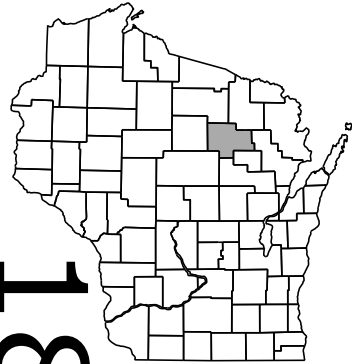


TOTAL SHEETS = 104

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY REHABILITATION PROJECT
LINCOLN COUNTY LINE - ANTIGO
LINCOLN COUNTY LINE TO ZIMA ROAD
STH 64
LANGLADE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9015-12-70	WISC 2014231	1



18

DESIGN DESIGNATION

A.A.D.T. 2014	=	1600
A.A.D.T. 2034	=	1950
D.H.V. 2034	=	15.7
D.D.	=	62/38
T.	=	19.6%
DESIGN SPEED	=	55 MPH
ESALS	=	832,200

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

REFERENCE LINE

COMBUSTIBLE FLUIDS

UTILITIES

ELECTRIC — E —

FIBER OPTIC —— FO ——

GAS _____ G _____

SANITARY SEWER ——— SAN ———

STORM SEWER — SS —

TELEPHONE _____ T _____

WATER ——— W ———

UTILITY PEDESTAL 

POWER POLE 

TELEPHONE POLE $\emptyset$

[illegible]

BEGIN PROJECT 9015-12-70
STA 708+12 STH 64

END PROJECT 9015-12-70
STA 1312+72.71 STH 64

EXCEPTION TO NET CENTERLINE LENGTH
STA 1138+47.78 - 1139+99.89 (STRUCTURE B-34-8)

EXCEPTION TO NET CENTERLINE LENGTH
STA 1038+32.07 - 1039+84.07 (STRUCTURE B-34-5)

EXCEPTION TO NET CENTERLINE LENGTH
STA 1179+86.27 - 1180+84.47 (STRUCTURE B-34-11)

ACKLEY

Antigo

ANTIGO

Trappe

Black

Owen

Lincoln Co.

Marathon Co.

Town of Pine River

64

45

47

52

31

36

37

6

10TH AVE

125 RD

10TH RD

11TH RD

12TH RD

13TH RD

14TH RD

15TH RD

16TH RD

17TH RD

18TH RD

19TH RD

20TH RD

21ST RD

22ND RD

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236TH RD

237TH RD

238TH RD

239TH RD

240TH RD

241ST RD

24

LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 11.452 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY
COORDINATE SYSTEM (WCCS), ' *LANGLADE* ' COUNTY, NAD 1983 (2007)

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE
NATIONAL AMERICAN VERTICAL DATUM OF 1988 NGVD 88 (2007).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor _____

Designer BILL R. GROSCHOPF

Project Manager JIM L. VOLKMANN

Regional Examiner CHERYL L. SIMONRegional Supervisor ANNA M. WISNER

C.O. Examiner _____

APPROVED FOR THE DEPARTMENT

DATE: 1/28/14 Alma Wisner
(Signature)

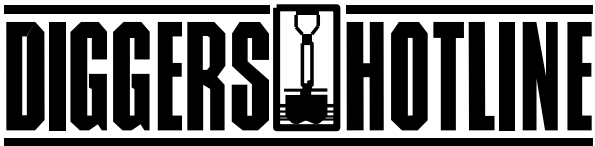
E

GENERAL NOTES

- 1. SIDEROADS AND PRIVATE ENTRANCE STATIONING CALCULATED FROM PHOTOLOG. ALL SIGNS SHALL BE REPLACED IN THE SAME LOCATION,
- 2. WHEN THE QUANTITY OF BASE AGGREGATE DENSE, BASE AGGREGATE DISINTEGRATED RED GRANITE, OR HMA PAVEMENT, TYPE E-1 IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS AS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.
- 3. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS BETWEEN THE SUBGRADE SHOULDER POINTS SHALL BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED.
- 4. THERE ARE UTILITIES IN THIS PROJECT AREA THAT ARE NOT SHOWN ON THE PLAN.

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES

DEPARTMENT OF NATURAL RESOURCES
NORTH CENTRAL DISTRICT
107 SUTLIFF AVENUE
RHINELANDER, WI. 54501
JON SIMONSEN
715-365-8916



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

UTILITIES

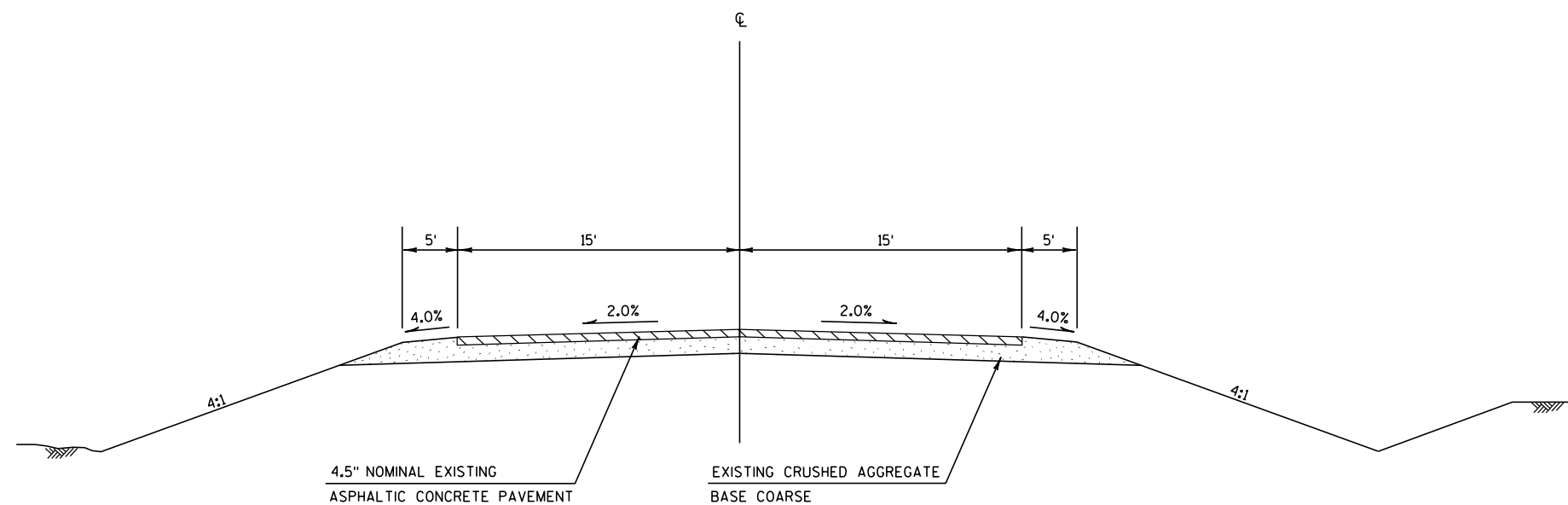
ANR Pipeline Company-Gas/Petroleum
W3925 Pipeline Ln
Eden, Wi 53019
(920) 477-2235
Lawrence Huber
Lawrence.Huber@transcanada.com

ATC MANAGEMENT,INC.- ELECTRICITY
801 O'keefe Rd
P.O. Box 6113
De Pere, WI 54115-6113
(920) 660-2390
Mike Olsen
molson@atcllc.com

CITY GAS COMPANY-GAS/PETROLEUM
733 5TH AVE
ANTIGO, WI 54409
(715) 627-4351
JACK ZIMMERMAN

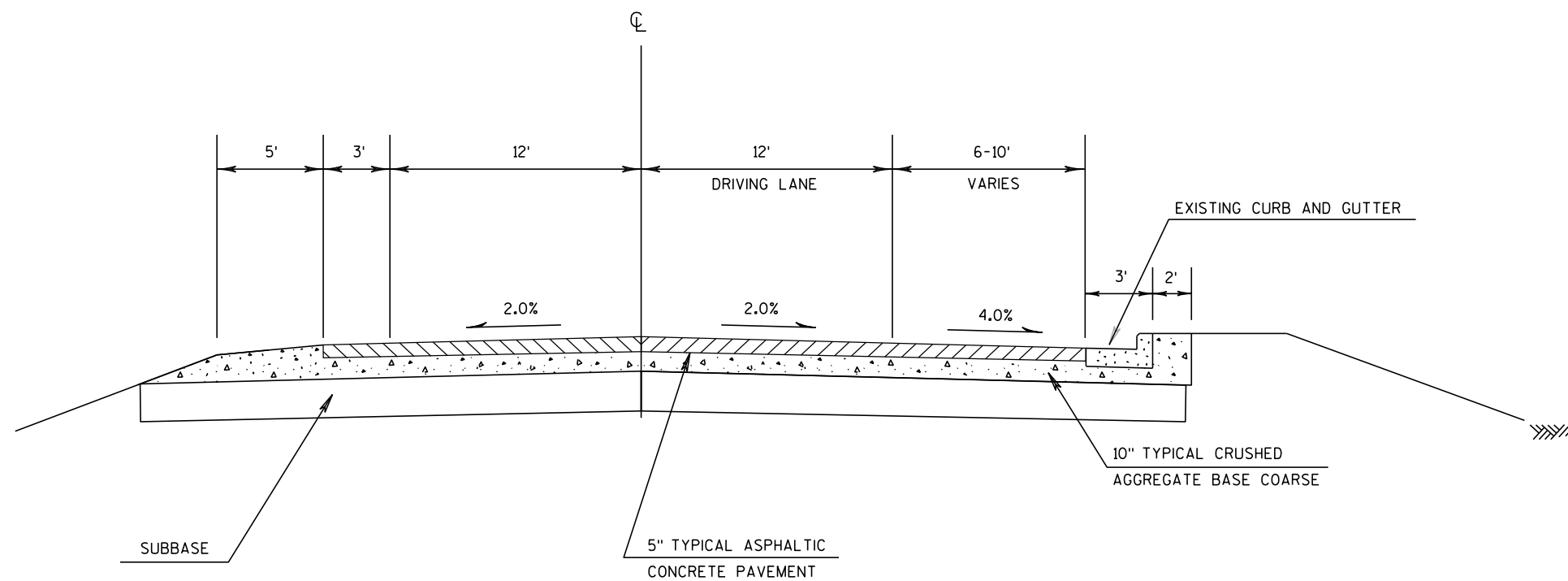
Frontier Communications of WI LLC-Communication Line
118 Division Street
Plymouth, WI 53073
(608) 837-1881
robert.church@ftr.com
Robert Church

WISCONSIN PUBLIC SERVICE-ELECTRICITY
700 N. ADAMS ST.
P.O. BOX 19001
GREEN BAY, WI 54307-9001
(920)-433-1703
Lori Butry
LAButry@integrysgroup.com



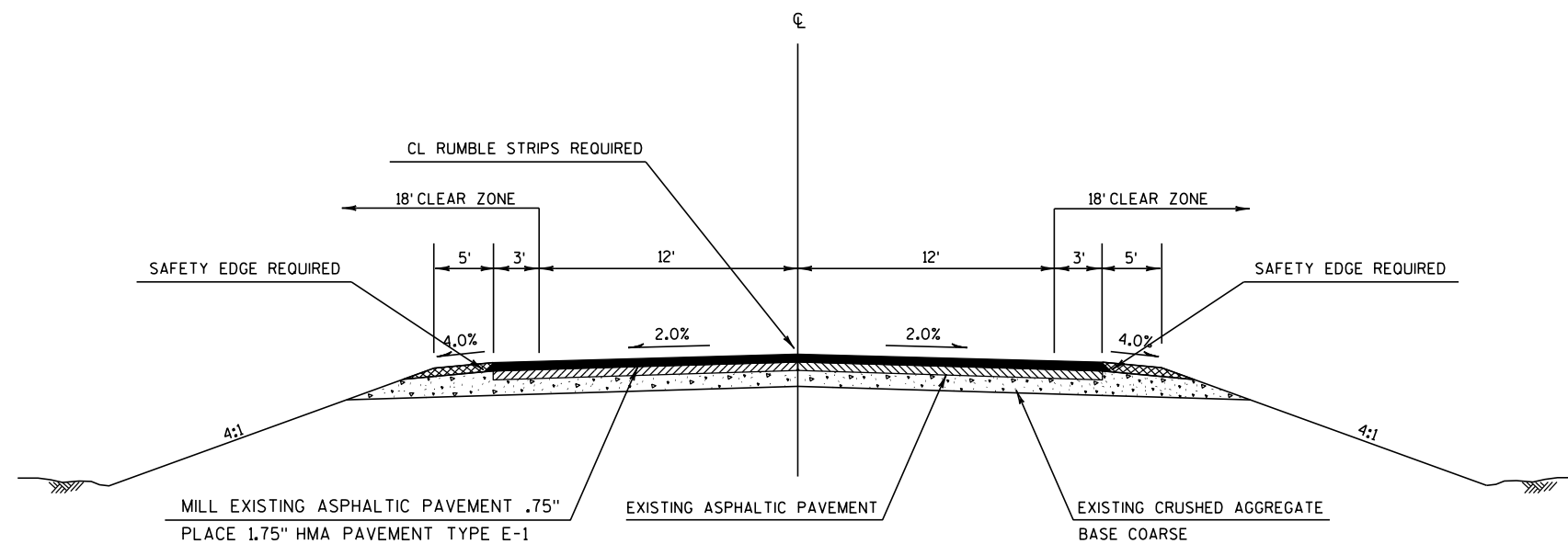
EXISTING TYPICAL SECTION

STA 708+12 - STA 1276+22
STA 1277+75 - STA 1312+72.71



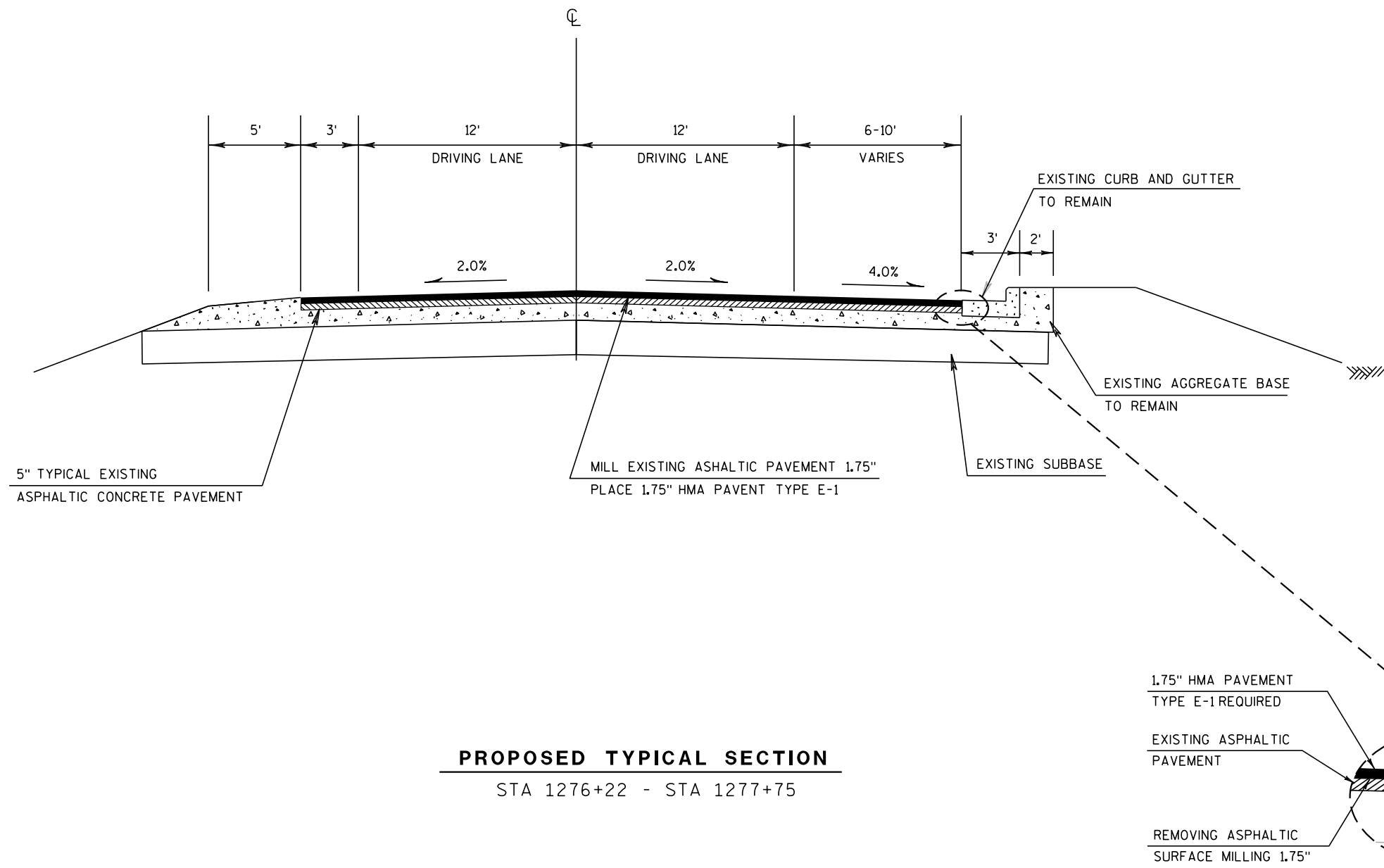
EXISTING TYPICAL SECTION

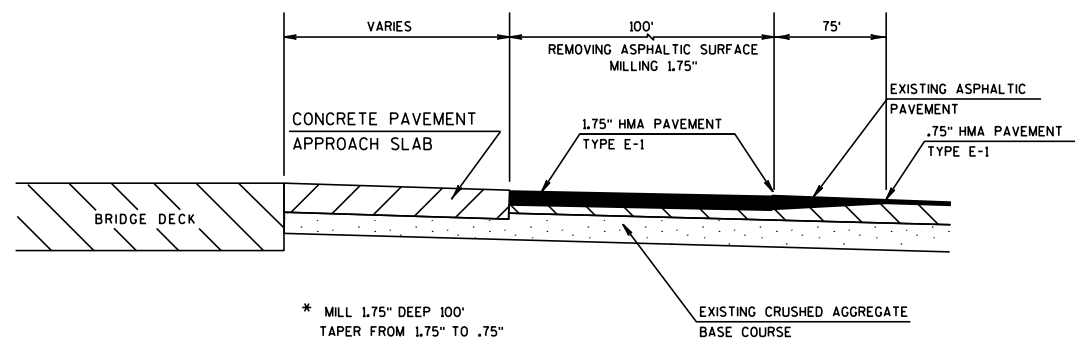
STA 1276+22 - STA 1277+75



PROPOSED TYPICAL SECTION

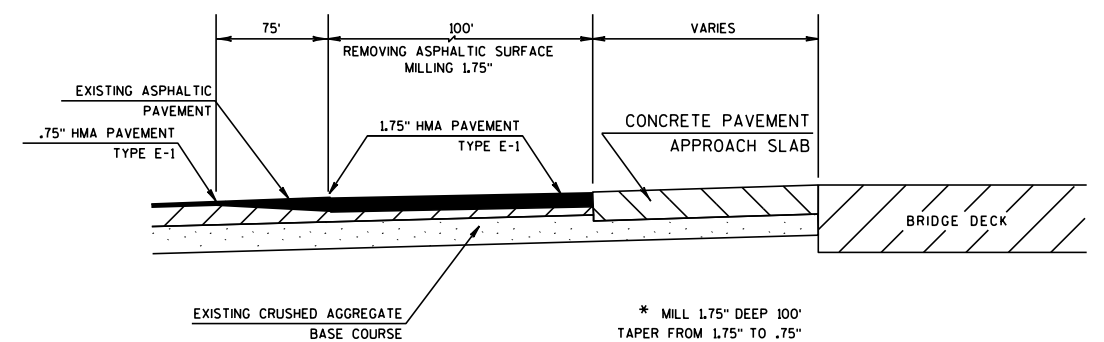
STA 708+12 - STA 1276+22
STA 1277+75 - STA 1312+72.71





EAST APPROACH

B-34-0005 STA 1039+84 - STA 1041+59
B-34-0008 STA 1085+06 - STA 1086+81
B-34-0011 STA 1180+49 - STA 1182+24

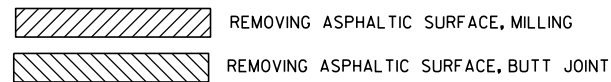
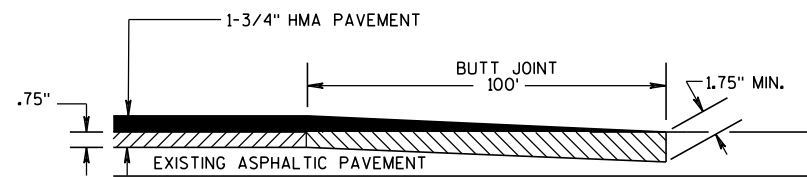


WEST APPROACH

B-34-0005 STA 1036+57 - STA 1038+32
B-34-0008 STA 1082+39 - STA 1084+14
B-34-0011 STA 1177+77 - STA 1179+52

BRIDGE APPROACH DETAIL

B-34-0005, STH 64
B-34-0008, STH 64
B-34-0011, STH 64

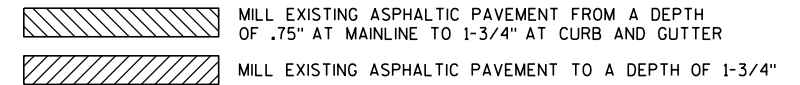
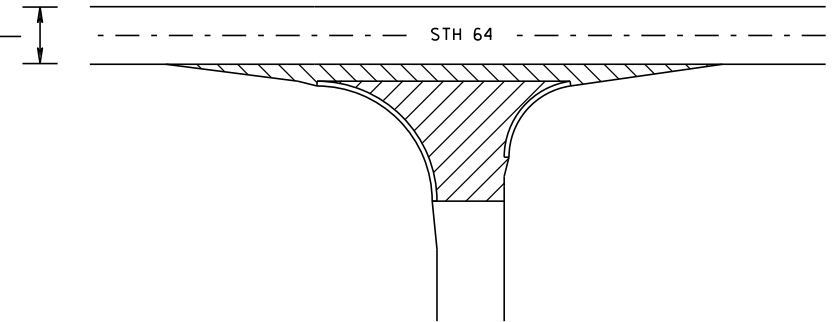


NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

MAINLINE BUTT JOINT DETAIL

STA 708+12 - STA 708+87
STA 1311+97 - STA 1312+72

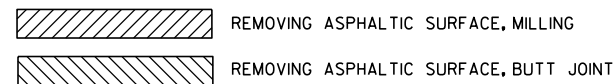
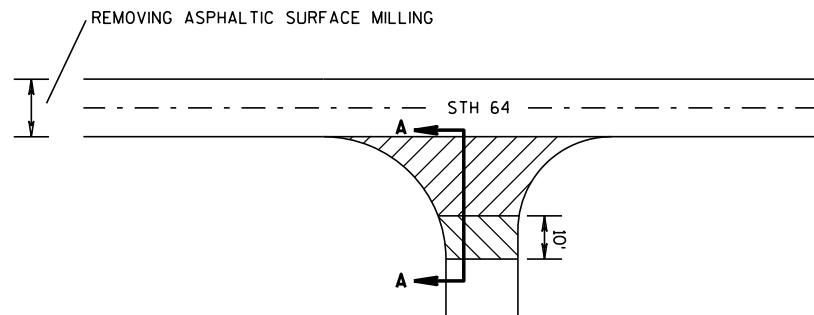
REMOVING ASPHALTIC SURFACE MILLING



NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

BUTT JOINT DETAIL

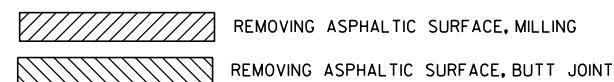
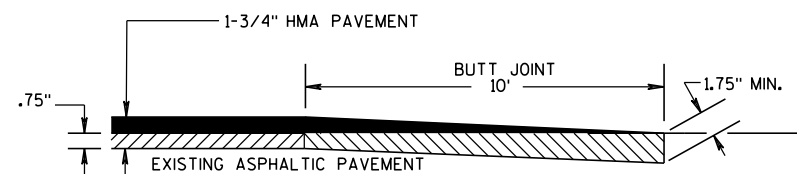
SIDE ROADS WITH CURB AND GUTTER



NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

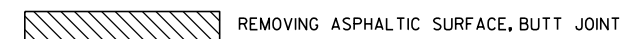
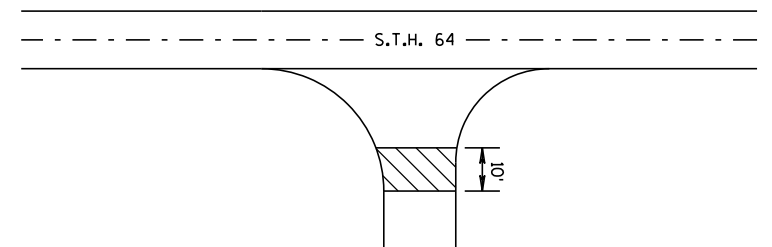
BUTT JOINT DETAIL

SIDE ROADS WITHOUT CURB AND GUTTER
AND DRIVEWAYS



NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

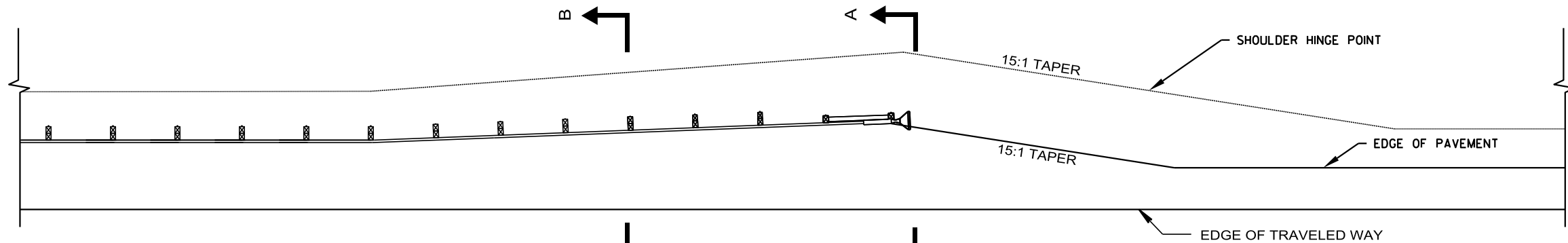
SECTION A-A



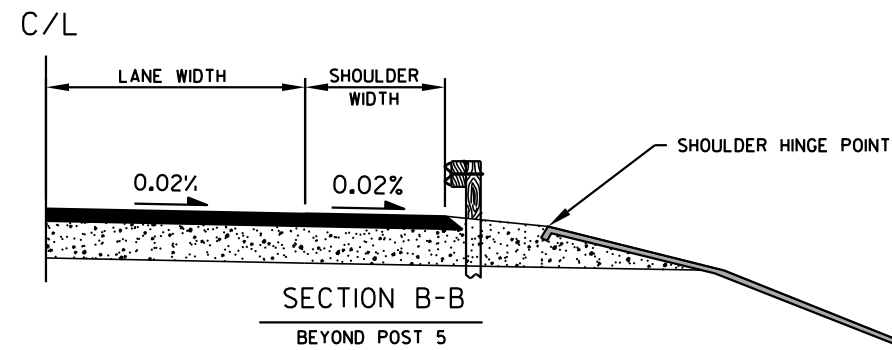
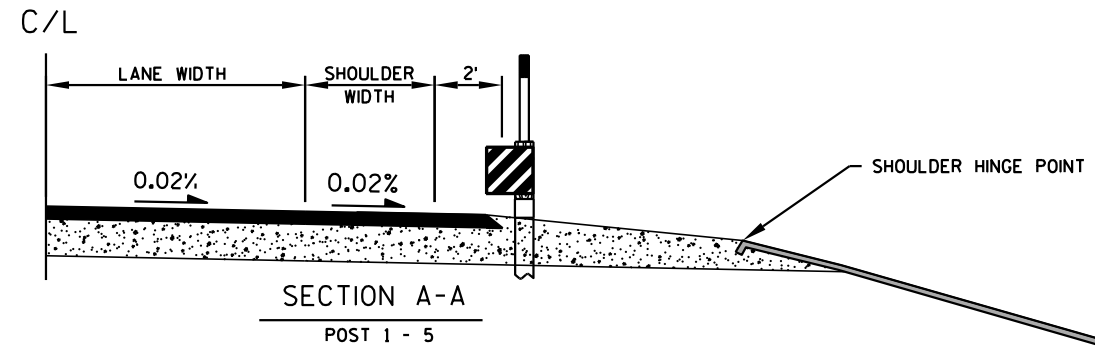
NOTE: EXACT DIMENSIONS AND LOCATIONS TO BE
DETERMINED BY THE ENGINEER IN THE FIELD.

BUTT JOINT DETAIL

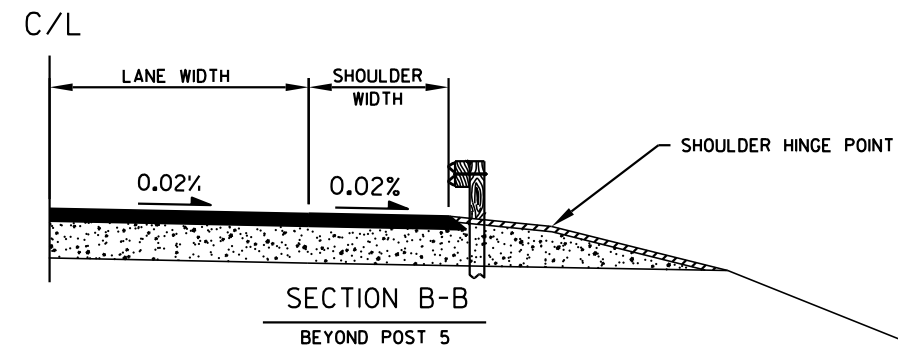
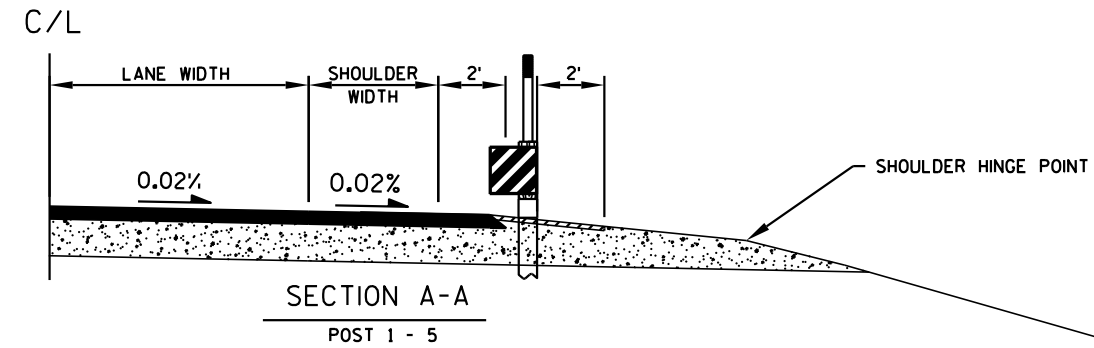
PE'S AND CE'S



SHOULDER PAVING AT GUARDRAIL DETAIL

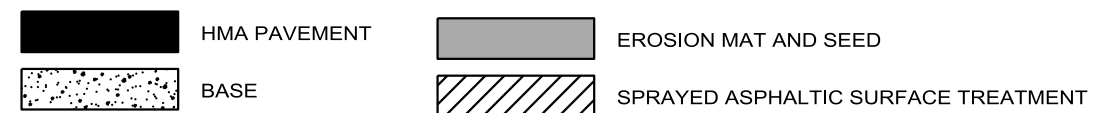


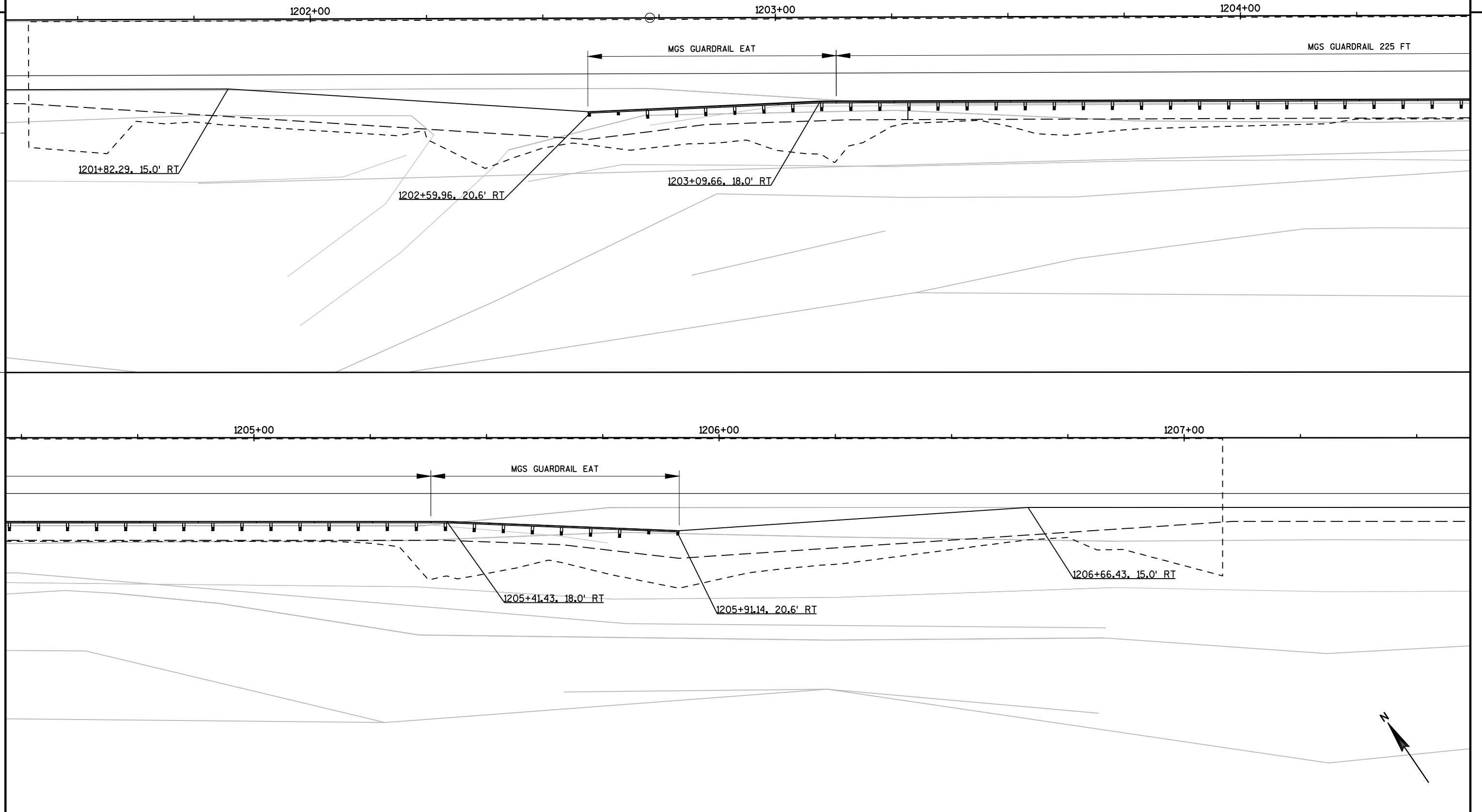
SHOULDER TREATMENT AT GUARDRAIL - EROSION MAT
STA 1202+60 - STA 1205+91 RT

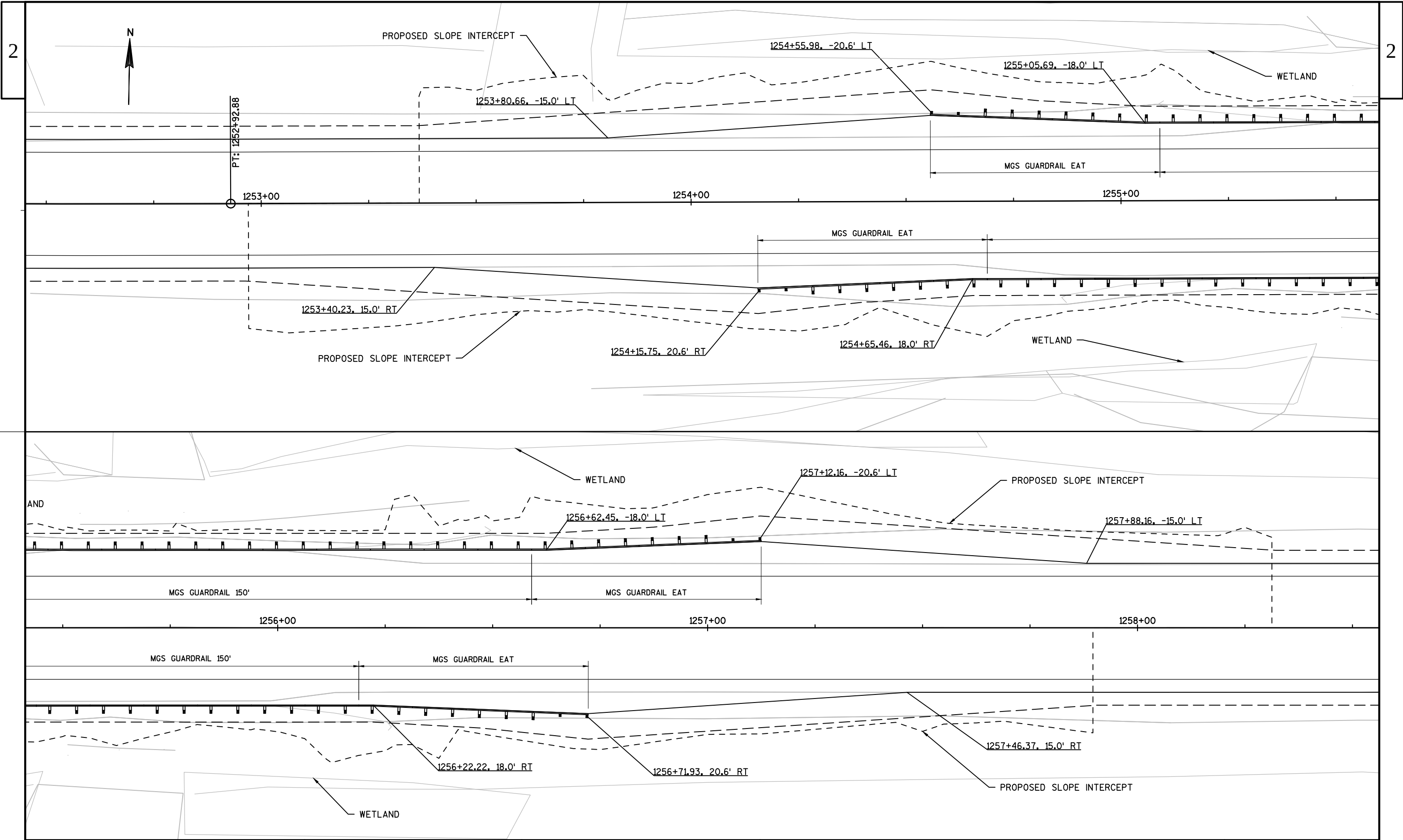


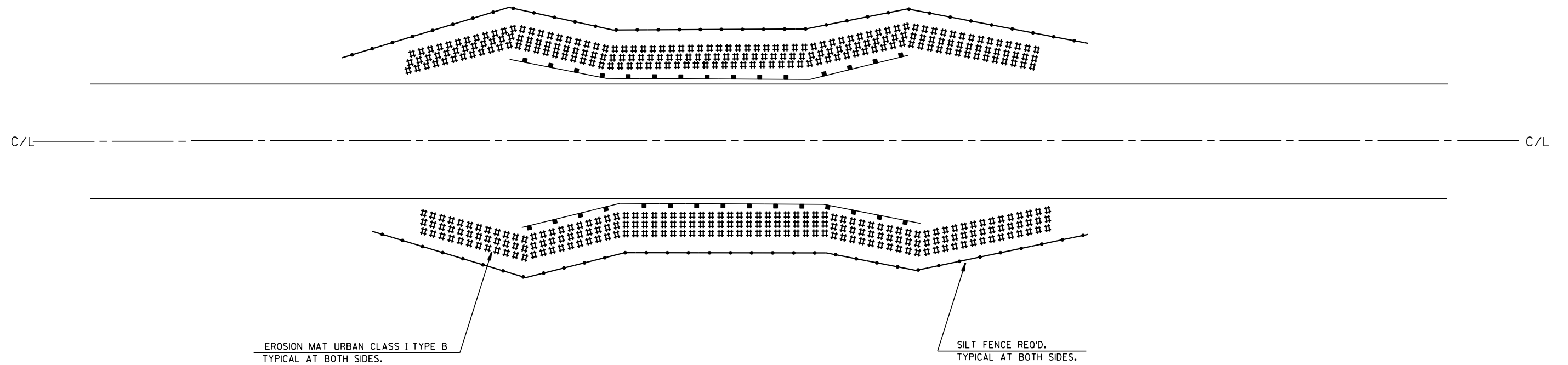
SHOULDER TREATMENT AT GUARDRAIL - SPRAYED ASPHALT
STA 1254+15 - STA 1256+72 RT
STA 1254+56 - STA 1257+12 LT

NOTE: SEE STANDARD DETAIL DRAWINGS
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
MIDWEST GUARDRAIL SYSTEM (MGS) EAT



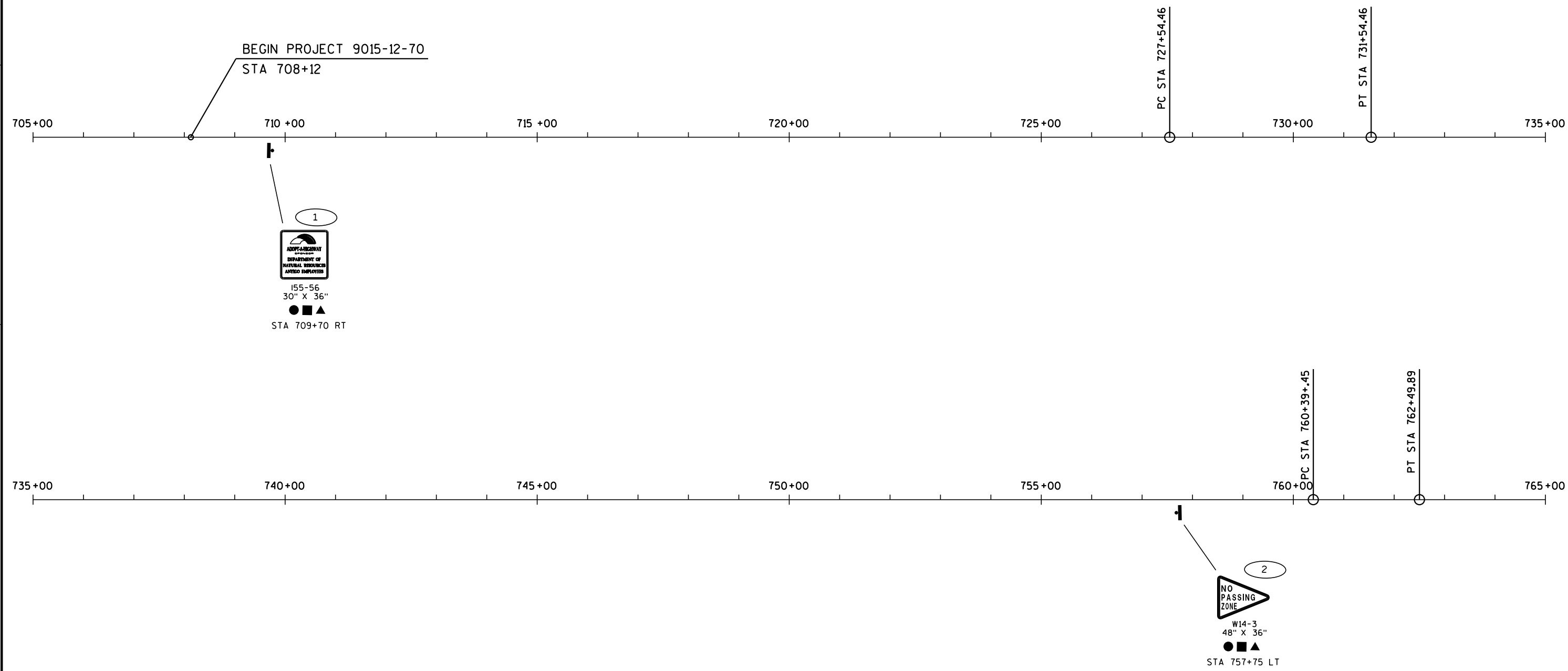


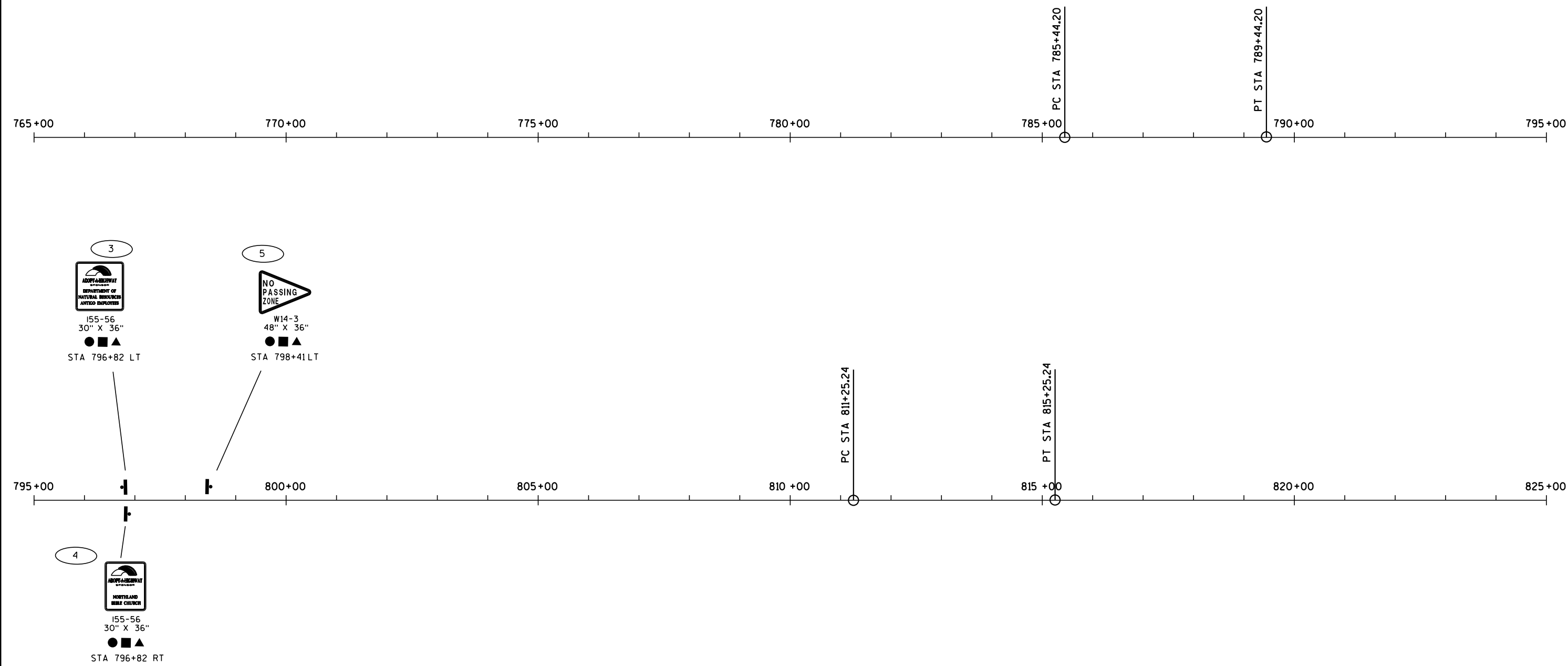




EROSION CONTROL
TYPICAL GUARDRAIL DETAIL

STA 1201+39 - STA 1207+08 LT/RT
STA 1253+00 - STA 1258+31 LT/RT

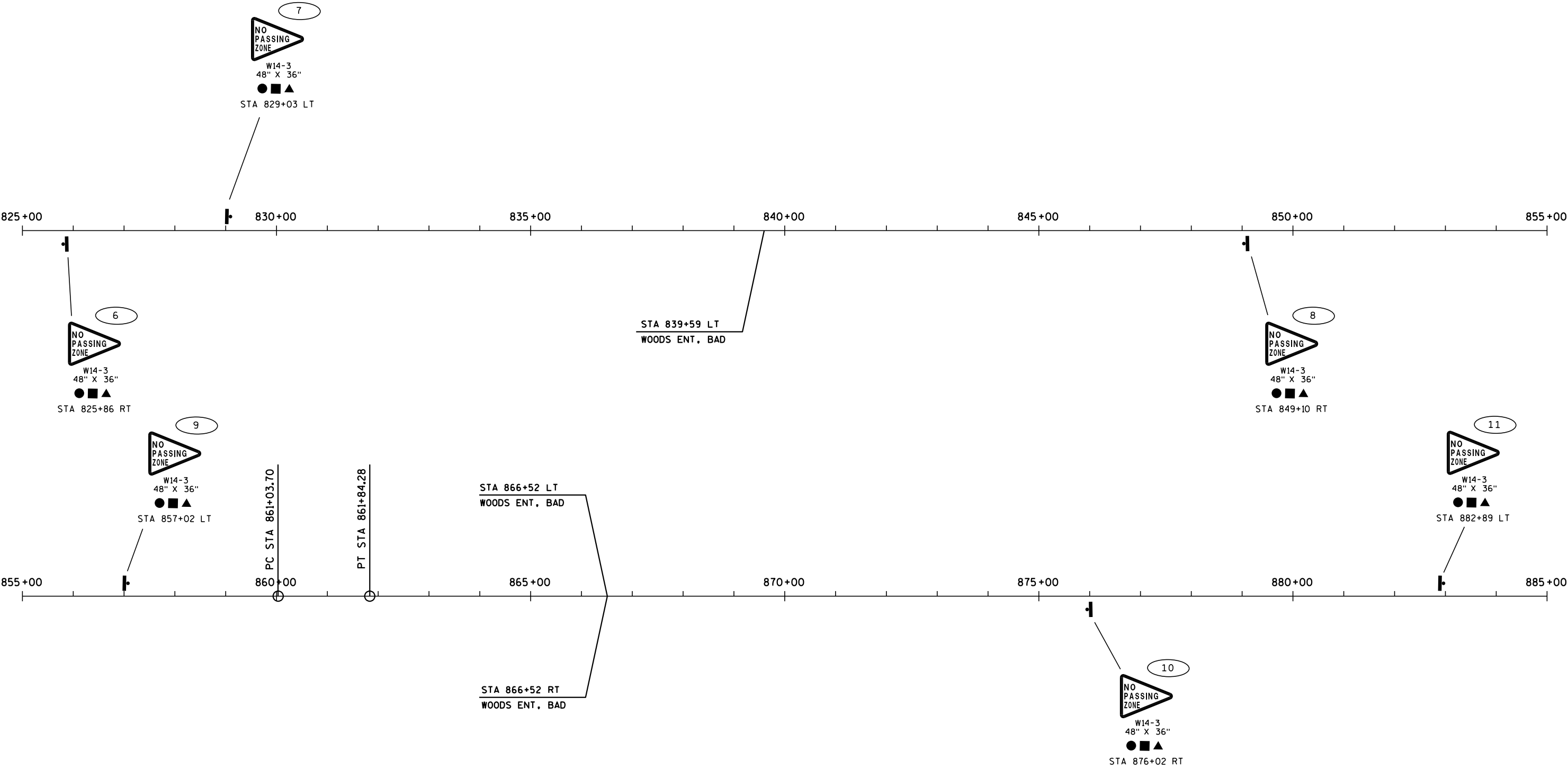




Permanent sign locations are approximate. Final locations shall be placed oi accordance to details and the MUTCD.

No passing zone pennants shall be placed in accordance with the results of the locating No Passing item.

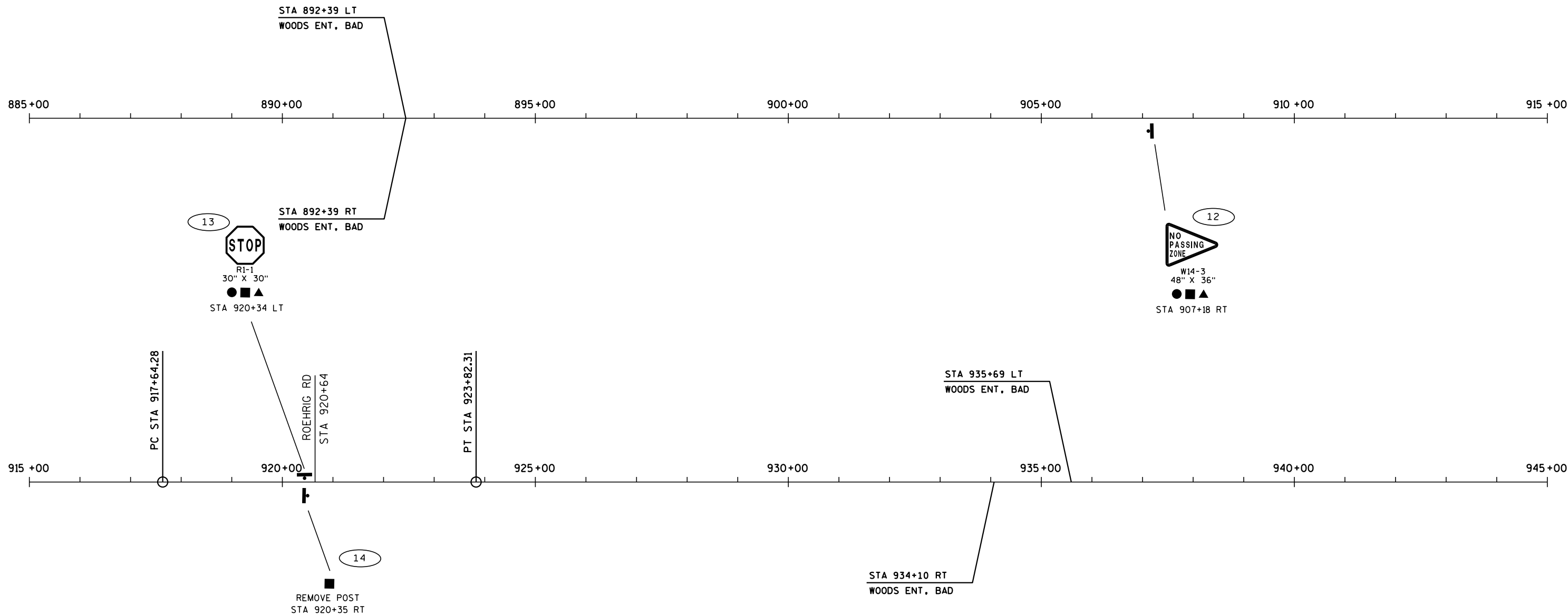
- KEY
- REMOVING SIGNS TYPE 2
 - REMOVING SMALL SIGN SUPPORTS
 - ▲ SIGNS REFLECTIVE TYPE 2
 - ⌚ SIGNS ON DOUBLE SUPPORT
 - ⌚ SIGNS ON SINGLE SUPPORT



Permanent sign locations are approximate. Final locations shall be placed in accordance to details and the MUTCD.

No passing zone pennants shall be placed in accordance with the results of the locating No Passing item.

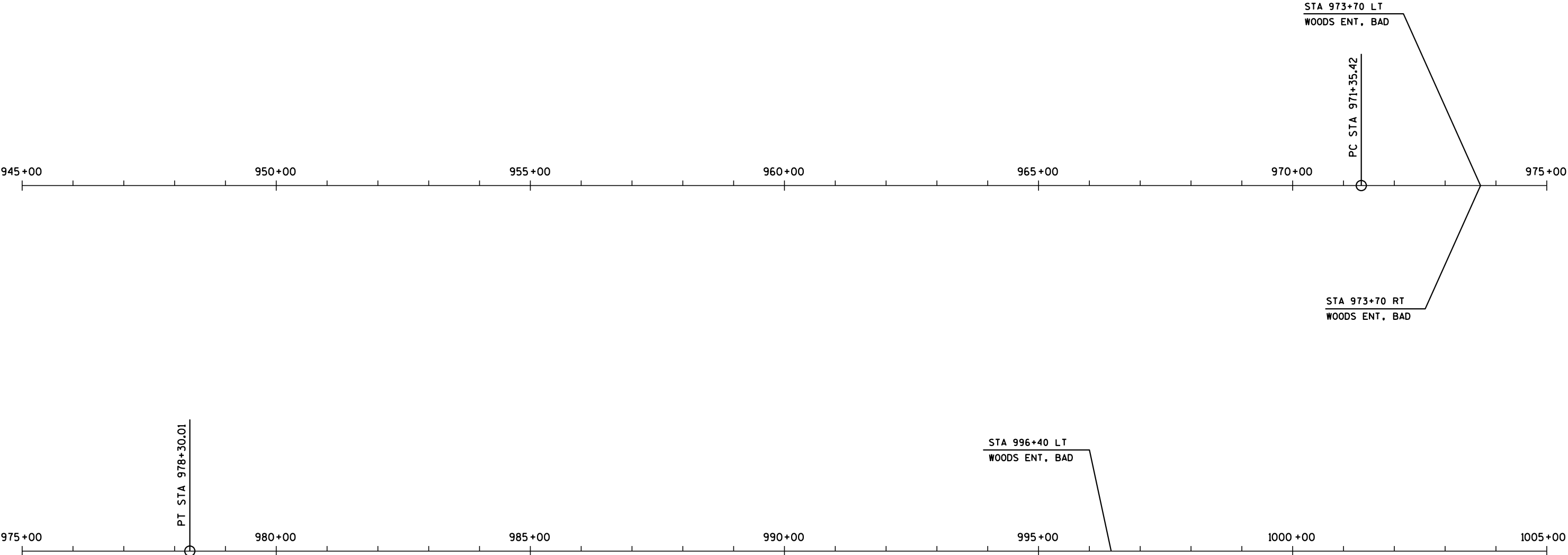
- KEY
- REMOVING SIGNS TYPE 2
 - REMOVING SMALL SIGN SUPPORTS
 - ▲ SIGNS REFLECTIVE TYPE 2
 - ┌ SIGNS ON DOUBLE SUPPORT
 - └ SIGNS ON SINGLE SUPPORT



Permanent sign locations are approximate. Final locations shall be placed in accordance to details and the MUTCD.

No passing zone pennants shall be placed in accordance with the results of the locating No Passing item.

