NWL FEBRUARY 2017

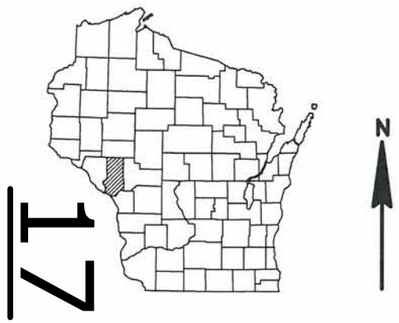
PROJECT ID: 7155-00-70

WITH: N/A

COUNTY: TREMPEALEAU

ORDER OF SHEETS

TOTAL SHEETS = 40



DESIGN DESIGNATION

A.A.D.T.	2017	= 220
A.A.D.T.	2037	= 250
D.H.V.	2037	= 49
D.D.		= 60/40
T.		= 5.0%
DESIGN SPEED		= 50 MPH
ESALS		= 22,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 35 - STH 93

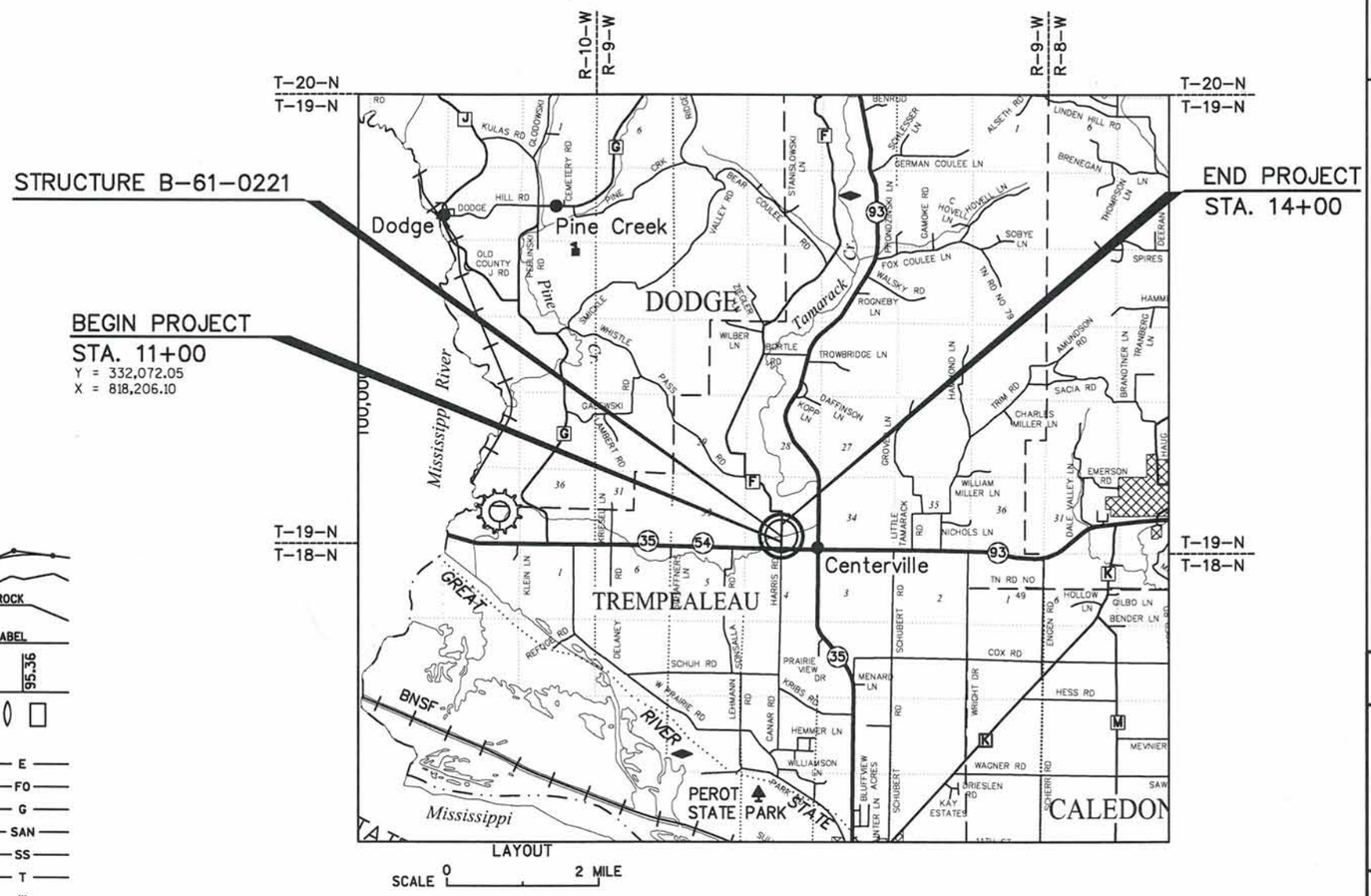
TAMARACK CREEK BRIDGE B-61-0221

CTH F

TREMPEALEAU COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7155-00-70	WISC 2017030	1

STATE PROJECT NUMBER
7155-00-70



TOTAL NET LENGTH OF CENTERLINE = 0.057 MILES

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), TREMPEALEAU COUNTY (NAD 83 (2011)).

ACCEPTED FOR

COUNTY of TREMPEALEAU

9/13/16 Dave Hoppa
(Date) (Highway Commissioner)

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, inc.
Engineers - Architects - Surveyors

WISCONSIN PROFESSIONAL ENGINEER
ELLERY A. SCHAFFER
E-41742-6
SPRING GREEN, WI

9/12/2016 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: JEWELL ASSOCIATES ENGINEERS, INC.

Designer: JEWELL ASSOCIATES ENGINEERS, INC.

Management Consultant: KNIGHT E/A, INC.

APPROVED FOR THE DEPARTMENT

DATE 9/22/16

Management Consultant Signature

E

LIST OF STANDARD ABBREVIATIONS

A.A.D.T	Average Annual Daily Traffic
B	Bridge
B.A.D.	Base Aggregate Dense
BM	Benchmark
C/L	Centerline
C.P.	Control Point
CWT	Century Weight
C.Y.	Cubic Yards
D.D.	Direction Distribution
D.H.V.	Design Hourly Volume
ESALS	Equivalent Single Axle Loadings
F.E.	Field Entrance
GAL	Gallon
LB	Pound
LS	Lump Sum
LT	Left
MGAL	Mega Gallon
N	North
R	Radius
RT.	Right
R/W	Right-of-Way
SF	Square Foot
STA	Station
SY	Square Yard
T	Trucks
TLE	Temporary Limited Easement
W	Width

	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= 0.58 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.38 ACRES

GENERAL NOTES

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

COORDINATES AND BEARINGS ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), TREMPEALEAU COUNTY. (NAD 83 (2011)).

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.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20), AND MULCHED AS DIRECTED BY THE ENGINEER. ALL POST CONSTRUCTION WET AREAS SHALL BE SEEDED WITH SEEDING MIXTURE NO. 60.

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

SILT FENCE AND TEMPORARY DITCH CHECKS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO STRUCTURE REMOVAL.

MULCH ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 115 LB/SY/IN. 4-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 1 3/4-INCH UPPER LAYER AND 2 1/4-INCH LOWER LAYER.

THE EXACT LOCATION OF FIELD ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT BEYOND THE SLOPE INTERCEPTS FROM STA. 11+97 – STA. 12+18, RT. AND 12+01 – STA. 12+13, LT.

CONTACTS

DESIGN CONSULTANT

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DR.
SPRING GREEN, WI 53588
ATTN: ELLERY SCHAFFER, P.E.
PHONE: (608) 588-7484
EMAIL: ellery.schaffer@jewellassoc.com

DNR LIAISON

STATE OF WISCONSIN
DNR SERVICE CENTER
3550 MORMON COULEE RD
LACROSSE, WI 54601
ATTN: KAREN KALVELAGE
PHONE: (608) 785-9115
EMAIL: Karen.Kalvelage@wisconsin.gov

TREMPEALEAU COUNTY HIGHWAY DEPARTMENT

DAVE LYGA, COMMISSIONER
N36258 COUNTY ROAD QQ
PO BOX 97
WHITEHALL, WI 54773
PH: (715) 538-4799
EMAIL: lygad@triwest.net

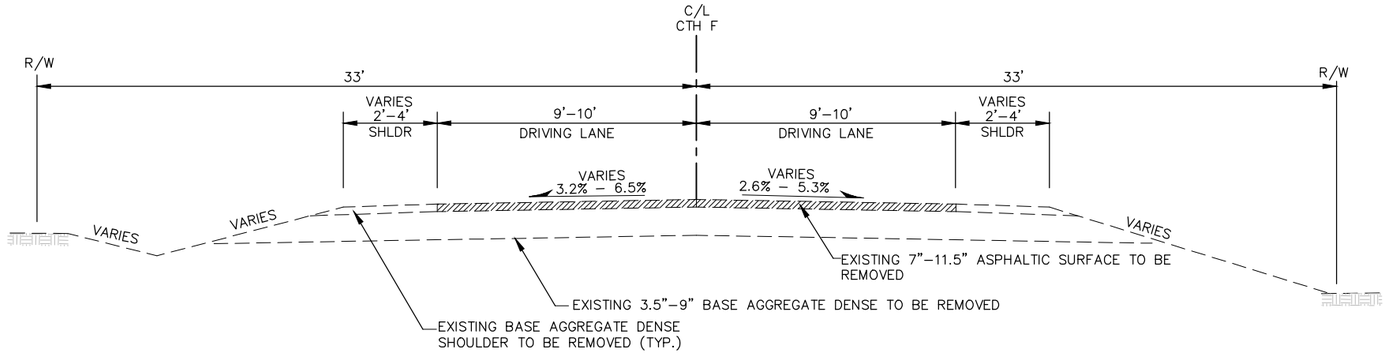
UTILITIES

TELEPHONE

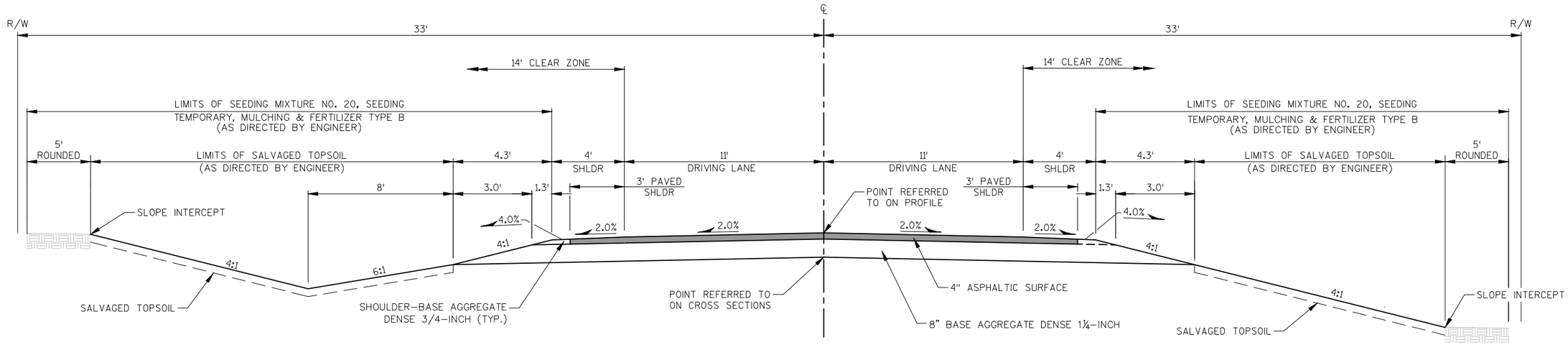
CENTURYLINK
ATTN: TOM MURRAY
333 N. FRONT ST
LA CROSSE, WI 54601
OFFICE: (608) 780-0895
CELL: (608) 796-7869
EMAIL: tom.l.murray@centurylink.com

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

* DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE



TYPICAL EXISTING SECTION



TYPICAL FINISHED SECTION

PROJECT NO: 7155-00-70	HWY: CTH F	COUNTY: TREMPEALEAU	TYPICAL EXISTING & FINISHED SECTIONS	SHEET 3	E

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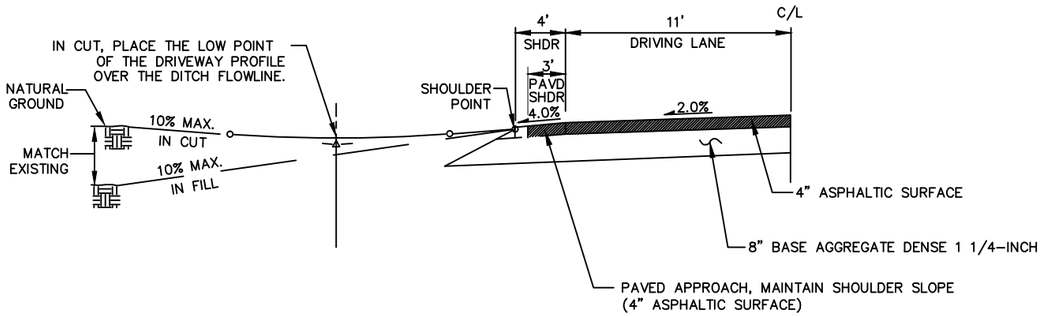
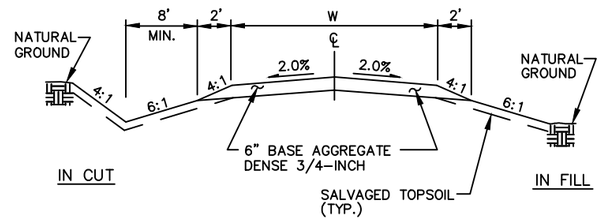
LAYOUT : TYP.
PLOT DATE : 8/19/2016
PLOT TIME : 11:20:54 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

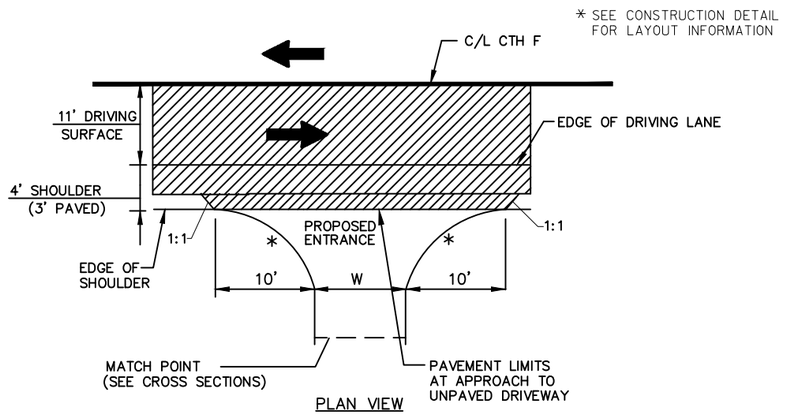


TYPICAL F.E. PROFILE



TYPICAL CROSS-SECTION FOR F.E.

STA.	W (FT.)
11+38, RT.	24
*13+64, LT.	16



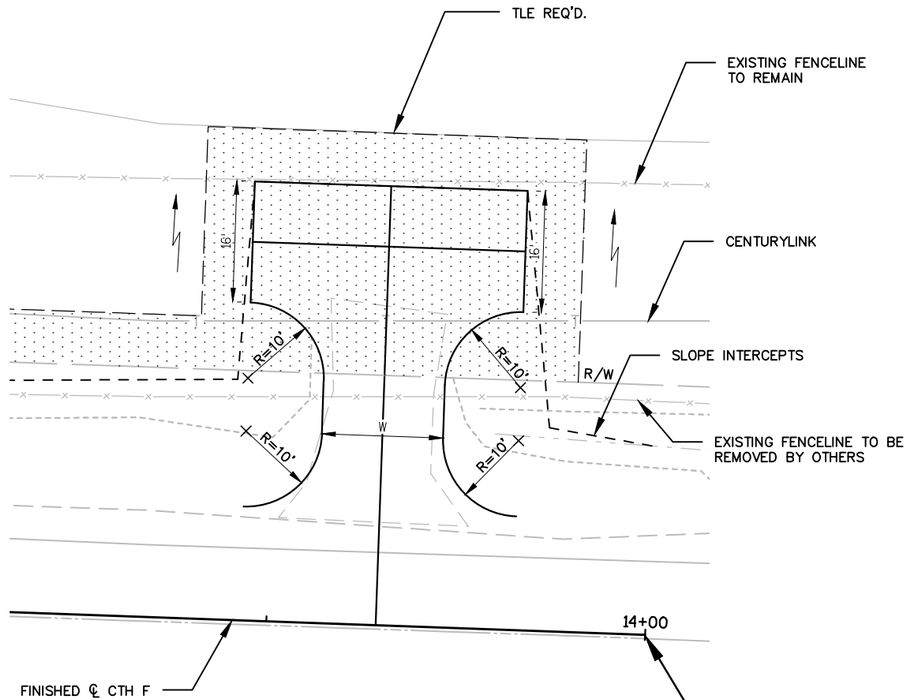
PLAN VIEW

APPROACH AT F.E.

TYPICAL FIELD ENTERANCE (F.E.) DETAILS

LIMITS OF ASPHALTIC SURFACE

* RADIUS = 10'



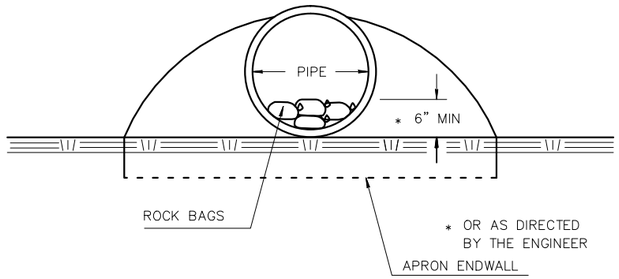
FE – STA. 13+64, LT.

END PROJECT
STA. 14+00

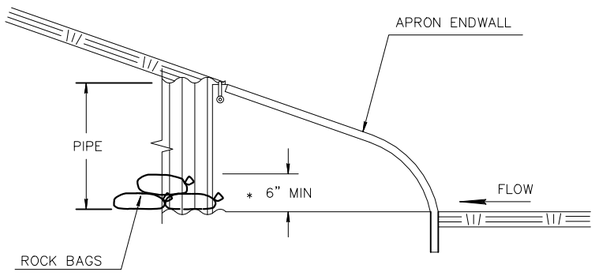
PROJECT NO: 7155-00-70	HWY: CTH F	COUNTY: TREMPEALEAU	CONSTRUCTION DETAILS	SHEET 4	E

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\SHEETSPLAN\DETAILS\CONSTRUCTION DETAILS1.DWG
LAYOUT : DETAILS1

PLOT DATE : 9/16/2016
PLOT TIME : 9:40:17 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

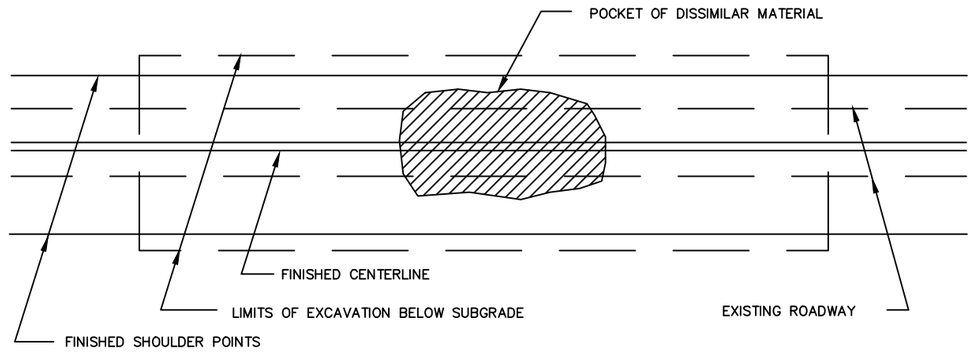


END VIEW

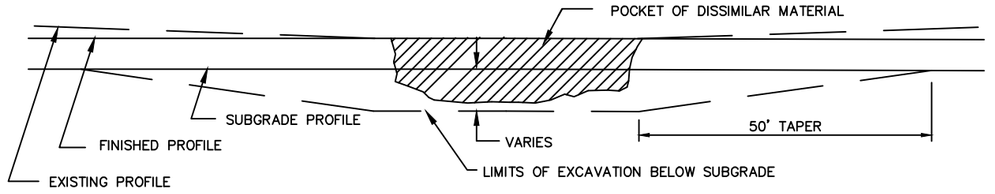


SIDE VIEW

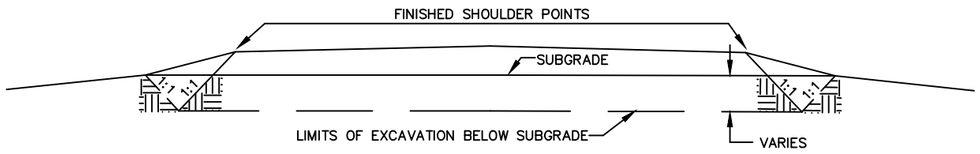
CULVERT PIPE CHECKS



PLAN VIEW



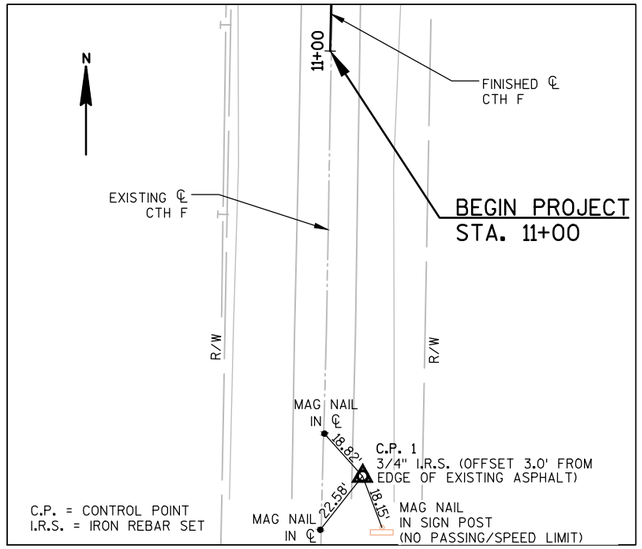
PROFILE VIEW



CROSS SECTION VIEW

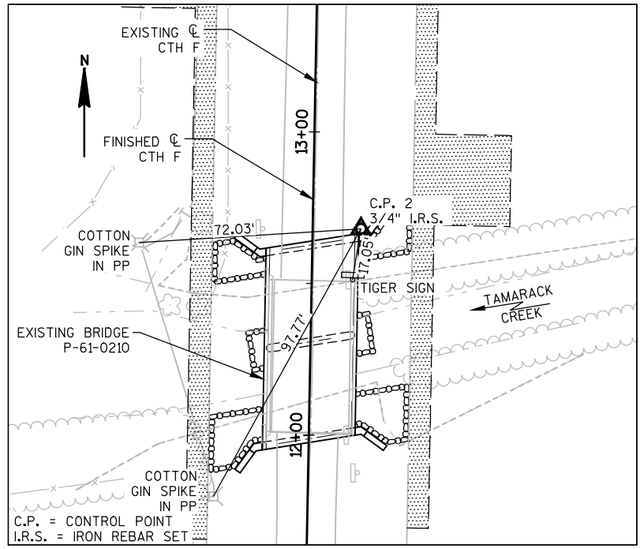
1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

EXCAVATION BELOW SUBGRADE (E.B.S.)



