MAD

NOVEMBER 2018

ORDER OF SHEETS

TOTAL SHEETS = 56

PROJECT ID: 5651-00-70

WITH: N/A

COUNTY: COLUMBIA

13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF MARCELLON, HAYNES ROAD

(FOX RIVER BRIDGE B-11-0168)

LOCAL STREET

COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5651-00-70		

N

DESIGN DESIGNATION

A.A.D.T.	(2019)	= 370
A.A.D.T.	(2039)	= 410
D.H.V.	(2039)	= 59
D.D.		= 60/40
T.		= 4.4%
DESIGN SPEED		= 35 MPH
ESALS		= 37,000

CONVENTIONAL SYMBOLS

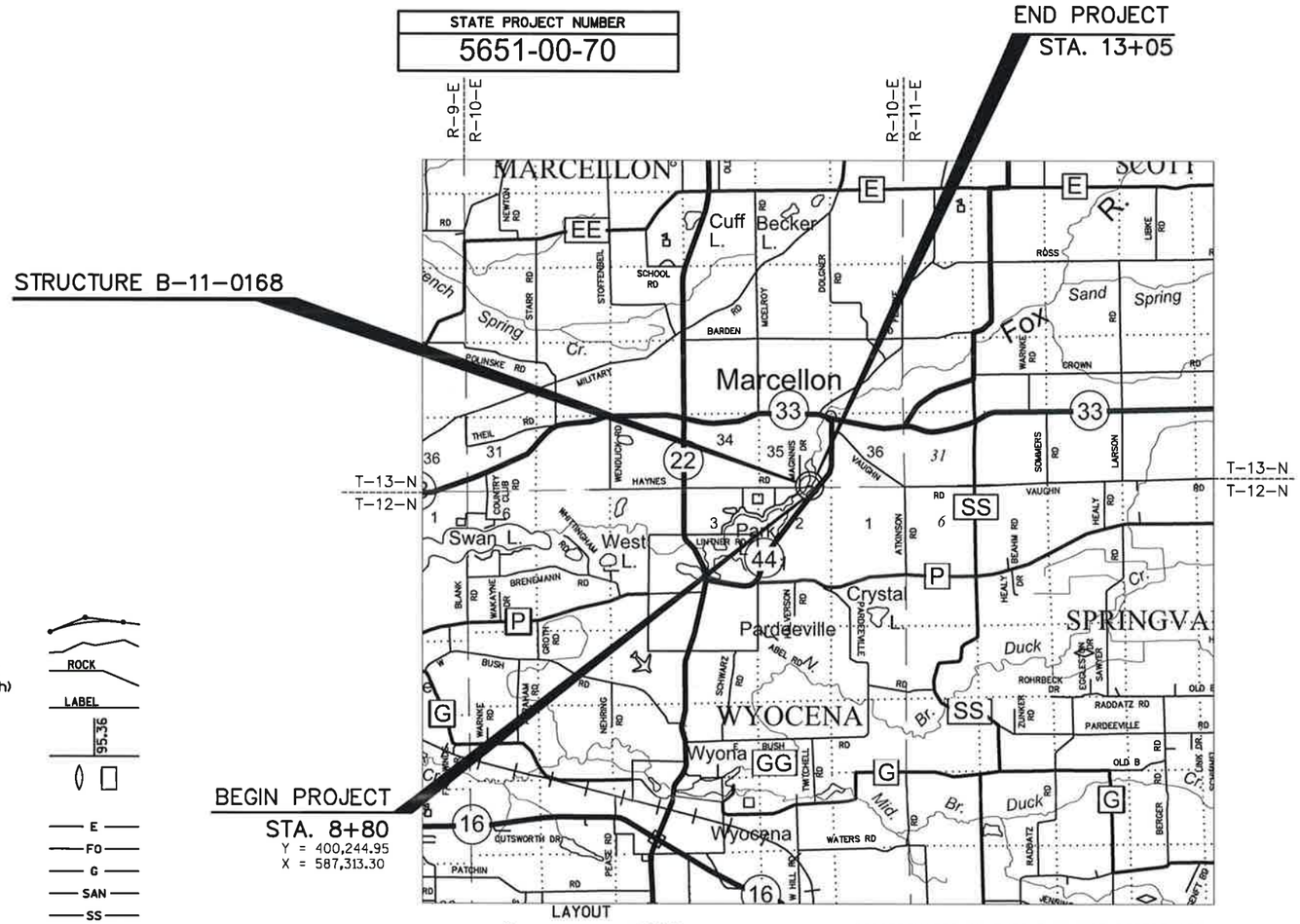
PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES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

STATE PROJECT NUMBER
5651-00-70

END PROJECT
STA. 13+05

STRUCTURE B-11-0168

BEGIN PROJECT
STA. 8+80
Y = 400,244.95
X = 587,313.30



LAYOUT

SCALE 0 2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.080 MILES

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), COLUMBIA COUNTY."

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

ACCEPTED FOR

COUNTY of COLUMBIA

4/16/2018 (Date) (Highway Commissioner)

ACCEPTED FOR

TOWN of MARCELLON

(Date) 4/23/2018 (Town Chairman)

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, inc.
Engineers - Architects - Surveyors

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

4/11/2018 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor JEWELL ASSOCIATES ENGINEERS, INC.

Designer JEWELL ASSOCIATES ENGINEERS, INC.

Management Consultant KL ENGINEERING, INC.

APPROVED FOR THE DEPARTMENT

DATE: 4/27/18

Management Consultant Signature

E

WISDOT/CADDS SHEET 10

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\TITLE SHEET.DWG
LAYOUT NAME - TITLE

PLOT DATE : 4/11/2018 2:01 PM PLOT BY : STRINE, THERESA PLOT NAME :

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment	INV	Invert	SALV	Salvaged
AC	Acre	IP	Iron Pipe or Pin	SAN S	Sanitary Sewer
AGG	Aggregate	IRS	Iron Rod Set	SEC	Section
AH	Ahead	JT	Joint	SHLDR	Shoulder
<	Angle	JCT	Junction	SHR	Shrinkage
ASPH	Asphaltic	LHF	Left–Hand Forward	SW	Sidewalk
AVG	Average	L	Length of Curve	S	South
ADT	Average Daily Traffic	LIN FT or LF	Linear Foot	SQ	Square
BAD	Base Aggregate Dense	LC	Long Chord of Curve	SF or SQ FT	Square Feet
BK	Back	MH	Manhole	SY or SQ YD	Square Yard
BF	Back Face	MB	Mailbox	STD	Standard
BM	Bench Mark	ML or M/L	Match Line	SDD	Standard Detail Drawings
BR	Bridge	N	North	STH	State Trunk Highways
C or C/L	Center Line	Y	North Grid Coordinate	STA	Station
CC	Center to Center	O.A.L.	Overall Length	SS	Storm Sewer
CTH	County Trunk Highway	OD	Outside Diameter	SG	Subgrade
CR	Creek	PLE	Permanent Limited Easement	SE	Superelevation
CR	Crushed			SL or S/L	Survey Line
CY or CU YD	Cubic Yard	PT	Point	SV	Septic Vent
CP	Culvert Pipe	PC	Point of Curvature	T	Tangent
C & G	Curb and Gutter	PI	Point of Intersection	TEL	Telephone
D	Degree of Curve	PRC	Point of Reverse Curvature	TEMP	Temporary
DHV	Design Hour Volume	PT	Point of Tangency	TI	Temporary Interest
DIA	Diameter	POC	Point On Curve	TLE	Temporary Limited Easement
E	East	POT	Point on Tangent		
X	East Grid Coordinate	PVC	Polyvinyl Chloride	t	Ton
ELEC	Electric (al)	PCC	Portland Cement Concrete	T or TN	Town
EL or ELEV	Elevation	LB	Pound	TRANS	Transition
ESALS	Equivalent Single Axle Loads	PSI	Pounds Per Square Inch	TL or T/L	Transit Line
		PE	Private Entrance	T	Trucks (percent of)
EBS	Excavation Below Subgrade	R	Radius	TYP	Typical
ESTR	Existing Sign to Remain	RR	Railroad	UNCL	Unclassified
FF	Face to Face	R	Range	UG	Underground Cable
FE	Field Entrance	RL or R/L	Reference Line	USH	United States Highway
F	Fill	RP	Reference Point	VAR	Variable
FG	Finished Grade	RCCP	Reinforced Concrete Culvert Pipe	V	Velocity or Design Speed
FL or F/L	Flow Line			VERT	Vertical
FT	Foot	REQ'D	Required	VC	Vertical Curve
FTG	Footing	RES	Residence or Residential	VOL	Volume
GN	Grid North	RW	Retaining Wall	WM	Water Main
HT	Height	RT	Right	WV	Water Valve
CWT	Hundredweight	RHF	Right–Hand Forward	W	West
HYD	Hydrant	R/W	Right–of–Way	WB	Westbound
INL	Inlet	R	River	YD	Yard
ID	Inside Diameter	RD	Road		
		RDWY	Roadway		

GENERAL NOTES

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

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

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

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

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

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

EROSION MAT URBAN CLASS I TYPE B ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

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

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 115 LB/SY/IN. 4–INCH OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 1¾–INCH UPPER LAYER AND A 2¼–INCH LOWER LAYER.

REMOVAL OF ASPHALTIC SURFACES (TO BE PAID FOR AS EXCAVATION COMMON) WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

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

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE OR STOCKPILE EQUIPMENT BEYOND THE EXISTING TOE OF SLOPE AT STA. 10+95 – STA. 13+16, LT.

CURVE DATA IS BASED ON THE ARC DEFINITION.

CONTACTS

DESIGN CONSULTANT

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: ELLERY SCHAFFER, P.E.
PHONE: (608) 588-7484
CELL: (608) 341-8159
EMAIL: ellery.schaffer@jewellassoc.com

DNR LIAISON

STATE OF WISCONSIN
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ERIC HEGGELUND
PHONE: (608) 275-3301
EMAIL: eric.heggelund@wisconsin.gov

COLUMBIA COUNTY HIGHWAY DEPARTMENT

CHRIS HARDY, P.E., COMMISSIONER
338 WEST OLD HIGHWAY 16
PO BOX 875
WYOCENA, WI 53969
PH: (608) 429–2136
EMAIL: chris.hardy@co.columbia.wi.us

TOWN OF MARCELLON

NEAL JAMES, CHAIRMAN
W4999 COUNTY ROAD E
PARDEEVILLE, WI 53954
PHONE: (608) 429-3603

UTILITIES

COMMUNICATIONS

FRONTIER COMMUNICATIONS
ATTN: JERRY MOORE
2222 WEST WISCONSIN STREET
PORTAGE, WI 53901
PH: (608) 742–9507
EMAIL: jerald.r.moore@ftr.com

CENTURYLINK
ATTN: TIM KROEZE
201 STARK STREET
RANDOLPH, WI 53956
OFFICE: (920) 326–2224
CELL: (920) 219–0112
EMAIL: tim.kroeze@centurylink.com

ELECTRIC

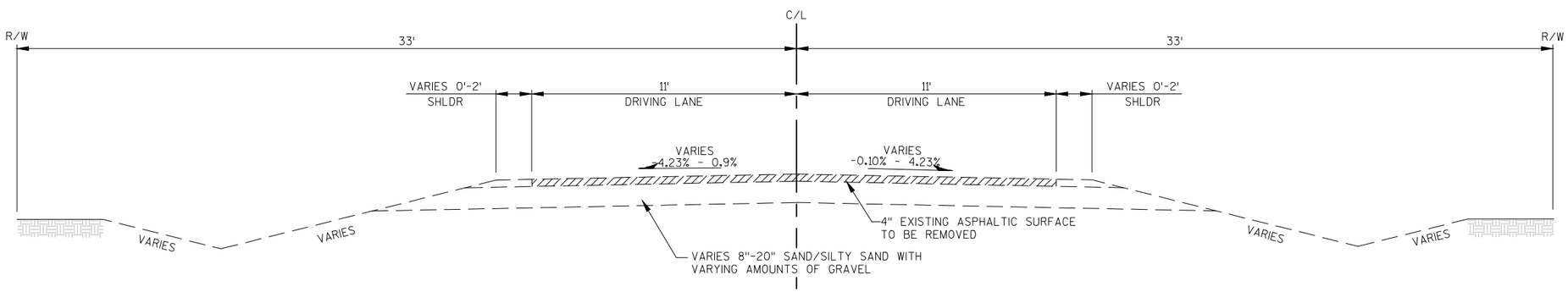
ADAMS–COLUMBIA ELECTRIC COOP
ATTN: SHAWN PIETRZAK
P.O. BOX 70
FRIENDSHIP, WI 53934
PH: (800) 831–8629
EMAIL: spietrzak@acecwi.com

GAS

ALLIANT ENERGY
ATTN: STEVE KOHLHAGEN
2777 COLUMBIA DRIVE
PORTAGE, WI 53901–9483
OFFICE: (608) 742–0830
EMAIL: stevekohlhagen@alliantenergy.com

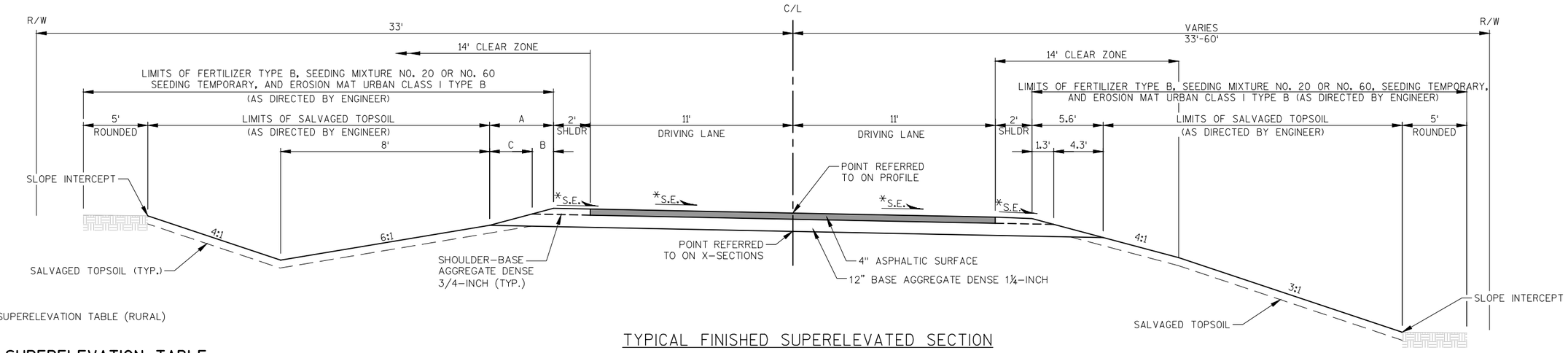
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

* DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE



TYPICAL EXISTING SECTION

PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	GENERAL NOTES, CONTACTS, UTILITIES, STANDARD ABBREVIATIONS, TYPICAL EXISTING SECTION	SHEET 2	E



* SEE SUPERELEVATION TABLE (RURAL)

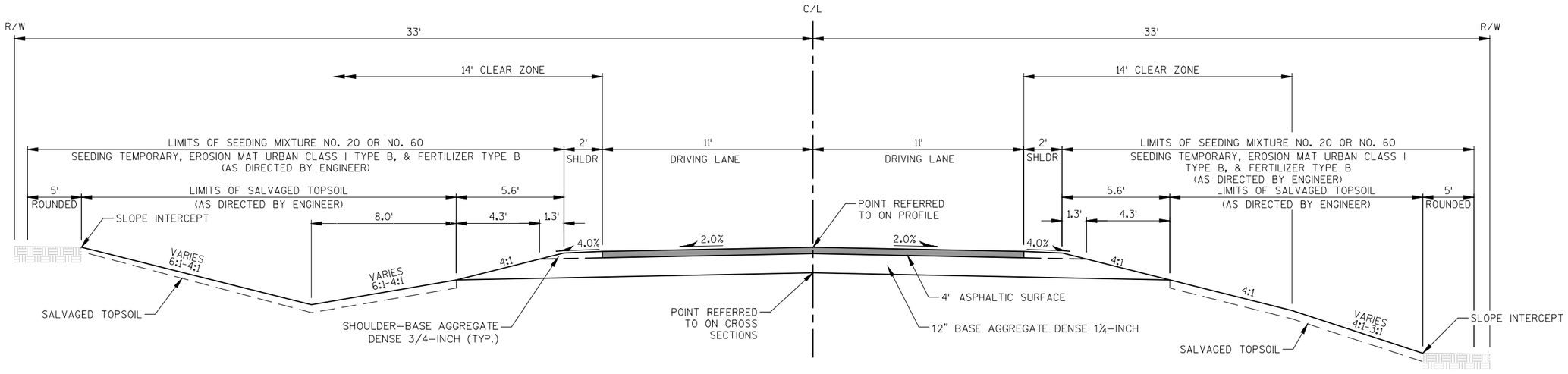
TYPICAL FINISHED SUPERELEVATED SECTION

(STA. 8+80 - STA. 10+50)

SUPERELEVATION TABLE

STATION	LEFT	RIGHT	"A" (FT.)	"B" (FT.)	"C" (FT.)
	MATCH EXISTING	MATCH EXISTING	-	-	-
8+80	3.25	4.00	4.7	1.2	3.5
9+00	4.00	4.00	4.5	1.1	3.4
9+25	4.00	4.00	4.5	1.1	3.4
9+50	4.00	4.00	4.5	1.1	3.4
9+75	2.00	2.00	5.0	1.3	3.7
10+00	0.00	2.00	5.3	1.3	4.0
10+25	2.00	2.00	5.6	1.3	4.3
10+50					

THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION WHEN THE SUPERELEVATION IS GREATER THAN 0.04 FT./FT. IF THE SUPERELEVATION IS LESS THAN OR EQUALS 0.04 FT./FT., THEN THE LOW SIDE SHOULDER SLOPE IS 0.04 FT./FT. THE HIGH SIDE SHOULDER SLOPE ON THE SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION.



CUT FILL

TYPICAL FINISHED SECTION

(STA. 10+50 - STA. 13+05)

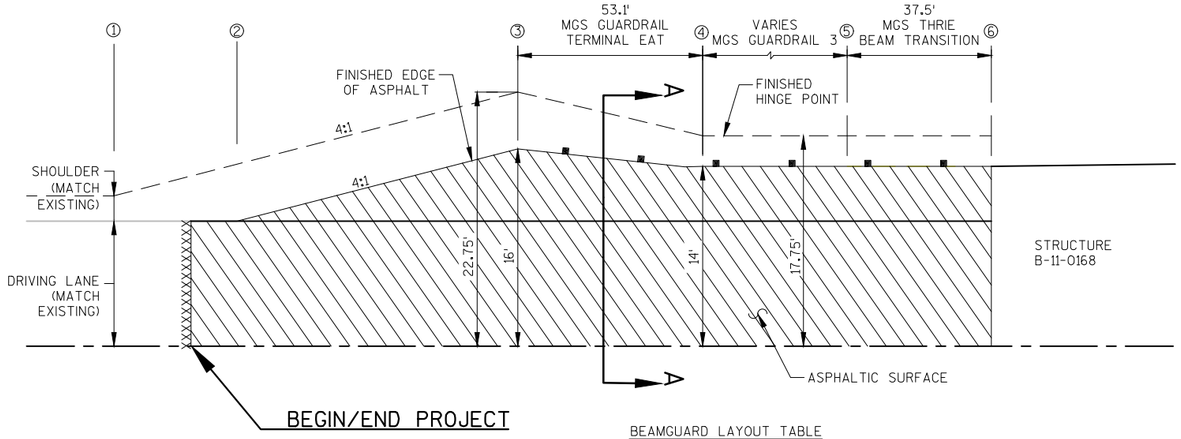
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	TYPICAL FINISHED SECTIONS	SHEET 3	E

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\TYPICALS\K51060_TYPICAL SECTIONS.DWG
LAYOUT : SECTIONS

PLOT DATE : 3/27/2018
PLOT TIME : 4:14:59 PM

PLOT BY : JULIA ZEHNER

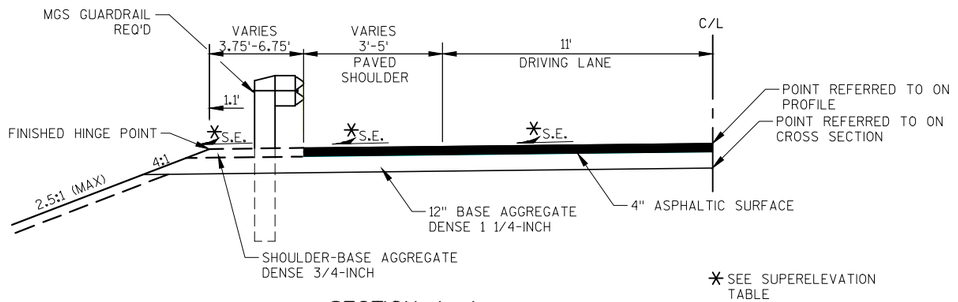
PLOT SCALE : 1" = 1'



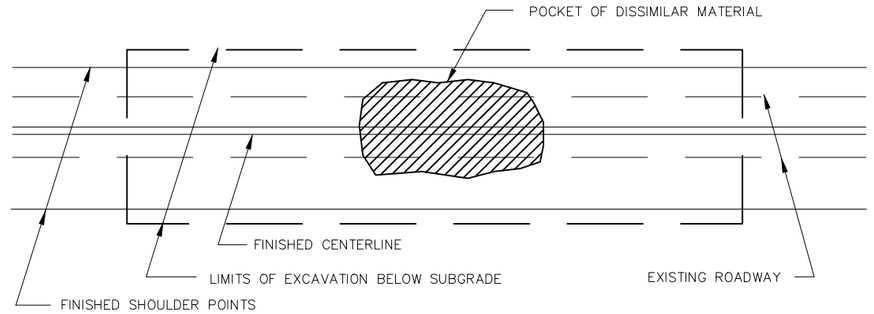
BEAMGUARD LAYOUT TABLE

QUADRANT	LOCATION	STATION ①	②	③	④	⑤	⑥
NORTHWEST	HAYNES RD. LT.	8+67	8+83	9+02	9+53	10+13	10+51
SOUTHWEST	HAYNES RD. RT.	8+73	8+89	9+05	9+61	10+13	10+51
NORTHEAST	HAYNES RD. LT.	13+27	13+00	12+81	12+28	11+41	11+03
SOUTHEAST	HAYNES RD. RT.	13+28	13+00	12+81	12+28	11+41	11+03

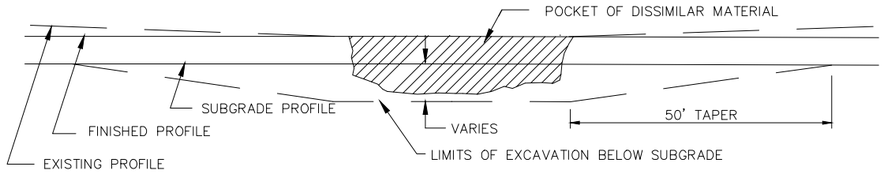
BEAMGUARD LAYOUT DETAIL



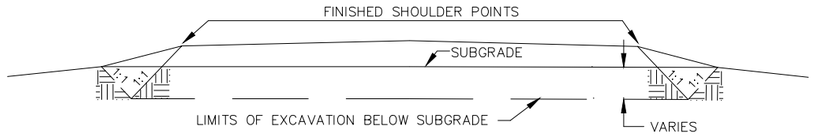
SECTION A–A



PLAN VIEW



PROFILE VIEW



CROSS SECTION VIEW

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

EXCAVATION BELOW SUBGRADE (E.B.S.)

	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= 0.67 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.81 ACRES

PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 4	E

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\DETAILS\K51060_CONSTRUCTION DETAILS.DWG
LAYOUT : LAYOUT1
PLOT DATE : 4/19/2018
PLOT TIME : 4:00:38 PM
PLOT BY : STEPHANIE POTTER
PLOT SCALE : 1" = 1'

SIGN PLATE	DESCRIPTION
12 TON BRIDGE 1/4 MILES AHEAD — REMOVE	LOCATED ON HAYNES ROAD AT STH 44 INTERSECTION (EAST OF PROJECT)
12 TON BRIDGE 1/4 MILES AHEAD — REMOVE	LOCATED ON HAYNES ROAD AT MAGINNIS ROAD INTERSECTION (WEST OF PROJECT)

▲CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X
1	7+55.75	¾" IRON ROD SET, 12.1' LT.	400,222.25	587,190.32
2	10+54.66	¾" IRON ROD SET, 18.1' LT.	400,240.47	587,489.67
4	13+98.18	¾" IRON ROD SET, 11.9' LT.	400,142.08	587,819.00

HAYNES ROAD STATION LAYOUT

STATION	Y	X	COMMENTS
8+65.00	400,242.36	587,298.53	BEGIN CONSTRUCTION
8+80.00	400,244.95	587,313.30	BEGIN PROJECT
9+00.00	400,247.19	587,333.17	–
9+50.00	400,246.66	587,383.10	–
10+00.00	400,237.43'	587,432.18	–
10+50.00	400,224.25	587,480.41	–
10+53.35	400,223.37	587,483.64	END OF DECK
11+00.00	400,211.07	587,528.64	
11+00.85	400,210.85	587,529.46	END OF DECK
11+50.00	400,197.89	587,576.88	–
12+00.00	400,184.46	587,625.04	–
12+50.00	400,170.88	587,673.16	–
13+00.00	400,157.30	587,721.28	–
13+05.00	400,155.94	587,726.09	END PROJECT
13+30.00	400,149.15	587,750.15	END CONSTRUCTION

JAMES A GRAY

BEGIN CONSTRUCTION
STA. 8+65
Y = 400,242.36
X = 587,298.53

PI STA. 11+68.00
Y = 400,193.15
X = 587,594.24

FRONTIER COMMUNICATIONS (TYP.)

R/W

CP 1

GUY

33'

N72°14'35"E

9+00

CURVE 1

S74°43'05"E

10+00

PI: 9+97.94

W5-52L 12"X36"

REMOVE

FOX RIVER

ADAMS-COLUMBIA ELECTRIC COMPANY (TYP.)

CP 2

REMOVE

W5-52R 12"X36"

WEIGHT LIMIT 12 TONS — REMOVE

SPEED LIMIT 45 — REMOVE

SPEED LIMIT 45 — R2-1 24"X30"

PI: 11+68.00

11+00

172°53'16"

12+00

S74°14'20"E

13+00

CP 4

R/W

EXISTING C/L HAYNES ROAD

HAYNES ROAD (ASPHALT)

END CONSTRUCTION
STA. 13+30
Y= 400,149.15
X= 587,750.15

WILLIAM A. WHIRRY AND BETTY J. WHIRRY, TRUSTEES, OR THEIR SUCCESSORS IN TRUST

FINISHED C/L HAYNES ROAD

BEGIN PROJECT
STA. 8+80
Y= 400,244.95
X= 587,313.30

WILLIAM R. BECKER AND DEBRA BECKER

WEIGHT LIMIT 12 TONS — REMOVE

W5-52R 12"X36"

REMOVE

FOX RIVER

REMOVE

W5-52L 12"X36"

STRUCTURE B-11-0168 (REQ'D)

ALLIANT ENERGY (TYP.)

~PARK LAKE~

EXISTING BRIDGE (P-11-0059) TO BE REMOVED

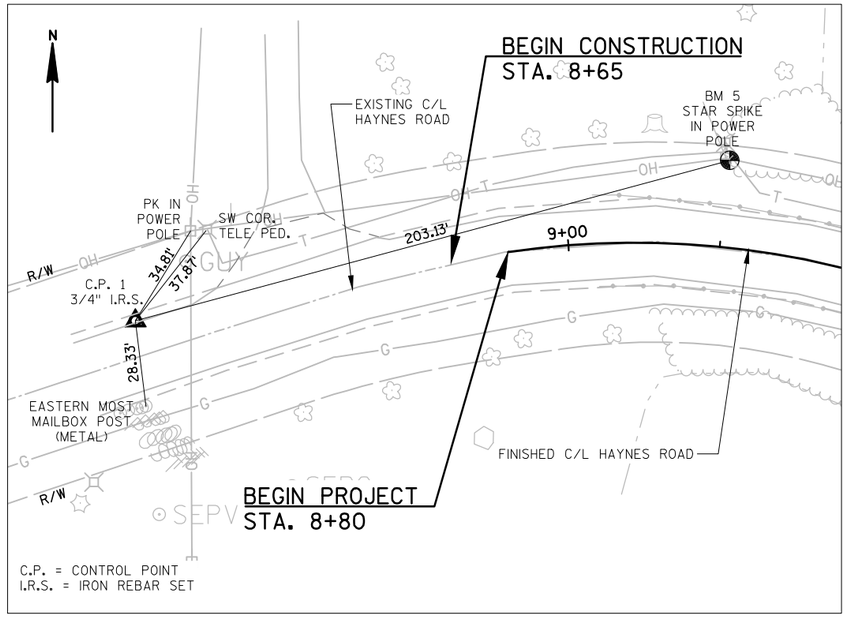
WILLIAM R. BECKER AND DEBRA BECKER

END PROJECT
STA. 13+05
Y= 400,155.94
X= 587,726.09

CURVE 1
PI STA. = 9+18.20
Y = 400,260.23
X = 587,348.73
R = 284.75
D = 20°07'16"
DELTA = 33°02'20"
L = 164.20
T = 84.45
C = 161.93
PC STA. = 8+33.74
Y = 400,234.47
X = 587,268.30
PT STA. = 9+97.94
Y = 400,237.97
X = 587,430.20
SE = *
RO = *
TRANS = *
* SEE SUPERELEVATION TABLE

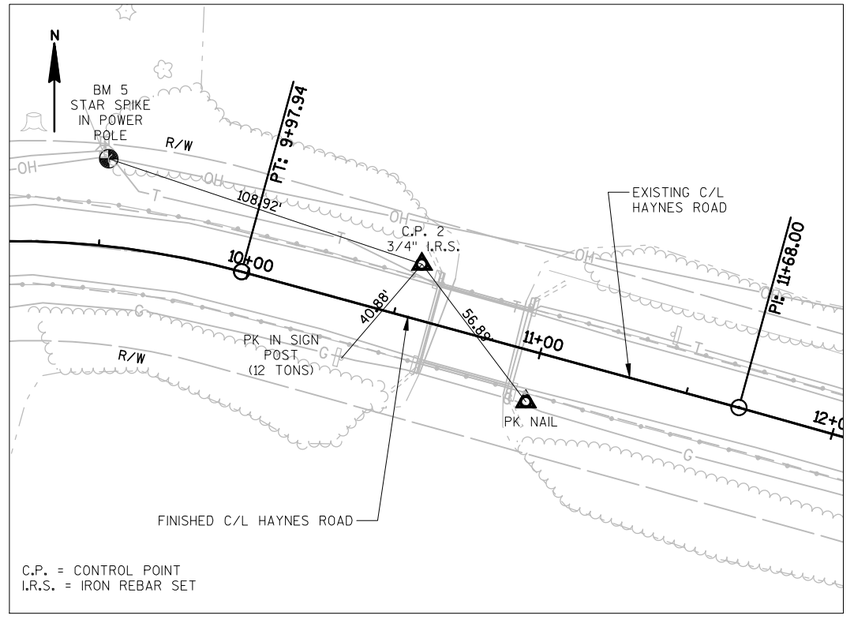
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	ALIGNMENT AND TIES	SHEET 5	E

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\DETAILS\ALIGNMENT AND TIES.DWG
LAYOUT : ALIGNMENT
PLOT DATE : 4/19/2018
PLOT TIME : 3:31:12 PM
PLOT BY : STEPHANIE POTTER
PLOT SCALE : 1" = 1'



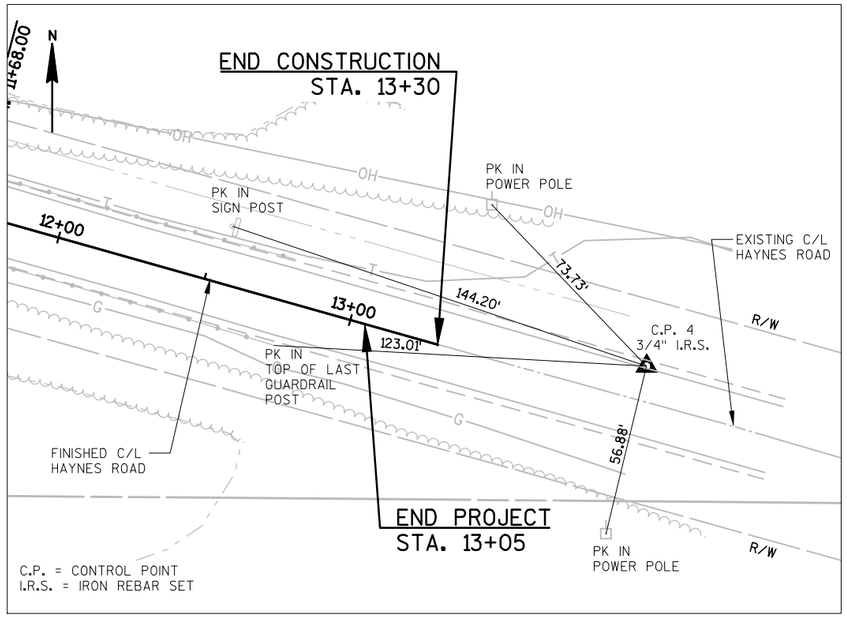
TIES TO C.P.#1

STA. 7+55.75; 12.1' LT.
Y = 400,222.25
X = 587,190.32



TIES TO C.P.#2

STA. 10+54.66; 18.1' LT.
Y = 400,240.47
X = 587,489.67



TIES TO C.P.#4

STA. 13+98.18; 11.9' LT.
Y = 400,142.08
X = 587,819.00

PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	ALIGNMENT AND TIES	SHEET 6	E

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\DETAILS\ALIGNMENT AND TIES.DWG
LAYOUT : TIES
PLOT DATE : 3/26/2018
PLOT TIME : 11:49:04 AM
PLOT BY : STEPHANIE POTTER
PLOT SCALE : 1" = 1'

5651-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0006	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+78	LS	1.000	1.000
0008	204.0180	Removing Delineators and Markers	EACH	3.000	3.000
0010	205.0100	Excavation Common	CY	700.000	700.000
0012	206.1000	Excavation for Structures Bridges (structure) 01. B-11-0168	LS	1.000	1.000
0014	210.1500	Backfill Structure Type A	TON	530.000	530.000
0016	213.0100	Finishing Roadway (project) 01. 5651-00-70	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	130.000	130.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,530.000	1,530.000
0022	455.0605	Tack Coat	GAL	70.000	70.000
0024	465.0105	Asphaltic Surface	TON	330.000	330.000
0026	502.0100	Concrete Masonry Bridges	CY	192.000	192.000
0028	502.3200	Protective Surface Treatment	SY	200.000	200.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	4,810.000	4,810.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	22,920.000	22,920.000
0034	513.4061	Railing Tubular Type M 01. B-11-0168	LF	100.000	100.000
0036	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0038	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	960.000	960.000
0040	606.0300	Riprap Heavy	CY	110.000	110.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	170.000	170.000
0044	614.0920	Salvaged Rail	LF	645.000	645.000
0046	614.2300	MGS Guardrail 3	LF	288.000	288.000
0048	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0050	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0052	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5651-00-70	EACH	1.000	1.000
0054	619.1000	Mobilization	EACH	1.000	1.000
0056	624.0100	Water	MGAL	12.000	12.000
0058	625.0500	Salvaged Topsoil	SY	1,090.000	1,090.000
0060	628.1504	Silt Fence	LF	1,000.000	1,000.000
0062	628.1520	Silt Fence Maintenance	LF	2,000.000	2,000.000
0064	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0068	628.2008	Erosion Mat Urban Class I Type B	SY	1,800.000	1,800.000
0070	628.6005	Turbidity Barriers	SY	110.000	110.000
0072	628.7504	Temporary Ditch Checks	LF	24.000	24.000
0074	629.0210	Fertilizer Type B	CWT	1.200	1.200

