MAD

NOVEMBER 2023

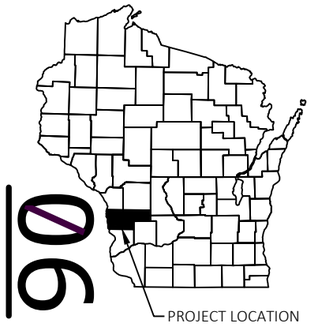
PROJECT ID: 5385-00-71

WITH: N/A

COUNTY: VERNON

ORDER OF SHEETS

TOTAL SHEETS = 42



DESIGN DESIGNATION 5385-00-71

A.A.D.T.	2024	=	23
A.A.D.T.	2044	=	25
D.H.V.		=	6.2
D.D.		=	62/38
T.		=	7.7%
DESIGN SPEED		=	30 MPH
ESALS		=	N/A

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF FRANKLIN, ELLEFSON ROAD

S FORK BAD AXE RV BR, B-62-0267

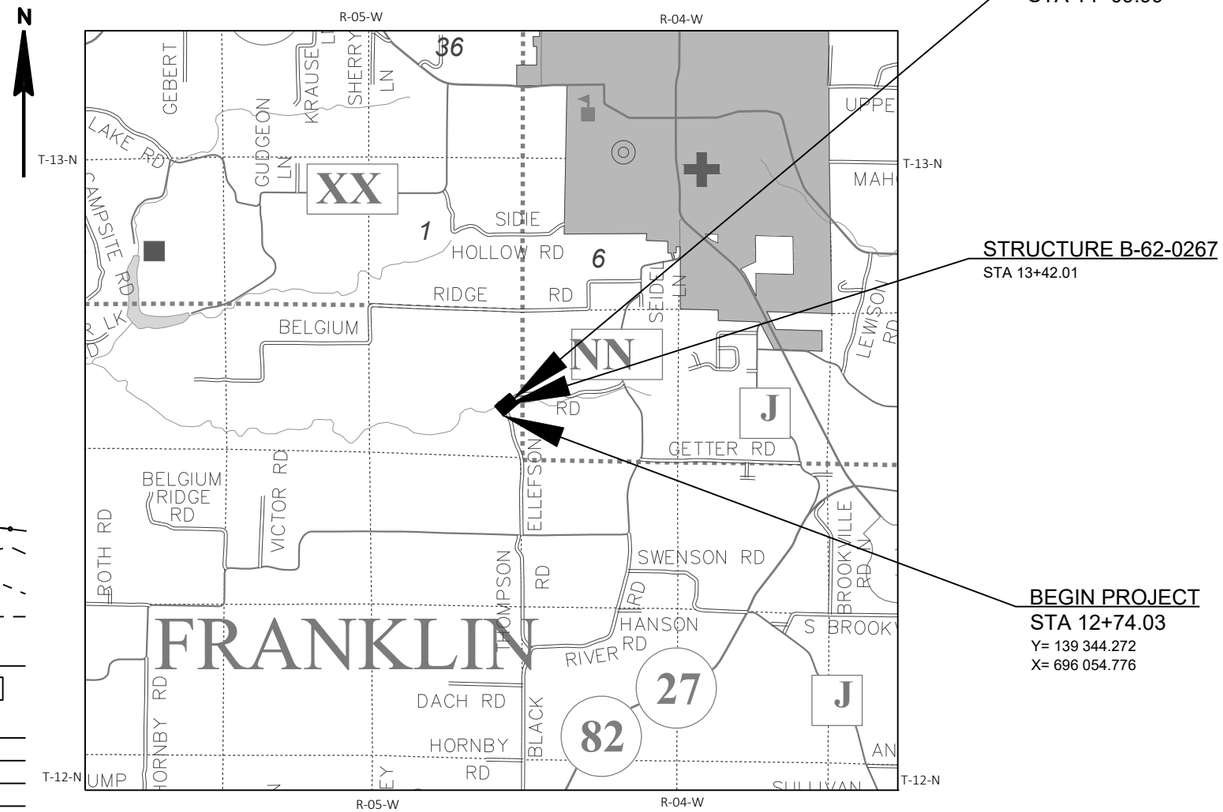
LOC STR

VERNON

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5385-00-71	WISC 2024033	1

STATE PROJECT NUMBER

5385-00-71



END PROJECT
STA 14+09.99

STRUCTURE B-62-0267
STA 13+42.01

BEGIN PROJECT
STA 12+74.03
Y= 139 344.272
X= 696 054.776

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.0258 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR

VERNON COUNTY

7/24/23 (Date) *Phil Hewitt* (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WISCONSIN 53588
PHONE (608) 588-7866
FAX (608) 588-7954

WISCONSIN AARON B. PALMER E-35695 RICHLAND CENTER, WI PROFESSIONAL ENGINEER

DATE: 7/24/2023 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

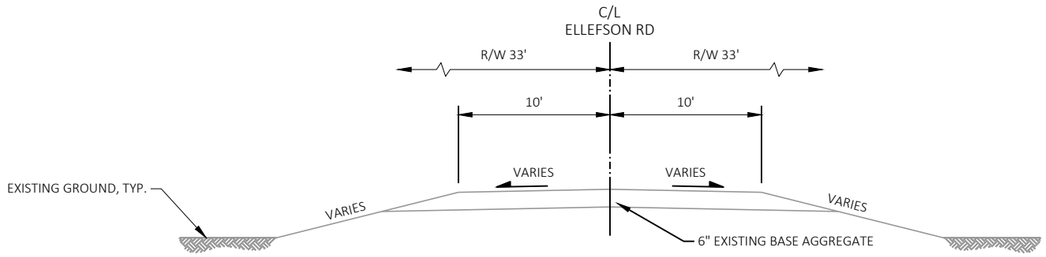
Surveyor	WESTBROOK ASSOCIATED ENGINEERS, INC.
Designer	WESTBROOK ASSOCIATED ENGINEERS, INC.
Project Manager	CODY KAMMERZELT, P.E.
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, P.E.

APPROVED FOR THE DEPARTMENT

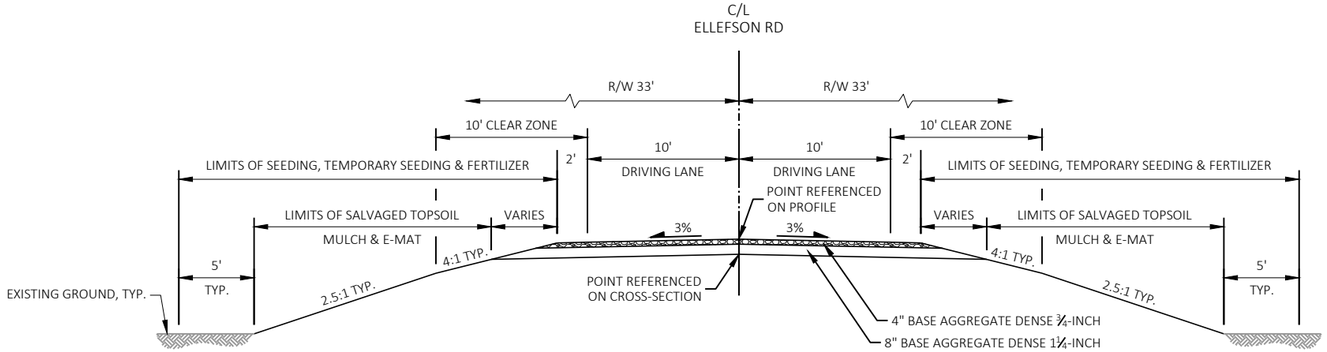
DATE: Digitally signed by Cody Kammerzelt Date: 2023.07.24 14:33:04-05'00' (Signature)

E

FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\SHEETSPLAN\010101_TI.DWG PLOT DATE : 7/20/2023 2:24 PM PLOT BY : ERIK MEYER PLOT NAME :



EXISTING TYPICAL SECTION
STA. 12+74.03 - STA. 14+09.99



PROPOSED TYPICAL SECTION
STA. 12+74.03 - STA. 14+09.99

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.21 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.15 ACRES

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. SILT FENCE AND TURBIDITY BARRIER SHALL BE IN PLACE PRIOR TO CONSTRUCTION.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TEMPORARY SEEDED, MULCHED, AND E-MATTED AS DIRECTED BY THE ENGINEER.

SLOPES STEEPER THAN 3:1 REQUIRE EROSION MAT.

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

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

D.O.T. MONUMENT IS TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR IN THE SAME WING THAT THE PROPOSED NAME PLATE WILL BE PLACED, AS DIRECTED BY THE ENGINEER.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON COUNTY, HORIZONTAL DATUM NAD83 (2011), ELEVATION DATUM NAVD88 (2012).

ALL SIGNS WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND SALVAGED. STACK SIGNS IN A SECURE LOCATION AND NOTIFY AND COORDINATE WITH THE VERNON COUNTY HIGHWAY DEPARTMENT FOR PICKUP.

ELECTRIC

VERNON ELECTRIC COOPERATIVE
110 SAUGSTAD RD
WESTBY, WI 54667
(608) 634-7472
COLE CARY
ccary@vernonelectric.org

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

ORDER OF SECTION 2 SHEETS
GENERAL NOTES & TYPICAL SECTIONS
ALIGNMENT DETAILS AND CONTROL POINTS

CONTACTS

CONSULTANT LIAISON

WESTBROOK ASSOCIATED ENGINEERS, INC.
619 E HOXIE ST
SPRING GREEN, WI 53588

ATTN: AARON PALMER, P.E.
PH: (608) 588-7866
FAX: (608) 588-7954
apalmer@westbrookeng.com

WDNR LIAISON

DNR WEST CENTRAL REGION HEADQUARTERS
3550 MORMON COULEE RD
LA CROSSE, WI 54601

ATTN: KAREN KALVELAGE
PH: (608) 785-9115
karen.kalvelage@wisconsin.gov

COUNTY LIAISON

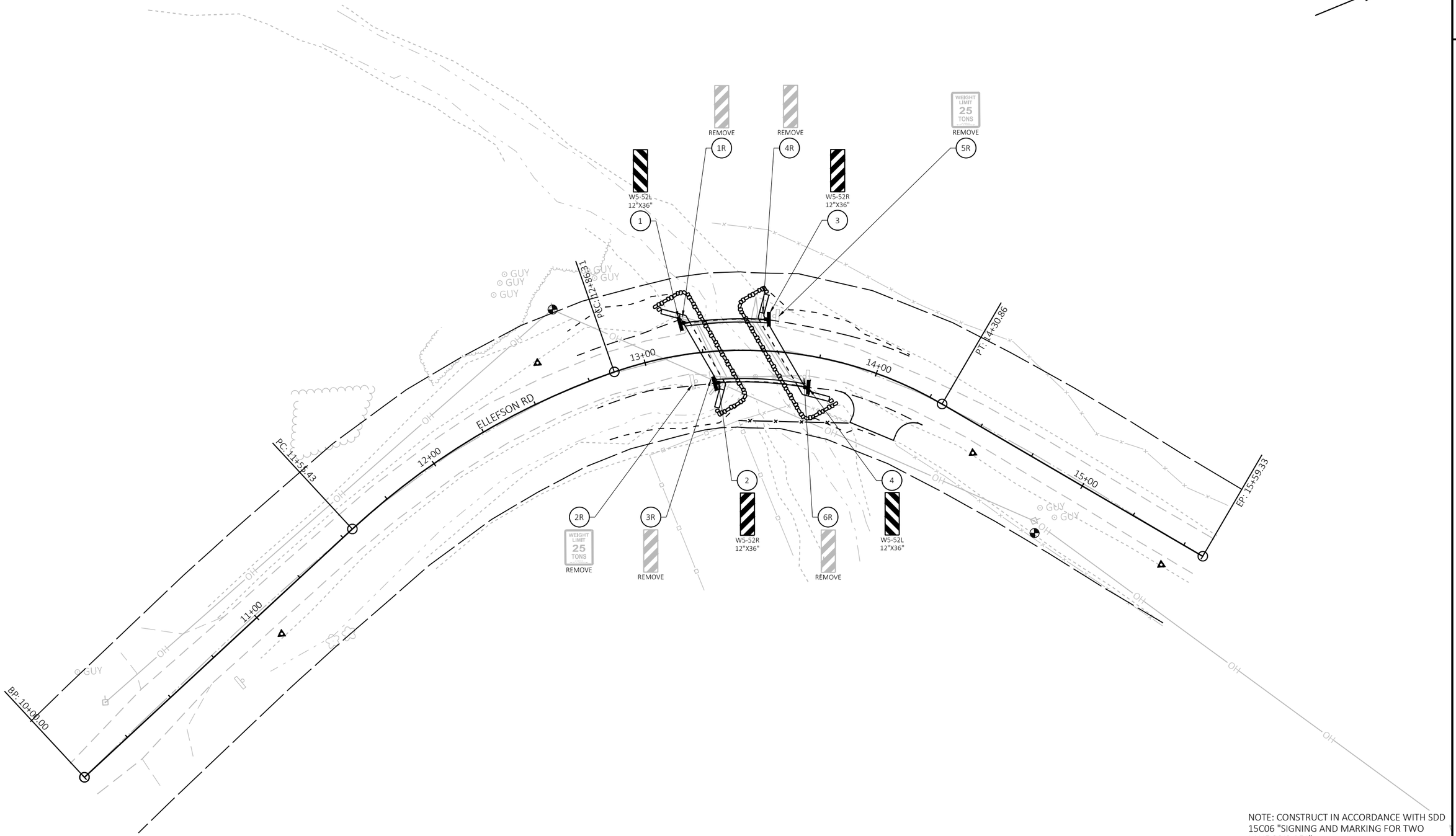
VERNON COUNTY HIGHWAY DEPARTMENT
602 N MAIN ST
VIROQUA, WI 54665

ATTN: PHIL HEWITT
PH: (608) 637-5451
phil.hewit@vernoncounty.org

STANDARD ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC	L.F.	LINEAR FEET	REQ'D	REQUIRED
AAG.	AGGREGATE	L.H.F.	LEFT HAND FORWARD	RT.	RIGHT
B.M.	BENCH MARK	L.S.	LUMP SUM	R/W	RIGHT-OF-WAY
C OR CL	CENTERLINE	LT.	LEFT	RD.	ROAD
CR.	CRUSHED	MAX.	MAXIMUM	RDWY.	ROADWAY
C.T.H.	COUNTY TRUNK HIGHWAY	MIN.	MINIMUM	S.	SOUTH
CWT.	HUNDREDWEIGHT	N.	NORTH	SE	SOUTHEAST
C.Y.	CUBIC YARD	NOR.	NORMAL	SHRK.	SHRINKAGE
D.H.	DOUBLE HEADED	PAV'T.	PAVEMENT	S.R.	SIDE ROAD
D.H.V.	DESIGN HOURLY VOLUME	P.C.	POINT OF CURVE	STD.	STANDARD
DIR.	DIRECTED	P.I.	POINT OF INTERSECTION	S.T.H.	STATE TRUNK HIGHWAY
E.	EAST	P.E.	PRIVATE ENTRANCE	STA.	STATION
COR.	CORNER	P.K.	PARKER-KALON NAIL	S.Y.	SQUARE YARD
EL. OR ELEV.	ELEVATION	P OR PL	PROPERTY LINE	T	TANGENT LENGTH OF CURVE
F.E.	FIELD ENTRANCE	P.P.	POWER POLE	T	TRANSIT LINE
FT.	FOOT (FEET)	PROJ.	PROJECT	UNCL.	UNCLASSIFIED EXCAVATION
GAL.	GALLON	P.T.	POINT OF TANGENCY	V.	DESIGN SPEED
H.W.	HIGH WATER	PVMT.	PAVEMENT	V.C.	VERTICAL CURVE
IN.	INCHES	R.	RADIUS	VAR.	VARIABLE
K	SIGHT DISTANCE	R.R.	RAILROAD	W.	WEST
L.	LENGTH OF CURVE	REINF.	REINFORCED		

2



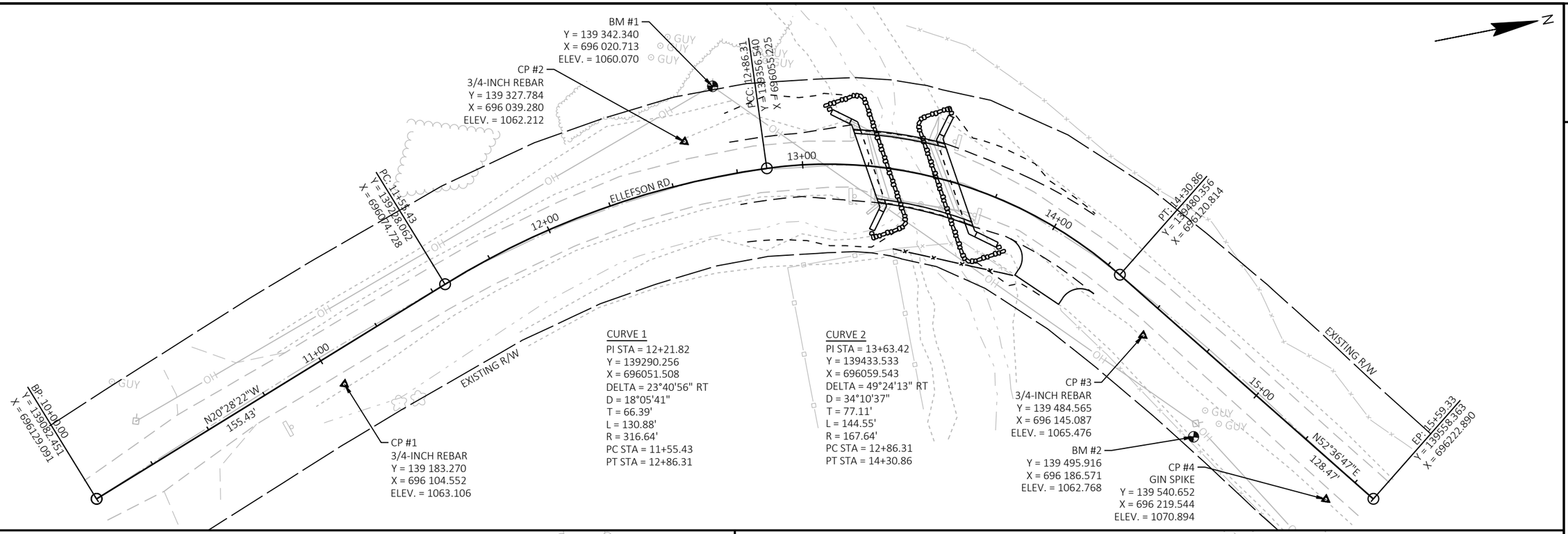
NOTE: CONSTRUCT IN ACCORDANCE WITH SDD 15C06 "SIGNING AND MARKING FOR TWO LANE BRIDGES".

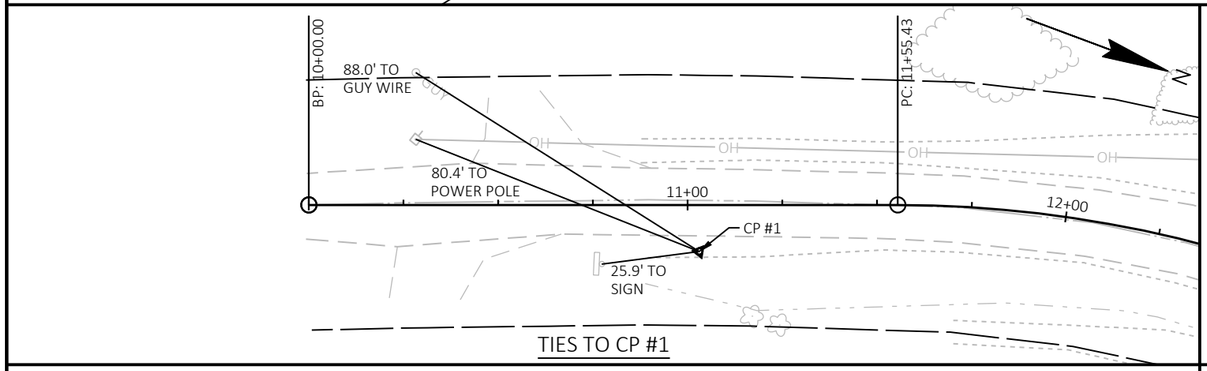
PROJECT NO: 5385-00-71	HWY: ELLEFSON RD	COUNTY: VERNON	PERMANENT SIGNING	SHEET 3	E

FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - 023201_ps

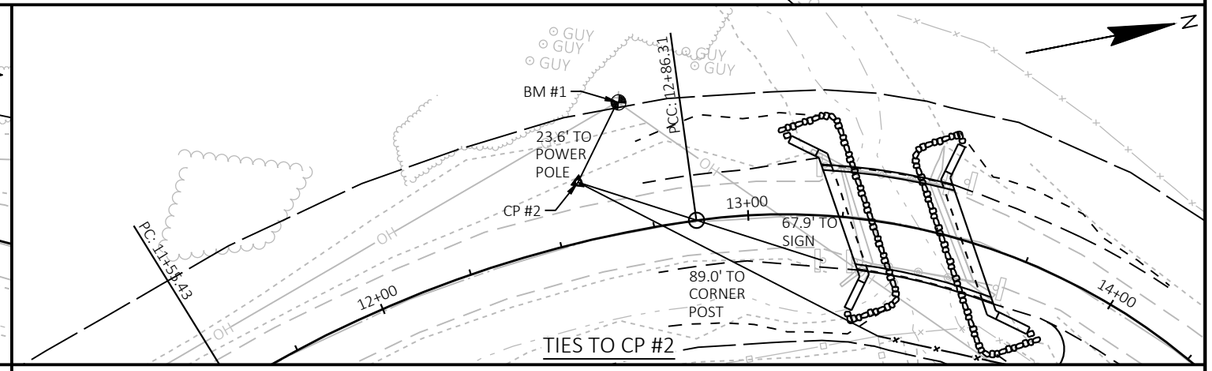
PLOT DATE : 7/20/2023 2:33 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

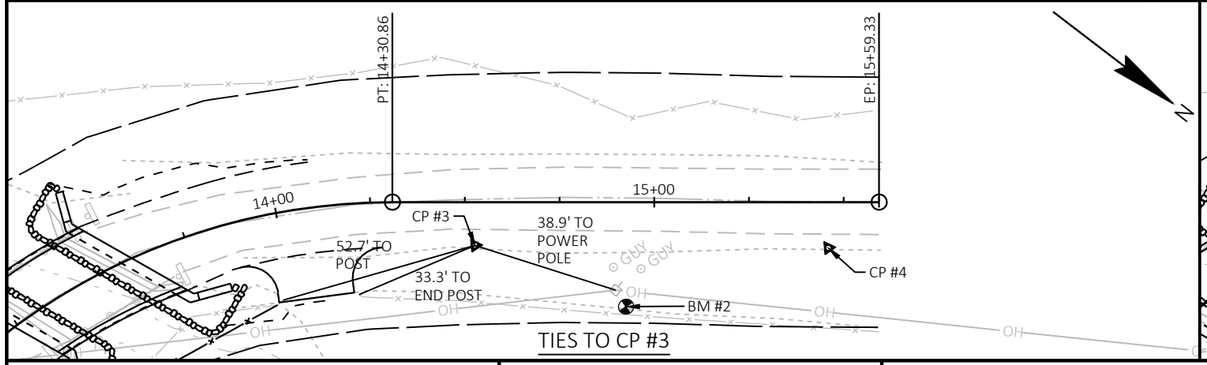




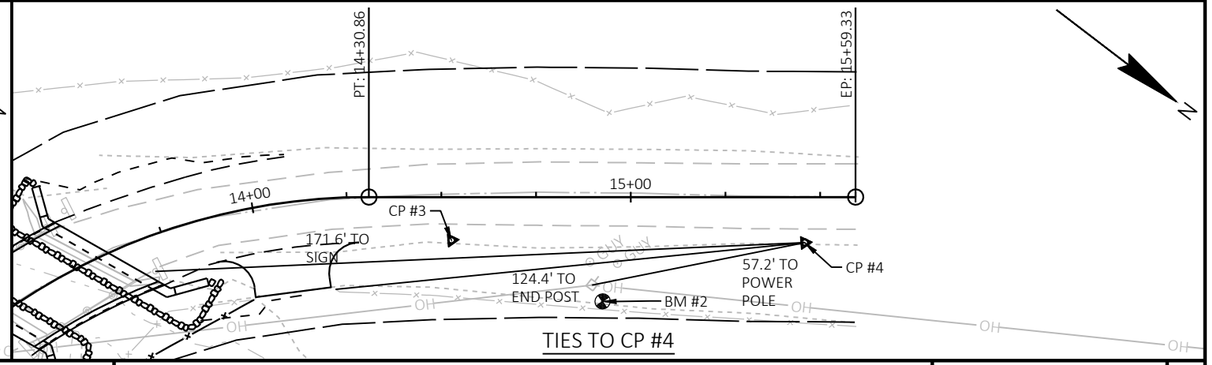
TIES TO CP #1



TIES TO CP #2



TIES TO CP #3



TIES TO CP #4

PROJECT NO: 5385-00-71	HWY: ELLEFSON RD	COUNTY: VERNON	ALIGNMENT DETAILS AND CONTROL POINTS	SHEET 4	E

FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 027201_ad
PLOT DATE : 7/20/2023 2:31 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

Estimate Of Quantities

5385-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-62-0912	EACH	1.000	1.000
0004	205.0100	Excavation Common	CY	99.000	99.000
0006	206.1001	Excavation for Structures Bridges (structure) 01. B-62-0267	EACH	1.000	1.000
0008	208.0100	Borrow	CY	14.000	14.000
0010	210.1500	Backfill Structure Type A	TON	610.000	610.000
0012	213.0100	Finishing Roadway (project) 01. 5385-00-71	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	63.000	63.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	148.000	148.000
0018	502.0100	Concrete Masonry Bridges	CY	160.000	160.000
0020	502.3200	Protective Surface Treatment	SY	98.000	98.000
0022	502.3210	Pigmented Surface Sealer	SY	36.000	36.000
0024	505.0400	Bar Steel Reinforcement HS Structures	LB	5,030.000	5,030.000
0026	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	18,950.000	18,950.000
0028	506.0105	Structural Steel Carbon	LB	546.000	546.000
0030	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0032	550.0020	Pre-Boring Rock or Consolidated Materials	LF	190.000	190.000
0034	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	280.000	280.000
0036	606.0300	Riprap Heavy	CY	65.000	65.000
0038	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	155.000	155.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5385-00-71	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	624.0100	Water	MGAL	2.000	2.000
0046	625.0500	Salvaged Topsoil	SY	185.000	185.000
0048	627.0200	Mulching	SY	210.000	210.000
0050	628.1504	Silt Fence	LF	290.000	290.000
0052	628.1520	Silt Fence Maintenance	LF	468.000	468.000
0054	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.2008	Erosion Mat Urban Class I Type B	SY	80.000	80.000
0060	628.6005	Turbidity Barriers	SY	116.000	116.000
0062	629.0210	Fertilizer Type B	CWT	0.300	0.300
0064	630.0130	Seeding Mixture No. 30	LB	10.000	10.000
0066	630.0200	Seeding Temporary	LB	15.000	15.000
0068	630.0500	Seed Water	MGAL	7.000	7.000
0070	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0072	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0074	638.2602	Removing Signs Type II	EACH	6.000	6.000
0076	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0078	642.5001	Field Office Type B	EACH	1.000	1.000
0080	643.0420	Traffic Control Barricades Type III	DAY	1,679.000	1,679.000
0082	643.0705	Traffic Control Warning Lights Type A	DAY	3,358.000	3,358.000
0084	643.0900	Traffic Control Signs	DAY	1,314.000	1,314.000
0086	643.5000	Traffic Control	EACH	1.000	1.000
0088	645.0111	Geotextile Type DF Schedule A	SY	68.000	68.000
0090	645.0120	Geotextile Type HR	SY	156.000	156.000
0092	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0094	650.5000	Construction Staking Base	LF	100.000	100.000
0096	650.6501	Construction Staking Structure Layout (structure) 01. B-62-0267	EACH	1.000	1.000
0098	650.9911	Construction Staking Supplemental Control (project) 01. 5385-00-71	EACH	1.000	1.000

Estimate Of Quantities

5385-00-71

Line	Item	Item Description	Unit	Total	Qty
0100	650.9920	Construction Staking Slope Stakes	LF	100.000	100.000
0102	715.0502	Incentive Strength Concrete Structures	DOL	960.000	960.000
0104	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0106	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	175.000	175.000
0108	SPV.0090	Special 01. Salvage and Reinstall Fence	LF	50.000	50.000

NOTE:
ALL ITEMS CATEGORY 0010
UNLESS NOTED OTHERWISE

3

3

EARTHWORK SUMMARY

STATION - STATION	LOCATION	COMMON EXCAVATION (1) (ITEM # 205.0100) CUT (2)	SALVGED / UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5) FACTOR 1.25	MASS ORDINATE +/- (6)	WASTE	BORROW (ITEM # 208.0100)
12+74 - 13+24	SOUTH APPROACH	57	0	57	62	78	-21	0	14
13+60 - 14+10	NORTH APPROACH	42	0	42	28	35	7	7	0
	TOTALS	99	0	99	90	113	-14		14

1) COMMON EXCAVATION IS THE CUT. ITEM # 205.0100.
2) SALVAGED/UNUSABLE MATERIAL IS INCLUDED IN CUT.
3) SALVAGED/UNUSABLE MATERIAL INCLUDES ASPHATLIC PAVEMENT.
4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE MATERIAL
5) EXPANDED FILL FACTOR = 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
6) THE MASS ORDINATE + OR - CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL IN THE DIVISION.

