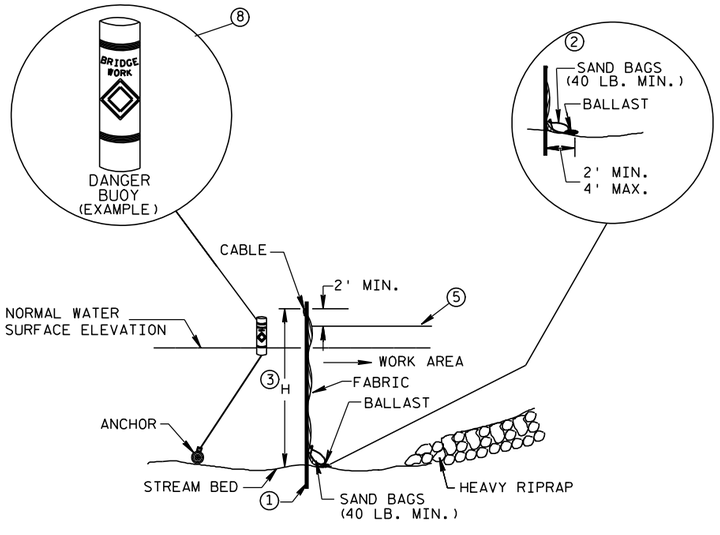


SECTION B-B

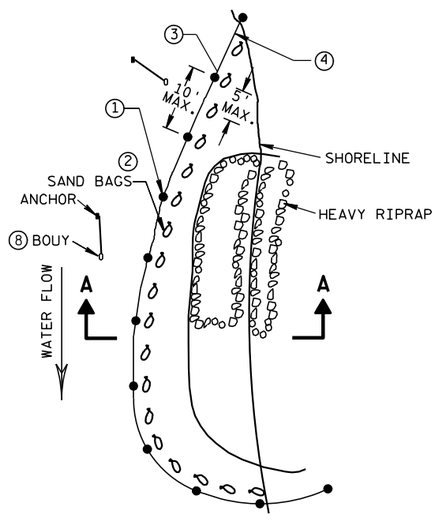




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

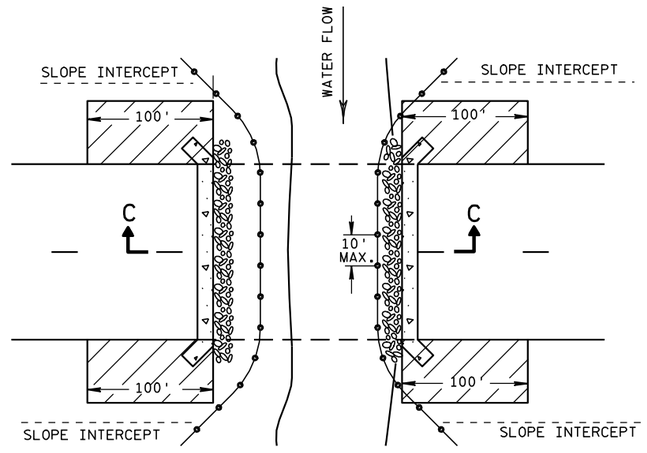
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

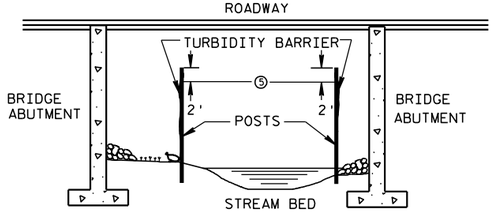
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

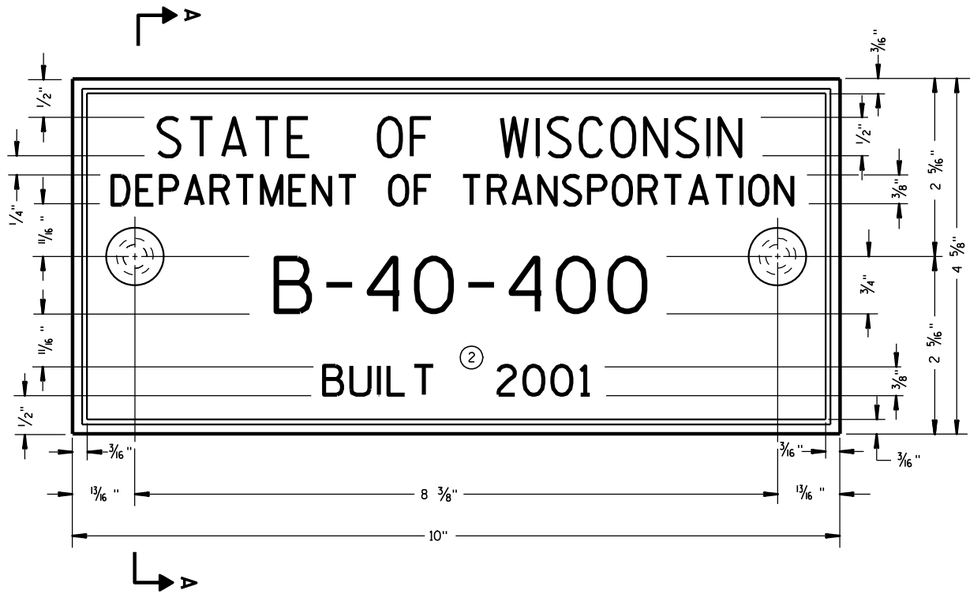
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 11-2

6

S.D.D. 8 E 11-2



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

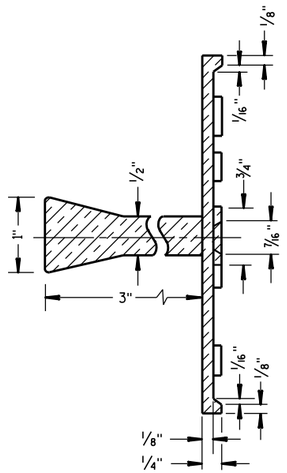
GENERAL NOTES

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

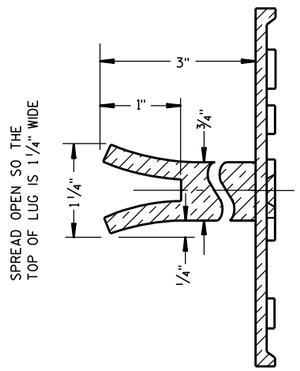
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

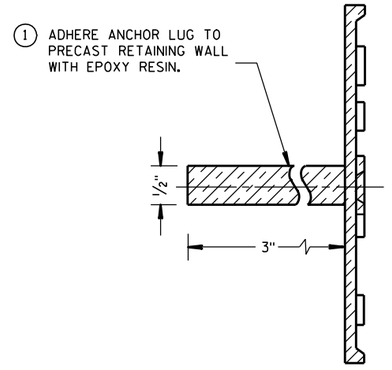
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

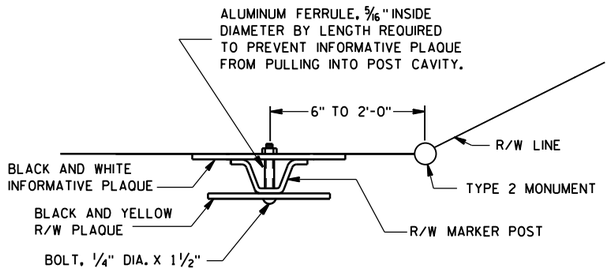
FHWA

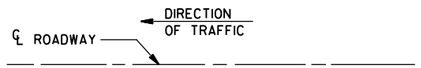
6

S.D.D. 12 A 3-10

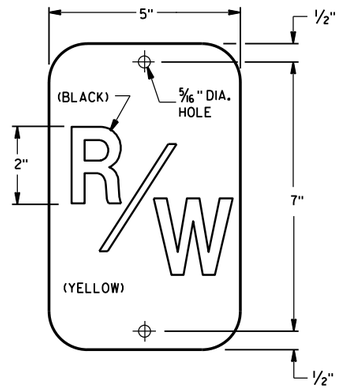
6

S.D.D. 12 A 3-10



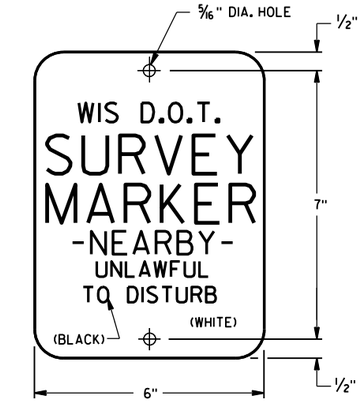


PLAN VIEW



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.

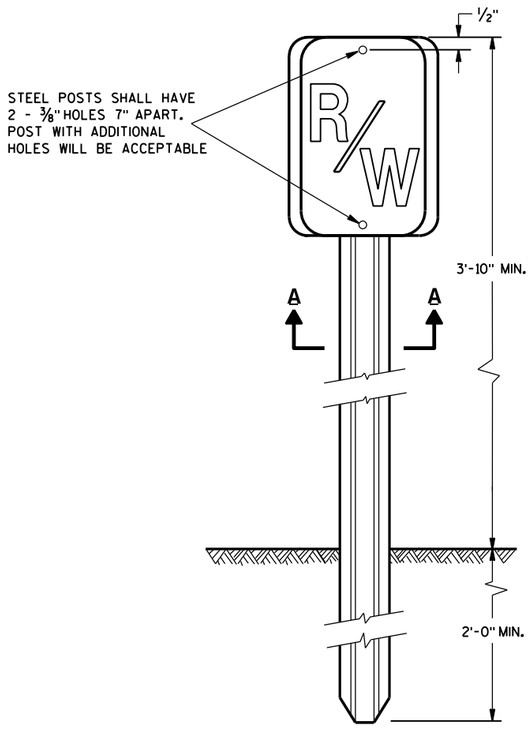
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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 DEPARTMENT OF TRANSPORTATION.

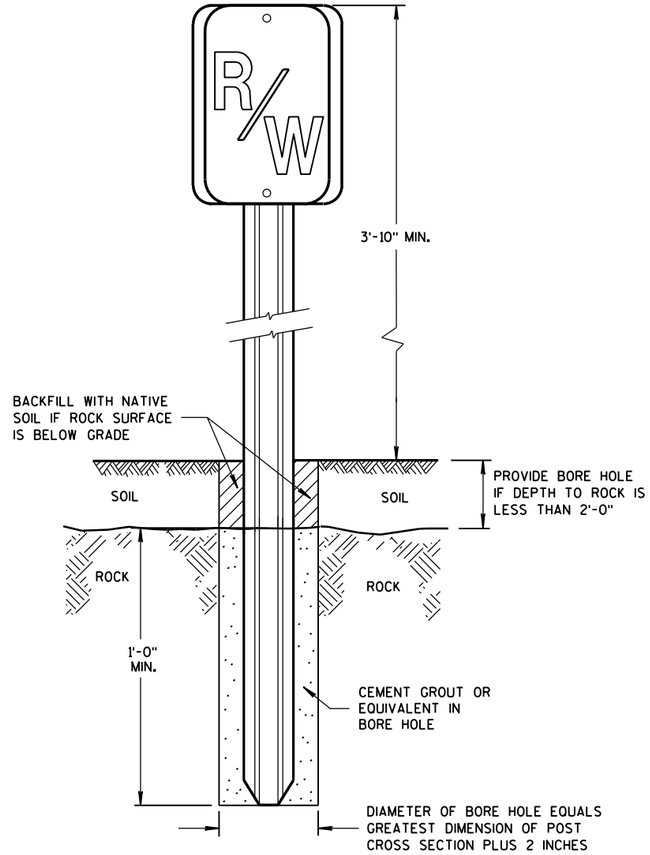
STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO 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.

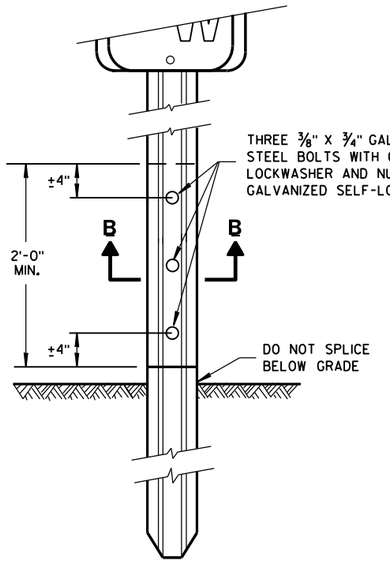
FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT. DEPENDING ON THE STABILITY OF THE ROCK.



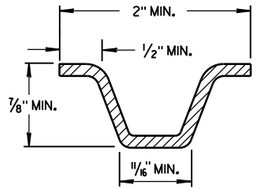
FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION ①

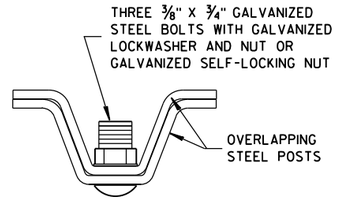


FRONT VIEW
SPLICE DETAIL



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 — CHIEF SURVEYING AND MA[illegible]INEER
FHWA

6

S.D.D. 15 A 1-13a

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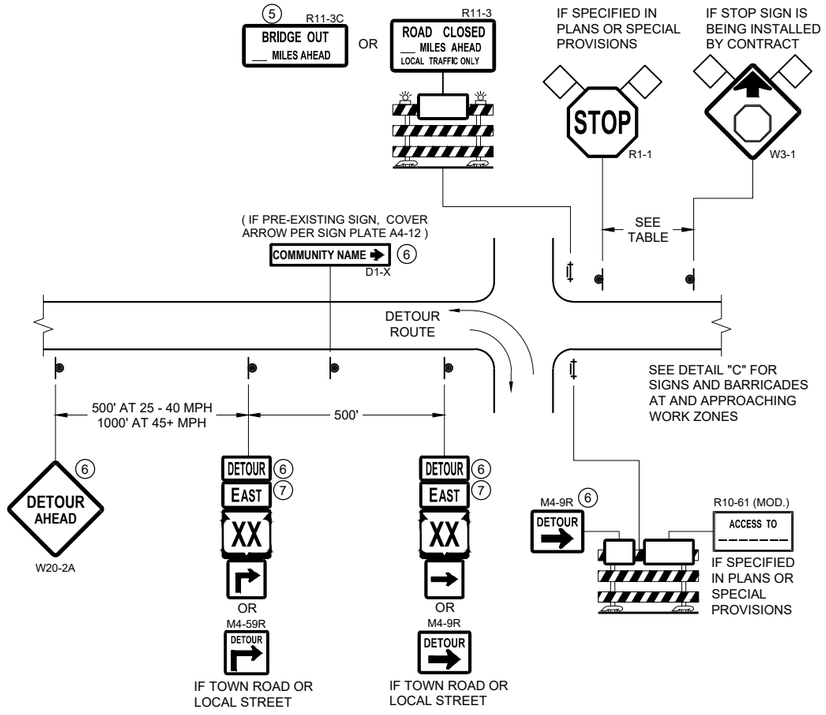
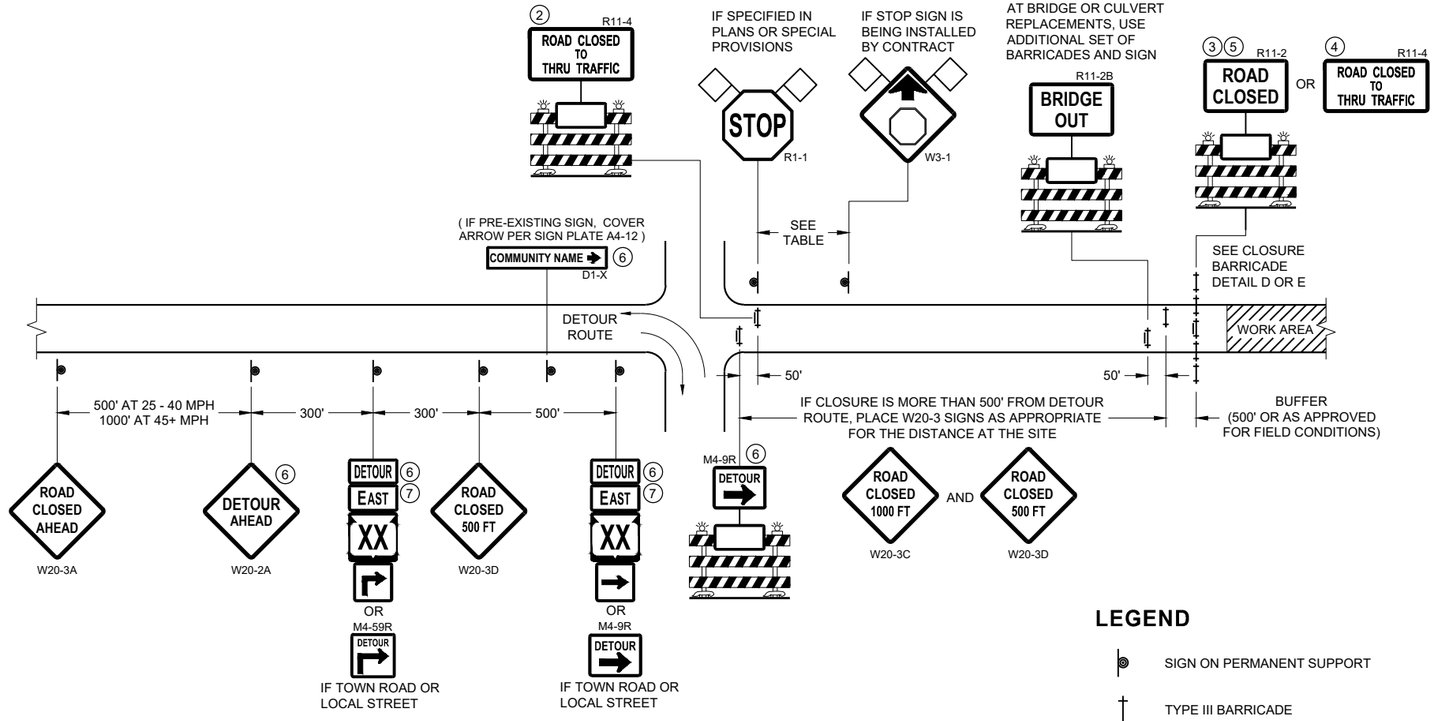
S.D.D. 15 A 1-13a



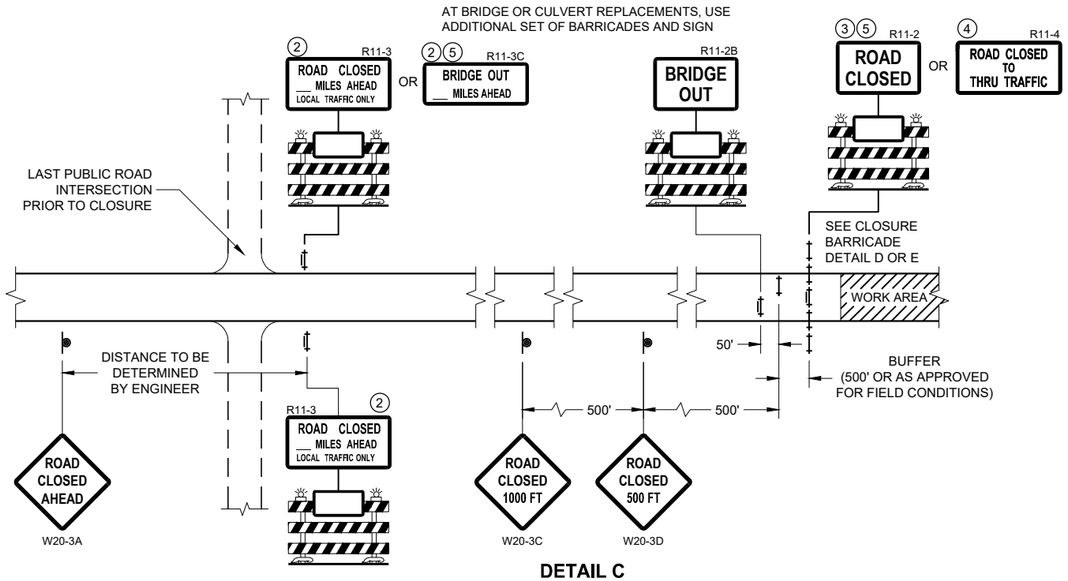


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

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)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

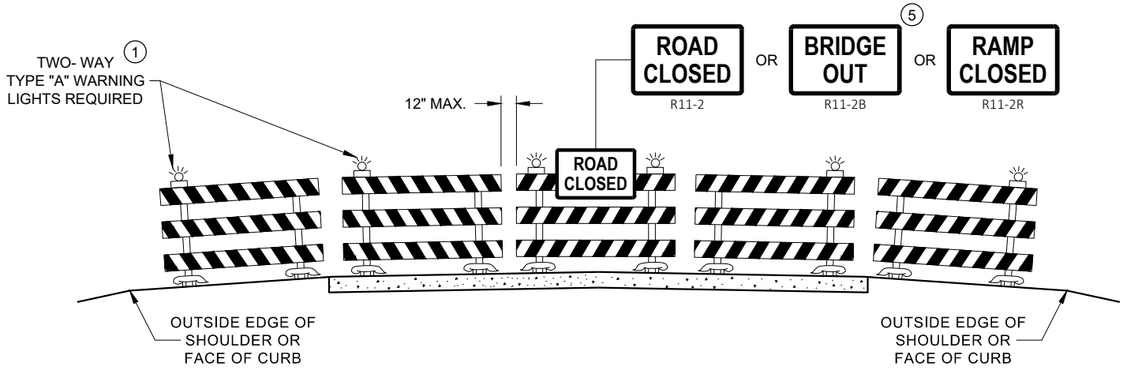
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

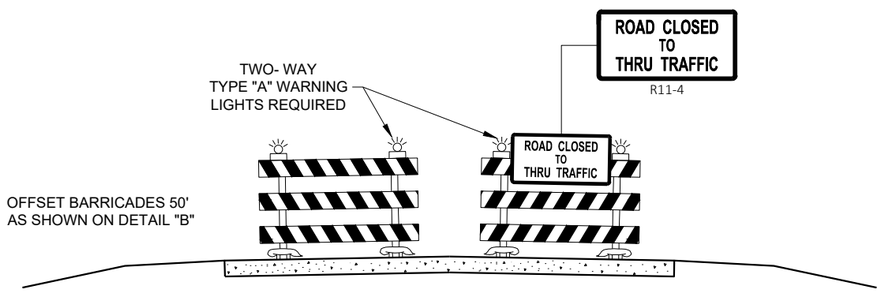
6

SDD 15C02 - 07a

SDD 15C02 - 07a



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

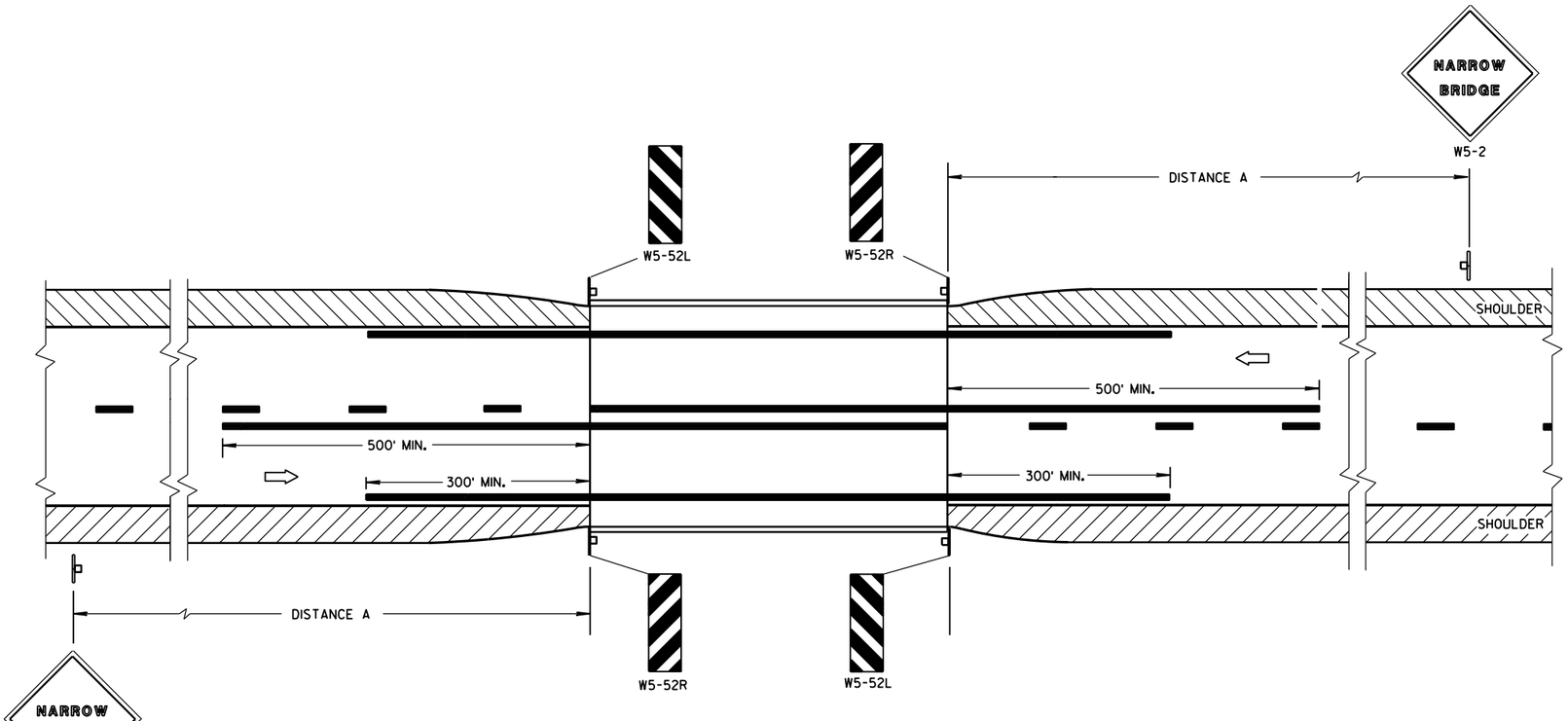
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C02 - 07b



SITUATION 1

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

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.

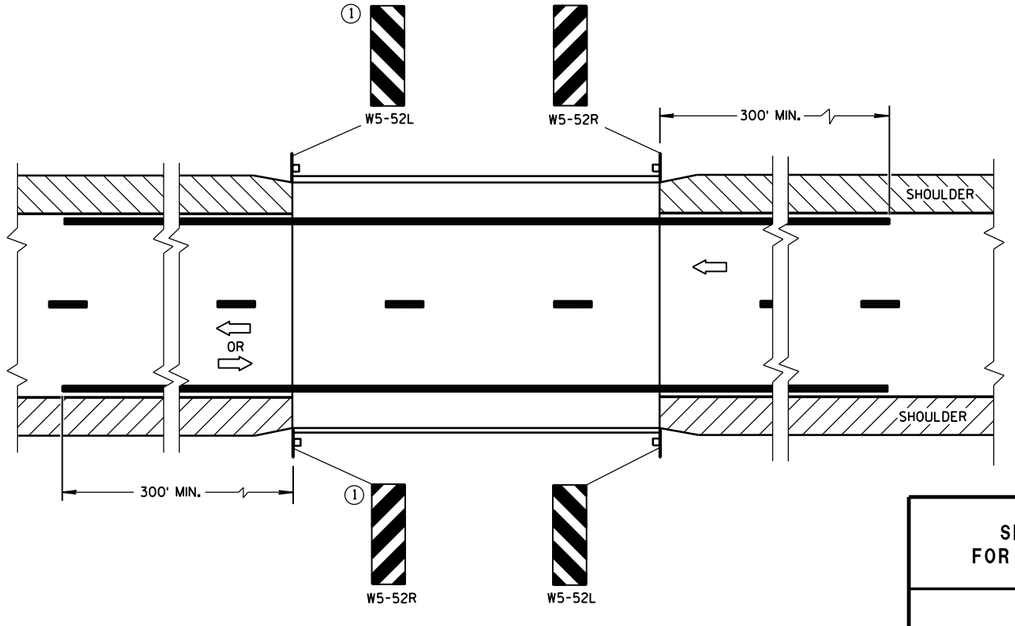
PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC

DISTANCE TABLE

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



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

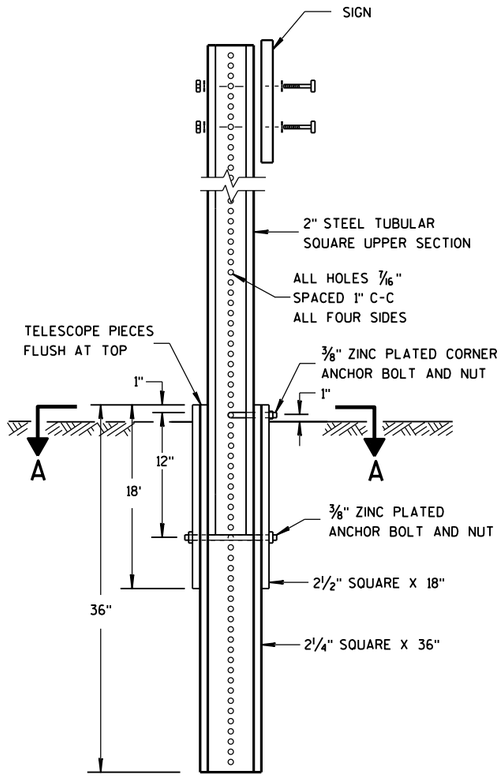
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

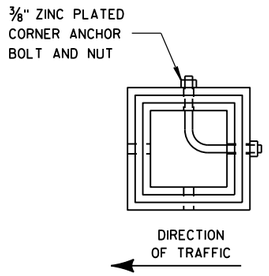
S.D.D. 15 C 6-9

6

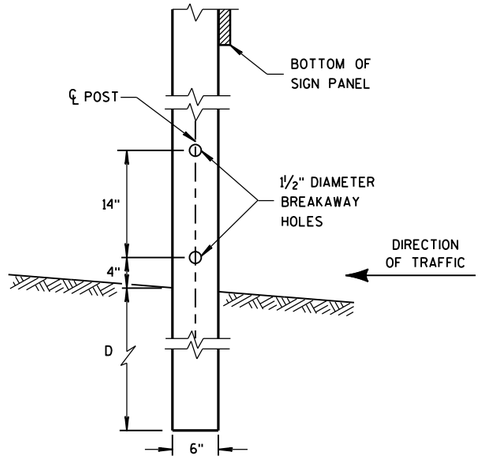
S.D.D. 15 C 6-9



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



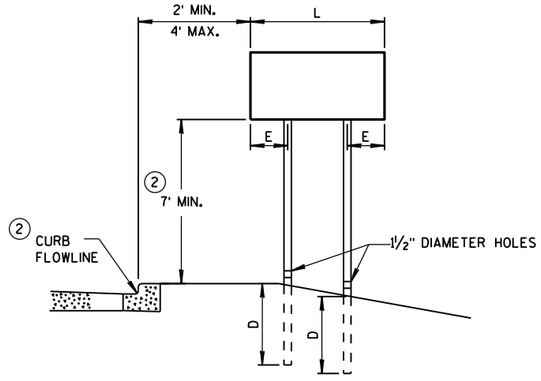
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

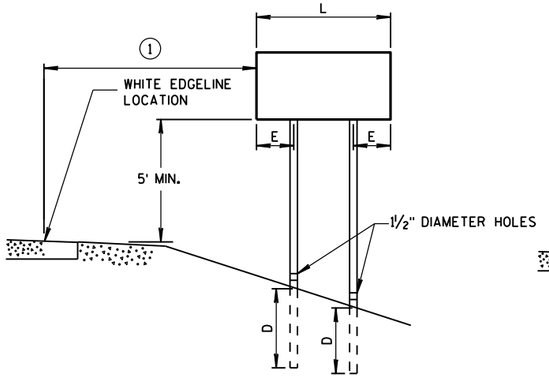
1. 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

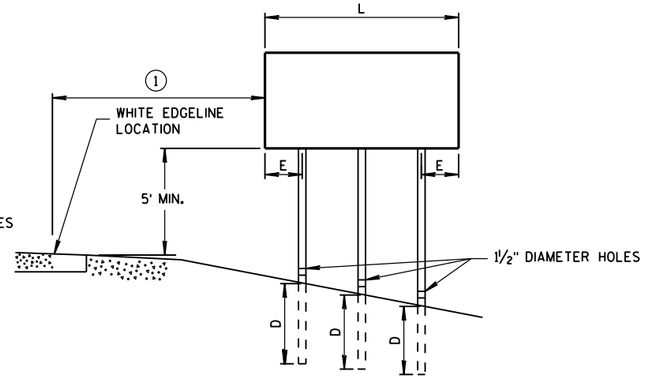
2. THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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.

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

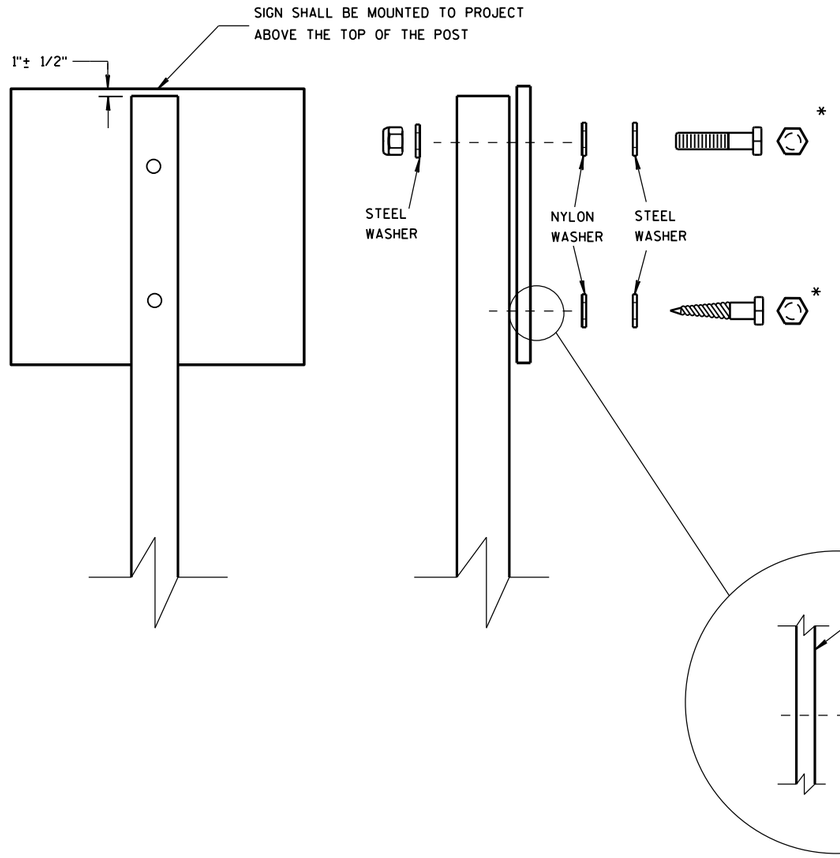
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

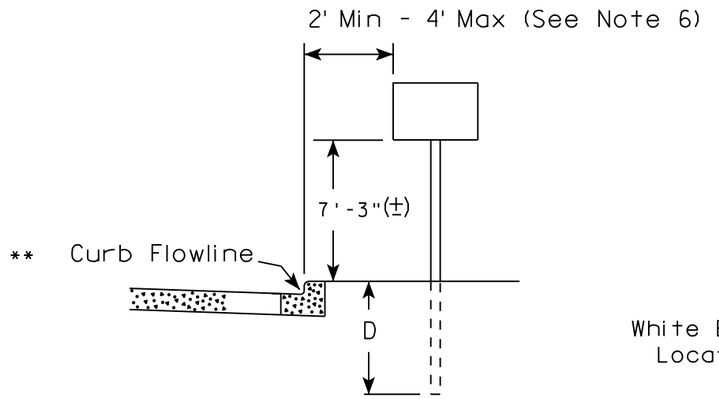
APPROVED

June 2017
DATE

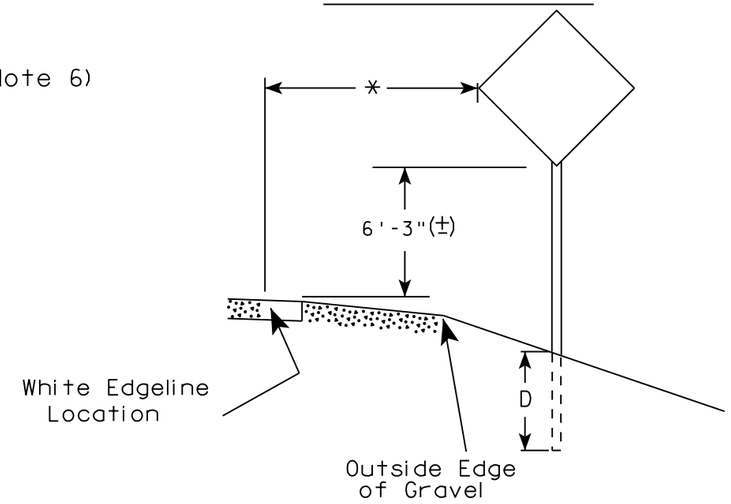
/S/ Andrew Heldtke
WORK ZONE ENG

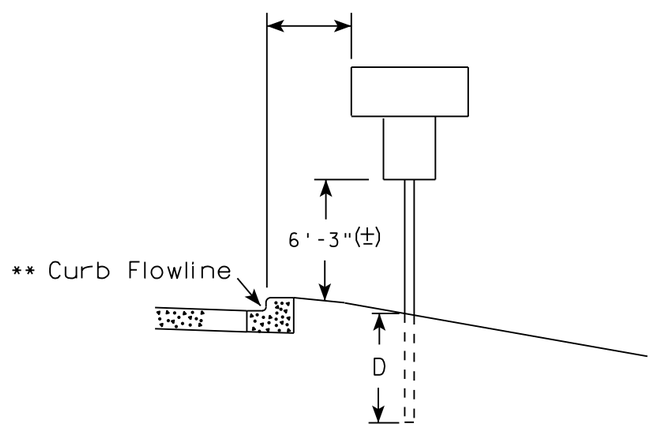
FHWA

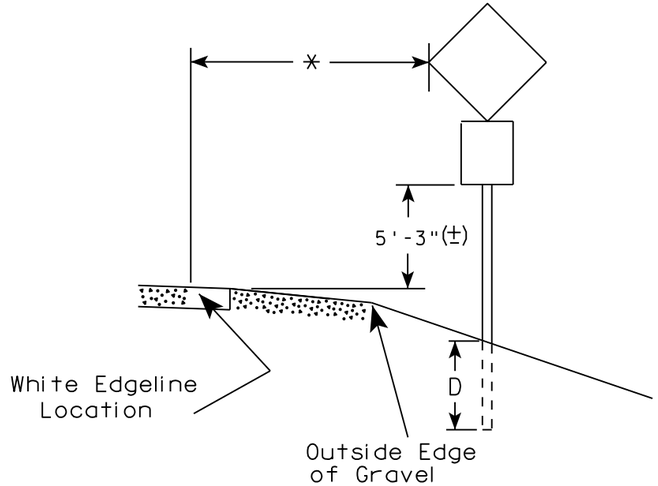
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

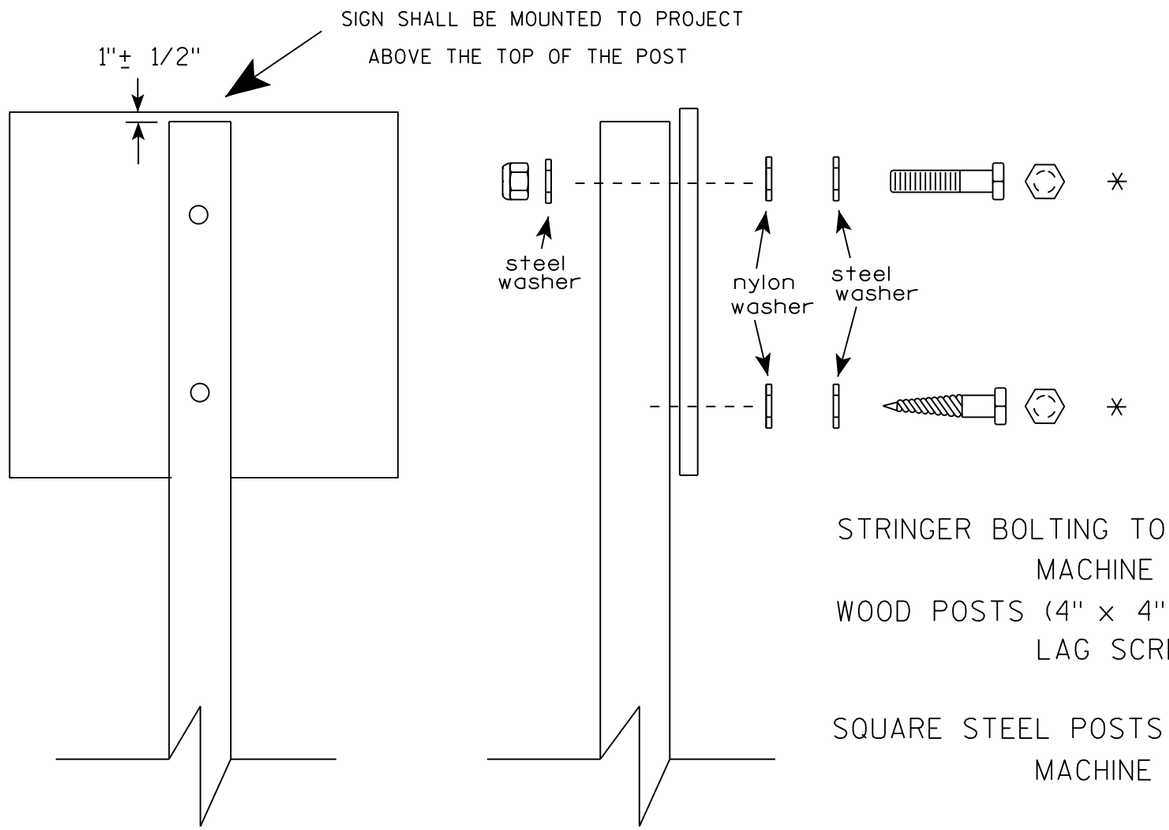
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies 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 directd 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.

