

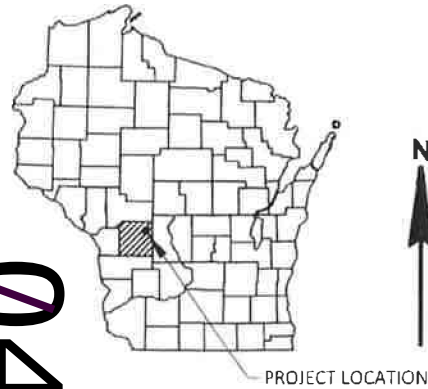
LAX
PROJECT ID:
WITH: N/A

JUNE 2021

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plan
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plaques
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 36



04

DESIGN DESIGNATION

A.A.D.T. (2021)	= 1600
A.A.D.T. (2041)	= 1608
D.H.V.	= N/A
D.D.	= 50/50
T.	= 10%
DESIGN SPEED	= 55 MPH
ESALS	= N/A

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

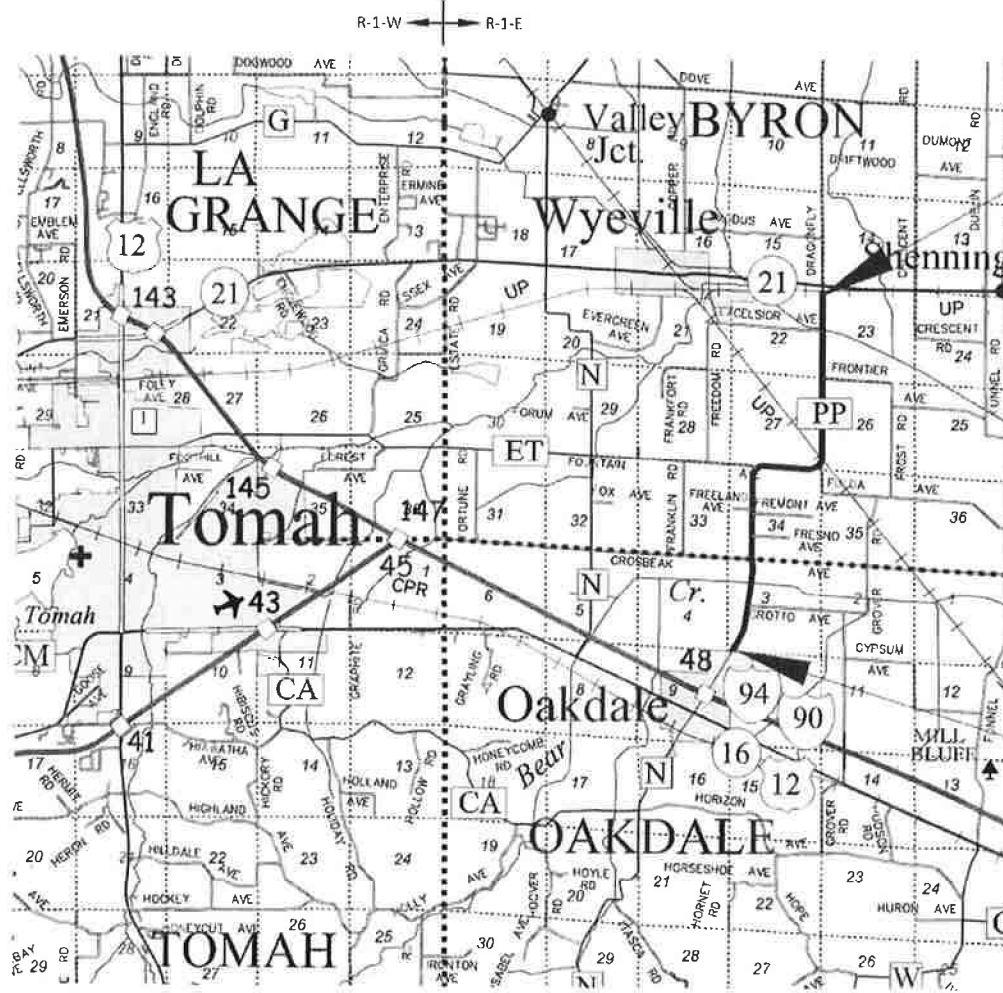
OAKDALE - WYEVILLE

NORTH VILLAGE LIMIT TO STH 21

CTH PP

MONROE COUNTY

STATE PROJECT NUMBER
7117-00-60



END PROJECT
STA 348+48
X=409711.969'
Y=747051.628'

BEGIN PROJECT
STA 103+00
X=389055.215'
Y=742064.369'

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7117-00-60	WISC 2021349	1

ACCEPTED FOR
MONROE COUNTY
Date: 2/29/21
[Signature]
[Signature and Title of Official]
County Commissioner

ORIGINAL PLANS PREPARED BY
CORRE ENGINEERING
MADISON | OGDONMOWOC | EAU CLAIRE | GREEN BAY | WITTENBERG

DATE: _____
(Professional Engineer Signature)

WISCONSIN PROFESSIONAL ENGINEER
KEVIN L. MEYER
E-38309-006
ELK MOUND WI
[Signature]
1/28/21

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor _____ CORRE, INC.
Designer _____ CORRE, INC.

APPROVED FOR THE DEPARTMENT
DATE: 2/01/2021 [Signature]
(Signature)

E

UTILITY CONTACTS



Dial **811** or (800)242-8511

www.DiggersHotline.com

CENTURYLINK- COMMUNICATION LINE
MONTY PARKER
20 SOUTH WILSON AVENUE
RICE LAKE, WI 54868
PHONE:
EMAIL:

OAKDALE ELECTRIC COOPERATIVE- ELECTRICITY
ROY BOYLES
PO BOX 128
OAKDALE, WI 54649-0128
PHONE:
EMAIL:

ALLIANT ENERGY
PATRICK MCINTYRE
ADDRESS
CITY, STATE, ZIP
PHONE: (608) 844-9605
EMAIL: PATRICKMCINTYRE@ALLIANTENERGY.COM

DESIGN CONTACT

CORRE, INC.
KEVIN MEYER
1802 WARDEN ST
EAU CLAIRE, WI 54703
PHONE: (715) 299-1894
EMAIL: KMEYER@CORREINC.COM

DNR CONTACT

DNR WEST CENTRAL REGION SERVICE CENTER
KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: (608) 785-9115
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

COUNTY CONTACT

MONROE COUNTY HIGHWAY DEPARTMENT
DAVID OHNSTAD
803 WASHINGTON STREET
SPARTA, WI 54656
PHONE: (608) 269-8740
EMAIL: HIGHWAYS@CO.MONROE.WI.US

GENERAL NOTES

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

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

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH 1 LIFT CONSISTING OF 2 MT 58-34 S HMA MIX DESIGN.

REMOVING ASPHALTIC SURFACE IS INCIDENTAL TO HAULING EXCESS SHOULDER MATERIAL.

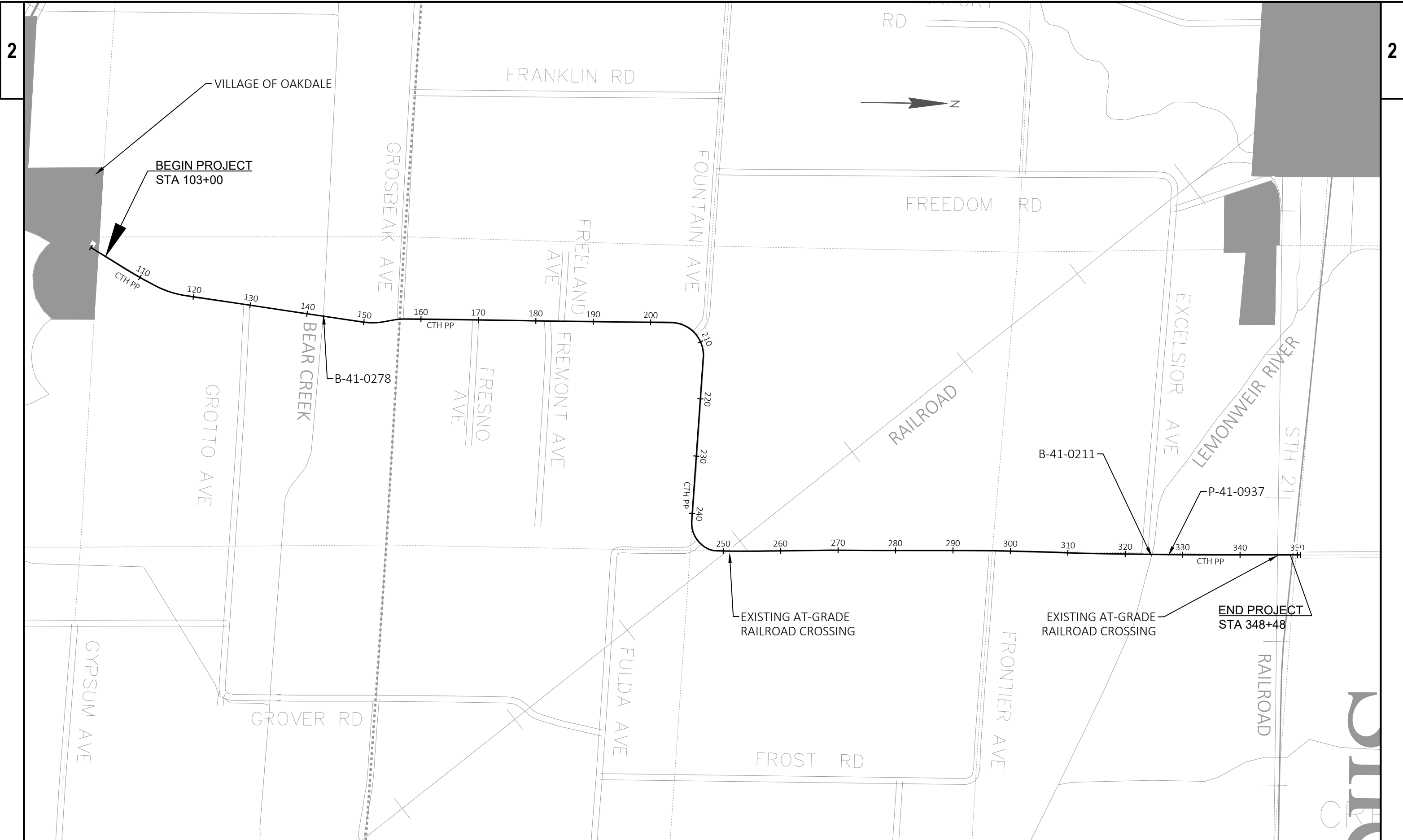
ENSURE THAT SECTION CORNER MONUMENTS IN THE ROADWAY ARE NOT DISTURBED, BUMPED, OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY THE MONROE COUNTY SURVEY OFFICE AT (608) 269-8623 IF SECTION CORNERS IS/ARE DISTURBED DURING CONSTRUCTION.

RUNOFF COEFFICIENT TABLE

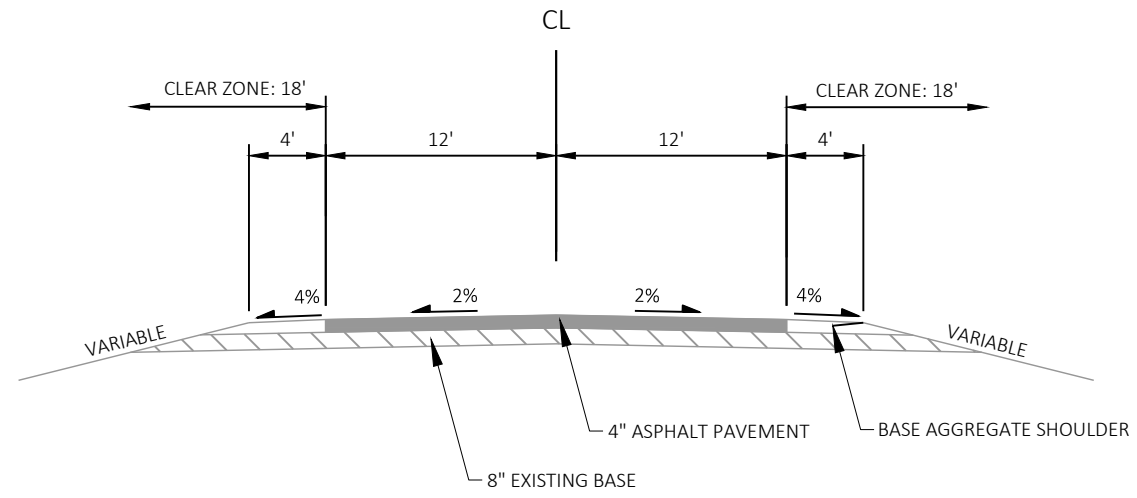
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15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

TOTAL PROJECT AREA = 37.64 ACRES

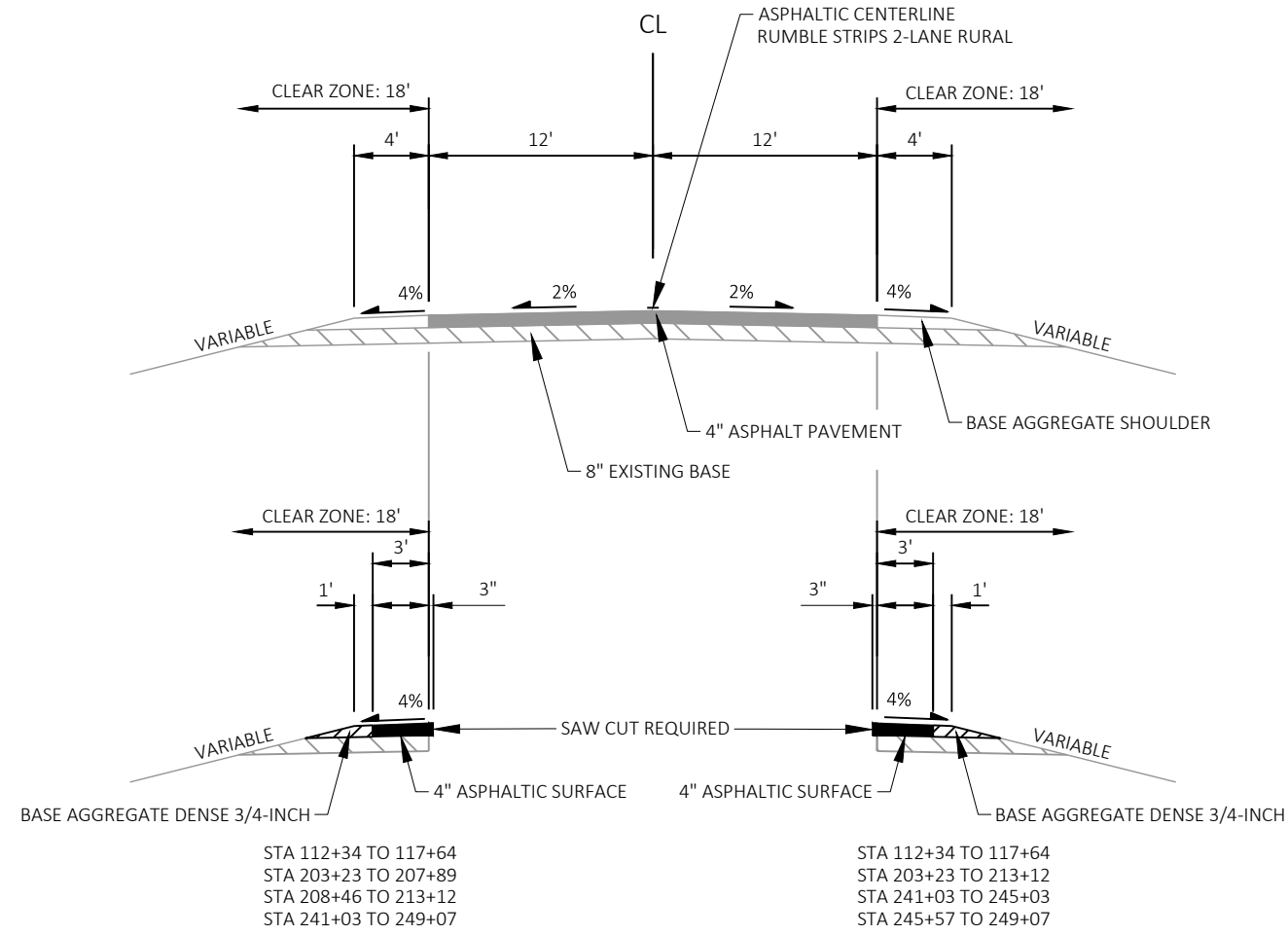
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.00 ACRES