5651-00-70

Line	Item	Item Description	Unit	Total	Qty
0076	630.0120	Seeding Mixture No. 20	LB	40.000	40.000
0078	630.0160	Seeding Mixture No. 60	LB	8.000	8.000
0080	630.0200	Seeding Temporary	LB	30.000	30.000
0082	633.5100	Markers Row	EACH	9.000	9.000
0084	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0086	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0088	637.2210	Signs Type II Reflective H	SF	5.000	5.000
0090	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0092	638.2602	Removing Signs Type II	EACH	9.000	9.000
0094	638.3000	Removing Small Sign Supports	EACH	9.000	9.000
0096	642.5001	Field Office Type B	EACH	1.000	1.000
0098	643.0420	Traffic Control Barricades Type III	DAY	1,188.000	1,188.000
0100	643.0705	Traffic Control Warning Lights Type A	DAY	1,848.000	1,848.000
0102	643.0900	Traffic Control Signs	DAY	924.000	924.000
0104	643.5000	Traffic Control	EACH	1.000	1.000
0106	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0108	645.0120	Geotextile Type HR	SY	160.000	160.000
0110	650.4500	Construction Staking Subgrade	LF	380.000	380.000
0112	650.5000	Construction Staking Base	LF	380.000	380.000
0114	650.6500	Construction Staking Structure Layout (structure) 01. B-11-0168	LS	1.000	1.000
0116	650.9910	Construction Staking Supplemental Control (project) 01. 5651-00-70	LS	1.000	1.000
0118	650.9920	Construction Staking Slope Stakes	LF	420.000	420.000
0120	690.0150	Sawing Asphalt	LF	44.000	44.000
0122	715.0502	Incentive Strength Concrete Structures	DOL	1,152.000	1,152.000

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

CLEARING & GRUBBING

STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
9+00-10+50	MAINLINE	2	2
11+00-13+00	MAINLINE	2	2
	TOTALS =	4	4

REMOVING MARKERS

LOCATION	204.0180 (EACH)
NW QUADRANT P-11-059	1
SW QUADRANT P-11-059	1
NE QUADRANT P-11-059	1
TOTALS =	3

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	205.0100 EXCAVATION COMMON CATEGORY 010 CUT (CY)	205.0100 EXCAVATION COMMON CATEGORY 030 CUT (CY)	AVAILABLE MATERIAL (CY) (1)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (2)	MASS ORDINATE +/- (CY) (3)	WASTE (CY)
8+65 - 10+00	MAINLINE (SHOULDER)	169	-	169	100	125	44	44
8+80 - 10+00	MAINLINE (DRIVING LANES)	-	142	142	-	-	142	186
10+00 - 10+53	MAINLINE	5	-	5	25	31.25	-26.25	159.75
11+01 - 11+50	MAINLINE	83	-	83	15	18.75	64.25	224
11+50 - 13+05	MAINLINE (DRIVING LANES)	-	184	184	-	-	184	408
11+50 - 13+05	MAINLINE (SHOULDER)	90	-	90	93	116.25	-26.25	381.75
13+05 - 13+30	MAINLINE	27	-	27	7	8.75	18.25	400
SUBTOALS =		374	326	700	240	300	400	400
TOTALS =		700		700	240	300	400	400

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

WATER

STATION-STATION	LOCATION	624.0100 (MGAL)
8+65-13+30	MAINLINE	12
	TOTALS =	12

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON) CATEGORY 010	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON) CATEGORY 010	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON) CATEGORY 030
8+65 - 10+00	MAINLINE (SHOULDER)	36	171	-
8+80 - 10+00	MAINLINE (DRIVING LANES)	-	-	224
10+00 - 10+53	MAINLINE	12	165	-
11+01 - 11+50	MAINLINE	11	169	-
11+50 - 13+05	MAINLINE (DRIVING LANES)	-	-	290
11+50 - 13+05	MAINLINE (SHOULDER)	42	185	-
13+05 - 13+30	MAINLINE	4	26	-
UNDISTRIBUTED	-	25	174	126
	SUBTOTALS =	130	890	640
	TOTALS =	130	1530	

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL) CATEGORY 010	455.0605 TACK COAT (GAL) CATEGORY 030	465.0105 ASPHALTIC SURFACE (TON) CATEGORY 010	465.0105 ASPHALTIC SURFACE (TON) CATEGORY 030
8+80 - 10+00	MAINLINE (SHOULDER)	3	-	14	-
8+80 - 10+00	MAINLINE (DRIVING LANES)	-	16	-	74
10+00 - 10+53	MAINLINE	8	-	38	-
11+01 - 11+50	MAINLINE	8	-	35	-
11+50 - 13+05	MAINLINE (DRIVING LANES)	-	21	-	95
11+50 - 13+30	MAINLINE (SHOULDER)	3	-	18	-
-	UNDISTRIBUTED	4	7	21	35
	SUBTOTALS =	26	44	126	204
	TOTALS =	70		330	

SALVAGED RAIL

STATION-STATION	LOCATION	614.0920 SALVAGED RAIL (LF)
9+10-10+53	MAINLINE, LT.	150
9+10-10+53	MAINLINE, RT.	140
11+00-12+77	MAINLINE, LT.	175
11+00-12+78	MAINLINE, RT.	180
	TOTALS =	645

MGS GUARDRAIL

STATION - STATION	LOCATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)
9+02 - 9+53	MAINLINE, RT.	-	-	1
9+05 - 9+61	MAINLINE, LT.	-	-	1
9+53 - 10+13	MAINLINE, LT.	62	-	-
9+61 - 10+13	MAINLINE, RT.	50	-	-
10+13 - 10+51	MAINLINE, LT.	-	40	-
10+13 - 10+51	MAINLINE, RT.	-	40	-
11+03 - 11+41	MAINLINE, LT.	-	40	
11+03 - 11+41	MAINLINE, RT.	-	40	
11+41 - 12+28	MAINLINE, LT.	88	-	-
11+41 - 12+28	MAINLINE, RT.	88	-	-
12+28 - 12+81	MAINLINE, RT.	-	-	1
12+28 - 12+81	MAINLINE, LT.	-	-	1
	TOTALS =	288	160	4

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0200 SEEDING TEMPORARY (LB)
8+65 - 13+30	MAINLINE	870	1,450	1.0	32	*4	23
UNDISTRIBUTED	-	220	350	0.2	8	4	7
	TOTALS =	1,090	1,800	1.2	40	8	30

*STA. 10+95 - STA. 13+16, LT.

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
8+65 - 10+53	MAINLINE, LT.	200	400
9+06 - 10+52	MAINLINE, RT.	140	280
10+95 - 12+98	MAINLINE, LT.	210	420
10+95 - 13+30	MAINLINE, RT.	250	500
UNDISTRIBUTED	-	200	400
TOTALS =		1,000	2,000

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
5651-00-70	4	2
TOTALS =	4	2

TURBIDITY BARRIERS

STATION-STATION	LOCATION	628.6005 (SY)
8+65-13+30	MAINLINE	100
UNDISTRIBUTED	-	10
TOTALS =		110

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 (L.F.)
9+28	MAINLINE, RT.	8
12+85	MAINLINE, LT.	8
UNDISTRIBUTED	-	8
	TOTAL =	24

MARKERS ROW

PT. NO.	STATION	OFFSET FROM FINISHED C/L	633.5100 (EACH)
101	8+80.00	31.71 LT.	1
102	8+91.14	31.99 LT.	1
103	9+94.24	33.40 LT.	1
104	13+30.00	33.12 LT.	1
105	13+30.00	32.88 RT.	1
106	10+00.00	32.66 RT.	1
107	10+00.00	37.00 RT.	1
108	9+00.00	60.00 RT.	1
109	8+00.00	34.29 RT.	1
	TOTALS =		9

PERMANENT SIGNING

APPROX. STATION	POSITIION	SITE ID	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE	634.0612 POSTS WOOD 4X6-INCH X 12-FT (EACH)	634.0616 POSTS WOOD 4X6-X 16-FT (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
-	-	-	-	LOAD POSTING SIGN	12	24X48	---	---	---	---	1	1
10+37	RIGHT	MAINLINE	R12-1	WEIGHT LIMIT _ TONS	12	24X30	---	---	---	---	1	1
10+62	LEFT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	---	---	---	---	1	1
10+62	RIGHT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	---	---	---	---	1	1
10+53	LEFT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	1	---	3.00	---	---	---
10+53	RIGHT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	1	---	3.00	---	---	---
10+93	LEFT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	---	---	---	---	1	1
10+93	RIGHT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	---	---	---	---	1	1
11+01	LEFT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	1	---	3.00	---	---	---
11+01	RIGHT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	1	---	3.00	---	---	---
11+41	LEFT	MAINLINE	R12-1	WEIGHT LIMIT _ TONS	12	24X30	---	---	---	---	1	1
-	-	-	-	LOAD POSTING SIGN	12	24X48	---	---	---	---	1	1
12+54	LEFT	MAINLINE	R2-1	SPEED LIMIT	45	24X30	---	1	---	5.00	1	1
				TOTALS =			4	1	12.00	5.00	9	9

TRAFFIC CONTROL

LOCATION	TRAFFIC CONTROL 643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0900 SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
PROJECT	1,188	1,848	924	1
TOTALS =	1,188	1,848	924	1

CONSTRUCTION STAKING

STATION -STATION	LOCATION	CONSTRUCTION STAKING 650.4500 SUBGRADE (L.F.)	650.5000 BASE (L.F.)	*650.6500 STRUCTURE LAYOUT (B-11-0168) (L.S.)	650.9910 SUPPLEMENTAL CONTROL (5651-00-70) (L.S.)	650.9920 SLOPES STAKES (L.F.)
8+65-13+30	MAINLINE	380	380	-	-	420
-	MAINLINE	-	-	1	1	-
	TOTAL =	380	380	1	1	420

* CATEGORY 020

SAWING ASPHALT

STATION	LOCATION	690.0150 (L.F.)
8+80	MAINLINE	22
13+05	MAINLINE	22
	TOTAL =	44

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\DETAILS\MISC QUANT.DWG
LAYOUT : LAYOUT2
PLOT DATE : 5/21/2018
PLOT TIME : 1:55:58 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5651-00-00		
FEDERAL PROJECT NUMBER	4.01	2

PLAT OF RIGHT-OF-WAY REQUIRED FOR

TOWN OF MARCELLON, HAYNES ROAD

(FOX RIVER BRIDGE B-11-0168)

TOWN ROAD — COLUMBIA COUNTY

CONSTRUCTION PROJECT NUMBER
5651-00-70

CONVENTIONAL ABBREVIATIONS

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

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE — P.L.
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
SIXTEENTH CORNER MONUMENT

NOTATION FOR COMBUSTABLE FLUIDS — CAUTION
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES — CAUTION

R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN — IP
VALVE (GAS, WATER, ETC.) — ⊘ (TYPE)
SIGN — SIGN
OFF-PREMISE SIGN — SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	⌀	⌀
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	⌀	⌀

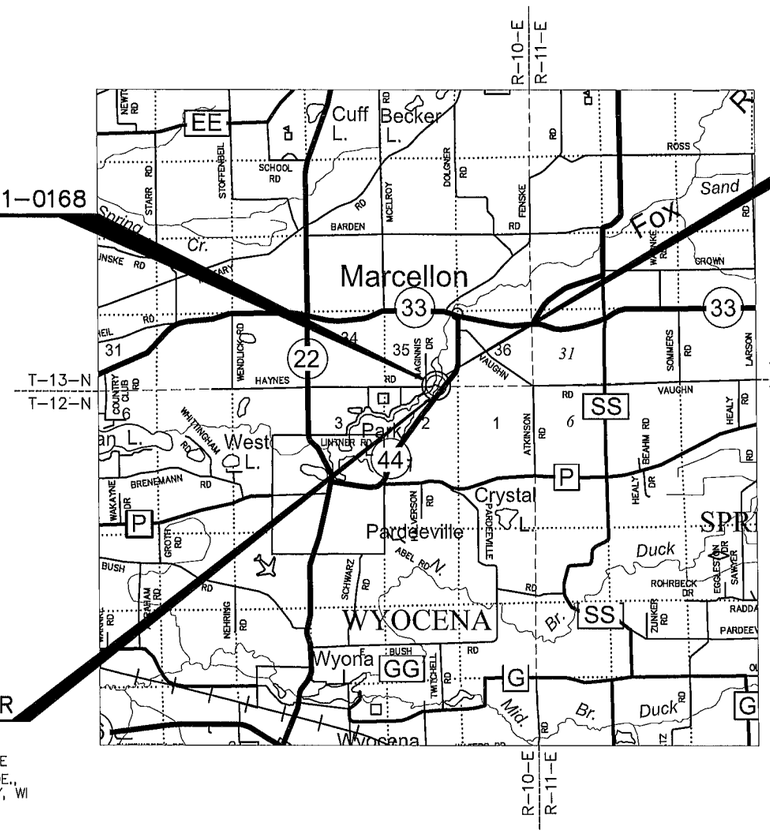
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)

BRIDGE

PARCEL NUMBER (25)
UTILITY NUMBER (40)

CONVENTIONAL UTILITY SYMBOLS

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



NOTES

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

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

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

N

LAYOUT
SCALE 0 — 1 MI. — 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.085 MI.

REVISION DATE

JEWELL
associates engineers, inc.
Engineers - Architects - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
FAX : 608.588.9322

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

WISCONSIN SCOTT D. WARNER S-2524 RICHLAND CENTER, WI 02-22-2018 LAND SURVEYOR

APPROVED FOR THE TOWN OF MARCELLON
DATE: 3/12/2018
(NAME/TITLE)
Town Marcellon Clerk

E

TLE LINE TABLE		
POINT TO POINT	BEARING	DISTANCE
201 TO 202	S88°15'47"E	34.44'
202 TO 203	S70°42'53"E	102.25'
203 TO 204	S78°37'01"E	120.63'
204 TO 205	S84°59'49"E	50.89'
205 TO 206	S45°39'31"E	37.59'
206 TO 104	S74°26'39"E	27.00'
207 TO 208	S15°45'40"W	14.01'
208 TO 209	N74°14'20"W	70.00'
209 TO 210	N15°45'40"E	13.76'
210 TO 106	N74°26'39"W	229.72'
105 TO 207	N74°26'39"W	30.00'

EXISTING RIGHT OF WAY CURVE TABLE (ERWC)							
CURVE	POINT TO POINT	DELTA ANGLE	TANGENT	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
ERWC1	102 TO 103	24°10'19"	58.46	273.00	115.17	114.32	S86°31'49"E

RIGHT OF WAY LINE TABLE		
POINT TO POINT	BEARING	DISTANCE
101 TO 102	N81°23'02"E	12.40'
103 TO 104	S74°26'39"E	336.46'
104 TO 105	S15°45'40"W	66.00'
105 TO 106	N74°26'39"W	329.72'
106 TO 107	S15°16'55"W	4.34'
107 TO 108	S80°21'52"W	85.84'
108 TO 109	N39°26'41"W	30.64'
109 TO 101	N08°27'02"W	66.00'

SW ¼ - SE ¼
SEC. 35, T13N, R10E

SE ¼ - SE ¼
SEC. 35, T13N, R10E

TOWN OF MARCELLON

N

② JAMES A. GRAY, AN INDIVIDUAL
DOC. #742266

FRONTIER COMMUNICATIONS (TYP.)

FINISHED C/L HAYNES ROAD

TLE FOR SLOPES (0.01 ACRES)

FOX RIVER

202

FRONTIER COMMUNICATIONS OF WISCONSIN, LLC (GENERAL TELEPHONE COMPANY OF WISCONSIN)
16' WIDE EASEMENT
DOC. 423221

END RELOCATION ORDER
STA. 13+30
39.90' NORTH AND 1328.08' EAST OF THE S¼ CORNER OF SECTION 35, T.13N., R.10E., TOWN OF MARCELLON, COLUMBIA COUNTY, WI
Y = 400,149.15
X = 587,750.15

201 ADAMS-COLUMBIA ELECTRIC COOPERATIVE

TLE FOR SLOPES (0.03 ACRES)

WEST LINE OF THE SE¼-SE¼, SECTION 35

③ WILLIAM A. WHIRRY AND BETTY J. WHIRRY, TRUSTEES, OR THEIR SUCCESSORS IN TRUST, UNDER THE WILLIAM A. AND BETTY J. WHIRRY LIVING TRUST, DATED MARCH 10, 2006 AND ANY AMENDMENTS THERETO, DOC. #752430

Lot 2 C.S.M. 1800 VOL. 9 PG. 94 DOC. #5004429

ADAMS-COLUMBIA ELECTRIC COOPERATIVE (TYP.)

BEGIN RELOCATION ORDER
STA. 8+80
135.70' NORTH AND 891.23' EAST OF THE S¼ CORNER OF SECTION 35, T.13N., R.10E., TOWN OF MARCELLON, COLUMBIA COUNTY, WI
Y = 400,244.95
X = 587,313.30

CURVE 1
PI STA. = 9+18.20
Y = 400,260.23
X = 587,348.73
R = 284.75
D = 20°07'16"
DELTA = 33°02'20"
L = 164.20
T = 84.45
C = 161.93
PC STA. = 8+33.74
Y = 400,234.47
X = 587,268.30
PT STA. = 9+97.94
Y = 400,237.97
X = 587,430.20

N79°39'42"E 902.17' TO PT. 101 FROM S1/4 CORNER SEC. 35

① WILLIAM R. BECKER AND DEBRA BECKER, AS TENANTS IN COMMON
DOC. #414783, VOL. 230, PG. 580

STRUCTURE B-11-0168 (REQ'D)

ALLIANT ENERGY (TYP.)

PARK LAKE

TLE FOR SLOPES (0.02 ACRES)

EXISTING C/L HAYNES ROAD

TLE CURVE TABLE (TLEC)							
CURVE	POINT TO POINT	DELTA ANGLE	TANGENT	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
TLEC1	102 TO 201	18°00'50"	43.27	273.00	85.83	85.48	S89°36'33"E

S¼ CORNER OF SEC. 35 TO SE CORNER OF SEC. 35
S89°30'57"E, 2627.50'

S1/4 CORNER SEC. 35
FOUND COLUMBIA COUNTY ROAD MONUMENT
Y = 400,109.25
X = 586,422.07

SE CORNER SEC. 35
FOUND COLUMBIA COUNTY FIELD MONUMENT
Y = 400,087.04
X = 589,049.48

EASEMENT TABLE			
OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL #	REMARKS
FRONTIER COMMUNICATIONS (GENERAL TELEPHONE COMPANY OF WISCONSIN)	DOC. #423221, VOL. 246, PG. 755	1 & 2	16' WIDE

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED EXISTING	R/W ACRES REQUIRED TOTAL	T.L.E. ACRES
1	WILLIAM R. BECKER AND DEBRA BECKER, AS TENANTS IN COMMON	FEE, TLE	0.04	0.43	0.47	0.03
2	JAMES A. GRAY, AN INDIVIDUAL	FEE	–	0.07	0.07	–
3	WILLIAM A. WHIRRY AND BETTY J. WHIRRY, TRUSTEES, OR THEIR SUCCESSORS IN TRUST, UNDER THE WILLIAM A. AND BETTY J. WHIRRY LIVING TRUST, DATED MARCH 10, 2006 AND ANY AMENDMENTS THERETO	FEE, TLE	–	0.18	0.18	0.03
201	ADAMS-COLUMBIA ELECTRIC COOPERATIVE	TEMPORARY CONSTRUCTION EASEMENT				
202	FRONTIER COMMUNICATIONS OF WISCONSIN, LLC	RELEASE OF RIGHTS				

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

NOTE: EXISTING C/L OF HAYNES ROAD WAS BASED ON CENTERLINE OF EXISTING PAVEMENT.

BASIS OF EXISTING RIGHT-OF-WAY FOR HAYNES ROAD WAS BASED ON COUNTY RECORDS, THE CENTERLINE OF EXISTING PAVEMENT, AND WIS. STATUTE 82.31(2).

COORDINATE TABLE – NEW R/W POINTS				
PT.#	STATION	OFFSET	Y	X
101	8+80.00	31.71 LT.	400276.31	587308.64
102	8+91.14	31.99 LT.	400278.17	587320.89
103	9+94.24	33.40 LT.	400271.25	587435.01
104	13+30.00	33.12 LT.	400181.02	587759.14
105	13+30.00	32.88 RT.	400117.50	587741.22
106	10+00.00	32.66 RT.	400205.92	587423.57
107	10+00.00	37.00 RT.	400201.74	587422.43
108	9+00.00	60.00 RT.	400187.37	587337.80
109	8+80.00	34.29 RT.	400211.03	587318.34

COORDINATE TABLE – TEMPORARY LIMITED EASEMENT (TLE) POINTS				
PT.#	STATION	OFFSET	Y	X
201	9+68.00	33.69 LT.	400277.59	587406.37
202	9+98.00	40.00 LT.	400276.54	587440.79
203	11+00.00	32.86 LT.	400242.77	587537.30
204	12+20.00	41.50 LT.	400218.97	587655.56
205	12+70.00	51.00 LT.	400214.53	587706.26
206	13+03.00	33.02 LT.	400188.26	587733.14
207	13+00.00	32.99 RT.	400125.54	587712.32
208	13+00.00	47.00 RT.	400112.06	587708.51
209	12+30.00	47.00 RT.	400131.08	587641.14
210	12+30.00	33.24 RT.	400144.32	587644.88

REVISION DATE	DATE 3/12/21	SCALE, FEET 0 20 40	HWY: HAYNES ROAD	R/W PROJECT NUMBER: 5651-00-00	PLAT SHEET 4.02
	GRID FACTOR N/A		COUNTY: COLUMBIA	CONSTRUCTION PROJECT NUMBER: 5651-00-70	PS&E SHEET 12 E

FILE NAME : S:\Projects\K51060 Haynes Rd, Columbia Co\RW\56510070_Plat Sheets.dwg PLOT DATE : 2/22/2018 12:00 PM PLOT BY : Strine, Thereso PLOT NAME : PLOT SCALE : 1:1

WISDOT/CADDS SHEET 75

LEGEND

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

CURVE 1
PI STA. = 9+18.20
Y = 400,260.23
X = 587,348.73
R = 284.75
D = 20°07'16"
DELTA = 33°02'20"
L = 164.20
T = 84.45
C = 161.93
PC STA. = 8+33.74
Y = 400,234.47
X = 587,268.30
PT STA. = 9+97.94
Y = 400,237.97
X = 587,430.20
SE = *
RO = *
TRANS = *
* SEE SUPERELEVATION TABLE

CLEARING AND GRUBBING REQ'D.
STA. 9+00 - STA. 10+50

BEGIN CONSTRUCTION
STA. 8+65
Y = 400,242.36
X = 587,298.53

REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS, STA. 10+78 (P-11-0059)
SINGLE-SPAN TIMBER DECK GIRDER STRUCTURE
30.5' OVERALL DECK WIDTH
31.9' OVERALL LENGTH

JAMES A GRAY

FOX RIVER

CLEARING AND GRUBBING REQ'D.
STA. 11+00 - STA. 13+00

END CONSTRUCTION
STA. 13+30
Y= 400,149.15
X= 587,750.15

WILLIAM A. WHIRRY & BETTY J. WHIRRY LIVING TRUST

SLOPE INTERCEPTS
WETLAND DETERMINATION
GRADE TO DRAIN
FINISHED C/L HAYNES ROAD
ADAMS-COLUMBIA ELECTRIC COMPANY (TYP.)
EXISTING C/L HAYNES ROAD
SHOULDER HINGE POINT (TYP.)
EDGE OF ASPHALT (TYP.)
FRONTIER COMMUNICATIONS (TYP.)
BM 5
BM 2
PT: 9+97.94
P.I. 11+68.00
179°31'16"
S74°43'05"E
S74°14'20"E
10+00
11+00
12+00
13+00
9+00
CURVE 1
P.C. 8+33.74
(ASPHALT)
P.L. (ASPHALT)
HAYNES ROAD
R/W
PROPOSED MGS GUARDRAIL (TYP.)
GRADE TO DRAIN
MGS GUARDRAIL TERMINAL E.A.T. REQ'D. (TYP.)
WILLIAM R. BECKER AND DEBRA BECKER
~PARK LAKE~
STRUCTURE B-11-0168 (REQ'D)
ALLIANT ENERGY (TYP.)
CAUTION
TLE REQ'D (TYP.)
PI STA. 11+68.00
Y = 400,193.15
X = 587,594.24
EDGE OF WATER (TYP.)
N72°14'35"E
BM 1
BEGIN PROJECT
STA. 8+80
Y= 400,244.95
X= 587,313.30
END PROJECT
STA. 13+05
Y= 400,155.94
X= 587,726.09

L=155.00'
K=49.62
L=142.00'
K=49.32
2%
-0.17%
2.7%
MATCH EXISTING
STA. 8+80
EL. = 819.37
PC STA 8+80.50
EL 819.35
PI STA 9+58.00
EL 816.80
FINISHED C/L PROFILE
HAYNES ROAD
EXISTING C/L PROFILE
HAYNES ROAD
PT STA 10+35.50
EL 816.67
PC STA 11+62.00
EL 816.45
PI STA 12+33.00
EL 816.33
PT STA 13+04.00
EL 818.25
MATCH EXISTING
STA. 13+05
EL. = 818.25
HIGH WATER100
EL = 811.88
HIGH WATER2
EL = 809.05
OBSERVED WATER
EL. 806.96
(03-01-2017)
EXISTING C/L ELEVATION
FINISHED C/L ELEVATION

820 818 816 814 812 810 808 806 804

821.16 820.82 820.40 819.90 819.37 819.37 818.72 818.75 818.04 818.21 817.53 817.75 817.14 817.37 816.75 817.07 816.72 816.86 816.69 816.72 816.64 816.66 816.57 816.63 815.79 816.59 816.41 816.56 816.40 816.52 816.44 816.49 816.51 816.45 816.59 816.45 816.73 816.53 816.86 816.69 817.07 816.93 817.32 817.26 817.61 817.66 818.15 818.15 818.25 818.25 818.68 819.22 819.76

8+00 8+20 8+40 8+60 8+80 9+00 9+20 9+40 9+60 9+80 10+00 10+20 10+40 10+60 10+80 11+00 11+20 11+40 11+60 11+80 12+00 12+20 12+40 12+60 12+80 13+00 13+20 13+40 13+60 13+05

EARTHWORK SUMMARY

EXCAVATION COMMON	=	700 C.Y.
FILL	=	240 C.Y.
FILL EXPANSION (25%)	=	300 C.Y.
WASTE	=	400 C.Y.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	7+56	¾" IRON ROD SET, 12' LT.	821.16
2	10+55	¾" IRON ROD SET, 18' LT.	814.42
4	13+98	¾" IRON ROD SET, 11.9' LT.	820.48
5	9+50	STAR SPIKE IN POWER POLE, 29' LT.	817.90

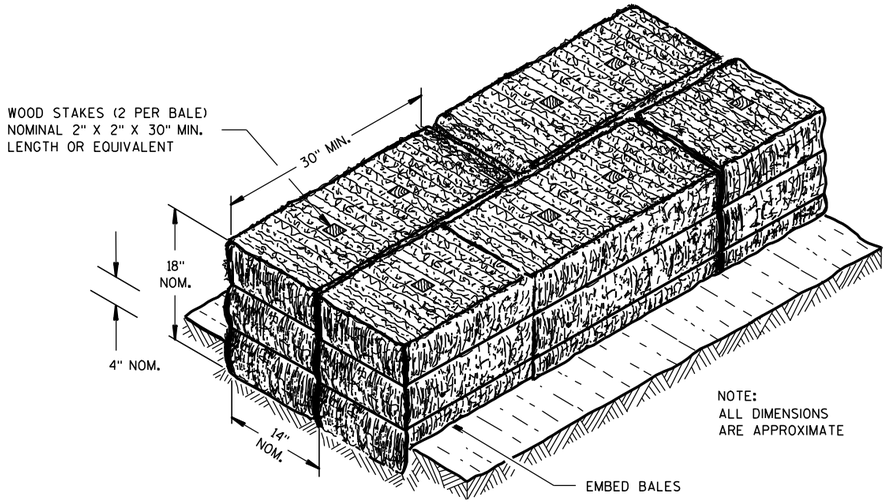
STA. 10+77
STRUCTURE B-11-0168 REQ'D.
SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB STRUCTURE
CLEAR ROADWAY WIDTH = 28.0'
O.A.L. = 47.50'
SKEW = 0°
STREAMBED EL. 801.17

PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	PLAN AND PROFILE	SHEET 13	E

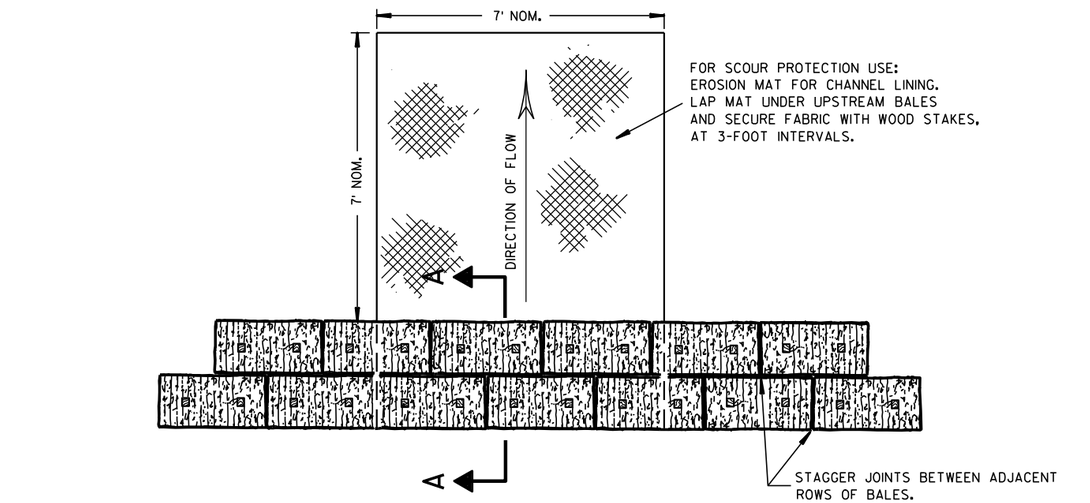
FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\SHEETSPLAN\PLAN & PROFILE SHEETS\K51060_P&P.DWG
LAYOUT :
PLOT DATE : 5/21/2018
PLOT TIME : 1:53:00 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1" = 1'

Standard Detail Drawing List

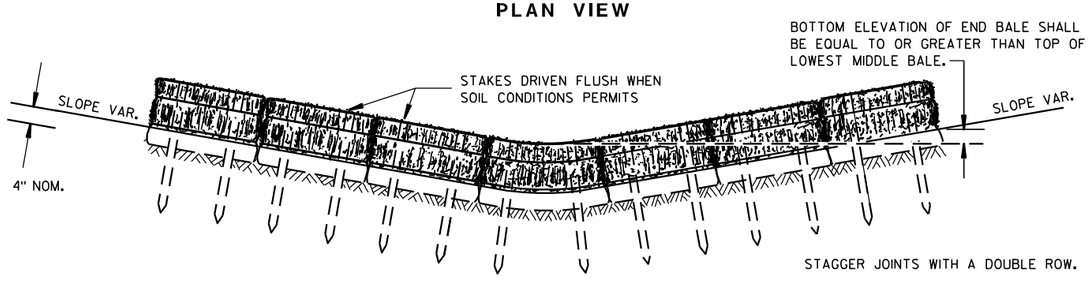
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
14B42-05A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-05B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-05C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-05D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-03A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-03B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-03C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES



SECTION A-A



PLAN VIEW



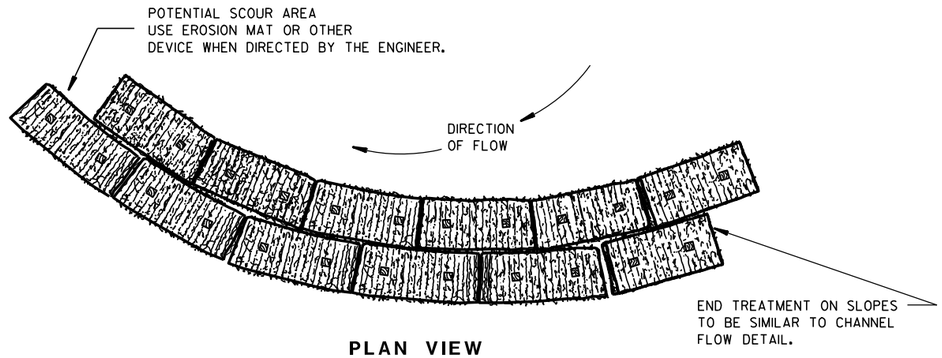
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

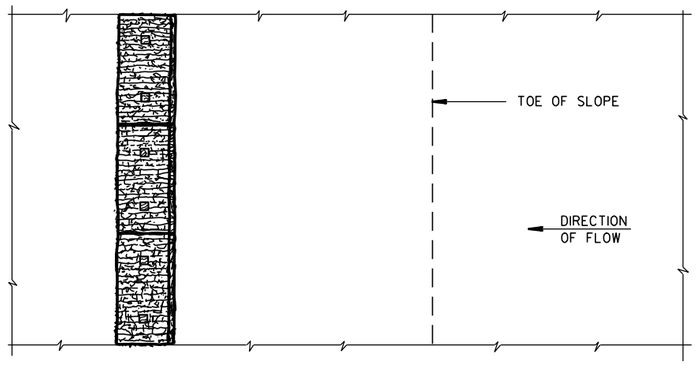
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