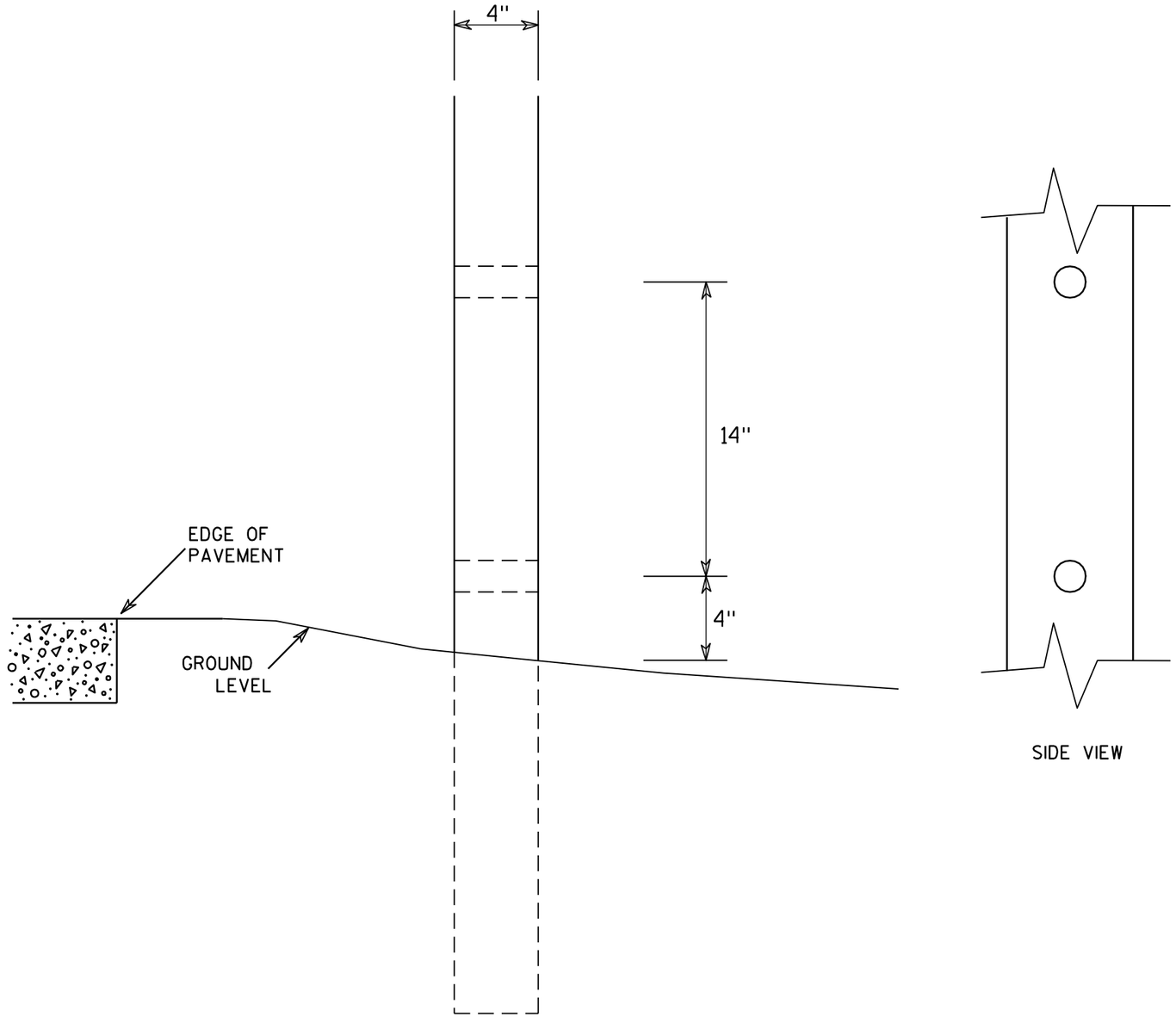
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E



SIDE VIEW

GENERAL NOTES

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

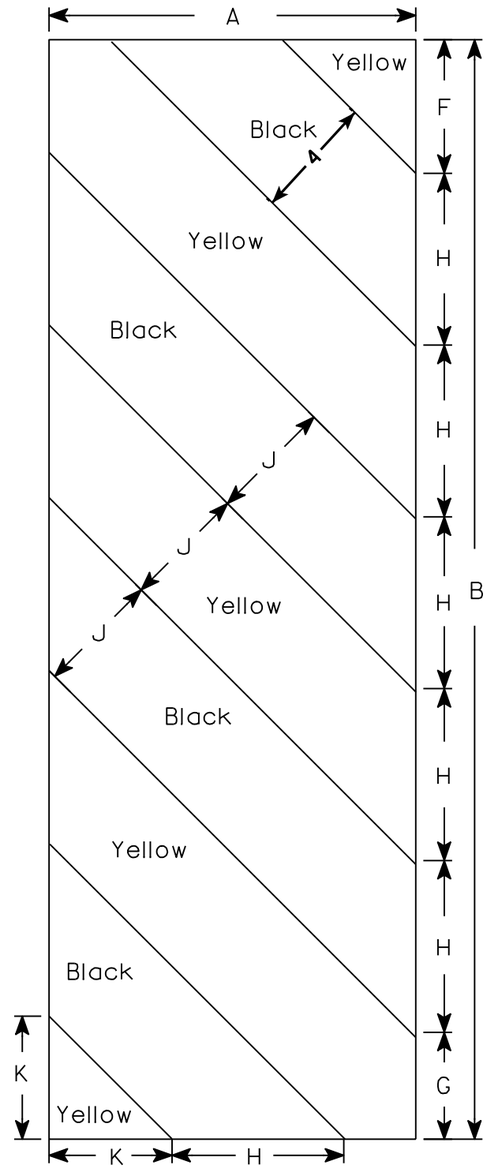
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

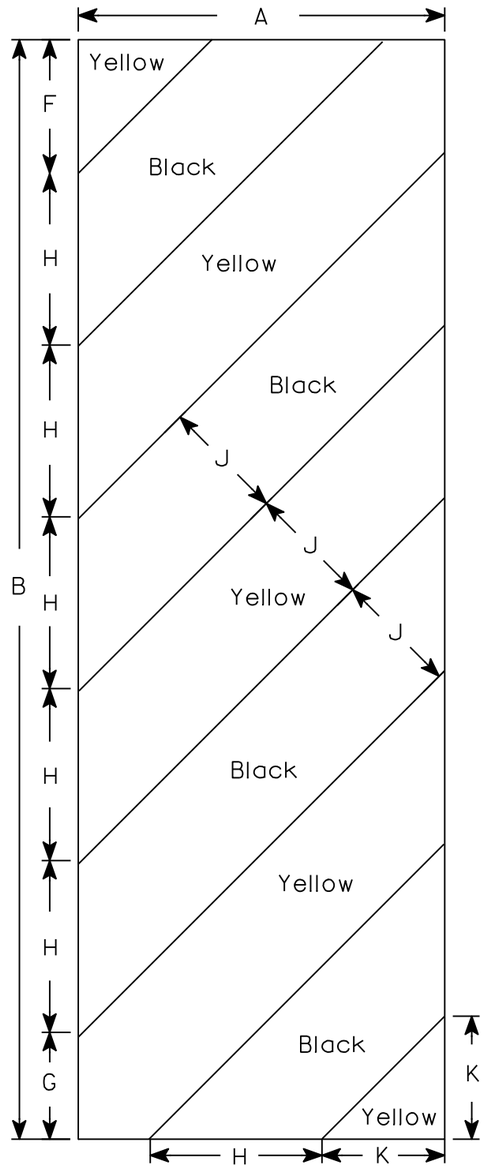
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 27	E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

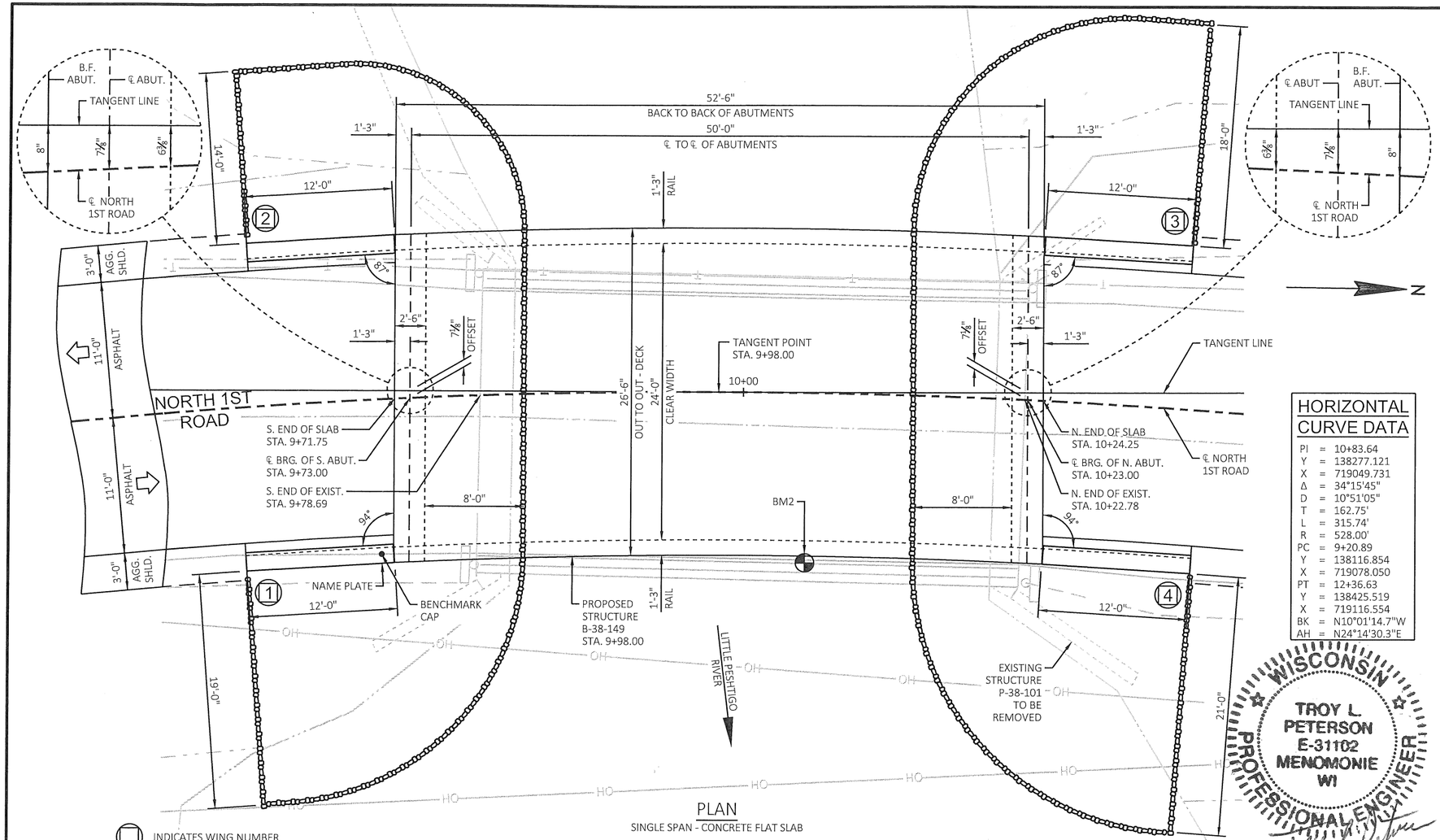
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 28	E

STATE PROJECT NUMBER

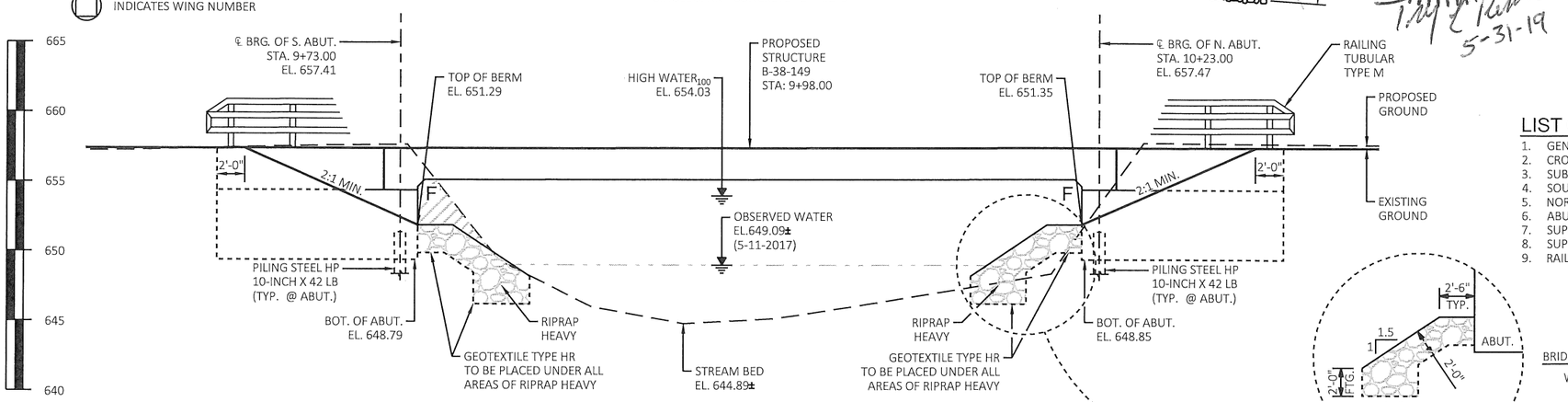
9246-08-71



PLAN

SINGLE SPAN - CONCRETE FLAT SLAB

INDICATES WING NUMBER



EXCAVATION IN THESE AREAS SHALL BE INCLUDED IN EXCAVATION FOR STRUCTURE (TYP.)

ELEVATION

NORMAL TO LITTLE PESHTIGO RIVER (LOOKING UPSTREAM)

HORIZONTAL CURVE DATA

PI	=	10+83.64
Y	=	138277.121
X	=	719049.731
Δ	=	34°15'45"
D	=	10°51'05"
T	=	162.75'
L	=	315.74'
R	=	528.00'
PC	=	9+20.89
Y	=	138116.854
X	=	719078.050
PT	=	12+36.63
Y	=	138425.519
X	=	719116.554
BK	=	N10°01'14.7"W
AH	=	N24°14'30.3"E

WISCONSIN
TROY L. PETERSON
E-31102
MENOMONIE
WI
PROFESSIONAL ENGINEER
5-31-19

DESIGN DATA

STRUCTURE IS DESIGNED FOR FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

LIVE LOAD:

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

MATERIAL PROPERTIES:

CONCRETE MASONRY

SLAB	f'c = 4,000 PSI
ALL OTHER	f'c = 3,500 PSI
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 PSI

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100}	1,370 C.F.S.
Q_{BRIDGE}	1,370 C.F.S.
VEL.	6.77 F.P.S.
HW_{100}	EL. 654.03
WATERWAY AREA	202.36 SQ. FT.
DRAINAGE AREA	60.7 SQ. MI.
ROADWAY OVERTOPPING	N/A
SCOUR CRITICAL CODE	8

2 YEAR FREQUENCY

Q_2 TOTAL	530 C.F.S.
VEL.	5.07 F.P.S.
HW_2	EL. 651.60

TRAFFIC DATA

AADT (2019)	<100
AADT (2039)	<100
DESIGN SPEED	30 M.P.H.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10x42 DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED LENGTH 30'-0" NORTH ABUTMENT
ESTIMATED LENGTH 35'-0" SOUTH ABUTMENT

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

BENCHMARKS			
NO	STA.	DESCRIPTION	ELEV.
1	7+54±	MAG ON POWER POLE, 19' LT.	656.68
2	10+05±	CHISELED SQUARE IN CONCRETE DECK, 14' RT.	658.21
3	10+83±	MAG ON POWER POLE, 24 RT.	657.25
4	12+19±	BLACK CROSS ON CMP, 17' LT.	657.89

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. ABUTMENT DETAILS
7. SUPERSTRUCTURE
8. SUPERSTRUCTURE DETAILS
9. RAILING TUBULAR TYPE M

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

CONSULTANT CONTACT

TROY L. PETERSON
(715) 235-9081

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

Cedar corporation
www.cedarcorp.com 800-472-7372

ACCEPTED William C. Dreher SDR 08/27/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-38-149

NORTH 1ST ROAD OVER LITTLE PESHTIGO RIVER

COUNTY: MARINETTE	TOWN/~~CITY/VILLAGE~~: POUND
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS	

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DWM	GMW	NJT	TLP

GENERAL PLAN

SHEET 1 OF 9

29

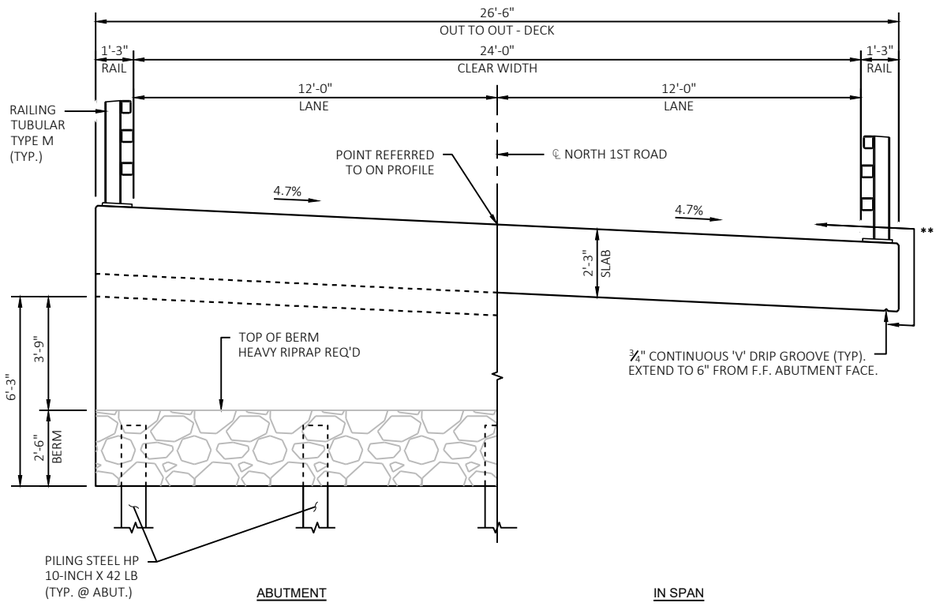
I.D. 9246-08-71

DATE: MAY 2019

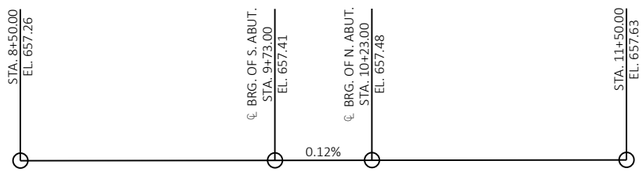
SCALE = 1:1

8

8



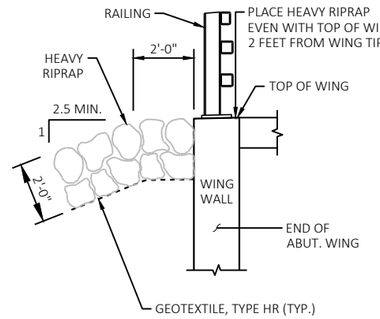
CROSS SECTION THRU STRUCTURE



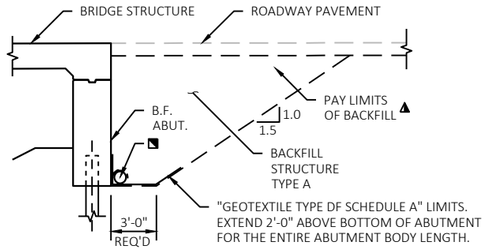
PROPOSED GRADE ON NORTH 1ST ROAD

TOTAL ESTIMATED QUANTITIES

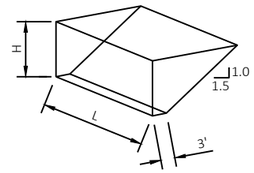
ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA 10+00	LS	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-38-149	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	130	130	-	260
502.0100	CONCRETE MASONRY BRIDGES	CY	34.4	34.4	120.2	189.0
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	190	190
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1680	1680	-	3360
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1770	1770	20850	24390
513.4061	RAILING TUBULAR TYPE M	LF	-	-	-	158
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	8	-	16
550.0500	PILE POINTS	EACH	5	5	-	10
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	175	150	-	325
606.0300	RIPRAP HEAVY	CY	55	60	-	115
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	85	85	-	170
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	25	25	-	50
645.0120	GEOTEXTILE TYPE HR	SY	110	120	-	230
SPV.0090.01	FLASHING STAINLESS STEEL	LF	-	-	105	105
	NON-BID ITEMS					
	FILLER	SIZE	-	-	-	½" x ¾"



TYPICAL FILL SECTION AT WING TIPS

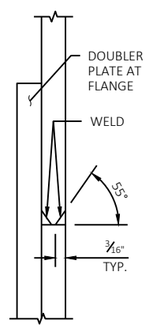


STRUCTURE BACKFILL & LIMITS



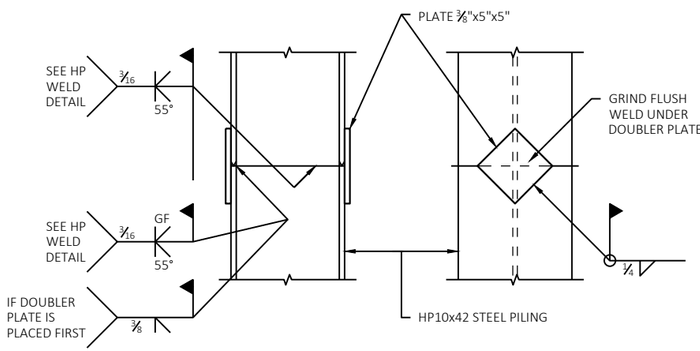
ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS & 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)

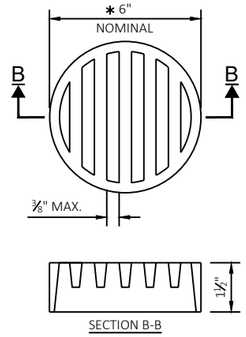


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



PILE SPLICE DETAILS

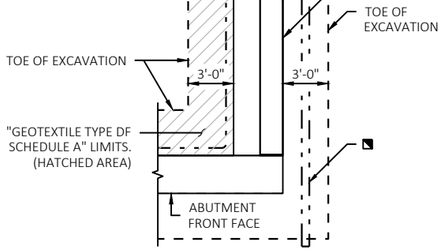


RODENT SHIELD DETAIL

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



ABUTMENT PLAN WITH WING

STATE PROJECT NUMBER

9246-08-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ALL ELEVATIONS ARE IN FEET.

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

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK 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 SHEETS 1 AND 2 AND IN THE ABUTMENT DETAILS.

THE EXISTING STRUCTURE (P-38-101) IS A 43.8' LONG BY 21.5' CLEAR WIDTH SINGLE SPAN CONCRETE DECK GIRDER BRIDGE.

** PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP AND EDGES OF THE SLAB AND TO THE OUTSIDE 1'-0" OF THE UNDERSIDE OF THE SLAB.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-38-149" SHALL BE THE EXISTING GRADE LINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

AT ABUTMENTS, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

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

▲ 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

CROSS SECTION & QUANTITIES

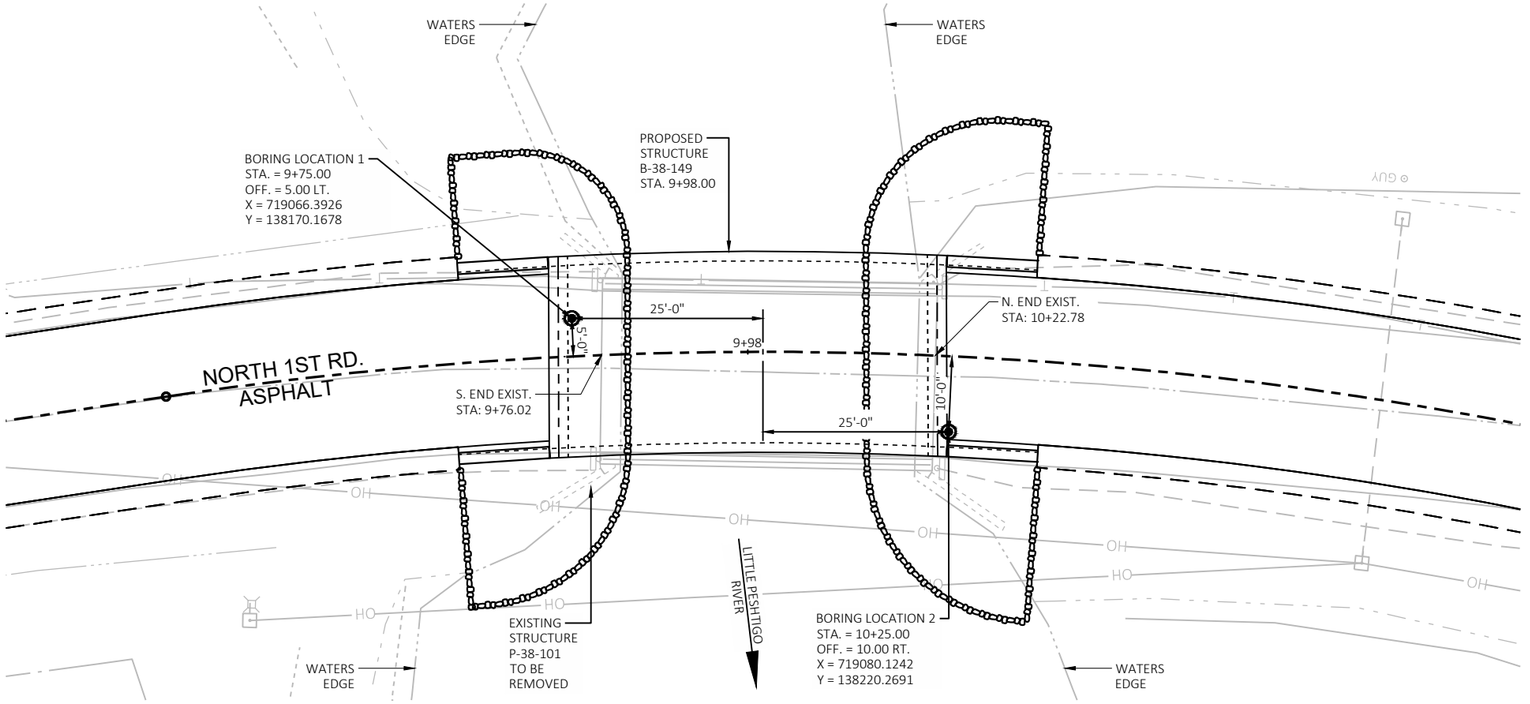
SHEET 2 OF 9

30

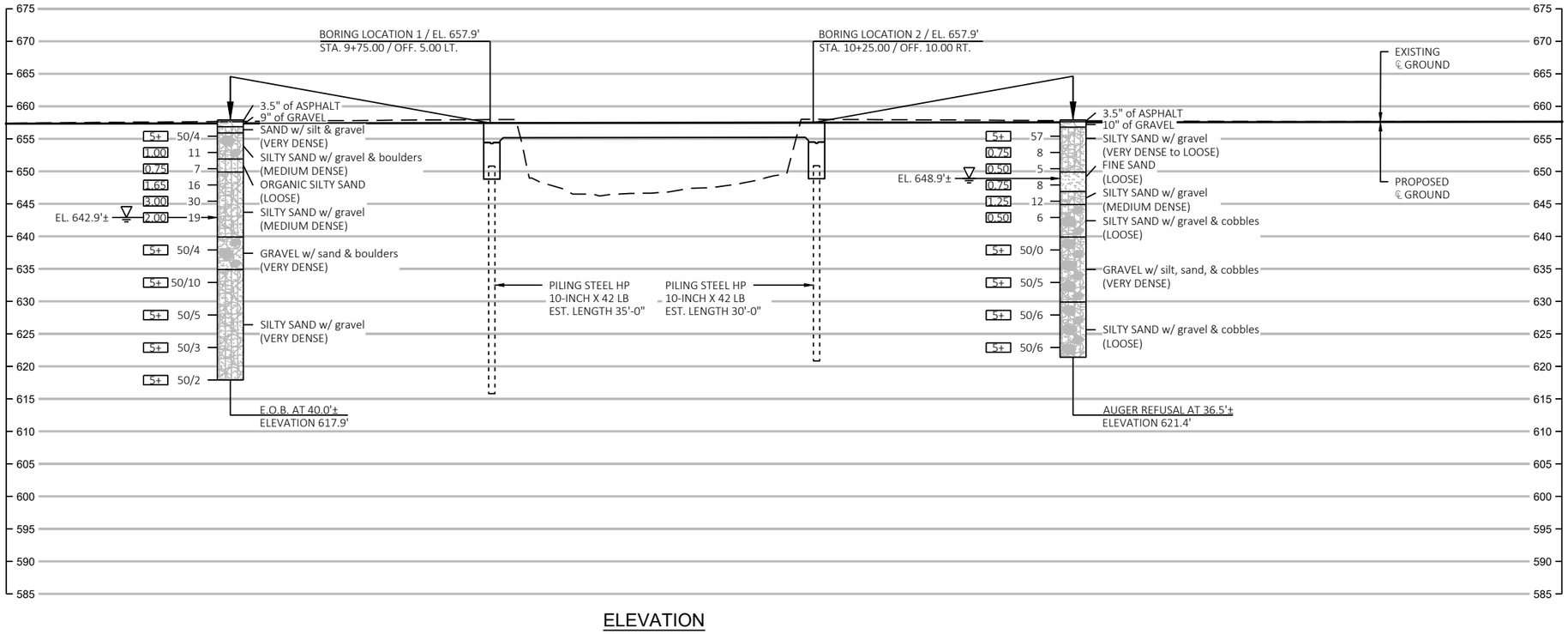
SCALE = 1:1

8

8



PLAN



ELEVATION

SUBSURFACE NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORINGS & REPORT COMPLETED BY:

ECS MIDWEST, LLC.
1060 BREEZEWOOD LANE
SUITE 102
NEENAH, WI 54956
(920) 886-1406

BORINGS PERFORMED ON:
01/30/2018 - B1 & B2

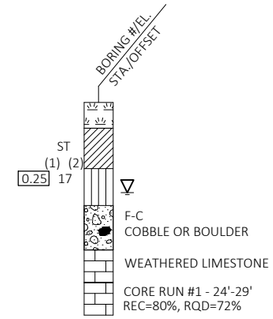
STATE PROJECT NUMBER

9246-08-71

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

SUBSURFACE EXPLORATION

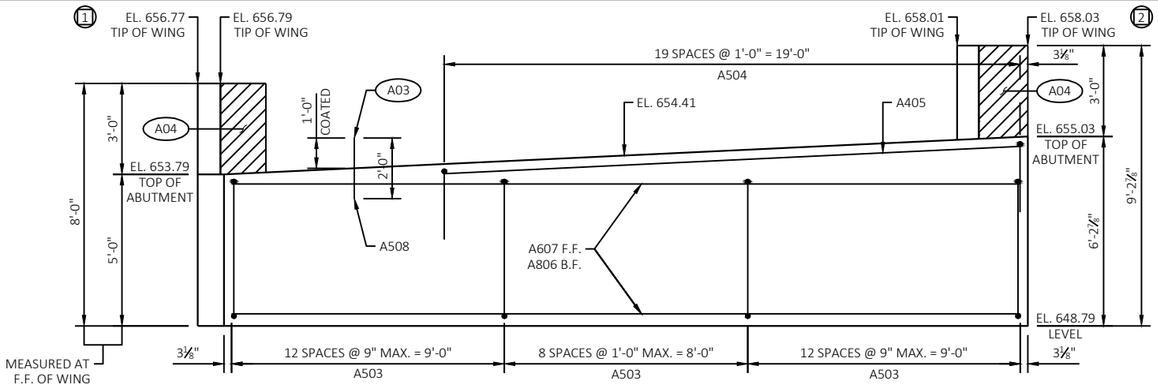
SHEET 3 OF 9

31

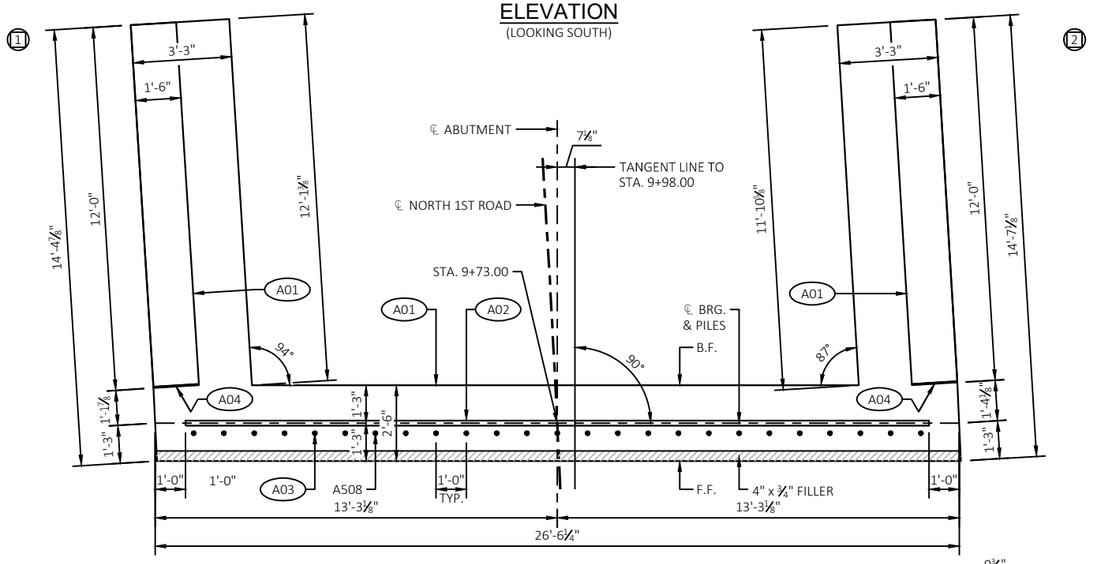
SCALE = 1:1

8

8



ELEVATION
(LOOKING SOUTH)



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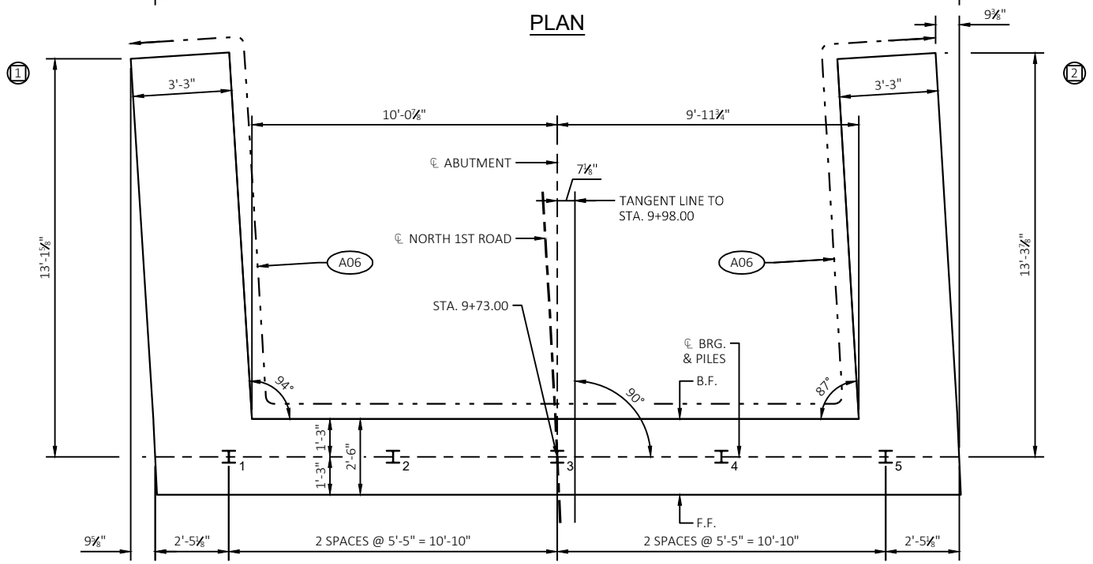
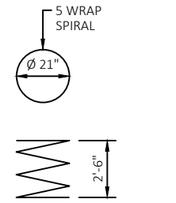


PILE PLAN



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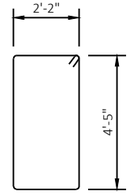

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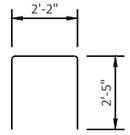

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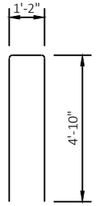

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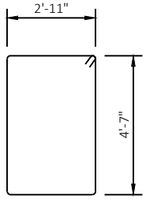

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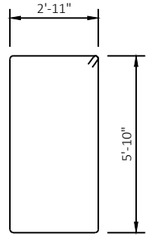

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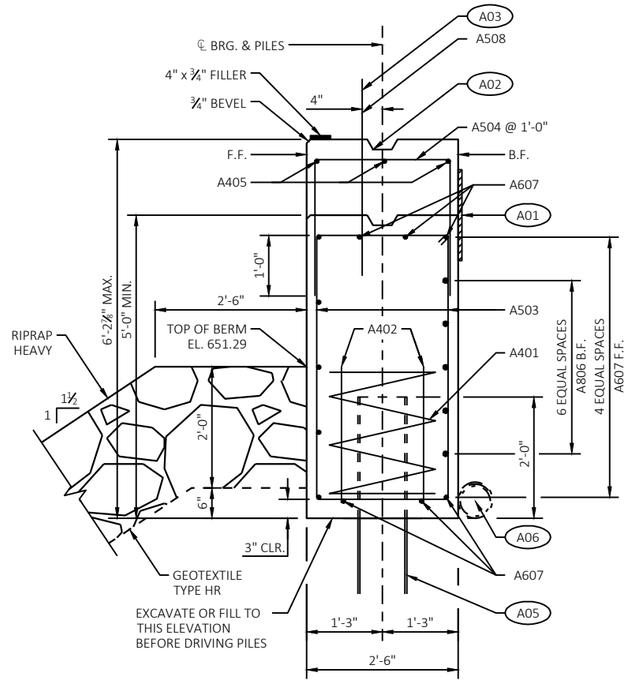


SECTION THRU BODY

STATE PROJECT NUMBER

9246-08-71

BILL OF BARS

1680# UNCOATED 1770# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		5	28'-0"	X		BODY - ONE PER PILE
A402		10	2'-3"			BODY - TWO PER PILE
A503		33	13'-9"	X		BODY - STIRRUPS
A504		20	6'-9"	X		BODY - VERTICAL TOP
A405		3	19'-0"			BODY - HORIZONTAL
A806		7	26'-2"			BODY - HORIZONTAL B.F.
A607		11	26'-2"			BODY - HORIZONTAL F.F.
A508	X	25	2'-0"			BODY - VERTICAL DOWELS
A609	X	4	11'-8"			WING 1 & 2 - HORIZONTAL TOP
A410	X	12	11'-8"			WING 1 & 2 - HORIZONTAL
A611	X	34	10'-6"	X		WING 1 & 2 - VERTICAL TOP
A512	X	13	15'-7"	X		WING 1 - VERTICAL BASE
A513	X	13	18'-1"	X		WING 2 - VERTICAL BASE
A514	X	6	13'-7"			WING 1 - BASE HORIZONTAL F.F.
A515	X	7	13'-7"			WING 2 - BASE HORIZONTAL F.F.
A616	X	9	13'-11"			WING 1 - BASE HORIZ. B.F. & TOP
A617	X	9	13'-11"			WING 2 - BASE HORIZ. B.F. & TOP

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

①	INDICATES WING NUMBER
A01	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
A02	KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
A03	BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
A04	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). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
A05	STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. FORMULA ESTIMATED LENGTH 35'-0".
A06	PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

SOUTH ABUTMENT

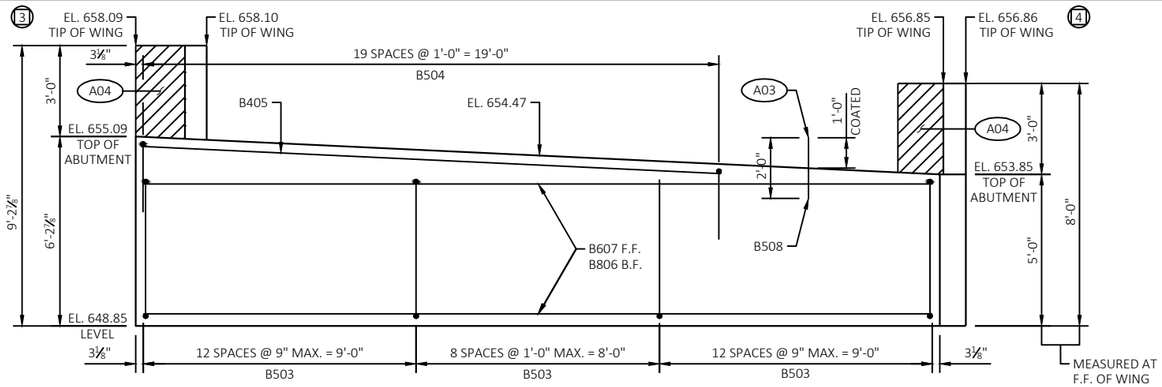
SHEET 4 OF 9

32

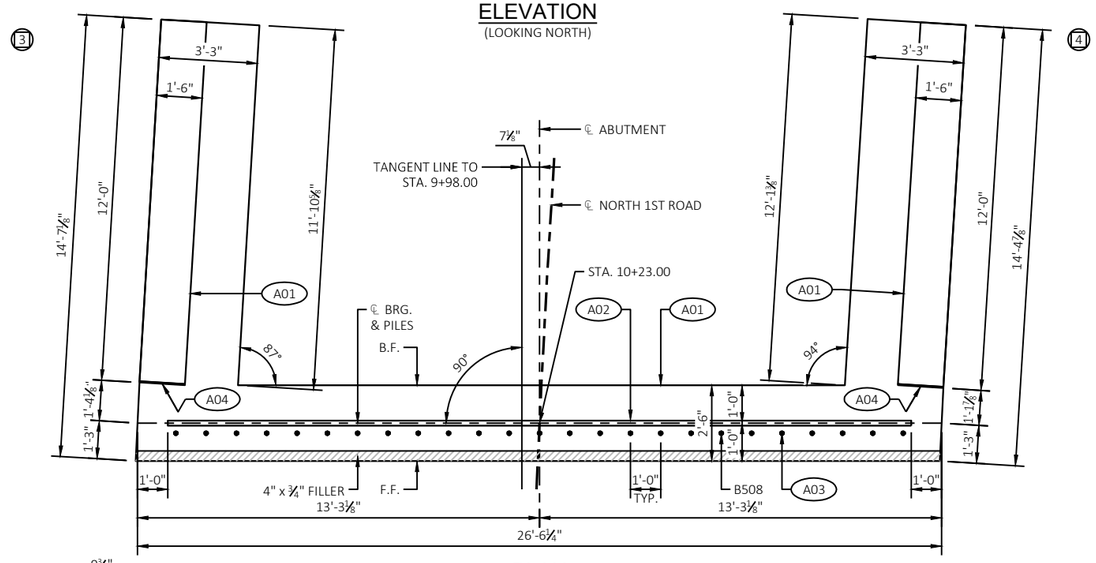
SCALE = 1:1

8

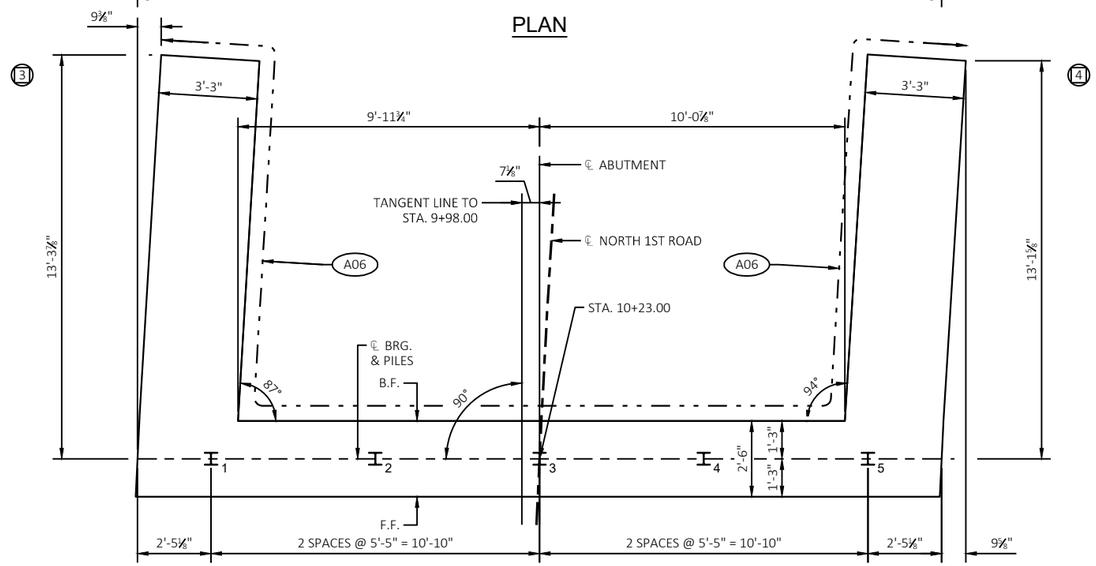
8



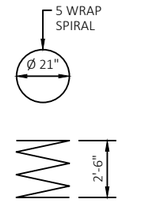
ELEVATION
(LOOKING NORTH)