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 3/4-INCH (TON)	305.0120 1 1/4-INCH (TON)	624.0100 WATER (MGAL)
12+74 - 13+24	MAINLINE	32	71	1.0
13+60 - 14+10	MAINLINE	31	67	1.0
14+07	FIELD ENTRANCE	-	10	-
	TOTALS	63	148	2

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
12+71 - 13+28	MAINLINE, LT	76	152
12+72 - 13+50	MAINLINE, RT	71	142
13+33 13+70	MAINLINE, LT	49	98
13+71 14+14	MAINLINE, RT	38	76
	UNDISTRIBUTED	56	---
	TOTALS	290	468

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
ID 5385-00-71	3	2
TOTALS	3	2

TURBIDITY BARRIER

LOCATION	628.6005 TURBIDITY BARRIERS (SY)
SOUTH APPROACH	54
NORTH APPROACH	62
TOTALS	116

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIX NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
12+73 - 13+18	MAINLINE, LT	44	43	---	0.06	2	3	1.5
12+74 - 13+31	MAINLINE, RT	67	24	48	0.07	2	3	1.9
13+50 14+10	MAINLINE, LT	11	65	---	0.05	2	2	1.3
13+71 14+10	MAINLINE, RT	27	35	18	0.04	1	2	0.9
	UNDISTRIBUTED	36	43	14	0.08	3	5	1.4
	TOTALS	185	210	80	0.30	10	15	7.0

NOTE:
ALL ITEMS CATEGORY 0010
UNLESS NOTED OTHERWISE

3

3

SIGNING

STATION	LOCATION	SIGN NUMBER	SIGN CODE	634.0612 POSTS WOOD 4X6-INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE TYPE F (SF)	638.2602 REMOVING SIGN TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	NOTES
13+18	LT	1	W5-52L	1	3	---	---	BRIDGE HASH MARKS
13+20	LT	1R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
13+21	RT	2R	R12-1	---	---	1	1	LOAD POSTING
13+29	RT	3R	W5-52R	---	---	1	1	BRIDGE HASH MARKS
13+31	RT	2	W5-52R	1	3	---	---	BRIDGE HASH MARKS
13+49	LT	4R	W5-52R	---	---	1	1	BRIDGE HASH MARKS
13+51	LT	3	W5-52R	1	3	---	---	BRIDGE HASH MARKS
13+54	LT	5R	R12-1	---	---	1	1	LOAD POSTING
13+70	RT	6R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
13+71	RT	4	W5-52L	1	3	---	---	BRIDGE HASH MARKS
			TOTALS	4	12	6	6	

TRAFFIC CONTROL

LOCATION	DURATION	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (NO.)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAY)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (NO.)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAY)	643.0900 TRAFFIC CONTROL SIGNS (NO.)	643.0900 TRAFFIC CONTROL SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
NORTH APPROACH	73	9	657	18	1314	7	511	---
SOUTH APPROACH	73	9	657	18	1314	7	511	---
UNDISTRIBUTED	73	5	365	10	730	4	292	---
PROJECT	---	---	---	---	---	---	---	1
	TOTALS	23	1679	46	3358	18	1314	1

PLACE TRAFFIC CONTROL IN ACCORDANCE WITH SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION".
PLACEMENT SUBJECT TO ENGINEER APPROVAL.

CONSTRUCTION STAKING

STATION	-	STATION	LOCATION	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	650.6501 STRUCTURE LAYOUT 01. B-62-0267 (EACH)	650.9911 SUPPLEMENTAL CONTROL 01. 5385-00-71 (EACH)	650.9920 SLOPE STAKES (LF)
12+74	-	13+24	MAINLINE	50	50	---	---	50
13+60	-	14+10	MAINLINE	50	50	---	---	50
---	-	---	PROJECT	---	---	1	1	---
			TOTALS	100	100	1 *	1	100

*CATEGORY 0020

SALVAGE AND REINSTALL FENCE

STATION	-	STATION	LOCATION	SPV.0090.01 (LF)
13+40	-	13+95	MAINLINE	50
			TOTALS	50

PROJECT NO: 5385-00-71	HWY: ELLEFSON RD	COUNTY: VERNON	MISCELLANEOUS QUANTITIES	SHEET 8	E

LEGEND
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- STREAM EDGE
- EXISTING SIGN
- SILT FENCE
- TURBIDITY BARRIER
- EXISTING SIGN
- REINSTALLED WIRE FENCE

CLARE M BLASINSKI

JENNIFER J FULLER

N

SOUTH FORK BAD AXE RIVER

STREAM EDGE

BM 1

PC: 12+86.31

CP 2

13+00

14+00

PT: 14+30.86

ELLEFSON RD (B.A.D)

EXISTING R/W

PC: 11+56.43

12+00

VERNON ELECTRIC

F.E. (B.A.D.)

CP 3

15+00

EP: 15+59.33

SLOPE INTERCEPT TYP.

SALVAGE AND REINSTALL FENCE

EXISTING R/W

BM 2

CP 4

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 1	12+71.76	RAILROAD SPIKE IN POWER POLE, 34.03' LT	1060.070
BM 2	14+92.55	RAILROAD SPIKE IN POWER POLE, 27.57' RT	1062.768

BEGIN PROJECT
STA 12+74.03
Y = 139 344.272
X = 696 054.776
MATCH EXISTING

MICHAEL J & LISA A RILEY

END PROJECT
STA 14+09.99
Y = 139 466.686
X = 696 105.062
MATCH EXISTING

10+31.00 11+00.00 12+00.00 13+00.00 14+00.00 15+00.00 16+00.00 16+31.00

1065 1060 1055 1053

STA 12+74.03
EL 1063.05

VPC STA 13+06.00
VPC EL 1064.03

VPI STA 13+41.00
VPI EL 1065.09

VPT STA 13+71.00
VPT EL 1064.94

VCL = 35.40

K = 26.67

LP STA 13+84.28
LP EL 1064.91

STA 14+09.99
EL 1065.03

3.05%

-0.50%

0.83%

PROPOSED ℄ PROFILE

EXISTING ℄ PROFILE

HIGH WATER 100
EL. 1063.33

HP STA 13+63.18
HP EL 1064.96

VPC STA 13+71.00
VPC EL 1064.94

VPI STA 13+88.70
VPI EL 1064.86

VPT STA 14+06.40
VPT EL 1065.00

VCL = 65.00

K = 18.32

OBSERVED WATER
EL. 1055.06
(12/16/2020)

PROPOSED ℄ ELEVATION

EXISTING ℄ ELEVATION

APPROX. STREAMBED EL. 1052.54

1064.17 1063.99 1063.41 1062.67 1062.25 1062.56 1063.76 1063.84 1056.22 1064.91 1064.96 1064.96 1066.04 1068.86 1071.72

STA. 13+41.70
REMOVE EXISTING STRUCTURE P-62-0912
27.0-FT OVERALL LENGTH AND
23.3-FT CLEAR ROADWAY WIDTH
SINGLE SPAN STEEL DECK GIRDER STRUCTURE

STA. 13+42.01
STRUCTURE B-62-0267 REQUIRED
35.9-FT OVERALL LENGTH AND
24.0-FT CLEAR ROADWAY WIDTH
SINGLE SPAN CONCRETE FLAT SLAB STRUCTURE

PROJECT NO: 5385-00-71	HWY: ELLEFSON RD	COUNTY: VERNON	PLAN AND PROFILE	SHEET 9	E

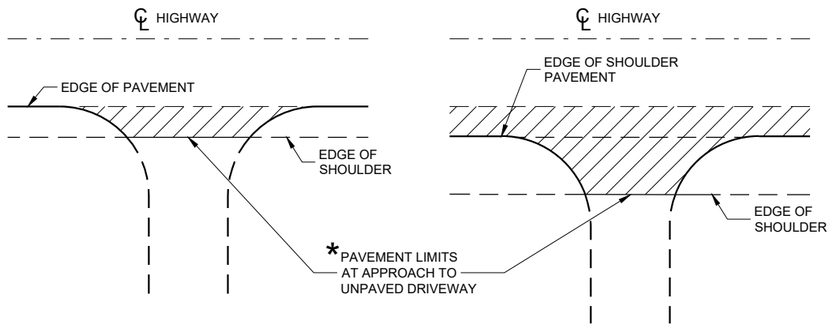
FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 050101_pp

PLOT DATE : 7/26/2023 8:25 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

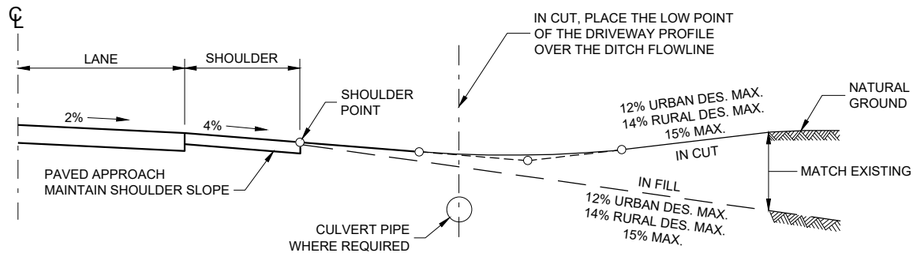
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



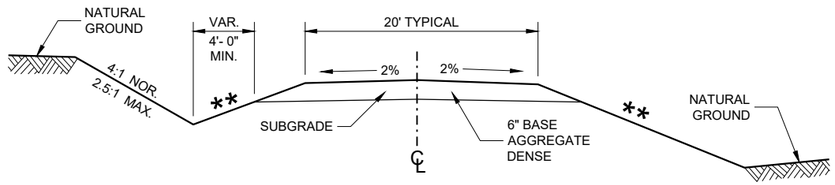
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

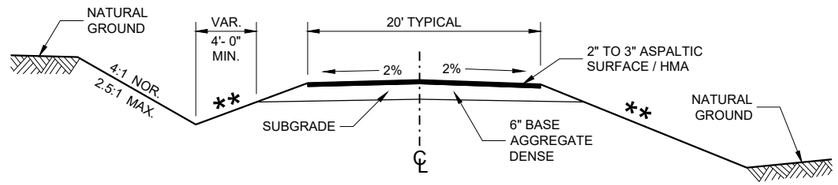


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

DRIVEWAYS WITHOUT CURB AND GUTTER

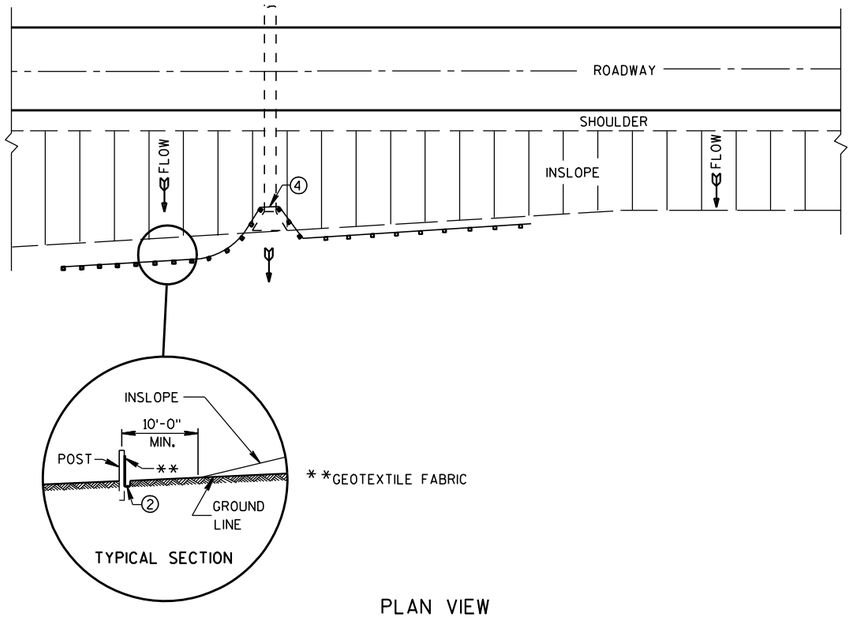
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

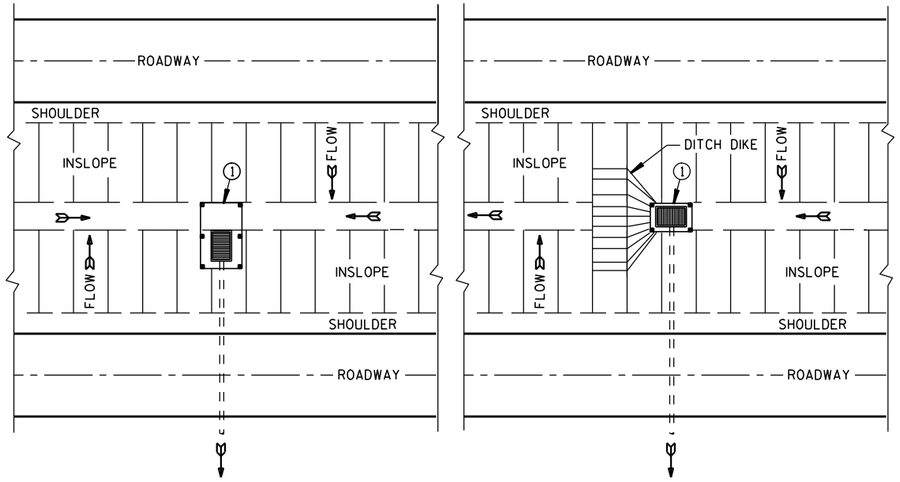
6

SDD 08D21 - 01



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

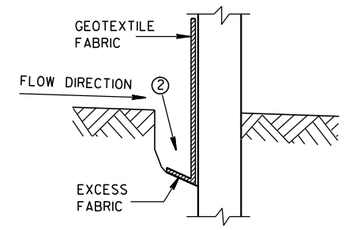
(1) HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

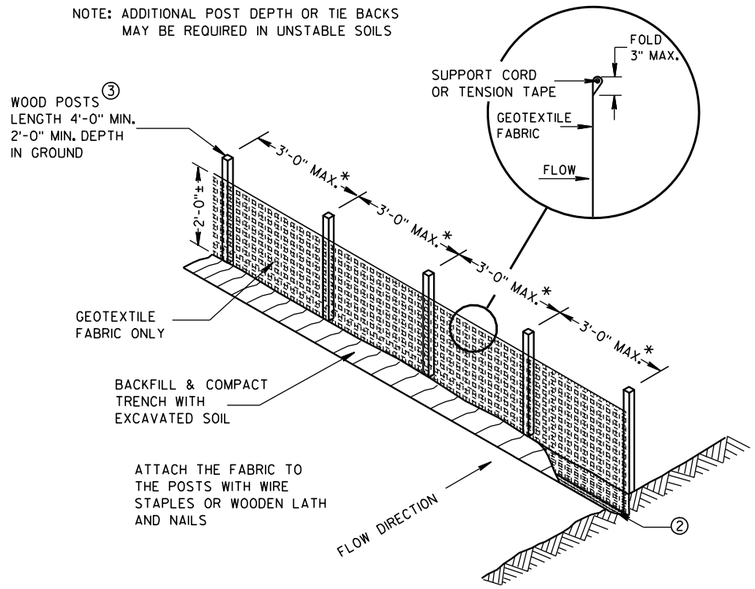
(3) WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

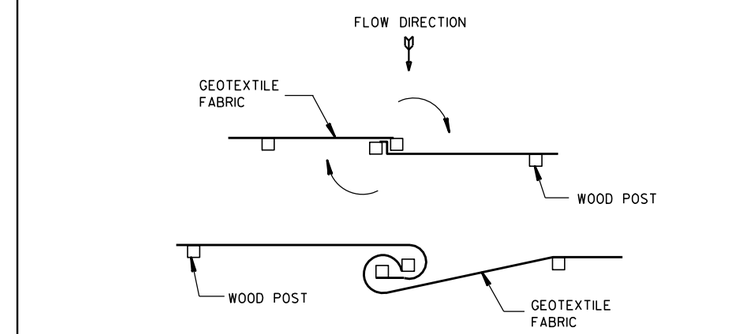
(5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



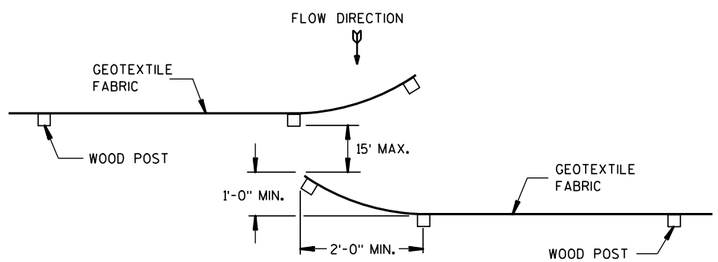
TRENCH DETAIL



SILT FENCE

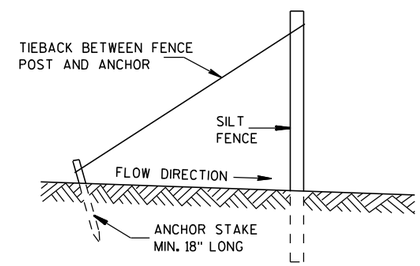


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE (5)



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

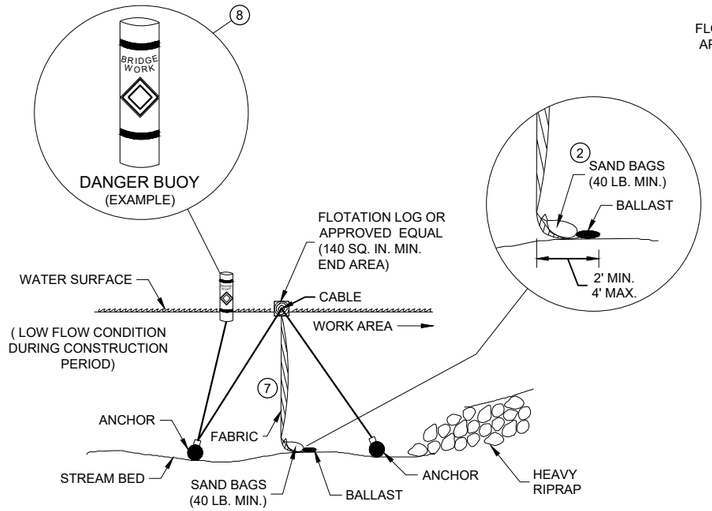
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

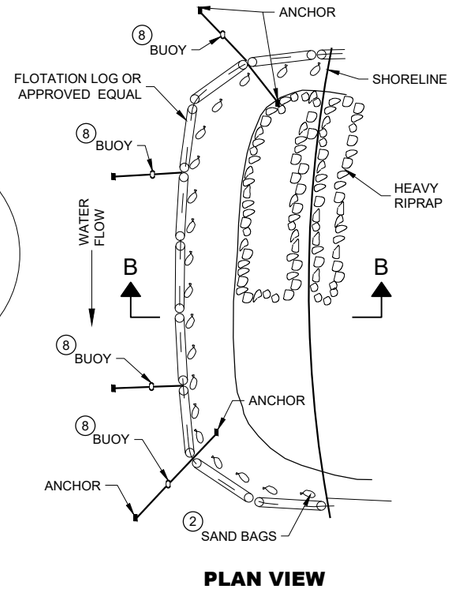
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

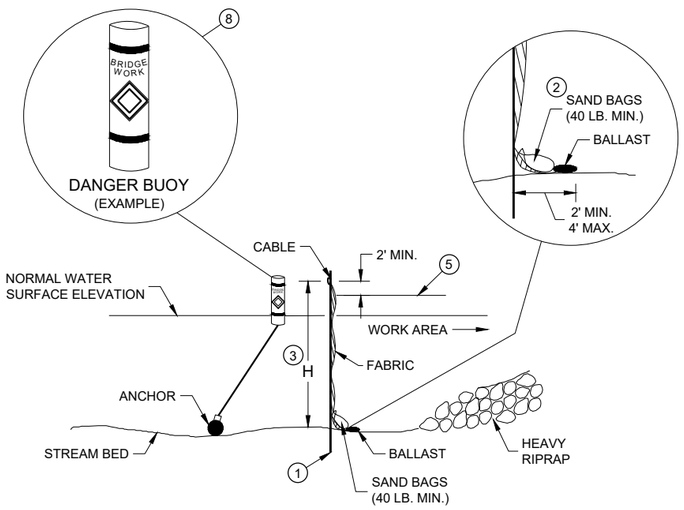


SECTION B - B

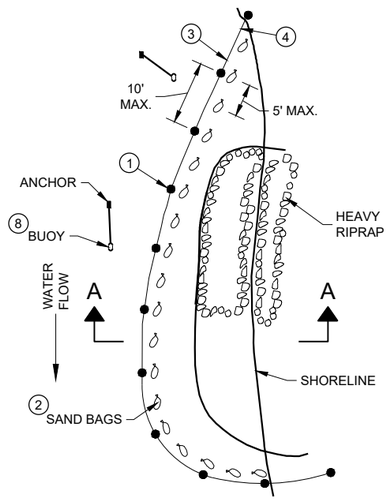


PLAN VIEW

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

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

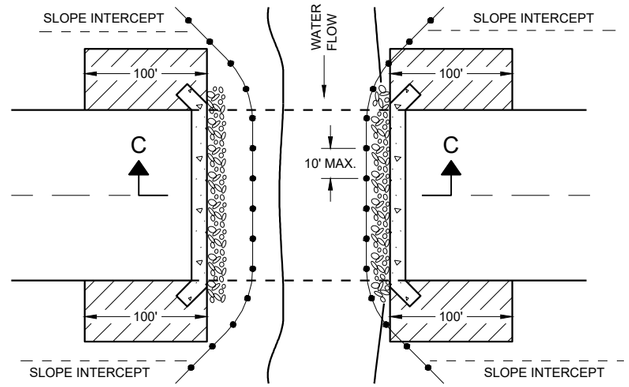
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

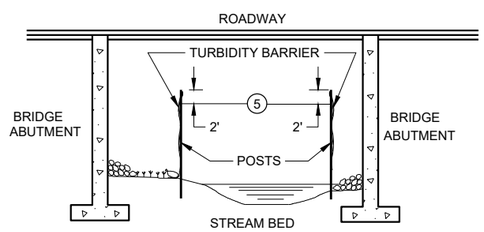
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

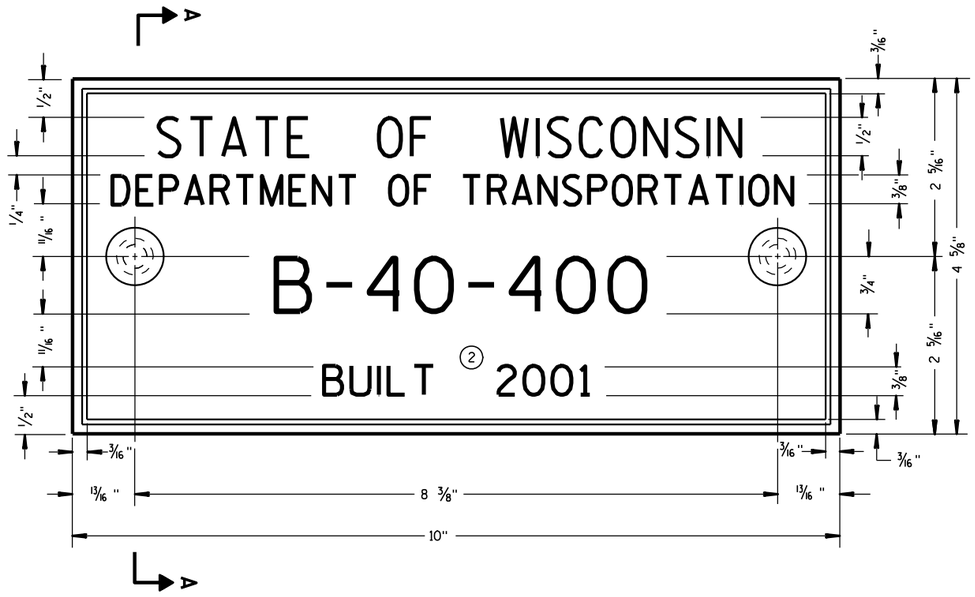
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6
SDD 08E11 - 02