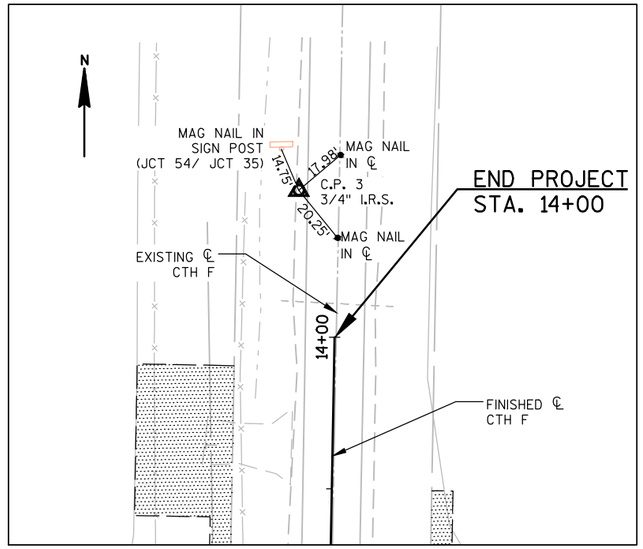
TIES TO C.P.#1

STA. 9+60.11; 13.2' RT.
Y = 331,931.82
X = 818,216.74



TIES TO C.P.#2

STA. 12+68.33; 15.9' RT.
Y = 332,240.07
X = 818,225.12



TIES TO C.P.#3

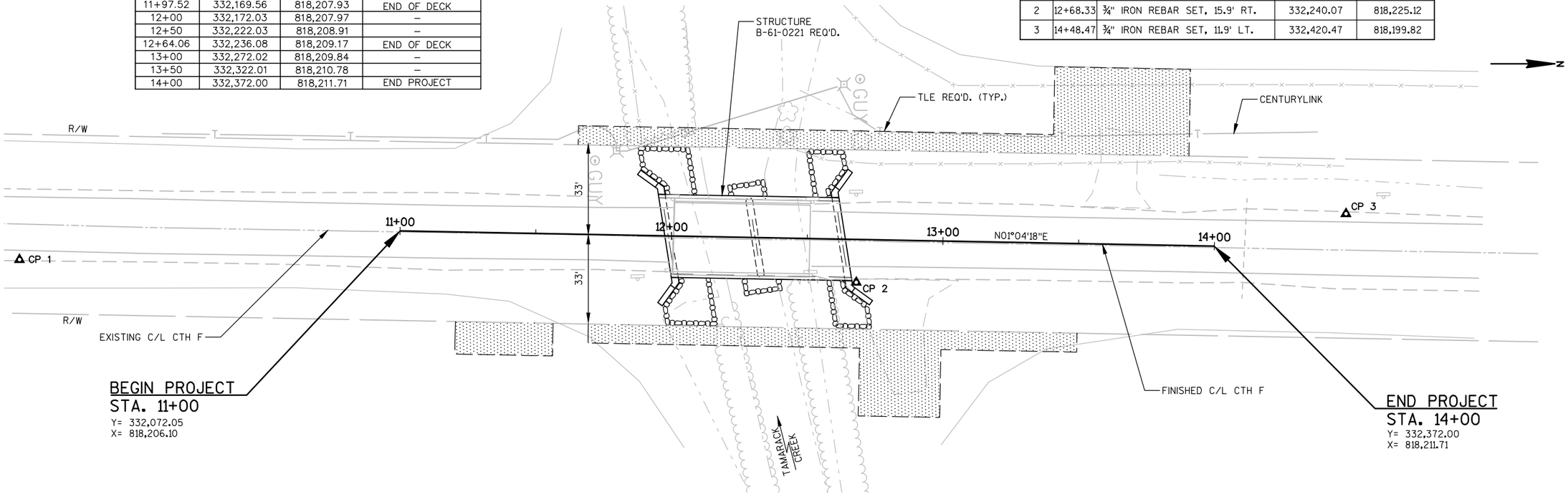
STA. 14+48.47, 11.9, LT.
Y = 332,420.47
X = 818,199.82

CTH F STATION LAYOUT

STATION	Y	X	COMMENTS
11+00	332,072.05	818,206.10	BEGIN PROJECT
11+50	332,122.04	818,207.04	–
11+97.52	332,169.56	818,207.93	END OF DECK
12+00	332,172.03	818,207.97	–
12+50	332,222.03	818,208.91	–
12+64.06	332,236.08	818,209.17	END OF DECK
13+00	332,272.02	818,209.84	–
13+50	332,322.01	818,210.78	–
14+00	332,372.00	818,211.71	END PROJECT

⚠ CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X
1	9+60.11	¾" IRON REBAR SET, 13.2' RT.	331,931.82	818,216.74
2	12+68.33	¾" IRON REBAR SET, 15.9' RT.	332,240.07	818,225.12
3	14+48.47	¾" IRON REBAR SET, 11.9' LT.	332,420.47	818,199.82



PROJECT NO: 7155-00-70	HWY: CTH F	COUNTY: TREMPEALEAU	TIES AND ALIGNMENT PLAN	SHEET 6	E

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\SHEETSPLAN\DETAILS\TIES AND ALIGNMENT.DWG
LAYOUT : LAYOUT1
PLOT DATE : 8/23/2016
PLOT TIME : 3:58:49 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

7155-00-70

Line	Item	Item Description	Unit	Total	Qty
0010	201.0105	Clearing	STA	1.000	1.000
0020	201.0205	Grubbing	STA	1.000	1.000
0030	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. STA. 12+26	LS	1.000	1.000
0040	205.0100	Excavation Common	CY	360.000	360.000
0050	206.1000	Excavation for Structures Bridges (structure) 01.B-61-0221	LS	1.000	1.000
0060	210.1500	Backfill Structure Type A	TON	220.000	220.000
0070	213.0100	Finishing Roadway (project) 01.7155-00-70	EACH	1.000	1.000
0080	305.0110	Base Aggregate Dense 3/4-Inch	TON	110.000	110.000
0090	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	460.000	460.000
0100	455.0605	Tack Coat	GAL	40.000	40.000
0110	465.0105	Asphaltic Surface	TON	180.000	180.000
0120	502.0100	Concrete Masonry Bridges	CY	209.000	209.000
0130	502.3200	Protective Surface Treatment	SY	260.000	260.000
0140	505.0400	Bar Steel Reinforcement HS Structures	LB	6,230.000	6,230.000
0150	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	26,810.000	26,810.000
0160	513.4061	Railing Tubular Type M (structure) 01.B-61-0221	LF	138.000	138.000
0170	516.0500	Rubberized Membrane Waterproofing	SY	13.000	13.000
0180	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,810.000	1,810.000
0190	606.0300	Riprap Heavy	CY	220.000	220.000
0200	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0210	619.1000	Mobilization	EACH	1.000	1.000
0220	624.0100	Water	MGAL	4.000	4.000
0230	625.0500	Salvaged Topsoil	SY	650.000	650.000
0240	627.0200	Mulching	SY	1,250.000	1,250.000
0250	628.1504	Silt Fence	LF	540.000	540.000
0260	628.1520	Silt Fence Maintenance	LF	1,080.000	1,080.000
0270	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0280	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0290	628.6005	Turbidity Barriers	SY	280.000	280.000
0300	628.7504	Temporary Ditch Checks	LF	20.000	20.000
0310	628.7555	Culvert Pipe Checks	EACH	8.000	8.000
0320	629.0210	Fertilizer Type B	CWT	1.000	1.000
0330	630.0120	Seeding Mixture No. 20	LB	35.000	35.000
0340	630.0160	Seeding Mixture No. 60	LB	1.000	1.000
0350	630.0200	Seeding Temporary	LB	20.000	20.000
0360	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0370	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0380	638.2602	Removing Signs Type II	EACH	7.000	7.000

7155-00-70

Line	Item	Item Description	Unit	Total	Qty
0390	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0400	642.5001	Field Office Type B	EACH	1.000	1.000
0410	643.0100	Traffic Control (project) 01.7155-00-70	EACH	1.000	1.000
0420	645.0120	Geotextile Type HR	SY	370.000	370.000
0430	646.0106	Pavement Marking Epoxy 4-Inch	LF	680.000	680.000
0440	650.4500	Construction Staking Subgrade	LF	235.000	235.000
0450	650.5000	Construction Staking Base	LF	235.000	235.000
0460	650.6500	Construction Staking Structure Layout (structure) 01.B-61-0221	LS	1.000	1.000
0470	650.9910	Construction Staking Supplemental Control (project) 01.7155-00-70	LS	1.000	1.000
0480	650.9920	Construction Staking Slope Stakes	LF	235.000	235.000
0490	690.0150	Sawing Asphalt	LF	40.000	40.000
0500	715.0502	Incentive Strength Concrete Structures	DOL	1,254.000	1,254.000
0510	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0520	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

3

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	**P** (1) 205.0100 COMMON EXCAVATION CUT (1) (CY)	AVAILABLE MATERIAL (CY) (2)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (3)	MASS ORDINATE +/- (CY) (4)	WASTE (CY)
12+30 - 14+00	MAINLINE	320	320	75	95	225	225
11+38	MAINLINE RT.	15	15	-	-	15	15
13+64	MAINLINE, LT.	25	25	-	-	25	25
TOTALS =		360	360	75	95	265	265

NOTES:
1.) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2.) AVAILABLE MATERIAL = CUT
3.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
4.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

P PAY PLAN QUANTITY

CLEARING & GRUBBING

STATION - STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
12+00-13+00	MAINLINE, LT. & RT.	1	1
	TOTALS =	1	1

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)
11+00-14+00	MAINLINE	21	435
11+38	F.E. - MAINLINE, RT.	32	-
13+64	F.E. - MAINLINE, LT.	50	-
-	UNDISTRIBUTED	7	25
	TOTALS =	110	460

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
11+00 - 14+00	MAINLINE	37	168
-	UNDISTRIBUTED	3	12
	TOTAL S =	40	180

WATER

PROJECT	624.0100 (MGAL)
7155-00-70	4
	4

FINISHING ITEMS

STATION - STATION	LOCATION	**P** 625.0500 SALVAGED TOPSOIL (SY)	**P** 627.0200 MULCHING (SY)	**P** 629.0210 FERTILIZER TYPE B (CWT)	**P** 630.0120 SEEDING MIXTURE NO. 20 (LB)	**P** #630.0160 SEEDING MIXTURE NO. 60 (LB)	**P** 630.0200 SEEDING TEMPORARY (LB)
11+00-14+00	MAINLINE	520	995	0.7	26	0.7	14
-	UNDISTRIBUTED	130	255	0.3	9	0.3	6
	TOTALS =	650	1250	1.0	35	1.0	20

P PAY PLAN QUANTITY
STA. 11+97-STA. 12+18, RT.
STA. 12+01-STA. 12+13, LT.

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
11+00-11+86	MAINLINE, LT.	90	180
12+63-14+00	MAINLINE, LT.	182	364
12+70-14+00	MAINLINE, RT.	160	320
-	UNDISTRIBUTED	108	216
	TOTALS =	540	1080

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\SHEETSPLAN\DETAILS\MISCQ.DWG
LAYOUT : LAYOUT1
PLOT DATE : 11/21/2016
PLOT TIME : 2:43:32 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

3

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
7155-00-70	4	3
TOTALS =	4	3

TURBIDITY BARRIERS

STATION - STATION	LOCATION	628.6005 (SY)
11+86-12+18	MAINLINE	123
12+48-12+75	MAINLINE	105
	UNDISTRIBUTED	52
	TOTALS =	280

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 (LF)
11+80	MAINLINE, RT.	10
-	UNDISTRIBUTED	10
	TOTALS =	20

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 (EACH)
14+11	MAINLINE, RT	5
-	UNDISTRIBUTED	3
	TOTALS =	8

3

PERMANENT SIGNING

STATION	DESCRIPTION	SIZE (INCH X INCH)	634.0612 POSTS WOOD 4X6 - INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)
SW QUADRANT STRUCTURE B-61-0221	W5-52L	12X36	1	3.00
NW QUADRANT STRUCTURE B-61-0221	W5-52R	12X36	1	3.00
SE QUADRANT STRUCTURE B-61-0221	W5-52R	12X36	1	3.00
NE QUADRANT STRUCTURE B-61-0221	W5-52L	12X36	1	3.00
		TOTALS =	4	12.00

REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

STATION	LOCATION	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
-	125'± NORTH OF STH 35/CTH F INTERSECTION	40 TON BRIDGE, X MILES AHEAD	1	1
11+88	MAINLINE, RT	WEIGHT LIMIT-40 TONS	1	1
-	SW QUADRANT STRUCTURE P-61-0210	BRIDGE HASH MARKS	1	1
-	NW QUADRANT STRUCTURE P-61-0210	BRIDGE HASH MARKS	1	1
-	SE QUADRANT STRUCTURE P-61-0210	BRIDGE HASH MARKS	1	1
-	NE QUADRANT STRUCTURE P-61-0210	BRIDGE HASH MARKS	1	1
12+68	MAINLINE, LT.	WEIGHT LIMIT-40 TONS	1	1
		TOTALS =	7	7

PAVEMENT MARKING EPOXY 4-INCH

STATION - STATION	LOCATION	DESCRIPTION	646.0106 (LF)
11+00-14+00	MAINLINE	SKIP DASH CENTERLINE	80
11+00-14+00	MAINLINE, LT	WHITE EDGELINE	300
11+00-14+00	MAINLINE, RT.	WHITE EDGELINE	300
		TOTALS =	680

CONSTRUCTION STAKING

		CONSTRUCTION STAKING				
STATION -STATION	LOCATION	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	*650.6500 STRUCTURE LAYOUT (B-61-0221) (LS)	650.9910 SUPPLEMENTAL CONTROL (01. 7155-00-70) (LS)	650.9920 SLOPES STAKES (LF)
11+00 - 14+00	MAINLINE	235	235	1	1	235
	TOTALS =	235	235	1	1	235

*CATEGORY 020

SAWING ASPHALT

STATION	LOCATION	690.0150 (LF)
11+00	MAINLINE	20
14+00	MAINLINE	20
	TOTALS =	40

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\SHEETSPLAN\DETAILS\MISCQ.DWG
LAYOUT : LAYOUT1
PLOT DATE : 8/23/2016
PLOT TIME : 4:31:33 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
7155-00-00		
FEDERAL PROJECT NUMBER	4.01	2

PLAT OF RIGHT-OF-WAY REQUIRED FOR

STH 35 – STH 93

(TAMARACK CREEK BRIDGE B-61-0221)

CTH F TREMPEALEAU COUNTY

CONSTRUCTION PROJECT NUMBER

7155-00-70

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	PROPERTY LINE RECORDED AS	PL (100')
ACCESS RIGHTS	AR	REFERENCE LINE	R/L
ACRES	AC.	RELEASE OF RIGHTS	ROR
AND OTHERS	ET.AL.	REMAINING	REM.
BARN	B.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	SHED	S.
CORNER	COR.	STATION	STA.
CONVEYANCE OF RIGHTS	CR	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.		
GARAGE	G.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
HOUSE	H.	LONG CHORD BEARING	LCB
HOUSE TRAILER	H.T.	RADIUS	R
LAND CONTRACT	LC	DEGREE OF CURVE	D
MONUMENT	MON.	CENTRAL ANGLE OR DELTA	DELTA
PAGE	P.	LENGTH OF CURVE	L
PERMANENT LIMITED EASEMENT	PLE	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND SURVEY MONUMENT (WITH POINT NUMBER)	○ 1040	PROPOSED R/W LINE	
R/W MONUMENT	○ ● (SET)	EXISTING H.E. LINE	
R/W STANDARD	△ ▲ (SET)	PROPERTY LINE	
SIGN	SIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT		SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISTION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	RWB20	NO ACCESS (NEW HIGHWAY)	
PARCEL NUMBER	8	SECTION LINE	
UTILITY PARCEL NUMBER	92	QUARTER LINE	
SIGN NUMBER (OFF PREMISE)	21	SIXTEENTH LINE	
BUILDING		EXISTING CENTERLINE	
		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	
		ENCROACHMENT	D/TYPE
		HIGHWAY EASEMENT	

CONVENTIONAL UTILITY SYMBOLS

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

NOTES

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

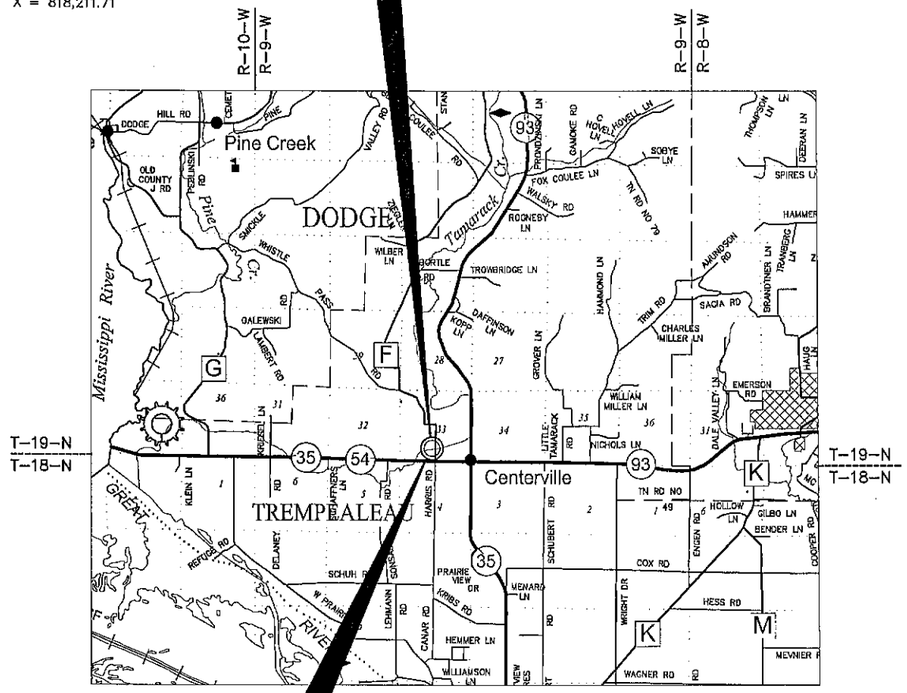
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

END RELOCATION ORDER

STA. 14+00

1586.50' SOUTH AND 2594.58' WEST OF THE E1/4 CORNER OF SECTION 33, T.19N., R.9W., TOWN OF TREMPEALEAU, TREMPEALEAU COUNTY, WI
Y = 332,372.00
X = 818,211.71



BEGIN RELOCATION ORDER

STA. 11+00

1886.44' SOUTH AND 2600.14' WEST OF THE E1/4 CORNER OF SECTION 33, T.19N., R.9W., TOWN OF TREMPEALEAU, TREMPEALEAU COUNTY, WI
Y = 332,072.05
X = 818,206.10

N

LAYOUT

SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.057 MI.

REVISION DATE

JEWELL
associates engineers, inc.
Engineers - Surveyors - Architects

560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
FAX : 608.588.9322

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR TREMPEALEAU COUNTY, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
FREDERICK G. GRUBER
S-2282
SPRING GREEN, WIS.
LAND SURVEYOR

6/14/16

APPROVED FOR TREMPEALEAU COUNTY

DATE: 6/14/16 Dave Bygo
NAME/TITLE
Commissioner E

FILE NAME : S:\Projects\K49020 CTH F, Trempealeau County\RW\CTH F RW Title.dwg

PLOT NAME :

PLOT SCALE : 1:1

WISDOT/CADDS SHEET 50

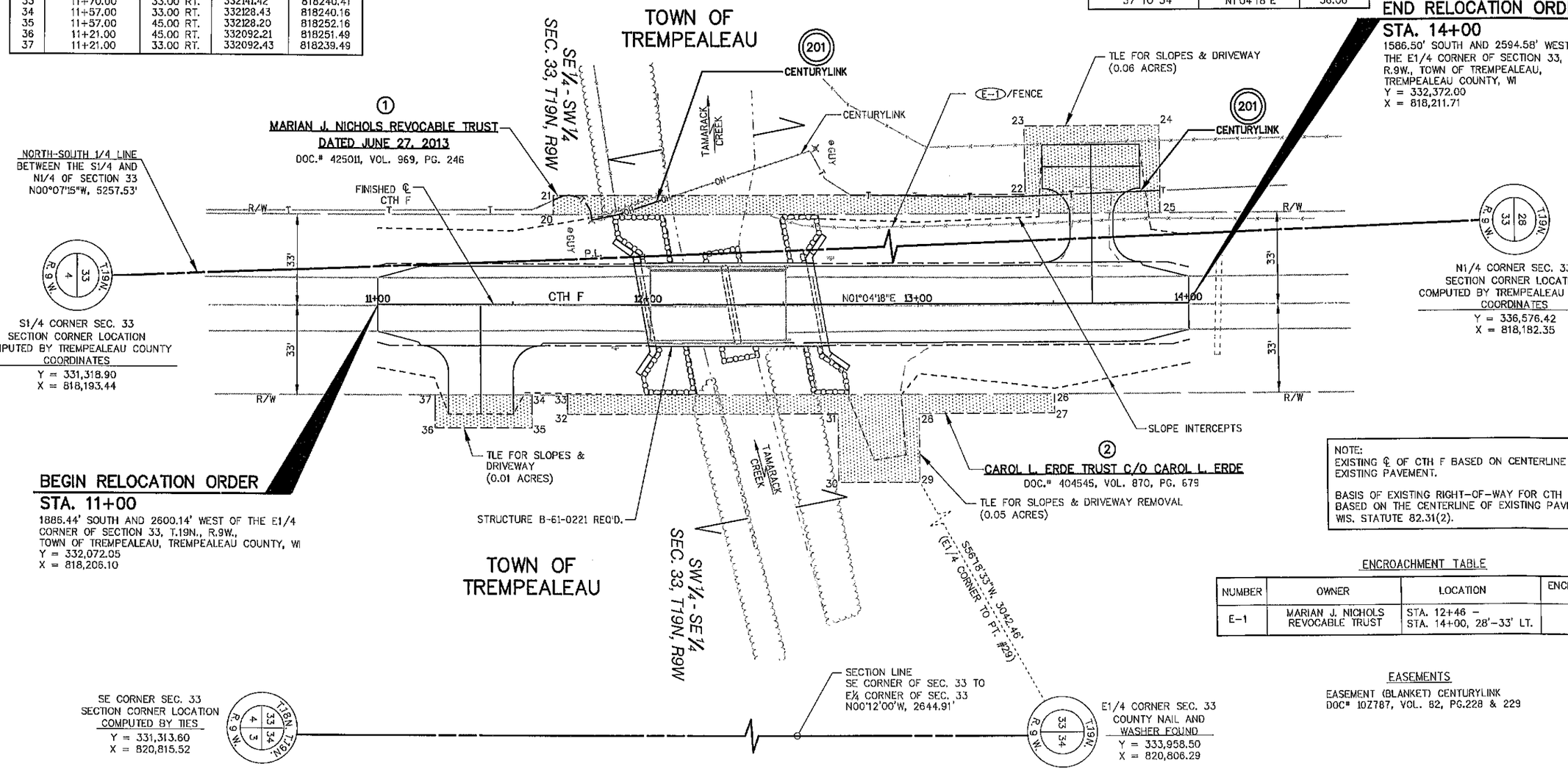
COORDINATE TABLE – TEMPORARY LIMITED EASEMENT (TLE) POINTS				
PT.#	STATION	OFFSET	Y	X
20	11+65.00	33.00 LT.	332137.66	818174.32
21	11+65.00	40.00 LT.	332137.79	818167.33
22	13+40.00	40.00 LT.	332312.76	818170.60
23	13+40.00	65.00 LT.	332313.23	818145.60
24	13+90.00	65.00 LT.	332363.22	818146.54
25	13+90.00	33.00 LT.	332362.62	818178.53
26	13+50.00	33.00 RT.	332321.39	818243.77
27	13+50.00	40.00 RT.	332321.26	818250.77
28	13+00.00	40.00 RT.	332271.27	818249.84
29	13+00.00	65.00 RT.	332270.80	818274.83
30	12+70.00	65.00 RT.	332240.81	818274.27
31	12+70.00	40.00 RT.	332241.27	818249.28
32	11+70.00	40.00 RT.	332141.29	818247.41
33	11+70.00	33.00 RT.	332141.42	818240.41
34	11+57.00	33.00 RT.	332128.43	818240.16
35	11+57.00	45.00 RT.	332128.20	818252.16
36	11+21.00	45.00 RT.	332092.21	818251.49
37	11+21.00	33.00 RT.	332092.43	818239.49

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	T.L.E. ACRES
1	THE MARIAN J. NICHOLS REVOCABLE TRUST DATED JUNE 27, 2013	TLE	0.06
2	CAROL L. ERDE TRUST C/O CAROL L. ERDE	TLE	0.06
201	CENTURYLINK	TEMPORARY CONSTRUCTION EASEMENT	

NOTE: AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM THE TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY OF TREMPEALEAU.