PLAN



PILE PLAN



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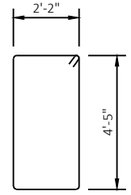

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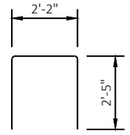

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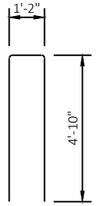

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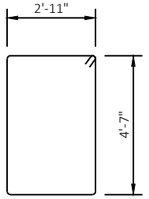

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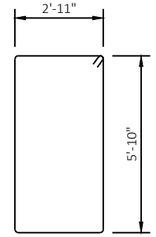

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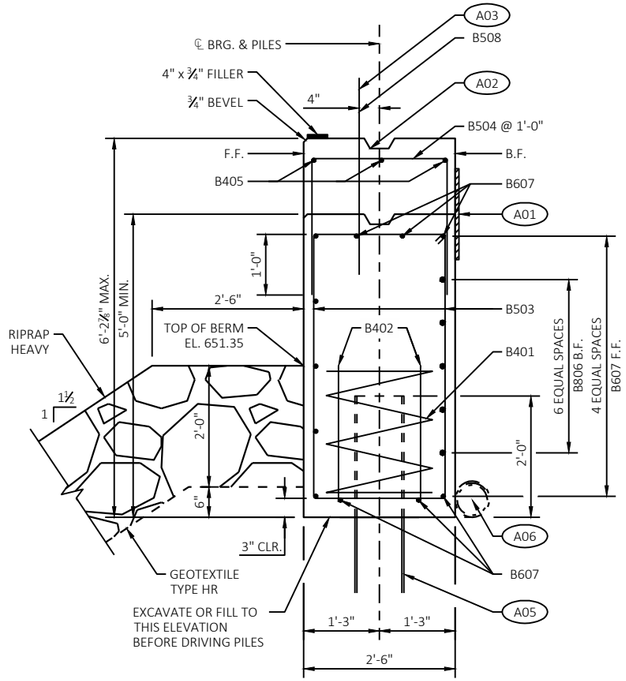

SECTION THRU BODY

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LEGEND

③ ④	INDICATES WING NUMBER
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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

NORTH ABUTMENT

SHEET 5 OF 9

33

STATE PROJECT NUMBER

9246-08-71

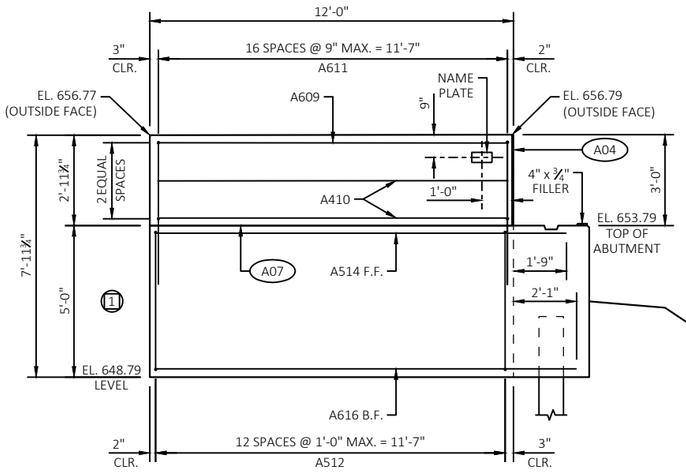
SCALE = 1:1

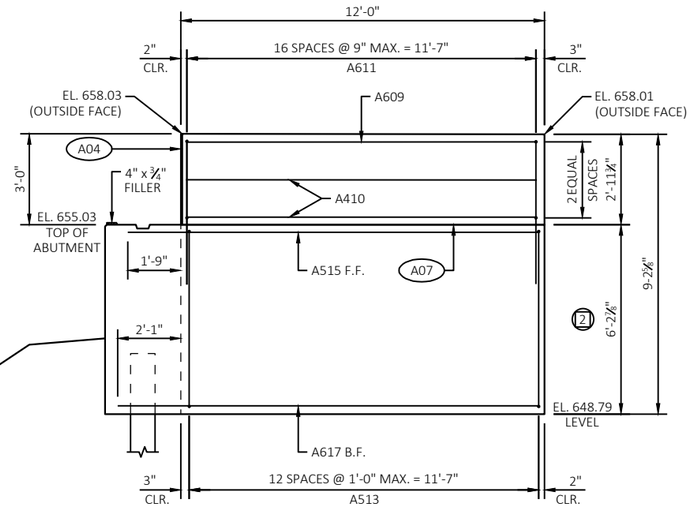
8

8

STATE PROJECT NUMBER

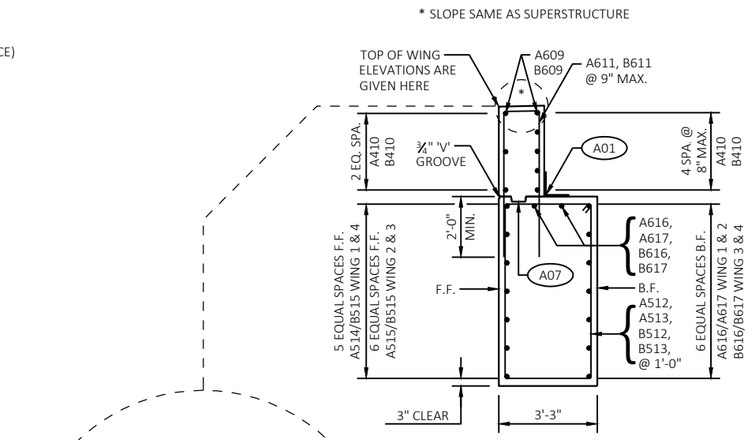
9246-08-71



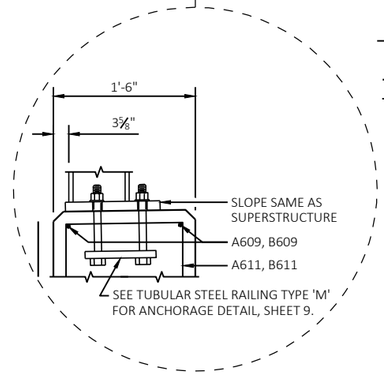


BERM

SOUTH ABUTMENT WINGS

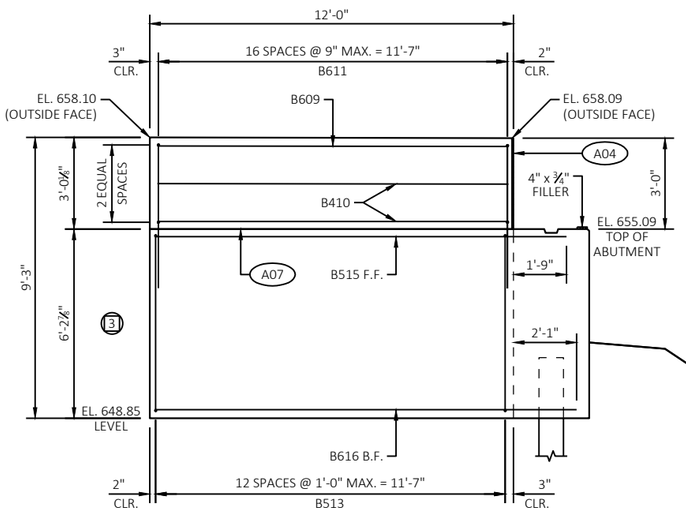


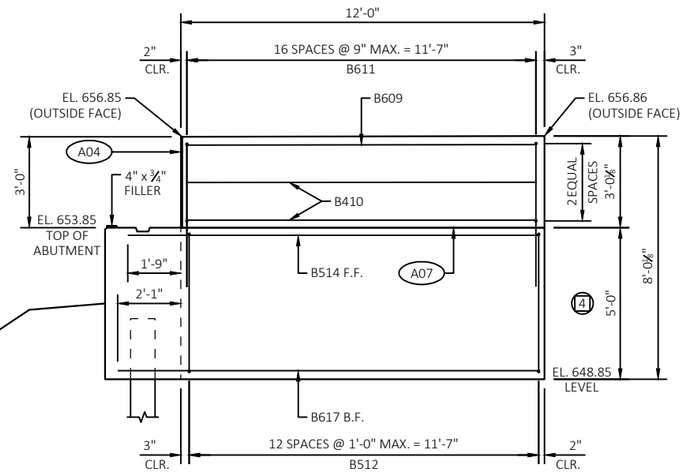
TYPICAL SECTION THRU WING



*SPACE A611 & B611 BARS TO MISS ANCHORS FOR RAIL POSTS

SECTION AT TOP OF WING





BERM

NORTH ABUTMENT WINGS

NOTE: B.F. = BACK FACE
F.F. = FRONT FACE

LEGEND

⬭	INDICATES WING NUMBER
A01	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
A04	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). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
A07	OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6. (18" R.M.W. AT B.F. AND 3/4" 'V' GROOVE AT F.F. OF WING WALL IF JOINT IS USED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

ABUTMENT DETAILS

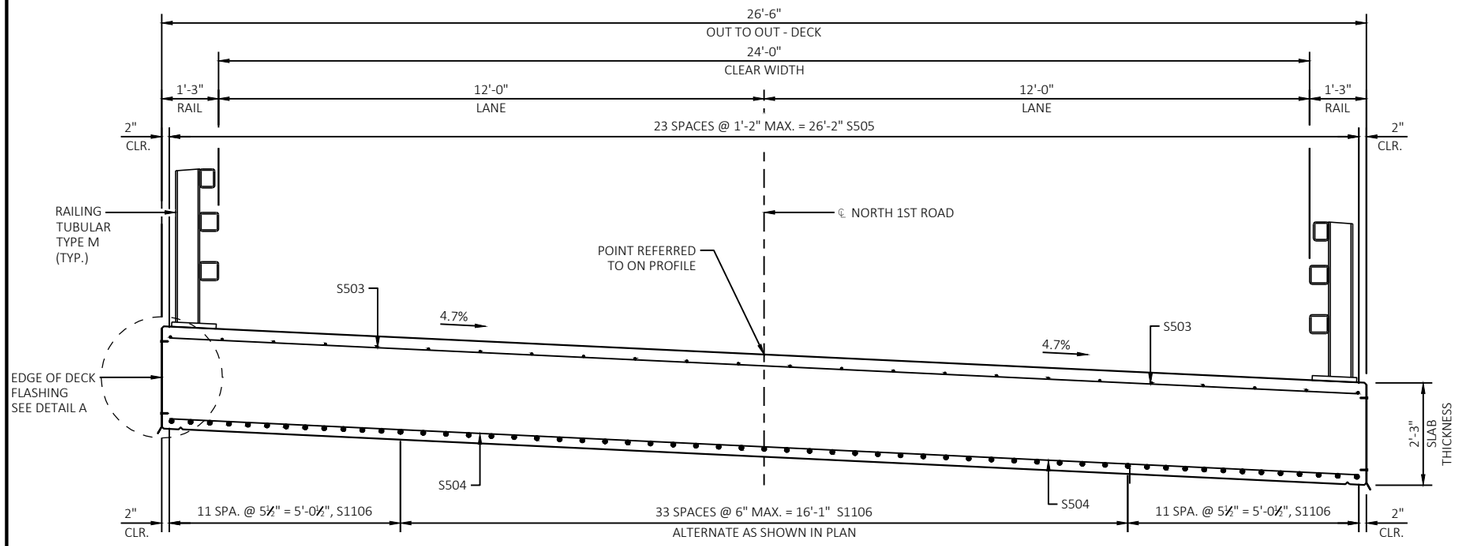
SHEET 6 OF 9

34

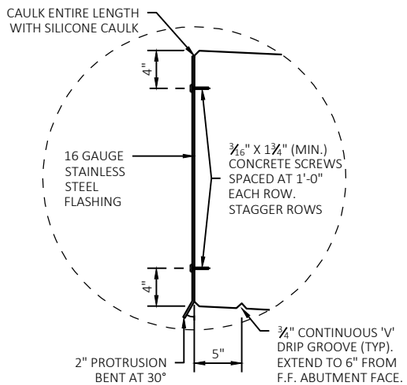
SCALE = 1:1

8

8

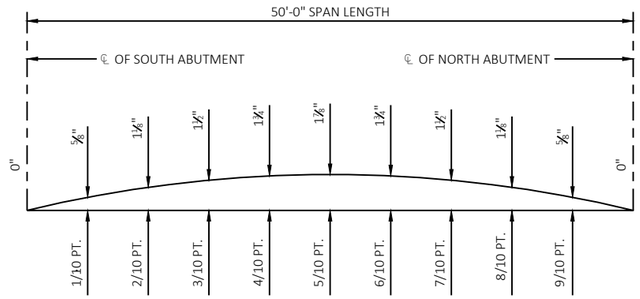


CROSS SECTION THRU ROADWAY

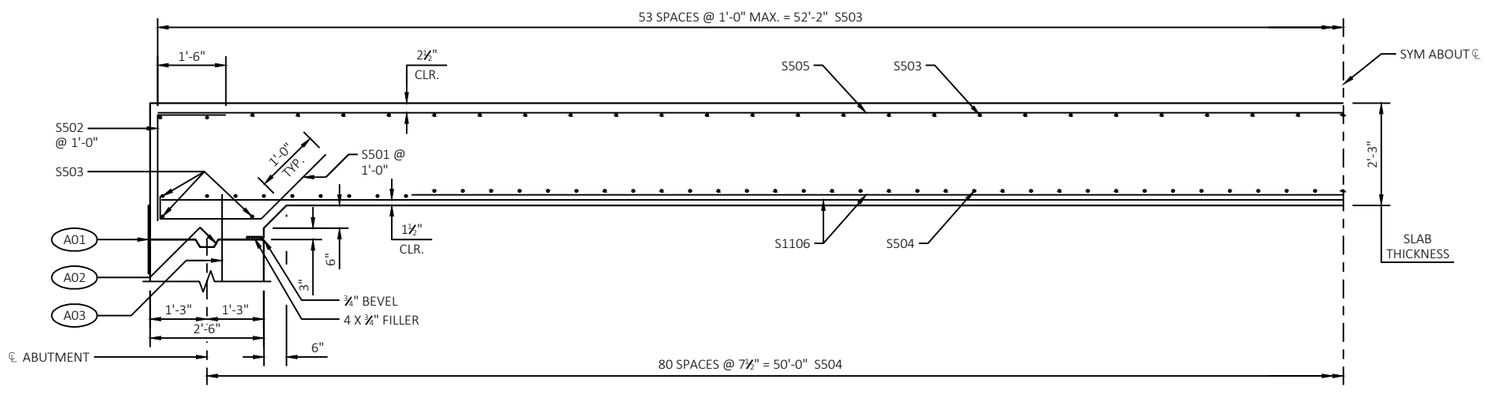


DETAIL A

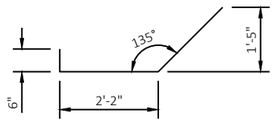
RAILING NOT SHOWN FOR CLARITY



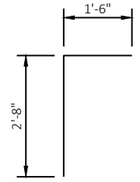
CAMBER DIAGRAM



PART LONGITUDINAL SECTION



S501



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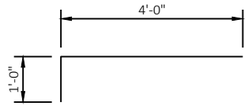

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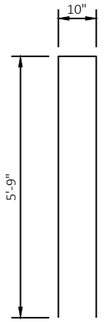


S609

S1106

STATE PROJECT NUMBER

9246-08-71

BILL OF BARS

20850#COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	54	4'-6"	X		AT END OF DECK
S502	X	54	4'-1"	X		AT END OF DECK
S503	X	60	26'-2"			SLAB, TOP, TRANSVERSE
S504	X	81	26'-2"			SLAB, BOTTOM, TRANSVERSE
S505	X	48	27'-7"			SLAB, TOP, LONGITUDINAL
S1106	X	56	46'-7"	X		SLAB, BOTTOM, LONGITUDINAL
S607	X	56	6'-0"			AT RAIL POSTS
S608	X	16	5'-0"	X		AT END RAIL POSTS
S609	X	36	12'-0"	X		AT RAIL POSTS

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

GENERAL NOTES

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

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

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTIONS ONLY EQUAL APPROXIMATELY 1/3 OF CAMBER VALUES SHOWN.

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

DECK FLASHING NOTES

THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK AND 3/16" CONCRETE SCREWS.

FLASHING SHALL BE INSTALLED AFTER PROTECTIVE SURFACE TREATMENT APPLICATION.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

EXTEND FLASHING TO BACK FACE OF ABUTMENT DIAPHRAGM.

TOP OF FLASHING TO BEING APPROXIMATELY 1-INCH BELOW TOP OF DECK/SLAB SURFACE.

LEGEND

- (A01) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- (A02) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
- (A03) BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE

SHEET 7 OF 9

35

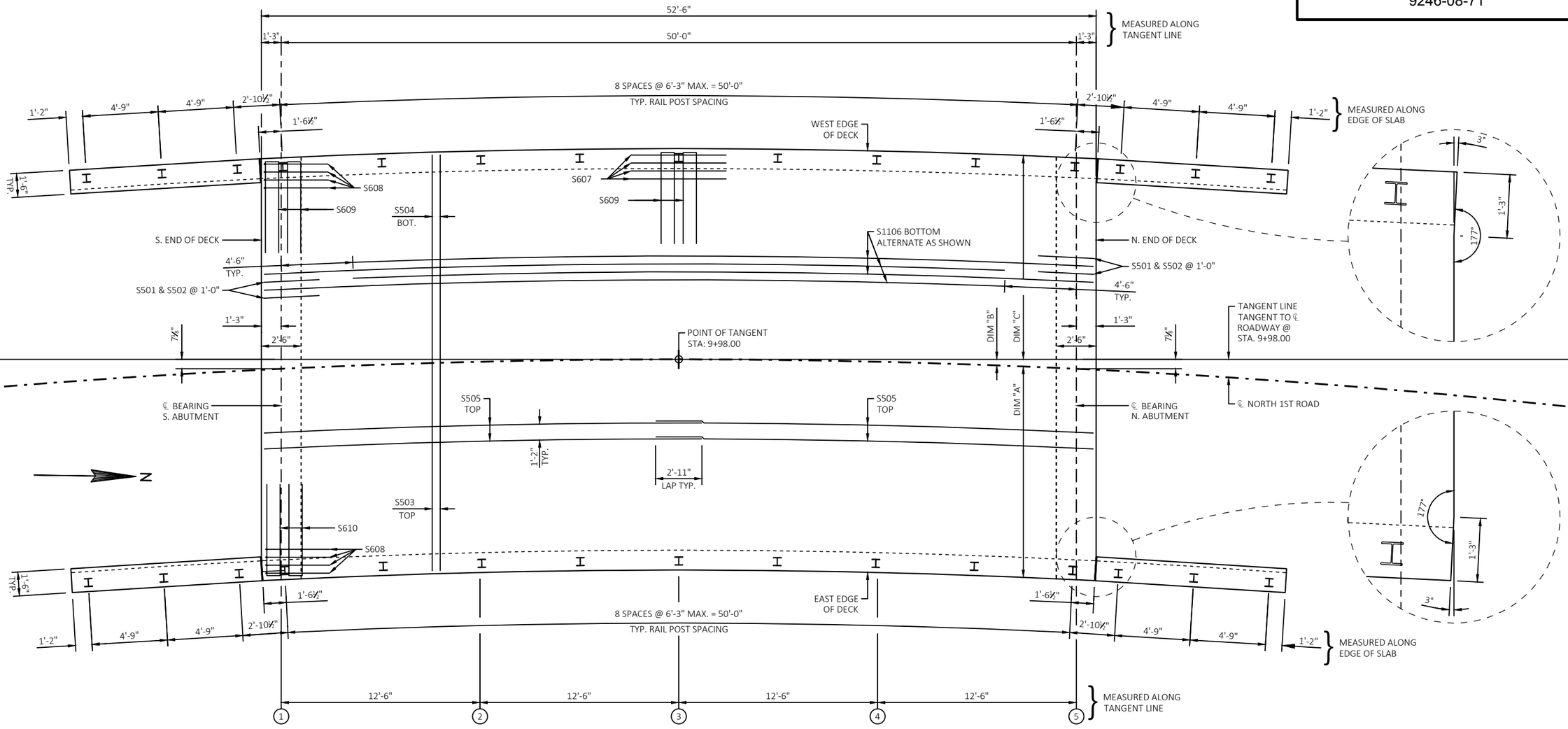
SCALE = 1:1

8

8

STATE PROJECT NUMBER

9246-08-71



PLAN

LEGEND

- A01 — 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- A02 — KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
- A03 — BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

TABLE OF DIMENSIONS

LOCATION	1	2	3	4	5
DIM. "A"	12'-8⅛"	13'-1¼"	13'-3"	13'-1¼"	12'-8⅛"
DIM. "B"	7⅛"	1¾"	0"	1¾"	7⅛"
DIM. "C"	13'-3⅛"	13'-3"	13'-3"	13'-3"	13'-3⅛"

TOP OF DECK ELEVATIONS

LOCATION	SOUTH ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	NORTH ABUT.
WEST EDGE OF DECK	658.03	658.04	658.05	658.05	658.05	658.06	658.06	658.07	658.08	658.08	658.09
℄ OF BRIDGE DECK	657.41	657.41	657.42	657.43	657.43	657.44	657.44	657.45	657.46	657.46	657.47
EAST EDGE OF DECK	656.79	656.80	656.81	656.81	656.81	656.82	656.82	656.83	656.84	656.84	656.85

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP. TENTH POINTS MEASURED ALONG TANGENT LINE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE DETAILS

SHEET 8 OF 9

36

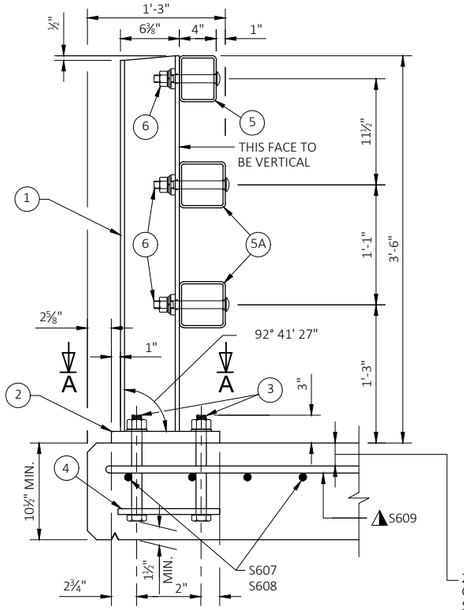
SCALE = 1:1

8

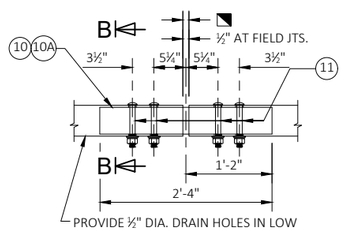
8

STATE PROJECT NUMBER

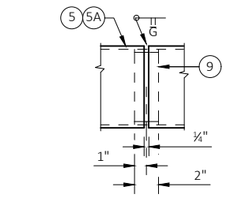
9246-08-71



SECTION THRU RAILING ON DECK

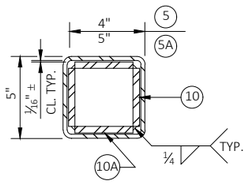


FIELD ERECTION JOINT DETAIL

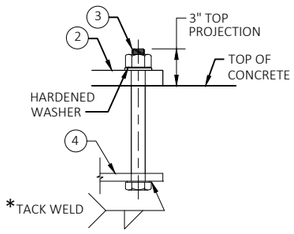


SHOP RAIL SPLICE DETAIL

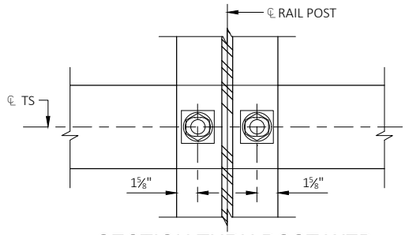
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



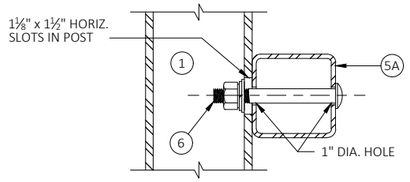
SECTION B-B



ANCHOR BOLTS



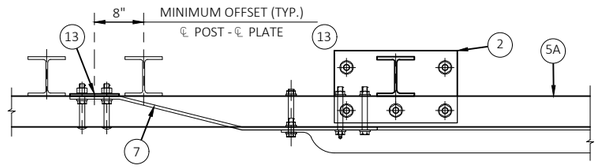
SECTION THRU POST WEB



SECTION THRU RAIL

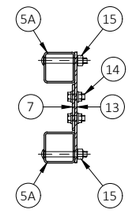
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

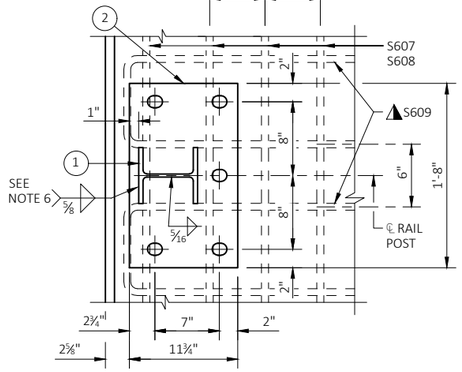


TOP VIEW AT END POST

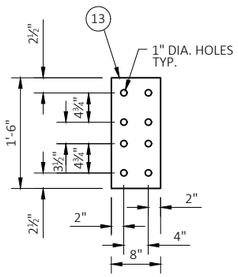
THRIE BEAM RAIL ATTACHMENT



SECTION C-C

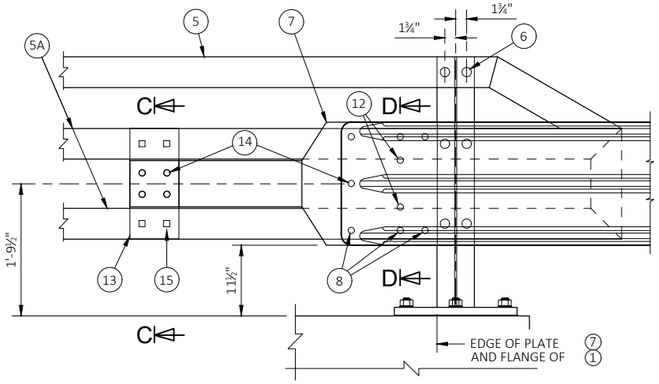


SECTION A-A



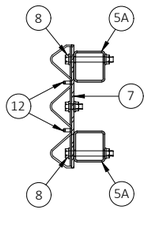
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

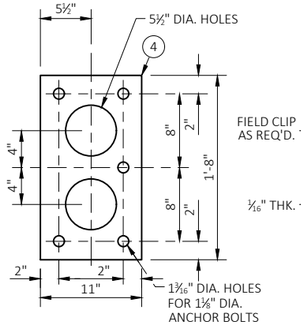


DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT

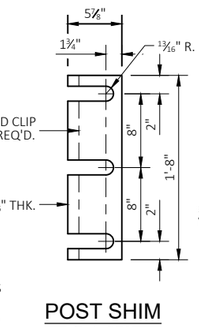


SECTION D-D

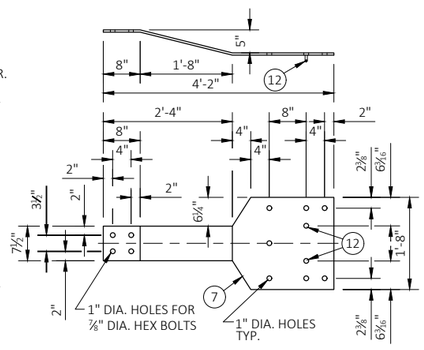


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

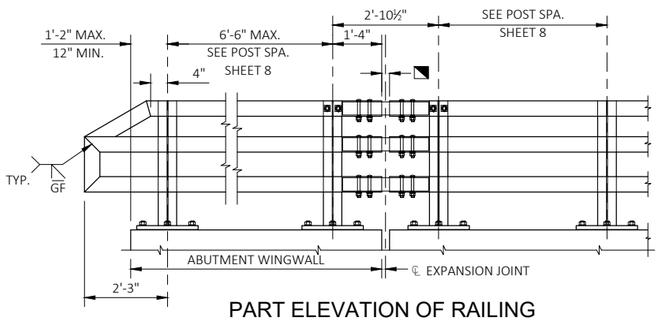


POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

LEGEND

1. W6 x 25 WITH 1⅛" x 1½" 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 1¼" x 11¾" x 1'-8" WITH 1¾₁₆" x 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
3. ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" & 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 10¾" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
4. ⅜" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1¾₁₆" 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. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ⅜₁₆" x 1⅝" x 1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THICK BACK-UP PLATE WITH 2 - ⅞" x 1¾" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" x 3⅝" x 2' - 4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" x 2⅝" x 2' - 4" PLATE USED IN NO. 5, ⅜" x 3⅜" x 2' - 4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15⁄16" x 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15⁄16" x 2½" MIN. LONGITUDINAL SLOTTED HOLES AT EXPOSED JOINTS IN PLATE NO. 10A.
12. ⅞" DIA. x 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-38-149" 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 ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

▲ TIE TO TOP MAT OF STEEL.

* FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

◥ RDWY. OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT & ½" OPENING FOR A1 ABUTMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-149

DRAWN BY NJT | PLANS CK'D. TLP

TUBULAR STEEL RAILING TYPE 'M'

SHEET 9 OF 9

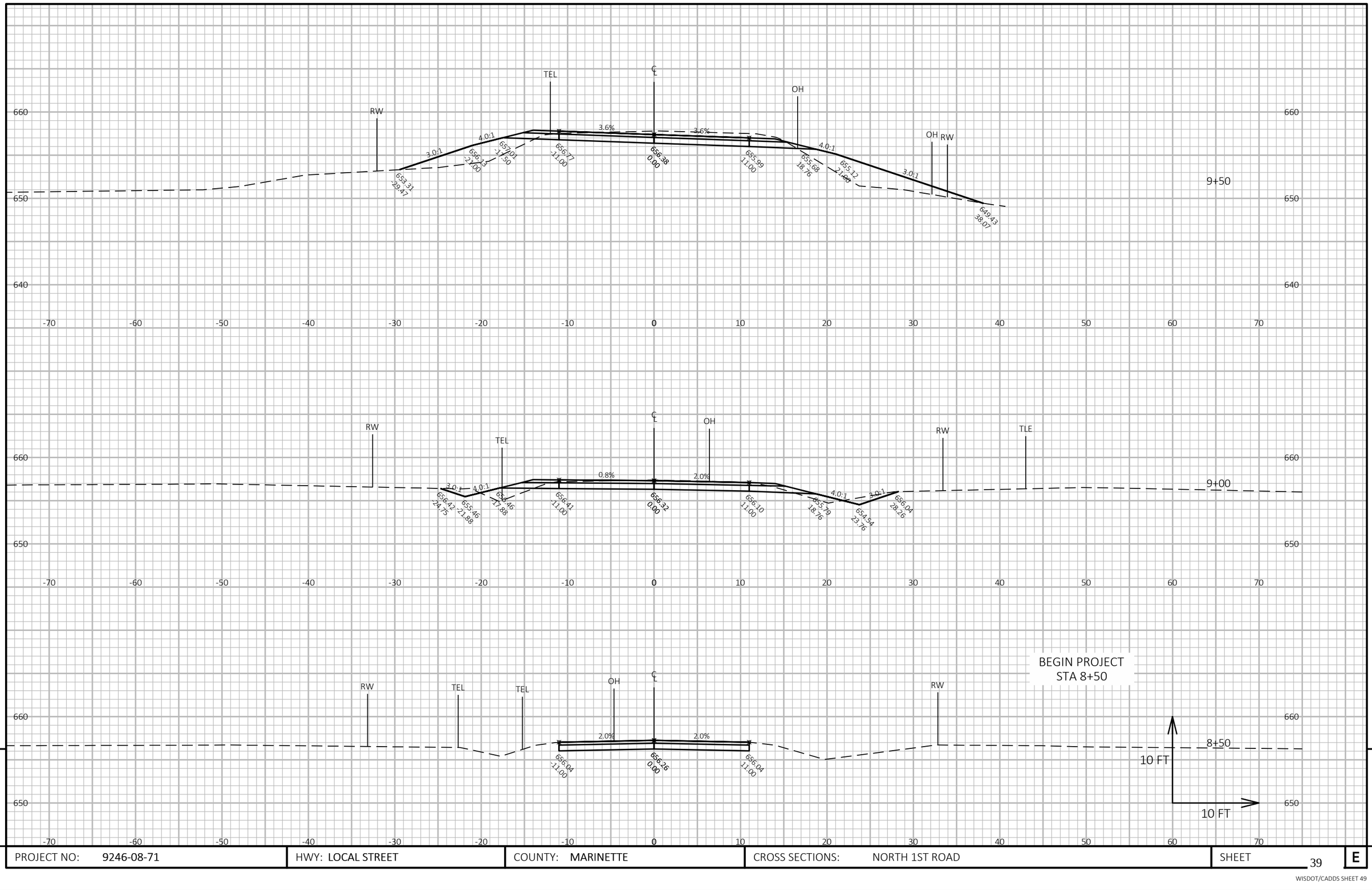
37

SCALE = 1:1

NORTH 1ST ROAD - INCREMENTAL VOLUME

		END AREA			COMMON				FILL		
STATION	DISTANCE FT	COMMON SF	FILL SF	SALVAGED/UNUSABLE PAVEMENT MATERIAL SF (1)	RAW CY	1.0 ADJ CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY (2)	RAW CY	1.3 ADJ CY	MASS HAUL CY (3)
8+50		22.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9+00	50	31.3	7.3	6.4	49.4	49.4	11.9	37.5	6.7	8.7	28.7
9+50	50	35.4	50.2	6.4	61.8	61.8	11.9	49.9	53.2	69.2	-19.3
9+75	25	35.4	50.2	6.4	32.8	32.8	5.9	26.8	46.5	60.4	-33.6
				BRIDGE GAP							
10+25		38.5	52.6	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+50	25	38.5	52.6	6.4	35.6	35.6	5.9	29.7	48.7	63.3	-33.7
11+00	50	27.8	47.4	6.4	61.4	61.4	11.9	49.5	92.6	120.3	-70.8
11+50	50	21.9	0.0	6.4	46.0	46.0	11.9	34.2	43.8	57.0	-22.8
				COLUMN TOTALS		286.9	59.4	227.5	291.6	379.1	-151.5

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON.
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) THE MASS HAUL = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.

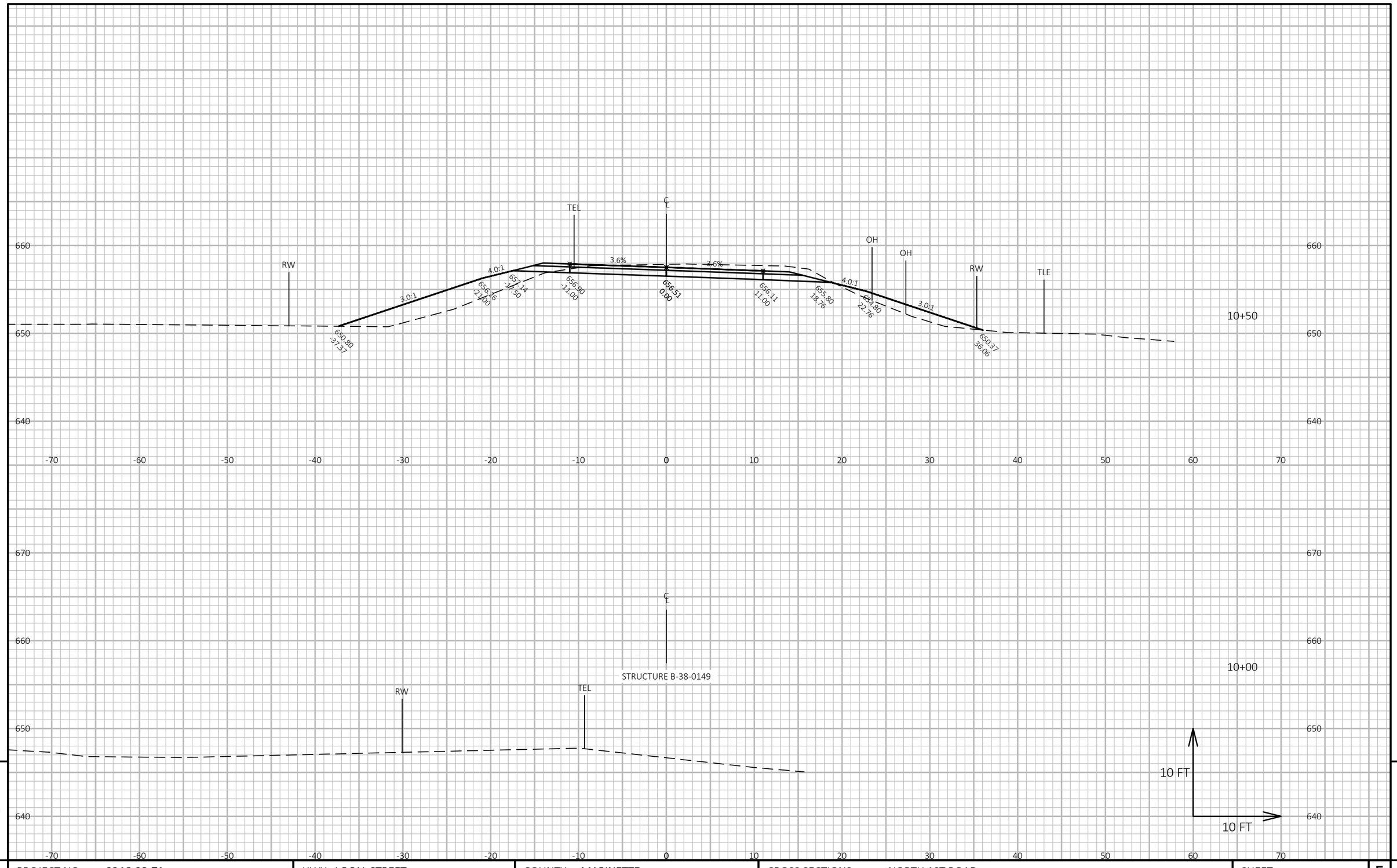


9

9

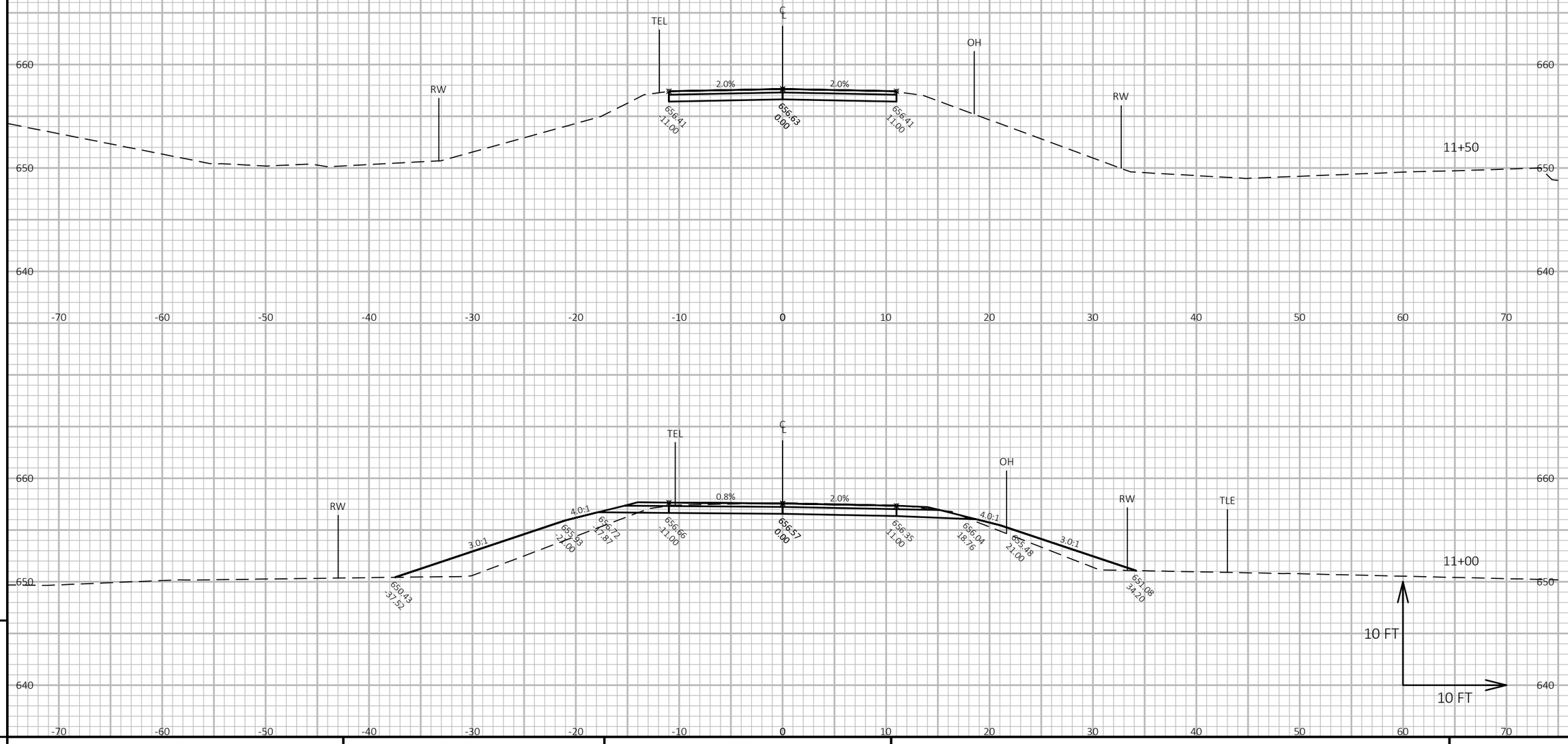
PROJECT NO: 9246-08-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: NORTH 1ST ROAD	SHEET 39	E

WISDOT/CADDS SHEET 49



PROJECT NO: 9246-08-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: NORTH 1ST ROAD	SHEET 40 E

END PROJECT
STA 11+50



PROJECT NO: 9246-08-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: NORTH 1ST ROAD	SHEET 41 E

9

9

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

GRE

DECEMBER 2019

PROJECT ID: 9246-08-71

WITH: 9246-08-71

9246-09-71

COUNTY: MARINETTE

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 (Includes Erosion Control Plans)
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

PROJECT LOCATION

N

DESIGN DESIGNATION

A.A.D.T.	(2020)	=	30
A.A.D.T.	(2040)	=	50
D.H.V.		=	13
D.D.		=	60/40
T.		=	15.4%
DESIGN SPEED		=	55 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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T POUND, NORTH 5TH ROAD

LITTLE PESHTIGO RIVER BR B-38-0148

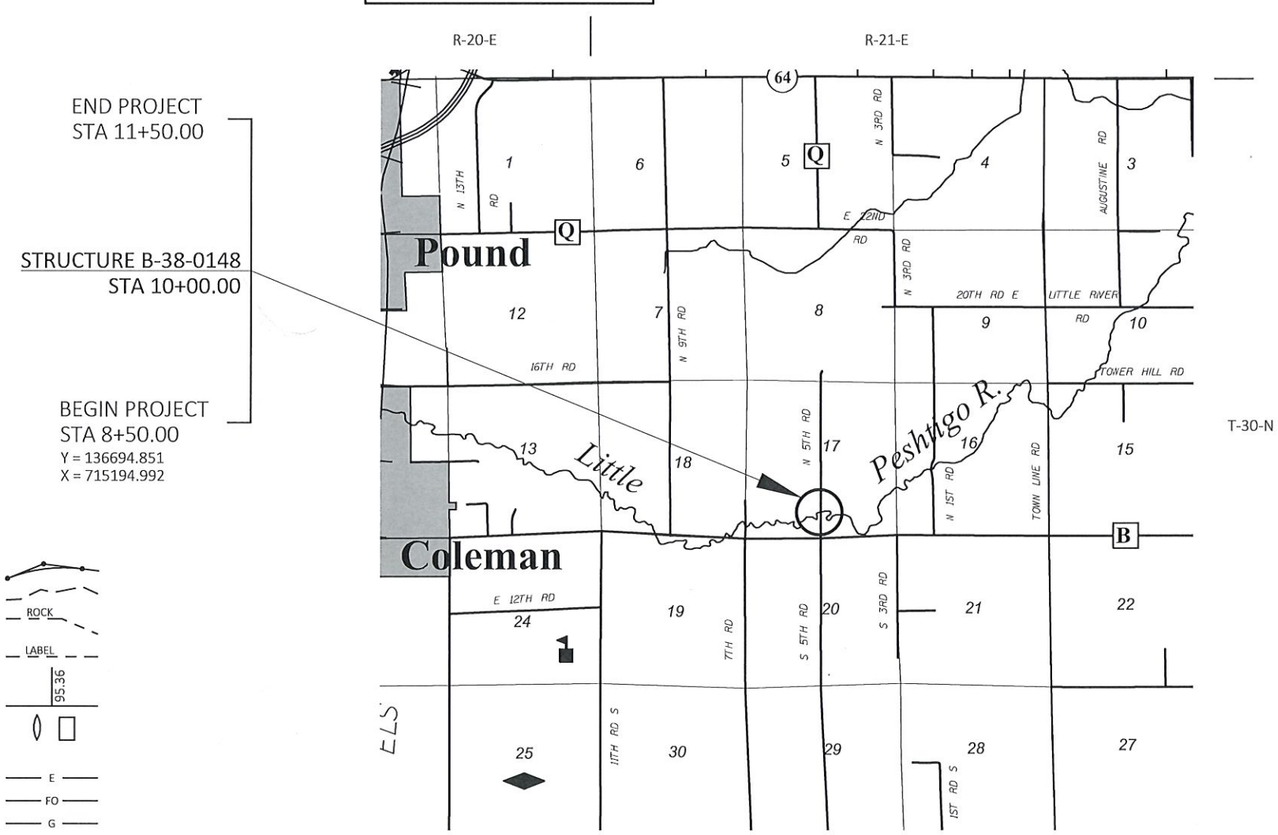
LOC STR

MARINETTE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9246-09-71		

STATE PROJECT NUMBER

9246-09-71



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.057 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MARINETTE COUNTY, NAD88 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR
TOWN OF
POUND

DATE: 7/24/19 Gerald Heroux
(Signature)
Town Chairman
(Title)

ORIGINAL PLANS PREPARED BY

Cedar corporation

CEDARBURG - GREEN BAY - MADISON - MENOMONIE
www.cedarcorp.com
800-472-7372

WISCONSIN
DENNIS W. MACK
E-35205
EAU CLAIRE WI
PROFESSIONAL ENGINEER

DATE: 7/23/19 Dennis W Mack
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CEDAR CORPORATION
Designer	CEDAR CORPORATION
Regional Examiner	WISDOT
Regional Supervisor	WISDOT

APPROVED FOR THE DEPARTMENT

DATE: 7/26/19 Tim Verhagen
(Signature)

E

2

GENERAL NOTES

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.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

THE 4" OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2.25" LOWER LAYER AND A 1.75" UPPER LAYER.