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

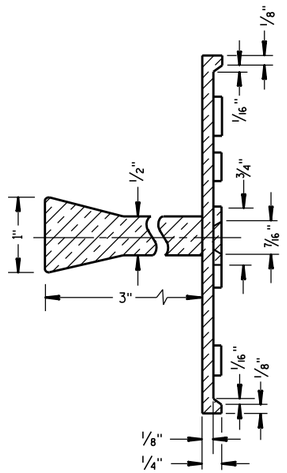
GENERAL NOTES

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

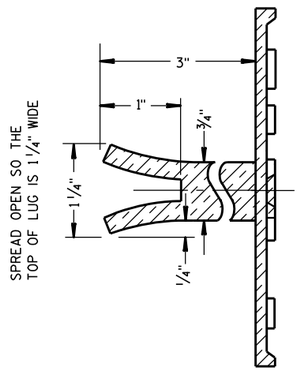
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

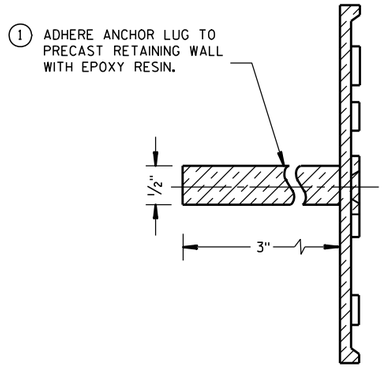
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

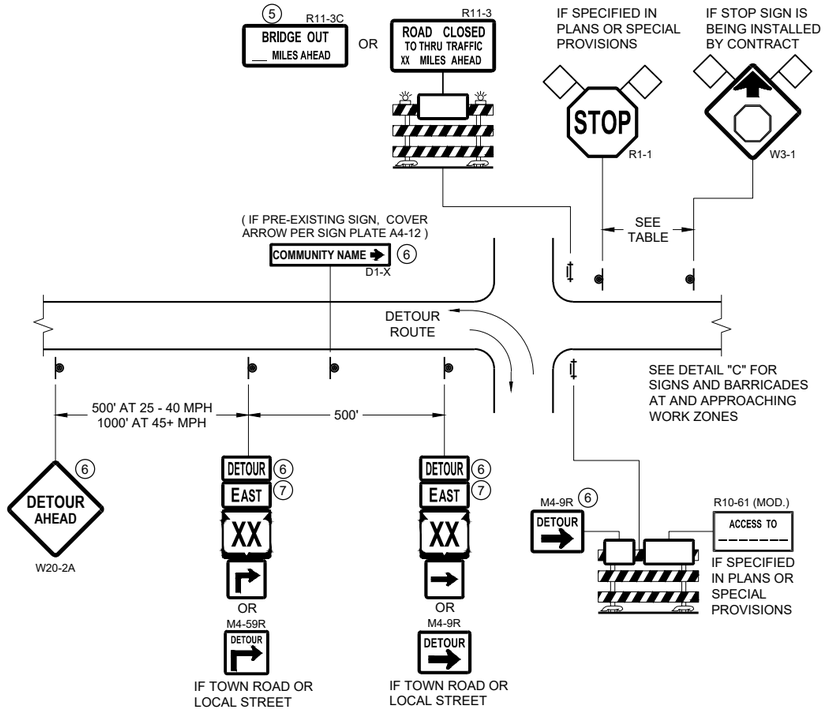
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

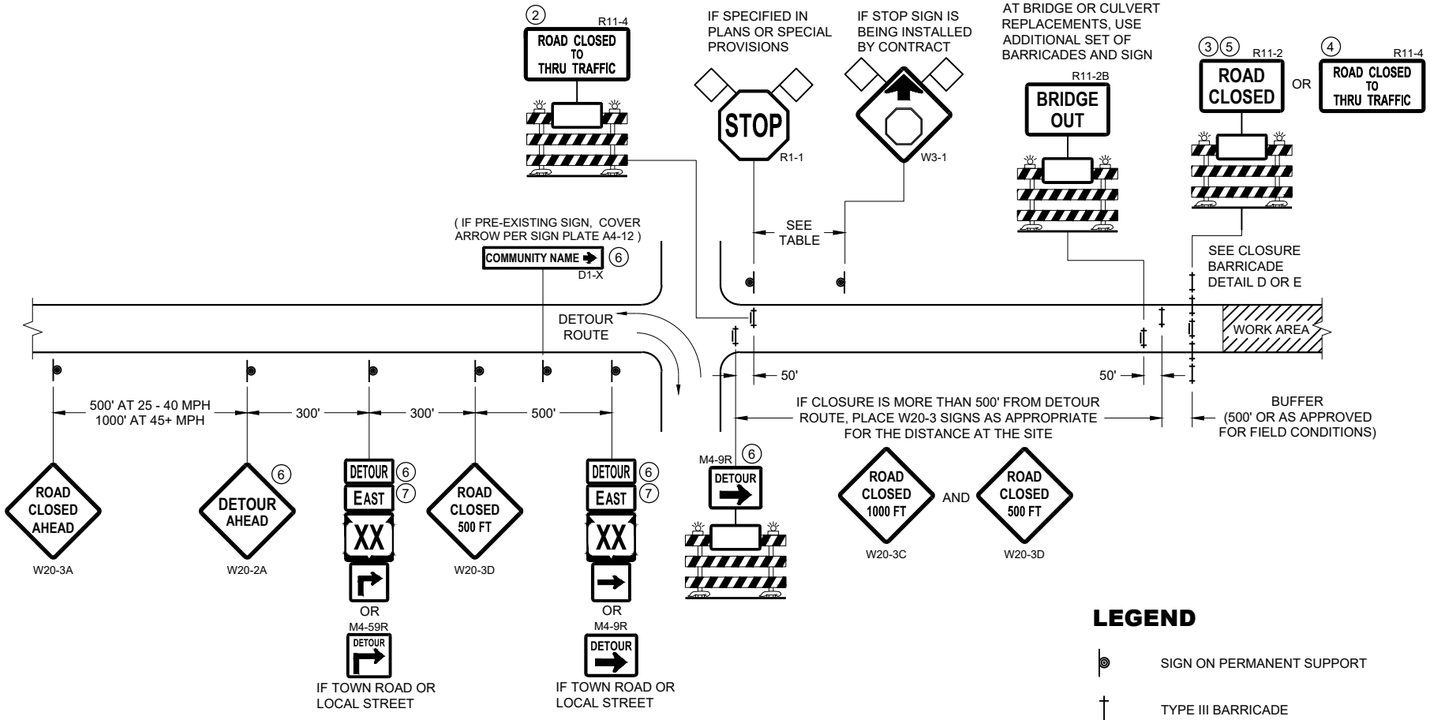
6

S.D.D. 12 A 3-10



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



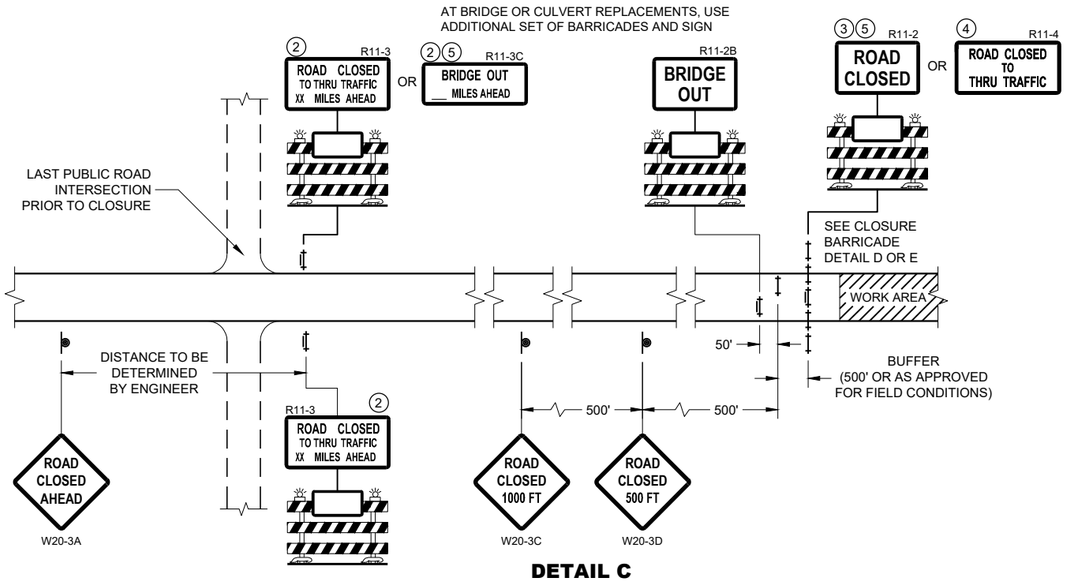
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

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

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



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

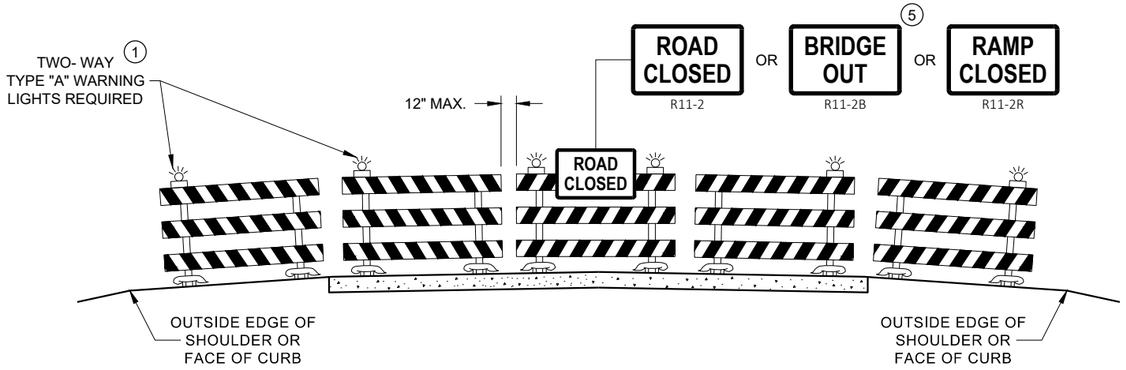
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

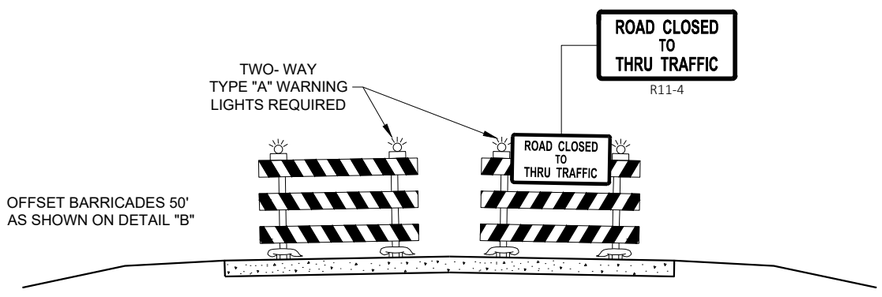
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

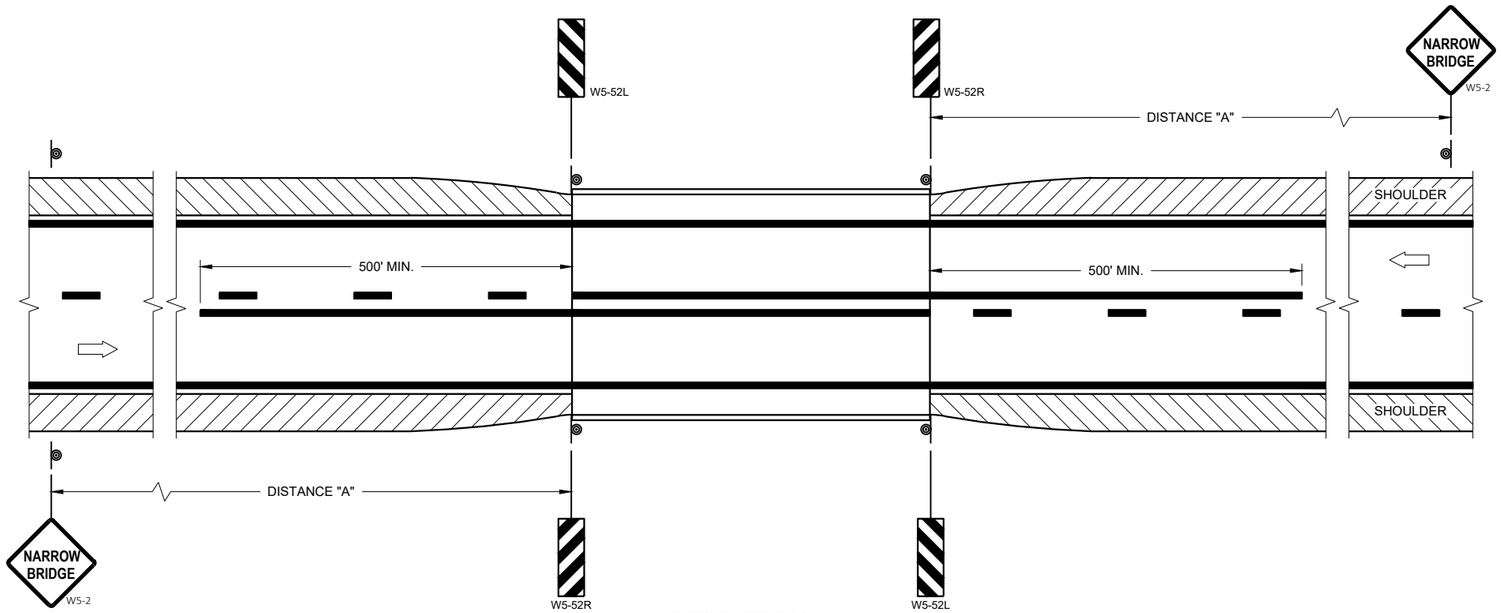
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

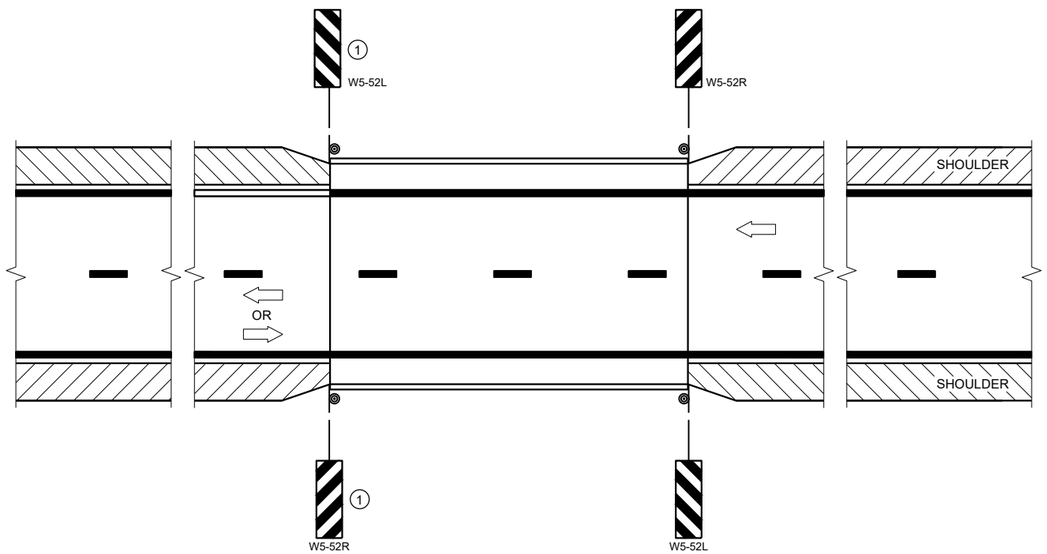
6

SDD 15C02 - 09b



SITUATION 1

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



SITUATION 2

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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

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

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAF ENGINEER

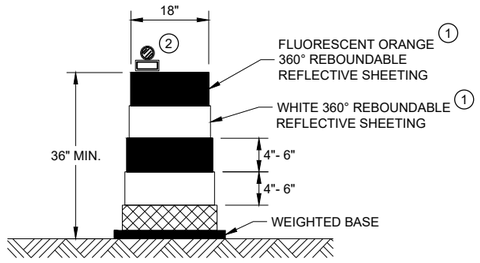
FHWA

6
SDD 15C06-12

GENERAL NOTES

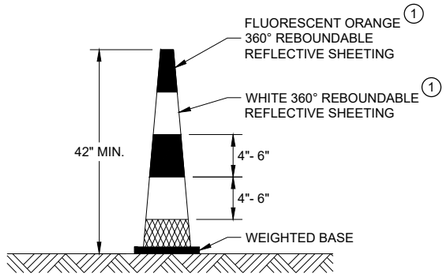
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

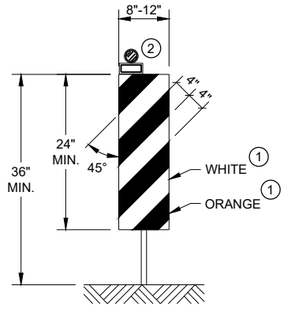
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

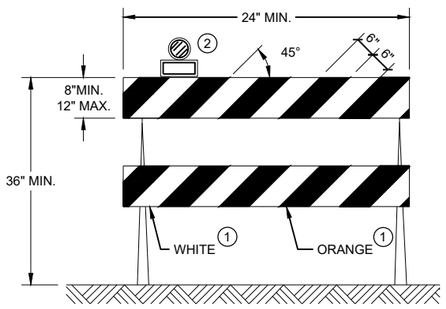
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



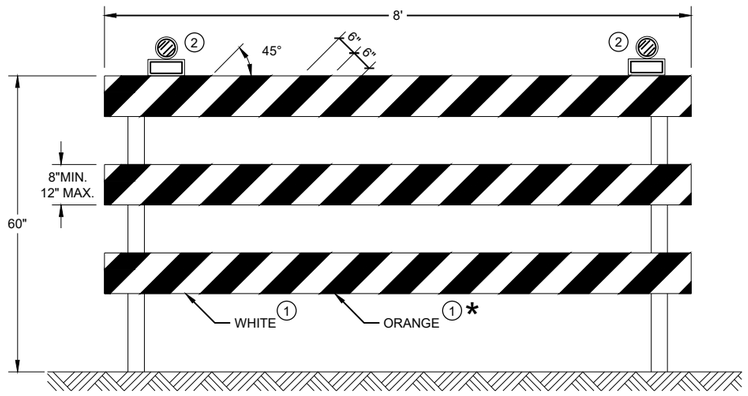
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

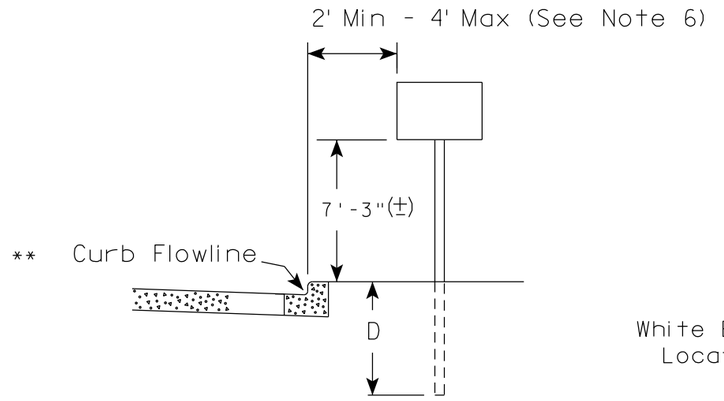
6

SDD 15C11 - 10b

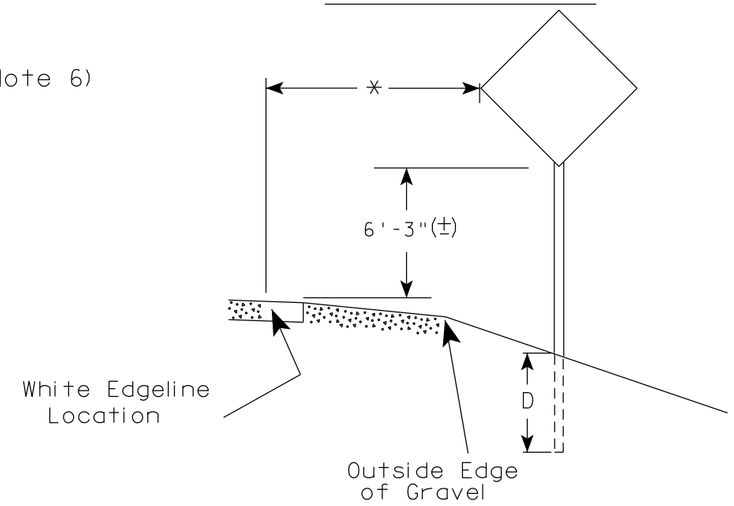
6

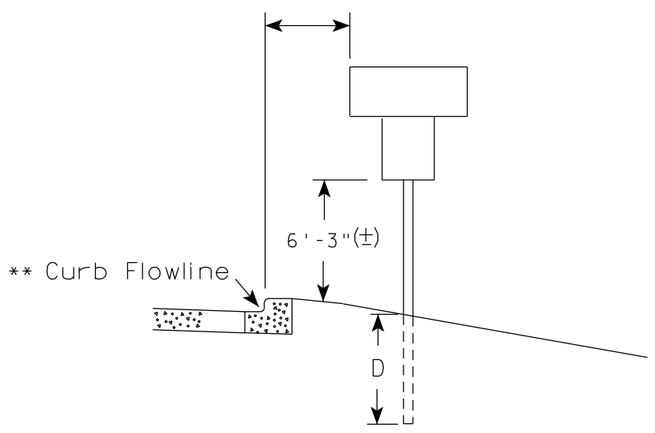
SDD 15C11 - 10b

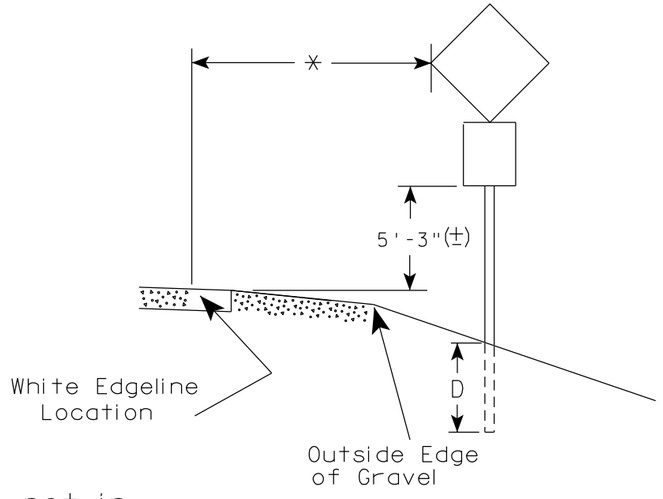
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

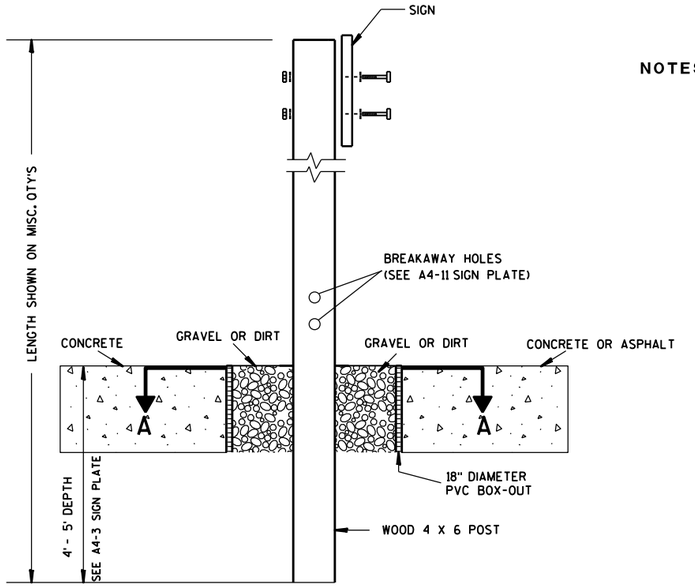
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

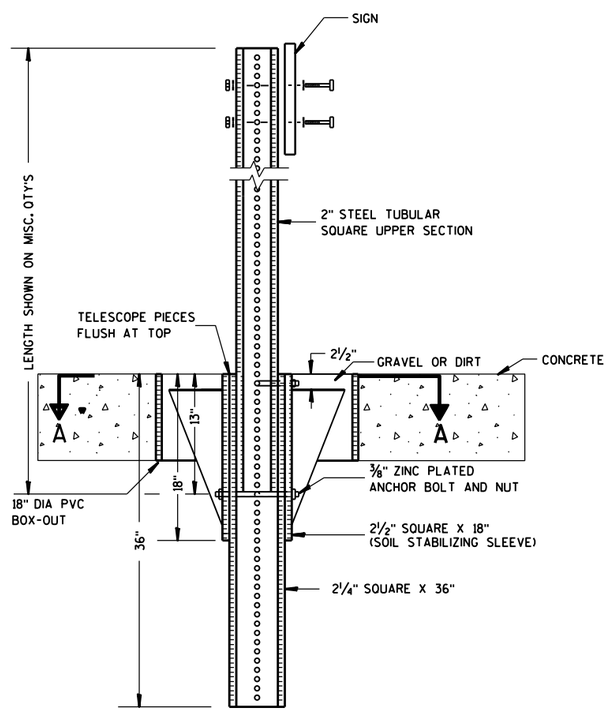
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 19	E



ELEVATION VIEW

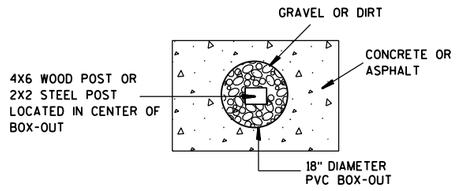
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

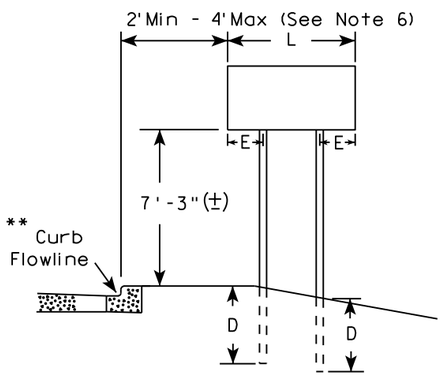
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