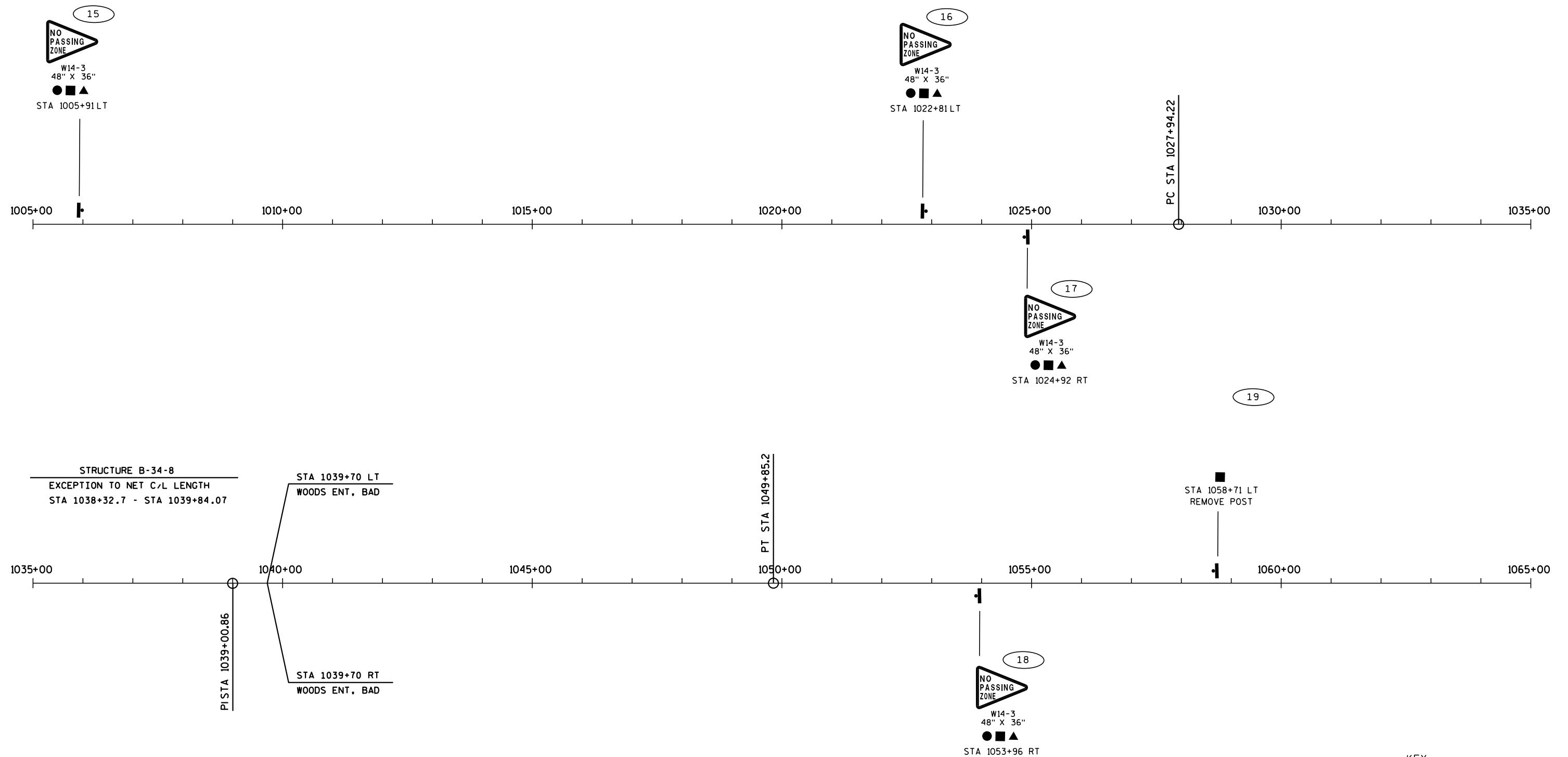
- KEY
- REMOVING SIGNS TYPE 2
 - REMOVING SMALL SIGN SUPPORTS
 - ▲ SIGNS REFLECTIVE TYPE 2
 - ⌚ SIGNS ON DOUBLE SUPPORT
 - ⌚ SIGNS ON SINGLE SUPPORT



Permanent sign locations are approximate. Final locations shall be placed oi accordance to details and the MUTCD.

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- KEY
- REMOVING SIGNS TYPE 2
 - REMOVING SMALL SIGN SUPPORTS
 - ▲ SIGNS REFLECTIVE TYPE 2
 - ⌋ SIGNS ON DOUBLE SUPPORT
 - ⌋ SIGNS ON SINGLE SUPPORT



Permanent sign locations are approximate. Final locations shall be placed in accordance to details and the MUTCD.

No passing zone pennants shall be placed in accordance with the results of the locating No Passing item.

KEY

- REMOVING SIGNS TYPE 2
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE 2
- ┌ SIGNS ON DOUBLE SUPPORT
- └ SIGNS ON SINGLE SUPPORT

PROJECT NO: 9015-12-70

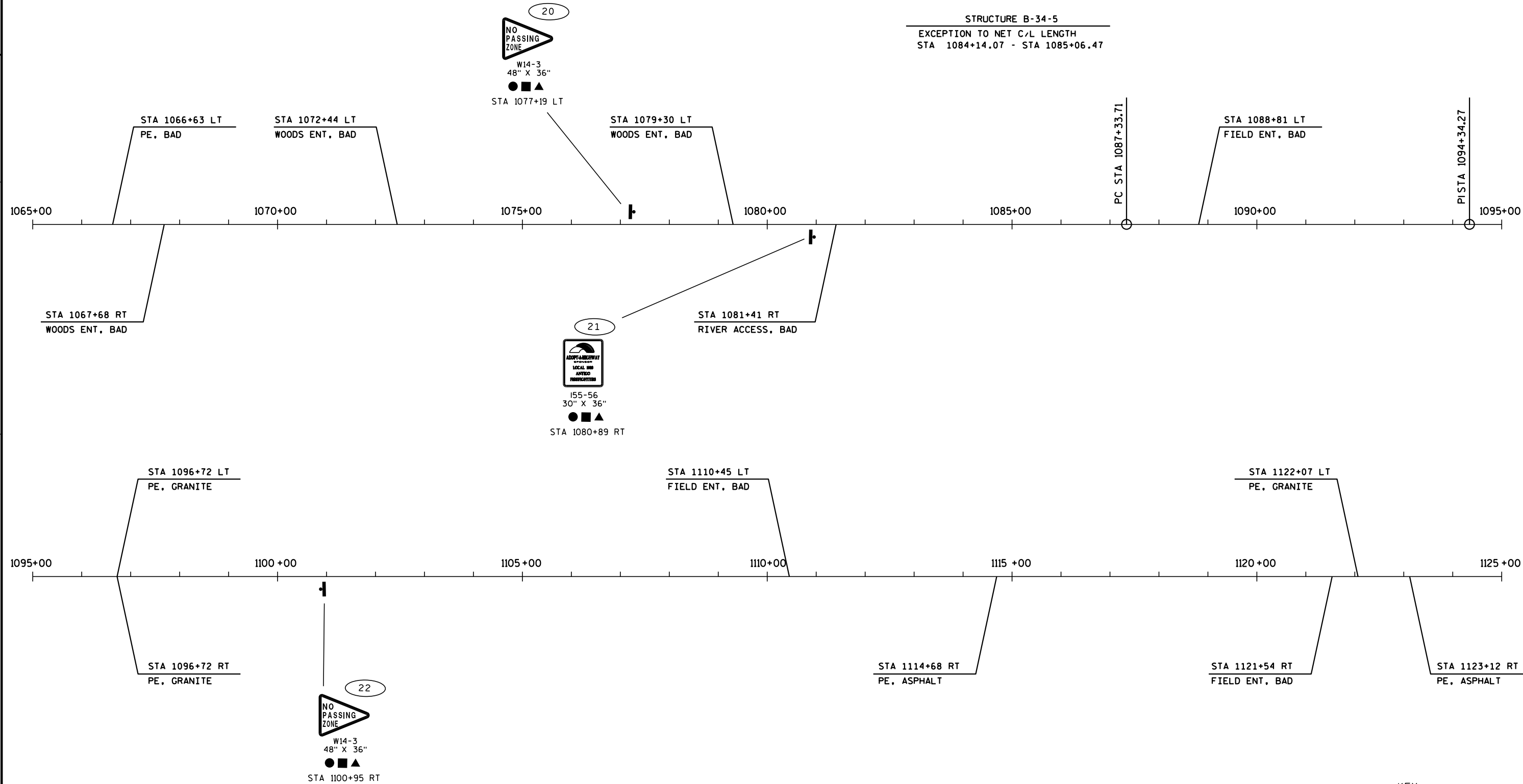
HWY: STH 64

COUNTY: LANGLADE

PERMANENT SIGNING

SHEET

E



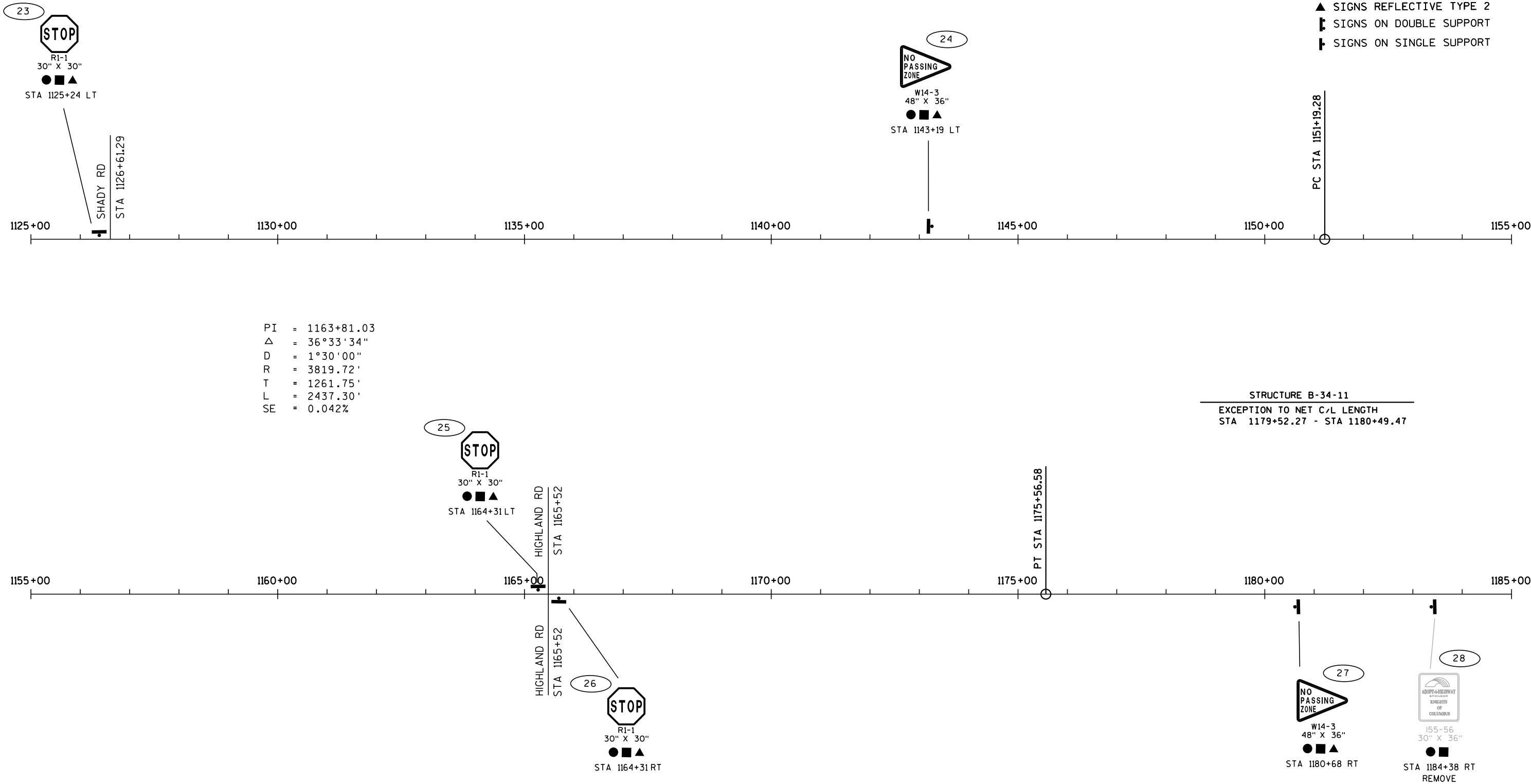
Permanent sign locations are approximate. Final locations shall be placed on accordance to details and the MUTCD.

No passing zone pennants shall be placed in accordance with the results of the locating No Passing item.

- KEY
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 - REMOVING SMALL SIGN SUPPORTS
 - ▲ SIGNS REFLECTIVE TYPE 2
 - ┃ SIGNS ON DOUBLE SUPPORT
 - ┃ SIGNS ON SINGLE SUPPORT

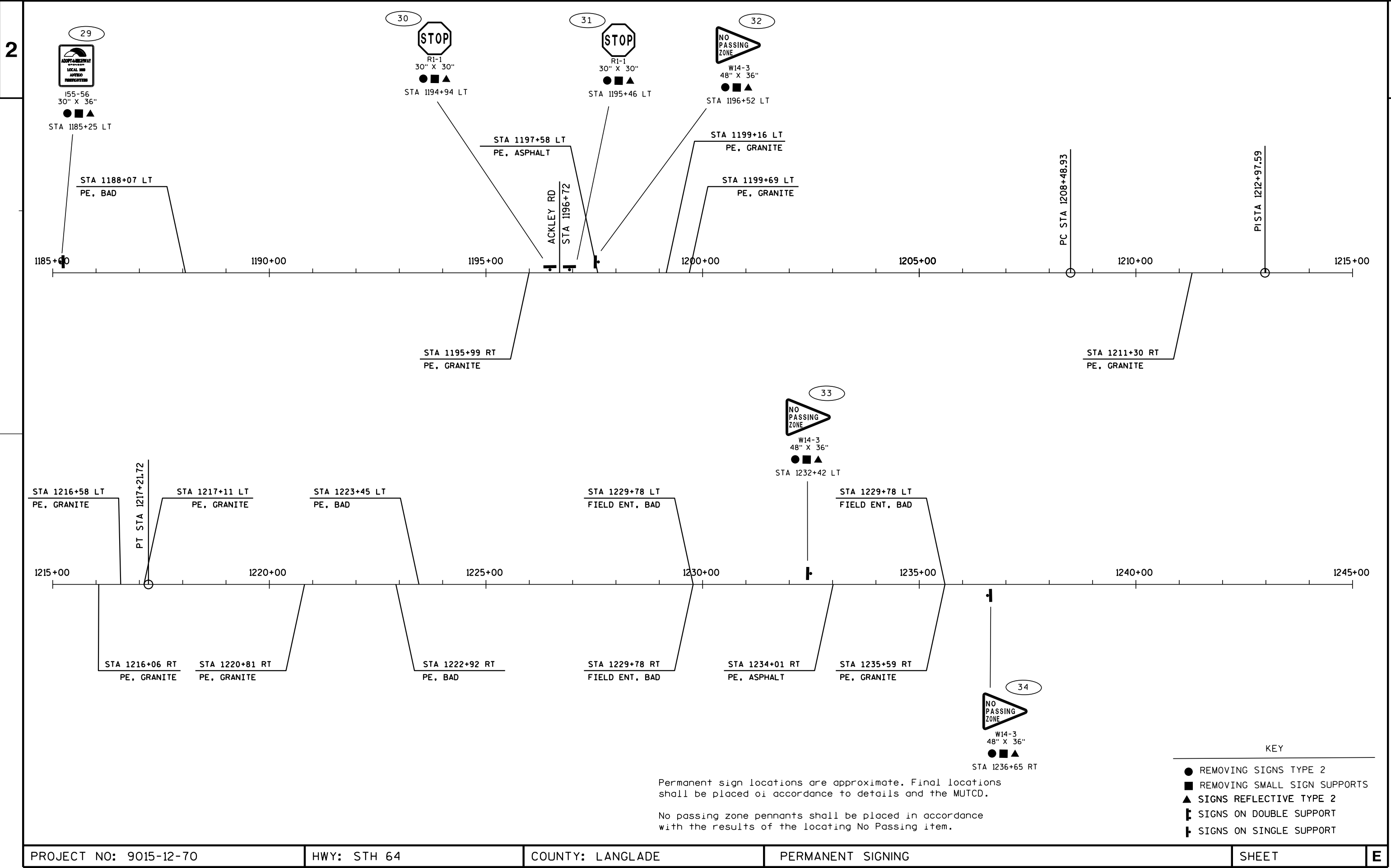
KEY

- REMOVING SIGNS TYPE 2
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE 2
- ⌋ SIGNS ON DOUBLE SUPPORT
- ⌋ SIGNS ON SINGLE SUPPORT

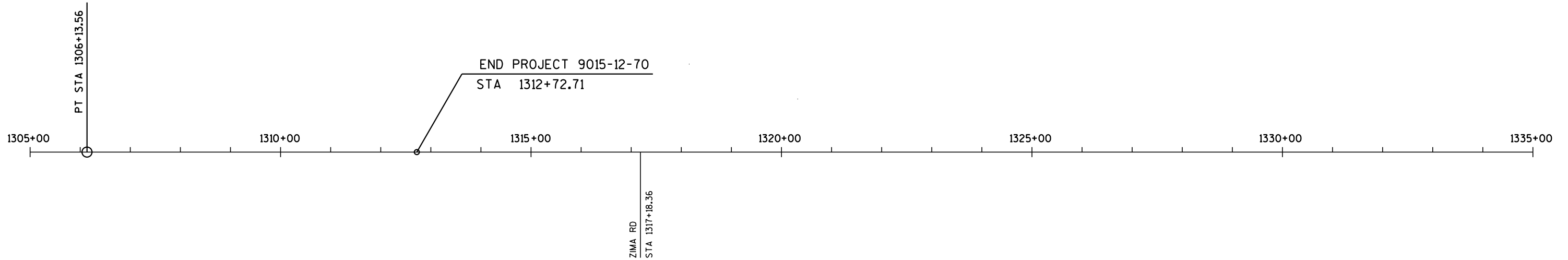


Permanent sign locations are approximate. Final locations shall be placed in accordance to details and the MUTCD.

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KEY

- REMOVING SIGNS TYPE 2
- REMOVING SMALL SIGN SUPPORTS
- ▲ SIGNS REFLECTIVE TYPE 2
- ⌏ SIGNS ON DOUBLE SUPPORT
- ⌏ SIGNS ON SINGLE SUPPORT

PROJECT NO: 9015-12-70

HWY: STH 64

COUNTY: LANGLADE

PERMANENT SIGNING

SHEET

E

LEGEND

- TYPE III BARRICADE WITH SIGN
- X REMOVING OF PAVEMENT MARKINGS
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE. THE CONTRACTOR MAY PROVIDE PORTABLE SIGNALS WITH APPROVAL OF PROJECT ENGINEER.
- DIRECTION OF TRAFFIC FLOW
- DRUM WITH WARNING LIGHT, TYPE C (STEADY BURN)
- TRAFFIC DRUM

NOT TO SCALE

NOTES

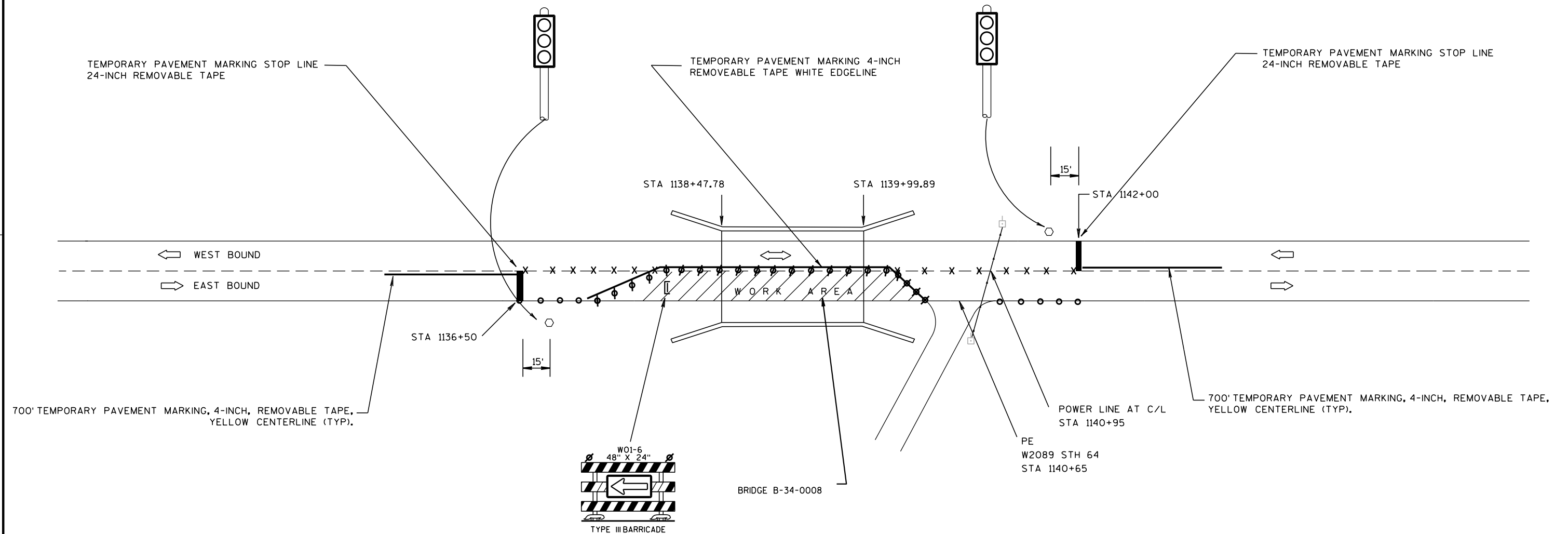
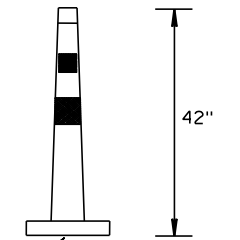
SEE SDD TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS AND MARKING GUIDANCE.

PROPERTY OWNER AT W2089 STH 64 WILL BE NOTIFIED THAT LEAVING PROPERTY WILL BE DONE IN SEQUENCE WITH TEMPORARY TRAFFIC SIGNALS.

PROJECT LEADER WILL NOTIFY PROPERTY OWNER.

42" CHANNELIZERS TO BE PLACED ON STH 64 CENTERLINE SPACE TO BE PAID FOR AS TRAFFIC CONTROL DRUMS.

BASE TO WEIGH A MINIMUM OF 15 LBS.



TEMPORARY SIGNAL DETAIL

(REVERSE FOR OPPOSITE DIRECTION)

PROJECT NO: 9015-12-70

HWY: STH 64

COUNTY: LINCOLN

TRAFFIC CONTROL

SHEET NO:

E

TEMPORARY TRAFFIC SIGNAL TIMING

B-34-0008 , STH 64 , WEST BRANCH EAU CLAIRE RIVER BRIDGE
STOP BAR SPACING = 550 FT
STOP BAR LOCATION: STA. 1136+50 RT. (E.B. STH 64)
STA.1142+00. LT (W.B. STH 64)

SEQUENCE 1 (6:00 AM TO 8:00 PM)

EAST BOUND	WEST BOUND	PHASE		
		YELLOW (SEC)	RED (SEC)	GEEEN (SEC)
RED	RED	-	21	-
GREEN	RED	-	-	16
YELLOW	RED	4	-	-
RED	RED	-	21	-
RED	GREEN	-	-	16
RED	YELLOW	4	-	-
SUB-TOTALS:		8	42	32
TOTAL:		82		

SEQUENCE 2 (8:00 PM TO 6:00 AM)

EAST BOUND	WEST BOUND	PHASE		
		YELLOW (SEC)	RED (SEC)	GEEEN (SEC)
RED	RED	-	21	-
GREEN	RED	-	-	12
YELLOW	RED	4	-	-
RED	RED	-	21	-
RED	GREEN	-	-	12
RED	YELLOW	4	-	-
SUB-TOTALS:		8	42	24
TOTAL:		74		

B-34-0011 , STH 64 , EAST BRANCH EAU CLAIRE RIVER BRIDGE
STOP BAR SPACING = 650 FT
STOP BAR LOCATION: STA. 1177+10 RT. (E.B. STH 64)
STA. 1183+60 LT. (W.B. STH 64)

SEQUENCE 1 (6:00 AM TO 8:00 PM)

EAST BOUND	WEST BOUND	PHASE		
		YELLOW (SEC)	RED (SEC)	GEEEN (SEC)
RED	RED	-	24	-
GREEN	RED	-	-	18
YELLOW	RED	4	-	-
RED	RED	-	24	-
RED	GREEN	-	-	18
RED	YELLOW	4	-	-
SUB-TOTALS:		8	48	36
TOTAL:		92		

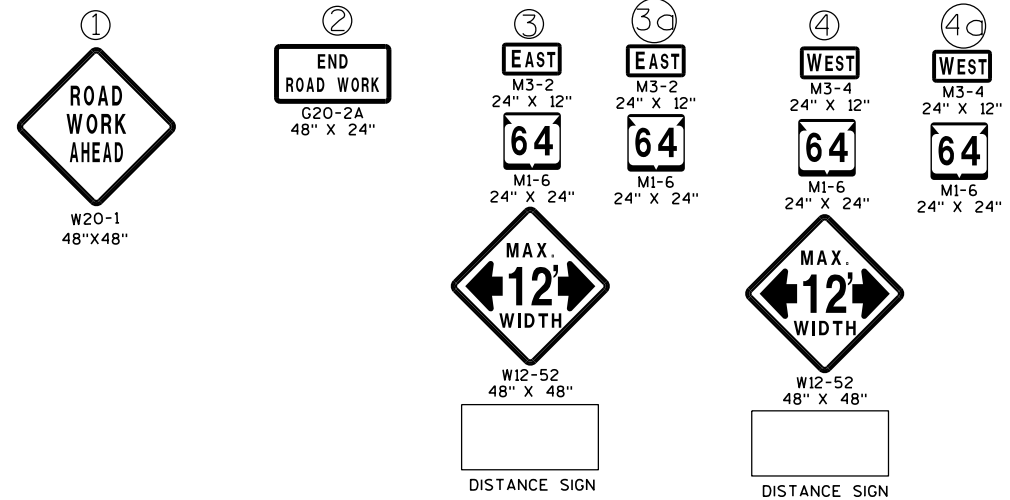
SEQUENCE 2 (8:00 PM TO 6:00 AM)

EAST BOUND	WEST BOUND	PHASE		
		YELLOW (SEC)	RED (SEC)	GEEEN (SEC)
RED	RED	-	24	-
GREEN	RED	-	-	13
YELLOW	RED	4	-	-
RED	RED	-	24	-
RED	GREEN	-	-	13
RED	YELLOW	4	-	-
SUB-TOTALS:		8	48	26
TOTAL:		82		

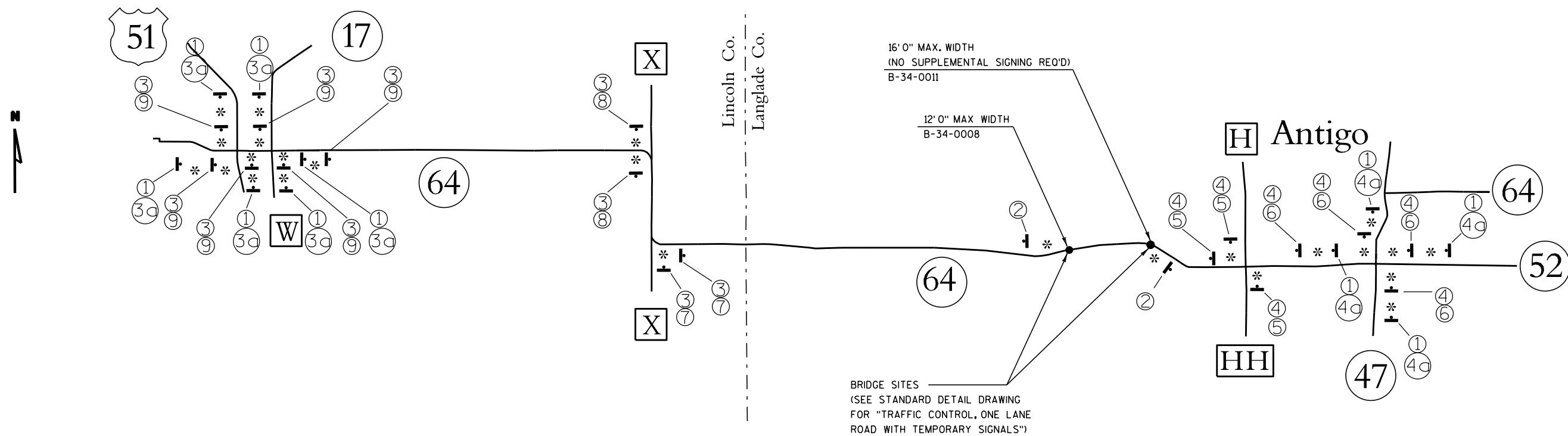
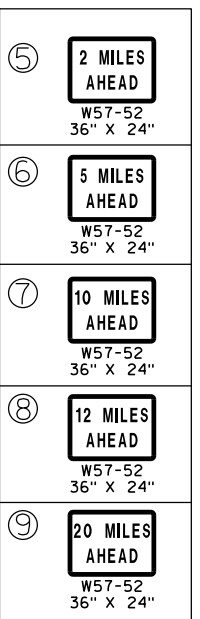
NOTE; IF STOP BAR DISTANCE CHANGES
CONTACT REGION TRAFFIC ENGINEER

TRAFFIC CONTROL NOTES

1. THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE PROJECT ENGINEER.
2. ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE PROJECT ENGINEER.
3. "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.



DISTANCE SIGNS



DATE 02APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE				9015-12-70	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	661.000	661.000
0020	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	202,874.000	202,874.000
0030	204.0165	REMOVING GUARDRAIL	LF	600.000	600.000
0040	211.0100	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 9015-12-70	LS	1.000	1.000
0050	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	15.000	15.000
0060	213.0100	FINISHING ROADWAY (PROJECT) 01. 9015-12-70	EACH	1.000	1.000
0070	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	15,007.000	15,007.000
0080	305.0500	SHAPING SHOULDERS	STA	1,210.000	1,210.000
0090	440.4410.S	INCENTIVE IRI RIDE	DOL	45,800.000	45,800.000
0100	455.0105	ASPHALTIC MATERIAL PG58-28	TON	1,101.000	1,101.000
0110	455.0605	TACK COAT	GAL	5,088.000	5,088.000
0120	460.1101	HMA PAVEMENT TYPE E-1	TON	20,100.000	20,100.000
0130	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	12,800.000	12,800.000
0140	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	100.000	100.000
0150	465.0315	ASPHALTIC FLUMES	SY	45.000	45.000
0160	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	60,058.000	60,058.000
0170	509.0301	PREPARATION DECKS TYPE 1	SY	47.000	47.000
0180	509.0302	PREPARATION DECKS TYPE 2	SY	24.000	24.000
0190	509.2000	FULL-DEPTH DECK REPAIR	SY	5.000	5.000
0200	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	8.000	8.000
0210	509.5100.S	POLYMER OVERLAY	SY	1,377.000	1,377.000
0220	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	348.000	348.000
0230	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	696.000	696.000
0240	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	6.000	6.000
0250	614.2300	MGS GUARDRAIL 3	LF	525.000	525.000
0260	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	6.000	6.000
0270	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 9015-12-70	EACH	1.000	1.000
0280	619.1000	MOBILIZATION	EACH	1.000	1.000
0290	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	80.000	80.000
0300	628.1504	SILT FENCE	LF	1,600.000	1,600.000
0310	628.1520	SILT FENCE MAINTENANCE	LF	374.000	374.000
0320	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	3.000
0330	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	3.000	3.000
0340	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	740.000	740.000
0350	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	41.000	41.000
0360	637.2210	SIGNS TYPE II REFLECTIVE H	SF	154.000	154.000
0370	637.2230	SIGNS TYPE II REFLECTIVE F	SF	126.000	126.000
0380	638.2602	REMOVING SIGNS TYPE II	EACH	45.000	45.000
0390	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	47.000	47.000
0400	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0410	643.0100	TRAFFIC CONTROL (PROJECT) 01. 9015-12-70	EACH	1.000	1.000
0420	643.0300	TRAFFIC CONTROL DRUMS	DAY	1,415.000	1,415.000
0430	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	55.000	55.000
0440	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	615.000	615.000
0450	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,720.000	2,720.000
0460	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	172,524.000	172,524.000
0470	646.0600	REMOVING PAVEMENT MARKINGS	LF	162.000	162.000

DATE 02APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE				9015-12-70	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0480	648.0100	LOCATING NO-PASSING ZONES	MI	11.450	11.450
0490	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	86,148.000	86,148.000
0500	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	4,796.000	4,796.000
0510	649.1400	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH	LF	60.000	60.000
0520	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	60,460.000	60,460.000
0530	661.0100	TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) 01. B-34-0008	LS	1.000	1.000
0540	661.0100	TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) 02. B-34-0011	LS	1.000	1.000
0550	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	2,000.000	2,000.000
0560	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	1,260.000	1,260.000
0570	SPV.0060	SPECIAL 01. TEMPORARY PAVEMENT MARKING REFLECTIVE TABS	EACH	1,210.000	1,210.000
0580	SPV.0060	SPECIAL 02. REESTABLISH SECTION CORNER MONUMENTS	EACH	20.000	20.000
0590	SPV.0090	SPECIAL 01. FOG SEAL RUMBLE STRIPS	LF	60,000.000	60,000.000
0600	SPV.0090	SPECIAL 02. SAWING PAVEMENT DECK PREPARATION AREAS	LF	760.000	760.000
0610	SPV.0165	SPECIAL 01. SPRAYED ASPHALTIC SHOULDER TREATMENT	SF	2,048.000	2,048.000
0620	SPV.0195	SPECIAL 01. BASE AGGREGATE DISINTEGRATED GRANITE	TON	298.000	298.000

Signing					638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 WOOD POSTS 14 FOOT EACH	Description
Sign #	Station	Location	Sign Code	Size						
1	STA 709+70	RT	I-55-56	30 x 36	1	1	7.5		1	ADOPT A HWY, DNR
2	STA 757+75	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
3	STA 796+82	LT	I-55-56	30 x 36	1	1	7.5		1	ADOPT A HWY, DNR
4	STA 796+82	RT	I-55-56			1				ADOPT A HWY SIGN MISSING SIGN REMOVE POST
5	STA 798+41	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
6	STA 825+86	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
7	STA 829+03	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
8	STA 849+10	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
9	STA 857+02	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
10	STA 876+02	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
11	STA 882+89	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
12	STA 907+18	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
13	STA 920+34	LT	R1-1	30 x 30	1	1	5.18		1	STOP ROEHRIG RD
14	STA 920+34	RT	I-55-56			1				ADOPT A HWY SIGN MISSING SIGN REMOVE POST
15	STA 1005+91	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
16	STA 1022+81	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
17	STA 1024+92	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
18	STA 1053+96	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
19	STA 1058+71	LT	I-55-56			1				ADOPT A HWY SIGN MISSING SIGN REMOVE POST
20	STA 1077+19	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
21	STA 1080+89	RT	I-55-56	30 x 36	1	1	7.5		1	ADOPT A HWY LOCAL 1000 ANTIGO FIREFIGHTERS
22	STA 1100+95	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
23	STA 1125+24	LT	R1-1	30 x 30	1	1	5.18		1	STOP SHADY RD
24	STA 1143+19	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
25	STA 1164+31	LT	R1-1	30 x 30	1	1	5.18		1	STOP HIGHLAND RD
26	STA 1164+83	RT	R1-1	30 x 30	1	1	5.18		1	STOP HIGHLAND RD
27	STA 1180+68	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
28	STA 1184+38	RT	I-55-56		1	1				ADOPT A HWY KNIGHTS OF COLUMBUS ANTIGO (REMOVE)
29	STA 1185+25	LT	I-55-56	30 x 36	1	1	7.5		1	ADOPT A HWY LOCAL 1000 ANTIGO FIREFIGHTERS
30	STA 1194+94	LT	R1-1	30 x30	1	1	5.18		1	STOP ACKLEY RD
31	STA 1195+46	LT	R1-1	30 x30	1	1	5.18		1	STOP ACKLEY RD
32	STA 1196+52	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
33	STA 1232+42	LT	W14-3	48 x36	1	1		6	1	NO PASSING ZONE
34	STA 1236+65	LT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
35	STA1258+29	RT	W14-3	48 x 36	1	1		6	1	NO PASSING ZONE
36	STA 1267+80	RT	JV	24 x 63	1	1	10.5		1	JCT H, HH
37	STA 1275+72	LT	J4-1	24 x 36	2	1	6		1	WEST 64
38	STA 1276+78	RT	J13-2	48 x 45	1	1	15		1	H, (LA) HH, (RA)
39	STA 1277+30	RT	R1-1	36 x 36	1	1	7.46		1	STOP CTH H
40	STA 1277+30	RT	J13-1	24 x 45	1	1	7.5		1	64 (DBA)
41	STA 1277+83	LT	R1-1	36 x 36	1	1	7.46		1	STOP CTH HH
42	STA 1277+83	LT	J13-1	24 x 45	1	1	7.5		1	64 (DBA)
43	STA 1278+36	LT	J13-2	48 x 45	1	1	15		1	HH (LA) H (RA)
44	STA 1278+88	RT	I-55-56		1	1				ADOPT A HWY LELAND TOLEFSON VFW POST 2653 (REMOVE)
45	STA 1279+42	LT	I-55-56		1	1				ADOPT A HWY KNIGHTS OF COLUMBUS ANTIGO (REMOVE)
46	STA 1280+47	RT	J4-1	24 x 36	1	1	6		1	EAST 64
47	STA 1287+33	LT	JV	24 x 63	1	1	10.5		1	JCT H, HH
Totals					45	47	154.00	126.00	41	

REMOVING ASPHALTIC SURFACE MILLING		
		204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
STATION	LOCATION	
STA 708+87 - STA 1038+32	LT & RT 30'	109817
STA 1039+84 - STA 1138+48	LT & RT 30'	32880
STA 1140+00 - STA 1179+86	LT & RT 30'	13287
STA 1180+84 - STA 1311+97	LT & RT 30'	43710
STA 1126+61 LT	SHADY ROAD + TAPERS	488
STA 1165+52 LT	HIGHLAND ROAD N. + TAPERS	426
STA 1165+52 RT	HIGHLAND ROAD S. + TAPERS	375
STA 1196+72 LT	ACKLEY ROAD + TAPERS	533
STA 1278+51 LT	CTH H + TAPERS	670
STA 1278+51 RT	CTH HH + TAPERS	688
TOTAL		202874
REMOVING ASPHALTIC SURFACE BUTT JOINTS		
		204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
STATION	LOCATION	
STA 708+12 - STA 708+87		250
STA 1311+97 - STA 1312+72		250
STA 1126+41 LT	SHADY ROAD	24
STA 1165+52 LT	HIGHLAND RD NORTH	24
STA 1165+52 RT	HIGHLAND RD SOUTH	24
STA 1196+72 LT	ACKLEY RD	24
STA 1278+51 LT	CTH H	32
STA 1278+51 RT	CTH HH	33
TOTAL		661
REMOVING GUARDRAIL		
		204.0165 REMOVING GUARDRAIL LF
LOCATION		
STA 1202+73 - STA 1205+73 RT		300
STA 1254+53 - STA 1256+03 LT & RT		300
TOTAL		600

PREPARE FOUNDATION FOR ASPHALTIC SHOULDER		
		211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDER STA
LOCATION		
STA 1253+75 - STA 1258+00 LT GUARDRAIL TAPERS		5
STA 1253+37 - STA 1257+50 RT GUARDRAIL TAPERS		5
STA 1201+87 - STA 1203+12 RT GUARDRAIL TAPERS WEST END		3
STA 1205+40 - STA 1206+65 RT GUARDRAIL TAPERS EAST END		2
TOTAL		15
NOTE; PAVING TO FACE OF RAIL AND 15:1 TAPERS		
BASE AGGREGATE DENSE		
	305.0110 BASE AGGREGATE DENSE 3/4 INCH TON	SPV.0195.01 DISINTEGRATED GRANITE BASE AGGREGATE TON
LOCATION		
STA 708+12- STA 1038+32 LT & RT	7644	
STA 1039+84 - STA 1138+48T & RT	2283	
STA 1140+00 - STA 1179+86 LT & RT	923	
STA 1180+84 - STA 1312+72 LT & RT	3663	
PE's	294	248
UNDISTRIBUTED	200	50
TOTAL		15007
HMA PAVEMENT		
	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0605 TACK COAT GAL
	460.1101 HMA PAVEMENT TYPE E-1 TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
		465.0315 ASPHALTIC FLUMES SY
LOCATIONS		
STA 708+12- STA 1038+32 LT & RT	593	2752
STA 1039+84 - STA 1138+48 LT & RT	177	822
STA 1140+00 - STA 1179+86 LT & RT	72	332
STA 1180+84 - STA 1312+72 LT & RT	238	1099
SIDE ROADS	18	83
PE's		100
STA 1253+37 - STA 1257+87 LT & RT TAPERS	2	36
STA 1201+72 - STA 1206+62 RT TAPERS	1	18
STA 1126+41 SHADY RD N/E QUAD		
STA 1165+52 HIGHLAND RD S. S/W & S/E QUAD		
STA 1196+72 ACKLEY RD N/E QUAD		
STA 1274+13 RT WEST END OF C&G		
UNDISTRIBUTED		100
TOTAL		1101
	5088	20100
		100
		45

PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT)		
		211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING LS
LOCATION		
PROJECT 9015-12-70		1
FINISHING ROADWAY (PROJECT)		
		213.0100 EACH
LOCATION		
PROJECT 9015-12-70		1
TOTAL		1
SHAPING SHOULDERS		
		305.0500 SHAPING SHOULDERS STA
LOCATION		
PROJECT 9015-12-70 LT & RT		1210
STA 708+12 - 1312+72		
TOTAL		1210

3

ASPHALTIC SURFACE RUMBLE STRIPS

465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2 LANE RURAL	
LOCATION	LF
STA 708+12 - STA 1038+32	33020
STA 1039+84 - STA 1138+48	9864
STA 1140+00 - STA 1179+86	3986
STA 1180+84 - STA 1312+72	13188
TOTAL	60058

BARRIER SYSTEM GRADING SHAPING FINISHING
MSG GUARDRAIL
GUARDRAIL TERMINAL EAT

614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH		614.2300 MGS GUARDRAIL 3 LF		614.2610 GUARDRAIL TERMINAL EAT EACH		SPV.0165.01. SPRAYED ASPHALTIC SHOULDER TREATMENT SF		EXCAVATION COMMON CY	FILL CY	TOPSOIL SY	SEED LBS	FERT CWT
LOCATION	EACH	LF	EACH	SF	CY	CY	SY	LBS	CWT			
STA 1253+80 - STA 1257+85 LT	2	150	2	1024	5	23	113	2	0.07			
STA 1253+37 - STA 1257+40 RT	2	150	2	1024	5	22	113	2	0.07			
STA 1201+39 - STA 1207+08 RT	2	225	2		5	23	113	2	0.07			
TOTALS	6	525	6	2048	15	68	339	6	0.21			
					(*)	(*)	(*)	(*)	(*)			

(*) ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY.

CONCRETE BARRIER TEMPORARY

		603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF		603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	
LOCATION	COMMENTS	LF		LF	
B-34-0011	STAGE 1	348		348	
B-34-0011	STAGE 2			348	
TOTAL		348		696	

REFERENCE MONUMENTS

		621.0100 LANDMARK REFERENCE MONUMENTS EA		SPV.0060.02 REESTABLISH SECTION CORNER MONUMENTS EA	
LOCATIONS		EA		EA	
NW Corner, Section 30 T31N, R9E		4		1	
N1/4 Corner, Section 30 T31N, R9E		4		1	
NE Corner, Section 30 T31N, R9E		4		1	
N1/4 Corner, Section 29 T31N, R9E		4		1	
NE Corner, Section 29 T31N, R9E		4		1	
N1/4 Corner, Section 28 T31N, R9E		4		1	
NE Corner, Section 28 T31N, R9E		4		1	
N1/4 Corner, Section 27 T31N, R9E		4		1	
NE Corner, Section 27 T31N, R9E		4		1	
N1/4 Corner, Section 26 T31N, R9E		4		1	
NE Corner, Section 26 T31N, R9E		4		1	
N1/4 Corner, Section 25 T31N, R9E		4		1	
NE Corner, Section 25 T31N, R9E		4		1	
N1/4 Corner, Section 30 T31N, R10E		4		1	
NE Corner, Section 30 T31N, R10E		4		1	
N1/4 Corner, Section 29 T31N, R10E		4		1	
NE Corner, Section 29 T31N, R10E		4		1	
N1/4 Corner, Section 28 T31N, R10E		4		1	
W1/4 Corner, Section 26 T31N, R10E		4		1	
E1/4 Corner, Section 26 T31N, R10E		4		1	
TOTAL		80		20	

EROSION CONTROL

		628.1504 SILT FENCE LF		628.1520 SILT FENCE MAINTENANCE LF		628.2008 EROSION MAT URBAN CLASS I TYPE B SY		628.1905 MOBILIZATIONS EROSION CONTROL EACH	
LOCATION		LF		LF		SY		EACH	
PROJECT									
STA 708+12 - STA 1312+72								3	
BEAM GUARD									
STA 1253+80 - STA 1257+85 LT		450		112		120			
STA 1253+37 - STA 1257+40 RT		450		112		120			
STA 1201+39 - STA 1207+08 RT		600		150		400			
UNDISTRIBUTED		100				100			
TOTALS		1600		374		740		3	

PROJECT NO: 9015-12-70

HWY: STH 64

COUNTY: LANGLADE

MISCELLANEOUS QUANTITIES

SHEET:

E

FILE NAME :

PLOT DATE :

PLOT BY :

PLOT NAME :

PLOT SCALE : 1:1

3

TRAFFIC CONTROL					
LOCATION	643.0100 TRAFFIC CONTROL PROJECT EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0715 WARNING LIGHTS TYPE C DAYS	643.0900 SIGNS DAYS
PROJECT 9015-12-70	1				1125
STA 1254+00 -STA 1257+50 LT & RT GUARDRAIL REPLACEMENT		70			
STA 1202+60 - STA 1205+91 RT GUARDRAIL REPLACEMENT		35			
B-34-8 POYLMER OVERLAY STAGE 1 & 2		110	5	15	95
B-34-11 DECK REPAIRS AND POLYMER OVERLAY (STAGE 1)		600	25	300	750
B-34-11 DECK REPAIRS AND POLYMER OVERLAY (STAGE 2)		600	25	300	750
TOTALS	1	1415	55	615	2720
NOTE: SEE TRAFFIC CONTROL SHEET FOR BRIDGE B-34-8, USING 42" CHANNELIZERS ON CENTERLINE. CHANNELIZERS ARE BEING PAID AS DRUMS.					

TEMPORARY PAVEMENT MARKING				
LOCATION	COMMENTS	649.0100 TEMPORARY PAVEMENT MARKING 4 INCH LF	646.0600 REMOVING PAVEMENT MARKING LF	649.0400 TEMP PAV'T MARKING REM TAPE 4-INCH LF
B-34-8	C/L NO PASSING ZONE	1400	162	1400
B-34-0011	STAGE 1 C/L BRIDGE & S.L.'S	1400		1748
B-34-0011	STAGE 1 SHOULDER: SL - SL			650
B-34-0011	STAGE 2 C/L BRIDGE			348
B-34-0011	STAGE 2 SHOULDER: SL - SL			650
TOTAL		2800	162	4796
		(*)		60
NOTE; (*) ADDITIONAL QUANTITIES SHOWN ELSEWHERE				

LOCATING NO PASSING ZONES		PAVEMENT MARKING	
LOCATION	648.0100 LOCATING NO PASSING ZONES MI	646.0106 PAVEMENT MARKING EPOXY 4 INCH LF	649.0100 TEMPORARY PAVEMENT MARKING 4 INCH LF
STA 708+12 - STA 1312+72	11.45	WEST BOUND SOLID C/L (FINAL)	18388
		EAST BOUND SOLID C/L (FINAL)	18750
		DASHED CENTERLINE BOTH (FINAL)	13608
		WEST BOUND EDGELINE	60929
		EAST BOUND EDGELINE	60849
		CENTERLINE AFTER MILLING	41674
		CENTERLINE AFTER PAVING	41674
TOTAL	11.45	TOTALS	172524

TEMPORARY TRAFFIC SIGNALS FOR BRIDGES		
LOCATION	STRUCTURE	661.0100 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) LS
STH 64	B-34-0008	1
STH 64	B-34-0011	1

RESURFACING REFERENCE	
LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF
PROJECT	
STA 708+12 - STA 1312+72	60460
TOTAL	60460

TEMPORARY PAVEMENT MARKING REFLECTIVE TABS	
LOCATION	SPV.0060.01 EACH
STA 708+12 - STA 1312+72	1210
TOTAL	1210

FOG SEAL RUMBLE STRIPS	
LOCATION	SPV.0090.01 FOG SEAL RUMBLE STRIPS LF
STA 708+12 - STA 1312+72	60000
TOTAL	60000

PI = 708+69.26
Δ = 4°18'57"
D = 1°12'15"
R = 4757.80'
T = 179.28'
L = 358.39'
SE = NC

PI = 729+54.72
Δ = 7°02'12"
D = 1°45'33"
R = 3256.91'
T = 200.25'
L = 400.00'
SE = 0.041%
ST = 262.0

BEGIN PROJECT 9015-12-70
STA 708+12

BEGIN RUMBLE STRIPS

STA 714+98 LT
PE, GRANITE

STA 714+98 LT
WOODS ENT, BAD

STA 714+98 RT
WOODS ENT, BAD

STA 746+66 LT
FIELD ENT, BAD

STA 746+66 RT
FIELD ENT, BAD

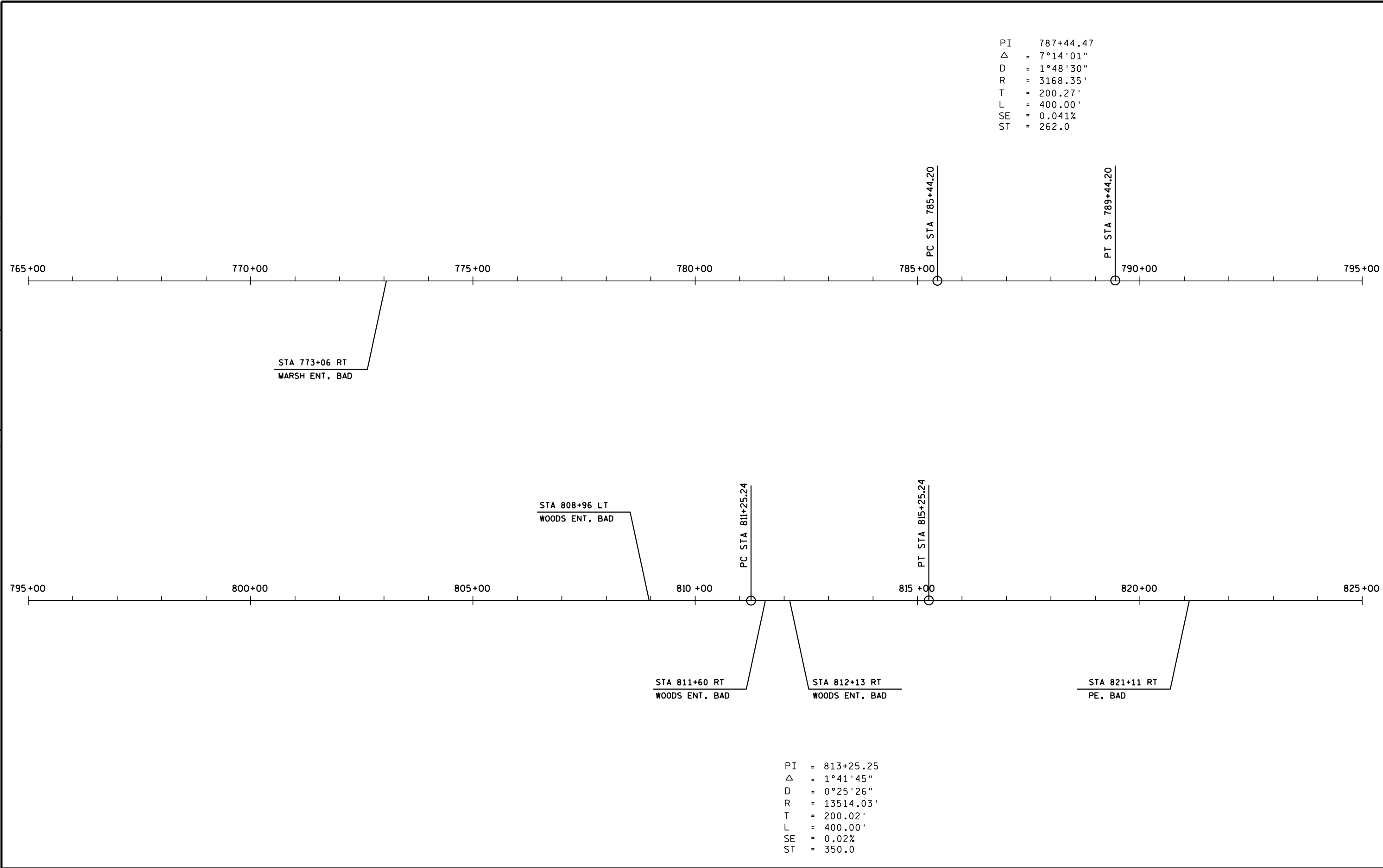
PI = 761+44.67
Δ = 1°03'08"
D = 0°30'00"
R = 11459.16'
T = 105.22'
L = 210.44'
SE = 0.02%
ST = 350.0

705+00 710+00 715+00 720+00 725+00 730+00 735+00

735+00 740+00 745+00 750+00 755+00 760+00 765+00

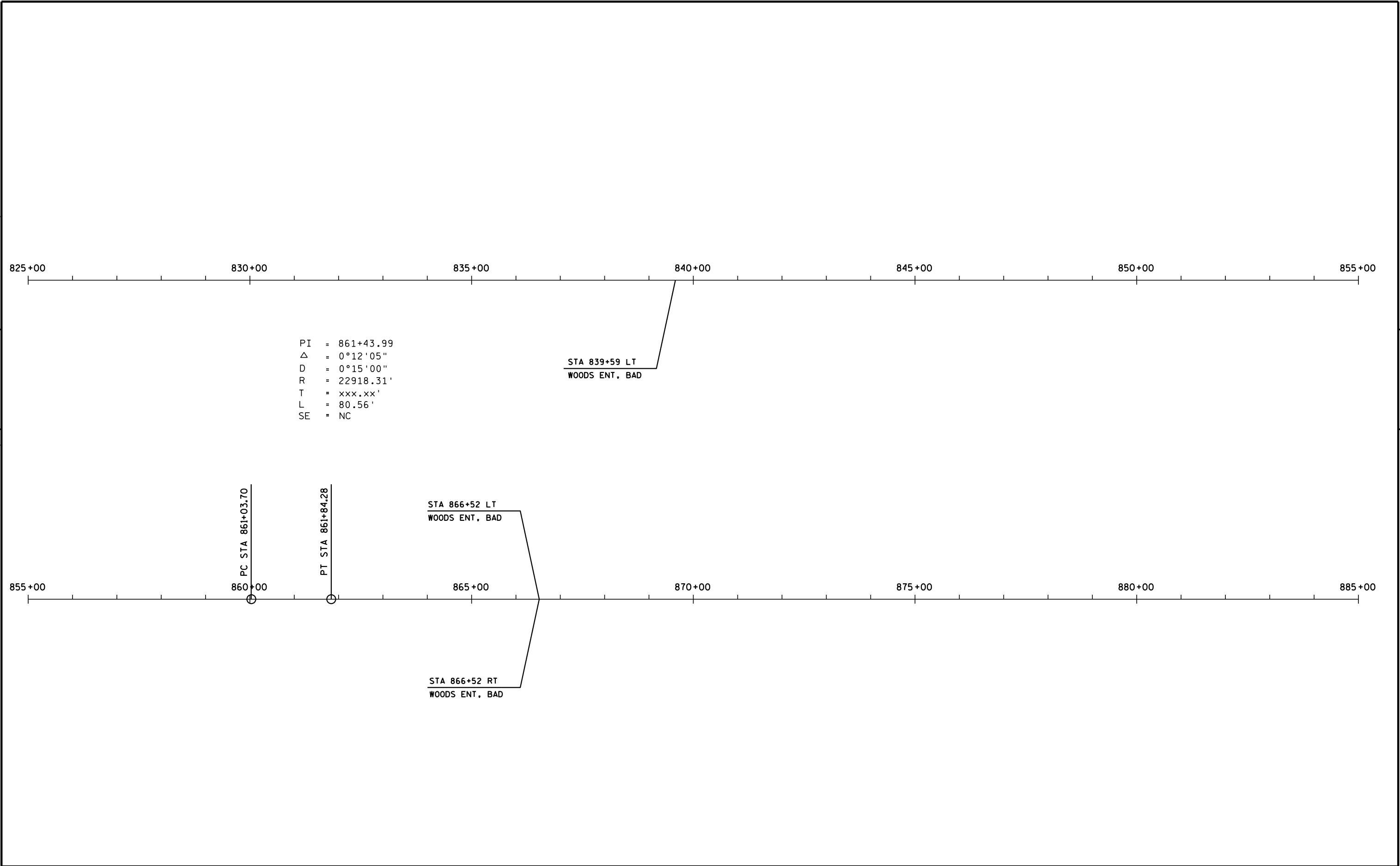
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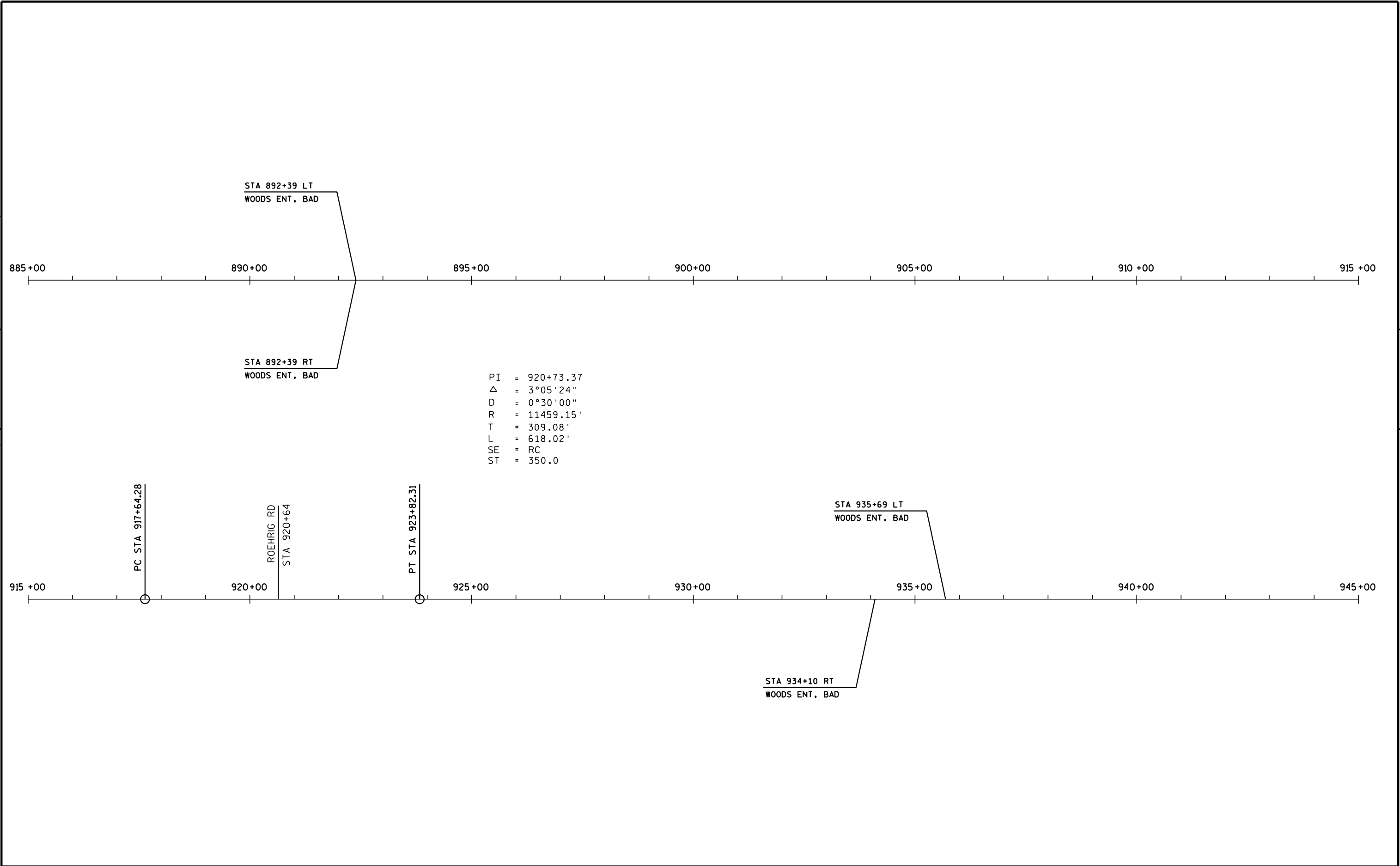
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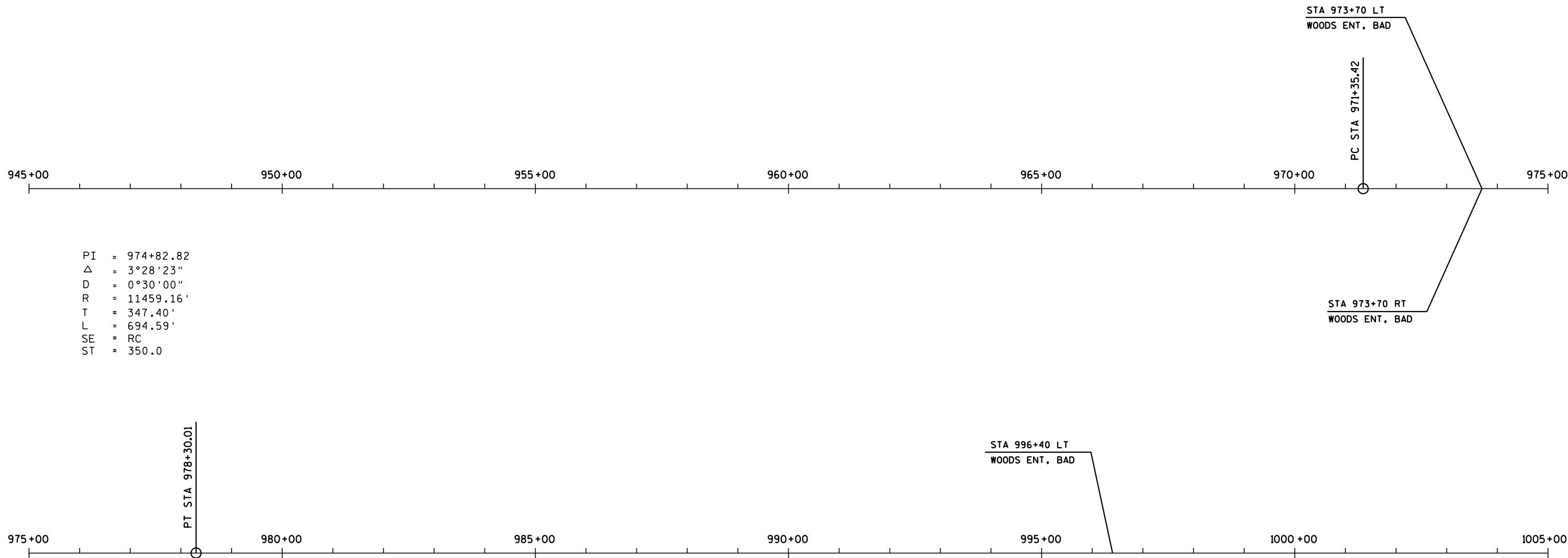
5