BEARINGS REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MARINETTE COUNTY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE FERTILIZED AND SEEDED AS DIRECTED BY THE ENGINEER.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE THE SLOPE INTERCEPTS. DO NOT STORE OR STOCKPILE MATERIALS IN WETLANDS.

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

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920) 412-0165
JIM DOPERALSKI
james.doperalski@wisconsin.gov

UTILITIES

CENTURYLINK
2425 MARY STREET
MARINETTE, WI 54143
(715) 735-0059
PETE JOHNSON
peter.s.johnson@centurylink.com

WISCONSIN PUBLIC SERVICE CORPORATION
2850 SOUTH ASHLAND AVENUE
GREEN BAY, WI 54304
(920)617-5167
RANDY STEIER
randy.steier@wisconsinpublicservice.com
UtilitiesRelocation@wisconsin.publicservice.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com
**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS.

2

STANDARD ABBREVIATIONS

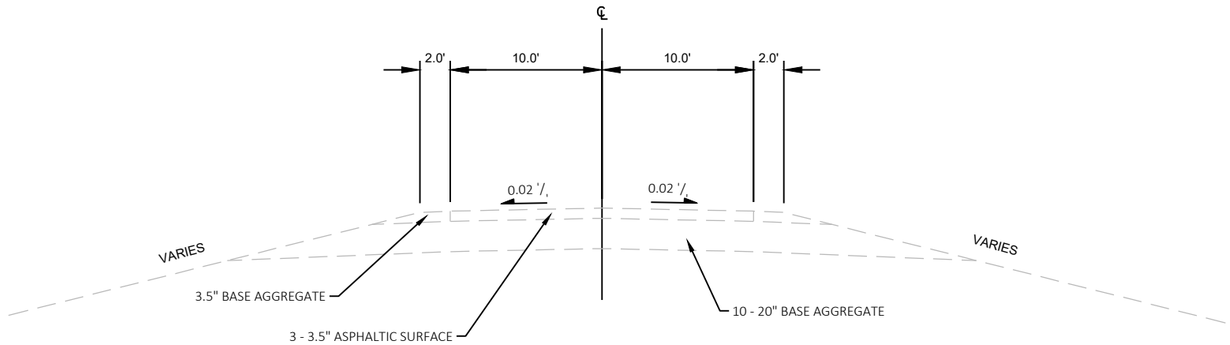
ABUT	ABUTMENT	OFF	OFFSET
AGG	AGGREGATE	PC	POINT OF CURVATURE
ET AL	AND OTHERS	PI	POINT OF INTERSECTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	PT	POINT OF TANGENCY
BF	BACK FACE	POL	POINT ON LINE
BM	BENCHMARK	PE	PRIVATE ENTRANCE
C/L OR ℄	CENTERLINE	PL	PROPERTY LINE
Δ	CENTRAL ANGLE OR DELTA	PSI	POUNDS/SQUARE INCH
CLR	CLEAR	PROP	PROPOSED
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCTION	RR	RAILROAD
COR	CORNER	REBAR	REINFORCEMENT BAR
CMP	CORRUGATED METAL PIPE	REQ'D	REQUIRED
CTH	COUNTY TRUNK HIGHWAY	RT	RIGHT
CR	CREEK	RHF	RIGHT-HAND FORWARD
CFS	CUBIC FEET/SECOND	R/W	RIGHT-OF-WAY
CULV	CULVERT	RD	ROAD
D	DEGREE OF CURVE	SEC	SECTION
DHV	DESIGN HOUR VOLUME	S	SOUTH
DIA	DIAMETER	SE	SOUTHEAST
E	EAST	SW	SOUTHWEST
EL	ELEVATION	STH	STATE TRUNK HIGHWAY
EST	ESTIMATED	STA	STATION
FPS	FEET PER SECOND	SE	SUPER ELEVATION
FE	FIELD ENTRANCE	T	TANGENT
FT	FOOT (FEET)	TEL	TELEPHONE
FTG	FOOTING	TEMP	TEMPORARY
FDN	FOUNDATION	TI	TEMPORARY INTEREST
FF	FRONT FACE	TLE	TEMPORARY LIMITED EASEMENT
IP	IRON PIN	TL OR T/L	TRANSIT LINE
LT	LEFT	T	TRUCKS
LHF	LEFT-HAND FORWARD	TYP	TYPICAL
L	LENGTH OF CURVE	U/G	UNDERGROUND
LF	LINEAR FOOT	USH	UNITED STATES HIGHWAY
MAX	MAXUMUM	VAR	VARIABLE
MI	MILE	V	VELOCITY
MIN	MINIMUM	VPC	VERTICAL POINT OF CURVATURE
NC	NORMAL CROWN	VPI	VERTICAL POINT OF INTERSECTION
N	NORTH	VPT	VERTICAL POINT OF TANGENCY
NE	NORTHEAST	W	WEST
NW	NORTHWEST	YB	YARD
NO	NUMBER		

RUNOFF COEFFICIENT TABLE

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

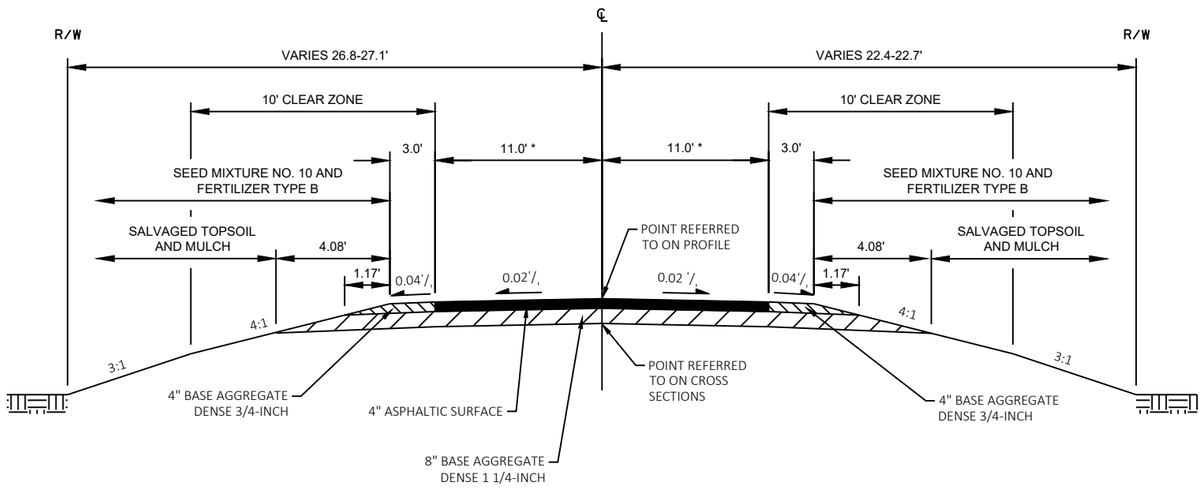
TOTAL PROJECT AREA = 0.54 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.54 ACRES

2



TYPICAL EXISTING SECTION
NORTH 5TH ROAD

STA 8+50.00 TO STA 9+86.65
STA 10+13.35 TO STA 11+50.00

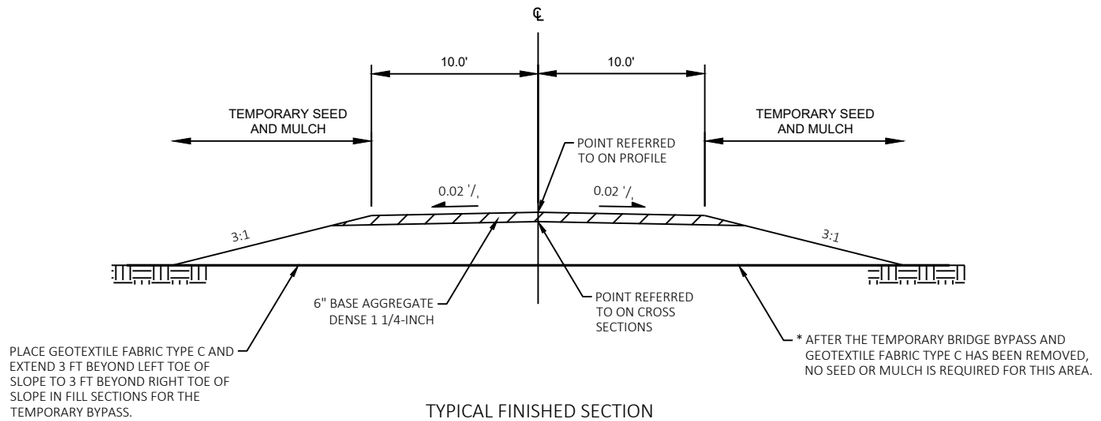


TYPICAL FINISHED SECTION
NORTH 5TH ROAD

STA 8+50.00 TO STA 9+78.67
STA 10+21.33 TO STA 11+50.00

* THE ASPHALT TAPERS FROM 24.0' WIDE AT THE ENDS OF THE BRIDGE TO 22.0' WIDE - 40.0' FROM THE ENDS OF THE BRIDGE WINGS.

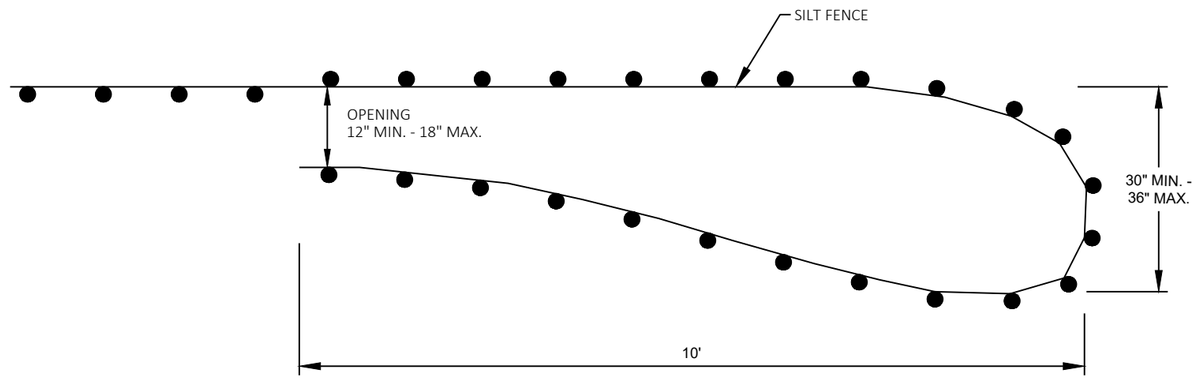
2



TYPICAL FINISHED SECTION

TEMPORARY BYPASS
STA 100+41.25 TO STA 102+86.23

2



PLAN VIEW

GENERAL NOTES:

THE PURPOSE OF THE TURTLE TURN-AROUNDS ARE TO REDIRECT THE TURTLES AWAY FROM THE CONSTRUCTION ZONE. DESIGN SHOULD ALSO INCLUDE TRENCHED-IN SEDIMENT FENCING AND FENCING SUPPORTS ON THE UPSLOPE SIDE OF THE FENCE. SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND.

TEMPORARY TURTLE TURN-AROUND DETAIL

PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CONSTRUCTION DETAIL - TURTLE TURN-AROUND	SHEET 5	E

1 IN:10 FT

9246-09-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0010	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 02. 10+00	LS	1.000	1.000
0012	205.0100	Excavation Common	CY	804.000	804.000
0016	206.1000	Excavation for Structures Bridges (structure) 02. B-38-148	LS	1.000	1.000
0018	208.0100	Borrow	CY	987.000	987.000
0020	210.1500	Backfill Structure Type A	TON	260.000	260.000
0024	213.0100	Finishing Roadway (project) 02. 9246-09-71	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	40.000	40.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	775.000	775.000
0030	455.0605	Tack Coat	GAL	30.000	30.000
0032	465.0105	Asphaltic Surface	TON	130.000	130.000
0034	502.0100	Concrete Masonry Bridges	CY	138.000	138.000
0036	502.3200	Protective Surface Treatment	SY	155.000	155.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	3,140.000	3,140.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	18,030.000	18,030.000
0042	513.4061	Railing Tubular Type M	LF	130.000	130.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0046	525.0124	Culvert Pipe Corrugated Aluminum 24-Inch	LF	41.000	41.000
0048	525.0324	Apron Endwalls for Culvert Pipe Aluminum 24-Inch	EACH	2.000	2.000
0050	526.0100	Temporary Structure (station) 01. 101+50	LS	1.000	1.000
0052	550.0500	Pile Points	EACH	8.000	8.000
0054	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	180.000	180.000
0056	606.0300	Riprap Heavy	CY	95.000	95.000
0058	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 02. 9246-09-71	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	0.500	0.500
0066	624.0100	Water	MGAL	11.000	11.000
0068	625.0500	Salvaged Topsoil	SY	550.000	550.000
0070	627.0200	Mulching	SY	1,065.000	1,065.000
0072	628.1504	Silt Fence	LF	631.000	631.000
0074	628.1520	Silt Fence Maintenance	LF	631.000	631.000
0076	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0078	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0080	628.6005	Turbidity Barriers	SY	150.000	150.000
0082	628.7555	Culvert Pipe Checks	EACH	8.000	8.000

9246-09-71

Line	Item	Item Description	Unit	Total	Qty
0084	629.0210	Fertilizer Type B	CWT	0.400	0.400
0086	630.0110	Seeding Mixture No. 10	LB	10.000	10.000
0088	630.0200	Seeding Temporary	LB	34.000	34.000
0090	630.0500	Seed Water	MGAL	9.300	9.300
0092	633.1100	Delineators Temporary	EACH	20.000	20.000
0094	633.5200	Markers Culvert End	EACH	2.000	2.000
0096	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0098	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0100	638.2602	Removing Signs Type II	EACH	6.000	6.000
0102	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0104	642.5001	Field Office Type B	EACH	0.500	0.500
0106	643.0300	Traffic Control Drums	DAY	1,960.000	1,960.000
0108	643.0420	Traffic Control Barricades Type III	DAY	840.000	840.000
0110	643.0705	Traffic Control Warning Lights Type A	DAY	560.000	560.000
0112	643.0715	Traffic Control Warning Lights Type C	DAY	1,120.000	1,120.000
0114	643.0900	Traffic Control Signs	DAY	2,240.000	2,240.000
0116	643.5000	Traffic Control	EACH	0.500	0.500
0118	645.0105	Geotextile Type C	SY	950.000	950.000
0120	645.0111	Geotextile Type DF Schedule A	SY	50.000	50.000
0122	645.0120	Geotextile Type HR	SY	190.000	190.000
0124	650.4500	Construction Staking Subgrade	LF	474.000	474.000
0126	650.5000	Construction Staking Base	LF	258.000	258.000
0128	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0132	650.6500	Construction Staking Structure Layout (structure) 02. B-38-148	LS	1.000	1.000
0136	650.9910	Construction Staking Supplemental Control (project) 02. 9246-09-71	LS	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	474.000	474.000
0140	690.0150	Sawing Asphalt	LF	40.000	40.000
0142	715.0502	Incentive Strength Concrete Structures	DOL	828.000	828.000
0144	SPV.0090	Special 01. Flashing Stainless Steel	LF	85.000	85.000

3

CLEARING & GRUBBING

STATION	TO	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
8+00	-	12+00	4	4
ITEM TOTALS			4	4

REMOVING SMALL PIPE CULVERTS

STATION	203.0100 EACH	REMARKS
8+59	1	24" CORRUGATED METAL
ITEM TOTAL	1	

FINISHING ROADWAY

PROJECT	213.0100 EACH
9246-09-71	1
ITEM TOTAL	1

3

DIVISION	STATIONING	LOCATION	205.0100 COMMON EXCAVATION (CY)	SALVAGED / UNUSABLE PAVEMENT MATERIAL (1)	AVAILABLE MATERIAL (CY) (2)	UNEXPANDED FILL	EXPANDED FILL	MASS ORDINATE +/- (3)	208.0100 BORROW (CY)
			CUT				FACTOR 1.30		
1	8+50 - 9+79	SOUTH APPROACH	103	24	79	115	149	-70	70
DIVISION 1 SUBTOTAL			103	24	79	115	149	-70	70
2	10+21 - 11+50	NORTH APPROACH	53	24	29	160	208	-179	179
DIVISION 2 SUBTOTAL			53	24	29	160	208	-179	179
3	100+41 - 101+38, 101+67 - 102+86	TEMPORARY BYPASS	648	0	648	568	738		738
DIVISION 3 SUBTOTAL			648	0	648	568	738	0	738
GRAND TOTAL			804	48	756	842	1095	-249	987
TOTAL COMMON EXCAVATION =			804						987

1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) THE MASS ORDINATE = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.
4) TEMPORARY BYPASS EXCAVATION IS FOR REMOVAL OF BYPASS.

3

BASE AGGREGATE DENSE

STATION - STATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
NORTH 5TH RD		
8+50 - 9+79	20	215
10+21 - 11+50	20	215
TEMP BYPASS		
100+41 - 101+38	--	145
101+67 - 102+86	--	200
ITEM TOTAL	40	775

ASPHALTIC SURFACE

STATION - STATION	455.0605* TACK COAT GAL	465.0105 TON
8+50 - 9+79	15	65
10+21 - 11+50	15	65
ITEM TOTAL	30	130

* APPLICATION RATE = 0.050 GAL/SY

CULVERT PIPE

STATION	525.0124 CORREGATED ALUMINUM 24-INCH LF	THICKNESS	525.0324 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 24-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	628.7555 CULVERT PIPE CHECK EACH
8+59	41	0.075"	2	2	1	8
ITEM TOTALS	41		2	2	1	8

WATER

STATION - STATION	624.0100 MGAL	REMARKS
NORTH 5TH RD		
8+50 - 11+50	8	COMPACTION & DUST CONTROL
TEMP BYPASS		
100+41 - 100+86	3	COMPACTION & DUST CONTROL
ITEM TOTALS	11	

TEMPORARY STRUCTURE

LOCATION	526.0100 LS
TEMPORARY BYPASS	1
ITEM TOTAL	1

SALVAGED TOPSOIL, MULCHING, FERTILIZER, AND SEEDING

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200* MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200* SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
NORTH 5TH RD							
8+50 - 9+73	RT/LT	247	247	0.2	5	10	4.2
10+27 - 11+50	RT/LT	303	303	0.2	5	10	5.1
TEMP BYPASS							
100+00 - 101+38	RT/LT	--	247	--	--	7	--
101+75 - 103+25	RT/LT	--	268	--	--	7	--
ITEM TOTAL		550	1065	0.4	10	34	9.3

*Temporary Seed and Mulch to be placed while temporary structure is in use.
Do not place seed or mulch in disturbed areas after the temporary bypass approaches are removed.

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6005 TURBIDITY BARRIER SY
NORTH 5TH RD				
8+50 - 9+73	RT	151	151	--
9+90		--	--	55
10+10		--	--	95
10+36 - 11+50	RT	142	142	--
TEMP BYPASS				
100+00 - 101+30	LT	158	158	--
101+75 - 103+25	LT	180	180	--
ITEM TOTALS		631	631	150

MOBILIZATIONS

PROJECT	619.1000 MOBILIZATION EACH	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
9246-09-71	0.5	3	2
ITEM TOTALS	0.5	3	2

SIGNING QUANTITIES

LOCATION	SIGN CODE	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
NW BRIDGE CORNER	W5-52 R	3.0	1	1	1
SW BRIDGE CORNER	W5-52 L	3.0	1	1	1
NE BRIDGE CORNER	W5-52 L	3.0	1	1	1
SE BRIDGE CORNER	W5-52 R	3.0	1	1	1
STATION 11+50 LT	WEIGHT POSTING	---	---	1	1
STATION 1+40 RT	WEIGHT POSTING	---	---	1	1
ITEM TOTAL		12.0	4	6	6

3

FIELD OFFICE

PROJECT	642.5001 TYPE B EACH
9246-09-71	0.5
ITEM TOTAL	0.5

TRAFFIC CONTROL

LOCATION	643.5 TRAFFIC CONTROL EACH	633.1100 DELINEATORS TEMPORARY EACH	DURATION DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.042 BARRICADES TYPE III NO.	643.042 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS
PROJECT 9246-09-71 TEMPORARY BYPASS	0.5	20	70	28	1960	12	840	8	560	16	1120	32	2240
ITEM TOTAL	0.5	20			1960		840		560		1120		2240

TRAFFIC CONTROL PLACEMENT SUBJECT TO ENGINEERS APPROVAL

GEOTEXTILE TYPE C

STATION - STATION	645.0105 SY
TEMP BYPASS	
100+00 - 101+45	529
101+67 - 102+86	421
ITEM TOTAL	950

CONSTRUCTION STAKING

STATION - STATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6500 STRUCTURE LAYOUT 02. B-38-0148 LS	650.9910 SUPPLEMENTAL CONTROL 02. 9246-09-71 EACH	650.9920 SLOPE STAKES LF
NORTH 5TH ROAD						
8+50 - 11+50	258	258	1	1	1	258
TEMPORARY BYPASS						
100+41 - 102+86	216	--	--	--	--	216
ITEM TOTAL	474	258	1	1	1	474

SAWING

STATION	LOCATION	690.0150 ASPHALT LF
8+50	BEGIN	20
11+50	END	20
ITEM TOTAL		40

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 COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

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

	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

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

CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
9246-09-00		
CONSTRUCTION PROJECT NUMBER 9246-09-71	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

T POUND, NORTH 5TH ROAD
LITTLE PESHTIGO RIVER BRIDGE

LOCAL STREET	MARINETTE

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

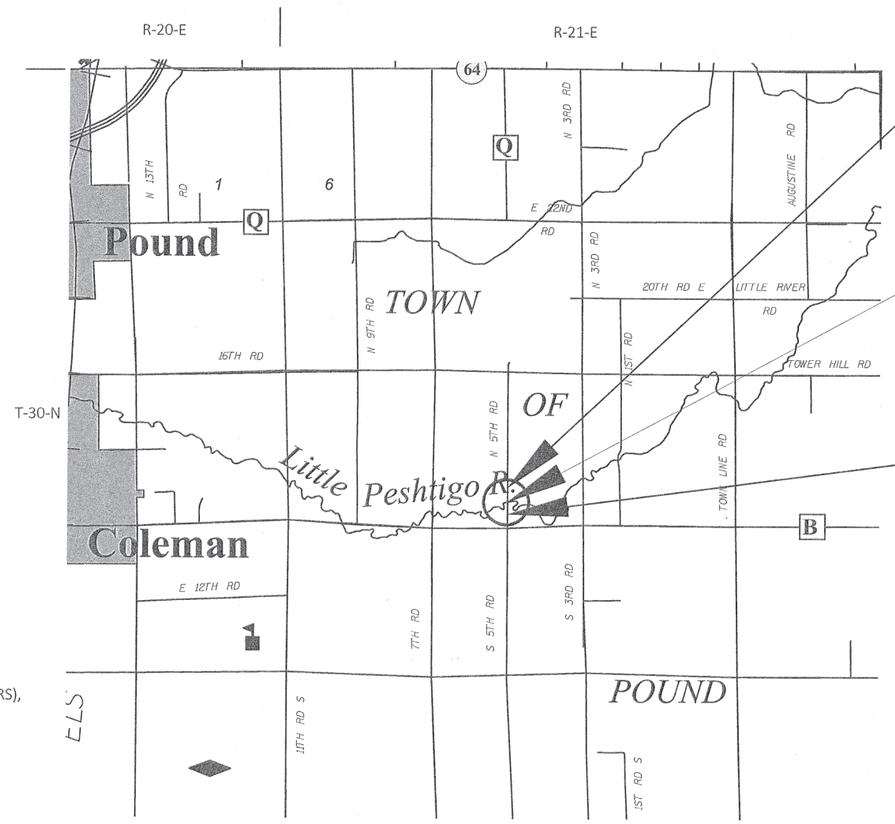
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARINETTE COUNTY, NAD83 1991 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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

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 (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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.



END RELOCATION ORDER
STA 13+00.00
Y = 137,144.709
X = 715,206.279

4158.91 FEET SOUTH AND 104.51 FEET WEST OF THE NORTH QUARTER CORNER OF SEC. 17, T30N, R21E

STRUCTURE B-38-0148
STA 10+00.00

BEGIN RELOCATION ORDER
STA 7+00.00
Y = 136,544.898
X = 715,191.230

633.90 FEET NORTH AND 18.58 FEET EAST OF THE SOUTH QUARTER CORNER OF SEC. 17, T30N, R21E

PROJECT LOCATION

LAYOUT
SCALE 0 1

TOTAL NET LENGTH OF CENTERLINE = 0.114 MI

ACCEPTED FOR
TOWN of POUND

7-19-18 (Date)
Gerald Hayes (Signature & Title of Official) Chairman

ORIGINAL PLAT PREPARED BY
Cedar corporation
CEDARBURG - GREEN BAY - MADISON - MENOMONIE
www.cedarcorp.com
800-472-7372

WISCONSIN
DUSTIN J. LaBLONDE
S-3096
MENOMONIE
WI
LAND SURVEYOR

REVISION DATE

THIS SURVEY IS PREPARED AT THE REQUEST OF THE TOWN. THE FIELD SURVEY WAS PERFORMED IN DECEMBER OF 2016. THIS SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE: 06/15/18 Dustin LaBlonde (Signature)

FILE NAME : I:\CLIENTS-GRBAY\W\W3912 WDOT NE REGION - JT ENGINEERING\006 9246-09-00 T POUND, NORTH 5TH RD, LITTLE PESHTIGO RIVER BRIDGE (CP)\92460900\SHEETSPLAN\040101_RP.DWG PLOT DATE : 6/18/2018 9:50 AM PLOT BY : BRYAN GREISCH PLOT NAME :

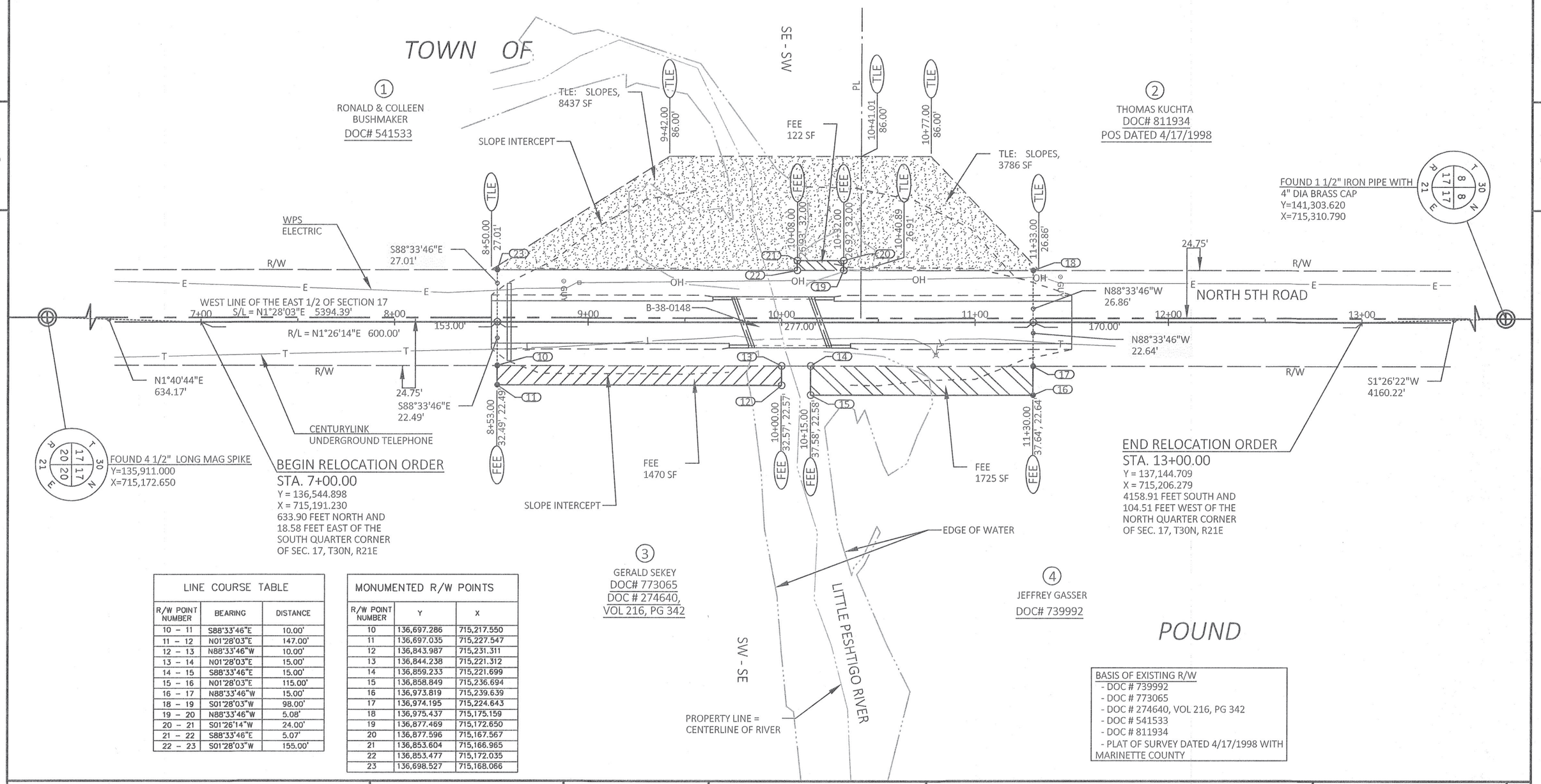
617093

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

ALL AREAS SHOWN IN SQUARE FEET

PARCEL NUMBER	OWNER(S) NAME	INTEREST REQUIRED	NEW R/W SQUARE FEET	EXISTING R/W SQUARE FEET	TOTAL R/W SQUARE FEET	TLE SQUARE FEET
1	RONALD & COLLEEN BUSHMAKER	FEE, TLE	122	4650	4772	8437
2	THOMAS KUTCHA	TLE	–	–	–	3786
3	GERALD SEKEY	FEE	1470	3665	5135	–
4	JEFFREY GASSER	FEE	1725	3190	4915	–



LINE COURSE TABLE

R/W POINT NUMBER	BEARING	DISTANCE
10 – 11	S88°33'46"E	10.00'
11 – 12	N01°28'03"E	147.00'
12 – 13	N88°33'46"W	10.00'
13 – 14	N01°28'03"E	15.00'
14 – 15	S88°33'46"E	15.00'
15 – 16	N01°28'03"E	115.00'
16 – 17	N88°33'46"W	15.00'
18 – 19	S01°28'03"W	98.00'
19 – 20	N88°33'46"W	5.08'
20 – 21	S01°26'14"W	24.00'
21 – 22	S88°33'46"E	5.07'
22 – 23	S01°28'03"W	155.00'

MONUMENTED R/W POINTS

R/W POINT NUMBER	Y	X
10	136,697.286	715,217.550
11	136,697.035	715,227.547
12	136,843.987	715,231.311
13	136,844.238	715,221.312
14	136,859.233	715,221.699
15	136,858.849	715,236.694
16	136,973.819	715,239.639
17	136,974.195	715,224.643
18	136,975.437	715,175.159
19	136,877.469	715,172.650
20	136,877.596	715,167.567
21	136,853.604	715,166.965
22	136,853.477	715,172.035
23	136,698.527	715,168.066

BASIS OF EXISTING R/W
- DOC # 739992
- DOC # 773065
- DOC # 274640, VOL 216, PG 342
- DOC # 541533
- DOC # 811934
- PLAT OF SURVEY DATED 4/17/1998 WITH MARINETTE COUNTY

REVISION DATE	DATE 6-15-18	SCALE, FEET 0 25 50	HWY: LOCAL ROAD	STATE R/W PROJECT NUMBER 9246-09-00	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9246-09-71	PS&E SHEET ____ E

FILE NAME : 040102-RP.DWG
LAYOUT NAME - 040102-rp

PLOT DATE : 6/28/2018 9:58 AM PLOT BY : BRYAN GREISCH PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

617093

BENCHMARKS			
NO	STA.	DESCRIPTION	ELEV.
1	8+94±	R/R SPIKE IN BASE OF POWER POLE, 21' LT.	656.72
2	9+86±	CHISELED SQAURE IN S.W. ABUTMENT CORNER, 10' LT.	659.55
3	11+34±	R/R SPIKE IN BASE OF POWER POLE, 23' LT.	660.16

EROSION CONTROL LEGEND
- SILT FENCE
- TURBIDITY BARRIER

N

RONALD BUSHMAKER
COLLEEN BUSHMAKER
W7512 COUNTY ROAD B
COLEMAN, WI 54112

THOMAS KUTCHA
W6138 TACKMIER LANE
PESHTIGO, WI 54157

REMOVE SMALL PIPE CULVERT
STA 8+59

CULVERT PIPE CORRUGATED ALUMINUM 24-INCH
STA 8+59, 21' LT
ELEV = 654.70'

SLOPE INTERCEPT

WETLAND BOUNDARY

TLE

EDGE OF WATER

LITTLE PESHTIGO RIVER

CP101
PK NAIL IN ASPH
Y = 136809.155
X = 715188.483

R/L TEMP BYPASS

SLOPE INTERCEPT

SEE TURTLE TURN-AROUND DETAIL (TYP.)

PROPOSED STRUCTURE B-38-0148

WETLAND BOUNDARY

R/W

WPS

BM1

BM2

BM3

7+00 8+00 9+00 10+00 11+00 12+00 13+00

101+00 102+00 103+00

N1° 26' 14"E

NORTH 5TH RD

R/L NORTH 5TH RD

CENTURYLINK

STA 8+59, 20' RT
ELEV = 655.00'

WETLAND BOUNDARY

SLOPE INTERCEPT

EXISTING STRUCTURE P-38-100 TO BE REMOVED

CP102
PK NAIL IN ASPH
Y = 136882.176
X = 715206.895

SLOPE INTERCEPT

WETLAND BOUNDARY

BEGIN PROJECT
STA 8+50.00
Y = 136694.851
X = 715194.992
MATCH EXISTING
SAWCUT REQ'D

END PROJECT
STA 11+50.00
MATCH EXISTING
SAWCUT REQ'D

GERALD SEKEY
W7454 COUNTY ROAD B
COLEMAN, WI 54112

JEFFREY GASSER
N3024 N 5TH ROAD
COLEMAN, WI 54112

EDGE OF WATER

STA 8+50.00
EL 658.78

STA 11+50.00
EL 660.30

PROPOSED STRUCTURE B-38-0148

Q_2 ELEV = 657.80

OBS. WATER
EL. 654.45±
(1-5-2018)

HIGH WATER$_{100}$
EL. 659.53

FINISHED C/L PROFILE

EXISTING C/L PROFILE

0.51%

660

650

EXISTING C/L ELEVATION

FINISHED C/L ELEVATION

658.74 658.72 658.78 658.78 659.12 659.03 659.01 659.29 652.46 659.54 658.99 659.79 659.51 660.05 660.30 660.30 660.89 662.03

8+00 9+00 10+00 11+00 12+00

STATION 10+00
REMOVE STRUCTURE P-38-0100
SINGLE SPAN STEEL DECK GIRDER BRIDGE
26.6' OVERALL LENGTH
15.5' OVERALL WIDTH
SKEW 0°

STATION 10+00
STRUCTURE B-38-0148 REQUIRED
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
42.7' OVERALL LENGTH
26.5' OVERALL WIDTH
SKEW 20° R.H.F.

PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	PLAN AND PROFILE: NORTH 5TH ROAD	SHEET 14	E

NOTES:
TEMPORARY SEED AND MULCH IS TO BE PLACED ALONG THE TEMPORARY BYPASS WHILE IN USE. DO NOT PLACE ANY SEED OR MULCH IN DISTURBED AREAS AFTER THE TEMPORARY BYPASS APPROACHES REMOVED.