TLE LINE TABLE		
POINT TO POINT	BEARING	DISTANCE
20 TO 21	N88°55'42"W	7.00'
21 TO 22	N1°04'18"E	175.00'
22 TO 23	N88°55'42"W	25.00'
23 TO 24	N1°04'18"E	50.00'
24 TO 25	S88°55'42"E	32.00'
25 TO 20	S1°04'18"W	225.00'
26 TO 27	S88°55'42"E	7.00'
27 TO 28	S1°04'18"W	50.00'
28 TO 29	S88°55'42"E	25.00'
29 TO 30	S1°04'18"W	30.00'
30 TO 31	N88°55'42"W	25.00'
31 TO 32	S1°04'18"W	100.00'
32 TO 33	N88°55'42"W	7.00'
33 TO 26	N1°04'18"W	180.00'
34 TO 35	S88°55'42"E	12.00'
35 TO 36	S1°04'18"W	36.00'
36 TO 37	N88°55'42"W	12.00'
37 TO 34	N1°04'18"E	36.00'



NOTE:
EXISTING ℄ OF CTH F BASED ON CENTERLINE OF EXISTING PAVEMENT.

BASIS OF EXISTING RIGHT-OF-WAY FOR CTH F WAS BASED ON THE CENTERLINE OF EXISTING PAVEMENT AND WIS. STATUTE 82.31(2).

ENCROACHMENT TABLE

NUMBER	OWNER	LOCATION	ENCROACHMENT TYPE
E-1	MARIAN J. NICHOLS REVOCABLE TRUST	STA. 12+46 – STA. 14+00, 28'-33' LT.	FENCE

EASEMENTS

EASEMENT (BLANKET) CENTURYLINK
DOC# 10Z787, VOL. 82, PG.228 & 229

REVISION DATE	DATE 10/14/16	SCALE, FEET 0 20 40	HWY: CTH F	STATE R/W PROJECT NUMBER: 7155-00-00	PLAT SHEET 4.02	
	GRID FACTOR N/A		COUNTY: TREMPEALEAU	CONSTRUCTION PROJECT NUMBER: 7155-00-70	PS&E SHEET 12	E

LEGEND

- RIPRAP HEAVY OVER GEOTEXTILE FABRIC TYPE HR
- DIRECTION OF FLOW
- XXXXXXXXX SAWING ASPHALT
- SILT FENCE
- TEMPORARY DITCH CHECK
- WETLANDS
- CULVERT PIPE CHECK
- TURBIDITY BARRIER

MARIAN J. NICHOLS REVOCABLE TRUST
DATED JUNE 27, 2013

REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 12+26 (P-61-0210)
SINGLE SPAN STEEL THRU GIRDER STRUCTURE
24.9' CLEAR ROADWAY WIDTH
51.0' OVERALL LENGTH

STA. 11+60, LT.
REMOVE F.E.

STA. 11+88 - STA. 11+89, LT.
STA. 12+46 - STA. 14+00, LT.
REMOVING FENCE BY OTHERS

LIMITS OF AGRICULTURAL FIELD

STA. 13+64, LT.
CONSTRUCT F.E. (B.A.D.)

W5-52L 12"X36"
W5-52R 12"X36"
REMOVE
WEIGHT LIMIT 40 TONS

TAMARACK CREEK

CENTURYLINK
BM 4
BM 5
BM 1
BM 2
BM 3

TLE REQ'D (TYP.)

R/W
33'
8:1
4:1

11+16 14.0' LT.
11+00 10.0' LT.
11+10 10.0' RT.
11+16 14.0' RT.
13+84 14.0' LT.
14+00 10.0' LT.
13+84 14.0' RT.
14+00 10.0' RT.

(ASPHALT)
11+00
N01°04'18"E
12+00
13+00
14+00

FINISHED C/L CTH F
EXISTING 57 X 38-INCH CMPA TO REMAIN
EXISTING C/L CTH F
FINISHED ℄ CTH F
SLOPE INTERCEPTS

STA. 11+38, RT.
CONSTRUCT F.E. (B.A.D)

STA. 12+84, RT.
REMOVE F.E.

STRUCTURE B-61-0221 REQ'D.

DELINEATED WETLANDS (TYP.)

BEGIN PROJECT
STA. 11+00
Y= 332,072.05
X= 818,206.10

END PROJECT
STA. 14+00
Y= 332,372.00
X= 818,211.71

CAROL L. ERDE TRUST
C/O CAROL L. ERDE

STA. 12+31
STRUCTURE B-61-0221 REQ'D.
TWO-SPAN REINFORCED CONCRETE FLAT SLAB
CLEAR ROADWAY WIDTH = 28.0'
O.A.L. = 66.54'
SKEW = 10° RHF

EXISTING C/L PROFILE CTH F
FINISHED C/L PROFILE CTH F

STA. 11+00
0.40%
MATCH EXISTING
STA. 11+00
EL. = 740.90

VPI STA 12+20.00
VPI EL 741.38
VCL = 200.00
K = 204.55

VPC STA 11+20.00
VPC EL 740.98

VPT STA 13+20.00
VPT EL 740.80

STA. 14+00
-0.58%
MATCH EXISTING
STA. 14+00
EL. = 740.34

HIGH WATER100
EL = 739.19
HIGH WATER2
EL = 735.04

OBSERVED WATER
EL. 730.23
(9-9-2015)

EXISTING C/L ELEVATION
FINISHED C/L ELEVATION

EXISTING STREAMBED
EL. 727.68

742 740 738 736 734 732 730 728 726

740.31 740.44 740.59 740.73 740.82 740.90 740.90 740.98 740.98 741.08 741.05 741.18 741.10 741.22 741.13 741.18 741.14 741.21 741.14 741.09 741.11 741.04 741.06 741.09 740.99 740.99 740.91 740.90 740.80 740.79 740.69 740.63 740.57 740.47 740.46 740.34 740.34 740.22 740.10 739.94

9+60 9+80 10+00 10+20 10+40 10+60 10+80 11+00 11+20 11+40 11+60 11+80 12+00 12+20 12+40 12+60 12+80 13+00 13+20 13+40 13+60 13+80 14+00 14+20 14+40 14+60 14+80 15+00 15+20

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	9+60	3/4" IRON REBAR SET, 13.2' RT	739.75
2	12+68	3/4" IRON REBAR SET, 15.9' RT	740.63
3	14+48	3/4" IRON REBAR SET, 11.9' LT	739.54
4	12+61	STAR SPIKE SET, 56.0' LT	737.13
5	11+82	STAR SPIKE SET, 30.6' LT	737.77

EARTHWORK SUMMARY

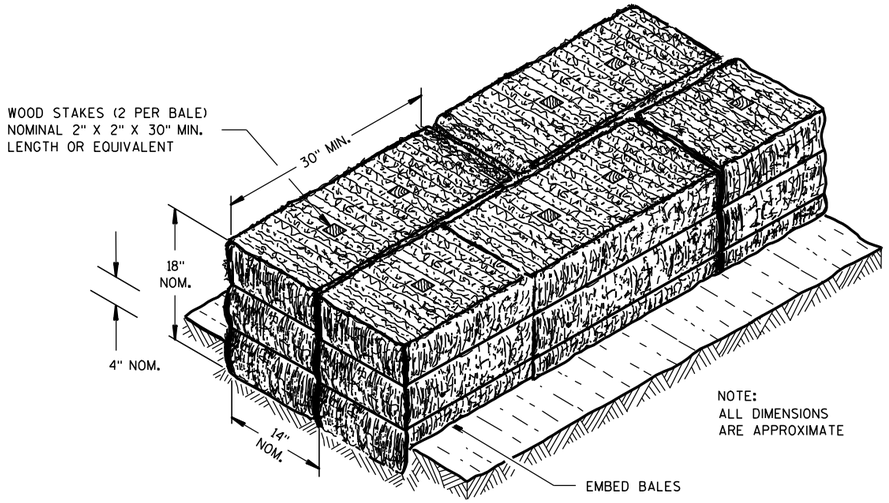
	MAINLINE	FE STA. 11+38, RT.	FE STA. 13+64, LT.	TOTALS
EXCAVATION COMMON =	320	15	25	360
FILL =	75	0	0	75
FILL EXPANSION (25%) =	95	0	0	95
WASTE =	225	15	25	265

PROJECT NO: 7155-00-70	HWY: CTH F	COUNTY: TREMPEALEAU	PLAN AND PROFILE: MAINLINE	SHEET 13	E

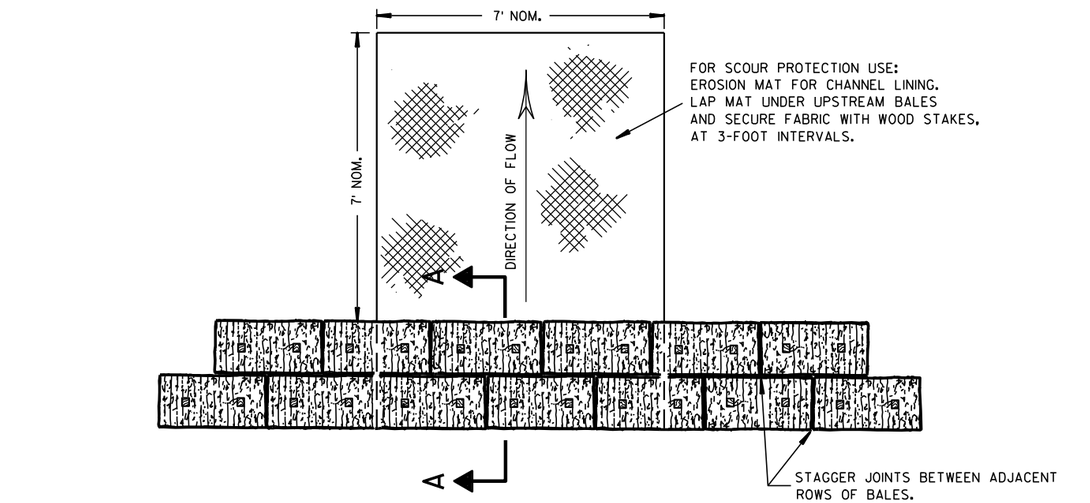
FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\SHEETSPLAN\PLAN & PROFILE SHEETS\P&P 1.DWG
LAYOUT : P&P 1
PLOT DATE : 9/16/16
PLOT TIME : 8:56 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1 IN:40 FT

Standard Detail Drawing List

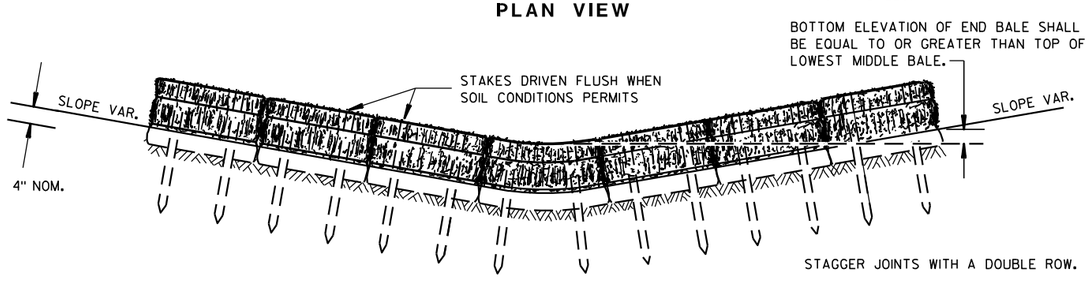
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-08	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)



SECTION A-A



PLAN VIEW



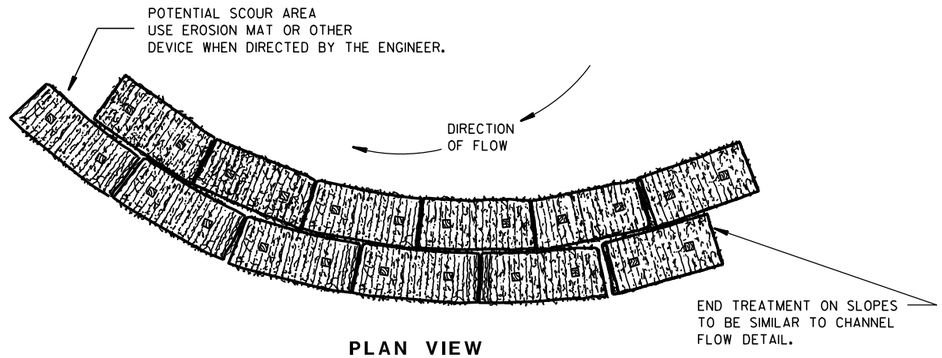
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

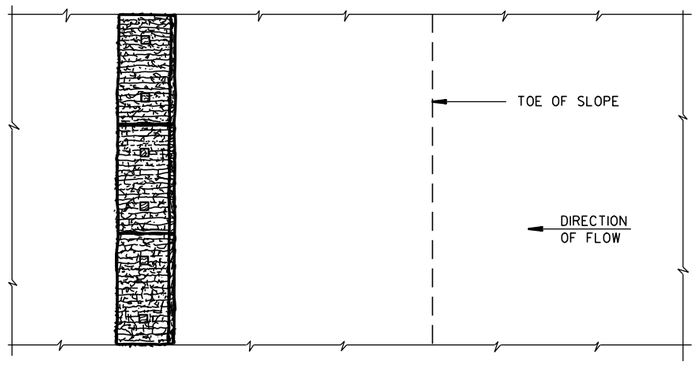
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

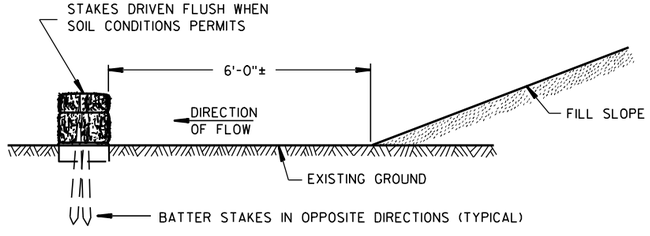


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

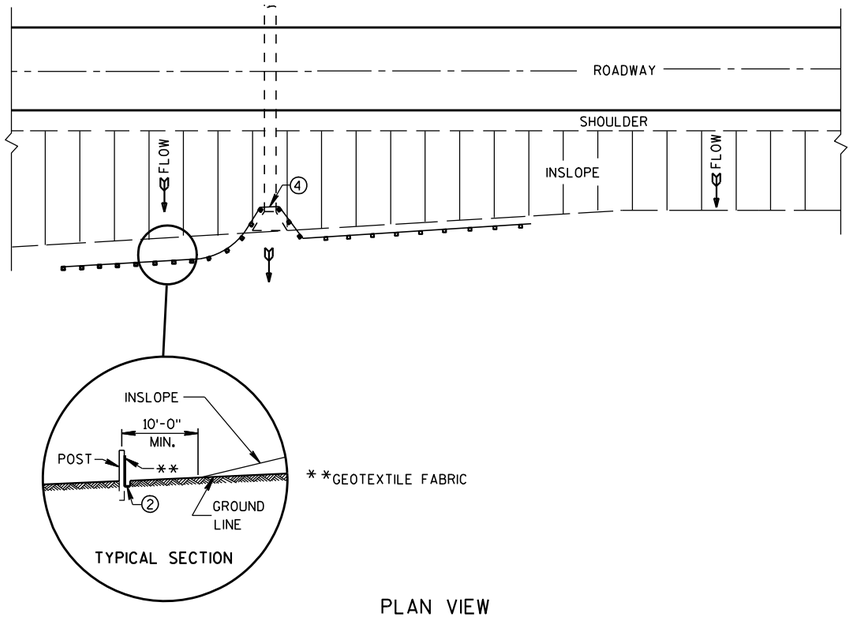
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

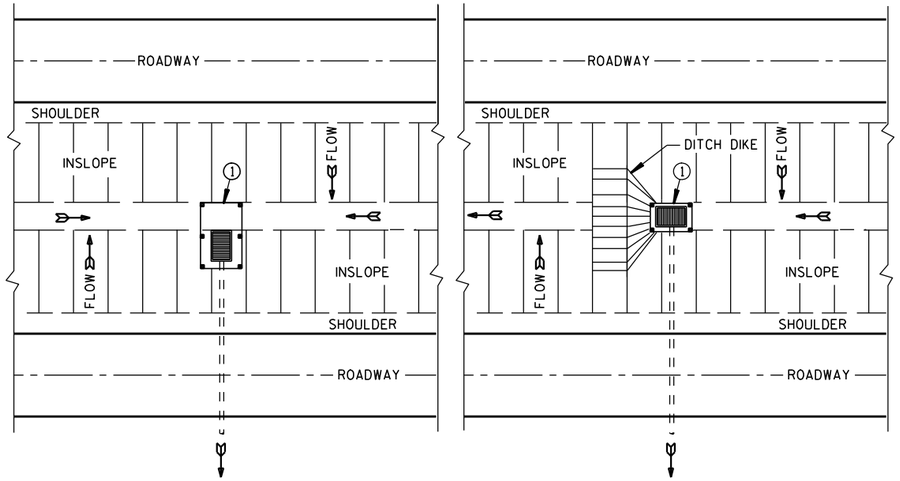
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 8-3



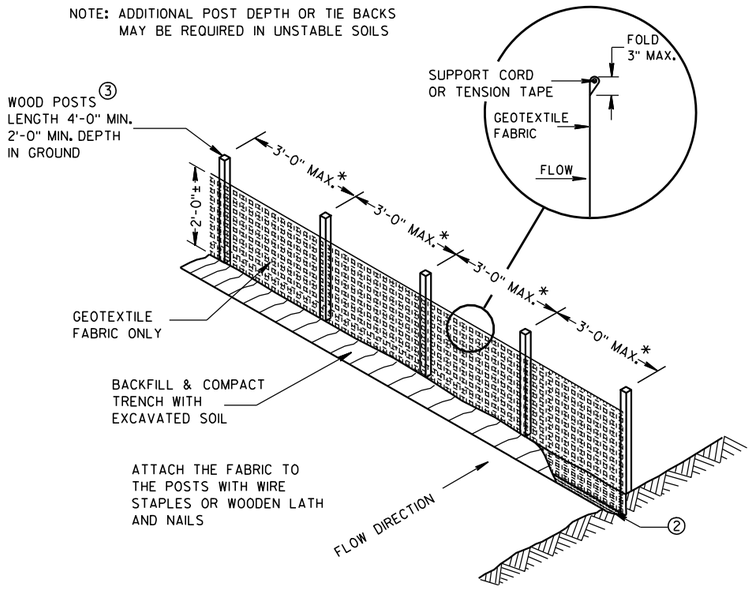
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



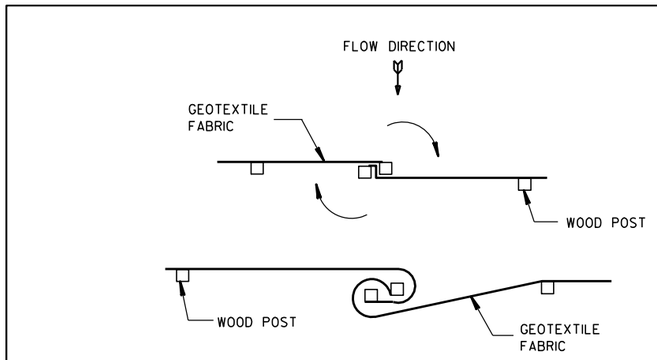
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



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

SILT FENCE

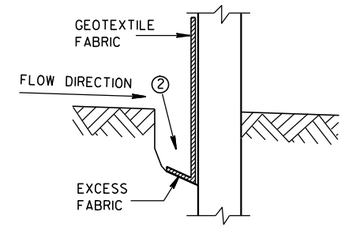


JOINING TWO LENGTHS OF SILT FENCE 5

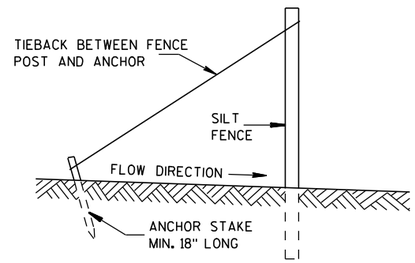
GENERAL NOTES

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

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

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S.D.D. 8 E 9-6

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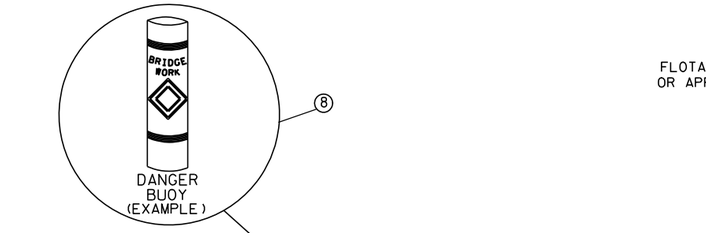
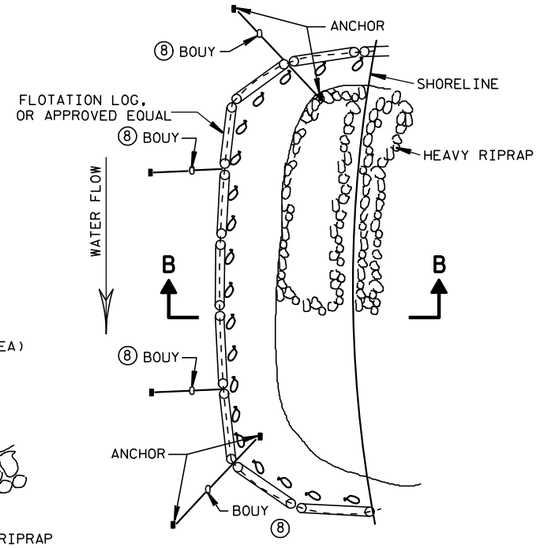
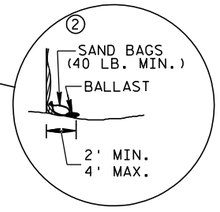
S.D.D. 8 E 9-6

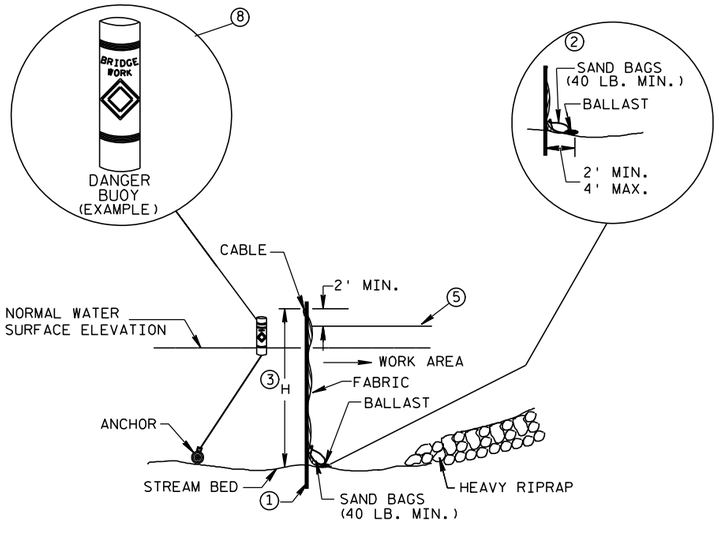


SECTION B-B

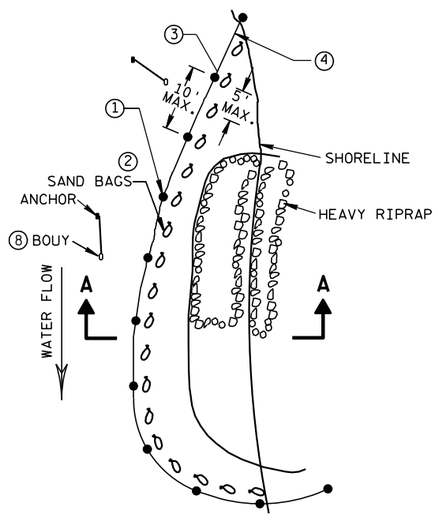




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

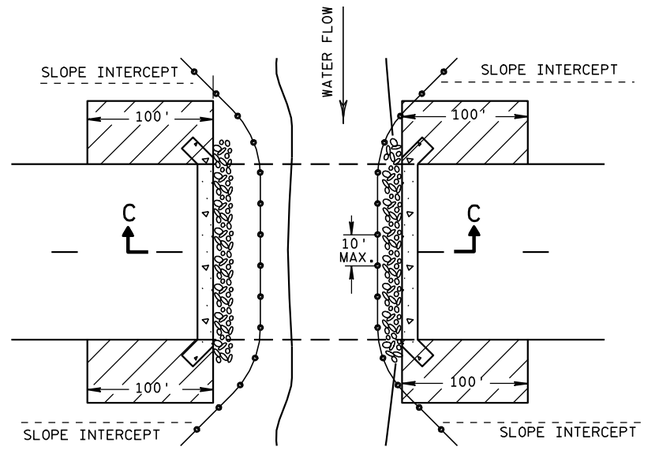
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