5

PI = 974+82.82
Δ = 3°28'23"
D = 0°30'00"
R = 11459.16'
T = 347.40'
L = 694.59'
SE = RC
ST = 350.0



5

5

PI = 1039+00.86
Δ = 19°54'05"
D = 00°54'30"
R = 6307.79'
T = 1106.64'
L = 2190.98'
SE = 0.025%

STRUCTURE B-34-8
EXCEPTION TO NET C/L LENGTH
STA 1038+32.7 - STA 1039+84.07
POLYMER OVERLAY REQUIRED

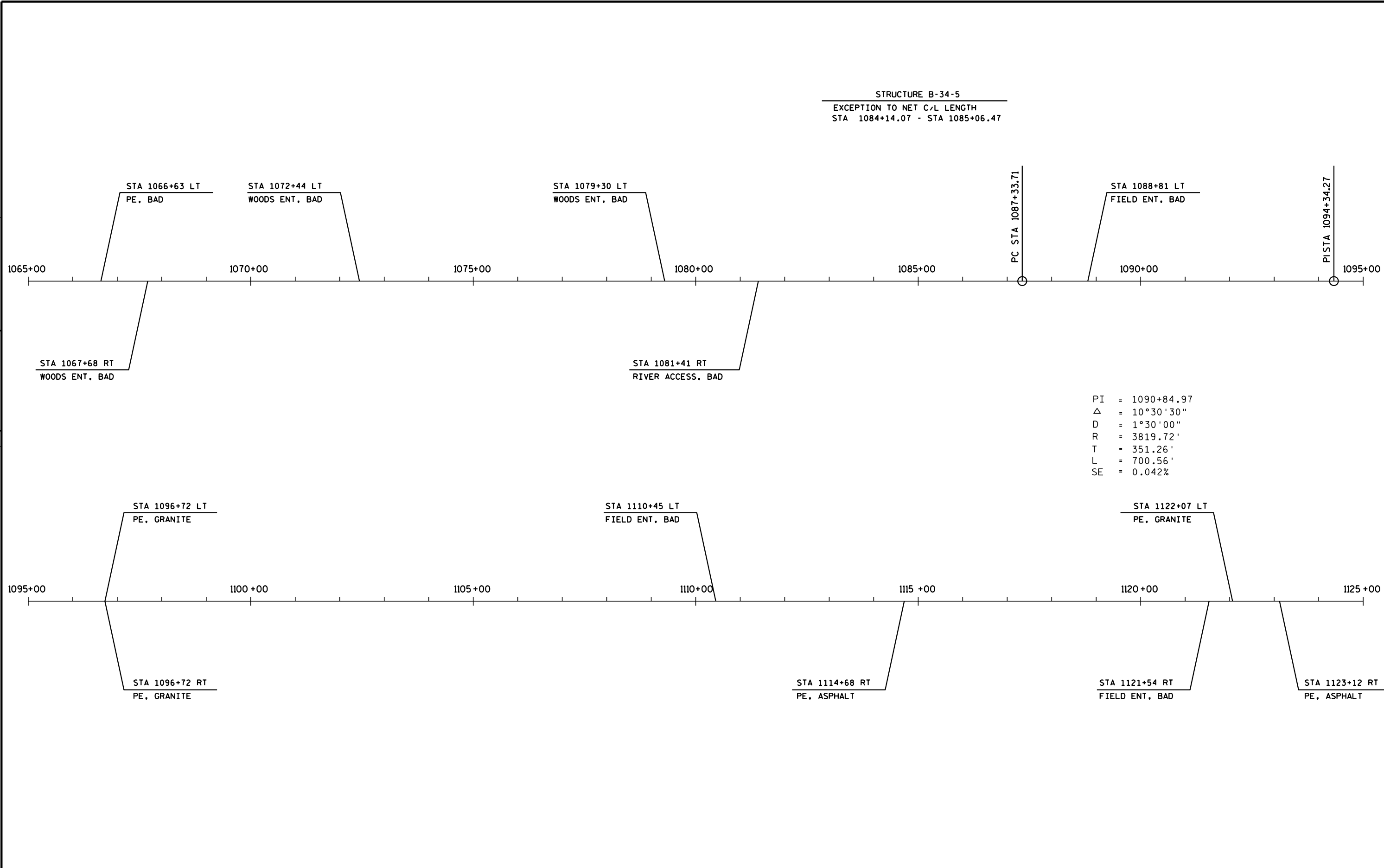
STA 1039+70 LT
WOODS ENT. BAD

STA 1039+70 RT
WOODS ENT. BAD

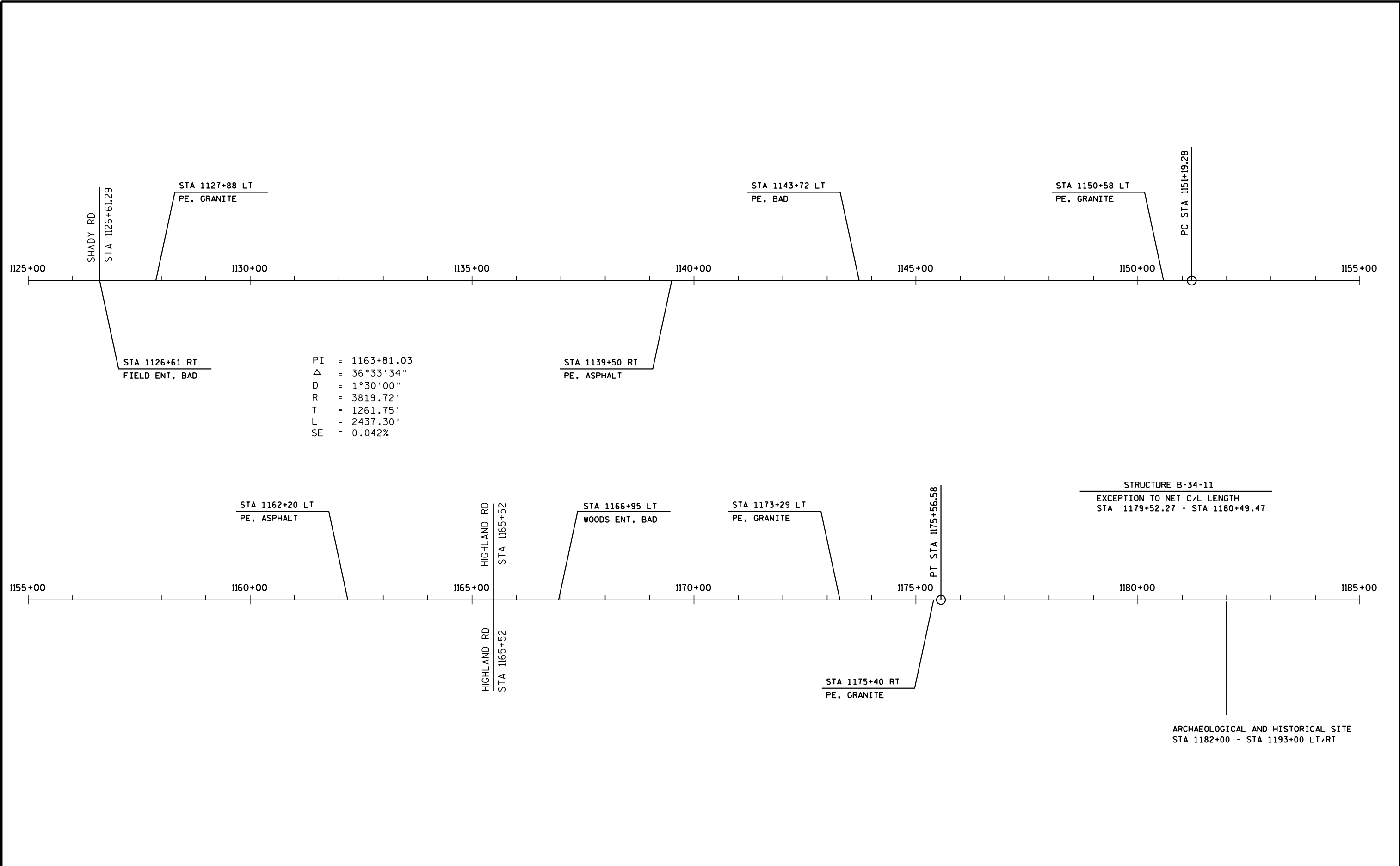
PT STA 1049+85.2

PC STA 1027+94.22

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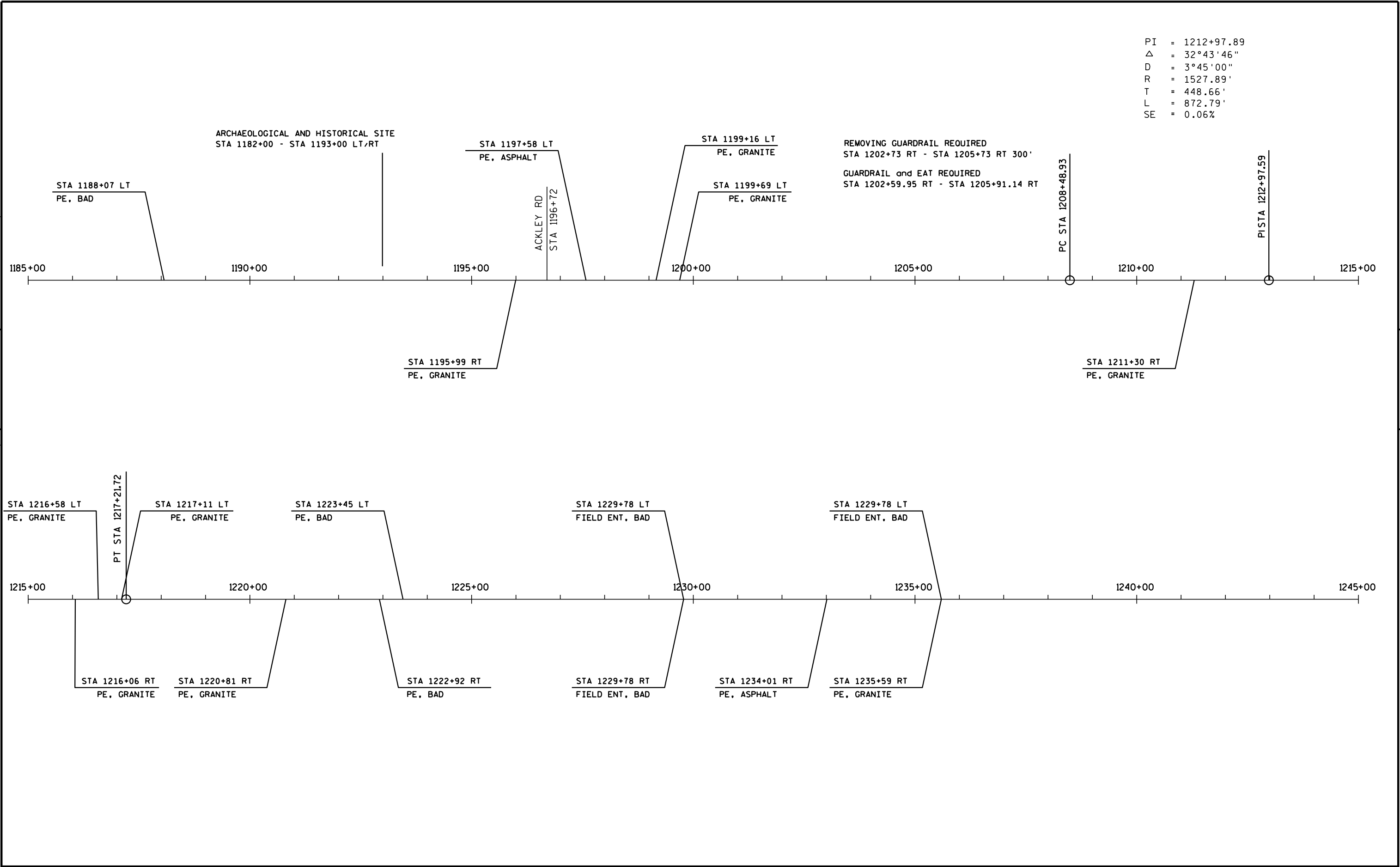


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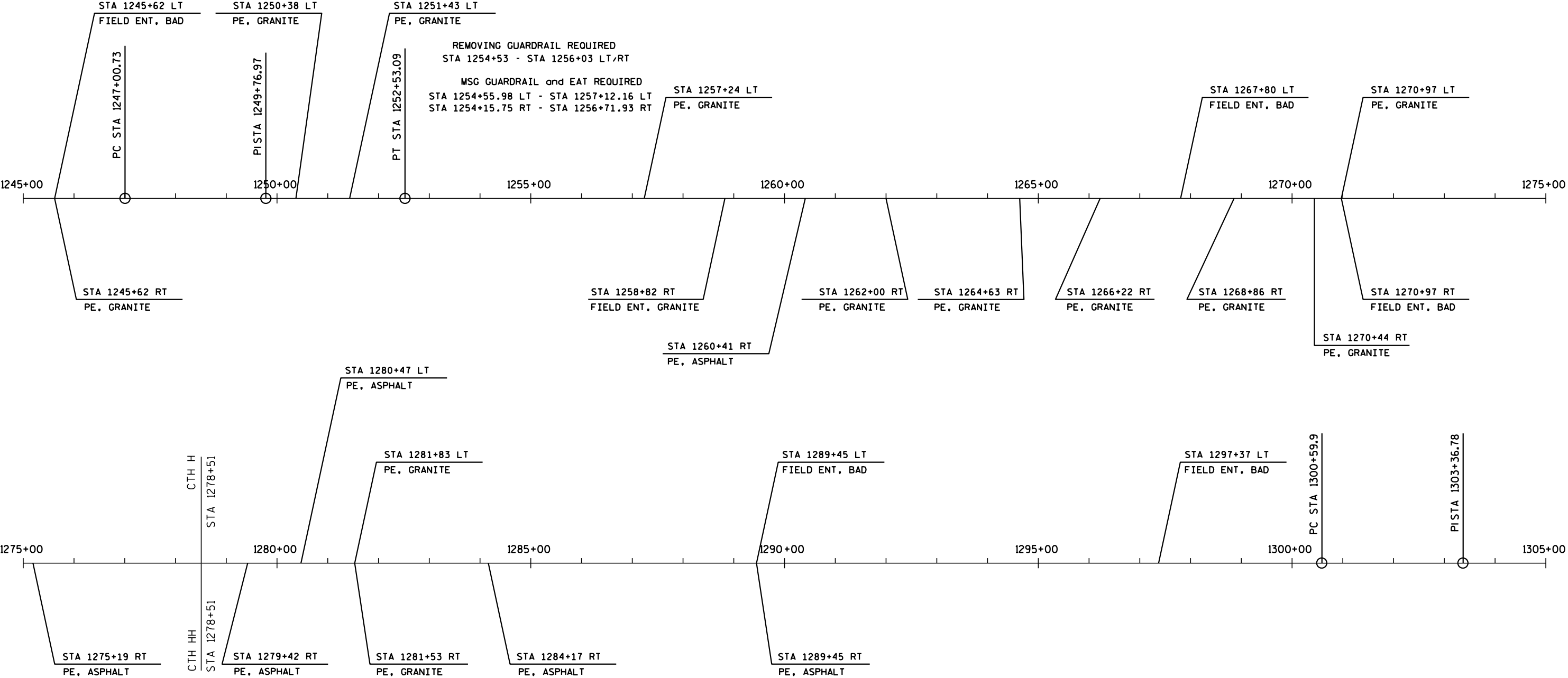


5

PROJECT NO: 9015-12-70	HWY: STH 64	COUNTY: LANGLADE	LINE DIAGRAM STA 1125+00 - STA 1185+00	SHEET	E
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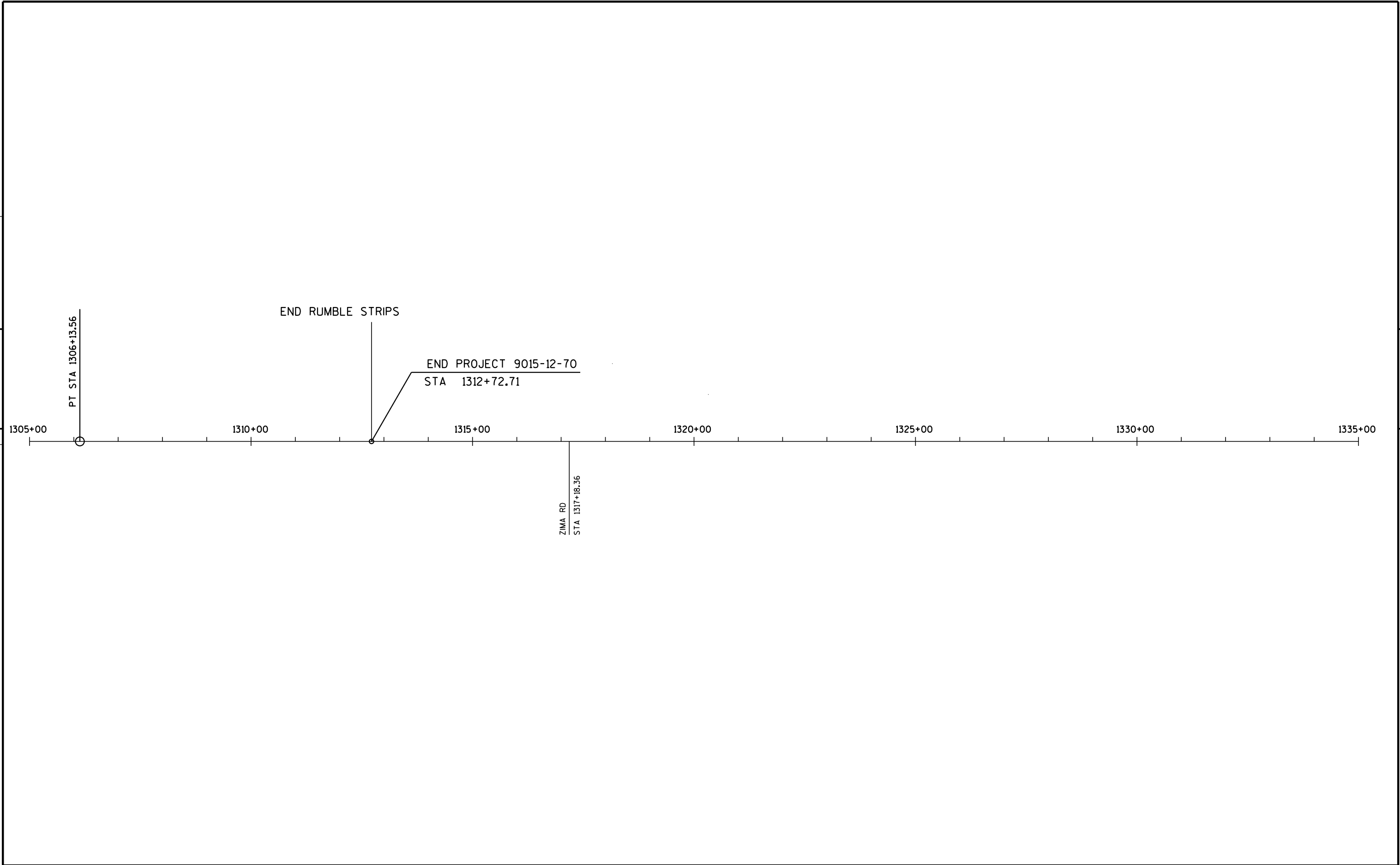


PI = 1249+76.97
Δ = 02°45'43"
D = 0°30'00"
R = 11459.16'
T = 276.23'
L = 552.36'
SE = NC



PI = 1303+36.78
Δ = 02°46'06"
D = 0°30'00"
R = 11459.16'
T = 276.88'
L = 553.66'
SE = RC

5

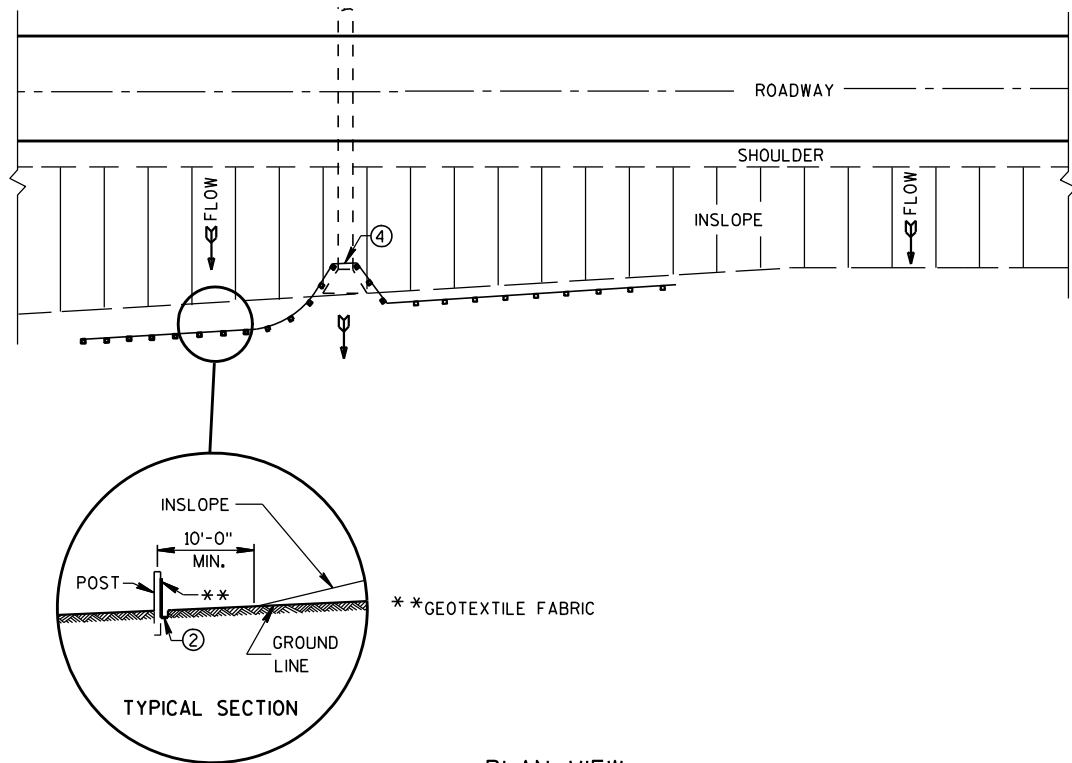


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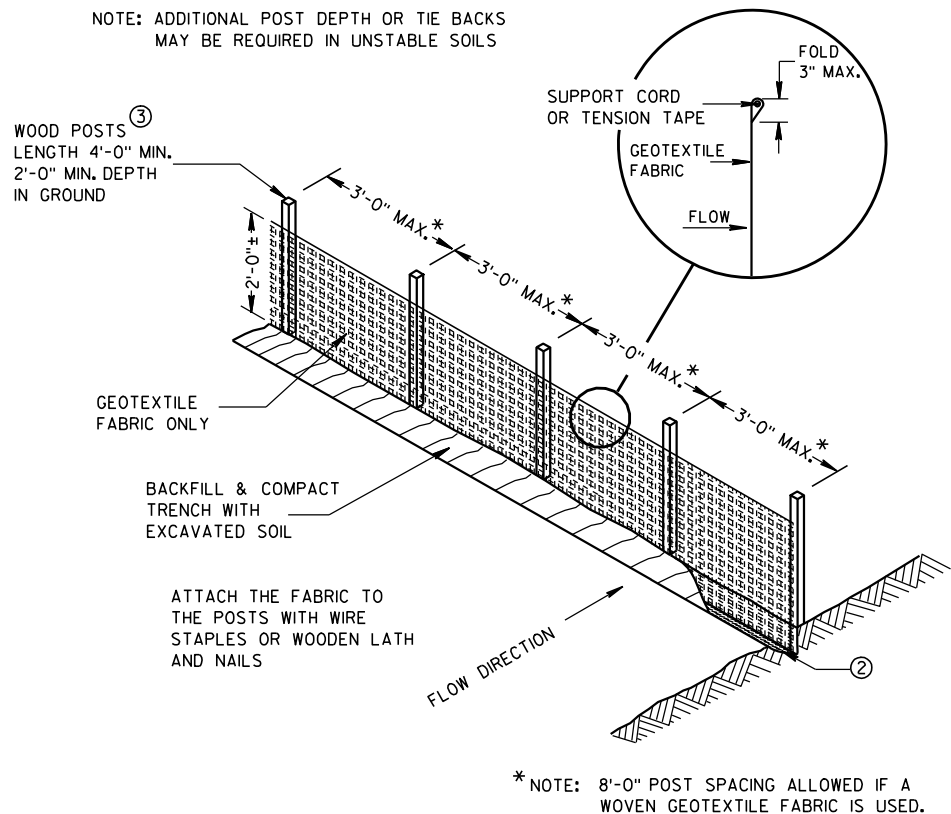
PROJECT NO: 9015-12-70	HWY: STH 64	COUNTY: LANGLADE	LINE DIAGRAM STA 1305+00 - STA 1335+00	SHEET	E
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Standard Detail Drawing List

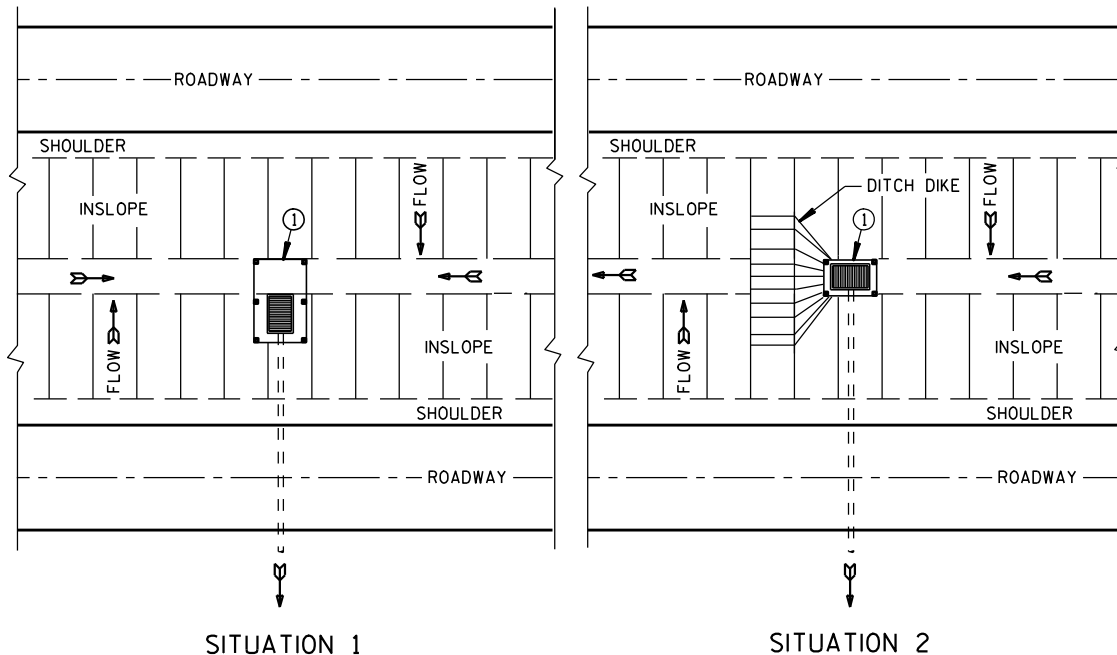
08E09-06	SILT FENCE
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B29-01	SAFETY EDGE
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D33-03	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS



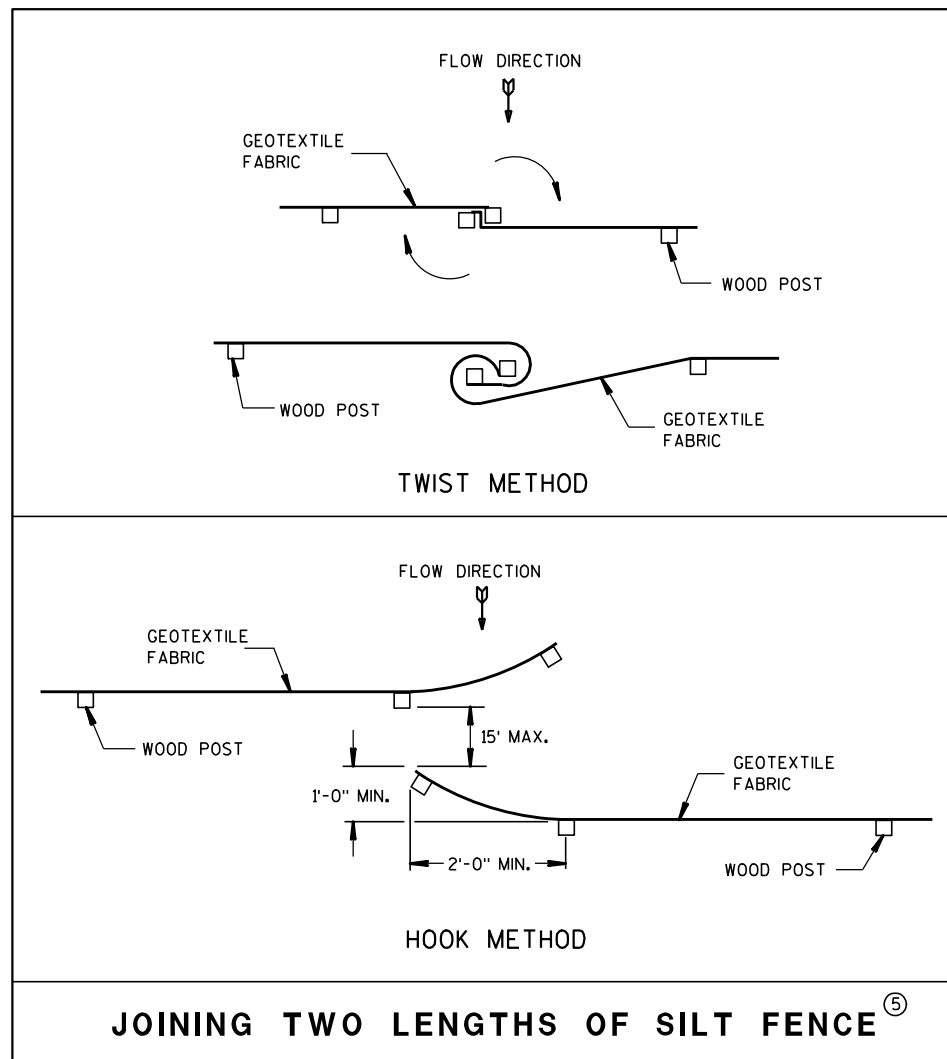
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

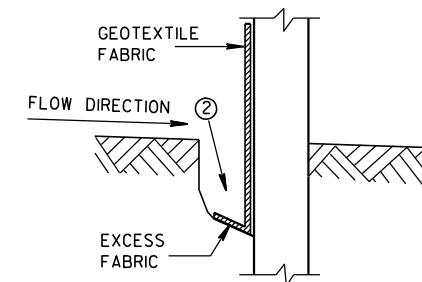


JOINING TWO LENGTHS OF SILT FENCE^⑤

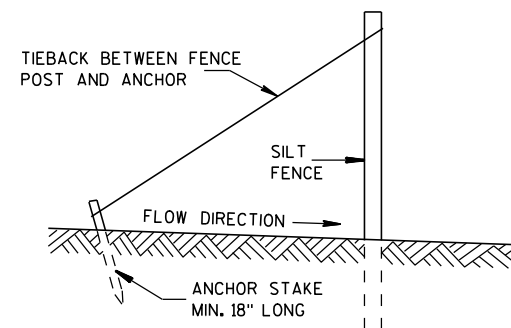
GENERAL NOTES

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 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

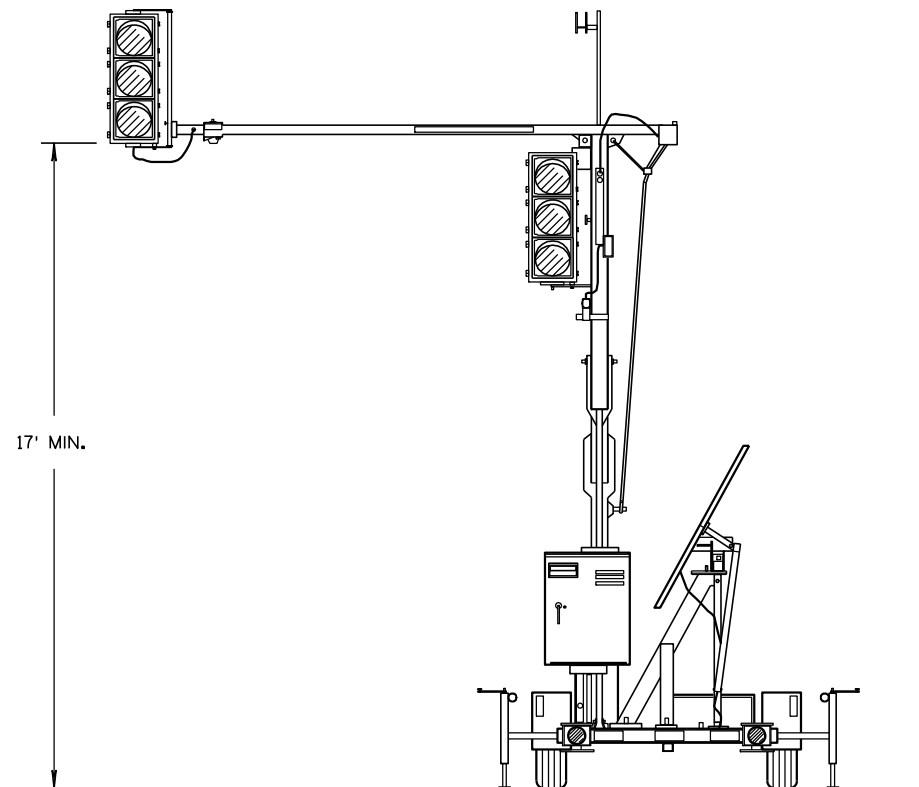


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

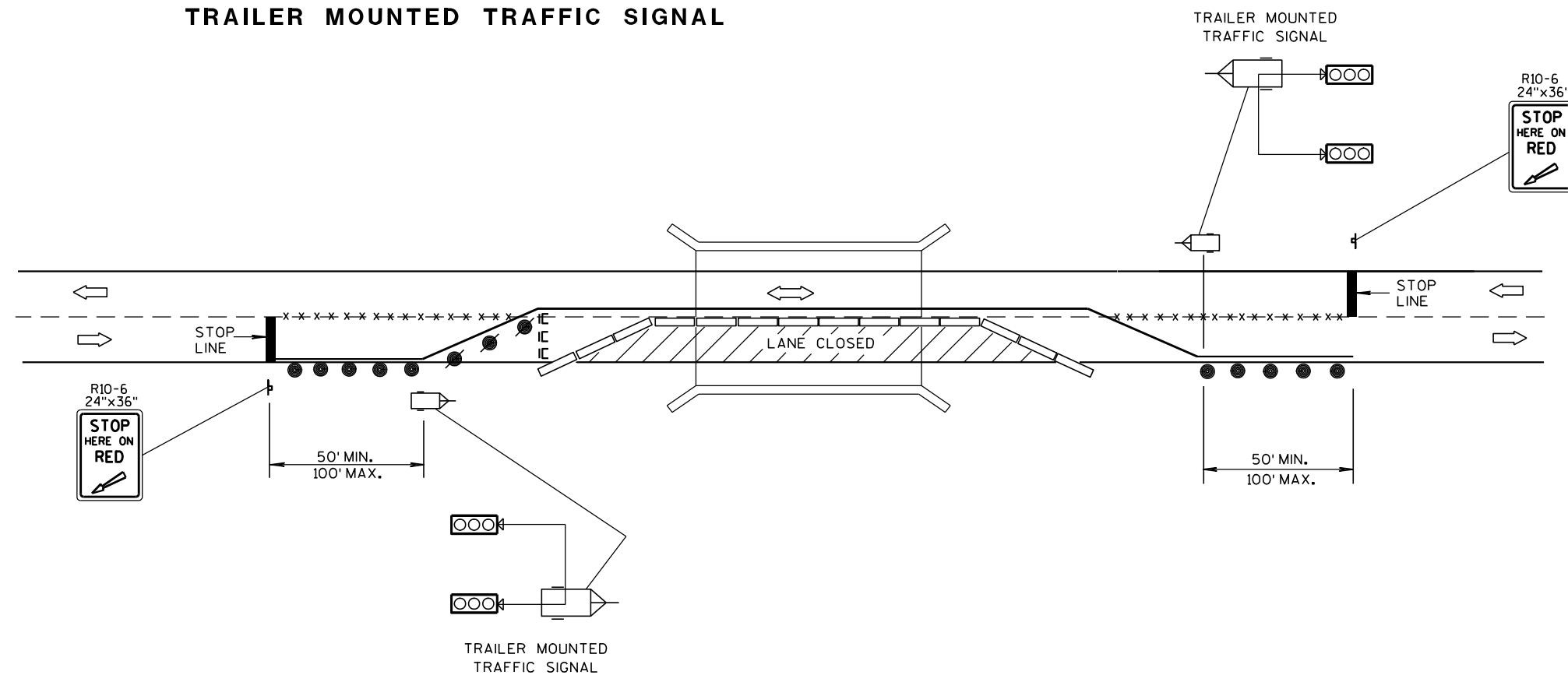


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- *-x-* REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011

DATE

FHWA

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

GENERAL NOTES

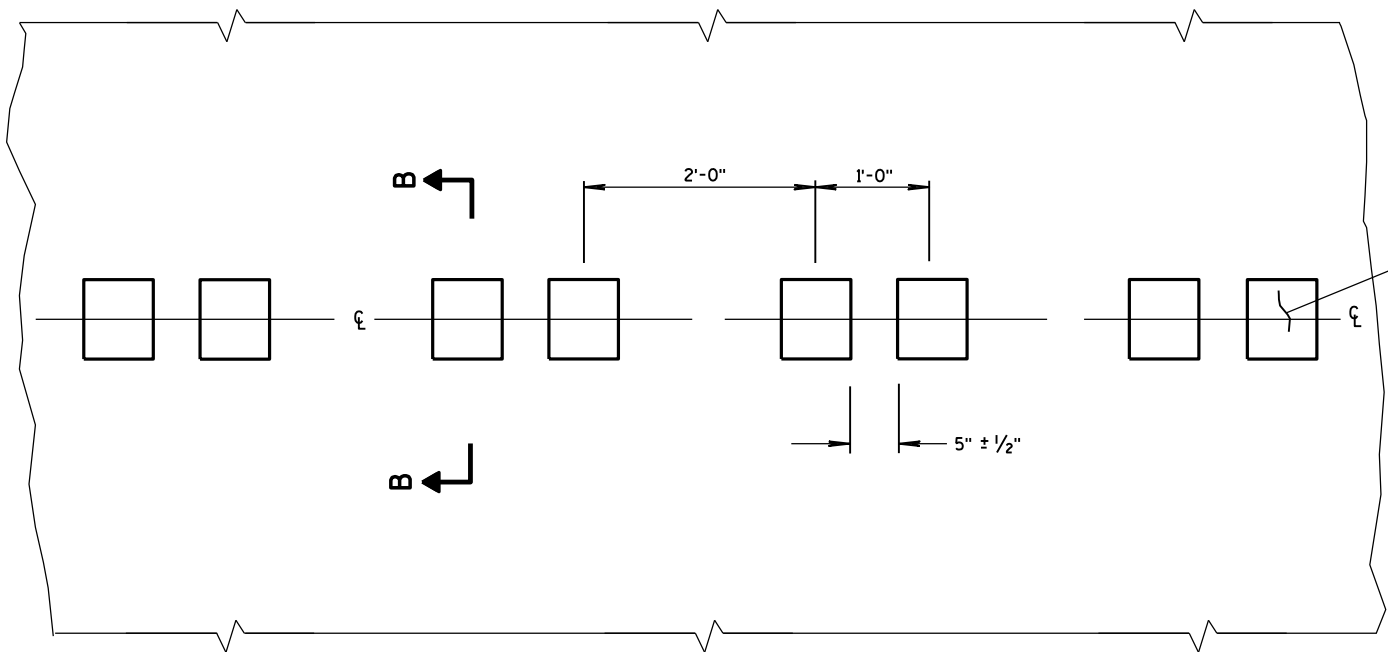
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

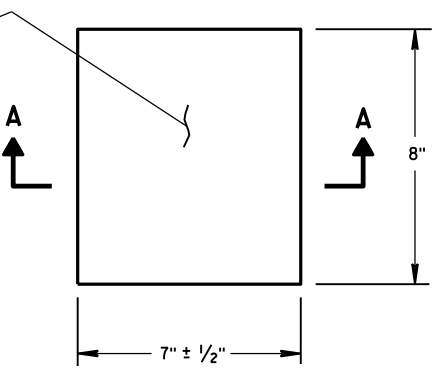
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

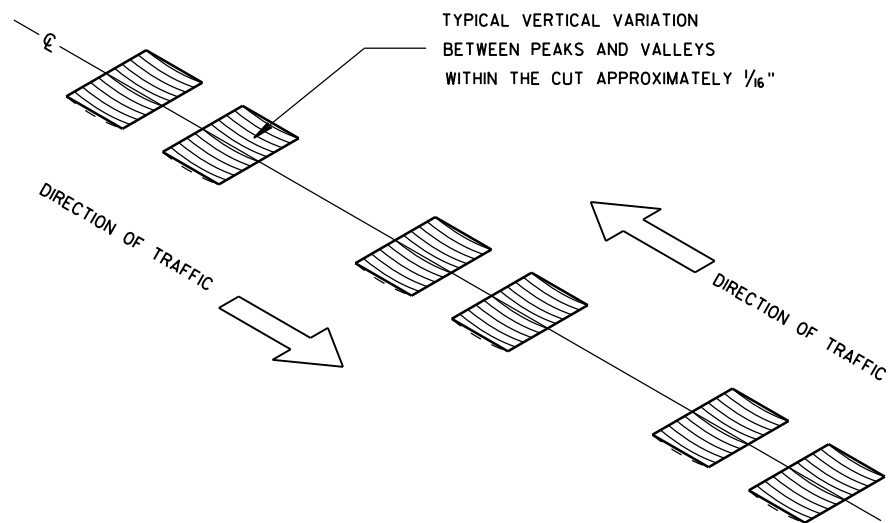
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

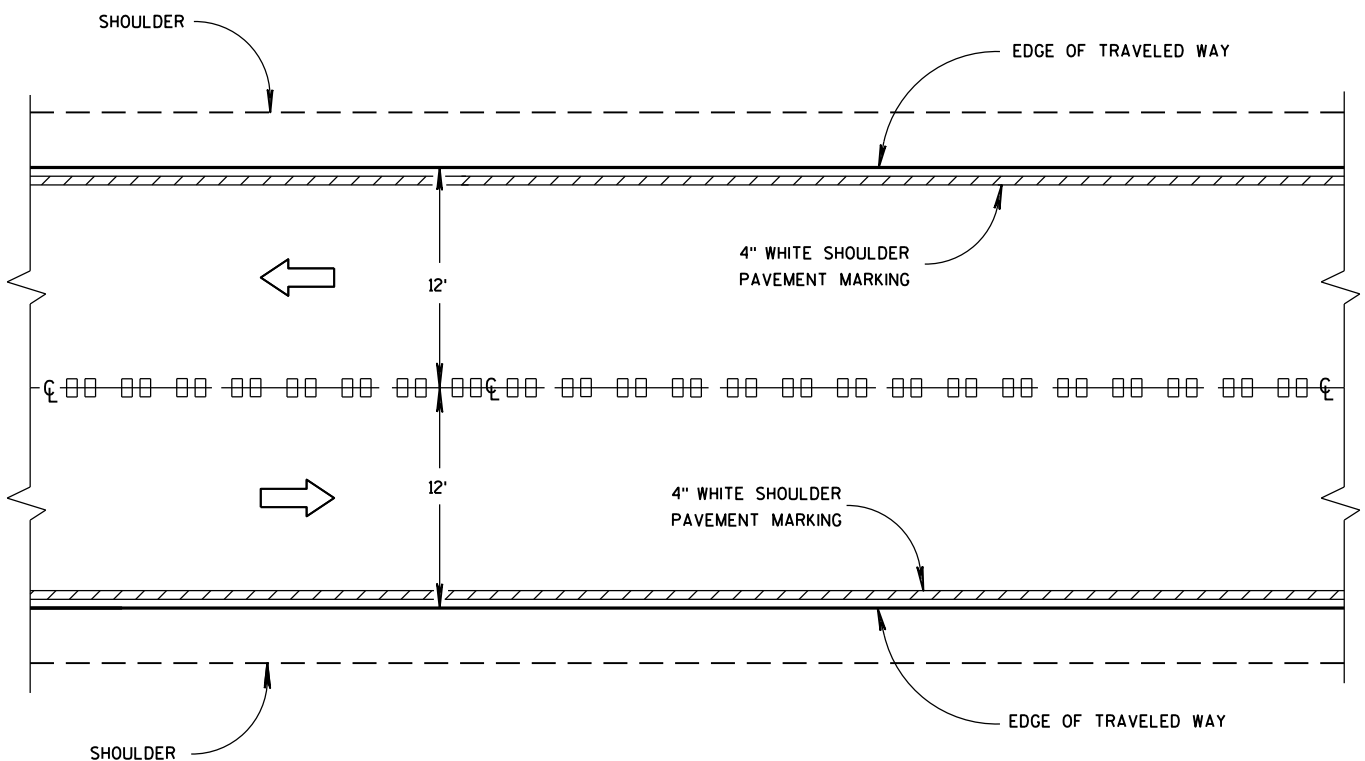


PLAN VIEW
(SINGLE GROOVE)

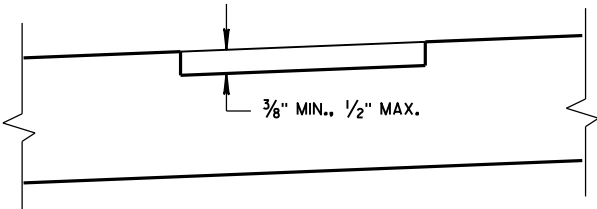


ISOMETRIC

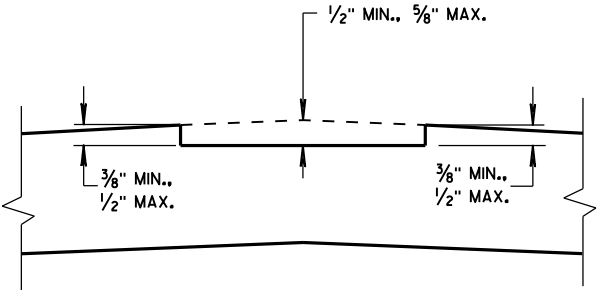
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



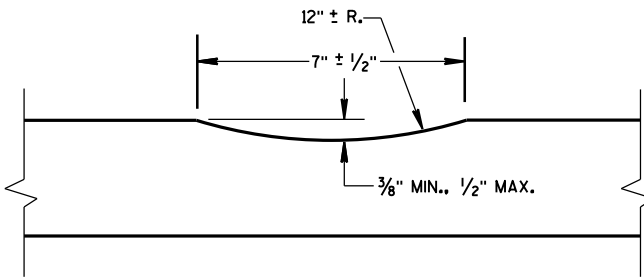
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



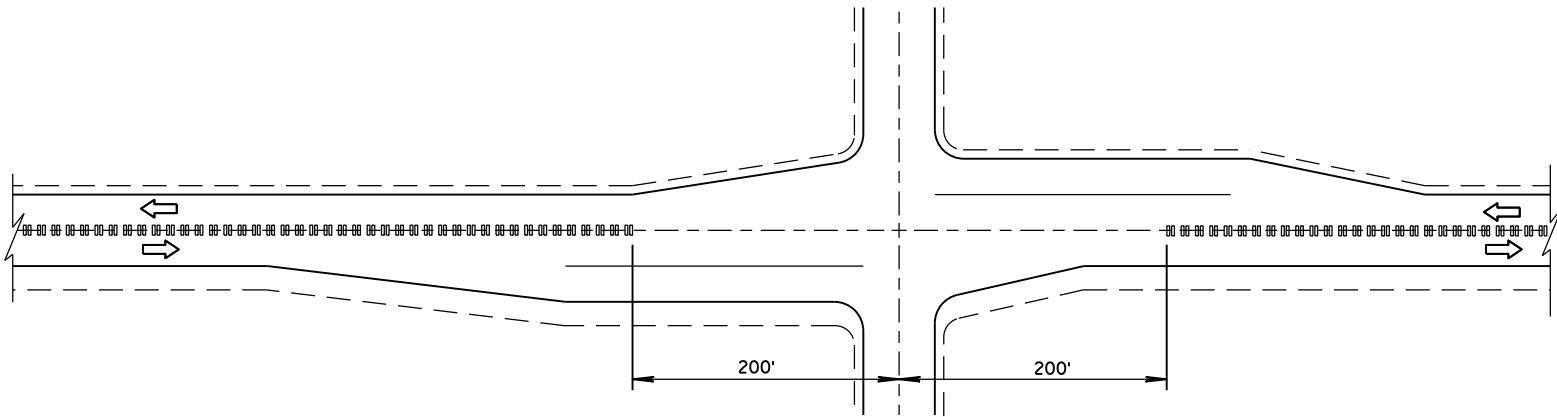
SECTION B-B
CROWNED ROADWAY



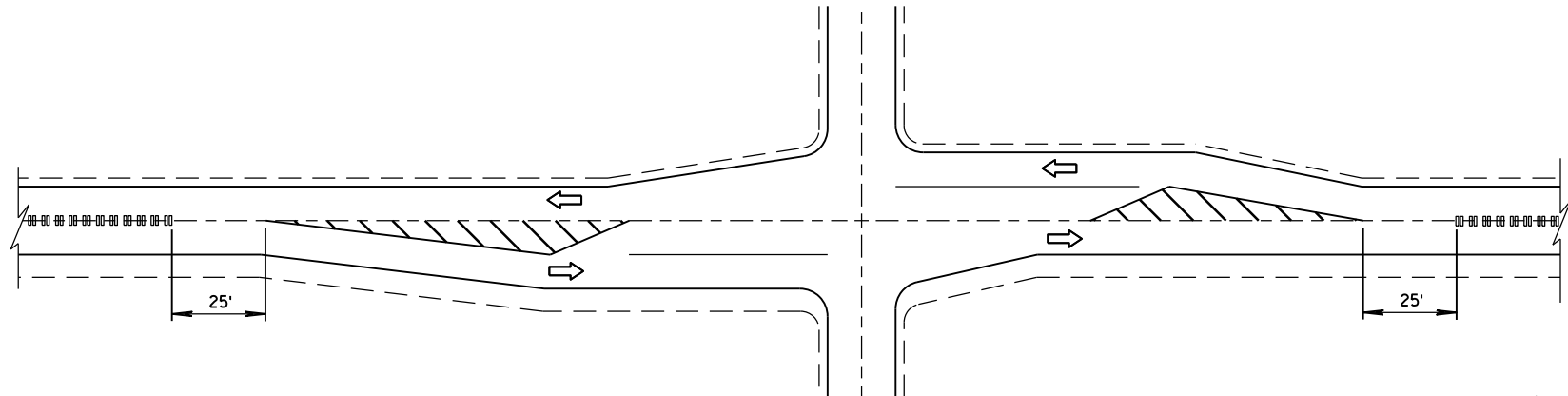
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

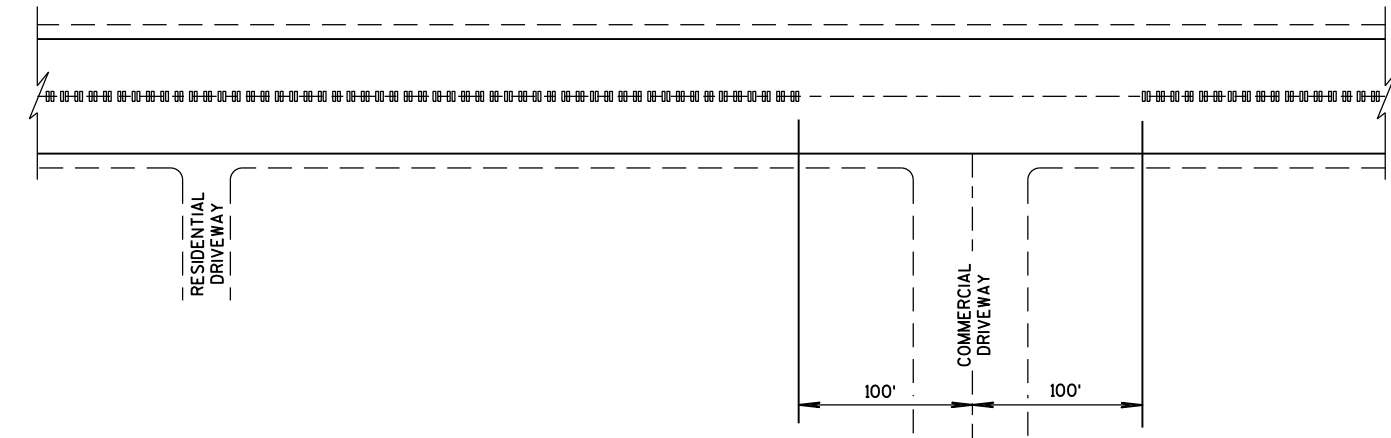
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