PI STA = 100+30.40
Y = 136725.242
X = 715195.755
DELTA = 41°08'40"
D = 70°44'08"
T = 30.40'
L = 58.17'
R = 81.00'
PC STA = 100+00.00
PT STA = 100+58.17

PI STA = 101+01.17
Y = 136781.717
X = 715148.856
DELTA = 41°08'40"
D = 70°44'08"
T = 30.40'
L = 58.17'
R = 81.00'
PC STA = 100+70.77
PT STA = 101+28.94

PI STA = 102+24.78
Y = 136907.922
X = 715152.023
DELTA = 38°18'43"
D = 70°44'08"
T = 28.14'
L = 54.16'
R = 81.00'
PC STA = 101+96.65
PT STA = 102+50.81

PI STA = 102+99.92
Y = 136967.316
X = 715201.419
DELTA = 37°27'29"
D = 70°44'09"
T = 27.46'
L = 52.95'
R = 81.00'
PC STA = 102+72.46
PT STA = 103+25.41

RONALD BUSHMAKER
COLLEEN BUSHMAKER
W7512 COUNTY ROAD B
COLEMAN, WI 54112

THOMAS KUTCHA
W6138 TACKMIER LANE
PESHTIGO, WI 54157

GERALD SEKEY
W7454 COUNTY ROAD B
COLEMAN, WI 54112

JEFFREY GASSER
N3024 N 5TH ROAD
COLEMAN, WI 54112

EDGE OF WATER
SEE TURTLE TURN-AROUND DETAIL (TYP.)
TLE
SLOPE INTERCEPT
R/L TEMP BYPASS
BP: 100+00.00
PC: 100+70.77
PT: 100+58.17
PT: 101+28.94
PC: 101+96.65
PT: 102+50.81
PC: 102+72.46
EP: 103+25.41
101+00
102+00
103+00
20'
N1° 26' 14"E
N39° 42' 26"W
N39° 44' 57"E
R/W
BM1
BM2
BM3
CP101
CP102
WETLAND BOUNDARY
NORTH 5TH RD
R/L NORTH 5TH RD
7+00
8+00
9+00
10+00
11+00
12+00
13+00
49.5'
LITTLE PESHTIGO RIVER

EROSION CONTROL LEGEND
SILT FENCE
TURBIDITY BARRIER

BEGIN CONSTRUCTION
STA 100+41.25
Y = 136734.590
X = 715185.706

END CONSTRUCTION
STA 102+86.23
Y = 136957.481
X = 715191.722

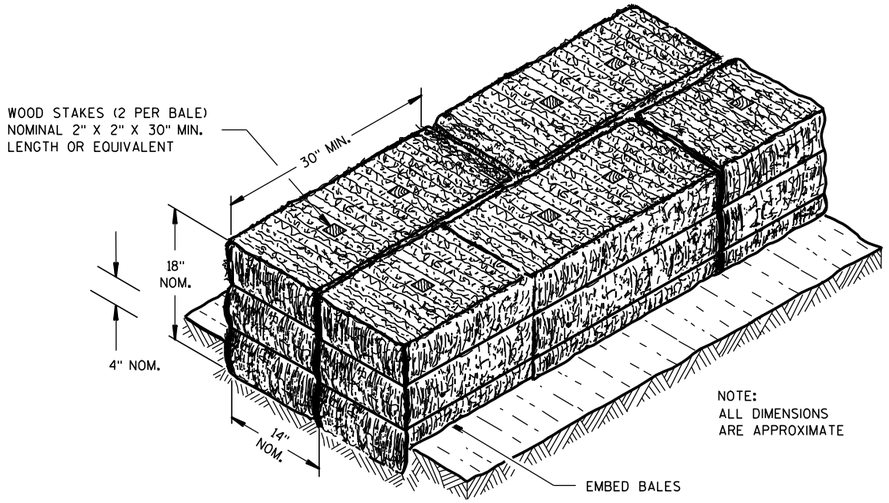
STA 100+41.25
EL 658.67
STA 102+86.23
EL 659.65
FINISHED C/L PROFILE
EXISTING C/L PROFILE
0.40%
EXISTING C/L ELEVATION
FINISHED C/L ELEVATION
658.78
657.66
658.70
654.68
658.90
651.83
659.10
655.08
659.30
655.50
659.50
659.88
660
650
100+00
101+00
102+00
103+00

TEMPORARY STRUCTURE 101+50 REQ'D
ABR = 73.30 SQ. FT.
Q_2 = 470 CFS
HW_2 = EL. 658.51

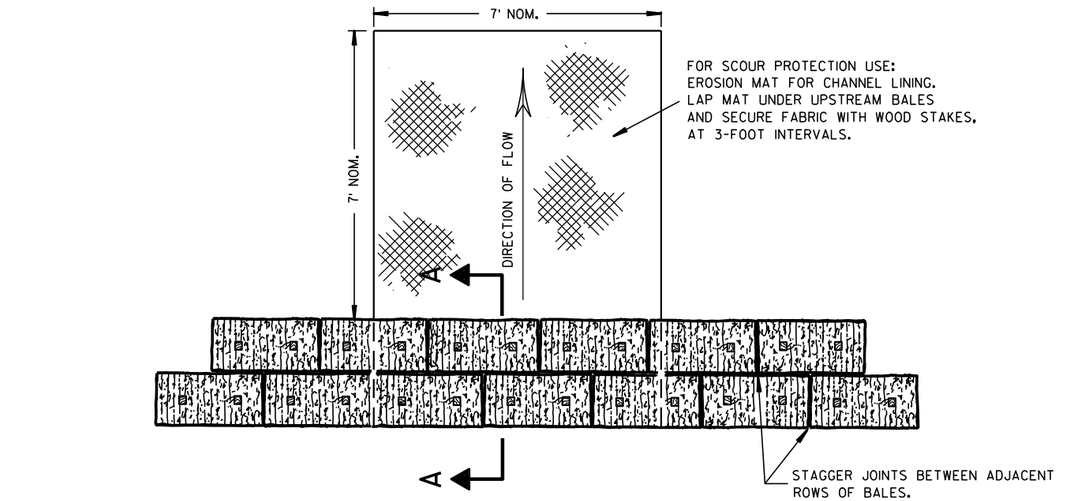
PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	PLAN AND PROFILE: TEMPORARY BYPASS	SHEET 15	E

Standard Detail Drawing List

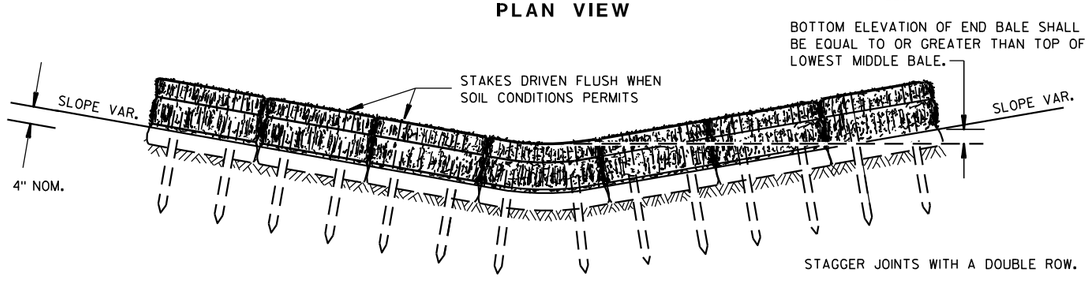
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A04-04C	DELINEATOR POST WITH REFLECTIVE SHEETING
15A07-02	OBJECT MARKER FOR HAZARDOUS CULVERT
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D31-03	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



SECTION A-A



PLAN VIEW



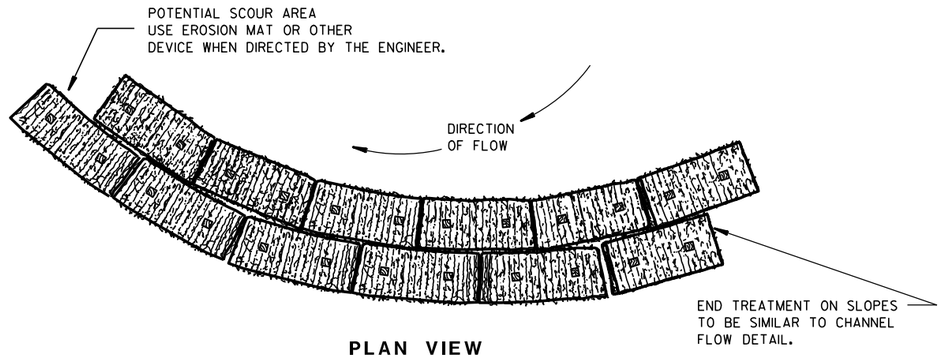
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

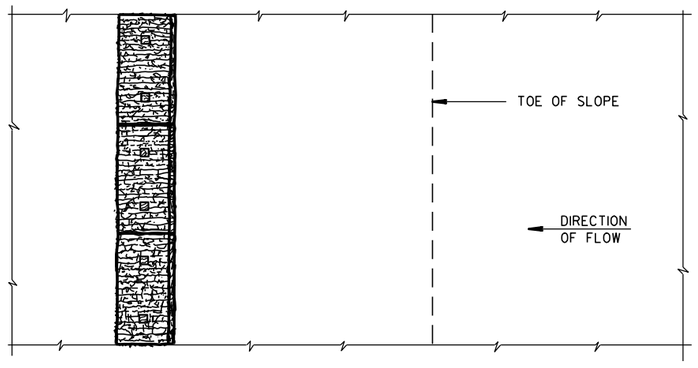
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

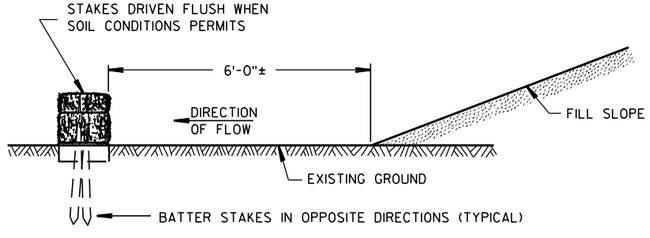


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

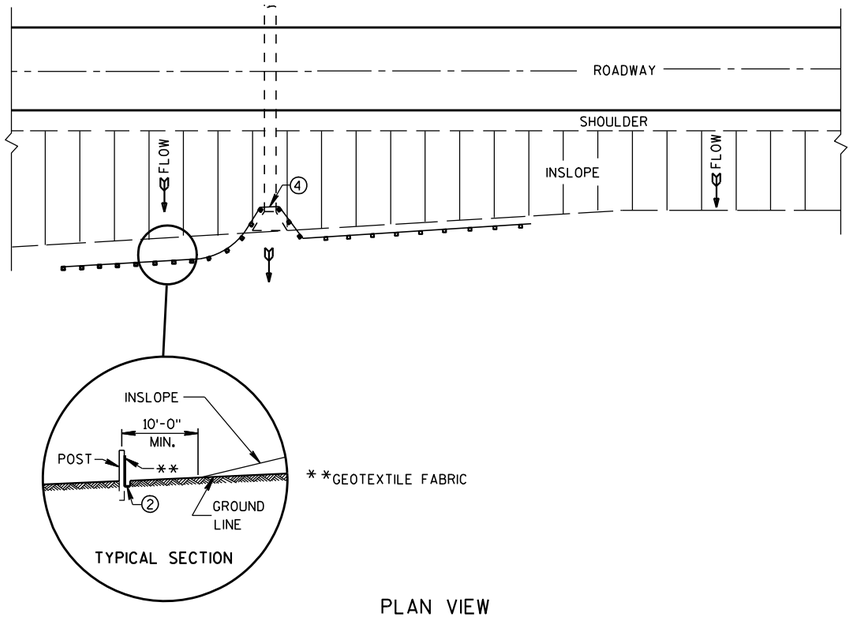
FHWA

6

S.D.D. 8 E 8-3

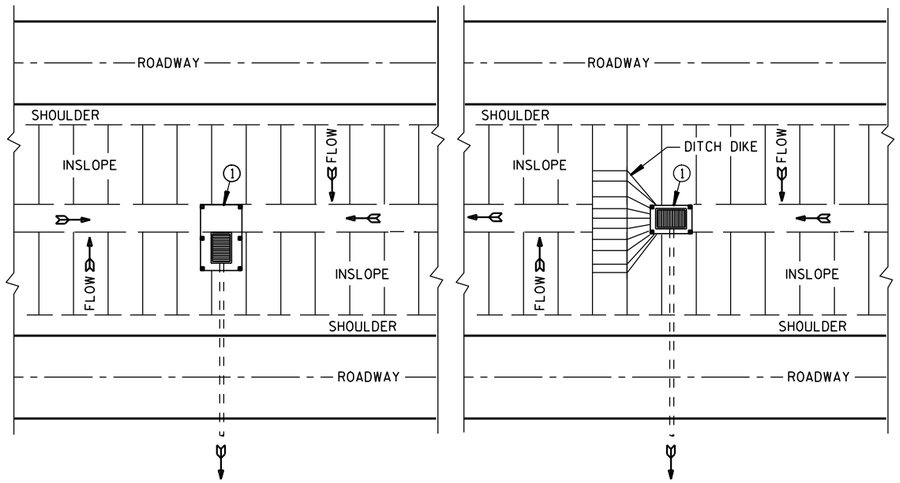
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

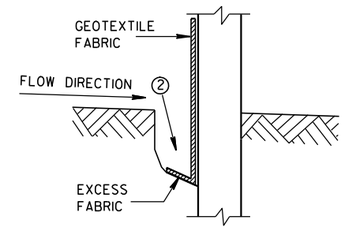
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

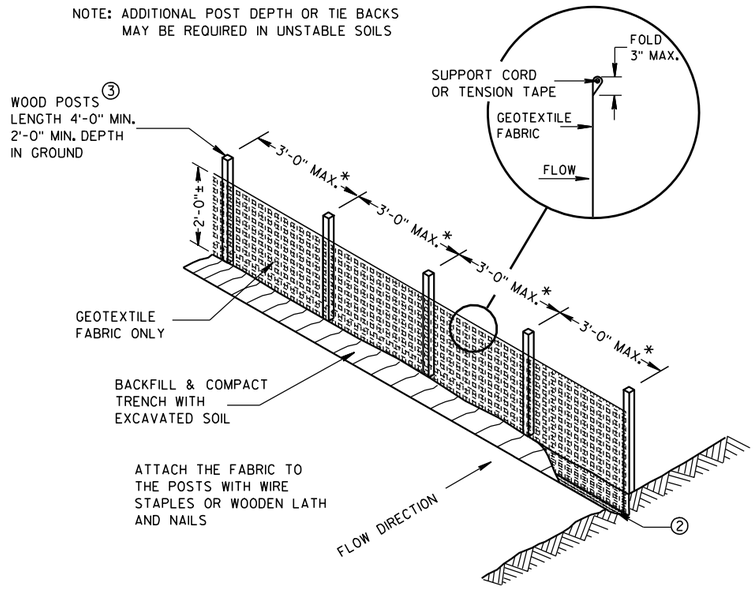
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

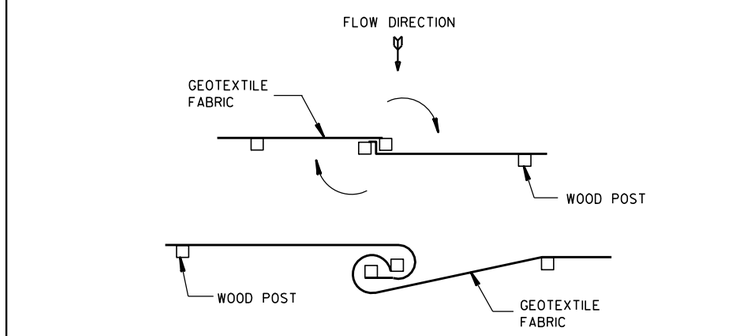
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



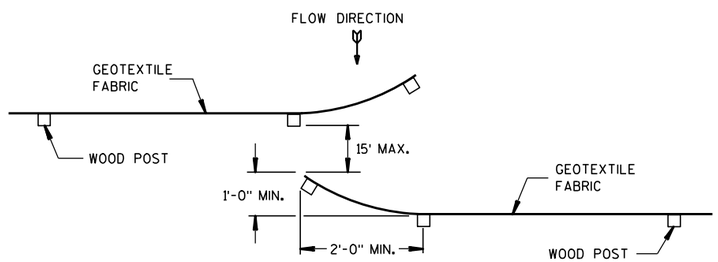
TRENCH DETAIL



SILT FENCE

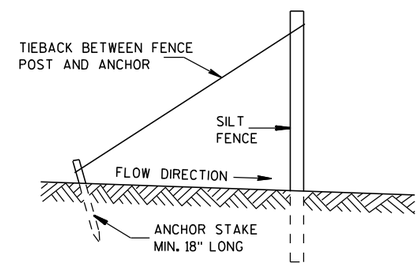


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

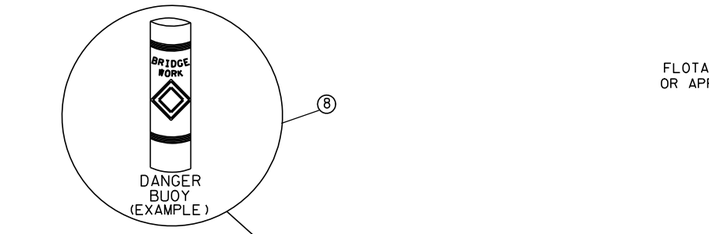
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

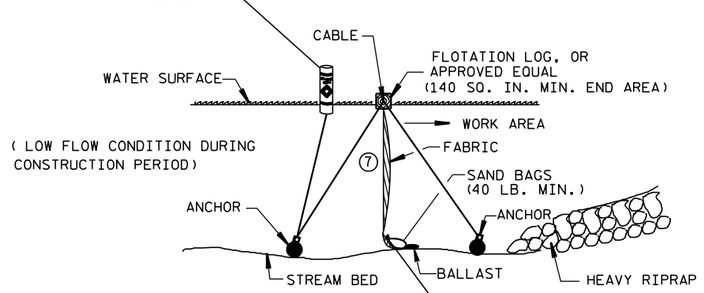
6

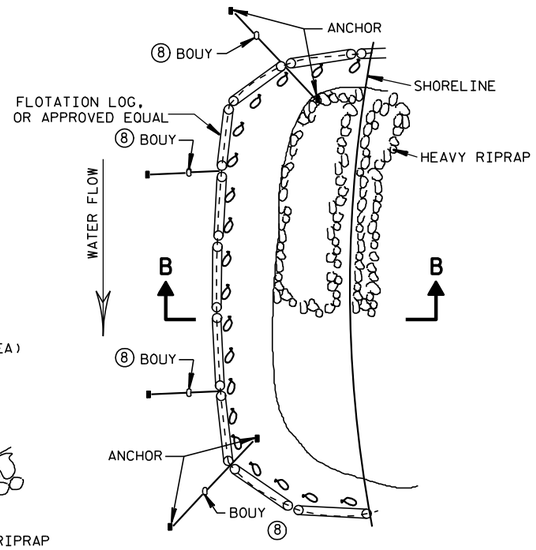
S.D.D. 8 E 9-6

6

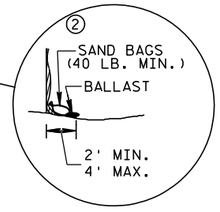
S.D.D. 8 E 9-6



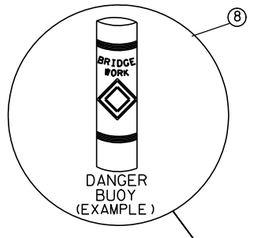


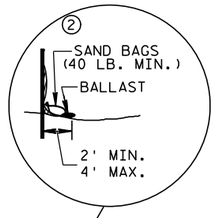


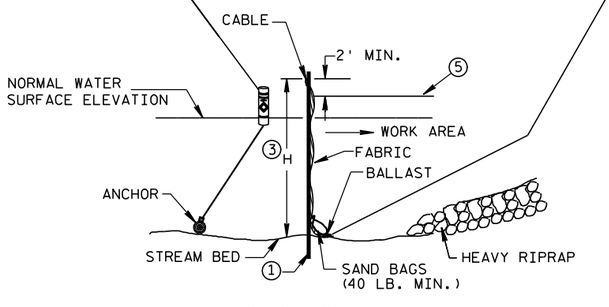
SECTION B-B



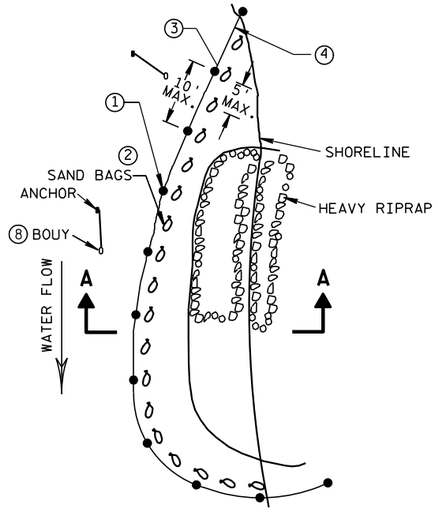
TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6







SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

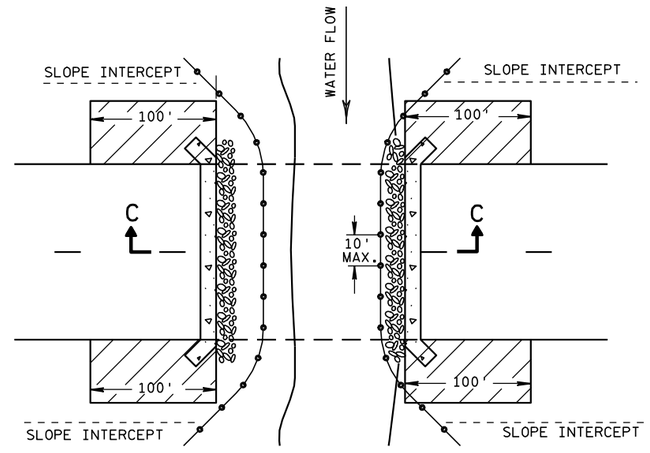
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

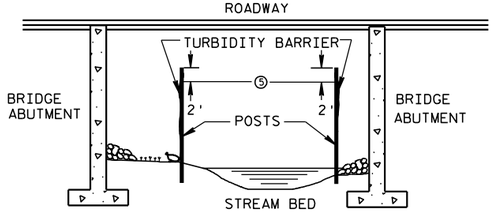
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

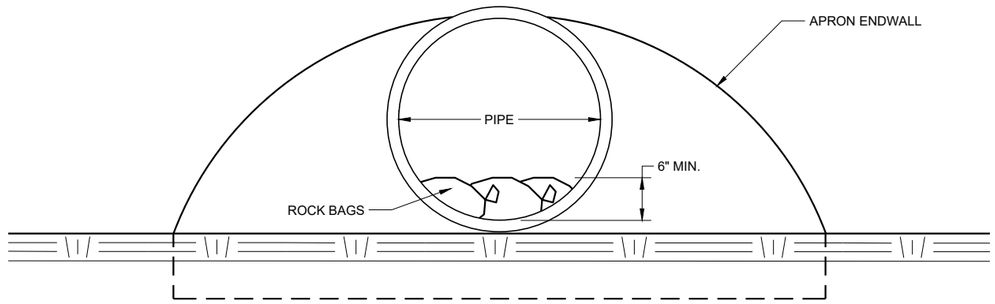
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

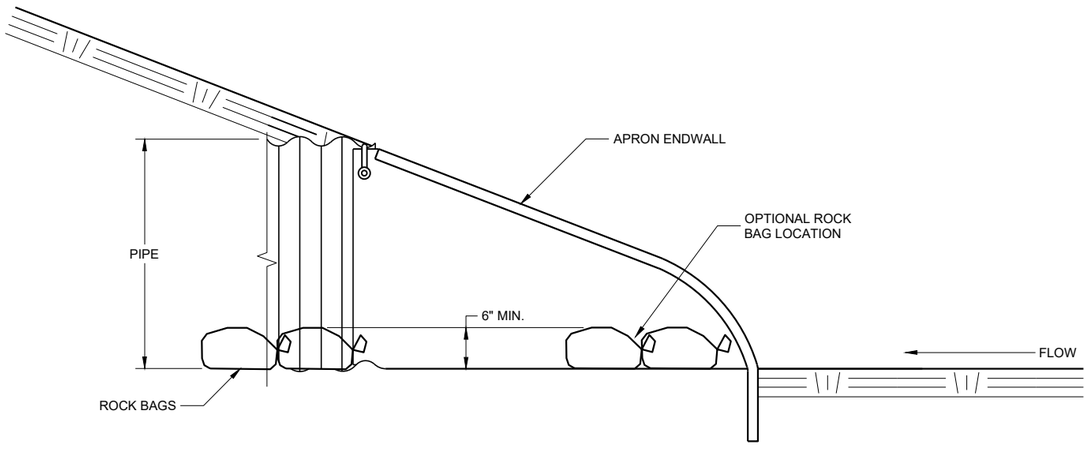
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 11-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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SDD 08E15 - 01

METAL APRON ENDWALLS

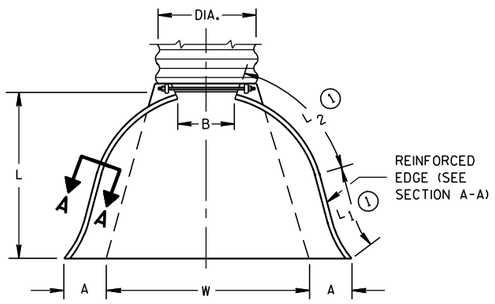
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

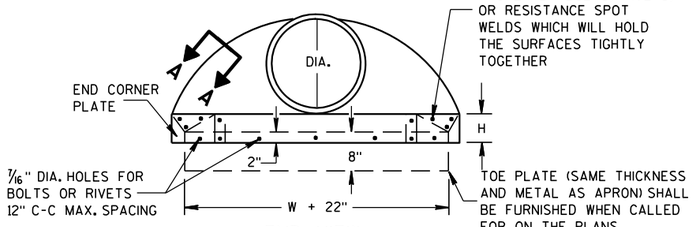
REINFORCED CONCRETE APRON ENDWALLS

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

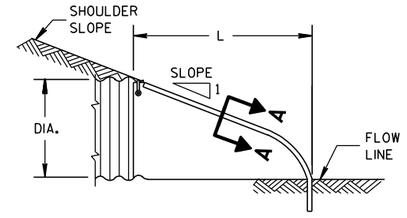
* MINIMUM
** MAXIMUM



PLAN VIEW

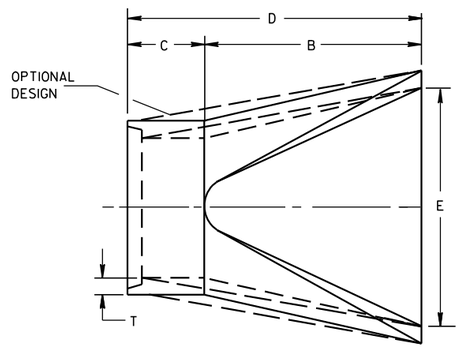


END VIEW

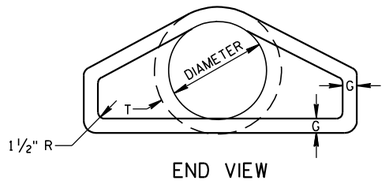


SIDE ELEVATION

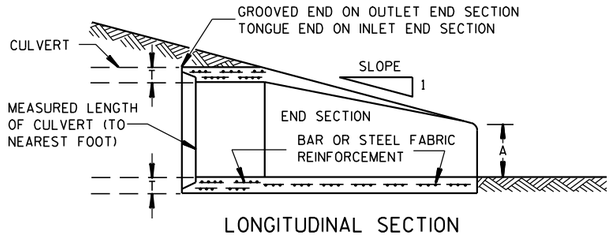
METAL ENDWALLS



PLAN

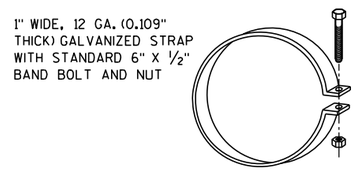


END VIEW



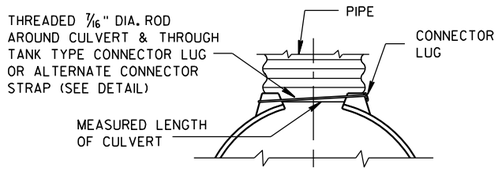
LONGITUDINAL SECTION

CONCRETE ENDWALLS

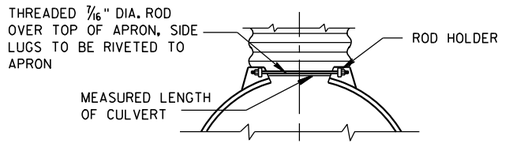


ALTERNATE FOR TYPE 1 CONNECTION

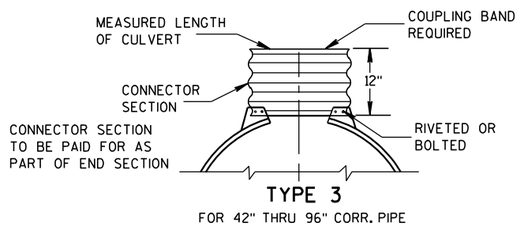
END SECTION CONNECTOR STRAP



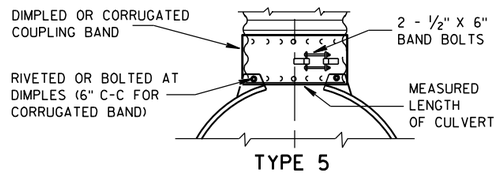
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

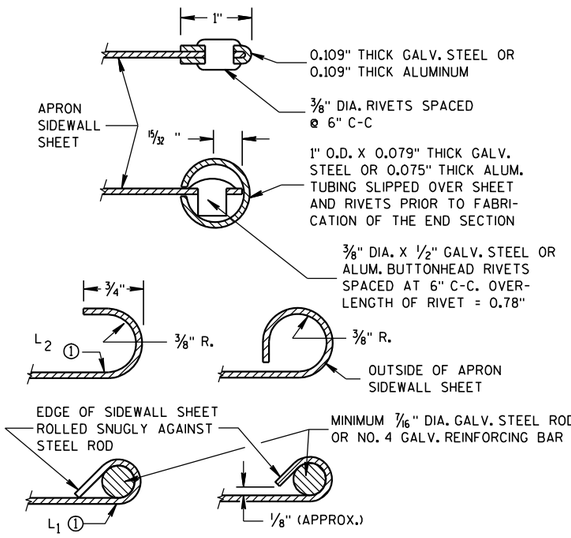
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

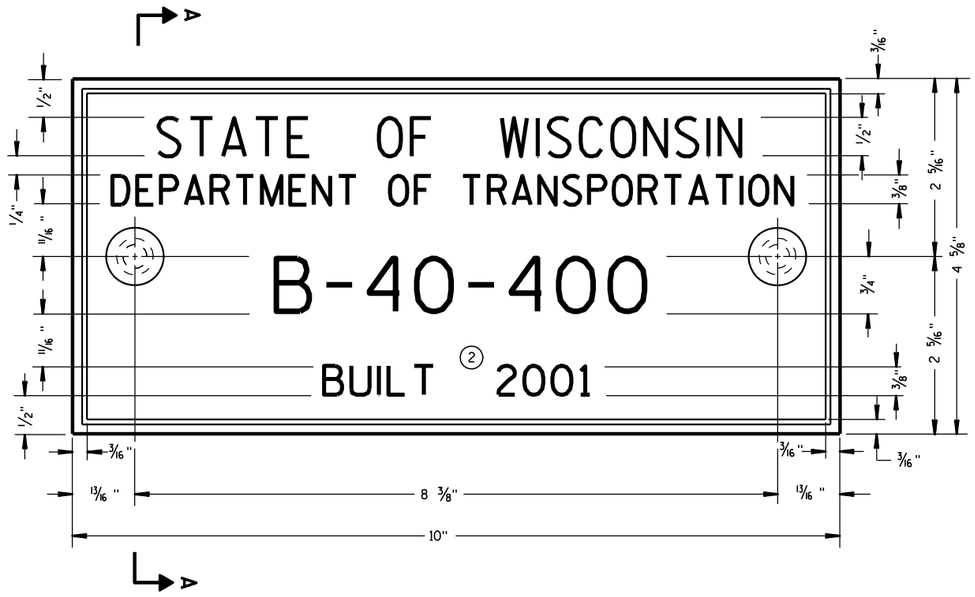
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

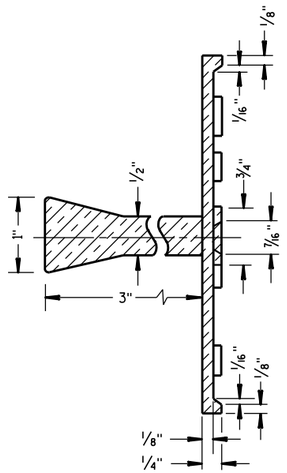
GENERAL NOTES

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

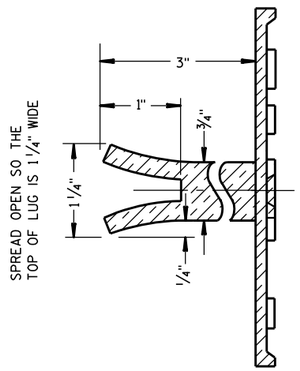
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

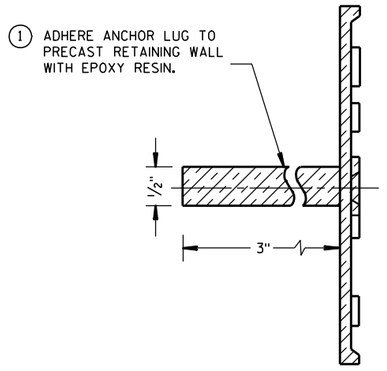
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

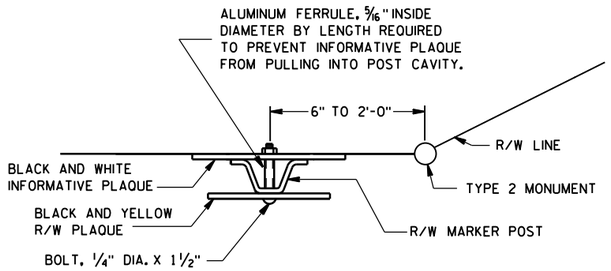
3/26/10 DATE

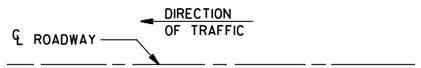
/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

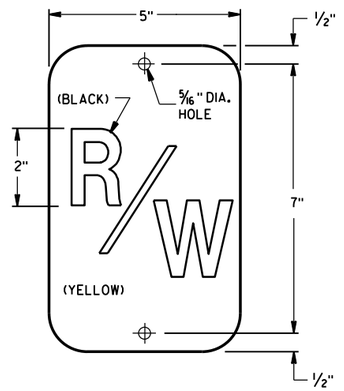
6

S.D.D. 12 A 3-10



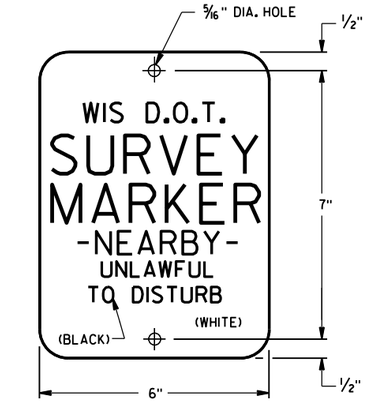


PLAN VIEW



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.

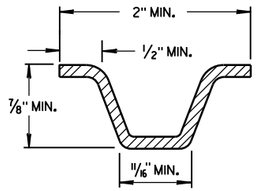
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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 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.

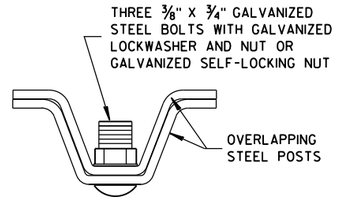
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3'10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT. DEPENDING ON THE STABILITY OF THE ROCK.

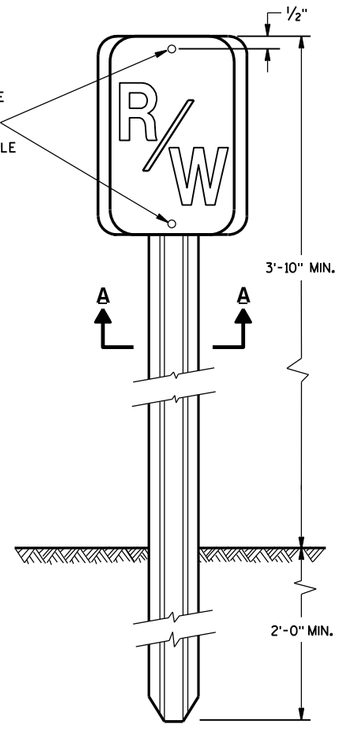


MIN. WEIGHT 1.12 LB./FT.

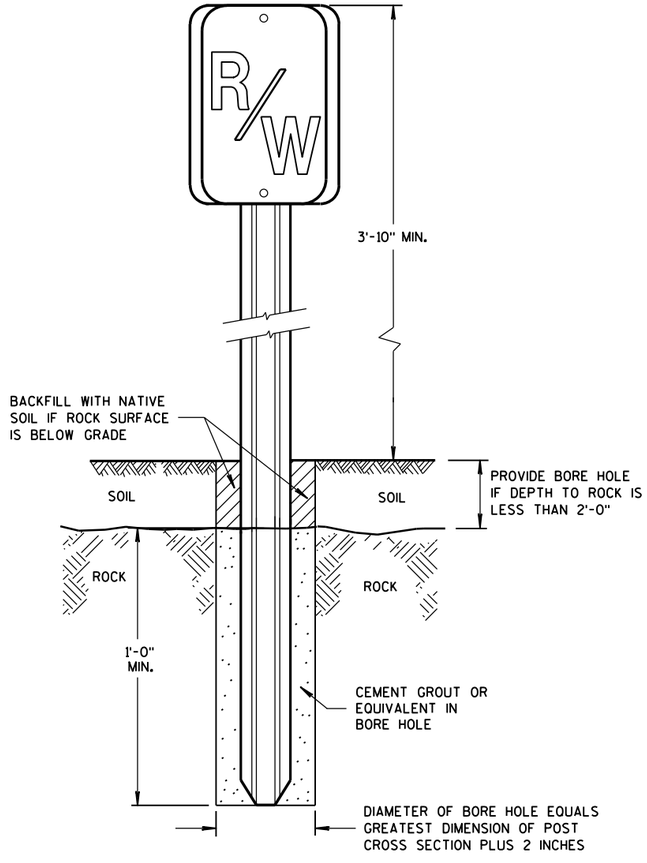
SECTION A-A



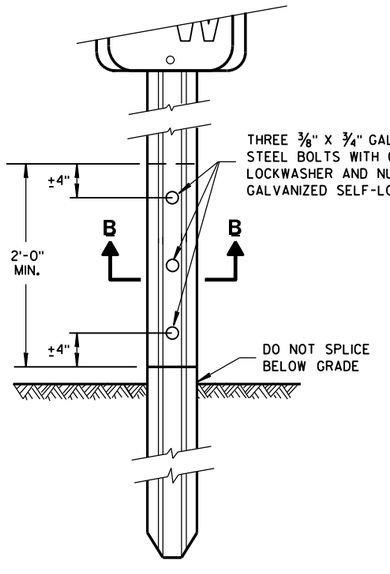
SECTION B-B



FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION (1)



FRONT VIEW
SPLICE DETAIL

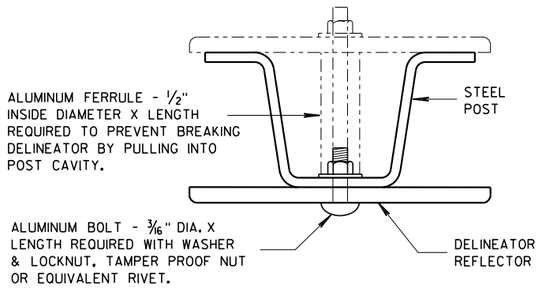
MARKER POST FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

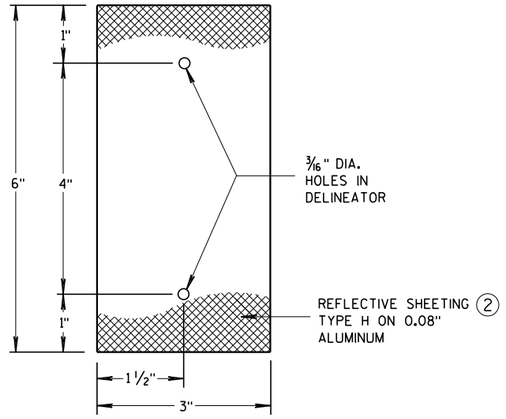
APPROVED
2/18/2016 — DATE
/S/ Ray Kumapayi — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

6

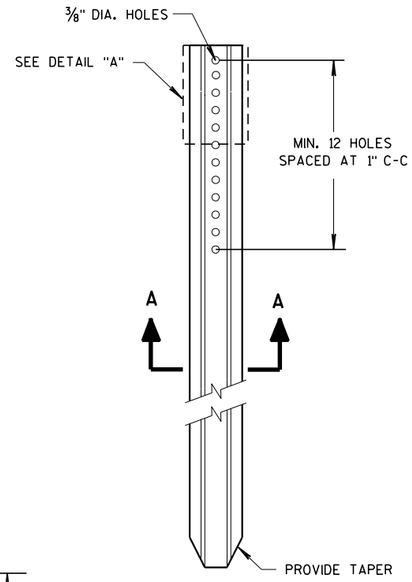
S.D.D. 15 A 1-13a



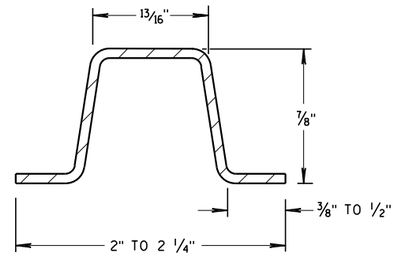
MOUNTING DETAIL
FOR DELINEATOR REFLECTOR



DETAIL "A"
3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



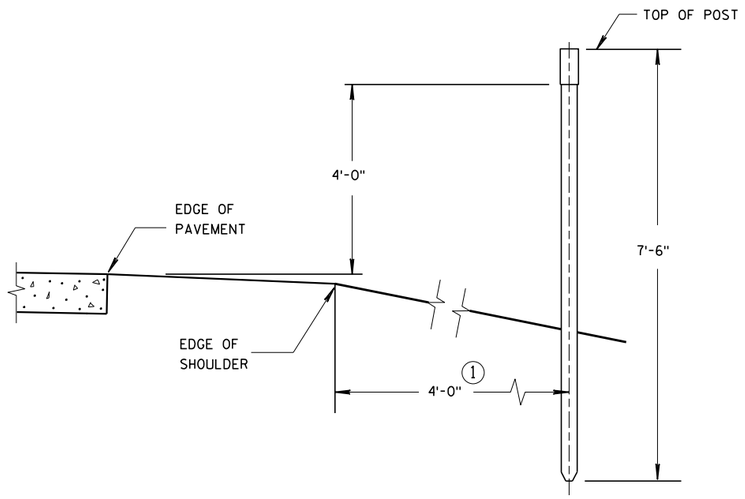
SECTION A-A

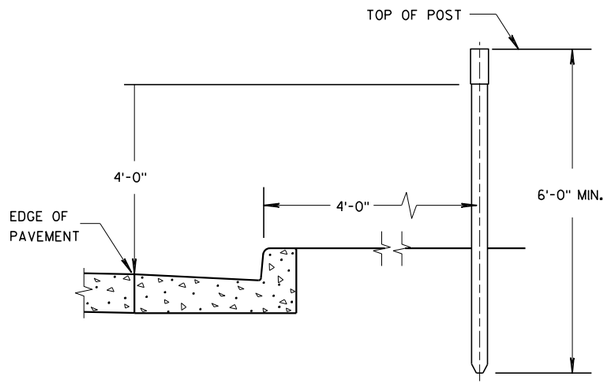
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

REFLECTOR SPACING TABLE

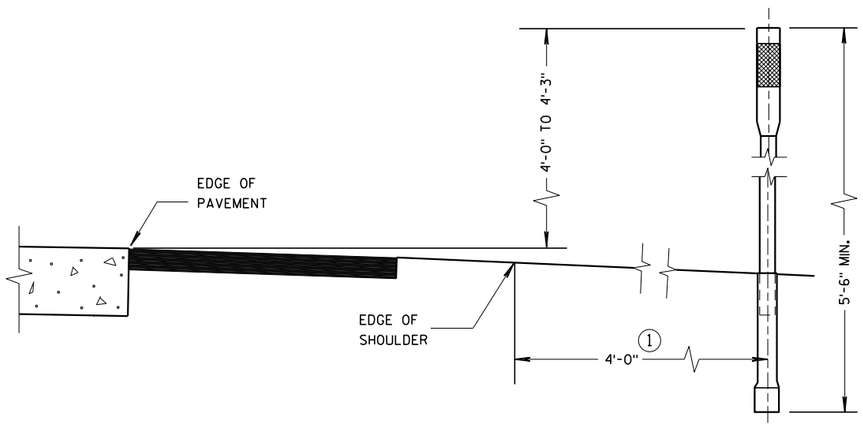
REFLECTOR SPACING	LOCATION
400'	MAINLINE
100'	RAMPS *

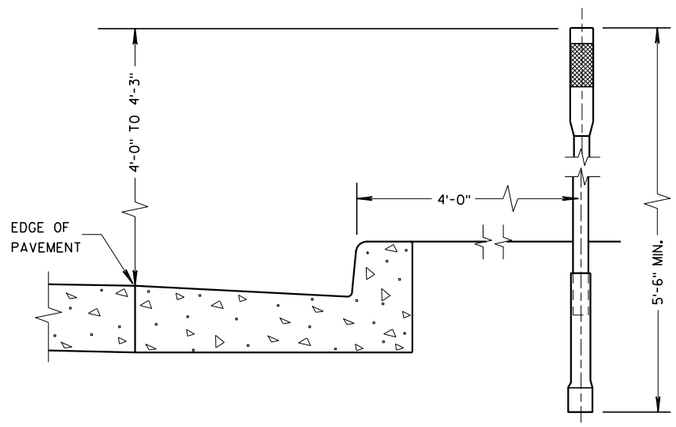
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER.