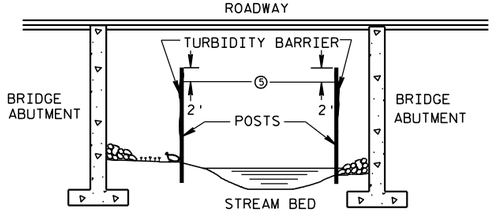
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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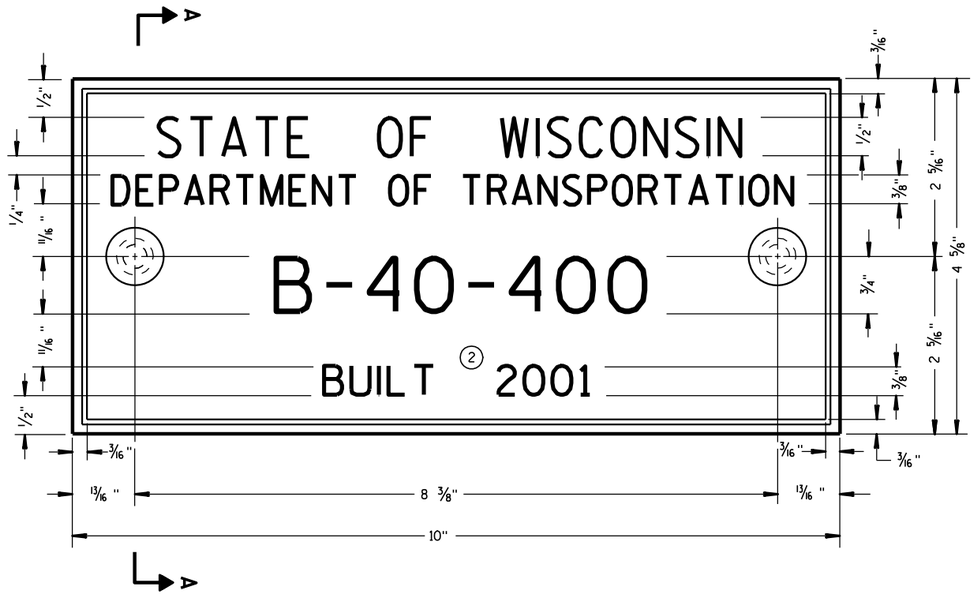


TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

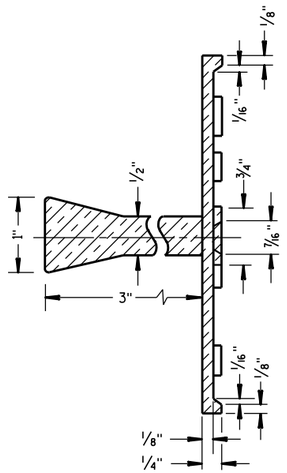
GENERAL NOTES

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

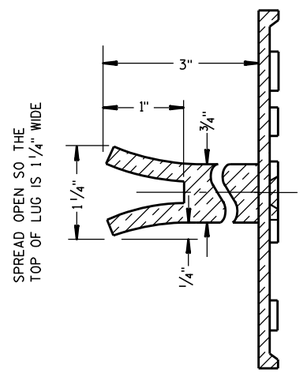
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

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



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

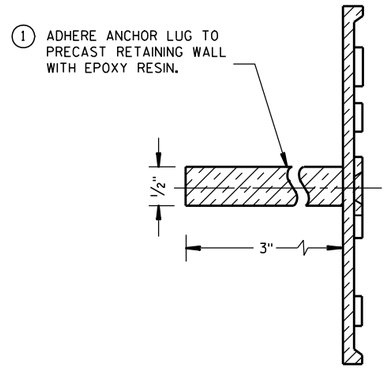
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



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

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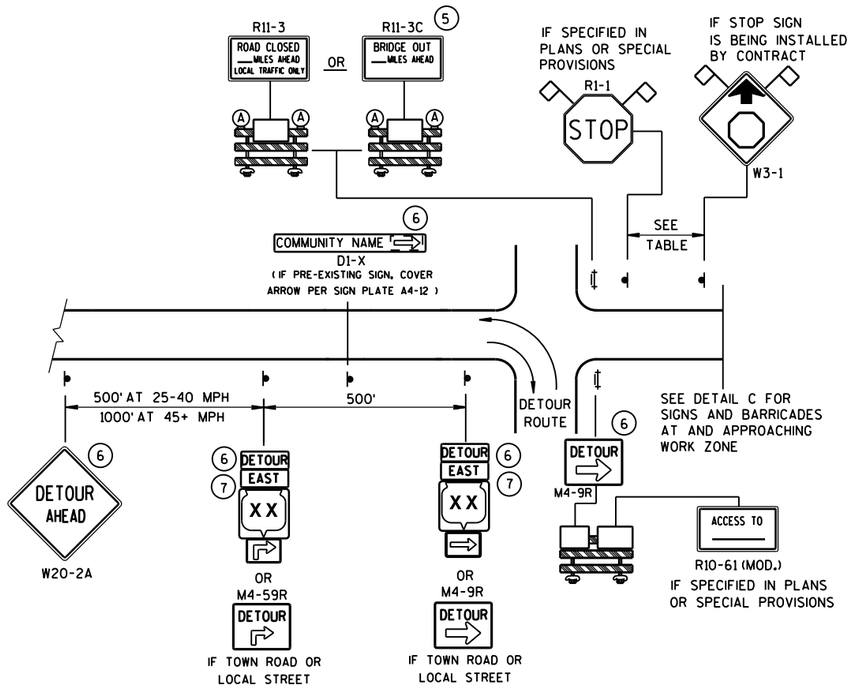
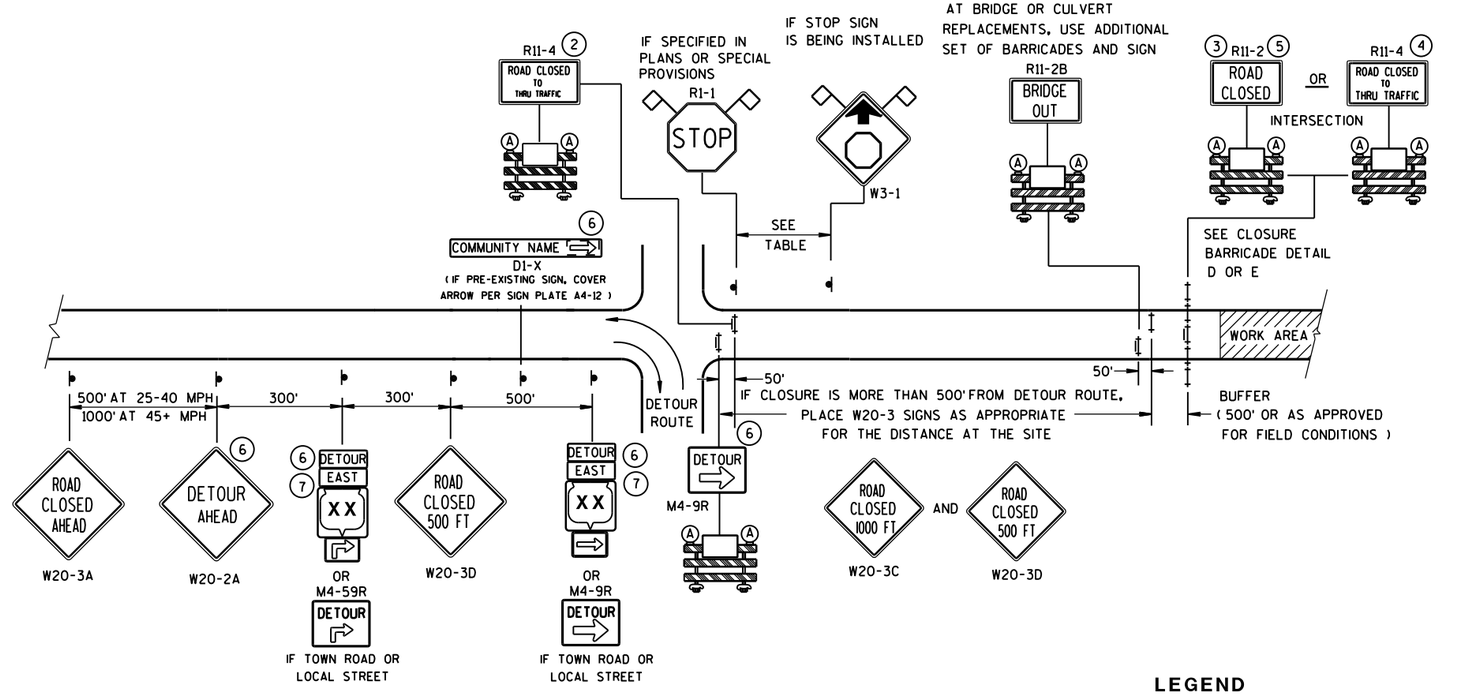
S.D.D. 12 A 3-10



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

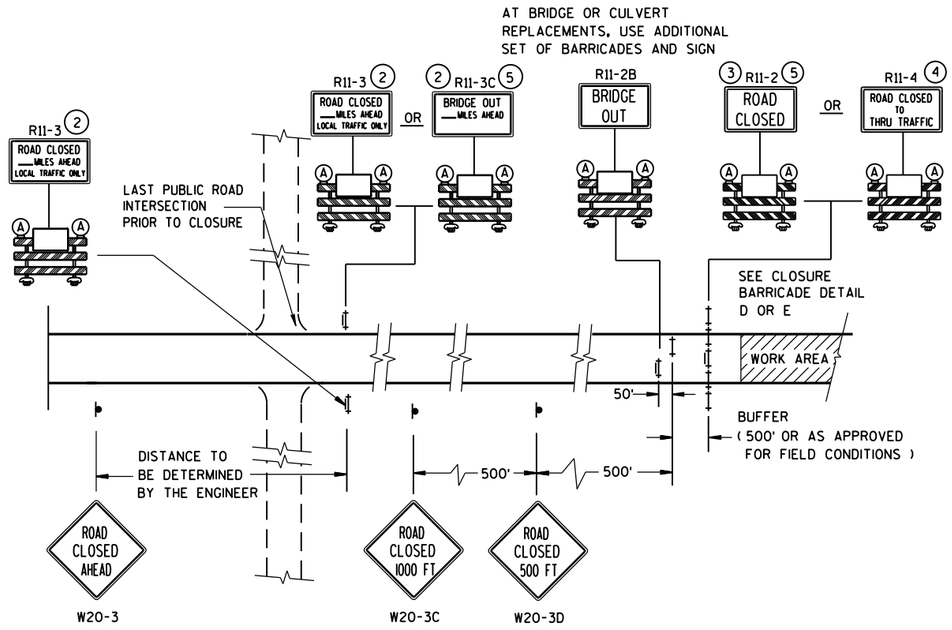
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 C 2-6a

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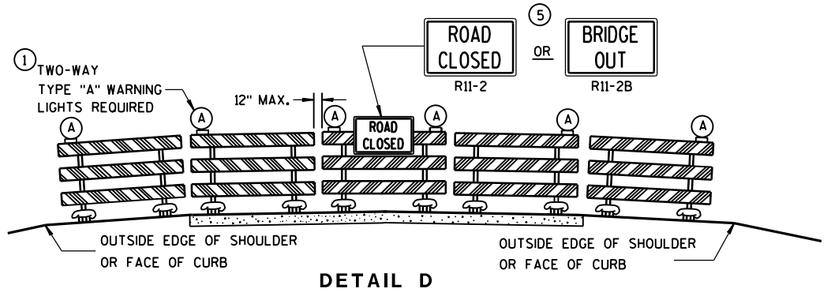
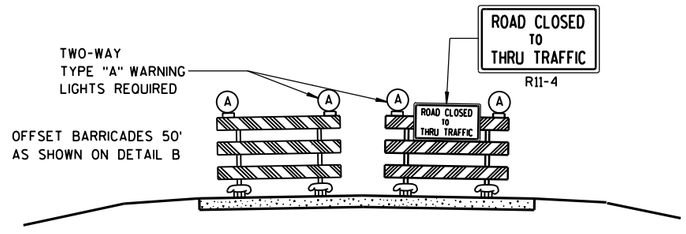
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

FHWA

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S.D.D. 15 C 2-6b

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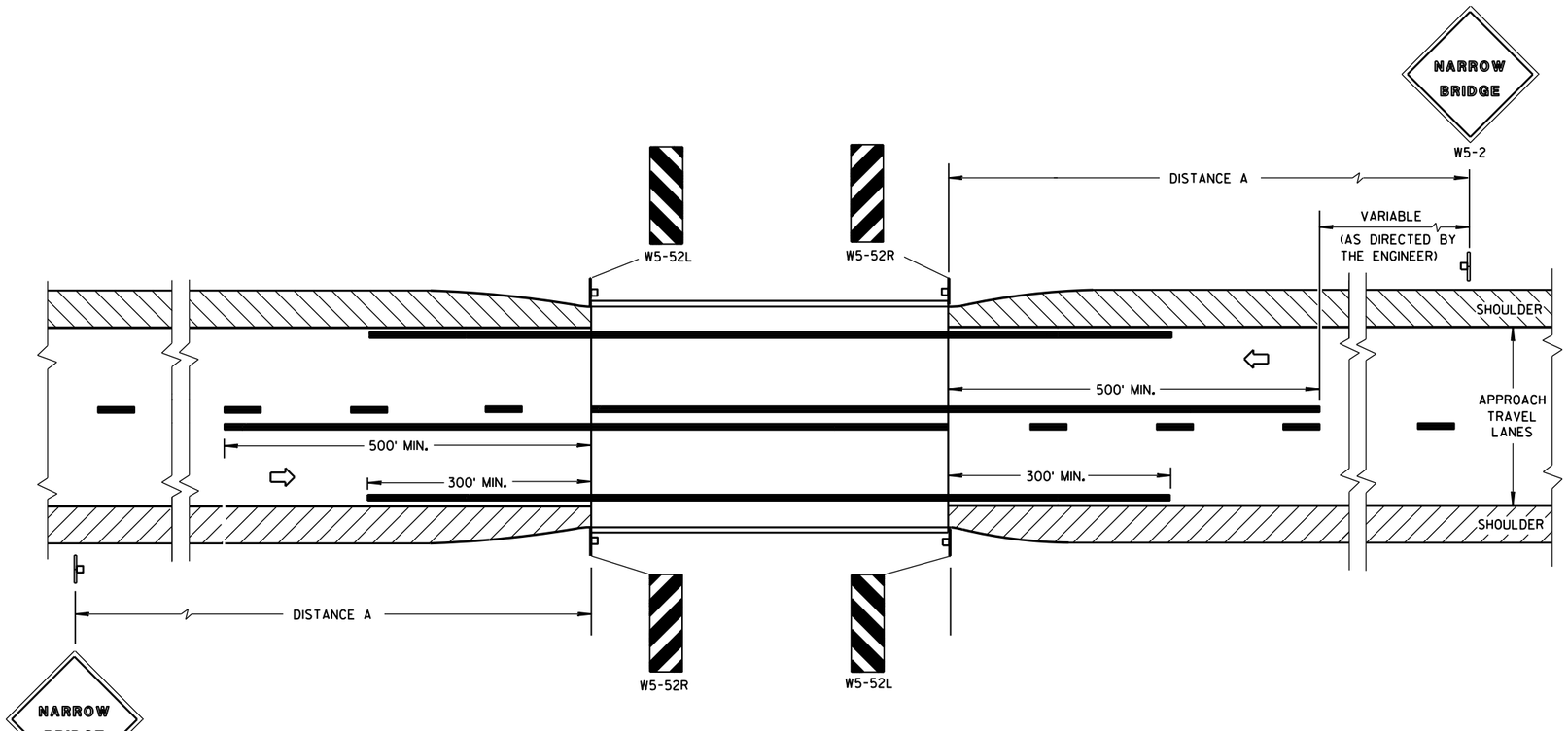
S.D.D. 15 C 2-6b

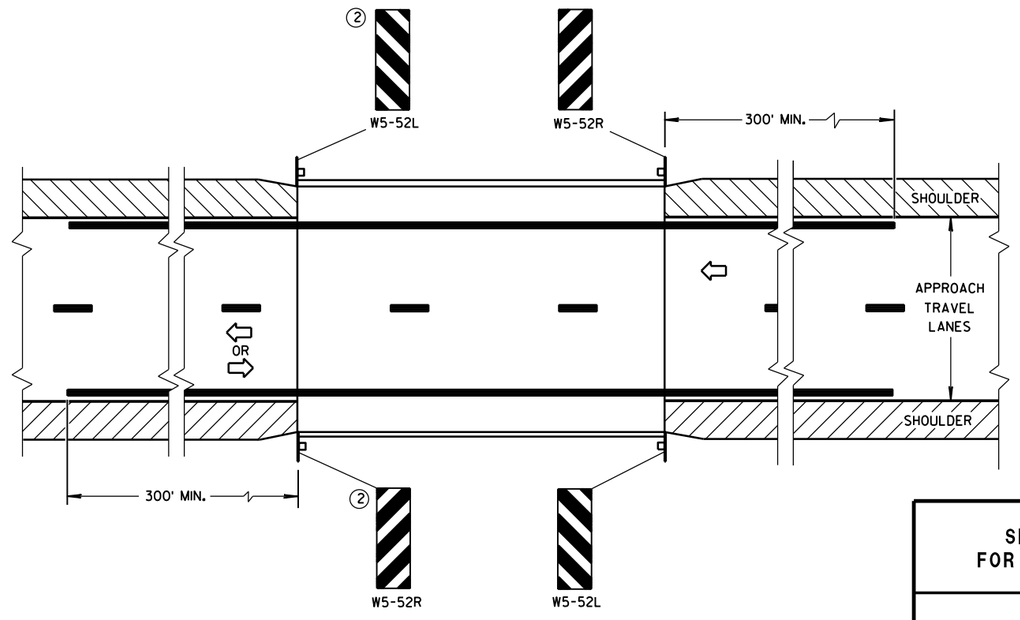


SITUATION 1

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'



SITUATION 2

WARRANTING CRITERIA:

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

GENERAL NOTES

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

① LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

② OMIT ON ONE-WAY TRAVELLED WAYS.

③ EDGE OF W5-52 SIGN SHALL BE PLACED IN LINE WITH FACE OF CURB OR PARAPET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...EER
FHWA

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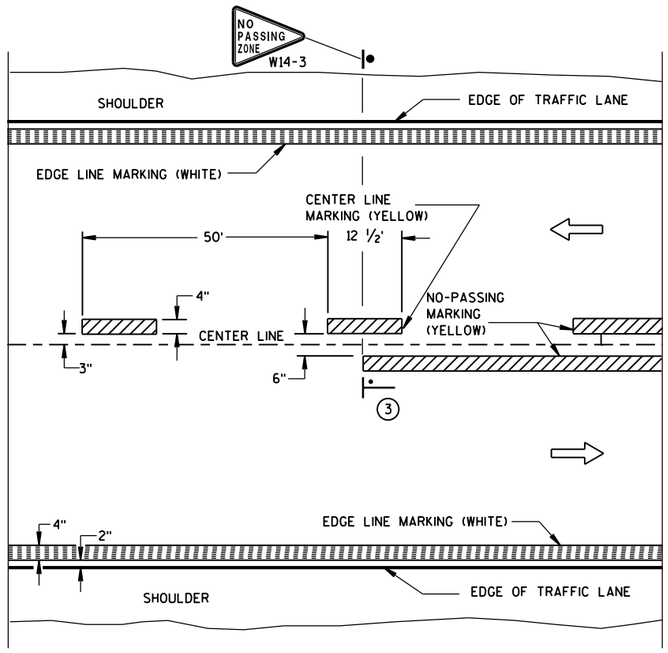
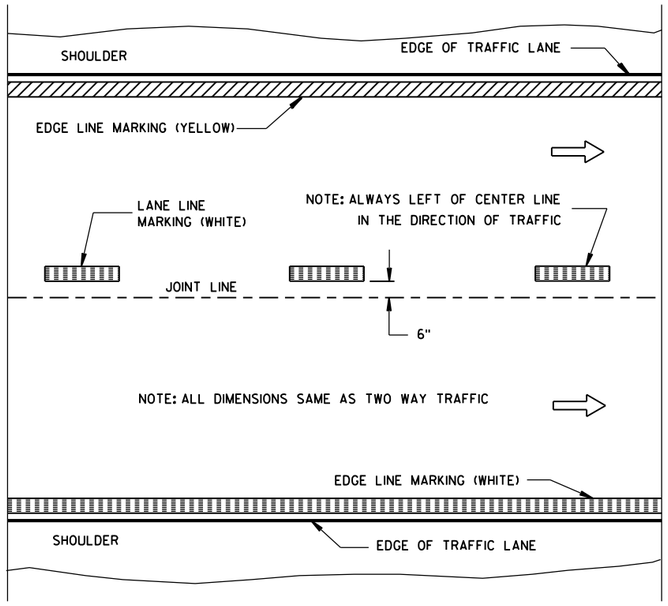
S.D.D. 15 C 6-8

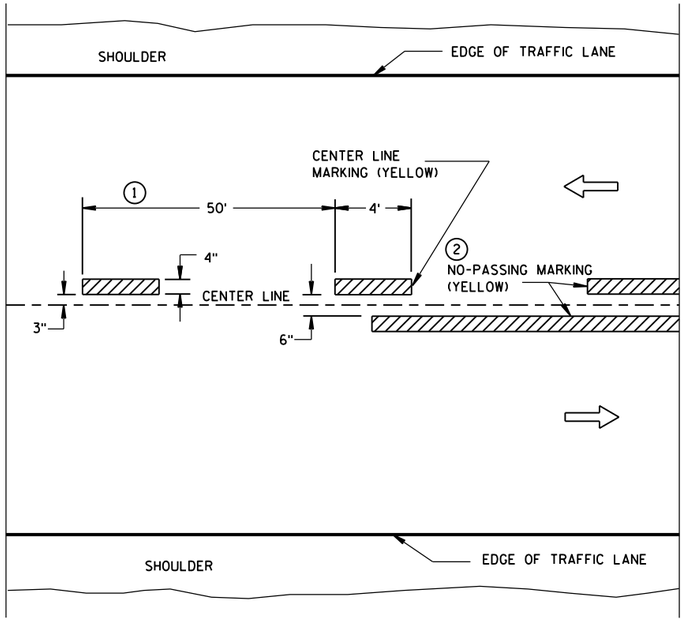


TWO WAY TRAFFIC

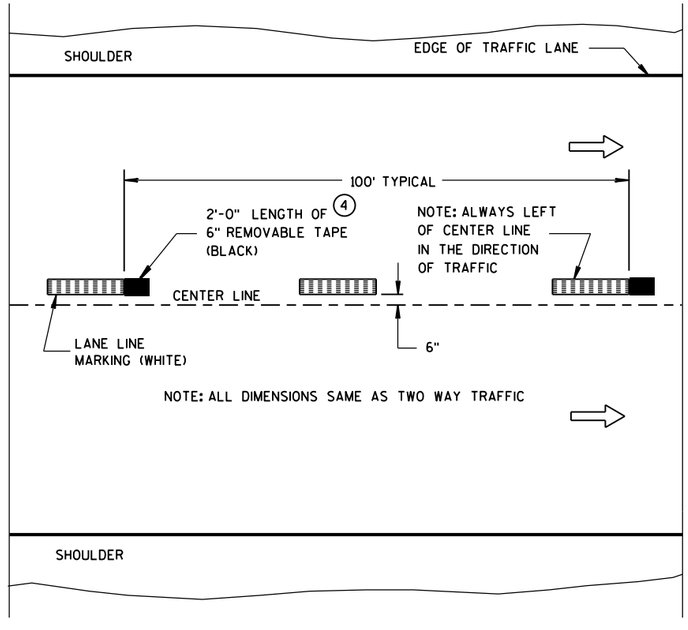


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

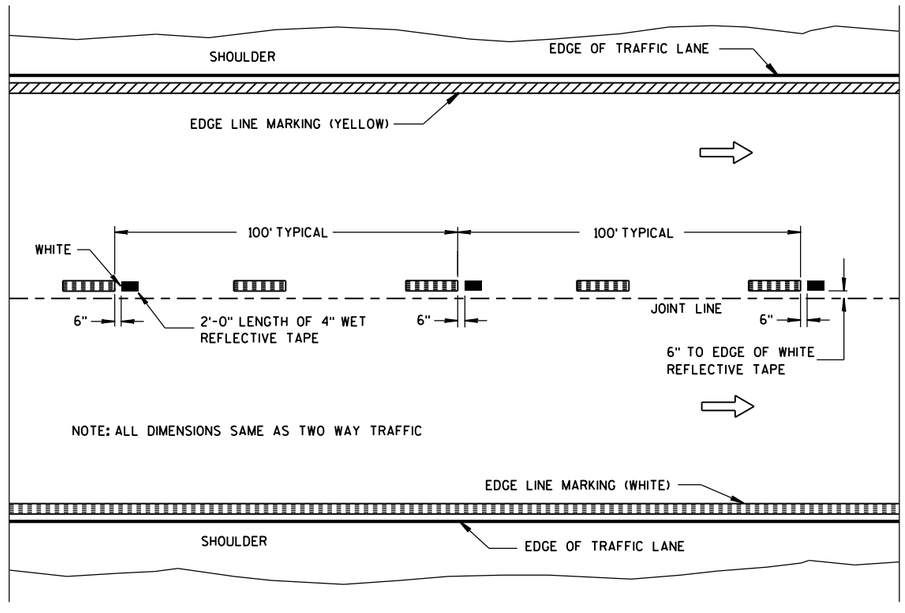
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