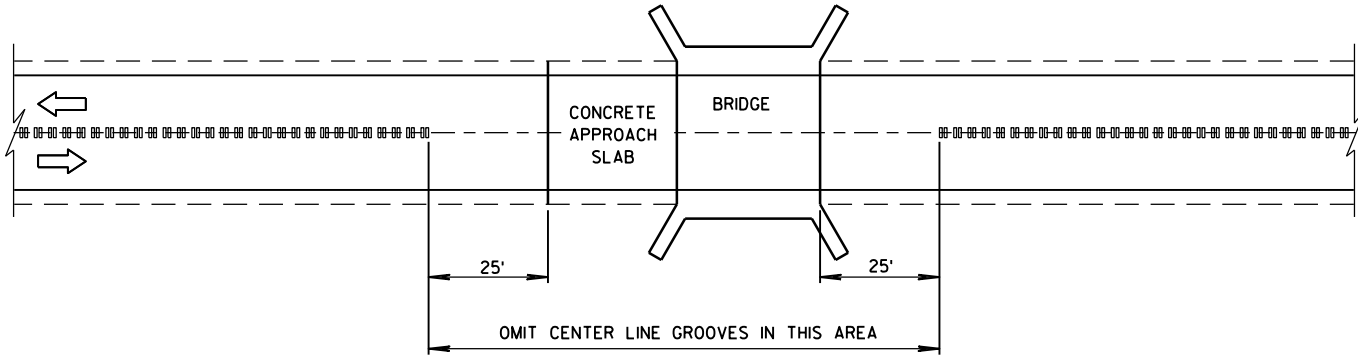


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

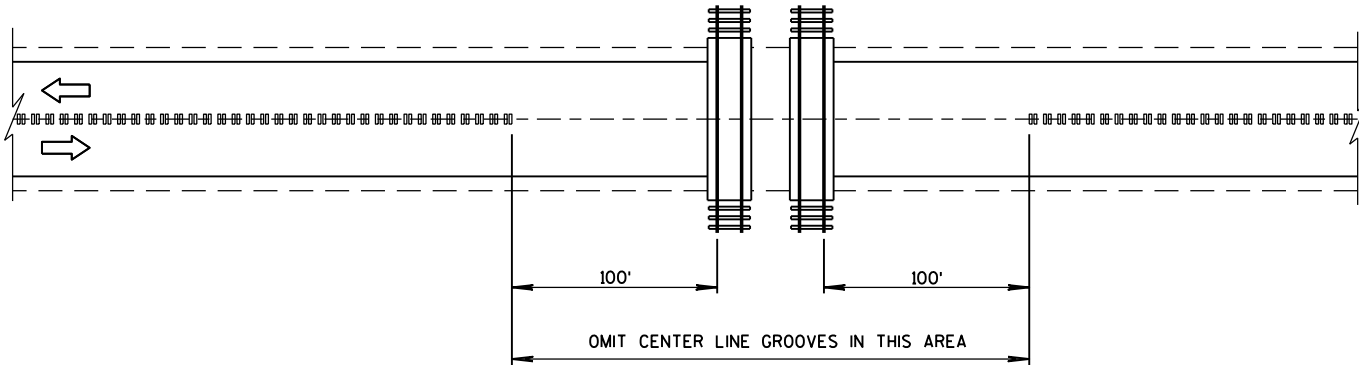


CENTER LINE GROOVES AT DRIVEWAYS^①

① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

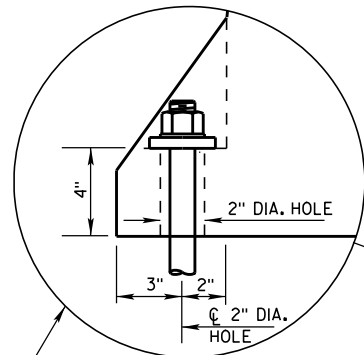


CENTER LINE GROOVES AT BRIDGES

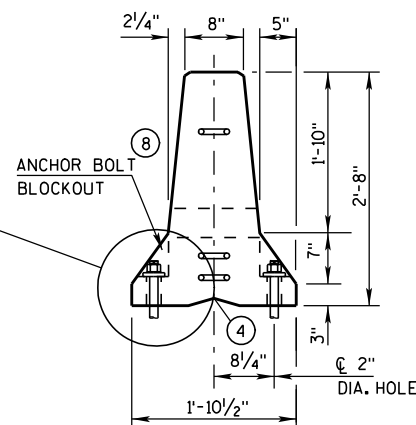


CENTER LINE GROOVES AT RAILROADS

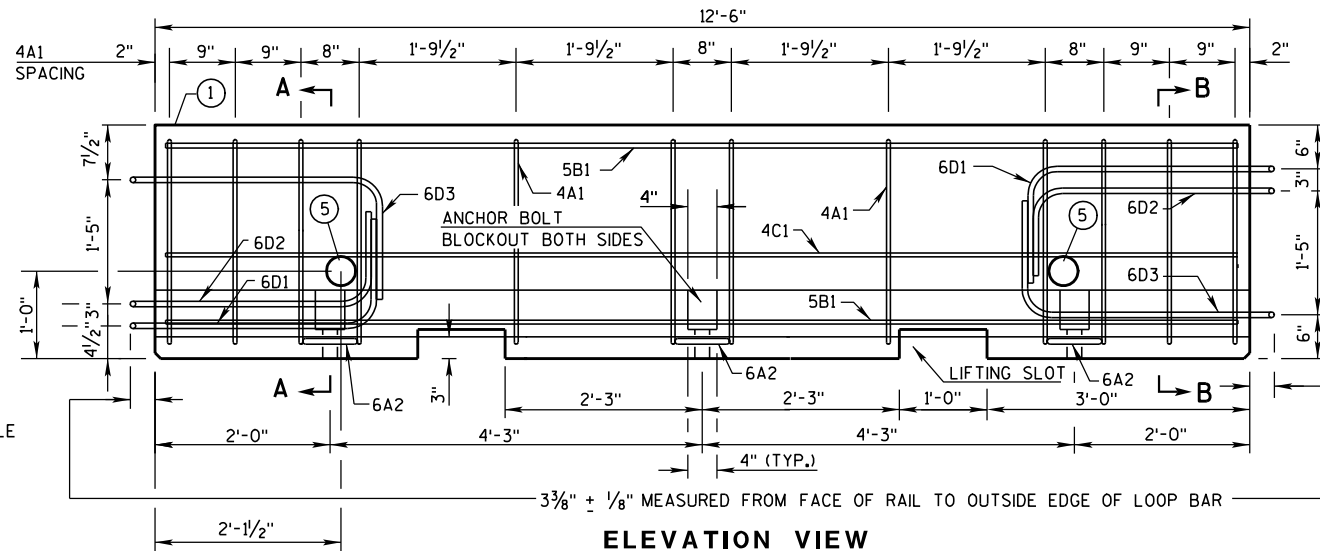
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



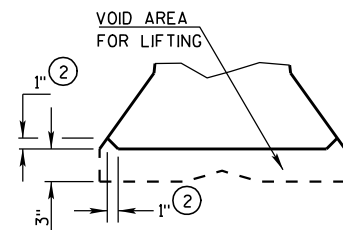
ANCHOR ON TRAFFIC SIDE
ONLY WHEN REQUIRED
(SEE SHEET D FOR ADDITIONAL
ANCHOR DETAIL)



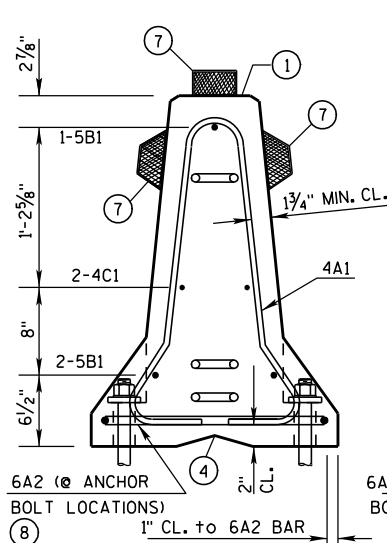
END VIEW



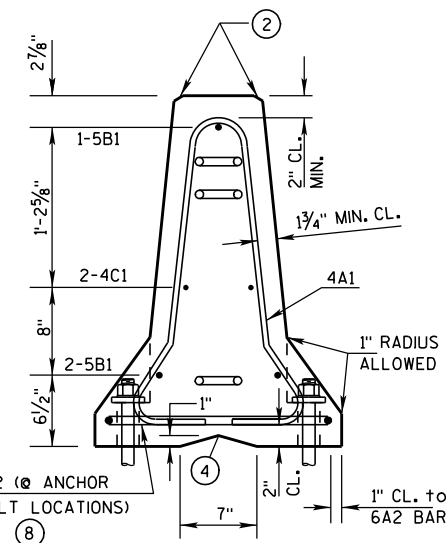
ELEVATION VIEW



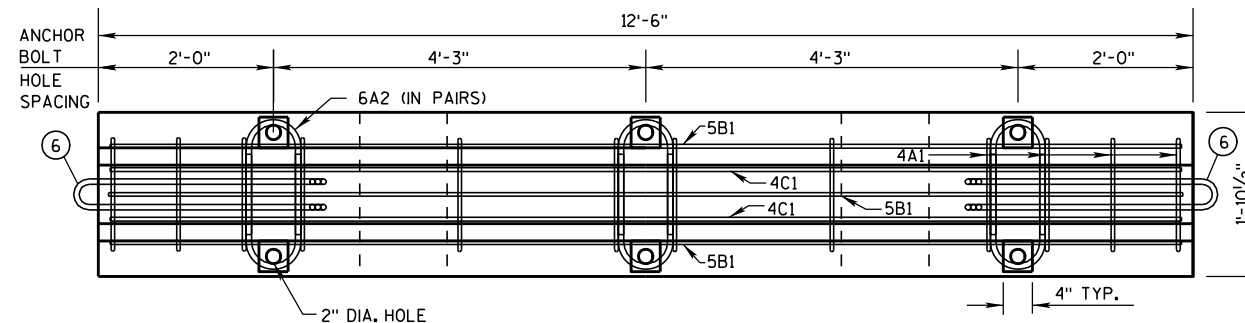
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

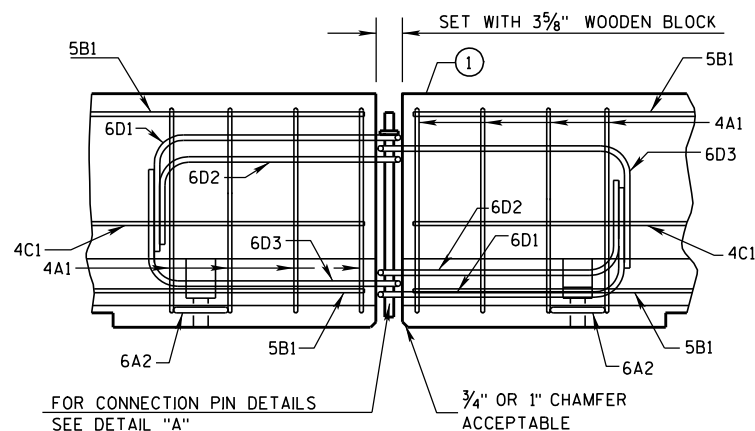


SECTION B-B
(STIRRUP PLACEMENT)

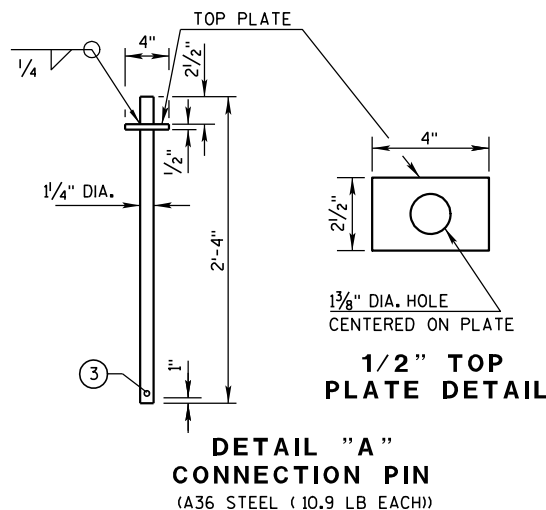


PLAN VIEW

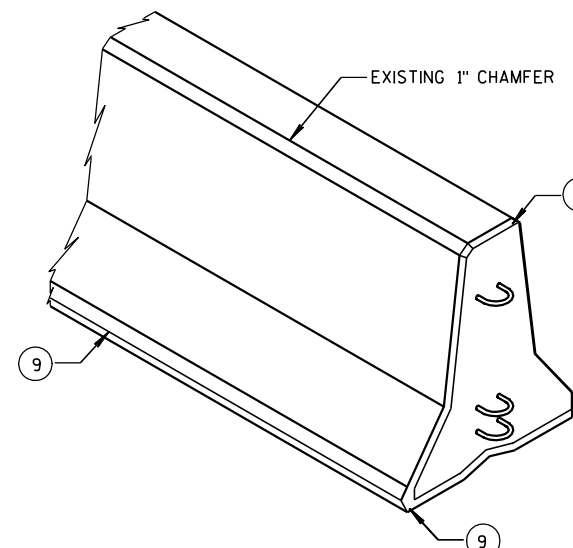
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION



DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



1/2" TOP
PLATE DETAIL

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(g) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

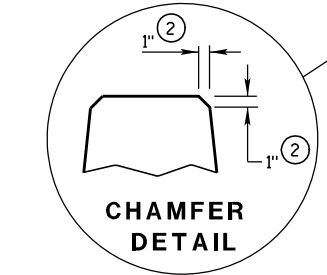
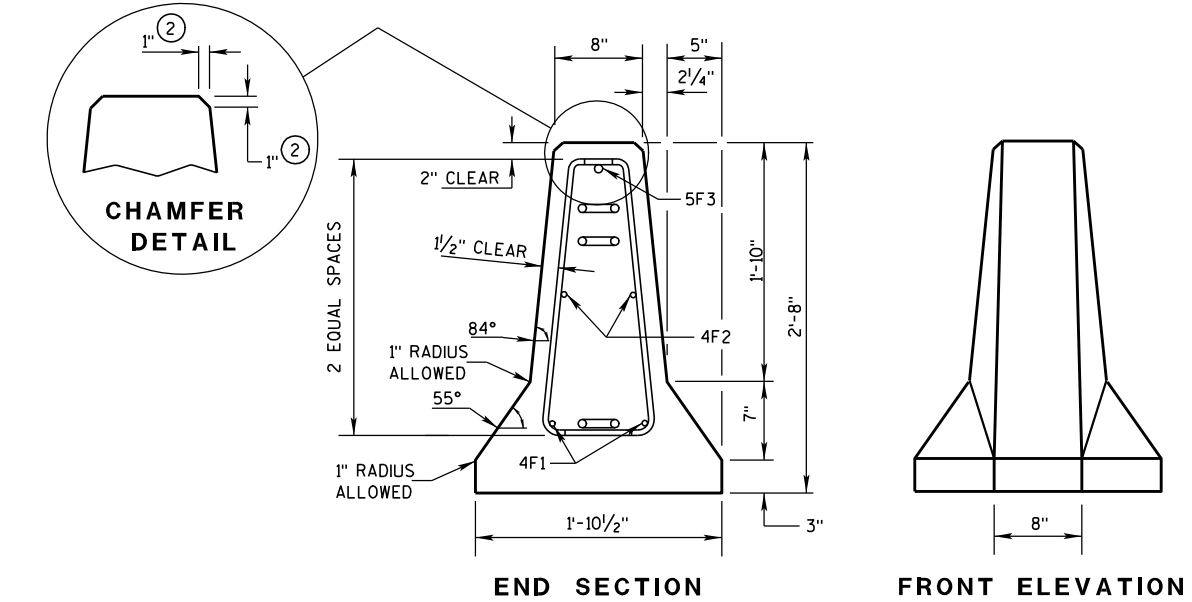
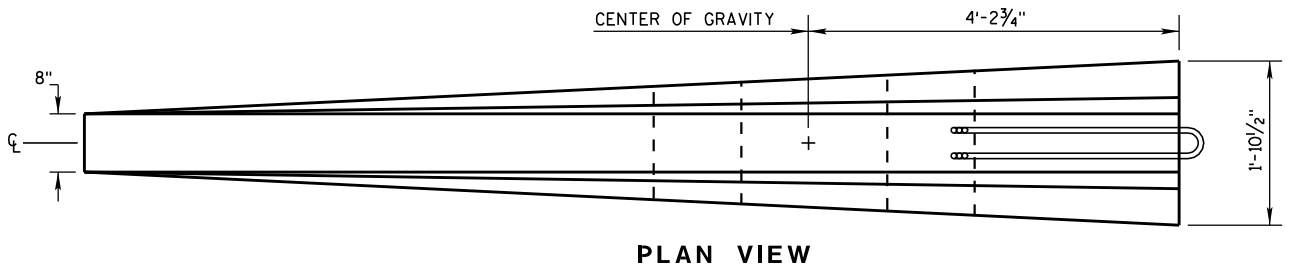
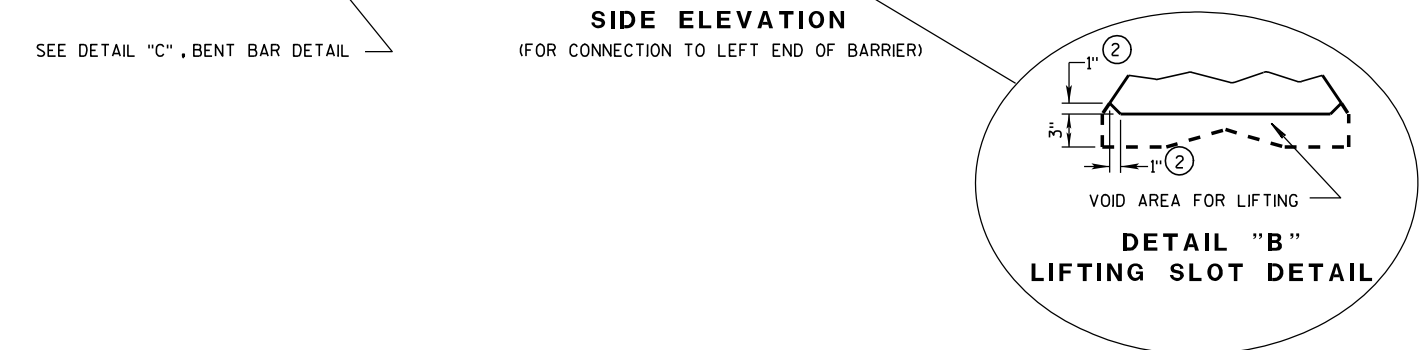
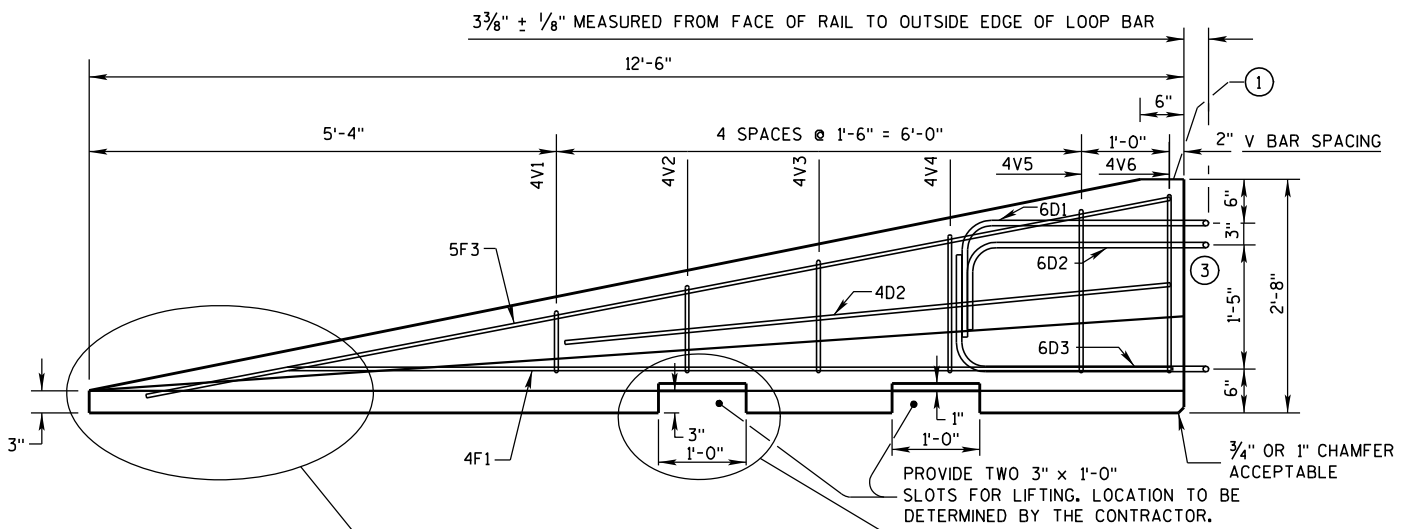
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

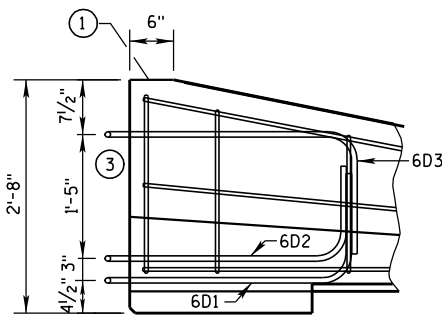
- MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - TYPE: WICBTP
 - MANUFACTURER
 - DATE MANUFACTURED (MONTH AND YEAR)
- 1" CHAMFER TO PREVENT SPALLING.
- A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- "V" NOTCH IS OPTIONAL.
- THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- SEE SHEET D FOR ANCHORING CRITERIA.
- 1" CHAMFER OPTIONAL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



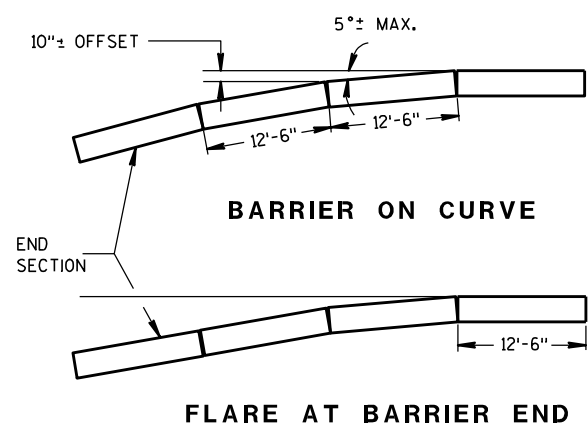
DETAILS OF BARRIER TAPER SECTION



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE W/CBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

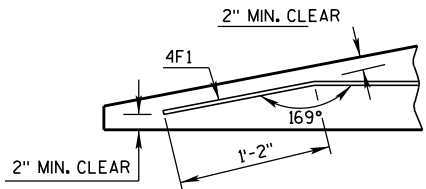
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

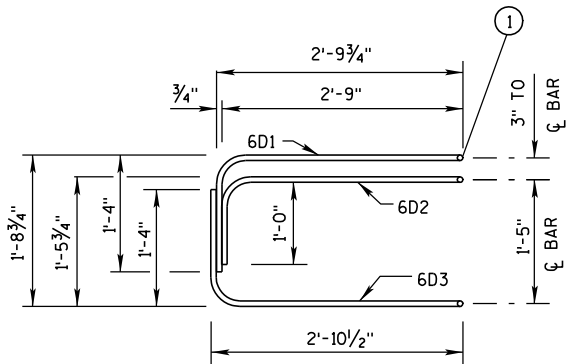
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

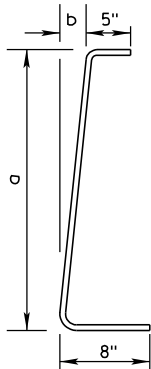
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

TAPER BARRIER SECTION

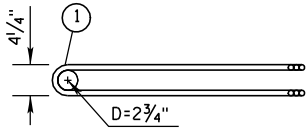
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION
BILL OF MATERIALS

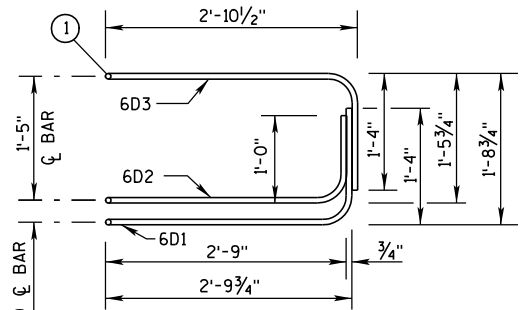
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

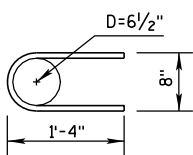


PLAN VIEW
LOOP BAR ASSEMBLY

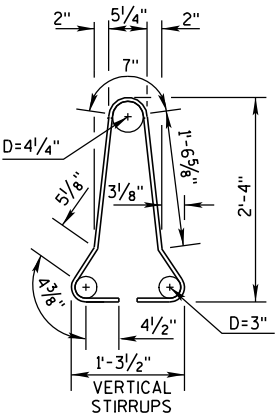
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

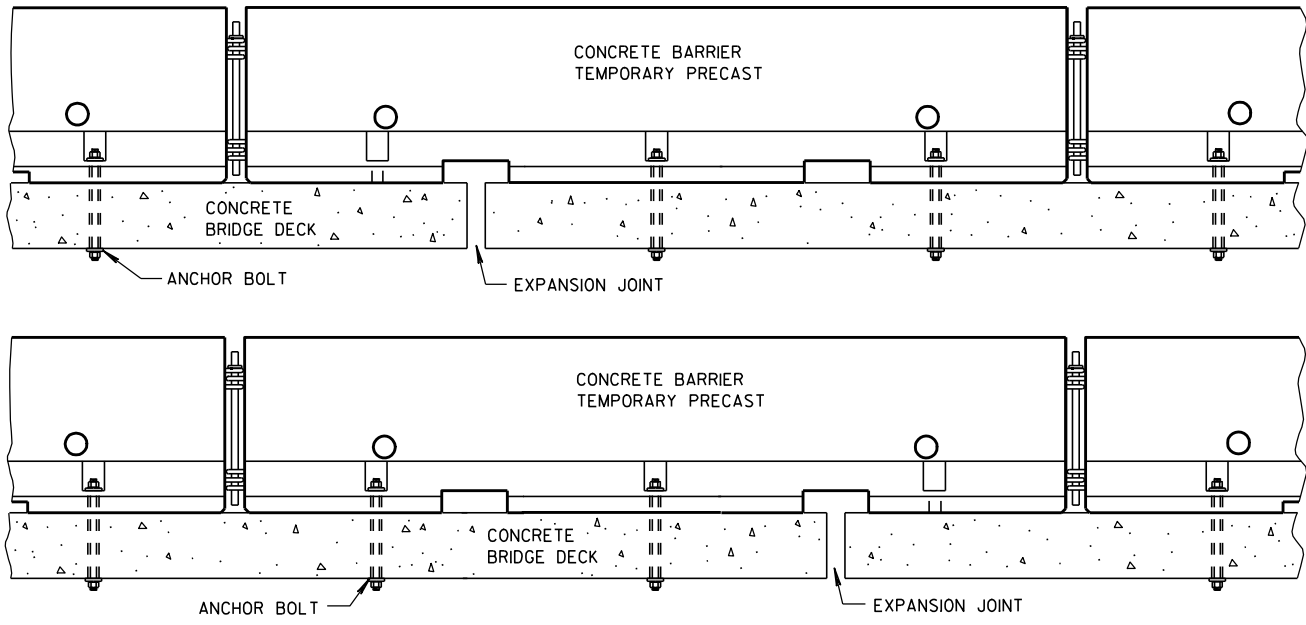


4A1

BARRIER SECTION

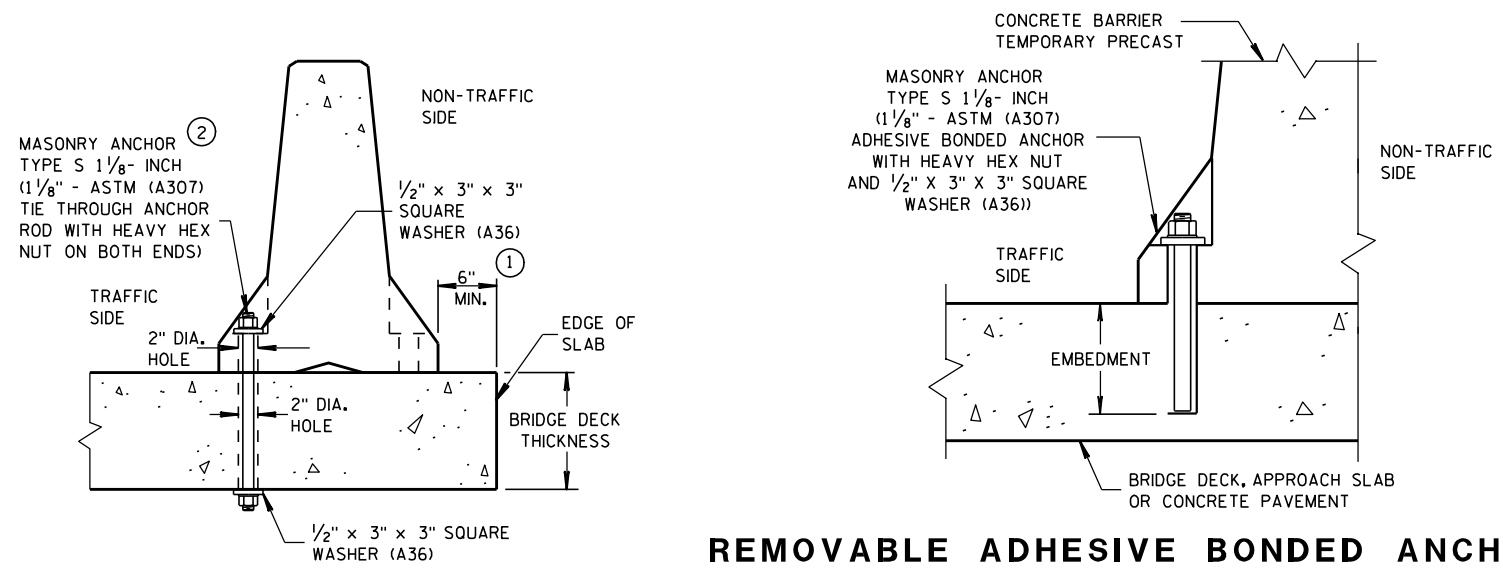
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

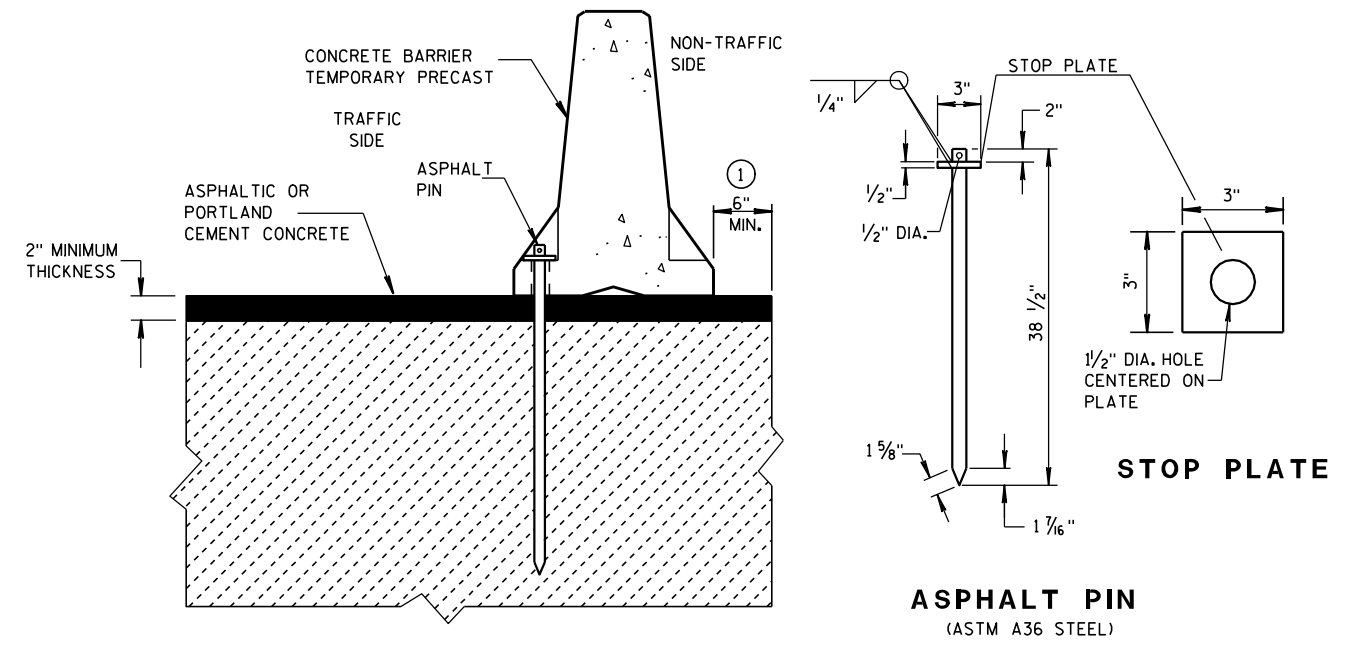


THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

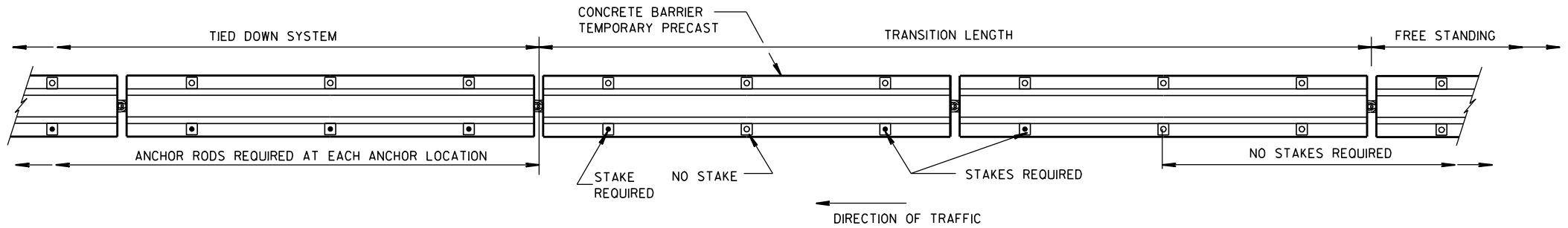
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHERALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 40 MPH OR LESS.

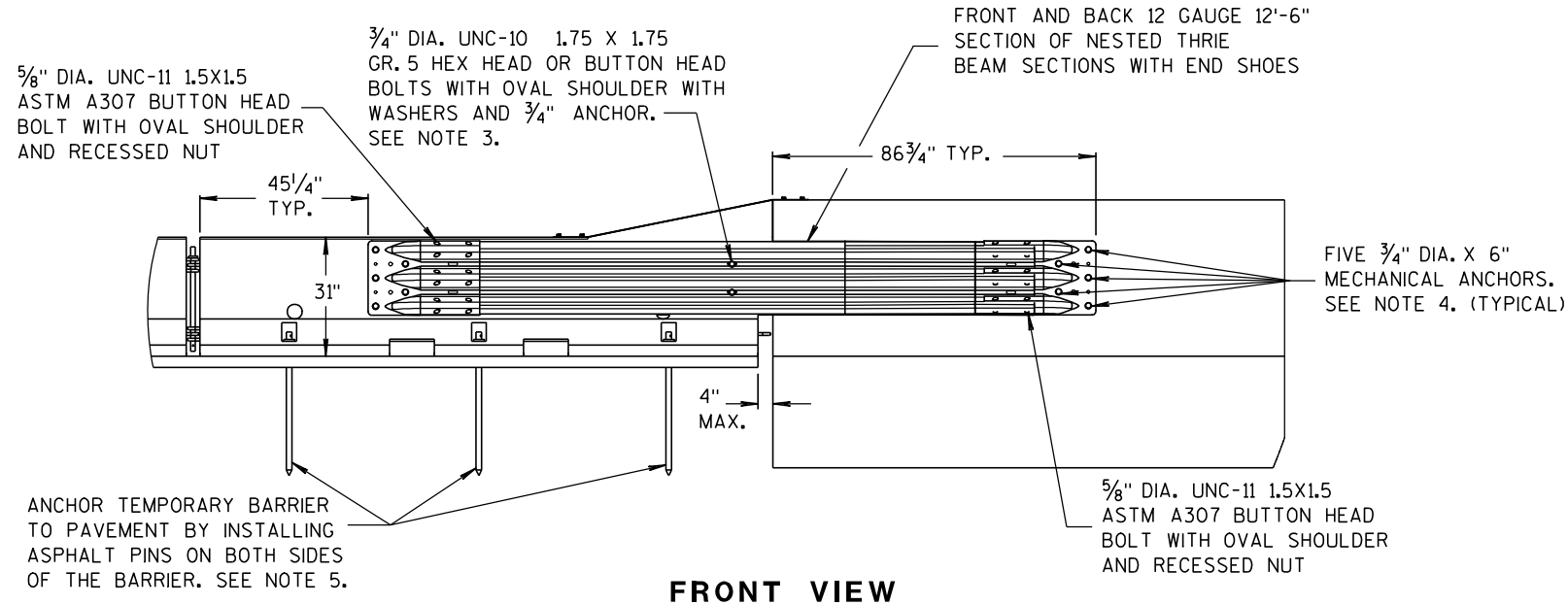
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT
INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE
BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE
S 1 1/8-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE
ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR EPOXY MATERIAL
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

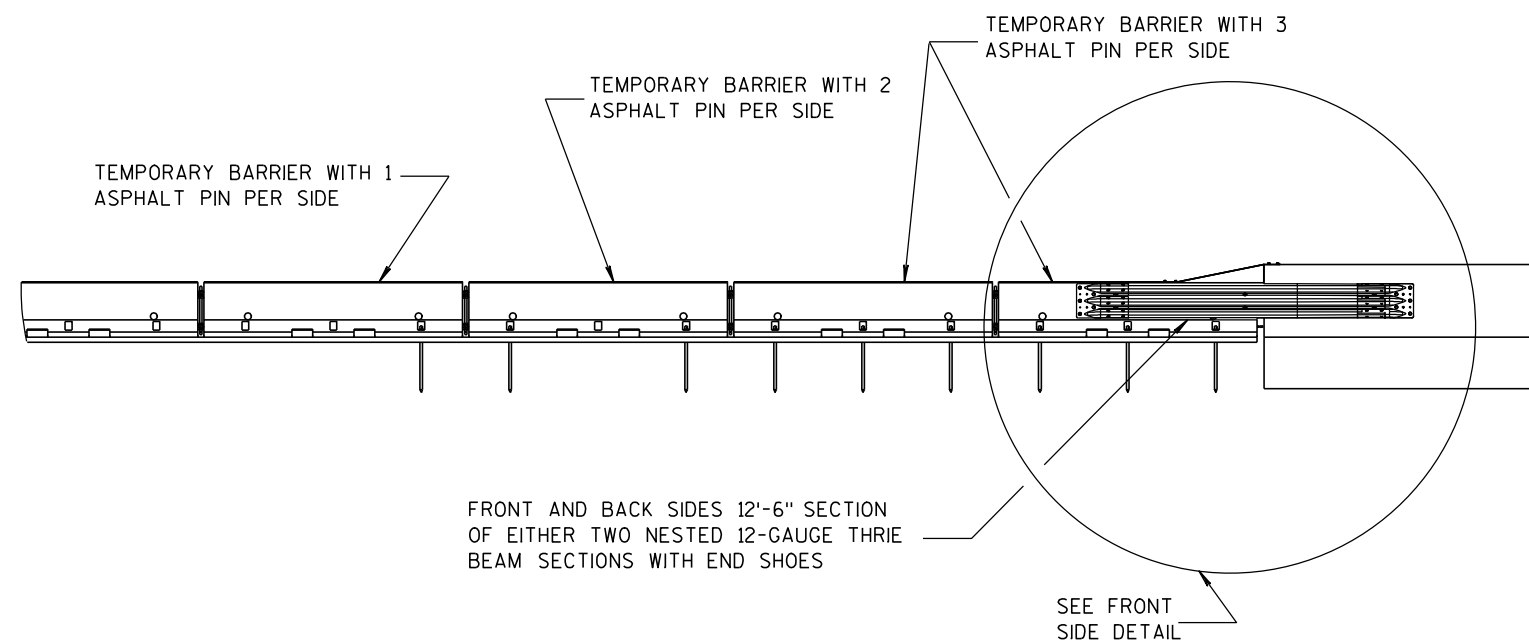
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW

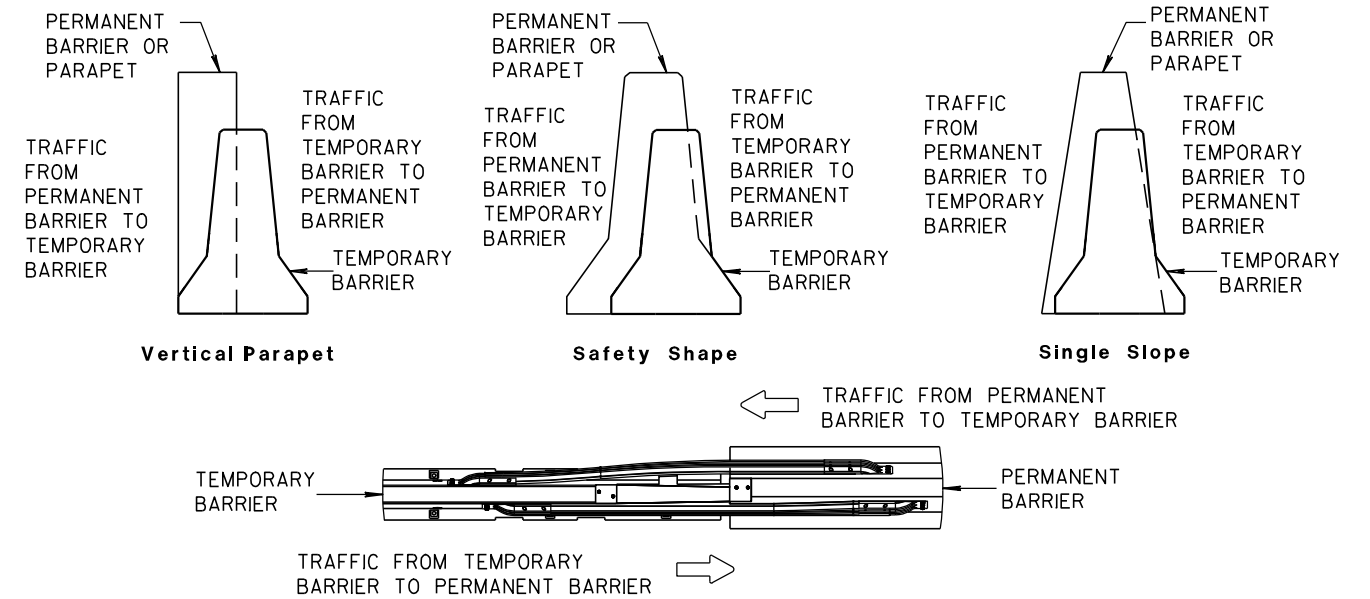
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

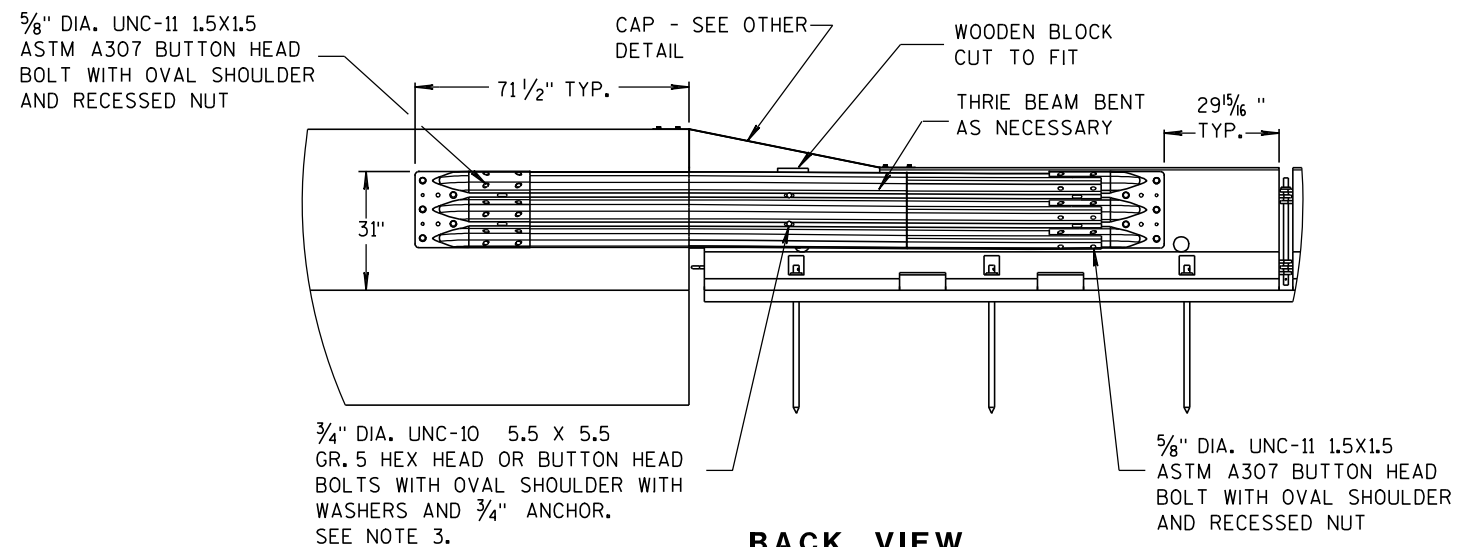


FRONT VIEW

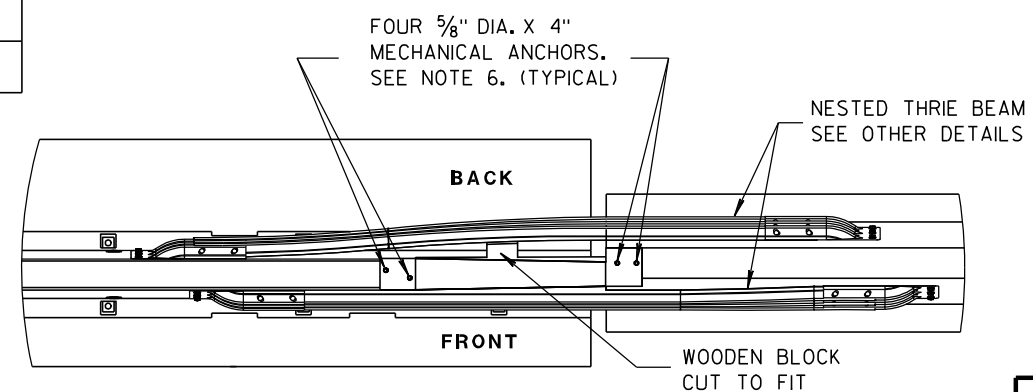
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



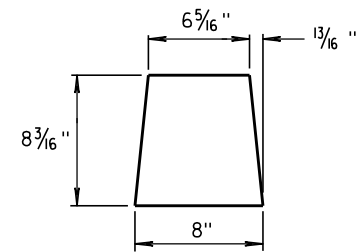
BACK VIEW



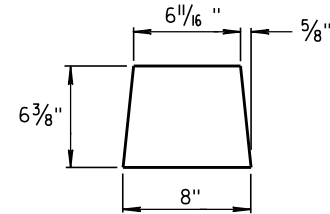
PLAN VIEW

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

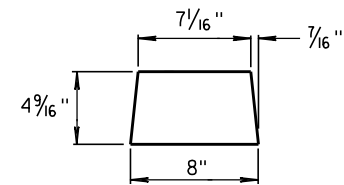
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



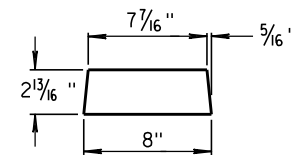
GUSSET 1



GUSSET 2

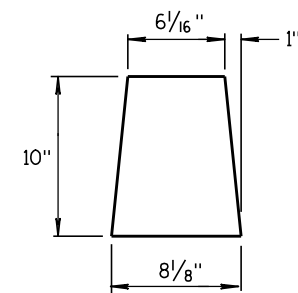


GUSSET 3

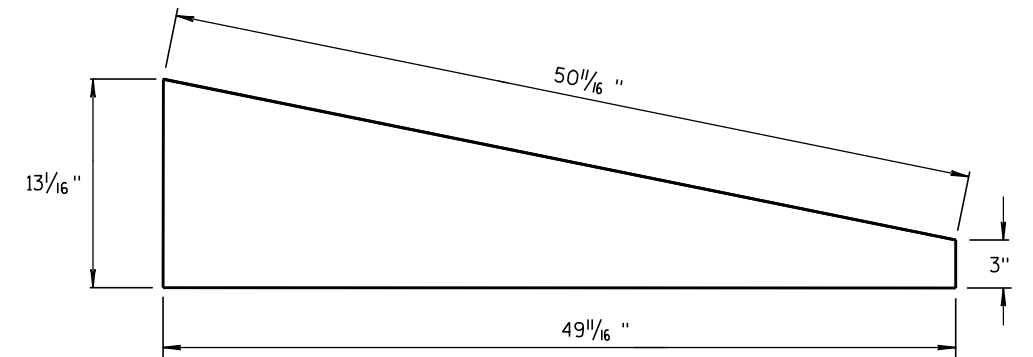


GUSSET 4

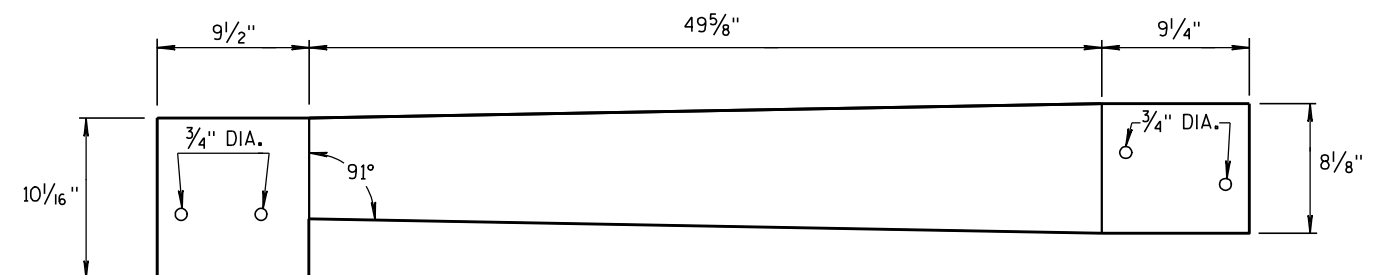
GUSSETS



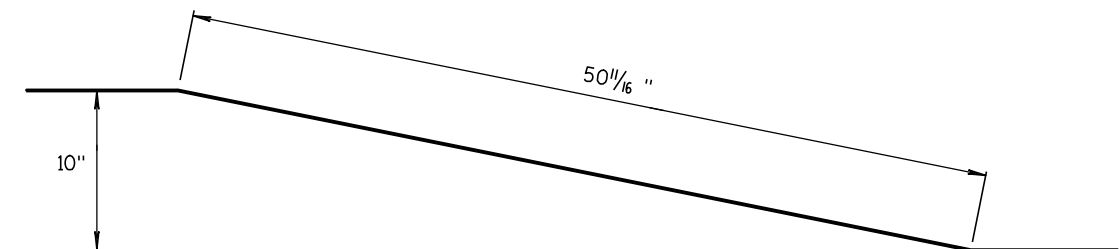
END PLATE



SIDE PLATE

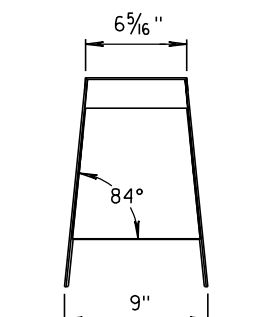


TOP PLATE

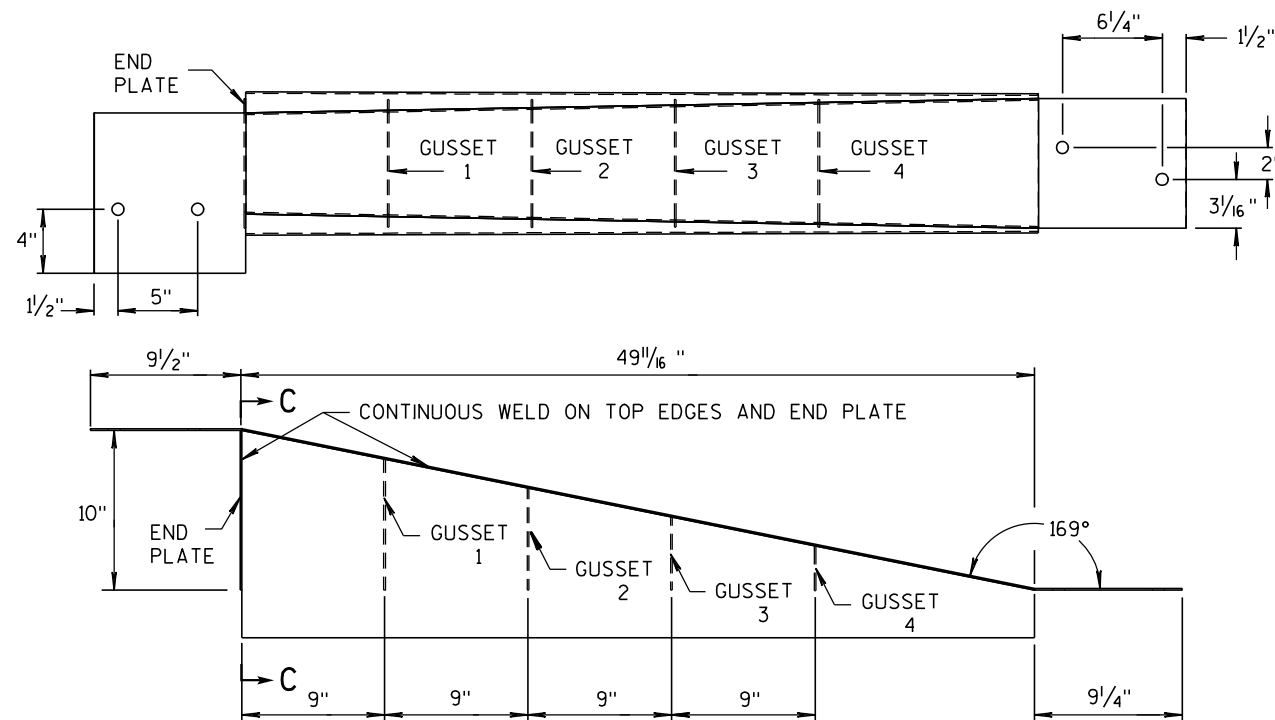


**SIDE, TOP AND END PLATES FOR CAP
FROM TEMPORARY CONCRETE BARRIER
TO 42" PERMANENT CONCRETE BARRIER**

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C



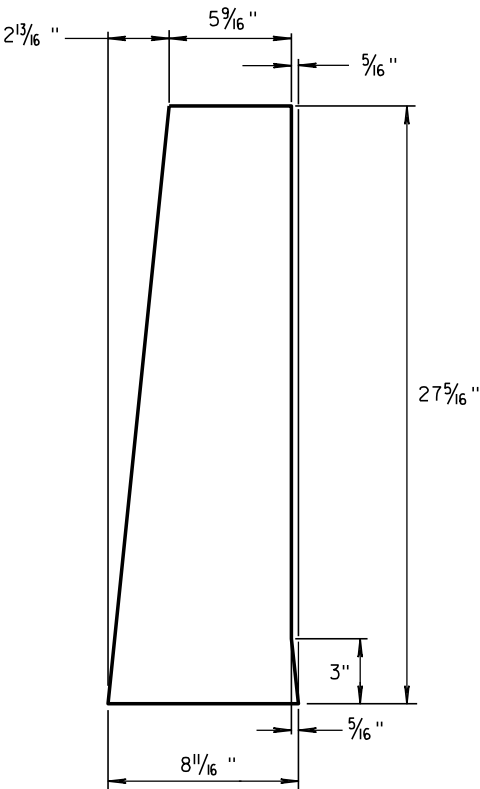
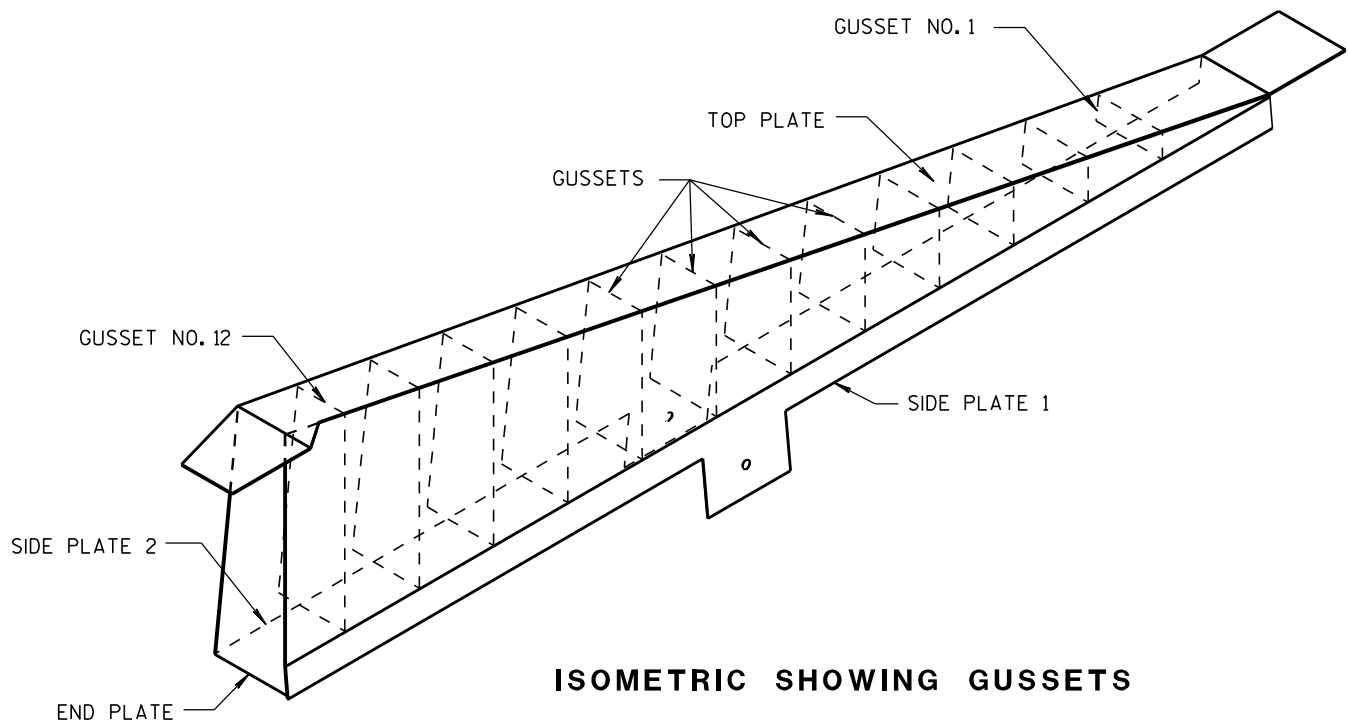
NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

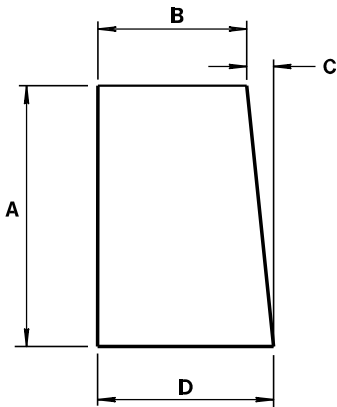
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

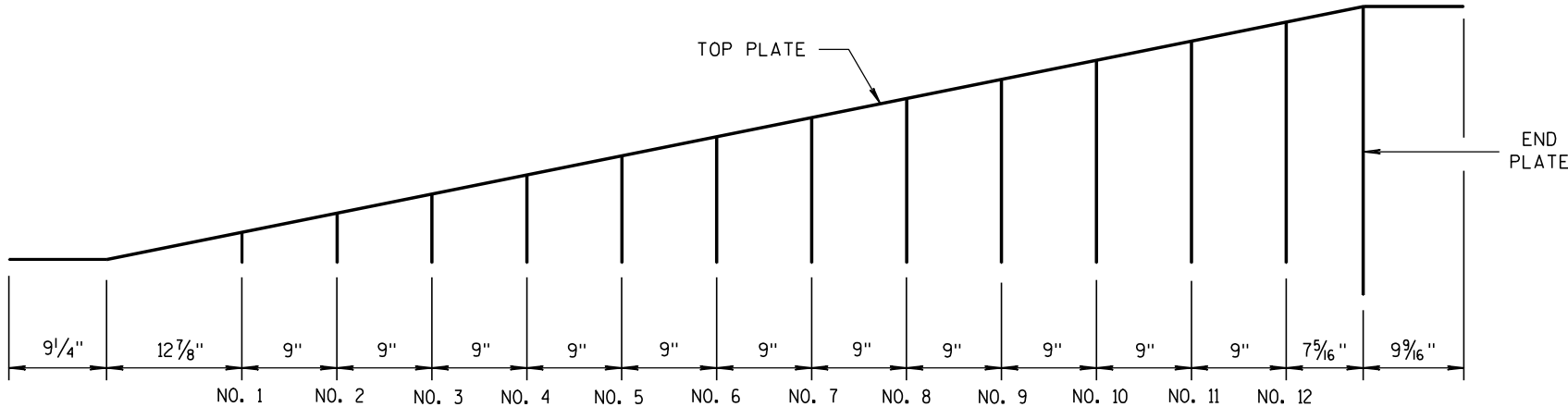


ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8 "	7"	1 1/16 "	8 1/16 "
6	11 5/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