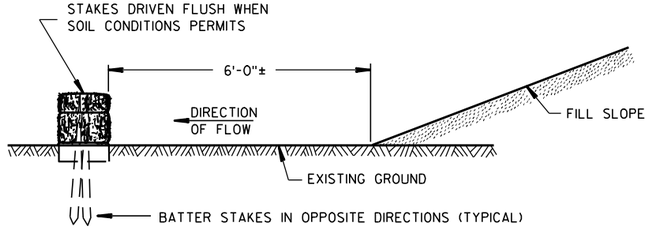


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

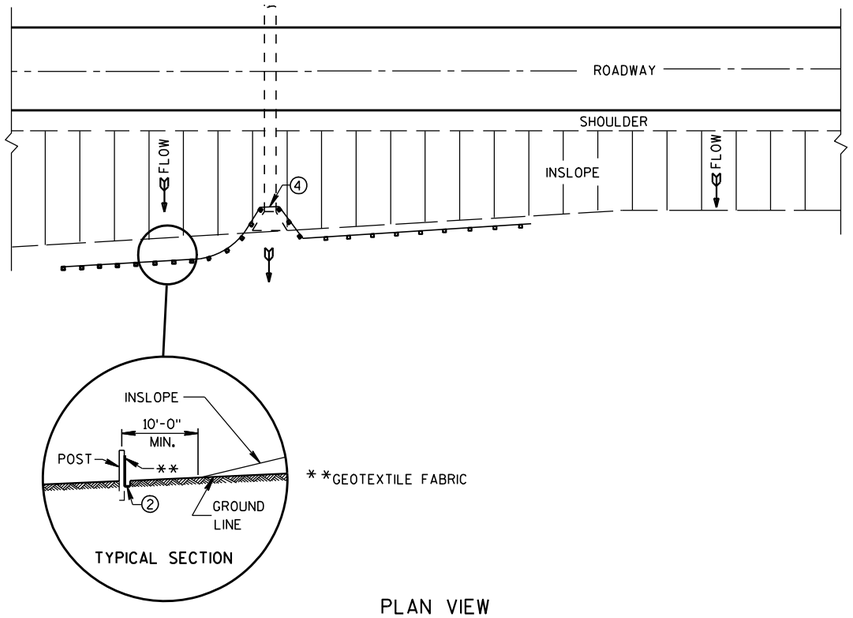
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

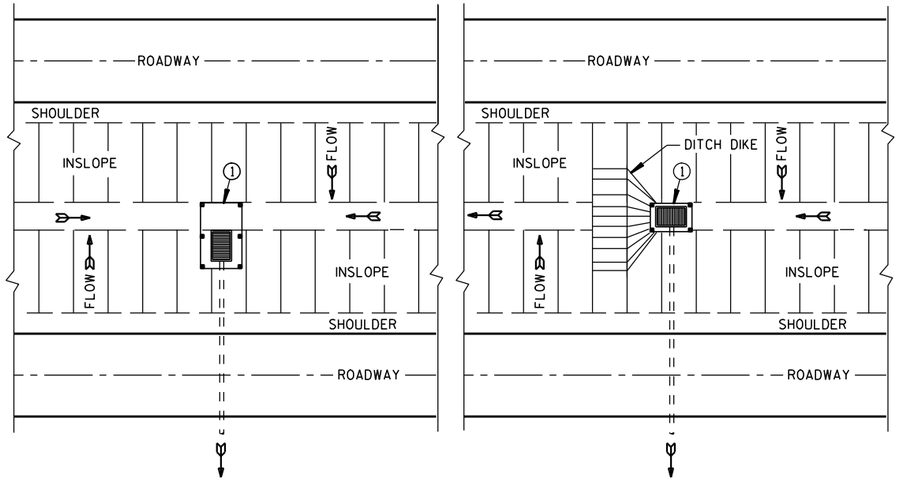
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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



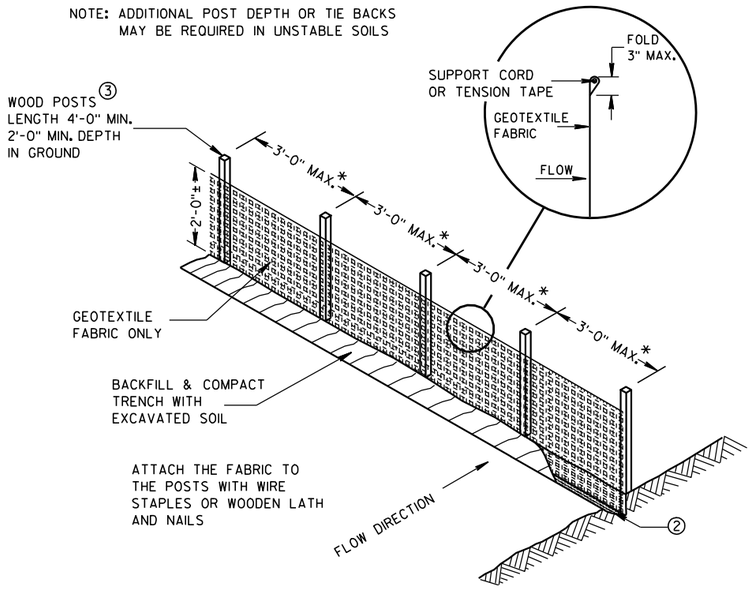
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



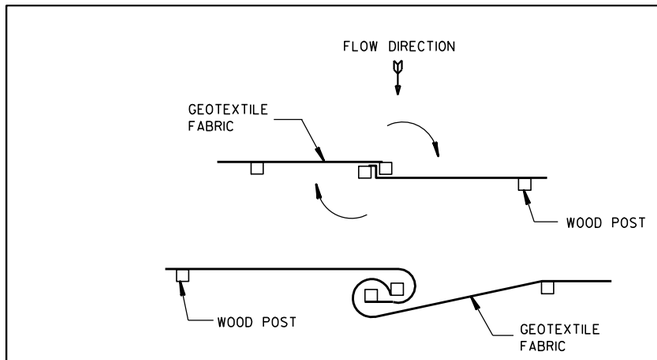
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



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

SILT FENCE

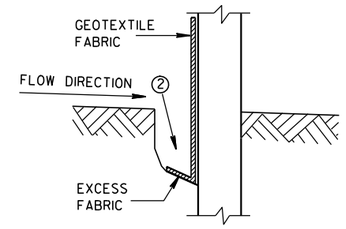


JOINING TWO LENGTHS OF SILT FENCE 5

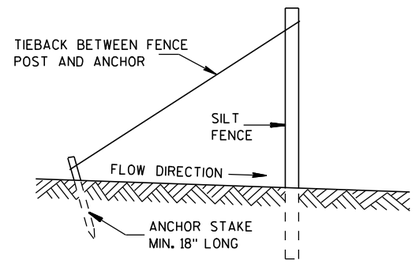
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

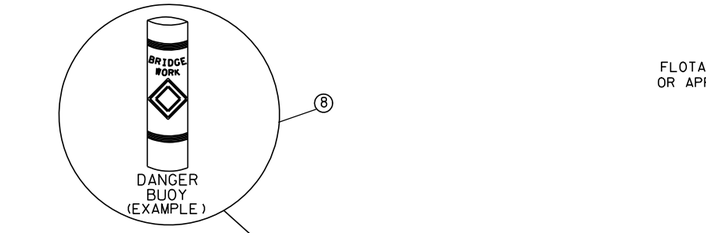
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

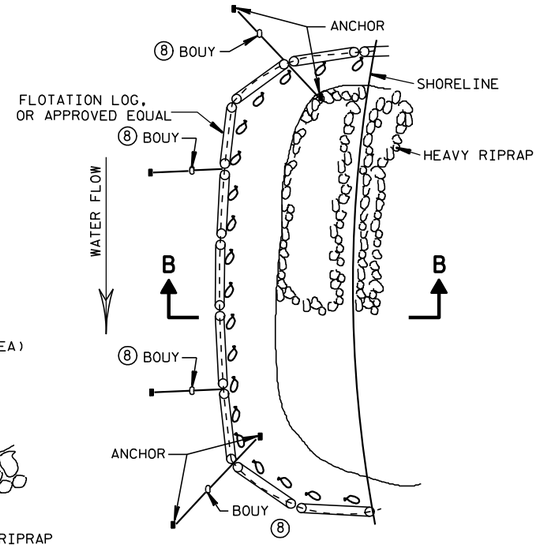
S.D.D. 8 E 9-6

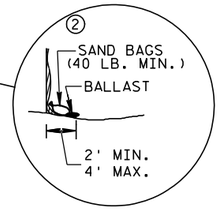
6

S.D.D. 8 E 9-6

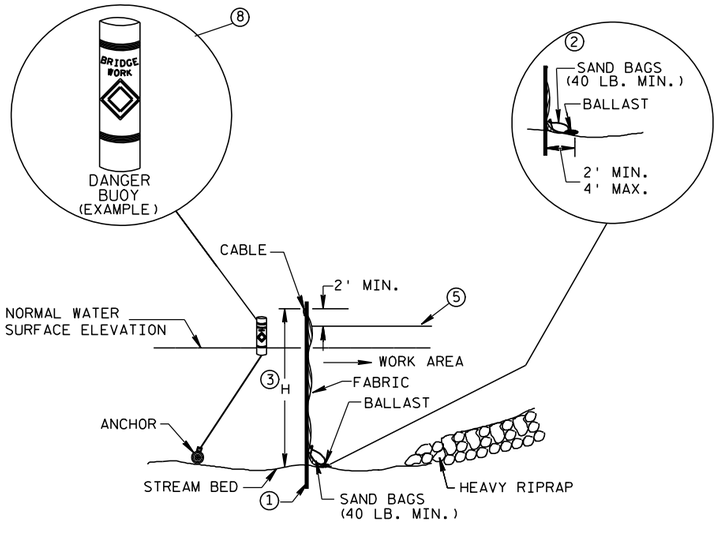


SECTION B-B

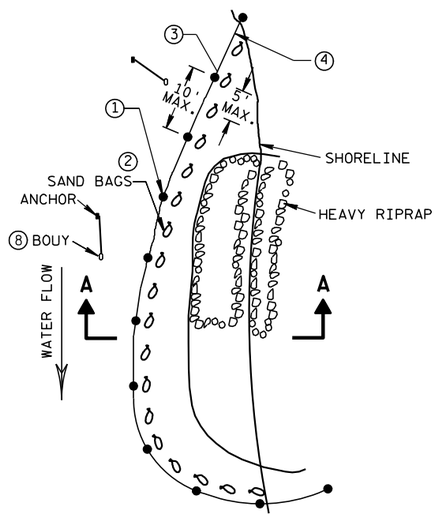




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

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

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

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

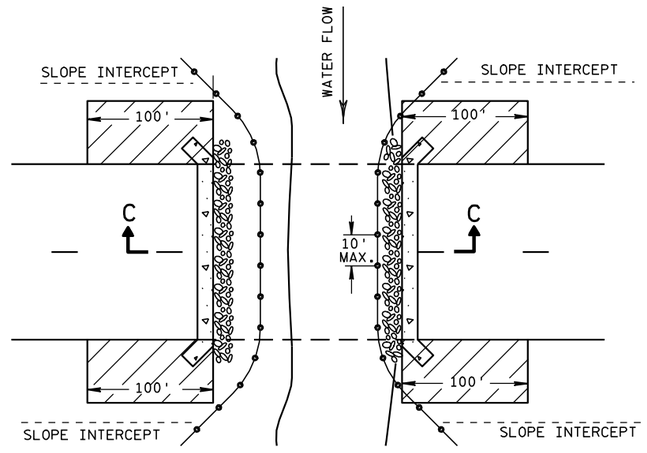
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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

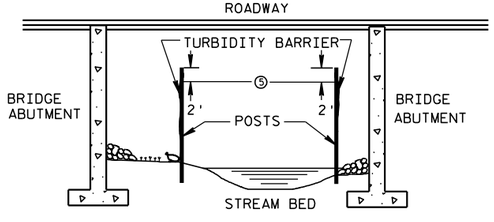
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

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



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

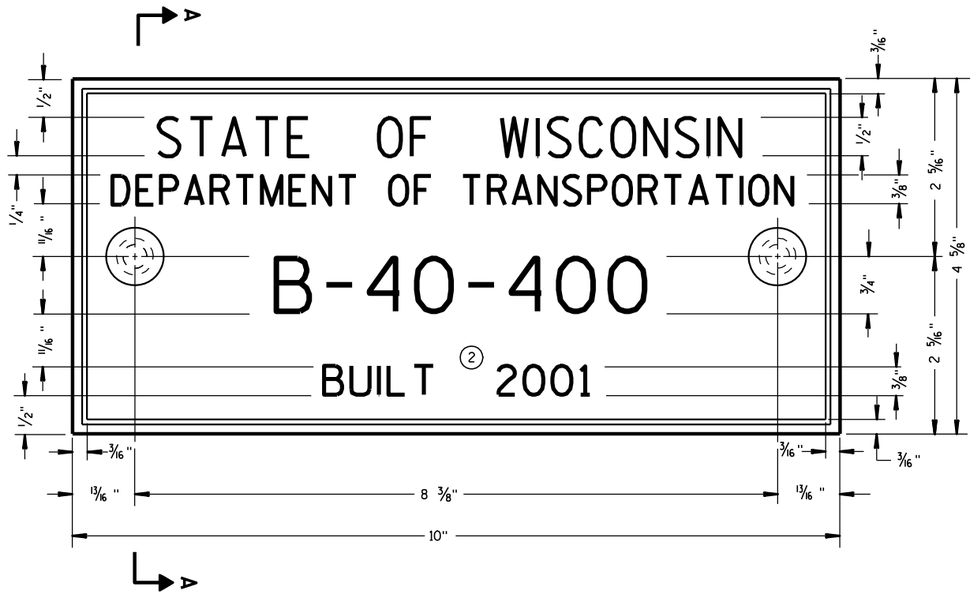
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 11-2

6

S.D.D. 8 E 11-2



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

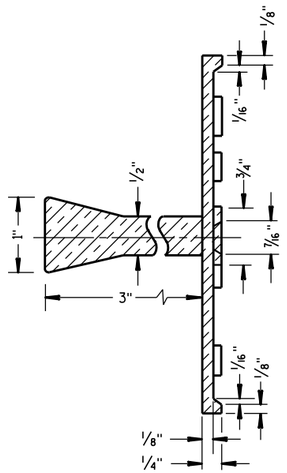
GENERAL NOTES

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

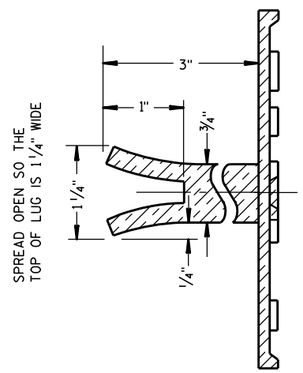
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

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



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

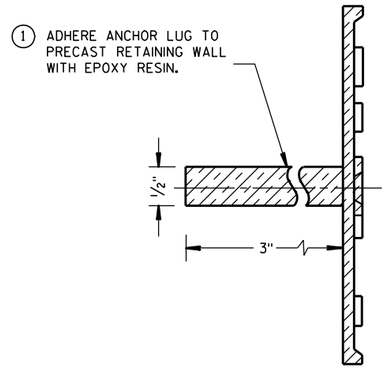
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10

① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

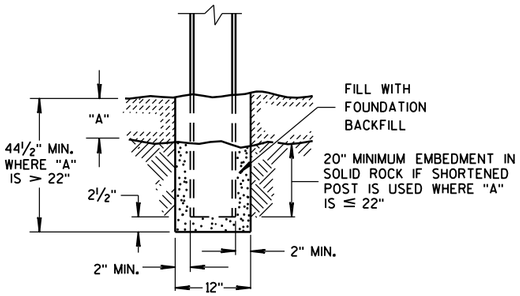
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

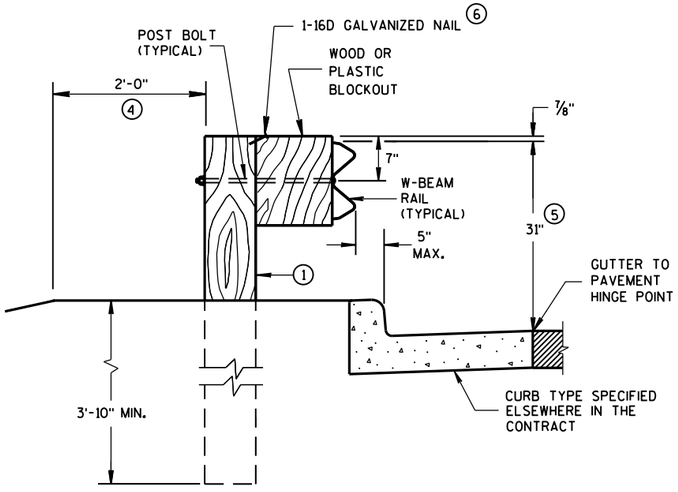
④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

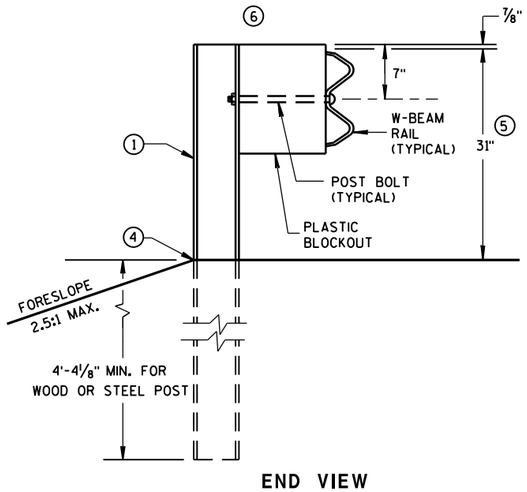
⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



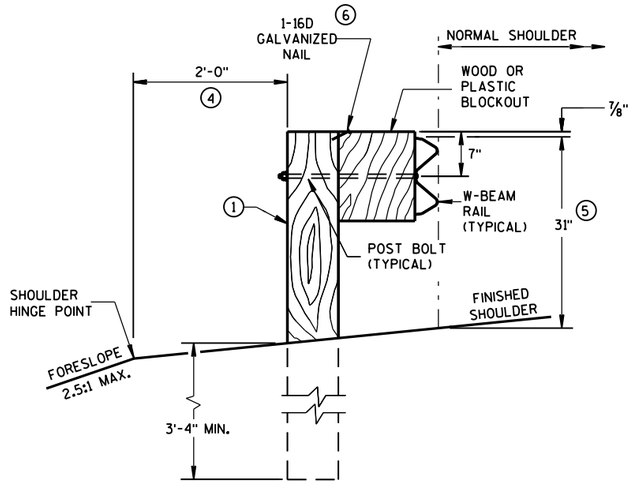
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



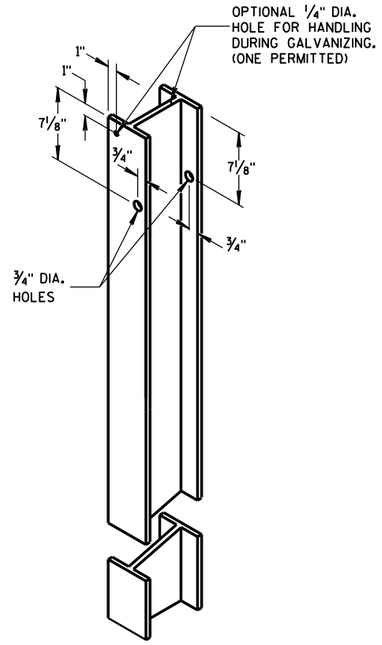
END VIEW
LOCATED ALONG A CURBED ROADWAY



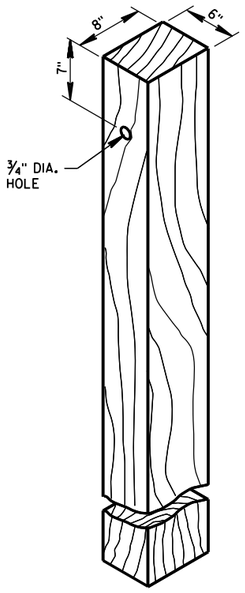
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



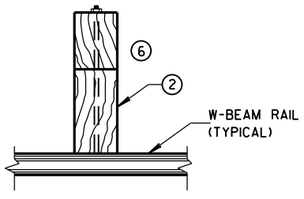
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



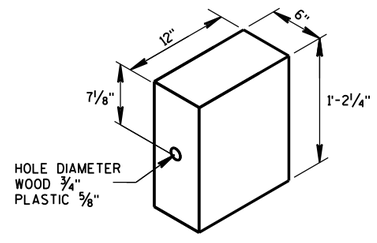
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



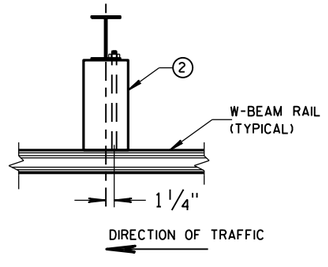
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



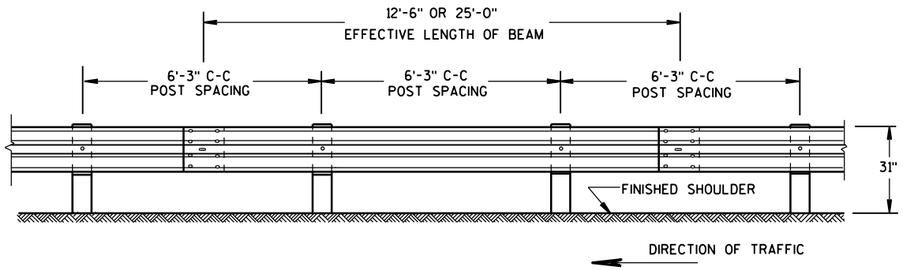
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

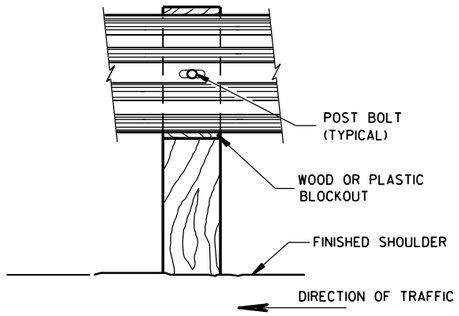
6

S.D.D. 14 B 42-5a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

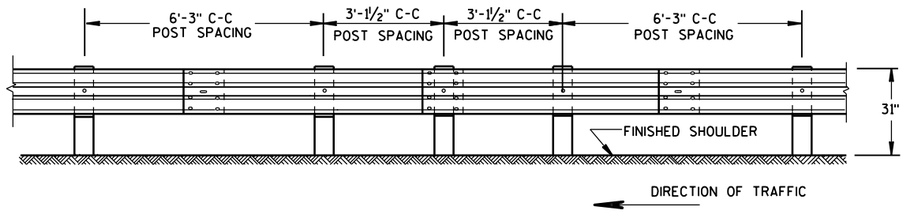
GENERAL NOTES

(8) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

(11) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

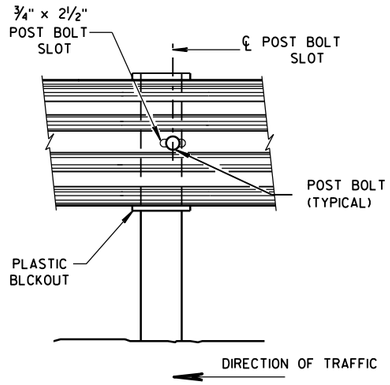
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

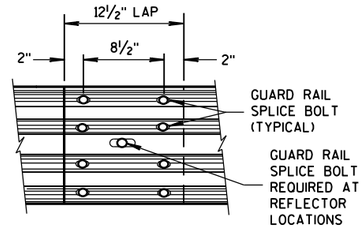


FRONT VIEW

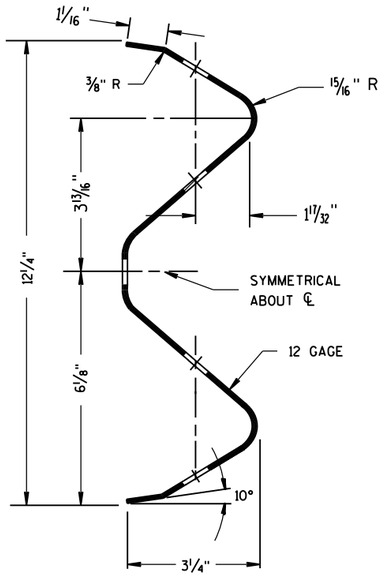
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



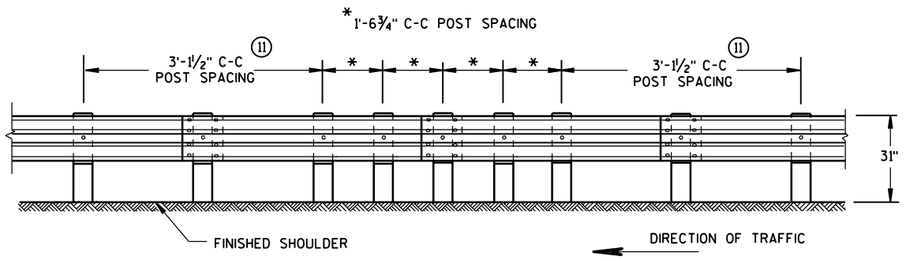
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

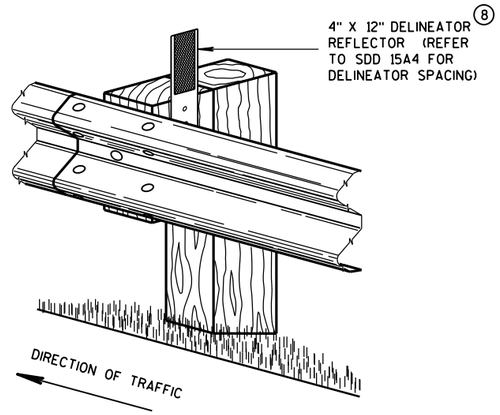


SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)



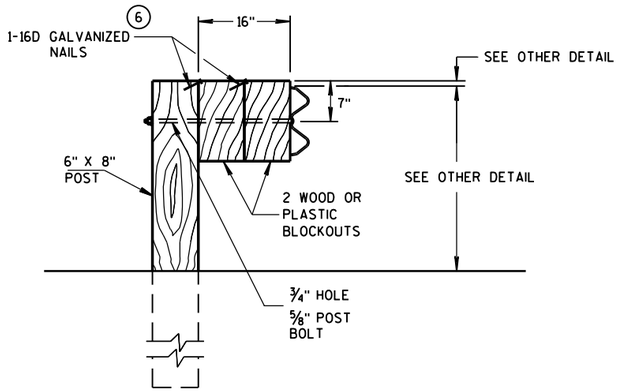
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

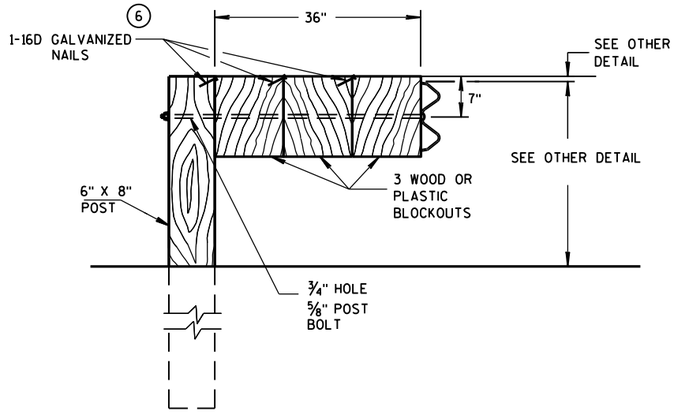
6

S.D.D. 14 B 42-5b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

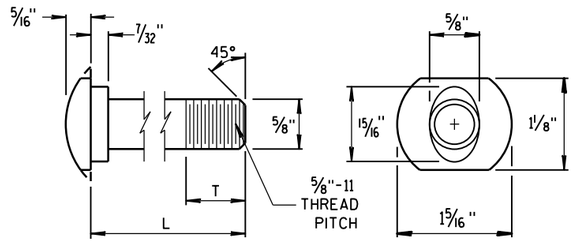


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

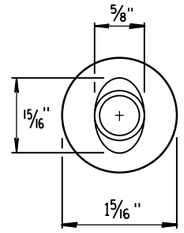
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

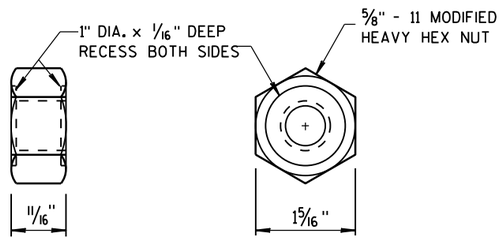


POST BOLT TABLE

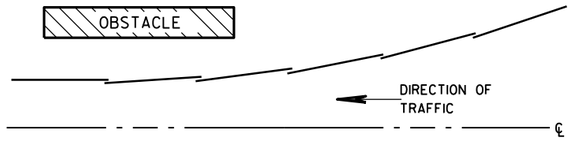
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

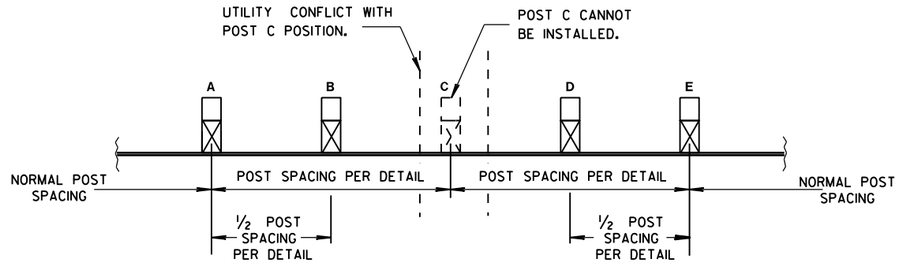


POST BOLT, SPLICE BOLT AND RECESS NUT

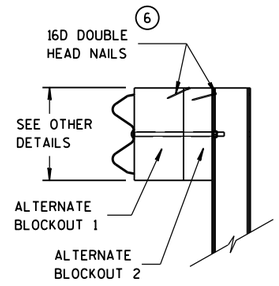


PLAN VIEW

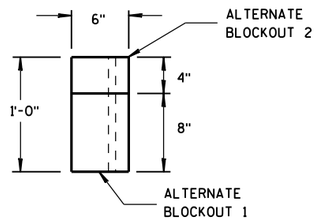
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

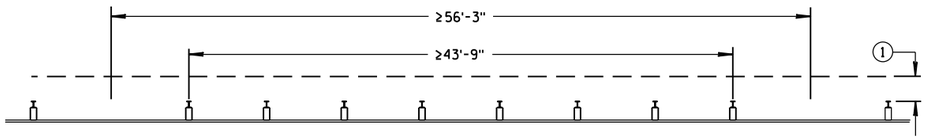
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

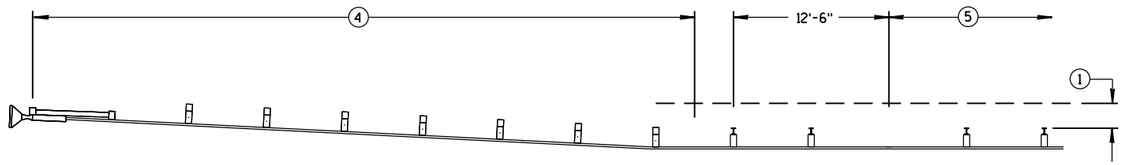
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

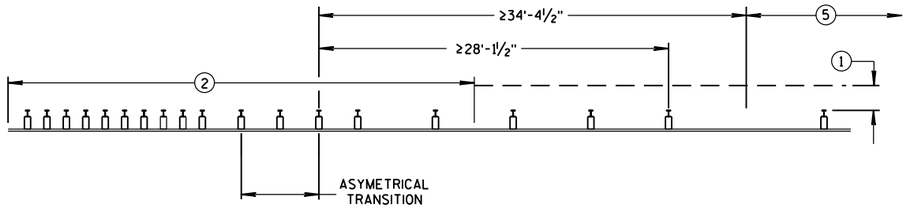
S.D.D. 14 B 42-5c



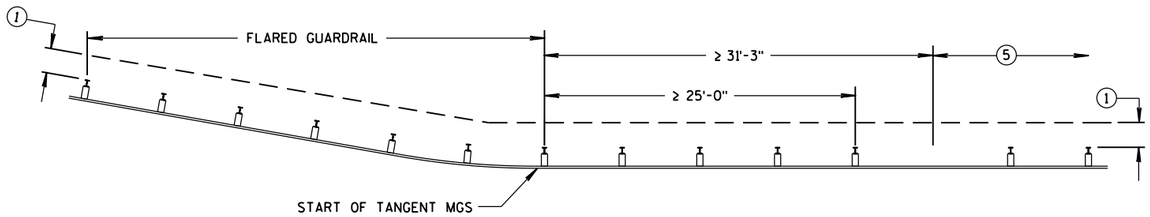
MISSING POST IN NORMAL BEAM GUARD RUN



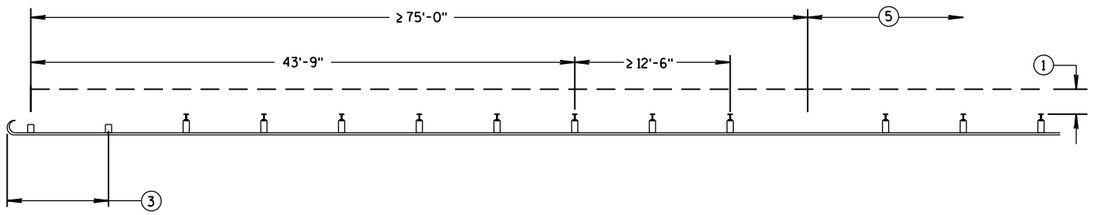
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



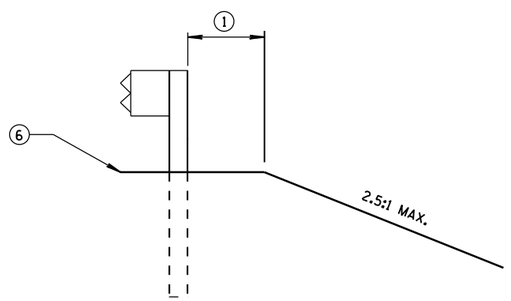
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

(1) MINIMUM OF 2 FEET OF GRADING BEHIND POST.

(2) SEE SDD 14B45 FOR MORE DETAILS.

(3) SEE SDD 14B47 FOR MORE DETAILS.

(4) SEE SDD 14B44 FOR MORE DETAILS.

(5) SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.

(6) SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

6

S.D.D. 14 B 42-5d

6

S.D.D. 14 B 42-5d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

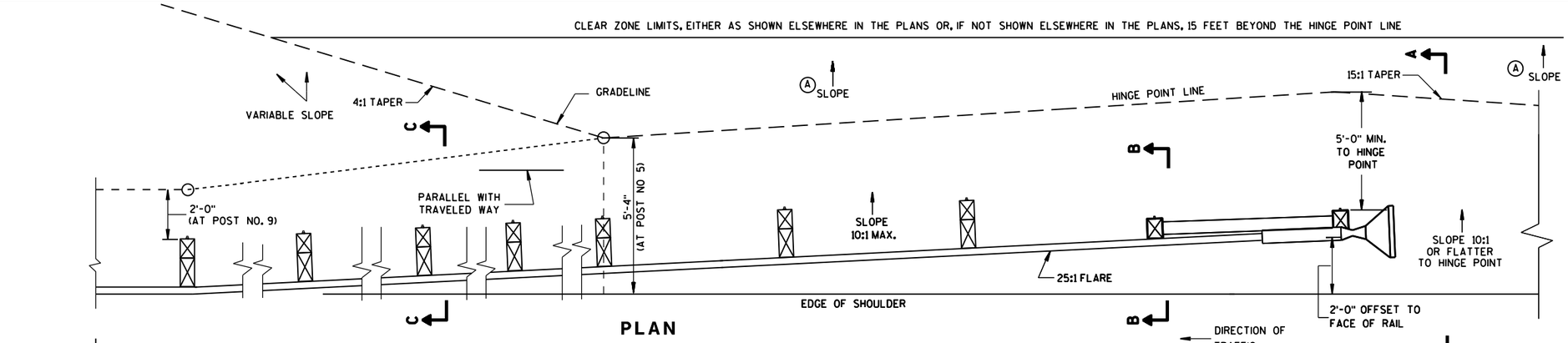
SEE SDD 14B42 FOR MORE INFORMATION.