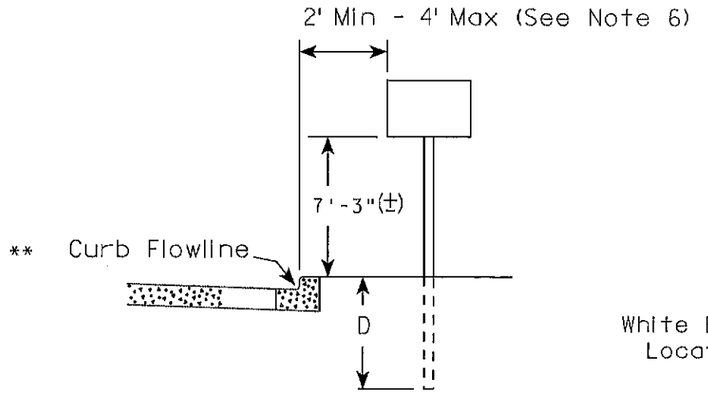
6

S.D.D. 15 C 8-16a

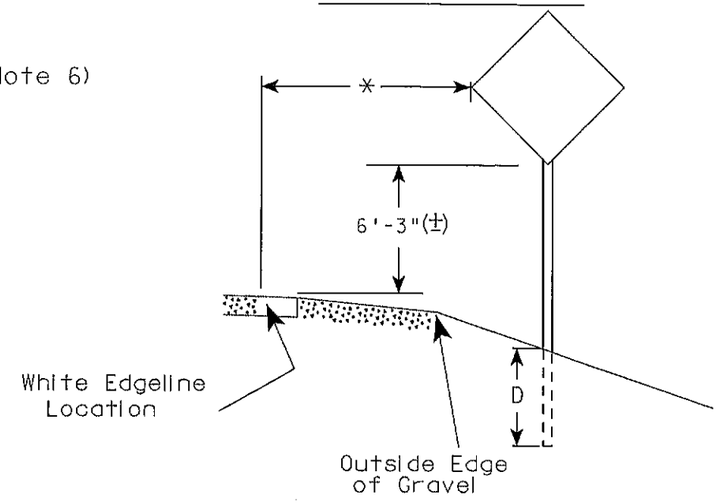
6

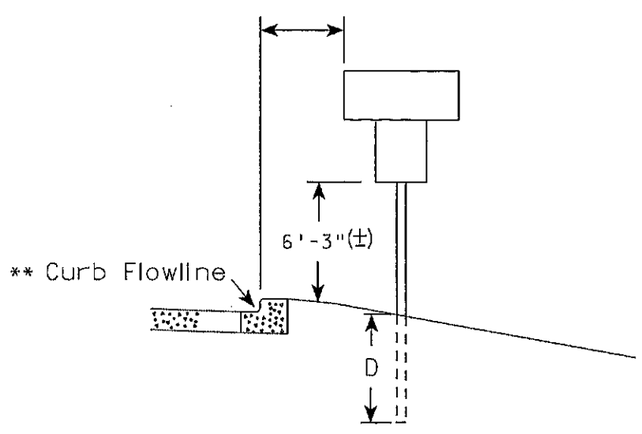
S.D.D. 15 C 8-16a

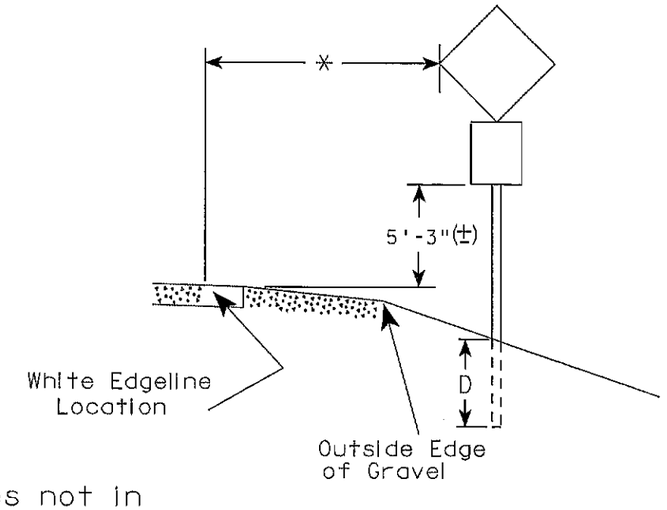
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as 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" (±).

POST EMBEDMENT DEPTH

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

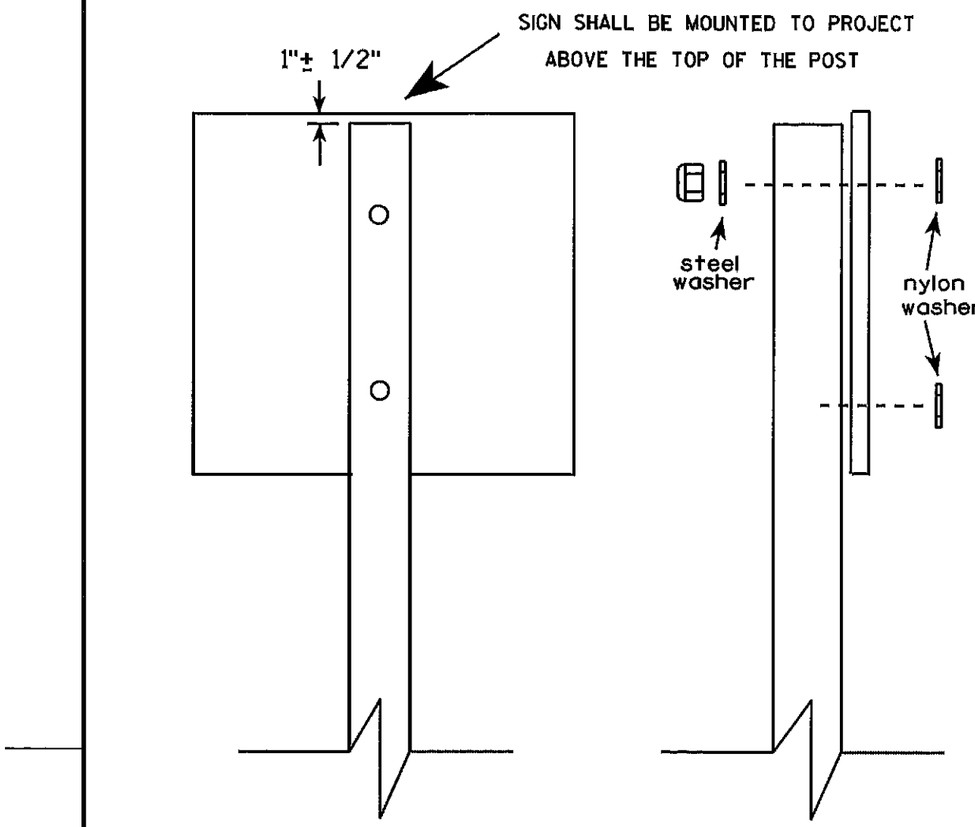
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

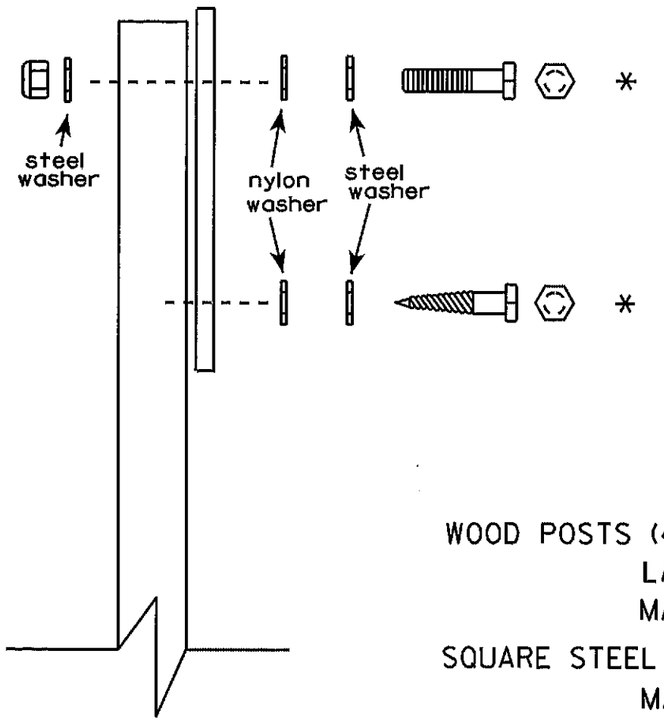
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 12-NOV-2014 14:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42





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

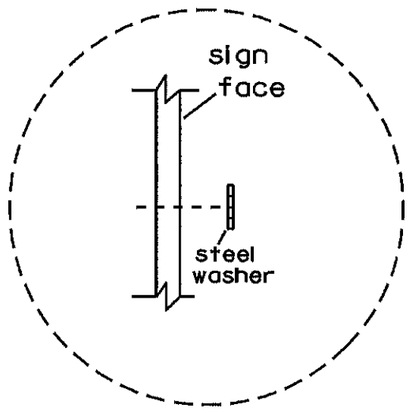
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

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

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

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

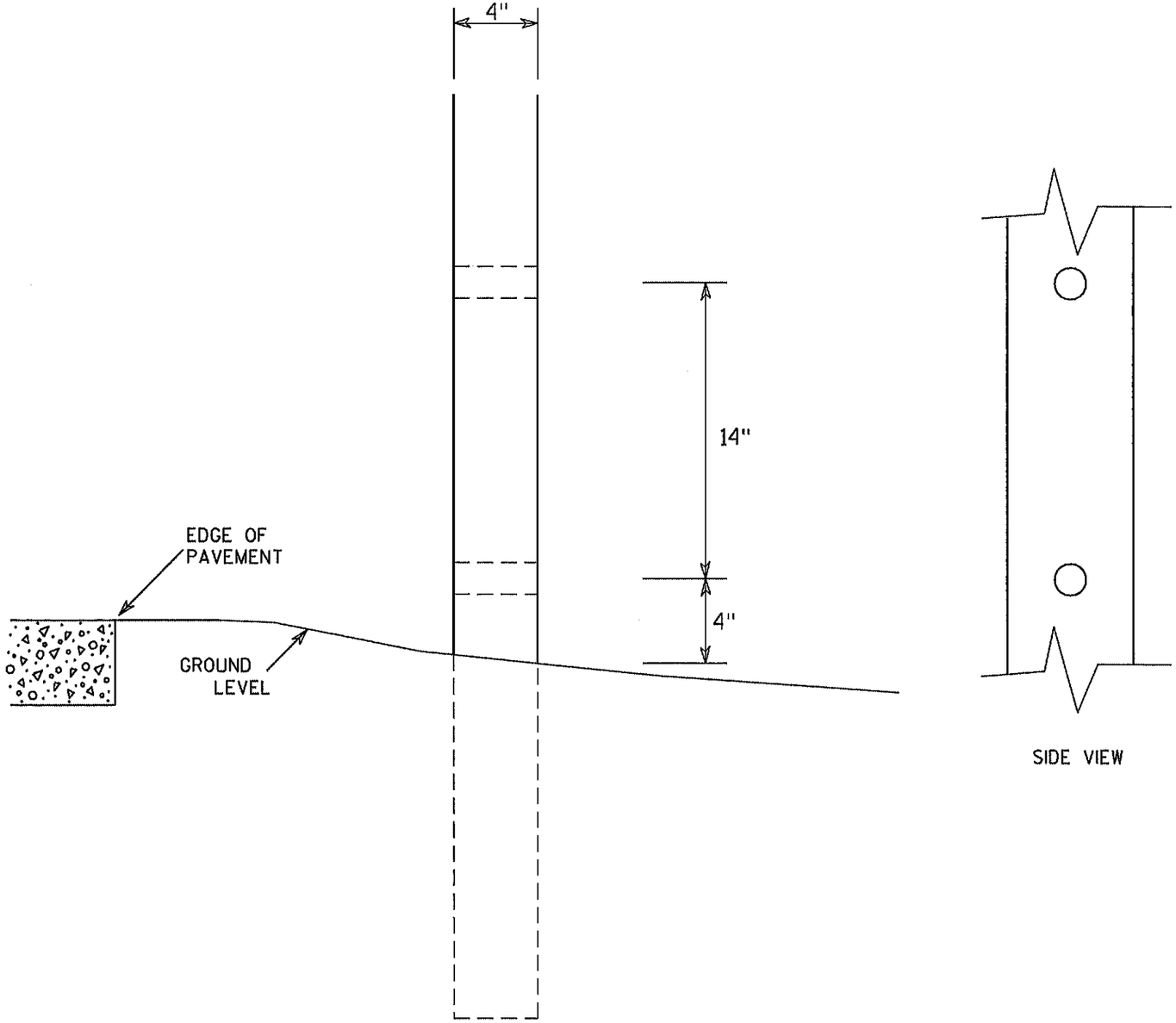
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A48.DGN
PLOT DATE : 23-MAR-2010 10:15
PLOT BY : dltjph
WISDOT/CADDS SHEET 42



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

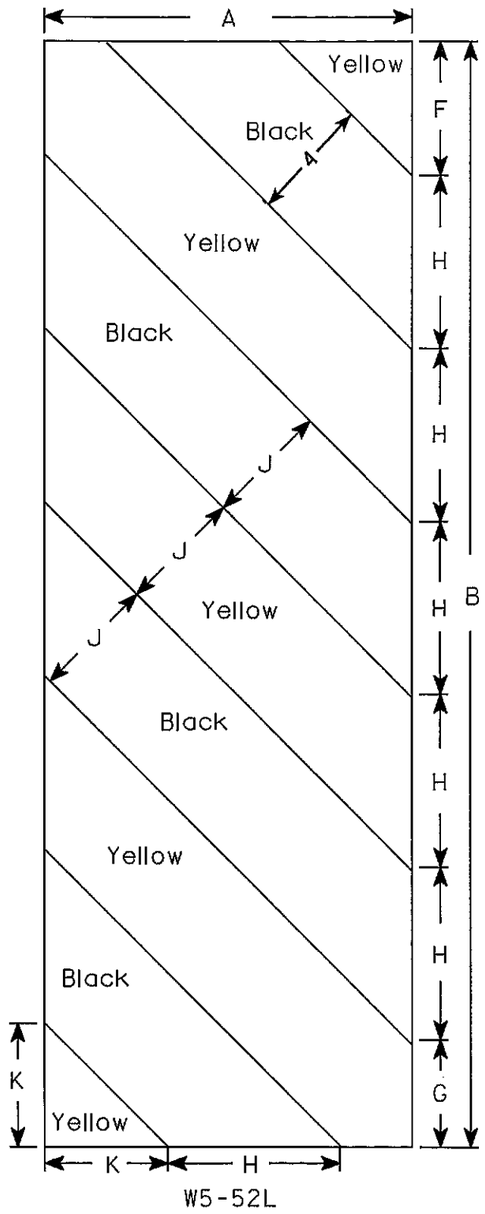
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

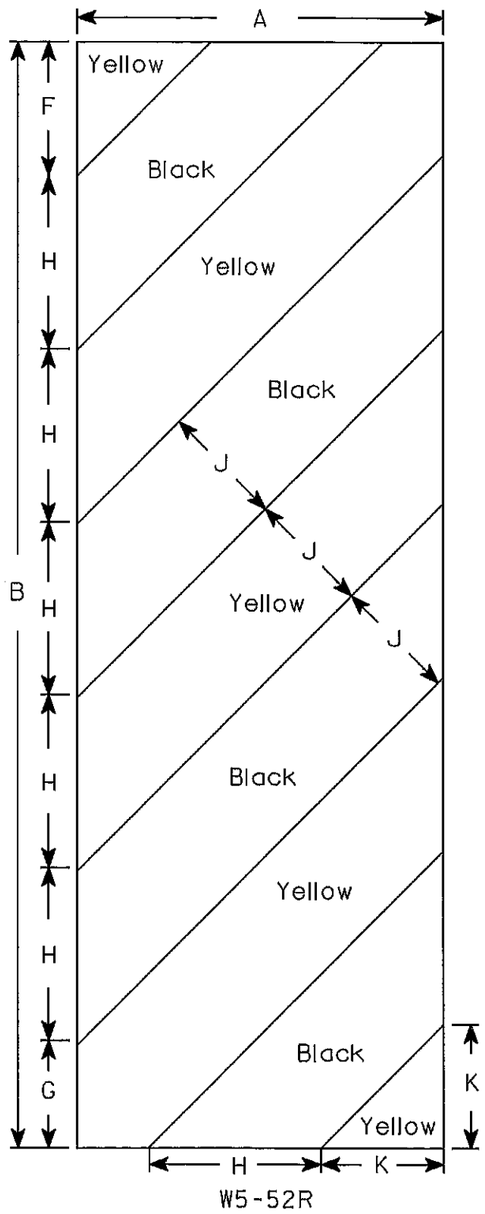
APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 25	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

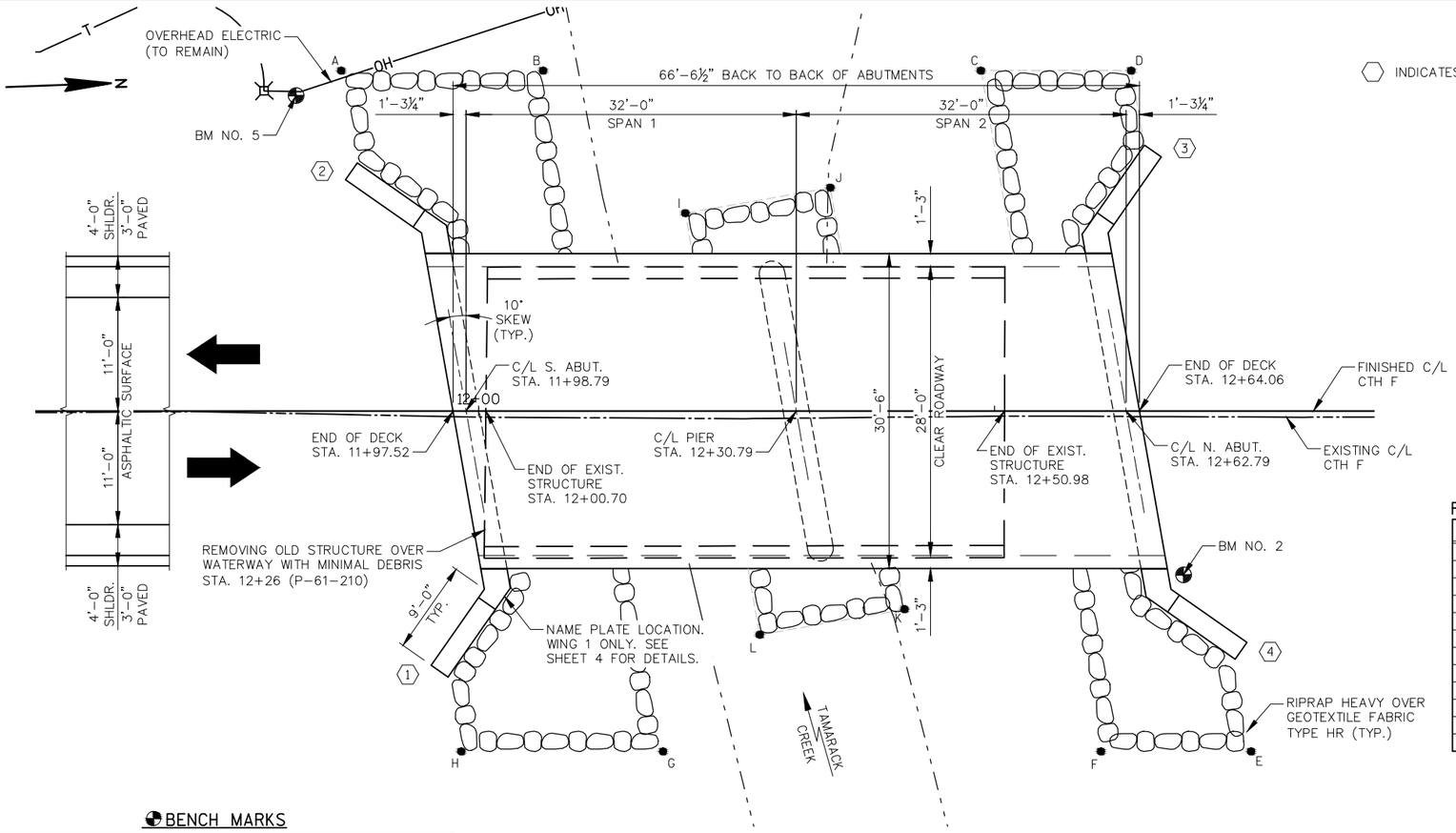
DATE 5/29/12 PLATE NO. W5-52.9

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

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 WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

7155-00-70



PLAN B-61-0221

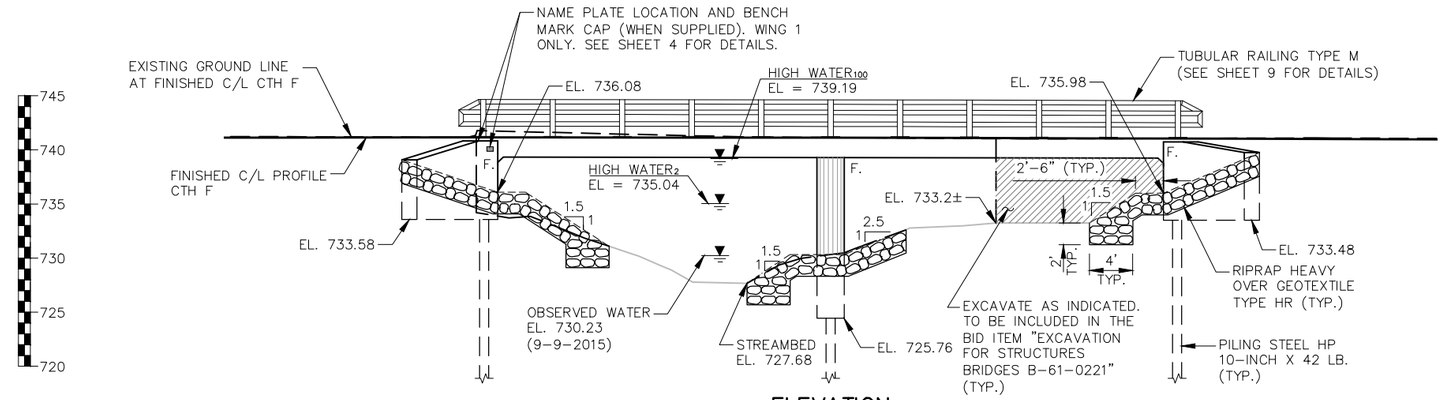
(TWO-SPAN REINFORCED CONCRETE FLAT SLAB)

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	11+86	33' LT.
B	12+06	33' LT.
C	12+48	33' LT.
D	12+63	33' LT.
E	12+75	33' RT.
F	12+61	33' RT.
G	12+18	33' RT.
H	11+99	33' RT.
I	12+20	19' LT.
J	12+34	22' LT.
K	12+41	20' RT.
L	12+27	22' RT.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	9+60	3/4" IRON REBAR SET, 13.3' RT.	739.75
2	12+68	3/4" IRON REBAR SET, 15.9', RT.	740.63
3	14+48	3/4" IRON REBAR SET, 12.8', LT.	739.54
4	12+61	STAR SPIKE IN POWER POLE, 55.8' LT.	737.13
5	11+82	STAR SPIKE IN POWER POLE, 31.6' LT.	737.77



ELEVATION

(NORMAL TO TAMARACK CREEK)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.35
OPERATING RATING FACTOR — RF=1.75
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS AND PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 100 TONS** PER PILE AT THE ABUTMENTS AND 180 TONS** AT THE PIER AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 110 FT. PILE LENGTHS AT THE SOUTH ABUTMENT, 110 FT. PILE LENGTHS AT THE PIER AND 70 FT. PILE LENGTHS AT THE NORTH 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.