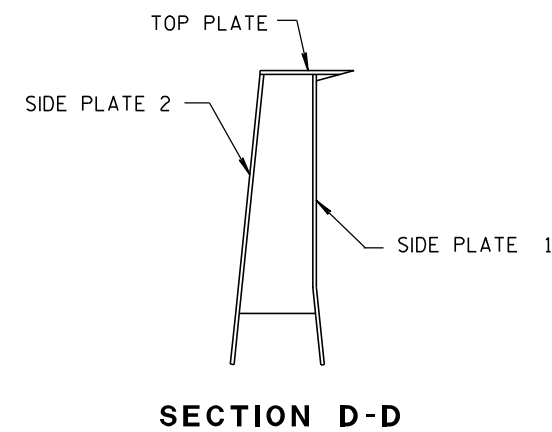
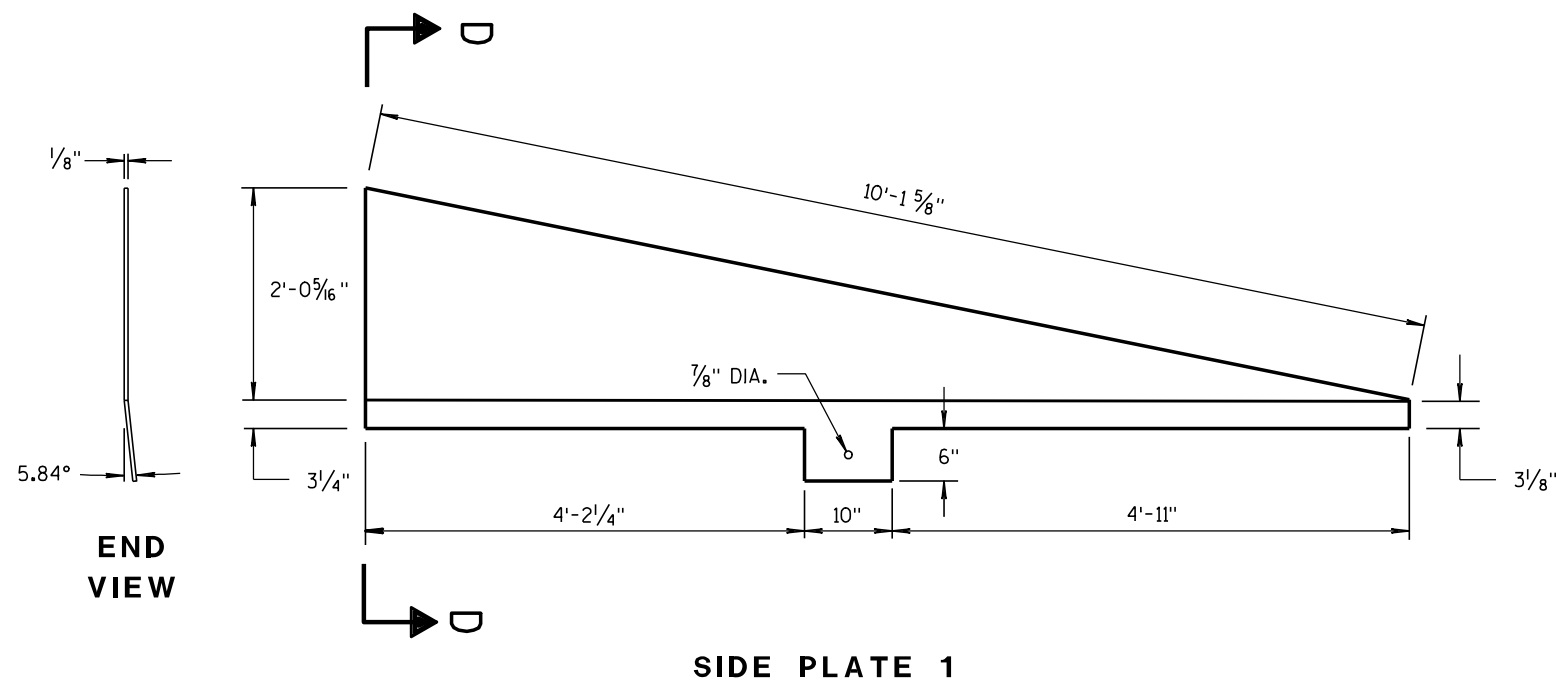
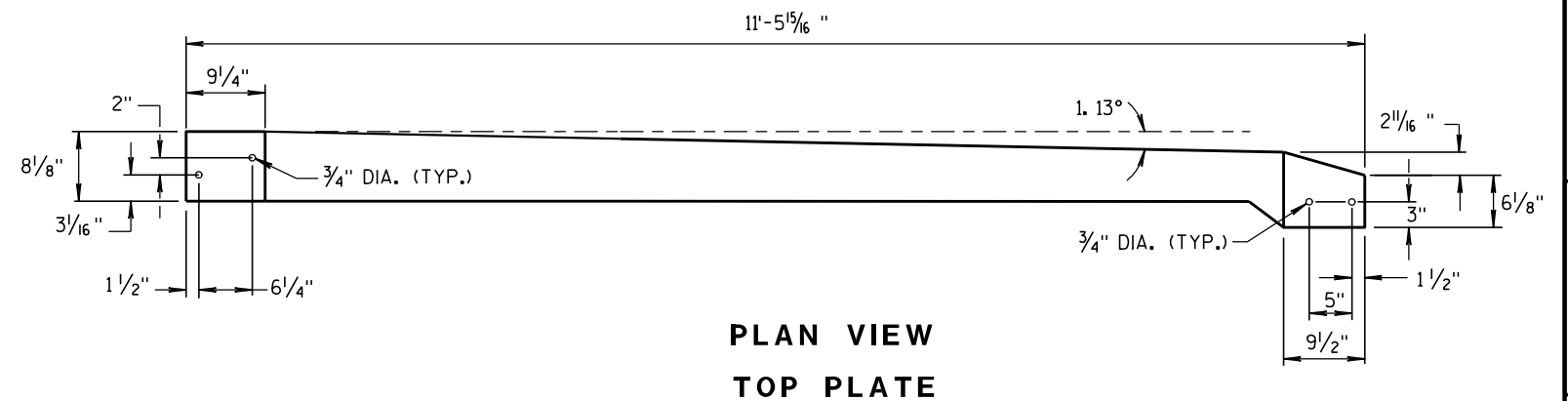
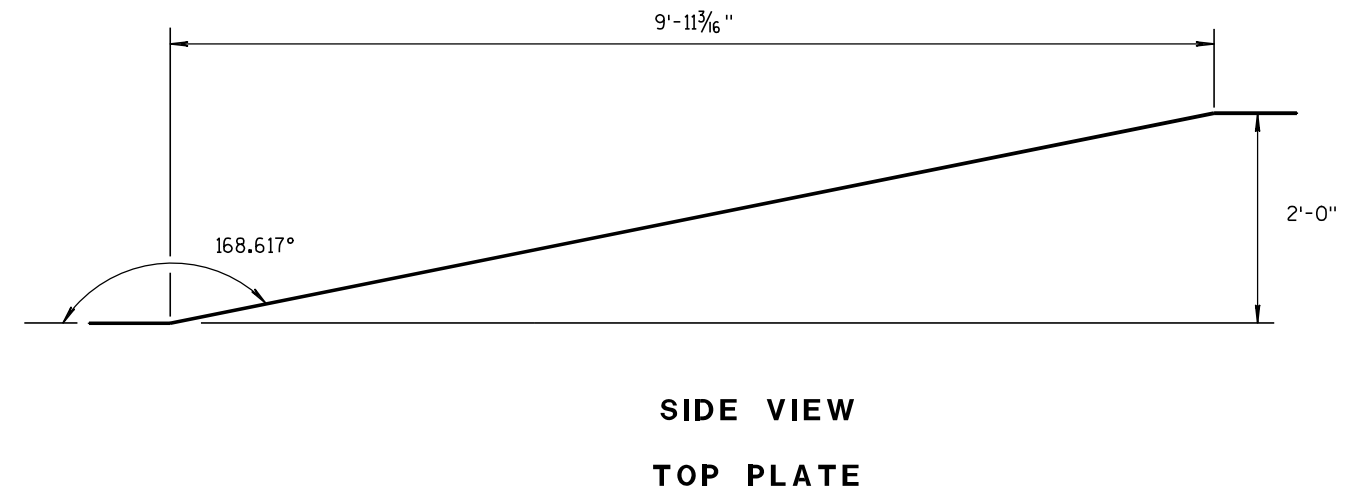
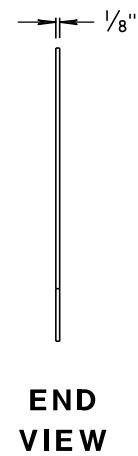
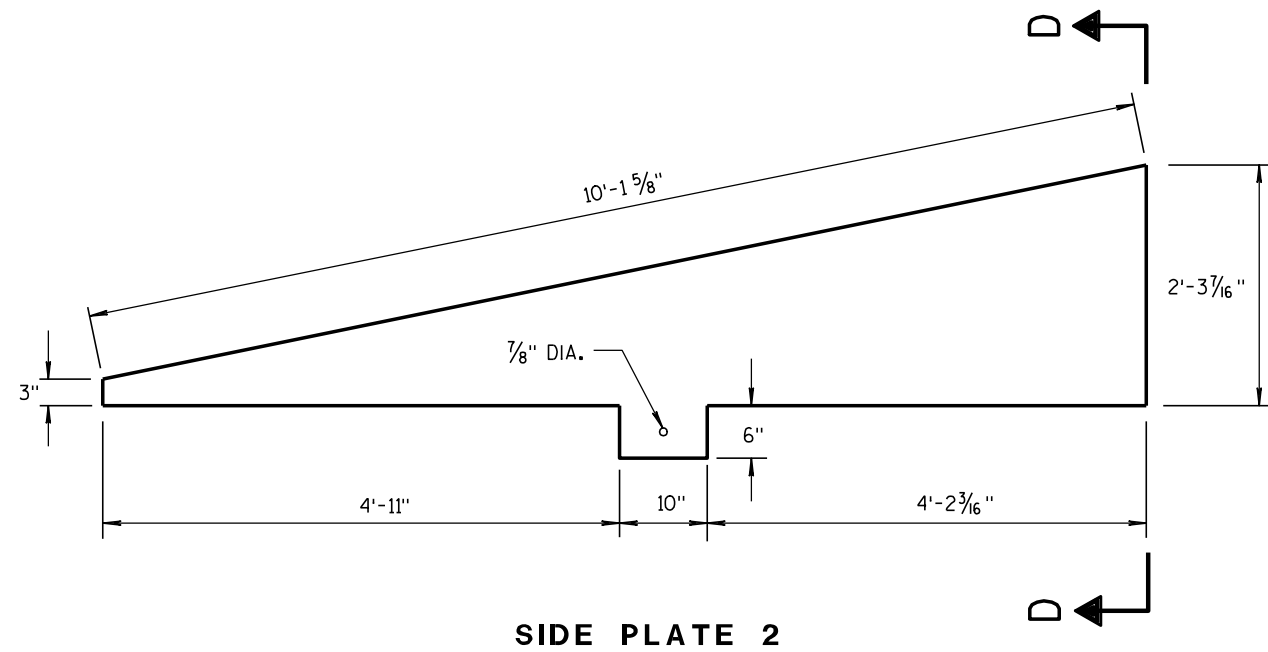
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012

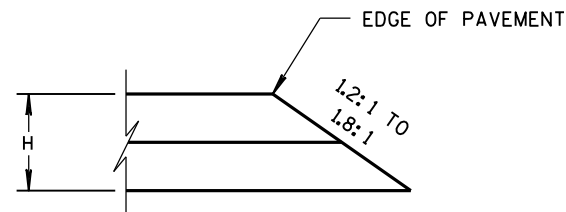
DATE

FHWA

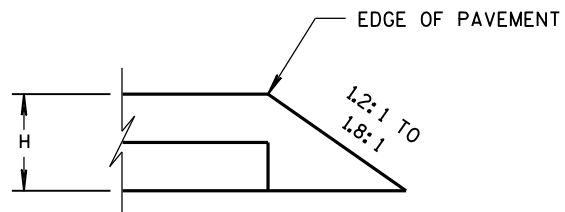
/S/ Jerry H. Zogg

ROADWAY STANDARD DEVELOPMENT

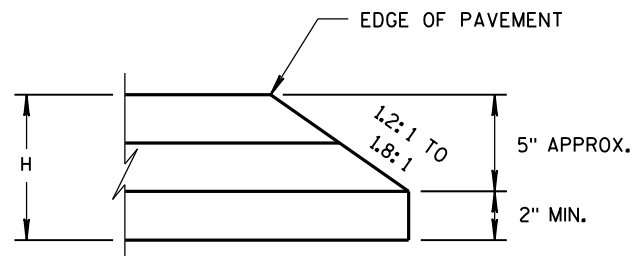
ENGINEER



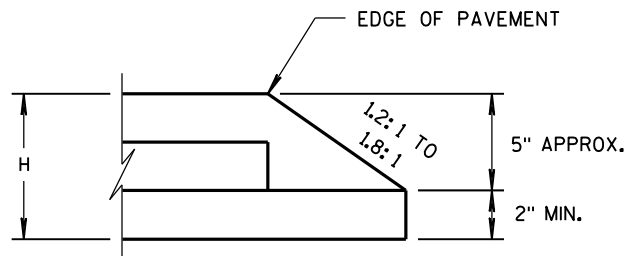
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

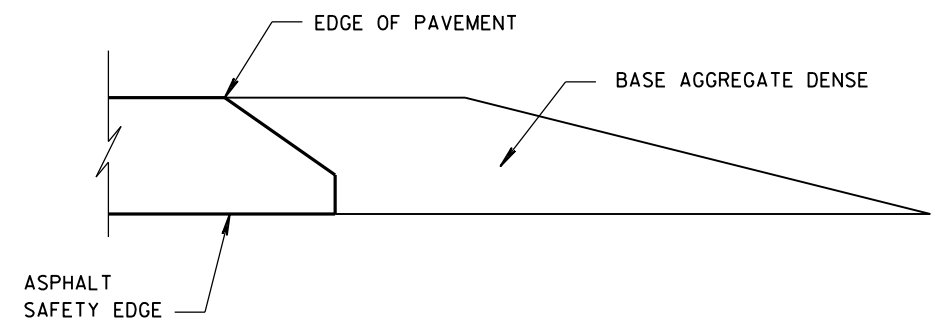


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

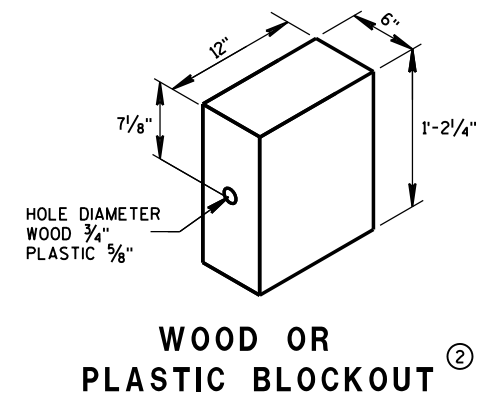
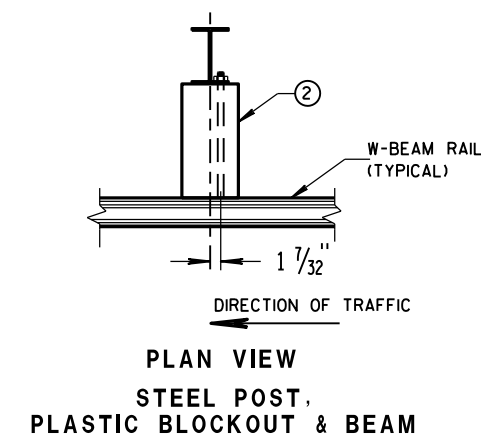
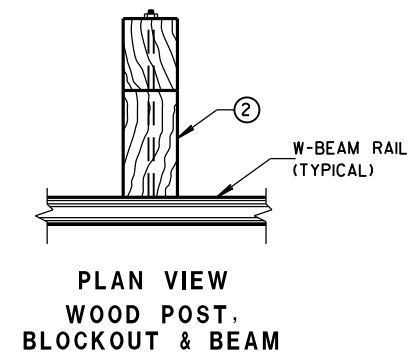
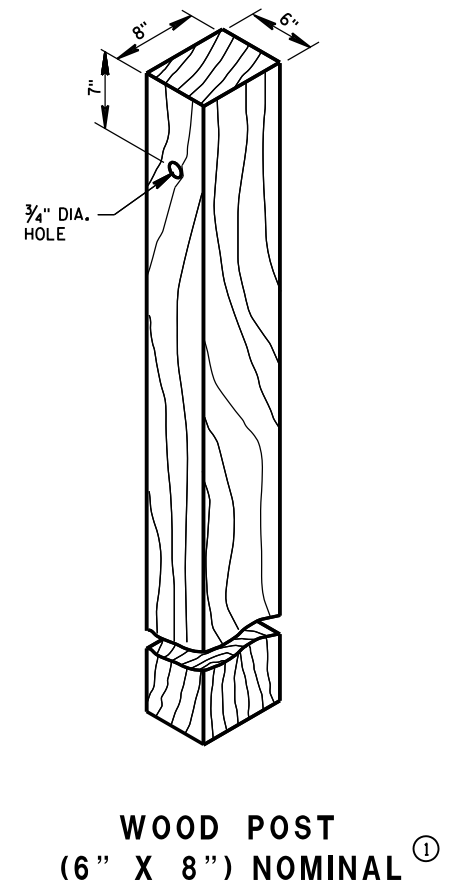
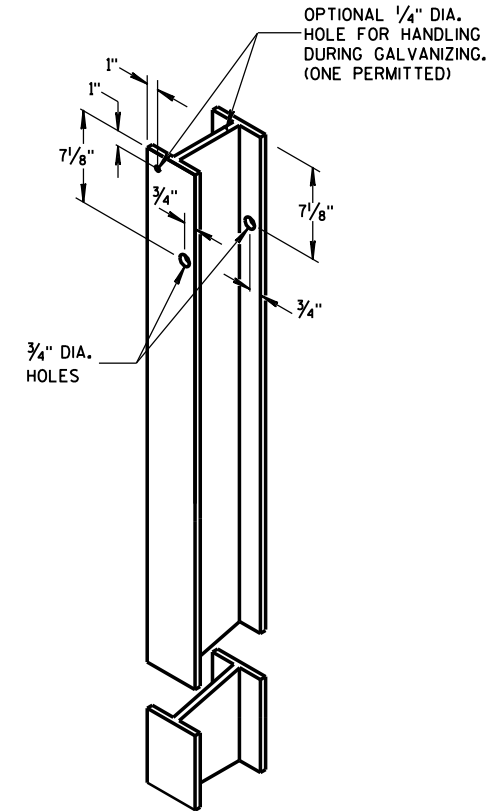
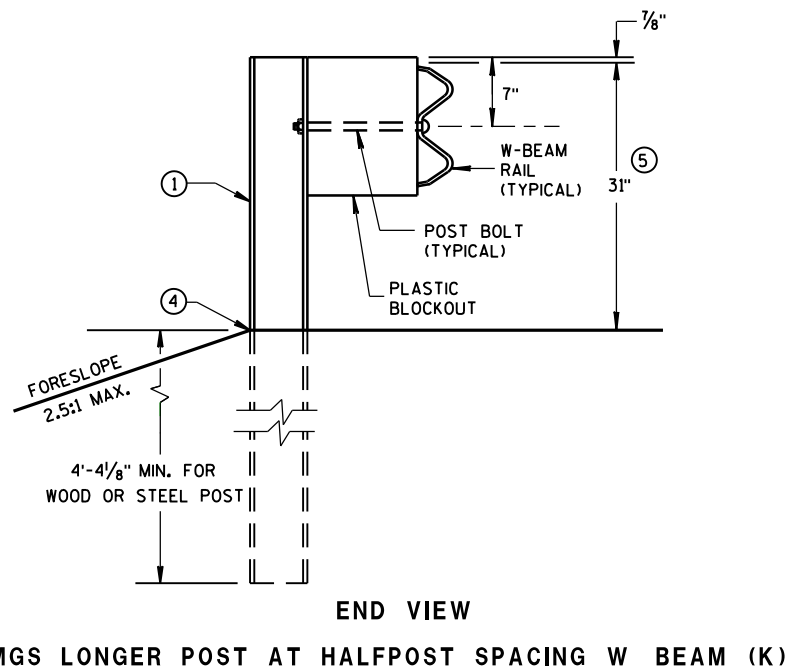
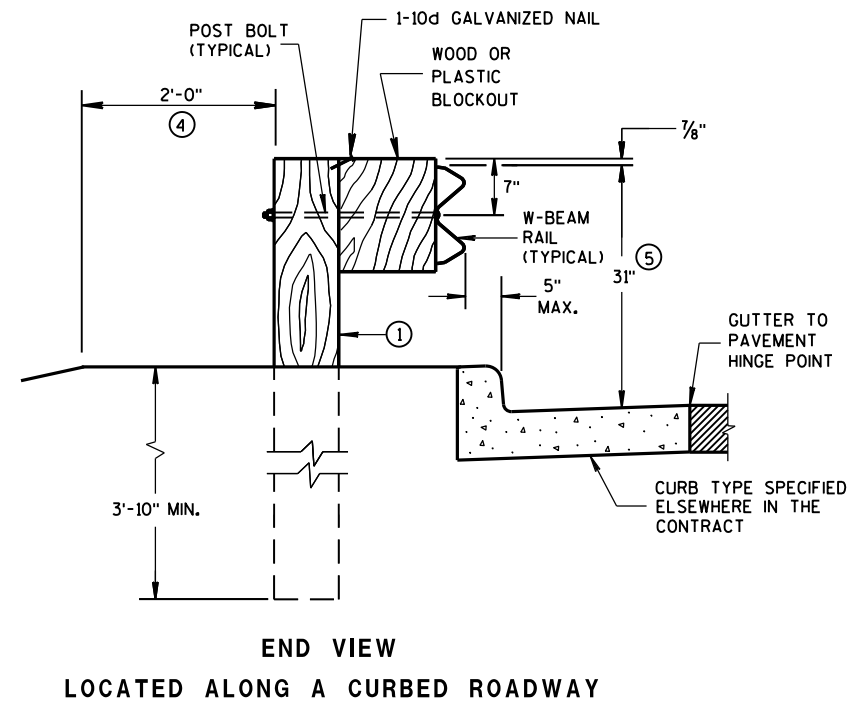
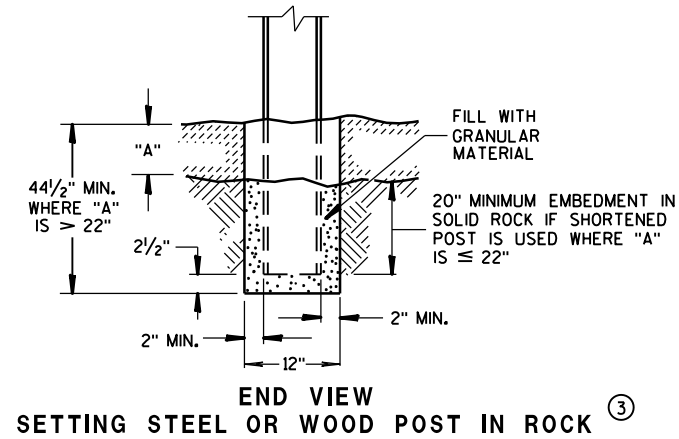
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

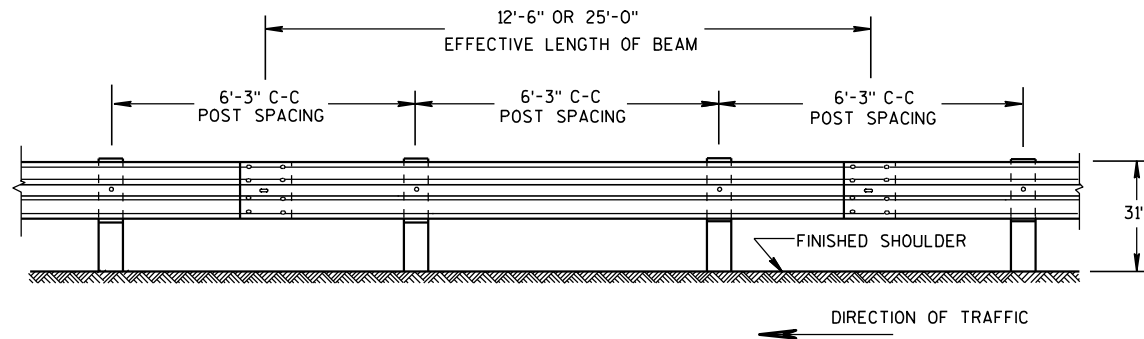
APPROVED
11/30/2012
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

6

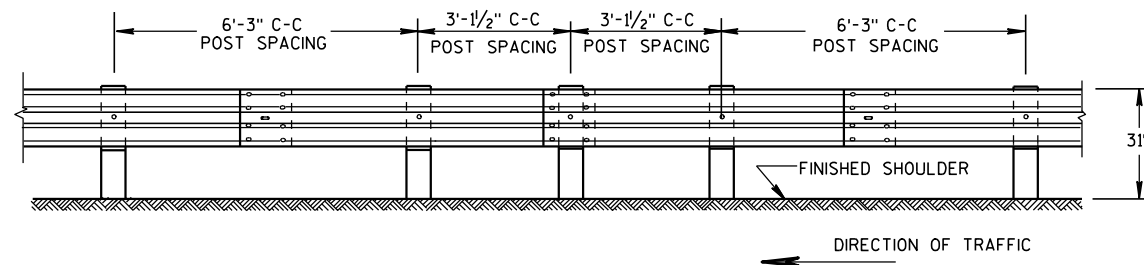
- S.D.D. 14 B 42-2a**





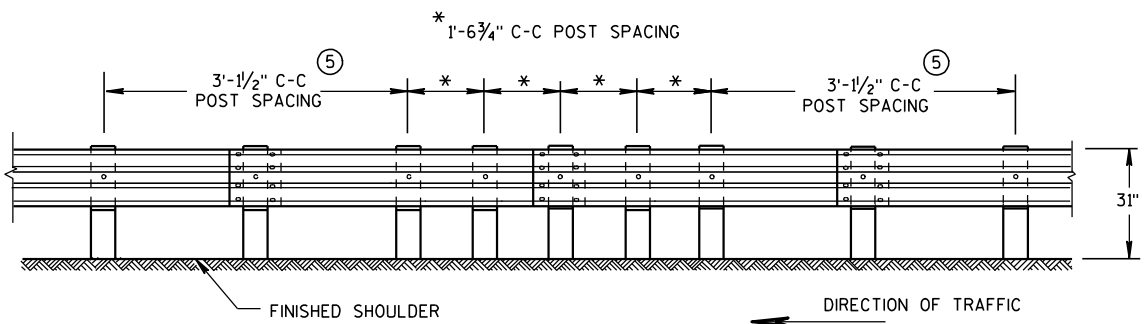
FRONT VIEW

POST SPACING STANDARD INSTALLATION



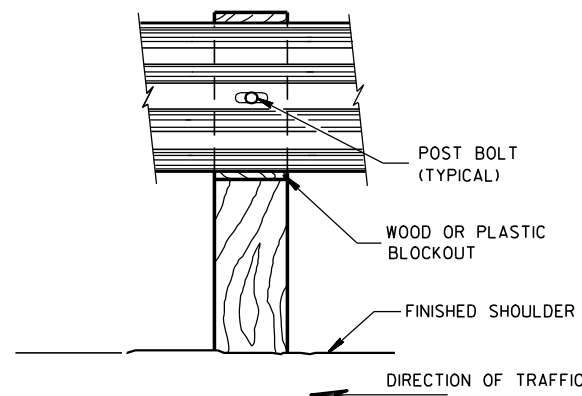
FRONT VIEW

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

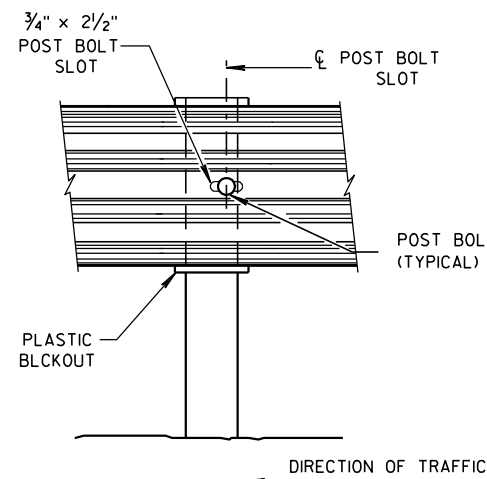


FRONT VIEW

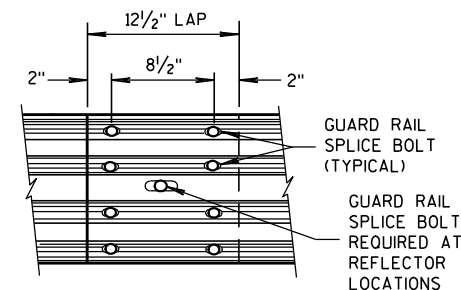
QUARTER POST SPACING (QS)



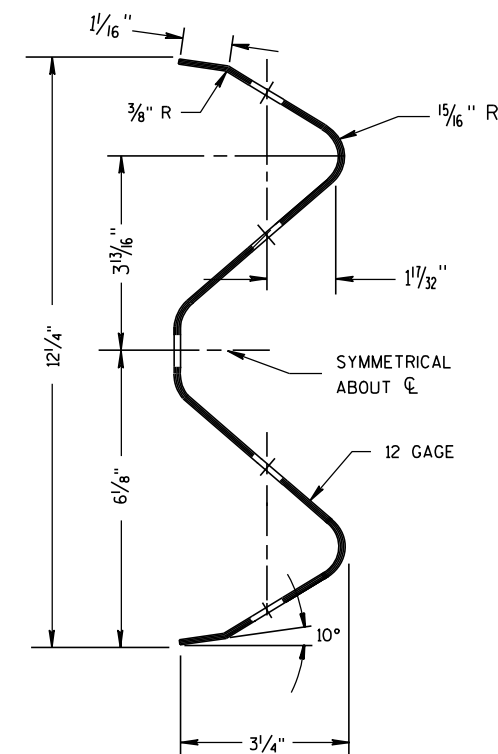
FRONT VIEW AT WOOD POST



FRONT VIEW AT STEEL POST



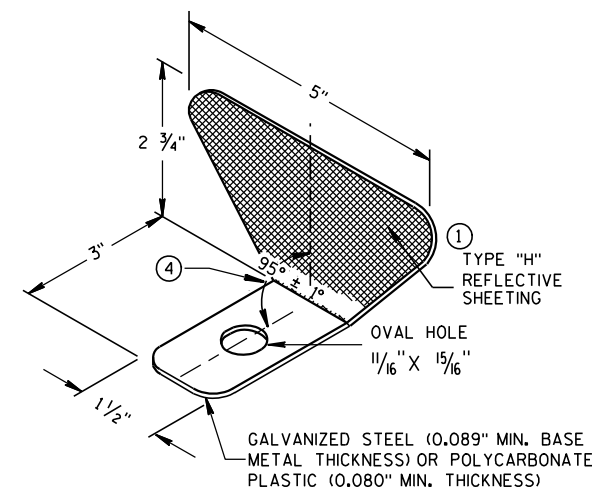
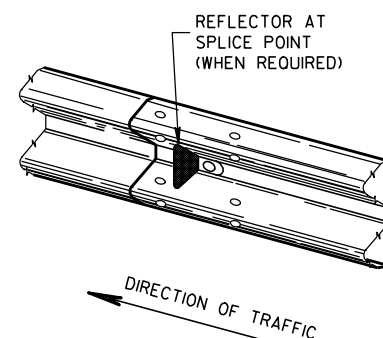
FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

REFLECTOR SPACING^②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ^③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ^④	3
	> 200'	100' C-C	2	



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION^①

GENERAL NOTES

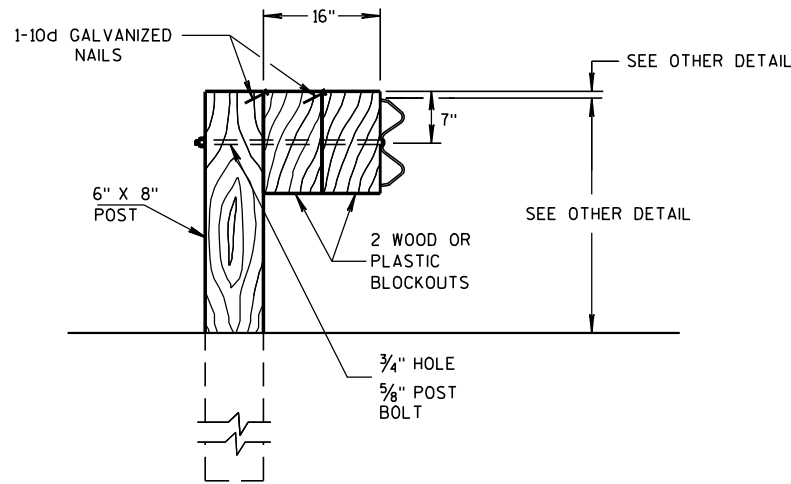
- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

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

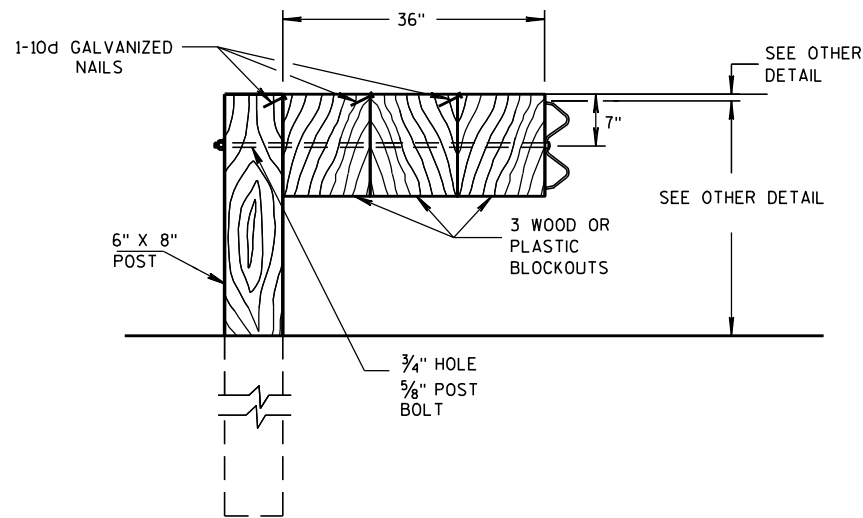
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

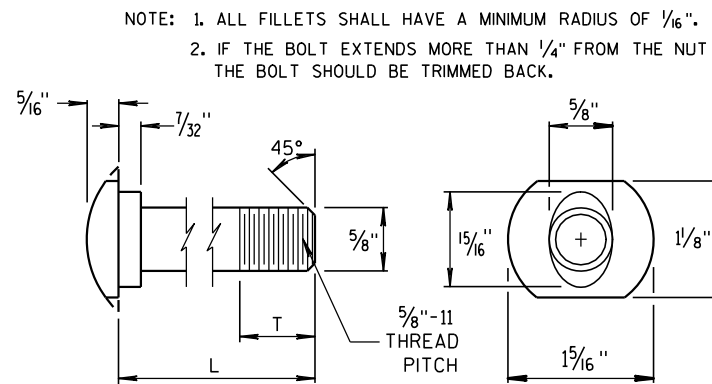
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



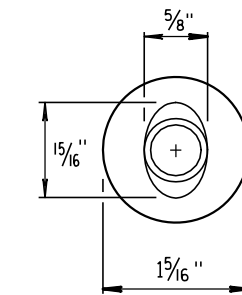
DETAIL FOR 36" BLOCKOUT DEPTH

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.

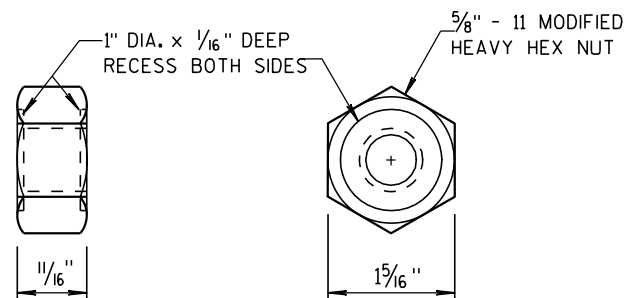
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



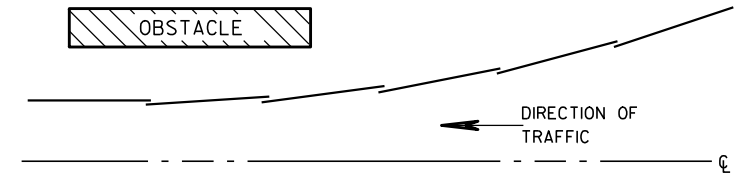
POST BOLT TABLE



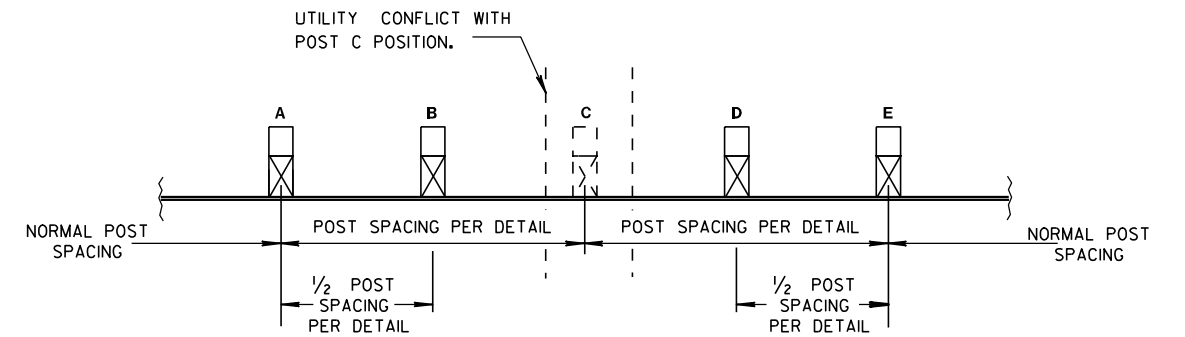
ALTERNATE BOLT HEAD



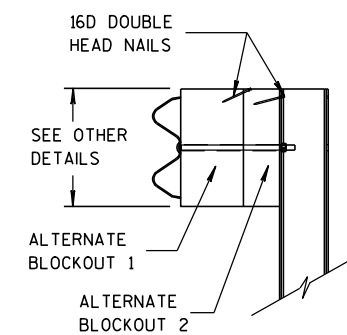
POST BOLT AND RECESS NUT



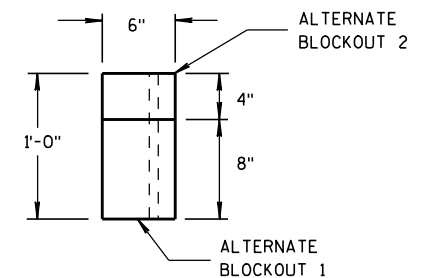
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), 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.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (G) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (H) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

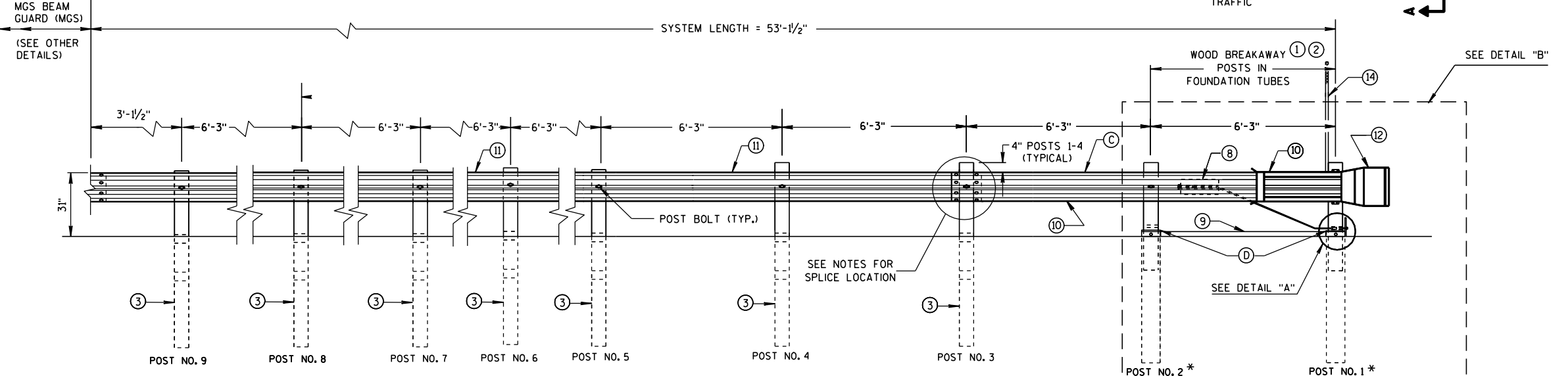
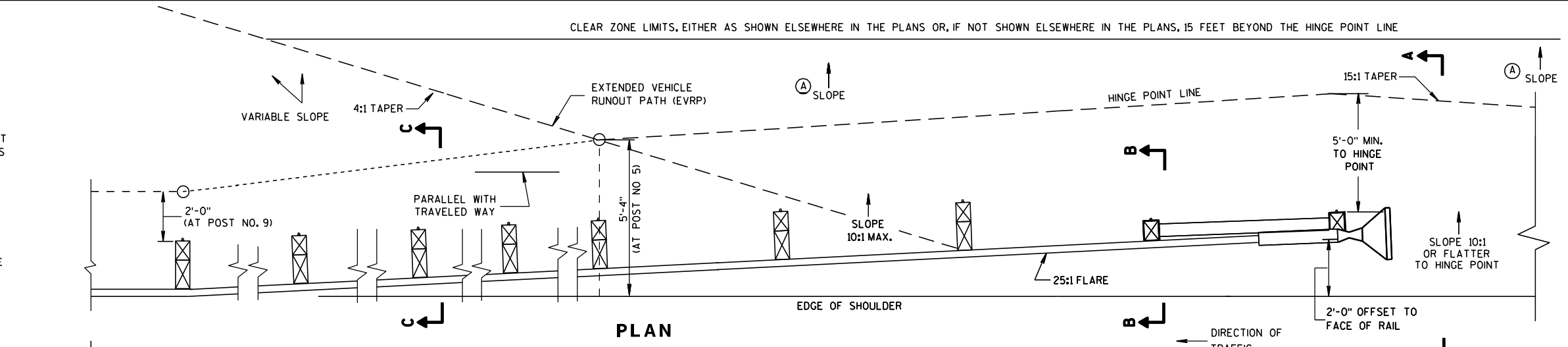
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

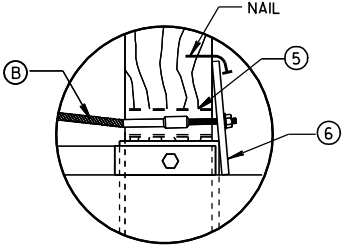
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

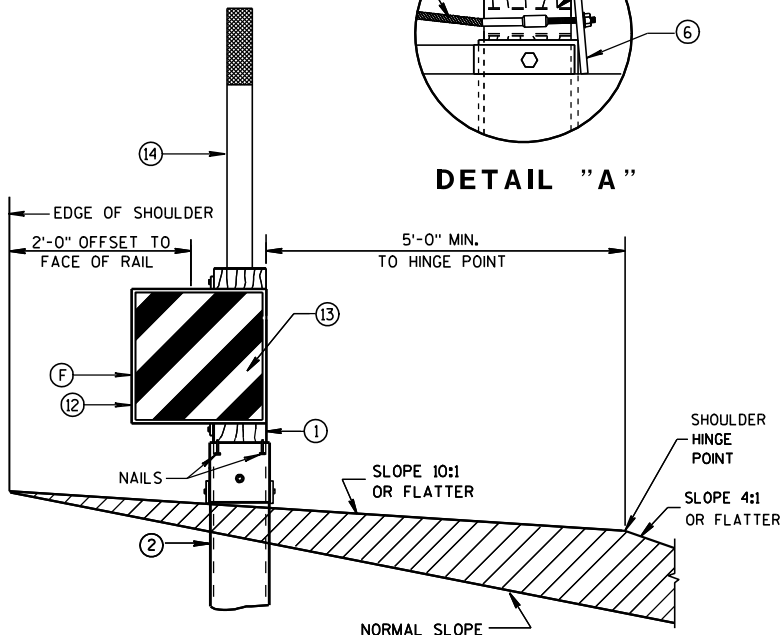
THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ($\pm \frac{3}{4}$ ")



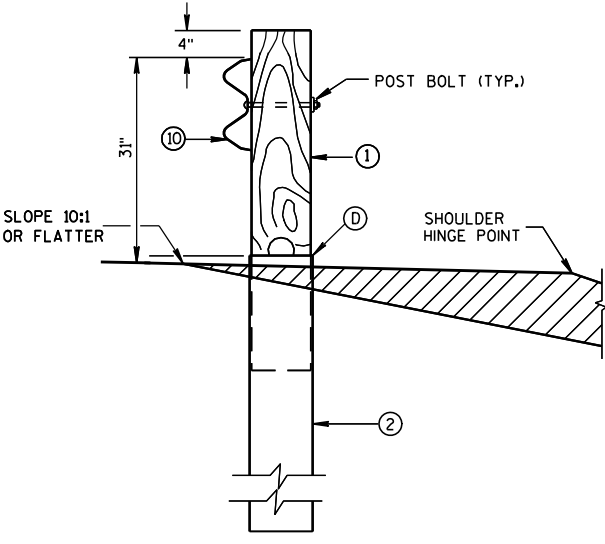
ELEVATION



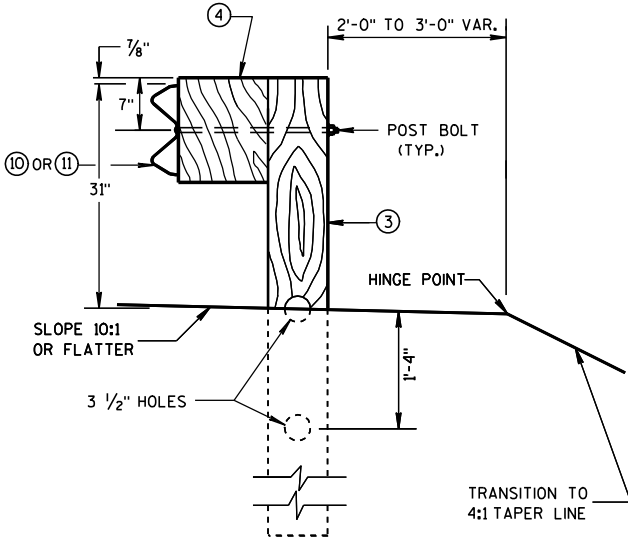
DETAIL "A"



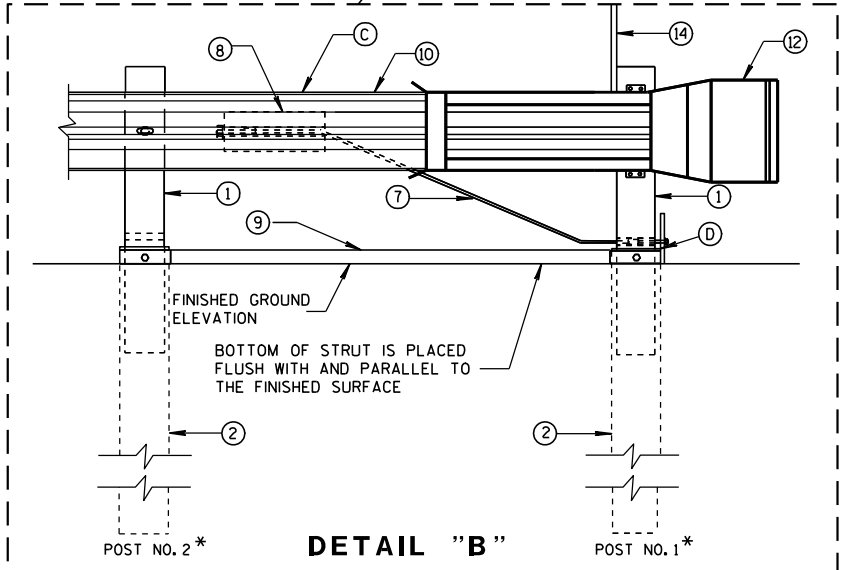
SECTION A-A
TYPICAL AT POST NO. 1*



SECTION B-B
TYPICAL AT POST NO. 2*



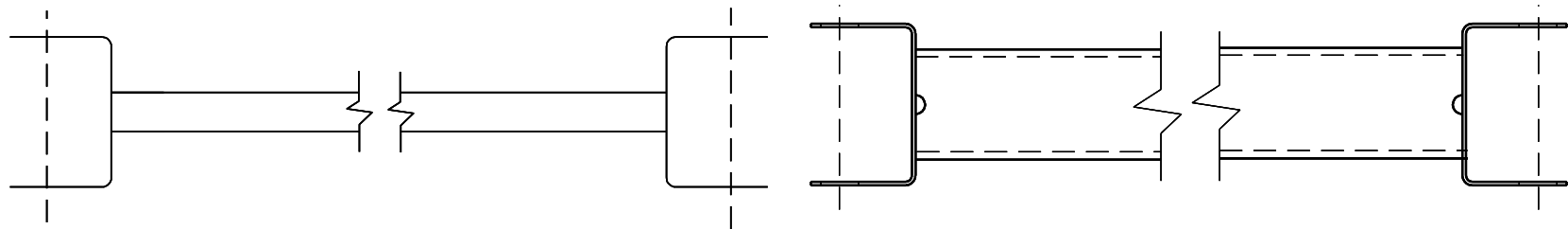
SECTION C-C
TYPICAL AT POST NOS. 3-9



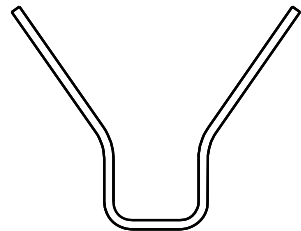
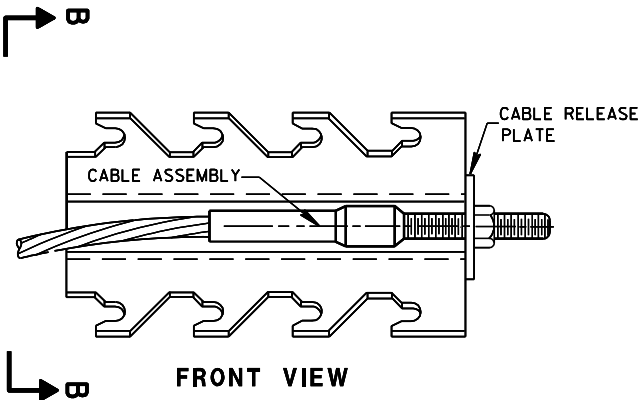
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

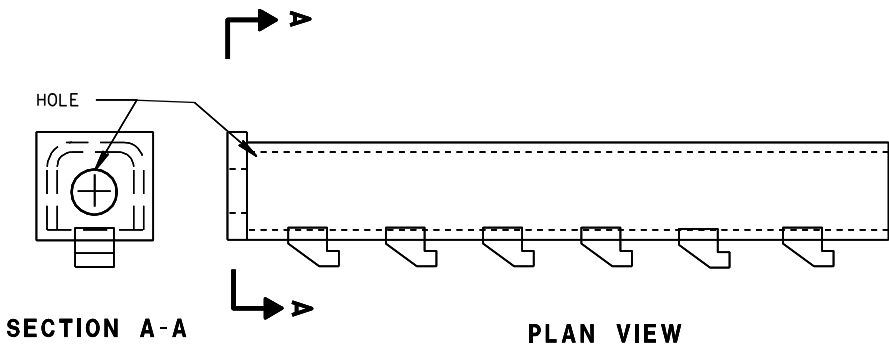
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



9 H
GENERIC GROUND STRUT

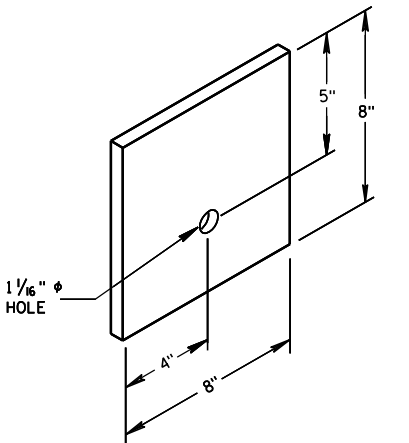


SECTION B-B
8 H
GENERIC ANCHOR CABLE BOX



BILL OF MATERIALS

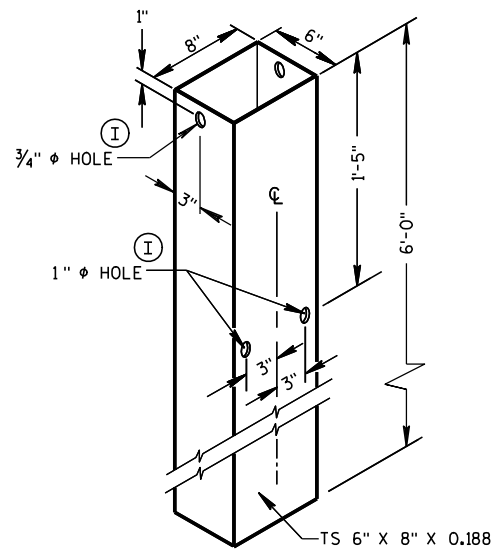
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL, MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



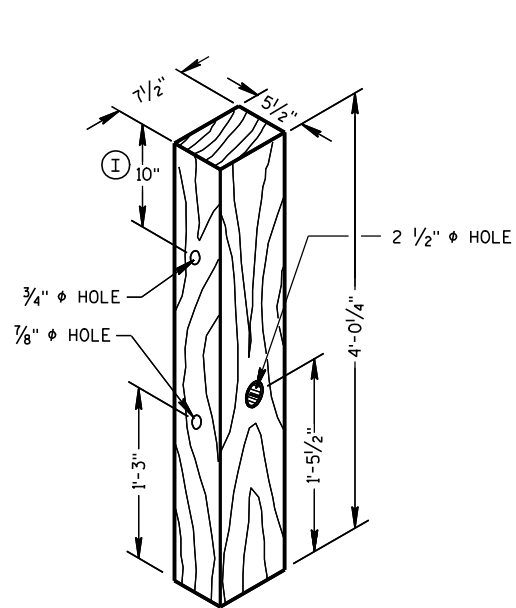
6
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

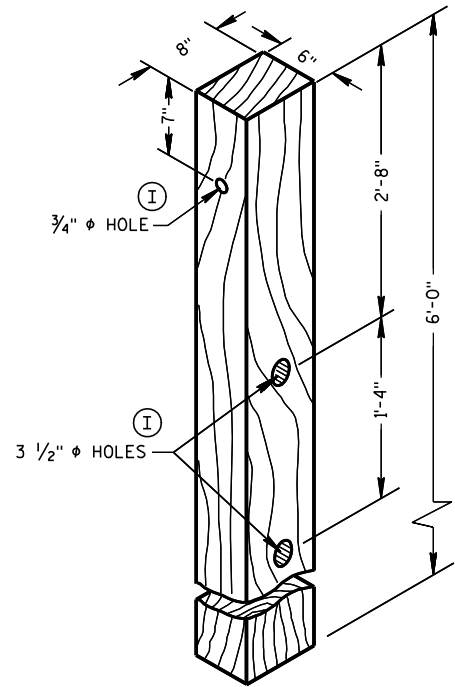
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



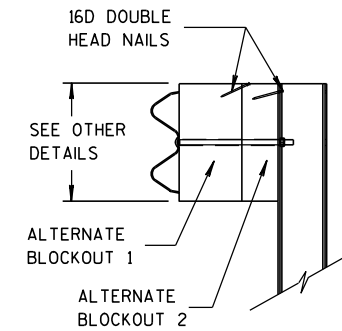
FOUNDATION TUBE ②



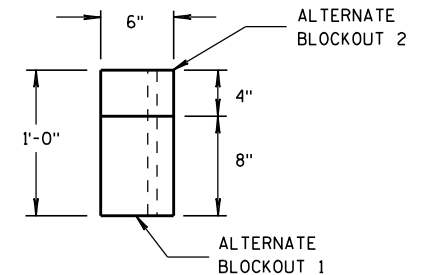
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

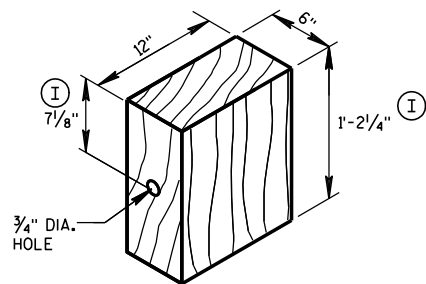


SIDE VIEW



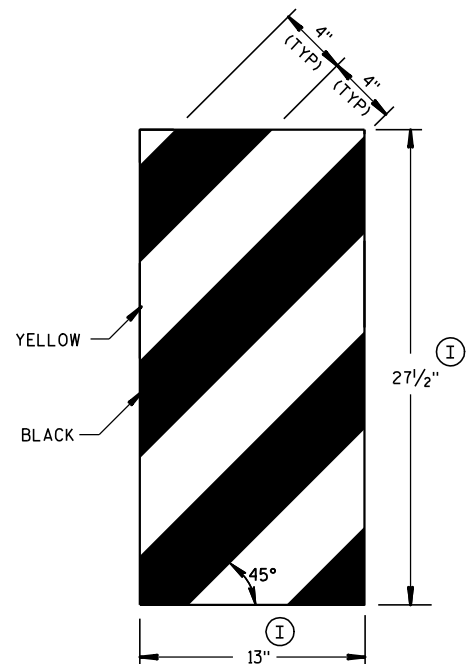
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