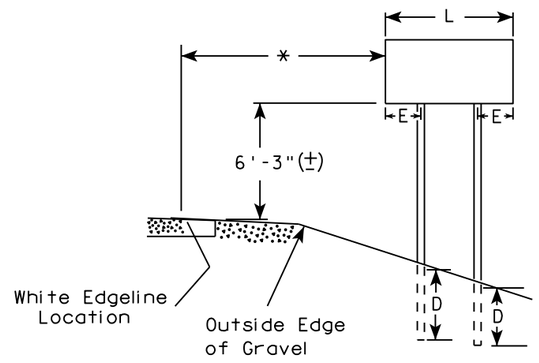
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

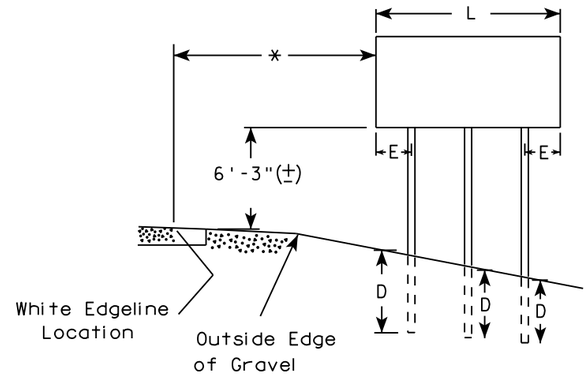
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

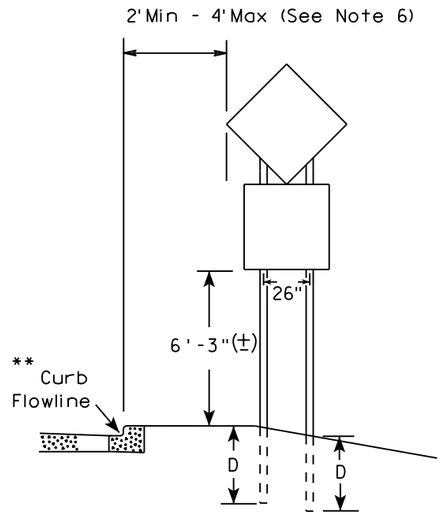
URBAN AREA



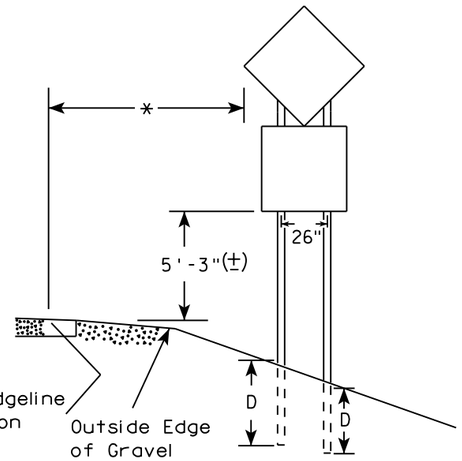
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

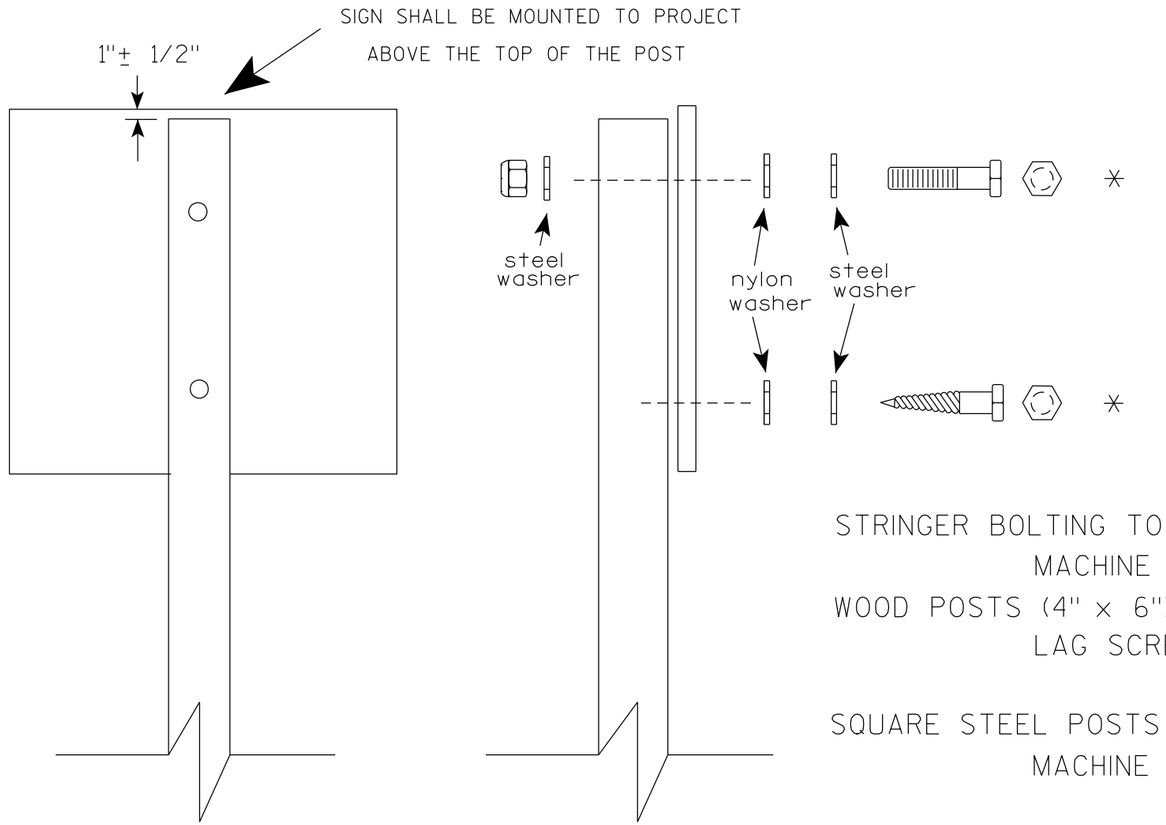
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 21	E



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

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

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

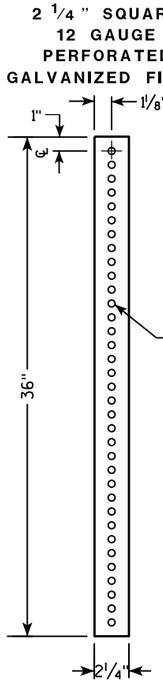
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

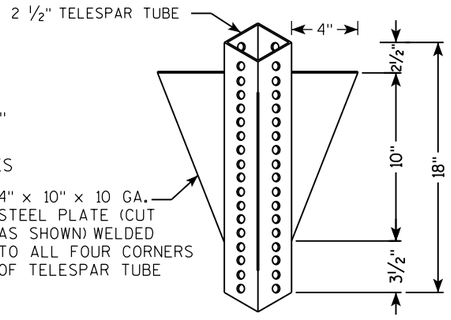
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

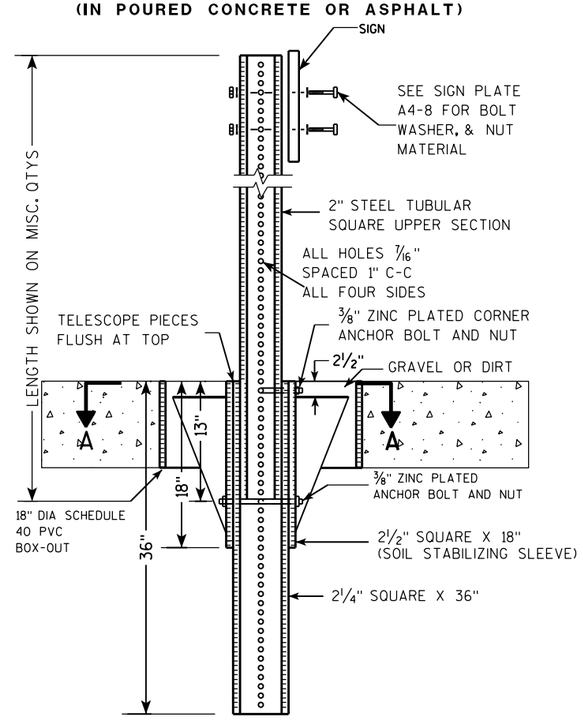
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



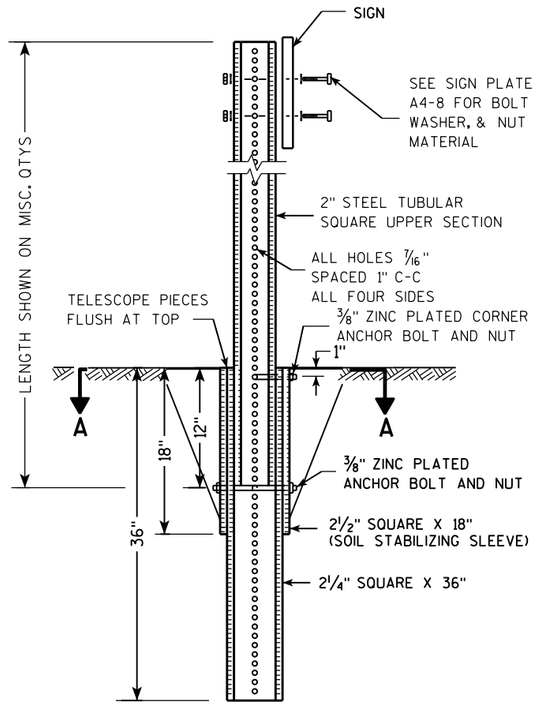
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

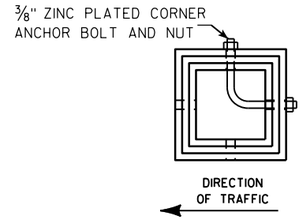


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

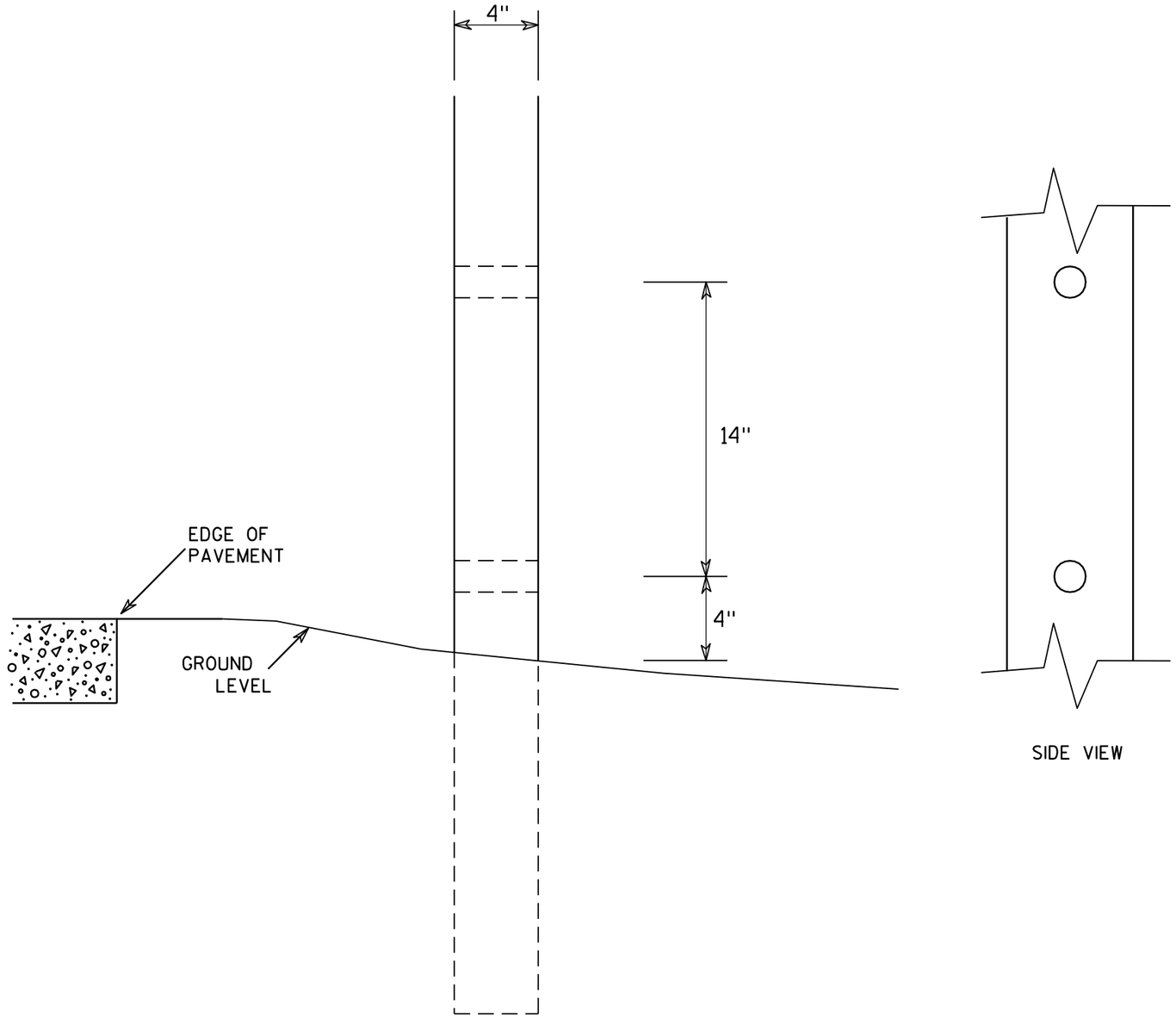
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
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.

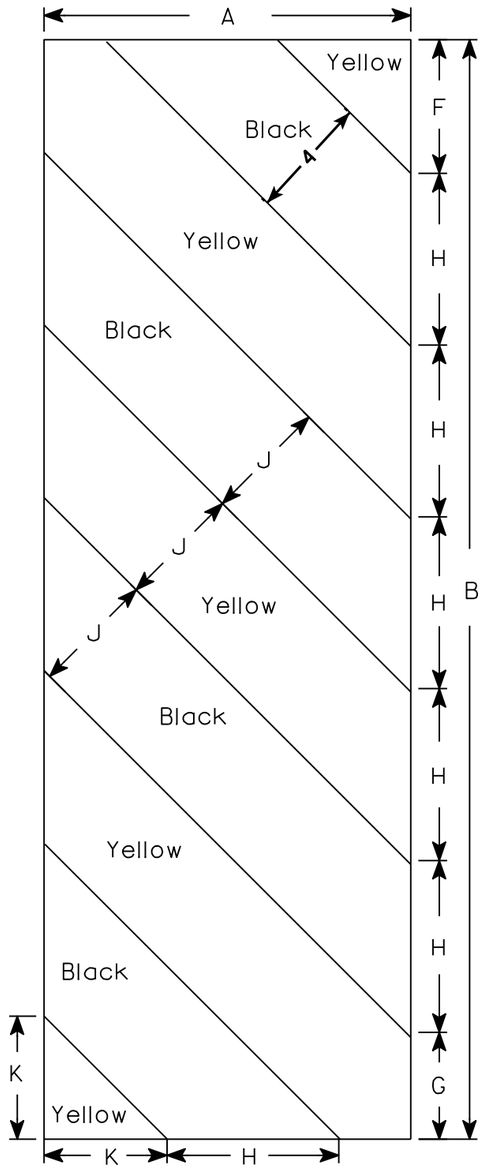
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

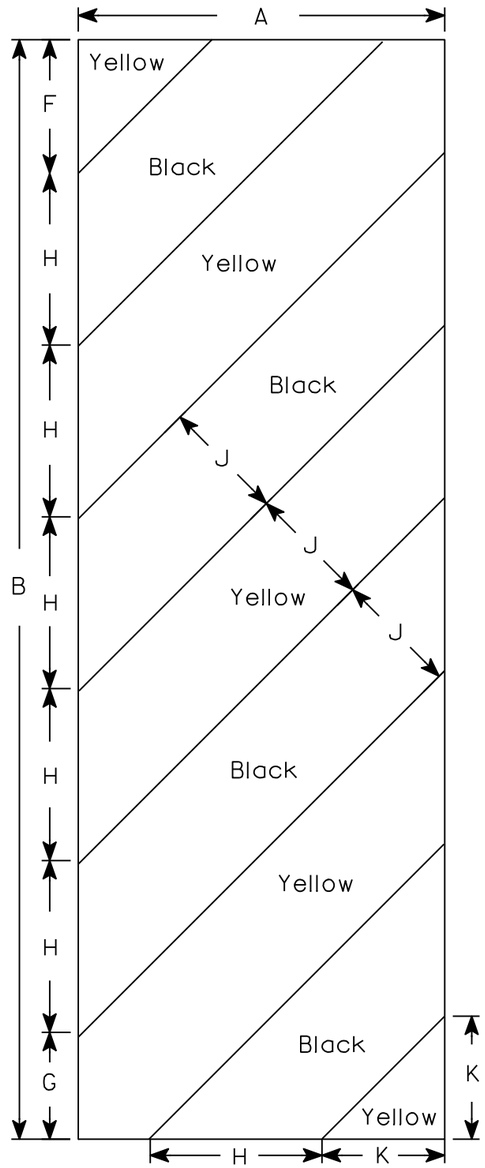
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	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

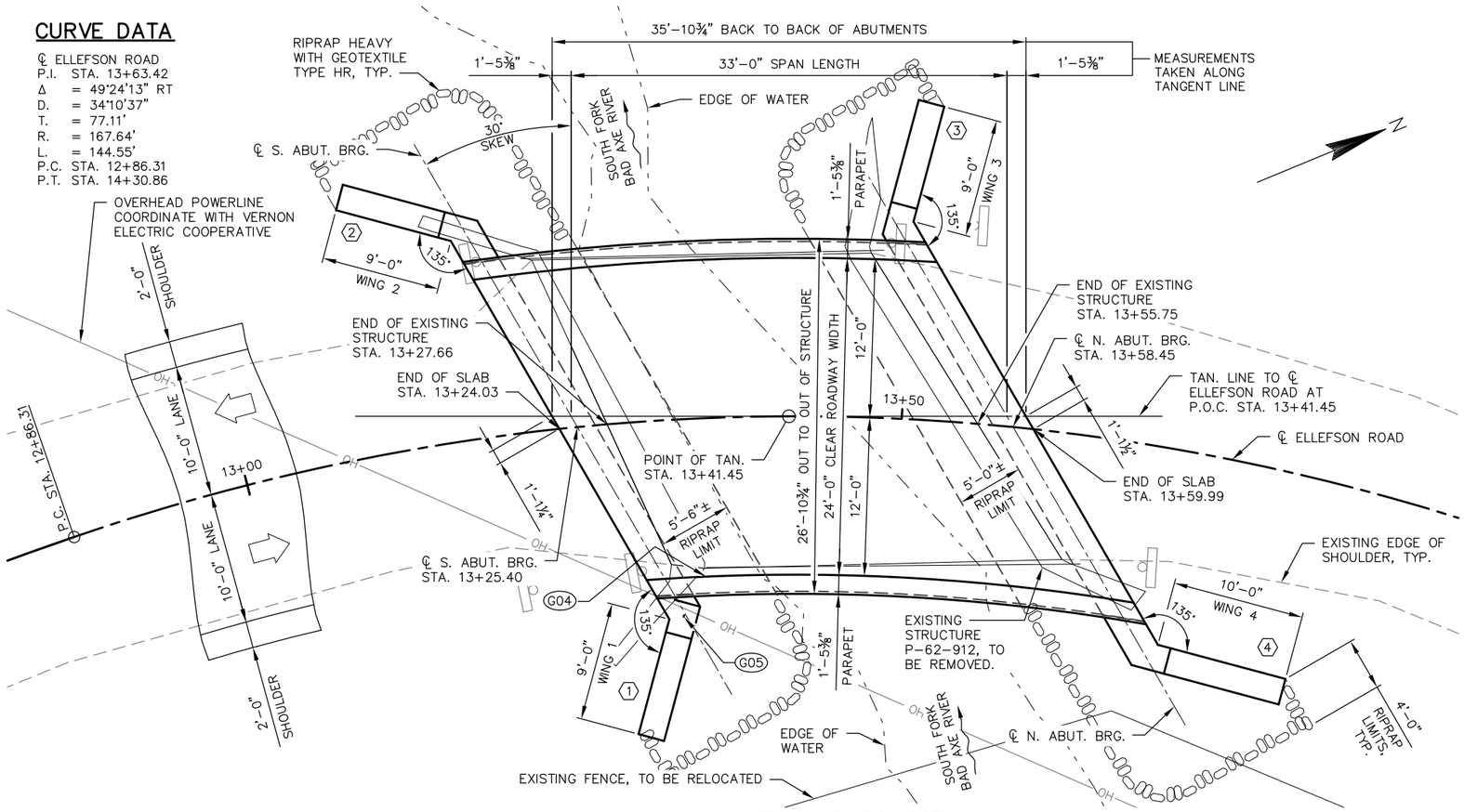
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 25 | E

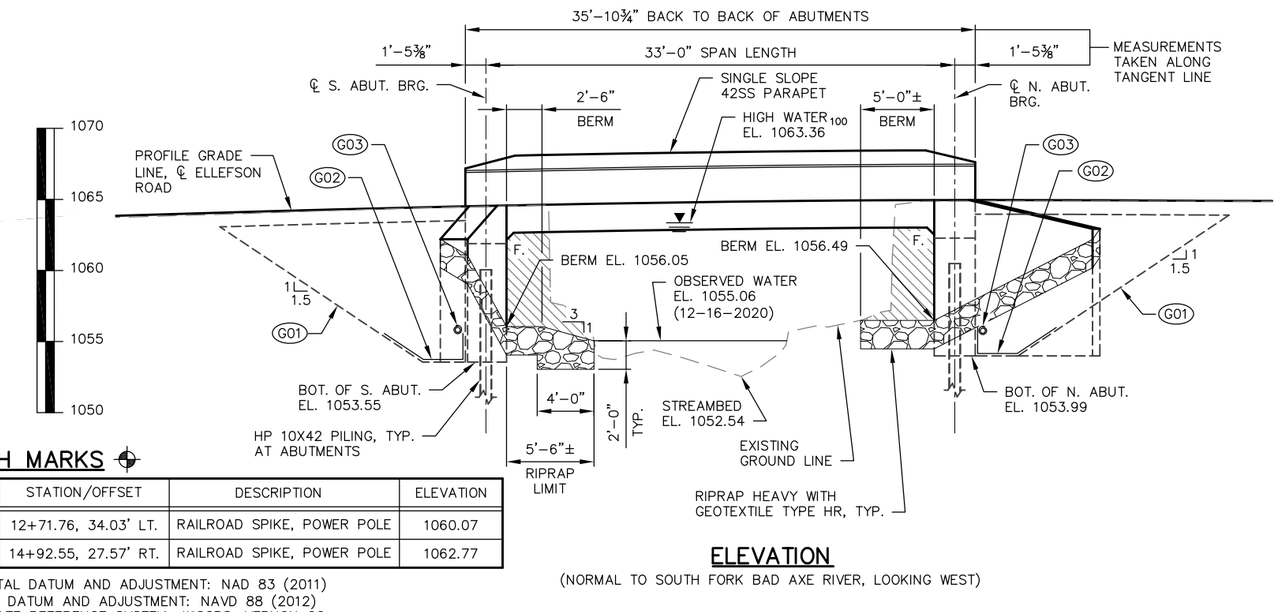
CURVE DATA

℄ ELLEFSON ROAD
P.I. STA. 13+63.42
Δ = 49°24'13" RT
D. = 34°10'37"
T. = 77.11'
R. = 167.64'
L. = 144.55'
P.C. STA. 12+86.31
P.T. STA. 14+30.86



PLAN B-62-267

(SINGLE SPAN CONCRETE FLAT SLAB BRIDGE)



ELEVATION

(NORMAL TO SOUTH FORK BAD AXE RIVER, LOOKING WEST)

BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM #1	12+71.76, 34.03' LT.	RAILROAD SPIKE, POWER POLE	1060.07
BM #2	14+92.55, 27.57' RT.	RAILROAD SPIKE, POWER POLE	1062.77

HORIZONTAL DATUM AND ADJUSTMENT: NAD 83 (2011)
VERTICAL DATUM AND ADJUSTMENT: NAVD 88 (2012)
COORDINATE REFERENCE SYSTEM: WISCRS, VERNON CO.

NOTES

EXCAVATION AS INDICATED IN THE HATCH AREAS, TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-62-267".

(G01) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-62-267". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

(G02) "GEOTEXTILE TYPE DF SCHEDULE A" LIMITS. EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT FOR THE ENTIRE ABUTMENT BODY LENGTH.

(G03) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED IN "WING 3 DETAILS" SHEET.

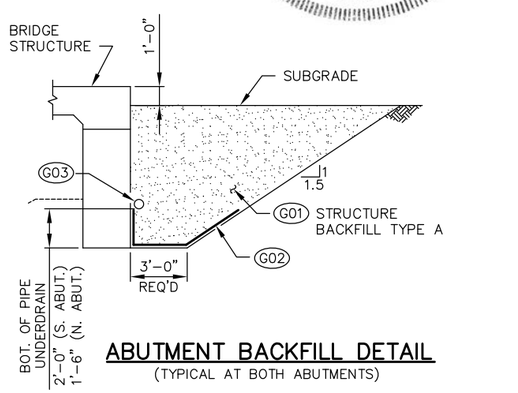
(G04) NAME PLATE REQUIRED NEAR WING 1. FOR LOCATION SEE "PARAPET DETAILS" SHEET.

(G05) BENCHMARK CAP (WHEN SUPPLIED) NEAR WING 1. FOR LOCATION SEE "SOUTH ABUTMENT" SHEET.

⬡ INDICATES WING NUMBER

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, GENERAL NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. WING 3 DETAILS
8. WING 4 DETAILS
9. SUPERSTRUCTURE PLAN
10. SUPERSTRUCTURE DETAILS
11. SUPERSTRUCTURE SECTIONS
12. PARAPET DETAILS
13. SUPERSTRUCTURE REINFORCEMENT



ABUTMENT BACKFILL DETAIL

(TYPICAL AT BOTH ABUTMENTS)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.26
OPERATING RATING FACTOR — RF=1.64
WISCONSIN STANDARD PERMIT VEHICLE RATING (WIS.-SPV): — 250 KIPS

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

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 — fy = 60,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL PILING SEATED IN PREBORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 160 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 20 FT PILE LENGTHS AT S. ABUT. AND N. ABUT.