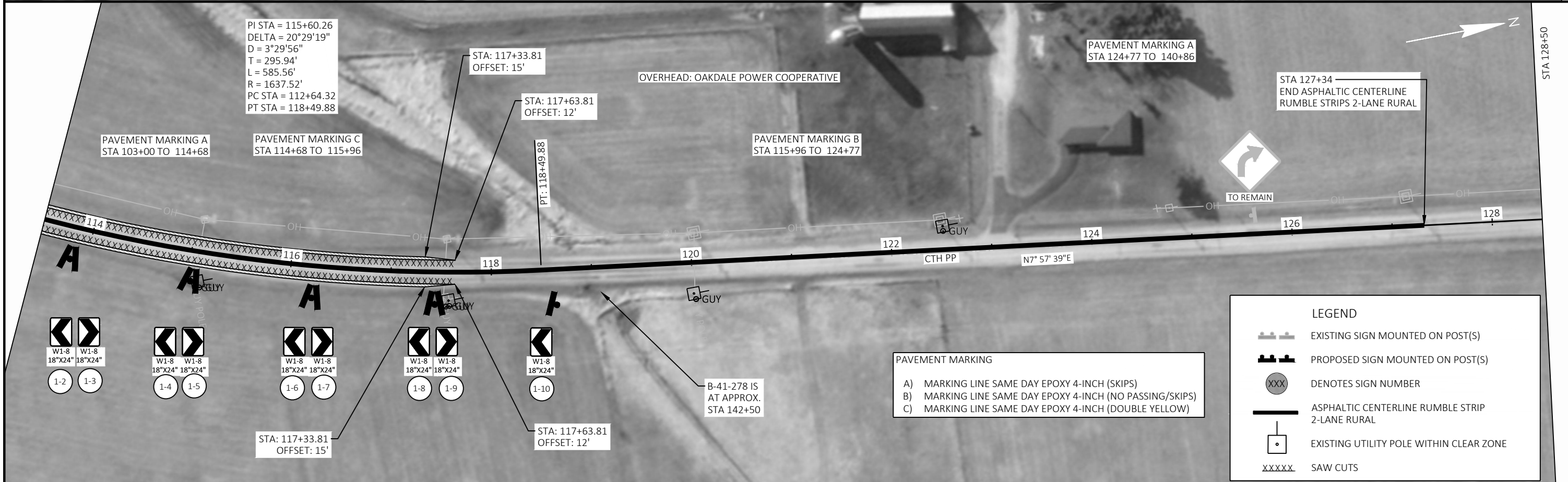
PROJECT NO: 7117-00-60	HWY: CTH PP	COUNTY: MONROE	PROJECT OVERVIEW	SHEET	E
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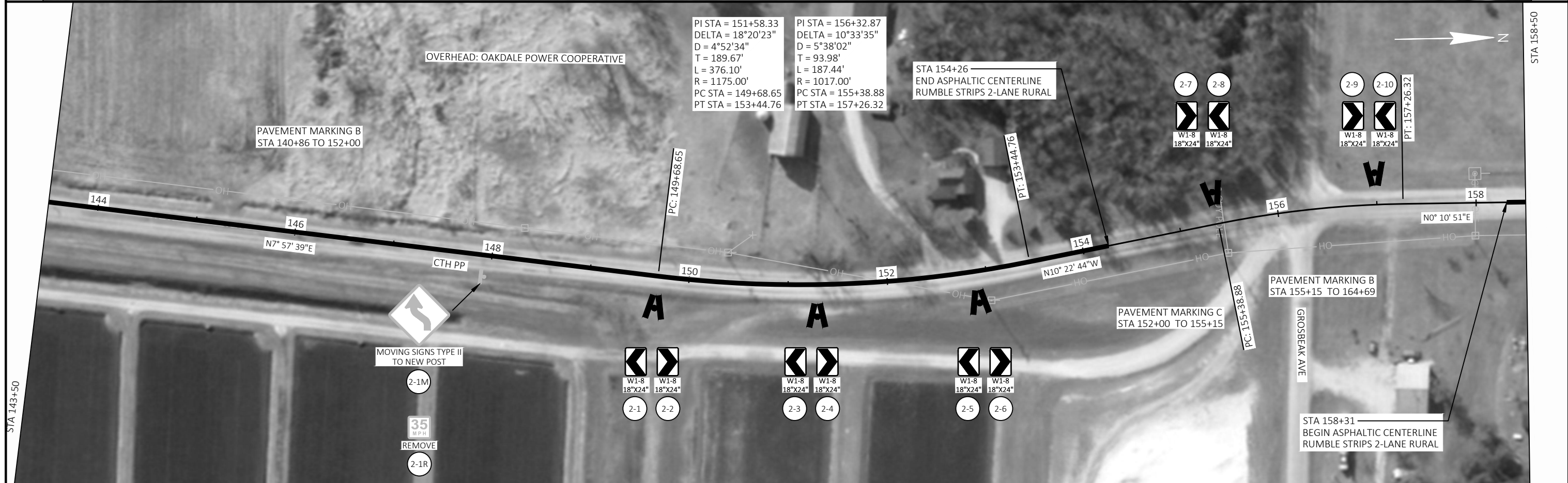
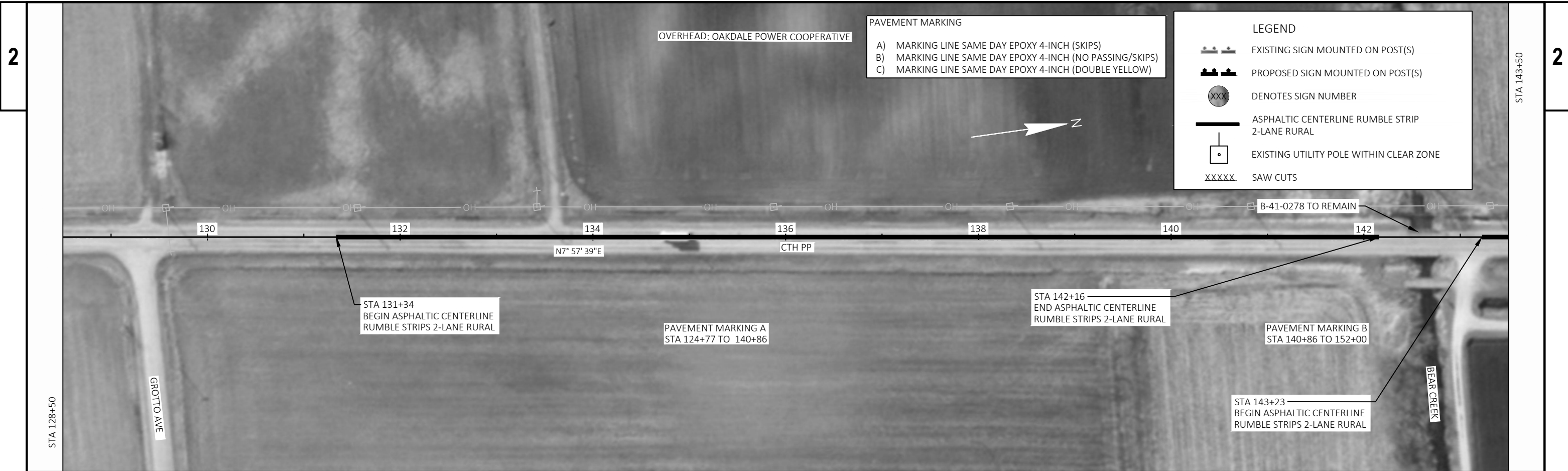


EXISTING TYPICAL SECTION
STA 103+00 TO STA 348+48



TYPICAL FINISHED SECTION
STA 103+00 TO STA 348+48





PROJECT NO: 7117-00-60

HWY: CTH PP

COUNTY: MONROE

PLANS

SHEET

E



2

2

STA 158+50

STA 173+50

STA 173+50

STA 188+50

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER
- ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
- EXISTING UTILITY POLE WITHIN CLEAR ZONE
- SAW CUTS

PAVEMENT MARKING

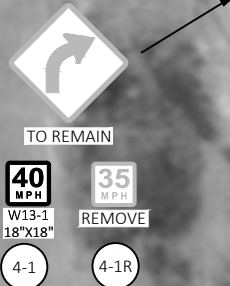
- A) MARKING LINE SAME DAY EPOXY 4-INCH (SKIPS)
- B) MARKING LINE SAME DAY EPOXY 4-INCH (NO PASSING/SKIPS)
- C) MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW)

PAVEMENT MARKING B
STA 181+44 TO 190+66

PAVEMENT MARKING C
STA 190+66 TO 213+76

OVERHEAD: OAKDALE POWER COOPERATIVE

STA 188+50

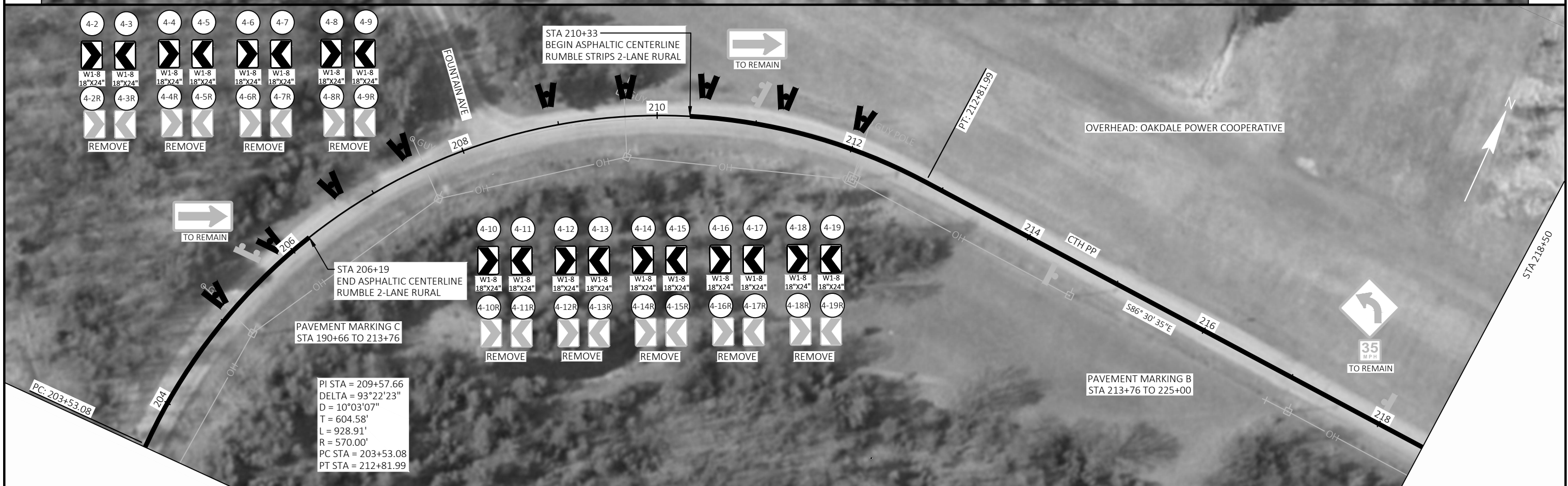


PAVEMENT MARKING

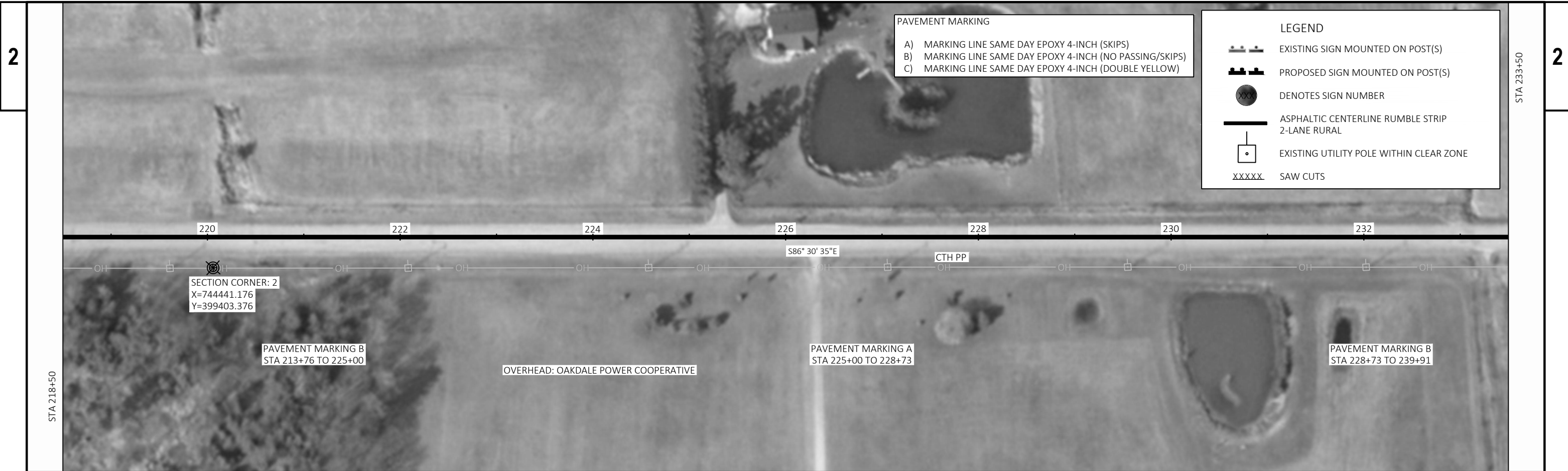
A) MARKING LINE SAME DAY EPOXY 4-INCH (SKIPS)
 B) MARKING LINE SAME DAY EPOXY 4-INCH (NO PASSING/SKIPS)
 C) MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER
- ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
- EXISTING UTILITY POLE WITHIN CLEAR ZONE
- SAW CUTS

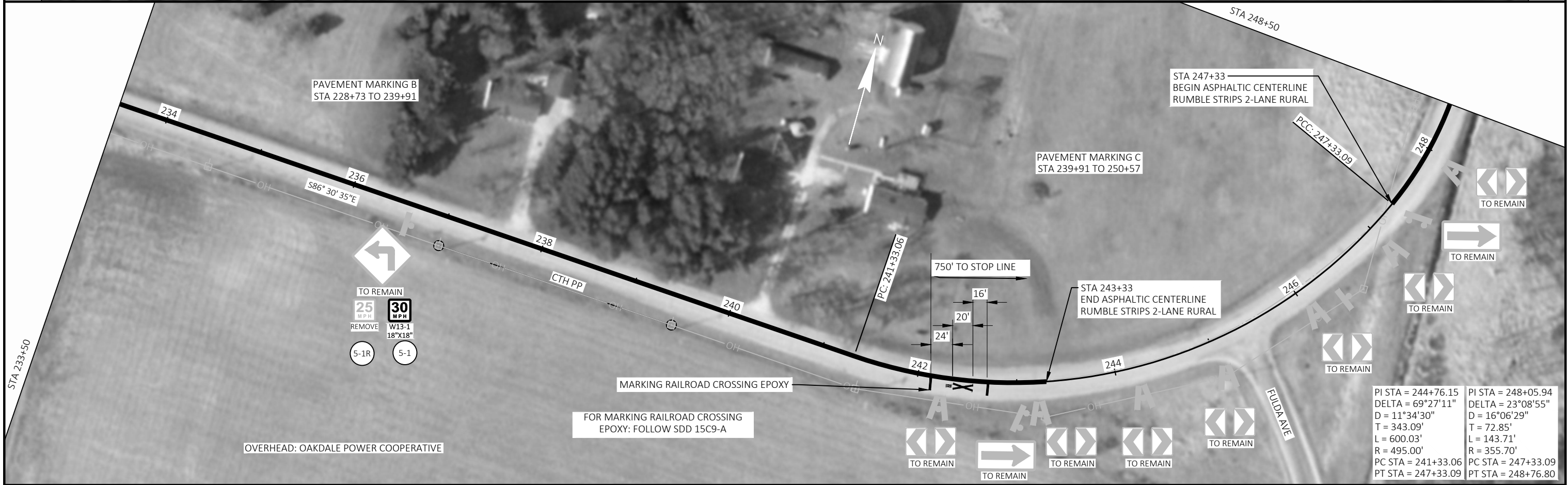


PI STA = 209+57.66
 DELTA = 93°22'23"
 D = 10°03'07"
 T = 604.58'
 L = 928.91'
 R = 570.00'
 PC STA = 203+53.08
 PT STA = 212+81.99

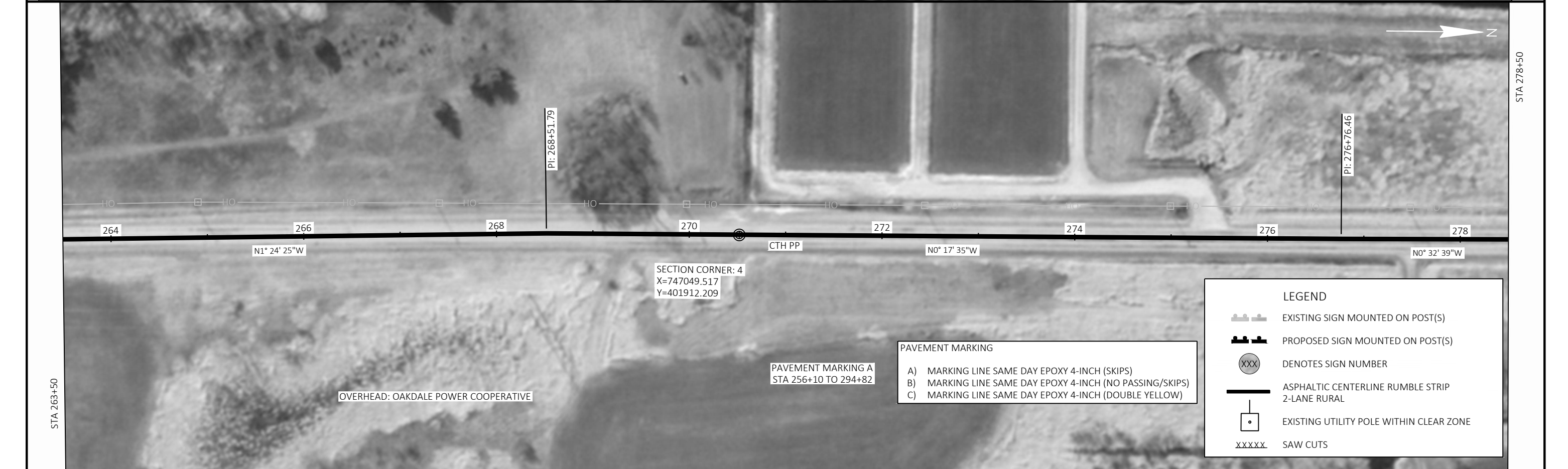


- PAVEMENT MARKING**
- A) MARKING LINE SAME DAY EPOXY 4-INCH (SKIPS)
 - B) MARKING LINE SAME DAY EPOXY 4-INCH (NO PASSING/SKIPS)
 - C) MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW)

- LEGEND**
- EXISTING SIGN MOUNTED ON POST(S)
 - PROPOSED SIGN MOUNTED ON POST(S)
 - DENOTES SIGN NUMBER
 - ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
 - EXISTING UTILITY POLE WITHIN CLEAR ZONE
 - SAW CUTS



PI STA = 244+76.15	PI STA = 248+05.94
DELTA = 69°27'11"	DELTA = 23°08'55"
D = 11°34'30"	D = 16°06'29"
T = 343.09'	T = 72.85'
L = 600.03'	L = 143.71'
R = 495.00'	R = 355.70'
PC STA = 241+33.06	PC STA = 247+33.09
PT STA = 247+33.09	PT STA = 248+76.80