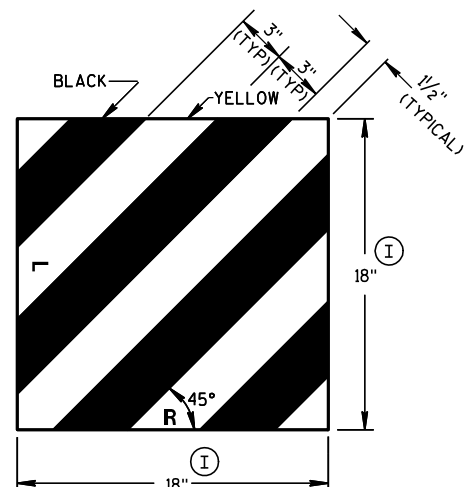


WOOD BLOCKOUT ④

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING



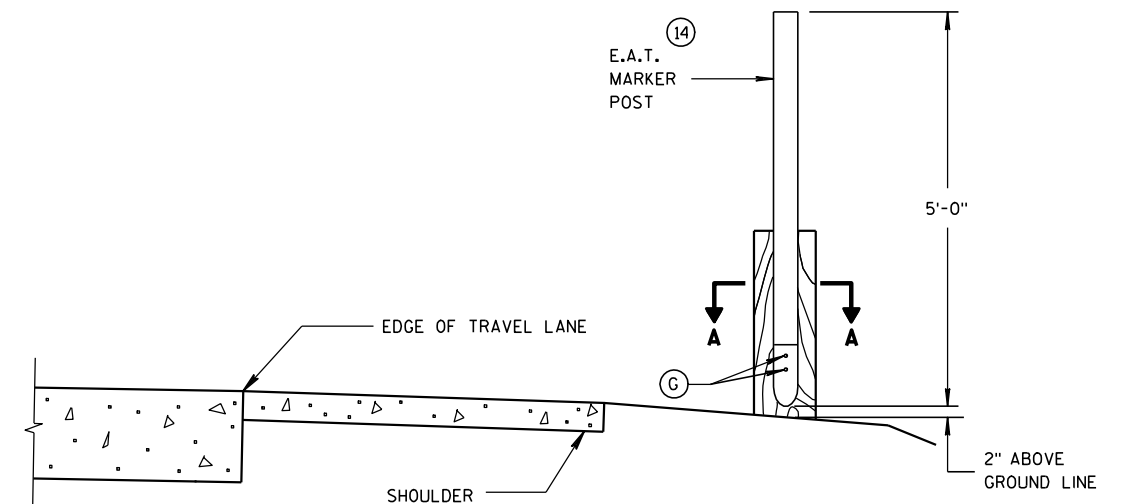
GENERIC REFLECTIVE SHEETING ⑬ ④



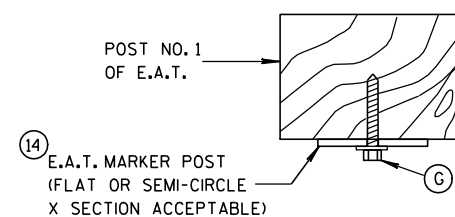
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⑭



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

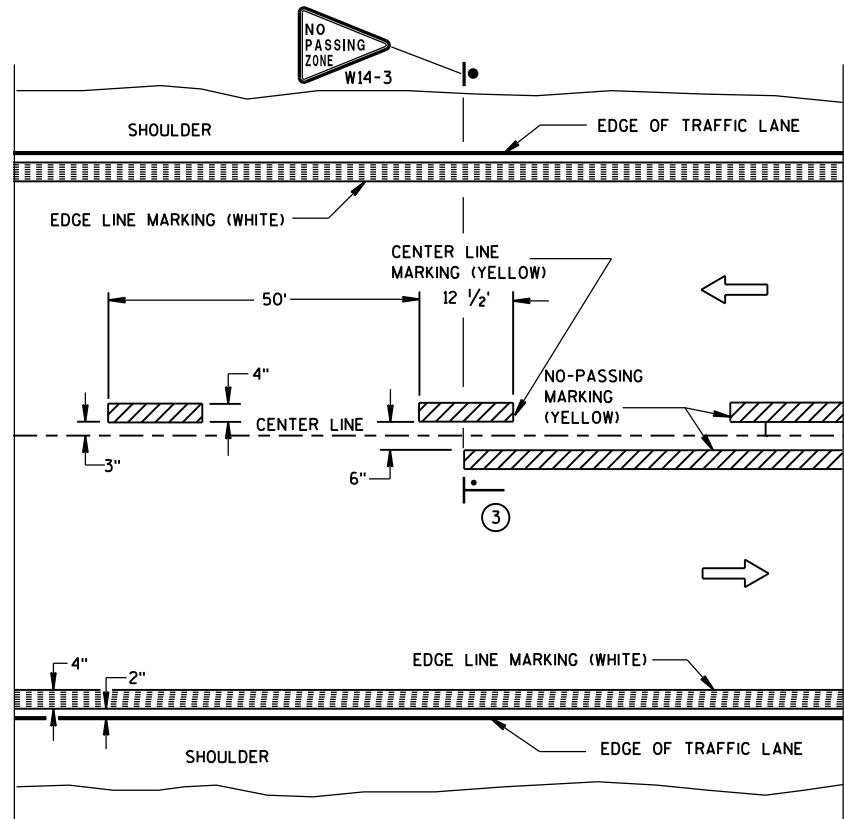
APPROVED

5/23/2011

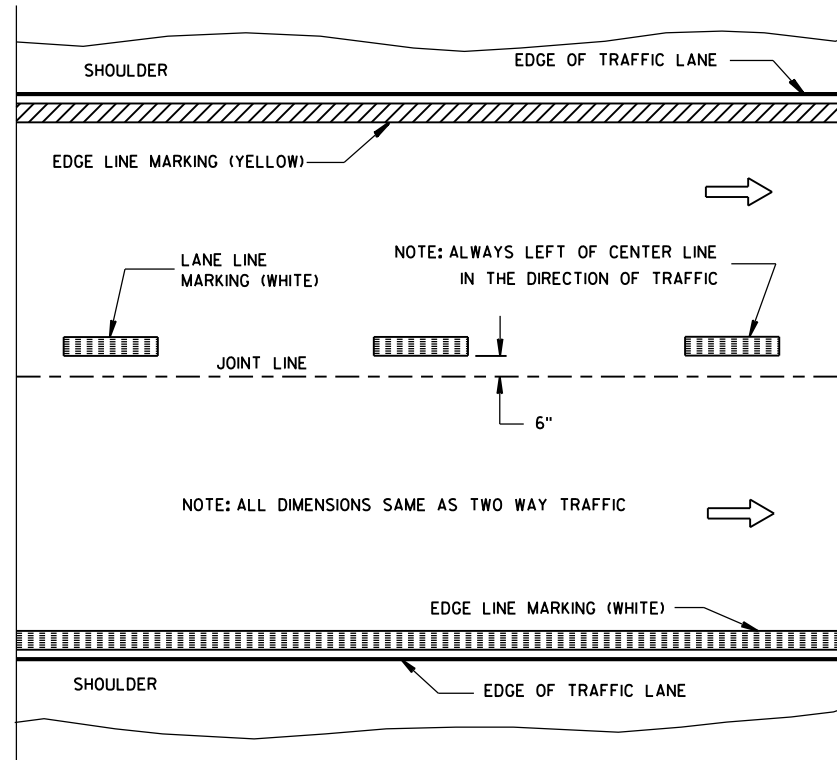
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

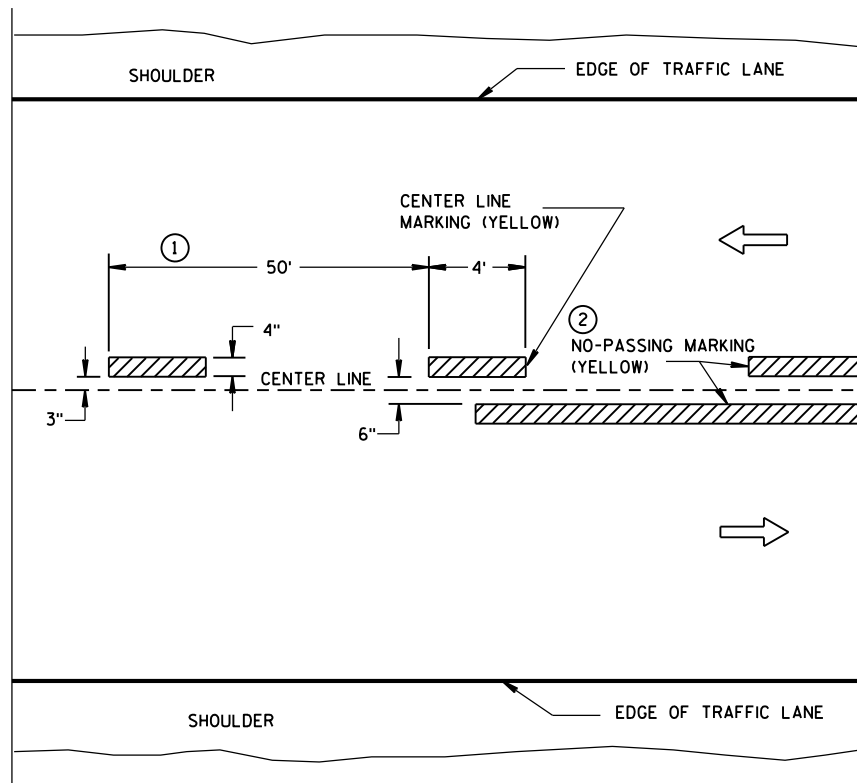


TWO WAY TRAFFIC

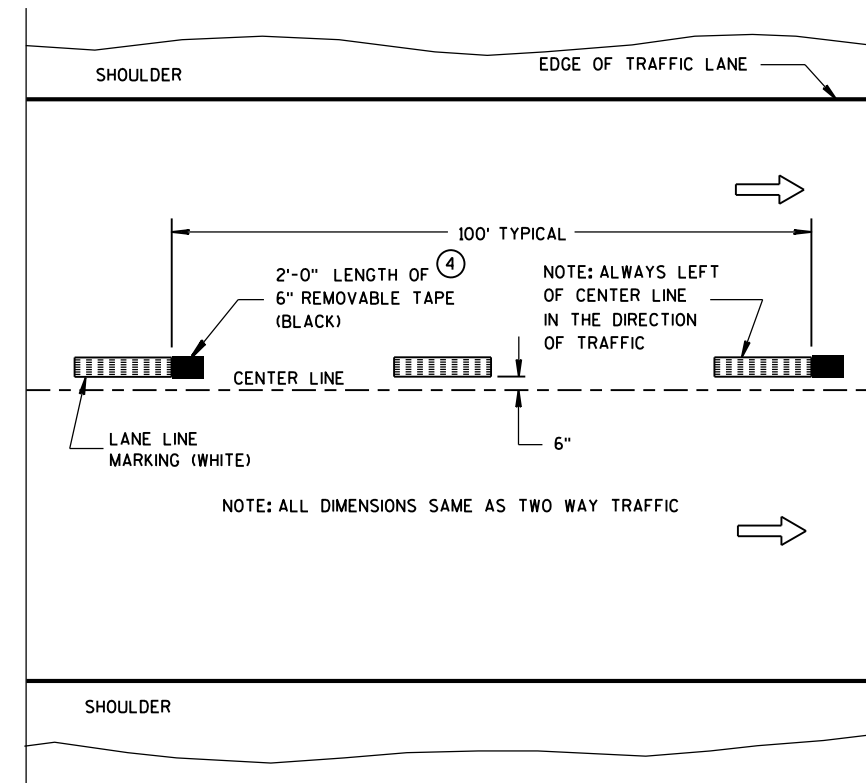


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

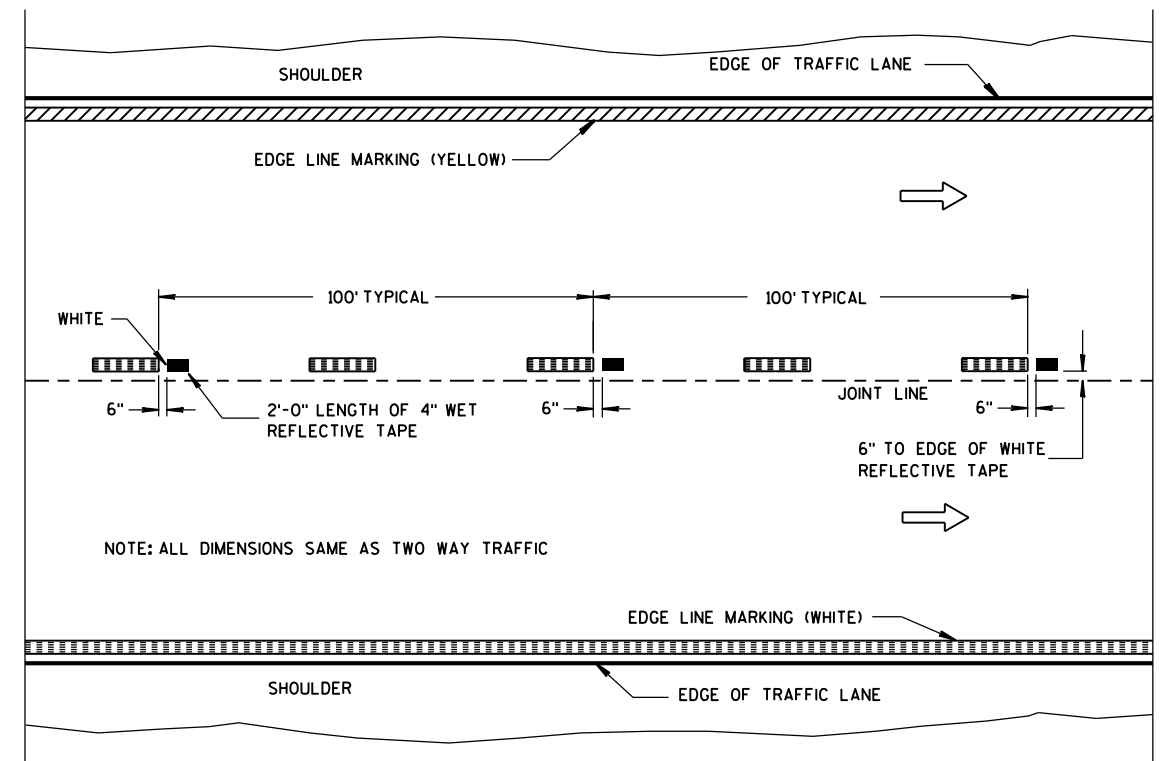
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

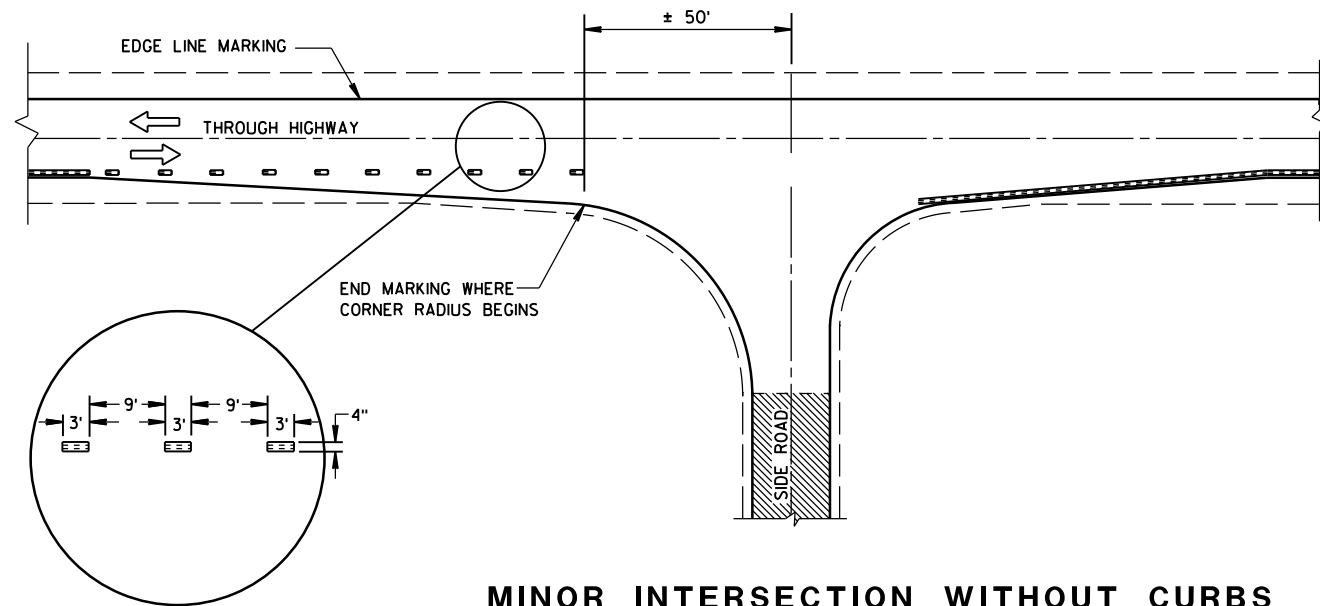
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

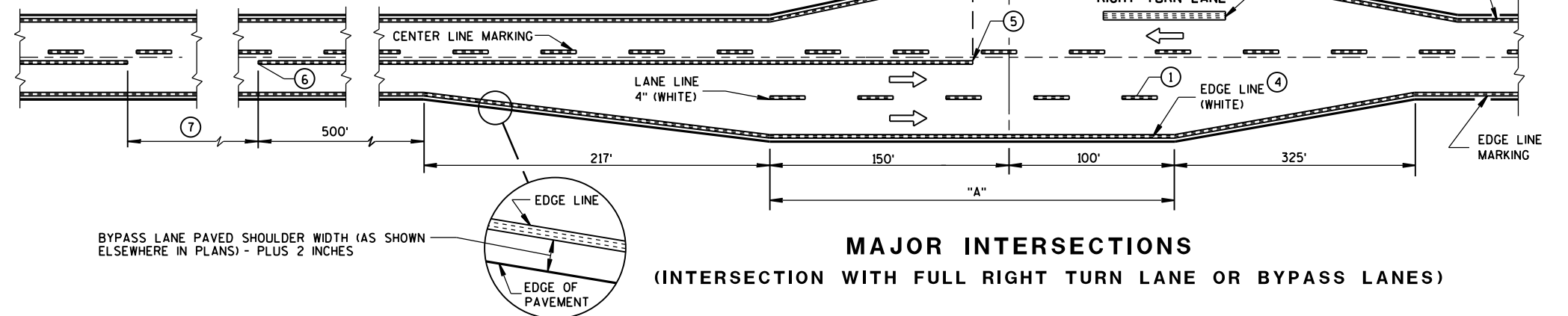
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



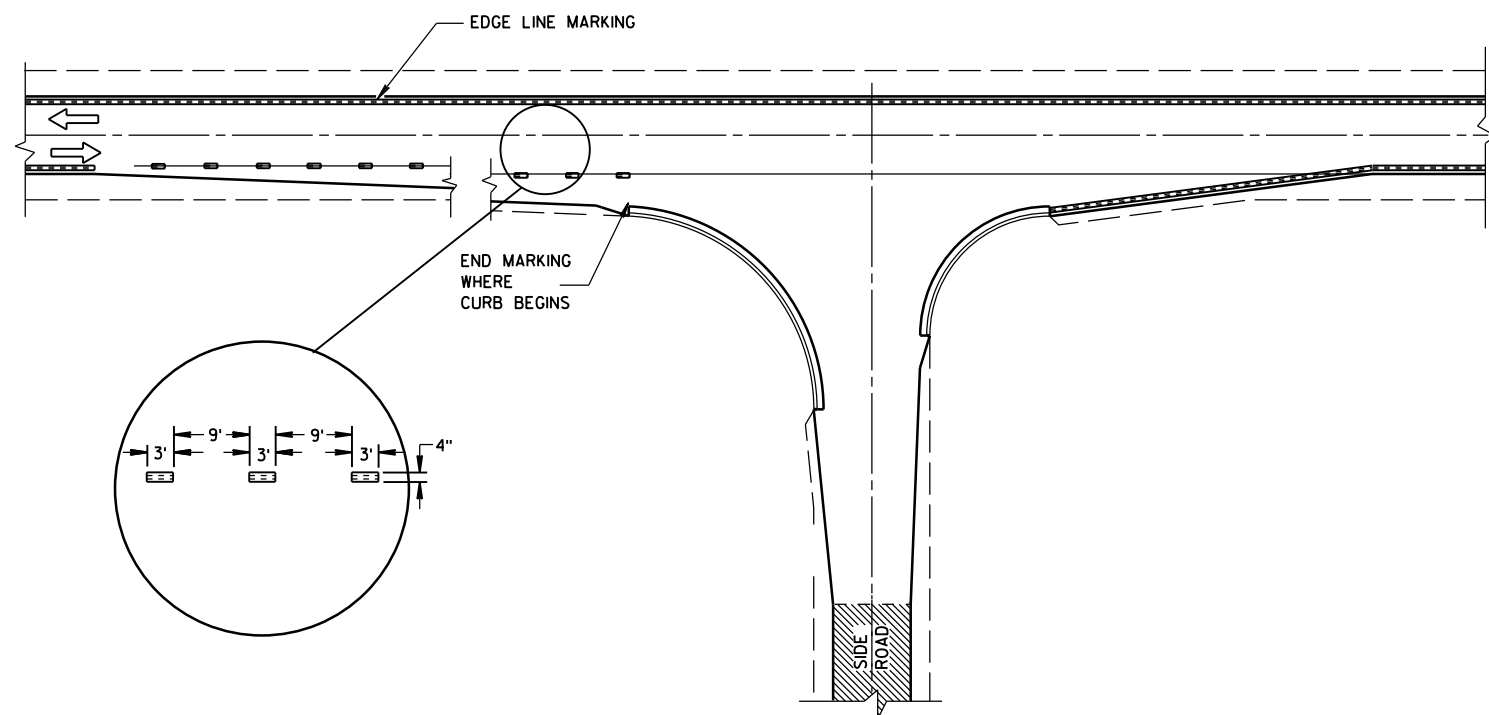
MINOR INTERSECTION WITHOUT CURBS

⑦

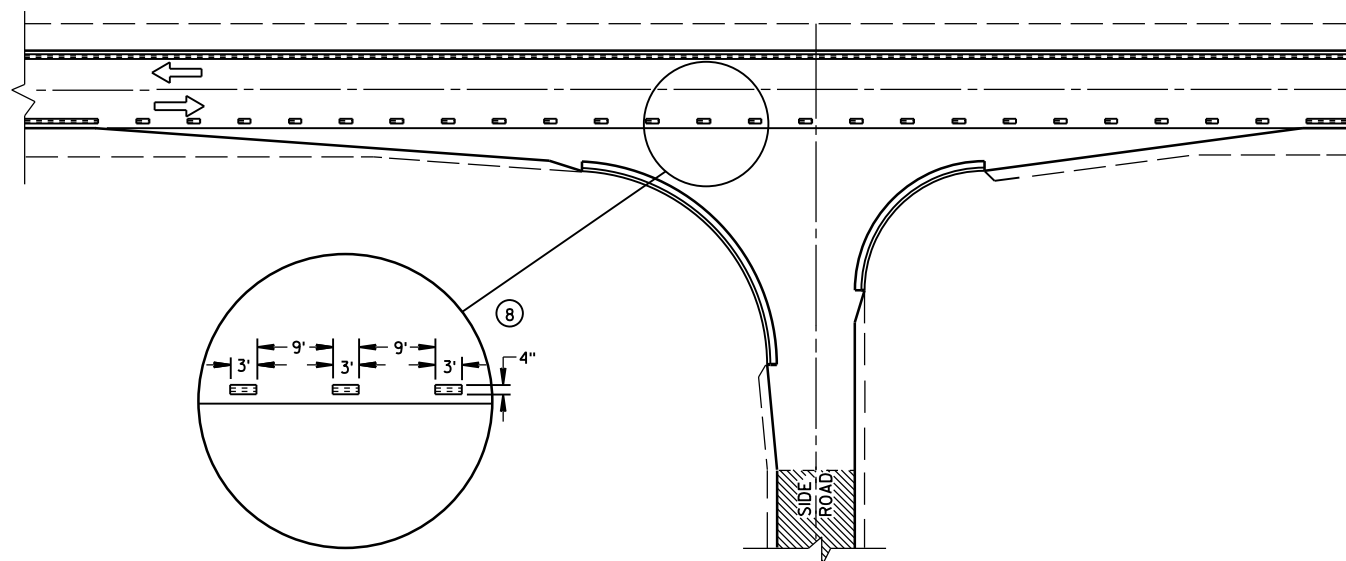
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

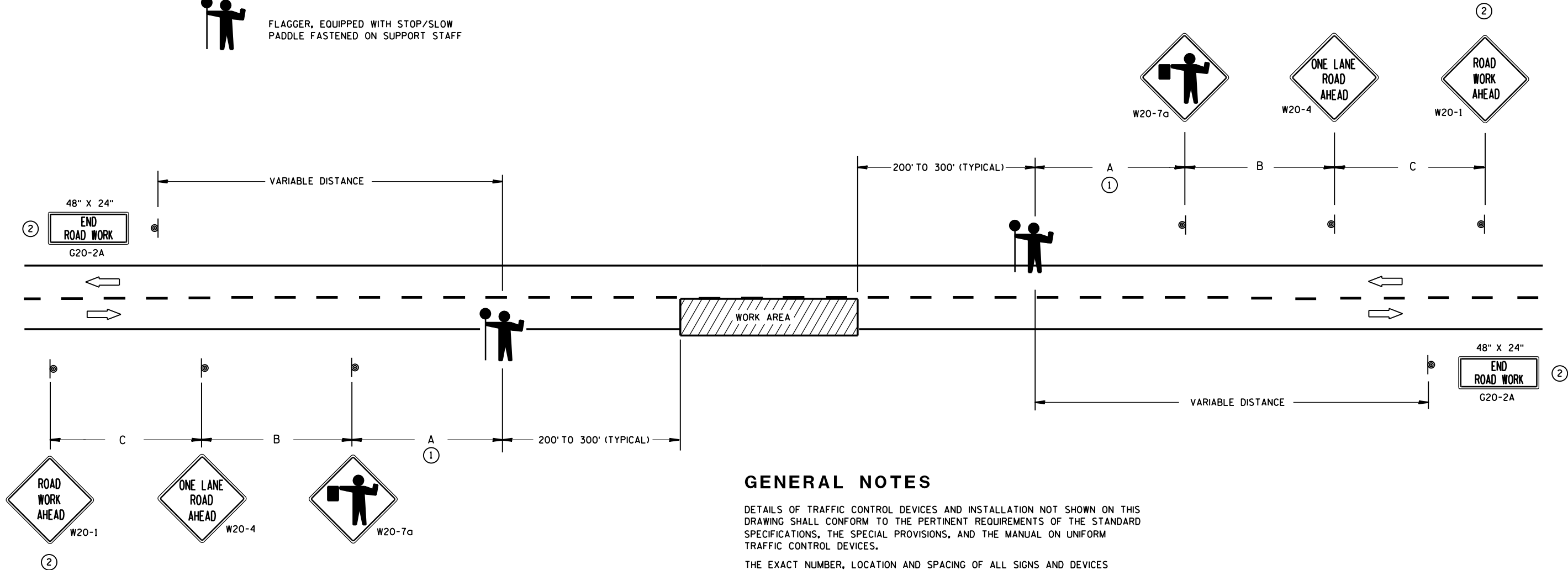
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



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.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

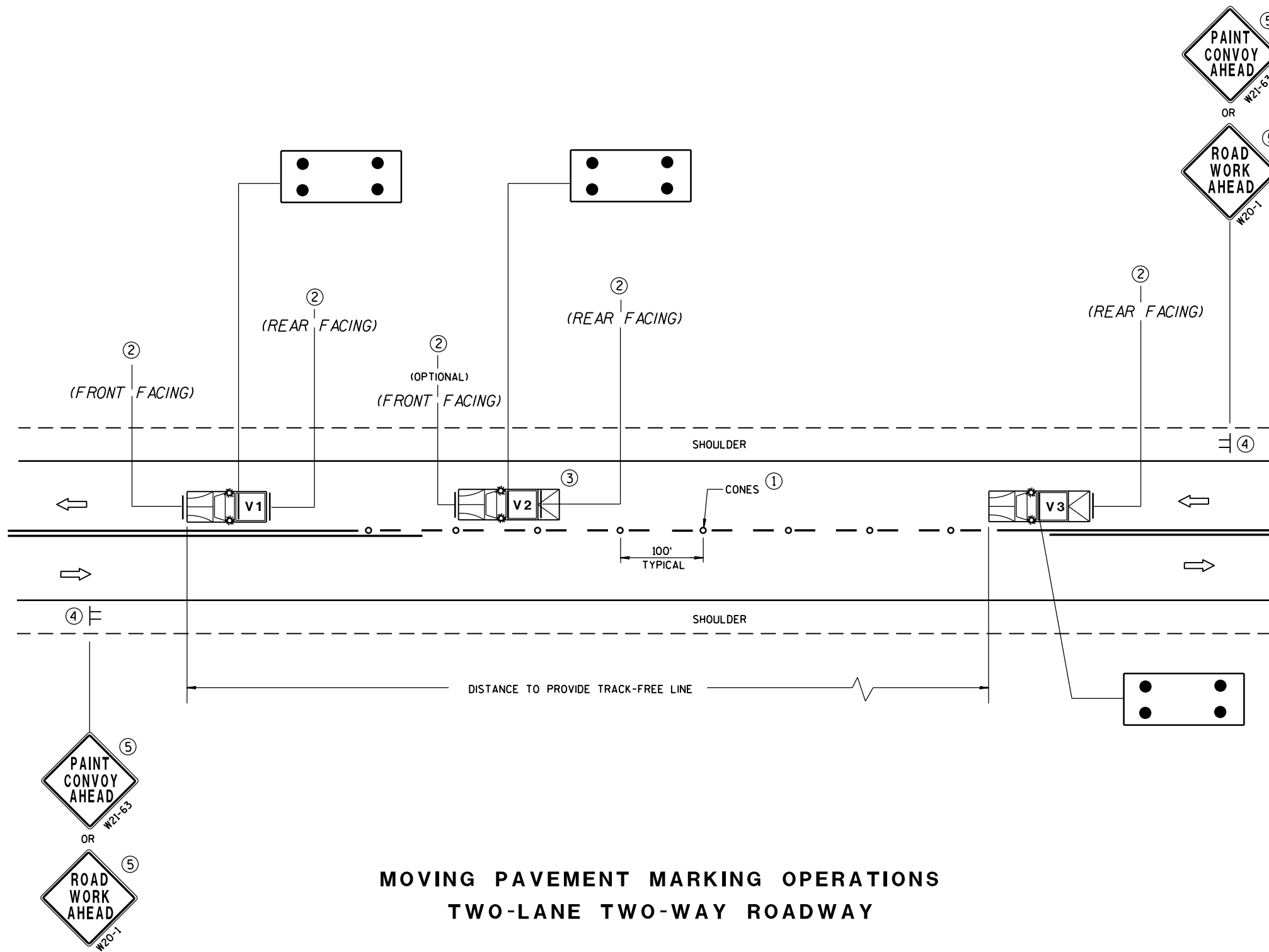
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

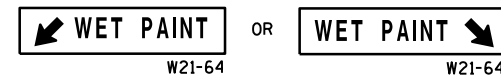
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGE LINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE



INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

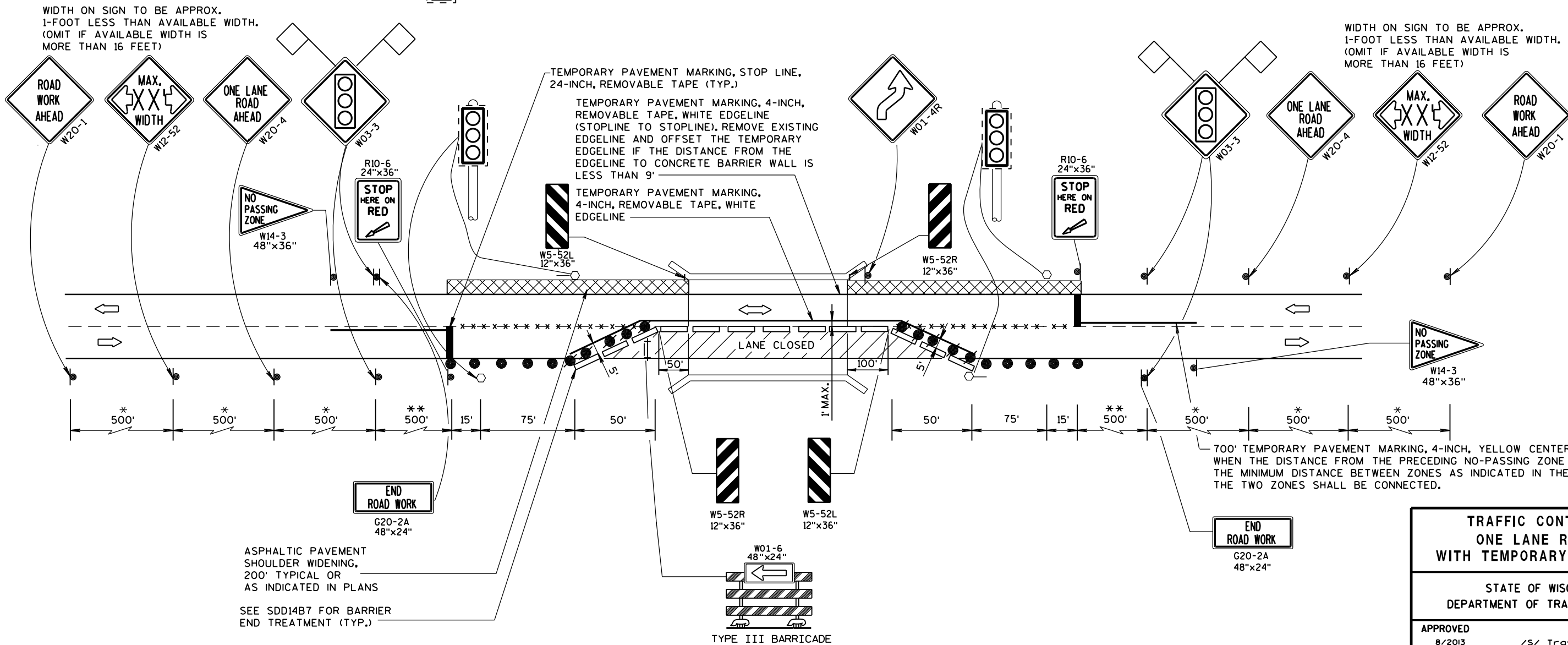
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.

6



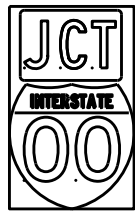
6

TRAFFIC CONTROL,
ONE LANE ROAD
WITH TEMPORARY SIGNALS

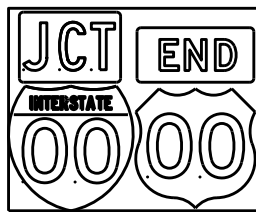
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA

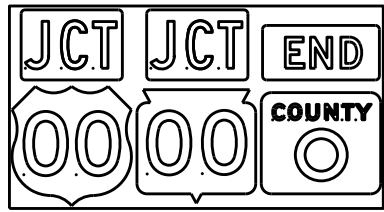
TYPICAL ASSEMBLIES



J1-1



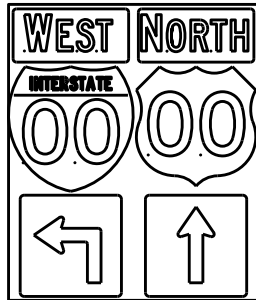
J1-2



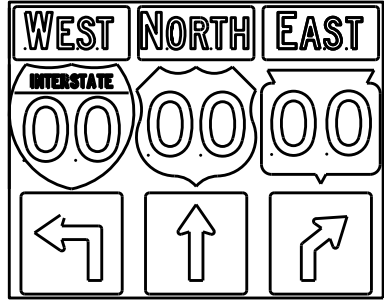
J1-3



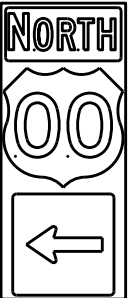
J2-1



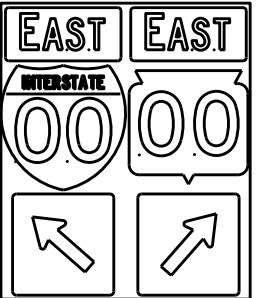
J2-2



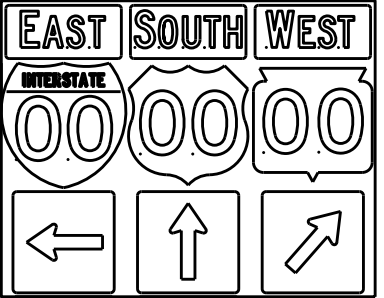
J2-3



J3-1



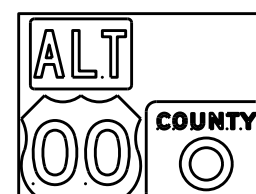
J3-2



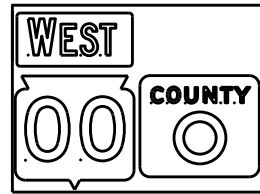
J3-3



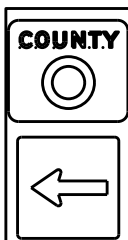
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

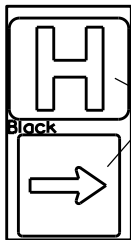


J22-1



JV

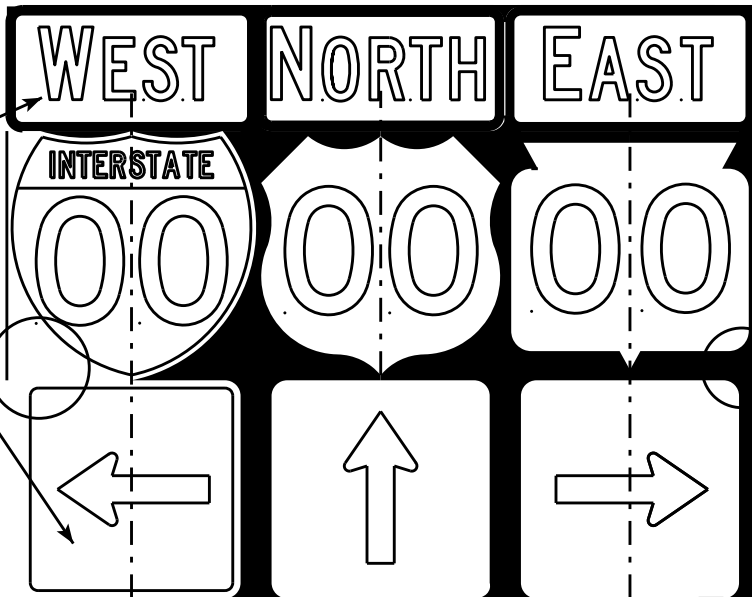
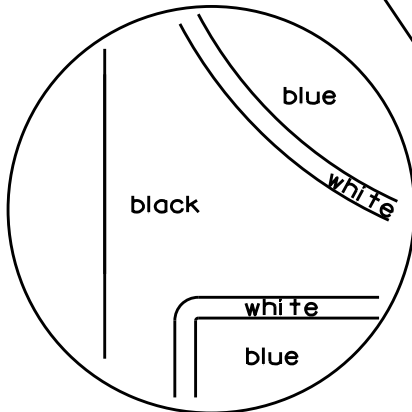
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

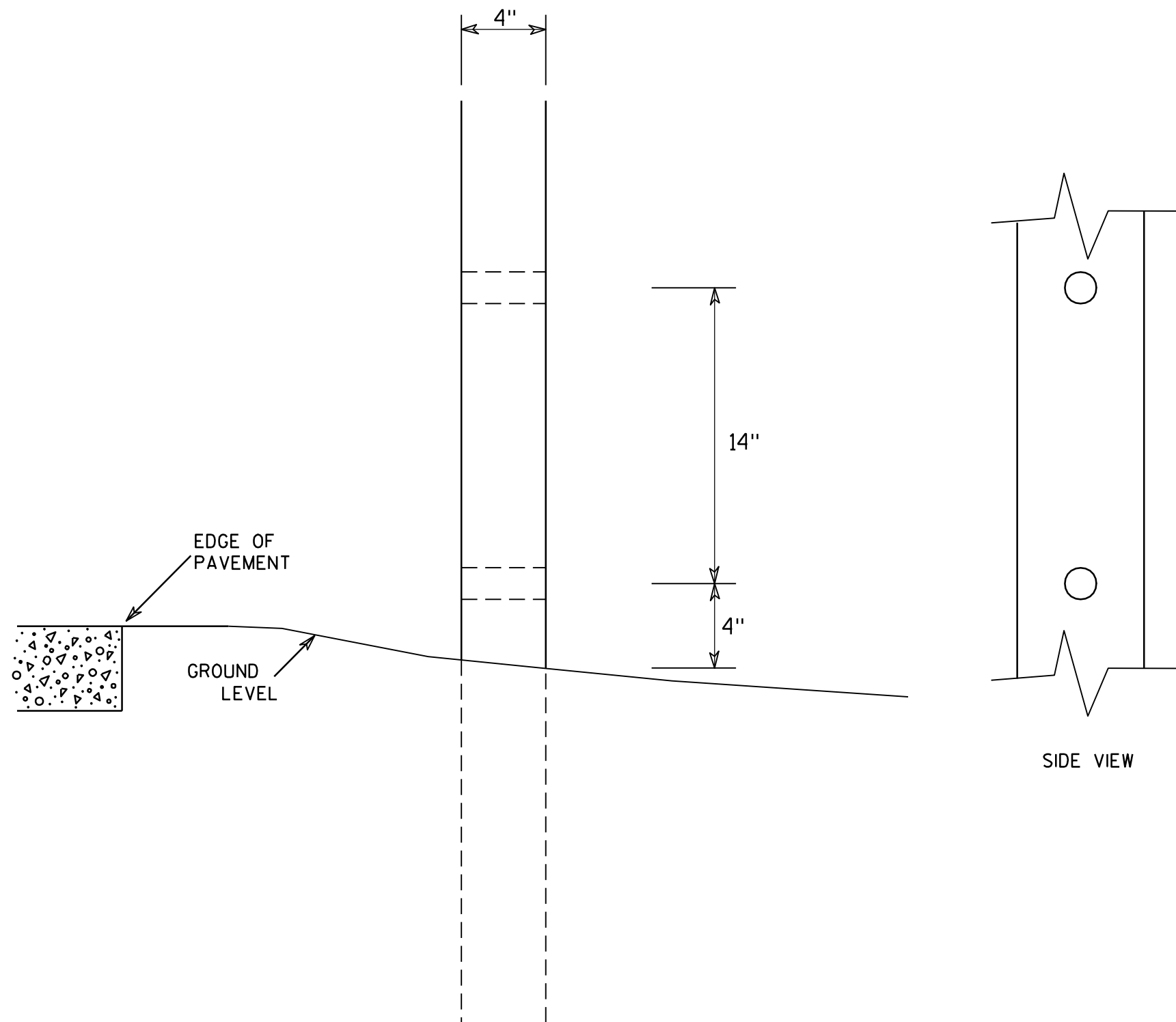
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

7



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

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:

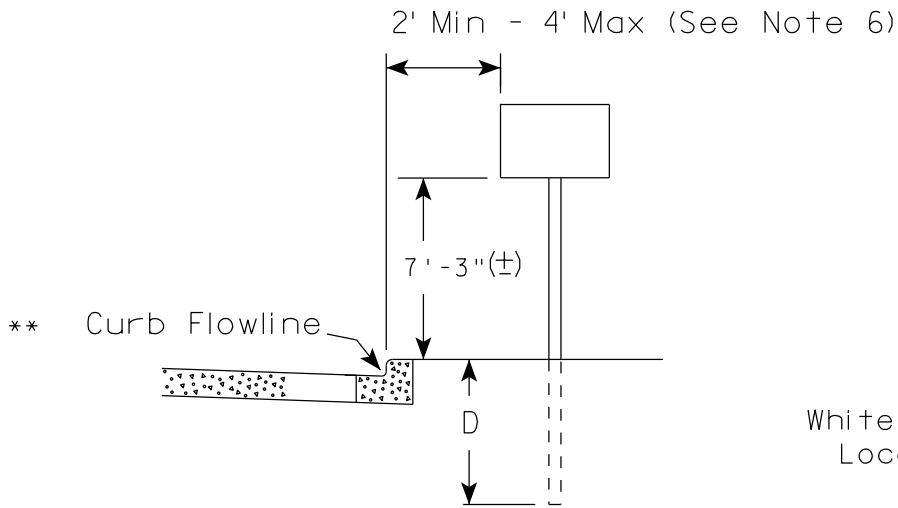
HWY:

COUNTY:

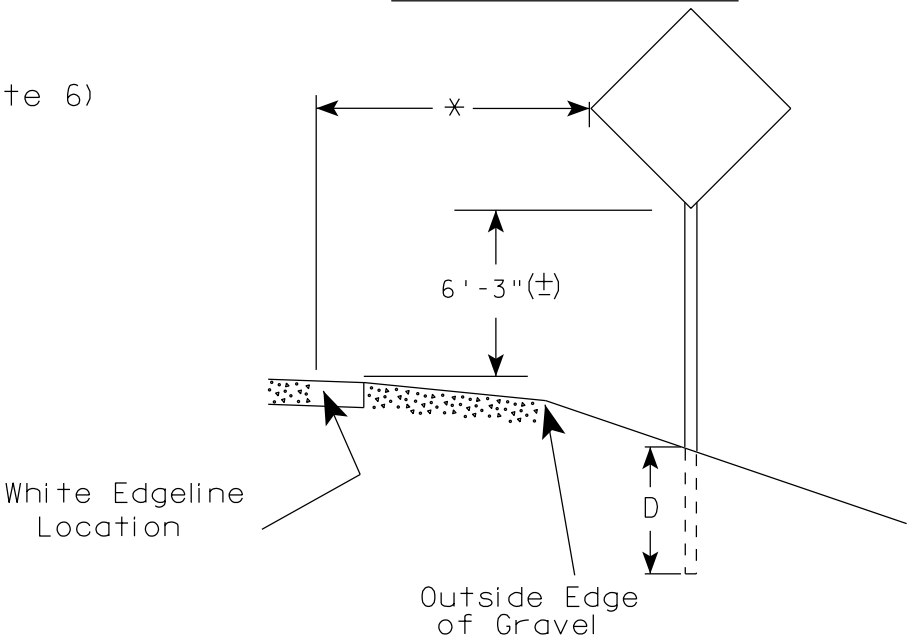
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

×× 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.

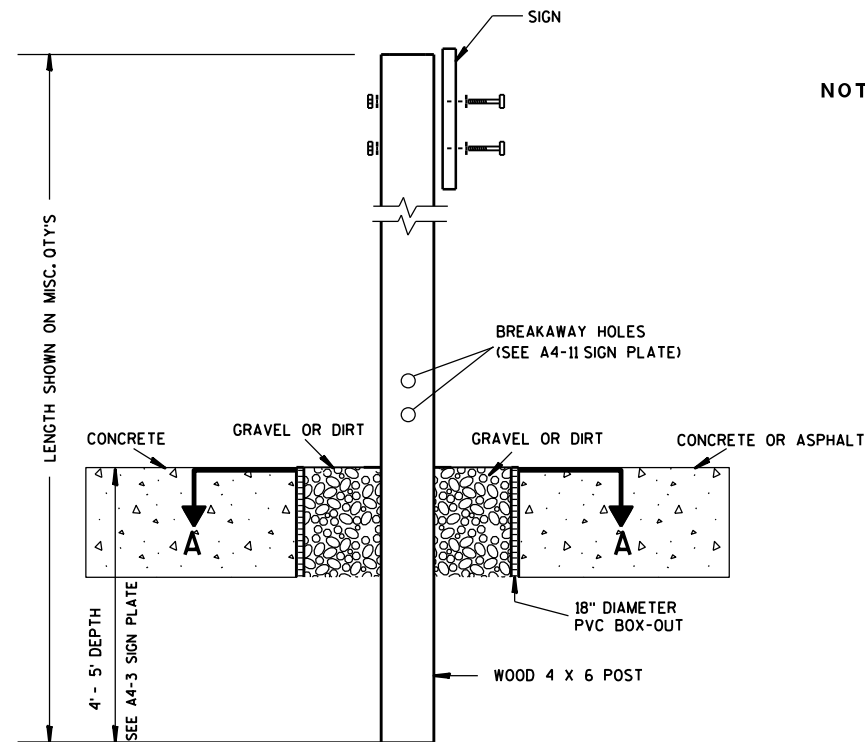
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

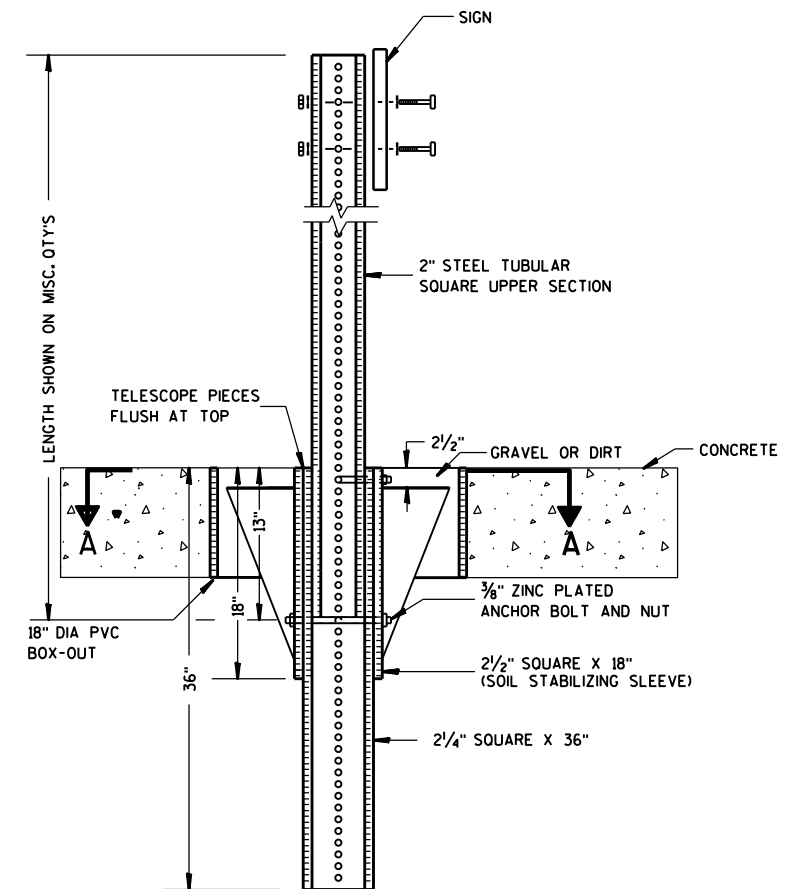
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

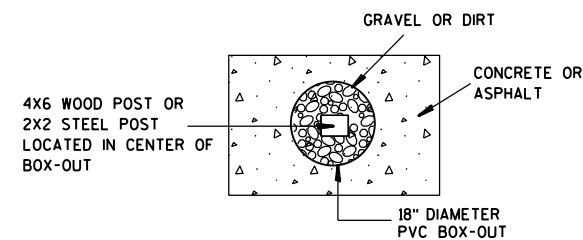
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

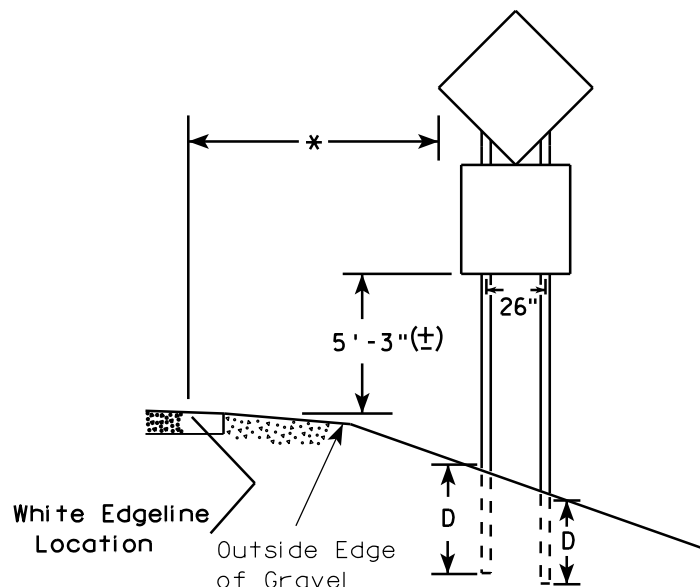
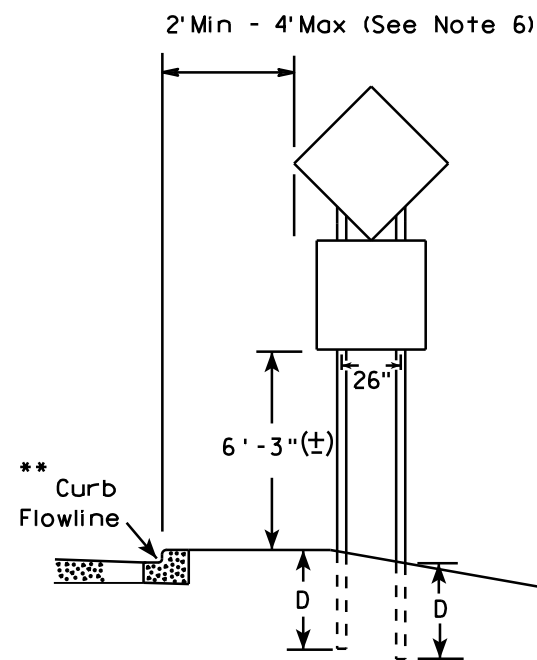
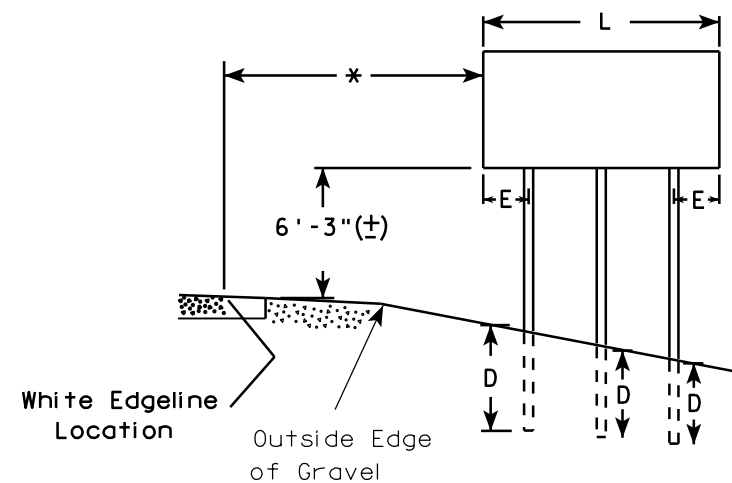
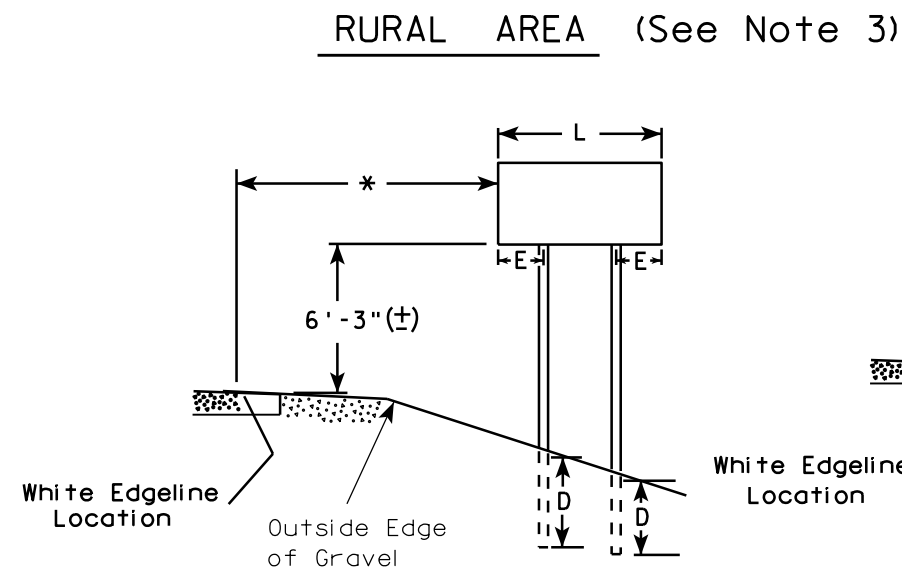
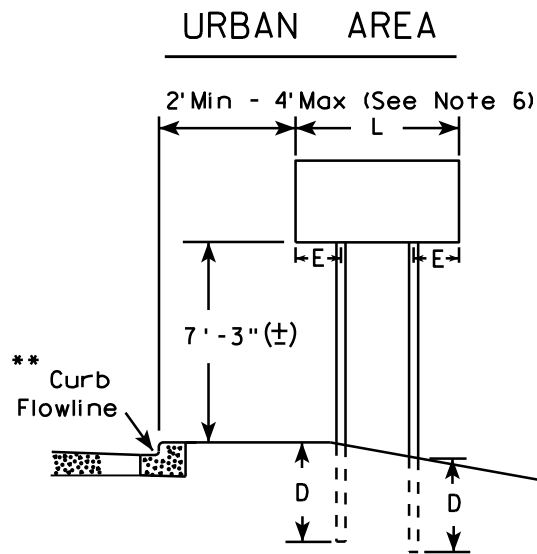
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- GENERAL NOTES**
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 - See tables below for required number of posts.
 - For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

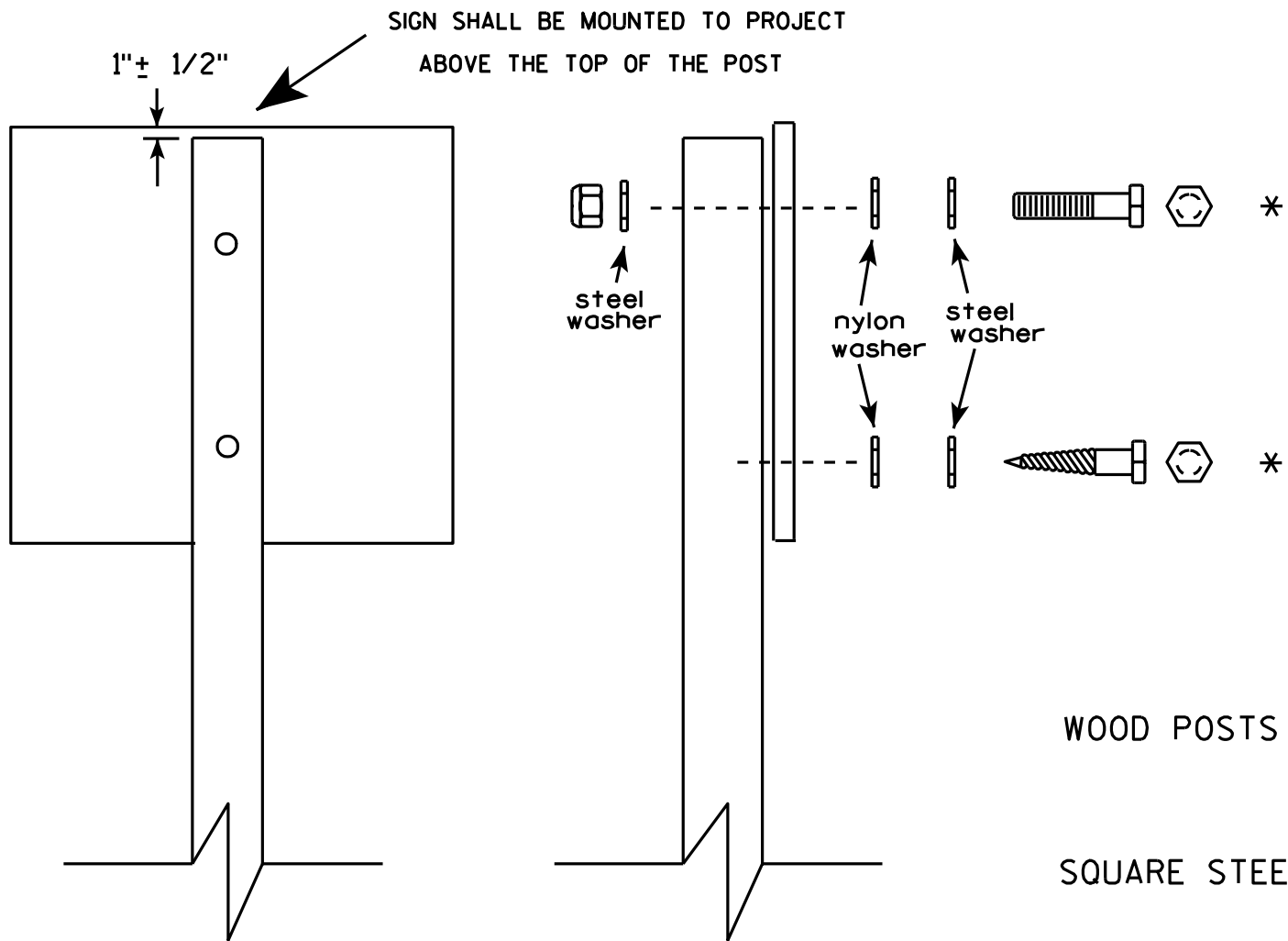
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4.12