TRAFFIC DATA

A.D.T. (2017) — 220
A.D.T. (2037) — 250
DESIGN SPEED — 50 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 41.1 SQ. MI.
Q_{100} TOTAL — 4,000 C.F.S.
THROUGH STRUCTURE — 2,466 C.F.S.
OVERTOPPING ROADWAY — 1,534 C.F.S.
VELOCITY - THROUGH STRUCTURE — 6.91 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE — 357 SQ. FT.
HIGH $WATER_{100}$ ELEVATION — 739.19
SCOUR CRITICAL CODE — 5

DESIGN ROADWAY OVERFLOW FREQUENCY
ROADWAY OVERTOPPING FREQUENCY — 6 YRS
$Q_{OVERTOPPING}$ — 1,745 C.F.S.

EROSION CONTROL
Q_2 — 920 C.F.S.
HIGH $WATER_2$ ELEVATION — 735.04

WISCONSIN PATRICK T. BOLAND E-36303 SPRING GREEN WIS. PROFESSIONAL ENGINEER Patrick Boland 9-2-16

DESIGN CONSULTANT

PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT

WILLIAM DREHER, PE
(608) 266-8489

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc. Engineers - Surveyors - Architects
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE: (608) 588-7484
FAX: (608) 588-9322

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR — CHIEF STRUCTURES DESIGN ENGINEER — 09/06/16 DATE

STRUCTURE B-61-0221

CTH F OVER TAMARACK CREEK

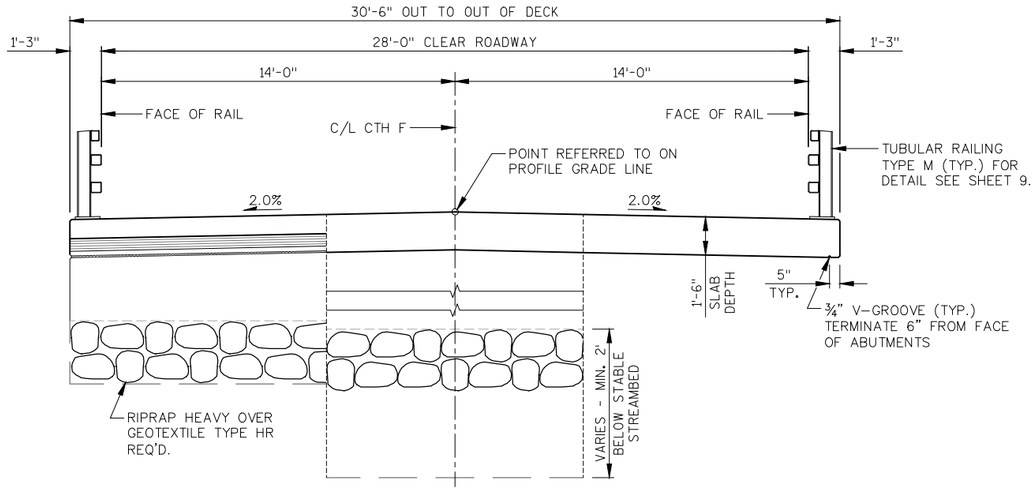
COUNTY: TREMPEALEAU
TOWN/~~CITY/VILLAGE~~: TREMPEALEAU
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JZ	PTB	JZ	PTB

GENERAL PLAN

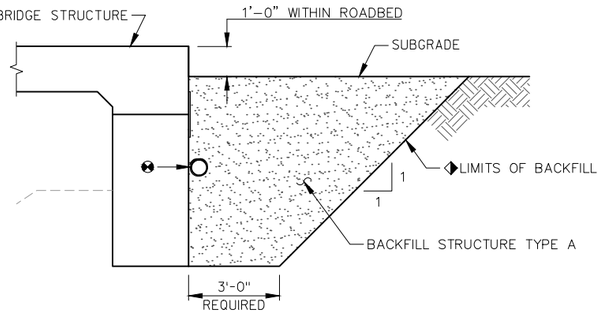
SHEET 1 OF 9

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\STRUCTURE\CAD FILES\FINALS\01 GENERAL PLAN.DWG
LAYOUT : LAYOUT1
PLOT DATE : 9/2/2016
PLOT TIME : 11:40:47 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'



PROPOSED CROSS-SECTION THROUGH ROADWAY

LOOKING NORTH



BACKFILL STRUCTURE DETAIL

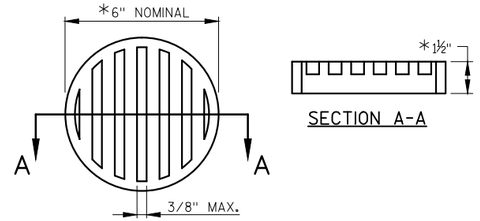
(TYPICAL AT BOTH ABUTMENTS)

◆ BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-61-0221". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

◓ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	PIER	N. ABUT.	SUPER.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MIN. DEBRIS STA. 12+26	LS	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-61-0221	LS	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	110	--	110	--	220
502.0100	CONCRETE MASONRY BRIDGES	CY	27.4	36.7	27.5	117.4	209
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	260	260
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,305	1,620	2,305	--	6,230
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,330	60	1,330	24,090	26,810
513.4061	RAILING TUBULAR TYPE M B-61-0221	LF	--	--	--	--	138
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6.5	--	6.5	138	13
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	770	550	490	--	1,810
606.0300	RIPRAP HEAVY	CY	95	59	66	--	220
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	--	75	--	150
645.0120	GEOTEXTILE TYPE HR	SY	155	105	110	--	370
	NON-BID ITEMS						
	FILLER	SIZE	--	--	--	--	½" & ¾"
	NAME PLATE						



RODENT SCREEN

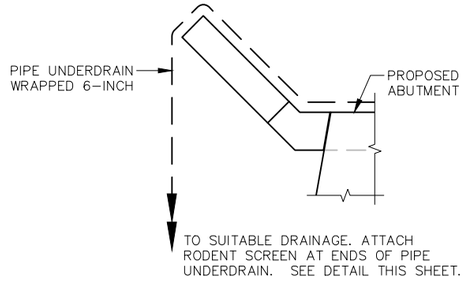
NOTES:

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

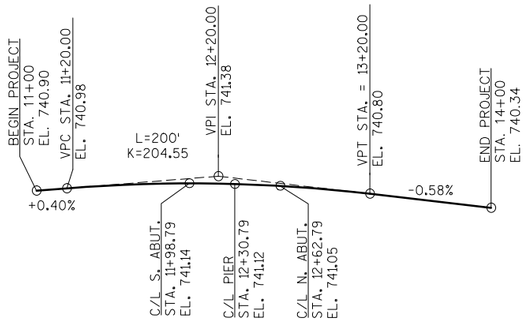
ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

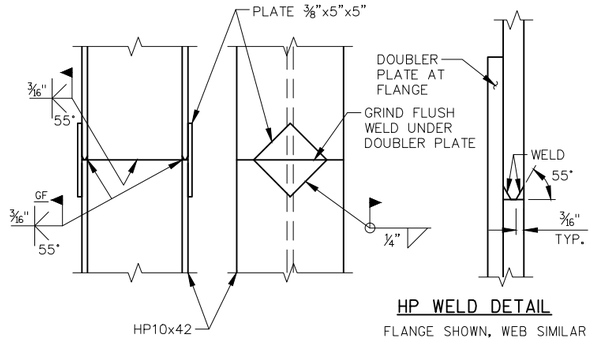


PIPE UNDERDRAIN DETAIL



PROFILE GRADE LINE

CTH F



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS AND AT THE PIER SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT AND PIER DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK AND THE EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).

THE EXISTING STRUCTURE (P-61-0210) IS A SINGLE SPAN STEEL THRU GIRDER STRUCTURE WITH A TIMBER DECK SUPPORTED ON FULL RETAINING TIMBER ABUTMENTS. THE STRUCTURE IS 25.9' WIDE BY 51.0' LONG AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

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

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

STATE PROJECT NUMBER

7155-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

CROSS SECTION AND QUANTITIES

SHEET 2 OF 9

8

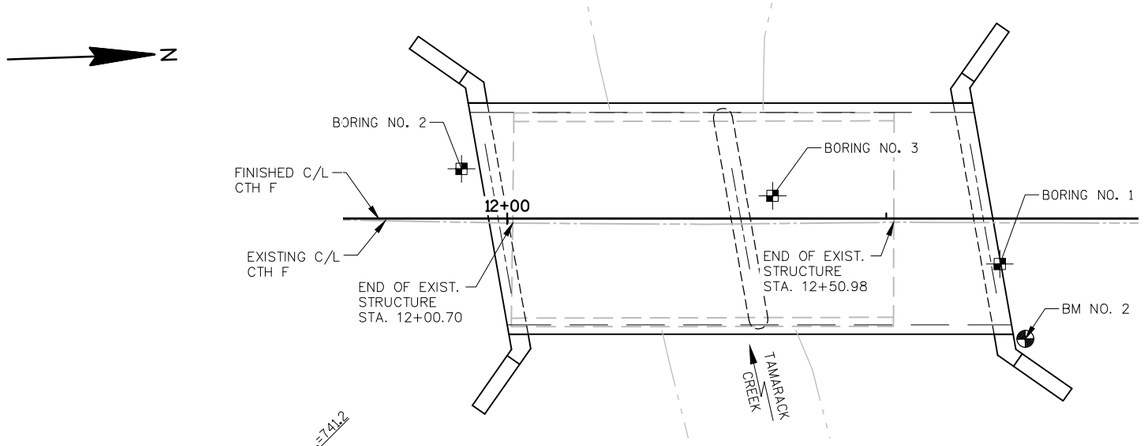
8

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\STRUCTURE\CAD FILES\FINALS\02 CROSS SECTION AND QUANTITIES.DWG
LAYOUT : LAYOUT1

PLOT DATE : ----
PLOT TIME : ----

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'



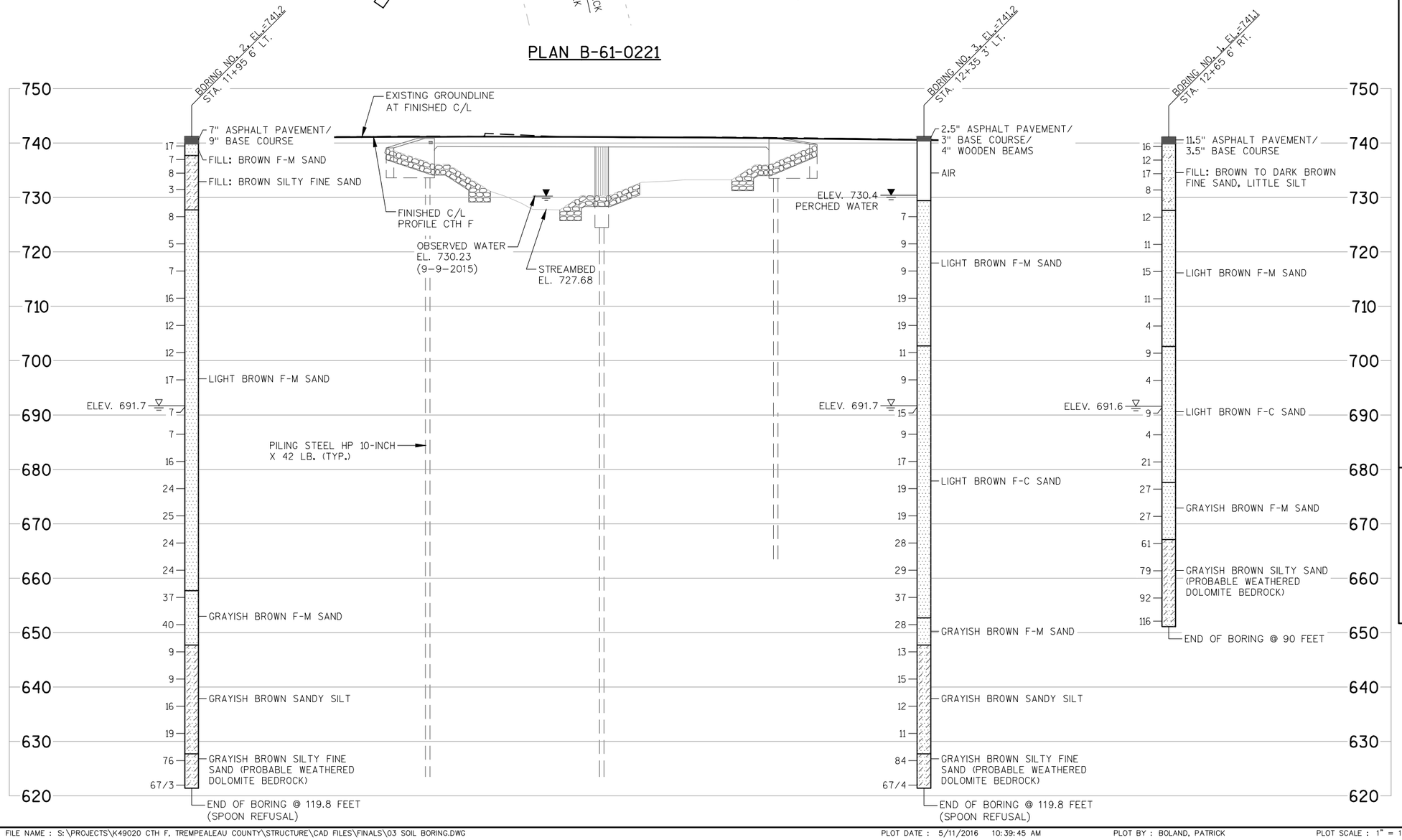
PLAN B-61-0221

SOIL BORINGS

BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	12/08/15	90,640.2	1,584,531.2
2	12/09/15	90,610.5	1,584,521.2
3	12/10/15	90,569.6	1,584,516.2

BORINGS & REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.
3217 WHITING AVENUE
STEVENS POINT, WI 54481

ABUTMENTS AND PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 100 TONS PER PILE AT THE ABUTMENTS AND 180 TONS PER PILE AT THE PIER AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 110 FT. PILE LENGTHS AT THE SOUTH ABUTMENT, 110 FT. PILE LENGTHS AT THE PIER AND 70 FT. PILE LENGTHS AT THE NORTH ABUTMENT.



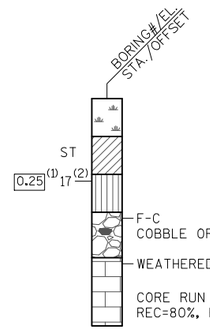
STATE PROJECT NUMBER

7155-00-70

MATERIAL SYMBOLS

Asphalt · Topsoil · Peat
Concrete · Fill · Gravel
Sand · Clay · Silt
Boulders or Cobbles · Limestone · Bedrock (unknown)
Shale · Sandstone · Igneous/ meta

LEGEND OF BORING



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

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

GROUND WATER ELEVATIONS

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COURSE 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-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

SUBSURFACE EXPLORATION

SHEET 3 OF 9

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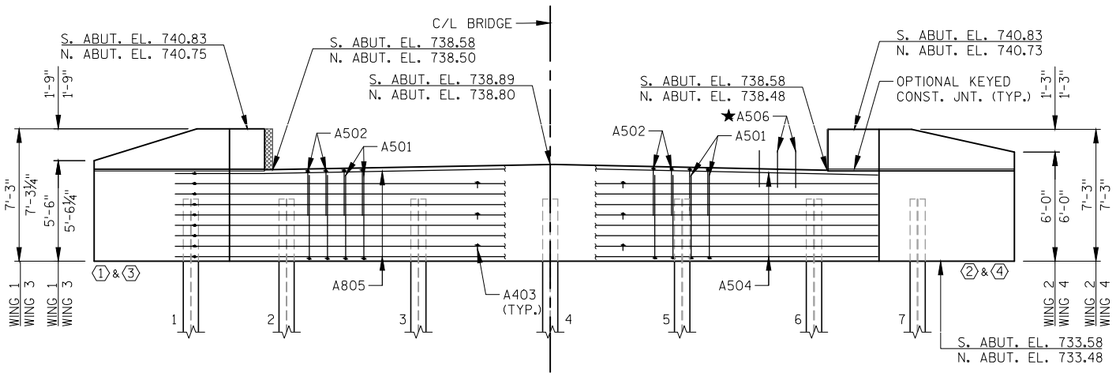
8

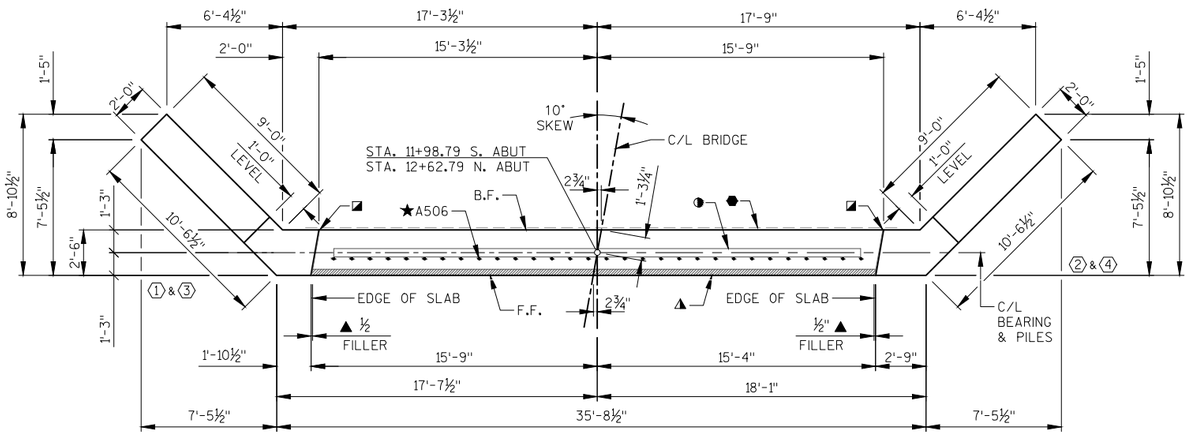
8



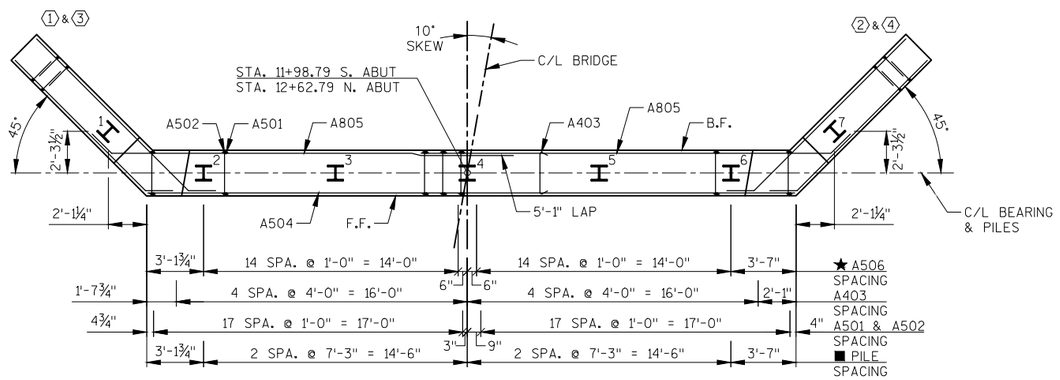
BACK FACE BAR STEEL REINF. FRONT FACE BAR STEEL REINF.