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

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.

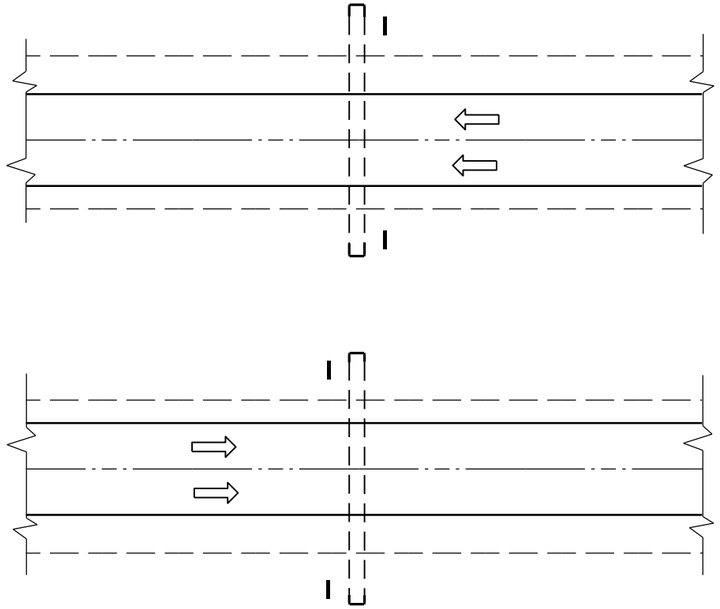
(2) FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

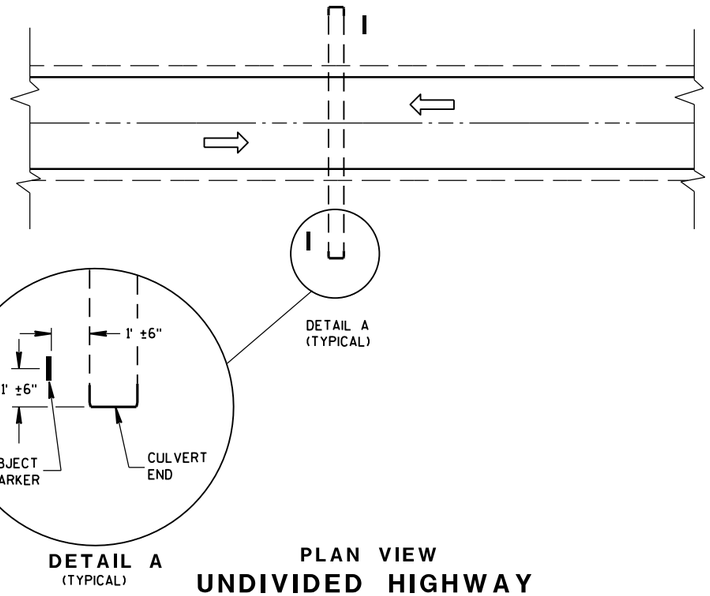
APPROVED
March 2018 — /S/ Matthew P Rauch
DATE — STATE SIGNING AND MARKING ENGINEER
FHWA

6
S.D.D. 15 A 4-4c



PLAN VIEW

DIVIDED HIGHWAY



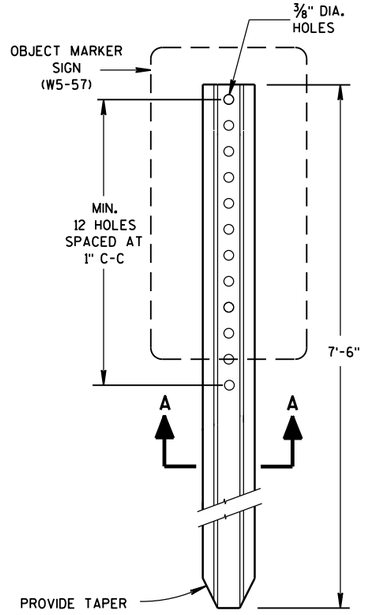
DETAIL A
(TYPICAL)

PLAN VIEW

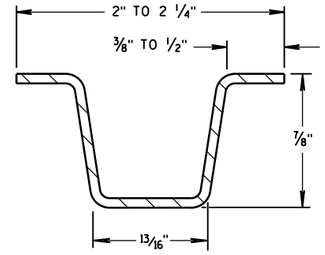
UNDIVIDED HIGHWAY

OBJECT MARKER

DIRECTION OF TRAFFIC FLOW



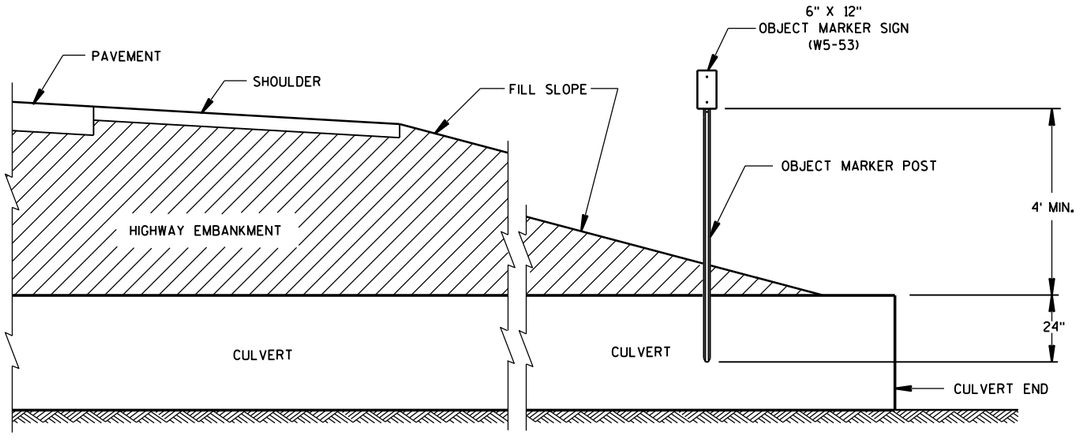
OBJECT MARKER POST



SECTION A-A

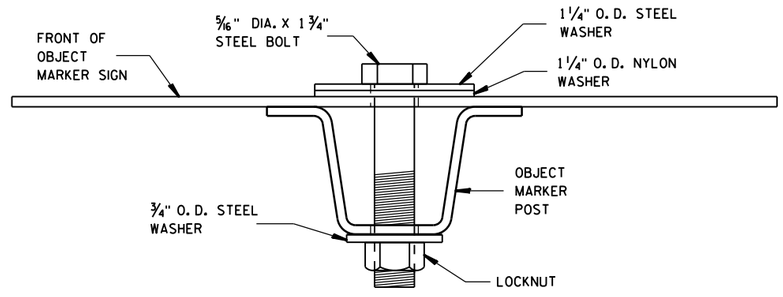
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

OBJECT MARKER LOCATION



CROSS SECTION

OBJECT MARKER PLACEMENT



MOUNTING DETAIL FOR OBJECT MARKER SIGN

OBJECT MARKER FOR HAZARDOUS CULVERT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARK 25 EER

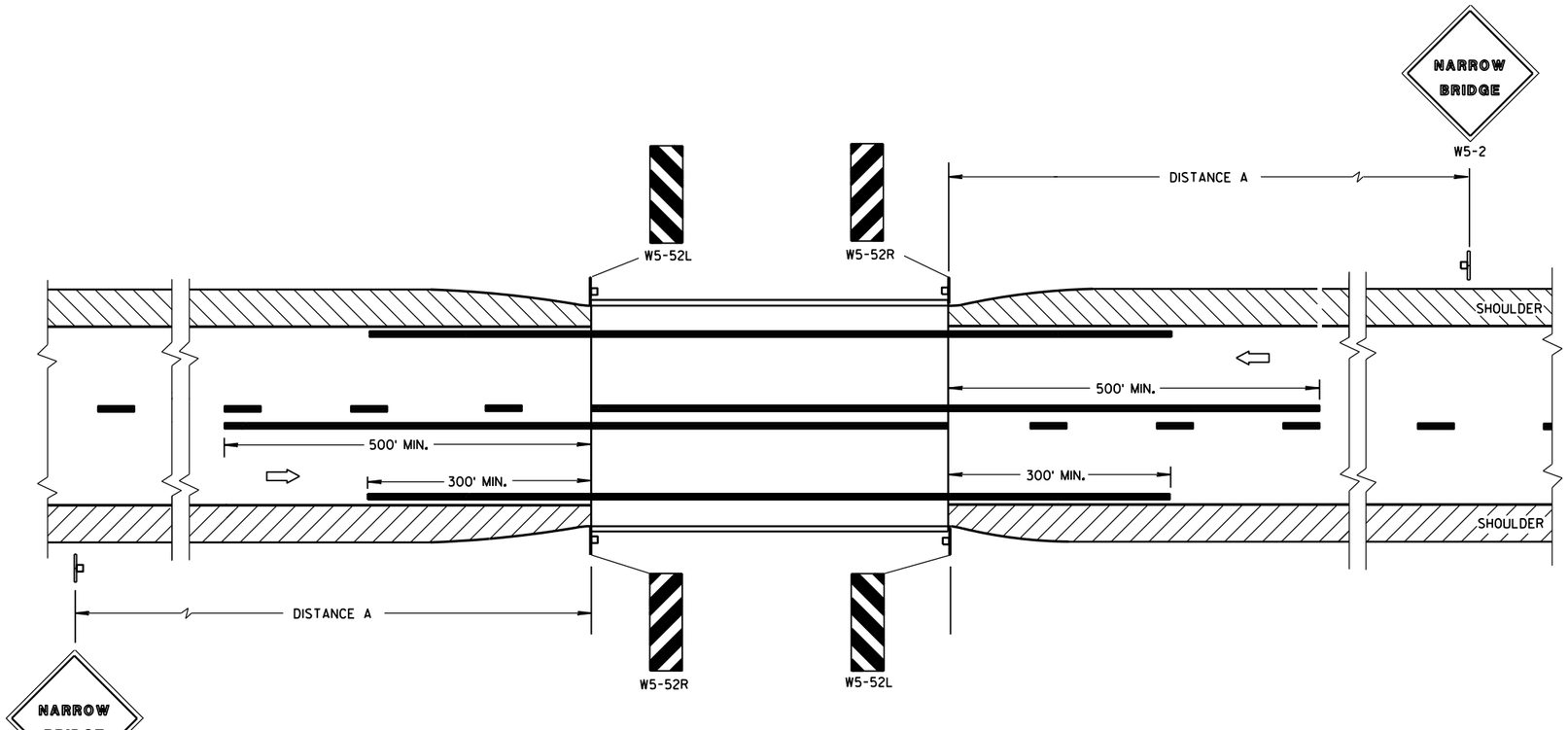
FHWA

6

S.D.D. 15 A 7-2

6

S.D.D. 15 A 7-2



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

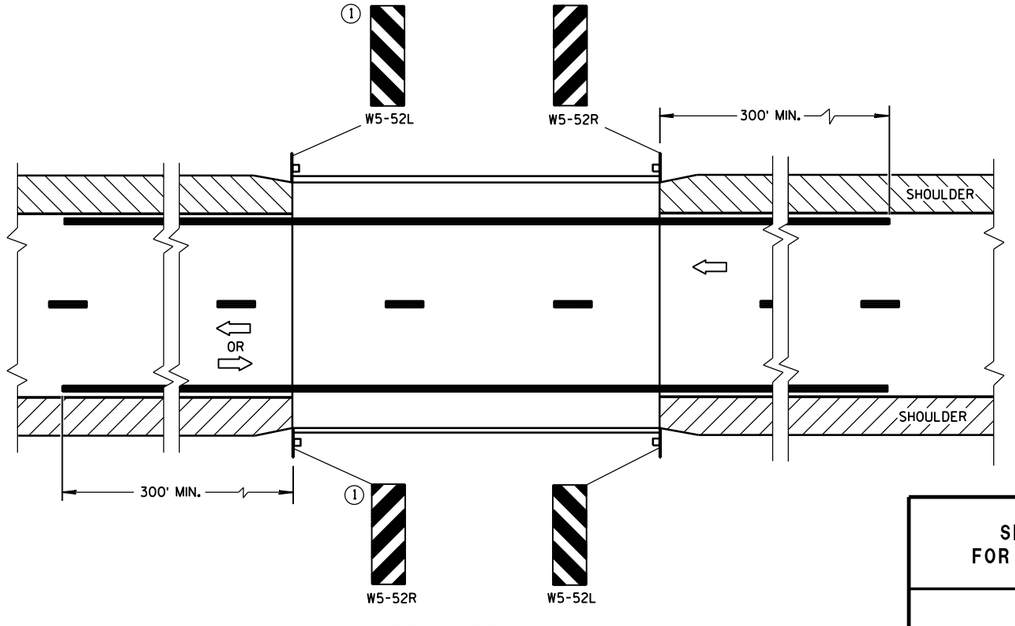
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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 MAR[illegible]EER
FHWA

6

S.D.D. 15 C 6-9

6

S.D.D. 15 C 6-9

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.

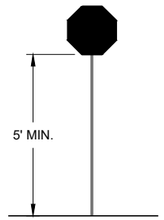
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR 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.



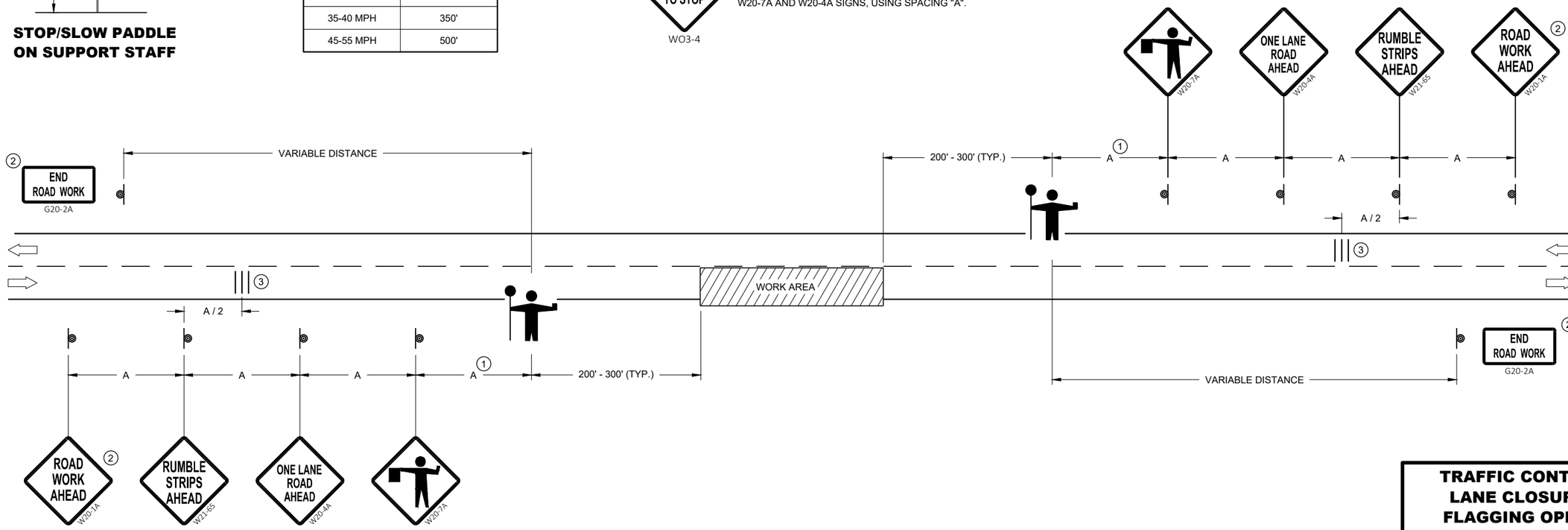
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 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

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15C12 - 07

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

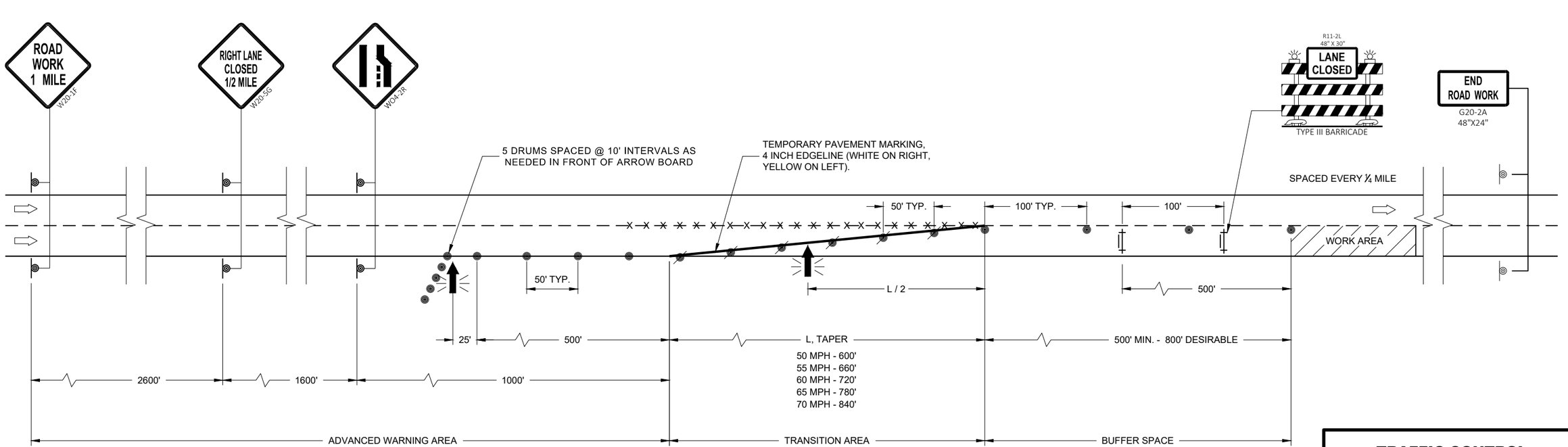
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 07a

6

SDD 15D12 - 07a

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

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

END ROAD WORK
G20-2A
48"x24"

NO PASSING ZONE
W14-3
48"x36"

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

1000' 500' 400' 500' 200' 50' 50' 25' TYP.

W01-6 48"x24" ✳✳✳

R11-2 48"x30" ROAD CLOSED

TYPE III BARRICADE

FOR BRIDGE OR CULVERT REPLACEMENTS SUBSTITUTE
BRIDGE OUT
R11-2B
48"x30"

ROAD CLOSURE OR BRIDGE/CULVERT REPLACEMENT

BUFFER SPACE (SEE TABLE)

WORK AREA

BUFFER SPACE (SEE TABLE)

TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

W05-52L 12"x36"

W05-52R 12"x36"

25' TYP.

W01-3L OR W01-4L
W013-1
XX M.P.H.
24"x24"

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

END TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

50' 50' 400' 200' 500' 500' 1000'

END TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINES. (USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT)

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTERLINE AND 2-WAY YELLOW RAISED PAVEMENT MARKERS AT 25' SPACING. USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT.

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

ROAD WORK AHEAD
W20-1A

ROAD WORK 1000 FT
W20-1C

W01-4R OR W01-3R
W013-1
XX M.P.H.
24"x24"

W01-6 48"x24"

W01-4L OR W01-3L
W013-1
XX M.P.H.
24"x24"

NO PASSING ZONE
W14-3
48"x36"

END ROAD WORK
G20-2A
48"x24"

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"x48" UNLESS OTHERWISE NOTED.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

✳ IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

✳✳ 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.

✳✳✳ OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

LEGEND

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

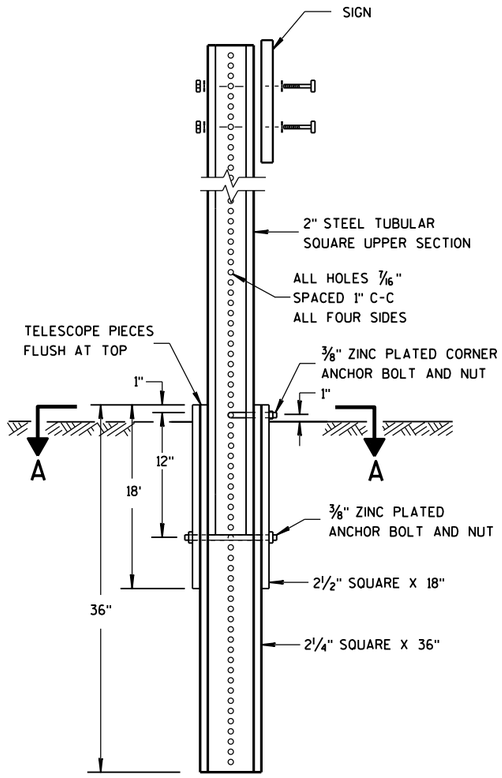
TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

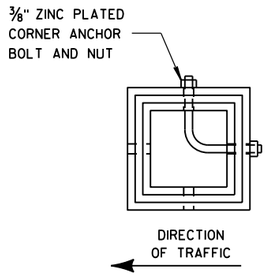
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA — FIC

6

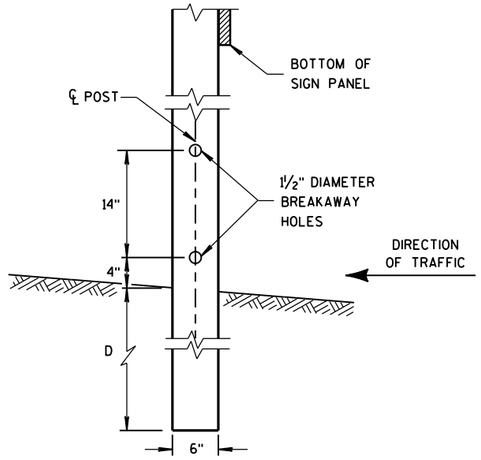
S.D.D. 15 D 31-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



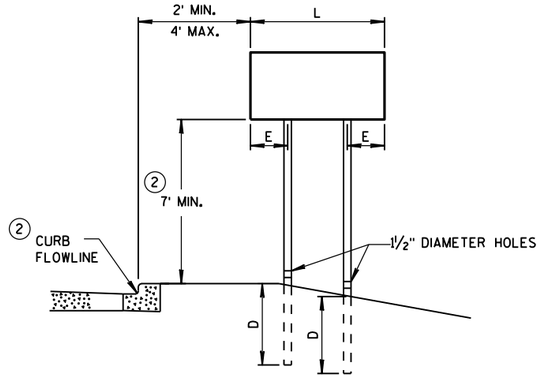
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

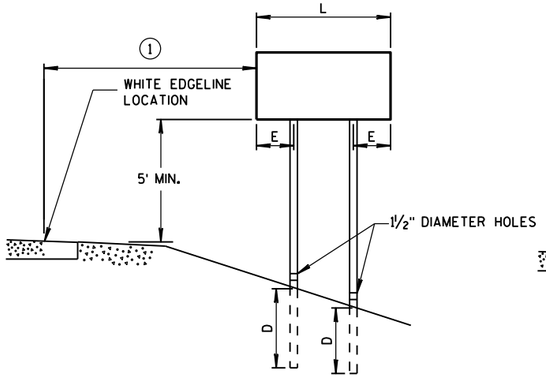
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

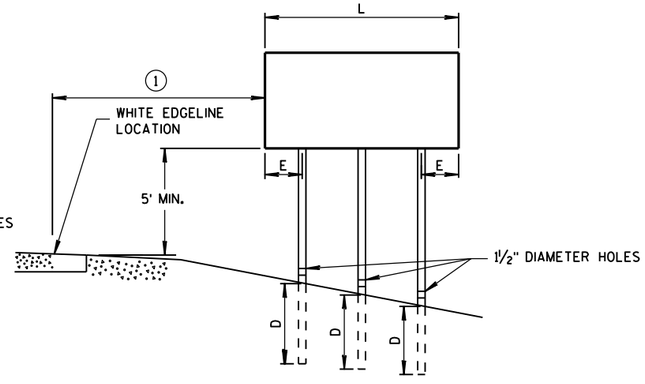
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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.

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

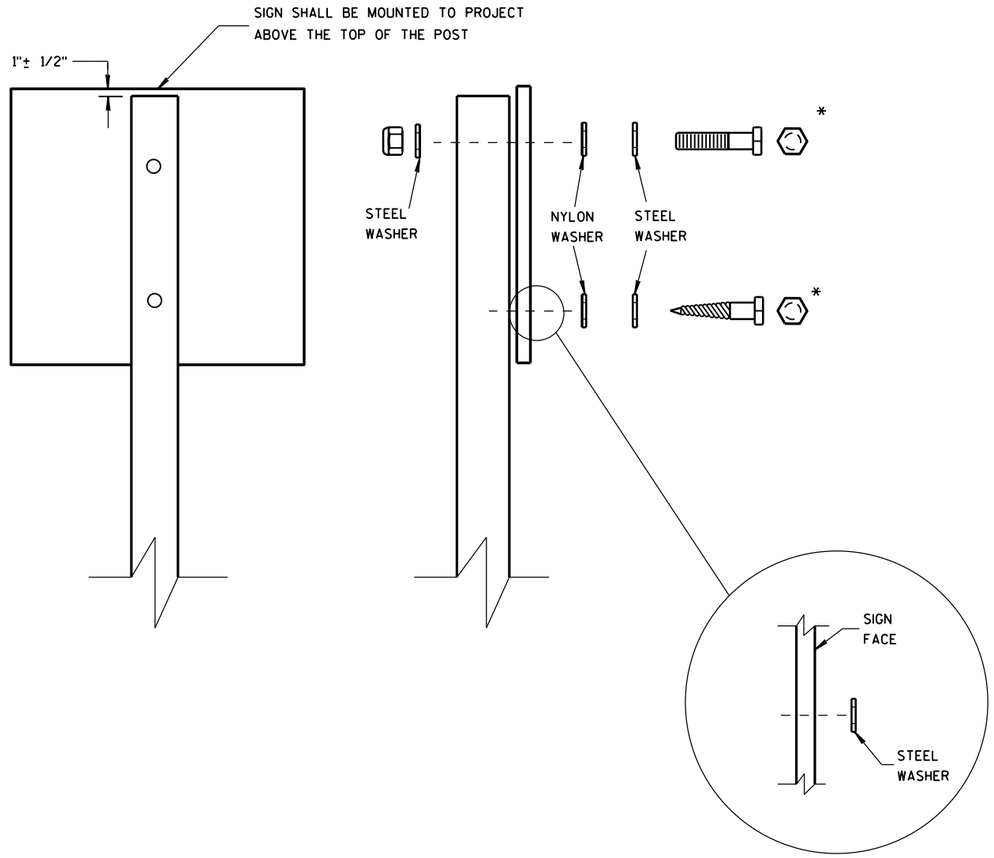
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

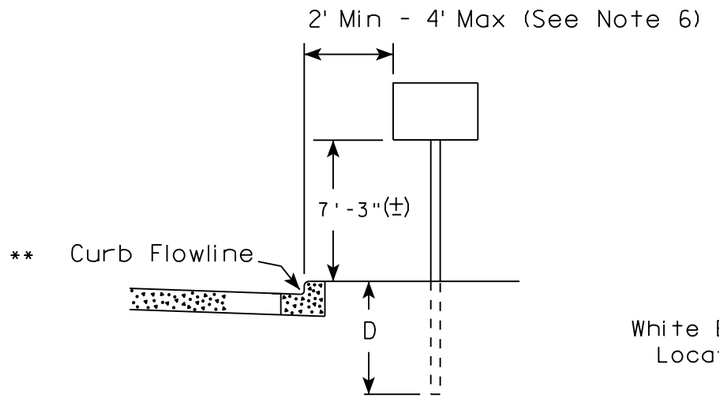
APPROVED

June 2017
DATE

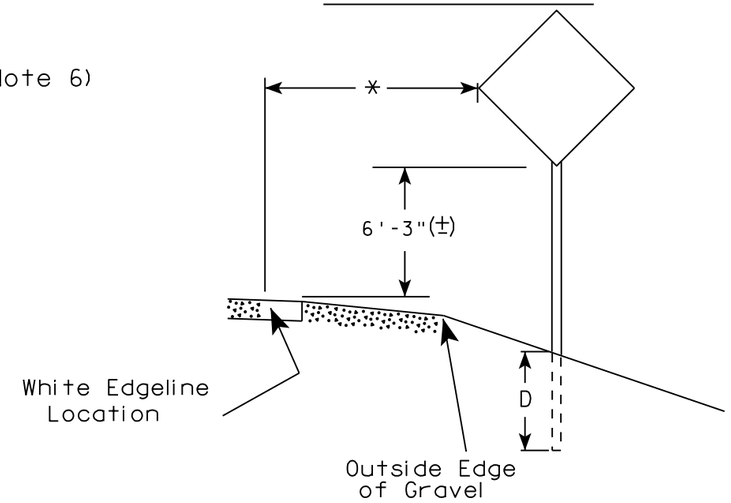
/S/ Andrew Heldtke
WORK ZONE ENG

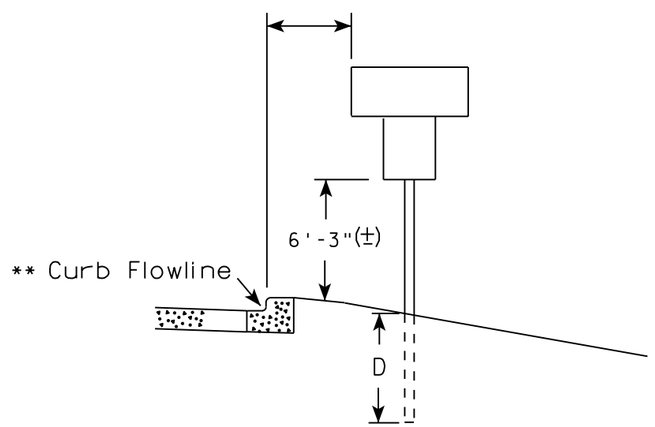
FHWA

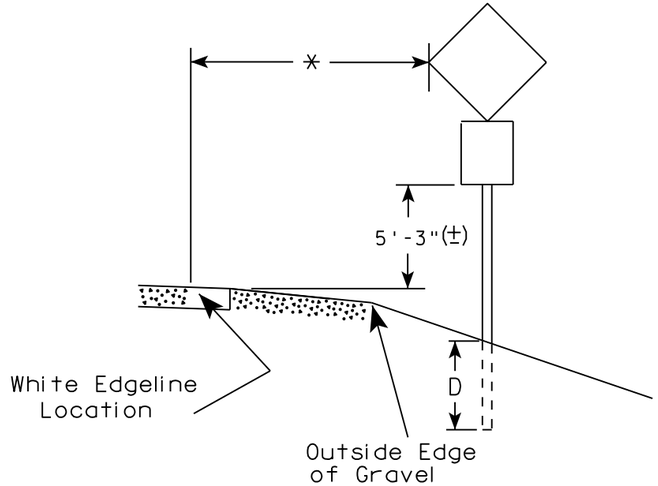
URBAN AREA



RURAL AREA (See Note 2)







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

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

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 directd 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" (±).

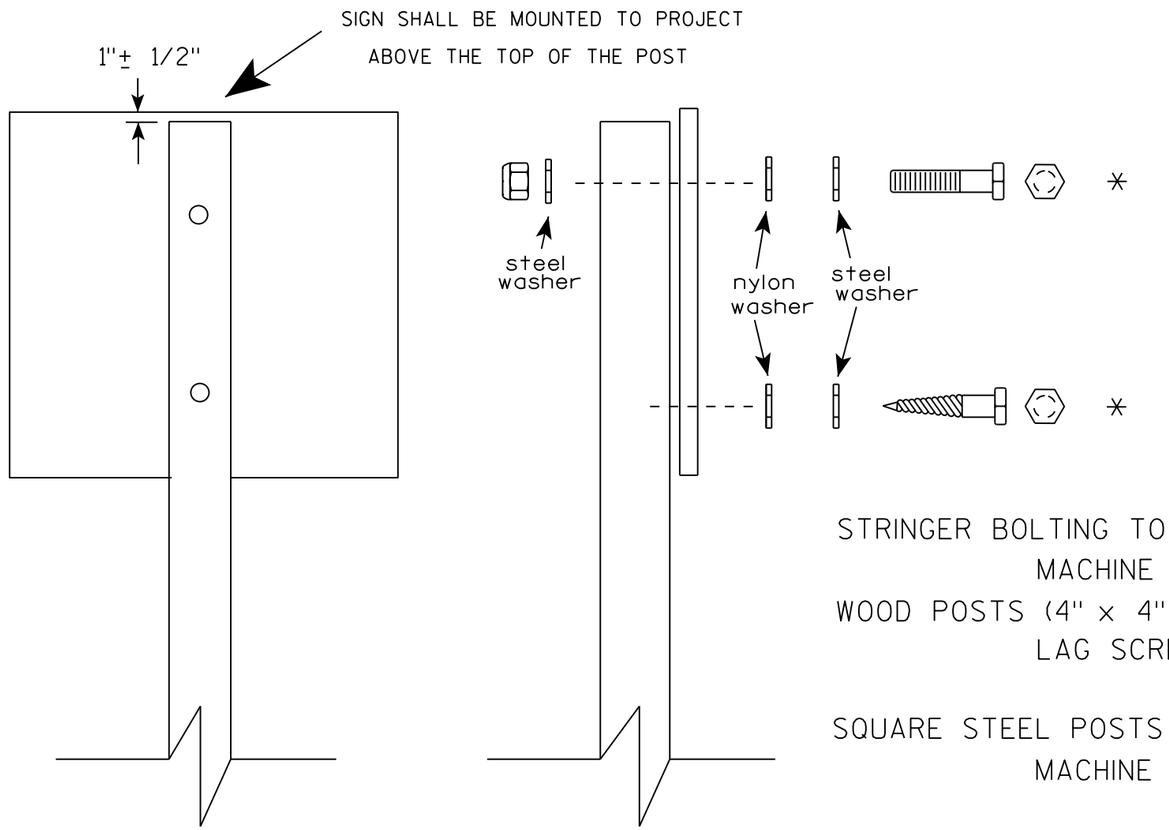
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	E



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

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

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

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.

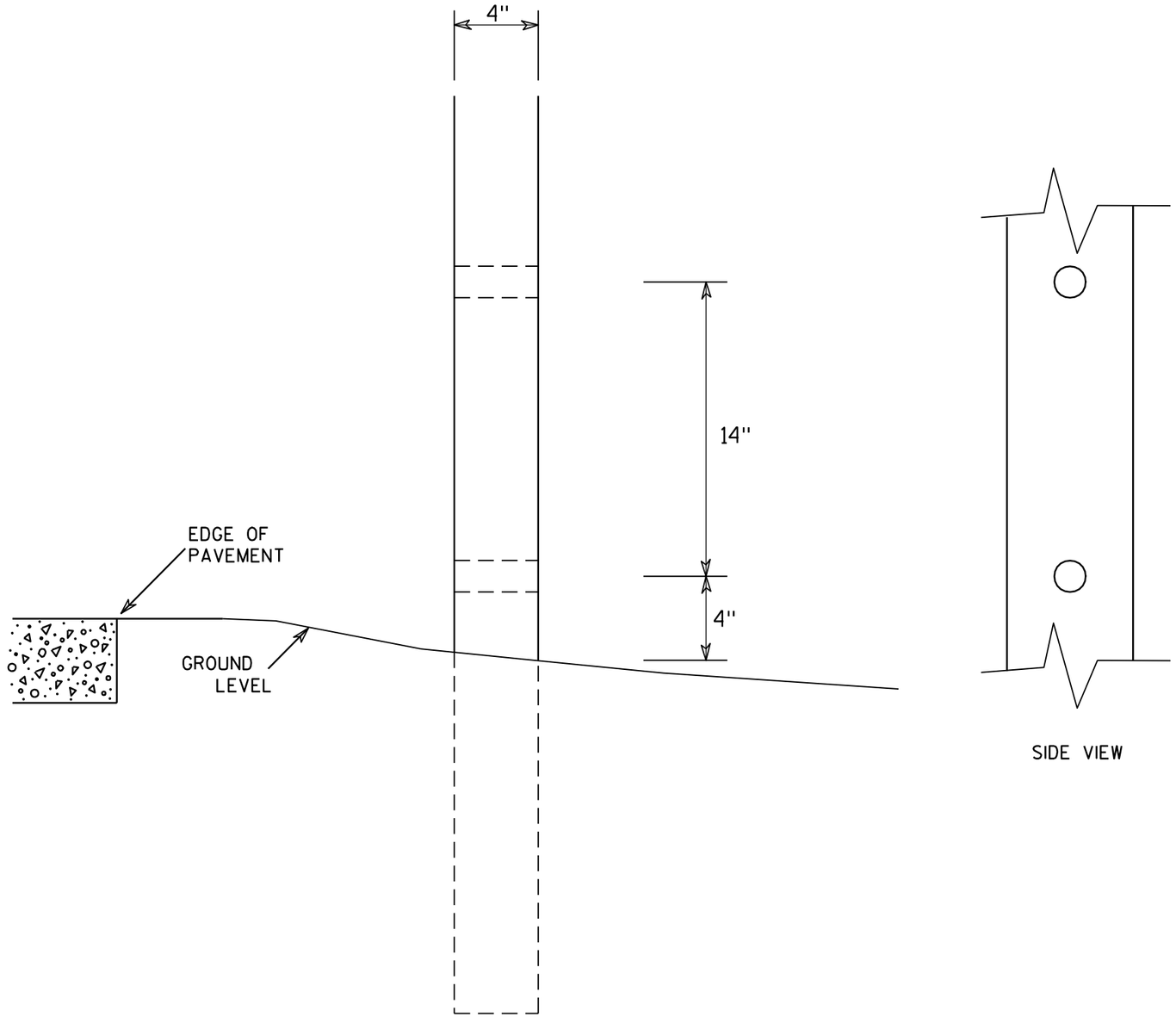
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E



SIDE VIEW

GENERAL NOTES

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

7

7

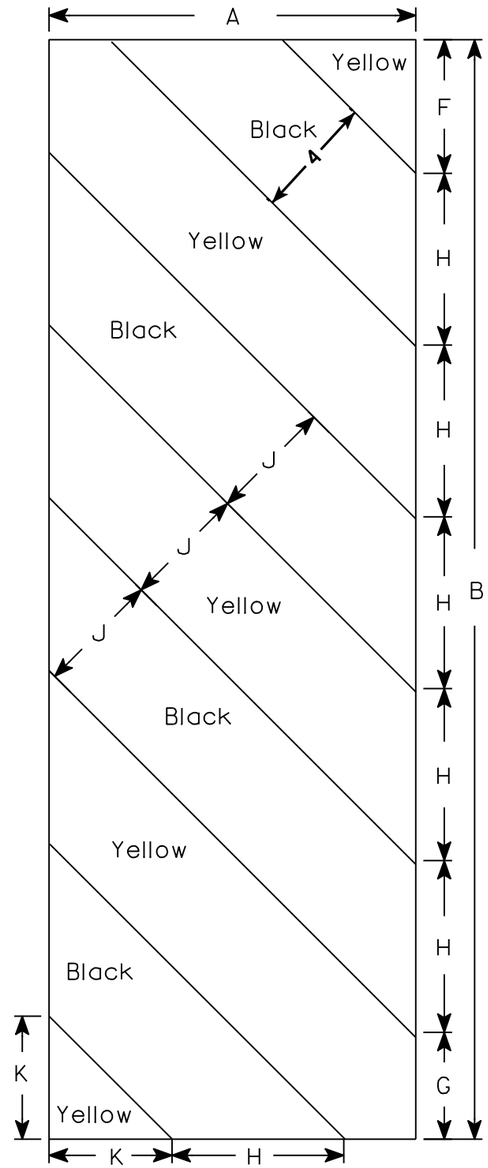
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

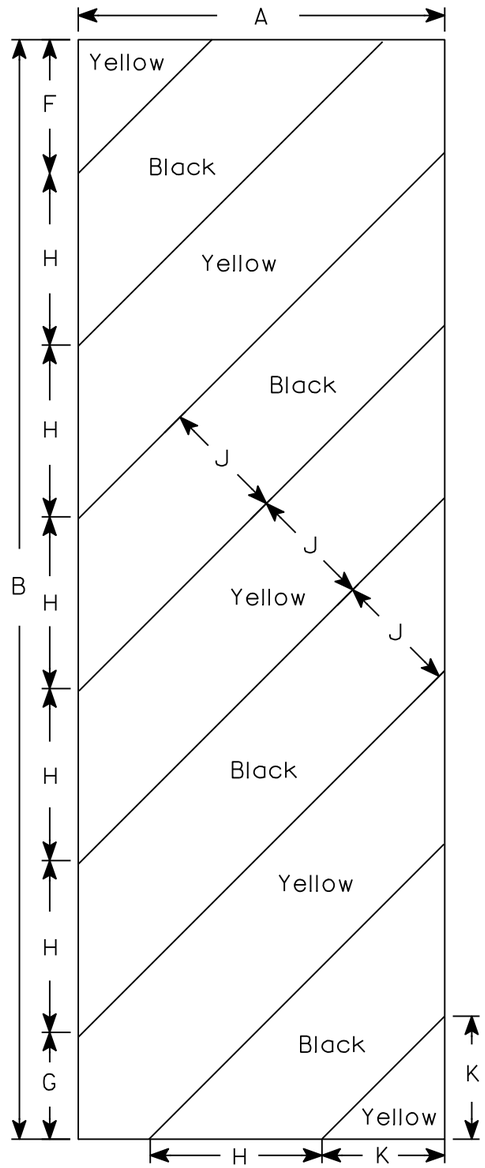
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 34	E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

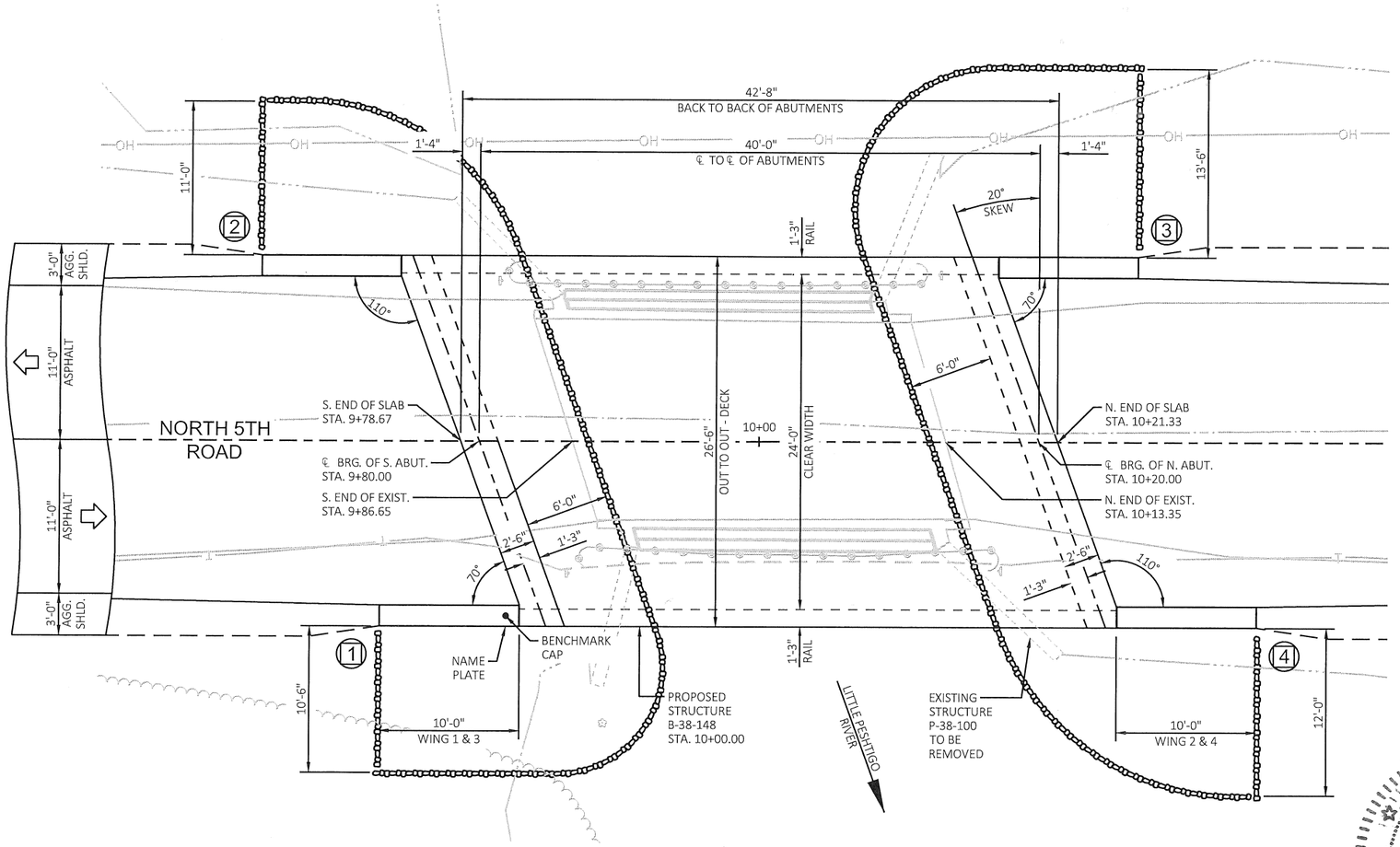
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 35 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

STATE PROJECT NUMBER

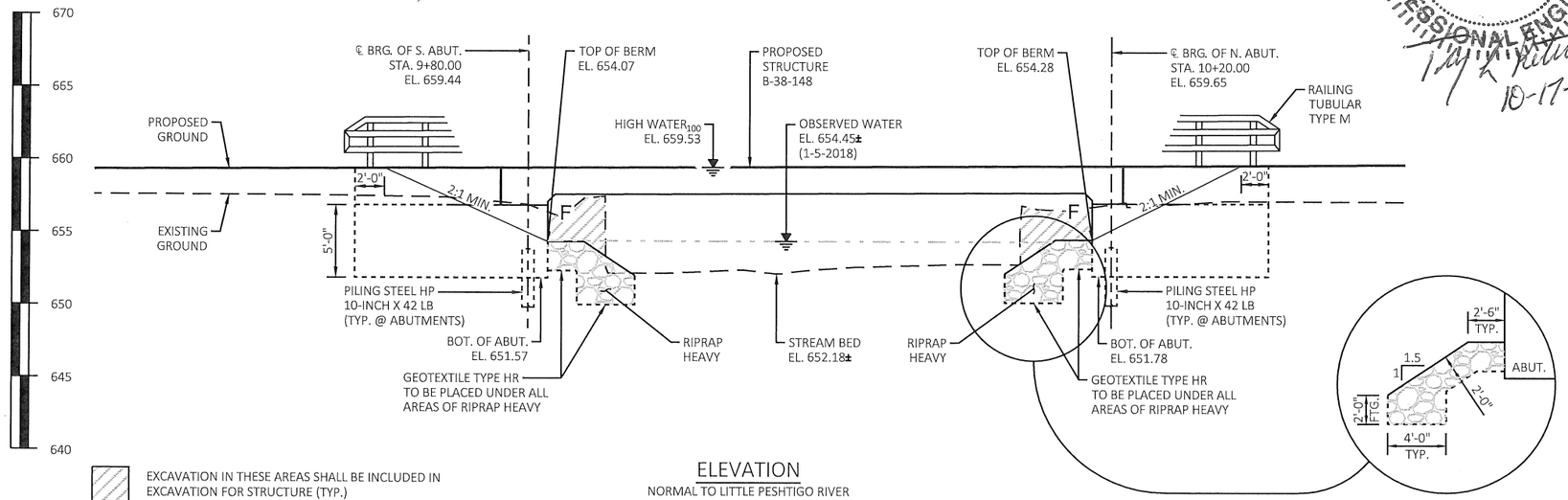
9246-09-71



PLAN

SINGLE SPAN - CONCRETE FLAT SLAB

INDICATES WING NUMBER



EXCAVATION IN THESE AREAS SHALL BE INCLUDED IN EXCAVATION FOR STRUCTURE (TYP.)