HYDRAULIC DATA:

Q_{100} — 1,410 C.F.S.
Q_{100} (THRU BRIDGE) — 1,124 C.F.S.
Q_{100} (ROAD) — 286 C.F.S.
DRAINAGE AREA — 3.5 SQ. MI.
BRIDGE WATER AREA — 202 SQ. FT.
BRIDGE VELOCITY — 5.57 F.P.S.
HIGH WATER $_{100}$ EL. — 1063.36 FT.
OVERTOPPING Q — 1,220 C.F.S
OVERTOPPING EL. — 1062.35 FT.
OVERTOPPING Q FREQ. — 60 YR
SCOUR CRITICAL CODE — 5
Q_2 — 246 C.F.S.
Q_2 ELEVATION — 1057.33 FT.
Q_2 VELOCITY — 4.40 F.P.S.

TRAFFIC DATA:

ELLEFSON ROAD
A.A.D.T. (2024) — 23
A.A.D.T. (2044) — 25
DESIGN SPEED — 30 M.P.H.

BRIDGE OFFICE CONTACT
AARON BONK, P.E.
(608) 261-0261

CONSULTANT CONTACT
ANDY KNUTSON, P.E., S.E.
(608) 588-7866

WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
5-3-23
PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

WESTBROOK Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WI 53588
PHONE (608) 588-7866
FAX (608) 588-7954

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 08/15/23
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STATE PROJECT NUMBER
5385-00-71

STRUCTURE B-62-267

ELLEFSON ROAD OVER SOUTH FORK BAD AXE RIVER

COUNTY: VERNON
TOWN/~~CITY/VILLAGE~~: FRANKLIN
DESIGN SPEC.: AASHTO LRFD DESIGN SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDO	CDS	JDO	ACK

GENERAL PLAN

SHEET 1 OF 13

26

8

8

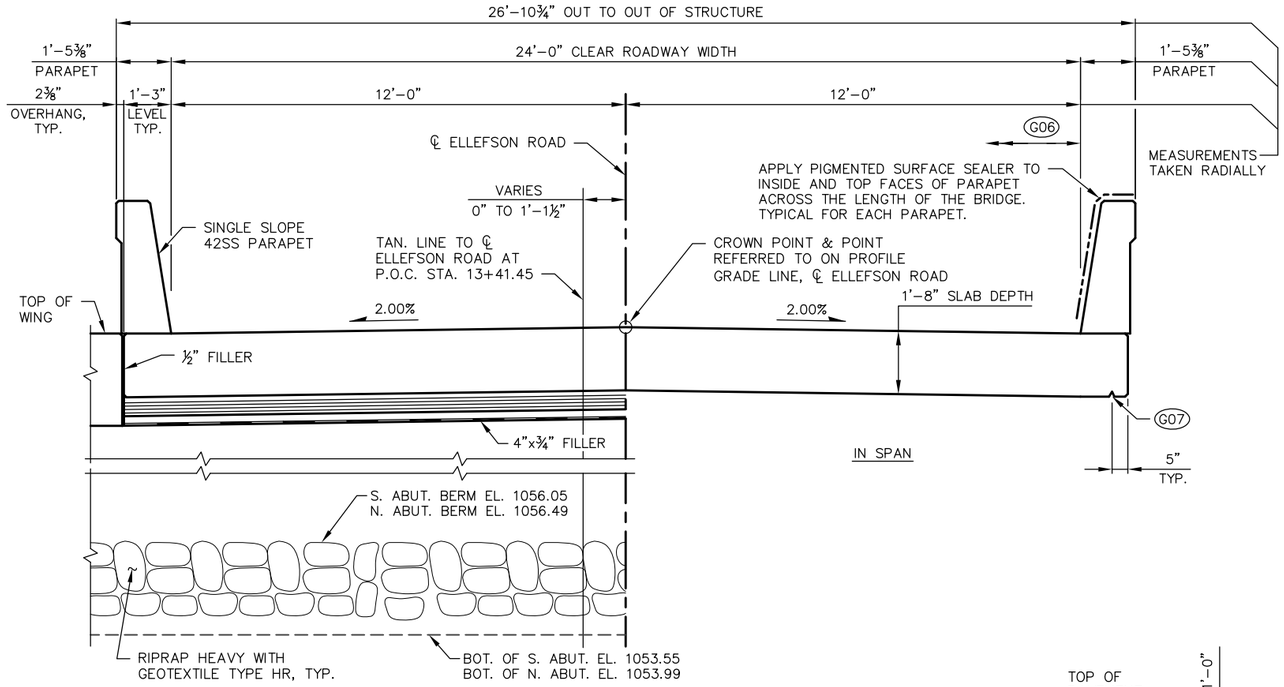
FILE: B620267_01_gen.dwg
PLOT SCALE:

I.D. 5385-00-71

PLOT DATE: Apr 26, 2023

STATE PROJECT NUMBER

5385-00-71



AT ABUTMENT
(PILING NOT SHOWN FOR CLARITY)

CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

NOTES

(G06) COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP SURFACE OF SLAB BETWEEN THE PARAPETS.

(G07) ¾" V-GROOVE REQ'D. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-62-912	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-62-267	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	290	320	---	610
502.0100	CONCRETE MASONRY BRIDGES	CY	41.2	44.7	73.6	160
502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	98	98
502.3210	PIGMENTED SURFACE SEALER	SY	---	---	36	36
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,400	2,630	---	5,030
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,510	1,600	15,840	18,950
* 506.0105	STRUCTURAL STEEL CARBON	LB	---	---	546	546
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	7	---	14
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	95	95	---	190
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	140	140	---	280
606.0300	RIPRAP HEAVY	CY	35	30	---	65
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	80	---	155
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	32	36	---	68
645.0120	GEOTEXTILE TYPE HR	SY	77	79	---	156
(NON-BID ITEM)	FILLER	SIZE				½" & ¾"

* REQUIRED FOR TWO PROTECTION ANGLES RUNNING FULL WIDTH OF BRIDGE DECK AT ABUTMENTS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

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

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WING FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCLUDED WITH "EXCAVATION FOR STRUCTURES BRIDGES B-62-267".

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

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE SUPERSTRUCTURE SLAB PER THE STANDARD SPECIFICATION. PIGMENTED SURFACE SEALER TO BE APPLIED TO THE PARAPETS PER THE STANDARD SPECIFICATION. SEE THIS SHEET FOR PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER LIMITS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-62-267" SHALL BE THE EXISTING GROUND LINE.

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

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

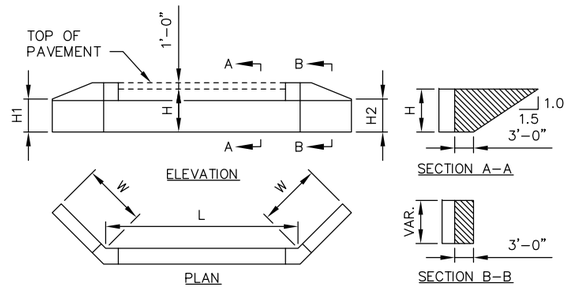
AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

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

SHALLOW BEDROCK (LESS THAN 10-FT BELOW ABUTMENT) WAS ENCOUNTERED IN THE BORING FOR THE NORTH AND SOUTH ABUTMENT. A MINIMUM OF 3-FEET OF PRE-BORE AT THE ABUTMENT INTO SUITABLE BEDROCK IS REQUIRED IF THE MINIMUM 10-FEET OF PILE PENETRATION INTO NATURAL GROUND CANNOT BE ACHIEVED. THE CONTRACTOR AND THE CONSTRUCTION ENGINEER SHOULD ANTICIPATE VARIABLE PILE PENETRATION.

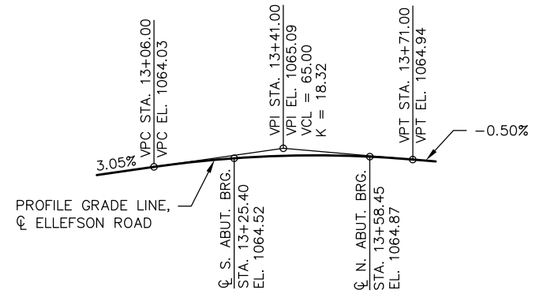
PILES PLACED IN PREBORED HOLES CORED INTO ROCK DO NOT REQUIRE DRIVING. PILES SHALL BE "FIRMLY SEATED" ON ROCK AFTER PLACEMENT IN PREBORED HOLES.

THE EXISTING STRUCTURE (P-62-912) IS A SINGLE SPAN STEEL GIRDER BRIDGE WITH A TIMBER DECK AND WITH AN OVERALL LENGTH OF 27.0-FT AND A DECK WIDTH OF 23.3-FT AND IS TO BE REMOVED PER BID ITEM "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-62-912".

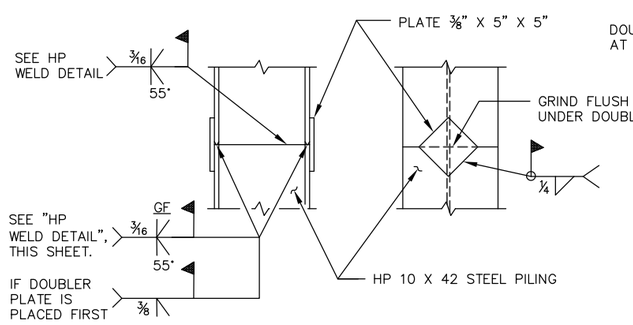


ABUTMENT BACKFILL DIAGRAM

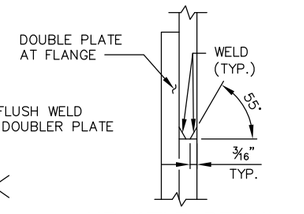
L = ABUTMENT BODY LENGTH AT BACKFACE (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
H1 = WING 1 HEIGHT AT TIP (FT)
H2 = WING 2 HEIGHT AT TIP (FT)
W = WING LENGTH (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(H1+H2+H+H)(W)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



PROFILE GRADE LINE, ℄ ELLEFSON ROAD



PILE SPLICE DETAILS



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-267

DRAWN BY JDO | PLANS CK'D ACK

CROSS SECTION, GENERAL NOTES & QUANTITIES

SHEET 2 OF 13

27

8

8

I.D. 5385-00-71

PLOT DATE: Apr 26, 2023

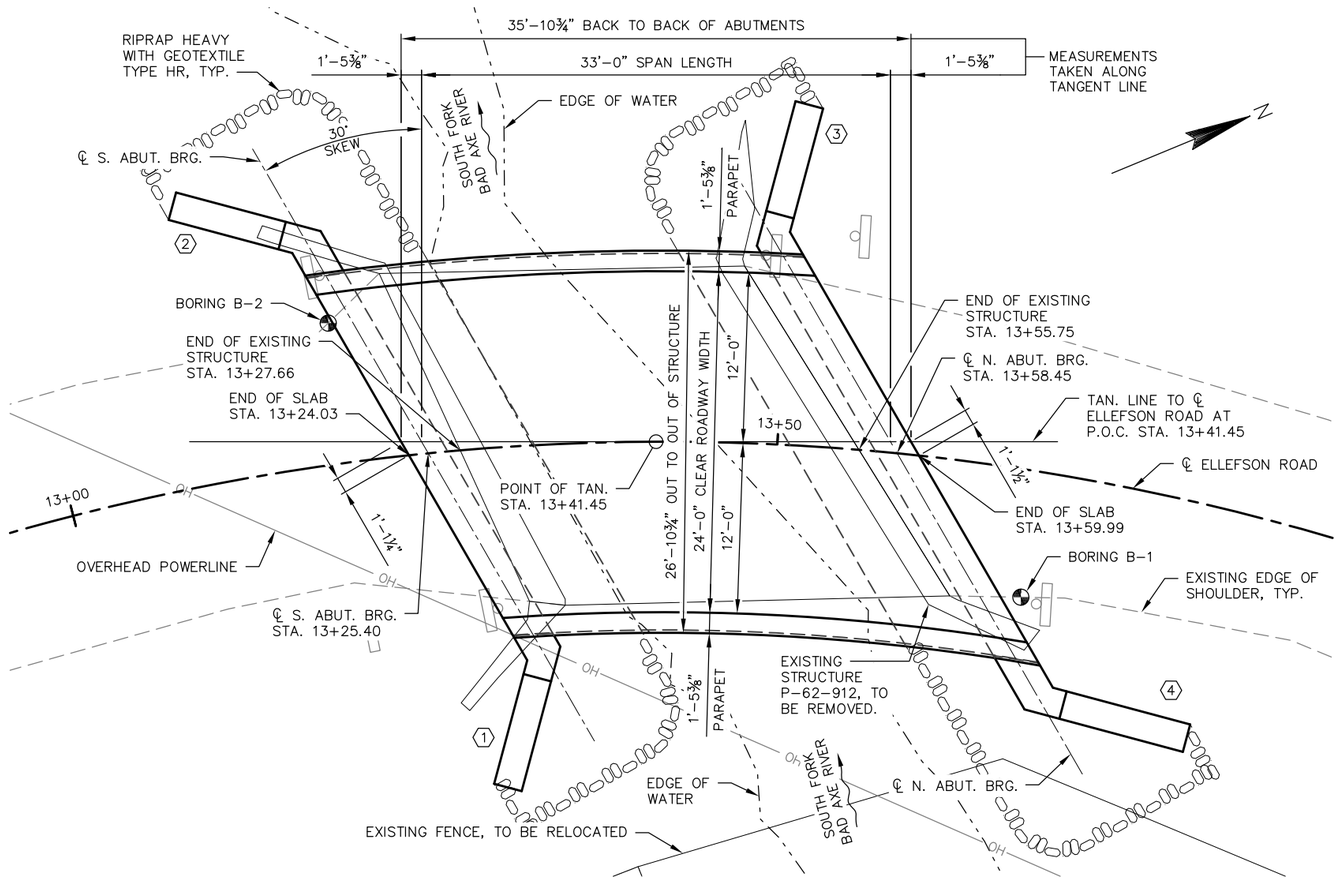
FILE: B620267_02_qty.dwg
PLOT SCALE:

B-62-267 BORINGS

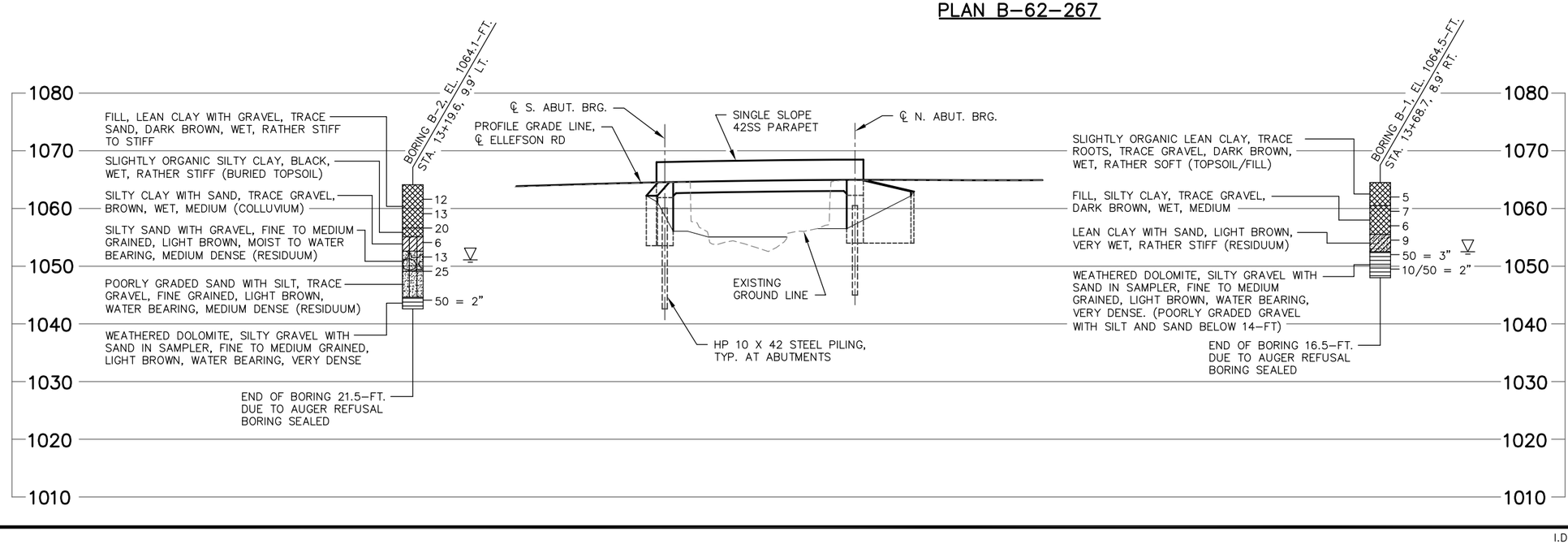
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING B-1	6/3/2021	139,429.7	696,087.1
BORING B-2	6/3/2021	139,391.9	696,050.8
BORINGS COMPLETED BY: CHOSEN VALLEY TESTING			
SUBSURFACE INVESTIGATION REPORT: CHOSEN VALLEY TESTING			
ALL COORDINATES REFERENCED TO WISCRS, VERNON COUNTY			

NOTE

⬡ INDICATES WING NUMBER



PLAN B-62-267



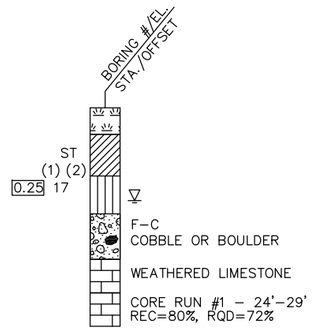
STATE PROJECT NUMBER

5385-00-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-267

DRAWN BY CDS | PLANS CK'D ACK

SUBSURFACE EXPLORATION

SHEET 3 OF 13

28

8

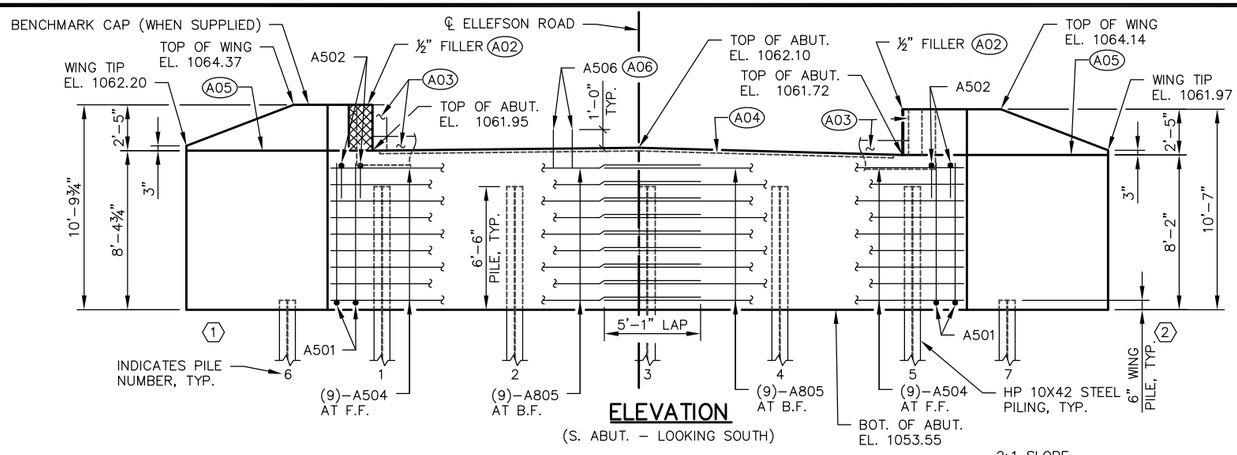
8

I.D. 5385-00-71 PLOT DATE: Apr 26, 2023

FILE: B620267_03_bor.dwg
PLOT SCALE:

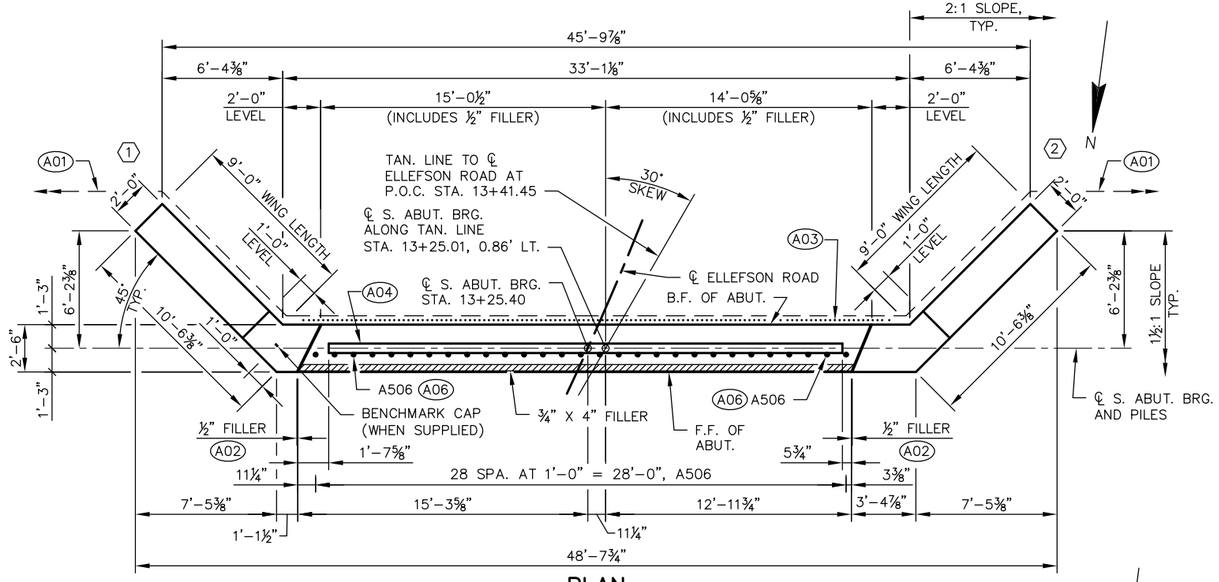
STATE PROJECT NUMBER

5385-00-71

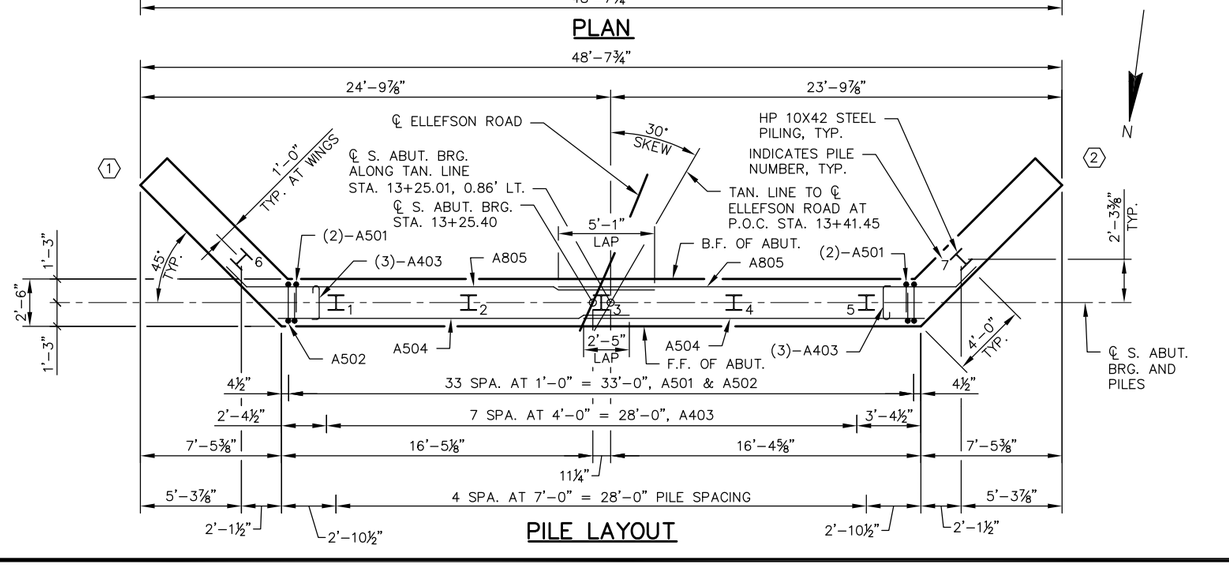


ELEVATION

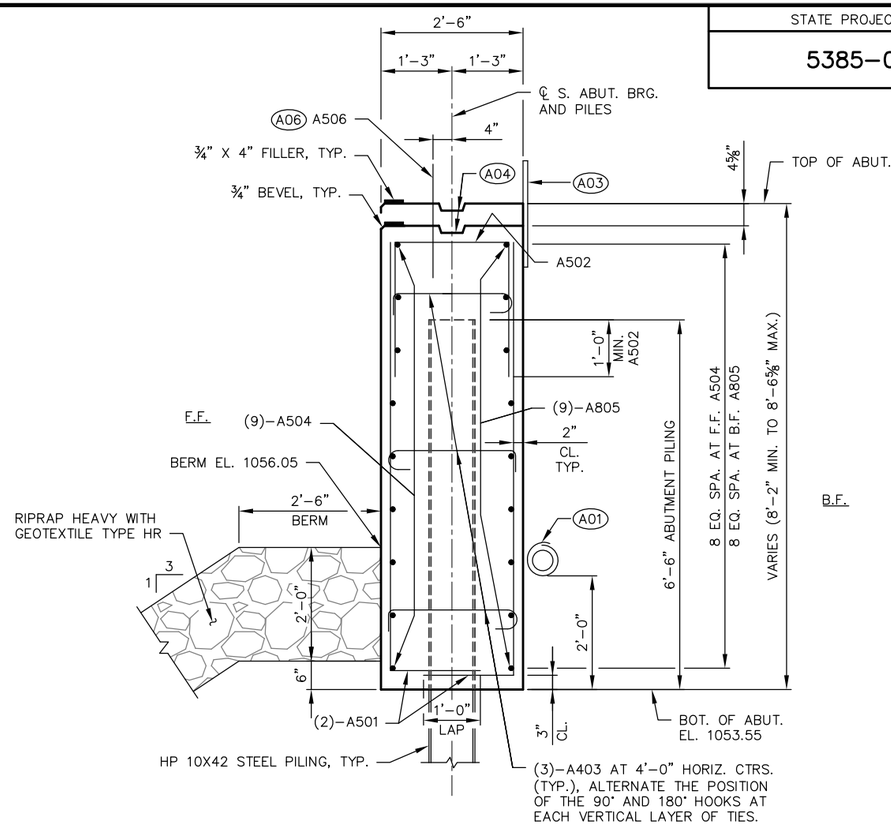
(S. ABUT. - LOOKING SOUTH)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU SOUTH ABUTMENT

NOTES

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

SOUTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING SEATED IN PRE-BORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 160 TONS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20 FT PILE LENGTHS AT THE SOUTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10X42 STEEL PILING SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 3 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

(A04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6

(A05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.

(A06) A506 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO ABUTMENT BODY.