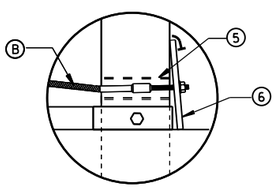
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

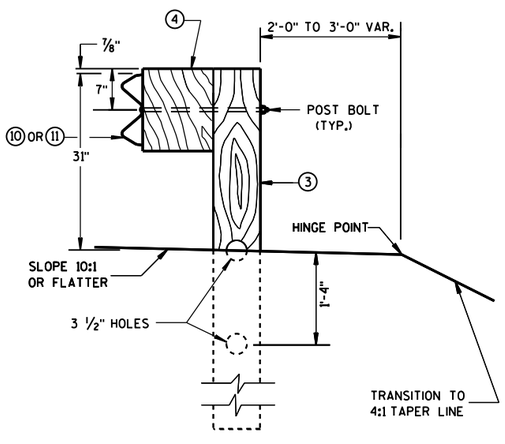
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

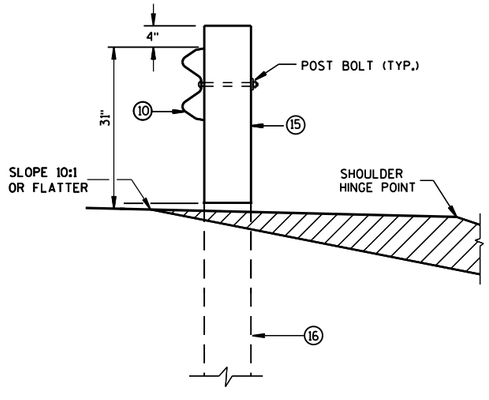
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

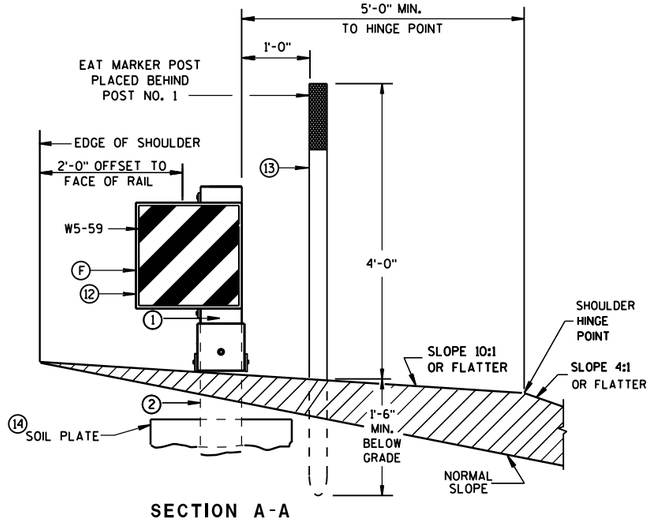
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

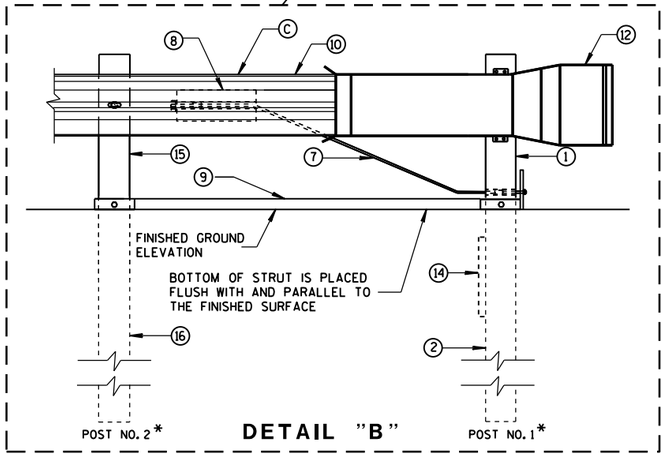








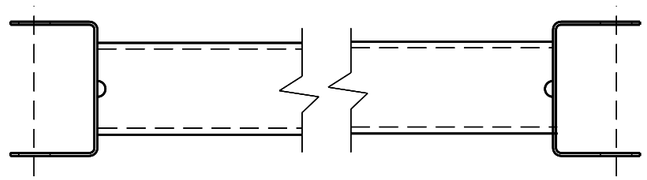




MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

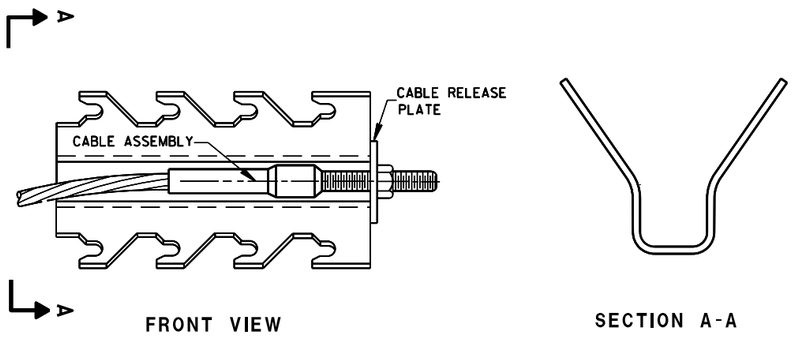
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 44-3a



(9) (H)

GENERIC GROUND STRUT



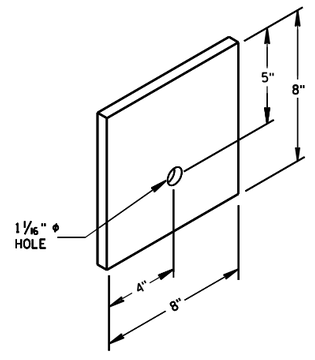
FRONT VIEW

SECTION A-A

GENERIC ANCHOR CABLE BOX (8) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	UPPER POST NO. 1 6" X 6" TUBE
(2)	LOWER POST NO. 1
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	IMPACT HEAD
(13)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
(14)	SOIL PLATE
(15)	UPPER POST NO. 2
(16)	LOWER POST NO. 2



BEARING PLATE (6)

6

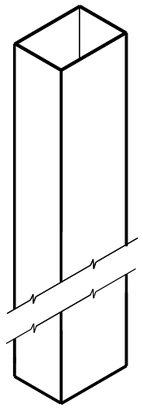
6

S.D.D. 14 B 44-3b

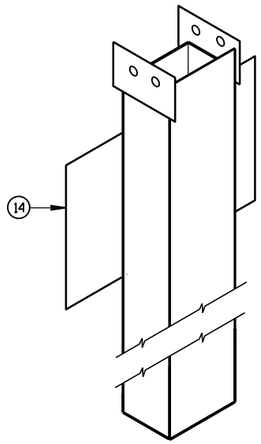
S.D.D. 14 B 44-3b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

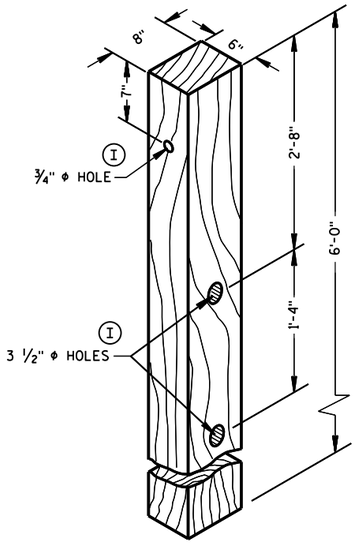
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR



UPPER POST NO. 1 (1)

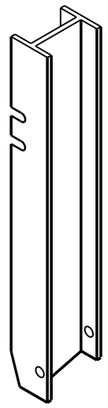


LOWER POST NO. 1 (2)

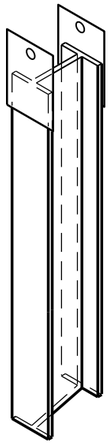


POSTS NUMBER 3-9

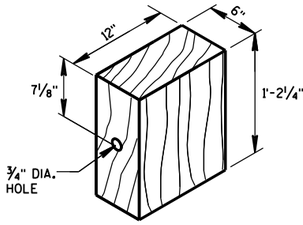
WOOD CRT POST (3)



UPPER POST NO. 2 (15)

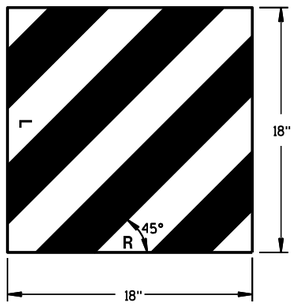


LOWER POST NO. 2 (16)



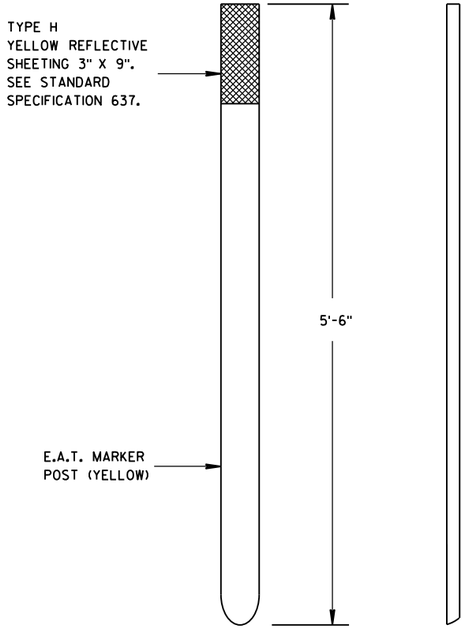
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



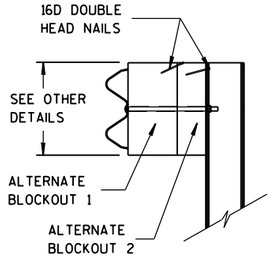
W5-59

REFLECTIVE SHEETING DETAIL (H)

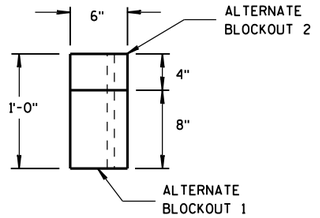


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

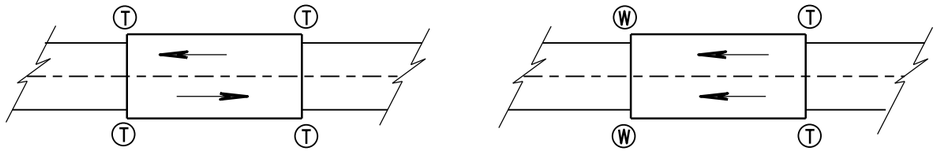
June 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERVISOR

FHWA

6

S.D.D. 14 B 44-3c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

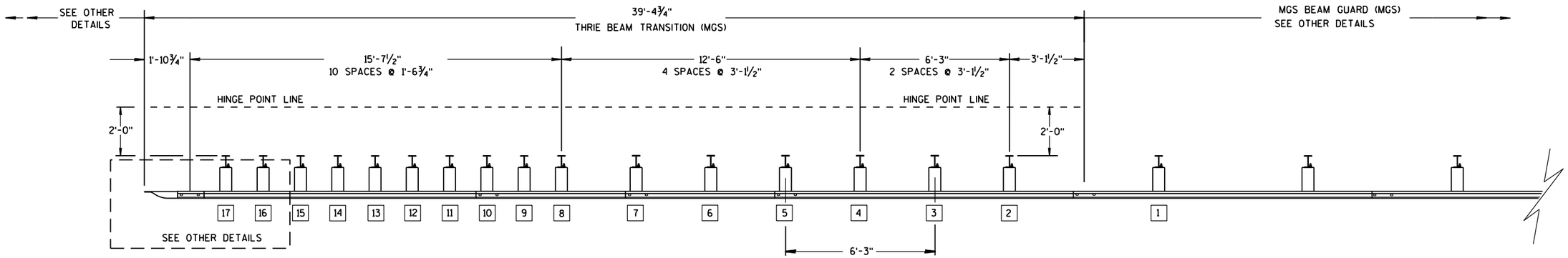
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

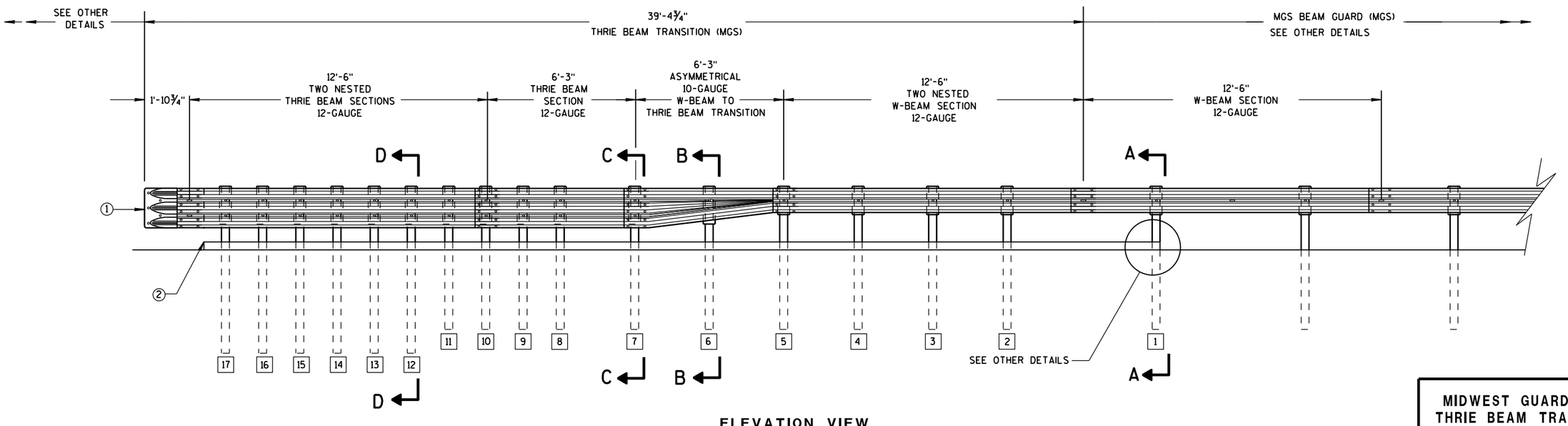
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

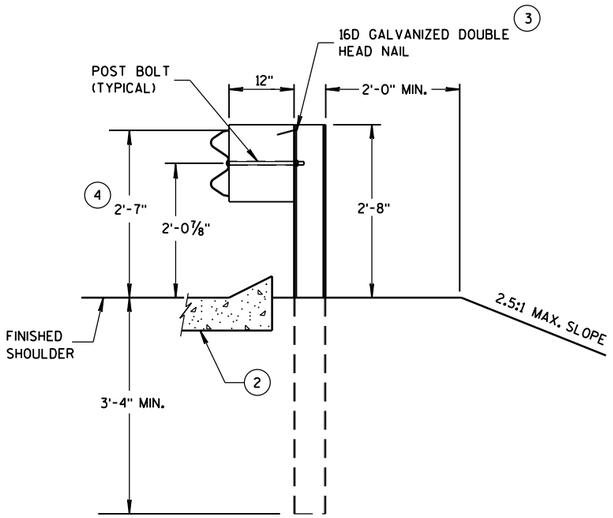
S.D.D. 14 B 45-4a

GENERAL NOTES

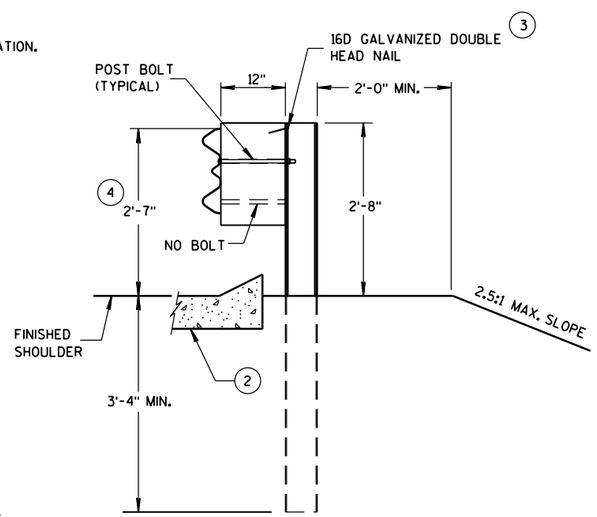
(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

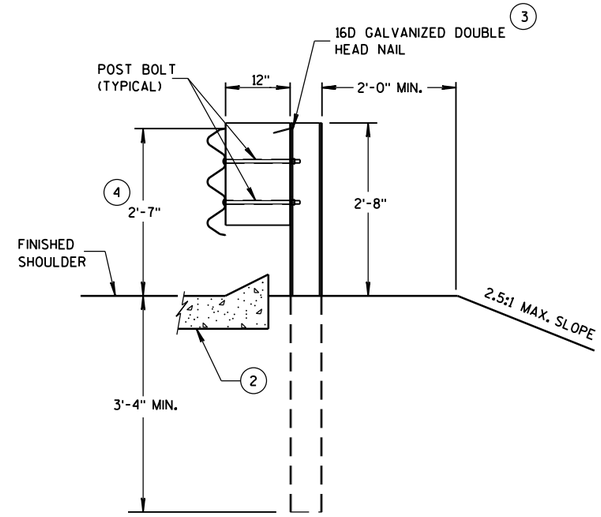
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



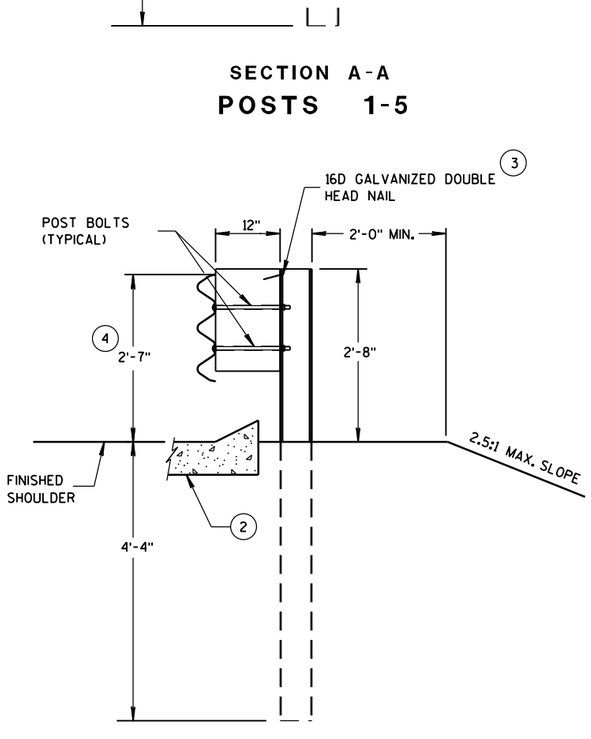
SECTION A-A
POSTS 1-5



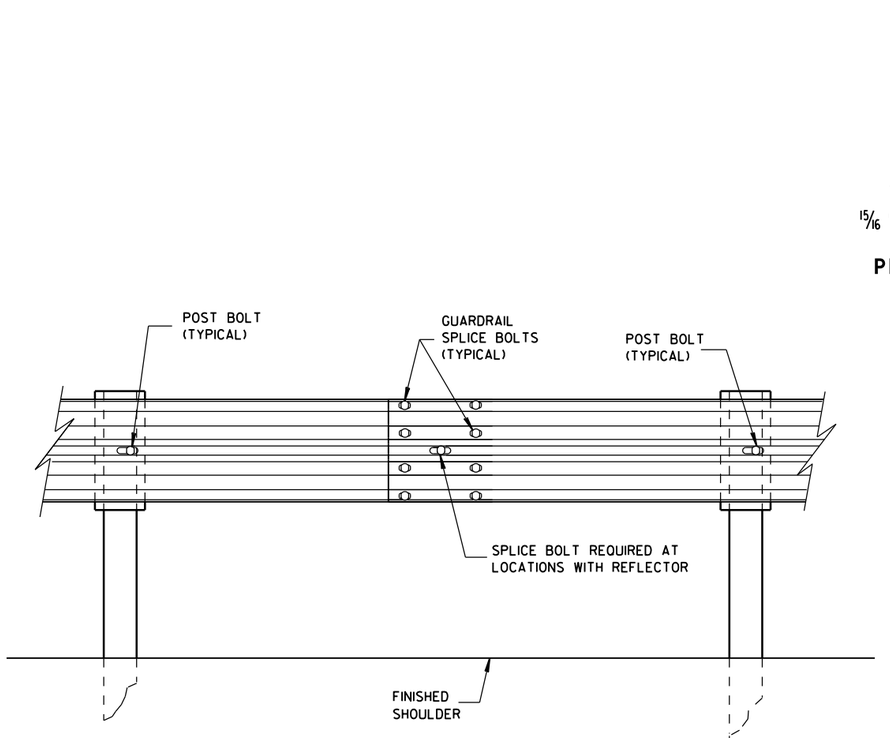
SECTION B-B
POST 6



SECTION C-C
POSTS 7-11



SECTION D-D
POSTS 12-17



SPLICE DETAIL

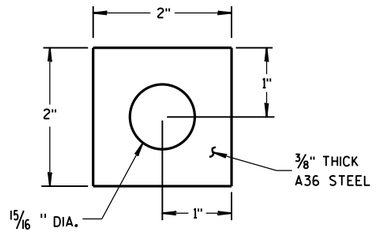
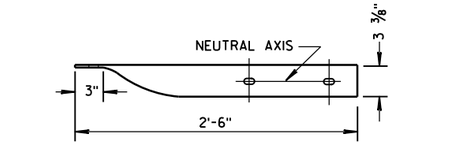
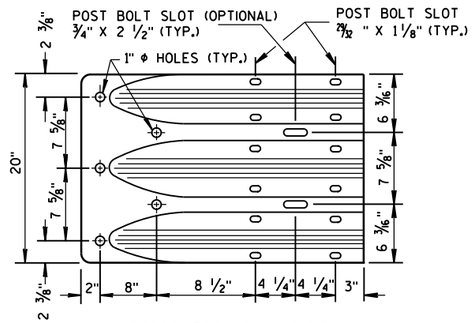
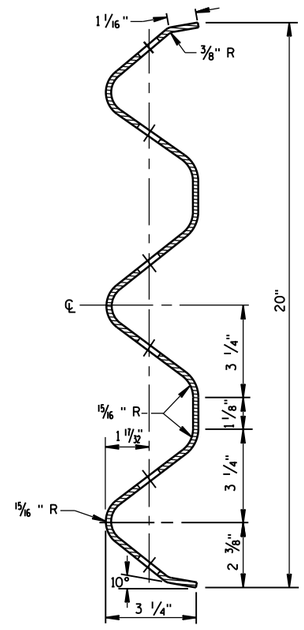


PLATE WASHER DETAIL





THRIE BEAM TERMINAL CONNECTOR



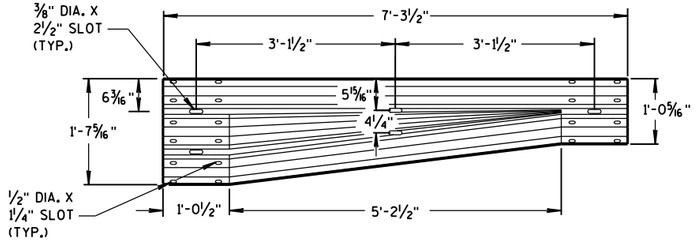
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

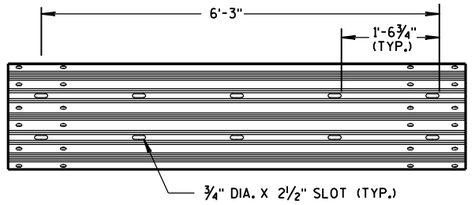
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

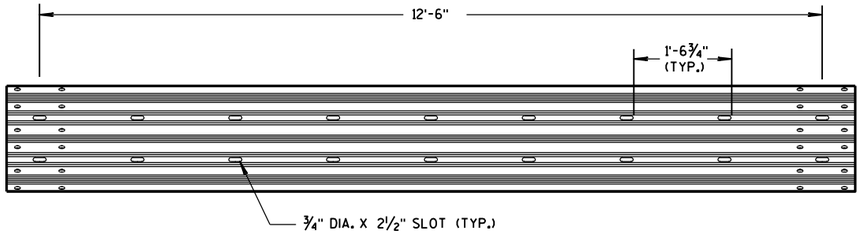
S.D.D. 14 B 45-4b



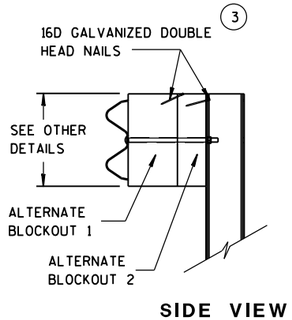
W-BEAM TO THRIE BEAM TRANSITION SECTION



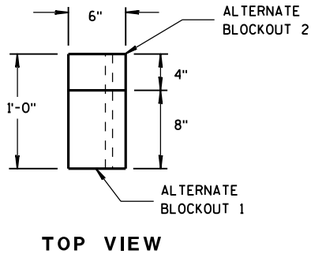
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

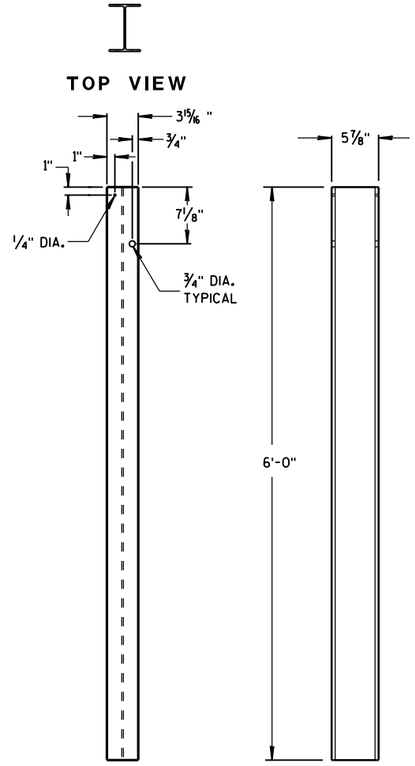


SIDE VIEW



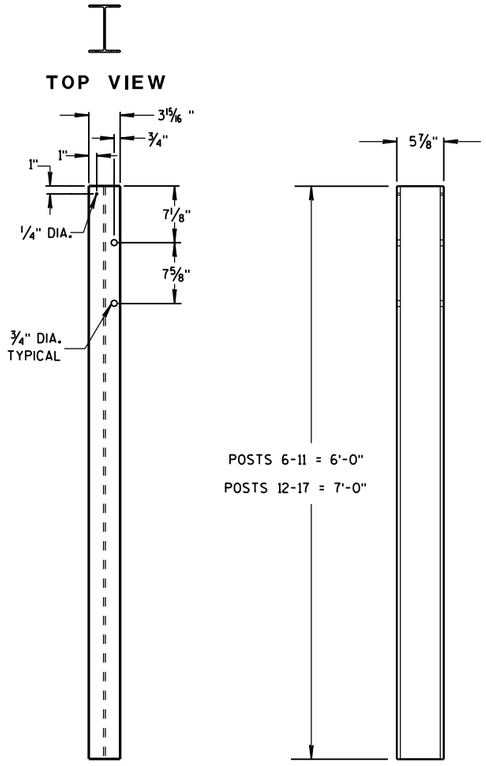
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



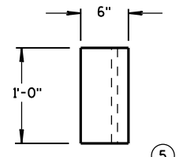
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

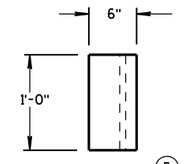


FRONT VIEW SIDE VIEW

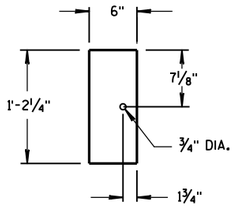
STEEL POSTS 6-17



TOP VIEW (5)

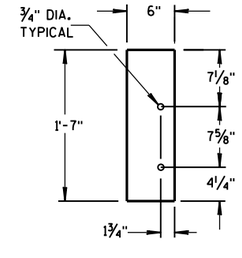


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

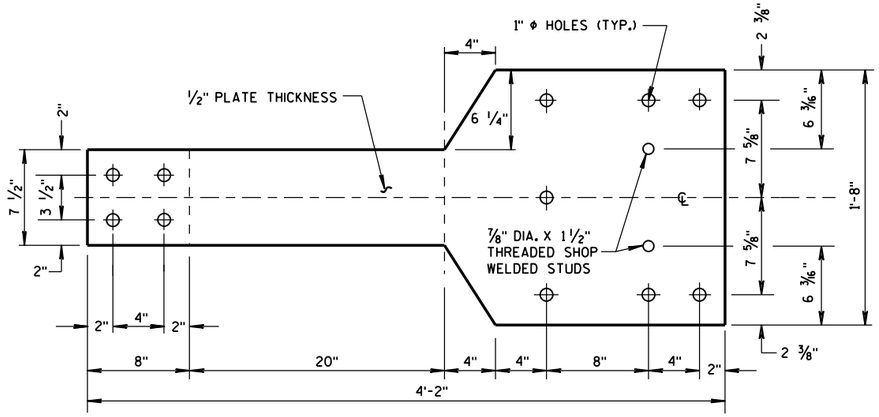
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

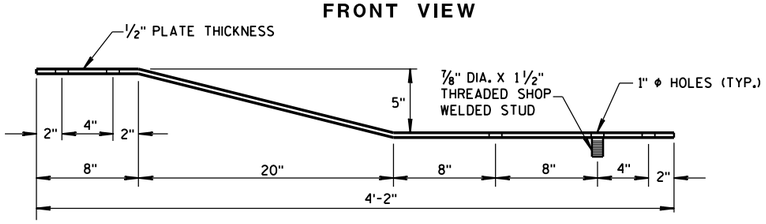
S.D.D. 14 B 45-4c

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

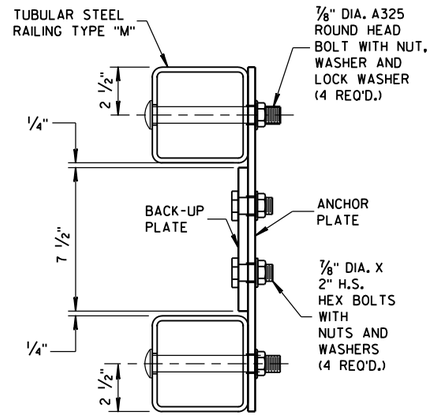


FRONT VIEW

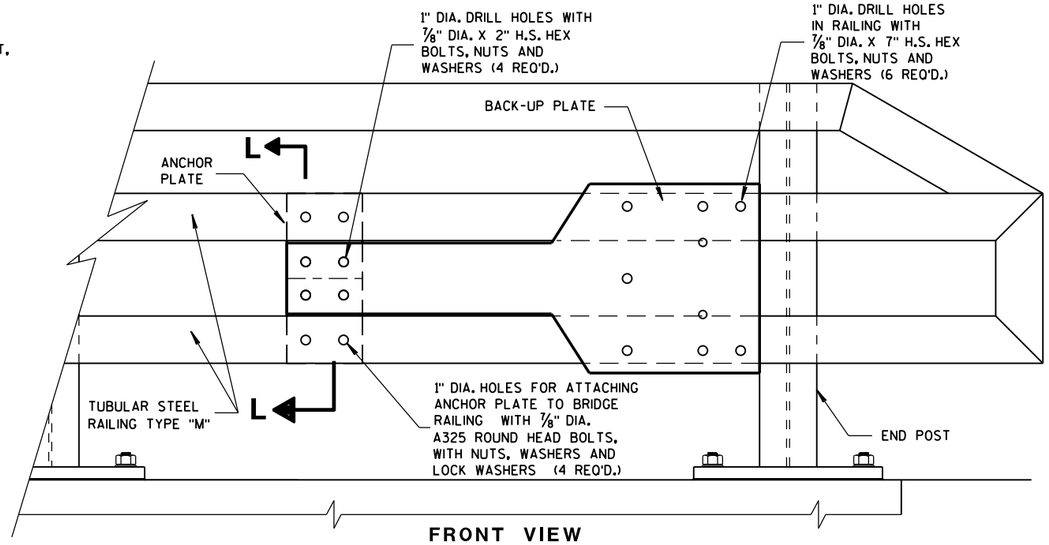


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

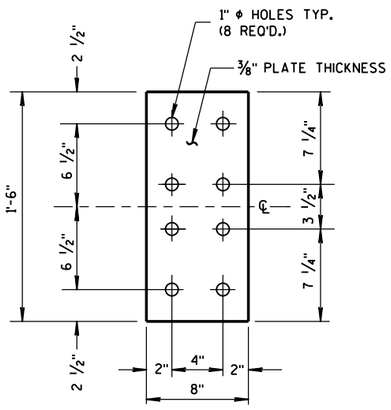


SECTION L-L



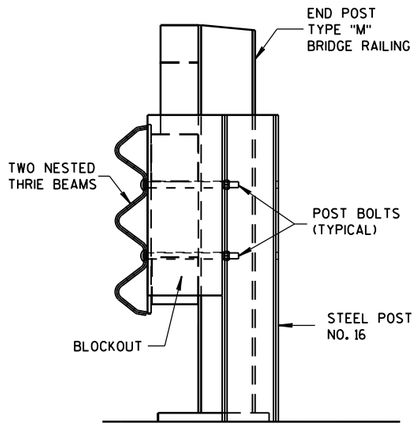
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

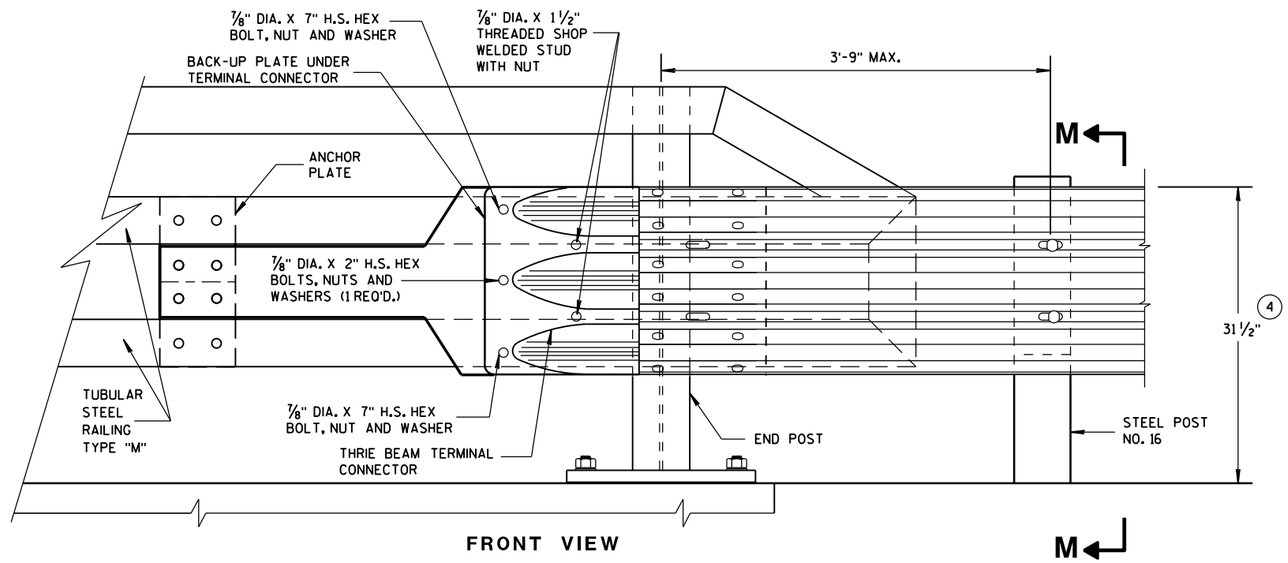


FRONT VIEW

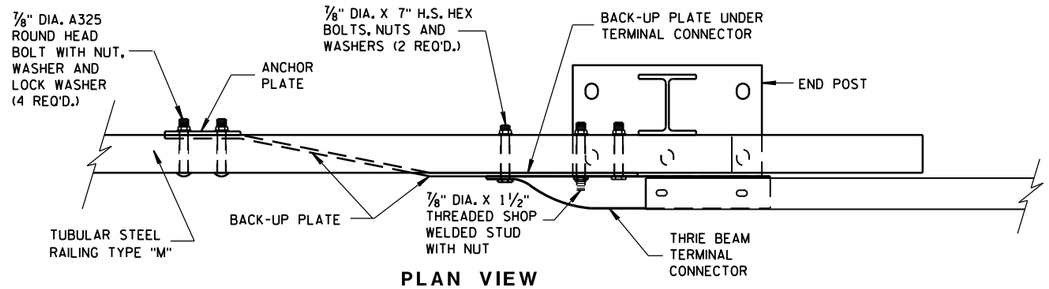
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