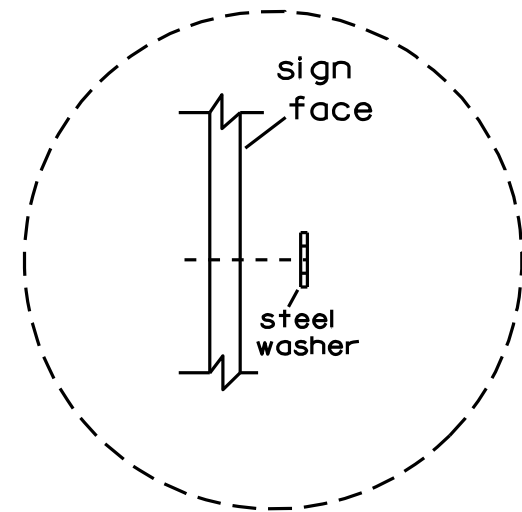


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

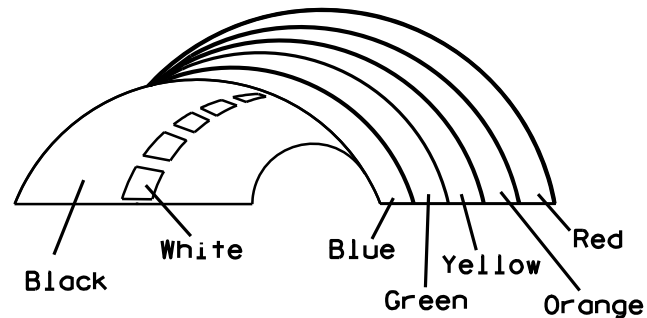
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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 - (See Note 5)
3. Message Series - (See Note 6)
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. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

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																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

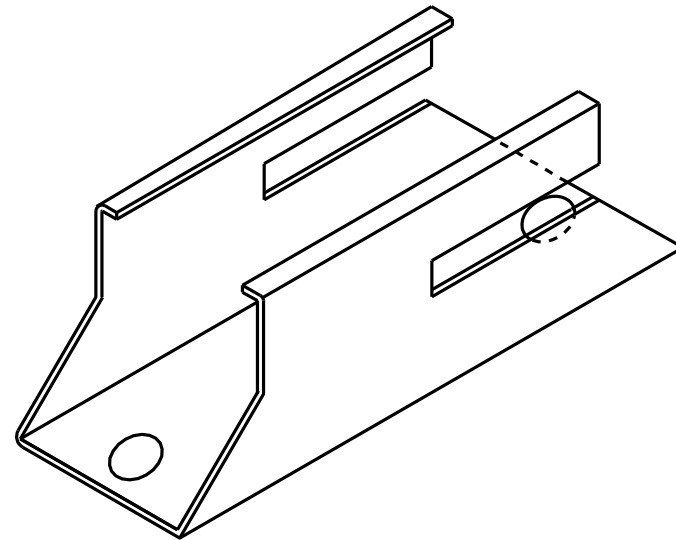
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

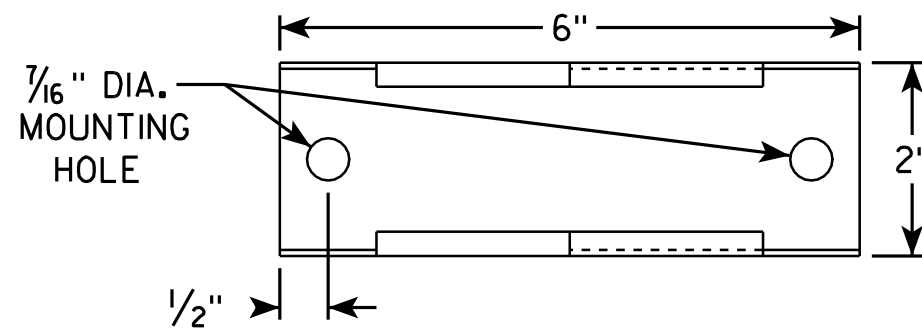
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

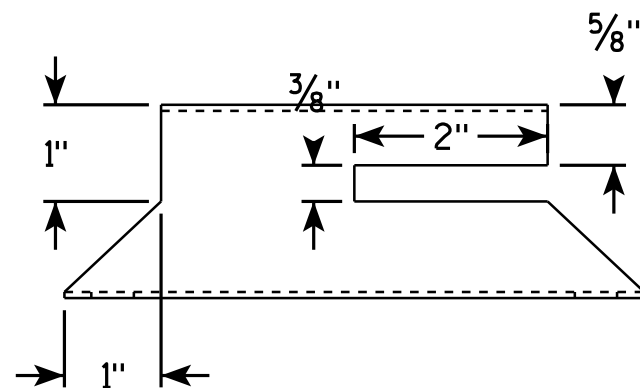
ISOMETRIC VIEW



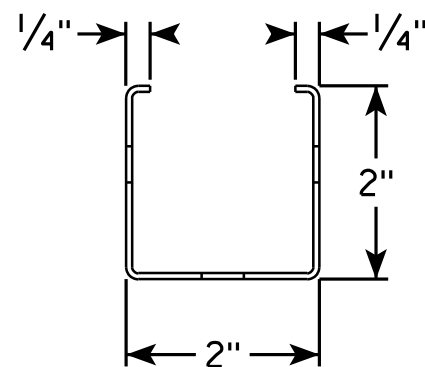
TOP VIEW



SIDE VIEW



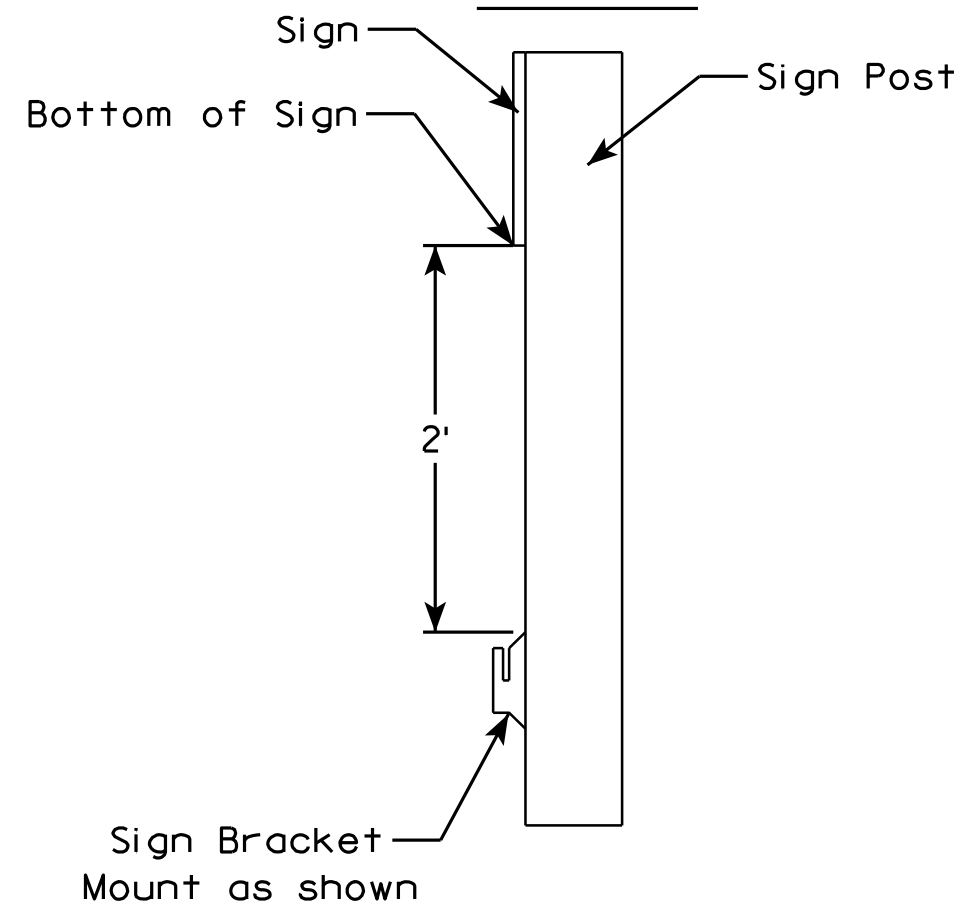
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

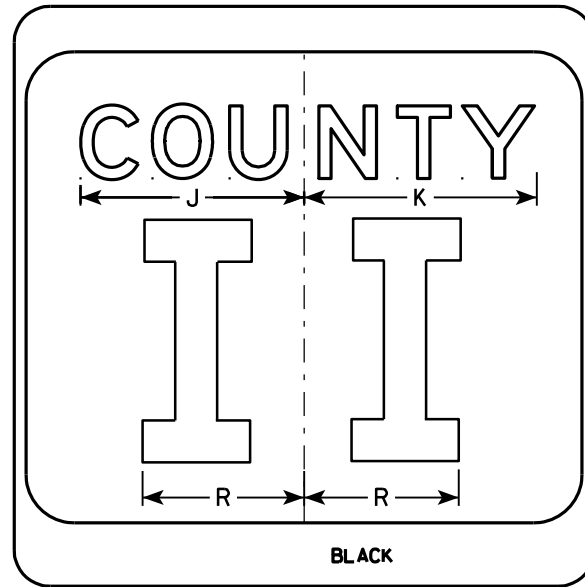
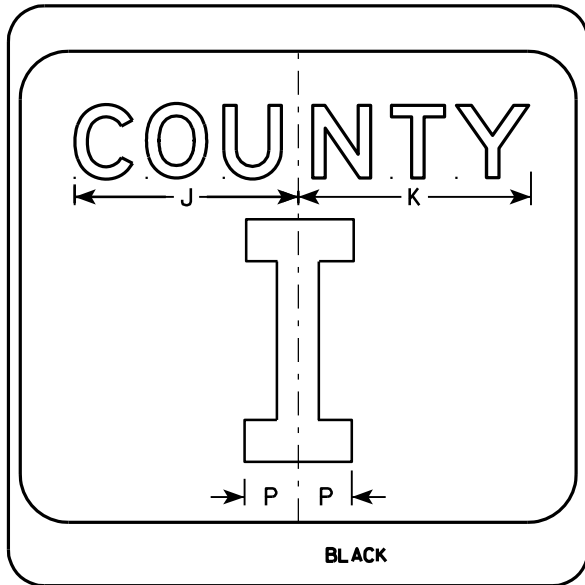
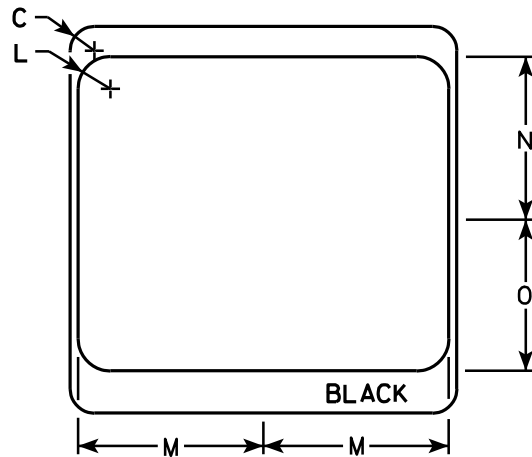
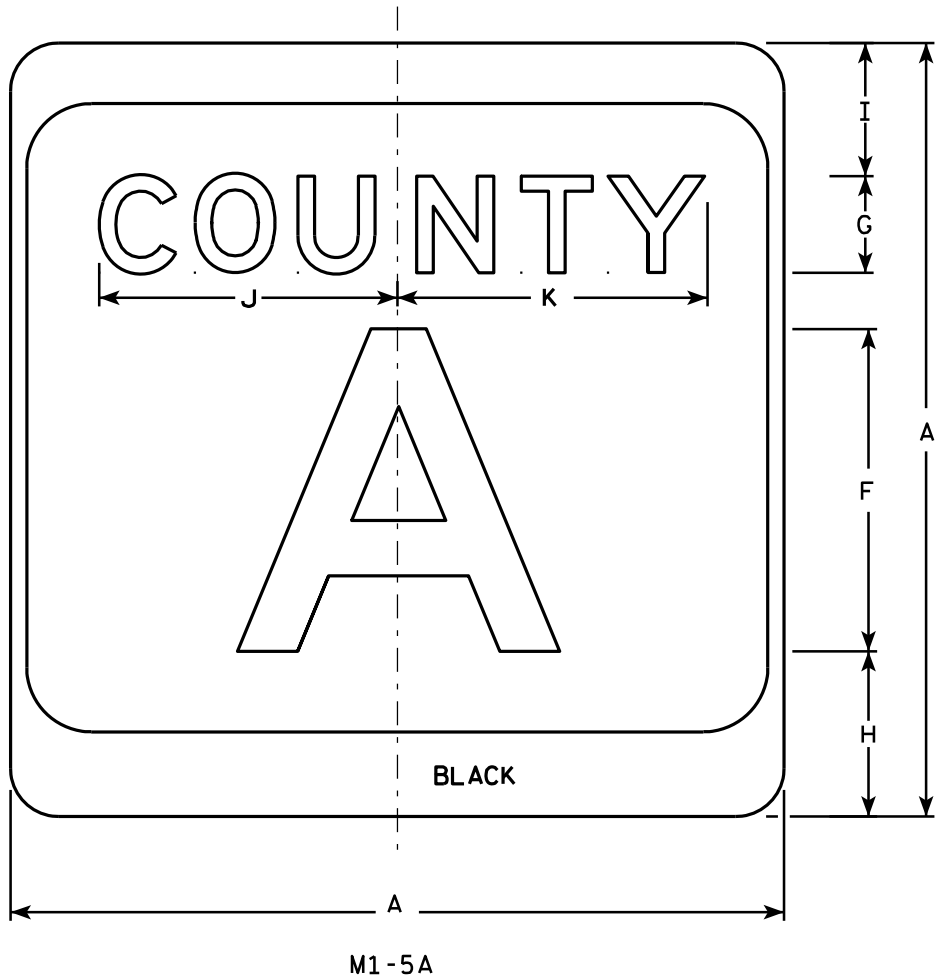
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
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. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

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																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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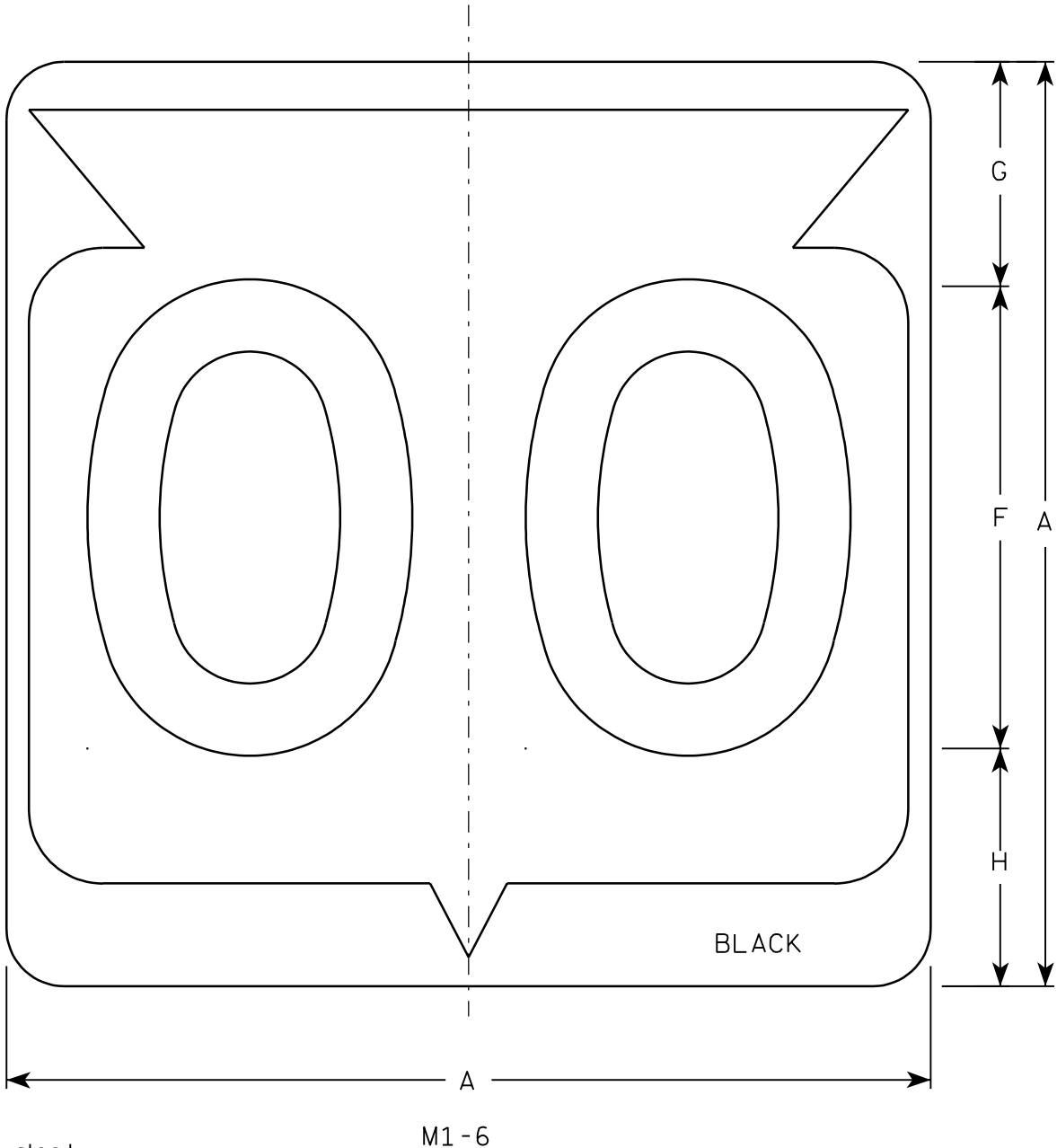
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

FILE NAME : C:\Users\Projects\tr_stdp\late\M16.DGN

PLOT DATE : 13-OCT-2005 14:55

PLOT BY : DITJPH

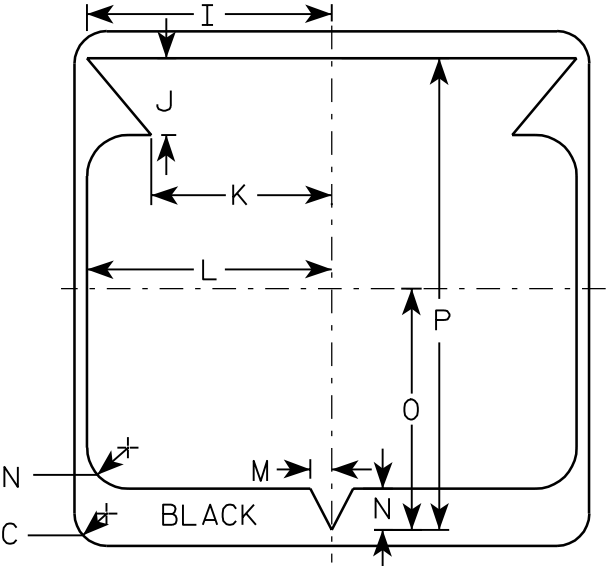
PLOT NAME :

PLOT SCALE : 6.715871:1.000000

WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
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 Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

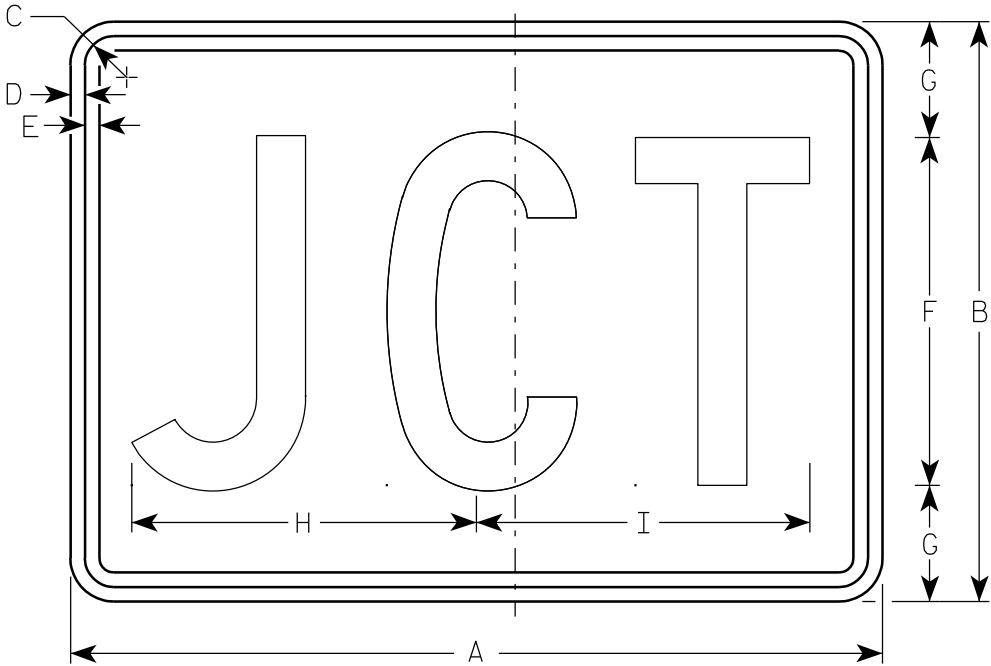
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

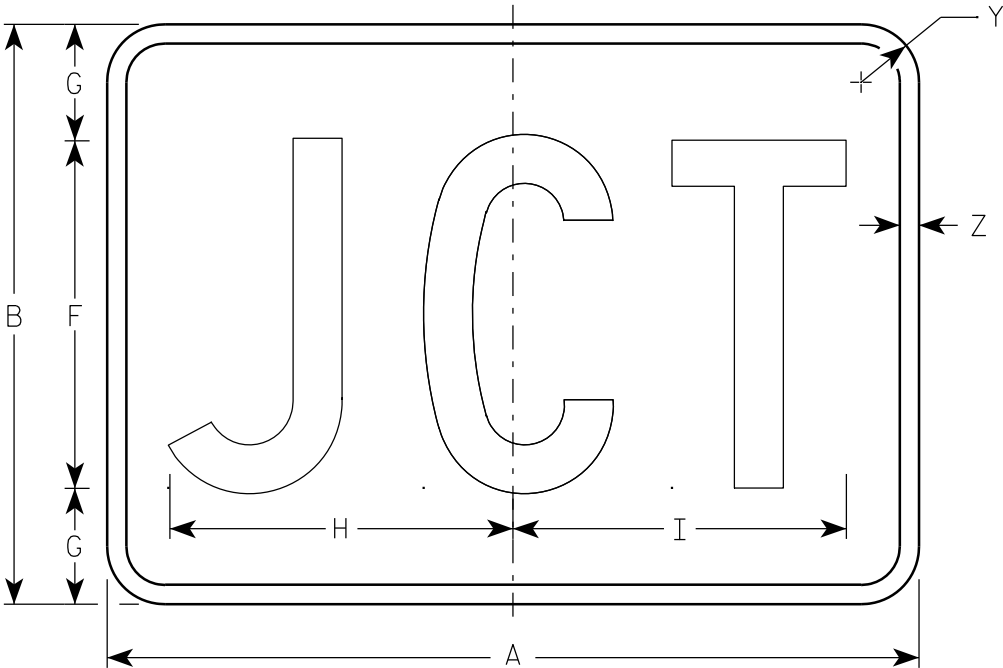
PLATE NO. M1-6.9

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
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. M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

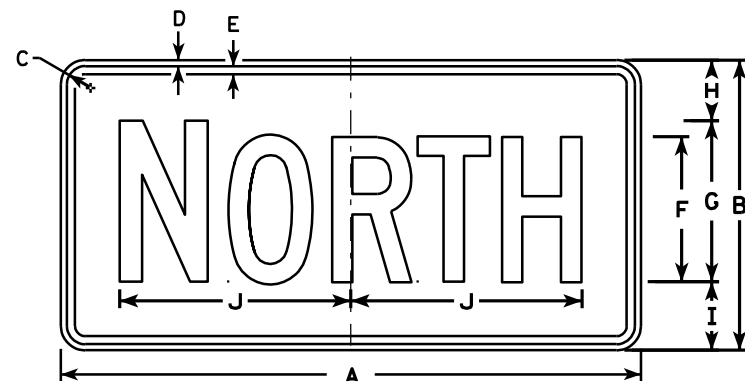
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

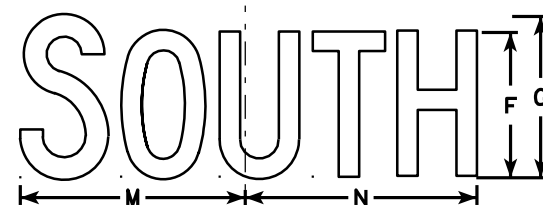
DATE 3/16/10 PLATE NO. M2-1.10



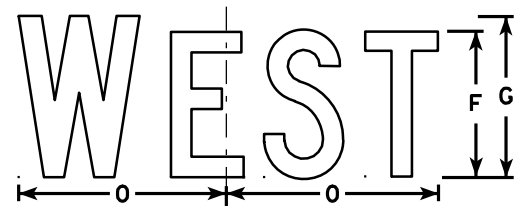
M3-1
MK3-1
M03-1



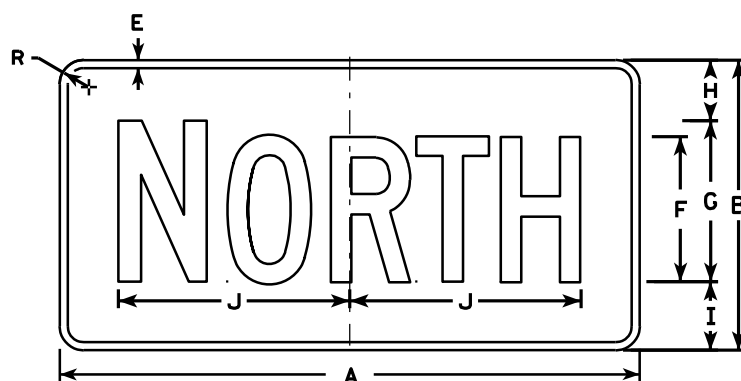
M3-2
MK3-2
M03-2



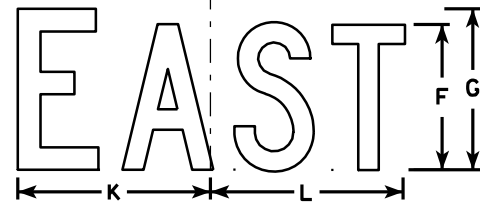
M3-3
MK3-3
M03-3



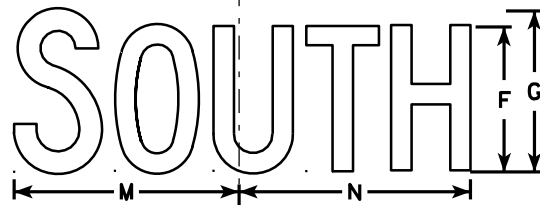
M3-4
MK3-4
M03-4



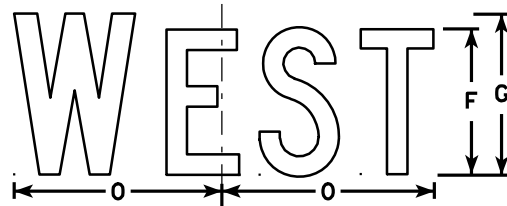
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

- All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- 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.
- M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective) Message - Black
MB3-1 thru MB3-4 Background - Blue Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective Message - Green
MN3-1 thru MN3-4 Background - Brown Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective Message - Black
- Note the first letter of each direction is larger than the remainder of the message.

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																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

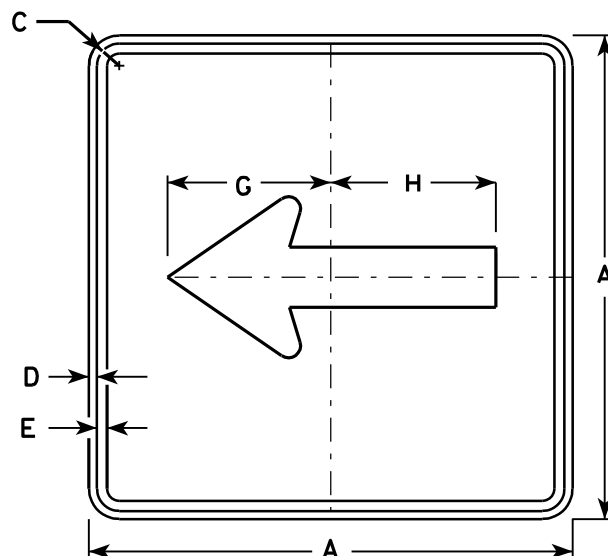
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

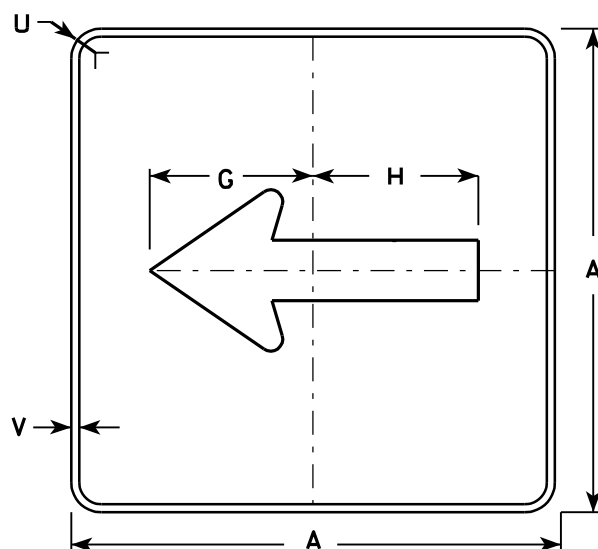
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

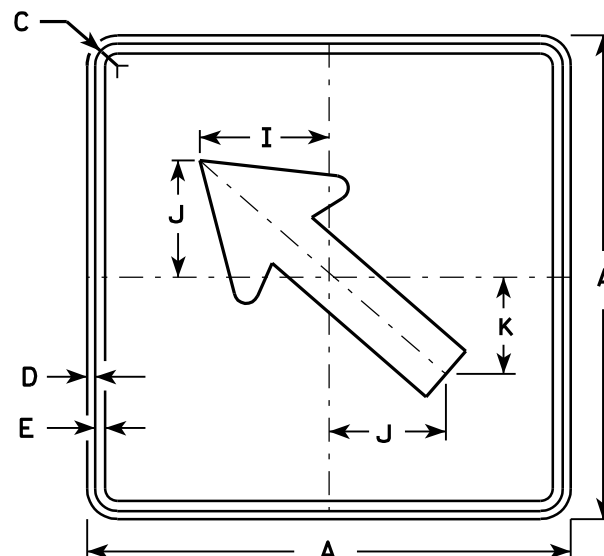
DATE 11/10/10 PLATE NO. M3-1.12



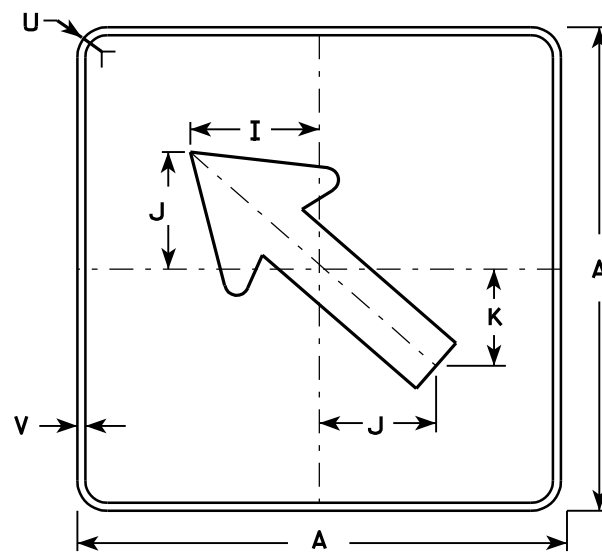
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



MB6-1
MG6-1
MN6-1



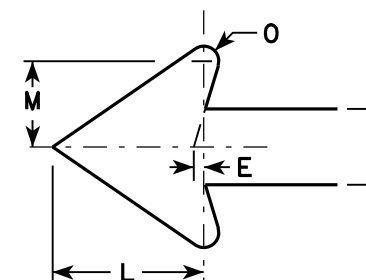
M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 4
 - Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White - Type H Reflective
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



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																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

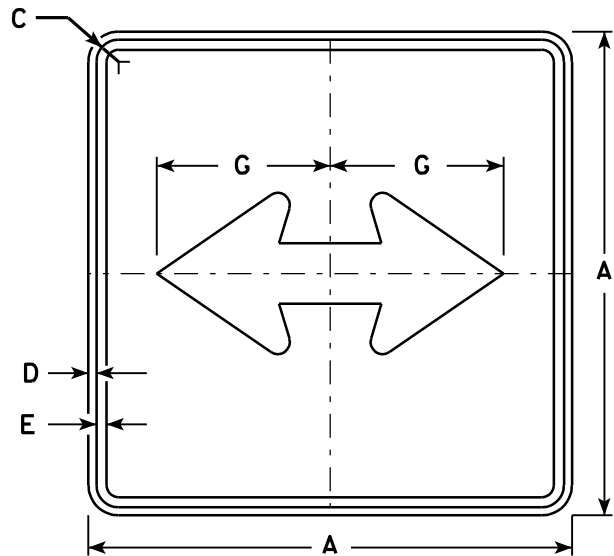
PROJECT NO:

HWY:

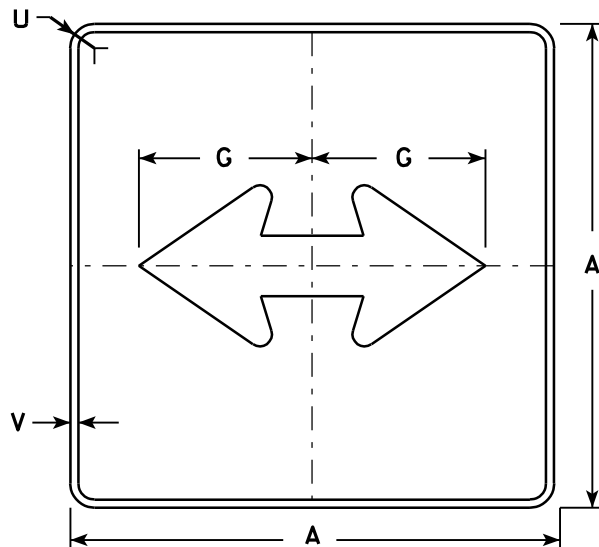
COUNTY:

SHEET NO:

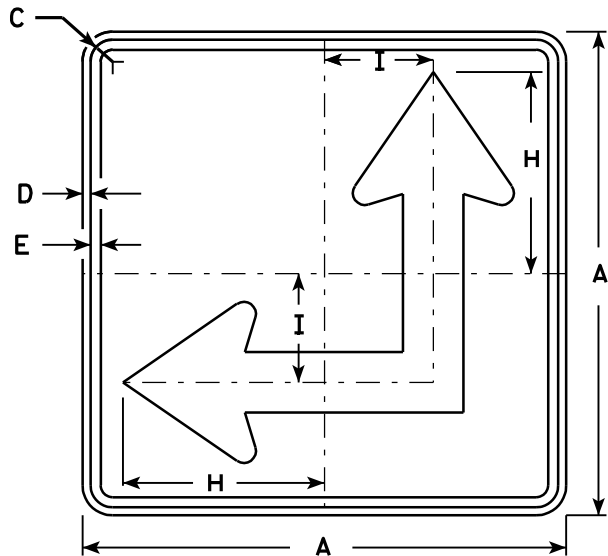
E



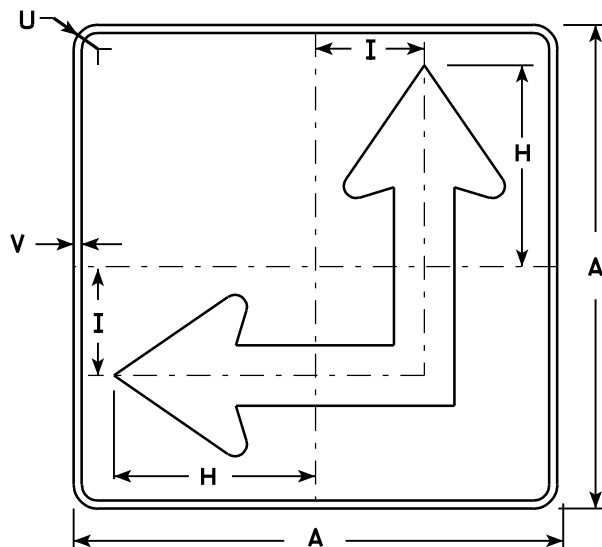
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



MB6 - 4
MG6 - 4
MN6 - 4



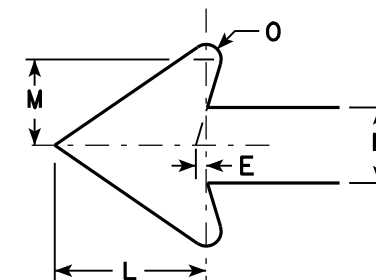
M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See Note 4
Message - See Note 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.
- M6-4 and M6-6 Background - White - Type H Reflective
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White - Type H Reflective
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



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																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

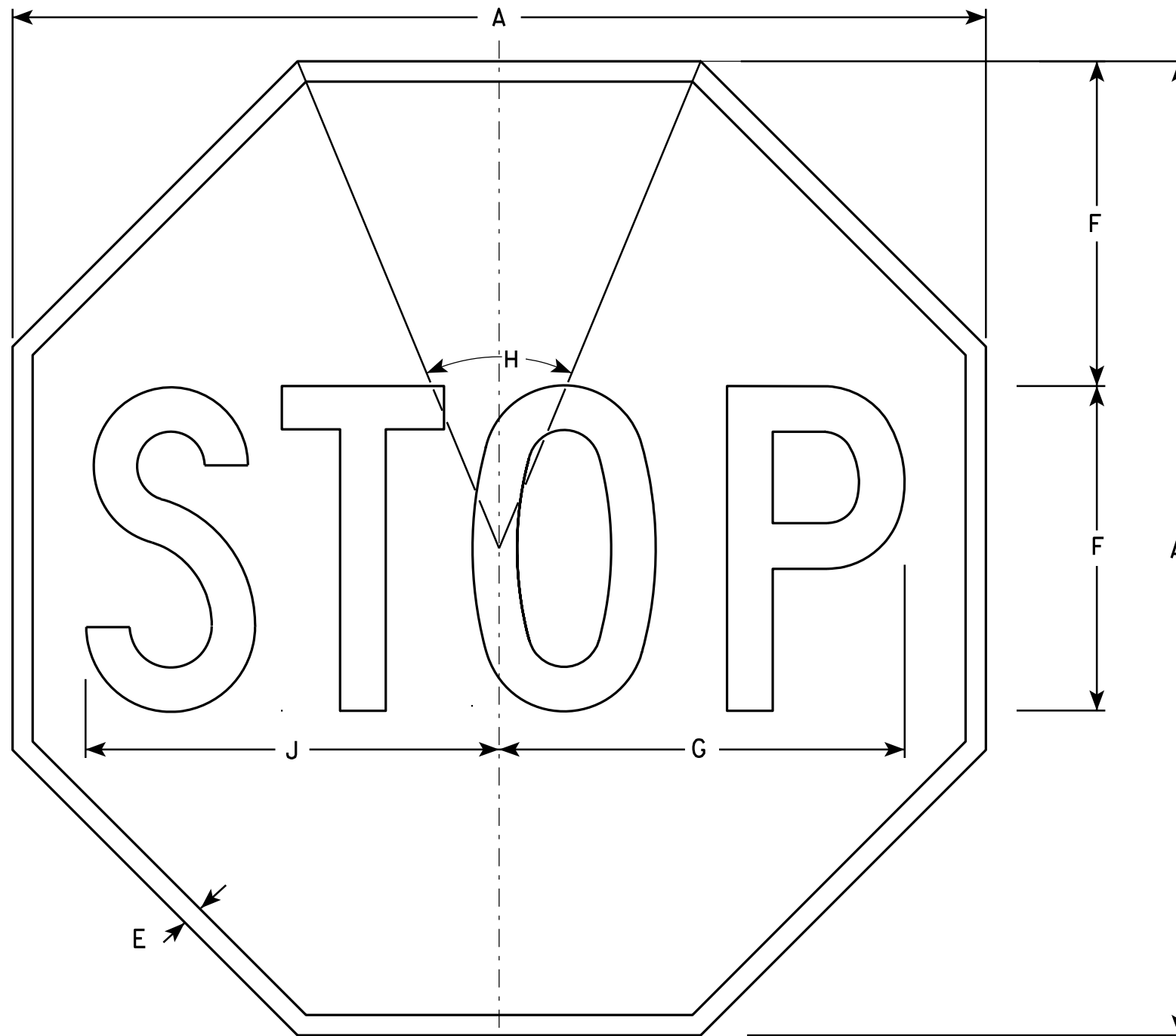
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

R1-1

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	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

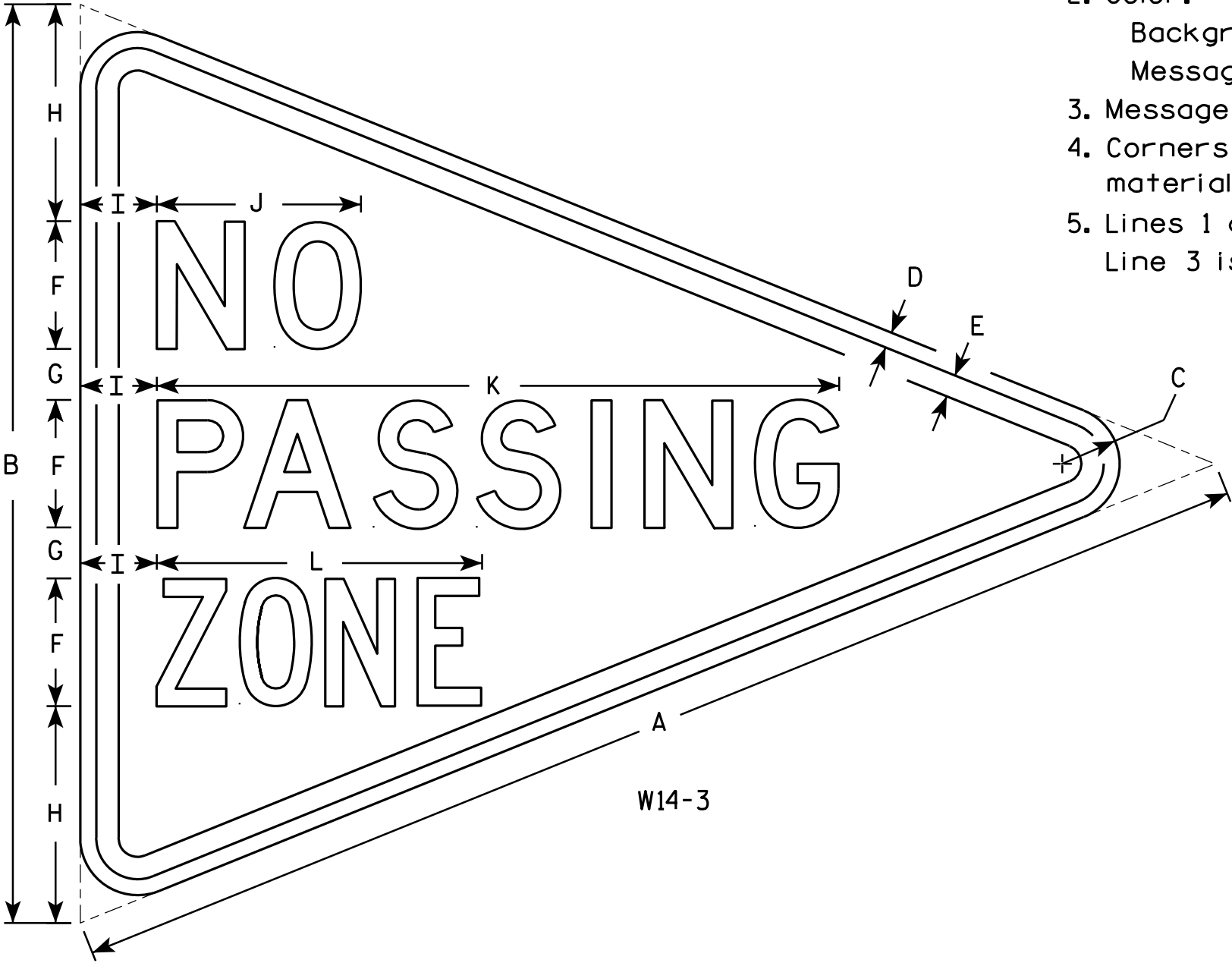
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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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. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

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	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:

HWY:

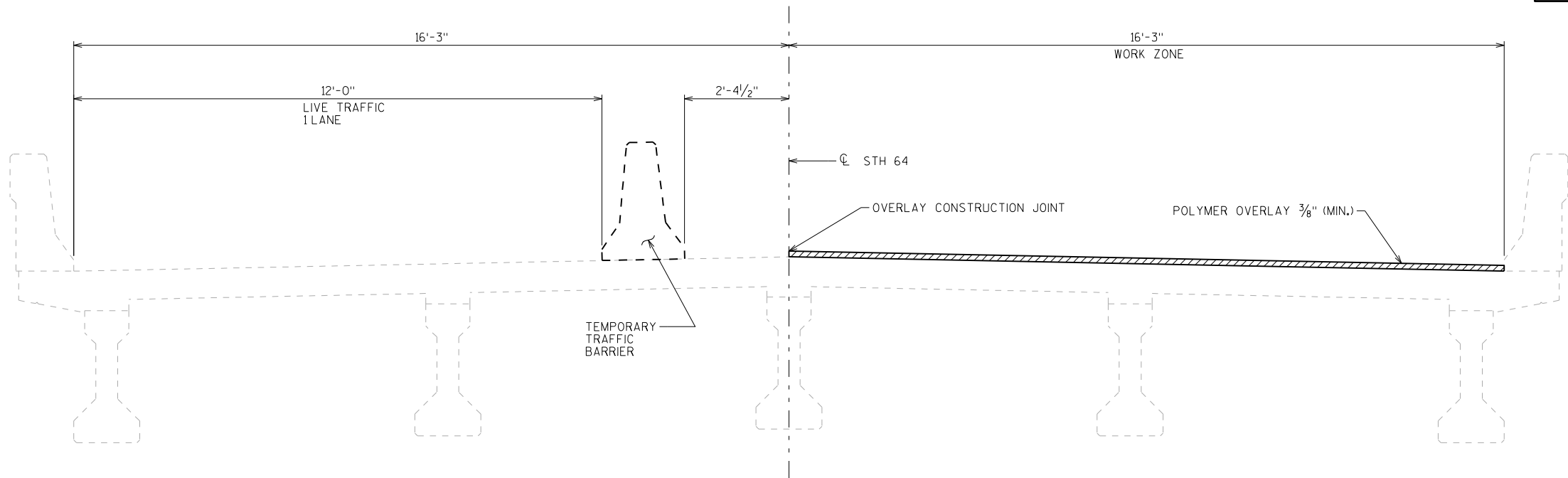
COUNTY:

SHEET NO:

E

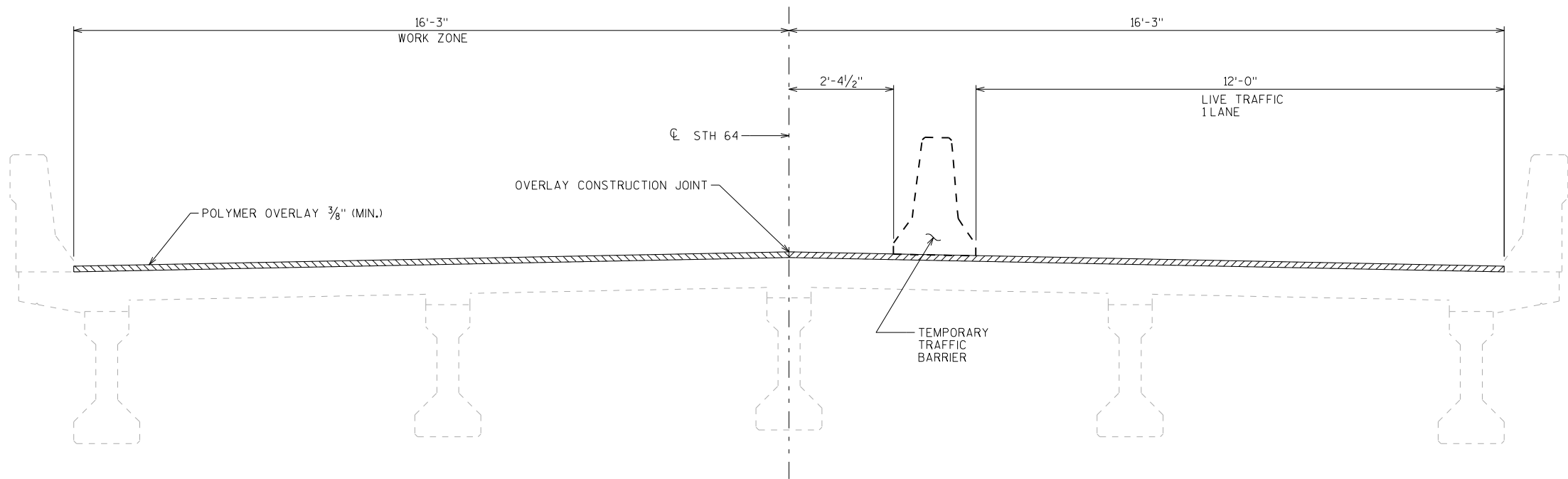
The plan view shows a bridge deck with three spans: SPAN 1 (50'-0"), SPAN 2 (50'-6"), and SPAN 3 (50'-0"). The total length is 150'-6". The deck is supported by a West Abutment (W. ABUT.), Pier 1, Pier 2, and an East Abutment (E. ABUT.). The centerline of the bridge is marked with a dashed line. The stationing is given as STA. 1138+47.78 at the end of the deck and STA. 1140+00.05 at the end of the deck. The deck width is 32'-6" (16'-3" on each side of the centerline). A north arrow is shown in the upper left corner. The label "PLAN" is centered below the diagram.

Plan view of a bridge deck. The total width is 32'-6". The deck is divided into two 16'-3" sections by a longitudinal construction joint. The joint is located at the centerline (CL) of the bridge, marked with a dashed line and labeled "CL STH 64". The deck surface has a 0.02% slope on both sides of the joint. The average polymer overlay thickness is 3/8" (min.). The existing deck is 8" thick. The existing 36" prestressed girder (typ.) is shown below the deck. A small square symbol is located on the left side of the deck, near the joint.



STAGE 1 CONSTRUCTION

LOOKING EAST



STAGE 2 CONSTRUCTION

LOOKING EAST

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE B-34-8					
		DRAWN BY JLR		PLANS CK'D. TAB	
CONSTRUCTION STAGING				SHEET 2	

DESIGN DATA

LIVE LOAD

INVENTORY RATING: HS-20

OPERATING RATING: HS-44

MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 KIPS

GENERAL NOTES

DRAWINGS SHALL NOT BE TO SCALE.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

DEFINE LIMITS OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", & "FULL DEPTH DECK REPAIR" WITH A 1" DEEP SAW CUT BEFORE REMOVING DETERIORATED CONCRETE. THE SAW CUT SHALL BE PAID AS "SAWING PAVEMENT DECK PREPARATION AREAS".

AREAS OF "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL DEPTH DECK REPAIR" SHALL BE DETERMINED BY THE FIELD ENGINEER. DECK REPAIRS SHALL BE REPAIRED WITH THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS" TO THE TOP OF THE EXISTING DECK.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "POLYMER OVERLAY".

BLAST CLEAN THE ENTIRE SURFACE AND ALL EXPOSED REINFORCING STEEL TO ALL "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL DEPTH DECK REPAIR" AREAS BY MECHANICALLY DISLODGING CONTAMINATION OR DEBRIS AND REMOVING LOOSE PARTICLES AND DUST WITH HIGH PRESSURE WATER OR AIR. ENSURE THAT NO FREE-STANDING WATER REMAINS BEFORE PLACING GROUT AND THAT CLEANING WATER CONFORMS TO 501.2.4. CLEANING OF EXPOSED AREAS IS INCIDENTAL TO "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", AND "FULL DEPTH DECK REPAIR" BID ITEMS.

QUANTITY FOR OVERLAY ON APPROACHES IS INCLUDED IN THE QUANTITY FOR "POLYMER OVERLAY" BID ITEM.

CONCRETE FOR "CONCRETE MASONRY OVERLAY DECKS" SHALL MEET THE REQUIREMENTS OF SECTION 509.2(a) OF THE STANDARD SPECIFICATIONS. THE BID ITEM INCLUDES CONCRETE FOR "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", & "FULL DEPTH DECK REPAIR".