⬡ INDICATES WING NUMBER

F.F. - FRONT FACE
B.F. - BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-267

DRAWN BY JDO | PLANS CK'D ACK

SOUTH ABUTMENT

SHEET 4 OF 13

29

8

8

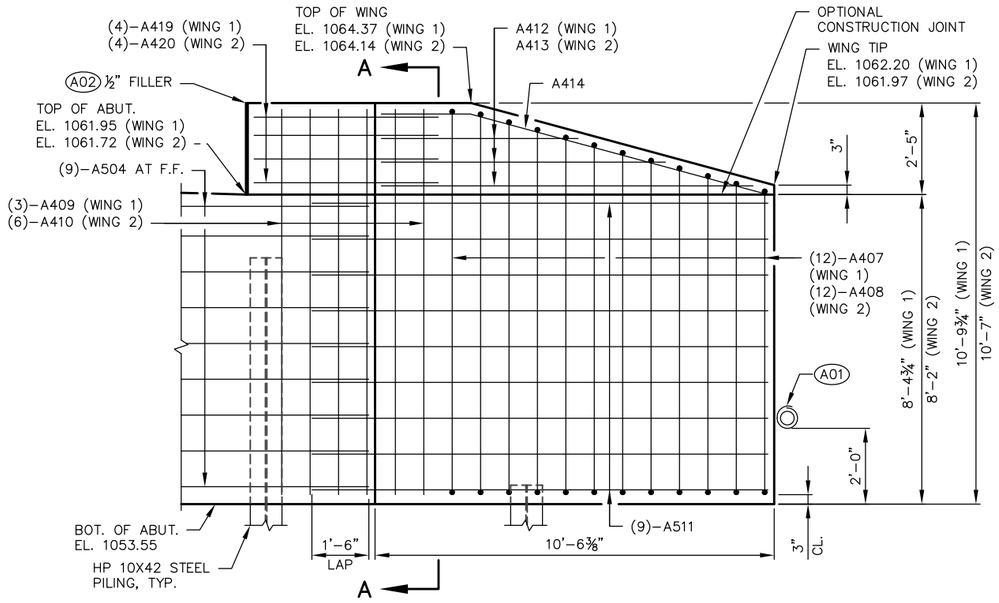
I.D. 5385-00-71

PLOT DATE: Apr 26, 2023

FILE: B620267_04_05_Sabut.dwg
PLOT SCALE:

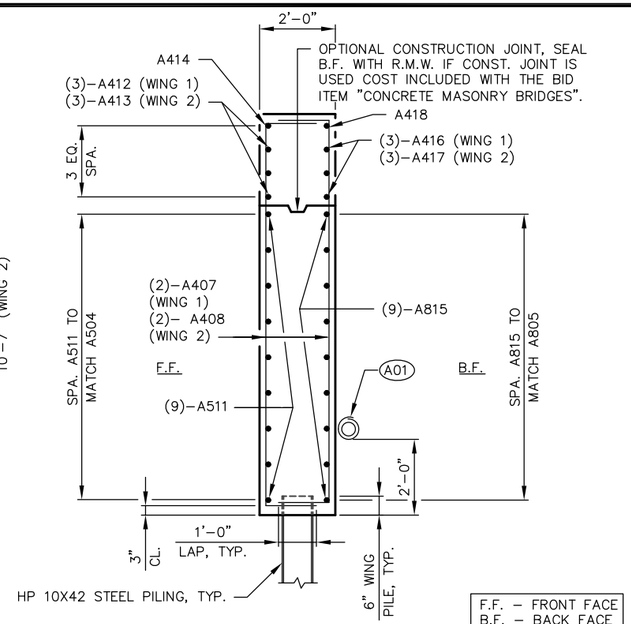
STATE PROJECT NUMBER

5385-00-71



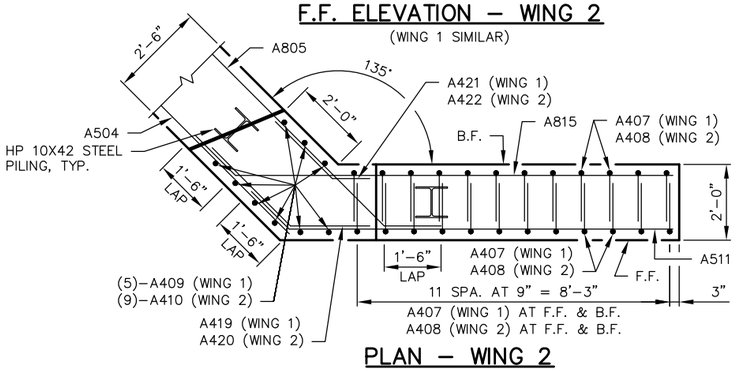
F.F. ELEVATION – WING 2

(WING 1 SIMILAR)



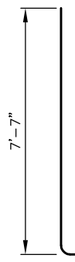
SECTION A–A

F.F. – FRONT FACE
B.F. – BACK FACE



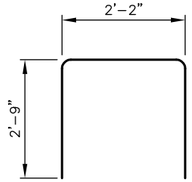
PLAN – WING 2

(WING 1 SIMILAR)



A501

A407 & A408



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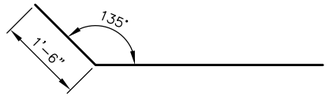
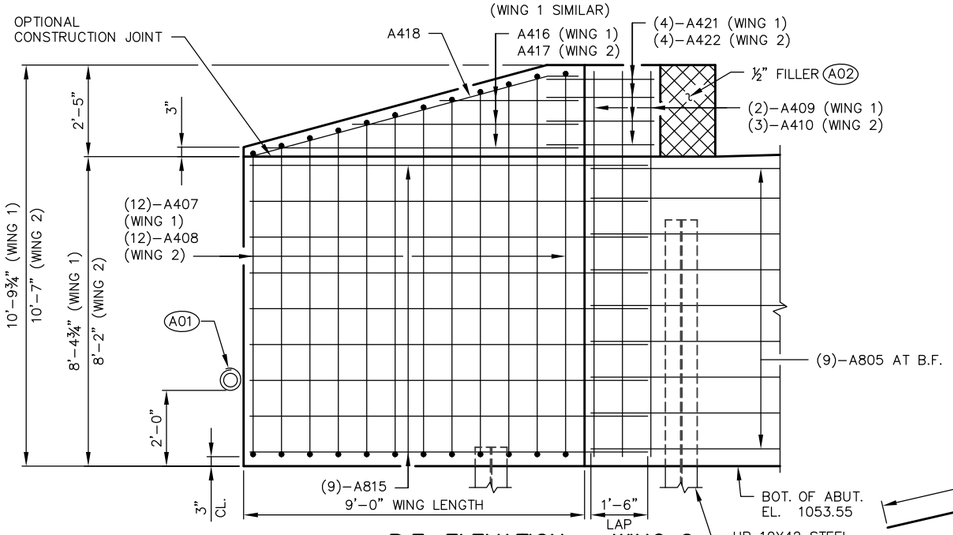
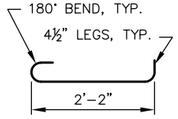


A805, A511 & A815



B.F. ELEVATION – WING 2

(WING 1 SIMILAR)



A403

A414 & A418

BAR BEND DIMENSIONS

MARK	"A"	"B"
A414	8'–1"	2'–4"
A418	8'–1"	0'–9"

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
A407	2 SERIES OF 12	10'–8" TO 12'–10"
A408	2 SERIES OF 12	10'–6" TO 12'–8"
A412	1 SERIES OF 3	5'–2" TO 9'–9"
A413	1 SERIES OF 3	5'–2" TO 9'–9"
A416	1 SERIES OF 3	3'–7" TO 8'–3"
A417	1 SERIES OF 3	3'–7" TO 8'–3"

BUNDLE AND TAG EACH SERIES SEPARATELY.

BILL OF BARS
SOUTH ABUTMENT

COATED = 1,510 LBS.
UNCOATED = 2,400 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
A501		68	9'–1"	X		BODY – STIRRUP – F.F. & B.F.	VERT.
A502		34	7'–5"	X		BODY – STIRRUP – TOP	VERT.
A403		24	3'–1"	X		BODY – TIES	HORIZ.
A504		18	18'–1"			BODY – F.F.	HORIZ.
A805		18	23'–1"	X		BODY – B.F.	HORIZ.
A506	29		2'–0"			BODY – TOP DOWELS	VERT.
A407	24		11'–9"	X	⚠	WING 1 – STIRRUP – F.F. & B.F.	VERT.
A408	24		11'–7"	X	⚠	WING 2 – STIRRUP – F.F. & B.F.	VERT.
A409	5		10'–4"			WING 1 – F.F. & B.F.	VERT.
A410	9		10'–2"			WING 2 – F.F. & B.F.	VERT.
A511	18		11'–9"	X		WINGS 1 & 2 – F.F.	HORIZ.
A412	3		7'–6"		⚠	WING 1 – F.F.	HORIZ.
A413	3		7'–6"		⚠	WING 2 – F.F.	HORIZ.
A414	2		10'–5"	X		WINGS 1 & 2 – F.F. – TOP	HORIZ.
A815	18		13'–3"	X		WINGS 1 & 2 – B.F.	HORIZ.
A416	3		5'–11"		⚠	WING 1 – B.F.	HORIZ.
A417	3		5'–11"		⚠	WING 2 – B.F.	HORIZ.
A418	2		8'–10"	X		WINGS 1 & 2 – B.F. – TOP	HORIZ.
A419	4		3'–1"	X		WING 1 – F.F. CORNER	HORIZ.
A420	4		5'–1"	X		WING 2 – F.F. CORNER	HORIZ.
A421	4		2'–7"	X		WING 1 – B.F. CORNER	HORIZ.
A422	4		2'–10"	X		WING 2 – B.F. CORNER	HORIZ.

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

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

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

NOTES

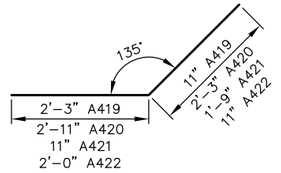
DO NOT PLACE FILL ABOVE 3'–0" FROM THE BOTTOM OF THE ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SOUTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING SEATED IN PRE–BORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 160 TONS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20 FT PILE LENGTHS AT THE SOUTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10X42 STEEL PILING SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6–INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 3 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6–INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.) ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.



A419, A420, A421, & A422

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–62–267

DRAWN BY JDO | PLANS CK'D ACK

SOUTH ABUTMENT DETAILS

SHEET 5 OF 13

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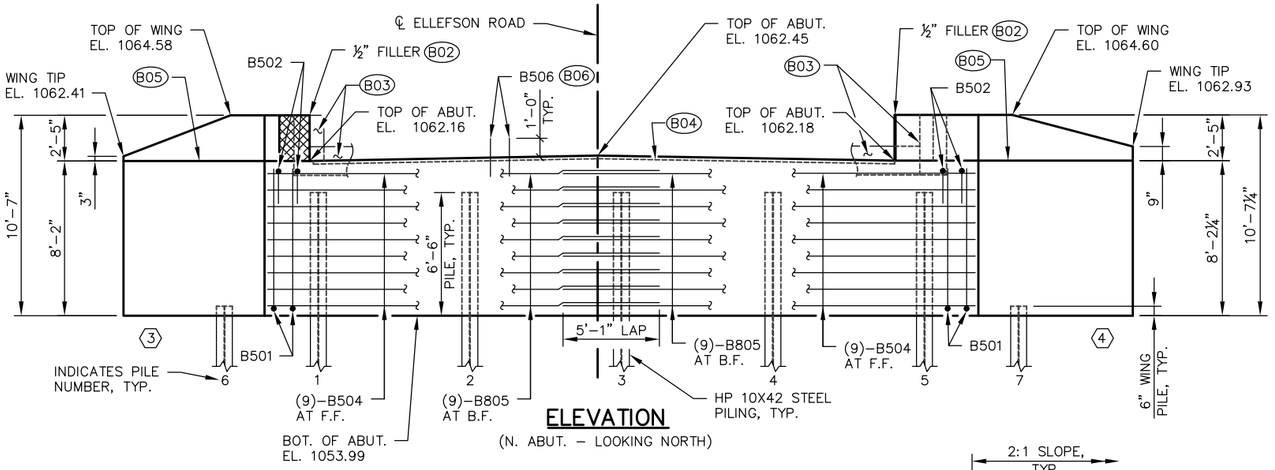
I.D. 5385–00–71

PLOT DATE: Apr 26, 2023

FILE: B620267_04_05_Sabut.dwg
PLOT SCALE:

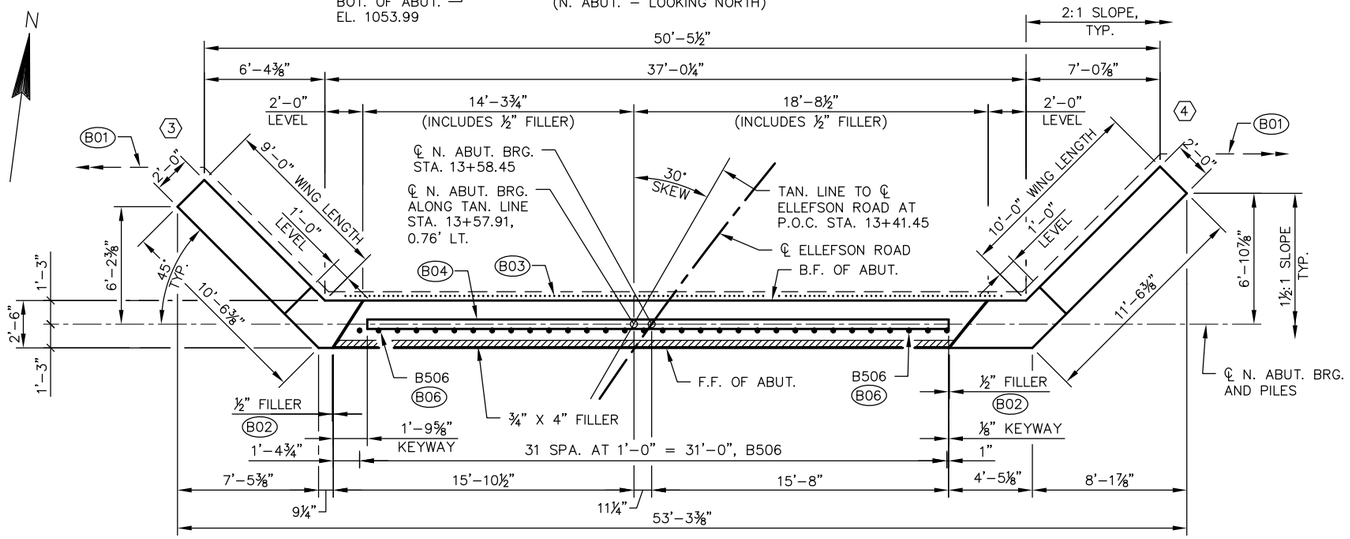
STATE PROJECT NUMBER

5385-00-71

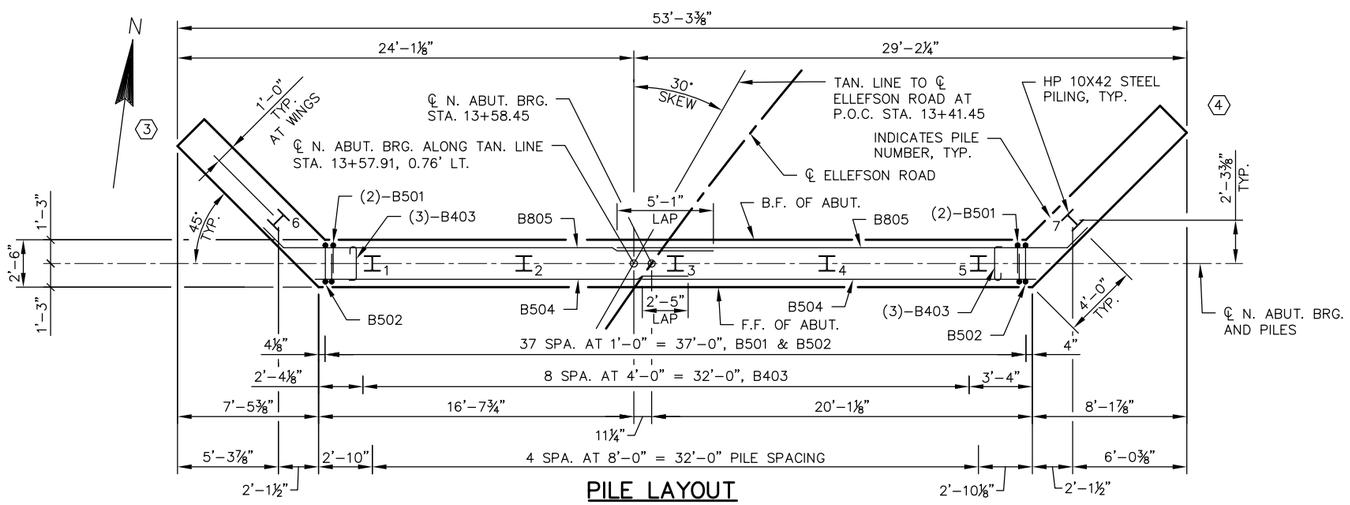


ELEVATION

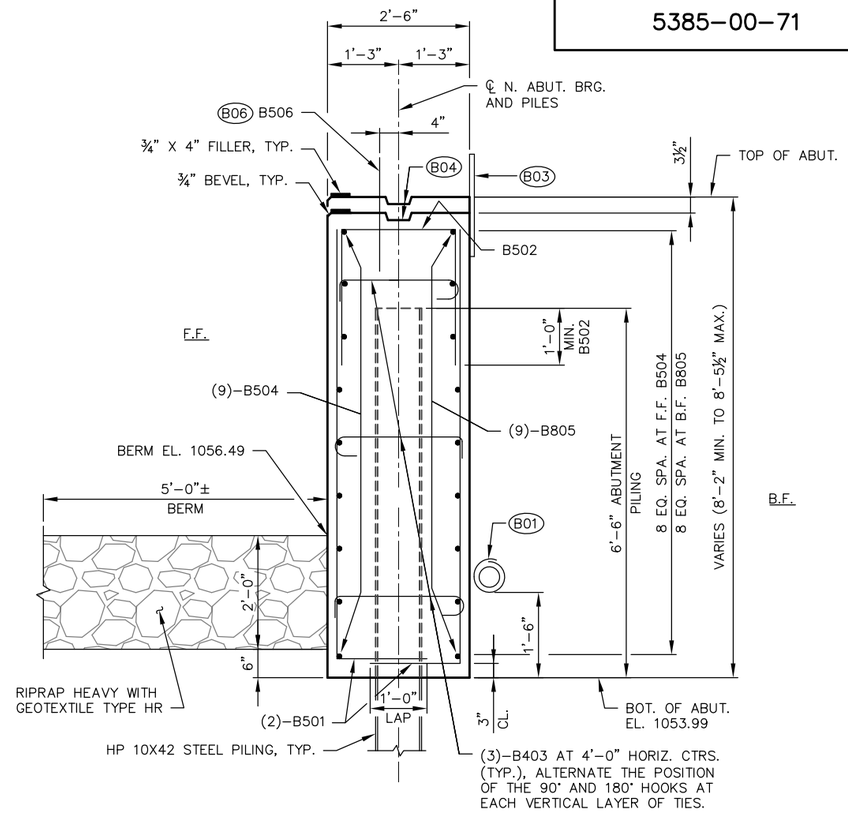
(N. ABUT. - LOOKING NORTH)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU NORTH ABUTMENT

NOTES

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

NORTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING SEATED IN PRE-BORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 160 TONS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20 FT PILE LENGTHS AT THE NORTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10X42 STEEL PILING SPLICE DETAILS.

(B01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 3 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(B02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

(B04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6

(B05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.

(B06) B506 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO ABUTMENT BODY.

⬡ INDICATES WING NUMBER

F.F. - FRONT FACE
B.F. - BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-267

DRAWN BY JDO | PLANS CK'D ACK

NORTH ABUTMENT

SHEET 6 OF 13

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I.D. 5385-00-71

PLOT DATE: Apr 26, 2023

FILE: B620267_06_08_Nabut.dwg
PLOT SCALE:

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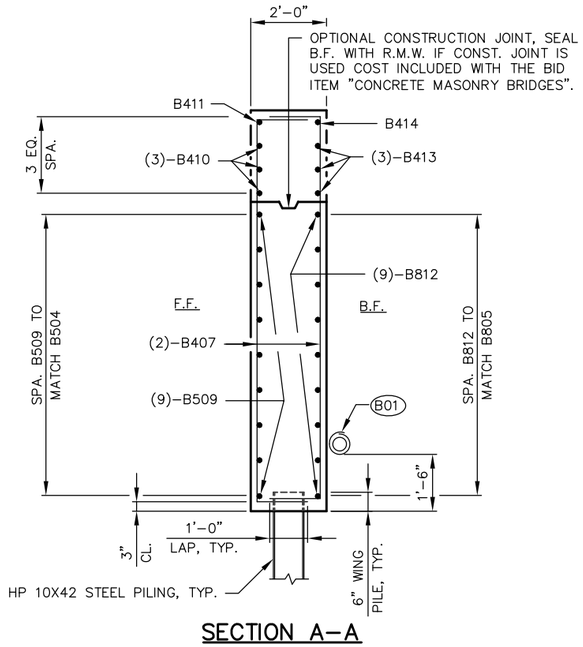
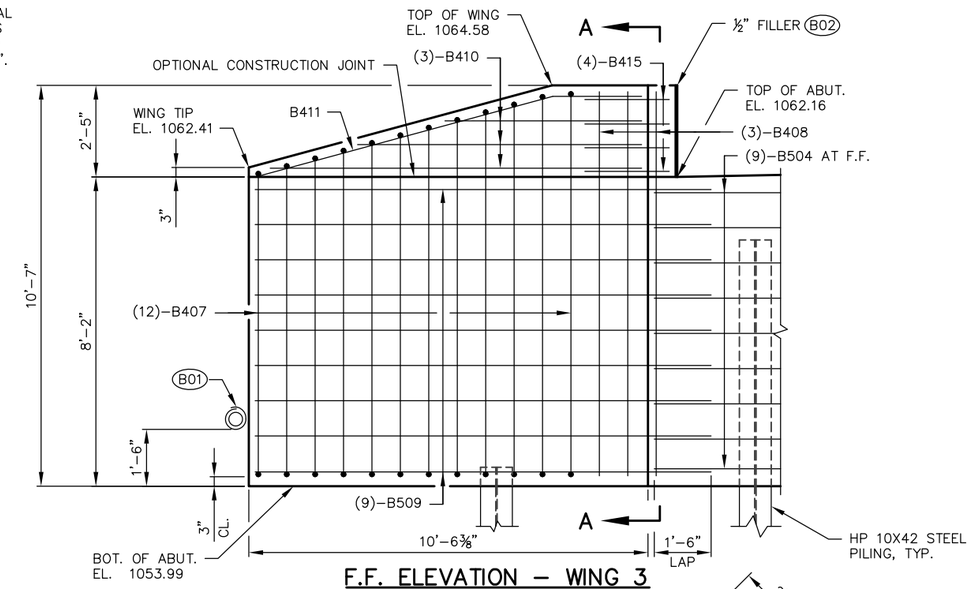
STATE PROJECT NUMBER

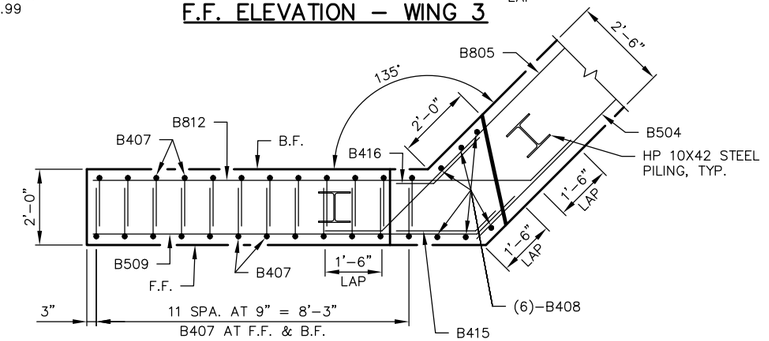
5385-00-71



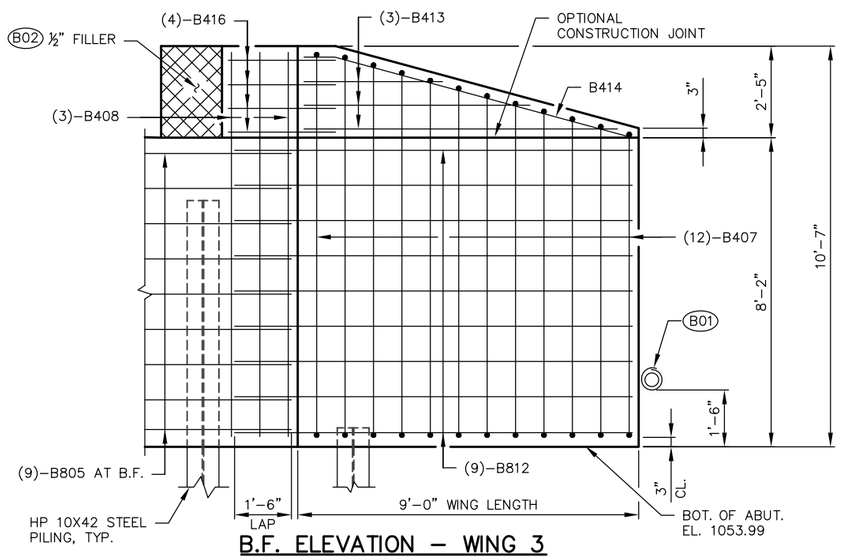
SECTION A-A



F.F. ELEVATION - WING 3



PLAN - WING 3



B.F. ELEVATION - WING 3

NOTES

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

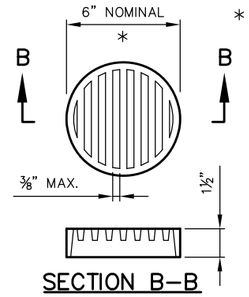
NORTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING SEATED IN PRE-BORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 160 TONS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20 FT PILE LENGTHS AT THE NORTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10X42 STEEL PILING SPLICE DETAILS.