LEGEND	
	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
	EXISTING UTILITY POLE WITHIN CLEAR ZONE
	SAW CUTS

PAVEMENT MARKING	
A)	MARKING LINE SAME DAY EPOXY 4-INCH (SKIPS)
B)	MARKING LINE SAME DAY EPOXY 4-INCH (NO PASSING/SKIPS)
C)	MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW)

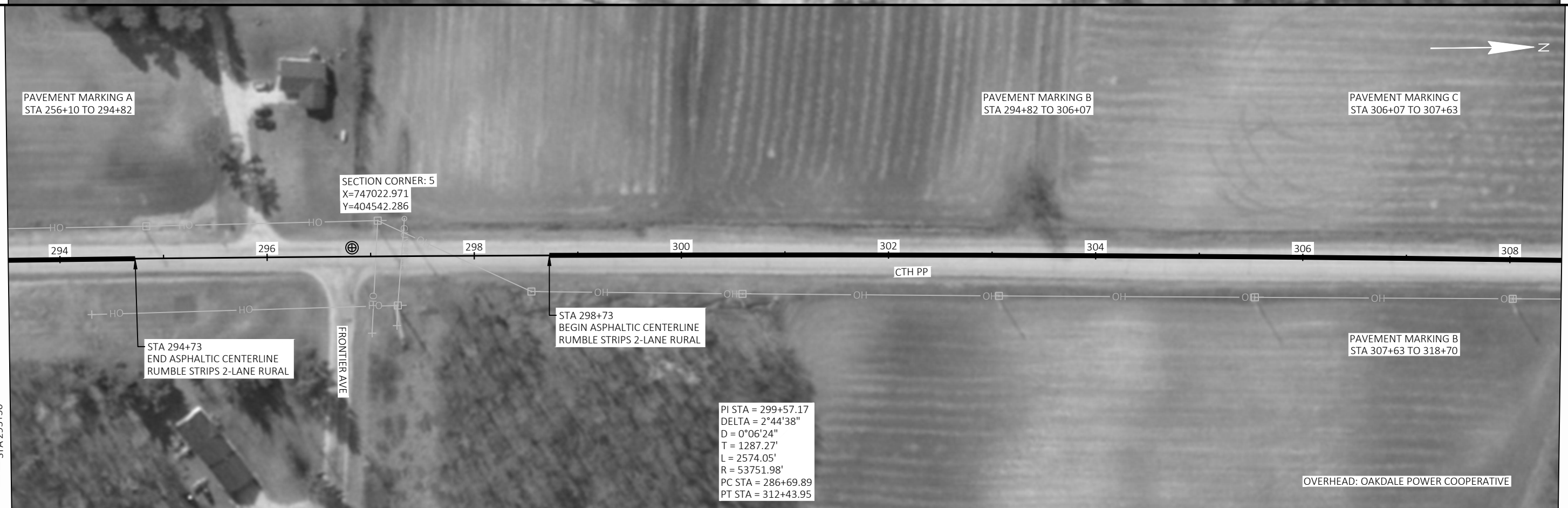
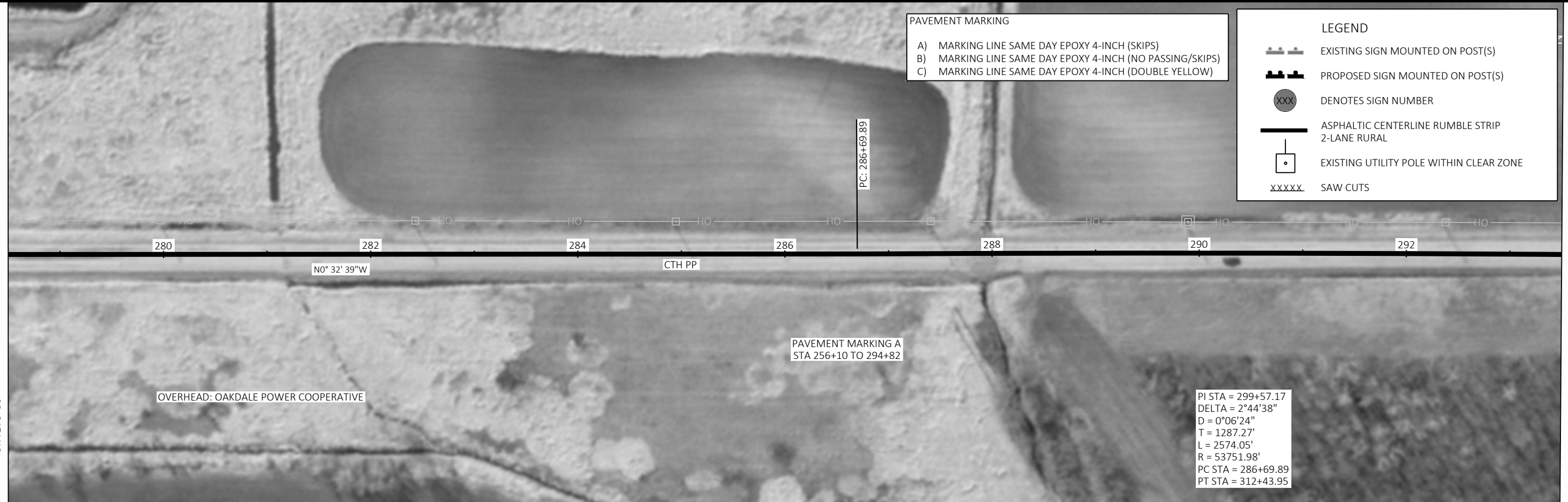
PROJECT NO: 7117-00-60 HWY: CTH PP COUNTY: MONROE PLANS SHEET E

PAVEMENT MARKING

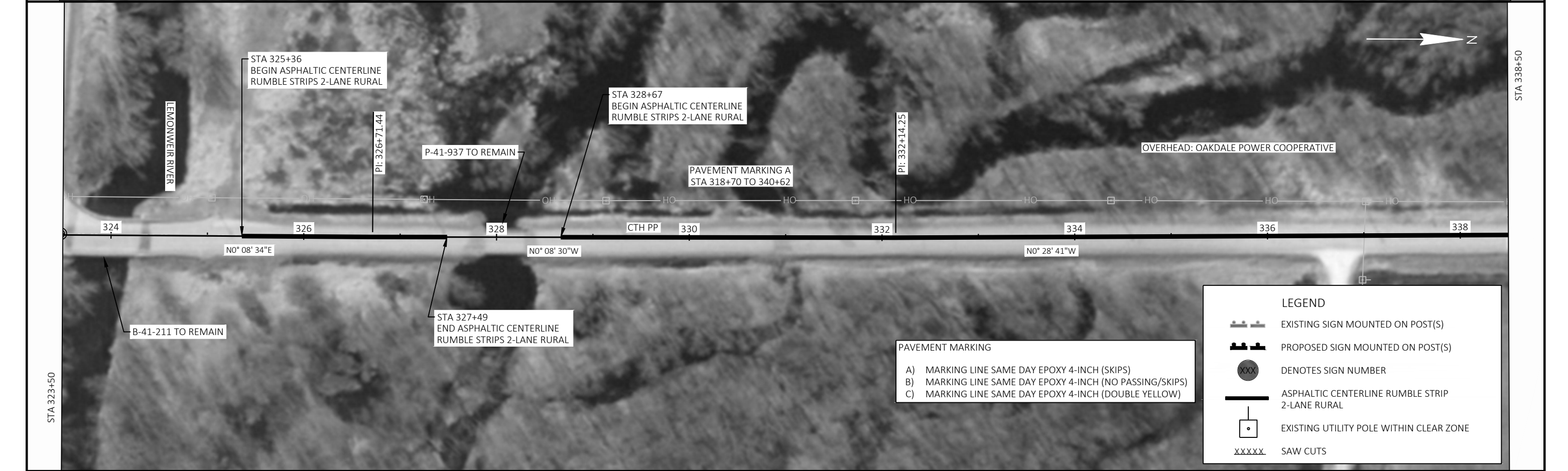
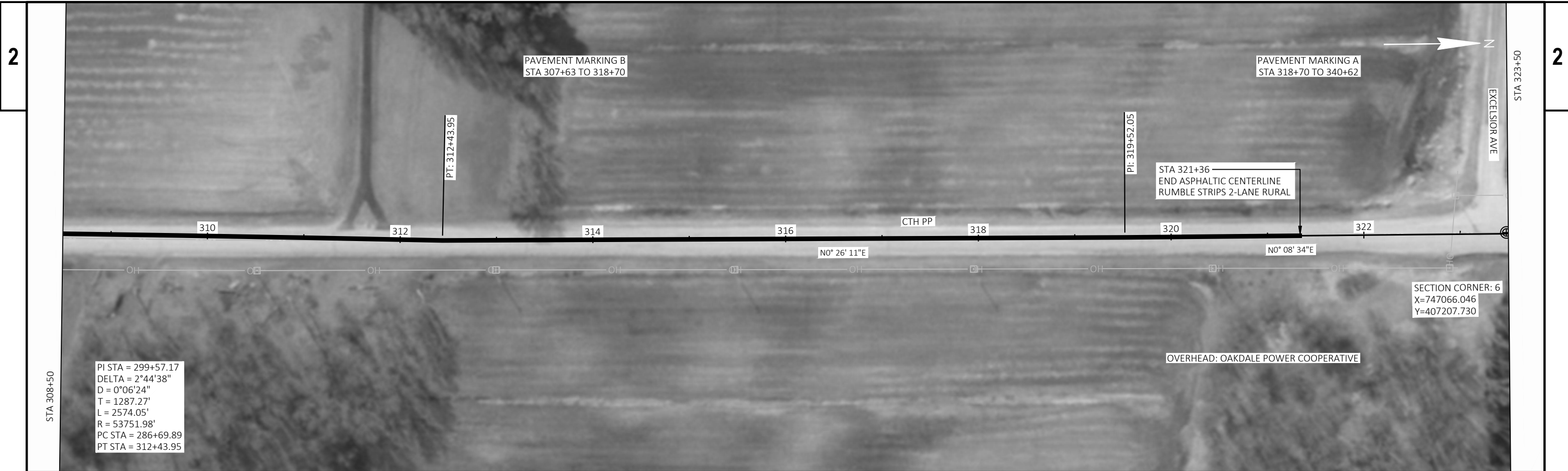
A) MARKING LINE SAME DAY EPOXY 4-INCH (SKIPS)
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LEGEND

EXISTING SIGN MOUNTED ON POST(S)
 PROPOSED SIGN MOUNTED ON POST(S)
 DENOTES SIGN NUMBER
 ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
 EXISTING UTILITY POLE WITHIN CLEAR ZONE
 SAW CUTS



PROJECT NO: 7117-00-60	HWY: CTH PP	COUNTY: MONROE	PLANS	SHEET	E
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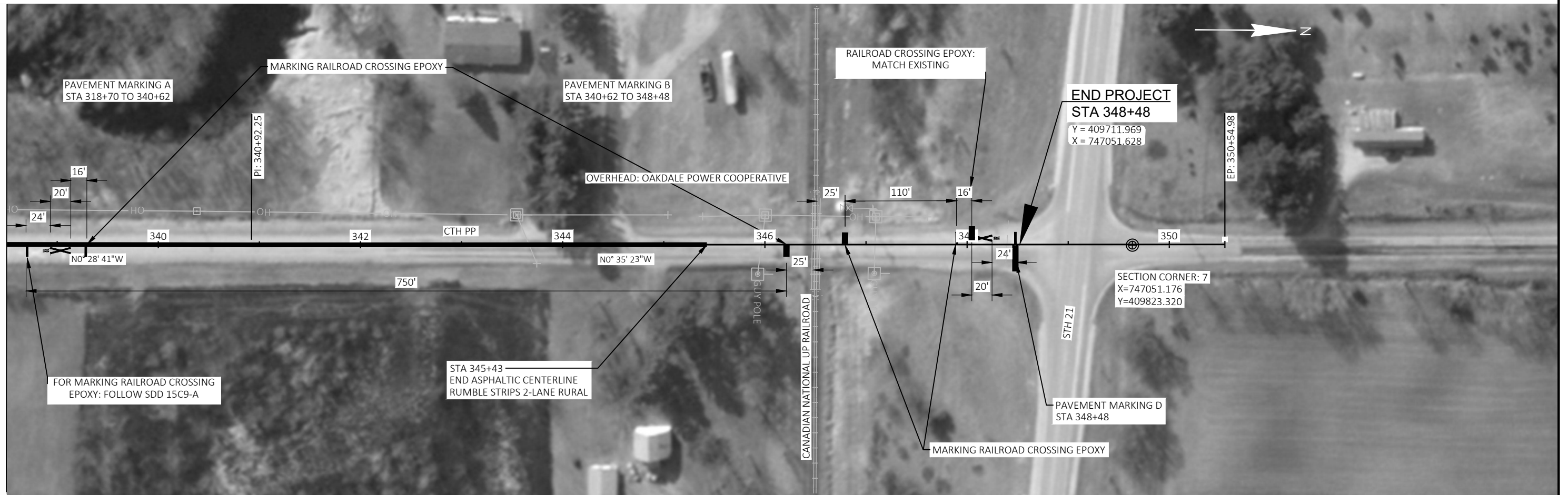


LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER
- ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
- EXISTING UTILITY POLE WITHIN CLEAR ZONE
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PAVEMENT MARKING

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- B) MARKING LINE SAME DAY EPOXY 4-INCH (NO PASSING/SKIPS)
- C) MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW)



PAVEMENT MARKING

A)	MARKING LINE SAME DAY EPOXY 4-INCH (SKIPS)
B)	MARKING LINE SAME DAY EPOXY 4-INCH (NO PASSING/SKIPS)
C)	MARKING LINE SAME DAY EPOXY 4-INCH (DOUBLE YELLOW)
D)	MARKING STOP LINE EPOXY 18-INCH (WHITE)

LEGEND

	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL
	EXISTING UTILITY POLE WITHIN CLEAR ZONE
	SAW CUTS

Estimate Of Quantities

7117-00-60

Line	Item	Item Description	Unit	Total	Qty
0002	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	37.000	37.000
0004	213.0100	Finishing Roadway (project) 01. 7117-00-60	EACH	1.000	1.000
0006	305.0110	Base Aggregate Dense 3/4-Inch	TON	151.000	151.000
0008	305.0500	Shaping Shoulders	STA	37.000	37.000
0010	305.0504.S	Hauling Excess Shoulder Material	CY	199.000	199.000
0012	465.0105	Asphaltic Surface	TON	279.000	279.000
0014	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	20,371.000	20,371.000
0016	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7117-00-60	EACH	1.000	1.000
0018	619.1000	Mobilization	EACH	1.000	1.000
0020	624.0100	Water	MGAL	1,750.000	1,750.000
0022	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	46.000	46.000
0024	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	1.000	1.000
0026	637.2230	Signs Type II Reflective F	SF	129.750	129.750
0028	638.2102	Moving Signs Type II	EACH	8.000	8.000
0030	638.2602	Removing Signs Type II	EACH	14.000	14.000
0032	638.3000	Removing Small Sign Supports	EACH	12.000	12.000
0034	642.5001	Field Office Type B	EACH	1.000	1.000
0036	643.0300	Traffic Control Drums	DAY	320.000	320.000
0038	643.0900	Traffic Control Signs	DAY	370.000	370.000
0040	643.5000	Traffic Control	EACH	1.000	1.000
0042	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	48,500.000	48,500.000
0044	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	22,800.000	22,800.000
0046	646.5320	Marking Railroad Crossings Epoxy	EACH	4.000	4.000
0048	646.6120	Marking Stop Line Epoxy 18-Inch	LF	26.000	26.000
0050	648.0100	Locating No-Passing Zones	MI	4.650	4.650
0052	690.0150	Sawing Asphalt	LF	3,470.000	3,470.000

3

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	305.0110 BASE AGGREGATE DENSE 3/4- INCH TON	305.0500 SHAPING SHOULDERS STA	305.0504.S HAULING EXCESS SHOULDER MATERIAL CY	465.0105 ASPHALTIC SURFACE TON	624.0100 WATER MGAL
0010	112+34	-	117+64	LT&RT	11	24	11	31	86	240
0010	203+23	-	213+12	LT&RT*	20	83	20	109	153	830
0010	241+03	-	249+07	LT&RT**	17	68	17	90	126	680
TOTAL 0010					48	175	48	230	365	1,750

* EXCLUDES STA 207+89 TO STA 208+46 LT
 ** EXCLUDES STA 245+03 TO STA 245+57 RT

* DENOTES ITEM SHOWN ELSEWHERE IN THE PLAN

CATEGORY	STATION	LOCATION	SIGN NO.	SIGN CODE	TYPE II SIGN SIZE W [IN.] X H [IN.]	634.0616 POSTS WOOD 4X6-INCH X 16- FT EACH	634.0618 POSTS WOOD 4X6- INCH X 18-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
0010	112+64	RT	1-1	W1-8	18 24	1	-	3.00
0010	113+84	RI	1-2	W1-8	18 24	1	-	3.00
0010	113+84	RI	1-3	W1-8	18 24	1	-	3.00
0010	115+04	RT	1-4	W1-8	18 24	1	-	3.00
0010	115+04	RT	1-5	W1-8	18 24	1	-	3.00
0010	116+24	RT	1-6	W1-8	18 24	1	-	3.00
0010	116+24	RT	1-7	W1-8	18 24	1	-	3.00
0010	117+44	RT	1-8	W1-8	18 24	1	-	3.00
0010	117+44	RT	1-9	W1-8	18 24	1	-	3.00
0010	118+64	RT	1-10	W1-8	18 24	1	-	3.00
0010	149+69	RT	2-1	W1-8	18 24	1	-	3.00
0010	149+69	RT	2-2	W1-8	18 24	1	-	3.00
0010	151+29	RT	2-3	W1-8	18 24	1	-	3.00
0010	151+29	RT	2-4	W1-8	18 24	1	-	3.00
0010	152+89	RT	2-5	W1-8	18 24	1	-	3.00
0010	152+89	RT	2-6	W1-8	18 24	1	-	3.00
0010	155+39	LT	2-7	W1-8	18 24	1	-	3.00
0010	155+39	LI	2-8	W1-8	18 24	1	-	3.00
0010	156+99	LI	2-9	W1-8	18 24	1	-	3.00
0010	156+99	LT	2-10	W1-8	18 24	1	-	3.00
0010	196+45	RT	4-1	W13-1	18 18	-	-	2.25
0010	205+15	LT	4-2	W1-8	18 24	1	-	3.00
0010	205+15	LT	4-3	W1-8	18 24	1	-	3.00
0010	205+89	LT	4-4	W1-8	18 24	1	-	3.00
0010	205+89	LT	4-5	W1-8	18 24	1	-	3.00
0010	206+69	LI	4-6	W1-8	18 24	1	-	3.00
0010	206+69	LI	4-7	W1-8	18 24	1	-	3.00
0010	207+46	LT	4-8	W1-8	18 24	1	-	3.00
0010	207+46	LT	4-9	W1-8	18 24	1	-	3.00
0010	208+94	LT	4-10	W1-8	18 24	1	-	3.00
0010	208+94	LT	4-11	W1-8	18 24	1	-	3.00
0010	209+70	LT	4-12	W1-8	18 24	1	-	3.00
0010	209+70	LT	4-13	W1-8	18 24	1	-	3.00
0010	210+49	LT	4-14	W1-8	18 24	1	-	3.00
0010	210+49	LT	4-15	W1-8	18 24	1	-	3.00
0010	211+24	LT	4-16	W1-8	18 24	1	-	3.00
0010	211+24	LT	4-17	W1-8	18 24	1	-	3.00
0010	212+01	LT	4-18	W1-8	18 24	1	-	3.00
0010	212+01	LT	4-19	W1-8	18 24	1	-	3.00
0010	236+65	RT	5-1	W13-1	18 18	-	-	2.25
0010	253+59	RT	6-1	W1-2R	36 36	-	1	9.00
0010	253+59	RI	6-2	W13-1	18 18	-	-	2.25
TOTAL 0010						38	1	129.75