STRUCTURE CONTACTS:

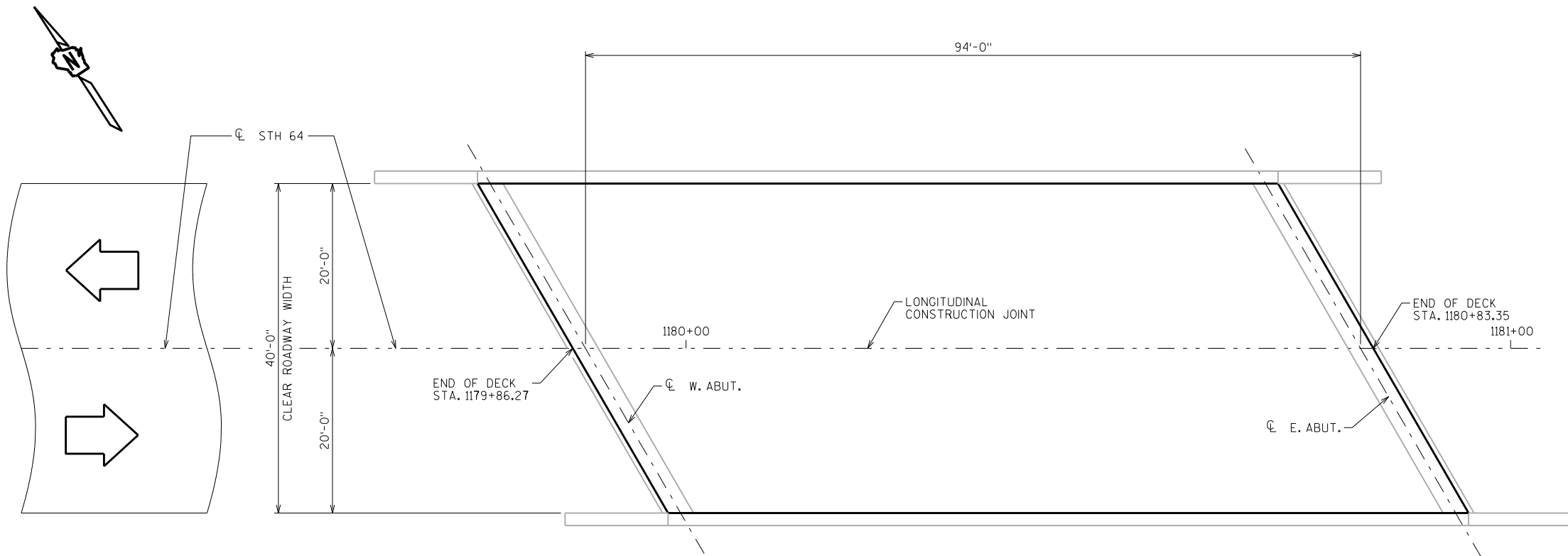
JONATHON RESHESKE (608) 266-8491

LAURA SHADEWALD (608) 267-9592

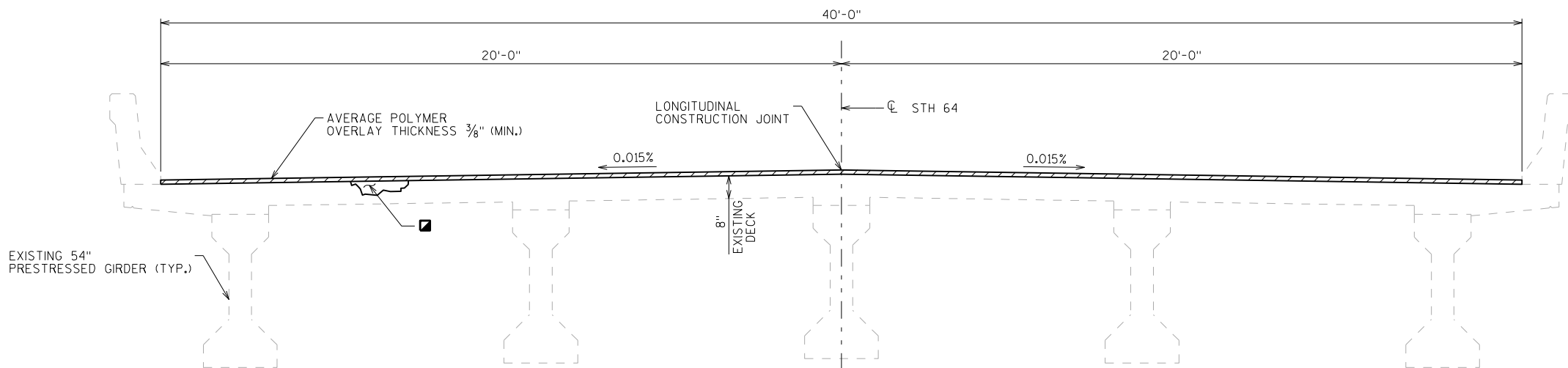
NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES			
ACCEPTED <i>William C. Dreher</i> CHIEF STRUCTURES DESIGN ENGINEER		DATE 4/2/14	
STRUCTURE B-34-11			
STH 64 OVER EAST BRANCH EAU CLAIRE RIVER			
COUNTY	LANGLADE	TOWN/CITY/VILLAGE	ACKLEY
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY JLR	DESIGN CK'D. KCY	DRAWN BY JLR	PLANS CK'D. TAB
POLYMER OVERLAY			SHEET 1 OF 2

LIST OF DRAWINGS

- POLYMER OVERLAY
- CONSTRUCTION STAGING



PLAN

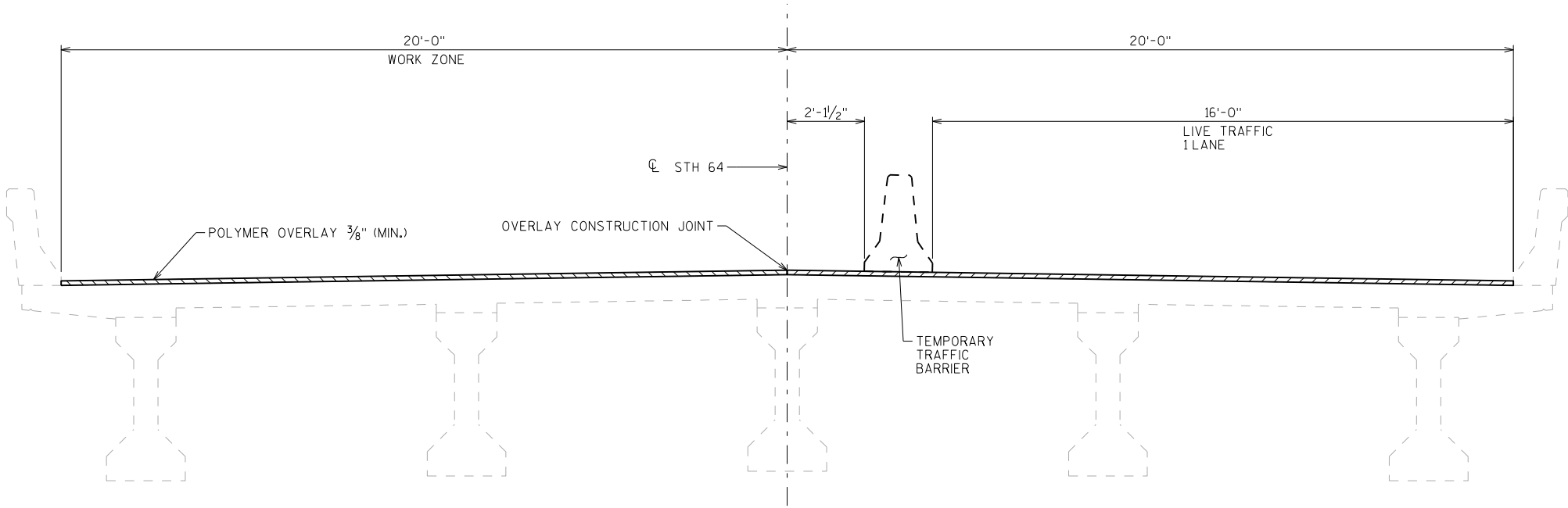
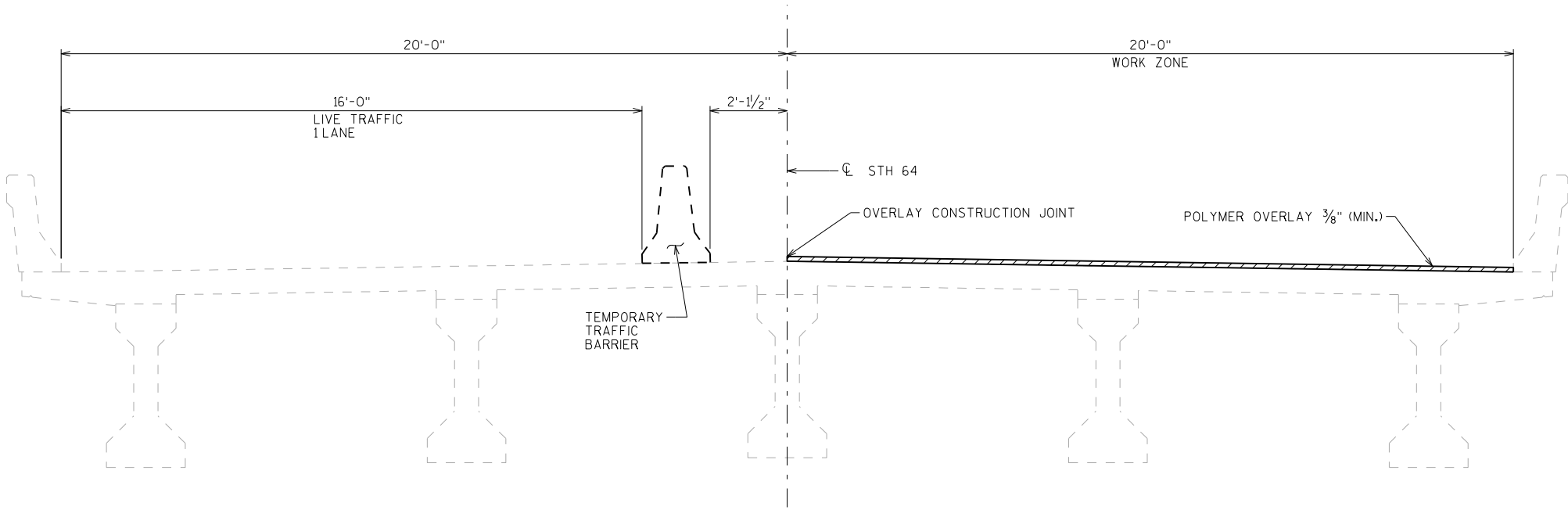


CROSS SECTION THRU ROADWAY

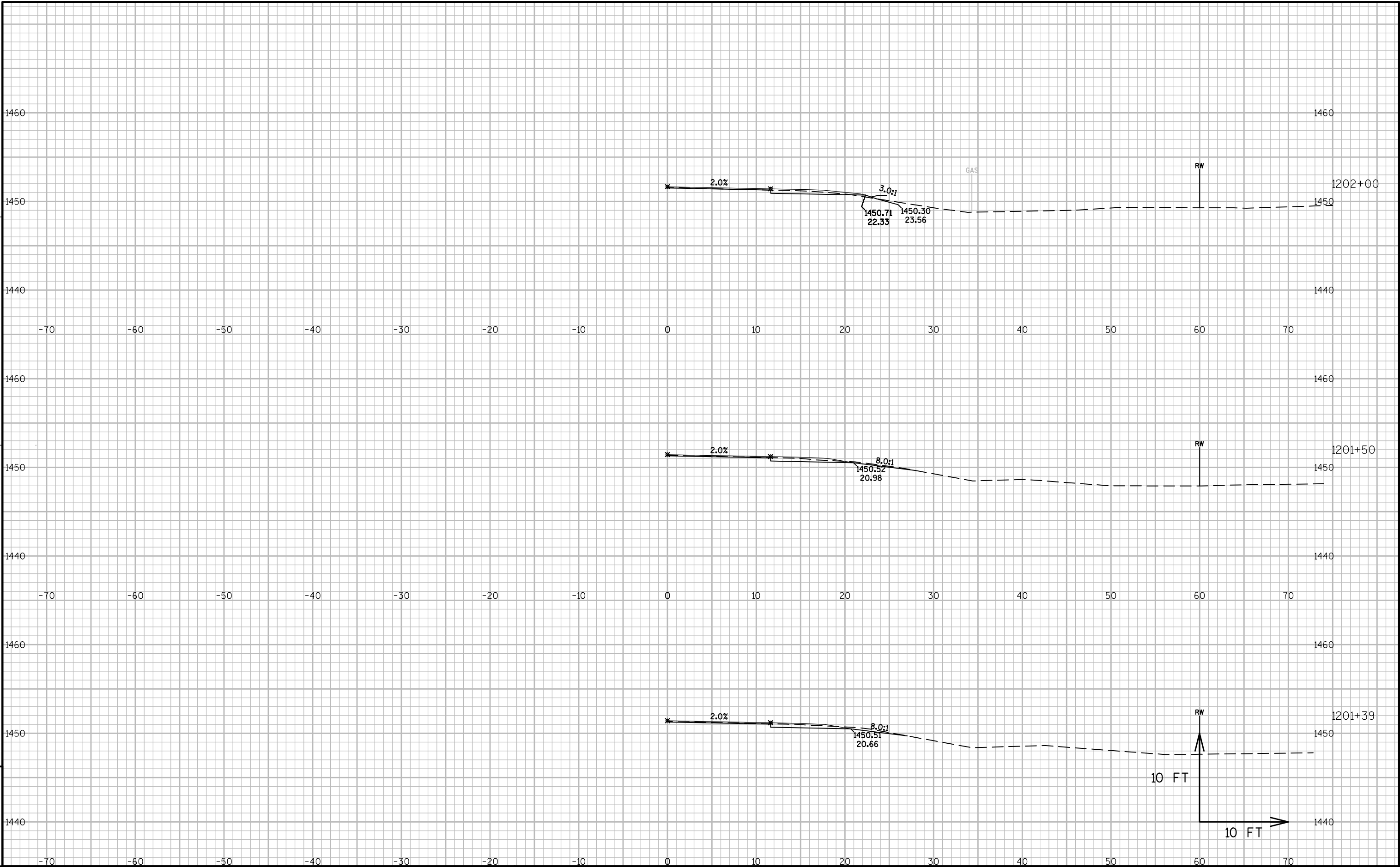
LOOKING EAST

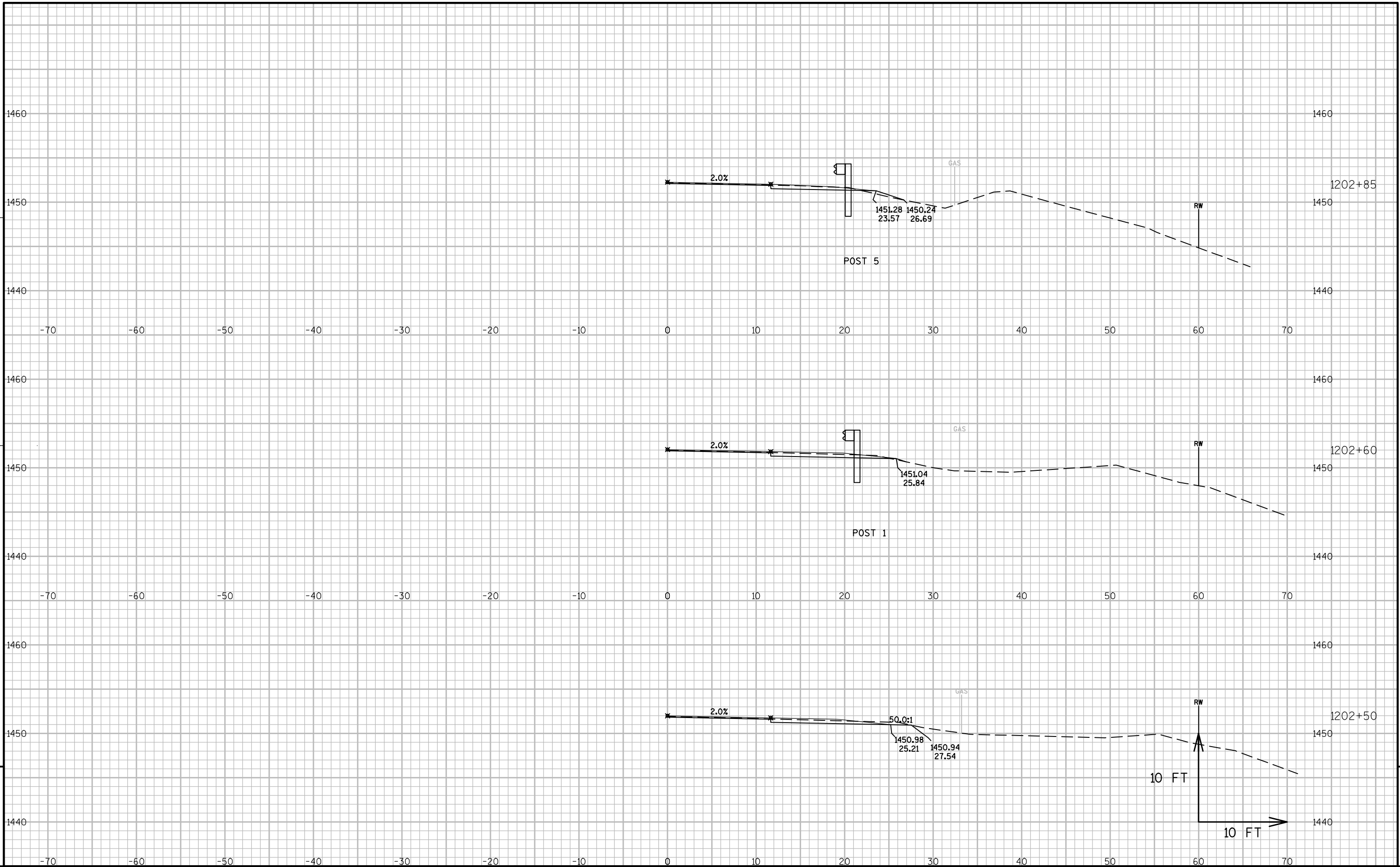
TOTAL ESTIMATED QUANTITIES

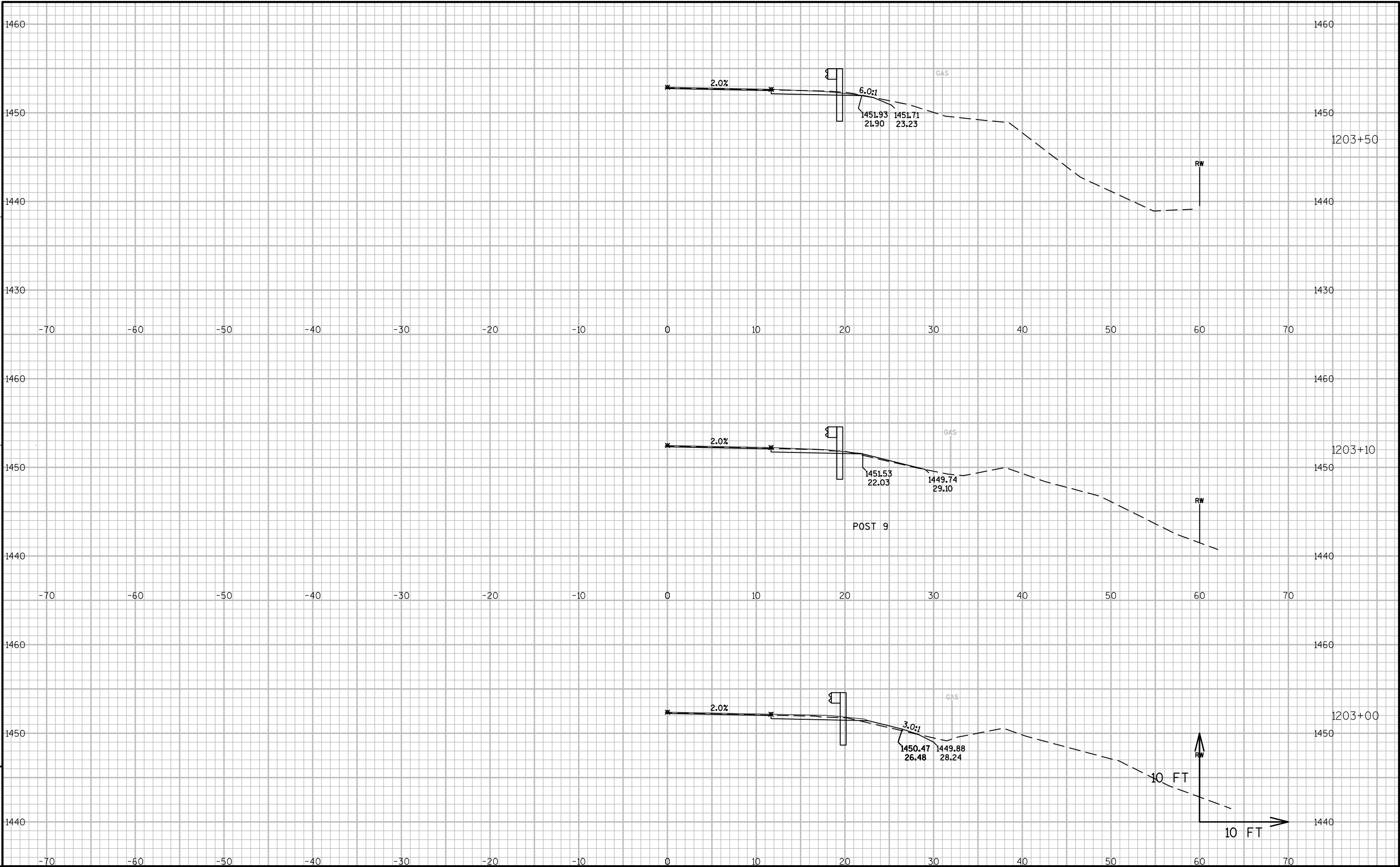
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	46
509.0302	PREPARATION DECKS TYPE 2	SY	23
509.2000	FULL DEPTH DECK REPAIR	SY	4
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	7
509.5100.S	POLYMER OVERLAY	SY	682
SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	730

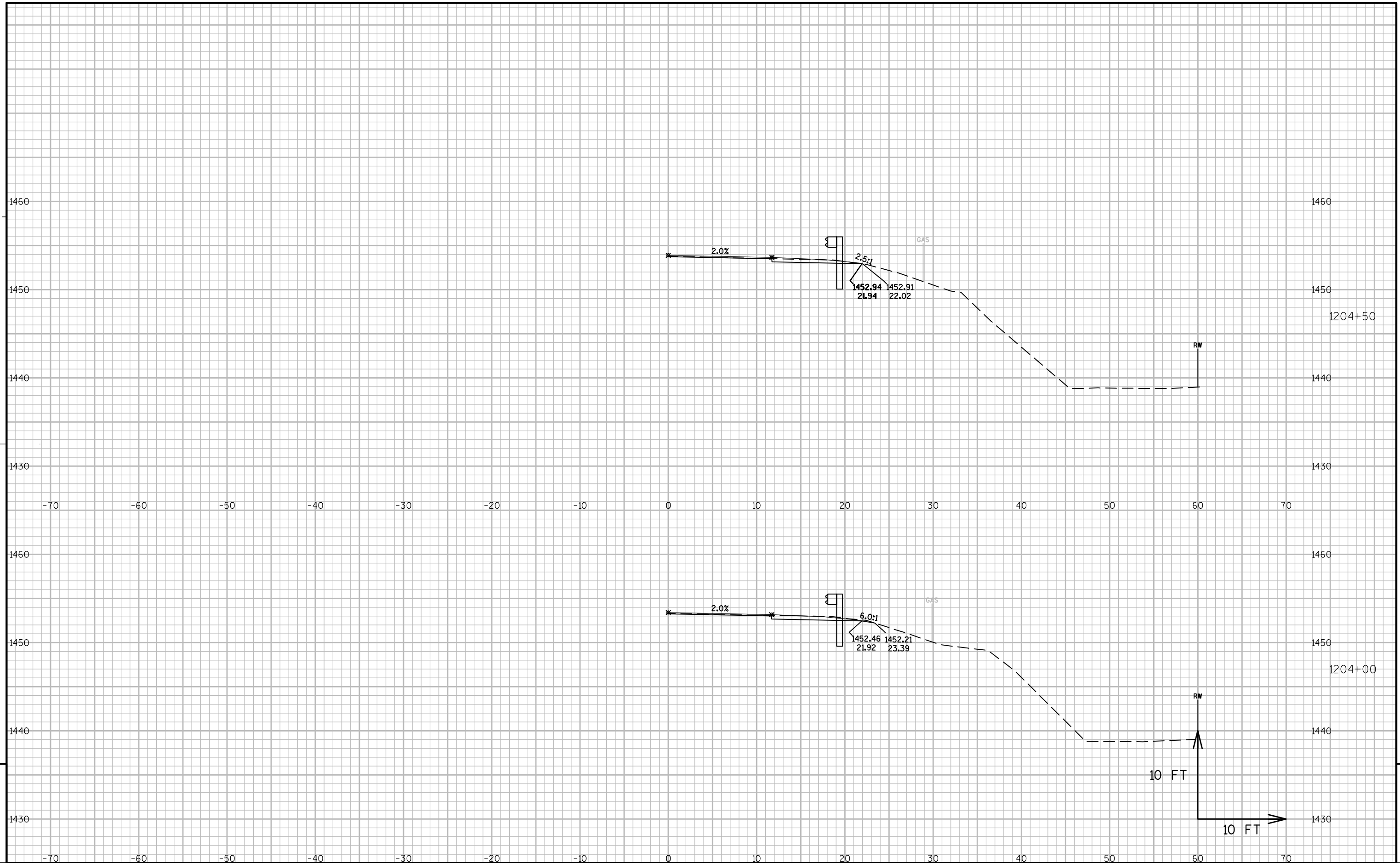


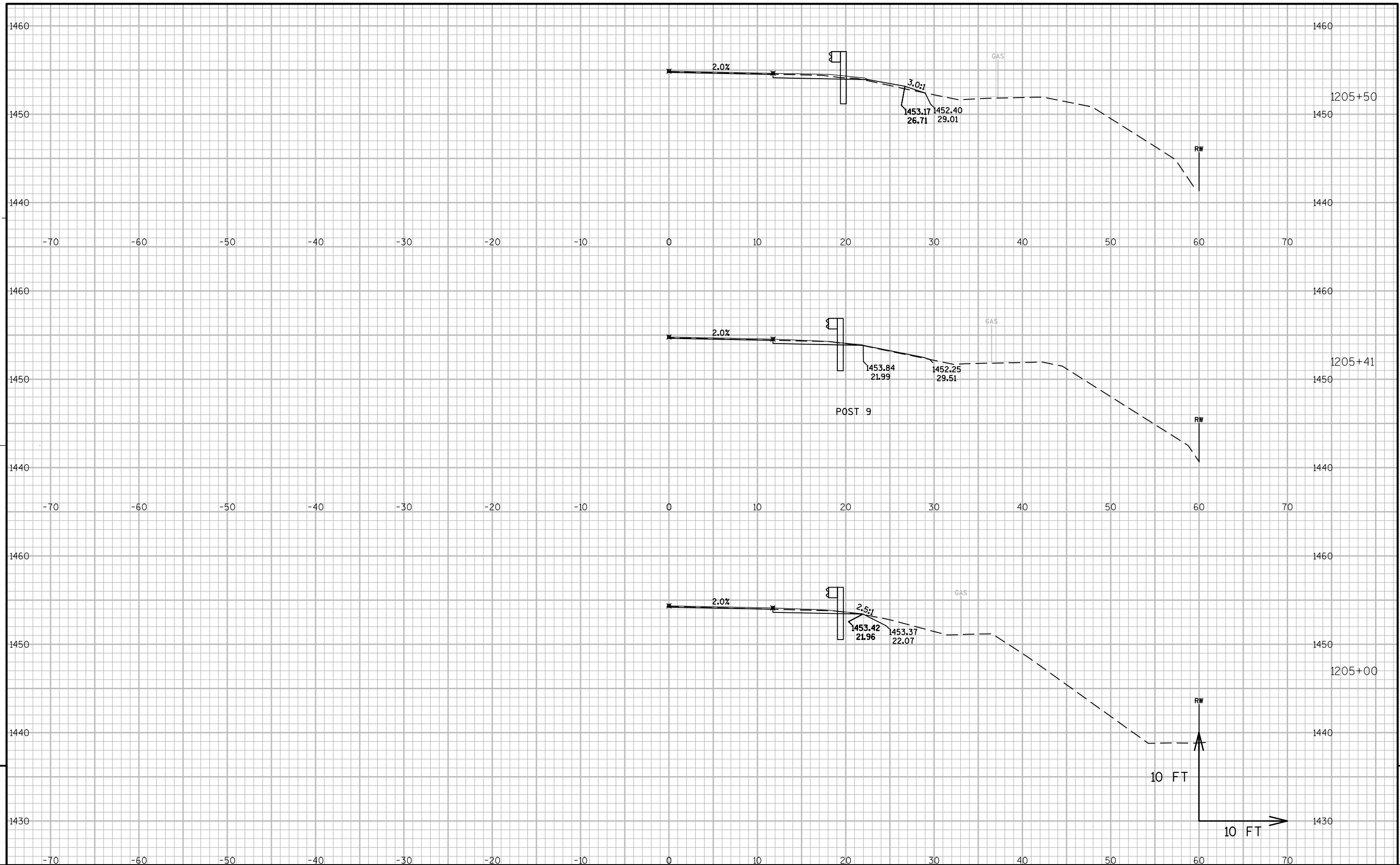
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-34-11			
DRAWN BY JLR		PLANS CK'D. TAB	
CONSTRUCTION STAGING		SHEET 2	

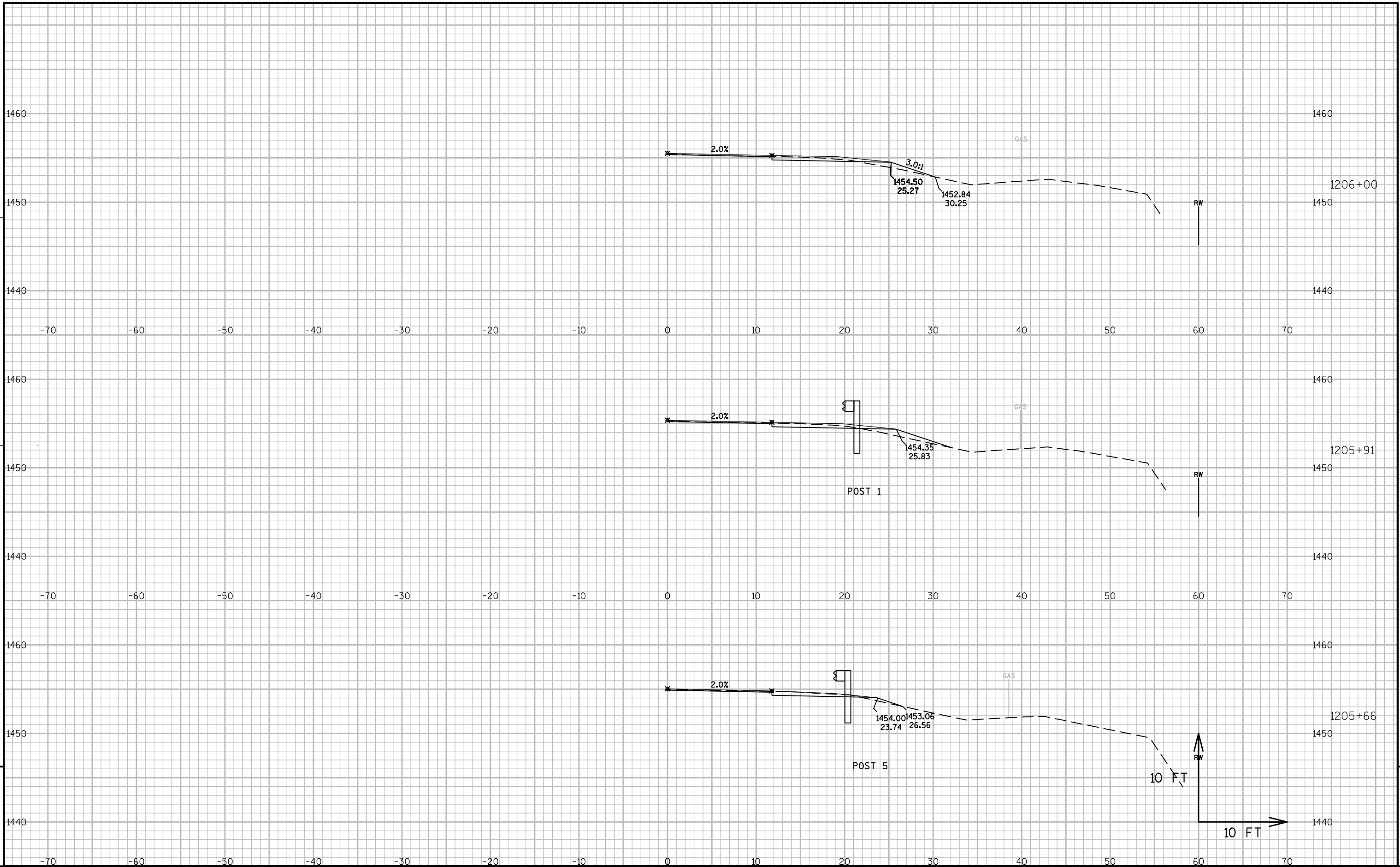


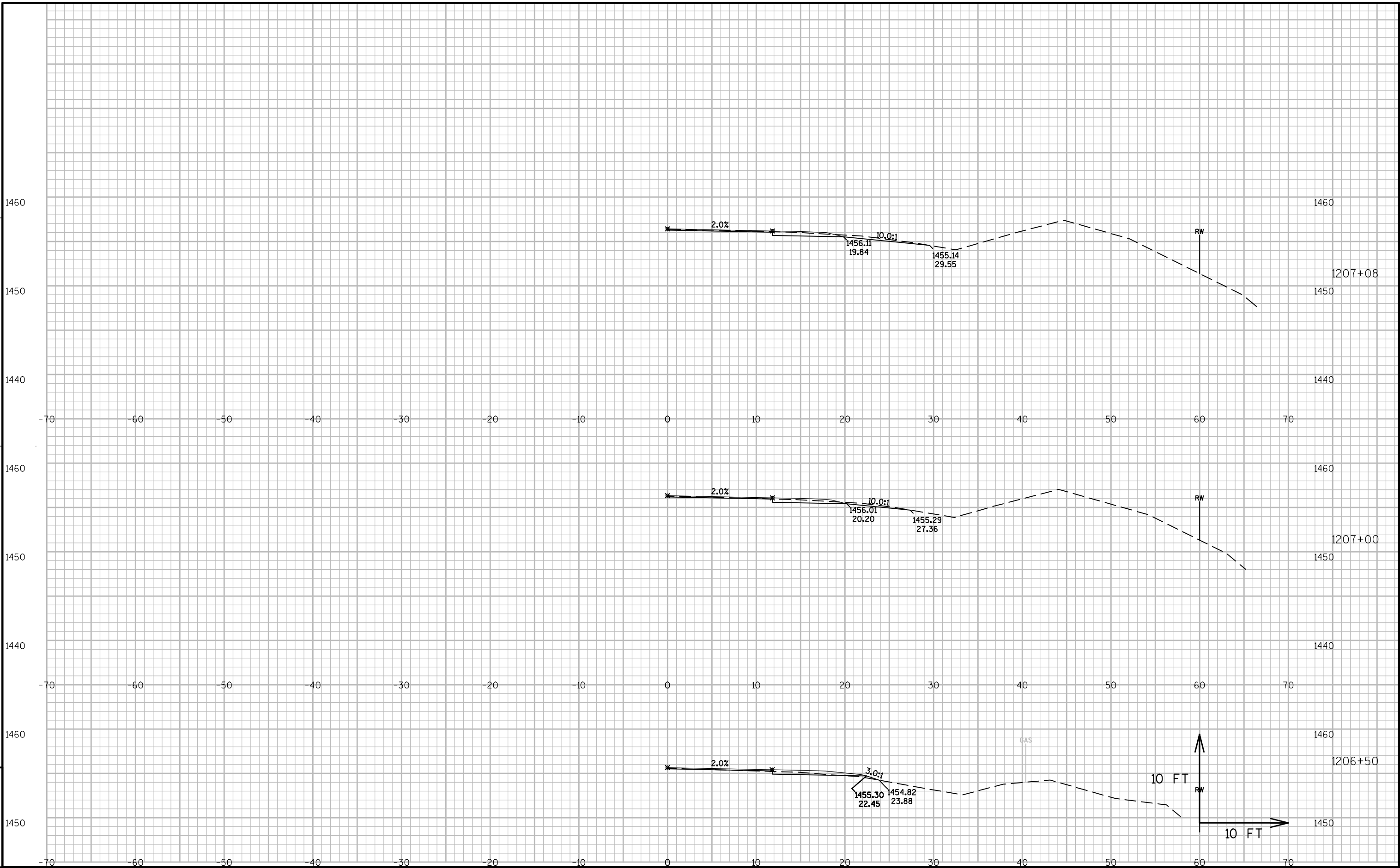


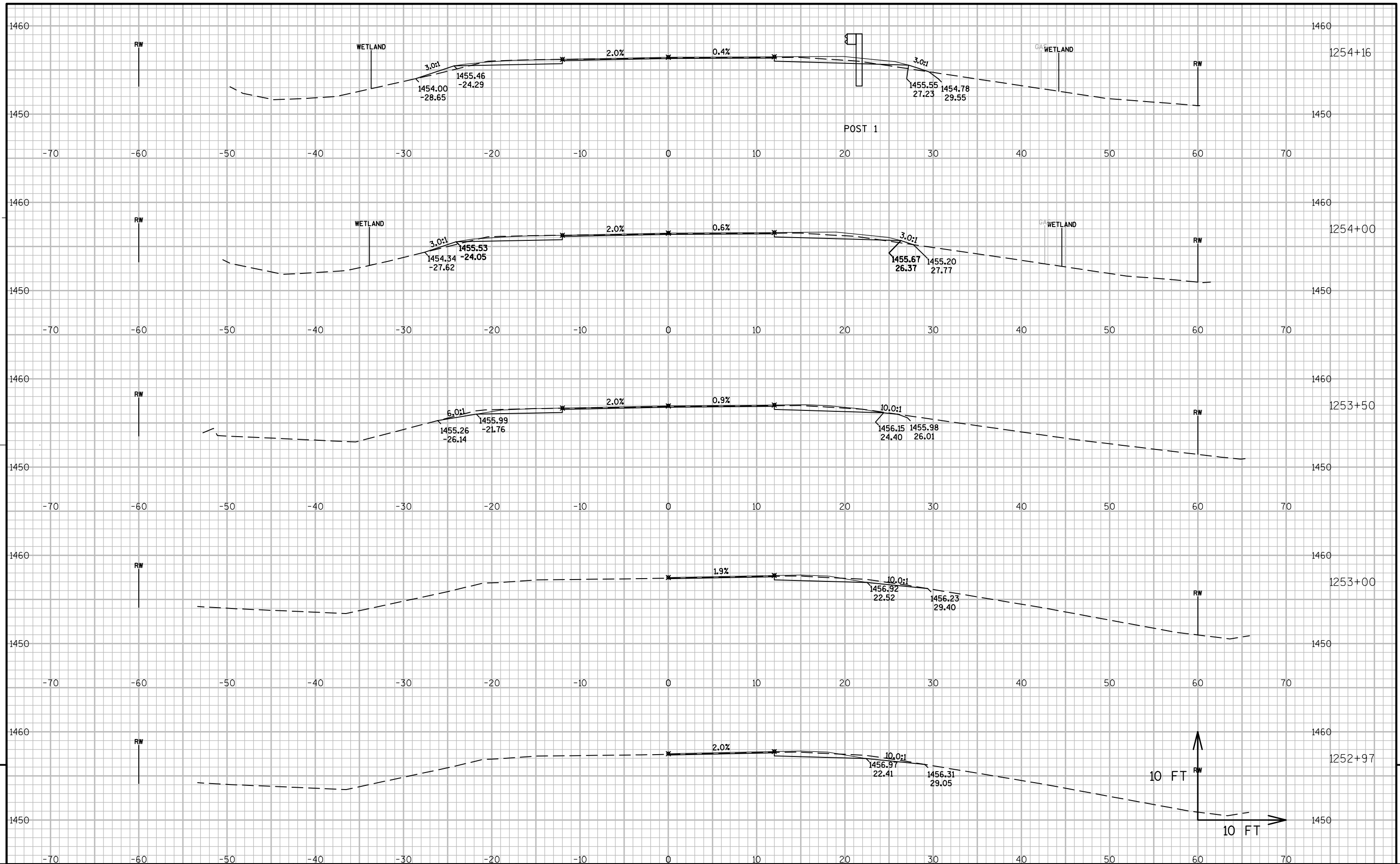


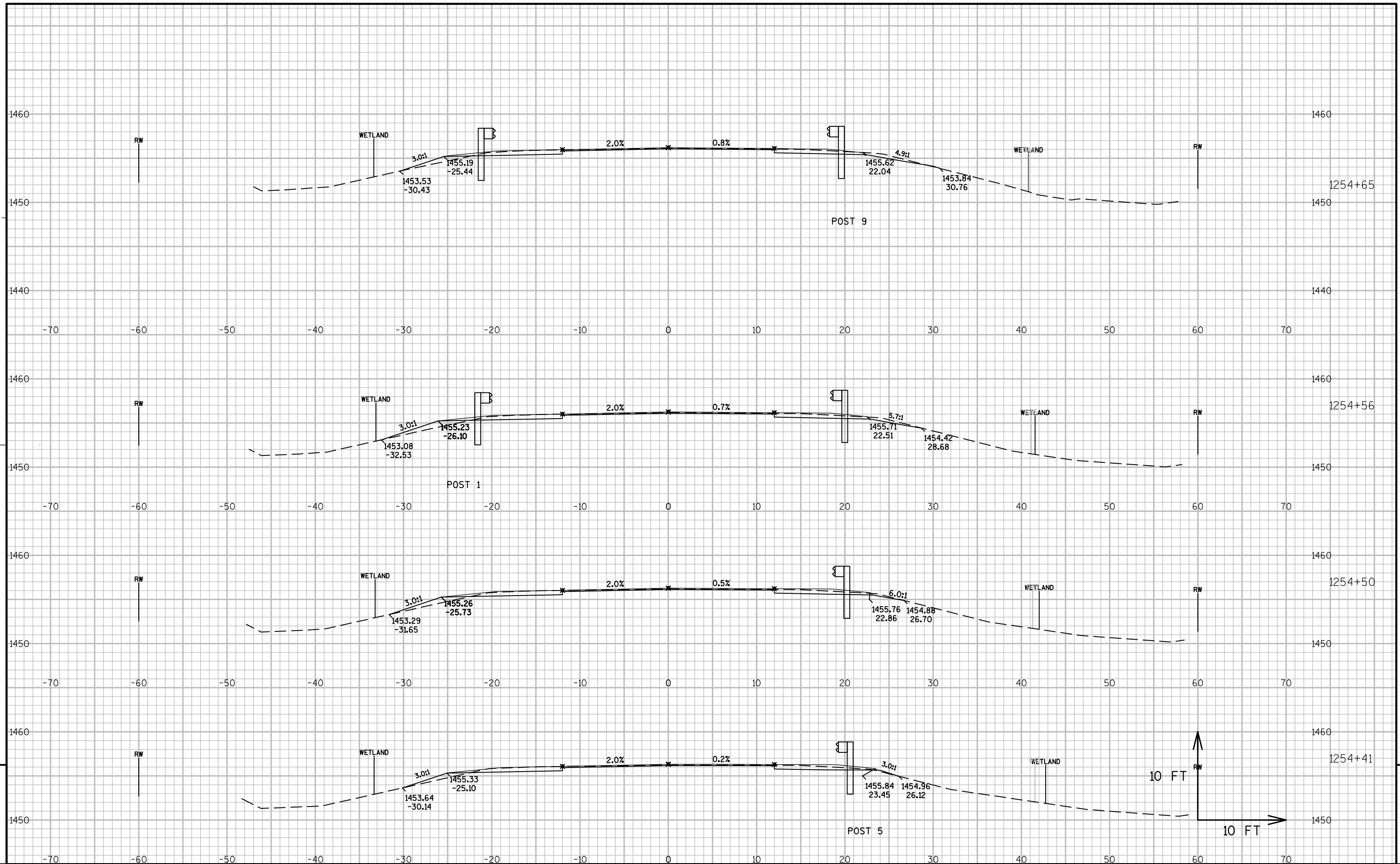


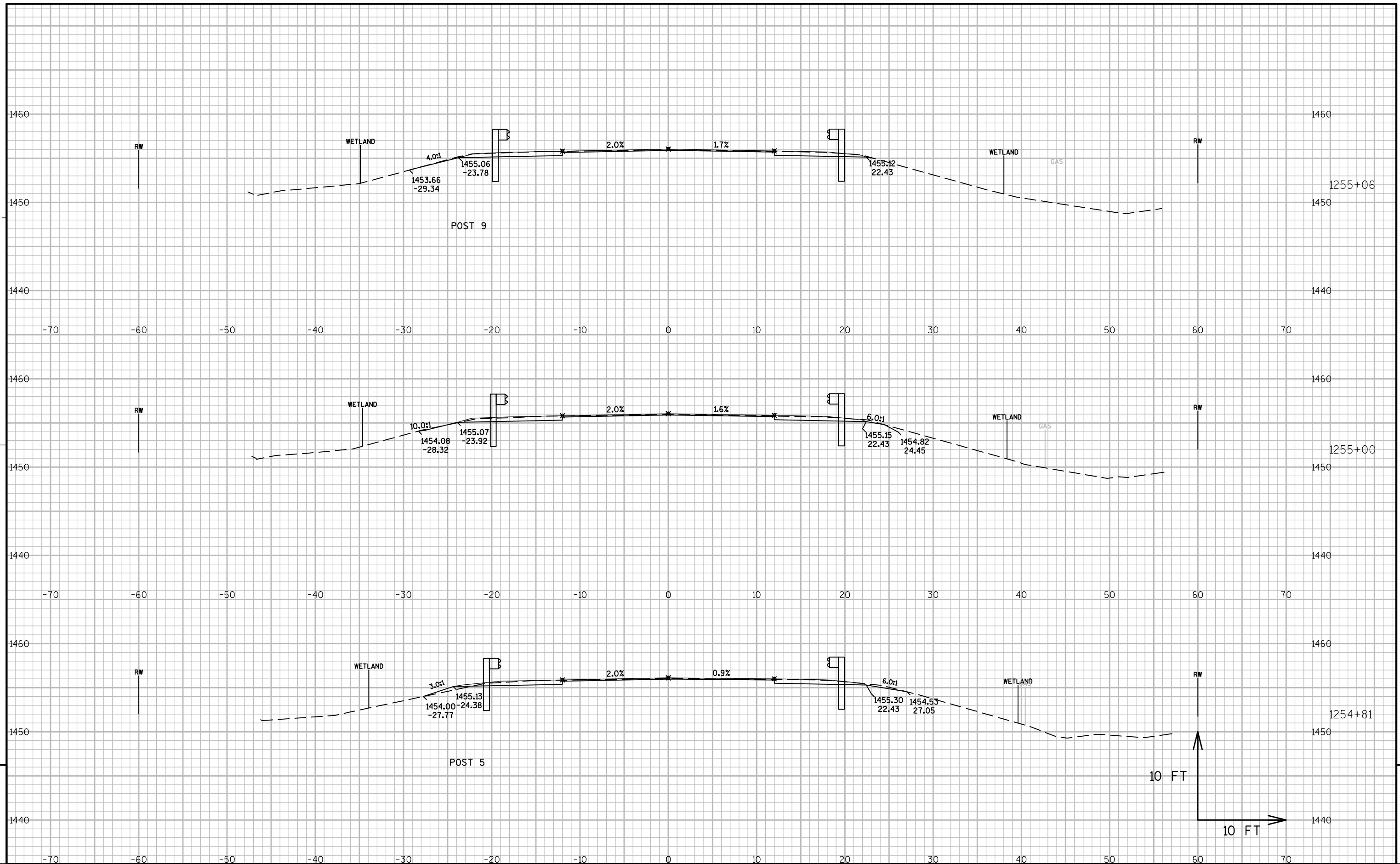


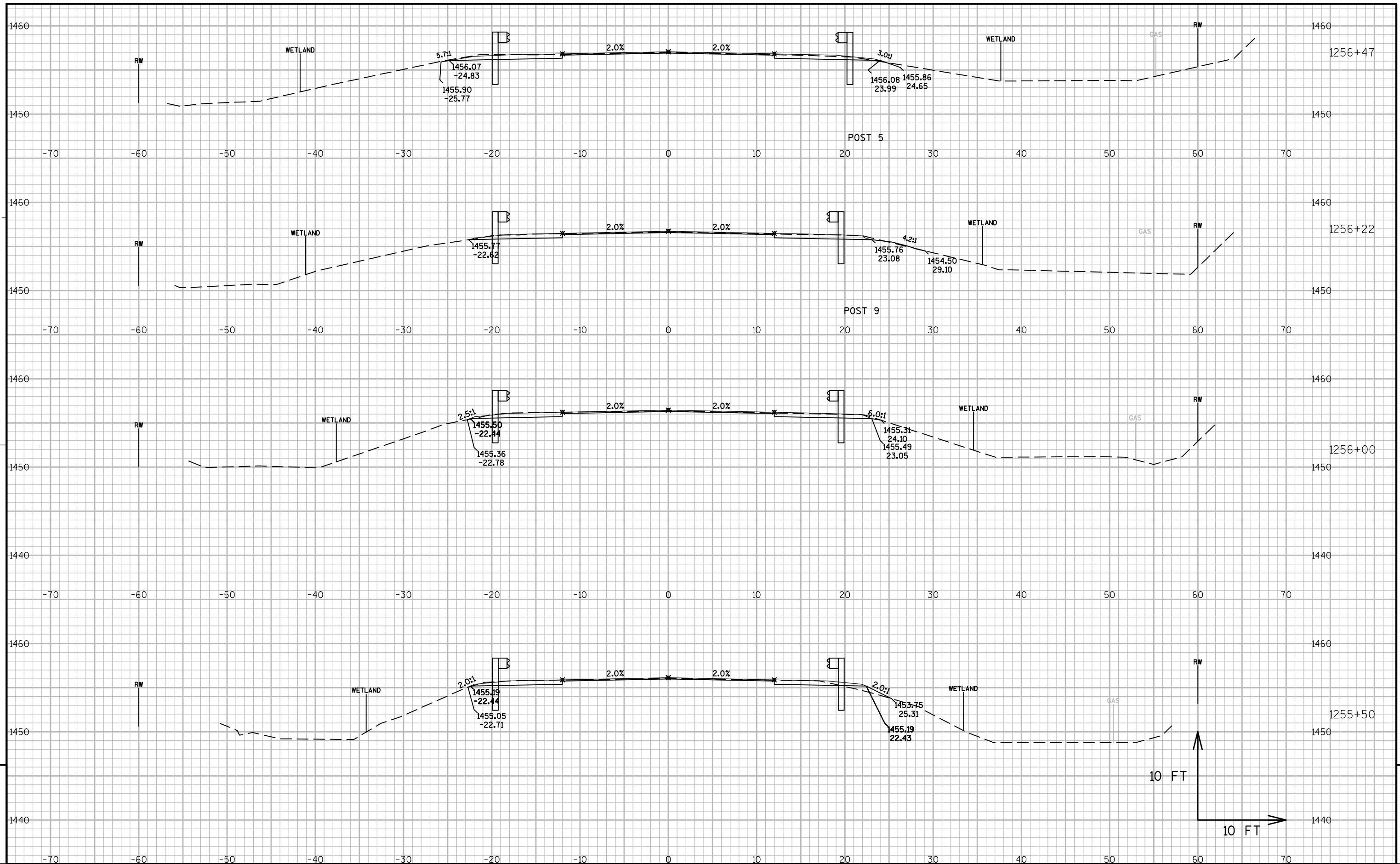


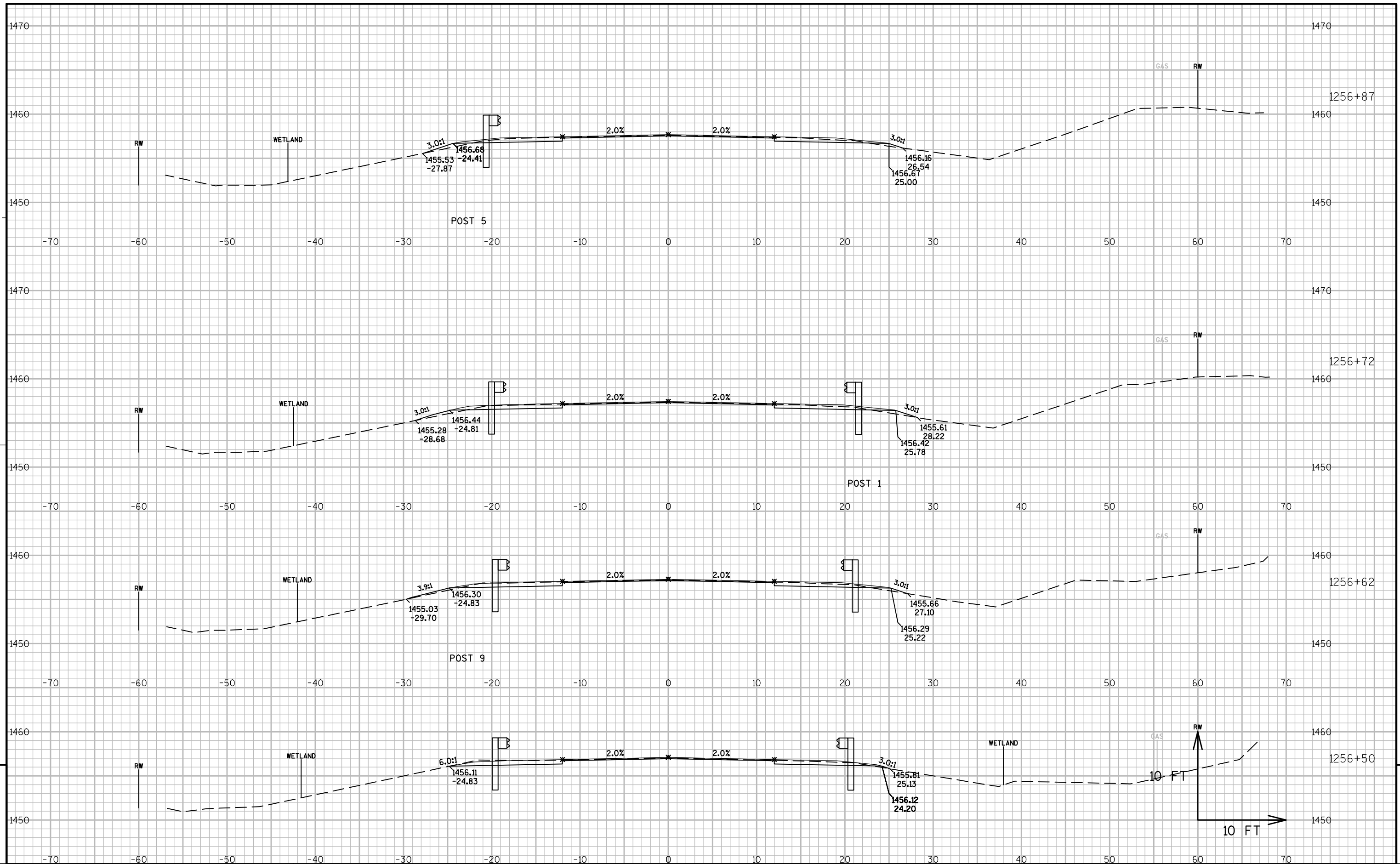


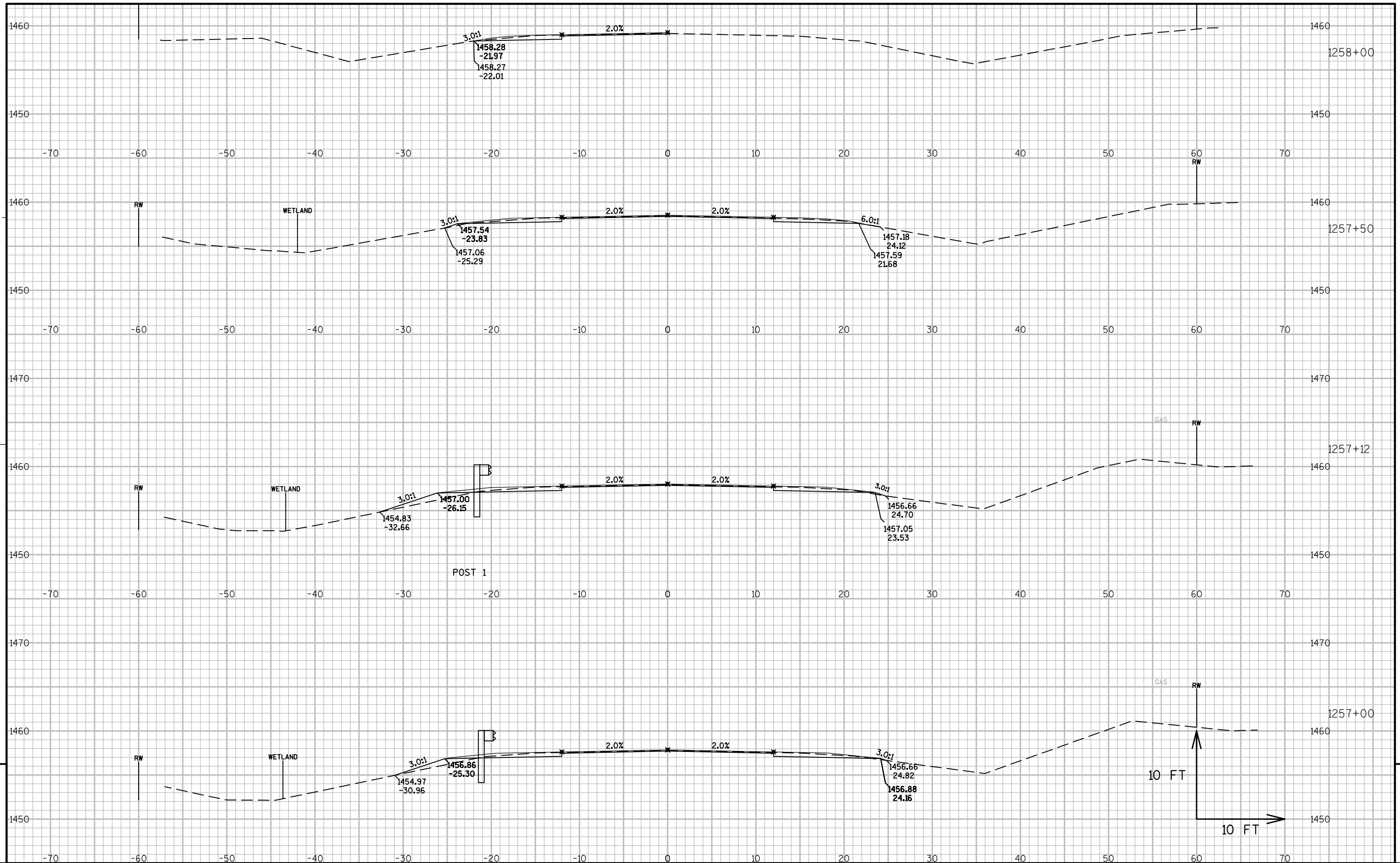












PROJECT NO: 9015-12-70

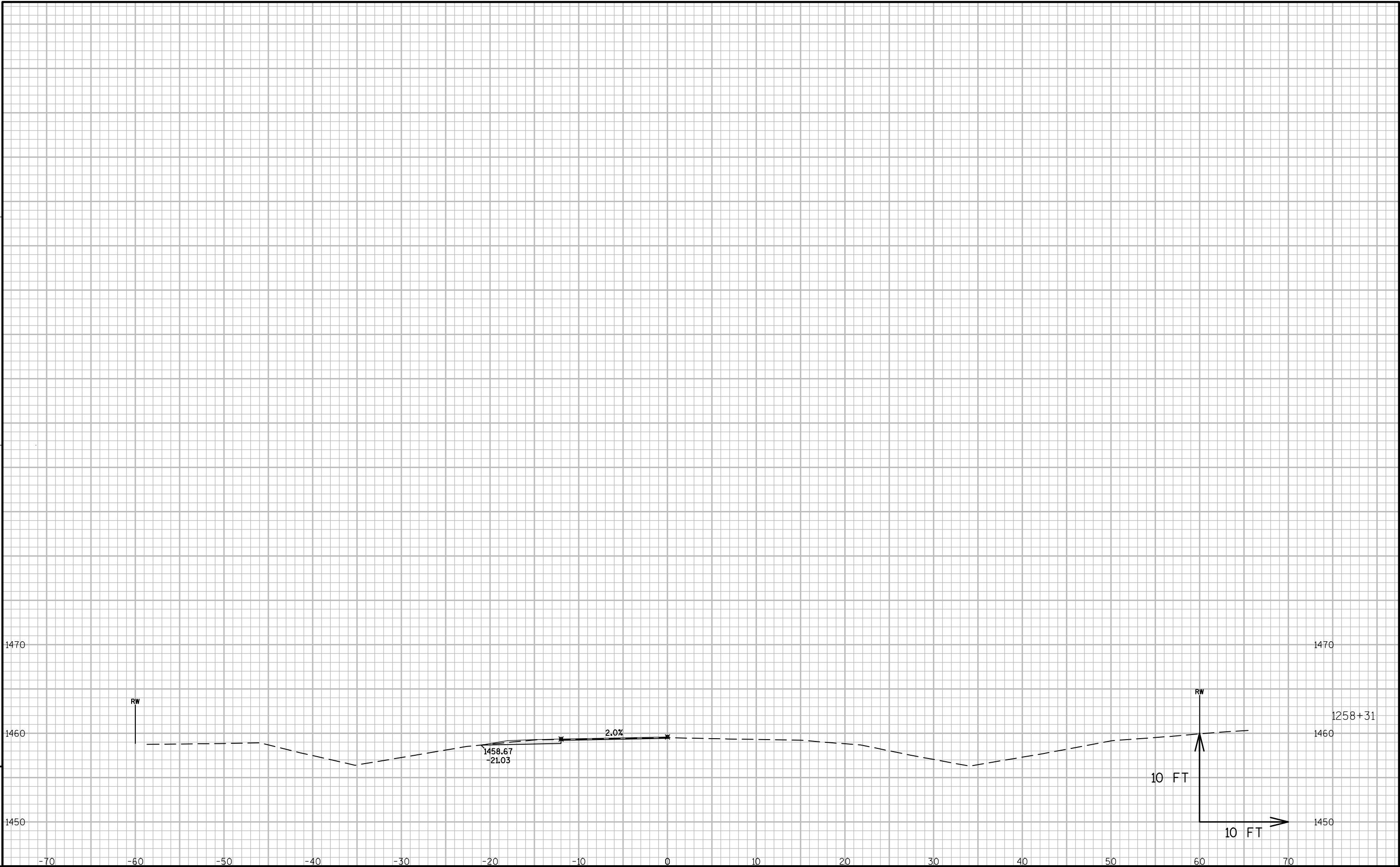
HWY: STH 64

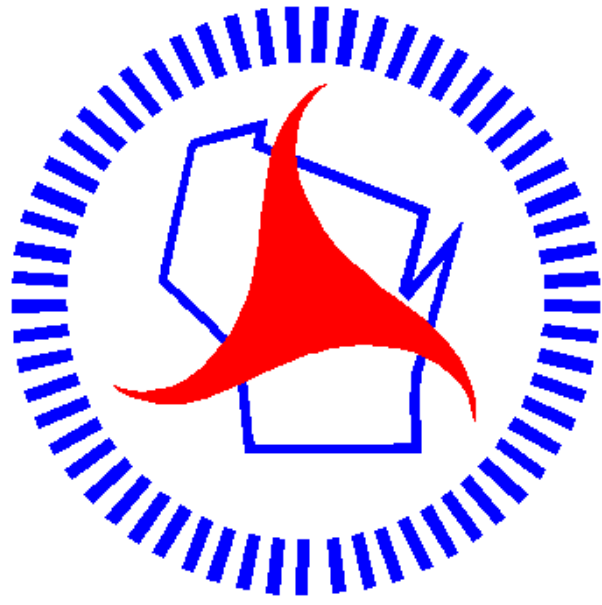
COUNTY: LANGLADE

CROSS SECTIONS: OWEN CREEK

SHEET

E





Wisconsin Department of Transportation

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through innovation and exceptional service.

<http://www.dot.wisconsin.gov>