ELEVATION

(SOUTH ABUTMENT LOOKING SOUTH)
(NORTH ABUTMENT LOOKING NORTH)



PLAN



LAYOUT

NOTES

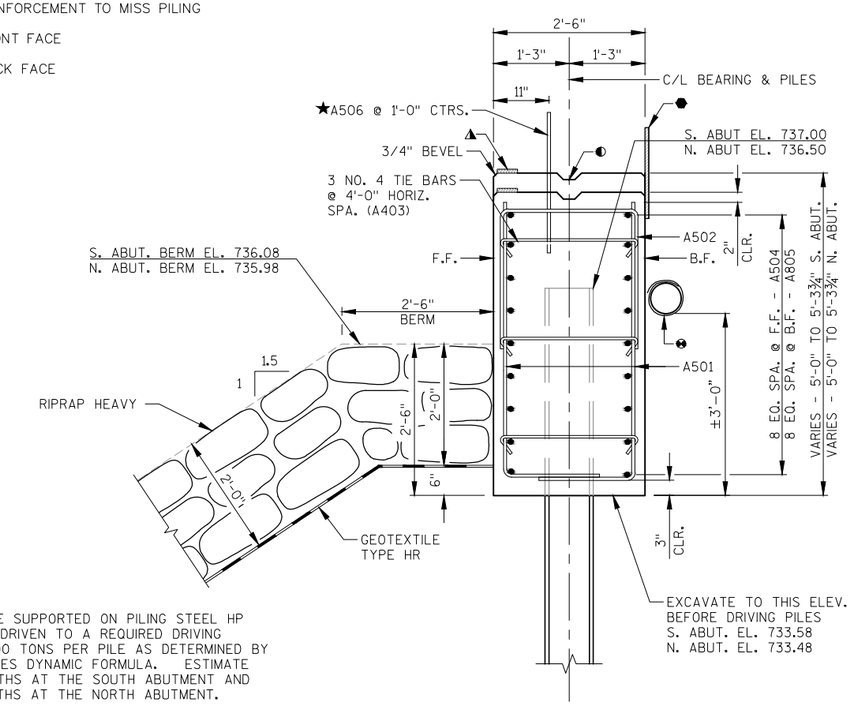
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. – FRONT FACE

B.F. – BACK FACE

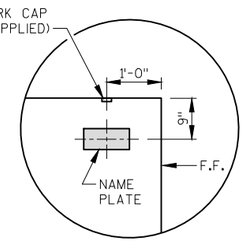


ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 100 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 110 FT PILE LENGTHS AT THE SOUTH ABUTMENT AND 70 FT PILE LENGTHS AT THE NORTH ABUTMENT.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◮ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ★ A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- ■ PILE SPACING MEASURED AT BASE OF SHAFT.
- ⦵ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



NAME PLATE AND BENCHMARK CAP DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER
7155-00-70

STRUCTURE B-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

ABUTMENTS

SHEET 4 OF 9
30

8

8

STATE PROJECT NUMBER

7155-00-70

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

BILL OF BARS
TWO ABUTMENTS SHOWN

2,660 LB (COATED)
4,610 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	144	6-1	X			BODY - VERT. - F.F & B.F.
A502	72	8-3	X			BODY - VERT. - TOP
A403	54	2-8	X			TIE BARS
A504	18	35-8				BODY - HORIZ. - F.F.
A805	36	24-0	X			BODY - HORIZ. - B.F.
A506	60	2-0		X		BODY - VERT. - DOWELS
A407	44	8-4	X	X	✳	WING 1 & 3 - VERT. - F.F. & B.F.
A408	26	6-10		X		WINGS - VERT.
A409	4	3-3		X		WINGS - VERT. - TOP
A510	36	11-9	X	X		WINGS - HORIZ. - F.F.
A811	36	13-3	X	X		WINGS - HORIZ. - B.F.
A412	4	7-10		X		WING 1 & 3 - HORIZ. - F.F. & B.F.
A413	4	4-5		X		WING 1 & 3 - HORIZ. - F.F. & B.F.
A414	4	9-0	X	X		WING 1 & 3 - HORIZ. - F.F. & B.F.
A415	6	9-2	X	X		WING 1 & 3 - HORIZ. - TOP
A416	44	8-7	X	X	✳	WING 2 & 4 - VERT. - F.F. & B.F.
A417	4	8-10		X		WING 2 & 4 - HORIZ. - F.F. & B.F.
A418	4	5-8		X		WING 2 & 4 - HORIZ. - F.F. & B.F.
A419	4	8-11		X		WING 2 & 4 - HORIZ. - F.F. & B.F.
A420	6	10-0	X	X		WING 2 & 4 - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

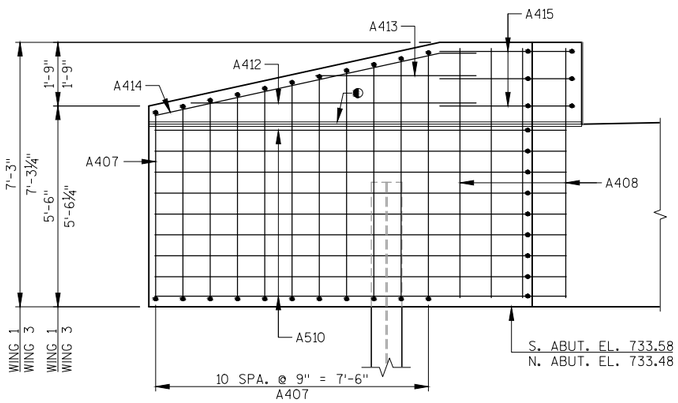
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

✳ LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

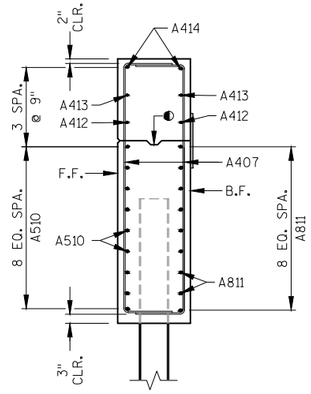
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A407	4 SERIES OF 11	9-2 TO 7-6
A416	4 SERIES OF 11	9-2 TO 8-0

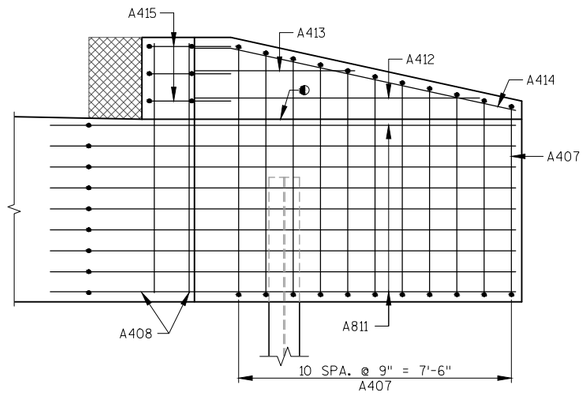
BUNDLE AND TAG EACH SERIES SEPARATELY.



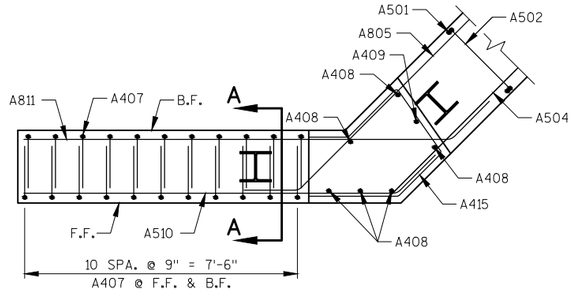
F.F. ELEVATION - WING 1 & 3



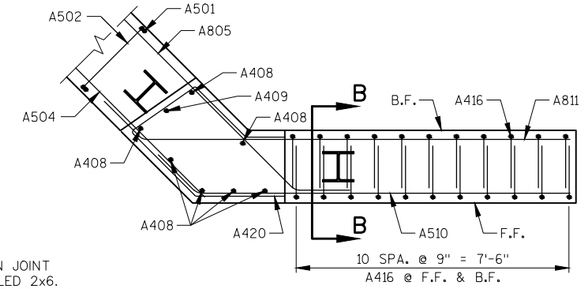
SECTION A-A



B.F. ELEVATION - WING 1 & 3



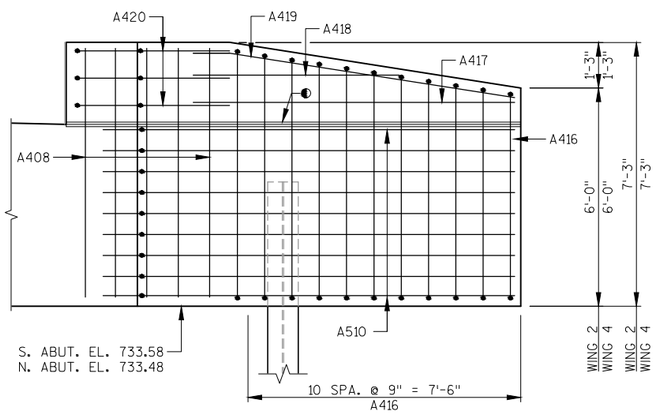
PLAN VIEW - WING 1 & 3



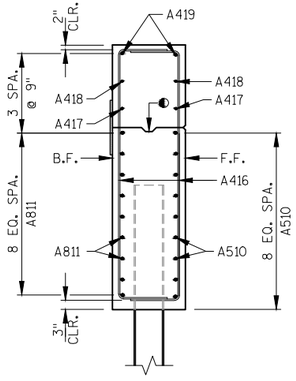
PLAN VIEW - WING 2 & 4

LEGEND

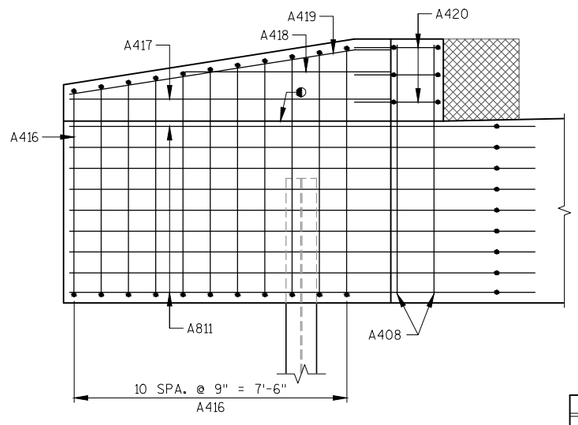
◐ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. ¾" "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".



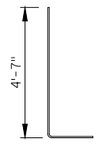
F.F. ELEVATION - WING 2 & 4



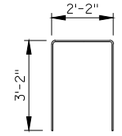
SECTION B-B



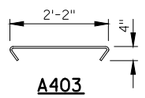
B.F. ELEVATION - WING 2 & 4



A501



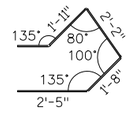
A502



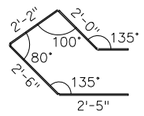
A403

A407 & A416

A805, A510 & A811



A415



A420

A414 & A419

MARK	'A'
A414	167°40'
A419	171°07'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

ABUTMENT DETAILS

SHEET 5 OF 9
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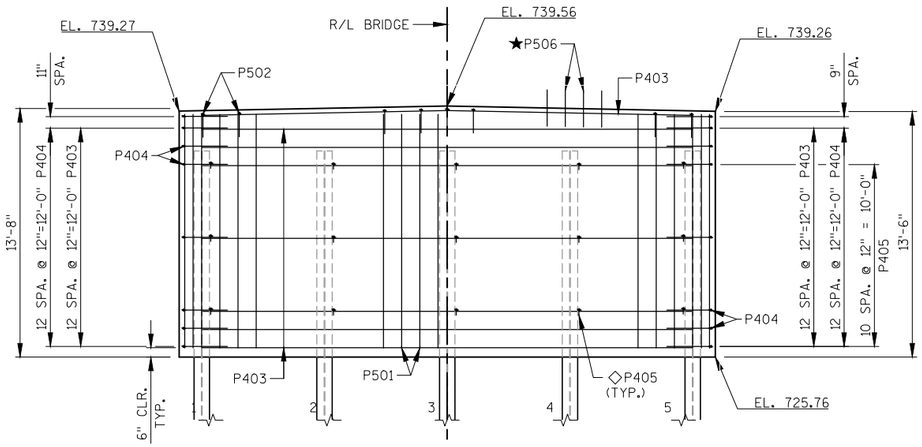
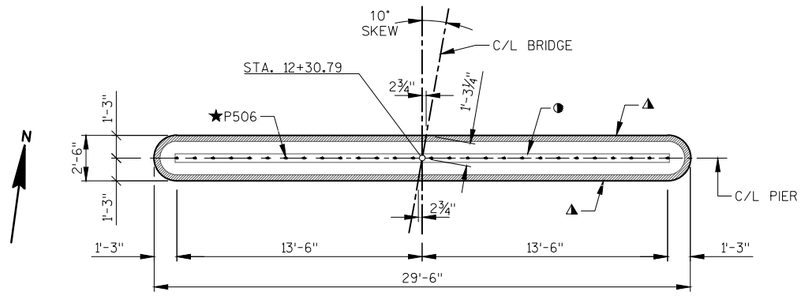
FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\STRUCTURE\CAD FILES\FINALS\05 ABUTMENT DETAILS.DWG PLOT DATE : 9/2/2016 11:41:42 AM PLOT BY : BOLAND, PATRICK PLOT SCALE : 1" = 1' LAYOUT : LAYOUT1

STATE PROJECT NUMBER

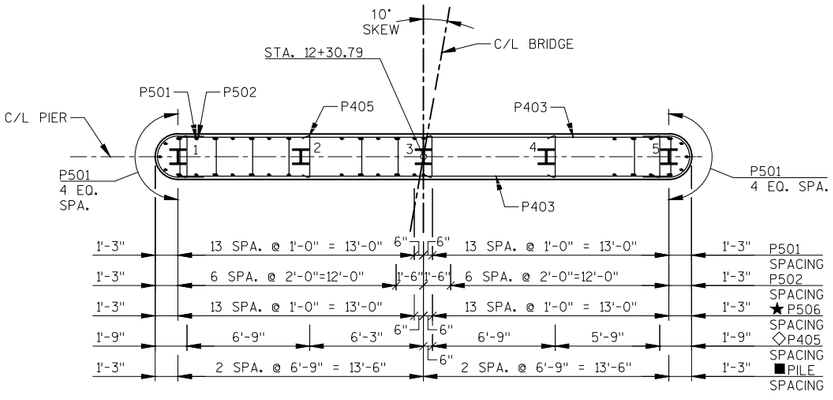
7155-00-70



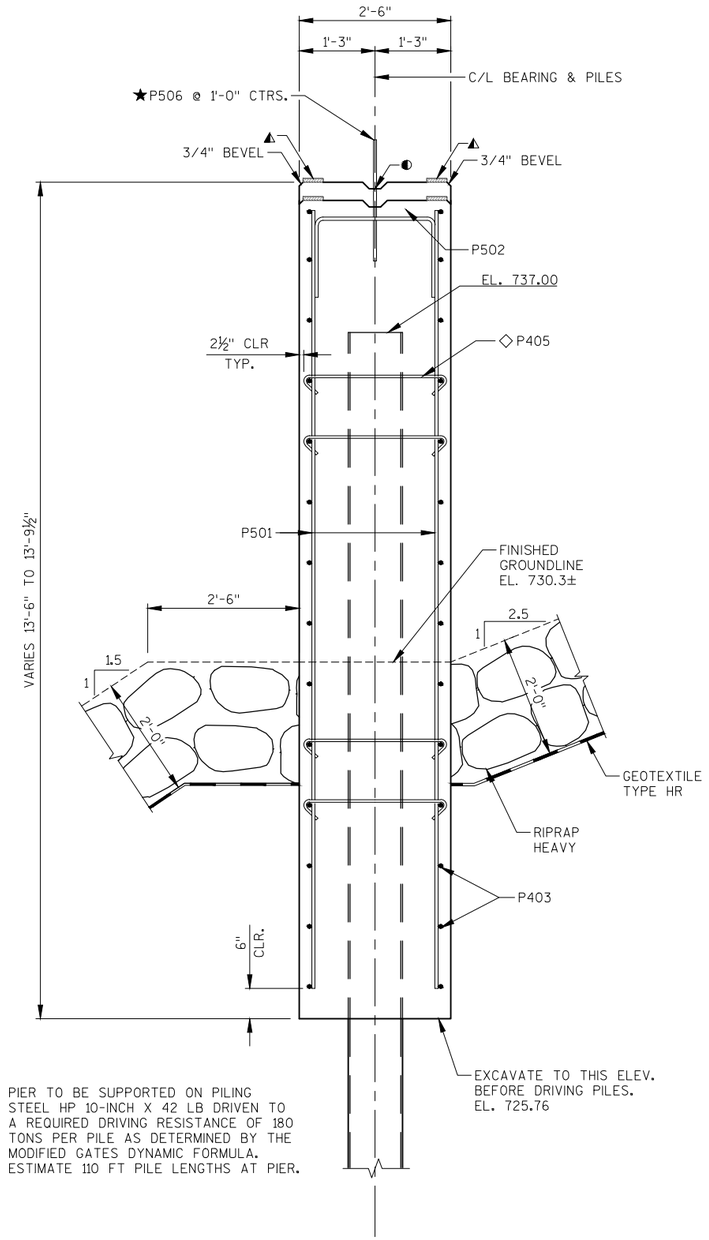
ELEVATION
(PIER LOOKING NORTH)



PLAN



LAYOUT



PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 110 FT PILE LENGTHS AT PIER.

TYPICAL SECTION THROUGH PIER

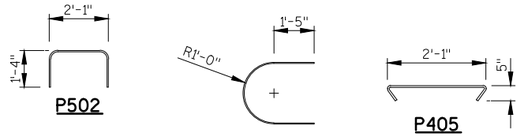
BILL OF BARS
PIER

60 LB (COATED)
1,620 LB (UNCOATED)

	BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
	P501	62	12-10			BODY - VERT. - E.F.
	P502	15	4-6	X		BODY - TOP
	P403	28	27-0			BODY - HORIZ. - E.F.
	P404	28	6-0	X		BODY - HORIZ. - ENDS
◇	P405	55	2-10	X		BODY - TIES
★	P506	28	2-0		X	BODY - VERT. - DOWELS

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



NOTES

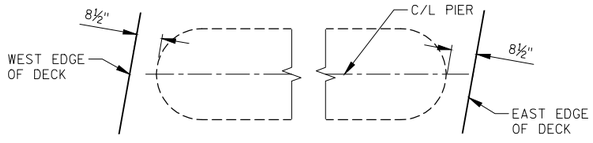
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

TOP OF PIER ELEVATIONS ARE ¾" BELOW BOTTOM OF DECK TO ALLOW FOR FILLER.

E.F. – EACH FACE

LEGEND

- ◗ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ▲ ¾"x4" PREFORMED FILLER, EXTEND FULL LENGTH OF PIER AS SHOWN.
- ★ P506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'–0".
- ■ PILE SPACING MEASURED AT BASE OF SHAFT.
- ◇ PLACE P407 BARS ADJACENT TO PILING @ 12" VERTICAL SPACING FROM BASE OF SHAFT TO TOP OF PILING.



WEST END EAST END

PLAN AT END OF PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

PIER

SHEET 6 OF 9

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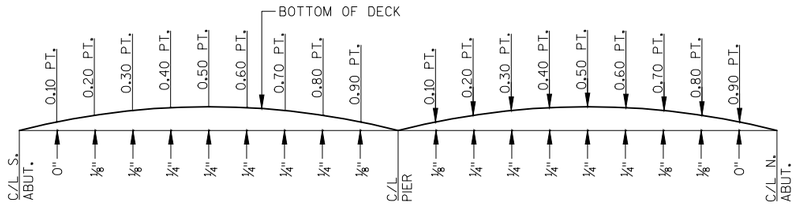
STATE PROJECT NUMBER

7155-00-70

TOP OF DECK ELEVATIONS

	C/L S. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L PIER	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L N. ABUT.
W. EDGE	740.83	740.83	740.83	740.83	740.83	740.83	740.83	740.83	740.82	740.82	740.82	740.81	740.81	740.80	740.80	740.79	740.78	740.78	740.77	740.76	740.75
C/L	741.14	741.14	741.14	741.14	741.14	741.14	741.14	741.13	741.13	741.13	741.12	741.12	741.11	741.11	741.10	741.09	741.09	741.08	741.07	741.06	741.05
E. EDGE	740.83	740.83	740.83	740.83	740.83	740.83	740.82	740.82	740.82	740.81	740.81	740.80	740.80	740.79	740.79	740.78	740.77	740.76	740.75	740.74	740.73



CAMBER DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR THEORETICAL DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

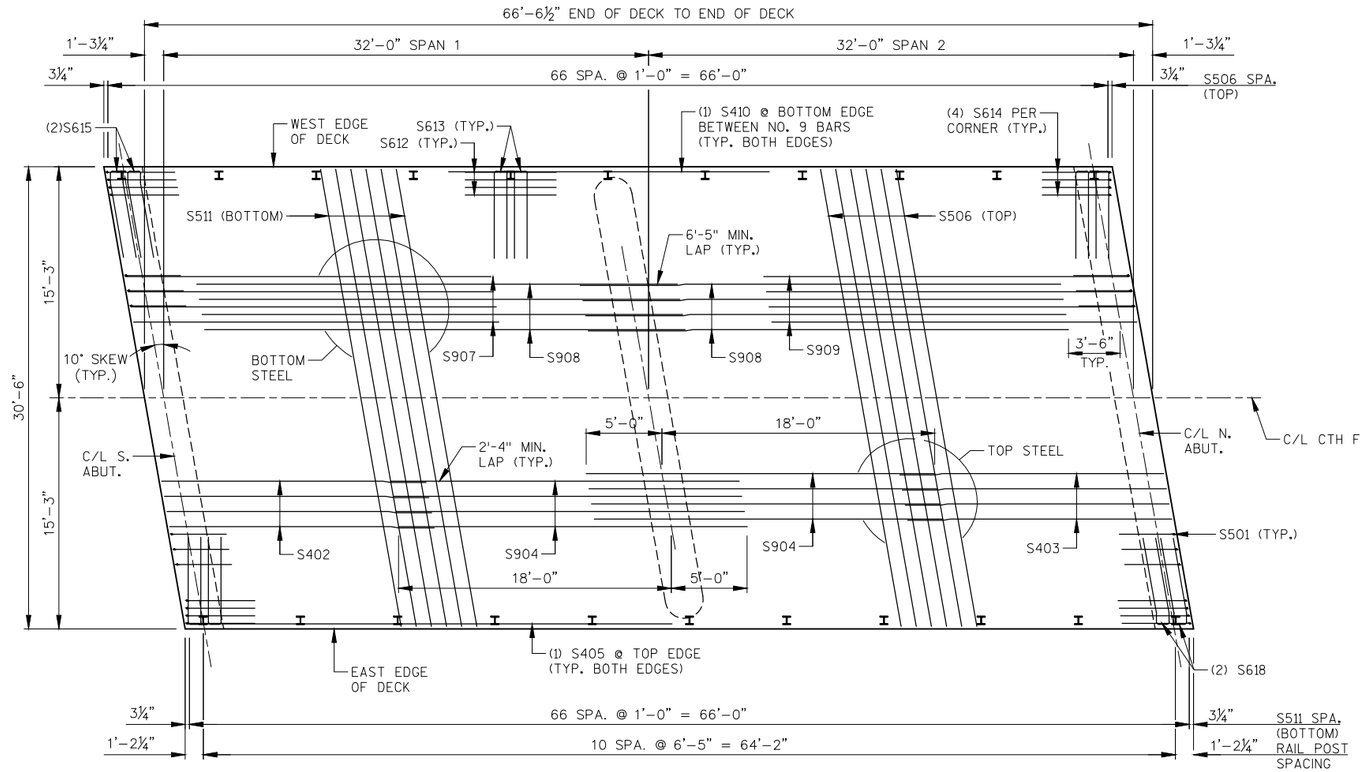
TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB OR CENTER LINE FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE
−SLAB THICKNESS
+CAMBER
+FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (COMPUTED BY CONTRACTOR)
=TOP OF SLAB FALSEWORK ELEVATION.

SURVEY TOP OF DECK ELEVATIONS

	S. ABUT.	0.50 PT.	PIER	0.50 PT.	N. ABUT.
W. EDGE OF DECK					
CENTER LINE					
E. EDGE OF DECK					

PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS, THE C/L OF THE PIERS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE EDGE OF DECK AND CENTER LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



PLAN

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 8 FOR BILL OF BARS.

SEE SUPERSTRUCTURE DETAILS SHEET (SHEET 8) FOR BAR SPACINGS NOT SHOWN ON THIS SHEET.