3

CATEGORY	LOCATION	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 7117-00-60) EACH
0010	PROJECT	1
TOTAL 0010		1

CATEGORY	STATION	TO	STATION	LOCATION	465.0475 ASPHALT CENTERLINE RUMBLE STRIPS 2- LANE RURAL LF
0010	103+00	-	127+34	ML	2,434
0010	131+34	-	142+16	ML	1,082
0010	143+23	-	154+26	ML	1,103
0010	158+31	-	167+46	ML	915
0010	171+46	-	180+09	ML	863
0010	186+37	-	206+19	ML	1,982
0010	210+33	-	243+33	ML	3,300
0010	247+33	-	249+64	ML	231
0010	251+64	-	294+73	ML	4,309
0010	298+73	-	321+36	ML	2,263
0010	325+36	-	327+49	ML	213
0010	328+67	-	345+43	ML	1,676
TOTAL 0010					20,371

CATEGORY	LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 7117-00-60) EACH
0010	PROJECT	1
TOTAL 0010		1

CATEGORY	LOCATION	619.1000 MOBILIZATION EACH
0010	PROJECT	1
TOTAL 0010		1

* DENOTES ITEM SHOWN ELSEWHERE IN THE PLAN

*
 634.0616 638.2102 638.2602 638.3000
 POSTS WOOD MOVING SIGNS REMOVING SMALL SIGN
 4X6-INCH X 16- FT TYPE II SIGNS TYPE II SUPPORTS
 EACH EACH EACH EACH

CATEGORY	STATION	LOCATION	SIGN NO.	SIGN CODE	FT EACH	TYPE II EACH	SIGNS TYPE II EACH	SUPPORTS EACH	REMARKS
0010	147+93	RT	2-1M/2-1R	W1-4/W13-1	1	1	1	1	
0010	162+02	LT	3-1M/3-1R	W1-4/W13-1	1	1	1	1	
0010	196+45	RT	4-1R	W13-1	-	-	1	-	
0010	205+15	LT	4-2R/4-3R	W1-8	-	-	1	1	
0010	205+89	LT	4-4R/4-5R	W1-8	-	-	1	1	
0010	206+69	LT	4-6R/4-7R	W1-8	-	-	1	1	
0010	207+46	LT	4-8R/4-9R	W1-8	-	-	1	1	
0010	208+94	LT	4-10R/4-11R	W1-8	-	-	1	1	
0010	209+70	LT	4-12R/4-13R	W1-8	-	-	1	1	
0010	210+49	LT	4-14R/4-15R	W1-8	-	-	1	1	
0010	211+24	LT	4-16R/4-17R	W1-8	-	-	1	1	
0010	212+01	LT	4-18R/4-19R	W1-8	-	-	1	1	
0010	236+65	RT	5-1R	W13-1	-	-	1	-	
0010	253+59	LT	6-1R/6-2R	W1-1/W13-1	-	-	1	1	
					6	6	-	-	MOVING NO PASSING ZONE SIGNS AS REQUIRED
TOTAL 0010					8	8	14	12	

CATEGORY	LOCATION	642.5001 FIELD OFFICE TYPE B EACH
0010	PROJECT	1
TOTAL 0010		1

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
0010	PROJECT	320	370	1
TOTAL 0010		320	370	1

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 LOCATING NO-PASSING ZONES MI
0010	103+00	-	348+48	ML	4.65
TOTAL 0010					4.65

CATEGORY	STATION	TO	STATION	LOCATION	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH LF	REMARKS
0010	103+00	-	156+00	LT	5,300	-	WHITE EDGELINE
0010	156+65	-	169+20	LT	1,300	-	WHITE EDGELINE
0010	169+85	-	184+10	LT	1,400	-	WHITE EDGELINE
0010	184+55	-	207+95	LT	2,300	-	WHITE EDGELINE
0010	208+45	-	323+00	LT	11,500	-	WHITE EDGELINE
0010	323+75	-	348+48	LT	2,500	-	WHITE EDGELINE
0010	103+00	-	129+00	RT	2,600	-	WHITE EDGELINE
0010	129+60	-	155+90	RT	2,600	-	WHITE EDGELINE
0010	156+50	-	169+15	RT	1,300	-	WHITE EDGELINE
0010	169+80	-	181+70	RT	1,200	-	WHITE EDGELINE
0010	182+35	-	245+05	RT	6,300	-	WHITE EDGELINE
0010	245+55	-	296+40	RT	5,100	-	WHITE EDGELINE
0010	297+00	-	348+48	RT	5,100	-	WHITE EDGELINE
0010	103+00	-	348+48	CI	-	22,800	YELLOW C/I
TOTAL 0010					48,500	22,800	

CATEGORY	STATION	LOCATION	646.5320 MARKING RAILROAD CROSSINGS EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF
0010	348+48	ML	-	26
	-	ML	4	-
TOTAL 0010			4	26

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	112+34	-	117+34	LT&RT	1000
0010	203+23	-	213+12	LT&RT*	1920
0010	241+03	-	249+07	LT&RT**	1550
TOTAL 0010					4,470

* EXCLUDES STA 207+89 TO STA 208+51 LT
 ** EXCLUDES STA 245+03 TO STA 245+57 RT

Standard Detail Drawing List

13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

GENERAL NOTES

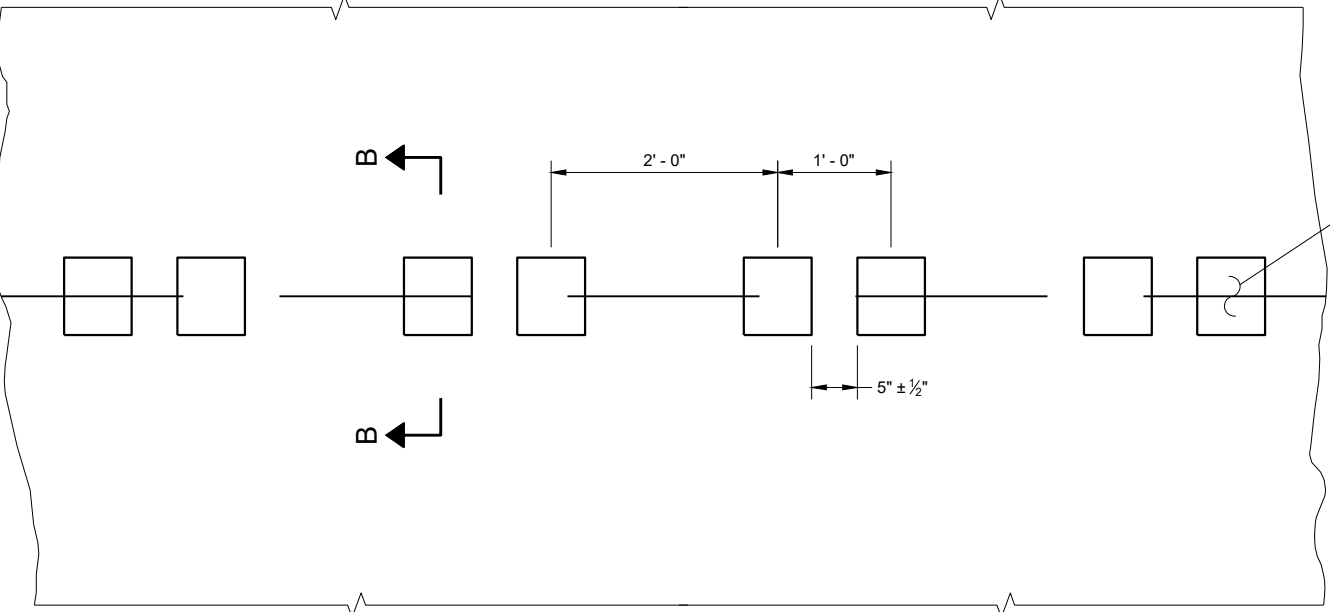
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

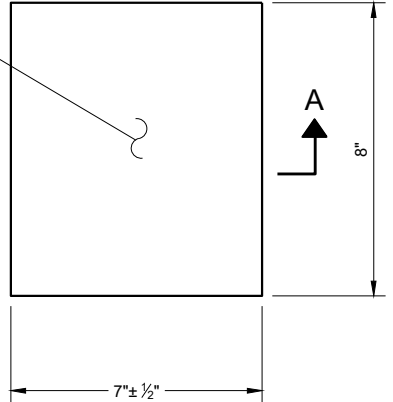
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

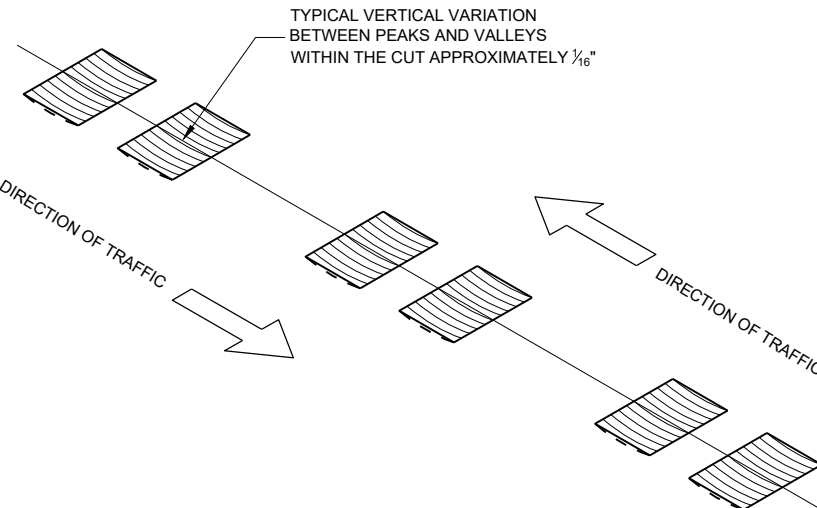
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

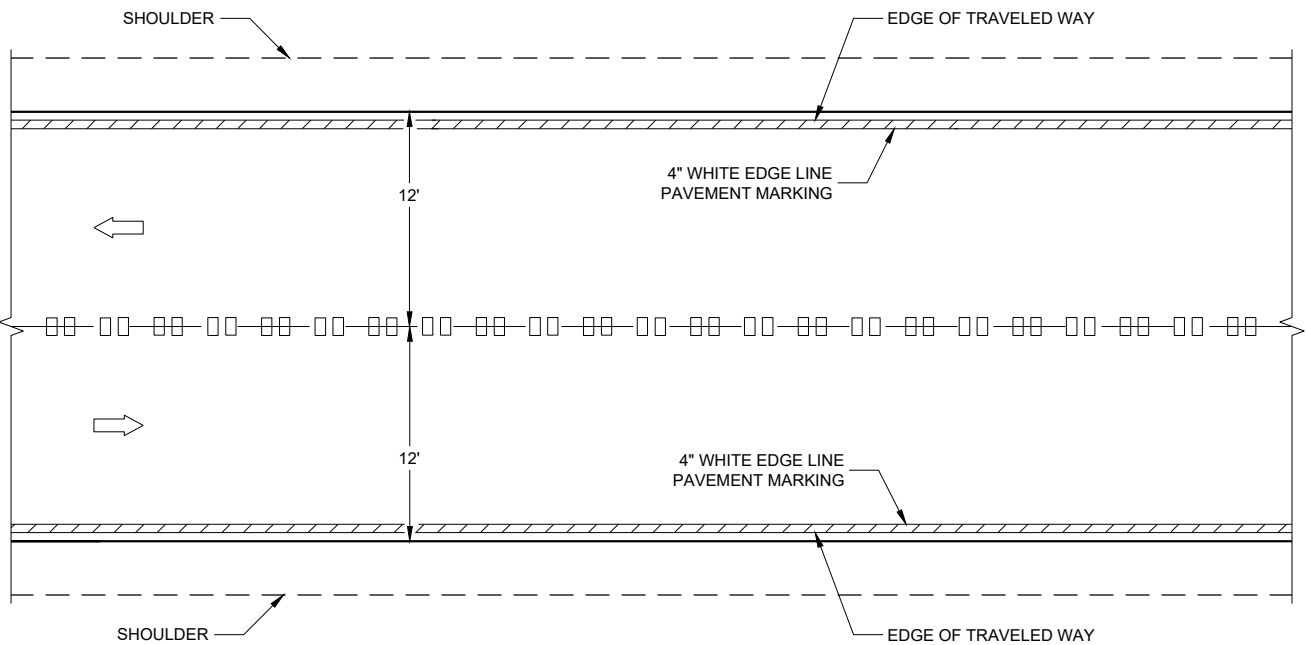


**PLAN VIEW
(SINGLE GROOVE)**

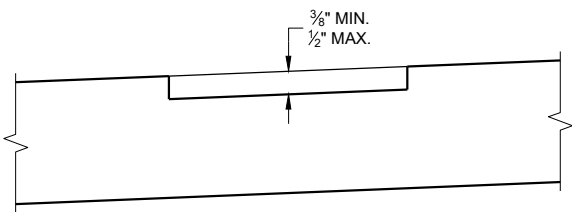


ISOMETRIC

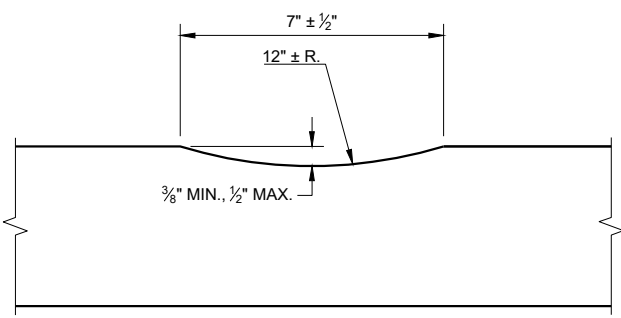
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



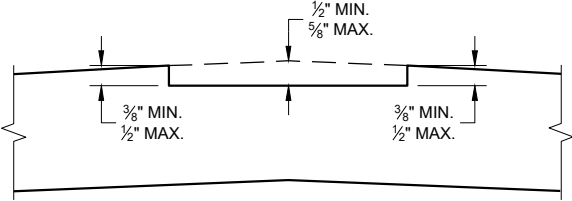
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