ELEVATION

NORMAL TO LITTLE PESHTIGO RIVER
(LOOKING UPSTREAM)

DESIGN DATA

STRUCTURE IS DESIGNED FOR FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

LIVE LOAD:

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF = 1.12
OPERATING RATING FACTOR	RF = 1.45
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY

SLAB	f'c = 4,000 PSI
ALL OTHER	f'c = 3,500 PSI
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 PSI

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100}	1200 C.F.S.
Q_{BRIDGE}	899.0 C.F.S.
Q_{RDWY}	301.0 C.F.S.
VEL.	5.64 F.P.S.
HW_{100}	EL. 659.53
WATERWAY AREA	159.3 SQ. FT.
DRAINAGE AREA	51.7 SQ. MI.
SCOUR CRITICAL CODE	8

2 YEAR FREQUENCY

Q_2 TOTAL	470 C.F.S.
VEL.	2.95 F.P.S.
HW_2	EL. 657.80

ROAD OVERTOPPING FREQUENCY

Q_{15}	790 C.F.S.
HW_{15}	EL. 658.77

TEMPORARY STRUCTURE

Q_2 TOTAL	470 C.F.S.
HW_2	EL. 658.51
WATERWAY AREA	73.30 SQ. FT.

TRAFFIC DATA

AADT (2019)	<100
AADT (2039)	<100
DESIGN SPEED	55 M.P.H.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10x42 DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED LENGTH 20'-0" NORTH ABUTMENT
ESTIMATED LENGTH 25'-0" SOUTH ABUTMENT

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

BENCHMARKS			
NO	STA.	DESCRIPTION	ELEV.
1	8+94±	R/R SPIKE IN BASE OF POWER POLE, 21' LT.	656.72
2	9+86±	CHISELED SQAURE IN S.W. ABUTMENT CORNER, 10' LT.	659.55
3	11+34±	R/R SPIKE IN BASE OF POWER POLE, 23' LT.	660.16

WISCONSIN
TROY L. PETERSON
E-31102
MENOMONIE
WI
PROFESSIONAL ENGINEER
10-17-19

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. ABUTMENT DETAILS
7. SUPERSTRUCTURE
8. SUPERSTRUCTURE DETAILS
9. RAILING TUBULAR TYPE M

BRIDGE OFFICE CONTACT
WILLIAM DREHER
(608) 266-8489

CONSULTANT CONTACT
TROY L. PETERSON
(715) 235-9081

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
Cedar corporation
www.cedarcorp.com 800-472-7372

ACCEPTED William C. Dreher SDR 10/17/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-38-148

NORTH 5TH ROAD OVER LITTLE PESHTIGO RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
MARINETTE	POUND

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TLP	GMW	NJT	TLP

GENERAL PLAN

SHEET 1 OF 9

36

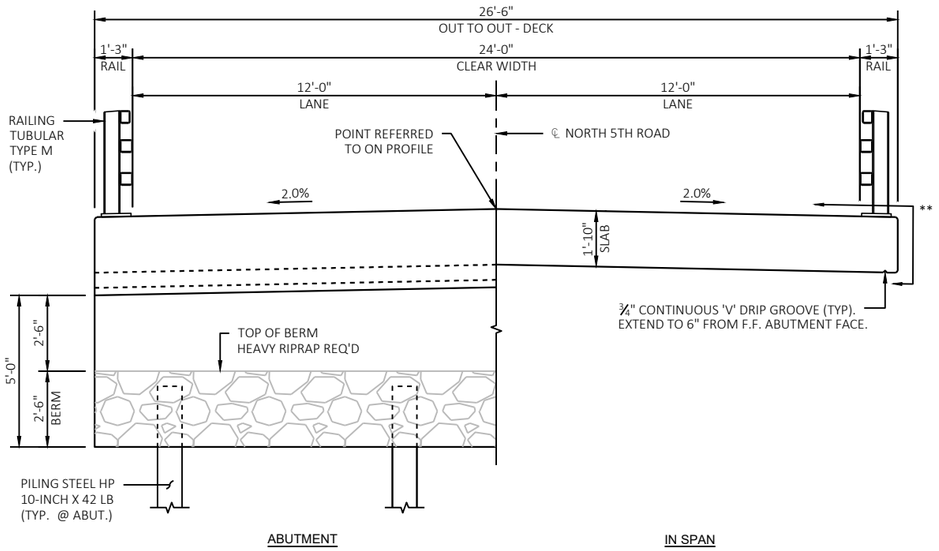
I.D. 9246-09-71

DATE: May 19

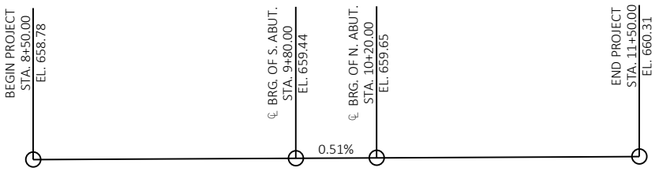
SCALE = 1:1

8

8



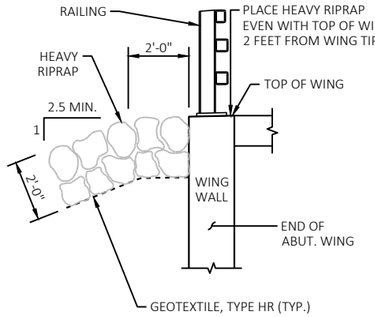
CROSS SECTION THRU STRUCTURE



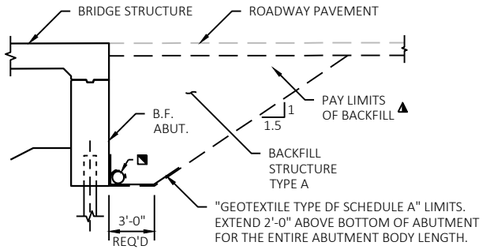
PROPOSED GRADE ON NORTH 5TH ROAD

TOTAL ESTIMATED QUANTITIES

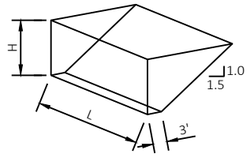
ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA 10+00	LS	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-38-148	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	130.0	130.0	-	260.0
502.0100	CONCRETE MASONRY BRIDGES	CY	28.5	28.5	81.0	138.0
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	155	155
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1570	1570	-	3140
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1380	1380	15270	18030
513.4061	RAILING TUBULAR TYPE M	LF	-	-	130	130
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	9	-	18
526.0100	TEMPORARY STRUCTURE 10+00.00	LS	-	-	-	1
550.0500	PILE POINTS	EACH	4	4	-	8
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	100	80	-	180
606.0300	RIPRAP HEAVY	CY	45	50	-	95
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	80	-	160
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	25	25	-	50
645.0120	GEOTEXTILE TYPE HR	SY	90	100	-	190
SPV.0090.01	FLASHING STAINLESS STEEL	LF	-	-	85	85
	NON-BID ITEMS					
	FILLER	SIZE	-	-	-	½" X ¾"



TYPICAL FILL SECTION AT WING TIPS

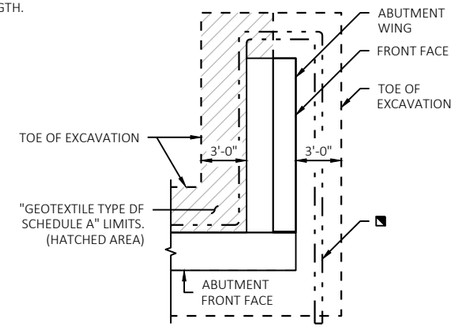


STRUCTURE BACKFILL & LIMITS

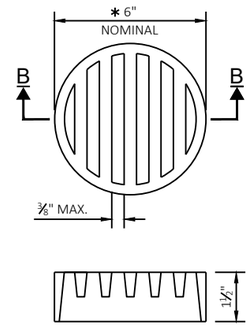


ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS & 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)



ABUTMENT PLAN WITH WING

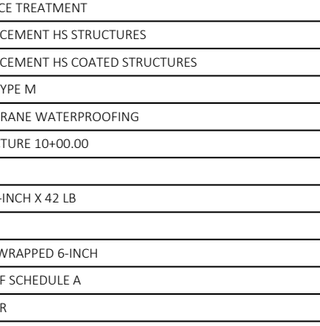


RODENT SHIELD DETAIL

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

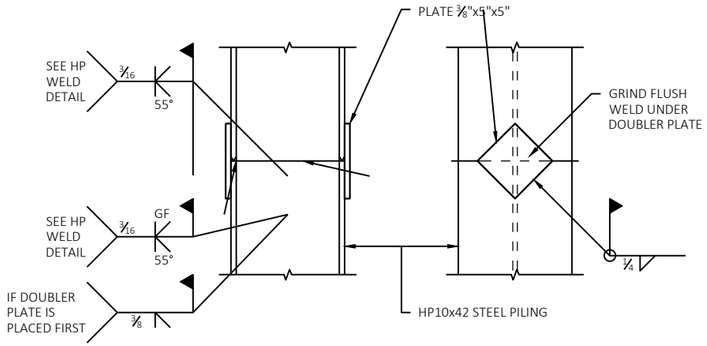
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



PILE SPLICE DETAILS

STATE PROJECT NUMBER

9246-09-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ALL ELEVATIONS ARE IN FEET.

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

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK 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 SHEETS 1 AND 2 AND IN THE ABUTMENT DETAILS.

THE EXISTING STRUCTURE (P-38-100) IS A 26.6' LONG BY 14.0' CLEAR WIDTH SINGLE SPAN STEEL DECK GIRDER BRIDGE.

** PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP AND EDGES OF THE SLAB AND TO THE OUTSIDE 1'-0" OF THE UNDERSIDE OF THE SLAB.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-38-148" SHALL BE THE EXISTING GRADE LINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

AT ABUTMENTS, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

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

▲ 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

CROSS SECTION & QUANTITIES

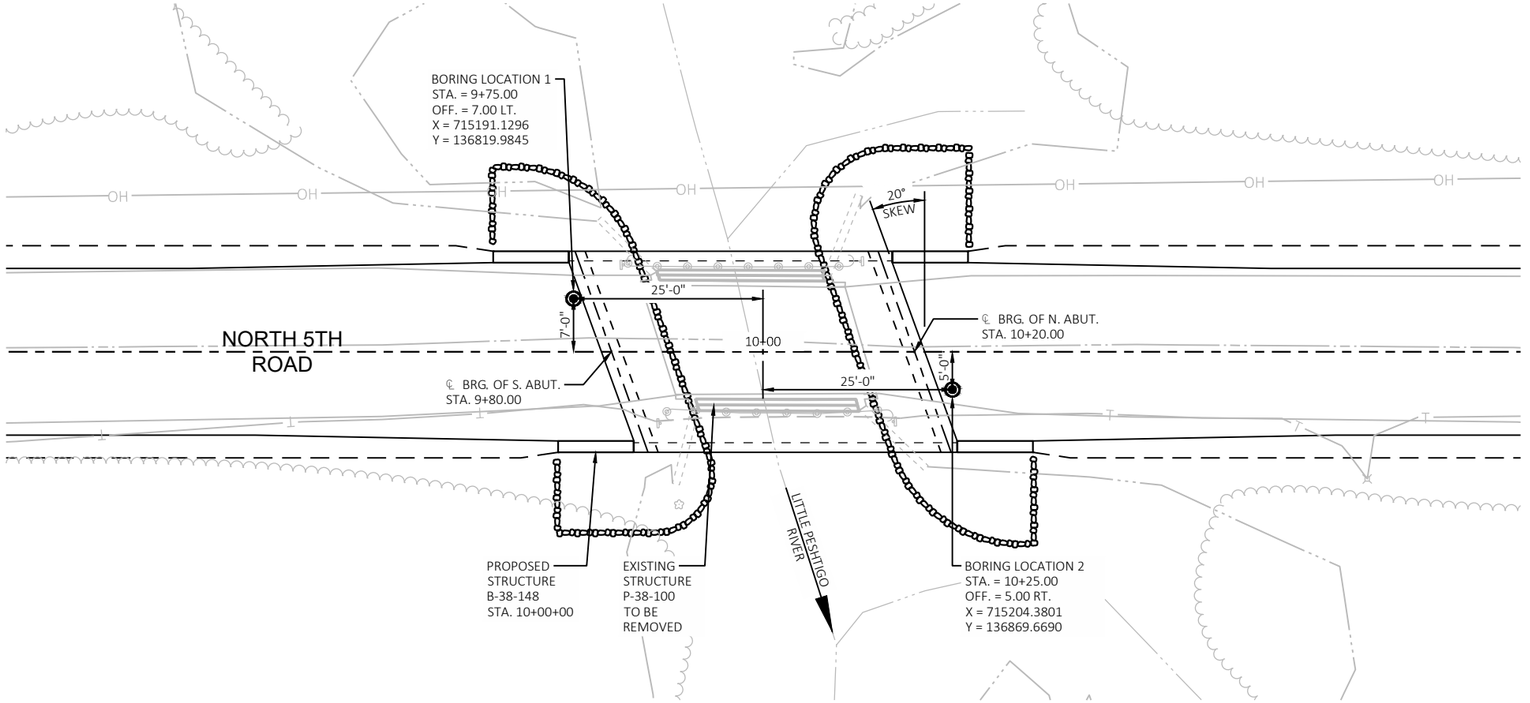
SHEET 2 OF 9

37

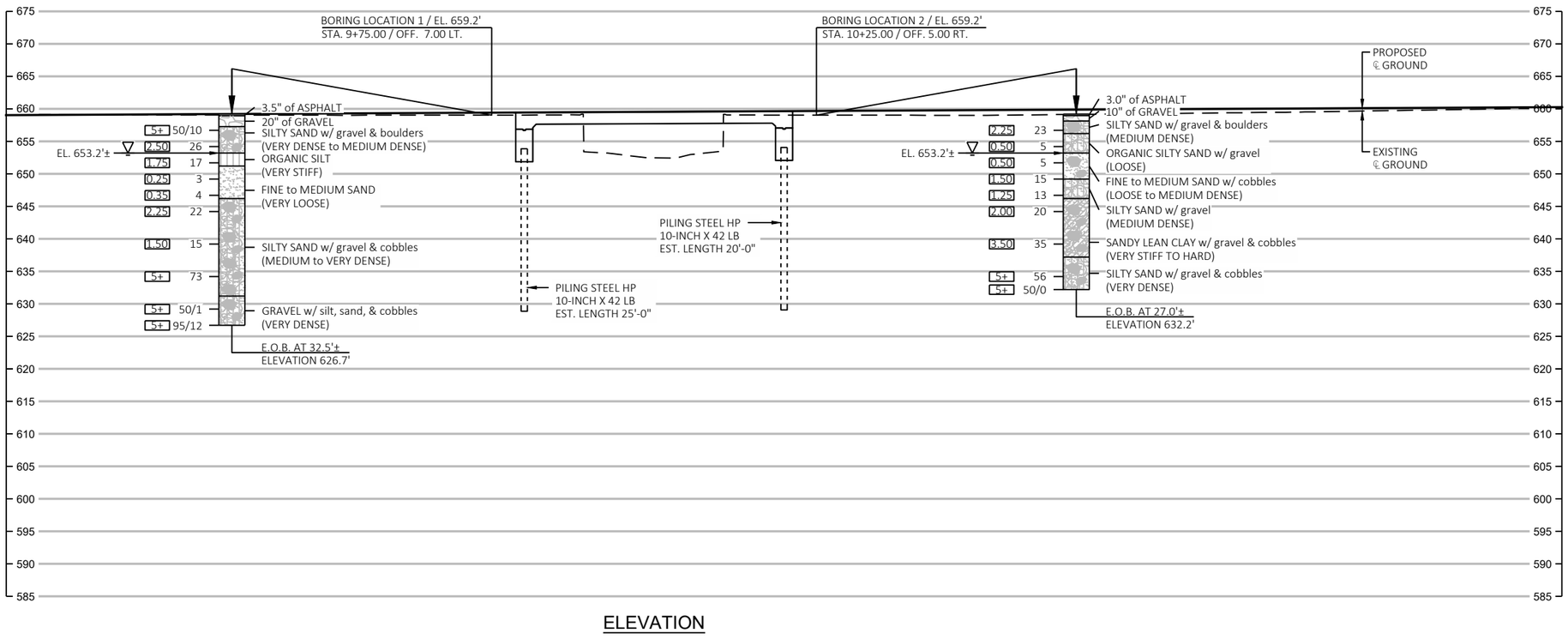
SCALE = 1:1

8

8



PLAN



ELEVATION

SUBSURFACE NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORINGS & REPORT COMPLETED BY:

ECS MIDWEST, LLC.
1060 BREEZEWOOD LANE
SUITE 102
NEENAH, WI 54956
(920) 886-1406

BORINGS PERFORMED ON:
01/25/2018 - B1 & B2

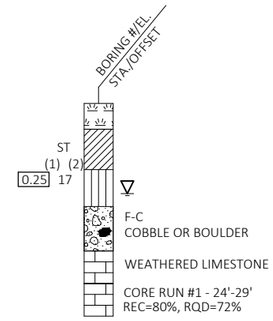
STATE PROJECT NUMBER

9246-09-71

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

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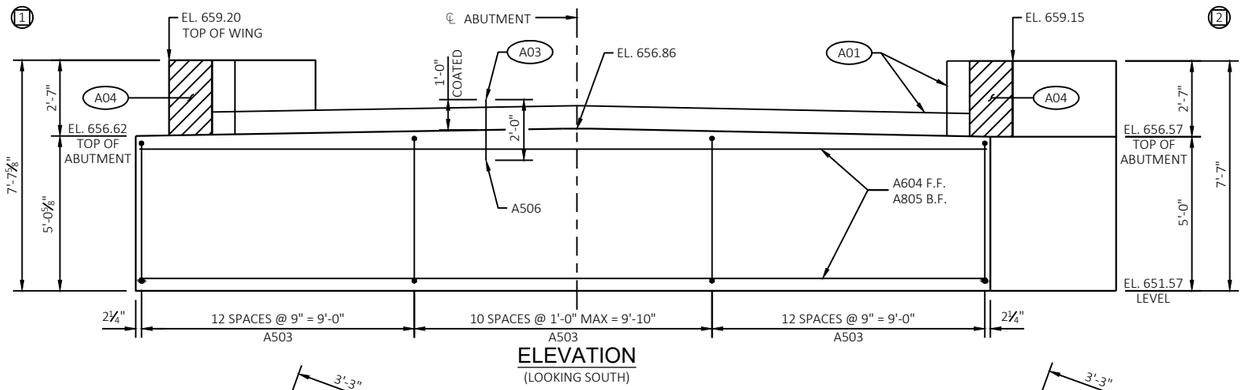
SUBSURFACE EXPLORATION

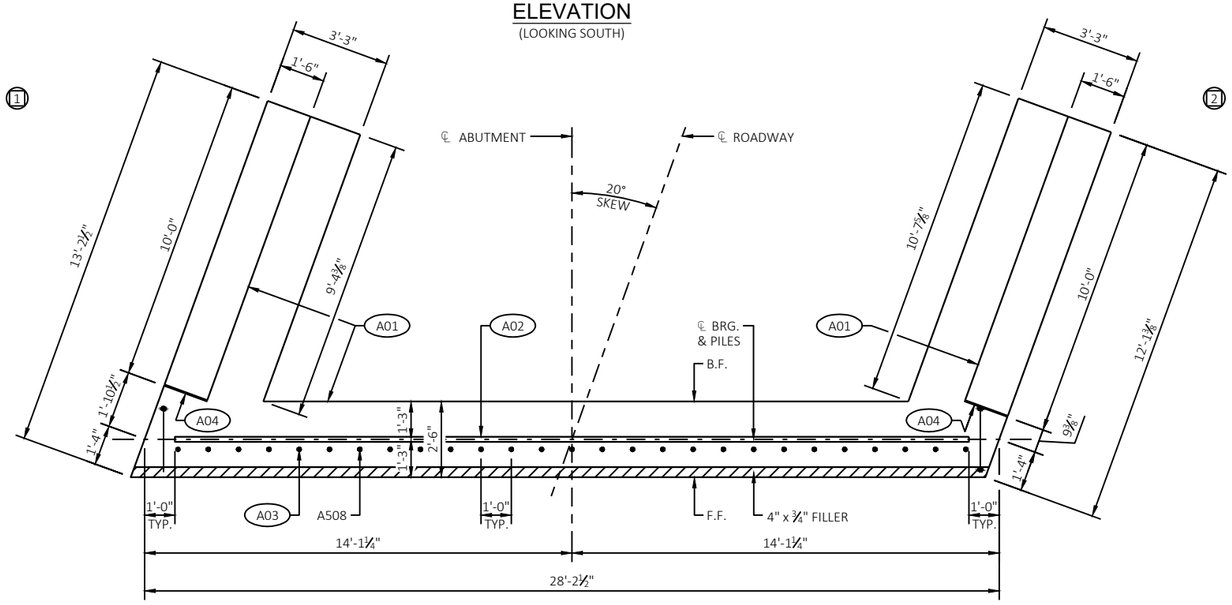
SHEET 3 OF 9

38

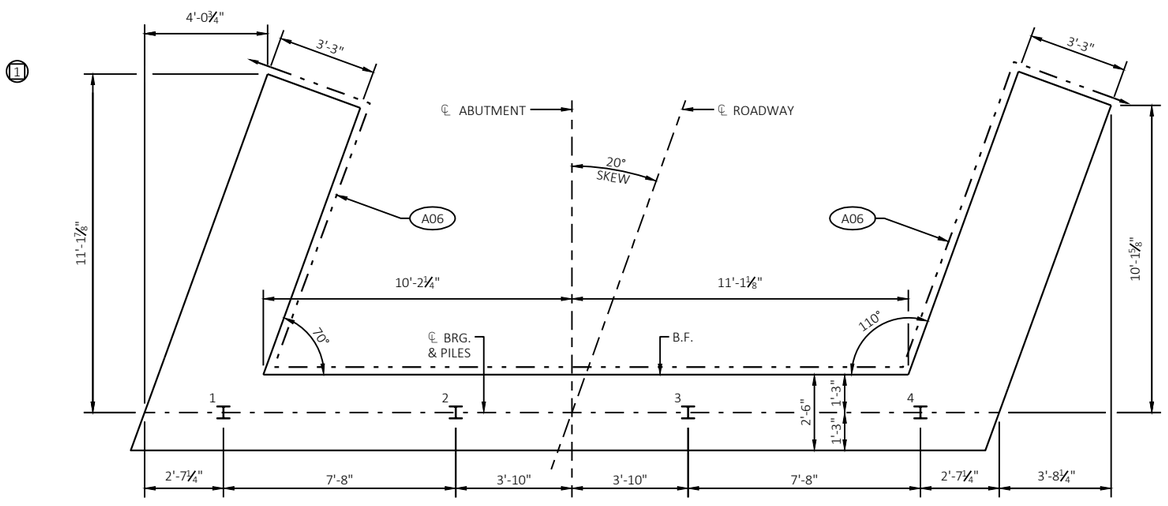
SCALE = 1:1



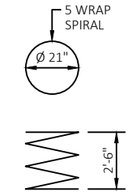
ELEVATION
(LOOKING SOUTH)



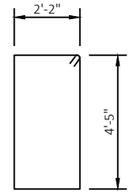
PLAN



PILE PLAN



A401



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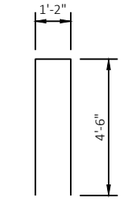

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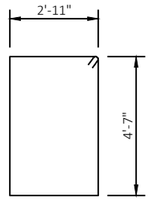

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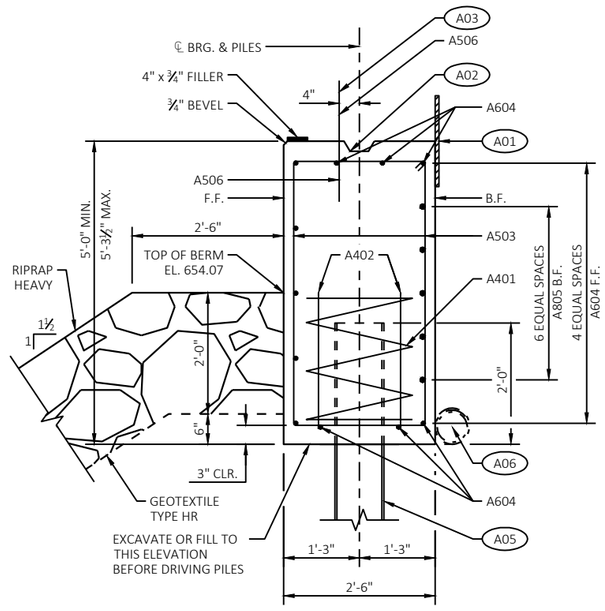


SECTION THRU BODY

STATE PROJECT NUMBER

9246-09-71

BILL OF BARS

1570# UNCOATED 1380# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		4	28'-0"	X		BODY - ONE PER PILE
A402		8	2'-3"			BODY - TWO PER PILE
A503		35	13'-9"	X		BODY - STIRRUPS
A604		11	27'-10"			BODY - HORIZ.
A805		7	27'-10"			BODY - HORIZ. B.F.
A506	X	27	2'-0"			BODY - VERT. DOWELS
A607	X	4	9'-8"			WING 1 & 2 - HORIZ. TOP
A408	X	10	9'-8"			WING 1 & 2 - HORIZ.
A609	X	28	9'-10"	X		WING 1 & 2 - VERT. TOP
A510	X	22	15'-6"	X		WING 1 & 2 - VERT. BASE
A511	X	6	12'-2"			WING 1 BASE HORIZ. F.F.
A512	X	6	11'-9"			WING 2 BASE HORIZ. F.F.
A613	X	6	11'-3"			WING 1 BASE HORIZ. B.F. & TOP
A614	X	6	12'-6"			WING 2 BASE HORIZ. B.F. & TOP
A615	X	2	12'-1"			WING 1 BASE HORIZ. TOP
A616	X	2	11'-9"			WING 2 BASE HORIZ. TOP

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

- ① INDICATES WING NUMBER
- A01 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- A02 KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
- A03 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- A04 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). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A05 STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. FORMULA ESTIMATED LENGTH 25'-0".
- A06 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

SOUTH ABUTMENT

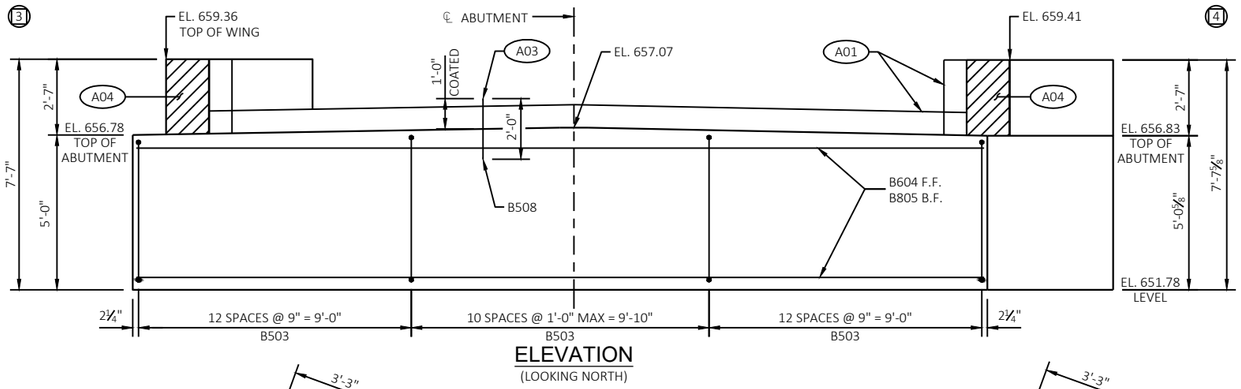
SHEET 4 OF 9

39

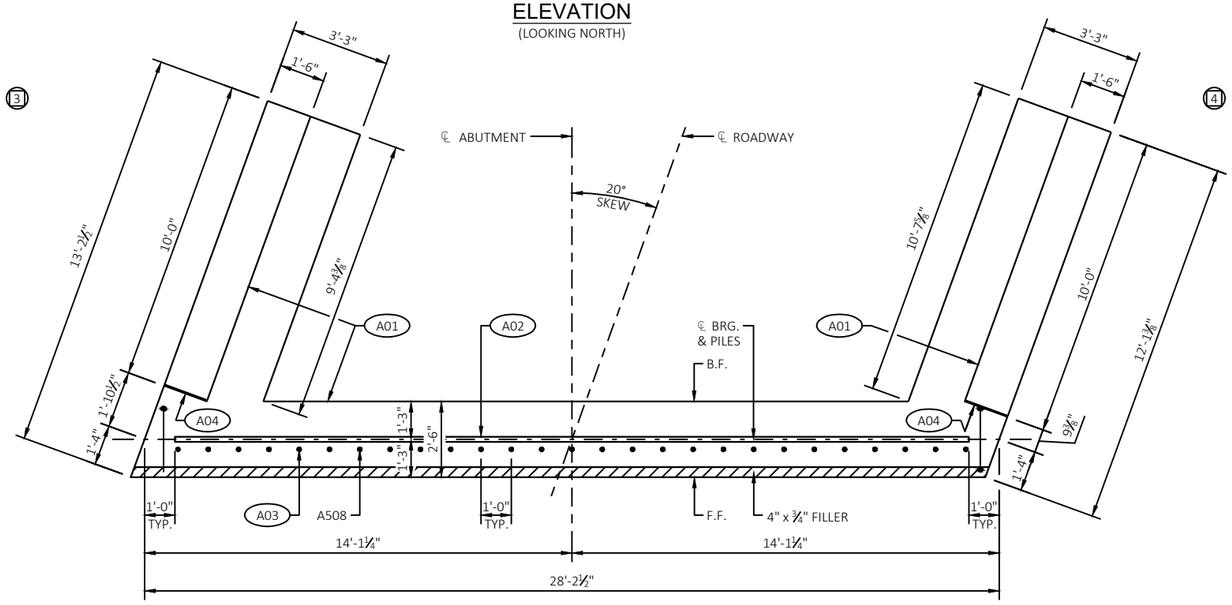
SCALE = 1:1

8

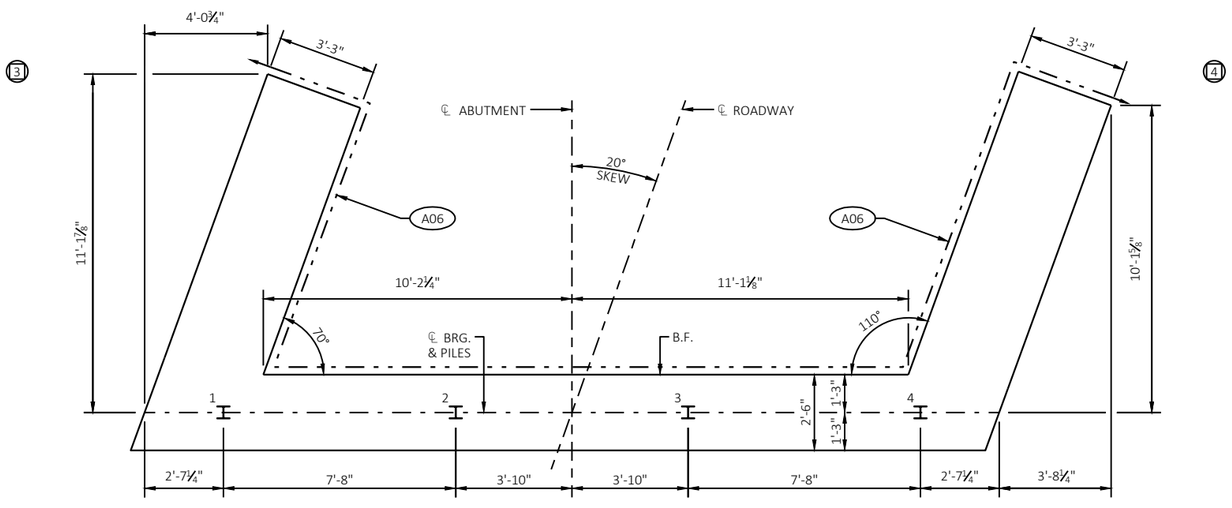
8



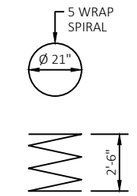
ELEVATION
(LOOKING NORTH)



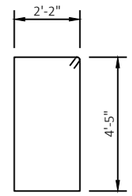
PLAN



PILE PLAN



B401



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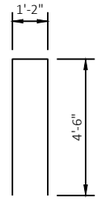

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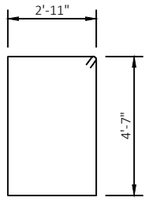

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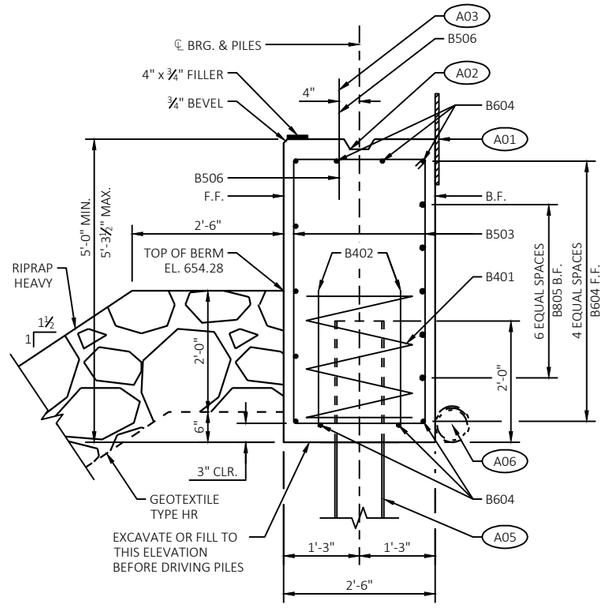

SECTION THRU BODY

STATE PROJECT NUMBER

9246-09-71

BILL OF BARS

1570# UNCOATED 1380# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401		4	28'-0"	X		BODY - ONE PER PILE
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B607	X	4	9'-8"			WING 3 & 4 - HORIZ. TOP
B408	X	10	9'-8"			WING 3 & 4 - HORIZ.
B609	X	28	9'-10"	X		WING 3 & 4 - VERT. TOP
B510	X	22	15'-6"	X		WING 3 & 4 - VERT. BASE
B511	X	6	12'-2"			WING 3 BASE HORIZ. F.F.
B512	X	6	11'-9"			WING 4 BASE HORIZ. F.F.
B613	X	6	11'-3"			WING 3 BASE HORIZ. B.F. & TOP
B614	X	6	12'-6"			WING 4 BASE HORIZ. B.F. & TOP
B615	X	2	12'-1"			WING 3 BASE HORIZ. TOP
B616	X	2	11'-9"			WING 4 BASE HORIZ. TOP

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

- (3) (4) INDICATES WING NUMBER
- A01 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- A02 KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
- A03 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- A04 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). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A05 STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. FORMULA ESTIMATED LENGTH 20'-0".
- A06 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

NORTH ABUTMENT

SHEET 5 OF 9

40

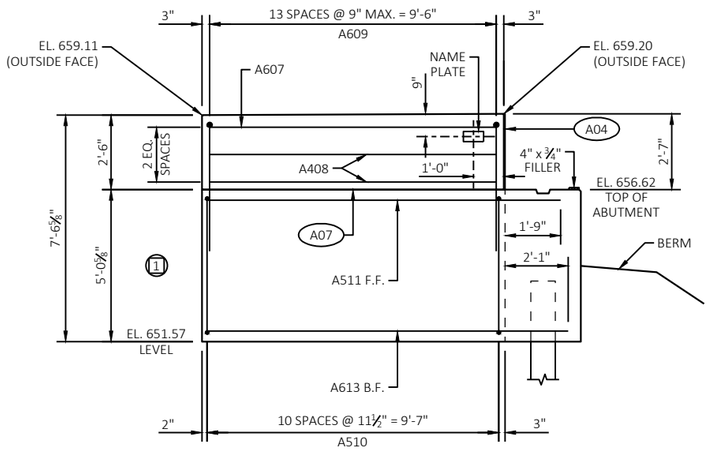
SCALE = 1:1

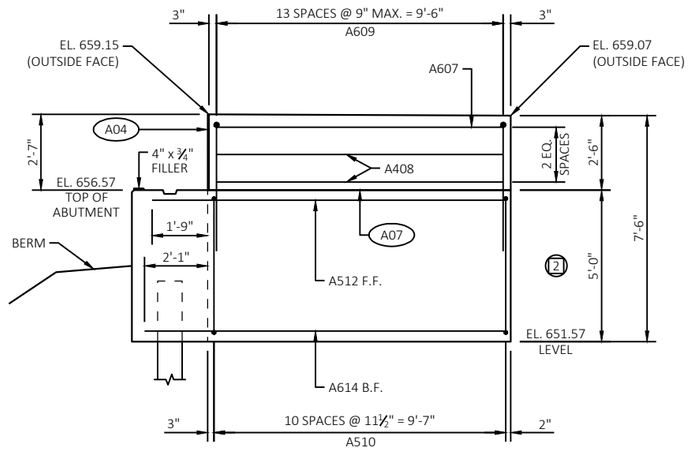
8

8

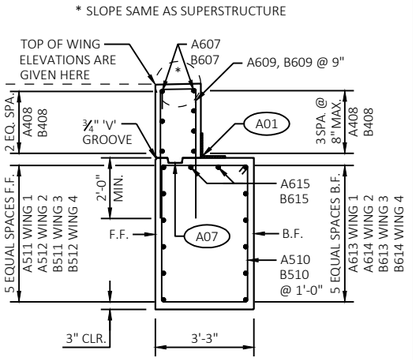
STATE PROJECT NUMBER

9246-09-71

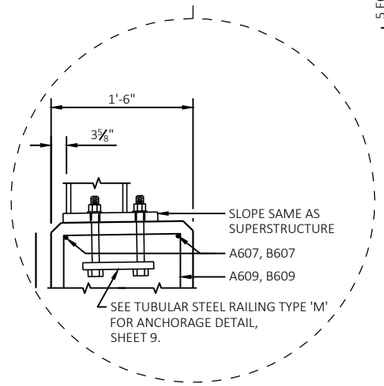




SOUTH ABUTMENT WINGS

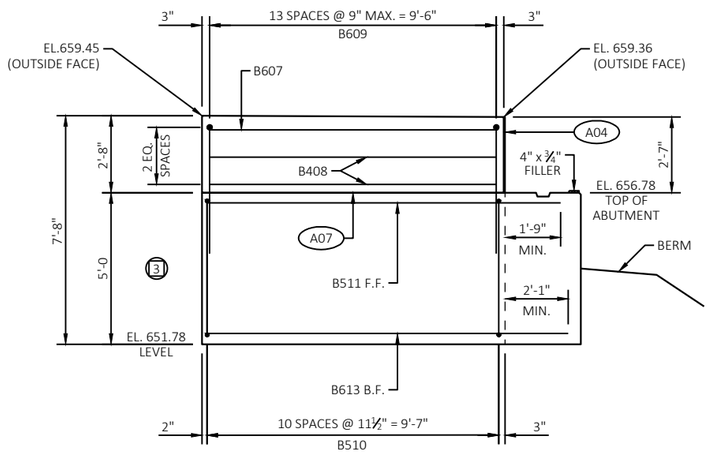


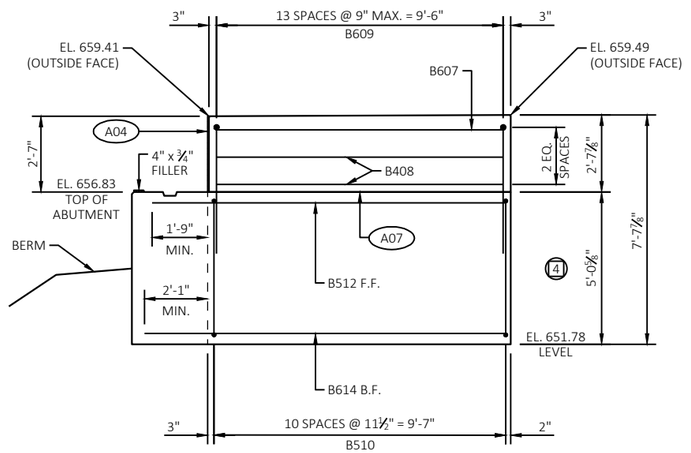
TYPICAL SECTION THRU WINGS



*SPACE A607 & B607 BARS TO MISS ANCHORS FOR RAIL POSTS

SECTION AT TOP OF WING





NORTH ABUTMENT WINGS

NOTE: B.F. = BACK FACE
F.F. = FRONT FACE

LEGEND

⬭	INDICATES WING NUMBER
A01	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
A04	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). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
A07	OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6. (18" R.M.W. AT B.F. AND 3/4" 'V' GROOVE AT F.F. OF WING WALL IF JOINT IS USED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

ABUTMENT DETAILS

SHEET 6 OF 9

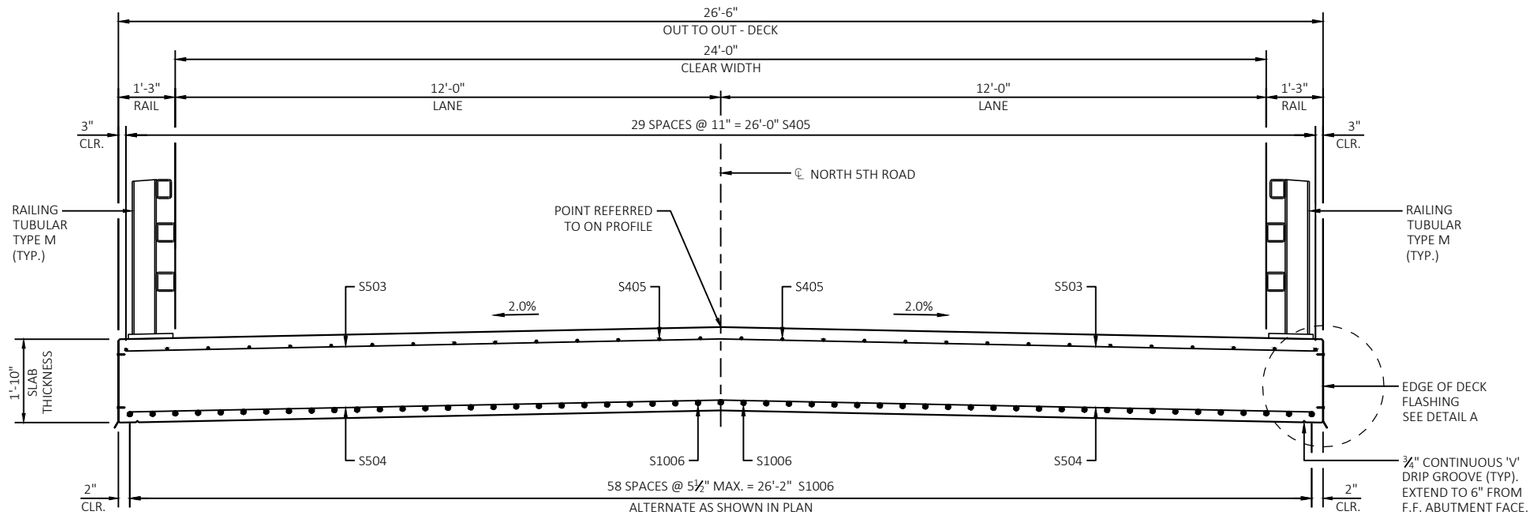
41

SCALE = 1:1

8

8

STATE PROJECT NUMBER
9246-09-71



CROSS SECTION THRU ROADWAY

BILL OF BARS

15270# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	58	4'-8"	X		AT END OF DECK
S502	X	58	3'-8"	X		AT END OF DECK
S503	X	50	27'-10"			SLAB, TOP, TRANSVERSE
S504	X	61	27'-10"			SLAB, BOTTOM, TRANSVERSE
S405	X	30	42'-4"			SLAB, TOP, LONGITUDINAL
S1006	X	59	37'-8"			SLAB, BOTTOM, LONGITUDINAL
S607	X	24	12'-0"	X		AT INTERIOR RAIL POSTS
S608	X	16	5'-0"	X		AT END RAIL POSTS
S609	X	48	6'-0"	X		AT INTERIOR RAIL POSTS
S610	X	8	12'-0"	X		AT END RAIL POSTS

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

GENERAL NOTES

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

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

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTIONS ONLY EQUAL APPROXIMATELY 1/3 OF CAMBER VALUES SHOWN.