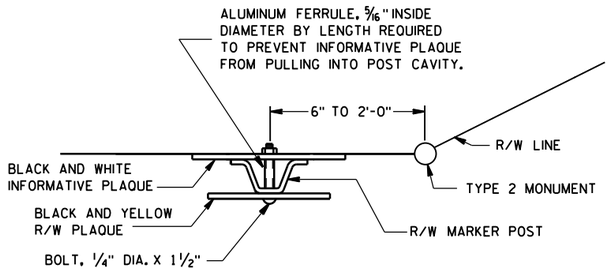
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

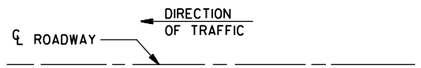
6

S.D.D. 14 B 45-4h

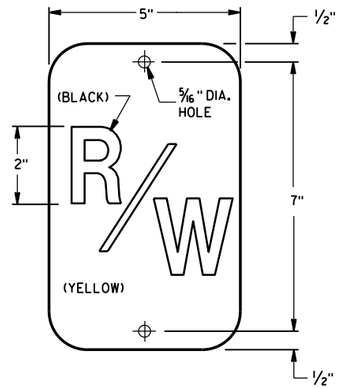
6

S.D.D. 14 B 45-4h



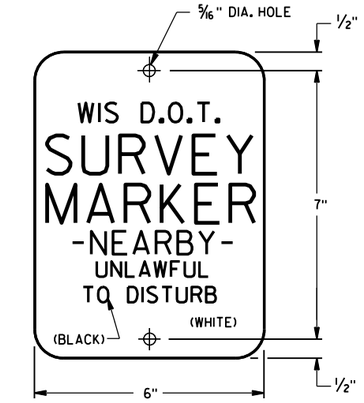


PLAN VIEW



R/W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

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

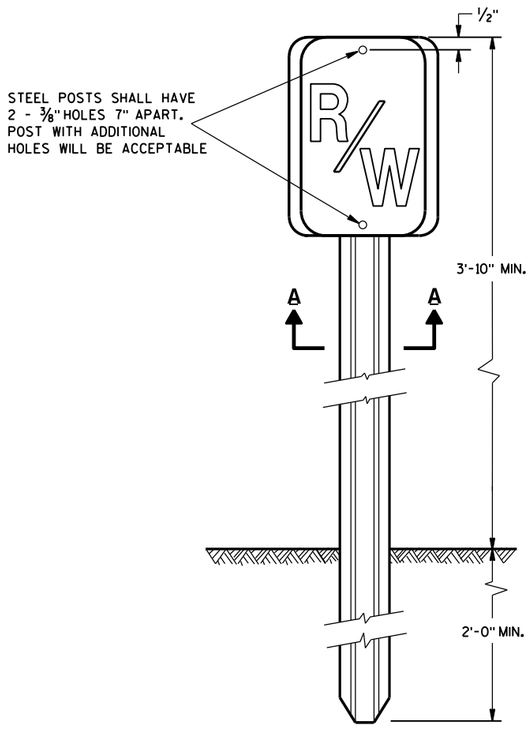
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

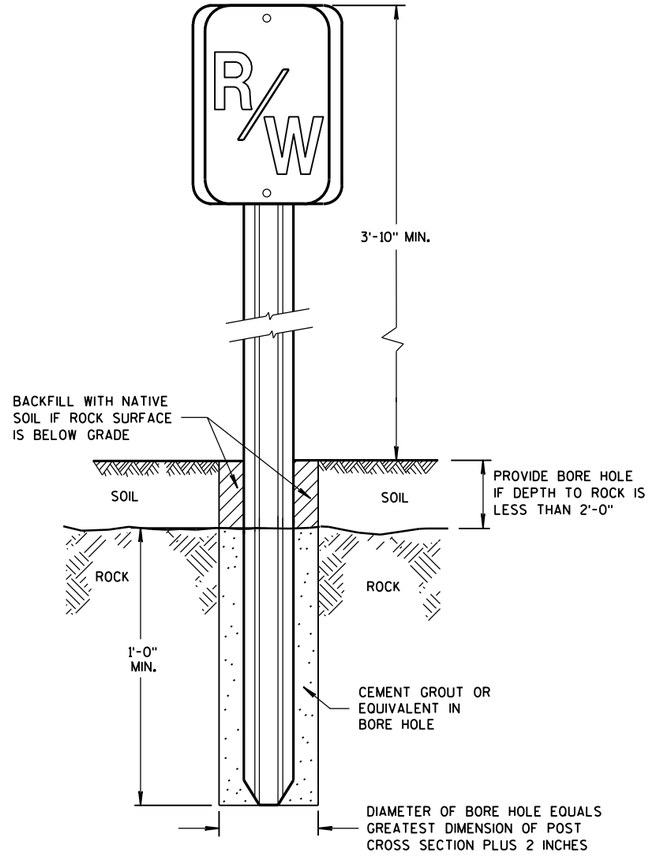
STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

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

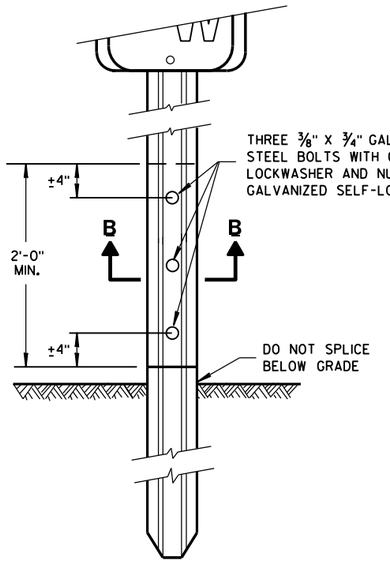
FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT. DEPENDING ON THE STABILITY OF THE ROCK.



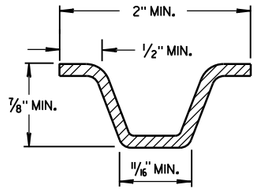
FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION (1)

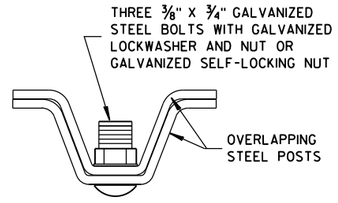


FRONT VIEW
SPLICE DETAIL



MIN. WEIGHT 1.12 LB./FT.

SECTION A-A



SECTION B-B

MARKER POST FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

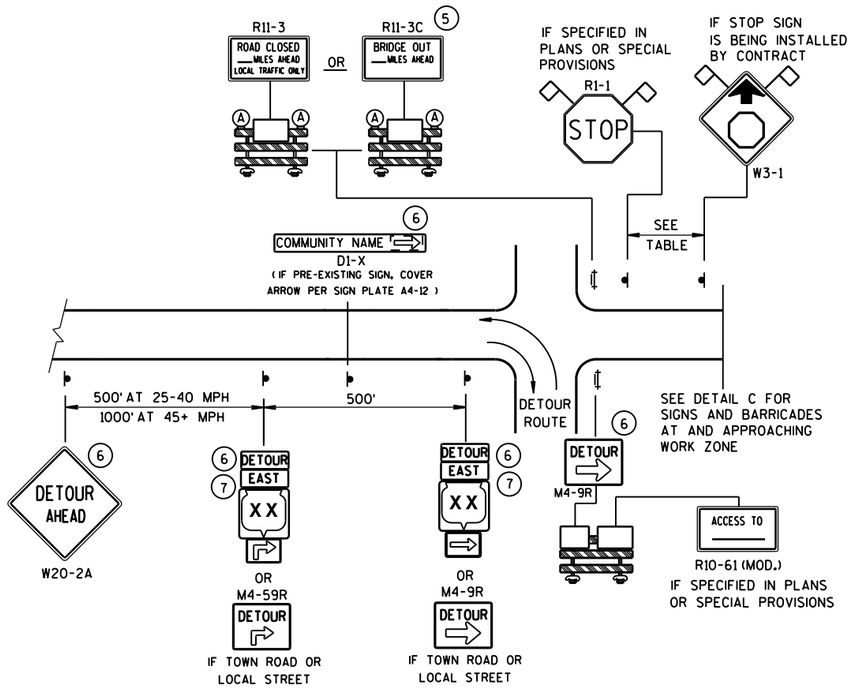
APPROVED
2/18/2016 — DATE
/S/ Ray Kumapayi — CHIEF SURVEYING AND MA[illegible]INEER
FHWA

6

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

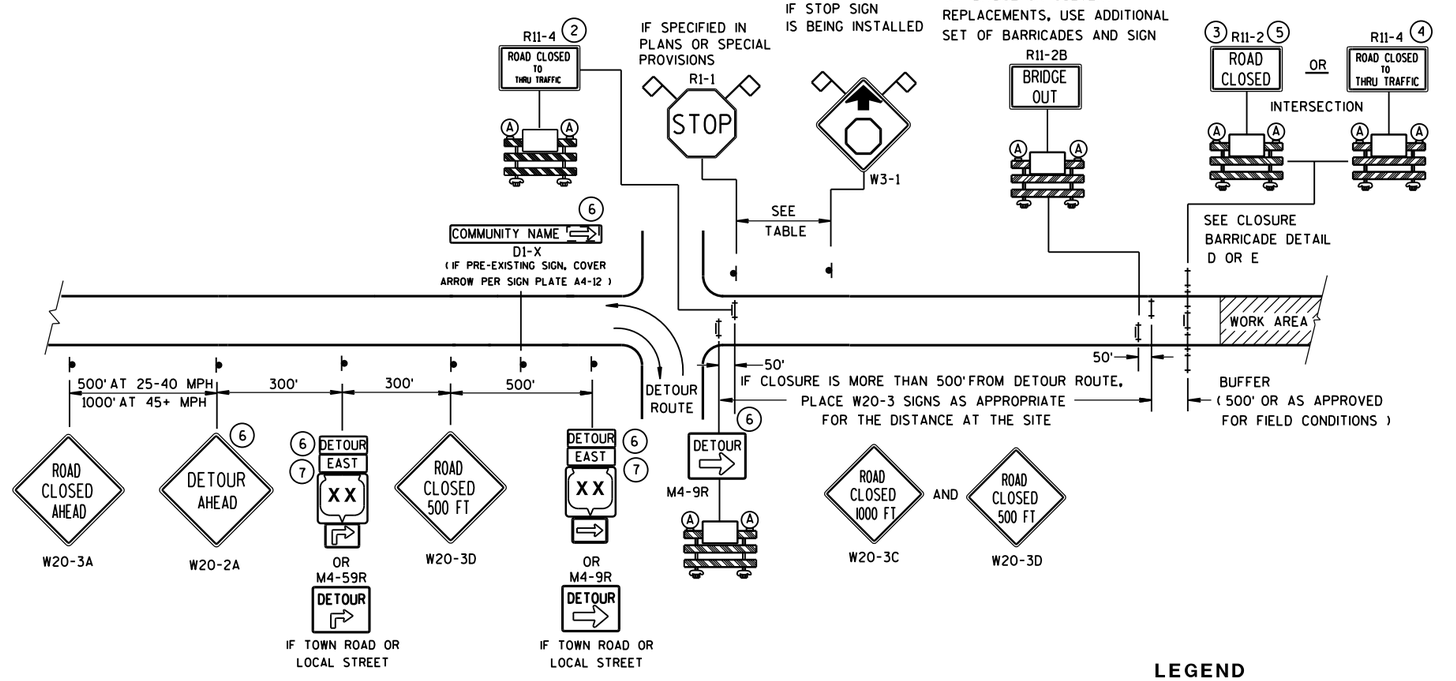
6

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



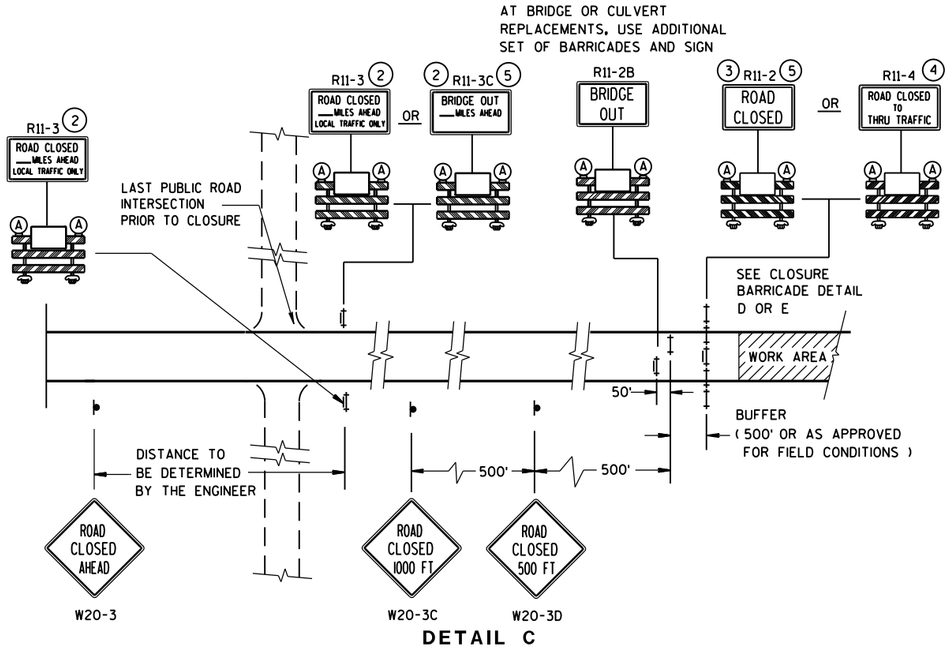
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

LEGEND

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

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

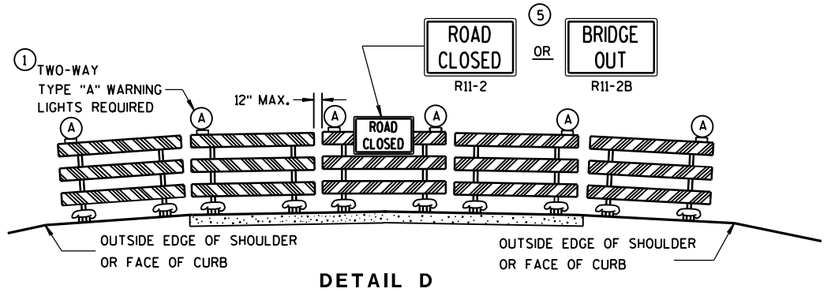
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

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

6

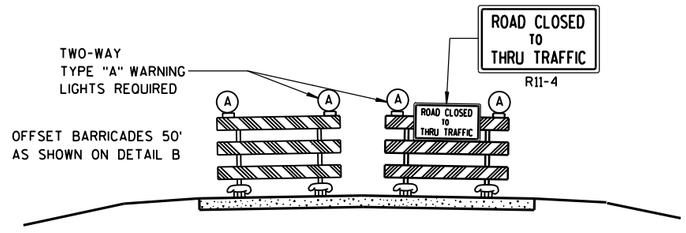
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

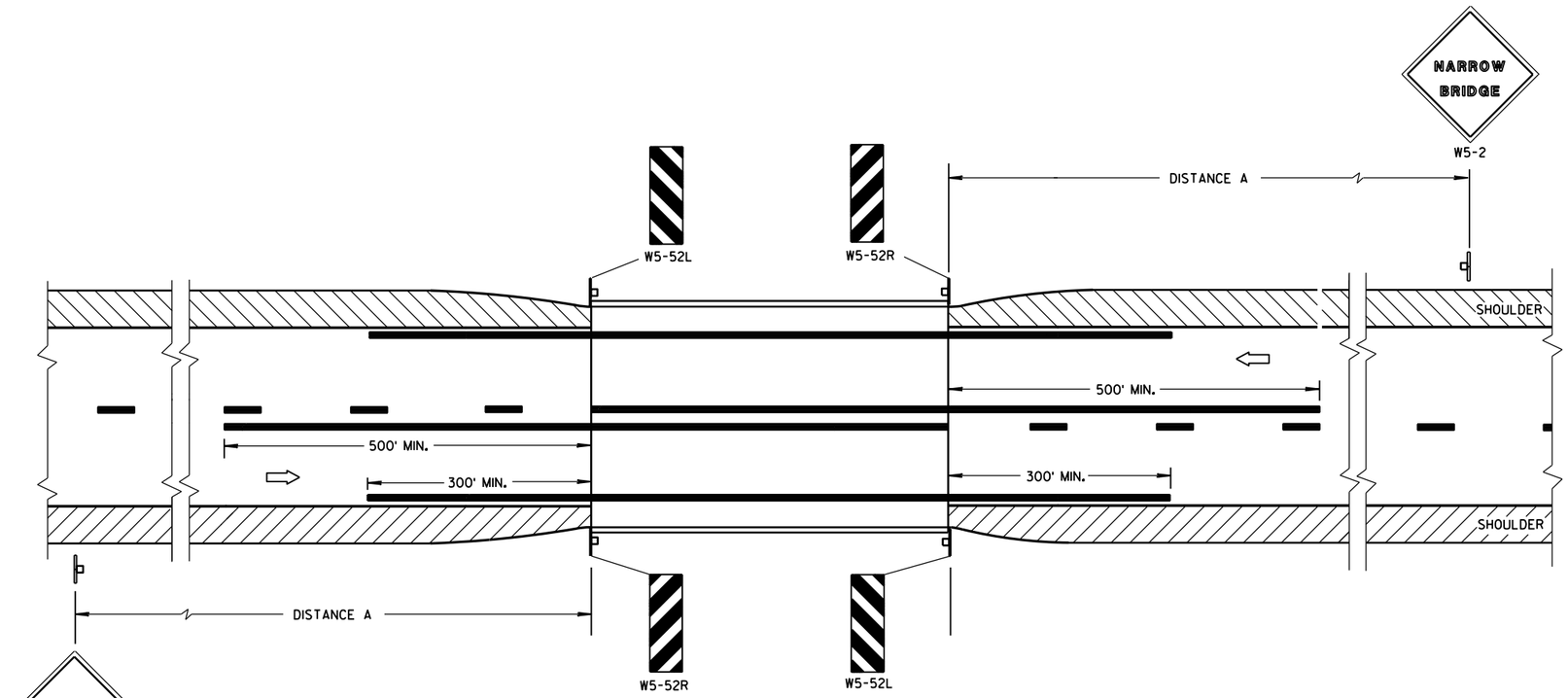
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

6

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



SITUATION 1

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

DISTANCE TABLE

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

GENERAL NOTES

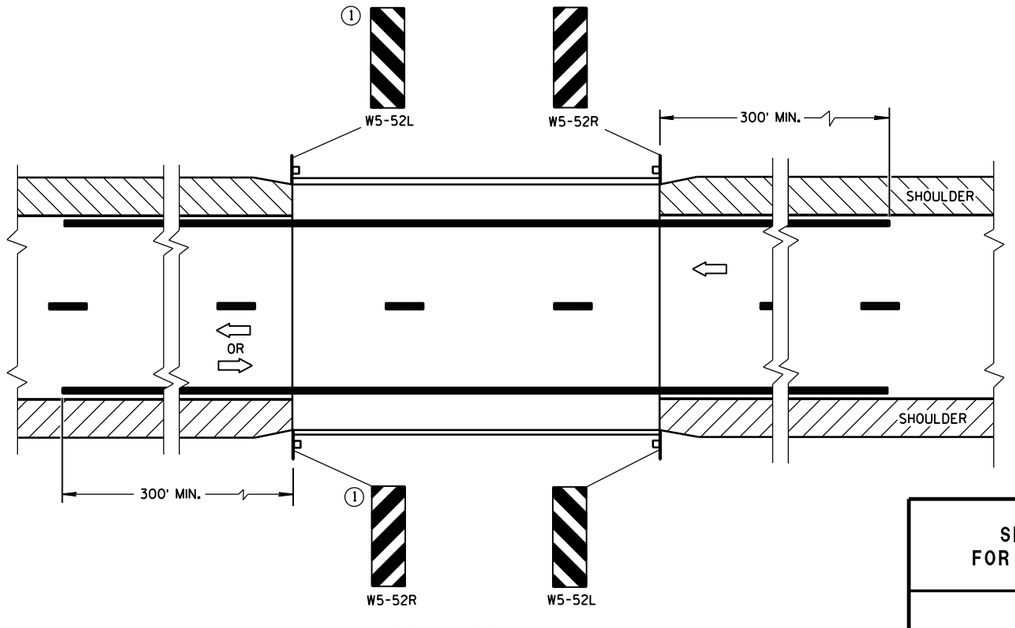
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

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

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

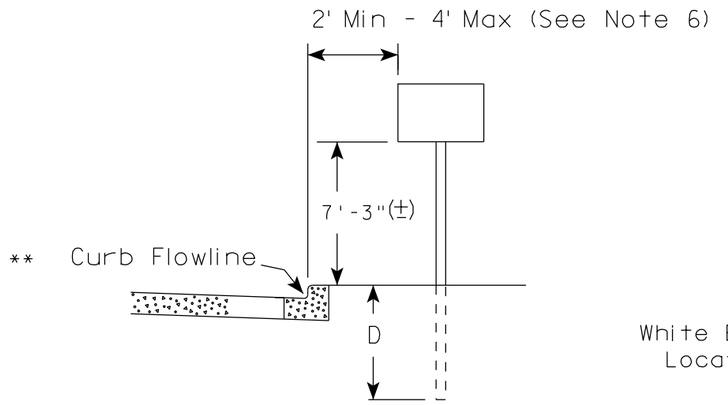
6

S.D.D. 15 C 6-9

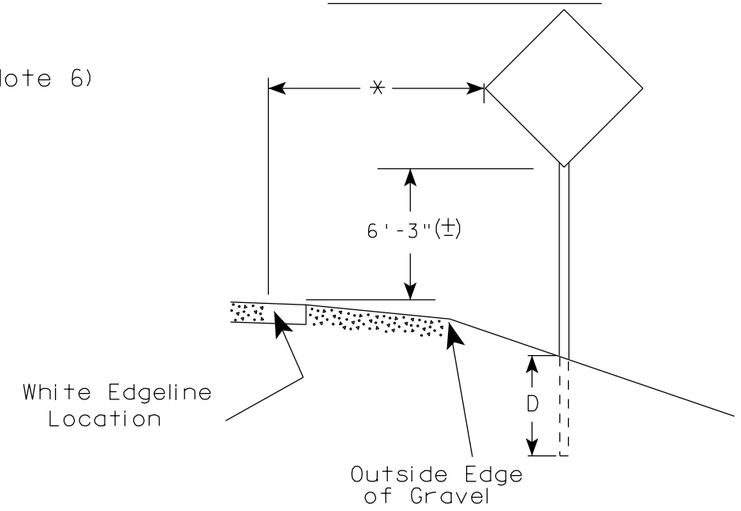
6

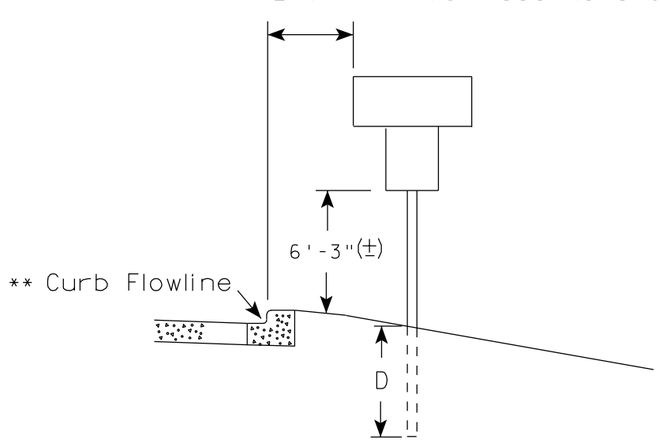
S.D.D. 15 C 6-9

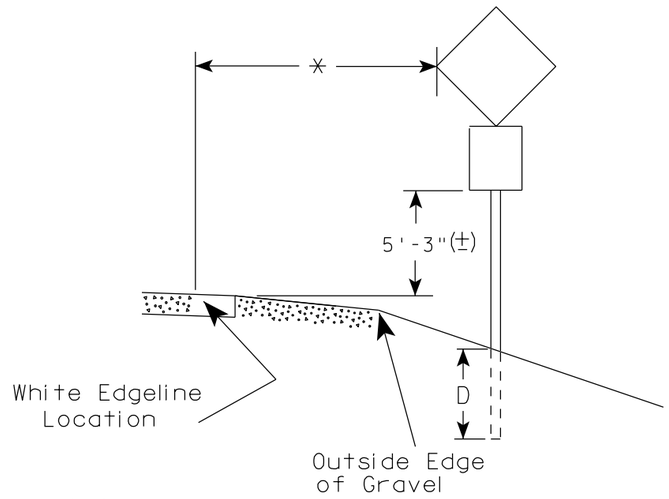
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

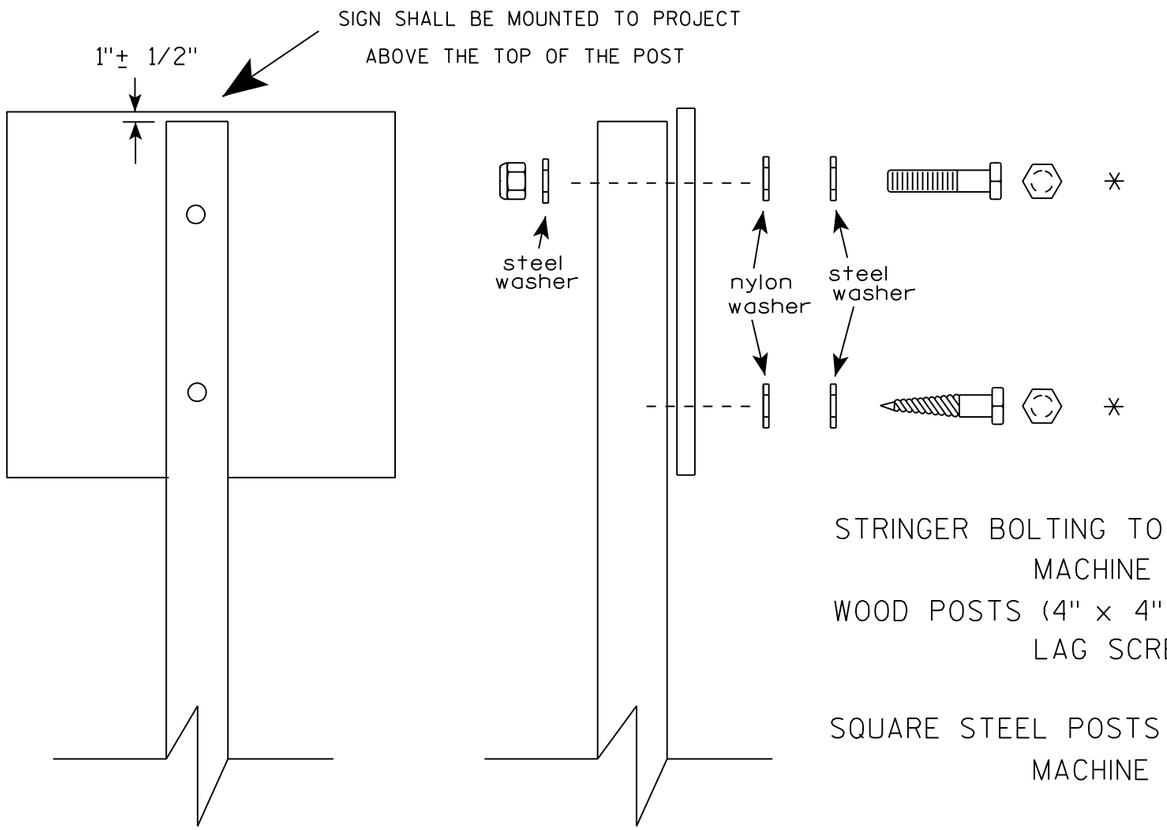
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

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

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

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

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

WOOD POSTS (4" x 4" or 4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

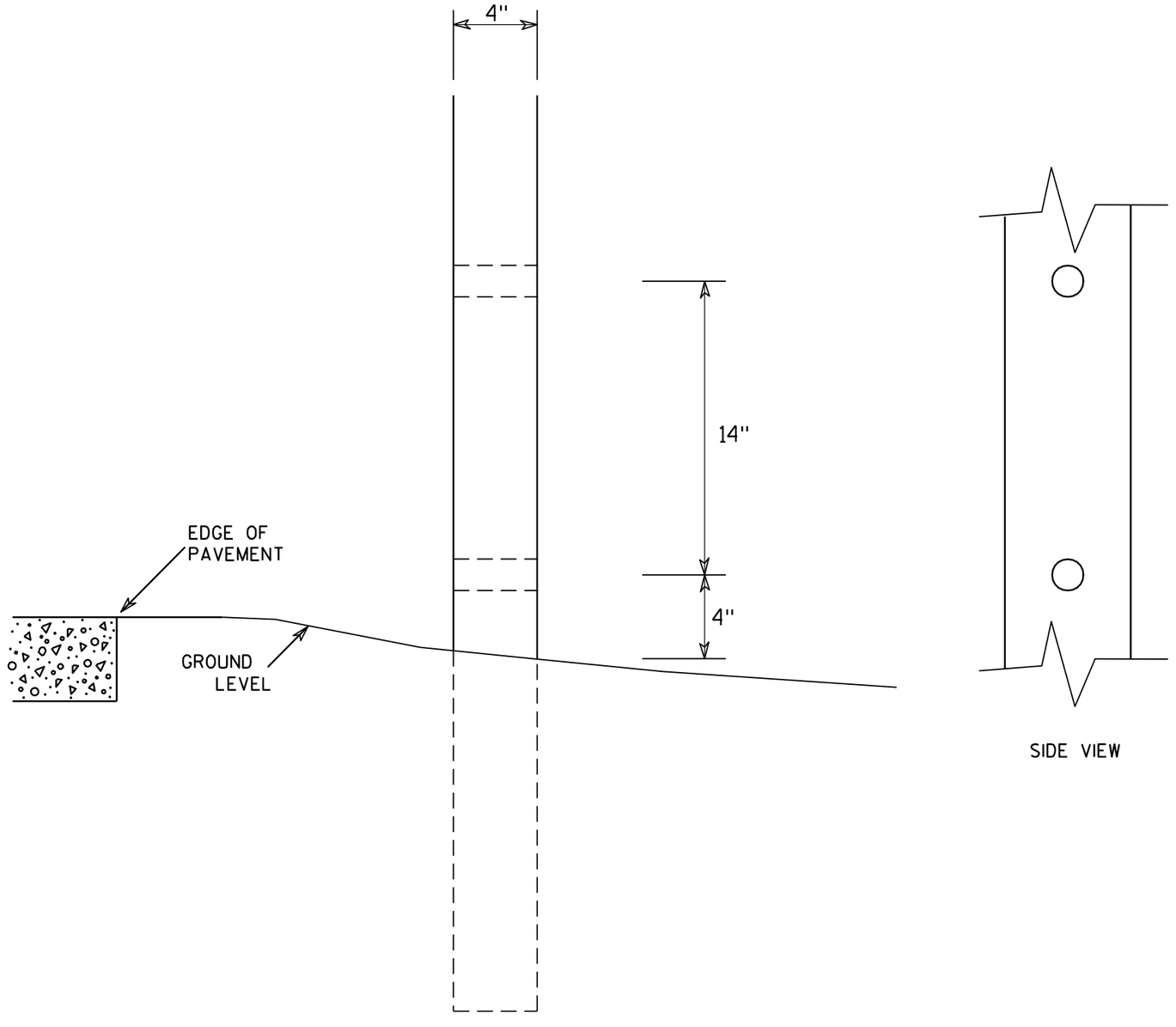
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: SHEET NO: E



SIDE VIEW

GENERAL NOTES

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

7

7

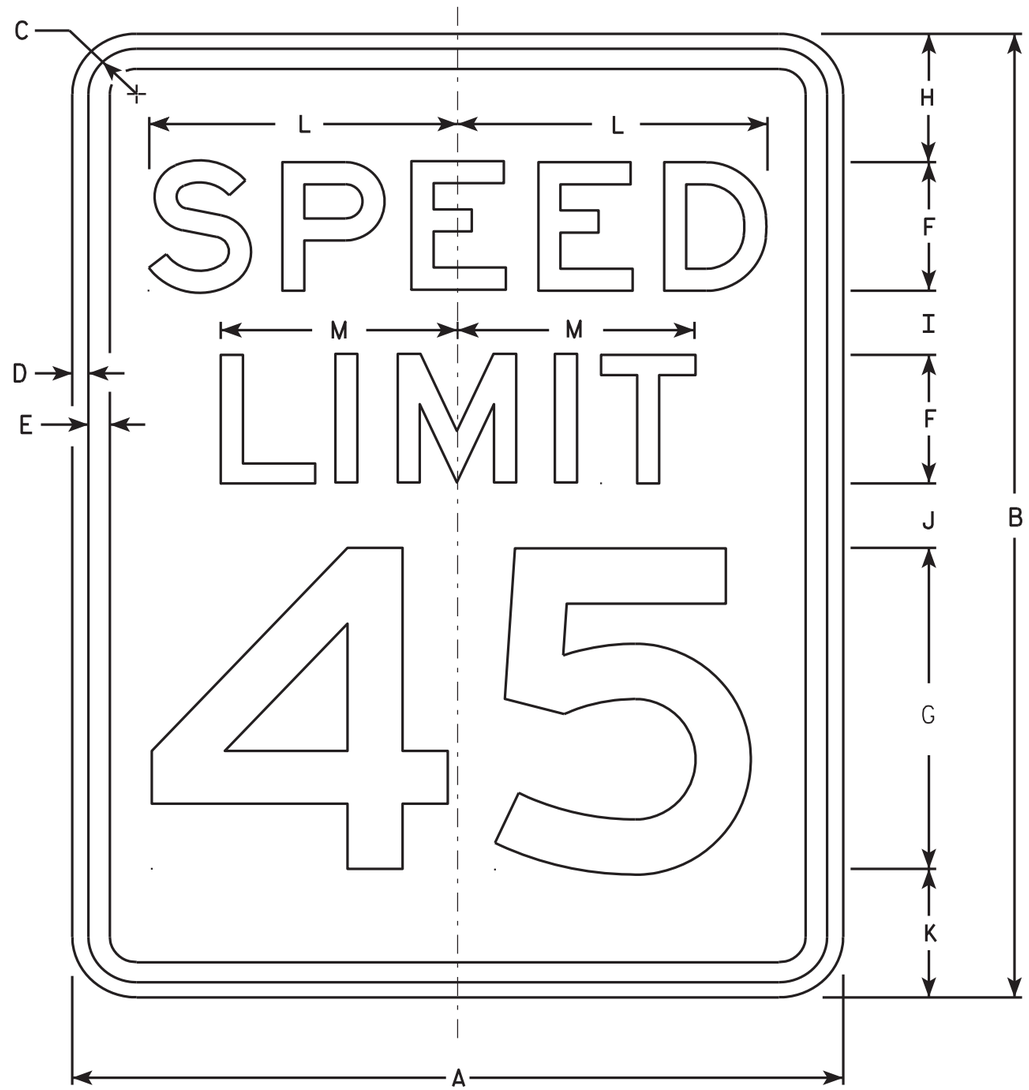
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 36	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. 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.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