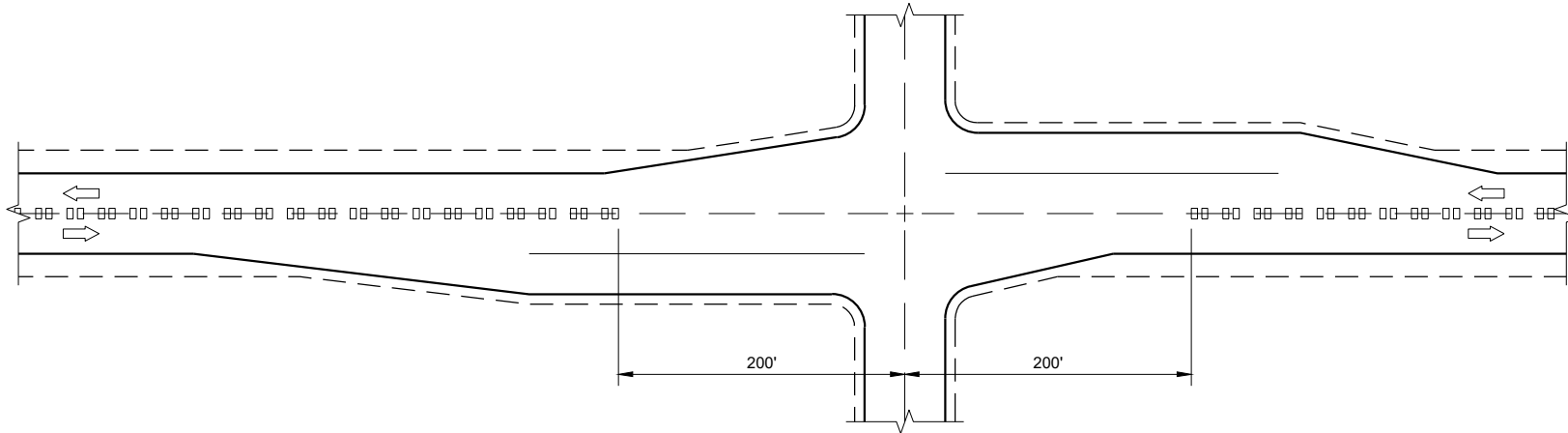
SECTION A - A



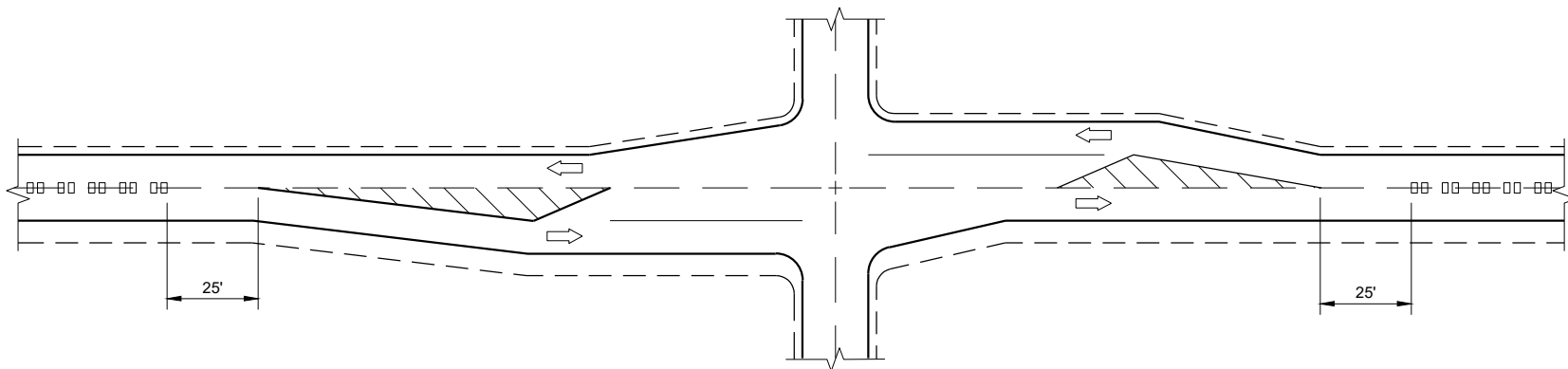
**SECTION B - B
CROWNED ROADWAY**

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

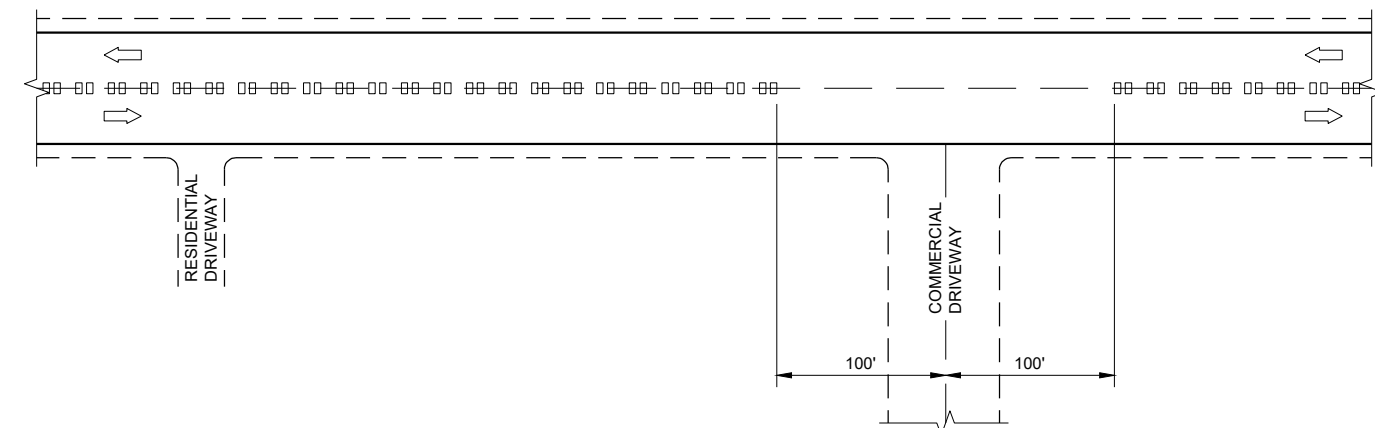
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



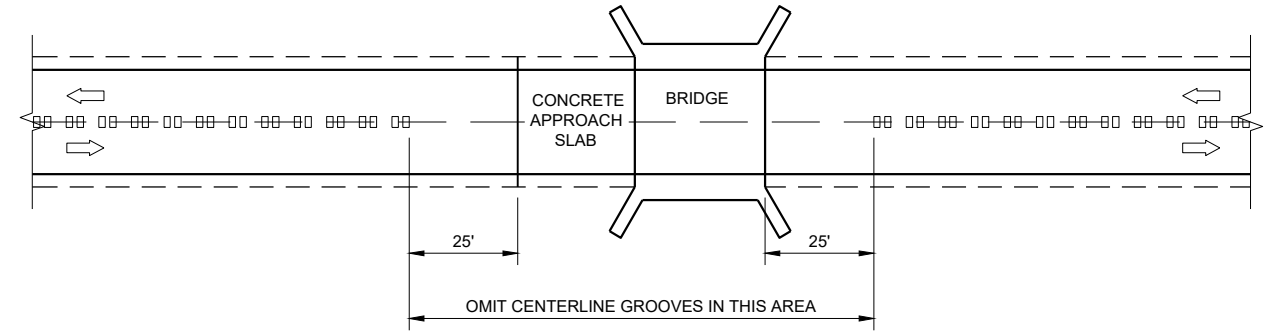
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



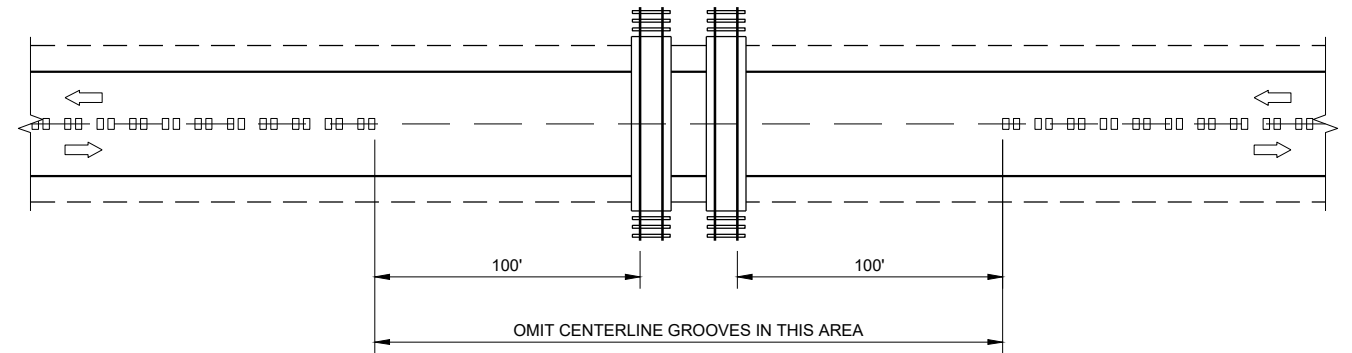
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

6

6

SDD 13A11 - 03b

SDD 13A11 - 03b

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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" X 48" UNLESS OTHERWISE NOTED.

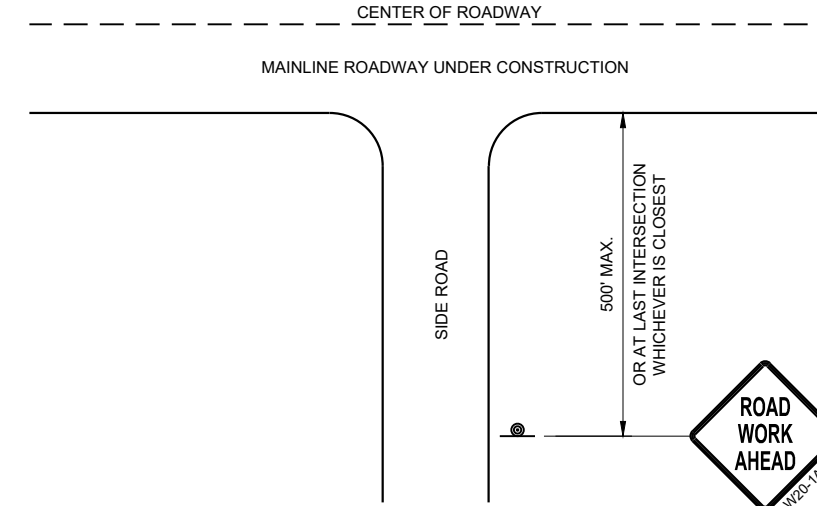
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

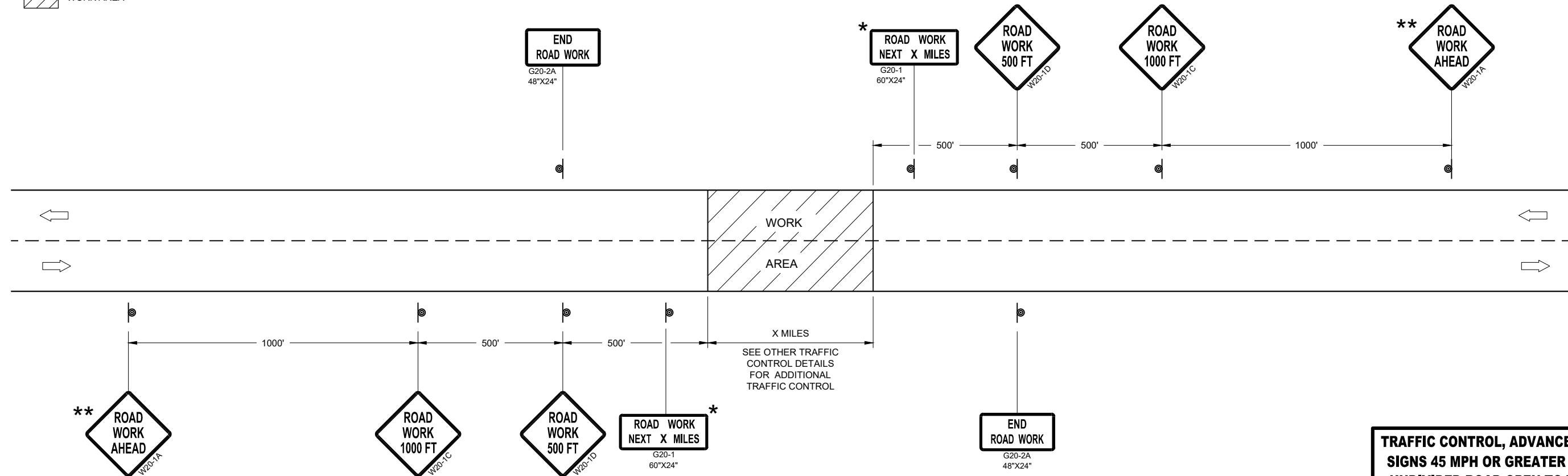
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

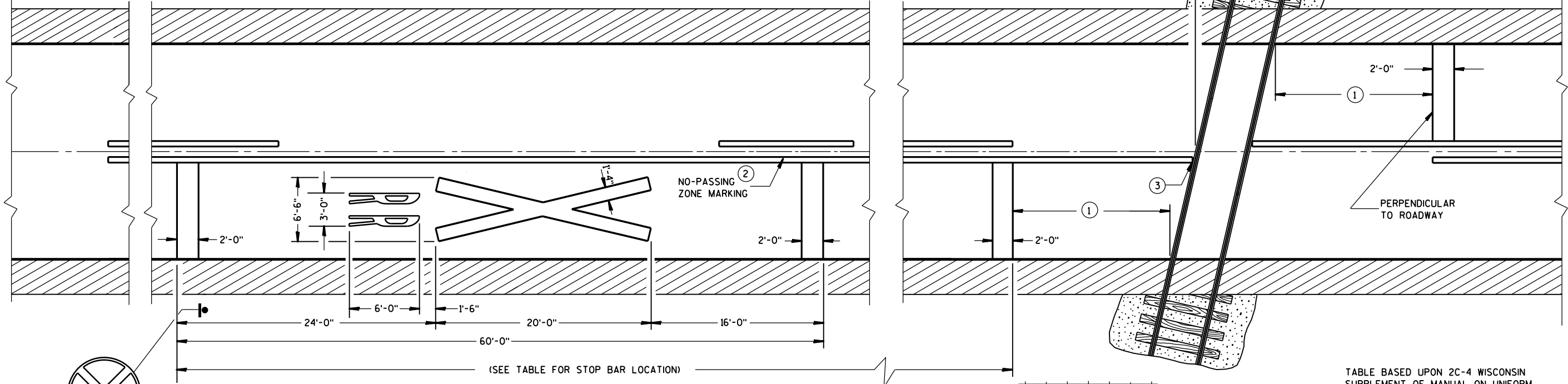
APPROVED
DATE July 2018 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



W14-3

500' MIN.



W10-1

PAVEMENT MARKING

GENERAL NOTES

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

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

- ① MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

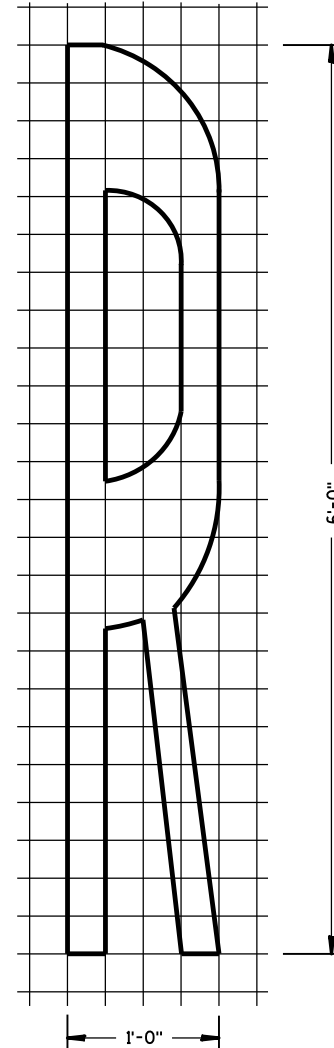


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150* - 250
30	200* - 300
35	250* - 450
40	300* - 500
45	400* - 650
50	550* - 800
55	750* - 1000
60	1000* - 1250
65	1000* - 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS






STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

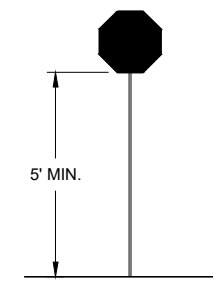
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

- FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
 - ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



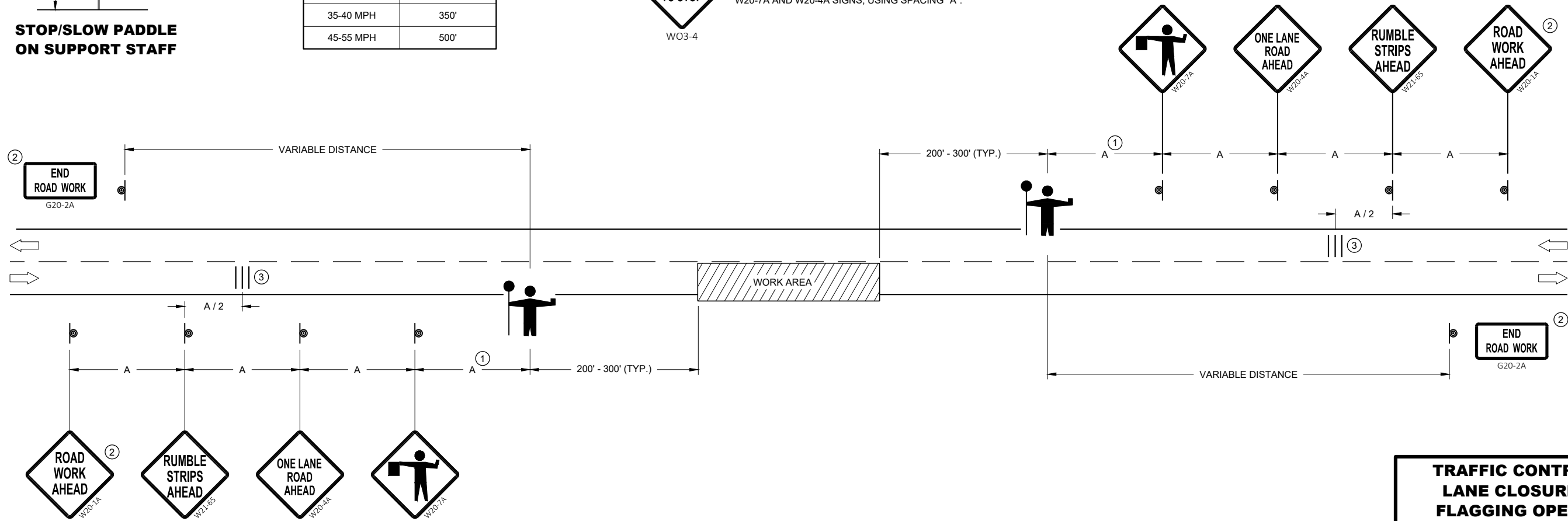
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION





TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

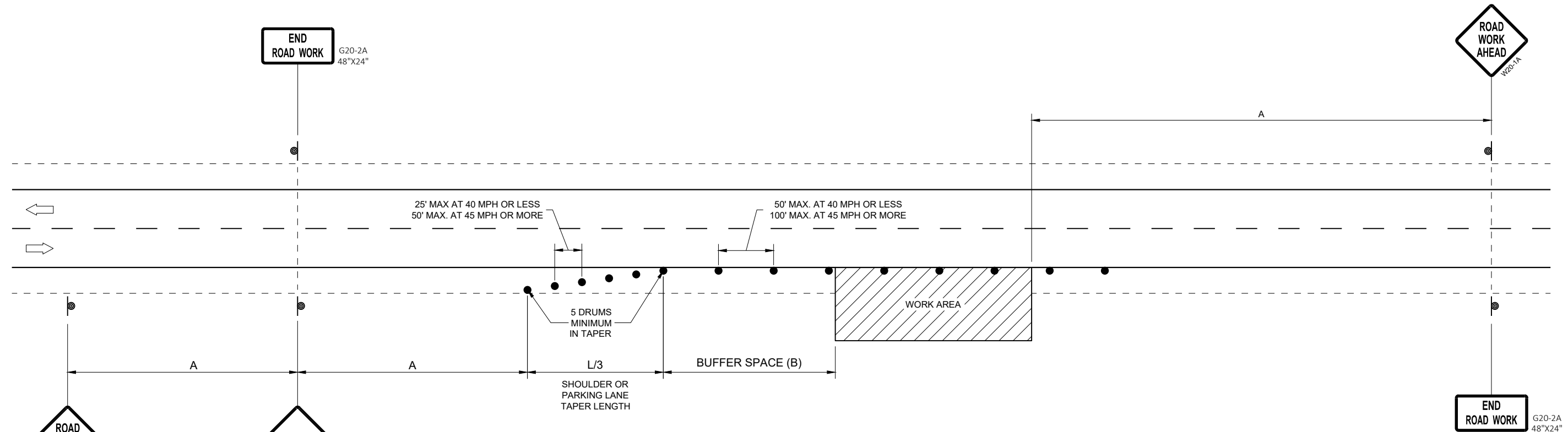
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