(B01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(B02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.) ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

F.F. - FRONT FACE
B.F. - BACK FACE



SECTION B-B

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

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

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

RODENT SHIELD DETAIL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-267

DRAWN BY JDO | PLANS CK'D ACK

WING 3 DETAILS

SHEET 7 OF 13

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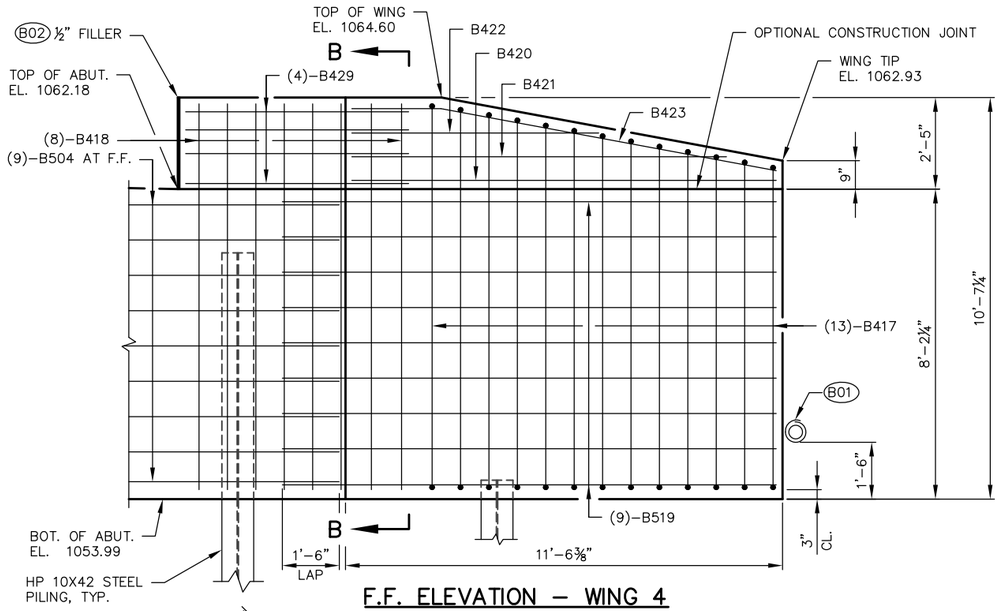
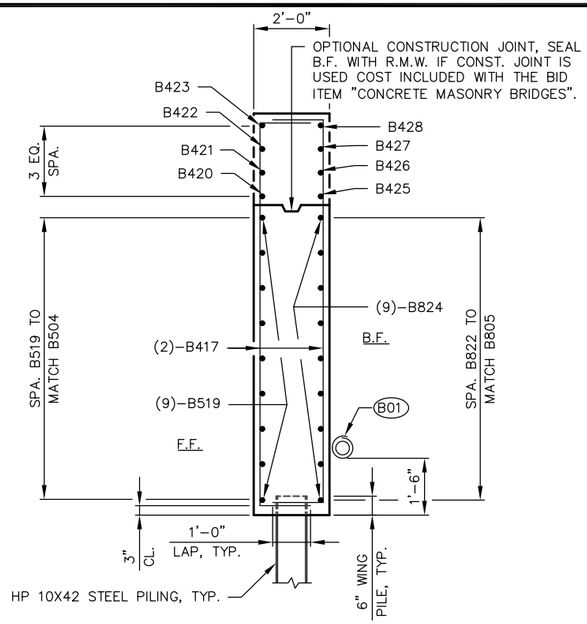
I.D. 5385-00-71

PLOT DATE: Apr 26, 2023

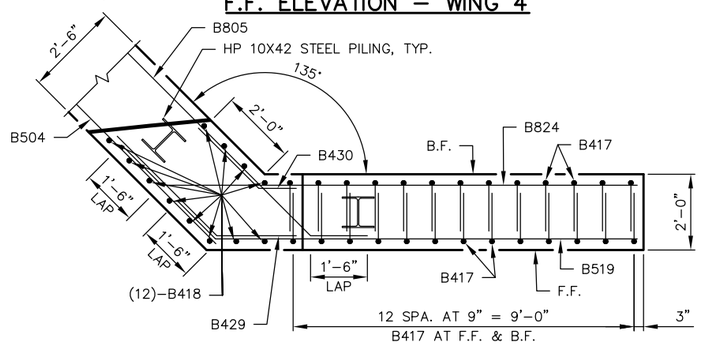
FILE: B620267_06_08_Nabut.dwg
PLOT SCALE:



F.F. ELEVATION – WING 4

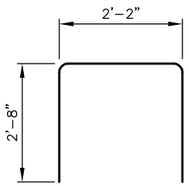


SECTION B–B

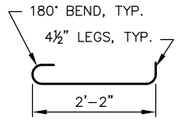


PLAN – WING 4

B501

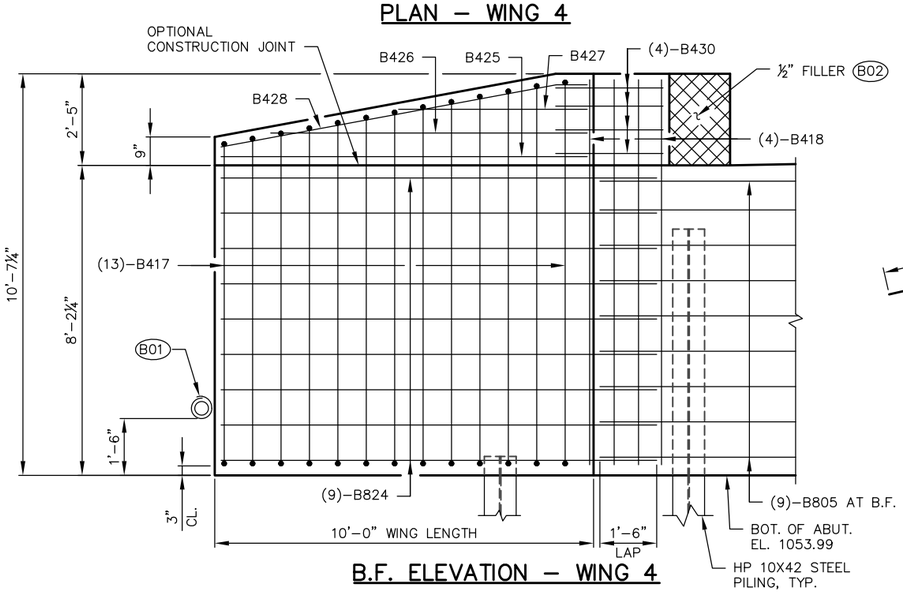


B502

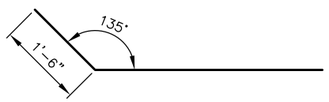


B403

B407 & B417



B.F. ELEVATION – WING 4



B805, B509, B812, B519, & B824

B411, B414, B423 & B428

BAR BEND DIMENSIONS

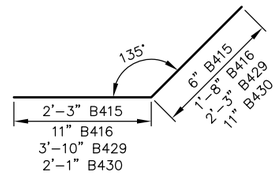
MARK	"A"	"B"	"C"
B411	8'–1"	2'–4"	165°
B414	8'–1"	0'–9"	165°
B423	9'–0"	2'–4"	170°
B428	9'–0"	0'–9"	170°

F.F. – FRONT FACE
B.F. – BACK FACE

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
B407	2 SERIES OF 12	10'–6" TO 12'–8"
B410	1 SERIES OF 3	5'–2" TO 9'–9"
B413	1 SERIES OF 3	3'–7" TO 8'–3"
B417	2 SERIES OF 13	11'–0" TO 12'–8"

BUNDLE AND TAG EACH SERIES SEPARATELY.



B415, B416, B429, & B430

STATE PROJECT NUMBER

5385–00–71

BILL OF BARS
NORTH ABUTMENT

COATED = 1,600 LBS.
UNCOATED = 2,630 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
B501		76	9'–1"	X		BODY – STIRRUP – F.F. & B.F.	VERT.
B502		38	7'–3"	X		BODY – STIRRUP – TOP	VERT.
B403		27	3'–1"	X		BODY – TIES	HORIZ.
B504		18	20'–0"			BODY – F.F.	HORIZ.
B805		18	24'–11"	X		BODY – B.F.	HORIZ.
B506	32		2'–0"			BODY – TOP DOWELS	VERT.
B407	24		11'–7"	X	⚠	WING 3 – STIRRUP – F.F. & B.F.	VERT.
B408	6		10'–2"			WING 3 – F.F. & B.F.	VERT.
B509	9		11'–9"	X		WING 3 – F.F.	HORIZ.
B410	3		7'–6"		⚠	WING 3 – F.F.	HORIZ.
B411	1		10'–5"	X		WING 3 – F.F. – TOP	HORIZ.
B812	9		13'–3"	X		WING 3 – B.F.	HORIZ.
B413	3		5'–11"		⚠	WING 3 – B.F.	HORIZ.
B414	1		8'–10"	X		WING 3 – B.F. – TOP	HORIZ.
B415	4		2'–8"	X		WING 3 – F.F. – CORNER	HORIZ.
B416	4		2'–6"	X		WING 3 – B.F. – CORNER	HORIZ.
B417	26		11'–10"	X	⚠	WING 4 – STIRRUP – F.F. & B.F.	VERT.
B418	12		10'–2"			WING 4 – F.F. & B.F.	VERT.
B519	9		12'–9"	X		WING 4 – F.F.	HORIZ.
B420	1		11'–2"			WING 4 – F.F.	HORIZ.
B421	1		9'–10"			WING 4 – F.F.	HORIZ.
B422	1		6'–6"			WING 4 – F.F.	HORIZ.
B423	1		11'–4"	X		WING 4 – F.F. – TOP	HORIZ.
B824	9		14'–3"	X		WING 4 – B.F.	HORIZ.
B425	1		9'–8"			WING 4 – B.F.	HORIZ.
B426	1		8'–4"			WING 4 – B.F.	HORIZ.
B427	1		4'–11"			WING 4 – B.F.	HORIZ.
B428	1		9'–9"	X		WING 4 – B.F. – TOP	HORIZ.
B429	4		6'–0"	X		WING 4 – F.F. – CORNER	HORIZ.
B430	4		2'–11"	X		WING 4 – B.F. – CORNER	HORIZ.

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

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

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

NOTES

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

NORTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING SEATED IN PRE–BORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 160 TONS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20 FT PILE LENGTHS AT THE NORTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10X42 STEEL PILING SPLICE DETAILS.

B01 PIPE UNDERDRAIN WRAPPED (6–INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 3 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6–INCH".

B02 SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.) ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

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STRUCTURE B–62–267

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WING 4 DETAILS

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FILE: B620267_06_08_Nabut.dwg
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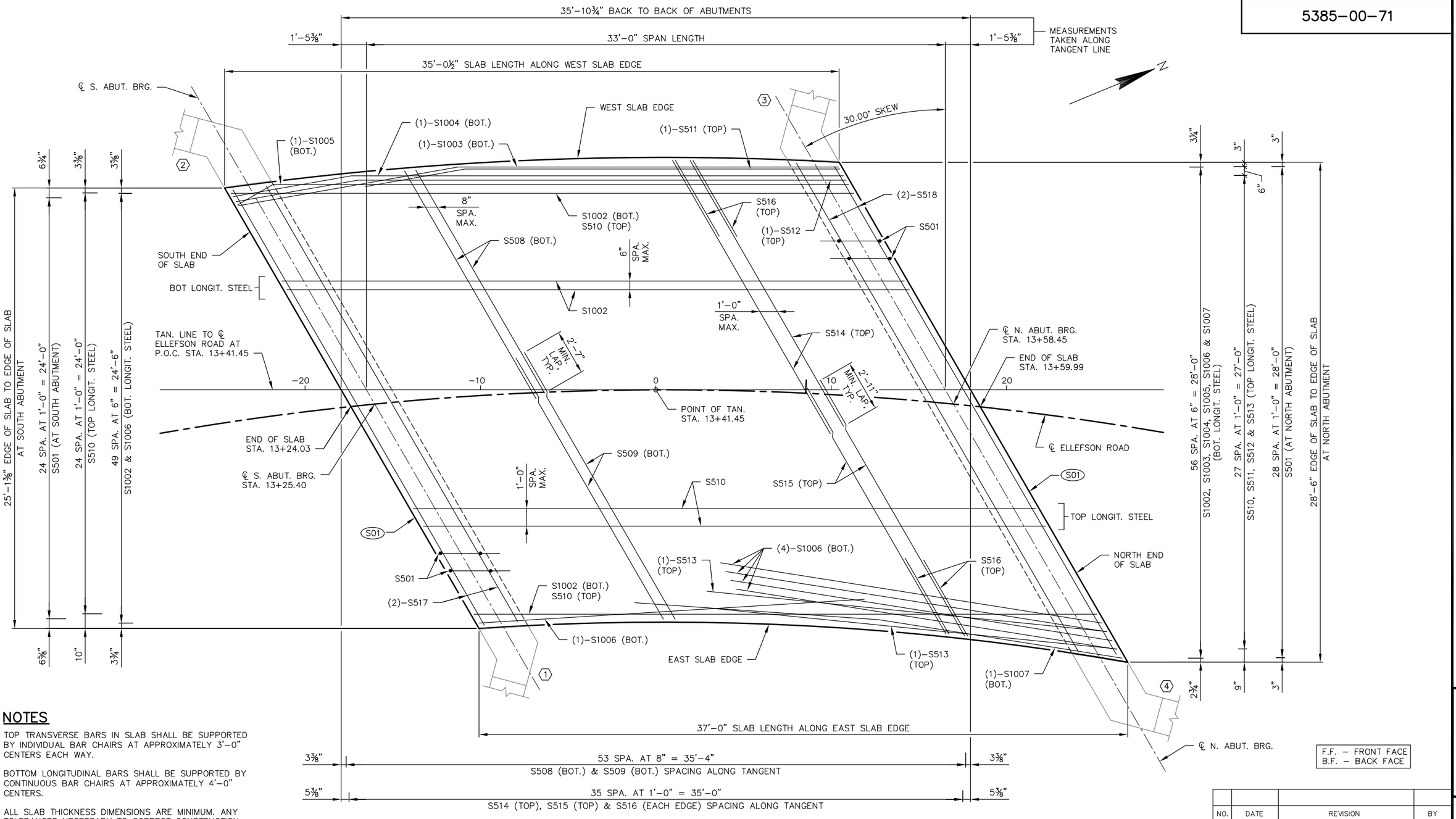

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'–0" CENTERS EACH WAY.

BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'–0" CENTERS.

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

PARAPETS TO BE CAST ON THE SLAB AFTER FALSEWORK HAS BEEN RELEASED.

(S01) PROTECTION ANGLE SEE "SUPERSTRUCTURE DETAILS" SHEET.

⬡ INDICATES WING NUMBER

F.F. – FRONT FACE
B.F. – BACK FACE

SUPERSTRUCTURE PLAN VIEW

(PARAPET & PARAPET STEEL NOT SHOWN FOR CLARITY)

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SUPERSTRUCTURE PLAN

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PLOT SCALE:

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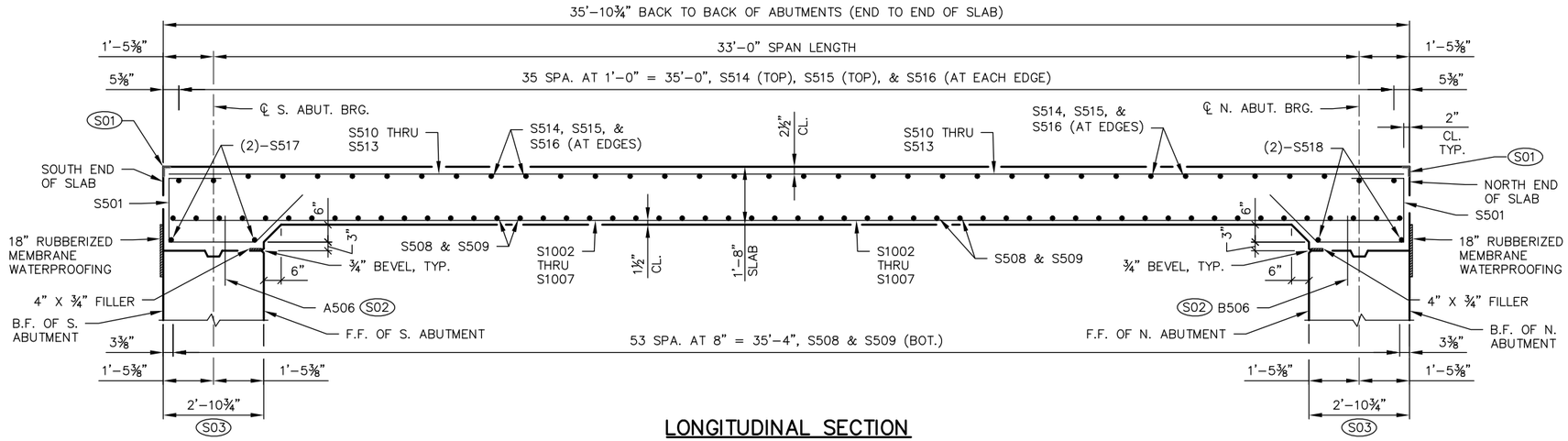


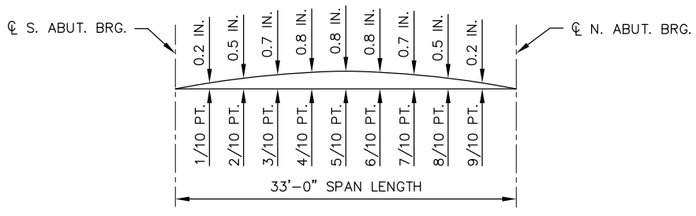
LONGITUDINAL SECTION

(LOOKING WEST)

SURVEY TOP OF SLAB ELEVATIONS

	℄ S. ABUT. BRG.	5/10 PT.	℄ N. ABUT. BRG.
WEST SLAB EDGE			
℄ ELLEFSON ROAD			
EAST SLAB EDGE			

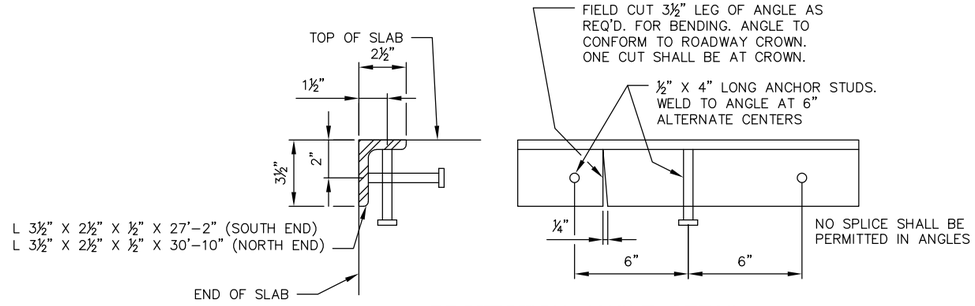
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND REFERENCE LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



SLAB CAMBER DIAGRAM

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

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



PROTECTION ANGLE DETAIL

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

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

PROTECTION ANGLES ARE REQUIRED AT BOTH END OF SLABS AND ARE TO BE EMBEDDED IN THE BRIDGE SLAB CONCRETE. ENSURE PROTECTION ANGLES ARE SECURELY IN PLACE PRIOR TO POURING THE BRIDGE SLAB.

NOTES

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

(S01) PROTECTION ANGLE SEE "PROTECTION ANGLE DETAIL", THIS SHEET.

(S02) SEE "SOUTH ABUTMENT" SHEET FOR PLACEMENT OF A506 BARS AND SEE "NORTH ABUTMENT" SHEET FOR PLACEMENT OF B506 BARS.

(S03) DIMENSION IS TAKEN ALONG TANGENT LINE TO ℄ ELLEFSON ROAD

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SUPERSTRUCTURE DETAILS

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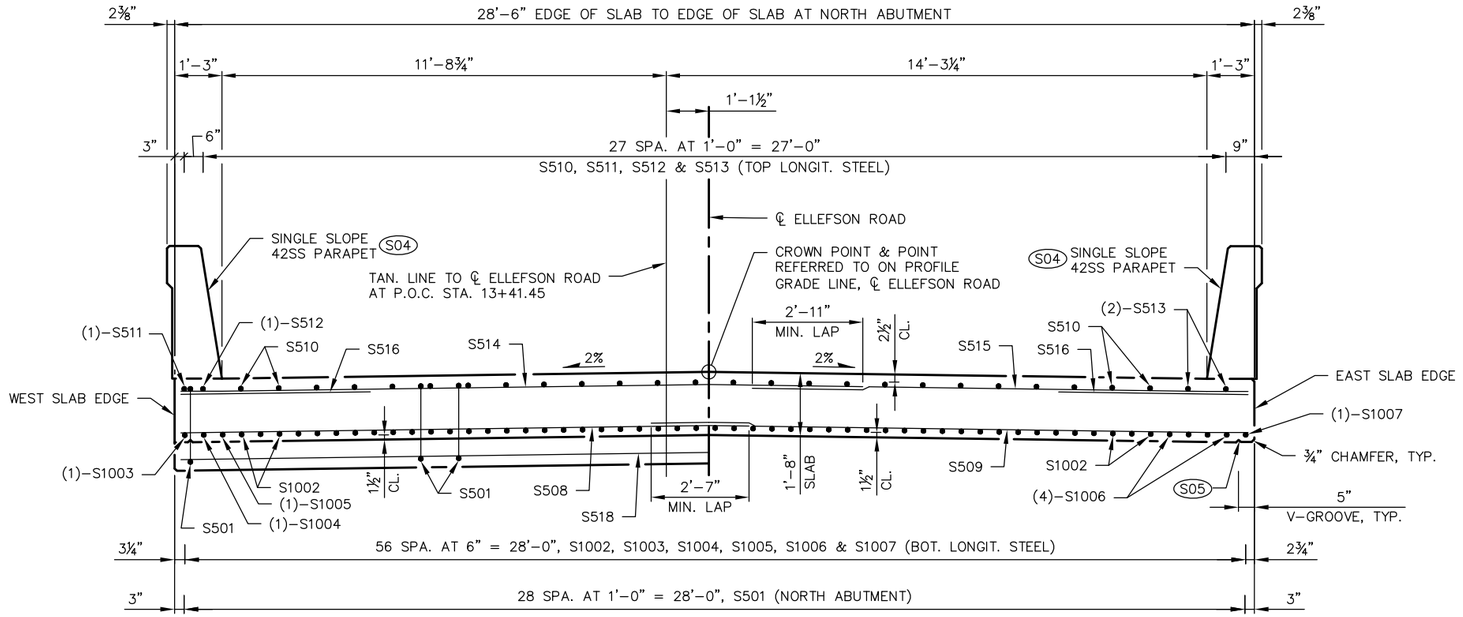
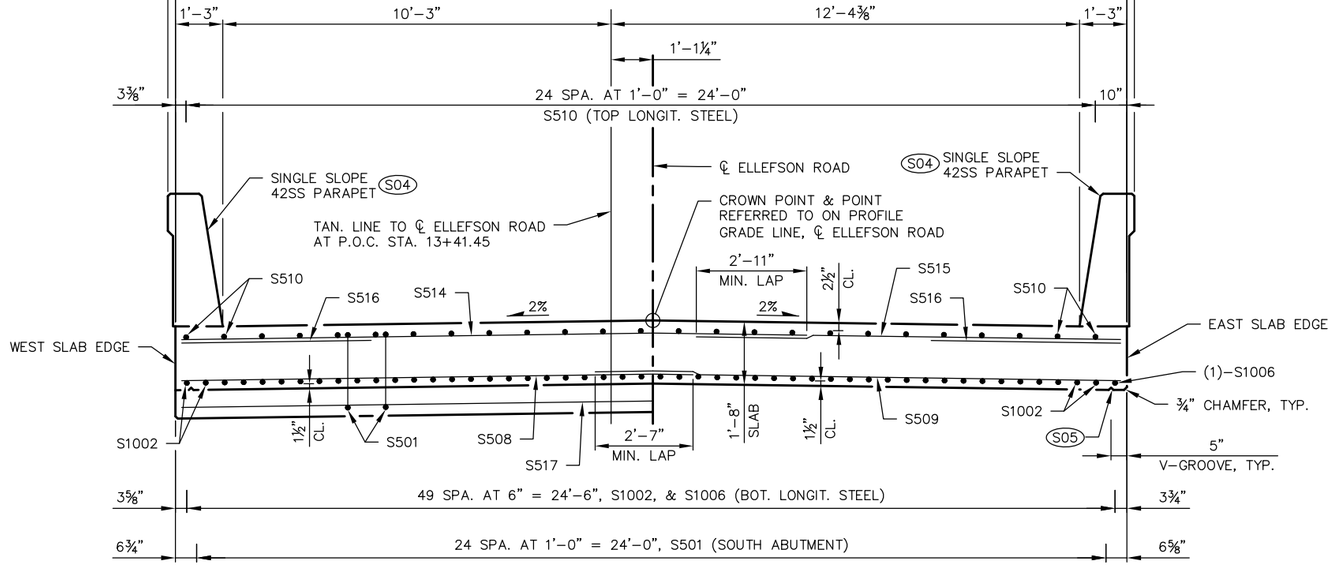
PLOT SCALE:



CROSS SECTION THRU ROADWAY AT NORTH END OF BRIDGE

(LOOKING NORTH)



CROSS SECTION THRU ROADWAY AT SOUTH END OF BRIDGE

(LOOKING NORTH)

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TOP OF SLAB ELEVATIONS

SPAN PT	WEST SLAB EDGE	℄ ELLEFSON ROAD	EAST SLAB EDGE
℄ S. ABUT.	1064.14	1064.52	1064.37
0.1	1064.20	1064.57	1064.43
0.2	1064.26	1064.63	1064.48
0.3	1064.32	1064.68	1064.52
0.4	1064.37	1064.72	1064.55
0.5	1064.42	1064.76	1064.58
0.6	1064.46	1064.80	1064.60
0.7	1064.50	1064.82	1064.61
0.8	1064.53	1064.85	1064.61
0.9	1064.55	1064.86	1064.61
℄ N. ABUT.	1064.58	1064.87	1064.60

WEST DECK EDGE

SPAN PT	STA. ON ℄ ELLEFSON ROAD	DISTANCE ALONG TANGENT LINE	OFFSET ALONG TANGENT LINE (LEFT)	EDGE OF DECK ELEVATION
℄ S. ABUT.	13+19.88	–23.25	11.69	1064.14
0.1	13+22.87	–20.04	12.08	1064.20
0.2	13+25.87	–16.83	12.42	1064.26
0.3	13+28.86	–13.62	12.70	1064.32
0.4	13+31.85	–10.40	12.92	1064.37
0.5	13+34.84	–7.17	13.09	1064.42
0.6	13+37.83	–3.95	13.20	1064.46
0.7	13+40.83	–0.72	13.25	1064.50
0.8	13+43.82	2.51	13.24	1064.53
0.9	13+46.81	5.74	13.17	1064.55
℄ N. ABUT.	13+49.80	8.97	13.05	1064.58

EAST DECK EDGE

SPAN PT	STA. ON ℄ ELLEFSON ROAD	DISTANCE ALONG TANGENT LINE	OFFSET ALONG TANGENT LINE (RIGHT)	EDGE OF DECK ELEVATION
℄ S. ABUT.	13+31.97	–8.69	13.52	1064.37
0.1	13+35.67	–5.29	13.36	1064.43
0.2	13+39.38	–1.87	13.27	1064.48
0.3	13+43.08	1.54	13.25	1064.52
0.4	13+46.79	4.95	13.31	1064.55
0.5	13+50.49	8.36	13.45	1064.58
0.6	13+54.20	11.76	13.66	1064.60
0.7	13+57.90	15.16	13.95	1064.61
0.8	13+61.61	18.55	14.31	1064.61
0.9	13+65.31	21.94	14.75	1064.61
℄ N. ABUT.	13+69.02	25.31	15.26	1064.60

NOTES

(S04) SEE "PARAPET DETAILS" SHEET FOR REINFORCEMENT.