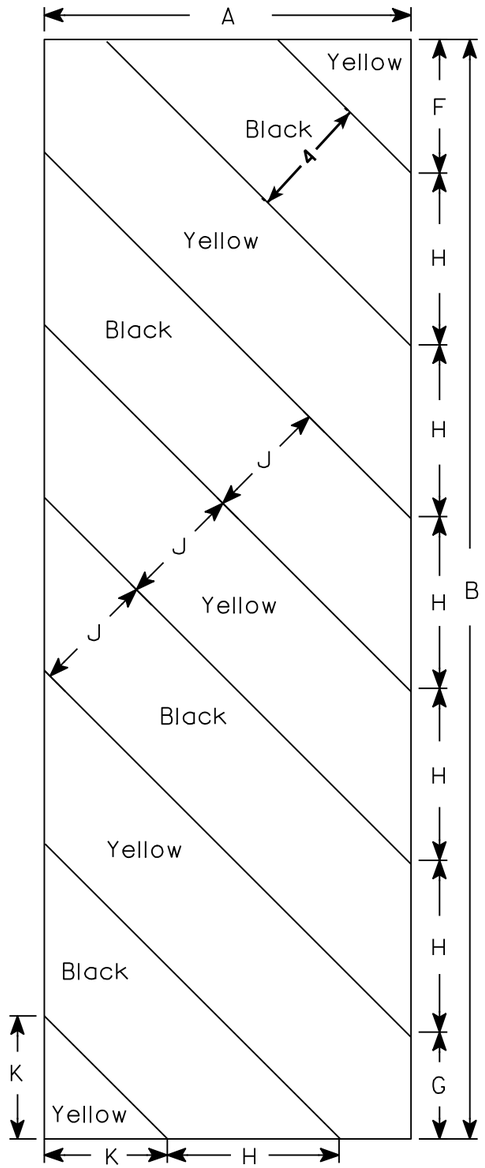
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 37 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

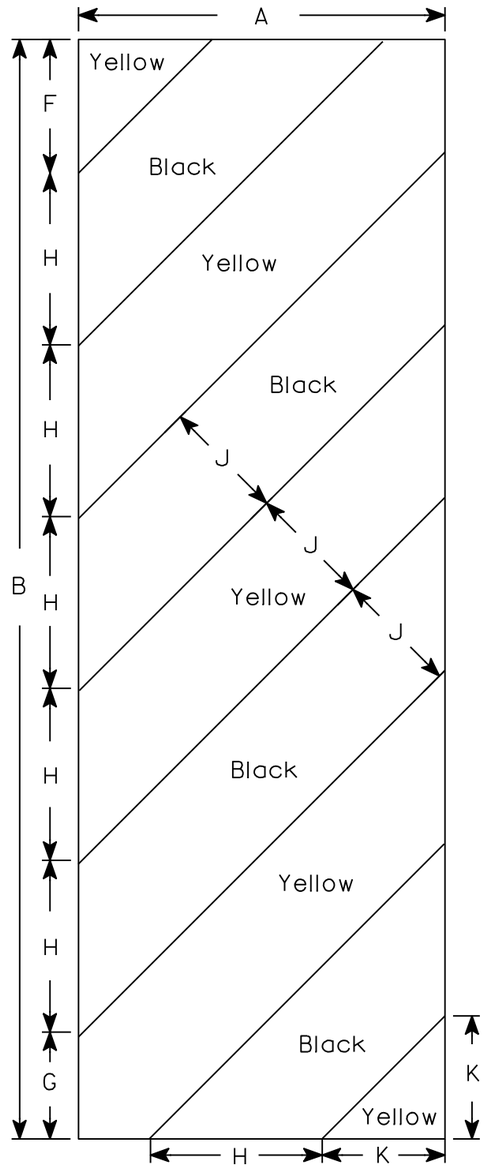
WISDOT/CADDS SHEET 42

7

7



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

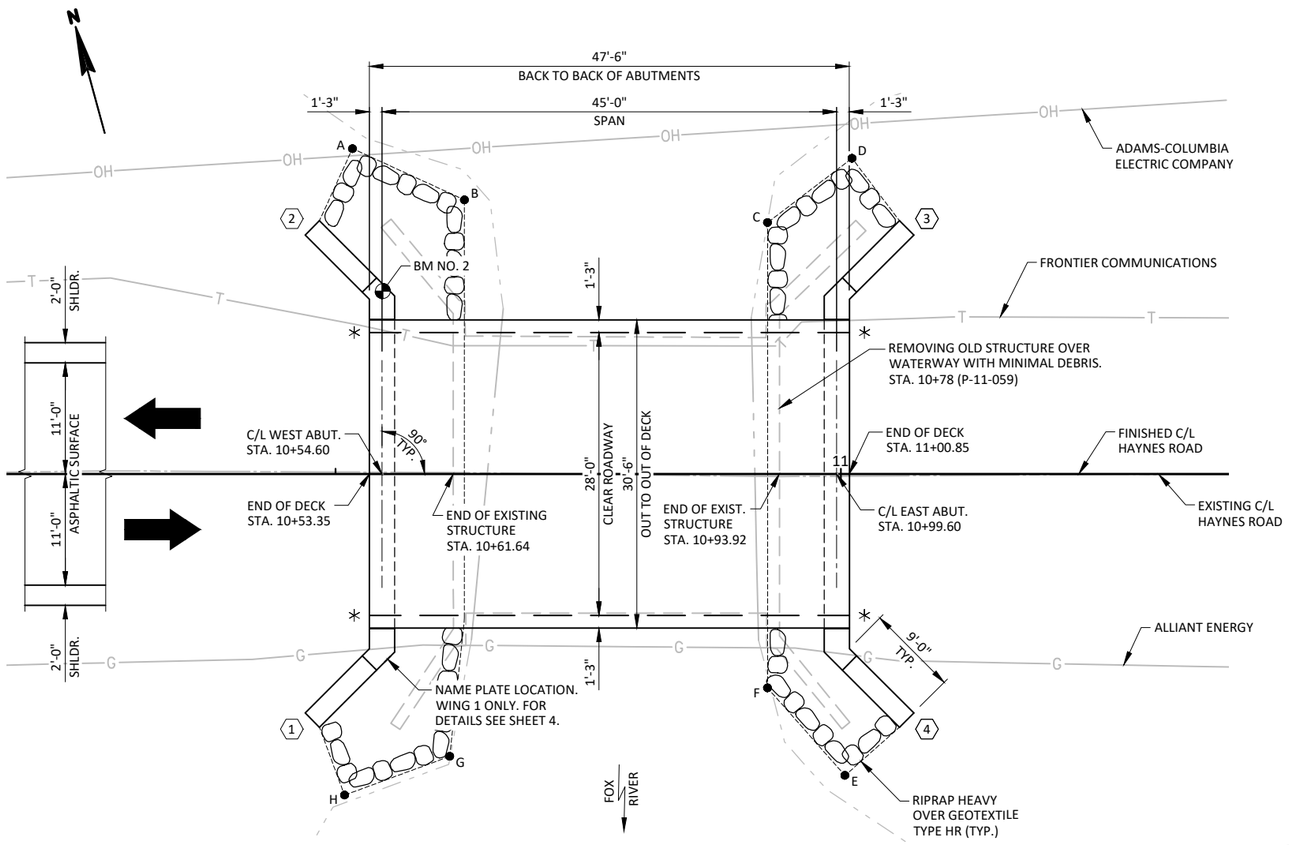
W5-52L & W5-52R

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: 38	E



PLAN B-11-168

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB)

⬡ INDICATES WING NUMBER

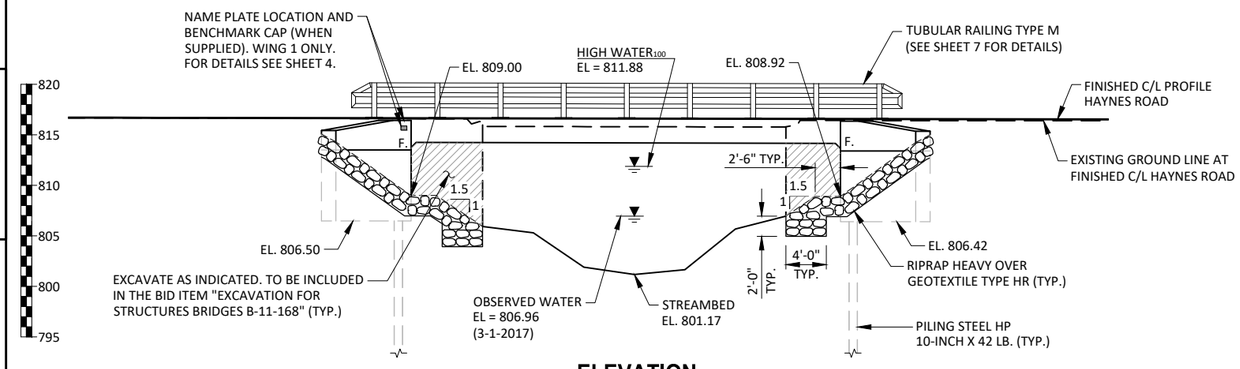
✳ THRIE BEAM RAIL ATTACHMENT

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	10+52	32' LT.
B	10+63	27' LT.
C	10+93	25' LT.
D	11+01	31' LT.
E	11+00	30' RT.
F	10+93	21' RT.
G	10+61	28' RT.
H	10+51	32' RT.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	7+56	3/4" IRON ROD SET, 12' LT.	821.16
2	10+55	3/4" IRON ROD SET, 18' LT.	814.42
4	13+98	3/4" IRON ROD SET, 12' LT.	820.48
5	9+50	STAR SPIKE IN POWER POLE, 29' LT.	817.90



ELEVATION

(NORMAL TO FOX RIVER)

STATE PROJECT NUMBER

5651-00-70

DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF=1.33
OPERATING RATING FACTOR	RF=1.72
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

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

MATERIAL PROPERTIES:

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

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 65 FT PILE LENGTHS AT THE WEST ABUTMENT AND 70 FT AT THE EAST ABUTMENT.

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

TRAFFIC DATA

A.D.T. (2019)	370
A.D.T. (2039)	410
DESIGN SPEED	35 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY

DRAINAGE AREA	51.5 SQ. MI.
Q_{100} TOTAL	1,700 C.F.S.
THROUGH STRUCTURE	1,700 C.F.S.
OVERTOPPING ROADWAY	N/A
VELOCITY - THROUGH STRUCTURE	10.8 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE	157 SQ. FT.
HIGH WATER$_{100}$ ELEVATION	811.88
SCOUR CRITICAL CODE	5

EROSION CONTROL

Q_2	860 C.F.S.
HIGH WATER$_2$ ELEVATION	809.05
VELOCITY$_2$	11.0 F.P.S.

LIST OF DRAWINGS

WISCONSIN PROFESSIONAL ENGINEER
PATRICK T. BOLAND
E-36303
SPRING GREEN, WIS.
2-24-18

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Architects - Surveyors

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR — 05/15/18
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-168

HAYNES ROAD OVER FOX RIVER

COUNTY	COLUMBIA
TOWN/~~CITY/VILLAGE~~	MARCELLON
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

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

GENERAL PLAN

SHEET 1 OF 7

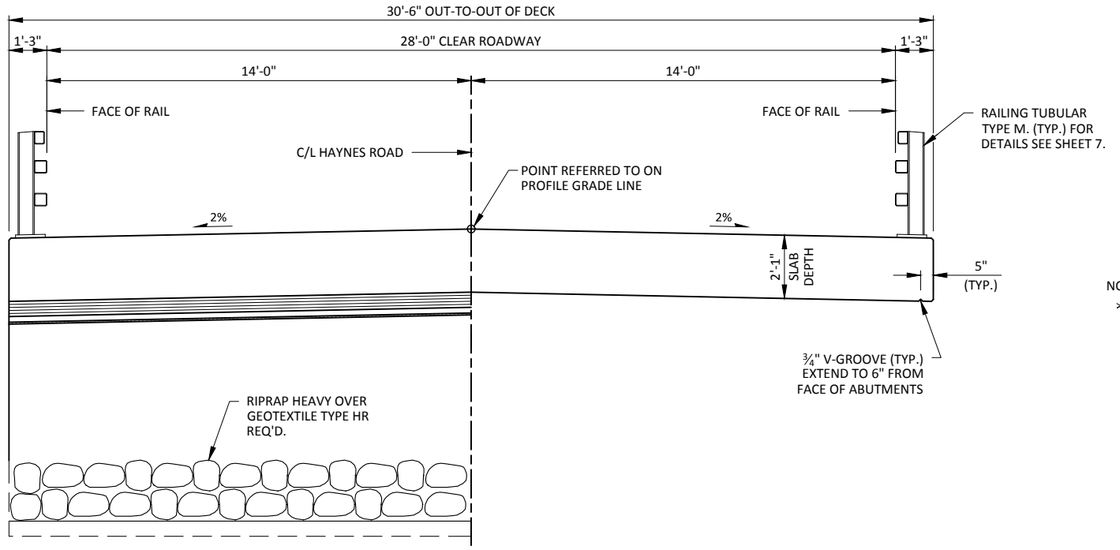
39

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

STATE PROJECT NUMBER

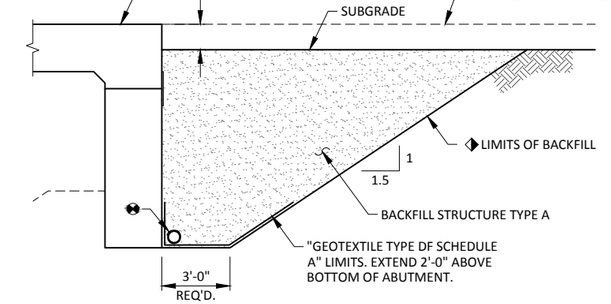
5651-00-70



AT ABUTMENT **IN SPAN**

PROPOSED CROSS-SECTION THROUGH ROADWAY

LOOKING EAST

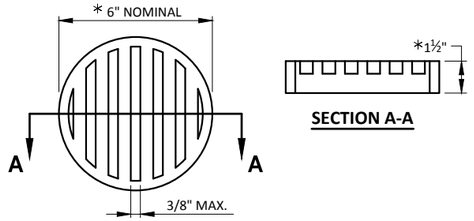


BACKFILL STRUCTURE DETAIL

ABUTMENT BODY SHOWN - WING WALLS SIMILAR
(TYPICAL AT BOTH ABUTMENTS)

◆ BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-11-168". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

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



RODENT SCREEN

SECTION A-A

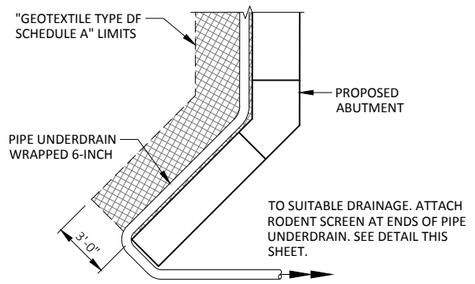
NOTES:

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

ORIENT SCREEN SO SLOTS ARE VERTICAL.

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

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



PIPE UNDERDRAIN DETAILS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION MI53, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

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

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

ANY EXCAVATION BELOW THE ABUTMENT AND ASSOCIATED ABUTMENT BEDDING MATERIALS REQUIRE THE APPROVAL OF THE ENGINEER IN THE FIELD.

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

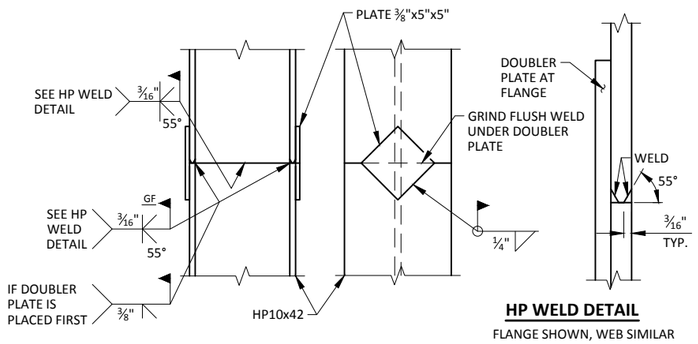
THE EXISTING STRUCTURE IS A SINGLE-SPAN TIMBER DECK GIRDER STRUCTURE SUPPORTED ON TIMBER ABUTMENTS. THE STRUCTURE HAS A 30.5' OVERALL WIDTH AND IS 31.9' LONG AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-11-168"SHALL BE THE EXISTING GROUNDLINE.

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

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



HP WELD DETAIL

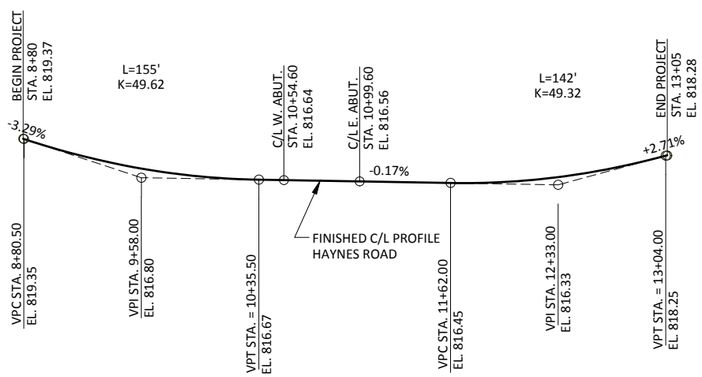
FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

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

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT.	SUPER.	E. ABUT.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MIN. DEBRIS STA. 10+78	LS	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-11-168	LS	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	265	--	265	530
502.0100	CONCRETE MASONRY BRIDGES	CY	38	116	38	192
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	200	--	200
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,405	--	2,405	4,810
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,500	19,920	1,500	22,920
513.4061	RAILING TUBULAR TYPE M B-11-168	LF	--	100	--	100
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	--	6	12
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	460	--	500	960
606.0300	RIPRAP HEAVY	CY	60	--	50	110
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	85	--	85	170
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	--	50	100
645.0120	GEOTEXTILE TYPE HR	SY	90	--	70	160
	NON-BID ITEMS					
	FILLER	SIZE	--	--	--	½" & ¾"
	NAME PLATE					



PROFILE GRADE LINE

HAYNES ROAD

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-168

DRAWN BY PTB | PLANS CK'D. RBH

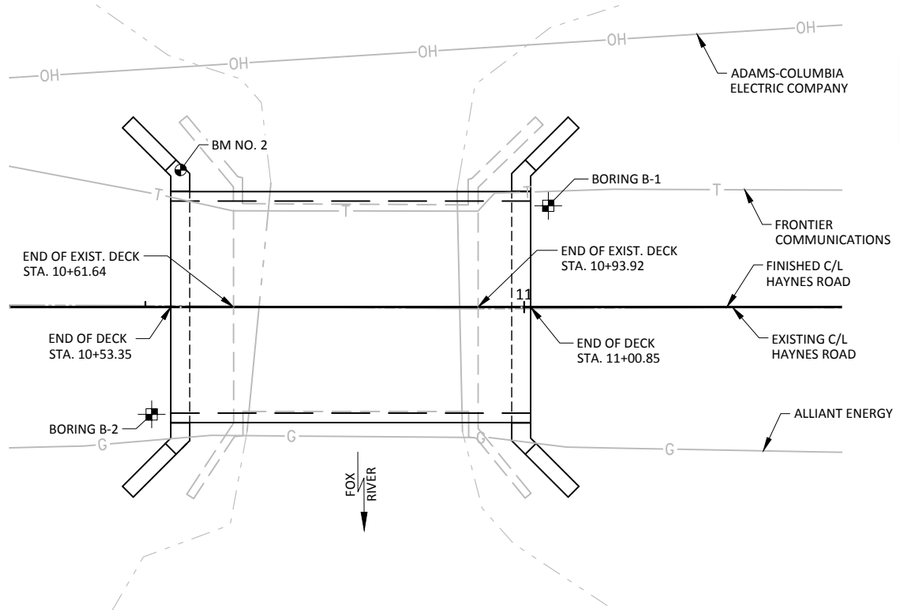
CROSS SECTION AND QUANTITIES

SHEET 2 OF 7

40

STATE PROJECT NUMBER

5□5□□□□□□



□□□□□□□□□□

SOIL BORINGS

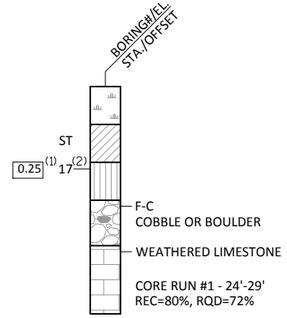
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	05/08/17	400,223.09	587,535.17
2	05/09/17	400,210.37	587,477.44

BORINGS & REPORT COMPLETED BY: PSI
1125 W. TUCKAWAY LANE, SUITE B
MENASHA, WI 54952

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATIONS

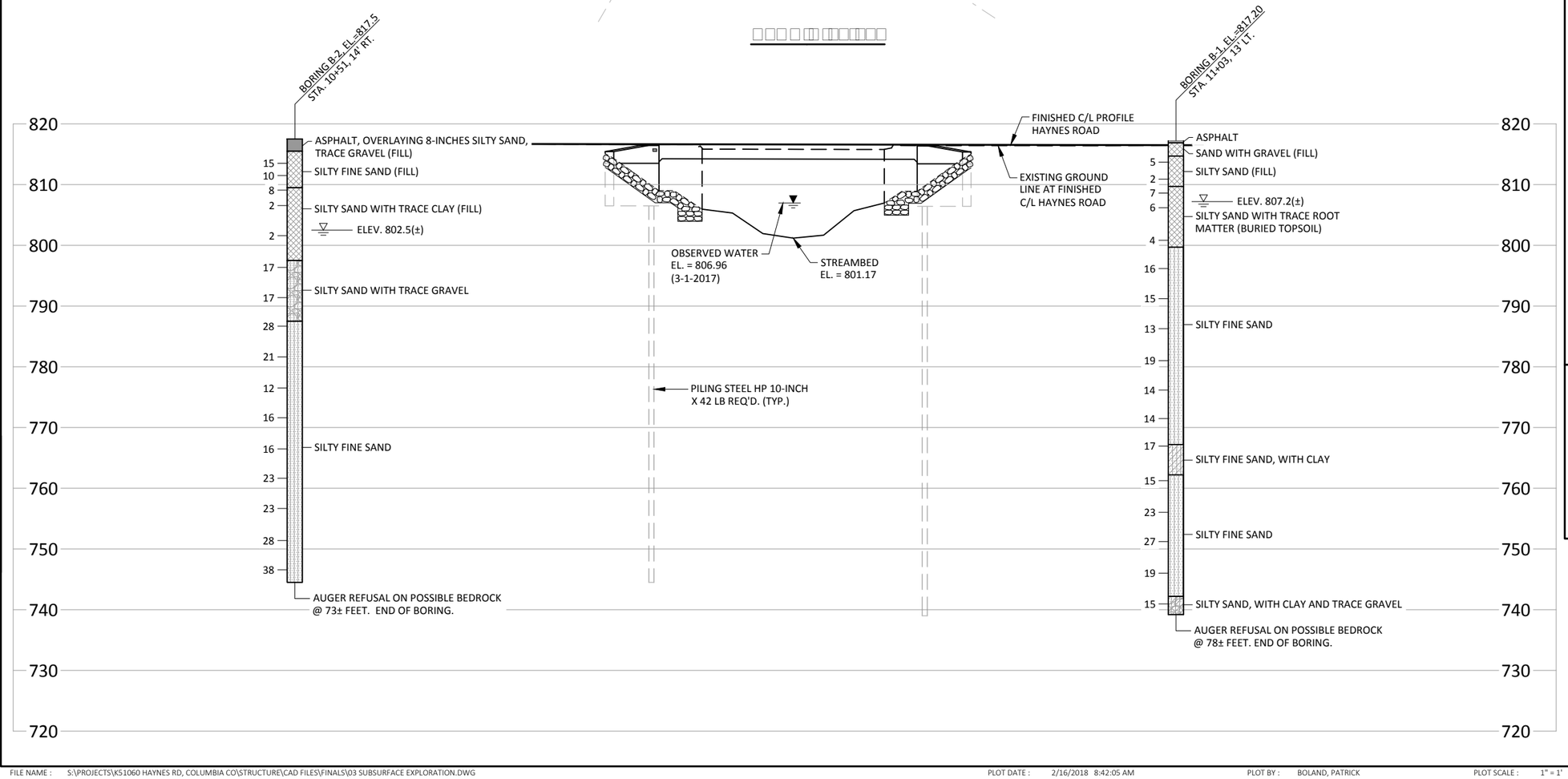
AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-168

DRAWN BY PTB | PLANS CK'D. RBH

SUBSURFACE EXPLORATION

SHEET 3 OF 7

41

STATE PROJECT NUMBER

5651-00-70

NOTES

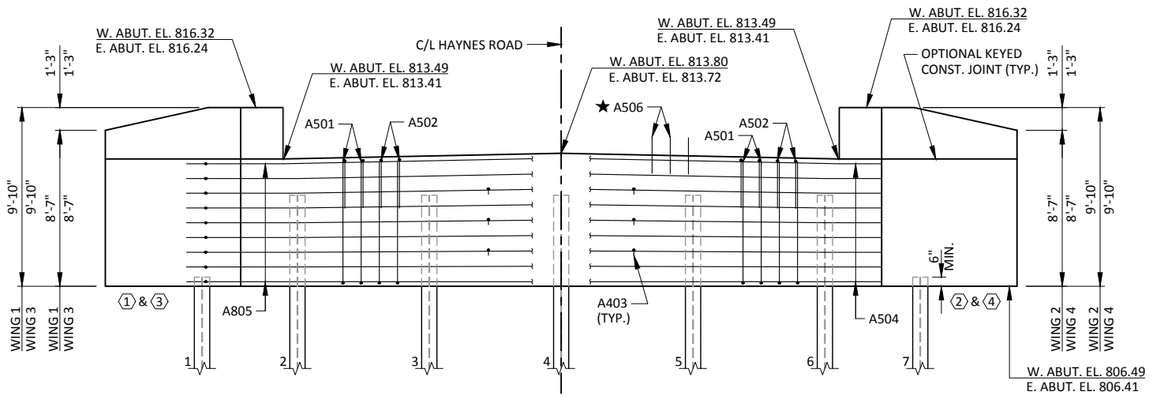
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

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

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

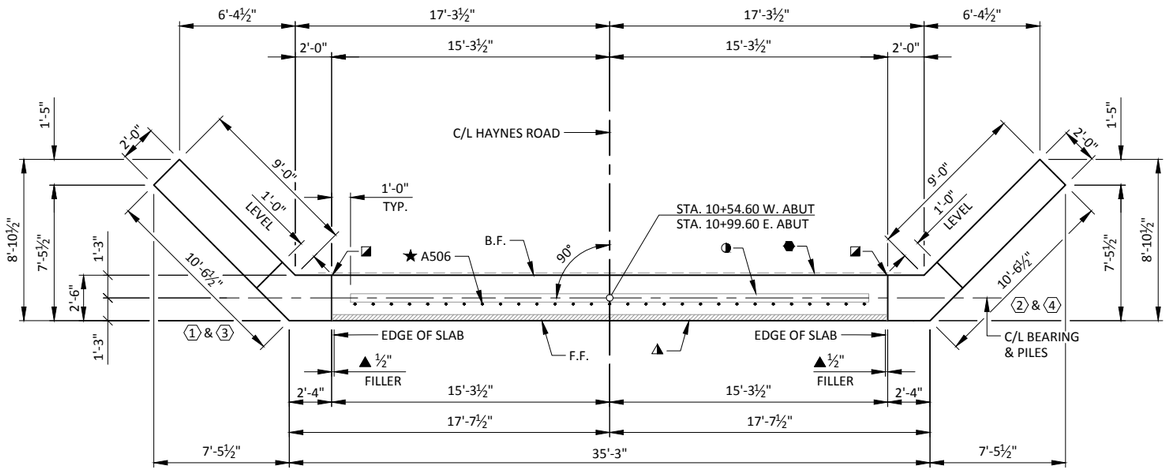
B.F. - BACK FACE



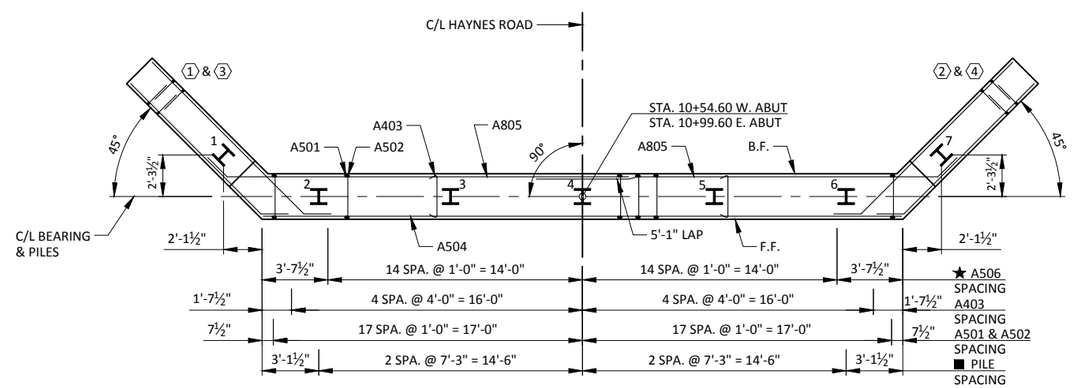
BACK FACE BAR STEEL REINF. **FRONT FACE BAR STEEL REINF.**

ELEVATION

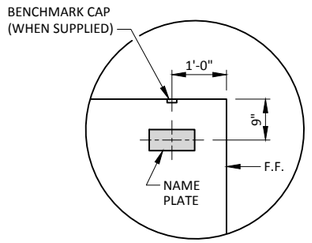
(WEST ABUTMENT LOOKING WEST)
(EAST ABUTMENT LOOKING EAST)



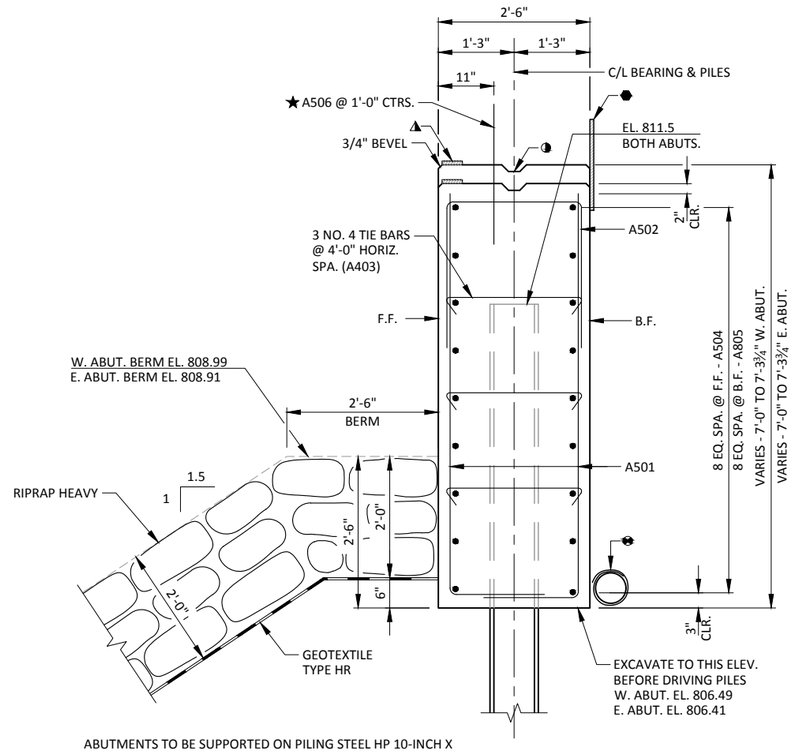
PLAN



LAYOUT



NAME PLATE AND BENCHMARK CAP DETAIL



ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 65 FT PILE LENGTH AT WEST ABUTMENT AND 70 FT PILE LENGTH AT EAST ABUTMENT.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-168

DRAWN BY PTB | PLANS CK'D. RBH

ABUTMENTS

SHEET 4 OF 7

42

STATE PROJECT NUMBER
5651-00-70

BILL OF BARS
TWO ABUTMENTS SHOWN

3,000 LB (COATED)
4,810 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	140	8-1	X			BODY - VERT. - F.F & B.F.
A502	70	8-3	X			BODY - VERT. - TOP
A403	54	2-8	X			TIE BARS
A504	18	35-0				BODY - HORIZ. - F.F.
A805	36	23-8	X			BODY - HORIZ. - B.F.
A506	58	2-0		X		BODY - VERT. - DOWELS
A407	88	11-3	X	X	✳	WINGS - VERT. - F.F. & B.F.
A408	32	9-5		X		WINGS - VERT.
A409	4	3-6		X		WINGS - VERT. - TOP
A510	36	11-9	X	X		WINGS - HORIZ. - F.F.
A811	36	13-5	X	X		WINGS - HORIZ. - B.F.
A412	16	8-10		X		WINGS - HORIZ. - F.F. & B.F.
A413	8	5-3		X		WINGS - HORIZ. - F.F. & B.F.
A414	8	9-0	X	X		WINGS - HORIZ. - F.F. & B.F. - TOP
A415	16	9-6	X	X		WINGS - HORIZ. - TOP

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

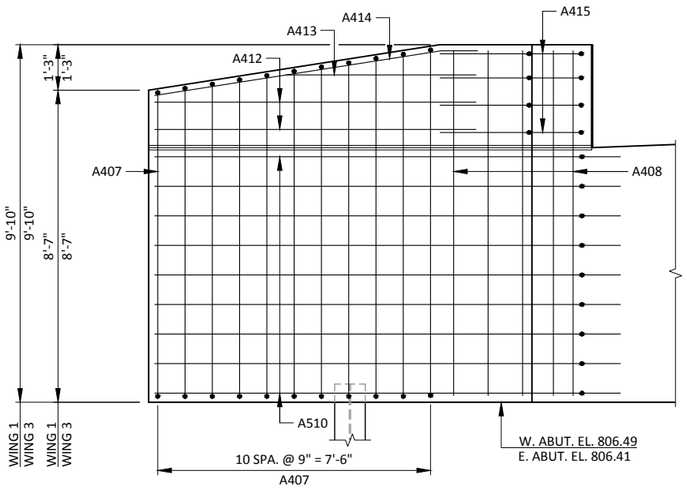
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

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

BAR SERIES TABLE

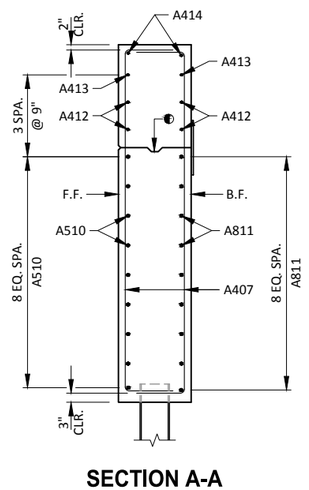
BAR MARK	NO. REQ'D.	LENGTH
A407	8 SERIES OF 11	11-10 TO 10-8

BUNDLE AND TAG EACH SERIES SEPARATELY.