SDD 15D28 - 04

SDD 15D28 - 04

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

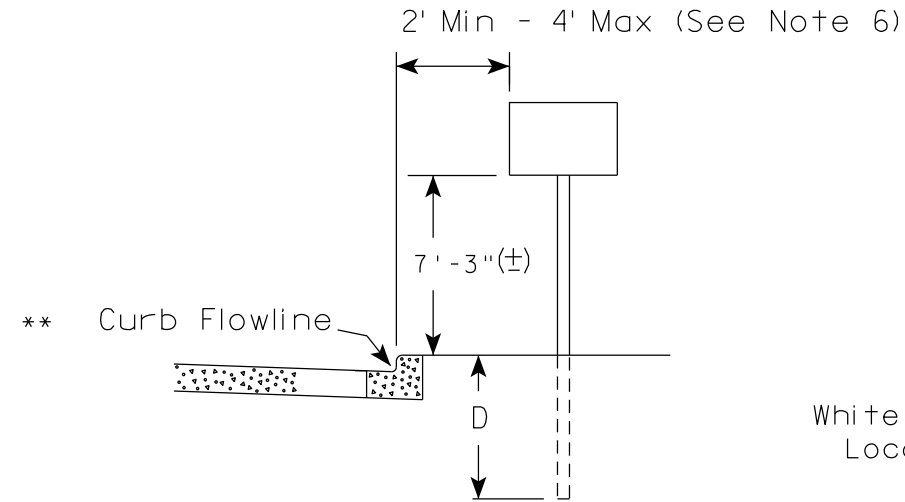
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

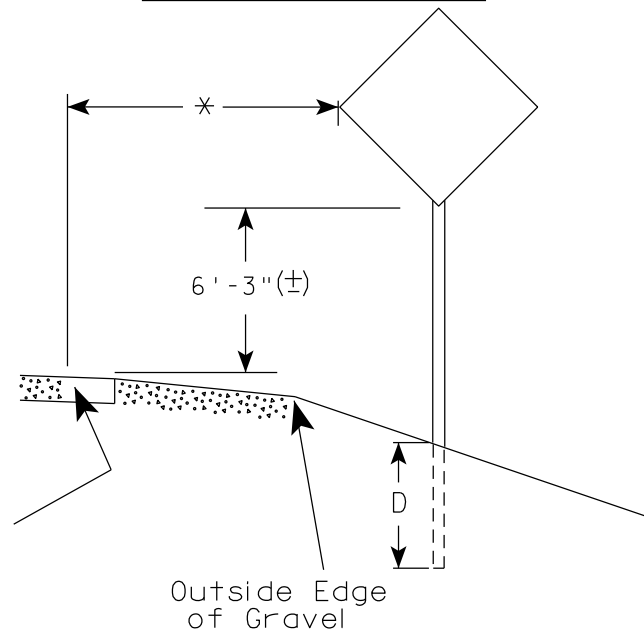
FHWA

URBAN AREA

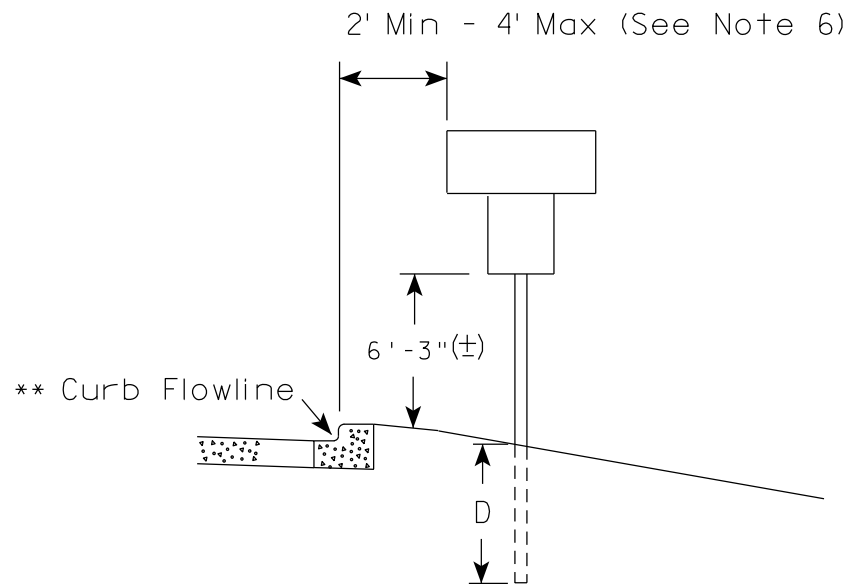
RURAL AREA (See Note 2)



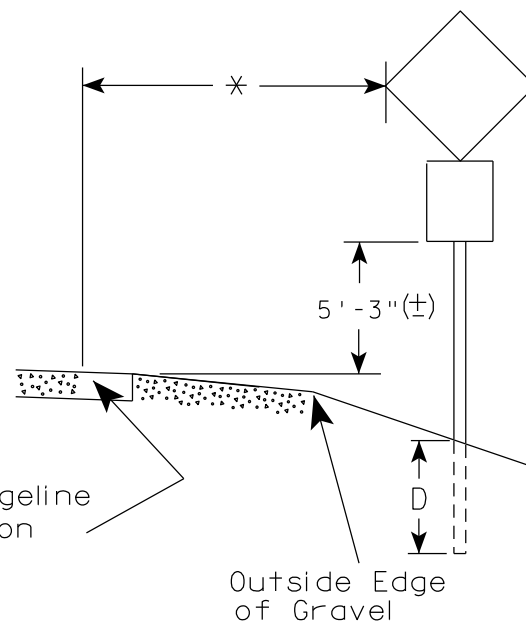
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

7

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* * 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.

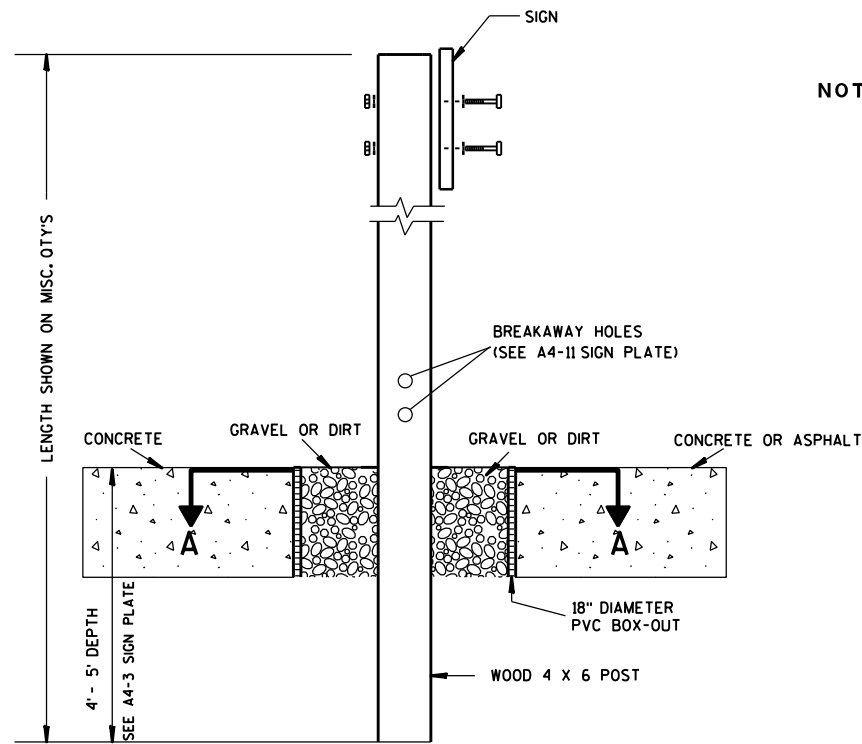
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

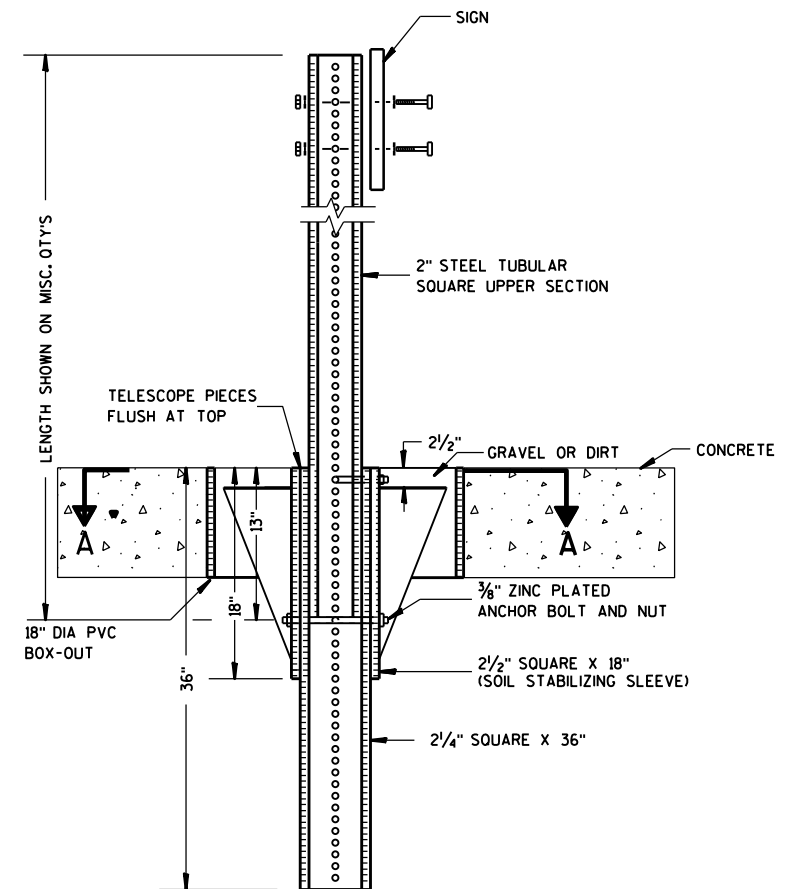
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

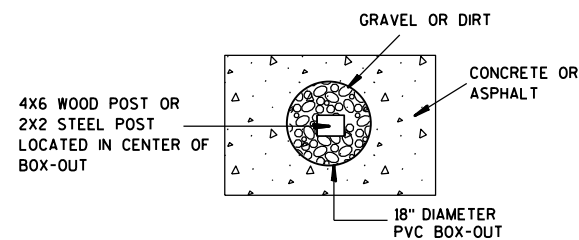
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

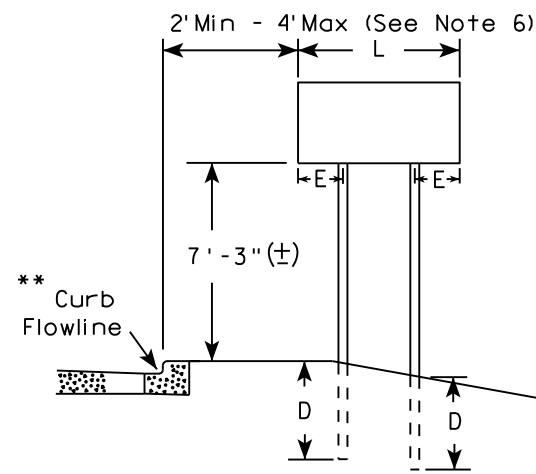
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED <i>Matthew R. Rauch</i> for State Traffic Engineer	
DATE 1/27/14	PLATE NO. A4-3B.1

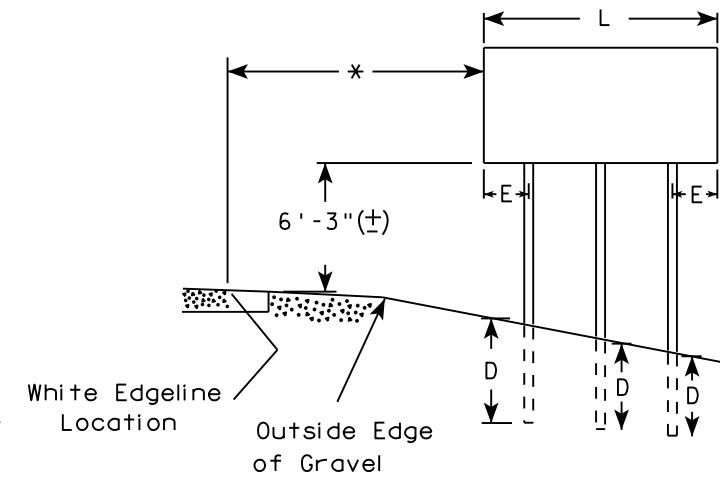
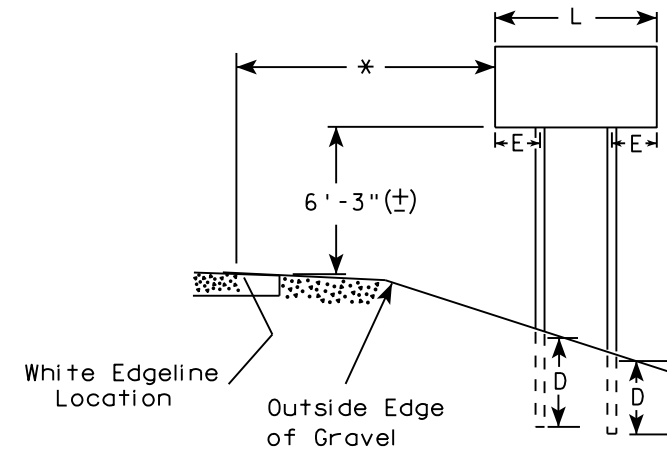
GENERAL NOTES

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

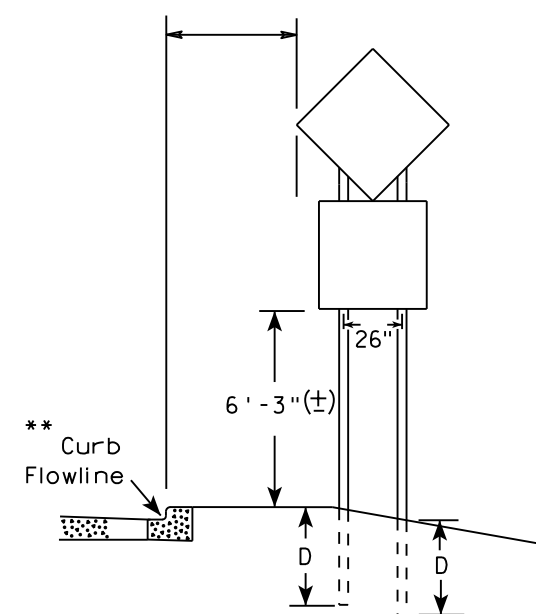
URBAN AREA



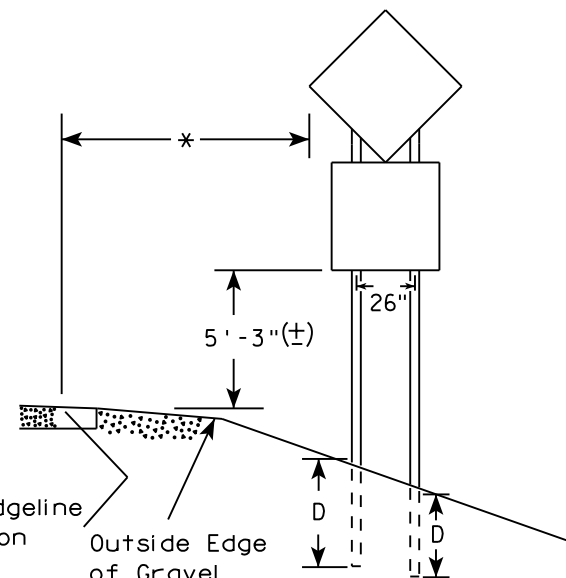
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

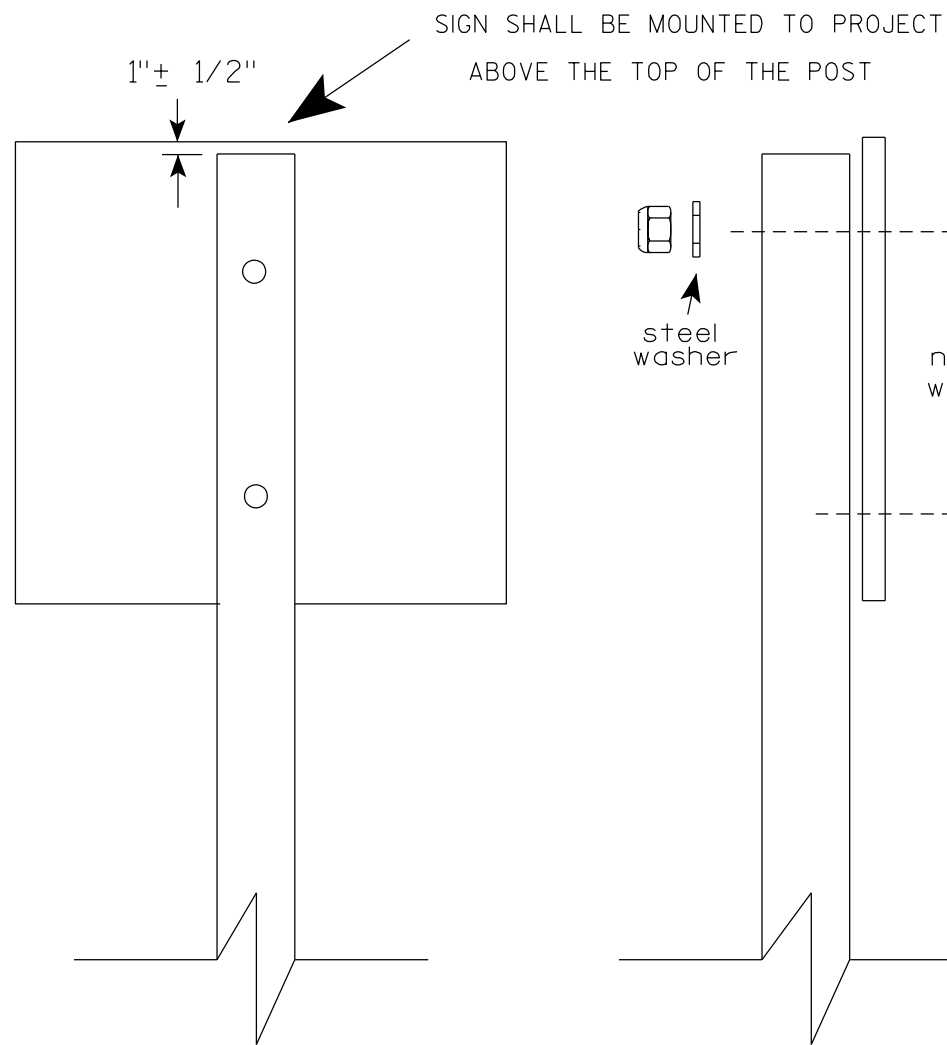
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS
TO POSTS