(S05) ¾" V–GROOVE. EXTEND V–GROOVE TO 6" FROM FRONT FACE OF ABUTMENT BODY. V–GROOVES ARE REQUIRED.

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STRUCTURE B–62–267

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SUPERSTRUCTURE SECTIONS

SHEET 11 OF 13

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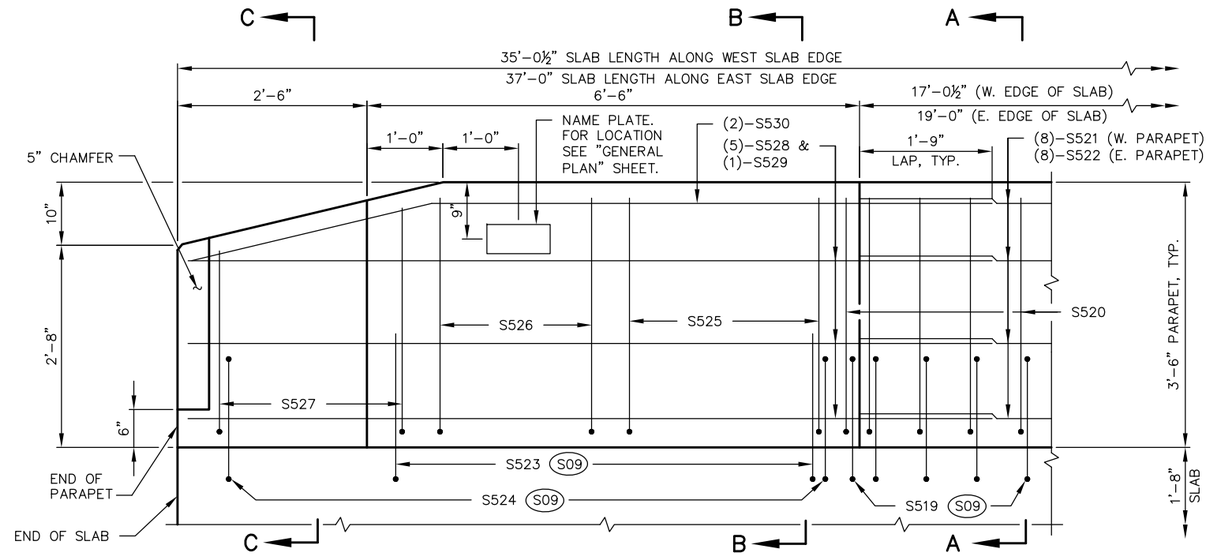
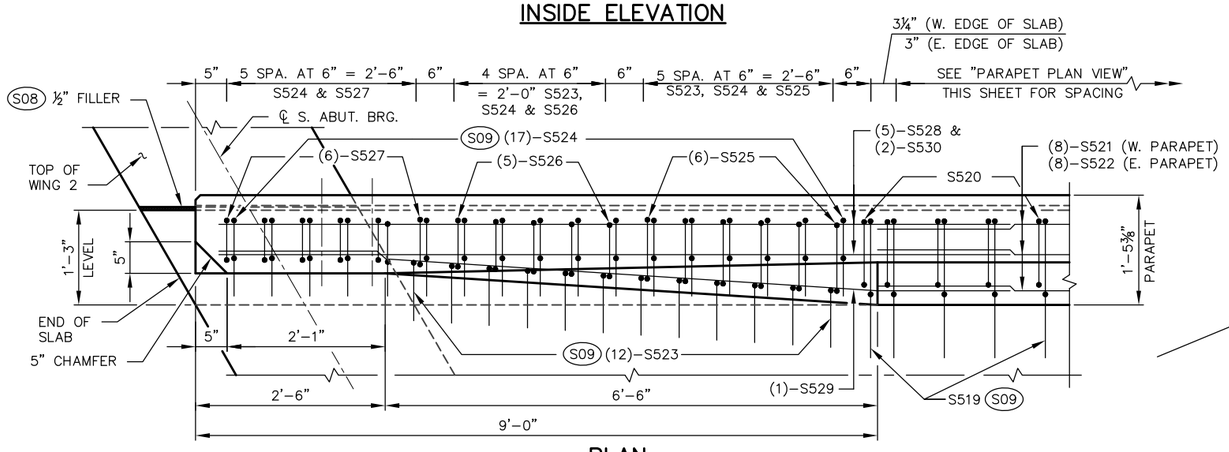
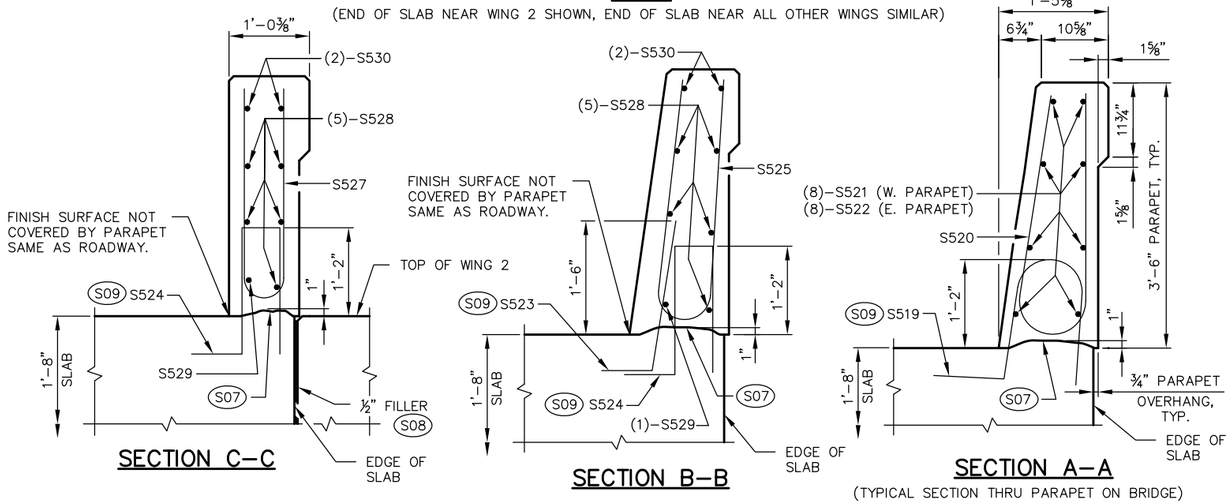


INSIDE ELEVATION

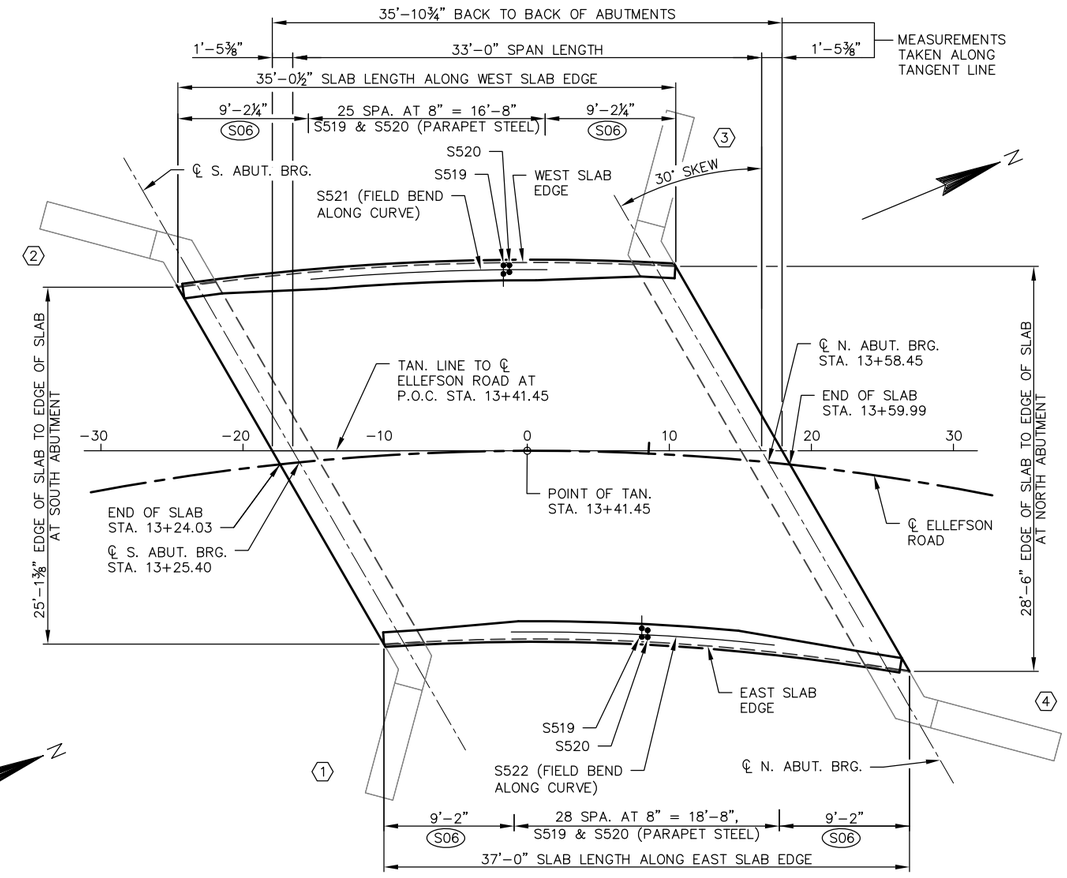


PLAN

(END OF SLAB NEAR WING 2 SHOWN, END OF SLAB NEAR ALL OTHER WINGS SIMILAR)



(TYPICAL SECTION THRU PARAPET ON BRIDGE)



PARAPET PLAN VIEW

NOTES

S06 PARAPET STEEL IN TRANSITION ZONE. SEE DETAILS ON THIS SHEET FOR LAYOUT.

S07 CONST. JOINT – STRIKE OFF AS SHOWN AND LEAVE ROUGH.

S08 SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

S09 S519, S523, AND S524 BARS TO BE TIED TO SUPERSTRUCTURE SLAB STEEL BEFORE CONCRETE IS POURED. ROTATE S524 BARS AS NECESSARY TO MAINTAIN 2" MINIMUM CLEARANCE.

⬡ INDICATES WING NUMBER

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STRUCTURE B-62-267

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PARAPET DETAILS

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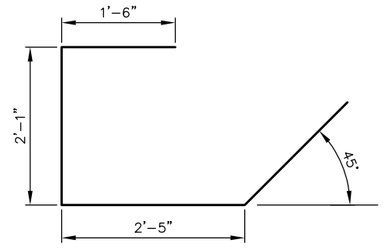
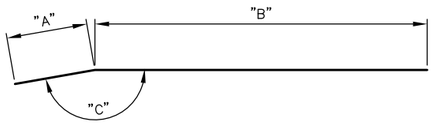


S501



S1003, S1004, S1005, S1007, S511, & S512

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
S1003	12'–8"	21'–8"	170°
S1004	6'–10"	28'–0"	170°
S1005	2'–3"	32'–10"	150°
S1007	14'–0"	14'–0"	175°
S511	5'–10"	21'–4"	170°
S512	7'–0"	27'–10"	170°

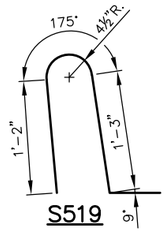
BILL OF BARS
SUPERSTRUCTURE — COATED = 15,840 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
S501	54		7'–8"	X		SLAB AT ABUTMENT – TIES	LONGIT.
S1002	49		35'–6"			SLAB – BOTTOM	LONGIT.
S1003	1		34'–4"	X		SLAB – BOTTOM – WEST EDGE	LONGIT.
S1004	1		34'–10"	X		SLAB – BOTTOM – WEST EDGE	LONGIT.
S1005	1		35'–1"	X		SLAB – BOTTOM – WEST EDGE	LONGIT.
S1006	5		22'–0"			SLAB – BOTTOM – EAST EDGE	LONGIT.
S1007	1		28'–0"	X		SLAB – BOTTOM – EAST EDGE	LONGIT.
S508	54		15'–0"			SLAB – BOTTOM	TRANS.
S509	54		18'–3"		⚠	SLAB – BOTTOM	TRANS.
S510	25		35'–6"			SLAB – TOP	LONGIT.
S511	1		27'–2"	X		SLAB – TOP – WEST EDGE	LONGIT.
S512	1		34'–10"	X		SLAB – TOP – WEST EDGE	LONGIT.
S513	2		22'–11"			SLAB – TOP – EAST EDGE	LONGIT.
S514	36		18'–0"			SLAB – TOP	TRANS.
S515	36		15'–7"		⚠	SLAB – TOP	TRANS.
S516	72		5'–0"			SLAB – TOP – EDGES	TRANS.
S517	2		28'–8"			SLAB – BOTTOM – SOUTH ABUTMENT	TRANS.
S518	2		32'–1"			SLAB – BOTTOM – NORTH ABTUMENT	TRANS.
S519	59		4'–5"	X		PARAPET – STIRRUP	VERT.
S520	59		6'–8"	X		PARAPET – STIRRUP	VERT.
S521	8		16'–8"			PARAPET – WEST PARAPET HORIZ.	LONGIT.
S522	8		18'–7"			PARAPET – EAST PARAPET HORIZ.	LONGIT.
S523	48		2'–9"	X		PARAPET – END TRANSITIONS	VERT.
S524	68		4'–4"	X		PARAPET – END TRANSITIONS	VERT.
S525	24		6'–6"	X		PARAPET – END TRANSITIONS	VERT.
S526	20		6'–5"	X		PARAPET – END TRANSITIONS	VERT.
S527	24		5'–5"	X	⚠	PARAPET – END TRANSITIONS	VERT.
S528	20		10'–7"			PARAPET – END TRANSITIONS	HORIZ.
S529	4		10'–7"	X		PARAPET – END TRANSITIONS	HORIZ.
S530	8		10'–7"	X		PARAPET – END TRANSITIONS	HORIZ.

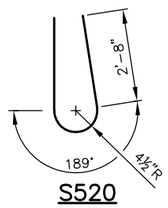
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

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



S519



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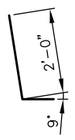

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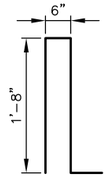

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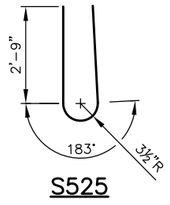

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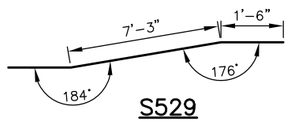
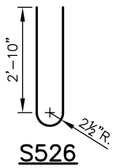


S529

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
S509	1 SERIES OF 54	16'–4" TO 20'–2"
S515	1 SERIES OF 36	13'–8" TO 17'–5"
S527	4 SERIES OF 6	4'–9" TO 6'–1"

BUNDLE AND TAG EACH SERIES SEPARATELY.



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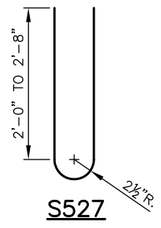

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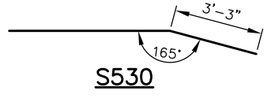

S530

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NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B–62–267

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SUPERSTRUCTURE REINFORCEMENT

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PLOT DATE: Apr 26, 2023

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PLOT SCALE:

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) SALVAGED/UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT Note 1	INCREMENTAL VOL (CY) (UNADJUSTED) SALVAGED/UNUSABLE PAVEMENT MATERIAL Note 2	INCREMENTAL VOL (CY) (UNADJUSTED) FILL Note 3	CUMULATIVE VOL (CY) CUT 1.00 Note 1	CUMULATIVE VOL (CY) EXPANDED FILL 1.25	MASS ORDINATE Note 4
12+74.03	-	33.72	0.00	19.16	0	0	0	0	0	0
13+00.00	25.97	33.46	0.00	33.17	32	0	25	32	31	1
13+10.00	10.00	31.03	0.00	34.42	12	0	13	44	48	-3
13+24.03	14.03	12.88	0.00	39.40	11	0	19	55	71	-16
13+31.44	7.41	0.00	0.00	0.00	2	0	5	57	78	-20
STRUCTURE B-62-0267										
		DIVISION 1 TOTALS			57	0	62			

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) SALVAGED/UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT Note 1	INCREMENTAL VOL (CY) (UNADJUSTED) SALVAGED/UNUSABLE PAVEMENT MATERIAL Note 2	INCREMENTAL VOL (CY) (UNADJUSTED) FILL Note 3	CUMULATIVE VOL (CY) CUT 1.00 Note 1	CUMULATIVE VOL (CY) EXPANDED FILL 1.25	MASS ORDINATE Note 4
STRUCTURE B-62-0267										
13+50.15	-	0.00	0.00	0.00	0	0	0	0	0	0
13+60.00	9.85	13.70	0.00	0.00	2	0	0	2	0	2
13+83.20	23.20	24.10	0.00	33.57	16	0	14	18	18	1
14+00.00	16.80	24.80	0.00	5.27	15	0	12	33	33	1
14+09.99	9.99	25.61	0.00	5.01	9	0	2	42	35	8
		DIVISION 2 TOTALS			42	0	28			
		PROJECT TOTALS			99	0	90			

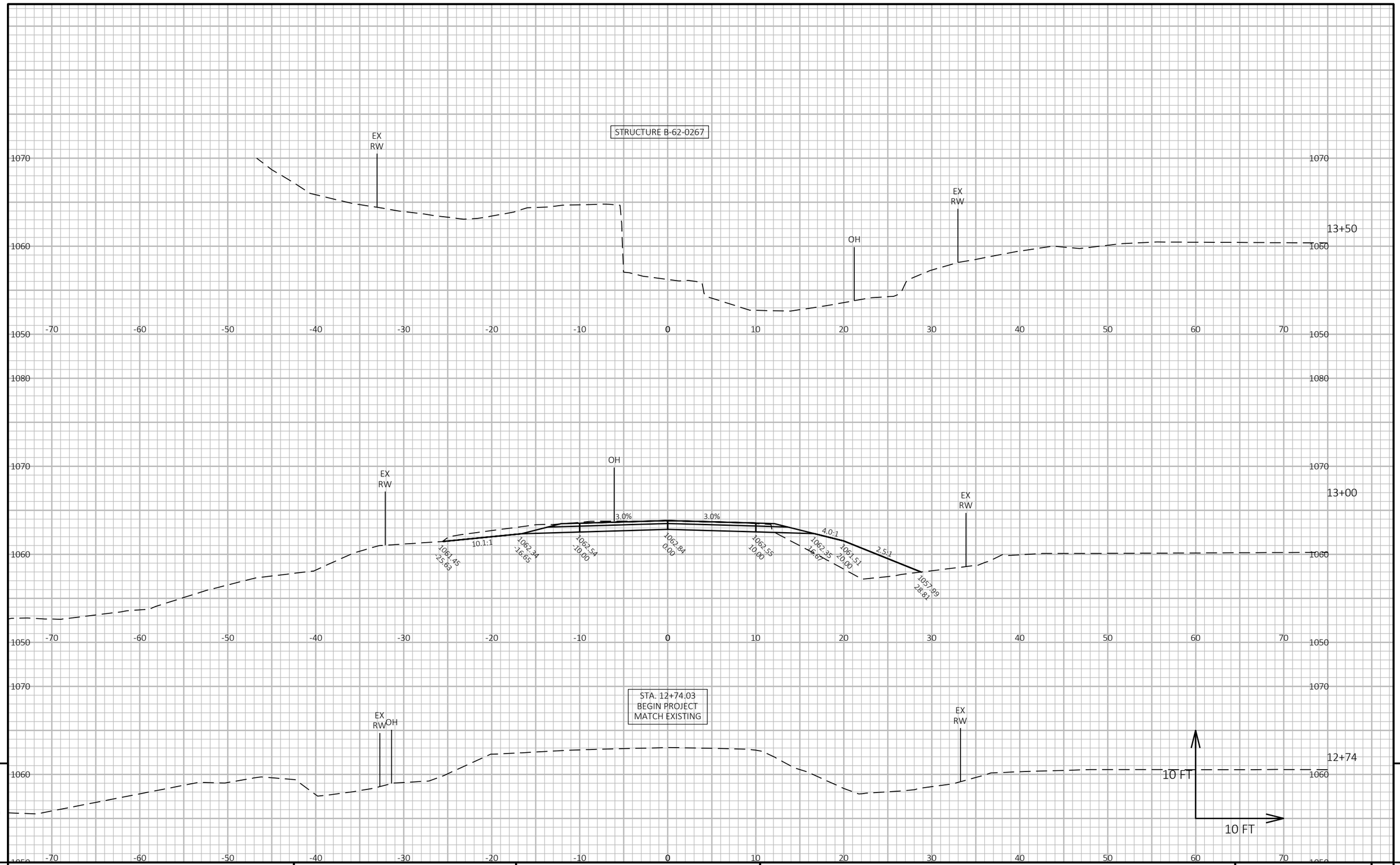
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	[(CUT) - (FILL * FILL FACTOR) - (SALVAGED/UNUSABLE PAVEMENT MATERIAL)]

9

9

PROJECT NO: 5385-00-71 | HWY: ELLEFSON RD | COUNTY: VERNON | EARTHWORK QUANTITIES | SHEET 39 | E

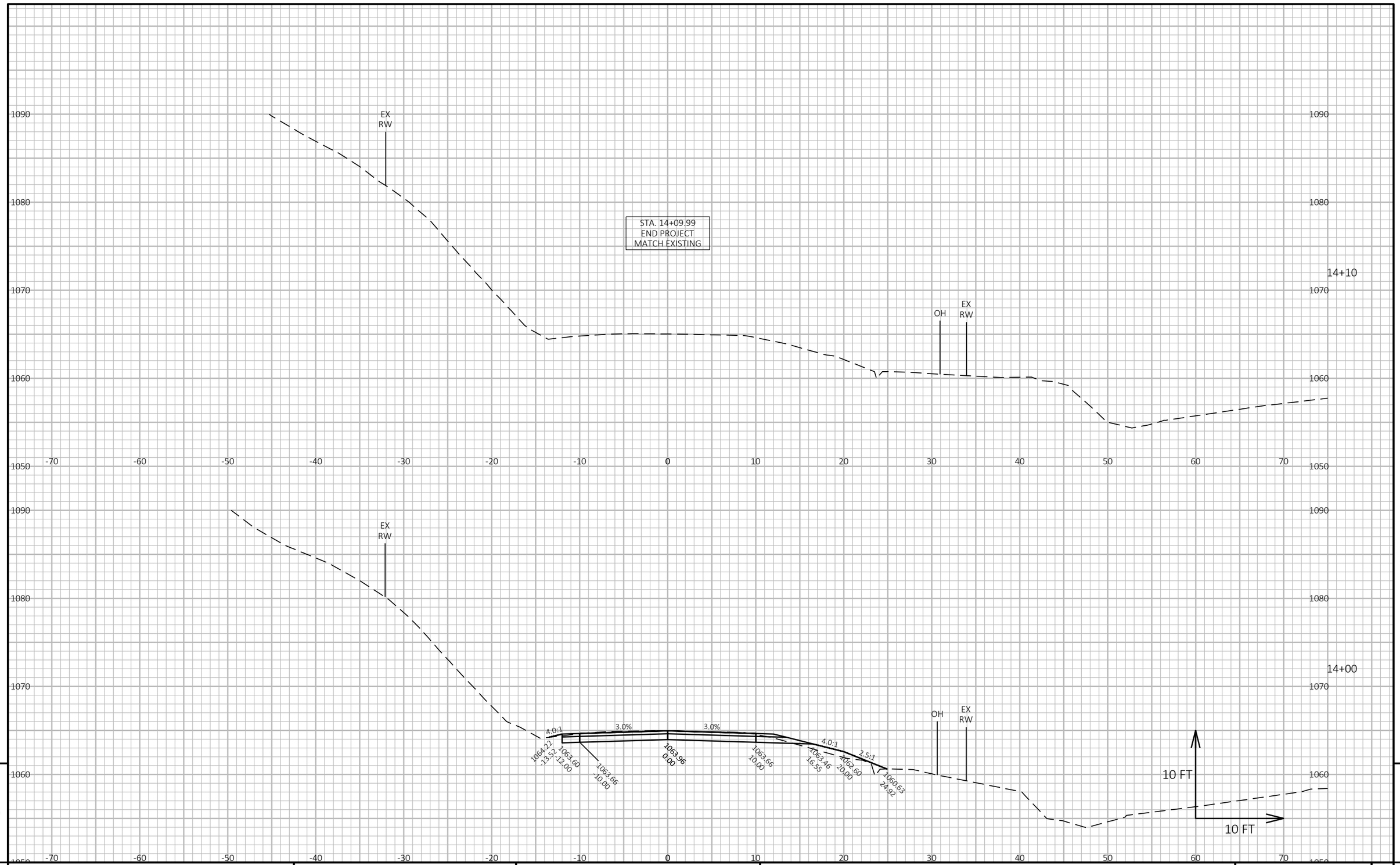
FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\SHEETSPLAN\090101_EW.DWG
LAYOUT NAME - 090101_ew
PLOT DATE : 7/20/2023 2:35 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1" = 1'



9 9

PROJECT NO: 5385-00-71	HWY: ELLEFSON RD	COUNTY: VERNON	CROSS SECTIONS	SHEET 40	E

FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\DESIGN\CORRIDORS\PRELIMCRDR_ELLEFSON RD.DWG
LAYOUT NAME - 090201_xs
PLOT DATE : 7/26/2023 8:29 AM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5385-00-71	HWY: ELLEFSON RD	COUNTY: VERNON	CROSS SECTIONS	SHEET 41	E

FILE NAME : G:\00-PROJECT FILES\2021\21105 ID 5385-00-01 T. OF FRANKLIN, ELLEFSON RD, VERNON COUNTY\0-CAD\DESIGN\CORRIDORS\PRELIMCRDR_ELLEFSON RD.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 7/26/2023 8:29 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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