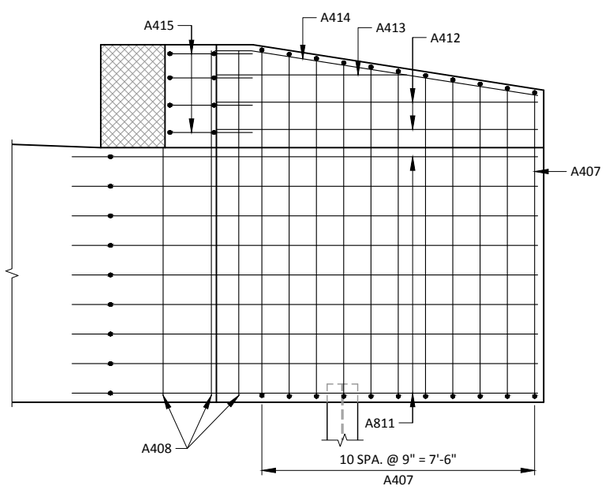


F.F. ELEVATION - WINGS 1 & 3

WINGS 1 & 3 SHOWN. WINGS 2 & 4 SIMILAR

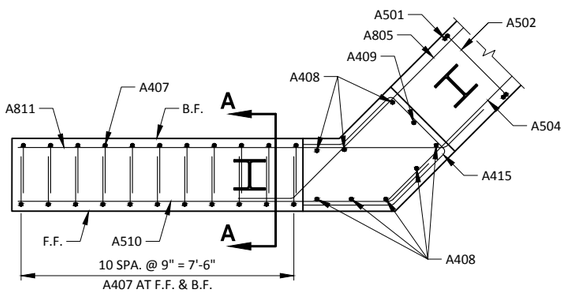


SECTION A-A



B.F. ELEVATION - WINGS 1 & 3

WINGS 1 & 3 SHOWN. WINGS 2 & 4 SIMILAR



PLAN VIEW - WINGS 1 & 3

WINGS 1 & 3 SHOWN. WINGS 2 & 4 SIMILAR

LEGEND

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

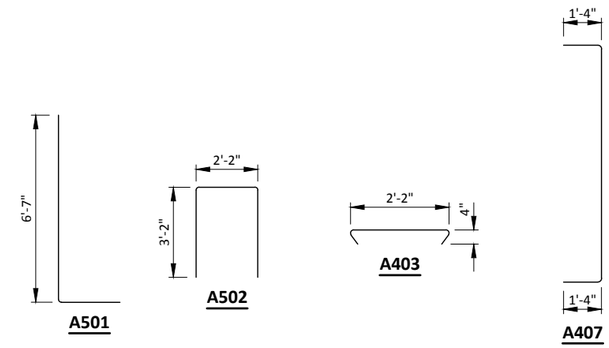
NOTES

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

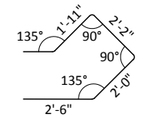
SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE



A805, A510 & A811



A415

A414

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-168

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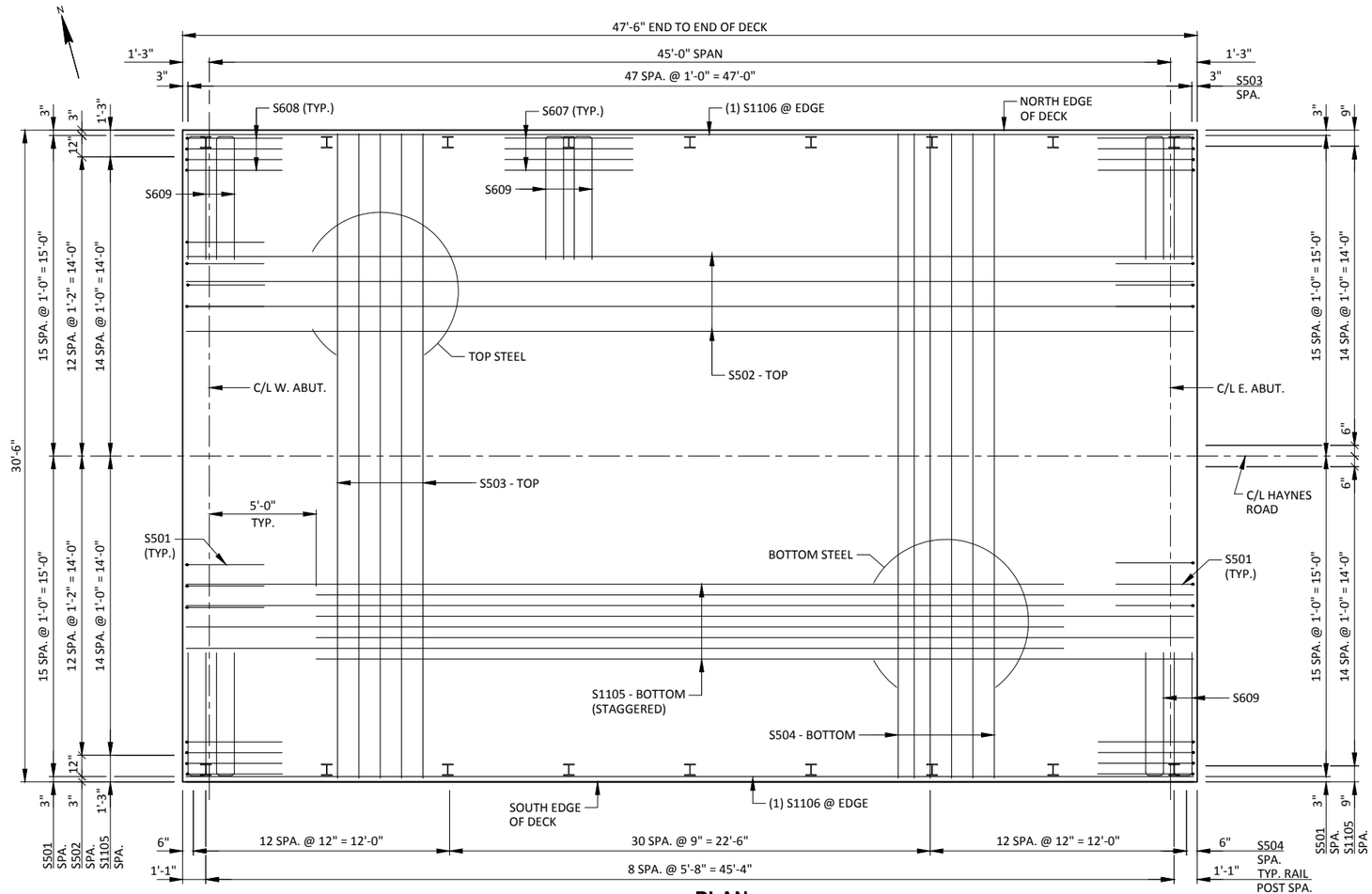
ABUTMENT DETAILS

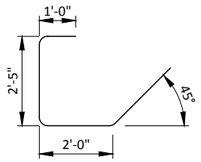
SHEET 5 OF 7

43

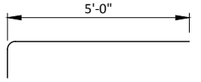
STATE PROJECT NUMBER
5651-00-70



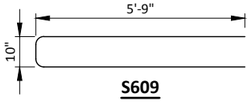
PLAN



S501



S608



S609

BILL OF BARS
SUPERSTRUCTURE

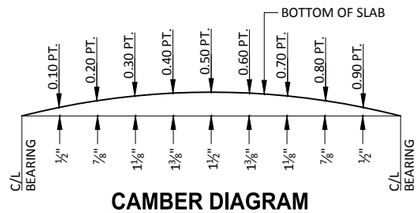
19,920 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	62	7-6	X	X	END OF DECK
S502	27	47-2		X	SLAB - TOP - LONGIT.
S503	54	30-2		X	SLAB - TOP - TRANS.
S504	55	30-2		X	SLAB - BOTTOM - TRANS.
S1105	59	41-1		X	SLAB - BOTTOM - LONGIT.
S1106	2	47-2		X	SLAB - BOTTOM - LONGIT. - EDGES
S607	56	6-0		X	RAIL POSTS - INTERIOR
S608	16	6-0	X	X	RAIL POSTS - ENDS
S609	36	12-0	X	X	RAIL POSTS

NOTES: THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

SOME BARS HAVE BEEN OMITTED FOR CLARITY.



CAMBER DIAGRAM

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

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

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

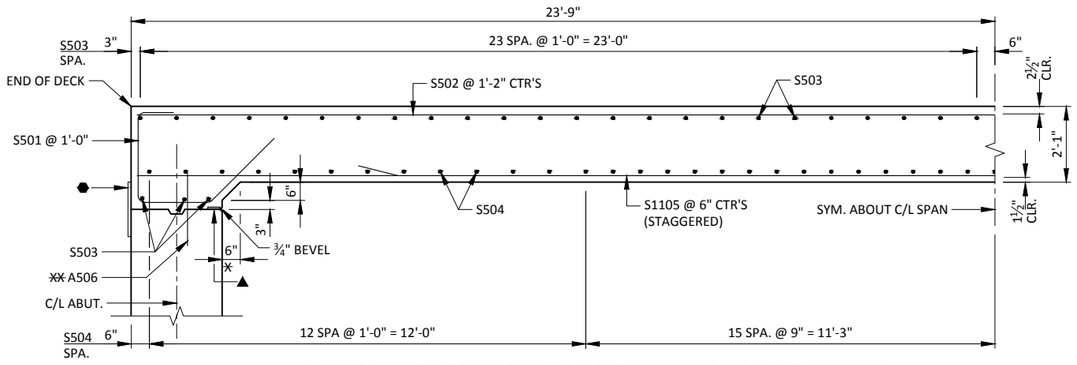
SURVEY TOP OF DECK ELEVATIONS

	W. ABUT.	0.50 PT.	E. ABUT.
NORTH EDGE OF DECK			
CENTER LINE			
SOUTH EDGE OF DECK			

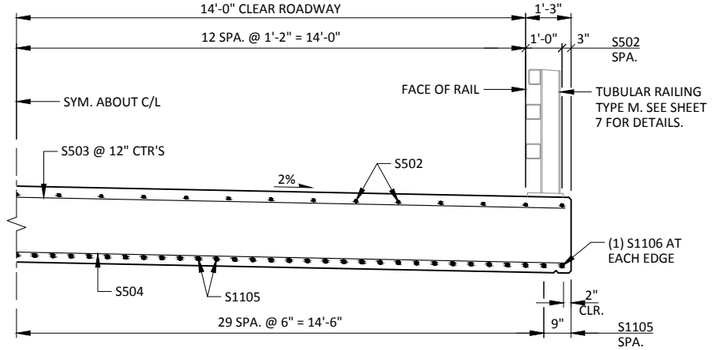
PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE EDGE OF DECK AND CENTER LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

TOP OF DECK ELEVATIONS

	C/L W. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L E. ABUT.
N. EDGE	816.33	816.32	816.31	816.30	816.29	816.29	816.28	816.27	816.27	816.26	816.25
C/L	816.64	816.63	816.62	816.61	816.60	816.60	816.59	816.58	816.58	816.57	816.56
S. EDGE	816.33	816.32	816.31	816.30	816.29	816.29	816.28	816.27	816.27	816.26	816.25



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY



PARTIAL CROSS SECTION THROUGH ROADWAY

NOTES

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

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

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

LEGEND

- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- X DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- XX SEE SHEET 4 FOR PLACEMENT OF A506 BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

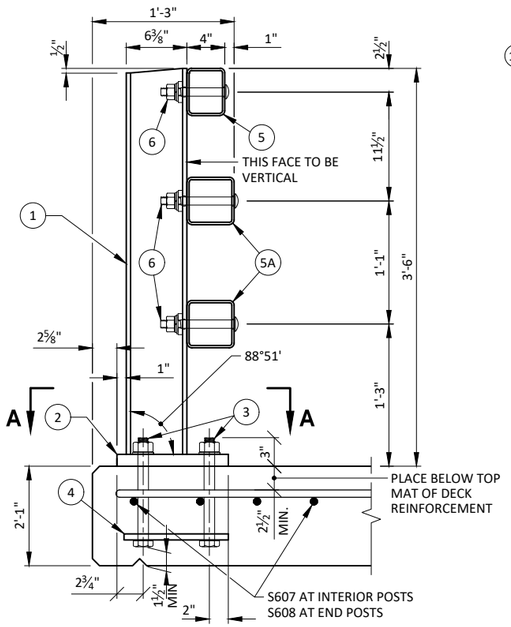
STRUCTURE B-11-168

DRAWN BY PTB | PLANS CK'D. RBH

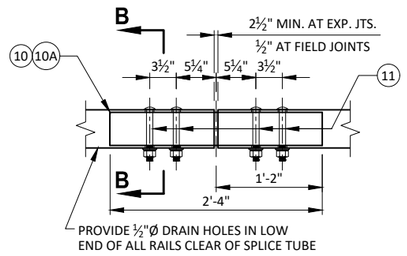
SUPERSTRUCTURE

SHEET 6 OF 7

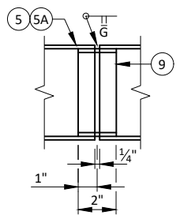
44



SECTION THROUGH RAILING ON DECK

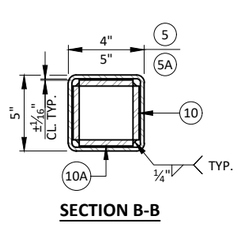


FIELD ERECTION JOINT DETAIL

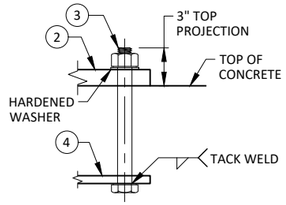


SHOP RAIL SPLICE DETAIL

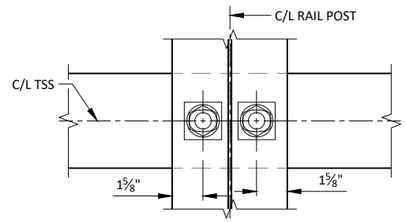
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



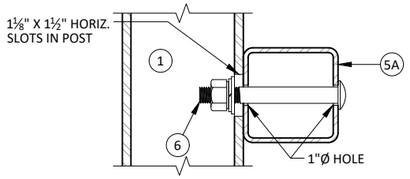
SECTION B-B



ANCHOR BOLTS



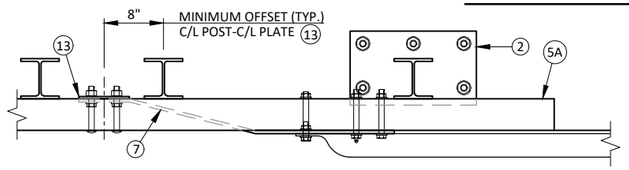
SECTION THROUGH POST WEB



SECTION THROUGH RAIL

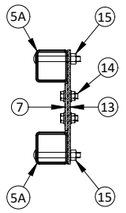
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



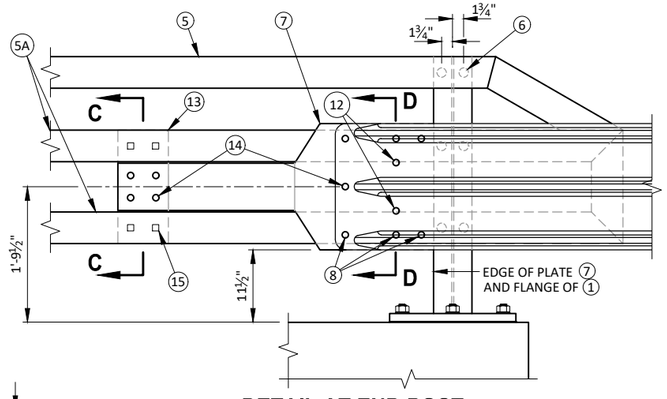
TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)



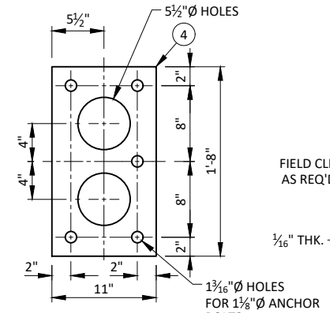
SECTION C-C

SECTION D-D



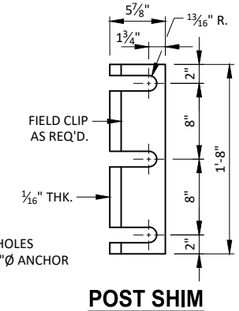
DETAIL AT END POST

(THRIE BEAM RAIL ATTACHMENT)

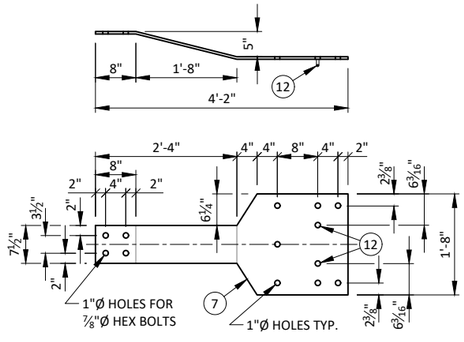


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

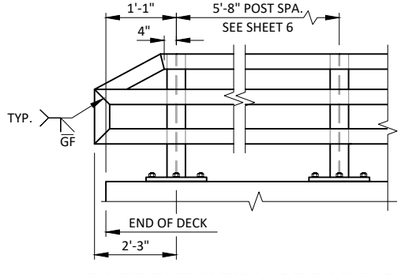


POST SHIM DETAIL

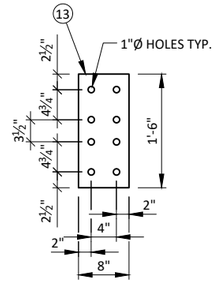


BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT

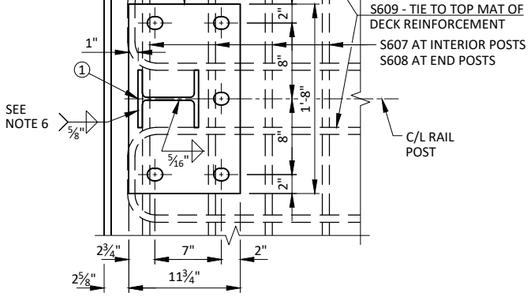


PART ELEVATION OF RAILING



ANCHOR PLATE

AT BEAM GUARD ATTACHMENT



SECTION A-A

STATE PROJECT NUMBER

5651-00-70

LEGEND

1. W6x25 WITH 11/8" x 11/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 11/4"x113/4"x1'-8" WITH 15/16"x15/8" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
3. ASTM A449 - 11/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 103/4" LONG AT ALL OTHER LOCATIONS.
4. 5/8"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 13/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TSS 5x4x1/4 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

5A. TSS 5x5x1/4 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

6. 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16"x15/8"x15/8" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
7. 1/2" THK. BACK-UP PLATE WITH 2 -7/8"x11/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
10. 3/8"x35/8"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

10A. 3/8"x25/8"x2'-4" PLATE USED IN NO. 5, 3/8"x35/8"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

11. 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16"x11/4" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15/16"x21/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
12. 7/8" DIA. BY 11/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. 3/8"x8"x1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. 7/8" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR 7/8" A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-11-168" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-11-168

DRAWN BY PTB | PLANS CK'D. RBH

TUBULAR RAILING TYPE M

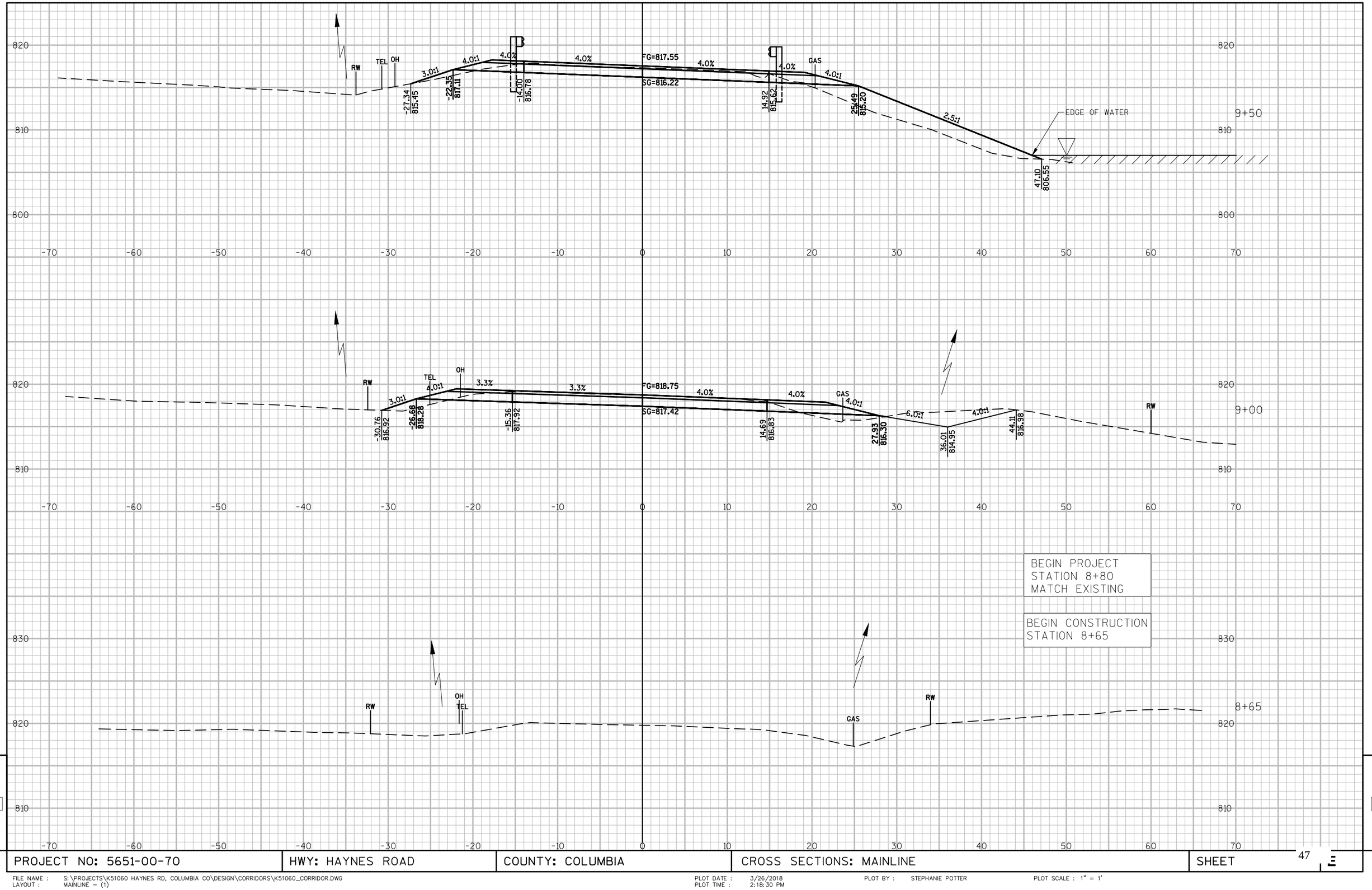
SHEET 7 OF 7

45

EARTHWORK-HAYNES ROAD

	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
STATION	CUT	FILL	CUT NOTE 1	FILL NOTE 3	FILL (25%)	CUT 1 00 NOTE 1	FILL	FILL (25%) NOTE 5	MASS ORDINATE NOTE 6
8+65	0	0	0	0	0	0	0	0	0
9+00	65	10	42	6	8	42	6	8	35
9+50	46	40	103	46	58	145	52	65	80
10+00	41	13	81	48	60	226	100	125	101
10+50	50	13	84	24	30	310	124	155	155
10+53	47	13	5	1	1	315	125	156	159
10+53	0	0	0	0	0	315	125	156	159
11+01	0	0	0	0	0	315	125	156	159
11+01	50	8	90	15	19	405	140	175	230
11+50	50	8	90	21	26	495	161	201	294
12+00	47	16	88	36	45	583	197	246	337
12+50	48	23	90	35	44	673	232	290	383
13+00	48	14	27	8	10	700	240	300	400
13+30	0	0	0	0	0	700	240	300	400
		TOTALS =	700	240	300	700	240	300	400

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED ROCK FACTOR	EXPANDED ROCK FACTOR = 1.1
5 - FILL (25%)	FILL 25%. (UNEXPANDED FILL - (ROCK * ROCK FACTOR))*1.25
6 - MASS ORDINATE	(CUT - FILL (25%))



PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE	SHEET 47

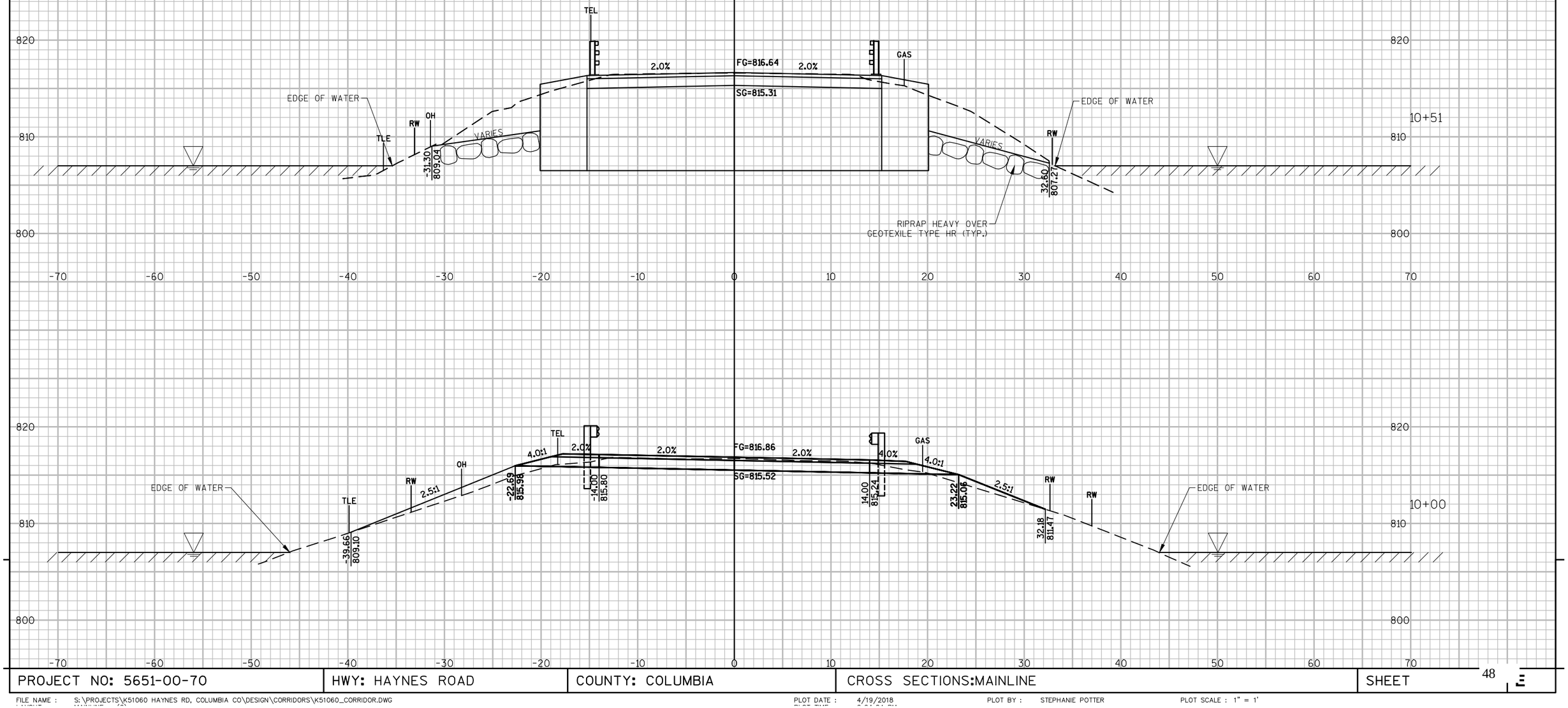
FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\DESIGN\CORRIDORS\K51060_CORRIDOR.DWG
LAYOUT : MAINLINE - (1)

PLOT DATE : 3/26/2018
PLOT TIME : 2:18:30 PM

PLOT BY : STEPHANIE POTTER

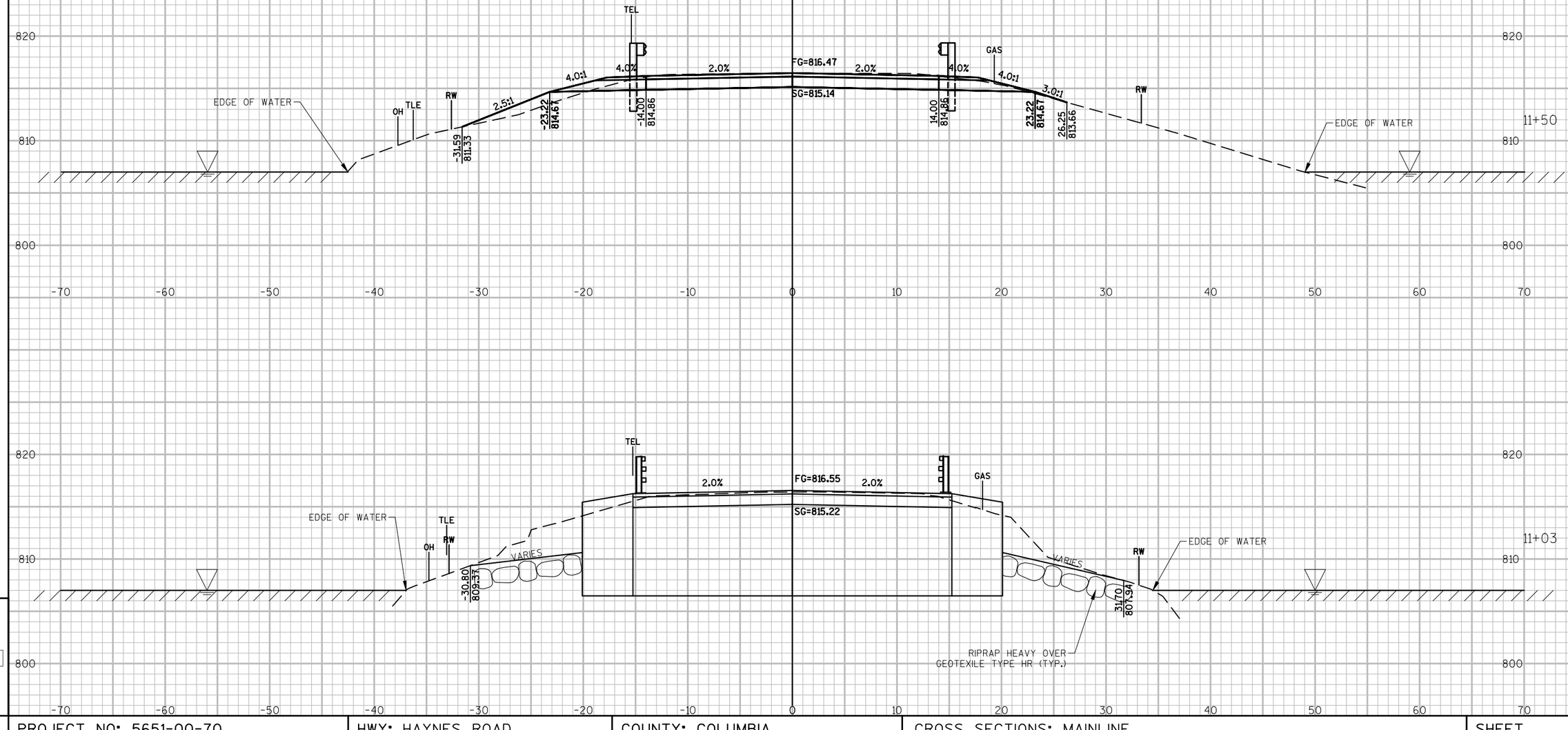
PLOT SCALE : 1" = 1'

STRUCTURE
B-11-0168 REQ'D



PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS:MAINLINE	SHEET 48

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\DESIGN\CORRIDORS\K51060_CORRIDOR.DWG
PLOT DATE : 4/19/2018 PLOT BY : STEPHANIE POTTER PLOT SCALE : 1" = 1'



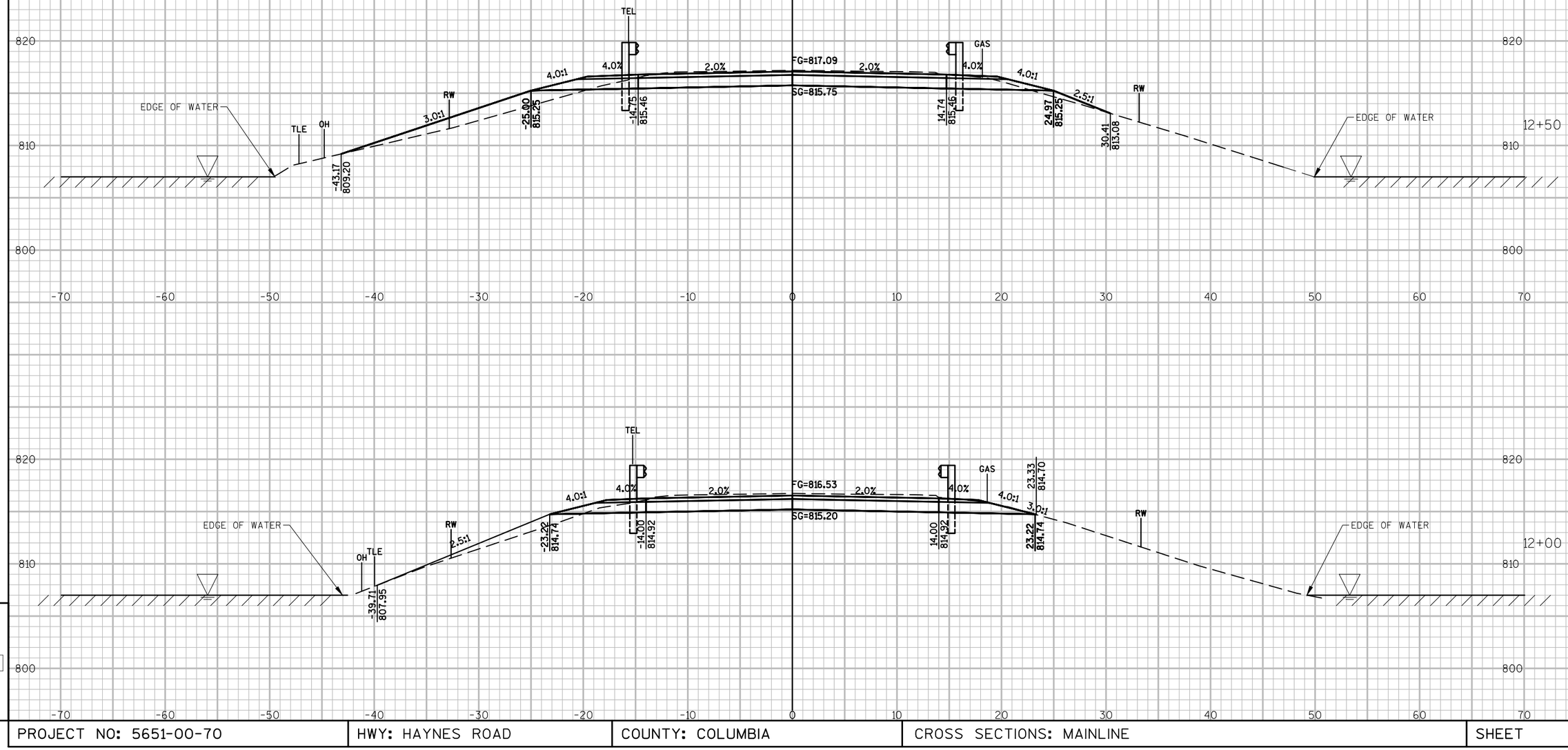
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE	SHEET 49