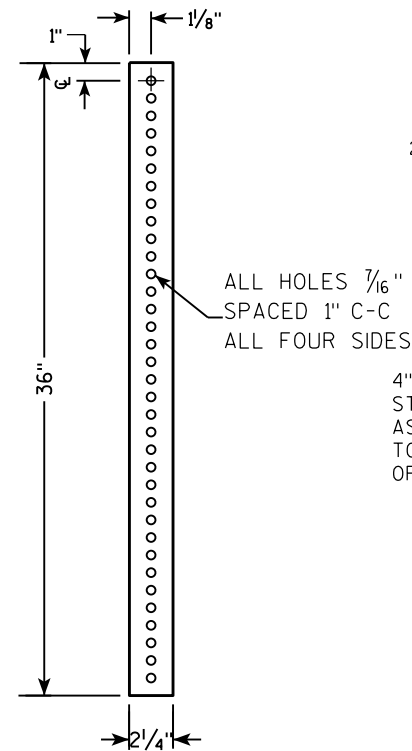
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

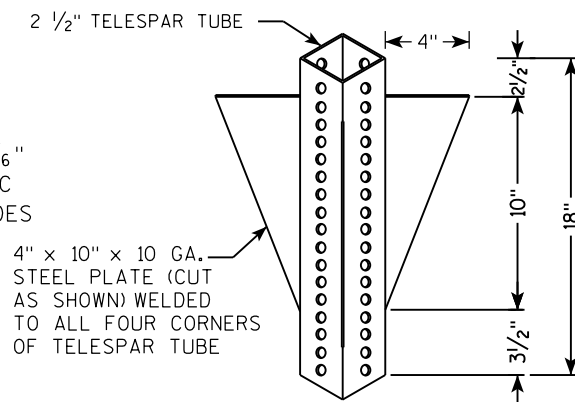
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

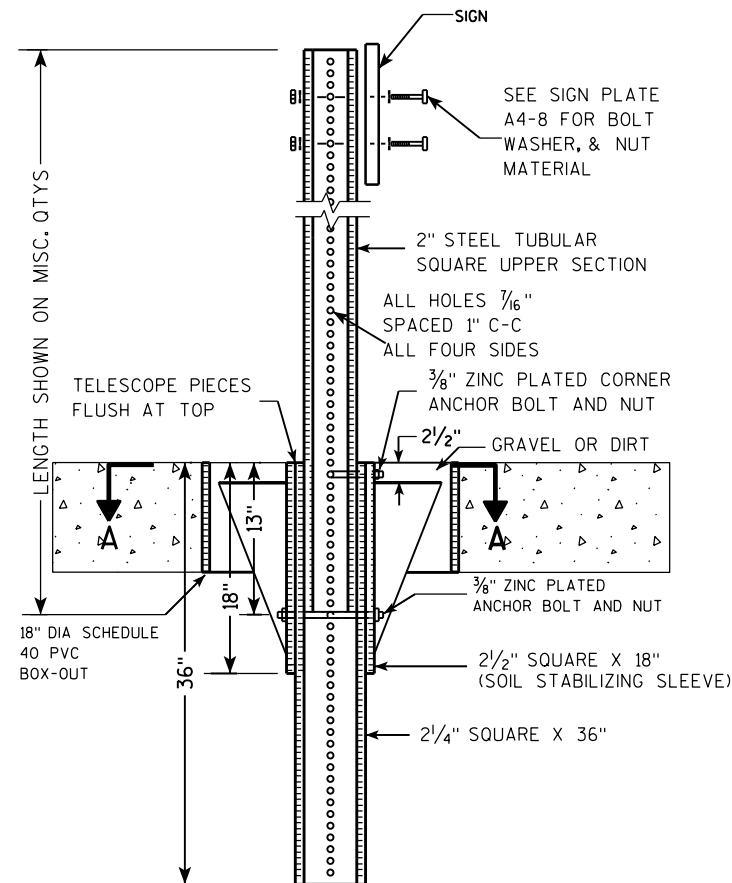
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



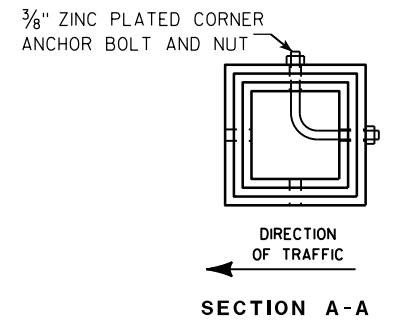
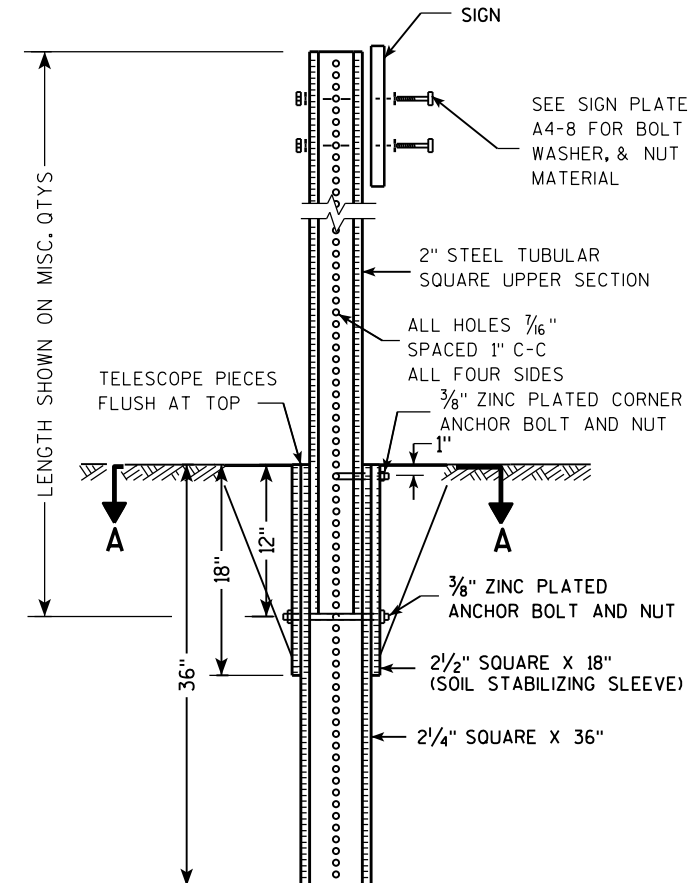
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

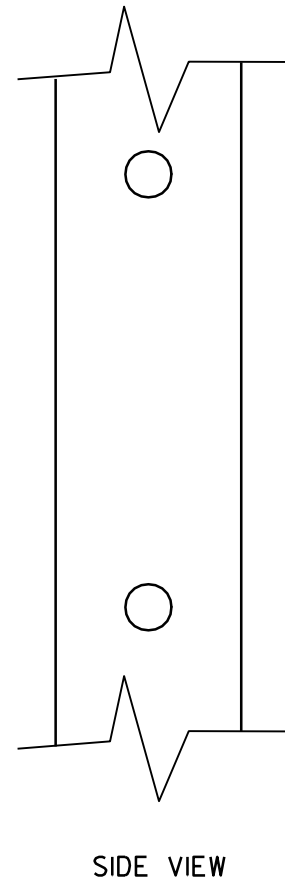
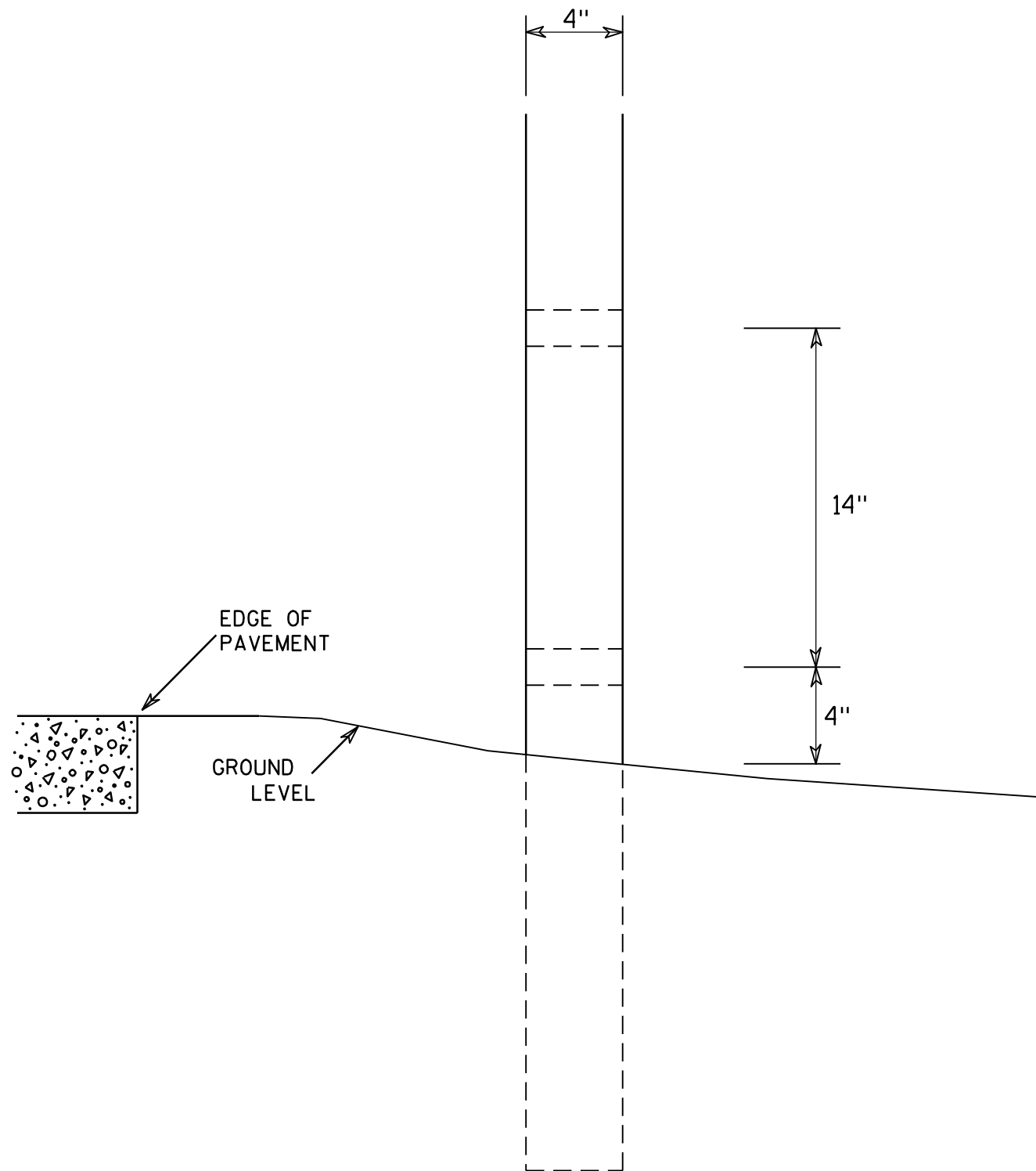
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



GENERAL NOTES

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

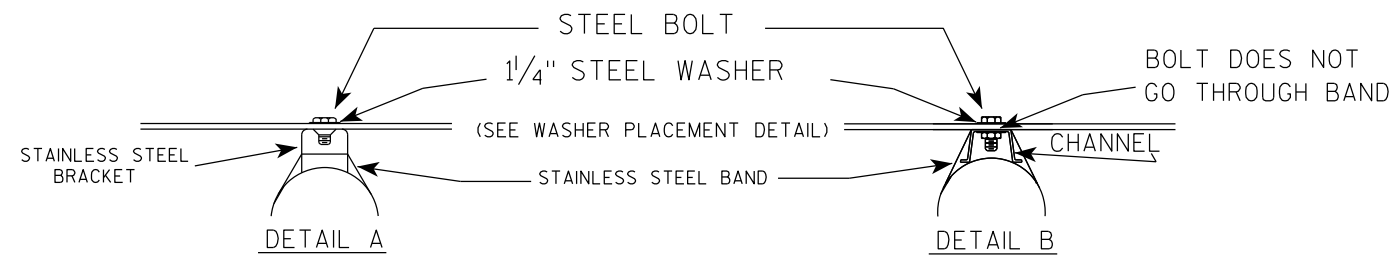
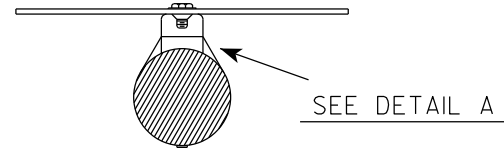
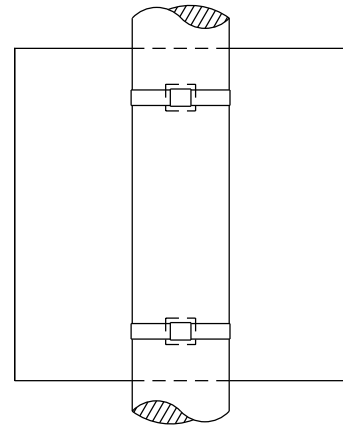
7

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4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

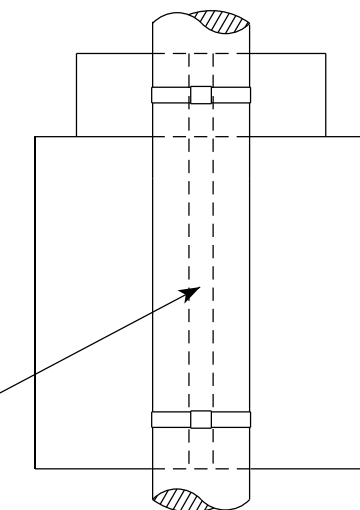
SINGLE SIGN



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

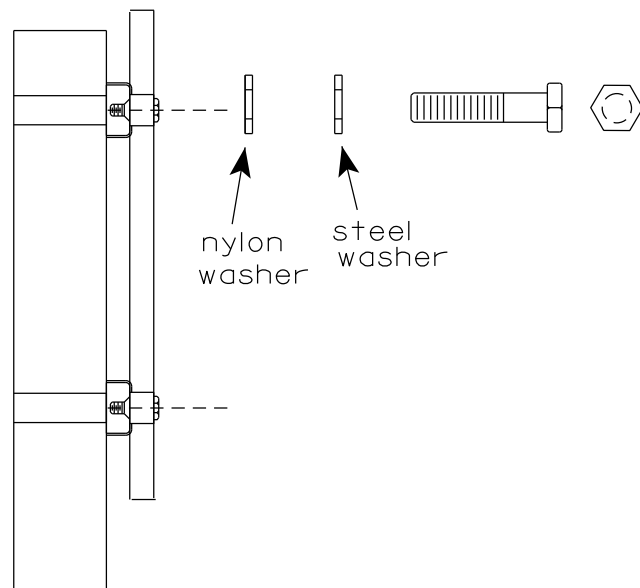
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