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'−0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'−0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B−61−0221

DRAWN BY JZ | PLANS CK'D. PTB

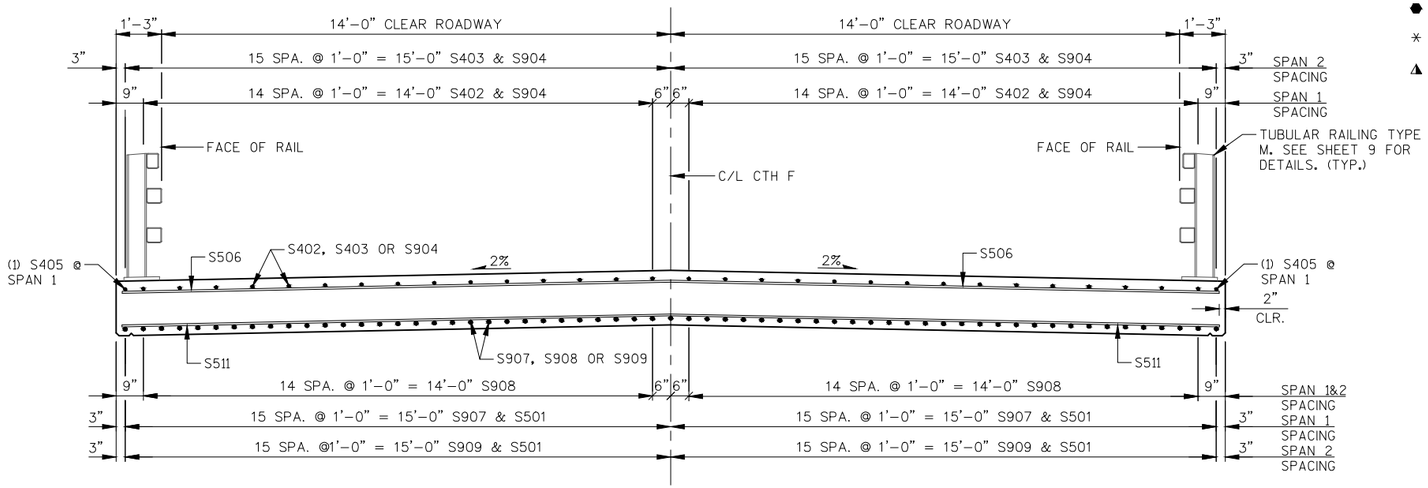
SUPERSTRUCTURE

SHEET 7 OF 9
33

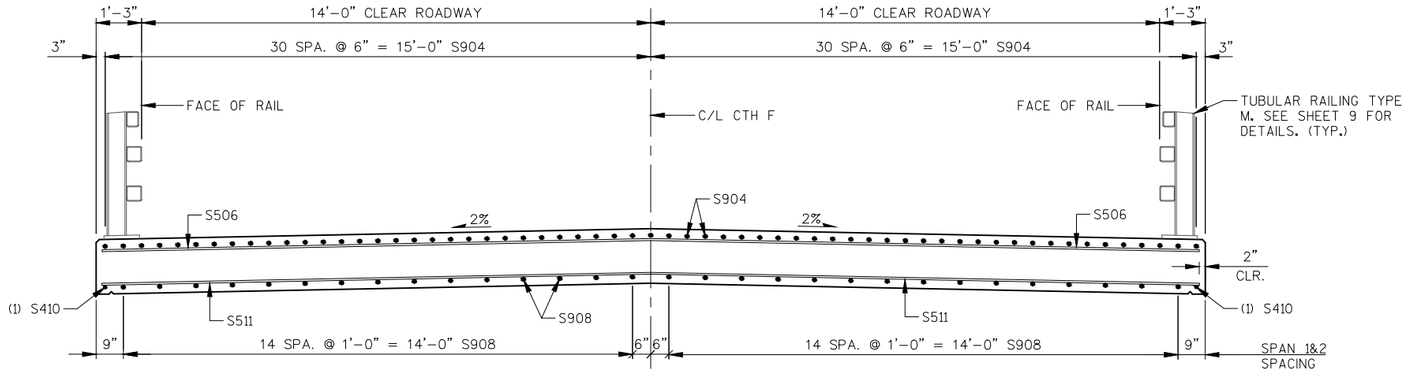
STATE PROJECT NUMBER
7155-00-70

LEGEND

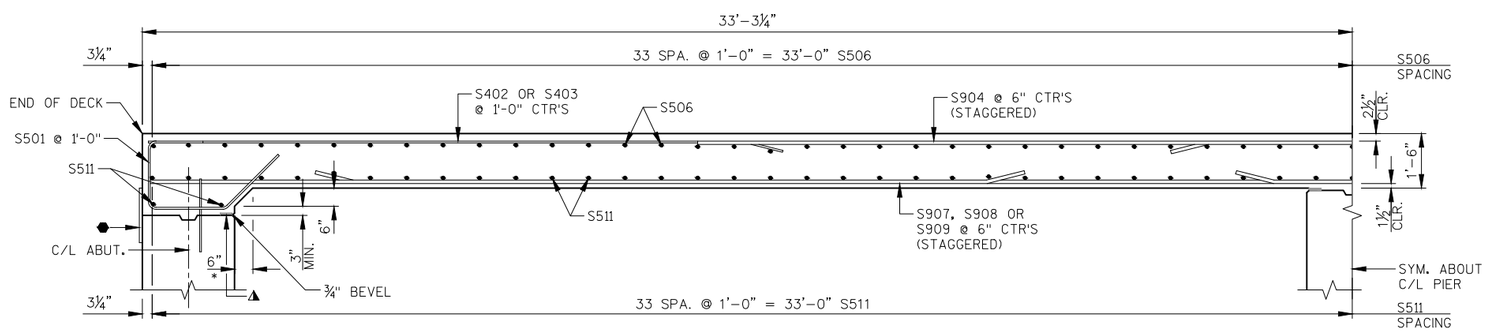
- ● 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- * DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ▲ ¾"x4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.



CROSS SECTION THROUGH ROADWAY
IN SPAN LOOKING NORTH



CROSS SECTION THROUGH ROADWAY
AT PIER LOOKING NORTH

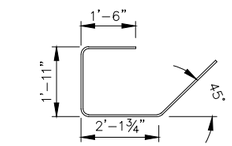


PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY

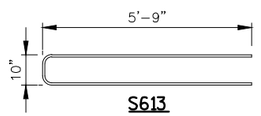
BILL OF BARS
SUPERSTRUCTURE — 24,090 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	62	7-7	X	X	END OF DECK
S402	30	17-6		X	SLAB - TOP - LONGIT. (SPAN 1)
S403	31	17-6		X	SLAB - TOP - LONGIT. (SPAN 2)
S904	61	23-0		X	SLAB - TOP - LONGIT.
S405	2	30-6		X	SLAB - TOP - LONGIT. - EDGE
S506	67	37-7		X	SLAB - TOP - TRANS.
S907	31	24-2		X	SLAB - BOTTOM - LONGIT. (SPAN 1)
S908	60	31-9		X	SLAB - BOTTOM - LONGIT.
S909	31	24-2		X	SLAB - BOTTOM - LONGIT. (SPAN 2)
S410	2	22-8		X	SLAB - BOTTOM - LONGIT. - EDGE
S511	71	30-7		X	SLAB - BOTTOM - TRANS.
S612	72	6-0		X	RAIL POSTS - INTERIOR
S613	40	12-0	X	X	RAIL POSTS - INTERIOR
S614	16	6-0	X	X	RAIL POSTS - CORNERS
S615	4	12-0	X	X	RAIL POSTS - CORNERS

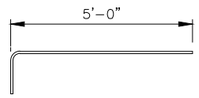
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
SOME BARS HAVE BEEN OMITTED FOR CLARITY.



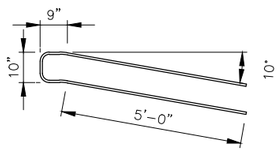
S501



S613



S614



S615

NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

SUPERSTRUCTURE DETAILS

SHEET 8 OF 9

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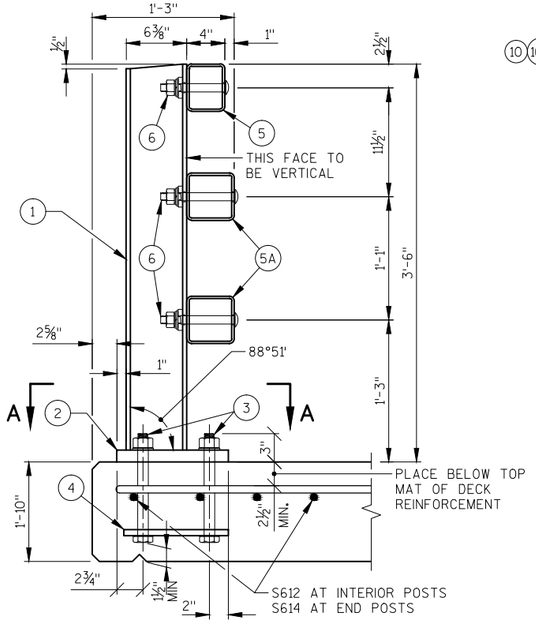
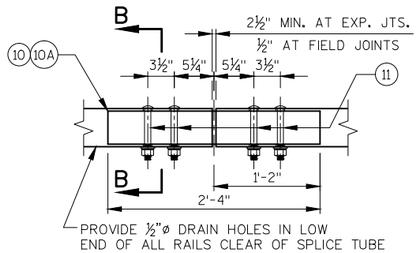
8

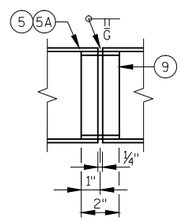
8



SECTION THROUGH RAILING ON DECK

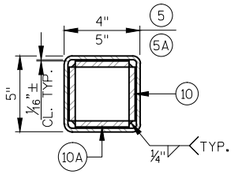


FIELD ERECTION JOINT DETAIL

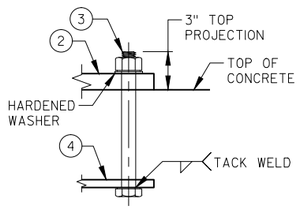


SHOP RAIL SPLICE DETAIL

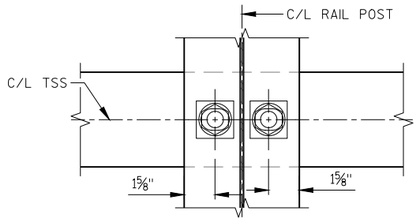
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



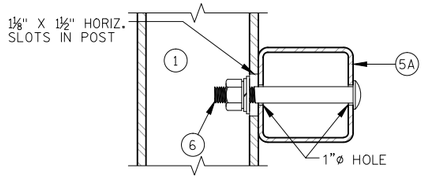
SECTION B-B



ANCHOR BOLTS



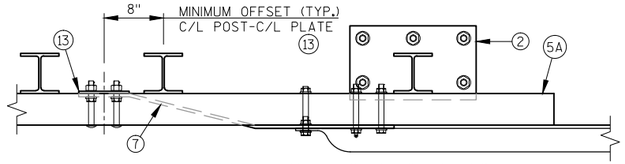
SECTION THROUGH POST WEB



SECTION THROUGH RAIL

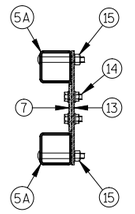
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

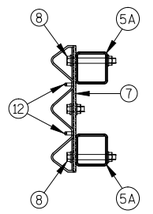


TOP VIEW AT END POST

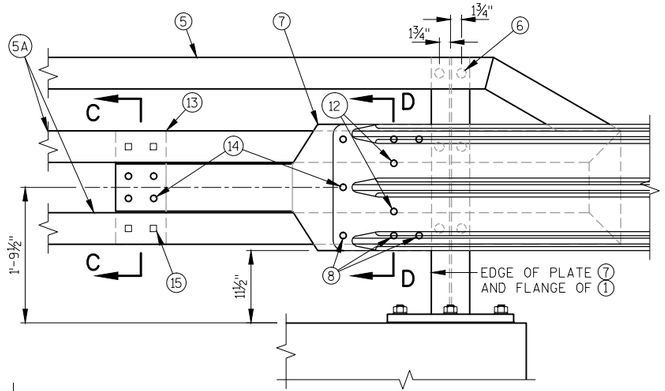
(THRIE BEAM RAIL ATTACHMENT)



SECTION C-C

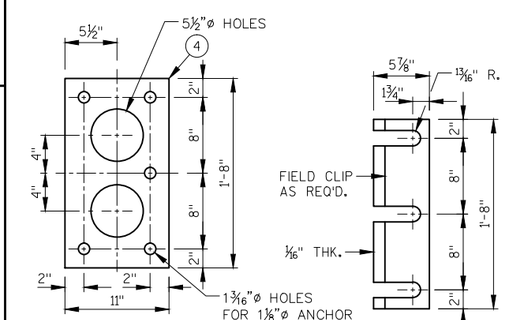


SECTION D-D



DETAIL AT END POST

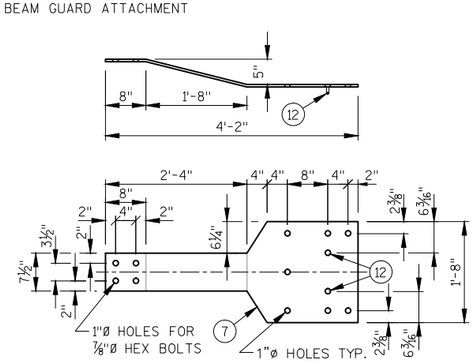
(THRIE BEAM RAIL ATTACHMENT)



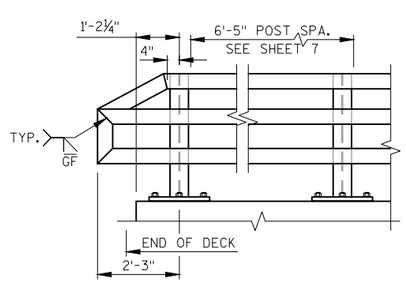
ANCHOR PLATE

AT RAIL TO DECK CONNECTION

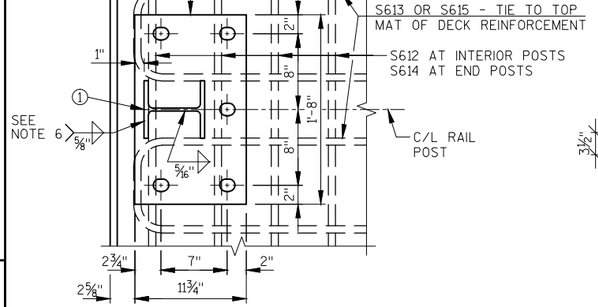
POST SHIM DETAIL



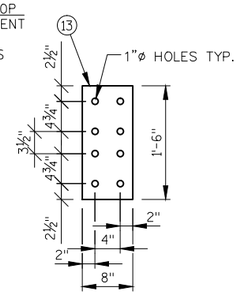
BACK-UP PLATE DETAIL



PART ELEVATION OF RAILING



SECTION A-A



ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

LEGEND

① W6x25 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"x11¾"x1'-8" WITH 1⅝"x1⅝" 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" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS.

④ ⅝"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1¾16" DIA. HOLES FOR ANCHOR BOLTS NO. 3

⑤ TSS 5x4x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑤A TSS 5x5x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑥ ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3⁄16"x1⅝"x1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).

⑦ ½" THK. BACK-UP PLATE WITH 2 -⅞"x1½" 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"x3⅝"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

⑩A ⅜"x2⅝"x2'-4" PLATE USED IN NO. 5, ⅜"x3⅝"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

⑪ ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1⅝16"x1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 1⅝16"x2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.

⑫ ⅞" DIA. BY 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

⑬ ⅜"x8"x1'-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" 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-61-0221" 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 S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

STATE PROJECT NUMBER

7155-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-61-0221

DRAWN BY JZ | PLANS CK'D. PTB

TUBULAR RAILING TYPE M

SHEET 9 OF 9

8

8

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\STRUCTURE\CAD FILES\FINALS\09 TUBULAR RAILING TYPE M.DWG
LAYOUT : TUBULAR RAILING TYPE M

PLOT DATE : 9/2/2016
PLOT TIME : 11:42:27 AM

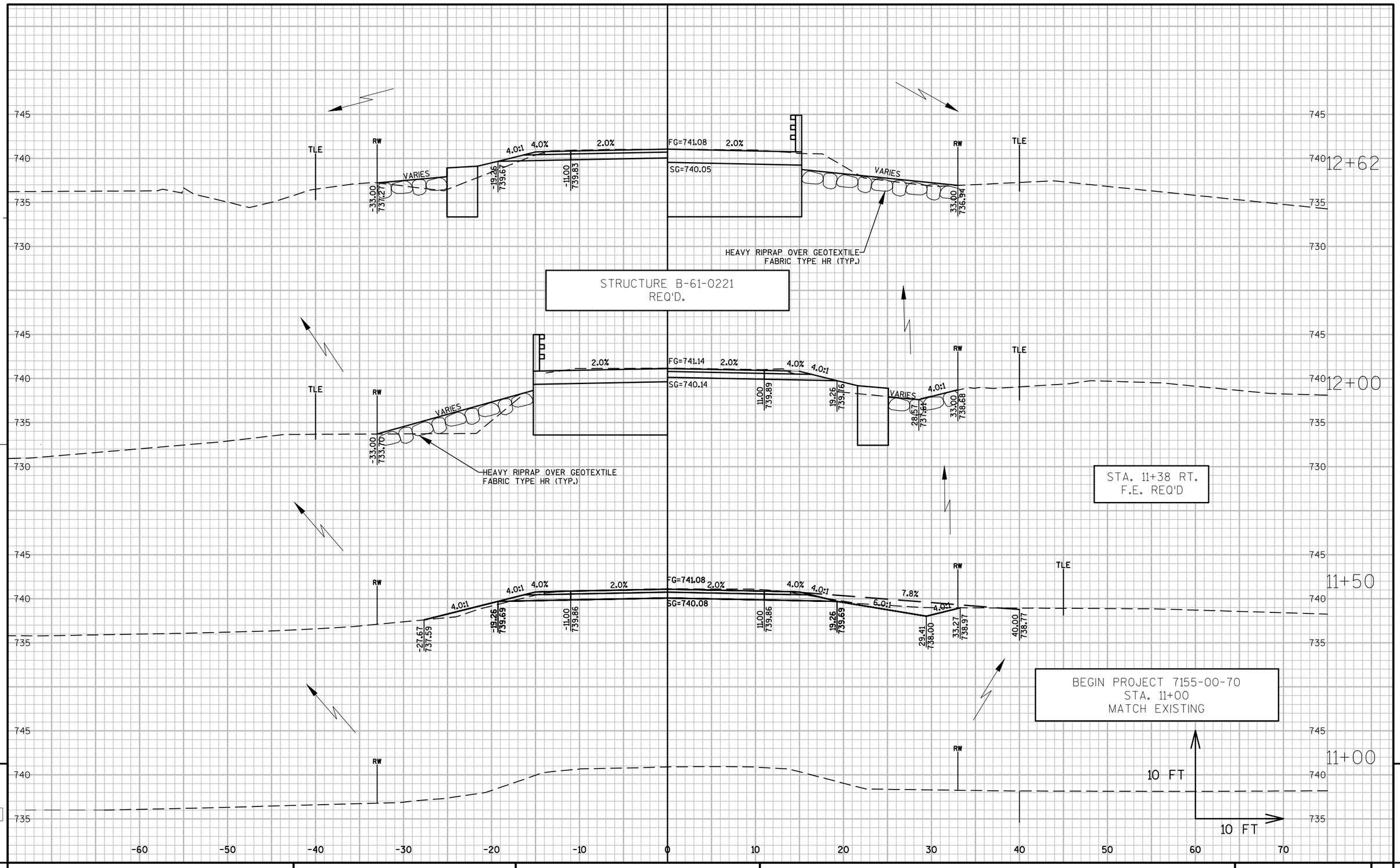
PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

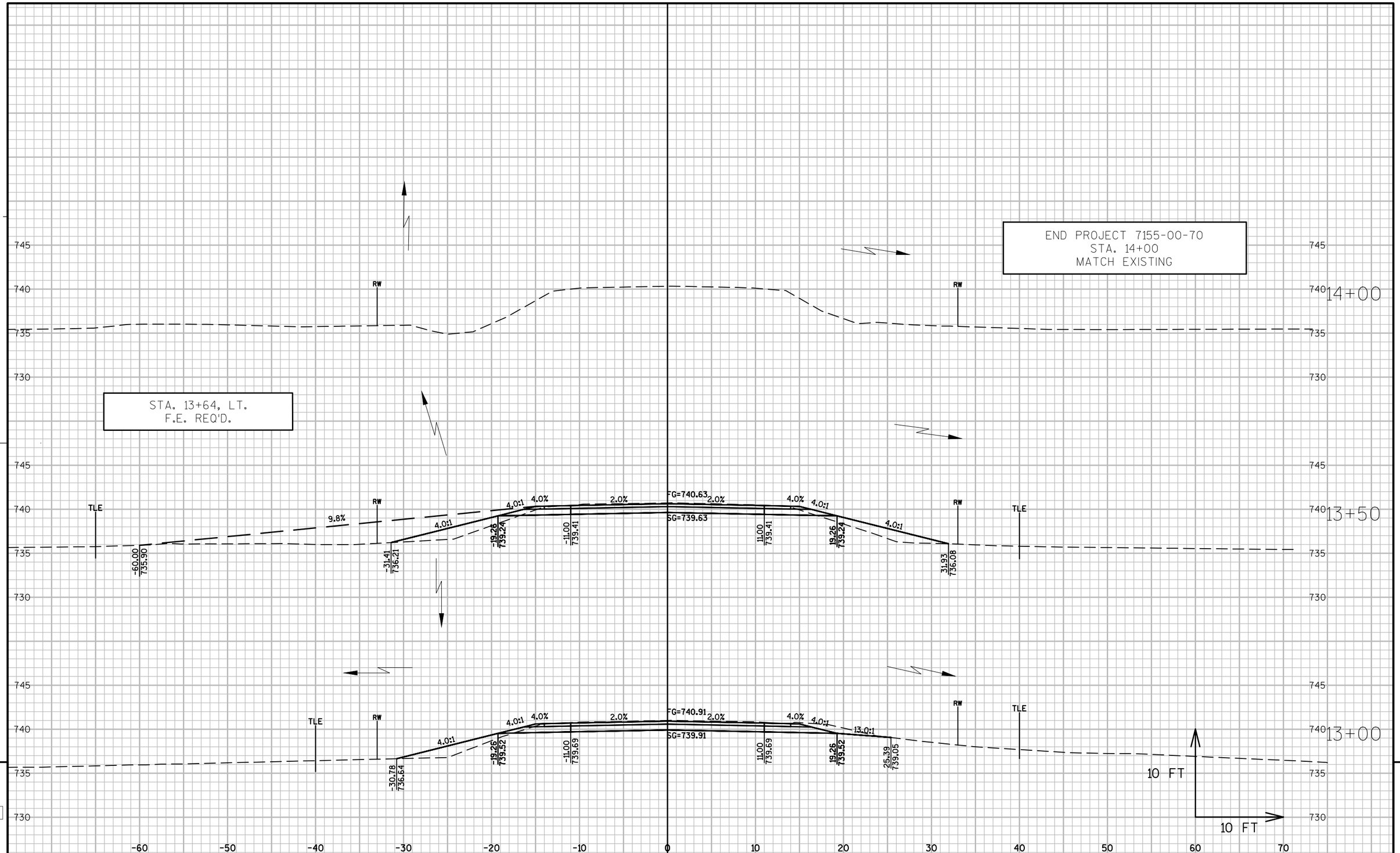
EARTHWORK-MAINLINE

	AREA (SF)					INCREMENTAL VOL (CY)								CUMMULATIVE VOLUME (CY)							
STATION	CUT	SALVAGED/ UNUSABLE PAVT MATERIAL	FILL	MARSH EX	EBS	CUT NOTE 1	SALVAGED/ UNUSABLE PAVT MATERIAL NOTE 2	FILL NOTE 3	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%)	SELECT CRUSHED MATERIAL (1.5)	EBS	CUT 1.00 NOTE 1	FILL	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%) NOTE 5	SELECT CRUSHED MATERIAL (1.5)	EBS	MASS ORDINATE NOTE 6
11+00	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11+50	41	0	4	0	0	60	0	3	0	0	4	0	0	60	3	0	0	4	0	0	56
12+00	41	0	4	0	0	77	0	7	0	0	9	0	0	137	10	0	0	13	0	0	124
12+00	0	0	0	0	0	0	0	0	0	0	0	0	0	137	10	0	0	13	0	0	124
12+50	0	0	0	0	0	0	0	0	0	0	0	0	0	137	10	0	0	13	0	0	124
12+62	0	0	0	0	0	0	0	0	0	0	0	0	0	137	10	0	0	13	0	0	124
12+62	42	0	10	0	0	0	0	0	0	0	0	0	0	137	10	0	0	13	0	0	124
13+00	42	0	10	0	0	60	0	14	0	0	18	0	0	197	24	0	0	31	0	0	166
13+50	33	0	23	0	0	70	0	30	0	0	38	0	0	267	54	0	0	69	0	0	198
14+00	24	0	0	0	0	53	0	21	0	0	26	0	0	320	75	0	0	95	0	0	225
					COLUMN SUBTOTALS	320	0	75	0	0	95	0	0								
					MAINLINE	320	0	75	0	0	95	0	0	320	75	0	0	95	0	0	225
					F.E. - Sta. 11+38, RT.	15	0	0	0	0	0	0	0	335	75	0	0	95	0	0	240
					F.E. - STA. 13+64, LT.	25	0	0	0	0	0	0	0	360	75	0	0	95	0	0	265
					PROJECT TOTALS	**360**	**0**	**75**	**0**	**0**	**95**	**0**	**0**								

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - REDUCED MARSH IN FILL	REDUCED MARSH THAT CAN BE USED IN FILL
5 - FILL (25%)	FILL 25%: (FILL -REDUCED MARSH IN FILL)*1.25
6 - MASS ORDINATE	(CUT - FILL (25%))



PROJECT NO: 7155-00-70	HWY: CTH F	COUNTY: TREMPEALEAU	CROSS SECTIONS: MAINLINE	SHEET 37	E



PROJECT NO: 7155-00-70	HWY: CTH F	COUNTY: TREMPEALEAU	CROSS SECTIONS: MAINLINE	SHEET 38	E

FILE NAME : S:\PROJECTS\K49020 CTH F, TREMPEALEAU COUNTY\DESIGN\CORRIDORS\CRDR-CTH F.DWG PLOT DATE : 9/21/2016 3:28 PM PLOT BY : STRINE, THERESA PLOT NAME : PLOT SCALE : 1 IN:10 FT

Notes

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