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\DESIGN\CORRIDORS\K51060_CORRIDOR.DWG
LAYOUT : MAINLINE - (3)

PLOT DATE : 3/26/2018
PLOT TIME : 2:18:34 PM

PLOT BY : STEPHANIE POTTER

PLOT SCALE : 1" = 1'



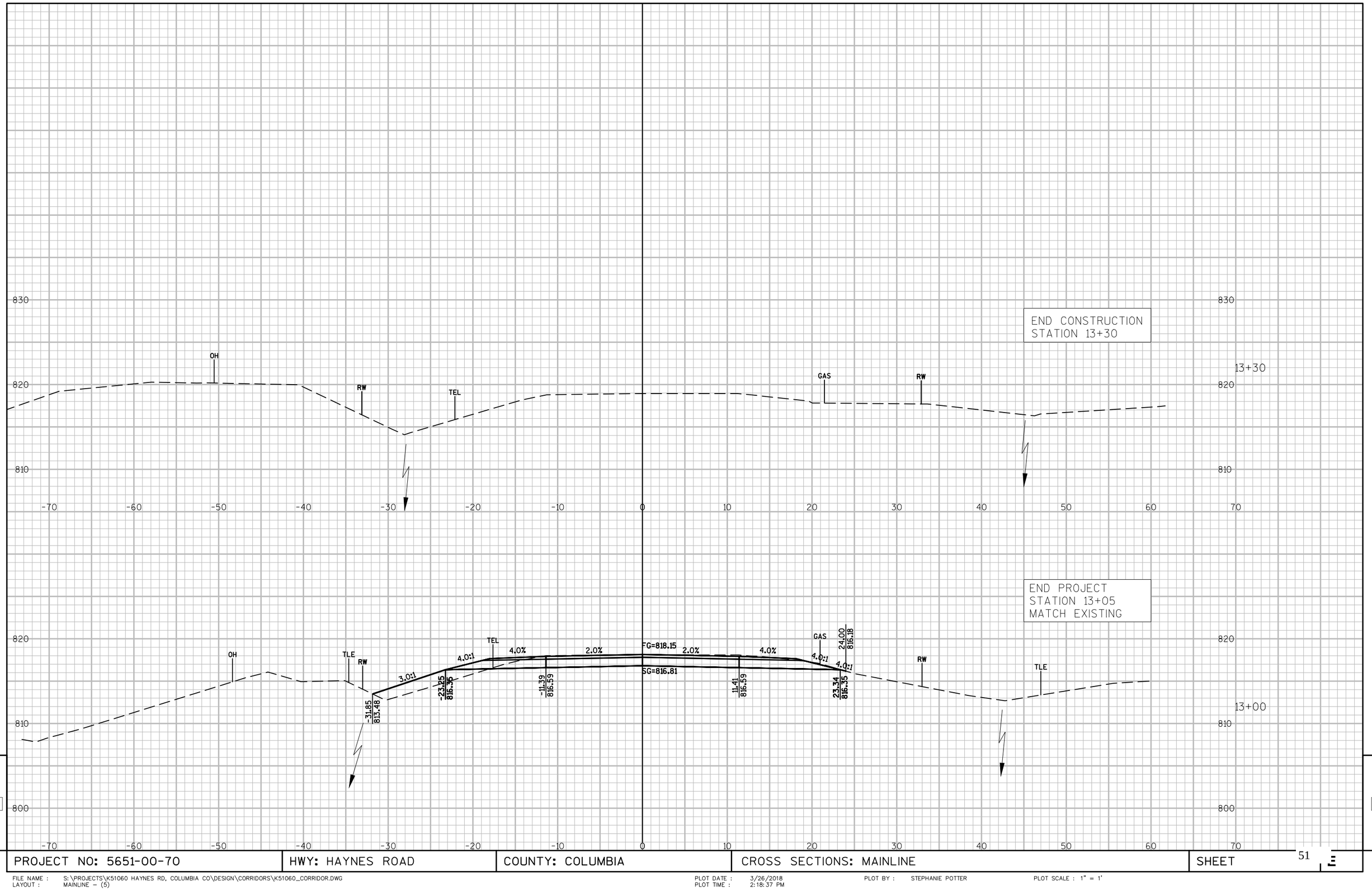
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE	SHEET

FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\DESIGN\CORRIDORS\K51060_CORRIDOR.DWG
LAYOUT : MAINLINE - (4)

PLOT DATE : 3/26/2018
PLOT TIME : 2:18:35 PM

PLOT BY : STEPHANIE POTTER

PLOT SCALE : 1" = 1'



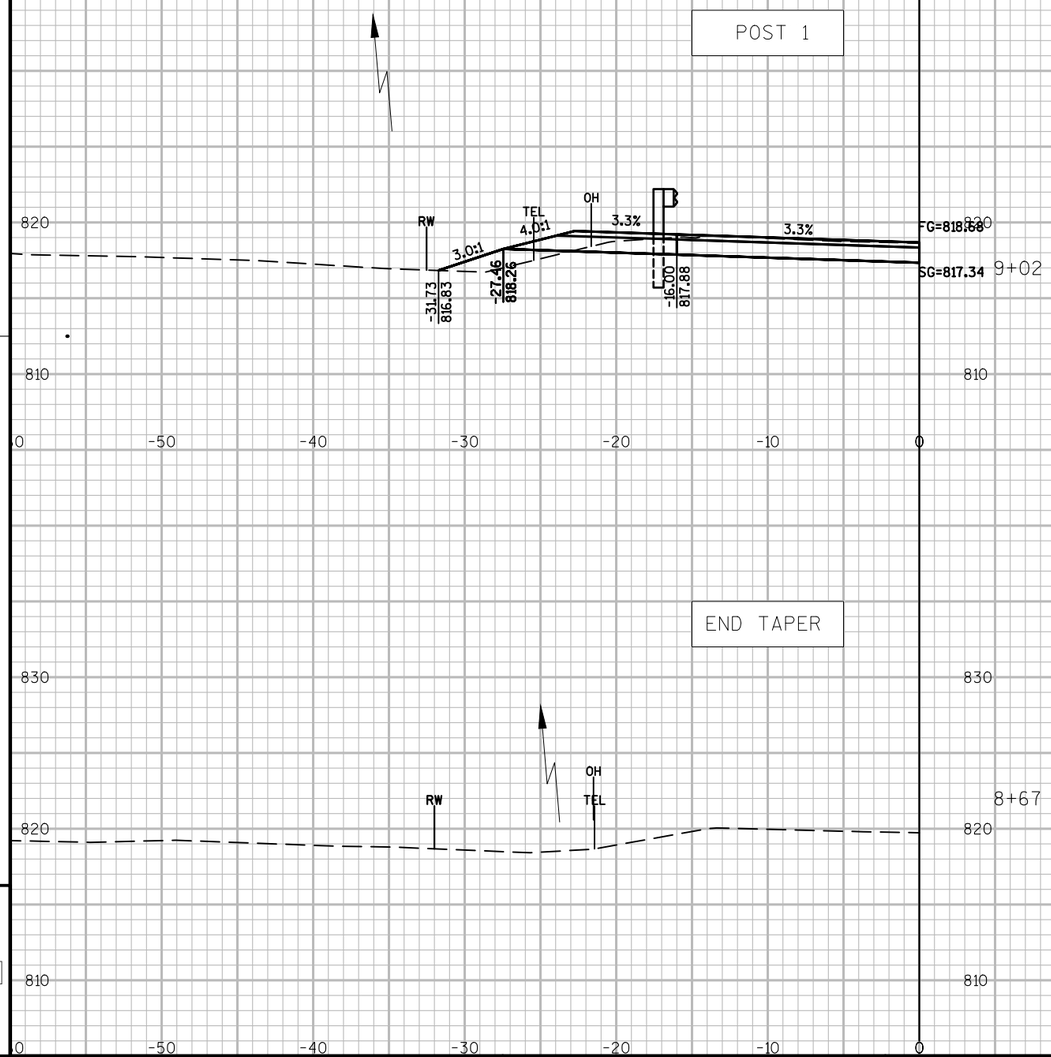
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE	SHEET

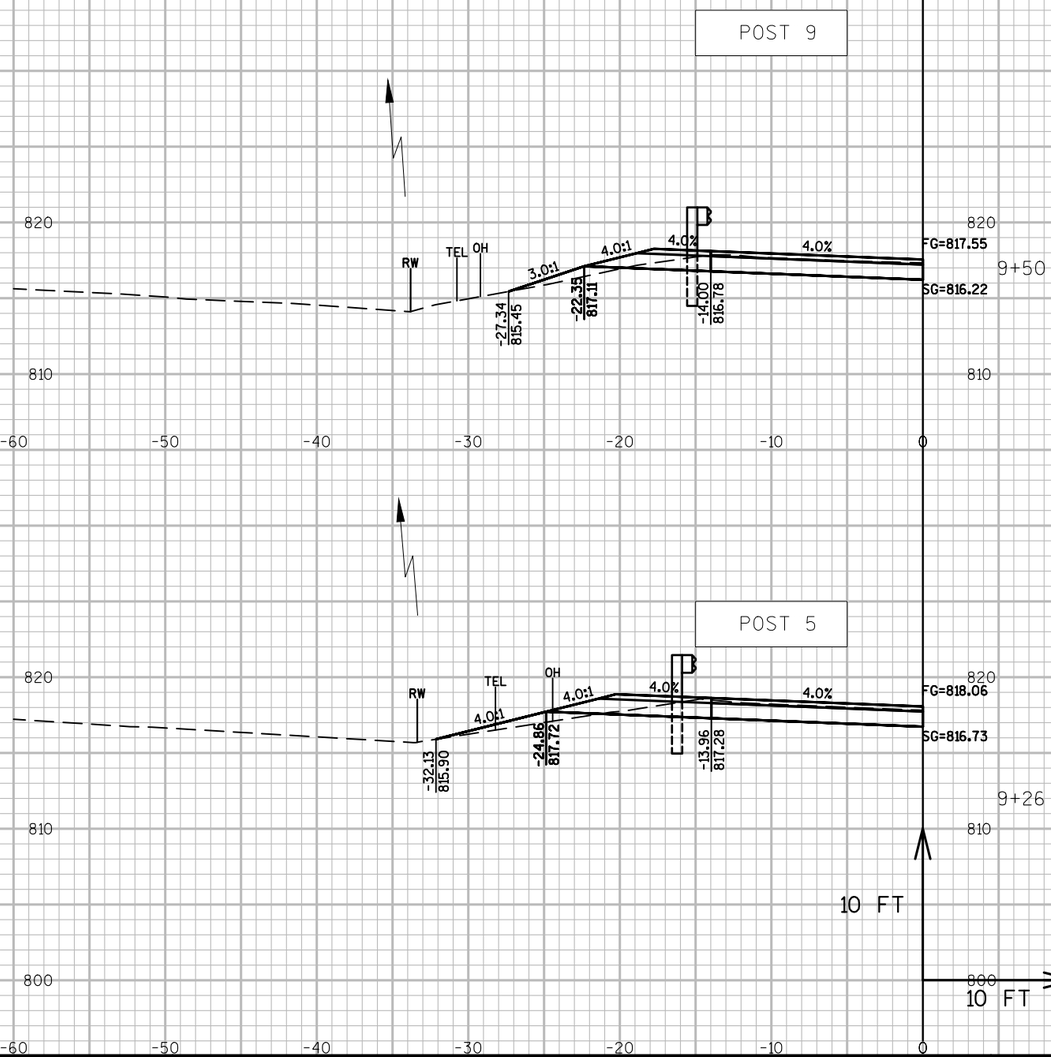
FILE NAME : S:\PROJECTS\K51060 HAYNES RD, COLUMBIA CO\DESIGN\CORRIDORS\K51060_CORRIDOR.DWG
LAYOUT : MAINLINE - (5)

PLOT DATE : 3/26/2018
PLOT TIME : 2:18:37 PM

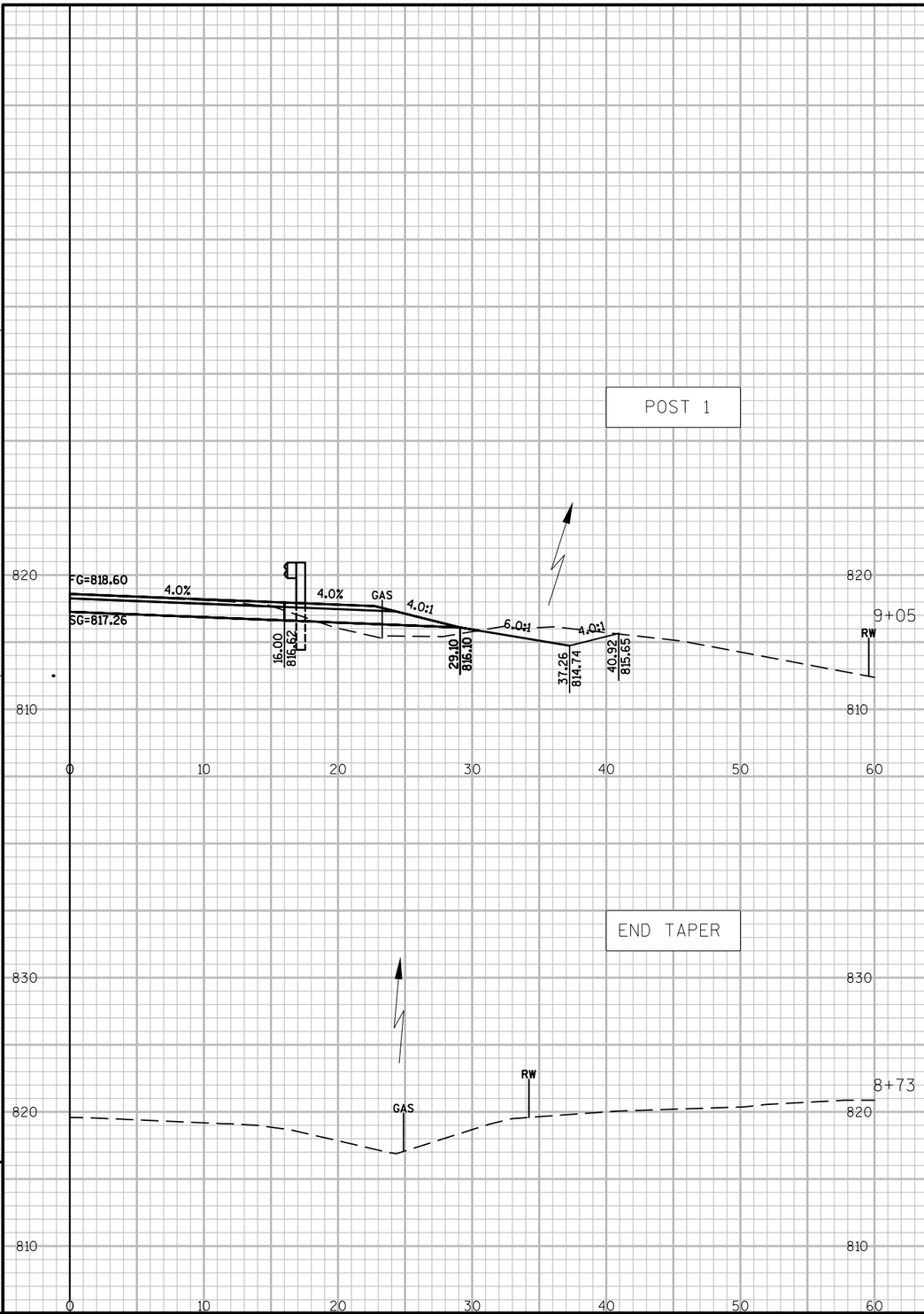
PLOT BY : STEPHANIE POTTER

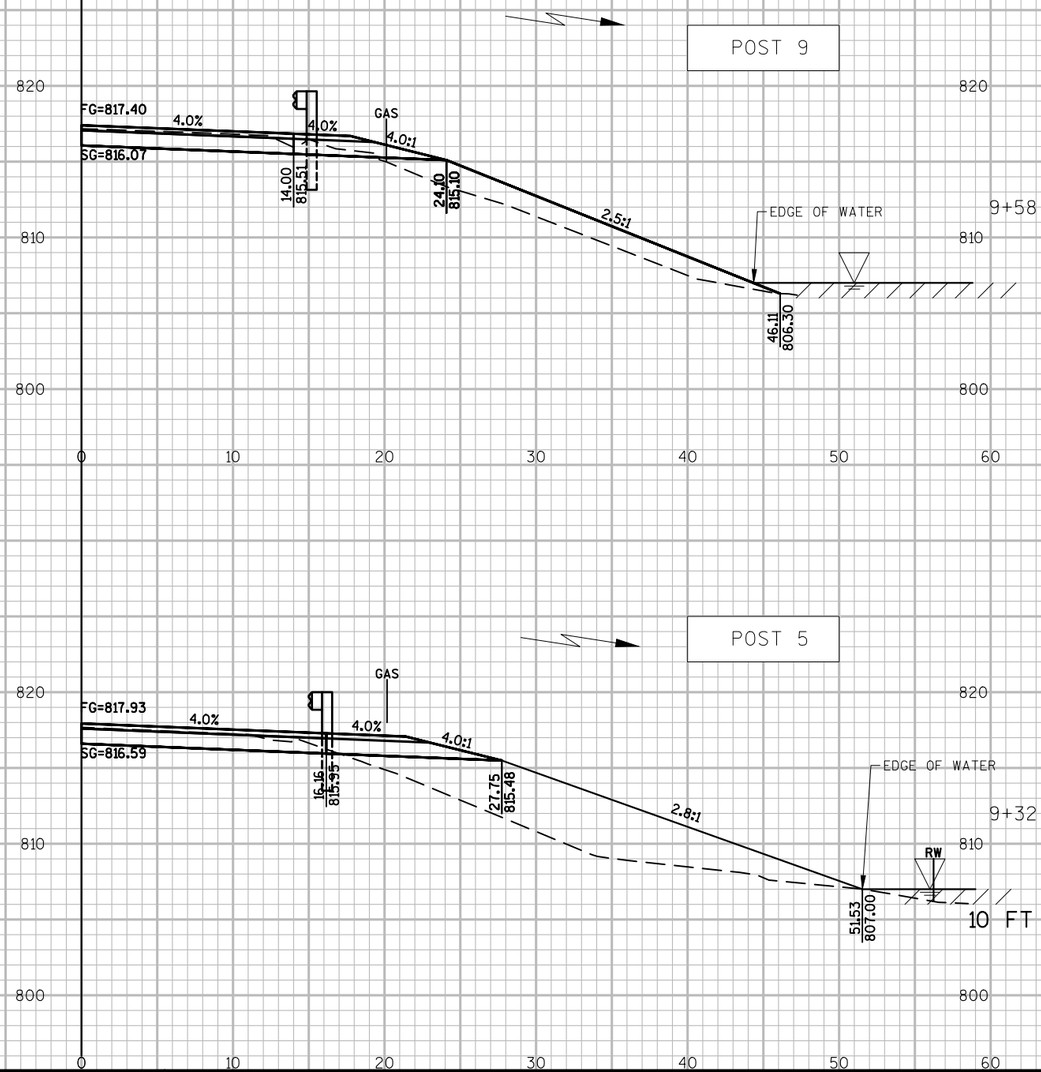
PLOT SCALE : 1" = 1'





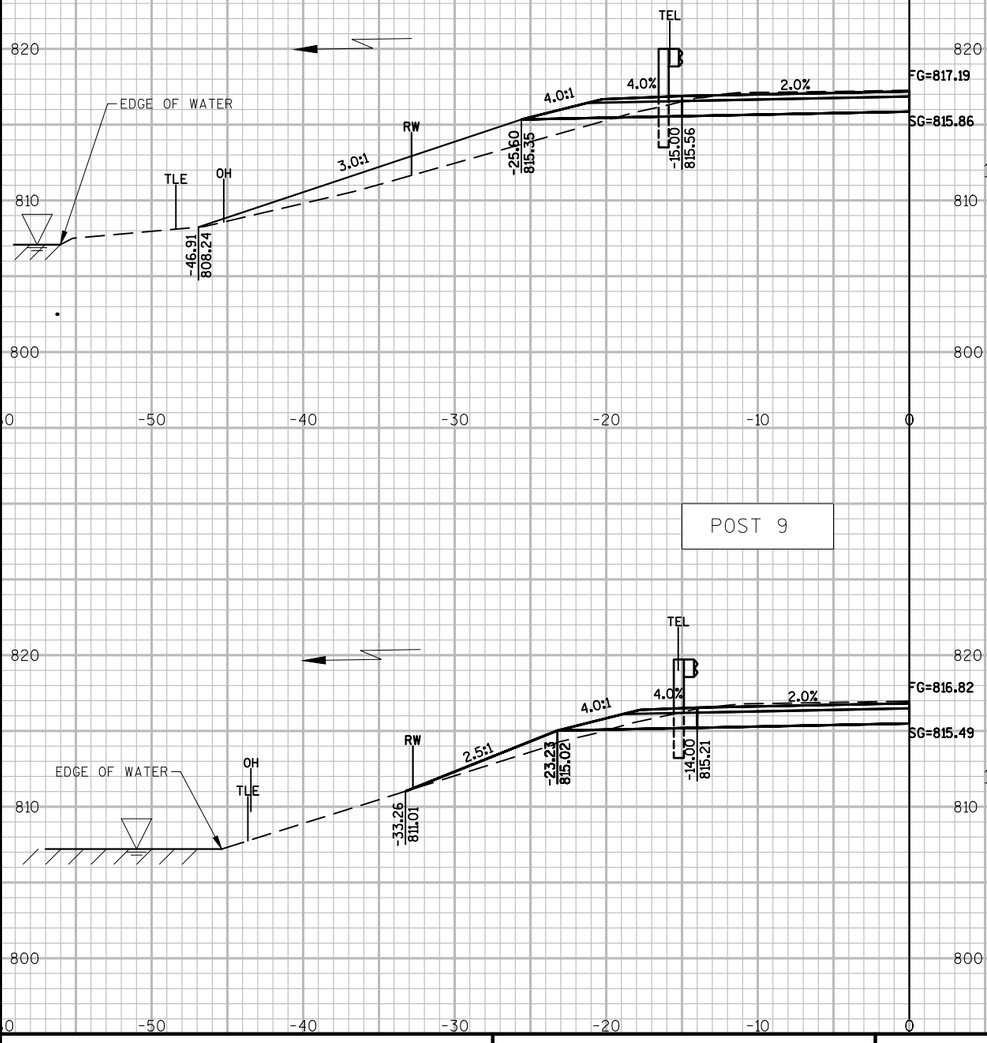
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET 52	E





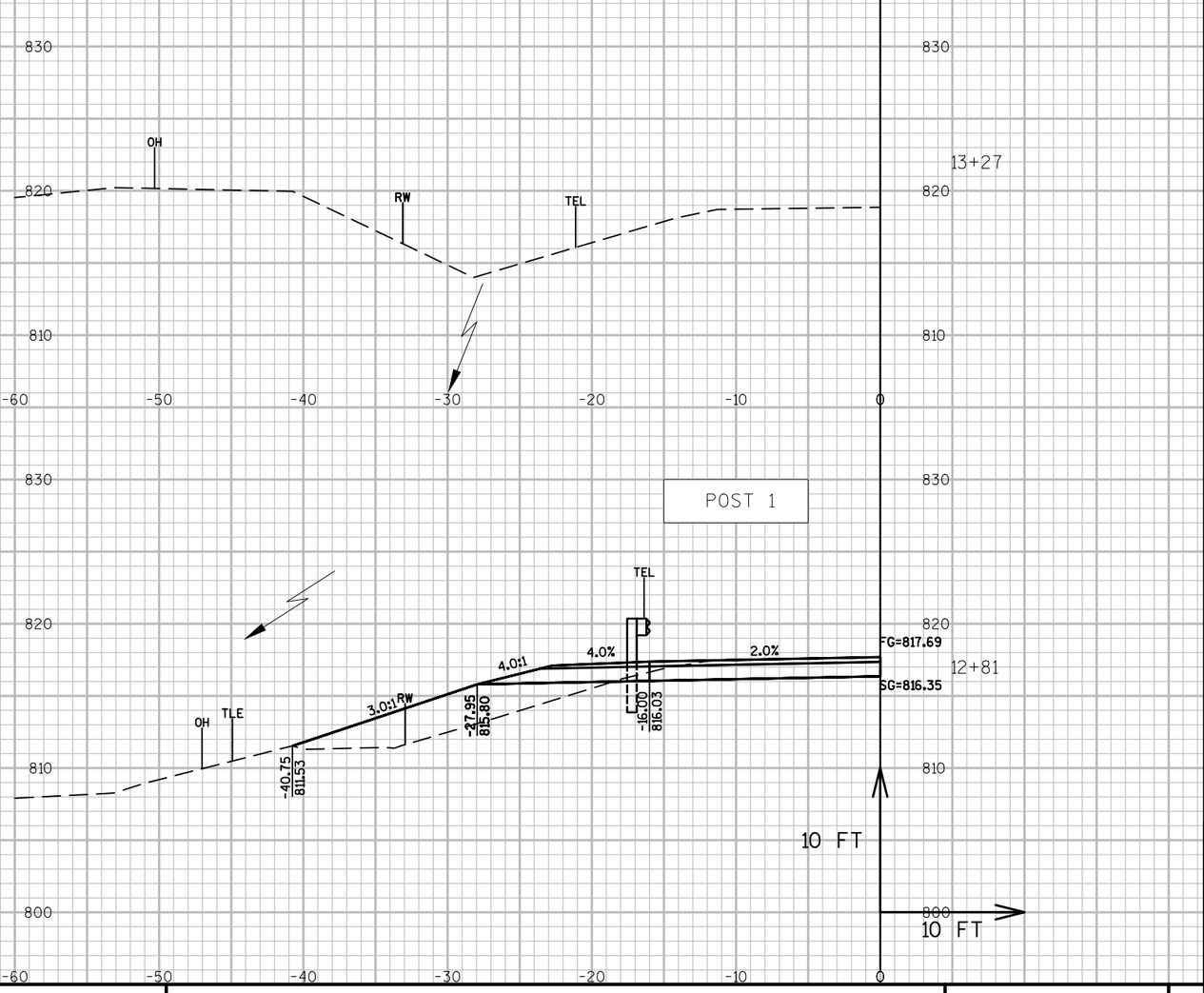
PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET 53	E

POST 5



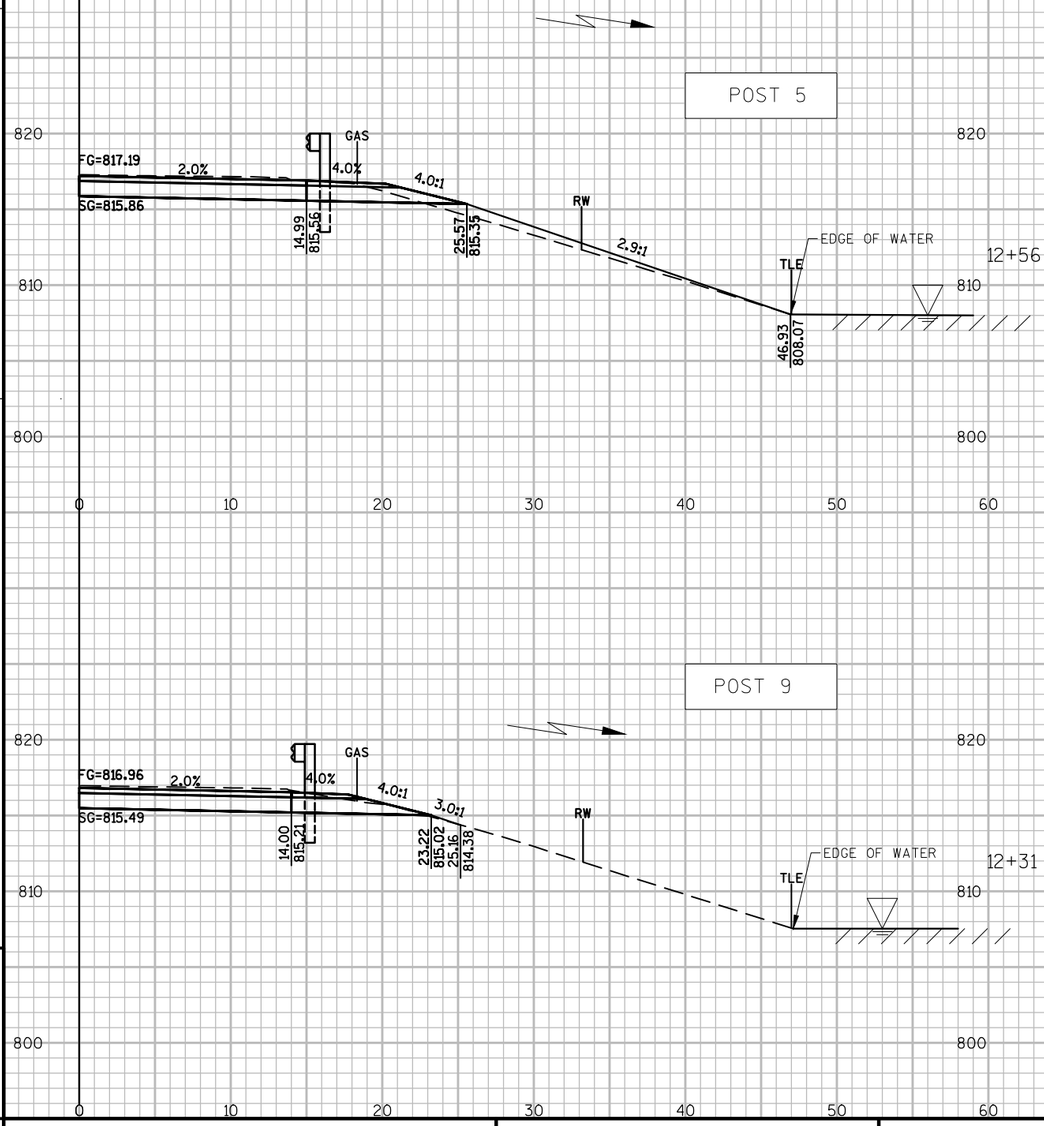
POST 9

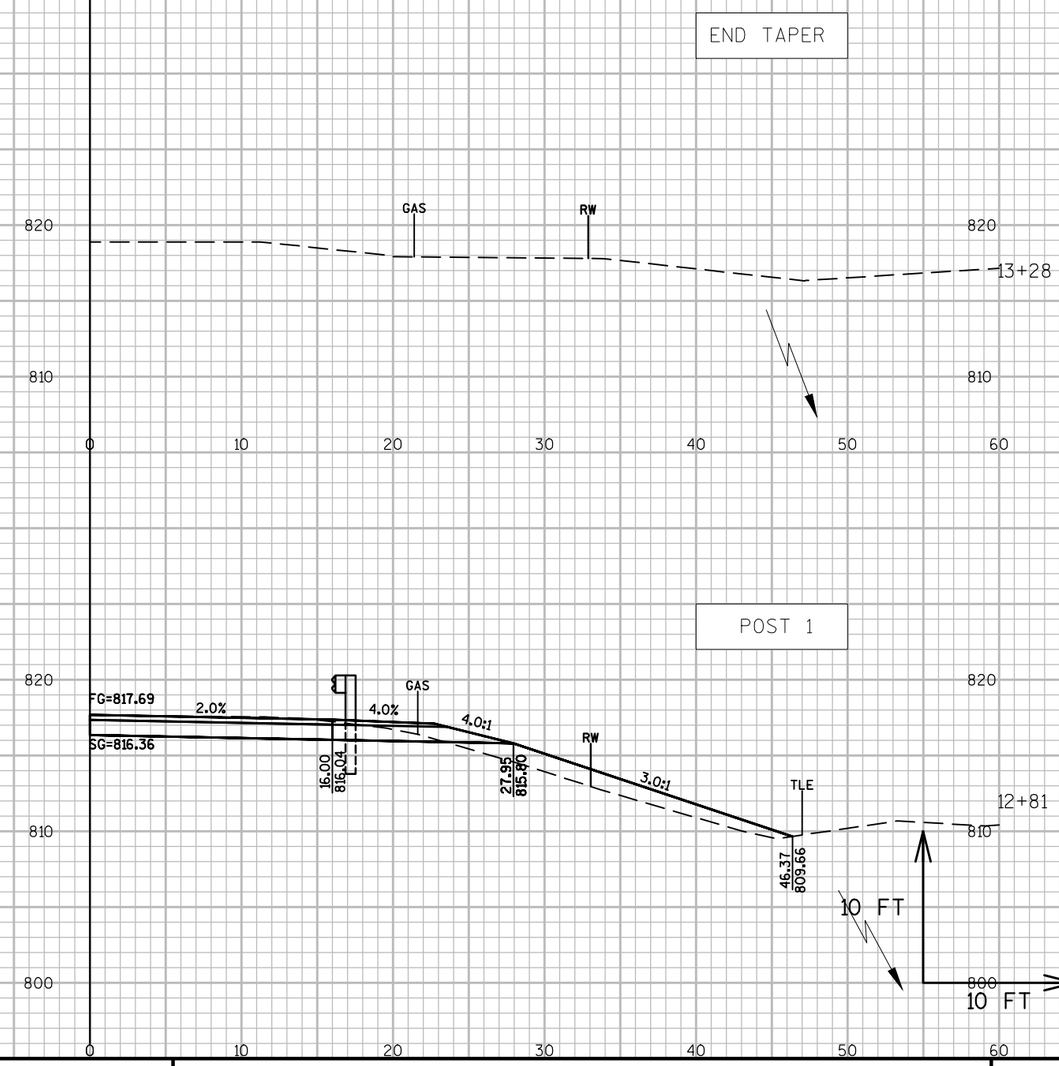
END TAPER



POST 1

PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET 54	E





PROJECT NO: 5651-00-70	HWY: HAYNES ROAD	COUNTY: COLUMBIA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET 55	E

Wisconsin Department of Transportation

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