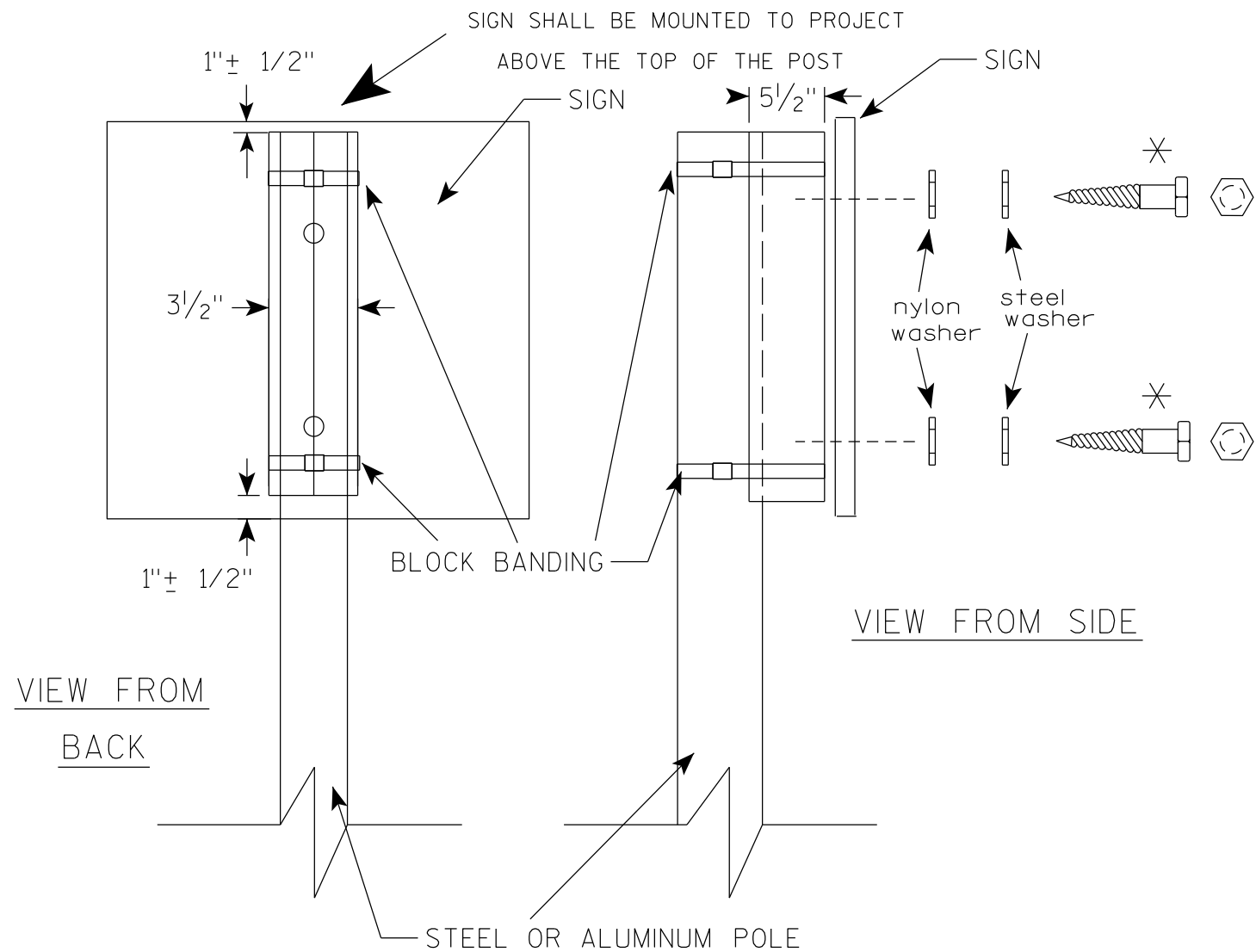
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

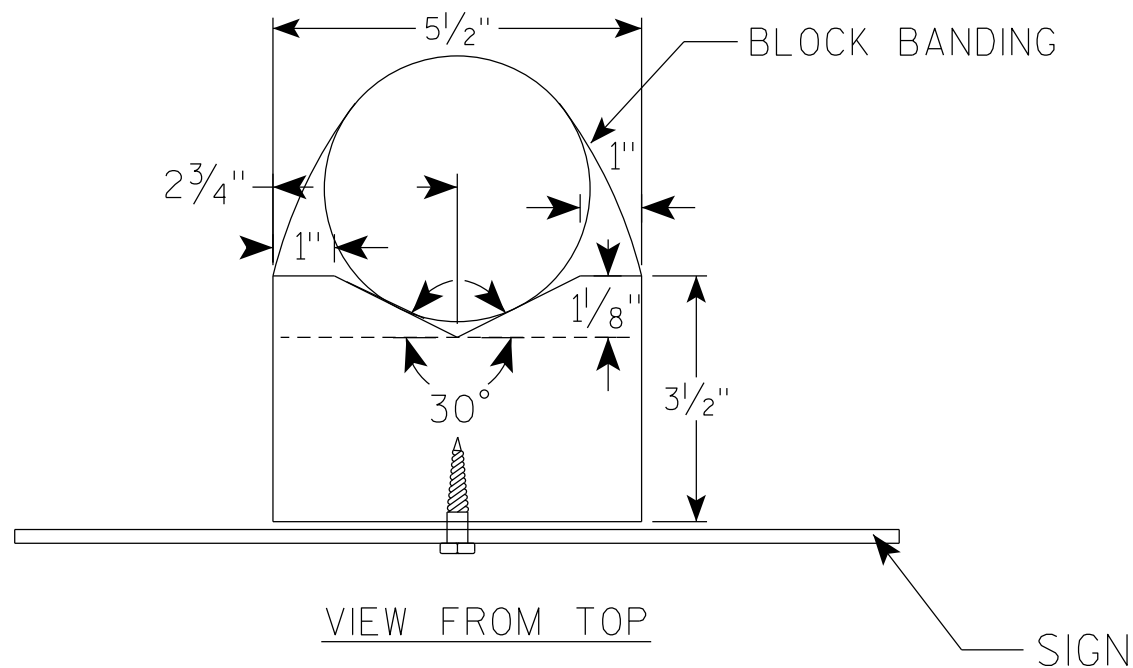
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

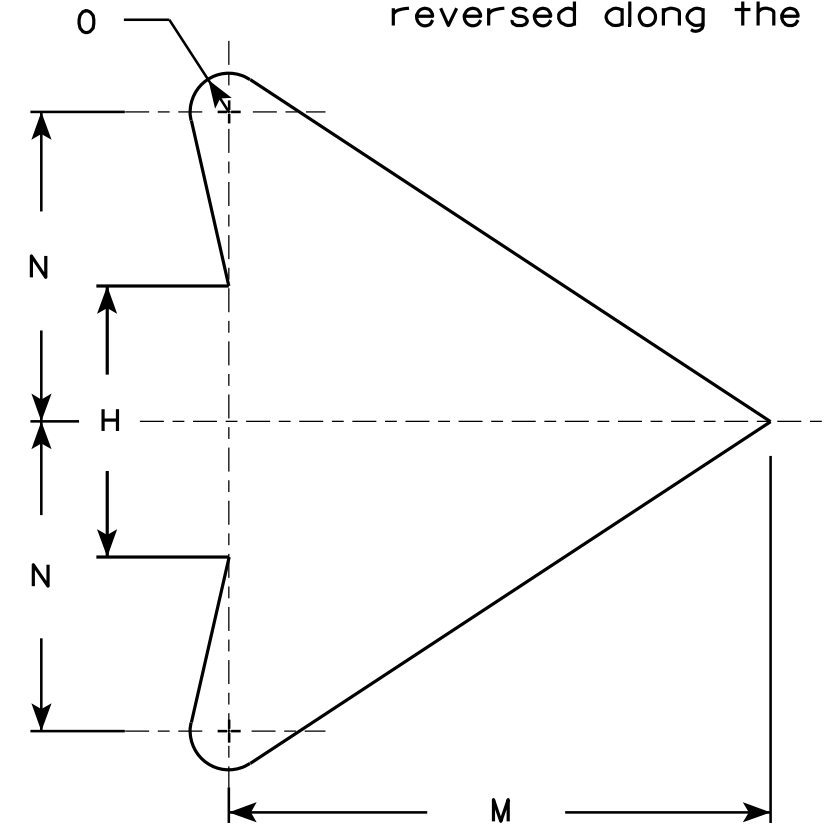
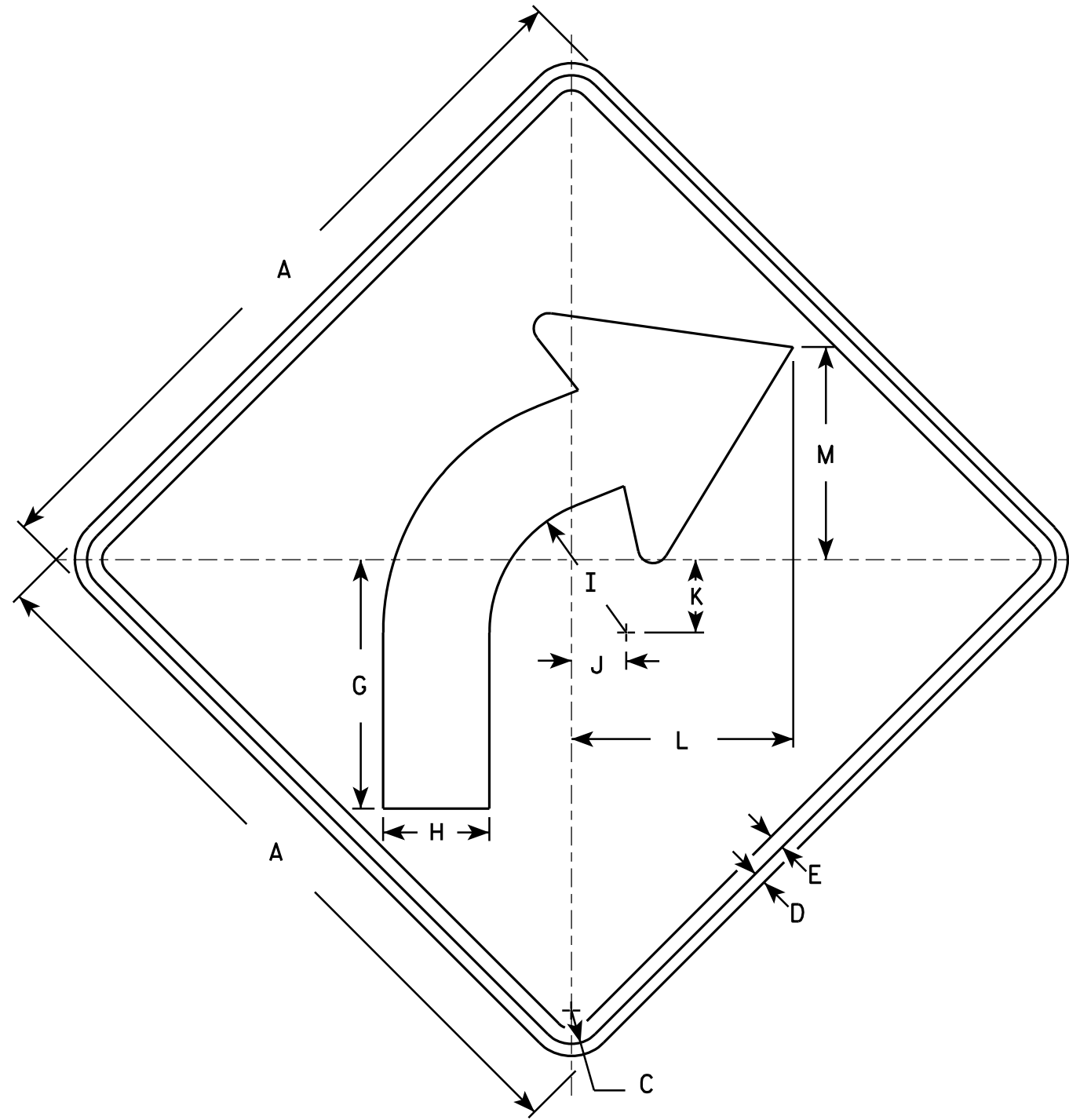
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



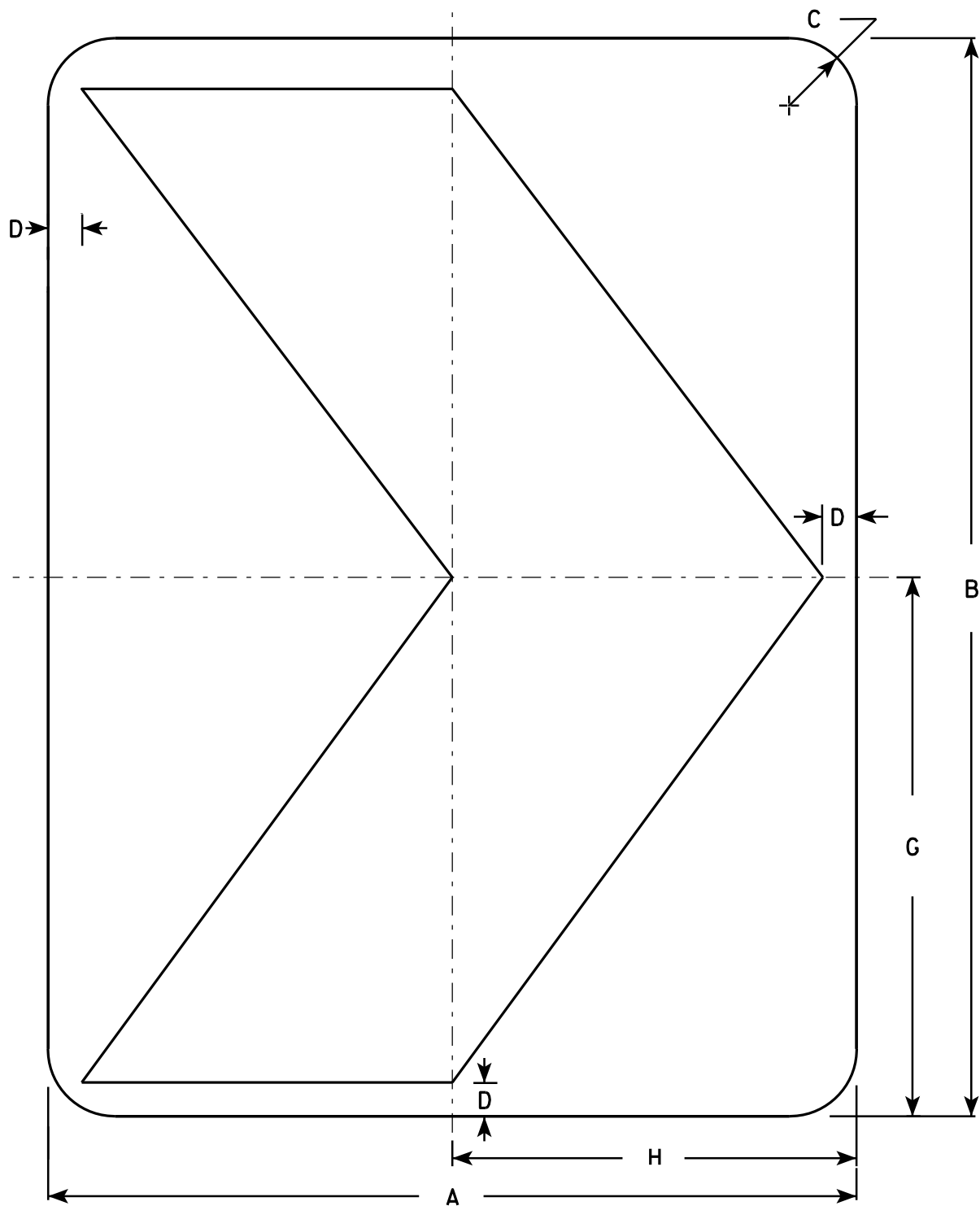
ARROW DETAIL

W1-2R

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		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

**STANDARD SIGN
W1-2**

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/15/12 PLATE NO. W1-2.10



NOTES

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

7

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W1-8

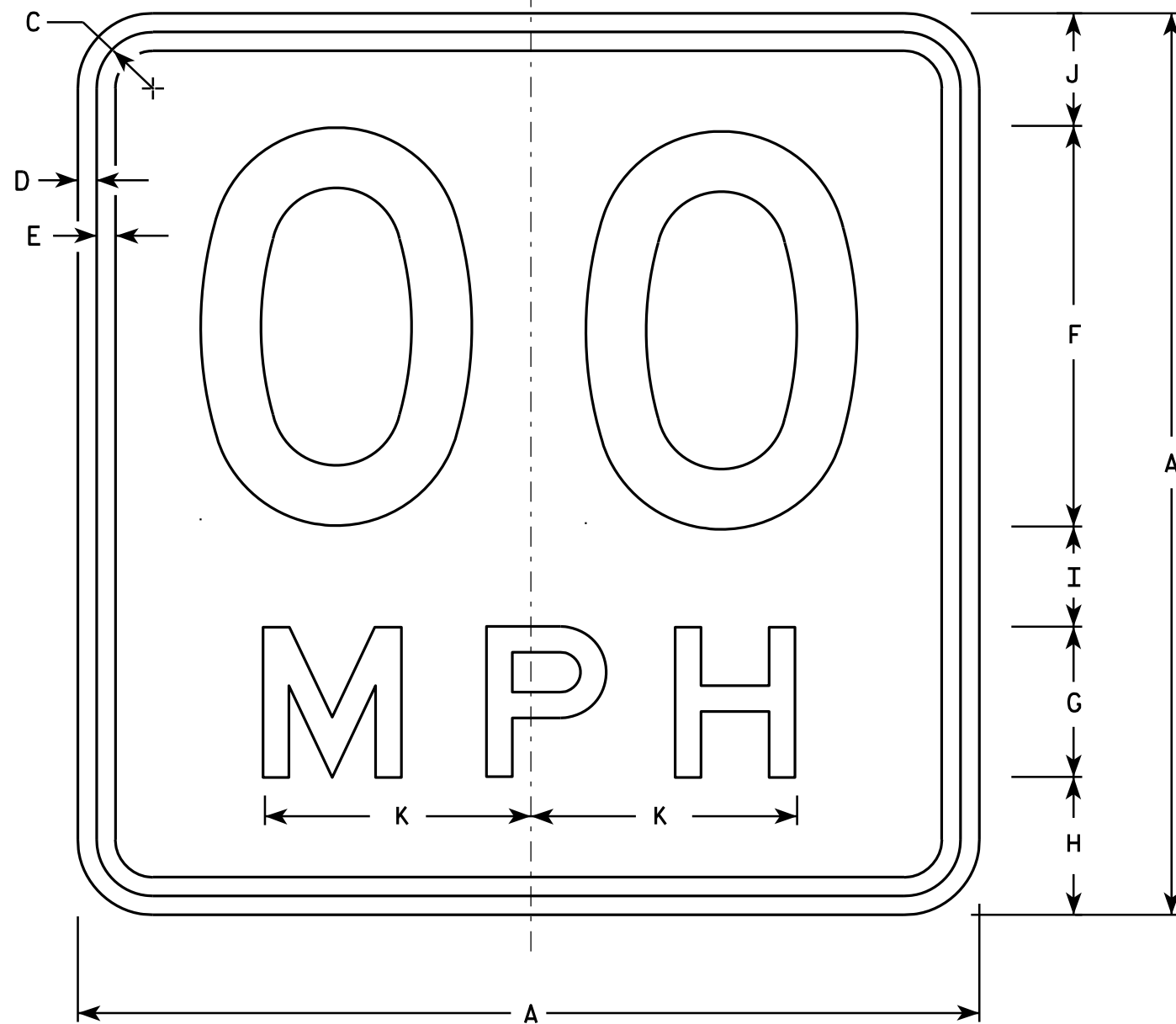
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN
W1-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6



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 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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

Notes



Wisconsin Department of Transportation

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