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

DECK FLASHING NOTES

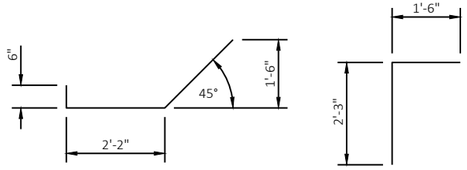
THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK AND 3/16" CONCRETE SCREWS.

FLASHING SHALL BE INSTALLED AFTER PROTECTIVE SURFACE TREATMENT APPLICATION.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

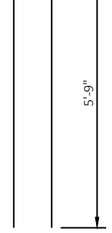
EXTEND FLASHING TO BACK FACE OF ABUTMENT DIAPHRAGM.

TOP OF FLASHING TO BEING APPROXIMATELY 1-INCH BELOW TOP OF DECK/SLAB SURFACE.

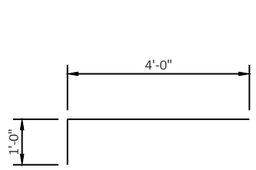


S501

S502



S607



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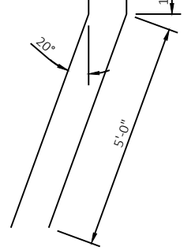
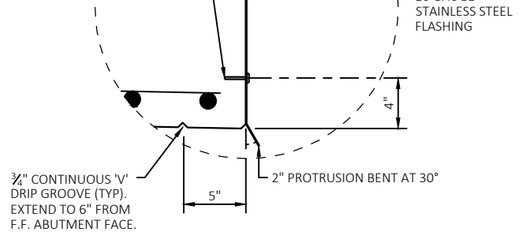


S610



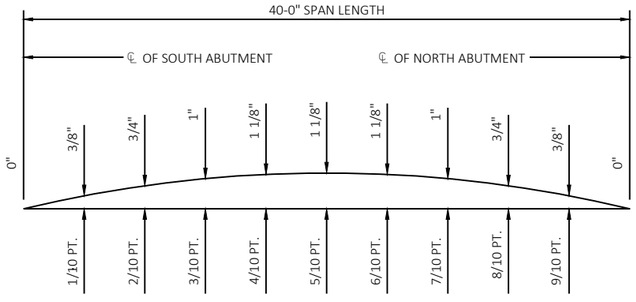
DETAIL A

RAILING NOT SHOWN FOR CLARITY

TOP OF DECK ELEVATIONS

LOCATION	SOUTH ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	NORTH ABUT.
WEST EDGE OF DECK	659.15	659.17	659.19	659.21	659.23	659.26	659.28	659.30	659.32	659.34	659.36
℄ OF BRIDGE DECK	659.44	659.46	659.48	659.50	659.52	659.55	659.57	659.59	659.61	659.63	659.65
EAST EDGE OF DECK	659.20	659.22	659.24	659.26	659.28	659.31	659.33	659.35	659.37	659.39	659.41

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



CAMBER DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE

SHEET 7 OF 9

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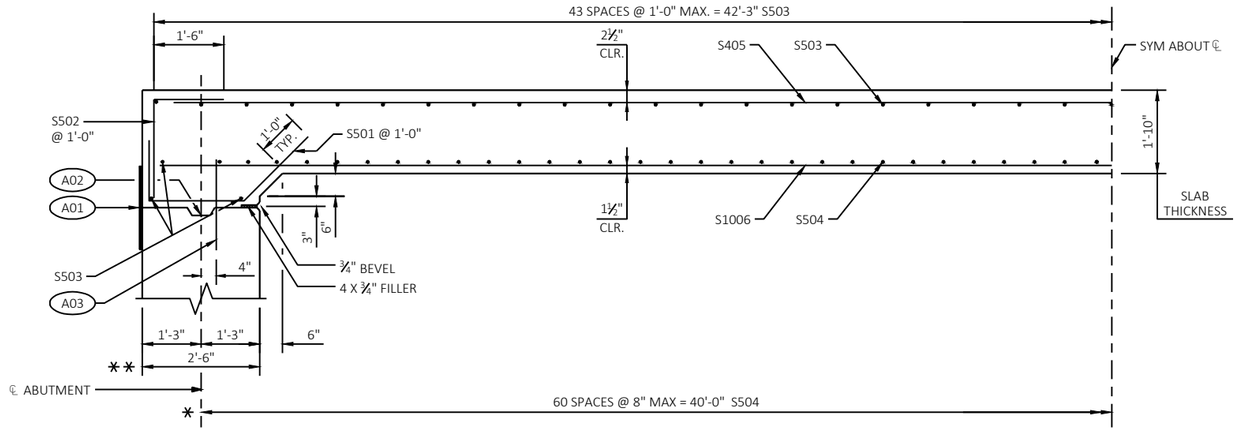
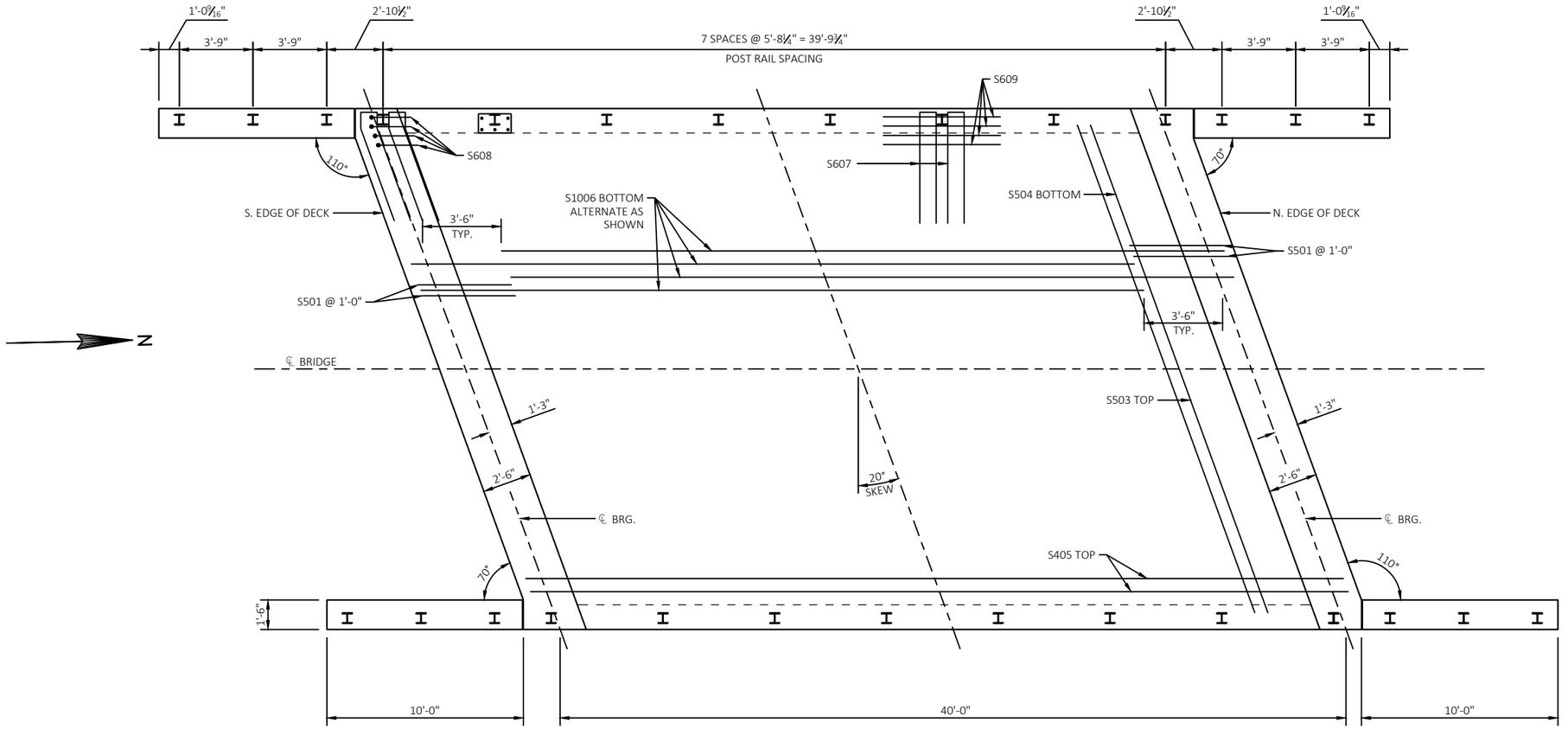
SCALE = 1:1

STATE PROJECT NUMBER

9246-09-71



PART LONGITUDINAL SECTION



PLAN

LEGEND

A01	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
A02	KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
A03	BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

SUPERSTRUCTURE DETAILS

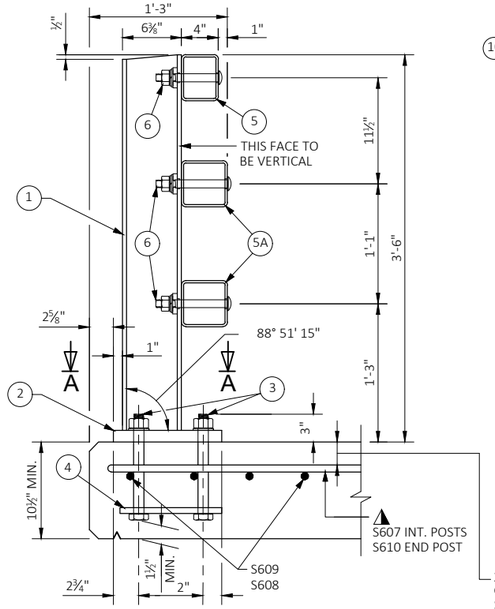
SHEET 8 OF 9

43

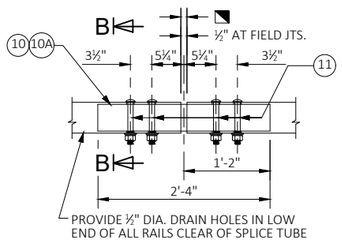
SCALE = 1:1

8

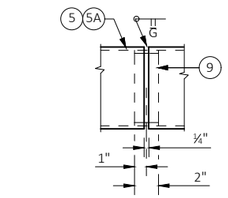
8



SECTION THRU RAILING ON DECK

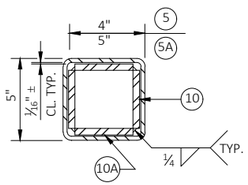


FIELD ERECTION JOINT DETAIL

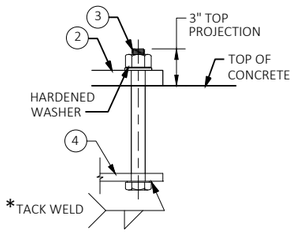


SHOP RAIL SPLICE DETAIL

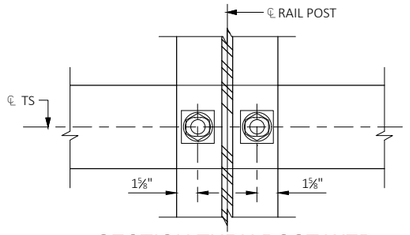
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



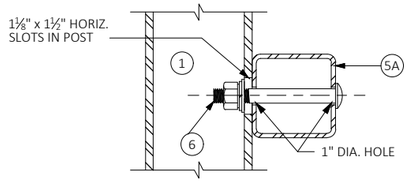
SECTION B-B



ANCHOR BOLTS



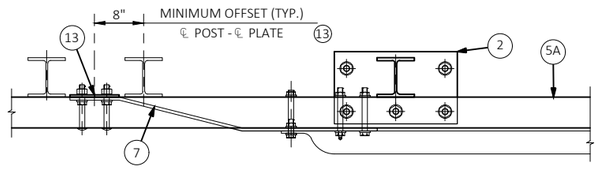
SECTION THRU POST WEB



SECTION THRU RAIL

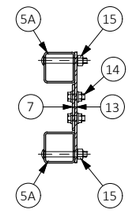
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

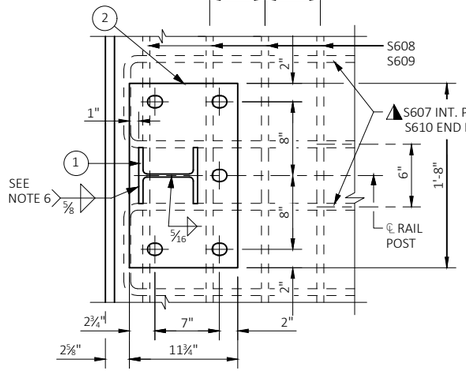


TOP VIEW AT END POST

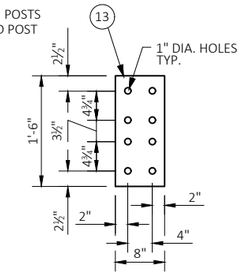
THRIE BEAM RAIL ATTACHMENT



SECTION C-C

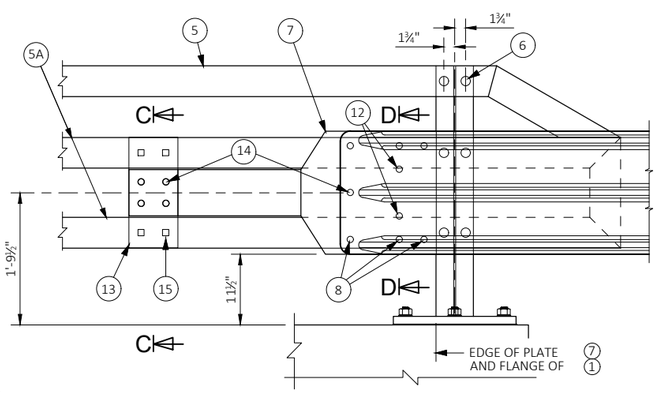


SECTION A-A



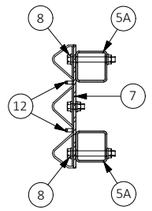
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

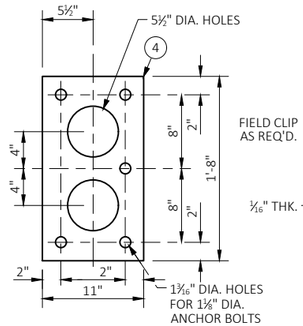


DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT

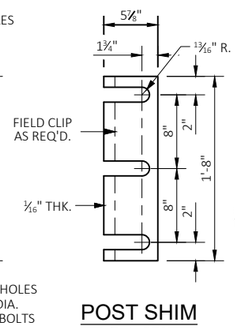


SECTION D-D

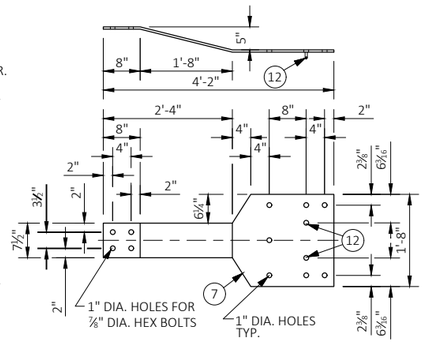


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

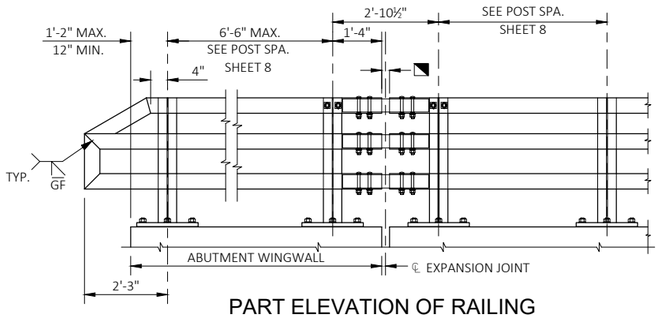


POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

STATE PROJECT NUMBER

9246-09-71

LEGEND

1. W6 x 25 WITH 1⅛" x 1½" 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 1¼" x 11¾" x 1'-8" WITH 1¾16" x 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
3. ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" & 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 10¾" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
4. ¾" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1¾16" 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. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3⁄16" x 1⅝" x 1⅜" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THICK BACK-UP PLATE WITH 2 - ⅞" x 1¾" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" x 3⅝" x 2' - 4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" x 2⅝" x 2' - 4" PLATE USED IN NO. 5, ⅜" x 3⅜" x 2' - 4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15⁄16" x 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15⁄16" x 2½" MIN. LONGITUDINAL SLOTTED HOLES AT EXPOSED JOINTS IN PLATE NO. 10A.
12. ⅞" DIA. x 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-38-148" 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 ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

◭ TIE TO TOP MAT OF STEEL.

* FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

◥ RDWY. OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT & ½" OPENING FOR A1 ABUTMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-38-148

DRAWN BY NJT | PLANS CK'D. TLP

RAILING TUBULAR TYPE M

SHEET 9 OF 9

44

SCALE = 1:1

NORTH 5TH ROAD - INCREMENTAL VOLUME

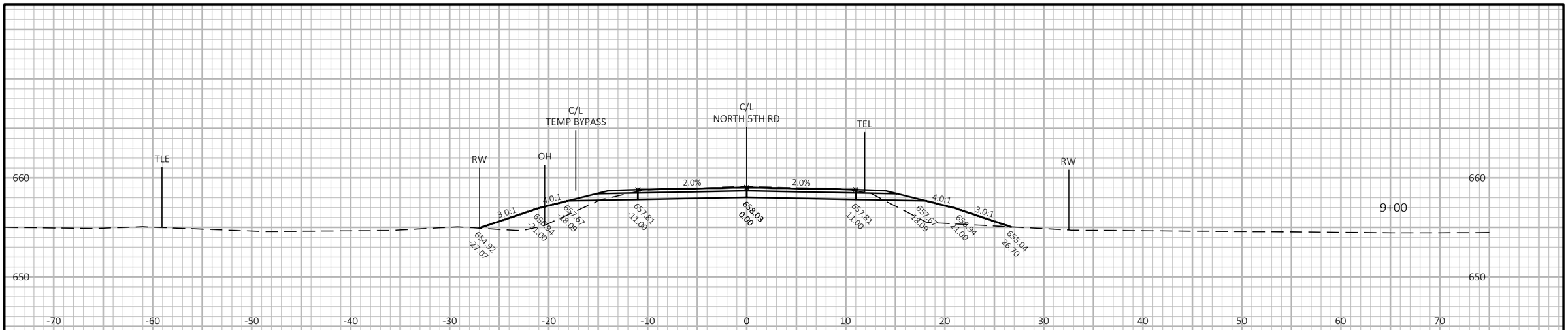
		END AREA			COMMON				FILL		
STATION	DISTANCE FT	COMMON SF	FILL SF	SALVAGED/UNUSABLE PAVEMENT MATERIAL SF (1)	RAW CY	1.0 ADJ CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY (2)	RAW CY	1.3 ADJ CY	MASS HAUL CY (3)
8+50		20.3	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9+00	50	26.0	28.6	5.0	42.8	42.8	9.3	33.6	26.5	34.4	-0.9
9+50	50	18.1	30.7	5.0	40.8	40.8	9.3	31.6	54.9	71.4	-39.8
9+79	29	18.1	30.7	5.0	19.4	19.4	5.4	14.1	33.0	42.9	-28.8
BRIDGE GAP											
10+21		5.7	47.6	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+50	29	5.7	47.6	5.0	6.1	6.1	5.4	0.8	51.1	66.5	-65.7
11+00	50	12.5	34.8	5.0	16.9	16.9	9.3	7.6	76.3	99.2	-91.6
11+50	50	19.9	0.0	5.0	30.0	30.0	9.3	20.7	32.2	41.9	-21.1
				COLUMN TOTALS		156.1	47.8	108.3	274.0	356.2	-247.9

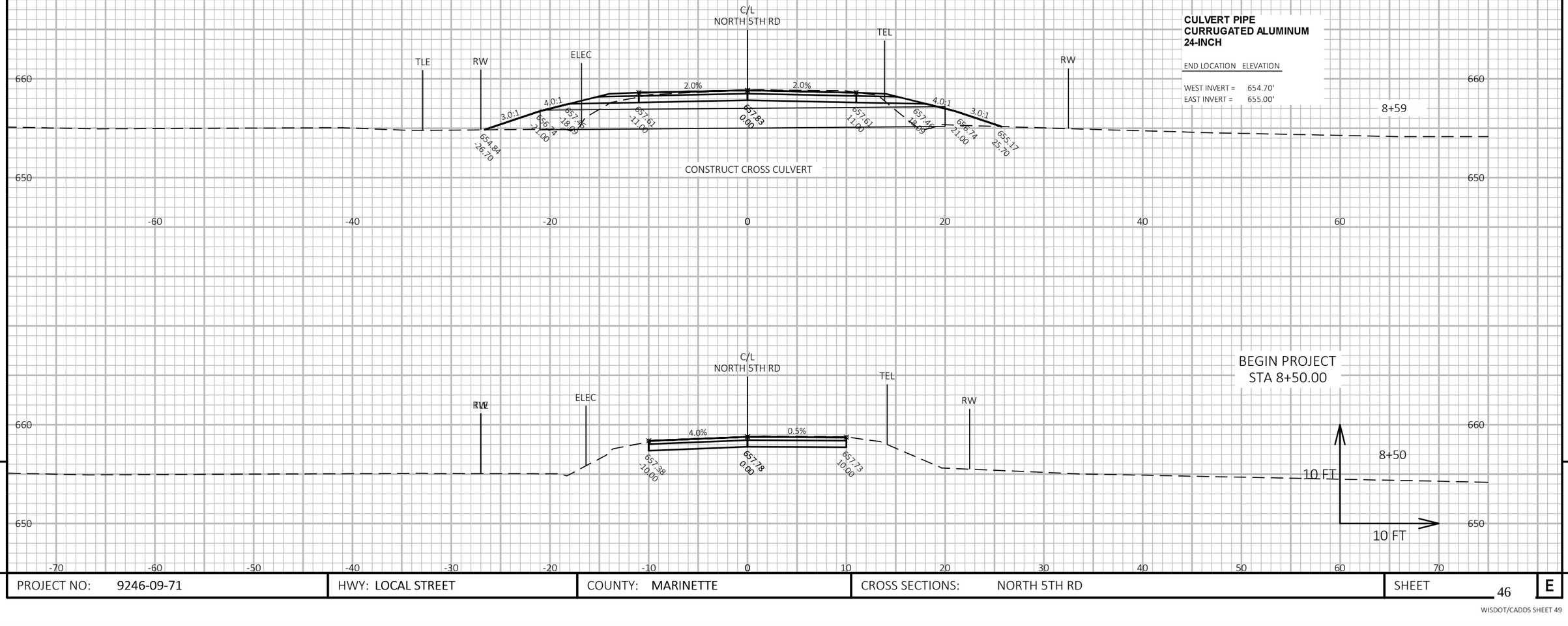
1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON.
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) THE MASS HAUL = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.

TEMPORARY BYPASS - INCREMENTAL VOLUME

		END AREA			COMMON				FILL		
STATION	DISTANCE FT	COMMON SF (4)	FILL SF	SALVAGED/UNUSABLE PAVEMENT MATERIAL SF (1)	RAW CY	1.0 ADJ CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL CY (2)	RAW CY	1.3 ADJ CY	MASS HAUL CY (3)
100+41		60.3	50.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
100+50	9	60.3	50.3	0.0	20.1	20.1	0.0	20.1	16.8	21.8	
101+00	50	88.0	78.0	0.0	137.3	137.3	0.0	137.3	118.8	154.4	
101+38	38	88.0	78.0	0.0	123.9	123.9	0.0	123.9	109.8	142.7	
TEMPORARY STRUCTURE GAP											
101+67		73.5	63.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
102+00	33	73.5	63.5	0.0	89.8	89.8	0.0	89.8	77.6	100.9	
102+50	50	92.2	82.2	0.0	153.4	153.4	0.0	153.4	134.9	175.4	
102+86	36	92.2	82.2	0.0	122.9	122.9	0.0	122.9	109.6	142.5	
				COLUMN TOTALS		647.5	0.0	647.5	567.5	737.7	0.0

1) **NO** SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON.
2) AVAILABLE MATERIAL = CUT MINUS THE SALVAGED/UNUSABLE PAVEMENT MATERIAL
3) THE MASS HAUL = A + OR - QUANTITY CALCULATED FOR THE DIVISON. A POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL.
4) COMMON IS REMOVAL OF FILL PLUS BASE AGGREGATE PLACED FOR TEMPORARY BYPASS.





CULVERT PIPE
CURRUGATED ALUMINUM
24-INCH

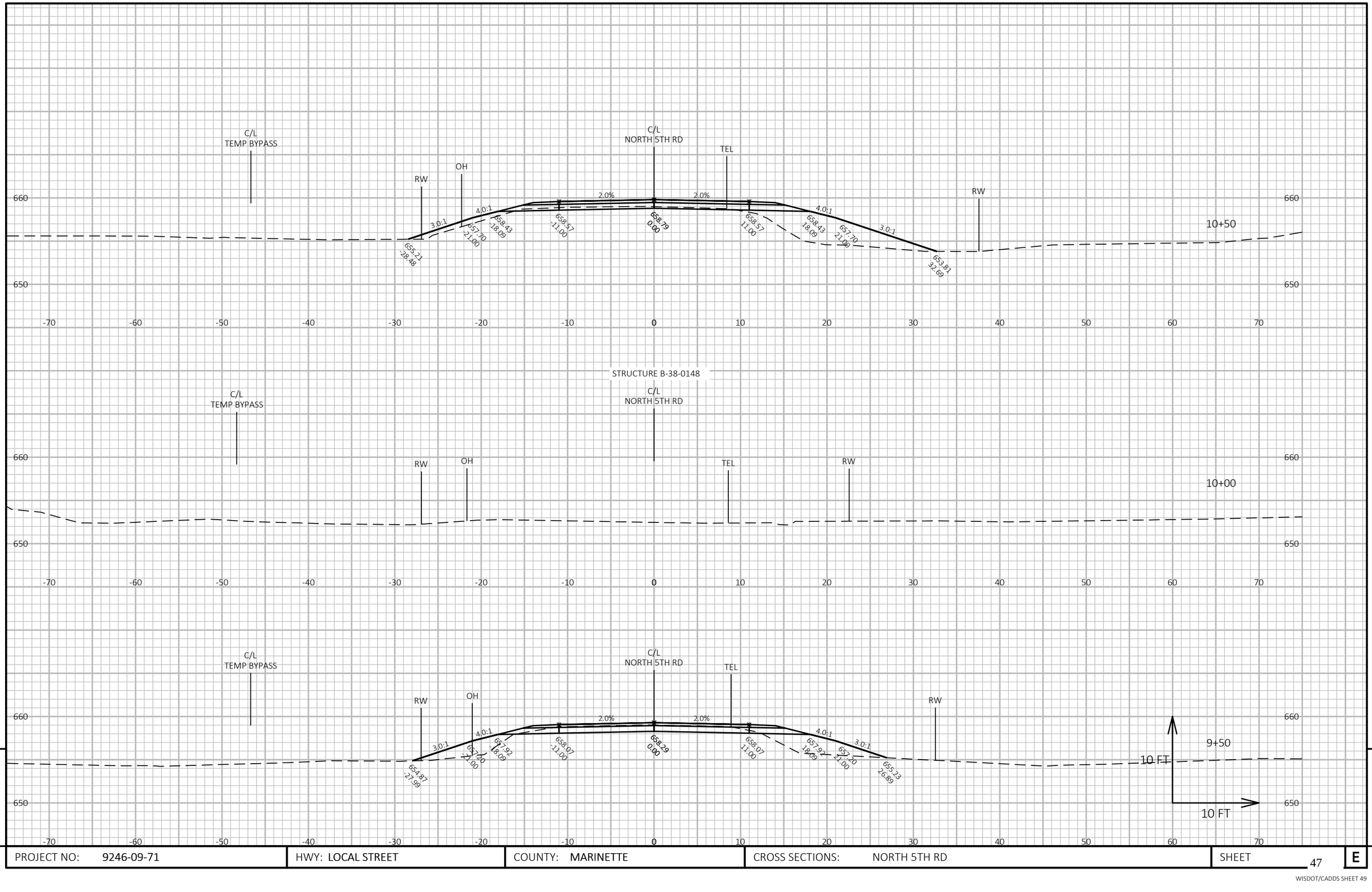
END LOCATION	ELEVATION
WEST INVERT =	654.70'
EAST INVERT =	655.00'

9

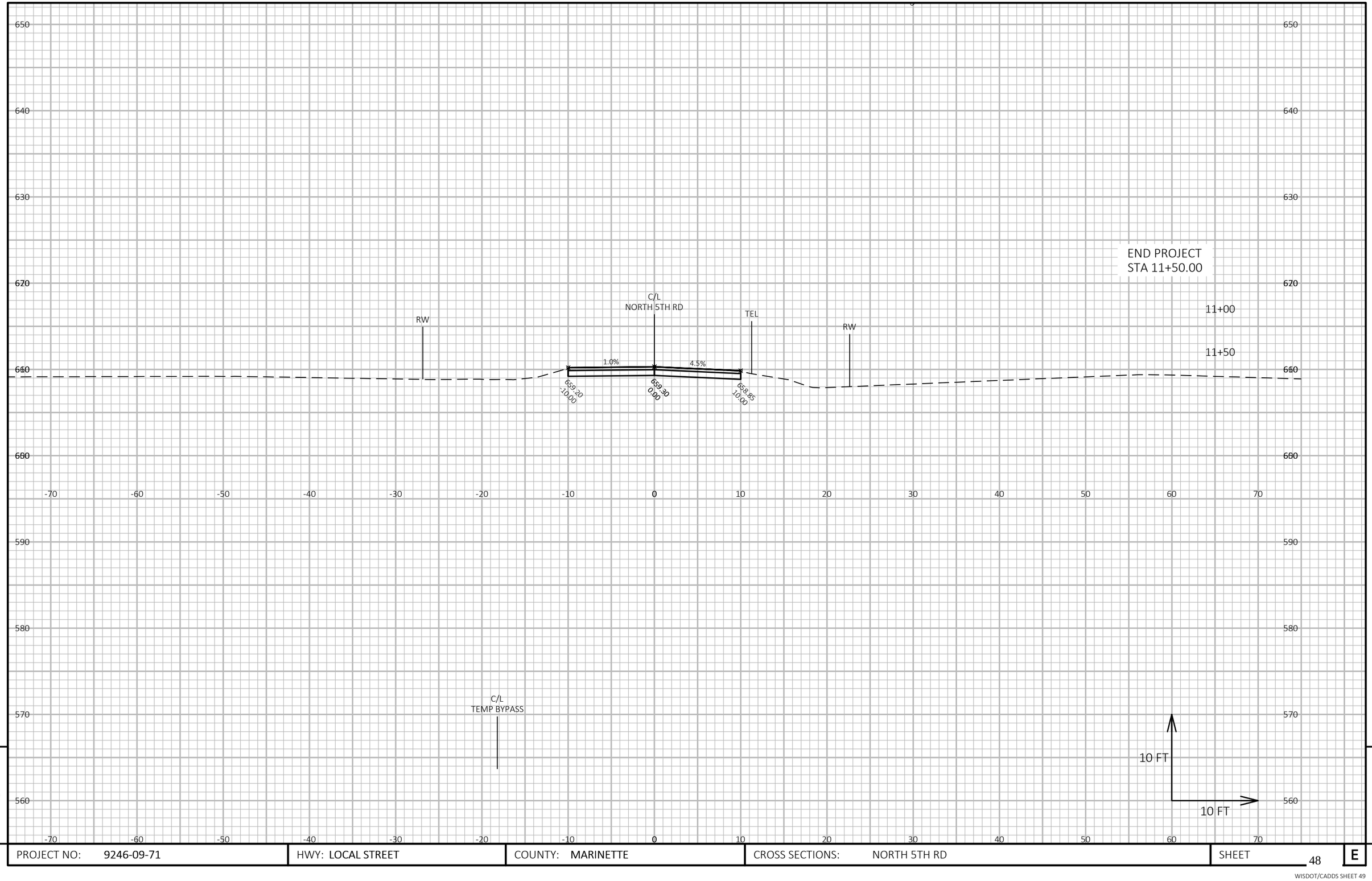
9

PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: NORTH 5TH RD	SHEET 46	E

WISDOT/CADDS SHEET 49



PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: NORTH 5TH RD	SHEET 47	E



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PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: NORTH 5TH RD	SHEET 48	E

TEMPORARY STRUCTURE

C/L
TEMP BYPASS

TLE

RW

OH

C/L
NORTH 5TH RD

TEL

101+50

660

650

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

C/L
TEMP BYPASS

TLE

2.0%

2.0%

3.0:1

658.20
-10.00

658.40
0.00

658.20
10.00

RW

OH

3.0:1

654.74
-21.90

655.12
20.75

C/L
NORTH 5TH RD

TEL

101+00

660

650

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

C/L
TEMP BYPASS

TLE

RW

ELEC

2.0%

2.0%

3.0:1

658.00
-10.00

658.20
0.00

658.32
6.00

654.38
-22.37

C/L
NORTH 5TH RD

TEL

BEGIN CONSTRUCTION
STA 100+41.25

RW

100+50

10 FT

10 FT

660

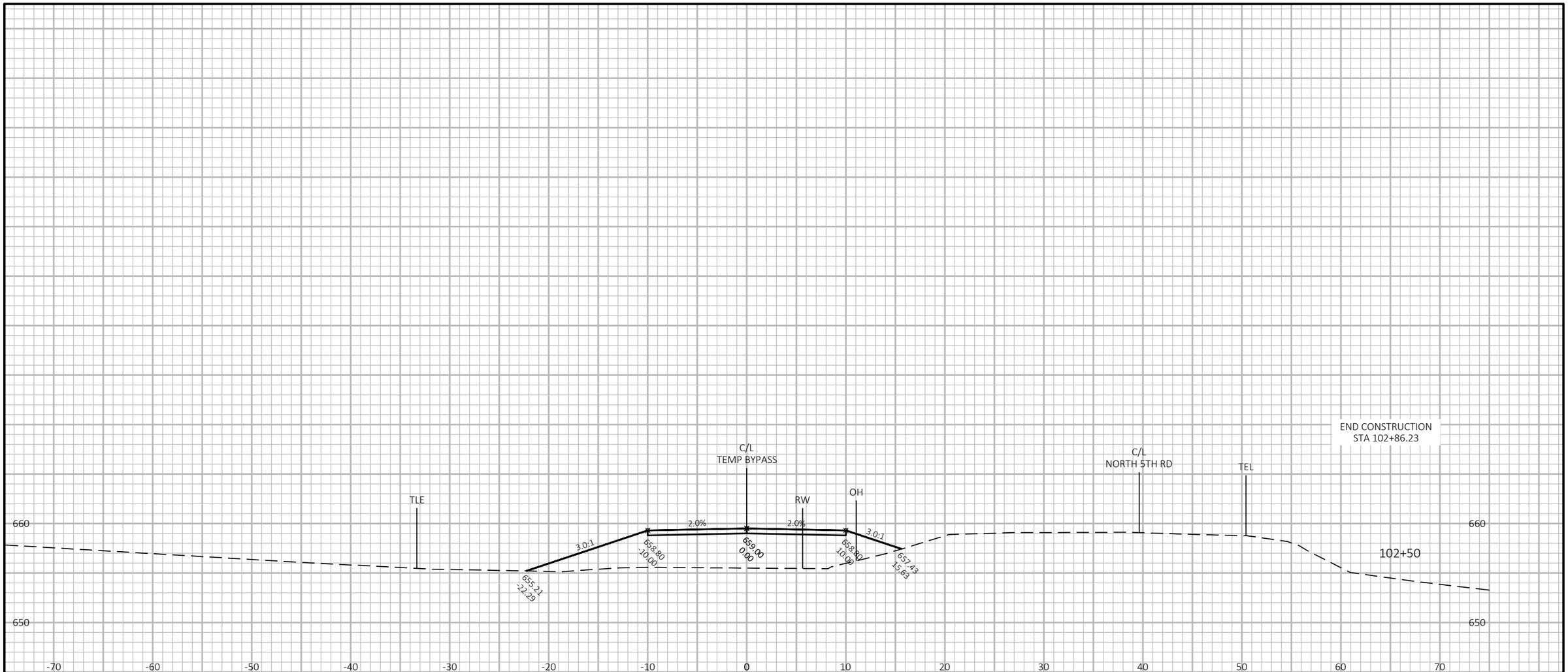
650

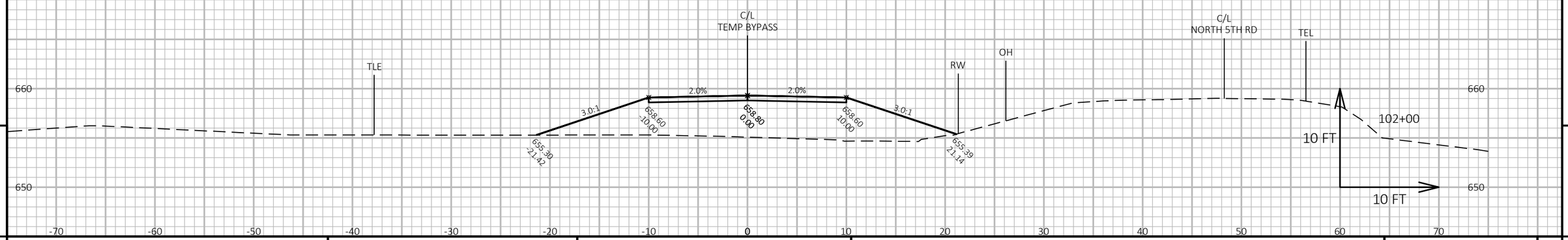
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9

9

PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 49	E





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PROJECT NO: 9246-09-71	HWY: LOCAL STREET	COUNTY: MARINETTE	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 50	E

Notes

Wisconsin Department of Transportation

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